Differences between MMCD and City of Calgary CAD Drawing Standard

2019-12-04

Differences from MMCD

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Document Revision History

Version	Summary of Change	Document Status	Published
1.0	Initial Version	Published	2018-07-01
1.1	Minor formatting and typos corrected	Published	2018-10-22
2.0	Final Version – clarifies that further changes will be captured on Version History document.	Published	2019-12-05

Differences from MMCD

Background

The City of Calgary has developed a CAD drawing Standard by adopting and amending the Master Municipal Construction Documents Association (MMCD) Standard that is used by municipalities in British Columbia.

This document is available to help users who are already familiar with the MMCD to quickly be able to use the City's Standard, by seeing where it differs from the MMCD version.

This document has a list of additional standard components that were included in The City of Calgary's version, as well as a list of items that were already in the MMCD but were changed in the City's adopted Standard.

Note that this document details the additions and changes for the first release of the City's adopted Standard. For a list of further updates and changes, please refer to the Version History document.

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Additions

This section lists items that are in the City of Calgary Standard, which are in addition to what is in the MMCD Standard.

Disciplines

The City of Calgary Standard includes templates for all the NCS disciplines. This includes a civil template as provided in the MMCD, as well as the following:

- Survey/Mapping
- Geotechnical
- Landscape
- Structural
- Architectural
- Process
- Mechanical
- Electrical
- Telecommunication
- Fire suppression
- Plumbing

Line types

Required line types that were not defined within the MMCD were added to the City Standard. This includes NCS defined linetypes as well as City specific ones.

List of NCS linetypes added

List of City of Calgary linetypes added

To see what these look like, look in the Layers PDFs here or in the Standard Layers zip file in the Quick reference files section of the website. The NCS linetypes are named starting with ######-### (e.g., 271500-008 FIBEROPTICS), and the City specific ones are named starting with 000000-000 (e.g., 000000-000 PR CABLE TV).

Text Styles

Added NCS text styles

Dimension Styles

Additional styles created for Architecture, Mechanical, Structural and Electrical disciplines to include items with mm units.

Layers

- Created layer filters for each template

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- Added several new layers

Blocks

Required blocks that were not defined within the MMCD were added to the City Standard. This includes NCS defined blocks as well as City specific ones.

List of NCS blocks added

List of City of Calgary blocks added

To see what these look like, look in the Standard Symbols PDFs here or in the Standard Symbols zip file in the Quick reference files section of the website.

Annotation Scales

Additional scales added to scale bar

Hatching

The City of Calgary CAD Standard includes a section on hatching. Information on this is available here.

City of Calgary Specific

Title Blocks

Title blocks, with the City logo and other mandatory City specific information, have been included in the Standard.

Abbreviations

The City Standard includes City of Calgary approved abbreviations. See here for complete list:

Page Setups

Unique page setups that are used for circulation base drawings, crossing agreements, Landplans, and Tree Protection

Crop values for full size (D) PDFs to be printed at half scale (11x17)

Differences from MMCD

Changes

This section lists items that are in the City of Calgary Standard, which are different than what is in the MMCD Standard.

Layers

Some existing layer names were changed.

- All electrical and power related layers that were identified as -HYDR or –ELEC have been changed to -POWR
- All storm layers that were identified as -DRAN have been changed to -STRM (HYDR and DRAN were named in MMCD to align with BCMoT; POWR and DRAN are NCS standard)
- Adjusted layers to move away from ROAD specific layers (see Civil3D Drawing Settings below)
- Several other miscellaneous changes

Blocks

The size and/or look of several blocks have changed.

CTB File

The color pen table has been modified as follows:

- Lighter base linework (colours and thickness) for survey and legal layers (to allow design features to stand out more)
- Adjust colour 178 to plot to 255,255,255
- Adjust colour 200 to plot 0.70mm
- Adjust colour 52 to plot 0.70mm
- Adjust colour ctb so anno layers print black

Line Style Text

The text embedded within the line styles has been modified where necessary to conform with NCS styles. As well the text size was reduced from 2.5mm to 2mm.

Additionally, line style text for water, sanitary sewer, and storm drain lines have been removed, as The City is using the legacy line types from the pre-existing block profile standards for these lines.

Line types

MMCD has line types for existing features as dashed, and line types for proposed features as solid. This was changed to have both be solid, but existing features a lighter line weight than proposed features.

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As well, The City is using the legacy line types from the pre-existing block profile standards for water, sanitary sewer, and storm drain lines.

Table Styles

Adjusted text size and heading fonts of tables

Dimension Styles

Increased arrowhead size / extension line offset / extension line /extension / text offsets to align with text size

Alignment Labels and Styles

These were made to be bolder and thicker to stand out more.

Grid Lines

Profile major/minor grid colours reversed to make major 250 and minor 253 (to make major darker/thicker than minor)

Civil 3D Styles

Several changes to Civil 3D Styles including:

- Adjusted styles to be aligned with NCS layer naming convention
- Label Styles changed to not be 'Road' Specific (ie. Profile View vertical labels) (see Civil3D Drawing Settings below)
- Adjust several abbreviations (e.g., profile labels – PVI to VPI; ":" to "="; LVC to L)
- Adjusted label fonts
- Adjusted text heights
- Removed duplicate 'z' styles

Civil3D Drawing Settings

Adjust object layers to be generic (currently specific to ROAD):

Object	MMCD Layer	Proposed CoC Layer	Modifier	Value
Alignment	C3D-ROAD	C3D-ALGN	Suffix	-*
Alignment Labeling	C3D-ROAD-TEXT	C3D-ALGN-TEXT	Suffix	-*
Alignment Table	C3D-ANNO	C3D-ALGN-TABL	None	
Appurtenance	N/A	C3D-PIPE-APPT	None	
Appurtenance Labeling	N/A	C3D-PIPE-APPT-TEXT	None	

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Assembly	C3D-ROAD	C3D-ASSM	None	
Catchment	N/A	C3D-CTCH	None	
Catchment Labeling	N/A	C3D-CTCH-TEXT	None	
Corridor	C3D-CORR	C3D-CORR	Suffix	-*
Corridor Section	C3D-ROAD-SCTN	C3D-CORR-SCTN	None	
Fitting	N/A	C3D-PIPE-FITT	None	
Fitting Labeling	N/A	C3D-PIPE-FITT-TEXT	None	
General Segment Label	C3D-PROP-TEXT	C3D-ANNO	None	
Grid Surface	C3D-TOPO	C3D-TOPO-GRID	None	
Grid Surface Labeling	C3D-TOPO-TEXT	C3D-TOPO-GRID-TEXT	None	
Intersection	C3D-ROAD	C3D-INTS	None	
Intersection Labeling	C3D-ROAD-TEXT	C3D-INTS-TEXT	None	
Mass Haul Line	C3D-ROAD-MASS	C3D-MASS-LINE	None	
Mass Haul View	C3D-ROAD-MASS	C3D-MASS-VIEW	None	
Match Line	C3D-ROAD-MATCH	C3D-ANNO-MTCH	None	
Match Line Labeling	C3D-ROAD-MATCH-TEXT	C3D-ANNO-MTCH-TEXT	None	
Material Section	C3D-ROAD-SCTN	C3D-MATL-SCTN	None	
Material Table	C3D-ANNO	C3D-MATL-TABL	None	
Parcel Labeling	C3D-PROP-TEXT	C3D-PROP-TEXT	None	
Parcel Segment	C3D-PROP	C3D-PROP-LINE	None	
Parcel Segment Labeling	C3D-PROP-TEXT	C3D-PROP-LINE-TEXT	None	
Parcel Table	C3D-ANNO	C3D-PROP-TABL	None	
Pipe and Structure Table	C3D-ANNO	C3D-PIPE-TABL	None	
Pipe Network Section	C3D-ROAD-SCTN	C3D-PIPE-SCTN	None	
Point Table	C3D-ANNO	C3D-NODE-TABL	None	
Pressure Network Section	N/A	C3D-PRES-PIPE-SCTN	None	
Pressure Part Profile	N/A	C3D-PRES-PIPE-PROF	None	

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Pressure Part Table	N/A	C3D-PRES-PIPE-TABL	None	
Pressure Pipe	N/A	C3D-PRES-PIPE	None	
Pressure Pipe Labeling	N/A	C3D-PRES-PIPE-TEXT	None	
Profile	C3D-ROAD-PROF	C3D-PROF	None	
Profile Labeling	C3D-ROAD-PROF-TEXT	C3D-PROF-TEXT	None	
Profile View	C3D-ROAD-PROF	C3D-PROF-VIEW	None	
Profile View Labeling	C3D-ROAD-PROF-TEXT	C3D-PROF-VIEW-TEXT	None	
Sample Line	C3D-ROAD-SAMP	C3D-SAMP	None	
Sample Line Labeling	C3D-ROAD-SAMP	C3D-SAMP-TEXT	None	
Section	C3D-ROAD-SCTN	C3D-SCTN	None	
Section Labeling	C3D-ROAD-SCTN-TEXT	C3D-SCTN-TEXT	None	
Section View	C3D-ROAD-SCTN	C3D-SCTN-VIEW	None	
Section View Labeling	C3D-ROAD-SCTN-TEXT	C3D-SCTN-VIEW-TEXT	None	
Section View Quantity Takeoff Table	C3D-ANNO	C3D-SCTN-VIEW-TABL	None	
Structure	C3D-STRC	C3D-PIPE-STRC	None	
Structure Labeling	C3D-PIPE-TEXT	C3D-PIPE-STRC-TEXT	None	
Subassembly	C3D-ROAD	C3D-ASSM	None	
Superelevation View	C3D-ROAD	C3D-ROAD-SUPR-VIEW	None	
Surface Legend Table	C3D-ANNO	C3D-TOPO-TABL	None	
Survey Figure	C3D-SURV	C3D-SURV-FIGR	None	
Survey Figure Labeling	N/A	C3D-SURV-FIGR-TEXT	None	
Survey Figure Segment Label	N/A	C3D-SURV-FIGR-LINE-TEXT	None	
Survey Network	C3D-SURV	C3D-SURV-NTWK	None	

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Tin Surface	C3D-TOPO	C3D-TOPO	Suffix	-*
Tin Surface Labeling	C3D-TOPO-TEXT	C3D-TOPO-TEXT	Suffix	-*
View Frame	C3D-ANNO	C3D-ANNO-VFRM	None	
View Frame Labeling	C3D-ANNO	C3D-ANNO-VFRM-TEXT	None	