

**Date: July 29, 2022**

**Workspace Configuration Version: 07.29.2022-01**

## **Software Versions:**

- **OpenRoads Designer CE – 2021 Release 1 (10.10.01.03)**
- **ProjectWise Client (10.00.03.262)**

These standards have been developed and tested using OpenRoads Designer Connect Edition (ORD). These standards are under continuous development and are subject to change in future updates.

A summary of enhancements for the latest configuration release is included below.

## **Installation:**

Local Installation Path:

- ***C:\ProgramData\Bentley\OpenRoads Designer CE\Configuration\***

## **Outstanding Issues:**

- Bentley Service Tickets
  - SR 7001070884 - D&U Conduits Do Not Update in 3D
    - Defect #1096452
  - SR 7001071738 - Node Does Not Use Surface Slope
    - Defect #1095456
  - SR 7001115091 - No Contour on Analyze Point
    - Defect #1041067
  - SR 7001121042 - User Defined Conduit Settings Ignored
    - Defect #1098019
  - SR 7001128352 - Irregular Channels Incorrect in 3D
    - Defect #1098019
  - SR 7001224258 - Extract Does not Prompt for Surface
    - Defect #1125400
  - SR 7001224259 - Direct Utility Conflicts not Detected
    - Defect #1125942 / #1125901
  - SR 7001291860 - Longitudinal Slope Wrong
    - Defect #1139138
  - SR 7001330340 - Model Builder Ignores SHP Elevation
    - Defect #1140466
  - SR 7001349733 - Edits / Opening Remove Baseline from Drainage & Utility Properties
    - Defect #1141637
  - SR 7001349754 - Unable to Format Station & Offset - D&U Baseline Reference
  - SR 7001351416 - Unable to Annotate D&U in Survey Foot
    - Defect #1141372
  - **SR 7001399400 - Utility Filter Ignores Pipe Size**
    - **Defect #866435**
  - **SR 7001407189 - Element Template Settings Ignored**
    - **Defect #881012**

## General

- Updated all Workspace files to be in the 10.10 Schema.
- Updated Solids Accuracy to 10 Miles for the seed files, dgnlibs, and DU cell libraries.

## Configurations

- *\\Organization-Civil\CDOT\_Standards.cfg*
  - Line 608: CIVIL\_CROSSSECTION\_NAVIGATOR\_ENABLE\_DRAFTING\_TOOLS = TRUE
    - Added to include labeling tools with the XS Navigator.
  - Line 352: CIVIL\_ENABLE\_QUICK\_PRINTSERVER = 1
  - Line 353: MS\_PLT\_MAX\_WORKER\_TASKS = 2000
    - Added to help with printing speeds.
- *\\Workspaces\CDOT\_Standards.cfg*
- *\\CDOT\_Worksets\\_CDOT\_Workset\_Template.cfg*

## Sheet Index Template

- *\\Workspaces\CDOT\_Standards\CDOT Workset Template\\_CDOT\_Workset\_Template.dgnws*
  - Added Detailer and Designer as field for the sheets.

## Seed

- *\\Organization-Civil\CDOT\_Standards\Dgnlib\Seed\2D-Seed\_CDOT.dgn*
  - Updated Solids Accuracy to 10 Miles.
  - Removed civil model.
- *\\Organization-Civil\CDOT\_Standards\Dgnlib\Seed\3D-Seed\_CDOT.dgn*
  - Updated Solids Accuracy to 10 Miles.
  - Removed civil model.
- *\\Organization-Civil\CDOT\_Standards\Dgnlib\Seed\Sheets\2D-Seed\_CDOT\_Drawing.dgn*
  - Updated Solids Accuracy to 10 Miles.
  - Removed civil model.
- *\\Organization-Civil\CDOT\_Standards\Dgnlib\Seed\2D-Seed\_CDOT\_Sheet.dgn*
  - Updated Solids Accuracy to 10 Miles.
  - Removed civil model.

## Levels

- *\\Organization-Civil\CDOT\_Standards\Dgnlib\Feature Definitions\CDOT\_Bridge-Levels\_Features\_Annotations\_Element Temp.dgnlib*
  - Updated Bridge Levels to work with OBM.
- *\\Organization-Civil\CDOT\_Standards\Dgnlib\Feature Definitions\CDOT\_ROW-Levels\_Features\_Annotations\_Element Temp.dgnlib*
  - **Added Level:** ROW\_Monuments-Property Pin

## Cells

- *\\Organization-Civil\CDOT\_Standards\Cell\Right of Way.cel*
  - **Updated**
    - Changed the following cells annotation bubble to Line Style 0 from by level so that it will remain a solid line when placed..
      - ROW\_MON\_Easement w-Label
      - ROW\_MON\_Misc Monument w-Label
      - ROW\_MON\_Project Control w-Label
      - ROW\_MON\_Secondary Control w-Label
      - ROW\_MON\_Section w-Label
      - ROW\_MON\_Sixteenth w-Label

- ROW\_Temp Easement Point w-Label
- \\Organization-Civil\CDOT\_Standards\Cell\Subsurface - Hydraulics.cel
  - **Added**
    - SU\_CMN MH BOX Cone - Top (matches 5" bottom cone width used in Box Manholes)
    - SU\_STM MH CONE [4 ,5, 6]FT - Pln
  - **Updated**
    - Adjusted modeled manhole and inlet vault height to 1' to better model shallow manholes
      - SU\_CMN MH 4FT - Btm
      - SU\_CMN MH 5FT - Btm
      - SU\_CMN MH 6FT - Btm
      - SU\_CMN MH 7FT - Btm
      - SU\_CMN MH 8FT - Btm
      - SU\_STM INLT Type 16 - Btm
      - SU\_STM INLT Vane - Btm
      - SU\_STM INLT Vane DBL - Btm
    - Adjusted modeled inlet vault height to 1.833' to better model shallow manholes and match indicated minimum heights.
      - SU\_STM INLT Type 13 - Btm
      - SU\_STM INLT Type R10 - Btm
      - SU\_STM INLT Type R10 Ex - Btm
      - SU\_STM INLT Type R15 - Btm
      - SU\_STM INLT Type R15 Ex - Btm
    - SU\_STM INLT Type D - Btm - Reduced connection region width by 0.5' on each side to prevent corner attachment.
    - Cleaned up impercise locations and dimensions
      - SU\_STM MH 4FT - Pln
      - SU\_STM MH 5FT - Pln
      - SU\_STM MH 6FT - Pln
      - SU\_STM MH 7FT - Pln
      - SU\_STM MH 8FT - Pln
    - Adjusted bottom slab to include pipe thickness to better reflect M&S Standard
      - SU\_STM MH BOX 54 - Btm
      - SU\_STM MH BOX 60 - Btm
      - SU\_STM MH BOX 66 - Btm
      - SU\_STM MH BOX 72 - Btm
      - SU\_STM MH BOX 84 - Btm
      - SU\_STM MH BOX 96 - Btm
    - Recreated model to better reflect M&S Standards. Removed bottom ring, modeled variable thickness cone, shortened height to 2'2" minimum allowed (8" casting, 4" rings, 14" cone)
      - SU\_CMN MH 4FT Cone - Top
      - SU\_CMN MH 5FT Cone - Top
      - SU\_CMN MH 6FT Cone - Top
- \\Organization-Civil\CDOT\_Standards\Cell\Survey.cel
  - **Updated**

- Changed the following cells to graphic cells so when placing civil point geometry the cell takes on the attributes of the element template assigned to the feature definition.
    - FND\_Monument – BLM
    - FND\_Monument – Bench
    - FND\_Monument – Federal
    - FND\_Monument – Local Ent
    - FND\_Monument – NOAA
    - FND\_Monument – Property
    - FND\_Monument – USGS
- FND\_Monument – Witness
- *\\Organization-Civil\CDOT\_Standards\Cell\XS Crossing Point Labels.cel*
  - Updated all flag cells to be the same size and text size.
  - Changed the Proposed ROW flag to read as “Prop ROW”.

## Detailing Symbols

- *\\Organization-Civil\CDOT\_Standards\Dgnlib\Detailing Symbols\CDOT\_Detailing Symbols.dgnlib*
  - Added custom CDOT Sheet Callouts for Roadway.
- *\\Organization-Civil\CDOT\_Standards\Dgnlib\Detailing Symbols\CDOT\_Bridge Detailing Symbols.dgnlib*
  - Added custom CDOT Sheet Callouts for Bridge.

## Element Templates

- *\\Organization-Civil\CDOT\_Standards\Dgnlib\Feature Definitions\CDOT\_Roadway-Levels\_Features\_Annotations\_Element Temp.dgnlib*
  - Updated all XS Flag element templates with a scale (1,1,1).
  - Updated the TC\_Asphalt Leveling Element Template to point to the correct level.
  - Made the Line weights thicker for the Volumes – Cut and Volumes – Fill Element Templates. Help with printing Cut and Fill EAV shapes.
- *\\Organization-Civil\CDOT\_Standards\Dgnlib\Feature Definitions\CDOT\_ROW-Levels\_Features\_Annotations\_Element Temp.dgnlib*
  - **Added:**
    - Points > Right of Way Monuments > Monument – Property Pin
- *\\Organization-Civil\CDOT\_Standards\Dgnlib\Feature Definitions\CDOT\_SU-Supplemental\_Features\_Annotations\_Element Temp.dgnlib*
  - **Added:**
    - Utilities-2D Content Linear and Profile (Culvert, Electric, Electric Overhead, Fiber Optic, Fiber Optic Overhead, Gas, Gas High Pressure, Gas Low Pressure, Oil, Sanitary, Storm, Telephone, Telephone Overhead, Traffic, Television, Television Overhead, Unknown/Miscellaneous, and Water)
- *\\Organization-Civil\CDOT\_Standards\Dgnlib\Feature Definitions\CDOT\_SU-Levels\_Features\_Annotations\_Element Temp.dgnlib*
  - **Added:**
    - STM MH BOX - Top
    - STM MH CONE [4, 5, 6]FT - Top
    - STM MH CONE [4, 5, 6]FT - Pln
  - **Updated:**

- STM INLT R15 Ex - Btm | Corrected to point to proper cell SU\_STM INLT TYPE R15 Ex - Btm
- STM INLT C Ex - Btm / Top | Corrected Level
- STM MH [4, 5, 6]FT - Top | Changed to respective flat top cells
- **Renamed** WTR Design Node Ex - Sol > WTR Design Node - Sol

## Text Favorites

- \\Organization-Civil\CDOT\_Standards\Dgnlib\Feature Definitions\CDOT\_Text Favorites\_Text Styles\_Dimension Styles.dgnlib
  - Added Text Favorite, PLAN\PLAN – Full Station (0 dec). For Station labels with Accuracy set to 0.

## Annotation Groups

- \\Organization-Civil\CDOT\_Standards\Dgnlib\Feature Definitions\CDOT\_Roadway-Levels\_Features\_Annotations\_Element Temp.dgnlib
  - Updated Edge of Road Flag annotation definition to place at a 1.0 Scale.
  - Updated Matchline Start and End annotation definitions to use the View Readable option.
  - Updated all annotation definitions to use the Manage Text option.
  - Added an Annotation group for Proposed Profile Strip Grades.
- \\Organization-Civil\CDOT\_Standards\Dgnlib\Feature Definitions\CDOT\_SU-Supplemental\_Features\_Annotations\_Element Temp.dgnlib
  - **Added:** XS Labels - Utility 2D - Leveraged existing Cells
  - **Updated**
    - XS Labels - Utility 2D - Changed XS - Util - Elec referenced Cell to reflect name change to XS\_Electric - UG
- \\Organization-Civil\CDOT\_Standards\Dgnlib\Feature Definitions\CDOT\_SU-Levels\_Features\_Annotations\_Element Temp.dgnlib
  - **Updated**
    - DU - Pro - CULV Dia - Ex
      - Renamed to DU - Pro - CULV DiaInv - Ex
      - Added start and end invert labels, DU - Pro - StartInv - Ex & DU - Pro - StopInv - Ex
    - DU - Pro - STM Dia - Ex
      - Renamed to DU - Pro - STM DiaInv - Ex
      - Added start and end invert labels, DU - Pro - StartInv -Ex & DU - Pro - StopInv - Ex

## Civil Labeler

- \\Organization-Civil\CDOT\_Standards\Dgnlib\Feature Definitions\CDOT\_Civil Labeler.xml
  - Added Roadway Design\Plan\Points\Station (0 dec) Label.
  - Added Roadway Design\Plan\Points\Station [Align 2] of Offset-Station [Align 1] Label.

## Feature Symbolgies

- \\Organization-Civil\CDOT\_Standards\Dgnlib\Feature Definitions\CDOT\_ROW-Levels\_Features\_Annotations\_Element Temp.dgnlib
  - **Added:**
    - Point > Right of Way Monuments > Monument – Property Pin
- \\Organization-Civil\CDOT\_Standards\Dgnlib\Feature Definitions\CDOT\_SU-Supplemental\_Features\_Annotations\_Element Temp.dgnlib
  - **Added:**
    - Utilities-2D Content Linear and Profile (Culvert, Electric, Electric Overhead, Fiber Optic, Fiber Optic Overhead, Gas, Gas High Pressure, Gas Low Pressure, Oil,

Sanitary, Storm, Telephone, Telephone Overhead, Traffic, Television, Television Overhead, Unknown/Miscellaneous, and Water)

- *\\Organization-Civil\CDOT\_Standards\Dgnlib\Feature Defintions\CDOT\_SU-Levels\_Features\_Annotations\_Element Temp.dgnlib*
  - **Added:**
    - STM MH CONE [4, 5, 6]FT - Sol
    - STM MH CONE [4, 5, 6]FT - Pnt
  - **Updated:**
    - STM MH BOX \* - Sol - Top | Cell Set to new STM MH BOX - Top Element Template

## Feature Definitions

- *\\Organization-Civil\CDOT\_Standards\Dgnlib\Feature Defintions\CDOT\_Roadway-Levels\_Features\_Annotations\_Element Temp.dgnlib*
  - **Added:**
    - Topsoil Stripping Feature
- *\\Organization-Civil\CDOT\_Standards\Dgnlib\Feature Defintions\CDOT\_ROW-Levels\_Features\_Annotations\_Element Temp.dgnlib*
  - **Added:**
    - Point > Right of Way Monuments > Monument – Property Pin
- *\\Organization-Civil\CDOT\_Standards\Dgnlib\Feature Defintions\CDOT\_SU-Supplemental\_Features\_Annotations\_Element Temp.dgnlib*
  - **Added:**
    - Utilities-2D Content (Culvert, Electric, Electric Overhead, Fiber Optic, Fiber Optic Overhead, Gas, Gas High Pressure, Gas Low Pressure, Oil, Sanitary, Storm, Telephone, Telephone Overhead, Traffic, Television, Television Overhead, Unknown/Miscellaneous, and Water)
- *\\Organization-Civil\CDOT\_Standards\Dgnlib\Feature Defintions\CDOT\_SU-Levels\_Features\_Annotations\_Element Temp.dgnlib*
  - **Added:**
    - STM MH CONE [4, 5, 6]FT
  - **Updated:**
    - STM INLT Type R[\*] - Set to not use surface slope as default behavior

## Graphical Filters

- *\\Organization-Civil\CDOT\_Standards\Dgnlib\Graphical Filters\CDOT\_Graphical Filters.dgnlib*
  - Added the POSS Feature Definition to the Proposed Terrain Graphical Filter.
  - Created a Breaklines only Terrain Filter.
  - Created a Terrain Filter with Cut/Fill Lines only.

## Sheet Borders

- *\\Organization-Civil\CDOT\_Standards\Sheet Borders\Right of Way Sheets.cel*
  - Updated LPA Title Sheet to include correct signature block.

## Sheet Seeds

- *\\Organization-Civil\CDOT\_Standards\Dgnlib\Sheet Seeds\*
  - Updated all Sheet Seeds to work with level overrides.
  - Updated ROW LPA Title Sheet cell.
  - Updated XS Stacked Sheet Seeds to not be zoomed out.

## Plotting

- *\\Organization-Civil\CDOT\_Standards\Printing\PenTables\\*.tbl*

- Updated Pentables to print the Barscales shaded with a black fill.
- *\\Organization-Civil\CDOT\_Standards\Printing\CDOT\_ROW - Default Printer\_ORD.pltcfg*
  - Updated Weights to be consistent with other print drivers.

## **Template Library**

- *\\Organization-Civil\CDOT\_Standards\Template Library\CDOT\_Template Library.itl*
  - Added End Condition to target ROW limits.
  - Added Topsoil Stripping surface template.

## **GUI**

- *\\Organization-Civil\CDOT\_Standards\Dgnlib\GUI\CDOT\_Custom\_Menu.dgnlib*
  - Added Steel Tool to Bridge Ribbon.
  - Added New Survey Labeling Macro to the CDOT\Survey Menu.

## **Apps**

- *\\Organization-Civil\CDOT\_Standards\Apps\Steel Tool\*
  - Added tool for Bridge Group.

## **Macros**

- *\\Organization-Civil\CDOT\_Standards\Macros\*
  - Added CDOT – Updating Report Codes. Instructions document for the macro is also included.

## **Bridge Standards**

- *\\Organization-Civil\CDOT\_Bridge Standards\*
  - Added Bridge Standards for future use with OBM.