

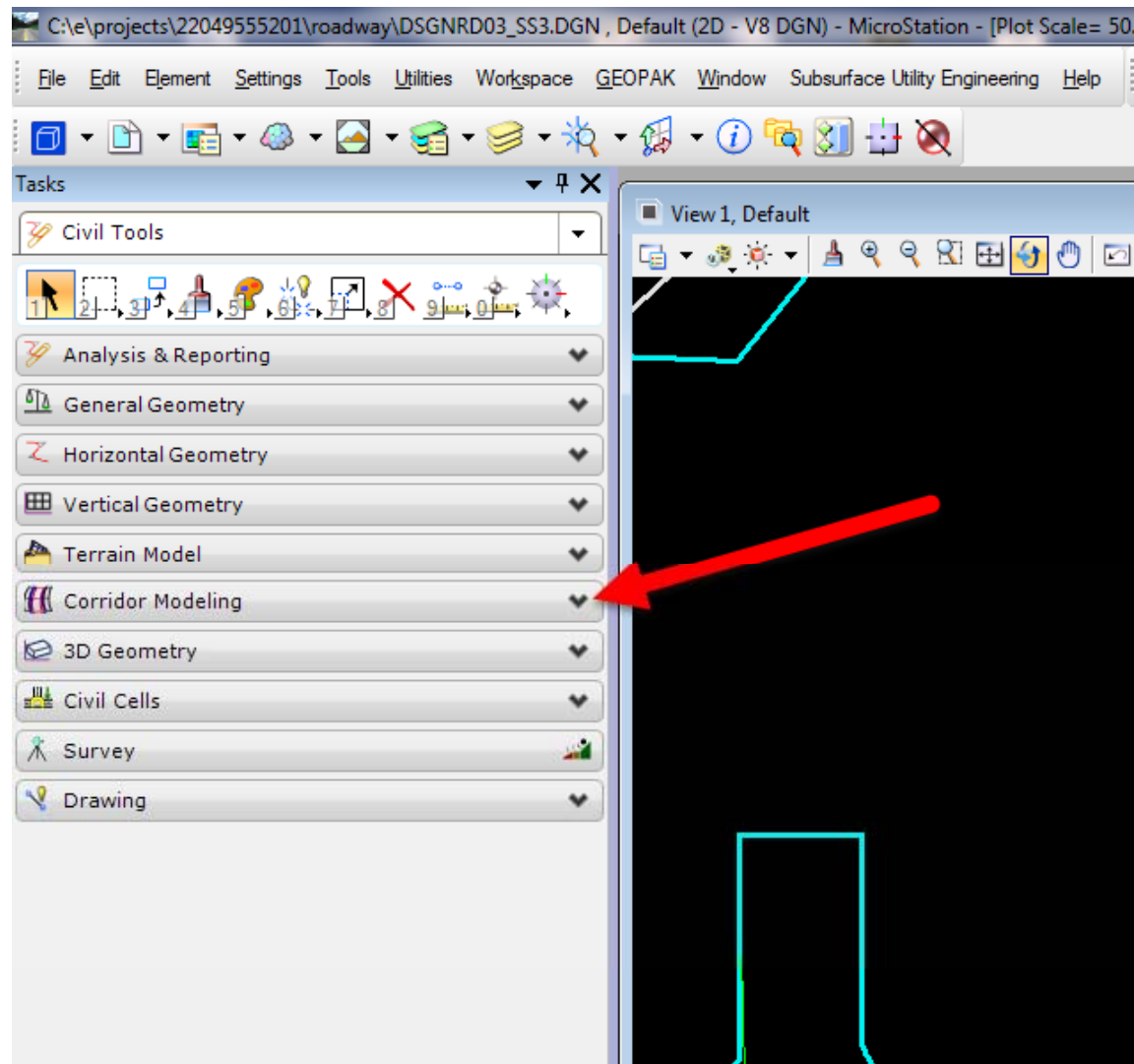
Superelevation Design Tools in FDOTSS3



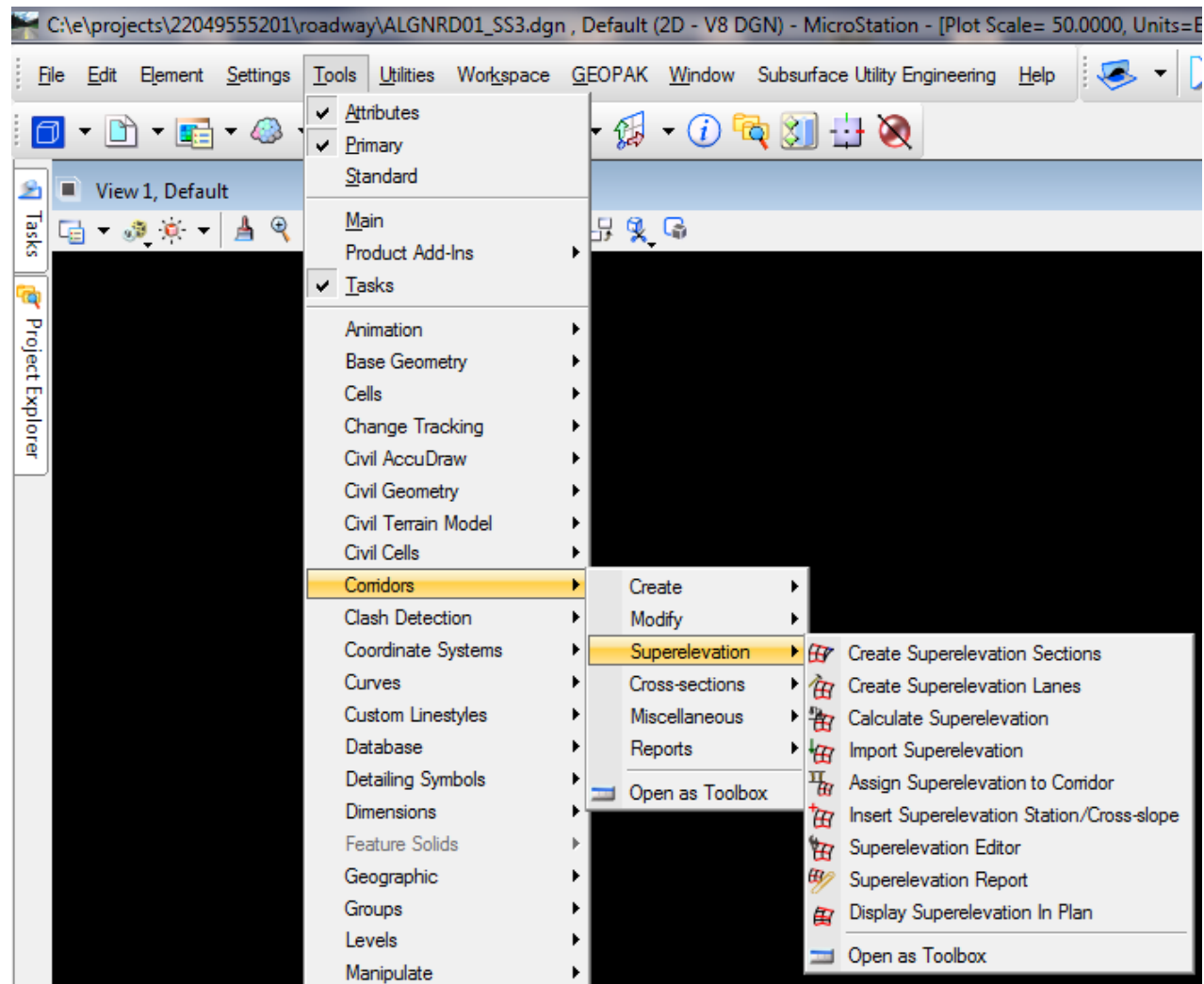
Vern Danforth

Wednesday, June 11, 2014 1pm

Civil Tools - Corridor Modeling



Tools - Corridor > Superelevation

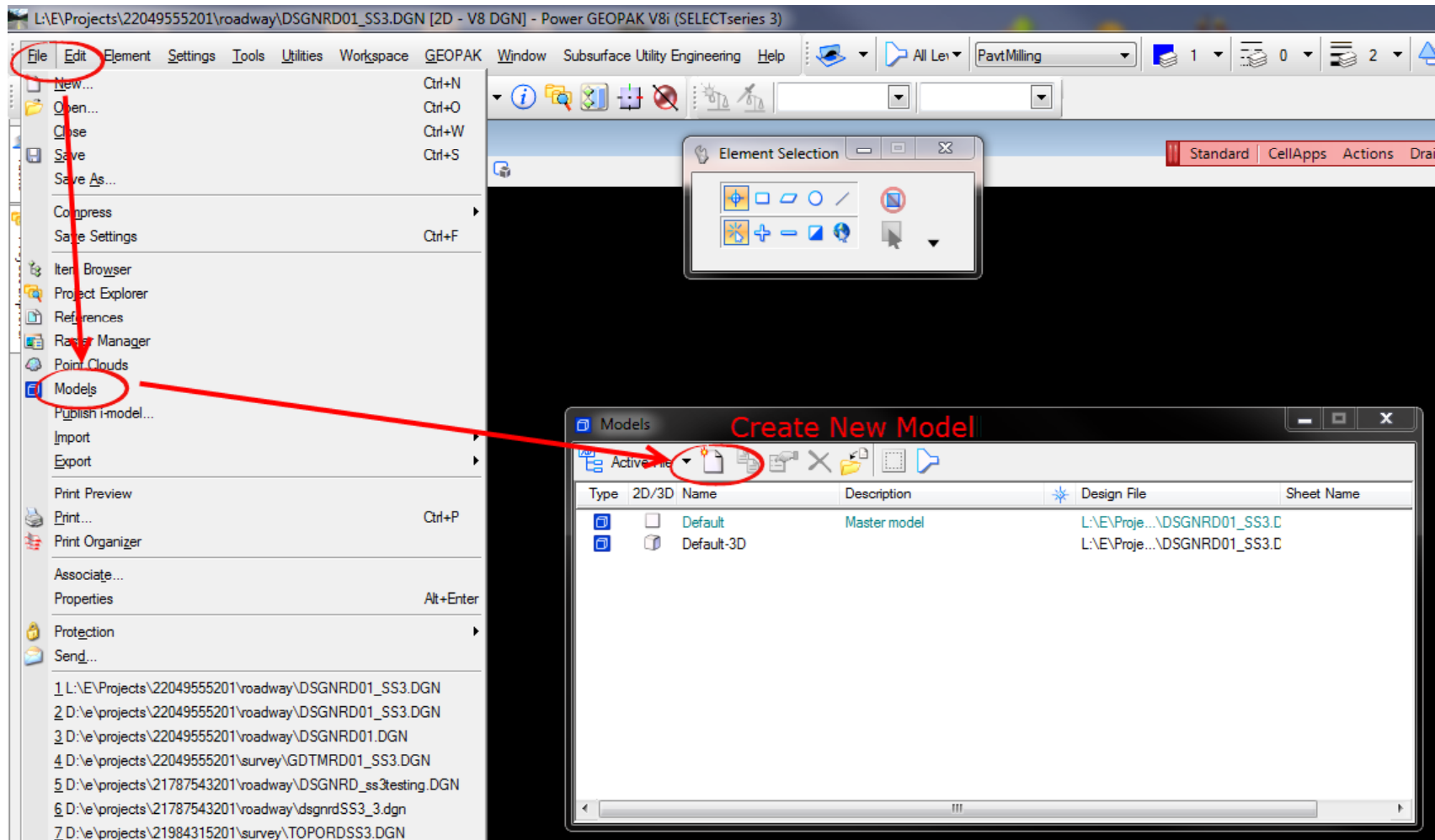


General Workflow

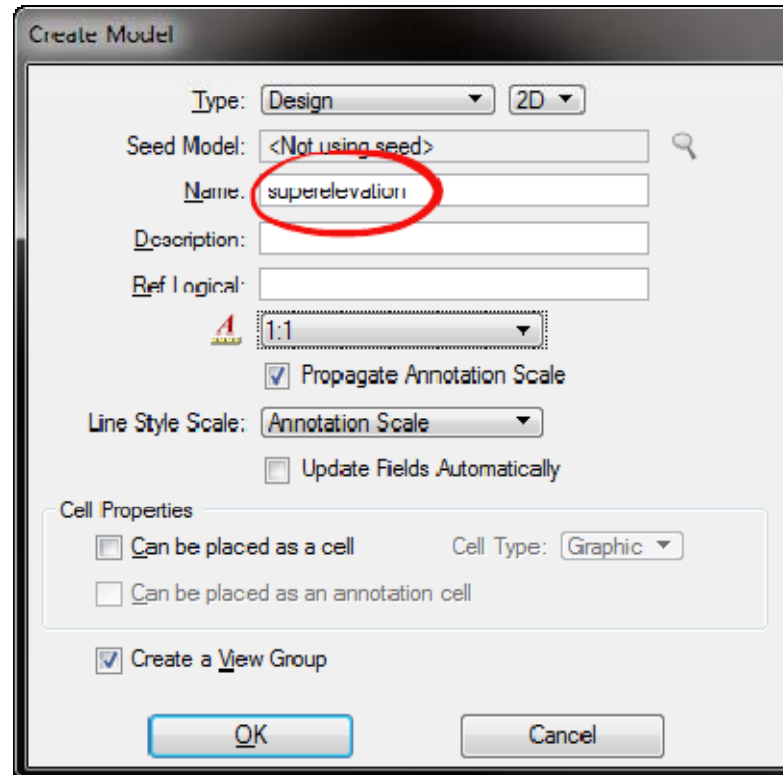
- ◆ Create “superelevation” model in the DSGNRD file
- ◆ Reference the ALGNRD file
- ◆ Create Superelevation Sections
- ◆ Create Superelevation Lanes
- ◆ Calculate Superelevation based on FDOT tables
- ◆ Project Explorer edits, Graphical edits
- ◆ Assign Superelevation to Corridor, associate points
- ◆ Special Template Point, Superelevation Flag box
- ◆ Template Inside Lane Vector Offset constraint

◆ Superelevation Diagram and Reports

Create “superelevation” model in the DSGNRD file



Create “superelevation” model in the DSGNRD file

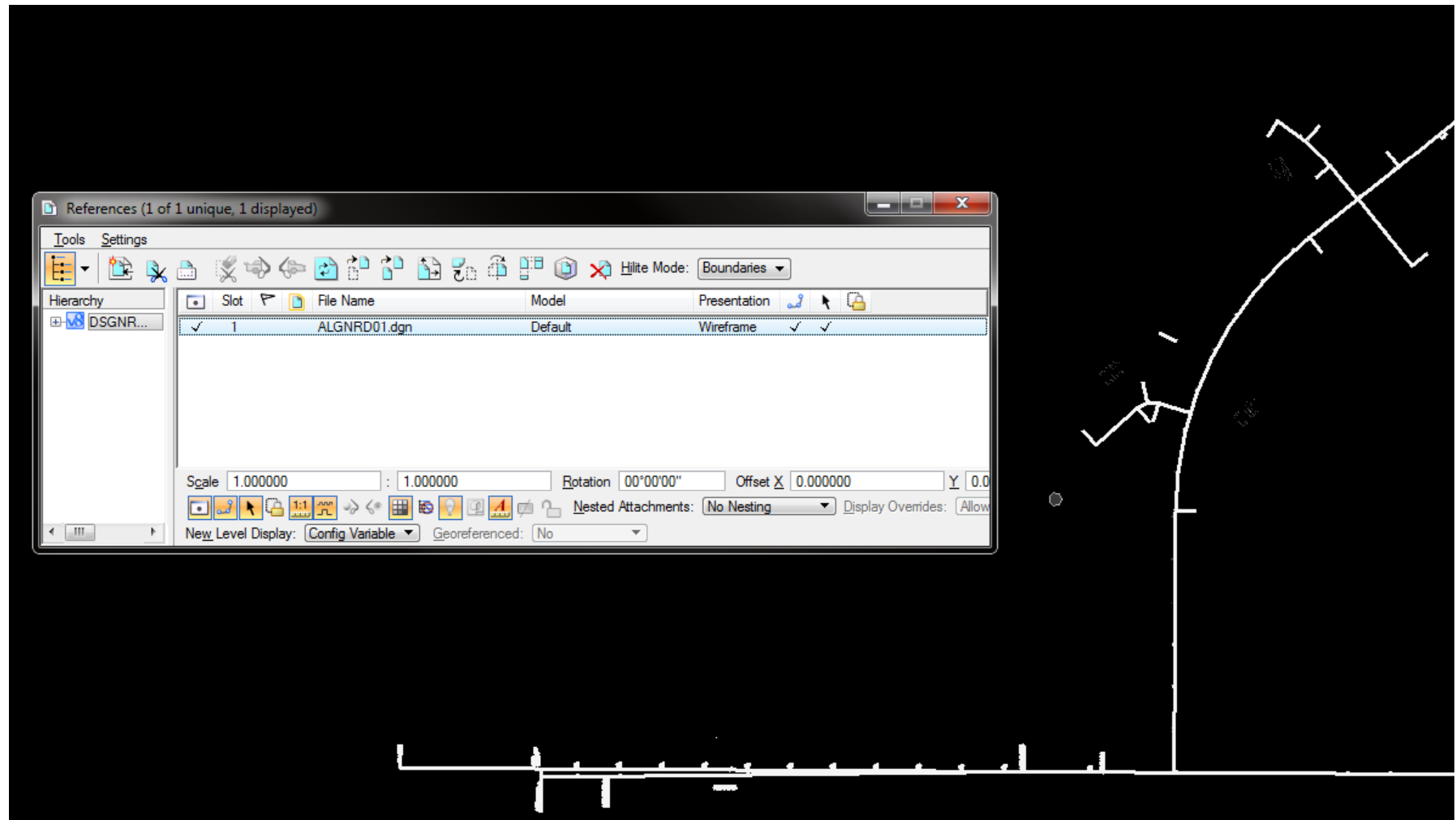


The screenshot shows the 'Create Model' dialog box with the following settings:

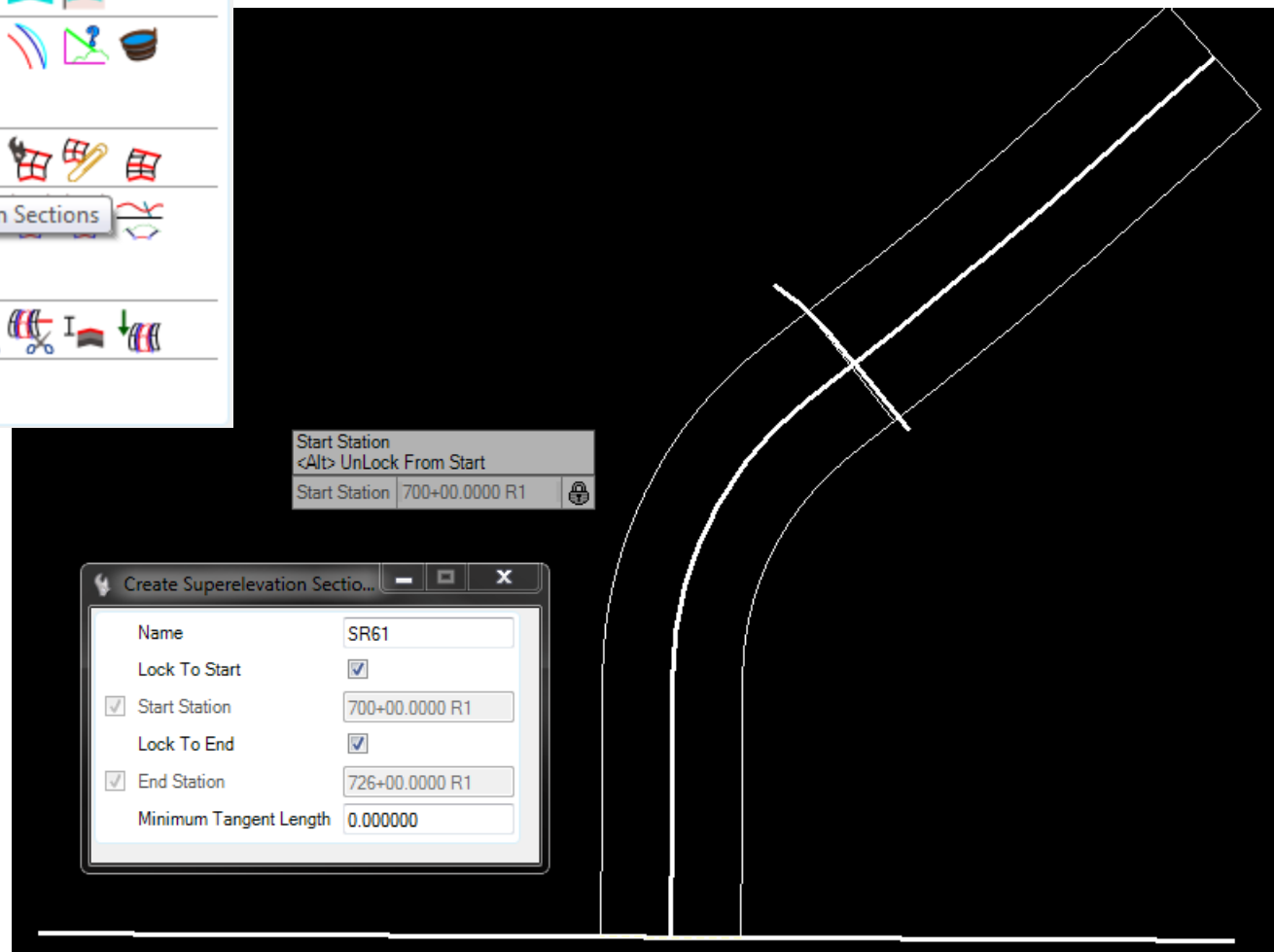
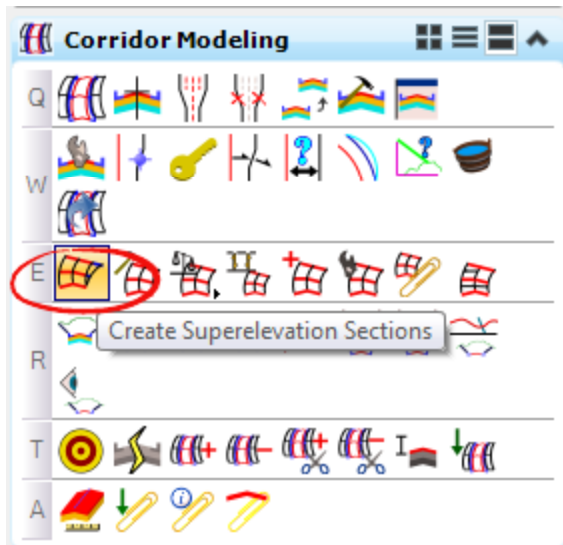
- Type: Design (dropdown), 2D (dropdown)
- Seed Model: <Not using seed> (text field)
- Name: **superelevation** (text field, highlighted with a red circle)
- Description: (empty text field)
- Ref Logical: (empty text field)
- Scale: 1:1 (dropdown)
- ☒ Propagate Annotation Scale
- Line Style Scale: Annotation Scale (dropdown)
- ☐ Update Fields Automatically
- Cell Properties section:
 - ☐ Can be placed as a cell
 - Cell Type: Graphic (dropdown)
 - ☐ Can be placed as an annotation cell
- ☒ Create a View Group

Buttons: OK, Cancel

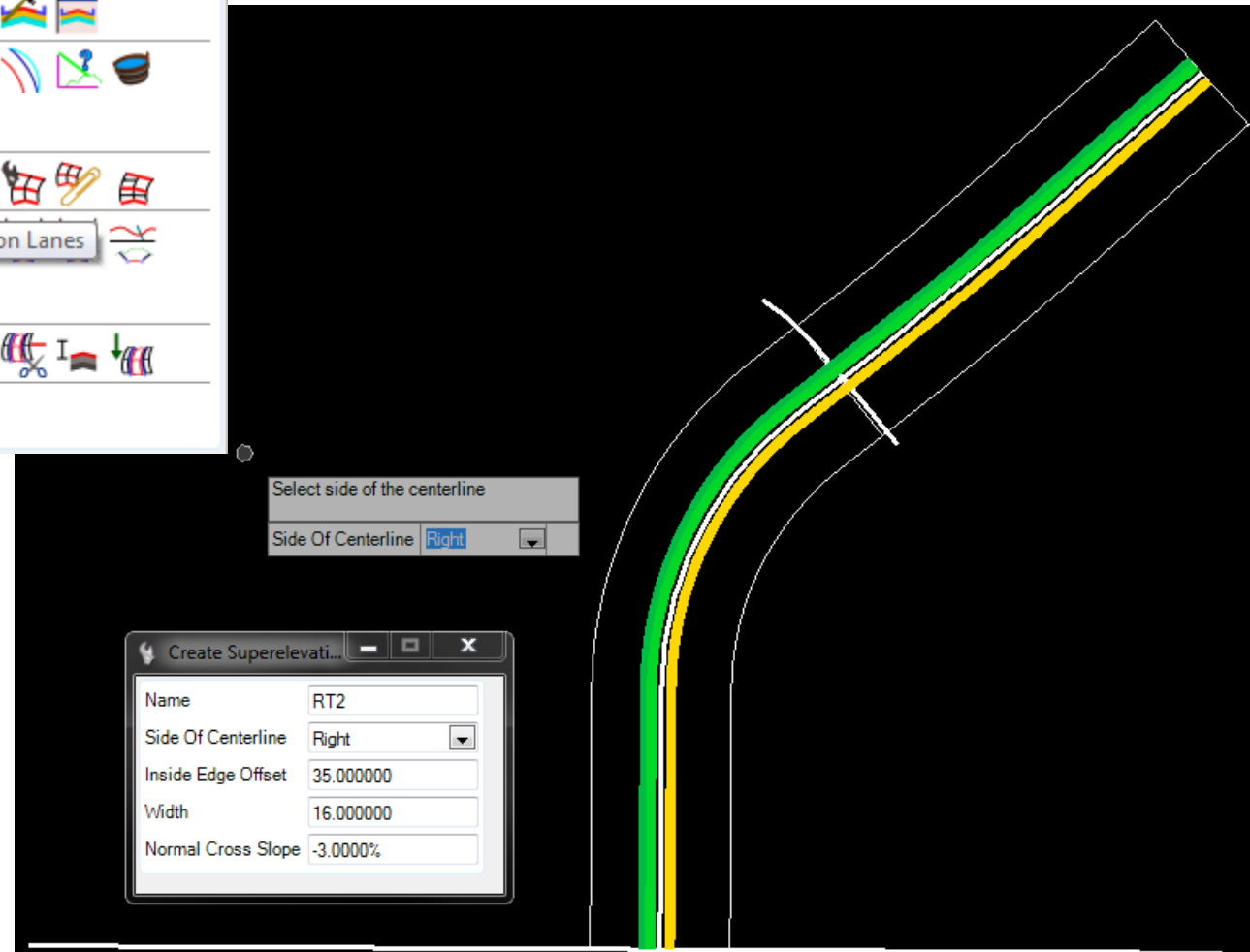
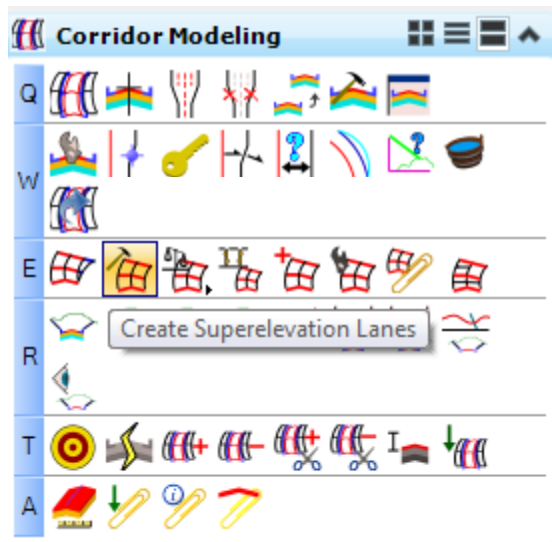
Reference the ALGNRD file



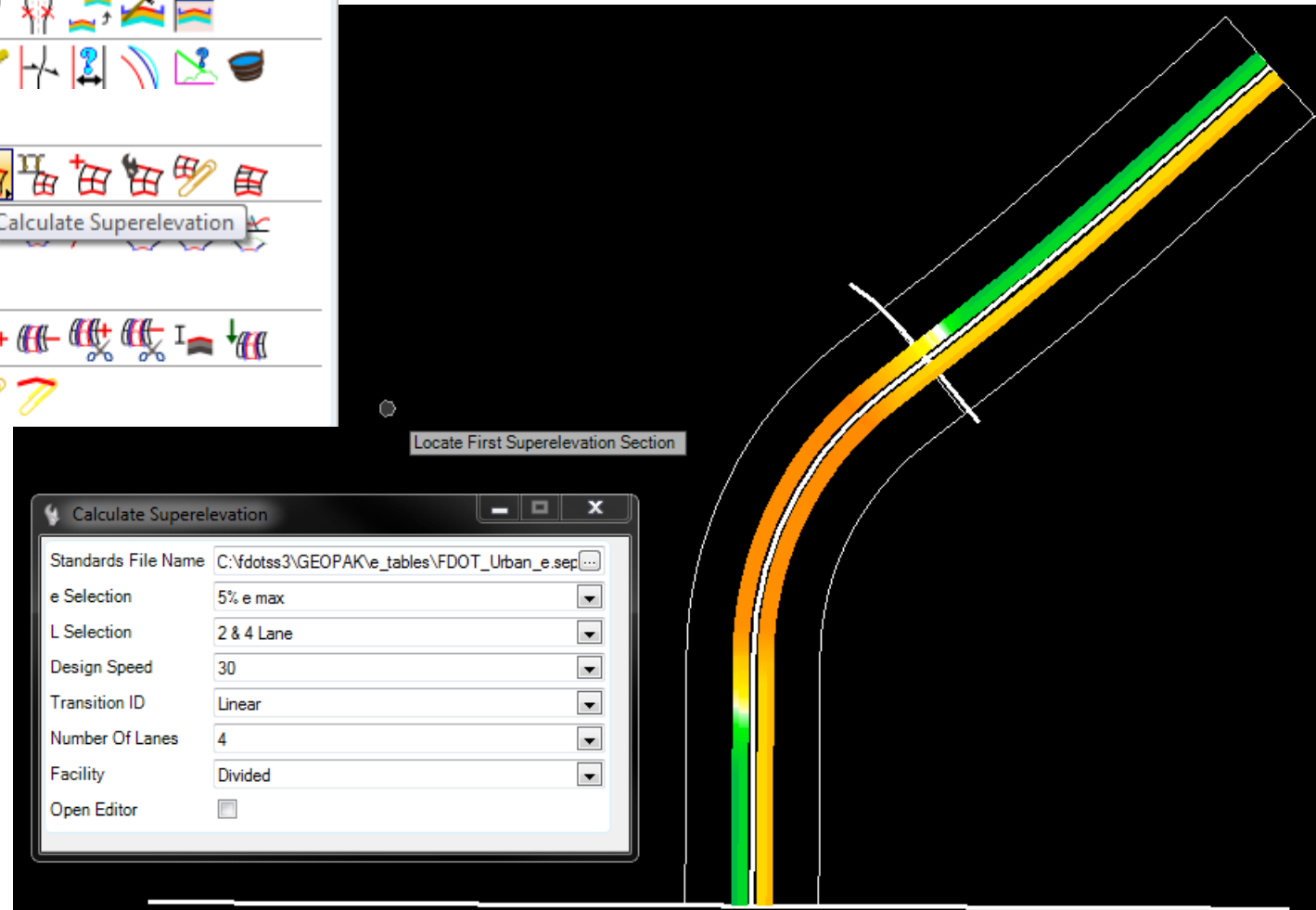
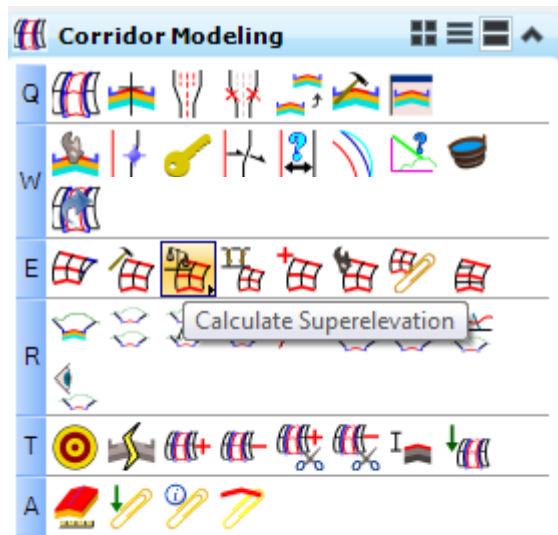
Create Superelevation Sections



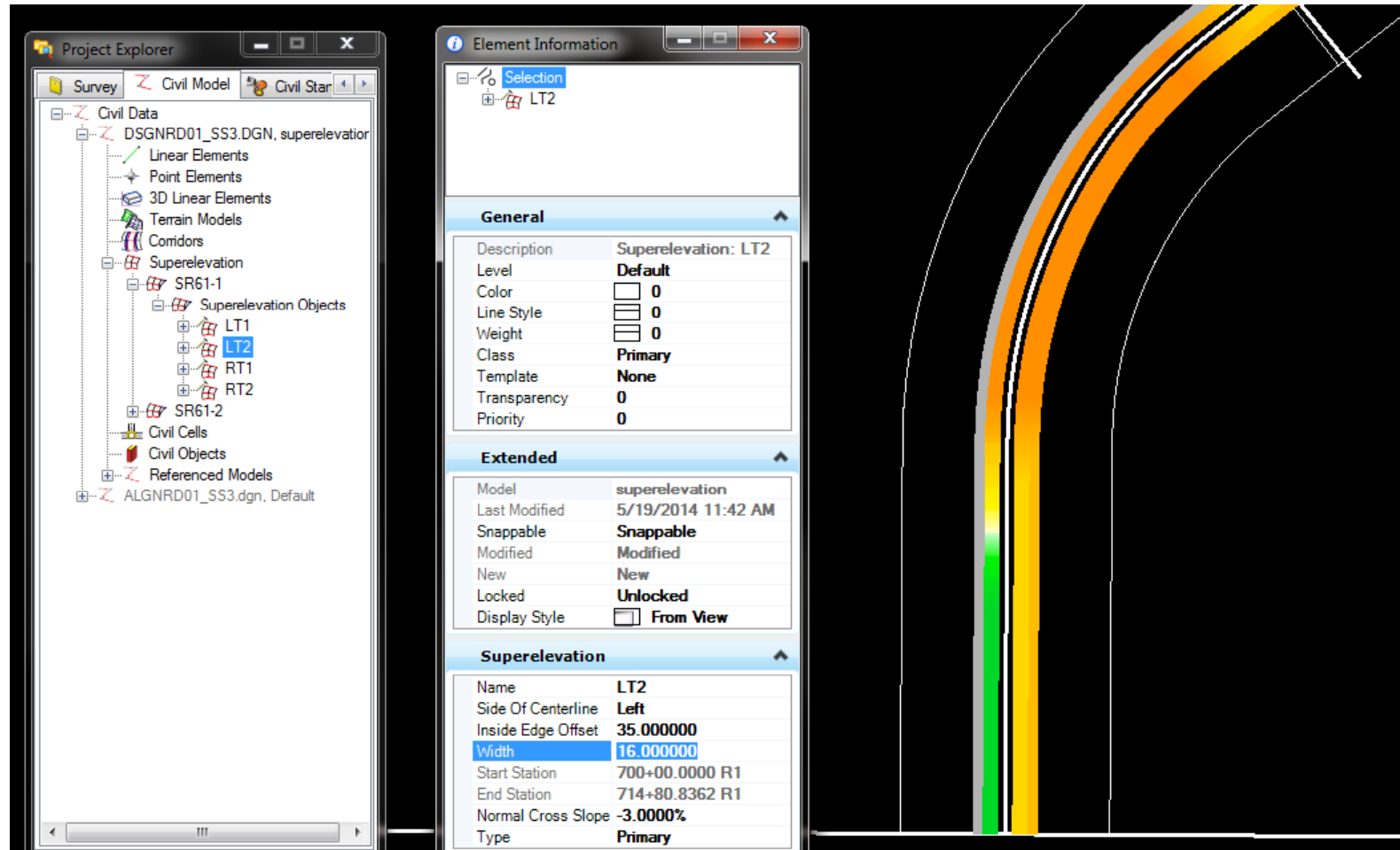
Create Superelevation Lanes



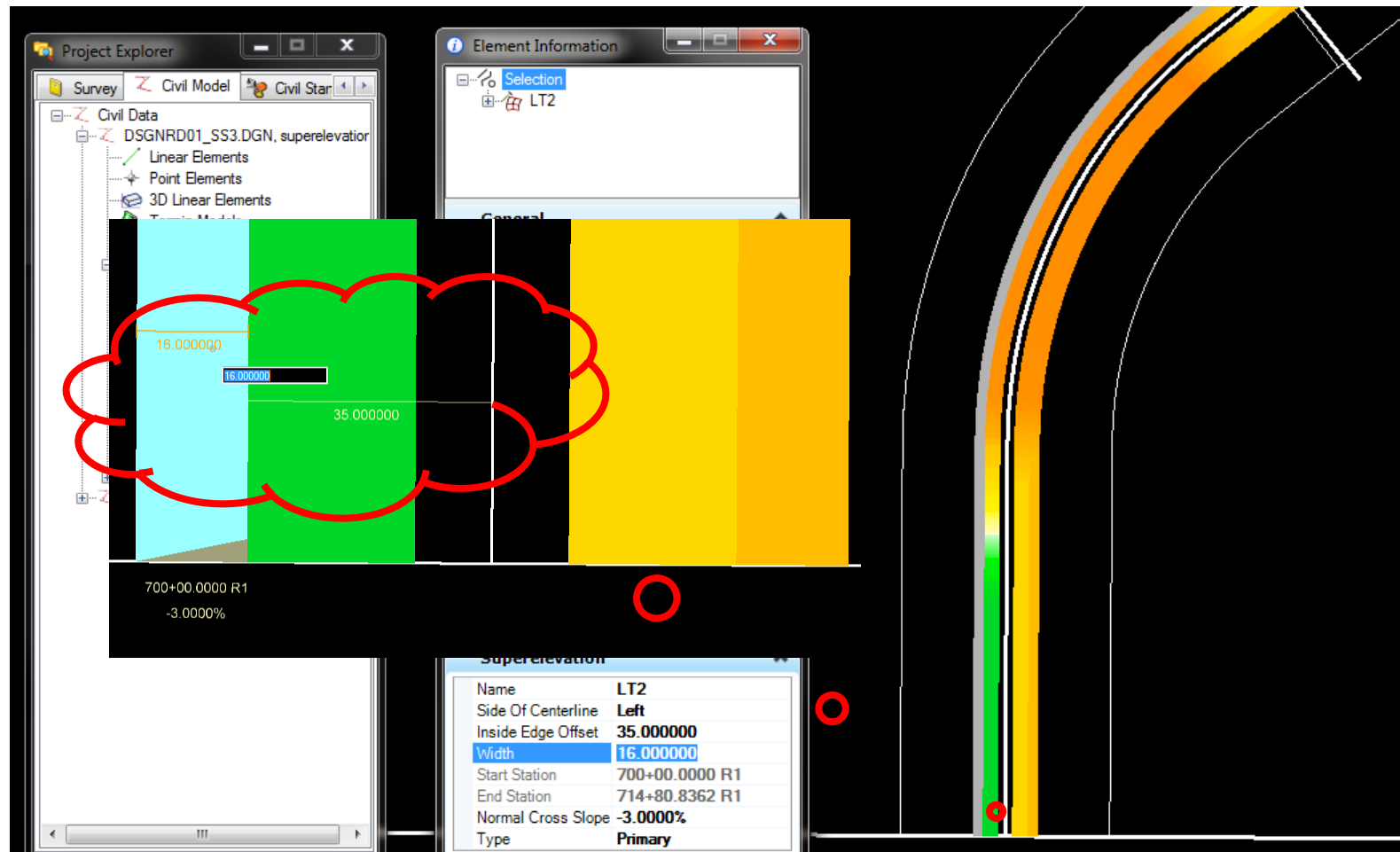
Calculate Superelevation based on FDOT tables



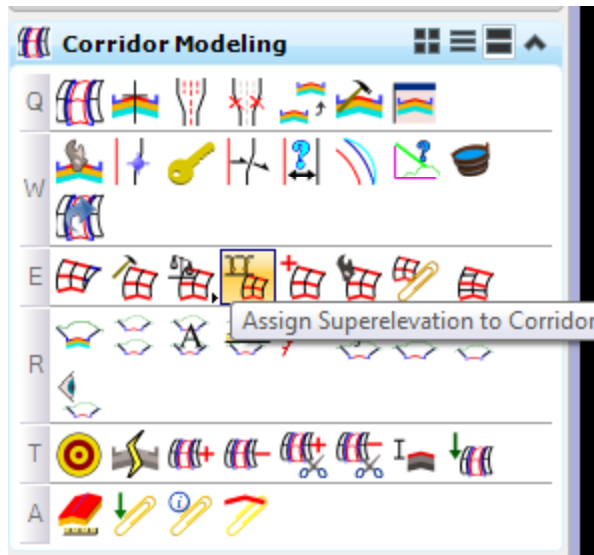
Project Explorer edits, Graphical edits



Project Explorer edits, Graphical edits



Assign Superelevation to Corridor, associate points



Go Back to DSGNRD file
and reference the
superelevation model



Assign Superelevation to Corridor, associate points

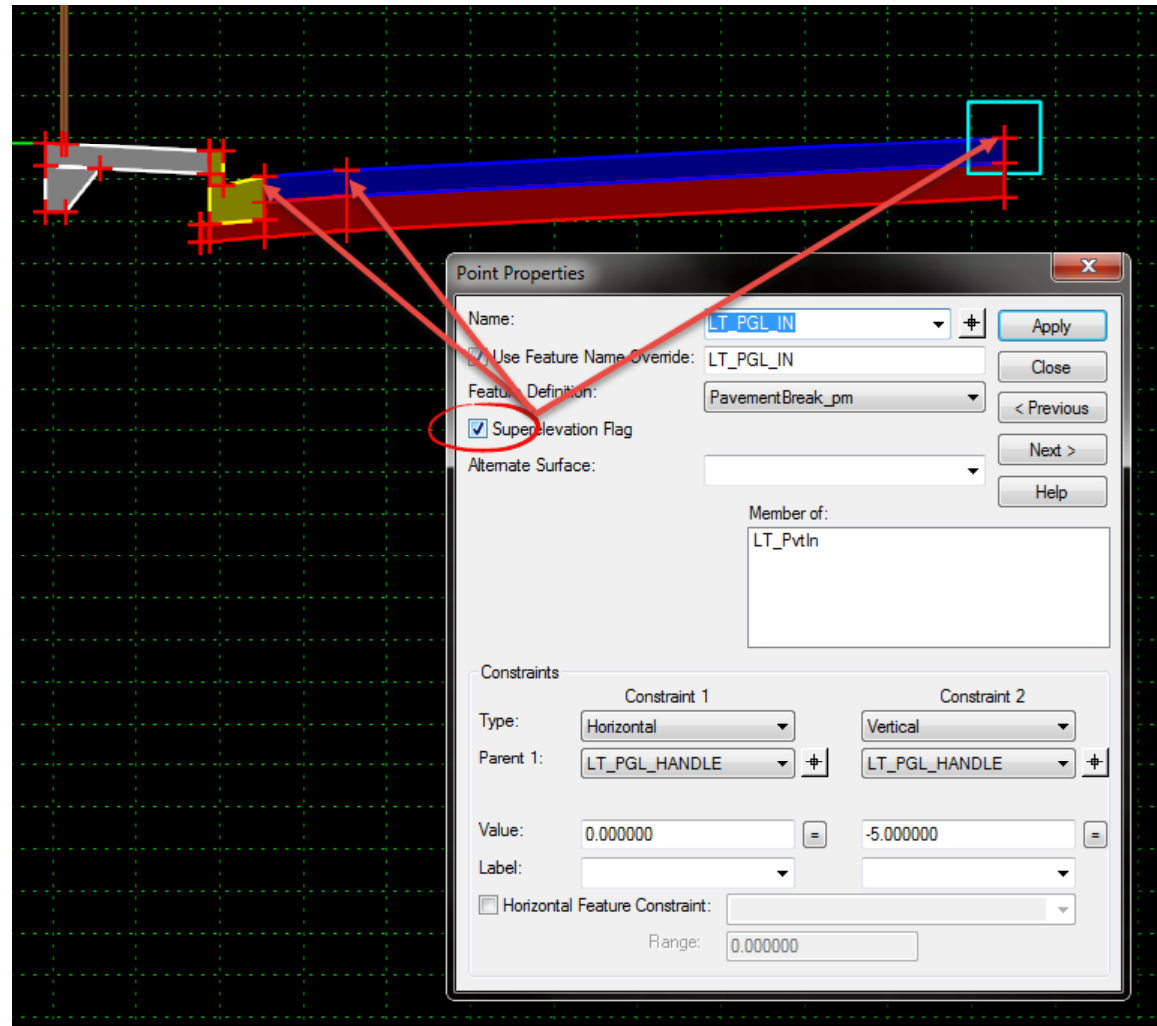
Corridor Modeling

Assign Superelevation to Corridor

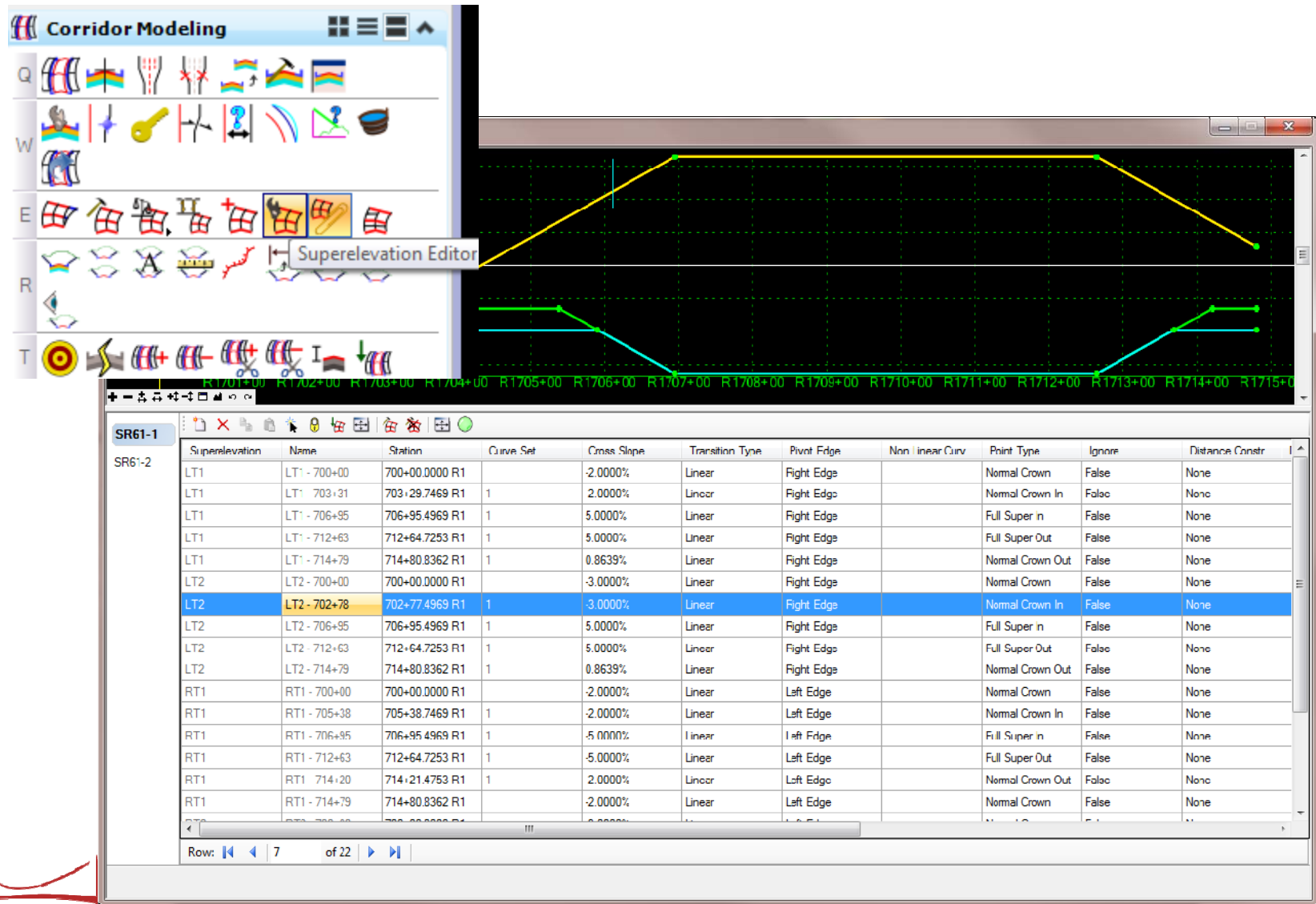
	Superelevation Object	Superelevation Point	Pivot Point	Start Station	Stop Station	Priority
	LT2	LT_PVT_EOP_OUT	LT_PVT_ADJ1_OUT	700+00.0000 R1	726+00.0000 R1	1
	LT1	LT_PVT_ADJ1_OUT	LT_PGL_IN	700+00.0000 R1	726+00.0000 R1	1
	RT1	RT_PVT_ADJ1_OUT	RT_PGL_IN	700+00.0000 R1	726+00.0000 R1	1
	RT2	RT_PVT_EOP_OUT	RT_PVT_ADJ1_OUT	700+00.0000 R1	726+00.0000 R1	1
*						

OK Cancel

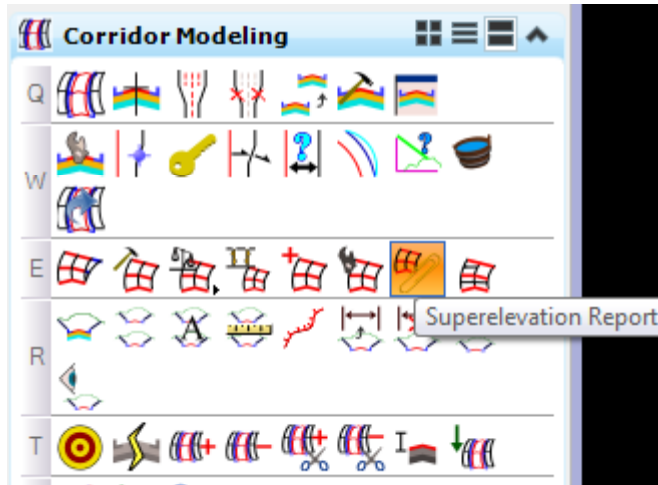
Special Template Point, Superelevation Flag box



Superelevation Diagram and Reports



Superelevation Diagram and Reports



Superelevation Design Report

Report Created: 5/19/2014
Time: 12:40pm

Note: All units in this report are in feet unless specified otherwise.

es\FDOT_Urban_e.sep

Pivot Method: Rotation
Transition Type: Linear
Number Of Lanes: 4
Facility: Divided
E Selection: 5% e max
L Selection: 2 & 4 Lane

Superelevation: LT2

Curve Set	Point Type	Station [Defined]	Station [Standards]	Cross Slope [Defined]	Cross Slope [Standards]	Application Length [Defined]	Application Length [Standards]	Radius
	Normal Crown	R1 700+00.00	700+00.00	-3.0000%	-3.0000%			
1	Normal Crown In	R1 702+77.50	702+77.50	-3.0000%	-3.0000%			
1	Full Super In	R1 706+95.50	706+95.50	5.0000%	5.0000%	127.406655	127.406655	819.000000
1	Full Super Out	R1 712+64.73	712+64.73	5.0000%	5.0000%			819.000000
1	Normal Crown Out	R1 714+80.84	714+80.84	0.8639%	0.8639%	65.870746	65.870746	

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