



This document lists revisions made to the CAD Standard when they are published on [calgary.ca/cad](http://calgary.ca/cad).

**Major revisions** include significant changes that impact the way the Standard should be applied, or the templates' function, and may require downloading the latest templates and/or supporting files. The City sends out a communication notification to the known stakeholder distribution for major updates. If you have not received these notifications in the past and wish to be included, please send a note to [CADInfo@calgary.ca](mailto:CADInfo@calgary.ca).

**Minor revisions** include either minor changes to the templates, clarifications made to documentation, or modifications to sample drawings. You can download or reference these if they are beneficial to the work you do. The City normally does not send out notifications for minor updates.

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## 2025-01-07 Major revision incorporating all changes made in 2024

### Templates

- Updated Civil, Survey and Mapping, and General templates to incorporate revisions listed below:

### Sheetset

- Updated 12345678\_ProjectName.dst with additional Sheet Custom Properties #53-60 to support GNRL TBLK Design Streetlight - Ansi D (22X34) Landscape

### Layers

- Changed following layers:
  - o Updated colour of V-CATH-TEXT in Survey and Mapping template from 223 to 222 to match colour in Civil template.
  - o Updated linetype of V-WATR-CASE in Survey and Mapping template from GEN-PW (CofC) to CONTINUOUS to match line type in Civil template.

### Blocks

- Added following blocks:
  - o PR NGAS Meter (Anno)
  - o New Speed cushion blocks:
    - EX ROAD Speed Cushion - Double
    - EX ROAD Speed Cushion - Single
    - EX ROAD Speed Cushion - Two Way
    - PR ROAD Speed Cushion - Double
    - PR ROAD Speed Cushion - Single
    - PR ROAD Speed Cushion - Two Way
  - o New wastewater (sanitary) manhole blocks:
    - EX SSWR 15 Manhole
    - EX SSWR 18 Manhole
    - EX SSWR 21 Manhole
    - EX SSWR 24 Manhole
    - EX SSWR 30 Manhole
    - PR SSWR 15 Manhole
    - PR SSWR 18 Manhole
    - PR SSWR 21 Manhole
    - PR SSWR 24 Manhole
    - PR SSWR 30 Manhole
    - FUT SSWR 15 Manhole
    - FUT SSWR 18 Manhole
    - FUT SSWR 21 Manhole
    - FUT SSWR 24 Manhole



- FUT SSWR 30 Manhole
- New stormwater manhole blocks:
  - EX STRM 15 Manhole
  - EX STRM 18 Manhole
  - EX STRM 21 Manhole
  - EX STRM 24 Manhole
  - EX STRM 30 Manhole
  - PR STRM 15 Manhole
  - PR STRM 18 Manhole
  - PR STRM 21 Manhole
  - PR STRM 24 Manhole
  - PR STRM 30 Manhole
  - FUT STRM 15 Manhole
  - FUT STRM 18 Manhole
  - FUT STRM 21 Manhole
  - FUT STRM 24 Manhole
  - FUT STRM 30 Manhole
- New streetlight title block:
  - GNRL TBLK Design Streetlight - Ansi D (22X34) Landscape
- Removed following blocks as they are no longer required:
  - \_ClosedBlank
  - AeccTickCircle (Anno)
  - AeccTickCircle
  - AeccTickLine
- Updated following blocks:
  - GNRL Logo CoC\_Horiz block as original one looked different when using AutoCAD 2024 version (included this change on 2024-06-03 version).
  - Updated following blocks as they were twice as large as they should be, and scaled them down to 0.5:
    - EX STRM Lid Bioswale (Anno)
    - PR STRM Lid Bioswale (Anno)
    - EX STRM Stormwater Capture & Reuse (Anno)
    - PR STRM Stormwater Capture & Reuse (Anno)
    - EX STRM Soil Cell (Anno)
    - PR STRM Soil Cell (Anno)
  - Fixed EX WATR Pressure Reducing Valve (Anno) block as it was corrupted and causing issues (included this change on 2024-03-18 version).

### Structure Styles:

- Added following styles for sanitary (wastewater) manholes:



- AS-BUILT BP SANITARY 1.5 MH (Plan Profile Section)
- AS-BUILT BP SANITARY 1.5 MH Pipe Outline (Plan Profile Section)
- AS-BUILT BP SANITARY 1.8 MH (Plan Profile Section)
- AS-BUILT BP SANITARY 1.8 MH Pipe Outline (Plan Profile Section)
- AS-BUILT BP SANITARY 2.1 MH (Plan Profile Section)
- AS-BUILT BP SANITARY 2.1 MH Pipe Outline (Plan Profile Section)
- AS-BUILT BP SANITARY 2.4 MH (Plan Profile Section)
- AS-BUILT BP SANITARY 2.4 MH Pipe Outline (Plan Profile Section)
- AS-BUILT BP SANITARY 3.0 MH (Plan Profile Section)
- AS-BUILT BP SANITARY 3.0 MH Pipe Outline (Plan Profile Section)
- EX SANITARY 1.5 MH (Plan Profile Section)
- EX SANITARY 1.5 MH Pipe Outline (Plan Profile Section)
- EX SANITARY 1.8 MH (Plan Profile Section)
- EX SANITARY 1.8 MH Pipe Outline (Plan Profile Section)
- EX SANITARY 2.1 MH (Plan Profile Section)
- EX SANITARY 2.1 MH Pipe Outline (Plan Profile Section)
- EX SANITARY 2.4 MH (Plan Profile Section)
- EX SANITARY 2.4 MH Pipe Outline (Plan Profile Section)
- EX SANITARY 3.0 MH (Plan Profile Section)
- EX SANITARY 3.0 MH Pipe Outline (Plan Profile Section)
- PR SANITARY 1.5 MH (Plan Profile Section)
- PR SANITARY 1.5 MH Pipe Outline (Plan Profile Section)
- PR SANITARY 1.8 MH (Plan Profile Section)
- PR SANITARY 1.8 MH Pipe Outline (Plan Profile Section)
- PR SANITARY 2.1 MH (Plan Profile Section)
- PR SANITARY 2.1 MH Pipe Outline (Plan Profile Section)
- PR SANITARY 2.4 MH (Plan Profile Section)
- PR SANITARY 2.4 MH Pipe Outline (Plan Profile Section)
- PR SANITARY 3.0 MH (Plan Profile Section)
- PR SANITARY 3.0 MH Pipe Outline (Plan Profile Section)
- FUT SANITARY 1.5 MH (Plan Profile Section)
- FUT SANITARY 1.5 MH Pipe Outline (Plan Profile Section)
- FUT SANITARY 1.8 MH (Plan Profile Section)
- FUT SANITARY 1.8 MH Pipe Outline (Plan Profile Section)
- FUT SANITARY 2.1 MH (Plan Profile Section)
- FUT SANITARY 2.1 MH Pipe Outline (Plan Profile Section)
- FUT SANITARY 2.4 MH (Plan Profile Section)
- FUT SANITARY 2.4 MH Pipe Outline (Plan Profile Section)
- FUT SANITARY 3.0 MH (Plan Profile Section)
- FUT SANITARY 3.0 MH Pipe Outline (Plan Profile Section)
- Added following styles for stormwater manholes:
  - AS-BUILT BP STORM 1.5 MH (Plan Profile Section)
  - AS-BUILT BP STORM 1.5 MH Pipe Outline (Plan Profile Section)



- AS-BUILT BP STORM 1.8 MH (Plan Profile Section)
- AS-BUILT BP STORM 1.8 MH Pipe Outline (Plan Profile Section)
- AS-BUILT BP STORM 2.1 MH (Plan Profile Section)
- AS-BUILT BP STORM 2.1 MH Pipe Outline (Plan Profile Section)
- AS-BUILT BP STORM 2.4 MH (Plan Profile Section)
- AS-BUILT BP STORM 2.4 MH Pipe Outline (Plan Profile Section)
- AS-BUILT BP STORM 3.0 MH (Plan Profile Section)
- AS-BUILT BP STORM 3.0 MH Pipe Outline (Plan Profile Section)
- EX STORM 1.5 MH (Plan Profile Section)
- EX STORM 1.5 MH Pipe Outline (Plan Profile Section)
- EX STORM 1.8 MH (Plan Profile Section)
- EX STORM 1.8 MH Pipe Outline (Plan Profile Section)
- EX STORM 2.1 MH (Plan Profile Section)
- EX STORM 2.1 MH Pipe Outline (Plan Profile Section)
- EX STORM 2.4 MH (Plan Profile Section)
- EX STORM 2.4 MH Pipe Outline (Plan Profile Section)
- EX STORM 3.0 MH (Plan Profile Section)
- EX STORM 3.0 MH Pipe Outline (Plan Profile Section)
- PR STORM 1.5 MH (Plan Profile Section)
- PR STORM 1.5 MH Pipe Outline (Plan Profile Section)
- PR STORM 1.8 MH (Plan Profile Section)
- PR STORM 1.8 MH Pipe Outline (Plan Profile Section)
- PR STORM 2.1 MH (Plan Profile Section)
- PR STORM 2.1 MH Pipe Outline (Plan Profile Section)
- PR STORM 2.4 MH (Plan Profile Section)
- PR STORM 2.4 MH Pipe Outline (Plan Profile Section)
- PR STORM 3.0 MH (Plan Profile Section)
- PR STORM 3.0 MH Pipe Outline (Plan Profile Section)
- FUT STORM 1.5 MH (Plan Profile Section)
- FUT STORM 1.5 MH Pipe Outline (Plan Profile Section)
- FUT STORM 1.8 MH (Plan Profile Section)
- FUT STORM 1.8 MH Pipe Outline (Plan Profile Section)
- FUT STORM 2.1 MH (Plan Profile Section)
- FUT STORM 2.1 MH Pipe Outline (Plan Profile Section)
- FUT STORM 2.4 MH (Plan Profile Section)
- FUT STORM 2.4 MH Pipe Outline (Plan Profile Section)
- FUT STORM 3.0 MH (Plan Profile Section)
- FUT STORM 3.0 MH Pipe Outline (Plan Profile Section)

Layouts:

- Added following layout:
  - 007 - STREETLIGHT DESIGN - ANSI D (22x34) LANDSCAPE



- Renamed following layouts due to additional layout:
  - Renamed 007 - REPORT - ANSI A (8.5x11) LANDSCAPE to 008 - REPORT - ANSI A (8.5x11) LANDSCAPE
  - Renamed 008 - REPORT - ANSI A (8.5x11) PORTRAIT to 009 - REPORT - ANSI A (8.5x11) PORTRAIT
  - Renamed 009 - REPORT - ANSI B (11x17) LANDSCAPE to 010 - REPORT - ANSI B (11x17) LANDSCAPE
  - Renamed 010 - REPORT - ANSI B (11x17) PORTRAIT to 011 - REPORT - ANSI B (11x17) PORTRAIT
  - Renamed 011 - REPORT - ANSI D (22x34) LANDSCAPE to 012 - REPORT - ANSI D (22x34) LANDSCAPE
  - Renamed 012 - REPORT - ANSI D (22x34) PORTRAIT to 013 - REPORT - ANSI D (22x34) PORTRAIT
  - Renamed 013 - REPORT - ANSI E (33x44) LANDSCAPE to 014 - REPORT - ANSI E (33x44) LANDSCAPE
  - Renamed 014 - REPORT - ANSI E (33x44) PORTRAIT to 015 - REPORT - ANSI E (33x44) PORTRAIT

## 2024-06-03 Minor revision

### Templates

- Updated General template to incorporate revision listed below:

### Blocks

- Updated GNRL Logo CoC\_Horiz block as original one looked different when using AutoCAD 2024 version.

## 2024-03-18 Minor revision

### Templates

- Updated Civil and Survey and Mapping templates to incorporate revisions listed below:

### Blocks

- Fixed EX WATR Pressure Reducing Valve (Anno) block as it was corrupted and causing issues.



## 2024-01-15 Major revision incorporating all changes made in 2023

### Templates

- Updated Civil and Survey and Mapping templates to incorporate revisions listed below:

### Layers

- Added following layers (all necessary for upcoming Utility Network implementation)
  - o V-CATH-CABL
  - o V-WATR-CASE-NPW~
  - o V-WATR-CHAM-NPW~
  - o V-WATR-FITT
  - o V-WATR-FITT-NPW~
  - o V-WATR-MHOL-NPW~
  - o V-WATR-NPLT
  - o V-WATR-NPLT-NPW~
  - o V-WATR-PS~~
  - o V-WATR-PS~~-NPW~
  - o V-WATR-RES~
  - o V-WATR-RES~-NPW~
  - o V-WATR-SRVC-NPW~
  - o C-CATH-CABL
  - o C-WATR-CASE-NPW~
  - o C-WATR-CHAM-NPW~
  - o C-WATR-FITT
  - o C-WATR-FITT-NPW~
  - o C-WATR-MHOL-NPW~
  - o C-WATR-NPLT
  - o C-WATR-NPLT-NPW~
  - o C-WATR-PS~~
  - o C-WATR-PS~~-NPW~
  - o C-WATR-RES~
  - o C-WATR-RES~-NPW~
  - o C-WATR-SRVC-NPW~
- Changed following layers:
  - o C/V-WATR-NPW~-DIMS to C/V-WATR-DIMS-NPW~



- C/V-WATR-NPW--TEXT to C/V-WATR-TEXT-NPW~
- C-WATR-NPW--TEXT-F to C-WATR-TEXT-NPW--F

### Blocks

- Added following blocks:
  - EX POWR Anode Cathodic Protection (Anno) and PR POWR Anode Cathodic Protection (Anno)
  - PR POWR Rectifier Cathodic Protection (Anno)
  - EX WATR Pressure Reducing Valve (Anno) and PR WATR Pressure Reducing Valve (Anno)
  - GEN SWLK Wheel Chair Ramp (Tactile Pad) - Curved - Double
  - GEN SWLK Wheel Chair Ramp (Tactile Pad) - Curved - Left
  - GEN SWLK Wheel Chair Ramp (Tactile Pad) - Curved - Right
  - GEN SWLK Wheel Chair Ramp (Tactile Pad) - Straight - Double
  - GEN SWLK Wheel Chair Ramp (Tactile Pad) - Straight - Left
  - GEN SWLK Wheel Chair Ramp (Tactile Pad) - Straight - Right
- Removed following blocks:
  - EX UTIL San CO (Anno)
  - PR UTIL San CO (Anno)
- Updated horizontal grid lines in GEN MISC Profile View Grid (As-Built BP Only) - not measuring correctly.

### Styles:

- Modify 'EX Water Fitting' Fitting Style to use EX-WATR-FITT layer

### Line Types:

- Updated CofC\_Linetypes - Consolidated (Standard Text).lin and CofC\_Linetypes - Consolidated (Upright Text).lin" with following change:
- Added GEN-CATHODIC (CofC) linetype

### Expressions:

- Use same formula for Downslope and Grade Check in the following expressions:
  - Line Labels expressions
  - Curve Label expressions
  - Link Label expression
  - Surface Label – Slope Expression

### Sets:

- Moved following from Standard Set into Grading Criteria Set:
  - Distance, elevation, and surface grading criteria





## 2023-01-16 Major Revision incorporating all changes made in 2022

### CAD Standard Guidance Document

- Minor typographical and wording updates

### CAD Standard Document

- Minor typographical and wording updates

### Templates

- Updated General, Civil, and Survey and Mapping templates to incorporate revisions listed below

### Layers

- Added following layers:
  - o C-WATR-CASE
  - o V-WATR-CASE
- Removed following layers:
  - o C-SITE-SWLK-RAMP-TACT
  - o C-SITE-SWLK-RAMP-TACT-F
  - o V-SITE-SWLK-RAMP-TEXT
  - o V-SITE-SWLK-RAMP-TACT
- Modified layer description of all \*-TOPO-EMBK-\* layers (changed “bank” to “embankment”)

### Blocks

- Added following blocks:
  - o GNRL Logo CBYD (Click Before You Dig Logo – replaces Alberta One Call logo)
  - o GEN MRKG Bike
  - o GEN MRKG Bike Small
- Removed following block:
  - o GNRL Logo AOC
- Renamed following blocks:
  - o EX/PR WATR Wash Out – Access Drain Manhole (Anno) to EX/PR WATR Wash Out – Valve Chamber (Anno)
  - o EX/PR WATR Wash Out (anno) to EX/PR WATR Wash Out – Drain Manhole (Anno)
  - o Renamed GNRL TBLK Design Signals - Ansi B (11X17) Landscape to GNRL TBLK Design Transit Signals - Ansi B (11X17) Landscape
- Added 'Grey' Visibility State in GNRL Logo CoC\_Horiz and renamed 'Grey (Transit Only)' visibility state to 'Transit'
- Removed 'box' that represented a chamber in EX/PR WATR Wash Out - Access Drain Manhole (Anno) blocks as the chamber is to be drawn to scale



## Styles:

### ProfileView Label Style Projection

- Added following:
  - o AS-BUILT BP Projection (As Composed)
  - o EX Projection (As Composed)
  - o FUT Projection (As Composed)
  - o PR Projection (As Composed)

### Pipe Label Styles

- Corrected an issue with the EX WATR Plan (Diameter Material) where the material type in the label was using an Arial font, changed to Romans

### Band Set Styles

- Added following:
  - o EX Crest & Sag (Top & Bottom Band – Multi-profile)
  - o FUT Crest & Sag (Top & Bottom Band – Multi-profile)
  - o PR Crest & Sag (Top & Bottom Band – Multi-profile)
- Removed following duplicate bands:
  - o FUT Start-End Station & Elevation (shown on Top of profile view)
  - o PR Start-End Station & Elevation (shown on Top of profile view)

## Sample Drawings

Updated all sample drawings with following:

- Replaced Alberta One Call logo block in title block to Click Before You Dig Logo
- Replaced City logo with new grey City logo

## Terms and Abbreviations

- Added SGMT-VCT (Segmental – Vitrified Clay Tile)

## Other

- Updated GNRL Logo CoC\_Horiz blocks in title blocks to display the new Grey visibility state
- Renamed 006 - SIGNALS - ANSI B (11x17) LANDSCAPE layout tab in gnrl.dwt to 006 - TRANSIT SIGNALS - ANSI B (11x17) LANDSCAPE



## 2022-01-17 Major Revision incorporating all changes made in 2021

### CAD Standard Guidance Document

- Made change to indicate that The City will now accept files produced in AutoCAD 2022.

### CAD Standard Document

- Made change to indicate that The City will now accept files produced in AutoCAD 2022.
- Links point to newest versions of changed files

### Templates

- General, Civil, and Survey and Mapping templates updated to incorporate revisions listed below

### General

- Revised MSLTSCALE system variable to 1 to correct LT scale display issues in model space

### Layers

- Added following layers:
  - o C-ROAD-CURB-FACE-F
  - o C-SITE-SWLK-BACK-F
  - o C-SITE-SWLK-BACK-MONO-F
  - o C-SITE-SWLK-BACK-SEP~-F
  - o C-SITE-SWLK-FRNT-F
  - o C-SITE-SWLK-RAMP-F
  - o C-SITE-SWLK-RAMP-TACT-F

### Blocks

- Added following blocks:
  - o EX POWR 5G (Anno)
  - o EX STRM Catchbasin Super (Anno)
  - o EX STRM Catchbasin Super (C3D)
  - o FUT STRM Catchbasin Super (Anno)
  - o FUT STRM Catchbasin Super (C3D)
  - o PR POWR 5G (Anno)
  - o PR STRM Catchbasin Super (Anno)
  - o PR STRM Catchbasin Super (C3D)
  - o EX WATR Flanged Outlet (Anno)
  - o PR WATR Flanged Outlet (Anno)
- Adjusted following blocks as noted:
  - o Added mask to EX/PR WATR Flush (Anno)



- Added flow direction to EX/PR WATR Check Valve (Anno)
- Modified insertion point of EX/PR UTIL Loop (Anno)
- 1:250 (HORZ) 1:25 (VERT) visibility state added to GNRL Scale

### Styles:

#### Civil 3d Structure Label Styles

- Added following Styles:
  - AS-BUILT BP STORM CB SUPER (Plan Profile Section)
  - EX STORM CB SUPER (Plan Profile Section)
  - FUT STORM CB SUPER (Plan Profile Section)
  - PR STORM CB SUPER (Plan Profile Section)

#### Alignment Line Label Styles

- Added following Style:
  - TC Tag

#### Alignment Segment Table Style:

- Added TC Data style

#### Alignment Curve Table Style:

- Modified 'Radii Points' table style to use consistent justification (middle)

#### General Line Label Style:

- PR Length 2.5 mm - modified dragged state text height from 2.0 mm to 2.5 mm to be consistent with the general text height

### Sample Drawings

- Updated following drawings to remove 'Top of Sanitary' and 'Top of Water' labels and remove 'Top of Storm' labels on Storm pipes with diameter less than 375 mm to align with block profile standard document:
  - Capital Project Design Block Profile
  - Subdivision Design Block Profile
  - Subdivision Design Block Profile (ANNOTATED)
  - As-built Block Profile with Plan and Profile View
  - As-built Block Profile with Plan and Profile View (ANNOTATED)
  - As-built Block Profile with Plan, Utility, and Profile View
  - As-built Block Profile Utility R/W

## **2020-12-15 Major Revision incorporating all changes made in 2020**

### CAD Standard Guidance Document



- Made changes to indicate templates have been recreated in AutoCAD® 2018
- Added clarification for block profile title blocks
- Added notes on when the <RXX.X> folder is applicable

### CAD Standard Document

- Made changes to indicate templates have been recreated in AutoCAD® 2018

### Templates

- All templates updated to AutoCAD® 2018
- All templates have been renamed from the 'xxx-2015-r1.dwt' format to 'xxx.dwt'
- All templates updated to incorporate revisions listed below

### Blocks

- Added following blocks:
  - o EX NGAS Farm Tap Unit (Anno)
  - o EX NGAS Stations Sites Plants (Anno)
- Renamed following blocks:
  - o EX UTIL San C0 (Anno) renamed to EX UTIL San CO (Anno) – note "0" changed to "O"
  - o GEN UTIL San C0 (Anno) renamed to PR UTIL San CO (Anno) – note "0" changed to "O"
  - o GEN UTIL San Swr Lift Sta (Anno) renamed to PR UTIL San Swr Lift Sta (Anno)
  - o GEN UTIL Septic Tank (Anno) renamed to PR UTIL Septic Tank (Anno)
  - o GEN UTIL Wtr M Sta (Anno) renamed to PR UTIL Wtr M Sta (Anno)
- Adjusted following blocks as noted:
  - o Changed rotation of the following blocks:
    - EX UTIL Loop (Anno)
    - PR UTIL Loop (Anno)
  - o Removed annotative properties and changed rotation of the following blocks:
    - GEN UTIL Outfall-Inlet (C3D)
  - o Adjusted the insertion point of the following blocks:
    - GEN UTIL Outfall-Inlet (Anno)
  - o Removed dynamic grip properties of the following blocks:
    - PR STRM Catchbasin (C3D)
    - PR STRM Catchbasin Double (C3D)
    - PR STRM Catchbasin Triple (C3D)
  - o Scaled 2x the following blocks:
    - PR STRM Catchbasin Triple (C3D)
  - o Rotated the following blocks 180 degrees:



- EX SSWR Cap (C3D)
  - FUT SSWR Cap (C3D)
  - PR SSWR Cap (C3D)
  - EX STRM Cap (C3D)
  - FUT STRM Cap (C3D)
  - PR STRM Cap (C3D)
- Updated Standard Symbols files to reflect additions/modifications & template name changes in file paths

### Layers

- Added following layers:
  - C-NGAS-HPIP-A
  - C-NGAS-LPIP-A
  - C-WATR-FEED-NPW~
  - C-WATR-FEED-NPW~-A
  - C-WATR-FEED-NPW~-F
  - C-WATR-HYDT-LEAD-NPW~
  - C-WATR-HYDT-LEAD-NPW~-F
  - C-WATR-HYDT-NPW~
  - C-WATR-HYDT-VALV-NPW~
  - C-WATR-LEVEL-NPW~
  - C-WATR-MARK-NPW~
  - C-WATR-NPW~-DIMS
  - C-WATR-NPW~-TEXT
  - C-WATR-NPW~-TEXT-F
  - C-WATR-PIPE-NPW~
  - C-WATR-PIPE-NPW~-A
  - C-WATR-PIPE-NPW~-F
  - C-WATR-STRC-NPW~
  - C-WATR-STRC-NPW~-F
  - C-WATR-VALV-NPW~
  - L-DEVP-HTCH
  - L-DEVP-TEXT
  - L-EDGE
  - L-PLNT-TREE-TRCH
  - V-FENC-BRBW-OBSC
  - V-FENC-NSBR-OBSC
  - V-FENC-OBSC
  - V-FENC-POST-OBSC
  - V-FENC-STEL-OBSC
  - V-FENC-WOOD-OBSC
  - V-LITE-POLE-OBSC



- V-LITE-POLE-SWEP-OBSC
- V-NGAS-HPIP-A
- V-NGAS-LPIP-A
- V-PLNT-CLRG-OBSC
- V-PLNT-TREE-CONF-OTLN
- V-PLNT-TREE-CONF-TRNK
- V-PLNT-TREE-DECD-OTLN
- V-PLNT-TREE-DECD-TRNK
- V-PLNT-TREE-OBSC
- V-POLE-MISC-OBSC
- V-POWR-POLE-OBSC
- V-POWR-STRC-PED~-OBSC
- V-RAIL-TRAK-LRT~-OBSC
- V-RAIL-TRAK-OBSC
- V-ROAD-CONN-CNTR
- V-ROAD-MRKG-XWLK-CNTR
- V-ROAD-PPAD-ASPH
- V-ROAD-PPAD-CONC
- V-ROAD-PPAD-GRVL
- V-SITE-BRDG-PED~-CNTR
- V-SITE-FURN-OBSC
- V-SITE-GARB-OBSC
- V-SITE-MAIL-OBSC
- V-SITE-PHON-OBSC
- V-SITE-SIGN-OBSC
- V-SITE-SWLK-CNTR
- V-SITE-SWLK-POLY
- V-SITE-TOWR-OBSC
- V-SITE-TRAL-ASPH-CNTR
- V-SITE-TRAL-ASPH-POLY
- V-SITE-TRAL-GRVL-CNTR
- V-SITE-TRAL-GRVL-POLY
- V-SITE-TRAL-OBSC
- V-STRM-CBAS-OBSC
- V-TRAF-CAB~-OBSC
- V-UTIL-MHOL-OBSC
- V-WATR-FEED-NPW~
- V-WATR-FEED-NPW~-A
- V-WATR-FEED-NPW~-ASBL
- V-WATR-FEED-NPW~-ASBL-A
- V-WATR-HYDT-FLSE-NPW~
- V-WATR-HYDT-LEAD-NPW~
- V-WATR-HYDT-NPW~



- V-WATR-HYDT-OBSC
  - V-WATR-HYDT-TRUE-NPW~
  - V-WATR-HYDT-VALV-NPW~
  - V-WATR-LEVL-NPW~
  - V-WATR-MARK-NPW~
  - V-WATR-NPW~-DIM
  - V-WATR-NPW~-TEXT
  - V-WATR-PIPE-NPW~
  - V-WATR-PIPE-NPW~-A
  - V-WATR-PIPE-NPW~-ASBL
  - V-WATR-PIPE-NPW~-ASBL-A
  - V-WATR-STRC-NPW~
  - V-WATR-VALV-NPW~
- Adjusted following layers as noted:
    - Changed colour of following:
      - V-REFR to WHITE - adjusted color to be consistent in CIVL and SRMP template - color White in both
      - V-STRM-CBAS-SPOT - adjusted color to be consistent in CIVL and SRMP template - color 8 in both
      - C-ROAD-CUSH layer to 120
  - Updated Standard Layers files to reflect additions/modifications & template name changes in file paths

### Label Styles:

#### Pipe Label Styles

- Modified the following as noted:
  - EX SANITARY Plan (Diameter Material Length Slope Inverts) and child styles - adjusted slope to 2 decimal precision
  - EX SANITARY Plan (Diameter Material Length Slope)
  - EX STORM Culvert Plan (Diameter Material Length Slope Inverts) and child styles - adjusted slope to 2 decimal precision
  - EX STORM Culvert Plan (Diameter Material Length Slope)
  - EX STORM Plan (Diameter Material Length Slope Inverts) and child styles - adjusted slope to 2 decimal precision
  - EX STORM Plan (Diameter Material Length Slope)
  - FUT SANITARY Plan (Diameter Material Length Slope Inverts) and child styles - adjusted slope to 2 decimal precision
  - FUT SANITARY Plan (Diameter Material Length Slope)





- FUT STORM Culvert Plan (Diameter Material Length Slope Inverts) and child styles - adjusted slope to 2 decimal precision
  - FUT STORM Culvert Plan (Diameter Material Length Slope)
  - FUT STORM Plan (Diameter Material Length Slope Inverts) and child styles - adjusted slope to 2 decimal precision
  - FUT STORM Plan (Diameter Material Length Slope)
  - PR SANITARY Plan (Diameter Material Length Slope Inverts) and child styles - adjusted slope to 2 decimal precision
  - PR SANITARY Plan (Diameter Material Length Slope)
  - PR STORM Culvert Plan (Diameter Material Length Slope Inverts) and child styles - adjusted slope to 2 decimal precision
  - PR STORM Culvert Plan (Diameter Material Length Slope)
  - PR STORM Plan (Diameter Material Length Slope Inverts) and child styles - adjusted slope to 2 decimal precision
  - PR STORM Plan (Diameter Material Length Slope)
  - Removed 'Pipe Aligned' from the style name of all pipe invert label styles
  - Adjusted all AS-BUILT BP 'Plan' labels to use same Gap and Background mask settings as EX, FUT and PR labels
- Added the following as noted:
- AS-BUILT BP SANITARY Plan Invert (End)
  - AS-BUILT BP SANITARY Plan Invert (End) (Truncated)
  - AS-BUILT BP SANITARY Plan Invert (Start)
  - AS-BUILT BP SANITARY Plan Invert (Start) (Truncated)
  - AS-BUILT BP STORM Plan Invert (End)
  - AS-BUILT BP STORM Plan Invert (End) (Truncated)
  - AS-BUILT BP STORM Plan Invert (Start)
  - AS-BUILT BP STORM Plan Invert (Start) (Truncated)
  - EX SANITARY Plan Invert (End)
  - EX SANITARY Plan Invert (End) (Truncated)
  - EX SANITARY Plan Invert (Start)
  - EX SANITARY Plan Invert (Start) (Truncated)
  - EX STORM Plan Invert (End)
  - EX STORM Plan Invert (End) (Truncated)



- EX STORM Plan Invert (Start)
- EX STORM Plan Invert (Start) (Truncated)
- FUT SANITARY Plan Invert (End)
- FUT SANITARY Plan Invert (End) (Truncated)
- FUT SANITARY Plan Invert (Start)
- FUT SANITARY Plan Invert (Start) (Truncated)
- FUT STORM Plan Invert (End)
- FUT STORM Plan Invert (End) (Truncated)
- FUT STORM Plan Invert (Start)
- FUT STORM Plan Invert (Start) (Truncated)
- PR SANITARY Plan Invert (End)
- PR SANITARY Plan Invert (End) (Truncated)
- PR SANITARY Plan Invert (Start)
- PR SANITARY Plan Invert (Start) (Truncated)
- PR STORM Plan Invert (End)
- PR STORM Plan Invert (End) (Truncated)
- PR STORM Plan Invert (Start)
- PR STORM Plan Invert (Start) (Truncated)

#### General Curve Label Styles:

- Added following Styles:
  - EX Bell West
  - EX Enmax
  - EX Fibre Optics
  - EX Foreign
  - EX Sanitary
  - EX Shaw
  - EX Storm
  - EX Telus
  - EX Water

#### File Locations Document

- Added notes on when the <RXX.X> folder is applicable

#### CTB Files



- Modified the following as noted:
  - o CofC AOC (Half).ctb - adjusted color 255 to print white (true color = 255,255,255)
  - o CofC AOC.ctb - adjusted color 255 to print white (true color = 255,255,255)
  - o CofC Black and Grey (Half).ctb - adjusted color 255 to print white (true color = 255,255,255)
  - o CofC Black and Grey.ctb - adjusted color 255 to print white (true color = 255,255,255)
  - o CofC Colour (Half).ctb - adjusted color 255 to print white (true color = 255,255,255)
  - o CofC Colour.ctb - adjusted color 255 to print white (true color = 255,255,255)
  
- Updated the DWG to PDF (CofC).pc3 file to reduce the plotter configuration default value from 2400 to 600 dpi to align with the Autodesk default
  
- Updated Plot Style CTB.zip to reflect the adjustments listed above.

#### Minor Group Descriptions

- Updated Minor Group Descriptions.pdf to match new group names in layers

#### Major Group Descriptions

- Updated Major Group Descriptions.pdf to match new group names in layers

#### Discipline Designators

- Added following new Level 2 Discipline Designators:
  - o CA Civil Alignments
  - o CC Civil Profiles
  - o CL Landscape Plans
  - o CM Details
  - o CR Pavement Resurfacing Plans
  - o CW Stormwater Management Plans
  - o CX Civil Typical Sections
  - o UB Utility Block Profiles
  - o UF Fibre Optic Duct Plans
  - o XS Street Lighting Plans

#### Sample Drawings

- Updated Sanitary\_Sewers\_Sample.pdf to reflect change in precision in pipe label styles



- Updated Subdivision\_Storm\_Sewers\_Sample\_Annotated.pdf with new 'Plan' invert label styles
- Updated Subdivision\_Design\_Block\_Profile\_Sample\_Annotated.pdf with new 'Plan' invert label styles
- Updated Block\_Profile\_Sample\_1\_Annotated.pdf with new 'Plan' invert label styles
- Updated Index Sample.pdf with Level 1 & Level 2 Discipline Designators

#### FAQ Page

- Added the following additional frequently asked question responses
  - o Is there a way I can label ground coordinates with grid values?
  - o How should a material change or a change in pipe size for waterlines be represented in a profile?
- Updated the following frequently asked question responses
  - o Can I still use the old CAD Block Profile Standard layers and blocks?
  - o Is it acceptable to submit AutoCAD® 2019 drawings?



## 2019-12-05 Major Revision incorporating all changes made in 2019

### Templates

- All templates updated to incorporate revisions listed below

### Blocks

- Added following blocks
  - AeccTickLine (C3D)
  - EX SSWR Manhole & Label (Profile - As-Built BP Only)
  - EX STRM Manhole & Label (Profile - As-Built BP Only)
  - EX/FUT/PR SSWR Big Box 3.0 Manhole
  - EX/FUT/PR SSWR Big Box 4.0 Manhole
  - EX/FUT/PR SSWR Big Box 3.5 Manhole
  - EX/FUT/PR SSWR Cap (C3D)
  - EX/FUT/PR STRM Big Box 3.0 Manhole
  - EX/FUT/PR STRM Big Box 3.5 Manhole
  - EX/FUT/PR STRM Big Box 4.0 Manhole
  - EX/FUT/PR STRM Cap (C3D)
  - EX/FUT/PR STRM Concrete Splash Pad
  - EX/FUT/PR STRM RipRap
  - EX/PR Bio Retention Garden (Anno)
  - EX/PR LITE Cabinet (Anno)
  - EX/PR POWR Photo Electric Cell (Anno)
  - EX/PR POWR Photo Electric Relay (Anno)
  - EX/PR POWR Relay (Anno)
  - EX/PR POWR Supply (Anno)
  - EX/PR ROAD Speed Cushion
  - EX/PR ROAD Speed Hump
  - EX/PR ROAD Speed Table
  - EX/PR SITE Mail box (Twin) (Anno)
  - EX/PR SSWR Thrust Block (Anno)
  - EX/PR STRM Coupling (Anno)
  - EX/PR STRM Lid Bioswale (Anno)
  - EX/PR STRM Soil Cell (Anno)
  - EX/PR STRM Stormwater Capture & Reuse (Anno)
  - EX/PR TRAF Cabinet (Anno)
  - EX/PR WATR Cleanout (Anno)
  - EX/PR WATR Hydrant with Reducer (Anno)
  - EX/PR WATR Level (Anno)
  - EX/PR WATR Wash Out - Access Drain Manhole (Anno)
  - EX/PR WATR Wash Out (Anno)
  - FUT SSWR Cap (Anno)



- FUT STRM Cap (Anno)
- FUT WATR Cap (Anno)
- GEN MISC Arrow (Drainage Areas) (Anno)
- GEN MISC Drop Location (Anno)
- GEN MISC Garage Driveway Location (Anno)
- GEN MISC Profile View Grid (As-Built BP Only)
- GEN MISC Service Location
- GEN MISC Side Flow Rear
- GEN MISC Side Flow Split
- GEN MRKG Cross-Ride
- GEN ROAD LPR Concrete Barrier (Elevation)
- GEN ROAD LPR Concrete Barrier (Plan)
- GEN ROAD LPR Concrete Barrier (Section)
- GEN ROAD LPR Concrete Barrier End (Elevation)
- GEN ROAD LPR Concrete Barrier End (Plan)
- GEN ROAD Precast Concrete Curb & Flexible Delineator (Section)
- GEN ROAD Precast Concrete Curb (Elevation)
- GEN ROAD Precast Concrete Curb (Plan)
- GEN ROAD Precast Concrete Curb (Section)
- GEN ROAD STD Concrete Barrier (Elevation)
- GEN ROAD STD Concrete Barrier (Plan)
- GEN ROAD STD Concrete Barrier (Section)
- GEN ROAD STD Concrete Barrier End (Elevation)
- GEN ROAD STD Concrete Barrier End (Plan)
- GEN ROAD STD Concrete Barrier End (Section)
- GEN ROAD STD Concrete Barrier Half (Plan)
- GEN ROAD STD Concrete Barrier Half (Section)
- GEN ROAD STD Concrete Barrier Transition (Elevation)
- GEN ROAD STD Concrete Barrier Transition (Section)
- GEN ROAD Stop Island (Elevation)
- GEN ROAD Stop Island (Plan)
- GEN ROAD Stop Island (Section)
- GEN SWLK Wheel Chair Ramp - Curved - 3.0 m
- GEN SWLK Wheel Chair Ramp - EX Legacy
- GEN SWLK Wheel Chair Ramp - Straight - 3.0 m
- GEN SWLK Wheel Chair Ramp (Tactile Pad) - Curved
- GEN SWLK Wheel Chair Ramp (Tactile Pad) - Curved - 3.0 m
- GEN SWLK Wheel Chair Ramp (Tactile Pad) - Straight
- GEN SWLK Wheel Chair Ramp (Tactile Pad) - Straight - 3.0 m
- GEN TRAF Sign - Caution Stop Line
- GEN TRAF Sign - Danger 2nd Train
- GEN TRAF Sign - Do Not Cross
- GEN TRAF Sign - Do Not Enter

- GEN TRAF Sign - Look Both Ways (A)
- GEN TRAF Sign - Look Both Ways (B)
- GEN TRAF Sign - No Entrance Except CT
- GEN TRAF Sign - No Left Turn Train
- GEN TRAF Sign - No Right Turn Train
- GEN TRAF Sign - No Through Except CT
- GEN TRAF Sign - No Trespassing
- GEN TRAF Sign - No Turn On Red
- GEN TRAF Sign - Pedestrian Signal
- GEN TRAF Sign - Railroad Crossing
- GEN TRAF Sign - Railroad Crossing Ahead
- GEN TRAF Sign - Railroad Crossing Tab
- GEN TRAF Sign - Stop Line
- GEN TRAF Sign - Symbol 1 (Anno)
- GEN TRAF Sign - Symbol 10 (Anno)
- GEN TRAF Sign - Symbol 11 (Anno)
- GEN TRAF Sign - Symbol 12 (Anno)
- GEN TRAF Sign - Symbol 13 (Anno)
- GEN TRAF Sign - Symbol 2 (Anno)
- GEN TRAF Sign - Symbol 3 (Anno)
- GEN TRAF Sign - Symbol 4 (Anno)
- GEN TRAF Sign - Symbol 5 (Anno)
- GEN TRAF Sign - Symbol 6 (Anno)
- GEN TRAF Sign - Symbol 7 (Anno)
- GEN TRAF Sign - Symbol 8 (Anno)
- GEN TRAF Sign - Symbol 9 (Anno)
- GEN TRAF Sign - Transit Only
- GEN TRAF Sign - Transit Signal
- GEN TRAF Sign - Watch For Trains
- GEN UTIL Outfall-Inlet (C3D)
- GEN UTIL Pipe Ellipse (Profile)
- GEN UTIL Pipe End (Profile)
- GNRL Ref Contract Limit Indicator Typ (Anno)
- GNRL Ref Grid Indicator - Num Multiphase (Anno)
- GNRL Ref Notes
- PR PROP Lot Data
- PR STRM Trap Low Data
- Added these blocks for conversion of base reference files:
  - EX CABL Vault (Anno)
  - EX FORE Abandoned Gas Well (Anno)
  - EX FORE Abandoned Oil Well (Anno)
  - EX FORE Abandoned Sour Gas Well (Anno)
  - EX FORE Operating Gas Well (Anno)



- EX FORE Operating Oil Well (Anno)
- EX FORE Operating Sour Gas Well (Anno)
- EX POWR Guy Wire (Anno) - Enmax BASE
- EX STRM Vault (Anno)
- EX WATR Vault (Anno)
- EX SSWR Coupling (Anno)
- EX WATR Hydrant Asset (Anno)
- EX SITE Landfill Well
- EX SITE Mail Box (Anno) – Legacy
- EX SITE Mail Box (Twin) (Anno) – Legacy
- Removed following blocks:
  - PR ROAD Bus Pad (instead of using a block, should show the actual size placement with line work)
  - GEN SWLK Wheel Chair Ramp - Separate Curved
  - GEN SWLK Wheel Chair Ramp - Separate Straight
- Renamed following blocks:
  - GEN SWLK Wheel Chair Ramp - Monolithic Curved to GEN SWLK Wheel Chair Ramp - Curved
  - GEN SWLK Wheel Chair Ramp - Monolithic Straight to GEN SWLK Wheel Chair Ramp - Straight
  - EX/PR TRAF Controller Cabinet (Anno) TO EX/PR TRAF Base (Anno)
- Adjusted following blocks as noted:
  - Changed size of following:
    - Scaled all PLNT blocks up x2
    - GNRL Ref Dwg Section Detail Title and GNRL Ref Dwg Block Title Typ - scaled by 0.8 to be consistent with other bubble sizes
    - PR POWR Junction Box (Anno) - adjusted size to align with EX POWR Junction Box (Anno)
    - GEN UTIL Outfall-Inlet (Anno) - scaled down
  - Changed insertion points of following:
    - EX WATR Hydrant (Anno) - insertion point
    - EX/PR POWR Photo Electric Cell (Anno)
    - EX/PR POWR Photo Electric Relay (Anno)
    - EX/PR POWR Relay (Anno)
    - EX SITE Mail Box (Anno)
    - EX SITE Mail Box (Twin) (Anno)
    - PR SITE Mail Box (Anno)
    - PR SITE Mail Box (Twin) (Anno)
  - Added dynamic parameters to following:
    - EX SITE Mail Box (Anno)
    - EX SITE Mail Box (Twin) (Anno)
    - PR SITE Mail Box (Anno)
    - PR SITE Mail Box (Twin) (Anno)
  - Changed rotation parameter of following:



- PR WATR Coupling (Anno)
- EX WATR Hydrant (Anno)
- PR WATR Hydrant (Anno)
- Adjusted GNRL Ref Match Line Indicator Typ (Anno) in GNRL template to use multiline text in attribute to allow background mask functionality
- Removed dynamic properties of following streetlight related blocks:
  - EX/PR LITE Davit Luminaire (x2) Pole (Anno)
  - EX/PR LITE Davit Luminaire (x3) Pole (Anno)
  - EX/PR LITE Davit Luminaire (x4) Pole (Anno)
  - EX/PR LITE Davit Luminaire Pole (Anno)
  - EX/PR POWR Guy Wire (Anno)
  - EX POWR Pole (Anno)
  - EX POWR Pole Dip (Anno)
  - EX/PR POWR Pole Luminaire (Anno)
  - EX/PR POWR Pole Luminaire (x2) (Anno)
  - EX/PR POWR Pole Luminaire (x2-90) (Anno)
  - EX POWR Pole Luminaire Dip (Anno)
  - EX POWR Tel Pole (Anno)
  - EX POWR Tel Pole Dip (Anno)
  - EX POWR Tel Pole Luminaire (Anno)
  - EX POWR Tel Pole Luminaire Dip (Anno)
  - EX/PR TRAF Base (Anno)
  - EX TRAF Flasher (Anno)
  - EX/PR TRAF Overhead Sign (Anno)
  - EX/PR TRAF Signal Pole (Anno)
  - GEN POWR Conduit Cap (Anno)
  - PR LITE Davit Luminaire Pole with SB and PC (Anno)
  - PR POWR Kiosk (Anno)
  - PR POWR Pole (Anno)
  - PR TRAF Signal Pole Luminaire (Anno)
- Title Blocks related changes:
  - Added “GNRL TBLK Design Signals - Ansi B (11X17) Landscape” block for use for Transit use
  - Modified following title blocks, to include fields required for as-built block profile title blocks:
    - GNRL TBLK Design General - Ansi D (22X34) Landscape)
    - GNRL TBLK Design Parks - Ansi D (22X34) Landscape)
    - GNRL TBLK Design Structural - Ansi D (22X34) Landscape)
    - GNRL TBLK Design Water - Ansi D (22X34) Landscape)
  - Removed “GNRL As-Built Block Profile - Ansi D (22X34) Landscape” block as as-built specific fields were added to modified title blocks listed above
  - Renumbered layout tabs after removing '003 - AS-BUILT BLOCK PROFILE - ANSI D (22x34) LANDSCAPE'. New layout numbers:
    - 000 - GENERAL COVER SHEET - ANSI D (22x34) LANDSCAPE



- 001 - ALTERNATE COVER SHEET - ANSI D (22x34) LANDSCAPE
- 002 - GENERAL DESIGN - ANSI D (22x34) LANDSCAPE
- 003 - PARKS DESIGN - ANSI D (22x34) LANDSCAPE
- 004 - STRUCTURAL DESIGN - ANSI D (22x34) LANDSCAPE
- 005 - WATER DESIGN - ANSI D (22x34) LANDSCAPE
- 006 - SIGNALS - ANSI B (11x17) LANDSCAPE
- 007 - REPORT - ANSI A (8.5x11) LANDSCAPE
- 008 - REPORT - ANSI A (8.5x11) PORTRAIT
- 009 - REPORT - ANSI B (11x17) LANDSCAPE
- 010 - REPORT - ANSI B (11x17) PORTRAIT
- 011 - REPORT - ANSI D (22x34) LANDSCAPE
- 012 - REPORT - ANSI D (22x34) PORTRAIT
- 013 - REPORT - ANSI E (33x44) LANDSCAPE
- 014 - REPORT - ANSI E (33x44) PORTRAIT
- Set viewports to PLAN / PROFILE for use in Plan Production Tools
- Removed "ISC: UNRESTRICTED" from file path
- Custom Sheet Set Properties / Attributes:
  - Changed SHEET COUNT to SHEET NO.; changed 11-SHET-COUN attribute to 11-SHET-NO~~; changed custom sheet property 11-SHET-COUNT to 11-SHET-NO~~
  - Added Drawn by, Drawn Date, and Number sheet set fields to be used on title blocks for as-built drawings
  - Added 49~-ISC-STAT sheet set custom property to handle ISC status (for City of Calgary use only)
  - Create attribute/field below title block to display 49~-ISC-STAT sheet set custom property
  - Updated 12345678\_ProjectName.dst sheet set file to reflect these changes.
- Updated Standard Symbols.zip with these updates in the Civil Blocks, General Blocks, Landscaping, and Survey and Mapping Blocks files.

## Layers

- Added following layers:
  - \*-DETL-1XWD-GREY
  - \*-DETL-2XWD-GREY
  - \*-DETL-DIMS
  - \*-DETL-FINE-BLCK
  - \*-DETL-HTCH-WIDE
  - \*-DETL-MEDM-GREY
  - \*-DETL-THIN-GREY
  - \*-DETL-UFIN-BLCK
  - \*-DETL-UFIN-GREY
  - \*-DETL-WIDE-GREY
  - \*-DETL-XFIN-BLCK
  - \*-ELEV-1XWD-GREY



- \*-ELEV-2XWD-GREY
- \*-ELEV-DIMS
- \*-ELEV-FINE-BLCK
- \*-ELEV-MEDM-GREY
- \*-ELEV-THIN-GREY
- \*-ELEV-UFIN-BLCK
- \*-ELEV-UFIN-GREY
- \*-ELEV-WIDE-GREY
- \*-ELEV-XFIN-BLCK
- \*-PROF-1XWD-GREY
- \*-PROF-2XWD-GREY
- \*-PROF-DIMS
- \*-PROF-FINE-BLCK
- \*-PROF-MEDM-GREY
- \*-PROF-THIN-GREY
- \*-PROF-UFIN-BLCK
- \*-PROF-UFIN-GREY
- \*-PROF-WIDE-GREY
- \*-PROF-XFIN-BLCK
- \*-SECT-1XWD-GREY
- \*-SECT-2XWD-GREY
- \*-SECT-DIMS
- \*-SECT-FINE-BLCK
- \*-SECT-HTCH-WIDE
- \*-SECT-MEDM-GREY
- \*-SECT-THIN-GREY
- \*-SECT-UFIN-BLCK
- \*-SECT-UFIN-GREY
- \*-SECT-WIDE-GREY
- \*-SECT-XFIN-BLCK
- C/V-EROS-FLOW
- C/V-EROS-HTCH
- C/V-EROS-HTCH-WIDE
- C/V-EROS-SHDE
- C/V-FENC-TEXT
- C/V-IRRG-TEXT
- C/V-POND-CONT
- C/V-POND-TEXT
- C/V-POWR-DUCT
- C/V-POWR-OVHD-DIST
- C/V-POWR-OVHD-FLSE
- C/V-POWR-OVHD-TRAN
- C/V-POWR-OVHD-TRUE



- C/V-POWR-UGND-FLSE
- C/V-POWR-UGND-TRUE
- C/V-PROF-ROAD-EDGE-ASPH
- C/V-PROF-ROAD-GUTR-N~W~
- C/V-PROF-ROAD-GUTR-S~E~
- C/V-PROF-STRM-DTCH
- C/V-PROF-STRM-SWLE
- C/V-PROF-WATR-PIPE
- C/V-PROP-TPNT
- C/V-ROAD-CURB-FLEX-DELI
- C/V-ROAD-CUSH
- C/V-ROAD-MRKG-LOAD-ZONE
- C/V-ROAD-MRKG-STEN-SHDE
- C/V-ROAD-MRKG-STEN-SYMB
- C/V-ROAD-MRKG-XWLK-STMP
- C/V-SITE-BIKE-RAMP
- C/V-SITE-TRAL-TEXT
- C/V-STRM-CBAS-TEXT
- C/V-STRM-SWLE-CSPL
- C/V-STRM-SWLE-RRAP
- C-ANNO-TEXT-F
- C-DETL-DIMS
- C-POND-FBRD
- C-POND-HWL~
- C-POND-LNWL
- C-POND-UNWL
- C-POWR-MISC-IN~~
- C-POWR-MISC-OUT~
- C-PROF-DIMS
- C-PROF-DSGN
- C-PROF-DSGN-F
- C-PROF-OFFS
- C-PROF-ROAD-EDGE-ASPH-F
- C-PROF-ROAD-GUTR-N~W~-F
- C-PROF-ROAD-GUTR-S~E~-F
- C-PROF-STRM-DTCH-F
- C-PROF-STRM-SWLE-F
- C-PROF-WATR-PIPE-F
- C-PROP-TPNT-F
- C-ROAD-BUSP
- C-SECT-DIMS
- C-SITE-SWLK-RAMP-TACT
- C-SSWR-AREA-TEXT-F



- C-SSWR-STRC-F
- C-STRM-AREA-TEXT-F
- C-STRM-LINE-OVDR-SUBA
- C-STRM-STRC-F
- C-STRM-SWLE-CSPL-F
- C-STRM-SWLE-RRAP-F
- C-WATR-STRC-F
- G-ANNO-LOCN
- G-ANNO-TBLK-BP~~FRZE (used to freeze titleblock attributes not to be shown on As-built BPs)
- L-ANNO-DIMS-ENLG
- L-ANNO-DIMS-LAYT
- L-ANNO-TEXT-GRAD
- L-ANNO-TEXT-LAYT
- L-FENC-WIRN
- L-LOCN-HTCH
- L-PLNT-SEED-HTCH-THIN
- L-SITE-BARR-HTCH
- L-STRM-CBAS
- L-STRM-CBAS-E
- L-STRM-SWLE-BIO~
- L-STRM-SWLE-CONC
- L-STRM-SWLE-GRAS
- L-STRM-SWLE-OVDR
- V-LITE-POLE-D
- V-LITE-POLE-M
- V-LITE-WALL-D
- V-LITE-WALL-M
- V-PIPE-FORE-STRC
- V-PIPE-FORE-STRC-A
- V-POWR-BRKP-OVHD-A
- V-POWR-BRKP-OVHD-D
- V-POWR-BRKP-OVHD-M
- V-POWR-BRKP-UGND-M
- V-POWR-CAB~-D
- V-POWR-CAB~-M
- V-POWR-CAP~-M
- V-POWR-DUCT-FLSE-A
- V-POWR-DUCT-FLSE-M
- V-POWR-DUCT-TRUE-A
- V-POWR-DUCT-TRUE-M
- V-POWR-JBOX-CONC-M
- V-POWR-JBOX-PLAS-M



- V-POWR-JBOX-VAUL-M
- V-POWR-OVHD-FLSE-D
- V-POWR-OVHD-TRUE-D
- V-POWR-POLE-D
- V-POWR-POLE-M
- V-POWR-SPLC-M
- V-POWR-STRC-D
- V-POWR-STRC-M
- V-POWR-STRC-M
- V-PROF-CNTR-ASBL
- V-PROF-ROAD-ASBL
- V-PROF-WATR-PIPE-ASBL
- V-PROP-LOTS-STUB
- V-ROAD-LANE-SHAP
- V-ROAD-MISC-MAJR
- V-ROAD-MISC-MLC~
- V-SITE-CLOS-HTCH
- V-SITE-CLOS-HTCH-TEXT
- V-SITE-DEEP-GRVL-SHAP
- V-SITE-MISC-STRS-RAMP
- V-SITE-MISC-SWLK-MONO-SEP~
- V-SITE-MISC-SWLK-SEP~-CNTR
- V-SITE-STRS-RISR
- V-SITE-STRS-SIDE
- V-SITE-SWLK-RAMP-TACT
- V-SITE-TUNL
- V-SSWR-FORC-ASBL
- V-SSWR-FORC-ASBL-A
- V-SSWR-MHOL-ASBL
- V-SSWR-PIPE-ASBL
- V-SSWR-PIPE-ASBL-A
- V-SSWR-STRC-ASBL
- V-STRM-CBAS-ASBL
- V-STRM-CULV-ASBL
- V-STRM-FORC-ASBL
- V-STRM-FORC-ASBL-A
- V-STRM-MHOL-ASBL
- V-STRM-MHOL-GRAT-ASBL
- V-STRM-PIPE-ASBL
- V-STRM-PIPE-ASBL-A
- V-STRM-SRVC-ASBL
- V-STRM-STRC-ASBL
- V-SURV-GONE-TEXT

- V-TRAF-CAB~-D
- V-TRAF-CAB~-M
- V-TRAF-POLE-D
- V-TRAF-POLE-M
- V-TRAF-STRC-D
- V-TRAF-STRC-M
- V-WATR-FEED-ASBL
- V-WATR-FEED-ASBL-A
- V-WATR-HYDR-FLSE
- V-WATR-HYDR-TRUE
- V-WATR-PIPE-ASBL
- V-WATR-PIPE-ASBL-A
- V-WATR-SRVC-50mm-ASBL
- V-WATR-SRVC-ASBL
- Renamed following layers
  - V-ROAD-BPAD to V-ROAD-BUSP (to align with V-ROAD-BUST)
  - C/V-BIKE to C/V-BIKE-RACK
  - C/V-ROAD-MRKG-IGLN to C/V-ROAD-MRKG-BDEL (bike delineation)
  - V-SITE-BLDG-COMM to V-SITE-BLDG-COM~
  - \*-DETL-XFIN to \*-DETL-XFIN-GREY
  - \*-DETL-FINE to \*-DETL-FINE-GREY
  - \*-DETL-THIN to \*-DETL-THIN-BLCK
  - \*-DETL-MEDM to \*-DETL-MEDM-BLCK
  - \*-DETL-WIDE to \*-DETL-WIDE-BLCK
  - \*-DETL-1XWD to \*-DETL-1XWD-BLCK
  - \*-DETL-2XWD to \*-DETL-1XWD-BLCK
  - \*-ELEV-XFIN to \*-ELEV-XFIN-GREY
  - \*-ELEV-FINE to \*-ELEV-FINE-GREY
  - \*-ELEV-THIN to \*-ELEV-THIN-BLCK
  - \*-ELEV-MEDM to \*-ELEV-MEDM-BLCK
  - \*-ELEV-WIDE to \*-ELEV-WIDE-BLCK
  - \*-ELEV-1XWD to \*-ELEV-1XWD-BLCK
  - \*-ELEV-2XWD to \*-ELEV-1XWD-BLCK
  - \*-PROF-XFIN to \*-PROF-XFIN-GREY
  - \*-PROF-FINE to \*-PROF-FINE-GREY
  - \*-PROF-THIN to \*-PROF-THIN-BLCK
  - \*-PROF-MEDM to \*-PROF-MEDM-BLCK
  - \*-PROF-WIDE to \*-PROF-WIDE-BLCK
  - \*-PROF-1XWD to \*-PROF-1XWD-BLCK
  - \*-PROF-2XWD to \*-PROF-1XWD-BLCK
  - \*-SECT-XFIN to \*-SECT-XFIN-GREY
  - \*-SECT-FINE to \*-SECT-FINE-GREY
  - \*-SECT-THIN to \*-SECT-THIN-BLCK



- \*-SECT-MEDM to \*-SECT-MEDM-BLCK
- \*-SECT-WIDE to \*-SECT-WIDE-BLCK
- \*-SECT-1XWD to \*-SECT-1XWD-BLCK
- \*-SECT-2XWD to \*-SECT-1XWD-BLCK
- Adjusted following layers as noted:
  - Changed colour of following:
    - C-PROF-VIEW to 110 so profile view borders plotted correctly after Profile View styles layers set to bylayer
    - \*-LOCN - adjusted colour from white to magenta to make the limits stand out
    - C-EROS-DITC - changed colour to 152 for thicker line weight on ESC drawings
    - V-EROS-DITC - changed colour to 74 for thicker line weight on ESC drawings
    - adjusted L-PLNT-EDGR, L-PLNT-GCVR, L-PLNT-BEDS, L-PLNT-VINE, L-PLNT-BUSH, L-SITE-TRAL-ASPH, L-SITE-TRAL-CNTR and L-SITE-CONC to colour 29
    - adjusted L-SITE-CTLJ and L-SITE-PLAY-EQPM to colour 171
    - C-LITE-POLE - changed colour from 2 to 7
    - C-LITE-POLE-D - changed colour from 224 to 24
    - C-LITE-POLE-M - changed colour from 223 to 120
    - C-LITE-WALL - changed colour from 2 to 7
    - C-LITE-WALL-D - changed colour from 224 to 24
    - C-LITE-WALL-M - changed colour from 223 to 120
    - C-POWR-BRKP-OVHD-M - changed colour from 224 to 120
    - C-POWR-BRKP-UGND-M - changed colour from 224 to 120
    - C-POWR-C&P~-OVHD-FLSE - colour changed from 7 to 32
    - C-POWR-C&P~-OVHD-FLSE-M - changed colour from 224 to 113
    - C-POWR-C&P~-OVHD-TRUE-M - changed colour from 224 to 120
    - C-POWR-C&P~-UGND-FLSE - colour changed from 7 to 32
    - C-POWR-C&P~-UGND-FLSE-M - changed colour from 224 to 113
    - C-POWR-C&P~-UGND-TRUE-M - changed colour from 224 to 120
    - C-POWR-CAB~-M - changed colour from 224 to 120
    - C-POWR-CAP~-M - changed colour from 224 to 120
    - C-POWR-COND-OVHD-FLSE - colour changed from 7 to 32
    - C-POWR-COND-OVHD-FLSE-M - changed colour from 224 to 113
    - C-POWR-COND-OVHD-TRUE-M - changed colour from 224 to 120
    - C-POWR-COND-UGND-FLSE - colour changed from 7 to 32
    - C-POWR-COND-UGND-FLSE-M - changed colour from 224 to 113
    - C-POWR-COND-UGND-TRUE-M - changed colour from 224 to 120
    - C-POWR-DUCT-FLSE - colour changed from 7 to 32
    - C-POWR-DUCT-FLSE-M - changed colour from 224 to 113
    - C-POWR-DUCT-TRUE-M - changed colour from 224 to 120
    - C-POWR-JBOX-CONC-M - colour changed from 224 to 120
    - C-POWR-JBOX-PLAS-M - changed colour from 224 to 120
    - C-POWR-JBOX-VAUL-M - changed colour from 224 to 120
    - C-POWR-OVHD-FLSE - colour changed from 7 to 32





- C-POWR-OVHD-FLSE-M - changed colour from 224 to 113
- C-POWR-OVHD-TRUE-M - changed colour from 224 to 120
- C-POWR-PILT-OVHD-FLSE - colour changed from 7 to 32
- C-POWR-PILT-OVHD-FLSE-M - changed colour from 224 to 113
- C-POWR-PILT-OVHD-TRUE-M - changed colour from 224 to 120
- C-POWR-PILT-UGND-FLSE - colour changed from 7 to 32
- C-POWR-PILT-UGND-FLSE-M - changed colour from 224 to 113
- C-POWR-PILT-UGND-TRUE-M - changed colour from 224 to 120
- C-POWR-POLE-M - changed colour from 224 to 120
- C-POWR-PVMD-CELL-M - changed colour from 224 to 120
- C-POWR-PVMD-RELY-M - changed colour from 224 to 120
- C-POWR-RELY-M - changed colour from 224 to 120
- C-POWR-SPLC-M - changed colour from 224 to 120
- C-POWR-STRC-M - changed colour from 224 to 120
- C-POWR-UGND-FLSE - colour changed from 7 to 32
- C-POWR-UGND-FLSE-M - changed colour from 224 to 113
- C-POWR-UGND-TRUE-M - changed colour from 224 to 120
- C-POWR-XFMR-M - changed colour from 224 to 120
- C-POWR-XFMR-OVHD-FLSE-M - changed colour from 224 to 113
- C-POWR-XFMR-OVHD-TRUE-M - changed colour from 224 to 120
- C-POWR-XFMR-UGND-FLSE-M - changed colour from 224 to 113
- C-POWR-XFMR-UGND-TRUE-M - changed colour from 224 to 120
- C-TRAF-CAB~-M - changed colour from 94 to 120
- C-TRAF-POLE-M - changed colour from 94 to 120
- C-TRAF-STRC-M - changed colour from 94 to 120
- V-NGAS-SRVC - adjusted to colour 8 to be consistent with all other service lines
- V-POWR-C&P~-OVHD-FLSE - colour changed from 31 to 35
- V-POWR-C&P~-UGND-FLSE - colour changed from 31 to 35
- V-POWR-COND-OVHD-FLSE - colour changed from 31 to 35
- V-POWR-COND-UGND-FLSE - colour changed from 31 to 35
- V-POWR-DUCT-FLSE - colour changed from 31 to 35
- V-POWR-OVHD-FLSE - colour changed from 31 to 35
- V-POWR-PILT-OVHD-FLSE - colour changed from 31 to 35
- V-POWR-PILT-UGND-FLSE - colour changed from 31 to 35
- V-POWR-UGND-FLSE - colour changed from 31 to 35
- Changed linetypes of following:
  - C-SITE-BARR & V-SITE-BARR to use Continuous lines (due to lines representing front and back of barrier, not centreline)
  - Adjusted linetypes for \*-TOPO-EMBK-CUT~, \*-TOPO-EMBK-FILL, \*-TOPO-RNDG - HIDDEN, DASHDOT & GEN-ROUNDING (CofC)
  - C/V-ROAD-MRKG-BUSB linetype adjusted to GEN-ROAD MARKING 1\_5 TO 1\_5 (CofC)



- C/V-ROAD-MRKG-SDSH-WHTE linetype adjusted to GEN-ROAD MARKING \_5 TO \_5 (CofC)
  - C/V-ROAD-MRKG-SDSH-YELL linetype adjusted to GEN-ROAD MARKING \_5 TO \_5 (CofC)
  - C/V-ROAD-MRKG-BDEL adjusted linetype to GEN-ROAD MARKING 1\_5 TO 1\_5 (CofC)
  - V-RAIL-TRAK-LRT~ Linetype to GEN-RAILROAD TRACK (CofC)
- Updated Standard Layers.zip with updates to all of the layer files to reflect these changes.

### Linetypes

- Added following linetypes:
  - PR-OVERHEAD ELECTRIC TRANSMISSION(CofC)
  - PR-OVERHEAD ELECTRIC DISTRIBUTION (CofC)
  - EX-OVERHEAD ELECTRIC TRANSMISSION(CofC)
  - EX-OVERHEAD ELECTRIC DISTRIBUTION (CofC)
  - GEN-ROUNDING (CofC)
- Removed following linetype:
  - GEN-ROAD MARKING Zebra XWLK (CofC)
- Updated CofC\_Linetypes - Consolidated (Standard Text).lin and CofC\_Linetypes - Consolidated (Upright Text).lin to reflect these changes.
- Updated Linetype and SHX.zip with updates to the linetype files to reflect these changes.

### Label Styles:

#### Civil 3d Label Styles:

- Added following Styles:
  - C3D General Label Styles – Curve:
    - BP 0.25 LP RLD C&G
    - BP 0.25 LP RLD REV C&G
    - BP 0.25 STD C&G
    - BP 0.25 STD REV C&G
    - BP 0.50 LP RLD C&G
    - BP 0.50 LP RLD REV C&G
    - BP 0.50 STD C&G
    - BP 0.50 STD REV C&G
    - BP 1.50 Monowalk
    - BP 1.50 Separate Walk
    - BP 2.00 Monowalk
    - BP 2.00 Separate Walk
    - BP 2.50 Multi-Use Pathway

- BP 2.50 Separate Walk
- BP 3.00 Multi-Use Pathway
- BP 3.00 Separate Walk
- BP 3.50 Multi-Use Pathway
- BP 4.00 Multi-Use Pathway
- EX 0.25 LP RLD C&G
- EX 0.25 LP RLD REV C&G
- EX 0.25 STD C&G
- EX 0.25 STD REV C&G
- EX 0.50 LP RLD C&G
- EX 0.50 LP RLD REV C&G
- EX 0.50 STD C&G
- EX 0.50 STD REV C&G
- EX 1.50 Monowalk
- EX 1.50 Separate Walk
- EX 2.00 Monowalk
- EX 2.00 Separate Walk
- EX 2.50 Multi-Use Pathway
- EX 2.50 Separate Walk
- EX 3.00 Multi-Use Pathway
- EX 3.00 Separate Walk
- EX 3.50 Multi-Use Pathway
- EX 4.00 Multi-Use Pathway
- EX Curve Tick (Property)
- FUT 0.25 LP RLD C&G
- FUT 0.25 LP RLD REV C&G
- FUT 0.25 STD C&G
- FUT 0.25 STD REV C&G
- FUT 0.50 LP RLD C&G
- FUT 0.50 LP RLD REV C&G
- FUT 0.50 STD C&G
- FUT 0.50 STD REV C&G
- FUT 1.50 Monowalk
- FUT 1.50 Separate Walk
- FUT 2.00 Monowalk
- FUT 2.00 Separate Walk
- FUT 2.50 Multi-Use Pathway
- FUT 2.50 Separate Walk
- FUT 3.00 Multi-Use Pathway
- FUT 3.00 Separate Walk
- FUT 3.50 Multi-Use Pathway
- FUT 4.00 Multi-Use Pathway
- FUT Curve Tick (Property)

- PR 0.25 LP RLD C&G
- PR 0.25 LP RLD REV C&G
- PR 0.25 STD C&G
- PR 0.25 STD REV C&G
- PR 0.50 LP RLD C&G
- PR 0.50 LP RLD REV C&G
- PR 0.50 STD C&G
- PR 0.50 STD REV C&G
- PR 1.50 Monowalk
- PR 1.50 Separate Walk
- PR 2.00 Monowalk
- PR 2.00 Separate Walk
- PR 2.50 Multi-Use Pathway
- PR 2.50 Separate Walk
- PR 3.00 Multi-Use Pathway
- PR 3.00 Separate Walk
- PR 3.50 Multi-Use Pathway
- PR 4.00 Multi-Use Pathway
- PR Curve Tick (Property)

C3D Pipe Label Styles:

- EX SANITARY Plan (Diameter Material) Drainage Calculations
- EX STORM Plan (Diameter Material) Drainage Calculations
- FUT SANITARY Plan (Diameter Material) Drainage Calculations
- FUT STORM Plan (Diameter Material) Drainage Calculations
- PR SANITARY Plan (Diameter Material) Drainage Calculations
- PR STORM Plan (Diameter Material) Drainage Calculations
- BP STORM Profile (Diameter Material Install Design) [Spanning-No Dimension]
- EX STORM Profile (Diameter Material Install Design) [Spanning-No Dimension]
- FUT STORM Profile (Diameter Material Install Design) [Spanning-No Dimension]
- PR STORM Profile (Diameter Material Install Design) [Spanning-No Dimension]

C3D Structure Label Styles:

- EX SANITARY Plan (Diameter Material) Drainage Calculations
- EX STORM Plan (Diameter Material) Drainage Calculations
- FUT SANITARY Plan (Diameter Material) Drainage Calculations
- FUT STORM Plan (Diameter Material) Drainage Calculations
- PR SANITARY Plan (Diameter Material) Drainage Calculations
- PR STORM Plan (Diameter Material) Drainage Calculations

- Renamed following Styles:

- EX Curve Tick to EX Curve Tick (Road)
- FUT Curve Tick to FUT Curve Tick (Road)
- PR Curve Tick to PR Curve Tick (Road)



## General Label Styles:

- Fixed inconsistent Line and Curve label offsets
- Added following Styles:
  - Line
    - AS-BUILT BP <Label> Monowalk
    - AS-BUILT BP <Label> Multi-Use Pathway
    - AS-BUILT BP <Label> Separate Walk
    - AS-BUILT BP LG <Label>
    - EX <Label> Monowalk
    - EX <Label> Multi-Use Pathway
    - EX <Label> Separate Walk
    - EX LG <Label>
    - FUT <Label> Monowalk
    - FUT <Label> Multi-Use Pathway
    - FUT <Label> Separate Walk
    - FUT LG <Label>
    - PR <Label> Monowalk
    - PR <Label> Multi-Use Pathway
    - PR <Label> Separate Walk
    - PR LG <Label>
    - PR Length 2.5 mm
  - Curve
    - AS-BUILT BP <Label> Monowalk
    - AS-BUILT BP <Label> Multi-Use Pathway
    - AS-BUILT BP <Label> Separate Walk
    - AS-BUILT BP LGR <Label>
    - EX <Label> Monowalk
    - EX <Label> Multi-Use Pathway
    - EX <Label> Separate Walk
    - EX LGR <Label>
    - EX Radius 1.5 mm
    - FUT <Label> Monowalk
    - FUT <Label> Multi-Use Pathway
    - FUT <Label> Separate Walk
    - FUT LGR <Label>
    - FUT Radius 1.5 mm
    - FUT Radius 2.0 mm
    - PR <Label> Monowalk
    - PR <Label> Multi-Use Pathway
    - PR <Label> Separate Walk
    - PR LGR <Label>
    - PR Radius 1.5 mm



#### General Label Styles – Note:

- Added following Styles:
  - AS-BUILT BP Profile Name 2.0 mm
  - AS-BUILT BP SSWR Northing-Easting
  - AS-BUILT BP SSWR Northing-Easting (Ground to Grid)
  - AS-BUILT BP STRM Northing-Easting
  - AS-BUILT BP STRM Northing-Easting (Ground to Grid)
  - AS-BUILT BP WATR Northing-Easting
  - AS-BUILT BP WATR Northing-Easting (Ground to Grid)
  - EX SSWR Northing-Easting
  - EX SSWR Northing-Easting (Ground to Grid)
  - EX STRM Northing-Easting
  - EX STRM Northing-Easting (Ground to Grid)
  - EX WATR Northing-Easting
  - EX WATR Northing-Easting (Ground to Grid)
  - FUT GNRL Northing-Easting
  - FUT GNRL Northing-Easting (Ground to Grid)
  - FUT Profile Name 2.0 mm
  - FUT SSWR Northing-Easting
  - FUT SSWR Northing-Easting (Ground to Grid)
  - FUT STRM Northing-Easting
  - FUT STRM Northing-Easting (Ground to Grid)
  - FUT WATR Northing-Easting
  - FUT WATR Northing-Easting (Ground to Grid)
  - PR SSWR Northing-Easting
  - PR SSWR Northing-Easting (Ground to Grid)
  - PR STRM Northing-Easting
  - PR STRM Northing-Easting (Ground to Grid)
  - PR WATR Northing-Easting
  - PR WATR Northing-Easting (Ground to Grid)
- Renamed following styles:
  - AS-BUILT BP Northing-Easting to AS-BUILT BP GNRL Northing-Easting
  - AS-BUILT BP Northing-Easting (Ground to Grid) to AS-BUILT BP GNRL Northing-Easting (Ground to Grid)
  - EX Northing-Easting to EX GNRL Northing-Easting
  - EX Northing-Easting (Ground to Grid) to EX GNRL Northing-Easting (Ground to Grid)
  - PR Northing-Easting to PR GNRL Northing-Easting
  - PR Northing-Easting (Ground to Grid) to PR GNRL Northing-Easting (Ground to Grid)

#### General Label Styles – Line:

- Added following styles:
  - AS-BUILT BP Sanitary



- AS-BUILT BP Storm
  - AS-BUILT BP Water
  - EX Bell West
  - EX Enmax
  - EX Fibre Optics
  - EX Foreign
  - EX Natural Gas (High Pressure)
  - EX Natural Gas (Low Pressure)
  - EX Sanitary
  - EX Shaw
  - EX Storm
  - EX Telus
  - EX Water
- Added following Profile View Label Styles – Station Elevation:
- AS-BUILT BP <Label> & Elevation
  - EX Station <Label> & Elevation
  - FUT Station <Label> & Elevation
  - PR Station <Label> & Elevation
  - AS-BUILT BP Sanitary Profile <Direction> & Elevation
  - AS-BUILT BP Storm Profile <Direction> & Elevation
  - AS-BUILT BP Water Profile <Direction> & Elevation
  - EX Sanitary Profile <Direction> & Elevation
  - EX Storm Profile <Direction> & Elevation
  - EX Water Profile <Direction> & Elevation
  - FUT Sanitary Profile <Direction> & Elevation
  - FUT Storm Profile <Direction> & Elevation
  - FUT Water Profile <Direction> & Elevation
  - PR Sanitary Profile <Direction> & Elevation
  - PR Storm Profile <Direction> & Elevation
  - PR Water Profile <Direction> & Elevation
- Added PR SPOT Elev 1.8 mm Point Label Style
- Added EX/PR Slope – Length Surface Label Style
- Made following adjustments to Pipe Label Styles:
- All STORM Profile (Diameter Material Install Design) updated to use 2 decimal place for length and slope - consistent with SSWR
  - Fixed inconsistent 'Plan' label offsets
  - Removed all legacy san serif font from Curve Data labels
  - AS-BUILT BP WATER Profile (Diameter Material) - adjusted justification and offset to be consistent with FUT & PR styles.
  - EX WATER Profile (Diameter Material) - adjusted justification and offset to be consistent with FUT & PR styles.



- Made following label style adjustments:
  - o "Adjusted all Profile Label Styles (<Label> & Elevation, Geometry & Elevation, PL INT & Elevation, VPI & Elevation, <Label> & High Point Elevation, <Label> & Low Point Elevation)
  - o to use two pieces of text, one above the line and one below, and anchored so that is built out from the line - allows for multiple line overrides of labels"
  - o Adjusted Station precision for all Low Point and High Point curve label styles
  - o Adjusted text offsets to be consistent in all Invert Elevations BOTTOM styles
  - o Adjusted all CB Structure Label Styles to use C/V-STRM-CBAS-TEXT layers

### Other Styles

- Made following additions:
  - o AS-BUILT BP Centerline profile style
  - o Added missing markers in PR and FUT profile styles
  - o Added following structure styles:
    - AS-BUILT BP STORM NULL STRUCTURE
    - EX STORM NULL STRUCTURE
    - FUT STORM NULL STRUCTURE
    - PR STORM NULL STRUCTURE
    - AS-BUILT BP SANITARY NULL STRUCTURE
    - EX SANITARY NULL STRUCTURE
    - FUT SANITARY NULL STRUCTURE
    - PR SANITARY NULL STRUCTURE
    - AS-BUILT BP STORM CAP
    - EX STORM CAP
    - FUT STORM CAP
    - PR STORM CAP
    - AS-BUILT BP SANITARY CAP
    - EX SANITARY CAP
    - FUT SANITARY CAP
    - PR SANITARY CAP
    - AS-BUILT BP STORM FLARED END
    - EX STORM FLARED END
    - FUT STORM FLARED END
    - PR STORM FLARED END
    - AS-BUILT BP SANITARY FLARED END
    - EX SANITARY FLARED END
    - FUT SANITARY FLARED END
    - PR SANITARY FLARED END
    - AS-BUILT BP SANITARY Big Box 3.0 MH (Plan Profile Section)
    - AS-BUILT BP SANITARY Big Box 3.0 Pipe Outline (Plan Profile Section)
    - AS-BUILT BP SANITARY Big Box 3.5 MH (Plan Profile Section)
    - AS-BUILT BP SANITARY Big Box 3.5 Pipe Outline (Plan Profile Section)
    - AS-BUILT BP SANITARY Big Box 4.0 MH (Plan Profile Section)





- AS-BUILT BP SANITARY Big Box 4.0 Pipe Outline (Plan Profile Section)
- AS-BUILT BP STORM Big Box 3.0 MH (Plan Profile Section)
- AS-BUILT BP STORM Big Box 3.0 Pipe Outline (Plan Profile Section)
- AS-BUILT BP STORM Big Box 3.5 MH (Plan Profile Section)
- AS-BUILT BP STORM Big Box 3.5 Pipe Outline (Plan Profile Section)
- AS-BUILT BP STORM Big Box 4.0 MH (Plan Profile Section)
- AS-BUILT BP STORM Big Box 4.0 Pipe Outline (Plan Profile Section)
- EX SANITARY Big Box 3.0 MH (Plan Profile Section)
- EX SANITARY Big Box 3.0 Pipe Outline (Plan Profile Section)
- EX SANITARY Big Box 3.5 MH (Plan Profile Section)
- EX SANITARY Big Box 3.5 Pipe Outline (Plan Profile Section)
- EX SANITARY Big Box 4.0 MH (Plan Profile Section)
- EX SANITARY Big Box 4.0 Pipe Outline (Plan Profile Section)
- EX STORM Big Box 3.0 MH (Plan Profile Section)
- EX STORM Big Box 3.0 Pipe Outline (Plan Profile Section)
- EX STORM Big Box 3.5 MH (Plan Profile Section)
- EX STORM Big Box 3.5 Pipe Outline (Plan Profile Section)
- EX STORM Big Box 4.0 MH (Plan Profile Section)
- EX STORM Big Box 4.0 Pipe Outline (Plan Profile Section)
- FUT SANITARY Big Box 3.0 MH (Plan Profile Section)
- FUT SANITARY Big Box 3.0 Pipe Outline (Plan Profile Section)
- FUT SANITARY Big Box 3.5 MH (Plan Profile Section)
- FUT SANITARY Big Box 3.5 Pipe Outline (Plan Profile Section)
- FUT SANITARY Big Box 4.0 MH (Plan Profile Section)
- FUT SANITARY Big Box 4.0 Pipe Outline (Plan Profile Section)
- FUT STORM Big Box 3.0 MH (Plan Profile Section)
- FUT STORM Big Box 3.0 Pipe Outline (Plan Profile Section)
- FUT STORM Big Box 3.5 MH (Plan Profile Section)
- FUT STORM Big Box 3.5 Pipe Outline (Plan Profile Section)
- FUT STORM Big Box 4.0 MH (Plan Profile Section)
- FUT STORM Big Box 4.0 Pipe Outline (Plan Profile Section)
- PR SANITARY Big Box 3.0 MH (Plan Profile Section)
- PR SANITARY Big Box 3.0 Pipe Outline (Plan Profile Section)
- PR SANITARY Big Box 3.5 MH (Plan Profile Section)
- PR SANITARY Big Box 3.5 Pipe Outline (Plan Profile Section)
- PR SANITARY Big Box 4.0 MH (Plan Profile Section)
- PR SANITARY Big Box 4.0 Pipe Outline (Plan Profile Section)
- PR STORM Big Box 3.0 MH (Plan Profile Section)
- PR STORM Big Box 3.0 Pipe Outline (Plan Profile Section)
- PR STORM Big Box 3.5 MH (Plan Profile Section)
- PR STORM Big Box 3.5 Pipe Outline (Plan Profile Section)
- PR STORM Big Box 4.0 MH (Plan Profile Section)
- PR STORM Big Box 4.0 Pipe Outline (Plan Profile Section)



- Following adjustments to styles:
  - Renamed all general, profile, pipe, and structure styles from BP to AS-BUILT-BP to reduce confusion on when to use
  - Removed BP from profile view styles name as these are used for BP profile view along with contract sets
  - All AS-BUILT BP pipe and structure styles updated to use V-\*\*\*\*-\*\*\*\*-ASBL layers instead of previous overrides
  - Set all profile view style layers to bylayer to eliminate overrides
  - Update all profile styles to use PROF layers
  - Modified 'Contours RG 0.5 and 2.5' Minor Contour from colour 91 to colour 253 to differentiate between major and minor intervals
  - Adjusted all Crossing (Profile) styles to use Crossing Pipe Inside Wall for Profile & Section views
  - Revised All proposed pipe plan labels to use the 'PROP' prefix
  - Adjusted Profile Views to use Left and Right Grid Padding (1.0 for BP styles - 0.2 for Non-BP styles)
  - Revised headings for Line, Curve, Spiral, Wheelchair, CB and Radii tables to be consistent with one another

#### CTB Files

- Adjusted Line End Style for Color 6 to use 'BUTT' so the ends of linework using Color 6 do not appear rounded - adjusted in CofC AOC.ctb, CofC AOC (Half).ctb, CofC Black and Grey.ctb, CofC Black and Grey (Half).ctb
- Updated Plot Style CTB.zip to reflect the adjustments listed above.

#### Figure Prefix Database

- Added and removed some values.
- Updated CofC Description Keys.xlsx, CofC Figure Prefix Database.xlsx, CofC.fdb\_xdef to reflect these changes.
- Updated Figure Prefix Database and Description Keys.zip to reflect these changes.

#### Patterns

- Added C-WALL-1.pat file
- Updated Hatch Patterns.pdf to reflect these changes.

#### Minor Group Descriptions

- Updated Major Group Descriptions.pdf to match new group names in layers



### Major Group Descriptions

- Updated Minor Group Descriptions.pdf to match new group names in layers

### CAD Standard Guidance Document

- Minor typographical and wording updates
- Changes to items referencing parts of the templates that were changed
- Added clarification of fonts used in text styles
- Added clarification for optional use of figure prefix database and description keys
- Added more details to map projection specifications
- Added information on populating title blocks for as-built block profiles

### CAD Standard Document

- Added more details to map projection specifications

### MMCD and COC differences.pdf

- Clarified that this document shows differences between MMCD and City's initial release. Any subsequent differences are captured on this document.

### Sample Drawings

- Revised all existing drawings to conform to latest standard
- Added following subdivision drawings:
  - o Building Grade Plan
  - o Erosion Sediment Control
  - o Fencing Details
  - o Sanitary Sewers
  - o Storm Drainage Area Overall
  - o Storm Drainage Area
  - o Storm Sewers
  - o Surface Improvements
  - o Surface Sections
  - o Water Mains
- Added following block profile drawings:



- Subdivision Design Block Profile
- As-built Block Profile Overland Drainage R/W with Swale
- As-built Block Profile Storm Pond
- As-built Block Profile Utility R/W
- Created annotated version of following diagrams:
  - Alignment
  - Profile
  - Grading & Pavement Elevation
  - Subdivision Building Grade Plan
  - Subdivision Erosion Sediment Control
  - Subdivision Storm Drainage Area
  - Subdivision Storm Sewers
  - Subdivision Surface Improvements
  - Subdivision Design Block Profile
  - As-built Block Profile with Plan and Profile View

## 2018-12-17: Major Revision for 2019 Implementation

### Templates

- Changes to layers and blocks as described in the layers and blocks sections below affecting following templates:
  - General Template
  - Civil Template
  - Landscape and Irrigation Template
  - Survey and Mapping Template
- All templates updated to change fonts from Sans Serif to Arial, and to rename linetypes.
- Renamed Civil3d feature and grading styles “cut to surface” and “fill to surface”
- Consolidated list of profile styles and surface styles
- Removed Fonts file

### Layers

- Renamed following layers:
  - all XREF layers to REFR



- all TELE layers to COMM
- ASSY to ASMB
- utility company names to generic utility types:
  - -CABL-SHAW to -CABL
  - -POWR-UNGD-ENMX to -POWR-UNGD
- Created layers for different types of swales:
  - -STRM-SWLE-GRAS
  - -STRM-SWLE-CONC
  - -STRM-SWLE-BIO~
  - -STRM-RGRD
  - -STRM-SWLE-OVDR
- Created Storm Valve layers \*-STRM-VALV
- Created layers for translation of base reference files:
  - V-CABL-POLE
  - V-FENC-BRBW
  - V-FENC-NSBR
  - V-LITE-POLE-SWEP
  - V-PLNT-CLRG
  - V-PLNT-TREE-CONF
  - V-PLNT-TREE-DECD
  - V-POLE-MISC
  - V-POWR-STRC-PED~
  - V-PROP-LOTS-PARK
  - V-PROP-LOTS-RESD
  - V-PROP-LOTS-SCHL-PRIV
  - V-PROP-LOTS-SCHL-PUBL
  - V-RAIL-TRAK-LRT~
  - V-ROAD-BUST
  - V-SITE-BLDG-COMM
  - V-SITE-BLDG-CONS
  - V-SITE-BLDG-GRGE
  - V-SITE-BLDG-HOUS



- V-SITE-BLDG-LSHL
- V-SITE-BLDG-MISC
- V-SITE-BLDG-PRKG
- V-SITE-BLDG-RELG
- V-SITE-BLDG-SCHL
- V-SITE-BLDG-SHPC
- V-SITE-BLDG-STDM
- V-SITE-BLDG-TEXT
- V-SITE-BLDG-UCLS
- V-SITE-BRDG-15~~
- V-SITE-BRDG-OTLN-NR~~
- V-SITE-BRDG-OTLN-NR~~-TEXT
- V-SITE-BRDG-OTLN-TEXT
- V-SITE-BRDG-PED~
- V-SITE-GOLF
- V-SITE-PARK-TEXT
- V-SITE-POOL-PRVT
- V-SITE-PVMT
- V-SITE-SIGN-BASE
- V-SITE-SPRT-BASE-GRAS
- V-SITE-SPRT-BASE-SHAL
- V-STRM-CBAS-SPOT
- V-STRM-MHOL-SPOT
- V-TOPO-MAJR-10M~
- V-TOPO-MAJR-2.5M
- V-TOPO-MAJR-20M~
- V-TOPO-MAJR-25M~
- V-TOPO-MAJR-5M~~
- V-TOPO-MINR-0.5M
- V-TOPO-TEXT-10M~
- V-TOPO-TEXT-2.5M
- V-TOPO-TEXT-20M~



- V-TOPO-TEXT-25M~
- V-TOPO-TEXT-5M~~
- Moved some OVDR layers into STRM layers:
  - \*-OVDR-LINE to \*-STRM-LINE-OVDR
  - \*-OVDR-POND to \*-STRM-POND-OVDR
  - \*-OVDR-TEXT to \*-STRM-TEXT-OVDR
- Changed white paint layers from colour 50 to 13 to differentiate from yellow paint layers:
  - \*-ROAD-MRKG-CHEV-WHIT
  - \*-ROAD-MRKG-CNTY-WHIT
  - \*-ROAD-MRKG-DBL~-WHIT
  - \*-ROAD-MRKG-DBL~-WHIT-1C1B
  - \*-ROAD-MRKG-SDSH-WHIT
  - \*-ROAD-MRKG-SGL~-WHIT
  - \*-ROAD-MRKG-SGL~-WHIT-WIDE
  - \*-ROAD-MRKG-SKIP-WHIT

## Blocks

- Changed following blocks:
  - Changed insertion points on GNRL Ref Grid Indicator – Num and GNRL Ref Rev Indicator
  - Changed appearance of SSWR Cap, STRM Cap, WATR Cap, and WATR Thrust blocks
  - Fixed size of all curb blocks: EX/PR ROAD Curb 250/500 'A'/'B' Gutter Left/Right
  - Changed alignment parameter to centre on paint symbols: GEN MRKG Chevron, GEN MRKG Diamond, GEN MRKG Bike and Diamond
  - Change alignment parameter to wheelchair blocks to align to lip of gutter: GEN SWLK Wheel Chair Ramp - Monolithic Curved, GEN SWLK Wheel Chair Ramp - Monolithic Straight, GEN SWLK Wheel Chair Ramp - Separate Curved, GEN SWLK Wheel Chair Ramp - Separate Straight
  - Adjusted size of PR SITE Sign (Anno) block to be same as EX block
- Renamed following blocks
  - Robar blocks (EX/PR WATR Robar) to CPLG (EX/PR WATR CPLG)
  - PR CABL Box to PR CABL Kiosk
- Created following blocks:
  - Water Bends: EX/PR WATR Bend 2.5, EX/PR WATR Bend 5, EX/PR WATR Bend 7.5, EX/PR WATR Bend 11.25, EX/PR WATR Bend 22.5, EX/PR WATR Bend 45, EX/PR WATR Bend 90
  - Water Tee: EX/PR WATR Tee



- Triple catch basin: EX/PR STRM Catchbasin Triple
- Proposed Transformer: PR POWR Xfmr Plan
- For conversion of base reference files: EX SITE Goal Post, EX SITE Misc Pole, EX SITE Metal Overhead Sign Base, GEN MISC Dimension Arrow, EX ROAD Bus Only Crossing, EX NGAS Fitting-Muller, EX NGAS Reducer, EX NGAS Fitting-Transition, EX NGAS Valve, EX CABL Pole, EX CABL Pull Box, EX CABL Anchor Pole, EX PHON Jumper Wire
- Removed following blocks:
  - WATR Valve Branch, STRM Oil Interceptor, STRM/SSWR Inspection Chamber, WATR Chamber, EX POWR Box

#### CAD Standard Guidance Document

- Added Best Practice for linetypes to use when creating new layers by modifying the status code
- Removed section on cropping for plotting under Best Practices

#### Drawing Set Order

- Added notation identifying where key plans should be placed

#### Sheet Type Designators

- Aligned designators with latest NCS descriptions

#### MMCD and COC Differences

- Minor typos and formatting

#### Major Group Descriptions

- Updated to match current group names in layers

#### Minor Group Descriptions

- Updated to match current group names in layers

#### File Locations Document

- Removed reference to fonts file

#### Linetype files

- Consolidated separate files into one

#### CTB Files

- Specified weight of 0.25mm instead of set to "print by object lineweight" for several entries. (This should not make any difference in output, as templates were set up so that the default lineweight for objects that didn't have a specified weight was set to 0.25mm).

#### Sample Drawings:

- Updated all to conform to latest standard
- Added Capital Project Design Block Profile sample





## 2018-08-22: Minor Revisions

### CAD Standard Guidance Document

- Further clarified that File Naming and Management sections describe the standard for City of Calgary internal staff only.
- Provided additional details to File Management section.
- Removed obsolete information in Best Practice section regarding pipe network text rotation.
- Added best practice section on using background masks on label styles.

### Sheet Type Designators

- More detailed descriptions of the designators

### Major and Minor Group Descriptions

- Fixed typos

## 2018-07-18: Minor Revisions

CAD Standard Guidance Document – fixed typos and general clean-up; updated LTO layer translator to match the legal survey layer names that had been recently updated.

As-Built Block Profile 2 – minor edits to sample drawing

## 2018-07-16: First Publically Available Version

The following major changes have been made from the version made available per request previously:

- Updated several blocks in the templates by making them annotative
  - o Annotative blocks can be identified by (Anno) at the end of their names
- Created Getting Started section in the CAD Standard Guidance Document – includes guidelines on file installation, using title blocks, and templates.
- Added alternative sheet identification naming format
- Added “S” for surveyed status field code
- Added several new blocks and several new layers
- Updated LTO layer translator to use new layer names related to right of ways



- Updated all sample drawings to conform to the changes

The following is a list of files available and up to date as of 2018-07-16:

**Documents:**

<u>Name</u>	<u>File Name</u>
CAD Standard	CAD Standard.pdf
CAD Standard Guidance Document	CAD Standard Guidance Document.pdf
Differences between Calgary and MMCD CAD Standard	MMCD and COC Differences.pdf
Version History	Version History.pdf

**Templates:**

<u>Template Name</u>	<u>File Name</u>
Architectural Template	ARCH-2015-R1.dwt
Civil Template	CIVL-2015-R1.dwt
Electrical Template	ELEC-2015-R1.dwt
Fire Suppression Template	FIRE-2015-R1.dwt
Geotechnical Template	GEOT-2015-R1.dwt
General Template	GNRL-2015-R1.dwt
Landscape and Irrigation Template	LAND-2015-R1.dwt
Mechanical Template	MECH-2015-R1.dwt
Plumbing Template	PLMB-2015-R1.dwt
Process Template	PROC-2015-R1.dwt
Survey and Mapping Template	SRMP-2015-R1.dwt
Structural Template	STRC-2015-R1.dwt
Telecommunications Template	TELE-2015-R1.dwt

**Template Supporting Files:**

<u>File Type</u>	<u>File Name</u>
Sheet Set File	12345678_ProjectName.dst
Templates and supporting files ZIP	ALL Templates.zip
Pipe Catalog	CofC Pipes Catalog.zip
Figure Prefix Database and Description Keys	Figure Prefix Database.zip
Supporting File Locations	File Locations.pdf
Linetype and SHX	Linetype and SHX.zip
Fonts	Fonts.zip
Hatch Patterns	Hatch Patterns.zip
Plot Style CTB	Plot Style CTB.zip
LTO Layer Translator	LTO.dws



## Quick Reference Files:

### File Description

Standard Layers  
Standard Symbols  
Level 1 Discipline Designators  
Level 2 Discipline Designators  
Sheet Type Designators  
Status Field Codes  
Major Group Descriptions  
Minor Group Descriptions  
Terms and Abbreviations  
Existing Dimensions, Text, and MultiLeader Styles  
Proposed Dimensions, Text, and MultiLeader Styles  
Hatch Patterns  
Drawing Set Order  
Folder Structure

### File Name

Standard Layers.zip  
Standard Symbols.zip  
Level I Discipline Designators.pdf  
Level II Discipline Designators.pdf  
Sheet Type Designator.pdf  
Status Field Codes.pdf  
Major Group Descriptions.pdf  
Minor Group Descriptions.pdf  
Terms and Abbreviations.pdf  
DIMS-TEXT-MLDR-EX.pdf  
DIMS-TEXT-MLDR-PR.pdf  
Hatch Patterns.pdf  
Drawing Set Order.pdf  
Folder Structure.zip

## Sample Drawings:

### Drawing Type

Cover Sheet  
Location Plan  
Index  
Legend  
Alignment  
Profile  
Pavement  
Grading & Pavement Elevation (GPE)  
Section  
Removal  
As-Built Block Profile 1  
As-Built Block Profile 2

### File Name

Cover\_Sheet\_Sample.pdf  
Location\_Plan\_Sample.pdf  
drawing\_index\_sample.pdf  
Legend\_Sample.pdf  
Alignment\_Sheet\_Sample.pdf  
Profile\_Sample.pdf  
Pavement\_Plan\_Sample.pdf  
GPE\_Plan\_Sample.pdf  
Section\_Sample.pdf  
Removal\_Plan\_Sample.pdf  
Block\_Profile\_Sample\_1.pdf  
Block\_Profile\_Sample\_2.pdf

## CTB Samples:

### Type

Alberta One Call  
Alberta One Call - Half Size  
City of Calgary Black and Grey  
City of Calgary Black and Grey - Half Size  
City of Calgary Colour  
City of Calgary Colour - Half Size

### File Name

CTB-SAMP-CofC AOC.pdf  
CTB-SAMP-CofC AOC (Half).pdf  
CTB-SAMP-CofC Black and Grey  
CTB-SAMP-CofC Black and Grey  
CTB-SAMP-CofC Colour.pdf  
CTB-SAMP-CofC Colour (Half).

