



Ditch and trenches Modeling

Ernst van Baar : Application Engineer



Ditches and trenches come in Many Shapes and Sizes

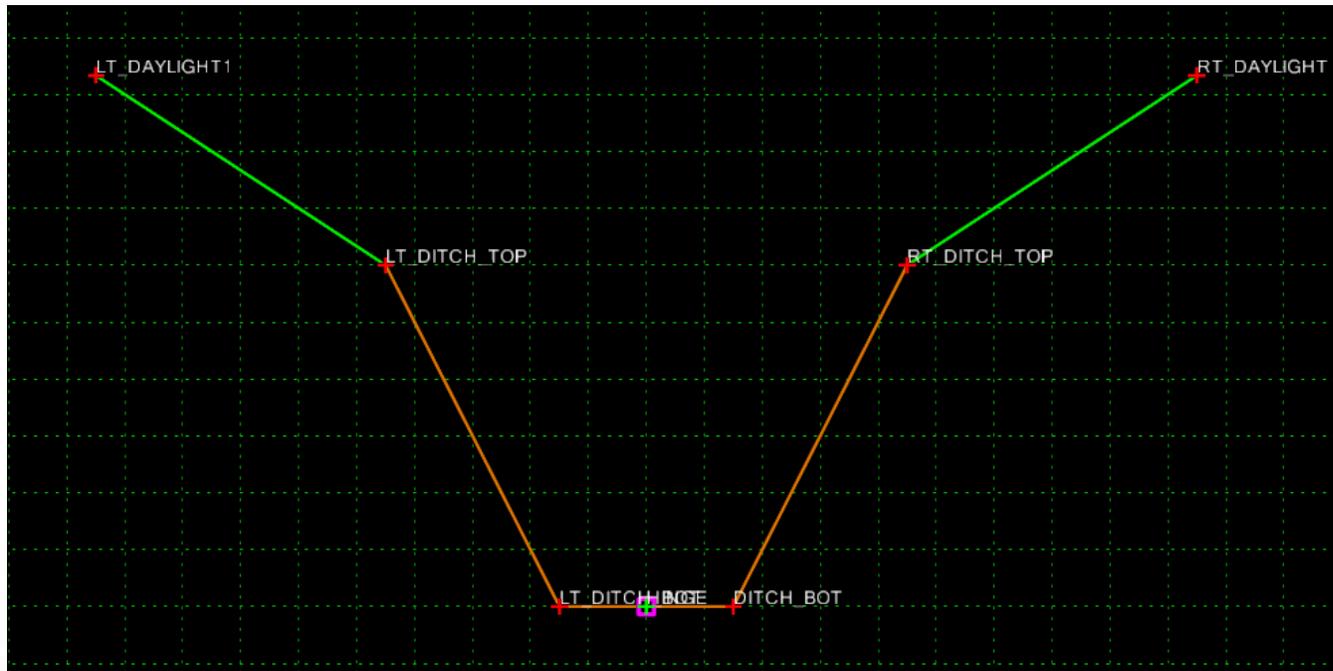


Overview :

- Linear template
 - Create a channel that targets the active terrain model
 - Use the **Apply Template** tool to model the channel
- Single-Seek Cut Ditch
 - Create a single-seek cut ditch using a single seeking end condition
 - Use point controls to define special ditch sections
 - Horizontal Point Control
 - Vertical Point Control
- 2D and 3D Geometry
 - Create 3D by slope to target

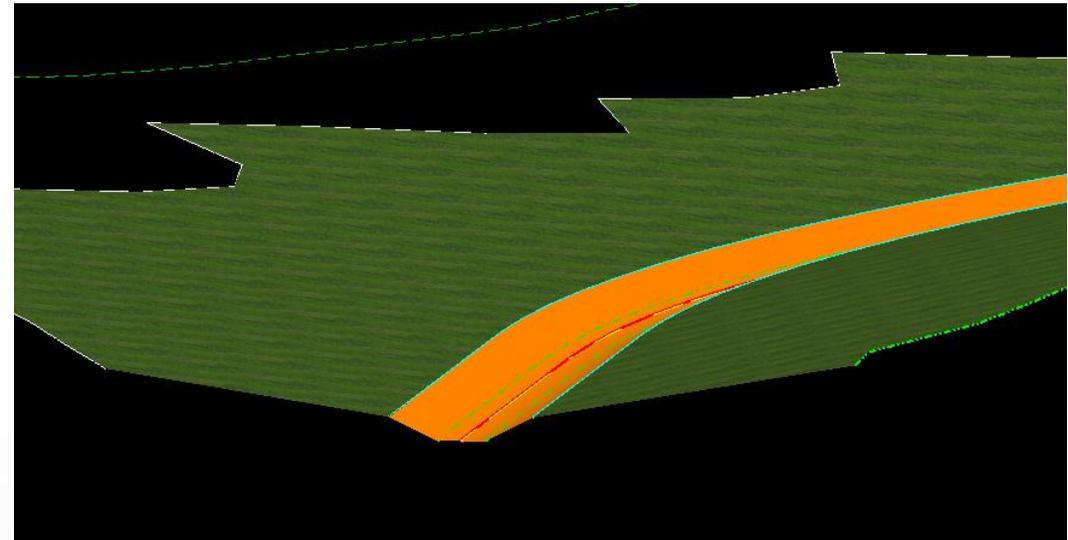
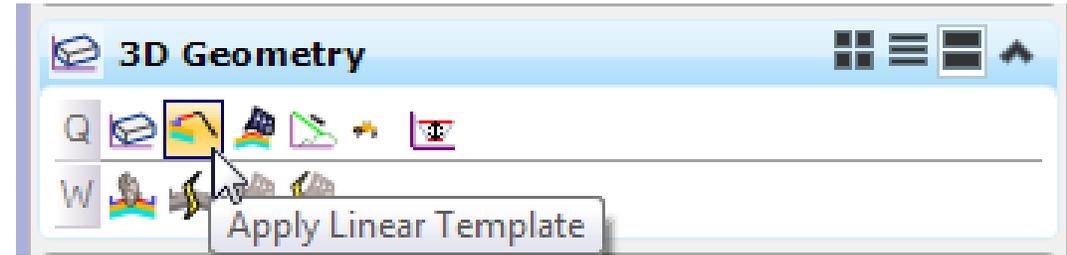
Create a ditch

- Ditch flowline is the template origin
- Template targets the active terrain model

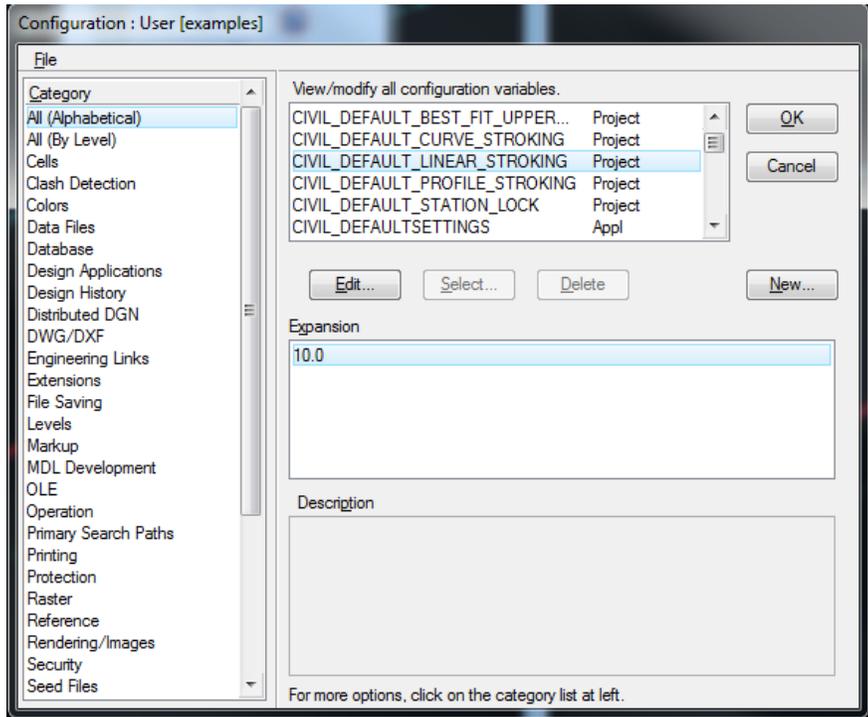


Model Channel Using 3D Geometry

- Use the **Apply Linear Template** command to model the channel.
- This allows insertion of a chosen template into the drawing relative to a linear element.



Model Channel Using 3D Geometry

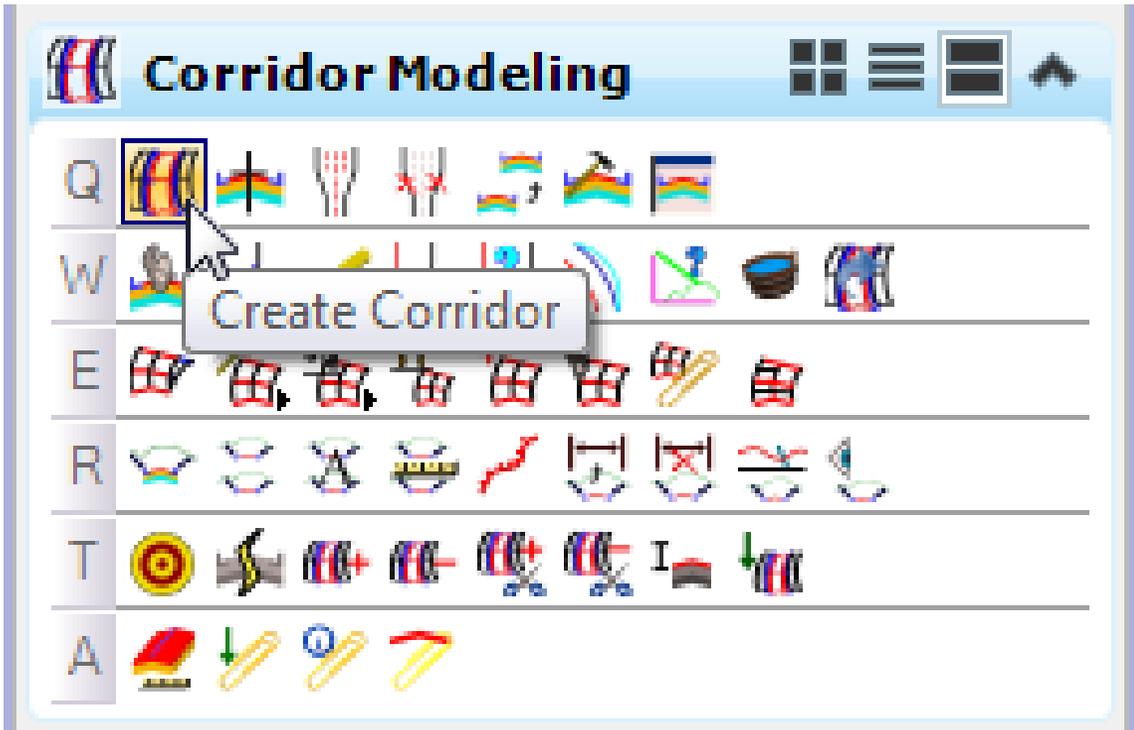


- Using the **Apply Linear Template** command, the template is dropped at an interval defined by the following configuration variable:

CIVIL_DEFAULT_LINEAR_STROKING

- If this variable is undefined, the value defaults to 10.
- This variable is not used in Corridor Modeling.

Model Channel Using Corridor Modeling



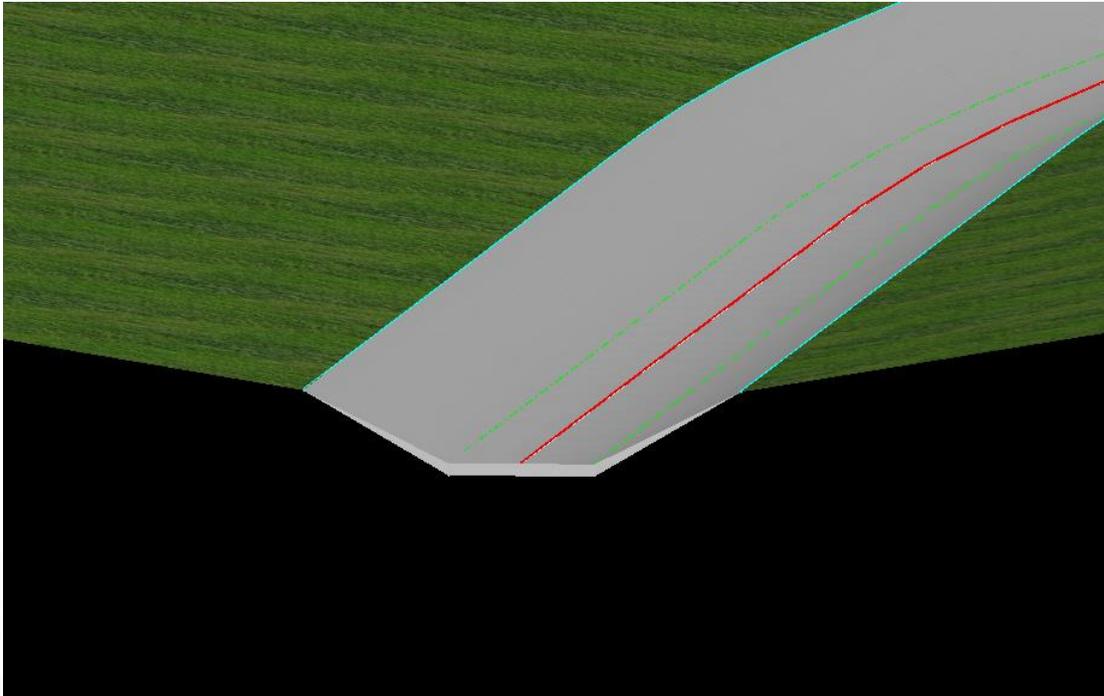
The **Create Corridor** tool allows for insertion of a chosen template into the drawing relative to a linear element.

- Template is dropped at a specified interval
- Allows for enhanced functionality

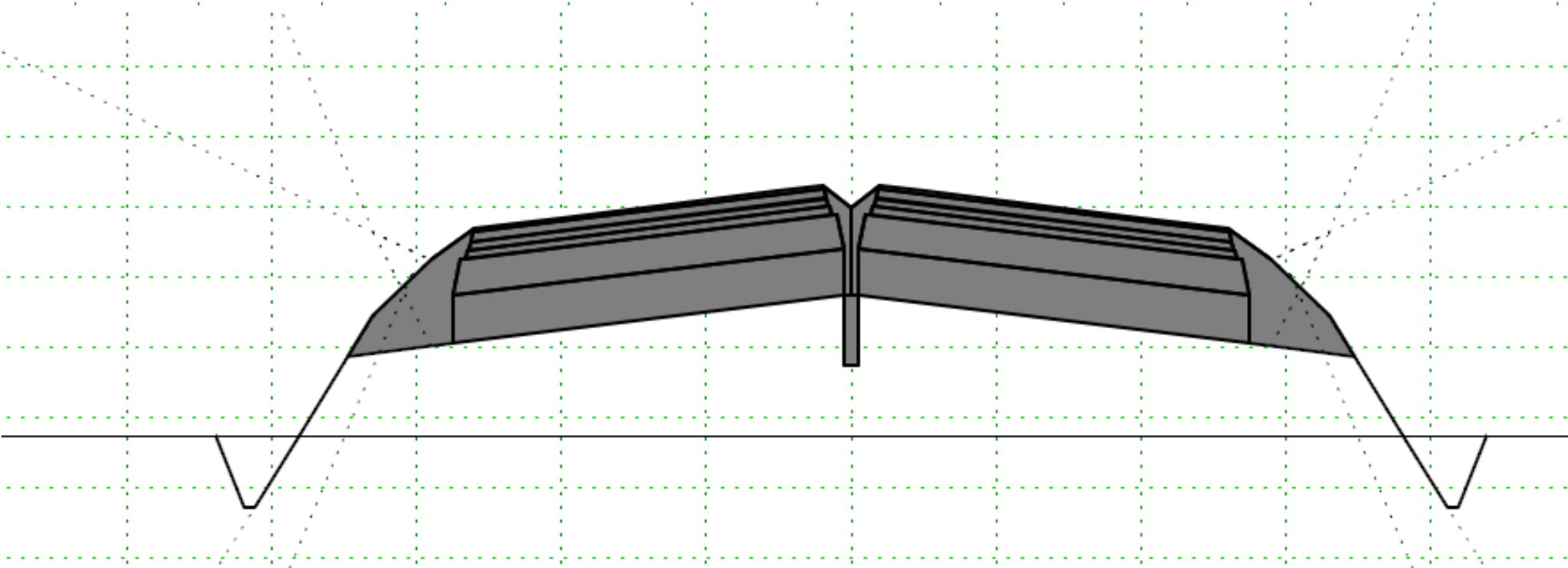
Use a Closed Shape with Material Defined

Add a closed shaped component to the channel template:

- Allows for enhanced visualization
- Allows for accurate quantity calculations



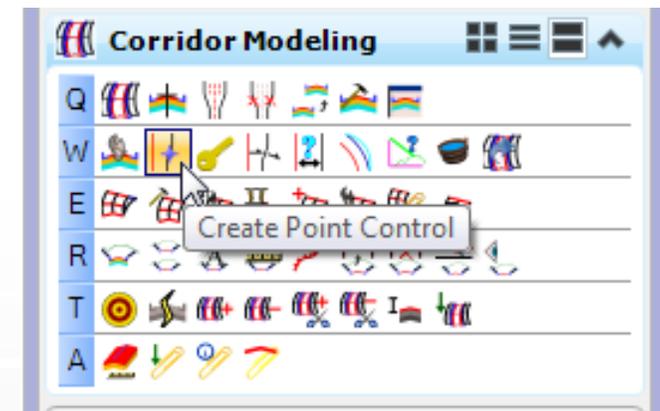
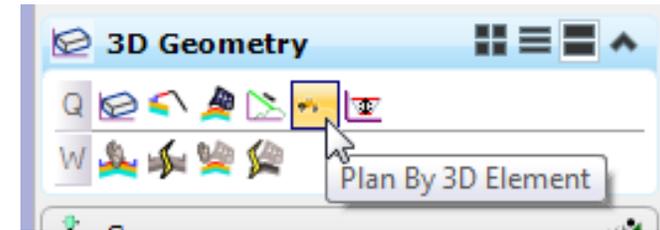
Display rules



Use a Point Control to Define a Special Ditch

Workflow:

- Use the **Plan By 3D Element** tool to define 2D geometry which will become the special ditch profile
- Create “special ditch” profile
- Create corridor point control using linear geometry



Demo



Thank you!