
Chapter 8

Designing with Corridor Modeling

8.1 Objectives	8-1
8.2 Create Corridor	8-1
8.3 Basic Workflow for Creating a New Corridor.....	8-2
8.4 Multiple Templates	8-2
8.4.1 Multiple Template Drops.....	8-2
8.5 Template Transitioning.....	8-2
8.5.1 Transition Editing	8-3
8.5.2 Transition Testing	8-4
8.6 Template Point Controls	8-5
8.7 Superelevation.....	8-7
8.8 Parametric Constraints	8-8
8.9 Design Changes	8-8
8.9.1 Geometry Changes.....	8-8
8.9.2 Template Library Synchronization	8-8
8.10 Basic Design Workflow with Corridor Modeling Tools	8-9
8.11 Group Exercise 4-1: Add Template Transition, Target Aliasing, and Add Clipping Reference	8-10

8.12 Objectives

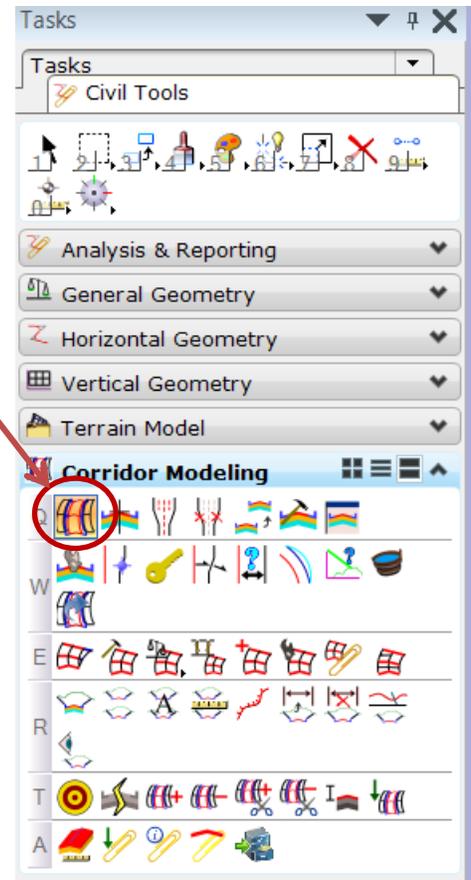
The purpose of this chapter is to show the user how to use the multiple tools available in Corridor Modeling task group to achieve desired results for the design of the corridor.

8.13 Create Corridor

Creating a corridor, using the Create Corridor command, is the first step in creating a corridor model. One corridor should be established for each alignment. The corridor is saved in the MicroStation Design file.

The following are the steps and prompts used by the Create Corridor command:

1. When using the Create Corridor command, you are first prompted to *Locate Corridor Baseline*. Simply select the appropriate horizontal geometry.
2. You will then be prompted to *Locate Profile-Reset For Active Profile*. If the horizontal geometry has the appropriate profile active, simply reset. You can select a different profile from a profile view.
3. You will then be prompted to key in the *Corridor Name*. The name of the corridor should be the name of the horizontal geometry.
4. You will then be prompted to *Select Template*. Hold down the Alt key and press the Down Arrow on your keyboard. This will bring up the *Pick Template* dialog. Select the appropriate template and click OK.
5. You will then be prompted to select the *Start Station*. To move to the beginning of the horizontal geometry, press the Alt key on your keyboard. You can also key in the appropriate Start Station or move your cursor to location in the CAD view.
6. You will then be prompted to select the *End Station*. To move to the end of the horizontal geometry, press the Alt key on your keyboard. You can also key in the appropriate End Station or move your cursor to location in the CAD view.
7. You will then be prompted to key in the *Drop Interval*. The Drop Interval represents how often to perpendicularly process the template along the geometry. The Drop Interval should be a number that divides evenly into the cross section interval (ex. 10, 25).
8. You will then be prompted to key in *Start Transition – Minimum Transition Before Drop*. If more than one template is being used for the project, the Start Transition – Minimum Transition Before Drop option represents the length of transition between the template selected in Step 4 and a different template located before the one selected in Step 4.
9. You will then be prompted to key in *Stop Transition – Minimum Transition After Drop*. If more than one template is being used for the project, the Stop Transition – Minimum



Chapter 8 – Designing with Corridor Modeling GEOPAK Road 1

Transition After Drop option represents the length of transition between the template selected in Step 4 and a different template located after the one selected in Step 4.

10. To add different templates, repeat Step 4 to Step 9. If you are adding different templates after you exit the Create Corridor command, use the Create Template Drop command to add different templates.

8.14 Basic Workflow for Creating a New Corridor

1. Select the **Create Corridor** icon  from the *Corridor Modeling* tasks group.
2. Select the horizontal geometry and reset for the active profile.
3. Key in the **Corridor Name**.
4. Select the appropriate template.
5. Key in the corridor start and stop stations.
6. Key in the transition lengths.

8.15 Multiple Templates

Create Corridor is a versatile tool that allows the user to use multiple design templates for one corridor. The user should review the corridor and identify the possible locations for changes in the template before starting the corridor design in using the Create Corridor tool.

8.15.1 Multiple Template Drops

Anytime there is a situation where the design changes, for example from a 2-lane to 4-lane, or from rural to urban; the user needs to insert or “drop” multiple templates in the corridor to achieve

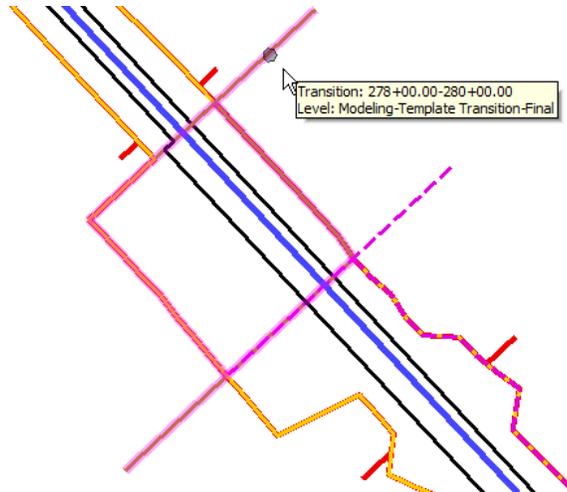
the desired results. This is accomplished thru the *Create Template Drop* icon  from the *Corridor Modeling* tasks group.

The *Create Template Drop* command has prompts similar to the Create Corridor command.

8.16 Template Transitioning

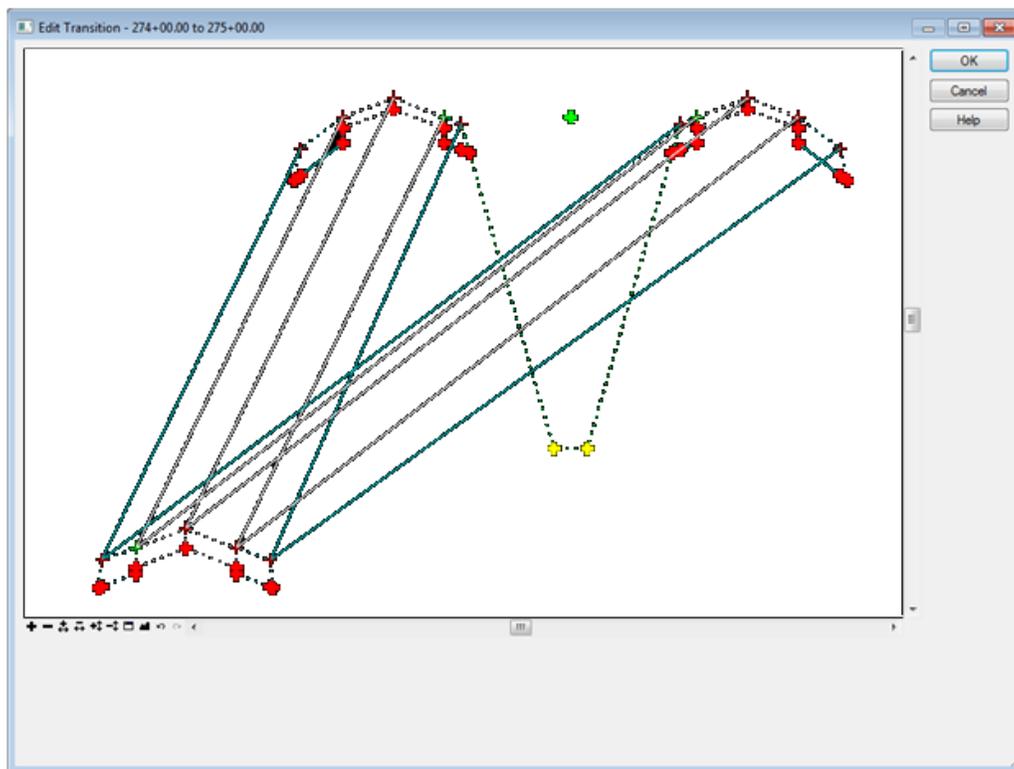
When multiple templates are used within one corridor, a transition from one to the other is introduced, and it will be shown in the MicroStation view. The transition will be abrupt until the

transition is fully defined using the **Edit Transition** icon  from the *Corridor Modeler* tasks group. These transitions are shown as an object between the template drops.

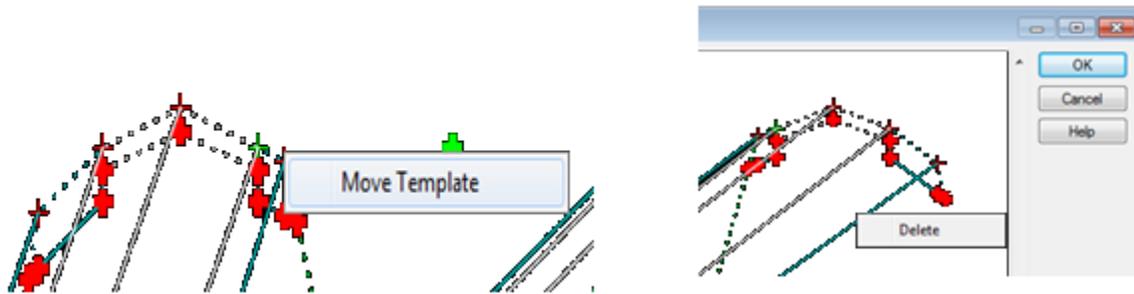


8.16.1 Transition Editing

To review the transition areas, use the Edit Transition tool and select the transition when prompted. This displays the *Edit Transition* dialog which shows the point connections between the two templates.



Bold color points indicate no connection. Point connections can be made by clicking on any bold color point followed by a click on appropriate connecting point. A single point can have more than one connection to that point. To remove a connection line, right-click on the line and select Delete.

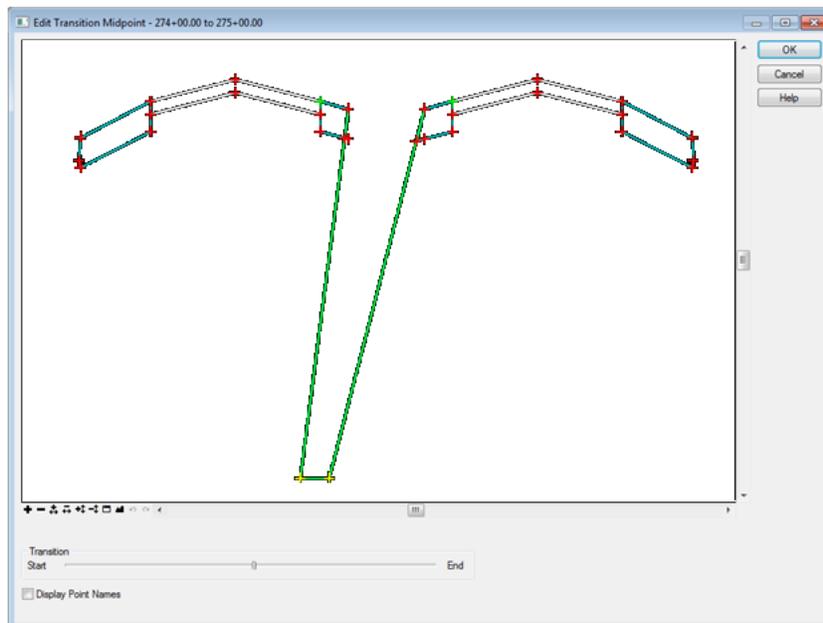


This window provides a 3D view and it can be manipulated using the view controls located at the bottom of the view. To move the template in the view, right-click on any template point and select Move Template. Moving template makes it easier to edit.

8.16.2 Transition Testing

After the points are connected, the transitioning is reviewed and edited in the Edit Transition Midpoint dialog. This dialog displays a cross section view of two templates as they transition. The display starts at the transition midpoint between the two templates, but can be viewed at the beginning, ending or any point in between.

If the user desires to change point properties, double click on any point to bring the Point Properties dialog.



8.17 Template Point Controls

Point controls are used to override the established horizontal and vertical locations of points from the original point location on the template. Point controls are the equivalent of the criteria adhoc placed on plan graphics with D&C Manager to control widths, ditch slopes, etc. Point controls then are used to control horizontal and vertical locations for EOP, EOS, sidewalks, retaining walls, barriers, special ditch profiles and ditch widths, etc.

The *Create Point Control* icon  can be accessed thru the *Corridor Modeling* tasks group.

Point Controls are used to override the normal locations of one or more points and or components in a cross section. Examples of this include lane widening, staying within the right-of-way, maintaining a particular slope for a ditch, and superelevation.

An example would be a ramp is merging into the main road. The ramps left edge is vertically controlled by the main road right edge of pavement. The ramps left edge is horizontally controlled by the main road right edge from 0+00 to 1+00, and then it is controlled by a horizontal alignment named rampLeft.

The following are the prompts for the *Create Point Control* command:

Locate Corridor Selects the corridor where the point controls are applied.

Station Limits (Start/Stop) Specifies the start and stop stations for the control.

Control Description Allows you to enter a description of the control.

Point Allows you to select the point to be controlled. Select from the list or identify the point in the cross-section using the locate button. The selected point is highlighted in plan/cross section and profile or superelevation views as applicable.

Mode Allows you to select the control mode: Horizontal, Vertical, or Both.

Control Type Specifies the type of control.

If the mode is **Horizontal** or **Both**, valid control types are *Linear Geometry*, *Feature Definition*, or *Corridor Feature*.

If the mode is **Vertical**, valid control types are *Linear Geometry*, *Feature Definition*, *Corridor Feature*, *Superelevation*, *Elevation Difference*, *Elevation and Grade*.

The selection combo boxes and/or field displayed depends on the selected *Mode* and *Control Type*.

Type - Linear Geometry If the type is Linear Geometry, a Horizontal Offsets combo box is displayed. If the mode is Both, a Vertical Offsets combo box is also displayed.

Type - Feature Definition If the type is Feature Definition, a Feature Definition and Range text field is displayed.

Chapter 8 – Designing with Corridor Modeling GEOPAK Road 1

Type - Corridor Point For all modes, Corridor and Reference Feature combo boxes are displayed. These options allow you to set up the control of one corridor's point(s) from another corridor's point(s).

Targeting another corridor's point cannot be done simultaneously with Target Aliasing of that same corridor. If Target Aliasing has been defined, the Corridor Point is not available for selection within the Point Control dialog. This produces a recursive situation, making the corridor point control unavailable for selection until that Target Aliasing is removed.

Type – Superelevation This option displays a Superelevation control line combo box, and a Reference Point combo box. Superelevation control lines are stored in the roadway design, not on the alignment. The reference point is the pivot point (feature) about which the point will rotate.

Type - Elevation Difference This option displays Horizontal and Vertical alignment combo boxes. The vertical alignment represents a vertical difference value to be applied to the points' current elevation.

Type - Elevation and Grade This option displays an Elevation field, and a Grade field. The control sets elevation of the point at the start station to the elevation specified. The slope of the point's line is then at the grade specified until the end station is reached.

Priority Determines the order of controls on a point. This value applies only when there are conflicting controls on a point. Where there is a conflict, the control with the lower priority is applied (that is, lower numbers are applied first).

Use as Secondary Alignment Specifies that horizontal point controls are also used as secondary alignments. This option is available only when working with a 2D entity. If you are using a 3D object, the software skips the secondary alignment option.

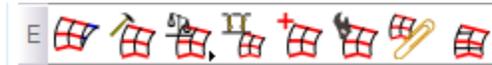
Horizontal Offsets (Start/Stop) Specifies the start and stop horizontal offset controls for the corridor. If the values are different, then the value applied at a given station is calculated using a linear algorithm.

Vertical Offsets (Start/Stop) Specifies the start and stop vertical offset controls for the corridor.

8.18 Superelevation

The superelevation points create a special type of point control.

This toolbox contains tools for creating, calculating, and editing superelevation lanes. Tools are also supported for importing CSV data and reporting.



Create Superelevation Sections - Adds a superelevation sections (generally one per curve set) for the specified station range on the baseline reference.



Create Superelevation Lanes - Creates color-filled lanes based on width and offsets from the baseline reference, as a precursor to superelevation calculations.



Calculate Superelevation - Calculates station and superelevation transitions rates based on a preferences or rules file (*.sep,*.srl). The values are augmented to the superelevation lanes, edit manipulators are created, and the color fill is recolored based on the cross slopes.



Import Superelevation - Optionally, imports data from a CSV file.



Assign Superelevation to Corridor - Associates superelevation with a corridor, so the pavement reflects the superelevation stations / cross slopes, rather than the pavement cross slope defaults in the template.



Insert Superelevation Station/Cross slope - Insert an individual station / superelevation transition (cross-slope) into a previously created and calculated superelevation lane.



Superelevation Editor - Opens the superelevation editor allowing the user to edit the calculated superelevation in a tabular format.



Superelevation Report - Creates a superelevation XML report and opens the Bentley Civil Report Browser.



Superelevation in Plan - Automatically generates annotation for superelevation station information in plan view.

8.19 Parametric Constraints

Parametric constraints are used to override the original constraint values established in the template from the library being used. The **Create Parametric Constraint** icon  can be accessed from the *Corridor Modeling* tasks group.

The parametric constraints are the equivalent of a re-definable variable. So, the names of the parametric constraints established in MoDOT Template Library mirrors the criteria names as much as possible.

Parametric Constraints are setup in the template and applied to the corridor using the **Create Parametric Constraint** command.

The prompts for the **Create Parametric Constraint** command are as follows:

Locate Corridor – select the corridor where you want the Parametric Constraints applied.

Start/End Station - Specify the start/end station for the override.

Constraint Label - Lists all labeled constraints in the design. The selected label receives the override.

Start/Stop Value - Specifies the constraint value and can be transitioning from the first parametric value at the start and stop values.

8.20 Design Changes

The lifecycle of a roadway project is long, and complex. Changes must be done to accommodate for unforeseen situations or to stay within budget. The Corridor Modeling tools offers the flexibility to allow these design changes.

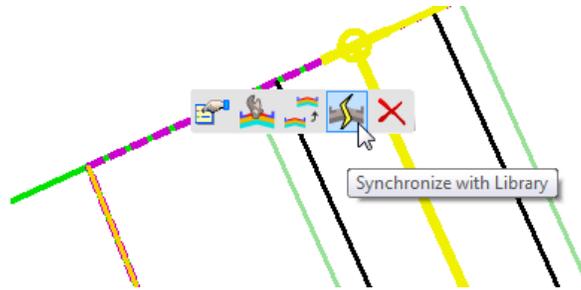
8.20.1 Geometry Changes

Once the horizontal and vertical geometry are created and used by a corridor, the user can go back and change the geometry. Any changes will be reflected in the corridor design.

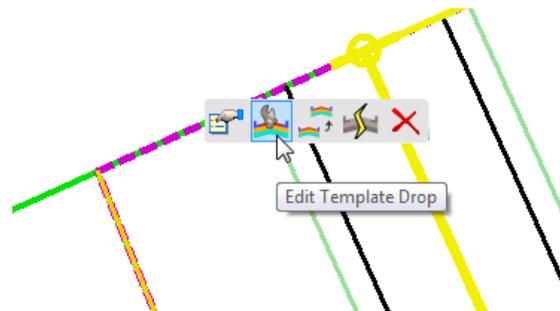
8.20.2 Template Library Synchronization

Changes to the template can be made either in the Corridor or in the Template Library. Where a user makes the changes for his/her template depends on the circumstances and needs to be reviewed on a case by case basis.

Any changes made in the template library can be obtained by synchronizing the template drops with the library. This is accomplished by selecting the template drop on the corridor in the plan view and selecting **Synchronize with Library** icon from the heads-up menus.

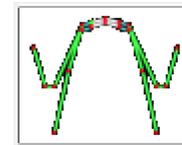


Changes can be made to a template used in a corridor by using the **Edit Template** command. The **Edit Template** command can either be accessed by selecting the template drop on the corridor in the plan view and selecting **Edit Template** icon from the heads-up menus or from the *Corridor Modeling* tasks group.



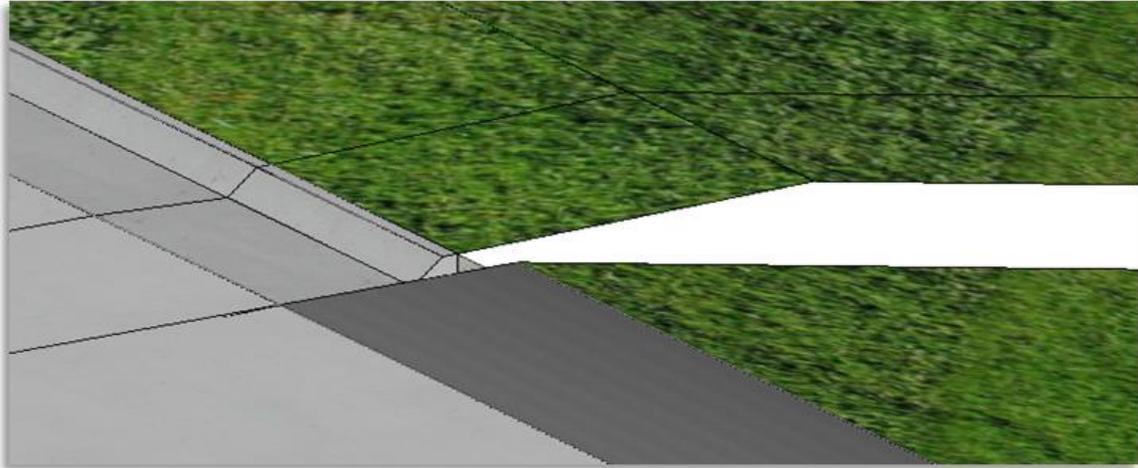
8.21 Basic Design Workflow with Corridor Modeling Tools

1. Set up a corridor
2. Insert template drops as needed
3. Create any template point controls
4. Design superelevation
5. Set parametric constraints as needed
6. Review design
7. Make revisions as needed and re-review



8.22 Group Exercise: Road-1 Parametric Constraints (Left Side)

Parametric Constraints: Resolving transition between templates - Below is an image of an adjoining Curb and Gutter and Shoulder Section.



- Note:**
- 1) In this exercise we will use a number of Parametric Constraints to fix the gaps between the two template drops. Remember a Parametric Constraint will override the Point Constraint values.
 - 2) The goal of this section is to transition the differences between the two templates over a distance.

Template Point - Hierarchy of Control

- Point Control - **Highest**
- Feature Constraint
- Parametric Constraint
- Point Constraint - **Lowest**

The diagram shows a red trapezoidal area on a grid. A point constraint marker is located at the top-right corner of the trapezoid. A blue arrow points from the 'Feature Constraint' level in the hierarchy to the marker. A red arrow points from the 'Point Constraint - Lowest' level to the 'Point Properties' dialog box.

Point Properties

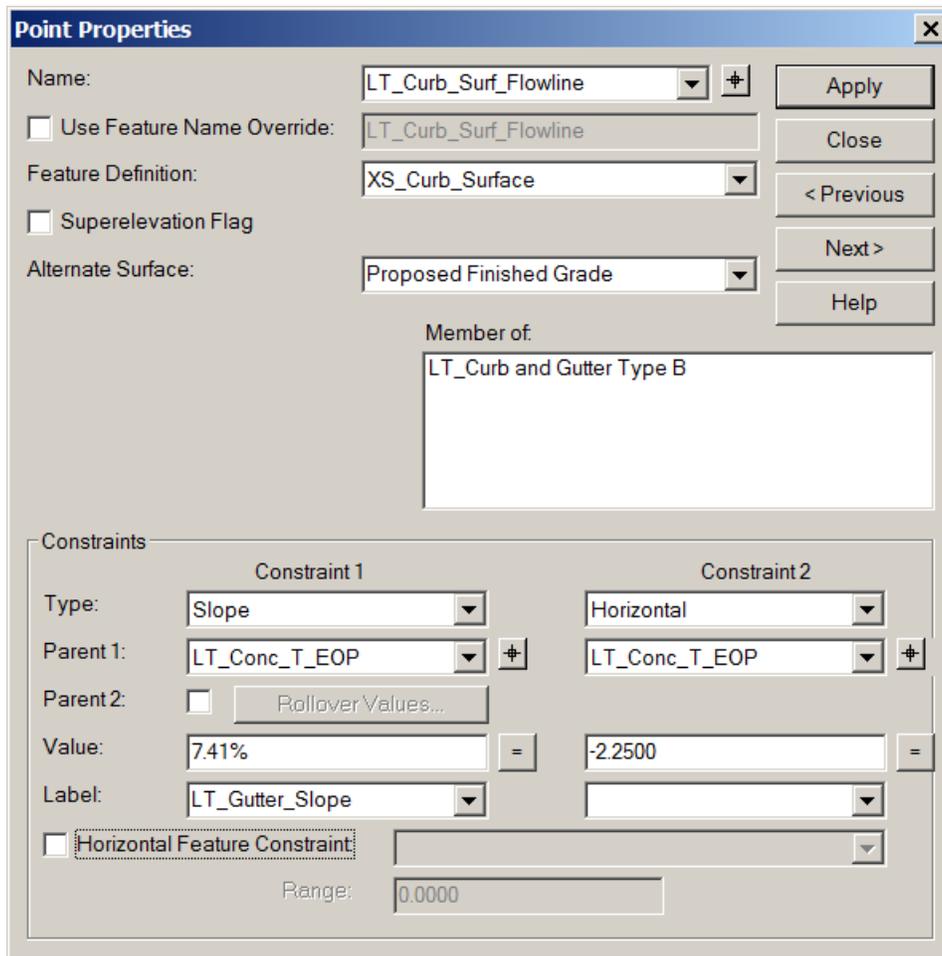
Name: Conc_T_O_EOS
Use Feature Name Override:
Feature Definition: XS_Conc 0 EOS
Superelevation Flag:
Alternate Surface: Proposed Finished Grade
Member of: A2 Shoulder Concrete

Constraints

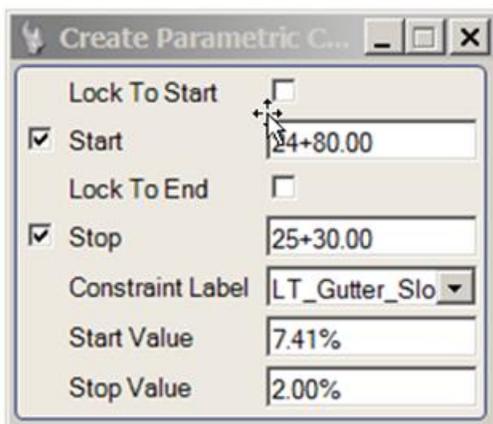
	Constraint 1	Constraint 2
Type:	Vector-Offset	Horizontal
Parent 1:	Curb_Surf_Edge	Conc_T_EOP
Parent 2:	Conc_T_EOP	
Value:	0.0000	-2.5000
Label:		-Shldr_Conc_A2_Width
<input checked="" type="checkbox"/> Horizontal Feature Constraint:	EOS_New_Concrete	
Range:	-50.0000	

GEOPAK Road 1 Chapter 8 –Designing with Corridor Modeling

1. Within the *Randolph\data_08* folder, open the file: **Corridors_J2P0200.dgn**
2. Click on the one of the **Road 1** Template Drop Handlers with the range of **0+00** to **25+30** and edit the template.
3. Review the Point Properties Dialog for the **LT_Curb_Surf_Flowline** Point.



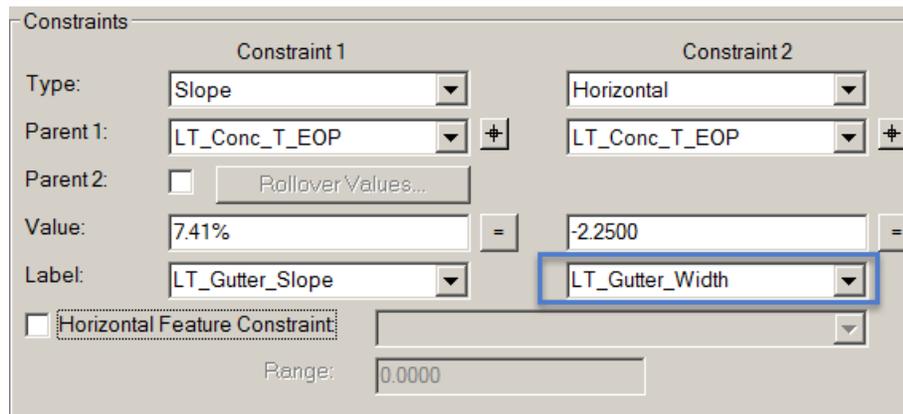
4. **Resolving Gutter Slope** - Using the Parametric Label in the Point Properties for the **LT_Curb_Surf_Flowline** point add the following Parametric Constraint:



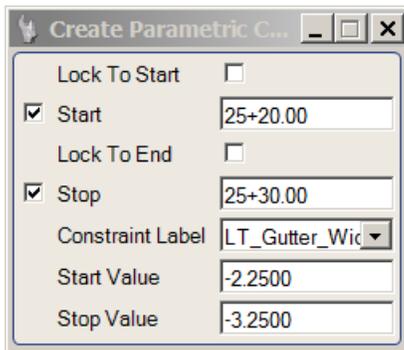
Start:	24+80
Stop:	25+30
Constraint Label:	LT_Gutter_Slope
Start Value:	7.41%
Stop Value:	2.00%

Chapter 8 – Designing with Corridor Modeling GEOPAK Road 1

- Resolving the Gutter Width** - Add a Parametric Label to the **LT_Curb_Surf_Flowline** point called **LT_Gutter_Width** that will control the Horizontal width of the Gutter.

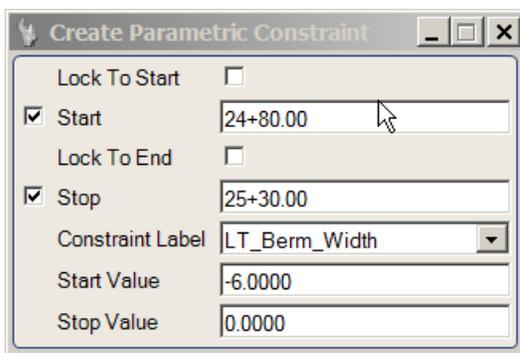


- Using the Parametric Label in the Point Properties for the **LT_Curb_Surf_Flowline** point add the following **Parametric Constraint**:



Start:	25+20
Stop:	25+30
Constraint Label:	LT_Gutter_Width
Start Value:	-2.25
Stop Value:	-3.25

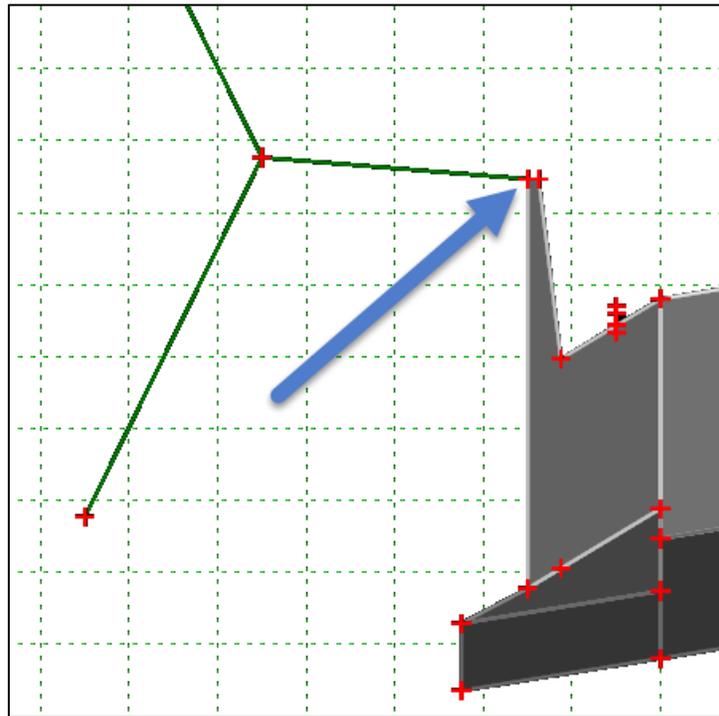
- Removing Berm Width** - Using the Parametric Label in the Point Properties for the **LT_Berm_B** point add the following Parametric Constraint:



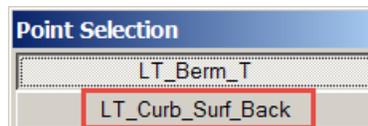
Start:	24+80
Stop:	25+30
Constraint Label:	LT_Berm_Width
Start Value:	-6.00
Stop Value:	0.00

GEOPAK Road 1 Chapter 8 –Designing with Corridor Modeling

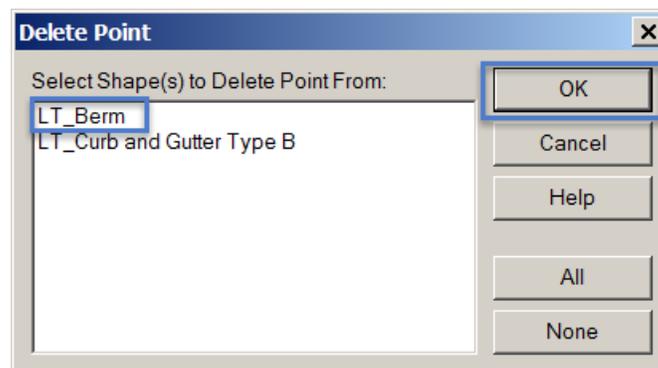
8. **Resolving Berm Location** – Right click on the Left Berm Line insert a point and place it on top of the point adjacent to the Back of Curb:



9. Double click on newly place point and open the Point Properties dialog. Rename the point to **LT_Berm_T**
10. Right click on newly place point and select **Delete Point**. Delete the **LT_Curb_Surface_Back** point:



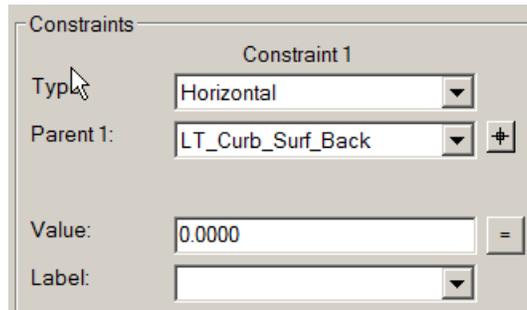
Delete the **LT_Berm** Shape (Component) from the Point.



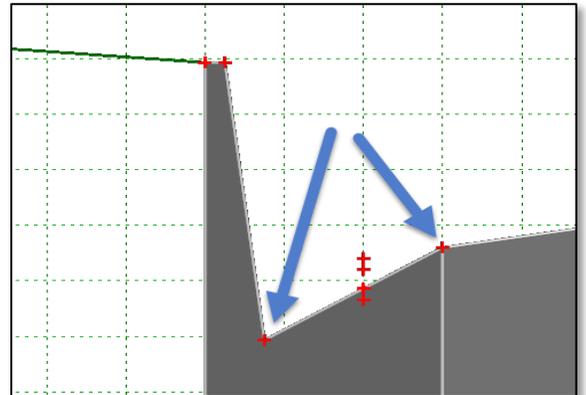
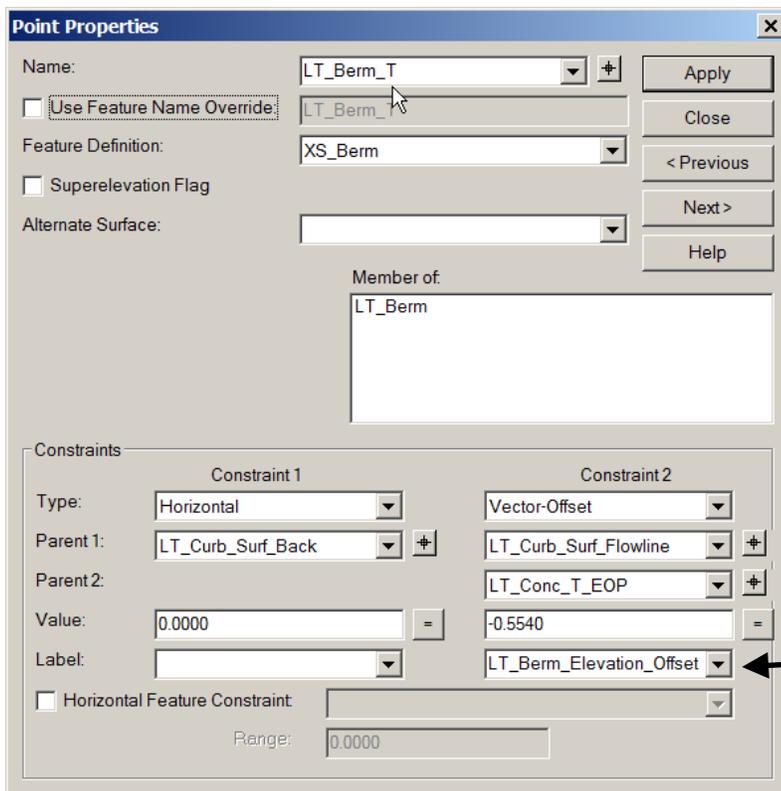
Chapter 8 – Designing with Corridor Modeling GEOPAK Road 1

Note: The **LT_Curb_Surface_Back** point was included in both the Berm and Curb components.

11. Right click on the point **LT_Berm_T** and add a **Horizontal Constraint** with the Parent Point being the **LT_Curb_Surface_Back**.



12. Right click on the point **LT_Berm_T** and add a **Vector Offset Constraint** with the Parent Points being the **LT_Curb_Surf_Flowline** and the **LT_Conc_T_EOP** points.



13. Add in a **Parametric Label** for the **Vector Offset Constraint** called the following:

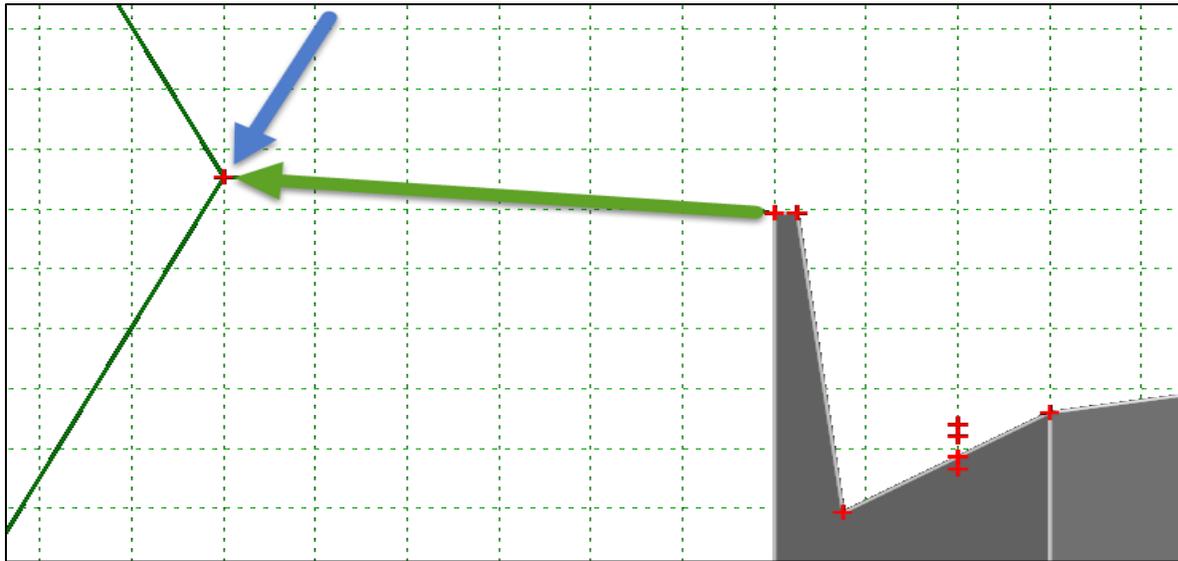
LT_Berm_Elevation_Offset

GEOPAK Road 1 Chapter 8 –Designing with Corridor Modeling

14. Edit the **LT_Berm_B** point so that its parent point is the newly created **LT_Berm_T** point.

Constraints

	Constraint 1	Constraint 2
Type:	Horizontal	Slope
Parent 1:	LT_Berm_T	LT_Berm_T
Value:	-6.0000	-1.00%
Label:	LT_Berm_Width	LT_Berm_Slope
<input checked="" type="checkbox"/> Horizontal Feature Constraint:	Berm_Line_New	
Range:	-50.0000	



15. **Lowering the Berm** - Using the Parametric Label in the Point Properties for the **LT_Berm_T** point add the following Parametric Constraint:



Create Parametric Constraint

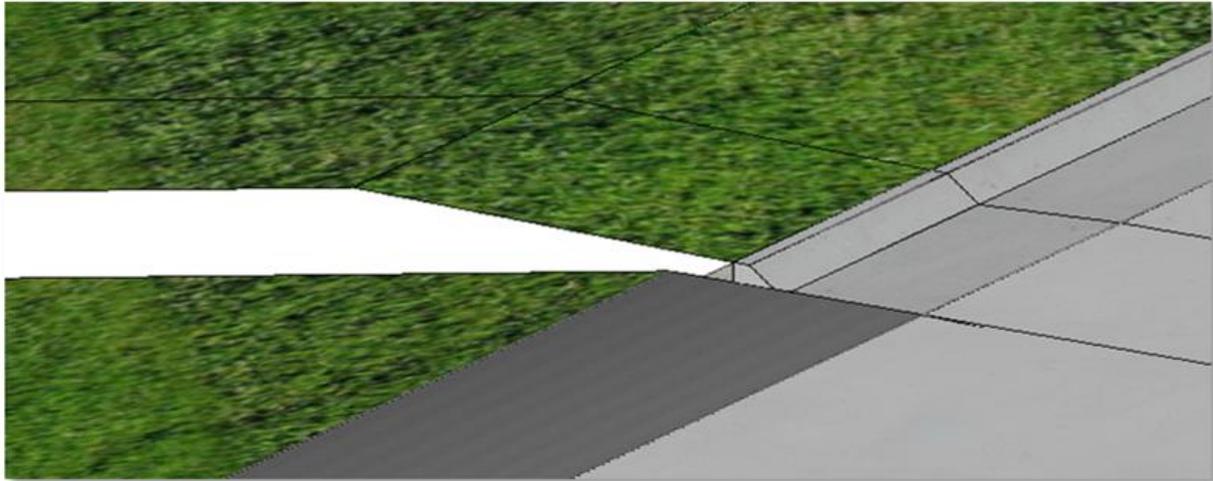
Lock To Start	<input type="checkbox"/>
<input checked="" type="checkbox"/> Start	24+80.00
Lock To End	<input type="checkbox"/>
<input checked="" type="checkbox"/> Stop	25+30.00
Constraint Label	LT_Berm_Elevation_Offset
Start Value	-0.5540
Stop Value	0.0000

Start:	24+80
Stop:	25+30
Constraint Label:	LT_Berm_Elevation_Offset
Start Value:	-0.5540
Stop Value:	0.00

Chapter 8 – Designing with Corridor Modeling GEOPAK Road 1

8.23 Individual Exercise: Road-1 Parametric Constraints (Right Side)

Parametric Constraints: Resolving transition between templates - Below is an image of an adjoining Curb and Gutter and Shoulder Section.



- In this exercise we will use a number of Parametric Constraints to fix the gaps between the two template drops. Remember a Parametric Constraint will override the Point Constraint values.
- The goal of this section is to transition the differences between the two templates over a distance.

Template Point - Hierarchy of Control

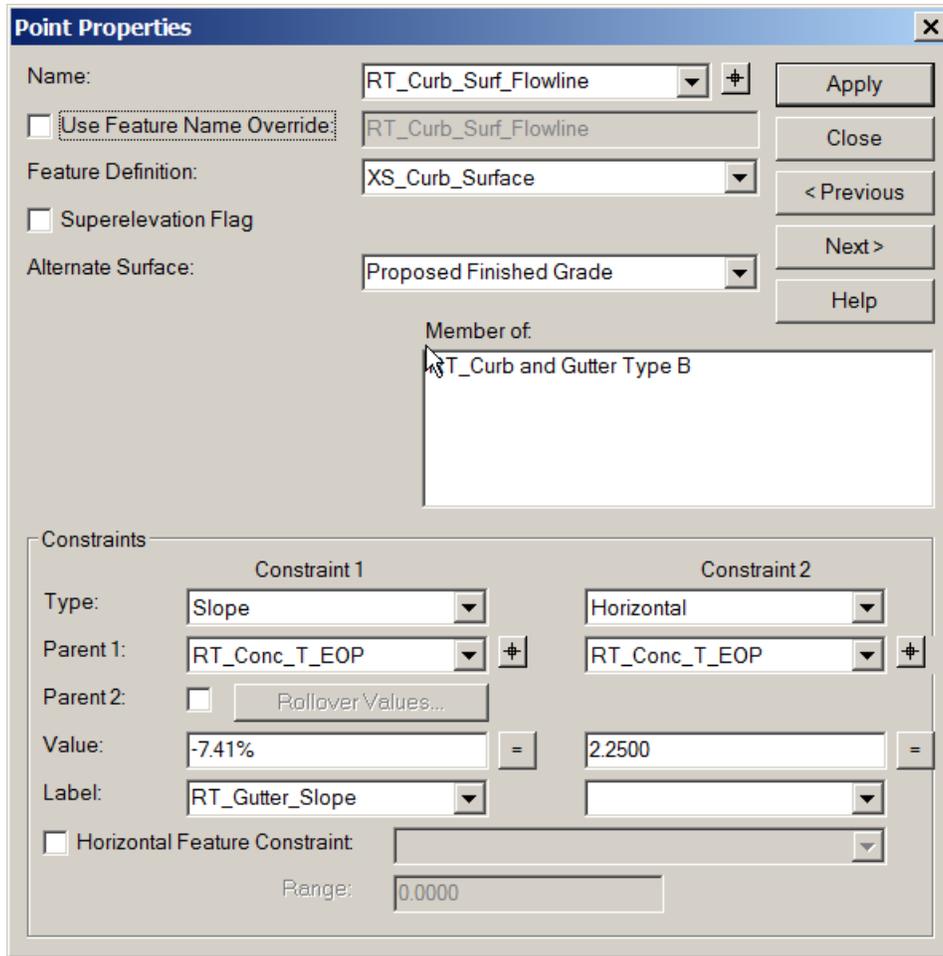
- Point Control - **Highest**
- Feature Constraint
- Parametric Constraint
- Point Constraint - **Lowest**

The diagram shows a red trapezoidal area on a grid. A point constraint symbol (a small square with a cross) is located at the top right corner of the trapezoid. A blue arrow points from the 'Point Control - Highest' text to the symbol. A red arrow points from the 'Point Constraint - Lowest' text to the same symbol. Another red arrow points from the 'Point Properties' dialog box to the symbol. The dialog box shows the following settings:

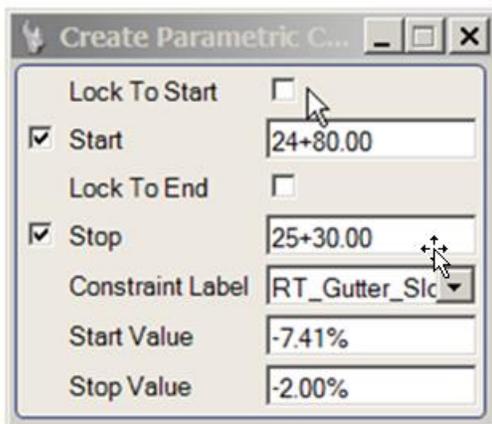
- Name: Conc_T_O_EOS
- Use Feature Name Override:
- Feature Definition: XS_Conc O EOS
- Superelevation Flag:
- Alternate Surface: Proposed Finished Grade
- Member of: A2 Shoulder Concrete
- Constraints:
 - Constraint 1: Type: Vector-Offset, Parent 1: Curb_Surf_Edge, Parent 2: Conc_T_EOP, Value: 0.0000, Label: -Shldr_Conc_A2_Width
 - Constraint 2: Type: Horizontal, Parent 1: Conc_T_EOP, Value: -2.5000, Label: -Shldr_Conc_A2_Width
- Horizontal Feature Constraint: EOS_New_Concrete, Range: -50.0000

GEOPAK Road 1 Chapter 8 –Designing with Corridor Modeling

1. Within the *Randolph\data_08* folder, open the file: **Corridors_J2P0200.dgn**
2. Click on the one of the **Road 1** Template Drop Handlers with the range of **0+00** to **25+30** and edit the template.
3. Review the Point Properties Dialog for the **RT_Curb_Surf_Flowline** Point.



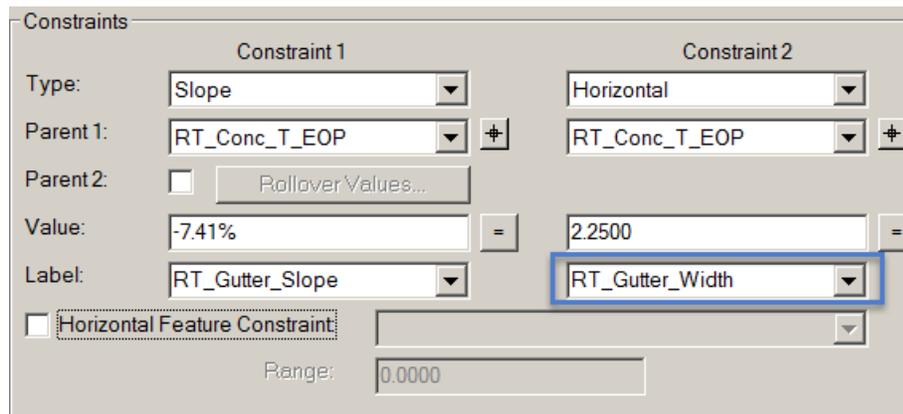
4. **Resolving Gutter Slope** - Using the Parametric Label in the Point Properties for the **RT_Curb_Surf_Flowline** point add the following Parametric Constraint for the Right side:



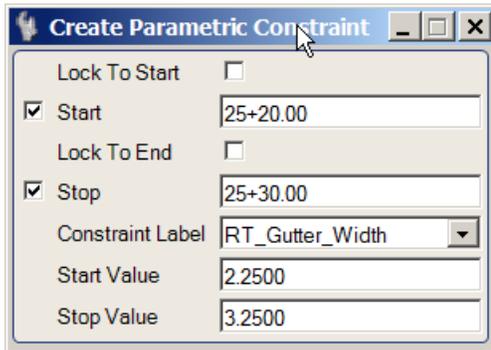
Start:	24+80
Stop:	25+30
Constraint Label:	RT_Gutter_Slope
Start Value:	-7.41%
Stop Value:	-2.00%

Chapter 8 – Designing with Corridor Modeling GEOPAK Road 1

5. **Resolving the Gutter Width** - Add a Parametric Label to the **RT_Curb_Surf_Flowline** point that will control the Horizontal width of the Gutter.

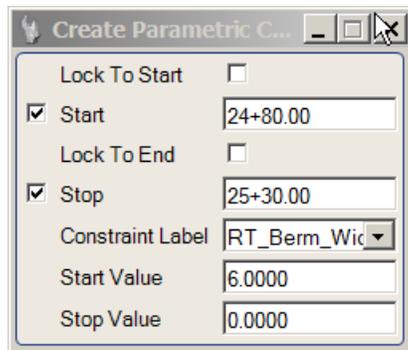


6. Using the Parametric Label in the Point Properties for the **RT_Curb_Surf_Flowline** point add the following Parametric Constraint:



Start:	25+20
Stop:	25+30
Constraint Label:	RT_Gutter_Width
Start Value:	2.25
Stop Value:	3.25

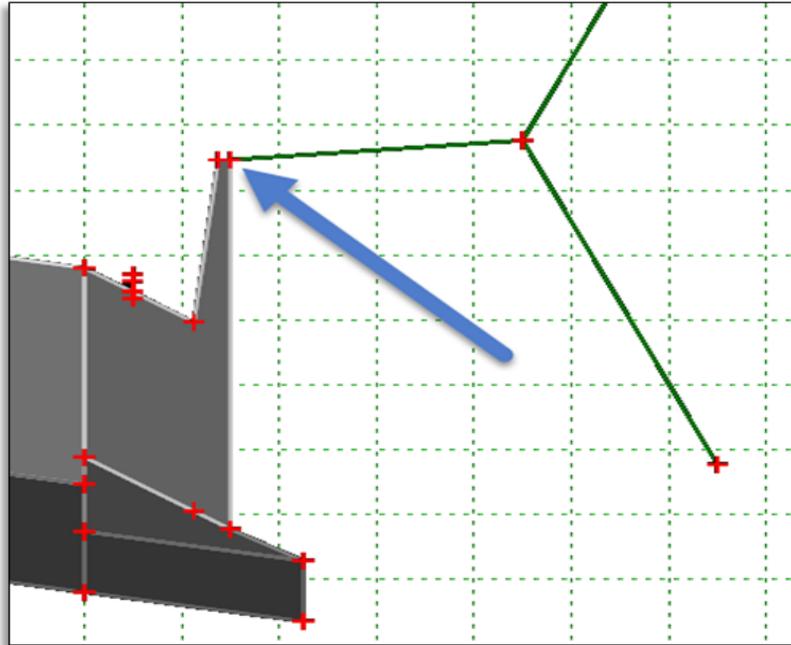
7. **Removing Berm Width** - Using the Parametric Label in the Point Properties for the **RT_Berm_B** point add the following Parametric Constraint:



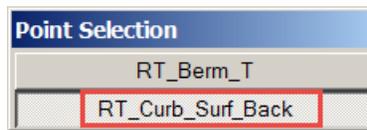
Start:	24+80
Stop:	25+30
Constraint Label:	RT_Berm_Width
Start Value:	6.00
Stop Value:	0.00

GEOPAK Road 1 Chapter 8 –Designing with Corridor Modeling

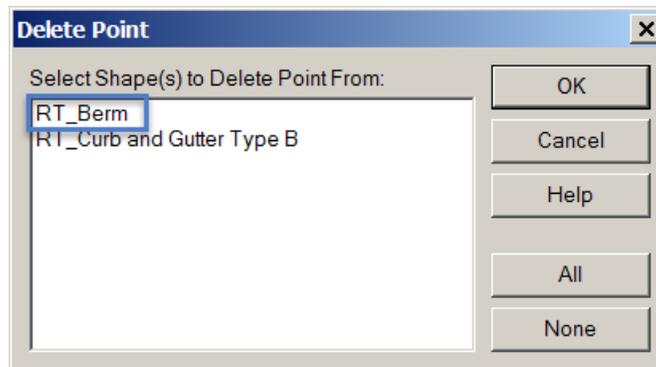
8. **Resolving Berm Location** – Right click on the Right Berm Line insert a point and place it on top of the point adjacent to the Back of Curb:



9. Double click on newly place point and open the Point Properties dialog. Rename the point to **RT_Berm_T**
10. Right click on newly place point and select **Delete Point**. Delete the **RT_Curb_Surface_Back** point:



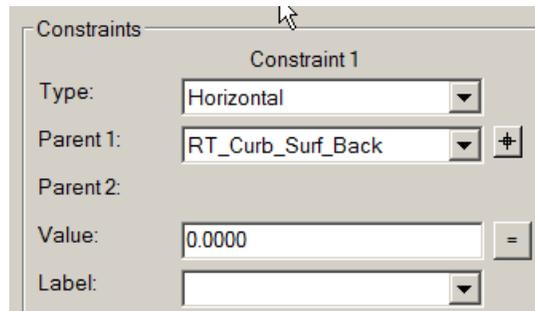
Delete the **RT_Berm** Shape (Component) from the Point.



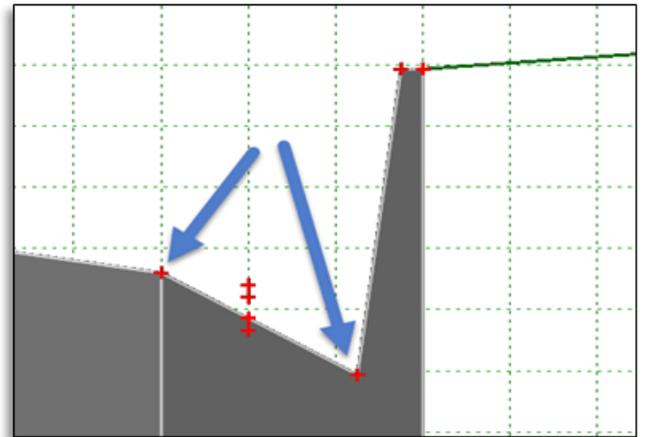
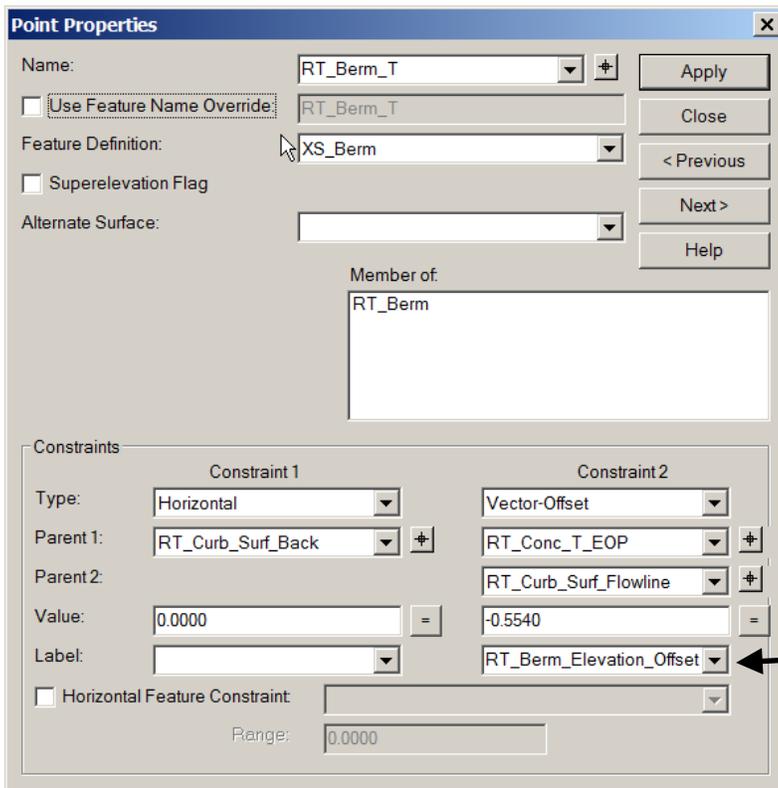
Note: The **RT_Curb_Surface_Back** point was included in the both Berm and Curb components.

Chapter 8 – Designing with Corridor Modeling GEOPAK Road 1

11. Right click on the point **RT_Berm_T** and add a **Horizontal Constraint** with the Parent Point being the **RT_Curb_Surface_Back**.



12. Right click on the point **RT_Berm_T** and add a **Vector Offset Constraint** with the Parent Points being the **RT_Curb_Surf_Flowline** and the **RT_Conc_T_EOP** points.



13. Add in a **Parametric Label** for the **Vector Offset Constraint** called the following:

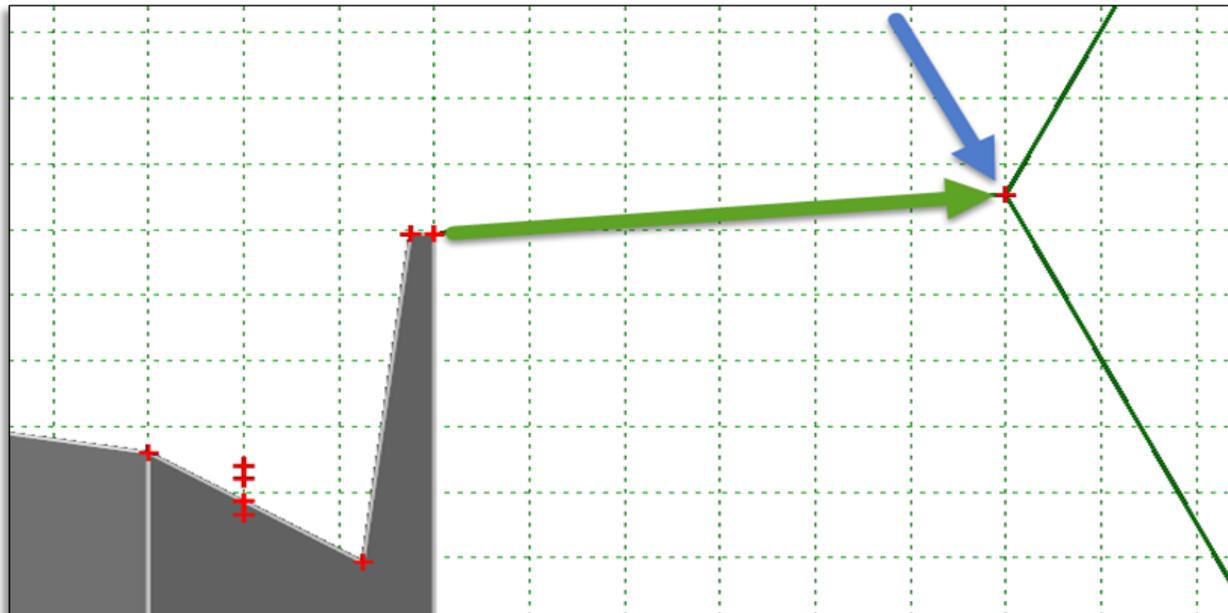
RT_Berm_Elevation_Offset

GEOPAK Road 1 Chapter 8 –Designing with Corridor Modeling

14. Edit the **RT_Berm_B** point so that its parent point is the newly created **RT_Berm_T** point.

Constraints

	Constraint 1	Constraint 2
Type:	Horizontal	Slope
Parent 1:	RT_Berm_T	RT_Berm_T
Value:	6.0000	1.00%
Label:	RT_Berm_Width	RT_Berm_Slope
<input checked="" type="checkbox"/> Horizontal Feature Constraint:	Berm_Line_New	
Range:	0.0000	



15. **Lowering the Berm** - Using the Parametric Label in the Point Properties for the **RT_Berm_T** point add the following Parametric Constraint:



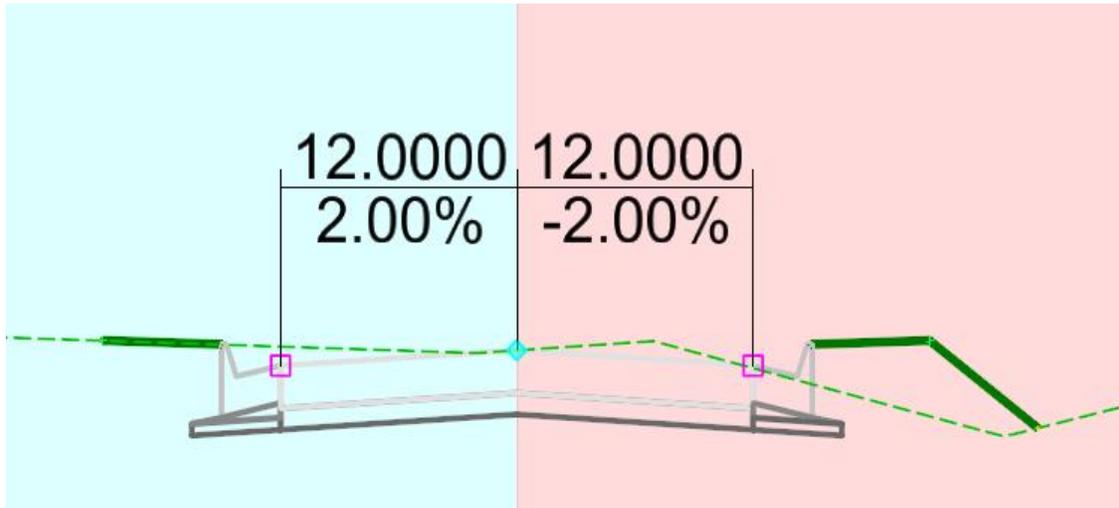
Create Parametric Constraint

Lock To Start	<input type="checkbox"/>
<input checked="" type="checkbox"/> Start	24+80.00
Lock To End	<input type="checkbox"/>
<input checked="" type="checkbox"/> Stop	25+30.00
Constraint Label	RT_Berm_Elevation_Offset
Start Value	-0.5540
Stop Value	0.0000

Start:	24+80
Stop:	25+30
Constraint Label:	RT_Berm_Elevation_Offset
Start Value:	-0.5540
Stop Value:	0.00

8.24 Group Exercise: Horizontal Feature Constraint

1. Within the *Randolph\data_08* folder, open the file: **Corridor_J2P0200.dgn**
2. Within the **Corridor Modeling Task** tools, select the **Open Cross Section** Tool to view cross sections of Road 1. The current the Template is set up to draw 12ft lanes.



3. **Widen the Pavement Right Width** – Within the **Road 1** Template, use the Parametric Label in the EOP Point Properties for the **RT_Conc_T_EOP** point. Add the following Parametric Constraint:

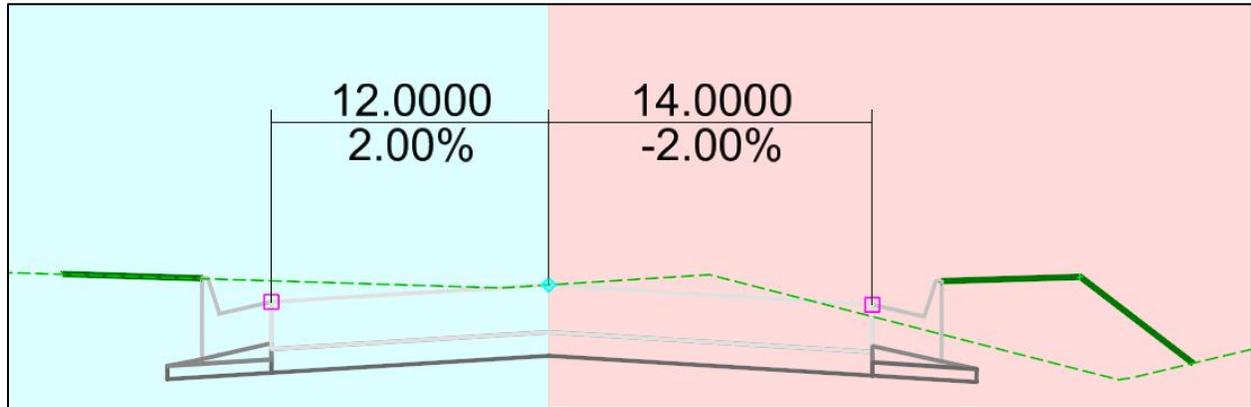


Create Parametric Constraint	
Lock To Start	<input type="checkbox"/>
<input checked="" type="checkbox"/> Start	0+00.00
Lock To End	<input type="checkbox"/>
<input checked="" type="checkbox"/> Stop	35+10.08
Constraint Label	RT_Pvmt_Surf_Conc_Width
Start Value	14.0000
Stop Value	14.0000

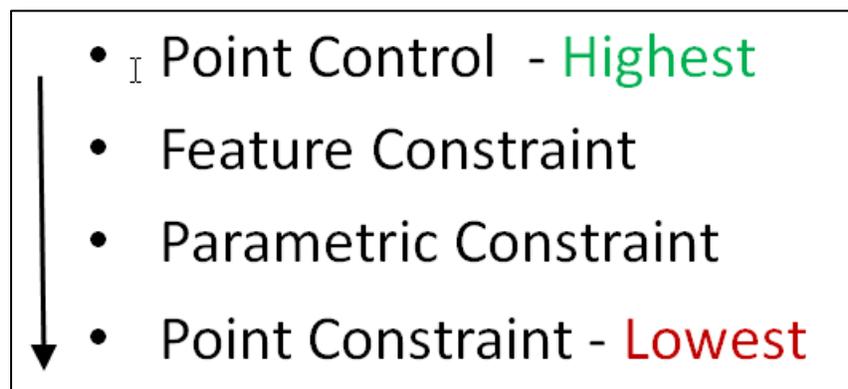
Start:	Lock to Start
Stop:	Lock to End
Constraint Label:	RT_Pvmt_Surf_Conc_Width
Start Value:	14.00
Stop Value:	14.00

GEOPAK Road 1 Chapter 8 –Designing with Corridor Modeling

- Once again within the **Corridor Modeling Task** tools, select the **Open Cross Section** Tool to view cross sections of Road 1. The User should see that the Parametric Constraint overruled the current Template Setting of 12ft lanes on the Right side.



Template Point - Hierarchy of Control



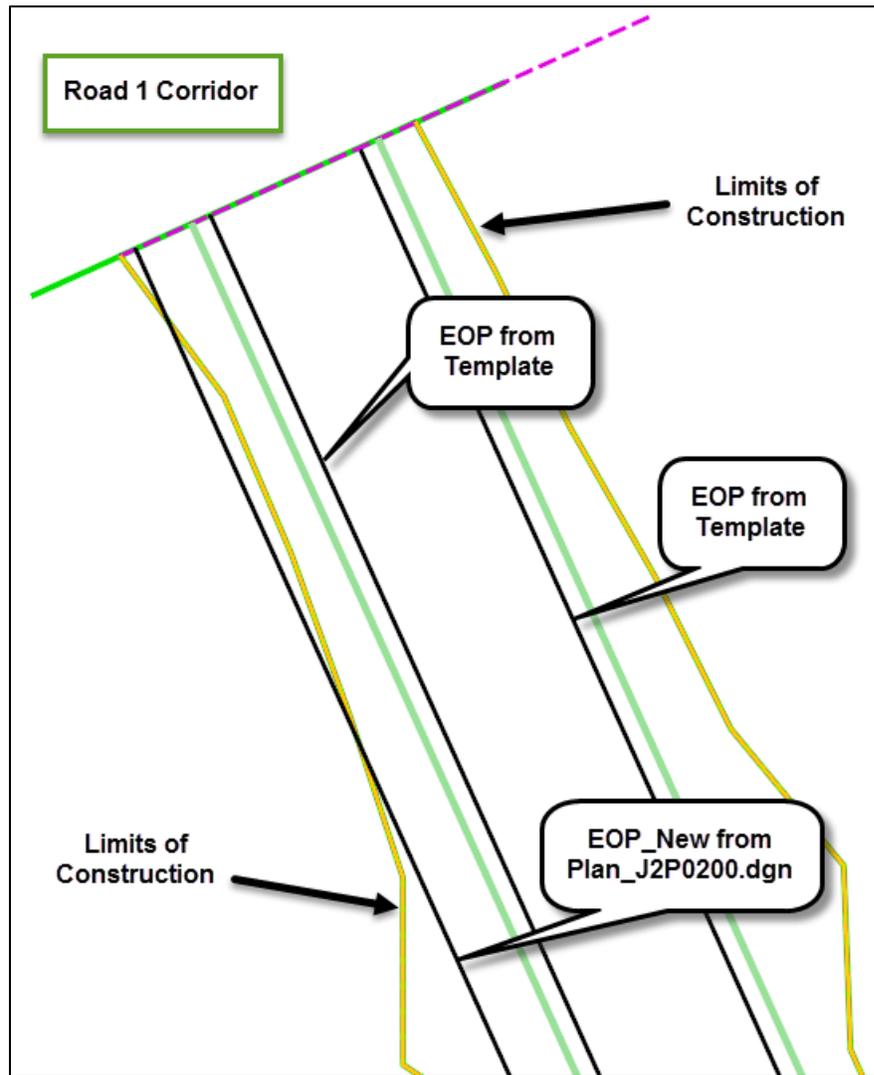
- In View 1 (Default), reference in the following file:

Plan_J2P0200.dgn

Chapter 8 – Designing with Corridor Modeling GEOPAK Road 1

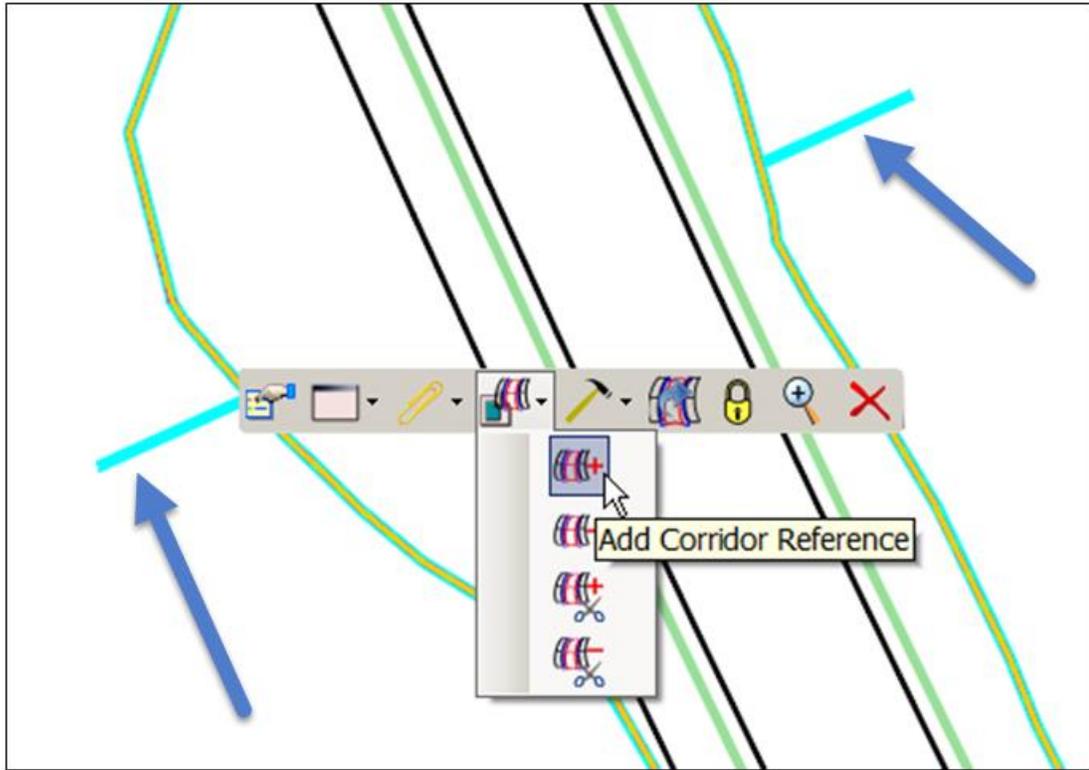
6. After selecting **View 1**, turn off the display of all reference files except for **Plan_J2P0200.dgn**

Note: The goal of this exercise is to have the Template Edge of Pavement follow the Feature Definition Line **EOP_New** drawn in the Plan File.

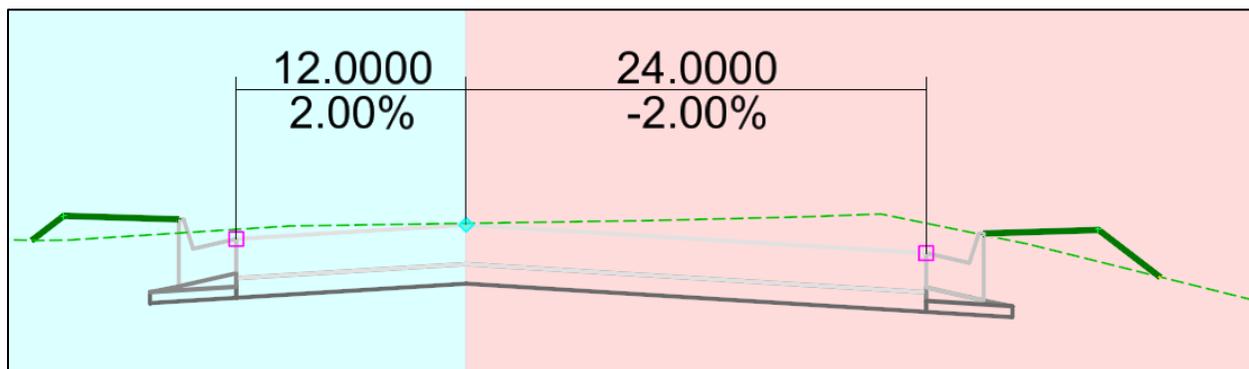


GEOPAK Road 1 Chapter 8 –Designing with Corridor Modeling

7. Within the **Road 1 Corridor** select one of the Corridor Grips to be up the Heads up Tools go to the Corridor Reference Pull-down and select “**Add Corridor Reference**”.

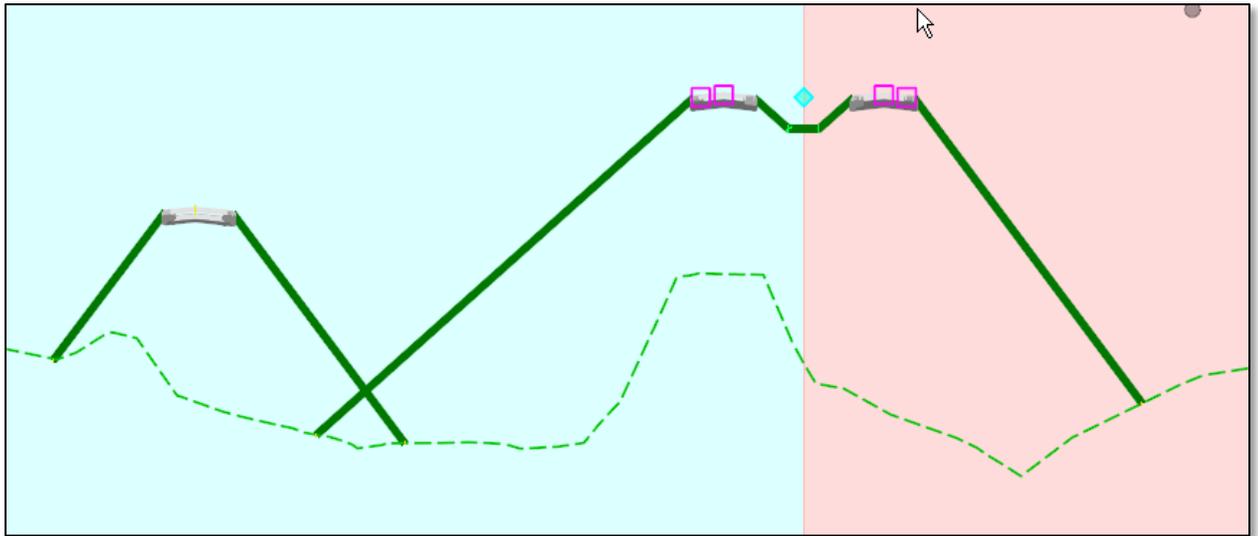


8. Once again within the **Corridor Modeling Task** tools, select the **Open Cross Section** Tool to view cross sections of Road 1. The User should see that the Horizontal Feature Constraint has overruled the Parametric Constraint, which overruled the current Template Setting of 12ft.



8.25 Group Exercise: Target Aliasing and Corridor Clipping

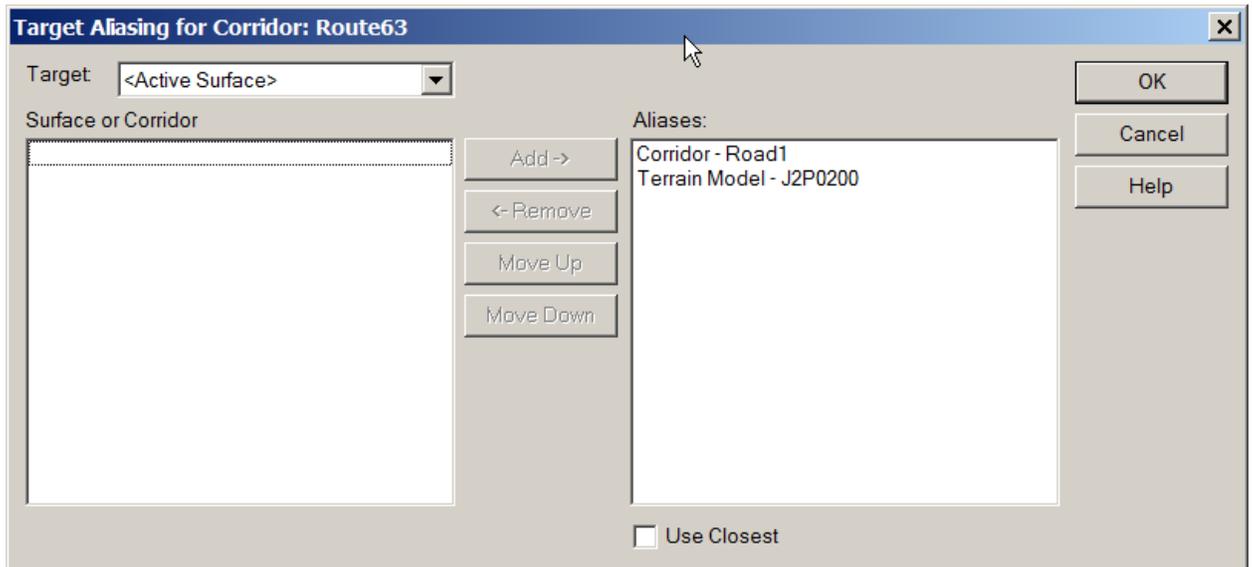
1. Within the **Randolph\data_08** folder, open the file: **Corridors_J2P0200.dgn**
2. Select the **Locate Station Via Datapoint** icon  from the *Corridor Cross Section* tasks group.
3. Select the **Route 63** corridor when prompted to *Locate Corridor or Alignment*.
4. Key in **60+00 R1** for the station and click to accept.
5. Open another MicroStation View and **data point** in the view to display the cross section.



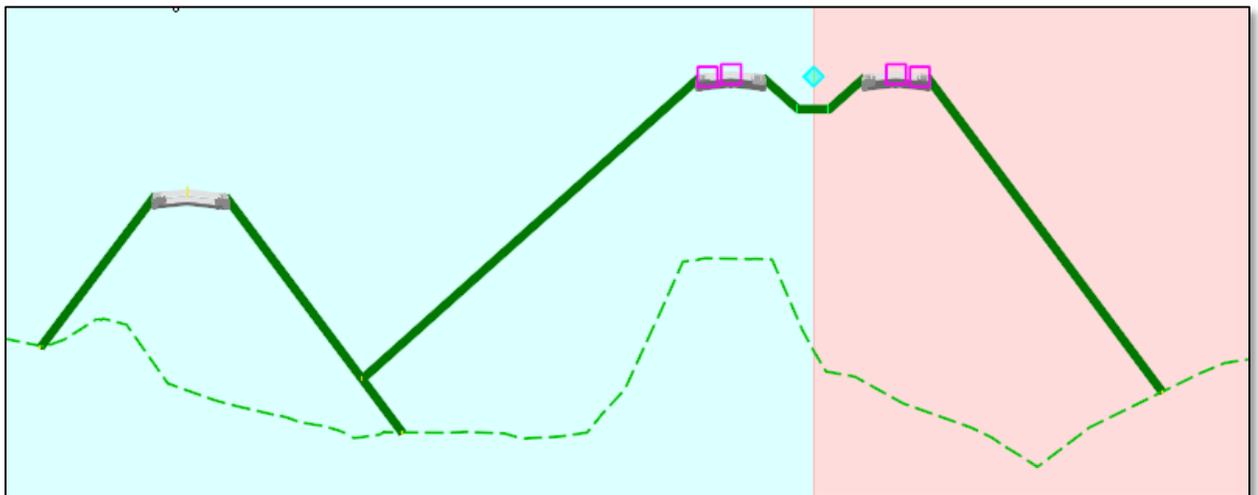
6. Select the **Define Target Aliasing** icon  from the *Corridor Misc.* tasks group.
7. Select the **Route63** corridor when prompted to *Locate Corridor*.
8. Select the *Corridor – Road 1* and click the **Add** button.

GEOPAK Road 1 Chapter 8 –Designing with Corridor Modeling

9. Select the *Terrain Model – J2P0200* and click the **Add** button and click **OK**.



10. Review the Cross Section.

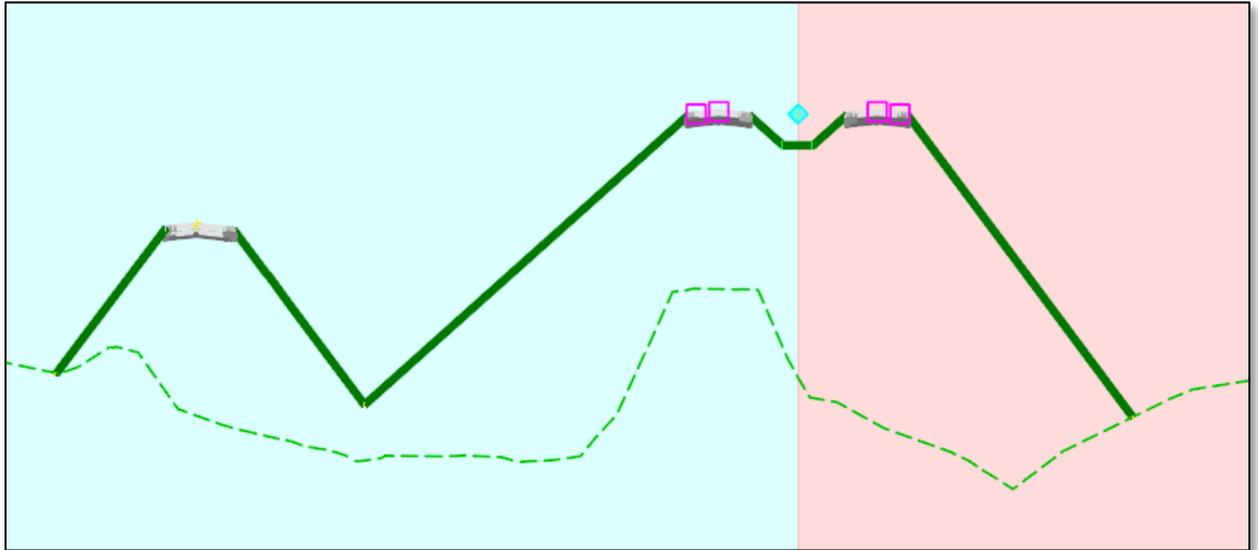


11. Select the **Add Clipping Reference** icon  from the *Corridor Misc* tasks group.
12. Select the **Road 1** Corridor when prompted to *Select Corridor To Be Clipped*.
13. Select the **Route 63** Corridor when prompted to *Locate First Clipping Reference* and **reset** to complete.

Chapter 8 – Designing with Corridor Modeling GEOPAK Road 1

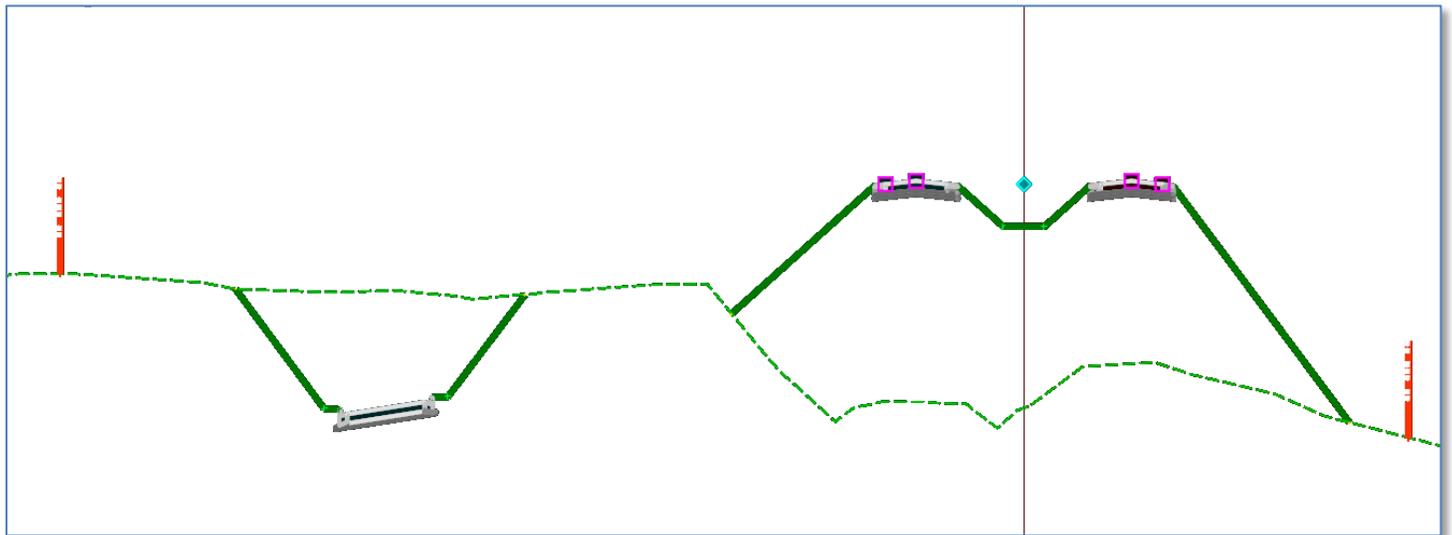
14. Review the cross section.

Note: You may have to move to the next station to refresh the cross section view to see the Clipping Reference.



8.26 Group Exercise: View Right of Way in Plan and XS View

1. Within the **Randolph\data_08** folder, open the file: **Corridors_J2P0200.dgn**
2. In View 1 (Default), reference in the **Land_Boundary_J2P0200.dgn**.
3. Select the **Open Cross Section View** icon from the *Corridor Cross Section* tasks group.
4. Select the **Route 63** corridor when prompted to *Locate Corridor or Alignment*.
5. Open another MicroStation View and **data point** in the view to display the cross section.
6. Review Right of Way Line Information.



Note: Below is a list of Right of Way Lines that will draw in a Cross Section View.

R/W_Property_Limit_Access_Existing	Section_Line
R/W_Controlled_Access_Existing	State_Line
R/W_Controlled_Access_Proposed	Township/Range_Line
R/W_Line_EXISTING	US_Survey_Line
R/W_Line_Proposed	
R/W_No_Right Of Access_Existing	Easement (Exist.)
R/W_No_Right Of Access_Proposed	Easement (Permanent Line Access)
R/W_Temporary_Access_Existing	Easement (Permanent)
R/W_Temporary_Access_Proposed	Easement (Temporary)