



# Data Migration & Workflows

Holly Herring, PE – Senior Consultant with Bentley

**Bentley®**

# Agenda

## Upgrade Projects to ORD

Feature Mapping

Civil File  
Manager

V8i GEOPAK/InRoads Native (SS2, SS4, SS10)

V8i  
OpenRoads  
(SS4, SS10)

OpenRoads  
Designer

Terrain

Geometry

Super  
IRD  
ITL

Drainage

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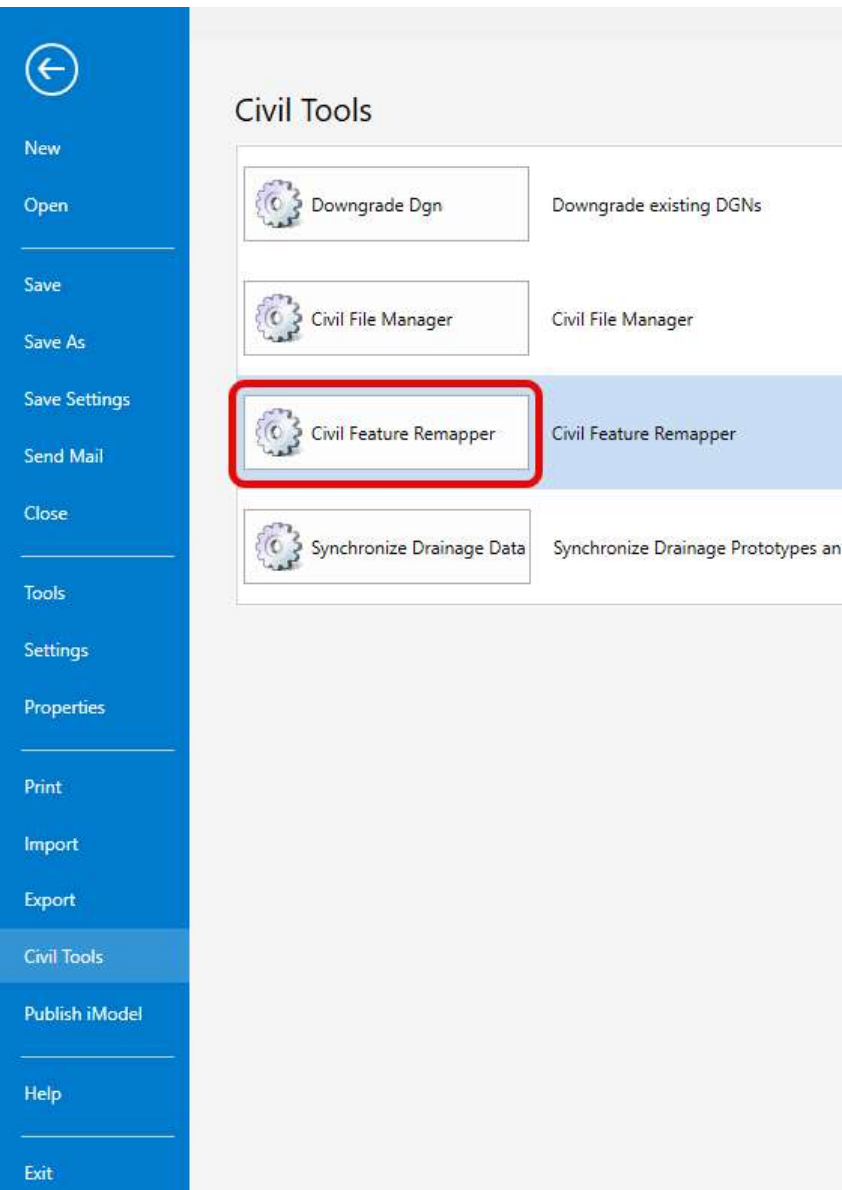
Terrain

Geometry

Super  
IRD  
ITL

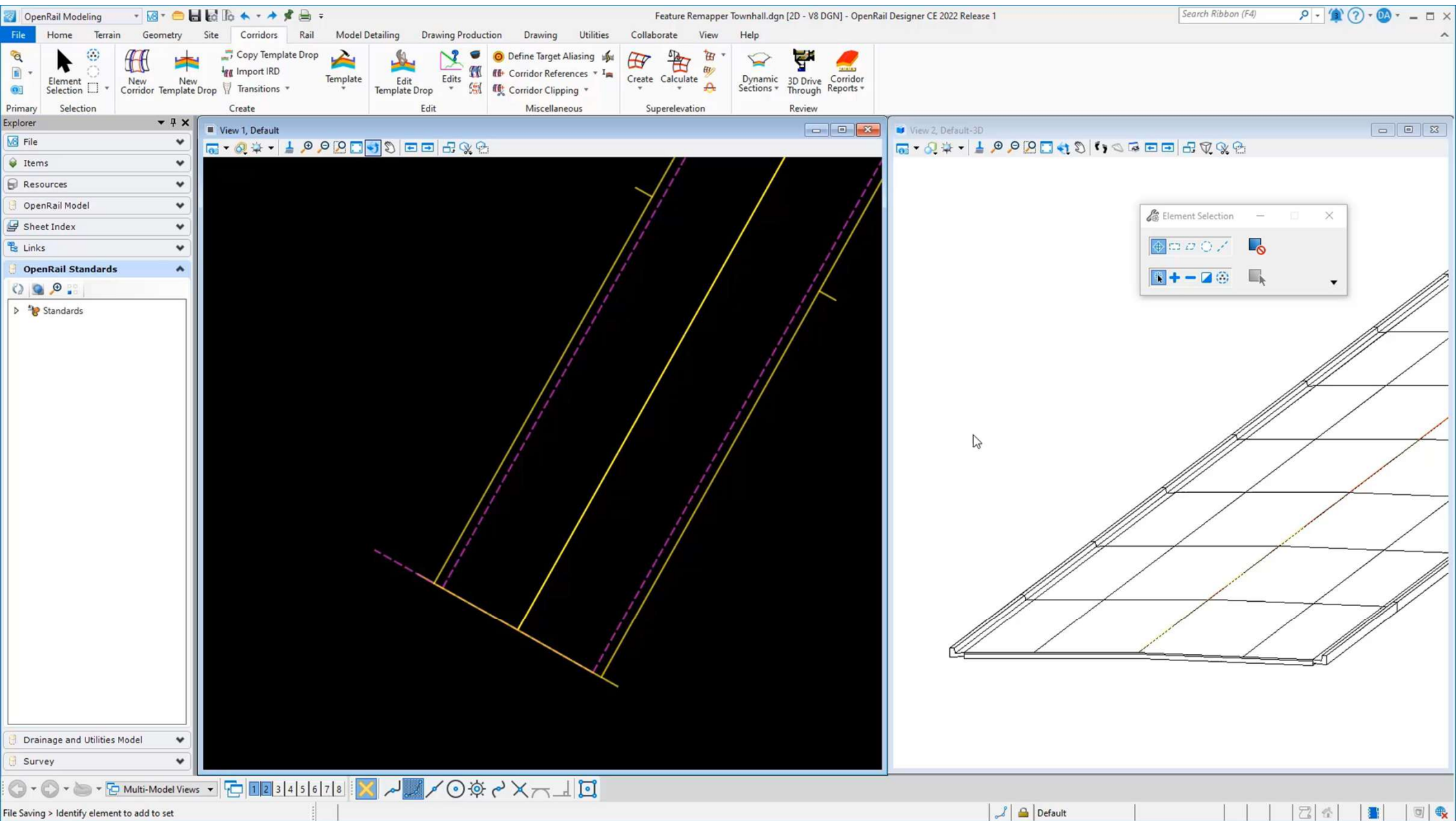
Drainage

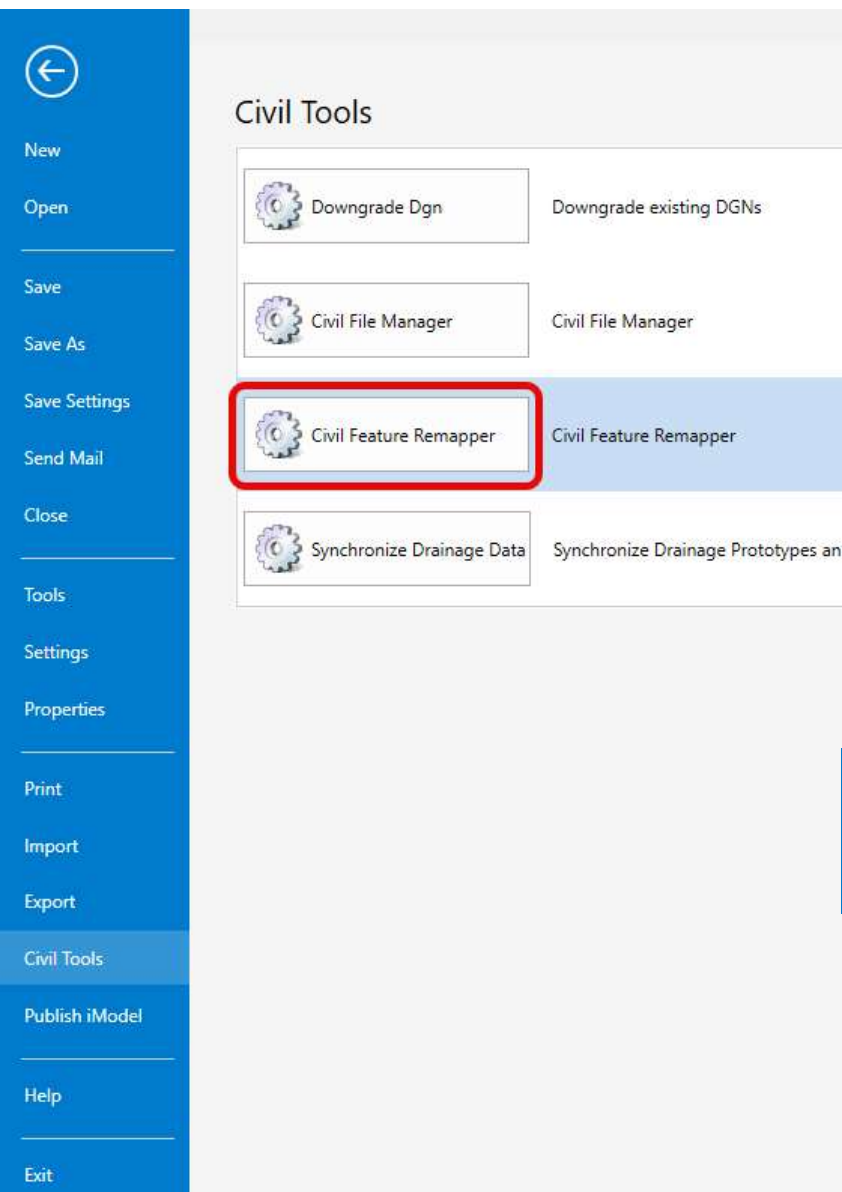




# Civil Feature Remapper

1. Remaps Features/Styles from one standard to another.
2. Applies to:
  1. ITLs
  2. IRDs
  3. DGNs
  4. DGNLIBs





# Civil Feature Remapper

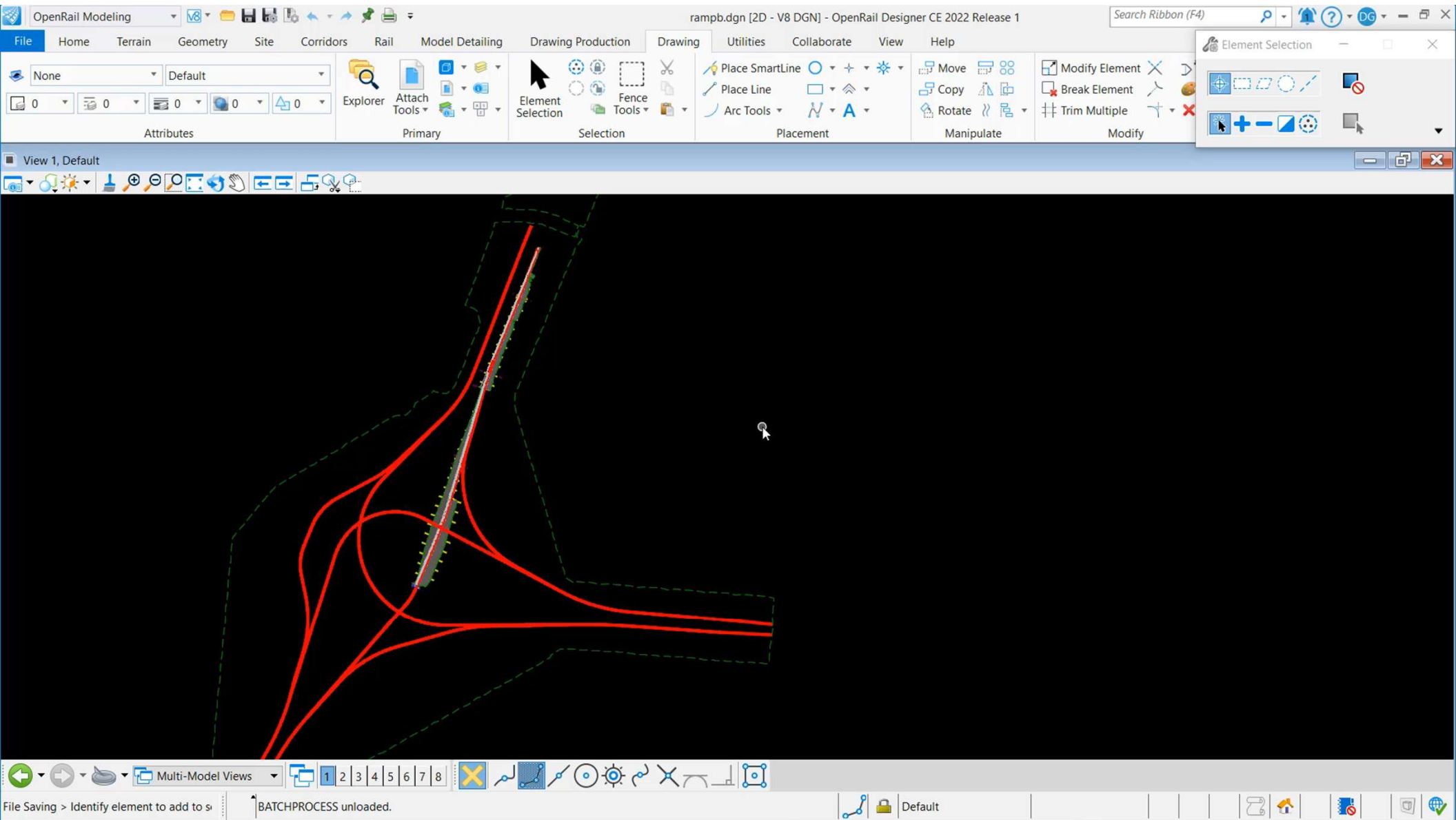
1. Key-in to remap in batch mode.

**CIVIL FEATURE REMAPPER PathToXmlFile  
[PathToItlOrIrdFile]**

*PathToXMLFile* – **required** path to the configuration file

*PathToItlOrIrdFile* – **optional** (use only if re-mapping an ITL or IRD File)

**Use with *Batch Process* tool to remap multiple files or entire projects!**



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# Best Practice

## Reports for Validation

**Run reports  
in your  
current  
version**



Geometry Reports



Superelevation Reports



Corridor Reports



Drainage Reports

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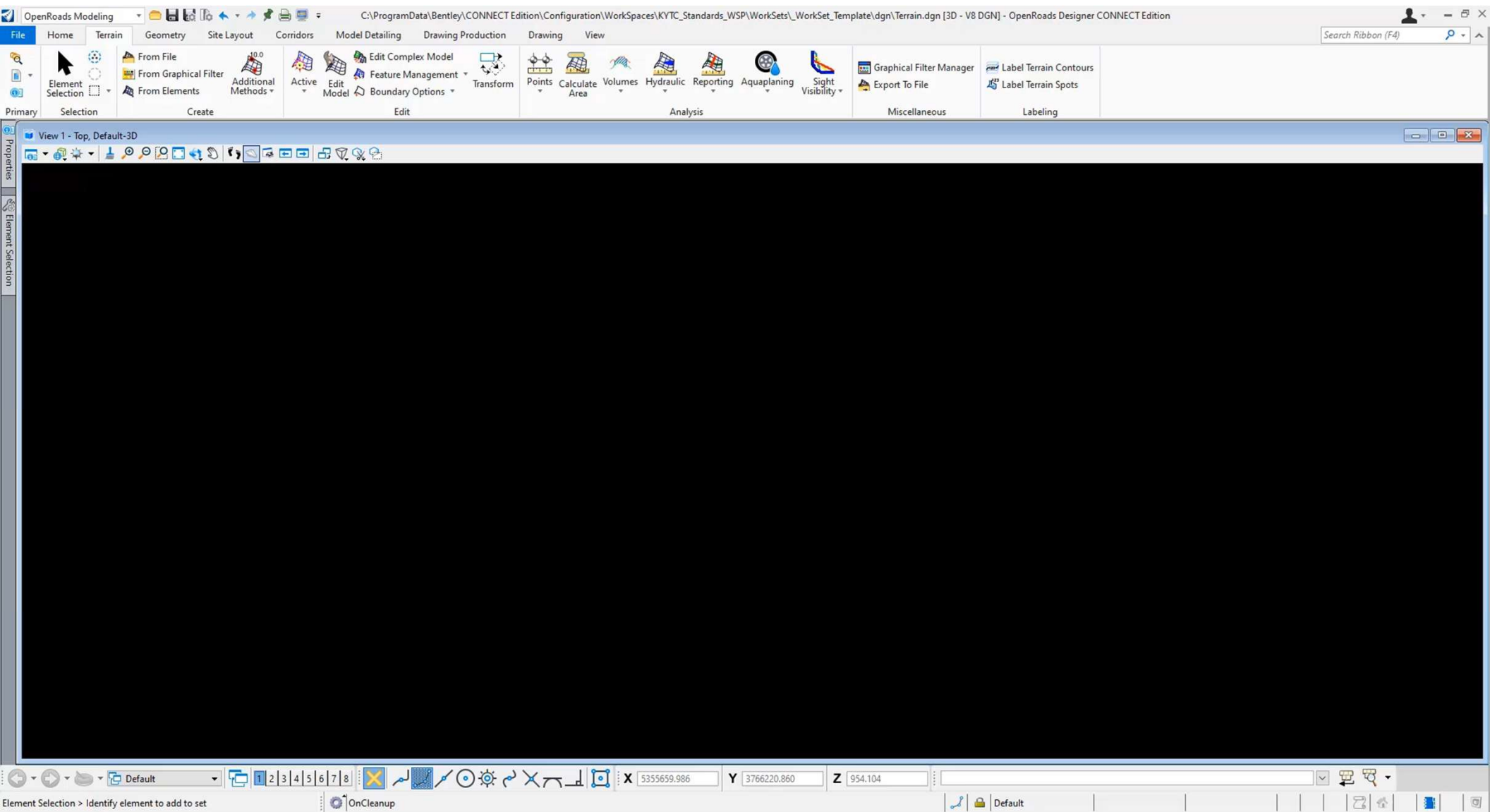
OpenRoads  
Designer

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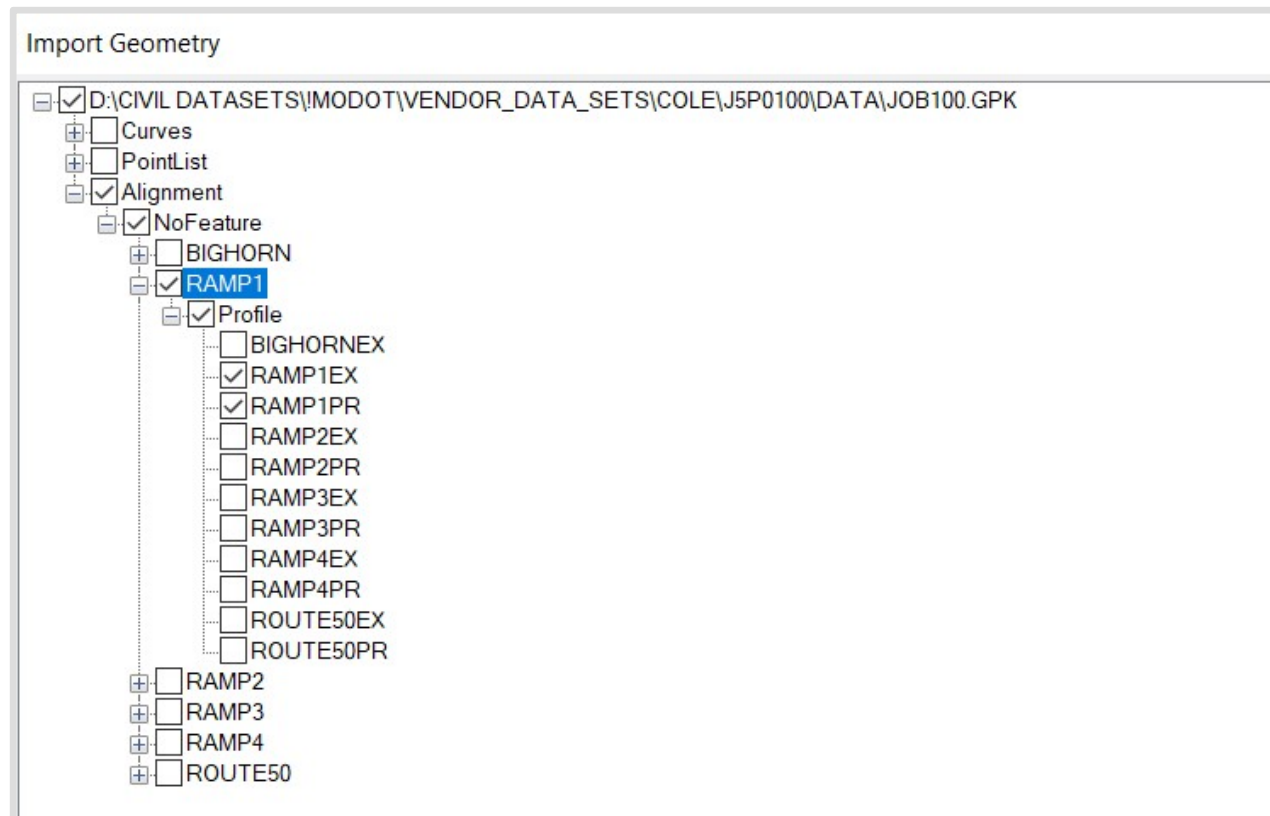
Drainage

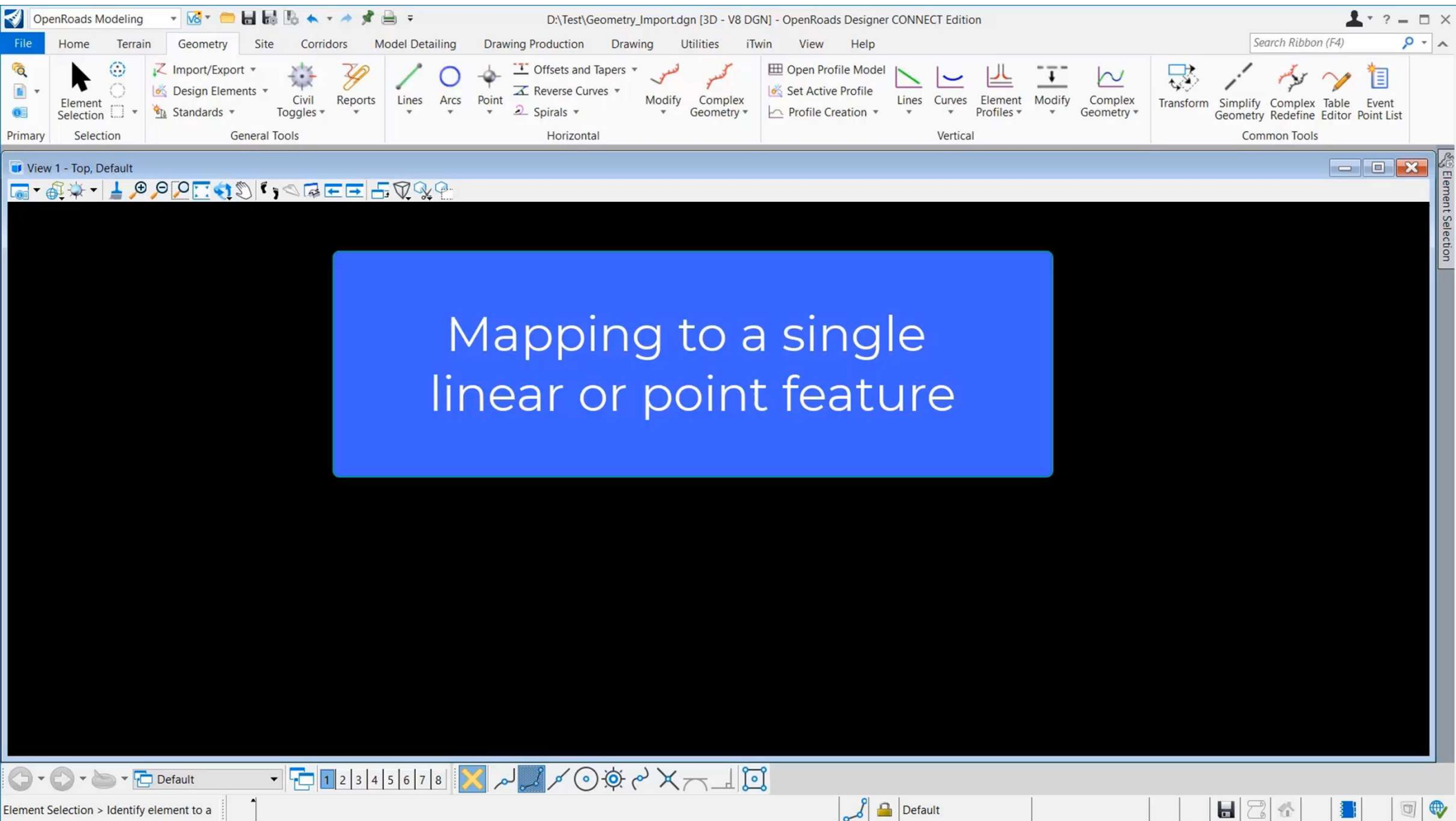
# Existing Ground Profiles

No need to import existing ground profiles. They will be generated automatically from the existing terrain.



# GEOPAK





# Upgrade Projects to ORD

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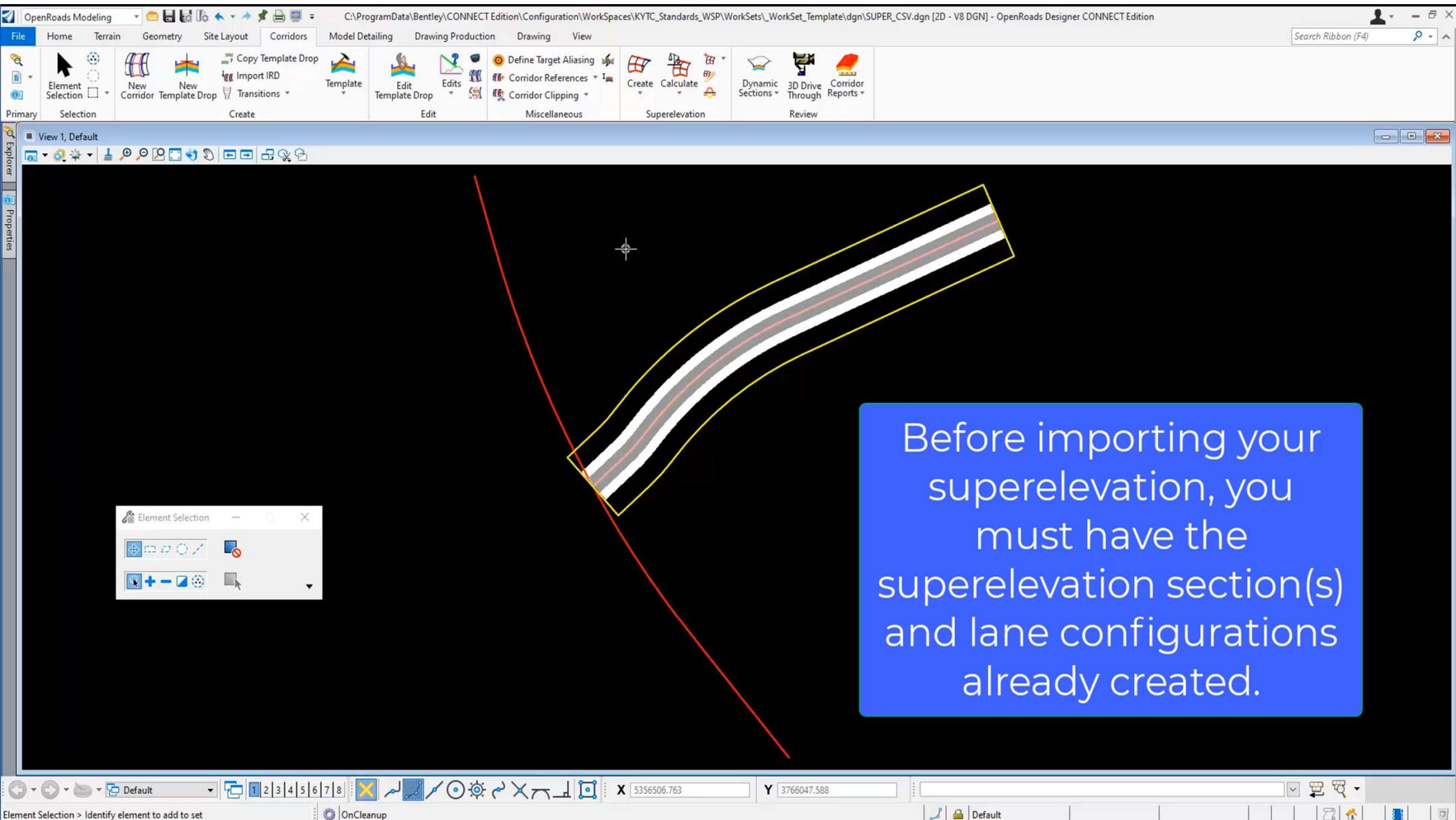
OpenRoads  
Designer

Terrain

Geometry

Super  
IRD  
ITL

Drainage



# Superelevation

Seeing how you must create your superelevation section(s), the lane configurations and format the CSV, it may be just as *efficient* to re-calculate your superelevation from scratch.



# Superelevation

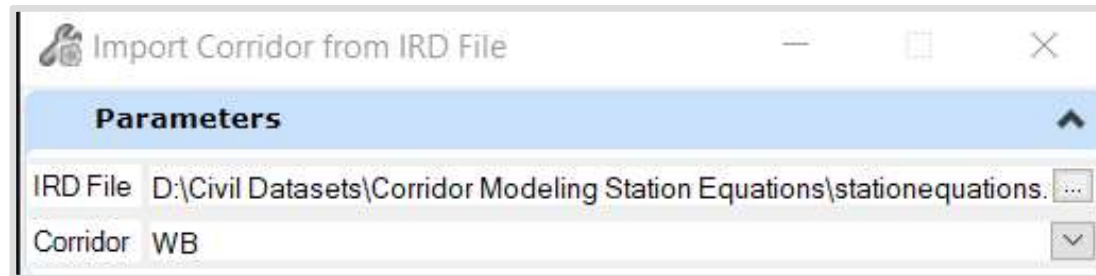
Will be automatically imported as part of the IRD file. However, in that case you would not have the option of putting it in a separate file from the corridor.

# Import IRD

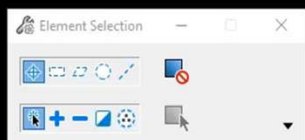
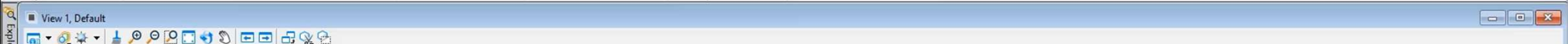
## Reminder:

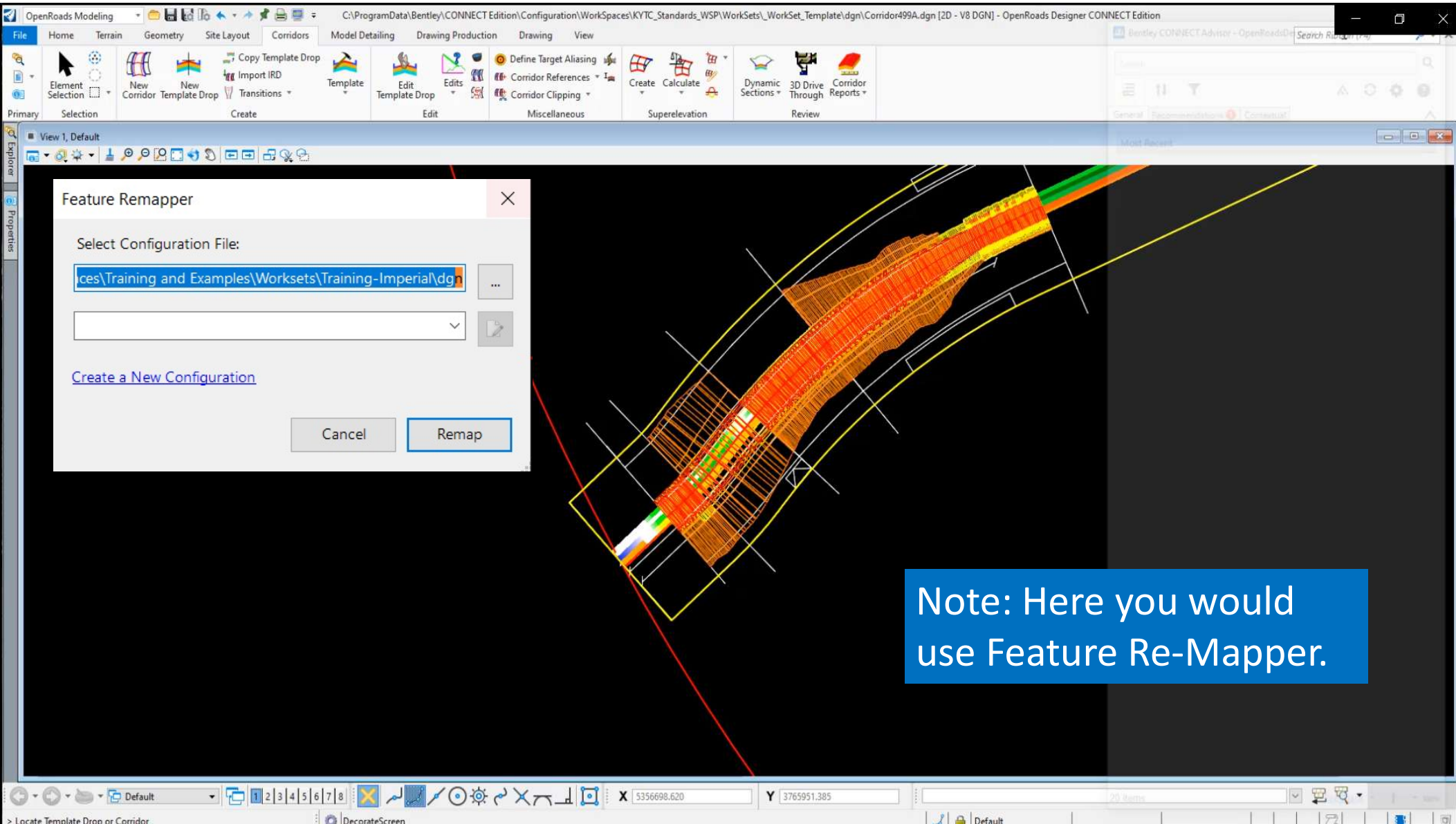
Feature definitions can be updated using the Feature Re-Mapper tool either prior to import (IRD) or you can do it afterward in the DGN.

# Import IRD

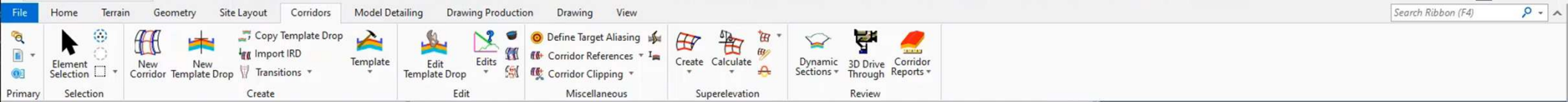


Limitation: Baseline geometry must exist in the same model prior to import. However, geometry could be re-assigned to a reference after the fact.

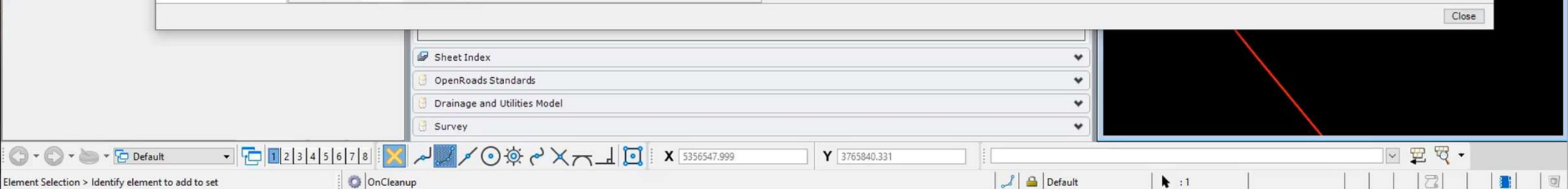








Enabled	Cont...	Mode	Control Type	Use as Second...	Priority
True		Vertical	Superelevation		1
True		Vertical	Superelevation		1
True		Vertical	Superelevation		1
True		Horizontal	Linear Geometry	False	1
True		Vertical	Superelevation		1
True		Vertical	Superelevation		1
True		Vertical	Superelevation		1
True		Vertical	Linear Geometry		1
True		Vertical	Linear Geometry		1



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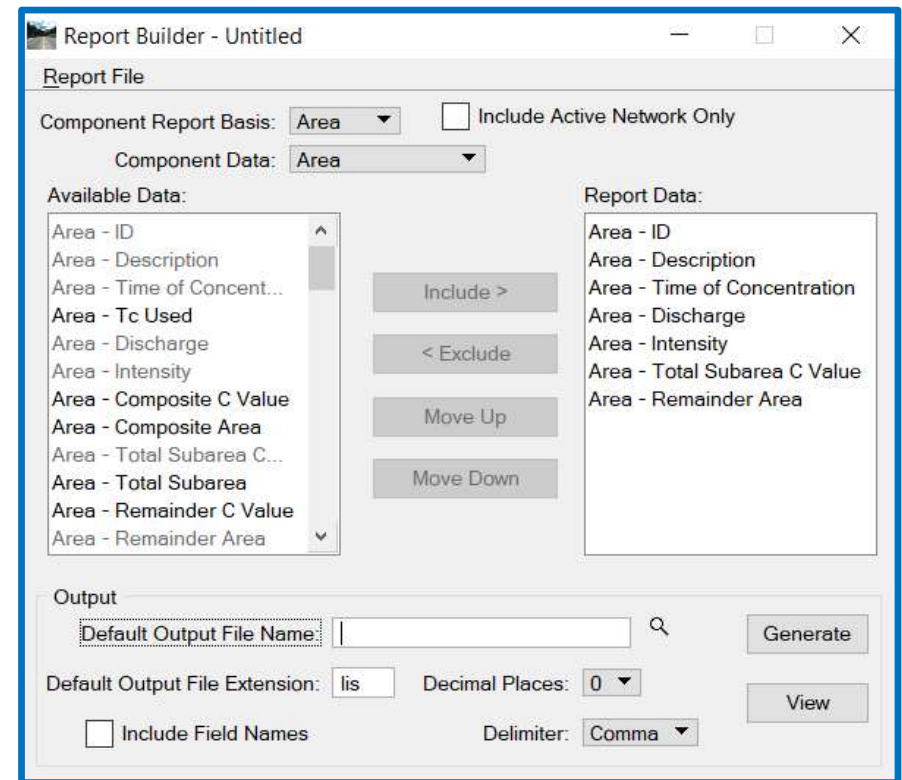
Geometry

Super  
IRD  
ITL

Drainage

# Import GEOPAK Drainage

- **GEOPAK Drainage Report Builder**
- **Combine Report into an Excel Spreadsheet**
- **Import using Model Builder**





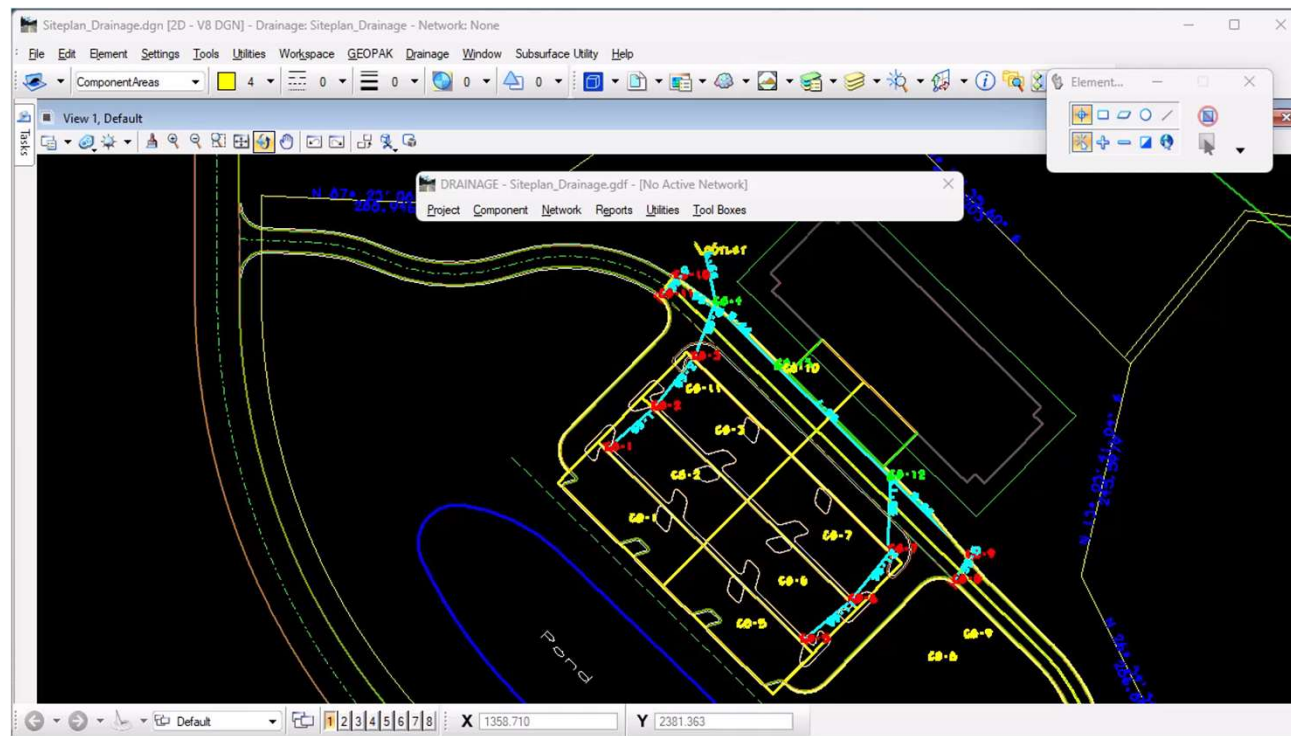
Create blank 2D DGN in an ORD workspace.



Drainage & Utilities >  
Tools > Model  
Builder.



Map the previously  
created spreadsheet  
to D&U



# Import InRoads Drainage



Create blank 2D DGN in an ORD workspace.



Drainage & Utilities  
> Import Utilities >  
Import InRoads.



Set/Modify  
Feature Definitions

InRoads Drainage Import

Optional InRoads Files

Project Configuration: <none> v

Preferences (\*.xin): C:\Bentley Training\InRoads Drainage\Bentley Trair v

Structures (\*.dat): C:\Bentley Training\InRoads Drainage\InRoads Tra v

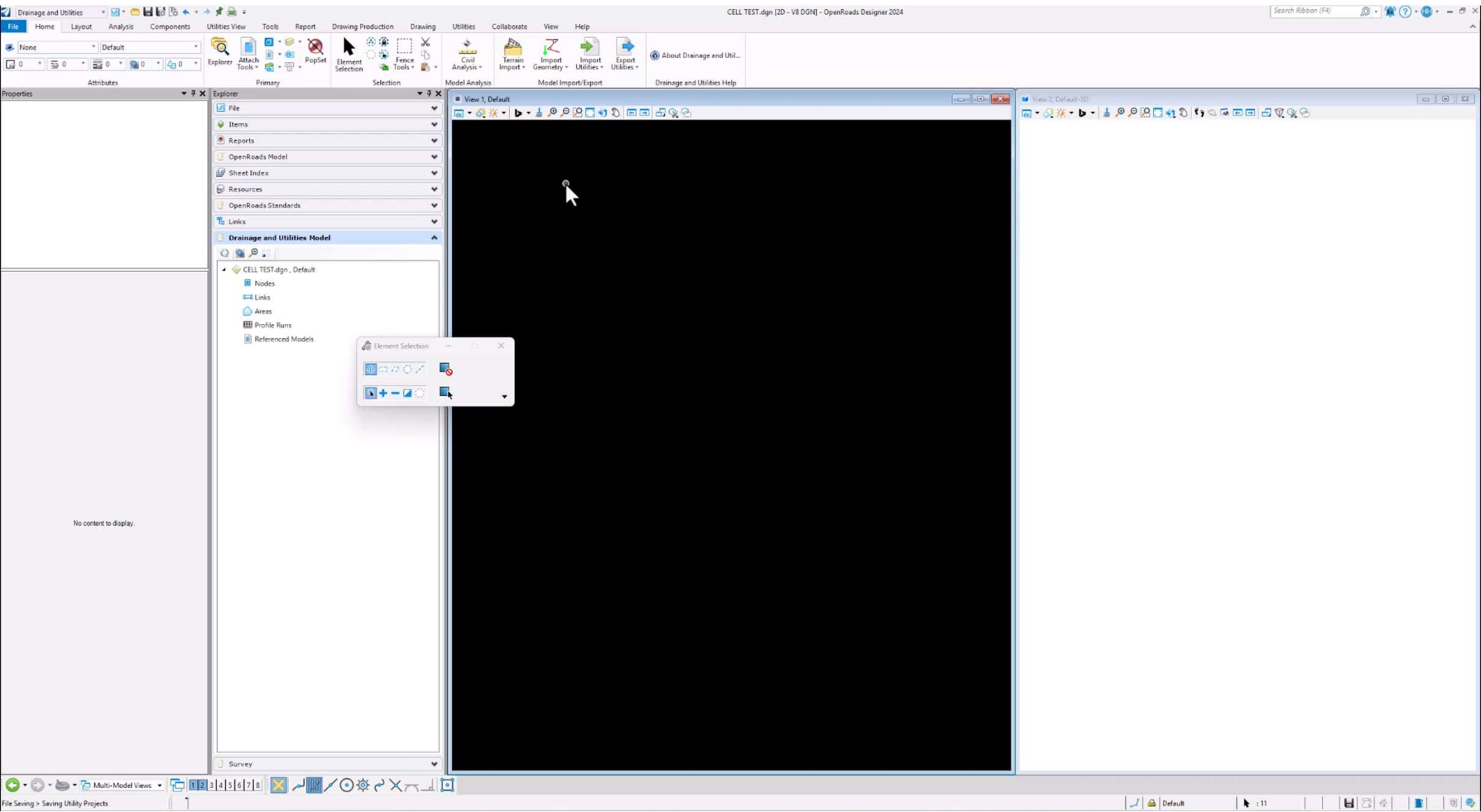
Rainfall Data (\*.idf): C:\Bentley Training\InRoads Drainage\InRoads Tra v

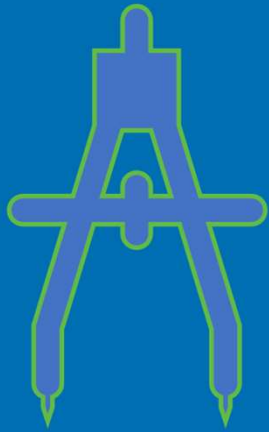
InRoads Drainage Database (\*.sdb):

C:\Bentley Training\InRoads Drainage\Park and Ride.sdb v

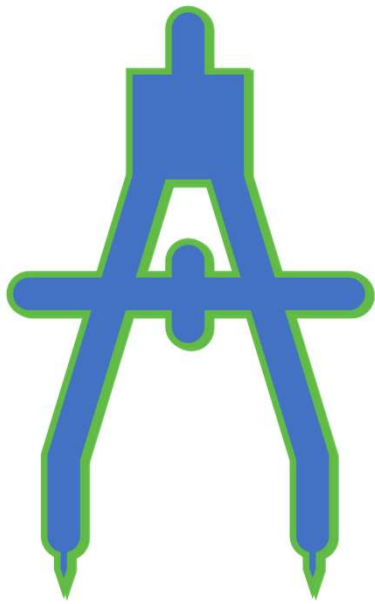
OK Cancel Help







# Sheets



***Depending on numerous factors, your sheets may or may not need to be regenerated.***

# Validate



Geometry Reports



Superelevation Reports



Corridor Reports



Drainage Reports

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# Best Practice

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**Run reports  
in your  
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Geometry Reports



Superelevation Reports



Corridor Reports



Drainage Reports



New

Open

Save

Save As

Save Settings

Send Mail

Close

Tools

Settings

Properties

Print

Import

Export

Civil Tools

Publish iModel

Help

Exit

## Civil Tools



Downgrade Dgn

Downgrade existing DGNs



Civil File Manager

Civil File Manager



Civil Feature Remapper



Synchronize Drainage Data

Civil

Sy

Civil File Manager OpenRoads Designer 2024 24.00.02.25

File View Action Help

C:\Users\Holly.Herring\OneDrive - Bentley\Documents\OpenRoads Designer\2024\24.00.02.25\Bentley\_Civil\_Model\_Base.dgn  
geometry.dgn  
hi-lo-imperial.dgn  
hi-lo.dgn  
intersection-corridor.dgn  
mainline-corridor-terrain.dgn  
mainline-corridor.dgn  
mainline-drainage-imperial.dgn  
mainline-drainage.dgn  
mainline-pond-nodes.dgn  
mainline-pond.dgn  
superelevation.dgn  
terrain.dgn

Schema Details Output

Name	Schema Version	Product Version	On	By	Version	Path
Bentley_Civil_Objects	02.04.00.00	OpenRoads Designer				c:\users\
Bentley_Civil_Model_Base	04.08.54.00	OpenSite Designer Update 11	Thursday, November 3, 2022	OpenSiteDesigner	10.11.00.115	c:\users\
Bentley_Civil_Model_ContentManagement	04.08.54.01	OpenSite Designer Update 11	Thursday, November 3, 2022	OpenSiteDesigner	10.11.00.115	c:\users\
Bentley_Civil_Model_DTMFilterGroups	04.08.48.01	OpenRoads Designer Update 9	Thursday, November 3, 2022	OpenRoadsDesigner	10.09.00.91	c:\users\
Bentley_Civil_Model_DesignStandards	04.08.48.01	OpenRoads Designer Update 9	Thursday, November 3, 2022	OpenRoadsDesigner	10.09.00.91	c:\users\
Bentley_Civil_Model_FilterGroups	04.08.48.01	OpenRoads Designer Update 9	Thursday, November 3, 2022	OpenRoadsDesigner	10.09.00.91	c:\users\
Bentley_Civil_Model_Geometry	04.08.85.05	OpenSite Designer Update 11	Thursday, November 3, 2022	OpenSiteDesigner	10.11.00.115	c:\users\
Bentley_Civil_Model_Geometry_ContentManag...	04.08.55.04	OpenSite Designer Update 11	Thursday, November 3, 2022	OpenSiteDesigner	10.11.00.115	c:\users\
Bentley_Civil_Model_HydBaseSchema	04.08.60.03	OpenSite Designer Update 11	Thursday, November 3, 2022	OpenSiteDesigner	10.11.00.115	c:\users\
Bentley_Civil_Model_HydContentManagement...	04.08.52.02	OpenSite Designer Update 11	Thursday, November 3, 2022	OpenSiteDesigner	10.11.00.115	c:\users\
Bentley_Civil_Model_HydGraphicalFilterSchema	04.08.48.01	OpenRoads Designer Update 9	Thursday, November 3, 2022	OpenRoadsDesigner	10.09.00.91	c:\users\
Bentley_Civil_Model_MX	04.08.48.01	OpenRoads Designer Update 9	Thursday, November 3, 2022	OpenRoadsDesigner	10.09.00.91	c:\users\
Bentley_Civil_Model_ProjectSettings	04.08.52.01	OpenSite Designer Update 11	Thursday, November 3, 2022	OpenSiteDesigner	10.11.00.115	c:\users\
Bentley_Civil_Model_SurveyContentManageme...	04.08.48.01	OpenRoads Designer Update 9	Thursday, November 3, 2022	OpenRoadsDesigner	10.09.00.91	c:\users\
IMPLBASE_Bentley_Civil_Model_Base	01.00.54.00	OpenSite Designer Update 11	Thursday, November 3, 2022	OpenSiteDesigner	10.11.00.115	c:\users\
NATEQ_Bentley_Civil_Model_Base	04.08.54.00	OpenSite Designer Update 11	Thursday, November 3, 2022	OpenSiteDesigner	10.11.00.115	c:\users\
NATEQ_Bentley_Civil_Model_Geometry	04.08.85.05	OpenSite Designer Update 11	Thursday, November 3, 2022	OpenSiteDesigner	10.11.00.115	c:\users\



## Configuration

Examples C  
Configuration

## Recent WorkSets

Training and Exam  
Training-Metr

No WorkSpace  
No WorkSet

Projects

File Home Share View

Clipboard: Pin to Quick access, Copy, Paste, Cut, Copy path, Paste shortcut

Organize: Move to, Copy to, Delete, Rename

New: New folder, New item, Easy access

Open: Properties, Open, Edit, History

Select: Select all, Select none, Invert selection

Navigation: This PC > Data (D:) > Projects

Search Projects

Name	Date modified	Type	Size
03-IHL Data	9/15/2022 5:23 PM	File folder	

Left pane: Data (D:) > Projects

- Batch & Utilities
- Civil Datasets
- Civil DOT'S
- Civil Presentations
- Help
- Industry Strategy Group
- iTwin Design Review
- My Downloads
- Personal
- Product Management
- Projects
  - 03-IHL Data
  - pw\_working
  - Success Force
  - Test
  - test2
  - Testing2
  - Testing3
  - Testing4
  - Testing5
  - User Advancement
  - vba
  - Videos - Geotech

1 item 1 item selected

DG

## Properties

Name Training-Me...  
Description  
WorkSpace Training and...

ProjectWise Project Propert  
No project attached.

Show All Properties

Type here to search

5:45 PM  
9/15/2022

# Limitations to Civil File Manager

1. Does not support v8i Native data.
2. No support for D&U (SUDA).
3. Superelevation is *static*.

# Import SUDA

- From V8i, create a **Selection Set of your SUDA data.**
- **Subsurface Utilities > Project > Export > Export Submodel.**
- From ORD, Import **Utilities > Import OpenFlows Submodel.**
- **Set/Modify Features.**

### Video: Migrating GEOPAK SS4/SS10 Project Data to OpenRoads Designer

**Product(s):** OpenRoads Designer, OpenRail Designer, OpenSite Designer

**Version(s):** 10.08.00.88+

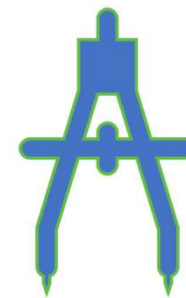
**Area:** General

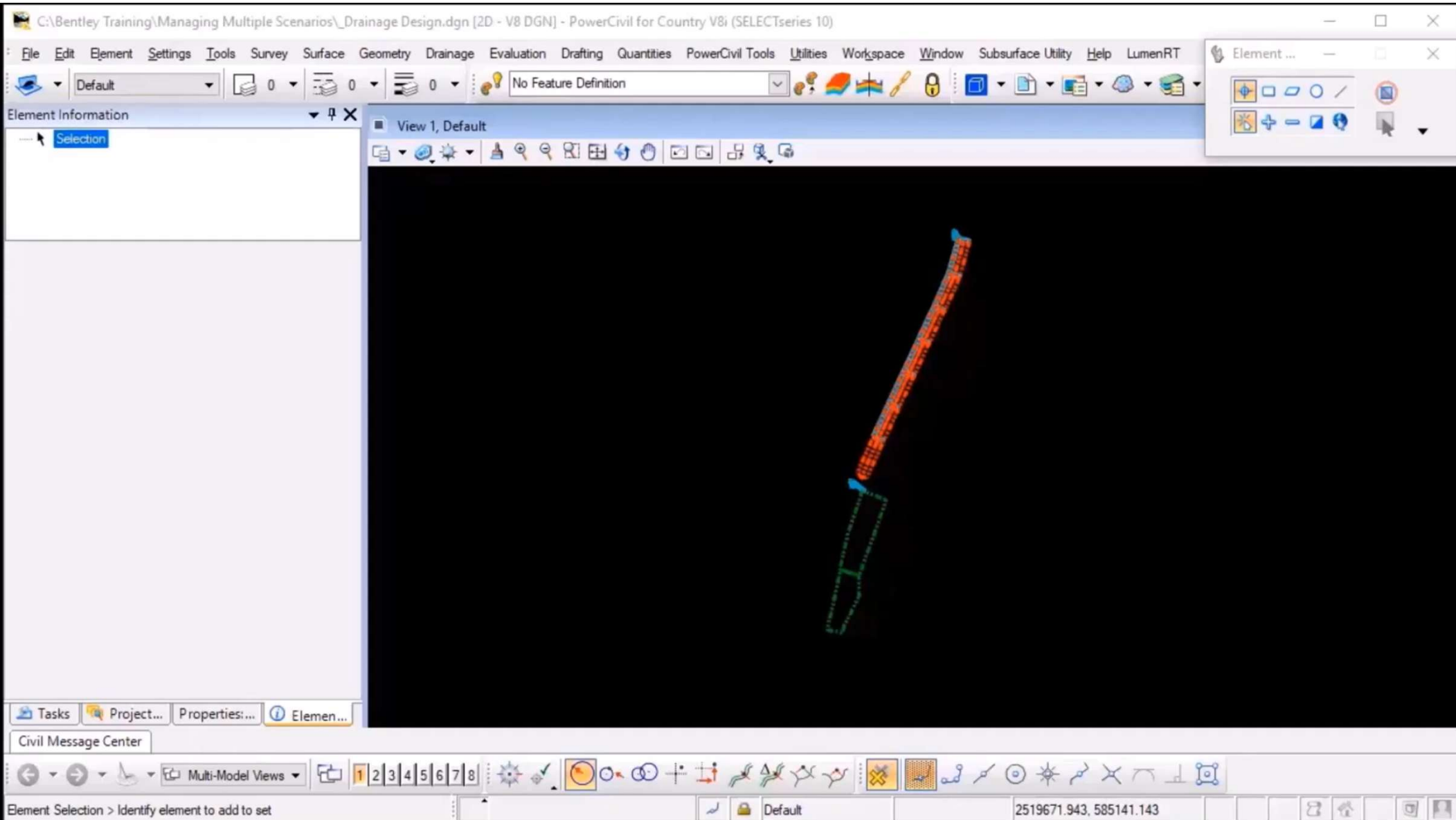
### Video: Migrating InRoads SS4/SS10 Project Data to OpenRoads Designer

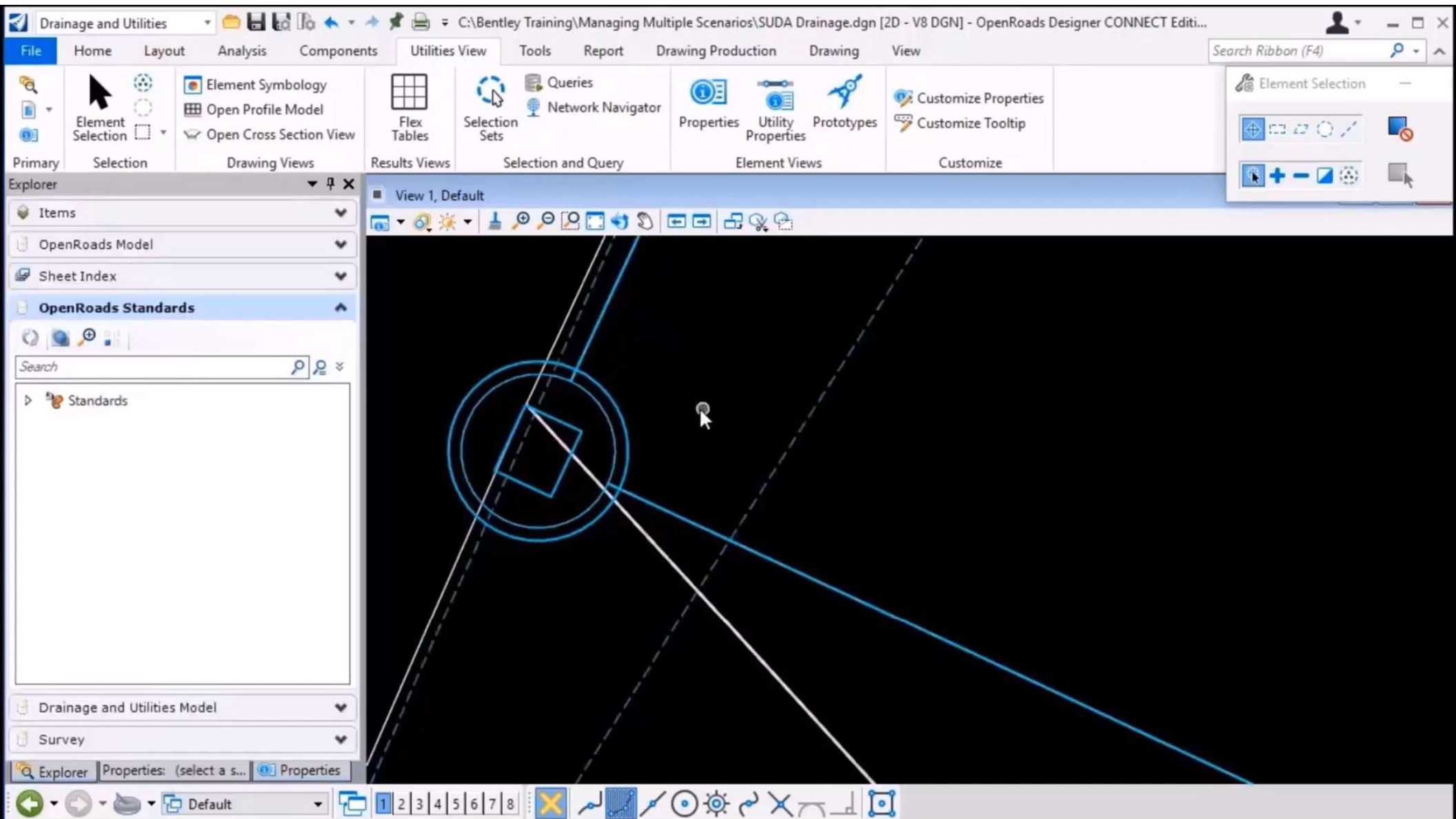
**Product(s):** OpenRoads Designer, OpenRail Designer, OpenSite Designer

**Version(s):** 10.08+

**Area:** General







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# Side-by-Side Installations

Gives you the ability to install multiple versions of *OpenX Designer* products on the same machine.

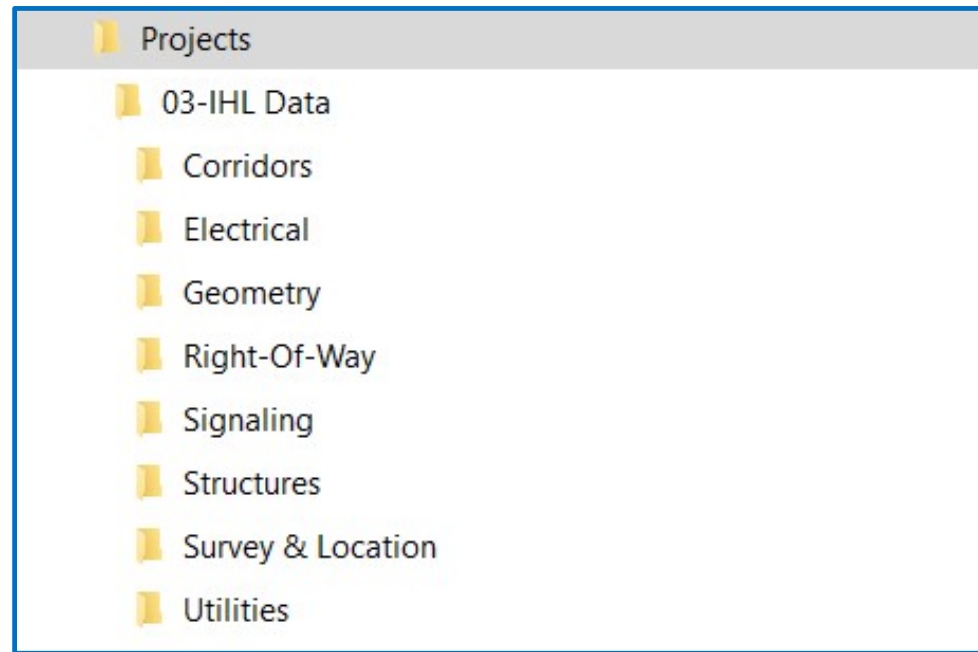
# Major vs. Minor

Side-by-Side installations only apply across **Major** versions. If you attempt to install a **Minor** version alongside it's parent it will upgrade as in the past.

Side-by-Side: 10.**12**.02.04, **23**.00.01.11, **24**.00.02.25

Upgrade Only: 23.00.**00.129**, 23.00.**01.11**, 23.00.**01.12**

# Upgrade (File)



## Configuration



**Examples Configuration**  
Configuration for Bentley Example c...

Manage Configuration

## Recent WorkSets



Training and Examples  
Training-Metric



No WorkSpace  
No WorkSet

# OpenRail Designer CE

WorkSpace

WorkSet

Training and Examples ▾ Training-Metric ▾

## Recent Files

You haven't opened any files recently. To browse for a file, start by clicking on Browse.



Browse



New File

2022 R 1 (10.11)

DG ▾ - ☐ ×



## Properties ▾

Name Training-Me...

Description

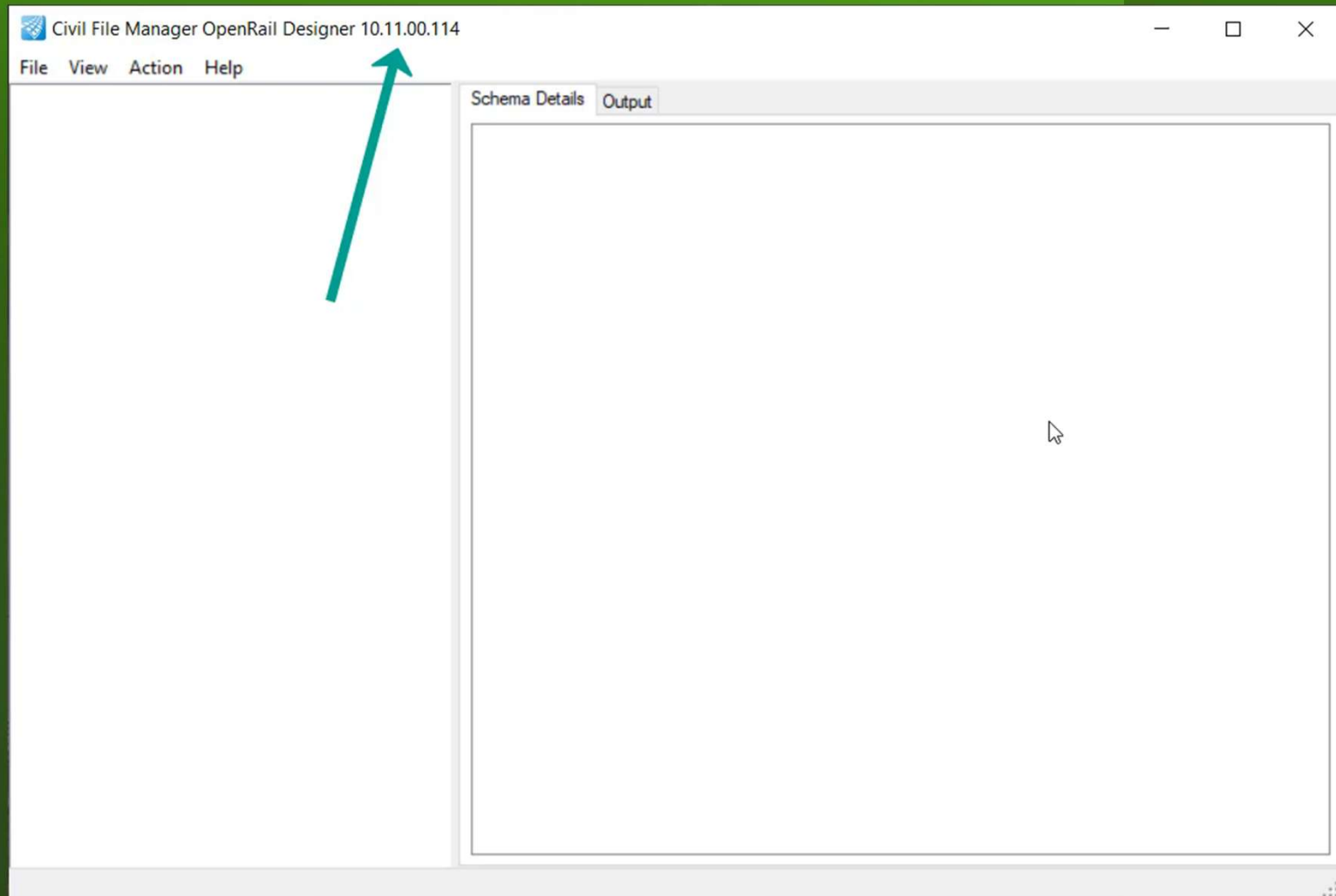
WorkSpace Training and...

## ProjectWise Project Properties

No project attached.

Show All Properties

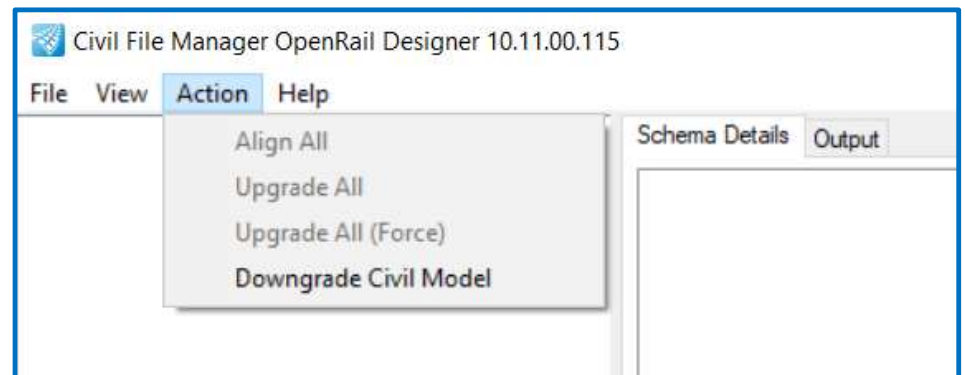
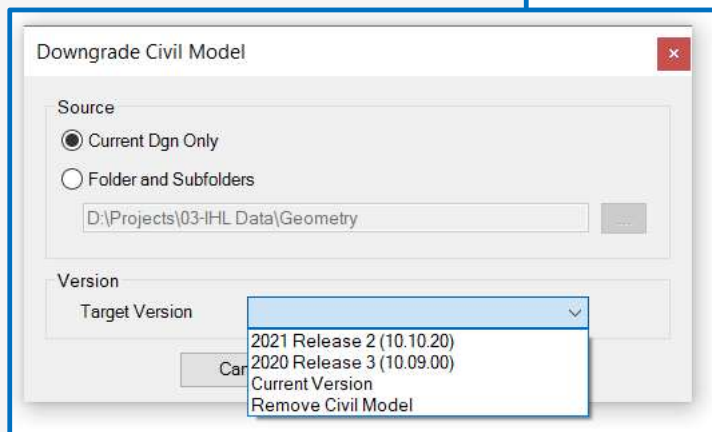
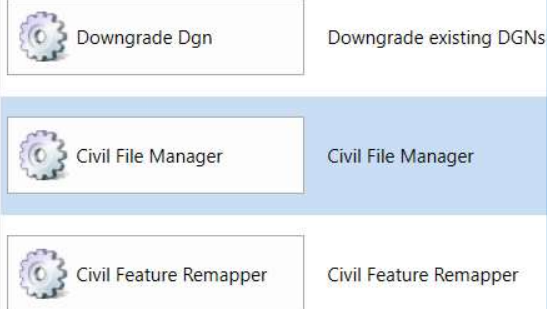
# Upgrade (Project)



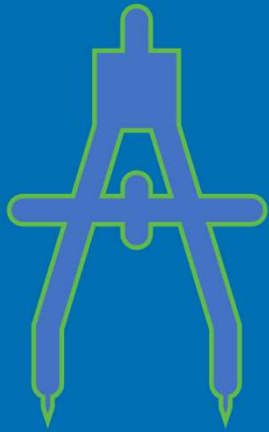
# Downgrade

- Supports 2 previous versions.
- Current DGN or entire folder/project.
- *Remove Civil Model* removes all civil intelligence and leave graphics only.

## Civil Tools














# Workspace Compatibility

# Workspace Compatibility

Here we have 3 workspaces, one for each version of OpenRoads Designer (10.09, 10.10 and 10.11).

**C:\ProgramData\Bentley\**

- ▼  OpenRoads Designer CE
  - >  Configuration
- ▼  OpenRoads Designer CE 10.10
  - >  Configuration
  - >  ConfigurationORIGINAL
- ▼  OpenRoads Designer CE 10.11
  - >  Configuration

# Workspace Compatibility

Keep in mind that we can use an **older workspace** (e.g., 10.10) with a newer version of OpenRoads (e.g., 10.11).

# Thank You for attending!