City of Columbus

COMPUTER AIDED DRAFTING (CAD) STANDARDS FOR CREATION AND SUBMITTAL OF DIGITAL DRAWINGS

Standards defining content and format for creation and submittal of CAD-based drawings to support land and infrastructure development and management projects

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PREFACE

The standards and procedures described in this document are designed to achieve efficiencies in the creation, submittal, and management of drawings that are created and submitted to the City of Columbus to support review and approval of land development projects. The City of Columbus has developed these technical standards with the intent of giving reasonable flexibility in creation of drawings while still establishing a consistent basis for accepting and managing drawings and related information in automated form. This document serves as the foundation for the development of a single, comprehensive City of Columbus CAD standard that will define the technical standards for any CAD drawings submitted to the City in compliance with official requirements for land development.

This is a revision to the first version of the standard completed in 2005.

The City will accept any comments and suggestions about possible changes to these standards. Those making such suggestions are invited to submit them to:

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Please make comments and suggested changes as specific as possible. The City will re-issue new versions of this manual as conditions warrant.

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SECTION 1
INTRODUCTION

1.1 PROGRAMMATIC CONTEXT OF THESE STANDARDS

The CAD standards documented here are meant to apply to the programs and processes of City of Columbus agencies that involve land development and land management (LIDM) review, approval, and inspection. Like most other cities, Columbus takes its role to oversee activities that involve the development and use of land within its boundaries and the service areas of City departments seriously. City agencies oversee an array of licensing, permitting, development planning, and inspection processes to efficiently manage land use and development. Many of these processes are specifically cited as part of the City's One-Stop Shop program, but other related LIDM processes that involve the creation of CAD drawings for land and infrastructure design and development can use this standard. A full list of programs that currently use or could make use of this CAD standard in the future are identified in Table 1-1

Table 1-1: City of Columbus
Land and Infrastructure Development and Management (LIDM) Processes

Coordinated thru One-Stop Shop	Land and Infrastructure Development and Management (LIDM) Processes	Drawing Types Associated with Business Process	Main City Office Responsible
	Annexations	Site Plan or Zoning map mark-up with supplemental documents	DD-Planning
	Rezoning	Site Plan or Zoning map mark-up with supplemental documents	DD-Building Services
	Board of Zoning Adjustment		DD-Building Services
	Council Variance (Zoning)	Zoning map mark-up with supplemental documents	DD-Building Services
	Vacation/Sale or Use of Public Right-of-Way and City Property	Map submitted with application	DPS-Transportation (for roadway); DPU for Utility easements
X	Subdivision Plat Review	Preliminary Plats, Final Plats, Regulating Plans	DD-Building Services
	Lot Split Procedure	Lot Split Drawing	DD-Building Services
X	Roadway Engineering Review Process	Drawer D and Drawer E drawings; Location Map	DPS-Transportation
	Street Opening Permit Review and Approval	Street Opening Permit Application Drawing	DPS-Transportation
	Right-of-Way Permit Review		DPS-Transportation
X	Stormwater/Drainage Plan Review	CC Drawing, Location Map, Tributary Area Map	DPU-Division of Sewerage and Drainage
X	Sanitary Sewer Plan Review		DPU-Division of Sewerage and Drainage
	Water Line Extension Plan Review (Water Line Only)	Engineering plans for waterline extensions	DPU-Division of Power and Water (Water Section)

Table 1-1: City of Columbus
Land and Infrastructure Development and Management (LIDM) Processes (continued)

Coordinated thru One-Stop Shop	Land and Infrastructure Development and Management (LIDM) Processes	Drawing Types Associated with Business Process	Main City Office Responsible
X	Subdivision Waterline Plans (part of Subdivision Review)	Engineering plan drawings for newly proposed subdivisions	DPU-Division of Power and Water (Water Section)
	Graphics Permit Processing (for billboard installation, signs, and miscellaneous graphics postings)	Site Plan; Location Map	DD-Building Services
X	Site Plan/Building Permit Review and Approval	Site Plan and Building Permit Drawings	DD-Building Services
	Historic Review/Certificate of Appropriateness	Site Plans	DD-Neighborhood Services
X	Certified Address Requirements	Site Map or Plat	DPS-Transportation
	CIP Project Design	Engineering Plans, Location Maps	DPS, DD, DPU, DRP (3)
	Review of Development Plans from Non-City Jurisdictions (4)	Drawings submitted by non-City jurisdictions	DPU, DD, DPS
	Street Lighting Plan Review and Approval	Street Lighting Plans	DPU-Division of Power and Water (Power Section)
	Master Plan Preparation*	Depends on type of Master Planning Project	DPS, DD, DPU, DRP (5)
	In-house design and surveying work for City projects	Engineering plans and property survey plats	DPU and DPS do some limited design projects in-house. They also conduct surveying work to support easement and property line delineation associated with development projects
	Private Water Plan Review	Private Water Plan	DPU-Division of Power and Water (Water Section)
	Land Use Planning	Area and Neighborhood Plans (maps and drawings included with plan documents)	DD-Planning Division
	Redevelopment Application Review and Approval (City Land Bank Property)	Site Plan (showing proposed structure relative to property lines and right-of-way)	DD-Land Redevelopment Office
	As-Built (aka “record plan”) Preparation	As-built Drawing showing results of actual construction (6)	DPS, DPU

To help understand the context of these standards, the following major assumptions should be understood:

- These standards form the basis for consistently formatted drawings, and it is the intent that drawing creators follow the standards for all LIDM processes.

- These standards are to be used along with specific submission requirements defined by the City for LIDM processes that require digital submittals. NOTE: This document does **not** define procedures for submittal and review of specific types of drawings. Individual City offices in charge of specific LIDM

processes will define these procedures and specific directions on how these standards will be used.

- These standards include a comprehensive set of drawing features associated with land development and land management but do NOT address drawing types depicting the internal details of buildings and structures. For example, these standards do NOT apply to drawings showing detailed structural information or internal detail (e.g., construction structural details of buildings; cross-sections of bridges; internal detail of pump stations; architectural drawings, including electrical, plumbing, HVAC detail, etc.). Creators of these types of drawings should continue to follow existing engineering and architectural standards and conventions for detailed drawing preparation.

1.2 OVERALL PURPOSE AND INTENT

The standards form the foundation for consistent creation of AutoCAD files by developers (as well as City personnel) that are associated with formal LIDM business processes. These standards do not alter or imply any revision to published City of Columbus specifications for any information to be submitted to the City of Columbus as documented in such publications as:

- *Columbus Development Guide*
- *City of Columbus City Code: Title 2, Administrative Code*
- *City of Columbus City Code: Title 11, Water, Sewer, and Electricity Code*
- *City of Columbus City Code: Title 25, Fire Prevention Code*
- *City of Columbus City Code: Title 31, Planning and Platting Code*
- *City of Columbus City Code: Title 33, Zoning Code*
- *City of Columbus City Code: Title 41, Building Code*
- *City of Columbus Construction and Material Specifications* issued by the Department of Public Service
- *Application for Plan Review* issued by the Department of Public Service, Transportation Division
- *Plan Review and Approval Pre-Screen Checklist* issued by the Department of Public Service, Transportation Division
- *Plan and Plat Review Procedures* issued by the Department of Public Service, Transportation Division
- *Standard Drawing Index* issued by the Department of Public Service, Transportation Division

- *Changes to Standard Drawings* issued by the Department of Public Service, Transportation Division
- *Reference Index of Standard Construction Drawings* issued by the Department of Public Service, Transportation Division
- *Supplemental Specifications* issued by the Department of Public Service, Transportation Division
- *Street Lighting Material and Installation Specifications Index* issued by the City of Columbus Department of Public Utilities Department, Division of Power and Water
- *Sanitary Sewer Design Manual* issued by the City of Columbus Department of Public Utilities Department, Division of Sewerage and Drainage
- *Stormwater Drainage Manual* issued by the City of Columbus Department of Public Utilities Department, Division of Sewerage and Drainage
- *Erosion and Sediment Pollution Control Regulation*, issued by the City of Columbus Department of Public Utilities Department, Division of Sewerage and Drainage
- *Standard Construction Drawing Index* issued by the City of Columbus Department of Public Utilities Department, Division of Sewerage and Drainage
- *Construction Contract Package* (aka "Proposal Book") issued by the City of Columbus Department of Public Utilities Department, Division of Power and Water (formerly "Division of Water")
- *Standard Detail Drawings* issued by various City of Columbus departments responsible for drawing submittal and review
- *Water Service Handbook* issued by the City of Columbus Department of Public Utilities Department, Division of Power and Water (formerly "Division of Water")
- *Design Guidelines for Water Distribution System* issued by the City of Columbus Department of Public Utilities Department, Division of Power and Water for CIP projects.

These standards define digital format requirements for the creation and submittal of drawings in CAD and raster formats. These standards apply to any LIDM drawings the City of Columbus requires to be submitted in a digital format and are a guide for LIDM drawings prepared by City divisions. These standards will be referenced in the submittal requirements for the LIDM process to which they apply.

1.3 FORMAT AND CONTENTS OF THIS DOCUMENT

This document is organized into the following four main sections that explain all required technical specifications and procedures for drawing compilation:

- Section 1: Introduction, provides background information and an overview of the document.
- Section 2: File Format and Contents, explains the physical format.
- Section 3: Digital Drawing Format and Compilation Standards, describes the details of the drawing content, format, and standards governing drawing compilation and AutoCAD parameters.
- Section 4: Description of Sample AutoCAD Files, describes sample files prepared to give users a clear guideline and head start on compiling drawings using these standards.

1.4 KEY ELEMENTS OF THE STANDARDS AND PROCEDURES

- Drawings that Apply—Drawings the City of Columbus requires to be submitted in a digital format in land development and land management processes. This standard applies to any Land Development/Land Management (LIDM) business process.
- CAD File Format—AutoCAD DWG file (Version 14 or newer version) or DXF and Raster File Format—TIFF Group 4.

SECTION 2
FILE FORMAT AND CONTENTS

2.1 SUBMITTAL REQUIREMENTS

The digital drawing standards described in this manual provide a technical standard for the creation of digital information defined in the *Columbus Development Guide* and on the City of Columbus Internet Web site. The purpose of these standards is to create consistency in the format of digital CAD drawings and images submitted to the City. This will enable the City of Columbus to better manage, access, use, and distribute documents in digital form. City departments or divisions requiring digital data will reference these standards, which define specific digital drawing parameters. The City department or division requesting the digital files will develop procedures for submission of this information to the City.

2.2 FILE FORMAT

Files submitted to the City of Columbus should be in AutoCAD file format (in .DWG or .DXF format) and images in TIFF Group 4 at a minimum resolution of 300 dpi. Higher resolution may be used if necessary to adequately display all drawing linework and annotation.

2.2.1 AutoCAD Files

AutoCAD DWG or DXF files should be created using AutoCAD Release or any more recent version. Layer names should adhere to the standards described in Section 3.1 and Appendix A.

Many projects may use the AutoCAD external reference (XREF) feature in which a drawing is created from a base drawing that references and displays one or more component drawings (separate DWG drawings). Using this XREF feature is allowable under this standard. When used, **XREFed files should be bound to the base or parent file to create one DWG file with layers from the base and all XREFs. Since use of XREF can change layer names, verify layer naming prior to submittal.**

2.2.2 Raster Files

In addition to the AutoCAD files, this standard calls for the submittal of a raster file for each individual page of the drawing or plan. This raster file must be in TIFF Group 4 format and a minimum resolution of 300 DPI. Unless otherwise specified by a City agency, the TIFF file should be black & white (no gray tones or color). If the TIFF files

are created by scanning a hard copy plot, the scanning must use a clean plot at 100 percent of the physical size (no reductions).

2.3 FILE NAMING CONVENTION

For AutoCAD and TIFF files submitted to the City of Columbus, consultants are free to use long file names. The City of Columbus will assign project identifiers (up to 15 digits) in accordance with their established procedures (see the explanation in the file naming convention below). For submittal to the City of Columbus, consultants may assign names to DWG or TIFF files that help identify the drawings' contents. The requirements for AutoCAD files and TIFF files are that all filenames should include the following components separated by an underscore character " _ ".

1. Begin with a two- or three-letter code identifying the type of submittal or project (refer to Table 2-1). This code facilitates the City's ability to organize, track, store, and retrieve documents associated with the LIDM process.

2. Include an abbreviation of the project name (up to about 20 characters), as well as any project number that might be associated with the project.

3. Include an optional code of "AB" to identify the drawing as an as-built or record drawing that shows the results of actual construction.

4. Include a sequential numeric suffix beginning with 00n.dwg or 00n.tif, where "n" is a sequential number identifying the DWG file in the submittal or, in the case of raster files, "n" is the sheet number in the submittal.

Using these guidelines, an example of an acceptable file name would be "PP_MALPOND_ppp.xxx." where PP is the drawing type code, "MALPOND" is an abbreviation of the project name, "ppp" is the page number, and "xxx" is the Windows file extension (dwg, dxf, or tif).

Table 2-1 shows codes for the primary types of drawings used for LIDM processes. City divisions should assign codes for other types of drawings associated with LIDM processes not listed in this table and should use the file naming convention and standards described in this document.

Table 2-1: Drawing Type Submittal Code for File Names*

Drawing	Code
Preliminary Plat	PP
Final Plat	FP
Commercial Site Plan	CS
Site Plans	SP
A-Plot Drawings	AP
E-Plot Drawings	EP
Survey Drawings	SD
Street Plans	ST
CC Drawings (storm and sanitary sewer)	CC
Drawer D Drawings	DD
Drawer E Drawings	DE
Water Line Drawings	WL
Location Map	LM
Street Lighting Plan	SL
Water Contract Plan	WCP
Capital Improvement Project	CIP

*NOTE: This table and the descriptions below reference some of the most frequently used LIDM drawing types. The City will periodically define codes for other drawing types, and naming conventions will follow the general format explained below. Drawing creators may also define additional drawing type codes and use them in file naming in cases where the City has not already specified the code for a particular type of drawing or project.

2.4 DRAWING CONTENTS

Drawing contents are defined in the *City of Columbus City Code* and the *City of Columbus Development Guide*. Applicants should contact the City of Columbus to determine the specific requirements of the applicant's plan or drawing. Applicants should refer to the following City of Columbus Web sites for additional information about preparation and submittal of drawings:

- www.columbusonestopshop.com/
- http://development.columbus.gov/PermitsRegistrationLicenses/index.asp
- http://utilities.ci.columbus.oh.us/index_new.htm
- http://pubserv.ci.columbus.oh.us/transportation/ConsultantServices/Plan_Review/PlanReviewIndex.htm

2.5 SUBMISSION REQUIREMENTS

For each submittal, the following requirements, which define the physical submittal format of the AutoCAD DWG and TIF files, will be followed:

- Industry-standard Read Only Compact Disk or DVD
- AutoCAD DWG or DXF files may be submitted in Version 14 or newer version
- Each disk should be permanently marked with Project Title, Submission Date, and the Applicant's Name, Address, and Phone Number
- When applicable, each disk should be permanently marked with the CIP Number and Contract Number
- Any submitted disks should be virus-free. Consultants are required to use up-to-date virus checking software to ensure this.

SECTION 3
DIGITAL DRAWING FORMAT AND COMPILATION STANDARDS

3.1 DRAWING FEATURES AND LAYERS

This section defines drawing features to be represented by AutoCAD drawing objects that are typically used and assigned to specific named layers in digital drawings. These standards should be applied in the creation of CAD drawings used in land and infrastructure development projects.

3.1.1 Overview of Features and Layers

Appendix A contains a list of standard drawing features and their corresponding layer names. These features are normally represented by AutoCAD standard or custom line types, standard blocks representing point symbols, text objects, or hatch patterns.

- Features are arranged into categories relating to the type of feature.
- In some cases, a feature sub-type will apply and a mnemonic code will be included in the layer name to identify that subcategory.
- Layer names use mnemonic strings representing the type, sub-type (if applicable), and name of the feature.
- This standard includes a large number of features likely to occur on drawing submittals, but specific drawings or plans may require additional features or a sub-categorization of features defined in this standard. Drawing creators may include additional features not found in this standard providing that these features are assigned layer names that use the standard format and category codes described in this document.

The features and layer names included in this standard cover the majority of features that will be used on drawings and plans submitted to the City of Columbus (see Table 3-1). Drawing creators may have cases in which feature types not included here will be needed. If that is the case, the features may be added, but they should be given a layer name that adheres to the format prescribed by this standard.

Table 3-1: Feature Categories and Codes

Code	Feature
BLD	Building and Related Features
DRL	Drawing Layout Elements
JPE	Jurisdictional, Property, Easement Boundaries and Features
MCS	Monumentation, Control, Survey Features
MIS	Miscellaneous Features
REC	Recreation Features
ROAD	Roadway and Related Features
SPR	Sensitive or Protected Areas/Features
TGT	Topographic and Geotechnical Features
TRAN	Air and Rail Transportation Features
TRC	Traffic Control Features and Signs
UCMS	Combined Sewer (Sanitary and Storm) Facilities
UCOM	Telecommunication Utilities and Related Features
UELC	Electric Utilities and Related Features
UGAS	Gas Utilities and Related Features
UMIS	Miscellaneous Utility Features
USAN	Sanitary Sewer Facilities
USTM	Storm Sewer, Drainage, and Erosion or Flood Control Features
UWAT	Water Utilities and Related Features
VLN	Vegetation, Landscape, Natural Features
WLF	Walls, Fences, and Related Features

3.1.2 Layer Name Standards

The layer name consists of a number of mandatory and optional parts separated by underscore characters. The following standard AutoCAD layer name will be used:

"COC"_feature category code_ feature type_feature subtype_text annotation_proposed

Where:

- "COC". Designates this as a City of Columbus-defined AutoCAD layer (see Appendix A).
- *Feature category code*: A text-based code, 3 or 4 characters in length, identifying the main category for the feature (see Table 3-1).
- *Feature type*: A text-based code no more than 5 characters in length that identifies the feature. If the full name of the feature exceeds 5 characters, this part of the layer name is abbreviated.

- *Feature subtype*: A text-based code, no more than 5 characters in length, that identifies a subcategory of the feature type. If the full name of the feature subtype exceeds 5 characters, this part of the layer name is abbreviated. This is not used in all cases but may be applied in any case where it is necessary to define individual subtypes for a specific feature type (e.g., individual types of traffic regulatory signs or water valves). Note: In a very small number of cases, an additional subtype code, with underscore delimiter, is used to further characterize a feature.

- *Text annotation*: Uses the string, "TXT" to denote the text annotation associated with a feature. Text annotation associated with a feature should apply the "TXT" code to the feature's layer name. NOTE: This standard does **not** specifically define text annotation layers for most features (text layers are defined in several selected cases where text is particularly important), but drawing creators should include necessary text annotation when necessary (e.g., ID numbers for features, text label naming features like subdivisions and addresses, etc.).

- *Proposed*: Use a code of "PR" in cases where proposed features are included on the same drawing as existing features. NOTE: In most cases, this standard does **not** specifically define separate layers for existing and proposed instances of particular features, but drawing creators should make this differentiation by creating separate layers. **Layers without the "PR" code are assumed to be existing features. Alternatively, drawing creators may use an "EX" code to explicitly identify existing features.** Rules for graphically differentiating proposed from existing, through symbol and line types, are stated in sub-Section 3.1.5.

3.1.3 Text Annotation Associated with Features

This standard includes some text annotation guidelines for the purpose of ensuring readability and the capture of feature attributes when converted to GIS. Drawings should be compiled using appropriate engineering drawing conventions governing the font type, font size, and placement of text annotation associated with features and general notes. Drawing creators should use appropriate design parameters to ensure that annotation is readable. The following guidelines provide general rules, but drawing creators may deviate from these where necessary to ensure readability.

For most annotation, annotation height should not be less than .08 inches or greater than .2 inches—the latter size applies mainly to headings and titles on the drawing. Pen weights for annotation should normally be from .25 to .5 mm. Text annotation should be oriented horizontally (wherever possible) or at an angle that is easily readable without rotating the drawing. Annotation should be readable from the bottom or from the right side. Dimensions should be placed along the axis of a feature or should point to a feature with a leader line. In no cases should text orientation be greater than 90 degrees off the

horizontal axis. Leader lines may be used where necessary, but the following basic graphic design principles should be observed—a) leader lines should terminate properly at the feature leaving no question which feature is being pointed to, b) multiple leader lines should not intersect, c) the vertical and horizontal arrangement of leader lines should follow the vertical or horizontal position of features being annotated, and d) text annotation should be positioned properly to avoid confusion about which leader line is being labeled.

Text annotation should be placed on separate layers from the feature being annotated. Text annotation layers should follow the naming standard described above (see Subsection 3.1.2). Note: As stated above, this standard does **not** specifically define text annotation layers for most features, but drawing creators should include necessary text annotation when needed.

3.1.4 Colors and Line Weights

Line weights in this standard are a suggestion only. This standard does NOT mandate specific colors or line weights. It is expected that submitters will choose colors and line weights that provide the best possible drawing appearance. Drawings will often be managed, viewed, and plotted in monochrome (black & white), and, therefore, selection of colors and line weights should be taken into account so that line work and text are clear. All features in the AutoCAD drawing should be created as a "BYLAYER" to allow mass editing of information.

3.1.5 Graphically Differentiating Existing from Proposed Features

For many plan drawings, it is necessary to differentiate a particular type of feature as "existing" versus "proposed." As noted in Subsection 3.1.2, existing and proposed features should be included in different layers using the naming standard defined above. In most cases, this standard does not explicitly define separate existing vs. proposed layers for a specific type of drawing feature. In cases where it is important to show clear graphic differentiation between existing and proposed features, drawing creators should apply consistent techniques that are clear to the readers of the drawings. As a general rule, the City prefers that this differentiation be made by applying different colors, gray-scale tones, or line weights (as opposed to creating different line types or symbols). On plan drawings, proposed features should be depicted more prominently than existing features. Note: Hard copy versions of the drawings will often be printed in black & white, so this should be taken into account in the technique used for differentiation.

3.2 MINIMAL GRAPHIC INTEGRITY STANDARDS

The types of AutoCAD graphic objects used should follow accepted engineering design practices. For all features to which precise parametric measurements apply (arcs, spline

curves, fillets, etc.), these features should be created using appropriate AutoCAD Draw commands. AutoCAD point, line, and polyline draw commands should be used in other cases as appropriate.

Proper connectivity between features should be maintained. Linework should graphically snap together, with no gaps, overshoots, or undershoots, unless it is part of the design. Line objects should also snap to the center of associated point features (e.g., sewer mains to manholes) to ensure graphic connectivity (no line break at a point feature such as a manhole). Arcs and splines should connect properly (along a tangent) to line objects. In most cases, an AutoCAD block will represent point features (see Section 4). In these cases, snapping of linework should use the insertion point (normally the center) of the feature. No unnatural breaks will occur in graphic features where text labels are placed (e.g., text label for elevation on a contour line). Appropriate AutoCAD settings (e.g., OSNAP) or custom tools to ensure proper graphic connectivity and quality will be used.

3.3 UNITS, COORDINATE SYSTEM, AND MAP COORDINATE REFERENCE

Unless specific projects explicitly call for different requirements, each drawing should have at least two State Plane Coordinate control points included as separate AutoCAD objects stored in their designated layer. These points should be placed as AutoCAD point features and symbolized as defined in Section 4.1 (with the center of the block symbol on the point) and annotated with the actual x,y coordinates in feet.[1] The points should be placed at easily found locations in the field (e.g., center of a manhole) or a physically placed monument. All coordinates should reference the Ohio State Plane South Zone according to the NAD 83. Locations that actually fall within the Ohio North Zone should use South Zone extrapolated coordinates. The points should be placed using a survey technique (GPS is recommended) that ensures a local horizontal accuracy of 2 centimeters or better. In projects where elevation is required, local vertical accuracy should be 5 centimeters or better.

The origin of a drawing may be defined as 0,0 (with origin placed in the lower left outside the drawing border), OR the file may be georegistered with the drawing using State Plane Coordinates. If the drawing is georegistered, it must use an accepted, accurate source (e.g., GPS survey points or the Franklin County land base), and the drawing creator should provide information about the source or technique for georegistration.

Drawings will be created in 2-dimensional space unless a project specification calls for 3-dimensional coordinates. The default compass orientation for plan drawings calls for the Y-axis (vertical axis) to have a North-South orientation and the X-axis to have an

[1]The drawing origin and grid used for the AutoCAD file do not need to be in State Plane coordinates but this is strongly recommended. In all cases, the drawing must include two or more control points that are properly annotated within their State Plane (Ohio South Zone) values.

East-West orientation. Drawings may deviate from this sheet orientation standard if it results in greater readability or sheet handling. A north arrow should always be provided and should precisely define the north-south orientation of the drawing. Unless documented design specifications for a particular LIDM process state otherwise, the north arrow should point to the top of the sheet or to the left. Stationing should be from west to east and from south to north. For profile views or cross-sections, the Y-axis will represent elevation or height (as called for in the design specifications), and the X-axis will represent horizontal distance or length. Drawing limits will be set in a manner that is appropriate for the drawing area.

SECTION 4
DESCRIPTION OF SAMPLE AUTOCAD FILES

Sample AutoCAD files have been prepared to help illustrate the standard and to provide AutoCAD files that can be used to help in compiling drawings. A disk with the actual files may be obtained from the Department of Development's Building Services Division. The following types of AutoCAD files are provided:

- Line type file containing the standard and custom line types referenced by this standard
- AutoCAD Blocks: DWG files representing point symbols that are inserted into a drawing
- Legend files: DWG files that list all layers and have a graphic showing the point symbol (block) or line type that corresponds to it.
- Drawing sheet templates: For certain types of drawings, the City will provide AutoCAD template files that provide the basic sheet format and structure for specific drawing types. Individual city Departments should be contacted about the availability of drawing sheet templates.

4.1 BLOCKS FILE FOLDER

Included for use as standard symbols for point features (e.g., manholes, valves, catchbasins, utility poles, signs, etc.) is a series of "Block Drawings" (see Table 4-1). A block is a .DWG file that is created for each feature and then stored as a separate drawing. Blocks are a flexible symbology tool, because the scale of the symbol can be adjusted. These blocks can then be used through an AutoCAD insertion command in any AutoCAD drawing compilation.

Table 4-1: Blocks Provided for Use with this Standard

Feature Name	Block Drawing Name
Building and Related Features (BLD)	
Building Address	COC_BLD_ADDR.dwg
Building Entrance	COC_BLD_ENTR.dwg
Building Unit	COC_BLD_UNIT.dwg
Steps	COC_BLD_STEP.dwg
Drawing Layout Elements (DRL)	
Call-out Bubble	COC_DRL_BUBL.dwg
Logo or Seal	COC_DRL_LOGO.dwg
North Arrow	COC_DRL_NORTH.dwg
Scale Bar	COC_DRL_SCALE_3.dwg
Scale Bar	COC_DRL_SCALE_4.dwg
Scale Bar	COC_DRL_SCALE_5.dwg
Station Tic Mark	COC_DRL_STIC.dwg
Jurisdictional, Property, Easement Boundaries, and Related Features (JPE)	
Obstruction	COC_JPE_OBST.dwg
Monumentation, Control, Survey Features (MCS)	
Benchmark	COC_MCS_BENCH.dwg
Control Monument	COC_MCS_MNMNT.dwg
Stake or Pin	COC_MCS_PIN.dwg
State Plane Coordinate Control Point	COC_MCS_SP.dwg
Survey Marker	COC_MCS_MARK.dwg
Miscellaneous Features (MIS)	
Above Ground Storage Tank	COC_MIS_AST.dwg
Underground Storage Tank	COC_MIS_UST.dwg
Bollard	COC_MIS_BOL.dwg
Call Box	COC_MIS_CBOX.dwg
Flag Pole	COC_MIS_FLAG.dwg
Fountain	COC_MIS_FNTN.dwg
Handicapped Access Feature	COC_MIS_HCAP.dwg
Well	COC_MIS_WELL.dwg
Mailbox	COC_MIS_MBOX.dwg
Miscellaneous Post	COC_MIS_POST.dwg
Monument/Statue	COC_MIS_MON.dwg
Outside Furniture	COC_MIS_FURN.dwg
Storage Bin	COC_MIS_SBIN.dwg
Trash Can	COC_MIS_TCAN.dwg
Dumpster	COC_MIS_DMP.dwg
Recreation (REC)	
Picnic Table	COC_REC_PICT.dwg
Grill	COC_REC_GRILL.dwg
Drinking Fountain	COC_REC_DRNK.dwg
Swing	COC_REC_SWNG.dwg
Slide	COC_REC_SLIDE.dwg
Climber	COC_REC_CLMB.dwg
Spring Toy	COC_REC_SPRNG.dwg
Miscellaneous	COC_REC_MISC.dwg
Roadway and Related Features (ROAD)	
Travel Flow Direction Arrow	COC_ROAD_TARW.dwg

Table 4-1: Blocks Provided for Use with this Standard (continued)

Feature Name	Block Drawing Name
Sensitive or Protected Areas/Features (SPR)	
Cemetery	COC_SPR_CEM.dwg
Topographic and Geotechnical (TGT)	
Core Hole Location	COC_TGT_CORE.dwg or COC_TGT_BORE.dwg
Slope Direction	COC_TGT_SLDIRR.dwg
Slope Direction	COC_TGT_SLDIRL.dwg
Spot Elevation Point	COC_TGT_SPOT.dwg
Railroad/Air Transportation (TRAN)	
Airport Tower	COC_TRAN_TOWER.dwg
Railroad Switch	COC_TRAN_RAIL_SW.dwg
Traffic Control and Signs (TRC)	
Crosswalk	COC_TRC_XWALK.dwg
Milepost	COC_TRC_MP.dwg
Overhead Sign	COC_TRC_SIGN_OVHD.dwg
Reflective Pavement Marker	COC_TRC_PVMK_REFL.dwg
Sign	COC_TRC_SIGN.dwg
Sign-Street Sign	COC_TRC_SIGN_ST.dwg
Traffic Control Structure	COC_TRC_CONT.dwg
Traffic Signal Control Box	COC_TRC_SIGNL_CONT.dwg
Traffic Signal Loop in Pavement	COC_TRC_SIGNL_LOOPS.dwg
Traffic Signal-Pole	COC_TRC_SIGNL_POLE.dwg
Traffic Signal-Head	COC_TRC_SIGNL_HEAD.dwg
Traffic Signal-Head-Post Mounted	COC_TRC_SIGNL_PMTD.dwg
Combined Sewer Facilities (UCMS)	
Combined Sewer Manhole	COC_UCMS_MH.dwg or COC_UCMS_MH2.dwg
Communication Features (UCOM)	
Handhole	COC_UCOM_HAND.dwg
Handhole-Cable TV	COC_UCOM_HAND_CATV.dwg
Handhole-Telephone	COC_UCOM_HAND_TELE.dwg
Manhole	COC_UCOM_MH.dwg
Manhole-Cable TV	COC_UCOM_MH_CATV.dwg
Manhole-Fiber Optic	COC_UCOM_MH_FO.dwg
Manhole-Telephone	COC_UCOM_MH_TELE.dwg
Vault-Communications	COC_UCOM_VAULT.dwg
Vault-Cable TV	COC_UCOM_VAULT_CATV.dwg
Vault-Fiber Optic	COC_UCOM_VAULT_FO.dwg
Vault-Telephone	COC_UCOM_VAULT_TELE.dwg
Electric Features (UELC)	
Capacitor	COC_UELC_CAP.dwg
Guy Wire Anchor	COC_UELC_GUY_DOWN.dwg
Handhole	COC_UELC_HAND.dwg
Lighting-Flood 250W	COC_UELC_LITE_FLD_250.dwg
Lighting-Flood 400W	COC_UELC_LITE_FLD_400.dwg
Lighting-HPS 70W	COC_UELC_LITE_HPS_070.dwg
Lighting-HPS 100W	COC_UELC_LITE_HPS_100.dwg
Lighting-HPS 150W	COC_UELC_LITE_HPS_150.dwg
Lighting-HPS 200W	COC_UELC_LITE_HPS_200.dwg
Lighting-HPS 250W	COC_UELC_LITE_HPS_250.dwg

Table 4-1: Blocks Provided for Use with this Standard (continued)

Feature Name	Block Drawing Name
Electric Features (UELC) (continued)	
Lighting-HPS 310W	COC_UELC_LITE_HPS_310.dwg
Lighting-HPS 400W	COC_UELC_LITE_HPS_400.dwg
Lighting-HPS Low Mast 400W	COC_UELC_LITE_HPS_LM_400.dwg
Lighting-HPS Underpass 100W	COC_UELC_LITE_HPS_U_100.dwg
Lighting-HPS Underpass State 100W	COC_UELC_LITE_HPS_U_100_STATE.dwg
Lighting-LPS 55W	COC_UELC_LITE_LPS_055.dwg
Lighting-LPS 90W	COC_UELC_LITE_LPS_090.dwg
Lighting-LPS Underpass 55W	COC_UELC_LITE_LPS_U_055.dwg
Lighting-LPS Underpass 90W	COC_UELC_LITE_LPS_U_090.dwg
Lighting-LPS Underpass State 55W	COC_UELC_LITE_LPS_U_055_STATE.dwg
Lighting-LPS Underpass State 90W	COC_UELC_LITE_LPS_U_090_STATE.dwg
Lighting-Mercury Vapor 100W	COC_UELC_LITE_MV_100.dwg
Lighting-Mercury Vapor 175W	COC_UELC_LITE_MV_175.dwg
Lighting-Mercury Vapor 250W	COC_UELC_LITE_MV_250.dwg
Lighting-Mercury Vapor 400W	COC_UELC_LITE_MV_400.dwg
Lighting-Metal Halide 150W	COC_UELC_LITE_MHAL_150.dwg
Lighting-Metal Halide 250W	COC_UELC_LITE_MHAL_250.dwg
Lighting-Metal Halide 400W	COC_UELC_LITE_MHAL_400.dwg
Lighting-Overhead Bridge Sign	COC_UELC_LITE_OSIGN_BRDG.dwg
Lighting-Overhead Sign Single	COC_UELC_LITE_OSIGN_S.dwg
Lighting-Overhead Sign Double	COC_UELC_LITE_OSIGN_D.dwg
Lighting-Post Top	COC_UELC_LITE_PTOP.dwg
Manhole	COC_UELC_MH.dwg
Meter-Electric	COC_UELC_METER.dwg
Pedestal-Secondary	COC_UELC_PED_SEC.dwg
Electric Pole-MELP	COC_UELC_POLE_MELP.dwg
Electric Pole-Foreign	COC_UELC_POLE_FOR.dwg
Electric Pole-City Light Standard	COC_UELC_POLE_CITY.dwg
Electric Pole-State Light Standard	COC_UELC_POLE_STATE.dwg
Existing Electric Pole to be Replaced	COC_UELC_XPOLE.dwg
Proposed Electric Pole	COC_UELC_POLE_PR.dwg
Power Pole	COC_UELC_P_POLE.dwg
Proposed Power Pole	COC_UELC_P_POLE_PR.dwg
Power Pole w/Telephone	COC_UELC_P_POLE_TEL.dwg
Proposed Power Pole w/Telephone	COC_UELC_P_POLE_TEL _PR.dwg
Power Pole w/Telephone and Light	COC_UELC_P_POLE_TEL_LIT.dwg
Proposed Power Pole w/Telephone and Light	COC_UELC_P_POLE_TEL_LIT _PR.dwg
Pull Box	COC_UELC_PBOX.dwg
Recloser	COC_UELC_RCLOS.dwg
Regulator	COC_UELC_REG.dwg
Riser-Electric	COC_UELC_RISE.dwg
Ground Rod	COC_UELC_GROD.dwg
Security Light	COC_UELC_LITE_SEC.dwg
Street Light	COC_UELC_LITE_STRT.dwg
Street Light-Controller	COC_UELC_LITE_CONT.dwg
Switch-Closed	COC_UELC_SWTCH_C.dwg
Switch-Closed Fused	COC_UELC_SWTCH_C_F.dwg
Switch-Open	COC_UELC_SWTCH_O.dwg
Switch-Open Fused	COC_UELC_SWTCH_O_F.dwg
Switch-Transfer Automatic	COC_UELC_SWTCH_T_A.dwg
Substation	COC_UELC_SUB.dwg

Table 4-1: Blocks Provided for Use with this Standard (continued)

Feature Name	Block Drawing Name
Electric Features (UELC) (continued)	
Tower Light-City 3	COC_UELC_LITE_HPS_400_T3_CITY.dwg
Tower Light-City 4	COC_UELC_LITE_HPS_400_T4_CITY.dwg
Tower Light-City 6	COC_UELC_LITE_HPS_400_T6_CITY.dwg
Tower Light-City 7	COC_UELC_LITE_HPS_400_T7_CITY.dwg
Tower Light-State 3	COC_UELC_LITE_HPS_400_T3_STATE.dwg
Tower Light-State 4	COC_UELC_LITE_HPS_400_T4_STATE.dwg
Tower Light-State 6	COC_UELC_LITE_HPS_400_T6_STATE.dwg
Tower Light-State 7	COC_UELC_LITE_HPS_400_T7_STATE.dwg
Transformer-Pole Mounted – MELP	COC_UELC_TRSFR_POLE_M.dwg
Transformer-Pole Mounted - Foreign	COC_UELC_TRSFR_POLE_F.dwg
Transformer-Pad Mounted	COC_UELC_TRSFR_PMNT.dwg
Transformer-Current	COC_UELC_TRSFR_CUR.dwg
Transformer-Potential	COC_UELC_TRSFR_POT.dwg
Transmission Tower	COC_UELC_TOWER.dwg
Vault	COC_UELC_VAULT.dwg
Gas Features (UGAS)	
Gas Gate Valve	COC_UGAS_VALVE.dwg
Gas Manhole	COC_UGAS_MH.dwg
Gas Service Valve	COC_UGAS_VALVE_SERVICE.dwg
Gas Meter	COC_UGAS_METER.dwg
Utilities Miscellaneous (UMIS)	
Flow Direction Arrow	COC_UMIS_FLOW.dwg
Guy Line Anchor	COC_UMIS_GUY_DOWN.dwg
Manhole	COC_UMIS_MH.dwg
Outside Lighting	COC_UMIS_LITE.dwg
Piezometer	COC_UMIS_PIEZ.dwg
Pipe Fitting	COC_UMIS_PIPE_FIT.dwg
Pipe Plug or Cap	COC_UMIS_PIPE_PLUG.dwg
Tank	COC_UMIS_TANK.dwg or COC_MIS_AST.dwg or COC_MIS_UST.dwg
Tower	COC_UMIS_TOWER.dwg
Utility Meter	COC_UMIS_METER.dwg
Utility Pole	COC_UMIS_POLE.dwg
Sanitary Sewer Features (USAN)	
Disposal Facilities	COC_USAN_DISP.dwg
Flap Gate	COC_USAN_FGATE.dwg
Miscellaneous Sewer Feature	COC_USAN_MISC.dwg
Overflow	COC_USAN_OVER.dwg
Regulator	COC_USAN_REG.dwg
Riser Pipe	COC_USAN_RISE.dwg
Sanitary Sewer Lift or Pump Station	COC_USAN_LIFT.dwg or COC_USAN_LIFT2.dwg
Sanitary Sewer Cleanout	COC_USAN_CLNO.dwg
Sanitary Sewer Manhole	COC_USAN_MH.dwg or COC_USAN_MH2.dwg
Sanitary Sewer Point	COC_USAN_PT.dwg
Sanitary Sewer Valve	COC_USAN_VALVE.dwg
Sewer Treatment Plant	COC_USAN_TRT.dwg

Table 4-1: Blocks Provided for Use with this Standard (continued)

Feature Name	Block Drawing Name
Storm Sewer, Drainage, and Erosion or Flood Control Features (USTM)	
Catch Basin	COC_USTM_INLET.dwg
Catch Basin Protection	COC_USTM_INLET_PROT.dwg
Catch Basin Curb	COC_USTM_NLET_CURB.dwg or COC_USTM_NLET_CURB2.dwg
Check Dam (rock and fabric)	COC_USTM_CHDAM.dwg or COC_USTM_CHDAM2.dwg
Dam	COC_USTM_DAM.dwg
Drop Inlet	COC_USTM_INLET_DROP.dwg
Storm Flow Arrow	COC_USTM_FLOW.dwg
Storm Sewer Manhole	COC_USTM_MH.dwg or COC_USTM_MH2.dwg
Headwall	COC_USTM_HWALL.dwg
Outfall	COC_USTM_OFAL.dwg
Stilling Basin	COC_USTM_BASIN.dwg
Storm Lift or Pump Station	COC_USTM_LIFT.dwg
Storm Sewer Point	COC_USTM_PT.dwg
Weep Hole/Wall Drain	COC_USTM_DRN_WEEP.dwg
Water Features (UWAT)	
Hydrant	COC_UWAT_HYD.dwg
Manhole-Water	COC_UWAT_MH.dwg
Water Booster Station	COC_UWAT_BOOST.dwg
Water Meter	COC_UWAT_METER.dwg
Water Valve	COC_UWAT_VALVE.dwg
Water Well	COC_UWAT_WELL.dwg
Water Treatment Plant	COC_UWAT_PLANT.dwg
Water Meter Pit	COC_UWAT_MPIT.dwg
Water Storage Tank	COC_UWAT_TANK.dwg
Air Release	COC_UWAT_AIRRL.dwg
Water Service Valve-Found	COC_UWAT_SERV_FND.dwg
Water Service Valve-Not Found	COC_UWAT_SERV_NFND.dwg
Water Plug	COC_UWAT_PLUG.dwg
Water Cap	COC_UWAT_CAP.dwg
Water Line Monument	COC_UWAT_MNMNT.dwg
Pitometer Tap	COC_UWAT_PITOM.dwg
Water Reducer	COC_UWAT_REDUC.dwg
Post Indicator Valve	COC_UWAT_VALVE_PI.dwg
Altitude Valve-Water	COC_UWAT_VALVE_ALT.dwg
Pressure Sustaining Valve-Water	COC_UWAT_VALVE_PS.dwg
Water Line Stop	COC_UWAT_LSTOP.dwg
Water Check Valve	COC_UWAT_VALVE_CHK .dwg
Water Sampling Tap	COC_UWAT_SAMPT.dwg
Private Hydrant	COC_UWAT_HYD_PRIV.dwg
Yard Hydrant	COC_UWAT_HYD_YARD.dwg
Proposed Hydrant	COC_UWAT_HYD_PROP.dwg

Table 4-1: Blocks Provided for Use with this Standard (continued)

Feature Name	Block Drawing Name
Vegetation, Landscape, Water Bodies, Natural Features (VLN)	
Hedge	COC_VLN_HEDGE.dwg
Bush	COC_VLN_BUSH.dwg
Shrub	COC_VLN_SHRUB.dwg
Tree, Deciduous	COC_VLN_DTREE.dwg
Tree, Conifer	COC_VLN_CTREE.dwg
Walls, Fences, and Related Features (WLF)	
Retaining Wall	COC_WLF_WALL_RET.dwg

4.2 LINE TYPE DEFINITION FILES (.LIN)

The line type definition files provide suggested line types. This standard does NOT mandate specific line types. It is expected that submitters will choose line types that provide the best possible drawing appearance. The linetype will define the pattern of the line when plotted or viewed on the screen. A continuous linetype is a solid line.

4.3 DWG LEGEND FILES

DWG files have been created that are used to illustrate the standard point symbols (blocks) and line types associated with the AutoCAD layers. One DWG legend file has been created for each major layer category. These are shown in Appendix B.

APPENDIX A
DRAWING FEATURES AND LAYER NAMES

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DRAWING FEATURES AND LAYER NAMES

Drawing Feature Name	Description	Type of Feature*	Layer Name	Suggested Line Weight
Drawing Layout Elements Description: Graphic features that are used to compose the frame, border, legend, and margin of a drawing or other graphic features (not part of the content of the drawing) used to enhance the drawing's format and readability. Category Abbreviation: **DRL**				
Call-out Bubble and Line	Labeled bubble and leader line serving as a reference to a standard detail.	B	COC_DRL_BUBL	.3
Call-out Bubble Text	Text inside bubble.	T	COC_DRL_BUBL_TXT	.3
Date	Calendar date of last edit to drawing.	T	COC_DRL_DATE	.3
Drawing Inset Boxes	Any inset border that contains detailed views of an area or feature.	L	COC_DRL_NSBOX	.5
Drawing Frame	Sheet border (outside and inside frame detail).	L	COC_DRL_FRAME	.6
Drawing Label	Labels used to identify the parts of a drawing.	T	COC_DRL_LABEL	.3
Drawing Text	Text not associated with content. Includes page number, titles, etc.	T	COC_DRL_TXT	.3
Note	Standard notes present on a typical plat or site plan.	T	COC_DRL_NOTE	.3
Legend Grid	Grid lines for legend presentation and labels for legend entries.	L, T	COC_DRL_LEGND	.3
Location Map	Location map (not to scale) window showing the proposed work site highlighted.	L	COC_DRL_LMAP	.3
Logo or Seal	Individual types of logos may be defined for use by specific companies. These may be inserted in a drawing as a block or an image.	B or Image	COC_DRL_LOGO	.3
Match Line	Lines on a drawing used to indicate the continuation of the drawing on another sheet or in another file.	L	COC_DRL_MATCH	.8
North Arrow	Standard north arrow is provided. Other north arrow styles may be used.	B	COC_DRL_NORTH	.3
Reference Grid	Grid lines used on drawings.	L	COC_DRL_GRID	.2
Revision Cloud	Use standard AutoCAD Revision Cloud to denote areas of a drawing that have been changed.	L	COC_DRL_REV#	.5
Scale Bar	Horizontal or vertical scale bar. A standard horizontal scale bar is provided that will need to be adjusted based on the scale of the specific drawing.	B, L	COC_DRL_SCALE	.3
Station Tic Mark	Point of reference.	B, T	COC_DRL_STIC	.3
Title Block	Line work for title block and its text contents.	L, T	COC_DRL_TBLCK	.3

*B = Block Drawing, T = Text, L = Line, H = Hatching

Drawing Feature Name	Description	Type of Feature*	Layer Name	Suggested Line Weight
Monumentation, Control, Survey Features				
Description: Points and line features that define established positions or coordinates (horizontal or vertical). Category Abbreviation: **MCS**				
Benchmark	Any defined point where a horizontal or vertical coordinate has been defined. Not necessarily with accompanying documentation on survey method and accuracy.	B	COC_MCS_BENCH	.2
Control Monument	Permanent monument with documented horizontal and/or vertical coordinates established by a recognized government authority (local, state, federal). NOTE: A separate text layer is needed for coordinate annotation.	B	COC_MCS_MNMNT	.2
Stake or Pin	Non-permanent stake or pin placed as a survey point for the project.	B	COC_MCS_PIN	.2
State Plane Coordinate Control Point	The required control used to geographically reference the drawing. Should be annotated with X, Y, and, if required, Z coordinates. NOTE: A separate text layer is needed for coordinate annotation.	B	COC_MCS_SP	.2
Survey Lines Baseline	Curve calculation lines, baselines, etc.	L	COC_MCS_SLINE	.2
Survey Lines Centerline	Curve calculation lines, centerline, etc.	L	COC_MCS_CLINE	.2
Survey Marker	Survey marker or traverse point.	B	COC_MCS_MARK	.2
Miscellaneous Features				
Description: Features that are not classified in other defined categories. Category Abbreviation: **MIS**				
Agricultural Tiles	Tiles placed below the surface to facilitate the drainage of land.	L	COC_MIS_AGT	.2
Bollard	Short posts used to delineate an area.	B	COC_MIS_BOL	.2
Call Box	Fire or police or emergency call box.	B	COC_MIS_CBOX	.2
Debris Pile	Location of existing trash or proposed location for refuse during site development.	H, L	COC_MIS_PILE	.2
Dock, Pier, Jetty, or Marina	Structures associated with bodies of water and watercraft.	L	COC_MIS_PIER	.2
Flag Pole	Location of the base for a pole used to display a flag.	B	COC_MIS_FLAG	.2
Fountain	Ornamental display of water that may include a pool of water, statues, or other art.	B	COC_MIS_FOUNT	.2
Handicapped Access Feature	Wheelchair ramp or other access feature. Specific types of access features may be defined and symbolized.	B	COC_MIS_HCAP	.2
Mailbox	Location of a United States Postal Service mailbox or mailboxes for receiving and/or sending mail.	B	COC_MIS_MBOX	.2
Material Storage Area	Delineates an area for storage of material during site development.	L	COC_MIS_STAR	.2
Miscellaneous Post	Any post that is not included in the light pole, bollard, or other layer.	B	COC_MIS_POST	.2
Monument/Statue	Ornamental structure or area to commemorate an event, location, or person.	B	COC_MIS_MONU	.2
Outside Furniture	May include a bench, chair, etc.	B	COC_MIS_FURN	.2
Quarry/Borrow Pit	Designates boundary-excavated land.	H, L	COC_MIS_BPIT	.2
Screening Structure	Structure that shields another structure or object from view.	L	COC_MIS_SCRN	.5
Storage Bin	Structures used to store material for roads or manufacturing.	B	COC_MIS_STBN	.2

*B = Block Drawing, T = Text, L = Line, H = Hatching

Drawing Feature Name	Description	Type of Feature*	Layer Name	Suggested Line Weight
Miscellaneous Features (continued)				
Description: Features that are not classified in other defined categories. Category Abbreviation: **MIS**				
Track	Oval-shaped track used for sporting activities and associated structures.	L	COC_MIS_TRACK	.2
Trail or Path	Unpaved surface route used for walking, running, riding, etc.	L	COC_MIS_TRAIL	.2
Trash Can	Receptacle for storage of trash until it can be permanently removed.	B	COC_MIS_TRCAN (Two different features but included on same layer)	.2
Dumpster	Large receptacle for storage of trash until it can be permanently removed.	B		.2
Trench	Trench dug as a step in construction.	L	COC_MIS_TRNCH	.2
Underground Structures	Any general underground structures not specified as to type.	H, L	COC_MIS_USTR	.2
Work Area	Delineation of work area-out boundary filled with hatch pattern.	H, L	COC_MIS_WORK	.2
Jurisdictional, Property, Easement Boundaries, and Related Features				
Description: Lines defining the established boundary of legal ownership, property rights or easement restrictions, and boundaries defining the area of jurisdictional control of a political jurisdiction, public agency, or private corporation. Category Abbreviation: **JPE**				
Annexation Area	Area that has been annexed by the City or is being considered for annexation. NOTE: A separate text layer is generally required to reference annexation resolutions.	L	COC_JPE_ANNEX	.4
Annexation Text	Text describing the annexed property.	T	COC_JPE_ANNEX_TXT	.3
City Boundary	Boundary of an incorporated city.	L	COC_JPE_CORP	.5
County Boundary	Boundary of a county.	L	COC_JPE_CNTY	.5
Development Boundary	Boundary of the site under development.	H, L	COC_JPE_DVBND	.4
Development Name	Text identifying the name of the development.	T	COC_JPE_DVNM_TXT	.3
Easement Boundary	Easements for public use, services, or utilities (streetlights) with their dimensions. All easements on the subject property and in the adjacent right-of-way. Accompanied by text describing type and providing survey/dimension information. Multiple subtypes may be defined, symbolized, and assigned to individual layers.	L, T	COC_JPE_EASE	.2
Easement Boundary-Proposed	Proposed easements for public use, services, or utilities (streetlights) with their dimensions. All easements on the subject property and in the adjacent right-of-way. Accompanied by text describing type and providing survey/dimension information. Multiple subtypes may be defined, symbolized, and assigned to individual layers.	L, T	COC_JPE_EASE_PR	.4
Land Use	Existing use as recorded by the City of Columbus and proposed use. Use of each adjacent property.	T	COC_JPE_LANDU	.3

*B = Block Drawing, T = Text, L = Line, H = Hatching

Drawing Feature Name	Description	Type of Feature*	Layer Name	Suggested Line Weight
Jurisdictional, Property, Easement Boundaries, and Related Features (continued)				
Description: Lines defining the established boundary of legal ownership, property rights or easement restrictions, and boundaries defining the area of jurisdictional control of a political jurisdiction, public agency, or private corporation.				
Category Abbreviation: **JPE**				
Legal Lot Boundary	Legal surveyed lots officially identified on a subdivision plat or other official document. The appropriate County Auditor may define legal lots as parcels for tax purposes after official recordation. NOTE: A separate text layer is needed for lot numbers.	L	COC_JPE_LOT	.2
Legal Lot Number	Assigned Lot Number associated with the Lot boundary in COC_JPE_LOT	T	COC_JPE_LOTNO	.2
Location Description	Description of location; street address of the subject property, the exact distance and direction to the nearest street intersection, and any other identifying landmarks that would assist in locating and identifying the property as required by the City on plats and commercial site plans.	T	COC_JPE_LOC	.3
Obstruction	An object requiring a permit that is above the established or finished grade.	L	COC_JPE_ OBST	.3
Parcel Boundary Line	Tract or plot of land as recorded by the Auditor. NOTE: A separate text layer is needed for Parcel Number annotation.	L	COC_JPE_PAR	.3
Parcel Number	Parcel Identification Number assigned by the County Auditor.	T	COC_JPE_PARNO	.3
Public Areas Boundary	Public or common use areas.	H, L	COC_JPE_PBLAR	.3
Public Land Survey System Lines	PLSS Township, range, section lines.	L	COC_JPE_PLS	.3
Right-of-Way (ROW)	Boundary of areas occupied by public streets, sidewalks, alleys, and areas that are government-owned and upon which the public may travel.	L	COC_JPE_ROW	.4
Set Back	Front setback line; dimensions and location of all setback lines. The area of a lot measured from a lot line that must be maintained clear of permanent structures.	L	COC_JPE_SETBK	.1
Set Back Text	Text describing the set back.	T	COC_JPE_SETBK_TXT	.1
Special District Boundary	Any formally defined special district (e.g., school district). This layer may be subdivided into sub-layers if necessary.	H, L	COC_JPE_SPDST	.4
Subdivision Boundary	Area of improvement of one (1) or more parcels of land for residential, commercial, or industrial structures or groups of structures involving the division or allocation of land for the opening or extension. NOTE: A separate text layer is needed for Subdivision Name and other necessary text.	H, L	COC_JPE_SUBDV	.5
Subdivision Name	Name of the Subdivision	T	COC_JPE_SUBNM_TXT	.4
Township Boundary	Boundary of the incorporated township.	H, L	COC_JPE_TWNS	.4
Zoning	Current zoning classification of development area and present zoning of each adjacent property accompanied by text annotation with zoning type code. NOTE: A separate text layer is needed for zoning limitation information.	H, L	COC_JPE_ZONE	.3

*B = Block Drawing, T = Text, L = Line, H = Hatching

Drawing Feature Name	Description	Type of Feature*	Layer Name	Suggested Line Weight
Roadway and Related Features Description: Street, road, highway, and related features, including pedestrian walks, private drives, and parking. Major Category Abbreviation: **ROAD**				
Bridge or Overpass	Any bridge or overpass associated with a roadway.	L	COC_ROAD_BRDG	.3
Curb Cut	A section of roadway with curbs where the edge of road is not raised in order to provide access to driveways or sidewalks.	L	COC_ROAD_CURB_CUT	.2
Curb Line	Raised edge of roadway.	L	COC_ROAD_CURB	.2
Driveway	Driveway means every way or place in private ownership used for vehicular travel by the owner and those having express or implied permission from the owner but not by other persons. Dimensions and location of existing and proposed driveways.	H	COC_ROAD_DRIVE	.2
Driveway Centerline	Line in the middle of the driveway running parallel to the driveway edges.	L	COC_ROAD_DRIVE_CLINE	.2
Edge of Driveway	Edge of driveway (pave or unpaved).	L	COC_ROAD_DRIVE_EDGE	.2
Edge of Road	Edge of road (paved or unpaved).	L	COC_ROAD_EDGE	.3
Guardrail	Barrier placed along the edge of a road.	L	COC_ROAD_GRAIL	.2
Median	A continuous traffic control island usually in the center of a street or highway provided to separate traffic on adjacent roadways.	L	COC_ROAD_MEDN	.3
Obstruction in Right-of-Way	Any item that may limit the use of the right-of way by the public.	L	COC_ROAD_OBST	.2
Parking Lot	Any off-street area or facility that contains one (1) or more *parking*, loading, or stacking spaces for commercial, institutional, or industrial use; or contains five (5) or more *parking* spaces for any residential use.	L	COC_ROAD_PARK	.2
Parking Miscellaneous	Miscellaneous features associated with parking.	L	COC_ROAD_PARK_MIS	.2
Ramp	Section of road used to enter or exit from one restricted access roadway to another restricted access roadway.	L	COC_ROAD_RAMP	.3
Road Centerline-General	Centerline of any street or road not differentiated by type with name and dimensions. NOTE: A separate text layer is needed for road name.	L	COC_ROAD_CLINE	.2
Road Centerline-Private	Centerline of private streets and roads.	L	COC_ROAD_CLINE_PRIV	.2
Road Centerline-Public	Centerline of public streets and roads. NOTE: A separate text layer is needed for road name.	L	COC_ROAD_CLINE_PUB	.2
Roadway Tunnel	Section of roadway passing through or under an obstruction via a covered passageway.	L	COC_ROAD_TUNL	.2
Street Departure	Line of departure of one street from another. Delineates the boundary between two sections of roadway.	L	COC_ROAD_DEPT	.23
Traffic Island	Dimensions and location of existing and proposed traffic islands.	L	COC_ROAD_TISLE	.3
Travel Flow Direction Arrow	Graphic depicting the flow of traffic.	B	COC_ROAD_TARW	.2

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Drawing Feature Name	Description	Type of Feature*	Layer Name	Suggested Line Weight
Traffic Control and Signs				
Description: Features or markings that relate to traffic control, including signals, signs, striping, and related entities. Major Category Abbreviation: **TRC**				
Crosswalk	Any portion of a roadway at an intersection, or elsewhere, distinctly indicated for pedestrian crossing by lines or other markings on the surface.	B	COC_TRC_XWALK	.2
Milepost	Sign on the edge of a roadway stating a linear measurement of a roadway at that point.	B	COC_TRC_MP	.2
Overhead Sign	Sign that is placed over a roadway.	B	COC_TRC_SIGN_OVHD	.2
Pavement Markings/Striping	Any traffic control lines (centerline, edge line, lane and direction designation, stop line, parking lines, etc.).	L	COC_TRC_PVMK	.2
Reflective Pavement Marker	Pavement markings that are highly reflective of light.	B	COC_TRC_PVMK_REFL	.2
Sign	Plan view of sign. Use for any sign placed along the roadway related to traffic control.	B	COC_TRC_SIGN	.2
Sign-Street Name	Multiple subtypes may be defined, symbolized, and assigned to individual layers.	B	COC_TRC_SIGN_ST	.2
Speed Bump	One or more structures placed in a roadway to reduce the speed of vehicles on the roadway.	L, H	COC_TRC_BUMP	.2
Temporary Traffic Barricade	Temporary structures placed in a roadway to control the flow of traffic. Specific sub-types of barricades may be defined and symbolized.	L	COC_TRC_BAR	.2
Traffic Control Structure	Structures placed in a roadway to control the flow of traffic. Specific sub-types of barricades may be defined and symbolized.	B	COC_TRC_CONT	.2
Traffic Signal Control Box	Structure containing equipment that controls a traffic signal.	B	COC_TRC_SGNL_CNTL	.2
Traffic Signal Loop in Pavement	Sensor in the pavement used to detect the presence of a vehicle.	B	COC_TRC_SGNL_LOOP	.2
Traffic Signal Head on Span Wire	Light signals placed on a span wire at intersections or points along the roadway to control traffic.	B	COC_TRC_SGNL_HEAD (Two different features and symbols but included on same layer)	.2
Traffic Signal Head on Post	Light signals placed on a post or pole at intersections or points along the roadway to control traffic.	B		.2
Traffic Signal Strain Pole	A traffic signal strain pole.	B	COC_TRC_SGNL_POLE	.2
Utilities—Storm Sewer, Drainage, and Erosion or Flood Control				
Description: All features associated with the storm sewer system; storm drainage, flood control, and erosion control features. NOTE: Some of these features will require the creation of text layers for ID codes and label annotation. Follow specific drawing submittal requirements and sound engineering practices in applying text annotation. Major Category Abbreviation: **USTM**				
Canal	A manmade waterway for draining stormwater. Canals drain significantly larger amounts of water than ditches.	L	COC_USTM_CANAL	.2
Catch Basin	Inlet that traps or holds water.	B	COC_USTM_INLET (Two different features and symbols but included on same layer)	.2
Curb Inlet	Inlet along a curb that traps or holds stormwater.	B		.2
Catch Basin Protection	Temporary structure placed near or on a catch basin to prevent runoff from a construction site from entering the storm sewer.	B	COC_USTM_INLET_PROT	.2
Check Dam	Rock or fabric check dam used to prevent or control excessive erosion.	B	COC_USTM_CHDAM	.2

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Drawing Feature Name	Description	Type of Feature*	Layer Name	Suggested Line Weight
Utilities—Storm Sewer, Drainage, and Erosion or Flood Control (continued)				
Description: All features associated with the storm sewer system; storm drainage, flood control, and erosion control features. NOTE: Some of these features will require the creation of text layers for ID codes and label annotation. Follow specific drawing submittal requirements and sound engineering practices in applying text annotation.				
Major Category Abbreviation: **USTM**				
Culvert	Underground structure used to transport water through an obstruction such as a road.	L	COC_USTM_CUL	.2
Dam, Spillway, or Weir	Structure used to control the flow of water.	B	COC_USTM_DAM	.2
Dike or Levee	Structure along a waterway that is designed to control floodwater.	L	COC_USTM_DIKE	.2
Drainage Area Delineation	Boundary of a watershed.	L	COC_USTM_DRNG_AREA	.2
Drainage Channel	Open channels that convey stormwater and are owned, operated, or maintained by a City division other than the Division of Sewerage and Drainage. A stormwater open channel that has a permanent drainage/stormwater easement owned by the City and drains an area that includes City-owned property or right-of-way. Does not include roadside ditches that convey only immediate right-of-way drainage.	L	COC_USTM_DRNG_CHAN	.2
Drainage Ditch	Manmade excavation used to drain stormwater.	L	COC_USTM_DRNG_DITCH	.2
Drainage Swale	Manmade excavation used to drain stormwater. A drainage swale is significantly shallower than a drainage ditch.	L, H	COC_USTM_DRNG_SWALE	.2
Drop Inlet or Inlet	Any inlet that traps or holds stormwater that is not adjacent to a curb.	B	COC_USTM_INLET_DROP	.2
Erosion Control	Structures other than catch basin protection or check dam that are used to prevent erosion.	L, H	COC_USTM_EC	.2
Floodway Boundary	Area between the floodway and the edge of the 100-year floodplain.	L	COC_USTM_FWAY	.3
Flood Zone Line	Any designated flood level line (50-year, 100-year). Layers may be differentiated by type.	L	COC_USTM_FL	.4
Flood Zone-Base Flood Elevation	The elevation shown on the Flood Insurance Rate Map (FIRM) for Zones AE, AH, and A1 through A30 that indicates the water surface elevation resulting from a flood that has a 1 percent chance of equaling or exceeding that level in any given year.	L	COC_USTM_FL_BASE	.3
Floodwall	Permanent manmade wall used to control floodwaters.	L	COC_USTM_FWALL	.3
Gutter	Low area along a street to carry stormwater to the storm sewer.	L	COC_USTM_GUTR	.2
Headwall	A retaining wall at the outlet of a drain to protect against erosion.	B	COC_USTM_HWALL	.2
Impervious Area	Closed polygon(s) of areas that have been paved and/or covered with buildings and materials that include, but are not limited to, concrete, asphalt, rooftop, and blacktop.	H, L	COC_USTM_IMPER	.3
Impervious Area Annotation	Text detailing the quantities, on a calculated square foot basis, of (a) building rooftop, (b) parking, (c) private road or drive, (d) private sidewalk, (e) miscellaneous, and (f) total.	T	COC_USTM_IMPER_TXT	.2
Retention Pond	Area that provides storage of stormwater runoff and is designed to eliminate subsequent surface discharges.	H, L	COC_USTM_POND	.2

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Drawing Feature Name	Description	Type of Feature*	Layer Name	Suggested Line Weight
Utilities—Storm Sewer, Drainage, and Erosion or Flood Control (continued)				
Description: All features associated with the storm sewer system; storm drainage, flood control, and erosion control features. NOTE: Some of these features will require the creation of text layers for ID codes and label annotation. Follow specific drawing submittal requirements and sound engineering practices in applying text annotation. Major Category Abbreviation: **USTM**				
Stilling Basin	Basin designed for pollution control.	B	COC_USTM_BASIN	.2
Manhole-Storm	Access point to the storm sewer.	B	COC_USTM_MH	.2
Manhole Number-Storm	Manhole identification number.	T	COC_USTM_MH#_TXT	.2
Storm Sewer Point	Any storm sewer point feature not differentiated by type.	B	COC_USTM_PT	.2
Storm Outfall	Point at which a storm sewer main or culvert empties into an open channel	B	COC_USTM_OFAL	.2
Storm Lift or Pump Station	Location of pumps required to lift storm water to a higher level.	B	COC_USTM_LIFT	.2
Main-Storm	The primary line used to transport stormwater.	L	COC_USTM_MAIN	.2
Tributary Boundary	Area defined by features that funnel stormwater into the sewer system.	L	COC_USTM_TRIB	.5
Underdrain/ Subdrain	Multiple subtypes may be defined, symbolized, and assigned to individual layers.	L	COC_USTM_DRN_SUB	.2
Weep Holes/Wall Drains	Hole in a retaining wall to allow groundwater to flow and to reduce pressure from water behind the wall.	B	COC_USTM_DRN_WEEP	.2
Utilities—Sanitary Sewer				
Description: All features associated with sanitary sewer collection and treatment. NOTE: Some of these features will require the creation of text layers for ID codes and label annotation. Follow specific drawing submittal requirements and sound engineering practices in applying text annotation. Major Category Abbreviation: **USAN**				
Cleanout-Sewer	Structure that allows access to the sewer system. Opening is large enough for tools only.	B	COC_USAN_CLNO	.2
Disposal Facilities	Local sewer treatment facilities that are not part of a large sewer system.	B	COC_USAN_DISP	.2
Flap Gate	A gate with hinges at the top to allow the gate to open and close.	B	COC_USAN_FGATE	.2
Sewer Lift or Pump Station	Location of pumps required to lift wastewater to a higher level.	B	COC_USAN_LIFT	.2
Main-Sanitary Sewer	The primary line used to transport wastewater.	L	COC_USAN_MAIN	.2
Manhole-Sanitary Sewer	Access point to the sewer system. NOTE: A separate text layer is needed for the manhole number.	B	COC_USAN_MH	.2
Manhole Number-Sanitary Sewer	Text that identifies the manhole number.	T	COC_USAN_MH#_TXT	.2
Miscellaneous Sewer Features	Sewer facilities that have been identified in any of the specified layers.	B	COC_USAN_MISC	.2
Overflow-Sewer	Structure that permits sewer water to flow out of a system that has reached its capacity or is not functioning.	B	COC_USAN_OVER	.2
Regulator-Sewer	Valve used to regulate the flow of sewerage through the system.	B	COC_USAN_REG	.2
Sanitary Sewer Point	Miscellaneous nodes in the Sanitary Sewer System network.	B	COC_USAN_PT	.2
Riser Pipe	Vertical pipe.	B,	COC_USAN_RISE	.2
Sewer Treatment Plant	Plant for intake and treatment of sewerage	B	COC_USAN_PLANT	.2
Sewer Valve	Device for regulating the flow on sewer mains.	B	COC_USAN_VALVE	.2

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Drawing Feature Name	Description	Type of Feature*	Layer Name	Suggested Line Weight
Utilities—Combined Sewer				
Description: All features associated with combined (sanitary and storm sewer) parts of the network. NOTE: Some of these features will require the creation of text layers for ID codes and label annotation. Follow specific drawing submittal requirements and sound engineering practices in applying text annotation.				
Major Category Abbreviation: **UCMS**				
Main-Combined Sewer	The primary line used to transport stormwater and wastewater.	L	COC_UCMS_MAIN	.2
Manhole-Combined Sewer	Access point to the sewer system.	B	COC_UCMS_MH	.2
Manhole Number-Combined Sewer	Text that identifies the manhole number.	T	COC_UCMS_MH#_TXT	.2
Utilities-Gas				
Description: All features associated with generation, distribution, and transmission of gas are included in category UGAS. NOTE: Some of these features will require the creation of text layers for ID codes and label annotation. Follow specific drawing submittal requirements and sound engineering practices in applying text annotation.				
Major Category Abbreviation: **UGAS**				
Main-Gas	The primary line used to transport gas.	L	COC_UGAS_MAIN	.2
Manhole-Gas	Structure that allows access to the system.	B	COC_UGAS_MH	.2
Gas Gate Valve	A device used to regulate the flow of gas on the gas main.	B	COC_UGAS_VALVE	.2
Gas Service Valve	A device used to regulate the flow of gas on the service line.	B	COC_UGAS_VALVE_SERV	.2
Gas Meter	A device used to measure the volume of gas used or transmitted.	B	COC_UGAS_METER	.2
Gas Transmission Line	Pipe used to transport gas.	L	COC_UGAS_TRANS	.2
Utilities-Electric				
Description: All features associated with electric generation, distribution, and transmission are included in category UELC. NOTE: Some of these features will require the creation of text layers for ID codes and label annotation. Follow specific drawing submittal requirements and sound engineering practices in applying text annotation.				
Major Category Abbreviation: **UELC**				
Capacitor	A device used to store electricity in the form of an electric field generated in the space between two separated, oppositely charged electrodes.	B	COC_UELC_CAPAC	.2
Conduit-Empty	Pipe intended to protect electrical wires that will be inserted in the future.	L	COC_UELC_COND	.2
Electric Easement	Existing easements for public use to provide electric services. Includes dimensions of the easement.	L	COC_UELC_EASE	.2
Electric Easement-Proposed	Proposed easements for public use to provide electric services. Includes dimensions of the easement.	L	COC_UELC_EASE_PR	.2
Guy Anchor	Point at which a guy line is attached to a stable structure.	B	COC_UELC_GUY (Two different features but included on same layer)	.2
Guy Span Wire	A cable attached to one pole as an anchor to brace another pole at the other end of the guy line.	L		.2
Handhole-Electric	An opening in an underground electrical system into which a worker may reach but not enter.	B	COC_UELC_HAND	.2
Lighting-Flood 250W	A 250-watt outdoor light designed to illuminate a large area.	B	COC_UELC_LITE_FLD (Two different features but included on same layer)	.2
Lighting-Flood 400W	A 400-watt outdoor light designed to illuminate a large area.	B		.2

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Drawing Feature Name	Description	Type of Feature*	Layer Name	Suggested Line Weight
Utilities-Electric (continued)				
Description: All features associated with electric generation, distribution, and transmission are included in category UELC. NOTE: Some of these features will require the creation of text layers for ID codes and label annotation. Follow specific drawing submittal requirements and sound engineering practices in applying text annotation. Major Category Abbreviation: **UELC**				
Lighting-HPS 70W	A 70-watt, High-Pressure Sodium (HPS) high intensity discharge (HID) light.	B	COC_UELC_LITE_HPS (Different features but included on same layer)	.2
Lighting-HPS 100W	A 100-watt, High-Pressure Sodium (HPS) high intensity discharge (HID) light.	B		.2
Lighting-HPS 150W	A 150-watt, High-Pressure Sodium (HPS) high intensity discharge (HID) light.	B		.2
Lighting-HPS 200W	A 200-watt, High-Pressure Sodium (HPS) high intensity discharge (HID) light.	B		.2
Lighting-HPS 250W	A 250-watt, High-Pressure Sodium (HPS) high intensity discharge (HID) light.	B		.2
Lighting-HPS 310W	A 310-watt, High-Pressure Sodium (HPS) high intensity discharge (HID) light.	B	COC_UELC_LITE_HPS (Different features but included on same layer)	.2
Lighting-HPS 400W	A 400-watt, High-Pressure Sodium (HPS) high intensity discharge (HID) light.	B		.2
Lighting-HPS Low Mast 400W	A 400-watt, High-Pressure Sodium (HPS) high intensity discharge (HID) light mounted on a pole at a height of 39', 40', 41', 42' or 43'.	B		.2
Lighting-HPS Underpass 100W	A 100-watt, High-Pressure Sodium (HPS) high intensity discharge (HID) light mounted under an underpass.	B		.2
Lighting-HPS Underpass State 100W	A 100-watt, High-Pressure Sodium (HPS) high intensity discharge (HID) light mounted under an underpass by the State of Ohio.	B		.2
Lighting-LPS 55W	A 55-watt, Low-Pressure Sodium (LPS) light.	B	COC_UELC_LITE_LPS (Different features but included on same layer)	.2
Lighting-LPS 90W	A 90-watt, Low-Pressure Sodium (LPS) light.	B		.2
Lighting-LPS Underpass 55W	A 55-watt, Low-Pressure Sodium (LPS) light mounted under an underpass.	B		.2
Lighting-LPS Underpass 90W	A 90-watt, Low-Pressure Sodium (LPS) light mounted under an underpass.	B		.2
Lighting-LPS Underpass State 55W	A 55-watt, Low-Pressure Sodium (LPS) light mounted under an underpass by the State of Ohio.	B		.2
Lighting-LPS Underpass State 90W	A 90-watt, Low-Pressure Sodium (LPS) light mounted under an underpass by the State of Ohio.	B		.2
Lighting-Mercury Vapor 100W	A 100-watt, Mercury Vapor (MV) high intensity discharge (HID) light.	B	COC_UELC_LITE_MV (Different features but included on same layer)	.2
Lighting-Mercury Vapor 175W	A 175-watt, Mercury Vapor (MV) high intensity discharge (HID) light.	B		.2
Lighting-Mercury Vapor 250W	A 250-watt, Mercury Vapor (MV) high intensity discharge (HID) light.	B		.2
Lighting-Mercury Vapor 400W	A 400-watt, Mercury Vapor (MV) high intensity discharge (HID) light.	B		.2
Lighting-Metal Halide 250W	A 250-watt, Metal Halide (MH) high intensity discharge (HID) light.	B	COC_UELC_LITE_MHAL (Different features but included on same layer)	.2
Lighting-Metal Halide 250W	A 250-watt, Metal Halide (MH) high intensity discharge (HID) light.	B		
Lighting-Metal Halide 400W	A 400-watt, Metal Halide (MH) high intensity discharge (HID) light.	B		.2

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Drawing Feature Name	Description	Type of Feature*	Layer Name	Suggested Line Weight
Utilities-Electric (continued)				
Description: All features associated with electric generation, distribution, and transmission are included in category UELC. NOTE: Some of these features will require the creation of text layers for ID codes and label annotation. Follow specific drawing submittal requirements and sound engineering practices in applying text annotation. Major Category Abbreviation: **UELC**				
Lighting-Overhead Bridge Sign	Lighting mounted to illuminate an Overhead Bridge Sign.	B	COC_UELC_LITE_OSIGN (Different features but included on same layer)	.2
Lighting-Overhead Sign Single	A single light mounted to illuminate an Overhead Bridge Sign.	B		.2
Lighting-Overhead Sign Double	Two lights mounted to illuminate an Overhead Bridge Sign.	B		.2
Lighting-Post Top	A light mounted on top of a post.	B	COC_UELC_LITE_PTOP	.2
Manhole-Electric	Structure that allows access to a subterranean electrical system.	B	COC_UELC_MH	.2
Meter-Electric	Utility service meter used to measure the quantity of electricity flowing through a system.	B	COC_UELC_METER	.2
Pedestal-Secondary	Foundation or support for electrical equipment.	B	COC_UELC_PED_SEC	.2
Electric Pole-MELP	City of Columbus-owned round wood or metal rod erected vertically to hold electric lines off the ground.	B	COC_UELC_POLE_MELP	.2
Electric Pole-Foreign	Foreign-owned round wood or metal rod erected vertically to hold electric lines off the ground.	B	COC_UELC_POLE_FOR	.2
Electric Pole-City Light Standard	The City of Columbus standard rod erected vertically to hold electric lines off the ground.	B	COC_UELC_POLE_CITY	.2
Electric Pole-State Light Standard	The State of Ohio standard rod erected vertically to hold electric lines off the ground.	B	COC_UELC_POLE_STATE	.2
Existing Electric Pole to be Replaced	Utility pole designated for replacement.	B	COC_UELC_XPOLE	.2
Proposed Electric Pole	Electric pole proposed for placement	B	COC_UELC_POLE_PR	.2
Circuit Number	The assigned number of the circuit used to apply labels to the distribution network at important points (e.g., circuits ending at a pole should be labeled, and all distribution lines should show at least one circuit label).	T	COC_UELC_CIRC#_TXT	.2
Pull Box	A fitting inserted into a conduit that facilitates the pulling of cable.	B	COC_UELC_PBOX	.2
Recloser	An automatic, high-voltage electric switch.	B	COC_UELC_RCLOS	.2
Regulator	A device that controls the flow of electricity.	B	COC_UELC_REG	.2
Riser-Electric	Vertical conduit for electric lines.	B	COC_ULEC_RISER	.2
Ground Rod	A metal device used to channel excess current from a device or circuit to the ground to prevent overflow or safety problems.	B	COC_UELC_GROD	.2
Security Light	A light typically mounted on a pole or other elevated position to provide light at night.	B	COC_UELC_LITE_SEC	.2
Street Light	Light usually mounted on a pole to light a roadway or an area along the roadway.	B	COC_UELC_LITE_STRT	.2
Street Light Controller	A device that controls street lights.	B	COC_UELC_LITE_CONT	.2
Street Lighting-Overhead Leg A	Overhead electric line used to supply power to streetlights. Annotation on the line refers to the phase (A, B, or C).	L	COC_UELC_LITE_OH (Different features but included on same layer)	.3
Street Lighting-Overhead Leg B	Overhead electric line used to supply power to streetlights. Annotation on the line refers to the phase (A, B, or C).	L		.3

Drawing Feature Name	Description	Type of Feature*	Layer Name	Suggested Line Weight
Utilities-Electric (continued) Description: All features associated with electric generation, distribution, and transmission are included in category UELC. NOTE: Some of these features will require the creation of text layers for ID codes and label annotation. Follow specific drawing submittal requirements and sound engineering practices in applying text annotation. Major Category Abbreviation: **UELC**				
Street Lighting-Overhead Leg C	Overhead electric line used to supply power to streetlights. Annotation on the line refers to the phase (A, B, or C).	L		.3
Street Lighting-Underground Leg A	Underground electric line used to supply power to streetlights. Annotation on the line refers to the phase (A, B, or C).	L	COC_UELC_LITE_UG (Different features but included on same layer)	.3
Street Lighting-Underground Leg B	Underground electric line used to supply power to streetlights. Annotation on the line refers to the phase (A, B, or C).	L		.3
Street Lighting-Underground Leg C	Underground electric line used to supply power to streetlights. Annotation on the line refers to the phase (A, B, or C).	L		.3
Switch-Closed	Device that allows a break in the electric system.	B	COC_UELC_SWTCH (Different features but included on same layer)	.2
Switch-Closed Fused	A closed electrical switch with a fuse.	B		.2
Switch-Open	Device that closes a break in the electric system.	B		.2
Switch-Open Fused	An open electrical switch with a fuse.	B		.2
Switch-Transfer Automatic	A switch that transfers power between two electrical systems.	B		.2
Substation	Facility used to transfer and distribute electricity.	B	COC_UELC_SUB	.2
Tower Light-City 3	3 Head-400W City streetlights mounted on an extremely tall pole.	B	COC_UELC_LITE_HPS_TWR (Different features but included on same layer)	.2
Tower Light-City 4	4 Head-400W City streetlights mounted on an extremely tall pole.	B		.2
Tower Light-City 6	6 Head-400W City streetlights mounted on an extremely tall pole.	B		.2
Tower Light–City 7	7 Head-400W City streetlights mounted on an extremely tall pole.	B		.2
Tower Light-State 3	3 Head-400W State streetlights mounted on an extremely tall pole.	B		.2
Tower Light-State 4	4 Head-400W State streetlights mounted on an extremely tall pole.	B	COC_UELC_LITE_HPS_TWR (Different features but included on same layer)	.2
Tower Light-State 6	6 Head-400W State streetlights mounted on an extremely tall pole.	B		.2
Tower Light-State 7	7 Head-400W State streetlights mounted on an extremely tall pole.	B		.2
Transformer-Pole Mounted (City or foreign)	Converts power from one voltage to another. Pole-or pad-mounted. Specific type may be differentiated. Note: A bank of transformers is depicted as three open transformer symbols (open circles) oriented in the direction of the actual bank as mounted on the pole.	B	COC_UELC_TRSFR	.2
Transformer-Pad Mount	A device mounted on a pad that converts power from one voltage to another. NOTE: Line extensions on symbol show door orientation.	B		.2
Transformer Current	A transformer used to measure the current on a line.	B		.2
Transformer Potential	A Potential Transformer reduces the line voltage to 120 VAC output.	B		.2
Transformer Case Number Annotation	Case number of the transformer (physical label placed on the transformer) used to identify and track this equipment.	T	COC_UELC_TRSFR_TXT	.2

Drawing Feature Name	Description	Type of Feature*	Layer Name	Suggested Line Weight
Utilities-Electric (continued)				
Description: All features associated with electric generation, distribution, and transmission are included in category UELC. NOTE: Some of these features will require the creation of text layers for ID codes and label annotation. Follow specific drawing submittal requirements and sound engineering practices in applying text annotation.				
Major Category Abbreviation: **UELC**				
Electric Transmission Line-Overhead	Overhead high voltage line for transmitting electricity from the source to the distribution system.	L	COC_UELC_TRANS_OH	.7
Electric Transmission Line-Underground	Underground high voltage line for transmitting electricity from the source to the distribution system.	L	COC_UELC_TRANS_UG	.7
Electric Distribution Line-Primary Overhead	Primary overhead electric distribution line. Line type includes: a) letter designation for phase (A, B, or C), b) “MELP” to designate City-owned lines, c) “P” for primary.	L	COC_UELC_DIST_PRI_OH	.7
Electric Distribution Line-Primary Underground	Primary underground electric distribution line. Line type includes: a) letter designation for phase (A, B, or C), b) “MELP” to designate City-owned lines, c) “P” for primary.	L	COC_UELC_DIST_PRI_UG	.7
Electric Distribution Line-Secondary Overhead	Secondary overhead electric distribution line. Line type includes: a) letter designation for phase (A, B, or C), b) “MELP” to designate City-owned lines, c) “S” for secondary.	L	COC_UELC_DIST_SEC_OH	.7
Electric Distribution Line-Secondary Underground	Secondary underground electric distribution line. Line type includes: a) letter designation for phase (A, B, or C), b) “MELP” to designate City-owned lines, c) “S” for secondary.	L	COC_UELC_DIST_SEC_UG	.7
Transmission Tower	Tower supporting electric transmission lines.	B	COC_UELC_TOWER	.2
Electric Service Line	Electric service line.	L	COC_UELC_LINE_SERV	.3
Electric Vault	Structure with electrical devices used to regulate the flow of electricity.	B	COC_UELC_VAULT	.2
Utilities-Communications				
Description: Public or private utility features associated with generation, distribution, and transmission of Cable TV, telephone, and digital communications. NOTE: Some of these features will require the creation of text layers for ID codes and label annotation. Follow specific drawing submittal requirements and sound engineering practices in applying text annotation.				
Major Category Abbreviation: **UCOM**				
Handhole	An opening in an underground system into which a worker may reach but not enter—not differentiated by type of communications facilities	B	COC_UCOM_HAND	.2
Handhole-Cable TV	An opening in an underground cable TV system into which a worker may reach but not enter.	B	COC_UCOM_HAND_CATV	.2
Handhole-Telephone	An opening in an underground telephone system into which a worker may reach but not enter.	B	COC_UCOM_HAND_TELE	.2
Line-Communications	Wires used to transmit telecommunications data or information.	L	COC_UCOM_LINE	.2
Line-Cable TV	Wires used to transmit television signals, data, or information.	L	COC_UCOM_LINE_CATV	.2

*B = Block Drawing, T = Text, L = Line, H = Hatching

Drawing Feature Name	Description	Type of Feature*	Layer Name	Suggested Line Weight
Utilities-Communications (continued)				
Description: Public or private utility features associated with generation, distribution, and transmission of Cable TV, telephone, and digital communications. NOTE: Some of these features will require the creation of text layers for ID codes and label annotation. Follow specific drawing submittal requirements and sound engineering practices in applying text annotation.				
Major Category Abbreviation: **UCOM**				
Line-Telephone	Wires used to transmit television signals, data, or information.	L	COC_UCOM_LINE_TELE	.2
Line-Fiber Optic	Fiber optic lines used to transmit television signals, data, or information.	L	COC_UCOM_LINE_FOPT	.2
Communications Manhole	Structure that allows access to a subterranean system.	B	COC_UCOM_MH	.2
Manhole-Cable TV	Structure that allows access to a subterranean cable TV line. Opening is large enough for staff.	B	COC_UCOM_MH_CATV	.2
Manhole-Telephone	Structure that allows access to a subterranean telephone line. Opening is large enough for staff.	B	COC_UCOM_MH_TELE	.2
Manhole-Fiber Optic	Structure that allows access to a subterranean fiber optic line. Opening is large enough for staff.	B	COC_UCOM_MH_FO	.2
Communications Vault	Structure with devices used to control the transmission of signals.	B	COC_UCOM_VAULT	.2
Vault-Cable TV	Structure with devices used to control the transmission of signals through the Cable TV line.	B	COC_UCOM_VAULT_CATV	.2
Vault-Telephone	Structure with devices used to control the transmission of signals through the telephone transmission line.	B	COC_UCOM_VAULT_TELE	.2
Vault-Fiber Optic	Structure with devices used to control the transmission of signals through a fiber optic transmission line.	B	COC_UCOM_VAULT_FO	.2
Utilities-Miscellaneous				
Description: Miscellaneous utility features not specifically associated with sewer, water, gas, electric, or communications systems. NOTE: Some of these features will require the creation of text layers for ID codes and label annotation. Follow specific drawing submittal requirements and sound engineering practices in applying text annotation.				
Major Category Abbreviation: **UMIS**				
Flow Direction Arrow	Graphic used to depict the direction of flow through a system.	B	COC_UMIS_FLOW	.2
Guy-Down	A cable attached to a pole and the ground that is used to brace the pole.	B	COC_UMIS_GUY_DOWN	.2
Guy Span Line	Line or cable to steady or swing a boom or spar.	L	COC_UMIS_GUYL	.2
Lighting	Outside light locations and associated annotation.	B	COC_UMIS_LITE	.2
Manhole-Miscellaneous	Any utility manhole (water, sewer, gas, electric) not differentiated by type.	B	COC_UMIS_MH	.2
Transmission Pipeline-Oil	Pipe used to transport large amounts of oil.	L	COC_UMIS_TRANS_PET	.2
Piezometer	An instrument used to measure pressure.	B	COC_UMIS_PIEZ	.2
Pipe Fitting	Any type of pipe fitting (tee, wye, reducer, etc.) —not differentiated by type.	B	COC_UMIS_PIPE_FIT	.2
Pipe Plug or Cap	Plug or cap at the end of a utility pipe—not differentiated by type.	B	COC_UMIS_PIPE_PLUG	.2
Steam Line	Utility line for delivery of steam heat.	L	COC_UMIS_TRANS_STM	.2
Tank	Any storage tank not differentiated by type. NOTE: Three different symbols are included to represent different tank shapes.	B	COC_UMIS_TANK	.2
Tower-General	Any type of tower—not differentiated by type.	B	COC_UMIS_TOWER	.2

*B = Block Drawing, T = Text, L = Line, H = Hatching

Drawing Feature Name	Description	Type of Feature*	Layer Name	Suggested Line Weight
Utilities-Miscellaneous (continued)				
Description: Miscellaneous utility features not specifically associated with sewer, water, gas, electric, or communications systems. NOTE: Some of these features will require the creation of text layers for ID codes and label annotation. Follow specific drawing submittal requirements and sound engineering practices in applying text annotation.				
Major Category Abbreviation: **UMIS**				
Utility Line-Overhead	Any overhead utility line not differentiated by type.	L	COC_UMIS_LINE_OH	.2
Utility Line-Underground	Any underground utility line not differentiated by type.	L	COC_UMIS_LINE_UG	.2
Utility Meter	Any type of utility service meter—not specified by type.	B	COC_UMIS_METER	.2
Utility Pole	Any utility pole used for overhead utility lines (telephone, electric, cable TV, etc.).	B	COC_UMIS_POLE	.2
Utility Service Line	Any utility line not differentiated by type that connects a service location to the main utility network.	L	COC_UMIS_LINE_SRV	.2
Utilities-Water				
Description: All utility features associated with water supply, transmission, and distribution. NOTE: Some of these features will require the creation of text layers for ID codes and label annotation. Follow specific drawing submittal requirements and sound engineering practices in applying text annotation.				
Major Category Abbreviation: **UWAT**				
Hydrant	Device used to access water from a main.	B	COC_UWAT_HYD	.2
Main-Water	The primary line used to transport water.	L	COC_UWAT_MAIN	.2
Manhole-Water	Structure that allows access to a subterranean water system. Opening is large enough for staff.	B	COC_UWAT_MH	.2
Water Meter	A device used to measure the volume of water used or transmitted.	B	COC_UWAT_METER	.2
Water Booster Station	Building that houses pumps used to lift water to higher elevations or to increase the pressure in a system.	B	COC_UWAT_BOOST	.2
Service Line-Water	Line extending from the tap onto the premises to be served, including the meter.	L	COC_UWAT_SLINE	.2
Water Treatment Plant	Location where incoming water is treated to remove harmful material to make it safe for consumption.	B	COC_UWAT_PLANT	.2
Water Well	Opening in the ground used to extract groundwater to the surface. Not connected to the distribution system.	B	COC_UWAT_WELL	.2
Meter Pit	Structure that allows access to an underground water meter.	B	COC_UWAT_MPIT	.2
Pressure Reducing Valve (PRV) Vault	Structure that allows access to an underground valve or valves that regulates pressure in the distribution system.	B	COC_UWAT_PRV_VAULT	.2
Cistern	Underground structure that was used to store water for fire events.	B	COC_UWAT_CIST	.2
Miscellaneous Water Features	Water facilities that have not been identified in any of the specified layers.	B, L	COC_UWAT_MISC	.2
Storage Tank	Structure that stores water in order to maintain pressure in the distribution system.	B	COC_UWAT_TANK	.2
Air Release	Device used to expel air from a water main.	B	COC_UWAT_AIRRL	.2
Raw Waterline	Line used to transport raw water to the Treatment Plant.	L	COC_UWAT_MAIN_RAW	.2

*B = Block Drawing, T = Text, L = Line, H = Hatching

Drawing Feature Name	Description	Type of Feature*	Layer Name	Suggested Line Weight
Utilities-Water (continued)				
Description: All utility features associated with water supply, transmission, and distribution. NOTE: Some of these features will require the creation of text layers for ID codes and label annotation. Follow specific drawing submittal requirements and sound engineering practices in applying text annotation.				
Major Category Abbreviation: **UWAT**				
Sludge Line- Water	Line used to transport by-products from the Treatment Plant.	L	COC_UWAT_SLUD	.2
Casing Pipe	Metal pipe used as external protection for water lines that cross railroads, highways, culverts, etc.	B, L	COC_UWAT_MAIN_CASI	.2
Water Valve	A device on the water main for regulating flow—typically a gate or butterfly type valve.	B	COC_UWAT_VALVE	.2
Water Line-to be abandoned	Water line that is being abandoned as part of the project.	L	COC_UWAT_LINE_TBA	.2
Water Line-abandoned	Water line that was previously abandoned.	L	COC_UWAT_LINE_ABAN	.2
Water Text	Text relating to water line work.	T	COC_UWAT_TXT	.2
Water Service-Short	Water service to be transferred that is open cut and on the same side of the street as the water main.	L	COC_UWAT_SLINE_SHORT	.2
Water Service-Long	Water service to be transferred that is jack and bored and on the opposite side of the street as the water main.	L	COC_UWAT_SLINE_LONG	.2
Water Service Valve-Found	Curb stop that is field located.	B	COC_UWAT_SERV_FND	.2
Water Service Valve-Not Found	Curb stop that is not able to be field located and therefore shown per record.	B	COC_UWAT_SERV_NFND	.2
Water Plug	A restrained water line fitting at the end of a water line.	B	COC_UWAT_PLUG	.2
Water Cap	A fitting at the end of a water line that is not restrained.	B	COC_UWAT_CAP	.2
Water Line Monument	A concrete monument set to identify the location of a water main.	B	COC_UWAT_MNMNT	.2
Pitometer Tap	A connection to the water main used for testing by the DOPW.	B	COC_UWAT_PITOM	.2
Private Water Line	A privately owned water line that is not owned or operated by the City.	L	COC_UWAT_LINE_PRIV	.2
Irrigation Line	Water lines used for irritation purposes only.	L	COC_UWAT_LINE_IRR	.2
Water Reducer	Water line fitting used to connect pipes of different diameters.	B	COC_UWAT_REDUC	.2
Post Indicator Valve	A valve used to indicate if the valve is open or shut.	B	COC_UWAT_VALVE_PI	.2
Altitude Valve-Water	A valve used to control the height of water in water tanks.	B	COC_UWAT_VALVE_ALT	.2
Pressure Sustaining Valve-Water	A valve that helps regulate water pressure and prevent water hammer.	B	COC_UWAT_VALVE_PS	.2
Water Line Stop	A tap used to temporarily stop the flow of water in water lines.	B	COC_UWAT_LSTOP	.2
Water Check Valve	A valve that allows one way flow only.	B	COC_UWAT_VALVE_CHK	.2
Water Sampling Tap	A water tap used for pressure testing and chlorination of the water line.	B	COC_UWAT_SAMPT	.2
Private Hydrant	A privately owned fire hydrant that is not owned or operated by the City.	B	COC_UWAT_HYD_PRIV	.2
Yard Hydrant	A hydrant that is typically smaller than standard to be used for flushing only.	B	COC_UWAT_HYD_YARD	.2

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Drawing Feature Name	Description	Type of Feature*	Layer Name	Suggested Line Weight
Vegetation, Landscape, Water Bodies, Natural Features Description: Existing or planned vegetation features or natural water bodies, including trees, decorative plantings, furniture, and recreational equipment. Major Category Abbreviation: **VLN**				
Centerline of River or Stream	Line running parallel to the banks that is equidistant from each bank.	L	COC_VLN_CLHYD	.2
Edge of River or Stream	Line delineating the boundary between the flowing water body and land.	L	COC_VLN_EDHYD	.2
Forest or Brush Line	Line delineating the boundary of a forest or brush line. Line delineating the boundary of an area of hedges	L	COC_VLN_FOR	.2
Hedge	Location of individual hedge plants.	B	COC_VLN_BUSH (Three different features and symbols but included on same layer)	.2
Bush	Location of individual bushes.	B		.2
Shrub	Location of individual shrubs.	B		.2
Tree-Conifer	Location of individual conifer trees. Note: Individual tree subtypes and new symbols may be defined if needed.	B	COC_VLN_TREE (Two different features and symbols but included on same layer)	.2
Tree-Deciduous	Location of individual deciduous trees.	B		.2
Lake or Pond	Line delineating the boundary between a standing water body and land.	L	COC_VLN_LAKE	.3
Orchard/Nursery Boundary	Line delineating the boundary of an orchard or nursery.	L	COC_VLN_NURS	.2
Plantings	Location of foliage planted at a site.	L	COC_VLN_PLNT	.2
Rock Outcrop	Rock formation that extends above the surface.	L	COC_VLN_OUTC	.2
Soil or Surface Deposit	Delineation of soil types or unconsolidated surface deposit. Specific types may be defined and symbolized. Uses perimeter line and hatch pattern. NRCS Soil Survey.	H, L	COC_VLN_SOIL	.2
Swamp, Wetland	Areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions.	H, L	COC_VLN_WETL	.2
Walls, Fences, and Related Features Description: Existing or planned walls, fences, or other barriers. Major Category Abbreviation: **WLF**				
Fence	Specific types of fences may be defined and symbolized. Dimensions and location of existing and proposed fence.	L	COC_WLF_FEN	.2
Retaining Wall	A structure that provides lateral support for vertical or near-vertical slopes of soil.	B	COC_WLF_WALL_RET	.2
Wall	Masonry structure that may be defined and symbolized. Dimensions and location of existing and proposed fence.	L	COC_WLF_WALL	.2
Sensitive or Protected Areas/Features Description: Environmentally sensitive or historically/culturally significant areas or features that carry some official or unofficial status governing planned construction. Major Category Abbreviation: **SPR**				
Cemetery	Area used for burial of deceased persons.	B	COC_SPR_CEM	.2
Culturally Significant Area or Site	Boundary of a site or area designated by the City or other authority as being culturally significant. NOTE: A separate text layer is needed for the name of the site.	L	COC_SPR_CUL	.2

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Drawing Feature Name	Description	Type of Feature*	Layer Name	Suggested Line Weight
Sensitive or Protected Areas/Features (continued) Description: Environmentally sensitive or historically/culturally significant areas or features that carry some official or unofficial status governing planned construction. Major Category Abbreviation: **SPR**				
Historically Significant Area or Site	Buildings, structures, or areas designated as listed in the National Register of *Historic* Places or the Columbus Register of *Historic* Properties, or within an architectural review commission area. NOTE: A separate text layer is needed for the name of the site.	L	COC_SPR_HIST	.2
Parks	Park boundaries for all parks owned, operated, and/or maintained by the City or other public agency. NOTE: A separate text layer is needed for the name of the park.	L	COC_SPR_PARK	.2
Railroad/Air Transportation Features Description: Features associated with railroads or other rail transport. Major Category Abbreviation: **TRAN**				
Airport Noise Contour	Airport noise contours. Three major contours measure "Ldn" (a noise factor of some kind in dBA).	L	COC_TRAN_LDN	.2
Airport Runway	Paved surface used by aircraft for landing and takeoff.	L	COC_TRAN_RWAY	.3
Airport Taxiway	Paved surface used by aircraft moving on the ground.	L	COC_TRAN_TAXIW	.2
Airport Tower	Building used by airport staff to coordinate aircrafts' movements in and around the airport.	B	COC_TRAN_TOWER	.4
Railroad	Active or abandoned tracks used by trains.	L	COC_TRAN_RAIL	.2
Railroad Switch	Device used by trains to transfer from one line to another.	B	COC_TRAN_RAIL_SW	.2
Building, Building Site, and Related Features Description: Features representing buildings and structures directly related to buildings, including walkways, driveways, parking lots, and structures on building grounds. This category includes building-related features depicted in plan view—it does **not** cover all features used for detailed architectural designs. Category Abbreviation: **BLD**				
Address Point	Address assigned to the principal entrance to a building, usually leading directly to a lobby, the main shopping floor, or the living room.	B	COC_BLD_ADDR	.2
Address Text	Street number and street name.	T	COC_BLD_ADDR_TXT	.2
Building Entrance	Access point to enter or exit a building.	B	COC_BLD_ENTR	.2
Building Unit	Section of a building. Used to denote type of use or additional information for address.	H, L, B	COC_BLD_UNIT	.2
Deck/Patio	An open, non-roofed area constructed of concrete, brick, or stone or of a platform supported from the ground by piers or posts.	L	COC_BLD_DECK	.2
Foundation	The masonry substructure of a building.	L	COC_BLD_FDN	.5
Building Footprint	Any structure used for shelter, occupancy, enclosure, or support of persons, animals, or property or intended for supporting or sheltering any use or occupancy, having a roof supported by columns or walls and requiring a building permit. NOTE: A separate text layer is needed for Building ID and possibly building name.	L	COC_BLD_FP	.5
Footbridge	Bridge used by pedestrians.	L	COC_BLD_FTBR	.2

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Drawing Feature Name	Description	Type of Feature*	Layer Name	Suggested Line Weight
Building, Building Site, and Related Features (continued) Description: Features representing buildings and structures directly related to buildings, including walkways, driveways, parking lots, and structures on building grounds. This category includes building-related features depicted in plan view—it does **not** cover all features used for detailed architectural designs. Category Abbreviation: **BLD**				
Pedestrian Walkway	Elevated walkway for pedestrians between buildings or other structures.	L	COC_BLD_PWALK	.2
Pedestrian Tunnel	Section of a sidewalk or trail passing through an obstruction via a covered passageway.	L	COC_BLD_PTUNL	.2
Sidewalk	Portion of a street between the curb lines, or the lateral lines of a roadway, and the adjacent property lines, intended for the use of pedestrians.	L	COC_BLD_SWALK	.2
Steps	Series of short changes in elevation designed for pedestrians to move from one elevation to another.	B	COC_BLD_STEP	.2
Topographic and Geotechnical Description: Depiction of topography, slope, landforms, and subsurface geology. Category Abbreviation: **TGT**				
Contour Line-Depression	Line with annotation showing the elevation in cases where elevation decreases on all sides.	T	COC_TGT_CONT_DEP	.2
Contour Line-Index	Line with annotation showing the elevation at specified index intervals.	T	COC_TGT_CONT_INDX	.4
Contour Line-Intermediate	Line with annotation showing the elevation between index contours.	L	COC_TGT_CONT_INT	.2
Contour Line-Intermediate Hidden	Hidden or obscured intermediate contour—used where surface cannot be precisely determined.	L	COC_TGT_CONT_INT_HID	.2
Contour Line-Index Hidden	Hidden or obscured index contour—used where surface cannot be precisely determined.	L	COC_TGT_CONT_INDX_HID	.4
Contour Elevation Text	Text describing the elevation of the line.	T	COC_TGT_CONT_TXT	.2
Core Location	Location of core or soil boring.	B	COC_TGT_CORE	.2
Slope Direction Symbol	Graphic used to depict the direction of the slope from the highest elevation to the lowest.	B	COC_TGT_SLDIR	.2
Slope Line-Toe of Slope	Line that delineates the lowest elevation of a slope.	L	COC_TGT_SLTOE	.2
Slope Line-Top of Slope	Highest elevation of a slope that delineates the top of the slope.	L	COC_TGT_SLTOP	.2
Spot Elevation Point	Spot elevation point showing elevation value. NOTE: A separate text layer is needed for elevation annotation.	B	COC_TGT_SPOT	.2
Test Pit	Any exploratory pit dug to determine soil or hydrologic conditions, existing buried features, etc.	L	COC_TGT_TPIT	.2
Recreation Description: Features representing recreation locations, facilities, and equipment. Category Abbreviation: **REC**				
Athletic Field Delineation	Perimeter line with internal hatch pattern.	H, L	COC_REC_ATHF	.2
Athletic Court	Perimeter line with internal hatch pattern representing a tennis, basketball, handball, tether ball, four-square or horseshoe court.	H,L	COC_REC_ATHC	.2
Boundary of Recreation Area	Perimeter line of the feature or area.	L	COC_REC_BND	.2

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Drawing Feature Name	Description	Type of Feature*	Layer Name	Suggested Line Weight
Recreation (continued) Description: Features representing recreation locations, facilities, and equipment. Category Abbreviation: **REC**				
Playground	Perimeter line with internal hatch pattern representing an area designated for children to play; usually contains play structures.	H,L	COC_REC_PLAY	.2
Bike Recreational Path Edge or Centerline	Bike path centerline or edges of recreational path or trail.	L	COC_REC_PATH	.4
Shelter Facility	Structure with a roof that may or may not be open.	H,L	COC_REC_SHEL	.5
Picnic Table	Outdoor table and bench.	B	COC_REC_PICT	.2
Swimming Pool	An artificial construction, either permanent or portable, used, or designed to be used, for swimming or recreational bathing. This includes in-ground, aboveground, and on-ground swimming pools, hot tubs, and spas.	L	COC_REC_POOL	.2
Grill	Outdoor grill.	B	COC_REC_GRILL	.2
Drinking Fountain	Drinking fountain with potable water.	B	COC_REC_DRNK	.2
Swing	Play equipment suspended from an elevated fixture, usually restricted to a forward and backward motion.	B	COC_REC_SWING	.2
Slide	Play device with a smooth surface for children to move from an elevated position to the ground.	B	COC_REC_SLIDE	.2
Climber	Play device designed to be climbed on by children.	B	COC_REC_CLMB	.2
Spring Toy	Play device mounted on a spring anchored to the ground.	B	COC_REC_SPNG	.2
Miscellaneous Recreation Feature	Miscellaneous recreational facilities or equipment.	B	COC_REC_MISC	.2

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APPENDIX B
PRINTOUTS OF AUTOCAD LEGENDS FOR LAYER CATEGORIES

Drawing Layout Elements

DRL – Sht. 1 of 2

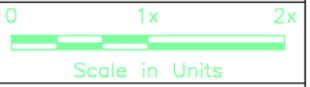
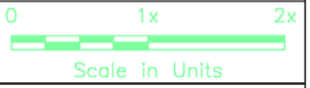
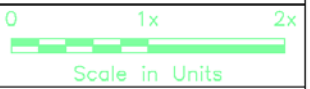
File: COC_DRL_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_DRL_BUBL	Callout Bubble and Line	Block	COC_DRL_BUBL Insert at center	0.3 mm	##
COC_DRL_BUBL_TXT	Bubble Text	Text	Standard (RomanS font)	0.3 mm	Text
COC_DRL_DATE	Revision Date	Text	Standard (RomanS font)	0.3 mm	Date
COC_DRL_NSBOX	Inset Box	Line	Continuous	0.5 mm	
COC_DRL_FRAME	Drawing Border Frame	Line	Continuous	0.6 mm	
COC_DRL_LABEL	Drawing Titles	Text	Standard (RomanS font)	0.5 mm	TITLE
COC_DRL_TEXT	Drawing Border Text	Text	Standard (RomanS font)	0.3 mm	Text
COC_DRL_NOTE	General Text and Leaders	Text	Standard (RomanS font)	0.3 mm	Note
COC_DRL_LEGND	Legend Grid	Line	Continuous	0.3 mm	
	Legend Text	Text	Standard (RomanS font)	0.3 mm	Legend
COC_DRL_LMAP	Location Map	Line	Continuous	0.3 mm	
COC_DRL_LOGO	Logo and Seal	Block or Image	(Logo)	0.3 mm	Logo
COC_DRL_MATCH	Match Line	Line	Continuous	0.8 mm	

Drawing Layout Elements

DRL – Sht. 2 of 2

File: COC_DRL_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_DRL_NORTH	North Arrow	Block	COC_DRL_NORTH Insert at center	0.3 mm	
COC_DRL_REV#	Revision Cloud (# for revision round)	Polyline	Use Autocad 'Revcloud' command if available	0.5 mm	
COC_DRL_SCALE	Scale Bar for 1"=30', 60', etc	Block	COC_DRL_SCALE_3 Insert at center	0.3 mm	
	Scale Bar for 1"=20', 40', etc.	Block	COC_DRL_SCALE_4 Insert at center	0.3 mm	
	Scale Bar for 1"=10', 50', etc.	Block	COC_DRL_SCALE_5 Insert at center	0.3 mm	
COC_DRL_STIC	Station Tick Mark	Block	COC_DRL_STIC Insert at center	0.3 mm	
COC_DRL_TBLCK	Title Block Lines	Line	Continuous	0.3 mm	
COC_DRL_GRID	Reference Grid on Drawings	Line	Continuous	0.2 mm	

Building, Site and Related Features BLD – Sht. 1 of 1

File: COC_BLD_LEGEND

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_BLD_ADDR	Building Address	Block	COC_BLD_ADDR Insert at center	0.2 mm	
COC_BLD_ADDR_TEXT	Building Address Text	Text	Standard (RomanS font)	0.2 mm	123 Main St.
COC_BLD_ENTR	Building Entrance	Block	COC_BLD_ENTR Insert at center	0.2 mm	
COC_BLD_UNIT	Building Unit	Block	COC_BLD_UNIT Insert at center	0.2 mm	
COC_BLD_DECK	Deck/Patio	Line	Continuous	0.2 mm	
COC_BLD_FDN	Building Foundation	Line	Hidden2	0.5 mm	
COC_BLD_FP	Building Footprint	Line	Continuous	0.5 mm	
COC_BLD_FTBR	Pedestrian Footbridge	Line	Hidden2	0.2 mm	
COC_BLD_PWALK	Pedestrian Walkway	Line	Hidden2	0.2 mm	
COC_BLD_PTUNL	Pedestrian Tunnel	Line	Hidden2	0.2 mm	
COC_BLD_SWALK	Sidewalk	Line	Ssdashed	0.2 mm	
COC_BLD_STEP	Steps	Block	COC_BLD_STEP Insert at center	0.2 mm	

Utilities – Communications UCOM – Sht. 1 of 2

File: COC_UCOM_LEGEND

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_UCOM_HAND	Handhole	Block	COC_UCOM_HAND Insert at center	0.2 mm	CM
COC_UCOM_HAND_CATV	CATV Handhole	Block	COC_UCOM_HAND_CATV Insert at center	0.2 mm	C
COC_UCOM_HAND_TELE	Telephone Handhole	Block	COC_UCOM_HAND_TELE Insert at center	0.2 mm	T
COC_UCOM_LINE	Misc. Communication Line	Line	Com	0.2 mm	COM
COC_UCOM_LINE_CATV	Video/Cable Line	Line	CATV	0.2 mm	CTV
COC_UCOM_LINE_TELE	Telephone Line	Line	Tele	0.2 mm	T
COC_UCOM_LINE_FOPT	Fiber Optic Line	Line	FiberOpt	0.2 mm	FO
COC_UCOM_MH	Misc. Communication Manhole	Block	COC_UCOM_MH Insert at center	0.2 mm	CM
COC_UCOM_MH_CATV	Video/Cable Manhole	Block	COC_UCOM_MH_CATV Insert at center	0.2 mm	C
COC_UCOM_MH_TELE	Telephone Manhole	Block	COC_UCOM_MH_TELE Insert at center	0.2 mm	T
COC_UCOM_MH_FO	Fiber Optic Manhole	Block	COC_UCOM_MH_FO Insert at center	0.2 mm	FO
COC_UCOM_VAULT	Misc. Communication Vault	Block	COC_UCOM_VAULT Insert at center	0.2 mm	CM
COC_UCOM_VAULT_CATV	Video/Cable Vault	Block	COC_UCOM_VAULT_CATV Insert at center	0.2 mm	C

Utilities – Communications UCOM – Sht. 2 of 2

File: COC_UCOM_LEGEND

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_UCOM_VAULT_TELE	Telephone Vault	Block	COC_UCOM_VAULT_TELE Insert at center	0.2 mm	
COC_UCOM_VAULT_FO	Fiber Optic Vault	Block	COC_UCOM_VAULT_FO Insert at center	0.2 mm	

Jurisdictional, Property, Easement and Boundary Features

JPE – Sht. 1 of 3

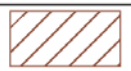
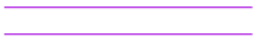
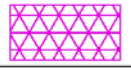
File: COC_JPE_LEGEND

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_JPE_ANNEX	Area for Annexation to the City	Line	HiddenX2	0.4 mm	
COC_JPE_ANNEX_TEXT	Annextion Text	Text	Standard (RomanS font)	0.3 mm	Annex
COC_JPE_CORP	Incorporated City Boundary	Line	City Boundary	0.5 mm	
COC_JPE_CNTY	Incorporated County Boundary	Line	Phantom2, Phantom	0.5 mm	
COC_JPE_DVBND	Development Site Boundary	Line	DevelBnd	0.4 mm	
	Development Site Area	Hatch	Net at 45°	0.4 mm	
COC_JPE_DVBND_NAME	Development Name	Text	Standard, 12° oblique (RomanS font)	0.3 mm	DEVELOPMENT
COC_JPE_EASE	Misc. Easements	Line	Easement	0.2 mm	
	Easement Text	Text	Standard (RomanS font)	0.2 mm	Easement
COC_JPE_EASE_PR	Proposed Misc. Easements	Line	Easement	0.4 mm	
	Proposed Easement Text	Text	Standard (RomanS font)	0.4 mm	Proposed Easement
COC_JPE_LANDU	Existing Land Use	Text	Standard, 12° oblique (RomanS font)	0.3 mm	Land Use
COC_JPE_LOT	Subdivision Lot Lines	Line	PropertyLine or Continuous	0.2 mm	PL

Jurisdictional, Property, Easement and Boundary Features

JPE – Sht. 2 of 3

File: COC_JPE_LEGEND

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_JPE_LOTNO	Lot Number	Text	Standard, 12° oblique (RomanS font)	0.2 mm	*Lot 135*
COC_JPE_LOC	Location Description	Text	Standard, 12° oblique (RomanS font)	0.3 mm	*123' E to Pin*
COC_JPE_OBST	Above grade obstruction requiring permit	Block	COC_JPE_OBST Insert at center	0.3 mm	
COC_JPE_PAR	Auditor's Parcel Line	Line	Continuous or PropertyLine	0.3 mm	
COC_JPE_PARNO	Auditor's Parcel No.	Text	Standard (RomanS font)	0.3 mm	123–456789
COC_JPE_PBLAR	Public Area Boundary	Line	Continuous	0.3 mm	
	Public Area Hatch	Hatch	Ansi31	0.3 mm	
COC_JPE_PLS	PLS Township, Range and Section Lines	Line	Dashed	0.3 mm	
COC_JPE_ROW	Right of Way Lines	Line	RowLine or Continuous	0.4 mm	
COC_JPE_SETBK	Setback Lines	Line	Divide2, Divide	0.1 mm	
COC_JPE_SETBK_TEXT	Setback Dimensions and Text	Text	Standard (RomanS font)	0.1 mm	10' Setback
COC_JPE_SPDST	Special District Boundary	Line	Continuous	0.4 mm	
	Special District Area	Hatch	Net3	0.4 mm	

Jurisdictional, Property, Easement and Boundary Features

JPE – Sht. 3 of 3

File: COC_JPE_LEGEND

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_JPE_SUBDV	Subdivision Boundary	Line	Continuous	0.5 mm	
	Subdivision Boundary	Hatch	Ansi32	0.5 mm	
COC_JPE_SUBDV_NAME	Subdivision Text	Text	Standard, 12° oblique (RomanS font)	0.4 mm	SUBDIVISION NAME
COC_JPE_TWNS	Political Township Boundary	Line	Continuous	0.4 mm	
	Political Township Area	Hatch	Dots at 45°	0.4 mm	
COC_JPE_ZONE	Zoning Boundary	Line	Continuous	0.3 mm	
	Zoning Area	Hatch	Square at 45°	0.3 mm	

Monumentation, Control and Survey Features

MCS – Sht. 1 of 1

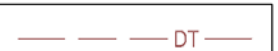
File: COC_MCS_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_MCS_BENCH	Benchmark	Block	COC_MCS_BENCH Insert at center	0.2 mm	
COC_MCS_MNM	Survey Monument in Concrete	Block	COC_MCS_MNM Insert at center	0.2 mm	
COC_MCS_PIN	Temporary Project Survey Pin or Stake	Block	COC_MCS_PIN Insert at center	0.2 mm	
COC_MCS_SP	State Plane Coordinate Control Point	Block	COC_MCS_SP Insert at center	0.2 mm	
COC_MCS_MARK	Survey Marker or Traverse Point	Block	COC_MCS_MARK Insert at center	0.2 mm	
COC_MCS_SLINE	Survey Baseline	Line	Bline	0.2 mm	
COC_MCS_CLINE	Survey Centerline	Line	Cline	0.2 mm	

Miscellaneous Features

MIS – Sht. 1 of 3

File: COC_MIS_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_MIS_AGT	Agricultural Drain Tile	Line	DrTile	0.2 mm	
COC_MIS_BOL	Bollards, Guard Posts	Block	COC_MIS_BOL Insert at center	0.2 mm	
COC_MIS_CBOX	Call Box – Police, Fire, Emergency	Block	COC_MIS_CBOX Insert at center	0.2 mm	
COC_MIS_PILE	Debris Pile Boundary	Line	Hidden2	0.2 mm	
	Debris Pile Area	Hatch	Ansi38	0.2 mm	
COC_MIS_PIER	Docks, Piers and Jetties	Line	Continuous	0.2 mm	
COC_MIS_FLAG	Flag Pole	Block	COC_MIS_FLAG Insert at circle center	0.2 mm	
COC_MIS_FOUNT	Ornamental Fountain	Block	COC_MIS_FNTN Insert at center	0.2 mm	
COC_MIS_HCAP	Handicapped Access Feature	Block	COC_MIS_HCAP Insert at center	0.2 mm	
COC_MIS_MBOX	USPS Drop Boxes & RR Delivery Boxes	Block	COC_MIS_MBOX Insert at circle center	0.2 mm	
COC_MIS_WELL	Well	Block	COC_MIS_WELL Insert at center	0.2 mm	
COC_MIS_POST	Miscellaneous Posts	Block	COC_MIS_POST Insert at center	0.2 mm	
COC_MIS_MONU	Monuments & Statues	Block	COC_MIS_MON Insert at center	0.2 mm	

Miscellaneous Features

MIS – Sht. 2 of 3

File: COC_MIS_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_MIS_FURN	Benches and Other Outdoor Furniture	Block	COC_MIS_FURN Insert at center	0.2 mm	F
COC_MIS_BPIT	Quarry or Borrow Pit Boundary	Line	Border2	0.2 mm	
	Quarry or Borrow Pit Boundary	Hatch	Ansi37	0.2 mm	
COC_MIS_SCRN	Screen Structures, Sound Barriers	Line	Hidden	0.5 mm	
COC_MIS_STBN	Storage Bins	Block	COC_MIS_SBIN Insert at center	0.2 mm	SB
COC_MIS_TANK	Above Ground Storage Tank	Block	COC_MIS_AST Insert at center	0.2 mm	AST
	Below Ground Storage Tank	Block	COC_MIS_UST Insert at center	0.2 mm	UST
COC_MIS_TRACK	Athletic Track and Facilities	Line	Continuous	0.2 mm	
COC_MIS_TRAIL	Trail and Foot Paths Centerline or Edges	Line	Ssdashed	0.2 mm	
COC_MIS_TRCAN	Trash Cans	Block	COC_MIS_TCAN Insert at center	0.2 mm	TC
	Dumpsters	Block	COC_MIS_DMP Insert at center	0.2 mm	DP
COC_MIS_TRNCH	Construction Trenches	Line	Hidden	0.2 mm	

Miscellaneous Features

MIS – Sht. 3 of 3

File: COC_MIS_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_MIS_USTR	Underground Structure Outline	Line	Hidden2	0.2 mm	
	Underground Structure Area	Hatch	Ansi31	0.2 mm	
COC_MIS_WORK	Work Area Boundary	Line	Hidden	0.2 mm	
	Work Area	Hatch	Ansi31	0.2 mm	
COC_MIS_STAR	Material Storage Area During Construction	Line	Continuous	0.2 mm	

Recreation Facilities and Equipment REC – Sht. 1 of 2

File: COC_REC_LEGEND

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_REC_ATHF	Athletic Field Boundary	Line	Continuous	0.2 mm	
	Athletic Field Area	Hatch	Ansi36	0.2 mm	
COC_REC_ATHC	Athletic Ball Court Boundary	Line	Continuous	0.2 mm	
	Athletic Ball Court Area	Hatch	Ansi36	0.2 mm	
COC_REC_PLAY	Playground Boundary	Line	Hidden	0.2 mm	
	Playground Area	Hatch	Dots at 45°	0.2 mm	
COC_REC_SHEL	Shelter Facility	Line	Continuous	0.5 mm	
COC_REC_PICT	Picnic Table	Block	COC_REC_PICT Insert at center	0.2 mm	
COC_REC_POOL	Swimming Pool	Line	Continuous	0.2 mm	
COC_REC_GRILL	Grill	Block	COC_REC_GRILL Insert at center	0.2 mm	
COC_REC_DRNK	Drinking Fountain	Block	COC_REC_DRNK Insert at center	0.2 mm	
COC_REC_SWING	Swing Set	Block	COC_REC_SWNG Insert at center	0.2 mm	
COC_REC_SLIDE	Slide	Block	COC_REC_SLIDE Insert at center	0.2 mm	

Recreation Facilities and Equipment REC – Sht. 2 of 2

File: COC_REC_LEGEND

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_REC_CLMB	Climber, Jungle Gym	Block	COC_REC_CLMB Insert at center	0.2 mm	
COC_REC_SPNG	Spring–mounted Riding Toy	Block	COC_REC_SPRNG Insert at center	0.2 mm	
COC_REC_MISC	Misc. Recreation Equipment or Facility	Block	COC_REC_MISC Insert at center	0.2 mm	
COC_REC_BND	Recreation Feature Boundary	Line	Hiddenx2	0.2 mm	
COC_REC_PATH	Recreation Feature Boundary	Line	Ssdashed	0.2 mm	

Roadway and Related Features ROAD – Sht. 1 of 2

COC_ROAD_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_ROAD_BRDG	Bridge or Overpass	Line	Continuous	0.3 mm	
COC_ROAD_CURB	Curb	Line	Continuous	0.2 mm	
COC_ROAD_CURB_CUT	Curb Cut at Drive or Walk	Line	Continuous	0.2 mm	
COC_ROAD_DRIVE_EDGE	Edge of Driveways	Line	Hidden2	0.2 mm	
COC_ROAD_DRIVE_CLINE	Drive Centerline	Line	Sscenter	0.2 mm	
COC_ROAD_EDGE	Edge of Roadway w/o Curbs	Line	Continuous	0.3 mm	
COC_ROAD_GRAIL	Guard Rail	Line	Grail1, Grail2	0.2 mm	
COC_ROAD_MEDN	Raised Median	Line	Continuous	0.3 mm	
COC_ROAD_OBST	Obstruction in Right-of-way	Line	Continuous	0.2 mm	
COC_ROAD_PARK	Off-street Features	Line	Hidden2	0.2 mm	
COC_ROAD_PARK_MIS	Misc. Parking Lot Features	Line	Continuous	0.2 mm	
COC_ROAD_RAMP	Freeway Ramp Pavement Edges	Line	Continuous	0.3 mm	
COC_ROAD_CLINE	Roadway Centerline	Line	Scenter	0.2 mm	

Roadway and Related Features — ROAD — Sht. 2 of 2

COC_ROAD_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_ROAD_CLINE_PRIV	Private Roadway Centerline	Line	Sscenter	0.2 mm	
COC_ROAD_CLINE_PUB	Public Roadway Centerline	Line	Sscenter	0.2 mm	
COC_ROAD_TUNL	Roadway Tunnel	Line	Hidden	0.2 mm	
COC_ROAD_DEPT	Line of Departure Between 2 Streets	Line	Continuous	0.2 mm	
COC_ROAD_TISLE	Traffic Island	Line	Hidden	0.3 mm	
COC_ROAD_TARW	Travel Flow Direction Arrow	Block	Sample Insert at point	0.2 mm	

Utilities – Electric

UELC – Sht. 1 of 8

File: COC_UELC_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_ULEC_CAP	Capacitor	Block	COC_ULEC_CAP Insert at Center	0.2 mm	
COC_UELC_COND	Conduit, Empty	Line	Empty, Empty2x	0.2 mm	
COC_UELC_HAND	Handhole	Block	COC_UELC_HAND Insert at Center	0.2 mm	
COC_UELC_LITE_FLD	Flood Light, 250 W	Block	COC_UELC_LITE_FLD_250 Insert at Center	0.2 mm	
	Flood Light, 400 W	Block	COC_UELC_LITE_FLD_400 Insert at Center	0.2 mm	
COC_UELC_LITE_HPS	High Pressure Sodium Street Light – 70 W	Block	COC_UELC_LITE_HPS_070 Insert at Center	0.2 mm	
	HPS S.L. – 100 W	Block	COC_UELC_LITE_HPS_100 Insert at Center	0.2 mm	
	HPS S.L. – 150 W	Block	COC_UELC_LITE_HPS_150 Insert at Center	0.2 mm	
	HPS S.L. – 200 W	Block	COC_UELC_LITE_HPS_200 Insert at Center	0.2 mm	
	HPS S.L. – 250 W	Block	COC_UELC_LITE_HPS_250 Insert at Center	0.2 mm	
	HPS S.L. – 310 W	Block	COC_UELC_LITE_HPS_310 Insert at Center	0.2 mm	
	HPS S.L. – 400 W	Block	COC_UELC_LITE_HPS_400 Insert at Center	0.2 mm	
(continues)	HPS Low Mast S.L. – 400 W	Block	COC_UELC_LITE_HPS_LM_400 Insert at Center	0.2 mm	

Utilities – Electric

UELC – Sht. 2 of 8

File: COC_UELC_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_UELC_LITE_HPS (continued)	HPS Underpass Light. – 100 W	Block	COC_UELC_LITE_HPS_U_100 Insert at Center	0.2 mm	
	HPS Underpass Light 100 W (State)	Block	COC_UELC_LITE_HPS_U_100_State Insert at Center	0.2 mm	
COC-UELC-LITE-HPS-TWR	HPS Tower 3-Head S.L. – 400 W (State)	Block	COC_UELC_LITE_HPS_400_T3_State Insert at Center	0.2 mm	
	HPS Tower 4-Head S.L. – 400 W (State)	Block	COC_UELC_LITE_HPS_400_T4_State Insert at Center	0.2 mm	
	HPS Tower 6-Head S.L. – 400 W (State)	Block	COC_UELC_LITE_HPS_400_T6_State Insert at Center	0.2 mm	
	HPS Tower 7-Head S.L. – 400 W (State)	Block	COC_UELC_LITE_HPS_400_T7_State Insert at Center	0.2 mm	
	HPS Tower 3-Head S.L. – 400 W (City)	Block	COC_UELC_LITE_HPS_400_T3_City Insert at Center	0.2 mm	
	HPS Tower 4-Head S.L. – 400 W (City)	Block	COC_UELC_LITE_HPS_400_T4_City Insert at Center	0.2 mm	
	HPS Tower 6-Head S.L. – 400 W (City)	Block	COC_UELC_LITE_HPS_400_T6_City Insert at Center	0.2 mm	
	HPS Tower 7-Head S.L. – 400 W (City)	Block	COC_UELC_LITE_HPS_400_T7_City Insert at Center	0.2 mm	
COC_UELC_LITE_LPS	Low Pressure Sodium Street Light – 55 W	Block	COC_UELC_LITE_LPS_055 Insert at Center	0.2 mm	
	LPS S.L. – 90 W	Block	COC_UELC_LITE_LPS_090 Insert at Center	0.2 mm	
(continues)	LPS Underpass Light. – 55 W	Block	COC_UELC_LITE_LPS_U_055 Insert at Center	0.2 mm	

Utilities – Electric

UELC – Sht. 3 of 8

File: COC_UELC_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_UELC_LITE_LPS (continued)	LPS Underpass Light. – 90 W	Block	COC_UELC_LITE_LPS_U_090 Insert at Center	0.2 mm	
	LPS Underpass Light. – 55 W (State)	Block	COC_UELC_LITE_LPS_U_055_State Insert at Center	0.2 mm	
	LPS Underpass Light. – 90 W (State)	Block	COC_UELC_LITE_LPS_U_090_State Insert at Center	0.2 mm	
COC_UELC_LITE_MV	Mercury Vapor Street Light. – 100 W	Block	COC_UELC_LITE_MV_100 Insert at Center	0.2 mm	
	Mercury Vapor Street Light. – 175 W	Block	COC_UELC_LITE_MV_175 Insert at Center	0.2 mm	
	Mercury Vapor Street Light. – 250 W	Block	COC_UELC_LITE_MV_250 Insert at Center	0.2 mm	
	Mercury Vapor Street Light. – 400 W	Block	COC_UELC_LITE_MV_400 Insert at Center	0.2 mm	
COC–UELC–LITE–MHAL	Metal Halide Street Light. – 150 W	Block	COC_UELC_LITE_MHAL_150 Insert at Center	0.2 mm	
	Metal Halide Street Light. – 250 W	Block	COC_UELC_LITE_MHAL_250 Insert at Center	0.2 mm	
	Metal Halide Street Light. – 400 W	Block	COC_UELC_LITE_MHAL_400 Insert at Center	0.2 mm	
COC–UELC–LITE–OSIGN	Overhead Sign Lighting Double	Block	COC_UELC_LITE_OSIGN_D Insert at Center	0.2 mm	
	Overhead Sign Lighting Single	Block	COC_UELC_LITE_OSIGN_S Insert at Center	0.2 mm	
	Overhead Sign Lighting Bridge	Block	COC_UELC_LITE_OSIGN_BRDG Insert at Center	0.2 mm	

Utilities – Electric

UELC – Sht. 4 of 8

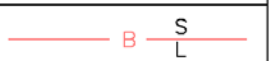
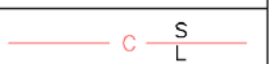
File: COC_UELC_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC-UELC-LITE-PTOP	Post-top Light	Block	COC_UELC_LITE_PTOP Insert at Center	0.2 mm	
COC-UELC-LITE-STRT	Street Light (unspecified type)	Block	COC_UELC_LITE_STRT Insert at Center	0.2 mm	
COC_UELC_LITE_SEC	Security Light (unspecified type)	Block	COC_UELC_LITE_SEC Insert at Center	0.2 mm	
COC_UELC_LITE_CONT	Street Light Controller	Block	COC_UELC_LITE_CONT Insert at Center	0.2 mm	
COC_UELC_MH	Electric Manhole	Block	COC_UELC_MH Insert at Center	0.2 mm	
COC_UELC_METER	Electric Meter	Block	COC_UELC_METER Insert at Center	0.2 mm	
COC_UELC_PED_SEC	Pedestal – Secondary	Block	COC_UELC_PED_SEC Insert at Center	0.2 mm	
COC_UELC_RISER	Riser	Block	COC_UELC_RISER Insert at Center	0.2 mm	
COC_UELC_PBOX	Electric Pull Box	Block	COC_UELC_PBOX Insert at Center	0.2 mm	
COC_UELC_RCLOS	Recloser	Block	COC_UELC_RCLOS Insert at Center	0.2 mm	
COC_UELC_GROD	Ground Rod	Block	COC_UELC_GROD Insert at Center	0.2 mm	
COC_UELC_SUB	SubStation	Block	COC_UELC_SUB Insert at Center	0.2 mm	
COC_UELC_TOWER	Electric transmission tower	Block	COC_UELC_TOWER Insert at Center	0.2 mm	

Utilities – Electric

UELC – Sht. 5 of 8

File: COC_UELC_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_UELC_REG	Regulator	Block	COC_UELC_REG Insert at Center	0.2 mm	
COC-UELC-LITE-OVER	Street Lighting Lines Overhead – Leg A	Line	SLA, SLA2X Linetype assigned to Line	0.3 mm	
	Street Lighting Lines Overhead – Leg B	Line	SLB, SLB2X Linetype assigned to Line	0.3 mm	
	Street Lighting Lines Overhead – Leg C	Line	SLC, SLC2X Linetype assigned to Line	0.3 mm	
COC-UELC-LITE-UNDR	Street Lighting Lines Underground – Leg A	Line	SLAU, SLAU2X Linetype assigned to Line	0.3 mm	
	Street Lighting Lines Underground – Leg B	Line	SLBU, SLBU2X Linetype assigned to Line	0.3 mm	
	Street Lighting Lines Underground – Leg C	Line	SLCU, SLCU2X Linetype assigned to Line	0.3 mm	
COC_UELC_TRSFR	Transformer, Pole Mounted – MELP	Block	COC_UELC_TNSFR_POLE_M Insert at Center	0.2 mm	
	Transformer, Pole Mounted – Foreign	Block	COC_UELC_TNSFR_POLE_F Insert at Center	0.2 mm	
	Transformer, pad mounted	Block	COC_UELC_TNSFR_PMNT Insert at Center	0.2 mm	
	Transformer, current	Block	COC_UELC_TNSFR_CUR Insert at Center	0.2 mm	CT
	Transformer, potential	Block	COC_UELC_TNSFR_POT Insert at Center	0.2 mm	PT
COC_UELC_VAULT	Electric vault	Block	COC_UELC_VAULT Insert at Center	0.2 mm	

Utilities – Electric

UELC – Sht. 6 of 8

File: COC_UELC_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_UELC_SWTCH	Switch Normally closed	Block	COC_UELC_SWTCH_C Insert between terminals	0.2 mm	
	Switch Normally open	Block	COC_UELC_SWTCH_O Insert between terminals	0.2 mm	
	Fused switch Normally closed	Block	COC_UELC_SWTCH_C_F Insert between terminals	0.2 mm	
	Fused switch Normally open	Block	COC_UELC_SWTCH_O_F Insert between terminals	0.2 mm	
	Automatic Transfer Switch	Block	COC_UELC_SWTCH_T_A Insert at Center	0.2 mm	ATS
COC_UELC_TRANS_PRI_OH	Primary overhead transmission line	Line	Continuous	0.7 mm	A B C MELP P
COC_UELC_TRANS_SEC_OH	Secondary overhead transmission line	Line	Continuous	0.7 mm	A B C MELP S
COC_UELC_PRI_UG	Primary underground transmission line	Line	Dashed	0.7 mm	A B C MELP P
COC_UELC_SEC_UG	Secondary underground transmission line	Line	Dashed	0.7 mm	A B C MELP S
COC_UELC_TRANS	Transmission line	Line	Electrans	0.3 mm	ET ET
COC_UELC_PRI_TRANS	Primary overhead transmission line	Line	Continuous	0.7 mm	A B C MELP T
	Primary underground transmission line	Line	Dashed	0.7 mm	A B C MELP T
COC_UELC_LINE	Electric service line	Line	Elecline	0.3 mm	E E

Utilities – Electric

UELC – Sht. 7 of 8

File: COC_UELC_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_UELC_EASE	Electric easement	Line	ElecEase	0.2 mm	
COC_UELC_EASE_P	Proposed electric easement	Line	ElecEaseP	0.2 mm	
COC_UELC_GUY	Guy wire anchor	Block	COC_UELC_GUY_DOWN Inset at anchor end	0.2 mm	
	Guy span wire	Line	GuySpan	0.2 mm	
COC_UELC_POLE_MELP	Electric Pole – MELP	Block	COC_UELC_POLE_MELP Insert at Center	0.2 mm	
COC_UELC_POLE_FOR	Electric Pole – Foreign	Block	COC_UELC_POLE_FOR Insert at Center	0.2 mm	
COC_UELC_POLE_CITY	Electric Pole – City Light Standard	Block	COC_UELC_POLE_CITY Insert at Center	0.2 mm	
COC_UELC_POLE_STATE	Electric Pole – State Light Standard	Block	COC_UELC_POLE_STATE Insert at Center	0.2 mm	
COC_UELC_XPOLE	Existing Pole – To Be Replaced	Block	COC_UELC_XPOLE Insert at Center	0.2 mm	
COC_UELC_P_POLE	Existing Power Pole	Block	COC_UELC_P_POLE Insert at Center	0.2 mm	
COC_UELC_P_POLE_PR	Proposed Power Pole	Block	COC_UELC_P_POLE_PR Insert at Center	0.4 mm	
COC_UELC_P_POLE	Existing Power Pole with Telephone	Block	COC_UELC_P_POLE_TEL Insert at Center	0.2 mm	
COC_UELC_P_POLE_PR	Proposed Power Pole with Telephone	Block	COC_UELC_P_POLE_TEL_PR Insert at Center	0.4 mm	

Utilities – Electric

UELC – Sht. 8 of 8

File: COC_UELC_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_UELC_P_POLE	Existing Power Pole with Telephone and Light	Block	COC_UELC_P_POLE_TEL_LIT Insert at Center	0.2 mm	
COC_UELC_P_POLE_PR	Proposed Power Pole with Telephone and Light	Block	COC_UELC_P_POLE_TEL_LIT_PR Insert at Center	0.4 mm	

Utilities – Gas

UGAS – Sht. 1 of 1

File: COC_UGAS_LEGEND

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_UGAS_MH	Gas Manhole	Block	COC_UGAS_MH Insert at center	0.2 mm	
COC_UGAS_VALVE	Gas Gate Valve	Block	COC_UGAS_VALVE Insert at center	0.2 mm	
COC_UGAS_VALVE	Gas Service Valve	Block	COC_UGAS_VALVE_SERVICE Insert at center	0.2 mm	
COC_UGAS_METER	Gas Meter	Block	COC_UGAS_METER Insert at center	0.2 mm	
COC_UGAS_MAIN	Gas Main	Line	Gasline	0.2 mm	
COC_UGAS_TRANS	Gas Transmission Line	Line	GasTrans	0.2 mm	

Utilities – Combined Sewer

UCMS – Sht. 1 of 1

File: COC_UCMS_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_UCMS_MH	Combined Sewer Manhole	Block	COC_UCMS_MH Insert at center	0.2 mm	
	Combined Sewer Manhole	Block	COC_UCMS_MH2 Insert at center	0.2 mm	
COC_UCMS_MAIN	Combined Sewer Main	Line	Csew or Continuous	0.2 mm	

Utilities – Sanitary Sewer USAN – Sht. 1 of 2

File: COC_USAN_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_USAN_CLNO	Sanitary Sewer Cleanout	Block	COC_USAN_CLNO Insert at center	0.2 mm	
COC_USAN_DISP	Disposal Facilities	Block	COC_USAN_DISP Insert at center	0.2 mm	
COC_USAN_FGATE	Sewer Flap Gate	Block	COC_USAN_FGATE Insert at center	0.2 mm	
COC_USAN_LIFT	Sanitary Sewer Lift Station	Block	COC_USAN_LIFT Insert at center	0.2 mm	
	Sanitary Sewer Lift Station	Block	COC_USAN_LIFT2 Insert at center	0.2 mm	
COC_USAN_MH	Sanitary Sewer Manhole	Block	COC_USAN_MH Insert at center	0.2 mm	
	Sanitary Sewer Manhole	Block	COC_USAN_MH2 Insert at center	0.2 mm	
COC_USAN_MH_TEXT	Sanitary Sewer Manhole Text	Text	Standard, 12" oblique (RomanS font)	0.2 mm	*0678S0123*
COC_USAN_MISC	Miscellaneous Sewer Features	Block	COC_USAN_MISC Insert at center	0.2 mm	
COC_USAN_OVER	Sanitary Sewer Overflow Structure	Block	COC_USAN_OVER Insert at center	0.2 mm	
COC_USAN_PT	Sanitary Sewer Point	Block	COC_USAN_PT Insert at center	0.2 mm	
COC_USAN_REG	Sanitary Sewer Regulator Valve	Block	COC_USAN_REG Insert at center	0.2 mm	
COC_USAN_RISE	Sanitary Sewer Riser	Block	COC_USAN_RISE Insert at center	0.2 mm	

Utilities – Sanitary Sewer

USAN – Sht. 2 of 2

File: COC_USAN_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_USAN_TRT	Waste Water Treatment Facility	Block	COC_USAN_TRT Insert at center	0.2 mm	TRT
COC_USAN_VALVE	Sanitary Sewer Valve	Block	COC_USAN_VALVE Insert at center	0.2 mm	SS
COC_USAN_LAT	Sanitary Sewer Lateral	Line	Hidden2	0.2 mm	
COC_USAN_MAIN	Sanitary Sewer Main	Line	Sewer or Continuous	0.2 mm	S S
COC_USAN_FM	Sanitary Sewer Force Main	Line	Fmain	0.2 mm	FM FM

Utilities – Storm Sewer, Drainage, Erosion and Flood Control

USTM – Sht. 1 of 3

File: COC_USTM_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_USTM_CANL	Drainage Canal	Line	Hidden2	0.2 mm	
COC_USTM_NLET	Catch Basins and Inlets	Block	COC_USTM_NLET Insert at center	0.2 mm	
	Curb Inlet	Block	COC_USTM_NLET_CURB Insert at edge	0.2 mm	
	Curb Inlet	Block	COC_USTM_NLET_CURB2 Insert at edge	0.2 mm	
COC_USTM_NLET_DROP	Drop Inlet	Block	COC_USTM_NLET_DROP Insert at center	0.2 mm	
COC_USTM_NLET_PROT	Inlet Protection	Block	COC_USTM_NLET_PROT Insert at center	0.2 mm	
COC_USTM_MH	Storm Drain Manhole	Block	COC_USTM_MH Insert at center	0.2 mm	
	Storm Drain Manhole	Block	COC_USTM_MH2 Insert at center	0.2 mm	
COC_USTM_CHDAM	Fabric Check Dam	Block	COC_USTM_CHDAM Insert at center	0.2 mm	
	Rock Check Dam	Block	COC_USTM_CHDAM2 Insert at center	0.2 mm	
COC_USTM_CUL	Culvert	Line	Hidden2	0.2 mm	
COC_USTM_DAM	Dam, Spillway or Weir	Block	COC_USTM_DAM Insert at center	0.2 mm	
COC_USTM_DIKE	Dikes and Levees	Line	Sample	0.2 mm	

Utilities – Storm Sewer, Drainage, Erosion and Flood Control

USTM – Sht. 2 of 3

File: COC_USTM_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_USTM_DRNG_AREA	Drainage Area Delineation	Line	Dashed2	0.2 mm	
COC_USTM_DRNG_CHAN	Drainage Area Channel	Line	Continuous	0.2 mm	
COC_USTM_DRNG_DTCH	Drainage Ditch	Line, Block	Continuous, COC_USTM_FLOW	0.2 mm	
COC_USTM_DRNG_SWALE	Drainage Swale	Line, Hatch	Continuous, Grass Hatch	0.2 mm	
COC_USTM_EC	Erosion Control Rip Rap	Line, Hatch	Continuous, Gravel Hatch	0.2 mm	
COC_USTM_FWAY	Floodway Boundary	Line	Dashedx2	0.3 mm	
COC_USTM_FL	Flood Zone	Line	Continuous,	0.4 mm	
COC_USTM_FL_BASE	Flood Zone Base Elevation	Text	Standard (RomanS font)	0.3 mm	734
COC_USTM_FWALL	Flood Wall	Line	Continuous	0.3 mm	
COC_USTM_GUTR	Gutter	Line	Continuous	0.2 mm	
COC_USTM_HWALL	Storm Drain Headwall	Block	COC_USTM_HWALL Insert at center	0.2 mm	
COC_USTM_IMPER	Impervious Area	Line, Hatch	Hidden2, Dolmit Hatch	0.3 mm	
COC_USTM_POND	Storm Water Retention Pond	Line, Hatch	Hidden2, ArSand Hatch	0.2 mm	

Utilities – Storm Sewer, Drainage, Erosion and Flood Control

USTM – Sht. 3 of 3

File: COC_USTM_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_USTM_BASIN	Storm Water Stilling Basin	Block	COC_USTM_BASIN Insert at center	0.2 mm	
COC_USTM_MHNO	Storm Drain Manhole Number	Text	Standard, 12" Oblique (RomanS font)	0.2 mm	*0123T0678*
COC_USTM_PT	Storm Drain Point	Block	COC_USTM_PT Insert at center	0.2 mm	×
COC_USTM_MAIN	Storm Drain Main	Line	Storm, Continuous	0.2 mm	
COC_USTM_LIFT	Storm Drain Lift Station	Block	COC_USTM_LIFT Insert at center	0.2 mm	
COC_USTM_TRIB	Tributary Area	Line	Dashed	0.5 mm	
COC_USTM_DRN_SUB	Underdrains, Subdrains	Line	Underdrain	0.2 mm	
COC_USTM_DRN_WEEP	Weepholes in Retaining Wall	Block	COC_USTM_DRN_WEEP Insert at center	0.2 mm	
COC_USTM_OFAL	Storm Drain Outfall	Block	COC_USTM_OFAL Insert at center	0.2 mm	

Utilities – Water

UWAT – Sht. 1 of 3

File: COC_UWAT_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_UWAT_VALVE	Water Valve	Block	COC_UWAT_VALVE Insert at center	0.2 mm	
COC_UWAT_HYD	Fire Hydrant(existing)	Block	COC_UWAT_HYD Insert at center	0.2 mm	
COC_UWAT_HYD_PR	Fire Hydrant(proposed)	Block	COC_UWAT_HYD_PROP Insert at center	0.2 mm	
COC_UWAT_HYD_PRIV	Fire Hydrant – Private	Block	COC_UWAT_HYD_PRIV Insert at center	0.2 mm	
COC_UWAT_HYD_YARD	Fire Hydrant – Yard	Block	COC_UWAT_HYD_YARD Insert at center	0.2 mm	
COC_UWAT_MH	Water Manhole	Block	COC_UWAT_MH Insert at center	0.2 mm	
COC_UWAT_METER	Water Meter	Block	COC_UWAT_METER Insert at center	0.2 mm	
COC_UWAT_BOOST	Water Booster Station	Block	COC_UWAT_BOOST Insert at center	0.2 mm	BS
COC_UWAT_TRTP	Water Treatment Plant	Block	COC_UWAT_TRTP Insert at center	0.2 mm	WTP
COC_UWAT_WELL	Water Well	Block	COC_UWAT_WELL Insert at center	0.2 mm	
COC_UWAT_SERV_FND	Water Service Valve–Found	Block	COC_UWAT_SERV_FND Insert at center	0.2 mm	WS
COC_UWAT_SERV_NFND	Water Service Valve–Not Found	Block	COC_UWAT_SERV_NFND Insert at center	0.2 mm	WSNF
COC_UWAT_SERVTAP	Water Service Tap	Block	COC_UWAT_SERVTAP Insert at center	0.2 mm	WST

Utilities – Water

UWAT – Sht. 2 of 3

File: COC_UWAT_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_UWAT_CAP	Water Cap	Block	COC_UWAT_CAP Insert at center	0.2 mm	
COC_UWAT_PLUG	Water Plug	Block	COC_UWAT_PLUG Insert at center	0.2 mm	
COC_UWAT_MNMNT	Water Line Monument	Block	COC_UWAT_MNMNT Insert at center	0.2 mm	MON
COC_UWAT_PITOM	Pitometer Tap	Block	COC_UWAT_PITOM Insert at center	0.2 mm	
COC_UWAT_MPIT	Water Meter Pit	Block	COC_UWAT_MPIT Insert at center	0.2 mm	MP
COC_UWAT_PRV	Pressure Reducing Valve – Water	Block	COC_UWAT_PRV Insert at center	0.2 mm	PRV
COC_UWAT_PSV	Pressure Sustaining Valve – Water	Block	COC_UWAT_PSV Insert at center	0.2 mm	PSV
COC_UWAT_VALVE_ALT	Altitude Valve – Water	Block	COC_UWAT_VALVE_ALT Insert at center	0.2 mm	ALT
COC_UWAT_CIST	Cistern	Block	COC_UWAT_CIST Insert at center	0.2 mm	000
COC_UWAT_SAMPT	Water Sampling Tap	Block	COC_UWAT_SAMPT Insert at center	0.2 mm	ST
COC_UWAT_VALVE_PI	Post Indicator Valve	Block	COC_UWAT_VALVE_PI Insert at center	0.2 mm	PIV
COC_UWAT_LSTOP	Water Line Stop	Block	COC_UWAT_LSTOP Insert at center	0.2 mm	LS
COC_UWAT_VALVE_CHK	Water Check Valve	Block	COC_UWAT_VALVE_CHK Insert at center	0.2 mm	CV

Utilities – Water

UWAT – Sht. 3 of 3

File: COC_UWAT_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_UWAT_AIRRL	Air Release	Block	COC_UWAT_AIRRL Insert at center	0.2 mm	AR
COC_UWAT_REDUC	Water Reducer	Block	COC_UWAT_REDUC Insert at center	0.2 mm	8" W 6" W
COC_UWAT_MAIN	Water Main	Line	Water	0.2 mm	W W
COC_UWAT_LINE_PRIV	Private Water Line	Line	Continuous	0.2 mm	PWS
COC_UWAT_LINE_IRR	Irrigation Line	Line	Continuous	0.2 mm	IRR
COC_UWAT_SLINE_LONG	Water Service – Long	Line	Continuous	0.2 mm	L
COC_UWAT_SLINE_SHORT	Water Service – Short	Line	Continuous	0.2 mm	S
COC_UWAT_MAIN_RAW	Raw Water Line	Line	Continuous	0.2 mm	RAW
COC_UWAT_SLUDGE	Sludge Line – Water	Line	Continuous	0.2 mm	SLUDGE
COC_UWAT_LINE_TBA	Water Line To Be Abandoned	Line	Wire Fence	0.2 mm	X X X
COC_UWAT_LINE_ABAN	Water Line – Abandoned	Line	Continuous	0.2 mm	ABANDONED
COC_UWAT_MAIN_CASING	Casing Pipe	Line	Continuous	0.2 mm	
COC_UWAT_TANK	Water Storage Tank	Block	COC_UWAT_TANK Insert at center	0.2 mm	WTank

Utilities – Miscellaneous

UMIS – Sht. 1 of 2

File: COC_UMIS_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_UMIS_FLOW	Flow Direction Arrow	Block	COC_UMIS_FLOW Insert at arrow tip	0.2 mm	
COC_UMIS_GUYL	Guy Line (Pole to pole or structure)	Line	GuySpan	0.2 mm	
COC_UMIS_GUY_DOWN	Guy Line to Anchor	Block	COC_UMIS_GUY_DOWN Insert at Left end	0.2 mm	
COC_UMIS_LITE	Outside Light	Block	COC_UMIS_LITE Insert at Center	0.2 mm	
COC_UMIS_MH	Manhole	Block	COC_UMIS_MH Insert at Center	0.2 mm	
COC_UMIS_TRANS_PET	Petroleum Transmission Lines	Line	Petroline	0.2 mm	PT PT
COC_UMIS_PIEZ	Piezometer	Block	COC_UMIS_PIEZ Insert at Center	0.2 mm	P
COC_UMIS_PIPE_FIT	Pipe Fitting	Block	COC_UMIS_PIPE_FIT Insert at Center	0.2 mm	F
COC_UMIS_PIPE_PLUG	Pipe Plug or Cap	Block	COC_UMIS_PIPE_PLUG Insert at Center	0.2 mm	
COC_UMIS_TRANS_STM	Steam Line	Line	Steamline	0.2 mm	STM
COC_UMIS_TANK	Tank – General	Block	COC_UMIS_TANK Insert at Center	0.2 mm	TK
COC_UMIS_TOWER	Tower – General	Block	COC_UMIS_TOWER Insert at Center	0.2 mm	
COC_UMIS_LINE_OVHD	Overhead Utility Line	Line	Ovhline	0.2 mm	OH OH

Utilities – Miscellaneous

UMIS – Sht. 2 of 2

File: COC_UMIS_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_UMIS_LINE_UNDR	Underground Utility Line	Line	Underground	0.2 mm	UG UG
COC_UMIS_METER	Utility Meter	Block	COC_UMIS_METER Insert at Center	0.2 mm	M
COC_UMIS_POLE	Utility Pole	Block	COC_UMIS_POLE Insert at Center	0.2 mm	
COC_UMIS_SRVC	Utility Service Line	Line	Continuous	0.2 mm	
COC_UMIS_WELL	Well	Block	COC_UMIS_WELL Insert at Center	0.2 mm	W

Topographic and Geotechnical — TGT — Sht. 1 of 1

File: COC_TGT_LEGEND

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_TGT_CONT_DEP	Depression Contour	Line	DContour1, DContour2	0.2 mm	
COC_TGT_CONT_INDX	Index Contour	Line	Scontour	0.4 mm	
COC_TGT_CONT_INT	Intermediate Contour	Line	Scontour	0.2 mm	
COC_TGT_CONT_INDX_HID	Hidden or Obscured Index Contour	Line	Sscontour	0.4 mm	
COC_TGT_CONT_INT_HID	Hidden or Obscured Intermediate Contour	Line	Sscontour	0.2 mm	
COC_TGT_CONT_TEXT	Contour Elevation Text	Text	Standard (RomanS font)	0.2 mm	750
COC_TGT_SPOT	Topographic Spot Elevation	Block	Sample Insert at intersection	0.2 mm	SPOT_ID
COC_TGT_CORE	Core Hole Location	Block	COC_TGT_CORE Insert at center	0.2 mm	CORE_ID
	Bore Hole Location	Block	COC_TGT_BORE Insert at center	0.2 mm	BORE_ID
COC_TGT_TPIT	Test Pit	Line	Border2	0.2 mm	
COC_TGT_SLDIR	Slope Direction	Block	COC_TGT_SLDIRL, _SLDIRR Insert at point	0.2 mm	2.0% Slope
COC_TGT_SLTOE	Toe of Slope Line	Line	Hidden2	0.2 mm	
COC_TGT_SLTOP	Top of Slope Line	Line	Dashed	0.2 mm	

Traffic Control and Signs

TRC – Sht. 1 of 2

File: COC_TRC_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_TRC_BUMP	Speed Bumps	Line, Hatch	Continuous Line hatch at 30°	0.2 mm	
COC_TRC_BAR	Temporary Barricade	Line	Continuous	0.2 mm	
COC_TRC_CONT	Traffic Control Structure	Block	COC_TRC_CONT Insert at center	0.2 mm	
COC_TRC_SGNL_POLE	Traffic Signal Strain Pole	Block	COC_TRC_SGNL_POLE Insert at center	0.2 mm	
COC_TRC_SGNL_HEAD	Traffic Signal Head on Span Wire	Block	COC_TRC_SIGNL_HEAD Insert at top	0.2 mm	
	Post Mtd. Traffic Signal Head	Block	COC_TRC_SGNL_PMTD Insert at bottom	0.2 mm	
COC_TRC_SGNL_CNTL	Traffic Signal Control Box	Block	COC_TRC_SGNL_CONT Insert at center	0.2 mm	
COC_TRC_SGNL_LOOP	Traffic Signal Loop in Pavement	Block	COC_TRC_SGNL_LOOPS Insert at center	0.2 mm	
COC_TRC_PVMK	Pavement Marks and Striping	Line	Continuous	0.2 mm	
COC_TRC_PVMK_REFL	Pavement Reflector	Block	COC_TRC_PVMK_REFL Insert at center	0.2 mm	
COC_TRC_XWALK	Crosswalk	Block	COC_TRC_XWALK Insert at center	0.2 mm	
COC_TRC_MP	Mile Post	Block	COC_TRC_MP Insert at center	0.2 mm	
COC_TRC_SIGN_ST	Steet Sign	Block	COC_TRC_SIGN_ST Insert at bottom	0.2 mm	

Traffic Control and Signs

TRC – Sht. 2 of 2

File: COC_TRC_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_TRC_SIGN	Sign	Block	COC_TRC_SIGN Insert at center	0.2 mm	
COC_TRC_SIGN_OVHD	Overhead Sign	Block	COC_TRC_SIGN_OVHD Insert at center	0.2 mm	

Railroad and Air Transportation Features

TRAN – Sht. 1 of 1

File: COC_TRAN_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_TRAN_LDN	Airport Noise Contours	Line	Continuous	0.2 mm	
COC_TRAN_RWAY	Airport Runways	Line	Continuous	0.3 mm	
COC_TRAN_TAXIW	Airport Taxiways	Line	Hidden2	0.2 mm	
COC_TRAN_TWR	Air Traffic Control Tower	Block	COC_TRAN_TWR Insert at center	0.4 mm	TWR
COC_TRAN_RAIL	Railroad Tracks (Center of tracks)	Line	Rrtrack	0.2 mm	
COC_TRAN_RAIL_SW	Switch for Railroad Tracks	Block	COC_TRAN_RAIL_SW Insert at intersection	0.2 mm	

Sensitive and Protected Areas and Features

SPR – Sht. 1 of 1

File: COC_SPR_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_SPR_CEM	Cemetery	Block	COC_SPR_CEM Insert at center	0.2 mm	
COC_SPR_CUL	Culturally Significant Area Boundary	Line	Continuous	0.2 mm	
COC_SPR_HIST	Historically Significant Area Boundary	Line	DashDot2, DashDot	0.2 mm	
COC_SPR_PARK	Public Park Boundary	Line	Hidden	0.2 mm	

Vegetation, Landscape, Water Bodies and Natural Features

VLN – Sht. 1 of 2

File: COC_VLN_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_VLN_CLHYD	Centerline of River or Stream	Line	Sscenter	0.2 mm	
COC_VLN_EDHYD	Edge of River or Stream	Line	H2oline3, Continuous	0.2 mm	
COC_VLN_LAKE	Lakes, Ponds	Line	H2oline3, Continuous	0.2 mm	
COC_VLN_WETL	Wetlands and Swampland	Line, Hatch	Hidden2, Swamp Hatch	0.2 mm	
COC_VLN_FOR	Forest or Brush Line	Line	Use Autocad 'Revcloud' command if available	0.2 mm	
COC_VLN_BUSH	Hedge	Block	COC_VLN_HEDGE Insert at center	0.2 mm	
	Bush (leaves)	Block	COC_VLN_BUSH Insert at center	0.2 mm	
	Shrub (needles)	Block	COC_VLN_SHRUB Insert at center	0.2 mm	
COC_VLN_TREE	Tree w/ leaves	Block	COC_VLN_DTREE Insert at center	0.2 mm	
	Tree w/ needles	Block	COC_VLN_CTREE Insert at center	0.2 mm	
COC_VLN_NURS	Boundary of Plant Nursery or Orchard	Line	Border2	0.2 mm	
COC_VLN_PLNT	Boundary of Site Plantings	Line	Ssdashed	0.2 mm	

Vegetation, Landscape, Water Bodies and Natural Features

VLN – Sht. 2 of 2

File: COC_VLN_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_VLN_OUTC	Rock Outcrop	Line, Hatch	Border2, Ar–hbone Hatch	0.2 mm	
COC_VLN_SOIL	Soil Type or Surface Deposit	Line, Hatch	Sample Sample	0.2 mm	

Walls, Fences and Related Features WLF – Sht. 1 of 1

File: COC_WLF_LEGEND.DWG

Layer Name	Feature	Autocad Object	Object Information	Suggested Line Weight	Example
COC_WLF_FEN	Fence	Line	Fenceline1 Wirefence	0.2 mm	
COC_WLF_WALL_RET	Retaining Wall	Block	COC_WLF_WALL_RET Insert at center	0.2 mm	
COC_WLF_WALL	Sample	Line, Hatch	Continuous, Brick Hatch	0.2 mm