



Project Information Modeling & CAD Standards

Version 3.1

08/15/2025

Prepared for



Prepared by

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PART OF ADDNODE GROUP

REVISION HISTORY

Revision Date	Version	Sections Changed/ Updated/ Added	Description of Changes
07.05.2022	1	-	Initial release
09.30.2022	1.1	3.1 PIM, 4.1 Approved CAD/BIM Software, 8.2 File Naming, Appendix 15.3.1 ORD (Project Set Up Workflow)	Updated ORD version to 2021 R1. Updated PIM definition. Updated examples for file naming convention to include abbreviated project number. Updated names of zipped files for ORD project workflow setup.
02.15.2023	1.2	3.6.2.6, 5.8.3.9 Guiderail, 5.8.3.10 Barrier Transitions and End Pieces, 7.1.3 PDF Plan Sets, 7.7 Full Project Length PDFs, 10.1 Collaboration Strategy, 10.2.1 Folder Structure, 10.2.2 Subfolders, Appendix 15.7.1.6	Revised verbiage with advertisement, added guiderail sections for ORD and C3D, revised CDE and Document Management collaboration, updated folder structure and added abbreviations for subfolders, updated appropriate appendix for barrier and transitions.
09.15.2023	2	5.2.2.1 Roadway and Horizontal Units, 5.6.4.3 DGN Libraries, 8.1.1 Project Number for File Names, 8.1.2 Discipline Code, 8.2.1 Project Information, 8.2.2.1 Single Sheet PDF, 8.4.3 Workset Naming, 8.4.4 Family Naming, 11.2.3 Consultant Quality Assurance, 11.3 Quality Control, 14.6.1 Linetypes for Infrastructure, 14.5 Layer Scheme by Discipline, 14.7.1.2 Civil Symbols, 14.7.1.5 Survey Symbols, 14.7.1.6 Utility Symbols	Removed unnecessary sections throughout document, removed originator and firm designator from naming conventions, revised contract numbers used in naming conventions, updated Appendix Layer, Line Style, and Symbol Tables, updated Customized DGN Libraries Table, added Appendix Utility Table, Updated Civil3D version to 2024, updated ORD Version to 2022 R3, removed mention of checklist from PTC Project Information Modeling & CAD Standards Review Report

<p>02.07.2024</p>	<p>2.1</p>	<p>3.2.1.1 Development, 3.3.1.1 Development, 3.3.1 Construction Intent, 2.2.2 Consultant Project team, 3.1 Digital Delivery Initiation, 3.2.1.1 Development, 3.5.2 Submissions, 3.5.3, Deliverable File Type, 5.4 Level of Development (LOD) definitions, 5.5.1 Design intent, 5.6.1.1 Modeled Objects, 5.7.3.9 Families, 5.7.5.2 Mechanical, 5.7.5.3 Electrical, 14.5.1 Civil Layers, 14.5.2 Structural Layers, 14.5.3 Traffic Layers. 14.5.4 Survey Layers, 14.7.3 General Symbols, 14.10.1 Feature Definition Dgnlib, 14.10.2 Drainage and Utility Dgnlib, 14.10.3 Survey Dgnlib, 14.11 OpenRoads Designer Feature Definitions</p>	<p>Reflected that LOD matrix was incorporated into PxP and removed as separate document, updated layer scheme tables, added blocks to General Symbols table, revised section names, updated Feature Definition Dgnlib table, updated Drainage and Utility Dgnlib table, updated Survey Dgnlib table, updated OpenRoads Designer Feature Definitions table</p>
<p>08.30.2024</p>	<p>2.3</p>	<ul style="list-style-type: none"> Section 5.6.3.9 Guiderail was revised to reflect changes to the proposed workflow due to updates to the Guiderail Subassemblies Section 5.6.3.11 was updated to reflect changes to the code sets in the Civil 3D template Section 14.5.1 was updated to include layers created to support new Civil 3D Styles Section 14.9 was updated to reflect changes to Civil 3D styles 	<p>Civil 3D: New PTC Civil 3D Application Desktop Icon, Pressure Network Content</p> <p>New Custom PTC Pressure Network Catalog containing custom Parts</p> <p>New Pipe, Fitting, and Appurtenance Styles to support Pressure Networks (Existing & Proposed), New Property Sets created and assigned to Pressure Networks to support custom properties, New and Updated custom Tool Palettes for Blocks, Subassemblies, and Assemblies, New Pipe Styles (Existing and Proposed), New Structure Styles (Existing and Proposed), New Vertical Titleblocks created and added to the Plan Production Template, New Roll Plot Titleblocks created and added to the Plan Production Template, Removed Annotative property from block definitions in Template, Additional Layers added to support Existing Pressure Network and Pipe Network styles, Updates to Custom Subassemblies to support Pay item codes and improve functionality, QTO-New Quantity Takeoff List added to the template, Pay Items assigned to Code Sets for Corridors, Pay Items assigned to Network Parts Lists</p> <p>Updated Code Sets for Corridor Quantification, Design, and Visualization, New Guiderails workflows added (detailed in the Standards doc) to generate Guideposts and Rails, Cross Sections- New and Enhanced Styles for Cross Section, Cross Section Views, and Annotation, Removed "Standard" styles</p> <p>OpenRoads: Migrated and updated the ORD data for the 2023 release.</p> <p>Updated the Survey Feature Definitions, Feature Symbolologies, and Element Templates</p> <p>Updated Drainage Feature definitions and Nodes</p> <p>Added "Utility Information" to the Utility Properties Dialog box</p> <p>Added Guiderail 3D linework and 3D guiderail Cells</p> <p>Updated Cross Section Annotation groups</p>

<p>08.15.2025</p>	<ul style="list-style-type: none"> • Section 5.6.3.11 was updated to reflect changes to the code sets in the Civil 3D template • Section 7.1.4.3 was created to move plan production information from the appendices to the drawing production section • Section 7.1.4.3.2 was created to specify details and processes of OpenRoads Designer plan production • Section 8.2 & 8.3 Implementation of new Naming conventions for Files and Sheets • Section 14.5.1 and 14.5.4 were updated to include layers created to support new Civil 3D Styles • Section 14.5.2 was added to include OpenRoads Designer levels • Section 14.7.1 and 14.7.2 was added to list the layer/level filters available in Civil 3D and Open Roads Designer • Section 14.7.1 was updated to include all linetypes • Section 14.7.3 was added to list linetypes for OpenRoads Designer • Section 14.8.2 was added to list symbols for OpenRoads Designer • Section 14.10.1 was updated to revise Civil 3D Description Key Sets in the template • Section 14.10.4 was updated to include the additional Civil 3D figure styles • Section 14.11 was updated to reflect changes to Civil 3D styles 	<p>Civil 3D Template</p> <ul style="list-style-type: none"> • Standard upgrades and routine maintenance. • All background and system files have been complete rebuilt on the 2025 platform • Expanded utility catalogs containing new parts and sizes. • Survey Content <ul style="list-style-type: none"> ○ Survey Codes have been added and edited to better align with ORD and PennDOT ○ Additional Figure Prefix's, survey figure styles, and point styles have been added for line generation ○ New Survey Layers were added to support new survey content • Tool Palettes have been rebuilt, and additional content has been added to support the 2025 release and future updates <ul style="list-style-type: none"> ○ A new Tool Palette has been added to provide access to custom Earthwork Blocks ○ The Plan Production Template has been updated to include new titleblock layouts as well as some new additional titleblocks were added to support ROW Sheets. ○ Removed Magnetic from the Titleblock North Arrows ○ Added Custom Earthwork tables to the Tool Palette ○ Removed PTC badges and status stamps from the layout space and added them to the tool palette • New Horizontal Titleblocks created and added to the Plan Production Template • New Full Length Titleblocks and print settings added to accommodate roll plots, sizes include: <ul style="list-style-type: none"> ○ 34 x 36 ○ 34 x 48 ○ 34 x 60 ○ 34 x 72 ○ 34 x 84 ○ 34 x 96 ○ 34 x 108 ○ 34 x 120 • Updates to Custom Subassemblies to standardize code names and capitalizations <ul style="list-style-type: none"> ○ Code sets have been updated to support the new code names. ○ Assemblies have been updated to not have broken paths that needed to be manually mapped. ○ Visualization code set added to apply render materials on corridor objects. <p>Open Roads Designer Workspace</p> <ul style="list-style-type: none"> • Standard upgrades and routine maintenance. • Expanded utility Feature definitions, Feature Symbologies, and Element Templates. • Expand Drainage Feature definitions, Feature Symbologies, and Element Templates
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			<ul style="list-style-type: none">○ Added Median Inlet Feature Definition• Survey Content<ul style="list-style-type: none">○ Survey Codes have been added and edited to better align with ORD and PennDOT○ New Survey Layers were added to support new survey content○ New titleblock layouts as well as some new additional titleblocks were added to support ROW Sheets.○ Removed Magnetic from the Titleblock North Arrows○ Removed PTC badges and status stamps from the layout space and added them to the tool palette○ New Horizontal Titleblocks○ New Full Length Titleblocks and print settings added to accommodate roll plots, sizes include:<ul style="list-style-type: none">▪ 34 x 36▪ 34 x 48▪ 34 x 60▪ 34 x 72▪ 34 x 84▪ 34 x 96▪ 34 x 108▪ 34 x 120• Updated Corridor Templates• Updated the Level Library
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1. EXECUTIVE STATEMENT

The Pennsylvania Turnpike Commission's (PTC) Project Information Modeling & CAD Standards purpose is to provide CADD (Computer-Aided Design and Drafting) and PIM (Project Information Modeling) standards and guidelines for all design and construction consultants working on PTC projects or within their right-of-way.

The standard includes sections for general deliverables, workflows, and standards agnostic of authoring software applicable for all PTC projects. For specific software workflows, PTC supports Civil 3D, OpenRoads Designer, and Revit.

Adherence to this standard ensures that all divisions of PTC, as well as outside consultants, will produce data in a consistent format throughout the project life cycle.

This document is intended to be an addendum to all consultant contracts.

1.1 REVISIONS TO THIS STANDARD

The Project Information Modeling & CAD Standards will be reviewed and updated on a regular basis. Any feedback, request for clarification, or suggestions can be completed by emailing digitaldelivery@paturndpike.com.

1.2 GOALS AND OBJECTIVES

The PTC's Project Information Modeling & CAD Standards sets forth requirements for the preparation of contract documents, including model files. As PTC progresses towards Digital Delivery, this document will be updated to reflect the most current requirements in line with PTC's goals and objectives for Digital Delivery. PTC's Digital Delivery Program impacts final deliverables and project handover as deliverables move towards smart, paperless, 3D electronic models. The following are goals and objectives:

- Provide a digital representation of the physical and functional characteristics of an infrastructure asset.
- Develop an accurate, data rich, virtual 3D representation of existing and proposed elements for construction projects.
- Capture asset information and authoritative data for critical infrastructure assets
- Provide collaboration for various stakeholders at different phases of the life cycle of an infrastructure asset.
- Reduce design errors with clash detection reports.
- Exchange data/information from project information models to other systems

2. PROJECT TEAM ROLES AND RESPONSIBILITIES

The Commission and Consultant project team members are the foundation for a successful project. The following standard roles and responsibilities are detailed as they relate to the PIM process for effective project deliverables.

2.1 PTC ROLES AND RESPONSIBILITIES

The Commission will review all project deliverables in accordance with the Project Information Modeling & CAD Standards. The Commission may provide support, comments, and feedback pertaining to any technology standards content in relation to a project.

2.1.1 PTC PROJECT MANAGER

The PTC Project Manager is the leader for a specific project and oversees all project deliverables. The PTC Project Manager will coordinate with the PTC Design Services Unit for anything pertaining to a project and specific technology standard needs. The PTC Project Manager will also coordinate with the Consultant Project Manager to ensure the standards are implemented on a project. Responsibilities include, but are not limited to, the following:

- Review and approve the Project Execution Plan (PxP) in coordination with the Design Services Unit.
- Review submitted deliverables in relation to the Project Information Modeling & CAD Standards.
- Attend all Technology, CAD, or PIM related meetings including any kickoffs.
- May request additional documentation, files, support in relation to PIM content a part of project deliverables to assist with project reviews.

2.1.2 PTC DESIGN SERVICES UNIT

The Design Services Unit oversees all digital deliverables and requirements related to CADD/PIM. They will support the PTC Project Manager to ensure successful implementation of these standards on all PTC projects. Responsibilities include, but are not limited to, the following:

- Answer and provide clarifications to all consultant teams regarding the Project Information Modeling & CAD Standards
- Setup the project's collaboration and Common Data Environment standards
- If applicable, provide existing conditions and survey files.
- Setup project coordinates and location settings
- Provide developed Standard files and the PxP Template
- Facilitate and lead a PIM Kickoff meeting at the start of major project phases.
- Provide targeted end user training on PTC specific workflows.
- Execute Standards Compliance Checker for all submitted Engineering Technology files.
- Approve and signoff PIM deliverables at major submission including but not limited to:
 - PxP
 - Design/Construction Intent PIM's
 - Coordination process
 - Drawing production methods
- Complete Quality Control reviews
- Host and/or attend any PIM related meetings on an as needed basis.
- Host a closeout kickoff meeting to review final deliverables and turnover.

2.2 CONSULTANT ROLES AND RESPONSIBILITIES

The general roles and responsibilities of the Consultant Team are as follows. Note that PTC does not require specific titles to be filled if the team completes their technology responsibilities.

2.2.1 CONSULTANT PROJECT MANAGER

The Consultant Project Manager and their team will be responsible for leading the Engineering Technology efforts under the direction of PTC's Design Services Unit. In addition to the responsibilities under the "Consultant Project Team", the Project Manager has the following extra responsibilities:

- Understand and achieve PTC's Engineering Technology goals and requirements.
- Collaboratively fill out and lead the Project Execution Planning (PxP).
- Conduct Engineering Technology Kick-off meetings.
- Lead and facilitate Engineering Technology coordination meetings.
- Develop a 3D coordination schedule that complies with the project schedule.
- Lead and facilitate the 3D coordination.
- Review and approve the Engineering Technology deliverables submitted by the Consultant Project Team.
- Identify, lead, and implement a QA/QC plan in compliance with this document.
- Effectively communicate with the Commission on status of all project content in relation to the Project Information Modeling & CAD Standards.

See section [3 Deliverables and Requirements](#) for more information on individual requirements.

The Consultant Project Manager will furnish an individual or team to be the spokesperson for the Engineering Technology Requirements. It is recommended that the Consultant Project Manager, or a lead part of the Consultant Project Manager's team, has a minimum of 5 years of relevant CAD/PIM experience, demonstrable competency with approved design authoring software, and experience leading the 3D coordination effort using software to identify clash detections.

2.2.2 CONSULTANT PROJECT TEAM

All other project team members not included in the list above, but with Engineering Technology and other information deliverables will provide the following functions:

- Manage the daily Engineering Technology project activities, modeling staff, and other requirements for their project scope and discipline.
- Deliver the level of development and information requirements, in accordance with the Asset Information Requirements, approved PxP spreadsheet, industry norms, and all other contract requirements.
- Ensure the release of Engineering Technology deliverables in accordance with the approved schedule.
- Monitor and report issues or internal coordination conflicts within their work and others on the Project Team.
- Prepare and share their project models for coordination and collaboration in accordance with the publish schedule in the PxP.
- Routinely perform Quality Assurance and maintenance on their own models, especially around major submissions and publish schedule.
- Attend Engineering Technology Coordination meetings as required to review and address deliverable issues.
- Attend project coordination/3D coordination meetings as required to review and address project conflicts and coordinate the design/construction models.
- Prepare all Engineering Technology deliverables in accordance with the closeout procedures.

It is recommended that the individual or team responsible for providing these functions has a minimum of 3 years of relevant CAD/PIM experience, demonstrable competency with the approved design authoring software, and experience participating on teams performing 3D coordination with Navisworks or similar software.

3. DELIVERABLES AND REQUIREMENTS

3.1 DIGITAL DELIVERY INITIATION

All projects are required to participate in the digital delivery initiation process for each project. This consists of holding Engineering Technology Kickoff meetings and documenting the results in multiple documents. These documents include:

- Project Execution Plan (PxP)
- Custom Engineering Technology process and workflow diagrams (part of PxP)
- Design / Construction intent model breakdown and deliverable schedule

3.2 PROJECT INFORMATION MODEL (PIM)

Project information modeling (PIM) is the act of virtually modeling the 1:1 equivalent of a built asset. PIM is ISO standards terminology for project information models, which align with the vertical industries current BIMs (building information models) that when combined with a robust Asset Information Model (AIM) represents BIM (building information modeling) as defined by FHWA and ISO 19650 or CIM (civil integrated management). The requirements and deliverables for the consultants are broken into two sections, Design Intent and Construction Intent. See sections below for requirements and deliverables.

3.2.1 DESIGN INTENT

3.2.1.1 DEVELOPMENT

All planning and design teams will create intelligent Project Information Models, depending on the scope, to convey design intent. The following requirements apply:

- All models will be produced using approved design authoring software and version listed in section [4.1 Approved CAD and BIM software](#).
- For typical model Level of Development and responsibilities, reference the 'LOD Matrix (for PTC only)' tab in the project execution planning (PxP) spreadsheet. Subject to change during project execution planning.
- All elements will be accurately modeled in terms of quantities, size, and location depending on their required LOD.
 - See section [5.4 Level of Development \(LOD\) Definitions](#)

3.2.1.2 DELIVERABLE

At predetermined sharing schedules, major submissions, and project closeout, the final deliverable of Design Intent Model will be a PIM at the correct LOD, with the correct content, coordinated, and in the version indicated in the project's PxP.

3.2.1.3 FEDERATED MODEL

During design, the Consultant Project Management Team will create and maintain a federated model of all Design Intent PIMs. The federated model is a master model file referencing all modeled elements appropriately. This model will be kept up to date during construction with any changes to the Record Models. The strategy of how consultants plan to create and manage this will be described in the project's PxP.

3.3 2D GRAPHICAL DRAWING PRODUCTION

3.3.1 CONSTRUCTION INTENT

3.3.1.1 DEVELOPMENT

During design, all appointed parties will produce their construction and contract documents utilizing the Design Intent PIMs. This includes all phases, packages, and submissions of design with a drawing set as a deliverable.

All construction documentation must be derived from the PIMs unless agreed upon by PTC Project Manager or Design Services Unit. Deviations where 2D information derived from the PIMs would be acceptable are for diagramming, details larger than 1"=1' - 0", and elements with an LOD of 100.

3.3.1.2 DELIVERABLE

Outputs will be a complete drawing set in accordance with section [7 Drawing Production](#).

3.3.2 CONSTRUCTION SHOP DRAWINGS

Review and acceptance by the Commission as specified, stated, or indicated in the contract will be made based on limited, general inspections. It is understood that, because of such limited reviews, ultimate responsibility for the satisfactory completion of the project, including sufficiency, correctness, and accuracy of all working or shop drawings rests solely with the Contractor.

Notwithstanding review and/or acceptance, save and hold harmless the Commission from the consequences of all defective work as well as all defects, errors and omissions in the working or shop drawings and plans of every other kind prepared by the Contractor.

For specific requirements on shop drawings, refer to section [7.5 Working and Shop Drawings](#).

3.3.3 AS-BUILT DRAWINGS

Upon completion of the project, the As-Built Drawings become the property of the Commission. For specific requirements on As-Built drawings, refer to section [7.6 As-Built Drawings](#).

3.4 VIRTUAL DESIGN AND CONSTRUCTION

3.4.1 DESIGN PHASE - CLASH AVOIDANCE

3.4.1.1 USE

During the design phase, the Consultant Project Manager will use the Design Intent PIMs and the Federated Model to perform 3D Coordination. The purpose is to identify, coordinate, and resolve major conflicts and constructability issues during the Design Phase. The coordination schedule and strategy will be documented in the PxP.

3.4.1.2 DELIVERABLE

The Consultant Project Manager will document the coordination process in the PxP for any model coordination and clash reports when appropriate.

3.5 DELIVERABLE SCHEDULE AND SUBMISSIONS

Each project's deliverable schedule and submissions are specified in the PxP. This section outlines the typical submissions for a project, which may vary depending on what is dictated by the PxP.

3.5.1 DELIVERABLE STANDARDS

Consultants will submit their entire folder structure directly to PTC. All electronic submittals will include all model files in DWG, DGN, or RVT format in conformance with the version in use by the Pennsylvania Turnpike Commission during the design phase. The electronic submission will be virus-free and contain no broken links with references. All model files will be properly geolocated. Reference section [12.2 Coordinate System and Datums](#) for more information.

Consultants are required to submit model files accompanied with PDF format files electronically to PTC every time a project reaches a submission in accordance with section [7 Drawing Production](#).

3.5.2 SUBMISSIONS

The following section briefly describes each submission. PTC will determine submission phases as they are dependent on the scope, size, and complexity of the project. For each submission corresponding with the submittal phase, all modeled content must follow the design requirements specified in the 'LOD matrix (for PTC only)' tab in the PxP. The phases listed below give a brief overview of the anticipated deliverables and the expectation for the PIM with respect to each Digital Delivery submission phase. For deliverables that do not include model files or PDF plan sets, refer to PTC's Design Operation Manual (DOM) for further information. For further details on PDF plan set submittals, refer to section [7.1.3 PDF Plan Sets](#).

3.5.2.1 DESIGN FIELD VIEW (DFV)

Design Field View (DFV) occurs at approximately 30% design submission and deliverables are expected to have the conceptual design of the project. DFV includes a detailed report, plans, and cost estimate, along with all other supporting documents from preliminary engineering. All model files must be submitted at Design Field View (30% design) before proceeding with 60%-Over the Shoulder (OTS) Review. If comparing alternative designs, then PIMs are not necessary for submittal until a design has been finalized. If included a part of the preliminary design, intelligent alignment and profile models must be submitted with this submission at a minimum. All existing topography and survey drawings must be finalized and submitted as a part of the DFV.

3.5.2.2 OVER THE SHOULDER (OTS) REVIEW

Over the Shoulder (OTS) Review occurs at approximately 60% design completion and includes steps to further develop the chosen design concept. Roll plots, important cross sections and any details that are completed must be included in this review in addition to reviewing the current status of the PIM. All model files must be submitted at 60% OTS to ensure standards compliance see section [11.3 Quality Control](#) for further details.

3.5.2.3 75% SUBMISSION

75% Submission addresses all comments from the 60% OTS Review and furthering design to 75% completion. This submission provides an update on the progress of final design. This submission includes plans, specifications, and a construction cost estimate, along with all other supporting documents from final design. All model files must be submitted to PTC along with the current PDF plan set.

3.5.2.4 PRE-FINAL PS&E SUBMISSION

Pre-Final PS&E Submission consists of fully completed plans, specifications, and construction cost estimate, along with all other supporting documents from final design. All comments from the 75% Submission will be addressed for Pre-Final PS&E.

3.5.2.5 FINAL PS&E SUBMISSION

The final design effort includes finalization of contract documents that will be used for construction. This submission will be submitted electronically as if it were for advertisement. This is the final review where all previous comments



from the Pre-Final PS&E submission are addressed. PTC will conclude with one final review and provide any remaining comments that need to be addressed before advertisement. All contract documents and model files are required to be at 100% design and completion. A standards compliance check is required a part of final review, see section 11.3 Quality Control for further information.

3.5.2.6 ADVERTISEMENT

Upon completion of the 100% design review, consultants will update any remaining comments and create the final signed set for advertisement.

The next two sections describe how to make any necessary updates to the Advertisement Plan sets dependent upon addendums.

3.5.2.7 ADDENDUM

The addendum set contains drawings or models that have been modified after the original “As Advertised Signed Set” was signed and issued. Not all addenda files contain drawings; some may only contain specifications. The addendum submissions do not contain the entire set of model files, only the addenda files.

For making any revisions to models and drawing files, utilize the revision procedures detailed in section 7.4 Drawing Revisions.

3.5.2.8 AS-BID

The As-Bid set is the bid and awarded set of drawings which incorporates all the addenda that have been issued. This is a complete set of files that includes all PDF and model file updates.

3.5.2.9 POST AWARD CONTRACT CHANGES

The Post Award Contract Changes contain drawings and models that have been modified or new drawings/models that have been issued after the contract was awarded.

For making any revisions to drawing files, utilize the revision procedures detailed in section 7.4 Drawing Revisions. At this submission, any requirements to update model files will be dictated by the PxP.

3.5.3 DELIVERABLE FILE TYPE

Table 3-1 Digital Delivery Initiation Deliverables

Deliverable	File Type	Cadence/Schedule	Responsible
PxP Template	Excel Macro-Enabled Workbook	Available upon award	PTC
PxP	Excel Macro-Enabled Workbook + PDF	First draft due 30 days after notice to proceed	PTC responsible for LOD Matrix tab in spreadsheet, Consultant Project Manager responsible for the rest of the spreadsheet
Engineering Technology Kickoff Meeting	Meeting – As frequently as needed	Dictated in PxP	Consultant Project Manager

Table 3-2 Project Information Model Authoring

Deliverable	File Type	Cadence/Schedule	Responsible
Design Intent Models	Civil 3D (.dwg) OpenRoads (.dgn) Revit (.rvt)	Major submissions and regular collaboration schedule as dictated in the PxP	Consultant Project Manager, Consultant Project Team
Federated Model	Civil 3D (.dwg) OpenRoads (.dgn) Revit (.rvt) Navisworks (.nwd)	Major submissions and per the 3D coordination schedule/strategy as dictated in the PxP	Consultant Project Manager
Record Models	Civil 3D (.dwg) OpenRoads (.dgn) Revit (.rvt) Industry Foundation Class (.ifc)	Provided as project turnover or closeout, dictated in the PxP	Consultant Project Manager, Consultant Project Team

Table 3-3 2D Documentation (Drawing Sets) / Contract Documents Deliverables

Deliverable	File Type	Cadence/Schedule	Responsible
Drawing/Building Construction Documents	PDF	Dictated in the PxP	Dictated in the PxP
Specifications	PDF	Dictated in the PxP	Dictated in the PxP

Table 3-4 3D Coordination Deliverables

Deliverable	File Type	Cadence/Schedule	Responsible
Discipline Specific 3D Coordination Model	Navisworks (.nwc) Civil 3D (.dwg) OpenRoads (.dgn)	Dictated in the PxP	Dictated in the PxP
Coordination/Clash Reports	PDF	Dictated in the PxP	Consultant Project Manager (design phase)



Table 3-5 QAQC Deliverables

Deliverable	File Type	Cadence/Schedule	Responsible
Technology Standards Review Report	PDF	Dictated in the PxP	PTC Design Service Unit

4. TECHNOLOGY STANDARDS

The technology standards will outline all software, collaboration applications, and tools approved for use by PTC. Any additional software applications will be reviewed and approved by PTC.

4.1 APPROVED CAD AND BIM SOFTWARE

All approved PIM software and tools are listed below. Any additional or proposed software to be used by the consultants will be reviewed and approved by PTC. See section [4.1.1 Version Control and Upgrades](#) for more information.

Table 4-1 Approved CAD BIM Software

Software	Description of Use	Version
AutoCAD	Design Intent Models, Drawing production	2025
Civil 3D	Design Intent Models, Drawing Production	2025
OpenRoads Designer	Design Intent Models, Drawing Production	23.00.00.129
Autodesk Revit	Design Intent Models, Drawing Production	2025
Autodesk Inroadworks	Design Intent Models, Design Reviews, Visualization	2025
Autodesk Inventor	Design Intent Models	2025
Navisworks	Federation Models, 3D Coordination, 4D Simulation	2025+

4.1.1 VERSION CONTROL AND UPGRADES

All projects will be on the same version of the approved software and only PTC can authorize upgrades or deviations. It is the Consultant Project Manager’s responsibility, at the completion of a project phase, to review the PTC’s Project Information Modeling & CAD Standards for latest updates on supported versions by PTC. If a version of software has been updated, then the Consultant Project Manager will discuss with PTC’s Design Services Unit about any necessary software/project updates.

If a project requires a different version that deviates from the standards listed, consultants will submit a request for PTC approval of any software upgrades or changes. If approved, any software versions need to be agreed upon by all project stakeholders and noted in the PxP.

4.2 SUPPORT FILES

PTC support files include all standards and custom content as described by this document. The support files are intended to be used at the beginning of a project to ensure all modeled content is adhering to the standards.

For Roadway and Horizontal Construction, support files were created for the software listed below. Refer to the appendices listed below for installation procedures:

- Civil 3D [Appendix 14.2.1 PTC Standard Civil 3D Configuration](#)

- OpenRoads Designer [Appendix 14.2.3 OpenRoads Designer Resource Files](#)

For Facilities and Vertical Construction, Revit Templates were created for the following:

- Revit General
- Revit Architecture
- Revit Structural
- Revit MEP

5. MODELING STANDARDS

5.1 EXISTING CONDITIONS MODELS

PTC will supply existing condition information or models of all project sites. The exact information provided, format, and other considerations will be documented in the PxP. If applicable, the Consultant Project Manager may be required to obtain updated survey information. All data collection methods must follow section [12 Survey Data Collection](#).

An existing conditions model must be created for all sites and saved under the Base Data folder within the project directory structure specified in section [9.2 Project Organization](#).

5.2 UNITS AND COORDINATES

5.2.1 COORDINATE SYSTEM

The two horizontal coordinate systems for all PTC Projects are:

- **Pennsylvania State Plane Coordinate System, South Zone – NAD 1983** Coordinate System
 - Within the template files for C3D the default coordinate system is set to “Pennsylvania State Planes, South Zone, US Foot (PA83-SF, NAD83)”.
 - In ORD the Workspace “PTC CAD Standards_S” has the default coordinate system set to “Pennsylvania State Planes, South Zone, US Foot (PA83-SF, NAD83)”.
- **Pennsylvania State Plane Coordinate System, North Zone – NAD 1983** Coordinate System
 - Required for all projects along the Northeast Extension from mile posts 72 to 131 (i.e., A072-A131).
 - For projects in this location, coordinate systems in all C3D template files
 - In ORD the Workspace “PTC CAD Standards_N” has the default coordinate system set to “Pennsylvania State Planes, North Zone, US Foot (PA83-NF, NAD83)”

The vertical coordinate system for all PTC Projects is:

- **NAVD 1988**

5.2.2 UNITS

5.2.2.1 ROADWAY AND HORIZONTAL UNITS

For horizontal projects, all units in model files will be set to U.S. Survey Feet per the coordinate system specified in section. The following unit formats will be used for common project properties:

Table 5-1 Common Horizontal Project Units

Common Project Units			
Property	Unit	Format	Rounding



Length	Foot	123.56'	2 decimal places
Area	Square Foot	12.35 SF	2 decimal places
Elevation	Foot	95.80'	2 decimal places
Volume	Cubic Yard	1234.57 CY	2 decimal places
Angle	Degree	12.3567 °	4 decimal places
Stationing	Foot	275+56.75	2 decimal places
Grid Coordinate	Foot (Northing, Easting, etc.)	N 75 ° 98' 43"	6 decimal places
Grade/Slope	Percent	4.50%	2 decimal places
Currency	US Dollar	\$1234.57	2 decimal places
Speed	Mile/Hour	60 MPH	0 decimal places

5.2.2.2 VERTICAL STRUCTURES AND FACILITIES UNITS

For vertical structures and facilities, the following units and formats will be used.

Table 5-2 Common Vertical Project Units

Common Project Units			
Property	Unit	Format	Rounding
Length	Foot - Inch	1' - 5 1/16"	Nearest 1/16"
Area	Square Foot	12.35 SF	2 decimal places
Volume	Cubic Foot	1234 CF	0 decimal places
Angle	Degree	12.35 °	2 decimal places
Slope	Inch/Inch	17 ½" / 12"	Nearest 1/2"
Currency	US Dollar	\$1234.57	2 decimal places
Mass Density	Pound/Cubic Foot	1234.57 lb/ft ³	2 decimal places

5.3 DATUM STANDARDS

5.3.1 GRIDS

All structural grid lines will run through the center of the structural element unless otherwise noted. Grids will be numbered according to the numbering conventions in section [8.4.1 Datum Naming / Numbering](#).

5.3.2 LEVELS

Every major building or structural story requires a Level. All project levels are to be documented in each project's PxP. Levels will be named according to the naming conventions in section [8.4.1 Datum Naming / Numbering](#).

Level standards are as follows:

- Levels are dimensioned to the top of structural slab, not finish floors, unless otherwise noted.
- New levels will not be created when there is a step in the slab. Elevation change markers will be used in floor plans to denote these elevation changes.

5.4 LEVEL OF DEVELOPMENT (LOD) DEFINITIONS

The Level of Development (LOD) definitions for PTC are derived from the BIM Forum's "Level of Development Specification Part 1" with additional custom PTC specific elements that are relevant to PTC projects. The following LOD definitions are an excerpt from the BIM Forum's document. The LOD matrix identifies the minimum LOD requirement for a specific object throughout PTC's various submission phases. The LOD matrix is located within the Project Execution Plan (PxP) spreadsheet. See the tab 'LOD Matrix (for PTC only)' within the PxP for a full report.

5.4.1 LOD 100

LOD 100 elements are not geometric representations. Examples are information attached to other model elements or symbols showing the existence of a component but not its shape, size, or precise location. Any information derived from LOD 100 elements will be considered approximate.

5.4.2 LOD 200

LOD 200 elements are generic placeholders. They may be recognized as the components they represent, or they may be volumes for space reservation. Any information derived from LOD 200 elements will be considered approximate.

5.4.3 LOD 300

LOD 300 elements contain the quantity, size, locations, and orientation of the element as designed and can be measured directly from the model without referring to non-modeled information such as notes or dimension callouts. The project origin is defined, and the element is located accurately with respect to the project origin.

5.4.4 LOD 350

LOD 350 elements contain parts necessary for coordination of elements with nearby or attached elements modeled. These parts will include such items as supports and connections. The quantity, size, shape, location, and orientation of the element as designed can be measured directly from the model without referring to non-modeled information such as notes or dimension callouts.

5.4.5 LOD 400

LOD 400 elements are modeled at sufficient detail and accuracy for fabrication of the represented component. The quantity, size, shape, location, and orientation of the element as designed can be measured directly from the model without referring to non-modeled information such as notes or dimension callouts.

5.4.6 LOD 500

LOD 500 relates to field verification and is not an indication of progression to a higher level of model element geometry or non-graphic information, this specification does not define or illustrate it.

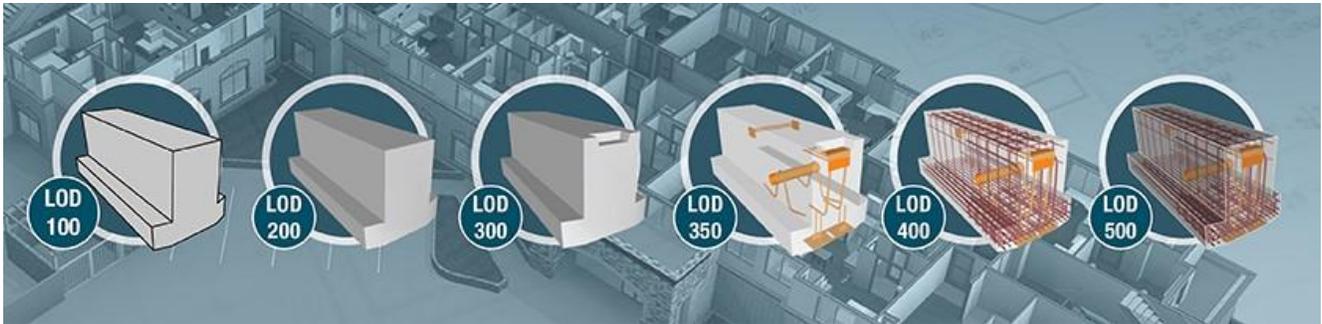


Figure 5-1 LOD Diagram

5.5 PROJECT INFORMATION MODELS (PIM)

5.5.1 DESIGN INTENT

All design intent models will adhere to the following standards:

- Project Models must be named according to the PTC file naming conventions. See section [8.2.1 Project Information](#).
- Project Models must be broken down logically for each project and documented in the PxP.
- Project Models are not to exceed 1GB in size. If model size increases to over 1GB, the model is to be broken down by different systems, coordinates, or levels. This will be documented in the PxP.
- Project Models must be created using the authorized software and version specified in section [4.1 Approved CAD and BIM software](#).
- Project Models must adhere to LOD requirements documented in the PxP.
- Project Models must maintain the same coordinate system.

5.5.1.1 FEDERATED DESIGN INTENT MODEL

The Design team will maintain a federated model for coordination purposes and will contain all project models as links or imports.

All federated design intent models will adhere to the following standards:

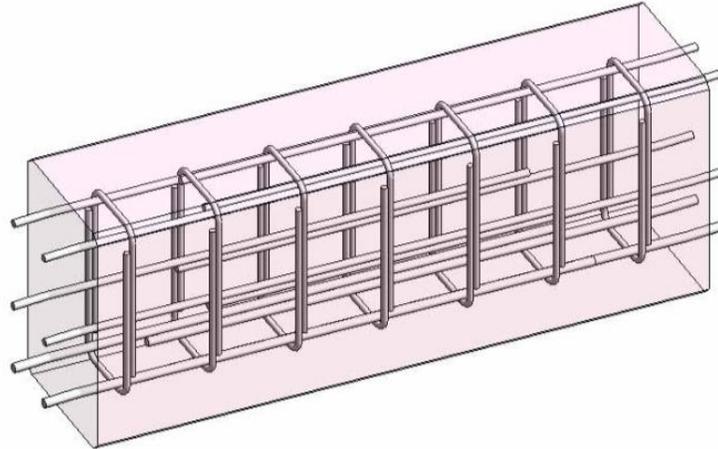
- Models must be named according to the PTC file naming conventions. See section [8.1 General Naming Codes](#).
- Federated Models and any files linked/imported will be created using the authorized software and version in section [4.1 Approved CAD and BIM software](#).
- Files linked/imported into the Federated model will use the same coordinate system.
- The federated model will be kept up to date throughout the entire delivery phase of the project and in accordance with the project schedule in the PxP.

5.5.1.2 MODEL AND ANNOTATED VIEWS

Model view and annotated views may be required within model deliverables. All views must be created within the model file. It is the responsibility of the Design Consultant to determine which views to include based on project deliverables outlined in the PxP.

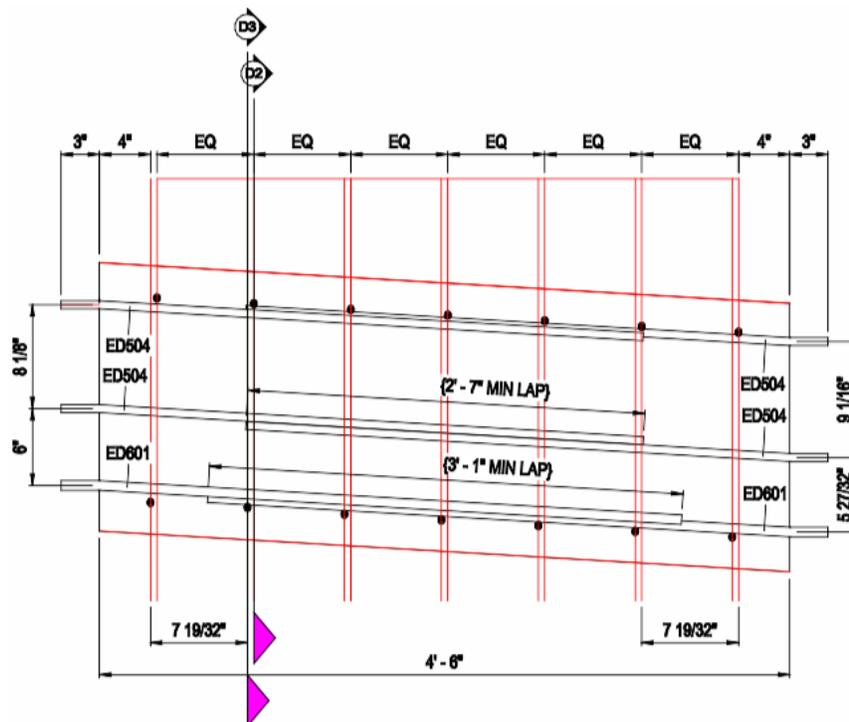
5.5.1.2.1 MODEL VIEWS

Model views are a specific view of the model deliverable that the Design Consultant may call attention to or deem important. Model views may include cut sections or transparency of the model. The Design Consultant may add model views for 'common' visuals that a reviewer, designer, or contractor may reference frequently. All views are included within the model file. The following image is an example of a model view.



5.5.1.2.2 ANNOTATED VIEWS

Annotated views are specific views of the model file that includes annotation. The Design Consultant will include annotated views when typical data that may be included in a 2D plan set deliverable is either difficult or time consuming to extract from the intelligent model. All views are included within the model file. The following image is an example of an annotated view.



5.5.1.3 MODEL REVISIONS

If revisions are required to any 3D model content during the advertisement period, it is the Consultant’s responsibility to update the models appropriately. The construction awarded contract must have the most up to date project information models. The updated models must be saved as a new version and resubmitted as a part of the addenda files with updated dates and time stamps associated with the file. Additionally, a memo must be included that identifies what model files were updated and logs a description of all changes. All changes must be captured appropriately within the contract documents, see section [7.4.3 Model and Electronic File Revisions](#) for further details.

Any updates to model files during construction must be updated following similar processes by the responsible party.

Any updates to individual model files that are included within the federated model require an official update to the federated model. For revisions to drawing sheets, refer to section [7.4 Drawing Revisions](#).

5.5.2 MODELING TOLERANCES

Modeled geometry will be accurately and correctly sized to the highest precision the modeling software allows. For drawing and dimension precision, see section [6.2 Dimension and Precision](#).

5.5.3 MODELING EXCLUSIONS

Any Modeling Exclusions outlined in the PxP supersedes this section. There is no requirement to model the following objects:

Table 5-3 Model Exclusions

Discipline	Objects
Structural	Rebar
Piping	Under 2” not to be modeled
Fire Protection	Hangers
HVAC	Hangers
Electronics	Hangers
Electrical	Hangers Wires
Plumbing	Hangers

5.6 CIVIL 3D / OPENROADS MODELING STANDARDS

The following standards are applicable only to Civil 3D and OpenRoads applications intended for horizontal design.

5.6.1 GENERAL

5.6.1.1 MODELED OBJECTS

The following object types will be 3D intelligent elements, as indicated in the ‘LOD Matrix (for PTC Use only)’ tab in the PxP spreadsheet, and not 2D linework:

5.6.1.1.1 SURFACES / TERRAINS

Topography is described as either a surface in C3D or terrain in ORD. Surfaces/Terrains are TIN surfaces, displayed with a style/feature definition that reads the surface data and depicts the elevations dynamically. Contours lines are not drawn manually. Labels will be dynamically linked to the surface/terrain. For all proposed road work, users will create a TIN surface for the top surface of roadway, including curb, medians, and sidewalks, as well as the Datum surface (the underside of the proposed roadway).

5.6.1.1.2 ALIGNMENTS AND PROFILES

Alignments and profiles representing horizontal and vertical surveyed and proposed construction elements will be 3D model objects. Stationing and labeling will be dynamically linked to the objects they are labeling.

5.6.1.1.3 UNDERGROUND PIPES AND STRUCTURES

For all proposed work, underground pipes will be created as connected pipe networks, even if depicted as a single line style in plan view. Any existing underground pipes that cross the path of the proposed work will also be represented with pipe networks. Structure and pipe labels will be dynamically linked, reading the invert, station, offset, Northing and Easting, and naming information, etc. directly from the modeled content. For C3D, pipe networks will be created using the 'PTC Pipes Catalog', and for ORD, pipe networks will be created via the Drainage and Utilities workflow tools.

5.6.1.1.4 CORRIDORS/TEMPLATE DROPS

Corridors will be constructed from corridor model objects, assemblies (C3D) or template drops (ORD), dynamically from the horizontal (alignment) and vertical (profile) baseline. Corridor objects will be used for all design roadways. It is recommended that corridors be split into a maximum of two miles per drawing. Corridors will be projected dynamically into the cross-section views and all cross sections will be created in their own drawing.

Corridor drawings must be generated using the provided PTC Standard Content. For Civil 3D, refer to section [5.6.3.8 Assemblies](#) and for ORD, refer to section [5.6.4.7 Template Drops](#).

5.6.1.2 MODEL BREAKDOWN STRATEGY

The following standards will be used for breaking down the PIMs into smaller files.

5.6.1.2.1 SEPARATING ELEMENTS

For data management purposes, it is necessary to separate the different types of elements into their own DWG/DGN file. This includes:

- Alignments
- Corridors
- Cross Sections
- Pipe Networks
- Plan-Profile Sheets
- Profiles (C3D Only)
- Surfaces/Terrain
- Survey
- Utilities

Depending on project scale, smaller projects permit multiple element types to reside in the same model file. This must be documented in the PxB and approved by the PTC's Design Services Unit.

5.6.2 CROSS SECTIONS

Cross Sections must be generated at a minimum of 50 ft intervals, and at 25 ft intervals in areas of development and where the existing ground is non-uniform. For areas consisting of complex geometry, such as intersections and superelevated curves, cross sections can be created at intervals lower than 25 feet. Cross Sections must be generated at the beginning and end of superelevation transitions and full superelevation. They must be denoted as such on the plans.

Due to the limitations with 3D models, cross sections will no longer have projections of 2D drainage facilities at various stations. Cross Sections must be created at the exact stationing of the drainage facility and included within the cross-section sheets. These include inlets, endwalls, manholes, pipes, catch basins, etc. If there are skewed pipe runs that do not display appropriately within the cross-section sheets, then pipe profiles must be prepared to show the drainage/utility information. It is up to the Consultant Project Manager's best engineering judgement for how to effectively display drainage information on either cross section or separate pipe profile runs.

5.6.3 CIVIL 3D MODELING

The following information is specific to the standards developed for Autodesk Civil 3D Software and its use for modeling.

5.6.3.1 PROJECT SET UP

Project set up must follow the folder structure outlined in section [9.2 Project Organization](#) and naming conventions specified in section [8 Naming Conventions](#). For workflow on setting up a project to comply with these standards, see [Appendix 14.3 Project Set Up Workflow](#).

5.6.3.2 PTC C3D TEMPLATES

PTC has provided Civil 3D templates which contain the styles and settings to be used in Civil 3D drawings. These include the units (including precisions), coordinate system, layers, Civil 3D settings (object layer assignments, command specific settings), and styles. Plan-production Civil 3D templates for plan, profile, plan and profile, and section sheets, including the associated Title block with attribute data to be filled in via Sheet Set Manager. All Civil 3D drawings are required to be created from the provided Civil 3D Template (DWT). Creating a drawing from a generic AutoCAD or Civil 3D file is forbidden as the file will contain only the "Standard" styles, and all object layers will be set to layer 0.

5.6.3.3 GENERAL CIVIL 3D SETTINGS AND STYLE CONTROLS

The Civil 3D templates for PTC contain the settings and content required to standardize the dynamic design and annotation features of Civil 3D software.

In general, Civil 3D style properties are controlled by the assigned layer including plot style, color, and line type. The standard text styles used for existing and proposed styles are E-PTC-0.12 and PTC-0.12, respectively. The full list of Civil 3D styles along with descriptions and layer controls is shown in [Appendix 14.11 Civil 3D Styles](#), and includes the following styles:

- Appurtenance and Appurtenance Label Styles
- Alignment and Alignment Label Styles
- Cant View Styles
- Catchment and Catchment Label Styles
- Corridor Styles
- Intersection Style
- Fitting and Fitting Label Styles
- General Marker, Feature Line, and Code Set Styles
- General Note, Line, Curve and Marker Label Styles
- Grading Object Styles

- Grading Object Criteria Sets
- Gravity Pipe Network and Gravity Pipe Network Label Styles
- Parcel and Parcel Label Styles
- Pressure Pipe Network and Pressure Pipe Network Label Styles
- Profile and Profile Label Styles
- Profile View, Profile View Label and Profile Band Styles
- Sample Line and Sample Line Label Styles
- Section and Section Label Styles
- Section View, Section View Label, Section View Sheet, and Section View Band Styles
- Superelevation View Styles
- Surface and Surface Label Styles

5.6.3.4 REFERENCE FILES

5.6.3.4.1 DATA SHORTCUTS

Data shortcuts will be created within each project’s designated shortcuts folder, assigned automatically by setting the working folder. It is necessary to create data shortcuts when referencing C3D objects into other drawing files.

5.6.3.4.2 EXTERNAL REFERENCES

Files that are “attached” using AutoCAD and Civil 3D’s XREF command will always use the coordinate 0,0,0 as the insertion point and a zero-rotation angle. All externally referenced files are inserted at a uniform scale.

All external reference drawings are attached as “Overlay”. The path type will be set to “Relative Path” for both external reference drawings and external reference images. Note: any data transferred to PTC will have no broken links between drawings and reference files.

5.6.3.5 OBJECT LAYERS

Within the provided Civil 3D templates for PTC, Civil 3D objects will be created on the layers shown below.

Table 5-4 Civil 3D Object Layers

Object	Layer	Object	Layer
Alignment	C-ALGN	Pipe-Labeling	C-STRM-TEXT
Alignment-Labeling	C-ALGN-TEXT	Pipe and Structure Table	C-STRM-TEXT
Alignment Table	C-ALGN-TEXT	Pipe Network Section	C-STRM-SCTN
Appurtenance	C-WATR-APPT	Pipe or Structure Profile	C-STRM-PROF
Appurtenance-Labeling	C-WATR-TEXT	Point Table	C-ANNO-PNTS
Assembly	C-ROAD-ASSM	Pressure Network Section	C-WATR-SCTN
Building Site	C-BLDG	Pressure Part Profile	C-WATR-PROF
Cant View	C-RAIL-CANT-VIEW	Pressure Part Table	C-WATR-TEXT
Catchment	C-HYDR-CTCH	Pressure Pipe	C-WATR-PIPE
Catchment-Labeling	C-HYDR-CTCH-TEXT	Pressure Pipe-Labeling	C-WATR-TEXT



Corridor	C-ROAD-CORR	Profile	C-ROAD-PROF
Corridor Section	C-ROAD-CORR	Profile-Labeling	C-ROAD-PROF-LABL
Feature Line	C-TOPO-FEAT	Profile View	C-PROF
Fitting	C-WATR-FITT	Profile View-Labeling	C-PROF-TEXT
Fitting-Labeling	C-WATR-TEXT	Sample Line	C-ROAD-SAMP
General Note Label	C-ANNO-NOTE	Sample Line-Labeling	C-ROAD-SAMP-TEXT
General Segment Label	C-ANNO-TEXT	Section	C-ROAD-SECT
Grading	C-TOPO-GRAD	Section-Labeling	C-ROAD-SECT-TEXT
Grading-Labeling	C-TOPO-TEXT	Section View	C-ROAD-SECT-VIEW
Grid Surface	C-SURF	Section View-Labeling	C-ROAD-SECT-VIEW-TEXT
Grid Surface-Labeling	C-SURF-TEXT	Section View Quantity Takeoff Table	C-ANNO-TABL
Interference	C-ANNO	Sheet	C-ANNO-VFRM
Intersection	C-ROAD-INTS	Structure	C-STRM-STRC
Intersection-Labeling	C-ROAD-INTS-TEXT	Structure-Labeling	C-STRM-TEXT
Mass Haul Line	C-ROAD-MASS-LINE	Subassembly	C-ROAD-ASSM
Mass Haul View	C-ROAD-MASS-VIEW	Superelevation View	C-ANNO-TABL
Match Line	C-ANNO-MATC	Surface Legend Table	C-ANNO-TABL
Match Line-Labeling	C-ANNO-MATC-TEXT	Survey Figure	V-SURV-FIGR
Material Section	C-ROAD-SECT-VIEW	Survey Figure-Labeling	V-SURV-LABL
Material Table	C-ANNO-TABL	Survey Figure Segment Label	V-SURV-LABL
Parcel	C-PROP-PARC-BNDY	Survey Network	V-SURV-NTWK
Parcel-Labeling	C-PROP-PARC-TEXT	Tin Surface	C-SURF
Parcel Segment	C-PROP-PARC-LINE	Tin Surface-Labeling	C-SURF-TEXT
Parcel Segment-Labeling	C-PROP-PARC-TEXT-BRNG	View Frame	C-ANNO-VFRM
Parcel Table	C-PROP-PARC-TEXT	View Frame-Labeling	C-ANNO-VFRM-TEXT
Pipe	C-STRM-PIPE		

5.6.3.6 C3D STYLES AND DEFINITIONS

To control the display of Civil 3D objects, a C3D style must be applied from the PTC Standard template files. The display for modeled objects will not be controlled by the layering scheme, but the C3D style.

5.6.3.7 SURVEY & COGO POINT AND LABEL STYLES

The PTC Civil 3D template contains Point Styles for placing Survey and COGO points. The COGO points are placed on layer “V-NODE” and assume the layer properties they are assigned in the “PTC-PEN-SURVEY” Descriptor Key Set. Points are assigned symbols for display purposes, as outlined in [Appendix 14.8.1.2 Survey Symbols](#).

These symbols are utilized for Survey Points and can also be utilized when placing COGO points.

Point label styles can be assigned independently or through the “PTC-PEN-SURVEY” Description Key Set. Several keys in the description key set have their label settings set to “default”, which permits any label style to be assigned to the point group. The Label Styles annotate various content such as “Point number/Elevation/Description”, “Northing/Easting”, “Latitude/Longitude”, and other options for specific point needs.

5.6.3.8 ASSEMBLIES

Corridors are to be created utilizing the provided roadway template assemblies and subassemblies. The roadway template tool palette contains pre-set Assemblies that use PTC standard subassemblies with their properties set, including subassembly names, point codes, pavement course depth and material. The roadway templates are a starting point for design, and once placed in the drawing, can be manipulated by removing, replacing, or adding subassemblies and manipulating the assembly and subassembly properties. Within the subassembly properties, there is an associated help file which can be accessed via the parameters tab.

Guide Rail assemblies shall utilize their own baselines, due to their variable nature.

The assemblies and subassemblies do not contain daylighting. All grading from the corridors shall be created via the grading tools by extracting corridor feature lines.

5.6.3.9 GUIDERAIL

The provided assemblies for guiderail are intended to be utilized by creating a baseline apart from the main corridor assembly (either as its own corridor or as an additional baseline to a corridor). The assemblies are provided as being on the left or the right side, which will depend on the direction of the baseline itself. It is recommended that grading work be done off the roadway corridor. Additionally, it is recommended that the elevations of the guiderail baseline are generated from the grading surface as a featureline.

The guiderail subassemblies contain various options, including if the section is curved or tangent. It is important to select the correct options for the guiderail subassemblies within the subassembly properties to ensure that the correct coding and styles get utilized. The W-Beam will be extruded from frequency line to frequency line, generating the overall shape of the rail. The posts shall be generated by inserting a block along the baseline path (converted to a 3D Polyline) and utilizing the path array function, with an unassociated array at a defined spacing.

5.6.3.10 BARRIER TRANSITIONS AND END PIECES

To create transitions between 52” single face barriers and their 34” counterparts, PTC has provided a tool palette entitled PTC CORRIDOR TRANSITIONS within the custom PTC Tool Palette. This palette includes barrier to guiderail transitions and abutment/pier to barrier transition pieces. The transitions are multi-view blocks (2D block in plan view and 3D block in model view) that can be placed by selecting the block on the palette and then using the endpoint object snap (in a 3D view) to attach to a coded point within the corridor.

For transitioning between two regions of a barrier:

1. Create a transition region utilizing an assembly that does not contain the object to be transitioned.
2. Place the appropriate barrier transition block in the correct location.

3. Rotate as appropriate.

The blocks are listed in [Appendix 14.8.1.4 Civil 3D Barrier & Guiderail Transitions](#).

5.6.3.11 CODE SET STYLES

The following Code Set Styles are to be used for corridor modeling:

- PTC_NO DISPLAY – code set style to turn off the display of the corridor when working with other aspects of the model.
- PTC_FOR ASSEMBLIES– displays all link, point, and shape codes in the corridor model.
- PTC_ALL CODE FOR ASSEMBLIES– displays all link, point, and shape codes with grade labels of the link codes curb, daylight cut/fill, finished grading of pavement, and sidewalk; elevation labels of the point codes for back of curb, daylight, edge of paved shoulder, and edge of travel way; and area label of the shape code subbase.
- PTC_FOR CROSS SECTIONS – displays all link, point and shape codes only displaying link labels.
- PTC_PLAN PRODUCTION – displays feature lines of corridor model used for plan production.
- PTC_FOR QUANTIFICATION – displays code set styles for links, points, and shapes without labels, but with pay items assigned.
- PTC_DESIGN AND ANALYSIS – displays all link, point, and shape codes with render materials assigned for links.

5.6.4 OPENROADS DESIGNER MODELING

The following information is specific to the standards developed for OpenRoads Designer and its use for modeling.

5.6.4.1 PROJECT SET UP

Project set up must follow the folder structure outlined in section [9.2 Project Organization](#) and naming conventions specified in section [8 Naming Conventions](#). For ORD workflow on setting up a project to comply with these standards, see [Appendix 14.3 Project Set Up](#) Workflow.

5.6.4.2 SEED FILES

All DGN models will start from a seed file provided in the standards. All seed files are in your respective organizations location of the configuration files ending with “\Organization-Civil\PTC CAD Standards\Seed”. The PTC Seed files contain the specifications for the coordinate system, working units, precision, and color table. There are four seed files that are a part of the standard listed in the table below:

Table 5-5 PTC Seed Files

Seed Files
PTC Seed2D PA83-NF.dgn
PTC Seed2D PA83-SF.dgn
PTC Seed3D PA83-NF.dgn
PTC Seed3D PA83-SF.dgn

There is a Workspace setup for each of the Coordinate systems. The workspace chosen will determine the default seed file. If you choose the workspace “PTC CAD Standards_S”, the PTC seed file coordinates will be default set to “PTC Seed2D PA83-SF.dgn”, as specified in section [12.2.1 Horizontal Datum](#). If you choose “PTC CAD Standards_N”, the PTC seed file coordinates will, by default, set to “PTC Seed2D PA83-NF.dgn”. If a 3D seed file or a different

coordinate system is necessary, then the seed file will be changed when creating a new DGN or update the configuration to point to the alternative DGN seed file.

3D seed files are ONLY used for Survey and Terrain models. All other files use the 2D Seed files (including Geometry, Corridor, Superelevation, Cross Sections, etc.). All geometry and elements will be created in the Default 2D model and the OpenRoads software will create and manage the 3D Models from the 2D files.

5.6.4.3 DGN LIBRARIES

Each time the ORD software is launched with the PTC CAD Standards Workspace, it will load all DGN Libraries (DGNLIB) to the DGN file. Libraries are the collection of DGNLIB files that are associated with the ORD project. [Table 5-6 PTC Customized DGN Libraries](#) lists all customized DGNLIBs for the PTC CAD Standards.

Note:

- No standards or settings are copied into the design file. They are only copied into the design file once a standard has been used or assigned to an element within that file.
- There are additional DGNLIBs that come with the Bentley software that have not been modified (i.e., design standards).

Table 5-6 PTC Customized DGN Libraries

DGNLIB	Location	Comments
PTC_Features_Annotations_Levels_ Elem Temp Imperial.dgnlib	<i>\Organization-Civil\PTC CAD Standards\Dgnlib\Feature Definitions</i>	Contains feature definitions, symbology, annotation groups, annotation definitions, element templates, levels, and line styles.
PTC_3D_ GRAL_Linestyles.dgnlib	<i>\Organization-Civil\PTC CAD Standards\Dgnlib\Feature Definitions</i>	Contains 3D line styles.
PTC_Feature_Imperial.dgnlib	<i>\Organization-Civil\PTC CAD Standards\Dgnlib\Feature Definitions</i>	Contains feature definitions, symbology, annotation groups, annotation definitions, element templates, levels, and line styles.
PTC_CV_Labeler_ ElemTemp_TextFa v.dgnlib	<i>\Organization-Civil\PTC CAD Standards\Dgnlib\Feature Definitions</i>	Contains text favorites, Civil Labeler elements
PTC_Survey_Settings_Features_Ann otations_ Elem Temp Imperial.dgnlib	<i>\Organization-Civil\PTC CAD Standards\Dgnlib\Feature Definitions</i>	Contains all feature definition, symbology, element templates, etc. pertinent to survey models.
PTC_Text Favorites_Text Styles_Dimension Styles Imperial.dgnlib	<i>\Organization-Civil\PTC CAD Standards\Dgnlib\Feature Definitions</i>	Contains text favorites, text styles, and dimension styles
PTC_Custom Linestyles.dgnlib	<i>\Organization-Civil\PTC CAD Standards\Dgnlib\Line Styles</i>	Contains all custom line styles
PTC ANSI D - Scale 50 - Sheet Seed.dgnlib*	<i>\Organization-Civil\PTC CAD Standards\Dgnlib\Sheet Seeds</i>	Contains all sheet definition files.
PTC 22x34 - Scale 50 - Sheet Seed.dgnlib	<i>\Organization-Civil\PTC CAD Standards\Dgnlib\Sheet Seeds</i>	Contains sheet definition files.

PTC 34x36 - Scale 50 - Sheet Seed.dgnlib	\\Organization-Civil\PTC CAD Standards\Dgnlib\Sheet Seeds	Contains sheet definition files.
PTC 34x48 - Scale 50 - Sheet Seed.dgnlib	\\Organization-Civil\PTC CAD Standards\Dgnlib\Sheet Seeds	Contains sheet definition files.
PTC 34x60 - Scale 50 - Sheet Seed.dgnlib	\\Organization-Civil\PTC CAD Standards\Dgnlib\Sheet Seeds	Contains sheet definition files.
PTC 34x72 - Scale 50 - Sheet Seed.dgnlib	\\Organization-Civil\PTC CAD Standards\Dgnlib\Sheet Seeds	Contains sheet definition files.
PTC 34x96 - Scale 50 - Sheet Seed.dgnlib	\\Organization-Civil\PTC CAD Standards\Dgnlib\Sheet Seeds	Contains sheet definition files.
PTC 34x108 - Scale 50 - Sheet Seed.dgnlib	\\Organization-Civil\PTC CAD Standards\Dgnlib\Sheet Seeds	Contains sheet definition files.
PTC 34x120 - Scale 50 - Sheet Seed.dgnlib	\\Organization-Civil\PTC CAD Standards\Dgnlib\Sheet Seeds	Contains sheet definition files.
PTC ANSI D - Scale 50 - Sheet Seed.dgnlib	\\Organization-Civil\PTC CAD Standards\Dgnlib\Sheet Seeds	Contains sheet definition files.
PTC Cross Section ANSI D - 5 Scale.dgnlib	\\Organization-Civil\PTC CAD Standards\Dgnlib\Sheet Seeds	Contains sheet definition files.
PTC Cross Section ANSI D - 10 Scale.dgnlib	\\Organization-Civil\PTC CAD Standards\Dgnlib\Sheet Seeds	Contains sheet definition files.
PTC Plan and Profile Seed ANSI D - 50 Scale.dgnlib	\\Organization-Civil\PTC CAD Standards\Dgnlib\Sheet Seeds	Contains sheet definition files.
PTC Profile Seed ANSI D - 50 Scale.dgnlib	\\Organization-Civil\PTC CAD Standards\Dgnlib\Sheet Seeds	Contains sheet definition files.

*For the complete list of Sheet sizes and scales available, refer to section [7.7 Full Project Length PDFs](#) and section [6.6.4 Annotative scaling](#), respectively.

5.6.4.4 EXTERNAL REFERENCES

DGN reference files must be attached as a relative path with ‘Coincident – World’ selected in the Orientation list box.

A link between a data element in a reference file creates a dependency. When detaching references, the ORD software will inform if there are dependencies between the current file and the reference file.

When referencing files in ORD, self-referencing (i.e., circular referencing) files are forbidden as they create difficulties across various platforms.

5.6.4.5 COLOR TABLE

The provided “PTC_ColorTable.tbl” will be used to depict all levels as defined in [Appendix 14.14 Color Mapping Table](#). The color table will set up the DGN file to match AutoCAD’s color palette, associating the proper RGB values with designated numbers in OpenRoads. The color table is in your respective network’s location of `\\Configuration\Organization-Civil\PTC CAD Standards\Color Tables`. The color table will automatically be attached if starting a drawing from the seed files provided in the CAD Resources files.

5.6.4.6 FEATURE DEFINITIONS

Feature definitions must be utilized to control the styles of the modeled elements in ORD. They can be displayed within the Project Explorer under the OpenRoads Standards tab.

All custom PTC feature definitions and symbology are defined by the preface ‘PTC_’ as the nomenclature. Any feature definition without the ‘PTC_’ prefix, is part of Bentley’s content, where there are only updates to the associated levels. For a complete list of feature definitions refer to [Appendix 14.13 OpenRoads Designer Feature Definitions](#).

5.6.4.7 TEMPLATE DROPS

Corridors are to be created utilizing the provided PTC custom template drops and components. The “PTC CUSTOM LIBRARY.itl” library contains pre-set typical template drops that use PTC standard components with their properties set including component names, point codes, pavement course depth and material. The roadway templates are a starting point for your design. The “PTC Custom” folder contains components for most common elements that can be used to build whatever section is needed to complete the design. The “PTC Typical Sections” folder contains several standard sections that can be utilized as-is or customized to meet modeling needs.

If customization of the “Typical Sections” is necessary or creating variations with different values, then it is recommended to create a copy of one that is similar to the design needs, provide a unique name and then alter the properties as needed. If a desired typical section is completely unique from the provided library, then it is recommended to create a new template and then use the custom components provided to complete the new template. Lastly, if unique items are necessary that are not available as a custom component, use the standard software tools to create your component parts, ensuring that after each component is defined, the Point Name List is utilized within the properties to assign standard PTC point names. Also, ensure that the feature definition has been properly set by the point name and if not, then choose the proper feature definition for all points and component shapes.

5.6.4.8 GUIDERAIL

Various methods of creating guiderails have been provided in the PTC OpenRoads Workspace. Template drops for extruded guiderails along a corridor model have been provided for left and right roadside placement so that parallel guiderails can be included in corridors models. These template drops can be found in the “PTC CUSTOM LIBRARY.itl”, under “Linear Templates\Guiderails”. For 3D cells of guiderails to be included in a Template drop, Feature Definitions have been provided, these Feature Definitions can be found in “Feature Definitions\Linear\Template Points\Guiderail and Barrier”.

For non-uniform guiderail layouts, Feature Definitions have been provided and are located in “Feature Definitions\Linear\Guiderail and Barrier”. These Feature Definitions can be utilized by selecting them and setting them as the default definition as you create the layout geometry or can be assigned to an object after it has been placed by selecting the feature and then using the properties pallet to change the feature assignment.

5.6.4.9 DRAINAGE AND UTILITY FEATURES

The current drainage and utility definitions utilize the OpenRoads standards library ‘Drainage and Utilities Features Annotations Imperial.dgnlib’. Updates were made to the levels for each feature definition to match what is in the [Appendix 14.12.2 Drainage and Utility Dgnlib](#).

5.7 REVIT MODELING STANDARDS

The following modeling standards are applicable vertical construction, primarily using Revit.

5.7.1 REVIT MODEL ORGANIZATION

5.7.1.1 MODEL BREAKDOWN

Each project or building’s model breakdown is to be documented in the PXP. Depending on the type, size of the project, or team structure, the BIM Manager will decide how to break up the models. Best practices apply when creating model organization and strategy and are subject to approval from the BIM Team.

5.7.1.2 WORKSETS

The standards for Worksets are:

- Levels and Grids are placed on their own Workset.
- Each linked file is placed on its own individual Workset to minimize disruption as files are turned on and off.
- Elements are organized by construction / discipline type.

- See section [8.4.3 Workset naming](#) for Workset naming convention.

5.7.1.3 PTC REVIT TEMPLATES

PTC will provide the following 4 templates for the consultant project teams.

Standards Template: includes all general standards, including graphics, and can be used to transfer project stands.

Architecture Template: includes architectural specific standards.

Structure Template: includes structural specific standards.

MEP Template: includes MEP specific standards.

The models are starting points and the consultant project teams are expected to add content as necessary per project. The MEP template contains Revit link placeholders from other disciplines. These placeholders are represented in the view templates but are placed only “as a suggestion” as to the way the visibility graphics for these links should be set. The user has broad discretion as to how the visibility settings for the links are set.

5.7.1.4 VIEW TYPES

The following standards apply for typical view types within Revit. For view naming, see [Use view types](#) to quickly apply graphics properties and view templates to new views. A view type defines some graphics properties and will be used to specify a view template to apply to a new view. See section [8.4.7 View Naming](#).

5.7.1.4.1 LIVE VIEWS: PLAN, ELEVATION, SECTION, CALLOUT, AND 3D VIEWS

Live Views are created from horizontal or vertical cuts of the model and change as the model changes. All drawings coarser than scales $1/4"=1'-0"$ will be created from a live view. Any drawings or details referencing elements in the model will be created using a live view. The only exception is for detail views at scales finer than $1/2"=1'-0"$ which can be created in a drafting view.

5.7.1.4.2 DRAFTING VIEWS

Drafting Views are used to create unassociated, view-specific details that are not part of the model design such as typical details. Drafting views are used for a detail condition where the model is not needed.

5.7.1.4.3 SCHEDULES

Schedules will be generated from within Revit, linking a schedule from AutoCAD/Equivalent is not acceptable. Schedule will be generated from elements placed within the model and generated from parameters hosted within the families. Please refer to section [8.4.6 Parameter Naming](#) for more information.

5.7.1.4.4 LEGENDS

Legends will be used for representing building elements, annotations, or symbols on the sheet. Any symbol used in a drawing will be referenced and defined in an appropriate legend issued with the set. A Legend is a View type that can be placed on multiple sheets.

5.7.1.5 VIEW TEMPLATES

Within the PTC Revit Template, all new views created from existing view types will be automatically assigned a corresponding view template. The assigned view template can be located (and modified) within the *Properties* window. This assigned template will govern the visibility and graphics of the view until it is removed.

The PTC Revit template will include a view template for each view type in use. Note that the minimum acceptable view scale standard size is $1/4"$. However, it can be updated to a larger size when necessary. Additional view templates may be required while working through a project and can be added as needed if they do not conflict or overlap with an existing view template. See section [8.4.8 View Title Naming](#).

5.7.1.6 PROJECT BROWSER

The PTC Project Browser organization is first organized by Category (View Group) and then View type. See PTC Revit Template for Project Browser Organization.

For the project browser to be correctly organized, view's will be named correctly per section [8.4.7 View Naming](#).

5.7.2 REVIT PARAMETER MANAGEMENT.

Parameter Names should be representative of the data inside. When generating schedules, please ensure proper names parameters are used. PTC currently has no required shared parameters or shared parameter file at this time.

5.7.3 GENERAL REVIT MODEL STANDARDS

The following section describes the overview of Revit modeling standards applicable to all disciplines within Revit.

5.7.3.1 SHARED COORDINATES

Shared coordinates will be established at the start of a project and aligned with section [5.2.1 Coordinate system](#). Shared coordinates will be accurate to the true geographic location of where the project resides. The shared coordinates will be acquired by a survey or civil .dwg file provided by PTC.

5.7.3.2 PROJECT BASE POINT & TRUE NORTH

The Project Base Point and True North will be specified and documented in the PxP. It is recommended that the project base point is on the lower left corner of the site and if possible, aligned with a grid intersection. True North will be specified to align with the true geographic orientation of the project.

5.7.3.3 PROJECT LOCATION

The Project location will be set according to a PTC provided address and documented in the PxP.

5.7.3.4 COPY / MONITOR STANDARDS

Any elements requiring the use of Copy/Monitor will be outlined in the PxP.

Any element being copy/monitored must be reviewed and updated at every model exchange submission outlined in the PxP.

5.7.3.5 LEVELS AND GRIDS

Levels and Grids will be established at the start of a project and coordinated across all project teams. Levels and Grids 3D extents will cross the entire building and will be pinned in place so that they are not moved. For datum modeling standards see section [5.3 Datum Standards](#). For naming and numbering conventions see section [8.4.1 Datum Naming / Numbering](#).

If a levels and grids model is used, then all levels and grids will be copy/monitored from the corresponding model. See section [5.7.3.4 Copy / Monitor](#).

5.7.3.6 SCOPE BOXES

The Consultant Project Manager will create major site and building scope boxes. If the site or building is divided by sectors, a scope box will be created for each sector. Scope boxes will be used across teams to crop views.

5.7.3.7 DESIGN OPTIONS

The following standards will be followed when using Design Options:

- Use Design Options on temporary basis and clean them after every major submission.
- The "Primary" option will always reflect the most likely selected design candidate.
- The Option Set Names and the Option Names will be named after their location and scheme respectively so they can be easily identified by other team members.

- Preserve Design Options only if they are useful to the project. Even though options may not be active and visible, when changes are made within the main model all Design Options will update to maintain the model's consistency.
- Design Options will not be used for purposes other than “design options” such as phasing, demolition, or division of discipline models.
- On project turnover, only the “Primary” option should be left within the project.

5.7.3.8 PHASES

Revit phases will not be used for purposes other than construction phases, submissions, and site logistics. Using them for design options or division of labor will not be permitted.

All projects will have these default Phases:

- Existing
- New Construction

Any additional phases will be agreed upon by PTC's Design Services Unit and added to the PxP.

5.7.3.9 FAMILIES

Any loaded component family not provided by PTC will adhere to the following standards:

- Named according to section [8.4.4 Family Naming](#)
- Appropriate content and detail:
 - Families will be checked for any embedded or nested families.
 - Small items such as Screws & Springs not listed in the PxP spreadsheet, tab 'LOD Matrix (for PTC use only)', will also be removed.
 - Families will correspond to the correct Level of Detail as required per element. This includes accurate size, shape, and quantities.
 - Any interior, unseen, or unneeded models and detail will be removed.
- Appropriate Parameters
 - Models will be purged of unnecessary parameters and required parameters will be added.
 - The required parameters can be found in section [5.7.2 Revit Parameter Management](#)
- Space Ownership
 - Clearance zones are defined as a manufacturer required service/safety area around a given unit. An Access Zone is defined as any additional space required to be able to reach the unit.
 - All models that have clearance requirements will have the clearance zone modeled and placed on the sub-category of “Clearance Zone”. Clearance zones will appear on plan view as a dashed line and in 3D as a transparent red zone.
 - Access panels, zones, and areas will be modeled and placed on the sub-category of “Access Zone”. Access zones will appear on plan view as a dashed line and in 3D as a transparent red zone.
 - Models must be representative of size in real life for proper space ownership and coordination.

5.7.4 REVIT STRUCTURE MODELING STANDARDS

Overview of Revit modeling standards applicable to only Structure

5.7.4.1 TYPE CATALOGS

Any family derived from an OOTB (out of the box) Revit structural family will have a type catalogue (.txt file) associated with it. Type catalogues must align with industry standard shapes and sizes.

Any costume structural families, both for vertical and lateral framing, must include a type catalogue to maintain accurate sizing.

5.7.5 REVIT MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION (MEP) MODELING STANDARDS

5.7.5.1 GENERAL

The general modeling standards for MEP trades:

- All MEP systems will be completed with native Revit Family (.RFA) files. Teams will not use imported model geometry from other programs to represent an MEP system.
- All elements or equipment that connects to an MEP system are required to have a connector in the family and be connected to the appropriate system in Revit.
- Physical MEP Systems (Pipe, Duct, Conduit, Cable Tray) will be connected to each other and all equipment they interact with. There will be no open ends or disconnected systems.
- All connections for the future will be capped.
- Refer to PxP for ownership of specific element locations and types (Lighting Fixtures, Plumbing Fixtures).
- Associated Accessories will exist in their proper Element Category. For example, a fire damper will be a “Duct Accessory” not “Specialty Equipment”. A Ball Valve will be a “Pipe Accessory” not “Specialty Equipment”.

5.7.5.2 MECHANICAL

The following systems will have their own set of views and Workset unless superseded by the PxP.

- HVAC Ductwork
- Mechanical Pipe

Mechanical Modeling Standards:

- All pipes are required to be modeled. Refer to the PxP for any additional requirements or exclusions.
- All Valves, dampers, air terminals, inline units, inline accessories, air and water accessories, and associated equipment will be modeled.

5.7.5.3 ELECTRICAL

The following systems will have their own set of views and Workset unless superseded by the PxP.

- Lighting
- Power
- Fire Alarm
- Security
- Communications (Data, Signal, Telcom, Audio Visual)

Electrical Modeling Standards:

- Electrical elements will be connected through use of the “Power” tool in Revit. Elements will be able to trace feed from device, to distribution, to generation and to anything else they may be connected to. For items that have multiple connections, this may require multiple connectors to be added to the element or family.
- Appropriate schedules will be provided for all distribution panels, boards, and gear in the model.
- All conduit size 1 - 1/2” and up will be modeled in accordance with the ‘LOD Matrix (for PTC only)’ tab in the PxP spreadsheet. If a rack of small conduit exists, that totals a width of 1 - 1/2” or greater, the conduit rack must be represented.
- All underground conduits, regardless of size, will be modeled.
- All cable trays will be modeled.
- All pull and junction boxes will be modeled.



5.7.5.4 PLUMBING

The following systems will have their own set of views and Work set unless superseded by the PxP. If models have minimal plumbing work, teams may request to issue combined sheets.

- Domestic Water
- Sanitary
- Storm Drainage
- Misc Systems (Fuel Supply, Hydronics)

Plumbing Modeling Standards:

- All pipe sizes will be modeled.
- Sloped pipe will be modeled as such. This includes, but not limited to:
 - Storm
 - Sanitary
 - Vent Piping
- All Valves, P-Traps, drains, accessories, assemblies, and associated equipment will be modeled.

5.7.5.5 FIRE PROTECTION

The following systems will have their own set of views and Workset unless superseded by the PxP. Separate views for Wet & Dry Systems are not required but allowed if needed.

- Fire Protection Wet
- Fire Protection Dry

Fire Protection Modeling Standards

- All Fire Sprinklers will be connected to the overall system.
- All sizes of Fire Protection pipe will be modeled.
- All Valves, drains and drain valves, fire protection accessories, assemblies, and associated equipment will be modeled.

6. GRAPHIC STANDARDS

All graphic content is provided in the support files. The following sections describe the graphics styles for various drawing and model components.

6.1 TEXT STYLES AND HEIGHTS

Ten text styles are part of this standard. The first 8 are all Arial font type and are to be utilized for all drawings and files.

The second two of the text styles provided (PTC-Title, and Line font) are used for title sheet, drawing information or line type definitions, but are not permitted for other use. The text styles are provided in the table below.

Note: OpenRoads Designer has variations of these text styles for correctly positioning text. All variations comply with Arial font and the plotted heights listed below.

Table 6-1 Text Heights

		Roadway & Horizontal Construction		Facilities & Vertical Construction
Description of Usage	Font	Plotted Height	Annotative	Plotted Height
Normal Text	Arial	0.12"	Yes	3/32"
Headings	Arial	0.15"	Yes	1/8"
Titles	Arial	0.2"	Yes	3/16"
Alternate Titles	Arial	0.25"	Yes	1/4"
Existing Normal Text	Arial-Italics	0.12"	Yes	3/32"
Existing Headings	Arial-Italics	0.15"	Yes	1/8"
Existing Titles	Arial-Italics	0.2"	Yes	3/16"
Existing Alternate Titles	Arial-Italics	0.25"	Yes	1/4"
Title Sheet	Arial	0.5"	No	1/2"
Line type Definitions	Romans.shx	0.1"	No	N/A

6.2 DIMENSION AND PRECISION

The following precision and tolerances for dimensions are used for permitting and construction documentation. These are not to be mistaken for modeling or clash detection tolerances.

For roadway and horizontal construction, the precision is set to a minimum of 2 digits for the decimal place.

Table 6-2 Facilities and Vertical Construction

Drawing Scale	$\geq \frac{1}{4}'' = 1'-0''$	$< \frac{1}{4}'' = 1'-0''$ and $> 1 \frac{1}{2}'' = 1'-0''$	$\leq 1 \frac{1}{2}'' = 1'-0''$
Precision	1/4"	1/8"	1/16"

Dimensions are taken to the face of components unless otherwise noted. When dimensions are to the center of an object or run, the centerline symbol will be used.

6.3 LINEWEIGHTS

Lineweights are the thickness of a line on a printed document or drawing. All line weights are pre-defined in the PTC templates for ANSI D. Any changes to line weights must be approved by PTC.

Approved PTC line weights.

Design Weight (Bentley only)	Thickness (in.)
0	0.007
1	0.010
2	0.014
3	0.020
4	0.024
5	0.028
6	0.033
7	0.039
8	0.045
9	0.049
10	0.055
11	0.059
12	0.065
13	0.069
14	0.075

6.4 PATTERNS

Hatches/Filled Regions determine the cut or surface pattern of elements or materials and are pre-defined in the PTC templates. Any changes to the Patterns must be approved by PTC.

Refer to [Appendix 14.9 Patterns](#) for standard PTC Patterns.

6.5 ANNOTATIONS & SYMBOLS

Annotations & Symbols will be used to communicate non-dimensional information about elements in drawings. Any annotations associated to describing and referencing model elements need to be created as parametric information linked to the element and then represented as an annotation on the drawing.

All annotations reside in model space except for notes, contract border attribute annotations, north arrows, scale bars, location maps, sheet indexes, engineer's seals, and title sheet annotations.

Refer to [Appendix 14.8 Symbology](#) for standard PTC annotations and symbols.

6.6 CIVIL 3D / OPENROADS GRAPHIC STANDARDS

The following standards are applicable only to Civil 3D and OpenRoads applications and are intended for all infrastructure design.

6.6.1 LAYERS AND LEVELS

All layers/levels contained within the Project Information Modeling & CAD Standards have been defined using variations of the National CAD Standard layer guidelines. All assigned colors, line styles, and line weights are to be used according to the specified layer/level, unless using a C3D style/ORD feature definition that may differ. Reference section [8.3.2 Layers/Levels Naming](#) for naming convention. Refer to [Appendix 14.5 Layers/Levels](#) for a list of all standard layers and levels.

6.6.2 LINETYPES AND LINSTYLES

Standard PTC line types (C3D) and line styles (ORD) have been created for use with all C3D and ORD drawings. These line types have been assigned to their respective layers within the standard template files. All line types/line styles are displayed in [Appendix 14.7 Linetypes](#).

6.6.2.1 AUTOCAD AND CIVIL 3D

To ensure correct line type scaling settings for plot sheet files the "LTScale" and "PSLTScale" variables will be set to "1". This ensures all line types will be scaled based on the paper space viewport scale factor.

For model files, which utilize model space, users will set the "LTScale" variable to the drawing scale.

6.6.2.2 OPENROADS DESIGNER

All line styles are created with a scale factor of 1.0 and design file settings are set to a global line style scale factor of 1.0. All seed files are set up with the Global Line Style Scale set to 1.0. All linestyles in ORD that are listed as '0' are equivalent to AutoCAD/Civil 3D's Continuous linestyle.

6.6.3 PLOTTED LINEWEIGHTS

All levels are assigned a design weight that coordinates with a 'WeightMap' within the print driver configuration file. When using 'PTC_PDF.pltcfg' file, the line weights match the thickness is listed in section [6.3 Lineweights](#). All plotted line weights are intended for sheet size ANSI D.

6.6.4 ANNOTATIVE SCALING

In model space, annotative text and annotative objects will adopt the current model space drawing scale. This also allows for annotations to be created in model space, not just paper space. The table below shows the annotative scales that are available in the PTC drawing templates.

Table 6-3: Available Scales in Model Space

Scales to be Utilized	
1:1	1"=100'
1"=10'	1"=200'
1"=20'	1"=500'
1"=25'	3"=1'
1"=30'	6"=1'
1"=40'	1"=1'
1"=50'	

6.6.5 CREATING SYMBOLS

New symbols that are desired to be added to the Engineering Technology Standard will be documented and supplied to PTC’s Design Services Unit in digital format as either a single AutoCAD drawing file or OpenRoads drawing file, accompanied by a plot of the symbol, and a request to change standard.

PTC’s Design Services Unit will make the final decision on whether the symbol will be added to the Project Information Modeling & CAD Standards. Any newly created symbols for plans must comply with the requirements below.

6.6.5.1 CREATING SYMBOLS IN AUTOCAD AND CIVIL 3D

Any new symbols must comply with the following:

- Symbols will be created on Layer “0”.
- Colors and line types will always be set to “bylayer”, except for pen color 253 for the use of background solid hatch only.
- Text within the symbol will use 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, line types, text styles, etc.

6.6.5.2 CREATING SYMBOLS IN OPENROADS

Any new symbols must comply with the following:

- Symbols will be created on the Default Level.
- Colors and Line styles will always be set to “by level” except for pen color 253 for the use of background solid hatch only.
- Text within the symbol will use 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 0,0,0.
- The “base” of the drawing will be set to 0,0,0.
- The symbol drawing will be compressed of all unused cells, levels, line styles, text styles, etc.

6.7 REVIT GRAPHIC STANDARDS

The following Graphic standards are applicable to vertical construction primarily using Revit.

6.7.1 REVIT GENERAL GRAPHIC STANDARDS

6.7.1.1 OBJECT STYLES

Element's graphics, such as line weight, line style, and color must be set by the element's corresponding object style.

The baseline object styles are built into the PTC Template.

6.7.1.2 VISIBILITY AND GRAPHIC OVERRIDES

Visibility and Graphic Overrides must be incorporated into a view template when visibility and graphic settings apply to multiple views or view sets.

6.7.1.3 FILTERS

Filters must be used to override the graphic display and control the visibility of elements that share common properties in a view. Including their line color, line style, line weight, and whether the group of elements is visible. If a filter is required for multiple views or view sets then it must be incorporated into the View Template. For filter naming see section [8.4.10 Filter Naming](#).

6.7.1.4 MATERIALS

Sub-categories must first be used to assign general materials across many elements/families. If these settings need to be overridden, use material parameters to assign materials. Materials must be unique with unique material assets.

6.7.1.5 COLOR SCHEMES

Color Schemes must be used when graphically displaying information associated with rooms, areas, spaces, zones, pipes, or ducts.

6.7.1.6 MATCHLINES AND SECTOR IDENTIFIERS

Drawing sets that include sector plans will have uniform match lines referenced by all disciplines. The match lines, also referred to as sector lines, will be documented in the PxP. The building key plan in the title block will also refer to these sectors, as necessary.

6.7.1.7 ANNOTATIONS

Text may not be used to represent data that should be stored within a parameter. Tags must be used to annotate parametric information on a drawing.

Model elements may be represented with a Symbol as long as there is a 3D element that also exists to the proper LOD as defined in section [5.4 Level of Development \(LOD\) Definitions](#), and the symbol(s) are used consistently through the project.

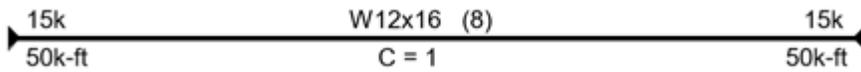
6.7.2 STRUCTURE

Overview of Revit graphic standards applicable to only Structure.

6.7.2.1 ANNOTATING AND TAGGING STRUCTURAL ELEMENTS

The template has several preloaded tags for columns, footings/piers, beams, and walls. How they are used will vary based on the project type and construction materials. See the images below for examples of how tags are applied to structural Framing components.

Figure 6-1 Beam with tags for type, studs, camber, and start/end reactions



6.7.2.2 STRUCTURAL ELEMENT DETAIL LEVEL

Structural Framing and other elements must be modeled to change with the Revit detail level of the view. For example, structural framing must appear as sticks in coarse detail level and then increase in level of detail for Medium and Fine detail level.

Table 6-4 Structural Framing Detail Level

Course	Medium	Fine

6.7.3 MEP

This section details specific requirements for the MEP team in relation to the overall graphic standards.

Tags

Built in Revit Shared Parameters (Comments, Mark, etc) will not be used for storing project data. These may be used for any internal purpose relevant to the specific team, but any data require by PTC will be hosted in the proper parameters as defined in section 5.7.2 Revit Parameter Management.

The tags listed below will be viewed as a “bare minimum”. All elements that are required for construction to occur will be noted and tagged.

Table 6-5 MEP Tags

Element Type	Required Tags
Equipment	Equipment ID Tag
Pipe & Ductwork	Size Tag, System tag, Elevation Tag (If Applicable)
Conduit & Cable Tray	Size Tag, System Tag (If Applicable)
Powered Elements	Circuit Tag, Panel Tag, Switch Tag (If Applicable)

Clearance Zones & Access Zones

Clearance Zones will display as a dashed line on Plan Views. In 3D views they will appear 85% transparent and be colored Red. Please refer to section 5.9.3.10 Families under the heading “Space Ownership” for more details.

7. DRAWING PRODUCTION

7.1 GENERAL STANDARDS

7.1.1 SHEET SIZES

All sheets will be plotted to full size ANSI D 22" x 34". All support files include the Title Block for ANSI D Sheets.

7.1.2 TITLE SHEET

Every plan set is required to have a title sheet as the topmost sheet with contents specified in section [7.2.1 Title Sheet](#).

7.1.3 PDF PLAN SETS

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

- From the current set of plot sheet files
- Full size: ANSI D (22x34)
- In black and white
- 300 dpi
- No Layers
- In consecutive order

NOTE: If a project requires "Full Project Length PDF" refer to [Section 7.7 Full Project Length PDFs](#) of this document for further guidance and information.

7.1.4 PLAN PRODUCTION FILES

7.1.4.1 DRAWING SHEETS

All drawing sheets must reference the Project Information Model. All modeled elements, components, and annotation must be taken directly from the model. Refrain from any manual insertion in the drawing sheets unless the information is unable to be a modeled component (i.e., revision clouds, etc.).

7.1.4.2 PLAN PRODCUTION TEMPLATES

All plan production template files are provided in the support files. For workflows utilizing the support files refer to [Appendix 14.2 Support File Locations](#).

All Revit template files include a cartoon set of sheets with standard symbols and annotations for drawing production provided in the support files.

7.1.4.3 PLAN PRODUCTION

7.1.4.3.1 CIVIL 3D PLAN PRODUCTION

7.1.4.3.1.1 SHEET SET MANAGER WORKFLOW

To create plot sheets, the PTC Standard-Sheet Set.dst file must be used. Open Sheet Set Manager via the application menu or by typing SSM at the command line. Select Open from the first drop-down list and navigate to the DST file.

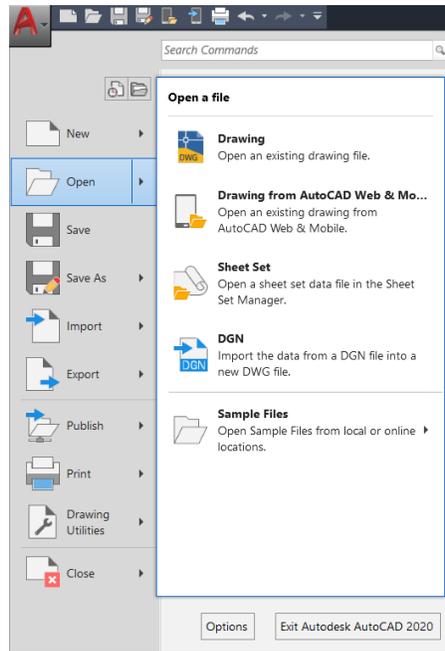


Figure 7-1 Open the Sheet Set from Application Menu

Step 1: Create a new sheet from the Sheet Set Manager.

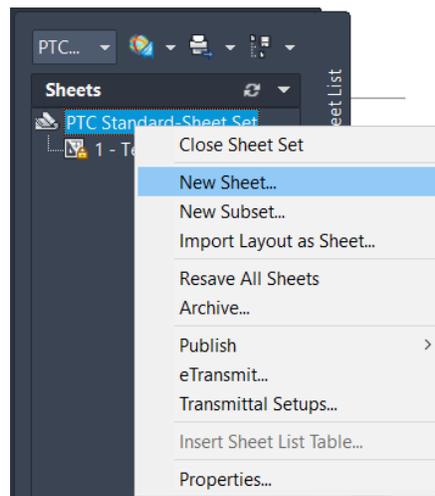


Figure 7-2 Create a New Sheet from the Sheet Set Manager

Step 2: When prompted for the drawing template file name, select the appropriate PTC standard sheet template. When using AutoCAD, the template titled “PTC Standard-Contract Borders.dwt” must be used. When using Civil 3D, the sheet template is selected according to the type of sheet that is being created from the following templates, “PTC Plan over Profile Sheet-C3D.dwt, PTC Plan Sheet-C3D.dwt, PTC Profile Sheet-C3D.dwt, and PTC Section Sheet-C3D.dwt”. Choose the appropriate layout size.

Step 3: Once the page size has been selected, the new sheet dialogue box opens prompting the user to number the sheet, provide the sheet title, and the name of the file.

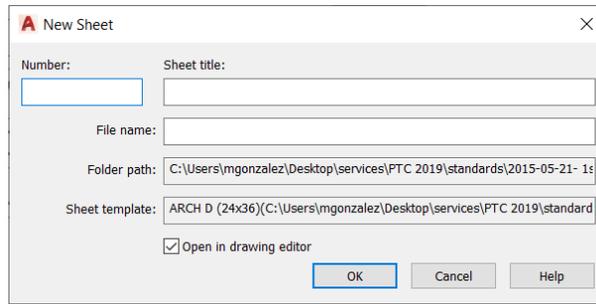


Figure 7-3 New Sheet Dialog Box

Step 4: To apply the proper project-specific text in the contract border, fill out the appropriate property within the sheet set by right clicking on the sheet set title in SSM and selecting Properties. There are two custom property sets, those for the entire sheet set which will be applied to all sheets (Sheet Set Custom Properties) and those for individual sheets within the sheet set which will be specific to each individual sheet (Sheet Custom Properties). The Sheet Custom Properties can be accessed by right-clicking on the sheet name in SSM and selecting Properties. The sheet number and sheet name are determined upon creation of the sheet in Step 3 and can be renumbered/renamed at any time.

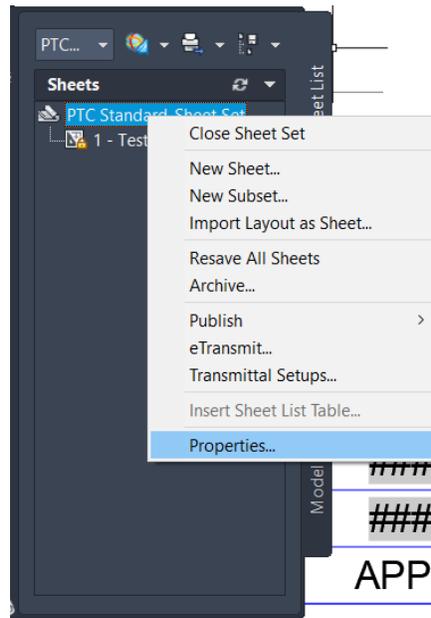


Figure 7-4 Open Sheet Set Properties

A Sheet Set Properties - PTC Standard-Sheet Set ✕

Sheet Set ▼

Name	PTC Standard-Sheet Set
Sheet set data file	C:\Users\mgonzalez\Desktop\services\PTC 2019\standards\2...
Description	
Model view	
Label block for views	
Callout blocks	
Page setup overrides file	

Project Control ▼

Project number	Do Not Fill
Project name	Do Not Fill
Project phase	Do Not Fill
Project milestone	Do Not Fill

Sheet Custom Properties ▼

Drawing Number	Insert Value
Drawing Scale	AutoFill
Drawing Type	Insert Value
File Name	AutoFill
Revision 1 Approved By	Insert Value or "Alt 0160" for Blank
Revision 1 Date	
Revision 1 Description	
Revision 1 Number	
Revision 2 Approved By	
Revision 2 Date	
Revision 2 Description	
Revision 2 Number	
Revision 3 Approved By	
Revision 3 Date	
Revision 3 Description	

Figure 7-5 Sheet Set Properties

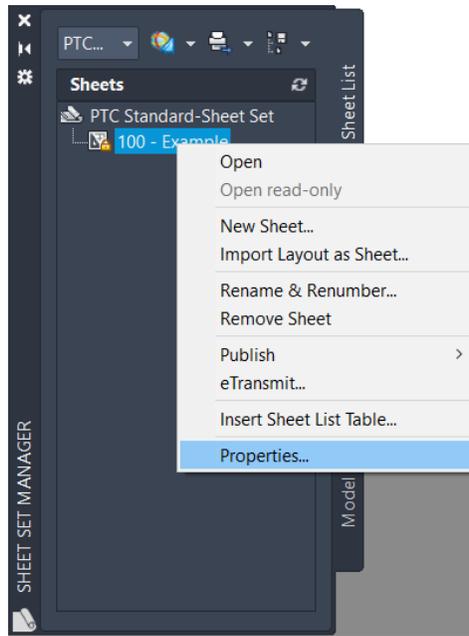


Figure 7-6 Open Sheet Properties

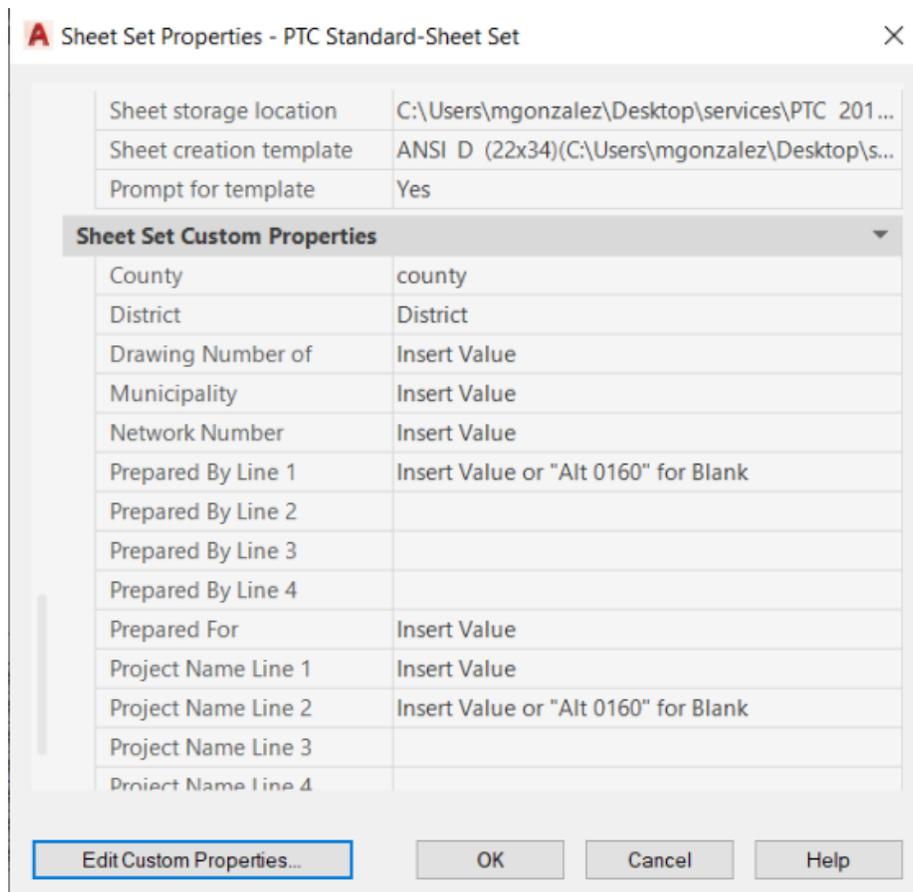


Figure 7-7 Sheet Properties

The following table indicates which properties are controlled by the sheet set and which by the sheet.

Table 7-1 Sheet Set and Sheet Properties

<i>Field #</i>	<i>Property Definition</i>	<i>Sheet Set or Sheet</i>
1	Drawing Number	Sheet
2	Drawing Scale	Sheet
3	Drawing Type	Sheet
4	File Name (AutoFill)	Sheet
5	Revision 1 Approved By	Sheet
6	Revision 1 Date	Sheet
7	Revision 1 Description	Sheet
8	Revision 1 Number	Sheet
9	Revision 2 Approved By	Sheet
10	Revision 2 Date	Sheet
11	Revision 2 Description	Sheet
12	Revision 2 Number	Sheet
13	Revision 3 Approved By	Sheet
14	Revision 3 Date	Sheet
15	Revision 3 Description	Sheet
16	Revision 3 Number	Sheet
17	Revision 4 Approved By	Sheet
18	Revision 4 Date	Sheet
19	Revision 4 Description	Sheet
20	Revision 4 Number	Sheet
21	Revision 5 Approved By	Sheet
22	Revision 5 Date	Sheet
23	Revision 5 Description	Sheet
24	Revision 5 Number	Sheet
25	Revision 6 Approved By	Sheet



Field #	Property Definition	Sheet Set or Sheet
26	Revision 6 Date	Sheet
27	Revision 6 Description	Sheet
28	Revision 6 Number	Sheet
29	Revision 7 Approved By	Sheet
30	Revision 7 Date	Sheet
31	Revision 7 Description	Sheet
32	Revision 7 Number	Sheet
33	Sheet Name Line 1	Sheet
34	Sheet Name Line 2	Sheet
35	Sheet Name Line 3	Sheet
36	Sheet Name Line 4	Sheet
37	Sheet Name Line 5	Sheet
38	Sheet Number (AutoFill)	Sheet
39	Structure Number	Sheet
40	County	Sheet Set
41	District	Sheet Set
42	Drawing Number of	Sheet Set
43	Municipality	Sheet Set
44	Network Number	Sheet Set
45	Prepared By Line 1	Sheet Set
46	Prepared By Line 2	Sheet Set
47	Prepared By Line 3	Sheet Set
48	Prepared By Line 4	Sheet Set
49	Prepared For	Sheet Set
50	Project Name Line 1	Sheet Set
51	Project Name Line 2	Sheet Set

<i>Field #</i>	<i>Property Definition</i>	<i>Sheet Set or Sheet</i>
52	Project Name Line 3	Sheet Set
53	Project Name Line 4	Sheet Set
54	Project Name Line 5	Sheet Set
55	Sheet Number of	Sheet Set
56	WSB Number	Sheet Set

7.1.4.3.1.2 CIVIL 3D PLAN PRODUCTION WORKFLOW

Civil 3D’s Plan and Production Tools can be used for automated sheet creation. The following types of sheets can be created using these tools:

- Plan Sheets
- Profile Sheets
- Section Sheets
- Plan over Profile Sheets

7.1.4.3.1.2.1 Steps for Creating Plan and Profile Sheets

The steps for creating plan and profile sheets are described below:

Step 1: Create view frames along an alignment by selecting the Create View Frames button on the Plan Production Panel on the Output Tab of the Ribbon.

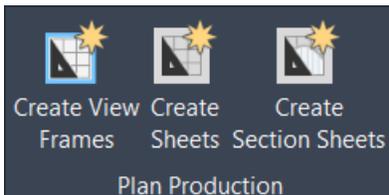


Figure 7-8 Plan Production Panel

Step 2: Set the view frame group properties in the Create View Frames manager. The view frame group properties include the alignment, size of the view frames, view frame rotation, and various styles.

Step 3: Choose the appropriate template file; PTC Plan over Profile Sheet-C3D.dwt, PTC Plan Sheet-C3D.dwt, or PTC Profile Sheet-C3D.dwt for automated sheet production. Template files contain empty sheet layouts that are used to populate the automatically created sheets. Template files can be set up for Plan View, Profile View, or Plan over Profile view at predetermined scales.

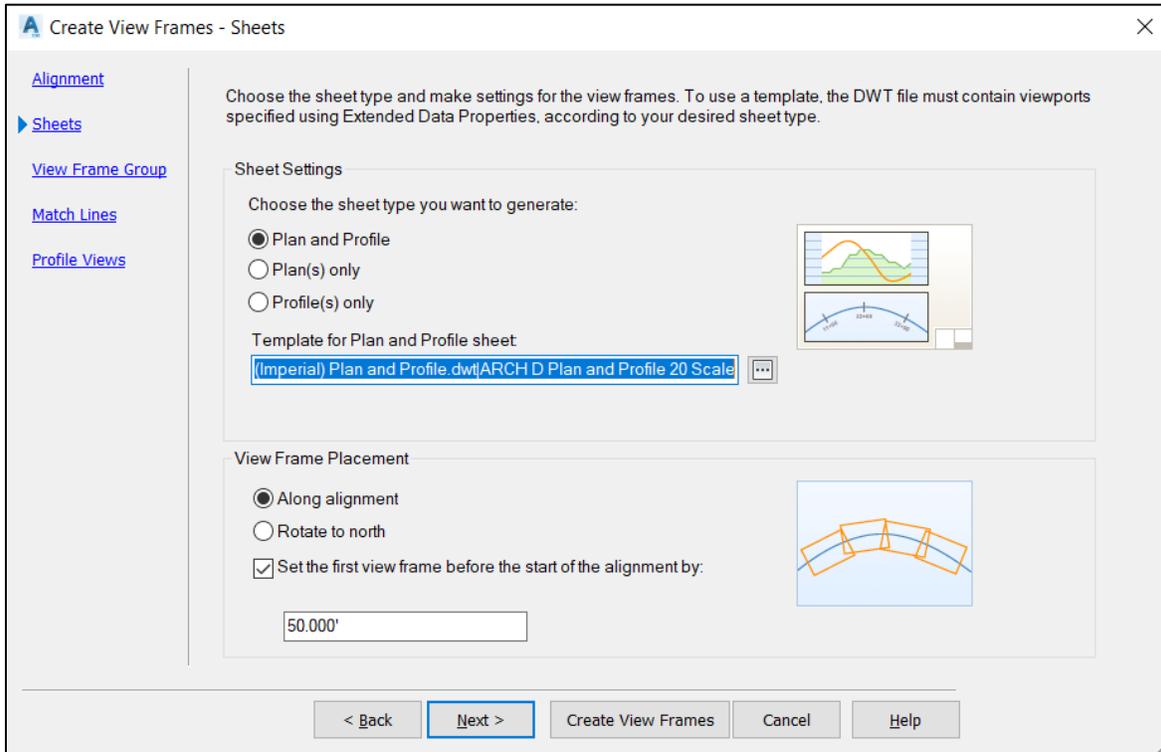


Figure 7-9 Create View Frames Manager

Step 4: Select the Create View Frames button to create view frames along the alignment. The sheets are created in the following step.

Step 5: Select the Create Sheets button on the Plan Production Panel on the Output Tab of the Ribbon.

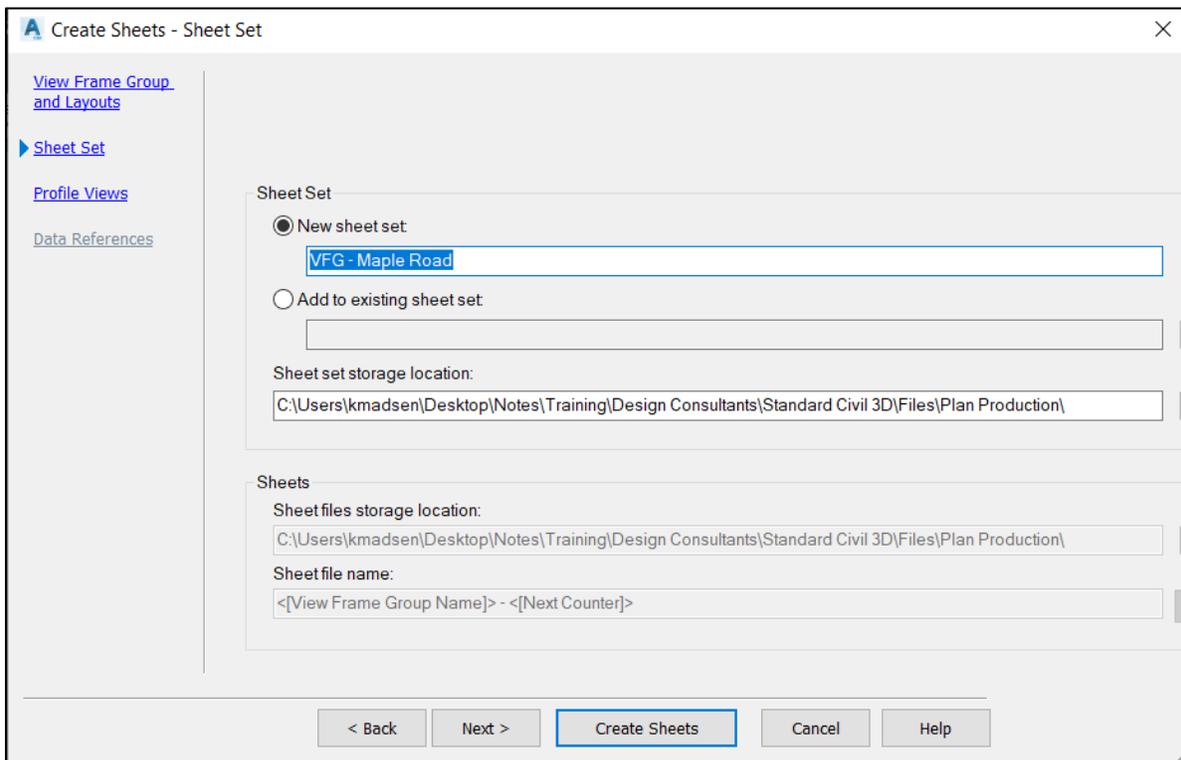


Figure 7-10 Create Sheets Manager

Step 6: In the Create Sheets Manager, users can choose to save the created sheets in the current drawing or a new drawing. Sheets can be added to a new sheet set or an existing sheet set. Select the Create Sheets button to create the sheets. The sheet names will be listed in the Sheet Set Manager.

7.1.4.3.1.2.2 Steps for Creating Section Sheets

Cross Section Sheets must be created at 5 Scale or 10 Scale, ANSI D 22x34.

The steps for creating section sheets are described below:

Step 1: Create section views for a sample line group using the Create Multiple Views button on the Profile and Section Views panel on the Home tab of the Ribbon.

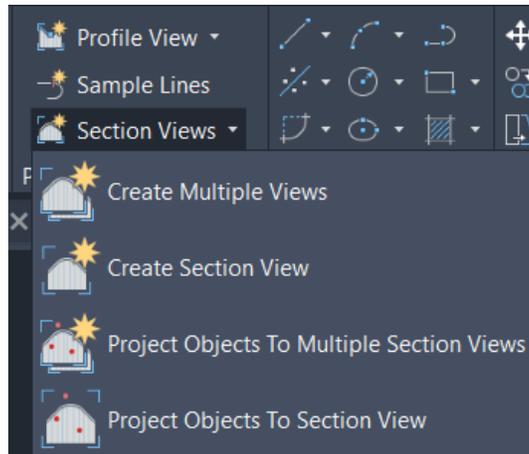


Figure 7-11 Create Multiple Views

Step 2: In the Create Multiple Section Views manager section view properties can be assigned. The sheets production template, PTC Section Sheet-C3D.dwt, must be selected here for automated sheet creation.

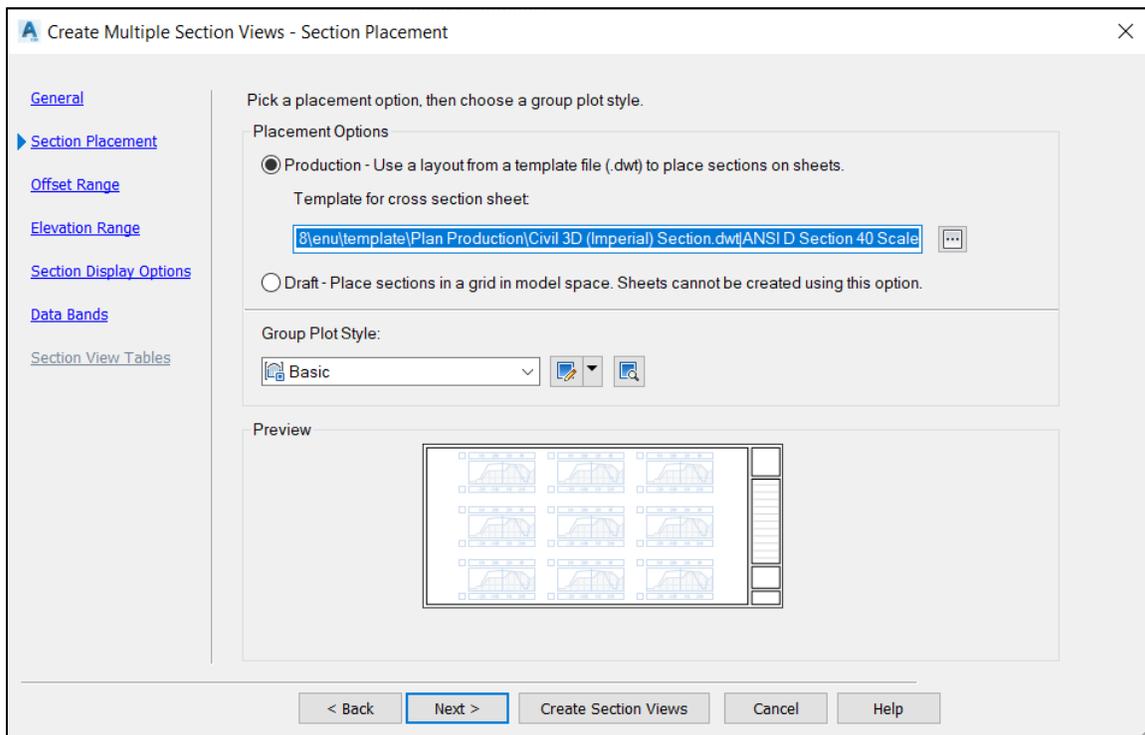


Figure 7-12 Create Multiple Section Views Manager

Step 3: Select the Create Section Views button to create the section views.

Step 4: To create section sheets, select the Create Section Sheets button on the Plan Production Panel on the Output Tab of the Ribbon.

Step 5: In the Create Section Sheets Manager, users can choose to create a new sheet set or add the created sheets to an existing sheet set. Note that all the created layouts will be created in the current drawing.

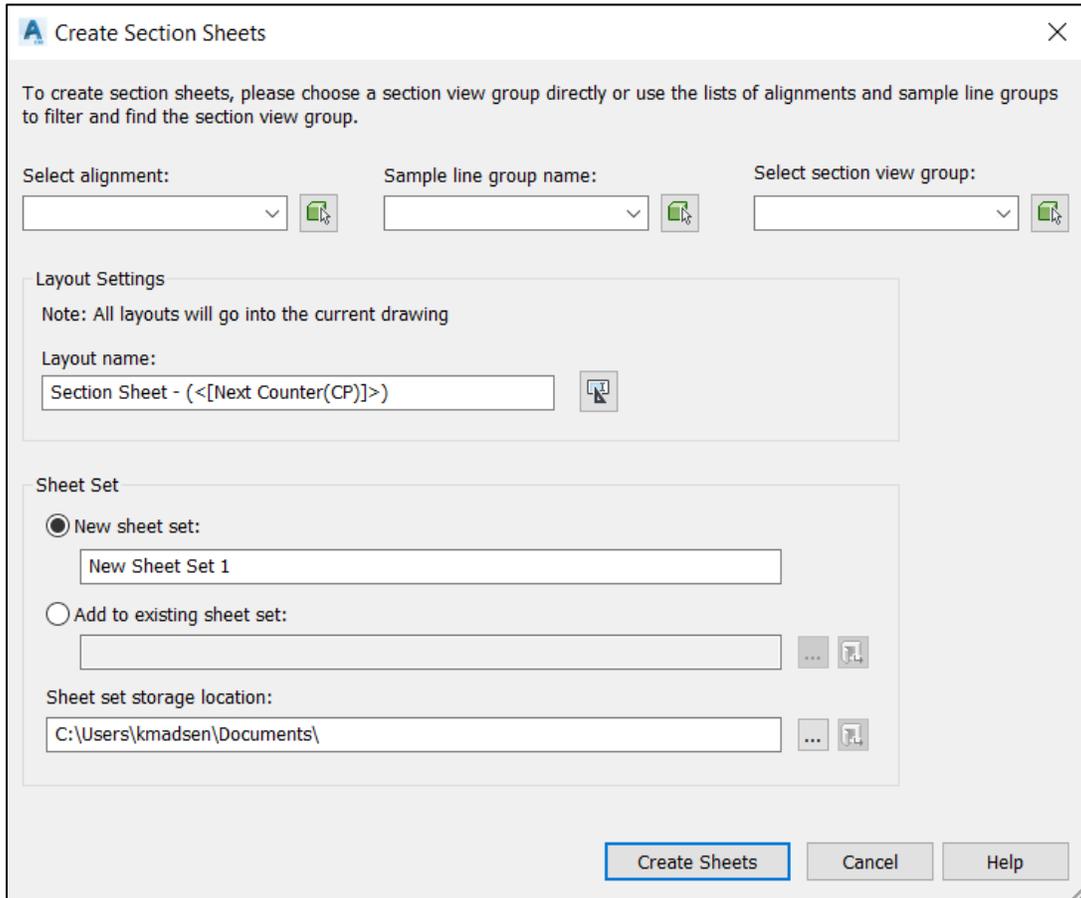


Figure 7-13 Create Section Sheets

7.1.4.3.2 OPENROADS DESIGNER PLAN PRODUCTION

7.1.4.3.2.1 SHEET INDEX WORKFLOW

OpenRoads Designer has a sheet index available for each WorkSet to assist with sheet production. The DGNWS file located in each WorkSet folder, loads a Sheet Index into Project Explorer that can be utilized with sheet creation. When creating a WorkSet, it is imperative for the template to reference the WorkSet 'Example Project' or take appropriate workflows to copy the DGNWS to be linked to a WorkSet. This will ensure that the DGNWS file has the same custom properties that were created for the PTC title blocks a part of sheet DGNLIBs.

The DGNLIBs that hold all the sheet standards and title blocks are located on your server's location of 'Bentley\OpenRoads Designer CE\Configuration\Organization-Civil\PTC CAD Standards\Dgnlib\Sheet Seeds'. The title blocks in these files all have custom properties built in to reference the sheet index, this includes all properties listed in the table below.



Table 7-2 Sheet Index and Sheet Properties

<i>Property Definition</i>	<i>Sheet Index or Sheet Properties</i>
Drawing Number	Sheet Properties
Drawing Type	Sheet Properties
File Name (AutoFill)	Sheet Properties
Revision 1 Approved By	Sheet Properties
Revision 1 Date	Sheet Properties
Revision 1 Description	Sheet Properties
Revision 1 Number	Sheet Properties
Revision 2 Approved By	Sheet Properties
Revision 2 Date	Sheet Properties
Revision 2 Description	Sheet Properties
Revision 2 Number	Sheet Properties
Revision 3 Approved By	Sheet Properties
Revision 3 Date	Sheet Properties
Revision 3 Description	Sheet Properties
Revision 3 Number	Sheet Properties
Revision 4 Approved By	Sheet Properties
Revision 4 Date	Sheet Properties
Revision 4 Description	Sheet Properties
Revision 4 Number	Sheet Properties
Revision 5 Approved By	Sheet Properties
Revision 5 Date	Sheet Properties
Revision 5 Description	Sheet Properties
Revision 5 Number	Sheet Properties
Revision 6 Approved By	Sheet Properties
Revision 6 Date	Sheet Properties



<i>Property Definition</i>	<i>Sheet Index or Sheet Properties</i>
Revision 6 Description	Sheet Properties
Revision 6 Number	Sheet Properties
Revision 7 Approved By	Sheet Properties
Revision 7 Date	Sheet Properties
Revision 7 Description	Sheet Properties
Revision 7 Number	Sheet Properties
Sheet Name Line 1	Sheet Properties
Sheet Name Line 2	Sheet Properties
Sheet Name Line 3	Sheet Properties
Sheet Name Line 4	Sheet Properties
Sheet Name Line 5	Sheet Properties
Sheet Number (AutoFill)	Sheet Index
Structure Number	Sheet Properties
County	Sheet Index
District	Sheet Index
Drawing Number of	Sheet Index
Municipality	Sheet Index
Network Number	Sheet Index
Prepared By Line 1	Sheet Index
Prepared By Line 2	Sheet Index
Prepared By Line 3	Sheet Index
Prepared By Line 4	Sheet Index
Project Name Line 1	Sheet Index
Project Name Line 2	Sheet Index
Project Name Line 3	Sheet Index
Project Name Line 4	Sheet Index

<i>Property Definition</i>	<i>Sheet Index or Sheet Properties</i>
Project Name Line 5	Sheet Index
Sheet Number of	Sheet Index
WSB Number	Sheet Index

The following steps discuss how to update the Sheet Index:

Step 1: Open Project Explorer and open the Sheet Index for editing (boxed in red below) per appropriate WorkSet.

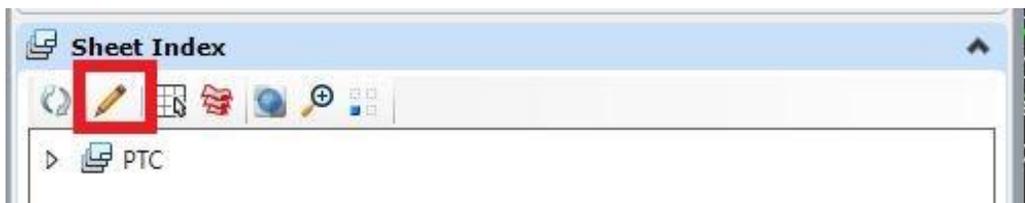


Figure 7-14 Open Sheet Index for Editing

Step 2: Add Sheets to Sheet Index. This can be completed by either dragging the sheet model from the Models dialog box and dropping it into the Sheet Index or by selecting 'Add Sheets' shown in figure below. If selecting Add Sheets this allows you to navigate through Windows Explorer and select any DGN file.

Note: Sheets can automatically be added to the Sheet Index when creating drawing and sheet files via the plan production tools with Named Boundaries. Once sheets are added to the sheet index, they will automatically update the sheet number and total sheet number for all sheets in the set.

Step 3: Next, create folders based on how the project sheets are divided.

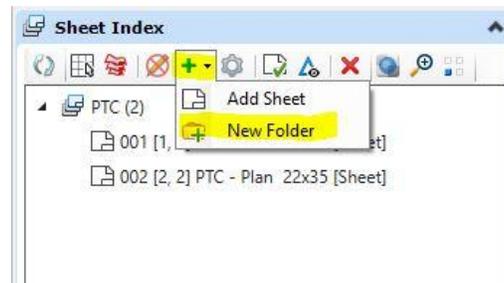


Figure 7-15 Add Folders to Sheet Index

Step 4: After arranging all the sheets, click on the "Update Sheet Properties" toolbox to update all the drawing and sheet numbers. Anything updated as part of the Index Properties will automatically update all sheets.



Figure 7-16 Manage Sheet Index - Update Properties

The drawing numbers will be arranged according to their order in the folders, while the sheet numbers will reflect the overall total for the project.

		WBS NO:	
		NETWORK NUMBER:	
		SHEET FILE NAME:	
		DISTRICT:	
		COUNTY:	
DRAWING: 001 OF 001		TOWNSHIP / BOROUGH:	
SHEET: 002 OF 002		DD:	SD:

Figure 7-17 Manage Sheet Index – Example Sheet Numbers

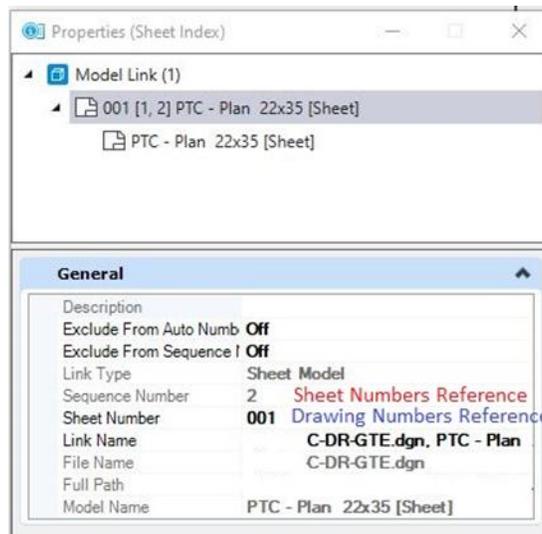
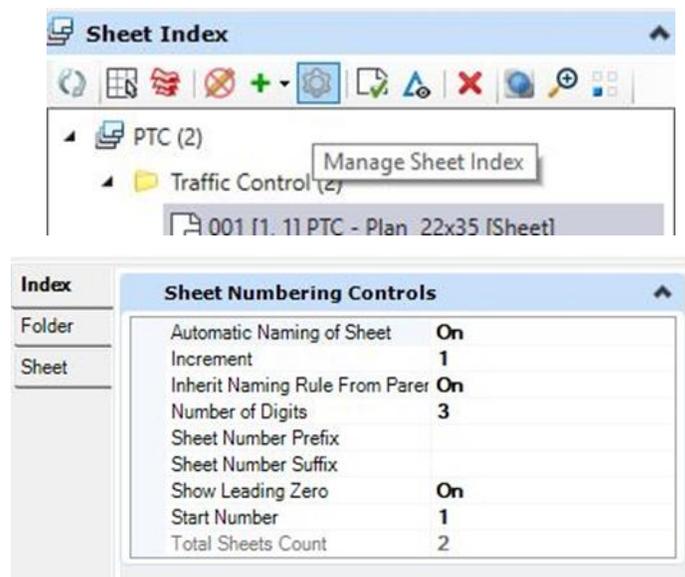


Figure 7-18 Manage Sheet Index - Update Properties

Step 5: Update the individual sheet properties by selecting the individual sheet in Project Explorer, then opening the Properties dialog and updating any appropriate information per sheet model (Figure 14-21).



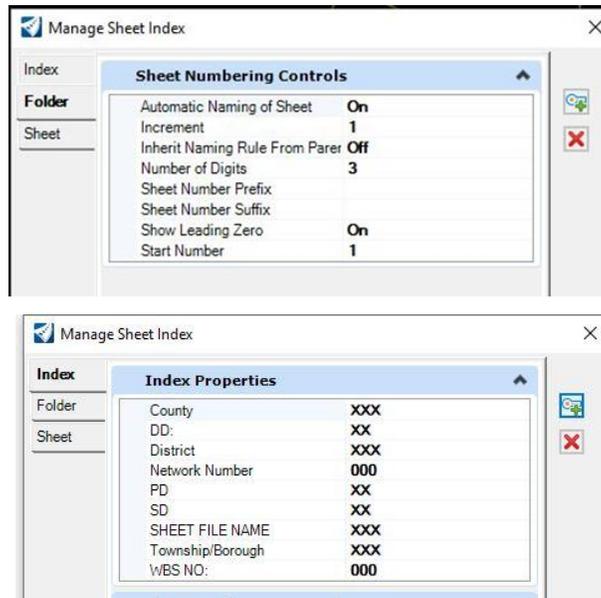


Figure 7-19 Sheet Index Properties

Step 5: Make sure to set the sheet index to read-only. This process ensures that your project sheets are well-organized and accurately indexed

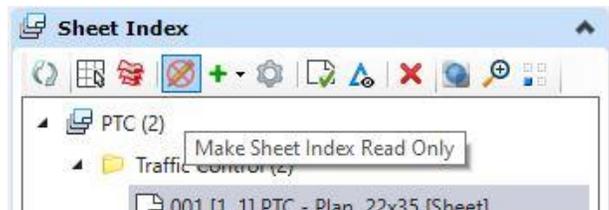


Figure 7-20 Lock Sheet Index

7.1.4.3.2.2 OPENROADS PLAN PRODUCTION WORKFLOW

OpenRoads Designer’s Plan and Production Tools can be used for automated sheet creation. The following types of sheets can be created using these tools:

- Plan Sheets
- Profile Sheets
- Section Sheets
- Plan over Profile Sheets

7.1.4.3.2.3 STEPS FOR CREATING PLAN, PROFILE AND CROSS SECTION SHEETS

The steps for creating plan and profile sheets are described below:

Step 1: Create Named Boundaries to define the clipping areas of the plan and profile sheets along an alignment. You can create new Named Boundaries by selecting the icon under the Drawing Production tab. The named boundary dialog box presents the following options for creating Drawings:



Civil Plan



Civil Profile



Civil Cross Section

Step 2: Select the appropriate Drawing Seed for the sheet and scale (i.e., 'ANSI D Plan Sheet - 50 Scale'). This will automatically populate the Detail Scale, Offsets, and Length for the named boundary. Select the start and stop location along the alignment.

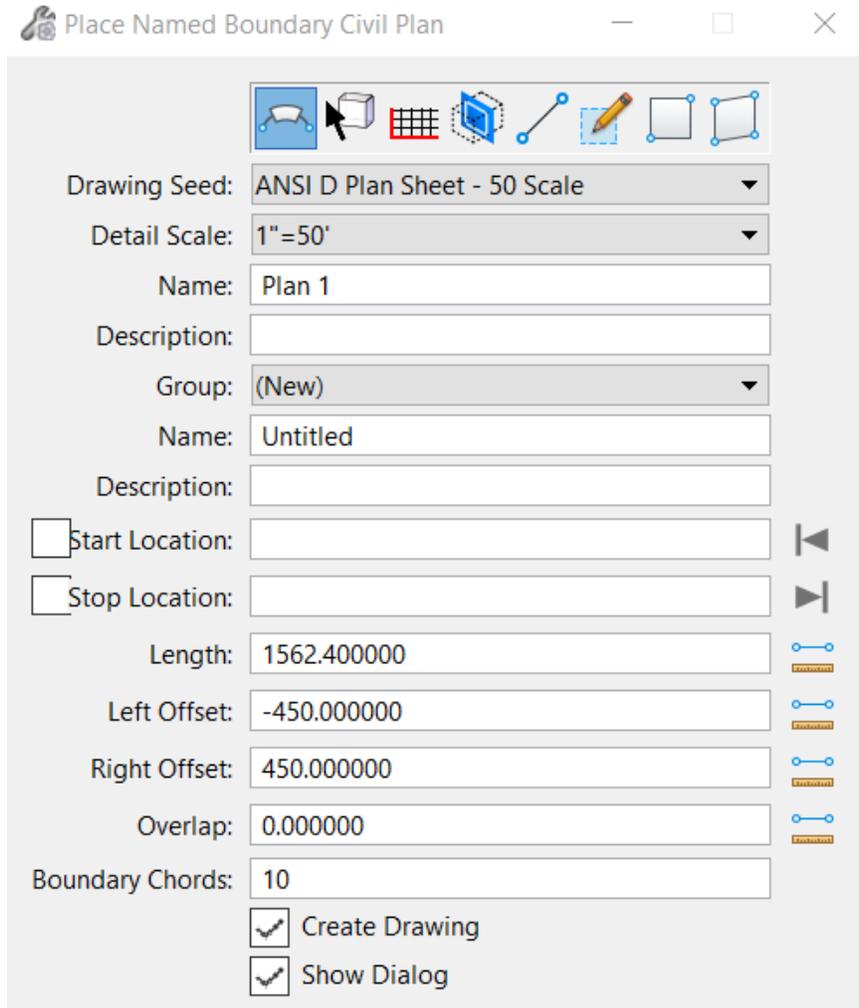


Figure 7-21 Named Boundary Dialog for Civil Plans

Step 3: Once the Named Boundary is created, a Create Drawing Dialog box will display. If the Drawing Seed was previously selected in the Named Boundary dialog box, then the appropriate sheet models and scale sizes will automatically populate. Annotation groups can be added, or any other settings adjusted.

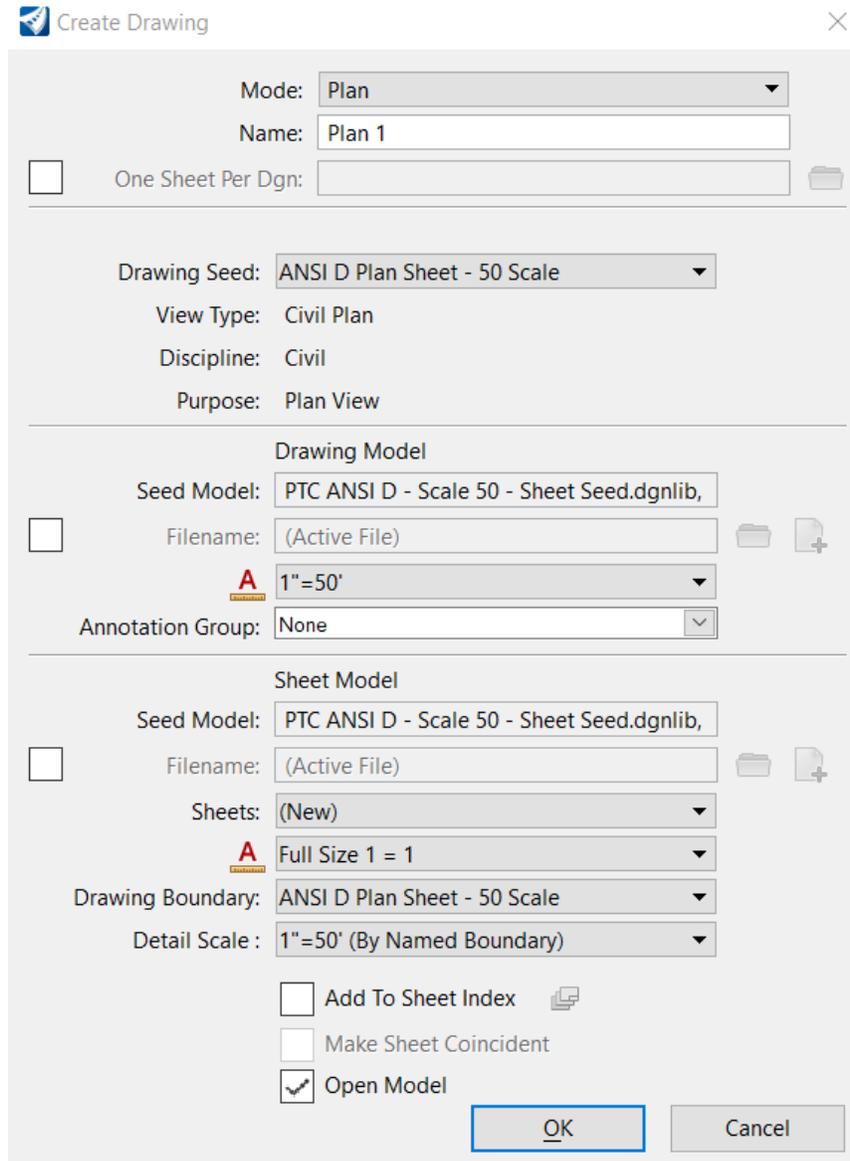


Figure 7-22 Create Drawing Dialog Box

Step 4: Create Sheet Models. This will automatically populate a sheet model with the appropriate border attached, named boundary, and external references from the model. Any additional annotations are placed within the created drawing models, not the sheet models.

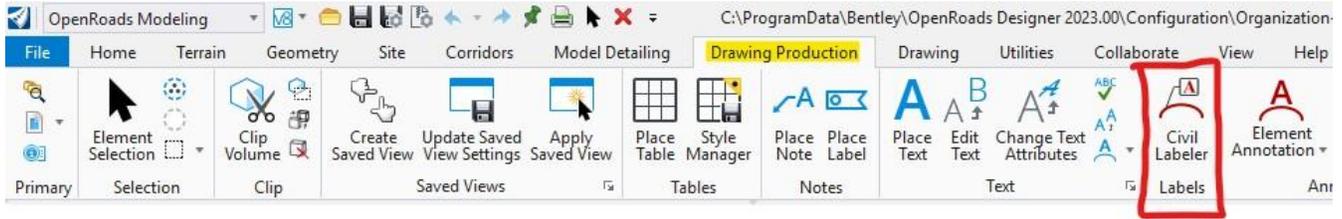
7.1.4.3.2.4 CROSS SECTION SHEETS

Cross Section sheets are created similarly to Plan and Profile sheets. Cross sections can be created after a corridor is designed. All cross-section sheets are created in their own design file with all appropriate references attached to this file. Cross sections are generated from what is displayed in the Default-3D model, which means only 3D elements will be displayed within cross sections. Open the 3D model to see what will be cut into the cross sections. Then, once created, the named boundaries are placed in the 3D model relative to a selected alignment.

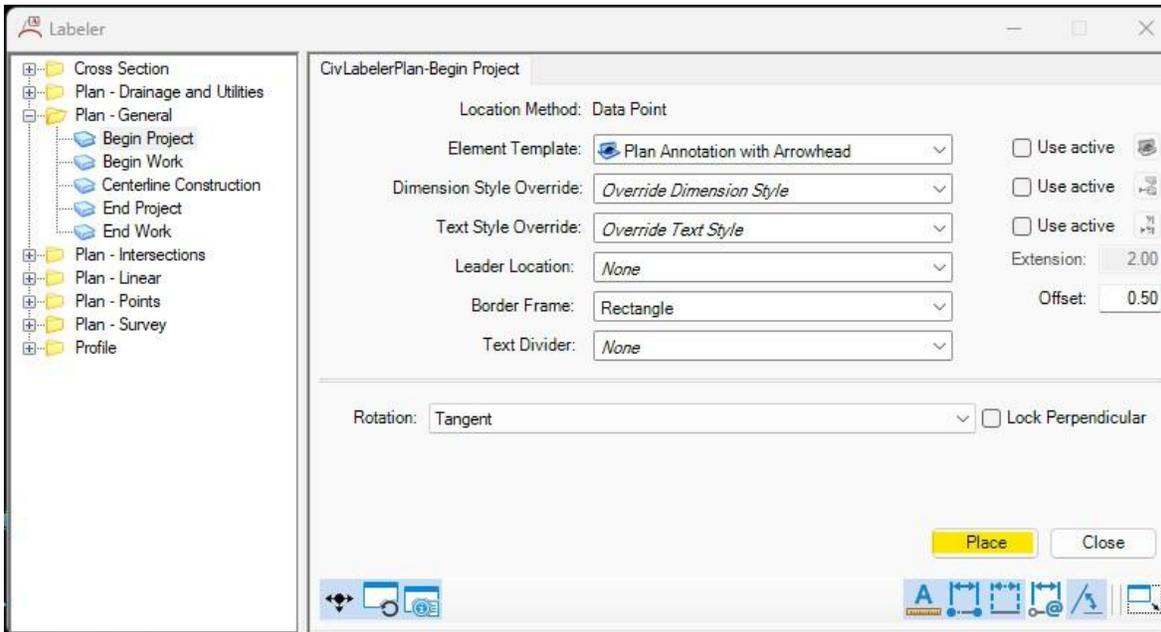
Cross Section Sheets must be created at 5 Scale or 10 Scale, ANSI D 22x34.

7.1.4.3.2.5 OPENROADS CIVIL LABELER WORKFLOW

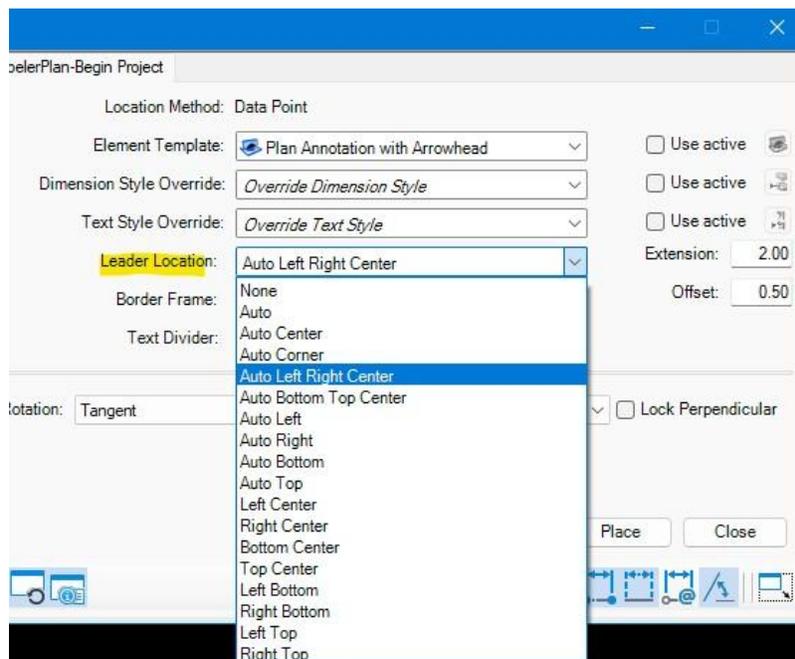
In OpenRoads Select the “OpenRoads Modeler” or “OpenRoads Drawing Production” Workflow. Then Select the Drawing Production Tab. Once on that Tab select the Civil Labeler Tool.



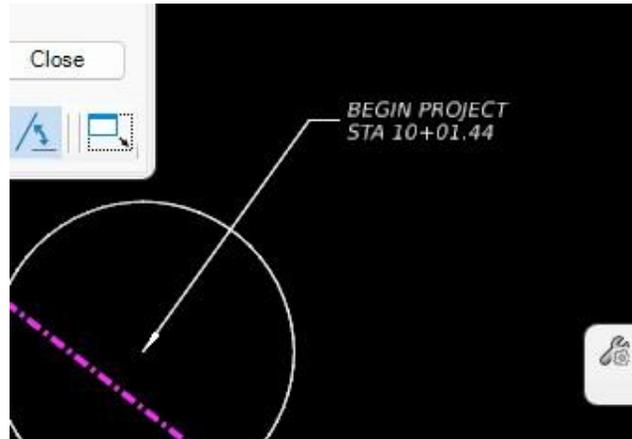
Once the Civil Labeler Dialog Box opens Select the desired Label from the left side of the box.



On the right side of the dialog box, you will set up the label. Under Label Leader you choose how you would like the leader line to attach to the text aspect of the label.



Once you have it set up the way you would like, click “Place” and follow the prompts.



7.1.4.3.3 PLAN PRODUCTION TEMPLATES PRODUCTION

Below lists the available plan production templates included in the standard support files for all roadway and horizontal plans.

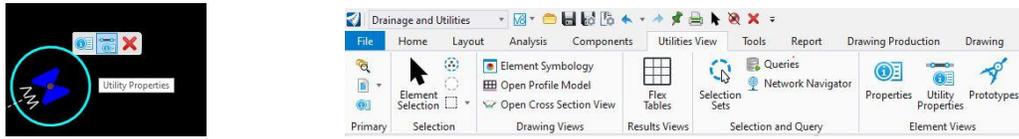
Table 15-5 Available Sheet Templates (C3D) and Sheet Seed Files (ORD) Plan Production

<i>Plan Sheet</i>	<i>Plan over Profile Sheet</i>	<i>Profile Sheet</i>	<i>Section Sheet</i>
ANSI D (22x34) 20 Scale	ANSI D (22x34) 20 Scale	ANSI D (22x34) 20 Scale	ANSI D (22x34) 5 Scale
ANSI D (22x34) 25 Scale	ANSI D (22x34) 25 Scale	ANSI D (22x34) 25 Scale	ANSI D (22x34) 10 Scale
ANSI D (22x34) 40 Scale	ANSI D (22x34) 40 Scale	ANSI D (22x34) 40 Scale	
ANSI D (22x34) 50 Scale	ANSI D (22x34) 50 Scale	ANSI D (22x34) 50 Scale	
34 x 36			
34 x 48			
34 x 60			
34 x 72			
34 x 96			
34 x 108			
34 x 120			

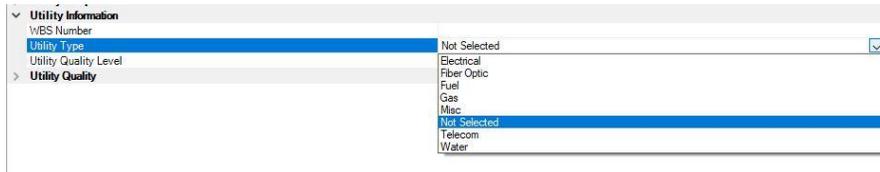
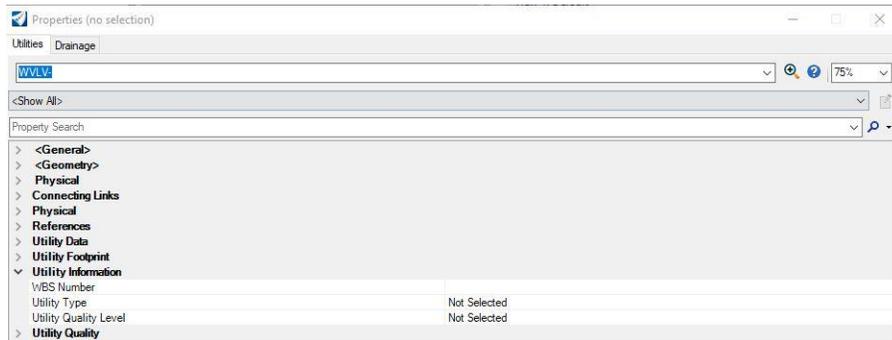
For Bentley ORD, all sheet seed files are saved as DGNLIBs. Any unnecessary Sheet Seeds can be deleted to increase loading time.

7.1.4.3.4 PLAN PRODUCTION UTILITY PROPERTIES

To access the Utility Properties of a Utility Node you will select the desired Node and wait for the dialog box in which you select “Utility Properties”. You can also access the “Utility Properties” on the “Drainage and Utility Ribbon under the “Utilities View” Tab. Both are displayed below.



This will bring up the Utility Properties dialog box. Scroll down to the Utility Information section and there you can input the necessary information, i.e., WBS Number, Utility Type, Utility Quality Level. WBS Number is a manually inputted value whereas Utility Type and Utility Quality Level both have pull down menu selections.



7.2 ROADWAY AND HORIZONTAL CONSTRUCTION DRAWINGS

All plan set submittals will have all contents specified in the following sections.

7.2.1 TITLE SHEET

- Headings and title of plan
- WBS Number
- County or Counties
- Township, Borough, or City
- Milepost range to the nearest hundredth
- Location of project on state map
- Engineer's Seal - Plans prepared by consultants will have a small block at the bottom of the Title Sheet indicating the name and address of the consultant, the signature, title, and seal of the person responsible for the preparation of the plans and the date.
- Surveyor's Seal when applicable

7.2.2 INDEX SHEET

- Index Map – the index map needs to be placed on the index sheet, using a scale no smaller than 1"=400' and will show the following data, where applicable:
 - Construction centerline and stations identified at maximum 500 ft intervals
 - Edge of existing pavement
 - Turnpike Number, State Routes, and Township Roads (show posted traffic route numbers)
 - Local road names
 - Railroads
 - Edge of streams (identify major streams)
 - Outline of proposed and existing bridges
 - Political subdivisions
 - Milepost labels containing milepost number and stations
 - Limit of workstations on the Turnpike
 - Ex: LIMIT OF WORK
 - STA 675+00.00
 - MP 29.62
 - SPRING RUN TOWNSHIP
 - FRANKLIN COUNTY
 - Temporary roadways
 - "Stop Work" and "Start Work" stations on all "Also" routes, crossroads, temporary roadways, temporary connections, service roads, railroad-Turnpike grade crossings, reconditioning of abandoned state highways and Turnpike mainlines where the first work starts, and the last work stops.
 - Ex: STOP WORK
 - STA 240+50.00
 - MP 101.95
 - Equality stations
 - Property lines and owners' names. Property owners' names will be spelled out exactly as shown on the deed. Parcel identification numbers corresponding to those assigned on the plan sheet will appear in their proper location. When the scale is too small and/or properties are too numerous, code properties with the parcel identification number and tabulate the property owners' names elsewhere on this sheet.
 - Sections of roadway to be abandoned or vacated need to be shown and identified.
 - Limits of project covered within each plan sheet with the plan sheet number identified in the legend.
 - Legend with symbols identifying plan, profile, etc.
 - Tabulation of overall length – will include a table of mainline and ramp stations and the lengths of roadway they represent including a total length.
 - North arrow and bar scale
 - Abandonment notes (same as on the right-of-way plan)

- Straight line diagram data
- If the project only requires one plan sheet and the above information can be shown, then an index map is not required.

7.2.3 LIST OF CONTRACT DRAWINGS AND GENERAL NOTES SHEET(S)

- General Notes
- Utility Notes
- Tabulation of Station Equalities
 - Station Equations for same alignment
 - Example: Station Back 145+38.90 = Station Ahead 1000+00
 - Station Equations for two alignments
 - Example: Ramp D Station 100+50.75 = SR0015 Station 237+87.77, 34' RT
- Standard Drawings List – include Standard Drawing Number, Description, and Drawing Date
- Electronic Files Identified as For Information Only
- Earthwork Summary Entire Project (*Figure 7-1*)
- List of Contract Drawings (*Figure 7-2*)
- Electronic Files Identified as For Information Only (*Figure 7-3*)
- Special Details – can be placed on subsequent sheets.
- Summary of Quantities including:
 - All items with their respective quantities payable under the Construction Contract will be tabulated on a Summary of Quantities Sheet and be made part of the Plan Set.

Figure 7-23 Example Earthwork Summary Table

EARTHWORK SUMMARY ENTIRE PROJECT										
THE INFORMATION ON ESTIMATED AMOUNTS OF EARTHWORK HAS BEEN USED IN THE PRELIMINARY ESTIMATE. DO NOT USE A WAIVER OF ANY PROVISIONS OF THE SPECIFICATIONS AND CONTRACTS.										
CLASS 1 (ROCK)	CUBIC YARDS OF EXCAVATION						CUBIC YARDS OF COMPLETED EMBANKMENT	CUBIC YARDS OF BORROW EXCAVATION	CUBIC YARDS OF SELECT BORROW	CUBIC YARDS OF WASTE
	CLASS 1	CLASS 1A	CLASS 1B	CLASS 2	CLASS 3	CLASS 4				
2	290	12	48	21	0	0	0	0	0	373

Figure 7-24 List of Contract Drawings Example

LIST OF CONTRACT DRAWINGS	
DESCRIPTION	SHEET
TITLE SHEET	1
INDEX MAP	2
LOCATION MAP	3
TYPICAL SECTIONS	3 TO 6
SUMMARY SHEETS	7 TO 9
TABULATION SHEETS	10 TO 14
PLAN SHEETS	15 TO 37

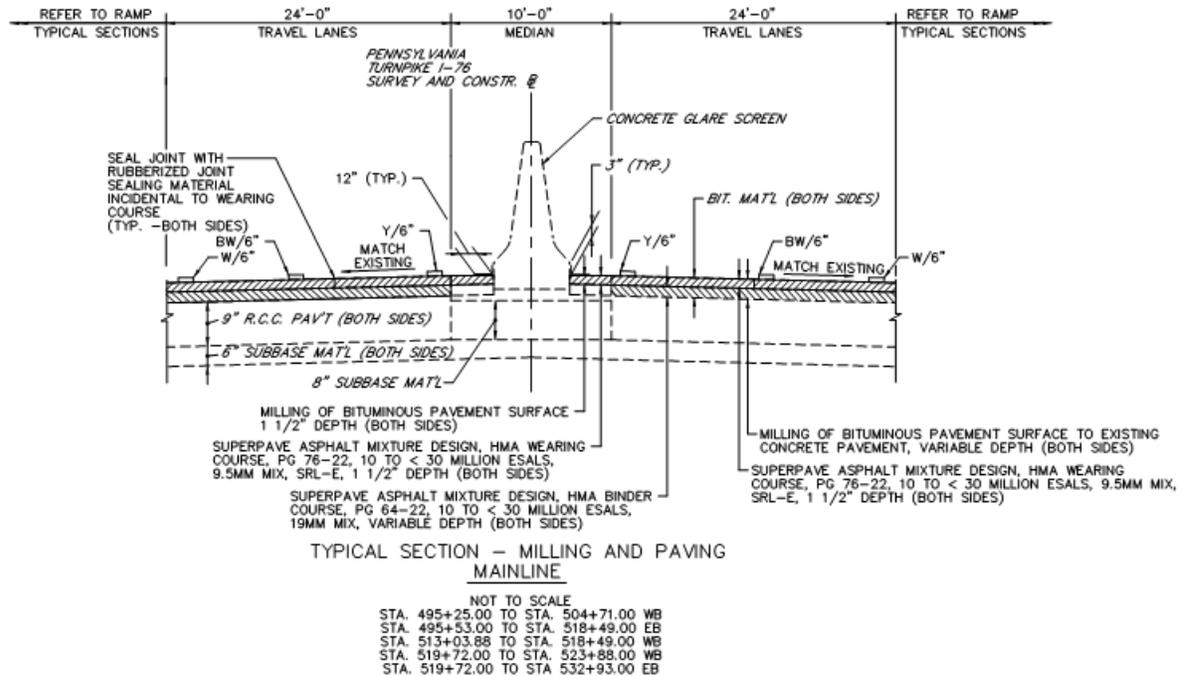
Figure 7-25 Example Electronic Files Identified as For Information Only

ELECTRONIC FILES IDENTIFIED AS FOR INFORMATION ONLY		
FILE NAME	FILE DESCRIPTION	DATE/TIME
T283.3-C-AL-GTE	ALIGNMENT	6/1/2022 10:35:15 AM
T283.3-C-GR-GTE-SWM	STORMWATER GRADING	6/2/2022 12:40:23 AM

7.2.4 TYPICAL SECTION SHEET(S)

- All detailed typical sections in the project including station ranges.

Figure 7-26 Example of Typical Section



7.2.5 TABULATION OF PROJECT COORDINATES SHEET(S)

- Tabular summary of project coordinates including:
 - Coordinate System (state plane)
 - Note describing any scale factors to convert coordinates, if applicable
 - Route
 - Station
 - Point Type
 - Coordinates (Northing and Easting)
 - Bearing

7.2.6 SUMMARY AND TABULATION OF QUANTITIES SHEET(S)

- Pay Items
- Item Numbers
- Quantities
- Reference Special Provisions
- Reference Supplemental Plans
- Alternates

7.2.7 CONSTRUCTION PLAN SHEETS

- Identification Blocks
- Construction and Survey Baselines with geometry labels indicating station and point type (PC, PT, etc.), station labels at 100' increments with ticks at 50' increments, and Curve Data Labels
 - Curve Data Label Example:
 - PI STA 5119+46.78
 - $\Delta = 32^{\circ}34'29''$
 - T = 558.02'
 - L = 1085.82'
 - R = 1909.86'
 - E = 76.65'
 - SE = 8.00%
 - Spiral Curve Data Label Example:
 - PI STA 283+10.29
 - $\Delta = 51^{\circ}45'41''$ RT
 - $\Delta c = 41^{\circ}06'41''$
 - D = 3^{\circ}00'00''
 - Rc = 1909.86'
 - Lc = 1370.38'
 - $\theta_s = 5^{\circ}24'00''$
 - Ls = 360.00'
 - Ts = 1111.00'
 - Es = 217.40'
 - k = 179.95'
 - p = 2.83'
 - xc = 359.68'
 - yc = 11.30'
 - LT = 240.11'
 - ST = 120.10'
 - LC = 359.86'
 - SE = 8.00%
- Superelevation Table – indicates the superelevation stations including transition locations.
- Structure Data
- Bearings
- Benchmarks
- Construction and Survey Profiles – Determine whether the plan and profile can be displayed on the same sheet. If this cannot be achieved then enclose a rectangle at the bottom inside border of the sheet with referenced text “FOR PROFILE, SEE SHEET XX”. All profiles will include the information listed below for ‘Construction and Survey Profile Sheets’.
- Limits of Work via Stations
- Existing Topography elements, including roads, streets, driveways, utilities, etc.
- Intersection baseline and curve data
- Milepost Labels including Milepost number and station
- Proposed Work
- Right-of-Way lines and Easements – Labeled with Station and Offset
- Property Lines and Owners
- Utilities – Drainage utilities will include labels containing Station, Offset, Rim Elevation, Invert Elevation, Pipe Size, Pipe Material (if known)
- North Arrow
- Bar Scale
- Abandoned, Removed, or Vacated
- Match Lines



- Engineer’s Seal - Plans prepared by consultants will have a small block at the bottom of the Title Sheet indicating the name and address of the consultant, the signature, title, and seal of the person responsible for the preparation of the plans and the date.

7.2.8 CONSTRUCTION AND SURVEY PROFILE SHEETS

- Proposed Roadway
- Stationing
- Elevation Range
- Existing ground line
- Proposed ground line
- Vertical Curve Data Labels
 - PVI Station
 - Elevation
 - VC
 - K
 - SSD or HLSD
 - PVC
 - PVT
 - Low/High Point Station
 - Low/High Point Elevation
- Percentage of Grade
- Vertical Curve Data
- Sight Distances
- Pipes*
- Inlets and Manholes*
- Channel Grade Line
- Structures
- Datum Elevations
- Limits of Work and Start/Stop Work Limits
- Engineer’s Seal
- Scale

**Note: A separate profile may be created for pipe runs due to limitations with 3D modeling software and cross section display. In this instance drainage information must be displayed as noted in the section below for cross section sheets. See section 5.6.2 Cross Sections for specifics on when a pipe profile run may be included in a plan set.*

7.2.9 CROSS SECTION SHEETS

- Proposed Roadway
- Station
- Existing ground line
- Proposed ground line
- Drainage Facilities – Pipes, Inlets, and Manholes*

Drainage structures shall be labeled to display the station, location left or right and a description, as shown in the manner below:

STA 10+08.25 18.90' LT
1 EA TYPE S TOP UNIT AND GRATE
1 EA STANDARD INLET BOX, HEIGHT ≤ 10'
INVERT ELEV 601.38

The invert elevations for transverse pipes that cross the centerline shall be labeled, as well as the invert for parallel pipes. An arrow indicating the direction of flow shall be shown on transverse pipes. However, on a single run of pipe with a straight grade, it is not required to show more than two station and invert elevation labels.

- Channel Grade Line
- Structures
- Right-of-Way Line
- Proposed Grade Line Elevations
- Proposed Offset
- Slope Labels
- Material Volume Table
- Scale
- Engineer's Seal

**Note: Drainage facilities will no longer be projected onto cross section sheets at the required 25' or 50' intervals. A cross section must be added for each drainage facility at its correct stationing and included within the set. See section [5.6.2 Cross Sections](#) for specifics on cross section modeling.*

7.2.10 RIGHT-OF-WAY PLAN SHEETS

- Required and Legal Right-of-Way Lines – labeled with station and offset
- Survey and Right-of-Way Baselines or Survey and Right-of-Way Centerlines
- Easements
- Property Lines and Ownership
- Milepost Labels including Milepost number and station
- Limit of Slope Lines
- Railroads and Utilities
- Topography
- Edge of existing and proposed pavement for free access facilities
- Survey references and survey book numbers
- Right-of-Way Fence
- Survey references and survey book numbers
- Curve Data, Profile, Limits
- Driveway Adjustments
- Structure Data
- All drainage, particularly locations that affect the project where inlets and outlets are coming from or distributing to properties.
- Location of existing of proposed facilities and trails
- Abandoned, Removed or Vacated
- Intersection baseline and curve data
- North Arrow
- Bar Scale
- Match Lines
- Professional Engineer or Professional Land Surveyor's Seal – who is responsible for the work will be shown. Plans prepared by consultants will have a small block at the bottom of the Title Sheet indicating the name and address of the consultant, the signature, title, and seal of the person responsible for the preparation of the plans and the date.

7.3 FACILITIES AND VERTICAL CONSTRUCTION

7.3.1 ELEMENTS ON SHEETS

- No annotations will be placed directly on a sheet except for revision clouds and revision cloud tags.
- All annotations will be placed directly in the views.
- All views will be annotated with a Revit View Title that relays the View's 'Title on Sheet' parameter and scale.

For drawing revisions, see section [7.4 Drawing Revisions](#).

7.3.2 DISCIPLINE DRAWING REQUIREMENTS

- Geotechnical Investigations and Reports
 - Inconsistency with the preliminary soil's information
 - Vehicle Pavements
 - Certification
- Civil Site and Utilities Design Contents
- Structural Systems
- Architectural Design Contents
 - Introduction
 - Title Sheet
 - Index Sheet
 - Plan Sheets
 - General Site Plan
 - Building Elevations
 - Cross Sections
 - Details
- Landscape Design
 - Plan Sheets
 - Plant Materials
- Right of Way Plans
- Interior Design Contents
 - Structural Interior Design Requirements
 - Format and Schedule
 - Structural Interior Design Documents
 - Furniture, Fixtures, and Equipment Requirements
 - Scope and Design Requirements
 - Acquisition and Procurement
 - Format and Submittal Requirements
 - Submittal Components
 - Furniture Specifications
 - Warranties
- Plumbing Systems
 - Design Analysis
 - Plumbing Floor Plans
 - Plumbing Diagrams
 - Details
- HVAC Systems
 - Design Analysis
 - Mechanical Floor Plans
 - Equipment Schedule
 - Details
 - Controls
- Fire Protection and Life Safety
 - Fire Protections / Suppression Analysis
 - Fire Protection and Life and Safety Code Review
- Electrical Systems
 - Design Analysis
 - Floor Plan
 - Building Riser Diagram



- Load Center Panelboard Schedules
- Lighting Fixture Schedule
- Details
- Telecommunications and Security
 - ATRP
 - Cybersecurity
- Specialty Equipment
 - Elevators
 - Corrosion Control and Prevention Systems

7.3.3 PLAN PRODUCTION ADDING SHEETS

7.3.3.1 DEFAULT SHEETS IN REVIT TEMPLATES

The default sheets in the Revit Templates are listed below.

- **PTC Standard-Arch Revit 2021**

A-000	SYMBOLS, ABBREVIATIONS AND GENERAL NOTES
A-010	CODE INFORMATION
A-011	CODE INFORMATION & ACCESSIBILITY REQUIREMENTS
A-012	BUILDING EGRESS PLANS
A-015	WALL TYPE SCHEDULE + DETAILS
A-016	WALL TYPE SCHEDULE + DETAILS
A-100	OVERALL PLAN
A-101	FIRST FLOOR PLAN
A-140	OVERALL ROOF PLAN
A-141	ROOF PLAN
A-142	ROOF DETAILS
A-160	ENLARGED TOILET AND LOCKER ROOM PLANS
A-180	PLAN DETAILS
A-200	OVERALL FIRST FLOOR REFLECTED CEILING PLAN
A-201	FIRST FLOOR REFLECTED CEILING PLAN
A-210	CEILING DETAILS
A-300	EXTERIOR ELEVATIONS - OVERALL
A-301	EXTERIOR ELEVATIONS - OVERALL
A-400	BUILDING SECTIONS
A-401	BUILDING SECTIONS
A-430	WALL SECTIONS
A-440	SECTION DETAILS
A-441	SECTION DETAILS
A-500	STAIR - ENLARGED PLANS + SECTIONS
A-501	STAIR + RAILING DETAILS
A-600	DOOR SCHEDULE
A-601	DOOR DETAILS
A-610	WINDOW ELEVATIONS
A-611	WINDOW DETAILS
A-700	MISCELLANEOUS DETAILS AND ELEVATIONS
A-800	FINISH MATERIAL LEGEND + FINISH NOTES



A-801	FINISH PLAN
A-850	FURNITURE + EQUIPMENT PLAN - SCHEDULE
A-860	FURNITURE + EQUIPMENT ELEVATIONS

- PTC Standard-Struct Revit 2021

S-001	STRUCTURAL NOTES I
S-002	STRUCTURAL NOTES II
S-005	TYPICAL DETAILS I
S-006	TYPICAL DETAILS II
S-100	FOUNDATION PLAN
S-140	OVERALL ROOF PLAN
S-200	FIRST FLOOR FRAMING PLAN
S-300	ROOF FRAMING PLAN
S-400	SECTIONS I
S-401	SECTIONS II
S-402	SECTIONS III
S-403	SECTIONS IV
S-500	SPECIFICATIONS I
S-501	SPECIFICATIONS II
S-600	SCHEDULES
S-700	TYPICAL DETAILS

- PTC Standard-MEP Revit 2021

	MECHANICAL
M-000	SYMBOLS, LEGENDS, AND ABBREVIATIONS - MECHANICAL
M-001	SITE PLAN - MECHANICAL
M-101	FIRST FLOOR PLAN - MECHANICAL PIPING
M-140	ROOF PLAN - MECHANICAL
M-201	FIRST FLOOR PLAN - MECHANICAL DUCTWORK
M-300	CONTROLS - MECHANICAL
M-400	ENLARGED PLANS - MECHANICAL
M-500	SCHEMATIC/RISER DIAGRAMS - MECHANICAL
M-501	SCHEMATIC/RISER DIAGRAMS - MECHANICAL
M-600	SCHEDULES - MECHANICAL
M-601	SCHEDULES - MECHANICAL
M-700	DETAILS - MECHANICAL
M-701	DETAILS - MECHANICAL
	PLUMBING
P-000	SYMBOLS, LEGENDS, AND ABBREVIATIONS - PLUMBING
P-001	SITE PLAN - PLUMBING
P-100	FOUNDATION PLAN - PLUMBING
P-101	FIRST FLOOR PLAN - PLUMBING
P-140	ROOF PLAN - PLUMBING



P-400	ENLARGED PLANS - PLUMBING
P-500	RISER DIAGRAMS - PLUMBING
P-501	RISER DIAGRAMS - PLUMBING
P-600	SCHEDULES - PLUMBING
P-601	SCHEDULES - PLUMBING
P-700	DETAILS - PLUMBING
P-701	DETAILS - PLUMBING
	ELECTRICAL
E-000	SYMBOLS, LEGENDS, AND ABBREVIATIONS - ELECTRICAL
E-001	GENERAL NOTES - ELECTRICAL
E-002	FUEL SERVICING SITE PLAN - ELECTRICAL
E-101	FIRST FLOOR PLAN - LIGHTING
E-140	ROOF PLAN - ELECTRICAL
E-201	FIRST FLOOR PLAN - POWER
E-301	FIRST FLOOR PLAN - MECHANICAL POWER
E-400	ELEVATIONS - ELECTRICAL
E-401	SPECIFICATIONS - ELECTRICAL
E-500	ONE-LINE DIAGRAMS - ELECTRICAL
E-501	ONE-LINE DIAGRAMS - ELECTRICAL
E-600	LIGHTING FITXTURE SCHEDULES
E-601	PANEL SCHEDULES - ELECTRICAL
E-602	PANEL SCHEDULES - ELECTRICAL
E-700	DETAILS - ELECTRICAL
E-701	DETAILS - ELECTRICAL
E-800	DETAILS - LIGHTING
E-801	DETAILS - LIGHTING
	TELECOM
T-000	SYMBOLS, LEGENDS, AND ABBREVIATIONS - TELECOM
T-101	FIRST FLOOR PLAN - TELECOM
T-400	ENLARGED PLANS - TELECOM
T-500	RISER DIAGRAMS - TELECOM
T-501	SCHEMATIC DIAGRAMS AND RISERS - TELECOM
T-700	DETAILS - TELECOM
T-701	DETAILS - TELECOM
T-703	DETAILS - SECURITY
	FIRE ALARM
FA-000	SYMBOLS, LEGENDS, AND ABBREVIATIONS - FIRE ALARM
FA-101	FIRST FLOOR PLAN - MAINTENANCE - FIRE ALARM
FA-700	DETAILS - FIRE ALARM
FA-701	DETAILS - FIRE ALARM
	FIRE PROTECTION
FP-000	SYMBOLS, LEGENDS, AND ABBREVIATIONS - FIRE PROTECTION
FP-101	FIRST FLOOR PLAN - FIRE PROTECTION
FP-700	DETAILS - FIRE PROTECTION
FP-701	DETAILS - FIRE PROTECTION

7.3.3.2 ADDING PLACEHOLDER SHEETS TO REVIT TEMPLATE/PROJECT

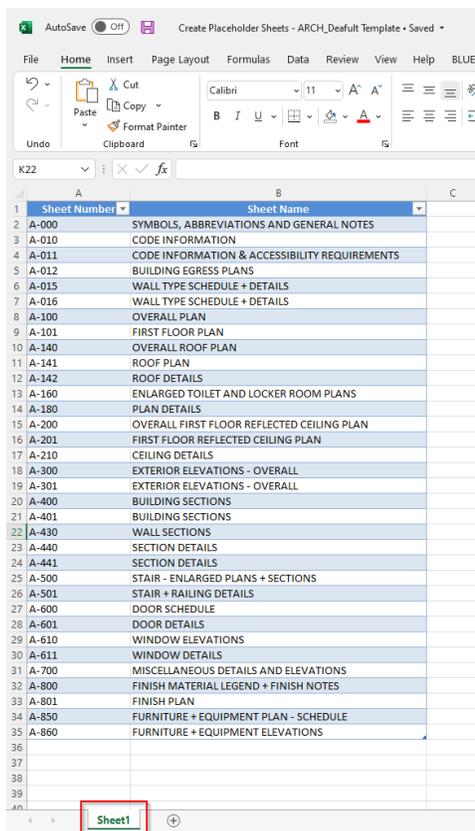
The following are the tools required to automate the process of creating several placeholder sheets.

- Revit 21
- Dynamo
- Excel

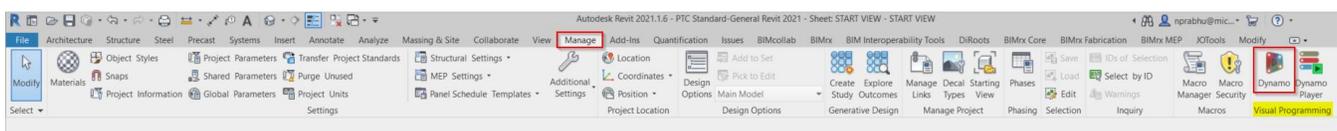
Workflow

Note: This process is intended for BIM Managers, Coordinators, or Specialists who have an intermediate mastery of the tools indicated above.

- **Excel**
 - Copy/Paste and rename the default excel “Creating Placeholder Sheets – ARCH/STRUCT/MEP” to the appropriate project folder.
 - Update the list by adding the required sheets.
 - **DO NOT** rename the excel tab “Sheet1.”

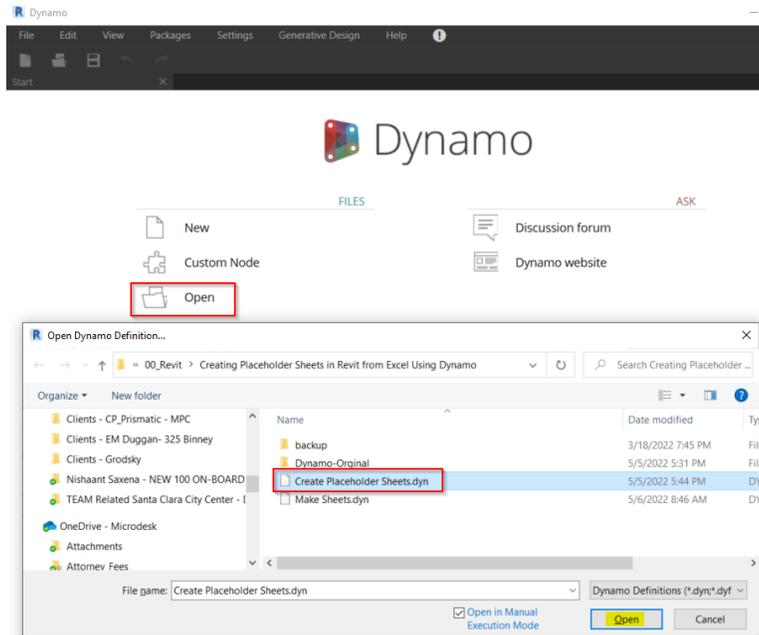


- **Dynamo**
 - Copy/Paste the dynamo script “Create Placeholder Sheets.dyn” to the appropriate project folder.
- **Revit 21**
 - Open the Revit template or the project where the additional sheets will be added.
 - Navigate to Manage Tab>> Ribbon Panel “Visual Programming”>>Dynamo.

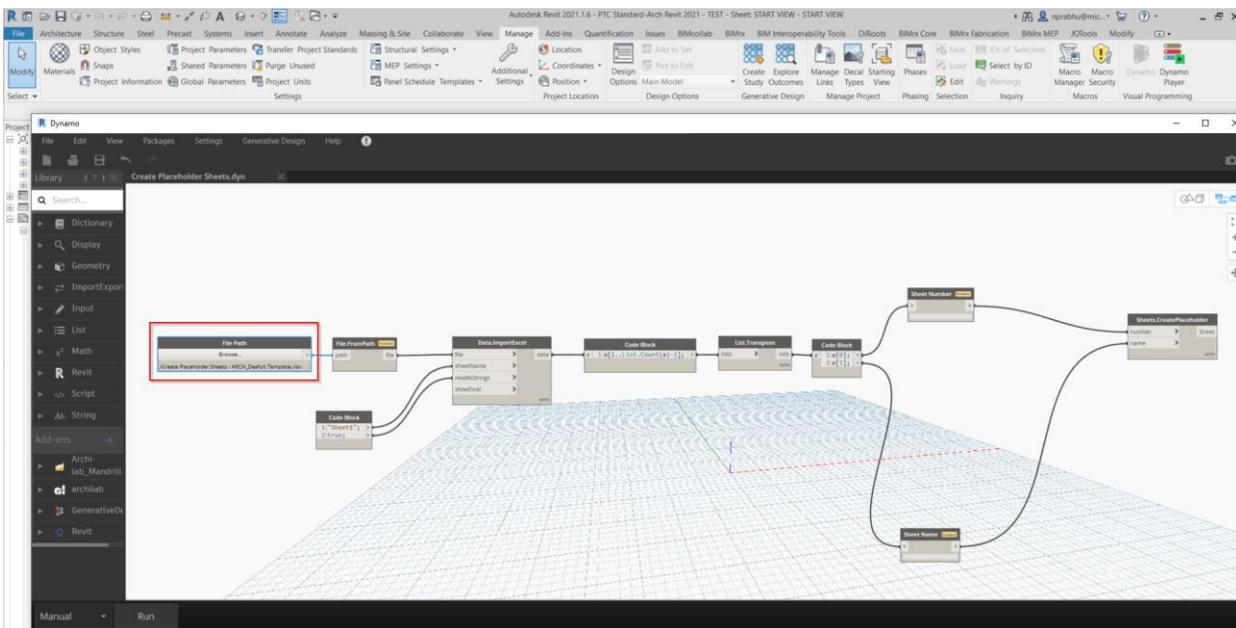


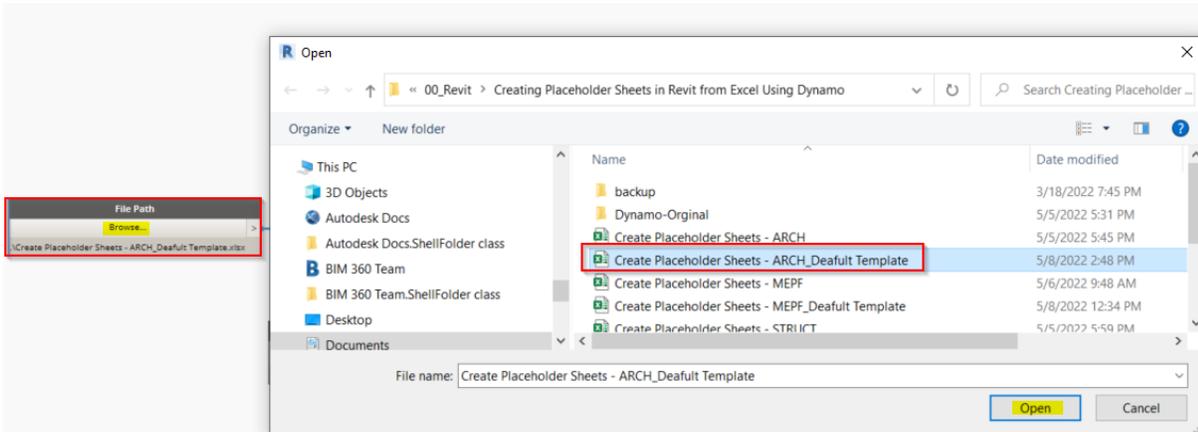
- In Dynamo Dialogue box, click Open and navigate to the dynamo script folder to create placeholder sheets.
- Select the dynamo script “Create Placeholder Sheets.dyn” and click open.

For Example –

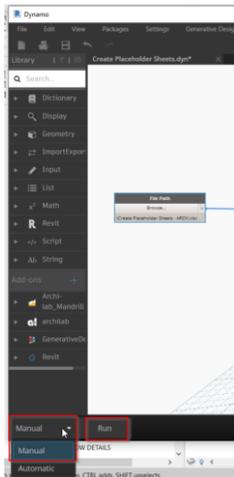


- In Dynamo, click “File Path” node and navigate to the excel file to create additional placeholder sheets. For Example -

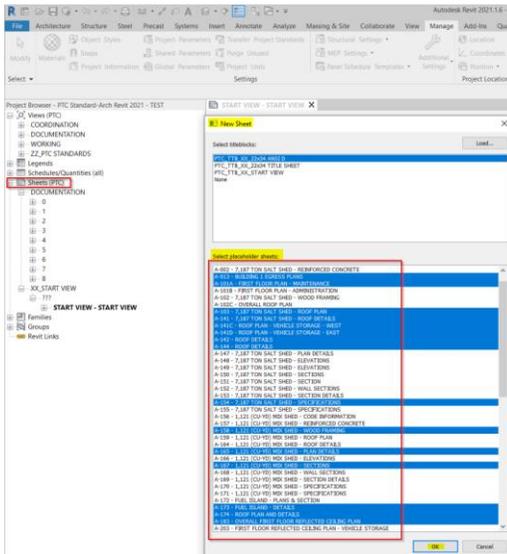




- o To allow the script to run just when the "Run" button is pressed, make sure the bottom left tab is set to "Manual." in dynamo. When ready click "Run"



- o All the new placeholder sheets will be created in Revit. Please see "New Sheet" dialogue box below -



- o To convert "Placeholder Sheets" to "Sheets", select all or only desired placeholder sheets and the desired Title Block and click OK.
- o Please note that teams must adjust necessary settings such as Sheet Type, Sheet Function, View Type, and any other parameters that are required according to the project setup in order to organize the sheets in the project browser as per standards.

7.4 DRAWING REVISIONS

There are two types of drawing revisions described in the table below.

Table 7-3 Revision Types and Nomenclature

Revision Type	Description	Nomenclature
Addendum	Revisions that occur during the contract advertisement period	1, 2, 3, 4
Modification	Revisions made after the award of a construction contract	A, B, C, D

Revision clouds and revision cloud tags will only be placed directly on sheets. Each revision must be tagged appropriately with either the number or character nomenclature, matching the corresponding revision block in the contract border.

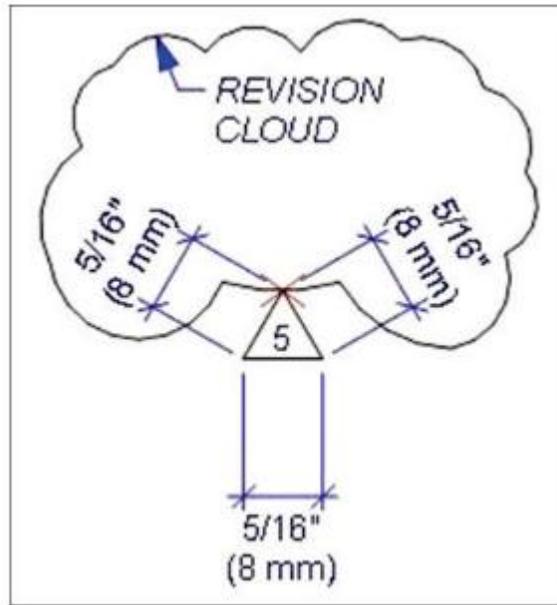
7.4.1.1 REVISION BLOCK

The revision block will be updated for the contract border for each sheet containing revisions. The following information will be added to the revision block: NO., REVISIONS, DATE, APPR.

NO.	REVISIONS	DATE	APPR.

- **NO.** The NO. column contains either a numeric Addendum character (1, 2, 3, etc.) or an upper-case alphabetic Modification character (A, B, C, etc.). These characters match the revision symbols with the same corresponding character. This is specific to the revision on a sheet. The first revision shall be placed at the highest line with subsequent revisions entered directly below.
- **REVISION.** The REVISION column contains a brief description related to the change in the drawing sheet denoted by the revision symbol.
- **DATE.** The DATE column notes the date the revision was released in the change documentation. All dates shall be in the following format MM/DD/YY.
- **APPR.** The APPR column will contain the initials of the Engineer who stamped the original plan, indicating they approve the revision to the original plan.

7.4.1.2 REVISION SYMBOL



Further items to note with revisions:

- New details or sections which are added to a drawing will be clouded and a revision symbol placed by the detail or section title.
- In areas where space is limited, cross out and cloud the incorrect data and direct it to a new detail of the area.
- For changes to schedules, a revision symbol will be placed either by the schedule heading or by the change in the schedule.

7.4.2 FOR PARTIAL REVISIONS

All partial revisions will be marked by a revision symbol and an equilateral triangle noted with the proper revision nomenclature, [Table 7-3 Revision Types and Nomenclature](#). A revision cloud will be placed in paper space surrounding the area of the drawing where changes were made. The stamp triangle will be placed near the location of the revision cloud with or without leaders.

7.4.3 MODEL AND ELECTRONIC FILE REVISIONS

If a revision is required to a model or electronic file that is included a part of either 'Electronic Files Indicated as For Information Only' or 'Electronic Files Indicated as Plans', then a new sheet must be produced with the updated date and time stamp for the revision within their designated tables. Additionally, the revision block must be updated on the sheet indicating a change to the model file. A revision symbol with the appropriate number must be placed next to each electronic file that was updated as part of that revision. Please note, all federated models need to be included with any changes.

7.5 WORKING AND SHOP DRAWINGS

Prepare drawings using standard ANSI D size, 22-inch by 34-inch sheets with 1 1/2-inch margin on the left side and 1/2-inch margins on remaining three sides. All lines on the drawing are to be of sufficient density and width to have residual density when reduced by 50% or electronically scanned. Use at least 0.120-inch-high lettering. Make details clear and uncluttered. Show complete details, dimensions, materials, notes, sequences, and any other required information.

Provide a title block in the lower right-hand corner of each drawing that indicates the county, route, station, Turnpike construction contract number, name of Contractor, name of Fabricator, title of drawing, drawing number, structure



number, initials of the drawer, initials of the checker, and date of the drawing. Include a revision block to the left of the title block and an empty block, approximately 4-inch by 3-inch above the title block to be used by the Representative for the shop drawing stamp.

No work called for by these drawings is to be done until the acceptance of the Representative is obtained, which will be given or refused within 30 days after delivery of the drawings.

The acceptance of shop drawings by the Representative will not relieve the Contractor of the responsibility for the accuracy of these drawings.

Thoroughly check each shop drawing or other required submission before submission to the Representative. Place the following certification on every sheet of every submission.

"WE HEREBY STATE THAT WE HAVE REVIEWED, INSPECTED, AND CHECKED THE INFORMATION SUBMITTED AND CERTIFY ITS ACCURACY AND COMPLIANCE WITH THE PLANS, SPECIFICATIONS, AND SURROUNDING CONDITIONS."

Contractor

(per) _____

Signature

Date

Properly label samples, drawings and catalog cuts submitted for review to indicate the specific service for which materials or equipment are to be used and the referenced section, page, and paragraph number of the specifications.

If any aspect of a submittal deviates from the requirements of the contract drawings or specifications, note such deviation in writing at the time of submission.

All drawings and calculations for formwork, shoring or load-bearing falsework submittals are to be signed and sealed by a Professional Engineer, registered in the State.

Prepare, unless otherwise specified, final reproducible shop drawings showing any as-noted conditions and submit to the Representative upon completion of affected operations, but prior to the completion of the project work. These reproducible drawings may be prepared in ink on 3 mil. minimum thickness Mylar sheets or as will be acceptable to the Representative and satisfactory for permanence and reproduction.

Submissions must be electronic portable document format (PDF) files. Prepare drawings in accordance with the requirements of the design drawings, standards, design manuals, and the contract documents unless otherwise specified.

Prepare original drawings using pencil or ink or prepare drawings electronically (CAD).

Scan original drawings, or convert electronic drawings, to produce a portable document format (PDF) file for each drawing. Include Turnpike construction contract number, item description, and drawing number in the file name. The PDF files must be created with the "end user commenting" and "digital signature" features enabled. These features allow electronic comments to be added directly to the PDF using only reader software and create a log of comments that cannot be changed once the digital signature is added.

Submit PDF files to the Representative for review and acceptance. All working or shop drawing submissions must be submitted electronically via the Commission's project collaboration system. PDF files will be returned with corrections noted. Modify original or electronic drawings as required, scan or convert them into new PDF files, and resubmit. Continue until PDF files are accepted.

7.6 AS-BUILT DRAWINGS

7.6.1 AS-BUILT REQUIREMENTS

Final As-Built plans will include all Contract Drawings. The “As-Built” drawings shall consist of a complete PDF set of the “As-Bid” PDF file. They shall be maintained in the field office and updated via a PDF editor program for the purpose of showing all approved field construction changes. The working copy of the PDF As-Built markups must be up-to-date and uploaded to PTC’s Construction record site. However, they are not intended to replace or be a part of the documented project records. Therefore, no reference to project records shall be made thereon.

All changes to these plans are to be made in red via a PDF editor by the Inspector-In-Charge or his designee as work is completed. However, periodic progress markings and periodic changes to the quantities shall not be recorded on the As-Built drawings.

The As-Built drawings should be clean, neat, and accurately prepared. All field changes should be made at the earliest possible date and not trusted to the memory of the recorder.

As-Built drawings should be kept current as portions of the work are completed. This will spread this workload out during the life of the project and enable the As-Built drawings to be completed in a timely fashion and not create hardship when the project work is completed.

All mechanical and electrical changes due to field Request for Information (RFI) process, equipment shop drawings reflecting modified data due to submittal and approval process, and contract field and design modifications shall be incorporated in the working As-Built drawings.

During total reconstruction projects or projects involving right-of-way takes PTC Right-of-Way Monument Attestation/Certification Certificate Plan should be created as per Commission Specification 686.3 Construction Subsection (i).

The Contractor shall also maintain a complete PDF set with red line markups created via a PDF editor program that shows the As-Built conditions during the execution of the project as specified in the Construction Operations Manual Section 105.02. As-Built PDF files will be kept up to date on a weekly basis. As-Built drawings should be kept current as portions of the work are completed.

As-Built plans must comply with the following minimum requirements:

- All plans must be a PDF consisting of electronic red lines created by a PDF editor program.
- All sheets must be legible and of a quality acceptable for archiving.
- No erasure of original information is permitted.
- All changes must be shown in RED.
- Changes are indicated by adding the correct data and crossing out incorrect data.
- All mechanical and electrical changes due to field Request for Information (RFI) process, equipment shop drawings reflecting modified data due to submittal and approval process, and contract field and design modifications shall be incorporated in the working As-Built drawings.
- The Inspector-In-Charge’s As-Built drawings and the Contractor’s As-Built drawings will be jointly reviewed for accuracy and completeness by the Inspector-In-Charge prior to submission.

7.6.2 AS-BUILT PLAN REVISIONS

All As-Built Revisions must include the following:

7.6.2.1 TITLE SHEET

On the Title Sheet upper left-hand corner, list the following project data:

- Notice to Proceed
- Start Date and Completion Date
- Final Inspection Date
- Contractor’s Name and Address

- List all Subcontractors and Operations Performed
- List Sources of Material
- List all Inspectors on the Project
- Final Inspection Attendees
- Chief Engineer
- Assistant Chief Engineer – Construction

7.6.2.2 QUANTITY SHEETS

It is not necessary to revise the quantities on the Summary of Quantities, Tabulation of Quantities Sheets, Structure Tabulation of Quantities Sheets, and the Bridge Summary of Quantity Sheets to match the final quantities in the estimate book. However, the following note shall be placed on the Quantities Sheets:

"THE QUANTITIES LISTED ON THIS SHEET MAY NOT MATCH THE QUANTITIES FOR THE AS-BUILT PLAN REVISIONS."

A *FINAL CONTRACT COMPARISON AND SUMMARY ANALYSIS REPORT* will be generated from the Commission's CDS application and included with the As-Built Drawings.

7.6.2.3 MAINTENANCE AND PROTECTION OF TRAFFIC (MPT) PLAN

The MPT plan sheets shall not be revised as As-Built drawings. MPT drawings that are revised will be made as part of the contract documents and approved by the Designer of Record. However, if the MPT is changed without changing the contract drawings, all letters approving changes to MPT shall be noted by date, correspondence number, and phase on the MPT drawings.

7.6.2.4 ITEMS TO BE RECORDED ON AS-BUILT DRAWINGS

The following items must be recorded on all As-Built Drawings:

- Mark "Final" on all Limits of Work. If the project Limits of Work were changed by an approved change order, identify the revised Limits of Work, date, and the approved change order number.
- Mark any on-site waste or borrow locations.
- Show changed roadway lighting depths, conduit locations, or foundation locations.
- Indicate any changes to landscaping seeding or plantings.
- Note changed access gate or R-O-W Fence locations.
- Note any site changes different than existing conditions shown on bid plans such as topsoil stockpiles, pipe extensions, etc.
- Identify and locate any research products installed within the project limits.
- Correct grade, elevations, cross section, or alignment of roads, earthwork, structures, or utilities if any changes were made from contract plans.
- Record any changes in details of design or additional information obtained from Shop Drawings specified to be prepared and/or furnished by the Contractor; including but not limited to changes in fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions of equipment foundations, etc.
- Record changes in topography, invert elevations and grades of drainage installed or affected as part of the project construction.
- Record changes or modifications which result from the final inspection.
- Where contract drawings or specifications present options, only the option selected for construction shall be shown on the completed As-Built drawings.
- If borrowed material for this project is from sources on Commission property, or if Commission property is used as a spoil area, the Contractor shall furnish a contour map of the final borrow pit/spoil area elevations. Update the drawings including changes to the cross sections.
- The Final As-Built Ground Line (Finish Grade) is to be shown on the Cross Sections.
- Sketches may be added that clarify or document new findings or field modifications that need to be recorded.

Drainage:

- Show changed limits for Guide Rail and Shoulder Barrier installation.

- Note additional underdrain locations and outlets.

Guide Rail:

- Note pipe and inlet relocations, extensions, size, and depth changes.
- Note any end treatment changes.

Utilities:

- The actual location, kinds and sizes of all subsurface utility lines and pipes not shown on the plans should be located, sized, and identified where possible.
- In order that the location of these lines and appurtenances may be determined in the event the surface openings or indicators become covered over or obscured, these drawings shall show, by offset dimensions to two permanently fixed surface features, the end of each run including each change in direction. Valves, splice boxes, and similar appurtenances shall be located by dimensioning along the utility run from a reference point. The average depth below the surface of each run shall also be recorded.

Structures:

- Note if Stay-in-Place Forms were used and if Styrofoam inserts were incorporated.
- Note Reinforcement Bar changes to size and configuration.
- Show pile location changes and note tip elevations.
- Note any sheeting or shoring material not removed from excavations.
- Show changed zone paint limits.
- Record location and dimensions of any changes for the structure or within the building structure.

Foundations:

- Note any footing elevation changes.
- Note any reinforcing changes.
- Note any pile location, batter, or length changes.
- Note any pile tip elevation changes.

Facilities:

- Include, as supplementary drawings, any systems designed or enhanced by the Contractor, such as, but not limited to, HVAC controls, fire alarm, fire sprinkler, irrigation systems, pumping equipment, hydraulic operating system, fuel system, electrical controls, one-line diagram, telemetry and SCADA system, conduit, and piping layout, etc.

7.6.2.5 AS-BUILT REVISION MARK-UPS

7.6.2.5.1 AS-BUILT PARTIAL REVISIONS

Since no erasure of original information is permitted, changes for minor revisions are to be made by adding the new information and crossing out the incorrect data. In areas where space is limited, cross out (X) and cloud the incorrect data and direct it to a new detail of the area. For more details on revisions, refer to section [7.4.1.1 Revision Block](#).

7.6.2.5.2 AS-BUILT SHEET REVISION

If a revised sheet is needed, the new sheet shall be sealed and signed by the Designer of Record (PE) making the revision. The original As-Bid sheet is not discarded. An "X" must be drawn from corner to corner of the borders.

All revisions must be clouded. The revised sheet is numbered with the same sheet number and includes an update to the revision block in the contract border for NO., REVISIONS, DATE, APPR described in section [7.4.1.1 Revision Block](#). If a single sheet is being revised several times, an "X" must be drawn on the original sheet and all subsequent sheets until the last revised sheet has been submitted. Label the sheet with the number and next letter in the alpha designation sequence using uppercase alpha characters (i.e., 18A, 18B, etc.) in the title block.

7.6.3 AS-BUILT DRAWING PROCESS

7.6.3.1 IN-HOUSE INSPECTION

For projects with in-house inspection, the Inspector-In-Charge shall forward the red-lined electronic As-Builts to the PTC Project Manager and/or the Construction Engineering Manager for a Quality Control review at the end of each project.

The Inspector-In-Charge shall complete and forward the Field Red-Line Checklist, the Final Contract Comparison and Summary Analysis Report, the As-Built drawings (or As-Built electronic files), and the original permanent shop drawings provided by the contractor to the PTC Project Manager for a Quality Control review.

7.6.3.2 CONSULTANT INSPECTION

The Consultant Project Manager and the Inspector-In-Charge will consult to determine which process will be used to create the project As-Built plans and specify the process within the PxP. The PTC Project Manager must agree with the process. They can choose one of two options:

1. A copy of the As-Bid plan set is Red-Lined electronically.
 - a. PTC Automation Coordinator will create a Bluebeam session for all As-Built information to be recorded.
 - b. PDF files must be saved without layer information.
2. The Consultant Project Manager transcribes all red-lines electronically onto the plans using the As-Bid CADD drawing files.
 - a. As-Built information to be placed on a layer named "As-Builts".
 - b. As-Built information to be recorded in RED.
 - c. PDF files to be plotted at 300 dpi and without layer information.
 - d. Publish a PDF set of As-Built plans.

The As-Built set will be completed in a maximum of 60 days from the date the red-lined electronic As-Builts are received from the Contractor. When the Consultant Project Manager has received the red-lined electronic plans, they will send a notification indicating the date the Inspector-In-Charge received the documents. This notification shall be used to document the completion deadline.

The Inspector-In-Charge will compare the Contractor's red-lined electronic plans against the Inspection maintained red-lined plans for completeness and accuracy.

Once the Red Lines are converted into the As-Built set and the Field Red-Line Checklist is completed, the Inspector-In-Charge will notify the Consultant Project Manager, that the As-Builts have been completed. The Consultant Project Manager will perform a Quality Control review.

The Consultant Project Manager will notify the PTC Project Manager and the Inspector-In-Charge that the As-Built plans are complete and approved. The PTC Project Manager may review the approved As-Built plans at his discretion prior to submitting to CAB Construction.

7.6.3.3 COMPLETION OF AS-BUILT DRAWINGS

The completed working As-Built drawings shall be completed as follows:

When final revisions have been completed, the cover sheet drawing shall show the wording "RECORD DRAWING AS-BUILT" and the DATE in letters, in ARIAL font, minimum 18 size font or 3/16 inch high.

All other contract drawings shall be marked either "AS-BUILT" drawing denoting no revisions on the sheet or "REVISED AS-BUILT" denoting one or more revisions. The AS-BUILT/REVISED AS-BUILT markings shall be placed in the lower right corner of the plan sheet near the title block.

7.7 FULL PROJECT LENGTH PDFS

Projects may require a full project length pdf to be included within the plan set. If a project requires full project length pdfs, then there are various sheet lengths available within PTC’s standard workspace. It is ultimately up to the Consultant Project Manager and Consultant Design Lead to determine the appropriate sheet lengths for the full project length PDF files. The following sheet sizes are available for PTC Full Project Length PDFs:

- 34”x48”
- 34”x60”
- 34”x72”
- 34”x96”
- 34”x108”
- 34”x120”

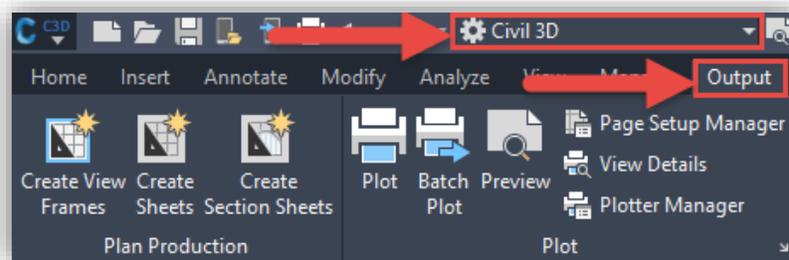
Once this length has been determined by the Consultant Project Manager and Consultant Design Lead, it must be approved by PTC’s Design Services Unit. This recommendation and approval must be documented within the PxP.

The following sections below outline the steps for creating full project length PDF sheets. Workflows and requirements will remain the same for Revisions and As Built Drawings as stated in the above sections. The purpose of this sample print is to be viewed on a desktop or tablet at a 1”=50’ scale and is not intended to be plotted for printing purposes. If plot sheets are requested, cut sheets can be created at various sizes that are only provided in the PTC Plan Sheet-C3D.dwt/PTC ORD drawing files, and as directed by the PTC PM. These sheets, despite being various sizes, shall also be at a 1”=50’ scale to produce enough sheets to encompass the entire project plan set.

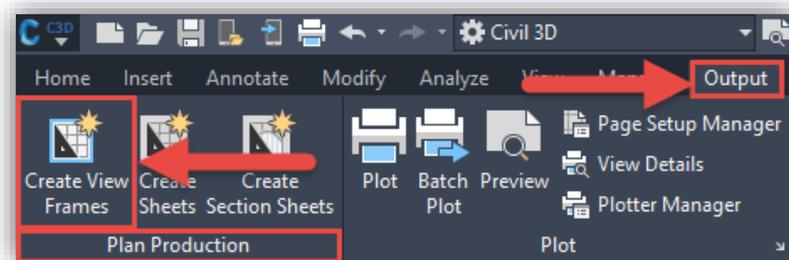
7.7.1 CIVIL 3D FULL PROJECT LENGTH PDF PLAN CREATION AND PRINTING

Step 1: Create a View Frame

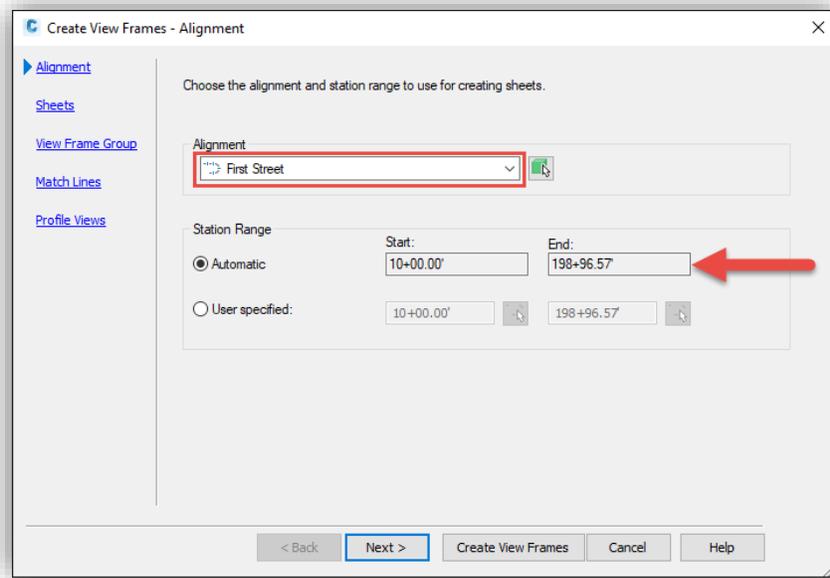
Begin with a 2D plan view of your project. From the “Civil 3D” Workspace, select the “Output” ribbon tab.



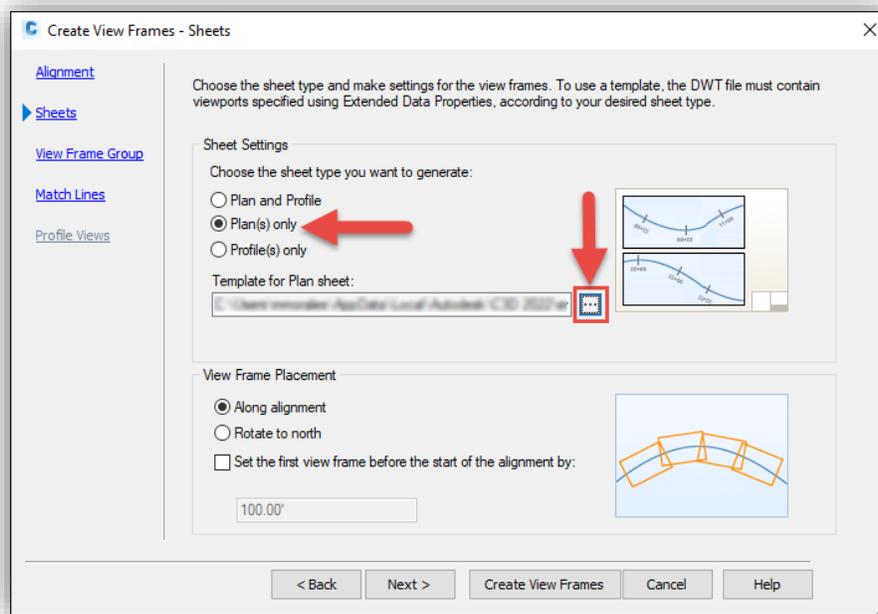
From the “Output” ribbon tab, select the “Create View Frames” tool from the “Plan Production” panel.



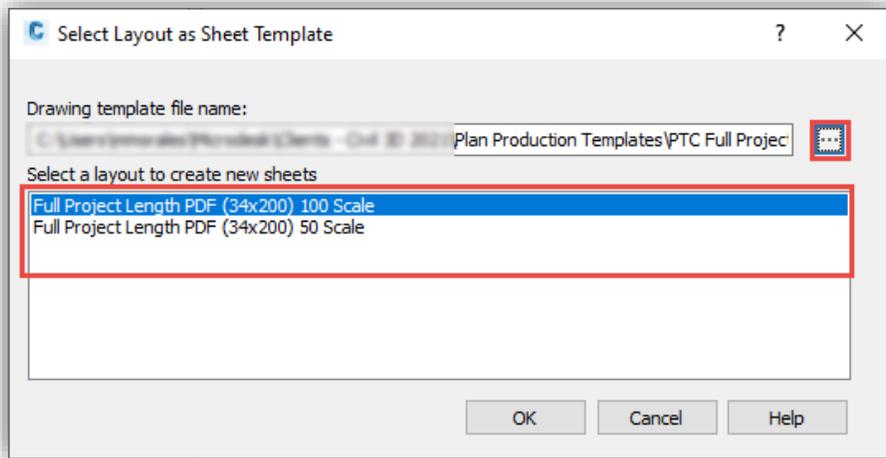
In the “Create View Frames” dialog box, select the desired “Alignment” from the Alignments pull down menu and specify the station range to be included (or leave it on Automatic to include the entire alignment) and choose “Next”.



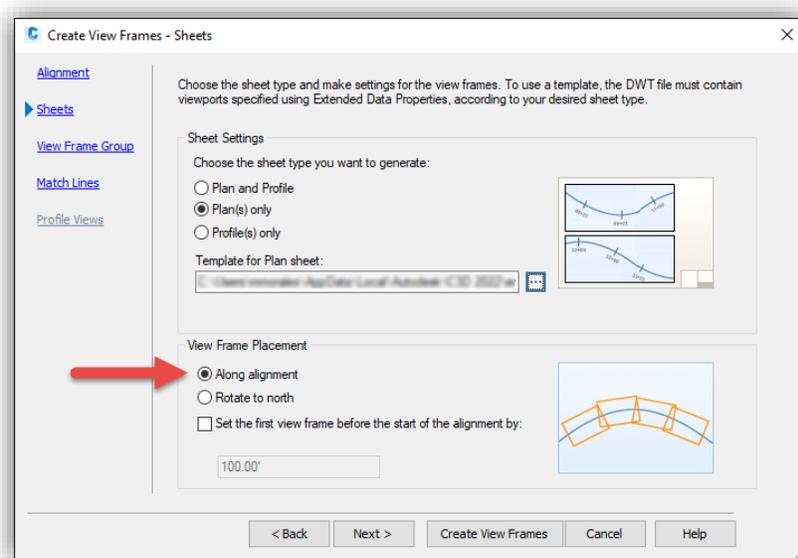
On the “Sheets” tab, choose the “Plan(s) only” option and then in the “Template for Plan sheet:” cell, select the ellipsis button to browse.



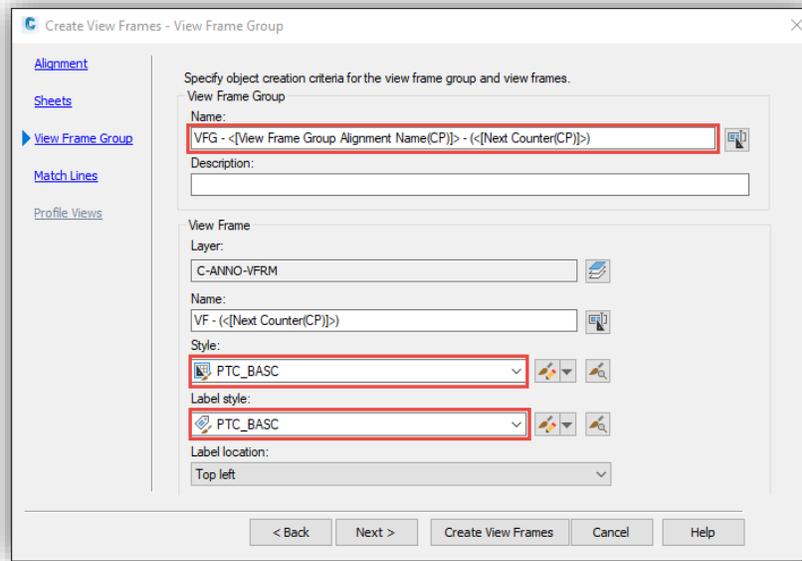
In the “Select Layout as Sheet Template” select the ellipsis once again and browse to where you have stored your PTC content and select “PTC Full Project Length PDF-C3D.dwt” and choose “Open”. You will then be returned to the previous dialog box and in the bottom pane you choose from the available scales and then choose “OK”.



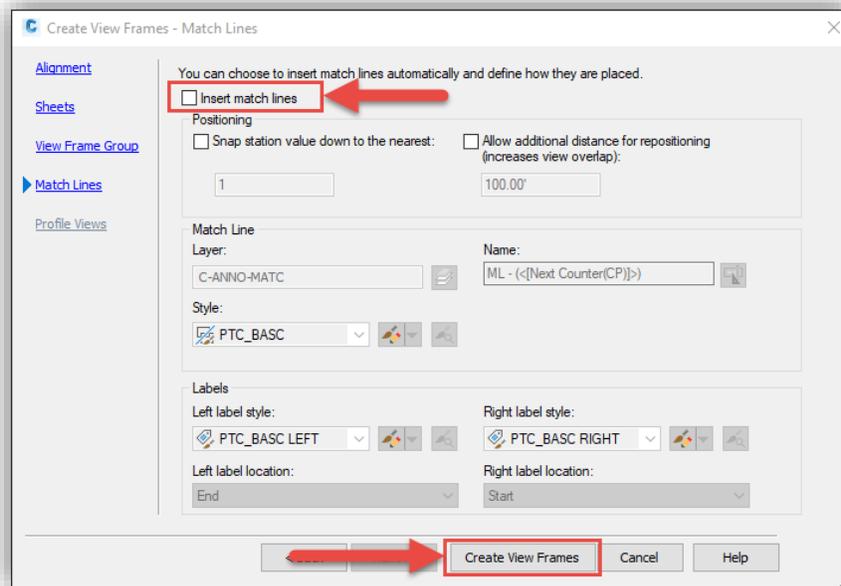
You will then be returned to the “Sheets” tab of the “Create View Frames” dialog box. In the “View Frames Placement” portion of the dialog box, select “Along alignment” so that your sheet rotates to accommodate your design and choose “Next”.



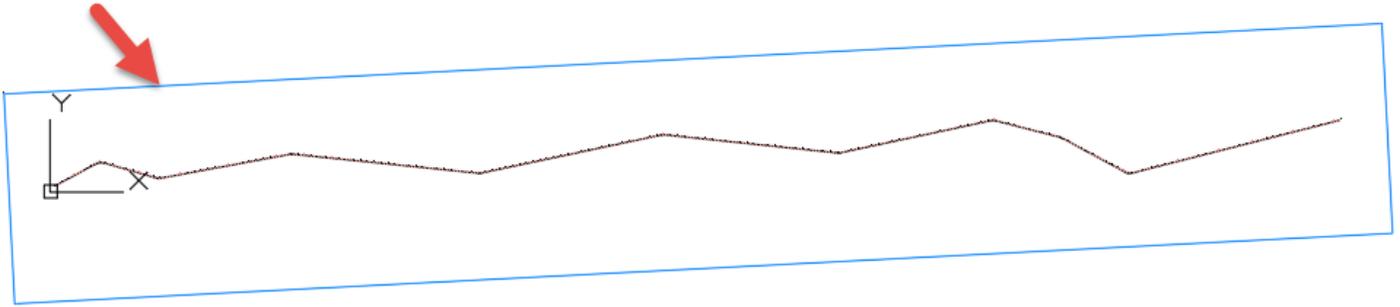
In the “View Frame Group” tab provide a name for the View Frame Group and choose a View Frame style and label if desired (otherwise leave as is to use the PTC Default). Choose “Next”



In the “Match Lines” tab, **disable** the “Insert match lines” and select “Create View Frames”.

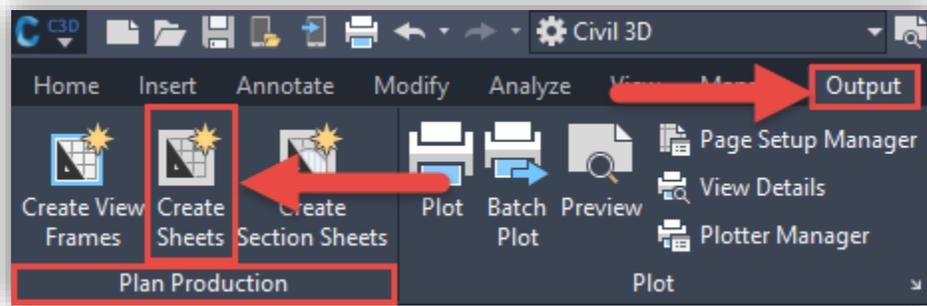


A View Frame will now have been placed around your design. Select the View Frame and use the grips to move or rotate the View Frame to your desired placement.

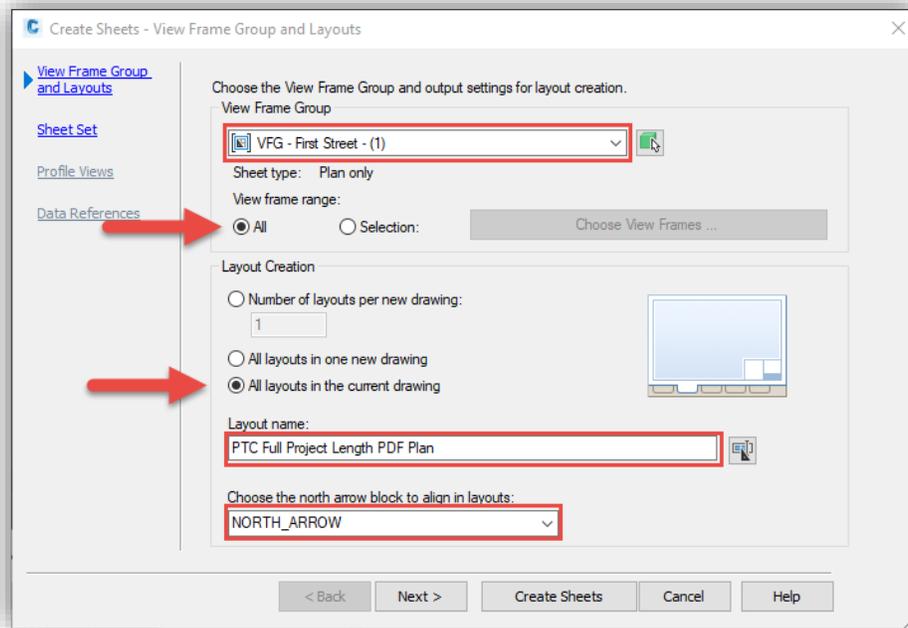


Step 2: Creating a Drawing

After you have completed the previous step and have placed your View Frame, you can now create your sheet. To do this, select the “Create Sheets” button from the “Output” ribbon tab on the “Plan Production” panel.

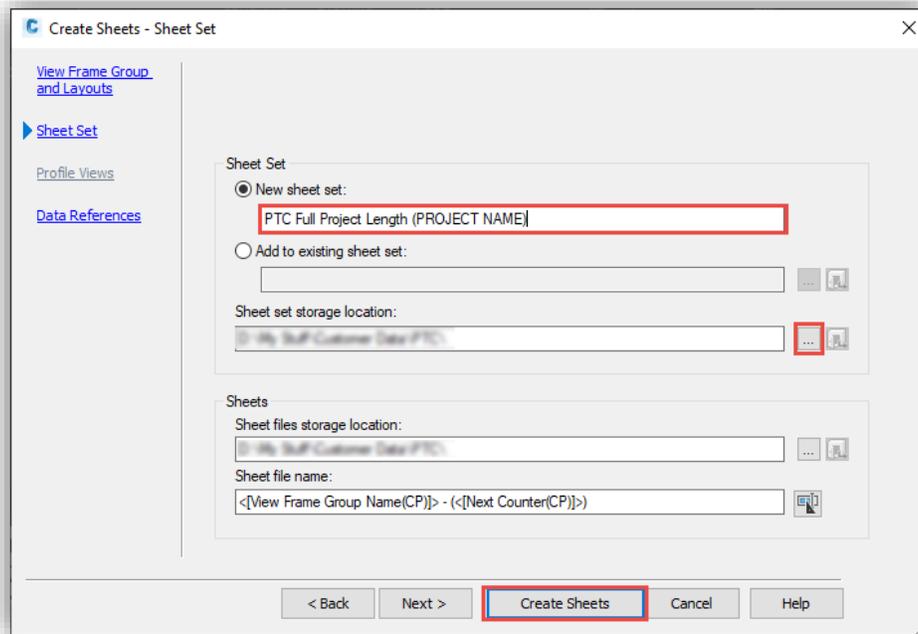


In the “Create Sheets” dialog box, choose the View Frame Group created in the previous step and set the View Frame Range to “All”. Next choose to have the new sheet created in this drawing or as a New Drawing. Provide a name for the Layout and choose the “NorthArrow” block from the drop-down menu to have the north arrow inserted and rotated to the proper orientation once your sheet is created, then choose “Next”.

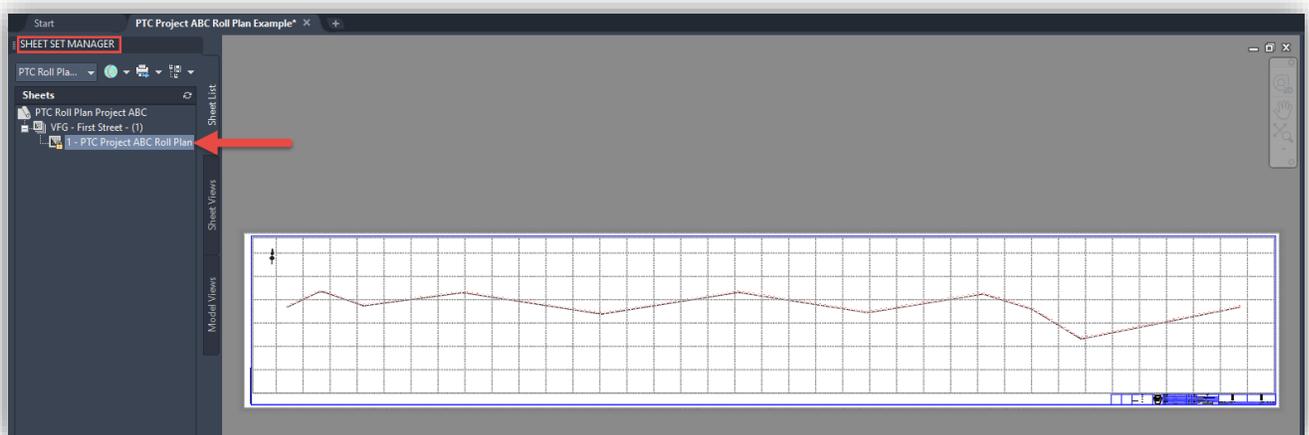


In the “Sheet Set” tab choose to add this sheet to an existing sheet set already created or create one if none exist. Choose a location to store the sheet set file and choose “Create Sheets”.

***Note: If you chose to have the sheet created in a separate file you will have an additional tab to review which will be created and reference Data shortcuts into the new file. Except the defaults and choose “Create Sheets”.*



Your new sheet is now created and can be accessed by the Layout tabs within the software. Additionally, your Sheet Set Manager will have opened, displaying your new sheet name. Double-clicking on the new sheet name will navigate you to your new sheet.

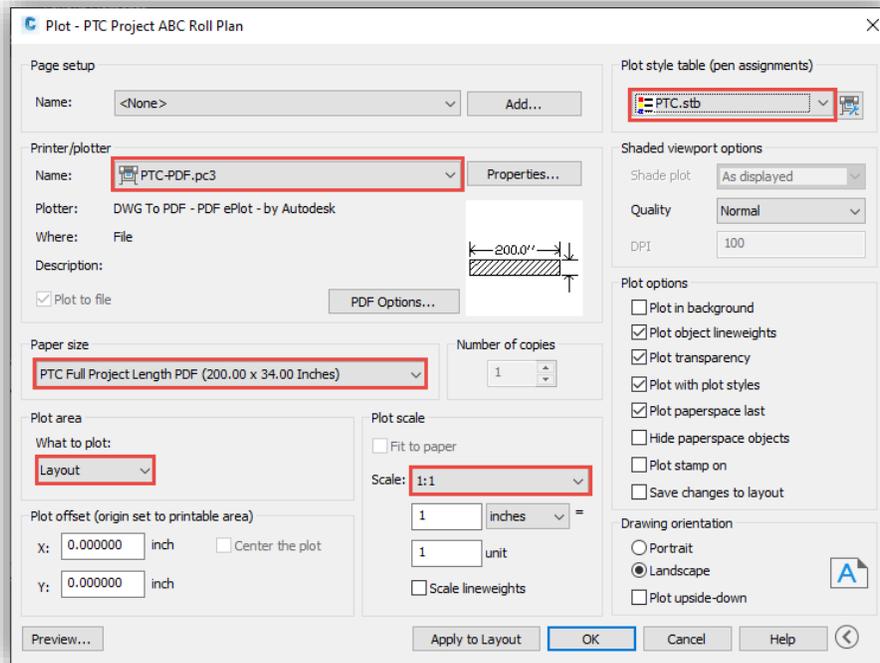


Step 3: Printing

Begin by selecting the Print button from the Application Button or the Quick Access Toolbar along the top of the screen.



From within the Print dialog box, make sure that you have selected the “PTC-PDF” Printer/plotter driver and the PTC.stb Plot style table and then choose the “PTC Full Project Length PDF (200.00 x 34.00 Inches) Paper size. Set your Plot area to “Layout” and your scale to “1:1” and choose “OK”.



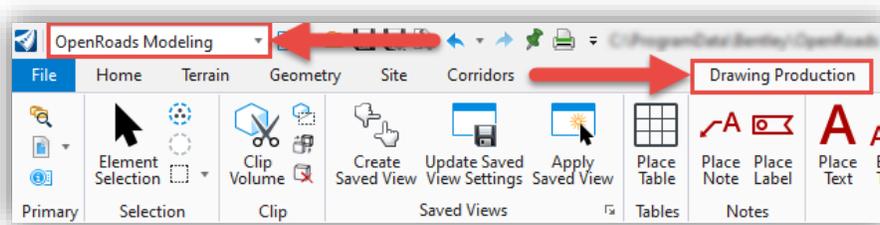
When prompted, choose a name and location to save your file and then choose “Save”.

Once the PDF print is complete, the file will open in your PDF viewing software so that you can review your file.

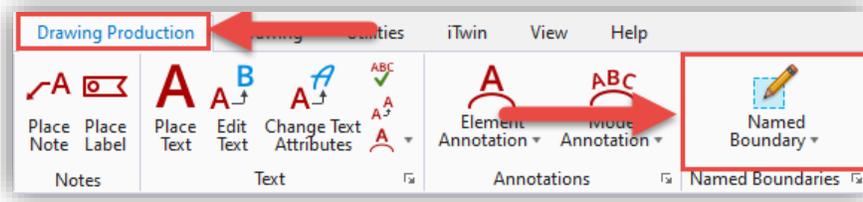
7.7.2 OPENROADS DESIGNER FULL PROJECT LENGTH PDF CREATION AND PRINTING

Step 1: Placing a Named Boundary

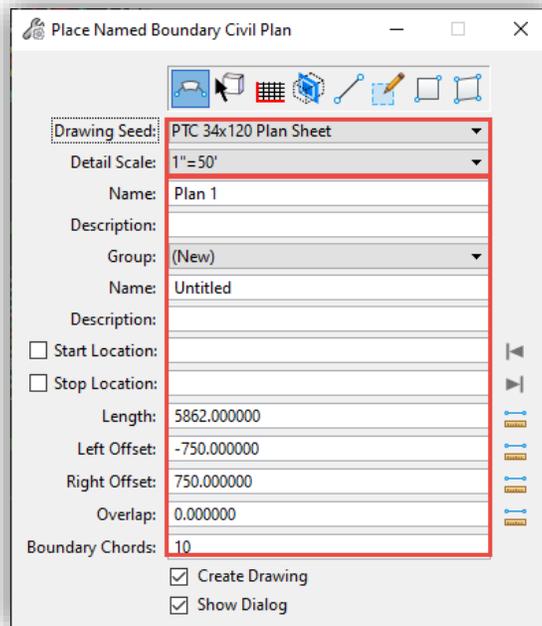
Begin with a 2D plan view of your project. From the “OpenRoads Modeling” Workflow, select the “Drawing Production” ribbon tab.



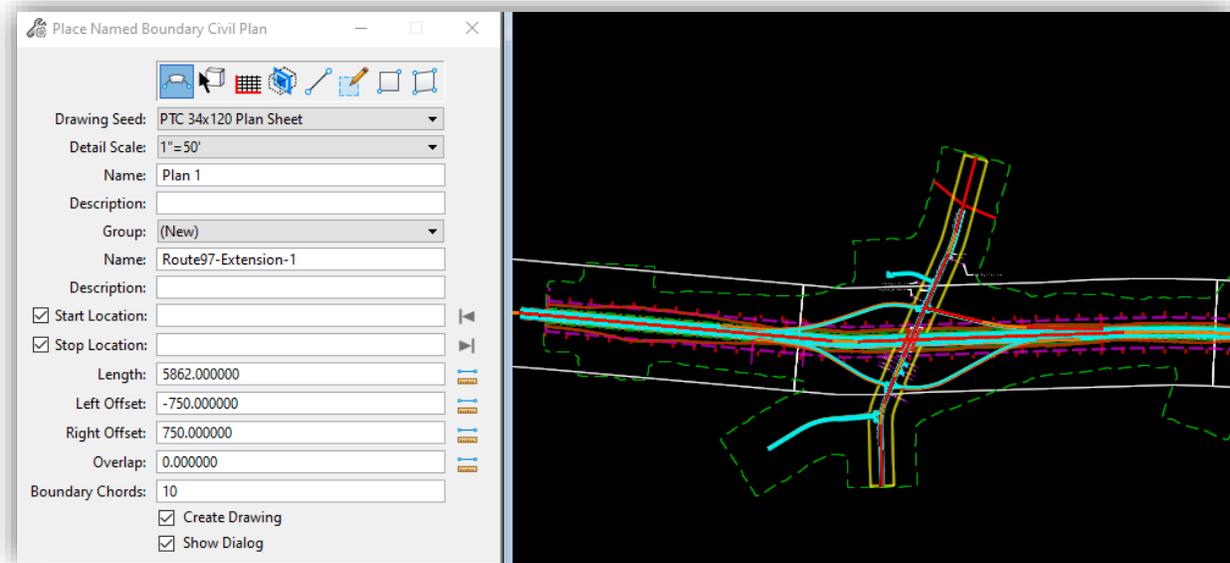
From the “Drawing Production” tab select the “Place Named Boundary” tool from the “Named Boundaries” panel.



In the “Place Named Boundary” dialog box, select the “Civil Plan” tab and on the Drawing Seed drop down select one of the extended PTC Sheet definitions. Next set your scale to 1” = 50’ and then complete the rest of the information as it relates to your project such as Plan Name, Description, and View Size. Also, make sure that the “Create Drawing” is checked. You want to ensure that when creating named boundaries, you are using the same “Group” for all the sheets you want to be Grouped together in the plan.

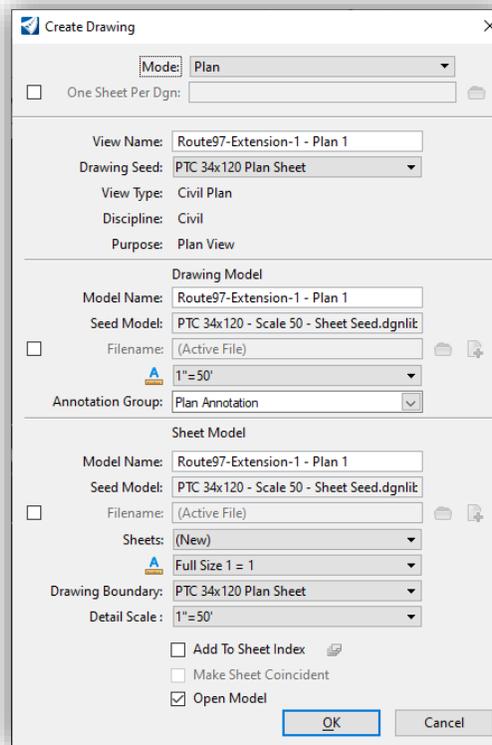


Next select your alignment from the View and either manually specify your Start & Stop locations or left click near the alignment where you want to start the sheets to begin the place a boundary process, Then left click again where you want the sheets to stop at. Left-Click a third time to complete the process and open the “Create Drawing” dialog box.

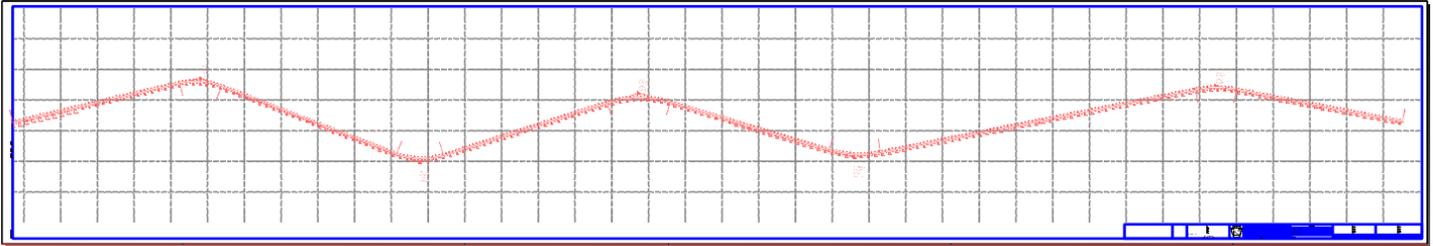


Step 2: Creating a Drawing

After you have completed your 3 left clicks over your alignment the “Create Drawing” dialog box will open. In this dialog provide a name and ensure that it is using an extended sheet Drawing Seed. The Drawing and Sheet Models should be already populated to use the PTC pre-setup Drawing and Sheet files. Choose an “Annotation Group” and check the “Add to Sheet Index” button along the bottom and Choose “OK”.



If you checked the “Open Model” button along the bottom, your new sheet should be displayed on the screen, if you did not check that box, you can open the sheet by navigating to it from the Sheet Index Panel.

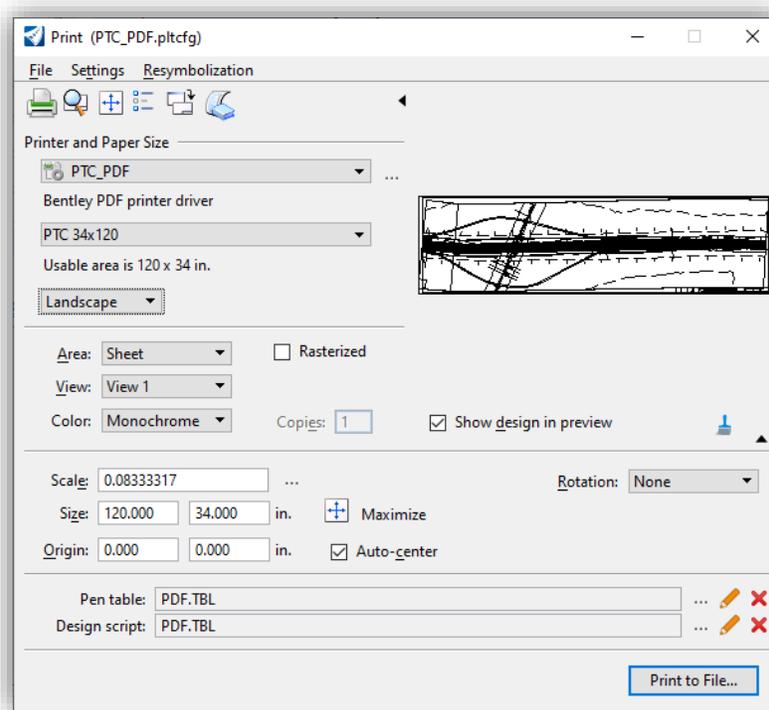


Step 3: Printing

Begin by selecting the Print button from the Application Button or the Quick Access Toolbar along the top of the screen.



From within the Print dialog box, make sure that you have selected the “PTC_PDF” Printer driver and then choose the “Roll Plan” option from the paper size pull down. Verify the rest of the settings in this dialog and then choose “Print to File”.



When prompted, choose a name and location to save your file and then choose “Save”.

8. NAMING CONVENTIONS

8.1 GENERAL NAMING CODES

8.1.1 PROJECT NUMBER FOR FILE NAMES

Every file must include the project number as part of its naming convention. PTC will provide a ‘shortened project number’ to be used for file naming that typically consists of the route abbreviation and mile post. The project number used for file naming will be documented in the PxP. For example, file names referencing the contract number T355.00P001-3-13, use the project number, T355.00P1-13. Similarly, file names referencing the contract number EN-00248-03-01 use the project number EN00248-01.

8.1.2 DISCIPLINE CODE

The discipline designator consists of one character and is listed in the table below.

Table 8-1 Discipline Designator Codes

Discipline	Designator
Architectural/Interiors	A
Civil	C
Contractor/Shop Drawings	Z
Electrical	E
Fire protection	F
General	G
Geotechnical	B
Hazardous Materials	H
Information Technology/ Telecommunications	I

Discipline	Designator
Landscape	L
Mechanical	M
Operations	O
Other disciplines	X
Plumbing	P
Resource	R
Structural	S
Survey/Mapping/Existing	V
Traffic	T

8.1.3 USER DEFINABLE DESIGNATOR

The user definable designator is a custom descriptor to describe the file and is added to the end. The user definable designator consists of 4 characters or more. For example, if creating a model of a state road, then the description will be the state road’s abbreviation and numbers in its entirety (i.e., ‘SR4052’). The file name will be ‘A75.0-C-RC-SR4052.dwg’.

8.2 FILE NAMING

8.2.1 PROJECT INFORMATION

PTC’s standard naming convention for PIMs is listed in the table below:

Table 8-2 File Naming Convention

Project Number	Delimiter	Discipline Designator	Delimiter	Model File Type Designator	Delimiter	User Definable Designator	File Extension
T355.00 P1-13	-	C	-	FC	-	XXXX	.dwg
Example: T355.00P1-13-C-FP -STIL.dwg Example: T355.00P1-13-A-FC -SHED.dwg							

An example of this naming convention, given a corridor model of a roadway street named Stiles will have the model file name of ‘T355.00P1-13-C-RC-STIL.dwg’ with ‘C’ representing a Civil project (discipline designator) and ‘RC’ representing Roadway Corridor (model file type designator). The User Defined option in this case was ‘STIL’ to represent the street name Stiles.

8.2.1.1 MODEL FILE TYPE DESIGNATOR

The Model File Type Designator consists of two characters with examples listed in the table below. This table is used as an example and is not limited to the characters listed.

Table 8-3 Model File Type Codes

Model File Type	Designator
Abutment	ABT
Alignments	AL
Approach Slab	APS
Barrier	BAR
Beams	BMS
Borrow Pit	BOW
Bridge	BR
Buildings	BD
Cross Sections	XS
Deck	DEK
Demolition	XD
Design Terrain	TER
Details	DTL
Drainage	DR
Equipment	EQ

Erosion & Sediment Control	ES
Facilities	FC
Federated Model	FED
Grading	GR
Highway Lighting	HL
Interiors (Architectural)	IN
Landscaping	LP
Maintenance and Protection of Traffic	MPT
Milling Pile	MIL
Other	XX
Right of Way	RW
Roadway Corridor	RC
Plan	PLN
Post Construction Stormwater Management	PCS
Property Lines	PL
Signing & Pavement Marking	SP
Sleeper Slab	SLP
Stockpile	STK
Structure	STR
Survey Terrain	SUR
Traffic Signal	SG
Traffic Signing	SN
Utilities	UT
Wetlands	WL

8.2.2 PDF SHEET FILE NAMING

8.2.2.1 SINGLE SHEET PDF

For a single sheet PDF file, this will be named the same as the plot file from which they were created, with an additional sheet number (i.e., T256.4-1-RD-001.pdf). All sheet numbers must be shown as three digits within the file name. Therefore, sheet 1 will be shown as '001'. See section [8.3.1 Plot File Naming](#).

Table 8-4 Single Sheet PDF File Naming

Project Number	Delimiter	Sheet Designator	Delimiter	Plan Designator	Delimiter	Sheet Sequence Number	File Extension
T355.00P 1-13	-	1	-	BO	-	001	.pdf

Example: T355.00P1-13-1-HL-001.pdf

8.2.2.2 MULTI-SHEET PDF

A multi-sheet PDF that is discipline specific and does not include the entire drawing will be named according to the following table. All sheet numbers must be shown as three digits within the file name. See section [8.3.1 Plot File Naming](#) for the Sheet Designator and Plan Designator descriptions.

Table 8-5 Multi-Sheet PDF File Naming

Project Number	Delimiter	Sheet Designator	Delimiter	Plan Designator	Delimiter	First Sheet #	Delimiter	Last Sheet #	File Extension
T355.00 P1-13	-	3	-	DR	-	001	-	125	.pdf
Example: T355.00P1-13-2-DR-001_125.pdf									

8.2.2.3 PROJECT SET

Project Sets are a combined document of all drawings from the project and will be named according to the project number and the submission/package designator.

If submitting a PDF project set outside of the submission submittal, then a unique description must be added to the PDF set in place of the submission/package designator. Any unique descriptions require approval by the PTC's Design Services Unit.

Table 8-6 Project Set Naming

Project Number	Delimiter	Submission/ Package Designator	File Extension
T355.00P1-13	_	DFV	.pdf
Example: T355.00P1-13_DFV.pdf			

The table below lists the designators for submission/packages to be used as a part of the PDF project set's file name.

Table 8-7 Submission/Package Designator

Submission	Designator
Design Field View	DFV
Over the Shoulder	OTS
75% Design	75Design
Pre-Final PS&E	PrePSE
Final PS&E	PSE
Addendum	Addendum#

Bulletin	Bulletin#
As Bid	AsBid
As-Built	AsBuilt

8.3 CIVIL 3D / OPENROADS NAMING CONVENTIONS

8.3.1 PLOT FILE NAMING

See the following table for plot file naming within Civil 3D or OpenRoads:

Table 8-8 Plot File Naming

Project Number	Delimiter	Sheet Designator	Delimiter	Plan Designator	Delimiter*	Sheet Sequence Number or Range*	File Extension
T355.00 P1-13	-	1	-	BO	-	001	.dwg
Example 1: T355.00P1-13-1-HL.dwg Example 2: T355.00P1-13-1-HL-001.dwg Example 3: T355.00P1-13-1-HL-001_010.dwg *If applicable, sheet number and ranges are only required when there are multiple plot files with the same name.							

Notes:

- If required, an additional Sheet Sequence Number will be added to the end.
- Sheet numbers and ranges are only required when there are multiple plot files with the same name. In this instance, a sheet range must be denoted in the file name. The range is entered with an underscore i.e., '001_007'.

For Project Number see section [8.1.1 Project Number](#).

For Sheet Designator see section [8.3.1.1 Sheet Designator](#).

For Plan Designator see section [8.3.1.2 Plan Designator](#).

8.3.1.1 SHEET DESIGNATOR

The Sheet Designator, which describes the type of sheet, is listed in the following table:

Table 8-9 Sheet Designator

Sheet Type	Designator
General (symbols legend, notes, etc.)	0
Plans (horizontal views and combination plan and profile)	1
Elevations and profiles (vertical views)	2
Sections (sectional views, cross sections, etc.)	3

Maps or Aerial Views	4
Details	5
Schedules and diagrams	6
Typical Sections	7
Miscellaneous	8
3D Representations (isometrics, perspectives, photographs)	9

8.3.1.2 PLAN DESIGNATOR

The Plan Designator, which describes the type of plan set such as Roadway and Stormwater, is listed in the following table.

Table 8-10 Plan Designator

Sheet Type Designator (for reference)	Plan Description Designator	Description
0 (General)	GL	General Information
	GN	General Notes
	TL	Title Sheet
1 (Plans)	BO	Boring Plan
	CR	Contamination and Remediation Plan
	DR	Drainage Plan
	DP	Detour Plan
	EN	Environmental Plan
	ES	Erosion and Sediment Control Plan
	HL	Highway Lighting Plan
	ITS	Intelligent Transportation Systems Plan
	LP	Landscaping Plan
	MPT	Maintenance and Protection of Traffic Plan
	PC	Pollution Control Plan
RW	Right of Way Plan	
RD	Roadway Plan	



	SM	Signing and Pavement Marking Plan
	SP	Soil Profile Plan
	SW	Stormwater Management Plan
	ST	Structures Plan
	TS	Traffic Signal Plan
	UR	Utility Relocation Plan
	WM	Wetland Mitigation Plan
2 (Elevations, Profiles)	BO	Boring Elevations
	DR	Drainage Profile
	RD	Roadway Profile
	SP	Soil Profile
	ST	Structures Profile
	UR	Utility Relocation Profile
3 (Sections)	RD	Roadway Cross Sections
4 (Maps, Aerials)	BO	Boring
	DP	Detour
	DR	Drainage
	EN	Environmental
	GL	General Information
	ITS	Intelligent Transportation Systems
	LP	Landscaping
	RD	Roadway
	SW	Stormwater Management
	TS	Traffic Signal
	UR	Utility Relocation
	WM	Wetland Mitigation
	BO	Boring Details

5 (Details)	CR	Contamination and Remediation Details
	DP	Detour Plan Details
	DR	Drainage Details
	EN	Environmental Details
	ES	Erosion and Sediment Control Details
	HL	Highway Lighting Details
	ITS	Intelligent Transportation Systems Details
	LP	Landscaping Details
	MPT	Maintenance and Protection of Traffic Details
	PC	Pollution Control Details
	RD	Roadway Details
	SM	Signing and Pavement Marking Details
	SP	Soil Profile Details
	SW	Stormwater Management Details
	ST	Structures Details
	TS	Traffic Signal Details
UR	Utility Details	
6 (Schedules)	GL	General Information
	GN	General Notes
7 (Typical Sections)	RD	Roadway Typical Sections
8 (3D Visuals, Photographs)	BO	Boring
	CR	Contamination and Remediation
	DP	Detour Plan
	DR	Drainage
	EN	Environmental
	ES	Intelligent Transportation Systems
	LP	Landscaping

	RD	Roadway
	SM	Signing and Pavement Marking
	SW	Stormwater Management
	ST	Structures
	TS	Traffic Signal
	UR	Utility Relocation
	WM	Wetland Mitigation

8.3.2 LAYERS/LEVELS NAMING

All layers/levels contained within this Engineering Technology Standard have been defined using variations of the National CAD Standard layer guidelines.

All layers and levels must be named as follows:

Table 8-11 Layer/Level Naming Convention

Discipline	Delimiter	Major	Delimiter	Minor	Delimiter	Description 1	Delimiter	Description 2
C	-	CATV	-	LINE	-	OHVD	-	XXXX
Example: C-CATV-LINE-OVHD (Cable TV – Overhead Lines)								

For the layer discipline code, see section [8.1.2 Discipline Code](#). For a full list of layers/levels and their descriptions, refer to [Appendix 14.5 Layers/Levels](#).

If additional layers are required, they can be added to the layering scheme. The major components of a standard layer/level name for the Pennsylvania Turnpike Commission are defined in the table below. All new additions must follow the layer/level scheme standard as closely as possible.

Table 8-12 National CAD Standard Components for Layer Naming Conventions

Acronym	Description
Discipline	Discipline Code
Major	Major grouping of features that have common characteristics
Minor	Subgrouping of Major category
Description1	Extended description of layers for clarity (optional)
Description2	Further description of layers for clarity (optional)

8.3.3 ALIGNMENT NAMING

Alignment naming convention is determined by the type of alignment: primary, secondary, access road, or state/township roads. All alignments include a milepost as part of its naming convention. Each milepost must consist of three digits.



If creating an alignment outside of these categories, advise with the PTC Automation Coordinator for appropriate naming convention.

8.3.3.1 ROUTE ABBREVIATION

All alignments must include the route as part of their naming convention. The following table lists all routes with their corresponding roadway.

Route Abbreviation	Route Name
A	Northeast Extension
B	Beaver Valley Expressway
G	Amos K. Hutchinson Bypass <i>(a.k.a. Greensburg)</i>
H	Interstate 95 Connector
M	Mon-Fayette Expressway
S	Southern Beltway
T	Mainline Turnpike

8.3.3.2 PRIMARY ALIGNMENT NAMING

Primary alignment is an alignment that is part of the mainline. Naming convention is as follows:

Table 8-13 Primary Alignment Naming

Route Abbreviation	Start Milepost	Delimiter	Route Abbreviation	End Milepost	Delimiter	Owner
T	024.7	-	T	032.8	_	PTC
Example: T024.7-T032.8_PTC						

8.3.3.3 SECONDARY ALIGNMENT NAMING

Secondary alignments are alignments a part of an interchange including ramps and toll plazas. Ramps must be named as shown in [Table 8-14 Ramp Alignment Naming](#) and toll plazas must be named as shown in [Table 8-15 Toll Plaza Alignment Naming](#).

Table 8-14 Ramp Alignment Naming

Route Abbreviation	Interchange Milepost	Delimiter	“RAMP”	Delimiter	Ramp Name
M	048.0	_	RAMP	_	C
Example: M048.0_RAMP_C					

Table 8-15 Toll Plaza Alignment Naming

Route Abbreviation	Interchange Milepost	Delimiter	TP
M	048.0	_	TP
Example: M048.0_TP			

8.3.3.4 ACCESS ROADS ALIGNMENT NAMING

Access roads are smaller alignments connecting roads from the primary and secondary roadways to either state, township, or other various roadways. Utilizing the access road abbreviations, all access roads will be named as follows:

Table 8-16 Access Road Alignment Naming

Route Abbreviation	Milepost	Delimiter	Access Road Abbreviation	Delimiter	Direction or Name
T	152.2	_	EAR	_	WB
Example 1: T152.2_EAR_WB					
Example 2: T186.7_SER_4					

The access road abbreviations are as follows:

Table 8-17 Access Road Abbreviations

Abbreviation	Description
EAR	Emergency Access Road
MR	Maintenance Road
SER	Service Road
SPR	Service Plaza Road
TA	Turn Around
XOR	Cross Over Road

8.3.3.5 STATE AND TOWNSHIP ALIGNMENT NAMING

State and township roads will utilize the abbreviation and designated route number. All state roads must list 4 digits and all township roads must list 3 digits for the route number, as shown in the examples below. The alignment naming convention is as follows:

Table 8-18 State and Township Roads Alignment Naming

PTC Route Abbreviation	PTC Milepost	Delimiter	State/Twp. Road Abbreviation	State Route/Township Route Number
T	286.1	_	SR	1059
Example 1: T286.1_SR1059				
Example 2: A046.5_TR032				

Table 8-19 State and Township Roads Abbreviation

Abbreviation	Description
SR	State Route/Road
TR	Township Road

8.4 REVIT NAMING CONVENTIONS

This section outlines naming conventions specific to Revit. Elements such as families, parameters, and subcategories will be covered.

8.4.1 DATUM NAMING / NUMBERING

8.4.1.1 LEVELS

Levels must include a location designator followed by a level number. This table is used as an example and is not limited to the locations listed.

Table 8-20 Level Location Designator

Location	Designator
Top of Structural Slab	TOS
Top of Roof	TOR
Top of Finish Floor	TOFF
Structural Steel Level	SSL
Bottom of Ceiling	BOC

Table 8-21 Occupiable Levels Example

Location	Name
Roof	ROOF
Second Floor	SECOND FL.



First Floor	FIRST FL.
Ground Floor	GROUND FL.
Basement Level	BASEMENT

Example: TOS_GROUND FL.

Level Naming will vary by project. See PxP for detailed Level naming.

8.4.1.2 GRIDS

Horizontal Grid lines have an alphanumeric format and start with A.

Vertical Grid lines have a numerical format and start with 1.

Grids between major grid lines will include a period(.) and start a numerical format. For example, vertical grids will follow A.1, A.2, etc., and horizontal grids will follow 1.1, 1.2, etc.

Grid numbering will vary by project. See PxP for detailed grid numbering.

8.4.2 SHEET NUMBERING

PTC’s standard naming convention for sheet files will begin with a Discipline Code, followed by a hyphen (-), the building number, a hyphen (-), and a three-character or larger sheet code as defined below. This can be followed by a user defined code if necessary for transmittal of the file.

Sheet numbering on sheets will begin with the discipline code followed by a hyphen (-), then the building number, hyphen (-), followed by a 3 digit or larger sheet code, unless otherwise specified in the PXP. All code values can be found in the table below. The purpose of this sheet numbering scheme is to keep all plans associated of a similar level together.

Table 8-22 Sheet Numbering

Discipline Code		Building Number		Sheet Code			
				Plan Type	Level	Drawing Type	Area / Modifier (Optional)
A	-	1	-	1	0	1	A
A-1-101A							

For example sheet numbering please see the below. Each sheet number has been broken into its parts for reference.

A-1-101A

ARCH – BUILDING 1 – FLOOR PLAN / GROUND FLOOR / PARTIAL PLAN / AREA A

A-1-100

ARCH – BUILDING 1 – FLOOR PLAN / GROUND FLOOR / OVERALL PLAN

A-1-700D

ARCH – BUILDING 1 – DETAILS / GROUND FLOOR (GENERAL) / OVERALL PLAN / SHEET 4



Please see the below for Discipline, Plan type, and Drawing type designators as related to the table above. These will be used for all sheet numbering scenarios unless otherwise stated in the PXP.

Discipline - AIA standard values

	Cover Sheet
G	General
H	Hazardous Materials
V	Survey / Mapping
B	Geotechnical
C	Civil
L	Landscape
S	Structural
A	Architectural
I	Interiors
Q	Equipment
F	Fire Protection
P	Plumbing
D	Process
M	Mechanical
E	Electrical
W	Distributed Energy
T	Telecommunications
R	Resource
X	Other Disciplines
Z	Contractor / Shop Drawings
O	Operations

Plan Type Designator –

	ARCH	MEP	STRUCT
0	Cover Pages		
1	Floor Plans		Foundation Plan
2	Reflected Ceiling Plans		Framing Plan
3	Elevations	Controls	User Defined
4	Enlarged Plans & Sections		
5	Stairs	Schematics / Riser Diagrams	Specifications
6	Doors & Windows	Schedules	User Defined
7	Misc. Details & Elevations	Details	User Defined
8	Finish Plans	User Defined	User Defined
9	Furniture Plans	User Defined	User Defined

Drawing Type Designator - AIA standard values / May be numerical for detail or nonconforming sheets

0	Overall Plan
1	Partial Plans
2	User Defined
3	User Defined
4	User Defined
5	User Defined
6	User Defined
7	User Defined

8	User Defined
9	User Defined

8.4.3 WORKSET NAMING

There are two Workset naming typologies:

- Linked models
- Live geometry/non-links

Table 8-23 Workset Naming - Links

“_Link”	Delimiter	Discipline Code	Delimiter	Link Description
_Link	_	A	-	Mechanical
Example: _Link_M-Mechanical				

Table 8-24 Workset Naming - Live Geometry/non-links

Discipline Code	Delimiter	Function / System	Delimiter	Subtype / Subsystem
A	-	Interior	-	Furniture
Example: A-Interior-Furniture				

For Discipline Code see section [8.1.2 Discipline Code](#)

8.4.3.1 FUNCTION/SYSTEM

The table below is an example for Function/System and Subtype/Subsystem but is not limited to this list.

Table 8-25 Workset Function/System and Subtype/Subsystem

Function/System	Subtype/Sub-system
Exterior	<ul style="list-style-type: none"> • Entourage • Landscape • Roof • Site • Walls
Interior	<ul style="list-style-type: none"> • Ceilings • Equipment • Fixtures • Furniture • Lighting • Slabs • Vertical Circulation • Walls

Electrical	<ul style="list-style-type: none"> • Auxiliary Power • Grounding • Lighting • Lightning • Power
Mechanical	<ul style="list-style-type: none"> • Chill Water • Controls • Ductwork • Equipment • Hot Water • Steam
Plumbing	<ul style="list-style-type: none"> • Compress Air • Domestic Cold Water • Domestic Hot Water • Domestic Hot Water Return • Fixtures • Natural Gas • Sanitary Sewer • Sanitary Ventilation • Storm
Structural	<ul style="list-style-type: none"> • Columns • Foundation • Framing • Slabs
Fire Protection	<ul style="list-style-type: none"> • Equipment • Sprinklers • Piping Wet • Piping Dry • Piping Preaction
CoreShell	Linked model of Gensler’s Core and Shell
Structure	Linked model of Thornton Tomasetti’s Structural model
Workset1	Created by default by Revit. Do not rename or delete this Workset.

8.4.4 FAMILY NAMING

Families will be named using the Category Designator, then the Placement Designator, and last the Description. An underscore (_) will divide all designators.

Table 8-26 Family Naming

Category Abbreviation	Delimiter	Placement Abbreviation	Delimiter	Description
WA	_	FB	_	Single
Example: WA_Concrete 4" or PTC_WN_FB_Single				

Table 8-27 Revit Category Abbreviation

Category	Abbreviation
Annotation Symbols	AN
Annotation Tags	TG
Casework	CA
Ceilings	CE
Columns	COL
Curtain Panel	CP
Detail Components	DTL
Doors	DR
Floors	FL
Furniture	FR
Generic Models	GM
Lighting Fixtures	LF
Mass	MS
Mullions	MUL
Profile	PR

Category	Abbreviation
Railings	RL
Rebar Coupler	RC
Rebar Shape	RS
Roofs	RF
Specialty Equipment	SE
Stairs	ST
Structural Columns	STR_COL
Structural Foundations	STR_FN
Structural Framing	STR_FR
Structural Stiffeners	STR_S
Structural Trusses	STR_TR
Title Block	TTB
Windows	WN
Walls	WA

Table 8-28 Placement Abbreviation

Placement	Abbreviation
Ceiling Based	CB
Face Based	FB
Floor Based	FL

Placement	Abbreviation
Line Based	LB
Roof Based	RB
Wall Based (Basic Wall)	BW
Wall Based (Curtain Wall)	CW
General	XX

8.4.5 SYSTEM NAMING

Systems built in the model will be named for the type of function they serve followed by an underscore and sequential numbering starting at 1 for multiple of the same type of system.

Example: Plumb_Toilets_1, Plumb_Toilets_2, Plumb_SupplyToilets_1, Mech_ReturnHVAC_1, etc.

8.4.6 PARAMETER NAMING

Parameter names will be descriptive of both the specific element being manipulated and the dimension, quantity, or property being assigned. The parameter naming convention is designed to group parameters manipulating similar or the same elements together when they are sorted alphabetically.

Table 8-29 Parameter Naming

Assembly	Delimiter	Unit / Part	Delimiter	Dimension / Quantity / Property
Door	_	Opening	_	Width
Example: Door_Opening_Width or Door_Panel_Left_Offset				

Depending on the complexity of the family or the level of nesting of components within the family, additional levels of assembly level description may be added, or superfluous fields may be omitted, as necessary.

Materials and finishes will not be permitted in the naming of parameters, as these are subject to change as the project develops.

8.4.7 VIEW NAMING

The PTC view naming standard is as follows:

Table 8-30 View Naming

View Group Designation	Delimiter	View Type Designation	Delimiter	Location Designation	Delimiter	Description
DOC	_	PLN	_	BLDG	_	Level 01
Example: DOC_PLN_BLDG_Level 01 or WRK_ELEV_INT_Bathroom						

The following tables are examples for the View Group, View Type, and Location Designations but are not limited to these lists.

Table 8-31 Revit View Group

View Group	Designation
Working	WRK
Documentation	DOC
Presentation	PRES
Coordination	COR
Quality Control	QC

Table 8-32 Revit View Type

View Type	Designation
Floor Plan	PLN
Elevation	ELE
Section	SEC
Reflected Ceiling Plan	RCP
Detail	DTL
3D	3D
Legends	LGD
Drafting Views	DFT

Table 8-33 Revit Location

Location	Designation
(Full) Building	BLDG
Enlarged	ENL
Interior	INT
Exterior	EXT
Partial	PART
Stairs	STA

8.4.8 VIEW TITLE NAMING

View Titles should describe the view and not include any abbreviations or designators. View titles should reference the Parameter “Title on Sheet” not the View Name.

8.4.9 VIEW TEMPLATE NAMING

The PTC View Template naming standard is as follows:

Table 8-34 View Template Naming

Discipline Code	Delimiter	View Group Designation	Delimiter	View Type Designation	Delimiter	Description
A	_	COR	_	PLN	_	Construction
Example: A_COR_PLN_Construction or S_DOC_ELEV_Framing						

For Discipline Code see [8.1.2 Discipline Code](#).

For View Type Designation see section [8.4.7 View Naming](#).

8.4.10 FILTER NAMING

The PTC Filter naming standard is as follows:

Table 8-35 Filter Naming

Category Designation	Delimiter	Filter Function	Delimiter	Description
WA	_	LifeSafety	_	2hr
Example: WA_LifeSafety_2hr				

For Category Designation see section [8.4.4 Family Naming](#).

The Filter Function is a brief description of the intended function of the filter.

The Description is a brief explanation of the target of the filter.

8.4.11 DOOR NUMBERING

Door numbers will correspond to the room that they open into. If there are multiple doors to a room, a letter will be appended to the door number. For example, doors opening into room 101 will be 101 or 101A and 101B.

8.4.12 SUB-CATEGORY NAMING

Sub-Categories must be named after the element they are being assigned to. For example, Mullions, Frame, Panel, Glass are all Sub-categories of Windows.

8.4.13 PROGRAMMING NAMING / NUMBERING

Rooms, Spaces, Zones, and Areas will be numbered with a 3-digit number. The first number will correspond with the level. Meaning, rooms at level 1 will start at 100, rooms at level 2 will start at 200, and so on.

8.4.14 SCOPE BOX NAMING

Scope boxes will be named based on the Area or Zone. For example, Overall, Sector 01, Area 01, Zone 01, Part 01.



If there are multiple buildings in the same model then a building name must Prefix the Area / Zone.

Examples: Tollbooth_Overall or CAB Building_Area A

9. COLLABORATION STANDARDS

9.1 COLLABORATION STRATEGY

Review on what platforms and how project teams will collaborate.

9.1.1 COMMON DATA ENVIRONMENT (CDE)

CDE's are critical for the project as the single source of information used to collect, manage, and disseminate documentation, 3D models, and non-graphical information. The Common Date Environment is being utilized by PTC to conduct model reviews and utilized for project submittals. The CDE system being utilized for project submittals and other coordination will be identified in the PxP.

9.1.1.1 DOCUMENT MANAGEMENT

BIM360 will be used as a source option for sharing content. PTC will be the Host for this CDE and set up the appropriate permissions and security requirements on a per project basis. If additional permissions are needed, then the Design Consultant Project Manager must list this in the PxP with a request to PTC's Design Services Unit.

CDE:	Autodesk BIM 360
Host:	PTC
Purpose:	<ul style="list-style-type: none"> • Live Authoring platform • File Sharing • 2D & 3D Coordination • Shared 3D Content • Model Reviews

NOTE: CDE Systems are being investigated and implemented on Digital Delivery projects. The PxP will list which CDE system will be utilized for submittals model reviews. For all other submissions, the default CDE system for model submittals is Autodesk BIM360.

9.1.1.2 BIM 360 PLATFORM ACCESS

PTC can approve access to the BIM 360 platform. To gain access to this platform:

1. Initiate an email request to PTC Project Manager or the Design Services Unit. Include in your request:
 - Name
 - Email
 - Role (i.e., Engineer, Designer, Contractor)
 - Project you will access
2. Accept membership to the project in the autogenerated email invitation from Autodesk. Save this email for future reference. You will need to confirm membership using your Autodesk Account. If you have never used your Autodesk credential, create one that is associated with your email.
3. If you are authoring your files in Revit, secure a BIM 360 Design Collaboration entitlement from your organization. PTC will not provide a Design Collaboration seat to external consultants. If AutoCAD is your authoring platform, you can skip this step.

9.1.1.3 CDE FOLDER STRUCTURE

CDE folder structure must follow standard PTC project folder structure, see section [9.2 Project Organization](#). PTC will set up the overall folder structure for submittals, however, it is the responsibility of the Design Consultant to add the

appropriate subfolders that reflects their file organization listed within the PxP following the structure listed in the following section.

9.2 PROJECT ORGANIZATION

The Commission has a standard folder structure for the organization of projects to be used internally and externally by outside consultants. The central goals of this structure are to improve coordination between groups and to facilitate the use of electronic information beyond the initial contract.

Data being transferred to the Pennsylvania Turnpike Commission should be organized in accordance with the standard folder structure described in the section below. It is each consultant's responsibility to organize data such that no model links or references are lost or broken. It is imperative for outside consultants to organize files on their server in accordance with the PTC folder structure so that reference model links are maintained between files when the project files are uploaded to the Commission's Common Data Environment storage location.

9.2.1 FOLDER STRUCTURE

All projects will be assigned a unique Project ID Number by PTC and distributed to all team members including outside consultants. This project number is **NOT** the 'shortened file number' used for file naming but includes the entirety of the Project ID. The following folder structure outlines the required folders that will exist on PTCs BIM 360 storage location for all projects:

- PROJECT ID #/WBS
 - SUBMITTALS
 - 30-DFV
 - FIO
 - MODELS
 - _Shortcuts* (this folder is only for Civil 3D projects)
 - BASE DATA
 - FEDERATED MODEL
 - PDF
 - 60-OTS
 - 75 DESIGN
 - PRE-FINAL PS&E
 - PS&E
 - WIP

Note: there are additional optional subfolders that can be added to this structure which will be described in section [9.2.2 Subfolders](#).

The structure and hierarchy of these folders will be included with every project submission. The following information describes what type of files are included within each folder:

- PROJECT ID is the top-level folder for a project. It will have 2 subfolders: SUBMITTALS and WIP (Work In Progress). The folder name will consist of the entirety of the Project ID.
 - SUBMITTALS will contain several subfolders, one for each phase of submission: 30-DFV, 60-OTS, 75 DESIGN, PRE-FINAL PS&E and PS&E. This is where the PxP will reside.
 - 30-DFV/60-OTS/75 DESIGN/PRE-FINAL PS&E/PS&E folders will each contain the subfolders described in detail below. The appropriate folder should be chosen based on the phase of submittal and the required model deliverables.
 - FIO stands for "For Information Only". This folder should contain any models or electronic files containing supplemental information to the MODELS and PDF folders for this phase of submission.
 - MODELS folder will contain all model files that pertain to the project that is being submitted for the current phase.

This folder houses all model files and PIM data regarding specific elements such as alignments, surface/terrains, etc. These are the files that will develop the 3D models, as well as any 2D models or information that support project design. A BASE DATA folder must also reside in this location for

all existing model files (further explained below). For Civil 3D, this is where the Data Shortcuts folder will reside. *Note: additional subfolders as laid out in the PxP should also exist at this level, see the following section for more details.*

- _Shortcuts contain all data shortcuts for Civil 3D files. *This folder will automatically be created when setting up Data Shortcuts for your project, thus, it does not need to be manually created within the project directory. Contents in this folder are managed through the Civil 3D platform. Therefore, data and files are not permitted for editing from within this folder. *Note: This folder is only required for Civil 3D.*
 - BASE DATA contains all existing information from survey, topo, existing drawing models, etc. The folder will include any survey files such as point files, tin surfaces/terrains, and any other information provided by the surveyor. The purpose of this folder is to house any existing information that is displayed on plot sheets as existing conditions. The existing condition files are not modified throughout the design phases. If a Civil 3D Survey Database is used for a project, then its location needs to reside under this folder. Drawings in the BASE DATA folder are for reference and will not serve as the Legal Document.
 - FEDERATED MODEL is a combined project information model that is compiled from several PIMs from different disciplines into one. In other words, a federated PIM model is an assembly of distinct discipline PIM models to create one single, complete model of the project.
 - Any optional subfolders described in the PxP will also appear at this level. These will contain drawings/models that are included in the project submittal. These subfolders should follow the rules dictated by the following section.
- PDF contains all electronically plotted plan sets in portable document format. This includes any PDF documents that are included as a part of the project submittal.
 - WIP stands for Work in Progress. This folder should be used for the consultant to send any files needed to communicate to PTC between submittals. Nothing in this folder will be considered a submittal or legal document.

9.2.2 SUBFOLDERS

The folder structure must be determined by all project teams and specified in the PxP. Subfolders are not a requirement as part of the project directory folders, however additional subfolders are permitted for better organization of the project files. It is not necessary for each project file directory to have all subfolders listed in this section. The Consultant Project Team may add any that are applicable up to their discretion and adhering to the following criteria:

- The MODELS folder is permitted to have subfolders additional to those listed in section [9.2.1 Folder Structure](#). If working on larger projects that require specific discipline folders, then the subfolders listed below should be utilized.

These folders are based on disciplines and varying components of a project design. It is not required to have all these folders listed within the shared folder. There are two options for additional folders based on Horizontal or Vertical design/construction projects.



The following folders are optional for **Horizontal Projects**:

<u>Folder Code</u>	<u>Folder Description</u>	<u>Folder Code</u>	<u>Folder Description</u>
DRAN	Drainage	ROAD	Roadway
ENV	Environmental	ROW	Right of Way
EROS	Erosion and Sediment	SHTM	Sheet Models
GEOT	Geotech	STRC	Structures
LDSC	Landscaping	TRAF	Traffic
LITE	Lighting	TRAN	Transportation Site
MPT	Maintenance and Protection of Traffic	UTIL	Utilities

The following folders are optional for **Vertical Projects**:

** Indicates Subfolder beneath Bridge Folder*

<u>Folder Code</u>	<u>Folder Description</u>	<u>Folder Code</u>	<u>Folder Description</u>
ARCH	Architectural	ENV	Environmental
BRDG	Bridge	EROS	Erosion and Sediment
ABUT	*Abutment	GEOT	Geotech
SLAB	*Approach Slab	LDSC	Landscaping
BEAM	*Beam	LITE	Lighting
BEAR	*Bearing Pad	MEP	Mechanical, Electrical, Plumbing
DECK	*Deck	ROW	Right of Way
DPHM	*Diaphragm	SHTM	Sheet Models
PIER	*Pier	STRC	Structures
PSRN	*Polystyrene	TRAN	Transportation Site
CIVL	Civil	UTIL	Utilities
DRAN	Drainage		

- The SUBMITTALS folder may have additional subfolders for any other required submissions as required by the PxP and deliverables listed in section [3.5.3 Deliverable file type](#).



9.3 INTEROPERABILITY

If projects require multiple software, then it is imperative for the Consultant to ensure all models function correctly when exchanging data across multiple platforms. There should be no loss of model or asset information when transferring models. When applicable, all models must remain geolocated in the proper, defined coordinate system. It is the Consultant's responsibility to ensure the interoperability of information exchanged across platforms.

10. COORDINATION STANDARDS PROCEDURES

10.1 GENERAL COORDINATION STANDARDS

Each design project is responsible for 3D coordination hosted a regular, iterative process. Throughout the project, the Consultant Project Team is responsible for model coordination performing clash detection on components of the model of various disciplines. The workflow and schedule for coordination may include, clash detection reports, coordination meetings, visual inspection, etc. will be dictated in the PxP.

10.1.1 CLASH SETS

The table below shows the different clash sets that will be determined applicable on a per project basis.

Table 10-1 Clash Sets

Search set name	Disciplines
CIVIL-STRUCT	Civil vs. Structural
CIVIL-ARCH	Civil vs. Architectural
CIVIL-MECH	Civil vs. Mechanical
CIVIL-ELECT	Civil vs. Electrical
CIVIL-PLUMB	Civil vs. Plumbing
CIVIL-TCOMM	Civil vs. Telecommunications
CIVIL-FP	Civil vs. Fire Protection
STRUCT_ARCH	Structural vs. Architectural
STRUCT-MECH	Structural vs. Mechanical
STRUCT-ELECT	Structural vs Electrical
STRUCT-PLUMB	Structural vs. Plumbing
STRUCT-TCOMM	Structural vs. Telecommunications
STRUCT-FP	Structural vs. Fire Protection
ARCH-MECH	Architectural vs. Telecommunications
ARCH-ELECT	Architectural vs. Fire Protection
ARCH-PLUMB	Architectural vs. Electrical
ARCH-TCOMM	Architectural vs. Telecommunications
ARCH-FP	Architectural vs. Fire Protection
MECH-ELECT	Mechanical vs. Electrical

MECH-PLUMB	Mechanical vs. Plumbing
MECH-TCOMM	Mechanical vs. Telecommunications
MECH-FP	Mechanical vs. Fire Protection
ELECT-PLUMB	Electrical vs. Plumbing

10.1.2 CLASH TERMINOLOGY

Clashes

A clash is the result of two 3D elements occupying and/or passing through one another in the same relative space within the model(s).

Single Discipline Clash

A single discipline clash is the process of performing coordination within a single discipline model. Individual disciplines must coordinate their own work before sharing with the rest of the consultant project team. Single discipline clashing is not part of the coordination process, and any impacts of improper single discipline clashing after coordination will be on the individual discipline to make correct.

Cross Disciplinary Clash

A cross-discipline clash is the process of aggregating multiple discipline models or model elements and performing a clash detection against those models or model elements.

Clash Report

A clash report is a document that contains all information pertaining to the clashes found during the clash detection. This information will be reviewed and edited by the Consultant Project Manager, or person appointed by the Project Manager, before publishing to the team and includes but is not limited to the following:

- Specific location, including images.
- Elements IDs of the objects in question.
- A description of the problem.
- Details of the date/revision/origin of the linked information being cross-referenced.
- Suggested solutions or actions to be taken, by whom and by what date.
- Author of the issue and the distribution list for information or resolution.
- Confirmation that the resolution has been tested in the model.
- Issue status: Pending Response, Overdue, Unsuitable, Response, Closed.

10.2 DESIGN COORDINATION

Design coordination standards within a singular discipline model file.

10.2.1 DESIGN REVIEW

It is necessary for the project to perform clash detection. The Consultant Project Manager shall appoint a Lead to collect consultant models, compile a coordination model for clash detection, and issue a clash report to all consultants. Clash detection is necessary for multi-discipline projects.

10.2.2 CLASH TOLERANCE

Clashes should meet the tolerances listed in the table below. Clashes that are less than these tolerances may be ignored.

Table 10-2 Clash Tolerances

Clash Tolerance by System					
CIV	Civil	2"	UTL	Utilities	2"
MDC	HVAC Duct	2"	MPI	HVAC Piping	2"
PLU	Plumbing	2"	SDP	Fire Stand-Pipe	2"
SPK	Fire Sprinkler	2"	ELC	Electric	2"
FAM	Fire Alarm	2"	BMS	BMS	2"
COM	Communication	2"	SEC	Security	2"
STR	Structure	2"	ARC	Architecture	2"
MEC	Mechanical Equipment Clearance	2"	SPI	Sloped Pipes	2"

During coordination meetings, clash reviews will follow these procedures:

- Tolerances: Hard Clashes 6", 3", 1"
- Group Clashes by Level
- 5-10 Issues Per meeting

10.2.3 CLASH HIERARCHY

10.2.3.1 CIVIL AND STRUCTURE

Disciplines will be coordinated first and take precedence over other disciplines. For Civil, subsurface elements shall prioritize for clashes and issues addressed accordingly. If utility clashes are present, then it will be determined if the proposed design can be altered or if an existing utility can be relocated.

10.2.3.2 ARCHITECTURE AND STRUCTURE

Disciplines will be coordinated first and take precedence over other disciplines, this includes ceiling, walls, soffit framing, and king studs at doors etc. with the following exceptions:

- Ceilings should only be lowered (per an RFI request) if all other design alternatives have been exhausted.
- Architecture should be less significant in mechanical areas (e.g., Special/Main, Comm rooms, Mech rooms, primary/Main Electrical rooms, etc.) look for clear path requirements first.

10.2.3.3 STRUCTURE AGAINST MEP

Structural elements take priority to Mechanical, Electrical, and Plumbing elements in most cases. GC will dictate the MEP trader order.

11. QUALITY ASSURANCE / QUALITY CONTROL

The quality of PTC Digital Delivery projects is a constant process of collaboration between the project team and the technology attempting to represent real-world assets. The following sections detail how to perform QA/QC processes for all PIM deliverables.

11.1 QA/QC STRATEGY

The responsibility, software used, and frequency are dictated in the PxP.

Check	Description	Responsibility	Software Used	Frequency
Visual	<i>Ensure all model elements are intentionally modeled following the design, with no missing elements and removing all extra components.</i>	<i>All users</i>	<i>Civil 3D, OpenRoads Designer, Revit</i>	<i>Daily</i>
Clash	<i>Ensure all modeled elements in a single model are free of collisions between linked models, regardless of severity.</i>	<i>Consultant Project Manager or appointee by Consultant PM</i>	<i>Civil 3D, OpenRoads Designer, Revit, Navisworks, Glue</i>	<i>Agreed Upon</i>
Maintenance	<i>Ensuring models are set up appropriately, periodic audit & compacting the model, vetting links, and references, and maintaining file size.</i>	<i>All users</i>	<i>Civil 3D, OpenRoads Designer, Revit</i>	<i>Weekly</i>
Standards*	<i>Ensure that the Project Information Modeling & CAD Standards are followed in all models.</i>	<i>Consultant Project Team</i>	<i>Civil 3D, OpenRoads, Designer, Revit</i>	<i>Before Submissions</i>
Integrity	<i>Ensure that the Project Facility Data has no undefined, incorrectly defined, or duplicated elements</i>	<i>Consultant Project Team</i>	<i>Civil 3D, OpenRoads, Designer, Revit</i>	<i>Before Submissions</i>

*Standards will also be checked by PTC’s Design Services Unit to validate compliance with this document. A Customized Standards Checker specific to PTC projects will be executed at the 60% Design submission and 100% Design submission. See section [11.2.3 Consultant Quality Assurance](#) for further information.

11.2 QUALITY ASSURANCE

11.2.1 MODEL MAINTENANCE

The Consultant Project Team is responsible for maintaining models to assure high quality performance to avoid degradation of file performance, slowness in overall navigation, and corruption. The recommended model maintenance plan is suggested below, each project is required to list their model maintenance plan in the PxP.

• Function	• Recommended Frequency
• <i>Audit</i>	• <i>Once a week at the beginning of the week</i>
• <i>Compact</i>	• <i>Once a week at the end of the week</i>
• <i>Purge elements</i>	• <i>At major submissions & when transmitting file to consultants</i>
• <i>Purge Views</i>	• <i>At major submissions & when transmitting file to consultants</i>
• <i>Review Links & References</i>	• <i>When links are received, periodically there after</i>
• <i>Warnings Management</i>	• <i>Weekly – bi-weekly</i>

11.2.2 MODEL ARCHIVING

At key stages of the design process, a complete version of model data shall be compiled and copied into an archive folder to be managed by the Consultant Project Team. This subfolder shall be named according to the date of the archive and include a brief description of the project statues, submission, or deliverable. This subfolder will be saved underneath the ‘Archive’ folder per section [9.2 Project Organization](#).

11.2.3 CONSULTANT QUALITY ASSURANCE

PTC has developed a report to ensure all deliverables follow the Project Information Modeling & CAD Standards see section [11.3.1 PTC PIM & CAD Standards Review Report](#) It is the Consultant Project Team’s responsibility to be in compliance with the Project Information Modeling & CAD Standards and PxP. The Consultant Project Team will perform their own internal QAQC of all deliverable contents for each submission to ensure the files comply with the information outlined in these standards.

11.2.3.1 QUALITY COMPLIANCE CRITERIA

The PTC Project Information Modeling & CAD Standards Review Report outlines criteria for compliance in the following mandatory fields:

File Availability, Filename and Folder Structure

All model files, project drawings, reference files, and PDFs will be named according to this standard and follow the folder structure defined in section [9.2 Project Organization](#).

Plan Set Preparation

All externally referenced files and/or images will be contained within the folder structure described in this standard. The title sheet, contract border, and drawing information along with the professional stamps provided will be used according to this standard without any modifications and/or alterations.

CAD Practice

The layers/levels provided within this standard will be used in all drawing files. All externally referenced files and \or images will have no self-referencing and set to “Relative Path”.

The following elements will be consistent with the Project Information Modeling & CAD Standards:



- Text Styles
- Dimension Styles
- Use of Sheet Sets

Plot Setup

Drawings will be prepared using the STB file (C3D) or TBL file (ORD) for the pen settings described in this standard. This will ensure consistency of plotting drawings from any workstation within the Engineering Department.

Submittals Information

PDF files are required at each submittal. They are to be created in full size (ANSI D), multi-sheet and grouped together by Plotsheet Type.

PIM Objects/Elements

All 3D objects and elements will be checked against the LOD and PXP per submission. Any annotation in relation to the 3D models must have all information extracted directly from that 3D object or element.

Element data: all elements and systems should contain the minimum amount of associated data for ease of identification, based on the data requirements established by PTC.

The following are minimum expectations for model development and quality throughout the Digital Delivery process:

- Dimensions: all dimensions shown on models or CAD drawings shall be generated automatically by the modeling or CAD software and shall not be overwritten or disassociated. Dimensions not explicitly shown may be determined by querying the model or CAD drawing, provided that when physically locating elements during construction, dimensions that are explicitly shown on the Contract Documents will take priority.

C3D objects will be managed to the following criteria:

- Surfaces
 - Surfaces and surface labels will be created and submitted as dynamic Civil 3D objects.
 - Surfaces are referenced into civil design files and with data shortcuts.
 - Surface styles are consistent with the template file PTC Standard-C3D.dwt.
- Alignments
 - Alignments and alignment labels are created and submitted as dynamic Civil 3D objects.
 - Alignments are referenced into civil design files with data shortcuts.
 - Alignment styles are consistent with the template file PTC Standard-C3D.dwt.
 - Alignments are not polylines representing alignments and will contain features related to this object. Profiles will be created using PTC's issued styles. When alignments are used profiles will also be provided.
- Profiles
 - Profiles, profile views, and profile labels are created and submitted as dynamic Civil 3D objects.
 - Profiles are referenced into civil design files with data shortcuts.
 - Profile styles are consistent with the template file PTC Standard-C3D.dwt.
 - Drainage & Subsurface Utilities
 - Drainage, subsurface utilities, and labels are created and submitted as dynamic Civil 3D objects.
 - Drainage and subsurface utilities are referenced into civil design files with data shortcuts.
 - Drainage and subsurface utilities styles are consistent with the template file PTC Standard-C3D.dwt.
 - Drainage objects utilize the PTC Parts Catalog.
- Drainage & Subsurface Utilities
 - Drainage, subsurface utilities, and labels are created and submitted as dynamic elements.
 - Drainage and subsurface utilities styles are consistent with the PTC Standard-C3D.dwt and all parts extracted from the PTC Parts Catalog.
- Corridors
 - Corridors are created and submitted as dynamic Civil 3D objects and will utilize the provided code set styles.

- Corridors are referenced into civil design files with data shortcuts.
- Corridor styles consistent with the template file PTC Standard-C3D.dwt.
- Data Shortcuts
 - The Civil 3D Data shortcut folder will be available for archiving and located within the Model Folder. Data Shortcuts are essential for linking data to drawing objects. Points and or contours are imported and used with the proper surface guidelines and the PIM standard naming scheme will be applied.

ORD Elements will be managed according to the following criteria:

- Terrains
 - Terrains and terrain labels will be created and submitted as dynamic elements.
 - Terrains are referenced into civil design files with external references.
 - Terrain feature definitions are consistent with the DGNLIB file PTC_Features_Annotations_Levels_Elem Temp Imperial.dgnlib.
- Alignments
 - Alignments and alignment labels are created and submitted as dynamic elements.
 - Alignments are referenced into civil design files with external references.
 - Alignment feature definitions are consistent with the DGNLIB file PTC_Features_Annotations_Levels_Elem Temp Imperial.dgnlib.
 - Alignments are not polylines representing alignments and will contain features related to this element. Profiles will be created using PTC's feature definitions. If alignments are created, profiles will also be provided.
- Profiles
 - Profiles and profile labels are created and submitted as dynamic elements.
 - Profiles are referenced into civil design files with external references.
 - Profile feature definitions are consistent with the DGNLIB file PTC_Features_Annotations_Levels_Elem Temp Imperial.dgnlib.
- Drainage & Subsurface Utilities
 - Drainage, subsurface utilities, and labels are created and submitted as dynamic elements.
 - Drainage and subsurface utilities are referenced into civil design files with external references.
 - Drainage and subsurface utilities feature definitions are consistent with the DGNLIB file Drainage and Utilities Features Annotations Imperial.dgnlib.
- Corridors
 - Corridors are created and submitted as dynamic elements.
 - Corridors are referenced into civil design files with external references.
 - Corridor feature definitions consistent with the DGNLIB file PTC_Features_Annotations_Levels_Elem Temp Imperial.dgnlib.

Revit models will be managed according to the following criteria:

- Project origin
 - Models must be built in respect to 0, 0, 0 project origin established within the Architectural/Structural model.
 - This origin is often set at grid A-1 or to a prominent outside corner of the first-floor building slab. The finish floor of the first story or the level at grade is the Project 0 (or Z elevation).
 - Build all models for each story relative to this Project "O" to ensure that all discipline's models are spatially coordinated.
 - This origin shall be designated in the PxP and should be used throughout the entire 3D Coordination process, until sign-off and hand-off to PTC have occurred.
- Shared Coordinates
 - Each discipline is to acquire the shared coordinates from the Architectural model.
 - Preliminary models with acquired shared coordinates must be sent to the Architectural team for verification. Only verified models will be used for design.
- Insulation

- When modeling piping or ducting that require insulation, make sure insulation is modeled, reflecting the total thickness of what will be installed.
- Structural steel should presuppose 2-inch fireproofing in applicable areas and when clash tests are run, a tolerance of 2 inches will be set.
- Rooms and Spaces
 - Rooms must be defined in accordance with PTC room naming Guidelines; MEP spaces shall be properly specified.
- Fire Protection Design
 - Water supply pressure and flow rate must be determined before the fire protection system is designed.
- Generic Model Category
 - Only use the Generic Model category to create a new object as the last resort, as it reduces the functionality of visibility and graphics overrides.
 - If the Generic Model category must be used, create a subcategory for each major type of element represented.
- In-place Families
 - In-place component families are not allowed, except for custom components generally built on site or for building massing during design.
- Grouping
 - Grouping elements should be used sparingly because it negatively affects model performance.
 - If grouping must be used, do not group elements that are being hosted without also including their hosts. Consider using construction assemblies instead.

Any exceptions to these requirements or alternat processes should be requested for approval by the PTC Automation Coordinator prior to submitting the PxP.

11.3 QUALITY CONTROL

11.3.1 PTC PIM & CAD STANDARDS REVIEW REPORT

PTC will execute a PTC Project Information Modeling & CAD Standards Review Report for each submitted project to ensure all project deliverables are in compliance with this standard. The Review Report must be submitted by the Design Consultant in conjunction with the PxP, plan sets, and model files. The following sections specify when project reviews will be conducted and consequences for failing to meet requirements.

11.3.1.1 INTERIM PIM STANDARDS REVIEW

- An interim review is mandatory for the following:
 - Total reconstruction projects
 - Bridge replacement projects
 - Utility, drainage, and/or stormwater construction projects
 - Construction projects with a design duration greater than 90 days
- Timeframe: Design Field View, Over the Shoulder, Pre-Final PS&E submissions. If schedule differs, then submittal timeframe will be dictated in the PxP.
- PTC will issue the results of the PTC Project Information Modeling & CAD Standards Review Report to the Consultant Project Manager.
 - Failure to comply with PTC Project Information Modeling & CAD Standards
 - PTC will notify the Consultant specifying failure areas.
 - Consultant Project Team will make all obligatory updates to be included with the next submission.

11.3.1.2 FINAL PIM STANDARDS REVIEW

- A final review is mandatory for all Contract Drawings.



- Timeframe: Final PS&E submission
- PTC will issue the results of the PTC Project Information Modeling & CAD Standards Review Report to the Consultant Project Manager.
 - Failure to comply with PTC Project Information Modeling & CAD Standards will result in the following for 100% Design:
 - PTC will notify the Consultant specifying failure areas.
 - 3 weeks are provided for the Consultant to correct the files.
 - At the end of the 3-week period, the Consultant must resubmit the file submission with all necessary updates.
 - A FINAL pass/fail Report will be issued.

11.3.1.3 SUMMARY OF CRITERIA

PTC Design Services Unit will run dictate a pass/fail based on the report output. The report is completed by running a standards model checker on all model files. The following lists the summary of criteria for the review report.

Summary of Criteria
Design Intent (3.2.1)
Models were produced using approved design authoring software and version listed in section 4.1.0 Approved CAD and BIM software
Model elements are designed to the appropriate Level of Development (LOD) matrix in section 5.4.0
Models and drawing files associated to the project submission were completed and submitted per section 3.5.0 Deliverable Schedule and Submission
Technology Standards (4.0.0)
Any external references, data shortcuts, or links to other files are fully functional.
Project files are organized in the appropriate folder structure
Digital deliverables are in the correct format as listed in section 3.5.3 Deliverable File Type
The most current resource files were utilized for Civil 3D and/or OpenRoads files per Appendices 14.2.2 and 14.2.3, respectively
Modeling Standards (5.0.0)
The horizontal datum used is in accordance with section 12.2.1
The vertical datum used is in accordance with section 12.2.2
Units are US Survey Feet
Units are in accordance to type and precision per section 5.2.2.1
Project models are named according to PTC file naming conventions in section 8.2.1
Model revisions and sheets are in accordance with section 7.4.0 Drawing Revisions
Civil 3D / OpenRoads Modeling Standards (5.6.0)

Summary of Criteria
Surface design elements are 3D intelligent elements
Alignment design elements are 3D intelligent elements
Profile design elements are 3D intelligent elements
Underground pipe & structure network design elements are 3D intelligent elements
Corridor design elements are 3D intelligent elements
Annotations are dynamic for any 3D intelligent elements
Existing & proposed utilities are drawn and displayed according to PTC linestyles and standards
Drawing elements are created on the appropriate layers according to section 5.6.3.5
Survey points adhere to section 5.6.3.7
Corridors are created to the appropriate code set style per section 5.6.3.11
Models are created from the correct PTC Seed file, DGN Libraries, and Color table as described in section 5.6.4
Revit Modeling Standards (5.7.0)
Revit models and files meet PTC standards per section 5.7.0
Graphic Standards (6.0.0)
Text and drawings use standard text fonts and heights according to Table 6-1, section 6.1
Line types and line styles are drawn per PTC standards outlined in section 6.6.2 and displayed in Appendix 14.6
Drawings use set drawing scales listed in section 6.6.4
Symbols for either are created based upon parameters set in section 6.6.5
Naming Conventions (8.0.0)
Project files, models, and drawings follow the PTC naming format, using project number, discipline designator, model file type designator, and/or user defined designator per sections 8.1.0 & 8.2.0

11.3.2 STANDARDS MODEL CHECKER

The Model Checker automatically checks models and assists with verifying compliance with the PIM requirements outlined in this standard. The add-in is designed to quickly identify possible conflicts or areas of non-compliance in a model by running several standards checks, which can be viewed or exported for analytical review. While the Model Checker should not supersede the rules or recommendations put forth by any authority having jurisdiction, it does provide useful guidance for 3D Model compliance throughout a project's development.



11.3.2.1 QUALITY CONTROL CHECKS

The model checker is to be run at Design Field View and Final PS&E submissions. The model checker is a point in time status of the model's compliance with the Standards and does not preclude continuing work on the models.

12. SURVEY DATA COLLECTION

12.1 GENERAL SURVEY STANDARDS

The following standards apply to the collection of survey data:

- All Survey data for PTC projects will be collected using the following approved methods:
 - Total stations
 - LiDAR
 - UAV LiDAR
- At the start of a new collection project, surveyors will obtain maps and/or lists of approved existing monuments closest to the collection location from PTC.
- Surveyors when collecting data will utilize the codes provided in the “PTC-PEN-SURVEY” Description Key list to identify the information being collected at each location.
- All collected data processed into drawing format shall utilize the PTC provided drawing template and settings.

12.2 COORDINATE SYSTEM AND DATUMS

All survey deliverables are required to be on the designated coordinate system specified hereon. Examples of deliverables include but are not limited to:

- Project Data Files
- Drawing Files
- Fieldbook Files
- Reports

12.2.1 HORIZONTAL DATUM

The two horizontal coordinate systems for all PTC Projects are:

- **Pennsylvania State Plane Coordinate System, South Zone – NAD 1983** Coordinate System
 - Within the template files for C3D and seed files for ORD, the default coordinate system is set to “Pennsylvania State Planes, South Zone, US Foot (PA83-SF, NAD83)”.
- **Pennsylvania State Plane Coordinate System, North Zone – NAD 1983** Coordinate System
 - Required for all projects along the Northeast Extension from mile posts 72 to 131 (i.e., A072-A131).
 - For projects in this location, coordinate systems in all C3D template files and ORD seed files need to be changed to “Pennsylvania State Planes, North Zone, US Foot (PA83-NF, NAD83)”

12.2.2 VERTICAL DATUM

The vertical coordinate system for all PTC Projects is:

- **NAVD 1988**

12.3 SURVEY POINT CODES AND LINEWORK CODESETS

The following standards apply to point codes and linework Codesets:

- All collected field data will contain descriptions in all CAPS and adhere to the approved PTC field codes outlined in [Appendix 14.10 Survey](#) of the Appendices document.
- Linework Code Sets will be used in instances where drawn objects can be automated within the software. A complete list of approved PTC line codes can be found in [Appendix 14.10 Survey](#) in the Appendices document.
 - Points collected on a single object will be collected numerically or systematically to aid in line generation.



- Whenever necessary, size information should be included immediately following the primary code for example, (TREEG 36) = 36" diameter truck of Evergreen Tree.
- Additional information should be included after the line code to drive the line generation. If points of interest are inaccessible, the length of an object can be measured and then following the line code the direction and length information can place a PI point on the line and then recall a point or close the figure.
- Line codes will be used when the point is located on a curve, circle, or rectangle so that linework generated can be displayed as proper curvilinear geometry and not segmented line fragments.

12.4 UNITS OF LENGTH

The following standards apply to units of length:

- All **collected data** will be in US Survey Feet with a precision of 0.0000’.
- All **survey figures** created from **collected data** will be in 3D and contain true 3-D length values.
- All figures dimensioned on plans will be annotated in 2-D lengths with an accuracy of 0.00’

The table below describes the accuracy standards for all collected data.

Table 12-1 Location Survey Accuracy Standards

LOCATION SURVEY TYPE	ACCURACY STANDARDS	
	Horizontal	Vertical
Topographic/As-Built Surveys- (Paved Surfaces or Engineering Works)	± 0.06 ft	± 0.05 ft
(Natural Ground Points)	± 0.15 ft	± 0.15 ft
Pavement Elevation Surveys- Rehabilitation and other improvements of existing	± 0.05 ft	± 0.03 ft
Facilities which require accurate elevations of existing pavements		
Utility As-Built Surveys - (Above Ground Features or Engineering Works)	± 0.20 ft	± 0.20 ft
Subsurface Utility Surveys- (Designating Services, per ASCE Guideline 38-02)	± 1.00 ft	N/A
(Locate Services/Test Hole, per ASCE Guideline 38-02)	± 0.10 ft	± 0.10 ft
Archaeological Site/Environmentally Sensitive Area Surveys	± 0.50 ft	± 0.50 ft
Spot Location or Monitoring Surveys- (Paved Surfaces or Engineering Works)	± 0.08 ft	± 0.05 ft
(Natural Ground Points)	± 0.15 ft	± 0.15 ft
Vertical Clearance Surveys- (Paved Surfaces or Engineering Works)	± 0.10 ft	± 0.10 ft
(Natural Ground Points)	± 0.10 ft	± 0.10 ft

12.5 SURVEY EXISTING CONDITIONS

All data collection, review, and approval must be performed under the supervision of a licensed Land Surveyor and registered in the state of Pennsylvania.

Below lists the necessary steps for collecting existing field conditions for deliverables:

- Prior to starting a collection effort, research of existing records should be performed to identify existing record boundaries, easements, and ownership.
- When beginning projects, comply with the following for collecting data:
- When starting a new collection effort, always use a new, empty project file.
- If returning to a project location for additional survey, use a new project file and do not add to the previous collection file.
- When returning to collect additional survey data, include a point number offset so that duplicate numbers are not created and so that the new data remains sequential. (If this is not done in the field, this can be done upon imported to make the numbers unique and can be integrated into previously collected data.)
- Begin each project by locating at least one PTC approved existing monument within the project area. All project control points must indicate whether they are “Found” or “Set” control points and should back sight to an approved PTC monument.
- Once control has been established, collect all necessary data required to create a complete map of all features located at the project location.
 - When collecting information of surface features, use the provided PTC field codes as the description [Appendix 14.10 Survey](#) followed by any dimensional data and then add the required line code data to the end of the description so that the linework can be generated.
 - Whenever possible, collect points on each object in a sequential fashion to aid in the line generation.
 - If topography is to be included in the collection effort, collect ground data at no greater than a 25’ grid.
 - If roadway cross sectional data is to be included, collect cross sectional data at no less than 50’ sections unless otherwise directed by PTC.
 - Any structures, fences, and encroachments within a 25’ proximity of the project extents is to be included in the collected data as well.
- Once the collection effort is complete, all data must be balanced. Balancing should be performed in the field instrument used to collect the data.
 - Note: if the data is unable to be balanced in the field equipment, balancing can be done after the data has been imported into the design software.
- After collection and balancing is complete, all data is to be imported into a new project survey database and should include all points, networks, traverses, and survey figures. Once the survey database is populated, a 3-dimensional Least Squares Analysis is to be performed on the network to a 95% confidence level (the Least Squares input file and calculation report are to be included with your submittal to PTC).

12.5.1 TOTAL STATION SURVEY DELIVERABLES

Upon completion of any PTC survey project, the following are the required deliverables to PTC for review and acceptance in addition to all previously agreed upon deliverables per the project contract.

- PDF prints of all collected data within the extents of the project area at a size and scale relative to the size of the project while remaining legible and clear. Prints should include:
 - Project name and contract number.
 - Identity of approving licensed surveyor.
 - Dates of survey and submittal.
 - Monumentation used to complete the survey.
 - Scale and North direction.



- Labels indicating ownership and road or highway names.
- Points and linework collected in the field.
- Model file (dwg or dgn) containing:
 - All Survey Points, Figures, Traverses, & Networks
 - Located on approved Coordinate System.
 - Intelligent TIN Surface model
- Survey Database containing all collected data. **Applicable to Civil 3D only.*
- Fieldbook file (.fbk) of the raw data collected.
- Least squares analysis Input file and calculation results report.
- Copies of all field notes taken at the time of collection.

12.5.2 LIDAR SURVEY DELIVERABLES

Upon completion of any PTC lidar survey project, the following are the required deliverables to PTC for review and acceptance in addition to all previously agreed upon deliverables per the project contract.

- PDF prints of all collected data within the extents of the project area at a size and scale relative to the size of the project while remaining legible and clear. Prints should include:
 - Project name and contract number.
 - Identity of approving licensed surveyor.
 - Dates of survey and submittal.
 - Monumentation used to complete the survey.
 - Scale and North direction.
 - Labels indicating ownership and road or highway names.
 - Points and linework collected in the field.
- Model file (dwg or dgn) containing Point cloud data and an OPTIMIZED intelligent TIN Surface.
- Registered lidar data on approved coordinate system, optimized and free of extraneous debris in file format LAS, LAZ, RCS, or RCP as well as any supporting folders required to populate the LiDAR model.
- Copies of all field notes taken at the time of collection.

12.6 SURVEY TEMPLATES

12.6.1 CIVIL 3D

- Prior to working with any PTC survey data, the “Survey Data Settings” requires that a file folder be created at **“C:\PTC Standard Content\PTC Survey Settings”** on the root drive of the computer processing the information. The file entitled “PTC Survey User Settings.usr_set” will configure the software to look in this location for the preconfigured survey settings, linework code set, equipment database, and figure prefix database as well as many other settings.
- The PTC drawing template does not come with a preassigned coordinate system assigned to it therefore this must be set prior to populating any data in the drawing file. The Civil 3d database has its own coordinate system that is required to be set independently from the drawing file. The PTC Survey database settings files do not contain preassigned coordinate systems assigned to it and need to be set prior to importing any survey data. All design files that utilize the survey database must have the coordinate system set and synchronized within both the drawing files and the external database as well.
- Variable sized objects located in the field (such as a tree) will have a size parameter included in the description following the point code and delimited by a (space) so that this size can be used to scale and display symbology that is representative to actual size of the object located.
- The PTC-PEN-SURVEY Description Key Set will be used from within the PTC drawing template so that the points imported can be utilized to configure layers and display properties of data collected.
- PTC utilizes Linework Code Sets to automate the linework generation of data collected in the field. The approved Linework Code Set is included with the PTC Template and Survey Settings provided. Linework Code Sets are used to instruct the software on how to draw many of the objects located in the field automatically. These codes are placed after the point code description (and/or object size) and delimited by a (space).
- Example of line code work generation
 - (Example: BUI2 B, BUI2 C, BUI2 E)
 - (Example: BUI2 RT -4 RPN415 RPN416 RT -36 -4 24 CLS)
- In Civil 3d the survey database has its own units setting for the database that are separate from the drawing units and should be set up to match the units of the PTC drawing templates and design files. The Survey Database configuration files provided contain a Survey Database Users settings file (PTC Survey User Settings.usr_set) that will set this up to PTC standards. Ensure that you have created a folder on the “C:\” location entitled “PTC Standard Content\PTC Survey Settings” and that you have extracted all configuration files to this location to ensure consistency with all project and PTC Standards.
- Prior to balancing any survey data in Civil 3d, the calibration information from the field equipment used should be entered into the PTC Equipment Database to match the equipment used.
- Civil 3d 2025 drawing files containing Total Station survey information should include:
 - All Survey Points, Figures, Traverses, & Networks
 - Approved Coordinate System
 - Intelligent Civil 3d TIN Surface (optimized)
 - Civil 3d Survey Database containing all collected data.
- Civil 3d 2025 drawing files containing Point Cloud data should include all lidar data and an optimized intelligent Civil 3d TIN Surface. All registered lidar data shall be on an approved coordinate system, optimized and free of extraneous debris in file format LAS, LAZ, RCS, or RCP as well as any supporting folders required to populate the lidar model.

12.6.2 OPENROADS

- Prior to working with any PTC survey data, the “Survey Data Settings” require that configuration files and folder structures be copied into their correct locations.
 - Files: “PTC CAD Standards_N.cfg”, “PTC CAD Standards_S.cfg”
 - Stored: C:\ProgramData\Bentley\OpenRoads Designer CE\Configuration\WorkSpaces
 - File Folder: “PTC CAD Standards”
 - Stored: C:\ProgramData\Bentley\OpenRoads Designer CE 10.12\Configuration\Organization-Civil
- After all files and folders have been copied into the correct location defined above, launch Open Roads Designer 2022 Release 3 Version 10.12.02.04 and choose the PTC CAD Standards Workspace and create a new WorkSet for the project.
- Prior to importing any survey data make sure to set the Master Units, Sub-units, and precision to the units required for your project (metric or US Survey Feet).
- When survey data is processed, each field shot is stored as a Point Feature in the current Field Book within the active model of the active design file. When the survey data is processed, the code is plotted in Open Roads Designer using a standard cell element. OpenRoads Designer does not place any annotation with the survey information. Annotations are added using the Survey Decorations or Element Annotation commands.
- A series of points representing curvilinear features can be connected as a Linear Feature. Linking Codes, which are special characters that are entered after the feature name as the data is collected, are used to define the linear features. Refer to the link code list within the Workspace for predetermined codes.

13. PROJECT WORKFLOWS

13.1 BIM360 PIM SUBMISSION PER DESIGN PHASE

Each Design Phase shall be represented as a “Set” in BIM360 Docs. The “Version” of the model files shall be preserved within the Design Phase Set by navigating to the files in the “Folders” section of BIM 360 Docs, selecting the desired documents and editing the set assignment to one of the Design Phase Sets. This will assign the current active version of the file to the prescribed set. When navigating the Design Phase Sets, the version preserved in the set will be the version that was active at the time of assignment to the Set. The model file within “Folders” will continue to maintain the latest versions of the file, while the files moved to the sets will function as a time capsule for the files.

The “Current Set” will display the latest versions of the files as per their issue date (determined by the Sets themselves, and not when the file was uploaded or saved), collected from all the Sets. By utilizing this workflow, it becomes unnecessary to rename files for archiving purposes.

13.2 CLOSEOUT/HANDOVER/TURNOVER

A full Digital Delivery project lifecycle also contains steps on what to do with the digital assets at the end of design and construction. These assets include PDF construction drawing set versions, 3D models (DWG, DGN, NWC), work-in-progress and revision models as well as 2D CAD created throughout the design and construction process whether for record or for post-occupancy uses.

Refer to Section 3.1 Deliverables in the PxP for schedule of requirements.

13.3 PIM HANDOVER

At completion of design, final PIM deliverables to contractor and PTC are the collection of individual Design Models as received from the Model Element Authors(s) 3D models in the native file format. This includes any federated model(s) comprised of those individual Design Models. In addition, federated model(s) shall be created for each Design Model with all 2D content removed.

13.3.1 FINAL QAQC

An extensive round of quality assurance as outlined in section, coordinated among the design team with consultants responsible for their own files before being submitted to lead design team to compile.

In addition, prior to archiving the project, steps to be taken to transform the design and construction models for post-occupancy use include:

- Aggregate of all design iterations of models i.e., detached submission models, local standards ‘frozen’ or permitting models, etc.
- Purging models of internal design team’s working or coordination views
- Audit/compact to reduce file sizes to an appropriate usability for day-to-day use.



14. APPENDICES

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14.1 EXAMPLE PLANS

14.1.1 CIVIL 3D EXAMPLE PLANS

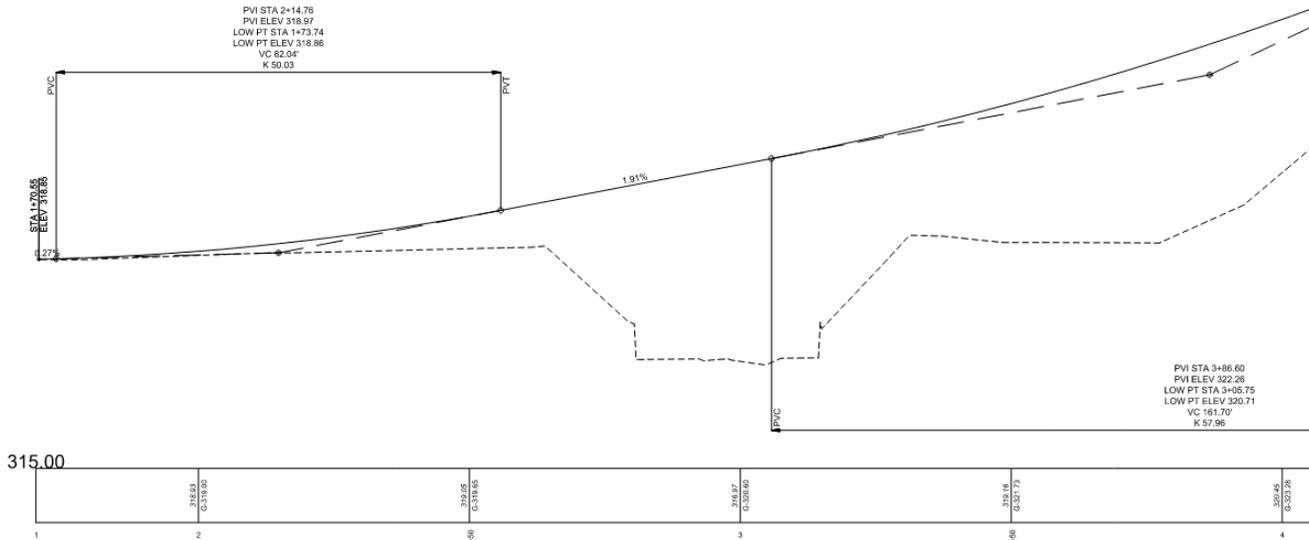


Figure 14-1 Civil 3D Profile Example Plan

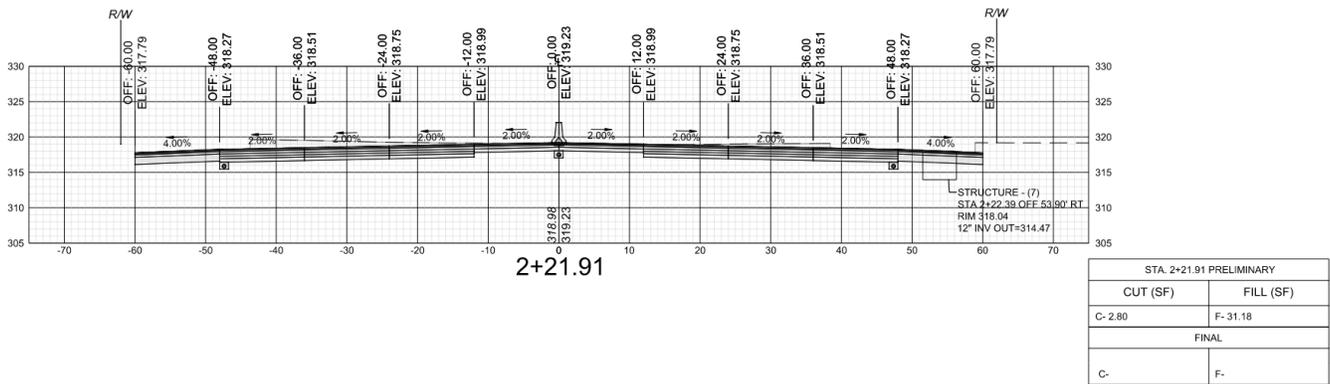


Figure 14-2 Civil 3D Cross Section Example Plan

14.2 SUPPORT FILE LOCATIONS

14.2.1 PTC STANDARD CIVIL 3D CONFIGURATION

All Consultants shall utilize the PTC Standards configuration. Before the start of project work, the consultant must execute the provided *PTC_CIVIL3D_2025_Standards_Setup_v1.0.exe* file on their workstations. This will generate a series of support folders located in "C:\Users\Public\Documents\". Contained within the folders is everything needed to create a Civil 3D drawing to PTC Standards. A Desktop Shortcut will be generated that will automatically utilize a PTC Civil 3D Profile that will point to the support folders generated by the .exe file enabling use of the required template, survey database files, linetypes, blocks, tool palettes, plotter configurations, plot styles, and pipes catalog.



The profile will be pre-set, so no further setup is required in Civil 3D upon opening the program via the Desktop Shortcut. **Please note that this requires Civil 3D version 2025 to be installed first.**



Figure 14-3 Desktop Shortcut

14.2.2 CIVIL 3D RESOURCE FILES

The Civil 3D “CAD Resource Files” directory described in Section 10.2.1 is the repository for updated Support files from PTC that may either be project specific, or an update of the PTC Standards Configuration detailed in the previous Section. The Support files are supplemental to the default Civil 3D files and consist of two 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 Civil 3D once they have been copied to the proper support folders. These files need no user input and therefore will not be included in the CAD Resource Files directory.

The second type refers to files such as templates and contract borders which the user must configure within the project. These files that may require PTC interaction for the purpose of updating the PTC Standards for external consultants and are listed in the table below.

Table 14-1 AutoCAD and Civil 3D PTC CAD Resource Files

File	Location
PTC Standard Sheet Set.dst	Copy to “CAD Resource Files” in project directory from “C:\Users\Public\Documents\PTC-Standards\C3D2025\Templates”
PTC Standard.dwt	Keep in “CAD Resource Files\AutoCAD”
PTC Standard-Contract Borders.dwt	Copy to “C:\Users\Public\Documents\PTC-Standards\C3D2025\Templates”
PTC Standard-C3D.dwt	Copy to “C:\Users\Public\Documents\PTC-Standards\C3D2025\Templates”
PTC Plan over Profile Sheet-C3D.dwt	Copy to “C:\Users\Public\Documents\PTC-Standards\C3D2025\Templates\Plan Production Templates”
PTC Plan Sheet-C3D.dwt	Copy to “C:\Users\Public\Documents\PTC-Standards\C3D2025\Templates\Plan Production Templates”
PTC Profile Sheet-C3D.dwt	Copy to “C:\Users\Public\Documents\PTC-Standards\C3D2025\Templates\Plan Production Templates”
PTC Section Sheet-C3D.dwt	Copy to “C:\Users\Public\Documents\PTC-Standards\C3D2025\Templates\Plan Production Templates”



14.2.3 OPENROADS DESIGNER RESOURCE FILES

The OpenRoads resource files contain a Workspace folder and an Organization-Civil folder. The contents in each of these folders reside within the 'Workspace' and 'Organization-Civil' folders, a part of the Bentley software download, on your server's location of Bentley\OpenRoads Designer CE\Configuration.

Table 14-2 shows where the Bentley files and folders provided can be stored. The location of these paths can vary depending on your server's location of the installed software. Any customization must be done on a per project basis to the WorkSet standards and must be available to all consultants and business partners for their use on the project.

Table 14-2 OpenRoads CAD Resource Files

File/Folder	Location
Bentley ORD Standards/Organization-Civil/PTC CAD Standards.cfg	Copy to C:\ProgramData\Bentley\OpenRoads Designer CE 10.12\Configuration\WorkSpaces
Bentley ORD Standards/Organization-Civil/PTC CAD Standards	Copy folder to C:\ProgramData\Bentley\OpenRoads Designer CE 10.12\Configuration\Organization-Civil

14.3 PROJECT SET UP WORKFLOW

14.3.1 OPENROADS DESIGNER

At the beginning of downloading the ORD Standards, the following steps will be followed:

1. Download and extract the zip file “PTC ORD Standards_v1.1.zip” file.
2. Extract “Civil-Organization.zip”. Copy the contents within this folder into your location of \Bentley\OpenRoads Designer CE\Configuration\Civil-Organization.
3. Extract “Workspaces.zip”. Copy the contents within this folder into your location of \Bentley\OpenRoads Designer CE\Configuration\Workspaces.

Open Bentley OpenRoads Software and set the Workspace to ‘PTC CAD Standards_N’ or ‘PTC CAD Standards_S’ depending on where the project is; as shown below. If starting a new project, select the drop-down arrow for WorkSets and select ‘Create WorkSet’. This will create the project folder within the WorkSets that will automatically default for saving dgn and plotting pdf files.



Figure 14-4 OpenRoad Designer CE, Setting Workspace and Workset

When selecting Create WorkSet, a dialog box will display where you can name the new project and select a Template of an existing WorkSet as a reference (see image below). An ‘Example Project’ has been created that can be used as a template WorkSet file. The ‘Example Project’ template will bring in a DGNWS file that is configured appropriately for the sheet index.

Create WorkSet

Name:

Description:

Template: Create Folders Only

+ Add a Custom Property

Folder locations

Root Folder: Browse...

Design Files: Browse...

Standard Files: Browse...

Standards Subfolders:

ProjectWise Projects

Browse...

OK Cancel

Figure 14-5 Create WorkSet Dialog Referencing 'Example Project' Template

14.4 ABBREVIATIONS

Term	Abbreviation	Shared Abbreviation
Acre	AC	
Angle	L	Length of curve; liter
Approved	APPD	
Area	A	
Asphalt	ASPH	
Back of curb	BC	Between centers; bolt circle; bottom chord; bottom of curb; building code
Baseline	BL	Building line
Bearing	BRG	
Benchmark	BM	Beam; bending moment
Bottom	BOT	
Boundary	BDRY	
Building	BLDG	
Cable Television	CTV	Television; junction box
Cast iron pipe	CIP	Cast-in-place
Catch basin	CB	Cement base
Center	CTR	Contour; cooling tower return
Center line	CL	Close; class
Combination, combined	COMB	
Concrete	CONC	concentric
Concrete pipe	CP	Control power
Conduit	CND	
Continuation, continue	CONT	Continuous; controller
Control	CTRL	
Control Point	CP	Concrete Pipe
Corrugated metal pipe	CMP	
Cross section	X SECT	



Term	Abbreviation	Shared Abbreviation
Cubic feet	CU FT	
Cubic feet per second	CFS	
Cubic yard	CU YD	
Culvert	CULV	
Cut	C	Celsius; channel; coulomb
Detail	DET	
Diameter	DIA	
Dimension	DIR	
Drawing	DWG	
Easting	E	External distance
Edge of concrete	EC	Edge of curb
Edge of pavement (paving)	EP	Electrical panel (panel board)
Edge of Water	EW	Each way
Electric junction box	EJB	
Electric meter	EM	Electromagnetic; expanded material
Electric pole	UPE	
Elevation	EL	Each layer; easement line
Existing	EXST	
Existing	EXIST	
Face of curb	FOC	Face of concrete
Feet per second	FPS	Steel fencepost
Fence	FN	
Fencepost	FP	Fire protection; fireproof; flagpole; freezing point
Fill	F	Fahrenheit; female; fire line
Finish grade	FIN GR	
Fire hydrant	FH	Fire hose; flat head; flat head screws
Gas meter	GM	
Gas pump	GASP	



Term	Abbreviation	Shared Abbreviation
Gas vent	GV	Gravity vent
Government azimuth mark 29/88	USAZ	
Government bench mark 29/88	USBM	
Government tri station 27/83	USTRI	
Government witness mark 27/83	USWIT	
Ground	G	Giga; girder; natural gas
Headwall	HDWL	
High water	HW	Hot water
Highway	HWY	
Inlet	INL	
Inside diameter	ID	Identification; inside dimension; interior design
Invert	INV	
Iron pin	IP	Iron pipe
Lane	LN	
Light signal pole	LSP	
Light/lamp post	LP	Light pole; light proof; low pressure (mechanical)
Linear foot	LF	
Manhole	MH	
Material	MATL	
Not to scale	NTS	
Northing	N	
Occupational Safety and Health Administration	OSHA	
Original ground	OG	
Outside diameter	OD	Outside dimension
Parking lot	PK LOT	
Pennsylvania Department of Transportation	PennDOT	
Pennsylvania Turnpike Commission	PTC	
Plane	PL	Property line



Term	Abbreviation	Shared Abbreviation
Point	PT	Paint; pipe thread; pneumatic tube; point of tangent post tensioned; pressure treated
Point of Intersection	PI	
Point of tangent	PT	
Point of vertical intersection	PVI	
Point on curve	POC	
Point on tangent	POT	
Pole	P	Pump; page
Property	PROP	
Property line	PL	Plane
Radius	R	Range; riser; thermal resistance
Railroad	RR	Center line railroad tracks; railroad centerline; roll roofing
Railway	RWY	runway
Reinforced Cement Concrete	RCC	
Reinforced Concrete	RC	Radius of circular curve; remote control
Right of way	ROW	
Road	RD	Refrigerant discharge; roof drain
Sanitary sewer	SS	Service sink; standing seam (roof); steam supply; storm sewer
Septic tank	SEP TNK	
Sewer	SWR	
Shoulder	SHLDR	
Sidewalk	SW	Southwest; switch
Spillway	SPILL	
Square feet	SF	Safety factor; supply fan
Square inch	SQ IN	
Standard	STD	
Station	STA	
Steel	STL	
Stopping sight distance	SSD	Subsoil drain



Project Information Modeling Standards Appendix

Term	Abbreviation	Shared Abbreviation
Storm drain	SD	Shop drawings; smoke detector; soap dispenser; supply duct
Storm drain manhole	SDMH	
Storm sewer	SS	Sanitary sewer; service sink; standing seam (roof); steam supply
Storm water	ST W	
Street	ST	Short tangent; single throw; spiral to tangent point; stairs
Subgrade	SUBG	
Superelevation	SE	Southeast; structural engineer
Telephone booth	TEL	
Telephone pole	TP	Total pressure; turning point; twisted pair
Top elevation	TE	
Top front abutment & wingwall	TTAW	
Top front face wingwall	TEFW	
Top of curb	TC	Top of concrete; top of cut
Top of manhole	TMH	
Top of retain wall	TWALL	
Topography	TOPO	
Traffic	TR	
True North	TN	
Turning Point	TP	Telephone pole; total pressure; twisted pair
Underground television line	UGTV	
Utility Pole	UP	
Vehicle	VEH	
Vertical feet	VF	Verify in field
Volume	VOL	
Water meter	WM	Wire mesh
Water pump	WP	Waterproofing; weatherproof; working point
Weight	WT	Water table; watertight
West	W	Waste; watt; wide



Term	Abbreviation	Shared Abbreviation
Well	WELL	
Wingwall	WW	Warm white; wastewater; wireway
Yard	YD	Yard drain; yard drainage pipe

14.5 LAYERS/LEVELS

14.5.1 CIVIL 3D LAYER SCHEME BY DISCIPLINE

14.5.1.1 CIVIL LAYERS

*Note: linetypes listed as “Continuous” will be noted as linestyle “0” within the ORD Workspace.

Layer Name	Color	Linetype*	Lineweight	Description
C-ALGN	red	BASELINE	0.25mm	Alignment - Parent Layer
C-ALGN-COGO	red	Continuous	0.25mm	Alignment - COGO points
C-ALGN-DIMS	red	Continuous	0.35mm	Alignment - Dimensions, Stationing
C-ALGN-LINE	red	BASELINE	0.25mm	Alignment - Line Segment
C-ALGN-LINE-CRCL	red	BASELINE	0.25mm	Alignment - Line Circle
C-ALGN-LINE-SPRL	red	BASELINE	0.25mm	Alignment - Line Spiral
C-ALGN-LINE-TNGT	red	BASELINE	0.25mm	Alignment - Line Tangent
C-ALGN-NOTE	red	Continuous	0.35mm	Alignment - Notes, Curve Data
C-ALGN-PNTS	red	Continuous	0.25mm	Alignment - Points (Non-Plotting)
C-ALGN-PTRN	red	Continuous	0.25mm	Alignment - Pattern
C-ALGN-SYMB	red	Continuous	0.25mm	Alignment - Symbols
C-ALGN-TEXT	white	Continuous	0.35mm	Alignment - Annotation text
C-ALGN-WORK	red	BASELINE	0.25mm	Alignment - User work (Non-Plotting)
C-ANNO	white	Continuous	0.25mm	Annotation - Parent Layer
C-ANNO-ATAB	white	Continuous	0.35mm	Annotation - AutoTab
C-ANNO-CELL	white	Continuous	0.25mm	Annotation - Cells
C-ANNO-DIMS	white	Continuous	0.35mm	Annotation - Dimensions
C-ANNO-LINE-HIDN	white	Continuous	0.60mm	Annotation - Hidden Line
C-ANNO-MARK	red	Continuous	0.25mm	Annotation - Markers
C-ANNO-MATC	white	HIDDEN	0.25mm	Annotation - Matchline
C-ANNO-MATC-PATT	white	Continuous	0.25mm	Annotation - Matchline Pattern
C-ANNO-MATC-TEXT	150	Continuous	0.35mm	Annotation - Matchline Text
C-ANNO-MISC-JOIN	white	Continuous	0.25mm	Annotation - Construction Joints
C-ANNO-MISC-LCON	white	Continuous	0.25mm	Annotation - Limits of Construction
C-ANNO-NOTE	white	Continuous	0.35mm	Annotation - Notes
C-ANNO-PNTS	white	Continuous	0.25mm	Annotation - Points (Non-Plotting)
C-ANNO-PTRN	white	Continuous	0.25mm	Annotation - Pattern
C-ANNO-SYMB	white	Continuous	0.25mm	Annotation - Symbols
C-ANNO-TABL	red	Continuous	0.25mm	Annotation - Table
C-ANNO-TABL-PATT	white	Continuous	0.25mm	Annotation - Table Hatch



Layer Name	Color	Linetype*	Lineweight	Description
C-ANNO-TABL-TEXT	150	Continuous	0.35mm	Annotation - Table Text
C-ANNO-TABL-TITL	150	Continuous	0.35mm	Annotation - Table Title
C-ANNO-TABL-TTBL	blue	Continuous	0.25mm	Annotation - Table Borders
C-ANNO-TEXT	white	Continuous	0.35mm	Annotation - General Annotation Text
C-ANNO-VFRM	150	Continuous	0.25mm	View Frames
C-ANNO-VFRM-TEXT	white	Continuous	0.35mm	View Frames - Text
C-ANNO-WORK	white	Continuous	0.25mm	Annotation - User Work (Non-Plotting)
C-BARR	white	Continuous	0.25mm	Barriers - Base level (Uncontrolled)
C-BARR-DIMS	white	Continuous	0.35mm	Barriers - Dimensions
C-BARR-ENDT	white	Continuous	0.25mm	Barriers - End Treatments
C-BARR-LINE	white	Continuous	0.25mm	Barriers - Linear Elements
C-BARR-NOTE	white	Continuous	0.35mm	Barriers - Notes
C-BARR-PNTS	white	Continuous	0.25mm	Barriers - Points (Non-Plotting)
C-BARR-PTRN	white	Continuous	0.25mm	Barriers - Pattern
C-BARR-SYMB	white	Continuous	0.25mm	Barriers - Symbols
C-BARR-TEXT	white	Continuous	0.35mm	Barriers - Text
C-BARR-VBFN	white	Continuous	0.25mm	Barriers - Visual Barrier Fence
C-BARR-WORK	white	Continuous	0.25mm	Barriers - User Work (Non-Plotting)
C-BLDG	white	Continuous	0.25mm	Buildings - Base level (Uncontrolled)
C-BLDG-DIMS	white	Continuous	0.35mm	Buildings - Dimensions
C-BLDG-NOTE	white	Continuous	0.35mm	Buildings - Notes
C-BLDG-OTLN	white	Continuous	0.25mm	Buildings - Structure Outlines
C-BLDG-PNTS	white	Continuous	0.25mm	Buildings - Points (Non-Plotting)
C-BLDG-PTRN	white	Continuous	0.25mm	Buildings - Pattern
C-BLDG-SYMB	white	Continuous	0.25mm	Buildings - Symbols
C-BLDG-TEXT	white	Continuous	0.35mm	Buildings - Text
C-BLDG-WORK	white	Continuous	0.25mm	Buildings - User Work (Non-Plotting)
C-CATV	30	Continuous	0.25mm	Cable TV
C-CATV-BERM	30	Continuous	0.25mm	Cable TV - Berm for Liquids Retention
C-CATV-DIMS	30	Continuous	0.35mm	Cable TV - Dimensions
C-CATV-DUCT	30	Continuous	0.25mm	Cable TV - Ducts and Conduits (vacant) for future lines
C-CATV-EQPM	30	Continuous	0.25mm	Cable TV - Equipment and Pad
C-CATV-GUYS	30	Continuous	0.25mm	Cable TV - Guying Equipment
C-CATV-HYDR	30	Continuous	0.25mm	Cable TV - Hydrants and Fire Department Connections
C-CATV-JBOX	30	Continuous	0.25mm	Cable TV - Junction Box



Layer Name	Color	Linetype*	Lineweight	Description
C-CATV-LINE	30	UT-CTV	0.60mm	Cable TV - Lines
C-CATV-LINE-DBUR	30	UT-CTVU	0.60mm	Cable TV - Direct Buried Underground Lines
C-CATV-LINE-OVHD	30	UT-CTV	0.60mm	Cable TV - Overhead Lines
C-CATV-LINE-UNDR	30	UT-CTVU	0.60mm	Cable TV - Underground Lines
C-CATV-MARK	30	Continuous	0.25mm	Cable TV - Cell - Above Ground Markers
C-CATV-METR	30	Continuous	0.25mm	Cable TV - Meters and Instrumentation
C-CATV-MHOL	30	Continuous	0.25mm	Cable TV - Manholes and Junction Boxes
C-CATV-NOTE	30	Continuous	0.35mm	Cable TV - Notes
C-CATV-PERC	30	Continuous	0.25mm	Cable TV - Perc Test Holes and Pits
C-CATV-PITS	30	Continuous	0.25mm	Cable TV - Pits for Vents, Valves and other equipment
C-CATV-PLNT	30	Continuous	0.25mm	Cable TV - Plants, Pumping Stations, Storage Tanks and Reservoirs
C-CATV-PNTS	30	Continuous	0.25mm	Cable TV - Points (Non-Plotting)
C-CATV-POLE	30	Continuous	0.25mm	Cable TV - Pole
C-CATV-PTRN	30	Continuous	0.25mm	Cable TV - Pattern
C-CATV-SITE	30	Continuous	0.25mm	Cable TV - Line - Site (Interior Boundary)
C-CATV-SYMB	30	Continuous	0.25mm	Cable TV - Symbols
C-CATV-TEXT	30	Continuous	0.35mm	Cable TV - Text
C-CATV-TRCH	30	Continuous	0.25mm	Cable TV - Fuel Line Trench
C-CATV-WELL	30	Continuous	0.25mm	Cable TV - Wells
C-CATV-WORK	30	Continuous	0.25mm	Cable TV - User Work (Non-Plotting)
C-CATV-XFMR	30	Continuous	0.25mm	Cable TV - Transformers
C-CHAN	blue	Continuous	0.25mm	Channels - (Navigable)
C-CHAN-DIMS	blue	Continuous	0.35mm	Channels - Dimensions
C-CHAN-EDGE	blue	Continuous	0.25mm	Channels - Edge
C-CHAN-LINE	blue	WATERWAY	0.25mm	Channels - Line
C-CHAN-NOTE	blue	Continuous	0.35mm	Channels - Notes
C-CHAN-PNTS	blue	Continuous	0.25mm	Channels - Points (Non-Plotting)
C-CHAN-PTRN	blue	Continuous	0.25mm	Channels - Pattern
C-CHAN-SYMB	blue	Continuous	0.25mm	Channels - Symbols
C-CHAN-TEXT	blue	Continuous	0.35mm	Channels - Text
C-CHAN-WORK	blue	Continuous	0.25mm	Channels - User Work (Non-Plotting)
C-CORR-MARK	212	Continuous	0.35mm	Corridor and Section Marks
C-CREK	blue	WATERWAY	0.25mm	Creek, Stream, Pond or Minor Water Courses
C-CREK-DIMS	blue	Continuous	0.35mm	Creek - Dimensions
C-CREK-EDGE	blue	WATERWAY	0.25mm	Creek - Edge



Layer Name	Color	Linetype*	Lineweight	Description
C-CREK-LINE	blue	WATERWAY	0.25mm	Creek - Line
C-CREK-NOTE	blue	Continuous	0.35mm	Creek - Notes
C-CREK-PNTS	blue	Continuous	0.25mm	Creek - Points (Non-Plotting)
C-CREK-PTRN	blue	Continuous	0.25mm	Creek - Pattern
C-CREK-SYMB	blue	Continuous	0.25mm	Creek - Symbols
C-CREK-TEXT	blue	Continuous	0.35mm	Creek - Text
C-CREK-WORK	blue	Continuous	0.25mm	Creek - User Work (Non-Plotting)
C-CURB	white	Continuous	0.25mm	Curbs and Gutters
C-CURB-BACK	white	Continuous	0.35mm	Curbs - Back of Curb
C-CURB-BOTM	white	Continuous	0.35mm	Curbs - Bottom of Curb
C-CURB-DIMS	white	Continuous	0.35mm	Curbs - Dimensions
C-CURB-NOTE	white	Continuous	0.35mm	Curbs - Note
C-CURB-PNTS	white	Continuous	0.25mm	Curbs - Points (Non-Plotting)
C-CURB-PTRN	white	Continuous	0.25mm	Curbs - Pattern
C-CURB-SYMB	white	Continuous	0.25mm	Curbs - Symbols
C-CURB-TEXT	white	Continuous	0.35mm	Curbs - Text
C-CURB-TOPP	white	Continuous	0.35mm	Curbs - Top of Curb
C-CURB-UNDR	white	Continuous	0.25mm	Curbs - Bottom - non plotting
C-CURB-WORK	white	Continuous	0.25mm	Curbs - User Work (Non-Plotting)
C-DRIV	white	Continuous	0.25mm	Driveways
C-DRIV-DIMS	white	Continuous	0.35mm	Driveways - Dimensions
C-DRIV-EDGE	white	Continuous	0.25mm	Driveways - Edge of
C-DRIV-LINE	white	CENTER2	0.25mm	Driveways - Lines
C-DRIV-NOTE	white	Continuous	0.35mm	Driveways - Notes
C-DRIV-PNTS	white	Continuous	0.25mm	Driveways - Points (Non-Plotting)
C-DRIV-PTRN	white	Continuous	0.25mm	Driveways - Pattern
C-DRIV-SYMB	white	Continuous	0.25mm	Driveways - Symbols
C-DRIV-TEXT	white	Continuous	0.35mm	Driveways - Text
C-DRIV-WORK	white	Continuous	0.25mm	Driveways - User Work (Non-Plotting)
C-DTCH	cyan	DITCH EX	0.25mm	Ditch, Swale or Wash
C-DTCH -SWAL	cyan	SWALE	0.25mm	Ditch - Swale
C-DTCH-BOTM	cyan	DITCH EX	0.25mm	Ditch - Bottom of Ditch
C-DTCH-CNTR	cyan	DITCH PR	0.25mm	Ditch - Centerline of Ditch
C-DTCH-DIMS	cyan	Continuous	0.35mm	Ditch - Dimensions
C-DTCH-DRAW	cyan	Continuous	0.25mm	Ditch - Draw



Project Information Modeling Standards Appendix

Layer Name	Color	Linetype*	Lineweight	Description
C-DTCH-NOTE	cyan	Continuous	0.35mm	Ditch - Note
C-DTCH-PAVE	cyan	Continuous	0.25mm	Ditch - Paved
C-DTCH-PNTS	cyan	Continuous	0.25mm	Ditch - Points (Non-Plotting)
C-DTCH-PTRN	cyan	Continuous	0.25mm	Ditch - Pattern
C-DTCH-SYMB	cyan	Continuous	0.25mm	Ditch - Symbols
C-DTCH-TEXT	cyan	Continuous	0.35mm	Ditch - Text
C-DTCH-TOPD	cyan	Continuous	0.25mm	Ditch - Top of Ditch
C-DTCH-WORK	cyan	Continuous	0.25mm	Ditch - User Work (Non-Plotting)
C-EROS	120	Continuous	0.25mm	Erosion and Sediment Control Devices
C-EROS-BARR	120	Continuous	0.25mm	Erosion - Vapor/Capillary water barriers
C-EROS-CNTE	120	Continuous	0.25mm	Erosion - Construction Entrance
C-EROS-DIMS	120	Continuous	0.35mm	Erosion - Dimensions
C-EROS-DISC	120	Continuous	0.25mm	Erosion - Discharge Point
C-EROS-DTCH	120	DITCH EX	0.25mm	Erosion - Ditch
C-EROS-DTCH-TEMP	120	DITCH EX	0.25mm	Erosion - Temporary Ditch
C-EROS-DVDK	120	Continuous	0.25mm	Erosion - Diversion Dike
C-EROS-FENC	120	PF	0.25mm	Erosion - Protective Fence
C-EROS-GABN	120	Continuous	0.25mm	Erosion - Gabions
C-EROS-INPR	120	Continuous	0.25mm	Erosion - Inlet Protection
C-EROS-LEVE	120	Continuous	0.25mm	Erosion - Levee
C-EROS-MATT	120	Continuous	0.25mm	Erosion - Matt
C-EROS-NOTE	120	Continuous	0.35mm	Erosion - Notes
C-EROS-OLSF	120	Continuous	0.25mm	Erosion - Over Land Sheet Flow
C-EROS-PIPE-TEMP	120	PIPE PR	0.50mm	Erosion - Temporary Pipe
C-EROS-PNTS	120	Continuous	0.25mm	Erosion - Points (Non-Plotting)
C-EROS-PTRN	120	Continuous	0.25mm	Erosion - Pattern
C-EROS-RRAP	120	Continuous	0.25mm	Erosion - Riprap, Stone Protection, Jetties, Breakwaters
C-EROS-SDTR	120	Continuous	0.25mm	Erosion - Sediment Trap
C-EROS-SILT	120	Continuous	0.25mm	Erosion - Silt control devices
C-EROS-SILT-BASN	120	Continuous	0.25mm	Erosion - Silt Basin
C-EROS-SILT-FENC	120	SF	0.25mm	Erosion - Silt Fence
C-EROS-SILT-SOCK	120	CFS	0.25mm	Erosion - Silt Sock
C-EROS-SILT-TRAP	120	Continuous	0.25mm	Erosion - Silt Trap
C-EROS-SSLT	120	SSF	0.25mm	Erosion - Super Silt Fence
C-EROS-SYMB	120	Continuous	0.25mm	Erosion - Symbols



Layer Name	Color	Linetype*	Lineweight	Description
C-EROS-TEXT	120	Continuous	0.35mm	Erosion - Text
C-EROS-TOEB	120	Continuous	0.25mm	Erosion - Toe / Bottom of Berm
C-EROS-TOPB	120	Continuous	0.25mm	Erosion - Top of Berm
C-EROS-WEIR	120	Continuous	0.25mm	Erosion - Weirs
C-EROS-WORK	120	Continuous	0.25mm	Erosion - User Work (Non-Plotting)
C-ESMT	magenta	Continuous	0.50mm	Easements
C-ESMT-CDAT	magenta	Continuous	0.25mm	Easements - Property Lines, Curve Data
C-ESMT-CONS-TEMP	magenta	Continuous	0.25mm	Easements - Temporary Construction Easement
C-ESMT-DIMS	magenta	Continuous	0.35mm	Easements - Dimensions
C-ESMT-LGAL	magenta	Continuous	0.25mm	Easements - Required Legal Easement lines
C-ESMT-LINE	magenta	Continuous	0.25mm	Easements - Property Lines
C-ESMT-NOTE	magenta	Continuous	0.35mm	Easements - Notes
C-ESMT-PNTS	magenta	Continuous	0.25mm	Easements - Points (Non-Plotting)
C-ESMT-PTRN	magenta	Continuous	0.25mm	Easements - Pattern
C-ESMT-RWAY	magenta	ROW LEGAL	0.50mm	Easement - Legal R/W Lines
C-ESMT-RWAY-ACQU	magenta	ROW REQ'D	0.60mm	Easement - Required R/W Lines
C-ESMT-SYMB	magenta	Continuous	0.25mm	Easements - Symbols
C-ESMT-TEXT	magenta	Continuous	0.35mm	Easements - Text
C-ESMT-WORK	magenta	Continuous	0.25mm	Easements - User Work (Non-Plotting)
C-FHLA-PNTS	cyan	Continuous	0.25mm	Flood Hazard Area - Points (Non-Plotting)
C-FIBR	30	UT-FO	0.60mm	Fiber Optic
C-FIBR-BERM	30	Continuous	0.25mm	Fiber Optic - Berm for liquids retention
C-FIBR-DIMS	30	Continuous	0.35mm	Fiber Optic - Dimensions
C-FIBR-DUCT	30	Continuous	0.25mm	Fiber Optic - Ducts and Conduits (vacant) for future lines
C-FIBR-EQPM	30	Continuous	0.25mm	Fiber Optic - Equipment and Pad
C-FIBR-GUYS	30	Continuous	0.25mm	Fiber Optic - Guying Equipment
C-FIBR-HYDR	30	Continuous	0.25mm	Fiber Optic - Hydrants and Fire Department Connections
C-FIBR-JBOX	30	Continuous	0.25mm	Fiber Optic - Junction Box
C-FIBR-LINE	30	UT-FO	0.60mm	Fiber Optic - Lines
C-FIBR-LINE-DBUR	30	UT-FOU	0.60mm	Fiber Optic - Direct Buried Underground Lines
C-FIBR-LINE-OVHD	30	UT-FO	0.60mm	Fiber Optic - Overhead Lines
C-FIBR-LINE-UNDR	30	UT-FOU	0.60mm	Fiber Optic - Underground Lines
C-FIBR-MARK	30	Continuous	0.25mm	Fiber Optic - Cell - Above Ground Markers
C-FIBR-METR	30	Continuous	0.25mm	Fiber Optic - Meters and Instrumentation
C-FIBR-MHOL	30	Continuous	0.25mm	Fiber Optic - Manholes and Junction Boxes



Layer Name	Color	Linetype*	Lineweight	Description
C-FIBR-NOTE	30	Continuous	0.35mm	Fiber Optic - Notes
C-FIBR-PERC	30	Continuous	0.25mm	Fiber Optic - Perc Test Holes and Pits
C-FIBR-PITS	30	Continuous	0.25mm	Fiber Optic - Pits for Vents, Valves and other equipment
C-FIBR-PLNT	30	Continuous	0.25mm	Fiber Optic - Plants, Pumping Stations, Storage Tanks and Reservoirs
C-FIBR-PNTS	30	Continuous	0.25mm	Fiber Optic - Points (Non-Plotting)
C-FIBR-POLE	30	Continuous	0.25mm	Fiber Optic - Pole
C-FIBR-PTRN	30	Continuous	0.25mm	Fiber Optic - Pattern
C-FIBR-SITE	30	Continuous	0.25mm	Fiber Optic - Line - Site (Interior boundary)
C-FIBR-SYMB	30	Continuous	0.25mm	Fiber Optic - Symbols
C-FIBR-TEXT	30	Continuous	0.35mm	Fiber Optic - Text
C-FIBR-TRCH	30	Continuous	0.25mm	Fiber Optic - Fuelline Trench
C-FIBR-WELL	30	Continuous	0.25mm	Fiber Optic - Wells
C-FIBR-WORK	30	Continuous	0.25mm	Fiber Optic - User Work (Non-Plotting)
C-FIBR-XFMR	30	Continuous	0.25mm	Fiber Optic - Transformers
C-FLHA	white	Continuous	0.25mm	Flood Hazard Area
C-FLHA-010Y	white	Continuous	0.25mm	Flood Hazard Area - 10 Year Mark
C-FLHA-025Y	white	Continuous	0.25mm	Flood Hazard Area - 25 Year Mark
C-FLHA-050Y	white	Continuous	0.25mm	Flood Hazard Area - 50 Year Mark
C-FLHA-100Y	white	Continuous	0.25mm	Flood Hazard Area - 100 Year Mark
C-FLHA-200Y	white	Continuous	0.25mm	Flood Hazard Area - 200 year mark
C-FLHA-500Y	white	Continuous	0.25mm	Flood Hazard Area - 500 Year Mark
C-FLHA-DIMS	white	Continuous	0.35mm	Flood Hazard Area - Dimensions
C-FLHA-NOTE	white	Continuous	0.35mm	Flood Hazard Area - Notes
C-FLHA-PTRN	white	Continuous	0.25mm	Flood Hazard Area - Pattern
C-FLHA-SYMB	white	Continuous	0.25mm	Flood Hazard Area - Symbols
C-FLHA-TEXT	white	Continuous	0.35mm	Flood Hazard Area - Text
C-FLHA-WORK	white	Continuous	0.25mm	Flood Hazard Area - User Work (Non-Plotting)
C-GEOT	white	Continuous	0.25mm	Geotech
C-GEOT-DIMS	white	Continuous	0.35mm	Geotech - Dimensions
C-GEOT-NOTE	white	Continuous	0.35mm	Geotech - Notes
C-GEOT-PNTS	white	Continuous	0.25mm	Geotech - Points (Non-Plotting)
C-GEOT-PTRN	white	Continuous	0.25mm	Geotech - Pattern
C-GEOT-SYMB	white	Continuous	0.25mm	Geotech - Symbols
C-GEOT-TEXT	white	Continuous	0.35mm	Geotech - Text
C-GEOT-WORK	white	Continuous	0.25mm	Geotech - User Work (Non-Plotting)



Layer Name	Color	Linetype*	Lineweight	Description
C-GRAL	30	GDRL PR RT	0.25mm	Guide rail
C-GRAL-DIMS	30	Continuous	0.35mm	Guide rail - Dimensions
C-GRAL-ENDT	30	Continuous	0.25mm	Guide rail - End treatment
C-GRAL-EXIS	30	GDRL EX	0.25mm	Guide rail - Existing
C-GRAL-MARK	30	Continuous	0.25mm	Guide rail - Markers and Reflectors
C-GRAL-NOTE	30	Continuous	0.35mm	Guide rail - Notes
C-GRAL-PNTS	30	Continuous	0.25mm	Guide rail - Points (Non-Plotting)
C-GRAL-PROP	30	Continuous	0.25mm	Guide rail - Proposed
C-GRAL-PROP-LEFT	30	GDRL PR LT	0.25mm	Guide rail - Proposed left side
C-GRAL-PROP-RGHT	30	GDRL PR RT	0.25mm	Guide rail - Proposed right side
C-GRAL-PTRN	30	Continuous	0.25mm	Guide rail - Pattern
C-GRAL-SYMB	30	Continuous	0.25mm	Guide rail - Symbols
C-GRAL-TEXT	30	Continuous	0.35mm	Guide rail - Text
C-GRAL-WORK	30	Continuous	0.25mm	Guide rail - User Work (Non-Plotting)
C-HYDR-CTCH	magenta	Continuous	0.25mm	Hydrology - Catchment Area Parent Layer
C-HYDR-CTCH-BNDY-POST	magenta	PHANTOM	0.25mm	Hydrology - Catchment Boundary Post
C-HYDR-CTCH-BNDY-PRED	red	PHANTOM2	0.25mm	Hydrology - Catchment Boundary Predesign
C-HYDR-CTCH-FPTH-POST	cyan	Continuous	0.25mm	Hydrology - Catchment Flow Path Post
C-HYDR-CTCH-FPTH-PRED	green	Continuous	0.25mm	Hydrology - Catchment Flow Path Predesign
C-HYDR-CTCH-TEXT-POST	yellow	Continuous	0.35mm	Hydrology - Catchment Annotation Post
C-HYDR-CTCH-TEXT-PRED	green	Continuous	0.35mm	Hydrology - Catchment Annotation Predesign
C-HYDR-TEXT	white	Continuous	0.35mm	Hydrology - Catchment Area Annotation
C-MILR	white	Continuous	0.25mm	Military Ranges
C-NGAS	yellow	UT-G	0.60mm	Natural Gas
C-NGAS-APPT	yellow	Continuous	0.25mm	Natural Gas - Appurtenances
C-NGAS-APPT-PATT	white	Continuous	0.25mm	Natural Gas - Appurtenances, Hatching
C-NGAS-BERM	yellow	Continuous	0.25mm	Natural Gas - Berm for Liquids Retention
C-NGAS-CNTR	yellow	Continuous	0.25mm	Natural Gas - Centerline
C-NGAS-DIMS	yellow	Continuous	0.35mm	Natural Gas - Dimensions
C-NGAS-DUCT	yellow	Continuous	0.25mm	Natural Gas - Ducts and Conduits (vacant) for future lines
C-NGAS-EQPM	yellow	Continuous	0.25mm	Natural Gas - Equipment and Pad
C-NGAS-FITT	yellow	Continuous	0.25mm	Natural Gas - Fittings
C-NGAS-FITT-PATT	white	Continuous	0.25mm	Natural Gas - Fittings, Hatching
C-NGAS-GUYS	yellow	Continuous	0.25mm	Natural Gas - Guying Equipment
C-NGAS-HYDR	yellow	Continuous	0.25mm	Natural Gas - Hydrants and Fire Department Connections



Layer Name	Color	Linetype*	Lineweight	Description
C-NGAS-JBOX	yellow	Continuous	0.25mm	Natural Gas - Junction Box
C-NGAS-LINE	yellow	UT-G	0.60mm	Natural Gas - Lines
C-NGAS-LINE-DBUR	yellow	UT-G	0.60mm	Natural Gas - Direct Buried Underground Lines
C-NGAS-LINE-OVHD	yellow	UT-G	0.60mm	Natural Gas - Overhead Lines
C-NGAS-LINE-UNDR	yellow	UT-G	0.60mm	Natural Gas - Underground Lines
C-NGAS-MARK	yellow	Continuous	0.25mm	Natural Gas - Cell - Above Ground Markers
C-NGAS-METR	yellow	Continuous	0.25mm	Natural Gas - Meters and instrumentation
C-NGAS-MHOL	yellow	Continuous	0.25mm	Natural Gas - Manholes and junction boxes
C-NGAS-NOTE	yellow	Continuous	0.35mm	Natural Gas - Notes
C-NGAS-PERC	yellow	Continuous	0.25mm	Natural Gas - Perc Test Holes and Pits
C-NGAS-PIPE	yellow	Continuous	0.25mm	Natural Gas - Pressure pipe
C-NGAS-PIPE-PATT	white	Continuous	0.25mm	Natural Gas - Pressure Pipe, Hatching
C-NGAS-PITS	yellow	Continuous	0.25mm	Natural Gas - Pits for Vents, Valves and other equipment
C-NGAS-PLNT	yellow	Continuous	0.25mm	Natural Gas - Plants, Pumping Stations, Storage Tanks and Reservoirs
C-NGAS-PNTS	yellow	Continuous	0.25mm	Natural Gas - Points (Non-Plotting)
C-NGAS-POLE	yellow	Continuous	0.25mm	Natural Gas - Pole
C-NGAS-PROF	yellow	Continuous	0.25mm	Natural Gas - Profile
C-NGAS-PTRN	yellow	Continuous	0.25mm	Natural Gas - Pattern
C-NGAS-SCTN	yellow	Continuous	0.25mm	Natural Gas - Section
C-NGAS-SITE	yellow	UT-G	0.60mm	Natural Gas - Line - Site (Interior boundary)
C-NGAS-SYMB	yellow	Continuous	0.25mm	Natural Gas - Symbols
C-NGAS-TEXT	white	Continuous	0.35mm	Natural Gas - Text
C-NGAS-TRCH	yellow	Continuous	0.25mm	Natural Gas - Fuel line trench
C-NGAS-WELL	yellow	Continuous	0.25mm	Natural Gas - Wells
C-NGAS-WORK	yellow	Continuous	0.25mm	Natural Gas - User Work (Non-Plotting)
C-NGAS-XFMR	yellow	Continuous	0.25mm	Natural Gas - Transformers
C-OIL-PIPE	magenta	Continuous	ByLineWeightDefault	Oil Pipelines
C-POWR	red	UT-C	0.60mm	Power
C-POWR-BERM	red	Continuous	0.25mm	Power - Berm for Liquids Retention
C-POWR-COND	red	UT-C	0.60mm	Power - Conduits
C-POWR-DIMS	red	Continuous	0.35mm	Power - Dimensions
C-POWR-DUCT	red	Continuous	0.25mm	Power - Ducts and Conduits (vacant) for future lines
C-POWR-EQPM	red	Continuous	0.25mm	Power - Equipment and Pad
C-POWR-GUYS	red	Continuous	0.25mm	Power - Guying Equipment
C-POWR-HYDR	red	Continuous	0.25mm	Power - Hydrants and Fire Department Connections



Layer Name	Color	Linetype*	Lineweight	Description
C-POWR-JBOX	red	Continuous	0.25mm	Power - Junction Box
C-POWR-LINE	red	EU	0.60mm	Power - Lines
C-POWR-LINE-DBUR	red	EU	0.60mm	Power - Direct Buried Underground Lines
C-POWR-LINE-OVHD	red	UT-E	0.60mm	Power - Overhead Lines
C-POWR-LINE-UNDR	red	EU	0.60mm	Power - Underground Lines
C-POWR-MARK	red	Continuous	0.25mm	Power - Cell - Above Ground Markers
C-POWR-METR	red	Continuous	0.25mm	Power - Meters and Instrumentation
C-POWR-MHOL	red	Continuous	0.25mm	Power - Manholes and Junction Boxes
C-POWR-NOTE	red	Continuous	0.35mm	Power - Notes
C-POWR-PERC	red	Continuous	0.25mm	Power - Perc Test Holes and Pits
C-POWR-PITS	red	Continuous	0.25mm	Power - Pits for Vents, Valves and other equipment
C-POWR-PLNT	red	Continuous	0.25mm	Power - Plants, Pumping Stations, Storage Tanks and Reservoirs
C-POWR-PNTS	red	Continuous	0.25mm	Power - Points (Non-Plotting)
C-POWR-POLE	red	Continuous	0.25mm	Power - Pole
C-POWR-PTRN	red	Continuous	0.25mm	Power - Pattern
C-POWR-SITE	red	Continuous	0.25mm	Power - Line - Site (Interior boundary)
C-POWR-SYMB	red	Continuous	0.25mm	Power - Symbols
C-POWR-TEXT	red	Continuous	0.35mm	Power - Text
C-POWR-TRCH	red	Continuous	0.25mm	Power - Fuel line trench
C-POWR-WELL	red	Continuous	0.25mm	Power - Wells
C-POWR-WORK	red	Continuous	0.25mm	Power - User Work (Non-Plotting)
C-POWR-XFMR	red	Continuous	0.25mm	Power - Transformers
C-PRKG	white	Continuous	0.25mm	Parking Lots
C-PRKG-DIMS	white	Continuous	0.35mm	Parking Lots - Dimensions
C-PRKG-EDGE	white	Continuous	0.25mm	Parking Lots - Edge of
C-PRKG-LINE	white	Continuous	0.25mm	Parking Lots - Line
C-PRKG-NOTE	white	Continuous	0.35mm	Parking Lots - Note
C-PRKG-PNTS	white	Continuous	0.25mm	Parking Lots - Points (Non-Plotting)
C-PRKG-PTRN	white	Continuous	0.25mm	Parking Lots - Pattern
C-PRKG-SYMB	white	Continuous	0.25mm	Parking Lots - Symbols
C-PRKG-TEXT	white	Continuous	0.35mm	Parking Lots - Text
C-PRKG-WORK	white	Continuous	0.25mm	Parking Lots - User Work (Non-Plotting)
C-PROF	green	Continuous	0.25mm	Profile
C-PROF-AXIS	green	Continuous	0.25mm	Profile - Axis
C-PROF-AXIS-TEXT	green	Continuous	0.35mm	Profile - Axis - Text



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Layer Name	Color	Linetype*	Lineweight	Description
C-PROF-AXIS-TITL	green	Continuous	0.25mm	Profile - Axis - Title
C-PROF-DIMS	green	Continuous	0.35mm	Profile - Dimensions
C-PROF-FRAM	green	Continuous	0.25mm	Profile - Frame
C-PROF-GRID	green	Continuous	0.25mm	Profile - Grid
C-PROF-GRID-MAJR	green	Continuous	0.25mm	Profile - Grid - Major
C-PROF-GRID-MINR	green	Continuous	0.25mm	Profile - Grid - Minor
C-PROF-NOTE	green	Continuous	0.35mm	Profile - Notes
C-PROF-PNTS	green	Continuous	0.25mm	Profile - Points (Non-Plotting)
C-PROF-PTRN	green	Continuous	0.25mm	Profile - Pattern
C-PROF-SYMB	green	Continuous	0.25mm	Profile - Symbols
C-PROF-TEXT	green	Continuous	0.35mm	Profile - Text
C-PROF-WORK	green	Continuous	0.25mm	Profile - User Work (Non-Plotting)
C-PROP-BNDY	150	MUNICIPAL	0.25mm	Property - Boundary
C-PROP-BRNG	92	Continuous	0.25mm	Property - Bearing
C-PROP-LINE	230	PROPERTY LINE	0.25mm	Property - Parcel Lines
C-PROP-LINE-TEXT	150	Continuous	0.35mm	Property - Line Annotation
C-PROP-PARC-BNDY	blue	MUNICIPAL	0.25mm	Parcel - Boundary
C-PROP-PARC-LINE	blue	PROPERTY LINE	0.25mm	Parcel - Line Segment
C-PROP-PARC-OPEN	green	Continuous	0.25mm	Parcel - Open Space
C-PROP-PARC-ROAD	red	Continuous	0.25mm	Parcel - Roadway Easement
C-PROP-PARC-ROWL	red	ROW LEGAL	0.25mm	Parcel - Right-of-way Line
C-PROP-PARC-ROWL-TEXT	green	Continuous	0.35mm	Parcel - Right-of-way Line Annotation
C-PROP-PARC-TEXT	green	Continuous	0.35mm	Parcel - Annotation
C-PROP-PARC-TEXT-BRNG	green	Continuous	0.25mm	Parcel - Bearing Annotation
C-PROP-PATT	150	Continuous	0.25mm	Property - Parcel Hatching
C-PROP-TEXT	92	Continuous	0.35mm	Property - Label
C-PTRO	yellow	UT-P	0.25mm	Petroleum
C-PTRO-BERM	yellow	Continuous	0.25mm	Petroleum - Berm for Liquids Retention
C-PTRO-DIMS	yellow	Continuous	0.35mm	Petroleum - Dimensions
C-PTRO-DUCT	yellow	Continuous	0.25mm	Petroleum - Ducts and Conduits (vacant) for future lines
C-PTRO-EQPM	yellow	Continuous	0.25mm	Petroleum - Equipment and Pad
C-PTRO-GUYS	yellow	Continuous	0.25mm	Petroleum - Guying Equipment
C-PTRO-HYDR	yellow	Continuous	0.25mm	Petroleum - Hydrants and Fire Department Connections
C-PTRO-JBOX	yellow	Continuous	0.25mm	Petroleum - Junction Box
C-PTRO-LINE	yellow	UT-PU	0.60mm	Petroleum - Lines



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Layer Name	Color	Linetype*	Lineweight	Description
C-PTRO-LINE-DBUR	yellow	UT-PU	0.60mm	Petroleum - Direct Buried Underground Lines
C-PTRO-LINE-OVHD	yellow	UT-P	0.60mm	Petroleum - Overhead Lines
C-PTRO-LINE-UNDR	yellow	UT-PU	0.60mm	Petroleum - Underground Lines
C-PTRO-MARK	yellow	Continuous	0.25mm	Petroleum - Cell - Above Ground Markers
C-PTRO-METR	yellow	Continuous	0.25mm	Petroleum - Meters and Instrumentation
C-PTRO-MHOL	yellow	Continuous	0.25mm	Petroleum - Manholes and Junction Boxes
C-PTRO-NOTE	yellow	Continuous	0.35mm	Petroleum - Notes
C-PTRO-PERC	yellow	Continuous	0.25mm	Petroleum - Perc Test Holes and Pits
C-PTRO-PITS	yellow	Continuous	0.25mm	Petroleum - Pits for Vents, Valves and other equipment
C-PTRO-PLNT	yellow	Continuous	0.25mm	Petroleum - Plants, Pumping Stations, Storage Tanks and Reservoirs
C-PTRO-PNTS	yellow	Continuous	0.25mm	Petroleum - Points (Non-Plotting)
C-PTRO-POLE	yellow	Continuous	0.25mm	Petroleum - Pole
C-PTRO-PTRN	yellow	Continuous	0.25mm	Petroleum - Pattern
C-PTRO-SITE	yellow	Continuous	0.25mm	Petroleum - Line - Site (Interior boundary)
C-PTRO-SYMB	yellow	Continuous	0.25mm	Petroleum - Symbols
C-PTRO-TEXT	yellow	Continuous	0.35mm	Petroleum - Text
C-PTRO-TRCH	yellow	Continuous	0.25mm	Petroleum - Fuel line trench
C-PTRO-WELL	yellow	Continuous	0.25mm	Petroleum - Wells
C-PTRO-WORK	yellow	Continuous	0.25mm	Petroleum - User Work (Non-Plotting)
C-PTRO-XFMR	yellow	Continuous	0.25mm	Petroleum - Transformers
C-RAIL	white	Continuous	0.25mm	Railroad - Parent Layer
C-RAIL-CANT-VIEW	white	Continuous	0.25mm	Railroad - Cant View
C-RAIL-CANT-VIEW-CNTR	white	Continuous	0.25mm	Railroad - Cant View Centerline
C-RAIL-CANT-VIEW-EQLB	cyan	Continuous	0.25mm	Railroad - Cant View Equilibrium
C-RAIL-CANT-VIEW-LEFT	blue	Continuous	0.25mm	Railroad - Cant View Left
C-RAIL-CANT-VIEW-RGHT	red	Continuous	0.25mm	Railroad - Cant View Right
C-RAIL-CANT-VIEW-TEXT	11	Continuous	0.35mm	Railroad - Cant View Annotation
C-RAIL-CANT-VIEW-TICK	254	Continuous	0.25mm	Railroad - Cant View Tick
C-RAIL-CANT-VIEW-TITL	white	Continuous	0.25mm	Railroad - Cant View Title
C-RAIL-CANT-VIEW-TTLB	254	Continuous	0.25mm	Railroad - Cant View Titleblock
C-RAIL-DIMS	white	Continuous	0.35mm	Railroad - Dimensions
C-RAIL-EQPM	white	Continuous	0.25mm	Railroad - Equipment
C-RAIL-FEAT	white	Continuous	0.25mm	Railroad - Feature line
C-RAIL-NOTE	white	Continuous	0.35mm	Railroad - Notes
C-RAIL-PNTS	white	Continuous	0.25mm	Railroad - Points (Non-Plotting)



Layer Name	Color	Linetype*	Lineweight	Description
C-RAIL-PTRN	white	Continuous	0.25mm	Railroad - Pattern
C-RAIL-SGNL	white	Continuous	0.25mm	Railroad - Crossing Signal Light
C-RAIL-SIGN	white	Continuous	0.25mm	Railroad - Sign
C-RAIL-SYMB	white	Continuous	0.25mm	Railroad - Symbols
C-RAIL-TEXT	white	Continuous	0.35mm	Railroad - Text
C-RAIL-TRAK	white	TRACKS	0.25mm	Railroad - Single Track
C-RAIL-WORK	white	Continuous	0.25mm	Railroad - User Work (Non-Plotting)
C-ROAD	white	Continuous	0.25mm	Roadway Parent Layer
C-ROAD-ASSM	40	Continuous	0.25mm	Roadways - Assemblies and Subassemblies
C-ROAD-ASSM-BLJN	red	Continuous	0.25mm	Roadways - Assembly Baseline
C-ROAD-ASSM-OFFS	red	Continuous	0.25mm	Roadways - Assembly Offset
C-ROAD-BARRIER	white	Continuous	0.00mm	Road Barrier
C-ROAD-BNCH	white	Continuous	0.25mm	Roadways - Benching
C-ROAD-BRDG	white	Continuous	0.25mm	Roadways - Bridge Structure Outline
C-ROAD-BRNG	red	Continuous	0.25mm	Roadways - Bearings
C-ROAD-BRNG-PROP	white	Continuous	0.25mm	Roadways - Bearings, Proposed
C-ROAD-CNTR	red	BASELINE	0.25mm	Roadways - Centerline
C-ROAD-CNTR-PROP	white	BASELINE	0.25mm	Roadways - Centerline, Proposed
C-ROAD-COND	cyan	Continuous	0.25mm	Roadways - Conduit
C-ROAD-CORR	blue	Continuous	0.25mm	Roadways - Corridor
C-ROAD-CORR-BNDY	red	BASELINE	0.25mm	Roadways - Corridor Boundary
C-ROAD-CORR-COND	140	Continuous	0.25mm	Roadways - Corridor Conduit
C-ROAD-CORR-CRWN	blue	Continuous	0.25mm	Roadways - Corridor crown
C-ROAD-CORR-FEAT	blue	Continuous	0.25mm	Roadways - Corridor feature line
C-ROAD-CORR-PATT	150	Continuous	ByLineWeightDefault	Roadways: corridor patterns
C-ROAD-CORR-SECT	blue	Continuous	0.25mm	Roadways - Section View
C-ROAD-CORR-TRENCH	30	Continuous	0.25mm	Roadways - Corridor Trench
C-ROAD-CURV	blue	Continuous	0.25mm	Roadways - Curves
C-ROAD-DIMS	white	Continuous	0.35mm	Roadways - Dimensions
C-ROAD-EDGE	white	Continuous	0.25mm	Roadways - Edge of Roadway (Pavement)
C-ROAD-FEAT	190	Continuous	0.25mm	Roadways - Feature Line
C-ROAD-GUIDERAIL	9	Continuous	0.00mm	Proposed Guiderail
C-ROAD-HING	white	Continuous	0.25mm	Roadways - Hinge Point
C-ROAD-INTS	blue	Continuous	0.25mm	Roadways - Intersection
C-ROAD-INTS-TEXT	white	Continuous	0.35mm	Roadways - Intersection Annotation



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Layer Name	Color	Linetype*	Lineweight	Description
C-ROAD-JNTS	white	Continuous	0.25mm	Roadways - Joints - Expansion, Centerline etc.
C-ROAD-LABL	92	Continuous	0.25mm	Roadways - Labels
C-ROAD-LANE	white	Continuous	0.25mm	Roadways - Edge of Lane
C-ROAD-LINE	red	Continuous	0.25mm	Roadways - Tangent Lines
C-ROAD-LINE-EXTN	252	HIDDEN	0.25mm	Roadways - PVI Extension Lines
C-ROAD-LINK	150	Continuous	0.25mm	Roadways - Corridor and Section Links
C-ROAD-MARK	212	Continuous	0.25mm	Roadways - Corridor and Section Marks
C-ROAD-MASS-LINE	11	Continuous	0.25mm	Roadways - Mass Haul Line
C-ROAD-MASS-LINE-FREE	150	Continuous	0.25mm	Roadways - Mass Haul Line Free
C-ROAD-MASS-LINE-OVER	11	Continuous	0.25mm	Roadways - Mass Haul Line Over
C-ROAD-MASS-VIEW	white	Continuous	0.25mm	Roadways - Mass Haul Line View
C-ROAD-MASS-VIEW-GRID-MAJOR	252	Continuous	0.25mm	Roadways - Mass Haul Line View Grid Major
C-ROAD-MASS-VIEW-GRID-MINOR	254	Continuous	0.25mm	Roadways - Mass Haul Line View Grid Minor
C-ROAD-MASS-VIEW-TEXT	white	Continuous	0.35mm	Roadways - Mass Haul Line View Annotation
C-ROAD-MASS-VIEW-TITL	white	Continuous	0.25mm	Roadways - Mass Haul Line View Title
C-ROAD-MASS-VIEW-TTLB	blue	Continuous	0.25mm	Roadways - Mass Haul Line View Titleblock
C-ROAD-MEDN	white	Continuous	0.25mm	Roadways - Edge of Median
C-ROAD-MISC	white	Continuous	0.25mm	Roadways - Miscellaneous Items
C-ROAD-NOTE	white	Continuous	0.35mm	Roadways - Notes
C-ROAD-PNTS	white	Continuous	0.25mm	Roadways - Points (Non-Plotting)
C-ROAD-PROF	red	HIDDEN2	0.25mm	Roadways - Profiles
C-ROAD-PROF-ASMC	92	Continuous	0.25mm	Roadways - Profile Assymetrical Curves
C-ROAD-PROF-CURV	blue	Continuous	0.25mm	Roadways - Profile Vertical Curves
C-ROAD-PROF-DIAG	150	Continuous	0.25mm	Roadways - Profile Band Diagrams
C-ROAD-PROF-GRID	150	Continuous	0.25mm	Roadways - Profile Grid
C-ROAD-PROF-GRID-GEOM	blue	Continuous	0.25mm	Roadways - Profile Gridline @ Geometry Points
C-ROAD-PROF-GRID-MAJR	8	Continuous	0.25mm	Roadways - Profile Gridline @ Major Stations
C-ROAD-PROF-GRID-MINR	9	Continuous	0.25mm	Roadways - Profile Gridline @ Minor Stations
C-ROAD-PROF-LABL	92	Continuous	0.25mm	Roadways - Profile Label
C-ROAD-PROF-LINE	red	Continuous	0.25mm	Roadways - Profile Vertical Lines
C-ROAD-PROF-LINE-EXTN	252	HIDDEN	0.25mm	Roadways - Centerline Extension
C-ROAD-PROF-LTOF	red	Continuous	0.25mm	Roadways - Profile Left Offset Sample Lines
C-ROAD-PROF-PARB	white	Continuous	0.25mm	Roadways - Profile Parabolic Curves
C-ROAD-PROF-PNTS	252	HIDDEN	0.25mm	Roadways - Profile Geometry Points
C-ROAD-PROF-PROJ	92	Continuous	ByLineWeightDefault	Roadways - Profile projection



Layer Name	Color	Linetype*	Lineweight	Description
C-ROAD-PROF-PROP	150	Continuous	0.25mm	Roadways - Profile New
C-ROAD-PROF-RTOF	red	Continuous	0.25mm	Roadways - Profile Right Offset Sample Lines
C-ROAD-PROF-STAN-GEOM	11	Continuous	0.25mm	Roadways - Profile Geometry Point Labels
C-ROAD-PROF-STAN-GEOM-PROP	white	Continuous	0.25mm	Roadways - Profile Geometry Point Labels, Proposed
C-ROAD-PROF-STAN-MAJR	white	Continuous	0.25mm	Roadways - Profile Major Station Labels
C-ROAD-PROF-STAN-MINR	white	Continuous	0.25mm	Roadways - Profile Minor Station Labels
C-ROAD-PROF-TEXT	11	Continuous	0.35mm	Roadways - Profile Text
C-ROAD-PROF-TEXT-PROP	white	Continuous	0.25mm	Roadways - Profile Text, Proposed
C-ROAD-PROF-TICK	white	Continuous	0.25mm	Roadways - Profile Tick Marks
C-ROAD-PROF-TITL	white	Continuous	0.25mm	Roadways - Profile Label
C-ROAD-PROF-TTLB	blue	Continuous	0.25mm	Roadways - Profile Label
C-ROAD-PROF-VIEW	blue	Continuous	0.25mm	Roadways - Profile View
C-ROAD-PROF-VIEW-TEXT	blue	Continuous	0.35mm	Roadways - Profile View Annotation
C-ROAD-PTRN	white	Continuous	0.25mm	Roadways - Pattern
C-ROAD-SAMP	150	HIDDEN	0.25mm	Roadways - Sample Lines
C-ROAD-SAMP-TEXT	white	Continuous	0.35mm	Roadways - Sample Lines Text
C-ROAD-SECT	red	Continuous	0.25mm	Roadways - Grade in Sections
C-ROAD-SECT-BUFR	magenta	DASHED2	0.25mm	Roadways - Section Buffer
C-ROAD-SECT-DIAG	212	Continuous	0.25mm	Roadways - Section Diagram
C-ROAD-SECT-GRID	white	Continuous	0.25mm	Roadways - Section Grid
C-ROAD-SECT-GRID-MAJR	8	Continuous	0.25mm	Roadways - Section Grid Major Lines
C-ROAD-SECT-GRID-MINR	9	Continuous	0.15mm	Roadways - Section Grid Minor Lines
C-ROAD-SECT-LABL	92	Continuous	0.25mm	Roadways - Section Labels
C-ROAD-SECT-PROJ	92	Continuous	0.25mm	Roadways - Section Projection
C-ROAD-SECT-PROP	150	Continuous	0.25mm	Roadways - Section, Proposed
C-ROAD-SECT-TEXT	11	Continuous	0.35mm	Roadways - Section Text
C-ROAD-SECT-TEXT-PROP	white	Continuous	0.25mm	Roadways - Section Text, Proposed
C-ROAD-SECT-TICK	white	Continuous	0.25mm	Roadways - Section Tick Marks
C-ROAD-SECT-TITL	white	Continuous	0.25mm	Roadways - Section Title
C-ROAD-SECT-TTLB	blue	Continuous	0.25mm	Roadways - Section Border
C-ROAD-SECT-VIEW	white	Continuous	0.25mm	Roadways - Section View
C-ROAD-SECT-VIEW-TEXT	white	Continuous	0.35mm	Roadways - Section View Annotation
C-ROAD-SELV-TEXT	green	Continuous	0.25mm	Roadways - Superelevation View
C-ROAD-SELV-VIEW	white	Continuous	0.25mm	Roadways - Superelevation View
C-ROAD-SHAP	32	Continuous	0.25mm	Roadways - Corridor and Section Shapes



Layer Name	Color	Linetype*	Lineweight	Description
C-ROAD-SHAP-BAC	white	Continuous	ByLineWeightDefault	Roadway-Base Course
C-ROAD-SHAP-BAC-PAT	white	Continuous	ByLineWeightDefault	Roadway-Base Course Pattern
C-ROAD-SHAP-BAC2	white	Continuous	ByLineWeightDefault	Roadway-Base Course2
C-ROAD-SHAP-BAC2-PAT	white	Continuous	ByLineWeightDefault	Roadway-Base Course2 Pattern
C-ROAD-SHAP-BAC3	white	Continuous	ByLineWeightDefault	Roadway-Base Course3
C-ROAD-SHAP-BAC3-PAT	white	Continuous	ByLineWeightDefault	Roadway-Base Course3 Pattern
C-ROAD-SHAP-BC	white	Continuous	ByLineWeightDefault	Roadway-Binder Course
C-ROAD-SHAP-BC-PAT	white	Continuous	ByLineWeightDefault	Roadway-Binder Course Pattern
C-ROAD-SHAP-PATT	white	Continuous	0.05mm	Roadways - Corridor and Section Shapes Hatching
C-ROAD-SHAP-RC	white	Continuous	ByLineWeightDefault	Roadway-Concrete
C-ROAD-SHAP-RC-PAT	white	Continuous	ByLineWeightDefault	Roadway-Concrete Pattern
C-ROAD-SHAP-SBC	white	Continuous	ByLineWeightDefault	Roadway-Subbase
C-ROAD-SHAP-SBC-PAT	white	Continuous	ByLineWeightDefault	Roadway-Subbase Pattern
C-ROAD-SHAP-WC	white	Continuous	ByLineWeightDefault	Roadways-Wearing Course
C-ROAD-SHAP-WC-PAT	white	Continuous	ByLineWeightDefault	Roadways-Wearing Course Pattern
C-ROAD-SPIR	92	Continuous	0.25mm	Roadways - Spirals
C-ROAD-STAN	white	Continuous	0.25mm	Roadways - Stationing
C-ROAD-STAN-MAJR	11	Continuous	0.25mm	Roadways - Major Stationing Labels
C-ROAD-STAN-MAJR-PROP	white	Continuous	0.25mm	Roadways - Major Stationing Labels, Proposed
C-ROAD-STAN-MINR	11	Continuous	0.25mm	Roadways - Minor Stationing Labels
C-ROAD-STAN-MINR-PROP	white	Continuous	0.25mm	Roadways - Minor Stationing Labels, Proposed
C-ROAD-STAN-PROP	white	Continuous	0.25mm	Roadways - Stationing, Proposed
C-ROAD-SYMB	white	Continuous	0.25mm	Roadways - Symbols
C-ROAD-TEXT	11	Continuous	0.35mm	Roadways - Text
C-ROAD-TEXT-PROP	white	Continuous	0.25mm	Roadways - Text, Proposed
C-ROAD-TOEB	white	Continuous	0.25mm	Roadways - Toe of Bank or Berm
C-ROAD-TOPB	white	Continuous	0.25mm	Roadways - Top of Bank or Berm
C-ROAD-TREN	43	Continuous	0.25mm	Roadways - Trench
C-ROAD-WORK	white	Continuous	0.25mm	Roadway - User Work (Non-Plotting)
C-RWAY	magenta	ROW REQ'D	0.50mm	Right of Way
C-RWAY-CTLA	magenta	Continuous	0.25mm	Right of Way - Controlled Access
C-RWAY-DIMS	magenta	Continuous	0.35mm	Right of Way - Dimensions
C-RWAY-FENC	magenta	FENCE	0.25mm	Roadways - Right-Of-Way Fence
C-RWAY-LGAL	magenta	ROW LEGAL	0.50mm	Right of Way - (Copy of) placed as Legal ROW
C-RWAY-LLOS	magenta	Continuous	0.25mm	Right of Way - Legal Limit of Slope



Layer Name	Color	Linetype*	Lineweight	Description
C-RWAY-LMON	magenta	Continuous	0.25mm	Right of Way - Monument
C-RWAY-NOTE	magenta	Continuous	0.35mm	Right of Way - Notes
C-RWAY-PNTS	magenta	Continuous	0.25mm	Right of Way - Points
C-RWAY-PTRN	magenta	Continuous	0.25mm	Right of Way - Pattern
C-RWAY-RROW	magenta	ROW REQ'D	0.50mm	Right of Way - Required
C-RWAY-SYMB	magenta	Continuous	0.25mm	Right of Way - Symbols
C-RWAY-TEXT	magenta	Continuous	0.35mm	Right of Way - Text
C-RWAY-WORK	magenta	Continuous	0.25mm	Right of Way - User Work (Non-Plotting)
C-SHDR	white	Continuous	0.25mm	Shoulders
C-SHDR-BOTM	white	Continuous	0.25mm	Shoulders - Bottom of Shoulder
C-SHDR-DIMS	white	Continuous	0.35mm	Shoulders - Dimensions
C-SHDR-EDGE	white	Continuous	0.25mm	Shoulders - Edge of Shoulder
C-SHDR-NOTE	white	Continuous	0.35mm	Shoulders - Notes
C-SHDR-PNTS	white	Continuous	0.25mm	Shoulders - Points (Non-Plotting)
C-SHDR-PTRN	white	Continuous	0.25mm	Shoulders - Pattern
C-SHDR-SYMB	white	Continuous	0.25mm	Shoulders - Symbols
C-SHDR-TEXT	white	Continuous	0.35mm	Shoulders - Text
C-SHDR-WORK	white	Continuous	0.25mm	Shoulders - User Work (Non-Plotting)
C-SSWR	green	Continuous	0.25mm	Sanitary Sewer
C-SSWR-BERM	green	Continuous	0.25mm	Sanitary Sewer - Berm for liquids retention
C-SSWR-CNTR	green	Continuous	0.25mm	Sanitary Sewer - Centerline
C-SSWR-DIMS	green	Continuous	0.35mm	Sanitary Sewer - Dimensions
C-SSWR-DUCT	green	Continuous	0.25mm	Sanitary Sewer - Ducts and conduits (vacant) for future lines
C-SSWR-EQPM	green	Continuous	0.25mm	Sanitary Sewer - Equipment and Pad
C-SSWR-GUYS	green	Continuous	0.25mm	Sanitary Sewer - Guying equipment
C-SSWR-HYDR	green	Continuous	0.25mm	Sanitary Sewer - Hydrants and Fire Department connections
C-SSWR-JBOX	green	Continuous	0.25mm	Sanitary Sewer - Junction Box
C-SSWR-LINE	green	UT-S	0.70mm	Sanitary Sewer - Lines
C-SSWR-LINE-DBUR	green	UT-S	0.70mm	Sanitary Sewer - Direct Buried Underground Lines
C-SSWR-LINE-OVHD	green	UT-S	0.70mm	Sanitary Sewer - Overhead Lines
C-SSWR-LINE-UNDR	green	UT-S	0.70mm	Sanitary Sewer - Underground Lines
C-SSWR-MARK	green	Continuous	0.25mm	Sanitary Sewer - Cell - Above Ground Markers
C-SSWR-METR	green	Continuous	0.25mm	Sanitary Sewer - Meters and instrumentation
C-SSWR-MHOL	green	Continuous	0.25mm	Sanitary Sewer - Manholes and junction boxes
C-SSWR-NOTE	green	Continuous	0.35mm	Sanitary Sewer - Notes



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Layer Name	Color	Linetype*	Lineweight	Description
C-SSWR-PERC	green	Continuous	0.25mm	Sanitary Sewer - Perc
C-SSWR-PIPE	green	UT-S	0.70mm	Sanitary Sewer - Piping
C-SSWR-PIPE-PATT	white	Continuous	0.25mm	Sanitary Sewer - Piping, Hatching
C-SSWR-PITS	green	Continuous	0.25mm	Sanitary Sewer - Pits for Vents, Valves and other equipment
C-SSWR-PLNT	green	Continuous	0.25mm	Sanitary Sewer - Plants, Pumping Stations, Storage Tanks and Reservoirs
C-SSWR-PNTS	green	Continuous	0.25mm	Sanitary Sewer - Points (Non-Plotting)
C-SSWR-POLE	green	Continuous	0.25mm	Sanitary Sewer - Pole
C-SSWR-PROF	green	Continuous	0.25mm	Sanitary Sewer - Profile
C-SSWR-PTRN	green	Continuous	0.25mm	Sanitary Sewer - Pattern
C-SSWR-SEPT	green	Continuous	0.25mm	Sanitary Sewer - Septic Tank
C-SSWR-SITE	green	Continuous	0.25mm	Sanitary Sewer - Line - Site (Interior boundary)
C-SSWR-STRC	green	Continuous	0.25mm	Sanitary Sewer - Structures
C-SSWR-STRC-PATT	green	Continuous	0.25mm	Sanitary Sewer - Structures, Hatching
C-SSWR-SYMB	green	Continuous	0.25mm	Sanitary Sewer - Symbols
C-SSWR-TEXT	white	Continuous	0.35mm	Sanitary Sewer - Text
C-SSWR-TRCH	green	Continuous	0.25mm	Sanitary Sewer - Fuel Line Trench
C-SSWR-WELL	green	Continuous	0.25mm	Sanitary Sewer - Wells
C-SSWR-WORK	green	Continuous	0.25mm	Sanitary Sewer - User Work (Non-Plotting)
C-SSWR-XFMR	green	Continuous	0.25mm	Sanitary Sewer - Transformers
C-STRM	cyan	Continuous	0.25mm	Storm Water Drainage
C-STRM-AREA	cyan	Continuous	0.25mm	Storm Water - Area
C-STRM-CHUT	cyan	Continuous	0.25mm	Storm Water - Chutes and Energy dissipator
C-STRM-CHUT-PAVE	cyan	Continuous	0.25mm	Storm Water - Paved energy dissipator
C-STRM-CHUT-ROCK	cyan	Continuous	0.25mm	Storm Water - Rock energy dissipator
C-STRM-CNTR	cyan	Continuous	0.25mm	Storm Water - Centerline
C-STRM-CULV	cyan	Continuous	0.25mm	Storm Water - Culvert
C-STRM-CULV-BOXC	cyan	Continuous	0.25mm	Storm Water - Culvert Box
C-STRM-CULV-OPEN	cyan	Continuous	0.25mm	Storm Water - Culvert Open
C-STRM-DETB	cyan	Continuous	0.25mm	Storm Water - Detention Basins
C-STRM-DIMS	cyan	Continuous	0.35mm	Storm Water - Dimensions
C-STRM-DTCH	cyan	DRAINAGE	0.25mm	Storm Water - Ditch
C-STRM-HDWL	cyan	Continuous	0.25mm	Storm Water - Headwalls and End walls
C-STRM-INLT	cyan	Continuous	0.25mm	Storm Water - Inlets (curb, surface, and catch basins)
C-STRM-MARK	cyan	Continuous	0.25mm	Storm Water - Surface Markers/Signs
C-STRM-MHOL	cyan	Continuous	0.25mm	Storm Water - Manhole



Layer Name	Color	Linetype*	Lineweight	Description
C-STRM-NOTE	cyan	Continuous	0.35mm	Storm Water - Notes
C-STRM-PIPE	cyan	Continuous	0.70mm	Storm Water - Pipe
C-STRM-PIPE-ABOV	cyan	Continuous	0.70mm	Storm Water - Piping, Above Ground
C-STRM-PIPE-PATT	white	PIPE PR	0.70mm	Storm Water - Piping, Hatching
C-STRM-PIPE-TEMP	cyan	Continuous	0.70mm	Storm Water - Piping, Temporary Slope Drainage
C-STRM-PIPE-UNDR	cyan	Continuous	0.70mm	Storm Water - Piping, Below Ground
C-STRM-PNTS	cyan	Continuous	0.25mm	Storm Water - Points (Non-Plotting)
C-STRM-PROF	170	Continuous	0.25mm	Storm Water - Profile
C-STRM-PTRN	cyan	Continuous	0.25mm	Storm Water - Pattern
C-STRM-SCTN	200	Continuous	0.25mm	Storm Water - Section
C-STRM-STRC	170	Continuous	0.25mm	Storm Water - Structures
C-STRM-STRC-PATT	white	Continuous	0.25mm	Storm Water - Structures, Hatching
C-STRM-SYMB	cyan	Continuous	0.25mm	Storm Water - Symbols
C-STRM-TEXT	white	Continuous	0.35mm	Storm Water - Text
C-STRM-WORK	cyan	Continuous	0.25mm	Storm Water - User Work (Non-Plotting)
C-SURF	92	Continuous	0.25mm	Surface - Parent Layer
C-SURF-BNDY	92	Continuous	0.25mm	Surface - Boundary
C-SURF-BNDY-EXTR	92	Continuous	0.25mm	Surface - Exterior Boundaries
C-SURF-BNDY-INTR	92	Continuous	0.25mm	Surface - Interior Boundaries
C-SURF-CONT	92	Continuous	0.25mm	Surface - Contours
C-SURF-CONT-MAJR	92	HIDDEN	0.25mm	Surface - Contours Major
C-SURF-CONT-MINR	21	HIDDEN2	0.25mm	Surface - Contours Minor
C-SURF-CONT-SPOT	92	Continuous	0.25mm	Surface - Contours Spot Elevations
C-SURF-DIMS	92	Continuous	0.35mm	Surface - Dimensions
C-SURF-ELEV	92	Continuous	0.25mm	Surface - Triangle Elevations
C-SURF-FALT	92	Continuous	0.25mm	Surface - Fault / Break lines
C-SURF-LN00	92	Continuous	0.25mm	Surface - Line 00
C-SURF-NOTE	92	Continuous	0.35mm	Surface - Notes
C-SURF-PMTR	92	Continuous	0.25mm	Surface - Perimeter
C-SURF-PNTS	92	Continuous	0.25mm	Surface - Points (Non-Plotting)
C-SURF-PTRN	92	Continuous	0.25mm	Surface - Pattern
C-SURF-SLOP	92	Continuous	0.25mm	Surface - Triangle Slopes
C-SURF-SYMB	92	Continuous	0.25mm	Surface - Symbols
C-SURF-TEXT	92	Continuous	0.35mm	Surface - Text
C-SURF-TRIA	92	Continuous	0.25mm	Surface - Triangles



Layer Name	Color	Linetype*	Lineweight	Description
C-SURF-WORK	92	Continuous	0.25mm	Surface - User Work (Non-Plotting)
C-SURV	white	Continuous	0.25mm	Survey Control Points
C-SURV-CTPT	white	Continuous	0.25mm	Survey Control Points - Proposed
C-SURV-DIMS	white	Continuous	0.35mm	Survey Control Points - Dimensions
C-SURV-NOTE	white	Continuous	0.35mm	Survey Control Points - Notes
C-SURV-PNTS	white	Continuous	0.25mm	Survey Control Points - Points (Non-Plotting)
C-SURV-PTRN	white	Continuous	0.25mm	Survey Control Points - Pattern
C-SURV-SYMB	white	Continuous	0.25mm	Survey Control Points - Symbols
C-SURV-TEXT	white	Continuous	0.35mm	Survey Control Points - Text
C-SURV-WORK	white	Continuous	0.25mm	Survey Control Points - User Work (Non-Plotting)
C-SWLK	white	Continuous	0.25mm	Sidewalks
C-SWLK-DIMS	white	Continuous	0.35mm	Sidewalks - Dimensions
C-SWLK-EDGE	white	Continuous	0.25mm	Sidewalks - Edge of
C-SWLK-NOTE	white	Continuous	0.35mm	Sidewalks - Notes
C-SWLK-PNTS	white	Continuous	0.25mm	Sidewalks - Points (Non-Plotting)
C-SWLK-PTRN	white	Continuous	0.25mm	Sidewalks - Pattern
C-SWLK-RAMP	white	Continuous	0.25mm	Sidewalks - Handicap Ramp
C-SWLK-SYMB	white	Continuous	0.25mm	Sidewalks - Symbols
C-SWLK-TEXT	white	Continuous	0.35mm	Sidewalks - Text
C-SWLK-UNDR	white	Continuous	0.25mm	Sidewalks - NON-PLOTTING
C-SWLK-WORK	white	Continuous	0.25mm	Sidewalks - User Work (Non-Plotting)
C-TELP	30	UT-T	0.60mm	Telephone
C-TELP-BERM	30	Continuous	0.25mm	Telephone - Berm for Liquids Retention
C-TELP-DIMS	30	Continuous	0.35mm	Telephone - Dimensions
C-TELP-DUCT	30	Continuous	0.25mm	Telephone - Ducts and Conduits (vacant) for future lines
C-TELP-EQPM	30	Continuous	0.25mm	Telephone - Equipment and Pad
C-TELP-GUYS	30	Continuous	0.25mm	Telephone - Guying Equipment
C-TELP-HYDR	30	Continuous	0.25mm	Telephone - Hydrants and Fire Department Connections
C-TELP-JBOX	30	Continuous	0.25mm	Telephone - Junction Box
C-TELP-LINE	30	UT-T	0.60mm	Telephone - Lines
C-TELP-LINE-DBUR	30	UT-TU	0.60mm	Telephone - Direct Buried Underground Lines
C-TELP-LINE-OVHD	30	UT-T	0.60mm	Telephone - Overhead Lines
C-TELP-LINE-UNDR	30	UT-TU	0.60mm	Telephone - Underground Lines
C-TELP-MARK	30	Continuous	0.25mm	Telephone - Cell - Above Ground Markers
C-TELP-METR	30	Continuous	0.25mm	Telephone - Meters and Instrumentation



Layer Name	Color	Linetype*	Lineweight	Description
C-TELP-MHOL	30	Continuous	0.25mm	Telephone - Manholes and Junction Boxes
C-TELP-NOTE	30	Continuous	0.35mm	Telephone - Notes
C-TELP-PERC	30	Continuous	0.25mm	Telephone - Perc Test Holes and Pits
C-TELP-PITS	30	Continuous	0.25mm	Telephone - Pits for Vents, Valves and other equipment
C-TELP-PLNT	30	Continuous	0.25mm	Telephone - Plants, Pumping Stations, Storage Tanks and Reservoirs
C-TELP-PNTS	30	Continuous	0.25mm	Telephone - Points (Non-Plotting)
C-TELP-POLE	30	Continuous	0.25mm	Telephone - Pole
C-TELP-PTRN	30	Continuous	0.25mm	Telephone - Pattern
C-TELP-SITE	30	Continuous	0.25mm	Telephone - Line - Site (Interior boundary)
C-TELP-SYMB	30	Continuous	0.25mm	Telephone - Symbols
C-TELP-TEXT	30	Continuous	0.35mm	Telephone - Text
C-TELP-TRCH	30	Continuous	0.25mm	Telephone - Fuel Line Trench
C-TELP-WELL	30	Continuous	0.25mm	Telephone - Wells
C-TELP-WORK	30	Continuous	0.25mm	Telephone - User Work (Non-Plotting)
C-TELP-XFMR	30	Continuous	0.25mm	Telephone - Transformers
C-TINN	cyan	Continuous	0.25mm	Triangulated Irregular Network
C-TINN-BNDY	110	Continuous	0.25mm	Triangulated Irregular Network - Boundary
C-TINN-VIEW	252	Continuous	0.25mm	Triangulated Irregular Network - Triangle View
C-TOPO	white	Continuous	0.25mm	Topography
C-TOPO-BKLN	white	Continuous	0.25mm	Topography - Break lines
C-TOPO-BLBD-DBBL	white	Continuous	0.25mm	Topography - Billboard Double
C-TOPO-BLBD-SNGL	white	Continuous	0.25mm	Topography - Billboard Single
C-TOPO-CUTT	30	CUT	0.25mm	Topography - Cut
C-TOPO-DIMS	white	Continuous	0.35mm	Topography - Dimensions
C-TOPO-FEAT	92	Continuous	0.25mm	Topography - Featureline
C-TOPO-FENC	yellow	FENCE	0.25mm	Topography - Fence
C-TOPO-FILL	magenta	FILL	0.25mm	Topography - Fill
C-TOPO-GRAD	93	Continuous	0.25mm	Topography - Grading
C-TOPO-GRAD-CUTS	red	CUT	0.25mm	Topography - Grading Cut Material
C-TOPO-GRAD-FILL	93	FILL	0.25mm	Topography - Grading Fill Material
C-TOPO-GRAD-TEXT	white	Continuous	0.35mm	Topography - Grading Annotation
C-TOPO-MAJR-PROP	92	Continuous	0.35mm	Topography - Major Contours, Proposed
C-TOPO-MINR-PROP	yellow	Continuous	0.25mm	Topography - Minor Contours, Proposed
C-TOPO-NOTE	white	Continuous	0.35mm	Topography - Notes
C-TOPO-PNTS	white	Continuous	0.25mm	Topography - Points (Non-Plotting)



Layer Name	Color	Linetype*	Lineweight	Description
C-TOPO-PTRN	white	Continuous	0.25mm	Topography - Pattern
C-TOPO-SURF	cyan	Continuous	0.25mm	Topography - Surface
C-TOPO-SURF-TEXT	cyan	Continuous	0.35mm	Topography - Surface Annotation
C-TOPO-SYMB	white	Continuous	0.25mm	Topography - Symbols
C-TOPO-TEXT	white	Continuous	0.35mm	Topography - Text
C-TOPO-USER	40	Continuous	0.25mm	Topography - User Contours
C-TOPO-WORK	white	Continuous	0.25mm	Topography - User Work (Non-Plotting)
C-TOPO-WSHD	150	Continuous	0.25mm	Topography - Watershed
C-TOPO-WSHD-TEXT	white	Continuous	0.35mm	Topography - Watershed Text
C-TRAL	white	Continuous	0.25mm	Trails or Paths
C-TRAL-DIMS	white	Continuous	0.35mm	Trails - Dimensions
C-TRAL-EDGE	white	Continuous	0.25mm	Trails - Edge
C-TRAL-LINE	white	Continuous	0.25mm	Trails - Lines
C-TRAL-NOTE	white	Continuous	0.35mm	Trails - Notes
C-TRAL-PNTS	white	Continuous	0.25mm	Trails - Points
C-TRAL-PTRN	white	Continuous	0.25mm	Trails - Pattern
C-TRAL-SYMB	white	Continuous	0.25mm	Trails - Symbols
C-TRAL-TEXT	white	Continuous	0.35mm	Trails - Text
C-TRAL-WORK	white	Continuous	0.25mm	Trails - User Work (Non-Plotting)
C-UTIL	52	Continuous	0.25mm	Utility
C-UTIL-BERM	52	Continuous	0.25mm	Utility - Berm for Liquids Retention
C-UTIL-COMB	52	Continuous	0.25mm	Utility - Combined
C-UTIL-DIMS	52	Continuous	0.35mm	Utility - Dimensions
C-UTIL-DUCT	52	Continuous	0.25mm	Utility - Ducts and Conduits (vacant) for future lines
C-UTIL-ELEC	20	Continuous	ByLineWeightDefault	C-UTIL-ELEC
C-UTIL-EQPM	52	Continuous	0.25mm	Utility - Equipment and Pad
C-UTIL-GUYS	52	Continuous	0.25mm	Utility - Guying equipment
C-UTIL-HYDR	52	Continuous	0.25mm	Utility - Hydrants and Fire Department connections
C-UTIL-JBOX	52	Continuous	0.25mm	Utility - Junction Box
C-UTIL-LINE	52	Continuous	0.25mm	Utility - Lines
C-UTIL-LINE-DBUR	52	Continuous	0.25mm	Utility - Direct Buried Underground Lines
C-UTIL-LINE-OVHD	52	Continuous	0.25mm	Utility - Overhead Lines
C-UTIL-LINE-UNDR	52	Continuous	0.25mm	Utility - Underground Lines
C-UTIL-MARK	52	Continuous	0.25mm	Utility - Cell - Above Ground Markers
C-UTIL-METR	52	Continuous	0.25mm	Utility - Meters and Instrumentation



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Layer Name	Color	Linetype*	Lineweight	Description
C-UTIL-MHOL	52	Continuous	0.25mm	Utility - Manholes and Junction Boxes
C-UTIL-NGAS	61	Continuous	ByLineWeightDefault	Utility - Natural Gas
C-UTIL-NOTE	52	Continuous	0.35mm	Utility - Notes
C-UTIL-PERC	52	Continuous	0.25mm	Utility - Perc Test Holes and Pits
C-UTIL-PITS	52	Continuous	0.25mm	Utility - Pits for Vents, Valves and other equipment
C-UTIL-PLNT	52	Continuous	0.25mm	Utility - Plants, Pumping Stations, Storage Tanks and Reservoirs
C-UTIL-PNTS	52	Continuous	0.25mm	Utility - Points (Non-Plotting)
C-UTIL-POLE	52	Continuous	0.25mm	Utility - Pole
C-UTIL-PTRN	52	Continuous	0.25mm	Utility - Pattern
C-UTIL-SITE	52	Continuous	0.25mm	Utility - Line - Site (Interior boundary)
C-UTIL-SYMB	52	Continuous	0.25mm	Utility - Symbols
C-UTIL-TELP	150	Continuous	ByLineWeightDefault	Utility - Telephone
C-UTIL-TEXT	52	Continuous	0.35mm	Utility - Text
C-UTIL-TRCH	52	Continuous	0.25mm	Utility - Fuel Line Trench
C-UTIL-VLVE	52	Continuous	0.25mm	Utility - Valve
C-UTIL-WELL	52	Continuous	0.25mm	Utility - Wells
C-UTIL-WORK	52	Continuous	0.25mm	Utility - User Work (Non-Plotting)
C-UTIL-XFMR	52	Continuous	0.25mm	Utility - Transformers
C-VEGE	green	Continuous	0.25mm	Vegetation
C-VEGE-BEDS	green	NURSERY	0.25mm	Vegetation - Planting beds
C-VEGE-BUSH	green	HEDGE	0.25mm	Vegetation - Bushes and Shrubs (e.g., evergreen, deciduous, etc.)
C-VEGE-DIMS	green	Continuous	0.35mm	Vegetation - Dimensions
C-VEGE-HEDG	green	HEDGE ROW	0.25mm	Vegetation - Hedge
C-VEGE-IRRG	green	Continuous	0.25mm	Vegetation - Irrigation System
C-VEGE-NOTE	green	Continuous	0.35mm	Vegetation - Notes
C-VEGE-ORCH	green	TREE	0.25mm	Vegetation - Orchard
C-VEGE-PLNT	green	Continuous	0.25mm	Vegetation - Planters and Planting Structures
C-VEGE-PLTS	green	Continuous	0.25mm	Vegetation - Planting Plants (e.g., ornamental annuals and perennials)
C-VEGE-PNTS	green	Continuous	0.25mm	Vegetation - Points (Non-Plotting)
C-VEGE-PTRN	green	Continuous	0.25mm	Vegetation - Pattern
C-VEGE-SYMB	green	Continuous	0.25mm	Vegetation - Symbols
C-VEGE-TEXT	green	Continuous	0.35mm	Vegetation - Text
C-VEGE-TREE	green	TREE	0.25mm	Vegetation - Trees (e.g., evergreen, deciduous, etc.)
C-VEGE-TURF	green	NURSERY	0.25mm	Vegetation - Lawn Areas (turfing limits)
C-VEGE-VINE	green	Continuous	0.25mm	Vegetation - Vine



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Layer Name	Color	Linetype*	Lineweight	Description
C-VEGE-WOOD	green	WOODS	0.25mm	Vegetation - Woods Line
C-VEGE-WORK	green	Continuous	0.25mm	Vegetation - User Work (Non-Plotting)
C-WALL	red	Continuous	0.25mm	Wall (General, as shown on Civil plans)
C-WALL-BARR	red	Continuous	0.25mm	Wall - Barrier Wall
C-WALL-CTLJ	red	Continuous	0.25mm	Wall - Control Joints
C-WALL-DIMS	red	Continuous	0.35mm	Wall - Dimensions
C-WALL-NOTE	red	Continuous	0.35mm	Wall - Notes
C-WALL-NSBR	red	Continuous	0.25mm	Wall - Noise Barrier
C-WALL-PNTS	red	Continuous	0.25mm	Wall - Points (Non-Plotting)
C-WALL-PTRN	red	Continuous	0.25mm	Wall - Pattern
C-WALL-RTWL	red	Continuous	0.25mm	Wall - Retaining
C-WALL-SHEA	red	Continuous	0.25mm	Wall - Structural Bearing or Shear
C-WALL-STON	red	Continuous	0.25mm	Wall - Stone Wall
C-WALL-SYMB	red	Continuous	0.25mm	Wall - Symbols
C-WALL-TEXT	red	Continuous	0.35mm	Wall - Text
C-WALL-WORK	red	Continuous	0.25mm	Wall - User Work (Non-Plotting)
C-WATR	cyan	UT-W	0.60mm	Water
C-WATR-APPT	blue	Continuous	0.25mm	Water - Appurtenances
C-WATR-APPT-PATT	white	Continuous	0.25mm	Water - Appurtenances, Hatching
C-WATR-BERM	cyan	Continuous	0.25mm	Water - Berm for Liquids Retention
C-WATR-CNTR	blue	Continuous	0.25mm	Water - Centerline
C-WATR-DIMS	cyan	Continuous	0.35mm	Water - Dimensions
C-WATR-DUCT	cyan	Continuous	0.25mm	Water - Ducts and Conduits (vacant) for future lines
C-WATR-EQPM	cyan	Continuous	0.25mm	Water - Equipment and Pad
C-WATR-FIRE-PIPE	red	Continuous	ByLineWeightDefault	Water - Fire Pipeline
C-WATR-FITT	blue	Continuous	0.25mm	Water - Fittings
C-WATR-FITT-PATT	white	Continuous	0.25mm	Water - Fittings, Hatching
C-WATR-GUYS	cyan	Continuous	0.25mm	Water - Guying Equipment
C-WATR-HYDR	cyan	Continuous	0.25mm	Water - Hydrants and Fire Department Connections
C-WATR-JBOX	cyan	Continuous	0.25mm	Water - Junction Box
C-WATR-LINE	cyan	UT-W	0.60mm	Water - Lines
C-WATR-LINE-DBUR	cyan	UT-W	0.60mm	Water - Direct Buried Underground Lines
C-WATR-LINE-OVHD	cyan	UT-W	0.60mm	Water - Overhead Lines
C-WATR-LINE-UNDR	cyan	UT-W	0.60mm	Water - Underground Lines
C-WATR-MARK	cyan	Continuous	0.25mm	Water - Cell - Above Ground Markers



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Layer Name	Color	Linetype*	Lineweight	Description
C-WATR-METR	cyan	Continuous	0.25mm	Water - Meters and Instrumentation
C-WATR-MHOL	cyan	Continuous	0.25mm	Water - Manholes and Junction Boxes
C-WATR-NOTE	cyan	Continuous	0.35mm	Water - Notes
C-WATR-PERC	cyan	Continuous	0.25mm	Water - Perc Test Holes and Pits
C-WATR-PIPE	blue	UT-W	0.60mm	Water - Pressure Pipe
C-WATR-PIPE-PATT	white	Continuous	0.25mm	Water - Pressure Pipe, Hatching
C-WATR-PITS	cyan	Continuous	0.25mm	Water - Pits for Vents, Valves and other equipment
C-WATR-PLNT	cyan	Continuous	0.25mm	Water - Plants, Pumping Stations, Storage Tanks and Reservoirs
C-WATR-PNTS	cyan	Continuous	0.25mm	Water - Points (Non-Plotting)
C-WATR-POLE	cyan	Continuous	0.25mm	Water - Pole
C-WATR-PROF	blue	Continuous	0.25mm	Water - Profile
C-WATR-PTRN	cyan	Continuous	0.25mm	Water - Pattern
C-WATR-SCTN	blue	Continuous	0.25mm	Water - Section
C-WATR-SITE	cyan	Continuous	0.25mm	Water - Line - Site (Interior boundary)
C-WATR-SYMB	cyan	Continuous	0.25mm	Water - Symbols
C-WATR-TEXT	white	Continuous	0.35mm	Water - Text
C-WATR-TRCH	cyan	Continuous	0.25mm	Water - Fuel Line Trench
C-WATR-WELL	cyan	Continuous	0.25mm	Water - Wells
C-WATR-WORK	cyan	Continuous	0.25mm	Water - User Work (Non-Plotting)
C-WATR-XFMR	cyan	Continuous	0.25mm	Water - Transformers
C-WETL	120	WETLAND	0.25mm	Wetlands
C-WETL-BOGS	120	Continuous	0.25mm	Wetlands - Bogs
C-WETL-DIMS	120	Continuous	0.35mm	Wetlands - Dimensions
C-WETL-MRSH	120	WETLAND	0.25mm	Wetlands - Marshes
C-WETL-NOTE	120	Continuous	0.35mm	Wetlands - Notes
C-WETL-OTLN	120	WETLAND	0.25mm	Wetlands - Outline
C-WETL-PNTS	120	Continuous	0.25mm	Wetlands - Points (Non-Plotting)
C-WETL-PTRN	120	Continuous	0.25mm	Wetlands - Pattern
C-WETL-SYMB	120	Continuous	0.25mm	Wetlands - Symbols
C-WETL-TEXT	120	Continuous	0.35mm	Wetlands - Text
C-WETL-WORK	120	Continuous	0.25mm	Wetlands - User Work (Non-Plotting)
C-XSEC	white	Continuous	0.25mm	Cross Section
C-XSEC-AXIS	white	Continuous	0.25mm	Cross Section - Axis
C-XSEC-AXIS-TEXT	white	Continuous	0.35mm	Cross Section - Axis - Text
C-XSEC-AXIS-TITL	white	Continuous	0.25mm	Cross Section - Axis - Title

Layer Name	Color	Linetype*	Lineweight	Description
C-XSEC-CELL	white	Continuous	0.25mm	Cross Section - Cells
C-XSEC-DIMS	white	Continuous	0.35mm	Cross Section - Dimensions
C-XSEC-FRAM	white	Continuous	0.25mm	Cross Section - Frame
C-XSEC-GRID	white	Continuous	0.25mm	Cross Section - Grid
C-XSEC-GRID-BLTX	white	Continuous	0.25mm	Cross Section - Grid - Base Line Text
C-XSEC-GRID-CLTX	white	Continuous	0.25mm	Cross Section - Grid - Center Line Text
C-XSEC-GRID-HVGL	white	Continuous	0.25mm	Cross Section - Grid - Center Line Text
C-XSEC-GRID-MAJR	white	Continuous	0.25mm	Cross Section - Grid major lines
C-XSEC-GRID-MINR	white	Continuous	0.25mm	Cross Section - Grid minor lines
C-XSEC-LINE	white	Continuous	0.25mm	Cross Section - Lines
C-XSEC-NAME	white	Continuous	0.25mm	Cross Section - Name
C-XSEC-NAME-TEXT	white	Continuous	0.35mm	Cross Section - Name Text
C-XSEC-NOTE	white	Continuous	0.35mm	Cross Section - Notes
C-XSEC-PNTS	white	Continuous	0.25mm	Cross Section - Points (Non-Plotting)
C-XSEC-PTRN	white	Continuous	0.25mm	Cross Section - Pattern
C-XSEC-SYMB	white	Continuous	0.25mm	Cross Section - Symbols
C-XSEC-TEXT	white	Continuous	0.35mm	Cross Section - Text
C-XSEC-WORK	white	Continuous	0.25mm	Cross Section - User Work (Non-Plotting)

14.5.1.2 STRUCTURAL LAYERS

Layer Name	Color	Linetype*	Lineweight	Description
S-ABUT	white	Continuous	0.25mm	Abutment
S-ABUT-CNTR	white	DGN Style 4	0.25mm	Abutment - Centerlines
S-ABUT-CONC	white	Continuous	0.35mm	Abutment - Concrete Lines
S-ABUT-DRAN	white	Continuous	0.35mm	Abutment - Drainage
S-ABUT-DRAN-EXST	18	Continuous	0.25mm	Abutment - Existing Drainage
S-ABUT-EXST-CONC	18	Continuous	0.25mm	Abutment - Existing Concrete
S-ABUT-EXST-REBR	18	DGN Style 2	0.35mm	Abutment - Existing Rebar
S-ABUT-HATC	white	Continuous	0.25mm	Abutment - Hatching
S-ABUT-HIDL	white	DGN Style 2	0.25mm	Abutment - Hidden Line
S-ABUT-MISC	white	Continuous	0.25mm	Abutment - Miscellaneous
S-ABUT-PILE	white	Continuous	0.25mm	Abutment - Piling
S-ABUT-PTRN-01	white	Continuous	0.25mm	Abutment - Patterning
S-ABUT-PTRN-02	white	Continuous	0.25mm	Abutment - Patterning
S-ABUT-REBR	white	Continuous	0.50mm	Abutment - Rebar
S-ABUT-WORK	white	Continuous	0.25mm	Abutment - User Work / Scratch (Non-Plotting)



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Layer Name	Color	Linetype*	Lineweight	Description
S-ANNO	white	Continuous	0.25mm	Structure - Annotation
S-ANNO-ATAB	white	Continuous	0.25mm	Structure - Auto Tab Import
S-ANNO-CELL	white	Continuous	0.25mm	Structure - Misc. Cells
S-ANNO-DIMS-AUTO	white	Continuous	0.25mm	Structure - Automatic Dimensioning
S-ANNO-DIMS-MANL	white	Continuous	0.25mm	Structure - Dimensions, Extension Lines & Arrows
S-ANNO-SCAL-01	white	Continuous	0.35mm	Structure - Barscale Cells
S-ANNO-SCAL-02	white	Continuous	0.35mm	Structure - Barscale Cells
S-ANNO-SCAL-03	white	Continuous	0.35mm	Structure - Barscale Cells
S-ANNO-SEAL	white	Continuous	0.35mm	Structure - PE Seal
S-ANNO-SHTS	white	Continuous	0.25mm	Structure - Sheet Cells
S-ANNO-SYMB	white	Continuous	0.35mm	Structure - Symbols (cells)
S-ANNO-TABL	white	Continuous	0.25mm	Structure - Tables
S-ANNO-TEXT-EXST	white	Continuous	0.25mm	Structure - Text - Existing
S-ANNO-WORK	white	Continuous	0.25mm	Structure - Annotation User Work / Scratch (Non-Plotting)
S-ANNO-XMRK	white	Continuous	0.25mm	Structure - Cross Section Marks
S-APSL	white	Continuous	0.25mm	Approach Slab
S-APSL-CNTR	white	DGN Style 4	0.25mm	Approach Slab - Centerlines
S-APSL-CONC	white	Continuous	0.35mm	Approach Slab - Concrete Lines
S-APSL-EXST-CONC	18	Continuous	0.25mm	Approach Slab - Existing Concrete
S-APSL-EXST-REBR	18	Continuous	0.25mm	Approach Slab - Existing Rebar
S-APSL-HATC	white	Continuous	0.25mm	Approach Slab - Hatching
S-APSL-HIDL	white	DGN Style 2	0.25mm	Approach Slab - Hidden Line
S-APSL-MISC	white	Continuous	0.25mm	Approach Slab - Miscellaneous
S-APSL-PTRN-01	white	Continuous	0.25mm	Approach Slab - Patterning
S-APSL-PTRN-02	white	Continuous	0.25mm	Approach Slab - Patterning
S-APSL-REBR-01	white	Continuous	0.50mm	Approach Slab - Rebar
S-APSL-REBR-02	white	Continuous	0.50mm	Approach Slab - Rebar
S-APSL-WORK	white	Continuous	0.25mm	Approach Slab - User Work / Scratch (Non-Plotting)
S-BEAM	white	Continuous	0.25mm	Beam
S-BEAM-BEAR	white	Continuous	0.25mm	Beam - Bearings
S-BEAM-CNTR	white	DGN Style 4	0.25mm	Beam - Centerlines
S-BEAM-CONC	white	Continuous	0.35mm	Beam - Concrete Lines
S-BEAM-EXST-CONC	18	Continuous	0.25mm	Beam - Existing Concrete
S-BEAM-EXST-REBR	18	Continuous	0.35mm	Beam - Existing Rebar
S-BEAM-HATC	white	Continuous	0.25mm	Beam - Hatching
S-BEAM-HIDL	white	DGN Style 2	0.25mm	Beam - Hidden Line
S-BEAM-MISC	white	Continuous	0.25mm	Beam - Miscellaneous
S-BEAM-PTRN-01	white	Continuous	0.25mm	Beam - Patterning
S-BEAM-PTRN-02	white	Continuous	0.25mm	Beam - Patterning
S-BEAM-REBR	white	Continuous	0.50mm	Beam - Rebar
S-BEAM-STEL	white	Continuous	0.25mm	Beam - Steel (non-rebar)
S-BEAM-STRD	white	Continuous	0.25mm	Beam - Strand



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Layer Name	Color	Linetype*	Lineweight	Description
S-BEAM-WORK	white	Continuous	0.25mm	Beam - User Work / Scratch (Non-Plotting)
S-BRDG	white	Continuous	0.25mm	Structure - Roadway Features
S-BRDG-BARR	white	Continuous	0.35mm	Structure - Barrier
S-BRDG-BORE	white	Continuous	0.25mm	Structure - Core Boring
S-BRDG-EROS	white	Continuous	0.25mm	Structure - Erosion & Sediment Controls
S-BRDG-EXCA-01	white	Continuous	0.50mm	Structure - Excavation 01
S-BRDG-EXCA-02	white	Continuous	0.50mm	Structure - Excavation 02
S-BRDG-EXCA-03	white	Continuous	0.50mm	Structure - Excavation 03
S-BRDG-GRAL	white	Continuous	0.25mm	Structure - Guide Rail
S-BRDG-LITE	white	Continuous	0.25mm	Structure - Lighting
S-BRDG-MISC-01	white	Continuous	0.25mm	Structure - Miscellaneous 01
S-BRDG-MISC-02	white	Continuous	0.25mm	Structure - Miscellaneous 02
S-BRDG-MISC-03	white	Continuous	0.25mm	Structure - Miscellaneous 03
S-BRDG-REVI	white	Continuous	0.25mm	Structure - Revisions
S-BRDG-SHOR	white	Continuous	0.60mm	Structure - Shoring
S-BRDG-WORK	white	Continuous	0.25mm	Structure - Bridge User Work / Scratch (Non-Plotting)
S-DECK	white	Continuous	0.25mm	Deck
S-DECK-CNTR	white	DGN Style 4	0.25mm	Deck - Centerlines
S-DECK-CONC	white	Continuous	0.35mm	Deck - Concrete Lines
S-DECK-DRAN	white	Continuous	0.25mm	Deck - Drainage - Proposed
S-DECK-DRAN-EXST	white	Continuous	0.25mm	Deck - Drainage - Existing
S-DECK-EXDM	white	Continuous	0.25mm	Deck - Expansion Dams
S-DECK-EXST-CONC	18	Continuous	0.25mm	Deck - Existing Concrete
S-DECK-EXST-REBR	18	Continuous	0.35mm	Deck - Existing Rebar
S-DECK-HATC	white	Continuous	0.25mm	Deck - Hatching
S-DECK-HIDL	white	DGN Style 2	0.25mm	Deck - Hidden Line
S-DECK-MISC	white	Continuous	0.25mm	Deck - Miscellaneous
S-DECK-PTRN-01	white	Continuous	0.25mm	Deck - Patterning
S-DECK-PTRN-02	white	Continuous	0.25mm	Deck - Patterning
S-DECK-REBR-01	white	Continuous	0.50mm	Deck - Rebar
S-DECK-REBR-02	white	Continuous	0.50mm	Deck - Rebar
S-DECK-WORK	white	Continuous	0.25mm	Deck - User Work / Scratch (Non-Plotting)
S-FOOT	white	Continuous	0.25mm	Footing
S-FOOT-CNTR	white	DGN Style 4	0.25mm	Footing - Centerlines
S-FOOT-CONC	white	Continuous	0.35mm	Footing - Concrete Lines
S-FOOT-EXST-CONC	18	Continuous	0.25mm	Footing - Existing Concrete
S-FOOT-EXST-REBR	18	Continuous	0.35mm	Footing - Existing Rebar
S-FOOT-HATC	white	Continuous	0.25mm	Footing - Hatching
S-FOOT-HIDL	white	DGN Style 2	0.25mm	Footing - Hidden Line
S-FOOT-MISC	white	Continuous	0.25mm	Footing - Miscellaneous
S-FOOT-PILE	white	Continuous	0.25mm	Footing - Piling
S-FOOT-PTRN-01	white	Continuous	0.25mm	Footing - Patterning



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Layer Name	Color	Linetype*	Lineweight	Description
S-FOOT-PTRN-02	white	Continuous	0.25mm	Footing - Patterning
S-FOOT-REBR-01	white	Continuous	0.50mm	Footing - Rebar
S-FOOT-REBR-02	white	Continuous	0.50mm	Footing - Rebar
S-FOOT-WORK	white	Continuous	0.25mm	Footing - User Work / Scratch (Non-Plotting)
S-PIER	white	Continuous	0.25mm	Pier
S-PIER-CNTR	white	DGN Style 4	0.25mm	Pier - Centerlines
S-PIER-CONC	white	Continuous	0.35mm	Pier - Concrete Lines
S-PIER-EXST-CONC	18	Continuous	0.25mm	Pier - Existing Concrete
S-PIER-EXST-REBR	18	Continuous	0.35mm	Pier - Existing Rebar
S-PIER-HATC	white	Continuous	0.25mm	Pier - Hatching
S-PIER-HIDL	white	DGN Style 2	0.25mm	Pier - Hidden Line
S-PIER-MISC	white	Continuous	0.25mm	Pier - Miscellaneous
S-PIER-PTRN-01	white	Continuous	0.25mm	Pier - Patterning
S-PIER-PTRN-02	white	Continuous	0.25mm	Pier - Patterning
S-PIER-REBR	white	Continuous	0.50mm	Pier - Rebar
S-PIER-WORK	white	Continuous	0.25mm	Pier - User Work / Scratch (Non-Plotting)
S-RWAY	white	Continuous	0.25mm	Right of Way
S-RWAY-LGAL	white	ROW LEGAL	0.50mm	Right of Way - Legal (Existing)
S-RWAY-MISC	white	Continuous	0.25mm	Right of Way - Miscellaneous
S-RWAY-REQD	white	ROW REQ'D	0.60mm	Right of Way - Required
S-RWAY-TEMP	white	Continuous	0.25mm	Right of Way - Temporary Construction Easement
S-RWAY-WORK	white	Continuous	0.25mm	Right of Way - User Work / Scratch (Non-Plotting)
S-STKE	white	Continuous	0.25mm	Structure Stake-Out
S-STKE-BLIN	white	Continuous	0.25mm	Structure Stake-Out - Baselines
S-STKE-CELL	white	Continuous	0.35mm	Structure Stake-Out - Cells
S-STKE-CNTR	white	DGN Style 4	0.25mm	Structure Stake-Out - Centerlines
S-STKE-CONC	white	Continuous	0.35mm	Structure Stake-Out - Concrete Lines
S-STKE-DIMS-AUTO	white	Continuous	0.25mm	Structure Stake-Out - Dimensions - Automatic
S-STKE-DIMS-MANL	white	Continuous	0.25mm	Structure Stake-Out - Dimensions - Manual
S-STKE-MISC	white	Continuous	0.25mm	Structure Stake-Out - Miscellaneous
S-STKE-TEXT	white	Continuous	0.35mm	Structure Stake-Out - Text
S-STKE-WORK	white	Continuous	0.25mm	Structure Stake-Out - User Work / Scratch (Non-Plotting)



14.5.1.3 TRAFFIC LAYERS

Layer Name	Color	Linetype*	Lineweight	Description
T-LITE	120	Continuous	0.25mm	Traffic Lighting
T-LITE-DIMS	120	Continuous	0.35mm	Traffic Lighting - Dimensions
T-LITE-EQPM	120	Continuous	0.25mm	Traffic Lighting - Equipment and Pads
T-LITE-JBOX	120	Continuous	0.25mm	Traffic Lighting - Conduits / Junction Boxes
T-LITE-MAST	120	Continuous	0.25mm	Traffic Lighting - Mast Arm
T-LITE-NOTE	120	Continuous	0.35mm	Traffic Lighting - Note
T-LITE-PNTS	120	Continuous	0.25mm	Traffic Lighting - Points (Non-Plotting)
T-LITE-POLE	120	Continuous	0.25mm	Traffic Lighting - Pole
T-LITE-PTRN	120	Continuous	0.25mm	Traffic Lighting - Pattern
T-LITE-SYMB	120	Continuous	0.25mm	Traffic Lighting - Symbols
T-LITE-TCRV	120	Continuous	0.25mm	Traffic Lighting - Template Curves
T-LITE-TEXT	120	Continuous	0.35mm	Traffic Lighting - Text
T-LITE-WORK	120	Continuous	0.25mm	Traffic Lighting - User Work (Non-Plotting)
T-MPTX	120	Continuous	0.25mm	Maintenance and Protection of Traffic
T-MPTX-ARST	120	Continuous	0.25mm	MPTX - Arresting Systems
T-MPTX-ATTN	120	Continuous	0.25mm	MPTX - Attenuators
T-MPTX-BARR	120	Continuous	0.25mm	MPTX - Barriers; Temporary
T-MPTX-BLDG	120	Continuous	0.25mm	MPTX - Gate House, Guard House
T-MPTX-CRSH	120	Continuous	0.25mm	MPTX - Collision Symbols
T-MPTX-DIMS	120	Continuous	0.35mm	MPTX - Dimensions
T-MPTX-EQPM	120	Continuous	0.25mm	MPTX - Equipment, Temporary; Barrels
T-MPTX-FLOW	120	Continuous	0.25mm	MPTX - Flow Arrows, Turning Movement
T-MPTX-NOTE	120	Continuous	0.35mm	MPTX - Notes
T-MPTX-PNTS	120	Continuous	0.25mm	MPTX - Points (Non-Plotting)
T-MPTX-PTRN	120	Continuous	0.25mm	MPTX - Pattern
T-MPTX-PVMK	120	Continuous	0.25mm	MPTX - Pavement Markings
T-MPTX-SYMB	120	Continuous	0.25mm	MPTX - Symbols
T-MPTX-TEXT	120	Continuous	0.35mm	MPTX - Text
T-MPTX-TURN	120	Continuous	0.25mm	MPTX - Turning Templates
T-MPTX-VOLS	120	Continuous	0.25mm	MPTX - Volume Data
T-MPTX-WORK	120	Continuous	0.25mm	MPTX - User Work (Non-Plotting)
T-SGNL	120	Continuous	0.25mm	Traffic Signals
T-SGNL-CRPL	120	Continuous	0.25mm	Traffic Signals - Circle Pullout
T-SGNL-DIMS	120	Continuous	0.35mm	Traffic Signals - Dimensions
T-SGNL-EQPM	120	Continuous	0.25mm	Traffic Signals - Equipment and Pads
T-SGNL-HEAD	120	Continuous	0.25mm	Traffic Signals - Signal Head
T-SGNL-ICTR	120	Continuous	0.25mm	Traffic Signals - Interconnect Controller
T-SGNL-JBX	120	Continuous	0.25mm	Traffic Signals - Interconnect Junction Box and Conduit
T-SGNL-JBOX	120	Continuous	0.25mm	Traffic Signals - Junction Box and Conduit
T-SGNL-LOOP	120	Continuous	0.25mm	Traffic Signals - Loop Detector
T-SGNL-MAST	120	Continuous	0.25mm	Traffic Signals - Mast Arm and Signal Head



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Layer Name	Color	Linetype*	Lineweight	Description
T-SGNL-MRKG	120	Continuous	0.25mm	Traffic Signals - Misc Pavement Marking Lines
T-SGNL-NOTE	120	Continuous	0.35mm	Traffic Signals - Notes
T-SGNL-PFDN	120	Continuous	0.25mm	Traffic Signals - Pole Foundation
T-SGNL-PNTS	120	Continuous	0.25mm	Traffic Signals - Points (Non-Plotting)
T-SGNL-POLE	120	Continuous	0.25mm	Traffic Signals - Pole and/or Controller
T-SGNL-PTRN	120	Continuous	0.25mm	Traffic Signals - Pattern
T-SGNL-SIGN	120	Continuous	0.25mm	Traffic Signals - Post Mounted Sign
T-SGNL-SYMB	120	Continuous	0.25mm	Traffic Signals - Symbols
T-SGNL-TEXT	120	Continuous	0.35mm	Traffic Signals - Text
T-SGNL-WORK	120	Continuous	0.25mm	Traffic Signals - User Work (Non-Plotting)
T-SIGN	120	Continuous	0.25mm	Traffic Signing (possibly superseded by traffic levels)
T-SIGN-DIMS	120	Continuous	0.35mm	Traffic Signing - Dimensions
T-SIGN-FNDN	120	Continuous	0.25mm	Traffic Signing - Sign Structure Foundation
T-SIGN-NOTE	120	Continuous	0.35mm	Traffic Signing - Notes
T-SIGN-PANL	120	Continuous	0.25mm	Traffic Signing - Sign Panel
T-SIGN-PNTS	120	Continuous	0.25mm	Traffic Signing - Points (Non-Plotting)
T-SIGN-POLE	120	Continuous	0.25mm	Traffic Signing - Pole
T-SIGN-PTRN	120	Continuous	0.25mm	Traffic Signing - Pattern
T-SIGN-STRC	120	Continuous	0.25mm	Traffic Signing - Sign Structure
T-SIGN-SYMB	120	Continuous	0.25mm	Traffic Signing - Symbols
T-SIGN-TEXT	120	Continuous	0.35mm	Traffic Signing - Text
T-SIGN-WORK	120	Continuous	0.25mm	Traffic Signing - User Work (Non-Plotting)



14.5.1.4 SURVEY LAYERS

Layer Name	Color	Linetype*	Lineweight	Description
V-ALGN	white	BASELINE	0.25mm	Survey Alignment - Parent Layer
V-ALGN-COGO	white	Continuous	0.25mm	Survey Alignment - Points
V-ALGN-DIMS	white	Continuous	0.35mm	Survey Alignment - Dimensions
V-ALGN-LINE	white	BASELINE	0.25mm	Survey Alignment - Center/Base Line
V-ALGN-LINE-CRCL	white	BASELINE	0.25mm	Survey Alignment - Curves
V-ALGN-LINE-SPRL	white	BASELINE	0.25mm	Survey Alignment - Spirals
V-ALGN-LINE-TNGT	white	BASELINE	0.25mm	Survey Alignment - Tangents
V-ALGN-NOTE	white	Continuous	0.35mm	Survey Alignment - Notes
V-ALGN-PNTS	white	Continuous	0.25mm	Survey Alignment - Points
V-ALGN-PTRN	white	Continuous	0.25mm	Survey Alignment - Patterns
V-ALGN-SYMB	white	Continuous	0.25mm	Survey Alignment - Symbols
V-ALGN-TEXT	white	Continuous	0.35mm	Survey Alignment - Text
V-BLDG-MISC	170	Continuous	0.25mm	Survey Buildings - Outline
V-BLDG-OTLN	170	Continuous	0.25mm	Survey Buildings - Outline
V-BLDG-SWLK	8	Continuous	0.25mm	Survey Buildings -Sidewalks
V-BRDG	8	Continuous	0.25mm	Survey Bridge
V-BRDG-CRWN	8	Continuous	0.25mm	Survey Bridge - Crown
V-BRDG-CURB	8	Continuous	0.25mm	Survey Bridge - Curb
V-BRDG-SWLK	8	Continuous	0.25mm	Survey Bridge - Sidewalk
V-BRKL-BOTB	202	Continuous	0.25mm	Survey - Breaklines
V-CATV	11	XUT-CTV	0.25mm	Survey - CATV
V-CATV-STRC	11	Continuous	0.25mm	Survey - CATV Structures
V-COMM	32	XUT-T	0.25mm	Survey - Communications
V-COMM-STRC	32	Continuous	0.25mm	Survey - Communications Structures
V-CTRL-BMRK	150	Continuous	0.25mm	Survey Control Points - Benchmark
V-CTRL-HCPT	150	Continuous	0.25mm	Survey Control Points - Horizontal
V-CTRL-LINE-DIRC	magenta	Continuous	0.25mm	Survey Control Points - Traverse Lines
V-CTRL-LINE-NETW	11	Continuous	0.25mm	Survey Control Points - Traverse Network
V-CTRL-LINE-SHOT	43	Continuous	0.25mm	Survey Control Points - Traverse Sideshot
V-CTRL-NODE-KNOW	92	Continuous	0.25mm	Survey Control Points - Known Points
V-CTRL-NODE-SHOT	11	Continuous	0.25mm	Survey Control Points - Sideshots
V-CTRL-NODE-UNKN	red	Continuous	0.25mm	Survey Control points - Unknown points
V-CTRL-TRAV	150	Continuous	0.25mm	Survey Control Points - Traverse



Layer Name	Color	Linetype*	Lineweight	Description
V-CTRL-TRAV-ERRO	92	Continuous	0.25mm	Survey Control Points - Traverse Errors
V-CTRL-VCPT	150	Continuous	0.25mm	Survey Control Points - Vertical
V-FUEL	30	Continuous	0.25mm	Survey - Fuel
V-FUEL-TANK	30	Continuous	0.25mm	Survey - Fuel Tank
V-NGAS	50	XUT-G	0.25mm	Survey - Natural Gas
V-NGAS-INST	50	Continuous	0.25mm	Survey - Natural Gas Instrument
V-NGAS-PIPE	50	XUT-G	0.25mm	Survey - Natural Gas Pipeline
V-NGAS-STRC	50	Continuous	0.25mm	Survey - Natural Gas Structure
V-NODE	red	Continuous	0.25mm	Survey - Node
V-NODE-BNDY	red	Continuous	0.25mm	Survey Node - Boundary
V-NODE-BORE	red	Continuous	0.25mm	Survey - Borehole
V-NODE-GASL	11	Continuous	0.25mm	Survey Node - Gas Line & Appurtenances Points
V-NODE-POLE	red	Continuous	0.25mm	Survey Node - Pole Points (power, telephone, etc.)
V-NODE-SIGN	red	Continuous	0.25mm	Survey Node - Sign
V-NODE-SSWR	92	Continuous	0.25mm	Survey Node - Sanitary Sewer and Appurtenances Points
V-NODE-STRM	92	Continuous	0.25mm	Survey Node - Storm Sewer and Appurtenances Points
V-NODE-TEXT	11	Continuous	0.35mm	Survey Node - Text
V-NODE-TREE	62	Continuous	0.25mm	Survey Node - Tree Points
V-NODE-WATR	blue	Continuous	0.25mm	Survey Node - Water Line and Appurtenances Points.
V-PNT-LBLS	8	Continuous	0.35mm	Survey - Point Lables
V-POWR	30	XUT-E	0.25mm	Survey - Power
V-POWR-INST	30	Continuous	0.25mm	Survey - Power Instrument
V-POWR-OVHD	30	XUT-E	0.25mm	Survey - Power Overhead
V-POWR-STRC	30	Continuous	0.25mm	Survey - Power Structure
V-POWR-UNDR	30	XUT-EU	0.25mm	Survey - Power Underground
V-RAIL	red	TRACKS	0.25mm	Survey - Rail
V-RAIL-CNTR	red	Continuous	0.25mm	Survey - Rail Centerline
V-RAIL-EQPM	red	Continuous	0.25mm	Survey - Rail Equipment
V-ROAD-CNTR	red	Continuous	0.25mm	Survey Road - Centerline
V-ROAD-CONC	20	Continuous	0.25mm	Survey Road - Concrete
V-ROAD-CRWN	40	Continuous	0.25mm	Survey Road - Crown
V-ROAD-CURB	11	Continuous	0.25mm	Survey Road - Curbs
V-ROAD-EDGE	140	DASHED2	0.25mm	Survey Road - Edge
V-ROAD-GRAL	54	GDRL EX	0.25mm	Survey Road - Guiderail
V-ROAD-MISC	red	Continuous	0.25mm	Survey Road - Misc



Layer Name	Color	Linetype*	Lineweight	Description
V-ROAD-MRKG	white	Continuous	0.25mm	Survey Road - Markings
V-ROAD-MRKG-SKIP	white	DASHED	0.25mm	Survey Road - Markings Skip
V-ROAD-MRKG-YELL	yellow	Continuous	0.25mm	Survey Road - Markings Yellow
V-ROAD-SHDR	140	Continuous	0.25mm	Survey Road - Shoulder
V-SITE	150	Continuous	0.25mm	Survey Site
V-SITE-BNDY	white	MUNICIPAL	0.50mm	Survey Site - Boundary
V-SITE-DVWY	150	Continuous	0.25mm	Survey Site - Driveway
V-SITE-ESMT	red	DASHED2	0.25mm	Survey Site - Easement
V-SITE-ESMT-HTCH	red	Continuous	0.25mm	Survey Site - Easement Hatch
V-SITE-FNCE	150	FENCE	0.25mm	Survey Site - Fences
V-SITE-FNCE-SILT	150	SSF	0.25mm	Survey Site - Silt Fence
V-SITE-LOD	150	LOD	0.25mm	Survey Site - LOD
V-SITE-MISC	180	HIDDEN	0.25mm	Survey Site - Misc
V-SITE-MRKG	white	Continuous	0.25mm	Survey Site - Markings
V-SITE-RW	blue	ROW LEGAL	0.25mm	Survey Site - Right of Way
V-SITE-SCAN	white	Continuous	0.25mm	Survey Site - Scan
V-SITE-SIGN	96	Continuous	0.25mm	Survey Site - Sign
V-SITE-UTIL	10	Continuous	0.25mm	Survey Site - Utility
V-SITE-VEGE	80	Continuous	0.25mm	Survey Site - Vegetation, Trees, Shrubs
V-SITE-VEGE-WETL	80	WETLAND	0.25mm	Survey Site - Vegetation Wetlands
V-SITE-WALL	9	FENCELINE2	0.25mm	Survey Site - Walls
V-SSWR	92	Continuous	0.18mm	Survey Sanitary Sewer
V-SSWR-PIPE	92	XUT-S	0.25mm	Survey Sanitary Sewer - Pipes
V-SSWR-STRC	92	Continuous	0.25mm	Survey Sanitary Sewer - Structures
V-STRM	magenta	Continuous	0.18mm	Survey Storm Drain
V-STRM-PIPE	magenta	Continuous	0.25mm	Survey Storm Drain - Pipes
V-STRM-STRC	magenta	Continuous	0.18mm	Survey Storm Drain - Structures
V-SURF	9	Continuous	0.25mm	Survey Surface
V-SURF-BNDY	9	Continuous	0.25mm	Survey Surface - Boundary
V-SURF-BNDY-EXTR	9	Continuous	0.25mm	Survey Surface - Boundary Exterior
V-SURF-BNDY-INTR	9	Continuous	0.25mm	Survey Surface - Boundary Interior
V-SURF-CONT	9	Continuous	0.25mm	Survey Surface - Contours
V-SURF-CONT-MAJR	9	HIDDEN	0.25mm	Survey Surface - Contours Major
V-SURF-CONT-MINR	8	HIDDEN2	0.25mm	Survey Surface - Contours Minor
V-SURF-CONT-SPOT	9	Continuous	0.25mm	Survey Surface - Contours Spot Elevations



Layer Name	Color	Linetype*	Lineweight	Description
V-SURF-DIMS	9	Continuous	0.35mm	Survey Surface - Dimensions
V-SURF-ELEV	9	Continuous	0.25mm	Survey Surface - Elevations
V-SURF-FALT	9	Continuous	0.25mm	Survey Surface - Fault
V-SURF-NOTE	9	Continuous	0.35mm	Survey Surface - Notes
V-SURF-PMTR	9	Continuous	0.25mm	Survey Surface - Perimeter
V-SURF-PNTS	9	Continuous	0.25mm	Survey Surface - Points
V-SURF-PTRN	9	Continuous	0.25mm	Survey Surface - Pattern
V-SURF-SLOP	9	Continuous	0.25mm	Survey Surface - Slope
V-SURF-SYMB	9	Continuous	0.25mm	Survey Surface - Symbol
V-SURF-TEXT	9	Continuous	0.35mm	Survey Surface - Text
V-SURF-TRIA	9	Continuous	0.25mm	Survey Surface - Triangles
V-SURV-FIG-BARN	red	Continuous	ByLineWeightDefault	Survey Figures - Barn
V-SURV-FIG-BB	green	DGN Style 5	0.25mm	Survey Figures - Bottom Bank
V-SURV-FIG-BRIDGE	green	Continuous	0.25mm	Survey Figures - Bridge
V-SURV-FIG-BRL	green	Continuous	ByLineWeightDefault	Survey Figures - Brushline
V-SURV-FIG-BUI	magenta	Continuous	0.25mm	Survey Figures - Building
V-SURV-FIG-BUI-ROOF	yellow	DASHED2	0.25mm	Survey Figures - Building Roof
V-SURV-FIG-CELL	yellow	Continuous	ByLineWeightDefault	Survey Figure Cell tower
V-SURV-FIG-CL	red	DGN Style 7	0.25mm	Survey Figures - Centerline
V-SURV-FIG-CLM	red	UT-CTV	0.25mm	Survey Figures - Cable Line Marker
V-SURV-FIG-CLRR	cyan	TRACKS	0.25mm	Survey Figures - Railroad
V-SURV-FIG-CON	8	Continuous	ByLineWeightDefault	Survey Figures - Concrete
V-SURV-FIG-DIT	9	DITCH PR	0.25mm	Survey Figures - Ditch
V-SURV-FIG-DYL	yellow	Continuous	0.25mm	Survey Figures - Double Yellow Line
V-SURV-FIG-EC	red	Continuous	ByLineWeightDefault	Survey Figures - Edge Curb
V-SURV-FIG-ED	blue	PAVE EX	0.25mm	Survey Figures - Edge Drive
V-SURV-FIG-ELEC	cyan	UT-E	ByLineWeightDefault	Survey Figures - Electric
V-SURV-FIG-ER	red	PAVE EX	0.25mm	Survey Figures - Edge Road
V-SURV-FIG-ES	cyan	PAVE EX	0.25mm	Survey Figures - Edge Shoulder
V-SURV-FIG-EW	green	TREE	0.25mm	Survey Figures - Edge Woods
V-SURV-FIG-FEN	red	FENCELINE2	0.25mm	Survey Figures - Fence
V-SURV-FIG-FENRW	magenta	FENCELINE2	0.25mm	Survey Figures - Fence Right of Way
V-SURV-FIG-FIBR-OVHD	yellow	UT-FO	0.25mm	Survey Figures - Double Yellow Line
V-SURV-FIG-FIBR-UG	40	UT-FOU	0.25mm	Survey Figures - Double Yellow Line
V-SURV-FIG-FL	red	SWALE	0.25mm	Survey Figures - Flowline



Layer Name	Color	Linetype*	Lineweight	Description
V-SURV-FIG-GLM	magenta	UT-G	0.25mm	Survey Figures - Gas Line Marker
V-SURV-FIG-GR	red	GDRL EX	0.25mm	Survey Figures - Guide Rail
V-SURV-FIG-ML	magenta	ROW LEGAL	ByLineWeightDefault	Survey Figures - Mun Line
V-SURV-FIG-OHC	red	OHC	0.25mm	Survey Figures - Overhead Cable
V-SURV-FIG-OHE	cyan	OHE	0.25mm	Survey Figures - Overhead Electric
V-SURV-FIG-OHT	8	XOHT	0.25mm	Survey Figures - Telephone
V-SURV-FIG-OHW	8	XOHC	0.25mm	Survey Figures - Wire
V-SURV-FIG-PL	yellow	Continuous	ByLineWeightDefault	Survey Figures - Parking Lot
V-SURV-FIG-PLM	blue	UT-P	0.25mm	Survey Figures - Petroleum
V-SURV-FIG-POR	red	Continuous	0.25mm	Survey Figures - Porch
V-SURV-FIG-SKL	white	DGN Style 5	0.25mm	Survey Figures - Skipline
V-SURV-FIG-SL	green	UT-S	0.25mm	Survey Figures - Sanitary Line
V-SURV-FIG-STFEN	cyan	SDASH	0.25mm	Survey Figures - Stone Fence
V-SURV-FIG-SW	yellow	Continuous	0.25mm	Survey Figures - Sidewalk Conc
V-SURV-FIG-SWL	white	Continuous	0.25mm	Survey Figures - Single White Line
V-SURV-FIG-SYL	yellow	Continuous	0.25mm	Survey Figures - Single Yellow Line
V-SURV-FIG-TB	green	DGN Style 5	0.25mm	Survey Figures - Top Bank
V-SURV-FIG-TC	green	Continuous	0.25mm	Survey Figures - Top of Curb
V-SURV-FIG-TOP	blue	Continuous	0.25mm	Survey Figures - Top of Storm Drain Pipe
V-SURV-FIG-TW	blue	Continuous	0.25mm	Survey Figures - Top of Wall
V-SURV-FIG-UEL	cyan	EU	ByLineWeightDefault	Survey Figures - Underground Electric
V-SURV-FIG-WD	blue	Continuous	ByLineWeightDefault	Survey Figures - Wetland Delineation
V-SURV-FIG-WLM	blue	UT-W	0.25mm	Survey Figures - Waterline Marker
V-SURV-FIG-WR	32	Continuous	ByLineWeightDefault	Survey Figures - Woods Row
V-SURV-FIGR	170	Continuous	0.25mm	Survey Figures - General
V-SURV-LABL	202	Continuous	0.25mm	Survey - Labels
V-SURV-LINE	150	Continuous	0.25mm	Survey - Lines
V-SURV-NTWK	150	Continuous	0.25mm	Survey - Network
V-TOPO	9	Continuous	0.25mm	Survey - Topo
V-TOPO-BORE	red	Continuous	0.25mm	Survey - Topo Borehole
V-TOPO-BRKL	202	Continuous	0.25mm	Survey - Topo Breakline
V-TOPO-CELL	yellow	Continuous	ByLineWeightDefault	Survey Cell Tower Points
V-TOPO-CONC	8	Continuous	0.25mm	Survey - Topo Concrete
V-TOPO-EWAT	142	FENCELINE2	0.25mm	Survey - Topo Existing Water
V-TOPO-MAJR	9	DGN Style 3	0.25mm	Survey - Topo Major Gridlines



Layer Name	Color	Linetype*	Lineweight	Description
V-TOPO-MINR	8	DGN Style 2	0.25mm	Survey - Topo Minor Gridlines
V-TOPO-SPOT	96	Continuous	0.25mm	Survey - Topo Spot Elevations
V-UTIL-ELEC	252	Continuous	0.25mm	Existing Electric
V-UTIL-FIBR	252	Continuous	0.25mm	Existing Fiberoptic
V-UTIL-FUEL	252	Continuous	0.25mm	Existing Fuel
V-UTIL-NGAS	252	Continuous	0.25mm	Existing Gas
V-UTIL-TELP	252	Continuous	0.25mm	Existing Telephone
V-UTIL-WATR	252	Continuous	0.25mm	Existing Water
V-UTIL-WATR-FIRE	252	Continuous	0.25mm	Existing Fire Water
V-VEGE-TREE	white	Continuous	0.00mm	Survey - Vegetation Tree
V-WATR	blue	XUT-W	0.25mm	Survey - Existing Water
V-WATR-INST	blue	Continuous	0.25mm	Survey Water - Instrument
V-WATR-STRC	blue	Continuous	0.25mm	Survey Water - Structure



14.5.2 OPENROADS DESIGNER LEVELS

Name	Description	By Level Color	By Level Style	By Level Weight	Display Priority	Transparency	Plot
2D-CHAN-CL	2D Drainage Centerline	51	0	2	0	0	1
2D-CHAN-NODE	2D Drainage Node	51	0	2	0	0	1
2D-CULV-PIPE	2D DRNG Pipe	51	0	2	0	0	1
2D-GRAL	2D GuideRail	8	0	2	0	0	1
2D-GRAL-LEFT	2D GuideRail Left	8	0	2	0	0	1
2D-GRAL-NP	2D GuideRail No Plot	8	0	2	0	0	0
2D-GRAL-RGHT	2D GuideRail Right	8	0	2	0	0	1
2D-PROF-INTR-PT	2D Profile Point	3	0	2	0	0	1
2D-STRM-ANNO	2D StormWater Annotation	17	0	2	0	0	1
2D-STRM-AREA	2D StormWater Area	17	0	2	0	0	1
2D-STRM-ENDW	2D StormWater EndWall	17	0	2	0	0	1
2D-STRM-INLT	2D StormWater Inlet	17	0	2	0	0	1
2D-STRM-MHOL	2D StormWater ManHole	17	0	2	0	0	1
2D-STRM-MISC	2D StormWater Miscellaneous	17	0	2	0	0	1
2D-STRM-PIPE	2D StormWater Pipe	17	0	2	0	0	1
2D-STRM-STRC-EX	2D StormWater Existing Structure	17	0	2	0	0	1
2D-STRM-WORK-NP	2D StormWater Working Line No Plot	17	0	2	0	0	0
2D-UTIL-CATV-OVHD-QA	2D Utility Overhead CATV	6	0	2	0	0	1
2D-UTIL-CATV-QA	2D Utility CATV	6	0	2	0	0	1
2D-UTIL-CATV-UNDR-QA	2D Utility Underground CATV	6	0	2	0	0	1
2D-UTIL-FIBR-MHOL-QA	2D Utility Fiber Manhole	12	0	2	0	0	1
2D-UTIL-FIBR-OVHD-QA	2D Utility Fiber Overhead	12	0	2	0	0	1
2D-UTIL-FIBR-UNDR-QA	2D Utility Fiber Underground	12	0	2	0	0	1
2D-UTIL-NGAS-LINE-QA	2D Utility Natural Gas Line	22	0	2	0	0	1
2D-UTIL-NGAS-METR-QA	2D Utility Natural Gas Meter	22	0	2	0	0	1
2D-UTIL-NGAS-TAPS	2D Utility Natural Gas Taps	22	0	2	0	0	1



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2D-UTIL-NGAS-VLVE-QA	2D Utility Natural Gas Valve	22	0	2	0	0	1
2D-UTIL-POLE	2D Utility Pole	6	0	2	0	0	1
2D-UTIL-POLE-RMOV	2D Utility Pole to Be Removed	6	0	2	0	0	1
2D-UTIL-POLE-TEMP	2D Utility Temporary Pole	6	0	2	0	0	1
2D-UTIL-POWR-OVHD-QA	2D Utility Power Overhead	6	0	2	0	0	1
2D-UTIL-POWR-POLE-QA	2D Utility Power Pole	6	0	2	0	0	1
2D-UTIL-POWR-QA	2D Utility Power	6	0	2	0	0	1
2D-UTIL-POWR-UNDR-QA	2D Utility Power Underground	6	0	2	0	0	1
2D-UTIL-PTRO-UNDR-QA	2D Utility Petro Underground	3	0	2	0	0	1
2D-UTIL-SSWR-COUT-QA	2D Utility Sanitary Sewer Cutout	2	0	2	0	0	1
2D-UTIL-SSWR-MHOL-QA	2D Utility Sanitary Sewer Manhole	2	0	2	0	0	1
2D-UTIL-SSWR-PIPE-QA	2D Utility Sanitary Sewer Pipe	2	0	2	0	0	1
2D-UTIL-TELP-MHOL-QA	2D Utility Telephone Manhole	6	0	2	0	0	1
2D-UTIL-TELP-OVHD-QA	2D Utility Telephone Overhead	6	0	2	0	0	1
2D-UTIL-TELP-POLE-QA	2D Utility Telephone Pole	6	0	2	0	0	1
2D-UTIL-TELP-QA	2D Utility Telephone	6	0	2	0	0	1
2D-UTIL-TELP-UNDR-QA	2D Utility Telephone Underground	6	0	2	0	0	1
2D-UTIL-UNKN-UNDR-QA	2D Utility Unknown Underground	6	0	2	0	0	1
2D-UTIL-WATR-HYRD-QA	2D Utility Water Hydrant	7	0	2	0	0	1
2D-UTIL-WATR-LINE-QA	2D Utility Water Line	7	0	2	0	0	1
2D-UTIL-WATR-METR-QA	2D Utility Water Meter	7	0	2	0	0	1
2D-UTIL-WATR-QA	2D Utility Water	7	0	2	0	0	1
2D-UTIL-WATR-TAPS	2D Utility Water TAPS	7	0	2	0	0	1
2D-UTIL-WATR-VLVE-QA	2D Utility Water Valve	7	0	2	0	0	1
3C-GRAL	3D GuideRail	8	0	2	0	0	1
3C-GRAL-LEFT	3D GuideRail Left	8	0	2	0	0	1
3C-GRAL-RAIL-LEFT	3D GuideRail Left	8	0	2	0	0	1
3C-GRAL-RAIL-RGHT	3D GuideRail Right	8	0	2	0	0	1
3C-GRAL-RGHT	3D GuideRail Right	8	0	2	0	0	1
3C-STRM-BASN	3D StormWater Basin	17	0	2	0	0	1
3D-CHAN-LINE	3D Drainage Line	3	0	2	0	0	1
3D-CHAN-NODE	3D Drainage Node	6	0	2	0	0	1



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3D-CULV-PIPE	3D Drainage Pipe	6	0	2	0	0	1
3D-GRAL	3D GuideRail	8	0	2	0	0	1
3D-GRAL-LEFT	3D GuideRail Left	8	0	2	0	0	1
3D-GRAL-NP	3D GuideRail No Plot	8	0	2	0	0	0
3D-GRAL-RGHT	3D GuideRail Right	8	0	2	0	0	1
3D-STRM-ENDW	3D StormWater EndWall	17	0	2	0	0	1
3D-STRM-INLT	3D StormWater Inlet	17	0	2	0	0	1
3D-STRM-MHOL	3D StormWater ManHole	17	0	2	0	0	1
3D-STRM-PIPE	3D StormWater Pipe	17	0	2	0	0	1
3D-STRM-WORK-NP	3D StormWater Working Line No Plot	17	0	2	0	0	0
3D-UTIL-CATV-OVHD-QA	3D Utility Overhead CATV	6	0	2	0	0	1
3D-UTIL-CATV-QA	3D Utility CATV	6	0	2	0	0	1
3D-UTIL-CATV-UNDR-QA	3D Utility Underground CATV	6	0	2	0	0	1
3D-UTIL-FIBR-MHOL-QA	3D Utility Fiber Manhole	12	0	2	0	0	1
3D-UTIL-FIBR-OVHD-QA	3D Utility Fiber Overhead	12	0	2	0	0	1
3D-UTIL-FIBR-UNDR-QA	3D Utility Fiber Underground	12	0	2	0	0	1
3D-UTIL-NGAS-LINE-QA	3D Utility Natural Gas Line	22	0	2	0	0	1
3D-UTIL-NGAS-METR-QA	3D Utility Natural Gas Meter	22	0	2	0	0	1
3D-UTIL-NGAS-TAPS	3D Utility Natural Gas Taps	22	0	2	0	0	1
3D-UTIL-NGAS-VLVE-QA	3D Utility Natural Gas Valve	22	0	2	0	0	1
3D-UTIL-POLE	3D Utility Pole	6	0	2	0	0	1
3D-UTIL-POLE-RMOV	3D Utility Pole to Be Removed	6	0	2	0	0	1
3D-UTIL-POLE-TEMP	3D Utility Temporary Pole	6	0	2	0	0	1
3D-UTIL-POWR-OVHD-QA	3D Utility Power Overhead	6	0	2	0	0	1
3D-UTIL-POWR-POLE-QA	3D Utility Power Pole	6	0	2	0	0	1
3D-UTIL-POWR-QA	3D Utility Power	6	0	2	0	0	1
3D-UTIL-POWR-UNDR-QA	3D Utility Power Underground	6	0	2	0	0	1
3D-UTIL-PTRO-UNDR-QA	3D Utility Petro Underground	6	0	2	0	0	1
3D-UTIL-SSWR-COUT-QA	3D Utility Sanitary Sewer Cutout	2	0	2	0	0	1
3D-UTIL-SSWR-MHOL-QA	3D Utility Sanitary Sewer Manhole	2	0	2	0	0	1
3D-UTIL-SSWR-PIPE-QA	3D Utility Sanitary Sewer Pipe	2	0	2	0	0	1
3D-UTIL-TELP-MHOL-QA	3D Utility Telephone Manhole	6	0	2	0	0	1



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3D-UTIL-TELP-OVHD-QA	3D Utility Telephone Overhead	6	0	2	0	0	1
3D-UTIL-TELP-POLE-QA	3D Utility Telephone Pole	6	0	2	0	0	1
3D-UTIL-TELP-QA	3D Utility Telephone	6	0	2	0	0	1
3D-UTIL-TELP-UNDR-QA	3D Utility Telephone Underground	6	0	2	0	0	1
3D-UTIL-UNKN-UNDR-QA	3D Utility Unknown Underground	6	0	2	0	0	1
3D-UTIL-WATR-HYDR-QA	3D Utility Water Hydrant	6	0	2	0	0	1
3D-UTIL-WATR-LINE-QA	3D Utility Water Line	7	0	2	0	0	1
3D-UTIL-WATR-METR-QA	3D Utility Water Meter	7	0	2	0	0	1
3D-UTIL-WATR-QA	3D Utility Water	7	0	2	0	0	1
3D-UTIL-WATR-TAPS	3D Utility Water TAPS	7	0	2	0	0	1
3D-UTIL-WATR-VLVE-QA	3D Utility Water Valve	7	0	2	0	0	1
BATCH-PLOT-NP	Batch Plotting No Plot Layer	1	1	5	0	0	0
CABLE BARRIER	Cable Barrier	43	0	2	0	0	1
C-ALGN	Alignment	3	0	1	0	0	1
C-ALGN-ALT	Alignment - Ramp Segment	7	0	1	0	0	1
C-ALGN-COGO	Alignment - COGO points	3	0	1	0	0	1
C-ALGN-CRCL	Alignment - Circle	3	0	1	0	0	1
C-ALGN-DIMS	Alignment - Dimensions, Stationing	3	0	2	0	0	1
C-ALGN-LINE	Alignment - Line Segment	3	4	1	0	0	1
C-ALGN-MAIN	Alignment - Mainline Segment	3	4	1	0	0	1
C-ALGN-MAIN-CRCL	Alignment - Mainline Circle	3	0	1	0	0	1
C-ALGN-MAIN-SPRL	Alignment - Mainline Spiral	3	0	1	0	0	1
C-ALGN-MAIN-TNGT	Alignment - Mainline Tangent	3	0	1	0	0	1
C-ALGN-NOTE	Alignment - Notes, Curve Data	-1	0	2	0	0	1
C-ALGN-PNTS	Alignment - Points	3	0	1	0	0	1
C-ALGN-PTRN	Alignment - Pattern	3	0	1	0	0	1
C-ALGN-RAMP-CRCL	Alignment - Ramp Circle	7	0	1	0	0	1
C-ALGN-RAMP-SPRL	Alignment - Ramp Spiral	7	0	1	0	0	1
C-ALGN-RAMP-TNGT	Alignment - Ramp Tangent	7	0	1	0	0	1
C-ALGN-SPRL	Alignment - Line Spiral	7	4	1	0	0	1
C-ALGN-SYMB	Alignment - Symbols	4	0	1	0	0	1
C-ALGN-TEXT	Alignment - Annotation Text	0	0	2	0	0	1



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C-ALGN-TEXT-BD	Alignment - Annotation Text Body	0	0	2	0	0	1
C-ALGN-TEXT-CURV	Alignment - Annotation Text Curve	0	0	2	0	0	1
C-ALGN-TNGT	Alignment - Line Tangent	7	4	1	0	0	1
C-ALGN-WORK	Alignment - User work (Non-Plotting)	10	4	1	0	0	0
C-ANNO	Annotation	0	0	1	0	0	1
C-ANNO-ATAB	Annotation - AutoTab	0	0	2	0	0	1
C-ANNO-CELL	Annotation - Cells	0	0	1	0	0	1
C-ANNO-DIMS	Annotation - Dimensions	0	0	2	0	0	1
C-ANNO-DRAFT-CORR-DESIGN	Annotation - Design-Civil-Corridor Graphics	66	0	3	100	0	1
C-ANNO-DRAFT-PLAN-LABELS	Annotation - Draft Plan Labels	88	0	2	0	0	1
C-ANNO-DRAFT-PROFILE-GRID	Annotation - Draft Profile Grid	88	0	2	0	0	1
C-ANNO-DRAFT-PROFILE-GRID HALF	Annotation - Draft Profile Grid Plan and Profile	88	0	2	0	0	1
C-ANNO-DRAFT-PROFILE-SHEET-MAJOR-GRID	Annotation - Draft Profile Sheet Major Grid	88	2	2	0	60	1
C-ANNO-DRAFT-PROFILE-SHEET-MAJOR-GRID HALF	Annotation - Draft Profile Sheet Major Grid Plan and Profile	88	2	2	0	60	1
C-ANNO-DRAFT-SHEET	Annotation - Draft Sheet Borders	88	0	1	0	0	1
C-ANNO-DRAFT-XS-VOLUME-ANNOTATION	Annotation - Draft XS Volume Annotation	123	0	1	500	0	1
C-ANNO-LINE-HIDN	Annotation - Hidden Line	8	0	4	0	0	1
C-ANNO-MARK	Annotation - Markers	0	0	1	0	0	1
C-ANNO-MATC	Annotation - Matchline	5	1	1	0	0	1
C-ANNO-MATC-PATT	Annotation - Matchline Pattern	5	0	1	0	0	1
C-ANNO-MATC-TEXT	Annotation - Matchline Text	5	0	2	0	0	1
C-ANNO-MISC-JOIN	Annotation - Construction Joints	3	0	1	0	0	1
C-ANNO-MISC-LCON	Annotation - Limits of Construction	13	0	1	0	0	1
C-ANNO-NOTE	Annotation - Notes	0	0	2	0	0	1
C-ANNO-PNTS	Annotation - Points	0	0	1	0	0	1
C-ANNO-PTRN	Annotation - Pattern	3	0	1	0	0	1



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C-ANNO-SYMB	Annotation - Symbols	0	0	1	0	0	1
C-ANNO-TABL	Annotation - Table	0	0	1	0	0	1
C-ANNO-TABL-PATT	Annotation - Table Pattern	0	0	2	0	1	1
C-ANNO-TABL-TEXT	Annotation - Table Text	0	1	2	0	1	1
C-ANNO-TABL-TITL	Annotation - Table Title	0	1	2	0	1	1
C-ANNO-TABL-TTBL	Annotation - Table Titel Block	0	0	2	0	1	1
C-ANNO-TEXT	Annotation - General Annotation Text	0	0	2	0	0	1
C-ANNO-VFRM	Annotation - View Frames (Non-Plotting)	99	0	1	0	0	0
C-ANNO-VFRM-TEXT	Annotation - View Frames - Text (Non-Plotting)	99	0	2	0	0	0
C-ANNO-WORK	Annotation - User Work (Non-Plotting)	99	0	1	0	0	0
C-BARR	Barriers	7	0	1	0	0	1
C-BARR-DIMS	Barriers - Dimensions	7	0	2	0	0	1
C-BARR-ENDT	Barriers - End Treatments	7	0	1	0	0	1
C-BARR-LINE	Barriers - Linear Elements	7	0	1	0	0	1
C-BARR-NOTE	Barriers - Notes	7	0	2	0	0	1
C-BARR-PNTS	Barriers - Points	7	0	1	0	0	1
C-BARR-PTRN	Barriers - Pattern	7	0	1	0	0	1
C-BARR-SYMB	Barriers - Symbols	7	0	1	0	0	1
C-BARR-TEXT	Barriers - Text	7	0	2	0	0	1
C-BARR-VBFN	Barriers - Visual Barrier Fence	7	0	1	0	0	1
C-BARR-WORK	Barriers - User Work (Non-Plotting)	7	0	1	0	0	0
C-BLDG	Buildings - Base level (Uncontrolled)	2	0	1	0	0	1
C-BLDG-DIMS	Buildings - Dimensions	2	0	2	0	0	1
C-BLDG-NOTE	Buildings - Notes	2	0	2	0	0	1
C-BLDG-OTLN	Buildings - Structure outlines	2	0	1	0	0	1
C-BLDG-PNTS	Buildings - Points	2	0	1	0	0	1
C-BLDG-PTRN	Buildings - Pattern	2	0	1	0	0	1
C-BLDG-SYMB	Buildings - Symbols	2	0	1	0	0	1
C-BLDG-TEXT	Buildings - TEXT	2	0	2	0	0	1
C-BLDG-WORK	Buildings - User Work (Non-Plotting)	2	0	1	0	0	0
C-BRDG	Bridge	2	0	1	0	0	1
C-CATV	Cable TV	30	UT-CTV	1	0	0	1



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C-CATV-BERM	Cable TV - Berm for liquids retention	30	0	1	0	0	1
C-CATV-DIMS	Cable TV - Dimensions	30	0	2	0	0	1
C-CATV-DUCT	Cable TV - Ducts and conduits (vacant) for future lines	30	0	1	0	0	1
C-CATV-EQPM	Cable TV - Equipment and Pad	30	0	1	0	0	1
C-CATV-GUYS	Cable TV - Guying equipment	30	0	1	0	0	1
C-CATV-HYDR	Cable TV - Hydrants and Fire Department connections	30	0	1	0	0	1
C-CATV-JBOX	Cable TV - Junction Box	30	0	1	0	0	1
C-CATV-LINE	Cable TV - Lines	30	UT-CTV	4	0	0	1
C-CATV-LINE-DBUR	Cable TV - Direct Buried Underground Lines	30	UT-CTVU	4	0	0	1
C-CATV-LINE-OVHD	Cable TV - Overhead Lines	30	UT-CTV	4	0	0	1
C-CATV-LINE-UNDR	Cable TV - Underground Lines	30	UT-CTVU	4	0	0	1
C-CATV-MARK	Cable TV - Cell - Above Ground Markers	30	0	1	0	0	1
C-CATV-METR	Cable TV - Meters and instrumentation	30	0	1	0	0	1
C-CATV-MHOL	Cable TV - Manholes and junction boxes	30	0	1	0	0	1
C-CATV-NOTE	Cable TV - Notes	30	0	2	0	0	1
C-CATV-PERC	Cable TV - Perc Test Holes and Pits	30	0	1	0	0	1
C-CATV-PITS	Cable TV - Pits for vents, valves and other equipment	30	0	1	0	0	1
C-CATV-PLNT	Cable TV - Plants, pumping stations, storage tanks and reservoirs	30	0	1	0	0	1
C-CATV-PNTS	Cable TV - Points	30	0	1	0	0	1
C-CATV-POLE	Cable TV - Pole	30	0	1	0	0	1
C-CATV-PTRN	Cable TV - Pattern	30	0	1	0	0	1
C-CATV-SITE	Cable TV - Line - Site (Interior boundary)	30	0	1	0	0	1
C-CATV-SYMB	Cable TV - Symbols	30	0	1	0	0	1
C-CATV-TEXT	Cable TV - Text	30	0	2	0	0	1
C-CATV-TRCH	Cable TV - Fuel line trench	30	0	1	0	0	1
C-CATV-WELL	Cable TV - Wells	30	0	1	0	0	1
C-CATV-WORK	Cable TV - User Work (Non-Plotting)	30	0	1	0	0	0
C-CATV-XFMR	Cable TV - Transformers	30	0	1	0	0	1
C-CHAN	Channels (Navigable)	128	0	1	0	0	1



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C-CHAN-DIMS	Channels - Dimensions	128	0	2	0	0	1
C-CHAN-EDGE	Channels - Edge	128	0	1	0	0	1
C-CHAN-EDGE-LT	Channels - Edge	128	0	1	0	0	1
C-CHAN-EDGE-RT	Channels - Edge	128	0	1	0	0	1
C-CHAN-LINE	Channels - Line	128	WATERWAY	1	0	0	1
C-CHAN-NOTE	Channels - Notes	128	0	2	0	0	1
C-CHAN-PNTS	Channels - Points	128	0	1	0	0	1
C-CHAN-PTRN	Channels - Pattern	128	0	1	0	0	1
C-CHAN-SYMB	Channels - Symbols	128	0	1	0	0	1
C-CHAN-TEXT	Channels - Text	128	0	2	0	0	1
C-CHAN-WORK	Channels - User Work (Non-Plotting)	128	0	1	0	0	0
C-CONC-MISC	Concrete - Miscellaneous	9	0	1	0	0	1
C-CONC-PAV	Concrete - Pavement	9	0	1	0	0	1
C-CORR-MARK	Corridor - Section Marks	212	0	2	0	0	1
C-CREK	Creek	5	WATERWAY	1	0	0	1
C-CREK-DIMS	Creek - Dimensions	5	0	2	0	0	1
C-CREK-EDGE	Creek - Edge	5	WATERWAY	1	0	0	1
C-CREK-EDGE-LT	Creek - Edge Left	5	WATERWAY	1	0	0	1
C-CREK-EDGE-RT	Creek - Edge Right	5	WATERWAY	1	0	0	1
C-CREK-LINE	Creek - Line	5	WATERWAY	1	0	0	1
C-CREK-NOTE	Creek - Notes	5	0	2	0	0	1
C-CREK-PNTS	Creek - Points	5	0	1	0	0	1
C-CREK-PTRN	Creek - Pattern	5	0	1	0	0	1
C-CREK-SYMB	Creek - Symbols	5	0	1	0	0	1
C-CREK-TEXT	Creek - Text	5	0	2	0	0	1
C-CREK-WORK	Creek - User Work (Non-Plotting)	55	0	1	0	0	0
C-CURB	Curbs and Gutters	8	0	1	0	0	1
C-CURB-BACK	Curbs - Back of Curb	8	0	2	0	0	1
C-CURB-BOTM	Curbs - Bottom of Curb	8	0	2	0	0	1
C-CURB-DIMS	Curbs - Dimensions	8	0	2	0	0	1
C-CURB-NOTE	Curbs - Note	8	0	2	0	0	1
C-CURB-PNTS	Curbs - Points	8	0	1	0	0	1



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C-CURB-PTRN	Curbs - Pattern	8	0	1	0	0	1
C-CURB-SYMB	Curbs - Symbols	8	0	1	0	0	1
C-CURB-TEXT	Curbs - Text	8	0	2	0	0	1
C-CURB-TOPP	Curbs - Top of Curb	8	0	2	0	0	1
C-CURB-UNDR	Curbs - Under	8	0	1	0	0	1
C-CURB-WORK	Curbs - User Work (Non-Plotting)	8	0	1	0	0	0
C-DRIV	Driveways	9	0	1	0	0	1
C-DRIV-DIMS	Driveways - Dimensions	9	0	2	0	0	1
C-DRIV-EDGE	Driveways - Edge of	9	0	1	0	0	1
C-DRIV-EDGE-LT	Driveways - Edge of	9	0	1	0	0	1
C-DRIV-EDGE-RT	Driveways - Edge of	9	0	1	0	0	1
C-DRIV-LINE	Driveways - Lines	9	CENTER2	1	0	0	1
C-DRIV-NOTE	Driveways - Notes	9	0	2	0	0	1
C-DRIV-PNTS	Driveways - Points	9	0	1	0	0	1
C-DRIV-PTRN	Driveways - Pattern	9	0	1	0	0	1
C-DRIV-SYMB	Driveways - Symbols	9	0	1	0	0	1
C-DRIV-TEXT	Driveways - Text	9	0	2	0	0	1
C-DRIV-WORK	Driveways - User Work (Non-Plotting)	9	0	1	0	0	0
C-DTCH	Ditch	4	DITCH EX	1	0	0	1
C-DTCH -SWAL	Ditch - Swale	4	SWALE	1	0	0	1
C-DTCH-BOTM	Ditch - Bottom of Ditch	4	DITCH EX	1	0	0	1
C-DTCH-CNTR	Ditch - Centerline of Ditch	4	DITCH PROPOSED	1	0	0	1
C-DTCH-DIMS	Ditch - Dimensions	4	0	2	0	0	1
C-DTCH-DRAW	Ditch - Draw	4	0	1	0	0	1
C-DTCH-NOTE	Ditch - Note	4	0	2	0	0	1
C-DTCH-PAVE	Ditch - Paved	4	0	1	0	0	1
C-DTCH-PNTS	Ditch - Points	4	0	1	0	0	1
C-DTCH-PTRN	Ditch - Pattern	4	0	1	0	0	1
C-DTCH-SYMB	Ditch - Symbols	4	0	1	0	0	1
C-DTCH-TEXT	Ditch - Text	4	0	2	0	0	1
C-DTCH-TOPD	Ditch - Top of Ditch	4	0	1	0	0	1
C-DTCH-WORK	Ditch - User Work (Non-Plotting)	4	0	1	0	0	0



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C-EROS	Erosion and Sediment Control Devices	120	0	1	0	0	1
C-EROS-BARR	Erosion - Vapor/Capillary water barriers	120	0	1	0	0	1
C-EROS-CNTE	Erosion - Construction Entrance	120	0	1	0	0	1
C-EROS-DIMS	Erosion - Dimensions	120	0	2	0	0	1
C-EROS-DISC	Erosion - Discharge Point	120	0	1	0	0	1
C-EROS-DTCH	Erosion - Ditch	120	DITCH EX	1	0	0	1
C-EROS-DTCH-TEMP	Erosion - Temporary Ditch	120	DITCH EX	1	0	0	1
C-EROS-DVDK	Erosion - Diversion Dike	120	0	1	0	0	1
C-EROS-FENC	Erosion - Protective Fence	120	PF	1	0	0	1
C-EROS-GABN	Erosion - Gabions	120	0	1	0	0	1
C-EROS-INPR	Erosion - Inlet Protection	120	0	1	0	0	1
C-EROS-LEVE	Erosion - Levee	120	0	1	0	0	1
C-EROS-MATT	Erosion - Matt	120	0	1	0	0	1
C-EROS-NOTE	Erosion - Notes	120	0	2	0	0	1
C-EROS-OLSF	Erosion - Over Land Sheet Flow	120	0	1	0	0	1
C-EROS-PIPE-TEMP	Erosion - Temporary Pipe	120	PIPE PROPOSED	3	0	0	1
C-EROS-PNTS	Erosion - Points	120	0	1	0	0	1
C-EROS-PTRN	Erosion - Pattern	120	0	1	0	0	1
C-EROS-RRAP	Erosion - Riprap, Stone Protection, Jetties, Breakwaters	120	0	1	0	0	1
C-EROS-SDTR	Erosion - Sediment Trap	120	0	1	0	0	1
C-EROS-SILT	Erosion - Silt control devices	120	0	1	0	0	1
C-EROS-SILT-BASN	Erosion - Silt Basin	120	0	1	0	0	1
C-EROS-SILT-FENC	Erosion - Silt Fence	120	SF	1	0	0	1
C-EROS-SILT-SOCK	Erosion - Silt Sock	120	CFS	1	0	0	1
C-EROS-SILT-TRAP	Erosion - Silt Trap	120	0	1	0	0	1
C-EROS-SSLT	Erosion - Super Silt Fence	120	SSF	1	0	0	1
C-EROS-SYMB	Erosion - Symbols	120	0	1	0	0	1
C-EROS-TEXT	Erosion - Text	120	0	2	0	0	1
C-EROS-TOEB	Erosion - Toe / Bottom of Berm	120	0	1	0	0	1
C-EROS-TOPB	Erosion - Top of Berm	120	0	1	0	0	1
C-EROS-WEIR	Erosion - Weirs	120	0	1	0	0	1



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C-EROS-WORK	Erosion - User Work (Non-Plotting)	120	0	1	0	0	0
C-ESMT	Easements	6	EASEMENT	3	0	0	1
C-ESMT-CDAT	Easements - Property Lines, Curve Data	6	0	1	0	0	1
C-ESMT-CONS-TEMP	Easements - Temporary Construction Easement	6	0	1	0	0	1
C-ESMT-DIMS	Easements - Dimensions	6	0	2	0	0	1
C-ESMT-LGAL	Easements - Required Legal Easement lines	6	EASEMENT	1	0	0	1
C-ESMT-LINE	Easements - Property Lines	6	EASEMENT	1	0	0	1
C-ESMT-NOTE	Easements - Notes	6	0	2	0	0	1
C-ESMT-PNTS	Easements - Points	6	0	1	0	0	1
C-ESMT-PTRN	Easements - Pattern	6	0	1	0	0	1
C-ESMT-RWAY	Easement - Legal R/W Lines	6	ROW LEGAL	3	0	0	1
C-ESMT-RWAY-ACQU	Easement - Required R/W Lines	6	ROW REQ'D	4	0	0	1
C-ESMT-SYMB	Easements - Symbols	6	0	1	0	0	1
C-ESMT-TEXT	Easements - Text	6	0	2	0	0	1
C-ESMT-WORK	Easements - User Work (Non-Plotting)	6	0	1	0	0	0
C-FHLA-PNTS	Flood Hazard Area - Points	7	0	1	0	0	1
C-FIBR	Fiber Optic	30	UT-FOU	4	0	0	1
C-FIBR-BERM	Fiber Optic - Berm for liquids retention	30	0	1	0	0	1
C-FIBR-DIMS	Fiber Optic - Dimensions	30	0	2	0	0	1
C-FIBR-DUCT	Fiber Optic - Ducts and conduits (vacant) for future lines	30	0	1	0	0	1
C-FIBR-EQPM	Fiber Optic - Equipment and Pad	30	0	1	0	0	1
C-FIBR-GUYS	Fiber Optic - Guying equipment	30	0	1	0	0	1
C-FIBR-HYDR	Fiber Optic - Hydrants and Fire Department connections	30	0	1	0	0	1
C-FIBR-JBOX	Fiber Optic - Junction Box	30	0	1	0	0	1
C-FIBR-LINE	Fiber Optic - Lines	30	UT-FO	4	0	0	1
C-FIBR-LINE-DBUR	Fiber Optic - Direct Buried Underground Lines	30	XUT-FOU	4	0	0	1
C-FIBR-LINE-OVHD	Fiber Optic - Overhead Lines	30	UT-FO	4	0	0	1
C-FIBR-LINE-UNDR	Fiber Optic - Underground Lines	30	XUT-FOU	4	0	0	1
C-FIBR-MARK	Fiber Optic - Cell - Above Ground Markers	30	0	1	0	0	1
C-FIBR-METR	Fiber Optic - Meters and instrumentation	30	0	1	0	0	1



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C-FIBR-MHOL	Fiber Optic - Manholes and junction boxes	30	0	1	0	0	1
C-FIBR-NOTE	Fiber Optic - Notes	30	0	2	0	0	1
C-FIBR-PERC	Fiber Optic - Perc Test Holes and Pits	30	0	1	0	0	1
C-FIBR-PITS	Fiber Optic - Pits for vents, valves and other equipment	30	0	1	0	0	1
C-FIBR-PLNT	Fiber Optic - Plants, pumping stations, storage tanks and reservoirs	30	0	1	0	0	1
C-FIBR-PNTS	Fiber Optic - Points	30	0	1	0	0	1
C-FIBR-POLE	Fiber Optic - Pole	30	0	1	0	0	1
C-FIBR-PTRN	Fiber Optic - Pattern	30	0	1	0	0	1
C-FIBR-SITE	Fiber Optic - Line - Site (Interior boundary)	30	0	1	0	0	1
C-FIBR-SYMB	Fiber Optic - Symbols	30	0	1	0	0	1
C-FIBR-TEXT	Fiber Optic - Text	30	0	2	0	0	1
C-FIBR-TRCH	Fiber Optic - Fuel line trench	30	0	1	0	0	1
C-FIBR-WELL	Fiber Optic - Wells	30	0	1	0	0	1
C-FIBR-WORK	Fiber Optic - User Work (Non-Plotting)	30	0	1	0	0	0
C-FIBR-XFMR	Fiber Optic - Transformers	30	0	1	0	0	1
C-FLHA	Flood Hazard Area	7	0	1	0	0	1
C-FLHA-010Y	Flood Hazard Area - 10 Year Mark	7	0	1	0	0	1
C-FLHA-025Y	Flood Hazard Area - 25 Year Mark	7	0	1	0	0	1
C-FLHA-050Y	Flood Hazard Area - 50 Year Mark	7	0	1	0	0	1
C-FLHA-100Y	Flood Hazard Area - 100 Year Mark	7	0	1	0	0	1
C-FLHA-200Y	Flood Hazard Area - 200 year mark	7	0	1	0	0	1
C-FLHA-500Y	Flood Hazard Area - 500 Year Mark	7	0	1	0	0	1
C-FLHA-DIMS	Flood Hazard Area - Dimensions	7	0	2	0	0	1
C-FLHA-NOTE	Flood Hazard Area - Notes	7	0	2	0	0	1
C-FLHA-PTRN	Flood Hazard Area - Pattern	7	0	1	0	0	1
C-FLHA-SYMB	Flood Hazard Area - Symbols	7	0	1	0	0	1
C-FLHA-TEXT	Flood Hazard Area - Text	7	0	2	0	0	1
C-FLHA-WORK	Flood Hazard Area - User Work (Non-Plotting)	7	0	1	0	0	0
C-GEOT	Geotech	112	0	1	0	0	1
C-GEOT-DIMS	Geotech - Dimensions	112	0	2	0	0	1
C-GEOT-NOTE	Geotech - Notes	112	0	2	0	0	1



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C-GEOT-PNTS	Geotech - Points	112	0	1	0	0	1
C-GEOT-PTRN	Geotech - Pattern	112	0	1	0	0	1
C-GEOT-SYMB	Geotech - Symbols	112	0	1	0	0	1
C-GEOT-TEXT	Geotech - Text	112	0	2	0	0	1
C-GEOT-WORK	Geotech - User Work (Non-Plotting)	112	0	1	0	0	0
C-GRAL	Guide rail	8	GDRL PR RT	1	0	0	1
C-GRAL-DIMS	Guide rail - Dimensions	8	0	2	0	0	1
C-GRAL-ENDT	Guide rail - End treatment	8	0	1	0	0	1
C-GRAL-EXIS	Guide rail - Existing	8	GDRL EX	1	0	0	1
C-GRAL-MARK	Guide rail - Markers and Reflectors	8	0	1	0	0	1
C-GRAL-NOTE	Guide rail - Notes	8	0	2	0	0	1
C-GRAL-PNTS	Guide rail - Points	8	0	1	0	0	1
C-GRAL-PROP	Guide rail - Proposed	8	0	1	0	0	1
C-GRAL-PROP-LEFT	Guide rail - Proposed left side	8	GDRL PR LT	1	0	0	1
C-GRAL-PROP-RGHT	Guide rail - Proposed right side	8	GDRL PR RT	1	0	0	1
C-GRAL-PTRN	Guide rail - Pattern	8	0	1	0	0	1
C-GRAL-SYMB	Guide rail - Symbols	8	0	1	0	0	1
C-GRAL-TEXT	Guide rail - Text	0	0	2	0	0	1
C-GRAL-WORK	Guide rail - User Work (Non-Plotting)	112	0	1	0	0	0
C-HYDR-CTCH	Hydrology Catchment	2	0	1	0	1	1
C-HYDR-CTCH-BNDY-POST	Hydrology Catchment - Boundary Post Development	2	0	1	0	1	1
C-HYDR-CTCH-BNDY-PRED	Hydrology Catchment - Boundary Pre-Development	2	0	1	0	1	1
C-HYDR-CTCH-FPTH-POST	Hydrology Catchment - Flow Path Post Development	2	0	1	0	1	1
C-HYDR-CTCH-FPTH-PRED	Hydrology Catchment - Flow Path Pre-Development	2	0	1	0	1	1
C-HYDR-CTCH-TEXT-POST	Hydrology Catchment - Text Post Development	2	1	1	0	1	1
C-HYDR-CTCH-TEXT-PRED	Hydrology Catchment - Text Pre-Development	2	1	1	0	1	1
C-HYDR-TEXT	Hydrology Catchment - General Text	2	1	1	0	1	1
CLIPPING-SHAPE	Clipping Shape for production (Non Plotting)	0	1	1	0	1	0



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C-LNSC	Landscape	83	0	1	0	0	1
C-LNSC-BEDS	Landscape - Planting beds	83	NURSERY	1	0	0	1
C-LNSC-BUSH	Landscape - Bushes and shrubs (e.g., evergreen, deciduous, etc.)	83	HEDGE	1	0	0	1
C-LNSC-DIMS	Landscape - Dimensions	83	0	2	0	0	1
C-LNSC-HEDG	Landscape - Hedge	83	HEDGE ROW	1	0	0	1
C-LNSC-IRRG	Landscape - Irrigation System	83	0	1	0	0	1
C-LNSC-NOTE	Landscape - Notes	83	0	2	0	0	1
C-LNSC-ORCH	Landscape - Orchard	83	TREELINE	1	0	0	1
C-LNSC-PLNT	Landscape - Planters and planting structures	83	0	1	0	0	1
C-LNSC-PLTS	Landscape - Planting plants (e.g., ornamental annuals and perennials)	83	0	1	0	0	1
C-LNSC-PNTS	Landscape - Points	83	0	1	0	0	1
C-LNSC-PTRN	Landscape - Pattern	83	0	1	0	0	1
C-LNSC-SYMB	Landscape - Symbols	83	0	1	0	0	1
C-LNSC-TEXT	Landscape - Text	83	0	2	0	0	1
C-LNSC-TREE	Landscape - Trees (e.g., evergreen, deciduous, etc.)	83	TREELINE	1	0	0	1
C-LNSC-TURF	Landscape - Lawn areas (turbing limits)	83	NURSERY	1	0	0	1
C-LNSC-VINE	Landscape - Vine	83	0	1	0	0	1
C-LNSC-WOOD	Landscape - Woods line	83	WOODS	1	0	0	1
C-LNSC-WORK	Landscape - User Work (Non-Plotting)	83	0	1	0	0	0
C-MILR	Military Ranges	8	0	1	0	0	1
C-NGAS	Natural Gas	58	UT-G	4	0	0	1
C-NGAS-APPT	Natural Gas - Appurtenances	58	0	1	0	0	1
C-NGAS-APPT-PATT	Natural Gas - Appurtenances, hatching	58	0	1	0	0	1
C-NGAS-BERM	Natural Gas - Berm for Liquids Retention	58	0	1	0	0	1
C-NGAS-CNTR	Natural Gas - Centerline	58	0	1	0	0	1
C-NGAS-DIMS	Natural Gas - Dimensions	58	0	2	0	0	1
C-NGAS-DUCT	Natural Gas - Ducts and conduits (vacant) for future lines	58	0	1	0	0	1
C-NGAS-EQPM	Natural Gas - Equipment and Pad	58	0	1	0	0	1
C-NGAS-FITT	Natural Gas - fittings	58	0	1	0	0	1



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C-NGAS-FITT-PATT	Natural Gas - fittings, hatching	58	0	1	0	0	1
C-NGAS-GUYS	Natural Gas - Guying equipment	58	0	1	0	0	1
C-NGAS-HYDR	Natural Gas - Hydrants and Fire Department connections	58	0	1	0	0	1
C-NGAS-JBOX	Natural Gas - Junction Box	58	0	1	0	0	1
C-NGAS-LINE	Natural Gas - Lines	58	UT-G	4	0	0	1
C-NGAS-LINE-DBUR	Natural Gas - Direct Buried Underground Lines	58	UT-G	4	0	0	1
C-NGAS-LINE-OVHD	Natural Gas - Overhead Lines	58	UT-G	4	0	0	1
C-NGAS-LINE-UNDR	Natural Gas - Underground Lines	58	UT-G	4	0	0	1
C-NGAS-MARK	Natural Gas - Cell - Above Ground Markers	58	0	1	0	0	1
C-NGAS-METR	Natural Gas - Meters and instrumentation	58	0	1	0	0	1
C-NGAS-MHOL	Natural Gas - Manholes and junction boxes	58	0	1	0	0	1
C-NGAS-NOTE	Natural Gas - Notes	58	0	2	0	0	1
C-NGAS-PERC	Natural Gas - Perc Test Holes and Pits	58	0	1	0	0	1
C-NGAS-PIPE	Natural Gas - Pressure Pipe	58	0	1	0	0	1
C-NGAS-PIPE-PATT	Natural Gas - Pressure Pipe, Hatching	58	0	1	0	0	1
C-NGAS-PITS	Natural Gas - Pits for Vents, Valves and Other Equipment	58	0	1	0	0	1
C-NGAS-PLNT	Natural Gas - Plants, Pumping Stations, Storage Tanks and Reservoirs	58	0	1	0	0	1
C-NGAS-PNTS	Natural Gas - Points	58	0	1	0	0	1
C-NGAS-POLE	Natural Gas - Pole	58	0	1	0	0	1
C-NGAS-PROF	Natural Gas - Profile	58	0	1	0	0	1
C-NGAS-PTRN	Natural Gas - Pattern	58	0	1	0	0	1
C-NGAS-SCTN	Natural Gas - Section	58	0	1	0	0	1
C-NGAS-SITE	Natural Gas - Line - Site (Interior boundary)	58	UT-G	4	0	0	1
C-NGAS-SYMB	Natural Gas - Symbols	58	0	1	0	0	1
C-NGAS-TEXT	Natural Gas - Text	58	0	2	0	0	1
C-NGAS-TRCH	Natural Gas - Fuel line trench	58	0	1	0	0	1
C-NGAS-WELL	Natural Gas - Wells	58	0	1	0	0	1
C-NGAS-WORK	Natural Gas - User Work (Non-Plotting)	58	0	1	0	0	0
C-NGAS-XFMR	Natural Gas - Transformers	58	0	1	0	0	1



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C-POWR	Power	116	UT-E	4	0	0	1
C-POWR-BERM	Power - Berm for liquids retention	116	0	1	0	0	1
C-POWR-COND	Power - Conduits	116	UT-C	4	0	0	1
C-POWR-DIMS	Power - Dimensions	116	0	2	0	0	1
C-POWR-DUCT	Power - Ducts and conduits (vacant) for future lines	116	0	1	0	0	1
C-POWR-EQPM	Power - Equipment and Pad	116	0	1	0	0	1
C-POWR-GUYS	Power - Guying equipment	116	0	1	0	0	1
C-POWR-HYDR	Power - Hydrants and Fire Department connections	116	0	1	0	0	1
C-POWR-JBOX	Power - Junction Box	116	0	1	0	0	1
C-POWR-LINE	Power - Lines	116	UT-E	4	0	0	1
C-POWR-LINE-DBUR	Power - Direct Buried Underground Lines	116	UT-EU	4	0	0	1
C-POWR-LINE-OVHD	Power - Overhead Lines	116	UT-E	4	0	0	1
C-POWR-LINE-UNDR	Power - Underground Lines	116	UT-EU	4	0	0	1
C-POWR-MARK	Power - Cell - Above Ground Markers	116	0	1	0	0	1
C-POWR-METR	Power - Meters and instrumentation	116	0	1	0	0	1
C-POWR-MHOL	Power - Manholes and junction boxes	116	0	1	0	0	1
C-POWR-NOTE	Power - Notes	116	0	2	0	0	1
C-POWR-PERC	Power - Perc Test Holes and Pits	116	0	1	0	0	1
C-POWR-PITS	Power - Pits for vents, valves and other equipment	116	0	1	0	0	1
C-POWR-PLNT	Power - Plants, pumping stations, storage tanks and reservoirs	116	0	1	0	0	1
C-POWR-PNTS	Power - Points	116	0	1	0	0	1
C-POWR-POLE	Power - Pole	116	0	1	0	0	1
C-POWR-PTRN	Power - Pattern	116	0	1	0	0	1
C-POWR-SITE	Power - Line - Site (Interior boundary)	116	0	1	0	0	1
C-POWR-SYMB	Power - Symbols	116	0	1	0	0	1
C-POWR-TEXT	Power - Text	116	0	2	0	0	1
C-POWR-TRCH	Power - Fuel line trench	116	0	1	0	0	1
C-POWR-WELL	Power - Wells	116	0	1	0	0	1
C-POWR-WORK	Power - User Work (Non-Plotting)	116	0	1	0	0	0



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C-POWR-XFMR	Power - Transformers	116	0	1	0	0	1
C-PRKG	Parking Lots	14	0	1	0	0	1
C-PRKG-DIMS	Parking Lots - Dimensions	14	0	2	0	0	1
C-PRKG-EDGE	Parking Lots - Edge of	14	0	1	0	0	1
C-PRKG-EDGE-LT	Parking Lots - Edge of	14	0	1	0	0	1
C-PRKG-EDGE-RT	Parking Lots - Edge of	14	0	1	0	0	1
C-PRKG-LINE	Parking Lots - Line	14	0	1	0	0	1
C-PRKG-NOTE	Parking Lots - Note	14	0	2	0	0	1
C-PRKG-PNTS	Parking Lots - Points	14	0	1	0	0	1
C-PRKG-PTRN	Parking Lots - Pattern	14	0	1	0	0	1
C-PRKG-SYMB	Parking Lots - Symbols	14	0	1	0	0	1
C-PRKG-TEXT	Parking Lots - Text	14	0	2	0	0	1
C-PRKG-WORK	Parking Lots - User Work (Non-Plotting)	14	0	1	0	0	0
C-PROF	Profile	5	0	1	0	0	1
C-PROF-AXIS	Profile - Axis	5	0	1	0	0	1
C-PROF-AXIS-TEXT	Profile - Axis - Text	5	0	2	0	0	1
C-PROF-AXIS-TITL	Profile - Axis - Title	5	0	1	0	0	1
C-PROF-DIMS	Profile - Dimensions	5	0	2	0	0	1
C-PROF-FRAM	Profile - Frame	5	0	1	0	0	1
C-PROF-GRID	Profile - Grid	101	0	1	0	0	1
C-PROF-GRID-MAJR	Profile - Grid - Major	101	0	1	0	0	1
C-PROF-GRID-MINR	Profile - Grid - Minor	165	0	1	0	0	1
C-PROF-INTR-PT	Profile - Intersection Point	3	0	1	0	0	1
C-PROF-NOTE	Profile - Notes	5	0	2	0	0	1
C-PROF-PNTS	Profile - Points	5	0	1	0	0	1
C-PROF-PTRN	Profile - Pattern	5	0	1	0	0	1
C-PROF-SYMB	Profile - Symbols	5	0	1	0	0	1
C-PROF-TEXT	Profile - Text	0	0	2	0	0	1
C-PROF-WORK	Profile - User Work (Non-Plotting)	1	0	1	0	0	0
C-PROP-BNDY	Property - Boundary	113	MUNICIPAL	1	0	0	1
C-PROP-BRNG	Property - Bearing	113	0	1	0	0	1
C-PROP-LINE	Property - Parcel Lines	113	PROPERTYLINE	1	0	0	1



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C-PROP-LINE-TEXT	Property - Line Annotation	113	0	2	0	0	1
C-PROP-PARC-BNDY	Property - Parcel - Boundary	113	MUNICIPAL	1	0	0	1
C-PROP-PARC-LINE	Property - Parcel - Line Segment	113	PROPERTYLINE	1	0	0	1
C-PROP-PARC-OPEN	Property - Parcel - Open Space	113	0	1	0	0	1
C-PROP-PARC-ROAD	Property - Parcel - Roadway Easement	113	EASEMENT	1	0	0	1
C-PROP-PARC-ROWL	Property - Parcel - Right-of-way Line	113	ROW LEGAL	1	0	0	1
C-PROP-PARC-TEXT	Property - Parcel - Annotation	113	0	2	0	0	1
C-PROP-PARC-TEXT-BRNG	Property - Parcel - Bearing Annotation	113	0	1	0	0	1
C-PROP-PATT	Property - Parcel Hatching	113	0	1	0	0	1
C-PROP-TEXT	Property - Label	113	0	2	0	0	1
C-PTRO	Petroleum	12	UT-P	1	0	0	1
C-PTRO-BERM	Petroleum - Berm for liquids retention	12	0	1	0	0	1
C-PTRO-DIMS	Petroleum - Dimensions	12	0	2	0	0	1
C-PTRO-DUCT	Petroleum - Ducts and conduits (vacant) for future lines	12	0	1	0	0	1
C-PTRO-EQPM	Petroleum - Equipment and Pad	12	0	1	0	0	1
C-PTRO-GUYS	Petroleum - Guying equipment	12	0	1	0	0	1
C-PTRO-HYDR	Petroleum - Hydrants and Fire Department connections	12	0	1	0	0	1
C-PTRO-JBOX	Petroleum - Junction Box	12	0	1	0	0	1
C-PTRO-LINE	Petroleum - Lines	12	UT-PU	4	0	0	1
C-PTRO-LINE-DBUR	Petroleum - Direct Buried Underground Lines	12	UT-PU	4	0	0	1
C-PTRO-LINE-OVHD	Petroleum - Overhead Lines	12	UT-P	4	0	0	1
C-PTRO-LINE-UNDR	Petroleum - Underground Lines	12	UT-PU	4	0	0	1
C-PTRO-MARK	Petroleum - Cell - Above Ground Markers	12	0	1	0	0	1
C-PTRO-METR	Petroleum - Meters and instrumentation	12	0	1	0	0	1
C-PTRO-MHOL	Petroleum - Manholes and junction boxes	12	0	1	0	0	1
C-PTRO-NOTE	Petroleum - Notes	12	0	2	0	0	1
C-PTRO-PERC	Petroleum - Perc Test Holes and Pits	12	0	1	0	0	1
C-PTRO-PITS	Petroleum - Pits for vents, valves and other equipment	12	0	1	0	0	1
C-PTRO-PLNT	Petroleum - Plants, pumping stations, storage tanks and reservoirs	12	0	1	0	0	1



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C-PTRO-PNTS	Petroleum - Points	12	0	1	0	0	1
C-PTRO-POLE	Petroleum - Pole	12	0	1	0	0	1
C-PTRO-PTRN	Petroleum - Pattern	12	0	1	0	0	1
C-PTRO-SITE	Petroleum - Line - Site (Interior boundary)	12	0	1	0	0	1
C-PTRO-SYMB	Petroleum - Symbols	12	0	1	0	0	1
C-PTRO-TEXT	Petroleum - Text	12	0	2	0	0	1
C-PTRO-TRCH	Petroleum - Fuel line trench	12	0	1	0	0	1
C-PTRO-WELL	Petroleum - Wells	12	0	1	0	0	1
C-PTRO-WORK	Petroleum - User Work (Non-Plotting)	12	0	1	0	0	0
C-PTRO-XFMR	Petroleum - Transformers	12	0	1	0	0	1
C-RAIL	Railroad	13	0	1	0	0	1
C-RAIL-CANT-VIEW	Railroad - Cant View	13	0	2	0	1	1
C-RAIL-CANT-VIEW-CNTR	Railroad - Cant View Centerline	13	0	1	0	0	1
C-RAIL-CANT-VIEW-EQLB	Railroad - Cant View Equilibrium	13	0	1	0	0	1
C-RAIL-CANT-VIEW-LEFT	Railroad - Cant View Left	13	0	1	0	0	1
C-RAIL-CANT-VIEW-RGHT	Railroad - Cant View Right	13	0	1	0	0	1
C-RAIL-CANT-VIEW-TEXT	Railroad - Cant View Annotation	13	0	2	0	0	1
C-RAIL-CANT-VIEW-TICK	Railroad - Cant View Tick	13	0	1	0	0	1
C-RAIL-CANT-VIEW-TITL	Railroad - Cant View Title	13	0	1	0	0	1
C-RAIL-CANT-VIEW-TTLB	Railroad - Cant View Titleblock	13	0	1	0	0	1
C-RAIL-DIMS	Railroad - Dimensions	13	0	2	0	0	1
C-RAIL-EQPM	Railroad - Equipment	13	0	1	0	0	1
C-RAIL-FEAT	Railroad - Feature	13	0	1	0	1	1
C-RAIL-NOTE	Railroad - Notes	13	0	2	0	0	1
C-RAIL-PNTS	Railroad - Points	13	0	1	0	0	1
C-RAIL-PTRN	Railroad - Pattern	13	0	1	0	0	1
C-RAIL-SGNL	Railroad - Crossing Signal Light	13	0	1	0	0	1
C-RAIL-SIGN	Railroad - Sign	13	0	1	0	0	1
C-RAIL-SYMB	Railroad - Symbols	13	0	1	0	0	1
C-RAIL-TEXT	Railroad - Text	13	0	2	0	0	1
C-RAIL-TRAK	Railroad - Single Track	13	RAILROAD	1	0	0	1
C-RAIL-WORK	Railroad - User Work (Non-Plotting)	13	0	1	0	0	0



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C-ROAD	Roadway	8	0	2	0	0	1
C-ROAD-ASPH-STONE	Roadway - Asphalt Stone	8	0	2	0	0	1
C-ROAD-ASPH-SUPERPAV	Roadway - Asphalt Super Pavement	8	0	2	0	0	1
C-ROAD-ASSM	Roadway - Assemblies	8	0	2	0	0	1
C-ROAD-ASSM-BLIN	Roadway - Assemblies Baseline	8	0	2	0	1	1
C-ROAD-ASSM-OFFS	Roadway - Assemblies Offset	8	0	2	0	1	1
C-ROAD-ATEN	Roadway - Attenuators	8	0	2	0	0	1
C-ROAD-BARR	Roadway - Barrier	8	0	2	0	0	1
C-ROAD-BARRIER	Roadway - Barrier	8	0	2	0	0	1
C-ROAD-BASE	Roadway - Base	8	0	2	0	0	1
C-ROAD-BASE-ASPH	Roadway - Base Asphalt	8	0	2	0	0	1
C-ROAD-BASE-CMNT	Roadway - Base Cement	8	0	2	0	0	1
C-ROAD-BASE-SUB	Roadway - Base Subassembly	8	0	2	0	0	1
C-ROAD-BNCH	Roadway - Benchmark	8	0	2	0	0	1
C-ROAD-BRDG	Roadway - Bridge Structure Outline	8	0	2	0	0	1
C-ROAD-BRNG	Roadway - Bearings	8	0	2	0	0	1
C-ROAD-BRNG-PROP	Roadway - Bearings - Proposed	8	0	2	0	0	1
C-ROAD-CABLE BARRIER	Roadway - Cable Barrier	8	0	2	0	0	1
C-ROAD-CNTR	Roadway - Centerline	3	4	2	0	0	1
C-ROAD-CNTR-PROP	Roadway - Centerline, Proposed	3	4	2	0	0	1
C-ROAD-CONC-BASE	Roadway - Concrete Base	8	0	2	0	0	1
C-ROAD-CONC-CMNTPAV	Roadway - Concrete Cement Pavement	8	0	2	0	0	1
C-ROAD-CONC-WEAR	Roadway - Concrete Wear	8	0	2	0	0	1
C-ROAD-COND	Roadway - Conduits	146	0	2	0	1	1
C-ROAD-CORR	Roadway - Corridor	3	0	2	0	0	1
C-ROAD-CORR-BNDY	Roadway - Corridor Boundary	3	4	2	0	0	1
C-ROAD-CORR-CRWN	Roadway - Corridor Crown	3	0	2	0	1	1
C-ROAD-CORR-FEAT	Roadway - Corridor Feature	3	0	2	0	1	1
C-ROAD-CORR-PATT	Roadway - Corridor Pattern	3	0	2	0	1	1
C-ROAD-CORR-SECT	Roadway - Corridor Section	3	0	2	0	1	1
C-ROAD-CORR-TRENCH	Roadway - Corridor Trench	3	0	2	0	1	1
C-ROAD-CURB	Roadway - Curb	8	0	2	0	0	1



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C-ROAD-CURV	Roadway - Curves	8	0	2	0	0	1
C-ROAD-DIMS	Roadway - Dimensions	8	0	2	0	0	1
C-ROAD-DRAIN	Roadway - Drainage	8	0	2	0	0	1
C-ROAD-EDGE	Roadway - Edge of Roadway (Pavement)	8	0	2	0	0	1
C-ROAD-EDGE-LT	Roadway - Edge of Roadway Left (Pavement)	8	0	2	0	0	1
C-ROAD-EDGE-RT	Roadway - Edge of Roadway Right (Pavement)	8	0	2	0	0	1
C-ROAD-FEAT	Roadway - Feature Line	8	0	2	0	0	1
C-ROAD-GRASS	Roadway - Grass	2	0	2	0	0	1
C-ROAD-GRVL	Roadway - Gravel	8	0	2	0	0	1
C-ROAD-GUIDERAIL	Roadway - Guardrail	8	0	2	0	0	1
C-ROAD-HING	Roadway - Hinge Point	11	0	2	0	0	1
C-ROAD-INTS	Roadway - Intersection	8	0	2	0	0	1
C-ROAD-INTS-TEXT	Roadway - Intersection Annotation	8	0	2	0	0	1
C-ROAD-JBARRIER	Roadway - Jersey Barrier	14	0	2	0	0	1
C-ROAD-JNTS	Roadway - Joints - Expansion, Centerline etc.	8	0	2	0	0	1
C-ROAD-LABL	Roadway - Labels	0	0	2	0	0	1
C-ROAD-LANE	Roadway - Edge of Lane	9	0	2	0	0	1
C-ROAD-LINE	Roadway - Tangent Lines	13	0	2	0	0	1
C-ROAD-LINE-EXTN	Roadway - PVI Extension Lines	13	1	2	0	0	1
C-ROAD-LINK	Roadway - Link	13	0	2	0	1	1
C-ROAD-MARK	Roadway - Corridor and Section Links	13	0	1	0	0	1
C-ROAD-MASS-LINE	Roadway - Mass Haul Line	21	0	1	0	0	1
C-ROAD-MASS-LINE-FREE	Roadway - Mass Haul Line Free	21	0	1	0	0	1
C-ROAD-MASS-LINE-OVER	Roadway - Mass Haul Line Over	21	0	1	0	0	1
C-ROAD-MASS-VIEW	Roadway - Mass Haul Line View	21	0	1	0	0	1
C-ROAD-MASS-VIEW-GRID-MAJR	Roadway - Mass Haul Line View Grid Major	21	0	1	0	0	1
C-ROAD-MASS-VIEW-GRID-MINR	Roadway - Mass Haul Line View Grid Minor	21	0	1	0	0	1
C-ROAD-MASS-VIEW-TEXT	Roadway - Mass Haul Line View Annotation	21	0	1	0	0	1
C-ROAD-MASS-VIEW-TITL	Roadway - Mass Haul Line View Title	21	0	1	0	0	1
C-ROAD-MASS-VIEW-TTLB	Roadway - Mass Haul Line View Titleblock	21	0	1	0	0	1
C-ROAD-MEDN	Roadway - Edge of Median	8	0	2	0	0	1



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C-ROAD-MISC	Roadway - Miscellaneous Items	3	0	2	0	0	1
C-ROAD-NOTE	Roadway - Notes	0	0	1	0	0	1
C-ROAD-PAV	Roadway - Pavement	8	0	2	0	0	1
C-ROAD-PNTS	Roadway - Points	0	0	1	0	0	1
C-ROAD-PROF	Roadway - Profiles	5	0	1	0	0	1
C-ROAD-PROF-ASMC	Roadway - Profile Asymmetrical Curves	5	0	1	0	0	1
C-ROAD-PROF-CURV	Roadway - Profile Vertical Curves	5	0	1	0	0	1
C-ROAD-PROF-DIAG	Roadway - Profile Band Diagrams	5	0	1	0	0	1
C-ROAD-PROF-GRID	Roadway - Profile Grid	101	0	1	0	0	1
C-ROAD-PROF-GRID-GEOM	Roadway - Profile Gridline @ Geometry Points	101	0	1	0	0	1
C-ROAD-PROF-GRID-MAJR	Roadway - Profile Gridline @ Major Stations	101	0	1	0	0	1
C-ROAD-PROF-GRID-MINR	Roadway - Profile Gridline @ Minor Stations	165	0	1	0	0	1
C-ROAD-PROF-LABL	Roadway - Profile Label	0	0	1	0	0	1
C-ROAD-PROF-LINE	Roadway - Profile Vertical Lines	239	0	1	0	0	1
C-ROAD-PROF-LINE-EXTN	Roadway - Centerline Extension	3	1	1	0	0	1
C-ROAD-PROF-LTOF	Roadway - Profile Left Offset Sample Lines	95	0	1	0	0	1
C-ROAD-PROF-PARB	Roadway - Profile Parabolic Curves	95	0	1	0	0	1
C-ROAD-PROF-PNTS	Roadway - Profile Geometry Points	95	1	1	0	0	1
C-ROAD-PROF-PROJ	Roadway - Profile Projection	95	0	2	0	1	1
C-ROAD-PROF-PROP	Roadway - Profile New	95	0	1	0	0	1
C-ROAD-PROF-RTOF	Roadway - Profile Right Offset Sample Lines	95	0	1	0	0	1
C-ROAD-PROF-STAN-GEOM	Roadway - Profile Geometry Point Labels	95	0	1	0	0	1
C-ROAD-PROF-STAN-GEOM-PROP	Roadway - Profile Geometry Point Labels, Proposed	95	0	1	0	0	1
C-ROAD-PROF-STAN-MAJR	Roadway - Profile Major Station Labels	0	0	1	0	0	1
C-ROAD-PROF-STAN-MINR	Roadway - Profile Minor Station Labels	0	0	1	0	0	1
C-ROAD-PROF-TEXT	Roadway - Profile Text	0	0	2	0	0	1
C-ROAD-PROF-TEXT-PROP	Roadway - Profile Text, Proposed	0	0	1	0	0	1
C-ROAD-PROF-TICK	Roadway - Profile Tick Marks	0	0	1	0	0	1
C-ROAD-PROF-TITL	Roadway - Profile Label	0	0	1	0	0	1
C-ROAD-PROF-TTLB	Roadway - Profile Label	0	0	1	0	0	1
C-ROAD-PROF-VIEW	Roadway - Profile View	8	0	1	0	0	1
C-ROAD-PROF-VIEW-TEXT	Roadway - Profile View Annotation	8	0	2	0	0	1



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C-ROAD-PTRN	Roadway - Pattern	8	0	1	0	0	1
C-ROAD-SAMP	Roadway - Sample Lines	8	1	1	0	0	1
C-ROAD-SAMP-TEXT	Roadway - Sample Lines Text	8	0	2	0	0	1
C-ROAD-SDWLK	Roadway - Sidewalk	8	0	1	0	0	1
C-ROAD-SECT	Roadway - Sections	8	0	1	0	0	1
C-ROAD-SECT-BUFR	Roadway - Section Buffer	8	0	1	0	1	1
C-ROAD-SECT-DIAG	Roadway - Section Diagram	8	0	1	0	0	1
C-ROAD-SECT-GRID	Roadway - Section Grid	8	0	1	0	1	1
C-ROAD-SECT-GRID-MAJR	Roadway - Section Grid Major Lines	8	0	1	0	0	1
C-ROAD-SECT-GRID-MINR	Roadway - Section Grid Minor Lines	8	0	1	0	0	1
C-ROAD-SECT-LABL	Roadway - Section Labels	8	0	1	0	0	1
C-ROAD-SECT-PROJ	Roadway - Section Projection	8	0	1	0	0	1
C-ROAD-SECT-PROP	Roadway - Section, Proposed	8	0	1	0	0	1
C-ROAD-SECT-TEXT	Roadway - Section Text	8	0	2	0	0	1
C-ROAD-SECT-TEXT-PROP	Roadway - Section Text, Proposed	8	0	1	0	0	1
C-ROAD-SECT-TICK	Roadway - Section Tick Marks	8	0	1	0	0	1
C-ROAD-SECT-TITL	Roadway - Section Title	8	0	1	0	0	1
C-ROAD-SECT-TTLB	Roadway - Section Border	8	0	1	0	0	1
C-ROAD-SECT-VIEW	Roadway - Section View	8	0	1	0	0	1
C-ROAD-SECT-VIEW-TEXT	Roadway - Section View Annotation	8	0	2	0	0	1
C-ROAD-SELV-VIEW	Roadway - Superelevation View	8	0	1	0	0	1
C-ROAD-SHAP	Roadway - Corridor and Section Shapes	8	0	1	0	0	1
C-ROAD-SHAP-BAC	Roadway - Base Course	8	0	1	0	1	1
C-ROAD-SHAP-BAC2	Roadway - Base Course 2	8	0	1	0	1	1
C-ROAD-SHAP-BAC2-PAT	Roadway - Base Course Pattern 2	8	0	1	0	1	1
C-ROAD-SHAP-BAC3	Roadway - Base Course 3	8	0	1	0	1	1
C-ROAD-SHAP-BAC3-PAT	Roadway - Base Course Pattern 3	8	0	1	0	1	1
C-ROAD-SHAP-BAC-PAT	Roadway - Base Course Pattern	8	0	1	0	1	1
C-ROAD-SHAP-BC	Roadway - Binder Course	8	0	1	0	1	1
C-ROAD-SHAP-BC-PAT	Roadway - Binder Course Pattern	8	0	1	0	1	1
C-ROAD-SHAP-PATT	Roadway - Corridor and Section Shapes Hatching	8	1	1	50	1	1
C-ROAD-SHAP-RC	Roadway - Concrete	8	0	1	0	1	1



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C-ROAD-SHAP-RC-PAT	Roadway - Concrete Pattern	8	0	1	0	1	1
C-ROAD-SHAP-SBC	Roadway - Subbase	8	0	1	0	1	1
C-ROAD-SHAP-SBC-PAT	Roadway - Subbase Pattern	8	0	1	0	1	1
C-ROAD-SHAP-WC	Roadway - Wearing Course	8	0	1	0	1	1
C-ROAD-SHAP-WC-PAT	Roadway - Wearing Course Pattern	8	0	1	0	1	1
C-ROAD-SPIR	Roadway - Spirals	8	0	1	0	0	1
C-ROAD-STAN	Roadway - Stationing	8	0	1	0	0	1
C-ROAD-STAN-MAJR	Roadway - Major Stationing Labels	8	0	1	0	0	1
C-ROAD-STAN-MAJR-PROP	Roadway - Major Stationing Labels, Proposed	8	0	1	0	0	1
C-ROAD-STAN-MINR	Roadway - Minor Stationing Labels	8	0	1	0	0	1
C-ROAD-STAN-MINR-PROP	Roadway - Minor Stationing Labels, Proposed	8	0	1	0	0	1
C-ROAD-STAN-PROP	Roadway - Stationing, Proposed	8	0	1	0	0	1
C-ROAD-SYMB	Roadway - Symbols	8	0	1	0	0	1
C-ROAD-TEXT	Roadway - Text	8	0	2	0	0	1
C-ROAD-TEXT-PROP	Roadway - Text, Proposed	8	0	1	0	0	1
C-ROAD-TOEB	Roadway - Toe of Bank or Berm	8	0	1	0	0	1
C-ROAD-TOPB	Roadway - Top of Bank or Berm	8	0	1	0	0	1
C-ROAD-TOPSOIL	Roadway - Topsoil	8	0	1	0	0	1
C-ROAD-TREN	Roadway - Trench	8	0	1	0	1	1
C-ROAD-WORK	Roadway - User Work (Non-Plotting)	8	0	1	0	0	0
C-RWAY	Right of Way	102	ROW REQ'D	3	0	0	1
C-RWAY-CTLA	Right of Way - Controlled Access	102	0	1	0	0	1
C-RWAY-DIMS	Right of Way - Dimensions	102	0	2	0	0	1
C-RWAY-FENC	Roadway - Right-Of-Way Fence	102	FENCE	1	0	0	1
C-RWAY-LGAL	Right of Way - (Copy of) placed as Legal ROW	102	ROW LEGAL	3	0	0	1
C-RWAY-LLOS	Right of Way - Legal Limit of Slope	102	0	1	0	0	1
C-RWAY-LMON	Right of Way - Monument	102	0	1	0	0	1
C-RWAY-NOTE	Right of Way - Notes	102	0	2	0	0	1
C-RWAY-PNTS	Right of Way - Points	102	0	1	0	0	1
C-RWAY-PTRN	Right of Way - Pattern	102	0	1	0	0	1
C-RWAY-RRROW	Right of Way - Required	102	ROW REQ'D	3	0	0	1
C-RWAY-SYMB	Right of Way - Symbols	102	0	1	0	0	1



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C-RWAY-TEXT	Right of Way - Text	102	0	2	0	0	1
C-RWAY-WORK	Right of Way - User Work (Non-Plotting)	102	0	1	0	0	0
C-SHDR	Shoulders	9	0	1	0	0	1
C-SHDR-BOTM	Shoulders - Bottom of Shoulder	9	0	1	0	0	1
C-SHDR-DIMS	Shoulders - Dimensions	9	0	2	0	0	1
C-SHDR-EDGE	Shoulders - Edge of Shoulder	9	0	1	0	0	1
C-SHDR-EDGE-LT	Shoulders - Edge of Shoulder	9	0	1	0	0	1
C-SHDR-EDGE-RT	Shoulders - Edge of Shoulder	9	0	1	0	0	1
C-SHDR-NOTE	Shoulders - Notes	9	0	2	0	0	1
C-SHDR-PNTS	Shoulders - Points	9	0	1	0	0	1
C-SHDR-PTRN	Shoulders - Pattern	9	0	1	0	0	1
C-SHDR-SYMB	Shoulders - Symbols	9	0	1	0	0	1
C-SHDR-TEXT	Shoulders - Text	9	0	2	0	0	1
C-SHDR-WORK	Shoulders - User Work (Non-Plotting)	9	0	1	0	0	0
C-SITE-FENCE-W-IRON	Site - Wrought Iron Fence	250	0	3	0	0	1
C-SSWR	Sanitary Sewer	6	UT-S	5	0	0	1
C-SSWR-BERM	Sanitary Sewer - Berm for liquids retention	6	0	1	0	0	1
C-SSWR-CNTR	Sanitary Sewer - Centerline	6	0	1	0	0	1
C-SSWR-DIMS	Sanitary Sewer - Dimensions	6	0	2	0	0	1
C-SSWR-DUCT	Sanitary Sewer - Ducts and conduits (vacant) for future lines	6	0	1	0	0	1
C-SSWR-EQPM	Sanitary Sewer - Equipment and Pad	6	0	1	0	0	1
C-SSWR-GUYS	Sanitary Sewer - Guying equipment	6	0	1	0	0	1
C-SSWR-HYDR	Sanitary Sewer - Hydrants and Fire Department connections	6	0	1	0	0	1
C-SSWR-JBOX	Sanitary Sewer - Junction Box	6	0	1	0	0	1
C-SSWR-LINE	Sanitary Sewer - Lines	6	UT-S	5	0	0	1
C-SSWR-LINE-DBUR	Sanitary sewer - Direct Buried Underground Lines	6	UT-S	5	0	0	1
C-SSWR-LINE-OVHD	Sanitary Sewer - Overhead Lines	6	UT-S	5	0	0	1
C-SSWR-LINE-UNDR	Sanitary Sewer - Underground Lines	6	UT-S	5	0	0	1
C-SSWR-MARK	Sanitary Sewer - Cell - Above Ground Markers	6	0	1	0	0	1
C-SSWR-METR	Sanitary Sewer - Meters and instrumentation	6	0	1	0	0	1



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C-SSWR-MHOL	Sanitary Sewer - Manholes and junction boxes	6	0	1	0	0	1
C-SSWR-NOTE	Sanitary Sewer - Notes	6	0	2	0	0	1
C-SSWR-PERC	Sanitary Sewer - Perc	6	0	1	0	0	1
C-SSWR-PIPE	Sanitary Sewer - Piping	6	UT-S	5	0	0	1
C-SSWR-PIPE-PATT	Sanitary Sewer - Piping, Hatching	6	0	1	0	0	1
C-SSWR-PITS	Sanitary Sewer - Pits for vents, valves and other equipment	6	0	1	0	0	1
C-SSWR-PLNT	Sanitary Sewer - Plants, Pumping Stations, Storage Tanks and Reservoirs	6	0	1	0	0	1
C-SSWR-PNTS	Sanitary Sewer - Points	6	0	1	0	0	1
C-SSWR-POLE	Sanitary Sewer - Pole	6	0	1	0	0	1
C-SSWR-PROF	Sanitary Sewer - Profile	6	0	1	0	0	1
C-SSWR-PTRN	Sanitary Sewer - Pattern	6	0	1	0	0	1
C-SSWR-SEPT	Sanitary Sewer - Septic Tank	6	0	1	0	0	1
C-SSWR-SITE	Sanitary Sewer - Line - Site (Interior boundary)	6	0	1	0	0	1
C-SSWR-STRC	Sanitary Sewer - Structures	6	0	1	0	0	1
C-SSWR-STRC-PATT	Sanitary Sewer - Structures, Hatching	6	0	1	0	0	1
C-SSWR-SYMB	Sanitary Sewer - Symbols	6	0	1	0	0	1
C-SSWR-TEXT	Sanitary Sewer - Text	6	0	2	0	0	1
C-SSWR-TRCH	Sanitary Sewer - Fuel Line Trench	6	0	1	0	0	1
C-SSWR-WELL	Sanitary Sewer - Wells	6	0	1	0	0	1
C-SSWR-WORK	Sanitary Sewer - User Work (Non-Plotting)	6	0	1	0	0	0
C-SSWR-XFMR	Sanitary Sewer - Transformers	6	0	1	0	0	1
C-STRM	Storm Water Drainage	19	PIPE PROPOSED	5	0	0	1
C-STRM-AREA	Storm Water - Area	19	0	1	0	0	1
C-STRM-CHUT	Storm Water - Chutes and Energy dissipator	19	0	1	0	0	1
C-STRM-CHUT-PAVE	Storm Water - Paved energy dissipator	19	0	1	0	0	1
C-STRM-CHUT-ROCK	Storm Water - Rock energy dissipator	19	0	1	0	0	1
C-STRM-CNTR	Storm Water - Centerline	19	0	1	0	0	1
C-STRM-CULV	Storm Water - Culvert	19	PIPE PROPOSED	5	0	0	1



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C-STRM-CULV-BOXC	Storm Water - Culvert Box	19	PIPE PROPOSED	5	0	0	1
C-STRM-CULV-OPEN	Storm Water - Culvert Open	19	0	1	0	0	1
C-STRM-DETB	Storm Water - Detention Basins	19	0	1	0	0	1
C-STRM-DIMS	Storm Water - Dimensions	19	0	2	0	0	1
C-STRM-DTCH	Storm Water - Ditch	19	0	1	0	0	1
C-STRM-HDWL	Storm Water - Headwalls and End walls	19	0	1	0	0	1
C-STRM-INLT	Storm Water - Inlets (curb, surface, and catch basins)	19	0	1	0	0	1
C-STRM-MARK	Storm Water - Surface Markers/Signs	19	0	1	0	0	1
C-STRM-MHOL	Storm Water - Manhole	19	0	1	0	0	1
C-STRM-NOTE	Storm Water - Notes	19	0	2	0	0	1
C-STRM-PIPE	Storm Water - Pipe	19	PIPE PROPOSED	5	0	0	1
C-STRM-PIPE-ABOV	Storm Water - Piping, Above Ground	19	PIPE PROPOSED	5	0	0	1
C-STRM-PIPE-PATT	Storm Water - Piping, Hatching	19	PIPE PROPOSED	5	0	0	1
C-STRM-PIPE-TEMP	Storm Water - Piping, Temporary slope drainage	19	PIPE PROPOSED	5	0	0	1
C-STRM-PIPE-UNDR	Storm Water - Piping, Below Ground	19	PIPE PROPOSED	5	0	0	1
C-STRM-PNTS	Storm Water - Points	19	0	1	0	0	1
C-STRM-PROF	Storm Water - Profile	19	0	1	0	0	1
C-STRM-PTRN	Storm Water - Pattern	19	0	1	0	0	1
C-STRM-SCTN	Storm Water - Section	19	0	1	0	0	1
C-STRM-STRC	Storm Water - Structures	19	0	1	0	0	1
C-STRM-STRC-PATT	Storm Water - Structures, Hatching	19	0	1	0	0	1
C-STRM-SYMB	Storm Water - Symbols	19	0	1	0	0	1
C-STRM-TEXT	Storm Water - Text	19	0	2	0	0	1
C-STRM-WORK	Storm Water - User Work (Non-Plotting)	19	0	1	0	0	0
C-SURF	Surface - Parent Layer	92	0	1	0	0	1
C-SURF-BNDY	Surface - Boundary	92	0	1	0	0	1
C-SURF-BNDY-EXTR	Surface - Exterior Boundaries	92	0	1	0	0	1



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C-SURF-BNDY-INTR	Surface - Interior Boundaries	92	0	1	0	0	1
C-SURF-CONT	Surface - Contours	92	0	1	0	0	1
C-SURF-CONT-MAJR	Surface - Contours Major	92	1	1	0	0	1
C-SURF-CONT-MINR	Surface - Contours Minor	92	0	1	0	0	1
C-SURF-CONT-SPOT	Surface - Contours Spot Elevations	92	0	1	0	0	1
C-SURF-DIMS	Surface - Dimensions	92	0	2	0	0	1
C-SURF-ELEV	Surface - Triangle Elevations	92	0	1	0	0	1
C-SURF-FALT	Surface - Fault / Break lines	92	0	1	0	0	1
C-SURF-LN00	Surface - Line 00	92	0	1	0	0	1
C-SURF-NOTE	Surface - Notes	92	0	2	0	0	1
C-SURF-PMTR	Surface - Perimeter	92	0	1	0	0	1
C-SURF-PNTS	Surface - Points	92	0	1	0	0	1
C-SURF-PTRN	Surface - Pattern	92	0	1	0	0	1
C-SURF-ROCK	Surface - Rock	32	0	1	0	0	1
C-SURF-SLOP	Surface - Triangle Slopes	92	0	1	0	0	1
C-SURF-SYMB	Surface - Symbols	92	0	1	0	0	1
C-SURF-TEXT	Surface - Text	92	0	2	0	0	1
C-SURF-TRIA	Surface - Triangles	92	0	1	0	0	1
C-SURF-WORK	Surface - User Work (Non-Plotting)	92	0	1	0	0	0
C-SURV	Survey Control Points	7	0	1	0	0	1
C-SURV-CTPT	Survey Control Points - Proposed survey control points	7	0	1	0	0	1
C-SURV-DIMS	Survey Control Points - Dimensions	7	0	2	0	0	1
C-SURV-NOTE	Survey Control Points - Notes	7	0	2	0	0	1
C-SURV-PNTS	Survey Control Points - Points	7	0	1	0	0	1
C-SURV-PTRN	Survey Control Points - Pattern	7	0	1	0	0	1
C-SURV-SYMB	Survey Control Points - Symbols	7	0	1	0	0	1
C-SURV-TEXT	Survey Control Points - Text	7	0	2	0	0	1
C-SURV-WORK	Survey Control Points - User Work (Non-Plotting)	7	0	1	0	0	0
C-SWLK	Sidewalks	26	0	1	0	0	1
C-SWLK-DIMS	Sidewalks - Dimensions	26	0	2	0	0	1
C-SWLK-EDGE	Sidewalks - Edge of	26	0	1	0	0	1



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C-SWLK-EDGE-LT	Sidewalks - Edge of	26	0	1	0	0	1
C-SWLK-EDGE-RT	Sidewalks - Edge of	26	0	1	0	0	1
C-SWLK-NOTE	Sidewalks - Notes	26	0	2	0	0	1
C-SWLK-PNTS	Sidewalks - Points	26	0	1	0	0	1
C-SWLK-PTRN	Sidewalks - Pattern	26	0	1	0	0	1
C-SWLK-RAMP	Sidewalks - Handicap Ramp	26	0	1	0	0	1
C-SWLK-SYMB	Sidewalks - Symbols	26	0	1	0	0	1
C-SWLK-TEXT	Sidewalks - Text	26	0	2	0	0	1
C-SWLK-UNDR	Sidewalks - UNDER	26	0	1	0	0	1
C-SWLK-WORK	Sidewalks - User Work (Non-Plotting)	26	0	1	0	0	0
C-TELP	Telephone	30	UT-T	4	0	0	1
C-TELP-BERM	Telephone - Berm for Liquids Retention	30	0	1	0	0	1
C-TELP-DIMS	Telephone - Dimensions	30	0	2	0	0	1
C-TELP-DUCT	Telephone - Ducts and Conduits (vacant) for future lines	30	0	1	0	0	1
C-TELP-EQPM	Telephone - Equipment and Pad	30	0	1	0	0	1
C-TELP-GUYS	Telephone - Guying Equipment	30	0	1	0	0	1
C-TELP-HYDR	Telephone - Hydrants and Fire Department Connections	30	0	1	0	0	1
C-TELP-JBOX	Telephone - Junction Box	30	0	1	0	0	1
C-TELP-LINE	Telephone - Lines	30	UT-T	4	0	0	1
C-TELP-LINE-DBUR	Telephone - Direct Buried Underground Lines	30	UT-TU	4	0	0	1
C-TELP-LINE-OVHD	Telephone - Overhead Lines	30	UT-T	4	0	0	1
C-TELP-LINE-UNDR	Telephone - Underground Lines	30	UT-TU	4	0	0	1
C-TELP-MARK	Telephone - Cell - Above Ground Markers	30	0	1	0	0	1
C-TELP-METR	Telephone - Meters and instrumentation	30	0	1	0	0	1
C-TELP-MHOL	Telephone - Manholes and junction boxes	30	0	1	0	0	1
C-TELP-NOTE	Telephone - Notes	30	0	2	0	0	1
C-TELP-PERC	Telephone - Perc Test Holes and Pits	30	0	1	0	0	1
C-TELP-PITS	Telephone - Pits for vents, valves and other equipment	30	0	1	0	0	1
C-TELP-PLNT	Telephone - Plants, pumping stations, storage tanks and reservoirs	30	0	1	0	0	1



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C-TELP-PNTS	Telephone - Points	30	0	1	0	0	1
C-TELP-POLE	Telephone - Pole	30	0	1	0	0	1
C-TELP-PTRN	Telephone - Pattern	30	0	1	0	0	1
C-TELP-SITE	Telephone - Line - Site (Interior boundary)	30	0	1	0	0	1
C-TELP-SYMB	Telephone - Symbols	30	0	1	0	0	1
C-TELP-TEXT	Telephone - Text	30	0	2	0	0	1
C-TELP-TRCH	Telephone - Fuel line trench	30	0	1	0	0	1
C-TELP-WELL	Telephone - Wells	30	0	1	0	0	1
C-TELP-WORK	Telephone - User Work (Non-Plotting)	30	0	1	0	0	0
C-TELP-XFMR	Telephone - Transformers	30	0	1	0	0	1
C-TINN	Triangulated Irregular Network	17	0	1	0	0	1
C-TINN-BNDY	Triangulated Irregular Network - Boundary	17	0	1	0	0	1
C-TINN-VIEW	Triangulated Irregular Network - Triangle View	17	0	1	0	0	1
C-TOPO	Topography	11	0	1	0	0	1
C-TOPO-BKLN	Topography - Break lines	11	0	1	0	0	1
C-TOPO-BLBD-DBBL	Topography - Billboard Double	11	0	1	0	0	1
C-TOPO-BLBD-SNGL	Topography - Billboard Single	11	0	1	0	0	1
C-TOPO-CUTT	Topography - Cut	11	CUT	1	0	0	1
C-TOPO-DIMS	Topography - Dimensions	11	0	2	0	0	1
C-TOPO-FEAT	Topography - Featureline	11	0	1	0	0	1
C-TOPO-FENC	Topography - Fence	11	FENCE	1	0	0	1
C-TOPO-FILL	Topography - Fill	11	FILL	1	0	0	1
C-TOPO-GRAD	Topography - Grading	11	0	1	0	0	1
C-TOPO-GRAD-CUTS	Topography - Grading Cut Material	11	CUT	1	0	0	1
C-TOPO-GRAD-FILL	Topography - Grading Fill Material	11	FILL	1	0	0	1
C-TOPO-GRAD-TEXT	Topography - Grading Annotation	11	0	2	0	0	1
C-TOPO-MAJR	Topography - Major Contours, Proposed	11	0	2	0	0	1
C-TOPO-MAJR-PROP	Topography: major contours, proposed	11	0	2	0	0	1
C-TOPO-MINR	Topography - Minor Contours, Proposed	11	0	1	0	0	1
C-TOPO-MINR-PROP	Topography - Minor Contours, Proposed	11	0	2	0	0	1
C-TOPO-NOTE	Topography - Notes	11	0	2	0	0	1
C-TOPO-PNTS	Topography - Points	11	0	1	0	0	1



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C-TOPO-PTRN	Topography - Pattern	11	0	1	0	0	1
C-TOPO-SURF	Topography - Surface	11	0	1	0	0	1
C-TOPO-SURF-TEXT	Topography - Surface Annotation	11	0	2	0	0	1
C-TOPO-SYMB	Topography - Symbols	11	0	1	0	0	1
C-TOPO-TEXT	Topography - Text	11	0	2	0	0	1
C-TOPO-USER	Topography - User Contours	11	0	1	0	0	1
C-TOPO-WORK	Topography - User Work (Non-Plotting)	11	0	1	0	0	0
C-TOPO-WSHD	Topography - Watershed	11	0	1	0	0	1
C-TOPO-WSHD-TEXT	Topography - Watershed Text	11	0	2	0	0	1
C-TRAL	Trails or Paths	7	0	1	0	0	1
C-TRAL-DIMS	Trails - Dimensions	7	0	2	0	0	1
C-TRAL-EDGE	Trails - Edge of	7	0	1	0	0	1
C-TRAL-EDGE-LT	Trails - Edge of	7	0	1	0	0	1
C-TRAL-EDGE-RT	Trails - Edge of	7	0	1	0	0	1
C-TRAL-LINE	Trails - Lines	7	0	1	0	0	1
C-TRAL-NOTE	Trails - Notes	7	0	2	0	0	1
C-TRAL-PNTS	Trails - Points	7	0	1	0	0	1
C-TRAL-PTRN	Trails - Pattern	7	0	1	0	0	1
C-TRAL-SYMB	Trails - Symbols	7	0	1	0	0	1
C-TRAL-TEXT	Trails - Text	7	0	2	0	0	1
C-TRAL-WORK	Trails - User Work (Non-Plotting)	7	0	1	0	0	0
C-UTIL	Utility	52	0	1	0	0	1
C-UTIL-BERM	Utility - Berm for Liquids Retention	52	0	1	0	0	1
C-UTIL-COMB	Utility - Combined	52	0	1	0	0	1
C-UTIL-CONFLICT	Utility - Conflict	52	0	1	0	0	1
C-UTIL-DIMS	Utility - Dimensions	52	0	2	0	0	1
C-UTIL-DUCT	Utility - Ducts and Conduits (vacant) for future lines	52	0	1	0	0	1
C-UTIL-EQPM	Utility - Equipment and Pad	52	0	1	0	0	1
C-UTIL-GUYS	Utility - Guying equipment	52	0	1	0	0	1
C-UTIL-HYDR	Utility - Hydrants and Fire Department Connections	52	0	1	0	0	1
C-UTIL-JBOX	Utility - Junction Box	52	0	1	0	0	1



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C-UTIL-LINE	Utility - Lines	52	0	1	0	0	1
C-UTIL-LINE-DBUR	Utility - Direct Buried Underground Lines	52	0	1	0	0	1
C-UTIL-LINE-OHVD	Utility - Overhead Lines	52	0	1	0	0	1
C-UTIL-LINE-OVHD	Utility - Overhead Lines	52	0	1	0	0	1
C-UTIL-LINE-UNDR	Utility - Underground Lines	52	0	1	0	0	1
C-UTIL-MARK	Utility - Cell - Above Ground Markers	52	0	1	0	0	1
C-UTIL-METR	Utility - Meters and instrumentation	52	0	1	0	0	1
C-UTIL-MHOL	Utility - Manholes and junction boxes	52	0	1	0	0	1
C-UTIL-NOTE	Utility - Notes	52	0	2	0	0	1
C-UTIL-PERC	Utility - Perc Test Holes and Pits	52	0	1	0	0	1
C-UTIL-PITS	Utility - Pits for vents, valves and other equipment	52	0	1	0	0	1
C-UTIL-PLNT	Utility - Plants, Pumping Stations, Storage Tanks and Reservoirs	52	0	1	0	0	1
C-UTIL-PNTS	Utility - Points	52	0	1	0	0	1
C-UTIL-POLE	Utility - Pole	52	0	1	0	0	1
C-UTIL-PTRN	Utility - Pattern	52	0	1	0	0	1
C-UTIL-SITE	Utility - Line - Site (Interior boundary)	52	0	1	0	0	1
C-UTIL-SSWR-PIPE	Utility -Sanitary Sewer Pipe	52	0	1	0	0	1
C-UTIL-SYMB	Utility - Symbols	52	0	1	0	0	1
C-UTIL-TEXT	Utility - Text	52	0	2	0	0	1
C-UTIL-TRCH	Utility - Fuel Line Trench	52	0	1	0	0	1
C-UTIL-VLVE	Utility - Valve	52	0	1	0	0	1
C-UTIL-WELL	Utility - Wells	52	0	1	0	0	1
C-UTIL-WORK	Utility - User Work (Non-Plotting)	52	0	1	0	0	0
C-UTIL-XFMR	Utility - Transformers	52	0	1	0	0	1
C-WALL	Wall	164	0	1	0	0	1
C-WALL-BARR	Wall - Barrier WALL	164	0	1	0	0	1
C-WALL-CTLJ	Wall - Control Joints	164	0	1	0	0	1
C-WALL-DIMS	Wall - Dimensions	164	0	2	0	0	1
C-WALL-NOTE	Wall - Notes	164	0	2	0	0	1
C-WALL-NSBR	Wall - Noise Barrier	164	0	1	0	0	1
C-WALL-PNTS	Wall - Points	164	0	1	0	0	1



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C-WALL-PTRN	Wall - Pattern	164	0	1	0	0	1
C-WALL-RTWL	Wall - Retaining	164	0	1	0	0	1
C-WALL-SHEA	Wall - Structural Bearing or Shear	164	0	1	0	0	1
C-WALL-STON	Wall - Stone Wall	164	0	1	0	0	1
C-WALL-SYMB	Wall - Symbols	164	0	1	0	0	1
C-WALL-TEXT	Wall - Text	164	0	2	0	0	1
C-WALL-WORK	Wall - User Work (Non-Plotting)	164	0	1	0	0	0
C-WATR	Water	2	UT-W	4	0	0	1
C-WATR-APPT	Water - Appurtenances	2	0	1	0	0	1
C-WATR-APPT-PATT	Water - Appurtenances, Hatching	2	0	1	0	0	1
C-WATR-BERM	Water - Berm for Liquids Retention	2	0	1	0	0	1
C-WATR-CNTR	Water - Centerline	2	0	1	0	0	1
C-WATR-DIMS	Water - Dimensions	2	0	2	0	0	1
C-WATR-DUCT	Water - Ducts and Conduits (vacant) for future lines	2	0	1	0	0	1
C-WATR-EQPM	Water - Equipment and Pad	2	0	1	0	0	1
C-WATR-FITT	Water - Fittings	2	0	1	0	0	1
C-WATR-FITT-PATT	Water - Fittings, Hatching	2	0	1	0	0	1
C-WATR-GUYS	Water - Guying Equipment	2	0	1	0	0	1
C-WATR-HYDR	Water - Hydrants and Fire Department Connections	2	0	1	0	0	1
C-WATR-JBOX	Water - Junction Box	2	0	1	0	0	1
C-WATR-LINE	Water - Lines	2	UT-W	4	0	0	1
C-WATR-LINE-DBUR	Water - Direct Buried Underground Lines	2	UT-W	4	0	0	1
C-WATR-LINE-OVHD	Water - Overhead Lines	2	UT-W	4	0	0	1
C-WATR-LINE-UNDR	Water - Underground Lines	2	UT-W	4	0	0	1
C-WATR-MARK	Water - Cell - Above Ground Markers	2	0	1	0	0	1
C-WATR-METR	Water - Meters and instrumentation	2	0	1	0	0	1
C-WATR-MHOL	Water - Manholes and junction boxes	2	0	1	0	0	1
C-WATR-NOTE	Water - Notes	2	0	2	0	0	1
C-WATR-PERC	Water - Perc Test Holes and Pits	2	0	1	0	0	1
C-WATR-PIPE	Water - Pressure Pipe	2	UT-W	4	0	0	1
C-WATR-PIPE-PATT	Water - Pressure Pipe, Hatching	2	0	1	0	0	1



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C-WATR-PITS	Water - Pits for Vents, Valves and other equipment	2	0	1	0	0	1
C-WATR-PLNT	Water - Plants, Pumping Stations, Storage Tanks and Reservoirs	2	0	1	0	0	1
C-WATR-PNTS	Water - Points	2	0	1	0	0	1
C-WATR-POLE	Water - Pole	2	0	1	0	0	1
C-WATR-PROF	Water - Profile	2	0	1	0	0	1
C-WATR-PTRN	Water - Pattern	2	0	1	0	0	1
C-WATR-SCTN	Water - Section	2	0	1	0	0	1
C-WATR-SITE	Water - Line - Site (Interior boundary)	2	0	1	0	0	1
C-WATR-SYMB	Water - Symbols	2	0	1	0	0	1
C-WATR-TEXT	Water - Text	2	0	2	0	0	1
C-WATR-TRCH	Water - Fuel Line Trench	2	0	1	0	0	1
C-WATR-WELL	Water - Wells	2	0	1	0	0	1
C-WATR-WORK	Water - User Work (Non-Plotting)	2	0	1	0	0	0
C-WATR-XFMR	Water - Transformers	2	0	1	0	0	1
C-WETL	Wetlands	120	WETLAND	1	0	0	1
C-WETL-BOGS	Wetlands - Bogs	120	0	1	0	0	1
C-WETL-DIMS	Wetlands - Dimensions	120	0	2	0	0	1
C-WETL-MRSH	Wetlands - Marshes	120	WETLAND	1	0	0	1
C-WETL-NOTE	Wetlands - Notes	120	0	2	0	0	1
C-WETL-OTLN	Wetlands - Outline	120	WETLAND	1	0	0	1
C-WETL-PNTS	Wetlands - Points	120	0	1	0	0	1
C-WETL-PTRN	Wetlands - Pattern	120	0	1	0	0	1
C-WETL-SYMB	Wetlands - Symbols	120	0	1	0	0	1
C-WETL-TEXT	Wetlands - Text	120	0	2	0	0	1
C-WETL-WORK	Wetlands - User Work (Non-Plotting)	120	0	1	0	0	0
C-XSEC	Cross Section	7	0	1	0	0	1
C-XSEC-AXIS	Cross Section -Axis	7	0	1	0	0	1
C-XSEC-AXIS-TEXT	Cross Section - Axis - Text	7	0	2	0	0	1
C-XSEC-AXIS-TITL	Cross Section - Axis - Title	7	0	1	0	0	1
C-XSEC-CELL	Cross Section - Cells	7	0	1	0	0	1
C-XSEC-DIMS	Cross Section - Dimensions	7	0	2	0	0	1



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C-XSEC-FRAM	Cross Section - Frame	7	0	1	0	0	1
C-XSEC-GRID	Cross Section - Grid	7	0	1	0	0	1
C-XSEC-GRID-BLTX	Cross Section - Grid - Base Line Text	7	0	1	0	0	1
C-XSEC-GRID-CLTX	Cross Section - Grid - Center Line Text	7	0	1	0	0	1
C-XSEC-GRID-HVGL	Cross Section - Grid - Center Line Text	7	0	1	0	0	1
C-XSEC-GRID-MAJR	Cross Section - Grid major lines	7	0	1	0	0	1
C-XSEC-GRID-MINR	Cross Section - Grid minor lines	7	0	1	0	0	1
C-XSEC-LINE	Cross Section - Lines	7	0	1	0	0	1
C-XSEC-NAME	Cross Section - Name	7	0	1	0	0	1
C-XSEC-NAME-TEXT	Cross Section - Name Text	7	0	2	0	0	1
C-XSEC-NOTE	Cross Section - Notes	7	0	2	0	0	1
C-XSEC-PNTS	Cross Section - Points	7	0	1	0	0	1
C-XSEC-PTRN	Cross Section - Pattern	7	0	1	0	0	1
C-XSEC-SYMB	Cross Section - Symbols	7	0	1	0	0	1
C-XSEC-TEXT	Cross Section - Text	7	0	2	0	0	1
C-XSEC-WORK	Cross Section - User Work (Non-Plotting)	7	0	1	0	0	0
DEFAULT	Default	0	0	2	0	0	1
DEFPOINTS	System Layer - DO NOT USE! (Non-Plotting)	7	0	1	0	0	0
DRAFT_CORR_DESIGN	Draft Corridor Design	3	0	1	0	0	1
DRAFT_CORR_END COND EXCEPTION	Draft Corridor End Cond Exception	3	0	1	0	0	1
DRAFT_CORR_KEY STATION	Draft Corridor Key Station	3	0	1	0	0	1
DRAFT_CORR_POINT CONTROL	Draft Corridor Point Control	3	0	1	0	0	1
DRAFT_CORR_RANGE_DESIGN	Draft Corridor Design	3	0	1	0	0	1
DRAFT_CORR_SECONDARY ALIGNMENT	Draft Corridor Secondary Alignment	3	0	1	0	0	1
DRAFT_CORR_SUPERELEVATION LEFT LANE	Draft Corridor Superelevation Left Lane	3	0	1	0	0	1
DRAFT_CORR_SUPERELEVATION RIGHT LANE	Draft Corridor Superelevation Right Lane	3	0	1	0	0	1



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DRAFT_CORR_TEMPLATEDROP_DESIGN	Draft Corridor Template Drop Design	3	0	1	0	0	1
DRAFT_CORR_TEMPLATEDROP_FINAL	Draft Corridor Template Drop Final	3	0	1	0	0	1
DRAFT_CORR_TRANSITION_DESIGN	Draft Corridor Transition Design	3	0	1	0	0	1
DRAFT_CORR_TRANSITION_FINAL	Draft Corridor Transition Final	3	0	1	0	0	1
DRAFT_NAMED_BOUNDARY	Draft Named Boundary	5	0	1	0	0	1
DRAFT_PLAN_LABELS	Draft Plan Labels	12	0	1	0	0	1
DRAFT_PROFILE_GRID	Draft Profile Grid	12	0	1	0	0	1
DRAFT_SHEET_TEXT	Draft Sheet Text	0	0	1	0	0	1
DRAFT_SIGHT_ACHIEVED	Draft Sight Achieved	42	0	1	0	0	1
DRAFT_SIGHT_NOT ACHIEVED	Draft Sight Not Achieved	42	0	1	0	0	1
DRAFT_SIGHT_RELAXED	Draft Sight Relaxed	42	0	1	0	0	1
DRAFT_SURVEY FIELD CODE	Draft Survey Field Code	88	0	1	0	0	1
DRAFT_SURVEY POINT DESCRIPTION	Draft Survey Point Description	88	0	1	0	0	1
DRAFT_SURVEY POINT ELEVATION	Draft Survey Point Elevation	88	0	1	0	0	1
DRAFT_SURVEY POINT NAME	Draft Survey Point Name	88	0	1	0	0	1
DRAFT_SURVEY TOPO LABEL	Draft Survey Topo Label	88	0	1	0	0	1
DRAFT_XS_DYNAMIC_VIEW_LABELS	Draft XS_Dynamic_View Labels	0	0	1	0	0	1
DRAIN_AQUAPLANING ACCEPTABLE RISK	Drainage Aquaplaning AcceptableRisk	9	0	1	0	0	1
DRAIN_AQUAPLANING FLOWLINE	Drainage Aquaplaning Flowline	9	0	1	0	0	1



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DRAIN_AQUAPLANING HIGH RISK	Drainage Aquaplaning HighRisk	9	0	1	0	0	1
DRAIN_AQUAPLANING LOW RISK	Drainage Aquaplaning LowRisk	9	0	1	0	0	1
DRAIN_AQUAPLANING SURFACE	Drainage Aquaplaning Surface	9	0	1	0	0	1
DRAIN_AQUAPLANING UNACCEPTABLE RISK	Drainage Aquaplaning UnacceptableRisk	9	0	1	0	0	1
DRAIN_GRADE_FIXED_TIE	Drainage Grade_Fixed Tie	77	0	1	0	0	1
DRAIN_LOW POINT	Drainage Low Point	77	0	1	0	0	1
DRAIN_POND	Drainage Pond	77	0	1	0	0	1
DRAIN_TRACE	Drainage Trace	77	0	1	0	0	1
E_BRIDGE	Bridge Existing Bridge	89	0	1	0	0	1
E_BUILDING	Building Existing Building	222	0	1	0	0	1
E_BUILDING_FOUNDATION	Building Existing Foundation	222	0	1	0	0	1
E_GEOM_OBSERVATIONS	Geometric Existing Observations	0	0	1	0	0	1
E_GEOM_SURVEYCONTROL	Geometric Existing Survey Control	0	0	1	0	0	1
E_RAIL_TRACK	Railroad Existing Track	0	0	1	0	0	1
E_ROAD_CENTERLINE	Roadway- Existing Centerline	123	0	1	0	0	1
E_ROAD_CURB	Roadway- Existing Curb	56	0	1	0	0	1
E_ROAD_CURB_BACK	Roadway- Existing Back	56	0	1	0	0	1
E_ROAD_CURB_FACE	Roadway- Existing Face	56	0	1	0	0	1
E_ROAD_CURB_FLOWLINE	Roadway- Existing Flowline	56	0	1	0	0	1
E_ROAD_EDGEOPAVEMENT	Roadway- Existing Edge O pavement	56	0	1	0	0	1
E_ROAD_LANEEDGE	Roadway- Existing Lane Edge	56	0	1	0	0	1
E_ROAD_SAMPLEPOINT	Roadway- Existing Sample Point	56	0	1	0	0	1
E_ROAD_SHOULDER	Roadway- Existing Shoulder	56	0	1	0	0	1
E_ROAD_SIDEWALK	Roadway- Existing Sidewalk	56	0	1	0	0	1
E_ROAD_SIDEWALK_BACK	Roadway- Existing Back	56	0	1	0	0	1
E_ROAD_SIDEWALK_FRONT	Roadway- Existing Front	56	0	1	0	0	1



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E_TERRAIN_BANK	Terrain - Existing Bank	144	0	1	0	0	1
E_TERRAIN_DITCHBOTTOMBACK	Terrain - Existing Ditch Bottom Back	144	0	1	0	0	1
E_TERRAIN_DITCHBOTTOMFRONT	Terrain - Existing Ditch Bottom Front	144	0	1	0	0	1
E_TERRAIN_DITCHTOP	Terrain - Existing Ditch Top	144	0	1	0	0	1
E_TERRAIN_FENCE	Terrain - Existing Fence	144	0	1	0	0	1
E_TERRAIN_FLOWLINE	Terrain - Existing Flowline	144	0	1	0	0	1
E_TERRAIN_POND	Terrain - Existing Pond	144	0	1	0	0	1
E_TERRAIN_RIDGELINE	Terrain - Existing Ridgeline	144	0	1	0	0	1
E_TERRAIN_SLOPE	Terrain - Existing Slope	144	0	1	0	0	1
E_TERRAIN_TREELINE	Terrain - Existing TreeLine	144	0	1	0	0	1
E-CATV	Cable TV	82	1	1	0	0	1
E-CATV-CLM	Cable TV - Cable Line Marker	82	1	1	0	0	1
E-CATV-CPED	Cable TV - Cable Pedestal	82	1	1	0	0	1
E-CATV-MOC	Cable TV - MOC	82	1	1	0	0	1
E-CATV-MRKOUT	Cable TV - Markout	82	1	1	0	0	1
E-CATV-STRC	Cable TV - Structure	82	1	1	0	0	1
E-CATV-STRC-MHC	Cable TV - Structure Manhole Cover	82	1	1	0	0	1
E-CATV-TRAY	Cable TV - Tray	82	1	1	0	0	1
E-COMM	Communications	128	1	1	0	0	1
E-COMM-MOT	Communications - Markout	128	1	1	0	0	1
E-COMM-STRC	Communications - Structure	128	1	1	0	0	1
E-COMM-STRC-MHT	Communications - Structure Manhole Cover	128	1	1	0	0	1
E-COMM-STRC-TELPED	Communications - Structure Telephone Pedestal	128	1	1	0	0	1
E-COMM-TLM	Communications - Telephone Line Marker	128	1	1	0	0	1
FENCE-WROUGHT-IRON	Wrought Iron Fence	94	1	1	0	0	1
G-ANNO-NPLT	Annotation - No Plot (Non-Plotting)	1	0	1	0	1	0
G-ANNO-STMP	Annotation - Stamp	1	1	1	0	0	1
G-ANNO-SYMB	Annotation - Symbol	1	1	1	0	0	1
G-ANNO-TEXT	Annotation - Text	1	1	1	0	0	1
G-ANNO-TTBL	Annotation - Title Bloc	1	1	1	0	0	1



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GEOM_CIVIL_CELL_CONTROL	Geometric - Civil Cell Control	0	1	1	0	0	1
GRADE_FINISHED	Profile Finished Grade	0	1	1	0	0	1
INTERSECTING_PROFILE	Profile-Intersecting Profiles	0	1	1	0	0	1
MATCHLINE	Sheet Matchline	0	1	1	0	0	1
ROAD_DRIVEWAY	Roadway- Driveway	0	1	1	0	0	1
ROAD-BARRIER	Road- Barrier	0	0	1	0	0	1
ROAD-GUARDRAIL	Roadway- Guiderail	253	0	1	0	0	1
ROAD-JERSEY BARRIER	Roadway- Jersey Barrier	0	0	1	0	0	1
S-ABUT	Abutment	18	0	1	0	0	1
S-ABUT-CNTR	Abutment - Centerlines	18	4	1	0	0	1
S-ABUT-CONC	Abutment - Concrete Lines	18	0	2	0	0	1
S-ABUT-DRAN	Abutment - Drainage	18	0	2	0	0	1
S-ABUT-DRAN-EXST	Abutment - Existing Drainage	18	0	1	0	0	1
S-ABUT-EXST-CONC	Abutment - Existing Concrete	18	0	1	0	0	1
S-ABUT-EXST-REBR	Abutment - Existing Rebar	18	2	2	0	0	1
S-ABUT-HATC	Abutment - Hatching	18	0	1	0	0	1
S-ABUT-HIDL	Abutment - Hidden Line	18	2	1	0	0	1
S-ABUT-MISC	Abutment - Miscellaneous	18	0	1	0	0	1
S-ABUT-PILE	Abutment - Piling	18	0	1	0	0	1
S-ABUT-PTRN-01	Abutment - Patterning	18	0	1	0	0	1
S-ABUT-PTRN-02	Abutment - Patterning	18	0	1	0	0	1
S-ABUT-REBR	Abutment - Rebar	18	0	3	0	0	1
S-ABUT-WORK	Abutment - User Work / Scratch (Non-Plotting)	18	0	1	0	0	0
S-ANNO	Annotation	1	0	1	0	0	1
S-ANNO-ATAB	Annotation - Auto Tab Import	1	0	1	0	0	1
S-ANNO-CELL	Annotation - Misc. Cells	1	0	1	0	0	1
S-ANNO-DIMS-AUTO	Annotation - Automatic Dimensioning	1	0	1	0	0	1
S-ANNO-DIMS-MANL	Annotation - Dimensions, Extension Lines & Arrows	1	0	1	0	0	1
S-ANNO-SCAL-01	Annotation - Barscale Cells	1	0	2	0	0	1
S-ANNO-SCAL-02	Annotation - Barscale Cells	1	0	2	0	0	1



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S-ANNO-SCAL-03	Annotation - Barscale Cells	1	0	2	0	0	1
S-ANNO-SEAL	Annotation - PE Seal	1	0	2	0	0	1
S-ANNO-SHTS	Annotation - Sheet Cells	1	0	1	0	0	1
S-ANNO-SYMB	Annotation - Symbols (cells)	1	0	2	0	0	1
S-ANNO-TABL	Annotation - Tables	1	0	1	0	0	1
S-ANNO-TEXT-EXST	Annotation - Text - Existing	1	0	1	0	0	1
S-ANNO-WORK	Annotation - Annotation User Work / Scratch (Non-Plotting)	1	0	1	0	0	0
S-ANNO-XMRK	Annotation - Cross Section Marks	1	0	1	0	0	1
S-APSL	Approach Slab	18	0	1	0	0	1
S-APSL-CNTR	Approach Slab - Centerlines	18	4	1	0	0	1
S-APSL-CONC	Approach Slab - Concrete Lines	18	0	2	0	0	1
S-APSL-EXST-CONC	Approach Slab - Existing Concrete	18	0	1	0	0	1
S-APSL-EXST-REBR	Approach Slab - Existing Rebar	18	0	1	0	0	1
S-APSL-HATC	Approach Slab - Hatching	18	0	1	0	0	1
S-APSL-HIDL	Approach Slab - Hidden Line	18	2	1	0	0	1
S-APSL-MISC	Approach Slab - Miscellaneous	18	0	1	0	0	1
S-APSL-PTRN-01	Approach Slab - Patterning	18	0	1	0	0	1
S-APSL-PTRN-02	Approach Slab - Patterning	18	0	1	0	0	1
S-APSL-REBR-01	Approach Slab - Rebar	18	0	3	0	0	1
S-APSL-REBR-02	Approach Slab - Rebar	18	0	3	0	0	1
S-APSL-WORK	Approach Slab - User Work / Scratch (Non-Plotting)	18	0	1	0	0	0
SAWCUT_LINE	Roadway- SawCut line	0	0	1	0	0	1
S-BEAM	Beam	7	0	1	0	0	1
S-BEAM-BEAR	Beam - Bearings	7	0	1	0	0	1
S-BEAM-CNTR	Beam - Centerlines	7	4	1	0	0	1
S-BEAM-CONC	Beam - Concrete Lines	7	0	2	0	0	1
S-BEAM-EXST-CONC	Beam - Existing Concrete	7	0	1	0	0	1
S-BEAM-EXST-REBR	Beam - Existing Rebar	7	0	2	0	0	1
S-BEAM-HATC	Beam - Hatching	7	0	1	0	0	1
S-BEAM-HIDL	Beam - Hidden Line	7	2	1	0	0	1
S-BEAM-MISC	Beam - Miscellaneous	7	0	1	0	0	1



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S-BEAM-PTRN-01	Beam - Patterning	7	0	1	0	0	1
S-BEAM-PTRN-02	Beam - Patterning	7	0	1	0	0	1
S-BEAM-REBR	Beam - Rebar	7	0	3	0	0	1
S-BEAM-STEL	Beam - Steel (non-rebar)	7	0	1	0	0	1
S-BEAM-STRD	Beam - Strand	7	0	1	0	0	1
S-BEAM-WORK	Beam - User Work / Scratch (Non-Plotting)	7	0	1	0	0	0
S-BRDG	Bridge	2	0	1	0	0	1
S-BRDG-BARR	Bridge - Barrier	2	0	2	0	0	1
S-BRDG-BORE	Bridge - Core Boring	2	0	1	0	0	1
S-BRDG-EROS	Bridge - Erosion & Sediment Controls	2	0	1	0	0	1
S-BRDG-EXCA-01	Bridge - Excavation 01	2	0	3	0	0	1
S-BRDG-EXCA-02	Bridge - Excavation 02	2	0	3	0	0	1
S-BRDG-EXCA-03	Bridge - Excavation 03	2	0	3	0	0	1
S-BRDG-GRAL	Bridge - Guide Rail	2	0	1	0	0	1
S-BRDG-LITE	Bridge - Lighting	2	0	1	0	0	1
S-BRDG-MISC-01	Bridge - Miscellaneous 01	2	0	1	0	0	1
S-BRDG-MISC-02	Bridge - Miscellaneous 02	2	0	1	0	0	1
S-BRDG-MISC-03	Bridge - Miscellaneous 03	2	0	1	0	0	1
S-BRDG-REVI	Bridge - Revisions	2	0	1	0	0	1
S-BRDG-SHOR	Bridge - Shoring	2	0	4	0	0	1
S-BRDG-WORK	Bridge - Bridge User Work / Scratch (Non-Plotting)	2	0	1	0	0	0
S-DECK	Deck	144	0	1	0	0	1
S-DECK-CNTR	Deck - Centerlines	144	4	1	0	0	1
S-DECK-CONC	Deck - Concrete Lines	144	0	2	0	0	1
S-DECK-DRAN	Deck - Drainage - Proposed	144	0	1	0	0	1
S-DECK-DRAN-EXST	Deck - Drainage - Existing	144	0	1	0	0	1
S-DECK-EXDM	Deck - Expansion Dams	144	0	1	0	0	1
S-DECK-EXST-CONC	Deck - Existing Concrete	144	0	1	0	0	1
S-DECK-EXST-REBR	Deck - Existing Rebar	144	0	2	0	0	1
S-DECK-HATC	Deck - Hatching	144	0	1	0	0	1
S-DECK-HIDL	Deck - Hidden Line	144	2	1	0	0	1
S-DECK-MISC	Deck - Miscellaneous	144	0	1	0	0	1



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S-DECK-PTRN-01	Deck - Patterning	144	0	1	0	0	1
S-DECK-PTRN-02	Deck - Patterning	144	0	1	0	0	1
S-DECK-REBR-01	Deck - Rebar	144	0	3	0	0	1
S-DECK-REBR-02	Deck - Rebar	144	0	3	0	0	1
S-DECK-WORK	Deck - User Work / Scratch (Non-Plotting)	144	0	1	0	0	0
S-FOOT	Footing	167	0	1	0	0	1
S-FOOT-CNTR	Footing - Centerlines	167	4	1	0	0	1
S-FOOT-CONC	Footing - Concrete Lines	167	0	2	0	0	1
S-FOOT-EXST-CONC	Footing - Existing Concrete	167	0	1	0	0	1
S-FOOT-EXST-REBR	Footing - Existing Rebar	167	0	2	0	0	1
S-FOOT-HATC	Footing - Hatching	167	0	1	0	0	1
S-FOOT-HIDL	Footing - Hidden Line	167	2	1	0	0	1
S-FOOT-MISC	Footing - Miscellaneous	167	0	1	0	0	1
S-FOOT-PILE	Footing - Piling	167	0	1	0	0	1
S-FOOT-PTRN-01	Footing - Patterning	167	0	1	0	0	1
S-FOOT-PTRN-02	Footing - Patterning	167	0	1	0	0	1
S-FOOT-REBR-01	Footing - Rebar	167	0	3	0	0	1
S-FOOT-REBR-02	Footing - Rebar	167	0	3	0	0	1
S-FOOT-WORK	Footing - User Work / Scratch (Non-Plotting)	167	0	1	0	0	0
S-PIER	Pier	164	0	1	0	0	1
S-PIER-CNTR	Pier - Centerlines	164	4	1	0	0	1
S-PIER-CONC	Pier - Concrete Lines	164	0	2	0	0	1
S-PIER-EXST-CONC	Pier - Existing Concrete	164	0	1	0	0	1
S-PIER-EXST-REBR	Pier - Existing Rebar	164	0	2	0	0	1
S-PIER-HATC	Pier - Hatching	164	0	1	0	0	1
S-PIER-HIDL	Pier - Hidden Line	164	2	1	0	0	1
S-PIER-MISC	Pier - Miscellaneous	164	0	1	0	0	1
S-PIER-PTRN-01	Pier - Patterning	164	0	1	0	0	1
S-PIER-PTRN-02	Pier - Patterning	164	0	1	0	0	1
S-PIER-REBR	Pier - Rebar	164	0	3	0	0	1
S-PIER-WORK	Pier -User Work / Scratch (Non-Plotting)	164	0	1	0	0	0
S-RWAY	Right of Way	102	0	1	0	0	1



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S-RWAY-LGAL	Right of Way - Legal (Existing)	102	ROW LEGAL	3	0	0	1
S-RWAY-MISC	Right of Way - Miscellaneous	102	0	1	0	0	1
S-RWAY-REQD	Right of Way - Required	102	ROW REQ'D	4	0	0	1
S-RWAY-TEMP	Right of Way - Temporary Construction Easement	102	0	1	0	0	1
S-RWAY-WORK	Right of Way - User Work / Scratch (Non-Plotting)	102	0	1	0	0	0
S-STKE	Structure Stake - Out	33	0	1	0	0	1
S-STKE-BLIN	Structure Stake - Out Baselines	33	0	1	0	0	1
S-STKE-CELL	Structure Stake - Out Cells	33	0	2	0	0	1
S-STKE-CNTR	Structure Stake - Out Centerlines	33	4	1	0	0	1
S-STKE-CONC	Structure Stake - Out Concrete Lines	33	0	2	0	0	1
S-STKE-DIMS-AUTO	Structure Stake - Out Dimensions - Automatic	33	0	1	0	0	1
S-STKE-DIMS-MANL	Structure Stake - Out Dimensions - Manual	33	0	1	0	0	1
S-STKE-MISC	Structure Stake - Out Miscellaneous	33	0	1	0	0	1
S-STKE-TEXT	Structure Stake - Out Text	33	0	2	0	0	1
S-STKE-WORK	Structure Stake - Out User Work / Scratch (Non-Plotting)	33	0	1	0	0	0
SUBGRADE	Roadway- Subgrade	0	0	1	0	0	1
TC_BRIDGE	TC Bridge	0	0	1	0	0	1
TC_BRIDGE ABUTMENT	TC Bridge Abutment	0	0	1	0	0	1
TC_BRIDGE GIRDER	TC Bridge Grider	0	0	1	0	0	1
TC_CONCRETE BARRIER	TC Concrete Barrier	0	0	1	0	0	1
TC_CONCRETE CHANNEL	TC Concrete Channel	0	0	1	0	0	1
TC_CONCRETE MISC	TC Concrete Miscellaneous	0	0	1	0	0	1
TC_DIRT	TC Dirt	0	0	1	0	0	1
TC_DRAFT-DNC	TC Draft DNC	0	0	1	0	0	1
TC_EARTH SHOULDER	TC Earth Shoulder	0	0	1	0	0	1
TC_EXISTING PAVEMENT	TC Existing Pavement	0	0	1	0	0	1
TC_GUTTER	TC Gutter	0	0	1	0	0	1
TC_RAIL 3D	TC Rail 3D	0	0	1	0	0	1
TC_RAIL CLEARANCE	TC Rail Clearance	0	0	1	0	0	1
TC_RAIL CONC SLEEPER	TC Rail Conc Sleeper	0	0	1	0	0	1



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TC_RAIL PLATFORM	TC Rail Platform	0	0	1	0	0	1
TC_RET WALL-CUT	TC Ret Wall Cut	0	0	1	0	0	1
TC_RET WALL-FILL	TC Ret Wall Fill	0	0	1	0	0	1
TC_RIPRAP	TC Riprap	0	0	1	0	0	1
TC_ROCK SURFACE	TC Rock Surface	0	0	1	0	0	1
TC_STRUCTURAL CONCRETE	TC Structural Concrete	0	0	1	0	0	1
TC_STRUCTURAL FILL	TC Structural Fill	0	0	1	0	0	1
TC_TOPSOIL	TC Topsoil	0	0	1	0	0	1
TC_UNSUITABLE MATERIAL	TC Unsuitable Material	0	0	1	0	0	1
TC_WATER	TC Water	0	0	1	0	0	1
TC-AGGREGATE	TC Aggregate	0	0	1	0	0	1
TC-ASPHALT	TC Asphalt	0	0	1	0	0	1
TC-CONCRETE PAVEMENT	TC Concrete Pavement	0	0	1	0	0	1
TC-CURB	TC Curb	0	0	1	0	0	1
TC-GRASS	TC Grass	0	0	1	0	0	1
TC-RAIL BALLAST	TC Rail Ballast	0	0	1	0	0	1
TC-RAIL SUBBALLAST	TC Rail Subballast	0	0	1	0	0	1
TC-RAIL WOOD SLEEPER	TC Wood Rail Wood Sleeper	0	0	1	0	0	1
TC-SIDEWALK	TC Sidewalk	0	0	1	0	0	1
TL_BASE EXTENSION SUB	Traffic Lighting Base Extension Sub	0	0	1	0	0	1
TL_DRAFT-DNC	Traffic Lighting Draft DNC	0	0	1	0	0	1
TL_MILLING EDGE	Traffic Lighting Milling Edge	0	0	1	0	0	1
TL_TRENCH AGGREGATE	Traffic Lighting Trench Aggregate	0	0	1	0	0	1
TL_TRENCH BASE	Traffic Lighting Trench Base	0	0	1	0	0	1
TL_TRENCH INVERT	Traffic Lighting Trench Invert	0	0	1	0	0	1
TL_TRENCH ORIGIN	Traffic Lighting Trench Origin	0	0	1	0	0	1
TL_TRENCH PIPE	Traffic Lighting Trench Pipe	0	0	1	0	0	1
TL_TRENCH SOFFIT	Traffic Lighting Trench Soffit	0	0	1	0	0	1
T-LITE	Traffic Lighting	37	0	1	0	0	1
T-LITE-DIMS	Traffic Lighting Dimensions	37	0	2	0	0	1
T-LITE-EQPM	Traffic Lighting Equipment	37	0	1	0	0	1
T-LITE-JBOX	Traffic Lighting Junction Box	37	0	1	0	0	1



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T-LITE-MAST	Traffic Lighting - Mast Arm	37	0	1	0	0	1
T-LITE-NOTE	Traffic Lighting - Note	37	0	2	0	0	1
T-LITE-PNTS	Traffic Lighting - Points	37	0	1	0	0	1
T-LITE-POLE	Traffic Lighting - Pole	37	0	1	0	0	1
T-LITE-PTRN	Traffic Lighting - Pattern	37	0	1	0	0	1
T-LITE-SYMB	Traffic Lighting - Symbols	37	0	1	0	0	1
T-LITE-TCRV	Traffic Lighting - Template Curves	37	0	1	0	0	1
T-LITE-TEXT	Traffic Lighting - Text	37	0	2	0	0	1
T-LITE-WORK	Traffic Lighting - User Work (Non-Plotting)	37	0	1	0	0	0
T-MPTX	Maintenance and Protection of Traffic	120	0	1	0	0	1
T-MPTX-ARST	MPTX - Arresting Systems	120	0	1	0	0	1
T-MPTX-ATTN	MPTX - Attenuators	120	0	1	0	0	1
T-MPTX-BARR	MPTX - Barriers; Temporary	120	0	1	0	0	1
T-MPTX-BLDG	MPTX - Gate House, Guard House	120	0	1	0	0	1
T-MPTX-CRSH	MPTX - Collision Symbols	120	0	1	0	0	1
T-MPTX-DIMS	MPTX - Dimensions	120	0	2	0	0	1
T-MPTX-EQPM	MPTX - Equipment, Temporary; Barrels	120	0	1	0	0	1
T-MPTX-FLOW	MPTX - Flow Arrows, Turning Movement	120	0	1	0	0	1
T-MPTX-NOTE	MPTX - Notes	120	0	2	0	0	1
T-MPTX-PNTS	MPTX - Points	120	0	1	0	0	1
T-MPTX-PTRN	MPTX - Pattern	120	0	1	0	0	1
T-MPTX-PVMK	MPTX - Pavement Markings	120	0	1	0	0	1
T-MPTX-SYMB	MPTX - Symbols	120	0	1	0	0	1
T-MPTX-TEXT	MPTX - Text	120	0	2	0	0	1
T-MPTX-TURN	MPTX - Turning Templates	120	0	1	0	0	1
T-MPTX-VOLS	MPTX - Volume Data	120	0	1	0	0	1
T-MPTX-WORK	MPTX - User Work (Non-Plotting)	120	0	1	0	0	0
T-SGNL	Traffic Signals	31	0	1	0	0	1
T-SGNL-CRPL	Traffic Signals - Circle Pullout	31	0	1	0	0	1
T-SGNL-DIMS	Traffic Signals - Dimensions	31	0	2	0	0	1
T-SGNL-EQPM	Traffic Signals - Equipment and Pads	31	0	1	0	0	1
T-SGNL-HEAD	Traffic Signals - Signal Head	31	0	1	0	0	1



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T-SGNL-ICTR	Traffic Signals - Interconnect Controller	31	0	1	0	0	1
T-SGNL-IJBX	Traffic Signals - Interconnect Junction Box and Conduit	31	0	1	0	0	1
T-SGNL-JBOX	Traffic Signals - Junction Box and Conduit	31	0	1	0	0	1
T-SGNL-LOOP	Traffic Signals - Loop Detector	31	0	1	0	0	1
T-SGNL-MAST	Traffic Signals - Mast Arm and Signal Head	31	0	1	0	0	1
T-SGNL-MRKG	Traffic Signals - Misc Pavement Marking Lines	31	0	1	0	0	1
T-SGNL-NOTE	Traffic Signals - Notes	31	0	2	0	0	1
T-SGNL-PFDN	Traffic Signals - Pole Foundation	31	0	1	0	0	1
T-SGNL-PNTS	Traffic Signals - Points	31	0	1	0	0	1
T-SGNL-POLE	Traffic Signals - Pole and/or Controller	31	0	1	0	0	1
T-SGNL-PTRN	Traffic Signals - Pattern	31	0	1	0	0	1
T-SGNL-SIGN	Traffic Signals - Post Mounted Sign	31	0	1	0	0	1
T-SGNL-SYMB	Traffic Signals - Symbols	31	0	1	0	0	1
T-SGNL-TEXT	Traffic Signals - Text	31	0	2	0	0	1
T-SGNL-WORK	Traffic Signals - User Work (Non-Plotting)	31	0	1	0	0	0
T-SIGN	Traffic Signing (possibly superseded by traffic levels)	31	0	1	0	0	1
T-SIGN-DIMS	Traffic Signing - Dimensions	31	0	2	0	0	1
T-SIGN-FNDN	Traffic Signing - Sign Structure Foundation	31	0	1	0	0	1
T-SIGN-NOTE	Traffic Signing - Notes	31	0	2	0	0	1
T-SIGN-PANL	Traffic Signing - Sign Panel	31	0	1	0	0	1
T-SIGN-PNTS	Traffic Signing - Points	31	0	1	0	0	1
T-SIGN-POLE	Traffic Signing - Pole	31	0	1	0	0	1
T-SIGN-PTRN	Traffic Signing - Pattern	31	0	1	0	0	1
T-SIGN-STRC	Traffic Signing - Sign Structure	31	0	1	0	0	1
T-SIGN-SYMB	Traffic Signing - Symbols	31	0	1	0	0	1
T-SIGN-TEXT	Traffic Signing - Text	31	0	2	0	0	1
T-SIGN-WORK	Traffic Signing - User Work (Non-Plotting)	31	0	1	0	0	0
UTIL_PROFILE_RUN	Utility - Profile	7	4	1	0	0	1
UTILITY-CLASHES	Utility - Clashes	7	4	1	0	0	1
V-ALGN	Alignment	8	4	1	0	0	1
V-ALGN-COGO	Alignment - Points	8	0	1	0	0	1



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V-ALGN-DIMS	Alignment - Dimensions	8	0	2	0	0	1
V-ALGN-LINE	Alignment - Center/Base Line	8	4	1	0	0	1
V-ALGN-LINE-CRCL	Alignment - Curves	8	0	1	0	0	1
V-ALGN-LINE-SPRL	Alignment - Spirals	8	0	1	0	0	1
V-ALGN-LINE-TNGT	Alignment - Tangents	8	0	1	0	0	1
V-ALGN-NOTE	Alignment - Notes	8	0	2	0	0	1
V-ALGN-PNTS	Alignment - Points	8	0	1	0	0	1
V-ALGN-PTRN	Alignment - Patterns	8	0	1	0	0	1
V-ALGN-SYMB	Alignment - Symbols	8	0	1	0	0	1
V-ALGN-TEXT	Alignment - Text	8	0	2	0	0	1
V-BLDG	Building	2	1	1	0	0	1
V-BLDG-ANNO	Building - Annotation	2	0	1	0	0	1
V-BLDG-BARN	Building - Barn	2	0	1	0	0	1
V-BLDG-CRNR	Building - Corner	2	1	1	0	0	1
V-BLDG-FPLC	Building - FPLC	2	0	1	0	0	1
V-BLDG-GARG	Building - Garage	2	0	1	0	0	1
V-BLDG-GRGE	Building - Garage	2	1	1	0	0	1
V-BLDG-MISC	Building - Miscellaneous	2	0	1	0	0	1
V-BLDG-MISC-BOL	Building - Miscellaneous Bollard	2	0	1	0	0	1
V-BLDG-OTLN	Building - Outline	2	0	1	0	0	1
V-BLDG-OTLN-BREK-VOID	Building - Outline Void	2	0	1	0	0	1
V-BLDG-OUTBLDG	Building - Out Building	2	1	1	0	0	1
V-BLDG-OVHG	Building - Overhead	2	0	1	0	0	1
V-BLDG-PRCH	Building - Porch	2	0	1	0	0	1
V-BLDG-PRCH-BOTM	Building - Porch Bottom	2	0	1	0	0	1
V-BLDG-PRCH-TOPP	Building - Porch Top	2	0	1	0	0	1
V-BLDG-PT	Building - Point	2	0	1	0	0	1
V-BLDG-SDWK	Building - Sidewalk	2	0	1	0	0	1
V-BLDG-SHED	Building - Shed	2	0	1	0	0	1
V-BLDG-SILO	Building - Silo	2	0	1	0	0	1
V-BLDG-SLAB	Building - Slab	2	0	1	0	0	1
V-BLDG-STEP	Building - Step	2	0	1	0	0	1



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V-BLDG-SWLK	Building -Sidewalks	2	0	1	0	0	1
V-BLDG-TANK	Building - Tank	2	0	1	0	0	1
V-BLDG-WELL	Building - Well	2	0	1	0	0	1
V-BNDY-MUNI	Boundary - Municipal	49	0	1	0	0	1
V-BNDY-PT	Boundary - Point	49	0	1	0	0	1
V-BRDG	Bridge	2	0	1	0	0	1
V-BRDG-ABUT	Bridge - Abutment	2	0	1	0	0	1
V-BRDG-ABUT-BOTM	Bridge - Abutment Bottom	2	0	1	0	0	1
V-BRDG-ABUT-BOTM-PT	Bridge - Point	2	0	1	0	0	1
V-BRDG-ABUT-TOPP	Bridge - Abutment Top	2	0	1	0	0	1
V-BRDG-ABUT-TOPP-PT	Bridge - Point	2	0	1	0	0	1
V-BRDG-ANNO	Bridge - Annotation	2	0	1	0	0	1
V-BRDG-AWNG	Bridge - Awning	2	0	1	0	0	1
V-BRDG-AWNG-PT	Bridge - Point	2	0	1	0	0	1
V-BRDG-BEAM	Bridge - Beam	2	1	1	0	0	1
V-BRDG-BEAM-BOTM	Bridge - Beam Bottom	2	0	1	0	0	1
V-BRDG-BEAM-BOTM-PT	Bridge - Point	2	0	1	0	0	1
V-BRDG-BEAM-SEAT	Bridge - Beam Seat	2	0	1	0	0	1
V-BRDG-BEAM-SEAT-PT	Bridge - Point	2	0	1	0	0	1
V-BRDG-BTM-ABUT	Bridge - Bottom Abutment	2	1	1	0	0	1
V-BRDG-BTM-CURB	Bridge - Bottom Curb	2	1	1	0	0	1
V-BRDG-BTM--PED	Bridge - Bottom Pedestal	2	1	1	0	0	1
V-BRDG-BTM-PIER	Bridge - Bottom Pier	2	1	1	0	0	1
V-BRDG-BTM-PRPT	Bridge -Bottom Parapet	2	1	1	0	0	1
V-BRDG-BTM-WGWLL	Bridge - Bottom Wingwall	2	1	1	0	0	1
V-BRDG-CHRD-LOWW	Bridge - Chord Low	2	0	1	0	0	1
V-BRDG-CHRD-LOWW-PT	Bridge - Point	2	0	1	0	0	1
V-BRDG-CLMN	Bridge - Column	2	1	1	0	0	1
V-BRDG-CRWN	Bridge - Crown	2	0	1	0	0	1
V-BRDG-CRWN-PT	Bridge - Point	2	0	1	0	0	1
V-BRDG-CURB	Bridge - Curb	2	0	1	0	0	1
V-BRDG-CURB-BOTM	Bridge - Curb Bottom	2	0	1	0	0	1



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V-BRDG-CURB-BOTM-PT	Bridge - Point	2	0	1	0	0	1
V-BRDG-CURB-TOPP	Bridge - Curb Top	2	0	1	0	0	1
V-BRDG-CURB-TOPP-PT	Bridge - Point	2	0	1	0	0	1
V-BRDG-DECK	Bridge - Deck	2	0	1	0	0	1
V-BRDG-DECK-JNT	Bridge - Deck Joints	2	1	1	0	0	1
V-BRDG-DECK-PT	Bridge - Point	2	0	1	0	0	1
V-BRDG-DKJT	Bridge - DKJT	2	0	1	0	0	1
V-BRDG-DKJT-PT	Bridge - Point	2	0	1	0	0	1
V-BRDGE-CHORD	Bridge - Chord	2	1	1	0	0	1
V-BRDGE-SCPR	Bridge - Scupper	2	1	1	0	0	1
V-BRDG-FTNG	Bridge - Footing	2	0	1	0	0	1
V-BRDG-FTNG-PT	Bridge - Point	2	0	1	0	0	1
V-BRDG-GNRL	Bridge - General	2	0	1	0	0	1
V-BRDG-GNRL-PT	Bridge - Point	2	0	1	0	0	1
V-BRDG-PARA-BOTM	Bridge - Parapet Bottom	2	0	1	0	0	1
V-BRDG-PARA-BOTM-PT	Bridge - Point	2	0	1	0	0	1
V-BRDG-PARA-TOPP	Bridge - Parapet Top	2	0	1	0	0	1
V-BRDG-PARA-TOPP-PT	Bridge - Parapet Top Point	2	0	1	0	0	1
V-BRDG-PEDS-TOPP	Bridge - Pedestal Top	2	0	1	0	0	1
V-BRDG-PEDS-TOPP-PT	Bridge - Point	2	0	1	0	0	1
V-BRDG-PIER	Bridge - Pier	2	0	1	0	0	1
V-BRDG-PIER-BOTM	Bridge - Pedestal Bottom	2	0	1	0	0	1
V-BRDG-PIER-BOTM-PT	Bridge - Point	2	0	1	0	0	1
V-BRDG-PIER-PT	Bridge - Point	2	0	1	0	0	1
V-BRDG-PIER-TOPP	Bridge - Pier Top	2	0	1	0	0	1
V-BRDG-PIER-TOPP-PT	Bridge - Point	2	0	1	0	0	1
V-BRDG-RAIL	Bridge - Rail	2	0	1	0	0	1
V-BRDG-SDWK	Bridge - Sidewalk	2	0	1	0	0	1
V-BRDG-SDWK-PT	Bridge - Point	2	0	1	0	0	1
V-BRDG-SWLK	Bridge - Sidewalk	2	0	1	0	0	1
V-BRDG-TOP-ABUT	Bridge - Top Abutment	2	1	1	0	0	1
V-BRDG-TOP-CURB	Bridge - Top Curb	2	1	1	0	0	1



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V-BRDG-TOP--PED	Bridge - Top Pedestal	2	1	1	0	0	1
V-BRDG-TOP-PIER	Bridge - Top Pier	2	1	1	0	0	1
V-BRDG-TOP-PRPT	Bridge -Top Parapet	2	1	1	0	0	1
V-BRDG-TOP-WGWLL	Bridge - Top Wingwall	2	1	1	0	0	1
V-BRDG-WHGD	Bridge - Wing Guiderail	2	0	1	0	0	1
V-BRDG-WHGD-PT	Bridge - Point	2	0	1	0	0	1
V-BRDG-WHL-GRD	Bridge - Wheel Guard	2	1	1	0	0	1
V-BRDG-WING-BOTM	Bridge - Wing Bottom	2	0	1	0	0	1
V-BRDG-WING-BOTM-PT	Bridge - Point	2	0	1	0	0	1
V-BRDG-WING-TOPP	Bridge - Wing Top	2	0	1	0	0	1
V-BRDG-WING-TOPP-PT	Bridge - Point	2	0	1	0	0	1
V-BRG-FTER	Bridge - Footer	2	1	1	0	0	1
V-BRKL-BOTB	Breaklines	202	0	1	0	0	1
V-CATV	Cable TV	11	XUT-CTVU	1	0	0	1
V-CATV-CPED	Cable TV - Cable Pedestal	11	0	1	0	0	1
V-CATV-MOC	Cable TV - Markout	11	0	1	0	0	1
V-CATV-STRC	Cable TV - Structures	11	0	1	0	0	1
V-CATV-STRC-MHC	Cable TV - Structures Manhole	11	0	1	0	0	1
V-COMM	Communications	32	XUT-T	1	0	0	1
V-COMM-MOT	Communications - Markout Telephone	32	0	1	0	0	1
V-COMM-STRC	Communications - Structures	32	0	1	0	0	1
V-COMM-STRC-MHT	Communications - Structures Manhole Telephone	32	0	1	0	0	1
V-COMM-STRC-TELPED	Communications - Structures Telephone Pedestal	32	0	1	0	0	1
V-COMM-TLM	Communications - Structures Telephone Line Marker	32	0	1	0	0	1
V-CONC	Concrete	9	1	1	0	0	1
V-CONC-MNMT	Concrete - Monument	9	1	1	0	0	1
V-CONC-NAIL	Concrete - Nail	9	1	1	0	0	1
V-CTRL-BMRK	Control Points - Benchmark	150	0	1	0	0	1
V-CTRL-HCPT	Control Points - Horizontal	150	0	1	0	0	1
V-CTRL-LINE-DIRC	Control Points - Traverse Lines	150	0	1	0	0	1



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V-CTRL-LINE-NETW	Control Points - Traverse Network	150	0	1	0	0	1
V-CTRL-LINE-SHOT	Control Points - Traverse Sideshot	150	0	1	0	0	1
V-CTRL-NODE-KNOW	Control Points - Known Points	150	0	1	0	0	1
V-CTRL-NODE-SHOT	Control Points - Sideshots	150	0	2	0	0	1
V-CTRL-NODE-SHOT-CM	Control Node Shot - Concrete Monument	150	0	2	0	0	1
V-CTRL-NODE-SHOT-IP	Control Node Shot - Iron Pin	150	0	2	0	0	1
V-CTRL-NODE-SHOT-IPP	Control Node Shot - Iron Pipe	150	0	2	0	0	1
V-CTRL-NODE-SHOT-NAIL	Control Node Shot - Nail	150	0	2	0	0	1
V-CTRL-NODE-SHOT-REBAR	Control Node Shot - Rebar	150	0	2	0	0	1
V-CTRL-NODE-SHOT-RRS	Control Node Shot - Railroad Spike	150	0	2	0	0	1
V-CTRL-NODE-SHOT-STK	Control Node Shot - Stake	150	0	2	0	0	1
V-CTRL-NODE-SHOT-STONE	Control Node Shot - Stone Monument	150	0	2	0	0	1
V-CTRL-NODE-UNKN	Control points - Unknown points	150	0	1	0	0	1
V-CTRL-TRAV	Control Points - Traverse	150	0	1	0	0	1
V-CTRL-TRAV-ERRO	Control Points - Traverse Errors	150	0	1	0	0	1
V-CTRL-VCPT	Control Points - Vertical	150	0	1	0	0	1
V-DRIV-ANNO	Driveway - Annotation	14	0	2	0	0	1
V-DRIV-EDGE	Driveway - Edge	14	0	2	0	0	1
V-DRIV-PT	Driveway - Point	14	0	2	0	0	1
V-DRN-CHNL	Drain - Channel	43	0	2	0	0	1
V-DRN-CLVT	Drain - Culvert	43	0	2	0	0	1
V-DRNG-CANAL	Drainage - Canal	43	1	2	0	0	1
V-DRNG-CHNL	Drainage - Channel	43	1	2	0	0	1
V-DRNG-CLNOUT	Drainage - Cleanout	43	1	2	0	0	1
V-DRNG-CLVT	Drainage - Culvert	43	1	2	0	0	1
V-DRNG-CRK	Drainage - Creek	43	1	2	0	0	1
V-DRNG-DA	Drainage - Area Drain	43	1	2	0	0	1
V-DRNG-DF	Drainage - Drain Field	43	1	2	0	0	1
V-DRNG-DTCH	Drainage - Ditch	43	1	2	0	0	1
V-DRNG-DTCH-CL	Drainage - Ditch Centerline	43	1	2	0	0	1
V-DRNG-FES	Drainage - Flared End Section	43	1	2	0	0	1



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V-DRNG-FL	Drainage - Flow Line	43	1	2	0	0	1
V-DRNG-INLET	Drainage - Inlet	43	1	2	0	0	1
V-DRNG-INVRT	Drainage - Invert	43	1	2	0	0	1
V-DRNG-MANHOLE	Drainage - Manhole	43	1	2	0	0	1
V-DRNG-MANHOLECONE	Drainage - ManholeCone	43	1	2	0	0	1
V-DRNG-MARSH	Drainage - Marsh	43	1	2	0	0	1
V-DRNG-MISC	Drainage - Miscellaneous	43	1	2	0	0	1
V-DRNG-PIPE	Drainage - Pipe	43	1	2	0	0	1
V-DRNG-PND	Drainage - Pond	43	1	2	0	0	1
V-DRNG-SLT-FNC	Drainage - Silt Fence	43	1	2	0	0	1
V-DRNG-SPRING	Drainage - Spring	43	1	2	0	0	1
V-DRNG-STRM	Drainage - Stream	43	1	2	0	0	1
V-DRNG-SWAMP	Drainage - Swamp	43	1	2	0	0	1
V-DRNG-TIDEGUAGE	Drainage - TideGuage	43	1	2	0	0	1
V-DRNG-TREN	Drainage - Trench	43	1	2	0	0	1
V-DRNG-UNDERDRAIN	Drainage - UnderDrain	43	1	2	0	0	1
V-DRNG-WETL	Drainage - Wetlands	43	1	2	0	0	1
V-DRN-INLT	Drain - Inlet	43	0	2	0	0	1
V-DRN-MAR	Drain - Marsh	43	0	2	0	0	1
V-DRN-MH	Drain - Manhole	43	0	2	0	0	1
V-DRN-MHCN	Drain - Manhole Cone	43	0	2	0	0	1
V-DRN-MISC	Drain - Miscellaneous	43	0	2	0	0	1
V-DRN-PIPE	Drain - Pipe	43	0	2	0	0	1
V-DRN-SPNG	Drain - Spring	43	0	2	0	0	1
V-DRN-SQMP	Drain - SQMP	43	0	2	0	0	1
V-DRN-TDGA	Drain - TDGA	43	0	2	0	0	1
V-DRN-TREN	Drain - Trench	43	0	2	0	0	1
V-DRN-UDRN	Drain - Underdrain	43	0	2	0	0	1
V-DRN-WETL	Drain - Wetland	43	0	2	0	0	1
V-FUEL	Fuel	30	0	1	0	0	1
V-FUEL-TANK	Fuel - Tank	30	0	1	0	0	1
V-FUEL-TANK-AST	Fuel - Above Ground Storage Tank	30	0	2	0	0	1



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V-FUEL-TANK-UST	Fuel - Underground Storage Tank	30	0	2	0	0	1
V-GAS-ISLND	Gas - Island	29	1	2	0	0	1
V-GAS-LN-MRK	Gas - Line Marker	29	1	2	0	0	1
V-GAS-MH	Gas - Manhole	29	1	2	0	0	1
V-GAS-MRKOUT	Gas - Markout	29	1	2	0	0	1
V-GAS-MTR	Gas - Meter	29	1	2	0	0	1
V-GAS-VLVE	Gas - Valve	29	1	2	0	0	1
V-GAS--VLVE-CRB-STP	Gas - Valve Curb Stop	29	1	2	0	0	1
V-GAS-WELL	Gas - Well	29	1	2	0	0	1
V-GRAL-ANNO	Guiderail - Annotation	30	0	2	0	0	1
V-GRAL-LINE	Guiderail - Line	30	0	2	0	0	1
V-GRAL-PT	Guide Rail - Point	30	0	2	0	0	1
V-GRAL-STRG	Guide Rail - Strong	30	0	2	0	0	1
V-GRAL-WEAK	Guide Rail - Weak	30	0	2	0	0	1
V-LNSC-ANNO	Landscape - Annotation	195	0	2	0	0	1
V-LNSC-BRSH	Landscape - Brush	195	0	2	0	0	1
V-LNSC-FGRVL	Landscape - Gravel	195	0	2	0	0	1
V-LNSC-FLOWER	Landscape - Flower	195	1	2	0	0	1
V-LNSC-FLWR	Landscape - Flower	195	0	2	0	0	1
V-LNSC-GRASS	Landscape - Grass	195	0	2	0	0	1
V-LNSC-GRAVEL	Landscape - Gravel	195	0	2	0	0	1
V-LNSC-GRSS	Landscape - Grass	195	0	2	0	0	1
V-LNSC-HDGE	Landscape - Hedge	195	0	2	0	0	1
V-LNSC-HEDG	Landscape - Hedge	195	0	2	0	0	1
V-LNSC-HEDGE	Landscape - Hedge	195	1	2	0	0	1
V-LNSC-PLANT	Landscape - Plant	195	0	2	0	0	1
V-LNSC-PLNT	Landscape - Plant	195	0	2	0	0	1
V-LNSC-PLTR	Landscape - Planter	195	0	2	0	0	1
V-LNSC-PT	Landscape - Point	195	0	2	0	0	1
V-LNSC-SHRB	Landscape - Shrub	195	0	2	0	0	1
V-LNSC-SHRB-CON	Landscape - ShrubCon	195	0	2	0	0	1
V-LNSC-SHRB-DEC	Landscape - ShrubDec	195	0	2	0	0	1



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V-LNSC-SHRUB	Landscape - Shrub	195	1	2	0	0	1
V-LNSC-SHRUBCON	Landscape - Shrub Con	195	0	2	0	0	1
V-LNSC-SHRUBDEC	Landscape - Shrub Dec	195	0	2	0	0	1
V-LNSC-SOIL	Landscape - Soil	195	0	2	0	0	1
V-LNSC-SOIL	Landscape - Soil	195	0	2	0	0	1
V-LNSC-STMP	Landscape - Stump	195	0	2	0	0	1
V-LNSC-TREE	Landscape - Tree	195	0	2	0	0	1
V-LNSC-TREE-CIT	Landscape - Tree Citrus	195	0	2	0	0	1
V-LNSC-TREECITRUS	Landscape - Tree Citrus	195	1	2	0	0	1
V-LNSC-TREE-CONF	Landscape - Tree Coniferous	195	0	2	0	0	1
V-LNSC-TREECONIFEROUS	Landscape - Tree Coniferous	195	0	2	0	0	1
V-LNSC-TREE-CYPR	Landscape - Tree Cypress	195	0	2	0	0	1
V-LNSC-TREECYPRESS	Landscape - Tree Cypress	195	1	2	0	0	1
V-LNSC-TREE-DECD	Landscape - Tree Deciduous	195	0	2	0	0	1
V-LNSC-TREEDECID	Landscape - Tree Dec id	195	0	2	0	0	1
V-LNSC-TREEOAK	Landscape - Tree Oak	195	1	2	0	0	1
V-LNSC-TREE-OAK	Landscape - Tree Oak	195	0	2	0	0	1
V-LNSC-TREEPALM	Landscape - Tree Palm	195	0	2	0	0	1
V-LNSC-TREE-PALM	Landscape - Tree Palm	195	0	2	0	0	1
V-LNSC-TREE-PALM-CLMP	Landscape - Tree Palm Clump	195	0	2	0	0	1
V-LNSC-TREEPALMCLUMP	Landscape - Tree Palm Clump	195	1	2	0	0	1
V-LNSC-TREEPINE	Landscape - Tree Pine	195	0	2	0	0	1
V-LNSC-TREE-PINE	Landscape - Tree Pine	195	0	2	0	0	1
V-LNSC-TREEROW	Landscape - Tree ROW	195	1	2	0	0	1
V-LNSC-TREE-STMP	Landscape - Tree Stump	195	0	2	0	0	1
V-LNSC-TREESTUMP	Landscape - Tree Stump	195	1	2	0	0	1
V-LNSC-TREE-UNKN	Landscape - Tree Unknown	195	0	2	0	0	1
V-LNSC-TREEUNKNOWN	Landscape - Tree Unknown	195	0	2	0	0	1
V-LNSC-TRLN	Landscape - Tree Line	195	0	2	0	0	1
V-LNSC-WDRW	Landscape - Wood row	195	0	2	0	0	1
V-LNSC-WODE	Landscape - Woods	195	0	2	0	0	1
V-MISC	Misc	44	1	2	0	0	1



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V-MISC-BENCH	Misc - Bench	44	1	2	0	0	1
V-MISC-AXLE	Misc - Axle	44	1	2	0	0	1
V-MISC-BENCH	Misc - Bench	44	0	2	0	0	1
V-MISC-BL	Misc - Baseline	44	0	2	0	0	1
V-MISC-BM	Misc - Benchmark	44	1	2	0	0	1
V-MISC-BNCH	Misc - Benching	44	0	2	0	0	1
V-MISC-BORING	Misc Boring	44	1	2	0	0	1
V-MISC-BRNG	Misc - Bearing	44	0	2	0	0	1
V-MISC-BRN-SPKE	Misc - Barn Spike	44	1	2	0	0	1
V-MISC-CORETESTHOLE	Misc Core Test Hole	44	1	2	0	0	1
V-MISC-CRHL	Misc - Core Test Hole	44	0	2	0	0	1
V-MISC-DMPS	Misc - Dumpster	44	0	2	0	0	1
V-MISC-DUMPSTER	Misc - Dumpster	44	0	2	0	0	1
V-MISC-FGPL	Misc - Flagpole	44	0	2	0	0	1
V-MISC-FIREPIT	Misc - Firepit	44	1	2	0	0	1
V-MISC-FLAGPOLE	Misc - Flagpole	44	1	2	0	0	1
V-MISC-FRPT	Misc - Firepit	44	0	2	0	0	1
V-MISC-GATEPOST	Misc GatePost	44	1	2	0	0	1
V-MISC-GRAVE	Misc Grave	44	1	2	0	0	1
V-MISC-GRILL	Misc Grill	44	1	2	0	0	1
V-MISC-GRLL	Misc - Grill	44	0	2	0	0	1
V-MISC-GRVE	Misc - Grave	44	0	2	0	0	1
V-MISC-GTPT	Misc - Gatepost	44	0	2	0	0	1
V-MISC-HUB-TCK	Misc - Hub Tack	44	1	2	0	0	1
V-MISC-ICTR	Misc - Incinerator	44	0	2	0	0	1
V-MISC-INCINERATOR	Misc Incinerator	44	1	2	0	0	1
V-MISC-IRON-PIN	Misc - Iron Pin	44	1	2	0	0	1
V-MISC-IRON-PPE	Misc - Iron Pipe	44	1	2	0	0	1
V-MISC-MAILBOX	Misc Mailbox	44	1	2	0	0	1
V-MISC-MB	Misc - Mailbox	44	0	2	0	0	1
V-MISC-MONITORWELL	Misc MonitorWell	44	1	2	0	0	1
V-MISC-MWELL	Misc - Monitor Well	44	0	2	0	0	1



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V-MISC-PLAYGRNDEQ	Misc PlaygrndEq	44	1	2	0	0	1
V-MISC-PLGD	Misc - Playground	44	0	2	0	0	1
V-MISC-SILO	Misc Silo	44	1	2	0	0	1
V-MISC-SILP	Misc - Silo	44	0	2	0	0	1
V-MISC-TESTHOLE	Misc TestHole	44	1	2	0	0	1
V-MISC-TSHL	Misc - Test Hole	44	0	2	0	0	1
V-MISC-WDML	Misc - Windmill	44	0	2	0	0	1
V-MISC-WINDMILL	Misc WindMill	44	1	2	0	0	1
V-NGAS	Natural Gas	50	XUT-G	1	0	0	1
V-NGAS-GLM	Natural Gas - Line Marker	50	0	2	0	0	1
V-NGAS-INST	Natural Gas - Instrument	50	0	1	0	0	1
V-NGAS-INST-GMR	Natural Gas - Instrument Gas Meter	50	0	2	0	0	1
V-NGAS-INST-GV	Natural Gas - Instrument Gas Valve	50	0	2	0	0	1
V-NGAS-MOG	Natural Gas - Markout Gas	50	0	2	0	0	1
V-NGAS-PIPE	Natural Gas - Pipeline	50	XUT-G	1	0	0	1
V-NGAS-STRC	Natural Gas - Structure	50	0	2	0	0	1
V-NGAS-STRC-MHG	Natural Gas - Structure Manhole Gas	50	1	2	0	0	1
V-NODE	Node	1	0	1	0	0	1
V-NODE-BNDY	Node - Boundary	1	0	1	0	0	1
V-NODE-BORE	Node - Borehole	1	0	1	0	0	1
V-NODE-GASL	Node - Gas Line & Appurtenances Points	1	0	1	0	0	1
V-NODE-MISC	Node - Miscellaneous	1	0	2	0	0	1
V-NODE-MISC-DH	Node - Misc Drill Hole	1	0	2	0	0	1
V-NODE-MISC-RK	Node - Misc RK	1	0	2	0	0	1
V-NODE-POLE	Node - Pole Points (power, telephone, etc.)	1	0	1	0	0	1
V-NODE-SIGN	Node - Sign	1	0	1	0	0	1
V-NODE-SSWR	Node - Sanitary Sewer and Appurtenances Points	1	0	1	0	0	1
V-NODE-STRM	Node - Storm Sewer and Appurtenances Points	1	0	1	0	0	1
V-NODE-TEXT	Node - Text	1	0	2	0	0	1
V-NODE-TREE	Node - Tree Points	1	0	1	0	0	1
V-NODE-WATR	Node - Water Line and Appurtenances Points	1	0	1	0	0	1



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VOLUMES_UNSUITABLE_REMOVE ONLY	Volumes - Unsuitable Remove Only	87	0	1	0	0	1
VOLUMES_UNSUITABLE_REMOVE REPLACE	Volumes - Unsuitable Remove Replace	87	0	1	0	0	1
V-PNT-LBLS	Point - Labels	30	1	2	0	1	1
V-POWR	Power	30	XUT-EU	1	0	0	1
V-POWR-EP	Power - Electric Pole	30	0	2	0	0	1
V-POWR-INST	Power - Instrument	30	0	1	0	0	1
V-POWR-INST-EBX	Power - Instrument Electric Box	30	0	2	0	0	1
V-POWR-INST-EMR	Power - Instrument Electric Meter	30	0	2	0	0	1
V-POWR-MOE	Power - Markout Electric	30	0	2	0	0	1
V-POWR-OVHD	Power - Overhead	30	XUT-E	1	0	0	1
V-POWR-STRC	Power - Structure	30	0	1	0	0	1
V-POWR-STRC-EVLT	Power - Structure Electric Vault	30	0	2	0	0	1
V-POWR-STRC-MHE	Power - Structure Electric Manhole	30	0	2	0	0	1
V-POWR-UNDR	Power - Underground	30	XUT-EU	1	0	0	1
V-PRKG-EDGE	Parking - Edge	1	0	2	0	0	1
V-PRKG-METR	Parking - Meter	1	0	2	0	0	1
V-PRKG-PT	Parking - Point	1	0	2	0	0	1
V-RAIL	Rail	44	0	2	0	0	1
V-RAIL-BTM-BLLST	Rail - Bottom Ballast	44	1	2	0	0	1
V-RAIL-BTM-BNK	Rail - Bottom Bank	44	1	2	0	0	1
V-RAIL-BTM-CBARR	Rail - Bottom Concrete Barrier	44	1	2	0	0	1
V-RAIL-BTM-CURB	Rail - Bottom Curb	44	1	2	0	0	1
V-RAIL-BTM-HWALL	Rail - Bottom Headwall	44	1	2	0	0	1
V-RAIL-BTM-WALL	Rail - Bottom Wall	44	1	2	0	0	1
V-RAIL-CGTE	Rail - Crossing Gate	44	0	2	0	0	1
V-RAIL-CNTR	Rail - Centerline	44	0	2	0	0	1
V-RAIL-CROSSINGGATE	Rail - Crossing Gate	44	1	2	0	0	1
V-RAIL-EQPM	Rail -Equipment	44	0	1	0	0	1
V-RAIL-EQPM-CROS	Rail - Equipment Cross Sign	44	0	2	0	0	1
V-RAIL-EQPM-SWTC	Rail - Equipment Switch	44	1	2	0	0	1
V-RAIL-MILEPOST	Rail - Milepost	44	1	2	0	0	1



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V-RAIL-MPST	Rail - Milepost	44	0	2	0	0	1
V-RAIL-PT	Rail - Point	44	0	2	0	0	1
V-RAIL-SGNL	Rail - Signal	44	0	2	0	0	1
V-RAIL-SIGN	Rail - Sign	44	0	2	0	0	1
V-RAIL-SIGNAL	Rail - Signal	44	1	2	0	0	1
V-RAIL-SL	Rail - Sanitary Line	44	1	2	0	0	1
V-RAIL-SNGL	Rail - Signal	44	0	2	0	0	1
V-RAIL-SPKE	Rail - Spike	44	1	2	0	0	1
V-RAIL-SWITCH	Rail - Switch	44	1	2	0	0	1
V-RAIL-SWTH	Rail - Switch	44	0	2	0	0	1
V-RAIL-TOP-BLLST	Rail - Top Ballast	44	1	2	0	0	1
V-RAIL-TOP-BNK	Rail - Top Bank	44	1	2	0	0	1
V-RAIL-TOP-CBARR	Rail - Top Concrete Barrier	44	1	2	0	0	1
V-RAIL-TOP-CURB	Rail - Top Curb	44	1	2	0	0	1
V-RAIL-TOP-HWALL	Rail - Top Headwall	44	1	2	0	0	1
V-RAIL-TOP-PIPE	Rail - Top Pipe	44	1	2	0	0	1
V-RAIL-TOP-REVL	Rail - Top Reveal	44	1	2	0	0	1
V-RAIL-TOP-TRCK	Rail - Top Track	44	1	2	0	0	1
V-RAIL-TOP-WALL	Rail - Top Wall	44	1	2	0	0	1
V-RAIL-TRACK	Rail - Track	44	0	2	0	0	1
V-RAIL-TRAK	Rail - Track	44	0	2	0	0	1
V-RAIL-WARNSIGN	Rail - Warning Sign	44	1	2	0	0	1
V-RAIL-WRSG	Rail - Warning sign	44	0	2	0	0	1
V-RAIL-XGTE	Rail - Crossing Gate	44	1	2	0	0	1
V-RAIL-XSGN	Rail - Crossing Sign	44	1	2	0	0	1
V-RAIL-XSGNL	Rail - Crossing Signal	44	1	2	0	0	1
V-ROAD-ALIGN	Roadway- Centerline	14	0	2	0	0	1
V-ROAD-ANNO	Roadway - Annotation	14	0	2	0	0	1
V-ROAD-ASPHCROWN	Roadway - Asphalt Crown	14	0	2	0	0	1
V-ROAD-ASPH-EOP	Roadway- Asphalt Pavement Edge	14	0	2	0	0	1
V-ROAD-ASPH-EOP-LT	Roadway- Asphalt Pavement Edge Left	14	0	2	0	0	1
V-ROAD-ASPH-EOP-RT	Roadway- Asphalt Pavement Edge Right	14	0	2	0	0	1



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V-ROAD-ASHPVMNT	Roadway - Asphalt Pavement	14	0	2	0	0	1
V-ROAD-BARR	Roadway - Barrier Wall	14	0	2	0	0	1
V-ROAD-BARR-BOTM	Roadway - Barrier Bottom	14	0	2	0	0	1
V-ROAD-BARR-TOPP	Roadway - Barrier Top	14	0	2	0	0	1
V-ROAD-BARRWALL	Roadway - Barrier Wall	14	0	2	0	0	1
V-ROAD-BL	Roadway - Baseline	14	0	2	0	0	1
V-ROAD-CATTLEGRD	Roadway - Cattle Guard	14	1	2	0	0	1
V-ROAD-CL	Roadway - Centerline	14	0	2	0	0	1
V-ROAD-CNTR	Roadway - Centerline	14	4	1	0	0	1
V-ROAD-CONC	Roadway - Concrete	14	0	2	0	0	1
V-ROAD-CONCCROWN	Roadway - Concrete Crown	14	0	2	0	0	1
V-ROAD-CONC-CRWN	Roadway - Concrete Pavement Crown	14	0	2	0	0	1
V-ROAD-CONC-EOP	Roadway - Concrete Pavement Edge	14	0	2	0	0	1
V-ROAD-CONC-EOP-LT	Roadway - Concrete Pavement Edge Left	14	0	2	0	0	1
V-ROAD-CONC-EOP-RT	Roadway - Concrete Pavement Edge Right	14	0	2	0	0	1
V-ROAD-CONCPVMNT	Roadway - Concrete Pavement	14	0	2	0	0	1
V-ROAD-CONCSLAB	Roadway - Concrete Slab	14	0	2	0	0	1
V-ROAD-CROWN	Roadway - Crown	14	1	2	0	0	1
V-ROAD-CRWN	Roadway - Crown	14	0	1	0	0	1
V-ROAD-CRWN-ASPH	Roadway - Asphalt Pavement Crown	14	0	2	0	0	1
V-ROAD-CTGD	Roadway - Cattle Guard	14	0	2	0	0	1
V-ROAD-CURB	Roadway - Curbs	14	0	2	0	0	1
V-ROAD-CURB-BACK	Roadway - Curb Back	14	1	2	0	0	1
V-ROAD-CURB-BCK	Roadway - Back of Curb	14	0	2	0	0	1
V-ROAD-CURB-BOTM	Roadway - Curb Bottom	14	0	2	0	0	1
V-ROAD-CURB-FAC	Roadway - Face of Curb	14	0	2	0	0	1
V-ROAD-CURB-FL	Roadway - Curb Flowline	14	0	2	0	0	1
V-ROAD-CURB-LT	Roadway - Curb Left	14	0	1	0	0	1
V-ROAD-CURB-MONT	Roadway - Curb Mount	14	0	2	0	0	1
V-ROAD-CURB-RAMP	Roadway - Curb Ramp	14	0	2	0	0	1
V-ROAD-CURB-RT	Roadway - Curb Right	14	0	1	0	0	1
V-ROAD-CURB-TOPP	Roadway - Curb Top	14	0	2	0	0	1



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V-ROAD-DVWY	Roadway - Driveway	14	0	2	0	0	1
V-ROAD-DWY	Roadway- Driveway	14	0	2	0	0	1
V-ROAD-EDGE	Roadway- Edge	14	0	2	0	0	1
V-ROAD-EDGE-DIRT	Roadway - Edge of Dirt	14	0	2	0	0	1
V-ROAD-EDGE-LT	Roadway- Edge Left	14	0	2	0	0	1
V-ROAD-EDGE-RT	Roadway- Edge Right	14	0	2	0	0	1
V-ROAD-EMBK	Roadway- Embankment	14	0	2	0	0	1
V-ROAD-FENC	Roadway- Fence	14	0	2	0	0	1
V-ROAD-GATE	Roadway- Gate	14	0	2	0	0	1
V-ROAD-GRAL	Roadway- Guiderail	14	0	2	0	0	1
V-ROAD-GRAL -LT	Roadway- Guiderail Left	14	0	1	0	0	1
V-ROAD-GRAL-ATTEN	Roadway- Guiderail Attenuator	14	1	2	0	0	1
V-ROAD-GRAL-FACE	Roadway- Guiderail Face	14	1	2	0	0	1
V-ROAD-GRAL-RT	Roadway- Guiderail Right	14	0	1	0	0	1
V-ROAD-GRVL	Roadway- Edge of Gravel	14	0	2	0	0	1
V-ROAD-GRVL-LT	Roadway- Edge of Gravel Left	14	0	2	0	0	1
V-ROAD-GRVL-RT	Roadway- Edge of Gravel Right	14	0	2	0	0	1
V-ROAD-IMPCT-ATTEN	Roadway- Impact Attenuator	14	1	2	0	0	1
V-ROAD-LANE-EDGE	Roadway- Lane Edge	14	0	2	0	0	1
V-ROAD-LANE-EDGE-LT	Roadway- Lane Edge Left	14	0	2	0	0	1
V-ROAD-LANE-EDGE-RT	Roadway- Lane Edge Right	14	0	2	0	0	1
V-ROAD-LANE-LINE	Roadway- Lane Line	14	0	2	0	0	1
V-ROAD-MED	Roadway- Median	14	0	2	0	0	1
V-ROAD-MISC	Roadway- Misc	14	0	1	0	0	1
V-ROAD-MONC	Roadway- Monument Concrete	14	0	2	0	0	1
V-ROAD-MONS	Roadway- Monument Stake	14	0	2	0	0	1
V-ROAD-MRKG	Roadway- Markings	14	0	1	0	0	1
V-ROAD-MRKG-DBL-YEL	Roadway- Marking Double Yellow	14	1	2	0	0	1
V-ROAD-MRKG-LT	Roadway- Marking Left	14	0	2	0	0	1
V-ROAD-MRKG-RT	Roadway- Marking Right	14	0	2	0	0	1
V-ROAD-MRKG-SKIP	Roadway- Marking Skip	14	0	2	0	1	1
V-ROAD-MRKG-YELL	Roadway- Markings Yellow	14	0	1	0	0	1



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V-ROAD-MRK-W	Roadway- Marking White	14	1	2	0	0	1
V-ROAD-MRK-Y	Roadway- Marking Yellow	14	1	2	0	0	1
V-ROAD-PAV	Roadway- Pavement	14	0	2	0	0	1
V-ROAD-PAVMNT-LT	Roadway- Pavement Left	14	0	2	0	0	1
V-ROAD-PAVMNT-RT	Roadway- Pavement Right	14	0	2	0	0	1
V-ROAD-PT	Roadway - Point	14	0	2	0	0	1
V-ROAD-PVMK	Roadway - Pavement Marking	14	0	2	0	0	1
V-ROAD-ROWMONC	Roadway- Right-of-way Monc	14	1	2	0	0	1
V-ROAD-ROWMONS	Roadway- Right-of-way Mons	14	0	2	0	0	1
V-ROAD-SDWLK	Roadway- Sidewalk	14	1	2	0	0	1
V-ROAD-SHLD	Roadway- Shoulder	14	0	2	0	0	1
V-ROAD-SHLD-LT	Roadway- Shoulder Left	14	0	2	0	0	1
V-ROAD-SHLD-RT	Roadway- Shoulder Right	14	0	2	0	0	1
V-ROAD-SWLK	Roadway- Sidewalk	14	0	2	0	0	1
V-ROAD-SWLK-BAK	Roadway- Sidewalk Back	14	0	2	0	0	1
V-ROAD-SWLK-FAC	Roadway- Sidewalk Front	14	0	2	0	0	1
V-SITE	Site	150	0	1	0	0	1
V-SITE-BLBRD	Site - Billboard	150	1	2	0	0	1
V-SITE-BNDY	Site - Boundary	150	1	2	0	1	1
V-SITE-BOLRD	Site - Bollard	150	1	2	0	0	1
V-SITE-BRNG	Site - Bearing	150	1	2	0	0	1
V-SITE-CELL-TWR	Site - Cell Tower	150	1	2	0	0	1
V-SITE-CNT-PL	Site - Catinary Pole	150	1	2	0	0	1
V-SITE-DH	Site - Drill Hole	150	1	2	0	0	1
V-SITE-DVWY	Site - Driveway	150	0	1	0	0	1
V-SITE-EDG-WDS	Site - Edge of Woods	150	1	2	0	0	1
V-SITE-ESMT	Site - Easement	150	0	2	0	1	1
V-SITE-ESMT-HTCH	Site - Easement Hatch	150	0	2	0	1	1
V-SITE-FHYD	Site - Fire Hydrant	150	1	2	0	0	1
V-SITE-FLD	Site - Field	150	1	2	0	0	1
V-SITE-FLG-PL	Site - Flag Pole	150	1	2	0	0	1
V-SITE-FNCE	Site - Fences	150	FENCE	1	0	0	1



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V-SITE-FNCE-SILT	Site - Silt Fence	150	0	2	0	1	1
V-SITE-FNC-LN	Site - Fence Line	150	1	2	0	0	1
V-SITE-FNC-PST	Site - Fence Post	150	1	2	0	0	1
V-SITE-FNC-ROW	Site - Fence Row	150	1	2	0	0	1
V-SITE-GT	Site - Gate	150	1	2	0	0	1
V-SITE-HDGE	Site - Hedge	150	1	2	0	0	1
V-SITE-JB	Site - Junction Box	150	1	2	0	0	1
V-SITE-LAKE	Site - Lake	150	1	2	0	0	1
V-SITE-LGHT-PST	Site - Light Post	150	1	2	0	0	1
V-SITE-LGHT-STND	Site - Light Stand	150	1	2	0	0	1
V-SITE-LNSC	Site - Landscape, Trees, Shrubs	150	0	1	0	0	1
V-SITE-LNSCA	Site - Landscape Area	150	1	2	0	0	1
V-SITE-LNSC-SHR	Site - Landscape Shrub	150	0	2	0	0	1
V-SITE-LNSC-TREEC	Site - Landscape Tree Coniferous	150	0	2	0	0	1
V-SITE-LNSC-TREED	Site - Landscape Tree Deciduous	150	0	2	0	0	1
V-SITE-LNSC-WETL	Site - Vegetation Wetlands	150	0	2	0	0	1
V-SITE-LNSC-WETL-WET	Site - Vegetation Wetlands Flag	150	1	2	0	0	1
V-SITE-LOD	Site - Limit of Disturbance	150	0	2	0	1	1
V-SITE-MCWE-TWR	Site - Microwave Tower	150	1	2	0	0	1
V-SITE-MISC	Site - Misc	150	1	1	0	0	1
V-SITE-MISC-CBX	Site - Misc Call Box	150	0	2	0	0	1
V-SITE-MISC-CIST	Site - Misc Cistern	150	0	2	0	0	1
V-SITE-MISC-FP	Site - Misc Fire Protection	150	0	2	0	0	1
V-SITE-MISC-MB	Site - Misc Mailbox	150	0	2	0	0	1
V-SITE-MISC-POST	Site - Misc Post	150	0	2	0	0	1
V-SITE-MONWELL	Site - Monitoring Well	150	1	2	0	0	1
V-SITE-MRKG	Site - Markings	150	0	1	0	0	1
V-SITE-MRKR	Site - Marker	150	1	2	0	0	1
V-SITE-PST	Site - Post	150	1	2	0	0	1
V-SITE-REBAR	Site - Rebar	150	1	2	0	0	1
V-SITE-REBAR-WCAP	Site - Rebar with Cap	150	1	2	0	0	1
V-SITE-RIP-RAP	Site - Rip Rap	150	1	2	0	0	1



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V-SITE-RW	Site - Right of way	150	0	2	0	1	1
V-SITE-SCAN	Site - Scan	150	0	1	0	0	1
V-SITE-SIGN	Site - Sign	150	0	1	0	0	1
V-SITE-SIGN-TCS	Site - Temporary Construction Sign	150	0	2	0	0	1
V-SITE-SILO	Site - Silo	150	1	2	0	0	1
V-SITE-STN-FEN	Site - Stone Fence	150	1	2	0	0	1
V-SITE-STN-MNMT	Site - Stone Monument	150	1	2	0	0	1
V-SITE-STN-ROW	Site - Stone Right of Way	150	1	2	0	0	1
V-SITE-TEL-LNMRK	Site - Telephone Line Marker	150	1	2	0	0	1
V-SITE-TEL-MH	Site - Telephone Manhole	150	1	2	0	0	1
V-SITE-TEL-MRKOUT	Site - Telephone Markout	150	1	2	0	0	1
V-SITE-TEL-PED	Site - Telephone Pedestal	150	1	2	0	0	1
V-SITE-TEL-PL	Site - Telephone Pole	150	1	2	0	0	1
V-SITE-UTIL	Site - Utility	150	0	1	0	0	1
V-SITE-UTIL-GUYA	Site - Utility Guy Wire	150	0	2	0	0	1
V-SITE-UTIL-GUYP	Site - Utility Guy Pole	150	0	2	0	0	1
V-SITE-UTIL-LP	Site - Utility Light Post	150	0	2	0	0	1
V-SITE-UTIL-PL	Site - Utility Pole	150	1	2	0	0	1
V-SITE-UTIL-UP	Site - Utility Pole	150	0	2	0	0	1
V-SITE-WALL	Site - Walls	150	FENCELINE2	1	0	0	1
V-SITE-WDLN	Site - Wood Line	150	1	2	0	0	1
V-SITE-WETL-FLG	Site - Vegetation Wetlands Flag	150	1	2	0	0	1
V-SITE-WETL-PRBE	Site - Vegetation Wetlands Probe	150	1	2	0	0	1
V-SSWR	Sanitary Sewer	92	0	1	0	0	1
V-SSWR-CO	Sanitary Sewer - Clean Out	92	0	2	0	0	1
V-SSWR-MH	Sanitary Sewer - Manhole	92	1	2	0	0	1
V-SSWR-MOSAN	Sanitary Sewer - Sanitary Markout	92	0	2	0	0	1
V-SSWR-MRKOUT	Sanitary Sewer - Sanitary Markout	92	1	2	0	0	1
V-SSWR-PIPE	Sanitary Sewer - Pipes	92	0	1	0	0	1
V-SSWR-SPT-TNK	Sanitary Sewer - Septic Tank	92	1	2	0	0	1
V-SSWR-STP	Sanitary Sewer - Sanitary Stop	92	0	2	0	0	1
V-SSWR-STRC	Sanitary Sewer - Structures	92	0	1	0	0	1



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V-SSWR-STRC-MHSAN	Sanitary Sewer - Manhole	92	0	2	0	0	1
V-SSWR-STRC-SET	Sanitary Sewer - Structure Set	92	0	2	0	0	1
V-STRC-BARN	Structure - Tunnel	44	0	2	0	0	1
V-STRC-BLDG	Structure - Building	44	0	2	0	0	1
V-STRC-FND	Structure - Foundation	44	0	2	0	0	1
V-STRC-HOUS	Structure - House	44	0	2	0	0	1
V-STRC-MISC	Structure - Misc	44	1	2	0	0	1
V-STRC-PILG	Structure - Piling	44	0	2	0	0	1
V-STRM	Storm Drain	67	PIPE EXISTING	1	0	0	1
V-STRM-ANNO	Storm Water - Annotation	67	0	2	0	0	1
V-STRM-ARCH	Storm Water - Arch	67	0	2	0	0	1
V-STRM-BOXC	Storm Water - Box Culvert	67	0	2	0	0	1
V-STRM-HDWL	Storm Water - Headwall	67	0	2	0	0	1
V-STRM-INLT	Storm Water - Inlet	67	0	2	0	0	1
V-STRM-MHOL	Storm Water - ManHole	67	0	2	0	0	1
V-STRM-MOSS	Storm Water - Markout	67	0	2	0	0	1
V-STRM-NOTE	Storm Water - Note	67	0	2	0	0	1
V-STRM-PIPE	Storm Drain - Pipes	67	PIPE EXISTING	1	0	0	1
V-STRM-PT	Storm Water - Point	67	0	2	0	0	1
V-STRM-RRP	Storm Water - Rip-Rap	67	0	2	0	0	1
V-STRM-STRC	Storm Drain - Structures	67	0	1	0	0	1
V-STRM-STRC-AD	Storm Water - Structure Area Drain	67	0	2	0	0	1
V-STRM-STRC-BHW	Storm Water - Structure Bottom Headwall	67	0	2	0	0	1
V-STRM-STRC-INL	Storm Water - Structure Inlet	67	0	2	0	0	1
V-STRM-STRC-MHSS	Storm Water - Structure Manhole	67	0	2	0	0	1
V-STRM-STRC-THW	Storm Water - Structure Top Headwall	67	0	2	0	0	1
V-SURF	Surface	6	0	1	0	0	1
V-SURF-BDR	Surface - Boundary	6	0	1	0	0	1
V-SURF-BL	Surface - Base Line	6	1	2	0	0	1
V-SURF-BNDY	Surface - Boundary	6	0	1	0	0	1
V-SURF-BNDY-EXTR	Surface - Boundary Exterior	6	0	1	0	0	1
V-SURF-BNDY-INTR	Surface - Boundary Interior	6	0	1	0	0	1



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V-SURF-BRK-LN	Surface - Breakline	6	1	2	0	0	1
V-SURF-CONT	Surface - Contours	6	0	1	0	0	1
V-SURF-CONT-FL-ARR	Surface - Contours Flowline	6	0	1	0	0	1
V-SURF-CONT-HP	Surface - Contours High Point	6	0	1	0	0	1
V-SURF-CONT-IMP	Surface - Contours	6	0	1	0	0	1
V-SURF-CONT-LP	Surface - Contours Low Point	6	0	1	0	0	1
V-SURF-CONT-MAJR	Surface - Contours Major	6	1	1	0	0	1
V-SURF-CONT-MINR	Surface - Contours Minor	6	0	1	0	0	1
V-SURF-CONT-SPOT	Surface - Contours Spot Elevations	6	0	1	0	0	1
V-SURF-DIMS	Surface - Dimensions	6	0	2	0	0	1
V-SURF-ELEV	Surface - Elevations	6	0	1	0	0	1
V-SURF-EXIST	Surface - Existing	6	0	1	0	0	1
V-SURF-EX-PROF	Surface - Existing Profile	6	0	1	0	0	1
V-SURF-FALT	Surface - Fault	6	0	1	0	0	1
V-SURF-HOLE	Surface - Hole	6	0	1	0	0	1
V-SURF-ISLND	Surface - Island	6	0	1	0	0	1
V-SURF-NOTE	Surface - Notes	6	0	2	0	0	1
V-SURF-PMTR	Surface - Perimeter	6	0	1	0	0	1
V-SURF-PNTS	Surface - Points	6	0	1	0	0	1
V-SURF-PROP-PROF	Surface - Proposed Profile	6	0	1	0	0	1
V-SURF-PTRN	Surface - Pattern	6	0	1	0	0	1
V-SURF-SLOP	Surface - Slope	6	0	1	0	0	1
V-SURF-SPOT	Surface - Spot	6	0	1	0	0	1
V-SURF-SYMB	Surface - Symbol	6	0	1	0	0	1
V-SURF-TEXT	Surface - Text	6	0	2	0	0	1
V-SURF-TRIA	Surface - Triangles	6	0	1	0	0	1
V-SURF-TRIA-VERT	Surface - Triangles Vertex	6	0	1	0	0	1
V-SURF-VOID	Surface - Void	6	0	1	0	0	1
V-SURV-ACHR	Survey -Anchor	44	0	2	0	0	1
V-SURV-ALGN	Survey - Centerline	44	0	2	0	0	1
V-SURV-ANCHOR	Survey -Anchor	44	1	2	0	0	1
V-SURV-ANNO	Survey - Annotation	44	0	2	0	0	1



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V-SURV-BCN	Survey - Beacon	44	0	2	0	0	1
V-SURV-BEACON	Survey - Beacon	44	1	2	0	0	1
V-SURV-BL	Survey - Baseline	44	0	2	0	0	1
V-SURV-CHCK	Survey - Check	44	0	2	0	0	1
V-SURV-CONS-BL	Survey - Construction Breakline	44	0	2	0	0	1
V-SURV-CP	Survey - Control Points	44	1	2	0	0	1
V-SURV-CTPT	Survey - Control Points Proposed	44	0	2	0	0	1
V-SURV-DATA-NOTE	Survey - Data Note	44	0	2	0	0	1
V-SURV-DEFT	Survey - DEFT	44	0	2	0	0	1
V-SURV-DEFT-LINR	Survey - LINR	44	0	2	0	0	1
V-SURV-FDPT	Survey - FDPT	44	0	2	0	0	1
V-SURV-FIG-BARN	Survey Figures - Barn	44	0	2	0	1	1
V-SURV-FIG-BB	Survey Figures - Bottom Bank	44	0	2	0	1	1
V-SURV-FIG-BRIDGE	Survey Figures - Bridge	44	0	2	0	1	1
V-SURV-FIG-BRL	Survey Figures - Brushline	44	0	2	0	1	1
V-SURV-FIG-BUI	Survey Figures - Building	44	0	2	0	1	1
V-SURV-FIG-BUI-ROOF	Survey Figures - Building Roof	44	0	2	0	1	1
V-SURV-FIG-CELL	Survey Figure - Cell tower	44	0	2	0	1	1
V-SURV-FIG-CL	Survey Figures - Centerline	44	0	2	0	1	1
V-SURV-FIG-CLM	Survey Figures - Cable Line Marker	44	0	2	0	1	1
V-SURV-FIG-CLRR	Survey Figures - Railroad	44	0	2	0	1	1
V-SURV-FIG-CON	Survey Figures - Concrete	44	0	2	0	1	1
V-SURV-FIG-DIT	Survey Figures - Ditch	44	0	2	0	1	1
V-SURV-FIG-DYL	Survey Figures - Double Yellow Line	44	0	2	0	1	1
V-SURV-FIG-EC	Survey Figures - Edge Curb	44	0	2	0	1	1
V-SURV-FIG-ED	Survey Figures - Edge Drive	44	0	2	0	1	1
V-SURV-FIG-ELEC	Survey Figures - Electric	44	0	2	0	1	1
V-SURV-FIG-ER	Survey Figures - Edge Road	44	0	2	0	1	1
V-SURV-FIG-ES	Survey Figures - Edge Shoulder	44	0	2	0	1	1
V-SURV-FIG-EW	Survey Figures - Edge Woods	44	0	2	0	1	1
V-SURV-FIG-FEN	Survey Figures - Fence	44	0	2	0	1	1
V-SURV-FIG-FENRW	Survey Figures - Fence Right of Way	44	0	2	0	1	1



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V-SURV-FIG-FIBR-OVHD	Survey Figures - Fiber Overhead	44	0	2	0	1	1
V-SURV-FIG-FIBR-UG	Survey Figures - Fiber Underground	44	0	2	0	1	1
V-SURV-FIG-FL	Survey Figures - Flowline	44	0	2	0	1	1
V-SURV-FIG-GLM	Survey Figures - Gas Line Marker	44	0	2	0	1	1
V-SURV-FIG-GR	Survey Figures - Guide Rail	44	0	2	0	1	1
V-SURV-FIG-ML	Survey Figures - Mun Line	44	0	2	0	1	1
V-SURV-FIG-OHC	Survey Figures - Overhead Cable	44	0	2	0	1	1
V-SURV-FIG-OHE	Survey Figures - Overhead Electric	44	0	2	0	1	1
V-SURV-FIG-OHT	Survey Figures - Telephone	44	0	2	0	1	1
V-SURV-FIG-OHW	Survey Figures - Wire	44	0	2	0	1	1
V-SURV-FIG-PL	Survey Figures - Parking Lot	44	0	2	0	1	1
V-SURV-FIG-PLM	Survey Figures - Petroleum	44	0	2	0	1	1
V-SURV-FIG-POR	Survey Figures - Porch	44	0	2	0	1	1
V-SURV-FIGR	Survey Figures - General	44	0	1	0	0	1
V-SURV-FIG-SKL	Survey Figures - Skipline	44	0	2	0	1	1
V-SURV-FIG-SL	Survey Figures - Sanitary Line	44	0	2	0	1	1
V-SURV-FIG-STFEN	Survey Figures - Stone Fence	44	0	2	0	1	1
V-SURV-FIG-SW	Survey Figures - Sidewalk Conc	44	0	2	0	1	1
V-SURV-FIG-SWL	Survey Figures - Single White Line	44	0	2	0	1	1
V-SURV-FIG-SYL	Survey Figures - Single Yellow Line	44	0	2	0	1	1
V-SURV-FIG-TB	Survey Figures - Top Bank	44	0	2	0	1	1
V-SURV-FIG-TC	Survey Figures - Top of Curb	44	0	2	0	1	1
V-SURV-FIG-TOP	Survey Figures - Top of Storm Drain Pipe	44	0	2	0	1	1
V-SURV-FIG-TW	Survey Figures - Top of Wall	44	0	2	0	1	1
V-SURV-FIG-UEL	Survey Figures - Underground Electric	44	0	2	0	1	1
V-SURV-FIG-WD	Survey Figures - Wetland Delineation	44	0	2	0	1	1
V-SURV-FIG-WLM	Survey Figures - Waterline Marker	44	0	2	0	1	1
V-SURV-FIG-WR	Survey Figures - Woods Row	44	0	2	0	1	1
V-SURV-INRD	Survey - Iron Rod	44	0	2	0	0	1
V-SURV-IRONROD	Survey - IronRod	44	1	2	0	0	1
V-SURV-LABL	Survey - Labels	44	0	1	0	0	1
V-SURV-LINE	Survey - Lines	44	0	1	0	0	1



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V-SURV-MCONC	Survey - Monument Concrete	44	0	2	0	0	1
V-SURV-MDRL	Survey - Monitoring Drill	44	0	2	0	0	1
V-SURV-MNAIL	Survey - Monument Nail	44	0	2	0	0	1
V-SURV-MONCONC	Survey - MonConc	44	1	2	0	0	1
V-SURV-MONDRILLED	Survey - MonDrilled	44	0	2	0	0	1
V-SURV-MONNAIL	Survey - MonNail	44	1	2	0	0	1
V-SURV-MONOTHER	Survey - MonOther	44	0	2	0	0	1
V-SURV-MONPIPE	Survey - MonPipe	44	1	2	0	0	1
V-SURV-MONSTAKE	Survey - MonStake	44	0	2	0	0	1
V-SURV-MONSTAMPDISK	Survey - MonStampDisk	44	1	2	0	0	1
V-SURV-MONSTAMPPLATE	Survey - MonStampPlate	44	0	2	0	0	1
V-SURV-MONWOODPOST	Survey - MonWoodPost	44	1	2	0	0	1
V-SURV-MOTR	Survey - Monumnet Other	44	0	2	0	0	1
V-SURV-MPIP	Survey - Monument Pipe	44	0	2	0	0	1
V-SURV-MSPDSK	Survey - Monument Stamp Disk	44	0	2	0	0	1
V-SURV-MSPPLT	Survey - Monument Stamp Plate	44	0	2	0	0	1
V-SURV-MSTKE	Survey - Monument Stake	44	0	2	0	0	1
V-SURV-MWDPST	Survey - Monument Wood Post	44	0	2	0	0	1
V-SURV-NTWK	Survey - Network	44	0	1	0	0	1
V-SURV-OBSRV	Survey - Obervation	44	1	2	0	0	1
V-SURV-OBSV	Survey - Observation	44	0	2	0	0	1
V-SURV-PLAN-BL	Survey - Plan Breakline	44	0	2	0	0	1
V-SURV-PLAN-CL	Survey - Plan Centerline	44	0	2	0	0	1
V-SURV-PLAN-PNTS	Survey - Plan Points	44	0	2	0	0	1
V-SURV-PNT	Survey - Point	44	0	2	0	0	1
V-SURV-POINT	Survey - Point	44	0	2	0	0	1
V-SURV-PROPERTYCORNER	Survey - PropertyCorner	44	1	2	0	0	1
V-SURV-PRPCRN	Survey - Property Corner	44	0	2	0	0	1
V-SURV-PT	Survey - Point	44	0	2	0	0	1
V-SURV-SETU	Survey - Setup	44	0	2	0	0	1
V-SURV-STUPS	Survey - Setups	44	1	2	0	0	1
V-SURV-SURVEYCONTROL	Survey - Survey Control	44	1	2	0	0	1



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V-SURV-SVCTRL	Survey - Survey Control	44	0	2	0	0	1
V-SURV-TARGET	Survey - Target	44	1	2	0	0	1
V-SURV-TRAV	Survey - Travel Way	44	0	2	0	0	1
V-SURV-TRAVERSE	Survey - Traverse	44	1	2	0	0	1
V-SURV-TRGT	Survey - Target	44	0	2	0	0	1
V-SURV-TRNS	Survey - Traverse	44	1	2	0	0	1
V-TERRAIN-EXTERIOR	Survey - Terrain Exterior	44	1	2	0	0	1
V-TOPO	Topo	9	0	1	0	0	1
V-TOPO-ANNO	Topo - Annotation	9	0	2	0	0	1
V-TOPO-AREA-PT	Topo - Area Point	9	0	2	0	0	1
V-TOPO-ARLB	Topo - ARLB	9	0	2	0	0	1
V-TOPO-BANK-BOTM	Topo - Bank Bottom	9	0	2	0	0	1
V-TOPO-BANK-TOPP	Topo - Bank Top	9	0	2	0	0	1
V-TOPO-BERM	Topo - Berm	9	0	2	0	0	1
V-TOPO-BLDR	Topo - Boulder	9	0	2	0	0	1
V-TOPO-BORE	Topo - Borehole	9	0	1	0	0	1
V-TOPO-BREK-VOID	Topo - VOID	9	0	2	0	0	1
V-TOPO-BRKL	Topo - Breakline	9	0	1	0	0	1
V-TOPO-BRKLN	Topo - Breakline	9	0	2	0	0	1
V-TOPO-CELL	Topo - Cell Tower	9	0	2	0	1	1
V-TOPO-CONC	Topo - Concrete	9	0	1	0	0	1
V-TOPO-DTBTM	Topo - Ditch Bottom	9	0	2	0	0	1
V-TOPO-DTCH-BOTM	Topo - Ditch Bottom	9	0	2	0	0	1
V-TOPO-DTCH-PT	Topo - Ditch Point	9	0	2	0	0	1
V-TOPO-DTFL	Topo - Ditch Flow	9	0	2	0	0	1
V-TOPO-DTTOP	Topo - Ditch Top	9	0	2	0	0	1
V-TOPO-EWAT	Topo - Existing Water	9	FENCELINE2	1	0	0	1
V-TOPO-FENC	Topo - Fence	9	0	2	0	0	1
V-TOPO-GABI	Topo - Gabions	9	0	2	0	0	1
V-TOPO-GATE	Topo - Gate	9	0	2	0	0	1
V-TOPO-ISLD	Topo - Island	9	0	2	0	0	1
V-TOPO-MAJR	Topo - Major Gridlines	9	3	1	0	0	1



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V-TOPO-MINR	Topo - Minor Gridlines	9	2	1	0	0	1
V-TOPO-MLBX	Topo - Mailbox	9	0	2	0	0	1
V-TOPO-OLDG	Topo - OLDG	9	0	2	0	0	1
V-TOPO-PND	Topo - Pond	9	0	2	0	0	1
V-TOPO-PNTS-REGL	Topo - Points Regular	9	0	2	0	0	1
V-TOPO-POLE-POST	Topo - Pole Post	9	0	2	0	0	1
V-TOPO-PT	Topo - Point	9	0	2	0	0	1
V-TOPO-RDGLN	Topo - Ridgeline	9	0	2	0	0	1
V-TOPO-ROCK	Topo - Rock	9	0	2	0	0	1
V-TOPO-SIGN	Topo - Sign	9	0	2	0	0	1
V-TOPO-SLBTM	Topo - Slope Bottom	9	0	2	0	0	1
V-TOPO-SLELEV	Topo - Slope Elevation	9	0	2	0	0	1
V-TOPO-SLP	Topo - Slope	9	0	2	0	0	1
V-TOPO-SLTOP	Topo - Slope Top	9	0	2	0	0	1
V-TOPO-SPOT	Topo - Spot Elevations	9	0	2	0	0	1
V-TOPO-SROW	Topo - SROW	9	0	2	0	0	1
V-TOPO-TERSL	Topo - Terrain Slope	9	0	2	0	0	1
V-TOPO-WALL-BOTM	Topo - Wall Bottom	9	0	2	0	0	1
V-TOPO-WALL-BOTM-PT	Topo - Wall Bottom Point	9	0	2	0	0	1
V-TOPO-WALL-RETN	Topo - Wall Retention	9	0	2	0	0	1
V-TOPO-WALL-TOPP	Topo - Wall Top	9	0	2	0	0	1
V-TOPO-WALL-TOPP-PT	Topo - Wall Top Point	9	0	2	0	0	1
V-TOPO-WTREDG	Topo - Water Edge	9	0	2	0	0	1
V-TRAF-BUOY	Traffic -FIC Buoy	44	1	2	0	0	1
V-TRAF-DELCIRCLE	Traffic -FIC DelCircle	44	1	2	0	0	1
V-TRAF-DELPOST	Traffic -FIC DelPost	44	1	2	0	0	1
V-TRAF-HANDICAP	Traffic -FIC Handicap	44	1	2	0	0	1
V-TRAF-PARKINGMETER	Traffic -FIC ParkingMeter	44	1	2	0	0	1
V-TRAF-PAVMENTMARK	Traffic -FIC PavmentMark	44	1	2	0	0	1
V-TRAF-PEDSIGNAL	Traffic -FIC PedSignal	44	1	2	0	0	1
V-TRAF-PT	Traffic - Point	44	0	2	0	0	1
V-TRAF-PVMK-PT	Traffic - Pavement Marking Point	44	0	2	0	0	1



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V-TRAF-PVMK-WH	Traffic - Pavement Marking White Line	44	0	2	0	0	1
V-TRAF-PVMK-YL	Traffic - Pavement Marking Yellow Line	44	0	2	0	0	1
V-TRAF-PVMTMRKR	Traffic - TRAFFIC PvmtMrkr	44	0	2	0	0	1
V-TRAF-SGNL	Traffic - Signal	44	0	2	0	0	1
V-TRAF-SGNL-CABI	Traffic - Signal Cable	44	0	2	0	0	1
V-TRAF-SIGNALCNTRL	Traffic -FIC SignalCntrl	44	1	2	0	0	1
V-TRAF-SIGNALHEAD	Traffic -FIC SignalHead	44	1	2	0	0	1
V-TRAF-SIGNALHEADPEDISTAL	Traffic -FIC SignalHeadPedistal	44	1	2	0	0	1
V-TRAF-SIGNALMASTARM	Traffic -FIC SignalMastArm	44	1	2	0	0	1
V-TRAF-SIGNALMCS	Traffic -FIC SignalMCS	44	1	2	0	0	1
V-TRAF-SIGNALSPAN	Traffic - TRAFFICFIC SignalSpan	44	1	2	0	0	1
V-TRAF-SIGNALSPS	Traffic -FIC SignalSPS	44	1	2	0	0	1
V-TRAF-SIGNALSUPP	Traffic - TRAFFICFIC Signalsupp	44	1	2	0	0	1
V-TRAF-SIGNSPS	Traffic -FIC SignSPS	44	1	2	0	0	1
V-TRFF	Traffic	44	0	2	0	0	1
V-TRFF-DEL-PST	Traffic - Delineator Post	44	1	2	0	0	1
V-TRFF-INST	Traffic - Instrument	44	0	2	0	0	1
V-TRFF-INST-TSCB	Traffic - Instrument Traffic Control Box	44	0	2	0	0	1
V-TRFF-LP-DET	Traffic - Loop Detector	44	1	2	0	0	1
V-TRFF-MISC	Traffic - Misc	44	1	2	0	0	1
V-TRFF-MSGNL-PL	Traffic - Misc Signal Pole	44	1	2	0	0	1
V-TRFF-PRK-MRK	Traffic -Parking Marker	44	1	2	0	0	1
V-TRFF-SGN	Traffic -Sign	44	1	2	0	0	1
V-TRFF-SGNL-MAST	Traffic -Signal Mast	44	1	2	0	0	1
V-TRFF-SGNL-PL	Traffic -Signal Pole	44	1	2	0	0	1
V-TRFF-SNGL-CB	Traffic - Signal Control Box	44	1	2	0	0	1
V-TRRF-BUOY	Traffic - Buoy	44	0	2	0	0	1
V-TRRF-DECRC	Traffic - Del Circle	44	0	2	0	0	1
V-TRRFDEPST	Traffic - Del Post	44	0	2	0	0	1
V-TRRF-ELPL	Traffic - Electric Light Pole	44	0	2	0	0	1
V-TRRF-HNDPCP	Traffic - Handicap	44	0	2	0	0	1
V-TRRF-PAVM	Traffic - Pavement Marking	44	0	2	0	0	1



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V-TRRF-PEDSGN	Traffic - Pedestrian Signal	44	0	2	0	0	1
V-TRRF-PRKMTR	Traffic - Parking Meter	44	0	2	0	0	1
V-TRRF-SGNLCTRL	Traffic - Signal Central	44	0	2	0	0	1
V-TRRF-SGNLHD	Traffic - Signal Head	44	0	2	0	0	1
V-TRRF-SGNLHDPED	Traffic - Signal Head Pedestal	44	0	2	0	0	1
V-TRRF-SGNLMCS	Traffic - Signal Maintenance Hole Cover	44	0	2	0	0	1
V-TRRF-SGNLMST	Traffic - Signal Mast Arm	44	0	2	0	0	1
V-TRRF-SGNLSPN	Traffic - Signal Span	44	0	2	0	0	1
V-TRRF-SGNLSPS	Traffic - Signal Smart Penalty System	44	0	2	0	0	1
V-TRRF-SGNSPS	Traffic - Sign Smart Penalty System	44	0	2	0	0	1
V-UTIL-ANNO	Utility - Annotation	1	0	2	0	0	1
V-UTIL-CATV-LINE	Utility - Cable TV Line	30	0	2	0	0	1
V-UTIL-CATV-MARK	Utility - Cable TV Marker	30	0	2	0	0	1
V-UTIL-CATV-OVHD	Utility - Cable TV Overhead	30	0	2	0	0	1
V-UTIL-CATV-PT	Utility -Cable TV Point	30	0	2	0	0	1
V-UTIL-COMM	Utility - Communications	128	0	2	0	0	1
V-UTIL-COMM-ABOVE	Utility - Comm Above	128	1	2	0	0	1
V-UTIL-COMM-ABVE	Utility - Communications Above	128	0	2	0	0	1
V-UTIL-COMM-ANT	Utility - Communications Antenna	128	0	2	0	0	1
V-UTIL-COMMANTENNA	Utility - CommAntenna	128	1	2	0	0	1
V-UTIL-COMMCABLEBOX	Utility - CommCableBox	128	1	2	0	0	1
V-UTIL-COMM-CBLBX	Utility - Communications Cable Box	128	0	2	0	0	1
V-UTIL-COMM-FIB	Utility - Communications Fiber	128	0	2	0	0	1
V-UTIL-COMMFIBER	Utility - CommFiber	128	0	2	0	0	1
V-UTIL-COMMMANHOLE	Utility - CommManhole	128	1	2	0	0	1
V-UTIL-COMM-MH	Utility - Communications Manhole	128	0	2	0	0	1
V-UTIL-COMM-SAT	Utility - Communications Satellite	128	0	2	0	0	1
V-UTIL-COMMSATELITE	Utility - CommSattelite	128	1	2	0	0	1
V-UTIL-COMMTOWER	Utility - CommTower	128	1	2	0	0	1
V-UTIL-COMM-TWR	Utility - Communications Tower	128	0	2	0	0	1
V-UTIL-EB	Utility - Electrical Box	30	1	2	0	0	1
V-UTIL-ELEC	Utility - Electrical	30	0	2	0	0	1



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V-UTIL-ELEC-FLGT	Utility - Electrical Flood Light	30	0	2	0	0	1
V-UTIL-ELECFLOODLIGHT	Utility - ElecFloodLight	30	0	2	0	0	1
V-UTIL-ELECLIGHTPOLE	Utility - ElecLightPole	30	1	2	0	0	1
V-UTIL-ELECLIGHTPOLEHIGHMAST	Utility - ElecLightPoleHighMast	30	1	2	0	0	1
V-UTIL-ELEC-LTPL	Utility - Electrical Light Pole	30	0	2	0	0	1
V-UTIL-ELECMANHOLE	Utility - ElecManhole	30	1	2	0	0	1
V-UTIL-ELECMETER	Utility - ElecMeter	30	1	2	0	0	1
V-UTIL-ELEC-MH	Utility - Electrical Manhole	30	0	2	0	0	1
V-UTIL-ELEC-MTR	Utility - Electrical Meter	30	0	2	0	0	1
V-UTIL-ELEC-OH	Utility - Electrical Overhead	30	0	2	0	0	1
V-UTIL-ELEC-OTLT	Utility - Electrical Outlet	30	0	2	0	0	1
V-UTIL-ELECOUTLET	Utility - ElecOutlet	30	0	2	0	0	1
V-UTIL-ELEC-PLHM	Utility - Electrical Light Pole High Mast	30	0	2	0	0	1
V-UTIL-ELEC-PLLBX	Utility - Electrical Pull Box	30	0	2	0	0	1
V-UTIL-ELEC-POL	Utility - Electrical Pole	30	0	2	0	0	1
V-UTIL-ELECPOLE	Utility - ElecPole	30	1	2	0	0	1
V-UTIL-ELECPOLEH	Utility - ElecPoleH	30	1	2	0	0	1
V-UTIL-ELEC-POLH	Utility - Electrical Pole Hook	30	0	2	0	0	1
V-UTIL-ELEC-POLTRNS	Utility - Electrical Pole Traverse	30	0	2	0	0	1
V-UTIL-ELECPULLBOX	Utility - ElecPullBox	30	1	2	0	0	1
V-UTIL-ELECRPOLETRANS	Utility - ElectrPoleTrans	30	1	2	0	0	1
V-UTIL-ELECSERVICECAB	Utility - ElecServiceCab	30	1	2	0	0	1
V-UTIL-ELEC-SVCCB	Utility - Electrical Service Cab	30	0	2	0	0	1
V-UTIL-ELEC-TFMR	Utility - Electrical Transformer	30	0	2	0	0	1
V-UTIL-ELECTOWER	Utility - ElecTower	30	1	2	0	0	1
V-UTIL-ELECTRANSFORMER	Utility - ElecTransformer	30	1	2	0	0	1
V-UTIL-ELECTRANSTOWER	Utility - ElecTransTower	30	1	2	0	0	1
V-UTIL-ELEC-TTWR	Utility - Electrical Transformer Tower	30	0	2	0	0	1
V-UTIL-ELEC-TWR	Utility - Electrical Tower	30	0	2	0	0	1
V-UTIL-EMRKOUT	Utility - Electrical Markout	30	1	2	0	0	1



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V-UTIL-FIBR-ANNO	Utility - Fiber Annotation	30	0	2	0	0	1
V-UTIL-FIBR-OVHD	Utility - Fiber Overhead	30	0	2	0	0	1
V-UTIL-FIBR-PT	Utility - Fiber Point	30	0	2	0	0	1
V-UTIL-FIBR-UNDR	Utility - Fiber Underground	30	0	2	0	0	1
V-UTIL-FUEL	Utility - Fuel	30	0	2	0	0	1
V-UTIL-FUELFILLCAP	Utility - FuelFillCap	30	1	2	0	0	1
V-UTIL-FUEL-FLCP	Utility - Fuel Fill Cap	30	0	2	0	0	1
V-UTIL-FUEL-PMP	Utility - Fuel Pump	30	0	2	0	0	1
V-UTIL-FUELPUMP	Utility - FuelPump	30	1	2	0	0	1
V-UTIL-FUEL-STNK	Utility - Fuel Storage Tank	30	0	2	0	0	1
V-UTIL-FUELSTORAGETANK	Utility - FuelStorageTank	30	1	2	0	0	1
V-UTIL-GAS	Utility - Gas	29	0	2	0	0	1
V-UTIL-GASMANHOLE	Utility - GasManhole	29	1	2	0	0	1
V-UTIL-GASMARKER	Utility - GasMarker	29	1	2	0	0	1
V-UTIL-GASMETER	Utility - GasMeter	29	1	2	0	0	1
V-UTIL-GAS-MH	Utility - Gas Manhole	29	0	2	0	0	1
V-UTIL-GAS-MRKR	Utility - Gas Marker	29	0	2	0	0	1
V-UTIL-GAS-MTR	Utility - Gas Meter	29	0	2	0	0	1
V-UTIL-GASREGULATOR	Utility - GasRegulator	29	1	2	0	0	1
V-UTIL-GAS-RGLTR	Utility - Gas Regulator	29	0	2	0	0	1
V-UTIL-GASVALVE	Utility - GasValve	29	1	2	0	0	1
V-UTIL-GASVALVEBOX	Utility - GasValveBox	29	1	2	0	0	1
V-UTIL-GASVALVECOVER	Utility - GasValveCover	29	1	2	0	0	1
V-UTIL-GASVENT	Utility - GasVent	29	1	2	0	0	1
V-UTIL-GAS-VENT	Utility - Gas Vent	29	0	2	0	0	1
V-UTIL-GAS-VL BX	Utility - Gas Valve Box	29	0	2	0	0	1
V-UTIL-GAS-VLCV	Utility - Gas Valve Cover	29	0	2	0	0	1
V-UTIL-GAS-VLVE	Utility - Gas Valve	29	0	2	0	0	1
V-UTIL-GUYA	Utility - Guying Anchor	44	0	2	0	0	1
V-UTIL-GUY-ANCR	Utility - Misc Guy Anchor	44	1	2	0	0	1
V-UTIL-GUY-P	Utility - Guy Pole	44	0	2	0	0	1
V-UTIL-GUY-PL	Utility - Guy Pole	44	1	2	0	0	1



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V-UTIL-GUYS	Utility - Guying Equipment	44	0	2	0	0	1
V-UTIL-JBOX	Utility - Junction Box	44	0	2	0	0	1
V-UTIL-MH	Utility - Manhole	44	1	2	0	0	1
V-UTIL-MHOL	Utility - ManHole	44	0	2	0	0	1
V-UTIL-MISC	Utility - Misc	44	0	2	0	0	1
V-UTIL-MISC-ANCHR	Utility - Misc Anchor	44	0	2	0	0	1
V-UTIL-MISC-GAUG	Utility - Misc Gauge	44	0	2	0	0	1
V-UTIL-MISCGUAGES	Utility - MiscGuages	44	1	2	0	0	1
V-UTIL-MISCGUYANCHOR	Utility - MiscGuyAnchor	44	0	2	0	0	1
V-UTIL-MISCGUYPOLE	Utility - MiscGuyPole	44	0	2	0	0	1
V-UTIL-MISC-GYPL	Utility - Misc Guy Pole	44	0	2	0	0	1
V-UTIL-MISCMANHOLE	Utility - MiscManhole	44	1	2	0	0	1
V-UTIL-MISCMETER	Utility - MiscMeter	44	0	2	0	0	1
V-UTIL-MISC-MH	Utility - Misc Manhole	44	0	2	0	0	1
V-UTIL-MISC-MTR	Utility - Misc Meter	44	0	2	0	0	1
V-UTIL-MISC-PMP	Utility - Misc Pump	44	0	2	0	0	1
V-UTIL-MISCPUMP	Utility - MiscPump	44	1	2	0	0	1
V-UTIL-MISCREG	Utility - MiscReg	44	0	2	0	0	1
V-UTIL-MISC-REG	Utility - Misc Regulator	44	0	2	0	0	1
V-UTIL-MISCVALVE	Utility - MiscValve	44	1	2	0	0	1
V-UTIL-MISCVALVEBOX	Utility - MiscValveBox	44	0	2	0	0	1
V-UTIL-MISCVALVECOVER	Utility - MiscValveCover	44	1	2	0	0	1
V-UTIL-MISCVENT	Utility - MiscVent	44	0	2	0	0	1
V-UTIL-MISC-VLBX	Utility - Misc Valve Box	44	0	2	0	0	1
V-UTIL-MISC-VLCV	Utility - Misc Valve Cover	44	0	2	0	0	1
V-UTIL-MISC-VLVE	Utility - Misc Valve	44	0	2	0	0	1
V-UTIL-MISC-VNT	Utility - Misc Vent	44	0	2	0	0	1
V-UTIL-MTR	Utility - Meter	44	1	2	0	0	1
V-UTIL-NGAS	Utility - Natural Gas	50	0	2	0	0	1
V-UTIL-NGAS-ANNO	Utility - Natural Gas Annotation	50	0	2	0	0	1
V-UTIL-NGAS-LINE	Utility - Natural Gas Line	50	0	2	0	0	1
V-UTIL-NGAS-MARK	Utility - Natural Gas Marker	50	0	2	0	0	1



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V-UTIL-NGAS-METR	Utility - Natural Gas Meter	50	0	2	0	0	1
V-UTIL-NGAS-MHOL	Utility - Natural Gas ManHole	50	0	2	0	0	1
V-UTIL-NGAS-PT	Utility - Natural Gas Point	50	0	2	0	0	1
V-UTIL-NGAS-VLVE	Utility - Natural Gas Valve	50	0	2	0	0	1
V-UTIL-NGAS-WELL	Utility - Natural Gas Well	50	0	2	0	0	1
V-UTIL-OGTC	Utility - Oil Gas T C	116	0	2	0	0	1
V-UTIL-OVHD	Utility - Overhead	116	0	2	0	0	1
V-UTIL-OVHD-CBL-LN	Utility - Overhead Cable Line	116	1	2	0	0	1
V-UTIL-OVHDCOMM	Utility - OvhdComm	116	0	2	0	0	1
V-UTIL-OVHD-ELC-LN	Utility - Overhead Electric Line	116	1	2	0	0	1
V-UTIL-OVHDPWR	Utility - OvhdPwr	116	0	2	0	0	1
V-UTIL-OVHD-TEL-LN	Utility - Overhead Telephone Line	116	1	2	0	0	1
V-UTIL-OVHD-WIRE	Utility - Overhead Wire	116	1	2	0	0	1
V-UTIL-PL	Utility - Pole	3	1	2	0	0	1
V-UTIL-POLE	Utility - Pole	3	0	2	0	0	1
V-UTIL-POLE-PRVT	Utility - Pole Private	3	0	2	0	0	1
V-UTIL-POWR-ANNO	Utility - Power Annotation	116	0	2	0	0	1
V-UTIL-POWR-METR	Utility - Power Meter	116	0	2	0	0	1
V-UTIL-POWR-MHOL	Utility - Power ManHole	116	0	2	0	0	1
V-UTIL-POWR-OVHD	Utility - Power Overhead	116	0	2	0	0	1
V-UTIL-POWR-POLE	Utility - Power Pole	116	0	2	0	0	1
V-UTIL-POWR-PT	Utility - Power Point	116	0	2	0	0	1
V-UTIL-POWR-UNDR	Utility - Power Underground	116	0	2	0	0	1
V-UTIL-PT	Utility - Point	1	0	2	0	0	1
V-UTIL-PTRO-ISLD	Utility - Petroleum Island	12	0	2	0	0	1
V-UTIL-PTRO-PT	Utility - Petroleum Point	12	0	2	0	0	1
V-UTIL-PWR	Utility - Pwr	116	0	2	0	0	1
V-UTIL-SAN	Utility - Sanitary	6	0	2	0	0	1
V-UTIL-SANCLEANOUT	Utility - SanCleanout	6	1	2	0	0	1
V-UTIL-SAN-CLNOUT	Utility - Sanitary Cleanout	6	0	2	0	0	1
V-UTIL-SAN-DMPST	Utility - Sanitary Dumpster	6	0	2	0	0	1
V-UTIL-SANDUMPSTATION	Utility - SanDumpStation	6	1	2	0	0	1



Project Information Modeling Standards Appendix

V-UTIL-SANIT	Utility - Sanit	6	0	2	0	0	1
V-UTIL-SANMANHOLE	Utility - SanManhole	6	1	2	0	0	1
V-UTIL-SAN-MH	Utility - Sanitary Manhole	6	0	2	0	0	1
V-UTIL-SAN-PMPMH	Utility - Sanitary Pump Manhole	6	0	2	0	0	1
V-UTIL-SAN-PMPSTA	Utility - Sanitary Pump House	6	0	2	0	0	1
V-UTIL-SANPUMPMH	Utility - SanPumpMH	6	1	2	0	0	1
V-UTIL-SANPUMPSTA	Utility - SanPumpSta	6	0	2	0	0	1
V-UTIL-SANVALVE	Utility - SanValve	6	1	2	0	0	1
V-UTIL-SANVALVEBOX	Utility - SanValveBox	6	0	2	0	0	1
V-UTIL-SANVALVECOVER	Utility - SanValveCover	6	1	2	0	0	1
V-UTIL-SANVENT	Utility - SanVent	6	0	2	0	0	1
V-UTIL-SAN-VL BX	Utility - Sanitary Valve Box	6	0	2	0	0	1
V-UTIL-SAN-VLCV	Utility - Sanitary Valve Cover	6	0	2	0	0	1
V-UTIL-SAN-VLVE	Utility - Sanitary Valve	6	0	2	0	0	1
V-UTIL-SAN-VNT	Utility - Sanitary Vent	6	0	2	0	0	1
V-UTIL-SSWR-ANNO	Utility - Sanitary Sewer Annotation	6	0	2	0	0	1
V-UTIL-SSWR-CESS	Utility - Sanitary Sewer Cesspool	6	0	2	0	0	1
V-UTIL-SSWR-COUT	Utility - Sanitary Sewer Cleanout	6	0	2	0	0	1
V-UTIL-SSWR-DFLD	Utility - Sanitary Sewer Disposal Field	6	0	2	0	0	1
V-UTIL-SSWR-MHOL	Utility - Sanitary Sewer ManHole	6	0	2	0	0	1
V-UTIL-SSWR-PERC	Utility - Sanitary Sewer Perc	6	0	2	0	0	1
V-UTIL-SSWR-PIPE	Utility - Sanitary Sewer Pipe	6	0	2	0	0	1
V-UTIL-SSWR-PT	Utility - Sanitary SewerPoint	6	0	2	0	0	1
V-UTIL-SSWR-SEPT	Utility - Sanitary Sewer Septic	6	0	2	0	0	1
V-UTIL-SSWR-STPT	Utility - Sanitary Sewer Treatment Plant	6	0	2	0	0	1
V-UTIL-SSWR-VENT	Utility - Sanitary Sewer Vent	6	0	2	0	0	1
V-UTIL-TELBOOTH	Utility - TelBooth	30	1	2	0	0	1
V-UTIL-TEL-BTH	Utility - Telephone Broadcast Telephone Hybrid	30	0	2	0	0	1
V-UTIL-TELL-THERM	Utility - Telephone Thermal	30	0	2	0	0	1
V-UTIL-TELMANHOLE	Utility - TelManhole	30	1	2	0	0	1
V-UTIL-TEL-MH	Utility - Telephone Manhole	30	0	2	0	0	1
V-UTIL-TEL-PAD	Utility - Telephone Pad	30	0	2	0	0	1



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V-UTIL-TELP-ANNO	Utility - Telephone Annotation	30	0	2	0	0	1
V-UTIL-TELPED	Utility - TelPed	30	1	2	0	0	1
V-UTIL-TELP-MARK	Utility - Telephone Marker	30	0	2	0	0	1
V-UTIL-TELP-MHOL	Utility - Telephone ManHole	30	0	2	0	0	1
V-UTIL-TELPOLE	Utility - TelPole	30	1	2	0	0	1
V-UTIL-TELP-OVHD	Utility - Telephone Overhead	30	0	2	0	0	1
V-UTIL-TEL-PPLE	Utility - Telephone Pole	30	0	2	0	0	1
V-UTIL-TELP-POLE	Utility - Telephone Pole	30	0	2	0	0	1
V-UTIL-TELP-PT	Utility - Telephone Pole Point	30	0	2	0	0	1
V-UTIL-TELP-UNDR	Utility - Telephone Underground	30	0	2	0	0	1
V-UTIL-THERM	Utility - Thermal	77	1	2	0	0	1
V-UTIL-VLT	Utility - Vault	77	1	2	0	0	1
V-UTIL-WATER	Utility - Water	2	0	2	0	0	1
V-UTIL-WATERFIREHYDRANT	Utility - WaterFireHydrant	2	1	2	0	0	1
V-UTIL-WATERMANHOLE	Utility - WaterManhole	2	1	2	0	0	1
V-UTIL-WATERMETER	Utility - WaterMeter	2	1	2	0	0	1
V-UTIL-WATERSPRINKLER	Utility - WaterSprinkler	2	1	2	0	0	1
V-UTIL-WATERSTANDPIPE	Utility - WaterStandpipe	2	1	2	0	0	1
V-UTIL-WATERSTORAGETANK	Utility - WaterStorageTank	2	1	2	0	0	1
V-UTIL-WATERVALVE	Utility - WaterValve	2	1	2	0	0	1
V-UTIL-WATERVALVEBOX	Utility - WaterValveBox	2	1	2	0	0	1
V-UTIL-WATERVALVECOVER	Utility - WaterValveCover	2	1	2	0	0	1
V-UTIL-WATERWELL	Utility - WaterWell	2	1	2	0	0	1
V-UTIL-WATR	Utility - Water	2	0	2	0	0	1
V-UTIL-WATR-ANNO	Utility - Water Annotation	2	0	2	0	0	1
V-UTIL-WATR-CELL	Utility - Water Cell	2	0	2	0	0	1
V-UTIL-WATR-CIST	Utility - Water Cistern	2	0	2	0	0	1
V-UTIL-WATR-HYDR	Utility - Water Hydrology	2	0	2	0	0	1
V-UTIL-WATR-LINE	Utility - Water Line	2	0	2	0	0	1
V-UTIL-WATR-MARK	Utility - Water Marker	2	0	2	0	0	1



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V-UTIL-WATR-METR	Utility - Water Meter	2	0	2	0	0	1
V-UTIL-WATR-MTR	Utility - Water Meter	2	0	2	0	0	1
V-UTIL-WATR-POOL	Utility - Water Pool	2	0	2	0	0	1
V-UTIL-WATR-PT	Utility - Water Point	2	0	2	0	0	1
V-UTIL-WATR-SPRG	Utility - Water Spring	2	0	2	0	0	1
V-UTIL-WATR-VLVE	Utility - Water Valve	2	0	2	0	0	1
V-UTIL-WATR-WELL	Utility - Water Well	2	0	2	0	0	1
V-UTIL-WTR	Utility - Water	2	0	2	0	0	1
V-UTIL-WTR-FH	Utility - Water Fire Hydrant	2	0	2	0	0	1
V-UTIL-WTR-MH	Utility - Water Manhole	2	0	2	0	0	1
V-UTIL-WTR-MTR	Utility - Water Meter	2	0	2	0	0	1
V-UTIL-WTR-SPNKLR	Utility - Water Sprinkler	2	0	2	0	0	1
V-UTIL-WTR-STDPIP	Utility - Water Stand Pipe	2	0	2	0	0	1
V-UTIL-WTR-STGTNK	Utility - Water Storage Tank	2	0	2	0	0	1
V-UTIL-WTR-VLVBX	Utility - Water Valve Box	2	0	2	0	0	1
V-UTIL-WTR-VLCV	Utility - Water Valve Cover	2	0	2	0	0	1
V-UTIL-WTR-VLVE	Utility - Water Valve	2	0	2	0	0	1
V-UTIL-WTR-WELL	Utility - Water Well	2	0	2	0	0	1
V-WATR	Water	2	XUT-W	1	0	0	1
V-WATR-INST	Water - Instrument	2	0	1	0	0	1
V-WATR-INST-FH	Water - Instrument Fire Hydrant	2	0	2	0	0	1
V-WATR-INST-WM	Water - Instrument Water Meter	2	0	2	0	0	1
V-WATR-INST-WV	Water - Instrument Water Valve	2	0	2	0	0	1
V-WATR-LNMRKR	Water - Line Marker	2	1	2	0	0	1
V-WATR-MH	Water - Manhole	2	1	2	0	0	1
V-WATR-MOW	Water - Markout	2	0	2	0	0	1
V-WATR-MRKOUT	Water - Markout	2	1	2	0	0	1
V-WATR-MTR	Water - Meter	2	1	2	0	0	1
V-WATR-STRC	Water - Structure	2	0	1	0	0	1
V-WATR-STRC-MHW	Water - Structure Manhole	2	0	2	0	0	1
V-WATR-TWR	Water - Tower	2	1	2	0	0	1
V-WATR-VLVE	Water - Valve	2	1	2	0	0	1



Project Information Modeling Standards Appendix

V-WATR-VLVE-CRB-STP	Water - Valve Curb Stop	2	1	2	0	0	1
V-WATR-WELL	Water - Well	2	0	2	0	0	1
V-WATR-WTRWAY	Water - Waterway	2	1	2	0	0	1
V-WETL-DELN	Wetland - Delineation	19	0	2	0	0	1
V-WETL-PT	Wetland Point	19	0	2	0	0	1
V-WWAY-CANL	WaterWay - Canal	19	0	2	0	0	1
V-WWAY-CREK	WaterWay - Creek	19	0	2	0	0	1
V-WWAY-LAKE	WaterWay - Lake	19	0	2	0	0	1
V-WWAY-LEVE	WaterWay - Levee	19	0	2	0	0	1
V-WWAY-POND	WaterWay - Pond	19	0	2	0	0	1
V-WWAY-PT	WaterWay - Point	19	0	2	0	0	1
V-WWAY-RIVR	WaterWay - River	19	0	2	0	0	1
V-WWAY-RRAP	WaterWay - Rip-rap	19	0	2	0	0	1
V-WWAY-SNDG	WaterWay - Sounding	19	0	2	0	0	1
V-WWAY-STRM	WaterWay - Storm	19	0	2	0	0	1
Z - CONSTRUCTION	Construction Line work (No Plot)	4	0	2	0	0	0



14.6 LAYER/LEVEL FILTERS

14.6.1 CIVIL 3D LAYER FILTERS

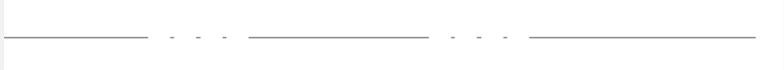
Filter Name	Abbreviation
All Utilities	“C-CATV-*”, “C-FIBR-*”, “C-NGAS-*”, “C-POWR-*”, “C-PTRO-*”, “C-SSWR-*”, “C-STRM-*”, “C-TELP-*”, “C-UTIL-*”, “C-WATR-*”, “V-CATV-*”, “V-COMM-*”, “V-FUEL-*”, “V-NGAS-*”, “V-POWR-*”, “V-SSWR-*”, “V-STRM-*”, “V-WATR-*”
Civil Proposed Layers	“C-*”
Structural Proposed Layers	“S-*”
Survey Layers	“V-*”
Traffic Proposed Layers	“T-*”
All Used Layers	

14.6.2 OPENROADS DESIGNER LEVEL FILTERS

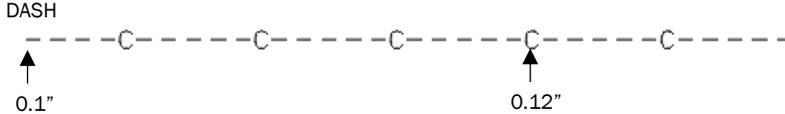
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Civil	“C-*”
Structural	“S-*”
Traffic	“T-*”
Survey	“V-*”
USED	

14.7 LINETYPES

14.7.1 LINETYPES FOR INFRASTRUCTURE

Name	Linetype	Remarks
ACAD_ISO06W100		ISO long-dash triple-dot
BASELINE		Centerline Baseline
BRUSH		Brush 
Center		Center
Center2		Center (0.5x)
CFS		Compost Filter Sock
CFS12		Proposed Compost Filter Sock 12"
CFS18		Proposed Compost Filter Sock 18"
CFS24		Proposed Compost Filter Sock 24"
CFS32		Proposed Compost Filter Sock 32"

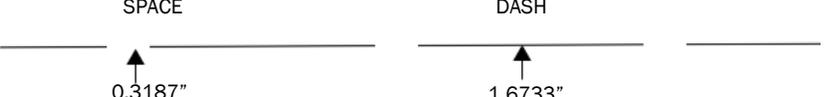


Name	Linetype	Remarks
Continuous		Continuous
CUT		Cut
CUT Line		Cut line
DASHDOT		Dash dot
DASHDOT4		Dash dot (.25x)
DASHED		Dashed
DASHED2		Dashed (.5x)
DASHED4		Dashed (.25x)
DBLLINE		Double Line (Use MLINE Command)
DGN Style 1		Bentley Software uses Linestyle Code=1

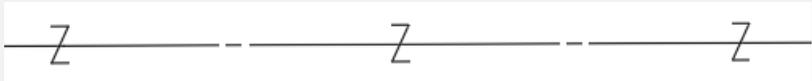
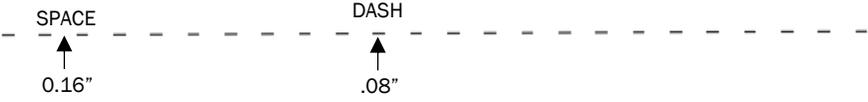
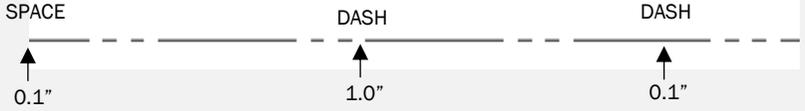


Name	Linetype	Remarks
DGN Style 2	<p>SPACE 0.0413" DASH 0.0689"</p>	Bentley Software uses Linestyle Code=2
DGN Style 3	<p>SPACE 0.0551" DASH 0.1654"</p>	Bentley Software uses Linestyle Code=3
DGN Style 4	<p>SPACE 0.0413" DASH 0.2559" DOT 0.0138"</p>	Bentley Software uses Linestyle Code=4
DGN Style 5	<p>SPACE 0.1102" DASH 0.0551"</p>	Bentley Software uses Linestyle Code=5
DGN Style 6	<p>SPACE 0.0413" DASH 0.2559" DOT 0.0138"</p>	Bentley Software uses Linestyle Code=6
DGN Style 7	<p>SPACE 0.0413" DASH 0.2756" DASH 0.0689"</p>	Bentley Software uses Linestyle Code=7
DITCH PR		Proposed Ditch
DITCH EX	<p>SPACE 0.03" DASH 0.4"</p>	Existing Ditch
DRAINAGE		Drainage
DS12	<p>— DS12 — DS12 — DS12 —</p>	Proposed Diversion Sock 12"



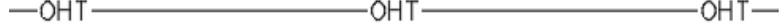
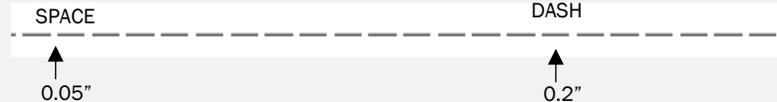
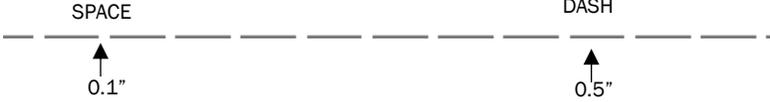
Name	Linetype	Remarks
DS18		Proposed Diversion Sock 18"
EASEMENT		Easement Line
EU		Electric Underground
FENCE		Fence
FENCELINE2		Fenceline Square
FILL		Fill
GDRL EX		Existing Guiderail
GDRL PR LT		Proposed Guiderail Left
GDRL PR RT		Proposed Guiderail Right
GRAPHIC GRADE		Graphic Grade
HDSF		Proposed Heavy Duty Silt Barrier Fence
HEDGE		Hedge



Name	Linetype	Remarks
HEDGE ROW		Hedge Row
HIDDEN		Hidden
HIDDEN2		Hidden (0.5x)
HIDDEN4		Hidden (.25x)
JNTPROPLINE		Joint Property Line
LOD		Limit of Disturbance
LOS		Limit of SUE Data
MRKGEXT		MRKG Extension
MUNICIPAL		Township/Municipal Boundary Line
NPDES		NPDES Boundary
NURSERY		Nursery



Project Information Modeling Standards Appendix

Name	Linetype	Remarks
OHC		Overhead Cable
OHE		Overhead Electric
OHT		Overhead Telephone
PAVE EX		Existing Edge of Pavement (EOP) to be labeled on plans
PF		Protective Fence
PHANTOM		Phantom
PHANTOM2		Phantom (.5x)
PIPE EX		Existing Pipe
PIPE PR		Proposed Pipe
PROPERTY LINE		Property Line
ROCK LINE		Rock Line
ROW		Right of Way

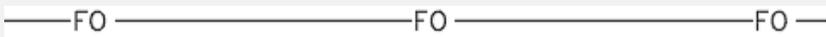
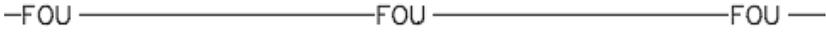
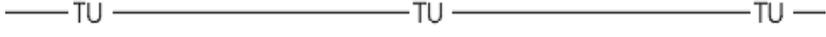


Name	Linetype	Remarks
ROW LEGAL		Legal Right of Way
ROW PROPERTY LINE		ROW Property Line
ROW REQ'D		Required Right of Way
SDASH		S Dash
SF		Silt Fence
SF-18		Silt Fence 18"
SF-30		Silt Fence 30"
SKIP LINE		Skip Line
SOLID AND SKIP LINE		Solid and Skip Line
SSF		Super Silt Fence
STONEWALL		Stone Wall



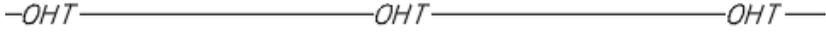
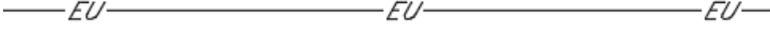
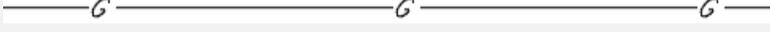
Name	Linetype	Remarks
STREAM		Stream
SWALE		Swale
TRACKS		Tracks
TREE LINE		Tree Line
TWP LINE		Township/Municipal Boundary Line
UT-C		Utility Conduit
UT-CTV		Utility Cable TV
UT-CTVU		Cable TV Underground Proposed
UT-DBE		Utility Electric Direct Buried
UT-DBT		Utility Telephone Direct Buried
UT-E		Utility Electric
UT-EU		Utility Electric Line UG



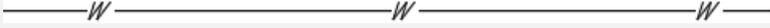
Name	Linetype	Remarks
UT-FO		Utility Fiber Optic
UT-FOU		Utility Fiber Optic UG
UT-G		Utility Gas
UT-P		Utility Petroleum
UT-PU		Petro Pipe Proposed Underground
UT-S		Utility Sewer
UT-T		Utility Tele
UT-TU		Utility Tele UG
UT-W		Utility Water
VINEYARD		Vineyard
WATERWAY		Waterway/Stream
WETLAND		Wetland
WOODS		Woods



Project Information Modeling Standards Appendix

Name	Linetype	Remarks
XOHC		Ex Overhead Cable
XOHE		Ex Overhead Electric
XOHT		Ex Overhead Telephone
XUT-C		Ex Utility Conduit
XUT-CTV		Ex Utility Cable TV
XUT-DBE		Ex Utility Electric Direct Buried
XUT-DBT		Ex Utility Telephone Direct Buried
XUT-E		Ex Utility Electric
XUT-EU		Ex Utility Electric Line UG
XUT-FO		Ex Utility Fiber Optic
XUT-FOU		Ex Utility Fiber Optic UG
XUT-G		Ex Utility Gas



Name	Linetype	Remarks
XUT-P		Ex Utility Petroleum
XUT-PU		Petro Pipe Ex UG
XUT-S		Ex Utility Sewer
XUT-T		Ex Utility Tele
XUT-TU		Ex Utility Tele UG
XUT-W		Ex Utility Water

14.7.2 LINETYPES FOR FACILITIES

LINE STYLES	USAGE
 -PTC 01	USED FOR NOTATIONAL INFORMATION (SYMBOLS, TAGS, TARGETS, ARROWS, GRIDS, COLUMN LINES)
 -PTC 03	USED FOR ELEMENTS PROJECTED IN VIEW (DOOR SWINGS, PARTIAL HEIGHT WALLS, CURBS)
 -PTC 05	USED FOR DETAILED ELEMENTS CUT IN VIEW (MULLIONS, GLAZING, DOORS)
 -PTC 07	USED FOR ELEMENTS CUT THROUGH IN VIEW (WALLS, FLOORS, STAIRS)
 -PTC 09	USED FOR DETAIL DRAFTING CUT LINE
 -PTC 11	USED FOR ELEMENTS CUT THROUGH IN VIEW (WALLS, FLOORS, STAIRS)
 -PTC 13	USED FOR DETAIL DRAFTING CUT LINE
 -PTC 15	USED AS GRAPHIC LINE AT THE BASE OF ELEVATIONS AND SECTIONS
 -PTC Center	USED TO DENOTE CENTERLINE OF ELEMENTS



14.7.3 LINETYPES OF OPENROADS DESIGNER

AC	
AD_P	
AT_P	
Barrier1	
BASELINE	
BCD1_P	
BCD2_P	
BR	
BRUSH	
BSHI_P	
BSHP_P	
BSHT	
BSBHP	
Cable Barrier	
CB	
CBPR	
CENTER	
CENTER2	
CFS	
CFS12	
CFS18	
CFS24	
CFS32	
Chainlink Fence	
Channelizer Cone 10' Spacing	
Channelizer Cone 20' Spacing	
Channelizer Cone 30' Spacing	
Channelizer Cone 40' Spacing	
Channelizer Cone 50' Spacing	
Channelizer Cone 60' Spacing	
Channelizing Lane (8")	
Construction Barrel 100' spacing	
Construction Barrel 50' spacing	
Continuous	
Crosswalk 6' Standard	
Crosswalk 10' Standard	
Crosswalk 15' Standard	
Crosswalk 6' 45 degree	
Crosswalk 6' 45 degree w/o Transverse	
Crosswalk 6' 45 High Visibility	
Crosswalk 6' 45 HV w/o Transverse	
Cut	
DCP	
DCP_P	
DDG_P	
DDP_P	



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DDS_P	
DFL_P	
Deceleration Lane	
DITCH EX	
DITCH PR	
DITCH PROPOSED	
DOUBLE LINE	
DRAINAGE	
DS12	
DS18	
DSSD	
DUD_P	
EASEMENT	
EBLHS	
ECT	
EDMC	
EDMEC_P	
EDMPC_P	
EDMSC_P	
EFNS	
EFNSV	
EFNV	
EWAA_P	
EWf	
EWFS	
EWM	
EWS	
EX BARRIER	
Extruded Rail	
FENCE	
FENCELINE2	
FILL	
GRAPHIC GRADE	
GuideRail Double Sided V1	
GuideRail Double Sided V2	
GuideRail EX	
GuideRail Flared End_L	
GuideRail Flared End_R	
GuideRail PR_LT	
GuideRail PR_RT	
GuideRail PROP Left	
GuideRail PROP Right	
HDSF	
HEDGE	
HEDGE ROW	
HIDDEN	
HIDDEN2	
Jersey Barrier	
Jersey Barrier w/Screen	



Project Information Modeling Standards Appendix

JOINT PROPERTY LINE	
LABL	
LAHR	
LAPB	
LAWA	
LAWE	
LCUT_P	
LFILL_P	
LFNC	
Lane line (4")	
Line (4")	
Line (6")	
Line (8")	
Line (12")	
Line (24")	
Line (4") 2/24	
Line (4") 3/9	
Line (4") 6/3	
Line (4") 6/10	
Line (4") 10/30	
Line (4") DOUBLE SKIP	
Line (4") DOUBLE SOLID	
Line (4") SKIP LT SOLID RT	
Line (4") SOLID LT SKIP RT	
LOD	
LOS	
LSF	
LTRC	
LTRD	
LWH	
LWR	
LWR_P	
LWS	
MDL	
MEE	
MEP_P	
MEPA_P	
MET_P	
META_P	
MF_P	
MFA_P	
MFS_P	
MFWOA_P	
MHA	
MHB	
MHBA	
MHBW	
MHBWOA	



Project Information Modeling Standards Appendix

MJC	
MJCY	
MJHD	
MJLL	
MJN	
MJPB	
MJS	
MJT	
MJV	
MPG	
MPL	
MPLA	
MSL	
MRKG EXTENSION	
MUNICIPAL	
NPDES	
NURSERY	
O_BREAK	
O_SECTION	
PAV EX	
PAV MARK 4" WHITE - SOLID	
PAV MARK 4" YELLOW - SOLID	
PAV MARK 6" WHITE - SOLID	
PAV MARK 6" YELLOW - SOLID	
PAV MARK 8" WHITE - SOLID	
PAV MARK 8" YELLOW - SOLID	
PAV MARK 12" WHITE - SOLID	
PAV MARK 24" WHITE - SOLID	
PAV MARK 4" YELLOW - DOUBLE SOLID	
PAV MARK 4" WHITE W/REF - DOUBLE SOLID	
PAV MARK 4" YELLOW - w/Ref - DOUBLE SOLID	
PAV MARK 4" WHITE W/REF - 10' DASH 30' SKIP	
PAV MARK 4" YELLOW w/Ref -10' DASH 30' SKIP	
PAV MARK 4" WHITE - 2' DASH 4' SKIP	
PAV MARK 4" YELLOW - 2' DASH 4' SKIP	
PAV MARK 4" WHITE - 6' DASH 10' SKIP	
PAV MARK 4" YELLOW - 6' DASH 10' SKIP	
PAV MARK 4" WHITE - 10' DASH 30' SKIP	
PAV MARK 4" YELLOW - 10' DASH 30' SKIP	
PAV MARK 4" YELLOW - SKIP LT SOLID RT 10'-30'	
PAV MARK 4" YELLOW - SKIP RT SOLID LT 10'-30'	
PF	
PIPE EXISTING	
PIPE PROPOSED	
POST	
POST2	
PROFILE RAIL	
PROPERTY LINE	
RAIL	
RAILROAD	



Project Information Modeling Standards Appendix

SOLID AND SKIP LINE	
SSF	
SSO	
SSOC	
STB	
STBBIKE	
STDB	
STDL	
STFB	
STH	
STH_P	
Stop Line(24")	
STBP	
STRCT	
STRCT_P	
STRYL	
STSB	
STSB_P	
STSE	
STXL	
STXL_P	
SWALE	
TCDL	
TCSW	
Thought bubble	
Thought cloud	
TMBCD_P	
TMBCDL_P	
TMBT_P	
TMBTL_P	
TMDB_P	
TMDBL_P	
TMDC_P	
Traffic Cone 10' Spacing	
Traffic Cone 20' Spacing	
Traffic Cone 30' Spacing	
Traffic Cone 40' Spacing	
Traffic Cone 50' Spacing	
Traffic Cone 60' Spacing	
TREELINE	
TWZBT-P	
TWZBTWL-P	
TWZCD-P	
TWZPMRC-P	



Project Information Modeling Standards Appendix

UT-P	
UT-PU	
UT-S	
UT-T	
UT-TU	
UT-W	
UTH	
UTO	
UTV	
UTVH	
UTVO	
UUH	
UJO	
UUU	
UW	
UWH	
UWHS	
UWO	
WATERWAY	
WETLAND	
WOODS	
Wrought Iron Fence 4'	
Wrought Iron Fence 5'	
Wrought Iron Fence 6'	
XUT-C	
XUT-CTV	
XUT-C	
XUT-CDBE	
XUT-CDBT	
XUT-E	
XUT-EU	
XUT-FO	
XUT-FOU	
XUT-G	
XUT-P	
XUT-PU	
XUT-S	
XUT-T	
XUT-TU	
XUT-W	

{E}	
{Arrow}	
{Batten}	
{Border framed white}	
{Cable/Tele}	
{Chain Double-Dash}	
{Curtain}	
{Dash-Triple Dot}	
{Diamond}	
{Gas Line}	
{Gravel01}	
{Ground Line}	
{Half Dash}	
{Leader Line}	
{Offset Lines}	
{Origin Line}	
{Pavers1}	
{Pavers2}	
{Pencil Lead}	
{Rail Road}	
{Recycle Symbol 36"}	
{Stone Walkway 48"}	
{Tapered Dash}	
{Tree Line}	
{Tree Line1}	
{Tree Line2}	
{Tree Line Winter}	
{Universal No Symbol}	
{Wide Dash}	
{Decking planks 6'}	
{Map Roads 12'}	
{Map Roads 24'}	
{Map Roads 30'}	
{Map Roads 45'}	
{Map Roads 60'}	
{Railroad Track Std 4'8.5"}	



Project Information Modeling Standards Appendix

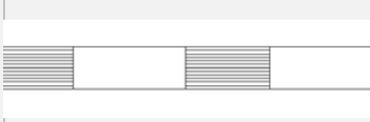
RCZ_P	
REFLECTOR POST ORANGE	
REFLECTOR POST RED	
REFLECTOR POST WHITE	
RG	
RGB	
RGBM	
RGC	
RGCB	
RGP_P	
RGW	
RGWM	
ROCKLINE	
Round Bubble	
Rounded Rectangle	
ROW LEGAL	
ROW PROPERTY LINE	
ROW REQ'D	
RPB	
RRC	
RRER	
RRP_OLD	
RRPLS_P	
RRPSS	
RRS	
RRSLS_P	
RRSSS	
S_P	
SBLP	
SF	
SF18	
SF30	
Simple 01 V2	
Simple 02 V2	
Simple 03 V2	
Simple 04 V2	
Simple 05 V2	
Sketchy 01 V2	
Sketchy 02 V2	
Sketchy 03 V2	
Sketchy 04 V2	
Sketchy 05 V2	
Sketchy 06 V2	
Sketchy 07 V2	
Sketchy 08 V2	
Sketchy 09 V2	
Sketchy 10 V2	
Sketchy 11 V2	
SKIP LINE	

14.8 SYMBOLOGY

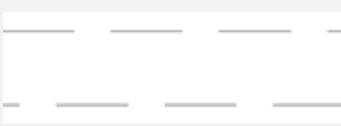
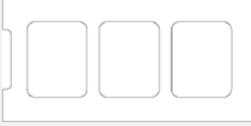
Note: all block symbols for Civil 3D are stored in tool palettes.

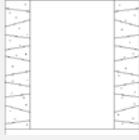
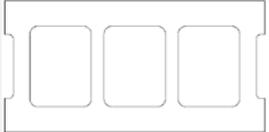
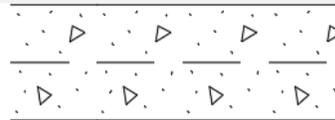
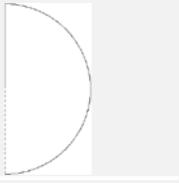
14.8.1 SYMBOLS FOR CIVIL 3D

14.8.1.1 ARCHITECTURE SYMBOLS

Symbol	Preview	Description
ARCPBW		Architectural Particleboard Woodwork
ASBDLS		Large Scale Asbestos Board
ASBDSS		Small Scale Asbestos Board
BATHCO		Corner Bath
BATHEM		Emergency Bath
BATHFT		Foot Bath
BATHHA		Hydrotherapy Arm Bath

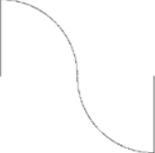
BATHHH		Hydrotherapy Hubbard Bath
BATHHL		Hydrotherapy Leg Bath
BATHIF		Infant Bath
BATHIN		Institutional Bath
BATHRC		Recessed Bath
BATHRR		Roll Rim Bath
BATHSZ		Sitz Bath
BATHWP		Whirlpool Bath
BIDET		Bidet

BRFACC		Brick Face on Common
BRFIRE		Fire Brick
BRKGL		Glazed Brick
BSSFLG		Bluestone Siltstone Soapstone Flagging Stone
CANWCT		Can Washer Cabinet Type
CANWDT		Can Washer Dish Type
CARPET		Carpet and Pad
CMU		Concrete Masonry Unit
CMUBLK		3-Core Hollow CMU Block 8x8x16
CMUCOR		3-Core Hollow CMU Corner Block 8x8x16

CMUEND		3-Core Hollow CMU Block End Section 8x8x16
CMUGL		Glazed Concrete Block
CMUSTR		3-Core hollow CMU stretcher block
CPLANK		Concrete Plank
DFPROJ		Drinking Fountain Projecting Typ.
DFRECS		Drinking Fountain Recessed Typ.
DFSREC		Drinking Fountain Projecting Typ.
DOR18L		Double Acting Door Left 180 Degree Swing
DOR18R		Double Acting Door Right 180 Degree Swing

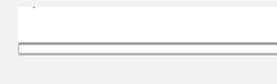
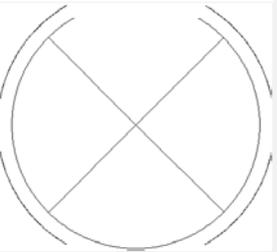
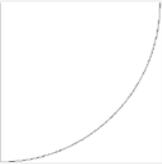
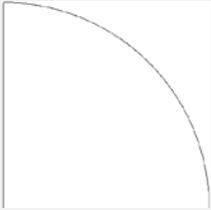


Project Information Modeling Standards Appendix

DORBFL		Left Bi-fold Door
DORBFR		Right Bi-fold Door
DORCPV		Center Pivot Door
DORCYL		Dark Room Door
DORDBL		Left Double Door
DORDBR		Right Double Door
DORDEL		Left Double Egress Door
DORDER		Right Double Egress Door
DORFSL		Left Full Swing Door
DORFSR		Right Full Swing Door



Project Information Modeling Standards Appendix

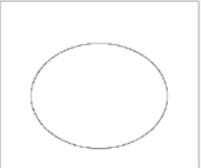
DOROVH		Overhead Door
DORPOC		Pocket Door
DORREV		Revolving Door
DORRUP		Roll-Up Door
DORSHL		Left Single Hinged Door
DORSHR		Right Single Hinged Door
DORSLD		Sliding Door
DORSLS		Sliding Surface Door
DORSPL		Left Single Pivot Door
DORSPR		Right Single Pivot Door

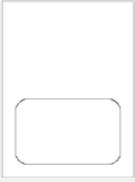
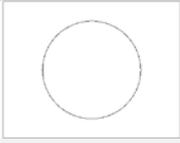
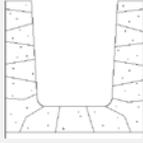
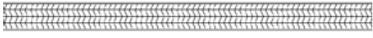
DORUDL		Left Uneven Double Door
DORUDR		Right Uneven Double Door
DSHWSH		Commercial Dishwasher
EQPMID		Equipment ID Tag
FASTEN		Fastener
FLRRPL		Resilient/Plastic Laminate Flooring
FURCHH		Furring Channel Hat
FURCHN		Furring Channel
GLASLS		Large Scale Glass
GLASSS		Small Scale Glass

GLBLLS		Glass Block Large Scale
GLBLSS		Glass Block Small Scale
GLELEV		Glass Elevation
GPLANK		Gypsum Plank
GYPBLK		Gypsum Block Tile
GYP POM		Gypsum Plaster on Masonry
GYP PPB		Gypsum Plaster Particle Board
GYP SPP		Gypsum Solid Plaster Partition
GYP WBD		Gypsum Wallboard Finishes
INF BSS		Small Scale Flexible Blanket Insulation
INF LFS		Large Scale Loose Fill Insulation



Project Information Modeling Standards Appendix

INS1RM		Insulation Reflective Metal on One Side
INS2RM		Insulation Reflective Metal on Two Sides Small Scale
INSFOM		Spray Foam Insulation
INSTND		Insulation Type Not Deter Large Scale
LAVBCK		Back Lavatory
LAVCOR		Corner Lavatory
LAVCOU		In-Counter Lavatory
LAVDNT		Dental Lavatory

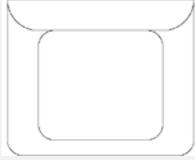
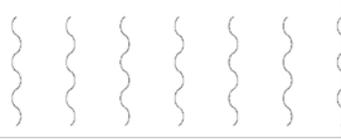
LAVHND		Handicapped Lavatory
LAVMDM		Medical Manicure Lavatory
LAVSLB		Slab Type Lavatory
LINTEL		Detail Lintel CMU Block Section
MTLLPL		Metal Lath and Plaster
MTLSHT		Metal Sheet All Metals Small Scale
ORISTB		Oriented Strand Board
PARTBD		Particle Board
PLASTC		Plastic Finishes
PLPLLS		Large Scale Plastic on Plywood

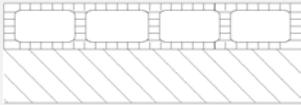
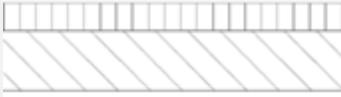
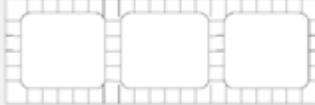


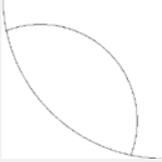
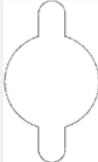
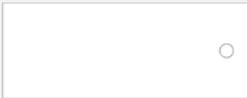
Project Information Modeling Standards Appendix

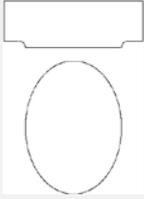
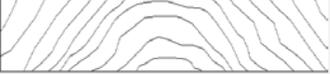
PLPLSS		Small Scale Plastic on Plywood
PLYWD		Plywood
RBILLS		Rigid Board Interior Insulation Large Scale
RBISLS		Insulation Rigid Board as Sheathing Large Scale
ROMID3		3-Character Room Tag
ROMID4		4-Character Room Tag
SDIRLD		Stair Direction Line Down
SDIRLDU		Stair Direction Line Up
SHWRCO		Corner Shower
SHWRHD		Shower Head
SHWROG		Shower Overhead Gang

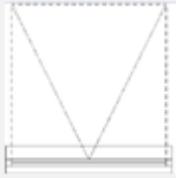
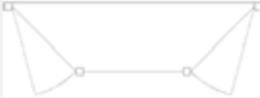
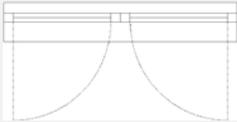
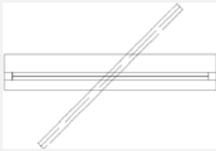
SHWRPG		Shower Pedestal Gang
SHWRST		Shower Stall
SLOPE		Direction of Line Slope
SNK2BD		Double Sink with Drainboards
SNK2CT		Two Compartment Sink
SNKCWT		Circular Wash Type Sink
SNKDSP		Sink Disposer
SNKFRC		Flushing Rim Clinical Sink
SNKGEN		Generic Sink
SNKKLR		Kitchen Sink with Left and Right Drain Boards

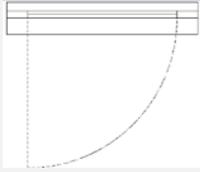
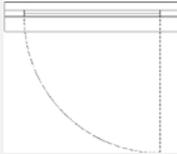
SNKLDB		Sink with Left Drainboard
SNKLTR		Sink Laundry tray
SNKSCW		Semicircular Wash Sink
SNKSLP		Slop Type Sink
SNKSRV		Service Sink
SNKSSC		Surgeon Scrub Sink
STLCSS		Structural Clay Tile Small Scale
SUSPNT		Suspension Tee
TC1FLS		Terracotta with One Face Glazed Large Scale

TC2FSS		Terracotta with Two Faces Glazed Small Scale
TCHOLW		Hollow Terracotta
TCLS		Large Scale Terracotta
TCQLS		Terracotta Quarry Large Scale
TCUGLS		Terracotta Unglazed Large Scale
TCVENR		Veneer Terracotta
THRSHD		Threshold
TILFSS		Small Scale Tile Facing
TILGSC		Glazed Structural Clay Tile Masonry
TILSFU		Tile Structural Floor Units
TLACOU		Acoustical Tile Finish
TLCRLS		Ceramic Tile Finish Large Scale

TRAY1L		Single Laundry Tray
TRAY2L		Double Laundry Trays
URNLCO		Corner Type Urinal
URNLPD		Pedestal Type Urinal
URNLST		Urinal Stall
URNLTR		Trough Type Urinal
URNLWH		Wall Hung Urinal
WALLID	WALL_ID	Wall Type Identifier
WCFVFO		F.V. Floor Outlet Water Closet

WCFWH		F.V. Wall Hung Water Closet
WCITNK		Integral Tank Water Closet
WCTANK		Tank Type Water Closet
WCWHTN		Wall Hung Tank Water Closet
WDFLBD		Wood Floorboard
WDFNOS		Wood Finish on Studs
WDFRAM		Continuous Wood Framing
WDSHSD		Wood Shingles Siding
WFINISH		Wood Finish

WINAWN		Awning Window
WINBAY		Projected Bay Window
WINBOW		Projected Bow Window
WINBOX		Projected Box Window
WINDCI		Double Casement Window Inward Opening
WINDCO		Double Casement Window Outward Opening
WINDH	 DH	Double Hung Window
WINJAL		Jalousie Window
WINOSL		Single Window Left Operating Sash
WINOSR		Single Window Right Operating Sash
WINPIV		Pivot Window

<p>WINSCL</p>		<p>Single Casement Left Jamb Hinge</p>
<p>WINSCR</p>		<p>Single Casement Right Jamb Hinge</p>
<p>WINSH</p>	<p style="text-align: center;">SH</p> 	<p>Single Hung Window</p>
<p>WOODHB</p>		<p>Hardboard Wood</p>
<p>WTRPFF</p>		<p>Waterproofing Felt Flashing</p>



14.8.1.2 CIVIL SYMBOLS

Symbol Name	Preview	Description
AIRFLD		Airfield
ARRPT		Arrow 1
ARRSD		Arrow 2
ARRST		Arrow 3
Bound		BOUND
BUOY		Buoy
Catch Basin		Catch Basin
CDHDR		Core Drill Hole Drilled

Symbol Name	Preview	Description
CDHUDR		Core Drill Hole Undrilled
CLNOUT		Cleanout
CNR90		Corner Solid 90
CNRSF		Corner Solid Flat
COGRAV		Center of Gravity
CULVEE		Culvert End
Drill Hole		Drill Hole
ECRD		Rock Dam Sediment Trap



Project Information Modeling Standards Appendix

Symbol Name	Preview	Description
ERSBD		Straw Bale Dam
ERSCTD		Sediment Control Temporary Diversion
ERSF		Silt Fence
ERSFRO		Silt Fence Rock Overflow
ERSOST		Stone Outlet Sediment Trap
ERTGCE		Construction Entrance Exit
FLARED END SECTION - PLAN		Flared End Section, Plan

Symbol Name	Preview	Description
FLARED END SECTION - PROFILE		Flared End Section, Profile
FLARRL		Flow Arrow, Left
FLARRR		Flow Arrow, Right
GR-Wood-RT-Long		Wooden Guiderail Post, Long
GR-Wood-RT-Normal		Wooden Guiderail Post, Normal
GREASE		Grease Trap
GRITCH		Grit Chamber
HEADWL		Headwall



Project Information Modeling Standards Appendix

Symbol Name	Preview	Description
HighPoint		High Point
HNDCAP		Handicap Symbol
HORCPT		Horizontal Control Point
HOVCPT		Horizontal Vertical Control Point
Hydrant-Elevation		Hydrant, Profile View
HYDRNT		Hydrant Number
INSHWY		Interstate Highway Number
IWMETR		Industrial Wastewater Meter

Symbol Name	Preview	Description
IWMHOL		Industrial Wastewater Manhole
LowPoint		Low Point
MARKER PNT		Marked Point
MONWEL		Monitoring Well
PHOCPT		Photo Control Point
PIVALV		Post Indicator Valve
PMPSTA		Pump Station Number
Proposed Hyd		Proposed Hydrant



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Symbol Name	Preview	Description
PTC_Type3		PTC Type 3
PTC_TypeM		PTC Type M
PTC_TypeMM		PTC Type MM
PTC_TypeS		PTC Type S
RGVALV		Regulator Valve Number
RRSIGN		Railroad Sign
RRSWTC		Railroad Switch
RW_Projection		Right of Way Projection

Symbol Name	Preview	Description
SCNRH		Section Corner Hatched
SCNRO		Section Corner Open
SERVICE_DISCONNECT		Service Disconnect
Sewer Manhole		Sewer Manhole
SHRUBC		Shrub C
SHRUBD		Shrub D
SIGN		Sign
SNLIFT		Sanitary Sewer Lift Station



Project Information Modeling Standards Appendix

Symbol Name	Preview	Description
SNMHOL		Sanitary Manhole
SNPVSL		Sanitary Pressure Vessel
SNVALT		Sanitary Vault
SPOTEL		Spot Elevation
SPTANK		Septic Tank
Station Mark		Station Mark
STHWY		State Highway Number
STMPIT		Storm Pit

Symbol Name	Preview	Description
Storm Manhole		Storm Manhole
SWAMP		Swamp
TIDEG		Tide Gage
TIRETR		Tire Treadle
TNKBG		Tank Horizontal Below
TNKHAG		Tank Horizontal Above
TREEC		Tree C
TREED		Tree D



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Symbol Name	Preview	Description
Tree-Deciduous		Deciduous Tree
Tree-Evergreen		Evergreen Tree
Tree		Tree
USHWY		US Highway Number
VERCPT		Vertical Control Point
WAHHOL		Water Handhole
WAMETR		Water Meter

Symbol Name	Preview	Description
WAMHOL		Water Manhole
WAPLNT		Water Plant
WASOFT		Water Softener
WAVALT		Water Vault



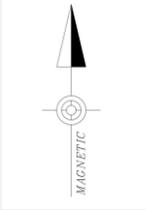
14.8.1.3 GENERAL SYMBOLS

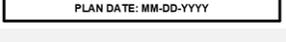
Symbol	Preview	Description
BREAK		Break
CNTLIN		Centerline
COLLIN		Column Number
DBLARR		Double Arrow
DTLIND		Detail Number
ELEV1		Elevation 1
ELEV2		Elevation 2
ELEV3		Elevation 3

Symbol	Preview	Description
ELEV4		Elevation 4
KEYIND		Key ID
MAGNOR		Magnetic North
REVID1		Revision Number 1
REVID2		Revision Number 2
SECIN1		Section Number 1
SECIN2		Section Number 2



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Symbol	Preview	Description
NARROW		Magnetic North Arrow
TITLE1		Title 1
TITLE2		Title 2
PTC_Logo_Green_Solid		Solid Green Logo
PTC_Logo_Green_Transparent		Green Transparent Logo
PTC_Logo_Orange		Orange Logo
PTC_Logo_Purple		Purple Logo

Symbol	Preview	Description
PTC_Logo_White		White Logo
Submission		Submission type and date
Addendum		Addendum
Plan Date		Plan date



14.8.1.1 SCALE SYMBOLS

Symbol	Preview
S0000B	
S0001B	
S0005B	
S0010B	
S0020B	
S0025B	
S0030B	
S0040B	
S0050B	

Symbol	Preview
S0060B	
S0080B	
S0100B	
S0200B	
S0300B	
S00400	
S00500	

14.8.1.2 SURVEY SYMBOLS

Symbol Name	Preview	Description
SV_ADJ_SPRINKLER		Adjustable Sprinkler
SV_AERIAL_CABLE		Aerial Cable
SV_AREA_DRAIN		Area Drain
SV_ARROWBOARD_ASSEMB		Arrow Board Assembly
SV_AUTO_LANE_CLOSURE_DEVICE		Auto Lane Closure Device
SV_BACKFLOW_PREV		Backflow Prevention
SV_BENCHMARK		Benchmark
SV_BILLBOARD		Billboard
SV_BM		Benchmark

Symbol Name	Preview	Description
SV_BOL		Bollard
SV_BREAKER		Breaker
SV_C_MON		Monument
SV_CABLE_BOX		Cable Box
SV_CALLBOX		Call box
SV_CAM_LOW_SYST		Cam Low System
SV_CATV_CELL_EQUI		CATV Cell Equipment
SV_CATV_MRKOUT		CATV Markout
SV_CATV_POLE_MOUNT_CABINET		CATV Pole Mount Cabinet

Symbol Name	Preview	Description
SV_CB		Catch Basin
SV_CCTV		CCTV
SV_CIRCLE_SPRINKER		Circle Sprinkler
SV_COMM_CDMA_EQUIP		CDMA Communications Equipment
SV_COMM_CTRL_CABLE		Communications Control Cable
SV_COMM_ELEC_JBOX		Communications Electric Junction Box
SV_COMM_JBOX		Communications Junction Box
SV_CONDENSER_UNIT		Condenser Unit
SV_CONDUIT		Conduit

Symbol Name	Preview	Description
SV_COUPLER_ROUND_VALVE		Round Valve Coupler
SV_CTRL_CABLE		Control Cable
SV_CTVPED		TV Pedestal
SV_CURB_BOX		Curb Bx
SV_DC_CHARGING		DC Charging
SV_DH		Drill Hole
SV_DISC_SWITCH		Disc Switch
SV_DMS		DMS
SV_DMS_CNTR_MNT		DMS Center Mount

Symbol Name	Preview	Description
SV_DMS_DBL_MNT		DMS Double Mount
SV_ELEC_BOX		Electric Box
SV_ELEC_C_BOX		Electrical Box
SV_ELEC_DISP_PANEL		Electric Display Panel
SV_ELEC_EYE		Electric Eye
SV_ELEC_JBOX		Electric Junction Box
SV_ELEC_MRKOUT		Electrical Markout
SV_ELEC_ROUND_SPRINKLER_VALVE		Electric Sprinkler Round Valve
SV_ELEC_SPRINKLER_VALVE		Electric Sprinkler Valve

Symbol Name	Preview	Description
SV_ELECMTR		Electric Meter
SV_ETHERNET_SWITCH		Ethernet Switch
SV_EVL_BOX		Electric Vault
SV_FIBER_JBOX		Fiber Box
SV_FIBER_TERM_PANEL		Fiber Term Panel
SV_FIREHYD		Hydrant
SV_FLAGPOLE		Flagpole
SV_FLOW_SENSOR		Flow Sensor
SV_FREEZE_PROTECTION		Freeze Protection

Symbol Name	Preview	Description
SV_FUEL_PUMP		Fuel Pump
SV_G_POLE		Gas Pole
SV_GAS_MRKOUT		Gas Markout
SV_GAS_PUMP		Gas Pump
SV_GAS_STAKE		Gas Stake
SV_GAS_VALVE		Gas Valve
SV_GAS_VENT		Gas Vent
SV_GAS_WELL		Gas Well
SV_GASMTR		Gas Meter

Symbol Name	Preview	Description
SV_GATE_CTRL_PEDE		Gate Control Pedestal
SV_GATE_KEY		Gate Key
SV_GATE_OPERATOR		Gate Operator
SV_GATE_VALVE		Gate Valve
SV_GENERATOR		Generator
SV_GROUND_MOUNTED_CABINET		Ground Mounted Cabinet
SV_GUYANCHR		Gas Anchor
SV_GV		Gas Valve

Symbol Name	Preview	Description
SV_HAND_HOLE		Hand Hole
SV_HIGH-MAST_LIGHT		High Mast Light
SV_HW		Headwall
SV_HW_LIGHT		Highway Light
SV_INT_POWR_SUPP		INT Power Supply
SV_IP		Iron Pipe
SV_IP_REBAR		Rebar
SV_ITS_CABINET		ITS Cabinet
SV_ITS_CELL_TOWER		ITS Cell Tower

Symbol Name	Preview	Description
SV_KEY_PAD		Keypad
SV_LIGHT_UNDERPASS		Underpass Light
SV_LUMIN_CIR		Lumin
SV_MAILBOX		Mailbox
SV_MASTER_VALVE		Master Valve
SV_MH_ELEC		Electrical Manhole
SV_MH_GAS		Gas Manhole
SV_MH_SAN		Sanitary Manhole
SV_MH_STORM		Storm Manhole

Symbol Name	Preview	Description
SV_MH_TEL		Telephone Manhole
SV_MH_WATER		Water Manhole
SV_MHCATV		CATV Manhole
SV_MONITOR_WELL		Monitor Well
SV_MONUMENT		Monument
SV_MOTOR_CTRL_GATE		Motor Control Gate
SV_MRKR_CATV		CATV Markout
SV_MRKR_G		Gas Markout
SV_MRKR_TEL		Telephone Markout

Symbol Name	Preview	Description
SV_NAIL		Nail
SV_NAIL_SPK		Spike
SV_NAIL_STK		Stake
SV_NETWORK_DEVICE		Network Device
SV_OIL_WELL		Oil Well
SV_POINT_CONNECTION		Point of Connection
SV_POLE_MOUNTED_CONT_CABINET		Pole Mounted Cabinet
SV_POPUP_SPRAY_HEAD		Pop Up Spray Head
SV_POST		Post

Symbol Name	Preview	Description
SV_POSTMNTSIGN		Post Mounted Traffic Sign
SV_POWER_SUB_STATION		Power Substation
SV_POWER_TOWER		Power Tower
SV_PT		Point
SV_PULLBOX		Pull Box
SV_RDWY_WTHR_STA		Roadway Weather Station
SV_RELIEF_VALVE		Relief Valve
SV_RISER_ASSEBM		Riser
SV_ROADKILL		Roadkill

Symbol Name	Preview	Description
SV_RTMS		RTMS
SV_RV_DUMP_STATION		Dump Station
SV_SAN_CO		Cleanout
SV_SAT_CONTROL		Satellite/GPS control
SV_SATELITE_DISH		Satellite Dish
SV_SEPT		Sept
SV_SERVICE_METER		Service Meter
SV_SEWER_MRKOUT		Sewer Markout
SV_SFRR		SFRR

Symbol Name	Preview	Description
SV_SHRUB		Shrub
SV_SIGN1		Sign 1
SV_SIGN2		Sign 2
SV_SIGNAL_BOX		Signal Box
SV_SPLICECAB		Splice Cabinet
SV_SPRINKLER_HEAD		Sprinkler
SV_SSR		
SV_STA_COUNT		
SV_SUPERCHARGER_CABINET		Super Charger Cabinet

Symbol Name	Preview	Description
SV_SURF_MOUNT_JBOX		Mounted Surface Junction Box
SV_SUSDTRANSFORMER		Subsurface transformer
SV_SVCDISCO		Service Disconnect
SV_TANK		Tank
SV_TEL_MRKOUT		Telephone Markout
SV_TELE_PEDESTAL		Telephone Pedestal
SV_TELE_VLT		Telephone Vault
SV_TELPED		Telephone Pedestal
SV_TERM_PANEL		Term Panel

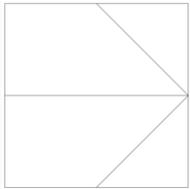
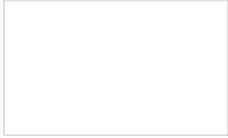
Symbol Name	Preview	Description
SV_TEST_PIT		Test Pit
SV_THRUST_BLOCK		Thrust Block
SV_TRAFF_SENS		Traffic Sensor
SV_TRAFF_SIG_MAST_ARM		Traffic Signal Mast Arm
SV_TRANSFORMER		Transformer
SV_TREE_CON		Tree Coniferous
SV_TREE_DEC		Tree Deciduous
SV_TRSIG_FLASH		Flashing Traffic Sign
SV_TRSIGBX		TRSIGBX

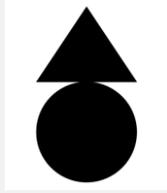
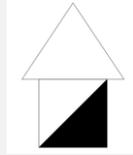
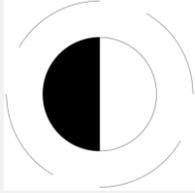
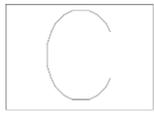
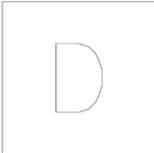
Symbol Name	Preview	Description
SV_U_POLE		Utility Pole
SV_UGRDTANK		UST Tank
SV_UTIL-PEDESTAL		Utility Pedestal
SV_UTIL_BOX		Utility Box
SV_UTIL_ENCLOSURE		Utility Enclosure
SV_VERIZON		Verizon Box
SV_VLT		Electric Vault
SV_VMS		VMS
SV_VSLS		VLSLS

Symbol Name	Preview	Description
SV_WATERQUALSTRC		Water Quality Structure
SV_WELL		Well
SV_WELL_VAPOR_EXT		Well Vapor
SV_WELL_WATER_POT		Potable Well Water
SV_WIRE_SPLICE		Wire Splice
SV_WL_FLAG		Wetland Flag

Symbol Name	Preview	Description
SV_WM		Water Meter
SV_WM_LOCKE		Water Meter Lock
SV_WM_TAP		Water Main Tap
SV_WM_TEE		Water Main Tee
SV_WTR_MRKOUT		Water Markout
SV_WV		Water Valve

14.8.1.3 UTILITY SYMBOLS

Symbol Name	Preview	Description
Aerial Cable		AERIAL CABLE
Arrow Board		ARROW BOARD
Backflow Preventer		BACKFLOW PREVENTER
Billboard		BILLBOARD
Breaker		BREAKER
Cable Box		CABLE BOX
Call Box		CALLBOX
CAM Low System		CAM LOW SYSTEM

Symbol Name	Preview	Description
CATV Cell Equipment		CATV CELL EQUIPMENT
CATV Pole Mount Cabinet		CATV POLE MOUNT CABINET
CCTV		CCTV
CCTV Camera		CCTV CAMERA
CDMA Communication Equipment		COMM CDMA EQUIPMENT
Communication Control Cable		COMM CONTROL CABLE
Electric Communication Junction Box		COMM ELEC JUNCTION BOX
Communication Junction Box		COMM JUNCTION BOX

Symbol Name	Preview	Description
Condenser Unit		CONDENSER UNIT
Conduit		CONDUIT
Control Cable		CONTROL CABLE
DC Charging		DC CHARGING
Disconnect Switch		DISCONNECTSWITCH
DMS		DMS
DMS Double Mount		DMS DOUBLE MOUNT
Electric Box		ELECTRIC BOX
Electric Display Panel		ELECTRIC DISPLAY PANEL

Symbol Name	Preview	Description
Electric Junction Box		ELEC JUNCTION BOX
Electric Eye		ELECTRIC EYE
Ethernet Switch		ETHERNET SWITCH
Electric Vault Box		EVL BOX
Fiber Junction Box		FIBER JUNCTION BOX
Fiber Term Panel		FIBER TERM PANEL
Flow Sensor		FLOW SENSOR
Fuel Oil Meter		Fuel Oil Meter

Symbol Name	Preview	Description
Fuel Oil Manhole		Fuel Oil Manhole
Fuel Oil Vault		Fuel Oil Vault
Freeze Protection		FREEZE PROTECTION
Fuel Pump		FUEL PUMP
Gas Pump		GAS PUMP
Gas Stake		GAS STAKE
Gas Test Box		GAS TEST BOX
Gas Valve		GAS VALVE

Symbol Name	Preview	Description
Gas Vent		GAS VENT
Gas Well		GAS WELL
Natural Gas Meter		NATURAL GAS METER
Natural Gas Manhole		NATURAL GAS MANHOLE
Gas Plant		GAS PLANT
Natural Gas Receiver		NATURAL GAS RECEIVER
Gas Trap		Gas Trap

Symbol Name	Preview	Description
Gas Valve Vault		Gas Valve Vault
Gate Control Pedestal		GATE CONTROL PEDESTAL
Gate Key		GATE KEY
Gate Operator		GATE OPERATOR
Generator		GENERATOR
Ground Cabinet Mount		GROUND CABINET MOUNT
Guy Pole		GUY POLE

Symbol Name	Preview	Description
Hand Hole		HAND HOLE
High Mast Light		HIGH-MAST LIGHT
Highway Light		HIGHWAY LIGHT
INT Power Supply		INT POWER SUPPLY
ITS Cabinet		ITS CABINET
ITS Cell Tower		ITS CELL TOWER
Junction Box Number Label		Junction Box
Keypad		KEYPAD

Symbol Name	Preview	Description
Lane Closure Device		LANE CLOSURE DEVICE
Light Underpass		LIGHT UNDERPASS
Master Valve		MASTER VALVE
Monitor Well		MONITOR WELL
Motor Control Gate		MOTOR CONTROL GATE
Motor Gate		MOTOR GATE
Network Device		NETWORK DEVICE
Oil Well		OIL WELL

Symbol Name	Preview	Description
Point of Connection		POINT OF CONNECTION
POLE_MOUNTED_CONT_CABINET		POLE MOUNT CONT CABINET
Post Mounted Sign		POST MOUNT SIGN
Power Sub Station		POWER SUB STATION
Power Tower		POWER TOWER
Point		PT
Pull Box		PULLBOX
Relief Valve		RELIEF VALVE

Symbol Name	Preview	Description
Riser Assembly		RISER ASSEMBLY
RTMS		RTMS
RV Dump Station		RV DUMP STATION
Satellite Control		SAT CONTROL
Service Disconnect		SERVICE DISCONNECT
Satellite Dish		SATELITE DISH
Service Meter		SERVICE METER
Signal Box		SIGNAL BOX

Symbol Name	Preview	Description
Single Pole Sign		SINGLE POLE SIGN
Splice Cabinet		SPLICE CABINET
Sprinkler Adjustable		SPRINKLER ADJUSTABLE
Sprinkler Circle		SPRINKLER CIRCLE
Sprinkler Coupler Round Valve		SPRINKLER COUPLER VALVE
Sprinkler Electric Valve		SPRINKLER ELECTRIC VALVE
Sprinkler Gate Valve		SPRINKLER GATE VALVE
Sprinkler Head		SPRINKLER HEAD

Symbol Name	Preview	Description
Sprinkler Popup Spray Head		SPRINKLER POPUP SPRAY HEAD
Sprinkler Round Valve		SPRINKLER ROUND VALVE
SSR		SSR
STA_COUNT		STA COUNT
Supercharger Cabinet		SUPERCHARGER CABINET
Surface Mounted Junction Box		SURFACE MOUNT JBOX
SUSDTRANSFORMER		SUSDTRANSFORMER

Symbol Name	Preview	Description
Telephone Pedestal		TELEPHONE PEDESTAL
Telephone Vault		TELEPHONE VAULT
Term Panel		TERM PANEL
Test Pit		TEST PIT
Thrust Block		THRUST BLOCK
TRACR		Traffic Arm with Card Reader
TRAMS		Traffic Arm Mechanical Swing

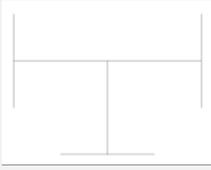
Symbol Name	Preview	Description
Traffic Sensor		TRAFFIC SENSOR
Traffic Signal Flashing		TRAFFIC SIGNAL FLASHING
Traffic Signal Mast Arm		TRAFFIC SIGNAL MAST ARM
Transformer		TRANSFORMER
Utility Pole		UTILITY POLE
Utility Pedestal		UTILITY PEDESTAL
Utility Box		UTILITY BOX
Utility Enclosure		UTILITY ENCLOSURE
Verizon		VERIZON

Symbol Name	Preview	Description
VMS		VMS
VSLs		VSLs
Water Quality Structure		WATER QUALITY STRUCTURE
Weather Station		WEATHER STATION
WELL_VAPOR_EXT		WELL VAPOR EXT
WELL_WATER_POT		POTABLE WELL WATER
Wire Splice		WIRE SPLICE



Project Information Modeling Standards Appendix

Symbol Name	Preview	Description
WM_LOCKE		WATER METER LOCKE
WM_TAP		WATER MAIN TAP

Symbol Name	Preview	Description
WM_TEE		WATER MAIN TEE

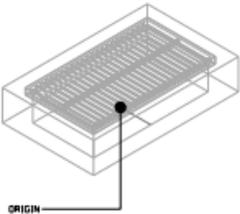
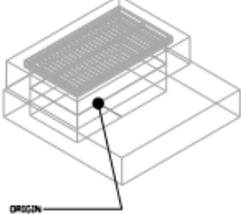
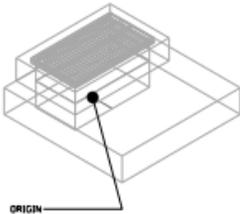
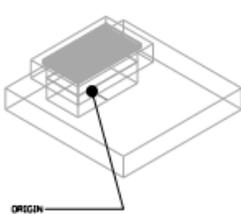
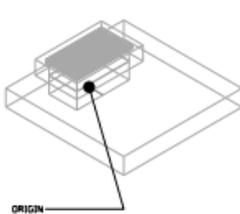
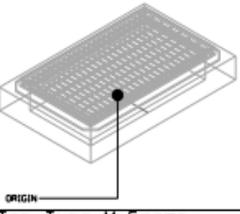
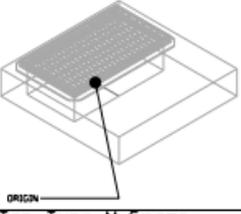
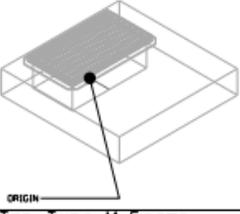
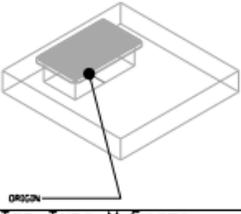
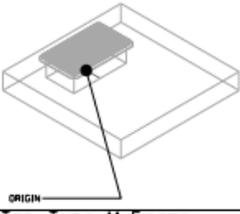
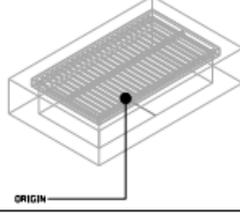
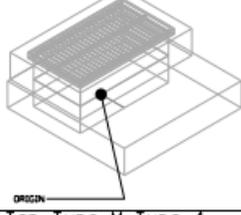
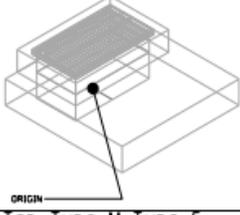
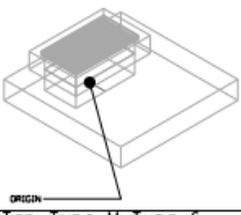
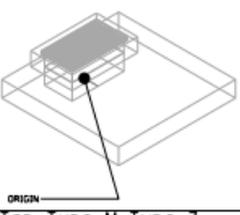
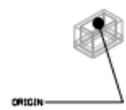
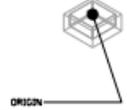
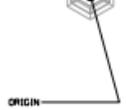
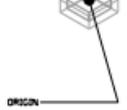
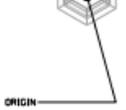


14.8.1.4 CIVIL 3D BARRIER & GUIDERAIL TRANSITIONS

Block	Preview
MV-PTC SINGLE FACED BARRIER TRANSITION LEFT	
MV-PTC SINGLE FACED BARRIER TRANSITION RIGHT	
MV-PTC ABUTMENT TRANSITION TYPE I	
MV-PTC ABUTMENT TRANSITION TYPE II	
MV-PTC ABUTMENT TRANSITION TYPE III	
MV-PTC SINGLE FACE BARRIER TO THRIE BEAM	
MV-PTC PIER TRANSITION PIECE	
MV-PTC MONOPIPE CAISSON TRANSITION PIECE	
MV-PTC 41in BARRIER TRANSITION PIECE LEFT	
MV-PTC 41in BARRIER TRANSITION PIECE RIGHT	

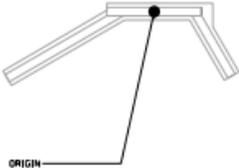
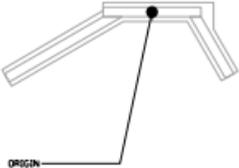
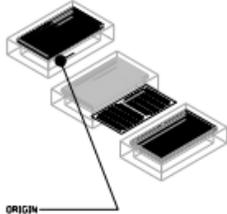
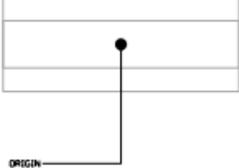
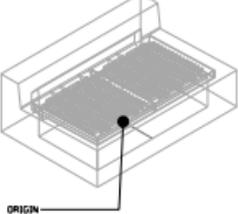
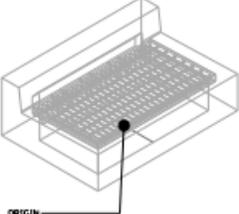
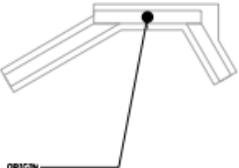
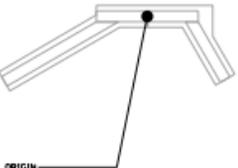
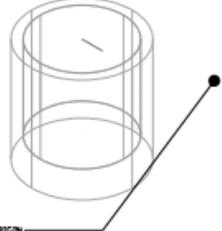
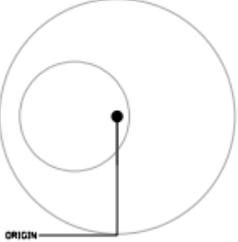
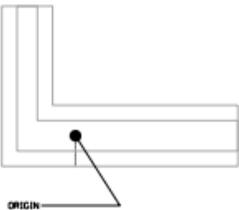
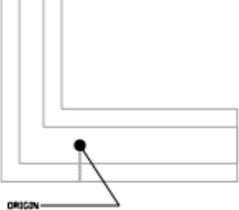
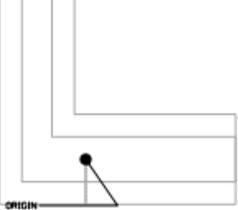
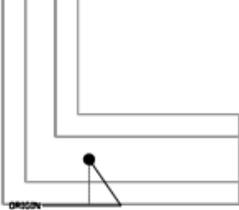
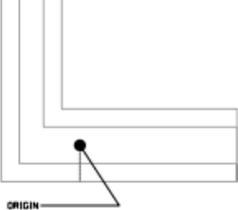
14.8.2 SYMBOLS FOR OPENROADS DESIGNER

14.8.2.1 SUBSURFACE UTILITY ENGINEERING SYMBOLS

				
Top-Type M-Std-SSG	Top-Type M-Type 4-SSG	Top-Type M-Type 5-SSG-H8-	Top-Type M-Type 6-SSG	Top-Type M-Type 7-SSG
				
Top-Type M Frame-Std-BSG	Top-Type M Frame-Type 4-BSG	Top-Type M Frame-Type 5-BSG-H8-	Top-Type M Frame-Type 6-BSG	Top-Type M Frame-Type 7-BSG
				
Top-Type M-Std-SSG	Top-Type M-Type 4-SSG	Top-Type M-Type 5-SSG-H8-	Top-Type M-Type 6-SSG	Top-Type M-Type 7-SSG
				
Bot-Inlet-Standard	Bot-Inlet-Type 4	Bot-Inlet-Type 5-H8-	Bot-Inlet-Type 5-H8+	Bot-Inlet-Type 6

Bot-Inlet-Type 7	Top-Type C-Type 5-SSG-H8+	Top-Type M Frame-Type 5-BSG-H8+	Top-Type M-Type 5-SSG-H8+	Plan-Type M-Std-SSG
Plan-Type M Frame-Std-SSG	Bot-EW-Type D-18	Bot-EW-Type D-24	Bot-EW-Type D-30	Plan-EW-Type D-24
Plan-EW-Type D-30	Bot-EW-Type ES-18R	Bot-EW-Type ES-24R	Bot-EW-Type ES-30R	Bot-EW-Type DE-18R
Bot-EW-Type DE-24R	Bot-EW-Type DE-30R	Bot-EW-Type DE-36R	Bot-EW-Type DE-42R	Bot-EW-Type DE-48R

 ORIGIN	 ORIGIN	 ORIGIN	 ORIGIN	 ORIGIN
Bot-EW-Type DW-36 Skew 45 R	Bot-EW-Type DW-42 Skew 45 R	Plan-EW-Type DW-42 Skew 45R	Plan-EW-Type DW-36 Skew 45R	Bot-EW-Type DW-48 Skew 45 R
 ORIGIN	 ORIGIN	 ORIGIN	 ORIGIN	 ORIGIN
Plan-EW-Type DW-48 Skew 45R	Bot-EW-Type DW-54 Skew 45 R	Plan-EW-Type DW-54 Skew 45R	Bot-EW-Type DW-60 Skew 45 R	Plan-EW-Type DW-60 Skew 45R
 ORIGIN	 ORIGIN	 ORIGIN	 ORIGIN	 ORIGIN
Bot-EW-Type DW-72 Skew 45 R	Plan-EW-Type DW-72 Skew 45R	Bot-EW-Type DW-36 Skew 30 R	Bot-EW-Type DW-42 Skew 30 R	Bot-EW-Type DW-48 Skew 30 R
 ORIGIN	 ORIGIN	 ORIGIN	 ORIGIN	 ORIGIN
Bot-EW-Type DW-54 Skew 30 R	Bot-EW-Type DW-60 Skew 30 R	Bot-EW-Type DW-72 Skew 30 R	Plan-EW-Type DW-72 Skew 30R	Plan-EW-Type DW-60 Skew 30R

				
Plan-EW-Type DW-54 Skew 30R	Plan-EW-Type DW-48 Skew 30R	Grate Drawings	Plan-EW-Type D-18	Top-Type C-Std-ADA
				
Top-Type C-Std-BSG	Plan-EW-Type DW-36 Skew 30R	Plan-EW-Type DW-42 Skew 30R	Bot-MH-Type 4	Top-Type 4 MH 24
				
Top-Type 4 MH 27	Top-Type 4 MH 30	Plan-Type 4 MH 27	Plan-Type 4 MH 24	Plan-Type 4 MH 30
				
Plan-EW-Type ES-30R	Plan-EW-Type ES-24R	Plan-EW-Type ES-18R	Plan-EW-Type DE-18R	Plan-EW-Type DE-24R

Plan-EW-Type DE-30R	Bot-MH-Type 5	Bot-MH-Type 6	Top-Type 5 MH 24	Top-Type 6 MH 24
Top-Type 5 MH 27	Top-Type 5 MH 30	Top-Type 6 MH 27	Top-Type 6 MH 30	Plan-Type 6 MH 30
Plan-Type 6 MH 27	Plan-Type 6 MH 24	Plan-Type 5 MH 30	Plan-Type 5 MH 24	Plan-Type 5 MH 27
Top-Type M-Std-ADA	Top-Type M-Type 4-ADA	Top-Type M-Type 5-ADA-H8+	Top-Type M-Type 5-ADA-H8-	Top-Type M-Type 6-ADA

Top-Type M-Type 7-ADA	Top-Type M-Type 4-BSG	Top-Type M-Type 5-BSG-H8+	Top-Type M-Type 5-BSG-H8-	Top-Type M-Type 6-BSG
Top-Type M-Type 7-BSG	Top-Type M Frame-Type 7-SSG	Top-Type M Frame-Type 6-SSG	Top-Type M Frame-Type 5-SSG-H8-	Top-Type M Frame-Type 5-SSG-H8+
Top-Type M Frame-Type 4-SSG	Top-Type M Frame-Std-SSG	Top-Type M Frame-Std-ADA	Top-Type M Frame-Type 4-ADA	Top-Type M Frame-Type 5-ADA-H8+
Top-Type M Frame-Type 5-ADA-H8-	Top-Type M Frame-Type 6-ADA	Top-Type M Frame-Type 7-ADA	Top-Type C-Type 4-BSG	Top-Type C-Type 5-BSG-H8+

Top-type C-Type 5-BSG-H8-	Top-type C-Type 6-BSG	Top-Type M-Std-BSG	Top-type C-Type 7-BSG	Top-type C-Type 5-ADA-H8+
Top-type C-Type 5-ADA-H8-	Top-type C-Type 6-ADA	Top-type C-Type 7-ADA	Plan-type C-Type 5-ADA-H8+	Plan-type M Frame-Type 5-ADA-H8-
Plan-type C-Type 6-ADA	Plan-type C-Type 7-ADA	Plan-type C-Type 5-ADA-H8-	Plan-type C-Type 5-BSG-H8+	Plan-type C-Type 5-BSG-H8-
Plan-type C-Type 6-BSG	Plan-type C-Type 7-BSG	Grate only BSG Plan	Grate only SSG Plan	Grate only ADA Plan

Plan-Type C-Type 5-SSG-H8+	Plan-Type C-Type 5-SSG-H8-	Plan-Type C-Type 6-SSG	Plan-Type C-Type 7-SSG	Plan-Type M Frame-Type 4-ADA
Plan-Type M Frame-Type 5-ADA-H8+	Plan-Type M Frame-Type 6-ADA	Plan-Type M Frame-Type 7-ADA	Plan-Type M Frame-Std-ADA	Plan-Type M Frame-Std-BSG
Plan-Type M Frame-Type 4-SSG	Plan-Type M Frame-Type 4-BSG	Plan-Type M Frame-Type 5-BSG-H8+	Plan-Type M Frame-Type 5-SSG-H8+	Plan-Type M Frame-Type 5-SSG-H8-
Plan-Type M Frame-Type 5-BSG-H8-	Plan-Type M Frame-Type 6-BSG	Plan-Type M Frame-Type 7-BSG	Plan-Type M Frame-Type 6-SSG	Plan-Type M Frame-Type 7-SSG

Plan-Type M-Type 4-ADA	Plan-Type M-Type 4-BSG	Plan-Type M-Type 4-SSG	Plan-Type M-Type 5-ADA-H8+	Plan-Type M-Type 5-SSG-H8+
Plan-Type M-Type 5-BSG-H8+	Plan-Type M-Type 6-ADA	Plan-Type M-Type 6-BSG	Plan-Type M-Type 6-SSG	Plan-Type M-Type 7-SSG
Plan-Type M-Type 7-BSG	Plan-Type M-Type 7-ADA	Plan-Type M-Type 5-ADA-H8-	Plan-Type M-Type 5-SSG-H8-	Plan-Type M-Type 5-BSG-H8-
Plan-Type M-Std-BSG	Plan-Type M-Std-ADA	Bottom - Fire Hydrant Ex	Bottom - Fire Hydrant Prop	Bottom - Water OR Gas OR Sewer Meter Ex

Bottom - Water OR Gas OR Sewer Meter Prop	Bottom - Water OR Gas OR Sewer Valve	Plan - x_Fire Hydrant	Plan - Fire Hydrant	Plan - Gas Manhole-4'Dig
Plan - Gas Valve	Plan - x_Light Pole - 1 Light	Plan - Light Pole - 1 Light	Plan - x_Telephone Pole	Plan - Telephone Pedestal
Plan - Telephone Pole	Plan - Transmission Tower	Plan - Water Meter	Plan - x_Water Valve	Plan - Water Valve
Top - x_Fire Hydrant	Top - Fire Hydrant Prop	Top - Gas Manhole 4ft	Top - Gas Meter	Top - Power Pole with Light Prop

Top - Telephone Pole Prop	Top - Water Meter	Top - Water OR Gas Valve	Plan - x_Gas Meter	Plan - x_Gas Valve
Top-Type C Alternate-Type 4-ADA	Top-Type C Alternate-Type 4-ADA	Top-Type C Alternate-Type 4-SSG	Top-Type C Alternate-Type 4-BSG	Top-Type C Alternate-Type 5-ADA-H8-
Top-Type C Alternate-Type 5-BSG-H8-	Top-Type C Alternate-Type 5-SSG-H8-	Top-Type C Alternate-Type 6-ADA	Top-Type C Alternate-Type 6-BSG	Top-Type C Alternate-Type 6-SSG
Top-Type C Alternate-Type 7-ADA	Top-Type C Alternate-Type 7-BSG	Top-Type C Alternate-Type 7-SSG	Top-Type S-Std-BSG	Top-Type S-Std-SSG

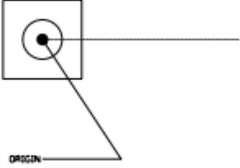
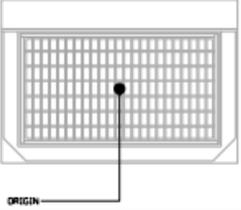
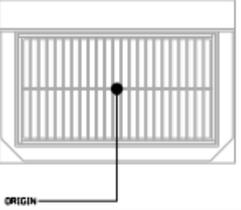
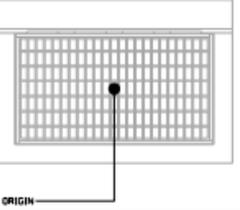
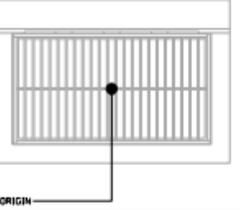
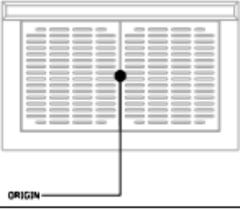
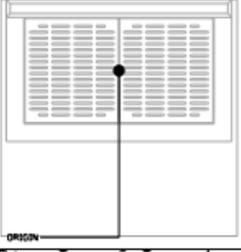
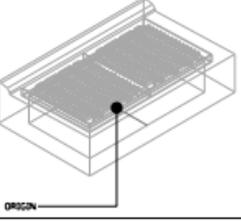
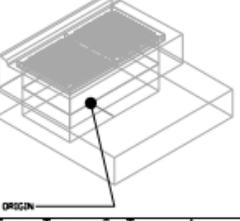
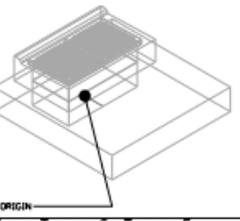
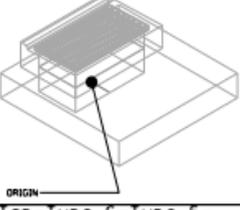
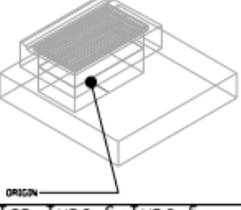
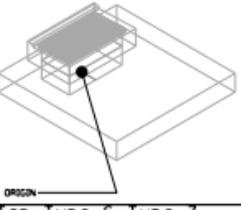
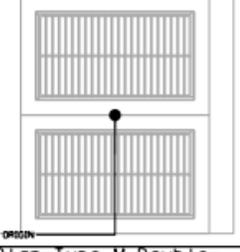
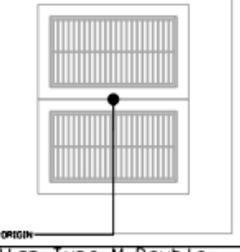
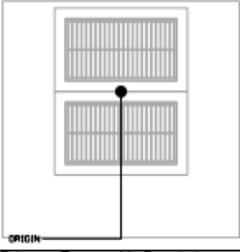
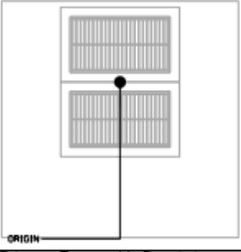
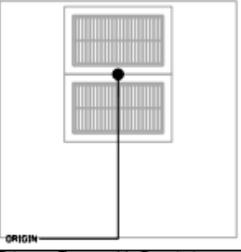
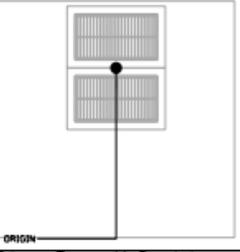
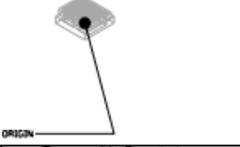
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Top-Type S-Type 4-SSG	Top-Type S-Type 5-ADA-H8-	Top-Type S-Type 5-BSG-H8-	Top-Type S-Type 5-SSG-H8-	Top-Type S-Type 6-ADA
Top-Type S-Type 6-BSG	Top-Type S-Type 6-SSG	Top-Type S-Type 7-ADA	Top-Type S-Type 7-BSG	Plan-Type S-Std-BSG
Plan-Type S-Std-SSG	Plan-Type S-Type 4-BSG	Plan-Type S-Type 4-SSG	Plan-Type S-Type 5-ADA-H8+	Plan-Type S-Type 5-ADA-H8-

Plan-Type S-Type 5-BSG-H8+	Plan-Type S-Type 5-BSG-H8-	Plan-Type S-Type 5-SSG-H8+	Plan-Type S-Type 5-SSG-H8-	Plan-Type S-Type 6-ADA
Plan-Type S-Type 6-BSG	Plan-Type S-Type 6-SSG	Plan-Type S-Type 7-ADA	Plan-Type S-Type 7-BSG	Plan-Type S-Type 7-SSG
Top-Type C Alternate-Std-BSG	Top-Type C Alternate-Std-SSG	Plan-Type C Alternate-Std-ADA	Plan-Type C Alternate-Type 4-ADA	Plan-Type C Alternate-Type 4-BSG
Plan-Type C Alternate-Type 4-SSG	Plan-Type C Alternate-Type 5-ADA-H8-	Plan-Type C Alternate-Type 5-BSG-H8-	Plan-Type C Alternate-Type 6-ADA	Plan-Type C Alternate-Type 6-BSG

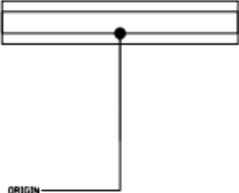
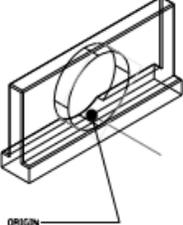
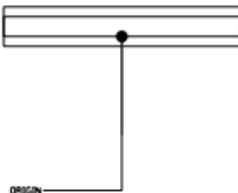
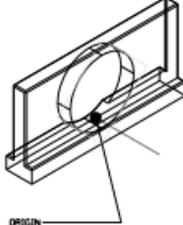
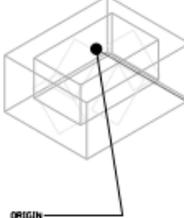
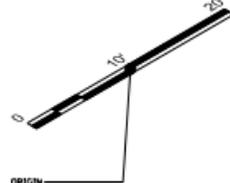
Plan-Type C Alternate-Type 6-SSG	Plan-Type C Alternate-Type 7-ADA	Plan-Type C Alternate-Type 7-BSG	Plan-Type C Alternate-Type 7-SSG	Plan-Type C Alternate-Type 5-SSG-HB
Plan-Type 4 Cone MH 24	Plan-Type 4 Cone MH 27	Plan-Type 4 Cone MH 30	Top-Type 4 Cone MH 24	Top-Type 4 Cone MH 27
Top-Type 4 Cone MH 30	Bot-Inlet-Type DH	Top-Type D-H Level- Type D-H	Bot-Inlet-Type 8	Bot-Inlet-Type 9
Bot-Inlet-Type 10	Plan-Type D-H Level	Top-Type D-H Level- Type 8	Top-Type D-H Level- Type 9	Top-Type D-H Level- Type 10

Plan-Type D-H Level-Type 8	Plan-Type D-H Level-Type 9	Plan-Type D-H Level-Type 10	Top-Type D-H-Type D-H	Top-Type D-H-Type 8
Top-Type D-H-Type 9	Top-Type D-H-Type 10	Plan-Type D-H-Type 8	Plan-Type D-H-Type 9	Plan-Type D-H-Type 10
Plan-Type D-H	Strm-Flow-Arro	Plan-Cross Section Node	Top-Type C-Type 4-ADA	Bottom - Conflict Field Check
Bottom - Conflict Potential	Plan - Conflict - Field Check Needed	Plan - Conflict - Potential	Plan - Conflict New	Plan - x_Utility Box Unspecified

<p>ORIGIN</p>	<p>ORIGIN</p>	<p>ORIGIN</p>	<p>ORIGIN</p>	<p>ORIGIN</p>
Plan - x_Utility Pole Unspecified	Plan - x_Utility Pole Unspecified with Light	Top - Utility Pole Prop	Bottom - Utility Pole Prop	Plan - Power Manhole Prop
<p>ORIGIN</p>	<p>ORIGIN</p>	<p>ORIGIN</p>	<p>ORIGIN</p>	<p>ORIGIN</p>
Plan - Power Pole with Light Prop	Bottom - Telephone Pole Prop	Top - x_Telephone Pole	Top - x_Utility Pole Unspecified	Bottom - Utility Pole Unspecified Ex
<p>ORIGIN</p>	<p>ORIGIN</p>	<p>ORIGIN</p>	<p>ORIGIN</p>	<p>ORIGIN</p>
Bottom - Utility Pole Unspecified with Light Ex	Top - x_Utility Pole Unspecified with Light	Top - Light Pole - 1 Light Prop	Top - x_Utility Box Unspecified	Top - Power Manhole
<p>ORIGIN</p>	<p>ORIGIN</p>	<p>ORIGIN</p>	<p>ORIGIN</p>	<p>ORIGIN</p>
Top - Transmission Tower	Top - Utility Pole Unspecified	Top - Utility Pole Unspecified with Light	Bottom - Utility Pole Unspecified	Plan - Gas Meter

				
Plan - x_Water Meter	Plan-Type C Alternate-Std-BSG	Plan-Type C Alternate-Std-SSG	Plan-Type C-Std-BSG	Plan-Type C-Std-SSG
				
Plan-Type S-Std-ADA	Plan-Type S-Type 4- ADA	Top-Type S-Std-ADA	Top-Type S-Type 4- ADA	Top-Type S-Type 5- ADA-H8+
				
Top-Type S-Type 5- BSG-H8+	Top-Type S-Type 5- SSG-H8+	Top-Type S-Type 7- SSG	Plan-Type M Double- Type 5	Plan-Type M Double- Type 6
				
Plan-Type M Double- Type 7	Plan-Type M Double- Type 8	Plan-Type M Double- Type 9	Plan-Type M Double- Type 10	Top-Type M Double- Type 5

Top-Type M Double-Type 6	Top-Type M Double-Type 7	Top-Type M Double-Type 8	Top-Type M Double-Type 9	Top-Type M Double-Type 10
Type M Top Unit (2D Plan)	Type S Top Unit (2D Plan)	Type M Top Unit (3D Plan)	Type S Top Unit (3D Plan)	Standard Inlet Box (3D Plan)
Type RS Inlet (2D Plan)	Type RS Inlet Top (3D Plan)	Type D Endwall_18_Inch	Type D Endwall_18_Inch_3D	Type D Endwall_24_Inch
Type D Endwall_24_Inch_3D	Type D Endwall_30_Inch	Type D Endwall_30_Inch_3D	Type D Endwall_36_Inch	Type D Endwall_36_Inch_3D

				
Type D Endwall_42_Inch	Type D Endwall_42_Inch_3D	Type D Endwall_48_Inch	Type D Endwall_48_Inch_3D	Type RS Inlet Bottom (3D Plan)
				
S0000B	S0001B	S0005B	S0010B	S0020B
				
S0025B	S0030B	S0040B	S0050B	S0060B
				
S0080B	S0100B	S0200B	S0300B	S0400B

Type 4 Inlet Box (3D Plan)	Plan-Type M Frame- Std-SSG - Offset	Plan-Type M Frame- Type 4-ADA - Offset	Plan-Type M Frame- Type 4-BSG - Offset	Plan-Type M Frame- Type 4-SSG - Offset
Top-Type M Frame- Std-ADA - Offset	Top-Type M Frame- Std-BSG - Offset	Top-Type M Frame- Std-SSG - Offset	Top-Type M Frame- Type 4-ADA - Offset	Top-Type M Frame- Type 4-BSG - Offset
Top-Type M Frame- Type 4-SSG - Offset	Top-Type M-Std-ADA - Offset	Top-Type M-Std-BSG - Offset	Top-Type M-Std-SSG - Offset	Top-Type M-Type 4- ADA -Offset
Top-Type M-Type 4- BSG - Offset	Top-Type M-Type 4- SSG - Offset	Plan-Type M-Std-ADA - Offset	Plan-Type M-Std-BSG - Offset	Plan-Type M-Std-SSG - Offset

Plan-Type M-Type 4-ADA - Offset	Plan-Type M-Type 4-BSG - Offset	Plan-Type M-Type 4-SSG - Offset	Plan-Type M-Type 6-ADA Offset	Plan-Type M-Type 6-BSG Offset
Plan-Type M-Type 6-SSG Offset	Top-Type M Frame-Type 6-ADA Offset	Top-Type M Frame-Type 6-BSG Offset	Top-Type M Frame-Type 6-SSG Offset	Top-Type M-Type 6-ADA Offset
Top-Type M-Type 6-BSG Offset	Top-Type M-Type 6-SSG Offset	Bot-Inlet-Standard - Offset	Bot-Inlet-Type 4 - Offset	Bot-Inlet-Type 6 Offset
Plan-Type M Frame-Std-ADA - Offset	Plan-Type M Frame-Std-BSG - Offset	Plan-Type M Double-Type 5-ADA	Plan-Type M Double-Type 5-ADA_H8+	Plan-Type M Double-Type 5-ADA_H8-

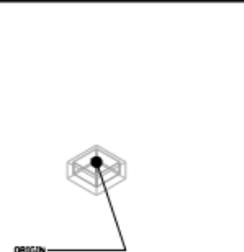
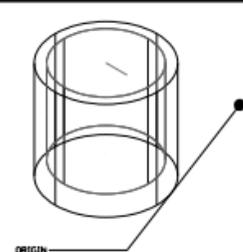
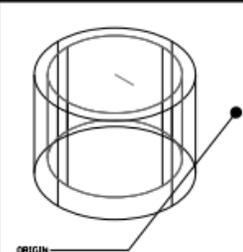
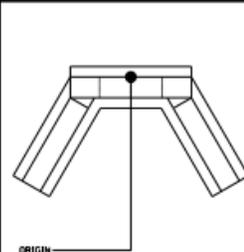
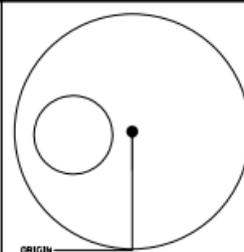
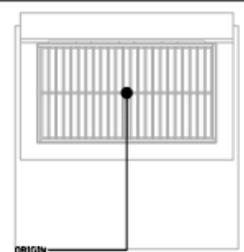
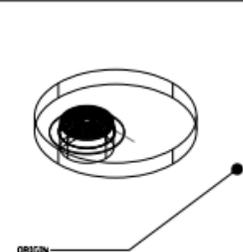
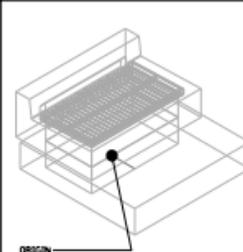
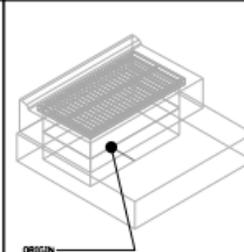
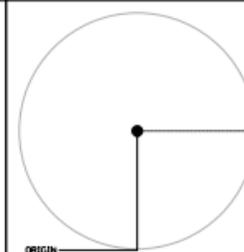
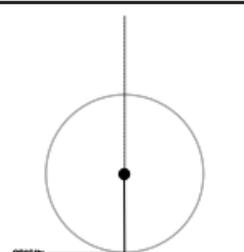
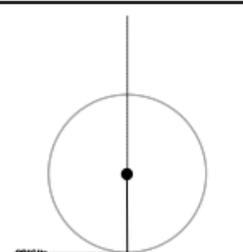
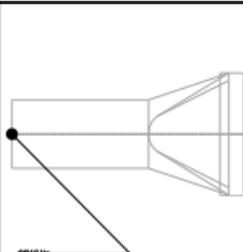
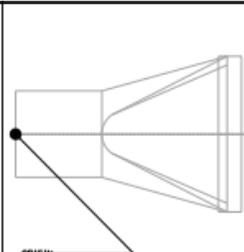
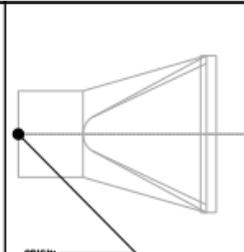
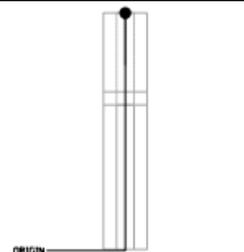
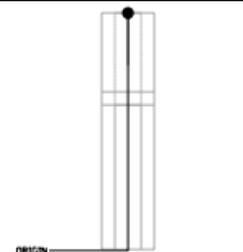
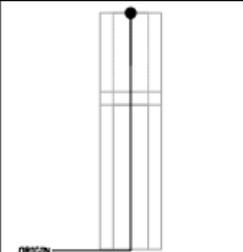
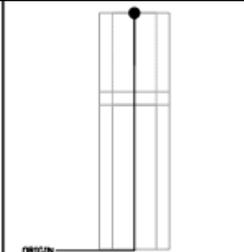
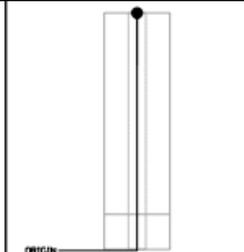
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Plan-Type M Double-Type 5-SSG_H8-	Plan-Type M Double-Type 6-ADA	Plan-Type M Double-Type 6-BSG	Plan-Type M Double-Type 6-SSG	Plan-Type M Double-Type 7-ADA
Plan-Type M Double-Type 7-BSG	Plan-Type M Double-Type 7-SSG	Plan-Type M Double-Type 8-ADA	Plan-Type M Double-Type 8-BSG	Plan-Type M Double-Type 8-SSG
Plan-Type M Double-Type 9-ADA	Plan-Type M Double-Type 9-BSG	Plan-Type M Double-Type 9-SSG	Plan-Type M Double-Type 10-ADA	Plan-Type M Double-Type 10-BSG

Plan-Type M Double-Type 10-SSG	Top-Type M Double-Type 6-ADA	Top-Type M Double-Type 6-BSG	Top-Type M Double-Type 6-SSG	Top-Type M Double-Type 7-ADA
Top-Type M Double-Type 7-BSG	Top-Type M Double-Type 7-SSG	Top-Type M Double-Type 8-ADA	Top-Type M Double-Type 8-BSG	Top-Type M Double-Type 8-SSG
Top-Type M Double-Type 9-ADA	Top-Type M Double-Type 9-BSG	Top-Type M Double-Type 9-SSG	Top-Type M Double-Type 10-ADA	Top-Type M Double-Type 10-BSG
Top-Type M Double-Type 10-SSG	Bot-End Section- 18 Concrete	Bot-End Section- 24 Concrete	Bot-End Section- 36 Concrete	Bot-EW-Drain Outlet (slope) 4
	Notes: 18" dia. manhole section and section for slope concrete	Notes: 24" dia. manhole section and section for slope concrete	Notes: 36" dia. manhole section and section for slope concrete	

Bot-EW-Drain Outlet (slope) 6	Bot-EW-Drain Outlet (slope) 8	Bot-EW-Drain Outlet (slope) 10	Bot-EW-SubsurfDrain 4 DIA 2to1 slope	Bot-EW-SubsurfDrain 4 DIA 4to1 slope
Bot-EW-SubsurfDrain 4 DIA 6to1 slope	Bot-EW-SubsurfDrain 6 DIA 2to1 slope	Bot-EW-SubsurfDrain 6 DIA 4to1 slope	Bot-EW-SubsurfDrain 6 DIA 6to1 slope	Bot-EW-SubsurfDrain 8 DIA 2to1 slope
Bot-EW-SubsurfDrain 8 DIA 4to1 slope	Bot-EW-SubsurfDrain 8 DIA 6to1 slope	Bot-EW-SubsurfDrain 10 DIA 2to1 slope	Bot-EW-SubsurfDrain 10 DIA 4to1 slope	Bot-EW-SubsurfDrain 10 DIA 6to1 slope
Bot-EW-Type DW 36 Skew 10	Bot-EW-Type DW 36 Skew 20	Bot-EW-Type DW 36 Skew 40	Bot-EW-Type DW 36 Skew 50	Bot-EW-Type DW 36 Skew 55

Bot-EW-Type DW 36 Skew 90-60	Bot-EW-Type DW 42 Skew 10	Bot-EW-Type DW 42 Skew 20	Bot-EW-Type DW 42 Skew 40	Bot-EW-Type DW 42 Skew 50
Bot-EW-Type DW 42 Skew 55	Bot-EW-Type DW 42 Skew 90-60	Bot-EW-Type DW 48 Skew 10	Bot-EW-Type DW 48 Skew 20	Bot-EW-Type DW 48 Skew 40
Bot-EW-Type DW 48 Skew 50	Bot-EW-Type DW 48 Skew 55	Bot-EW-Type DW 48 Skew 90-60	Bot-EW-Type DW 54 Skew 10	Bot-EW-Type DW 54 Skew 20
Bot-EW-Type DW 54 Skew 40	Bot-EW-Type DW 54 Skew 50	Bot-EW-Type DW 54 Skew 55	Bot-EW-Type DW 54 Skew 90-60	Bot-EW-Type DW 60 Skew 10

Bot-EW-Type DW 60 Skew 20	Bot-EW-Type DW 60 Skew 40	Bot-EW-Type DW 60 Skew 50	Bot-EW-Type DW 60 Skew 55	Bot-EW-Type DW 60 Skew 90-60
Bot-EW-Type DW 72 Skew 10	Bot-EW-Type DW 72 Skew 20	Bot-EW-Type DW 72 Skew 40	Bot-EW-Type DW 72 Skew 50	Bot-EW-Type DW 72 Skew 55
Bot-EW-Type DW 72 Skew 90-60	Bot-EW-Type DW-oval 58x91 Skew 45 R	Bot-EW-Type DW-oval 58x91 Skew 90-60	Bot-MH-Type 7	Bot-MH-Type 8
Bot-MH-Type 10	Bot-MH-Type 12	Bottom - Mock Node	Bottom - Mock Node - inlets	Ex_Bot-EW-Type DW 36 Skew 90-60

				
Ex_Bot-Inlet-Type 4	Ex_Bot-MH-Type 4	Ex_Bot-MH-Type 5	Ex_Plan-EW-Type DW 36 Skew 90-60	Ex_Plan-Type 5 MH 24
				
Ex_Plan-Type C-Type 4-SSG	Ex_Top-Type 5 MH 24	Ex_Top-Type C-Type 4-SSG	Ex_Top-Type S-Type 4-SSG	Plan - Ditch - Change
				
Plan - Mock Node	Plan - Mock Node - Inlets	Plan-End Section-18 Concrete	Plan-End Section-24 Concrete	Plan-End Section-36 Concrete
				
Plan-EW-Drain Outlet (slope) 4	Plan-EW-Drain Outlet (slope) 6	Plan-EW-Drain Outlet (slope) 8	Plan-EW-Drain Outlet (slope) 10	Plan-EW-SubsurfDrain 4 DIA 2fo1 slope

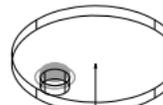
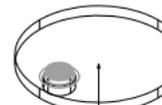
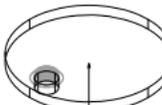
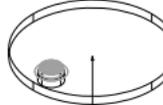
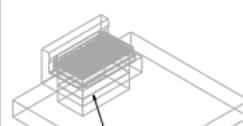
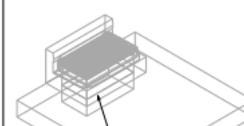
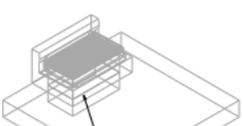
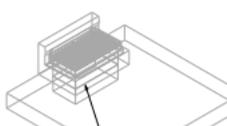
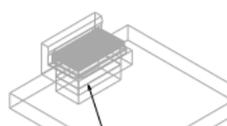
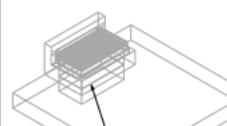
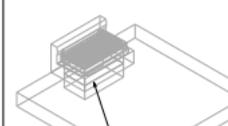
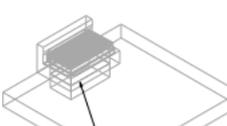
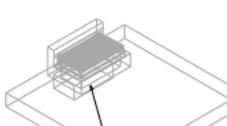
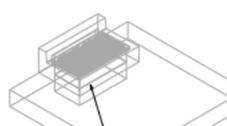
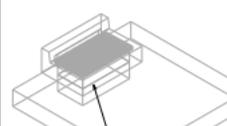
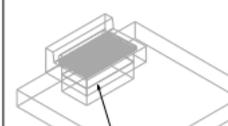
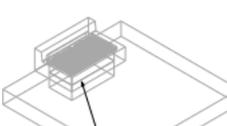
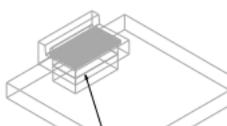
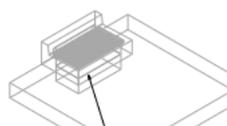
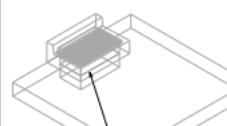
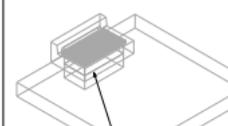
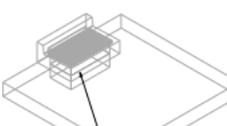
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Plan-EW-SubsurfDrain 8 DIA 2to1 slope	Plan-EW-SubsurfDrain 8 DIA 4to1 slope	Plan-EW-SubsurfDrain 8 DIA 6to1 slope	Plan-EW-SubsurfDrain 10 DIA 2to1 slope	Plan-EW-SubsurfDrain 10 DIA 4to1 slope
Plan-EW-SubsurfDrain 10 DIA 6to1 slope	Plan-EW-Type DE-36R	Plan-EW-Type DE-42R	Plan-EW-Type DE-48R	Plan-EW-Type DW 36 Skew 10
Plan-EW-Type DW 36 Skew 20	Plan-EW-Type DW 36 Skew 40	Plan-EW-Type DW 36 Skew 50	Plan-EW-Type DW 36 Skew 55	Plan-EW-Type DW 36 Skew 90-60

Plan-EW-Type DW 42 Skew 10	Plan-EW-Type DW 42 Skew 20	Plan-EW-Type DW 42 Skew 40	Plan-EW-Type DW 42 Skew 50	Plan-EW-Type DW 42 Skew 55
Plan-EW-Type DW 42 Skew 90-60	Plan-EW-Type DW 48 Skew 10	Plan-EW-Type DW 48 Skew 20	Plan-EW-Type DW 48 Skew 40	Plan-EW-Type DW 48 Skew 50
Plan-EW-Type DW 48 Skew 55	Plan-EW-Type DW 48 Skew 90-60	Plan-EW-Type DW 54 Skew 10	Plan-EW-Type DW 54 Skew 20	Plan-EW-Type DW 54 Skew 40
Plan-EW-Type DW 54 Skew 50	Plan-EW-Type DW 54 Skew 55	Plan-EW-Type DW 54 Skew 90-60	Plan-EW-Type DW 60 Skew 10	Plan-EW-Type DW 60 Skew 20
Plan-EW-Type DW 60 Skew 40	Plan-EW-Type DW 60 Skew 50	Plan-EW-Type DW 60 Skew 55	Plan-EW-Type DW 60 Skew 90-60	Plan-EW-Type DW 72 Skew 10

Plan-EW-Type DW 72 Skew 20	Plan-EW-Type DW 72 Skew 40	Plan-EW-Type DW 72 Skew 50	Plan-EW-Type DW 72 Skew 55	Plan-EW-Type DW 72 Skew 90-60
Plan-EW-Type DW Oval 58X91 Skew 45	Plan-EW-Type DW Oval 58X91 Skew 90-60	Plan-Type 7 MH 24	Plan-Type 7 MH 27	Plan-Type 7 MH 30
Plan-Type 8 MH 24	Plan-Type 8 MH 27	Plan-Type 8 MH 30	Plan-Type 10 MH 24	Plan-Type 10 MH 27
Plan-Type 10 MH 30	Plan-Type 12 MH 24	Plan-Type 12 MH 27	Plan-Type 12 MH 30	Plan-Type C Alternate-Type 8-ADA
Plan-Type C Alternate-Type 8-BSC	Plan-Type C Alternate-Type 8-SSC	Plan-Type C Alternate-Type 9-ADA	Plan-Type C Alternate-Type 9-BSC	Plan-Type C Alternate-Type 9-SSG

Plan-Type C Alternate-Type 10-ADA	Plan-Type C Alternate-Type 10-BSG	Plan-Type C Alternate-Type 10-SSG	Plan-Type C-Type 8-ADA	Plan-Type C-Type 8-BSG
Plan-Type C-Type 8-SSG	Plan-Type C-Type 9-SSG	Plan-Type C-Type 9-ADA	Plan-Type C-Type 9-BSG	Plan-Type C-Type 10-SSG
Plan-Type C-Type 10-ADA	Plan-Type C-Type 10-BSG	Plan-Type M Frame-Type 8-ADA	Plan-Type M Frame-Type 8-BSG	Plan-Type M Frame-Type 8-SSG
Plan-Type M Frame-Type 9-ADA	Plan-Type M Frame-Type 9-BSG	Plan-Type M Frame-Type 9-SSG	Plan-Type M Frame-Type 10-ADA	Plan-Type M Frame-Type 10-BSG
Plan-Type M Frame-Type 10-SSG	Plan-Type M-Std-Rehab-ADA	Plan-Type M-Std-Rehab-BSG	Plan-Type M-Std-Rehab-SSG	Plan-Type M-Type 8-ADA

Plan-Type M-Type 8-BSG	Plan-Type M-Type 8-SSG	Plan-Type M-Type 9-ADA	Plan-Type M-Type 9-BSG	Plan-Type M-Type 9-SSG
Plan-Type M-Type 10-ADA	Plan-Type M-Type 10-BSG	Plan-Type M-Type 10-SSG	Plan-Type S-Std-Rehab-ADA	Plan-Type S-Std-Rehab-BSG
Plan-Type S-Std-Rehab-SSG	Plan-Type S-Type 8-ADA	Plan-Type S-Type 8-BSG	Plan-Type S-Type 8-SSG	Plan-Type S-Type 9-ADA
Plan-Type S-Type 9-BSG	Plan-Type S-Type 9-SSG	Plan-Type S-Type 10-ADA	Plan-Type S-Type 10-BSG	Plan-Type S-Type 10-SSG
Top-Type 7 MH 24	Top-Type 7 MH 27	Top-Type 7 MH 30	Top-Type 8 MH 24	Top-Type 8 MH 27

				
Top-Type 8 MH 30	Top-Type 10 MH 24	Top-Type 10 MH 27	Top-Type 10 MH 30	Top-Type 12 MH 24
				
Top-Type 12 MH 27	Top-Type 12 MH 30	Top-Type C Alternate-Type 8-ADA	Top-Type C Alternate-Type 8-BSG	Top-Type C Alternate-Type 8-SSG
				
Top-Type C Alternate-Type 9-ADA	Top-Type C Alternate-Type 9-BSG	Top-Type C Alternate-Type 9-SSG	Top-Type C Alternate-Type 10-ADA	Top-Type C Alternate-Type 10-BSG
				
Top-Type C Alternate-Type 10-SSG	Top-Type C-Type 8-ADA	Top-Type C-Type 8-BSG	Top-Type C-Type 8-SSG	Top-Type C-Type 9-ADA
				
Top-Type C-Type 9-BSG	Top-Type C-Type 9-SSG	Top-Type C-Type 10-ADA	Top-Type C-Type 10-BSG	Top-Type C-Type 10-SSG

Top-Type M Frame-Type 8-ADA	Top-Type M Frame-Type 8-BSG	Top-Type M Frame-Type 8-SSG	Top-Type M Frame-Type 9-ADA	Top-Type M Frame-Type 9-BSG
Top-Type M Frame-Type 9-SSG	Top-Type M Frame-Type 10-ADA	Top-Type M Frame-Type 10-BSG	Top-Type M Frame-Type 10-SSG	Top-Type M-Std-Rehab-ADA
Top-Type M-Std-Rehab-BSG	Top-Type M-Std-Rehab-SSG	Top-Type M-Type 8-ADA	Top-Type M-Type 8-BSG	Top-Type M-Type 8-SSG
Top-Type M-Type 9-ADA	Top-Type M-Type 9-BSG	Top-Type M-Type 9-SSG	Top-Type M-Type 10-ADA	Top-Type M-Type 10-BSG
Top-Type M-Type 10-SSG	Top-Type S-Std-Rehab-ADA	Top-Type S-Std-Rehab-BSG	Top-Type S-Std-Rehab-SSG	Top-Type S-Type 8-ADA

Top-Type S-Type 8-BSG	Top-Type S-Type 8-SSG	Top-Type S-Type 9-ADA	Top-Type S-Type 9-BSG	Top-Type S-Type 9-SSG
Top-Type S-Type 10-ADA	Top-Type S-Type 10-BSG	Top-Type S-Type 10-SSG	Top-Type M Double-Type 5-ADA	Top-Type M Double-Type 5-ADA_H8+
Top-Type M Double-Type 5-ADA_H8-	Top-Type M Double-Type 5-BSG	Top-Type M Double-Type 5-BSG_H8+	Top-Type M Double-Type 5-BSG_H8-	Top-Type M Double-Type 5-SSG
Top-Type M Double-Type 5-SSG_H8+	Top-Type M Double-Type 5-SSG_H8-	Plan-Type Median Inlet	Top-Type Median Inlet	Bot-Inlet-Type Median Inlet

14.8.2.2 CIVIL SYMBOLS

Airfld	Arrpt	Arrsd	Arrst	BUOY
Airfield	Right Turn Arrow	Straight Directional Arrow	Straight and Right Turn Arrow	Buoy Symbol
Ertgce	Catbsn	Catbsr	Cdhdr	Cdhudr
Construction Entrance Exlt	Catch Basin	Catch Basin Round	Core Drill Hole Drilled	Core Drill Hole Undrilled
Clnout	Cnr90	Cnrsl	Cograv	Culvee
Cleanout Symbol	Corner Solid 90	Corner Solid Flat	Center of Gravity	Culvert End
Drllhol	Ecrd	Ersbd	Ersctd	Ersf
Drill Hole Symbol	Rock Dam Sediment Trap	Straw Bale Dam	Sediment Control Temporary Diversion	Silt Fence

Ersfro	Ersost	Wavalt	Flarrl	Flarrr
Silt Fence Rock Overflow	Stone Outlet Sediment Trap	Water Vault	Flow Arrow Left	Flow Arrow Right
Fometr	Fomhol	Fovalt	Grease	Grtch
Fuel Oil Meter	Fuel Oil Manhole	Fuel Oil Vault	Grease Trap	Grit Chamber
Gsmetr	Gsmhol	Gsplnt	Gsrecl	Gstrap
Gas Meter	Gas Manhole	Gas Plant	Gas Receiver	Gas Trap
Gsvalt	Headwl	Hndcap	Horcpt	Hovcpt
Gas Valve Vault	Head Wall	Handicap Symbol	Horizontal Control Point	Horizontal Vertical Control Point

Hydmt	Inshwy	Iwmetr	Iwmhol	Jnbx
Hydrant #	Interstate Highway Number	Industrial Waste Water Meter	Industrial Waste Water Manhole	Junction Box
Monwel	Phocpt	Pvalv	Pmpsta	Rgvalv
Monitoring Well	Photo Control Point	Post Indicator Valve	Pump Station Number	Regulator Valve Number
RRSign	RRSwtc	Scnrh	Scnro	Sdmol
Railroad Sign Symbol	Railroad Switch Symbol	Section Corner Hatched	Section Corner Open	Storm Drain Manhole
ShrubC	ShrubD	SIGN	Snlft	Snmhol
Shrub Type C	Shrub Type D	Sign Symbol	Sanitary Sewer Lift Station	Sanitary Manhole

Snpvsl	Snvalt	Spotel	Sptank	Sthwy
Sanitary Pressure Vessel	Sanitary Vault	Spot Elevation	Septic Tank	State Highway Number
Stmplt	SWAMP	Tideg	Tiretr	Tnkg
Storm Pit	Swamp	Tide Gage	Tire Treadle	Tank Horizontal Below Ground
Tnkhag	Tracr	Trams	TreeC	TreeD
Tank Horizontal Above Ground	Traffic Arm with Card Reader	Traffic Arm Mechanical Swing	Tree Type C	Tree Type D
Ushwy	Vercpt	Wahhol	Wametr	Wamhol
US Highway Symbol	Vertical Control Point	Water Handhole	Water Meter	Water Manhole

Wapnt	Wasoft	EARTH_BLOCK	GRDPNT	NRTH
Water Plant Symbol	Water Softener Symbol		GRADE POINT FOR XSECTIONS	NORTH ARROW FOR PPGEN
POINT	RWAY_LGAL	RWAY_RROW	V-ALGN-COGO	V-ALGN-LINE
POINT CELL	LEGAL ROW Label 3D	REQUIRED ROW Label 3D	COGO POINT	ALIGNMENT POINT EXISTING
xs_slope_left_dir_arrow	xs_slope_right_dir_arrow	ABUT-BOTM	ABUT-TOPP	ALGN-LINE
xs direction of slope arrow	xs direction of slope right side arrow	BRIDGE ABUTMENT BOTTOM	BRIDGE ABUTMENT TOP	ALIGNMENT POINT EXISTING
ARLB-BRIC	ARLB-CONC	ARLB-EART	ARLB-GRAS	ARLB-MACA
BRICK LABEL	CONCRETE LABEL	EARTH LABEL	GRASS AREA LABEL	MACADAM AREA LABEL

ARLB-STAB	ARLB-WOOD	AWNG	BANK-BOTM	BANK-TOPP
STABILIZED LABEL	WOODS LABEL	ABUTMENT WINGS	BANK BOTTOM	BANK TOP
BARN	BARN-BRIC	BARN-CONB	BARN-FRAM	BARN-SIDI
BUILDING BARN	BARN BRICK	BARN CONCRETE BLOCK	BARN FRAMED	BARN SIDING
BARR-BOTM	BARR-TOPP	BEAM-BOTM	BEAM-SEAT	BLDR
ROAD BARRIER BOOTOM	ROAD BARRIER TOP	BRIDGE BEAM BOTTOM	BRIDGE BEAM BOTTOM	BOULDER
BNDY-MUNI	BORE	BOTM	BRDG-CURB-BOTM	BRDG-CURB-TOPP
MUNICIPLE LINE	BORE HOLE	DITCH BOTTOM	BRIDGE CURB BOTTOM	BRIDGE CURB TOP

BRDGD-SDWK-BRIC	BRDGD-SDWK-CONC	BRDGD-SDWK-WOOD	BREK-VOID	BRIC
BRIDGE SIDEWALK BRICK	BRIDGE SIDEWALK CONCRETE	BRIDGE SIDEWALK WOOD	BUILDING OUTLINE BREAK VOID	GARAGE BRICK
BRKL	BRSH	BXCL	CATV-LINE	CATV-MARK
BREAKLINE	BRUSH LINE	STORM WATER BOX CULVERT	TELEVISION LINE UNDERGROUND	TELEVISION LINE MARKER
CATV-OVHD	CHCK	CHRDL-LOWW	COGO	CONS-BSLN
TELEVISION LINE OVERHEAD	CHECK SHOT	BRIDGE CHORD LOW	COGO POINT	CONST BASELINE
CROSS HAIR	CRWN-BITU	CRWN-CONC	CRWN-DIRT	CRWN-STAB
POINT CROSS HAIR	BRIDGE CROWN BITUMINUS	BRIDGE CROWN CONCRETE	CROWN OF ROAD DIRT	CROWN OF ROAD STABILIZED

CTPT-AXLE	CTPT-BMRK	CTPT-CMON	CTPT-COEW	CTPT-CONL
SURVEY CONTROL POINT AXLE	BENCH MARK	CONCRETE MONUMENT	CUT ON ENDWALL	CONCRETE NAIL
CTPT-DHOL	CTPT-GMON	CTPT-IPIN	CTPT-IPIP	CTPT-MAGN
DRILL HOLE	GEODETIC MONUMENT	IRON PIN	IRON PIPE	MAGNETIC NAIL
CTPT-PKNL	CTPT-PLUG	CTPT-RRSP	CTPT-SMON	CTPT-WISP
P K NAIL	LEAD PLUG	RAILROAD SPIKE	STONE MONUMENT	W I SPIKE
CURB	CURB-BOTM	CURB-BOTM-BITU	CURB-BOTM-CONC	CURB-BOTM-STON
EDGE OF CURB	EDGE OF CURB BOTTOM	EDGE OF CURB BOTTOM BITUMINUS	EDGE OF CURB BOTTOM CONCRETE	EDGE OF CURB BOTTOM CUT STONE

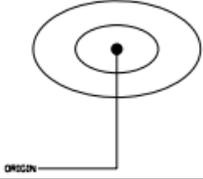
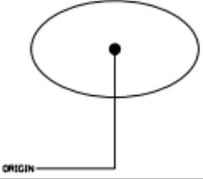
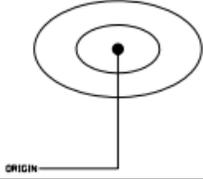
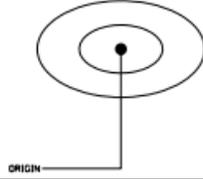
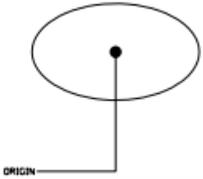
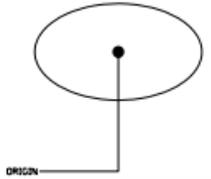
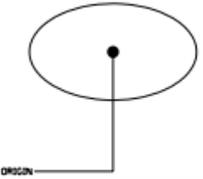
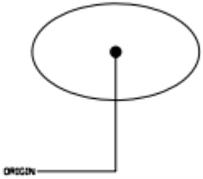
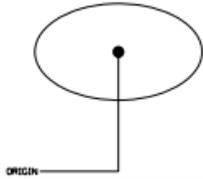
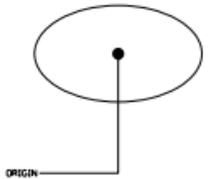
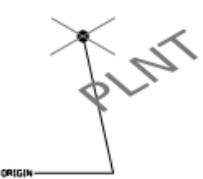
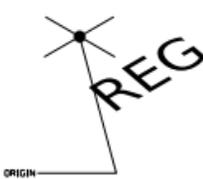
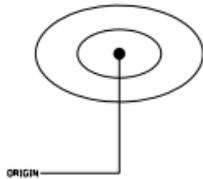
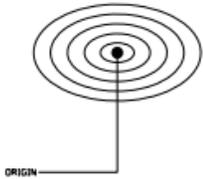
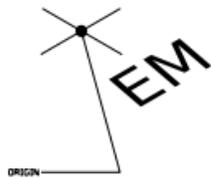
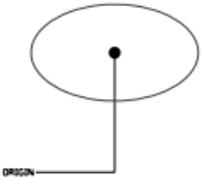
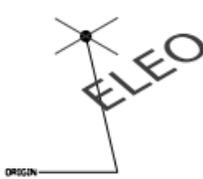
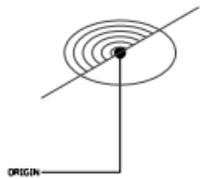
CURB-MOUN	CURB-TOPP	CURB-TOPP-BITU	CURB-TOPP-CONC	CURB-TOPP-STON
EDGE OF CURB MOUNTABLE	EDGE OF CURB TOP	EDGE OF CURB TOP BITUMINUS	EDGE OF CURB TOP CONCRETE	EDGE OF CURB CUT STONE
DECK-BITU	DECK-CONC	DECK-META	DECK-WOOD	DEFT
BRIDGE DECK BITUMINUS	BRIDGE DECK CONCRETE	BRIDGE DECK METAL	BRIDGE DECK WOOD	DEFAULT
DEFT-LINR	DKJT	EDGE-BITU	EDGE-CONC	EDGE-DIRT
DEFAULT LINEAR	BRIDGE DECK JOINT	EDGE OF DRIVEWAY BITUMINUS	EDGE OF DRIVEWAY CONCRETE	EDGE OF DRIVEWAY DIRT
EDGE-STAB	FDPT-HUBT	FDPT-NAIL	FDPT-REDD	FENC
EDGE OF DRIVEWAY STABILIZED	HUB AND TACK	FIELD POINT NAIL	SURVEY CONTROL RED	FENCE

FIEL	FLOW-ARRO	FPLC	FTNG	GABI
FIELD LABEL	STORM WATER FLOW ARROW	OUTSIDE FIREPLACE	BRIDGE FOOTING	GABIONS
GARG	GARG-CONB	GARG-FRAM	GARG-SIDI	GATE
GARAGE	GARAGE CONCRETE BLOCK	GARAGE FRAMED	GARAGE SIDING	GATE
GNRL	GRAL-LINE	GRAL-STRG	GRAL-WEAK	HDWL
BRIDGE GENERAL	GUIDE RAIL LINE	GUIDE RAIL LINE	GUIDE RAIL WEAK POST	HEAD WALL
HEDG	INLT	INV	ITU	Line Terminator Arrow
HEDGE	STORM WATER INLET OUTLET	STORM WATER INVERT	CROWN OF ROAD BITUMINUS	Terminator Arrow

MHOL	MLBX	NGAS-LINE	NGAS-MARK	NGAS-METR
STORM WATER MANHOLE COVER	MAIL BOX	GAS LINE	GAS LINE MARKER	GAS METER
NGAS-MHOL	NGAS-VLVE	NGAS-VLVE-STOP	NGAS-WELL	OLDG
NATURAL GAS MANHOLE COVER	GAS VALVE	GAS VALVE STOP	NATURAL GAS WELL	OLD GROUND
OTLN	OTLN-BRIC	OTLN-CONB	OTLN-FRAM	OTLN-SIDI
BUILDING OUTLINE	BUILDING OUTLINE BRICK	BUILDING OUTLINE CONCRETE BLOCK	BUILDING OUTLINE FRAMED	BUILDING OUTLINE SIDING
OVHG	PARA-BOTM	PARA-TOPP	PEDS-TOPP	PIER
OVERHANGING ROOF	BRIDGE PARAPET BOTTOM	BRIDGE PARAPET TOP	BRIDGE PEDESTAL TOP	BRIDGE PIER

PIER-BOTM	PIER-TOPP	PIPE	PIPE 0006	PIPE-0002
BRIDGE PIER BOTTOM	BRIDGE PIER TOP	STORM WATER PIPE	EXISTING 6 INCH PIPE	EXISTING 2 INCH PIPE
PIPE-0004	PIPE-0008	PIPE-0010	PIPE-0012	PIPE-0015
EXISTING 4 INCH PIPE	EXISTING 8 INCH PIPE	EXISTING 10 INCH PIPE	EXISTING 12 INCH PIPE	EXISTING 15 INCH PIPE
PIPE-0021	PIPE-0024	PIPE-0027	PIPE-0030	PIPE-0033
EXISTING 21 INCH PIPE	EXISTING 24 INCH PIPE	EXISTING 27 INCH PIPE	EXISTING 30 INCH PIPE	EXISTING 33 INCH PIPE
PIPE-0036	PIPE-0042	PIPE-0048	PIPE-0054	PIPE-0060
EXISTING 36 INCH PIPE	EXISTING 42 INCH PIPE	EXISTING 48 INCH PIPE	EXISTING 54 INCH PIPE	EXISTING 60 INCH PIPE

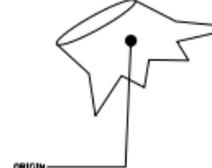
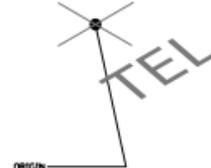
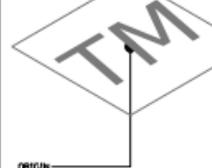
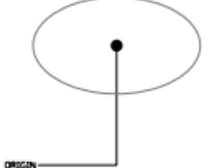
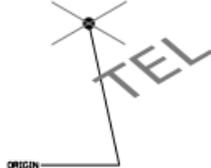
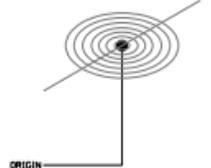
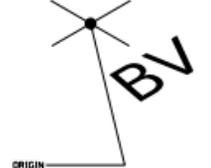
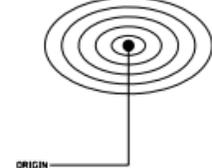
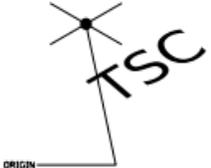
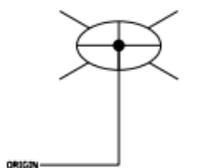
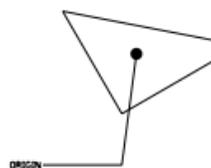
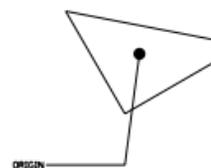
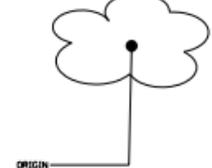
PIPE-0066	PIPE-0072	PIPE-0078	PIPE-0084	PIPE-0090
EXISTING 66 INCH PIPE	EXISTING 72 INCH PIPE	EXISTING 78 INCH PIPE	EXISTING 84 INCH PIPE	EXISTING 90 INCH PIPE
PIPE-0096	PIPE-0102	PIPE-0108	PIPE-0114	PIPE-0120
EXISTING 96 INCH PIPE	EXISTING 102 INCH PIPE	EXISTING 108 INCH PIPE	EXISTING 114 INCH PIPE	EXISTING 120 INCH PIPE
PIPE-0126	PIPE-0132	PIPE-0138	PIPE-0144	PIPE-PROF
EXISTING 126 INCH PIPE	EXISTING 132 INCH PIPE	EXISTING 138 INCH PIPE	EXISTING 144 INCH PIPE	EXISPIPE USED W ALL SYMB
PIPE-XSET	PLAN-BSLN	PLAN-CNTR	PLAN-PNTS-CS	PLAN-PNTS-PCC
EXISPIPE USED W ALL SYMB	SURVEY BASELINE	SURV CENT LINE	CURVE TO SPIRAL	PT OF COMP CURVE

				
PLAN-PNTS-PI	PLAN-PNTS-PLAN	PLAN-PNTS-POC	PLAN-PNTS-POST	PLAN-PNTS-POT
PT OF INTERSECT	PLAN STATION	POINT OF CURVE	PT OF SUBTANG	POINT ON TANGENT
				
PLAN-PNTS-PRC	PLAN-PNTS-PTAN	PLAN-PNTS-PTOC	PLAN-PNTS-SC	PLAN-PNTS-STAN
PT OF REV CUR	POINT OF TANGENT	POINT OF CURVE	SPIRAL TO CURVE	SPIRAL TO TANGENT
				
PLAN-PNTS-STKE	PLAN-PNTS-TS	PLTR	PNTS-REGL	POINT-1
STAKEOUT POINT	TANG TO SPIRAL	PLANTER	REGULAR POINT	POINT CELL
				
POLE-POST	POWR-METR	POWR-MHOL	POWR-OVHD	POWR-POLE
POLE POST	POWER ELECTRIC METER	POWER MANHOLE COVER	ELECTRIC LINE OVERHEAD	ELECTRIC POLE

POWR-UNDR	PRCH	PRCH-BOTM	PRCH-BOTM-BRIC	PRCH-BOTM-CONC
ELECTRIC LINE UNDERGROUND	BUILDING PORCH	BUILDING PORCH BOTTOM	BUILDING PORCH BOTTOM BRICK	BUILDING PORCH BOTTOM CONCRETE
PRCH-BOTM-WOOD	PRCH-TOPP	PRCH-TOPP-BRIC	PRCH-TOPP-CONC	PRCH-TOPP-WOOD
BUILDING PORCH BOTTOM WOOD	BUILDING PORCH TOP	BUILDING PORCH TOP BRICK	BUILDING PORCH TOP CONCRETE	BUILDING PORCH TOP WOOD
PRKG-EDGE	PRKG-METR	PTRO-ISLN	PVMK-DBBL-YL	PVMK-SGLD-WH
PARKING LOT EDGE	PARKING METER	GAS ISLAND	TRAFFIC PAVEMENT MARKING DBL YELLOW	TRAFFIC PAVEMENT MARKING DASHED WHITE
PVMK-SGLD-YL	PVMK-SNGL-WH	PVMK-SNGL-YL	RAIL-CNTR	RAIL-EQPM
TRAFFIC PAVEMENT MARKING DASHED YELLOW	TRAFFIC PAVEMENT MARKING SOLID SINGLE WHITE	TRAFFIC PAVEMENT MARKING SOLID SINGLE YELLOW	RR CL TRACK	CROSSING GATE

RAJL-SGNL	RAIL-SIGN	RAJL-TRAK	ROAD-CRWN-CONC	ROAD-EDGE
CROSSING SIGNAL	CROSSING SIGN	TOP OF RAIL	CROWN OF ROAD CONCRETE	EDGE OF ROAD
ROAD-EDGE-BITU	ROAD-EDGE-CONC	ROAD-EDGE-DIRT	ROAD-EDGE-STAB	ROAD-MRKG
EDGE OF ROAD BITUMINUS	EDGE OF ROAD CONCRETE	EDGE OF ROAD DIRT	EDGE OF ROAD STABILIZED	ROAD MARKING
ROAD-SHLD	ROCK	ROCK-LINR	RWAY_LGAL-1	RWAY_RROW-1
EDGE OF SHOULDER	ROCK POINT FEATURE	ROCK LINEAR	LEGAL ROW Label 3D	REQUIRED ROW Label 3D
SDWK	SDWK-BITU	SDWK-BRIC	SDWK-CONC	SDWK-STON
SIDEWALK	SIDEWALK BITUMINUS	SIDEWALK BRICK	SIDEWALK CONCRETE	SIDEWALK STONE

SHED	SHLD-BITU	SHLD-CONC	SHLD-DIRT	SHLD-STAB
BUILDING SHED	EDGE OF SHOULDER BITUMINUS	EDGE OF SHOULDER CONCRETE	EDGE OF ROAD DIRT	EDGE OF SHOULDER STABILIZED
SHRB	SIGN-LINR	SILO	SLAB	SROW
SHRUB	SIGN LINEAR	BUILDING SILO	CONCRETE SLAB	STONE ROW
SSWR-CESS	SSWR-COUT	SSWR-DFLD	SSWR-MHOL	SSWR-PERC
CESSPOOL	SSWR CLEAN OUT	DRAIN FIELD	SSWR MANHOLE COVER	SSWR PERC HOLE
SSWR-PIPE	SSWR-SEPT	SSWR-STPT	SSWR-VENT	STEP
SANITARY PIPE	SEPTIC TANK	SOIL TEST PIT	SSWR VENT	BUILDING STEPS

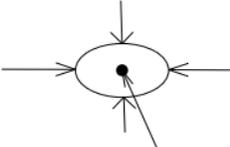
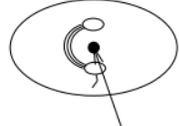
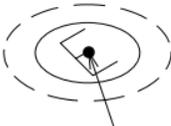
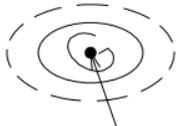
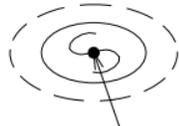
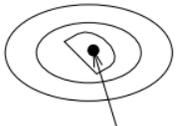
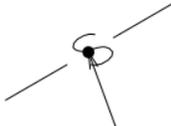
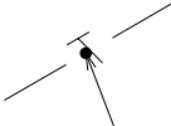
				
STEP-BRIC	STEP-CONC	STEP-META	STEP-WOOD	STMP
BUILDING STEPS BRICK	BUILDING STEPS CONCRETE	BUILDING STEPS META	BUILDING STEPS WOOD	STUMP
				
STRM-ARCH	STRM-PIPE-0018	TANK	TELP-LINE	TELP-MARK
STORM WATER ARCH PIPE	EXISTING 18 INCH PIPE	BUILDING TANK	UNDERGROUND TELEPHONE LINE	UNDERGROUND TELEPHONE MARKER
				
TELP-MHOL	TELP-OVHD	TELP-POLE	TOPO-BREK-VOID	TOPO-SIGN
TELEPHONE MANHOLE COVER	OVERHEAD TELEPHONE LINE	TELEPHONE POLE	BREAK VOID	SIGN POINT FEATURE
				
TRAF-SGNL-CABI	TRAF-SIGS	TRAV	TRAV-LINR	TREE
TRAFFIC SIGNAL CONTROLLER	TRAFFIC SIGNAL	TRAVERSE POINT	TRAVERSE LINEAR	TREE

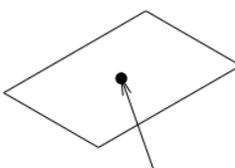
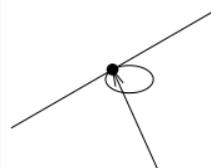
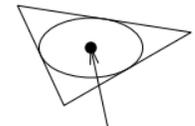
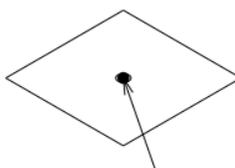
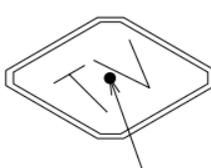
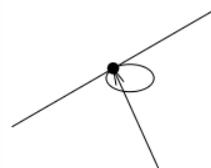
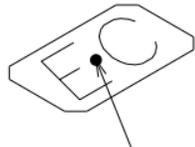
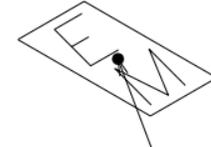
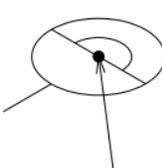
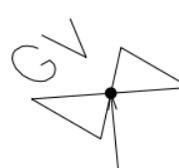
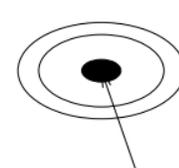
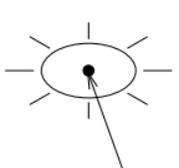
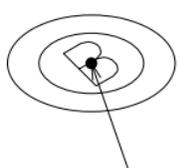
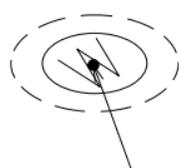
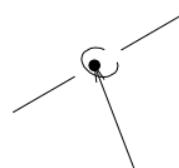
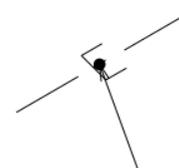
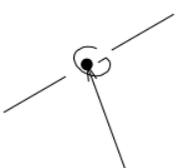
TREE-EGRN	TRER	UTIL-FIBR-OVHD	UTIL-FIBR-UNDR	UTIL-GUYA
CONIFEROUS (EVERGREEN) TREE	TREE ROW	FIBER OPTIC OVERHEAD LINE	FIBER OPTIC UNDERGROUND LINE	GUY AERIAL
UTIL-GUYP	UTIL-GUYS	UTIL-JBOX	UTIL-JBOX-LINR	UTIL-MHOL
GUY POLE	GUYS NON-POLE	JUNCTION BOX	JUNCTION BOX LINEAR	MANHOLE COVER
UTIL-OGTC	UTIL-OVHD	UTIL-POLE	UTIL-POLE-PRVT	WALL-BOTM
OIL GAS TANK CAPS	UNIDENTIFIED UTILITY OVERHEAD	UNIDENTIFIED UTILITY POLE	PRIVATE POLE	WALL BOTTOM
WALL-BOTM-CBLK	WALL-BOTM-STON	WALL-BOTM-WOOD	WALL-RETN	WALL-TOPP
WALL BOTTOM CONCRETE BLOCK	WALL BOTTOM STONE	WALL BOTTOM WOOD	WALL SLOPE/RETENTION	WALL TOP

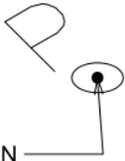
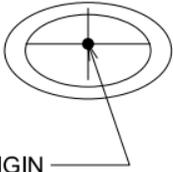
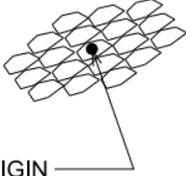
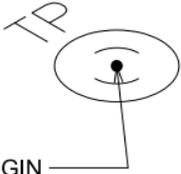
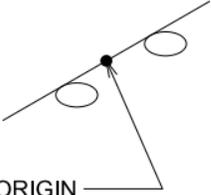
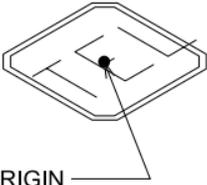
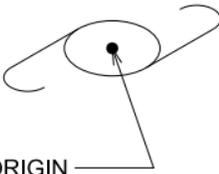
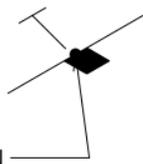
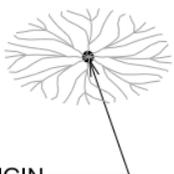
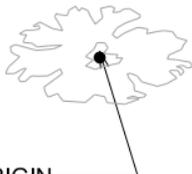
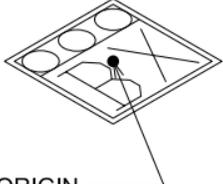
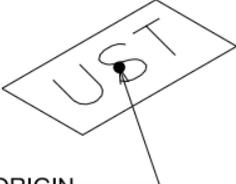
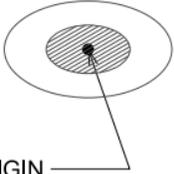
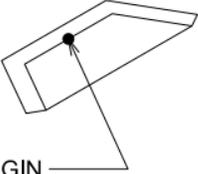
WALL-TOPP-CBLK	WALL-TOPP-STON	WALL-TOPP-WOOD	WATR-CIST	WATR-FHYD
WALL TOP CONCRETE BLOCK	WALL TOP STONE	WALL TOP WOOD	CISTERN	FIRE HYDRANT
WATR-LINE	WATR-MARK	WATR-METR	WATR-POOL	WATR-SPRG
WATER LINE	WATER LINE MARKER	WATER METER	POOL	SPRING
WATR-VLVE	WATR-VLVE-STOP	WATR-WELL	WDRW	WELL
WATER VALVE	WATER VALVE CURB STOP	WELL	WOODS ROW	BUILDING WELL HOUSE
WHGD	WING-BOTM	WING-TOPP	WODE	WTLN
BRIDGE WHEEL GUARD	BRIDGE WING BOTTOM	BRIDGE WING TOPP	EDGE OF WOODS	WETLAND DELINEATION

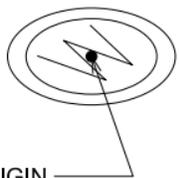
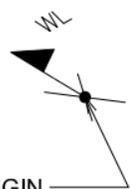
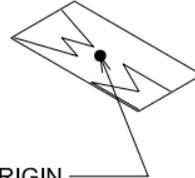
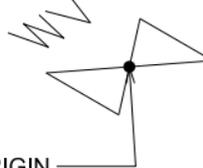
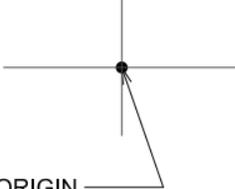
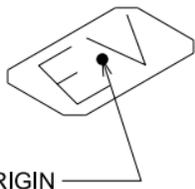
WWAY-CANL	WWAY-CREK	WWAY-LAKE	WWAY-LEVE	WWAY-POND
CANAL	CREEK	LAKE	LEVEE DIKE EL	POND
WWAY-RIVR	WWAY-RRAP	WWAY-SNDG	WWAY-STRM	WWAY-WATR
RIVER	RIP RAP ROCK LINING	WATER WAY SOUNDING	STREAM	WATER
EDGE	SHLD	CRWN	BOTM-HEADWALL	TOP-HEADWALL
EDGE OF DRIVEWAY	EDGE OF SHOULDER	BRIDGE CROWN	BOTTOM OF HEADWALL	TOP OF HEADWALL

14.8.2.3 SURVEY SYMBOLS

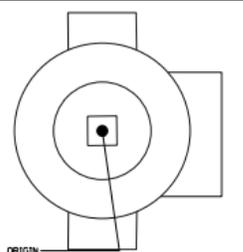
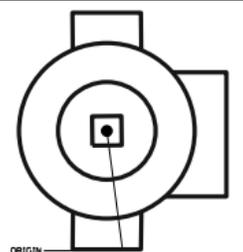
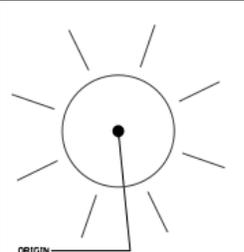
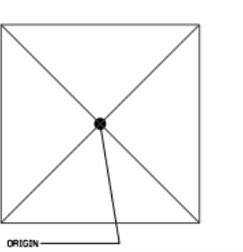
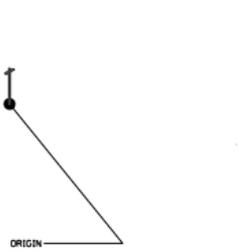
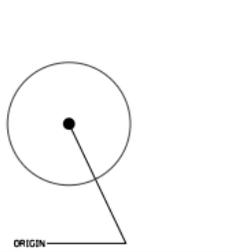
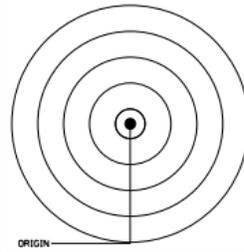
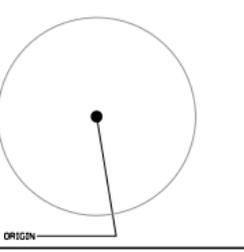
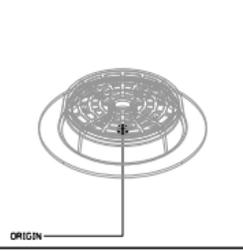
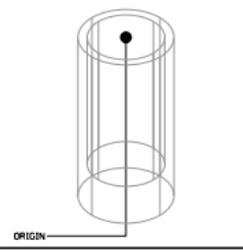
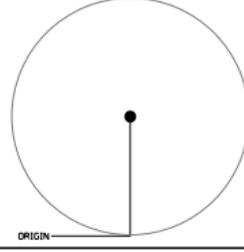
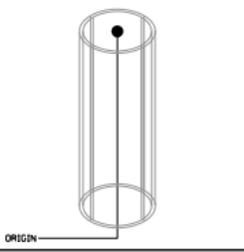
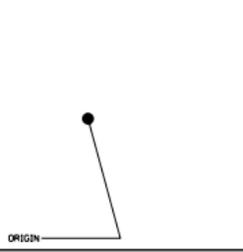
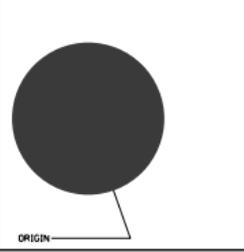
				
ORIGIN _____ V-AD	ORIGIN _____ V-BM	ORIGIN _____ V-BOL	ORIGIN _____ V-Callbox	ORIGIN _____ V-CATV_Markout
Area Drain	Benchmark	Bollard	Callbox	Cable Tv Line Marker
				
ORIGIN _____ V-FireHyd	ORIGIN _____ V-Flagpole	ORIGIN _____ V-Gas_Markout	ORIGIN _____ V-GasMtr	ORIGIN _____ V-GuyAnchr
Fire Hydrant	Flag Pole	Gas Line Marker	Gas Meter	Guy Wire Anchor
				
ORIGIN _____ V-Mailbox	ORIGIN _____ V-MH_Elec	ORIGIN _____ V-MH_Gas	ORIGIN _____ V-MH_San	ORIGIN _____ V-MH_Storm
Mailbox	Electric Manhole	Gas Manhole	Sanitary Sewer Manhole	Storm Sewer Manhole
				
ORIGIN _____ V-Sewer_Mrkout	ORIGIN _____ V-Moss	ORIGIN _____ V-Mrkr_Tel	ORIGIN _____ V-Mrkr_W	ORIGIN _____ V-Nail
Sanitary Sewer Markout	Storm Sewer Markout	Telephone Markout	Water Markout	Nail

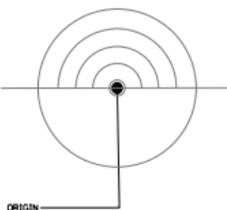
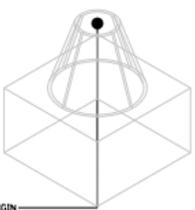
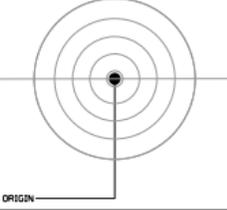
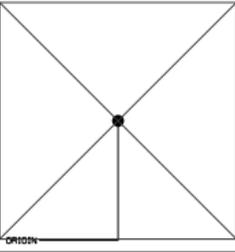
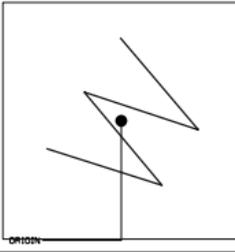
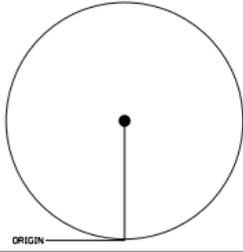
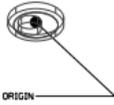
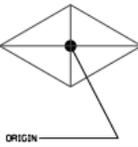
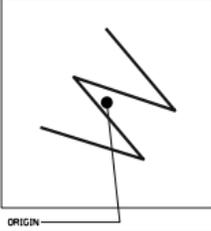
				
ORIGIN _____ V-Sept	ORIGIN _____ V-Shrub	ORIGIN _____ V-Sign1	ORIGIN _____ V-Nail_Stk	ORIGIN _____ V-Monument
Septic Tank	Shrub	Sign1	Stake	Monument
				
ORIGIN _____ V-CMon	ORIGIN _____ V-CTyped	ORIGIN _____ V-Cros	ORIGIN _____ V-Elec_C_Box	ORIGIN _____ V-ElecMtr
Concrete Monument	Cable Tv Ped	Cross Sign	Electric Box	Electric Meter
				
ORIGIN _____ V-G_Pole	ORIGIN _____ V-GV	ORIGIN _____ V-CB	ORIGIN _____ V-IP	ORIGIN _____ V-Lumin_Cir
Guy Pole	Gas Valve	Catch Basin	Iron Pin	Light Post
				
ORIGIN _____ V-MH_Tel	ORIGIN _____ V-MH_Water	ORIGIN _____ V-Mrkr_CATV	ORIGIN _____ V-Elec_Mrkout	ORIGIN _____ V-Mrkr_G
Telephone Manhole	Water Manhole	Cable Tv Markout	Electrical Markout	Gas Markout

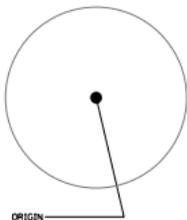
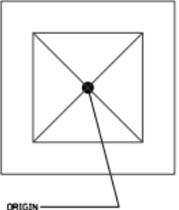
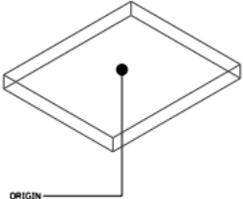
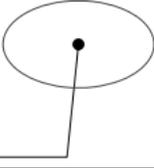
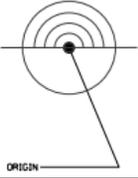
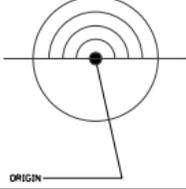
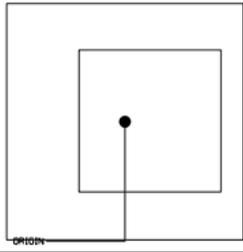
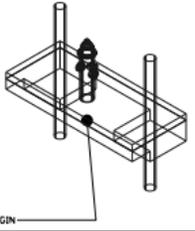
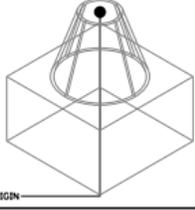
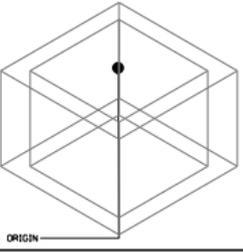
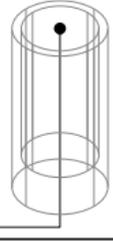
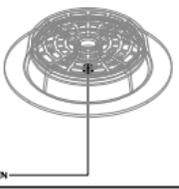
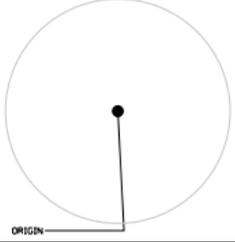
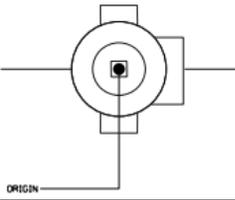
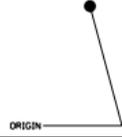
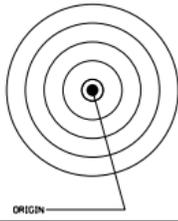
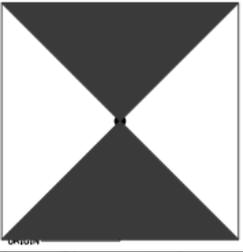
				
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Post	Rebar	Roadkill	Rip-Rap	Railroad Spike
				
ORIGIN _____ V-Test_Pit	ORIGIN _____ V-Sign2	ORIGIN _____ V-Telped	ORIGIN _____ V-Tep	ORIGIN _____ V-Tel_Mrkout
Soil Test Pit	Sign2	Telephone Pedestal	Telephone Pole	Telephone Line Marker
				
ORIGIN _____ V-Tree_Con	ORIGIN _____ V-Tree_Dec	ORIGIN _____ V-Trsigbx	ORIGIN _____ V-U_Pole	ORIGIN _____ V-Ugrdtank
Coniferous Tree	Deciduous Tree	Traffic Signal Control Box	Utility Pole	Underground Storage Tank
				
ORIGIN _____ V-DH	ORIGIN _____ V-HW	ORIGIN _____ V-MHCATV	ORIGIN _____ V-San_Co	ORIGIN _____ V-Tank
Drill Hole	Headwall	Cable Tv Manhole	Cleanout	Tank

 <p>ORIGIN _____ V-Well</p>	 <p>ORIGIN _____ V-WL_Flag</p>	 <p>ORIGIN _____ V-WM</p>	 <p>ORIGIN _____ V-WV</p>	 <p>ORIGIN _____ V-Node</p>
<p>Well</p>	<p>Wetland Flag</p>	<p>Water Meter</p>	<p>Water Valve</p>	<p>Generic Node Point</p>
 <p>ORIGIN _____ V-Vjt</p> <p>Electric Vault</p>				

14.8.2.4 UTILITY SYMBOLS

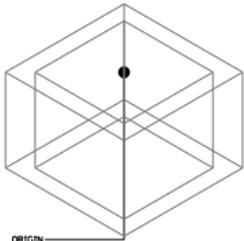
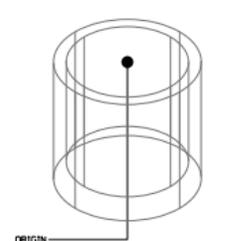
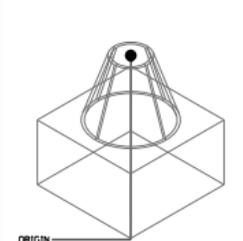
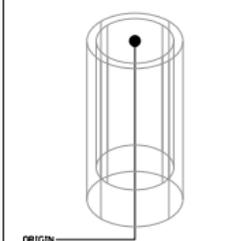
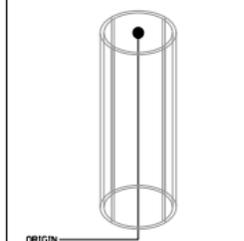
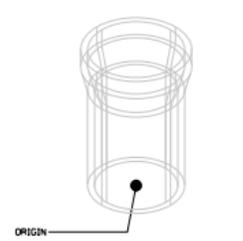
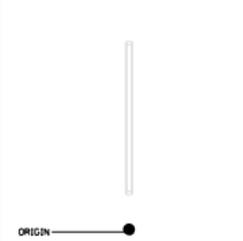
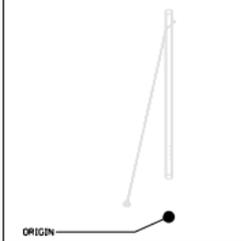
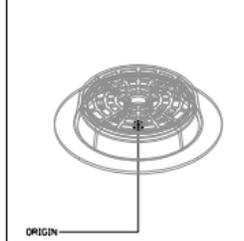
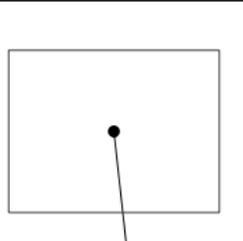
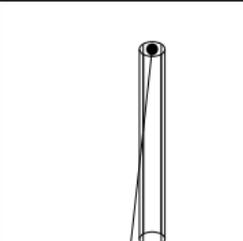
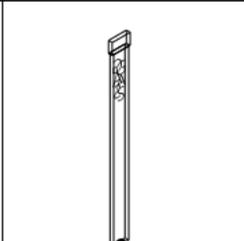
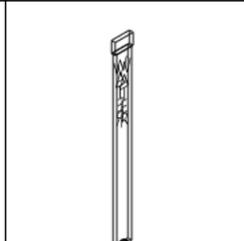
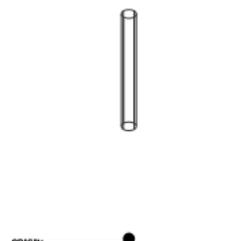
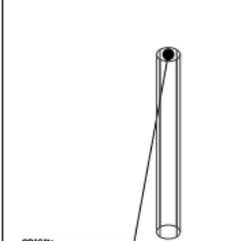
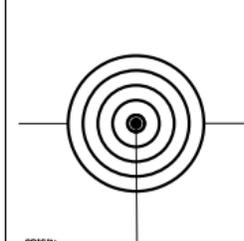
				
Bot-x-Water Fire Hydrant	Plan - x-Water-Fire Hydrant	Plan - Water Fire Hydrant	Plan - Gas Meter	Plan - Electric-Powerpole with Light
				
Top - Electric-Light Arm-1	Plan - x-Electric Utility Box	Top - Electric-Power Pole with electric cross arm	Plan - Electric-Power Manhole	Plan - Utility Pole
	Unspecified Utility Box Ex	Utility Pole Prop	Power Manhole Prop	Power Pole with Light Prop
				
Plan - Telephone MH	Plan - x-Telephone MH	Top - Telephone MH	Bot-Telephone MH	Plan - CATV MH
Plan - Tel MH		Tel MH top	Tel MH Bottom	Plan-CATV MH
				
Bot-Telephone pedestal	Plan - Telephone Pedestal-round base	Top - Telephone pedestal-round base	Top - x-Telephone pedestal-round base	Plan - Electric-LW OH
Tel MH Bottom				Low Wire Overhead

				
Bot-Water Fire Hydrant W fenders	Plan - Electric-Powerpole with electric cross arm	Bot-Electric Powerpole with electric cross arms	Top - Gas Valve	Bot-Gas Valve
		Electric Service Pole		
				
Plan - Gas Line Marker	Plan - Water Fire Hydrant - w fenders	Top - Guy Pole - with Under Ground Utilities	Top - Guy Pole - with Guy wire	Top - Guy Pole
Water Valve Proposed				
				
Plan - x-Telephone Pole	Plan - Electric-Transmission Tower	Plan - Water Meter	Plan - x-Water Valve	Top - Gas Meter
				
Top - Electric- Power Manhole	Top - Electric-Transmission Tower NA	Top - Utility Pole Unspecified	Top - Electric-Power Pole with Light	Plan - x-Water Meter

				
Plan - x-CATV MH	Plan - x-Electric Pad-Mounted Signal Controller	Bot-Electric Pad Mounted Signal Controller	Top - Sewer Type 4 MH 24	Plan - Sewer Type 5 MH 24
Plan - ExCATV MH	Pad-Mounted Signal Controller	Pad-Mounted Signal Controller		
				
Top - Electric-LW OH NA	Plan - Electric Service Pole	Plan - x-Electric Service Pole	Plan - Valut-4x4	Top - Water Fire Hydrant with Fenders
Used for various place holder nodes	Electric Service Pole	Electric Service Pole Ex		
				
Bot-Sewer Valve	Bot-Sewer Meter	Bot-Gas Meter	Bot-CATV MH	Top - CATV MH
			CATV MH Bottom	CATV MH top
				
Plan - x-Gas Valve	Plan - x-Water Fire Hydrant - w fenders	Plan - x-Telephone Pedestal-round	Plan - x-Utility Pole	Plan - Electric Utility Box
			Power Pole	Unspecified Utility Box Ex

Plan - x.Electric-Powerpole with Light	Plan - x.Electric-LW OH	Plan - Electric Pad-Mounted Signal Controller	Plan - x.Sewer MH	Plan - x.Sewer Cleanout
	Low Wire Overhead	Pad-Mounted Signal Controller	Plan - SSMH	Sewer Cleanout
Top - Cable pedestol	Plan - Cable Pedestal	Bot-Cable pedestol	Plan - x.Cable Pedestal	Bot-x.Cable pedestol
		cable Bottom		Exs.cable Bottom
Top - Comm Vault 6x8	Bot-x.Electric-Powerpole with Light	Bot-x.Gas Meter	Bot-x.Gas Valve	Bot-x.Sewer Clean Out
				Exs.Sewer Clean Out
Bot-x.Water Meter	Bot-x.Water Valve	Top - x.Electric- Power Manhole	Top - x.Electric-Power Pole with electric cross arm	Top - x.Electric-Transmission Tower- NA
			Utility Pole Prop	

Top - Utility Box-DNU	Top - x.Water Meter	Top - x.Water Valve	Top Box - x.Electric Utility	Plan - x.Valut-4x4
				water vault box-exs
Bot-x.Gas Line Marker	Bot-x.Water Line Marker	Bot-x.Valut-4x4	Bot-x.Electric Utility Box	Top - Electric Service Pole
				Electric Service Pole
Bot-x.CATV MH	Top - x.CATV MH	Bot-Telephone Pole -Metal	Top - x. Service Pole-Misc	Bot-x.Service Pole-Misc
Ex CATV MH Bottom	Ex CATV MH Top	Prop. Bottom for metal tel pole	6x8 Electric Service Pole	6x8 Electric Service Pole
Top - x.Cable pedestal	Bot-Electric-Powerpole with Light	Top - ElectricPole- Wood	Bot-Comm Vault 6x8	Plan - Comm Vault 6ft x 8ft
	Bottom for Power pole with light	prop electric pole	Prop. Common vault	

				
Bot-x.Sewer Meter	Bot-x.Sewer MH Type 4	Bot-x.Sewer Valve	Bot-x.Telephone MH	Bot-x.Telephone pedestal
			Exs.Tel MH Bottom	Exs.Tel Pedetel Bottom
				
Top - x.Gas Meter	Top - x.Gas Valve	Top - x.Electric Guy Pole	Top - x.Electric Guy Pole - with Under Ground Utilities	Top - x.Telephone MH
				Tel MH top
				
Top - x.Electric- Light Arm-1	Plan - x.Comm Vault 6ft x 8ft	Bot-x.Utility Pole	Top - x.Gas Line Marker	Top - x.Water Line Marker
		Exs.Bottom for generic pole		
				
Bot-Electric Service Pole	Top - Water Fire Hydrant	Top - Generic Utility Pole	Bot-Generic Utility Pole	Plan - Gen.Utility Pole
Electric Service Pole			Prop.Bottom for wood	Generic Utility pole

Plan - Telephone Pole-Temp temporary pole	Plan - Electric Pole-Temp temporary pole	Bot-Electric Pole -Temp Temp.Bottom for wood	Top - Electric Pole-Temp Temp.Top of Wood	Top - Guy Pole - with Guy wire - test
Bot-Water Tap Node	Bot-Gas Tap Node	Bot-x_Gas Tap Node	Plan - Gas Tap Node	Plan - x_Gas Tap Node
Plan - x_Electric- Miscellaneous	Plan - x.Gen.Utility Pole x_Generic Utility pole	Bot-x_Generic Utility Pole Exs.Bottom for wood	Top -x_ Generic Utility Pole	Top - x_Electric-Power with Light
Bot-Water Meter	Top - Valut-4x4 top-exs.water vault box	Bot-Valut-4x4	Plan - Telephone Pole	Plan - Sewer Cleanout Sewer Cleanout

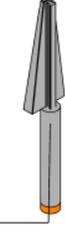
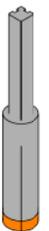
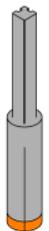
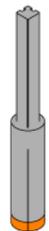
Bot-Water Valve	Plan - Water Valve	Bot-x_Electric Pad Mounted Signal Controller	Top - Electric Utility Box	Top - x_Electric Service Pole
		Pad-Mounted Signal Controller		Exs Electric Service Pole
Top - x_Telephonepole-nocrossarms	Bot-x_Telephonepole-nocrossarms	Top - Telephonepole-nocrossarms	Bot-Telephonepole-nocrossarms	Top - x_Telephonepole-nocrossarms-REMOVE
Exs Electric Service Pole	Exs.Bottom for generic pole	Exs Electric Service Pole	Exs.Bottom for generic pole	Removal Comm node
Bot-x_Gen.Node UNGD	Plan - x_Gen.Node-UNGD	Plan - x_Water Tap Node	Bot-x_Water Tap Node	Plan - Water Tap Node
Plan - x_Telephone Pole - Remove	Plan - x_Electrical Pole - Remove	Top - x_Electrical Pole - Remove	Bot-x_Tel Pole- Remove	Bot-x_Electric Miscellaneous
			Exs.Bottom for woodTel pole	

Plan - x.Gas Meter	Plan - Gas Valve	Top - x.Water Fire Hydrant with fenders	Top - x.Water Fire Hydrant	Top - Water Meter
Bot-Sewer Clean Out	Bot-Water Fire Hydrant	Bot-x.Water Fire Hydrant W fenders	Top - Water Valve	Top -x.Valut-4x4
Prop.Sewer Clean Out				top-exs.water vault box
Bot-x.Electric Service Pole	Bot-Electric Utility Box	Top - x.Sewer Type 4 MH	Bot-Sewer MH Type 4	Plan - Sewer MH
Exs Electric Service Pole				Plan - SSMH
Bot-x.Telephonepole-nocrossarms - REMOVE	Bot-Telephonepole-nocrossarms - TEMP	Top - Telephonepole-nocrossarms -TEMP	Plan - x.Electrical Pole	Plan - Electrical Pole
Exs. Bottom for removal tel pole	Bottom for Temp Tel Pole	Temp tel pole		

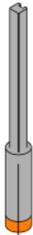
Bot-Electric Pole-Wood	Bot-x_Electrical Pole-Remove	Bot-x_Electric Pole-Wood	Top - x_ElectricPole-Wood	Bot-Gen.Node UNGD
Prop. Bottom elec.pole	Exs. Bottom elec.pole	exs. Bottom elec.pole	exs electric pole	prop generic undergroundnode
Plan -Gen.Node-UNGD	Bottom - Utility Pole Prop	Top - Utility Pole		
	Utility Pole Prop	Utility Pole Prop		

14.8.2.5 NOISE WALL POSTS

NW_Type_I_Post	NW_Type_II_Post	NW_Type_III_Post	NW_Type_I_End_Post	RNW_Type_I_End_Post
3D Noise Wall Type I Post SW-3A-B Std. Dwg	3D Noise Wall Type II Post SW-3A-B Std. Dwg	3D Noise Wall Type III Post SW-3A-B Std. Dwg	3D Noise Wall Type I End Post SW-3A-B Std. Dwg (Keyway Eliminated)	3D Retaining/Noise Wall Type I End Post SW-4A-C Std. Dwg (Keyway Eliminated)
RNW_7ft_Pilaster_Post	RNW_8ft_Pilaster_Post	RNW_9ft_Pilaster_Post	RNW_10ft_Pilaster_Post	RNW_11ft_Pilaster_Post
3D 7ft Retaining/Noise Wall Pilaster Post SW-5 Std. Dwg	3D 8ft Retaining/Noise Wall Pilaster Post SW-5 Std. Dwg	3D 9ft Retaining/Noise Wall Pilaster Post SW-5 Std. Dwg	3D 10ft Retaining/Noise Wall Pilaster Post SW-5 Std. Dwg	3D 11ft Retaining/Noise Wall Pilaster Post SW-5 Std. Dwg
RNW_17ft_Pilaster_Post	RNW_18ft_Pilaster_Post	RNW_19ft_Pilaster_Post	RNW_7ft_Type_III_Post	RNW_8ft_Type_III_Post
3D 17ft Retaining/Noise Wall Pilaster Post SW-5 Std. Dwg	3D 18ft Retaining/Noise Wall Pilaster Post SW-5 Std. Dwg	3D 19ft Retaining/Noise Wall Pilaster Post SW-5 Std. Dwg	3D 7ft Retaining/Noise Wall Type III Post SW-4A-C Std. Dwg	3D 8ft Retaining/Noise Wall Type III Post SW-4A-C Std. Dwg
RNW_14ft_Type_III_Post	RNW_15ft_Type_III_Post	RNW_16ft_Type_III_Post	RNW_17ft_Type_III_Post	RNW_18ft_Type_III_Post
3D 14ft Retaining/Noise Wall Type III Post SW-4A-C Std. Dwg	3D 15ft Retaining/Noise Wall Type III Post SW-4A-C Std. Dwg	3D 16ft Retaining/Noise Wall Type III Post SW-4A-C Std. Dwg	3D 17ft Retaining/Noise Wall Type III Post SW-4A-C Std. Dwg	3D 18ft Retaining/Noise Wall Type III Post SW-4A-C Std. Dwg

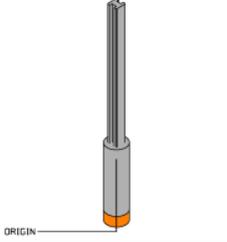
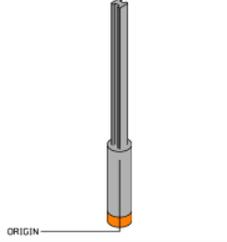
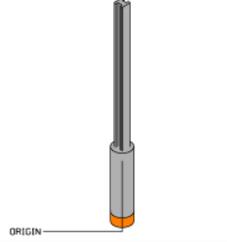
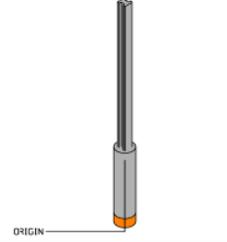
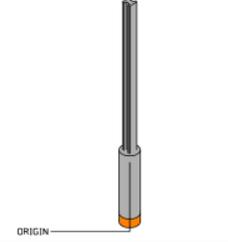
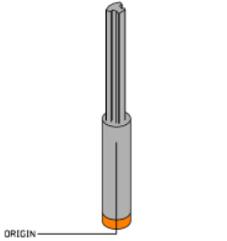
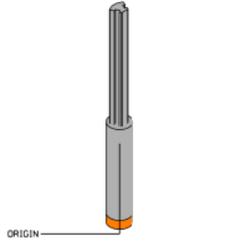
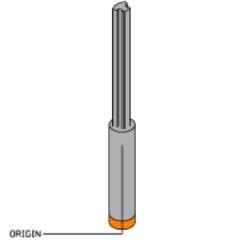
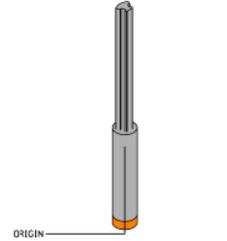
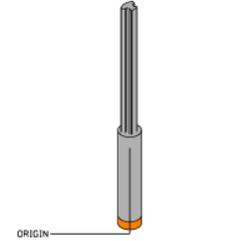
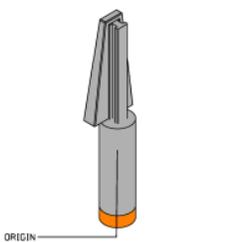
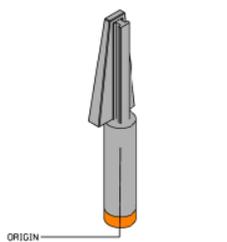
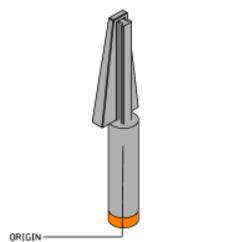
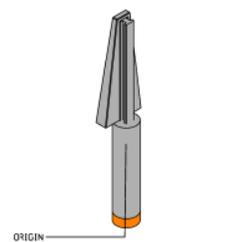
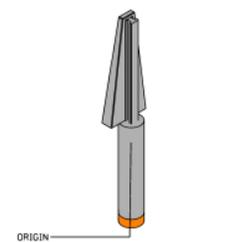
				
NW_10ft_Type_III_Post	NW_11ft_Type_III_Post	NW_12ft_Type_III_Post	NW_13ft_Type_III_Post	NW_14ft_Type_III_Post
3D 10ft Noise Wall Type III Post SW-3A-B Std. Dwg	3D 11ft Noise Wall Type III Post SW-3A-B Std. Dwg	3D 12ft Noise Wall Type III Post SW-3A-B Std. Dwg	3D 13ft Noise Wall Type III Post SW-3A-B Std. Dwg	3D 14ft Noise Wall Type III Post SW-3A-B Std. Dwg
				
RNW_Type_I_Post	RNW_Type_II_Post	RNW_Type_III_Post	RNW_Pilaster_Post	NW_Pilaster_Post
3D Retaining/Noise Wall Type I Post SW-4A-C Std. Dwg	3D Retaining/Noise Wall Type II Post SW-4A-C Std. Dwg	3D Retaining/Noise Wall Type III Post SW-4A-C Std. Dwg	3D Retaining/Noise Wall Pilaster Post SW-5 Std. Dwg	3D Noise Wall Pilaster Post SW-5 Std. Dwg
				
RNW_12ft_Pilaster_Post	RNW_13ft_Pilaster_Post	RNW_14ft_Pilaster_Post	RNW_15ft_Pilaster_Post	RNW_16ft_Pilaster_Post
3D 12ft Retaining/Noise Wall Pilaster Post SW-5 Std. Dwg	3D 13ft Retaining/Noise Wall Pilaster Post SW-5 Std. Dwg	3D 14ft Retaining/Noise Wall Pilaster Post SW-5 Std. Dwg	3D 15ft Retaining/Noise Wall Pilaster Post SW-5 Std. Dwg	3D 16ft Retaining/Noise Wall Pilaster Post SW-5 Std. Dwg
				
RNW_9ft_Type_III_Post	RNW_10ft_Type_III_Post	RNW_11ft_Type_III_Post	RNW_12ft_Type_III_Post	RNW_13ft_Type_III_Post
3D 9ft Retaining/Noise Wall Type III Post SW-4A-C Std. Dwg	3D 10ft Retaining/Noise Wall Type III Post SW-4A-C Std. Dwg	3D 11ft Retaining/Noise Wall Type III Post SW-4A-C Std. Dwg	3D 12ft Retaining/Noise Wall Type III Post SW-4A-C Std. Dwg	3D 13ft Retaining/Noise Wall Type III Post SW-4A-C Std. Dwg

RNW_19ft_Type_III_Post	NW_6ft_Type_III_Post	NW_7ft_Type_III_Post	NW_8ft_Type_III_Post	NW_9ft_Type_III_Post
3D 19ft Retaining/Noise Wall Type III Post SW-4A-C Std. Dwg	3D 6ft Noise Wall Type III Post SW-3A-B Std. Dwg	3D 7ft Noise Wall Type III Post SW-3A-B Std. Dwg	3D 8ft Noise Wall Type III Post SW-3A-B Std. Dwg	3D 9ft Noise Wall Type III Post SW-3A-B Std. Dwg
NW_15ft_Type_III_Post	NW_16ft_Type_III_Post	NW_17ft_Type_III_Post	NW_6ft_Type_I_End_Post	NW_7ft_Type_I_End_Post
3D 15ft Noise Wall Type III Post SW-3A-B Std. Dwg	3D 16ft Noise Wall Type III Post SW-3A-B Std. Dwg	3D 17ft Noise Wall Type III Post SW-3A-B Std. Dwg	3D 6ft Noise Wall Type I End Post SW-3A-B Std. Dwg (Keyway Eliminated)	3D 7ft Noise Wall Type I End Post SW-3A-B Std. Dwg (Keyway Eliminated)
NW_8ft_Type_I_End_Post	NW_9ft_Type_I_End_Post	NW_10ft_Type_I_End_Post	NW_11ft_Type_I_End_Post	NW_12ft_Type_I_End_Post
3D 8ft Noise Wall Type I End Post SW-3A-B Std. Dwg (Keyway Eliminated)	3D 9ft Noise Wall Type I End Post SW-3A-B Std. Dwg (Keyway Eliminated)	3D 10ft Noise Wall Type I End Post SW-3A-B Std. Dwg (Keyway Eliminated)	3D 11ft Noise Wall Type I End Post SW-3A-B Std. Dwg (Keyway Eliminated)	3D 12ft Noise Wall Type I End Post SW-3A-B Std. Dwg (Keyway Eliminated)
RNW_7ft_Type_I_End_Post	RNW_8ft_Type_I_End_Post	RNW_9ft_Type_I_End_Post	RNW_10ft_Type_I_End_Post	RNW_11ft_Type_I_End_Post
3D 7ft Retaining/Noise Wall Type I End Post SW-4A-C Std. Dwg (Keyway Eliminated)	3D 8ft Retaining/Noise Wall Type I End Post SW-4A-C Std. Dwg (Keyway Eliminated)	3D 9ft Retaining/Noise Wall Type I End Post SW-4A-C Std. Dwg (Keyway Eliminated)	3D 10ft Retaining/Noise Wall Type I End Post SW-4A-C Std. Dwg (Keyway Eliminated)	3D 11ft Retaining/Noise Wall Type I End Post SW-4A-C Std. Dwg (Keyway Eliminated)

				
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3D 17ft Retaining/Noise Wall Type I End Post SW-4A-C Std. Dwg (Keyway Eliminated)	3D 18ft Retaining/Noise Wall Type I End Post SW-4A-C Std. Dwg (Keyway Eliminated)	3D 19ft Retaining/Noise Wall Type I End Post SW-4A-C Std. Dwg (Keyway Eliminated)	3D 7ft Retaining/Noise Wall Type I Post SW-4A-C Std. Dwg	3D 8ft Retaining/Noise Wall Type I Post SW-4A-C Std. Dwg
				
RNW_14ft_Type_I_Post	RNW_15ft_Type_I_Post	RNW_16ft_Type_I_Post	RNW_17ft_Type_I_Post	RNW_18ft_Type_I_Post
3D 14ft Retaining/Noise Wall Type I Post SW-4A-C Std. Dwg	3D 15ft Retaining/Noise Wall Type I Post SW-4A-C Std. Dwg	3D 16ft Retaining/Noise Wall Type I Post SW-4A-C Std. Dwg	3D 17ft Retaining/Noise Wall Type I Post SW-4A-C Std. Dwg	3D 18ft Retaining/Noise Wall Type I Post SW-4A-C Std. Dwg
				
NW_10ft_Type_II_Post	NW_11ft_Type_II_Post	NW_12ft_Type_II_Post	NW_13ft_Type_II_Post	NW_14ft_Type_II_Post
3D 10ft Noise Wall Type II Post SW-3A-B Std. Dwg	3D 11ft Noise Wall Type II Post SW-3A-B Std. Dwg	3D 12ft Noise Wall Type II Post SW-3A-B Std. Dwg	3D 13ft Noise Wall Type II Post SW-3A-B Std. Dwg	3D 14ft Noise Wall Type II Post SW-3A-B Std. Dwg
				
NW_13ft_Type_I_End_Post	NW_14ft_Type_I_End_Post	NW_15ft_Type_I_End_Post	NW_16ft_Type_I_End_Post	NW_17ft_Type_I_End_Post
3D 13ft Noise Wall Type I End Post SW-3A-B Std. Dwg (Keyway Eliminated)	3D 14ft Noise Wall Type I End Post SW-3A-B Std. Dwg (Keyway Eliminated)	3D 15ft Noise Wall Type I End Post SW-3A-B Std. Dwg (Keyway Eliminated)	3D 16ft Noise Wall Type I End Post SW-3A-B Std. Dwg (Keyway Eliminated)	3D 17ft Noise Wall Type I End Post SW-3A-B Std. Dwg (Keyway Eliminated)

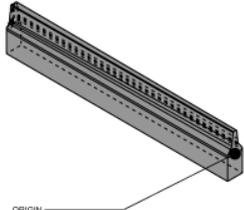
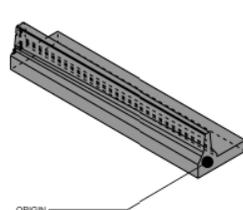
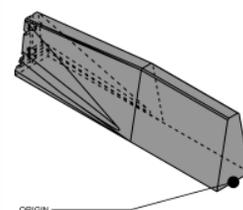
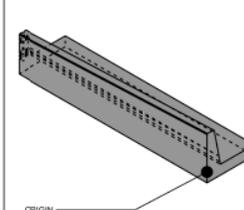
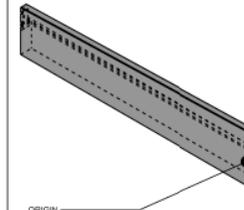
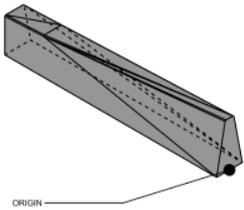
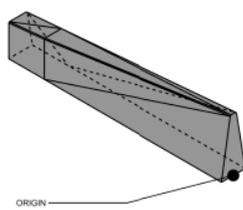
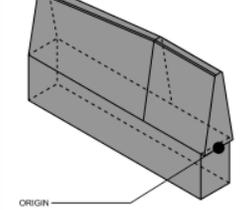
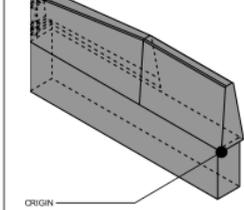
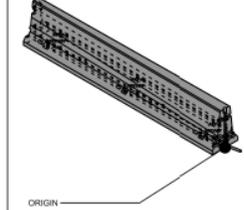
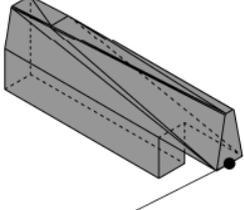
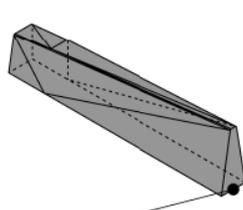
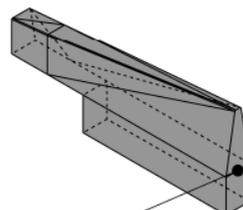
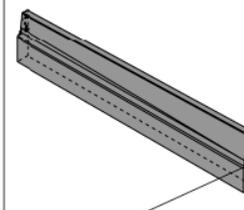
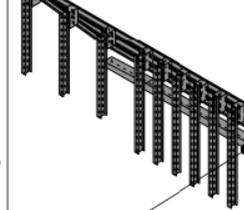
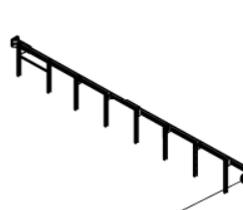
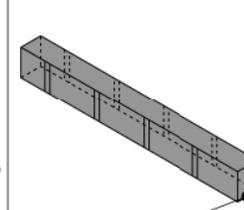
				
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3D 12ft Retaining/Noise Wall Type I End Post SW-4A-C Std. Dwg (Keyway Eliminated)	3D 13ft Retaining/Noise Wall Type I End Post SW-4A-C Std. Dwg (Keyway Eliminated)	3D 14ft Retaining/Noise Wall Type I End Post SW-4A-C Std. Dwg (Keyway Eliminated)	3D 15ft Retaining/Noise Wall Type I End Post SW-4A-C Std. Dwg (Keyway Eliminated)	3D 16ft Retaining/Noise Wall Type I End Post SW-4A-C Std. Dwg (Keyway Eliminated)
				
RNW_9ft_Type_I_Post	RNW_10ft_Type_I_Post	RNW_11ft_Type_I_Post	RNW_12ft_Type_I_Post	RNW_13ft_Type_I_Post
3D 9ft Retaining/Noise Wall Type I Post SW-4A-C Std. Dwg	3D 10ft Retaining/Noise Wall Type I Post SW-4A-C Std. Dwg	3D 11ft Retaining/Noise Wall Type I Post SW-4A-C Std. Dwg	3D 12ft Retaining/Noise Wall Type I Post SW-4A-C Std. Dwg	3D 13ft Retaining/Noise Wall Type I Post SW-4A-C Std. Dwg
				
RNW_19ft_Type_I_Post	NW_6ft_Type_II_Post	NW_7ft_Type_II_Post	NW_8ft_Type_II_Post	NW_9ft_Type_II_Pos:
3D 19ft Retaining/Noise Wall Type I Post SW-4A-C Std. Dwg	3D 6ft Noise Wall Type II Post SW-3A-B Std. Dwg	3D 7ft Noise Wall Type II Post SW-3A-B Std. Dwg	3D 8ft Noise Wall Type II Post SW-3A-B Std. Dwg	3D 9ft Noise Wall Type II Post SW-3A-B Std. Dwg
				
NW_15ft_Type_II_Post	NW_16ft_Type_II_Post	NW_17ft_Type_II_Post	NW_6ft_Type_I_Post	NW_7ft_Type_I_Post
3D 15ft Noise Wall Type II Post SW-3A-B Std. Dwg	3D 16ft Noise Wall Type II Post SW-3A-B Std. Dwg	3D 17ft Noise Wall Type II Post SW-3A-B Std. Dwg	3D 6ft Noise Wall Type I Post SW-3A-B Std. Dwg	3D 7ft Noise Wall Type I Post SW-3A-B Std. Dwg

				
NW_8ft_Type_I_Post	NW_9ft_Type_I_Post	NW_10ft_Type_I_Post	NW_11ft_Type_I_Post	NW_12ft_Type_I_Post
3D 8ft Noise Wall Type I Post SW-3A-B Std. Dwg	3D 9ft Noise Wall Type I Post SW-3A-B Std. Dwg	3D 10ft Noise Wall Type I Post SW-3A-B Std. Dwg	3D 11ft Noise Wall Type I Post SW-3A-B Std. Dwg	3D 12ft Noise Wall Type I Post SW-3A-B Std. Dwg
				
RNW_7ft_Type_II_Post	RNW_8ft_Type_II_Post	RNW_9ft_Type_II_Post	RNW_10ft_Type_II_Post	RNW_11ft_Type_II_Post
3D 7ft Retaining/Noise Wall Type II Post SW-4A-C Std. Dwg	3D 8ft Retaining/Noise Wall Type II Post SW-4A-C Std. Dwg	3D 9ft Retaining/Noise Wall Type II Post SW-4A-C Std. Dwg	3D 10ft Retaining/Noise Wall Type II Post SW-4A-C Std. Dwg	3D 11ft Retaining/Noise Wall Type II Post SW-4A-C Std. Dwg
				
RNW_17ft_Type_II_Post	RNW_18ft_Type_II_Post	RNW_19ft_Type_II_Post	NW_6ft_Pilaster_Post	NW_7ft_Pilaster_Post
3D 17ft Retaining/Noise Wall Type II Post SW-4A-C Std. Dwg	3D 18ft Retaining/Noise Wall Type II Post SW-4A-C Std. Dwg	3D 19ft Retaining/Noise Wall Type II Post SW-4A-C Std. Dwg	3D 6ft Noise Wall Pilaster Post SW-5 Std. Dwg	3D 7ft Noise Wall Pilaster Post SW-5 Std. Dwg
				
NW_13ft_Pilaster_Post	NW_14ft_Pilaster_Post	NW_15ft_Pilaster_Post	NW_16ft_Pilaster_Post	NW_17ft_Pilaster_Post
3D 13ft Noise Wall Pilaster Post SW-5 Std. Dwg	3D 14ft Noise Wall Pilaster Post SW-5 Std. Dwg	3D 15ft Noise Wall Pilaster Post SW-5 Std. Dwg	3D 16ft Noise Wall Pilaster Post SW-5 Std. Dwg	3D 17ft Noise Wall Pilaster Post SW-5 Std. Dwg

				
NW_13ft_Type_I_Post 3D 13ft Noise Wall Type I Post SW-3A-B Std. Dwg	NW_14ft_Type_I_Post 3D 14ft Noise Wall Type I Post SW-3A-B Std. Dwg	NW_15ft_Type_I_Post 3D 15ft Noise Wall Type I Post SW-3A-B Std. Dwg	NW_16ft_Type_I_Post 3D 16ft Noise Wall Type I Post SW-3A-B Std. Dwg	NW_17ft_Type_I_Post 3D 17ft Noise Wall Type I Post SW-3A-B Std. Dwg
				
RNW_12ft_Type_II_Post 3D 12ft Retaining/Noise Wall Type II Post SW-4A-C Std. Dwg	RNW_13ft_Type_II_Post 3D 13ft Retaining/Noise Wall Type II Post SW-4A-C Std. Dwg	RNW_14ft_Type_II_Post 3D 14ft Retaining/Noise Wall Type II Post SW-4A-C Std. Dwg	RNW_15ft_Type_II_Post 3D 15ft Retaining/Noise Wall Type II Post SW-4A-C Std. Dwg	RNW_16ft_Type_II_Post 3D 16ft Retaining/Noise Wall Type II Post SW-4A-C Std. Dwg
				
NW_8ft_Pilaster_Post 3D 8ft Noise Wall Pilaster Post SW-5 Std. Dwg	NW_9ft_Pilaster_Post 3D 9ft Noise Wall Pilaster Post SW-5 Std. Dwg	NW_10ft_Pilaster_Post 3D 10ft Noise Wall Pilaster Post SW-5 Std. Dwg	NW_11ft_Pilaster_Post 3D 11ft Noise Wall Pilaster Post SW-5 Std. Dwg	NW_12ft_Pilaster_Post 3D 12ft Noise Wall Pilaster Post SW-5 Std. Dwg

14.8.2.6 BARRIERS

3D Trailing End Section - Cast-In-Place 42 Inch	3D Trailing End Section - Cast-In-Place Half Barrier 42 Inch LT	3D CIP Barrier - 54 Inch to 32 Inch Vertical Face End Section Beam Foundation RT	3D Trailing End Section - Cast-In-Place 54 Inch	3D Precast - 32 Inch F Shape Sloped End Section (For Speeds Less Than 40 MPH)
(BA 3A9) Cast-In-Place Concrete Constant Slope Barrier - 42 Inch Trailing Sloped End Section	(BA 3K8) Cast-In-Place Constant Slope Half Barrier - 42 Inch Trailing Sloped End Section	(BA 3M6) CIP Concrete Constant Slope Barrier - 54 Inch To 32 Inch Vertical Face End Section With Beam Foundation	(BA 3M8) Cast-In-Place Concrete Constant Slope Barrier - 54 Inch Trailing Slope End Section	(BA 2B) Precast - 32 Inch F Shape Sloped End Section (For Speeds Less Than 40 MPH)
3D CIP 42 Inch Constant Slope Parapet Thrie-Beam Transition - Moment Slab RT	3D CIP 42 Inch Constant Slope Parapet Thrie-Beam Transition - Beam Foundation RT	3D CIP Half Barrier - 42 Inch to 32 Inch F-Shape End Section on PCCP RT	3D CIP Barrier - 54 Inch to 42 Inch End Section on PCCP	3D CIP Barrier - 42 Inch to 32 Inch Vertical Face End Section Beam Foundation LT
(BA 2E3A) CIP 42 Inch Constant Slope Parapet, Thrie Beam Transition - With Moment Slab	(BA 2E3B) CIP 42 Inch Constant Slope Parapet, 32 Inch F-Shape Barrier Transition - With Beam Foundation	(BA 3K4) CIP Concrete Constant Slope Half Barrier - 42 Inch To 32 Inch F-Shape End Section On PCCP Roadway Panel	(BA 3M5) CIP Concrete Constant Slope Barrier - 54 Inch To 42 Inch End Section On PCCP Roadway Panel	(BA 3A7) CIP Concrete Constant Slope Barrier - 42 Inch To 32 Inch Vertical Face End Section With Beam Foundation
3D CIP Half Barrier - 42 Inch to 32 Inch Vertical Face End Section Beam Foundation LT	3D CIP Half Barrier - 42 Inch to 32 Inch Vertical Face End Section on PCCP RT	3D CIP Half Barrier - 42 Inch to 32 Inch Vertical Face End Section on PCCP LT	3D CIP Half Barrier - 42 Inch to 32 Inch Vertical Face End Section Beam Foundation RT	3D CIP Barrier - 42 Inch to 32 Inch Vertical Face End Section on PCCP RT
(BA 3K6) CIP Concrete Constant Slope Half Barrier - 42 Inch To 32 Inch Vertical Face End Section with Beam Foundation	(BA 3K7) CIP Concrete Constant Slope Half Barrier - 42 Inch To 32 Inch Vertical Face End Section On PCCP Roadway Panel	(BA 3K7) CIP Concrete Constant Slope Half Barrier - 42 Inch To 32 Inch Vertical Face End Section On PCCP Roadway Panel	(BA 3K6) CIP Concrete Constant Slope Half Barrier - 42 Inch To 32 Inch Vertical Face End Section with Beam Foundation	(BA 3A8) CIP Concrete Constant Slope Barrier - 42 Inch To 32 Inch Vertical Face End Section On PCCP Roadway Panel
3D Guiderail Transition Element with Connector Plate RT	3D W-Beam Guiderail Median Transition RT	3D W-Beam Guiderail Anchor Type I RT	3D MASH Cable Barrier Gating Terminal	3D End Treatment - Type F Quand Trend RT
(BA 4B1 Series) Guiderail Transition Element	(BA 4B3) Median Transition Element	(BA 4C Series) 31 Inch W-Beam Guiderail Anchor Type I	(BA5C Series) MASH Cable Barrier Gating Terminal	(CC 7A) End Treatment - Type F Quand Trend

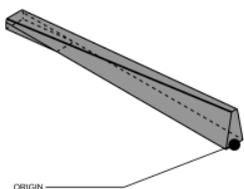
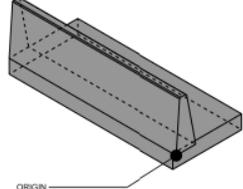
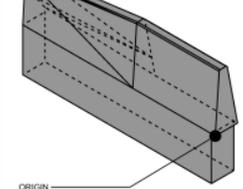
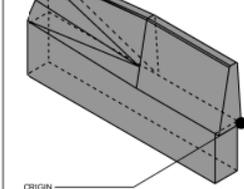
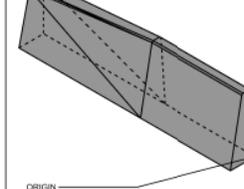
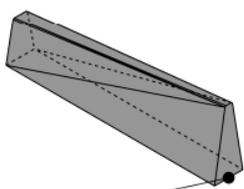
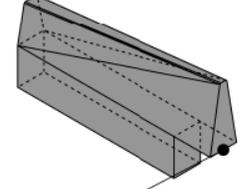
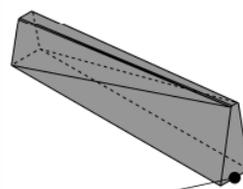
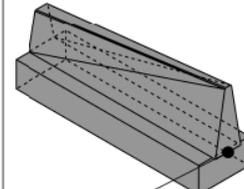
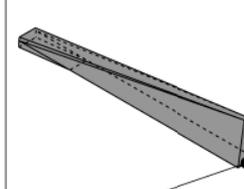
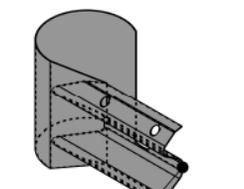
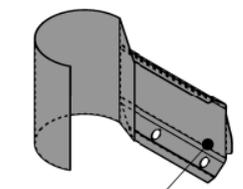
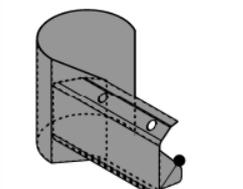
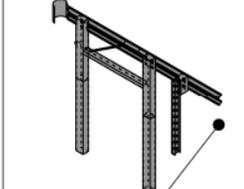
				
3D CIP Jersey to F Shape Transition - Beam foundation	3D CIP Jersey to F Shape Transition - Moment Slab RT	3D CIP Barrier - 42 Inch to 32 Inch F-Shape End Section on PCCP	3D CIP 42 Inch Constant Slope Parapet 32 Inch F-Shape Transition - Moment Slab RT	3D CIP 42 Inch Constant Slope Parapet 32 Inch F-Shape Transition - Beam Foundation RT
(BA 2E1B) CIP Concrete Jersey to F-Shape Transition With Beam Foundation	(BA 2E1A) CIP Concrete Jersey to F-Shape Transition With Moment Slab	(BA 3A5) CIP Concrete Constant Slope Barrier - 42 Inch To 32 Inch F-Shape End Section On PCCP Roadway Panel	(BA 2E2A) CIP 42 Inch Constant Slope Parapet, 32 Inch F-Shape Barrier Transition - With Moment Slab	(BA 2E2B) CIP 42 Inch Constant Slope Parapet, 32 Inch F-Shape Barrier Transition - With Beam Foundation
				
3D CIP Barrier - 42 Inch to 32 Inch Vertical Face End Section on PCCP LT	3D CIP Barrier - 54 Inch to 32 Inch Vertical Face End Section on PCCP LT	3D CIP Barrier - 54 Inch to 42 Inch End Section Beam Foundation	3D CIP Half Barrier - 42 Inch to 32 Inch F-Shape End Section Beam Foundation RT	3D Precast - 32 Inch F Shape New Jersey Shape Transition 4 Foot Pn LT
(BA 3A8) CIP Concrete Constant Slope Barrier - 42 Inch To 32 Inch Vertical Face End Section On PCCP Roadway Panel	(BA 3M7) CIP Concrete Constant Slope Barrier - 54 Inch To 32 Inch Vertical Face End Section On PCCP Roadway Panel	(BA 3M5) CIP Concrete Constant Slope Barrier - 54 Inch To 42 Inch End Section With Beam Foundation	(BA 3K4) CIP Concrete Constant Slope Half Barrier - 42 Inch To 32 Inch F-Shape End Section With Beam Foundation	(BA 2C) Precast - 32 Inch F Shape New Jersey Shape Transition
				
3D CIP Barrier - 42 Inch to 32 Inch Vertical Face End Section Beam Foundation RT	3D CIP Barrier - 54 Inch to 32 Inch Vertical Face End Section on PCCP RT	3D CIP Barrier - 54 Inch to 32 Inch Vertical Face End Section Beam Foundation LT	3D CIP 42 Inch Constant Slope Parapet 32 Inch F-Shape Transition - Beam Foundation LT	3D Guiderail Transition Element RT
(BA 3A7) CIP Concrete Constant Slope Barrier - 42 Inch To 32 Inch Vertical Face End Section With Beam Foundation	(BA 3M7) CIP Concrete Constant Slope Barrier - 54 Inch To 32 Inch Vertical Face End Section On PCCP Roadway Panel	(BA 3M6) CIP Concrete Constant Slope Barrier - 54 Inch To 32 Inch Vertical Face End Section With Beam Foundation	(BA 2E2B) CIP 42 Inch Constant Slope Parapet, 32 Inch F-Shape Barrier Transition - With Beam Foundation	(BA 4B1 Series) Guiderail Transition Element
				
3D End Treatment - Type F BEAT-SSCC RT	3D End Treatment - Type G MSKT-SP-GS1 RT	3D End Treatment - VATET_TANGENT_RT	3D End Treatment - Type H MFLEAT RT	3D Crash Cushion Type B (QuadGuard M10)
(CC 7B) End Treatment - Type F BEAT-SSCC	(CC 8A) End Treatment - Type G SoftStop	(CC 8B) End Treatment - Type G MSKT-SP-GS	(CC 9) End Treatment - Type H	(CC Series) Crash Cushion Type B

3D CIP Half Barrier - 42 Inch to 32 Inch F-Shape End Section Beam Foundation LT <i>(BA 3K4) CIP Concrete Constant Slope Half Barrier - 42 Inch To 32 Inch F-Shape End Section With Beam Foundation</i>	3D CIP Half Barrier - 42 Inch to 32 Inch F-Shape End Section on PCCP LT <i>(BA 3K4) CIP Concrete Constant Slope Half Barrier - 42 Inch To 32 Inch F-Shape End Section On PCCP Roadway Panel</i>	3D End Treatment - Type F BEAT-SSCC LT <i>(CC 7B) End Treatment - Type F BEAT-SSCC</i>	3D End Treatment - Type F Quand Trend LT <i>(CC 7A) End Treatment - Type F Quand Trend</i>	3D End Treatment - Type G MSKT-SP-GS1 LT <i>(CC 8A) End Treatment - Type G SoftStop</i>
3D End Treatment - VATET_TANGENT_LT <i>(CC 8B) End Treatment - Type G MSKT-SP-GS</i>	3D End Treatment - Type H MFLEAT LT <i>(CC 9) End Treatment - Type H</i>	3D Guiderrail Transition Element LT <i>(BA 4B1 Series) Guiderrail Transition Element</i>	3D Guiderrail Transition Element with Connector Plate LT <i>(BA 4B1 Series) Guiderrail Transition Element</i>	3D Trailing End Section - Cast-In-Place Half Barrier 42 Inch RT <i>(BA 3K8) Cast-In-Place Constant Slope Half Barrier - 42 Inch Trailing Sloped End Section</i>
3D Free Standing F Shape CIP Transition - Permanent Shoulder RT <i>(BA 1F Series) Free Standing Barrier F-Shape Cast-In-Place Barrier Transition - Permanent Shoulder</i>	3D Free Standing F Shape CIP Transition - Permanent Median <i>(BA 1F Series) Free Standing Barrier F-Shape Cast-In-Place Barrier Transition - Permanent Median</i>	3D Free Standing F Shape CIP Transition - Permanent Shoulder LT <i>(BA 1F Series) Free Standing Barrier F-Shape Cast-In-Place Barrier Transition - Permanent Shoulder</i>	3D Free Standing F Shape CIP Transition - Temporary Median <i>(BA 1F Series) Free Standing Barrier F-Shape Cast-In-Place Barrier Transition - Temporary Median</i>	3D Free Standing F Shape CIP Transition - Temporary Shoulder RT <i>(BA 1F Series) Free Standing Barrier F-Shape Cast-In-Place Barrier Transition - Temporary Shoulder</i>
3D Precast - 32 Inch F Shape New Jersey Shape Transition 4 Foot Pin Median <i>(BA 2C) Precast - 32 Inch F Shape New Jersey Shape Transition</i>	3D Crash Cushion Type A (Tracc Wide) <i>(CC Series) Crash Cushion Type A</i>	3D Crash Cushion Type A (QuadGuard II Wide) <i>(CC Series) Crash Cushion Type A</i>	3D Crash Cushion Type A (SCI100GM Wide) <i>(CC Series) Crash Cushion Type A</i>	3D Crash Cushion Type B (SCI100GM) <i>(CC Series) Crash Cushion Type B</i>

3D CIP Barrier - 54 Inch to 32 Inch F-Shape End Section on PCCP - TL-5 (BA 3O3) CIP Concrete Constant Slope Barrier - 54 Inch To 32 Inch F-Shape End Section On PCCP Roadway Panel, TL-5	3D CIP Barrier - 54 Inch to 32 Inch F-Shape End Section Beam Foundation - TL-5 (BA 3O3) CIP Concrete Constant Slope Barrier - 54 Inch To 32 Inch F-Shape End Section with Beam Foundation, TL-5	3D CIP Barrier - 54 Inch to 32 Inch Vertical Face End Section on PCCP - TL-5 RT (BA 3O7) CIP Concrete Constant Slope Barrier - 54 Inch To 32 Inch Vertical Face End Section On PCCP Roadway Panel, TL-5	3D CIP Barrier - 54 Inch to 32 Inch Vertical Face End Section on PCCP - TL-5 LT (BA 3O7) CIP Concrete Constant Slope Barrier - 54 Inch To 32 Inch Vertical Face End Section On PCCP Roadway Panel, TL-5	3D CIP Barrier - 54 Inch to 32 Inch Vertical Face End Section Beam Foundation - TL-5 LT (BA 3O6) CIP Concrete Constant Slope Barrier - 54 Inch To 32 Inch Vertical Face End Section with Beam Foundation, TL-5
3D CIP Barrier - 42 Inch Full Height End Section on PCCP (BA 3A1) CIP Barrier - 42 Inch Full Height End Section on PCCP Roadway Panel	3D CIP Barrier - 42 Inch Full Height End Section Beam Foundation (BA 3A1) CIP Barrier - 42 Inch Full Height End Section with Beam Foundation	3D CIP Barrier - 42 Inch Full Height End Section on PCCP - TL-5 (BA 3E1) CIP Barrier - 42 Inch Full Height End Section on PCCP Roadway Panel, TL-5	3D CIP Barrier - 42 Inch Full Height End Section Beam Foundation - TL-5 (BA 3E1) CIP Barrier - 42 Inch Full Height End Section with Beam Foundation, TL-5	3D CIP Barrier - 42 Inch to 32 Inch F-Shape End Section on PCCP - TL-5 (BA 3E3) CIP Concrete Constant Slope Barrier - 42 Inch To 32 Inch F-Shape End Section On PCCP Roadway Panel, TL-5
3D W-Beam Guiderail Anchor Type I LT (BA 4C Series) 31 Inch W-Beam Guiderail Anchor Type I	3D W-Beam Guiderail Median Transition LT (BA 4B3) Median Transition Element	3D CIP Barrier - 54 Inch to 32 Inch F-Shape End Section on PCCP (BA 3M3) CIP Concrete Constant Slope Barrier - 54 Inch To 32 Inch F-Shape End Section On PCCP Roadway Panel	3D CIP Barrier - 54 Inch to 32 Inch F-Shape End Section Beam Foundation (BA 3M3) CIP Concrete Constant Slope Barrier - 54 Inch To 32 Inch F-Shape End Section With Beam Foundation	3D Crash Cushion Type A (Universal TAU II Wide) (CC Series) Crash Cushion Type A
3D Free Standing F Shape CIP Transition - Temporary Shoulder LT (BA 1F Series) Free Standing Barrier F-Shape Cast-In-Place Barrier Transition - Temporary Shoulder	3D Precast - 32 Inch F Shape New Jersey Shape Transition 4 Foot Pin RT (BA 2C) Precast - 32 Inch F Shape New Jersey Shape Transition	3D Precast - 32 Inch F Shape New Jersey Shape Transition 1 Foot 9 Inch Pin LT (BA 2C) Precast - 32 Inch F Shape New Jersey Shape Transition	3D Precast - 32 Inch F Shape New Jersey Shape Transition 1 Foot 9 Inch Pin RT (BA 2C) Precast - 32 Inch F Shape New Jersey Shape Transition	3D Precast - 32 Inch F Shape New Jersey Shape Transition 1 Foot 9 Inch Pin Median (BA 2C) Precast - 32 Inch F Shape New Jersey Shape Transition

3D Crash Cushion Type B (Universal TAU M)	3D Crash Cushion Type D (QuadGuard Elite M10)	3D CIP Barrier - 42 Inch to 32 Inch F-Shape End Section Beam Foundation	3D CIP Barrier - 54 Inch Full Height End Section on PCCP - TL-5	3D CIP Barrier - 54 Inch Full Height End Section Beam Foundation - TL-5
(CC Series) Crash Cushion Type B	(CC Series) Crash Cushion Type D	(BA 3A5) CIP Concrete Constant Slope Barrier - 42 Inch To 32 Inch F-Shape End Section With Beam Foundation	(BA 3O1) CIP Concrete Constant Slope Barrier - 54 Inch Full Height End Section On PCCP Roadway Panel, TL-5	(BA 3O1) CIP Concrete Constant Slope Barrier - 54 Inch Full Height End Section With Beam Foundation, TL-5
3D CIP Barrier - 54 Inch to 32 Inch Vertical Face End Section Beam Foundation - TL-5 RT	3D CIP Barrier - 54 Inch to 42 Inch End Section on PCCP - TL-5	3D CIP Barrier - 54 Inch to 42 Inch End Section Beam Foundation - TL-5	3D CIP Barrier - 54 Inch Full Height End Section on PCCP	3D CIP Barrier - 54 Inch Full Height End Section Beam Foundation
(BA 3O6) CIP Concrete Constant Slope Barrier - 54 Inch To 32 Inch Vertical Face End Section with Beam Foundation, TL-5	(BA 3O5) CIP Concrete Constant Slope Barrier - 54 Inch To 42 Inch End Section on PCCP Roadway Panel, TL-5	(BA 3O5) CIP Concrete Constant Slope Barrier - 54 Inch To 42 Inch End Section With Beam Foundation, TL-5	(BA 3M1) CIP Concrete Constant Slope Barrier - 54 Inch, Full Height End Section On PCCP Roadway Panel	(BA 3M1) CIP Concrete Constant Slope Barrier - 54 Inch, Full Height End Section With Beam Foundation
3D CIP Barrier - 42 Inch to 32 Inch F-Shape End Section Beam Foundation - TL-5	3D CIP Barrier - 42 Inch to 32 Inch Vertical Face End Section on PCCP - TL-5 RT	3D CIP Barrier - 42 Inch to 32 Inch Vertical Face End Section on PCCP - TL-5 LT	3D CIP Barrier - 42 Inch to 32 Inch Vertical Face End Section Beam Foundation - TL-5 LT	3D CIP Barrier - 42 Inch to 32 Inch Vertical Face End Section Beam Foundation - TL-5 RT
(BA 3E3) CIP Concrete Constant Slope Barrier - 42 Inch To 32 Inch F-Shape End Section with Beam Foundation, TL-5	(BA 3E6) CIP Concrete Constant Slope Barrier - 42 Inch To 32 Inch Vertical Face End Section On PCCP Roadway Panel, TL-5	(BA 3E6) CIP Concrete Constant Slope Barrier - 42 Inch To 32 Inch Vertical Face End Section On PCCP Roadway Panel, TL-5	(BA 3E5) CIP Concrete Constant Slope Barrier - 42 Inch To 32 Inch Vertical Face End Section with Beam Foundation, TL-5	(BA 3E5) CIP Concrete Constant Slope Barrier - 42 Inch To 32 Inch Vertical Face End Section with Beam Foundation, TL-5
3D CIP Half Barrier - 42 Inch Full Height End Section on PCCP LT	3D CIP Half Barrier - 42 Inch Full Height End Section on PCCP RT	3D CIP Half Barrier - 42 Inch Full Height End Section Beam Foundation RT	3D CIP Half Barrier - 42 Inch Full Height End Section Beam Foundation LT	3D CIP Jersey to Thrie-Beam Transition - Moment Slab RT
(BA 3K1) CIP Concrete Constant Slope Half Barrier - 42 Inch, Full Height End Section On PCCP Roadway Panel	(BA 3K1) CIP Concrete Constant Slope Half Barrier - 42 Inch, Full Height End Section On PCCP Roadway Panel	(BA 3K1) CIP Concrete Constant Slope Half Barrier - 42 Inch, Full Height End Section with Beam Foundation	(BA 3K1) CIP Concrete Constant Slope Half Barrier - 42 Inch, Full Height End Section with Beam Foundation	(BA 2E1C) CIP Concrete Jersey to Thrie-Beam Transition With Moment Slab

3D CIP Barrier - 42 Inch to 32 Inch Jersey Parapet End Section Beam Foundation	3D CIP Barrier - 42 Inch to 32 Inch Constant Slope End Section on PCCP	3D CIP Barrier - 42 Inch to 32 Inch Constant Slope End Section Beam Foundation	3D CIP Barrier - 42 Inch to 32 Inch Constant Slope End Section on PCCP - TL-5	3D CIP Barrier - 42 Inch to 32 Inch Constant Slope End Section Beam Foundation - TL-5
(BA 3A4) CIP Concrete 42 Inch to 32 Inch Jersey Parapet End Section with Beam Foundation	(BA 3A6) CIP Barrier - 42 Inch to 32 Inch Constant Slope End Section On PCCP Roadway Panel	(BA 3A6) CIP Barrier - 42 Inch to 32 Inch Constant Slope End Section with Beam Foundation	(BA 3E4) CIP Barrier - 42 Inch to 32 Inch Constant Slope End Section on PCCP Roadway Panel TL-5	(BA 3E4) CIP Barrier - 42 Inch to 32 Inch Constant Slope End Section with Beam Foundation TL-5
3D CIP Half Barrier - 42 Inch to 32 Inch Constant Slope Half Barrier End Section on PCCP RT	3D CIP Half Barrier - 42 Inch to 32 Inch Constant Slope Half Barrier End Section Beam Foundation RT	3D CIP Half Barrier - 42 Inch to 32 Inch Constant Slope Half Barrier End Section Beam Foundation LT	3D CIP Half Barrier Back to Back - 42 Inch to 32 Inch Constant Slope End Section on PCCP	3D CIP Half Barrier Back to Back - 42 Inch to 32 Inch Constant Slope End Section Beam Foundation
(BA 3K5) CIP Concrete Constant Slope 42 Inch Half Barrier to 32 Inch Constant Slope Half Barrier End Section on PCCP	(BA 3K5) CIP Concrete Constant Slope 42 Inch Half Barrier to 32 Inch Constant Slope Half Barrier End Section Beam Foundation	(BA 3K5) CIP Concrete Constant Slope 42 Inch Half Barrier to 32 Inch Constant Slope Half Barrier End Section Beam Foundation	(BA 3K10) CIP Concrete Constant Slope Half Barrier 42 Inch Back to Back to 32 Inch Constant Slope End Section on PCCP Roadway Panel	(BA 3K11) CIP Concrete Constant Slope Half Barrier 42 Inch Back to Back to 32 Inch Constant Slope End Section with Beam Foundation
3D CIP Half Barrier - 42 Inch Full Height End Section Moment Slab LT	3D CIP Barrier - 42 Inch to Full Height End Section Moment Slab LT	3D Crash Cushion VASET_FLARED_LT	3D Crash Cushion VASET_FLARED_RT	3D W-Beam Terminal Anchor RT
(BA 3K2) CIP Concrete Constant Slope Half Barrier Full Height End Section with Moment Slab Foundation	(BA 3A3) CIP Barrier - 42 Inch Full Height End Section With Moment Slab Foundation	(CC Series) Crash Cushion Type C	(CC Series) Crash Cushion Type C	(BA 4C Series) 31 Inch W-Beam Guiderail Anchor Type I
3D CIP Jersey to Thrie-Beam Transition - Moment Slab LT	3D CIP Jersey to F Shape Transition - Moment Slab LT	3D CIP Jersey to Thrie-Beam Transition - Beam Foundation RT	3D CIP Jersey to Thrie-Beam Transition - Beam Foundation LT	3D CIP Barrier - 42 Inch to Full Height End Section Moment Slab RT
(BA 2E1C) CIP Concrete Jersey to Thrie-Beam Transition With Moment Slab	(BA 2E1A) CIP Concrete Jersey to F-Shape Transition With Moment Slab	(BA 2E1D) CIP Concrete Jersey to Thrie-Beam Transition With Beam Foundation	(BA 2E1D) CIP Concrete Jersey to Thrie-Beam Transition With Beam Foundation	(BA 3A3) CIP Barrier - 42 Inch Full Height End Section With Moment Slab Foundation

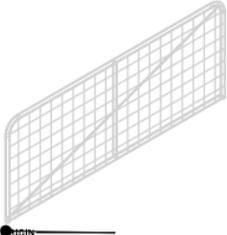
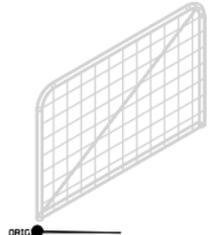
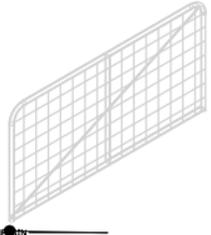
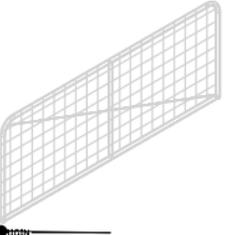
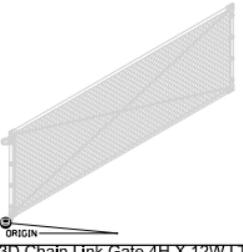
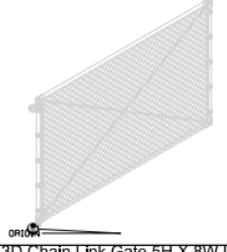
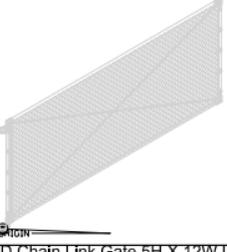
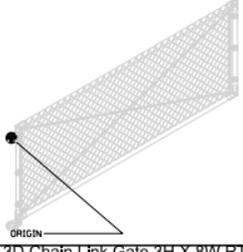
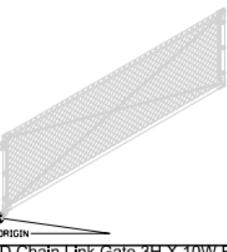
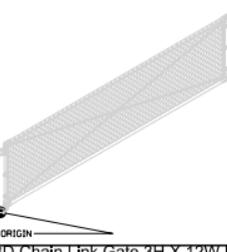
				
3D Trailing End Section - Cast-In-Place 42 Inch - TL-5	3D CIP Half Barrier - 42 Inch Full Height End Section Moment Slab RT	3D CIP Half Barrier - 42 Inch Half Barrier to 32 Inch Jersey Parapet End Section Beam Foundation RT	3D CIP Half Barrier - 42 Inch Half Barrier to 32 Inch Jersey Parapet End Section Beam Foundation LT	3D CIP Half Barrier - 42 Inch to 32 Inch Constant Slope Half Barrier End Section on PCCP LT
(BA 3E7) CIP Concrete Constant Slope Barrier - 42 Inch Trailing Sloped End Section	(BA 3K2) CIP Concrete Constant Slope Half Barrier Full Height End Section with Moment Slab Foundation	(BA 3K3) CIP Concrete Constant Slope Half Barrier 42 Inch to 32 Inch Jersey Parapet End Section with Beam Foundation	(BA 3K3) CIP Concrete Constant Slope Half Barrier 42 Inch to 32 Inch Jersey Parapet End Section with Beam Foundation	(BA 3K5) CIP Concrete Constant Slope 42 Inch Half Barrier to 32 Inch Constant Slope Half Barrier End Section on PCCP
				
3D CIP Barrier - 54 Inch to 32 Inch Constant Slope End Section on PCCP	3D CIP Barrier - 54 Inch to 32 Inch Constant Slope End Section Beam Foundation	3D CIP Barrier - 54 Inch to 32 Inch Constant Slope End Section on PCCP - TL-5	3D CIP Barrier - 54 Inch to 32 Inch Constant Slope End Section Beam Foundation - TL-5	3D Trailing End Section - Cast-In-Place 54 Inch - TL-5
(BA 3M4) CIP Concrete Constant Slope Barrier - 54 Inch To 32 Inch Constant Slope End Section On PCCP Roadway Panel	(BA 3M4) CIP Concrete Constant Slope Barrier - 54 Inch To 32 Inch Constant Slope End Section with Beam Foundation	(BA 3O4) CIP Concrete Constant Slope Barrier - 54 Inch To 32 Inch Constant Slope End Section On PCCP TL-5	(BA 3O4) CIP Concrete Constant Slope Barrier - 54 Inch To 32 Inch Constant Slope End Section On HMA TL-5	(BA 3O8) Cast-In-Place Concrete Constant Slope Barrier - 54 Inch Trailing Slope End Section TL-5
				
3D W-Beam Terminal Anchor LT	3D W-Beam Terminal Anchor RT With Tab	3D W-Beam Terminal Anchor LT With Tab	3D W-Beam Guiderail Anchor Type I RT - Copy-1	
(BA 4C Series) 31 Inch W-Beam Guiderail Anchor Type I	(BA 4C Series) 31 Inch W-Beam Terminal Anchor With Tab	(BA 4C Series) 31 Inch W-Beam Terminal Anchor With Tab	(BA 4C Series) 31 Inch W-Beam Guiderail Anchor Type I	

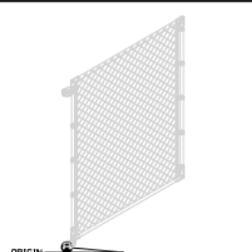
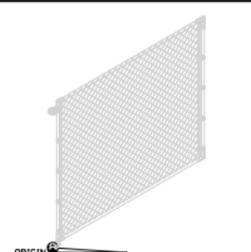
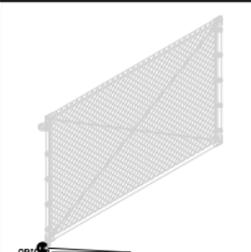
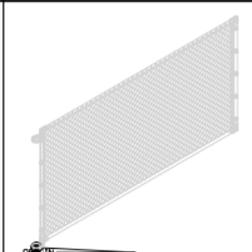
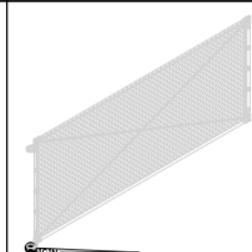
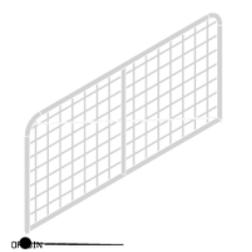
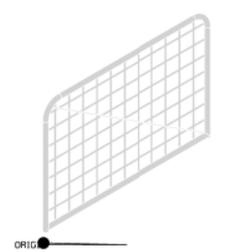
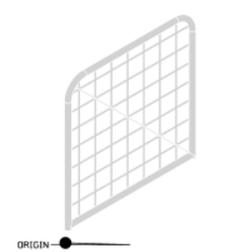
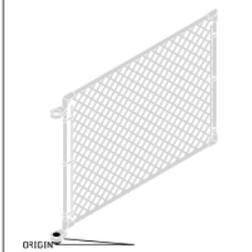
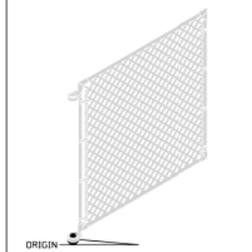
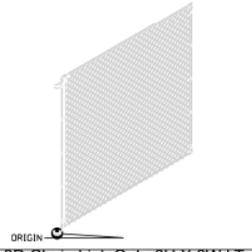
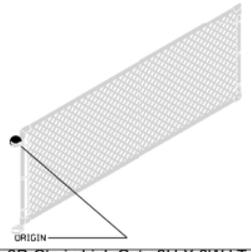
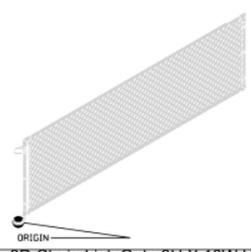
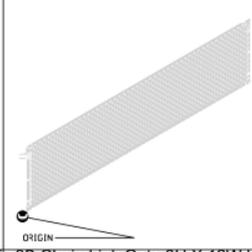
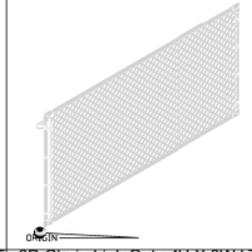
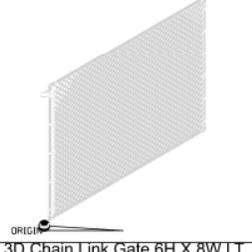
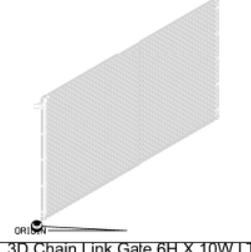
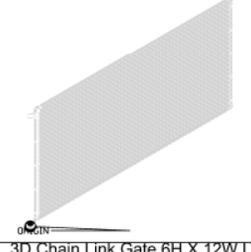
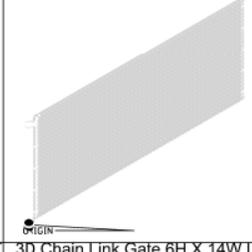
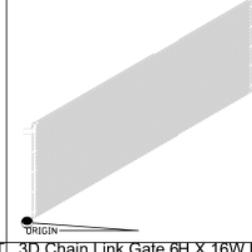
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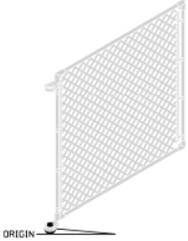
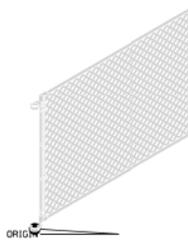
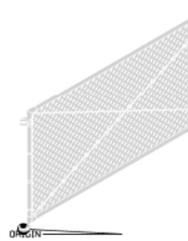
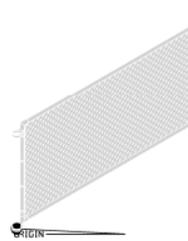
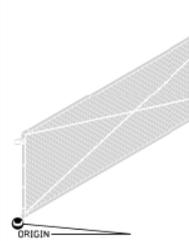
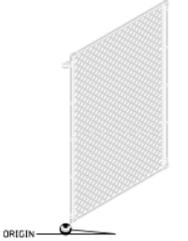
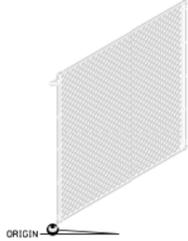
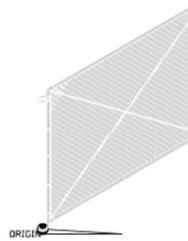
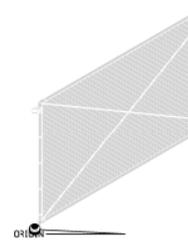
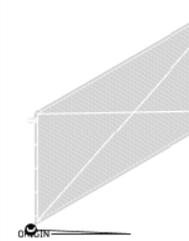
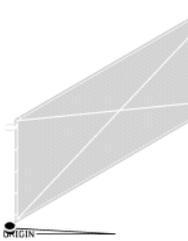
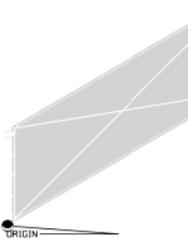
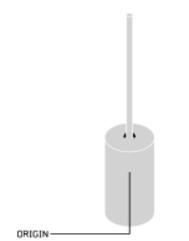
Type 31 Post RT POST ROUTED OFFSET	Type 31 Post LT POST ROUTED OFFSET	Type 31-S GRLT	Type 31-S GRRT	Type 31-SC GRLT
BRACKET	BRACKET	6'-3" TYP	6'-3" TYP	3'-1 1/2" TYP
Type 2-W GRRT	Type 2-WC GRLT	Type 2-WC GRRT	Type 2-WCC GRLT	Type 2-WCC GRRT
12'-6" TYP	6'-3" TYP	6'-3" TYP	3'-1 1/2" TYP	3'-1 1/2" TYP
Type 31-SC GRRT	Type 31-SCC GRRT	Type 31-SM Post MEDIAN BARRIER W6x9 POST	Type 2-W Post	Type 2-W GRLT
3'-1 1/2" TYP	1'-6 3/4" TYP		3 x 5.7 POST	12'-6" TYP

Type 31 GRLT XS LABEL-STRONG POST	Type 31 GRRT XS LABEL-STRONG POST	Type 2 GRLT XS LABEL-WEAK POST	Type 2 GRRT XS LABEL-WEAK POST	Type 31-SM BARR
GUIDE RAIL LT SIDE	GUIDE RAIL RT SIDE	GUIDE RAIL LT SIDE	GUIDE RAIL RT SIDE	W-BEAM MEDIAN BARRIER
Type 31-SM GRAL XS LABEL-W BEAM MEDIAN	Type 31-SCC GRLT			
BARRIER	1'-6 3/4" TYP			

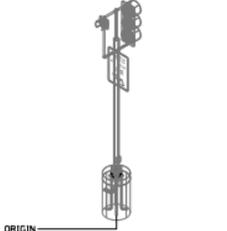
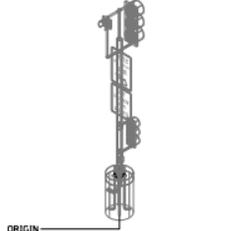
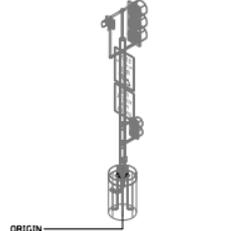
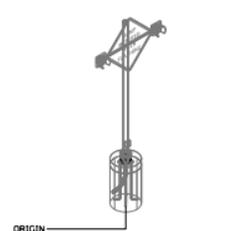
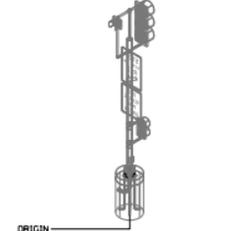
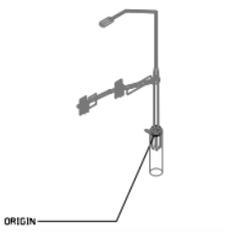
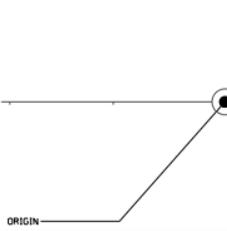
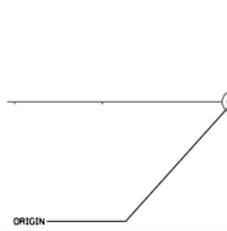
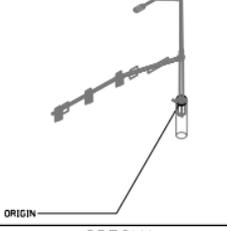
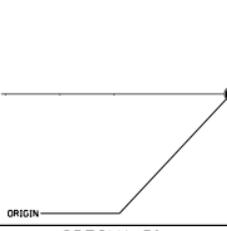
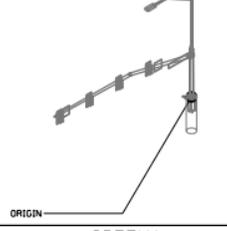
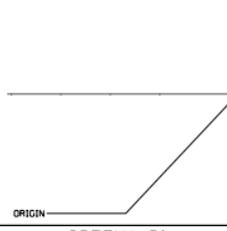
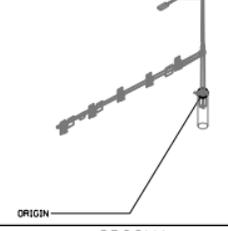
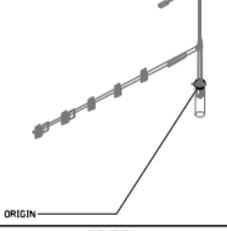
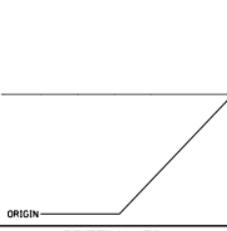
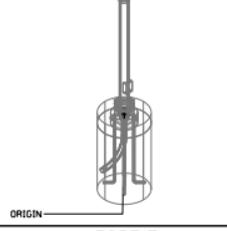
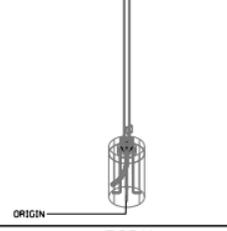
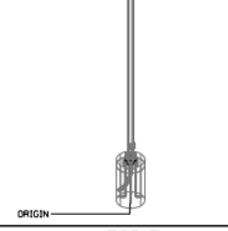
14.8.2.8 FENCES AND GATES

				
3D Steel Frame Gate 10 Foot Assembly LT	3D Steel Frame Gate 4 Foot Assembly LT	3D Steel Frame Gate 6 Foot Assembly LT	3D Steel Frame Gate 8 Foot Assembly LT	3D Steel Frame Gate 10 Foot Assembly LT
				
3D Chain Link Gate 5H X 4W LT	3D Chain Link Gate 6H X 4W LT	3D Chain Link Gate 3H X 6W LT	3D Chain Link Gate 4H X 6W LT	3D Chain Link Gate 5H X 6W LT
				
3D Chain Link Gate 4H X 10W LT	3D Chain Link Gate 4H X 12W LT	3D Chain Link Gate 5H X 8W LT	3D Chain Link Gate 5H X 10W LT	3D Chain Link Gate 5H X 12W LT
				
3D Chain Link Gate 3H X 4W RT	3D Chain Link Gate 3H X 6W RT	3D Chain Link Gate 3H X 8W RT	3D Chain Link Gate 3H X 10W RT	3D Chain Link Gate 3H X 12W RT

				
3D Chain Link Gate 5H X 4W RT	3D Chain Link Gate 5H X 6W RT	3D Chain Link Gate 5H X 8W RT	3D Chain Link Gate 5H X 10W RT	3D Chain Link Gate 5H X 12W RT
				
3D Steel Frame Gate 8 Foot Assembly	3D Steel Frame Gate 6 Foot Assembly	3D Steel Frame Gate 4 Foot Assembly	3D Chain Link Gate 3H X 4W LT	3D Chain Link Gate 4H X 4W LT
				
3D Chain Link Gate 6H X 6W LT	3D Chain Link Gate 3H X 8W LT	3D Chain Link Gate 3H X 10W LT	3D Chain Link Gate 3H X 12W LT	3D Chain Link Gate 4H X 8W LT
				
3D Chain Link Gate 6H X 8W LT	3D Chain Link Gate 6H X 10W LT	3D Chain Link Gate 6H X 12W LT	3D Chain Link Gate 6H X 14W LT	3D Chain Link Gate 6H X 16W LT

				
3D Chain Link Gate 4H X 4W RT	3D Chain Link Gate 4H X 6W RT	3D Chain Link Gate 4H X 8W RT	3D Chain Link Gate 4H X 10W RT	3D Chain Link Gate 4H X 12W RT
				
3D Chain Link Gate 6H X 4W RT	3D Chain Link Gate 6H X 6W RT	3D Chain Link Gate 6H X 8W RT	3D Chain Link Gate 6H X 10W RT	3D Chain Link Gate 6H X 12W RT
				
3D Chain Link Gate 6H X 14W RT	3D Chain Link Gate 6H X 16W RT	3D Chain Link Brace Post	3D Right-of-Way Brace Post (Wood)	3D Right-of-Way Brace Post (Metal)

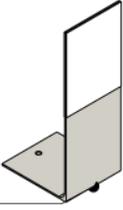
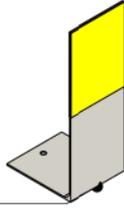
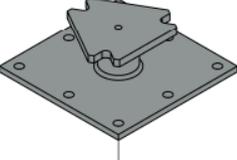
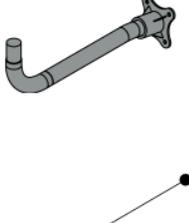
14.8.2.9 SIGNAL

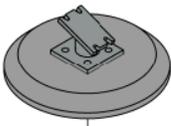
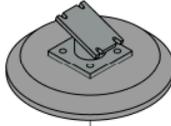
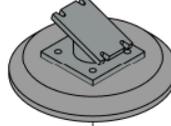
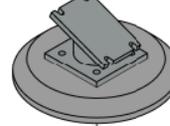
				
RampMeterPole-2Ln..R	RampMeterPole-2VPG..R	RampMeterPole-1VPG..R	RampMeterAdvWarning	RampMeterPole-1VPG..L
Ramp Meter Signal Pole for Two Lanes-Right Side	Ramp Meter Signal Pole for One Lane - Two Vehicles per Green-Right Side	Ramp Meter Signal Pole for One Lane - One Vehicle per Green-Right Side	AT-2B Advance Warning on 11ft Pole	Ramp Meter Signal Pole for One Lane - One Vehicle per Green-Left Side
				
SP25MA	SP25MA_Plan	SP30MA	SP30MA_Plan	SP35MA
Signal Pole with 25' Mast arm and Light		Signal Pole with 30' Mast arm and Light		Signal Pole with 35' Mast arm and Light
				
SP50MA	SP50MA_Plan	SP55MA	SP55MA_Plan	SP60MA
Signal Pole with 50' Mast arm and Light		Signal Pole with 55' Mast arm and Light		Signal Pole with 60' Mast arm and Light
				
SP75MA	SP75MA_Plan	TSP5.5	TSP11	TSP15
Signal Pole with 75' Mast arm and Light		Traffic Signal Pole 5'-6" Height (SL-1E)	Traffic Signal Pole 11' Height (SL-1E)	Traffic Signal Pole 15' Height (SL-1E)

PedSignalHead_RT	PedSignalHead_LT	PedSigPole_Plan	PedSigButton_Plan	RampMeterAdvWarning_Plan
PED SIGNAL CLAMSHELL ASSEMBLY-RT SIDE (SL 6A)	PED SIGNAL CLAMSHELL ASSEMBLY-LT SIDE (SL 6A)	Pedestrian Signal Assembly Plan View for 11 and 15ft	Pedestrian Signal Assembly Plan View for 5'-6' Pole	AT-2B Advance Warning on 11ft Pole _Plan
RampMeterPole-2VPG_L	RampMeterPole-2Ln_L	RMSP30MA_Plan	LP40-15ARM-SLIP	LP40-15ARM-SLIP_Plan
Ramp Meter Signal Pole for One Lane - Two Vehicles per Green-Left Side	Ramp Meter Signal Pole for Two Lanes-Left Side	Ramp Meter Signal Pole with 30 ft Mast Arm	40ft Light Pole w/ 15 ft Arm - Slip Base	LUMINARE
SP35MA_Plan	SP40MA	SP40MA_Plan	SP45MA	SP45MA_Plan
	Signal Pole with 40' Mast arm and Light		Signal Pole with 45' Mast arm and Light	
SP60MA_Plan	SP65MA	SP65MA_Plan	SP70MA	SP70MA_Plan
	Signal Pole with 65' Mast arm and Light		Signal Pole with 70' Mast arm and Light	

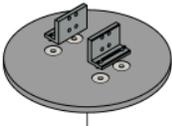
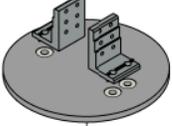
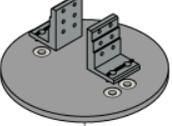
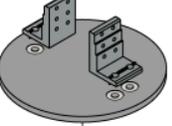
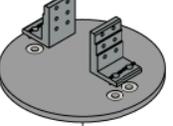
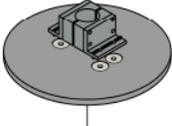
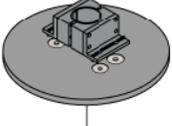
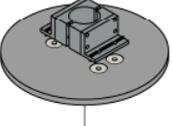
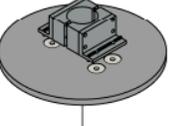
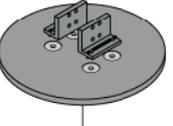
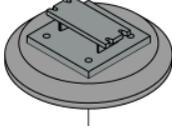
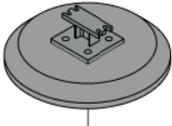
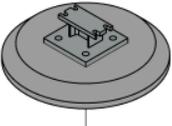
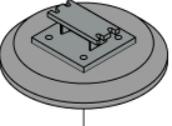
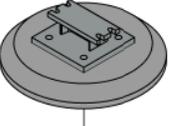
PedSigPole15	PedSigPole11	PedSigPole5.5	PedButton_LT	PedButton_RT
15 ft Pedestrian Signal Assembly (SL 6A)	11 ft Pedestrian Signal Assembly (SL 6A)	5'-6" Pedestrian Signal Assembly (SL 6A)	PED SIGNAL BUTTON W/ R10-3_LT ASSEMBLY (SL 6A)	PED SIGNAL BUTTON W/R10-3_RT ASSEMBLY (SL 6A)
TSP_Plan	RampMeterPole_Plan	RMSP30MA	RMSP35MA	RMSP40MA
SIGNAL POLE	Ramp Meter Pole	Ramp Meter Signal Pole with 30 ft Mast Arm	Ramp Meter Signal Pole with 35 ft Mast Arm	Ramp Meter Signal Pole with 40 ft Mast Arm
RMSP45MA	RMSP55MA	RMSP50MA	RMSP35MA_Plan	RMSP40MA_Plan
Ramp Meter Signal Pole with 45 ft Mast Arm	Ramp Meter Signal Pole with 55 ft Mast Arm	Ramp Meter Signal Pole with 50 ft Mast Arm	Ramp Meter Signal Pole with 35 ft Mast Arm	Ramp Meter Signal Pole with 40 ft Mast Arm
RMSP45MA_Plan	RMSP50MA_Plan	RMSP55MA_Plan		
Ramp Meter Signal Pole with 45 ft Mast Arm	Ramp Meter Signal Pole with 50 ft Mast Arm	Ramp Meter Signal Pole with 55 ft Mast Arm		

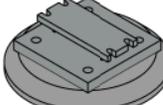
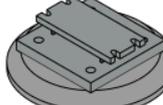
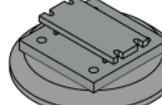
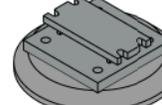
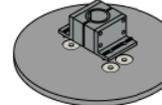
14.8.2.10 SIGNING

				
DEL-BL-W	DEL-BL-Y	DEL-BS-W	DEL-BS-Y	DEL-C-M
3D Barrier 'L' Reflector White	3D Barrier 'L' Reflector Yellow	3D Barrier Straight Reflector White	3D Barrier Straight Reflector Yellow	3D Delineator - Culvert/Maintenance Marker
				
DEL-II-W	DEL-II-Y	DEL-MAINT	SignPanel.Diamond Shape	FDEL-C-M
3D Delineator Type II White	3D Delineator Type II Yellow	3D Delineator - Maintenance Marker	Diamond Shaped Sign Panel (H=size)	3D Flexible Delineator - Culvert/Maintenance Marker
				
FDEL-MAINT	SignPanel.Interstate Shield Shape	SignPanel.National Forest Shield Shape	SignPanel.Octagon Shape	SignPanel.Pennant Shape
3D Flexible Delineator - Maintenance Marker	Interstate Shield Shaped Sign Panel	National Forest Shield Sign Panel (H=size)	Octagon Shaped Sign Panel (H=size)	Pennant Shaped No Passing Sign Panel
				
SignBase-B1	SignBase-B3	SignBase-B4A	SignBase-B4B.CSB.LT	SignBase-B4B.CSB.RT
3D Small Sign Tubular Steel Post Base w/Conc (B1) (Socket System)	3D Round Post Slipbase Sign Base (B3)	3D Surface Mounted Tubular Steel Sign Base B4A	3D Tubular Steel Sign Base Surface Mounted (B4B) for left side of 42' Constant Slope Barrier	3D Tubular Steel Sign Base Surface Mounted (B4B) for right side of 42' Constant Slope Barrier

				
SignBase-B4B2_FShape_RT	SignBase-B6A.LT_3in.Std.Pipe	SignBase-B6A.LT_4in.Std.Pipe	SignBase-B6A.LT_5in.Std.Pipe	SignBase-B6A.LT_6in.Std.Pipe
3D Tubular Steel Sign Base Surface Mounted (B4B2) for right side of 32' F-Shape Barrier	3D Freeway Sign Base Post B6A (Left) for 3 Inch Standard Pipe Post	3D Freeway Sign Base Post B6A (Left) for 4 Inch Standard Pipe Post	3D Freeway Sign Base Post B6A (Left) for 5 Inch Standard Pipe Post	3D Freeway Sign Base Post B6A (Left) for 6 Inch Standard Pipe Post
				
DEL-Crossover	DEL-Crossover#1	DEL-CULV	DEL-I-W	DEL-I-Y
3D Delineator Type II Crossover	3D Delineator Type II Crossover #1 Post	3D Delineator - Culvert Marker	3D Delineator Type I White	3D Delineator Type I Yellow
				
FDEL-CULV	FDEL-I-W	FDEL-I-Y	FDEL-II-W	FDEL-II-Y
3D Flexible Delineator - Culvert Marker	3D Flexible Delineator Type I White	3D Flexible Delineator Type I Yellow	3D Flexible Delineator Type II White	3D Flexible Delineator Type II Yellow
				
SignPanel.Pentagon Shape	SignPanel.Rectangular Shape	SignPanel.Round Shape	SignPanel.RR Crossbuck Shape	SignBase+Post-B5D
School Sign Panel (H=size)	Rectangular Shaped Sign Panel	Circular Shaped Sign Panel (H=size)	RR Crossbuck Sign Panel (H=Size)	3D Concrete Barrier Pivot Sign Base and Post (B5D)

SignBase-B4B_FShape_LT	SignBase-B4B_FShape_RT	SignBase-B4B2_CSB_LT	SignBase-B4B2_CSB_RT	SignBase-B4B2_FShape_LT
3D Tubular Steel Sign Base Surface Mounted (B4B) for left side of 32" F-Shape Barrier	3D Tubular Steel Sign Base Surface Mounted (B4B) for right side of 32" F-Shape Barrier	3D Tubular Steel Sign Base Surface Mounted (B4B2) for left side of 42" Constant Slope Barrier	3D Tubular Steel Sign Base Surface Mounted (B4B2) for right side of 42" Constant Slope Barrier	3D Tubular Steel Sign Base Surface Mounted (B4B2) for left side of 32" F-Shape Barrier
SignBase-B6A_LT_8in_Std_Pipe	SignBase-B6A_RT_3in_Std_Pipe	SignBase-B6A_RT_4in_Std_Pipe	SignBase-B6A_RT_5in_Std_Pipe	SignBase-B6A_RT_6in_Std_Pipe
3D Freeway Sign Base Post B6A (Left) for 8 Inch Standard Pipe Post	3D Freeway Sign Base Post B6A (Right) for 3 Inch Standard Pipe Post	3D Freeway Sign Base Post B6A (Right) for 4 Inch Standard Pipe Post	3D Freeway Sign Base Post B6A (Right) for 5 Inch Standard Pipe Post	3D Freeway Sign Base Post B6A (Right) for 6 Inch Standard Pipe Post
SignBase-B6A_RT_8in_Std_Pipe	SignBase-B6B_LT_S3x5.7	SignBase-B6B_LT_S4x9.5	SignBase-B6B_LT_S6x12.5	SignBase-B6B_LT_S6x17.25
3D Freeway Sign Base Post B6A (Right) for 8 Inch Standard Pipe Post	3D Freeway Sign Base Post B6B (Left) for S3x5.7 Post	3D Freeway Sign Base Post B6B (Left) for S4x9.5 Post	3D Freeway Sign Base Post B6B (Left) for S6x12.5 Post	3D Freeway Sign Base Post B6B (Left) for S6x17.25 Post
SignBase-B6B_RT_S8x18.4	SignBase-B6C_LT_W10x19	SignBase-B6C_LT_W10x22	SignBase-B6C_LT_W10x26	SignBase-B6C_LT_W10x30
3D Freeway Sign Base Post B6B (Right) for S8x18.4 Post	3D Freeway Sign Base Post B6C (Left) for W10x19 I-Beam Post	3D Freeway Sign Base Post B6C (Left) for W10x22 I-Beam Post	3D Freeway Sign Base Post B6C (Left) for W10x26 I-Beam Post	3D Freeway Sign Base Post B6C (Left) for W10x30 I-Beam Post

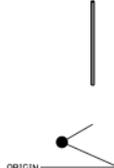
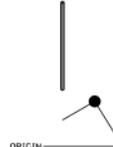
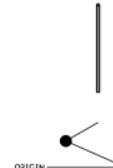
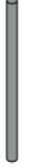
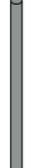
				
SignBase-B7A_W6x9	SignBase-B7B_W6x12	SignBase-B7B_W6x16	SignBase-B7B_W8x18	SignBase-B7B_W8x21
3D Multi-Directional Slipbase Sign Base (B7A) for W6x9 I-Beam Post	3D Multi-Directional Slipbase Sign Base (B7B) for W6x12 I-Beam Post	3D Multi-Directional Slipbase Sign Base (B7B) for W6x16 I-Beam Post	3D Multi-Directional Slipbase Sign Base (B7B) for W8x18 I-Beam Post	3D Multi-Directional Slipbase Sign Base (B7B) for W8x21 I-Beam Post
				
SignBase-B7D_P3.5	SignBase-B7D_P4	SignBase-B7D_P4.5	SignBase-B7D_P4.5-80	SignBase-B7E_4x4
3D Multi-Directional Slipbase Sign Base (B7D) for P3.5 Round Post	3D Multi-Directional Slipbase Sign Base (B7D) for P4 Round Post	3D Multi-Directional Slipbase Sign Base (B7D) for P4.5 Round Post	3D Multi-Directional Slipbase Sign Base (B7D) for P4.5-80 Round Post	3D Multi-Directional Slipbase Sign Base (B7E) for 4x4 Steel Square Tube Post
				
SignPost-P2(B)	SignPost-P2(B4B)_CSB_LT	SignPost-P2(B4B)_CSB_RT	SignPost-P2(B4B)_FShape_LT	SignPost-P2(B4B)_FShape_RT
3D Small Sign Tubular Steel P2 Post (B)	3D Left Side Small Sign Tubular Steel P2 Post (B4B) on 42" Constant Slope Barrier	3D Right Side Small Sign Tubular Steel P2 Post (B4B) on 42" Constant Slope Barrier	3D Left Side Small Sign Tubular Steel P2 Post (B4B) on 32" F-Shape Barrier	3D Right Side Small Sign Tubular Steel P2 Post (B4B) on 32" F-Shape Barrier
				
SignBase-B6B_LT_S8x18.4	SignBase-B6B_RT_S3x5.7	SignBase-B6B_RT_S4x9.5	SignBase-B6B_RT_S6x12.5	SignBase-B6B_RT_S6x17.25
3D Freeway Sign Base Post B6B (Left) for S8x18.4 Post	3D Freeway Sign Base Post B6B (Right) for S3x5.7 Post	3D Freeway Sign Base Post B6B (Right) for S4x9.5 Post	3D Freeway Sign Base Post B6B (Right) for S6x12.5 Post	3D Freeway Sign Base Post B6B (Right) for S6x17.25 Post

				
SignBase-B6C_Rigid	SignBase-B6C_RT_W10x19	SignBase-B6C_RT_W10x22	SignBase-B6C_RT_W10x26	SignBase-B6C_RT_W10x30
3D Freeway Sign Base Post B6C for W10x30, W10x45 and W10x49 posts w/ Parametric Foundation	3D Freeway Sign Base Post B6C (Right) for W10x19 I-Beam Post	3D Freeway Sign Base Post B6C (Right) for W10x22 I-Beam Post	3D Freeway Sign Base Post B6C (Right) for W10x26 I-Beam Post	3D Freeway Sign Base Post B6C (Right) for W10x30 I-Beam Post
				
SignBase-B7C_W10x22	SignBase-B7C_W10x26	SignBase-B7C_W12x26	SignBase-B7C_W14x30	SignBase-B7D_P3
3D Multi-Directional Slipbase Sign Base (B7C) for W10x22 I-Beam Post	3D Multi-Directional Slipbase Sign Base (B7C) for W10x26 I-Beam Post	3D Multi-Directional Slipbase Sign Base (B7C) for W12x26 I-Beam Post	3D Multi-Directional Slipbase Sign Base (B7C) for W14x30 I-Beam Post	3D Multi-Directional Slipbase Sign Base (B7D) for P3 Round Post
				
SignPanel_County Route Shape	SignPanel_Triangular Shape	SignPanel_US Shield Shape	SignPost-4x4x1-4(B7E)	SignPost-4x4x3-16(E7E)
County Route Sign Panel (H=size)	Triangular Shaped Sign Panel (H=size)	U.S. Shield Shaped Sign Panel	3D 4x4x1/4 Square Steel Tube Post (B7E)	3D 4x4x3/16 Square Steel Tube Post (B7E)
				
SignPost-P3(B3)	SignPost-P3(B4A)	SignPost-P3(B7D)	SignPost-P3,5(B7D)	SignPost-P4(B3)
3D Small Sign Tubular Steel P3 Post (B3 Base)	3D Small Sign Tubular Steel P3 Post (B4A Base)	3D P3 Round Steel Pipe Post (2.5" Sch. 40)(B7D)	3D P3.5 Round Steel Pipe Post (3" Sch. 40)(B7D)	3D Small Sign Tubular Steel P4 Post (B3 Base)

SignPost-P4(B4A)	SignPost-P4(B7D)	SignPost-P4,5(B7D)	SignPost-P4,5-80(B7D)	SignPost-P5(B3)
3D Small Sign Tubular Steel P4 Post (B4A Base)	3D P4 Round Steel Pipe Post (3.5' Sch. 40)(B7D)	3D P4,5 Round Steel Pipe Post (4' Sch. 40)(B7D)	3D P4,5-80 Round Steel Pipe Post (4' Sch. 80)(B7D)	3D Small Sign Tubular Steel P5 Post (B3 Base)
SignPost5-(B6A).LT	SignPost5-(B6A).RT	SignPost6-(B6A).LT	SignPost6-(B6A).RT	SignPost8-(B6A).LT
3D 5' Dia Std Pipe Freeway Sign Post B6A (Left)	3D 5' Dia Std Pipe Freeway Sign Post B6A (Right)	3D 6' Dia Std Pipe Freeway Sign Post B6A (Left)	3D 6' Dia Std Pipe Freeway Sign Post B6A (Right)	3D 8' Dia Std Pipe Freeway Sign Post B6A (Left)
SignPost.S6x12.5(B6B).LT	SignPost.S6x12.5(B6B).RT	SignPost.S6x17.25(B6B).LT	SignPost.S6x17.25(B6B).RT	SignPost.S8x18.4(B6B).LT
3D S6x12.5 Freeway Sign Post B6B (Left)	3D S6x12.5 Freeway Sign Post B6B (Right)	3D S6x17.25 Freeway Sign Post B6B (Left)	3D S6x17.25 Freeway Sign Post B6B (Right)	3D S8x18.4 Freeway Sign Post B6B (Left)
SignPost.W8x21(B7B)	SignPost.W10x19(B6C).LT	SignPost.W10x19(B6C).RT	SignPost.W10x22(B6C).LT	SignPost.W10x22(B6C).RT
3D W8x21 Freeway Sign Post for B7B	3D W10x19 Freeway Sign Post B6C (Left)	3D W10x19 Freeway Sign Post B6C (Right)	3D W10x22 Freeway Sign Post B6C (Left)	3D W10x22 Freeway Sign Post B6C (Right)

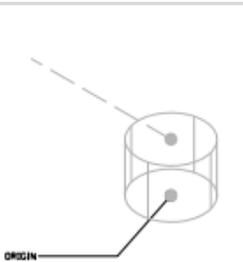
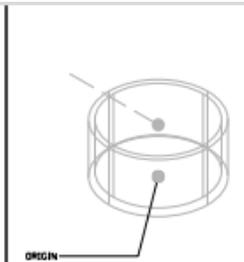
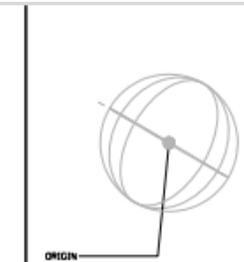
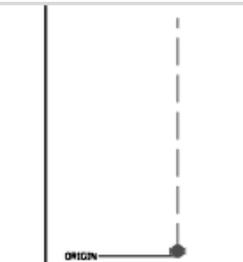
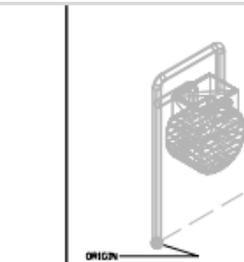
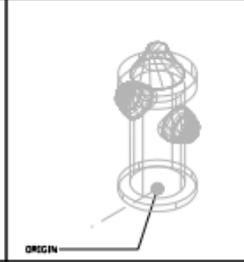
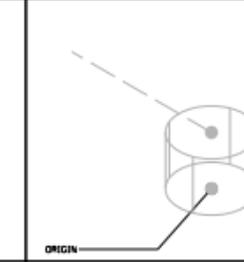
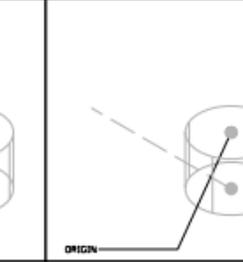
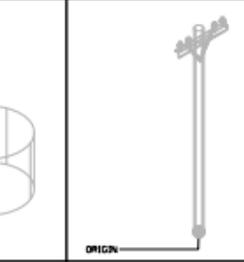
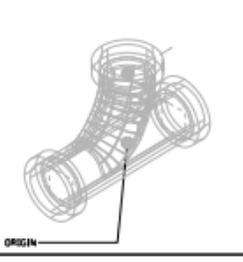
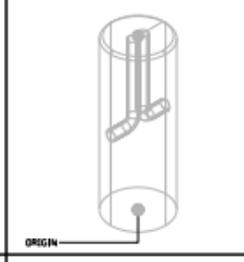
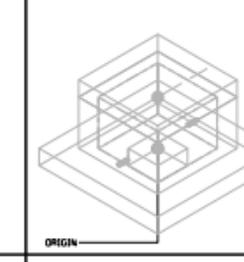
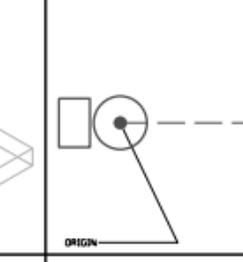
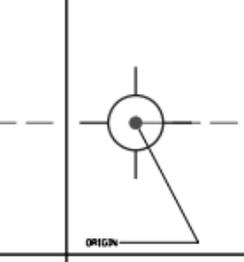
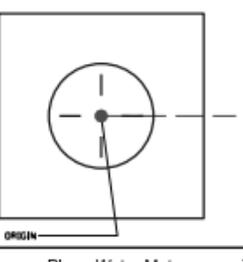
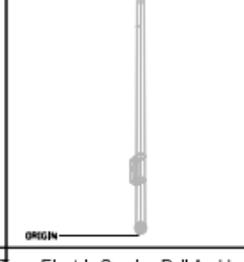
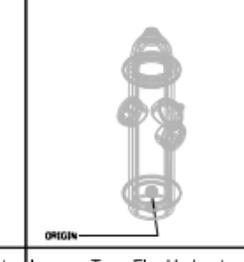
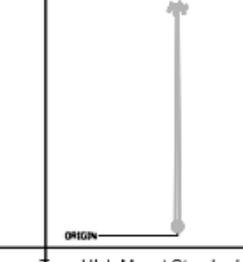
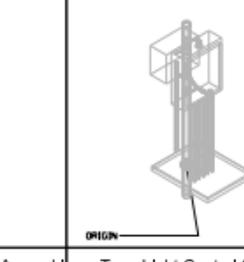
SignPost_W10x30(B6C)_RT	SignPost_W10x39(B6C)	SignPost_W10x45(B6C)	SignPost_W10x49(B6C)	SignPost_W12x26(B7C)
3D W10x30 Freeway Sign Post B6C (Right)	3D W10x39 Freeway Sign Post B6C	3D W10x45 Freeway Sign Post B6C	3D W10x49 Freeway Sign Post B6C	3D W12x26 Freeway Sign Post for B7C
SignPost-P5(B4A)	SignPost3-(B6A)_LT	SignPost3-(B6A)_RT	SignPost4-(B6A)_LT	SignPost4-(B6A)_RT
3D Small Sign Tubular Steel P5 Post (B4A Base)	3D 3' Dia Std Pipe Freeway Sign Post B6A (Left)	3D 3' Dia Std Pipe Freeway Sign Post B6A (Right)	3D 4' Dia Std Pipe Freeway Sign Post B6A (Left)	3D 4' Dia Std Pipe Freeway Sign Post B6A (Right)
SignPost8-(B6A)_RT	SignPost_S3x5.7(B6B)_LT	SignPost_S3x5.7(B6B)_RT	SignPost_S4x9.5(B6B)_LT	SignPost_S4x9.5(B6B)_RT
3D 8' Dia Std Pipe Freeway Sign Post B6A (Right)	3D S3x5.7 Freeway Sign Post B6B (Left)	3D S3x5.7 Freeway Sign Post B6B (Right)	3D S4x9.5 Freeway Sign Post B6B (Left)	3D S4x9.5 Freeway Sign Post B6B (Right)
SignPost_S8x18.4(B6B)_RT	SignPost_W6x9(B7A)	SignPost_W6x12(B7B)	SignPost_W6x16(B7B)	SignPost_W8x18(B7B)
3D S8x18.4 Freeway Sign Post B6B (Right)	3D W6x9 Freeway Sign Post For B7A	3D W6x12 Freeway Sign Post For B7B	3D W6x16 Freeway Sign Post For B7B	3D W8x18 Freeway Sign Post For B7B

SignPost_W10x22(B7C)	SignPost_W10x26(B6C)_LT	SignPost_W10x26(B6C)_RT	SignPost_W10x26(B7C)	SignPost_W10x30(B6C)_LT
3D W10x22 Freeway Sign Post for B7C	3D W10x26 Freeway Sign Post B6C (Left)	3D W10x26 Freeway Sign Post B6C (Right)	3D W10x26 Freeway Sign Post for B7C	3D W10x30 Freeway Sign Post B6C (Left)
SignPost_W14x30(B7C)	SignMastArm_Custom_Overlay	SignMastArm_Overlay	SignMastArm_Custom	SignMastArm_Custom_Relocate
3D W14x30 Freeway Sign Post for B7C	3D Rectangular Shaped Sign Panel	3D Rectangular Shaped Sign Panel	3D Rectangular Shaped Sign Panel	3D Rectangular Shaped Sign Panel
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3D Rectangular Shaped Sign Panel	3D Rectangular Shaped Sign Panel	3D Rectangular Shaped Sign Panel	3D Rectangular Shaped Sign Panel	3D Rectangular Shaped Sign Panel
SignPanel_Custom_Relocate	SignPanel_Custom_Replacement	SignPanel	SignPanel_Overlay	SignPanel_Relocate
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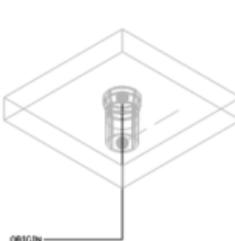
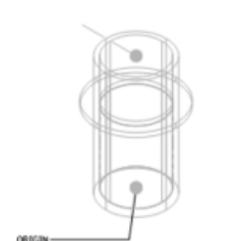
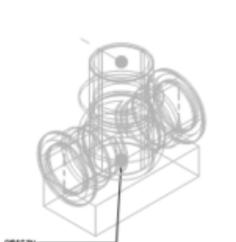
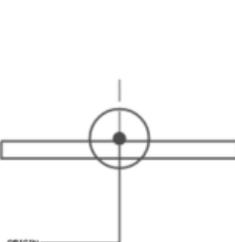
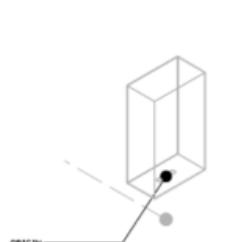
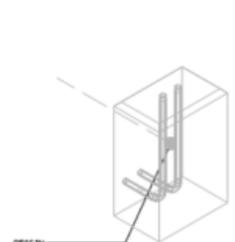
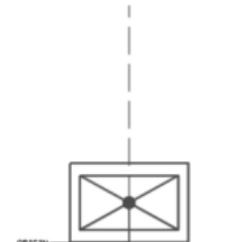
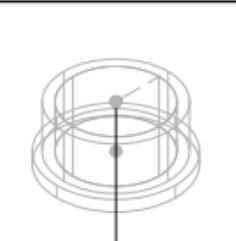
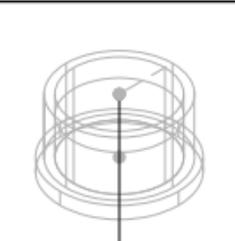
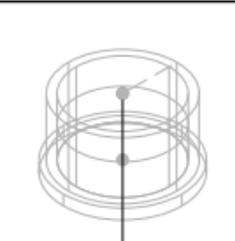
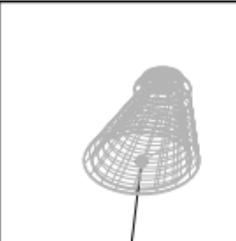
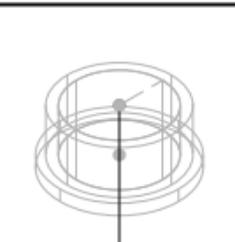
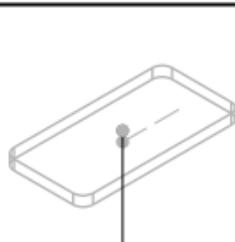
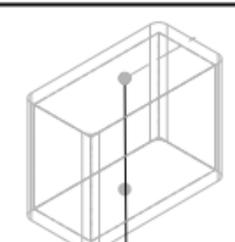
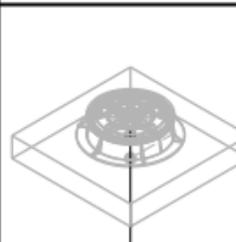
				
SignPost-P1(B4B).CSB_LT	SignPost-P1(B4B).CSB_RT	SignPost-P1(B4B).FShape_LT	SignPost-P1(B4B).FShape_RT	DEL-II-W-EXIT
3D Left Side Small Sign Tubular Steel P1 Post (B4B) on 42" Constant Slope Barrier	3D Right Side Small Sign Tubular Steel P1 Post (B4B) on 42" Constant Slope Barrier	3D Left Side Small Sign Tubular Steel P1 Post (B4B) on 32" F-Shape Barrier	3D Right Side Small Sign Tubular Steel P1 Post (B4B) on 32" F-Shape Barrier	3D Delineator Type II White with Red Reflector for Wrong Way
				
SignOverhead_Overlay	SignOverhead.Relocate	SignOverhead_Replacement	SignPanel.Custom	SignPanel.Custom_Overlay
3D Rectangular Shaped Sign Panel	3D Rectangular Shaped Sign Panel			
				
SignPanel_Replacement	SignPost4-(B4B2).CSB_LT	SignPost4-(B4B2).CSB_RT	SignPost4-(B4B2).FShape_LT	SignPost4-(B4B2).FShape_RT
3D Rectangular Shaped Sign Panel	3D Left Side Small Sign Tubular Steel P1 Post (B4B) on 42" Constant Slope Barrier	3D Right Side Small Sign Tubular Steel P1 Post (B4B) on 42" Constant Slope Barrier	3D Left Side Small Sign Tubular Steel P1 Post (B4B) on 32" F-Shape Barrier	3D Right Side Small Sign Tubular Steel P1 Post (B4B) on 32" F-Shape Barrier

 <p>ORIGIN</p>	 <p>ORIGIN</p>	 <p>ORIGIN</p>	 <p>ORIGIN</p>	 <p>ORIGIN</p>
<p>DEL-II-Y-EXIT</p> <p>3D Delineator Type II Yellow with Red Reflector for Wrong Way</p>	<p>ORD_Point_Locator</p>	<p>SignRemoval-20</p> <p>3D Sign Removal less than 20 sq ft</p>	<p>SignRemoval+20</p> <p>3D Sign Removal greater than 20 sq ft</p>	<p>SignRelocate_Exist</p> <p>3D Sign Relocation - Existing Location</p>
 <p>ORIGIN</p> <p>SignProtect</p> <p>Protect in place 3D sign representation</p>				

14.8.2.11 UTILITY NODES

				
Bottom - Ball	Bottom - Conflict Borehole	Bottom - Conflict New	Plan - Gate Valve	Top - Gas meter
Used for various pressure nodes	For conflict nodes where bore hole is required	Used to mark new found clashes	GATE VALVE	Top3D
				
Top - Conflict Borehole	Top - Hydrant 3D	Bottom - Stub	Top - Valve2	Top - Utility Pole
For conflict nodes where bore hole is required	Fire Hydrant above ground portion	Used for various pressure nodes	Used for various pressure nodes	
				
Bottom - Sewer Clean Out	Bottom - Standard Foundation Light Pole	Bottom - Spring Box	Plan - Electric Service Pole	Plan - Fire Hydrant
Division 15 - Utilities	Division 14 - Lighting	Division 15 - Utilities	Division 14	Division 15
				
Plan - Water Meter	Top - Electric Service Pole And Lateral	Top - Fire Hydrant	Top - High Mount Standard Assembly	Top - Light Control System
Division 15	Division 14 - Lighting	Division 15 - Utilities	Division 14 - Lighting	Division 14 - Lighting

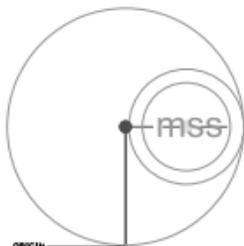
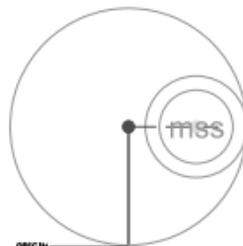
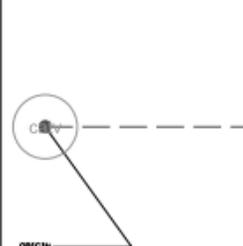
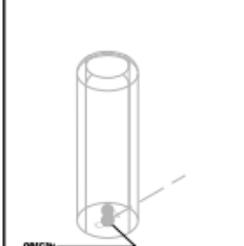
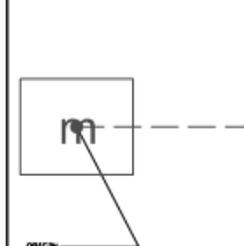
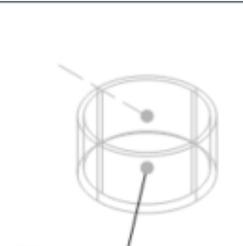
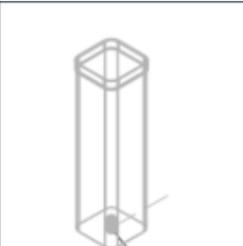
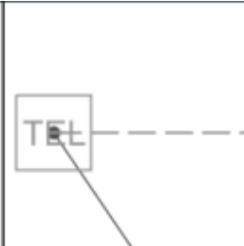
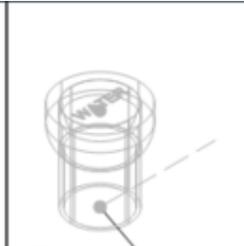
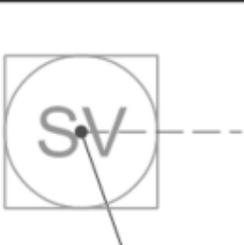
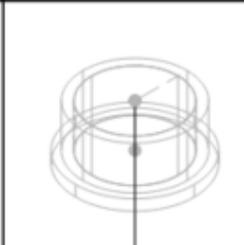
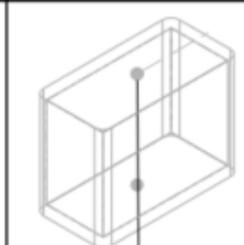
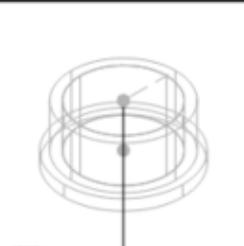
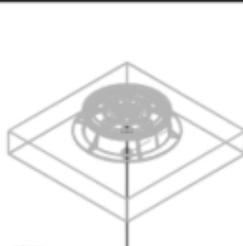
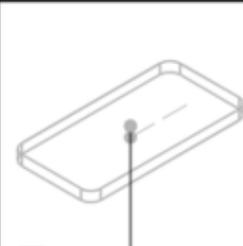
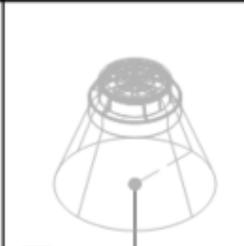
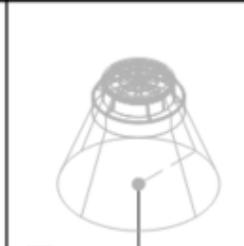
Plan - Water Valve	Top - Water Valve	Bottom - Fire Hydrant	Plan - Spring Box	Bottom - Water Meter
6 B1 PROP GATE VALVE	Division 15 - Utilities	Division 15 - Utilities		Division 15 - Utilities
Top - Valve	Plan - Conflict New	Plan - Conflict Borepit Required	Plan - Conflict Borepit Complete	Plan - Conflict Resolved
Top 3D				
Bottom - Utility Pole	Bottom - PMT All	Bottom - Electric Service Pole And Laterals	Bottom - High Mount Foundation	Bottom - Light Control System
	Precast Manhole Tee All sizes	Division 14 - Lighting	Division 14 - Lighting	Division 14 - Lighting
Plan - High Mount Standard	Plan - Light Control System	Plan - Light Standard Single Arm	Plan - Light Standard Twin Arm	Plan - Sewer Cleanout
Division 14	Division 14	Division 14	Division 14	Division 15

				
Top - Light Standard Single Arm	Top - Light Standard Twin Arm	Top - Sewer Clean Out	Top - Water Meter	Bottom - Water Valve
Division 14 - Lighting	Division 14 - Lighting	Division 15 - Utilities	Division 15 - Utilities	Division 15 - Utilities
				
Bottom - Water Valve Tee	Plan - Utility Pole	Top - Controller Cabinet	Bottom - Controller Cabinet	Plan - Controller Cabinet
Division 15 - Utilities		Controller Cabinet Top	Controller Cabinet Bottom	TRAFFIC SIGNAL CONTROLLER
				
Bottom - Sewer Base 48in round	Bottom - Sewer Base 60in round	Bottom - Sewer Base 72in round	Top - Sewer Manhole 48 Dia	Top - Sewer Manhole 60 Dia
Precast Base Units 48" diameter	Precast Base Units 60" diameter	Precast Base Units 72" diameter	SEWER MANHOLE 48" DIA	SEWER MANHOLE 60" DIA
				
Top - GAS MANHOLE 48 DIA OFF	Bottom - GAS MH 48 DIA	Top - FO HANDHOLE	Bottom - FO HANDHOLE	Top - FO MANHOLE 4'x4'
GAS MANHOLE 48" DIA OFFSET SHAFT	GAS MANHOLE 48 DIA	FIBER OPTIC HANDHOLE 2'x4'	FIBER OPTIC HANDHOLE 2'x4'	FIBER OPTIC MANHOLE 4'x4'

Bottom - Sewer Vent	Bottom - Gas Vent	Top - Elec Switchgear	Bottom - Elec Switchgear	Top - Elec Pull Vault
Sewer Release Vent	Gas Release Vent	Electrical Switchgear ZG562 - 7'x12'	Electrical Switchgear ZG562 - 7'x12'	Electrical Pull Vault ZG711 - 7'x12'
Top - Elec Sect. Cabinet	Bottom - Elec Sect. Cabinet	Top - Elec Secondary Box	Top - Elec Power Meter	Plan - Elec Pull Vault
Electrical Sectionalizing Cabinet ZG621 - 5.5'x7.5'	Electrical Sectionalizing Cabinet ZG621 - 5.5'x7.5'	Electrical Secondary Box	Electrical Power Meter	Electrical Pull Vault ZG711 - 7'x12'
Plan - FO HANDHOLE	Plan - FO MH 4'x4'	Plan - GAS MH 48 DIA	Plan - GAS MH 48 DIA OFFSET	Plan - SWR MH 48 DIA
FIBER OPTIC HANDHOLE 2'x4'	FIBER OPTIC MANHOLE 4'x4'	GAS MANHOLE 48" DIA	GAS MANHOLE 48" DIA OFFSET SHAFT	SEWER MANHOLE 48" DIA
Top - Sewer Manhole 72 Dia	Top - WATER MANHOLE 48 DIA OFF	Top - WATER MANHOLE 48 DIA	Bottom - WATER MH 48 DIA	Top - GAS MANHOLE 48 DIA
SEWER MANHOLE 72" DIA	WATER MANHOLE 48" DIA OFFSET SHAFT	WATER MANHOLE 48" DIA	WATER MANHOLE 48 DIA	GAS MANHOLE 48" DIA

Bottom - FO MH 4'x4'	Top - Water Vent	Bottom - Water Vent	Top - Gas Vent	Top - Sewer Vent
FIBER OPTIC MANHOLE 4'x4'	Water Release Vent	Water Release Vent	Gas Release Vent	Sewer Release Vent
Bottom - Elec Pull Vault	Top - Elec Single Phase Padvault	Bottom - Elec Single Phase Padvault	Top - Elec Three Phase Padvault	Bottom - Elec Three Phase Padvault
Electrical Pull Vault ZG711 - 7'x12'	Electrical Single Phase Padvault ZG501 - 4'x4'	Electrical Single Phase Padvault ZG501 - 4'x4'	Electrical Three Phase Padvault ZG521 - 9.3'x7'	Electrical Three Phase Padvault ZG501 - 9.3'x7'
Plan - Elec Secondary Box	Plan - Elec Sect. Cabinet	Plan - Elec Single Phase Padvault	Plan - Elec Switchgear	Plan - Elec Three Phase Padvault
Electrical Secondary Box	Electrical Sectionalizing Cabinet ZG621 - 5.5'x7.5'	Electrical Single Phase Padvault ZG501 - 4'x4'	Electrical Switchgear ZG562 - 7'x12'	Electrical Three Phase Padvault ZG521 - 9.3'x7'
Plan - SWR MH 60 DIA	Plan - SWR MH 72 DIA	Plan - WTR MH 48 DIA	Plan - WTR MH 48 DIA OFFSET	Plan - Elec Power Meter
SEWER MANHOLE 60" DIA	SEWER MANHOLE 72" DIA	WATER MANHOLE 48" DIA	WATER MANHOLE 48" DIA OFFSET SHAFT	Electrical Power Meter

Plan - Water Meter Box	Top - Water Meter Box	Top - Water Line Loop	Plan - Water Line Loop	Plan - Test Hole
Plan - Water Meter Box 3'x2'	Top - Water Meter Box 3'x2'	Top - Water Line Loop Node	Plan - Water Line Loop Node	For Completed Test Hole
Top - Cable Pedestal	Plan - Water Meter Res.	Plan - Cable Pedestal	Plan - Phone Cabinet	Top - Phone Cabinet
Cable Pedestal (COMM)	Plan - Water Meter Residential	Cable Pedestal (COMM)	Phone Cabinet	Phone Cabinet
Bottom - FO MH 4'x4' EXIST	Bottom - Sewer Base 48in round EXIST	Bottom - Sewer Base 60in round EXIST	Bottom - Sewer Base 72in round EXIST	Bottom - Water Meter EXIST
FIBER OPTIC MANHOLE 4'x4' EXIST	Precast Base Units 48" diameter EXIST	Precast Base Units 60" diameter EXIST	Precast Base Units 72" diameter EXIST	Division 15 - Utilities EXIST
Top - Sewer Manhole 48 Dia EXIST	Top - Sewer Manhole 60 Dia EXIST	Top - Sewer Manhole 72 Dia EXIST	Plan - WTR MH 48 DIA Exist	Plan - Water Meter Res. Exist
SEWER MANHOLE 48" DIA EXIST	SEWER MANHOLE 60" DIA EXIST	SEWER MANHOLE 72" DIA EXIST	WATER MANHOLE 48" DIA Exist	Plan - Water Meter Residential Exist

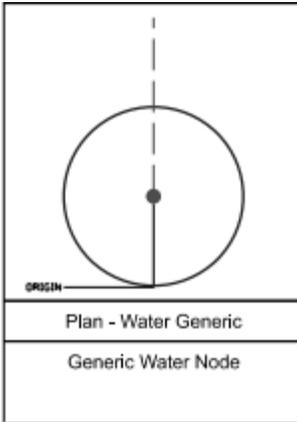
				
Plan - SWR MH 60 DIA Exist SEWER MANHOLE 60" DIA Exist	Plan - SWR MH 72 DIA Exist SEWER MANHOLE 72" DIA Exist	Plan - Cable Pedestal Exist Cable Pedestal (COMM)	Top - Cable Pedestal Exist Cable Pedestal (COMM)	Plan - Elec Power Meter Exist Electrical Power Meter
				
Top - Test Hole For conflict nodes where bore hole is required	Bottom - Test Hole For conflict nodes where bore hole is required	Top - Phone Pedestal Phone Pedestal (COMM)	Plan - Phone Pedestal Phone Pedestal (COMM)	Top - Water Meter Res, Top - Water Meter Residential
				
Plan - Sewer Vent Sewer Release Vent	Plan - Gas Vent Gas Release Vent	Plan - Water Vent Water Release Vent	Bottom - GAS MH 48 DIA EXIST GAS MANHOLE 48 DIA EXIST	Bottom - FO HANDHOLE EXIST FIBER OPTIC HANDHOLE 2'x4' EXIST
				
Bottom - WATER MH 48 DIA EXIST WATER MANHOLE 48 DIA EXIST	Top - FO MANHOLE 4'x4' EXIST FIBER OPTIC MANHOLE 4'x4' EXIST	Top - FO HANDHOLE EXIST FIBER OPTIC HANDHOLE 2'x4' EXIST	Top - GAS MANHOLE 48 DIA EXIST GAS MANHOLE 48" DIA EXIST	Top - WATER MANHOLE 48 DIA EXIST WATER MANHOLE 48" DIA EXIST

Plan - Water Meter Box Exist Plan - Water Meter Box 3'x2' Exist	Plan - GAS MH 48 DIA Exist GAS MANHOLE 48" DIA Exist	Plan - FO HANDHOLE Exist FIBER OPTIC HANDHOLE 2'x4' Exist	Plan - FO MH 4'x4' Exist FIBER OPTIC MANHOLE 4'X4' Exist	Plan - SWR MH 48 DIA Exist SEWER MANHOLE 48" DIA Exist
Plan - Elec Pull Vault Exist Electrical Pull Vault ZG711 - 7'x12'	Top - Elec Pull Vault Exist Electrical Pull Vault ZG711 - 7'x12'	Bottom - Elec Pull Vault Exist Electrical Pull Vault ZG711 - 7'x12'	Bottom - Elec Sect. Cabinet Exist Electrical Sectionalizing Cabinet ZG621 - 5.5'x7.5'	Plan - Elec Sect. Cabinet Exist Electrical Sectionalizing Cabinet ZG621 - 5.5'x7.5'
Plan - Elec Secondary Box Exist Electrical Secondary Box	Top - Elec Secondary Box Exist Electrical Secondary Box	Top - Elec Sect. Cabinet Exist Electrical Sectionalizing Cabinet ZG621 - 5.5'x7.5'	Top - Elec Single Phase Padvault Exist Electrical Single Phase Padvault ZG501 - 4'x4'	Plan - Elec Single Phase Padvault Exist Electrical Single Phase Padvault ZG501 - 4'x4'
Bottom - Elec Three Phase Padvault Exist Electrical Three Phase Padvault ZG501 - 9.3'x7'	Side - Electric Service Poll And Lateral Exist Division 14 - Lighting	Plan - Electric Service Pole Exist Division 14	Side - Electric Service Poll And Lateral Exist Division 14 - Lighting	Plan - Phone Cabinet Exist Phone Cabinet Exist

Top - Sewer Manhole 48 Dia (Concentric)	Plan - Sewer Manhole 48 Dia (Concentric)	Top - Sewer Manhole 48 Dia (Concentric)	Plan - Sewer Manhole 48 Dia (Concentric) Exist	Top - Sewer Manhole 48 Dia (Concentric) Exist
Sewer Manhole 48" Dia (Concentric)	Sewer Manhole 48" Dia (Concentric)	Sewer Manhole 48" Dia (Concentric)	Sewer Manhole 48" Dia (Concentric) Exist	Sewer Manhole 48" Dia (Concentric) Exist
Top - Water Vent-Exist	Bottom - Water Vent-Exist	Bottom - Water Valve-Exist	Plan - Water Valve-Exist	Top - Water Valve-Exist
Existing Water Release Vent	Existing Water Release Vent	Division 15 - Utilities	6 B1 PROP GATE VALVE-Existing	Division 15 - Utilities - Existing
Bottom - Telephone Generic EXIST	Bottom - Fiber Optic Generic EXIST	Bottom - Electrical Generic EXIST	Bottom - Gas Generic EXIST	Bottom - Water Generic EXIST
Existing Generic Telephone Communication Node	Existing Generic Fiber Optic Communication Node	Existing Generic Electrical Node	Existing Generic Gas Node	Existing Generic Water Node
Top - Elec Single Phase Padvault Exist	Bottom - Elec Switchgear Exist	Plan - Elec Switchgear Exist	Top - Elec Switchgear Exist	Plan - Elec Three Phase Padvault Ex
Electrical Single Phase Padvault ZG501 - 4'x4'	Electrical Switchgear ZG562 - 7'x12'	Electrical Switchgear ZG562 - 7'x12'	Electrical Switchgear ZG562 - 7'x12'	Electrical Three Phase Padvault ZG521 - 9.3'x7'

Top - Phone Cabinet Exist	Plan - Phone Pedestal Exist	Top - Phone Pedestal Exist	Top - Elec Power Meter Exist	Top - Elec Three Phase Padvault Exi
Phone Cabinet Exist	Phone Pedestal (COMM) Exist	Phone Pedestal (COMM) Exist	Electrical Power Meter Exist	Electrical Three Phase Padvault ZG521 - 9.3'x7' Exist
Space Manhole 48 Dia (Concentric)	ExistBottom - Sewer Vent-Exist	Plan - Sewer Vent-Exist	Top - Sewer Vent-Exist	Plan - Water Vent-Exist
Sewer Manhole 48" Dia (Concentric) Exist	Sewer Release Vent	Sewer Release Vent Existing	Sewer Release Vent Existing	Existing Water Release Vent
Plan - Cable Amplifier	Plan - Cable Amplifier - Exist	Top - Cable Amplifier	Top - Cable Amplifier Exist	Bottom - Cable TV Generic EXIST
Cable Amplifier (COMM)	Cable Amplifier (COMM)	Cable Amplifier (COMM)	Cable Amplifier (COMM)Exist	Existing Generic Cable TV Communication Node
Bottom - Sewer Generic EXIST	Bottom - Petroleum Generic EXIST	Bottom - Cable TV Generic	Bottom - Electrical Generic	Bottom - Fiber Optic Generic
Existing Generic Sewer Node	Existing Generic Petroleum Node	Generic Cable TV Communication Node	Generic Electrical Node	Generic Fiber Optic Communication Node

Bottom - Gas Generic	Bottom - Petroleum Generic	Bottom - Sewer Generic	Bottom - Telephone Generic	Bottom - Water Generic
Generic Gas Node	Generic Petroleum Node	Generic Sewer Node	Generic Telephone Communication Node	Generic Water Node
Plan - Fiber Optic Generic EXIST	Plan - Electrical Generic EXIST	Plan - Electrical Generic	Plan - Gas Generic	Plan - Gas Generic EXIST
Existing Generic Fiber Optic Communication Node	Existing Generic Electrical Node	Generic Electrical Node	Generic Gas Node	Existing Generic Gas Node
Plan - Water Generic EXIST	Plan - Cable TV Generic	Plan - Cable TV Generic EXIST	Plan - Telephone Generic EXIST	Plan - Telephone Generic
Existing Generic Water Node	Generic Cable TV Communication Node	Existing Generic Cable TV Communication Node	Existing Generic Telephone Communication Node	Generic Telephone Communication Node
Plan - Fiber Optic Generic	Plan - Petroleum Generic	Plan - Petroleum Generic EXIST	Plan - Sewer Generic EXIST	Plan - Sewer Generic
Generic Fiber Optic Communication Node	Generic Petroleum Node	Existing Generic Petroleum Node	Existing Generic Sewer Node	Generic Sewer Node



14.8.2.12 PTC LOGOS

				
PTC LOGO GREEN	PTC LOGO GREEN FILLED	PTC LOGO ORANGE	PTC LOGO PURPLE	PTC LOGO WHITE
PTC LOGO GREEN	PTC LOGO GREEN FILLED	PTC LOGO ORANGE	PTC LOGO PURPLE	PTC LOGO WHITE

14.8.2.13 BAR SCALES

S0000B	S0001B	S0005B	S0010B	S0020B
Bar Scale 1"=1'	Bar Scale 1"=1'	Bar Scale 1"=5'	Bar Scale 1"=10'	Bar Scale 1"=20'
S0080B	S0100B	S0200B	S0300B	S0400B
Bar Scale 1"=80'	Bar Scale 1"=100'	Bar Scale 1"=200'	Bar Scale 1"=300'	Bar Scale 1"=400'
S0025B	S0030B	S0040B	S0050B	S0060B
Bar Scale 1"=25'	Bar Scale 1"=30'	Bar Scale 1"=40'	Bar Scale 1"=50'	Bar Scale 1"=60'
S0500B				
Bar Scale 1"=500'				

14.8.2.14 MISCELLANEOUS SYMBOLS

ROW_Marker	3D_MB_1	3D_MB_1.Plan	3D_MB_2	3D_MB_2.Plan
Master Model	Mailbox (GW 5B) - Single No.1 box on Type A single post	Plan_Mailbox (GW 5B) - Single No.1 box on Type A single post	Mailbox (GW 5B) - Two No.1 boxes on Type A single post	Plan_Mailbox (GW 5B) - Two No.1 boxes on Type A single post
JB-1PC_3D	JB-2PC-C_3D	JB-2PC_3D	JB-3PC-C_3D	JB-3PC_3D
Polymer Concrete Junction Box Type I	Polymer Concrete Junction Box Type II w/Conc Collar	Polymer Concrete Junction Box Type II	Polymer Concrete Junction Box Type III w/Conc Collar	Polymer Concrete Junction Box Type III
JB-1PC-C.Plan	JB-2PC-C.Plan	JB-2PC.Plan	JB-3PC.Plan	JBA-C_3D
Type I - Polymer Concrete Junction Box w/Conc Collar	Type II - Polymer Concrete Junction Box w/Conc Collar	Type II - Polymer Concrete Junction Box	Type III - Polymer Concrete Junction Box	Traffic Signal Junction Box Type A w/Conc Collar
JBB.Plan	JBA.Plan	JBC.Plan	3D_MB_Multi	3D_MB_Multi.Plan
TYPE B JUNCTION BOX	TYPE A JUNCTION BOX	TYPE C JUNCTION BOX	Mailbox (GW 5B) - Four No.1 boxes on Type B Formed Tube Frame	Plan_Mailbox (GW 5B) - Four No.1 boxes on Type B Tube Frame

3D_B2-M1_TrænCurb_RT	3D_B2-M1_TrænCurb_LT_Plan	3D_B2-M1_TrænCurb_RT_Plan	ROW_Marker_AltA	ROW_Marker_AltB
B2 to M1 Curb Transition Right - 10 FT	Plan_B2 to M1 Curb Transition Left - 10 FT	Plan_B2 to M1 Curb Transition Right - 10 FT	Marker in driveway, sidewalk or other hard surface	Marker for heavy brush or forest lands
3D_M2_Plow	3D_B5_Plow	3D_B1-M1_TrænCurb_LT	3D_B1-M1_TrænCurb_RT	JB-IPC-C_3D
Type M2 Curb Plowable End Section	Type B5 Curb Plowable End Section	B1 to M1 Curb Transition Left - 10 FT	B1 to M1 Curb Transition Right - 10 FT	Polymer Concrete Junction Box Type I w/Conc Collar
JBA-C_Plan	JBB-C_Plan	JBC-C_Plan	JB-IPC_Plan	JB-3PC-C_Plan
TYPE A JUNCTION BOX w/Conc Collar	TYPE B JUNCTION BOX w/Conc Collar	TYPE C JUNCTION BOX w/Conc Collar	Type I - Polymer Concrete Junction Box	Type III - Polymer Concrete Junction Box w/Conc Collar
JBA_3D	JBB-C_3D	JBB_3D	JBC-C_3D	JBC_3D
Traffic Signal Junction Box Type A	Traffic Signal Junction Box Type B w/Conc Collar	Traffic Signal Junction Box Type B	Traffic Signal Junction Box Type C w/Conc Collar	Traffic Signal Junction Box Type C

3D_B1-M1-TranCurb-LT_Plan	3D_B1-M1-TranCurb-RT_Plan	3D_B5_Plow_Plan	3D_M2_Plow_Plan	3D_B2-M1-TranCurb-LT
Plan_B1 to M1 Curb Transition Left - 10 FT	Plan_B1 to M1 Curb Transition Right - 10 FT	Plan_Type B5 Curb Plowable End Section	Plan_Type M2 Curb Plowable End Section	B2 to M1 Curb Transition Left - 10 FT

14.8.3 SYMBOLS FOR REVIT

14.8.3.1 GENERAL & ARCHITECTURE SYMBOLS

ANNOTATION SYMBOLS		ANNOTATION TAGS	
GRID HEAD		CEILING TAG	1i
CALLOUT HEAD		COLUMN TAG	
ELEVATION MARK BODY		DOOR TAG	
		FLOOR TAG	1t
INTERIOR ELEVATION MARK BODY		WALL TAG	
		WINDOW TAG	
		REVISION TAG	
ELEVATION INTERIOR MARK POINTER		ROOM TAG	Name 101
		EQUIPMENT TAG	
		ROOF TAG	1t

ANNOTATION SYMBOLS		ANNOTATION TAGS	
ELEVATION MARK POINTER		MATERIAL TAG	<input type="text" value="?"/>
		AREA TAG	Name 150 SF
LEVEL HEAD	Name Elevation		<input type="text" value="Name"/> <input type="text" value="150 SF"/>
MAGNETIC NORTH ARROW			
NORTH ARROW			
SECTION HEAD AND TAIL			
WORKING SECTION HEAD AND TAIL			
VIEW TITLE	<input type="text" value="1 View Name"/> $1/8" = 1'-0"$ <input type="text" value="1 View Name"/>		
CENTERLINE			

DETAIL ITEMS	
BREAKLINE	
SCALE	

14.8.3.2 STRUCTURAL SYMBOLS

STRUCTURAL SYMBOLS		STRUCTURAL TAGS	
AREA REINFORCEMENT		BOLT TAG	<div style="border: 1px solid black; padding: 2px;">Number of bolts XDiameter Grade Standard</div> Number of bolts XDiameter Grade Standard
		ANCHOR TAG	<div style="border: 1px solid black; padding: 2px;">Number of anchors XDiameter Grade Standard</div> Number of anchors XDiameter Grade Standard
CONNECTION SYMBOLS		AREA REINFORCEMENT TAG	Rebar System Layer Summary
		FABRIC SHEET TAG	Fabric Number - Type Name
FABRIC SHEET SYMBOLS		STRUCTURAL BEAM SYSTEM TAG	Beam Type (No Family Name) @ Spacing
		STRUCTURAL COLUMN TAG	1i ↗
		STRUCTURAL FOUNDATION TAG	1i
		STRUCTURAL FRAMING TAG	<div style="border: 1px solid black; padding: 2px;">1i</div> 1i
		STRUCTURAL FRAMING TAG-FORCES	All non 0 forces at end
		STRUCTURAL FRAMING TAG-REACTIONS	End Moment - Dead End Moment - Live End Moment - Total End Reaction - Dead End Reaction - Live End Reaction - Total
WELD SYMBOLS		STRUCTURAL FRAMING TAG-STUDS	1i studs Camber
		STRUCTURAL MRA REBAR TAG	Count Type Name Count Type Name - @Spacing - Rebar Number Rebar Number
		STRUCTURAL TRUSS TAG	<div style="border: 1px solid black; padding: 2px;">T1</div> T1
		WELD TAG	Main Type Main Thickness

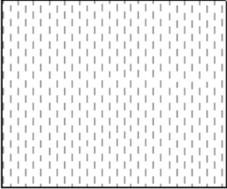
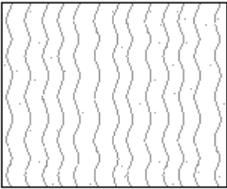
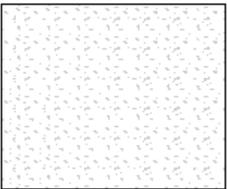
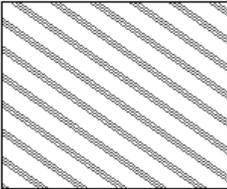
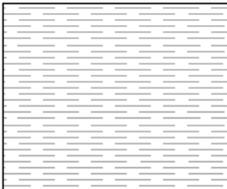
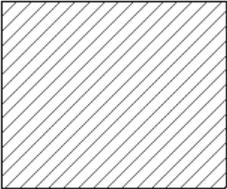
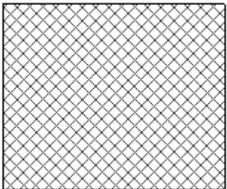
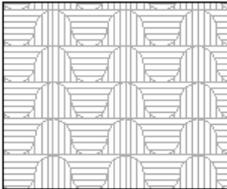


14.8.3.3 MEP SYMBOLS

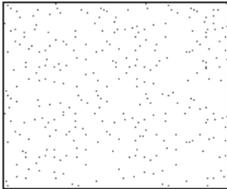
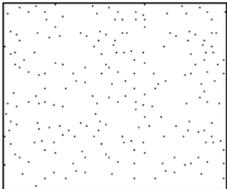
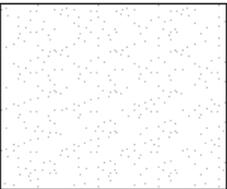
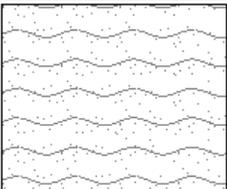
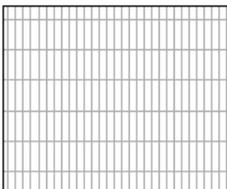
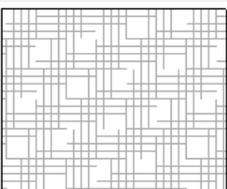
MEP TAGS										
CABLE SIZE TAG	Size									
COMMUNICATION DEVICE TAG	14									
CONDUIT SIZE TAG	Size									
DAMPER TAG	FD									
DATA DEVICE TAG	2279									
DIFFUSER TAG	<table border="1"> <tr> <td>1i</td> <td>AT#</td> <td>AT#</td> </tr> <tr> <td>200 CFM</td> <td>Size</td> <td>Size</td> </tr> <tr> <td></td> <td>Flow</td> <td>Flow</td> </tr> </table>	1i	AT#	AT#	200 CFM	Size	Size		Flow	Flow
1i	AT#	AT#								
200 CFM	Size	Size								
	Flow	Flow								
DRAIN TAG	This is a sample type comment									
DUCT TAG	This is a sample comment Size SA Size SA									
ELECTRICAL DEVICE TAG	<p>1 This is a sample comment</p> <p>Panel - Load Name Panel</p>									
ELECTRICAL EQUIPMENT TAG	<p>This is a sample comment 1</p> <p>Total Amps - Number of Phases Phase</p> <p>Panel Name</p>									
FIRE ALARM DEVICE TAG	127									
FLEX DUCT TAG	Diameter ø									
FLEX PIPE SIZE TAG	Diameterø									
LIGHT SWITCH TAG	This is a sample comment <table border="1"><tr><td>ID</td></tr></table> ID	ID								
ID										
LIGHT FIXTURE TAG	<table border="1"><tr><td>1i</td></tr></table> 1i	1i								
1i										
MECHANICAL EQUIPMENT TAG	EQP <table border="1"><tr><td>EQP</td></tr><tr><td>1i</td></tr></table>	EQP	1i							
EQP										
1i										

MEP TAGS				
MECHANICAL SPACE TAG	<p>Space Name</p> <table border="1"><tr><td>101</td></tr></table> <p>SA: 320 CFM OA: 320 CFM BTU: Design Heating Load</p>	101		
101				
NURSE CALL DEVICE TAG	14			
PIPE TAG	Size Slope DCW			
SECURITY DEVICE TAG	14 EQP Tag			
SPACE TAG	<p>Space Name Space Name</p> <table border="1"><tr><td>101</td></tr></table> <table border="1"><tr><td>101</td></tr></table> Volume 150 SF <p>Space Name</p> <table border="1"><tr><td>101</td></tr></table>	101	101	101
101				
101				
101				
TELEPHONE DEVICE TAG	2275			
WIRE TAG	Circuits			
ZONE TAG	<table border="1"><tr><td>Zone Name</td></tr></table>	Zone Name		
Zone Name				

14.9 PATTERNS

Name	Pattern	Name	Pattern
ACOUSTIC CEILING TILE		ORNAMENTAL METAL	
ADOBE MASONRY		PARTICLE BOARD	
ALUMINIUM		PLASTIC GLAZING	
BRICK		PLYWOOD	
CONCRETE MASONRY UNIT (CMU)		ROCK	
CAST STONE		STEEL	

Name	Pattern	Name	Pattern
CEMENTITIOUS DECK		STONE	
CONCRETE		TERAZZO	
CONCRETE PRECAST		TILE	
EARTH		WOOD	
FIRE SAFING			
GLASS			
GRAVEL			

Name	Pattern	Name	Pattern
GROUT			
GYPSUM BOARD			
INSULATION - FOAM			
INSULATION - LOOSE FILL			
INSULATION - NO FOAM			
INSULATION - SEMI RIGID			



14.10 SURVEY

14.10.1 CIVIL 3D DESCRIPTION KEY SET

Code	Style	Point Label Style	Format	Layer	Scale Parameter	Marker Rotate Parameter	Label Rotate Parameter
2	<default>	<default>	2" PIPE	V-STRM	Parameter 1	Parameter 2	Parameter 2
4	<default>	<default>	4" PIPE	V-STRM	Parameter 1	Parameter 2	Parameter 2
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27	<default>	<default>	27" PIPE	V-STRM	Parameter 1	Parameter 2	Parameter 2
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33	<default>	<default>	33" PIPE	V-STRM	Parameter 1	Parameter 2	Parameter 2
36	<default>	<default>	36" PIPE	V-STRM	Parameter 1	Parameter 2	Parameter 2
42	<default>	<default>	42" PIPE	V-STRM	Parameter 1	Parameter 2	Parameter 2
48	<default>	<default>	48" PIPE	V-STRM	Parameter 1	Parameter 2	Parameter 2



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54	<default>	<default>	54" PIPE	V-STRM	Parameter 1	Parameter 2	Parameter 2
60	<default>	<default>	60" PIPE	V-STRM	Parameter 1	Parameter 2	Parameter 2
66	<default>	<default>	66" PIPE	V-STRM	Parameter 1	Parameter 2	Parameter 2
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108	<default>	<default>	108" PIPE	V-STRM	Parameter 1	Parameter 2	Parameter 2
114	<default>	<default>	114" PIPE	V-STRM	Parameter 1	Parameter 2	Parameter 2
120	<default>	<default>	120" PIPE	V-STRM	Parameter 1	Parameter 2	Parameter 2
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138	<default>	<default>	138" PIPE	V-STRM	Parameter 1	Parameter 2	Parameter 2
144	<default>	<default>	144" PIPE	V-STRM	Parameter 1	Parameter 2	Parameter 2
AW*	<default>	<default>	ABUT WINGS	V-BRDG	Parameter 1	Parameter 2	Parameter 2
AXLE*	<default>	<default>	AXLE	V-SURV	Parameter 1	Parameter 2	Parameter 2
BABUT*	<default>	<default>	BRIDGE BOTTOM ABUTMENT	V-BRDG	Parameter 1	Parameter 2	Parameter 2
BARBR*	<default>	<default>	BUILDING BARN BRICK	V-BLDG	Parameter 1	Parameter 2	Parameter 2
BARN*	<default>	<default>	BARN	V-BLDG	Parameter 1	Parameter 2	Parameter 2



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BARNCB*	<default>	<default>	BARN CONC BLOCK	V-BLDG	Parameter 1	Parameter 2	Parameter 2
BARNF*	<default>	<default>	BARN FRAMED	V-BLDG	Parameter 1	Parameter 2	Parameter 2
BARNSID*	<default>	<default>	BARN SIDING	V-BLDG	Parameter 1	Parameter 2	Parameter 2
BAW*	<default>	<default>	BRIDGE BOTTOM OF WING	V-BRDG	Parameter 1	Parameter 2	Parameter 2
BB*	<default>	<default>	BOTTOM BANK	V-TOPO	Parameter 1	Parameter 2	Parameter 2
BBEAM*	<default>	<default>	BRIDGE BOTTOM OF BEAM	V-BRDG	Parameter 1	Parameter 2	Parameter 2
BCB*	<default>	<default>	BOTTOM CURB BITUMINOUS	V-ROAD	Parameter 1	Parameter 2	Parameter 2
BCC*	<default>	<default>	BOTTOM CURB CONCRETE	V-ROAD	Parameter 1	Parameter 2	Parameter 2
BCSTN*	<default>	<default>	BOTTOM CURB CUT STONE	V-ROAD	Parameter 1	Parameter 2	Parameter 2
BH*	<default>	<default>	BOREHOLE	V-TOPO	Parameter 1	Parameter 2	Parameter 2
BHW*	<default>	<default>	BOTTOM OF HEADWALL	V-TOPO	Parameter 1	Parameter 2	Parameter 2
BJBAR*	<default>	<default>	BOTTOM JERSEY BARRIER	V-ROAD	Parameter 1	Parameter 2	Parameter 2
BLDR*	<default>	<default>	BOULDER	V-TOPO	Parameter 1	Parameter 2	Parameter 2
BM*	PTC_BENCHMARK	FULL DESCRIPTION ONLY	BENCHMARK	V-SURV	Parameter 1	Parameter 2	Parameter 2
BOXCUL*	<default>	<default>	BOX CULVERT	V-STRM	Parameter 1	Parameter 2	Parameter 2
BOULDER*	<default>	<default>	BOULDER	V-TOPO	Parameter 1	Parameter 2	Parameter 2
BPAR*	<default>	<default>	BRIDGE BOTTOM OF PARAPET	V-BRDG	Parameter 1	Parameter 2	Parameter 2
BPIER*	<default>	<default>	BRIDGE BOTTOM OF PIER	V-BRDG	Parameter 1	Parameter 2	Parameter 2
BPOR*	<default>	<default>	BOTTOM PORCH	V-BLDG	Parameter 1	Parameter 2	Parameter 2
BPORBR*	<default>	<default>	BOTTOM PORCH BRICK	V-BLDG	Parameter 1	Parameter 2	Parameter 2
BPORC*	<default>	<default>	BOTTOM PORCH CONC	V-BLDG	Parameter 1	Parameter 2	Parameter 2



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BPORW*	<default>	<default>	BOTTOM PORCH WOOD	V-BLDG	Parameter 1	Parameter 2	Parameter 2
BRBC*	<default>	<default>	BRIDGE BOTTOM OF CURB	V-BRDG	Parameter 1	Parameter 2	Parameter 2
BRCRB*	<default>	<default>	BRIDGE CROWNROAD BITUMINOUS	V-BRDG	Parameter 1	Parameter 2	Parameter 2
BRCRC*	<default>	<default>	BRIDGE CROWNROAD CONC	V-BRDG	Parameter 1	Parameter 2	Parameter 2
BRDJT*	<default>	<default>	BRIDGE DECK JOINT	V-BRDG	Parameter 1	Parameter 2	Parameter 2
BRDKB*	<default>	<default>	BRIDGE DECK BITUMINOUS	V-BRDG	Parameter 1	Parameter 2	Parameter 2
BRDKC*	<default>	<default>	BRIDGE DECK CONCRETE	V-BRDG	Parameter 1	Parameter 2	Parameter 2
BRDKM*	<default>	<default>	BRIDGE DECK METAL	V-BRDG	Parameter 1	Parameter 2	Parameter 2
BRDKW*	<default>	<default>	BRIDGE DECK WOOD	V-BRDG	Parameter 1	Parameter 2	Parameter 2
BRE*	<default>	<default>	BREAKLINE	V-TOPO	Parameter 1	Parameter 2	Parameter 2
BRFT*	<default>	<default>	BRIDGE FOOTER	V-BRDG	Parameter 1	Parameter 2	Parameter 2
BRI*	<default>	<default>	BRIDGE	V-BRDG	Parameter 1	Parameter 2	Parameter 2
BRICK*	<default>	<default>	BRICK	V-TOPO	Parameter 1	Parameter 2	Parameter 2
BRIE*	<default>	<default>	BRIDGE	V-BRDG	Parameter 1	Parameter 2	Parameter 2
BRL*	<default>	<default>	BRUSH LINE	V-VEGE	Parameter 1	Parameter 2	Parameter 2
BRLC*	<default>	<default>	BRIDGE LOW CHORD	V-BRDG	Parameter 1	Parameter 2	Parameter 2
BRLE*	<default>	<default>	BRUSH LINE	V-VEGE	Parameter 1	Parameter 2	Parameter 2
BRSWB*	<default>	<default>	BRIDGE SIDEWALK BRICK	V-BRDG	Parameter 1	Parameter 2	Parameter 2
BRSWC*	<default>	<default>	BRIDGE SIDEWALK CONCRETE	V-BRDG	Parameter 1	Parameter 2	Parameter 2
BRSWW*	<default>	<default>	BRIDGE SIDEWALK WOOD	V-BRDG	Parameter 1	Parameter 2	Parameter 2
BRTC*	<default>	<default>	BRIDGE TOP CURB	V-BRDG	Parameter 1	Parameter 2	Parameter 2



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BS*	<default>	<default>	BEAM SEAT	V-BRDG	Parameter 1	Parameter 2	Parameter 2
BUI*	<default>	<default>	BUILDING	V-BLDG	Parameter 1	Parameter 2	Parameter 2
BUIBR*	<default>	<default>	BUILDING BRICK	V-BLDG	Parameter 1	Parameter 2	Parameter 2
BUIBV*	<default>	<default>	BUILDING BREAK VOID	V-BLDG	Parameter 1	Parameter 2	Parameter 2
BUICB*	<default>	<default>	BUILDING CONC BLOCK	V-BLDG	Parameter 1	Parameter 2	Parameter 2
BUIF*	<default>	<default>	BUILDING FRAMED	V-BLDG	Parameter 1	Parameter 2	Parameter 2
BUISID*	<default>	<default>	BUILDING SIDING	V-BLDG	Parameter 1	Parameter 2	Parameter 2
BV*	<default>	<default>	BREAK VOID	V-TOPO	Parameter 1	Parameter 2	Parameter 2
BW*	<default>	<default>	BOTTOM OF WALL	V-TOPO	Parameter 1	Parameter 2	Parameter 2
BWC*	<default>	<default>	BOTTOM CONCRETE BLOCK WALL	V-TOPO	Parameter 1	Parameter 2	Parameter 2
BWS*	<default>	<default>	BOTTOM STONE WALL	V-TOPO	Parameter 1	Parameter 2	Parameter 2
BWW*	<default>	<default>	BOTTOM WOOD WALL	V-TOPO	Parameter 1	Parameter 2	Parameter 2
CANAL*	<default>	<default>	WATER-WAY CANAL	V-WWAY	Parameter 1	Parameter 2	Parameter 2
CBL*	<default>	<default>	CONSTRUCTION BASELINE	V-SURV	Parameter 1	Parameter 2	Parameter 2
CE*	<default>	<default>	CUT ENDWALL	V-SURV	Parameter 1	Parameter 2	Parameter 2
CG*	<default>	<default>	CROSS GATE	V-RAIL	Parameter 1	Parameter 2	Parameter 2
CHK*	<default>	<default>	CHECK SHOT	V-SURV	Parameter 1	Parameter 2	Parameter 2
CIST*	<default>	<default>	CISTERN	V-WATR	Parameter 1	Parameter 2	Parameter 2
CISTE*	<default>	<default>	SANITARY SEWER CESSPOOL	V-SSWR	Parameter 1	Parameter 2	Parameter 2
CLM*	PTC_CABLE LINE MARKER	FULL DESCRIPTION ONLY	CABLE LINE MARKER	V-CATV	Parameter 1	Parameter 2	Parameter 2



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CM*	PTC_CONC MONUMENT	FULL DESCRIPTION ONLY	CONCRETE MONUMENT	V-SURV	Parameter 1	Parameter 2	Parameter 2
CN*	PTC_NAIL	FULL DESCRIPTION ONLY	CONCRETE NAIL	V-SURV	Parameter 1	Parameter 2	Parameter 2
CON*	<default>	<default>	CONCRETE	V-TOPO	Parameter 1	Parameter 2	Parameter 2
COS*	<default>	<default>	CONCRETE SLAB	V-BLDG	Parameter 1	Parameter 2	Parameter 2
CR*	<default>	<default>	CROWN ROAD	V-ROAD	Parameter 1	Parameter 2	Parameter 2
CRB*	<default>	<default>	CROWN ROAD BITUMINOUS	V-ROAD	Parameter 1	Parameter 2	Parameter 2
CRC*	<default>	<default>	CROWN ROAD CONCRETE	V-ROAD	Parameter 1	Parameter 2	Parameter 2
CRD*	<default>	<default>	CROWN ROAD DIRT	V-ROAD	Parameter 1	Parameter 2	Parameter 2
CRE*	<default>	<default>	CREEK	V-WWAY	Parameter 1	Parameter 2	Parameter 2
CROS*	<default>	<default>	CROSS SIGN	V-RAIL	Parameter 1	Parameter 2	Parameter 2
CRS*	<default>	<default>	CROSS SIGNAL	V-RAIL	Parameter 1	Parameter 2	Parameter 2
CRST*	<default>	<default>	CROWN ROAD STABILIZED	V-ROAD	Parameter 1	Parameter 2	Parameter 2
CS*	<default>	<default>	CURVE TO SPIRAL	V-SURV	Parameter 1	Parameter 2	Parameter 2
CT*	<default>	<default>	CENTERLINE TRACK	V-RAIL	Parameter 1	Parameter 2	Parameter 2
CTOW*	<default>	<default>	CELL TOWER	V-TOPO- CELL	Parameter 1	Parameter 2	Parameter 2
DBLYL*	<default>	<default>	TRAFFIC MARKING DOUBLE YELLOW LINE	V-ROAD	Parameter 1	Parameter 2	Parameter 2
DEF*	<default>	<default>	DEFAULT	V-SURV	Parameter 1	Parameter 2	Parameter 2
DEFL*	<default>	<default>	DEFAULT LINEAR	V-SURV	Parameter 1	Parameter 2	Parameter 2
DF*	<default>	<default>	DRAINFIELD	V-SSWR	Parameter 1	Parameter 2	Parameter 2



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DH*	PTC_DRILL HOLE	FULL DESCRIPTION ONLY	DRILL HOLE	V-SURV	Parameter 1	Parameter 2	Parameter 2
DIT*	<default>	<default>	DITCH	V-DTCH	Parameter 1	Parameter 2	Parameter 2
DRAINFIELD*	<default>	<default>	SANITARY SEWER DRAINFIELD	V-SSWR	Parameter 1	Parameter 2	Parameter 2
DWL*	<default>	<default>	TRAFFIC MARKING DASHED WHITE LINE	V-ROAD	Parameter 1	Parameter 2	Parameter 2
DYL*	<default>	<default>	TRAFFIC MARKING DASHED YELLOW LINE	V-ROAD	Parameter 1	Parameter 2	Parameter 2
EAR*	<default>	<default>	EARTH	V-TOPO	Parameter 1	Parameter 2	Parameter 2
EC*	<default>	<default>	EDGE CURB	V-ROAD	Parameter 1	Parameter 2	Parameter 2
ED*	<default>	<default>	EDGE DRIVE	V-DRIV	Parameter 1	Parameter 2	Parameter 2
EDB*	<default>	<default>	EDGE DRIVE BITUMINOUS	V-DRIV	Parameter 1	Parameter 2	Parameter 2
EDC*	<default>	<default>	EDGE DRIVE REINF CONCRETE	V-DRIV	Parameter 1	Parameter 2	Parameter 2
EDD*	<default>	<default>	EDGE DRIVE DIRT	V-DRIV	Parameter 1	Parameter 2	Parameter 2
EDS*	<default>	<default>	EDGE DRIVE STAB	V-DRIV	Parameter 1	Parameter 2	Parameter 2
EL*	<default>	<default>	ELECTRIC LINE	V-POWR	Parameter 1	Parameter 2	Parameter 2
EM*	PTC_ELEC METER	FULL DESCRIPTION ONLY	ELECTRIC METER	V-POWR	Parameter 1	Parameter 2	Parameter 2
EP*	PTC_UTIL POLE	FULL DESCRIPTION ONLY	ELECTRIC POLE	V-POWR	Parameter 1	Parameter 2	Parameter 2
ER*	<default>	<default>	EDGE ROAD	V-ROAD	Parameter 1	Parameter 2	Parameter 2
ERB*	<default>	<default>	EDGE ROAD BITUMINOUS	V-ROAD	Parameter 1	Parameter 2	Parameter 2
ERC*	<default>	<default>	EDGE ROAD CONCRETE	V-ROAD	Parameter 1	Parameter 2	Parameter 2



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ERD*	<default>	<default>	EDGE ROAD DIRT	V-ROAD	Parameter 1	Parameter 2	Parameter 2
EROCK*	<default>	<default>	EXPOSED ROCK	V-TOPO	Parameter 1	Parameter 2	Parameter 2
EROCKL*	<default>	<default>	EXPOSED ROCK	V-TOPO	Parameter 1	Parameter 2	Parameter 2
ERS*	<default>	<default>	EDGE ROAD STABALIZED	V-ROAD	Parameter 1	Parameter 2	Parameter 2
ES*	<default>	<default>	EDGE SHOULDER	V-ROAD	Parameter 1	Parameter 2	Parameter 2
ESB*	<default>	<default>	EDGE SHOULDER BITUMINOUS	V-ROAD	Parameter 1	Parameter 2	Parameter 2
ESC*	<default>	<default>	EDGE SHOULDER CONCRETE	V-ROAD	Parameter 1	Parameter 2	Parameter 2
ESD*	<default>	<default>	EDGE SHOULDER DIRT	V-ROAD	Parameter 1	Parameter 2	Parameter 2
ESS*	<default>	<default>	EDGE SHOULDER STABALIZED	V-ROAD	Parameter 1	Parameter 2	Parameter 2
FEN*	<default>	<default>	FENCE	V-TOPO	Parameter 1	Parameter 2	Parameter 2
FH*	PTC_FIRE HYDRANT EXST	FULL DESCRIPTION ONLY	FIRE HYDRANT	V-WATR	Parameter 1	Parameter 2	Parameter 2
FIE*	<default>	<default>	FIELD	V-TOPO	Parameter 1	Parameter 2	Parameter 2
FIEL*	<default>	<default>	FIELD	V-TOPO	Parameter 1	Parameter 2	Parameter 2
FOE*	<default>	<default>	FIBER OPTIC OVERHEAD	V-TOPO	Parameter 1	Parameter 2	Parameter 2
FOU*	<default>	<default>	FIBER OPTIC UG	V-TOPO	Parameter 1	Parameter 2	Parameter 2
GAB*	<default>	<default>	GABIONS	V-TOPO	Parameter 1	Parameter 2	Parameter 2
GAR*	<default>	<default>	GARAGE	V-BLDG	Parameter 1	Parameter 2	Parameter 2
GARBR*	<default>	<default>	GARAGE BRICK	V-BLDG	Parameter 1	Parameter 2	Parameter 2
GARCB*	<default>	<default>	GARAGE CONC BLOCK	V-BLDG	Parameter 1	Parameter 2	Parameter 2
GARF*	<default>	<default>	GARAGE FRAMED	V-BLDG	Parameter 1	Parameter 2	Parameter 2
GARSID*	<default>	<default>	GARAGE SIDING	V-BLDG	Parameter 1	Parameter 2	Parameter 2



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GATE*	<default>	<default>	GATE	V-TOPO	Parameter 1	Parameter 2	Parameter 2
GI*	<default>	<default>	GAS ISLAND	V-PETRO	Parameter 1	Parameter 2	Parameter 2
GL*	<default>	<default>	GAS LINE	V-NGAS	Parameter 1	Parameter 2	Parameter 2
GLM*	<default>	<default>	GAS LINE MARKER	V-NGAS	Parameter 1	Parameter 2	Parameter 2
GM*	PTC_CONC MONUMENT	FULL DESCRIPTION ONLY	GEOD MONUMENT	V-SURV	Parameter 1	Parameter 2	Parameter 2
GMR*	PTC_GAS METER	FULL DESCRIPTION ONLY	GAS METER	V-NGAS	Parameter 1	Parameter 2	Parameter 2
GR*	<default>	<default>	GUIDE RAIL	V-GRAL	Parameter 1	Parameter 2	Parameter 2
GRA*	<default>	<default>	GRASS	V-TOPO	Parameter 1	Parameter 2	Parameter 2
GRS*	<default>	<default>	GUIDE RAIL STRONG POST	V-GRAL	Parameter 1	Parameter 2	Parameter 2
GRW*	<default>	<default>	GUIDE RAIL WEAK POST	V-GRAL	Parameter 1	Parameter 2	Parameter 2
GUY*	PTC_GUY WIRE ANCHOR	FULL DESCRIPTION ONLY	GUY	V-UTIL	Parameter 1	Parameter 2	Parameter 2
GUYA*	PTC_GUY WIRE ANCHOR	FULL DESCRIPTION ONLY	GUY AERIAL	V-UTIL	Parameter 1	Parameter 2	Parameter 2
GUYP*	PTC_GUY POLE	FULL DESCRIPTION ONLY	GUY POLE	V-UTIL	Parameter 1	Parameter 2	Parameter 2
GV*	PTC_GAS VALVE	FULL DESCRIPTION ONLY	GAS VALVE	V-NGAS	Parameter 1	Parameter 2	Parameter 2
GVCS*	PTC_GAS VALVE	FULL DESCRIPTION ONLY	GAS VALVE CURB STOP	V-NGAS	Parameter 1	Parameter 2	Parameter 2



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GW*	<default>	<default>	GAS WELL	V-NGAS	Parameter 1	Parameter 2	Parameter 2
HED*	<default>	<default>	HEDGE	V-VEGE	Parameter 1	Parameter 2	Parameter 2
HT*	<default>	<default>	HUB TACK	V-SURV	Parameter 1	Parameter 2	Parameter 2
HW*	PTC_HEADWALL	FULL DESCRIPTION ONLY	HEAD WALL	V-STRM	Parameter 1	Parameter 2	Parameter 2
IO*	<default>	<default>	IN OUTLET	V-STRM	Parameter 1	Parameter 2	Parameter 2
IP*	PTC_IRON PIN	FULL DESCRIPTION ONLY	IRON PIN	V-SURV	Parameter 1	Parameter 2	Parameter 2
IPP*	PTC_IRON PIPE	FULL DESCRIPTION ONLY	IRON PIPE	V-SURV	Parameter 1	Parameter 2	Parameter 2
JB*	<default>	<default>	JUNCTION BOX	V-UTIL	Parameter 1	Parameter 2	Parameter 2
JBL*	<default>	<default>	JUNCTION BOX LINE	V-UTIL	Parameter 1	Parameter 2	Parameter 2
LAKE*	<default>	<default>	LAKE	V-WWAY	Parameter 1	Parameter 2	Parameter 2
LDE*	<default>	<default>	LEVEE DIKE	V-WWAY	Parameter 1	Parameter 2	Parameter 2
LP*	PTC_LIGHT POST	FULL DESCRIPTION ONLY	LIGHT POST	V-UTIL	Parameter 1	Parameter 2	Parameter 2
MAC*	<default>	<default>	MACADAM	V-TOPO	Parameter 1	Parameter 2	Parameter 2
MAG*	<default>	<default>	MAG NAIL	V-SURV	Parameter 1	Parameter 2	Parameter 2
MB*	PTC_MAILBOX	FULL DESCRIPTION ONLY	MAILBOX	V-TOPO	Parameter 1	Parameter 2	Parameter 2
MC*	PTC_ELEC MH	FULL DESCRIPTION ONLY	MAINTENANCE HOLE COVER	V-UTIL	Parameter 1	Parameter 2	Parameter 2



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MCEL*	PTC_ELEC MH	FULL DESCRIPTION ONLY	MAINTENANCE HOLE COVER ELECTRIC	V-POWR	Parameter 1	Parameter 2	Parameter 2
MCG*	PTC_GAS MH	FULL DESCRIPTION ONLY	MAINTENANCE HOLE COVER GAS	V-NGAS	Parameter 1	Parameter 2	Parameter 2
MCSAN*	PTC_SSWR MH	FULL DESCRIPTION ONLY	MAINTENANCE HOLE COVER SANITARY SEWER	V-SSWR	Parameter 1	Parameter 2	Parameter 2
MCSS*	PTC_STRM MH	FULL DESCRIPTION ONLY	MAINTENANCE HOLE COVER STORM SEWER	V-STRM	Parameter 1	Parameter 2	Parameter 2
MCT*	PTC_TELE MH	FULL DESCRIPTION ONLY	MAINTENANCE HOLE COVER TELEPHONE	V-TELP	Parameter 1	Parameter 2	Parameter 2
ML*	<default>	<default>	MUN LINE	V-BNDY	Parameter 1	Parameter 2	Parameter 2
MTC*	<default>	<default>	MOUNTABLE CURB	V-ROAD	Parameter 1	Parameter 2	Parameter 2
NAIL*	PTC_NAIL	FULL DESCRIPTION ONLY	NAIL	V-SURV	Parameter 1	Parameter 2	Parameter 2
OF*	<default>	<default>	OUT FIREPLACE	V-BLDG	Parameter 1	Parameter 2	Parameter 2
OG*	<default>	<default>	OLD GROUND	V-TOPO	Parameter 1	Parameter 2	Parameter 2
OGTC*	<default>	<default>	OIL GAS T C	V-UTIL	Parameter 1	Parameter 2	Parameter 2
OHW*	<default>	<default>	OVERHEAD WIRE	V-UTIL	Parameter 1	Parameter 2	Parameter 2
OR*	<default>	<default>	OVERHANG ROOF	V-BLDG	Parameter 1	Parameter 2	Parameter 2
PARCH*	<default>	<default>	ARCH PIPE	V-STRM	Parameter 1	Parameter 2	Parameter 2
PCC*	<default>	<default>	POINT OF COMPOUND CURVE	V-SURV	Parameter 1	Parameter 2	Parameter 2
PERC*	<default>	<default>	PERC HOLE	V-SSWR	Parameter 1	Parameter 2	Parameter 2



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PET*	<default>	<default>	PETROLEUM UG	V-TOPO	Parameter 1	Parameter 2	Parameter 2
PI*	<default>	<default>	POINT OF INTERSECTION	V-SURV	Parameter 1	Parameter 2	Parameter 2
PIER*	<default>	<default>	PIER	V-BRDG	Parameter 1	Parameter 2	Parameter 2
PIPE*	<default>	<default>	PIPE	V-STRM	Parameter 1	Parameter 2	Parameter 2
PKN*	PTC_NAIL	FULL DESCRIPTION ONLY	P K NAIL	V-SURV	Parameter 1	Parameter 2	Parameter 2
PL*	<default>	<default>	PARKING LOT	V-PRKG	Parameter 1	Parameter 2	Parameter 2
PLA*	<default>	<default>	PLANTER	V-VEGE	Parameter 1	Parameter 2	Parameter 2
PLAN*	<default>	<default>	SURVEY CONTROL PLAN STATION	V-SURV	Parameter 1	Parameter 2	Parameter 2
PLUG*	<default>	<default>	LEAD PLUG	V-SURV	Parameter 1	Parameter 2	Parameter 2
PM*	<default>	<default>	PARKING METER	V-PRKG	Parameter 1	Parameter 2	Parameter 2
POC*	<default>	<default>	POINT ON CURVE	V-SURV	Parameter 1	Parameter 2	Parameter 2
POND*	<default>	<default>	POND	V-WWAY	Parameter 1	Parameter 2	Parameter 2
POOL*	<default>	<default>	POOL	V-WATR	Parameter 1	Parameter 2	Parameter 2
POP*	PTC_SIGN SNGL POST	FULL DESCRIPTION ONLY	POLE POST	V-TOPO	Parameter 1	Parameter 2	Parameter 2
POR*	<default>	<default>	PORCH	V-BLDG	Parameter 1	Parameter 2	Parameter 2
POST*	<default>	<default>	POINT OF SUBTANGENT	V-SURV	Parameter 1	Parameter 2	Parameter 2
POT*	<default>	<default>	POINT ON TANGENT	V-SURV	Parameter 1	Parameter 2	Parameter 2
PRC*	<default>	<default>	POINT OF REVERSE CURVE	V-SURV	Parameter 1	Parameter 2	Parameter 2



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PRP*	PTC_SIGN SNGL POST	FULL DESCRIPTION ONLY	PRIVATE POLE	V-UTIL	Parameter 1	Parameter 2	Parameter 2
PTAN*	<default>	<default>	POINT OF TANGENCY	V-SURV	Parameter 1	Parameter 2	Parameter 2
PTOC*	<default>	<default>	POINT OF CURVE	V-SURV	Parameter 1	Parameter 2	Parameter 2
RED*	<default>	<default>	RED	V-SURV	Parameter 1	Parameter 2	Parameter 2
REG*	<default>	<default>	REGULAR POINT	V-TOPO	Parameter 1	Parameter 2	Parameter 2
RIV*	<default>	<default>	RIVER	V-WWAY	Parameter 1	Parameter 2	Parameter 2
RL*	<default>	<default>	ROCK LINING	V-WWAY	Parameter 1	Parameter 2	Parameter 2
RRS*	PTC_RR SPIKE	FULL DESCRIPTION ONLY	RAILROAD SPIKE	V-SURV	Parameter 1	Parameter 2	Parameter 2
SBL*	<default>	<default>	SURVEY BASELINE	V-SURV	Parameter 1	Parameter 2	Parameter 2
SC*	<default>	<default>	SPIRAL TO CURVE	V-SURV	Parameter 1	Parameter 2	Parameter 2
SCL*	<default>	<default>	SURVEY CENTERLINE	V-SURV	Parameter 1	Parameter 2	Parameter 2
SCO*	PTC_CLEANOUT	FULL DESCRIPTION ONLY	SEWER CLEAN OUT	V-SSWR	Parameter 1	Parameter 2	Parameter 2
SET*	<default>	<default>	SEPTIC TANK	V-SSWR	Parameter 1	Parameter 2	Parameter 2
SHED*	<default>	<default>	OUT BUILDING	V-BLDG	Parameter 1	Parameter 2	Parameter 2
SHR*	PTC_SHRUB	FULL DESCRIPTION ONLY	SHRUB	V-VEGE	Parameter 1	Parameter 2	Parameter 2
SHRE*	PTC_SHRUB	FULL DESCRIPTION ONLY	SHRUB	V-VEGE	Parameter 1	Parameter 2	Parameter 2
SIDEWALK*	<default>	<default>	BUILDING SIDEWALK	V-BLDG	Parameter 1	Parameter 2	Parameter 2



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SIGN*	PTC_SIGN SNGL POST	FULL DESCRIPTION ONLY	SIGN	V-TOPO	Parameter 1	Parameter 2	Parameter 2
SIGNL*	PTC_SIGN SNGL POST	FULL DESCRIPTION ONLY	SIGN	V-TOPO	Parameter 1	Parameter 2	Parameter 2
SILO*	<default>	<default>	SILO	V-BLDG	Parameter 1	Parameter 2	Parameter 2
SL*	<default>	<default>	SANI LINE	V-SSWR	Parameter 1	Parameter 2	Parameter 2
SM*	PTC_STONE MONUMENT	FULL DESCRIPTION ONLY	STONE MONUMENT	V-SURV	Parameter 1	Parameter 2	Parameter 2
SND*	<default>	<default>	WATERWAY SOUNDING	V-WWAY	Parameter 1	Parameter 2	Parameter 2
SPR*	<default>	<default>	SPRING	V-WATR	Parameter 1	Parameter 2	Parameter 2
SR*	<default>	<default>	STONE ROW	V-TOPO	Parameter 1	Parameter 2	Parameter 2
STA*	<default>	<default>	STABILIZED	V-TOPO	Parameter 1	Parameter 2	Parameter 2
STAN*	<default>	<default>	SPIRAL TO TANGENT	V-SURV	Parameter 1	Parameter 2	Parameter 2
STEP*	<default>	<default>	STEPS	V-BLDG	Parameter 1	Parameter 2	Parameter 2
STEPSBR*	<default>	<default>	STEPS BRICK	V-BLDG	Parameter 1	Parameter 2	Parameter 2
STEPSC*	<default>	<default>	STEPS CONCRETE	V-BLDG	Parameter 1	Parameter 2	Parameter 2
STEPSM*	<default>	<default>	STEPS METAL	V-BLDG	Parameter 1	Parameter 2	Parameter 2
STEPSW*	<default>	<default>	STEPS WOOD	V-BLDG	Parameter 1	Parameter 2	Parameter 2
STKE*	<default>	<default>	STAKEOUT	V-CTRL-NODE-SHOT	Parameter 1	Parameter 2	Parameter 2
STP*	<default>	<default>	SOIL TEST PIT	V-SSWR	Parameter 1	Parameter 2	Parameter 2
STR*	<default>	<default>	STREAM	V-WWAY	Parameter 1	Parameter 2	Parameter 2



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STU*	<default>	<default>	STUMP	V-VEGE	Parameter 1	Parameter 2	Parameter 2
SV*	<default>	<default>	SEWER VENT	V-SSWR	Parameter 1	Parameter 2	Parameter 2
SW*	<default>	<default>	SIDEWALK CONCRETE	V-BLDG	Parameter 1	Parameter 2	Parameter 2
SWB*	<default>	<default>	SIDEWALK BITUMINUS	V-BLDG	Parameter 1	Parameter 2	Parameter 2
SWBR*	<default>	<default>	SIDEWALK BRICK	V-BLDG	Parameter 1	Parameter 2	Parameter 2
SWC*	<default>	<default>	SIDEWALK CONCRETE	V-BLDG	Parameter 1	Parameter 2	Parameter 2
SWL*	<default>	<default>	TRAFFIC MARKING SINGLE WHITE LINE	V-ROAD	Parameter 1	Parameter 2	Parameter 2
SWS*	<default>	<default>	SIDEWALK STONE	V-BLDG	Parameter 1	Parameter 2	Parameter 2
SYL*#	<default>	<default>	TRAFFIC MARKING SINGLE YELLOW LINE	V-ROAD	Parameter 1	Parameter 2	Parameter 2
TABUT*	<default>	<default>	BRIDGE TOP ABUTMENT	V-BRDG	Parameter 1	Parameter 2	Parameter 2
TANK*	<default>	<default>	ABOVE GROUND TANK	V-BLDG	Parameter 1	Parameter 2	Parameter 2
TAW*	<default>	<default>	TOP OF WING	V-BRDG	Parameter 1	Parameter 2	Parameter 2
TB*	<default>	<default>	TOP BANK	V-TOPO	Parameter 1	Parameter 2	Parameter 2
TCB*	<default>	<default>	TOP CURB BITUMINOUS	V-ROAD	Parameter 1	Parameter 2	Parameter 2
TCC*	<default>	<default>	TOP CURB CONCRETE	V-ROAD	Parameter 1	Parameter 2	Parameter 2
TCSTN*	<default>	<default>	TOP CURB CUT STONE	V-ROAD	Parameter 1	Parameter 2	Parameter 2
TEP*	<default>	<default>	TELEPHONE POLE	V-TELP	Parameter 1	Parameter 2	Parameter 2
THW*	<default>	<default>	TOP OF HEADWALL	V-TOPO	Parameter 1	Parameter 2	Parameter 2
TJBAR*	<default>	<default>	TOP JERSEY BARRIER	V-ROAD	Parameter 1	Parameter 2	Parameter 2
TL*	<default>	<default>	TELEPHONE LINE	V-TELP	Parameter 1	Parameter 2	Parameter 2



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TLM*	PTC_TELE LINE MARKER	FULL DESCRIPTION ONLY	TELEPHONE LINE MARKER	V-TELP	Parameter 1	Parameter 2	Parameter 2
TP*	<default>	<default>	TRAVERSE POINT	V-SURV	Parameter 1	Parameter 2	Parameter 2
TPAR*	<default>	<default>	BRIDGE TOP PARPET	V-BRDG	Parameter 1	Parameter 2	Parameter 2
TPE*	<default>	<default>	TRAVERSE POINT	V-SURV	Parameter 1	Parameter 2	Parameter 2
TPED*	<default>	<default>	BRIDGE TOP OF PEDISTAL	V-BRDG	Parameter 1	Parameter 2	Parameter 2
TPIER*	<default>	<default>	BRIDGE TOP OF PIER	V-BRDG	Parameter 1	Parameter 2	Parameter 2
TPL*	<default>	<default>	TRAVERSE POINT	V-SURV	Parameter 1	Parameter 2	Parameter 2
TPOR*	<default>	<default>	TOP PORCH	V-BLDG	Parameter 1	Parameter 2	Parameter 2
TPORBR*	<default>	<default>	TOP PORCH BRICK	V-BLDG	Parameter 1	Parameter 2	Parameter 2
TPORC*	<default>	<default>	TOP PORCH CONCRETE	V-BLDG	Parameter 1	Parameter 2	Parameter 2
TPORW*	<default>	<default>	TOP PORCH WOOD	V-BLDG	Parameter 1	Parameter 2	Parameter 2
TR*	<default>	<default>	TOP RAIL	V-RAIL	Parameter 1	Parameter 2	Parameter 2
TRDBLYL*	<default>	<default>	TRAFFIC MARKING DOUBLE YELLOW LINE	V-ROAD	Parameter 1	Parameter 2	Parameter 2
TRDWL*	<default>	<default>	TRAFFIC MARKING DASHED WHITE LINE	V-ROAD	Parameter 1	Parameter 2	Parameter 2
TRDYL*	<default>	<default>	TRAFFIC MARKING DASHED YELLOW LINE	V-ROAD	Parameter 1	Parameter 2	Parameter 2
TREE*	PTC_TREE CONIFEROUS	FULL DESCRIPTION ONLY	TREE	V-VEGE	Parameter 1	Parameter 2	Parameter 2
TREEG*	PTC_TREE DECIDUOUS	FULL DESCRIPTION ONLY	TREE EVERGREEN	V-VEGE	Parameter 1	Parameter 2	Parameter 2



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TREER*	<default>	<default>	TREE ROW	V-VEGE	Parameter 1	Parameter 2	Parameter 2
TRPL*	<default>	<default>	TRAFFIC PAINT LINE	V-ROAD	Parameter 1	Parameter 2	Parameter 2
TRS*	<default>	<default>	TRAFFIC SIGNAL	V-TRAF	Parameter 1	Parameter 2	Parameter 2
TRSW*	<default>	<default>	TRAFFIC MARKING SINGLE WHITE LINE	V-ROAD	Parameter 1	Parameter 2	Parameter 2
TRSYL*	<default>	<default>	TRAFFIC MARKING SINGLE YELLOW LINE	V-ROAD	Parameter 1	Parameter 2	Parameter 2
TS*	<default>	<default>	TANGENT TO SPIRAL	V-SURV	Parameter 1	Parameter 2	Parameter 2
TSC*	PTC_TRAFFIC CONTROL BOX	FULL DESCRIPTION ONLY	TRAFFIC SIGNAL CONTROLLER CABINET	V-UTIL	Parameter 1	Parameter 2	Parameter 2
TVL*	<default>	<default>	TV LINE	V-CATV	Parameter 1	Parameter 2	Parameter 2
TW*	<default>	<default>	TOP OF WALL	V-TOPO	Parameter 1	Parameter 2	Parameter 2
TWC*	<default>	<default>	TOP CONCRETE BLOCK WALL	V-TOPO	Parameter 1	Parameter 2	Parameter 2
TWS*	<default>	<default>	TOP STONE WALL	V-TOPO	Parameter 1	Parameter 2	Parameter 2
TWW*	<default>	<default>	TOP WOOD WALL	V-TOPO	Parameter 1	Parameter 2	Parameter 2
UEL*	<default>	<default>	UNDERGROUND ELECTRIC LINE	V-POWR	Parameter 1	Parameter 2	Parameter 2
UTILP*	PTC_UTIL POLE	FULL DESCRIPTION ONLY	UTILITY POLE	V-UTIL	Parameter 1	Parameter 2	Parameter 2
UTL*	<default>	<default>	UNDERGROUND TELEPHONE LINE	V-TELP	Parameter 1	Parameter 2	Parameter 2
UTVL*	<default>	<default>	UNDERGROUND TV LINE	V-CATV	Parameter 1	Parameter 2	Parameter 2
WAT*	<default>	<default>	WATER	V-WWAY	Parameter 1	Parameter 2	Parameter 2
WD*	<default>	<default>	WETLAND DELINEATION	V-VEGE	Parameter 1	Parameter 2	Parameter 2



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WDE*	<default>	<default>	WETLAND DELINEATION	V-VEGE	Parameter 1	Parameter 2	Parameter 2
WDS*	<default>	<default>	EDGE OF WOODS	V-TOPO	Parameter 1	Parameter 2	Parameter 2
WELL*	PTC_WELL	FULL DESCRIPTION ONLY	WELL	V-WATR	Parameter 1	Parameter 2	Parameter 2
WG*	<default>	<default>	WHEEL GUARD	V-BRDG	Parameter 1	Parameter 2	Parameter 2
WH*	<default>	<default>	WELL HOUSE	V-BLDG	Parameter 1	Parameter 2	Parameter 2
WIS*	<default>	<default>	W I SPIKE	V-SURV	Parameter 1	Parameter 2	Parameter 2
WL*	<default>	<default>	WATER LINE	V-WATR	Parameter 1	Parameter 2	Parameter 2
WLM*	PTC_WATR MARKOUT	FULL DESCRIPTION ONLY	WATER LINE MARKER	V-WATR	Parameter 1	Parameter 2	Parameter 2
WM*	PTC_WATR METER	FULL DESCRIPTION ONLY	WATER METER	V-WATR	Parameter 1	Parameter 2	Parameter 2
WR*	<default>	<default>	WOODS ROW	V-VEGE	Parameter 1	Parameter 2	Parameter 2
WSR*	<default>	<default>	WALLS	V-TOPO	Parameter 1	Parameter 2	Parameter 2
WV*	PTC_WATR VALVE	FULL DESCRIPTION ONLY	WATER VALVE	V-WATR	Parameter 1	Parameter 2	Parameter 2



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14.10.2 ORD FEATURE CODE SET

Code	Description
CODE	BRIDGE
BRBS	BRIDGE BEAM SEAT
BRABUT	BRIDGE BTM ABUTEMENT
BRBEAM	BRIDGE BTM BEAM
BRBC	BRIDGE BTM CURB
BRPAR	BRIDGE BTM PARAPET
BRPED	BRIDGE BTM PEDESTAL
BRPIER	BRIDGE BTM PIER
BRAW	BRIDGE BTM WING
BRCR	BRIDGE CROWN ROAD
BRDJT	BRIDGE DECK JOINT
BRDK	BRIDGE DECK (AM)
BRFT	BRIDGE FOOTER
BRLC	BRIDGE LOW CHORD
BRSW	BRIDGE SIDEWALK
BRSCUP	BRIDGE SCUPPER
TABUT	BRIDGE TOP ABUTMENT
BRTC	BRIDGE TOP CURB
TPAR	BRIDGE TOP PARAPET
TPED	BRIDGE TOP PEDESTAL
TPIER	BRIDGE TOP PIER
TAW	BRIDGE TOP WING
BRWG	BRIDGE WHEEL GUARD
CODE	BUILDING SITE
BOL	BOLLARD
BUI	BUILDING (AM)
BUIC	BLDG CORNER (AM)
COL	COLUMN
FFE	FINISH FLOOR ELEV
GARAGE	GARAGE (AM)
OR	OVERHANG ROOF
POR	PORCH (AM)
SHED	OUT BUILDING (AM)
SILO	SILO
STEPS	STEPS (AM)

Code	Description
SW	SIDEWALK (AM)
Code	Description
CODE	CABLE TV
CLM	CABLE LINE MARKER(AN)
CPED	CABLE PEDESTAL(AN)
MHC	MANHOLE CABLETV (AIM)
MOC	MARKOUT CABLETV (AIM)
OHC	OVERHEAD CABLE LINE
CODE	ELECTRICAL
EBX	ELEC BOX (AN)
EMR	ELEC METER
EP	ELEC POLE (AN)
EVL	ELEC VAULT (AN)
MHE	MANHOLE ELEC (AIM/AN)
MOE	MARKOUT ELEC (AST)
OHE	OVERHEAD ELECT LINE
CODE	NATURAL GAS
GLM	GAS LINE MARKER (AN)
GMR	GAS METER
GV	GAS VALVE
GVCS	GAS VALVE CURB STOP
GW	GAS WELL
MHG	MANHOLE GAS (AIM)
MOG	MARKOUT GAS (AST)
CODE	PETROLEUM
GI	GAS ISLAND
PLM	PETROLEUM LINE MARKER (AN)
AST	ABOVE GROUND STORAGE TANK
UST	UNDERGROUND STORAGE TANK
CODE	RAILROAD
RRB	BTM BALLAST
RRT	TOP BALLAST
CAT	CATINARY POLE
CG	CROSS GATE
CROS	CROSS SIGN
CRS	CR SIGNAL
CLRR	CENTERLINE TRACK



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Code	Description
FROG	FROG
RRSW	RAILROAD SWITCH
TRR	TOP RR TRACK
CODE	ROADWAY
BC	BTM CURB
BCBAR	BTM CONCRETE BARRIER (ASD)
CBX	CALL BOX (AN)
CL	CENTERLINE
CR	CROWN ROAD
DYL	DOUBLE YELLOW LINE
ER	EDGE ROADWAY
ES	EDGE SHOULDER (AM)
FPL	FLAG PERSON LOCATION
GRATT	GUIDERAIL ATTENUATOR
GR	GUIDE RAIL FACE(AM)
IATT	IMPACT ATTENUATOR
RK	ROAD KILL
SWL	SINGLE WHILE LINE
SYL	SINGLE YELLOW LINE
SKL	SKIP LINE
TCD	TEMP CHANNELIZING DEVICE
TCS	TEMP CONST SIGN
TC	TOP CURB
TCBAR	TOP CONCRETE BARRIER (ASD)
TR	TOP OF REVEAL
CODE	SANITARY SEWER
CO	CLEANOUT
DF	DRAINFIELD
MHSAN	MANHOLE SAN SEWER (AIM)
MOSAN	MARKOUT SAN SEWER (AST)
PERC	PERC HOLE
SET	SEPTIC TANK
SM	SAND MOUND
SL	SANITARY LINE (AST)
STP	SOIL TEST PIT
CODE	STORM WATER

Code	Description
AD	AREA DRAIN
BHW	BTM HEAD WALL (AM)
FES	FLARED END SECTION
INL	INLET (AST/AIM)
INV	INVERT (AIM)
LOD	LIMIT OF DISTURBANCE
MHSS	MANHOLE STORM SEWER (AIM)
MOSS	MARKOUT STORM SEWER (AST)
RRP	RIP-RAP
SF	SILT FENCE
THW	TOP HEAD WALL (AM)
TOP	TOP PIPE (AIM)
CODE	SURVEY
AXLE	AXLE
SPK	BARN SPIKE
BM	BENCH MARK
CHK	CHECK BSHOT
CM	CONC MONUMENT
CN	CONC NAIL
DSC	DISK
DH	DRILL HOLE
HT	HUB TACK
IP	IRON PIN
IPP	IRON PIPE
MAG	MAG NAIL
NAIL	NAIL
PKN	P K NAIL
REBAR	REBAR
RWC	REBAR W/CAP
RRS	RR SPIKE
STK	STAKE
STFEN	STONE FENCE
STONE	STONE MONUMENT
CODE	TELEPHONE
MHT	MANHOLE TELEPHONE (AIM)
MOT	MARKOUT TELEPHONE (AST)



Project Information Modeling Standards Appendix

Code	Description
OHT	OVERHEAD TELEPHONE
TELPED	TELEPHONE PEDISTAL (AN)
TEP	TELEPHONE POLE (AN)
TLM	TELEPHONE LINE MARKER(AN)
CODE	TOPO
BIL	BILLBOARD (AM)
BB	BTM BANK
BOR	BORING
BRE	BREAKLINE
BW	BTM WALL (AM)
CAN	CANAL
CONC	CONCRETE
CRE	CREEK
DEL	DELINATOR POST (AN)
DIT	DITCH
DITCL	DITCH CENTERLINE
ED	EDGE DRIVE (AM)
FEN	FENCE LINE (AM)
FENRW	FENCE RIGHT-OF-WAY (AM)
FNP	FENCE POST (AM)
FIE	FIELD
FP	FLAG POLE
FL	FLOWLINE
GATE	GATE (AM)
LAKE	LAKE
MAC	MACADAM
MB	MAILBOX (AM)
PS	PARKING STRIPE
POND	POND
PST	POST (AM)
REG	GROUND SHOT
RIV	RIVER
SIGN	SIGN (AM)
SND	WATERWAY SOUNDING
SR	STONE ROW (AM)

Code	Description
STR	STREAM
TB	TOP BANK
TW	TOP WALL (AM)
WAT	WATER
CODE	TRAFFIC
LOOP	LOOP DETECTOR
TCAM	TRAFFIC CAMERA
TRM	TRAFFIC SIGNAL MAST
TRS	TRAFFIC SIGNAL POLE
TSCB	TRAFFIC SIGNAL CONTROL BOX
VMS	VARIABLE MESSAGE SIGN
CODE	UTILITIES
CTRAY	CABLE TRAY
CT	CELL TOWER
GUYA	GUY WIRE ANCHOR
GUYP	GUY POLE (AN)
JB	JUNCTION BOX (AN)
LP	LIGHT POST (AN)
LS	LIGHT STANDARD (AN)
MT	MICROWAVE TOWER (AN)
OHW	OVER HEAD WIRE
UP	UTILITY POLE (AN)
CODE	VEGETATION
EW	EDGE OF WOODS
HED	HEDGE (AST)
LSA	LANDSCAPE AREA
SHR	SHRUB (AST)
TREEC	TREE CONIFEROUS (AST)
TREED	TREE DECIDUOUS (AST)
TREER	TREE ROW (AST)
WET	WETLAND FLAG (AN)
WETP	WETLAND PROBE (AN)
WL	WOOD LINE
CODE	WATER
CIST	CISTERN
FH	FIRE HYDR



Project Information Modeling Standards Appendix

Code	Description
MHW	MANHOLE WATER (AIM)
MOW	MARKOUT WATER (AST)
MW	MONITORING WELL
POOL	POOL
SPR	SPRING
WELL	WELL
WLM	WATER LINE MARKER (AN)
WM	WATER METER
WT	WATER TOWER (AN)
WV	WATER VALVE
WVCS	WATER VALVE CURB STOP
NOTES:	
(AIM)	ATTRIBUTE INVERT MATERIAL
(AM)	ATTRIBUTE MATERIAL
(AN)	ATTRIBUTE UTILITY NUMBER
(ASD)	ATTRIBUTE SINGLE OR DOUBLE
(AST)	ATTRIBUTE SIZE TYPE
B	BEGIN LINE WORK
E	END LINE WORK
ADD F(FOUND) OR S(SET) AFTER CODE	
ADD DESCRIPTION IN FIELD BOOK FOR CONTROL OR PROPERTY CORNER FOUND OR SET	



14.10.3 CIVIL 3D FIGURE PREFIX DATABASE

Name	Breakline	Lot Line	Layer	Style	Site
BRBS	No	No	V-SURV-FIG-BRBS	PTC BRIDGE	Survey Site
BABUT	No	No	V-SURV-FIG-BRABUT	PTC BRIDGE	Survey Site
BBEAM	No	No	V-SURV-FIG-BRBEAM	PTC BRIDGE	Survey Site
BRBC	No	No	V-SURV-FIG-BRBC	PTC BRIDGE	Survey Site
BPAR	No	No	V-SURV-FIG-BRPAR	PTC BRIDGE	Survey Site
BRPED	No	No	V-SURV-FIG-BRPED	PTC BRIDGE	Survey Site
BPIER	No	No	V-SURV-FIG-BRPIER	PTC BRIDGE	Survey Site
BAW	No	No	V-SURV-FIG-BRAW	PTC BRIDGE	Survey Site
BRCR	No	No	V-SURV-FIG-BRCR	PTC BRIDGE	Survey Site
BRDJT	No	No	V-SURV-FIG-BRDJT	PTC BRIDGE	Survey Site
BRDK	No	No	V-SURV-FIG-BRDK	PTC BRIDGE	Survey Site
BRFT	No	No	V-SURV-FIG-BRFT	PTC BRIDGE	Survey Site
BRLC	No	No	V-SURV-FIG-BRCL	PTC BRIDGE	Survey Site
BRSW	No	No	V-SURV-FIG-BRSW	PTC BRIDGE	Survey Site
BRSCUP	No	No	V-SURV-FIG-BRSCUP	PTC BRIDGE	Survey Site
TABUT	No	No	V-SURV-FIG-TABUT	PTC BRIDGE	Survey Site
BRTC	No	No	V-SURV-FIG-BRTC	PTC BRIDGE	Survey Site
TPAR	No	No	V-SURV-FIG-TPAR	PTC BRIDGE	Survey Site
TPIER	No	No	V-SURV-FIG-TPIER	PTC BRIDGE	Survey Site
TAW	No	No	V-SURV-FIG-TAW	PTC BRIDGE	Survey Site
BUI	No	No	V-SURV-FIG-BUI	PTC BUILDING	Survey Site
GAR	No	No	V-SURV-FIG-GARAGE	PTC BUILDING	Survey Site
OR	No	No	V-SURV-FIG-OR	PTC BUILDING ROOF	Survey Site
POR	No	No	V-SURV-FIG-POR	PTC BUILDING PORCH	Survey Site
SHED	No	No	V-SURV-FIG-SHED	PTC_STANDARD	Survey Site
STEP	No	No	V-SURV-FIG-STEPS	PTC_STANDARD	Survey Site
SW	No	No	V-SURV-FIG-SW	PTC SIDEWALK	Survey Site
CLM	No	No	V-SURV-FIG-CLM	PTC CABLE LINE	Survey Site
OHC	No	No	V-SURV-FIG-OHC	PTC OV CABLE LINE	Survey Site
OHE	No	No	V-SURV-FIG-OHE	PTC OV ELEC	Survey Site
GL	No	No	V-SURV-FIG-GLM	PTC GAS LINE	Survey Site
GI	No	No	V-SURV-FIG-GI	PTC_STANDARD	Survey Site
PLM	No	No	V-SURV-FIG-PLM	PTC PETROLEUM LINE	Survey Site
CT	No	No	V-SURV-FIG-CLRR	PTC CL RAILROAD	Survey Site
TRR	No	No	V-SURV-FIG-TRR	PTC_STANDARD	Survey Site
BC	No	No	V-SURV-FIG-BC	PTC_STANDARD	Survey Site
BCBAR	No	No	V-SURV-FIG-BCBAR	PTC_STANDARD	Survey Site
CL	No	No	V-SURV-FIG-CL	PTC CENTERLINE	Survey Site
CR	No	No	V-SURV-FIG-CR	PTC CENTERLINE	Survey Site
DYL	No	No	V-SURV-FIG-DYL	PTC DOUBLE YELLOWLINE	Survey Site



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ER	No	No	V-SURV-FIG-ER	PTC EDGE ROADWAY	Survey Site
ES	Yes	No	V-SURV-FIG-ES	PTC EDGE SHOULDER	Survey Site
GR	No	No	V-SURV-FIG-GR	PTC GUIDE RAIL	Survey Site
SWL	No	No	V-SURV-FIG-SWL	PTC SINGLE WHITELINE	Survey Site
SYL	No	No	V-SURV-FIG-SYL	PTC SINGLE YELLOWLINE	Survey Site
SKL	No	No	V-SURV-FIG-SKL	PTC SKIPLINE	Survey Site
TC	Yes	No	V-SURV-FIG-TC	PTC TOP OF CURB	Survey Site
SL	No	No	V-SURV-FIG-SL	PTC SANITARY LINE	Survey Site
BHW	No	No	V-SURV-FIG-BHW	PTC_STANDARD	Survey Site
THW	No	No	V-SURV-FIG-THW	PTC_STANDARD	Survey Site
TOP	No	No	V-SURV-FIG-TOP	PTC TOP SD PIPE	Survey Site
STFEN	No	No	V-SURV-FIG-STFEN	PTC STONE FENCE	Survey Site
OHT	No	No	V-SURV-FIG-OHT	PTC OHT	Survey Site
BB	Yes	No	V-SURV-FIG-BB	PTC BTM BANK	Survey Site
BRE	Yes	No	V-SURV-FIG-BRE	PTC_STANDARD	Survey Site
BW	Yes	No	V-SURV-FIG-BW	PTC_STANDARD	Survey Site
CAN	Yes	No	V-SURV-FIG-CAN	PTC WETLAND	Survey Site
DIT	Yes	No	V-SURV-FIG-DIT	PTC DITCH	Survey Site
DITCL	Yes	No	V-SURV-FIG-DITCL	PTC DITCH CL	Survey Site
ED	Yes	No	V-SURV-FIG-ED	PTC EDGE DRIVE	Survey Site
FEN	No	No	V-SURV-FIG-FEN	PTC FENCELINE	Survey Site
FENRW	No	Yes	V-SURV-FIG-FENRW	PTC FENCELINE RW	Survey Site
FL	Yes	No	V-SURV-FIG-FL	PTC FLOWLINE	Survey Site
SR	No	No	V-SURV-FIG-SR	PTC_STANDARD	Survey Site
TB	Yes	No	V-SURV-FIG-TB	PTC TOP BANK	Survey Site
TW	Yes	No	V-SURV-FIG-TW	PTC TOP WALL	Survey Site
OHW	No	No	V-SURV-FIG-OHW	PTC OHW	Survey Site
WDS	No	No	V-SURV-FIG-EW	PTC EDGE WOODS	Survey Site
WL	No	No	V-SURV-FIG-WLM	PTC WATERLINE	Survey Site
TCBAR	No	No	V-SURV-FIG-TCBAR	PTC_STANDARD	Survey Site
BARN	No	No	V-SURV-FIG-BARN	PTC BARN	Survey Site
COS	Yes	No	V-SURV-FIG-CON	PTC CONCRETE	Survey Site
TPOR	Yes	No	V-SURV-FIG-POR	PTC BUILDING PORCH	Survey Site
ML	No	Yes	V-SURV-FIG-ML	PTC MUN LINE	Survey Site
BRI	No	No	V-SURV-FIG-BRIDGE	PTC BRIDGE	Survey Site
TVL	No	No	V-SURV-FIG-CLM	PTC CABLE LINE	Survey Site
UTVL	No	No	V-SURV-FIG-CLM	PTC CABLE LINE	Survey Site
PL	Yes	No	V-SURV-FIG-PL	PTC PARKING	Survey Site
EL	No	No	V-SURV-FIG-ELEC	PTC ELECTRIC	Survey Site
UEL	No	No	V-SURV-FIG-ELEC	PTC ELECTRIC UG	Survey Site
TR	No	No	V-SURV-FIG-CLRR	PTC CL RAILROAD	Survey Site
BCB	Yes	No	V-SURV-FIG-CURB	PTC_STANDARD	Survey Site
BCC	Yes	No	V-SURV-FIG-CURB	PTC_STANDARD	Survey Site



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BCSTN	Yes	No	V-SURV-FIG-CURB	PTC_STANDARD	Survey Site
BJBAR	Yes	No	V-SURV-FIG-BARR	PTC_STANDARD	Survey Site
EC	Yes	No	V-SURV-FIG-EC	PTC_EDGE_CURB	Survey Site
MTC	Yes	No	V-SURV-FIG-CURB	PTC_STANDARD	Survey Site
TCB	Yes	No	V-SURV-FIG-TC	PTC_TOP_OF_CURB	Survey Site
TCC	Yes	No	V-SURV-FIG-TC	PTC_TOP_OF_CURB	Survey Site
TJBAR	No	No	V-SURV-FIG-BARR	PTC_STANDARD	Survey Site
TRPL	No	No	V-SURV-FIG-TRPL	PTC_SINGLE_WHITELINE	Survey Site
BOXCUL	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
PARCH	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
PIPE	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
2	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
4	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
6	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
8	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
10	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
12	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
15	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
18	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
21	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
24	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
27	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
30	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
33	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
36	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
42	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
48	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
54	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
60	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
66	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
72	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
78	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
84	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
90	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
96	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
102	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
108	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
114	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
120	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
126	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
132	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
138	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site
144	No	No	V-SURV-FIG-SD	PTC_TOP_SD_PIPE	Survey Site



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CBL	Yes	No	V-SURV-SURV-FIG-CL	PTC CENTERLINE	Survey Site
SBL	Yes	No	V-SURV-FIG-CL	PTC CENTERLINE	Survey Site
SCL	Yes	No	V-SURV-FIG-CL	PTC CENTERLINE	Survey Site
TL	No	No	V-SURV-FIG-OHT	PTC TELEPHONE	Survey Site
TLM	No	No	V-SURV-FIG-OHT	PTC TELEPHONE	Survey Site
UTL	No	No	V-SURV-FIG-UTL	PTC TELEPHONE	Survey Site
CON	Yes	No	V-SURV-FIG-CON	PTC CONCRETE	Survey Site
WSR	Yes	No	V-SURV-FIG-WALL	PTC TOP WALL	Survey Site
OGTC	No	No	V-SURV-OGTC	PTC GAS LINE	Survey Site
BRL	No	No	V-SURV-FIG-BRL	PTC BRUSH	Survey Site
WR	No	No	V-SURV-FIG-WR	PTC WOODS ROW	Survey Site
CRE	No	No	V-SURV-FIG-CRE	PTC WETLAND	Survey Site
LAKE	Yes	No	V-SURV-FIG-LAKE	PTC WETLAND	Survey Site
LDE	No	No	V-SURV-FIG-LDE	PTC WETLAND	Survey Site
POND	Yes	No	V-SURV-FIG-POND	PTC WETLAND	Survey Site
RIV	Yes	No	V-SURV-FID-RIV	PTC WETLAND	Survey Site
STR	No	No	V-SURV-FIG-STR	PTC WETLAND	Survey Site
WAT	No	No	V-SURV-FIG-WAT	PTC WETLAND	Survey Site

14.10.4 CIVIL 3D FIGURE STYLES

Name	Sample
PTC BARN	
PTC BRIDGE	
PRC BRUSH	
PTC BTM BANK	
PTC BUILDING	
PTC BUILDING PORCH	
PTC BUILDING ROOF	
PTC CABLE LINE	
PTC CANAL	
PTC CELL TOWER	
PTC CENTERLINE	
PTC CL RAILROAD	
PTC CONCRETE	
PTC DITCH	
PTC DITCH CL	
PTC DOUBLE YELLOWLINE	
PTC EDGE OF CURB	
PTC EDGE DRIVE	
PTC EDGE ROADWAY	
PTC EDGE SHOULDER	
PTC EDGE WOODS	
PTC ELECTRIC	
PTC ELECTRIC UG	
PTC FENCELINE	



PTC FENCELINE RW	
PTC FIBER OH	
PTC FIBER UG	
PTC FLOWLINE	
PTC GAS LINE	
PTC GUIDE RAIL	
PTC MUN LINE	
PTC OHT	
PTC OHW	
PTC OV CABLE LINE	
PTC OV ELEC	
PTC PARKING	
PTC PETROLEUM LINE	
PTC SANITARY LINE	
PTC SIDEWALK	
PTC SINGLE DASHED WHITELINE	
PTC SINGLE DASHED YELLOWLINE	
PTC SINGLE WHITELINE	
PTC SINGLE YELLOWLINE	
PTC SKIPLINE	
PTC STONE FENCE	
PTC TELEPHONE	
PTC TOP BANK	
PTC TOP OF CURB	
PTC TOP SD PIPE	
PTC TOP WALL	

PTC WATERLINE	
PTC WETLAND	
PTC WOODS ROW	
PTC_STANDARD	

14.10.5 CIVIL 3D LINEWORK CODE SETS

Property	Value
Information	
Name	PTC Linework Codes
Description	
Coding Methods	
Feature/Code delimiter	<Space>
Field code escape	/
Start in comment mode	<input checked="" type="checkbox"/> Yes
Automatic begin on figure prefix match	<input type="checkbox"/> No
Special Codes	
Begin	B
Continue	C
End	E
Close	CLS
Horizontal offset	H
Vertical offset	V
Stop offsets	SO
Line Segment Codes	
Recall point	RPN
Connect point	CPN
Rectangle	RECT
Right turn	RT
Extend	X
Curve Segment Codes	
Begin curve	BC
End curve	EC
Circle	CIR
Point on curve	OC

14.11 CIVIL 3D STYLES

Object	Style Name	Style Description	Layer Control
Appurtenance Styles	Style Name	Description	Main Layer Control
Appurtenance Styles	PTC APT (Electric)	Electric Appurtenance Style	C-UTIL-ELEC
	PTC APT (Existing Electric)	Existing Electric Appurtenance Style	V-UTIL-ELEC
	PTC APT (Existing Fire Water)	Existing Fire Water Appurtenance Style	V-UTIL-WATR-FIRE
	PTC APT (Existing FO&ITS)	Existing Fiber Optic Appurtenance Style	V-UTIL-FIBR
	PTC APT (Existing Fuel)	Existing Fuel Appurtenance Style	V-UTIL-FUEL
	PTC APT (Existing Gas)	Existing Gas Appurtenance Style	V-UTIL-NGAS
	PTC APT (Existing Telephone)	Existing Telephone Appurtenance Style	V-UTIL-TELP
	PTC APT (Existing Water)	Existing Water Appurtenance Style	V-UTIL-WATR
	PTC APT (Fire Water)	Fire Water Appurtenance Style	C-WATR-FIRE-PIPE
	PTC APT (FO&ITS)	Fiber Optic Appurtenance Style	C-FIBR-EQPM
	PTC APT (Fuel)	Fuel Appurtenance Style	C-OIL-PIPE
	PTC APT (Gas)	Gas Appurtenance Style	C-UTIL-GAS
	PTC APT (Telephone)	Telephone Appurtenance Style	C-UTIL-TELE
	PTC APT (Water)	Water Appurtenance Style	C-WATR-APPT
	PTC Cooling Tower (Electric)	Cooling Tower Electric Appurtenance Style	C-UTIL-ELEC
	PTC Cooling Tower (Existing Electric)	Existing Cooling Tower Electric Appurtenance Style	V-UTIL-ELEC
	PTC EMH 28 (Existing Telephone)	Existing Telephone Junction Box Appurtenance Style	V-UTIL-TELP
	PTC EMH 28 (Telephone)	Telephone Junction Box Appurtenance Style	C-UTIL-TELP
	PTC FIRE HYDRANT (Existing Water)	Existing Fire Hydrant Appurtenance Style	V-UTIL-WATR
	PTC FIRE HYDRANT (Water)	Fire Hydrant Appurtenance Style	C-WATR-APPT
	PTC Handhole (Electric)	Electric Handhole Appurtenance Style	C-UTIL-ELEC
	PTC Handhole (Existing Electric)	Existing Electric Handhole Appurtenance Style	V-UTIL-ELEC
	PTC Handhole (Existing FO&ITS)	Existing Fiber Optic Handhole Appurtenance Style	V-UTIL-FIBR
PTC Handhole (Existing Telephone)	Existing Telephone Handhole Appurtenance Style	V-UTIL-TELP	



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PTC Handhole (FO&ITS)	Fiber Optic Handhole Appurtenance Style	C-FIBR-EQPM
PTC Handhole (Telephone)	Telephone Handhole Appurtenance Style	C-UTIL-TELP
PTC Junction Box (Electric)	Electric Junction Box Appurtenance Style	C-UTIL-ELEC
PTC Junction Box (Existing Electric)	Existing Electric Junction Box Appurtenance Style	V-UTIL-ELEC
PTC Junction Box (Existing FO&ITS)	Existing Fiber Optic Junction Box Appurtenance Style	V-UTIL-FIBR
PTC Junction Box (FO&ITS)	Fiber Optic Junction Box Appurtenance Style	C-FIBR-EQPM
PTC Junction Box 1 (Existing Telephone)	Existing Telephone Junction Box Appurtenance Style	V-UTIL-TELP
PTC Junction Box 1 (Telephone)	Telephone Junction Box Appurtenance Style	C-UTIL-TELP
PTC Junction Box 2 (Electric)	Electric Junction Box Appurtenance Style	C-UTIL-ELEC
PTC Junction Box 2 (Existing Electric)	Existing Electric Junction Box Appurtenance Style	V-UTIL-ELEC
PTC Junction Box 2 (Existing FO&ITS)	Existing Fiber Optic Junction Box Appurtenance Style	V-UTIL-FIBR
PTC Junction Box 2 (Existing Telephone)	Existing Telephone Junction Box Appurtenance Style	V-UTIL-TELP
PTC Junction Box 2 (FO&ITS)	Fiber Optic Junction Box Appurtenance Style	C-FIBR-EQPM
PTC Junction Box 2 (Telephone)	Telephone Junction Box Appurtenance Style	C-UTIL-TELP
PTC Lighting Junction Box (Electric)	Electric Junction Box Appurtenance Style	C-UTIL-ELEC
PTC Lighting Junction Box (Existing Electric)	Existing Electric Junction Box Appurtenance Style	V-UTIL-ELEC
PTC Manhole (Electric)	Electric Manhole Appurtenance Style	C-UTIL-ELEC
PTC Manhole (Existing Electric)	Existing Electric Manhole Appurtenance Style	V-UTIL-ELEC
PTC Meter (Existing Gas)	Existing Gas Meter Appurtenance Style	V-UTIL-NGAS
PTC Meter (Gas)	Gas Meter Appurtenance Style	C-UTIL-NGAS
PTC Oil Tank (Existing Fuel)	Existing Oil Tank Appurtenance Style	V-UTIL-FUEL
PTC Oil Tank (Fuel)	Oil Tank Appurtenance Style	C-OIL-PIPE
PTC Power MH EMH 28 (Electric)	Electric EMH 28 Manhole Appurtenance Style	C-UTIL-ELEC
PTC Power MH EMH 28 (Existing Electric)	Existing Electric EMH 28 Manhole Appurtenance Style	V-UTIL-ELEC
PTC Power Pole (Electric)	Electric Power Pole Appurtenance Style	C-UTIL-ELEC



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	PTC Power Pole (Existing Electric)	Existing Electric Power Pole Appurtenance Style	V-UTIL-ELEC
	PTC Signal Box (Existing FO&ITS)	Existing Fiber Optic Signal Box Appurtenance Style	V-UTIL-FIBR
	PTC Signal Box (Existing Telephone)	Existing Telephone Signal Box Appurtenance Style	V-UTIL-TELP
	PTC Signal Box (FO&ITS)	Fiber Optic Signal Box Appurtenance Style	C-FIBR-EQPM
	PTC Signal Box (Telephone)	Telephone Signal Box Appurtenance Style	C-UTIL-TELP
	PTC Signal MH (Electric)	Electric Signal Manhole Appurtenance Style	C-UTIL-ELEC
	PTC Signal MH (Existing Electric)	Existing Electric Signal Manhole Appurtenance Style	V-UTIL-ELEC
	PTC Water Valve (Existing Water)	Existing Water Valve Appurtenance Style	V-UTIL-WATR
	PTC Water Valve (Water)	Water Valve Appurtenance Style	C-WATR-APPT
Appurtenance Label Styles	PTC_NAME ONLY	Appurtenance Name Only	C-WATR-TEXT
	PTC_NOM DIA VALVE TYPE	Appurtenance Nominal Diameter and Type	C-WATR-TEXT
Appurtenance Table Styles	PTC_VALVE NAME SIZE TYPE	Valve Name Size and Type	C-ANNO-TABL/TEXT Layers
Alignment Styles	Style Name	Description	Main Layer Control
Alignment Styles	PTC_NO DISPLAY	No Display Alignments	C-ROAD-CNTR
	PTC_EXST	Existing Alignments	C-ROAD-CNTR
	PTC_INTR	Intersection Alignments	C-ROAD-CNTR-PROP
	PTC_LAYT	Layout Alignments	Varies on Component
	PTC_PROP	Proposed Alignments	C-ROAD-CNTR-PROP
	PTC_RW	Right-of-Way Alignments	C-PROP-PARC-BNDY
Alignment Label Sets	PTC_NO LABL	No Labels	NA
	PTC_ALL LABL	All Labels	C-ROAD-TEXT
	PTC_EXST ALL LABL	All Existing Labels	V-ALIGN-TEXT
	PTC_EXST MAJR & MINR ONLY	Existing Major and Minor Station Labels	V-ALIGN-TEXT
	PTC_EXST MAJR MINR & GEOM PNTS	Existing Major and Minor Stations, and Geometry Points Labels	V-ALIGN-TEXT
	PTC_EXST MAJR MINR & GEOM PNTS SUPER	Existing Major and Minor Stations, Geometry Points, and Superelevation Labels	V-ALIGN-TEXT
	PTC_MAJR & MINR ONLY	Major and Minor Stations Labels	C-ROAD-TEXT
	PTC_MAJR MINR & GEOM PNTS	Major and Minor Stations, and Geometry Points Labels	C-ROAD-TEXT
Alignment Label Styles - Major Station	PTC_EXST PARL WITH TICK	Existing Major Stations	V-ALIGN-TEXT
	PTC_EXST PARL WITH TICK OFFSET	Existing Major Stations with extended offset for linework	V-ALIGN-TEXT



	PTC_PARL WITH TICK	Proposed Parallel with Tick	C-ROAD-TEXT
	PTC_PARL WITH TICK OFFSET	Proposed Major Stations with extended offset for linework	C-ROAD-TEXT
	PTC_PERP WITH LINE	Perpendicular with Line	C-ROAD-TEXT
	PTC_PERP WITH TICK	Perpendicular with Tick	C-ROAD-TEXT
Alignment Label Styles - Minor Station	PTC_TICK	Tick Only	C-ROAD-TEXT
Alignment Label Styles - Geometry Point	PTC_EXST PERP WITH TICK & LINE	Existing Perpendicular with Tick and Line	V-ALIGN-TEXT
	PTC_PERP WITH TICK & LINE	Perpendicular with Tick and Line	C-ROAD-TEXT
Alignment Label Styles - Profile Geometry Point	PTC_CODE & STA	Code and Station	C-ROAD-TEXT
	PTC_HIGH PNTS	High Points	C-ROAD-TEXT
	PTC_LOW PNTS	Low Points	C-ROAD-TEXT
Alignment Label Styles - Station Equation	PTC_EXST STA AHD & BACK	Existing Station Ahead and Back	V-ALIGN-TEXT
	PTC_STA AHD & BACK	Station Ahead and Back	C-ROAD-TEXT
Alignment Label Styles - Design Speed	PTC_STA OVER SPEED	Station over Speed	C-ROAD-TEXT
Alignment Label Styles - Superelevation Critical Points	PTC_BASC	Critical Points no Symbols	C-ROAD-TEXT
	PTC_CRTL PNTS	Critical Points	C-ROAD-TEXT
	PTC_SUPR SYMB	Label with Superelevation Symbol	C-ROAD-TEXT
Alignment Label Styles - Station Offset	PTC_GUIDE STA & OFF	Station and Offset Guiderail Label	C-ROAD-TEXT
	PTC_ROW STA & OFF	Station and Offset Right-of-Way Label	C-ROAD-TEXT
	PTC_ROW Station and Offset with Metric	Metric Station and Offset Right-of-Way Label	C-ROAD-TEXT
	PTC_STA & OFFSET	Station and Offset	C-ROAD-TEXT
	PTC_STA OFFSET & COOR	Alignments, Station, Offset, and Coordinates	C-ROAD-TEXT
Alignment Label Styles - Line	PTC_BEAR OVER DIST	Bearing over Distance	C-ROAD-TEXT
	PTC_BEARING	Bearing only	C-ROAD-TEXT
	PTC_EXST BEAR OVER DIST	Existing Bearing over Distance	V-ALIGN-TEXT
	PTC_EXST BEARING	Existing Bearing only	V-ALIGN-TEXT
Alignment Label Styles - Curve	PTC_EXST CURVE DATA	Existing Curve Data	V-ALIGN-TEXT
	PTC_CURVE DATA	Curve Data	C-ROAD-TEXT
Alignment Label Styles - Spiral	PTC_EXST SPIRAL DATA	Existing Spiral Data	V-ALIGN-TEXT
	PTC_SPIRAL DATA	Spiral Data	C-ROAD-TEXT
Alignment Label Styles - Tangent Intersection	PTC_STA	PI Station Value	C-ROAD-TEXT
Alignment Label Styles - Point of Intersection	PTC_PI_ABOVE	Point of Intersection Coordinates (Shown Above)	C-ROAD-TEXT



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	PTC_PI_BELOW	Point of Intersection Coordinates (Shown Below)	C-ROAD-TEXT
Alignment Table Styles - Line	PTC_LNTH DRCT START & END PNTS	Length, Direction, and Start and End Points	C-ANNO-TABL/TEXT Layers
Alignment Table Styles - Curve	PTC_CURVE	Curve Data	C-ANNO-TABL/TEXT Layers
	PTC_RADS LNTH CHORD START & END PNTS	Radius, Chord Length, and Start and End Points	C-ANNO-TABL/TEXT Layers
Alignment Table Styles - Spiral	PTC_A VALU RADS LNTH DRCT START & END PNTS	Spiral Data and Start and End Points	C-ANNO-TABL/TEXT Layers
Alignment Table Styles - Segment	PTC_RADS LNTH DRCT & A VALU	Segment Data	C-ANNO-TABL/TEXT Layers
Cant View Styles	Style Name	Description	Main Layer Control
Cant View Styles	PTC_RAIL	Rail Cant View	C-RAIL-CANT Layers
Catchment Styles	Style Name	Description	Main Layer Control
Catchment Styles	PTC_CATCH_POST	Post-Development Catchment Style	C-HYDR-CTCH-BNDY-POST
	PTC_CATCH_PRED	Pre-Development Catchment Style	C-HYDR-CTCH-BNDY-PRED
Catchment Label Styles - Area	PTC_NAME AREA POST	Name, Area Post Development	C-HYDR-CTCH-TEXT-POST
	PTC_NAME AREA PROP	Name, Area Pre Development	C-HYDR-CTCH-TEXT-PRED
	PTC_NAME ONLY_POST	Name Only Post Development	C-HYDR-CTCH-TEXT-POST
	PTC_NAME ONLY	Name Only Pre Development	C-HYDR-CTCH-TEXT-PRED
Catchment Label Styles - Flow Segment	PTC_FLOW TYPE LNTH & SLOPE_POST	Flow Length and Slope Post Development	C-HYDR-CTCH-TEXT-FPTH-POST
	PTC_FLOW TYPE LNTH & SLOPE_PRED	Flow Length and Slope Pre Development	C-HYDR-CTCH-TEXT-FPTH-PRED
Corridor Styles	Style Name	Description	Main Layer Control
Corridor Styles	PTC_CORR	Corridor Style	C-ROAD-CORR Layers
Intersection Styles	Style Name	Description	Main Layer Control
Intersection Styles	PTC_INTR MRKR	Intersection Marker Style	C-ROAD-INTS-TEXT
Intersection Label Styles	PTC_INTR	Intersection Label	C-ROAD-INTS-TEXT
Fitting Styles	Style Name	Description	Main Layer Control
Fitting Styles	PTC FITTING (Existing Fire Water)	Existing Fire Water Fitting Style	V-UTIL-WATR-FIRE
	PTC FITTING (Fire Water)	Fire Water Fitting Style	C-WATR-FIRE-PIPE
	PTC FITTING CENTERLINE (Electric)	Electric Fitting Style	C-UTIL-ELEC
	PTC FITTING CENTERLINE (Existing Electric)	Existing Electric Fitting Style	V-UTIL-ELEC
	PTC FITTING CENTERLINE (Existing FO&ITS)	Existing Fiber Optic Fitting Style	V-UTIL-FIBR
	PTC FITTING CENTERLINE (Existing Fuel)	Existing Fuel Fitting Style	V-UTIL-FUEL



	PTC FITTING CENTERLINE (Existing Gas)	Existing Gas Fitting Style	V-UTIL-NGAS
	PTC FITTING CENTERLINE (Existing Telephone)	Existing Phone Fitting Style	V-UTIL-TELP
	PTC FITTING CENTERLINE (Existing Water)	Existing Water Fitting Style	V-UTIL-WATR
	PTC FITTING CENTERLINE (FO&ITS)	Fiber Optic Fitting Style	C-UTIL-TELP
	PTC FITTING CENTERLINE (Fuel)	Fuel Fitting Style	C-OIL-PIPE
	PTC FITTING CENTERLINE (Gas)	Gas Fitting Style	C-UTIL-NGAS
	PTC FITTING CENTERLINE (Standard)	Default Fitting Style	0
	PTC FITTING CENTERLINE (Telephone)	Telephone Fitting Style	C-UTIL-TELP
	PTC FITTING CENTERLINE (Water)	Water Fitting Style	C-WATR-FITT
Fitting Label Styles	PTC_DIA ANG & MTRL	Diameter, Angle, and Material	C-WATR-TEXT
	PTC_NAME	Name Only	C-WATR-TEXT
Fitting Table Styles	PTC_DIA ANG MTRL & TYPE	Diameter, Angle, Material and Type	C-ANNO-TABL/TEXT Layers
General Feature Line, and Code Set Styles	Style Name	Description	Main Layer Control
Feature Lines	PTC_BASC FEAT LINE	Basic Feature Lines	C-TOPO-FEAT
	PTC_CNTR RAIL LINE	Rail Center Line	C-RAIL-FEAT
	PTC_CORR CROWN	Corridor Crown	C-ROAD-CORR-FEAT
	PTC_CORR CURB LINE	Corridor Curb Line	C-ROAD-CORR-FEAT
	PTC_CORR DAYLIGHT	Corridor Daylight	C-ROAD-CORR-FEAT
	PTC_CORR DAYLIGHT - SUB GRADE	Corridor Daylight Subgrade	C-ROAD-CORR-FEAT
	PTC_CORR DAYLIGHT LINE - CUT	Corridor Daylight Cut	C-ROAD-CORR-FEAT
	PTC_CORR DAYLIGHT LINE - FILL	Corridor Daylight Fill	C-ROAD-CORR-FEAT
	PTC_CORR DRAIN	Corridor Drain	C-ROAD-CORR-FEAT
	PTC_CORR DTCH	Corridor Ditch	C-ROAD-CORR-FEAT
	PTC_CORR EDGE OF PAVED SHLDR	Corridor Edge of Paved Shoulder	C-ROAD-CORR-FEAT
	PTC_CORR EDGE OF TRVL WAY	Corridor Edge of Travel Way	C-ROAD-CORR-FEAT
	PTC_CORR EDGE OF UNPAVED SHLDR	Corridor Edge of Unpaved Shoulder	C-ROAD-CORR-FEAT
	PTC_CORR FLOWLINE	Corridor Flowline	C-ROAD-CORR-FEAT
	PTC_CORR GRAD	Corridor Grading	C-TOPO-FEAT
	PTC_CORR HNGE - CUT SLOPE	Corridor Hinge Cut Slope	C-ROAD-CORR-FEAT



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	PTC_CORR HNGE - FILL SLOPE	Corridor Hinge Fill Slope	C-ROAD-CORR-FEAT
	PTC_CORR HNGE - TOP SLOPE	Corridor Hinge Top Slope	C-ROAD-CORR-FEAT
	PTC_CORR LANE BREAK	Corridor Lane Break	C-ROAD-CORR-FEAT
	PTC_CORR SUB LAY	Corridor Sub Layer	C-ROAD-CORR-FEAT
	PTC_CORR TOP SOIL	Corridor Top Soil	C-ROAD-CORR-FEAT
	PTC_CORR_COND	Corridor Cond	C-ROAD-CORR-COND
	PTC_CORR_TRENCH	Corridor Trench	C-ROAD-CORR-TRENCH
	PTC_GRAD DAYLIGHT	Grading Daylight	C-TOPO-FEAT
	PTC_GRAD DTCH	Grading Ditch	C-TOPO-FEAT
	PTC_NO_DISPLAY	No Display	C-TOPO-FEAT
	PTC_TOP RAIL	Top Rail	C-TOPO-FEAT
Slope Pattern Styles	PTC_BASC	Percentage of Slope	0
	PTC_FIX LNTH	Fixed Length	0
	PTC_SLOPE	Slope	0
Code Set Styles	PTC_ALL CODE FOR ASSEMBLIES	All Codes with Labels	NA
	PTC_DESIGN AND ANALYSIS		NA
	PTC_FOR CROSS SECTIONS	All Codes with Labels	NA
	PTC_FOR QUANTIFICATION	All Codes with Pay Items	NA
	PTC_FOR VISUALIZATION	All Codes with some selected marker/Link/shape code labels	NA
	PTC_FOR_ASSEMBLIES	All Codes with Labels	NA
	PTC_FOR_PLAN PRODUCTION	All Codes with Materials	NA
	PTC_NO_DISPLAY	All Codes use No Display Style	NA
Link Style	PTC_BARRIER	Barrier	C-ROAD-CORR
	PTC_BASC	Basic	C-ROAD-LINK
	PTC_BASE	Base	C-ROAD-CORR
	PTC_CONC	Concrete	C-ROAD-CORR
	PTC_COND	Conditional	C-ROAD-LINK
	PTC_CURB - TOP	Curb Top	C-ROAD-CORR
	PTC_DATUM	Datum	C-ROAD-CORR
	PTC_DAYLIGHT	Daylight	C-ROAD-CORR
	PTC_DAYLIGHT CUT	Daylight Cut	C-ROAD-CORR
	PTC_DAYLIGHT FILL	Daylight Fill	C-ROAD-CORR
	PTC_GRAIL	GuideRail	C-ROAD-CORR
	PTC_GRASS AREA	Grass Area	C-ROAD-LINK
	PTC_GRVL	Gravel	C-ROAD-CORR
	PTC_LOT	Lots	C-ROAD-CORR
	PTC_MILL	Mill	C-ROAD-CORR



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	PTC_NO_DISPLAY	No Display	C-ROAD-CORR
	PTC_PAVE	Top Pavement Layer	C-ROAD-CORR
	PTC_PAVE1	First Pavement Sublayer	C-ROAD-CORR
	PTC_PAVE2	Second Pavement Sublayer	C-ROAD-CORR
	PTC_SDWK	Sidewalk	C-ROAD-CORR
	PTC_SHOULDER	Shoulder	C-ROAD-CORR
	PTC_STANDARD	Default	0
	PTC_STRIP	Stripping	C-ROAD-CORR
	PTC_SUB BASE	Sub Base	C-ROAD-CORR
	PTC_TOP	Top Link	C-ROAD-CORR
	PTC_UNCODED	Uncoded	C-ROAD-CORR
Shape Styles	PTC__NO DISPLAY	No Display	C-ROAD-SHAP
	PTC_0309-0634	Pavement Material Style	C-ROAD-SHAP
	PTC_0310-0001	Pavement Material Style	C-ROAD-SHAP
	PTC_0311-0320	Pavement Material Style	C-ROAD-SHAP
	PTC_0311-0530	Pavement Material Style	C-ROAD-SHAP
	PTC_0360-0001	Pavement Material Style	C-ROAD-SHAP
	PTC_0411-0482	Pavement Material Style	C-ROAD-SHAP
	PTC_0411-0484	Pavement Material Style	C-ROAD-SHAP
	PTC_0411-6350	Pavement Material Style	C-ROAD-SHAP
	PTC_0411-6450	Pavement Material Style	C-ROAD-SHAP
	PTC_0501-0020	Pavement Material Style	C-ROAD-SHAP
	PTC_2309-1622	Pavement Material Style	C-ROAD-SHAP
	PTC_2350-0121	Pavement Material Style	C-ROAD-SHAP
	PTC_2409-0661	Pavement Material Style	C-ROAD-SHAP
	PTC_2409-0761	Pavement Material Style	C-ROAD-SHAP
	PTC_2409-6625	Pavement Material Style	C-ROAD-SHAP
	PTC_2409-6670	Pavement Material Style	C-ROAD-SHAP
	PTC_2419-1000	Pavement Material Style	C-ROAD-SHAP
	PTC_3409-0583	Pavement Material Style	C-ROAD-SHAP
	PTC_3409-6521	Pavement Material Style	C-ROAD-SHAP
	PTC_3411-0385	Pavement Material Style	C-ROAD-SHAP
	PTC_3411-6320	Pavement Material Style	C-ROAD-SHAP
	PTC_3411-6550	Pavement Material Style	C-ROAD-SHAP
	PTC_4350-0104	Pavement Material Style	C-ROAD-SHAP
	PTC_4530-0009	Pavement Material Style	C-ROAD-SHAP
	PTC_BALLAST	Ballast	C-ROAD-CORR
	PTC_BARRIER	Barrier	C-ROAD-CORR
	PTC_BASC	Basic	C-ROAD-SHAP
	PTC_BASE	Base	C-ROAD-CORR
	PTC_BRDG	Bridge	C-ROAD-CORR



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	PTC_CONC HTCH	Concrete	C-ROAD-SHAP
	PTC_COND	Conditional	C-ROAD-COND
	PTC_CURB	Curb	C-ROAD-CORR
	PTC_CUT MTRL	Cut Material	C-ROAD-CORR
	PTC_FILL MTRL	Fill Material	C-ROAD-CORR
	PTC_GIRDER	Girder	C-ROAD-CORR
	PTC_GRAIL	GuidRail	C-ROAD-SHAP
	PTC_GRASS HTCH	Grass	C-ROAD-SHAP
	PTC_GRVL	Gravel	C-ROAD-CORR
	PTC_MILL	Mill	C-ROAD-CORR
	PTC_MULT BOUND MTRL	Multiple Boundary	C-ROAD-CORR
	PTC_NO SHADE	No Shading	C-ROAD-SHAP
	PTC_NO_DISPLAY	No Display	C-ROAD-SHAP
	PTC_OVERLAY	Overlay	C-ROAD-CORR
	PTC_PAVE	Top Pavement Layer	C-ROAD-CORR
	PTC_PAVE HATCH	Pavement Hatch	C-ROAD-SHAP
	PTC_PAVE1	First Pavement Sublayer	C-ROAD-CORR
	PTC_PAVE2	Second Pavement Sublayer	C-ROAD-CORR
	PTC_RAIL	Rail	C-ROAD-CORR
	PTC_SDWK	Sidewalk	C-ROAD-CORR
	PTC_STANDARD	Default	0
	PTC_STRIP HTCH	Stripping	C-ROAD-CORR
	PTC_SUB BASE	Sub Base	C-ROAD-CORR
	PTC_TOPSOIL	Topsoil	C-ROAD-SHAP
	PTC_TREN		C-ROAD-TREN
	PTC_UNCODED	Uncoded	C-ROAD-CORR
General Note, Line, Curve and Marker Label Styles	Style Name	Description	Main Layer Control
Note	PTC_NOTE	Notes	C-SURF-TEXT
Line	PTC_ROW	Right-of-Way Callout	C-SURV-TEXT
	PTC_BEAR & DIST	Bearing and Distance	C-SURV-TEXT
	PTC_BEAR ONLY	Bearing Only	C-SURV-TEXT
	PTC_BEAR OVER DIST	Bearing over Distance	C-SURV-TEXT
	PTC_DIST ONLY	Distance Only	C-SURV-TEXT
	PTC_GEOD AZMTH OVER DIST	Geodectic Direction (Azimuth) and Distance	C-SURV-TEXT
	PTC_GEOD BEAR OVER DIST	Geodectic Direction (Bearing) and Distance	C-SURV-TEXT
	PTC_GRADE ONLY	Grade Only	C-TOPO-GRAD-TEXT
	PTC_GRADE OVER DIST	Grade over Distance	C-TOPO-GRAD-TEXT
	PTC_GRID BEAR OVER DIST	Grid Direction (Bearing) over Distance	C-SURV-TEXT



	PTC_SLOPE OVER DIST	Slope over Distance	C-SURV-TEXT
	PTC_SLOPE ONLY	Slope Only	C-SURV-TEXT
Curve	PTC-ROW	Right-of-Way Curve Label	C-SURV-TEXT
	PTC-ROW-R	Right-of-Way Radius Label	C-SURV-TEXT
	PTC_DIST-RADS & DLTA	Distance, Radius, Delta	C-SURV-TEXT
	PTC_DIST ONLY	Distance Only	C-SURV-TEXT
	PTC_DIST OVER RADS	Distance over Radius	C-SURV-TEXT
	PTC_GRADE ONLY	Grade Only	C-SURV-TEXT
	PTC_GRADE OVER DIST	Grade over Distance	C-SURV-TEXT
	PTC_RADS ONLY	Radius Only	C-SURV-TEXT
	PTC_SLOPE OVER DIST	Slope over Distance	C-SURV-TEXT
	PTC_SLOPE ONLY	Slope Only	C-SURV-TEXT
	Marker	PTC_GRADE POINT	Grade Break Point Marker
PTC_GRADE POINT ELEV		Offset and Elevation Label	G-ANNO-TEXT
PTC_NULL POINT		Empty Grade Break Point Marker	G-ANNO-TEXT
PTC_VIEW-EDIT		Offset Elevation	G-ANNO-TEXT
Link	PTC_FLAT GRADE	Flat Grade	G-ANNO-TEXT
	PTC_FLAT GRAD ASSEMBLY	Slopes Labels with Link Names	G-ANNO-TEXT
	PTC_LENGTH	Length Labels with Link Names	G-ANNO-TEXT
	PTC_STEEP GRADE	Steep Grade	G-ANNO-TEXT
	PTC_STEEP GRADE ASSEMBLY	Slopes Labels with Link Names	G-ANNO-TEXT
Shape	PTC_PAVE STRC	Pavement Structure	G-ANNO-TEXT
Grading Object Styles	Style Name	Description	Main Layer Control
Grading Object Styles	PTC_CUT SLOPE DSPL	Cut Slope Display	C-TOPO-GRAD-CUTS
	PTC_FILL SLOPE DSPL	Fill Slope Display	C-TOPO-GRAD-FILL
	PTC_RESD GRAD DSPL	Residential Grading Display	C-TOPO-GRAD
Grading Criteria Sets	Style Name	Description	Main Layer Control
Grading Criteria Sets	PTC_SET	Grading Criteria Sets	NA
Gravity Pipe Network and Gravity Pipe Network Label Styles	Style Name	Description	Main Layer Control
Parts Lists	PTC_SSWR	Sanitary Sewer Pipe Network	NA
	PTC_STRM	Storm Sewer Pipe Network	NA
Pipe Styles	PTC_SSWR DBLE LINE (Existing)	Existing Double Line Sewer	V-SSWR PIPE
	PTC_SSWR DBLE LINE (Proposed)	Double Line Sewer	C-SSWR PIPE
	PTC_SSWR_PIPE CROSS(Existing)	Existing Cross Line Sewer	V-SSWR PIPE
	PTC_SSWR_PIPE CROSS (Proposed)	Cross Line Sewer	C-SSWR PIPE



	PTC_SSWR SNGL LINE (Existing)	Existing Single Line Sewer	V-SSWR PIPE
	PTC_SSWR SNGL LINE (Proposed)	Single Line Sewer	C-SSWR PIPE
	PTC_STRM DBLE LINE (Existing)	Existing Double Line Storm	V-STRM PIPE
	PTC_STRM DBLE LINE (Proposed)	Double Line Storm	C-STRM PIPE
	PTC_STRM PIPE CROSS (Existing)	Existing Cross Line Storm	V-STRM PIPE
	PTC_STRM PIPE CROSS (Proposed)	Cross Line Storm	C-STRM PIPE
	PTC_STRM SNGL LINE (Existing)	Existing Single Line Sewer	V-STRM-PIPE
	PTC_STRM SNGL LINE (Proposed)	Single Line Sewer	C-STRM-CNTR
Pipe Rules	PTC_BASC	Pipe Rules	NA
Pipe Plan Profile Labels	PTC_PLAN PIPE SIZE	Pipe Size and Flow Arrow	C-UTIL-TEXT
	PTC_PLAN SSWR DATA	Length, Description and Slope Sanitary	C-SSWR-TEXT
	PTC_PLAN SSWR NAME ONLY	Name only Sanitary	C-SSWR-TEXT
	PTC_PLAN STRM DATA	Plan Length, Description, and Slope Storm	C-STRM-TEXT
	PTC_PLAN STRM NAME ONLY	Plan Name Only Storm	C-STRM-TEXT
	PTC_PROF SSWR DATA	Profile Length, Description and Slope Sanitary	C-SSWR-TEXT
	PTC_PROF STRM DATA	Profile Length, Description and Slope Storm	C-STRM-TEXT
Pipe Crossing Section Labels	PTC_NAME ONLY	Name Only	C-STRM-TEXT
Pipe Crossing Profile	PTC_NAME	Name Only	C-STRM-TEXT
	PTC_NAME STA ELEV	Name, Station, and Elevation	C-STRM-TEXT
Pipe Table	PTC_NAME SIZE LNTH SLOPE MTRL	Name, Size, Length, Slope, and Material	C-ANNO-TABL/TEXT Layers
Structure Styles	PTC_BASC	Structure Outline	0
	PTC_CB (Existing)	Existing Catch Basin	V-STRM-STRC
	PTC_CB (Proposed)	Catch Basin	C-STRM-STRC
	PTC_CB TYPE 3 (Existing)	Existing Type 3 Catch Basin	V-STRM-STRC
	PTC_CB TYPE 3 (Proposed)	Type 3 Catch Basin	C-STRM-STRC
	PTC_CB TYPE C & S (Existing)	Existing Type C & S Catch Basin	V-STRM-STRC
	PTC_CB TYPE C & S (Proposed)	Type 3 Catch Basin	C-STRM-STRC
	PTC_CB TYPE M (Existing)	Existing Type M Catch Basin	V-STRM-STRC
	PTC_CB TYPE M (Proposed)	Type M Catch Basin	C-STRM-STRC
	PTC_CB TYPE MM (Existing)	Existing Type MM Catch Basin	V-STRM-STRC
	PTC_CB TYPE MM (Proposed)	Type MM Catch Basin	C-STRM-STRC



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	PTC_ENDWALL (Existing)	Existing Endwall	V-STRM-STRC
	PTC_ENDWALL (Proposed)	Proposed Endwall	C-STRM-STRC
	PTC_FLARED END SECT (Existing)	Existing Flared End	V-STRM-STRC
	PTC_FLARED END SECT (Proposed)	Flared End	C-STRM-STRC
	PTC_HWALL (Existing)	Existing Headwall	V-STRM-STRC
	PTC_HWALL (Proposed)	Headwall	C-STRM-STRC
	PTC_NULL	Null	C-STRM-STRC
	PTC_SSWR MH (Existing)	Existing Sewer Manhole	V-SSWR-STRC
	PTC_SSWR MH (Proposed)	Sewer Manhole	C-SSWR-STRC
	PTC_STRM MH (Existing)	Existing Storm Manhole	V-STRM-STRC
	PTC_STRM MH (Proposed)	Storm Manhole	C-STRM-STRC
Structure Rules	NO RULES	Null Ruleset	NA
	PTC_BASC	Structure Rules	NA
Structure Labels	PTC_PLAN SSWR DATA	Plan Structure Name, Station-Offset, Rim, Invert Sanitary	C-SSWR-TEXT
	PTC_PLAN SSWR NAME ONLY	Plan Name Only Sanitary	C-SSWR-TEXT
	PTC_PLAN STRM DATA	Plan Structure Name, Station-Offset, Rim, Invert Storm	C-STRM-TEXT
	PTC_PLAN STRM NAME ONLY	Plan Name Only STRM	C-STRM-TEXT
	PTC_PROF SSWR DATA	Profile Structure Name, Station-Offset, Rim, Invert Sanitary	C-SSWR-TEXT
	PTC_PROF SSWR NAME ONLY	Profile Name Only Sanitary	C-SSWR-TEXT
	PTC_PROF STRM DATA	Profile Structure Name, Station-Offset, Rim, Invert Storm	C-STRM-TEXT
	PTC_PROF STRM NAME ONLY	Profile Name Only STRM	C-STRM-TEXT
Structure Tables	PTC_STRC WITH PIPES	Structures with Pipe	C-ANNO-TABL/TEXT Layers
Parcel and Parcel Label Styles	Style Name	Description	Main Layer Control
Parcel Styles	PTC_BASC	General Design	C-PROP-PARC-LINE
	PTC_BNRY	Boundaries	V-SITE-BNDY
	PTC_EASMT	Easements	V-SITE-ESMT
	PTC_OPEN	Open Space	C-PROP-LINE
	PTC_PROP	Property	C-PROP-BNDY
	PTC_ROAD	Roadway	C-ESMT-RWAY
	PTC_RW	Right of Way	V-SITE-RW
	PTC_SINGLE	Single Family Residence	C-PROP-LINE
Parcel Area Labels	PTC_NAME AREA & PERM	Name, Area, and Perimeter	C-PROP-PARC-TEXT



	PTC_NAME FT2 & ACRE	Name, Area (Square Foot and Acre)	C-PROP-PARC-TEXT
	PTC_PRCL NAME	Parcel Name	C-PROP-PARC-TEXT
	PTC_PRCL NUMB	Parcel Number	C-PROP-PARC-TEXT
Parcel Line Labels	PTC_BEAR OVER DIST	Bearing over Distance	C-PROP-PARC-TEXT
	PTC_BEAR	Bearing Only	C-PROP-PARC-TEXT
	PTC_DIST	Distance Only	C-PROP-PARC-TEXT
	PTC_IRON PIPE NODE LABL	Iron Pipe Node Label	C-PROP-PARC-TEXT
	PTC_OVERALL DIST & BEAR	Distance over Bearing	C-PROP-PARC-TEXT
	PTC_SPAN BEAR & DIST WITH CROWS FT	Span, Bearing and Distance with Crows Feet	C-PROP-PARC-TEXT
	PTC_BEAR ONLY	Bearing Only	C-PROP-PARC-TEXT
	PTC_DIST ONLY	Distance Only	C-PROP-PARC-TEXT
Parcel Curve Labels	PTC_DLTA OVER LNTH & RADS	Delta over Length & Radius	C-PROP-PARC-TEXT
Line Table Style	PTC_LNTH & DRCT	Length and Direction	C-ANNO-TABL/TEXT Layers
Curve Table Style	PTC_LNTH RADS & DLTA	Length, Radius, and Delta	C-ANNO-TABL/TEXT Layers
Segment Table Style	PTC_LNTH & BEAR OR DLTA & RADS	Length, Bearing, Delta, and Radius	C-ANNO-TABL/TEXT Layers
Area Table Style	PTC_AREA PERM LNTH & BEAR	Area, Perimeter, Length, and Bearing	C-ANNO-TABL/TEXT Layers
Pressure Pipe Network and Pressure Pipe Network Label Styles			
Parts List	PTC ELECTRIC	Electric Network	NA
	PTC FO&ITS	FO and ITS Network	NA
	PTC FUEL	Fuel Network	NA
	PTC GAS	Gas Network	NA
	PTC TELEPHONE	Telephone Network	NA
	PTC_WATR	Water Pressure Network	NA
Pressure Pipe Style	PTC CENTERLINE (Electric)	Electric Centerline Pipe Style	C-UTIL-ELEC
	PTC CENTERLINE (Existing Electric)	Existing Electric Centerline Pipe Style	V-UTIL-ELEC
	PTC CENTERLINE (Existing FO-ITS)	Existing Fiber Optic Centerline Pipe Style	V-UTIL-FIBR
	PTC CENTERLINE (Existing Fuel)	Existing Fuel Centerline Pipe Style	V-UTIL-FUEL
	PTC CENTERLINE (Existing Gas)	Existing Gas Centerline Pipe Style	V-UTIL-NGAS
	PTC CENTERLINE (Existing Telephone)	Existing Telephone Centerline Pipe Style	V-UTIL-TELP
	PTC CENTERLINE (Existing Water)	Existing Water Centerline Pipe Style	V-UTIL-WATR
	PTC CENTERLINE (FO-ITS)	Fiber Optic Centerline Pipe Style	C-UTIL-FIBR



	PTC CENTERLINE (Fuel)	Fuel Centerline Pipe Style	C-OIL-PIPE
	PTC CENTERLINE (Gas)	Gas Centerline Pipe Style	C-UTIL-NGAS
	PTC CENTERLINE (Telephone)	Telephone Centerline Pipe Style	C-UTIL-TELP
	PTC CENTERLINE (Water)	Water Centerline Pipe Style	C-WATR-CNTR
	PTC DOUBLELINE (Electric)	Electric Double Line Pipe Style	C-UTIL-ELEC
	PTC DOUBLELINE (Existing Electric)	Existing Electric Double Line Pipe Style	V-UTIL-ELEC
	PTC DOUBLELINE (Existing Fire Water)	Existing Fire Water Double Line Pipe Style	V-UTIL-WATR-FIRE
	PTC DOUBLELINE (Existing FO-ITS)	Existing Fiber Optic Double Line Pipe Style	V-UTIL-FIBR
	PTC DOUBLELINE (Existing Fuel)	Existing Fuel Double Line Pipe Style	V-UTIL-FUEL
	PTC DOUBLELINE (Existing Gas)	Existing Gas Double Line Pipe Style	V-UTIL-NGAS
	PTC DOUBLELINE (Existing Telephone)	Existing Telephone Double Line Pipe Style	V-UTIL-TELP
	PTC DOUBLELINE (Existing Water)	Existing Water Double Line Pipe Style	V-UTIL-WATR
	PTC DOUBLELINE (Fire Water)	Fire Water Double Line Pipe Style	C-WATR-FIRE-PIPE
	PTC DOUBLELINE (Fuel)	Fuel Double Line Pipe Style	C-OIL-PIPE
	PTC DOUBLELINE (Gas)	Gas Double Line Pipe Style	C-UTIL-NGAS
	PTC DOUBLELINE (Telephone)	Telephone Double Line Pipe Style	C-UTIL-TELP
	PTC DOUBLELINE (Water)	Water Double Line Pipe Style	C-WATR-PIPE
	PTC_CROSS PIPE (Water)	Crossing Pipe Style	C-WATR-PIPE
Pipe Label Style	PTC_NAME ONLY	Name Only	C-WATR-TEXT
	PTC_DIA & MTRL	Diameter and Material	C-WATR-TEXT
Pipe Crossing Section Label	PTC_NAME ONLY	Name Only	C-WATR-TEXT
Pipe Crossing Profile Label	PTC_NAME ONLY	Name Only	C-WATR-TEXT
	PTC_NAME STA TOP BOT	Name, Station, Top and Bottom Elevations	C-WATR-TEXT
Pipe Table Styles	PTC_NAME SIZE LNTH MTRL	Name, Size, Length, and Material	C-ANNO-TABL/TEXT Layers
Profile and Profile Label Styles	Style Name	Description	Main Layer Control
Profile Styles	PTC_EXST GRND PROF	Existing Ground Profile	C-ROAD-PROF
	PTC_INTR	Intersection	C-ROAD-PROF
	PTC_LAYT	Style used during profile layout process	C-ROAD-PROF
	PTC_LEFT SAMP PROF	Left Sample Profile	C-ROAD-PROF-LTOF
	PTC_PROP PROF	Proposed Profile	C-ROAD-PROF-PROP
	PTC_RIGHT SAMP PROF	Right Sample Profile	C-ROAD-PROF-RTOF
Profile Label Sets	PTC_LABL_SET	Proposed Label Set	NA



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	PTC_NO LABL	No Labels	NA
Profile Major Station Labels	PTC_PERP WITH TICK	Perpendicular Text with Tick	C-ROAD-PROF-STAN-MAJR
Profile Minor Station Labels	PTC_PERP WITH TICK	Perpendicular Text with Tick	C-ROAD-PROF-STAN-MINR
	PTC_TICK ONLY	Tick Only	C-ROAD-PROF-STAN-MINR
Profile Horizontal Geometry Point Labels	PTC_HORZ GEOM STA	Horizontal Geometry Station	C-ROAD-PROF-STAN-GEOM
Profile Grade Break Labels	PTC_STA OVER ELEV	Station over Elevation	C-ROAD-PROF-STAN-GEOM
Profile Line Labels	PTC_PRCT GRADE	Percent Grade	C-ROAD-PROF-TEXT
	PTC_SLOPE 1 IN X	Slope Rise over Run	C-ROAD-PROF-TEXT
Profile Curve Labels	PTC_CREST & SAG	Crest and Sag	C-ROAD-PROF-TEXT
	PTC_CREST & SAG WITH HP & LP	Crest and Sag with High Point and Low Point	C-ROAD-PROF-TEXT
Profile View, Profile View Label and Profile Band Styles	Style Name	Description	Main Layer Control
Profile View Styles	PTC_BOT STACK VIEW	Bottom Stacked View	C-ROAD-PROF Layers
	PTC_FIRST VIEW	Series First View	C-ROAD-PROF Layers
	PTC_INT VIEW	Series Intermediate View	C-ROAD-PROF Layers
	PTC_LAST VIEW	Series Last View	C-ROAD-PROF Layers
	PTC_MID STACK VIEW	Middle Stacked View	C-ROAD-PROF Layers
	PTC_PROF VIEW	Profile View	C-ROAD-PROF Layers
	PTC_TOP STACK VIEW	Top Stacked View	C-ROAD-PROF Layers
Profile Station Elevation Labels	PTC_STA & ELEV DOWN	Station and Elevation Below Marker	C-ROAD-PROF-TEXT
	PTC_STA & ELEV UP	Station and Elevation Above Marker	C-ROAD-PROF-TEXT
Profile Depth Labels	PTC_DEPTH	Depth	C-ROAD-PROF-TEXT
	PTC_GRADE %	Percent Grade	C-ROAD-PROF-TEXT
	PTC_SLOPE 1 IN X	Slope Rise over Run	C-ROAD-PROF-TEXT
Profile Projection Labels	PTC_BASC	Project Dim Basic	C-ROAD-PROF-TEXT
	PTC_PROJ DIM ABOVE	Project Dim Above	C-ROAD-PROF-TEXT
	PTC_PROJ DIM BELOW	Project Dim Below	C-ROAD-PROF-TEXT
Profile Crossing	PTC_STANDARD	Crossing Standard	C-ROAD-PROF-TEXT
Profile Band Sets	PTC EG FG ELEV & STA	EG & FG Elevation and Station	NA
	PTC_CUT & FILL	Cut and Fill Band Set	NA
	PTC EG FG ELEV & STA SINGLE	EG & FG Elevation and Station Single	NA
	PTC_NO BANDS	No Bands	NA
	PTC_PLAN PROF SHEET - ELEV & STA	EG & FG Elevation and Station With No Band	NA



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	PTC_SECT SAMP LINE	Sample Lines	NA
	PTC_STA ONLY	Station Only	NA
Profile Band Data	PTC STATIONS	STATIONS	C-ROAD-PROF Layers
	PTC_CUT DATA	Cut Data	C-ROAD-PROF Layers
	PTC_ELEV & STA	Elevation and Station	C-ROAD-PROF Layers
	PTC_ELEVATIONS	Elevations	C-ROAD-PROF Layers
	PTC_EMPTY BAND - BOT	No Data - Top	C-ROAD-PROF Layers
	PTC_EMPTY BAND - TOP	No Data - Bottom	C-ROAD-PROF Layers
	PTC_FILL DATA	Fill Data	C-ROAD-PROF Layers
	PTC_PROF DATA	Profile Data	C-ROAD-PROF Layers
	PTC_STA	Station	C-ROAD-PROF Layers
Profile Band Vertical Geometry	PTC_GEOM	Vertical Geometry	C-ROAD-PROF Layers
Profile Band Horizontal Geometry	PTC_CURVE	Horizontal Curve Geometry	C-ROAD-PROF Layers
	PTC_GEOM	Horizontal Geometry	C-ROAD-PROF Layers
Profile Band Superelevation	PTC_DIVIDED WITH TWO CROWNS - NO SHLDRS	Divided with Two Crowns and No Shoulders	C-ROAD-PROF Layers
	PTC_DIVIDED WITH TWO CROWNS & SHLDRS	Divided with Two Crowns and Shoulders	C-ROAD-PROF Layers
	PTC_STAND	Standard	C-ROAD-PROF Layers
	PTC_UNDIVIDED - NO SHLDRS	Undivided with No Shoulders	C-ROAD-PROF Layers
	PTC_UNDIVIDED WITH SHLDRS	Undivided	C-ROAD-PROF Layers
Profile Band Sectional Data	PTC_SAMP LINE NAME & DIST	Sample Line and Distance	C-ROAD-PROF Layers
Profile Band Pipe Network	PTC_INV ELEV	Pipe Invert Elevation	C-ROAD-PROF Layers
	PTC_PIPE DATA	Pipe Data	C-ROAD-PROF Layers
	PTC_RIM ELEV	Structure Rim Elevation	C-ROAD-PROF Layers
	PTC_STRC STA	Structure Station	C-ROAD-PROF Layers
Sample Line and Sample Line Label Styles	Style Name	Description	Main Layer Control
Sample Line Styles	PTC_ROAD SAMP LINE		C-ROAD-SAMP
Sample Line Label Styles	PTC_SECT MARKS #-#	Section Marks	C-ROAD-SAMP-TEXT
	PTC_SECT NAME	Section Name	C-ROAD-SAMP-TEXT
	PTC_SECT NAME & MARKS	Name and Marks	C-ROAD-SAMP-TEXT
	PTC_SECT STA	Station	C-ROAD-SAMP-TEXT
Section and Section Label Styles	Style Name	Description	Main Layer Control
Section Styles	PTC_EXST GRND	Existing Ground	C-ROAD-SECT
	PTC_PROP GRND	Proposed Ground	C-ROAD-SECT-PROP
Section Label Sets	PTC_COOR PNTS	Coordinate Points	NA
	PTC_EXST SECT LABL	Existing Section	NA
	PTC_PROP SECT LABL	Proposed Section	NA
	PTC_MAJR & MINR OFFS	Major and Minor Offsets	NA



	PTC_NO LABL	No Labels	NA
Section Major Offset Labels	PTC_OFFSET & ELEV	Offset and Elevation	C-ROAD-SECT-TEXT
Section Minor Offset Labels	PTC_OFFSET & ELEV	Offset and Elevation	C-ROAD-SECT-TEXT
Section Grade Break Labels	PTC_EXST SECT OFFSET & ELEV	Existing Section Offset and Elevation	C-ROAD-SECT-TEXT
	PTC_PROP SECT OFFSET & ELEV	Proposed Section Offset and Elevation	C-ROAD-SECT-TEXT
Section Segment Labels	PTC_PERCENT GRADE	Percent Grade	C-ROAD-SECT-TEXT
Section Corridor Labels	PTC_CODE Grade Point	Point Elevation	C-ROAD-SECT-LABL
	PTC_CODE OFFSET ELEV	Corridor Code, Offset and Elevation	C-ROAD-SECT-LABL
Section View, Section View Label, Section View Sheet, and Section View Band Styles	Style Name	Description	Main Layer Control
Section View Styles	PTC_ROAD SECT	Section View Styles	C-ROAD-SECT Layers
Section Plot Styles	PTC_SECT	Section Plot Style	C-ROAD-SECT Layers
Section Sheet Styles	PTC_SECT	Section Sheet Style	C-ROAD-SECT Layers
Section Offset Elevation Labels	PTC_OFFSET OVER ELEV	Offset over Elevation	C-ROAD-SECT-TEXT
Section Grade Labels	PTC_GRADE	Grade	C-ROAD-SECT-TEXT
Section Projection Labels	PTC_PROJ DIM ABOVE	Projection with Dimension Shown Above	C-ROAD-SECT-TEXT
Section Band Sets	PTC_MAJR STA OFFSET & ELEV	Major Station Offset and Elevations	NA
	PTC_NO BANDS	No Bands	NA
	PTC_OFFS ONLY	Offsets Only	NA
	PTC_LDT SECT	Elevation Labels	NA
Band Data Section	PTC_EXST ELEV	Existing Elevation	C-ROAD-SECT Layers
	PTC_OFFSETS	Vertical Offsets	C-ROAD-SECT Layers
	PTC_OFFSETS HORZ	Horizontal Offsets	C-ROAD-SECT Layers
	PTC_PROP ELEV	Proposed Elevations	C-ROAD-SECT Layers
	PTC_LDT EG & FG ELEV @ CL	Existing and Proposed Elevations	C-ROAD-SECT-TEXT
Band Segment Section	PTC_SEGM LNTH	Segment Length	C-ROAD-SECT Layers
Section Table Styles	PTC_VOL	Volume Table	C-ANNO-TABL/TEXT Layers
	PTC_MTRL	Material Table	C-ANNO-TABL/TEXT Layers
Superelevation View Styles	Style Name	Description	Main Layer Control
Superelevation View Styles	PTC_SUPER	Superelevation	C-ROAD-SECT (LAYERS)
Surface and Surface Label Styles	Style Name	Description	Main Layer Control
Surface Styles	PTC_BRDR ONLY	Border	C-TINN/TOPO Layers
	PTC_CONT & TRNG_PNTS	Contours, Triangles & Points	C-TINN/TOPO Layers
	PTC_CONT 1' & 5' (Existing)	Contours Intervals 1' and 5' Existing	V-TINN/TOPO Layers



	PTC_CONT 1' & 5' (Proposed)	Contours Intervals 1' and 5' Proposed	C-TINN/TOPO Layers
	PTC_CONT 2' & 10' (Existing)	Contours Intervals 2' and 10' Existing	V-TINN/TOPO Layers
	PTC_CONT 2' & 10' (Proposed)	Contours Intervals 2' and 10' Proposed	C-TINN/TOPO Layers
	PTC_CONT 5' & 25' (Proposed)	Contours Intervals 5' and 25' Proposed	C-TINN/TOPO Layers
	PTC_CONT 5' & 25' (Existing)	Contours Intervals 5' and 25' Existing	V-TINN/TOPO Layers
	PTC_CUT & FILL BAND 1' INTV	Cut and Fill Elevation Banding	C-TINN/TOPO Layers
	PTC_ELEV BAND	Elevation Banding	C-TINN/TOPO Layers
	PTC_NO_DISPLAY	No Display	C-TINN/TOPO Layers
	PTC_SLOPE BAND	Slope Banding	C-TINN/TOPO Layers
Surface Contour Labels	PTC_MAJR LABL (Existing)	Existing Major Contour	V-SURF-TEXT
	PTC_MINR LABL (Existing)	Existing Minor Contour	V-SURF-TEXT
	PTC_MAJR LABL (Proposed)	Proposed Major Contour	C-TOPO-SURF-TEXT
	PTC_MINR LABL (Proposed)	Proposed Minor Contour	C-TOPO-SURF-TEXT
	PTC_USER LABL (Existing)	Existing User Contour	V-SURF-TEXT
	PTC_USER LABL (Proposed)	Proposed User Contour	C-TOPO-SURF-TEXT
Surface Slope Labels	PTC_PERCENT	Slope Percent	C-TOPO-SURF-TEXT
	PTC_RISE OVER RUN	Rise over Run	C-TOPO-SURF-TEXT
	PTC_RUN OVER RISE	Run over Rise	C-TOPO-SURF-TEXT
Surface Spot Elevation Labels	PTC_EL:100.00	Spot Elevation. "EL:100" Formatting	C-TOPO-SURF-TEXT
	PTC_ELEV ONLY	Elevation Only	C-TOPO-SURF-TEXT
Surface Watershed Labels	PTC_NO DISPLAY	No Display	C-TOPO-WSHD-TEXT
	PTC_WTSD	Watershed	C-TOPO-WSHD-TEXT
Surface Table Styles	PTC_DIRECTION	Slope Direction	C-ANNO-TABL/TEXT Layers
	PTC_ELEV	Surface Elevation	C-ANNO-TABL/TEXT Layers
	PTC_SLOPE	Surface Slope	C-ANNO-TABL/TEXT Layers
	PTC_SLOPE ARROW	Surface Slope Arrow	C-ANNO-TABL/TEXT Layers
	PTC_CONT	Surface Contours	C-ANNO-TABL/TEXT Layers
	PTC_WTSD	Surface Watersheds	C-ANNO-TABL/TEXT Layers
	PTC_USER DEF CONT	User Contours	C-ANNO-TABL/TEXT Layers
Point Label Styles	DESCRIPTION ONLY	Point Description	C-SURF-TEXT
	ELEVATION ONLY	Point Elevation	C-SURF-TEXT
	FULL DESCRIPTION ONLY	Full Description	C-SURF-TEXT



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	IRON PIPE LABEL	Iron Pipe Label	C-SURF-TEXT
	LAT & LONG	Latitude and Longitude	C-SURF-TEXT
	NORTHING EASTING	Northing and Easting	C-SURF-TEXT
	PIN LABEL	Pin Label	C-SURF-TEXT
	POINT#-ELEV-DESC	Point Number, Elevation, and Description	C-SURF-TEXT
	POINT# ONLY	Point Number	C-SURF-TEXT
	RAW DESCRIPTION ONLY	Raw Description	C-SURF-TEXT
	WATM LABEL	Water Meter	C-SURF-TEXT

14.12 OPENROADS DESIGNER ELEMENT TEMPLATES

14.12.1 FEATURE DEFINITION DGNLIB

Template Path	Template Name	Level
\\Annotation\Sheets\Plan\	Bearing Label	C-ALGN-TEXT
\\Annotation\Sheets\Plan\	Curve Data Label	C-ALGN-TEXT
\\Annotation\Sheets\Plan\	Line Length Label	C-ALGN-TEXT
\\Annotation\Sheets\Plan\	North Arrow	C-ANNO
\\Annotation\Sheets\Plan\	PI Tangent Lines	C-ALGN-TEXT
\\Annotation\Sheets\Plan\	Plan Grid Border	C-ANNO
\\Annotation\Sheets\Plan\	Plan Grid Lines	C-ANNO
\\Annotation\Sheets\Plan\	Plan Grid Text	C-ANNO
\\Annotation\Sheets\Plan\	Spiral Data Label	C-ALGN-SYMB
\\Annotation\Sheets\Plan\	Station Cardinal Lines	C-ALGN-TEXT
\\Annotation\Sheets\Plan\	Station Cardinal Points	C-ALGN-TEXT
\\Annotation\Sheets\Plan\	PTC_Station Labels Major	C-ALGN-TEXT
\\Annotation\Sheets\Plan\	PTC_Station Ticks Major	C-ALGN-TEXT
\\Annotation\Sheets\Plan\	PTC_Station Ticks Minor	C-ALGN-TEXT
\\Annotation\Sheets\Profile\	Draft_Profile_Grid	C-PROF-GRID
\\Annotation\Sheets\Profile\	Draft_Profile_LP_HP_Text	C-PROF-GRID
\\Annotation\Sheets\Profile\	Draft_Profile_Sheet_Major_Grid	C-PROF-GRID-MAJR
\\Annotation\Sheets\Profile\	Draft_Profile_Sheet_Minor_Grid	C-PROF-GRID-MINR
\\Annotation\Sheets\Profile\	PTC_Profile_Text	C-ROAD-PROF-TEXT
\\Annotation\Sheets\Profile\	PTC_Profile_Title	C-ROAD-PROF-TITL
\\Annotation\Sheets\Profile\	PTC_Profile_Title-Axis	C-ROAD-PROF-TTLB
\\Annotation\Sheets\Profile\	PTC_Profile_Grid-MAJR	C-ROAD-PROF-GRID-MAJR
\\Annotation\Sheets\Profile\	PTC_Profile_Grid-MINR	C-ROAD-PROF-GRID-MINR
\\Annotation\Sheets\Profile\	Draft_Profile_VPI_LT_Special Ditch	C-DTCH-TEXT
\\Annotation\Sheets\Profile\	Draft_Profile_VPI_RT_Special Ditch	C-DTCH-TEXT



Template Path	Template Name	Level
\\Annotation\Sheets\XS\	Draft_XS_E_ROW_Labels	C-PROP-LINE-TEXT
\\Annotation\Sheets\XS\	Draft_XS_E_ROW_Lines	C-PROP-PARC-ROWL
\\Annotation\Sheets\XS\	Draft_XS_Feature_Text	C-XSEC-TEXT
\\Annotation\Sheets\XS\	Draft_XS_GoreLimits	C-XSEC
\\Annotation\Sheets\XS\	Draft_XS_Grid	C-XSEC-GRID
\\Annotation\Sheets\XS\	Draft_XS_P_ROW_Labels	C-PROP-LINE-TEXT
\\Annotation\Sheets\XS\	Draft_XS_P_ROW_Lines	C-PROP-PARC-ROWL
\\Annotation\Sheets\XS\	Draft_XS_Segment_Text	C-XSEC-TEXT
\\Annotation\Sheets\XS\	Draft_XS_Sheet_Annotation	C-XSEC-TEXT
\\Annotation\Sheets\XS\	Draft_XS_Sheet_Border	C-XSEC-GRID
\\Annotation\Sheets\XS\	Draft_XS_Sheet_Major_Grid	C-XSEC-GRID-MAJR
\\Annotation\Sheets\XS\	Draft_XS_Sheet_Minor_Grid	C-XSEC-GRID-MINR
\\Annotation\Sheets\XS\	Draft_XS_Text	C-XSEC-TEXT
\\Annotation\Sheets\XS\	Draft_XS_Volume	C-XSEC
\\Annotation\Sheets\XS\	Draft_XS_Volume_Annotation	C-XSEC-TEXT
\\Annotation\Sheets\XS\PTC XS\	PTC_XS-Feature-Text	C-ROAD-SECT-LABL
\\Annotation\Sheets\XS\PTC XS\	PTC_XS-Grid-Tick	C-ROAD-SECT-TICK
\\Annotation\Sheets\XS\PTC XS\	PTC_XS-Sheet Major Grid	C-ROAD-SECT-GRID-MAJR
\\Annotation\Sheets\XS\PTC XS\	PTC_XS-Sheet Minor Grid	C-ROAD-SECT-GRID-MINR
\\Annotation\Sheets\XS\PTC XS\	PTC_XS-Sect-Title	C-ROAD-SECT-TITL
\\Annotation\Sheets\XS\PTC XS\	PTC_XS-Sect-Text	C-ROAD-SECT-TEXT
\\Annotation\Sheets\XS\PTC XS\	PTC_XS-Sect-Title Border	C-ROAD-SECT-TTLB
\\Annotation\Sheets\XS\PTC XS\	PTC_XS-Sect-Title Box	C-ROAD-SECT-TTLB
\\Annotation\Sheets\XS\PTC XS\	PTC_XS-Sect-Grid	C-XSEC-GRID
\\Annotation\Sheets\XS\PTC XS\	PTC_XS-Vol-Text	C-XSEC-TEXT
\\Annotation\	SU Annotation	C-ANNO
\\Linear\Alignment\	PTC_BASC	C-ALGN
\\Linear\Alignment\	PTC_EXST	C-ALGN



Template Path	Template Name	Level
\Linear\Alignment\	PTC_INTR	C-ALGN
\Linear\Alignment\	PTC_INTR_BASC	C-ALGN
\Linear\Alignment\	PTC_LAYT-LINE	C-ALGN
\Linear\Alignment\	PTC_LAYT-CURV	C-ALGN
\Linear\Alignment\	PTC_LAYT-SPIR	C-ALGN
\Linear\Alignment\	PTC_OFFS	C-ALGN
\Linear\Alignment\	PTC_EXST	C-ALGN
\Linear\Alignment\	PTC_INTR	C-ALGN
\Linear\Alignment\	PTC_LAYT	C-ALGN
\Linear\Alignment\	PTC_PROP	C-ALGN
\Linear\Alignment\	PTC_RAMP-1	C-ALGN
\Linear\Alignment\	PTC_RAMP-2	C-ALGN
\Linear\Alignment\	PTC_RAMP-3	C-ALGN
\Linear\Bridge\	Bridge_Abutment	S-ABUT
\Linear\Bridge\	Bridge_Beam	S-BEAM
\Linear\Bridge\	Bridge_Bearing	S-BEAM-BEAR
\Linear\Bridge\	Bridge_Cap	S-BRDG
\Linear\Bridge\	Bridge_Column	S-BRDG
\Linear\Bridge\	Bridge_Concrete	S-BEAM-CONC
\Linear\Bridge\	Bridge_Deck	S-DECK
\Linear\Bridge\	Bridge_Pier	S-PIER
\Linear\Bridge\	Bridge_Railing	S-BRDG
\Linear\Curb\	Road_Curb_Back	C-CURB-BACK
\Linear\Curb\	Road_Curb_Edge	C-CURB
\Linear\Curb\	Road_Curb_Face	C-CURB
\Linear\Curb\	Road_Curb_Flowline	C-CURB
\Linear\Ditch\	Ditch_Bottom_Back	C-DTCH-BOTM
\Linear\Ditch\	Ditch_Bottom_Center	C-DTCH-CNTR



Template Path	Template Name	Level
\\Linear\Ditch\	Ditch_Bottom_Front	C-DTCH-BOTM
\\Linear\Ditch\	Ditch_Top_Back	C-DTCH-TOPD
\\Linear\Ditch\	Ditch_Top_Front	C-DTCH-TOPD
\\Linear\Existing\Bridge\	E_Bridge	E_Bridge
\\Linear\Existing\Building\	E_Building	E_Building
\\Linear\Existing\Building\	E_Building_Foundation	E_Building_Foundation
\\Linear\Existing\Geometry\	E_Road_Centerline	E_Road_Centerline
\\Linear\Existing\Rail\	E_Rail_Track	E_Rail_Track
\\Linear\Existing\Roadway\	E_Road_Curb_Back	E_Road_Curb_Back
\\Linear\Existing\Roadway\	E_Road_Curb_Edge	E_Road_Curb
\\Linear\Existing\Roadway\	E_Road_Curb_Face	E_Road_Curb_Face
\\Linear\Existing\Roadway\	E_Road_Curb_Flowline	E_Road_Curb_Flowline
\\Linear\Existing\Roadway\	E_Road_EdgeOfPavement	E_Road_EdgeOfPavement
\\Linear\Existing\Roadway\	E_Road_Lane	E_Road_LaneEdge
\\Linear\Existing\Roadway\	E_Road_Sample_Point	E_Road_Sample_Point
\\Linear\Existing\Shoulder\	E_Road_Shoulder	E_Road_Shoulder
\\Linear\Existing\Sidewalk\	E_Road_Sidewalk_Back	E_Road_Sidewalk_Back
\\Linear\Existing\Sidewalk\	E_Road_Sidewalk	E_Road_Sidewalk
\\Linear\Existing\Sidewalk\	E_Road_Sidewalk_Front	E_Road_Sidewalk_Front
\\Linear\Existing\Survey\	Observations	E_Geom_Observations
\\Linear\Existing\Survey\	Setups	E_Geom_SurveyControl
\\Linear\Existing\Terrain\	E_Terrain_Bank	E_Terrain_Bank
\\Linear\Existing\Terrain\	E_Terrain_DitchBottomBack	E_Terrain_DitchBottomBack
\\Linear\Existing\Terrain\	E_Terrain_DitchBottomFront	E_Terrain_DitchBottomFront
\\Linear\Existing\Terrain\	E_Terrain_DitchTop	E_Terrain_DitchTop
\\Linear\Existing\Terrain\	E_Terrain_Fence	E_Terrain_Fence
\\Linear\Existing\Terrain\	E_Terrain_Flowline	E_Terrain_Flowline
\\Linear\Existing\Terrain\	E_Terrain_Pond	E_Terrain_Pond



Template Path	Template Name	Level
\\Linear\Existing\Terrain\	E_Terrain_Ridgeline	E_Terrain_Ridgeline
\\Linear\Existing\Terrain\	E_Terrain_Slope	E_Terrain_Slope
\\Linear\Existing\Terrain\	E_Terrain_TreeLine	E_Terrain_TreeLine
\\Linear\Existing\Traffic and Safety\	E_Road_Guiderail	E_Road_Guiderail
\\Linear\Fence\	Fence_Wrought_Iron 4'	C-BARR-VBFN
\\Linear\Fence\	Fence_Wrought_Iron 5'	C-BARR-VBFN
\\Linear\Fence\	Fence_Wrought_Iron 6'	C-BARR-VBFN
\\Linear\Fence\	Fence_Wrought_Iron - Profile	C-BARR-VBFN
\\Linear\Guiderail and Barrier\	Barrier_Cable	C-BARR
\\Linear\Guiderail and Barrier\	Barrier_Cable - Profile	C-BARR
\\Linear\Guiderail and Barrier\	Barrier_Cable_V2_L	C-BARR
\\Linear\Guiderail and Barrier\	Barrier_Cable_V2_R	C-BARR
\\Linear\Guiderail and Barrier\	Barrier_Jersey	C-BARR
\\Linear\Guiderail and Barrier\	Barrier_Jersey - Profile	C-BARR
\\Linear\Guiderail and Barrier\	Barrier_Jersey w/ Screen	C-BARR
\\Linear\Guiderail and Barrier\	Barrier_Jersey w/ Screen - Profile	C-BARR
\\Linear\Guiderail and Barrier\	Barrier_Wall_TL - Profile	C-BARR
\\Linear\Guiderail and Barrier\	Barrier_Wall_TL3	C-BARR
\\Linear\Guiderail and Barrier\	Barrier_Wall_TL4	C-BARR
\\Linear\Guiderail and Barrier\	Barrier_Wall_TL5	C-BARR
\\Linear\Guiderail and Barrier\	Guiderail_Double_Sided v1	C-GRAL
\\Linear\Guiderail and Barrier\	Guiderail_Double_Sided v1 - Profile	C-GRAL
\\Linear\Guiderail and Barrier\	Guiderail_Double_Sided v2	C-GRAL
\\Linear\Guiderail and Barrier\	Guiderail_Double_Sided v2 - Profile	C-GRAL
\\Linear\Guiderail and Barrier\	Guiderail_Single_Sided_L	C-GRAL
\\Linear\Guiderail and Barrier\	Guiderail_Single_Sided_L - Profile	C-GRAL
\\Linear\Guiderail and Barrier\	Guiderail_Single_Sided_R	C-GRAL



Template Path	Template Name	Level
\\Linear\Guiderail and Barrier\	Guiderail_Single_Sided_R - Profile	C-GRAL
\\Linear\Guiderail and Barrier\	Guiderail_V2_Single_Sided_L	C-GRAL
\\Linear\Guiderail and Barrier\	Guiderail_V2_Single_Sided_R	C-GRAL
\\Linear\Guiderail and Barrier\	Traffic_Rail_SSTR - Profile	C-BARR
\\Linear\Guiderail and Barrier\	Traffic_Rail_SSTR_L	C-BARR
\\Linear\Guiderail and Barrier\	Traffic_Rail_SSTR_R	C-BARR
\\Linear\Miscellaneous\	Clipping_Shape	Clipping_Shape
\\Linear\Miscellaneous\	Draft_DNC	z - Construction
\\Linear\Miscellaneous\	Drain_Grade_Fixed_Tie	Drain_Grade_Fixed_Tie
\\Linear\Miscellaneous\	Geom_Civil_Cell_Control	Geom_Civil_Cell_Control
\\Linear\Miscellaneous\	Matchline	Matchline
\\Linear\Miscellaneous\	Road_Driveway_Back	Road_Driveway
\\Linear\Miscellaneous\	Sawcut_Line	Sawcut_Line
\\Linear\Miscellaneous\	Util_Profile_Run	Util_Profile_Run
\\Linear\Pavement\	Profile_EdgeOfPavement_L	C-ROAD-EDGE
\\Linear\Pavement\	Profile_EdgeOfPavement_R	C-ROAD-EDGE
\\Linear\Pavement\	Road_EdgeOfPavement	C-ROAD-EDGE
\\Linear\Pavement\	Road_EdgeOfPavement_Inside	C-ROAD-EDGE
\\Linear\Pavement\	Road_EdgeOfPavement_Outside	C-ROAD-EDGE
\\Linear\Pavement\	Road_Lane	C-ROAD-LANE
\\Linear\Pavement Marking\Double Skip Dash\	Pavt Marking 4" Yellow Skip Lt Solid Rt 10' - 30'	T-MPTX-PVMK
\\Linear\Pavement Marking\Double Skip Dash\	Pavt Marking 4" Yellow Solid Lt Skip Rt 10' - 30'	T-MPTX-PVMK
\\Linear\Pavement Marking\Double Solid\	Pavt Marking 4" Yellow Double Solid	T-MPTX-PVMK
\\Linear\Pavement Marking\Double Solid\	Pavt Marking 4" Yellow Double Solid w/Ref	T-MPTX-PVMK
\\Linear\Pavement Marking\Double Solid\	Pavt Marking 4" White Double Solid w/Ref	T-MPTX-PVMK
\\Linear\Pavement Marking\Single Skip Dash\	Pavt Marking 4" White 10' - 30'	T-MPTX-PVMK



Template Path	Template Name	Level
\\Linear\Pavement Marking\Single Skip Dash\	Pavt Marking 4" White 10' - 30' w/Ref	T-MPTX-PVMK
\\Linear\Pavement Marking\Single Skip Dash\	Pavt Marking 4" White 2' - 4'	T-MPTX-PVMK
\\Linear\Pavement Marking\Single Skip Dash\	Pavt Marking 4" White 6' - 10'	T-MPTX-PVMK
\\Linear\Pavement Marking\Single Skip Dash\	Pavt Marking 4" Yellow 10' - 30'	T-MPTX-PVMK
\\Linear\Pavement Marking\Single Skip Dash\	Pavt Marking 4" Yellow 10' - 30' w/Ref	T-MPTX-PVMK
\\Linear\Pavement Marking\Single Skip Dash\	Pavt Marking 4" Yellow 2' - 4'	T-MPTX-PVMK
\\Linear\Pavement Marking\Single Skip Dash\	Pavt Marking 4" Yellow 6' - 10'	T-MPTX-PVMK
\\Linear\Pavement Marking\Single Solid\	Pavt Marking 12" White Solid	T-MPTX-PVMK
\\Linear\Pavement Marking\Single Solid\	Pavt Marking 24" White Solid	T-MPTX-PVMK
\\Linear\Pavement Marking\Single Solid\	Pavt Marking 4" White Solid	T-MPTX-PVMK
\\Linear\Pavement Marking\Single Solid\	Pavt Marking 4" Yellow Solid	T-MPTX-PVMK
\\Linear\Pavement Marking\Single Solid\	Pavt Marking 6" White Solid	T-MPTX-PVMK
\\Linear\Pavement Marking\Single Solid\	Pavt Marking 6" Yellow Solid	T-MPTX-PVMK
\\Linear\Pavement Marking\Single Solid\	Pavt Marking 8" White Solid	T-MPTX-PVMK
\\Linear\Pavement Marking\Single Solid\	Pavt Marking 8" Yellow Solid	T-MPTX-PVMK
\\Linear\Profiles\	Profile_Special_Ditch_L	C-DTCH
\\Linear\Profiles\	Profile_Special_Ditch_R	C-DTCH
\\Linear\Profiles\	PTC_EXST PROF GRND	C-ROAD-PROF
\\Linear\Profiles\	PTC_PROP PROF	C-ROAD-PROF-PROP
\\Linear\Profiles\	PTC_LEFT SAMP PROF	C-ROAD-PROF-LTOF
\\Linear\Profiles\	PTC_RIGHT SAMP PROF	C-ROAD-PROF-RTOF
\\Linear\Profiles\	PTC_LAYT-LINE	C-ROAD-PROF-LINE
\\Linear\Profiles\	PTC_LAYT-CURVE	C-ROAD-PROF-CURV
\\Linear\Rail\	Rail_3D	C-RAIL
\\Linear\Rail\	Rail_Ballast	C-RAIL
\\Linear\Rail\	Rail_Cant	C-RAIL
\\Linear\Rail\	Rail_Center	C-RAIL
\\Linear\Rail\	Rail_Concrete	C-RAIL



Template Path	Template Name	Level
\Linear\Rail\	Rail_Concrete_Sleeper	C-RAIL
\Linear\Rail\	Rail_HI-Rail-Access	C-RAIL
\Linear\Rail\	Rail_LT-Concrete_Sleeper	C-RAIL
\Linear\Rail\	Rail_LT-Wooden_Sleeper	C-RAIL
\Linear\Rail\	Rail_Platform	C-RAIL
\Linear\Rail\	Rail_RT-Concrete_Sleeper	C-RAIL
\Linear\Rail\	Rail_RT-Wooden_Sleeper	C-RAIL
\Linear\Rail\	Rail_Subballast	C-RAIL
\Linear\Rail\	Rail_Subballast_Berm	C-RAIL
\Linear\Rail\	Rail_Wooden_Sleeper	C-RAIL
\Linear\Right of Way\	E_ROW	C-PROP-PARC-ROWL
\Linear\Right of Way\	E_ROW_CA	C-PROP-PARC-ROWL
\Linear\Right of Way\	E_ROW_NA	C-PROP-PARC-ROWL
\Linear\Right of Way\	E_ROW_PL	C-PROP-PARC-ROWL
\Linear\Right of Way\	E_ROW_TA	C-PROP-PARC-ROWL
\Linear\Right of Way\	P_ROW	C-PROP-PARC-ROWL
\Linear\Right of Way\	P_ROW_CA	C-PROP-PARC-ROWL
\Linear\Right of Way\	P_ROW_NA	C-PROP-PARC-ROWL
\Linear\Right of Way\	P_ROW_PE	C-PROP-PARC-ROWL
\Linear\Right of Way\	P_ROW_TA	C-PROP-PARC-ROWL
\Linear\Right of Way\	P_ROW_TE	C-PROP-PARC-ROWL
\Linear\Shoulder\	Road_Shoulder	C-SHDR
\Linear\Shoulder\	Road_Shoulder_Inside	C-SHDR
\Linear\Shoulder\	Road_Shoulder_Outside	C-SHDR
\Linear\Sidewalk\	Road_Sidewalk	C-SWLK
\Linear\Sidewalk\	Road_Sidewalk_Back	C-SWLK
\Linear\Sidewalk\	Road_Sidewalk_Front	C-SWLK
\Linear\Site\	Site_Building	C-TOPO



Template Path	Template Name	Level
\\Linear\\Site\\	Site_Grading	C-TOPO-GRAD
\\Linear\\Site\\	Site_Lawn	C-TOPO
\\Linear\\Site\\	Site_Pad	C-TOPO
\\Linear\\Site\\	Site_Parking	C-TOPO
\\Linear\\Site\\	Site_Pond	C-TOPO
\\Linear\\Site\\	Site_Pond_Berm	C-TOPO
\\Linear\\Site\\	Site_Pond_Bottom	C-TOPO
\\Linear\\Site\\	Site_Pond_Elevation	C-TOPO
\\Linear\\Site\\	Site_Pond_Freeboard	C-TOPO
\\Linear\\Site\\	Site_Pond_Top	C-TOPO
\\Linear\\Site\\	Site_Temp_Grading	C-TOPO-GRAD
\\Linear\\Site\\	Site_Yard	C-TOPO
\\Linear\\Superelevation\\	Super_Section	C-ROAD-CORR
\\Linear\\Terrain Feature\\	Terrain_Breakline	C-SURF-WORK
\\Linear\\Terrain Feature\\	Terrain_Exterior	C-SURF-BNDY-EXTR
\\Linear\\Terrain Feature\\	Terrain_Interior	C-SURF-BNDY-INTR
\\Linear\\Traffic Control\\	Barrels_50' Spacing	T-MPTX-EQPM
\\Linear\\Traffic Control\\	Barrels_100' Spacing	T-MPTX-EQPM
\\Linear\\Traffic Control\\	Cone_Channelizer_10' Spacing	T-MPTX-ATTN
\\Linear\\Traffic Control\\	Cone_Channelizer_20' Spacing	T-MPTX-ATTN
\\Linear\\Traffic Control\\	Cone_Channelizer_30' Spacing	T-MPTX-ATTN
\\Linear\\Traffic Control\\	Cone_Channelizer_40' Spacing	T-MPTX-ATTN
\\Linear\\Traffic Control\\	Cone_Channelizer_50' Spacing	T-MPTX-ATTN
\\Linear\\Traffic Control\\	Cone_Channelizer_60' Spacing	T-MPTX-ATTN
\\Linear\\Traffic Control\\	Cone_Traffic_10' Spacing	T-MPTX-EQPM
\\Linear\\Traffic Control\\	Cone_Traffic_20' Spacing	T-MPTX-EQPM
\\Linear\\Traffic Control\\	Cone_Traffic_30' Spacing	T-MPTX-EQPM
\\Linear\\Traffic Control\\	Cone_Traffic_40' Spacing	T-MPTX-EQPM



Template Path	Template Name	Level
\\Linear\\Traffic Control\\	Cone_Traffic_50' Spacing	T-MPTX-EQPM
\\Linear\\Traffic Control\\	Cone_Traffic_60' Spacing	T-MPTX-EQPM
\\Linear\\Traffic Control\\	Reflector Post Orange	T-MPTX-EQPM
\\Linear\\Traffic Control\\	Reflector Post Red	T-MPTX-EQPM
\\Linear\\Traffic Control\\	Reflector Post White	T-MPTX-EQPM
\\Linear\\Walls\\	Wall	C-WALL
\\Linear\\Walls\\	Wall_Bottom	C-WALL
\\Linear\\Walls\\	Wall_Coping	C-WALL
\\Linear\\Walls\\	Wall_Footing	C-WALL
\\Linear\\Walls\\	Wall_Perch	C-WALL
\\Linear\\Walls\\	Wall_Top	C-WALL
\\Modeling\\Aquaplaning\\	Aquaplaning Thematic	Drain_Aquaplaning Surface
\\Modeling\\Aquaplaning\\	Drain_Aquaplaning Acceptable Risk	Drain_Aquaplaning Acceptable Risk
\\Modeling\\Aquaplaning\\	Drain_Aquaplaning Flowline	Drain_Aquaplaning Flowline
\\Modeling\\Aquaplaning\\	Drain_Aquaplaning High Risk	Drain_Aquaplaning High Risk
\\Modeling\\Aquaplaning\\	Drain_Aquaplaning Low Risk	Drain_Aquaplaning Low Risk
\\Modeling\\Aquaplaning\\	Drain_Aquaplaning Unacceptable Risk	Drain_Aquaplaning Unacceptable Risk
\\Modeling\\Components\\Aggregate\\	TC_Aggregate Typ A	TC_Aggregate
\\Modeling\\Components\\Aggregate\\	TC_Aggregate Typ A Ext	TC_Aggregate
\\Modeling\\Components\\Aggregate\\	TC_Aggregate Typ B	TC_Aggregate
\\Modeling\\Components\\Aggregate\\	TC_Aggregate Typ C	TC_Aggregate
\\Modeling\\Components\\Aggregate\\	TC_Aggregate Typ D	TC_Aggregate
\\Modeling\\Components\\Aggregate\\	TC_Riprap	TC_Riprap
\\Modeling\\Components\\Asphalt\\	TC_Asph Cold Milling	TC_Aspphalt
\\Modeling\\Components\\Asphalt\\	TC_Asph Conc Base Cse	TC_Aspphalt
\\Modeling\\Components\\Asphalt\\	TC_Asph Conc Intermediate Cse	TC_Aspphalt
\\Modeling\\Components\\Asphalt\\	TC_Asph Conc Wearing Cse	TC_Aspphalt
\\Modeling\\Components\\Concrete\\	TC_Channel Concrete	TC_Concrete Channel



Template Path	Template Name	Level
\\Modeling\Components\Concrete\	TC_Conc Misc	TC_Concrete Misc
\\Modeling\Components\Concrete\	TC_Concrete Barrier	TC_Concrete Barrier
\\Modeling\Components\Concrete\	TC_Concrete Pavt	TC_Concrete Pavement
\\Modeling\Components\Concrete\	TC_Curb	TC_Curb
\\Modeling\Components\Concrete\	TC_Gutter	TC_Gutter
\\Modeling\Components\Concrete\	TC_Sidewalk	TC_Sidewalk
\\Modeling\Components\DNC\	TC_Draft-DNC	TC_Draft-DNC
\\Modeling\Components\Existing\	TC_Existing Pavt	TC_Existing Pavement
\\Modeling\Components\Existing\	TC_Rock Surface	TC_Rock Surface
\\Modeling\Components\Existing\	TC_Unsuitable Material	TC_Unsuitable Material
\\Modeling\Components\Grading\	TC_Clearzone	TC_Grass
\\Modeling\Components\Grading\	TC_Cutslope	TC_Grass
\\Modeling\Components\Grading\	TC_Cutslope Berm	TC_Grass
\\Modeling\Components\Grading\	TC_Dirt	TC_Dirt
\\Modeling\Components\Grading\	TC_Ditch	TC_Grass
\\Modeling\Components\Grading\	TC_Ditch Backslope	TC_Grass
\\Modeling\Components\Grading\	TC_Ditch Bottom	TC_Grass
\\Modeling\Components\Grading\	TC_Ditch Foreslope	TC_Grass
\\Modeling\Components\Grading\	TC_Earth Shoulder	TC_Earth Shoulder
\\Modeling\Components\Grading\	TC_Fillslope	TC_Grass
\\Modeling\Components\Grading\	TC_Grass	TC_Grass
\\Modeling\Components\Grading\	TC_Grass Berm	TC_Grass
\\Modeling\Components\Grading\	TC_Grass Burnt	TC_Grass
\\Modeling\Components\Grading\	TC_Tieslope	TC_Grass
\\Modeling\Components\Grading\	TC_Topsoil	TC_Topsoil
\\Modeling\Components\Guiderail\	TC_Guiderail	TC_Guiderail
\\Modeling\Components\Guiderail\	TC_Guiderail Bumper	TC_Guiderail Bumper
\\Modeling\Components\Guiderail\	TC_Guiderail Post	TC_Guiderail Post



Template Path	Template Name	Level
\\Modeling\\Components\\Rail\\	TC_Rail 3D	TC_Rail 3D
\\Modeling\\Components\\Rail\\	TC_Rail Ballast	TC_Rail Ballast
\\Modeling\\Components\\Rail\\	TC_Rail Clearance	TC_Rail Clearance
\\Modeling\\Components\\Rail\\	TC_Rail Concrete Sleeper	TC_Rail Conc Sleeper
\\Modeling\\Components\\Rail\\	TC_Rail Platform	TC_Rail Platform
\\Modeling\\Components\\Rail\\	TC_Rail Subballast	TC_Rail Subballast
\\Modeling\\Components\\Rail\\	TC_Rail Wooden Sleeper	TC_Rail Wood Sleeper
\\Modeling\\Components\\Structural\\	TC_Bridge	TC_Bridge
\\Modeling\\Components\\Structural\\	TC_Bridge Abutment	TC_Bridge Abutment
\\Modeling\\Components\\Structural\\	TC_Bridge Girder	TC_Bridge Girder
\\Modeling\\Components\\Structural\\	TC_Ret Wall-Cut	TC_Ret Wall-Cut
\\Modeling\\Components\\Structural\\	TC_Ret Wall-Fill	TC_Ret Wall-Fill
\\Modeling\\Components\\Structural\\	TC_Structural Fill	TC_Structural Fill
\\Modeling\\Components\\Structural\\	TC_Structural Concrete	TC_Structural Concrete
\\Modeling\\Components\\Water\\	TC_Water	TC_Water
\\Modeling\\Corridor Contours\\	Major Contours	C-SURF-CONT-MAJR
\\Modeling\\Corridor Contours\\	Minor Contours	C-SURF-CONT-MINR
\\Modeling\\Corridor Graphics\\Controls\\	End Condition Exception	Draft_Corr_End Cond Exception
\\Modeling\\Corridor Graphics\\Controls\\	Key Station	Draft_Corr_Key Station
\\Modeling\\Corridor Graphics\\Controls\\	Point Control	Draft_Corr_Point Control
\\Modeling\\Corridor Graphics\\Controls\\	Secondary Alignment	Draft_Corr_Secondary Alignment
\\Modeling\\Corridor Graphics\\Design\\	Corridor Graphics - Design	Draft_Corr_Design
\\Modeling\\Corridor Graphics\\Design\\	Template Range Graphics - Design	Draft_Corr_Range_Design
\\Modeling\\Corridor Graphics\\Design\\	Template Single Drop Graphics - Design	Draft_Corr_TemplateDrop_Design
\\Modeling\\Corridor Graphics\\Design\\	Template Transition Graphics - Design	Draft_Corr_Transition_Design
\\Modeling\\Corridor Graphics\\Final\\	Corridor Graphics - Final	C-ROAD-CORR
\\Modeling\\Corridor Graphics\\Final\\	Template Range Graphics - Final	C-ROAD-CORR



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Template Path	Template Name	Level
\\Modeling\\Corridor Graphics\\Final\\	Template Single Drop Graphics - Final	Draft_Corr_TemplateDrop_Final
\\Modeling\\Corridor Graphics\\Final\\	Template Transition Graphics - Final	Draft_Corr_Transition_Final
\\Modeling\\Corridor Graphics\\Superelevation\\	Left Lane	Draft_Corr_Superelevation Left Lane
\\Modeling\\Corridor Graphics\\Superelevation\\	Right Lane	Draft_Corr_Superelevation Right Lane
\\Modeling\\Corridor Graphics\\PTC\\	PTC-Corr	C-ROAD-CORR
\\Modeling\\Corridor Meshes\\	Bottom Mesh	C-ROAD-CORR
\\Modeling\\Corridor Meshes\\	Top Mesh	C-ROAD-CORR
\\Modeling\\Points\\	Intersecting Profile	Intersecting Profile
\\Modeling\\Points\\	TL_XS Point Label Indicator	C-ROAD-SECT-LABL
\\Modeling\\Points\\Barrier Wall\\	Barrier Wall TL3	C-WALL-BARR
\\Modeling\\Points\\Barrier Wall\\	Barrier Wall TL4	C-WALL-BARR
\\Modeling\\Points\\Barrier Wall\\	Barrier Wall TL5	C-WALL-BARR
\\Modeling\\Points\\Cable Barrier Dynamic XS Label\\	Cable Barrier	C-BARR
\\Modeling\\Points\\Fence_Wrought_Iron Dynamic XS Label\\	Fence_Wrought_Iron 4ft	Fence_Wrought_Iron
\\Modeling\\Points\\Fence_Wrought_Iron Dynamic XS Label\\	Fence_Wrought_Iron 5ft	Fence_Wrought_Iron
\\Modeling\\Points\\Fence_Wrought_Iron Dynamic XS Label\\	Fence_Wrought_Iron 6ft	Fence_Wrought_Iron
\\Modeling\\Points\\Guiderail Dynamic XS Label\\	Guiderail_Double Sided	Road_Guiderail
\\Modeling\\Points\\Guiderail Dynamic XS Label\\	Guiderail_L	Road_Guiderail
\\Modeling\\Points\\Guiderail Dynamic XS Label\\	Guiderail_R	Road_Guiderail
\\Modeling\\Points\\Jersey Barrier Dynamic XS Label\\	Barrier	Road_Jersey Barrier
\\Modeling\\Points\\Jersey Barrier Dynamic XS Label\\	Barrier with Screen	Road_Jersey Barrier
\\Modeling\\Points\\ROW Dynamic XS Label\\	E_ROW	Draft_XS_Dynamic_View_Labels
\\Modeling\\Points\\ROW Dynamic XS Label\\	E_ROW_CA	Draft_XS_Dynamic_View_Labels
\\Modeling\\Points\\ROW Dynamic XS Label\\	E_ROW_NA	Draft_XS_Dynamic_View_Labels



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Template Path	Template Name	Level
\\Modeling\Points\ROW Dynamic XS Label\	E_ROW_TA	Draft_XS_Dynamic_View_Labels
\\Modeling\Points\ROW Dynamic XS Label\	P_ROW	Draft_XS_Dynamic_View_Labels
\\Modeling\Points\ROW Dynamic XS Label\	P_ROW_CA	Draft_XS_Dynamic_View_Labels
\\Modeling\Points\ROW Dynamic XS Label\	P_ROW_NA	Draft_XS_Dynamic_View_Labels
\\Modeling\Points\ROW Dynamic XS Label\	P_ROW_PE	Draft_XS_Dynamic_View_Labels
\\Modeling\Points\ROW Dynamic XS Label\	P_ROW_TA	Draft_XS_Dynamic_View_Labels
\\Modeling\Points\ROW Dynamic XS Label\	P_ROW_TE	Draft_XS_Dynamic_View_Labels
\\Modeling\Points\Traffic Rail Dynamic XS Label\	Traffic_Rail_SSTR_L	Road_Barrier
\\Modeling\Points\Traffic Rail Dynamic XS Label\	Traffic_Rail_SSTR_R	Road_Barrier
\\Modeling\Sheets\	Named Boundary	Draft_Named_Boundary
\\Modeling\Sight Visibility\	Sight_Achieved	Draft_Sight_Achieved
\\Modeling\Sight Visibility\	Sight_Relaxed	Draft_Sight_Relaxed
\\Modeling\Sight Visibility\	Sight_Not Achieved	Draft_Sight_Not Achieved
\\Modeling\Template Points\Barrier\	TL_Barrier	C-BARR
\\Modeling\Template Points\Barrier\	TL_Barrier Sub	C-BARR
\\Modeling\Template Points\Barrier\	TL_Median Barrier	C-BARR
\\Modeling\Template Points\Barrier\	TL_Median Barrier Sub	C-BARR
\\Modeling\Template Points\Channel\	TL_Channel	C-CHAN
\\Modeling\Template Points\Channel\	TL_Channel Sub	C-CHAN
\\Modeling\Template Points\Corridor Meshes\	Bottom Mesh	Subgrade
\\Modeling\Template Points\Corridor Meshes\	Top Mesh	Grade_Finished
\\Modeling\Template Points\Curb\	TL_Curb	C-CURB
\\Modeling\Template Points\Curb\	TL_Curb Flowline	C-CURB
\\Modeling\Template Points\Curb\	TL_Curb Sub	C-CURB
\\Modeling\Template Points\DNC\	TL_Draft-DNC	TL_Draft-DNC
\\Modeling\Template Points\Fence\	Fence_Wrought_Iron 4'	C-BARR-VBFN
\\Modeling\Template Points\Fence\	Fence_Wrought_Iron 4' - Profile	C-BARR-VBFN
\\Modeling\Template Points\Fence\	Fence_Wrought_Iron 5'	C-BARR-VBFN



Template Path	Template Name	Level
\\Modeling\Template Points\Fence\	Fence_Wrought_Iron 5' - Profile	C-BARR-VBFN
\\Modeling\Template Points\Fence\	Fence_Wrought_Iron 6'	C-BARR-VBFN
\\Modeling\Template Points\Fence\	Fence_Wrought_Iron 6' - Profile	C-BARR-VBFN
\\Modeling\Template Points\Grading\	TL_Ditch_Ctr	C-DTCH
\\Modeling\Template Points\Grading\	TL_Ditch_FL	C-DTCH
\\Modeling\Template Points\Grading\	TL_End Cond Berm In	C-TOPO-GRAD
\\Modeling\Template Points\Grading\	TL_End Cond Berm Out	C-TOPO-GRAD
\\Modeling\Template Points\Grading\	TL_End Cond Clearzone	C-TOPO-GRAD
\\Modeling\Template Points\Grading\	TL_End Cond Cut Tie	C-TOPO-GRAD
\\Modeling\Template Points\Grading\	TL_End Cond Dit In	C-TOPO-GRAD
\\Modeling\Template Points\Grading\	TL_End Cond Dit Out	C-TOPO-GRAD
\\Modeling\Template Points\Grading\	TL_End Cond Fill Tie	C-TOPO-GRAD
\\Modeling\Template Points\Grading\	TL_End Cond Hinge	C-TOPO-GRAD
\\Modeling\Template Points\Grading\	TL_Grade Greenspace In	C-TOPO-GRAD
\\Modeling\Template Points\Grading\	TL_Grade Greenspace Out	C-TOPO-GRAD
\\Modeling\Template Points\Grading\	TL_Median FL Center	C-ROAD-MEDN
\\Modeling\Template Points\Grading\	TL_Median FL Left	C-ROAD-MEDN
\\Modeling\Template Points\Grading\	TL_Median FL Right	C-ROAD-MEDN
\\Modeling\Template Points\Guiderail and Barrier\	Barrier_Cable	C-BARR
\\Modeling\Template Points\Guiderail and Barrier\	Barrier_Cable - Profile	C-BARR
\\Modeling\Template Points\Guiderail and Barrier\	Barrier_Cable_V2_L	C-BARR
\\Modeling\Template Points\Guiderail and Barrier\	Barrier_Cable_V2_R	C-BARR
\\Modeling\Template Points\Guiderail and Barrier\	Barrier_Jersey	C-BARR
\\Modeling\Template Points\Guiderail and Barrier\	Barrier_Jersey - Profile	C-BARR
\\Modeling\Template Points\Guiderail and Barrier\	Barrier_Jersey w/ Screen	C-BARR
\\Modeling\Template Points\Guiderail and Barrier\	Barrier_Jersey w/ Screen - Profile	C-BARR
\\Modeling\Template Points\Guiderail and Barrier\	Barrier_Wall_TL - Profile	C-BARR
\\Modeling\Template Points\Guiderail and Barrier\	Barrier_Wall_TL3	C-BARR



Template Path	Template Name	Level
\\Modeling\\Template Points\\Guiderail and Barrier\\	Barrier_Wall_TL4	C-BARR
\\Modeling\\Template Points\\Guiderail and Barrier\\	Barrier_Wall_TL5	C-BARR
\\Modeling\\Template Points\\Guiderail and Barrier\\	Guiderail_Double_Sided v1	C-GRAL
\\Modeling\\Template Points\\Guiderail and Barrier\\	Guiderail_Double_Sided v1 - Profile	C-GRAL
\\Modeling\\Template Points\\Guiderail and Barrier\\	Guiderail_Double_Sided v2	C-GRAL
\\Modeling\\Template Points\\Guiderail and Barrier\\	Guiderail_Double_Sided v2 - Profile	C-GRAL
\\Modeling\\Template Points\\Guiderail and Barrier\\	Guiderail_Single_Sided_L	C-GRAL
\\Modeling\\Template Points\\Guiderail and Barrier\\	Guiderail_Single_Sided_L - Profile	C-GRAL
\\Modeling\\Template Points\\Guiderail and Barrier\\	Guiderail_Single_Sided_R	C-GRAL
\\Modeling\\Template Points\\Guiderail and Barrier\\	Guiderail_Single_Sided_R - Profile	C-GRAL
\\Modeling\\Template Points\\Guiderail and Barrier\\	Guiderail_V2_Single_Sided_L	C-GRAL
\\Modeling\\Template Points\\Guiderail and Barrier\\	Guiderail_V2_Single_Sided_R	C-GRAL
\\Modeling\\Template Points\\Guiderail and Barrier\\	Traffic_Rail_SSTR - Profile	C-BARR
\\Modeling\\Template Points\\Guiderail and Barrier\\	Traffic_Rail_SSTR_L	C-BARR
\\Modeling\\Template Points\\Guiderail and Barrier\\	Traffic_Rail_SSTR_R	C-BARR
\\Modeling\\Template Points\\Median\\	TL_Raised Median	C-ROAD-MEDN
\\Modeling\\Template Points\\Paved Ditch\\	TL_Paved Ditch	C-DTCH-PAVE
\\Modeling\\Template Points\\Paved Ditch\\	TL_Paved Ditch Sub	C-DTCH-BOTM
\\Modeling\\Template Points\\Pavement\\	TL_Base Ext Sub	TL_Base Extension Sub
\\Modeling\\Template Points\\Pavement\\	TL_Centerline	C-ROAD-CORR
\\Modeling\\Template Points\\Pavement\\	TL_Centerline Exist	C-ROAD-CORR
\\Modeling\\Template Points\\Pavement\\	TL_Centerline Sub	C-ROAD-CORR
\\Modeling\\Template Points\\Pavement\\	TL_Edge of Milling	TL_Milling Edge
\\Modeling\\Template Points\\Pavement\\	TL_Edge of Pavt	C-ROAD-EDGE
\\Modeling\\Template Points\\Pavement\\	TL_Edge of Pavt Exist	C-ROAD-EDGE
\\Modeling\\Template Points\\Pavement\\	TL_Edge of Pavt Sub	C-ROAD-EDGE
\\Modeling\\Template Points\\Pavement\\	TL_Edge of Widen	C-ROAD-EDGE



Template Path	Template Name	Level
\\Modeling\\Template Points\\Pavement\\	TL_Edge of Widen Sub	C-ROAD-EDGE
\\Modeling\\Template Points\\Pavement\\	TL_Lane Line	C-ROAD-LANE
\\Modeling\\Template Points\\Pavement\\	TL_Lane Line Sub	C-ROAD-LANE
\\Modeling\\Template Points\\Pavement Marking\\Double Skip Dash\\	Pavt Marking 4" Yellow Skip Lt Solid Rt 10' - 30'	T-MPTX-PVMK
\\Modeling\\Template Points\\Pavement Marking\\Double Skip Dash\\	Pavt Marking 4" Yellow Solid Lt Skip Rt 10' - 30'	T-MPTX-PVMK
\\Modeling\\Template Points\\Pavement Marking\\Double Solid\\	Pavt Marking 4" Yellow Double Solid	T-MPTX-PVMK
\\Modeling\\Template Points\\Pavement Marking\\Double Solid\\	Pavt Marking 4" Yellow Double Solid w/Ref	T-MPTX-PVMK
\\Modeling\\Template Points\\Pavement Marking\\Double Solid\\	Pavt Marking 4" White Double Solid w/Ref	T-MPTX-PVMK
\\Modeling\\Template Points\\Pavement Marking\\Single Skip Dash\\	Pavt Marking 4" White 10' - 30'	T-MPTX-PVMK
\\Modeling\\Template Points\\Pavement Marking\\Single Skip Dash\\	Pavt Marking 4" White 10' - 30' w/Ref	T-MPTX-PVMK
\\Modeling\\Template Points\\Pavement Marking\\Single Skip Dash\\	Pavt Marking 4" White 2' - 4'	T-MPTX-PVMK
\\Modeling\\Template Points\\Pavement Marking\\Single Skip Dash\\	Pavt Marking 4" White 6' - 10'	T-MPTX-PVMK
\\Modeling\\Template Points\\Pavement Marking\\Single Skip Dash\\	Pavt Marking 4" Yellow 10' - 30'	T-MPTX-PVMK
\\Modeling\\Template Points\\Pavement Marking\\Single Skip Dash\\	Pavt Marking 4" Yellow 10' - 30' w/Ref	T-MPTX-PVMK
\\Modeling\\Template Points\\Pavement Marking\\Single Skip Dash\\	Pavt Marking 4" Yellow 2' - 4'	T-MPTX-PVMK
\\Modeling\\Template Points\\Pavement Marking\\Single Skip Dash\\	Pavt Marking 4" Yellow 6' - 10'	T-MPTX-PVMK
\\Modeling\\Template Points\\Pavement Marking\\Single Solid\\	Pavt Marking 12" White Solid	T-MPTX-PVMK
\\Modeling\\Template Points\\Pavement Marking\\Single Solid\\	Pavt Marking 24" White Solid	T-MPTX-PVMK
\\Modeling\\Template Points\\Pavement Marking\\Single Solid\\	Pavt Marking 4" White Solid	T-MPTX-PVMK
\\Modeling\\Template Points\\Pavement Marking\\Single Solid\\	Pavt Marking 4" Yellow Solid	T-MPTX-PVMK



Template Path	Template Name	Level
\\Modeling\\Template Points\\Pavement Marking\\Single Solid\\	Pavt Marking 6" White Solid	T-MPTX-PVMK
\\Modeling\\Template Points\\Pavement Marking\\Single Solid\\	Pavt Marking 6" Yellow Solid	T-MPTX-PVMK
\\Modeling\\Template Points\\Pavement Marking\\Single Solid\\	Pavt Marking 8" White Solid	T-MPTX-PVMK
\\Modeling\\Template Points\\Pavement Marking\\Single Solid\\	Pavt Marking 8" Yellow Solid	T-MPTX-PVMK
\\Modeling\\Template Points\\Pond\\	TL_Pond_Berm_In	C-CREK
\\Modeling\\Template Points\\Pond\\	TL_Pond_Berm_Out	C-CREK
\\Modeling\\Template Points\\Pond\\	TL_Pond_Bottom	C-CREK
\\Modeling\\Template Points\\Pond\\	TL_Pond_Elevation	C-CREK
\\Modeling\\Template Points\\Pond\\	TL_Pond_Freeboard	C-CREK
\\Modeling\\Template Points\\Pond\\	TL_Pond_Top	C-CREK
\\Modeling\\Template Points\\Rail\\	TL_Rail	C-RAIL
\\Modeling\\Template Points\\Rail\\	TL_Rail Ballast	C-RAIL
\\Modeling\\Template Points\\Rail\\	TL_Rail Ballast Sub	C-ROAD-CORR
\\Modeling\\Template Points\\Rail\\	TL_Rail Cant	C-RAIL-CANT-VIEW-CNTR
\\Modeling\\Template Points\\Rail\\	TL_Rail Center	C-RAIL-CANT-VIEW-CNTR
\\Modeling\\Template Points\\Rail\\	TL_Rail Clearance	C-RAIL
\\Modeling\\Template Points\\Rail\\	TL_Rail Concrete	C-RAIL
\\Modeling\\Template Points\\Rail\\	TL_Rail Concrete Sleeper	C-RAIL
\\Modeling\\Template Points\\Rail\\	TL_Rail Concrete Sleeper Sub	C-RAIL
\\Modeling\\Template Points\\Rail\\	TL_Rail Subballast	C-ROAD-CORR
\\Modeling\\Template Points\\Rail\\	TL_Rail Subballast Berm	C-ROAD-CORR
\\Modeling\\Template Points\\Rail\\	TL_Rail Subballast Sub	C-ROAD-CORR
\\Modeling\\Template Points\\Rail\\	TL_Rail Wooden Sleeper	C-RAIL
\\Modeling\\Template Points\\Rail\\	TL_Rail Wooden Sleeper Sub	C-RAIL
\\Modeling\\Template Points\\Rail\\	TL_Clearance	C-RAIL
\\Modeling\\Template Points\\Shoulder\\	TL_Earth Shoulder	C-SHDR
\\Modeling\\Template Points\\Shoulder\\	TL_Earth Shoulder Sub	C-SHDR



Template Path	Template Name	Level
\\Modeling\\Template Points\\Shoulder\\	TL_Edge of Shld	C-SHDR-EDGE
\\Modeling\\Template Points\\Shoulder\\	TL_Edge of Shld Exist	C-SHDR-EDGE
\\Modeling\\Template Points\\Shoulder\\	TL_Edge of Shld Sub	C-SHDR-BOTM
\\Modeling\\Template Points\\Sidewalk\\	TL_Sidewalk	C-SWLK
\\Modeling\\Template Points\\Sidewalk\\	TL_Sidewalk Sub	C-SWLK
\\Modeling\\Template Points\\Structural\\	TL_Bridge	S-BRDG
\\Modeling\\Template Points\\Structural\\	TL_Bridge Sub	S-BRDG
\\Modeling\\Template Points\\Structural\\	TL_Girder	C-ROAD-CORR
\\Modeling\\Template Points\\Structural\\	TL_Ret Wall	C-WALL-RTWL
\\Modeling\\Template Points\\Structural\\	TL_Ret Wall Sub	C-WALL-RTWL
\\Modeling\\Template Points\\Structural\\	TL_Retaining Wall	C-WALL-RTWL
\\Modeling\\Template Points\\Structural\\	TL_Retaining Wall Sub	C-WALL-RTWL
\\Modeling\\Template Points\\Traffic Control\\	Barrels_50' Spacing	T-MPTX-EQPM
\\Modeling\\Template Points\\Traffic Control\\	Barrels_100' Spacing	T-MPTX-EQPM
\\Modeling\\Template Points\\Traffic Control\\	Cone_Channelizer_10' Spacing	T-MPTX-ATTN
\\Modeling\\Template Points\\Traffic Control\\	Cone_Channelizer_20' Spacing	T-MPTX-ATTN
\\Modeling\\Template Points\\Traffic Control\\	Cone_Channelizer_30' Spacing	T-MPTX-ATTN
\\Modeling\\Template Points\\Traffic Control\\	Cone_Channelizer_40' Spacing	T-MPTX-ATTN
\\Modeling\\Template Points\\Traffic Control\\	Cone_Channelizer_50' Spacing	T-MPTX-ATTN
\\Modeling\\Template Points\\Traffic Control\\	Cone_Channelizer_60' Spacing	T-MPTX-ATTN
\\Modeling\\Template Points\\Traffic Control\\	Cone_Traffic_10' Spacing	T-MPTX-EQPM
\\Modeling\\Template Points\\Traffic Control\\	Cone_Traffic_20' Spacing	T-MPTX-EQPM
\\Modeling\\Template Points\\Traffic Control\\	Cone_Traffic_30' Spacing	T-MPTX-EQPM
\\Modeling\\Template Points\\Traffic Control\\	Cone_Traffic_40' Spacing	T-MPTX-EQPM
\\Modeling\\Template Points\\Traffic Control\\	Cone_Traffic_50' Spacing	T-MPTX-EQPM
\\Modeling\\Template Points\\Traffic Control\\	Cone_Traffic_60' Spacing	T-MPTX-EQPM
\\Modeling\\Template Points\\Traffic Control\\	Reflector Post Orange	T-MPTX
\\Modeling\\Template Points\\Traffic Control\\	Reflector Post Red	T-MPTX



Template Path	Template Name	Level
\\Modeling\\Template Points\\Traffic Control\\	Reflector Post White	T-MPTX
\\Modeling\\Template Points\\Trench\\	TL_Trench Aggregate	TL_Trench Aggregate
\\Modeling\\Template Points\\Trench\\	TL_Trench Base	TL_Trench Base
\\Modeling\\Template Points\\Trench\\	TL_Trench Invert	TL_Trench Invert
\\Modeling\\Template Points\\Trench\\	TL_Trench Origin	TL_Trench Origin
\\Modeling\\Template Points\\Trench\\	TL_Trench Pipe	TL_Trench Pipe
\\Modeling\\Template Points\\Trench\\	TL_Trench Soffit	TL_Trench Soffit
\\Modeling\\Template Points\\Water\\	TL_Water	C-WATR
\\Modeling\\Trace Slope\\	Low Point	C-CREK-SYMB
\\Modeling\\Trace Slope\\	Pond	C-CREK
\\Modeling\\Trace Slope\\	Trace	C-CREK-LINE
\\Points\\Existing\\Right of Way\\	E_Existing_RW	C-PROP-PARC-ROWL
\\Points\\Existing\\Right of Way\\	E_Geom_PropertyCorner	C-ROAD-LINE
\\Points\\Existing\\Right of Way\\	E_ROW_Pin	C-PROP-PARC-ROWL
\\Points\\Existing\\Right of Way\\	E_ROW_PropertyCorner	C-PROP-PARC-ROWL
\\Points\\Existing\\Roadway\\	E_Road_Sample_Point	C-ROAD-MARK
\\Points\\Existing\\Structural\\	E_Struc_Post	S-STKE
\\Points\\Existing\\Terrain\\	E_Terrain_SpotElevation	V-TOPO-SPOT
\\Points\\Existing\\Terrain\\	E_Terrain_Tree	V-SITE-VEGE
\\Points\\Existing\\Terrain\\	E_Terrain_BoreHole	V-TOPO-BORE
\\Points\\Existing\\Terrain\\	E_Terrain_Random	V-TOPO-SPOT
\\Points\\Existing\\Traffic and Safety\\	E_Traffic_Sign	T-SIGN
\\Points\\Existing\\Traffic and Safety\\	E_Traffic_Signal	T-SGNL
\\Points\\Existing\\Traffic and Safety\\	E_Traffic_LightPole	T-LITE-POLE
\\Points\\Existing\\Utilities\\	E_Inlet	V-STRM
\\Points\\Existing\\Utilities\\	E_Util_Pole	V-SITE-UTIL
\\Points\\Guiderail and Barrier\\Cable Barrier\\	3D Cable Bar LT Lead End	C-BARR
\\Points\\Guiderail and Barrier\\Cable Barrier\\	3D Cable Bar LT Trail End	C-BARR



Template Path	Template Name	Level
\\Points\Guiderail and Barrier\Cable Barrier\	3D Cable Bar RT Lead End	C-BARR
\\Points\Guiderail and Barrier\Cable Barrier\	3D Cable Bar RT Trail End	C-BARR
\\Points\Guiderail and Barrier\Guiderail TL2\	3D TL2 GR LT Lead End	C-GRAL
\\Points\Guiderail and Barrier\Guiderail TL2\	3D TL2 GR LT Trail End	C-GRAL
\\Points\Guiderail and Barrier\Guiderail TL2\	3D TL2 GR RT Lead End	C-GRAL
\\Points\Guiderail and Barrier\Guiderail TL2\	3D TL2 GR RT Trail End	C-GRAL
\\Points\Guiderail and Barrier\Guiderail TL3\	3D TL3 GR LT Lead End	C-GRAL
\\Points\Guiderail and Barrier\Guiderail TL3\	3D TL3 GR LT Trail End	C-GRAL
\\Points\Guiderail and Barrier\Guiderail TL3\	3D TL3 GR RT Lead End	C-GRAL
\\Points\Guiderail and Barrier\Guiderail TL3\	3D TL3 GR RT Trail End	C-GRAL
\\Points\Right of Way\	Geom_PropertyCorner	C-PROP-PARC-ROWL
\\Points\Right of Way\	Geom_Proposed_RW	C-PROP-PARC-ROWL
\\Points\Signage\	Stop Sign	T-SIGN
\\Terrain\	PTC_ELEV BAND	C-SURF
\\Terrain\	PTC_SLOPE BAND	C-SURF
\\Terrain\	PTC_CONT 1' & 5' PROP	C-SURF
\\Terrain\	PTC_CONT 2' & 10' PROP	C-SURF
\\Terrain\	PTC_CONT 5' & 25' PROP	C-SURF
\\Terrain\	PTC_CONT 1' & 5' EXST	C-SURF
\\Terrain\	PTC_CONT 2' & 10' EXST	C-SURF
\\Terrain\	PTC_CONT 5' & 25' EXST	C-SURF
\\Terrain\	PTC_CONT & TRNG	C-SURF
\\Terrain\	PTC_BRDR ONLY	C-SURF
\\Volumes\	Volumes_Cut	C-TOPO-CUTT
\\Volumes\	Volumes_Fill	C-TOPO-FILL
\\Volumes\	Volumes_Unsuitable_Remove Only	Volumes_Unsuitable_Remove Only
\\Volumes\	Volumes_Unsuitable_Remove Replace	Volumes_Unsuitable_Remove Replace
\\Survey\Annotation\	Survey Topo Label	V-TOPO-SPOT



14.12.2 DRAINAGE AND UTILITY DGNLIB

Template Path	Template Name	Level
\Annotation\	PTC_SU Annotation	C-ANNO-TEXT
\Annotation\Sheets\Profile\	PTC_Profile_Title-Axis	C-ROAD-PROF-TTLB
\Annotation\Sheets\Profile\	PTC_Profile_Grid-MAJR	C-ROAD-PROF-GRID-MAJR
\Annotation\Sheets\Profile\	PTC_Profile_Grid-MINR	C-ROAD-PROF-GRID-MINR
\Annotation\Sheets\Profile\	PTC_Profile_Title	C-ROAD-PROF-TITL
\Annotation\Sheets\Profile\	PTC_Profile_Text	C-ROAD-PROF-TEXT
\Catchments\3D\	Commercial	C-STRM-AREA
\Catchments\3D\	Grass	C-STRM-AREA
\Catchments\3D\	Pavement	C-STRM-AREA
\Catchments\3D\	Pond	C-STRM-AREA
\Catchments\3D\	Residential Heavy	C-STRM-AREA
\Catchments\3D\	Residential Light	C-STRM-AREA
\Catchments\3D\	Wooded	C-STRM-AREA
\Catchments\Plan\	Commercial	C-STRM-AREA
\Catchments\Plan\	Grass	C-STRM-AREA
\Catchments\Plan\	Pavement	C-STRM-AREA
\Catchments\Plan\	Pond	C-STRM-AREA
\Catchments\Plan\	Residential Heavy	C-STRM-AREA
\Catchments\Plan\	Residential Light	C-STRM-AREA
\Catchments\Plan\	Wooded	C-STRM-AREA
\Cell Construction\	Alignment Line	z - Construction
\Cell Construction\	Alignment Point	z - Construction
\Cell Construction\	Connection Region	z - Construction
\Cell Construction\	Node Elev Point	z - Construction
\Cell Construction\	Node Location Point	z - Construction
\Communications\Conduits\Profile\	Comm Line	C-TELP-LINE



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Template Path	Template Name	Level
\Communications\Conduits\3D\	Comm Line	C-TELP-LINE
\Communications\Conduits\Plan\	Comm Line	C-TELP-LINE
\Communications\Nodes\Profile\	Comm Node	C-TELP
D\Communications\Nodes\Plan\	Comm Sensor	C-TELP
\Communications\Nodes\Plan\	Comm Connection Region	C-TELP
\Communications\Nodes\3D Top\	Comm Sensor	C-TELP
\Communications\Nodes\3D Bottom\	Comm Sensor	C-TELP
\Conflicts\Nodes\3D Top\	Borehole	C-UTIL-CONFLICT
\Conflicts\Nodes\3D Top\	Conflict - Confirmed	C-UTIL-CONFLICT
\Conflicts\Nodes\Plan\	Borehole	C-UTIL-CONFLICT
\Conflicts\Nodes\Plan\	Conflict - Confirmed	C-UTIL-CONFLICT
\Conflicts\Nodes\Plan\	Conflict - Field Check Needed	C-UTIL-CONFLICT
\Conflicts\Nodes\Plan\	Conflict - Potential	C-UTIL-CONFLICT
\Conflicts\Nodes\Plan\	New Conflict	C-UTIL-CONFLICT
\Conflicts\Nodes\Plan\	Resolved Conflict	C-UTIL-CONFLICT
\Conflicts\Nodes\Profile\	Conflict - Potential	C-UTIL-CONFLICT
\Conflicts\Nodes\Profile\	Conflict - Confirmed	C-UTIL-CONFLICT
\Conflicts\Nodes\Profile\	Conflict - Field Check Needed	C-UTIL-CONFLICT
\Conflicts\Nodes\3D Bottom\	Borehole	C-UTIL-CONFLICT
\Conflicts\Nodes\3D Bottom\	Conflict - Confirmed	C-UTIL-CONFLICT
\Conflicts\Nodes\3D Bottom\	Conflict - Field Check Needed	C-UTIL-CONFLICT
\Conflicts\Nodes\3D Bottom\	Conflict - Potential	C-UTIL-CONFLICT
\Conflicts\Nodes\3D Bottom\	New Conflict	C-UTIL-CONFLICT
\Conflicts\Nodes\3D Bottom\	Resolved Conflict	C-UTIL-CONFLICT
\Cross Point Features\	Cross Section Point	C-UTIL
\Cross Point Features\	Intersecting Profile	C-UTIL
\Electrical\Nodes\3D Bottom\	Elec Meter	C-POWR-METR
\Electrical\Nodes\3D Bottom\	Elec Service Pole	C-POWR-POLE



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Template Path	Template Name	Level
\\Electrical\\Nodes\\3D Bottom\\	Elec Transformer	C-POWR-XFMR
\\Electrical\\Nodes\\3D Bottom\\	Utility Pole	C-POWR-POLE
\\Electrical\\Nodes\\3D Bottom\\	Light Standard Foundation	C-POWR
\\Electrical\\Nodes\\3D Bottom\\	Light Standard High Mast Foundation	C-POWR
\\Electrical\\Nodes\\3D Bottom\\	Light Control Center Foundation	C-POWR
\\Electrical\\Nodes\\3D Top\\	Elec Meter	C-POWR-METR
\\Electrical\\Nodes\\3D Top\\	Elec Service Pole	C-POWR-POLE
\\Electrical\\Nodes\\3D Top\\	Elec Transformer	C-POWR-XFMR
\\Electrical\\Nodes\\3D Top\\	Utility Pole	C-POWR-POLE
\\Electrical\\Nodes\\3D Top\\	Light Standard Single	C-POWR
\\Electrical\\Nodes\\3D Top\\	Light Standard Twin	C-POWR
\\Electrical\\Nodes\\3D Top\\	Light Standard Control Center	C-POWR
\\Electrical\\Nodes\\3D Top\\	Light Standard High Mast	C-POWR
\\Electrical\\Nodes\\Plan\\	Elec Meter	C-POWR-METR
\\Electrical\\Nodes\\Plan\\	Elec Service Pole	C-POWR-POLE
\\Electrical\\Nodes\\Plan\\	Elec Transformer	C-POWR-XFMR
\\Electrical\\Nodes\\Plan\\	Utility Pole	C-POWR-POLE
\\Electrical\\Nodes\\Plan\\	Elec Connection Region	C-POWR
\\Electrical\\Nodes\\Plan\\	Light Standard Single	C-POWR
\\Electrical\\Nodes\\Plan\\	Light Standard Twin	C-POWR
\\Electrical\\Nodes\\Plan\\	Light Standard Control Center	C-POWR
\\Electrical\\Nodes\\Plan\\	Light Standard High Mast	C-POWR
\\Electrical\\Nodes\\Profile\\	Elec Node	C-POWR
\\Electrical\\Conduits\\3D\\	Elec Line	C-POWR-COND
\\Electrical\\Conduits\\Profile\\	Elec Line	C-POWR-COND
\\Electrical\\Conduits\\Plan\\	Elec Line	C-POWR-COND
\\Gas\\Conduits\\Profile\\	Gas Line	C-NGAS-LINE
\\Gas\\Conduits\\3D\\	Gas Line	C-NGAS-LINE



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Template Path	Template Name	Level
\Gas\Conduits\3D\	Gas Line (Steel)	C-NGAS-LINE
\Gas\Conduits\Plan\	Gas Line	C-NGAS-LINE
\Gas\Nodes\Profile\	Gas Node	C-NGAS-PROF
\Gas\Nodes\3D Top\	Gas Meter	C-NGAS-METR
\Gas\Nodes\3D Top\	Gas Valve	C-NGAS
\Gas\Nodes\3D Bottom\	Gas Meter	C-NGAS-METR
\Gas\Nodes\3D Bottom\	Gas Valve	C-NGAS
\Gas\Nodes\Plan\	Gas Meter	C-NGAS-METR
\Gas\Nodes\Plan\	Gas Valve	C-NGAS
\Gas\Nodes\Plan\	Gas Connection Region	C-NGAS
\Modeling\Points\	Intersecting Profile	Intersecting Profile
\Storm Water\Conduits\Pipes\3D\	Storm Water (Concrete)	C-STRM-CULV
\Storm Water\Conduits\Pipes\3D\	Storm Water (HDPE)	C-STRM-CULV
\Storm Water\Conduits\Pipes\3D\	Storm Water (Metal)	C-STRM-CULV
\Storm Water\Conduits\Pipes\3D\	Storm Water (PVC)	C-STRM-CULV
\Storm Water\Conduits\Pipes\Plan\	Storm Water	C-STRM-CULV
\Storm Water\Conduits\Pipes\Profile\	Storm Water	C-STRM-CULV
\Storm Water\Conduits\Channels\3D\	Concrete Channel	C-STRM-CHUT-PAVE
\Storm Water\Conduits\Channels\3D\	Grass Channel	C-STRM-CHUT
\Storm Water\Conduits\Channels\Plan\	Channel	C-STRM-CHUT
\Storm Water\Conduits\Channels\Profile\	Storm Water	C-STRM-CHUT
\Storm Water\Conduits\Gutters\	Gutters	C-STRM-PIPE
\Storm Water\Conduits\Gutters\	Gutters (3D)	C-STRM-PIPE
\Storm Water\Conduits\Gutters\	Spread Width polygon	C-STRM-AREA
\Storm Water\Nodes\Manholes\3D Bottom\	Leaching Basin (4 ft)	C-STRM-MHOL
\Storm Water\Nodes\Manholes\3D Bottom\	Manhole Tee (42")	C-STRM-MHOL
\Storm Water\Nodes\Manholes\3D Bottom\	Manhole Tee (48")	C-STRM-MHOL
\Storm Water\Nodes\Manholes\3D Bottom\	Manhole Tee (54")	C-STRM-MHOL



Project Information Modeling Standards Appendix

Template Path	Template Name	Level
\\Storm Water\Nodes\Manholes\3D Bottom\	Manhole Tee (60")	C-STRM-MHOL
\\Storm Water\Nodes\Manholes\3D Bottom\	Manhole Tee (66")	C-STRM-MHOL
\\Storm Water\Nodes\Manholes\3D Bottom\	Manhole Tee (72")	C-STRM-MHOL
\\Storm Water\Nodes\Manholes\3D Bottom\	Manhole Tee (All)	C-STRM-MHOL
\\Storm Water\Nodes\Manholes\3D Bottom\	Manhole Type 1 (48")	C-STRM-MHOL
\\Storm Water\Nodes\Manholes\3D Bottom\	Manhole Type 1 (54")	C-STRM-MHOL
\\Storm Water\Nodes\Manholes\3D Bottom\	Manhole Type 1 (60")	C-STRM-MHOL
\\Storm Water\Nodes\Manholes\3D Bottom\	Manhole Type 1 (66")	C-STRM-MHOL
\\Storm Water\Nodes\Manholes\3D Bottom\	Manhole Type 1 (72")	C-STRM-MHOL
\\Storm Water\Nodes\Manholes\3D Bottom\	Spring Box	C-STRM-MHOL
\\Storm Water\Nodes\Manholes\3D Top\	Manhole B (Cone)	C-STRM-MHOL
\\Storm Water\Nodes\Manholes\3D Top\	Manhole B (Flat)	C-STRM-MHOL
\\Storm Water\Nodes\Manholes\3D Top\	Manhole B (Large)	C-STRM-MHOL
\\Storm Water\Nodes\Manholes\Plan\	Manhole B	C-STRM-MHOL
\\Storm Water\Nodes\Manholes\Plan\	Spring Box	C-STRM-MHOL
\\Storm Water\Nodes\Manholes\Plan\	Manhole Connection Region	C-STRM-MHOL
\\Storm Water\Nodes\Manholes\Profile\	Profile	C-STRM-MHOL
\\Storm Water\Nodes\Headwalls\End Section (Concrete)\4:1\3D\	End Section, Conc. (4:1) (18" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\End Section (Concrete)\4:1\3D\	End Section, Conc. (4:1) (24" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\End Section (Concrete)\4:1\3D\	End Section, Conc. (4:1) (30" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\End Section (Concrete)\4:1\3D\	End Section, Conc. (4:1) (36" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\End Section (Concrete)\4:1\Plan\	End Section, Conc. (4:1) (18" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\End Section (Concrete)\4:1\Plan\	End Section, Conc. (4:1) (24" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\End Section (Concrete)\4:1\Plan\	End Section, Conc. (4:1) (30" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\End Section (Concrete)\4:1\Plan\	End Section, Conc. (4:1) (36" Dia)	C-STRM-HDWL



Project Information Modeling Standards Appendix

Template Path	Template Name	Level
\\Storm Water\Nodes\Headwalls\End Section (Concrete)\6:1\3D\	End Section, Conc. (6:1) (15" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\End Section (Concrete)\6:1\Plan\	End Section, Conc. (6:1) (15" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\End Section (Steel)\4:1\3D\	End Section, Steel (4:1) (18" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\End Section (Steel)\4:1\3D\	End Section, Steel (4:1) (24" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\End Section (Steel)\4:1\3D\	End Section, Steel (4:1) (30" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\End Section (Steel)\4:1\3D\	End Section, Steel (4:1) (36" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\End Section (Steel)\4:1\3D\	End Section, Steel (4:1) (42" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\End Section (Steel)\4:1\3D\	End Section, Steel (4:1) (48" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\End Section (Steel)\4:1\3D\	End Section, Steel (4:1) (54" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\End Section (Steel)\4:1\3D\	End Section, Steel (4:1) (60" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\End Section (Steel)\4:1\Plan\	End Section, Steel (4:1) (18" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\End Section (Steel)\4:1\Plan\	End Section, Steel (4:1) (24" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\End Section (Steel)\4:1\Plan\	End Section, Steel (4:1) (30" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\End Section (Steel)\4:1\Plan\	End Section, Steel (4:1) (36" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\End Section (Steel)\4:1\Plan\	End Section, Steel (4:1) (42" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\End Section (Steel)\4:1\Plan\	End Section, Steel (4:1) (48" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\End Section (Steel)\4:1\Plan\	End Section, Steel (4:1) (54" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\End Section (Steel)\4:1\Plan\	End Section, Steel (4:1) (60" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\3D\	FES, Conc. (12" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\3D\	FES, Conc. (15" Dia)	C-STRM-HDWL



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Template Path	Template Name	Level
\\Storm Water\Nodes\Headwalls\FES (Concrete)\3D\	FES, Conc. (18" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\3D\	FES, Conc. (21" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\3D\	FES, Conc. (24" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\3D\	FES, Conc. (27" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\3D\	FES, Conc. (30" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\3D\	FES, Conc. (36" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\3D\	FES, Conc. (42" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\3D\	FES, Conc. (48" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\3D\	FES, Conc. (54" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\3D\	FES, Conc. (60" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\3D\	FES, Conc. (66" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\3D\	FES, Conc. (72" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\3D\	FES, Conc. (78" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\3D\	FES, Conc. (84" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\Plan\	FES, Conc. (12" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\Plan\	FES, Conc. (15" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\Plan\	FES, Conc. (18" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\Plan\	FES, Conc. (21" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\Plan\	FES, Conc. (24" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\Plan\	FES, Conc. (27" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\Plan\	FES, Conc. (30" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\Plan\	FES, Conc. (36" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\Plan\	FES, Conc. (42" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\Plan\	FES, Conc. (48" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\Plan\	FES, Conc. (54" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\Plan\	FES, Conc. (60" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\Plan\	FES, Conc. (66" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Concrete)\Plan\	FES, Conc. (72" Dia)	C-STRM-HDWL



Template Path	Template Name	Level
\\Storm Water\\Nodes\\Headwalls\\FES (Concrete)\\Plan\\	FES, Conc. (78" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Concrete)\\Plan\\	FES, Conc. (84" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\3D\\	FES, Steel (12" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\3D\\	FES, Steel (15" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\3D\\	FES, Steel (18" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\3D\\	FES, Steel (21" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\3D\\	FES, Steel (24" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\3D\\	FES, Steel (30" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\3D\\	FES, Steel (36" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\3D\\	FES, Steel (42" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\3D\\	FES, Steel (48" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\3D\\	FES, Steel (54" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\3D\\	FES, Steel (60" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\3D\\	FES, Steel (66" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\3D\\	FES, Steel (72" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\3D\\	FES, Steel (78" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\3D\\	FES, Steel (84" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\Plan\\	FES, Steel (12" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\Plan\\	FES, Steel (15" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\Plan\\	FES, Steel (18" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\Plan\\	FES, Steel (21" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\Plan\\	FES, Steel (24" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\Plan\\	FES, Steel (30" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\Plan\\	FES, Steel (36" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\Plan\\	FES, Steel (42" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\Plan\\	FES, Steel (48" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\Plan\\	FES, Steel (54" Dia)	C-STRM-HDWL
\\Storm Water\\Nodes\\Headwalls\\FES (Steel)\\Plan\\	FES, Steel (60" Dia)	C-STRM-HDWL



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Template Path	Template Name	Level
\\Storm Water\Nodes\Headwalls\FES (Steel)\Plan\	FES, Steel (66" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Steel)\Plan\	FES, Steel (72" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Steel)\Plan\	FES, Steel (78" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\FES (Steel)\Plan\	FES, Steel (84" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\Outlet\3D\	Headwall, Outlet (12" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\Outlet\3D\	Headwall, Outlet (15" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\Outlet\3D\	Headwall, Outlet (18" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\Outlet\3D\	Headwall, Outlet (24" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\Outlet\3D\	Headwall, Outlet (30" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\Outlet\3D\	Headwall, Outlet (36" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\Outlet\3D\	Generic Endwall	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\Outlet\Plan\	Headwall, Outlet (12" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\Outlet\Plan\	Headwall, Outlet (15" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\Outlet\Plan\	Headwall, Outlet (18" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\Outlet\Plan\	Headwall, Outlet (24" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\Outlet\Plan\	Headwall, Outlet (30" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\Outlet\Plan\	Headwall, Outlet (36" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\Outlet\Plan\	Generic Endwall	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\Straight\3D\	Headwall, Straight (12" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\Straight\3D\	Headwall, Straight (18" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\Straight\3D\	Headwall, Straight (24" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\Straight\3D\	Headwall, Straight (30" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\Straight\3D\	Headwall, Straight (36" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\Straight\Plan\	Headwall, Straight (12" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\Straight\Plan\	Headwall, Straight (18" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\Straight\Plan\	Headwall, Straight (24" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\Straight\Plan\	Headwall, Straight (30" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\Straight\Plan\	Headwall, Straight (36" Dia)	C-STRM-HDWL



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Template Path	Template Name	Level
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\3:1\3D\	Endwall, EW11 (3:1) (12" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\3:1\3D\	Endwall, EW11 (3:1) (18" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\3:1\3D\	Endwall, EW11 (3:1) (24" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\3:1\3D\	Endwall, EW11 (3:1) (30" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\3:1\3D\	Endwall, EW11 (3:1) (36" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\3:1\3D\	Endwall, EW11 (3:1) (42" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\3:1\3D\	Endwall, EW11 (3:1) (48" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\3:1\3D\	Endwall, EW11 (3:1) (54" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\3:1\3D\	Endwall, EW11 (3:1) (60" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\3:1\Plan\	Endwall, EW11 (3:1) (12" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\3:1\Plan\	Endwall, EW11 (3:1) (18" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\3:1\Plan\	Endwall, EW11 (3:1) (24" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\3:1\Plan\	Endwall, EW11 (3:1) (30" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\3:1\Plan\	Endwall, EW11 (3:1) (36" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\3:1\Plan\	Endwall, EW11 (3:1) (42" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\3:1\Plan\	Endwall, EW11 (3:1) (48" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\3:1\Plan\	Endwall, EW11 (3:1) (54" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\3:1\Plan\	Endwall, EW11 (3:1) (60" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\4:1\3D\	Endwall, EW11 (4:1) (12" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\4:1\3D\	Endwall, EW11 (4:1) (18" Dia)	C-STRM-HDWL



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Template Path	Template Name	Level
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\4:1\3D\	Endwall, EW11 (4:1) (24" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\4:1\3D\	Endwall, EW11 (4:1) (30" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\4:1\3D\	Endwall, EW11 (4:1) (36" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\4:1\3D\	Endwall, EW11 (4:1) (42" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\4:1\3D\	Endwall, EW11 (4:1) (48" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\4:1\3D\	Endwall, EW11 (4:1) (54" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\4:1\3D\	Endwall, EW11 (4:1) (60" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\4:1\Plan\	Endwall, EW11 (4:1) (12" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\4:1\Plan\	Endwall, EW11 (4:1) (18" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\4:1\Plan\	Endwall, EW11 (4:1) (24" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\4:1\Plan\	Endwall, EW11 (4:1) (30" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\4:1\Plan\	Endwall, EW11 (4:1) (36" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\4:1\Plan\	Endwall, EW11 (4:1) (42" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\4:1\Plan\	Endwall, EW11 (4:1) (48" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\4:1\Plan\	Endwall, EW11 (4:1) (54" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\4:1\Plan\	Endwall, EW11 (4:1) (60" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\6:1\3D\	Endwall, EW11 (6:1) (12" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\6:1\3D\	Endwall, EW11 (6:1) (18" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\6:1\3D\	Endwall, EW11 (6:1) (24" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/ Grate\6:1\3D\	Endwall, EW11 (6:1) (30" Dia)	C-STRM-HDWL



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Template Path	Template Name	Level
\\Storm Water\Nodes\Headwalls\U-shaped w/Grate\6:1\3D\	Endwall, EW11 (6:1) (36" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/Grate\6:1\3D\	Endwall, EW11 (6:1) (42" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/Grate\6:1\3D\	Endwall, EW11 (6:1) (48" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/Grate\6:1\3D\	Endwall, EW11 (6:1) (54" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/Grate\6:1\3D\	Endwall, EW11 (6:1) (60" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/Grate\6:1\Plan\	Endwall, EW11 (6:1) (12" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/Grate\6:1\Plan\	Endwall, EW11 (6:1) (18" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/Grate\6:1\Plan\	Endwall, EW11 (6:1) (24" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/Grate\6:1\Plan\	Endwall, EW11 (6:1) (30" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/Grate\6:1\Plan\	Endwall, EW11 (6:1) (36" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/Grate\6:1\Plan\	Endwall, EW11 (6:1) (42" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/Grate\6:1\Plan\	Endwall, EW11 (6:1) (48" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/Grate\6:1\Plan\	Endwall, EW11 (6:1) (54" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\U-shaped w/Grate\6:1\Plan\	Endwall, EW11 (6:1) (60" Dia)	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\	Headwall Connection Region	C-STRM-HDWL
\\Storm Water\Nodes\Headwalls\	Profile	C-STRM-HDWL
\\Storm Water\Nodes\Inlets\3D Bottom\	Circular Chamber (4' Dia)	C-STRM-INLT
\\Storm Water\Nodes\Inlets\3D Bottom\	Circular Chamber (5' Dia)	C-STRM-INLT
\\Storm Water\Nodes\Inlets\3D Bottom\	Rectangular Chamber (5'x4')	C-STRM-INLT
\\Storm Water\Nodes\Inlets\3D Bottom\	Rectangular Chamber (94x44)	C-STRM-INLT
\\Storm Water\Nodes\Inlets\3D Top\	Inlet Flush Gate	C-STRM-INLT
\\Storm Water\Nodes\Inlets\3D Top\	Inlet Flush Gate (Large Chamber)	C-STRM-INLT



Template Path	Template Name	Level
\\Storm Water\\Nodes\\Inlets\\3D Top\\	Inlet Flush Gate (Cone Reducer)	C-STRM-INLT
\\Storm Water\\Nodes\\Inlets\\3D Top\\	Inlet Raised Gate	C-STRM-INLT
\\Storm Water\\Nodes\\Inlets\\3D Top\\	Inlet Raised Gate (Cone Reducer)	C-STRM-INLT
\\Storm Water\\Nodes\\Inlets\\3D Top\\	Inlet (Domed Gate)	C-STRM-INLT
\\Storm Water\\Nodes\\Inlets\\3D Top\\	Inlet Domed Gate (Cone Reducer)	C-STRM-INLT
\\Storm Water\\Nodes\\Inlets\\3D Top\\	Inlet Generic Combo	C-STRM-INLT
\\Storm Water\\Nodes\\Inlets\\3D Top\\	Inlet Generic Curb Gate	C-STRM-INLT
\\Storm Water\\Nodes\\Inlets\\3D Top\\	Inlet Generic Curb Opening	C-STRM-INLT
\\Storm Water\\Nodes\\Inlets\\3D Top\\	Inlet Generic Ditch	C-STRM-INLT
\\Storm Water\\Nodes\\Inlets\\3D Top\\	Inlet Combo (Circular Chamber)	C-STRM-INLT
\\Storm Water\\Nodes\\Inlets\\Plan\\	Inlet Combo (Circular Chamber)	C-STRM-INLT
\\Storm Water\\Nodes\\Inlets\\Plan\\	Combo 2W x 3L -Curved Vane	C-STRM-INLT
\\Storm Water\\Nodes\\Inlets\\Plan\\	Inlet Flush Gate	C-STRM-INLT
\\Storm Water\\Nodes\\Inlets\\Plan\\	Inlet Raised Gate (Cone Reducer)	C-STRM-INLT
\\Storm Water\\Nodes\\Inlets\\Plan\\	Inlet Domed Gate (Cone Reducer)	C-STRM-INLT
\\Storm Water\\Nodes\\Inlets\\Plan\\	Inlet Generic Combo	C-STRM-INLT
\\Storm Water\\Nodes\\Inlets\\Plan\\	Inlet Generic Curb Gate	C-STRM-INLT
\\Storm Water\\Nodes\\Inlets\\Plan\\	Inlet Generic Curb Opening	C-STRM-INLT
\\Storm Water\\Nodes\\Inlets\\Plan\\	Inlet Generic Ditch	C-STRM-INLT
\\Storm Water\\Nodes\\Inlets\\Plan\\	Inlet Connection Region	C-STRM-INLT
\\Storm Water\\Nodes\\Inlets\\Plan\\	Inlet (Domed Gate)	C-STRM-INLT
\\Storm Water\\Nodes\\Inlets\\Plan\\	Inlet Flush Gate (Cone Reducer)	C-STRM-INLT
\\Storm Water\\Nodes\\Inlets\\Plan\\	Inlet Raised Gate	C-STRM-INLT
\\Storm Water\\Nodes\\Inlets\\Plan\\	Inlet Flush Gate (Large Chamber)	C-STRM-INLT
\\Storm Water\\Nodes\\Inlets\\Profile\\	Inlet	C-STRM-INLT
\\Storm Water\\Nodes\\Cross Sections\\Plan\\	Cross Section	C-STRM-STRC
\\Storm Water\\Nodes\\Cross Sections\\Plan\\	Cross Section - Location Point	C-STRM-STRC



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Template Path	Template Name	Level
\\Storm Water\\Nodes\\Cross Sections\\3D\\	Cross section	C-STRM-STRC
\\Storm Water\\Nodes\\Cross Sections\\3D\\	Cross section - Location Point	C-STRM-STRC
\\Storm Water\\Nodes\\Transitions\\Plan\\	Transition	C-STRM-STRC
\\Storm Water\\Nodes\\Transitions\\3D\\	Transition	C-STRM-STRC
\\Waste Water\\Conduits\\3D\\	Waste Water (Concrete)	C-SSWR-PIPE
\\Waste Water\\Conduits\\3D\\	Waste Water (PVC)	C-SSWR-PIPE
\\Waste Water\\Conduits\\Plan\\	Waste Water	C-SSWR-PIPE
\\Waste Water\\Conduits\\Profile\\	Waste Water	C-SSWR-PIPE
\\Waste Water\\Nodes\\3D Bottom\\	Sanitary Cleanout	C-SSWR
\\Waste Water\\Nodes\\3D Bottom\\	Sanitary Manhole	C-SSWR-MHOL
\\Waste Water\\Nodes\\3D Top\\	Sanitary Cleanout	C-SSWR
\\Waste Water\\Nodes\\3D Top\\	Sanitary Manhole, Cone	C-SSWR-MHOL
\\Waste Water\\Nodes\\3D Top\\	Sanitary Manhole, Flat	C-SSWR-MHOL
\\Waste Water\\Nodes\\Plan\\	Sanitary Cleanout	C-SSWR
\\Waste Water\\Nodes\\Plan\\	Sanitary Manhole	C-SSWR-MHOL
\\Waste Water\\Nodes\\Plan\\	Sanitary Connection Region	C-SSWR
\\Waste Water\\Nodes\\Profile\\	Waste Water	C-SSWR
\\Water Distribution\\Nodes\\3D Top\\	Fire Hydrant (Simple)	C-WATR-HYDR
\\Water Distribution\\Nodes\\3D Top\\	Fire Hydrant (Standard)	C-WATR-JBOX
\\Water Distribution\\Nodes\\3D Top\\	Water Meter (6")	C-WATR-METR
\\Water Distribution\\Nodes\\3D Top\\	Water Valve	C-WATR
\\Water Distribution\\Nodes\\3D Bottom\\	Fire Hydrant (Simple)	C-WATR-HYDR
\\Water Distribution\\Nodes\\3D Bottom\\	Fire Hydrant (Standard)	C-WATR-HYDR
\\Water Distribution\\Nodes\\3D Bottom\\	Water Meter (6")	C-WATR-METR
\\Water Distribution\\Nodes\\3D Bottom\\	Water Valve	C-WATR
\\Water Distribution\\Nodes\\Plan\\	Fire Hydrant	C-WATR-HYDR
\\Water Distribution\\Nodes\\Plan\\	Water Meter (6")	C-WATR-METR
\\Water Distribution\\Nodes\\Plan\\	Water Valve	C-WATR



Project Information Modeling Standards Appendix

Template Path	Template Name	Level
\\Water Distribution\\Nodes\\Plan\\	Water Connection Region	C-WATR
\\Water Distribution\\Nodes\\Profile\\	Water	C-WATR
\\Water Distribution\\Conduits\\3D\\	Water Line (Ductile)	C-WATR-PIPE
\\Water Distribution\\Conduits\\3D\\	Water Line (HDPE)	C-WATR-PIPE
\\Water Distribution\\Conduits\\3D\\	Water Line (PVC)	C-WATR-PIPE
\\Water Distribution\\Conduits\\Plan\\	Water Line	C-WATR-PIPE
\\Water Distribution\\Conduits\\Profile\\	Water	C-WATR-PIPE
\\LIDs\\Plan\\	Grass	C-VEGE
\\LIDs\\Plan\\	Pavement	V-SITE-MISC
\\LIDs\\3D\\	Grass	C-VEGE
\\LIDs\\3D\\	Pavement	V-SITE-MISC

14.12.3 SURVEY DGNLIB

Template Path	Template Name	Level
\Survey\Annotation\	Survey Field Code	E-NODE-TEXT
\Survey\Annotation\	Survey Flow Arrow	E-NODE-TEXT
\Survey\Annotation\	Survey Point Description	E-NODE-TEXT
\Survey\Annotation\	Survey Point Elevation	E-NODE-TEXT
\Survey\Annotation\	Survey Point Name	E-NODE-TEXT
\Survey\Annotation\	Survey Topo Label	E-NODE-TEXT
\Survey\Element Symbology\	Control Points	E-SURV-CP
\Survey\Element Symbology\	Observations	E-SURV-OBSRV
\Survey\Element Symbology\	Setups	E-SURV-STUPS
\Survey\Element Symbology\	Traverse	E-SURV-TRNS
\Survey\Linear\Control\	E_Surv_Centerline	V-SURV-ALGN
\Survey\Linear\Control\	E_Surv_Baseline	V-SURV-LINE
\Survey\Linear\Drainage\	E_Drng_Channel	V-DRN-CHNL
\Survey\Linear\Drainage\	E_Drng_Culvert	V-DRN-CLVT
\Survey\Linear\Drainage\	E_Drng_Pipe	V-DRN-PIPE
\Survey\Linear\Drainage\	E_Drng_Trench	V-DRN-TREN
\Survey\Linear\Drainage\	E_Drng_Wetland	V-DRN-WETL
\Survey\Linear\Landscaping\	E_Lnsc_TreeLine	V-LAND-TRLN
\Survey\Linear\Landscaping\	E_Lnsc_Hedge	V-SITE-VEGE
\Survey\Linear\Rail\	E_Rail_SurveyLine	V-RAIL-CNTR
\Survey\Linear\Rail\	E_Rail_Track	V-RAIL
\Survey\Linear\Roadway\	E_Road_AsphPavementCrown	V-ROAD-CRWN-ASPH
\Survey\Linear\Roadway\	E_Road_AsphPavementEdge-RT	E-ROAD-ASPH-EOP-RT
\Survey\Linear\Roadway\	E_Road_AsphPavementEdge-LT	E-ROAD-ASPH-EOP-LT
\Survey\Linear\Roadway\	E_Road_AsphPavementEdge	V-ROAD-ASPH-EOP
\Survey\Linear\Roadway\	E_Road_BarrierWall	V-ROAD-BARR
\Survey\Linear\Roadway\	E_Road_Baseline	V-ROAD-BL
\Survey\Linear\Roadway\	E_Road_Centerline	V-ROAD-ALIGN



Template Path	Template Name	Level
\Survey\Linear\Roadway\	E_Road_ConcPavementCrown	E-ROAD-CONC-CRWN
\Survey\Linear\Roadway\	E_Road_ConcPavementEdge-RT	E-ROAD-CONC-EOP-RT
\Survey\Linear\Roadway\	E_Road_ConcPavementEdge-LT	E-ROAD-CONC-EOP-LT
\Survey\Linear\Roadway\	E_Road_ConcPavementEdge	E-ROAD-CONC-EOP
\Survey\Linear\Roadway\	E_Road_ConcSlabs	E-ROAD-CONC
\Survey\Linear\Roadway\	E_Road_Curb	E-ROAD-CURB
\Survey\Linear\Roadway\	E_Road_Curb_Face	E-ROAD-CURB-FAC
\Survey\Linear\Roadway\	E_Road_Curb_Flowline	E-ROAD-CURB-FL
\Survey\Linear\Roadway\	E_Road_CurbRamp	E-ROAD-CURB-RAMP
\Survey\Linear\Roadway\	E_Road_Driveway	E-ROAD-DWY
\Survey\Linear\Roadway\	E_Road_EdgeOfGravel	E-ROAD-GRVL
\Survey\Linear\Roadway\	E_Road_EdgeOfPavement-RT	E-ROAD-EDGE-RT
\Survey\Linear\Roadway\	E_Road_EdgeOfPavement-LT	E-ROAD-EDGE-LT
\Survey\Linear\Roadway\	E_Road_EdgeOfPavement	E-ROAD-EDGE
\Survey\Linear\Roadway\	E_Road_Embankment	E-ROAD-EMBK
\Survey\Linear\Roadway\	E_Road_Fence	E-ROAD-FENC
\Survey\Linear\Roadway\	E_Road_Gate	E-ROAD-GATE
\Survey\Linear\Roadway\	E_Road_Guiderail	E-ROAD-GRAL
\Survey\Linear\Roadway\	E_Road_LaneEdge-RT	E-ROAD-LANE-EDGE-RT
\Survey\Linear\Roadway\	E_Road_LaneEdge-LT	E-ROAD-LANE-EDGE-LT
\Survey\Linear\Roadway\	E_Road_LaneEdge	E-ROAD-LANE-EDGE
\Survey\Linear\Roadway\	E_Road_LaneLine	E-ROAD-LANE-LINE
\Survey\Linear\Roadway\	E_Road_Median	E-ROAD-MED
\Survey\Linear\Roadway\	E_Road_Pavement	E-ROAD-PAV
\Survey\Linear\Roadway\	E_Road_Shoulder-RT	E-ROAD-SHLD-RT
\Survey\Linear\Roadway\	E_Road_Shoulder-LT	E-ROAD-SHLD-LT
\Survey\Linear\Roadway\	E_Road_Shoulder	E-ROAD-SHLD
\Survey\Linear\Roadway\	E_Road_Sidewalk	E-ROAD-SWLK



Project Information Modeling Standards Appendix

Template Path	Template Name	Level
\\Survey\Linear\Roadway\	E_Road_Sidewalk_Back	E-ROAD-SWLK-BAK
\\Survey\Linear\Roadway\	E_Road_Sidewalk_Face	E-ROAD-SWLK-FAC
\\Survey\Linear\Roadway\	E_Road_EdgeOfGravel-RT	E-ROAD-GRVL-RT
\\Survey\Linear\Roadway\	E_Road_EdgeOfGravel-LT	E-ROAD-GRVL-LT
\\Survey\Linear\Structural\	E_Strc_Tunnel	E-STRC-MISC
\\Survey\Linear\Structures\	E_Strc_Barn	E-STRC-BARN
\\Survey\Linear\Structures\	E_Strc_Building	E-STRC-BLDG
\\Survey\Linear\Structures\	E_Strc_Foundation	E-STRC-FND
\\Survey\Linear\Topography\	E_Topo_Berm	E-TOPO-BERM
\\Survey\Linear\Topography\	E_Topo_Breakline	E-TOPO-BRKLN
\\Survey\Linear\Topography\	E_Topo_DitchBottom	E-TOPO-DTBTM
\\Survey\Linear\Topography\	E_Topo_DitchFlow	E-TOPO-DTFL
\\Survey\Linear\Topography\	E_Topo_DitchTop	E-TOPO-DTTOP
\\Survey\Linear\Topography\	E_Topo_Island	E-TOPO-ISLD
\\Survey\Linear\Topography\	E_Topo_Pond	E-TOPO-PND
\\Survey\Linear\Topography\	E_Topo_Ridgeline	E-TOPO-RDGLN
\\Survey\Linear\Topography\	E_Topo_Rock	E-TOPO-ROCK
\\Survey\Linear\Topography\	E_Topo_SlopeBottom	E-TOPO-SLBTM
\\Survey\Linear\Topography\	E_Topo_SlopeTop	E-TOPO-SLTOP
\\Survey\Linear\Topography\	E_Topo_SpotElevation	E-TOPO-SLELEV
\\Survey\Linear\Topography\	E_Topo_TerrainSlope	E-TOPO-TERSL
\\Survey\Linear\Topography\	E_Topo_WaterEdge	E-TOPO-WTREDG
\\Survey\Linear\Utilities\	E_Util_Comm	E-UTIL-COMM
\\Survey\Linear\Utilities\	E_Util_CommFiber	E-UTIL-COMM-FIB
\\Survey\Linear\Utilities\	E_Util_Elec	E-UTIL-ELEC
\\Survey\Linear\Utilities\	E_Util_ElecOH	E-UTIL-ELEC-OH
\\Survey\Linear\Utilities\	E_Util_Fuel	E-UTIL-FUEL
\\Survey\Linear\Utilities\	E_Util_Gas	E-UTIL-GAS
\\Survey\Linear\Utilities\	E_Util_Sanitary	E-UTIL-SAN



Template Path	Template Name	Level
\Survey\Linear\Utilities\	E_Util_Thermal	E-UTIL-THERM
\Survey\Linear\Utilities\	E_Util_Water	E-UTIL-WTR
\Survey\Linear\Misc\	E_Default	V-SITE-MISC
\Survey\Point\Traffic\	E_Traf_ElecLightPole	E-UTIL-ELEC-LTPL
\Survey\Point\Traffic\	E_Traf_SignalSPS	E-Traf_SignalSPS
\Survey\Point\Traffic\	E_Traf_SignSPS	E-Traf_SignSPS
\Survey\Point\Utilities\	E_Util_ElecPoleTrans	E-UTIL-ELEC-POLTRNS
\Survey\Point\Utilities\	E_Util_ElecLightPole	V-POWR
\Survey\Point\Control\	E_Surv_Point	
\Survey\Point\Drainage\	E_Drng_ManholeCone	E-Drng_ManholeCone
\Survey\Point\Landscape\	E_Lnsc_Hedge	E-Lnsc_Hedge
\Survey\Point\Structure\	E_Strc_Piling	E-Strc_Piling
\Survey\PTC Point\	V-STRM-STRC-AD	E-STRM-STRC-AD
\Survey\PTC Point\	V-STRM-STRC-BHW	E-STRM-STRC-BHW
\Survey\PTC Point\	V-STRM-STRC-INL	E-STRM-STRC-INL
\Survey\PTC Point\	V-STRM-STRC-MHSS	E-STRM-STRC-MHSS
\Survey\PTC Point\	V-STRM-STRC-THW	E-STRM-STRC-THW
\Survey\PTC Point\	V-STRM-STRC	E-STRM-STRC
\Survey\PTC Point\	V-FUEL-TANK-AST	E-FUEL-TANK-AST
\Survey\PTC Point\	V-FUEL-TANK-UST	E-FUEL-TANK-UST
\Survey\PTC Point\	V-FUEL-TANK	E-FUEL-TANK
\Survey\PTC Point\	V-CTRL-NODE-SHOT	E-CTRL-NODE-SHOT
\Survey\PTC Point\	V-CTRL-NODE-SHOT-CM	E-CTRL-NODE-SHOT-CM
\Survey\PTC Point\	V-CTRL-NODE-SHOT-IP	E-CTRL-NODE-SHOT-IP
\Survey\PTC Point\	V-CTRL-NODE-SHOT-IPP	E-CTRL-NODE-SHOT-IPP
\Survey\PTC Point\	V-CTRL-NODE-SHOT-NAIL	E-CTRL-NODE-SHOT-NAIL
\Survey\PTC Point\	V-CTRL-NODE-SHOT-REBAR	E-CTRL-NODE-SHOT-REBAR
\Survey\PTC Point\	V-CTRL-NODE-SHOT-RRS	E-CTRL-NODE-SHOT-RRS
\Survey\PTC Point\	V-CTRL-NODE-SHOT-STK	E-CTRL-NODE-SHOT-STK



Template Path	Template Name	Level
\\Survey\PTC Point\	V-CTRL-NODE-SHOT-STONE	E-CTRL-NODE-SHOT-STONE
\\Survey\PTC Point\	V-TOPO-BRKL	E-TOPO-BRKL
\\Survey\PTC Point\	V-ROAD-CURB	E-ROAD-CURB
\\Survey\PTC Point\	V-ROAD-CONC	E-ROAD-CONC
\\Survey\PTC Point\	V-SITE-SIGN	E-SITE-SIGN
\\Survey\PTC Point\	V-SITE-SIGN-SIGN	E-SITE-SIGN
\\Survey\PTC Point\	V-SITE-SIGN-TCS	E-SITE-SIGN
\\Survey\PTC Point\	V-CTRL-BMRK	E-CTRL-BMRK
\\Survey\PTC Point\	V-BLDG-MISC	E-BLDG-MISC
\\Survey\PTC Point\	V-BLDG-MISC-BOL	E-BLDG-MISC-bol
\\Survey\PTC Point\	V-TOPO-BORE	E-TOPO-BORE
\\Survey\PTC Point\	V-BRDG	E-BRDG
\\Survey\PTC Point\	V-BRDG-CURB	E-BRDG-CURB
\\Survey\PTC Point\	V-BRDG-CRWN	E-BRDG-CRWN
\\Survey\PTC Point\	V-BRDG-DECK	E-BRDG-DECK
\\Survey\PTC Point\	V-BRDG-SWLK	E-BRDG-SWLK
\\Survey\PTC Point\	V-BLDG-OTLN	E-BLDG-OTLN
\\Survey\PTC Point\	V-SITE-WALL	E-SITE-WALL
\\Survey\PTC Point\	V-TOPO-EWAT	E-TOPO-EWAT
\\Survey\PTC Point\	V-SITE-UTIL	E-SITE-UTIL
\\Survey\PTC Point\	V-SITE-UTIL-GUYA	E-SITE-UTIL-GUYA
\\Survey\PTC Point\	V-SITE-UTIL-GUYP	E-SITE-UTIL-GUYP
\\Survey\PTC Point\	V-SITE-UTIL-LP	E-SITE-UTIL-LP
\\Survey\PTC Point\	V-SITE-UTIL-UP	E-SITE-UTIL-UP
\\Survey\PTC Point\	V-SITE-MISC	V-SITE-MISC
\\Survey\PTC Point\	V-SITE-MISC-CIST	E-SITE-MISC-CIST
\\Survey\PTC Point\	V-SITE-MISC-CBX	E-SITE-MISC-CBX
\\Survey\PTC Point\	V-SITE-MISC-FP	E-SITE-MISC-FP
\\Survey\PTC Point\	V-SITE-MISC-MB	E-SITE-MISC-MB



Template Path	Template Name	Level
\\Survey\PTC Point\	V-SITE-MISC-POST	E-SITE-MISC-POST
\\Survey\PTC Point\	V-RAIL-EQPM	E-RAIL-EQPM
\\Survey\PTC Point\	V-RAIL-EQPM-CROS	E-RAIL-EQPM-CROS
\\Survey\PTC Point\	V-ROAD-CNTR	E-ROAD-CNTR
\\Survey\PTC Point\	V-CATV	E-CATV
\\Survey\PTC Point\	V-CATV-CLM	E-CATE-CLM
\\Survey\PTC Point\	V-CATV-CPED	E-CATE-CPED
\\Survey\PTC Point\	V-RAIL-CNTR	E-RAIL-CNTR
\\Survey\PTC Point\	V-CATV-MOC	E-CATE-MOC
\\Survey\PTC Point\	V-SSWR	E-SSWR
\\Survey\PTC Point\	V-SSWR-CO	E-SSWR-CO
\\Survey\PTC Point\	V-SSWR-MOSAN	E-SSWR-MOSAN
\\Survey\PTC Point\	V-SSWR-STP	E-SSWR-STP
\\Survey\PTC Point\	V-TOPO-CONC	E-TOPO-CONC
\\Survey\PTC Point\	V-ROAD-CRWN	E-ROAD-CRWN
\\Survey\PTC Point\	V-NODE-MISC	E-NODE-MISC
\\Survey\PTC Point\	V-NODE-MISC-DH	E-NODE-MISC-DH
\\Survey\PTC Point\	V-NODE-MISC-RK	E-NODE-MISC-RK
\\Survey\PTC Point\	V-TOPO-SPOT	E-TOPO-SPOT
\\Survey\PTC Point\	V-ROAD-MRKG-YELL	E-ROAD-MRKG-YELL
\\Survey\PTC Point\	V-POWR-INST-EMR	E-POWR-INST-EMR
\\Survey\PTC Point\	V-POWR-INST-EBX	E-POWR-INST-EBX
\\Survey\PTC Point\	V-POWR-INST	E-POWR-INST
\\Survey\PTC Point\	V-SITE-DVWY	E-SITE-DVWY
\\Survey\PTC Point\	V-POWR	E-POWR
\\Survey\PTC Point\	V-POWR-EP	E-POWR-EP
\\Survey\PTC Point\	V-POWR-MOE	E-POWR-MOE
\\Survey\PTC Point\	V-ROAD-EDGE-RT	E-ROAD-EDGE-RT
\\Survey\PTC Point\	V-ROAD-EDGE-LT	E-ROAD-EDGE-LT



Template Path	Template Name	Level
\\Survey\PTC Point\	V-ROAD-EDGE	V-ROAD-EDGE
\\Survey\PTC Point\	V-ROAD-SHDR-RT	E-ROAD-SHDR-RT
\\Survey\PTC Point\	V-ROAD-SHDR-LT	E-ROAD-SHDR-LT
\\Survey\PTC Point\	V-ROAD-SHDR	E-ROAD-SHDR
\\Survey\PTC Point\	V-POWR-STRC	E-POWR-STRC
\\Survey\PTC Point\	V-POWR-STRC-EVLT	E-POWR-STRC-EVLT
\\Survey\PTC Point\	V-POWR-STRC-MHE	E-POWR-STRC-MHE
\\Survey\PTC Point\	V-SITE-VEGE	E-SITE-VEGE
\\Survey\PTC Point\	V-SITE-VEGE-SHR	E-SITE-VEGE-SHR
\\Survey\PTC Point\	V-SITE-VEGE-TREEC	E-SITE-VEGE-TREEC
\\Survey\PTC Point\	V-SITE-VEGE-TREED	E-SITE-VEGE-TREED
\\Survey\PTC Point\	V-SITE-FNCE	E-SITE-FNCE
\\Survey\PTC Point\	V-WATR-INST	E-WATR-INST
\\Survey\PTC Point\	V-WATR-INST-FH	E-WATR-INST-FH
\\Survey\PTC Point\	V-WATR-INST-WM	E-WATR-INST-WM
\\Survey\PTC Point\	V-WATR-INST-WV	E-WATR-INST-WV
\\Survey\PTC Point\	V-RAIL	E-RAIL
\\Survey\PTC Point\	V-FUEL	E-FUEL
\\Survey\PTC Point\	V-NGAS	E-NGAS
\\Survey\PTC Point\	V-NGAS-GLM	E-NGAS-GLM
\\Survey\PTC Point\	V-NGAS-MOG	E-NGAS-MOG
\\Survey\PTC Point\	V-NGAS-INST	E-NGAS-INST
\\Survey\PTC Point\	V-NGAS-INST-GMR	E-NGAS-INST-GMR
\\Survey\PTC Point\	V-NGAS-INST-GV	E-NGAS-INST-GV
\\Survey\PTC Point\	V-ROAD-GRAL	E-ROAD-GRAL
\\Survey\PTC Point\	V-NGAS-STRC	E-NGAS-STRC
\\Survey\PTC Point\	V-NGAS-STRC-MHG	E-NGAS-STRC-MHG
\\Survey\PTC Point\	V-STRM	E-STRM
\\Survey\PTC Point\	V-STRM-MOSS	E-STRM-MOSS



Template Path	Template Name	Level
\\Survey\PTC Point\	V-STRM-RRP	E-STRM-RRP
\\Survey\PTC Point\	V-TRFF	E-TRFF
\\Survey\PTC Point\	V-CATV-STRC	E-CATE-STRC
\\Survey\PTC Point\	V-CATV-STRC-MHC	E-CATE-STRC-MHC
\\Survey\PTC Point\	V-SSWR-STRC	E-SSWR-STRC
\\Survey\PTC Point\	V-SSWR-STRC-MHSAN	E-SSWR-STRC-MHSAN
\\Survey\PTC Point\	V-SSWR-STRC-SET	E-SSWR-STRC-SET
\\Survey\PTC Point\	V-COMM-STRC	E-COMM-STRC
\\Survey\PTC Point\	V-COMM-STRC-MHT	E-COMM-STRC-MHT
\\Survey\PTC Point\	V-COMM-STRC-TELPED	E-COMM-STRC-TELPED
\\Survey\PTC Point\	V-WATR-STRC	E-WATR-STRC
\\Survey\PTC Point\	V-WATR-STRC-MHW	E-WATR-STRC-MHW
\\Survey\PTC Point\	V-COMM	E-COMM
\\Survey\PTC Point\	V-COMM-MOT	E-COMM-MOT
\\Survey\PTC Point\	V-COMM-TLM	E-COMM-TLM
\\Survey\PTC Point\	V-WATR	E-WATR
\\Survey\PTC Point\	V-WATR-MOW	E-WATR-MOW
\\Survey\PTC Point\	V-WATR-WELL	E-WATR-WELL
\\Survey\PTC Point\	V-SITE-MRKG	E-SITE-MRKG
\\Survey\PTC Point\	V-ROAD-MRKG-RT	E-ROAD-MRKG-RT
\\Survey\PTC Point\	V-ROAD-MRKG-LT	E-ROAD-MRKG-LT
\\Survey\PTC Point\	V-ROAD-MRKG	E-ROAD-MRKG
\\Survey\PTC Point\	V-SSWR-PIPE	E-SSWR-PIPE
\\Survey\PTC Point\	V-BLDG-SWLK	E-BLDG-SWLK
\\Survey\PTC Point\	V-TRFF-INST	E-TRFF-INST
\\Survey\PTC Point\	V-TRFF-INST-TSCB	E-TRFF-INST-TSCB
\\Survey\PTC Point\	V-ROAD-MISC	E-ROAD-MISC
\\Survey\PTC Point\	V-STRM-PIPE	E-STRM-PIPE
\\Survey\PTC Point\	V-SITE-VEGE-WETL-WET	E-SITE-VEGE-WETL-WET



Template Path	Template Name	Level
\\Survey\PTC Point\	V-SITE-VEGE-WETL	E-SITE-VEGE-WETL
\\Survey\PTC Point\	E_FUEL-TANK-AST	E-FUEL-TANK-AST
\\Survey\PTC Point\	E_DRNG-DA	E-DRNG-DA
\\Survey\PTC Point\	E_MISC-AXLE	E-MISC-AXLE
\\Survey\PTC Point\	E_MISC-BRN-SPKE	E-MISC-BRN-SPKE
\\Survey\PTC Point\	E_MISC-BM	E-MISC-BM
\\Survey\PTC Point\	E_SITE-BLBRD	E-SITE-BLBRD
\\Survey\PTC Point\	E_SITE-BOLRD	E-SITE-BOLRD
\\Survey\PTC Point\	E_SITE-BRNG	E-SITE-BRNG
\\Survey\PTC Point\	E_RAIL-BTM-BLLST	E-RAIL-BTM-BLLST
\\Survey\PTC Point\	E_RAIL-BTM-BNK	E-RAIL-BTM-BNK
\\Survey\PTC Point\	E_RAIL-BTM-CBARR	E-RAIL-BTM-CBARR
\\Survey\PTC Point\	E_RAIL-BTM-CURB	E-RAIL-BTM-CURB
\\Survey\PTC Point\	E_RAIL-BTM-HWALL	E-RAIL-BTM-HWALL
\\Survey\PTC Point\	E_RAIL-BTM-WALL	E-RAIL-BTM-WALL
\\Survey\PTC Point\	E_TOPO-BRKLN	E-TOPO-BRKLN
\\Survey\PTC Point\	E_BRDG-BEAM	E-BRDG-BEAM
\\Survey\PTC Point\	E_BRDG-BTM-ABUT	E-BRDG-BTM-ABUT
\\Survey\PTC Point\	E_BRDG-BTM-BEAN'	E-BRDG-BTM-BEAN'
\\Survey\PTC Point\	E_BRDG-BTM-CURB	E-BRDG-BTM-CURB
\\Survey\PTC Point\	E_BRDG-BTM-PRPT	E-BRDG-BTM-PRPT
\\Survey\PTC Point\	E_BRDG-BTM--PED	E-BRDG-BTM--PED
\\Survey\PTC Point\	E_BRDG-BTM-PIER	E-BRDG-BTM-PIER
\\Survey\PTC Point\	E_BRDG-BTM-WGWLL	E-BRDG-BTM-WGWLL
\\Survey\PTC Point\	E_BRDG-CRWN	E-BRDG-CRWN
\\Survey\PTC Point\	E_BRDG-DECK	E-BRDG-DECK
\\Survey\PTC Point\	E_BRDG-DECK-JNT	E-BRDG-DECK-JNT
\\Survey\PTC Point\	E_BRG-FTER	E-BRG-FTER
\\Survey\PTC Point\	E_BRDGE-CHORD	E-BRDGE-CHORD



Template Path	Template Name	Level
\\Survey\PTC Point\	E_BRDGE-SCPR	E-BRDGE-SCPR
\\Survey\PTC Point\	E_BRDG-SWLK	E-BRDG-SWLK
\\Survey\PTC Point\	E_BRDG-TOP-ABUT	E-BRDG-TOP-ABUT
\\Survey\PTC Point\	E_BRDG-TOP-CURB	E-BRDG-TOP-CURB
\\Survey\PTC Point\	E_BRDG-TOP-PRPT	E-BRDG-TOP-PRPT
\\Survey\PTC Point\	E_BRDG-TOP--PED	E-BRDG-TOP--PED
\\Survey\PTC Point\	E_BRDG-TOP-PIER	E-BRDG-TOP-PIER
\\Survey\PTC Point\	E_BRDG-TOP-WGWLL	E-BRDG-TOP-WGWLL
\\Survey\PTC Point\	E_BRDG-WHL-GRD	E-BRDG-WHL-GRD
\\Survey\PTC Point\	E_BLDG	E-BLDG
\\Survey\PTC Point\	E_BLDG-CRNR	E-BLDG-CRNR
\\Survey\PTC Point\	E_CATE_CLM	E-CATE-CLM
\\Survey\PTC Point\	E_CATE_CPED	E-CATE-CPED
\\Survey\PTC Point\	E_CATE_TRAY	E-CATE-TRAY
\\Survey\PTC Point\	E_CATE_STRC-MHC	E-CATE-STRC-MHC
\\Survey\PTC Point\	E_CATE_MRKOUT	E-CATE-MRKOUT
\\Survey\PTC Point\	E_SITE-MISC-CBX	E-SITE-MISC-CBX
\\Survey\PTC Point\	E_DRNG-CANAL	E-DRNG-CANAL
\\Survey\PTC Point\	E_SITE-CNT-PL	E-SITE-CNT-PL
\\Survey\PTC Point\	E_SITE-CELL-TWR	E-SITE-CELL-TWR
\\Survey\PTC Point\	E_ROAD-CNTR	E-ROAD-CNTR
\\Survey\PTC Point\	E_RAIL-CNTR	E-RAIL-CNTR
\\Survey\PTC Point\	E_SITE-MISC-CIST	E-SITE-MISC-CIST
\\Survey\PTC Point\	E_DRNG-CLNOUT	E-DRNG-CLNOUT
\\Survey\PTC Point\	E_BRDG-CLMN	E-BRDG-CLMN
\\Survey\PTC Point\	E_CONC	E-CONC
\\Survey\PTC Point\	E_CONC-MNMT	E-CONC-MNMT
\\Survey\PTC Point\	E_CONC-NAIL	E-CONC-NAIL
\\Survey\PTC Point\	E_SITE-VEGE-TREEC	E-SITE-VEGE-TREEC



Template Path	Template Name	Level
\\Survey\PTC Point\	E_DRNG-CRK	E-DRNG-CRK
\\Survey\PTC Point\	E_RAIL-XGTE	E-RAIL-XGTE
\\Survey\PTC Point\	E_RAIL-XSGN	E-RAIL-XSGN
\\Survey\PTC Point\	E_RAIL-XSGNL	E-RAIL-XSGNL
\\Survey\PTC Point\	E_ROAD-CROWN	E-ROAD-CROWN
\\Survey\PTC Point\	E_SITE-VEGE-TREED	E-SITE-VEGE-TREED
\\Survey\PTC Point\	E_TRFF-DEL-PST	E-TRFF-DEL-PST
\\Survey\PTC Point\	E_DRNG-DTCH	E-DRNG-DTCH
\\Survey\PTC Point\	E_DRNG-DTCH-CL	E-DRNG-DTCH-CL
\\Survey\PTC Point\	E_ROAD-MRKG-DBL-YEL	E-ROAD-MRKG-DBL-YEL
\\Survey\PTC Point\	E_DRNG-DF	E-DRNG-DF
\\Survey\PTC Point\	E_SITE-DH	E-SITE-DH
\\Survey\PTC Point\	E_SITE-DVWY	E-SITE-DVWY
\\Survey\PTC Point\	E_ROAD-EDGE	E-ROAD-EDGE
\\Survey\PTC Point\	E_ROAD-EDGE-LT	E-ROAD-EDGE-LT
\\Survey\PTC Point\	E_ROAD-EDGE-RT	E-ROAD-EDGE-RT
\\Survey\PTC Point\	E_ROAD-SHDR	E-ROAD-SHDR
\\Survey\PTC Point\	E_ROAD-SHDR-LT	E-ROAD-SHDR-LT
\\Survey\PTC Point\	E_ROAD-SHDR-RT	E-ROAD-SHDR-RT
\\Survey\PTC Point\	E_SITE-EDG-WDS	E-SITE-EDG-WDS
\\Survey\PTC Point\	E_UTIL-EB	E-UTIL-EB
\\Survey\PTC Point\	E_UTIL-MH	E-UTIL-MH
\\Survey\PTC Point\	E_UTIL-MTR	E-UTIL-MTR
\\Survey\PTC Point\	E_UTIL-PL	E-UTIL-PL
\\Survey\PTC Point\	E_UTIL-VLT	E-UTIL-VLT
\\Survey\PTC Point\	E_UTIL-EMRKOUT	E-UTIL-EMRKOUT
\\Survey\PTC Point\	E_SITE-FNC-LN	E-SITE-FNC-LN
\\Survey\PTC Point\	E_SITE-FNC-PST	E-SITE-FNC-PST
\\Survey\PTC Point\	E_SITE-FNC-ROW	E-SITE-FNC-ROW



Template Path	Template Name	Level
\\Survey\PTC Point\	E_SITE-FLD	E-SITE-FLD
\\Survey\PTC Point\	E_SITE-FHYD	E-SITE-FHYD
\\Survey\PTC Point\	E_SITE-FLG-PL	E-SITE-FLG-PL
\\Survey\PTC Point\	E_DRNG-FES	E-DRNG-FES
\\Survey\PTC Point\	E_DRNG-FL	E-DRNG-FL
\\Survey\PTC Point\	E_BLDG-GRGE	E-BLDG-GRGE
\\Survey\PTC Point\	E_GAS-ISLND	E-GAS-ISLND
\\Survey\PTC Point\	E_GAS-LN-MRK	E-GAS-LN-MRK
\\Survey\PTC Point\	E_GAS-MH	E-GAS-MH
\\Survey\PTC Point\	E_GAS-MRKOUT	E-GAS-MRKOUT
\\Survey\PTC Point\	E_GAS-MTR	E-GAS-MTR
\\Survey\PTC Point\	E_GAS-VLVE	E-GAS-VLVE
\\Survey\PTC Point\	E_GAS--VLVE-CRB-STP	E-GAS--VLVE-CRB-STP
\\Survey\PTC Point\	E_GAS-WELL	E-GAS-WELL
\\Survey\PTC Point\	E_SITE-GT	E-SITE-GT
\\Survey\PTC Point\	E_ROAD-GDRL-ATTEN	E-ROAD-GDRL-ATTEN
\\Survey\PTC Point\	E_ROAD-GDRL-FACE	E-ROAD-GDRL-FACE
\\Survey\PTC Point\	E_UTIL-GUY-PL	E-UTIL-GUY-PL
\\Survey\PTC Point\	E_UTIL-GUY-ANCR	E-UTIL-GUY-ANCR
\\Survey\PTC Point\	E_SITE-HDGE	E-SITE-HDGE
\\Survey\PTC Point\	E_MISC-HUB-TCK	E-MISC-HUB-TCK
\\Survey\PTC Point\	E_ROAD-IMPCT-ATTEN	E-ROAD-IMPCT-ATTEN
\\Survey\PTC Point\	E_DRNG-INLET	E-DRNG-INLET
\\Survey\PTC Point\	E_DRNG-INVRT	E-DRNG-INVRT
\\Survey\PTC Point\	E_MISC-IRON-PIN	E-MISC-IRON-PIN
\\Survey\PTC Point\	E_MISC-IRON-PPE	E-MISC-IRON-PPE
\\Survey\PTC Point\	E_SITE-JB	E-SITE-JB
\\Survey\PTC Point\	E_SITE-LAKE	E-SITE-LAKE
\\Survey\PTC Point\	E_SITE-LNSCA	E-SITE-LNSCA



Template Path	Template Name	Level
\\Survey\PTC Point\	E_SITE-LGHT-PST	E-SITE-LGHT-PST
\\Survey\PTC Point\	E_SITE-LGHT-STND	E-SITE-LGHT-STND
\\Survey\PTC Point\	E_TRFF-LP-DET	E-TRFF-LP-DET
\\Survey\PTC Point\	E_SITE-MISC-MB	E-SITE-MISC-MB
\\Survey\PTC Point\	E_SITE-MCWE_TWR	E-SITE-MCWE-TWR
\\Survey\PTC Point\	E_SITE-MONWELL	E-SITE-MONWELL
\\Survey\PTC Point\	E_BLDG-OUTBLDG	E-BLDG-OUTBLDG
\\Survey\PTC Point\	E_UTIL-OVHD-CBL-LN	E-UTIL-OVHD-CBL-LN
\\Survey\PTC Point\	E_UTIL-OVHD-ELC-LN	E-UTIL-OVHD-ELC-LN
\\Survey\PTC Point\	E_UTIL-OVHD-TEL-LN	E-UTIL-OVHD-TEL-LN
\\Survey\PTC Point\	E_UTIL-OVHD-WIRE	E-UTIL-OVHD-WIRE
\\Survey\PTC Point\	E_TRFF-PRK-MRK	E-TRFF-PRK-MRK
\\Survey\PTC Point\	E_DRNG-MISC	E-DRNG-MISC
\\Survey\PTC Point\	E_SITE-MRKR	E-SITE-MRKR
\\Survey\PTC Point\	E_DRNG-PND	E-DRNG-PND
\\Survey\PTC Point\	E_SITE-PST	E-SITE-PST
\\Survey\PTC Point\	E_RAIL-SPKE	E-RAIL-SPKE
\\Survey\PTC Point\	E_RAIL-EQPM-SWTCH	E-RAIL-EQPM-SWTCH
\\Survey\PTC Point\	E_SITE-REBAR	E-SITE-REBAR
\\Survey\PTC Point\	E_SITE-REBAR-WCAP	E-SITE-REBAR-WCAP
\\Survey\PTC Point\	E_SITE-RIP-RAP	E-SITE-RIP-RAP
\\Survey\PTC Point\	E_SSWR-PIPE	E-SSWR-PIPE
\\Survey\PTC Point\	E_SSWR-STRC-MH	E-SSWR-STRC-MH
\\Survey\PTC Point\	E_SSWR-STRC-MRKOUT	E-SSWR-STRC-MRKOUT
\\Survey\PTC Point\	E_SSWR-SPT-TNK	E-SSWR-SPT-TNK
\\Survey\PTC Point\	E_LNSC-SHRUB	E-LNSC-SHRUB
\\Survey\PTC Point\	E_ROAD-SDWLK	E-ROAD-SDWLK
\\Survey\PTC Point\	E_TRFF-SGN	E-TRFF-SGN
\\Survey\PTC Point\	E_SITE-SILO	E-SITE-SILO



Template Path	Template Name	Level
\\Survey\PTC Point\	E_DRNG-SLT-FNC	E-DRNG-SLT-FNC
\\Survey\PTC Point\	E_ROAD-MRK-W	E-ROAD-MRK-W
\\Survey\PTC Point\	E_ROAD-MRK-Y	E-ROAD-MRK-Y
\\Survey\PTC Point\	E_ROAD-MRK-SKP	E-ROAD-MRK-SKP
\\Survey\PTC Point\	E_SITE-MISC	E-SITE-MISC
\\Survey\PTC Point\	E_DRNG-SPRNG	E-DRNG-SPRNG
\\Survey\PTC Point\	E_MISC	E-MISC
\\Survey\PTC Point\	E_BLDG-MISC	E-BLDG-MISC
\\Survey\PTC Point\	E_SITE-STN-FEN	E-SITE-STN-FEN
\\Survey\PTC Point\	E_SITE-STN-MNMT	E-SITE-STN-MNMT
\\Survey\PTC Point\	E_SITE-STN-ROW	E-SITE-STN-ROW
\\Survey\PTC Point\	E_SSWR-MH	E-SSWR-MH
\\Survey\PTC Point\	E_SSWR-MRKOUT	E-SSWR-MRKOUT
\\Survey\PTC Point\	E_DRNG-STRM	E-DRNG-STRM
\\Survey\PTC Point\	E_SITE-TEL-LNMRK	E-SITE-TEL-LNMRK
\\Survey\PTC Point\	E_SITE-TEL-MH	E-SITE-TEL-MH
\\Survey\PTC Point\	E_SITE-TEL-MRKOUT	E-SITE-TEL-MRKOUT
\\Survey\PTC Point\	E_SITE-TEL-PED	E-SITE-TEL-PED
\\Survey\PTC Point\	E_SITE-TEL-PL	E-SITE-TEL-PL
\\Survey\PTC Point\	E_RAIL-TOP-BLLST	E-RAIL-TOP-BLLST
\\Survey\PTC Point\	E_RAIL-TOP-BNK	E-RAIL-TOP-BNK
\\Survey\PTC Point\	E_RAIL-TOP-CBARR	E-RAIL-TOP-CBARR
\\Survey\PTC Point\	E_RAIL-TOP-CURB	E-RAIL-TOP-CURB
\\Survey\PTC Point\	E_RAIL-TOP-HWALL	E-RAIL-TOP-HWALL
\\Survey\PTC Point\	E_RAIL-TOP-PIPE	E-RAIL-TOP-PIPE
\\Survey\PTC Point\	E_RAIL-TOP-TRCK	E-RAIL-TOP-TRCK
\\Survey\PTC Point\	E_RAIL-TOP-REVL	E-RAIL-TOP-REVL
\\Survey\PTC Point\	E_RAIL-TOP-WALL	E-RAIL-TOP-WALL
\\Survey\PTC Point\	E_TRFF-SNGL-CB	E-TRFF-SNGL-CB



Template Path	Template Name	Level
\\Survey\PTC Point\	E_TRFF-MSGNL-PL	E-TRFF-MSGNL-PL
\\Survey\PTC Point\	E_FUEL-TANK-UST	E-FUEL-TANK-UST
\\Survey\PTC Point\	E_SITE-UTIL-PL	E-SITE-UTIL-PL
\\Survey\PTC Point\	E_TRFF-MISC	E-TRFF-MISC
\\Survey\PTC Point\	E_WATR	E-WATR
\\Survey\PTC Point\	E_WATR-LNMRKR	E-WATR-LNMRKR
\\Survey\PTC Point\	E_WATR-MH	E-WATR-MH
\\Survey\PTC Point\	E_WATR-MRKOUT	E-WATR-MRKOUT
\\Survey\PTC Point\	E_WATR-MTR	E-WATR-MTR
\\Survey\PTC Point\	E_WATR-TWR	E-WATR-TWR
\\Survey\PTC Point\	E_WATR-VLVE	E-WATR-VLVE
\\Survey\PTC Point\	E_WATR-VLVE-CRB-STP	E-WATR-VLVE-CRB-STP
\\Survey\PTC Point\	E_WATR-WTRWAY	E-WATR-WTRWAY
\\Survey\PTC Point\	E_WATR-WELL	E-WATR-WELL
\\Survey\PTC Point\	E_SITE-WETL-FLG	E-SITE-WETL-FLG
\\Survey\PTC Point\	E_SITE-WETL-PRBE	E-SITE-WETL-PRBE
\\Survey\PTC Point\	E_SITE-WDLN	E-SITE-WDLN
\\Terrain\	Existing_Boundary	E-Terrain_Exterior
\\Modeling\Points\	Intersecting Profile	Intersecting Profile
\\Linear\Existing\Structures\	E_Brdg_Abutment	E-BRDG-ABUT
\\Linear\Existing\Structures\	E_Brdg_Deck	E-BRDG-DECK
\\Linear\Existing\Structures\	E_Brdg_Pier	E-BRDG-PIER
\\Linear\Existing\Structures\	E_Brdg_Railing	E-BRDG-RAIL
\\Linear\Existing\Structures\	E_Strc_House	E-Strc_House
\\Linear\Existing\Control\	E_Surv_Baseline	E-Surv_BL
\\Linear\Existing\Control\	E_Surv_MonConc	E-Surv_MonConc
\\Linear\Existing\Control\	E_Surv_MonDrilled	E-Surv_MonDrilled
\\Linear\Existing\Control\	E_Surv_IronRod	E-Surv_IronRod
\\Linear\Existing\Control\	E_Surv_MonNail	E-Surv_MonNail



Template Path	Template Name	Level
\Linear\Existing\Control\	E_Surv_MonOther	E-Surv_MonOther
\Linear\Existing\Control\	E_Surv_MonPipe	E-Surv_MonPipe
\Linear\Existing\Control\	E_Surv_MonStake	E-Surv_MonStake
\Linear\Existing\Control\	E_Surv_MonStampDisk	E-Surv_MonStampDisk
\Linear\Existing\Control\	E_Surv_MonStampPlate	E-Surv_MonStampPlate
\Linear\Existing\Control\	E_Surv_MonWoodPost	E-Surv_MonWoodPost
\Linear\Existing\Control\	E_Surv_PropertyCorner	E-Surv_PropertyCorner
\Linear\Existing\Control\	E_Surv_Anchor	E-Surv_Anchor
\Linear\Existing\Control\	E_Surv_Beacon	E-Surv_Beacon
\Linear\Existing\Control\	E_Surv_SurveyControl	E-Surv_SurveyControl
\Linear\Existing\Control\	E_Surv_Target	E-Surv_Target
\Linear\Existing\Control\	E_Surv_Traverse	E-Surv_Traverse
\Linear\Existing\Roadway\	E_Road_Curb_Back	E_Road_Curb_Back
\Linear\Existing\Roadway\	E_Road_CattleGrd	E-Road_CattleGrd
\Linear\Existing\Roadway\	E_Road_ROWMonC	E-Road_ROWMonC
\Linear\Existing\Roadway\	E_Road_ROWMonS	E-Road_ROWMonS
\Linear\Existing\Roadway\	E_Road_EdgeOfPavement	E_Road_EdgeOfPavement
\Point\Existing\Drainage\	E_Drng_Inlet	E-Drng_Inlet
\Point\Existing\Drainage\	E_Drng_Misc	E-Drng_Misc
\Point\Existing\Drainage\	E_Drng_Manhole	E-Drng_Manhole
\Point\Existing\Drainage\	E_Drng_Marsh	E-Drng_Marsh
\Point\Existing\Drainage\	E_Drng_Spring	E-Drng_Spring
\Point\Existing\Drainage\	E_Drng_Swamp	E-Drng_Swamp
\Point\Existing\Drainage\	E_Drng_TideGuage	E-Drng_TideGuage
\Point\Existing\Drainage\	E_Drng_UnderDrain	E-Drng_UnderDrain
\Point\Existing\Landscaping\	E_Lnsc_Flower	E-Lnsc_Flower
\Point\Existing\Landscaping\	E_Lnsc_Grass	E-Lnsc_Grass
\Point\Existing\Landscaping\	E_Lnsc_Gravel	E-Lnsc_Gravel
\Point\Existing\Landscaping\	E_Lnsc_Plant	E-Lnsc_Plant



Template Path	Template Name	Level
\Point\Existing\Landscaping\	E_Lnsc_Shrub	E-Lnsc_Shrub
\Point\Existing\Landscaping\	E_Lnsc_ShrubCon	E-Lnsc_ShrubCon
\Point\Existing\Landscaping\	E_Lnsc_ShrubDec	E-Lnsc_ShrubDec
\Point\Existing\Landscaping\	E_Lnsc_Soil	E-Lnsc_Soil
\Point\Existing\Landscaping\	E_Lnsc_Tree	E-Lnsc_Tree
\Point\Existing\Landscaping\	E_Lnsc_TreeCitrus	E-Lnsc_TreeCitrus
\Point\Existing\Landscaping\	E_Lnsc_TreeConiferous	E-Lnsc_TreeConiferous
\Point\Existing\Landscaping\	E_Lnsc_TreeCypress	E-Lnsc_TreeCypress
\Point\Existing\Landscaping\	E_Lnsc_TreeDecid	E-Lnsc_TreeDecid
\Point\Existing\Landscaping\	E_Lnsc_TreeOak	E-Lnsc_TreeOak
\Point\Existing\Landscaping\	E_Lnsc_TreePalm	E-Lnsc_TreePalm
\Point\Existing\Landscaping\	E_Lnsc_TreePalmClump	E-Lnsc_TreePalmClump
\Point\Existing\Landscaping\	E_Lnsc_TreePine	E-Lnsc_TreePine
\Point\Existing\Landscaping\	E_Lnsc_TreeStump	E-Lnsc_TreeStump
\Point\Existing\Landscaping\	E_Lnsc_TreeUnknown	E-Lnsc_TreeUnknown
\Point\Existing\Misc\	E_Misc_Bench	E-Misc_Bench
\Point\Existing\Misc\	E_Misc_Boring	E-Misc_Boring
\Point\Existing\Misc\	E_Misc_CoreTestHole	E-Misc_CoreTestHole
\Point\Existing\Misc\	E_Default	E-Default
\Point\Existing\Misc\	E_Misc_Dumpster	E-Misc_Dumpster
\Point\Existing\Misc\	E_Misc_TestHole	E-Misc_FirePit
\Point\Existing\Misc\	E_Misc_FirePit	E-Misc_FlagPole
\Point\Existing\Misc\	E_Misc_FlagPole	E-Misc_GatePost
\Point\Existing\Misc\	E_Misc_GatePost	E-Misc_Grave
\Point\Existing\Misc\	E_Misc_Grave	E-Misc_Grill
\Point\Existing\Misc\	E_Misc_Grill	E-Misc_Incinerator
\Point\Existing\Misc\	E_Misc_Incinerator	E-Misc_Mailbox
\Point\Existing\Misc\	E_Misc_Mailbox	E-Misc_MonitorWell
\Point\Existing\Misc\	E_Misc_MonitorWell	E-Misc_PlaygrndEq



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Template Path	Template Name	Level
\Point\Existing\Misc\	E_Misc_PlaygrndEq	E-Misc_Silo
\Point\Existing\Misc\	E_Misc_Silo	E-Misc_TestHole
\Point\Existing\Misc\	E_Misc_WindMill	E-Misc_WindMill
\Point\Existing\PTC\	ABOVE GROUND STORAGE TANK	E-FUEL-TANK-AST
\Point\Existing\PTC\	AREA DRAIN	E-DRNG-DA
\Point\Existing\PTC\	AXLE	E-MISC-AXLE
\Point\Existing\PTC\	BARN SPIKE	E-MISC-BRN-SPKE
\Point\Existing\PTC\	BENCHMARK	E-MISC-BM
\Point\Existing\PTC\	BILLBOARD	E-SITE-BLBRD
\Point\Existing\PTC\	BOLLARD	E-SITE-BOLRD
\Point\Existing\PTC\	BORING	E-SITE-BRNG
\Point\Existing\PTC\	BOTTOM OF BALLAST	E-RAIL-BTM-BLLST
\Point\Existing\PTC\	BOTTOM OF BANK	E-RAIL-BTM-BNK
\Point\Existing\PTC\	BOTTOM OF CONCRETE BARRIER	E-RAIL-BTM-CBARR
\Point\Existing\PTC\	BOTTOM OF CURB	E-RAIL-BTM-CURB
\Point\Existing\PTC\	BOTTOM OF HEADWALL	E-RAIL-BTM-HWALL
\Point\Existing\PTC\	BOTTOM OF WALL	E-RAIL-BTM-WALL
\Point\Existing\PTC\	BREAKLINE	E-TOPO-BRKLN
\Point\Existing\PTC\	BRIDGE BEAM SEAT	E-BRDG-BEAM
\Point\Existing\PTC\	BRIDGE BOTTOM OF ABUTMENT	E-BRDG-BTM-ABUT
\Point\Existing\PTC\	BRIDGE BOTTOM OF BEAM	E-BRDG-BTM-BEAN'
\Point\Existing\PTC\	BRIDGE BOTTOM OF CURB	E-BRDG-BTM-CURB
\Point\Existing\PTC\	BRIDGE BOTTOM OF PARAPET	E-BRDG-BTM-PRPT
\Point\Existing\PTC\	BRIDGE BOTTOM OF PEDESTAL	E-BRDG-BTM--PED
\Point\Existing\PTC\	BRIDGE BOTTOM OF PIER	E-BRDG-BTM-PIER
\Point\Existing\PTC\	BRIDGE BOTTOM OF WINGWALL	E-BRDG-BTM-WGWLL
\Point\Existing\PTC\	BRIDGE CROWN ROAD	E-BRDG-CRWN
\Point\Existing\PTC\	BRIDGE DECK	E-BRDG-DECK
\Point\Existing\PTC\	BRIDGE DECK JOINT	E-BRDG-DECK-JNT



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Template Path	Template Name	Level
\\Point\Existing\PTC\	BRIDGE FOOTER	E-BRG-FTER
\\Point\Existing\PTC\	BRIDGE LOW CHORD	E-BRDGE-CHORD
\\Point\Existing\PTC\	BRIDGE SCUPPER	E-BRDGE-SCPR
\\Point\Existing\PTC\	BRIDGE SIDEWALK	E-BRDG-SWLK
\\Point\Existing\PTC\	BRIDGE TOP OF ABUTMENT	E-BRDG-TOP-ABUT
\\Point\Existing\PTC\	BRIDGE TOP OF CURB	E-BRDG-TOP-CURB
\\Point\Existing\PTC\	BRIDGE TOP OF PARAPET	E-BRDG-TOP-PRPT
\\Point\Existing\PTC\	BRIDGE TOP OF PEDESTAL	E-BRDG-TOP--PED
\\Point\Existing\PTC\	BRIDGE TOP OF PIER	E-BRDG-TOP-PIER
\\Point\Existing\PTC\	BRIDGE TOP OF WINGWALL	E-BRDG-TOP-WGWLL
\\Point\Existing\PTC\	BRIDGE WHEEL GUARD	E-BRDG-WHL-GRD
\\Point\Existing\PTC\	BUILDING	E-BLDG
\\Point\Existing\PTC\	BUILDING CORNER	E-BLDG-CRNR
\\Point\Existing\PTC\	CABLE LINE MARKER	E-CATE-CLM
\\Point\Existing\PTC\	CABLE PEDESTAL	E-CATE-CPED
\\Point\Existing\PTC\	CABLE TRAY	E-CATE-TRAY
\\Point\Existing\PTC\	CABLE TV MANHOLE	E-CATE-STRC-MHC
\\Point\Existing\PTC\	CABLE TV MARKOUT	E-CATE-MRKOUT
\\Point\Existing\PTC\	CALL BOX	E-SITE-MISC-CBX
\\Point\Existing\PTC\	CANAL	E-DRNG-CANAL
\\Point\Existing\PTC\	CATINARY POLE	E-SITE-CNT-PL
\\Point\Existing\PTC\	CELL TOWER	E-SITE-CELL-TWR
\\Point\Existing\PTC\	CENTERLINE	E-ROAD-CNTR
\\Point\Existing\PTC\	CENTERLINE TRACK	E-RAIL-CNTR
\\Point\Existing\PTC\	CHECK BSHOT	E-MISC
\\Point\Existing\PTC\	CISTERN	E-SITE-MISC-CIST
\\Point\Existing\PTC\	CLEANOUT	E-DRNG-CLNOUT
\\Point\Existing\PTC\	COLUMN	E-BRDG-CLMN
\\Point\Existing\PTC\	CONCRETE	E-CONC



Template Path	Template Name	Level
\Point\Existing\PTC\	CONCRETE MONUMENT	E-CONC-MNMT
\Point\Existing\PTC\	CONCRETE NAIL	E-CONC-NAIL
\Point\Existing\PTC\	CONIFEROUS TREE	E-SITE-VEGE-TREEC
\Point\Existing\PTC\	CREEK	E-DRNG-CRK
\Point\Existing\PTC\	CROSS GATE	E-RAIL-XGTE
\Point\Existing\PTC\	CROSS SIGN	E-RAIL=XSGN
\Point\Existing\PTC\	CROSS SIGNAL	E-RAIL-XSGNL
\Point\Existing\PTC\	CROWN ROAD	E-ROAD-CROWN
\Point\Existing\PTC\	DECIDUOUS TREE	E-SITE-VEGE-TREED
\Point\Existing\PTC\	DELINIATOR POST	E-TRFF-DEL-PST
\Point\Existing\PTC\	DISK	E-MISC
\Point\Existing\PTC\	DITCH	E-DRNG-DTCH
\Point\Existing\PTC\	DITCH CENTERLINE	E-DRNG-DTCH-CL
\Point\Existing\PTC\	DOUBLE YELLOW LINE	E-ROAD-MRKG-DBL-YEL
\Point\Existing\PTC\	DRAINFIELD	E-DRNG-DF
\Point\Existing\PTC\	DRILL HOLE	E-SITE-DH
\Point\Existing\PTC\	EDGE DRIVE	E-SITE-DVWY
\Point\Existing\PTC\	EDGE OF ROADWAY	E-ROAD-EDGE
\Point\Existing\PTC\	EDGE OF ROADWAY-LT	E-ROAD-EDGE-LT
\Point\Existing\PTC\	EDGE OF ROADWAY-RT	E-ROAD-EDGE-RT
\Point\Existing\PTC\	EDGE OF SHOULDER	E-ROAD-SHDR
\Point\Existing\PTC\	EDGE OF SHOULDER-LT	E-ROAD-SHDR-LT
\Point\Existing\PTC\	EDGE OF SHOULDER-RT	E-ROAD-SHDR-RT
\Point\Existing\PTC\	EDGE OF WOODS	E-SITE-EDG-WDS
\Point\Existing\PTC\	ELECTRIC BOX	E-UTIL-EB
\Point\Existing\PTC\	ELECTRIC MANHOLE	E-UTIL-MH
\Point\Existing\PTC\	ELECTRIC METER	E-UTIL-MTR
\Point\Existing\PTC\	ELECTRIC POLE	E-UTIL-PL
\Point\Existing\PTC\	ELECTRIC VAULT	E-UTIL-VLT



Template Path	Template Name	Level
\Point\Existing\PTC\	ELECTRICAL MARKOUT	E-UTIL-EMRKOUT
\Point\Existing\PTC\	FENCE LINE	E-SITE-FNC-LN
\Point\Existing\PTC\	FENCE POST	E-SITE-FNC-PST
\Point\Existing\PTC\	FENCE RIGHT-OF-WAY	E-SITE-FNC-ROW
\Point\Existing\PTC\	FIELD	E-SITE-FLD
\Point\Existing\PTC\	FINISHED FLOOR ELEVATION	E-MISC
\Point\Existing\PTC\	FIRE HYDRANT	E-SITE-FHYD
\Point\Existing\PTC\	V-SITE-FLG-PL	E-SITE-FLG-PL
\Point\Existing\PTC\	FLARED END SECTION	E-DRNG-FES
\Point\Existing\PTC\	FLOWLINE	E-DRNG-FL
\Point\Existing\PTC\	FROG	E-MISC
\Point\Existing\PTC\	GARAGE	E-BLDG-GRGE
\Point\Existing\PTC\	GAS ISLAND	E-GAS-ISLND
\Point\Existing\PTC\	GAS LINE MARKER	E-GAS-LN-MRK
\Point\Existing\PTC\	GAS MANHOLE	E-GAS-MH
\Point\Existing\PTC\	GAS MARKOUT	E-GAS-MRKOUT
\Point\Existing\PTC\	GAS METER	E-GAS-MTR
\Point\Existing\PTC\	GAS VALVE	E-GAS-VLVE
\Point\Existing\PTC\	GAS VALVE CURB STOP	E-GAS--VLVE-CRB-STP
\Point\Existing\PTC\	GAS WELL	E-GAS-WELL
\Point\Existing\PTC\	GATE	E-SITE-GT
\Point\Existing\PTC\	GUIDE RAIL ATTENUATOR	E-ROAD-GDRL-ATTEN
\Point\Existing\PTC\	GUIDE RAIL FACE	E-ROAD-GDRL-FACE
\Point\Existing\PTC\	GUY POLE	E-UTIL-GUY-PL
\Point\Existing\PTC\	GUY WIRE ANCHOR	E-UTIL-GUY-ANCR
\Point\Existing\PTC\	HEDGE	E-SITE-HDGE
\Point\Existing\PTC\	HUB TACK	E-MISC-HUB-TCK
\Point\Existing\PTC\	IMPACT ATTENUATOR	E-ROAD-IMPCT-ATTEN
\Point\Existing\PTC\	INLET	E-DRNG-INLET



Template Path	Template Name	Level
\\Point\Existing\PTC\	INVERT	E-DRNG-INVRT
\\Point\Existing\PTC\	IRON PIN	E-MISC-IRON-PIN
\\Point\Existing\PTC\	IRON PIPE	E-MISC-IRON-PPE
\\Point\Existing\PTC\	JUNCTION BOX	E-SITE-JB
\\Point\Existing\PTC\	LAKE	E-SITE-LAKE
\\Point\Existing\PTC\	LANDSCAPE AREA	E-SITE-LNSCA
\\Point\Existing\PTC\	LIGHT POST	E-SITE-LGHT-PST
\\Point\Existing\PTC\	LIGHT STANDARD	E-SITE-LGHT-STND
\\Point\Existing\PTC\	LIMIT OF DISTURBANCE	E-MISC
\\Point\Existing\PTC\	LOOP DETECTOR	E-TRFF-LP-DET
\\Point\Existing\PTC\	MACADAM	E-MISC
\\Point\Existing\PTC\	MAG NAIL	E-MISC
\\Point\Existing\PTC\	MAILBOX	E-SITE-MISC-MB
\\Point\Existing\PTC\	MICROWAVE TOWER	E-SITE-MCWE-TWR
\\Point\Existing\PTC\	MONITORING WELL	E-SITE-MONWELL
\\Point\Existing\PTC\	NAIL	E-MISC
\\Point\Existing\PTC\	OUT BUILDING	E-BLDG-OUTBLDG
\\Point\Existing\PTC\	OVERHANG ROOF	E-BLDG-MISC
\\Point\Existing\PTC\	OVERHEAD CABLE LINE	E-UTIL-OVHD-CBL-LN
\\Point\Existing\PTC\	OVERHEAD ELECTRIC LINE	E-UTIL-OVHD-ELC-LN
\\Point\Existing\PTC\	OVERHEAD TELEPHONE LINE	E-UTIL-OVHD-TEL-LN
\\Point\Existing\PTC\	OVERHEAD WIRE	E-UTIL-OVHD-WIRE
\\Point\Existing\PTC\	P K NAIL	E-MISC
\\Point\Existing\PTC\	PARKING STRIPE	E-TRFF-PRK-MRK
\\Point\Existing\PTC\	PERCOLATION HOLE	E-DRNG-MISC
\\Point\Existing\PTC\	PETROLEUM LINE MARKER	E-SITE-MRKR
\\Point\Existing\PTC\	POND	E-DRNG-PND
\\Point\Existing\PTC\	POOL	E-BLDG-MISC
\\Point\Existing\PTC\	PORCH	E-BLDG-MISC



Template Path	Template Name	Level
\Point\Existing\PTC\	POST	E-SITE-PST
\Point\Existing\PTC\	RAILROAD SPIKE	E-RAIL-SPKE
\Point\Existing\PTC\	RAILROAD SWITCH	E-RAIL-EQPM-SWTCH
\Point\Existing\PTC\	REBAR	E-SITE-REBAR
\Point\Existing\PTC\	REBAR W/ CAP	E-SITE-REBAR-WCAP
\Point\Existing\PTC\	RIP-RAP	E-SITE-RIP-RAP
\Point\Existing\PTC\	RIVER	E-MISC
\Point\Existing\PTC\	ROAD KILL	E-MISC
\Point\Existing\PTC\	SAND MOUND	E-SITE-MISC
\Point\Existing\PTC\	SANITARY SEWER LINE	E-SSWR-LINE
\Point\Existing\PTC\	SANITARY SEWER MANHOLE	E-SSWR-STRC-MH
\Point\Existing\PTC\	SANITARY SEWER MARKOUT	E-SSWR-STRC-MRKOUT
\Point\Existing\PTC\	SEPTIC TANK	E-SSWR-SPT-TNK
\Point\Existing\PTC\	SHRUB	E-LNSC-SHRUB
\Point\Existing\PTC\	SIDEWALK	E-ROAD-SDWLK
\Point\Existing\PTC\	SIGN	E-TRFF-SGN
\Point\Existing\PTC\	SILO	E-SITE-SILO
\Point\Existing\PTC\	SILT FENCE	E-DRNG-SLT-FNC
\Point\Existing\PTC\	SINGLE WHITE LINE	E-ROAD-MRK-W
\Point\Existing\PTC\	SINGLE YELLOW LINE	E-ROAD-MRK-Y
\Point\Existing\PTC\	SKIP LINE	E-ROAD-MRK-SKP
\Point\Existing\PTC\	SOIL TEST PIT	E-SITE-MISC
\Point\Existing\PTC\	SPRING	E-DRNG-SPRNG
\Point\Existing\PTC\	STAKE	E-MISC
\Point\Existing\PTC\	STEPS	E-BLDG-MISC
\Point\Existing\PTC\	STONE FENCE	E-SITE-STN-FEN
\Point\Existing\PTC\	STONE MONUMENT	E-SITE-STN-MNMT
\Point\Existing\PTC\	STONE ROW	E-SITE-STN-ROW
\Point\Existing\PTC\	STORM SEWER MANHOLE	E-SSWR-MH

Template Path	Template Name	Level
\Point\Existing\PTC\	STORM SEWER MARKOUT	E-SSWR-MRKOUT
\Point\Existing\PTC\	STREAM	E-DRNG-STRM
\Point\Existing\PTC\	TELEPHONE LINE MARKER	E-SITE-TEL-LNMRK
\Point\Existing\PTC\	TELEPHONE MANHOLE	E-SITE-TEL-MH
\Point\Existing\PTC\	TELEPHONE MARKOUT	E-SITE-TEL-MRKOUT
\Point\Existing\PTC\	TELEPHONE PEDESTAL	E-SITE-TEL-PED
\Point\Existing\PTC\	TELEPHONE POLE	E-SITE-TEL-PL
\Point\Existing\PTC\	TEMPORARY CHANNELING DEVICE	E-TRFF-MISC
\Point\Existing\PTC\	TEMPORARY CONSTRUCTION SIGN	E-TRFF-MISC
\Point\Existing\PTC\	TOP OF BALLAST	E-RAIL-TOP-BLLST
\Point\Existing\PTC\	TOP OF BANK	E-RAIL-TOP-BNK
\Point\Existing\PTC\	TOP OF CONCRETE BARRIER	E-RAIL-TOP-CBARR
\Point\Existing\PTC\	TOP OF CURB	E-RAIL-TOP-CURB
\Point\Existing\PTC\	TOP OF HEADWALL	E-RAIL-TOP-HWALL
\Point\Existing\PTC\	TOP OF PIPE	E-RAIL-TOP-PIPE
\Point\Existing\PTC\	TOP OF RAILROAD TRACK	E-RAIL-TOP-TRCK
\Point\Existing\PTC\	TOP OF REVEAL	E-RAIL-TOP-REVL
\Point\Existing\PTC\	TOP OF WALL	E-RAIL-TOP-WALL
\Point\Existing\PTC\	TRAFFIC CAMERA	E-TRFF-MISC
\Point\Existing\PTC\	TRAFFIC SIGNAL CONTROL BOX	E-TRFF-SNGL-CB
\Point\Existing\PTC\	TRAFFIC SIGNAL MAST	E-TRFF-SGNL-MAST
\Point\Existing\PTC\	TRAFFIC SIGNAL POLE	E-TRFF-SGNL-PL
\Point\Existing\PTC\	TREE ROW	E-Lnsc_TreeROW
\Point\Existing\PTC\	UNDERGROUND STORAGE TANK	E-FUEL-TANK-UST
\Point\Existing\PTC\	UTILITY POLE	E-SITE-UTIL-PL
\Point\Existing\PTC\	VARIABLE MESSAGE SIGN	E-TRFF-MISC
\Point\Existing\PTC\	WATER	E-WATR
\Point\Existing\PTC\	WATER LINE MARKER	E-WATR-LNMRKR
\Point\Existing\PTC\	WATER MANHOLE	E-WATR-MH



Template Path	Template Name	Level
\Point\Existing\PTC\	WATER MARKOUT	E-WATR-MRKOUT
\Point\Existing\PTC\	WATER METER	E-WATR-MTR
\Point\Existing\PTC\	WATER TOWER	E-WATR-TWR
\Point\Existing\PTC\	WATER VALVE	E-WATR-VLVE
\Point\Existing\PTC\	WATER VALVE CURB STOP	E-WATR-VLVE-CRB-STP
\Point\Existing\PTC\	WATERWAY SOUNDING	E-WATR-WTRWAY
\Point\Existing\PTC\	WELL	E-WATR-WELL
\Point\Existing\PTC\	WETLAND FLAG	E-SITE-WETL-FLG
\Point\Existing\PTC\	WETLAND PROBE	E-SITE-WETL-PRBE
\Point\Existing\PTC\	WOOD LINE	E-SITE-WDLN
\Point\Existing\Rail\	E_Rail_Signal	E-Rail_Signal
\Point\Existing\Rail\	E_Rail_CrossingGate	E-Rail_CrossingGate
\Point\Existing\Rail\	E_Rail_MilePost	E-Rail_MilePost
\Point\Existing\Rail\	E_Rail_Switch	E-Rail_Switch
\Point\Existing\Rail\	E_Rail_WarnSign	E-Rail_WarnSign
\Point\Existing\Traffic\	E_Traf_Buoy	E-Traf_Buoy
\Point\Existing\Traffic\	E_Traf_DelCircle	E-Traf_DelCircle
\Point\Existing\Traffic\	E_Traf_DelPost	E-Traf_DelPost
\Point\Existing\Traffic\	E_Traf_Handicap	E-Traf_Handicap
\Point\Existing\Traffic\	E_Traf_ParkingMeter	E-Traf_ParkingMeter
\Point\Existing\Traffic\	E_Traf_PavmentMark	E-Traf_PavmentMark
\Point\Existing\Traffic\	E_Traf_PedSignal	E-Traf_PedSignal
\Point\Existing\Traffic\	E_Traf_Post	E_Traf_Post
\Point\Existing\Traffic\	E_Traf_Signalsupp	E-Traf_Signalsupp
\Point\Existing\Traffic\	E_Traf_SignalCntrl	E-Traf_SignalCntrl
\Point\Existing\Traffic\	E_Traf_SignalHead	E-Traf_SignalHead
\Point\Existing\Traffic\	E_Traf_SignalHeadPedistal	E-Traf_SignalHeadPedistal
\Point\Existing\Traffic\	E_Traf_SignalMCS	E-Traf_SignalMCS
\Point\Existing\Traffic\	E_Traf_SignalMastArm	E-Traf_SignalMastArm



Template Path	Template Name	Level
\Point\Existing\Traffic\	E_Traf_SignalSpan	E-Traf_SignalSpan
\Point\Existing\Traffic\	E_Util_ElecLightPole	E-Util_ElecLightPole
\Point\Existing\Utilities\	E_Util_CommAntenna	E-Util_CommAntenna
\Point\Existing\Utilities\	E_Util_CommCableBox	E-Util_CommCableBox
\Point\Existing\Utilities\	E_Util_ElecOutlet	E-Util_ElecLightPole
\Point\Existing\Utilities\	E_Util_FuelFillCap	E-Util_FuelFillCap
\Point\Existing\Utilities\	E_Util_WaterFireHydrant	E-Util_WaterFireHydrant
\Point\Existing\Utilities\	E_Util_ElecFloodLight	E-Util_CommManhole
\Point\Existing\Utilities\	E_Util_FuelPump	E-Util_FuelPump
\Point\Existing\Utilities\	E_Util_GasMarker	E-Util_GasMarker
\Point\Existing\Utilities\	E_Util_MiscGuyAnchor	E-Util_MiscGuyAnchor
\Point\Existing\Utilities\	E_Util_MiscGuyPole	E-Util_MiscGuyPole
\Point\Existing\Utilities\	E_Util_ElecLightPoleHighMast	E-Util_ElecLightPoleHighMast
\Point\Existing\Utilities\	E_Util_CommManhole	E-Util_CommManhole
\Point\Existing\Utilities\	E_Util_ElecManhole	E-Util_ElecManhole
\Point\Existing\Utilities\	E_Util_GasManhole	E-Util_GasManhole
\Point\Existing\Utilities\	E_Util_SanManhole	E-Util_SanManhole
\Point\Existing\Utilities\	E_Util_SanPumpMH	E-Util_SanPumpMH
\Point\Existing\Utilities\	E_Util_TelManhole	E-Util_TelManhole
\Point\Existing\Utilities\	E_Util_WaterManhole	E-Util_WaterManhole
\Point\Existing\Utilities\	E_Util_MiscManhole	E-Util_MiscManhole
\Point\Existing\Utilities\	E_Util_ElecMeter	E-Util_ElecMeter
\Point\Existing\Utilities\	E_Util_GasMeter	E-Util_GasMeter
\Point\Existing\Utilities\	E_Util_MiscMeter	E-Util_MiscMeter
\Point\Existing\Utilities\	E_Util_WaterMeter	E-Util_WaterMeter
\Point\Existing\Utilities\	E_Util_Misc	E-Util_Misc
\Point\Existing\Utilities\	E_Util_Comm-Above	E-Util_Comm-Above
\Point\Existing\Utilities\	E_Util_ElecPole	E-Util_ElecPole
\Point\Existing\Utilities\	E_Util_ElecPoleH	E-Util_ElecPoleH

Template Path	Template Name	Level
\Point\Existing\Utilities\	E_Util_ElecrPoleTrans	E-Util_ElecrPoleTrans
\Point\Existing\Utilities\	E_Util_ElecPullBox	E-Util_ElecPullBox
\Point\Existing\Utilities\	E_Util_GasRegulator	E-Util_GasRegulator
\Point\Existing\Utilities\	E_Util_MiscReg	E-Util_MiscReg
\Point\Existing\Utilities\	E_Util_SanPumpSta	E-Util_SanPumpSta
\Point\Existing\Utilities\	E_Util_SanCleanout	E-Util_SanCleanout
\Point\Existing\Utilities\	E_Util_CommSattelite	E-Util_CommSattelite
\Point\Existing\Utilities\	E_Util_ElecServiceCab	E-Util_ElecServiceCab
\Point\Existing\Utilities\	E_Util_SanDumpStation	E-Util_SanDumpStation
\Point\Existing\Utilities\	E_Util_WaterSprinkler	E-Util_WaterSprinkler
\Point\Existing\Utilities\	E_Util_WaterStandpipe	E-Util_WaterStandpipe
\Point\Existing\Utilities\	E_Util_FuelStorageTank	E-Util_FuelStorageTank
\Point\Existing\Utilities\	E_Util_TelBooth	E-Util_TelBooth
\Point\Existing\Utilities\	E_Util_TelPed	E-Util_TelPed
\Point\Existing\Utilities\	E_Util_TelPole	E-Util_TelPole
\Point\Existing\Utilities\	E_Util_CommTower	E-Util_CommTower
\Point\Existing\Utilities\	E_Util_ElecTower	E-Util_ElecTower
\Point\Existing\Utilities\	E_Util_ElecTransformer	E-Util_ElecTransformer
\Point\Existing\Utilities\	E_Util_ElecTransTower	E-Util_ElecTransTower
\Point\Existing\Utilities\	E_Util_MiscGuages	E-Util_MiscGuages
\Point\Existing\Utilities\	E_Util_MiscPump	E-Util_MiscPump
\Point\Existing\Utilities\	E_Util_GasValveBox	E-Util_GasValveBox
\Point\Existing\Utilities\	E_Util_SanValveBox	E-Util_SanValveBox
\Point\Existing\Utilities\	E_Util_MiscValveBox	E-Util_MiscValveBox
\Point\Existing\Utilities\	E_Util_WaterValveBox	E-Util_WaterValveBox
\Point\Existing\Utilities\	E_Util_GasValveCover	E-Util_GasValveCover
\Point\Existing\Utilities\	E_Util_SanValveCover	E-Util_SanValveCover
\Point\Existing\Utilities\	E_Util_MiscValveCover	E-Util_MiscValveCover
\Point\Existing\Utilities\	E_Util_WaterValveCover	E-Util_WaterValveCover



Template Path	Template Name	Level
\Point\Existing\Utilities\	E_Util_GasValve	E-Util_GasValve
\Point\Existing\Utilities\	E_Util_SanValve	E-Util_SanValve
\Point\Existing\Utilities\	E_Util_MiscValve	E-Util_MiscValve
\Point\Existing\Utilities\	E_Util_WaterValve	E-Util_WaterValve
\Point\Existing\Utilities\	E_Util_GasVent	E-Util_GasVent
\Point\Existing\Utilities\	E_Util_SanVent	E-Util_SanVent
\Point\Existing\Utilities\	E_Util_MiscVent	E-Util_MiscVent
\Point\Existing\Utilities\	E_Util_WaterStorageTank	E-Util_WaterStorageTank
\Point\Existing\Utilities\	E_Util_WaterWell	E-Util_WaterWell
\Electrical\Nodes\Plan\	Utility Pole	C-POWR-POLE
\Electrical\Nodes\Plan\	Elec Connection Region	C-POWR
\Electrical\Nodes\3D Top\	Utility Pole	C-POWR-POLE
\Electrical\Nodes\3D Bottom\	Utility Pole	C-POWR-POLE
\Electrical\Conduits\Profile\	Elec Line	C-POWR-COND



14.13 OPENROADS DESIGNER FEATURE DEFINITIONS

<i>Feature Definition Name</i>	<i>Feature Definition Description</i>	<i>Feature Definition Name</i>	<i>Linear Feature Symbology</i>
Point			
ABOVE GROUND STORAGE TANK	EXISTING ABOVE GROUND STORAGE TANK	AST	Point\Existing\PTC\ABOVE GROUND STORAGE TANK
AREA DRAIN	EXISTING AREA DRAIN	AD	Point\Existing\PTC\AREA DRAIN
AXLE	EXISTING AXLE	AXLE	Point\Existing\PTC\AXLE
BARN SPIKE	EXISTING BARN SPIKE	SPK	Point\Existing\PTC\BARN SPIKE
BENCHMARK	EXISTING BENCHMARK	BM	Point\Existing\PTC\BENCHMARK
BILLBOARD	EXISTING BILLBOARD	BIL	Point\Existing\PTC\BILLBOARD
BOLLARD	EXISTING BOLLARD	BOL	Point\Existing\PTC\BOLLARD
BORING	EXISTING BORING	BOR	Point\Existing\PTC\BORING
BOTTOM OF BALLAST	EXISTING BOTTOM OF BALLAST	RRB	Point\Existing\PTC\BOTTOM OF BALLAST
BOTTOM OF BANK	EXISTING BOTTOM OF BANK	BB	Point\Existing\PTC\BOTTOM OF BANK
BOTTOM OF CONCRETE BARRIER	EXISTING BOTTOM OF CONCRETE BARRIER	BCBAR	Point\Existing\PTC\BOTTOM OF CONCRETE BARRIER
BOTTOM OF CURB	EXISTING BOTTOM OF CURB	BC	Point\Existing\PTC\BOTTOM OF CURB
BOTTOM OF HEADWALL	EXISTING BOTTOM OF HEADWALL	BHW	Point\Existing\PTC\BOTTOM OF HEADWALL
BOTTOM OF WALL	EXISTING BOTTOM OF WALL	BW	Point\Existing\PTC\BOTTOM OF WALL
BREAKLINE	EXISTING BREAKLINE	BRE	Point\Existing\PTC\BREAKLINE
BRIDGE BEAM SEAT	EXISTING BRIDGE BEAM SEAT	BRBS	Point\Existing\PTC\BRIDGE BEAM SEAT
BRIDGE BOTTOM OF ABUTMENT	EXISTING BRIDGE BOTTOM OF ABUTMENT	BRABUT	Point\Existing\PTC\BRIDGE BOTTOM OF ABUTMENT
BRIDGE BOTTOM OF BEAM	EXISTING BRIDGE BOTTOM OF BEAM	BRBEAM	Point\Existing\PTC\BRIDGE BOTTOM OF BEAM
BRIDGE BOTTOM OF CURB	EXISTING BRIDGE BOTTOM OF CURB	BRBC	Point\Existing\PTC\BRIDGE BOTTOM OF CURB
BRIDGE BOTTOM OF PARAPET	EXISTING BRIDGE BOTTOM OF PARAPET	BRPAR	Point\Existing\PTC\BRIDGE BOTTOM OF PARAPET
BRIDGE BOTTOM OF PEDESTAL	EXISTING BRIDGE BOTTOM OF PEDESTAL	BRPED	Point\Existing\PTC\BRIDGE BOTTOM OF PEDESTAL
BRIDGE BOTTOM OF PIER	EXISTING BRIDGE BOTTOM OF PIER	BRPIER	Point\Existing\PTC\BRIDGE BOTTOM OF PIER
BRIDGE BOTTOM OF WINGWALL	EXISTING BRIDGE BOTTOM OF WINGWALL	BRAW	Point\Existing\PTC\BRIDGE BOTTOM OF WINGWALL
BRIDGE CROWN ROAD	EXISTING BRIDGE CROWN ROAD	BRCR	Point\Existing\PTC\BRIDGE CROWN ROAD



<i>Feature Definition Name</i>	<i>Feature Definition Description</i>	<i>Feature Definition Name</i>	<i>Linear Feature Symbology</i>
BRIDGE DECK	EXISTING BRIDGE DECK	BRDK	Point\Existing\PTC\BRIDGE DECK
BRIDGE DECK JOINT	EXISTING BRIDGE DECK JOINT	BRDJT	Point\Existing\PTC\BRIDGE DECK JOINT
BRIDGE FOOTER	EXISTING BRIDGE FOOTER	BRF	Point\Existing\PTC\BRIDGE FOOTER
BRIDGE LOW CHORD	EXISTING BRIDGE LOW CHORD	BRLC	Point\Existing\PTC\BRIDGE LOW CHORD
BRIDGE SCUPPER	EXISTING BRIDGE SCUPPER	BRSCUP	Point\Existing\PTC\BRIDGE SCUPPER
BRIDGE SIDEWALK	EXISTING BRIDGE SIDEWALK	BRSW	Point\Existing\PTC\BRIDGE SIDEWALK
BRIDGE TOP OF ABUTMENT	EXISTING BRIDGE TOP OF ABUTMENT	TABUT	Point\Existing\PTC\BRIDGE TOP OF ABUTMENT
BRIDGE TOP OF CURB	EXISTING BRIDGE TOP OF CURB	BRTC	Point\Existing\PTC\BRIDGE TOP OF CURB
BRIDGE TOP OF PARAPET	EXISTING BRIDGE TOP OF PARAPET	TPAR	Point\Existing\PTC\BRIDGE TOP OF PARAPET
BRIDGE TOP OF PEDESTAL	EXISTING BRIDGE TOP OF PEDESTAL	TPED	Point\Existing\PTC\BRIDGE TOP OF PEDESTAL
BRIDGE TOP OF PIER	EXISTING BRIDGE TOP OF PIER	TPIER	Point\Existing\PTC\BRIDGE TOP OF PIER
BRIDGE TOP OF WINGWALL	EXISTING BRIDGE TOP OF WINGWALL	TAW	Point\Existing\PTC\BRIDGE TOP OF WINGWALL
BRIDGE WHEEL GUARD	EXISTING BRIDGE WHEEL GUARD	BRWG	Point\Existing\PTC\BRIDGE WHEEL GUARD
BUILDING	EXISTING BUILDING	BUI	Point\Existing\PTC\BUILDING
BUILDING CORNER	EXISTING BUILDING CORNER	BUIC	Point\Existing\PTC\BUILDING CORNER
CABLE LINE MARKER	EXISTING CABLE LINE MARKER	CLM	Point\Existing\PTC\CABLE LINE MARKER
CABLE PEDESTAL	EXISTING CABLE PEDESTAL	CPED	Point\Existing\PTC\CABLE PEDESTAL
CABLE TRAY	EXISTING CABLE TRAY	CTRAY	Point\Existing\PTC\CABLE TRAY
CABLE TV MANHOLE	EXISTING CABLE TV MANHOLE	MHC	Point\Existing\PTC\CABLE TV MANHOLE
CABLE TV MARKOUT	EXISTING CABLE TV MARKOUT	MOC	Point\Existing\PTC\CABLE TV MARKOUT
CALL BOX	EXISTING CALL BOX	CBX	Point\Existing\PTC\CALL BOX
CANAL	EXISTING CANAL	CAN	Point\Existing\PTC\CANAL
CATINARY POLE	EXISTING CATINARY POLE	CAT	Point\Existing\PTC\CATINARY POLE
CELL TOWER	EXISTING CELL TOWER	CT	Point\Existing\PTC\CELL TOWER
CENTERLINE	EXISTING CENTERLINE	CL	Point\Existing\PTC\CENTERLINE
CENTERLINE TRACK	EXISTING CENTERLINE TRACK	CLRR	Point\Existing\PTC\CENTERLINE TRACK
CHECK BSHOT	EXISTING CHECK BSHOT	CHK	Point\Existing\PTC\CHECK BSHOT



<i>Feature Definition Name</i>	<i>Feature Definition Description</i>	<i>Feature Definition Name</i>	<i>Linear Feature Symbology</i>
CISTERN	EXISTING CISTERN	CIST	Point\Existing\PTC\CISTERN
CLEANOUT	EXISTING CLEANOUT	CO	Point\Existing\PTC\CLEANOUT
COLUMN	EXISTING COLUMN	COL	Point\Existing\PTC\COLUMN
CONCRETE	EXISTING CONCRETE	CONC	Point\Existing\PTC\CONCRETE
CONCRETE MONUMENT	EXISTING CONCRETE MONUMENT	CM	Point\Existing\PTC\CONCRETE MONUMENT
CONCRETE NAIL	EXISTING CONCRETE NAIL	CN	Point\Existing\PTC\CONCRETE NAIL
CONIFEROUS TREE	EXISTING CONIFEROUS TREE	TREEC	Point\Existing\PTC\CONIFEROUS TREE
CREEK	EXISTING CREEK	CRE	Point\Existing\PTC\CREEK
CROSS GATE	EXISTING CROSS GATE	CG	Point\Existing\PTC\CROSS GATE
CROSS SIGN	EXISTING CROSS SIGN	CROS	Point\Existing\PTC\CROSS SIGN
CROSS SIGNAL	EXISTING CROSS SIGNAL	CRS	Point\Existing\PTC\CROSS SIGNAL
CROWN ROAD	EXISTING CROWN ROAD	CR	Point\Existing\PTC\CROWN ROAD
DECIDUOUS TREE	EXISTING DECIDUOUS TREE	TREED	Point\Existing\PTC\DECIDUOUS TREE
DELINIATOR POST	EXISTING DELINIATOR POST	DEL	Point\Existing\PTC\DELINIATOR POST
DISK	EXISTING DISK	DSC	Point\Existing\PTC\DISK
DITCH	EXISTING DITCH	DIT	Point\Existing\PTC\DITCH
DITCH CENTERLINE	EXISTING DITCH CENTERLINE	DITCL	Point\Existing\PTC\DITCH CENTERLINE
DOUBLE YELLOW LINE	EXISTING DOUBLE YELLOW LINE	DYL	Point\Existing\PTC\DOUBLE YELLOW LINE
DRAINFIELD	EXISTING DRAINFIELD	DF	Point\Existing\PTC\DRAINFIELD
DRILL HOLE	EXISTING DRILL HOLE	DH	Point\Existing\PTC\DRILL HOLE
EDGE DRIVE	EXISTING EDGE DRIVE	ED	Point\Existing\PTC\EDGE DRIVE
EDGE OF ROADWAY	EXISTING EDGE OF ROADWAY	ER	Point\Existing\PTC\EDGE OF ROADWAY
EDGE OF ROADWAY-LT	EXISTING EDGE OF ROADWAY	ER	Point\Existing\PTC\EDGE OF ROADWAY
EDGE OF ROADWAY-RT	EXISTING EDGE OF ROADWAY	ER	Point\Existing\PTC\EDGE OF ROADWAY
EDGE OF SHOULDER	EXISTING EDGE OF SHOULDER	ES	Point\Existing\PTC\EDGE OF SHOULDER
EDGE OF WOODS	EXISTING EDGE OF WOODS	EW	Point\Existing\PTC\EDGE OF WOODS
ELECTRIC BOX	EXISTING ELECTRIC BOX	EBX	Point\Existing\PTC\ELECTRIC BOX



<i>Feature Definition Name</i>	<i>Feature Definition Description</i>	<i>Feature Definition Name</i>	<i>Linear Feature Symbology</i>
ELECTRIC MANHOLE	EXISTING ELECTRIC MANHOLE	MHE	Point\Existing\PTC\ELECTRIC MANHOLE
ELECTRIC METER	EXISTING ELECTRIC METER	EMR	Point\Existing\PTC\ELECTRIC METER
ELECTRIC POLE	EXISTING ELECTRIC POLE	EP	Point\Existing\PTC\ELECTRIC POLE
ELECTRIC VAULT	EXISTING ELECTRIC VAULT	EVL	Point\Existing\PTC\ELECTRIC VAULT
ELECTRICAL MARKOUT	EXISTING ELECTRICAL MARKOUT	MOE	Point\Existing\PTC\ELECTRICAL MARKOUT
FENCE LINE	EXISTING FENCE LINE	FEN	Point\Existing\PTC\FENCE LINE
FENCE POST	EXISTING FENCE POST	FNP	Point\Existing\PTC\FENCE POST
FENCE RIGHT-OF-WAY	EXISTING FENCE RIGHT-OF-WAY	FENRW	Point\Existing\PTC\FENCE RIGHT-OF-WAY
FIELD	EXISTING FIELD	FIE	Point\Existing\PTC\FIELD
FINISHED FLOOR ELEVATION	EXISTING FINISHED FLOOR ELEVATION	FFE	Point\Existing\PTC\FINISHED FLOOR ELEVATION
FIRE HYDRANT	EXISTING FIRE HYDRANT	FH	Point\Existing\PTC\FIRE HYDRANT
FLAG PERSON LOCATION	EXISTING FLAG PERSON LOCATION	FPL	
FLAG POLE	EXISTING FLAG POLE	FP	Point\Existing\PTC\FLAG POLE
FLARED END SECTION	EXISTING FLARED END SECTION	FES	Point\Existing\PTC\FLARED END SECTION
FLOWLINE	EXISTING FLOWLINE	FL	Point\Existing\PTC\FLOWLINE
FROG	EXISTING FROG	FROG	Point\Existing\PTC\FROG
GARAGE	EXISTING GARAGE	GARAGE	Point\Existing\PTC\GARAGE
GAS ISLAND	EXISTING GAS ISLAND	GI	Point\Existing\PTC\GAS ISLAND
GAS LINE MARKER	EXISTING GAS LINE MARKER	GLM	Point\Existing\PTC\GAS LINE MARKER
GAS MANHOLE	EXISTING GAS MANHOLE	MHG	Point\Existing\PTC\GAS MANHOLE
GAS MARKOUT	EXISTING GAS MARKOUT	MOG	Point\Existing\PTC\GAS MARKOUT
GAS METER	EXISTING GAS METER	GMR	Point\Existing\PTC\GAS METER
GAS VALVE	EXISTING GAS VALVE	GV	Point\Existing\PTC\GAS VALVE
GAS VALVE CURB STOP	EXISTING GAS VALVE CURB STOP	GVCS	Point\Existing\PTC\GAS VALVE CURB STOP
GAS WELL	EXISTING GAS WELL	GW	Point\Existing\PTC\GAS WELL
GATE	EXISTING GATE	GATE	Point\Existing\PTC\GATE
GROUND SHOT	EXISTING GROUND SHOT	REG	



<i>Feature Definition Name</i>	<i>Feature Definition Description</i>	<i>Feature Definition Name</i>	<i>Linear Feature Symbology</i>
GUIDE RAIL ATTENUATOR	EXISTING GUIDE RAIL ATTENUATOR	GRATT	Point\Existing\PTC\GUIDE RAIL ATTENUATOR
GUIDE RAIL FACE	EXISTING GUIDE RAIL FACE	GR	Point\Existing\PTC\GUIDE RAIL FACE
GUY POLE	EXISTING GUY POLE	GUYP	Point\Existing\PTC\GUY POLE
GUY WIRE ANCHOR	EXISTING GUY WIRE ANCHOR	GUYA	Point\Existing\PTC\GUY WIRE ANCHOR
HEDGE	EXISTING HEDGE	HED	Point\Existing\PTC\HEDGE
HUB TACK	EXISTING HUB TACK	HT	Point\Existing\PTC\HUB TACK
IMPACT ATTENUATOR	EXISTING IMPACT ATTENUATOR	IATT	Point\Existing\PTC\IMPACT ATTENUATOR
INLET	EXISTING INLET	INL	Point\Existing\PTC\INLET
INVERT	EXISTING INVERT	INV	Point\Existing\PTC\INVERT
IRON PIN	EXISTING IRON PIN	IP	Point\Existing\PTC\IRON PIN
IRON PIPE	EXISTING IRON PIPE	IPP	Point\Existing\PTC\IRON PIPE
JUNCTION BOX	EXISTING JUNCTION BOX	JB	Point\Existing\PTC\JUNCTION BOX
LAKE	EXISTING LAKE	LAKE	Point\Existing\PTC\LAKE
LANDSCAPE AREA	EXISTING LANDSCAPE AREA	LSA	Point\Existing\PTC\LANDSCAPE AREA
LIGHT POST	EXISTING LIGHT POST	LP	Point\Existing\PTC\LIGHT POST
LIGHT STANDARD	EXISTING LIGHT STANDARD	LS	Point\Existing\PTC\LIGHT STANDARD
LIMIT OF DISTURBANCE	EXISTING LIMIT OF DISTURBANCE	LOD	Point\Existing\PTC\LIMIT OF DISTURBANCE
LOOP DETECTOR	EXISTING LOOP DETECTOR	LOOP	Point\Existing\PTC\LOOP DETECTOR
MACADAM	EXISTING MACADAM	MAC	Point\Existing\PTC\MACADAM
MAG NAIL	EXISTING MAG NAIL	MAG	Point\Existing\PTC\MAG NAIL
MAILBOX	EXISTING MAILBOX	MB	Point\Existing\PTC\MAILBOX
MICROWAVE TOWER	EXISTING MICROWAVE TOWER	MT	Point\Existing\PTC\MICROWAVE TOWER
MONITORING WELL	EXISTING MONITORING WELL	MW	Point\Existing\PTC\MONITORING WELL
NAIL	EXISTING NAIL	NAIL	Point\Existing\PTC\NAIL
OUT BUILDING	EXISTING OUT BUILDING	SHED	Point\Existing\PTC\OUT BUILDING
OVERHANG ROOF	EXISTING OVERHANG ROOF	OR	Point\Existing\PTC\OVERHANG ROOF
OVERHEAD CABLE LINE	EXISTING OVERHEAD CABLE LINE	OHC	Point\Existing\PTC\OVERHEAD CABLE LINE



<i>Feature Definition Name</i>	<i>Feature Definition Description</i>	<i>Feature Definition Name</i>	<i>Linear Feature Symbology</i>
OVERHEAD ELECTRIC LINE	EXISTING OVERHEAD ELECTRIC LINE	OHE	Point\Existing\PTC\OVERHEAD ELECTRIC LINE
OVERHEAD TELEPHONE LINE	EXISTING OVERHEAD TELEPHONE LINE	OHT	Point\Existing\PTC\OVERHEAD TELEPHONE LINE
OVERHEAD WIRE	EXISTING OVERHEAD WIRE	OHW	Point\Existing\PTC\OVERHEAD WIRE
P K NAIL	EXISTING P K NAIL	PKN	Point\Existing\PTC\P K NAIL
PARKING STRIPE	EXISTING PARKING STRIPE	PS	Point\Existing\PTC\PARKING STRIPE
PERCOLATION HOLE	EXISTING PERCOLATION HOLE	PERC	Point\Existing\PTC\PERCOLATION HOLE
PETROLEUM LINE MARKER	EXISTING PETROLEUM LINE MARKER	PLM	Point\Existing\PTC\PETROLEUM LINE MARKER
POND	EXISTING POND	POND	Point\Existing\PTC\POND
POOL	EXISTING POOL	POOL	Point\Existing\PTC\POOL
PORCH	EXISTING PORCH	POR	Point\Existing\PTC\PORCH
POST	EXISTING POST	PST	Point\Existing\PTC\POST
RAILROAD SPIKE	EXISTING RAILROAD SPIKE	RRS	Point\Existing\PTC\RAILROAD SPIKE
RAILROAD SWITCH	EXISTING RAILROAD SWITCH	RRSW	Point\Existing\PTC\RAILROAD SWITCH
REBAR	EXISTING REBAR	REBAR	Point\Existing\PTC\REBAR
REBAR W/ CAP	EXISTING REBAR W/ CAP	RWC	Point\Existing\PTC\REBAR W/ CAP
RIP-RAP	EXISTING RIP-RAP	RRP	Point\Existing\PTC\RIP-RAP
RIVER	EXISTING RIVER	RIV	
ROAD KILL	EXISTING ROAD KILL	RK	Point\Existing\PTC\ROAD KILL
SAND MOUND	EXISTING SAND MOUND	SM	Point\Existing\PTC\SAND MOUND
SANITARY SEWER LINE	EXISTING SANITARY SEWER LINE	SL	Point\Existing\PTC\SANITARY SEWER LINE
SANITARY SEWER MANHOLE	EXISTING SANITARY SEWER MANHOLE	MHSAN	Point\Existing\PTC\SANITARY SEWER MANHOLE
SANITARY SEWER MARKOUT	EXISTING SANITARY SEWER MARKOUT	MOSAN	Point\Existing\PTC\SANITARY SEWER MARKOUT
SEPTIC TANK	EXISTING SEPTIC TANK	SET	Point\Existing\PTC\SEPTIC TANK
SHRUB	EXISTING SHRUB	SHR	Point\Existing\PTC\SHRUB
SIDEWALK	EXISTING SIDEWALK	SW	Point\Existing\PTC\SIDEWALK
SIGN	EXISTING SIGN	SIGN	Point\Existing\PTC\SIGN
SILO	EXISTING SILO	SILO	Point\Existing\PTC\SILO



<i>Feature Definition Name</i>	<i>Feature Definition Description</i>	<i>Feature Definition Name</i>	<i>Linear Feature Symbology</i>
SILT FENCE	EXISTING SILT FENCE	SF	Point\Existing\PTC\SILT FENCE
SINGLE WHITE LINE	EXISTING SINGLE WHITE LINE	SWL	Point\Existing\PTC\SINGLE WHITE LINE
SINGLE YELLOW LINE	EXISTING SINGLE YELLOW LINE	SYL	Point\Existing\PTC\SINGLE YELLOW LINE
SKIP LINE	EXISTING SKIP LINE	SKL	Point\Existing\PTC\SKIP LINE
SOIL TEST PIT	EXISTING SOIL TEST PIT	STP	Point\Existing\PTC\SOIL TEST PIT
SPRING	EXISTING SPRING	SPR	Point\Existing\PTC\SPRING
STAKE	EXISTING STAKE	STK	Point\Existing\PTC\STAKE
STEPS	EXISTING STEPS	STEPS	Point\Existing\PTC\STEPS
STONE FENCE	EXISTING STONE FENCE	STFEN	Point\Existing\PTC\STONE FENCE
STONE MONUMENT	EXISTING STONE MONUMENT	STONE	Point\Existing\PTC\STONE MONUMENT
STONE ROW	EXISTING STONE ROW	SR	Point\Existing\PTC\STONE ROW
STORM SEWER MANHOLE	EXISTING STORM SEWER MANHOLE	MHSS	Point\Existing\PTC\STORM SEWER MANHOLE
STORM SEWER MARKOUT	EXISTING STORM SEWER MARKOUT	MOSS	Point\Existing\PTC\STORM SEWER MARKOUT
STREAM	EXISTING STREAM	STR	Point\Existing\PTC\STREAM
TELEPHONE LINE MARKER	EXISTING TELEPHONE LINE MARKER	TLM	Point\Existing\PTC\TELEPHONE LINE MARKER
TELEPHONE MANHOLE	EXISTING TELEPHONE MANHOLE	MHT	Point\Existing\PTC\TELEPHONE MANHOLE
TELEPHONE MARKOUT	EXISTING TELEPHONE MARKOUT	MOT	Point\Existing\PTC\TELEPHONE MARKOUT
TELEPHONE PEDESTAL	EXISTING TELEPHONE PEDESTAL	TELPED	Point\Existing\PTC\TELEPHONE PEDESTAL
TELEPHONE POLE	EXISTING TELEPHONE POLE	TEP	Point\Existing\PTC\TELEPHONE POLE
TEMPORARY CHANNELING DEVICE	EXISTING TEMPORARY CHANNELING DEVICE	TCD	Point\Existing\PTC\TEMPORARY CHANNELING DEVICE
TEMPORARY CONSTRUCTION SIGN	EXISTING TEMPORARY CONSTRUCTION SIGN	TCS	Point\Existing\PTC\TEMPORARY CONSTRUCTION SIGN
TOP OF BALLAST	EXISTING TOP OF BALLAST	RRT	Point\Existing\PTC\TOP OF BALLAST
TOP OF BANK	EXISTING TOP OF BANK	TB	Point\Existing\PTC\TOP OF BANK
TOP OF CONCRETE BARRIER	EXISTING TOP OF CONCRETE BARRIER	TCBAR	Point\Existing\PTC\TOP OF CONCRETE BARRIER
TOP OF CURB	EXISTING TOP OF CURB	TC	Point\Existing\PTC\TOP OF CURB
TOP OF HEADWALL	EXISTING TOP OF HEADWALL	THW	Point\Existing\PTC\TOP OF HEADWALL



<i>Feature Definition Name</i>	<i>Feature Definition Description</i>	<i>Feature Definition Name</i>	<i>Linear Feature Symbology</i>
TOP OF PIPE	EXISTING TOP OF PIPE	TOP	Point\Existing\PTC\TOP OF PIPE
TOP OF RAILROAD TRACK	EXISTING TOP OF RAILROAD TRACK	TRR	Point\Existing\PTC\TOP OF RAILROAD TRACK
TOP OF REVEAL	EXISTING TOP OF REVEAL	TR	Point\Existing\PTC\TOP OF REVEAL
TOP OF WALL	EXISTING TOP OF WALL	TW	Point\Existing\PTC\TOP OF WALL
TRAFFIC CAMERA	EXISTING TRAFFIC CAMERA	TCAM	Point\Existing\PTC\TRAFFIC CAMERA
TRAFFIC SIGNAL CONTROL BOX	EXISTING TRAFFIC SIGNAL CONTROL BOX	TSCB	Point\Existing\PTC\TRAFFIC SIGNAL CONTROL BOX
TRAFFIC SIGNAL MAST	EXISTING TRAFFIC SIGNAL MAST	TRM	
TRAFFIC SIGNAL POLE	EXISTING TRAFFIC SIGNAL POLE	TRS	Point\Existing\PTC\TRAFFIC SIGNAL POLE
TREE ROW	EXISTING TREE ROW	TREER	
UNDERGROUND STORAGE TANK	EXISTING UNDERGROUND STORAGE TANK	UST	Point\Existing\PTC\UNDERGROUND STORAGE TANK
UTILITY POLE	EXISTING UTILITY POLE	UP	Point\Existing\PTC\UTILITY POLE
VARIABLE MESSAGE SIGN	EXISTING VARIABLE MESSAGE SIGN	VMS	Point\Existing\PTC\VARIABLE MESSAGE SIGN
WATER	EXISTING WATER	WAT	Point\Existing\PTC\WATER
WATER LINE MARKER	EXISTING WATER LINE MARKER	WLM	Point\Existing\PTC\WATER LINE MARKER
WATER MANHOLE	EXISTING WATER MANHOLE	MHW	Point\Existing\PTC\WATER MANHOLE
WATER MARKOUT	EXISTING WATER MARKOUT	MOW	Point\Existing\PTC\WATER MARKOUT
WATER METER	EXISTING WATER METER	WM	Point\Existing\PTC\WATER METER
WATER TOWER	EXISTING WATER TOWER	WT	Point\Existing\PTC\WATER TOWER
WATER VALVE	EXISTING WATER VALVE	WV	Point\Existing\PTC\WATER VALVE
WATER VALVE CURB STOP	EXISTING WATER VALVE CURB STOP	WVCS	Point\Existing\PTC\WATER VALVE CURB STOP
WATERWAY SOUNDING	EXISTING WATERWAY SOUNDING	SND	Point\Existing\PTC\WATERWAY SOUNDING
WELL	EXISTING WELL	WELL	Point\Existing\PTC\WELL
WETLAND FLAG	EXISTING WETLAND FLAG	WET	Point\Existing\PTC\WETLAND FLAG
WETLAND PROBE	EXISTING WETLAND PROBE	WETP	Point\Existing\PTC\WETLAND PROBE
WOOD LINE	EXISTING WOOD LINE	WL	Point\Existing\PTC\WOOD LINE

Linear Feature Definition



<i>Feature Definition Name</i>	<i>Feature Definition Description</i>	<i>Feature Definition Name</i>	<i>Linear Feature Symbology</i>
TL_Barrier FG	Concrete Barrier Finished Grade	CBCFG	Linear\Template Points\Barrier\TL_Barrier
TL_Barrier UG	Concrete Barrier Under Grade	CBUG	Linear\Template Points\Barrier\TL_Barrier Sub
TL_Med Bar Bot	Median Barrier Bottom Point	MBB	Linear\Template Points\Barrier\TL_Median Barrier
TL_Med Bar Low	Median Barrier Lower Point	MBL	Linear\Template Points\Barrier\TL_Median Barrier
TL_Med Bar Mid	Median Barrier Middle Point	MBM	Linear\Template Points\Barrier\TL_Median Barrier
TL_Med Bar Pavt	Median Barrier Pavement Point	MBP	Linear\Template Points\Barrier\TL_Median Barrier
TL_Med Bar Toe	Median Barrier Toe Point	MBTOE	Linear\Template Points\Barrier\TL_Median Barrier Sub
TL_Med Bar Top	Median Barrier Top Point	MBT	Linear\Template Points\Barrier\TL_Median Barrier
TL_Channel FG	Concrete Channel Finished Grade	CCFG	Linear\Template Points\Channel\TL_Channel
TL_Channel UG	Concrete Channel Under Grade	CCUG	Linear\Template Points\Channel\TL_Channel Sub
TL_Curb Back Bot	Bottom Back of Curb	TL_Curb Back Bot	Linear\Template Points\Curb\TL_Curb Sub Bot
TL_Curb Back Mid	Midpoint Along Back of Curb	TL_Curb Back Mid	Linear\Template Points\Curb\TL_Curb Sub
TL_Curb Back Top	Top Back of Curb	TL_Curb Back Top	Linear\Template Points\Curb\TL_Curb
TL_Curb Bot Mid	Intermediate Curb Bottom Hinge Point	TL_Curb Bot Mid	Linear\Template Points\Curb\TL_Curb Sub
TL_Curb Face Bot	Curb Face Bottom not at Flowline	TL_Curb Face Bot	Linear\Template Points\Curb\TL_Curb Sub
TL_Curb Face FL	Curb Flowline	TL_Curb Face FL	Linear\Template Points\Curb\TL_Curb Flowline
TL_Curb Face Top	Top Face of Curb	TL_Curb Face Top	Linear\Template Points\Curb\TL_Curb
TL_Curb Front Bot	Bottom Front of Curb at Edge of Pavement Hinge	TL_Curb Front Bot	Linear\Template Points\Curb\TL_Curb Sub
TL_Curb Front Top	Top Front of Curb at Edge of Pavement Hinge	TL_Curb Front Top	Linear\Template Points\Curb\TL_Curb
TL_Draft-DNC	Do Not Construct Null Point	TL_Draft-DNC	Linear\Template Points\DNC\TL_Draft-DNC



<i>Feature Definition Name</i>	<i>Feature Definition Description</i>	<i>Feature Definition Name</i>	<i>Linear Feature Symbology</i>
TL_Fence_Wrought_Iron 4ft	3D Wrought Iron Fence 4'	WIF4	Linear\Template Points\Fence\TL_Fence_Wrought_Iron 4'
TL_Fence_Wrought_Iron 5ft	3D Wrought Iron Fence 5'	WIF5	Linear\Template Points\Fence\TL_Fence_Wrought_Iron 5'
TL_Fence_Wrought_Iron 6ft	3D Wrought Iron Fence 6'	WIF6	Linear\Template Points\Fence\TL_Fence_Wrought_Iron 6'
TL_Ditch_Ctr	TL_Ditch_Ctr	DC	Linear\Template Points\Grading\TL_Ditch_Ctr
TL_Ditch_FL	TL_Ditch_FL	DF	Linear\Template Points\Grading\TL_Ditch_FL
TL_End Cond Berm In	End Condition Berm Inside Edge	TL_End Cond Berm In	Linear\Template Points\Grading\TL_End Cond Berm In
TL_End Cond Berm Out	End Condition Berm Outside Edge	TL_End Cond Berm Out	Linear\Template Points\Grading\TL_End Cond Berm Out
TL_End Cond Clearzone	End Condition Clearzone Hinge	TL_End Cond Clearzone	Linear\Template Points\Grading\TL_End Cond Clearzone
TL_End Cond Cut Tie	End Condition Ditch Cut Tie	TL_End Cond Cut Tie	Linear\Template Points\Grading\TL_End Cond Cut Tie
TL_End Cond Dit In	End Condition Ditch Inside Edge	TL_End Cond Dit In	Linear\Template Points\Grading\TL_End Cond Dit In
TL_End Cond Dit Out	End Condition Ditch Outside Edge	TL_End Cond Dit Out	Linear\Template Points\Grading\TL_End Cond Dit Out
TL_End Cond Fill Tie	End Condition Ditch Fill Tie	TL_End Cond Fill Tie	Linear\Template Points\Grading\TL_End Cond Fill Tie
TL_End Cond Hinge	End Condition Hinge	TL_End Cond Hinge	Linear\Template Points\Grading\TL_End Cond Hinge
TL_Grade Greenspace In	Grading Greenspace Inside Edge	TL_Grade Greenspace In	Linear\Template Points\Grading\TL_Grade Greenspace In
TL_Grade Greenspace Out	Grading Greenspace Outside Edge	TL_Grade Greenspace Out	Linear\Template Points\Grading\TL_Grade Greenspace Out
TL_Median FL Center	Median Flowline Center	TL_Median FL Center	Linear\Template Points\Grading\TL_Median FL Center
TL_Median FL Left	Median Flowline Left Side	TL_Median FL Left	Linear\Template Points\Grading\TL_Median FL Left
TL_Median FL Right	Median Flowline Right Side	TL_Median FL Right	Linear\Template Points\Grading\TL_Median FL Right
TL_Barrier_Cable	3D Cable Barrier	CB	Linear\Template Points\Guiderail and Barrier\TL_Barrier_Cable



<i>Feature Definition Name</i>	<i>Feature Definition Description</i>	<i>Feature Definition Name</i>	<i>Linear Feature Symbology</i>
TL_Barrier_Cable_V2_L	Barrier_Cable_V2_L	CB	Linear\Template Points\Guiderail and Barrier\TL_Barrier_Cable_V2_L
TL_Barrier_Cable_V2_R	Barrier_Cable_V2_R	CB	Linear\Template Points\Guiderail and Barrier\TL_Barrier_Cable_V2_R
TL_Barrier_Jersey	3D Jersey Barrier	JB	Linear\Template Points\Guiderail and Barrier\TL_Barrier_Jersey
TL_Barrier_Jersey w/ Screen	3D Jersey Barrier w/ Screen	JBS	Linear\Template Points\Guiderail and Barrier\TL_Barrier_Jersey w/ Screen
TL_Barrier_Wall_TL3	Barrier_Wall_TL3	Barrier_Wall_TL3	Linear\Template Points\Guiderail and Barrier\TL_Barrier_Wall_TL3
TL_Barrier_Wall_TL4	Barrier_Wall_TL4	Barrier_Wall_TL4	Linear\Template Points\Guiderail and Barrier\TL_Barrier_Wall_TL4
TL_Barrier_Wall_TL5	Barrier_Wall_TL5	Barrier_Wall_TL5	Linear\Template Points\Guiderail and Barrier\TL_Barrier_Wall_TL5
TL_Guiderail_Double_Sided v1	3D Guiderail Double Sided v1	GRDS	Linear\Template Points\Guiderail and Barrier\TL_Guiderail_Double_Sided v1
TL_Guiderail_Double_Sided v2	3D Guiderail Double Sided v2	GRDS	Linear\Template Points\Guiderail and Barrier\TL_Guiderail_Double_Sided v2
TL_Guiderail_Single_Sided_L	3D Guiderail Single Sided	GRSS	Linear\Template Points\Guiderail and Barrier\TL_Guiderail_Single_Sided_L
TL_Guiderail_Single_Sided_R	3D Guiderail Single Sided	GRSS	Linear\Template Points\Guiderail and Barrier\TL_Guiderail_Single_Sided_R
TL_Guiderail_V2_Single_Sided_L	Guiderail_V2_Single_Sided_L	GRSS	Linear\Template Points\Guiderail and Barrier\TL_Guiderail_V2_Single_Sided_L
TL_Guiderail_V2_Single_Sided_R	Guiderail_V2_Single_Sided_R	GRSS	Linear\Template Points\Guiderail and Barrier\TL_Guiderail_V2_Single_Sided_R
TL_Traffic_Rail_SSTR_L	Traffic_Rail_SSTR_L	TR	Linear\Template Points\Guiderail and Barrier\TL_Traffic_Rail_SSTR_L
TL_Traffic_Rail_SSTR_R	Traffic_Rail_SSTR_R	TR	Linear\Template Points\Guiderail and Barrier\TL_Traffic_Rail_SSTR_R
TL_Raised Med Base	Raised Median Strip Base	RMBASE	Linear\Template Points\Median\TL_Raised Median
TL_Raised Med Bot	Raised Median Strip Bot	RMB	Linear\Template Points\Median\TL_Raised Median
TL_Raised Med Top	Raised Median Strip Top	RMT	Linear\Template Points\Median\TL_Raised Median
TL_Paved Ditch In Bot	Paved Ditch Inside Bottom	PDIB	Linear\Template Points\Paved Ditch\TL_Paved Ditch Sub



<i>Feature Definition Name</i>	<i>Feature Definition Description</i>	<i>Feature Definition Name</i>	<i>Linear Feature Symbology</i>
TL_Paved Ditch In FL Bot	Paved Ditch Inside Flowline Bottom	PDIFB	Linear\Template Points\Paved Ditch\TL_Paved Ditch Sub
TL_Paved Ditch In FL Top	Paved Ditch Inside Flowline Top	PDIFT	Linear\Template Points\Paved Ditch\TL_Paved Ditch
TL_Paved Ditch In Top	Paved Ditch Inside Top	PDIT	Linear\Template Points\Paved Ditch\TL_Paved Ditch
TL_Paved Ditch Out Bot	Paved Ditch Outside Bottom	PDOB	Linear\Template Points\Paved Ditch\TL_Paved Ditch Sub
TL_Paved Ditch Out FL Bot	Paved Ditch Outside Flowline Bottom	PDOFB	Linear\Template Points\Paved Ditch\TL_Paved Ditch Sub
TL_Paved Ditch Out FL Top	Paved Ditch Outside Flowline Top	PDOFT	Linear\Template Points\Paved Ditch\TL_Paved Ditch
TL_Paved Ditch Out Top	Paved Ditch Outside Top	PDOT	Linear\Template Points\Paved Ditch\TL_Paved Ditch
TL_Base Ext	Base Extension	TL_Base Ext	Linear\Template Points\Pavement\TL_Base Ext
TL_Base Ext 1	Base Extension	TL_Base Ext 1	Linear\Template Points\Pavement\TL_Base Ext 1
TL_Centerline	Pavt CL Top	TL_Centerline	Linear\Template Points\Pavement\TL_Centerline
TL_Centerline 1	Pavt CL Bottom of Layer 1	TL_Centerline 1	Linear\Template Points\Pavement\TL_Centerline Sub
TL_Centerline 2	Pavt CL Bottom of Layer 2	TL_Centerline 2	Linear\Template Points\Pavement\TL_Centerline Sub
TL_Centerline 3	Pavt CL Bottom of Layer 3	TL_Centerline 3	Linear\Template Points\Pavement\TL_Centerline Sub
TL_Centerline 4	Pavt CL Bottom of Layer 4	TL_Centerline 4	Linear\Template Points\Pavement\TL_Centerline Sub
TL_Centerline Exist	Centerline Exist	TL_Centerline Exist	Linear\Template Points\Pavement\TL_Centerline Exist
TL_Edge of Milling	Edge of Milling	TL_Edge of Milling	Linear\Template Points\Pavement\TL_Edge of Milling
TL_Edge of Pavt	Edge of Pavt	TL_Edge of Pavt	Linear\Template Points\Pavement\TL_Edge of Pavt
TL_Edge of Pavt 1	Edge of Pavt Bottom of Layer 1	TL_Edge of Pavt 1	Linear\Template Points\Pavement\TL_Edge of Pavt Sub
TL_Edge of Pavt 2	Edge of Pavt Bottom of Layer 2	TL_Edge of Pavt 2	Linear\Template Points\Pavement\TL_Edge of Pavt Sub
TL_Edge of Pavt 3	Edge of Pavt Bottom of Layer 3	TL_Edge of Pavt 3	Linear\Template Points\Pavement\TL_Edge of Pavt Sub



<i>Feature Definition Name</i>	<i>Feature Definition Description</i>	<i>Feature Definition Name</i>	<i>Linear Feature Symbology</i>
TL_Edge of Pavt 4	Edge of Pavt Bottom of Layer 4	TL_Edge of Pavt 4	Linear\Template Points\Pavement\TL_Edge of Pavt Sub
TL_Edge of Pavt 5	Edge of Pavt Bottom of Layer 5	TL_Edge of Pavt 5	Linear\Template Points\Pavement\TL_Edge of Pavt Sub
TL_Edge of Pavt Exist	Edge of Pavement Exist	TL_Edge of Pavt Exist	Linear\Template Points\Pavement\TL_Edge of Pavt Exist
TL_Edge of Shld	Edge of Shld Top	TL_Edge of Shld	Linear\Template Points\Pavement\TL_Edge of Shld
TL_Edge of Shld 1	Edge of Shld Bottom of Layer 1	TL_Edge of Shld 1	Linear\Template Points\Pavement\TL_Edge of Shld Sub
TL_Edge of Shld 2	Edge of Shld Bottom of Layer 2	TL_Edge of Shld 2	Linear\Template Points\Pavement\TL_Edge of Shld Sub
TL_Edge of Shld 3	Edge of Shld Bottom of Layer 3	TL_Edge of Shld 3	Linear\Template Points\Pavement\TL_Edge of Shld Sub
TL_Edge of Shld 4	Edge of Shld Bottom of Layer 4	TL_Edge of Shld 4	Linear\Template Points\Pavement\TL_Edge of Shld Sub
TL_Edge of Shld Exist	Edge of Shoulder Exist	TL_Edge of Shld Exist	Linear\Template Points\Pavement\TL_Edge of Shld Exist
TL_Edge of Widen	Edge of Widening Top	TL_Edge of Widen	Linear\Template Points\Pavement\TL_Edge of Widen
TL_Edge of Widen 1	Edge of Widening Bottom of Layer 1	TL_Edge of Widen 1	Linear\Template Points\Pavement\TL_Edge of Widen Sub
TL_Edge of Widen 2	Edge of Widening Bottom of Layer 2	TL_Edge of Widen 2	Linear\Template Points\Pavement\TL_Edge of Widen Sub
TL_Edge of Widen 3	Edge of Widening Bottom of Layer 3	TL_Edge of Widen 3	Linear\Template Points\Pavement\TL_Edge of Widen Sub
TL_Edge of Widen 4	Edge of Widening Bottom of Layer 4	TL_Edge of Widen 4	Linear\Template Points\Pavement\TL_Edge of Widen Sub
TL_Lane Line A	Lane Line A Top	TL_Lane Line A	Linear\Template Points\Pavement\TL_Lane Line
TL_Lane Line A1	Lane Line A Bottom of Layer 1	TL_Lane Line A1	Linear\Template Points\Pavement\TL_Lane Line Sub
TL_Lane Line A2	Lane Line A Bottom of Layer 2	TL_Lane Line A2	Linear\Template Points\Pavement\TL_Lane Line Sub
TL_Lane Line A3	Lane Line A Bottom of Layer 3	TL_Lane Line A3	Linear\Template Points\Pavement\TL_Lane Line Sub
TL_Lane Line A4	Lane Line A Bottom of Layer 4	TL_Lane Line A4	Linear\Template Points\Pavement\TL_Lane Line Sub



<i>Feature Definition Name</i>	<i>Feature Definition Description</i>	<i>Feature Definition Name</i>	<i>Linear Feature Symbology</i>
TL_Lane Line B	Lane Line B Top	TL_Lane Line B	Linear\Template Points\Pavement\TL_Lane Line
TL_Lane Line B1	Lane Line B Bottom of Layer 1	TL_Lane Line B1	Linear\Template Points\Pavement\TL_Lane Line Sub
TL_Lane Line B2	Lane Line B Bottom of Layer 2	TL_Lane Line B2	Linear\Template Points\Pavement\TL_Lane Line Sub
TL_Lane Line B3	Lane Line B Bottom of Layer 3	TL_Lane Line B3	Linear\Template Points\Pavement\TL_Lane Line Sub
TL_Lane Line B4	Lane Line B Bottom of Layer 4	TL_Lane Line B4	Linear\Template Points\Pavement\TL_Lane Line Sub
TL_Pavt Wedge 1	Pavement Wedge Bottom of Layer 1	TL_Pavt Wedge 1	Linear\Template Points\Pavement\TL_Edge of Pavt Sub
TL_Pavt Wedge 2	Pavement Wedge Bottom of Layer 2	TL_Pavt Wedge 2	Linear\Template Points\Pavement\TL_Edge of Pavt Sub
TL_Pavt Wedge 3	Pavement Wedge Bottom of Layer 3	TL_Pavt Wedge 3	Linear\Template Points\Pavement\TL_Edge of Pavt Sub
TL_Pavt Wedge 4	Pavement Wedge Bottom of Layer 4	TL_Pavt Wedge 4	Linear\Template Points\Pavement\TL_Edge of Pavt Sub
TL_Pavt Marking 4in Yellow Skip Lt Solid Rt 10ft - 30ft	Pavement Marking Yellow	PMY	Linear\Template Points\Pavement Marking\Double Skip Dash\TL_Pavt Marking 4" Yellow Skip Lt Solid Rt 10' - 30'
TL_Pavt Marking 4in Yellow Solid Lt Skip Rt 10ft - 30ft	Pavement Marking Yellow	PMY	Linear\Template Points\Pavement Marking\Double Skip Dash\TL_Pavt Marking 4" Yellow Solid Lt Skip Rt 10' - 30'
TL_Pavt Marking 4in White Double Solid w/Ref	Pavement Marking White w/Ref	PMY	Linear\Template Points\Pavement Marking\Double Solid\TL_Pavt Marking 4" White Double Solid w/Ref
TL_Pavt Marking 4in Yellow Double Solid	Pavement Marking Yellow	PMY	Linear\Template Points\Pavement Marking\Double Solid\TL_Pavt Marking 4" Yellow Double Solid
TL_Pavt Marking 4in Yellow Double Solid w/Ref	Pavement Marking Yellow w/Ref	PMY	Linear\Template Points\Pavement Marking\Double Solid\TL_Pavt Marking 4" Yellow Double Solid w/Ref
TL_Pavt Marking 4in White 10ft - 30ft	Pavement Marking White	PMW	Linear\Template Points\Pavement Marking\Single Skip Dash\TL_Pavt Marking 4" White 10' - 30'
TL_Pavt Marking 4in White 10ft - 30ft w/Ref	Pavement Marking White	PMW	Linear\Template Points\Pavement Marking\Single Skip Dash\TL_Pavt Marking 4" White 10' - 30' w/Ref
TL_Pavt Marking 4in White 2ft - 4ft	Pavement Marking White	PMW	Linear\Template Points\Pavement Marking\Single Skip Dash\TL_Pavt Marking 4" White 2' - 4'
TL_Pavt Marking 4in White 6ft - 10ft	Pavement Marking White	PMW	Linear\Template Points\Pavement Marking\Single Skip Dash\TL_Pavt Marking 4" White 6' - 10'



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<i>Feature Definition Name</i>	<i>Feature Definition Description</i>	<i>Feature Definition Name</i>	<i>Linear Feature Symbology</i>
TL_Pavt Marking 4in Yellow 10ft - 30ft	Pavement Marking Yellow	PMY	Linear\Template Points\Pavement Marking\Single Skip Dash\TL_Pavt Marking 4" Yellow 10' - 30'
TL_Pavt Marking 4in Yellow 10ft - 30ft w/Ref	Pavement Marking Yellow	PMY	Linear\Template Points\Pavement Marking\Single Skip Dash\TL_Pavt Marking 4" Yellow 10' - 30' w/Ref
TL_Pavt Marking 4in Yellow 2ft - 4ft	Pavement Marking Yellow	PMY	Linear\Template Points\Pavement Marking\Single Skip Dash\TL_Pavt Marking 4" Yellow 2' - 4'
TL_Pavt Marking 4in Yellow 6ft - 10ft	Pavement Marking Yellow	PMY	Linear\Template Points\Pavement Marking\Single Skip Dash\TL_Pavt Marking 4" Yellow 6' - 10'
TL_Pavt Marking 12in White Solid	Pavement Marking White	PMW	Linear\Template Points\Pavement Marking\Single Solid\TL_Pavt Marking 12" White Solid
TL_Pavt Marking 24in White Solid	Pavement Marking White	PMW	Linear\Template Points\Pavement Marking\Single Solid\TL_Pavt Marking 24" White Solid
TL_Pavt Marking 4in White Solid	Pavement Marking White	PMW	Linear\Template Points\Pavement Marking\Single Solid\TL_Pavt Marking 4" White Solid
TL_Pavt Marking 4in Yellow Solid	Pavement Marking Yellow	PMY	Linear\Template Points\Pavement Marking\Single Solid\TL_Pavt Marking 4" Yellow Solid
TL_Pavt Marking 6in White Solid	Pavement Marking Yellow	PMY	Linear\Template Points\Pavement Marking\Single Solid\TL_Pavt Marking 6" White Solid
TL_Pavt Marking 6in Yellow Solid	Pavement Marking Yellow	PMY	Linear\Template Points\Pavement Marking\Single Solid\TL_Pavt Marking 6" Yellow Solid
TL_Pavt Marking 8in White Solid	Pavement Marking Yellow	PMY	Linear\Template Points\Pavement Marking\Single Solid\TL_Pavt Marking 8" White Solid
TL_Pavt Marking 8in Yellow Solid	Pavement Marking Yellow	PMY	Linear\Template Points\Pavement Marking\Single Solid\TL_Pavt Marking 8" Yellow Solid
TL_Pond_Berm_In	TL_Pond_Berm_In	PBI	Linear\Template Points\Pond\TL_Pond_Berm_In
TL_Pond_Berm_Out	TL_Pond_Berm_Out	PBO	Linear\Template Points\Pond\TL_Pond_Berm_Out
TL_Pond_Bottom	TL_Pond_Bottom	PB	Linear\Template Points\Pond\TL_Pond_Bottom
TL_Pond_Elevation	TL_Pond_Elevation	PE	Linear\Template Points\Pond\TL_Pond_Elevation
TL_Pond_Freeboard	TL_Pond_Freeboard	PF	Linear\Template Points\Pond\TL_Pond_Freeboard
TL_Pond_Top	TL_Pond_Top	PT	Linear\Template Points\Pond\TL_Pond_Top
TL_Rail	Rail - Steel	RS	Linear\Template Points\Rail\TL_Rail
TL_Rail Ballast	Rail Ballast Top	RBT	Linear\Template Points\Rail\TL_Rail Ballast
TL_Rail Ballast 1	Rail Ballast Bottom	RBB	Linear\Template Points\Rail\TL_Rail Ballast



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<i>Feature Definition Name</i>	<i>Feature Definition Description</i>	<i>Feature Definition Name</i>	<i>Linear Feature Symbology</i>
TL_Rail Cant	Rail Cant	RC	Linear\Template Points\Rail\TL_Rail Cant
TL_Rail Center	Rail Center	RCTR	Linear\Template Points\Rail\TL_Rail Center
TL_Rail Clearance Env	Rail Clearance Envelope	RCE	Linear\Template Points\Rail\TL_Clearance
TL_Rail Concrete	Rail Concrete	RCONC	Linear\Template Points\Rail\TL_Rail Concrete
TL_Rail Concrete Sleeper	Rail Concrete Sleeper Top	RCST	Linear\Template Points\Rail\TL_Rail Concrete Sleeper
TL_Rail Concrete Sleeper 1	Rail Concrete Sleeper Bottom	RCSB	Linear\Template Points\Rail\TL_Rail Concrete Sleeper
TL_Rail Subballast	Rail Subballast Top	RST	Linear\Template Points\Rail\TL_Rail Subballast
TL_Rail Subballast 1	Rail Subballast Bottom	RSBOT	Linear\Template Points\Rail\TL_Rail Subballast
TL_Rail Subballast Berm	Rail Subballast Berm	RSB	Linear\Template Points\Rail\TL_Rail Subballast Berm
TL_Rail Wooden Sleeper	Rail Wooden Sleeper Top	RWST	Linear\Template Points\Rail\TL_Rail Wooden Sleeper
TL_Rail Wooden Sleeper 1	Rail Wooden Sleeper Bottom	RWSB	Linear\Template Points\Rail\TL_Rail Wooden Sleeper
TL_ES Inside Bot	Earth Shoulder Inside Bottom	ESIB	Linear\Template Points\Shoulder\TL_Earth Shoulder Sub
TL_ES Inside Top	Earth Shoulder Inside Top	ESIT	Linear\Template Points\Shoulder\TL_Earth Shoulder
TL_ES Outside Bot	Earth Shoulder Outside Bottom	ESOB	Linear\Template Points\Shoulder\TL_Earth Shoulder Sub
TL_ES Outside Top	Earth Shoulder Outside Top	ESOT	Linear\Template Points\Shoulder\TL_Earth Shoulder
TL_SW Back Bot	Sidewalk Back Bottom	TL_SW Back Bot	Linear\Template Points\Sidewalk\TL_Sidewalk Sub
TL_SW Back Top	Sidewalk Back Top	TL_SW Back Top	Linear\Template Points\Sidewalk\TL_Sidewalk
TL_SW Front Bot	Sidewalk Front Bottom	TL_SW Front Bot	Linear\Template Points\Sidewalk\TL_Sidewalk Sub
TL_SW Front Top	Sidewalk Front Top	TL_SW Front Top	Linear\Template Points\Sidewalk\TL_Sidewalk
TL_Bridge FG	Concrete Bridge Finished Grade	CBRFG	Linear\Template Points\Structural\TL_Bridge
TL_Bridge UG	Concrete Bridge Under Grade	CBRUG	Linear\Template Points\Structural\TL_Bridge Sub
TL_Girder	Concrete Bridge Girder	CBRG	Linear\Template Points\Structural\TL_Girder
TL_Ret Wall FG	Retaining Wall Finished Grade	RWFG	Linear\Template Points\Structural\TL_Retaining Wall



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<i>Feature Definition Name</i>	<i>Feature Definition Description</i>	<i>Feature Definition Name</i>	<i>Linear Feature Symbology</i>
TL_Ret Wall UG	Retaining Wall Under Grade	RWUG	Linear\Template Points\Structural\TL_Retaining Wall Sub
TL_Barrels_100ft Spacing	3D Construction Barrels	Barrels 100ft	Linear\Template Points\Traffic Control\TL_Barrels_100ft Spacing
TL_Barrels_50ft Spacing	3D Construction Barrels	Barrels 50ft	Linear\Template Points\Traffic Control\TL_Barrels_50ft Spacing
TL_Cone_Channelizer_10ft Spacing	3D Channelizer Cone 10' Spacing	CC10	Linear\Template Points\Traffic Control\TL_Cone_Channelizer_10' Spacing
TL_Cone_Channelizer_20ft Spacing	3D Channelizer Cone 20' Spacing	CC20	Linear\Template Points\Traffic Control\TL_Cone_Channelizer_20' Spacing
TL_Cone_Channelizer_30ft Spacing	3D Channelizer Cone 30' Spacing	CC30	Linear\Template Points\Traffic Control\TL_Cone_Channelizer_30' Spacing
TL_Cone_Channelizer_40ft Spacing	3D Channelizer Cone 40' Spacing	CC40	Linear\Template Points\Traffic Control\TL_Cone_Channelizer_40' Spacing
TL_Cone_Channelizer_50ft Spacing	3D Channelizer Cone 50' Spacing	CC50	Linear\Template Points\Traffic Control\TL_Cone_Channelizer_50' Spacing
TL_Cone_Channelizer_60ft Spacing	3D Channelizer Cone 60' Spacing	CC60	Linear\Template Points\Traffic Control\TL_Cone_Channelizer_60' Spacing
TL_Cone_Traffic_10ft Spacing	3D Traffic Cones 10' Spacing	TC10	Linear\Template Points\Traffic Control\TL_Cone_Traffic_10' Spacing
TL_Cone_Traffic_20ft Spacing	3D Traffic Cones 20' Spacing	TC20	Linear\Template Points\Traffic Control\TL_Cone_Traffic_20' Spacing
TL_Cone_Traffic_30ft Spacing	3D Traffic Cones 30' Spacing	TC30	Linear\Template Points\Traffic Control\TL_Cone_Traffic_30' Spacing
TL_Cone_Traffic_40ft Spacing	3D Traffic Cones 40' Spacing	TC40	Linear\Template Points\Traffic Control\TL_Cone_Traffic_40' Spacing
TL_Cone_Traffic_50ft Spacing	3D Traffic Cones 50' Spacing	TC50	Linear\Template Points\Traffic Control\TL_Cone_Traffic_50' Spacing
TL_Cone_Traffic_60ft Spacing	3D Traffic Cones 60' Spacing	TC60	Linear\Template Points\Traffic Control\TL_Cone_Traffic_60' Spacing
TL_Reflector_Post_Orange	Reflector Post Orange	RPO	Linear\Template Points\Traffic Control\TL_Reflector_Post_Orange
TL_Reflector_Post_Red	Reflector Post Red	RPR	Linear\Template Points\Traffic Control\TL_Reflector_Post_Red
TL_Reflector_Post_White	Reflector Post White	RPW	Linear\Template Points\Traffic Control\TL_Reflector_Post_White
TL_Trench Aggregate	Trench Aggregate	TA	Linear\Template Points\Trench\TL_Trench Aggregate



<i>Feature Definition Name</i>	<i>Feature Definition Description</i>	<i>Feature Definition Name</i>	<i>Linear Feature Symbology</i>
TL_Trench Base	Trench Base	TB	Linear\Template Points\Trench\TL_Trench Base
TL_Trench Invert	Trench Invert	TI	Linear\Template Points\Trench\TL_Trench Invert
TL_Trench Origin	Trench Origin	TO	Linear\Template Points\Trench\TL_Trench Origin
TL_Trench Pipe	Trench Pipe	TP	Linear\Template Points\Trench\TL_Trench Pipe
TL_Trench Soffit	Trench Soffit	TS	Linear\Template Points\Trench\TL_Trench Soffit
TL_Water	Water	TL_Water	Linear\Template Points\Water\TL_Water
Terrain_Breakline	Terrain Breakline	TBL	Linear\Terrain Feature\Terrain_Breakline
Terrain_Exterior	Terrain Exterior Boundary	TEB	Linear\Terrain Feature\Terrain_Exterior
Terrain_Interior	Terrain Interior Breakline	TIB	Linear\Terrain Feature\Terrain_Interior
Terrain_Major_Contour	Terrain Major Contour	TMjC	Linear\Terrain Feature\Terrain_Minor_Contour
Terrain_Minor_Contour	Terrain Minor Contour	TMnC	Linear\Terrain Feature\Terrain_Minor_Contour
Barrels_100ft Spacing	3D Construction Barrels	Barrels 100ft	Linear\Traffic Control\Barrels_100ft Spacing
Barrels_50ft Spacing	3D Construction Barrels	Barrels 50ft	Linear\Traffic Control\Barrels_50ft Spacing
Cone_Channelizer_10ft Spacing	3D Channelizer Cone 10' Spacing	CC10	Linear\Traffic Control\Cone_Channelizer_10' Spacing
Cone_Channelizer_20ft Spacing	3D Channelizer Cone 20' Spacing	CC20	Linear\Traffic Control\Cone_Channelizer_20' Spacing
Cone_Channelizer_30ft Spacing	3D Channelizer Cone 30' Spacing	CC30	Linear\Traffic Control\Cone_Channelizer_30' Spacing
Cone_Channelizer_40ft Spacing	3D Channelizer Cone 40' Spacing	CC40	Linear\Traffic Control\Cone_Channelizer_40' Spacing
Cone_Channelizer_50ft Spacing	3D Channelizer Cone 50' Spacing	CC50	Linear\Traffic Control\Cone_Channelizer_50' Spacing
Cone_Channelizer_60ft Spacing	3D Channelizer Cone 60' Spacing	CC60	Linear\Traffic Control\Cone_Channelizer_60' Spacing
Cone_Traffic_10ft Spacing	3D Traffic Cones 10' Spacing	TC10	Linear\Traffic Control\Cone_Traffic_10' Spacing
Cone_Traffic_20ft Spacing	3D Traffic Cones 20' Spacing	TC20	Linear\Traffic Control\Cone_Traffic_20' Spacing
Cone_Traffic_30ft Spacing	3D Traffic Cones 30' Spacing	TC30	Linear\Traffic Control\Cone_Traffic_30' Spacing
Cone_Traffic_40ft Spacing	3D Traffic Cones 40' Spacing	TC40	Linear\Traffic Control\Cone_Traffic_40' Spacing
Cone_Traffic_50ft Spacing	3D Traffic Cones 50' Spacing	TC50	Linear\Traffic Control\Cone_Traffic_50' Spacing



<i>Feature Definition Name</i>	<i>Feature Definition Description</i>	<i>Feature Definition Name</i>	<i>Linear Feature Symbology</i>
Cone_Traffic_60ft Spacing	3D Traffic Cones 60' Spacing	TC60	Linear\Traffic Control\Cone_Traffic_60' Spacing
Reflector_Post_Orange	Reflector Post Orange	RPO	Linear\Traffic Control\Reflector_Post_Orange
Reflector_Post_Red	Reflector Post Red	RPR	Linear\Traffic Control\Reflector_Post_Red
Reflector_Post_White	Reflector Post White	RPW	Linear\Traffic Control\Reflector_Post_White
Wall	Structural Wall	StrW	Linear\Walls\Wall
Wall_Bottom	Structural Wall Bottom	StrWB	Linear\Walls\Wall_Bottom
Wall_Coping	Structural Wall Coping	StrWC	Linear\Walls\Wall_Coping
Wall_Footing	Structural Wall Footing	StrWF	Linear\Walls\Wall_Footing
Wall_Perch	Structural Wall Perch	StrWP	Linear\Walls\Wall_Perch
Wall_Top	Structural Wall Top	STRWT	Linear\Walls\Wall_Top
Alignment Feature Definition			
Rural Divided Corridor	Rural Divided Corridor	Rural Divided Corridor	Linear\Preliminary Planning\Preliminary Planning
Rural Undivided Corridor	Rural Undivided Corridor	Rural Undivided Corridor	Linear\Preliminary Planning\Preliminary Planning
PTC_BASC	Geometry Baseline	PTC_ALGN	Linear\Alignment\PTC_BASC
PTC_EXST	Geometry Baseline	PTC_ALGN	Linear\Alignment\PTC_EXST
PTC_INTR	Geometry Baseline	PTC_ALGN	Linear\Alignment\PTC_INTR
PTC_INTR BASC	Geometry Baseline	PTC_ALGN	Linear\Alignment\PTC_INTR BASC
PTC_LAYT	Geometry Baseline	PTC_ALGN	Linear\Alignment\PTC_LAYT
PTC_OFFS	PTC Baseline Offset	PTC_ALGN_OFFS	Linear\Alignment\PTC_OFFS
PTC_PROP	PTC PROPOSED BASELINE	PTC_ALGN	Linear\Alignment\PTC_PROP
Superelevation			
Superelevation	Superelevation	SE	Linear\Superelevation\Super_Section
Corridor			
Design	Design Phase	Corridor	Corridor\Design
Final	Final Phase	Corridor	Corridor\Final Phase
Final w/ Contours	Final Phase w/ Contours	Corridor	Corridor\Final w/ Contours



<i>Feature Definition Name</i>	<i>Feature Definition Description</i>	<i>Feature Definition Name</i>	<i>Linear Feature Symbology</i>
Linear Template			
Design	Design Phase	Linear Template	Linear Template\Design
Final	Final Phase	Linear Template	Linear Template\Final Phase
Final w/ Contours	Final Phase w/ Contours	Linear Template	Linear Template\Final w/ Contours
Surface Template			
Disable Linear Features	Disable 3D Linear Features	NoLF	Surface Template\Disable Linear Feature
Enable Linear Features	Enable 3D Linear Features	LF	Surface Template\Disable Linear Feature
Terrain			
PTC_ELEV BAND	PTC Elevation Bands	PTC_ELEV_BAND	Surface\Terrain\PTC_ELEV BAND
PTC_SLOPE BAND	PTC Slope Bands	PTC_SLOP_BAND	Surface\Terrain\PTC_SLOPE BAND
PTC_CONT 1' & 5' EXST	PTC Existing Contours 1' & 5'	PTC_EXST_CONT	Surface\Terrain\PTC_CONT 1' & 5' EXST
PTC_CONT 2' & 10' EXST	PTC Existing Contours 2' & 10'	PTC_EXST_CONT	Surface\Terrain\PTC_CONT 2' & 10' EXST
PTC_CONT 5' & 25' EXST	PTC Existing Contours 5' & 25'	PTC_EXST_CONT	Surface\Terrain\PTC_CONT 5' & 25' EXST
PTC_CONT 1' & 5' PROP	PTC Proposed Contours 1' & 5'	PTC_PROP_CONT	Surface\Terrain\PTC_CONT 1' & 5' PROP
PTC_CONT 2' & 10' PROP	PTC Proposed Contours 2' & 10'	PTC_PROP_CONT	Surface\Terrain\PTC_CONT 2' & 10' PROP
PTC_CONT 5' & 25' PROP	PTC Proposed Contours 5' & 25'	PTC_PROP_CONT	Surface\Terrain\PTC_CONT 5' & 25' PROP
PTC_BRDR ONLY	PTC Boundary	PTC_BRDR	Surface\Terrain\PTC_Boundary
PTC_CONT & TRNG	PTC Contours & Triangles	PTC_TRNG	Surface\Terrain\PTC_CONT & TRNG
Mesh			
TC_Aggregate Typ A	Aggregate Type A	TC_Aggregate Typ A	Surface\Modeling\Aggregate\TC_Aggregate Typ A
TC_Aggregate Typ A Ext	Aggregate Type A Ext	TC_Aggregate Typ A Ext	Surface\Modeling\Aggregate\TC_Aggregate Typ A Ext
TC_Aggregate Typ B	Aggregate Type B	TC_Aggregate Typ B	Surface\Modeling\Aggregate\TC_Aggregate Typ B
TC_Aggregate Typ C	Aggregate Type C	TC_Aggregate Typ C	Surface\Modeling\Aggregate\TC_Aggregate Typ C



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<i>Feature Definition Name</i>	<i>Feature Definition Description</i>	<i>Feature Definition Name</i>	<i>Linear Feature Symbology</i>
TC_Aggregate Typ D	Aggregate Type D	TC_Aggregate Typ D	Surface\Modeling\Aggregate\TC_Aggregate Typ D
TC_Riprap	Riprap	TC_Riprap	Surface\Modeling\Aggregate\TC_Riprap
TC_Asph Cold Milling	Asphalt Concrete Milling	TC_Asph Cold Milling	Surface\Modeling\Asphalt\TC_Asph Cold Milling
TC_Asph Conc Base Cse	Asphalt Concrete Base Course	TC_Asph Conc Base Cse	Surface\Modeling\Asphalt\TC_Asph Conc Base Cse
TC_Asph Conc Intermediate Cse	Asphalt Concrete Intermediate Course	TC_Asph Conc Intermediate Cse	Surface\Modeling\Asphalt\TC_Asph Conc Intermediate Cse
TC_Asph Conc Wearing Cse	Asphalt Concrete Wearing Course	TC_Asph Conc Wearing Cse	Surface\Modeling\Asphalt\TC_Asph Conc Wearing Cse
TC_Channel Concrete	Paved Ditches	TC_Channel Concrete	Surface\Modeling\Concrete\TC_Channel Concrete
TC_Conc Misc	Conc Misc	TC_Conc Misc	Surface\Modeling\Concrete\TC_Conc Misc
TC_Concrete Barrier	Concrete Barrier	TC_Concrete Barrier	Surface\Modeling\Concrete\TC_Concrete Barrier
TC_Concrete Pavt	Concrete Pavement	TC_Concrete Pavt	Surface\Modeling\Concrete\TC_Concrete Pavt
TC_Curb	Curb	TC_Curb	Surface\Modeling\Concrete\TC_Curb
TC_Curb and Gutter Typ 1	Curb and Gutter Type 1	TC_Curb and Gutter Typ 1	Surface\Modeling\Concrete\TC_Curb
TC_Curb and Gutter Typ 2	Curb and Gutter Type 2	TC_Curb and Gutter Typ 2	Surface\Modeling\Concrete\TC_Curb
TC_Gutter	Gutter	TC_Gutter	Surface\Modeling\Concrete\TC_Curb
TC_MED-Raised Paved	Median Raised Paved	TC_MED-Raised Paved	Surface\Modeling\Concrete\TC_Sidewalk
TC_Sidewalk	Sidewalk	TC_Sidewalk	Surface\Modeling\Concrete\TC_Sidewalk
TC_Draft-DNC	Do Not Construct	TC_Draft-DNC	Surface\Modeling\DNC\TC_Draft-DNC
TC_Existing Pavt	Existing Pavement	TC_Existing Pavt	Surface\Modeling\Existing\TC_Existing Pavt
TC_Rock Surface	Rock Surface	TC_Rock Surface	Surface\Modeling\Existing\TC_Rock Surface
TC_Unsuitable Material	Unsuitable Material	TC_Unsuitable Material	Surface\Modeling\Existing\TC_Unsuitable Material
TC_Clearzone	Clearzone	TC_Clearzone	Surface\Modeling\Grading\TC_Grass
TC_Cutslope	Cutslope	TC_Cutslope	Surface\Modeling\Grading\TC_Grass



Project Information Modeling Standards Appendix

<i>Feature Definition Name</i>	<i>Feature Definition Description</i>	<i>Feature Definition Name</i>	<i>Linear Feature Symbology</i>
TC_Cutslope Berm	Cutslope Berm	TC_Cutslope Berm	Surface\Modeling\Grading\TC_Grass
TC_Dirt	Dirt	TC_Dirt	Surface\Modeling\Grading\TC_Dirt
TC_Ditch	Ditch - Complete	TC_Ditch	Surface\Modeling\Grading\TC_Grass
TC_Ditch Backslope	Ditch Backslope	TC_Ditch Backslope	Surface\Modeling\Grading\TC_Grass
TC_Ditch Bottom	Ditch Bottom	TC_Ditch Bottom	Surface\Modeling\Grading\TC_Grass
TC_Ditch Foreslope	Ditch Foreslope	TC_Ditch Foreslope	Surface\Modeling\Grading\TC_Grass
TC_Earth Shoulder	Earth Shoulder	TC_Earth Shoulder	Surface\Modeling\Grading\TC_Grass
TC_Fillslope	Fillslope	TC_Fillslope	Surface\Modeling\Grading\TC_Grass
TC_Grass	Grass	TC_Grass	Surface\Modeling\Grading\TC_Grass
TC_Grass Berm Back	Grass Berm Back	TC_Grass Berm Back	Surface\Modeling\Grading\TC_Grass
TC_Grass Berm Front	Grass Berm Front	TC_Grass Berm Front	Surface\Modeling\Grading\TC_Grass
TC_Grass Burnt	Grass Burnt	TC_Grass Burnt	Surface\Modeling\Grading\TC_Grass Burnt
TC_Med-Depressed	Med-Depressed	TC_Med-Depressed	Surface\Modeling\Grading\TC_Grass
TC_Tieslope	Tieslope	TC_Tieslope	Surface\Modeling\Grading\TC_Grass
TC_Topsoil	Topsoil	TC_Topsoil	Surface\Modeling\Grading\TC_Topsoil
TC_Guiderail	Guiderail	TC_Guiderail	Surface\Modeling\Guiderail\TC_Guiderail
TC_Guiderail Bumper	Guiderail Bumper	TC_Guiderail Bumper	Surface\Modeling\Guiderail\TC_Guiderail Bumper
TC_Guiderail Post	Guiderail Post	TC_Guiderail Post	Surface\Modeling\Guiderail\TC_Guiderail Post
Bottom Mesh	Bottom Mesh from Corridor	BM	Surface\Modeling\Corridor Meshes\Bottom Mesh
Top Mesh	Top Mesh from Corridor	TM	Surface\Modeling\Corridor Meshes\Top Mesh
TC_Rail 3D	Rail 3D	TC_Rail 3D	Surface\Modeling\Rail\TC_Rail 3D
TC_Rail Ballast	Rail Ballast	TC_Rail Ballast	Surface\Modeling\Rail\TC_Rail Ballast



<i>Feature Definition Name</i>	<i>Feature Definition Description</i>	<i>Feature Definition Name</i>	<i>Linear Feature Symbology</i>
TC_Rail Clearance Env	Rail Clearance Env	TC_Rail Clearance Env	Surface\Modeling\Rail\TC_Rail Clearance Env
TC_Rail Concrete Sleeper	Rail Concrete Sleeper	TC_Rail Concrete Sleeper	Surface\Modeling\Rail\TC_Rail Concrete Sleeper
TC_Rail Platform	Rail Platform	TC_Rail Platform	Surface\Modeling\Rail\TC_Rail Platform
TC_Rail Subballast	Rail Subballast	TC_Rail Subballast	Surface\Modeling\Rail\TC_Rail Subballast
TC_Rail Wooden Sleeper	Rail Wooden Sleeper	TC_Rail Wooden Sleeper	Surface\Modeling\Rail\TC_Rail Wooden Sleeper
TC_Bridge	Bridge	TC_Bridge	Surface\Modeling\Structural\TC_Bridge
TC_Bridge Abutment	Bridge Abutment	TC_Bridge Abutment	Surface\Modeling\Structural\TC_Bridge Abutment
TC_Bridge Girder	Bridge Girder	TC_Bridge Girder	Surface\Modeling\Structural\TC_Bridge Girder
TC_Ret Wall-Cut	Ret Wall-Cut	TC_Ret Wall-Cut	Surface\Modeling\Structural\TC_Ret Wall-Cut
TC_Ret Wall-Fill	Ret Wall-Fill	TC_Ret Wall-Fill	Surface\Modeling\Structural\TC_Ret Wall-Fill
TC_Structural Concrete	Structural Concrete	TC_Structural Concrete	Surface\Modeling\Structural\TC_Structural Concrete
TC_Structural Fill	Structural Fill	TC_Structural Fill	Surface\Modeling\Structural\TC_Structural Fill
Volumes_Cut	Cut Volumes Mesh	VC	Surface\Volumes\Volumes_Cut
Volumes_Fill	Fill Volumes Mesh	VF	Surface\Volumes\Volumes_Fill
TC_Water	Water	TC_Water	Surface\Modeling\Water\TC_Water
Sight Visibility			
Overtaking Sight Distance	Overtaking Sight Distance	OSD	Linear\Sight Visibility\Achieved Sight Lines
Passing Sight Distance	Passing Sight Distance	PSD	Linear\Sight Visibility\Achieved Sight Lines
Stopping Sight Distance	Stopping Sight Distance	SSD	Linear\Sight Visibility\Achieved Sight Lines

14.14 COLOR MAPPING TABLE

No.	Color	RGB Value
1		255,0,0
2		255,255,0
3		0,255,0
4		0,255,255
5		0,0,255
6		255,0,255
7		255,255,255
8		127,127,127
9		219,219,219
10		255,0,0
11		255,102,102
12		204,0,0
13		204,102,102
14		153,0,0
15		153,51,51
20		255,51,0

No.	Color	RGB Value
21		255,153,102
23		204,102,102
24		153,51,0
30		255,102,0
31		255,204,102
32		204,102,0
33		204,153,102
35		153,102,51
37		102,102,51
40		255,204,0
41		255,204,102
42		204,153,0
43		204,153,102
46		102,102,0
50		255,255,0
51		255,255,102



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No.	Color	RGB Value
52		204,204,0
53		204,204,102
54		153,153,0
60		204,255,0
61		204,255,102
62		153,204,0
71		204,255,102
80		51,255,0
81		153,255,102
82		51,204,0
83		102,204,102
90		0,255,0
92		0,204,0
93		102,204,102
96		0,102,0
100		0,255,51
110		0,255,102

No.	Color	RGB Value
120		0,255,204
121		102,255,204
130		0,255,255
131		102,255,255
132		0,204,204
133		102,204,204
140		0,204,255
141		102,204,255
142		0,153,204
143		102,153,204
144		0,102,153
148		0,51,51
150		0,102,255
170		0,0,255
172		0,0,204
180		51,0,255
190		102,0,255



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No.	Color	RGB Value
191		204,102,255
192		102,0,204
194		51,0,13
200		204,0,255
201		204,102,255
202		153,0,204
210		255,0,255
211		255,102,255
212		204,0,204
220		255,0,191
221		255,102,204
222		204,0,153
223		204,102,153
230		255,0,102

No.	Color	RGB Value
231		255,102,204
232		204,0,102
234		153,0,51
240		255,0,51
241		255,102,153
242		204,0,51
244		153,0,51
250		84,84,84
251		117,117,117
252		153,153,153 1
253		186,186,186
254		219,219,219
255		0,0,0