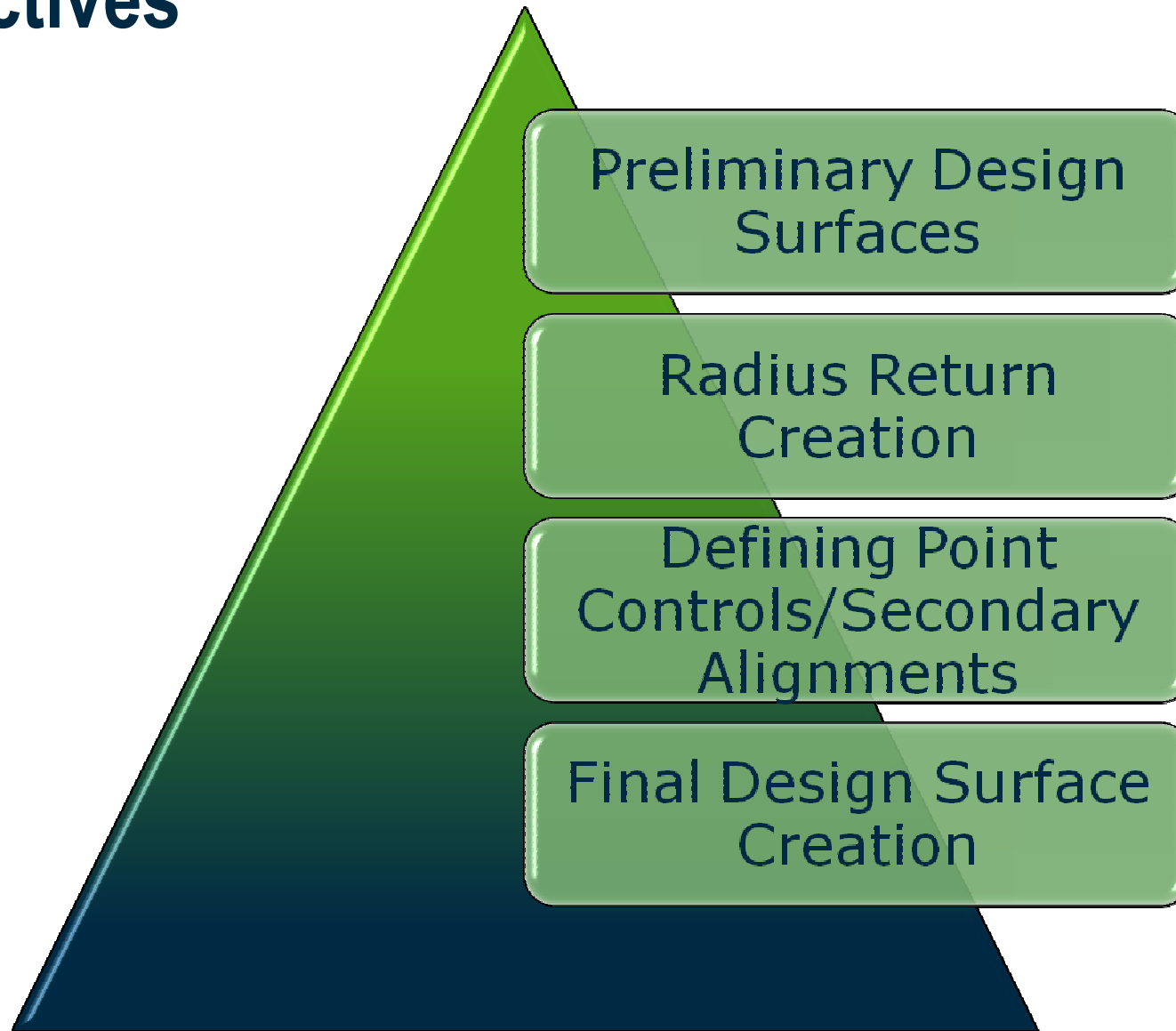




Creating Intersections with Roadway Designer

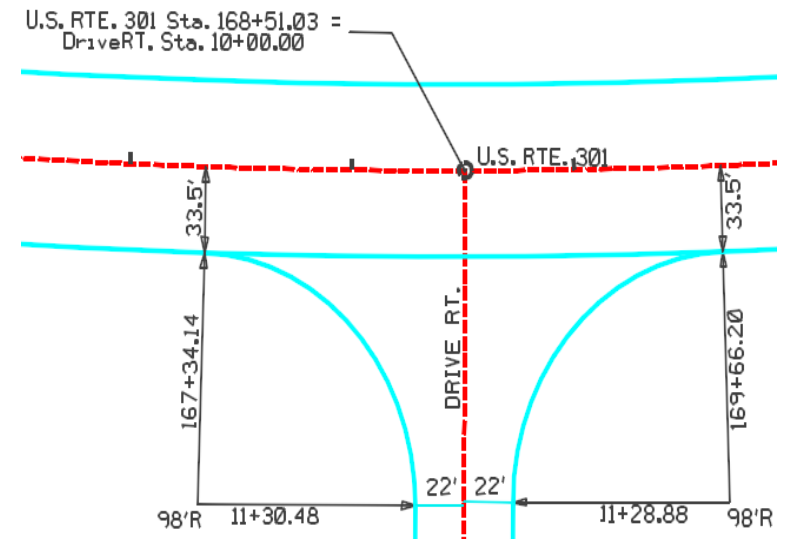
Joe Waxmonsky, PE - Bentley

Objectives



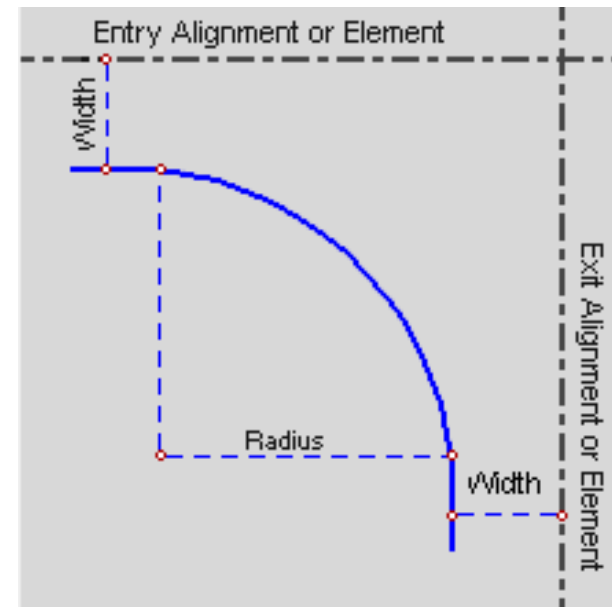
Preliminary Design

- Two Corridors have been created
 - US 301 (Main Roadway)
 - DriveRT (Side Road)
- US 301 has Superelevation Defined

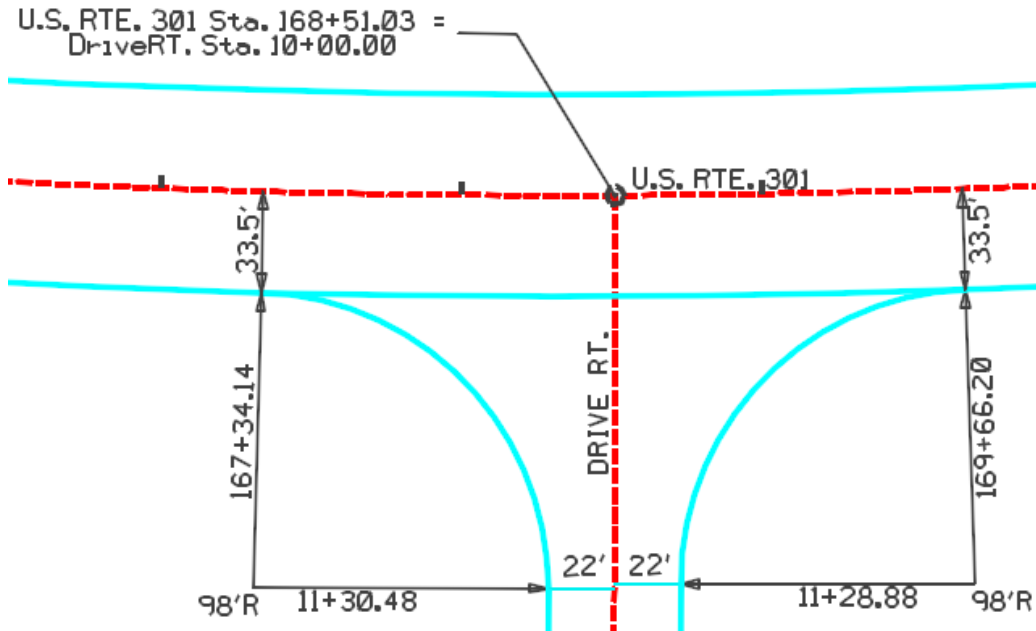


Multi-Center Curve Command

- Creates both Horizontal and Vertical Curves based on two alignments
- One, Two or Three Centered Curves can be created
- Vertical Curves are created matching the instantaneous longitudinal grade at the PVC and PVT
- Vertical Geometry Options
 - Vertical Distance
 - Gradient
 - Surface (Useful when the cross slope varies i.e. Superelevation)
- Always Review the Results and make adjustments if necessary



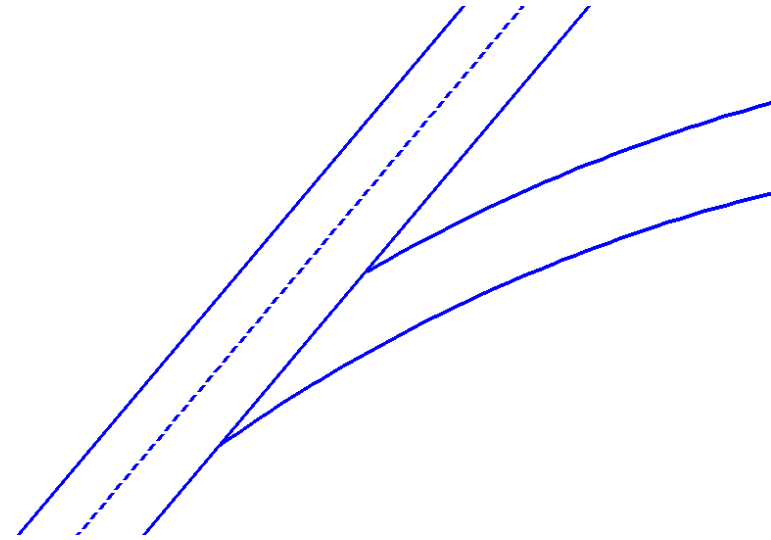
Create Radius Geometry



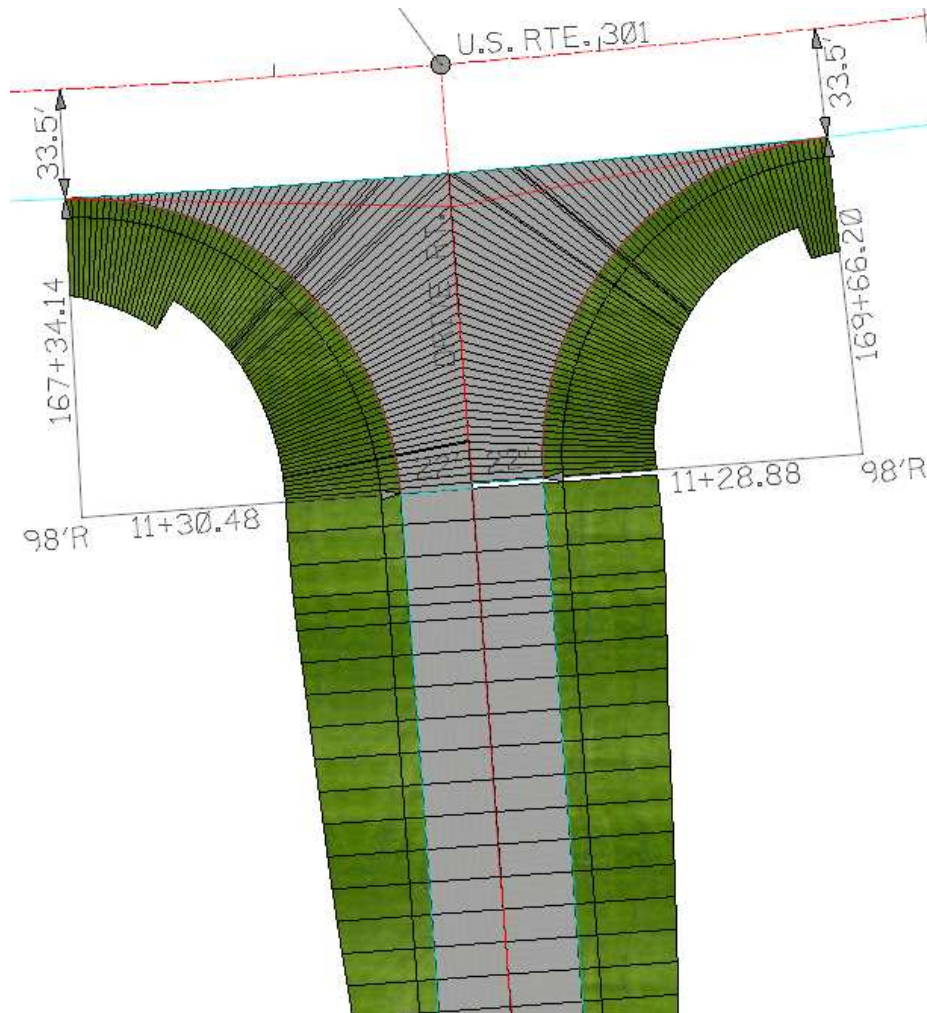
- Create Radius returns for SW and SE Quadrants of the Intersection
- Review the Results with Geometry and Profile Commands

Point Controls

- Used to Modify the Behavior of Template Points
- Overrides Existing Point Constraints
- Controls horizontal and or vertical locations on any template point
- Takes priority over all other types of controls.



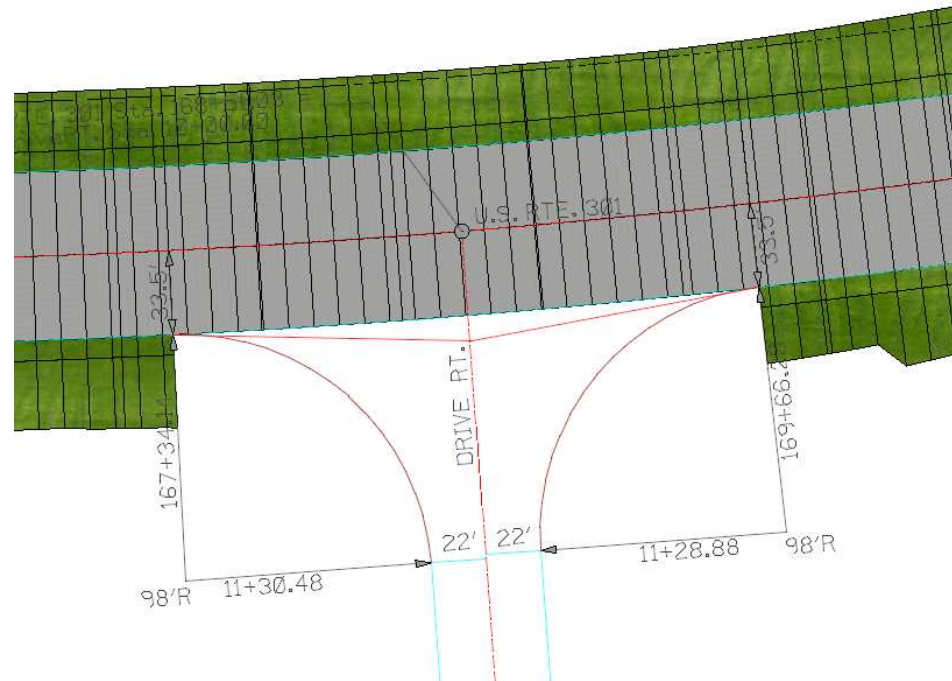
Modeling the Side Road



- Adjust side road corridor station limits
- Create corridors for each radius return
- Assign Point Controls to template pavement edges
- Generate proposed surface

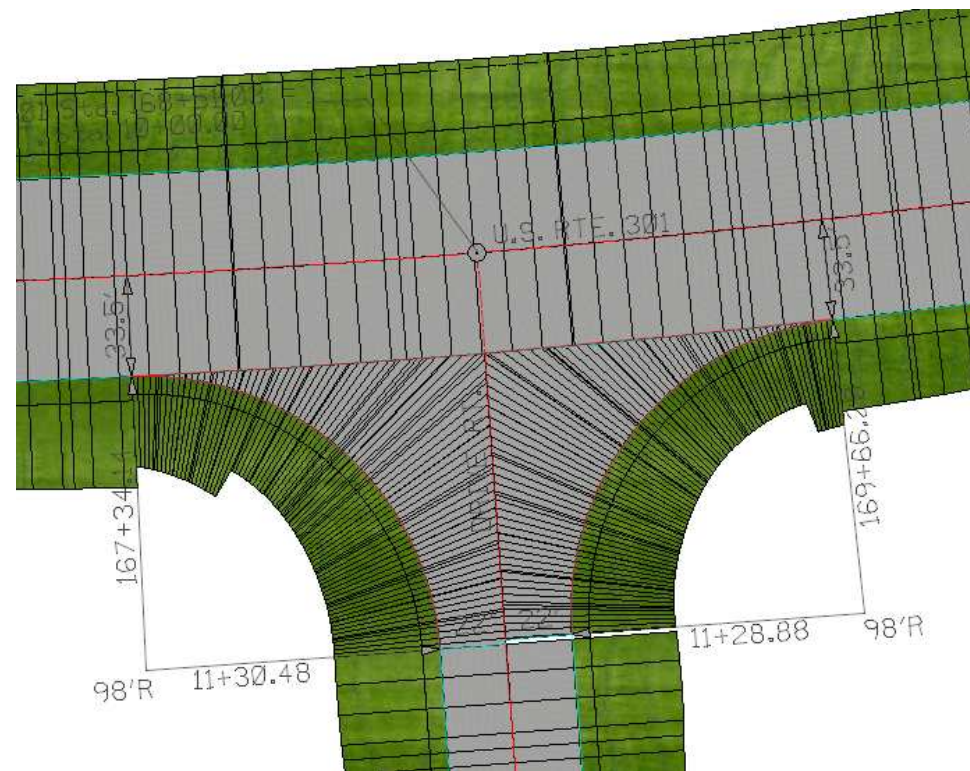
Modeling the Main Line

- Draw a plan graphic to indicate the limits of the radius returns
- Import plan graphic to Roadway Designer
- Target plan graphic as a style constraint using an end condition
- Automatically turns off end conditions and automates the clipping process



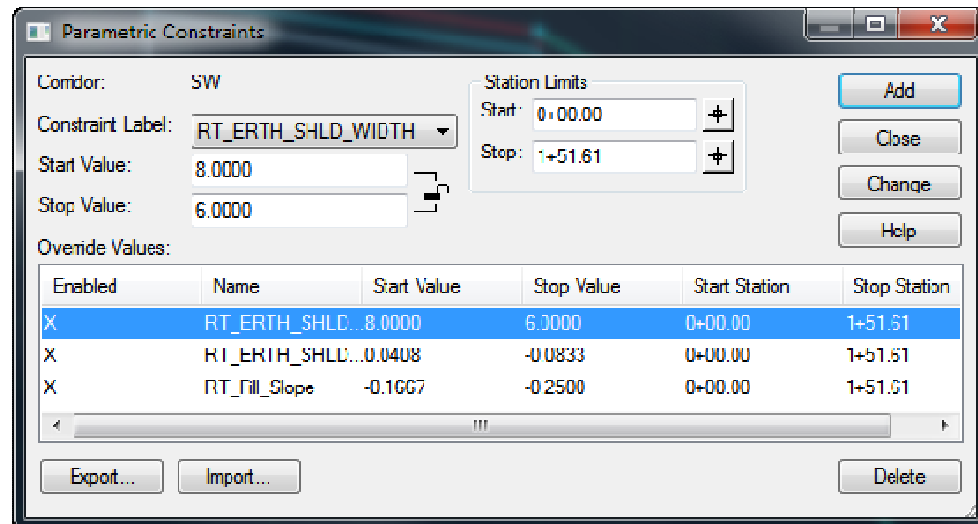
Create a Combined Preliminary Surface

- Create one surface from multiple Corridors
- Review results identifying locations of transitional requirements



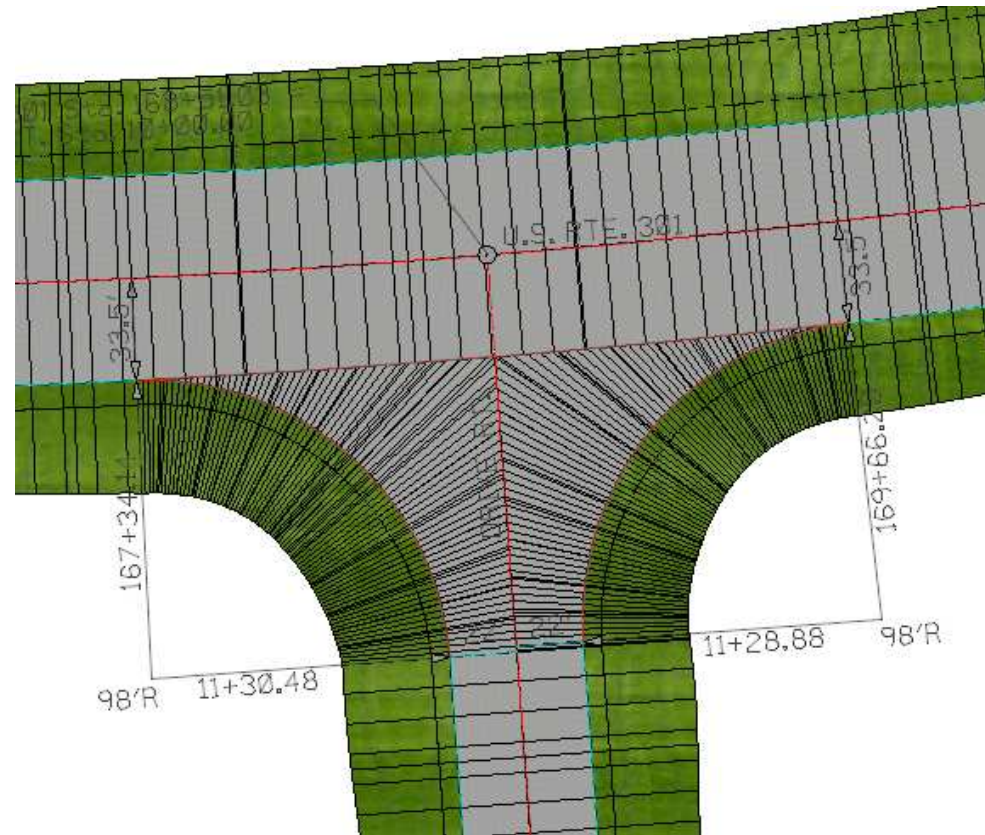
Adding Transitions

- Use Parametric Constraints to transition widths and slopes
- Use additional Template Drop to fill in half template drop locations



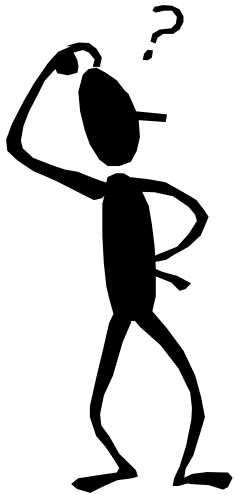
Creating the Final Model

- Create the final surface from multiple Corridors
- Review the results



Summary and Review

You are now able to...



Before continuing let's
reinforce what
you have learned!



Creating Intersections with Roadway Designer

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