10:00 am

ORD for Dummies and Project Managers

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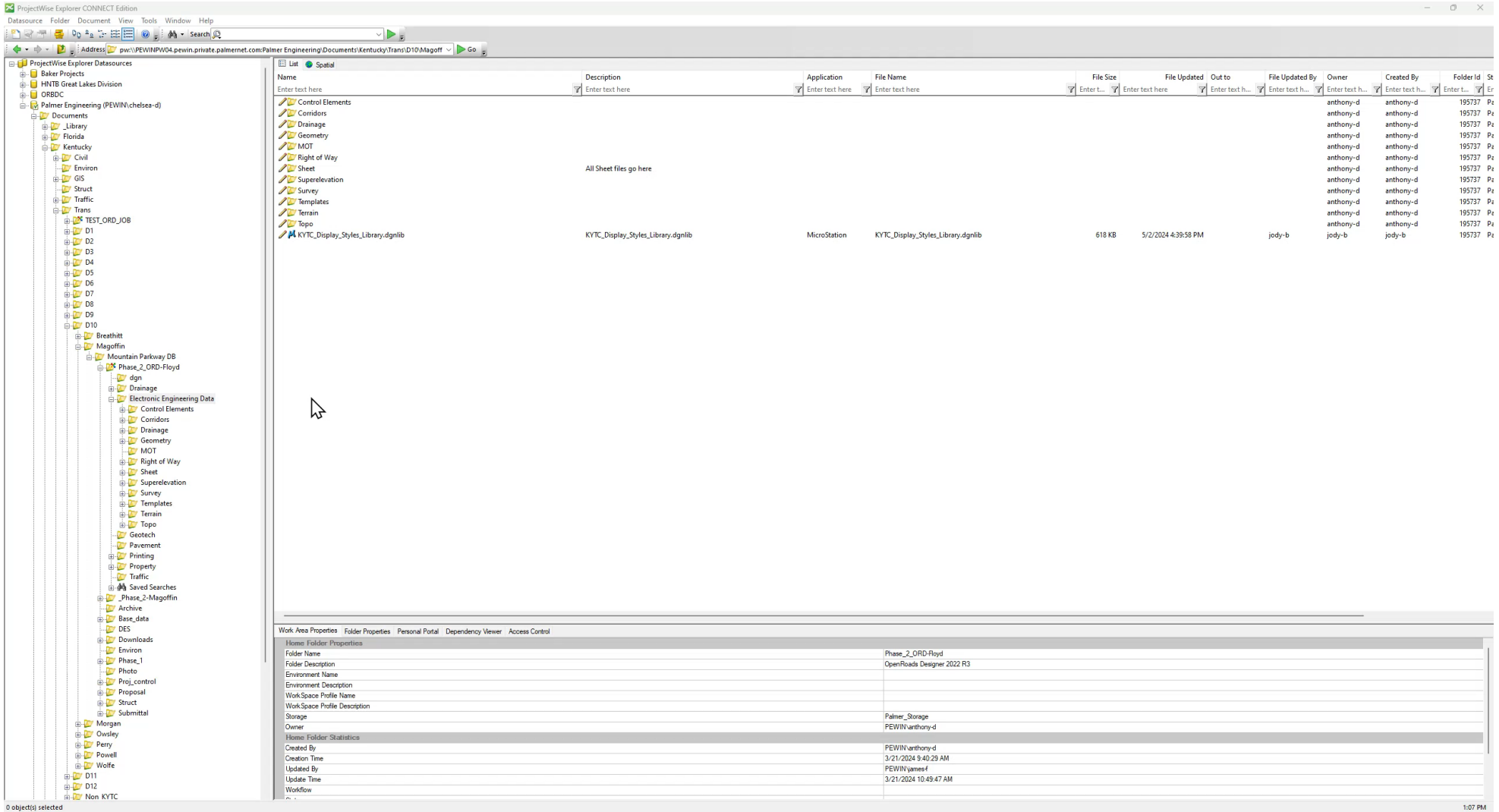
Translation 

- Alignment/ALG →Geometry
- Model/IRD →Corridor
- Surface/DTM →Terrain
- Topo →Manuscript

Files and Geometry



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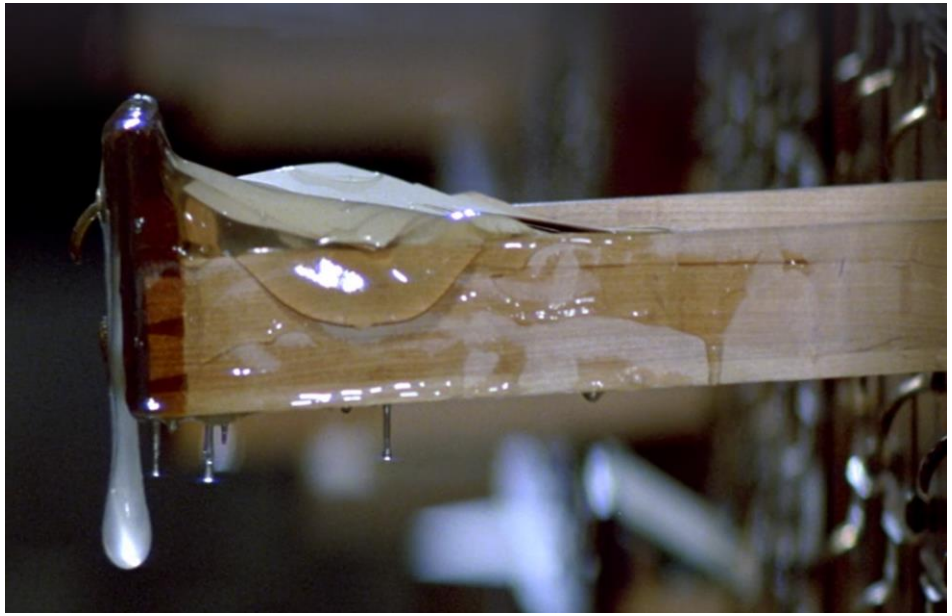
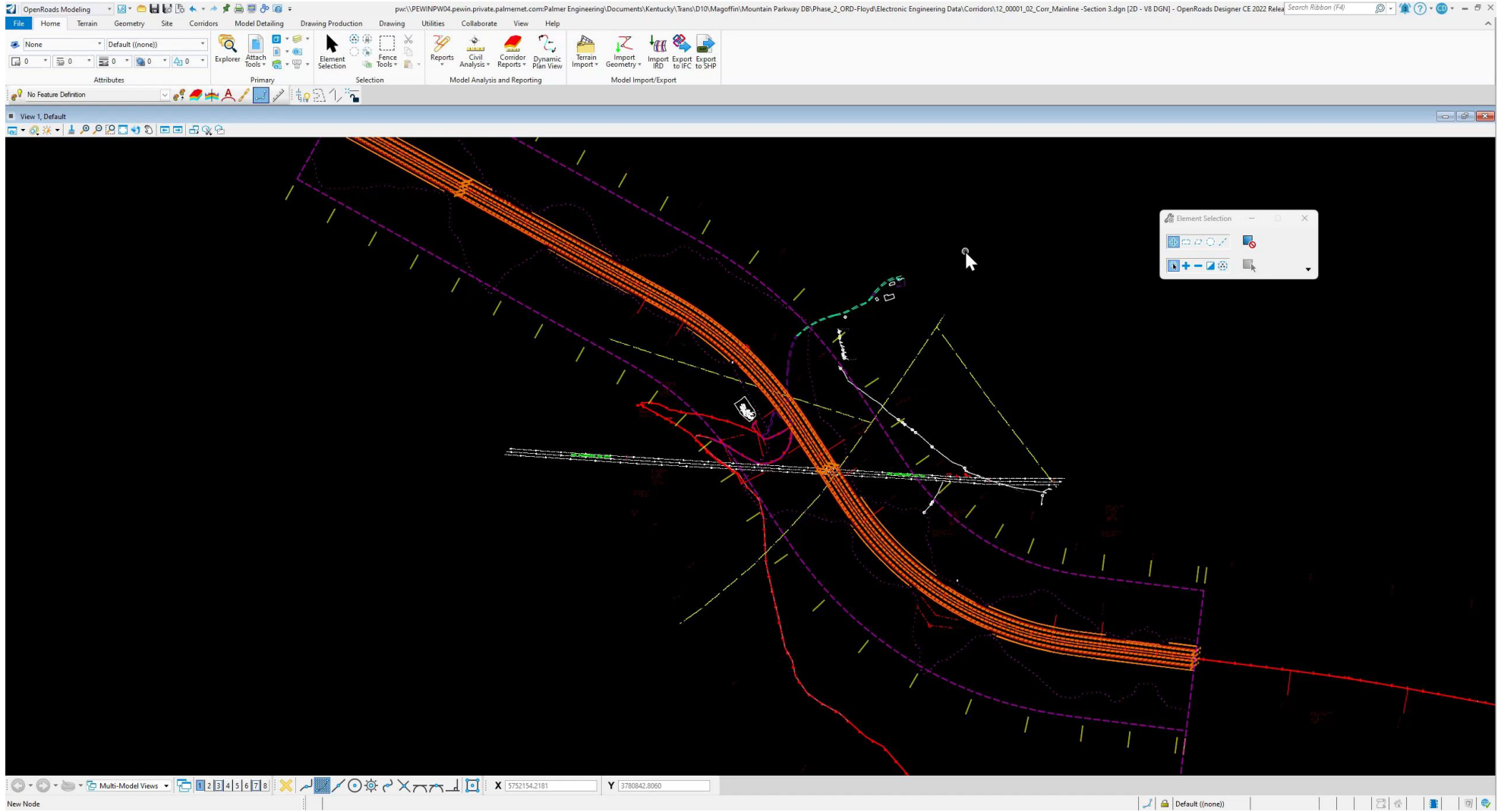
Alignment Review

- Geometry is a LIVE 3D feature.
  - Horizontal and vertical information is stored in the same line.
  - Do not move “handles,” it will change the model.
- Annotation is built into the feature definition, which is set when drawing the line.
- Annotation scale is dynamic and can be changed with the drawing scale.
- The terrain must be referenced and active to view it on profile.



Corridor Viewing



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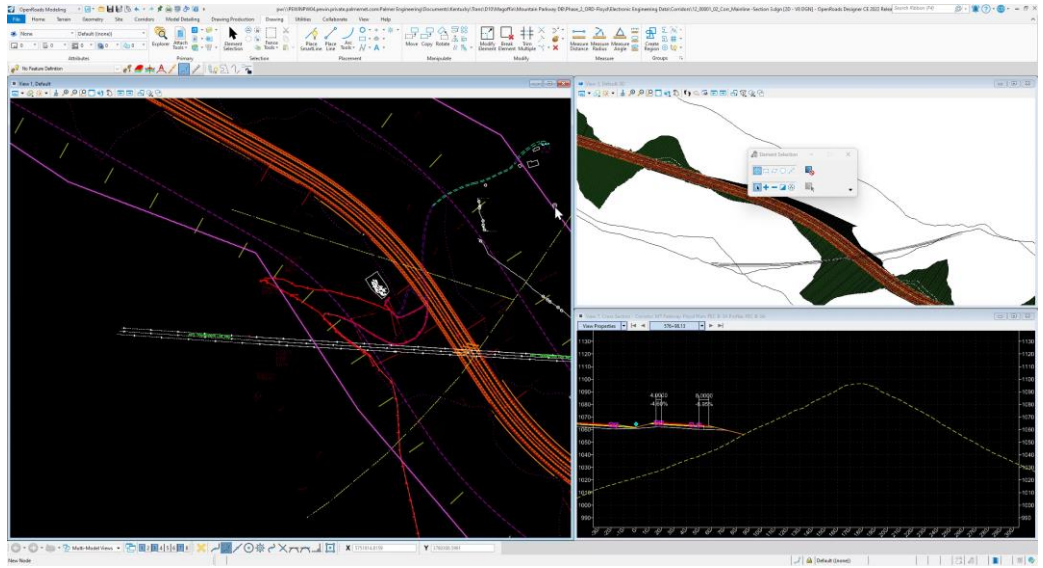
Corridor Review

- Measuring can be done with:
  - Measure (traditional length and distance)
  - Tracking (Civil Analysis > Analyze Point)
  - Temporary Dimensions (dynamic cross sections)
- The corridor file will generally include:
  - Terrain
  - Geometry
  - Superelevation
- Contours *can* be shown with the terrain model but take A LOT of processing power. Create an unintelligent display reference instead.
- Superelevation is a separate DGN and easily changed. Ask for a report print out or view dynamic sections with temporary dimensions to review.

Cemetery Access



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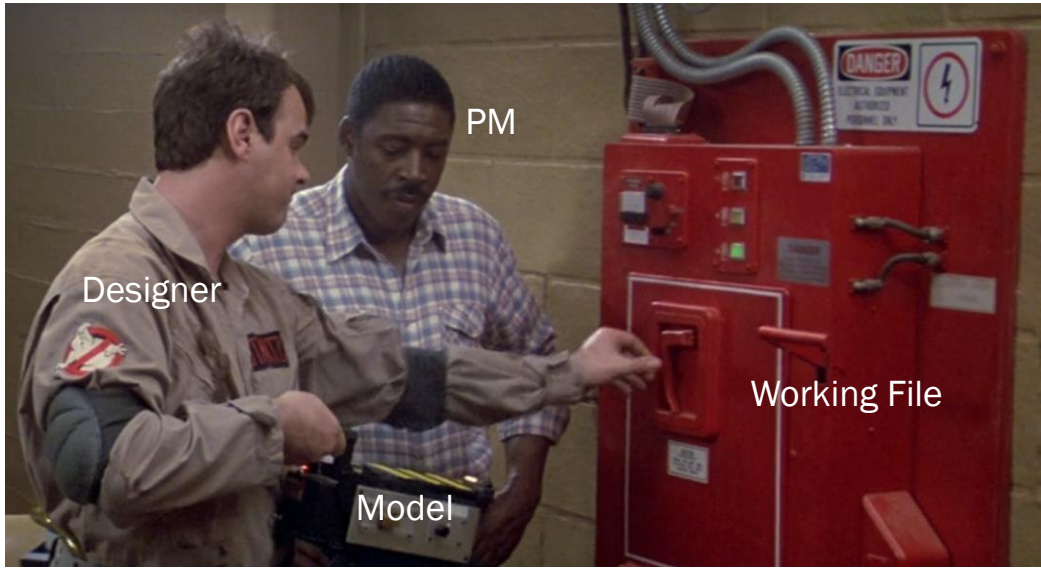
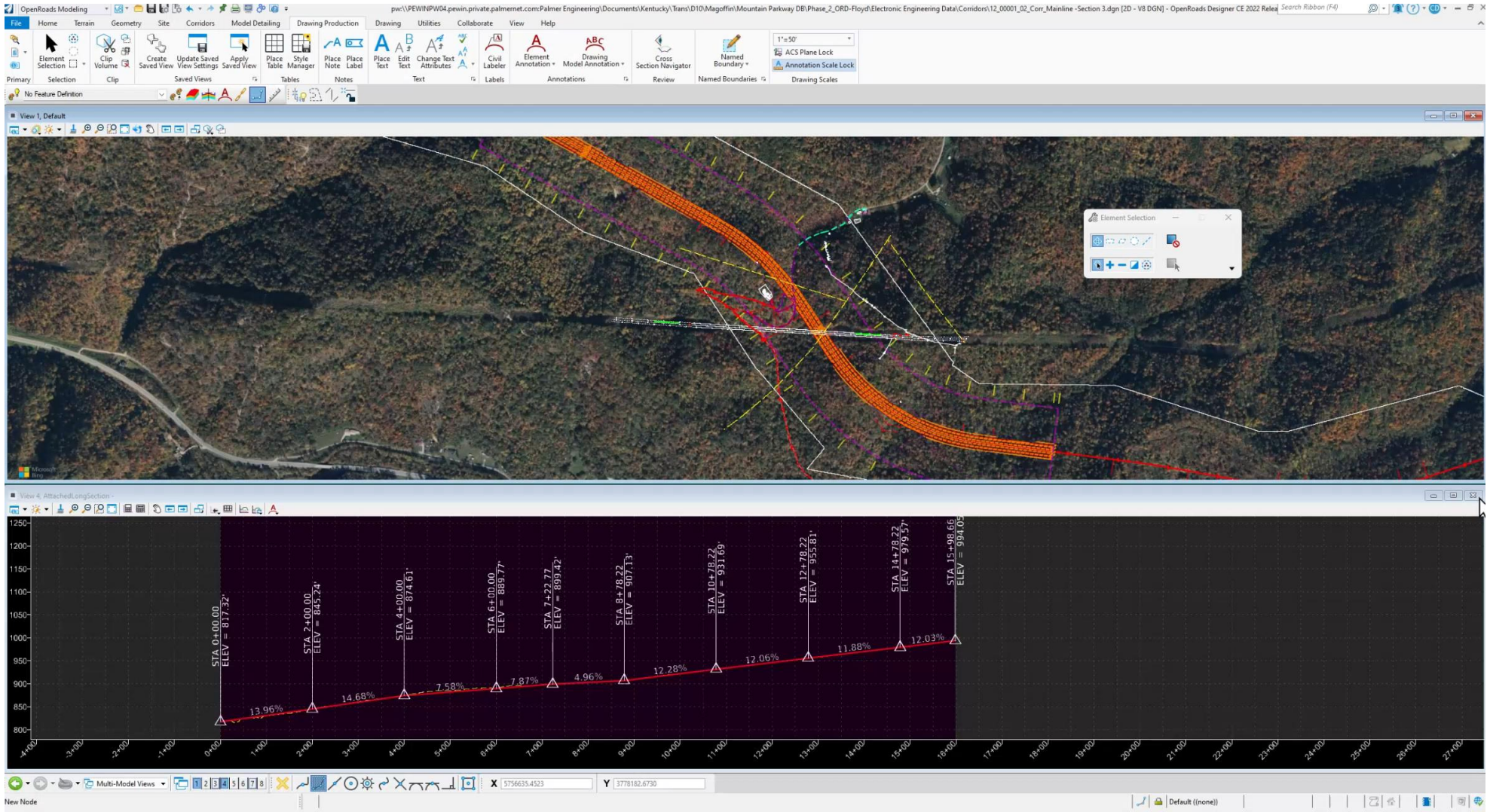
Exploring GRD

- A dynamic profile can be viewed for any line.
- Each file has a built in aerial and street view map in the View Attributes.
- A working file is a safe place to review information and sketch changes without risking changes to the model.



KMZ Creation



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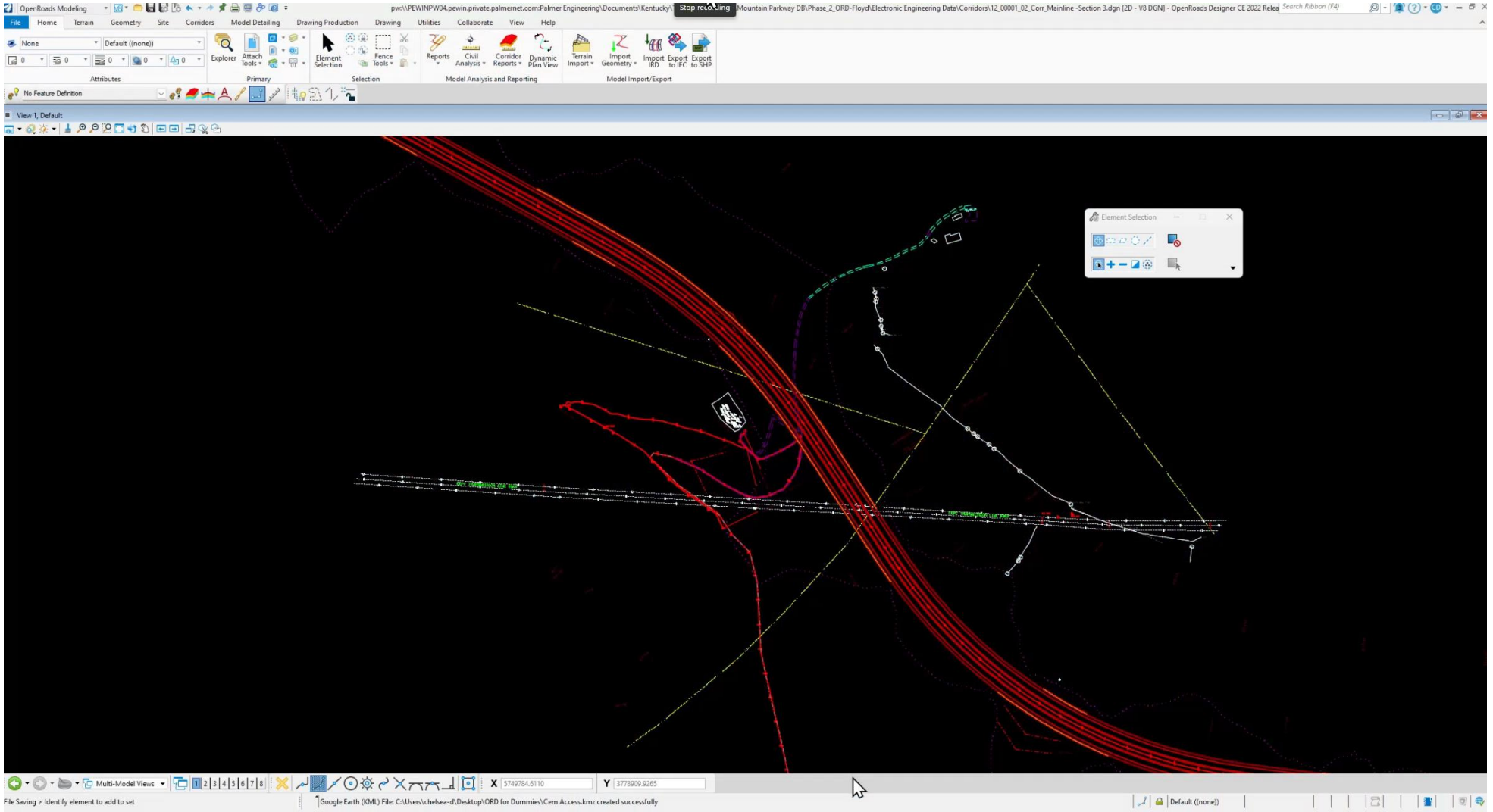
KMZ Creation



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KMZ Review

- What you see is what you get. Turn levels and references off and clip references as needed.
- Line styles do not appear in Google Earth.
- References and Levels can be flipped on and off in Google Earth.
- KMZs are easily shared but should be considered a limited use tool. They should not be considered a way to share a complex DGN.

And are slated to be ghosted, Bentley will not support them in the future

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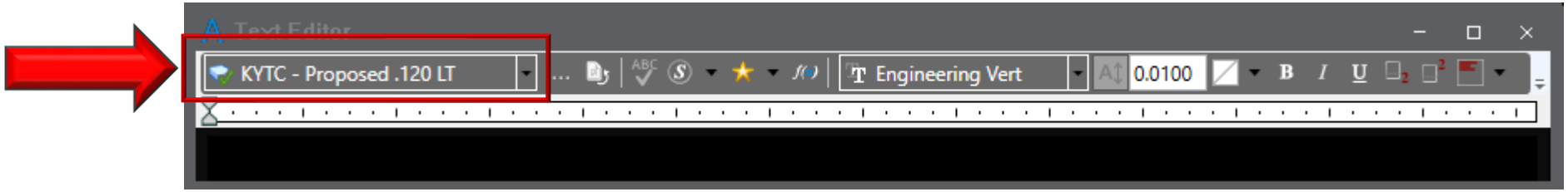
ORD For Dummies and Project Managers: Annotation and Plans

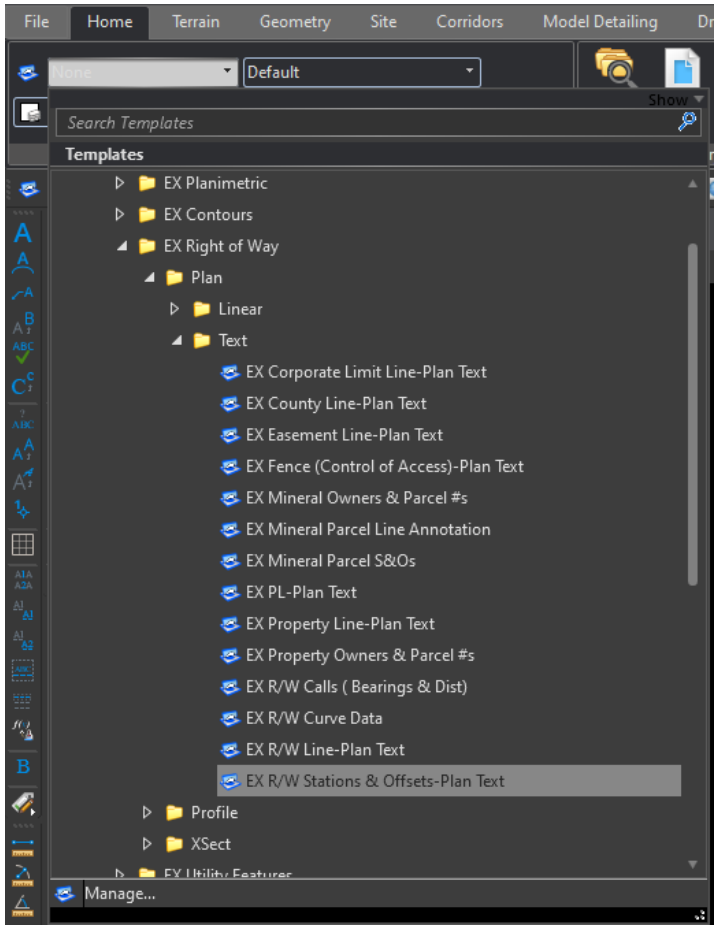
Text Styles

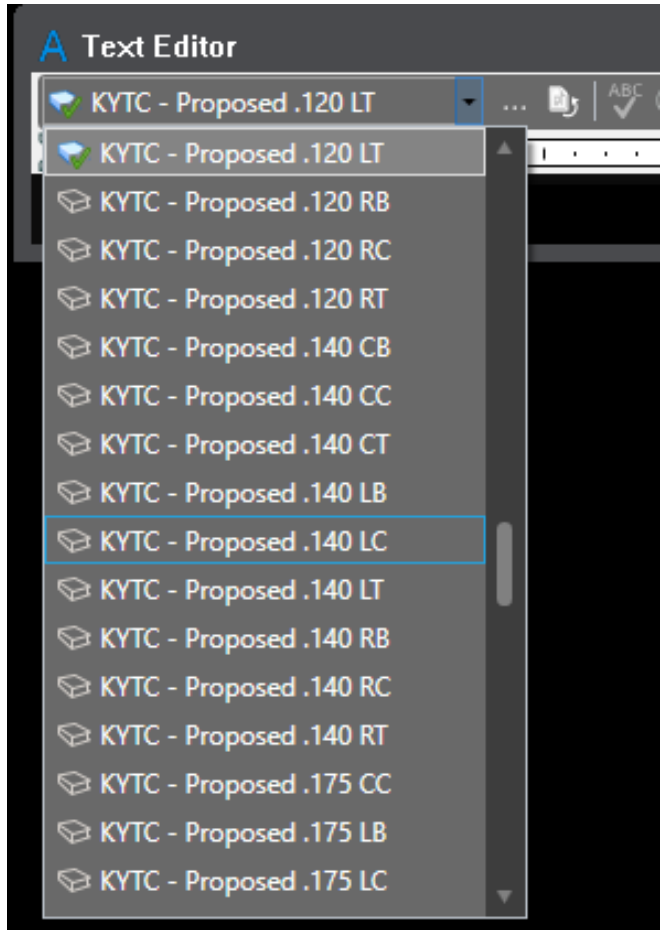
- Text Styles – Named sets of text attributes, such as font, width, height, and color, that allow you to place text within a model in a consistent and automated manner.
- Text can be placed with or without a text style.
- *Text styles interact with the annotation scale of the file changing in size.*
- Text styles were available in MicroStation.
- Element templates use text styles for additional standardization.

Setting a Text Style



Text Styles can be set using an element template or in the drop-down menu of the text editor.





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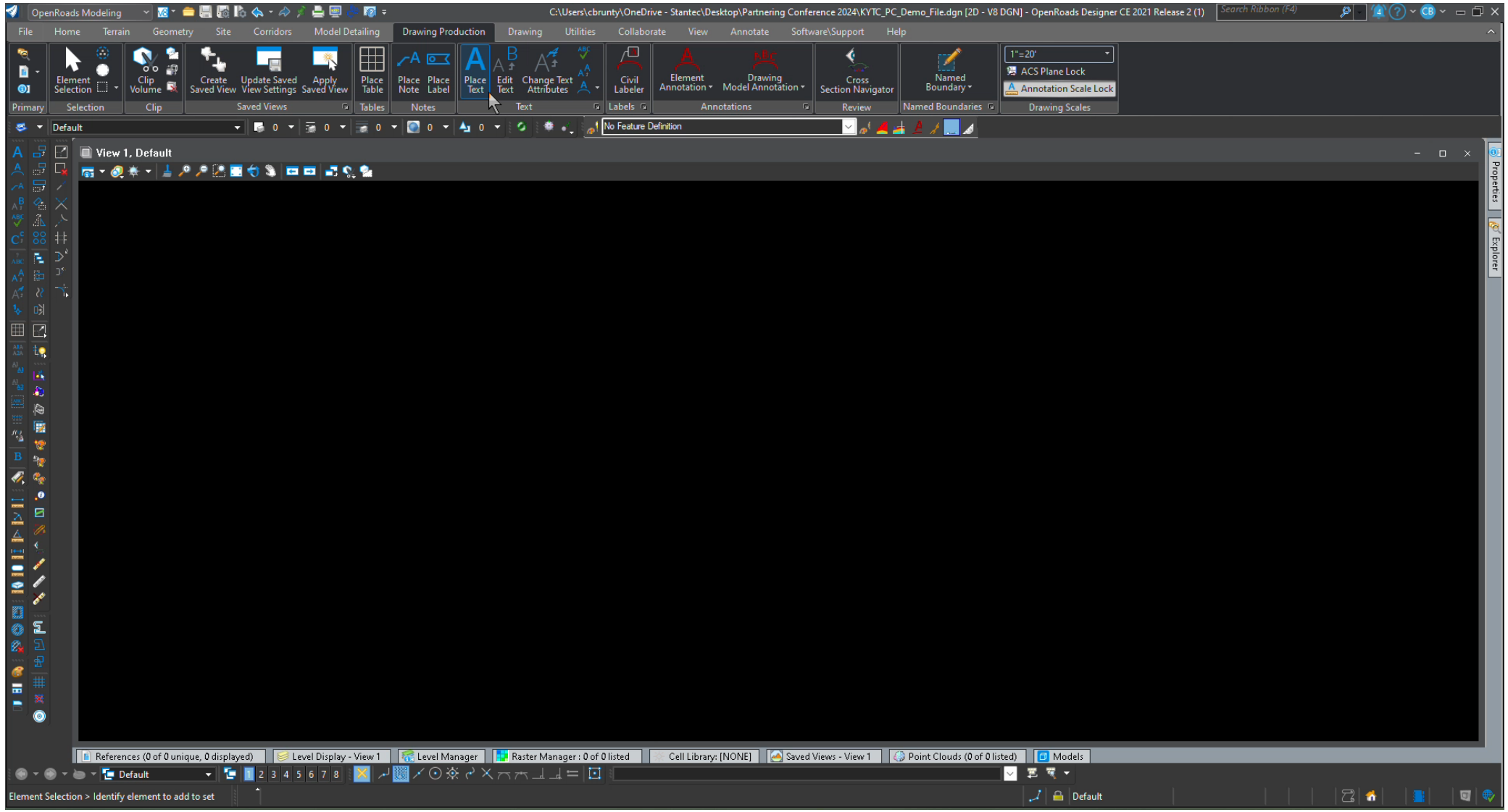
Annotation Scale with Text Styles



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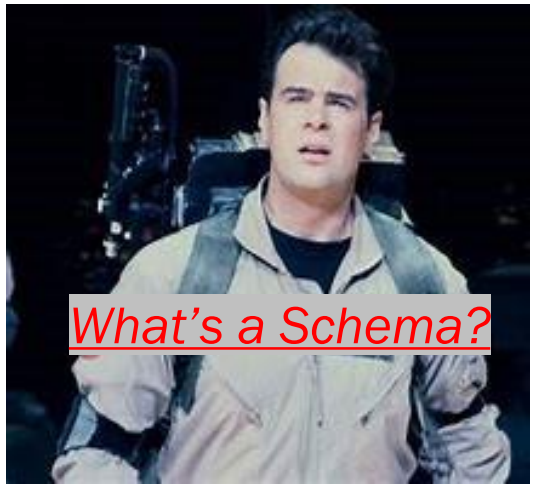
Text Favorites

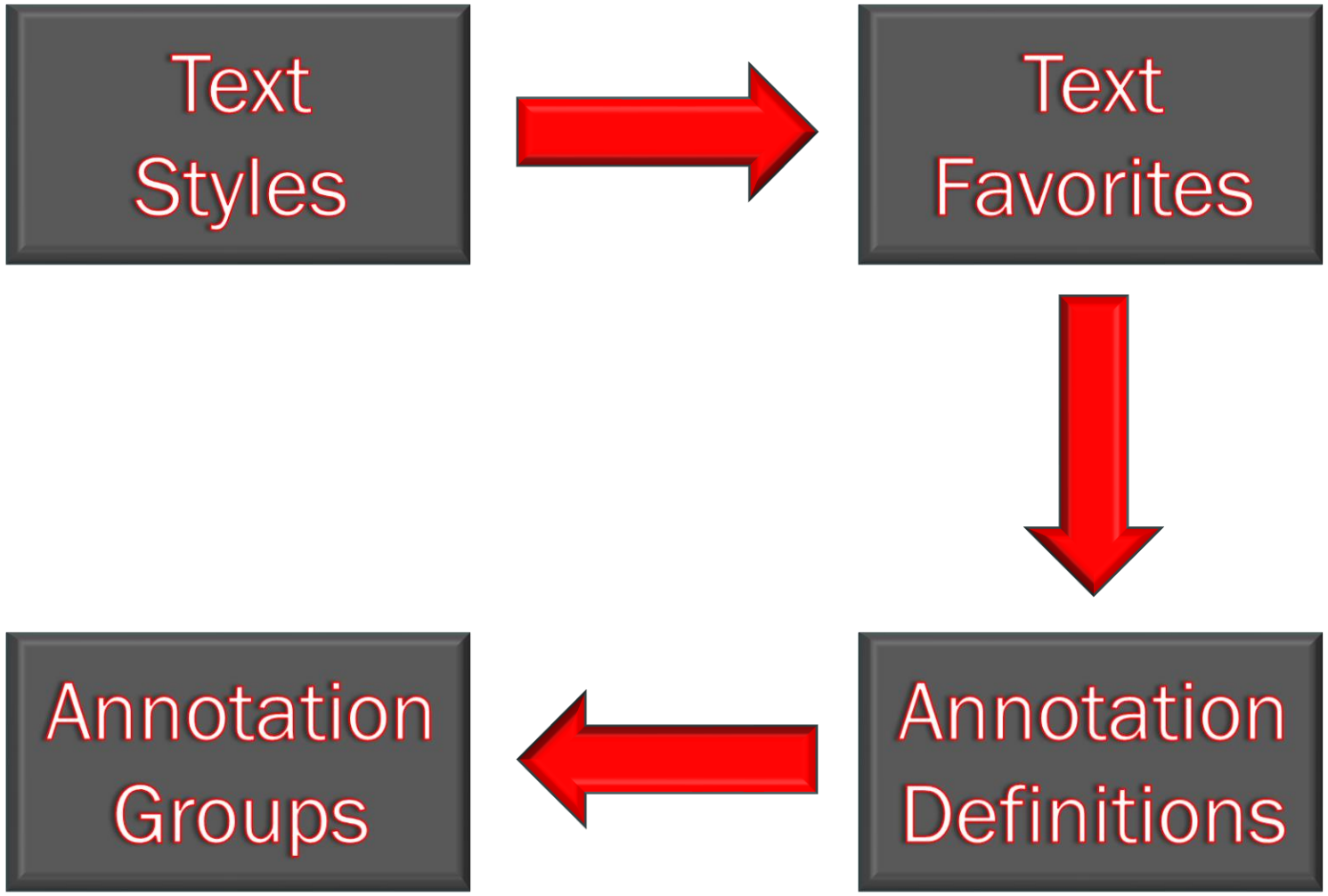
- Text Favorites – Labels that allow you to place intelligent text within a model in a consistent and automated manner.
- Text favorites source intelligent information of a designated field type. (element, model, file, sheet index, item type, or civil property)
- Multiple different field and subfield types can be combined in a text favorite.
- *Text favorites dictate units, format, and accuracy of information displayed.*

Annotation Definitions and Groups

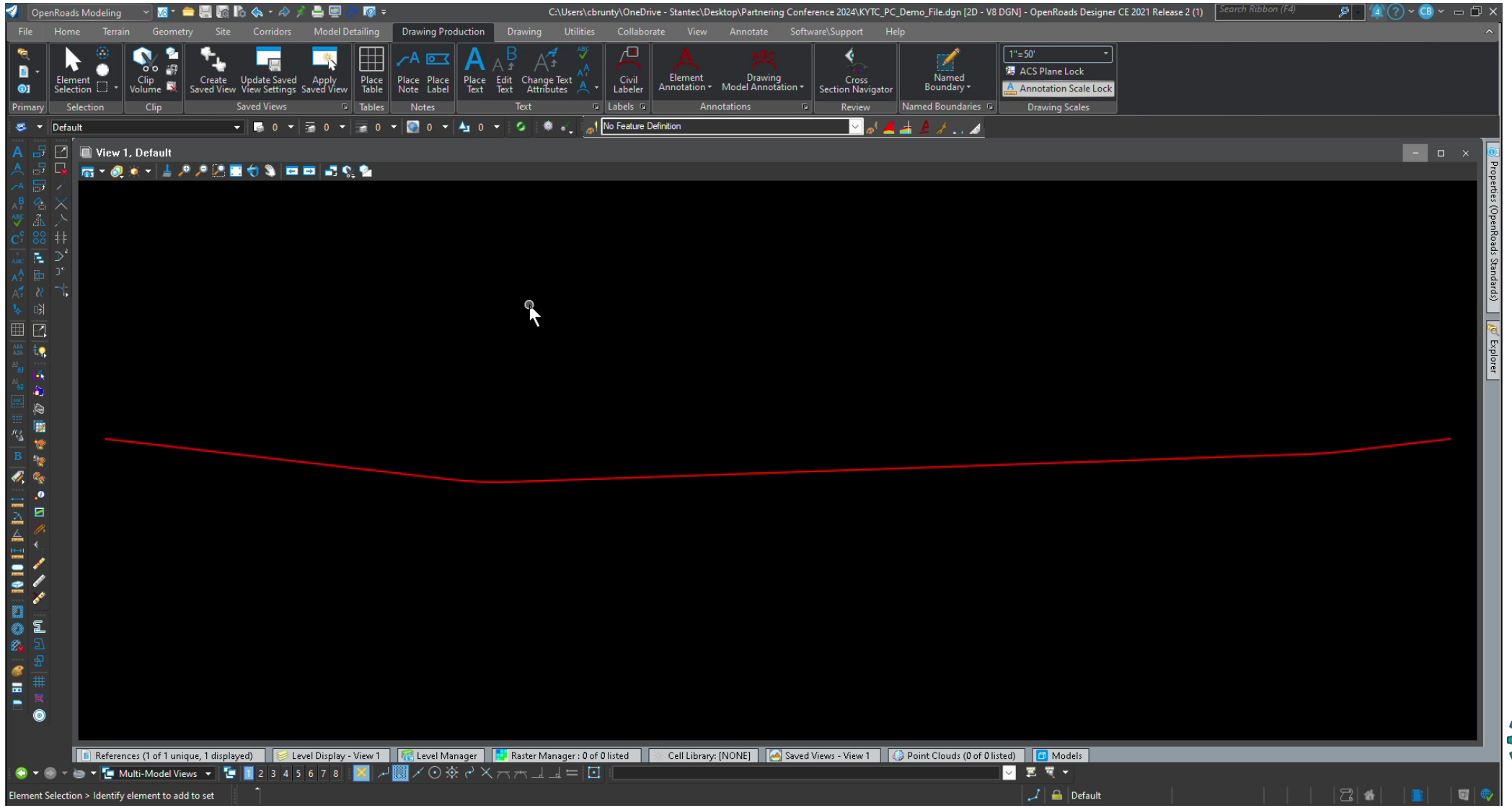
- Annotation Definitions – Collections of cells, text, text favorites, and lines with predetermined characteristics and positioning.
- Annotation Groups – Collection of annotation definitions to be processed as a batch system.
- Annotation definitions can be assigned to feature definitions.
- Annotation definitions change based on the view of the model (plan, profile, cross section, etc.) and the type of element being used (component, linear, point, etc.)
- *Changes made to an annotation group are file specific and will have to be recreated in other files unless made in the source DGN library.*
- *Project managers need to assess level of effort when changing prebuilt annotation groups.*



How does this all correlate?



Example of an Annotation Group



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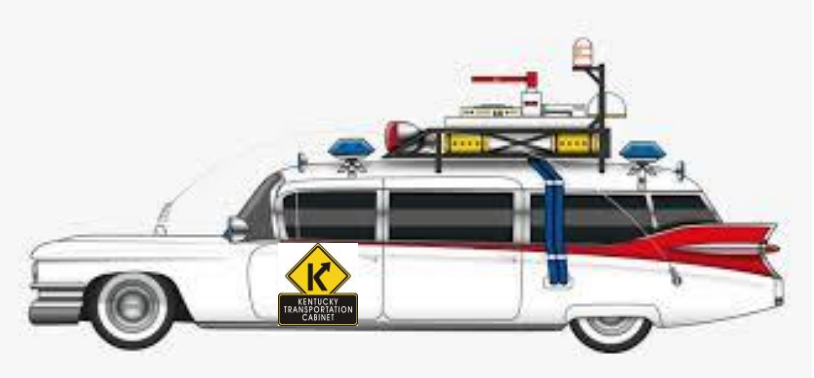
Pros and Cons of ORD Annotation

- Pros:
  - Standardizes information and ascetics on plan sets delivered.
  - Reduces manual manipulation time of standard projects.
  - Auto updates with changes (preliminary stages).

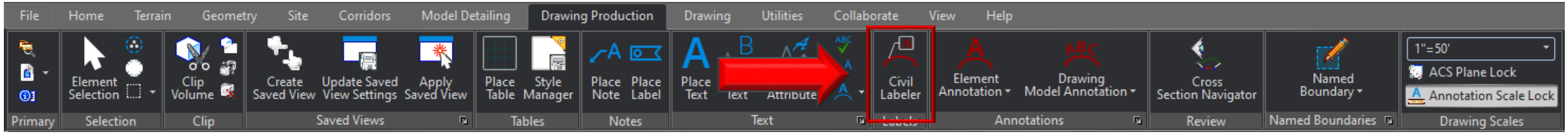
- Cons:
  - Standard annotation groups rarely meet the needs of complex projects.
  - Changes require a base level of understanding in the associated managers or manual manipulation time.
  - Auto updates with changes (plan production stages).



Civil Labeler

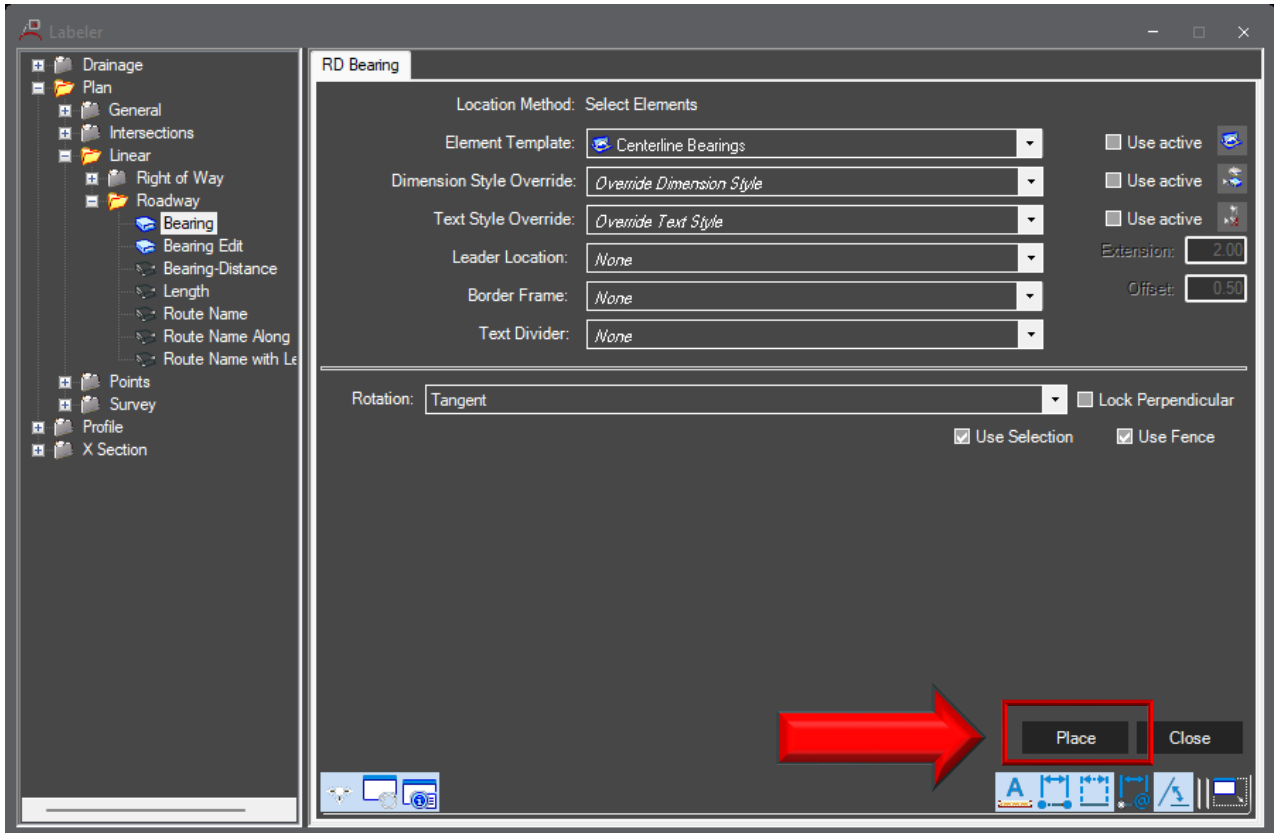
- Civil Labeler – Annotation tool for placing label definitions.
- Label Definitions –combination of text styles, text favorites, dimensions styles, element templates, border frames, and custom prompting used to annotate civil information in a consistent manner.
- Civil labels are set up in ORD 2022 R3 KYTC standards.
- Civil labels can target multiple elements allowing the ability to do batch annotation with fences.
- *Civil labeler can be used as a production tool but also a user-friendly reviewing tool.*

How To Get To Civil Labeler



You must click on a label and then click place. Certain labels can only be used in certain views.

Civil labeler provides prompts in the bottom left-hand corner of the main screen for use.



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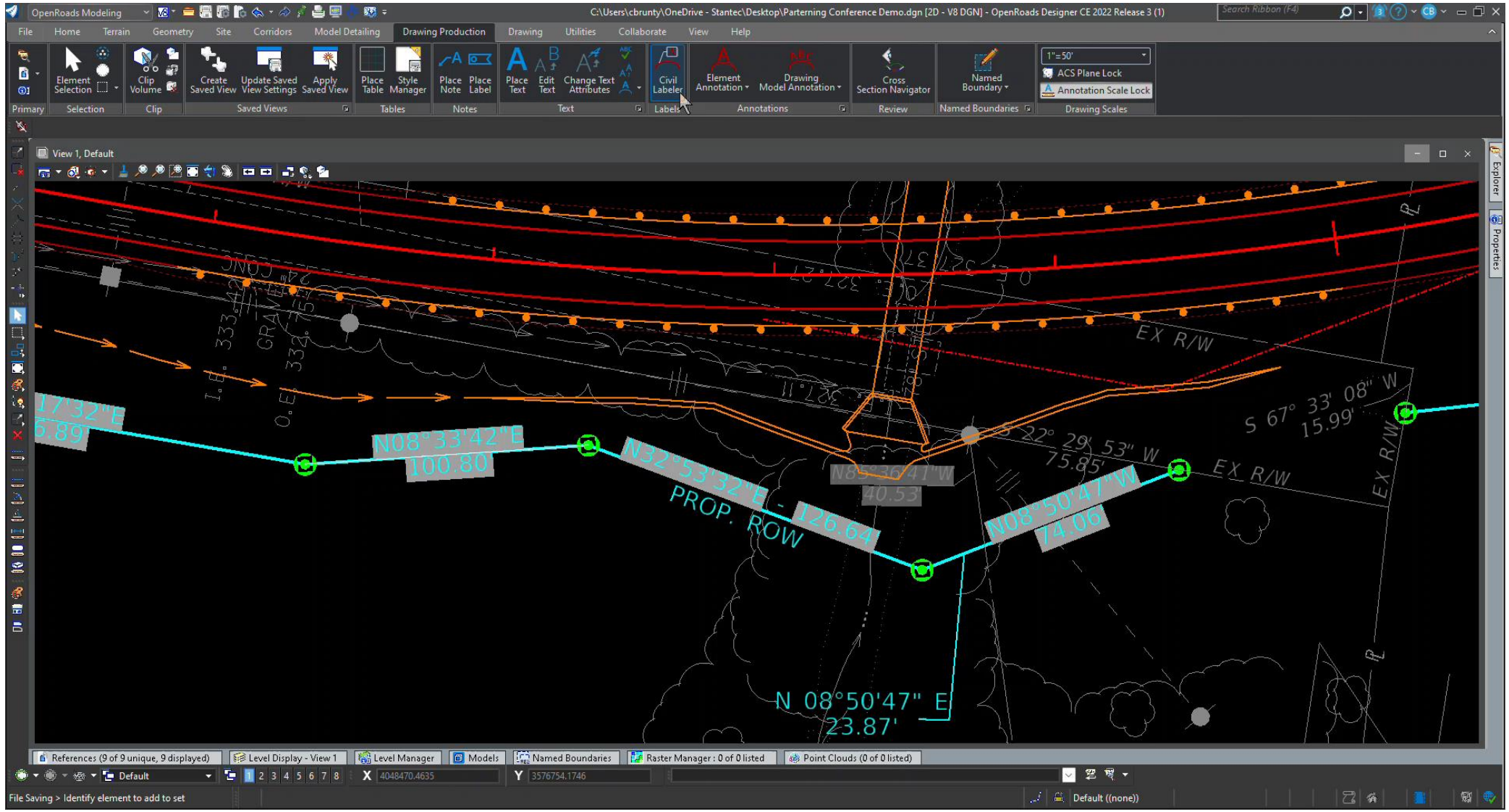
Example of Civil Labeler



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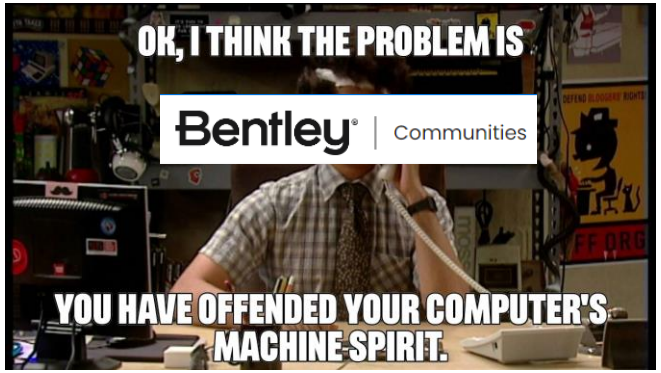
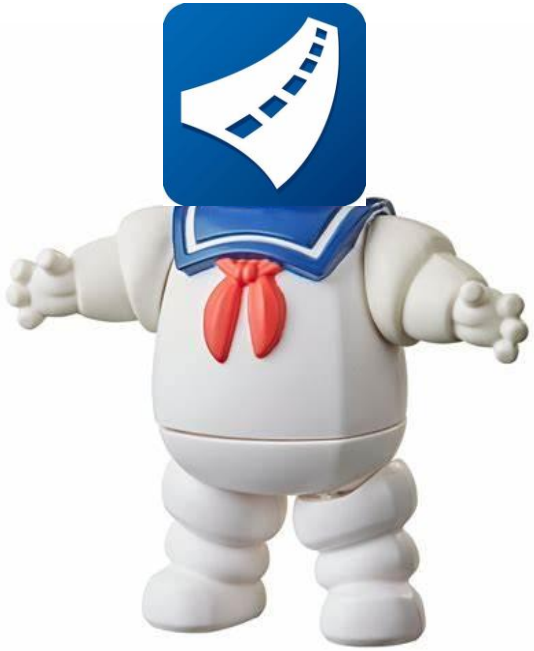
Sheet Creation in ORD

- ORD uses three models used when creating sheets.
- Default Model “black background” – standard base DGN space. Same as in MicroStation.
- In the default model, named boundaries are used to create the drawing and sheet models.
- Named boundaries use saved views when created sheets so set level preferences before sheet creation.
- Drawing Model “grey background” – reference of the default model where automated annotation can be applied. Good practice to match annotation scale of default model on plan sheet creation.
- Sheet Model “white background” – reference of the drawing model with sheet cell at 1:1 scale.
- *Most named boundaries link sheet to civil elements (ex. Centerlines), changes to those elements directly affects the sheets created.*



Key Plan Production Details

- Due to most named boundaries being linked to a civil elements, plan development takes place much later in workflows than traditionally in MicroStation.
- Plan, profile, and cross sections are linked to the geometry (centerline). *It is recommended that the geometry be in near final stages when plan production begins.*
- Cross sections are direct live cuts of the 3D default model. Changes to cross sections are recommended to be addressed in the corridor files. *Where a project is in the overall timeline needs to be considered when reviewing cross sections.*
- Annotation groups are used to create batch annotation on cross sections. Manual edits to this annotation can be lost if corridors change and the annotation must be batched removed and reapplied.
- *Model review meetings and manuscripts should be considered in place of preliminary cross sections and plans where applicable.*



For more information, please, don't hesitate to contact:

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https://transportation.ky.gov/CADD-Standards/Pages/default.aspx

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QUESTIONS?

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