

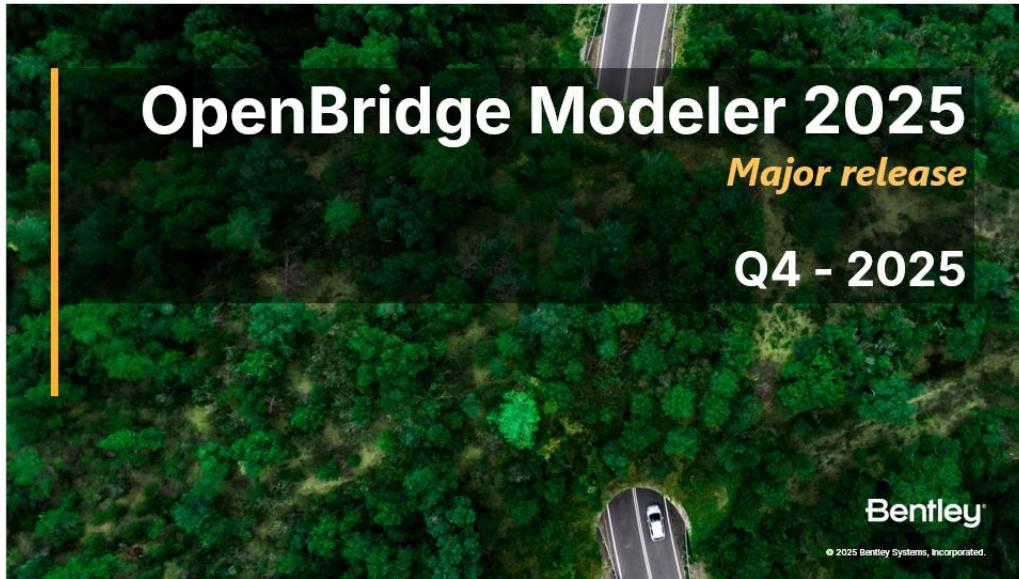


What's New in OpenBridge 2025

Steve Willoughby, Bridge Services Manager



Bentley[®]



OpenBridge Modeler 2025

Major release

Q4 - 2025

Bentley

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OpenBridge Designer 2025

Major release

Q4 - 2025

Bentley

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OpenBridge Modeler 2025

Major release

Q4 - 2025

Bentley®

Disclaimer

"Release plans and timelines are forward-looking estimates and projections only. There can be no assurance that Bentley will be able to meet such estimates or projections by the dates specified, or at all. Do not make purchase decisions based on forward looking roadmaps."

2024

Q4

2025

Q1

Q2

Q3

Q4

2026

Q1

Q2

...

OpenBridge Modeler2024
OpenBridge Designer2024

*OpenBridge Modeler2024
Update 1
OpenBridge Designer2024
Update 1*

*OpenBridge Modeler2024
Update 2
OpenBridge Designer2024
Update 2*

OpenBridge Modeler 2025
OpenBridge Designer 2025

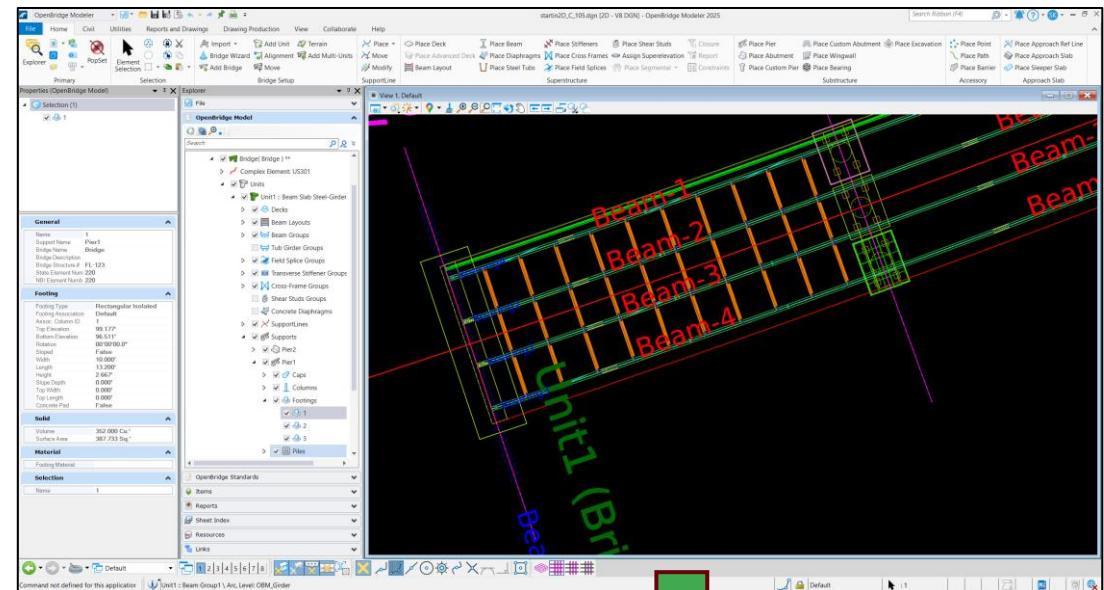
MicroStation
2026

OpenBridge Modeler 2026
OpenBridge Designer 2026

Start in 2D Model

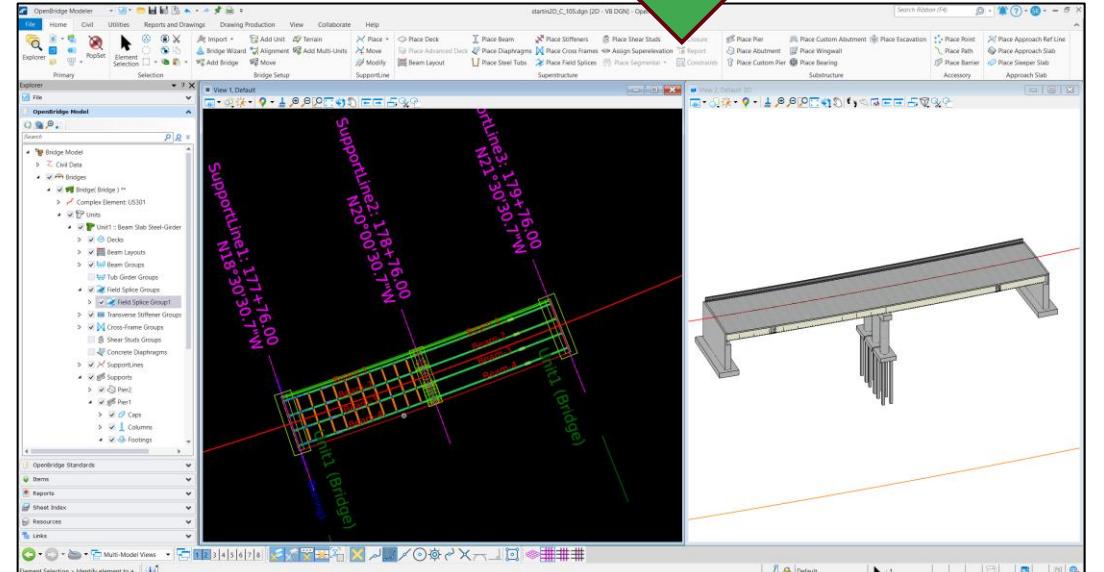
- OBM now allows initiating projects using a 2D seed file.
- This feature aligns with ORD workflows and responds to user requests for consistency across all Civil OpenX products.
- Users can design bridge models within a familiar 2D environment, with the 3D model generated within the same file as a secondary output, improving overall usability.

2D Model



2D Model

3D Model



Start in 2D Model

2d seed file included

Edit `OpenBridgeModeler.cfg` (or add to your workspace/workset/personal .cfg)

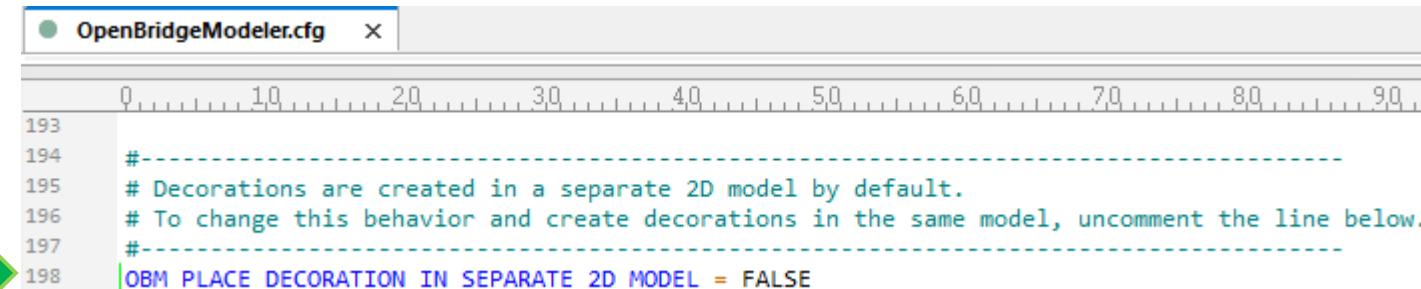
Default-3D is automatically generated

The 2d lines allow user to access properties

Build bridge step by step - supported

Bridge Wizard - supported

ITwin export – supported



```
193
194
195 # Decorations are created in a separate 2D model by default.
196 # To change this behavior and create decorations in the same model, uncomment the line below.
197 #
198 OBM_PLACE_DECORATION_IN_SEPARATE_2D_MODEL = FALSE
```

Reinforcing tools (ProConcrete) – only works in 3D

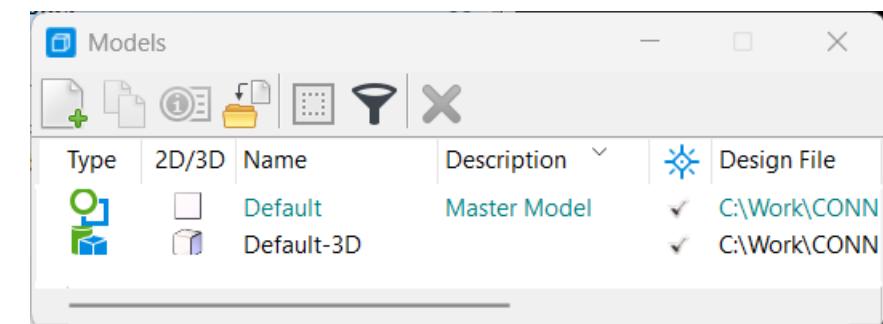
Drawings (substructure, bridge c/s) – only works in 3D

Changing Parametric cells variables – only works in 3D

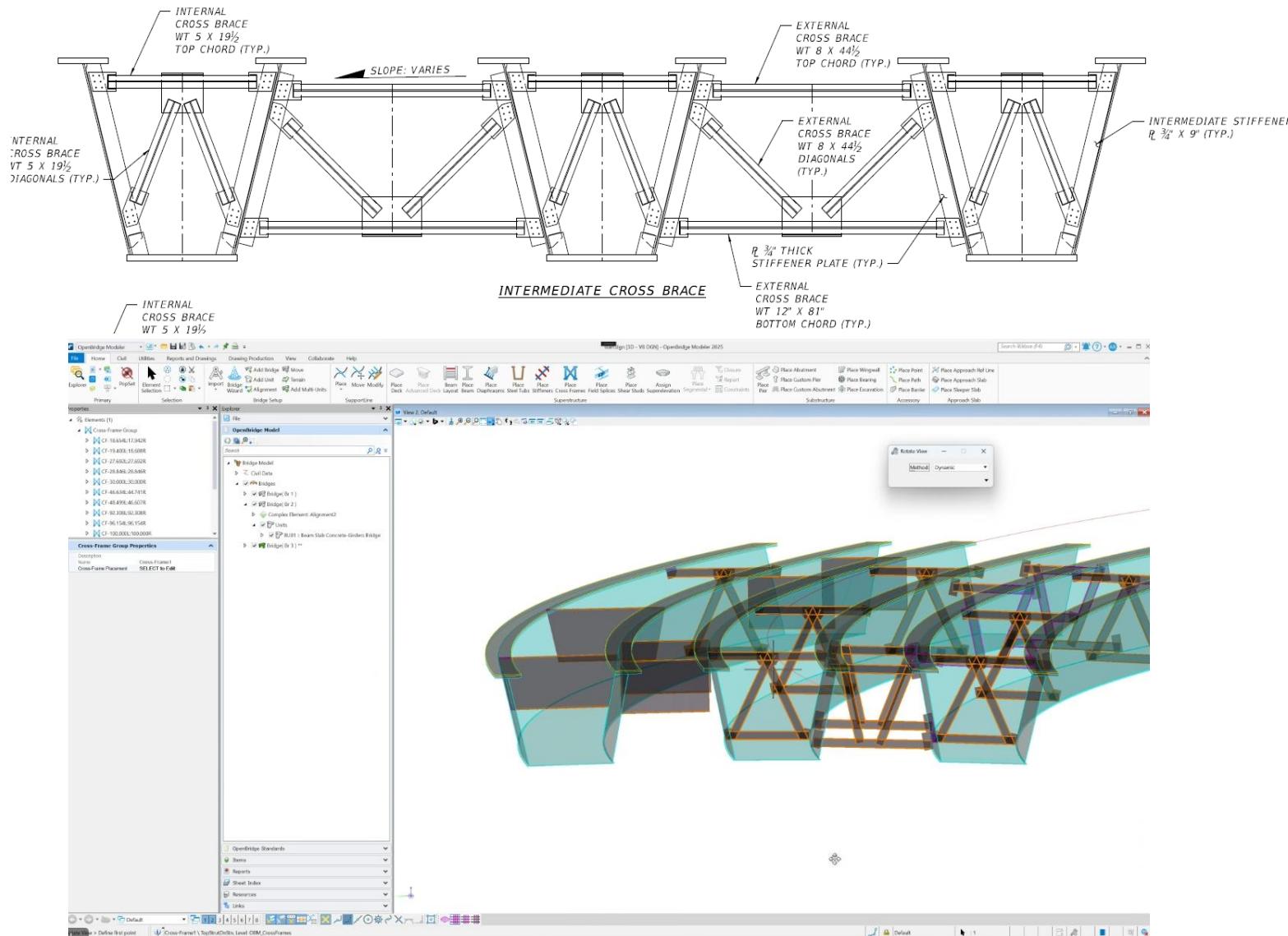
GenerativeComponents – only works in 3D

OpenGround, GINT – work in progress

Export to IFC – work in progress

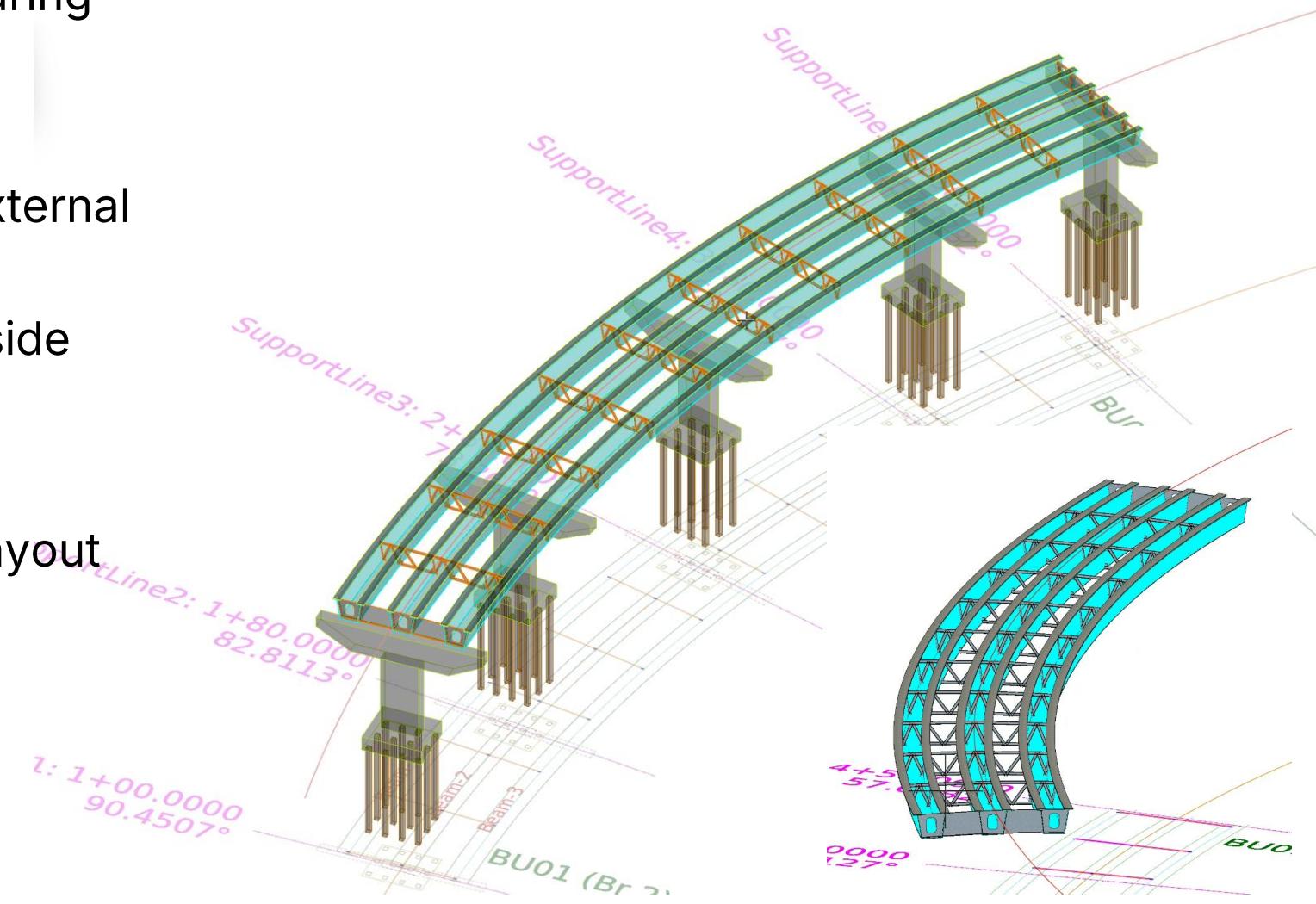
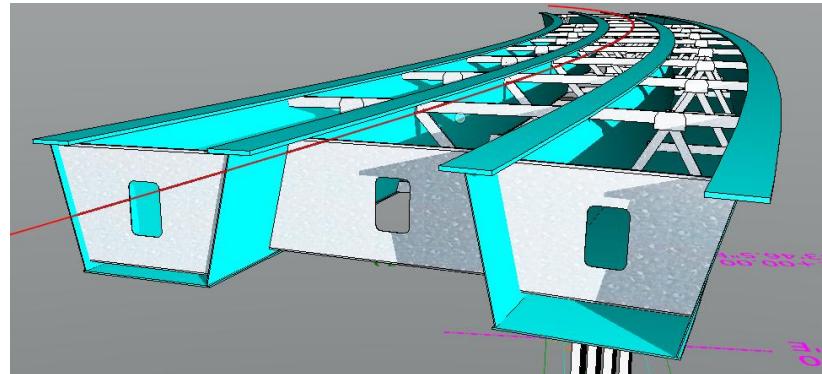


Cross Frames for Steel Tub Girders



Cross Frames for Steel Tub Girders

- Introduction of a new library featuring cross frames for tubs
- Input Echo Report
- Integration of both internal and external cross frames
- Inclusion of support plates alongside cross frames
- Positioning of cross frames
- User-friendly wizard to simplify layout



Stiffeners for Steel Tub Girders

Place Stiffeners Command

Standardized Library

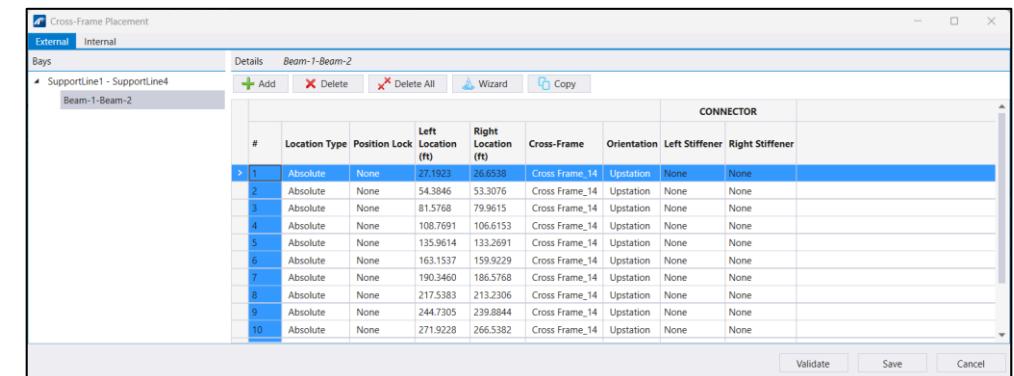
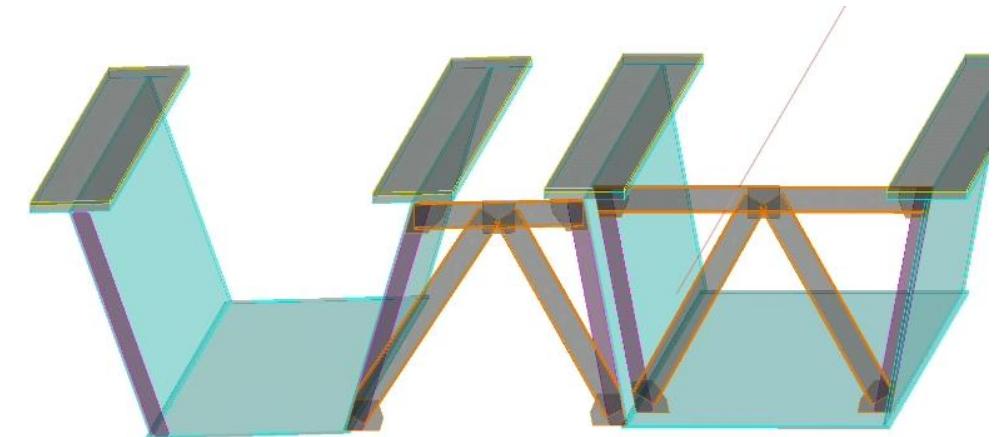
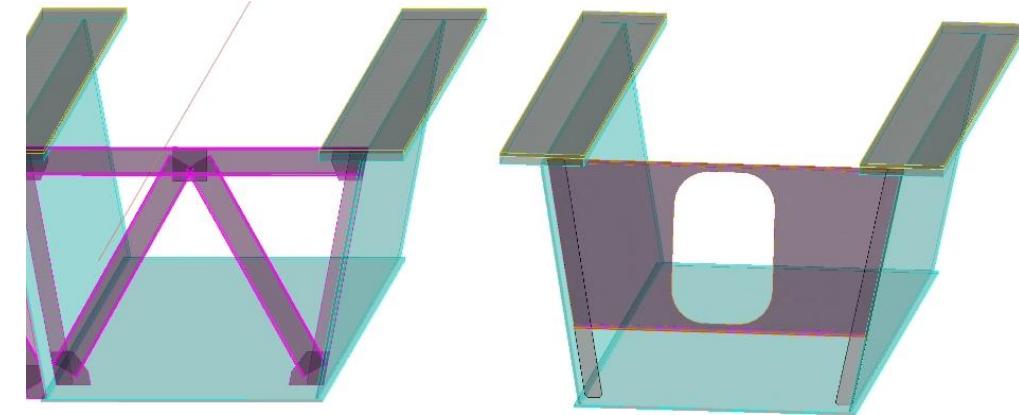
Includes Both Internal and External Stiffeners

Choice to Position on Either Left or Right Side of Each Web

Intuitive Wizard for Streamlined Layout

Input Confirmation Reports

Detailed Quantities Summary



Cross Frames for Steel Tub Girders

Cross-Frame Placement

External Internal

Bays

SupportLine1 - SupportLine2

Beam-1-Beam-2

Beam-2-Beam-3

Add Delete Delete All Wizard Copy

#	Location Type	Position Lock	Left Location(')	Right Location(')	Cross-Frame	Orientation
1	Absolute	None	20.000	20.000	Cross Frame_14	Downstation

Cross-Frame Location Wizard

Bulk Locations One-By-One

Number Of Locations 1 **Spacing (')** 1.72@0.2 **Apply To** Current Bay

From SupportLine: SupportLine1 **To** SupportLine: SupportLine2

Offset ('): 0.000 **Offset (')**: 0.000

Validate Save Cancel

Cross Frames Library

Beam Type Steel **Members** Connection Plates

Cross Frame_14

Cross Frame_15 **Cross Frame_16** **Cross Frame_17** **Cross Frame_18** **Cross Frame_19** **Cross Frame_20**

Top Strut Left Diagonal Right Diagonal Bottom Strut

Configuration Downstation **Template** AISC14-CYC10X15.3

Vertical Offset Left (') 0.000 **Vertical Offset Right (')** 0.000 **Axial Offset Left (')** 0.000 **Axial Offset Right (')** 0.000

Material Centerline Reference Top **Section Mirror Horizontal** **Section Rotation** 0°

Display Options

Update Drawing Save Cancel

Copy

Copy From SupportLine1 - SupportLine2

Select All Select None

SupportLine1 - SupportLine2

- Beam-1
- Beam-2
- Beam-3

Position Lock None **Cross-Frame** Cross Frame_14 **Direction** Upstation

Generate Close

Copy

Cross-Frame Placement

External Internal

Bays

SupportLine1 - SupportLine2

Beam-1

Beam-2

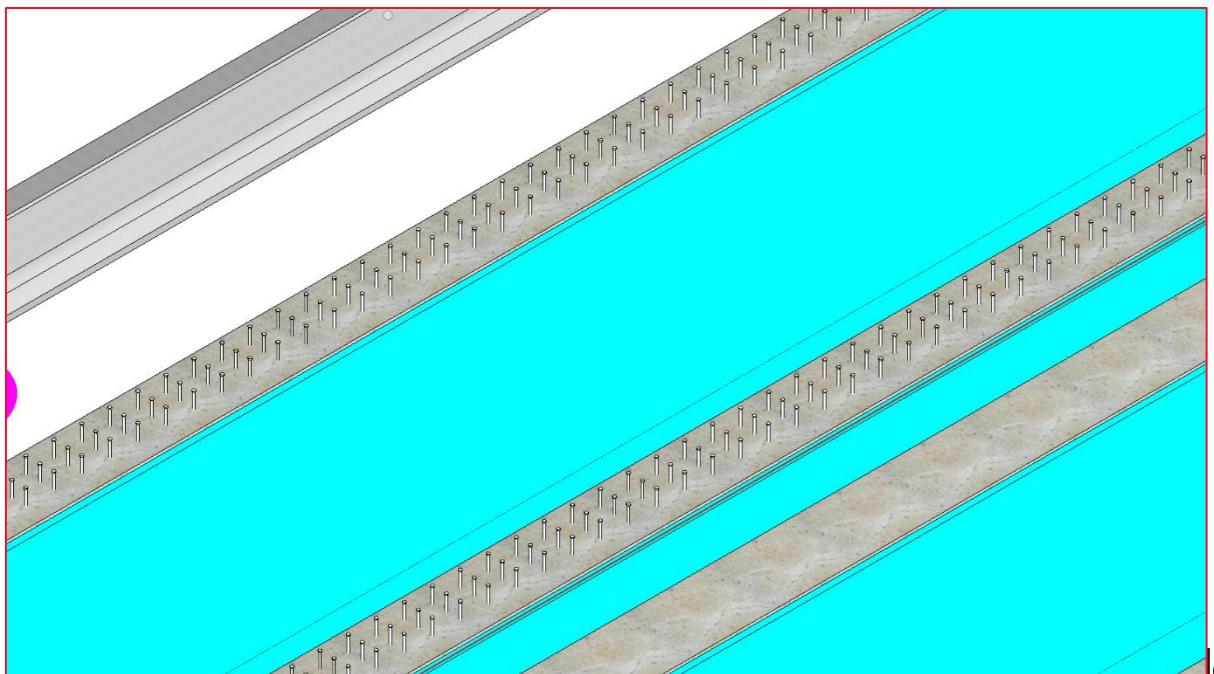
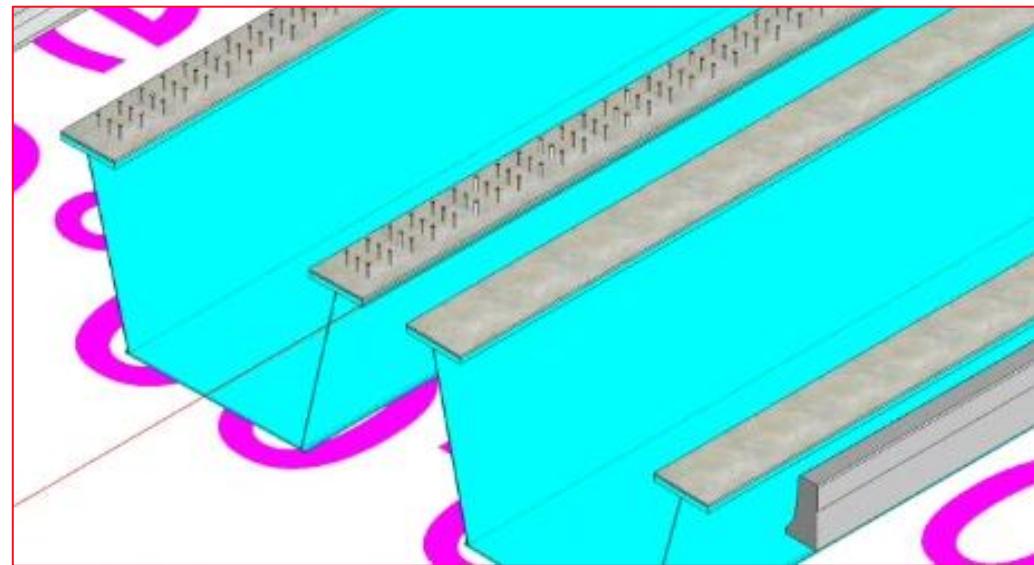
Beam-3

Add Delete Delete All Wizard Copy

#	Location Type	Position Lock	Left Location(')	Right Location(')	Cross-Frame	Orientation
1	Absolute	None	10.000	10.000	Cross Frame_15	Downstation

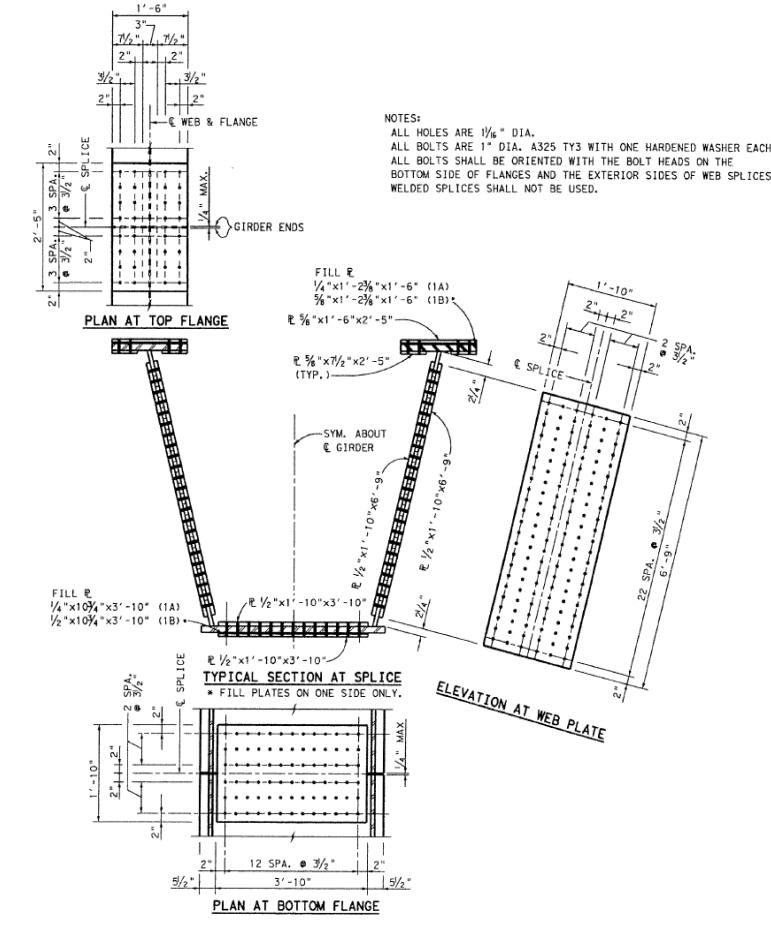
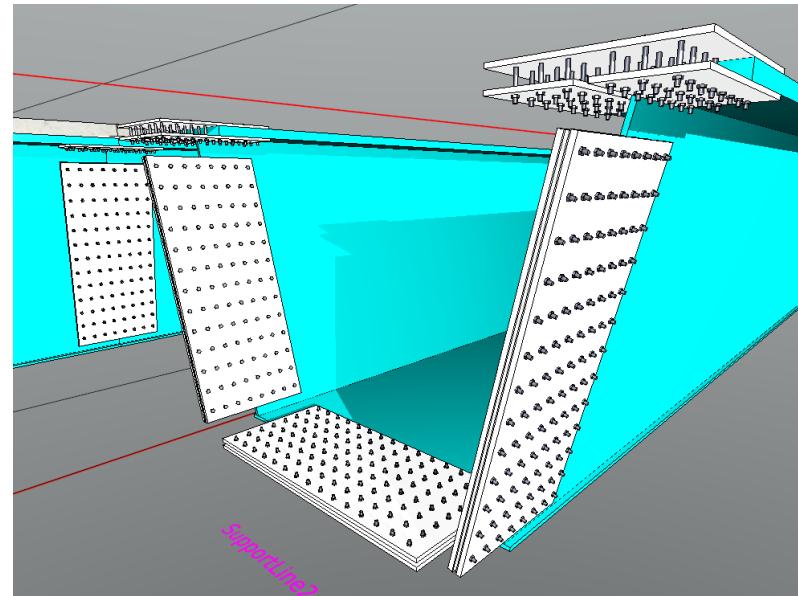
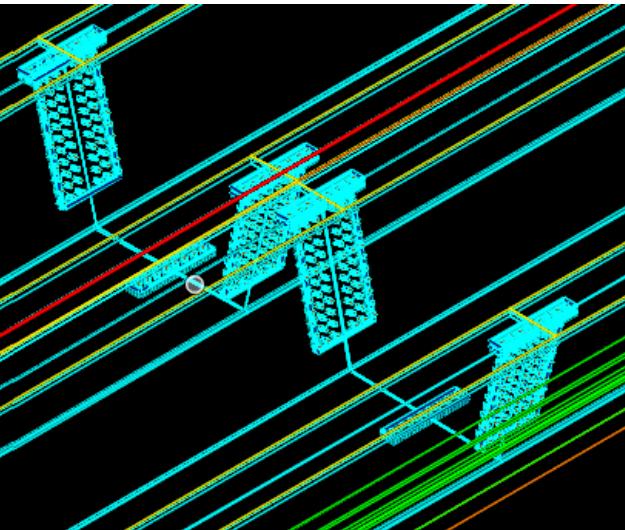
Shear Studs for Steel Tubs

- Include identical elements on the top left and top right of the web interface
- 3D modeling capabilities
- 2D decorators included
- Reports – Input Echo
- Reports – Quantities
- Classification of Item Types



Field Splices for Steel Tub Girders

- Introduction of a new library dedicated to Tub Girders
- User interface dialogs designed for placing Field Splices in Tub girders
- Implementation of 3D graphics
- Integration of 2D graphics
- Generation of Input Echo Reports
- Production of Quantities Reports



Model “Access Hole” in Steel CF Diaphragms

Opening is currently always centered.

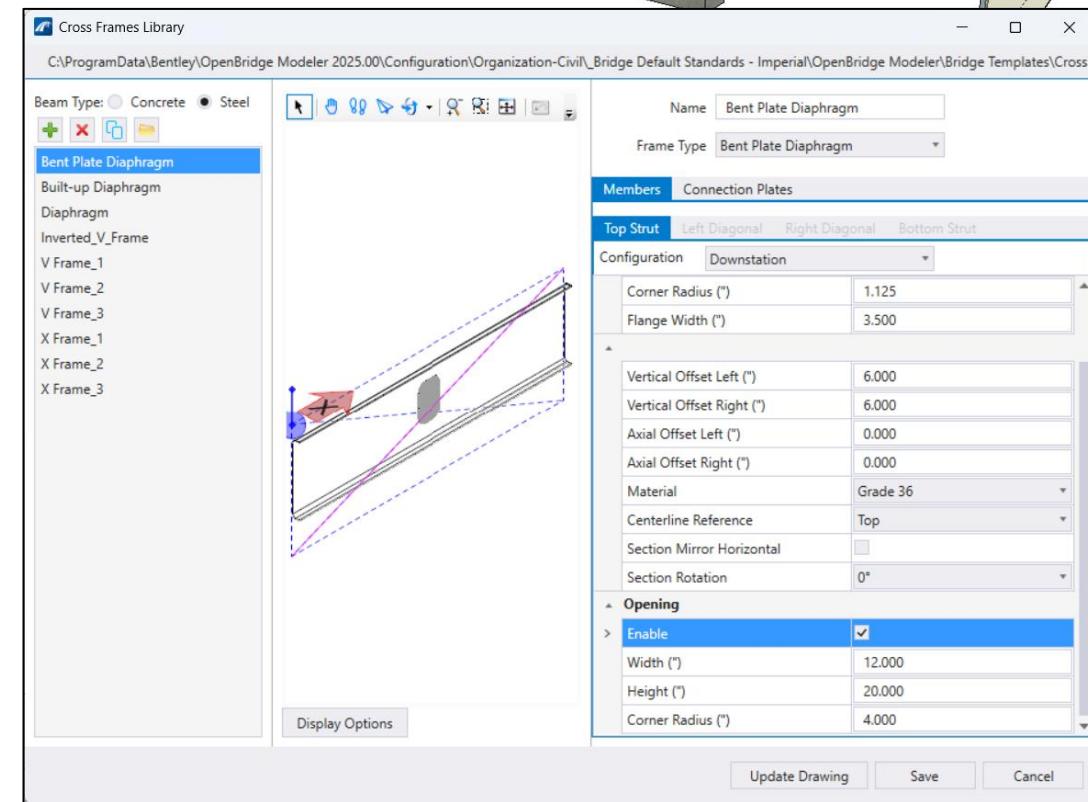
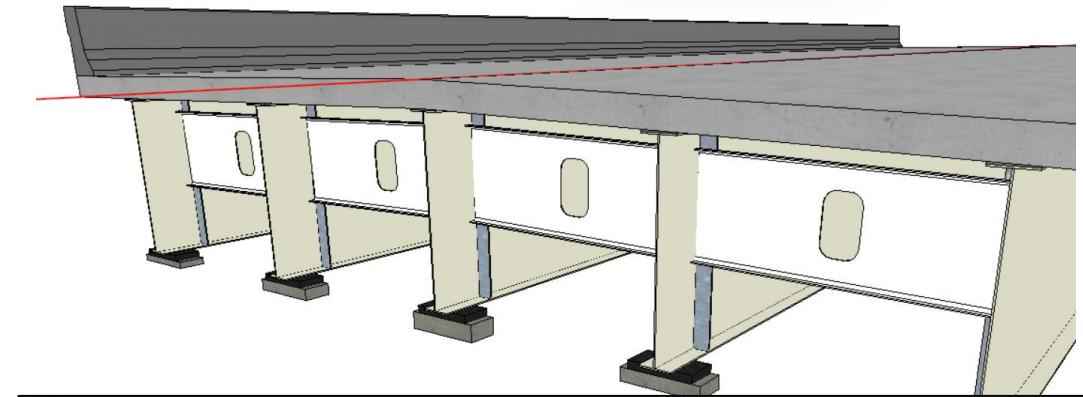
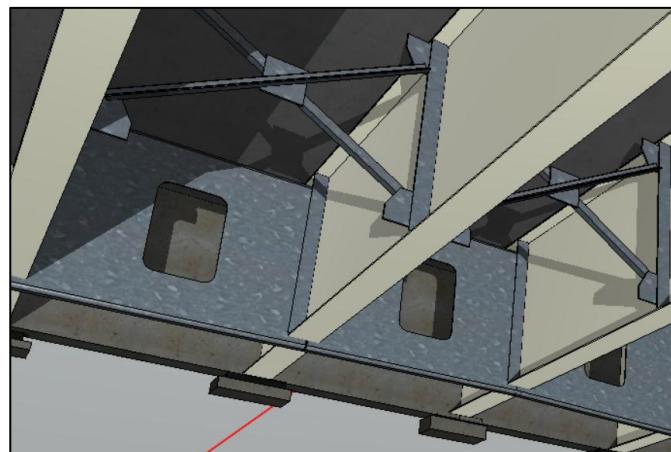
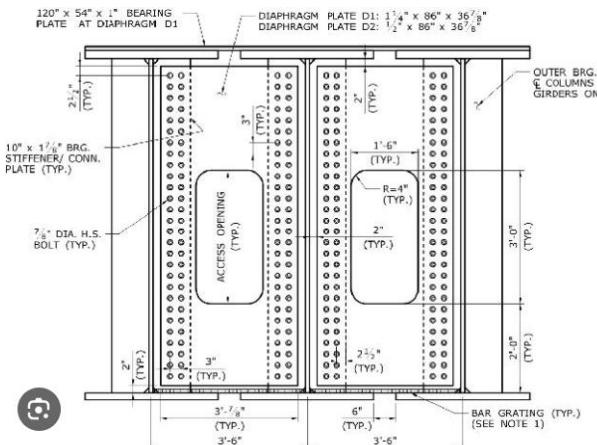
Applicable to

Bent Plate Diaphragm

Built-up Diaphragm

Diaphragm

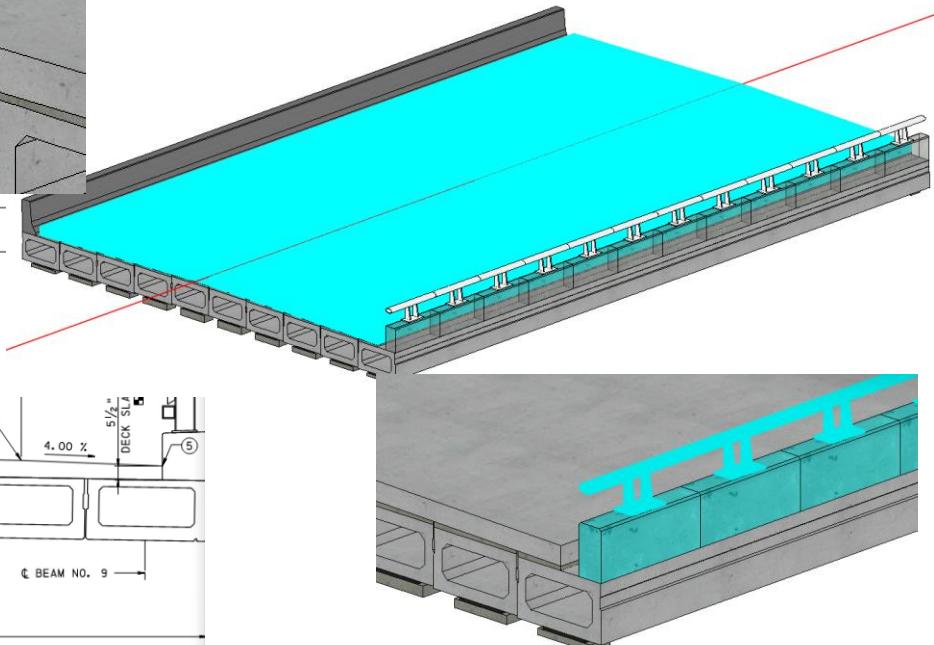
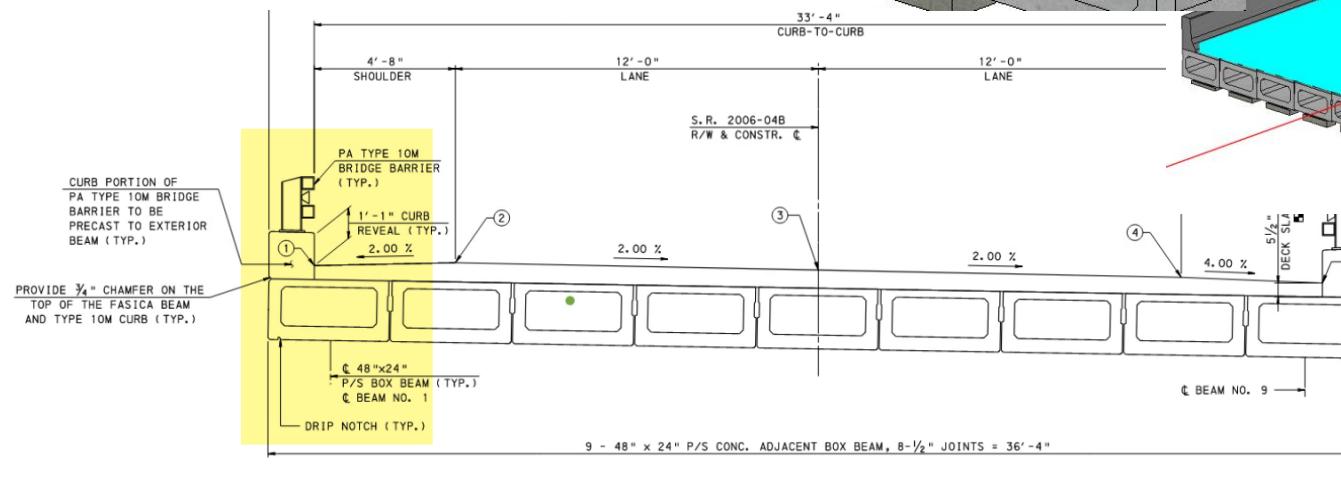
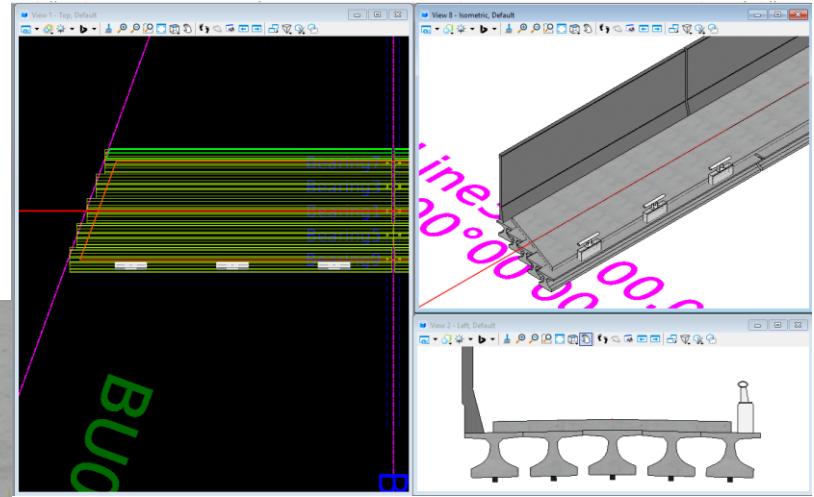
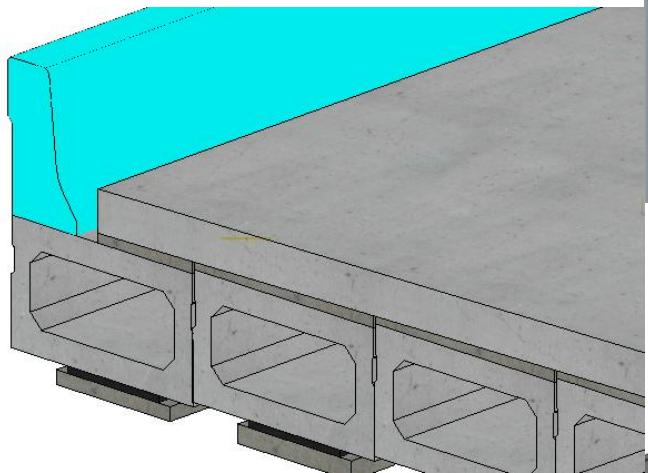
No transfer to LBS at this time.



Barrier, or Accessories on the Beam

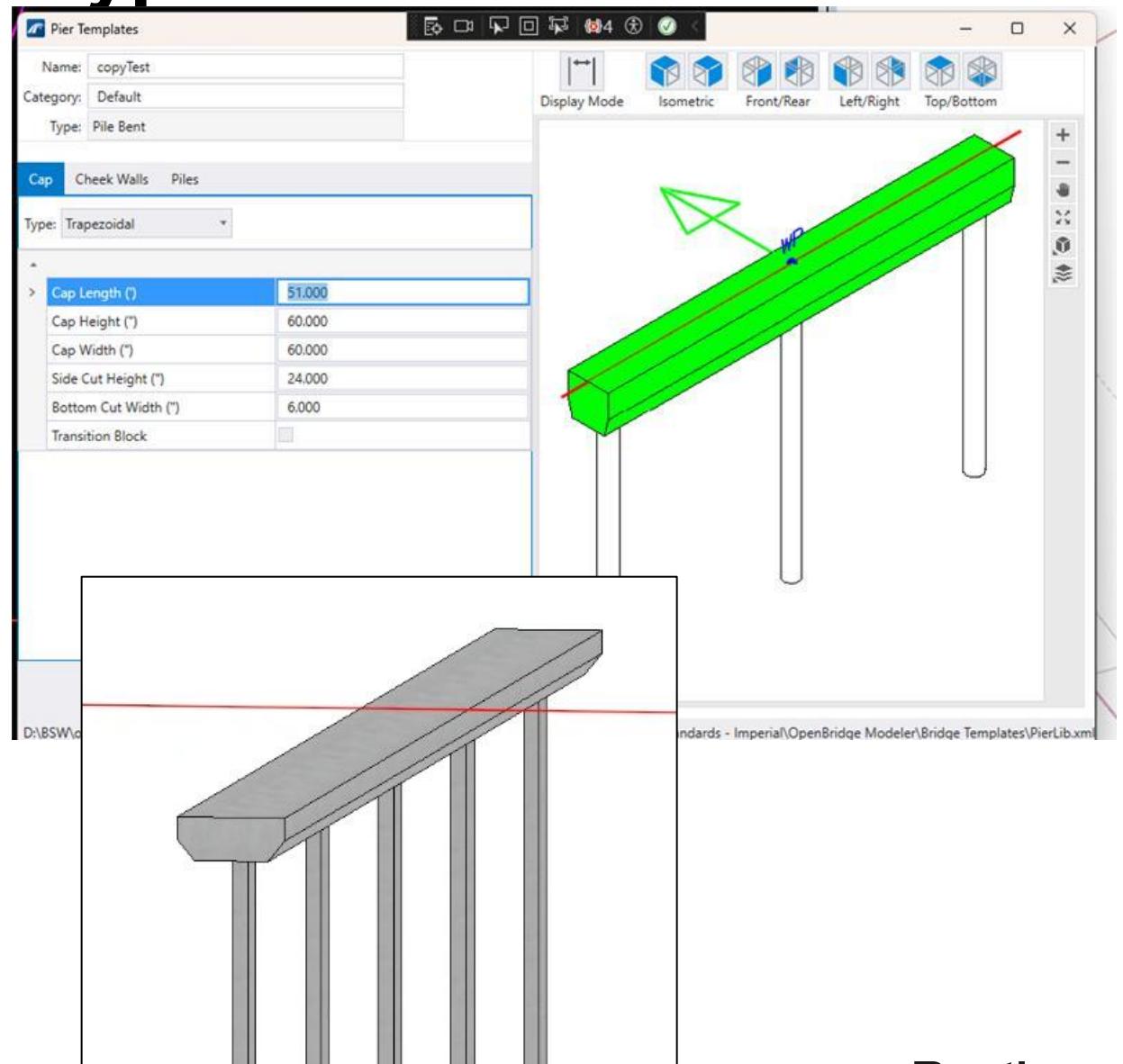
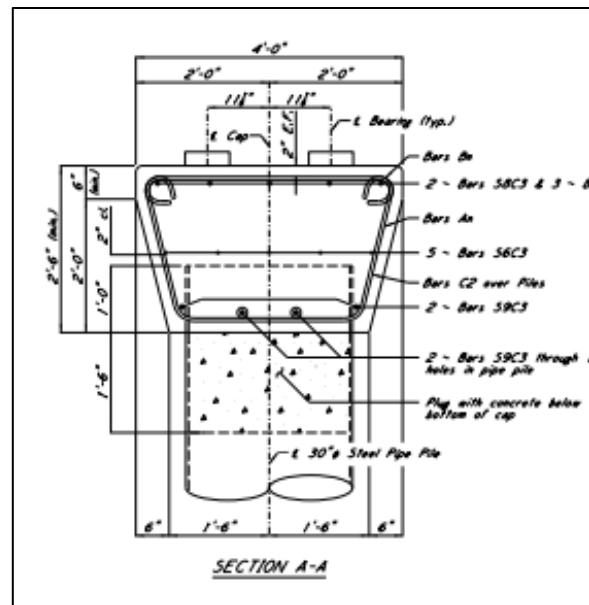
Allows user to pick beam to place

Can pick guidelines, template points

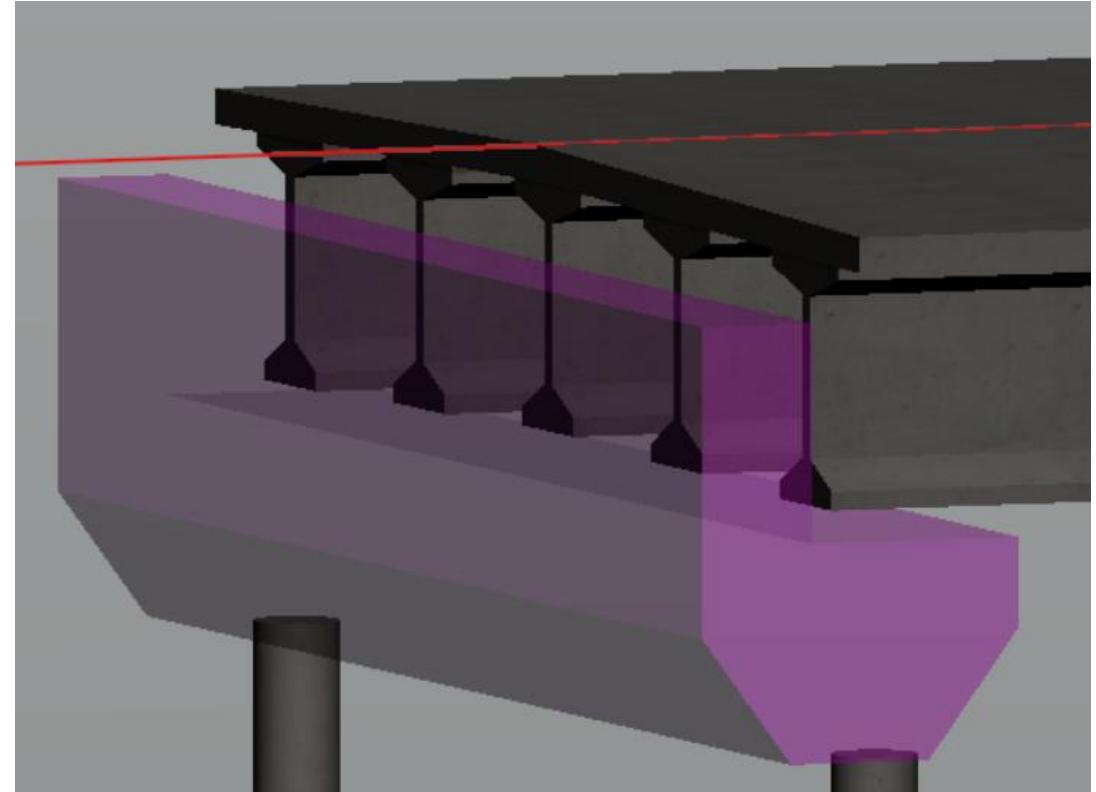
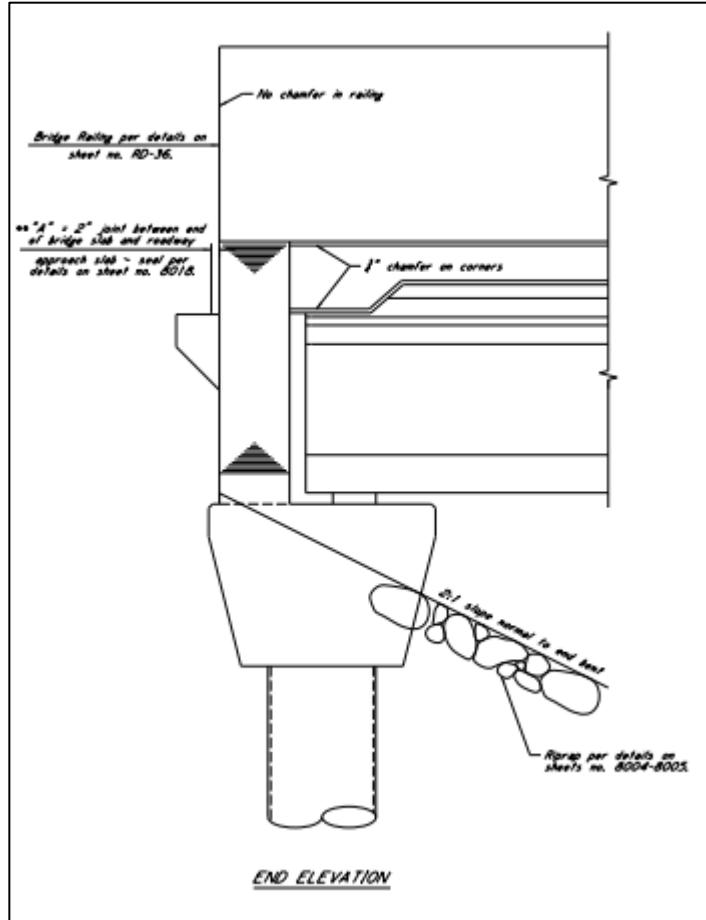


Bent Pier Cap – Trapezoidal Type

- Choose "Trapezoidal" from the "Type" options
- Introduce new parameters: Side Cut Height and Bottom Cut Width
- Skew correction can be applied at the ends
- Mississippi (DOT) request



Abutment Bent Cap – Trapezoidal Type

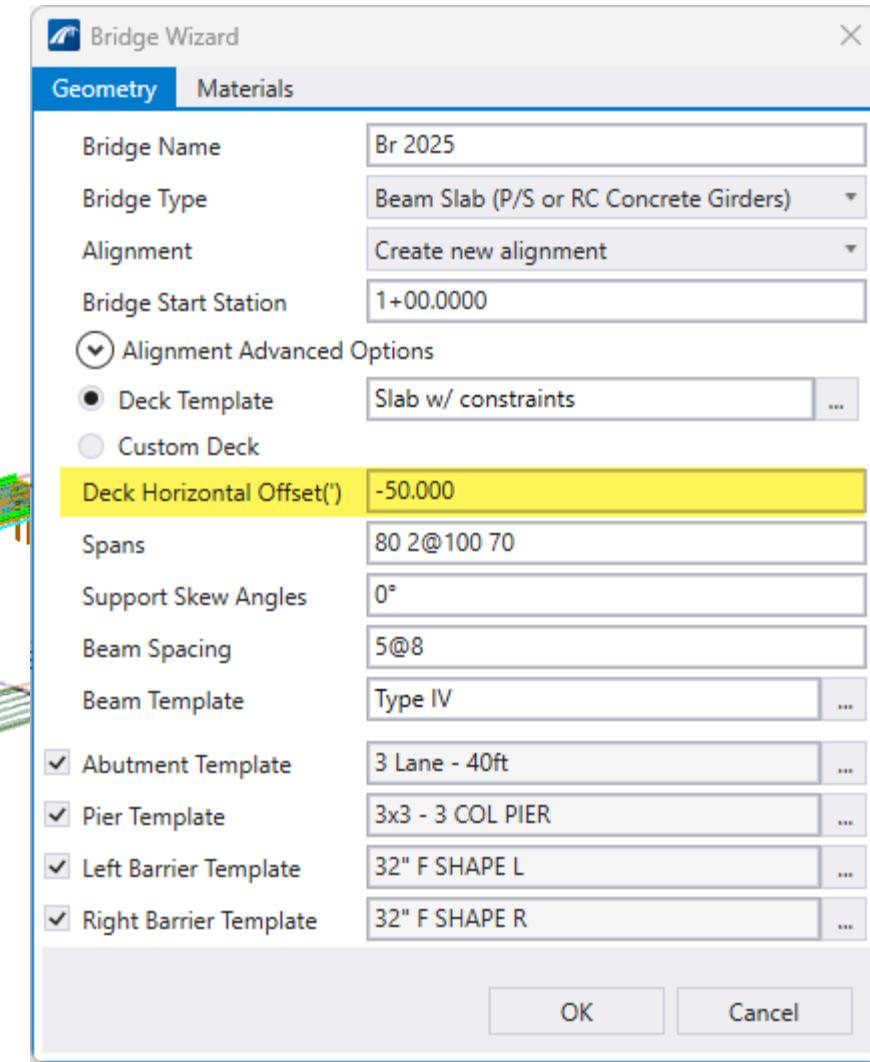
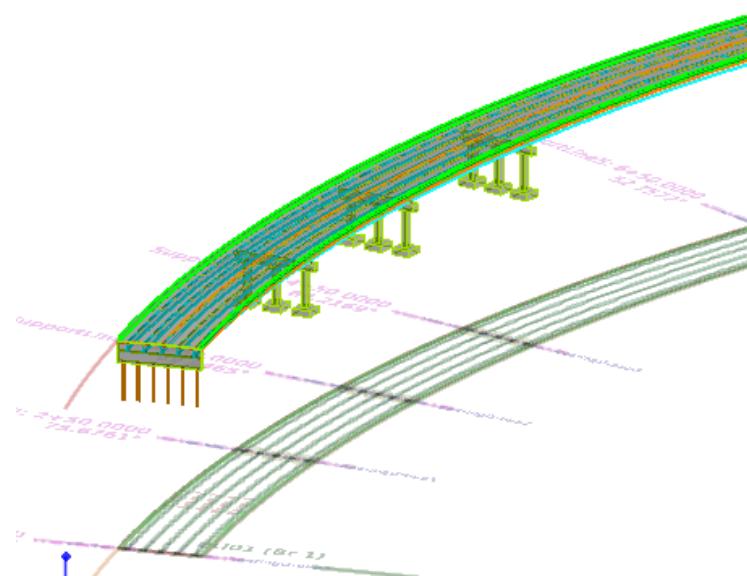
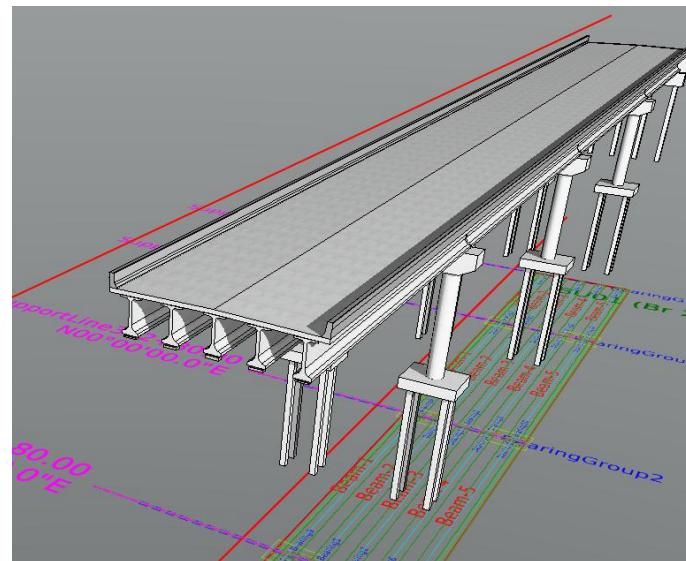


Wizard: Deck Horizontal Offset

Horizontal Offset for Deck Template

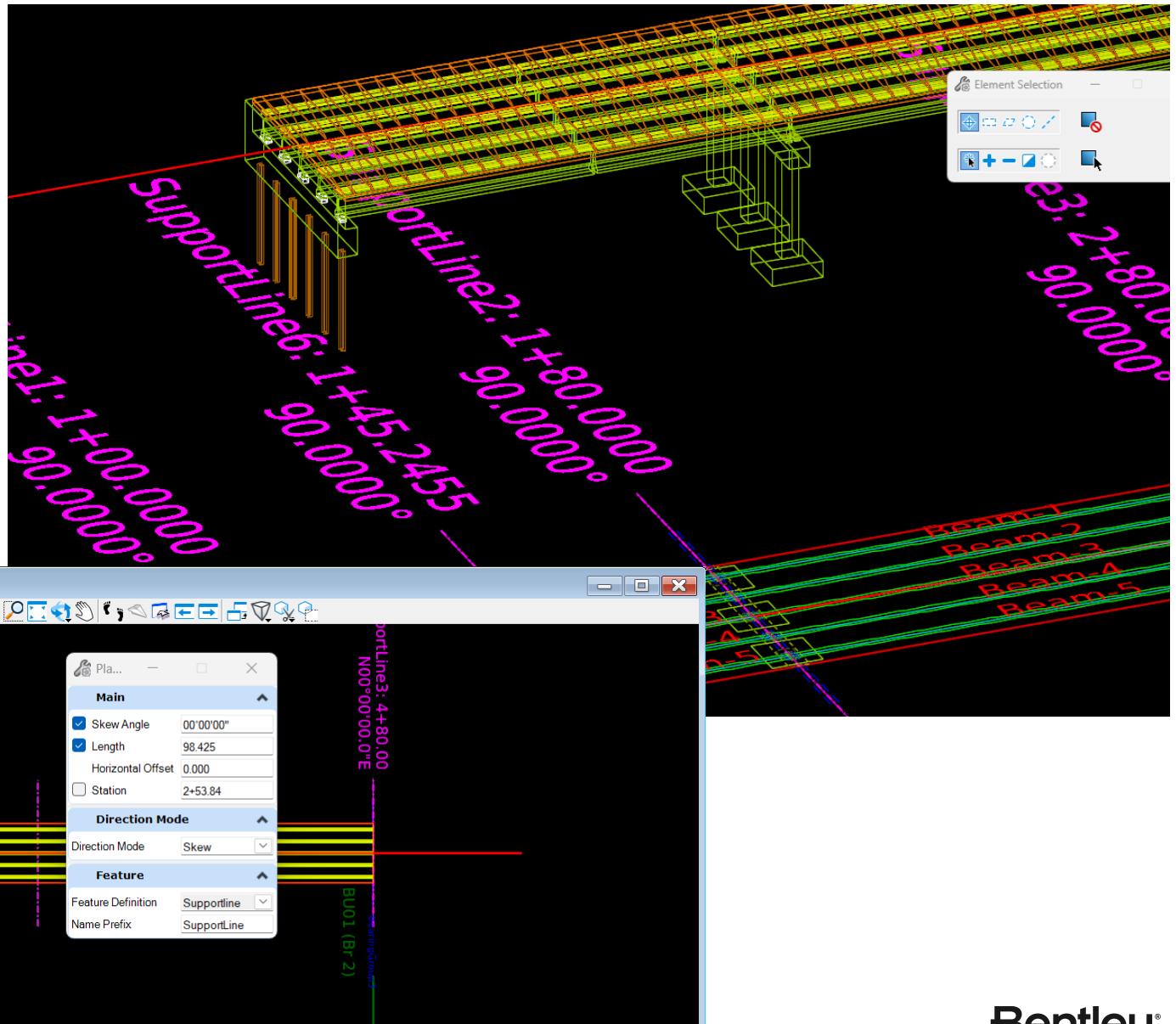
Additionally, adjusts support line lengths according to the offset distance

Revised Reports



Insert, Delete Spans

- Useful in preliminary modeling
- Insert spans easily
 - Place Support Line
 - Automatically applies beam layout from previous span
- Delete spans easily
- Supports
 - Concrete beams
 - Steel beams



Improved decoration lines

Deck Outlines:

No longer line strings of small lengths

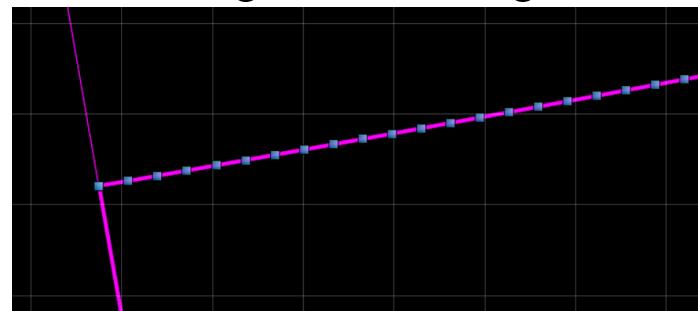
Now possible to dimension these lines, arcs easily

Issue: Any changes will invalidate the dimensions since the element ID changes for the decoration

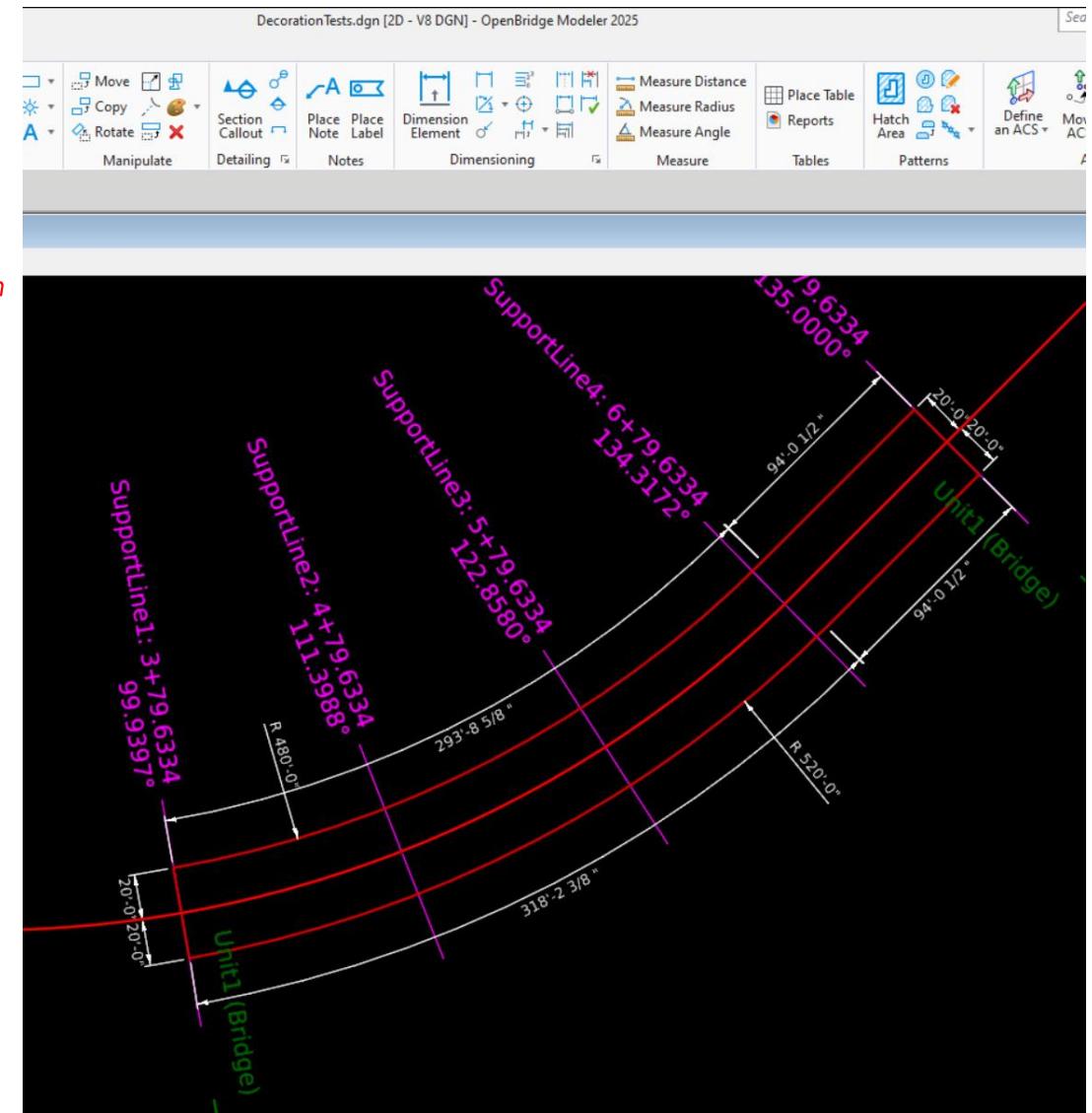
Also applicable to

- Barrier Outlines
- Beam Layout Lines
- Beam Flange Outlines

Before this change: line string



After this change: no line strings

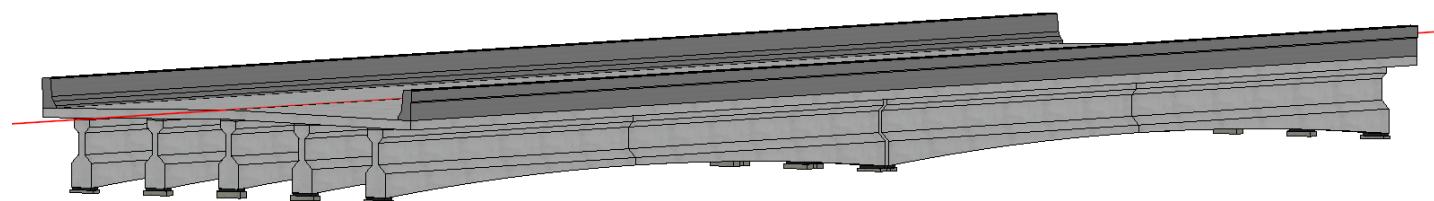


Concrete Girders - Transition

Previous versions "Linear" only

Supported Transitions

- Circular Start
- Circular End
- Parabolic Start
- Parabolic End
- Linear
- None

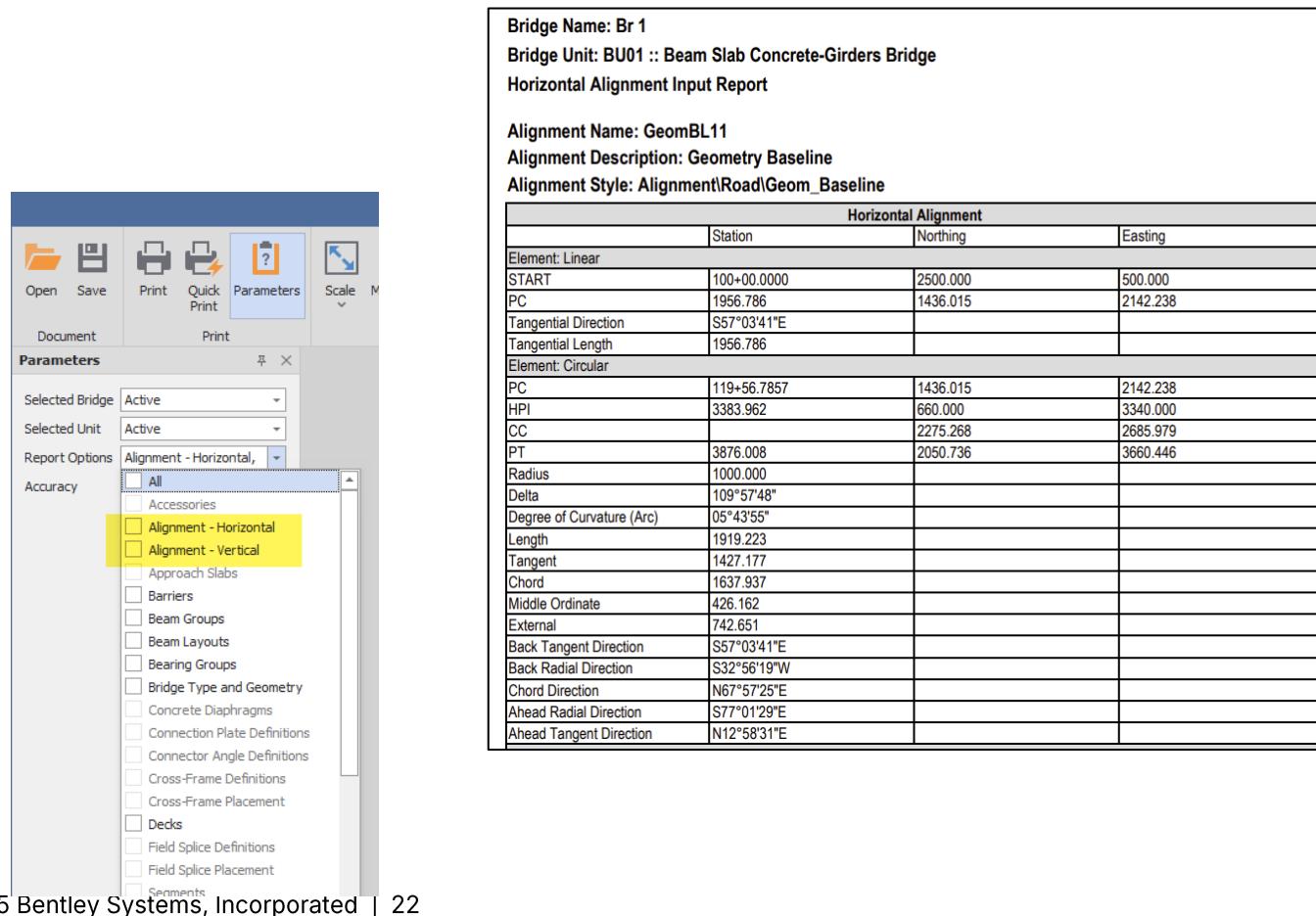


Concrete Girder Transition Configuration									
General		Start		End		Material		Variation	
Relative Location	From	Start Location (')	Section Length (')	Start Template	Different End Template	End Template	Material	Variation	Notes
0.000	SupportLine1	1+00.00	40.000	Beams\Standard Sections\AASHTO I-Beams\C-Type I	<input checked="" type="checkbox"/>	Beams\Standard Sections\AASHTO I-Beams\Type I	AASHTO-II, CL.A	Parabolic End	
40.000	SupportLine1	1+40.00	40.000	Beams\Standard Sections\AASHTO I-Beams\Type I	<input checked="" type="checkbox"/>	Beams\Standard Sections\AASHTO I-Beams\C-Type I	AASHTO-II, CL.A	Linear	<ul style="list-style-type: none">LinearParabolic StartParabolic EndCircular StartCircular EndNone

Input Echo - Alignment and Profiles Report

Native OBM report

User no longer has to recall how to generate Civil Reports



The screenshot shows the Input Echo software interface. On the left, the 'Parameters' tab is selected, displaying a list of bridge components and their status (e.g., Active, Inactive). The 'Alignment - Horizontal' and 'Vertical' checkboxes are highlighted with a yellow box. On the right, a report preview is shown for 'Bridge Name: Br 1' and 'Bridge Unit: BU01 :: Beam Slab Concrete-Girders Bridge'. The report title is 'Horizontal Alignment Input Report' and includes details for 'Alignment Name: GeomBL11', 'Alignment Description: Geometry Baseline', and 'Alignment Style: Alignment\Road\Geom_Baseline'. The report contains a table for 'Horizontal Alignment' with data for Linear and Circular elements, and another table for 'Vertical Alignment' with data for Linear and Symmetrical Parabola elements.

Horizontal Alignment			
	Station	Northing	Easting
Element: Linear			
START	100+00.0000	2500.000	500.000
PC	1956.786	1436.015	2142.238
Tangential Direction	S57°03'41"E		
Tangential Length	1956.786		
Element: Circular			
PC	119+56.7857	1436.015	2142.238
HPI	3383.962	660.000	3340.000
CC		2275.268	2685.979
PT	3876.008	2050.736	3660.446
Radius	1000.000		
Delta	109°57'48"E		
Degree of Curvature (Arc)	05°43'55"E		
Length	1919.223		
Tangent	1427.177		
Chord	1637.937		
Middle Ordinate	426.162		
External	742.651		
Back Tangent Direction	S57°03'41"E		
Back Radial Direction	S32°56'19"W		
Chord Direction	N67°57'25"E		
Ahead Radial Direction	S77°01'29"E		
Ahead Tangent Direction	N12°58'31"E		

Vertical Alignment		
	Station	Elevation
Element: Linear		
START	0.000	100.000
VPC	1200.184	121.000
Tangent Grade	0.017	
Tangent Length	1200.184	
Element: Symmetrical Parabola		
VPC	1200.184	121.000
VPI	2000.000	135.000
VPT	2800.245	127.000
VHP	2218.182	129.909
Length	1600.062	
Entrance Grade	0.018	
Exit Grade	-0.010	
$r = 100 * (g_2 - g_1)/L$	-0.172	
$K = 1/(g_2 - g_1)$	581.818	

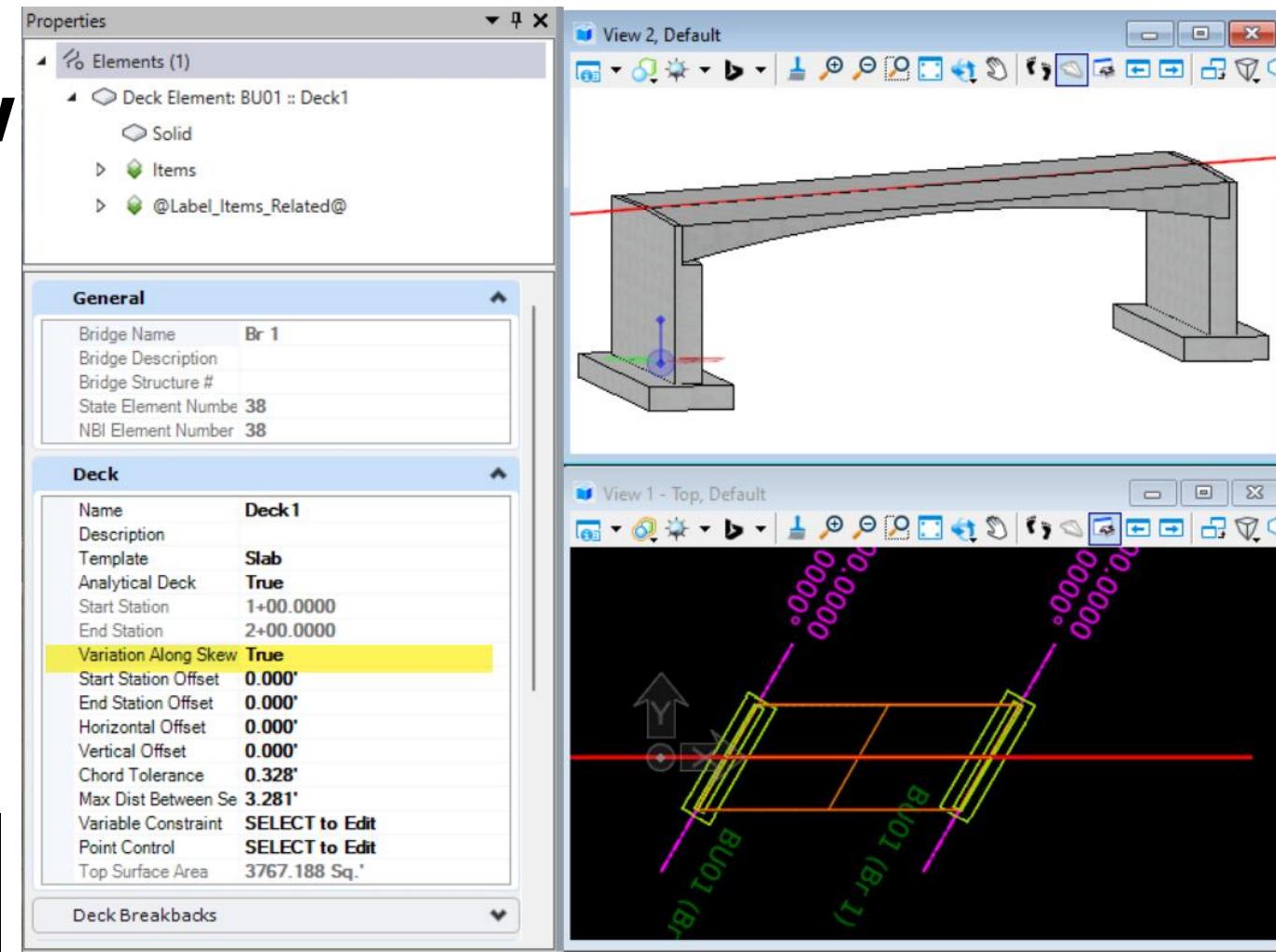
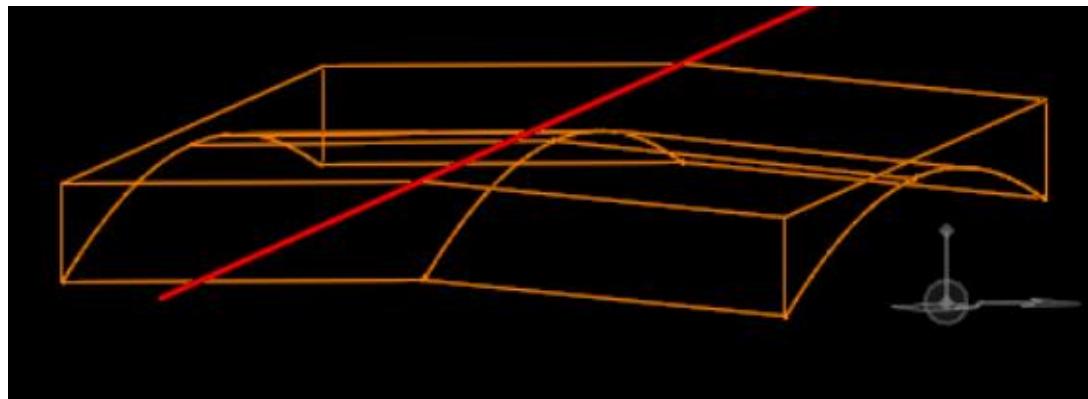
Variation of Slab on skew

Previously only Radial to alignment

Exclusive to Slab Bridges

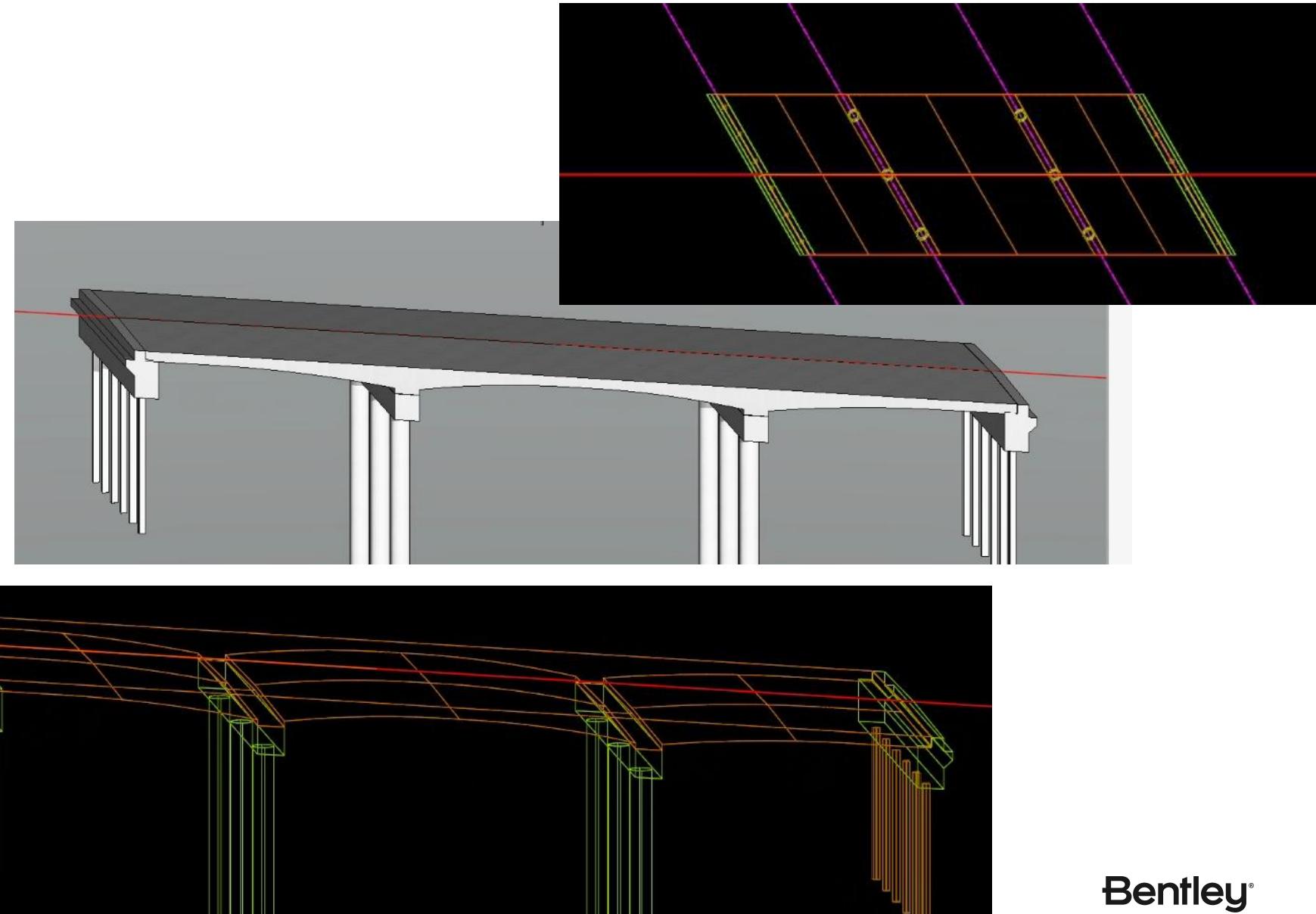
New GUI Feature

Variation Along Skew: True/False



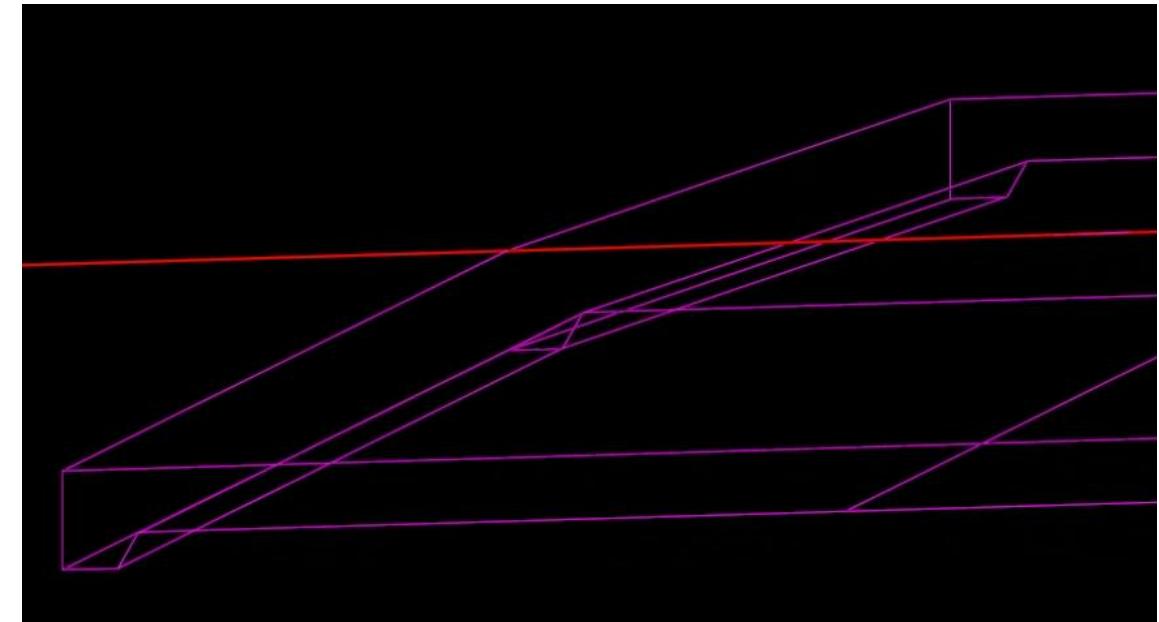
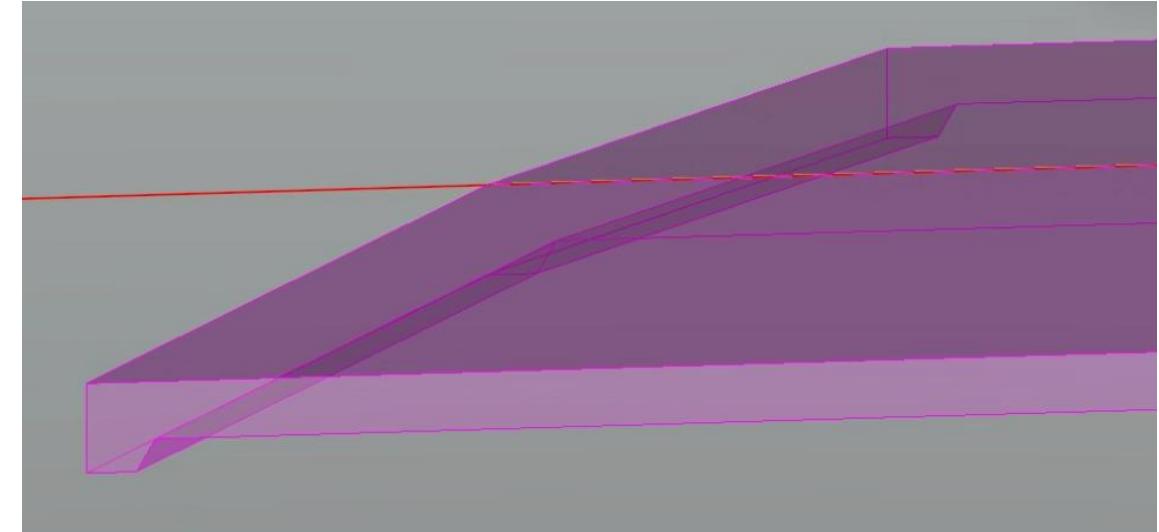
Slab and Approach Slabs Variation along skew

- In earlier versions, all extrusion was performed radial to the alignment.
- It is now possible to extrude along a skew.
- The starting skew and ending skew can vary independently.



Approach Slab

- Support for variation along the skew has been added
- Start and end skews can now differ



X,Y coordinates for Footings

X,Y co-ordinates of Footing Center

Item Types

Applicable to

Pier Footings

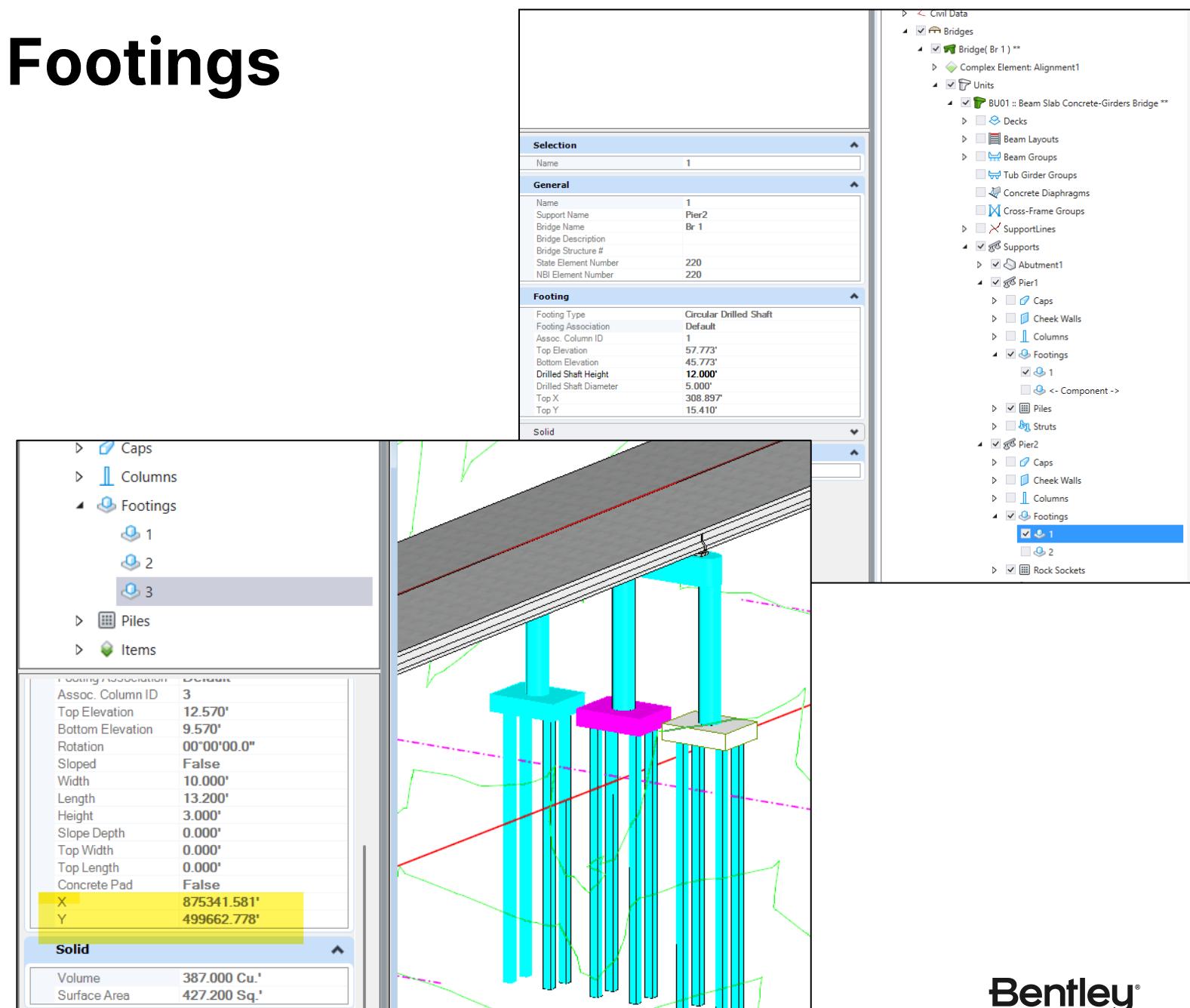
Combined Footings

Abutment Footings

Not applicable to

Parametric cell

Custom Footings



Piles and drilled shafts: Station and Offset

Station and Offset are now exposed as properties

Works for Piles and Drilled Shafts

Item Type Expressions:

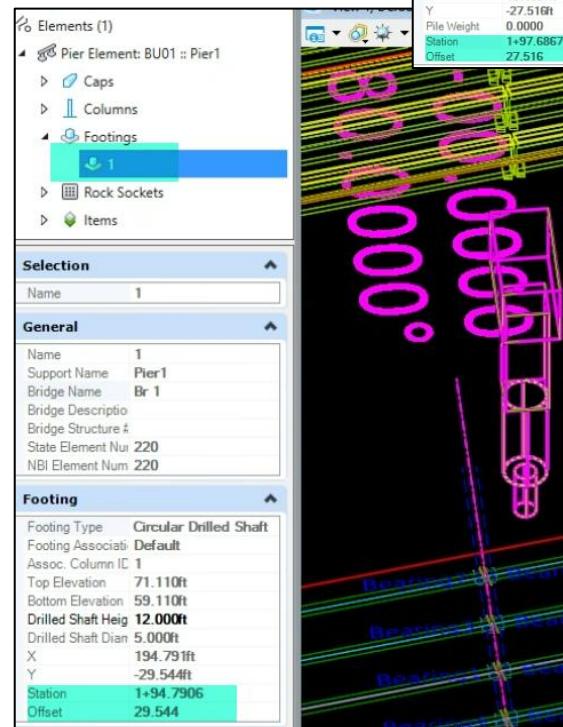
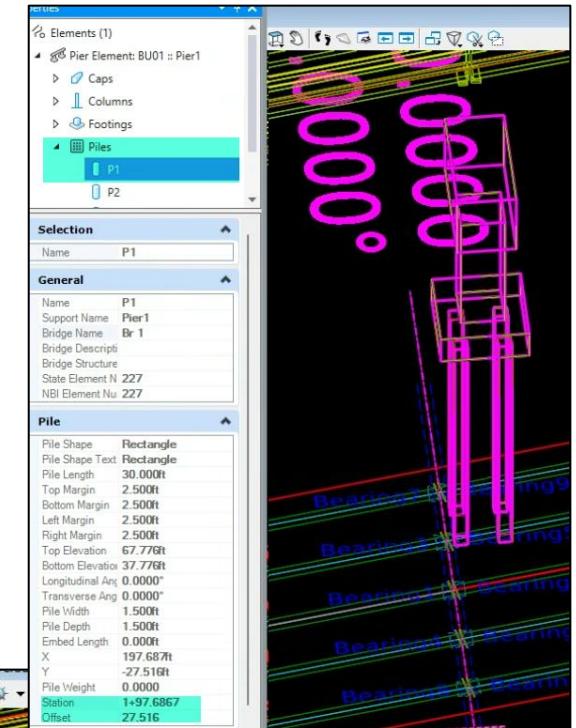
Piles:

```
This.getItem().PierPile_Station  
This.getItem().PierPile_Offset
```

Drilled Shafts:

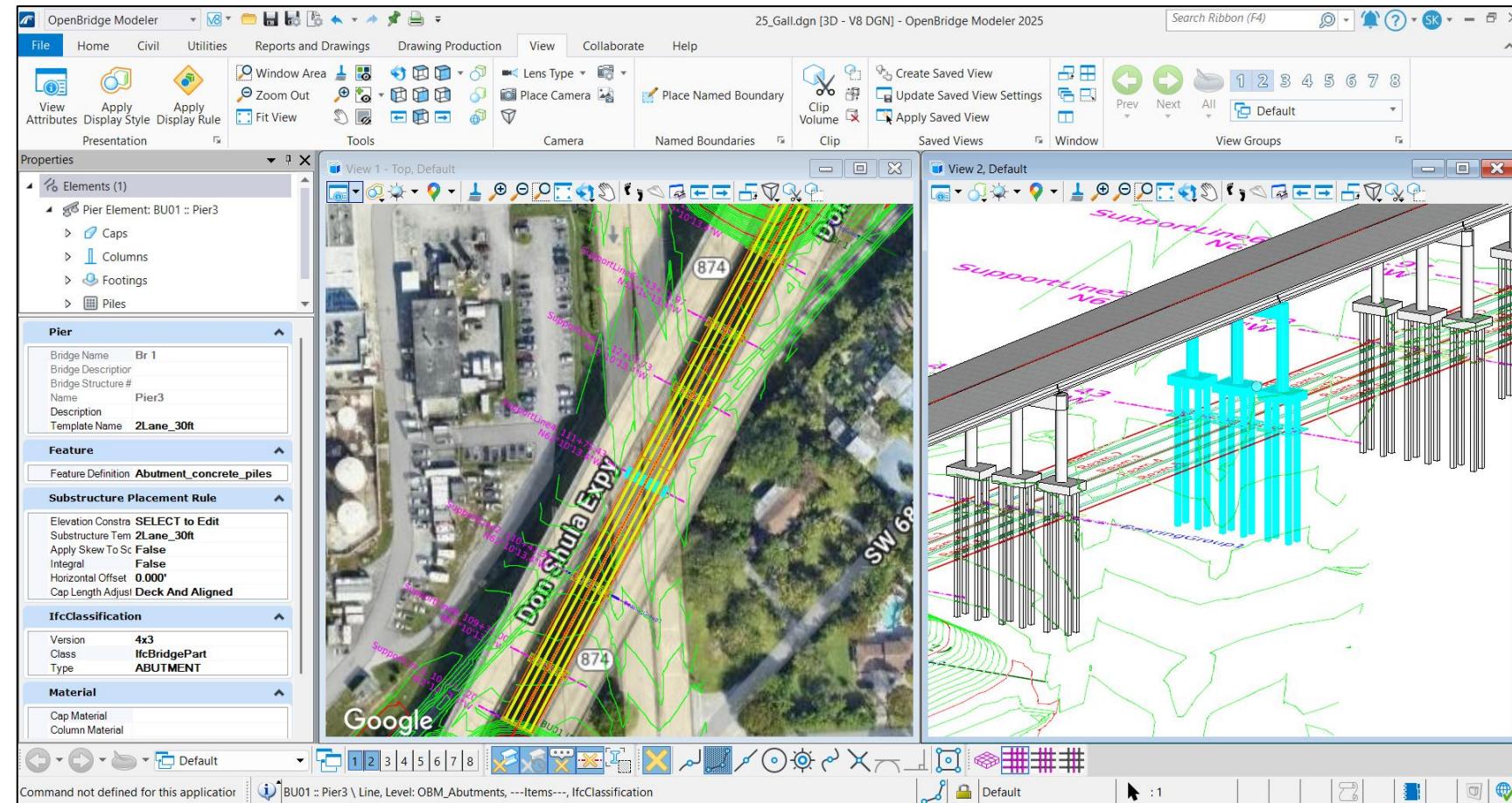
```
This.getItem().PierFooting_Station  
This.getItem().PierFooting_Offset
```

Note: Does not work for Parametric cells

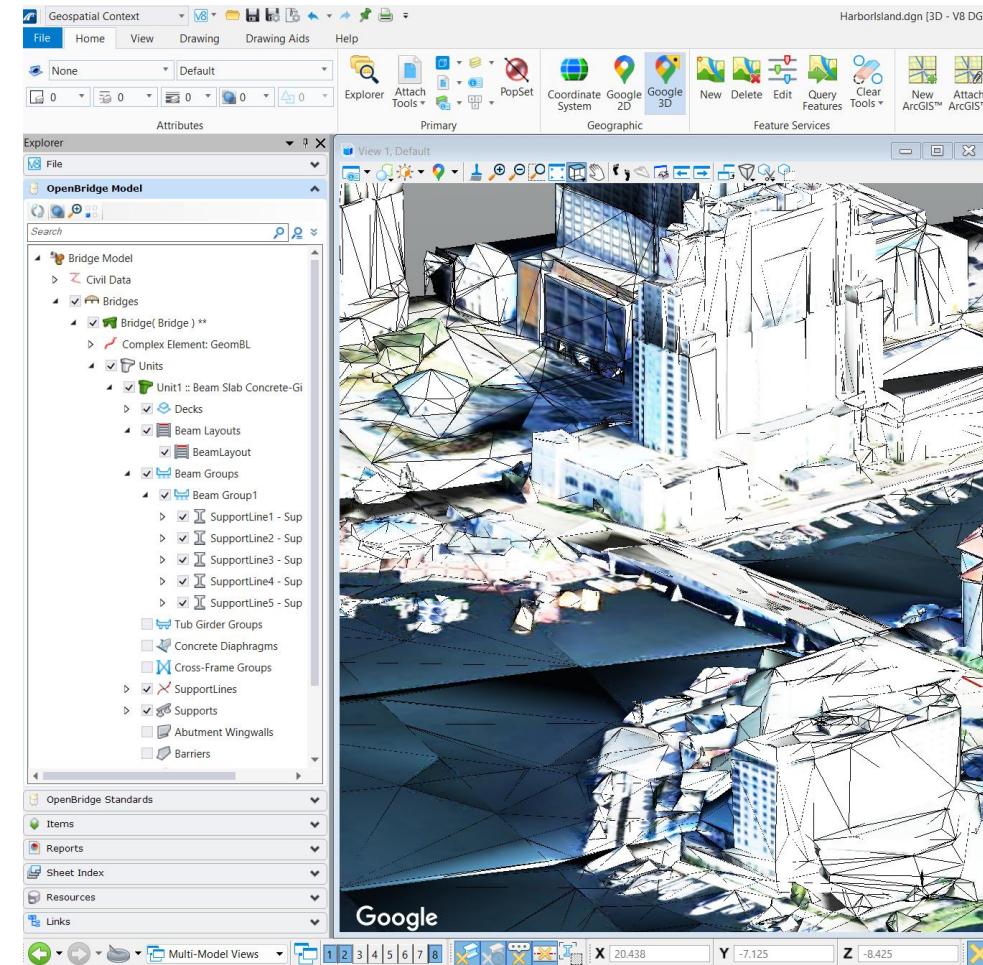
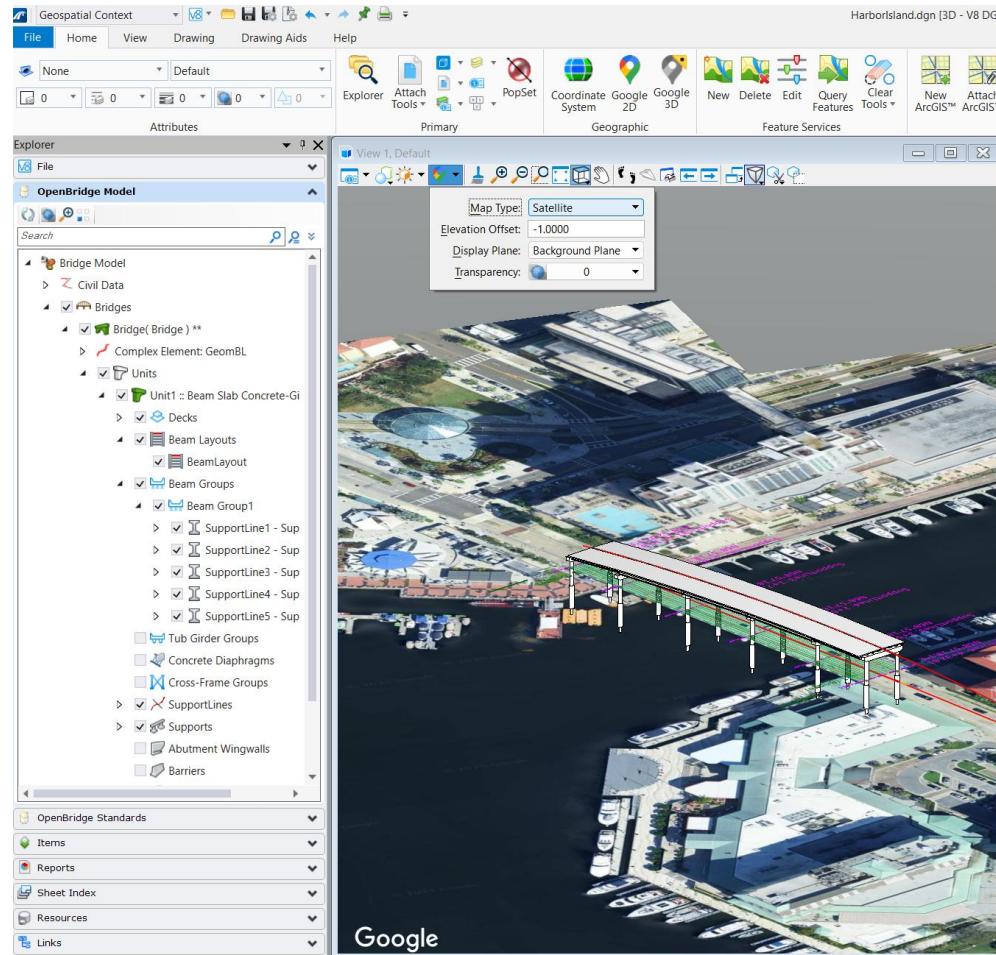


Google Maps instead of Bing Maps (MicroStation)

- Icon in the View window toolbar
- Available if file has geocoordinates specified
- Road, Satellite or Hybrid options
- More up to date map source

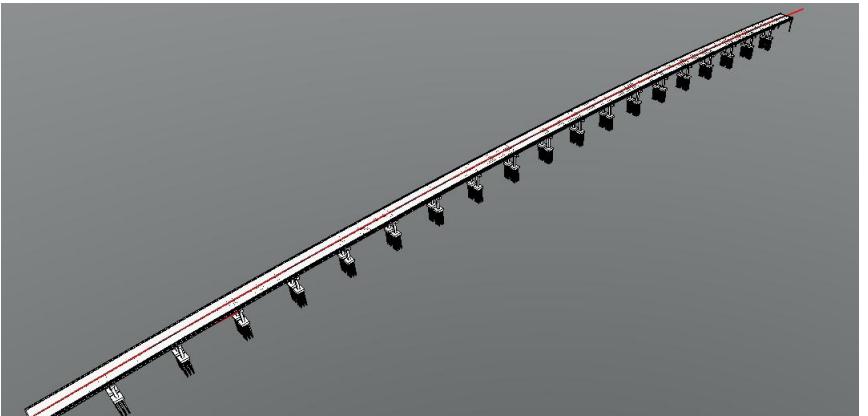


Google Maps (2D) and (3D)



Continuous Steel Beam Reports per span

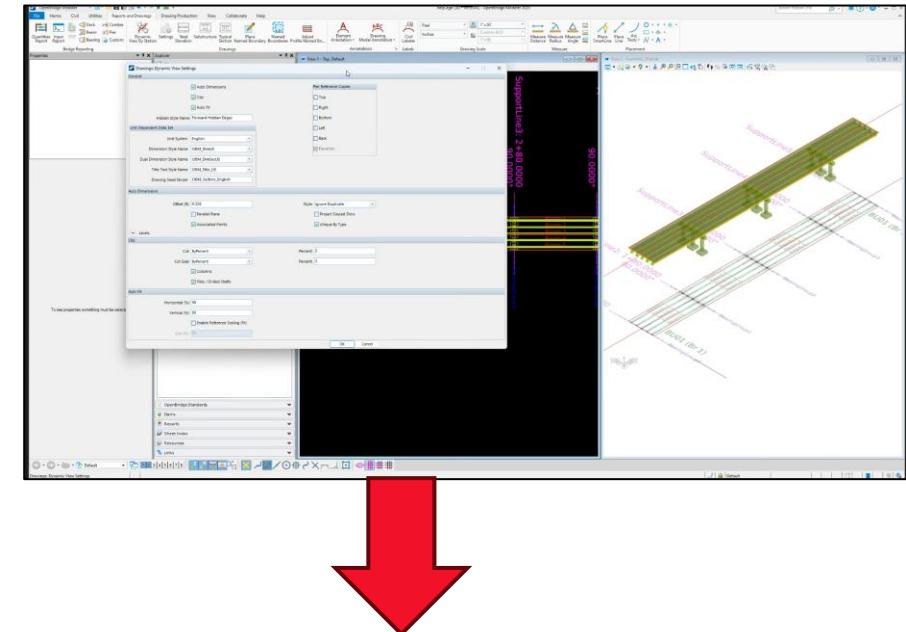
- Beam Elevation Reports
- Previous versions only allowed points for the entire length on the continuous span
- Now possible to get points for each span
- **New options for Bearing-to-Bearing (*)**



Span Support1/2nd - Support3/2												
Locations/Beam Elevations Along Beam CL												
Beam Name	Reference	0/10L	1/10L	2/10L	3/10L	4/10L	5/10L	6/10L	7/10L	8/10L	9/10L	10/10L
Beam-1		0.00000	2.43021	4.86042	7.20965	9.72083	12.1104	14.58125	17.01145	19.41417	21.87187	24.30208
Beam-1	Top	34.59578	34.19792	34.84374	34.86772	35.09170	35.32158	35.39365	35.46563	35.59715	35.71160	35.83558
Beam-1	Bottom	34.19798	34.19798	34.19798	34.19798	34.19798	34.19798	34.19798	34.19798	34.19798	34.19798	34.19798
Beam-1		0.00000	2.42944	4.85187	7.21297	9.70098	12.1094	14.57125	17.00135	19.40444	21.86187	24.30208
Beam-1	Top	34.53680	34.74077	34.88478	35.00871	35.13273	35.34669	35.39050	35.50464	35.62661	35.75260	35.87684
Beam-1	Bottom	34.17900	34.30259	34.42696	34.50593	34.67491	34.76889	34.92289	35.04685	35.17085	35.29480	35.41878
Beam-1		0.00000	2.41917	4.84333	7.24800	9.68667	12.18533	14.53000	16.95167	19.37310	21.79600	24.21667
Beam-1	Top	34.67781	34.80174	34.92876	35.04974	35.17712	35.32979	35.42167	35.54985	35.66961	35.79960	35.91787
Beam-1	Bottom	34.19798	34.19798	34.19798	34.19798	34.19798	34.19798	34.19798	34.19798	34.19798	34.19798	34.19798
Beam-1		0.00000	2.41740	4.85219	7.23219	9.68668	12.09997	14.50427	16.92117	19.33977	21.75664	24.17994
Beam-1	Top	34.53683	34.59081	34.88478	35.00871	35.13273	35.34669	35.39050	35.50464	35.62661	35.75260	35.87684
Beam-1	Bottom	34.17903	34.30259	34.42698	34.50593	34.67493	34.76890	34.92289	35.04685	35.17085	35.29480	35.41878
Beam-1		0.00000	2.41917	4.84333	7.24800	9.68667	12.18533	14.53000	16.95167	19.37310	21.79600	24.21667
Beam-1	Top	34.59985	34.71982	34.84279	34.96177	35.09174	35.32571	35.39466	35.50464	35.62661	35.75160	35.83557
Beam-1	Bottom	34.17903	34.30259	34.42699	34.50593	34.67493	34.76890	34.92289	35.04685	35.17085	35.29480	35.41878
Beam-1		0.00000	2.41917	4.84333	7.24800	9.68667	12.18533	14.53000	16.95167	19.37310	21.79600	24.21667
Beam-1	Top	34.67781	34.80174	34.92876	35.04974	35.17712	35.32979	35.42167	35.54985	35.66961	35.79960	35.91787
Beam-1	Bottom	34.19798	34.19798	34.19798	34.19798	34.19798	34.19798	34.19798	34.19798	34.19798	34.19798	34.19798
Span Support1/2nd - Support2/2												
Locations/Beam Elevations Along Beam CL												
Beam Name	Reference	0/10L	1/10L	2/10L	3/10L	4/10L	5/10L	6/10L	7/10L	8/10L	9/10L	10/10L
Beam-1		0.00000	2.94025	5.88050	8.82075	11.76100	14.70125	17.64150	20.58175	23.52200	26.46225	29.40250
Beam-1	Top	35.83558	35.88558	35.93558	36.03558	36.43558	36.58557	36.73557	36.88557	36.93557	37.08558	37.23558
Beam-1	Bottom	35.57778	35.52778	35.67778	35.82778	35.97778	36.12778	36.27778	36.42778	36.57778	36.72778	36.87778
Beam-1		0.00000	2.41917	4.84333	7.24800	9.68667	12.18533	14.53000	16.95167	19.37310	21.79600	24.21667
Beam-1	Top	34.87558	35.26250	35.71658	35.25545	36.47457	35.54557	36.71558	35.92558	36.75558	37.22558	37.75558
Beam-1	Bottom	34.51878	35.58671	35.71678	35.86871	36.01877	35.54877	36.17658	35.68677	36.41878	36.61878	36.76878
Beam-1		0.00000	2.91757	5.85950	8.79523	11.67600	14.63675	17.59650	20.43635	23.38600	26.27775	29.19750
Beam-1	Top	35.83557	35.88557	35.93557	36.03557	36.43557	36.58557	36.73557	36.88557	36.93557	37.08557	37.23557
Beam-1	Bottom	35.57777	35.52777	35.67777	35.82777	35.97777	36.12777	36.27777	36.42777	36.57777	37.22777	37.77777
Span Support1/2nd - Support3/2												
Locations/Beam Elevations Along Beam CL												
Beam Name	Reference	0/10L	1/10L	2/10L	3/10L	4/10L	5/10L	6/10L	7/10L	8/10L	9/10L	10/10L
Beam-1		0.00000	2.94025	5.88050	8.82075	11.76100	14.70125	17.64150	20.58175	23.52200	26.46225	29.40250
Beam-1	Top	35.83558	35.88558	35.93558	36.03558	36.43558	36.58557	36.73557	36.88557	36.93557	37.08558	37.23558
Beam-1	Bottom	35.57778	35.52778	35.67778	35.82778	35.97778	36.12778	36.27778	36.42778	36.57778	37.22778	37.77778
Beam-1		0.00000	2.41917	4.84333	7.24800	9.68667	12.18533	14.53000	16.95167	19.37310	21.79600	24.21667
Beam-1	Top	34.87558	35.26250	35.71658	35.25545	36.47457	35.54557	36.71558	35.92558	36.75558	37.22558	37.75558
Beam-1	Bottom	34.51878	35.58671	35.71678	35.86871	36.01877	35.54877	36.17658	35.68677	36.41878	36.61878	36.76878
Beam-1		0.00000	2.91757	5.85950	8.79523	11.67600	14.63675	17.59650	20.43635	23.38600	26.27775	29.19750
Beam-1	Top	35.83557	35.88557	35.93557	36.03557	36.43557	36.58557	36.73557	36.88557	36.93557	37.08558	37.23558
Beam-1	Bottom	35.57777	35.52777	35.67777	35.82777	35.97777	36.12777	36.27777	36.42777	36.57777	37.22777	37.77777
Span Support1/2nd - Support2/2												
Locations/Beam Elevations Along Beam CL												
Beam Name	Reference	0/10L	1/10L	2/10L	3/10L	4/10L	5/10L	6/10L	7/10L	8/10L	9/10L	10/10L
Beam-1		0.00000	1.94017	3.88033	5.82050	7.76067	9.70088	11.64010	13.58117	15.52131	17.45150	19.40167
Beam-1	Top	36.83558	36.83455	36.03553	36.10511	36.23149	36.30047	36.42454	36.52843	36.62741	36.72639	36.82637
Beam-1	Bottom	36.37778	36.47676	36.57514	36.67472	36.77332	36.87258	36.97168	36.97654	36.99651	36.99651	36.99651
Beam-1		0.00000	1.93671	3.87510	5.81025	7.85037	9.88053	11.81073	13.75100	15.69125	17.43075	19.36117
Beam-1	Top	36.87558	36.87558	36.87558	36.87558	36.87558	36.87558	36.87558	36.87558	36.87558	36.87558	36.87558
Beam-1	Bottom	36.37778	36.47676	36.57514	36.67472	36.77332	36.87258	36.97168	36.97654	36.99651	36.99651	36.99651
Beam-1		0.00000	1.94177	3.87517	5.81027	7.85037	9.88053	11.81073	13.75100	15.69125	17.43075	19.36117
Beam-1	Top	36.83557	36.83454	36.03552	36.10509	36.23147	36.30046	36.42453	36.52842	36.62740	36.72638	36.82636
Beam-1	Bottom	36.37777	36.47676	36.57514	36.67472	36.77332	36.87258	36.97168	36.97654	36.99651	36.99651	36.99651
Span Support1/2nd - Support3/2												
Locations/Beam Elevations Along Beam CL												
Beam Name	Reference	0/10L	1/10L	2/10L	3/10L	4/10L	5/10L	6/10L	7/10L	8/10L	9/10L	10/10L
Beam-1		0.00000	1.94017	3.88033	5.82050	7.76067	9.70088	11.64010	13.58117	15.52131	17.45150	19.40167
Beam-1	Top	36.83558	36.83455	36.03553	36.10511	36.23149	36.30047	36.42454	36.52843	36.62741	36.72639	36.82637
Beam-1	Bottom	36.37778	36.47676	36.57514	36.67472	36.77332	36.87258	36.97168	36.97654	36.99651	36.99651	36.99651
Beam-1		0.00000	1.94177	3.87517	5.81027	7.85037	9.88053	11.81073	13.75100	15.69125	17.43075	19.36117
Beam-1	Top	36.83557	36.83454	36.03552	36.10509	36.23147	36.30046	36.42453	36.52842	36.62740	36.72638	36.82636
Beam-1	Bottom	36.37777	36.47676	36.57514	36.67472	36.77332	36.87258	36.97168	36.97654	36.99651	36.99651	36.99651
Span Support1/2nd - Support2/2												
Locations/Beam Elevations Along Beam CL												
Beam Name	Reference	0/10L	1/10L	2/10L	3/10L	4/10L	5/10L	6/10L	7/10L	8/10L	9/10L	10/10L
Beam-1		0.00000	1.94017	3.88033	5.82050	7.76067	9.70088	11.64010	13.58117	15.52131	17.45150	19.40167
Beam-1	Top	36.87558	36.87558	36.87558	36.87558	36.87558	36.87558	36.87558	36.87558	36.87558	36.87558	36.87558
Beam-1	Bottom	36.37778	36.47676	36.57514	36.67472	36.77332	36.87258	36.97168	36.97654	36.99651	36.99651	36.99651
Beam-1		0.00000	1.94177	3.87517	5.81027	7.85037	9.88053	11.81073	13.75100	15.69125	17.43075	19.36117
Beam-1	Top	36.83557	36.83454	36.03552	36.10509	36.23147	36.30046	36.42453	36.52842	36.62740	36.72638	36.82636
Beam-1	Bottom	36.37777	36.47676	36.57514	36.67472	36.77332	36.87258	36.97168	36.97654	36.99651	36.99651	36.99651
Span Support1/2nd - Support3/2												
Locations/Beam Elevations Along Beam CL												
Beam Name	Reference	0/10L	1/10L	2/10L	3/10L	4/10L	5/10L	6/10L	7/10L	8/10L	9/10L	10/10L
Beam-1		0.00000	1.94017	3.8								

F1 Help

- Context sensitive Help implemented
- Previously only opened the main help page
- Now goes to related help Topic



2025-HelperTopics/772X5/5UD-477EB409-2AEE-43CA-9A49-10F45A06175A.html

Bentley | OpenBridge Modeler Help

OpenBridge Modeler - Help

Drawings: Dynamic View Settings dialog

Used to specify

Opens when either:

- the **Settings** tool is selected from the **Drawings** group on the **Analysis and Reporting** ribbon tab, or
- **report settings dynamicviewsettings** command is keyed in.

SETTING	DESCRIPTION
AUTO DIMENSIONS	Check this option to generate dimensions automatically for the drawing elements. Opens the Auto Dimensions controls group.
CLIP	Check this option to Clip Columns and Piles to fit drawing sheet, rather than drawing them full length. Opens the Clip controls group.
AUTO FIT	Check this option to center and fit drawing into sheet. This may create a custom scale. Opens the Auto Fit controls group.
HIDDEN STYLE NAME	Type the style name used for hidden lines. Selected objects behind primary objects will be shown using this style. (e.g., Columns in the top view of the cap)
DIMENSION STYLE NAME	Type the dimension style name to be used for all dimensions.
TITLE TEXT STYLE NAME	Type in title style name to be used for all titles.
DRAWING SEED MODEL	Type the name of the drawing seed model to show by default in the Create Drawing dialog when the Create Drawing tool is selected.
PIER REFERENCE COPIES	OpenBridge Modeler uses the folded reference views concept to generate the various views from the Dynamic View. While the front elevation view is always included, you can select any other view you want in the drawing: Top Right Bottom Left

Support Line Item Type Properties

Ahead Span

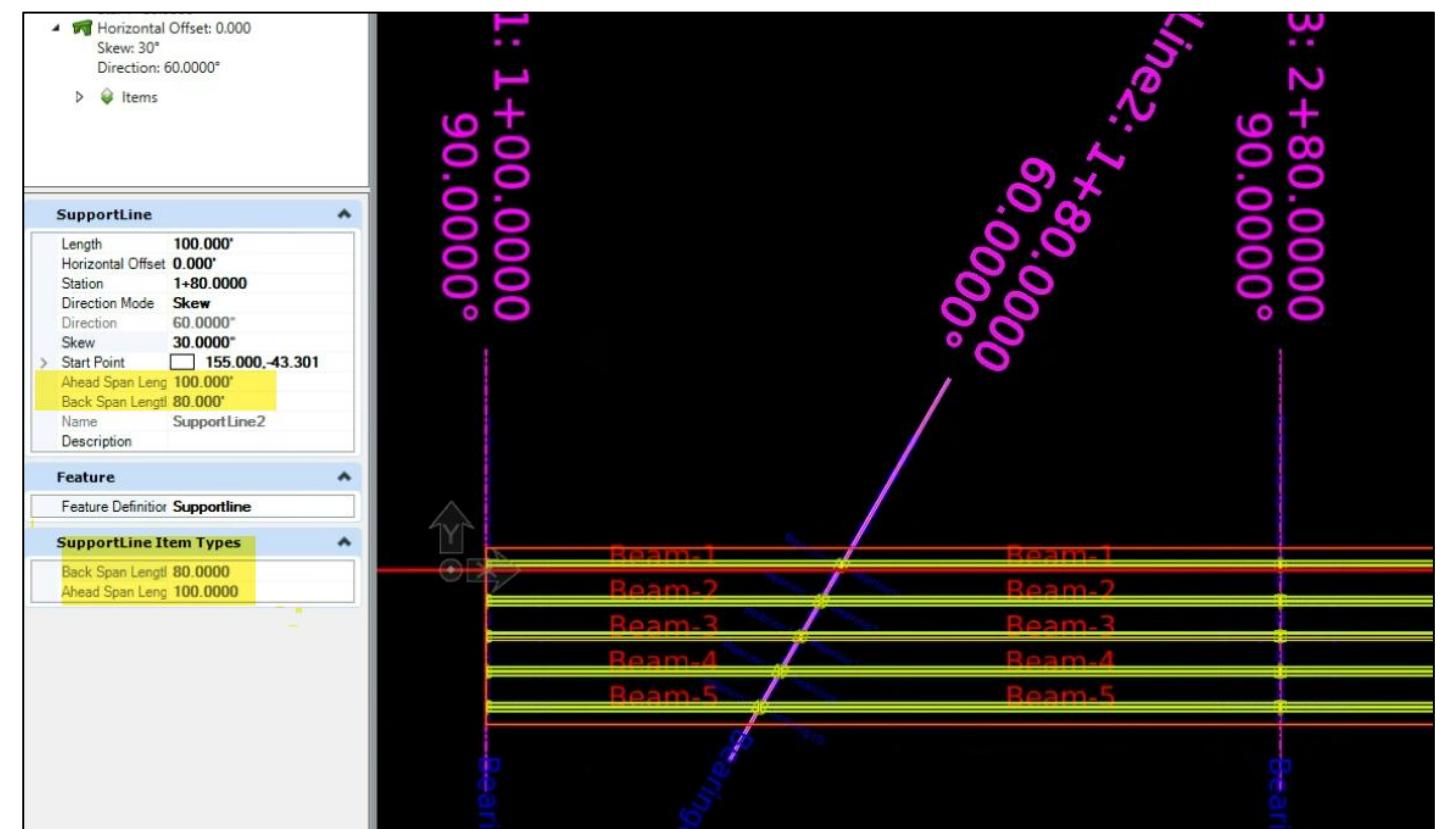
Forward Span

Span returned is the length measured along Alignment between Support Lines

Also accessible with Item Types

Item Type Expressions

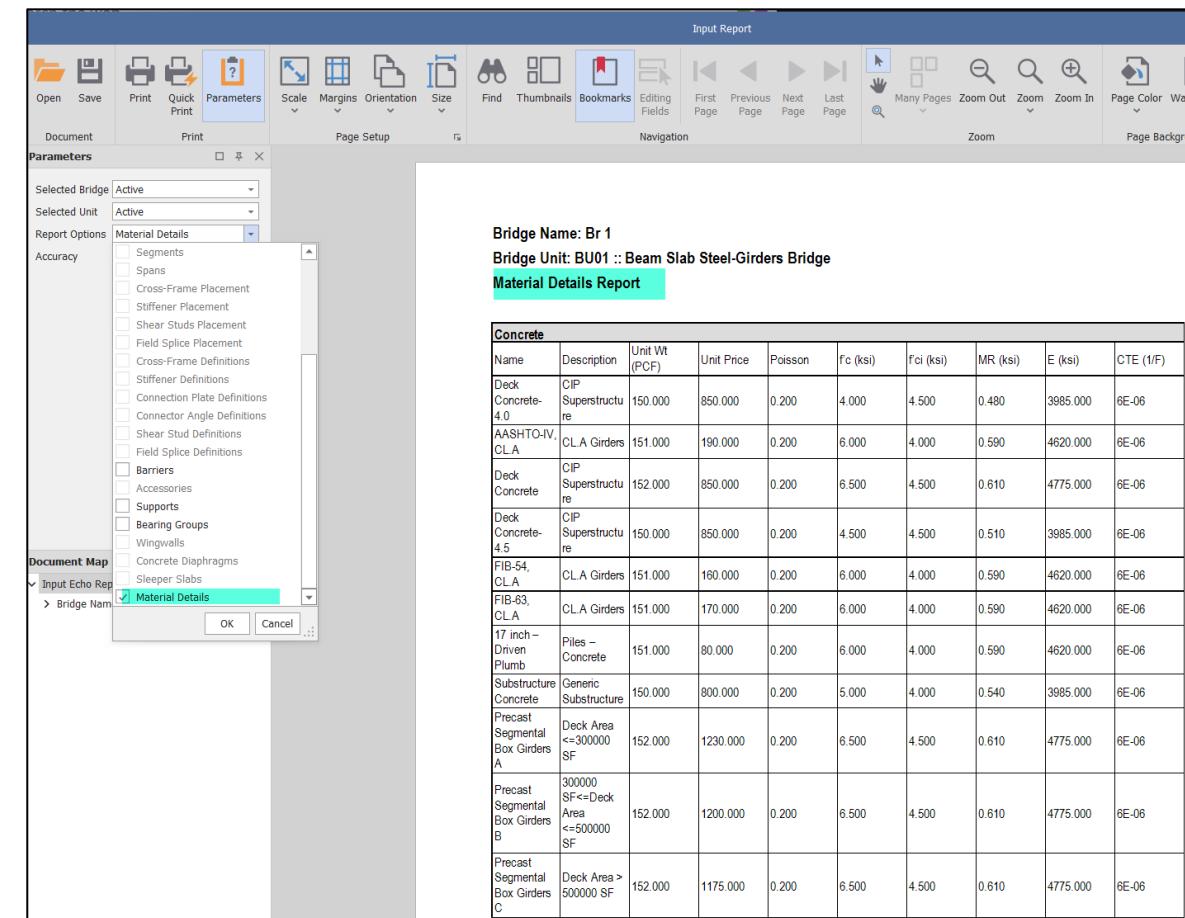
- `this.GetSupportLine().AheadSpanLength()`
- `this.GetSupportLine().BackSpanLength()`



New Materials Details Report

While material names were printed, details were missing.

Materials are from the dgn file and not always matching those from the libraries.



Bridge Name: Br 1
 Bridge Unit: BU01 :: Beam Slab Steel-Girders Bridge
Material Details Report

Concrete

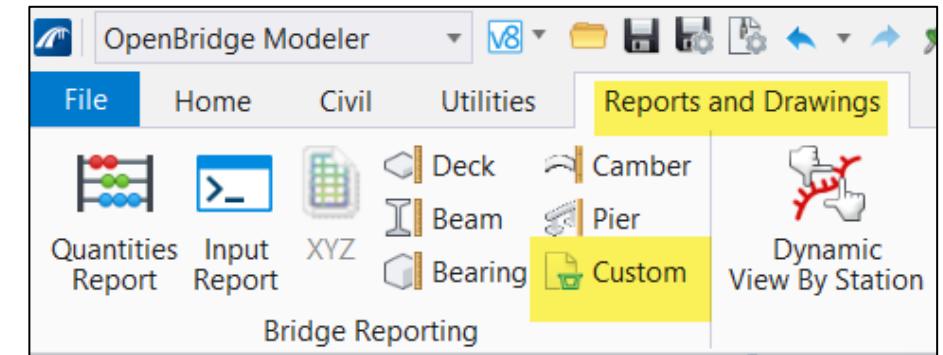
Name	Description	Unit Wt (PCF)	Unit Price	Poisson	f _c (ksi)	f _{ci} (ksi)	MR (ksi)	E (ksi)	CTE (1/F)
Deck Concrete-4.0	CIP Superstructure	150.000	850.000	0.200	4.000	4.500	0.480	3985.000	8E-06
AASHTO-IV, CL.A	CL.A Girders	151.000	190.000	0.200	6.000	4.000	0.590	4620.000	8E-06
Deck Concrete	CIP Superstructure	152.000	850.000	0.200	6.500	4.500	0.610	4775.000	8E-06
Deck Concrete-4.5	CIP Superstructure	150.000	850.000	0.200	4.500	4.500	0.510	3985.000	8E-06
FIB-54, CL.A	CL.A Girders	151.000	160.000	0.200	6.000	4.000	0.590	4620.000	8E-06
FIB-63, CL.A	CL.A Girders	151.000	170.000	0.200	6.000	4.000	0.590	4620.000	8E-06
17 inch-Driven Plumb	Piles - Concrete	151.000	80.000	0.200	6.000	4.000	0.590	4620.000	8E-06
Substructure Concrete	Generic Substructure	150.000	800.000	0.200	5.000	4.000	0.540	3985.000	8E-06
Precast Segmental Box Girders A	Deck Area <=300000 SF	152.000	1230.000	0.200	6.500	4.500	0.610	4775.000	8E-06
Precast Segmental Box Girders B	300000 SF <=Deck Area <=500000 SF	152.000	1200.000	0.200	6.500	4.500	0.610	4775.000	8E-06
Precast Segmental Box Girders C	Deck Area > 500000 SF	152.000	1175.000	0.200	6.500	4.500	0.610	4775.000	8E-06

Custom Reports

Several new reports added to facilitate comparison with a popular bridge geometry software

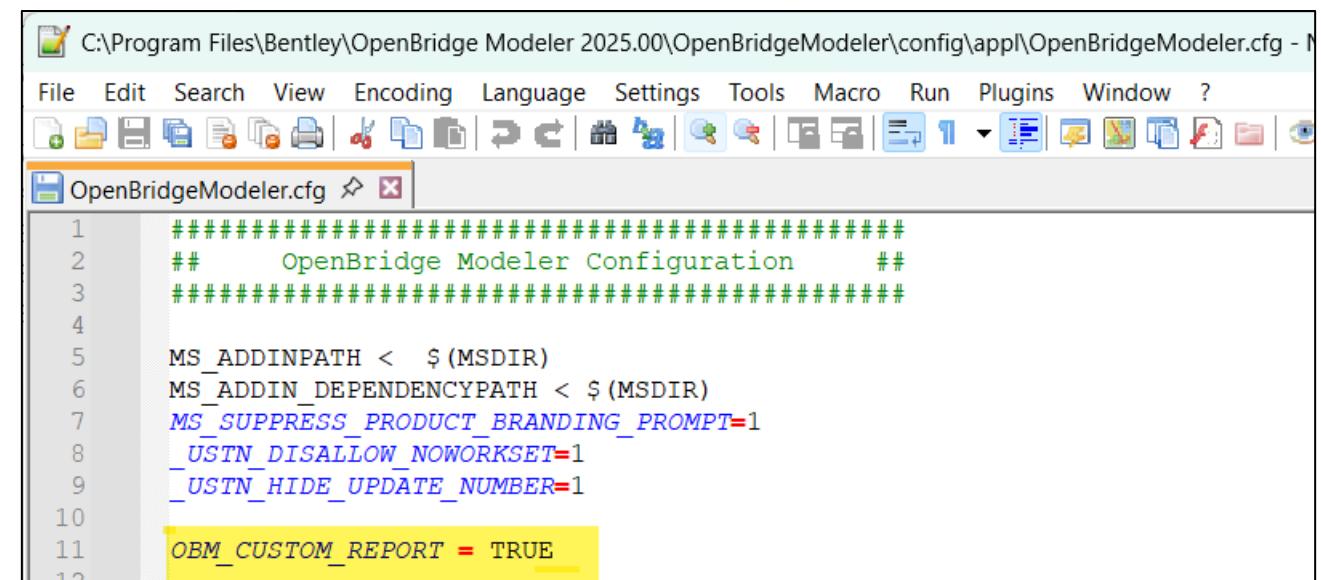
To remove this icon from the Ribbon toolbar, edit the cfg file and comment out the following line

OBM_CUSTOM_REPORT = TRUE



New reports for

- Bent Line
- Bents
- Beams
- Bearing Seat Elevations
- Quantities by Span



```
C:\Program Files\Bentley\OpenBridge Modeler 2025.00\OpenBridgeModeler\config\appl\OpenBridgeModeler.cfg - N
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
OpenBridgeModeler.cfg ✘ ✗
1 ######
2 ##      OpenBridge Modeler Configuration      ##
3 ######
4
5 MS_ADDINPATH < $(MSDIR)
6 MS_ADDIN_DEPENDENCYPATH < $(MSDIR)
7 MS_SUPPRESS_PRODUCT_BRANDING_PROMPT=1
8 _USTN_DISALLOW_NOWORKSET=1
9 _USTN_HIDE_UPDATE_NUMBER=1
10
11 OBM_CUSTOM_REPORT = TRUE
12
```

Custom Reports

New reports for

- Bent Line
- Bents
- Beams
- Bearing Seat Elevations
- Quantities by Span
- Bearing Report

The screenshot displays the OpenBridge Modeler software interface with several windows open:

- Input Report**: Shows a toolbar with Open, Save, Print, Quick Print, Parameters, Scale, Margins, Orientation, Size, Find, Thumbnails, Bookmarks, Editing Fields, and Navigation buttons. The title bar says "Input Report".
- Parameters**: A dialog box for "Selected Bridge: Active" and "Selected Unit: Active". It includes "Report Options: Supports, Beam Groups, B" and "Accuracy: 0.1234". Buttons for "Reset" and "Submit" are at the bottom.
- Document Map**: A tree view showing "Input Echo Report" and "Bridge Name: Tx62 40-Rdw 2-Span".
- BENT LINE REPORT**: A table for "Bridge Name: Tx62 40-Rdw 2-Span" and "Bridge Unit: BU01 :: Beam Slab Concrete-Girders Bridge". It lists spans, stations, x, y, pol. elevation, and bearing.
- BENT REPORT Abutment1 / DISTANCE BETWEEN STATION LINE AND BENT: 0.0000**: A table for "BENT REPORT Abutment1 / DISTANCE BETWEEN STATION LINE AND BENT: 0.0000". It lists spans, beam, beamspac, beamangle, dist cl bent, perp to cl bent, cl brng along cl beam, dist cl bent perp to cl bent, and end of bm along cl beam.
- BENT REPORT Pier1 / DISTANCE BETWEEN STATION LINE AND BENT: 10.0000**: A table for "BENT REPORT Pier1 / DISTANCE BETWEEN STATION LINE AND BENT: 10.0000". It lists spans, beam, beamspac, beamangle, dist cl bent, perp to cl bent, cl brng along cl beam, dist cl bent perp to cl bent, and end of bm along cl beam.
- BENT REPORT Abutment2 / DISTANCE BETWEEN STATION LINE AND BENT: 10.0000**: A table for "BENT REPORT Abutment2 / DISTANCE BETWEEN STATION LINE AND BENT: 10.0000". It lists spans, beam, beamspac, beamangle, dist cl bent, perp to cl bent, cl brng along cl beam, dist cl bent perp to cl bent, and end of bm along cl beam.
- BEAM REPORT / SPAN: Abutment1-Bent 2**: A table for "BEAM REPORT / SPAN: Abutment1-Bent 2". It lists beam, cc bent, cc brng, bot bm flo, slope, and bearing.
- BEAM REPORT / SPAN: Bent 2-Abutment 3**: A table for "BEAM REPORT / SPAN: Bent 2-Abutment 3". It lists beam, cc bent, cc brng, bot bm flo, slope, and bearing.

At the bottom, the status bar shows "OpenBridge Modeler version 25.0.0.92" and "CIVIC CONNECT Edition 2020 Dataset_A_Case_E_2020ig". The page footer says "Page 1 of 2".

Texas, quantities by Span

Example 1, steel bridge

TABLE OF ESTIMATED QUANTITIES				
Span	Reinf Conc Slab	Reinforcing Steel	Structural Steel	Structural Steel (Plate Girder)
	SF	Lb	Lb	
21	6377	29972		
22	5738 (9)	26969		
Total	12115	56941		986400

⑥ Reinforcing steel weight is calculated using an approximate factor of 4.7 lbs per sq ft.

⑦ Composite concrete DL is included

⑧ Dead load deflections and camber "Y" values calculated assuming continuous concrete slab placement, per Item 422.4.6.13.3.

⑨ Quantity includes slab area over Bent 23 Inverted T

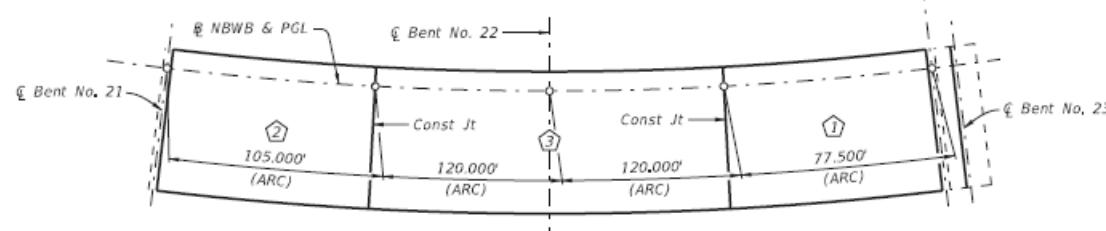
TABLE OF ESTIMATED QUANTITIES			
Span	Reinf Conc Slab	Reinforcing Steel (6)	Structural Steel (Plate Girder)
	SF	Lb	Lb
21	6377	29972	
22	5738 (9)	26969	
Total	12115	56941	986400

6 Reinforcing steel weight is calculated using an approximate factor of 4.7 lbs per sq ft.

⑦ Composite concrete DL is included.

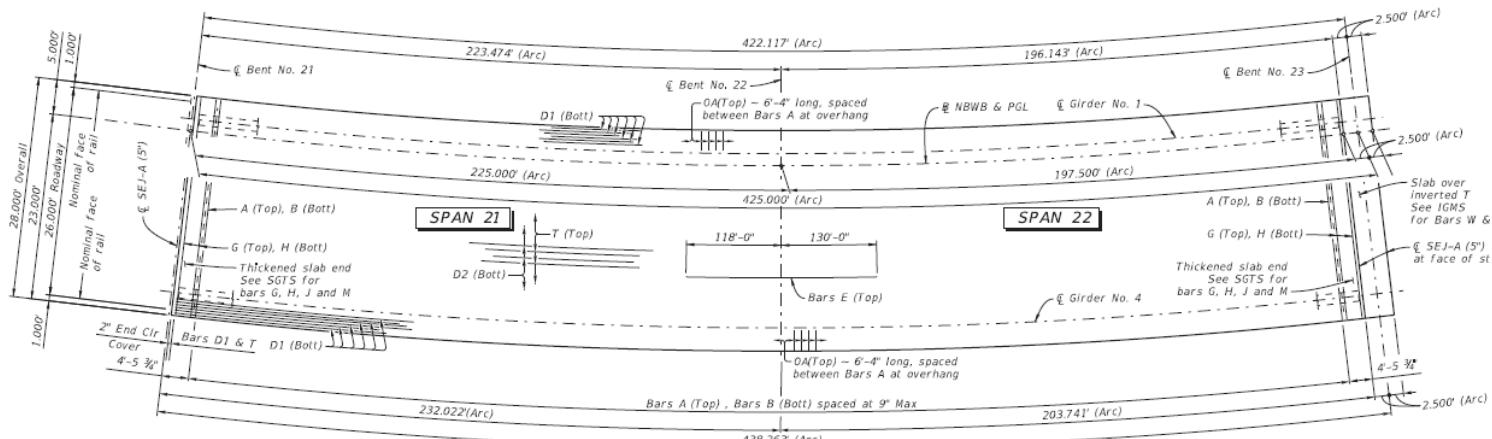
⑧ Dead load deflections and camber "Y" values calculated assuming continuous concrete slab placement, per Item 422.4.6.13.3.

⑨ Quantity includes slab area over Bent 23 Inverted T



OPTIONAL CONCRETE PLACING SEQUENCE

Use above placing sequence if continuous placement cannot be achieved.



thickness, ft	0.708333		
width, ft	28		
Align Arc Radius, ft	225		(105+120)
Volume	4462.5		
Area	6300	Plans show	6377 ft

Quantities Report by Span

Custom Report

Parameters

Selected Bridge: Active

Selected Unit: Active

Report Options: Quantities By Span

Steel Weight Factors:

Concrete Beams: 3.9

Steel Beams: 4.4

Accuracy: 0.123

Reset Submit

Span	Reinf Conc Slab	Reinforcing Steel (6)	Structural Steel (Plate Girder)
	SF	Lb	Lb
21	6377	29972	
22	5738 (9)	26969	
Total	12115	56941	986400

(6) Reinforcing steel weight is calculated using an approximate factor of 4.7 lbs per sq ft.

(7) Composite concrete DL is included.

(8) Dead load deflections and camber "Y" values calculated assuming continuous concrete slab placement, per Item 422.4.6.13.3.

(9) Quantity includes slab area over Bent 23 Inverted T

Quantity Reports by Span

Span	Reinf Conc Slab	Reinforcing Steel	Structural Steel		
			Bottom Flange1	Top Flange1	Web1
	Square Foot	Lbs	Lbs	Lbs	Lbs
1	4687.902	20626.769			
2	6563.052	28877.430			
3	6563.053	28877.435			
4	4687.903	20626.772			
Total	22501.910	99008.406	258399.439	258399.299	323339.585

Note: Reinforcing steel weight is calculated using an approximate factor of 4.4 Lbs per Square Foot

Bent Line Report

For each support line, this report shows:

- Station
- X, Y (at the intersection of alignment with Support line)
- PGL – Elevation
- Bearing

Bent Lines Report

BENT LINE REPORT					
NAME	STATION	X	Y	PGL ELEVATION	BEARING
SupportLine1	1+00.0000	99.740	1006.242	501.500	N07°09'43.10"W
SupportLine2	2+25.0000	222.045	1031.433	503.375	N16°06'51.98"W
SupportLine3	4+00.0000	383.540	1097.934	506.000	N28°38'52.40"W
SupportLine4	5+75.0000	526.756	1197.897	508.625	N41°10'52.83"W
SupportLine5	7+00.0000	614.035	1287.203	510.500	N50°08'01.71"W

Bent Report – Canned Report (Conc. Beams)

Available for

- Abutments
- Piers

Back and Forward spans for each Pier/Bent

Reports:

- Beam Spacing at CL of Bent
- Beam Angle
- Dist CL Bent Perp to CL Bent
- CL Bearing along CL Beam
- Dist CL Bent Perp to CL Bent
- End of Beam along CL Beam

Bents Report

SPAN	BEAM	BEAM SPAC. (CL BENT)	BEAM ANGLE (D M S)	BENT REPORT Abutment1 / DISTANCE BETWEEN STATION LINE AND Beam-1: 16.000			
				DIST CL BENT TO CL BRNG	DIST CL BENT TO END OF BM	PERP TO CL BENT	ALONG CL BEAM
SupportLine1 - SupportLine2	Beam-1	0.000	92°51'55.2909"	0.749	0.750	0.250	0.250
SupportLine1 - SupportLine2	Beam-2	8.010	92°51'55.2909"	0.749	0.750	0.250	0.250
SupportLine1 - SupportLine2	Beam-3	8.010	92°51'55.2909"	0.749	0.750	0.250	0.250
SupportLine1 - SupportLine2	Beam-4	8.010	92°51'55.2909"	0.749	0.750	0.250	0.250
SupportLine1 - SupportLine2	Beam-5	7.970	92°51'55.2593"	0.749	0.750	0.250	0.250

BENT REPORT Pier1 / DISTANCE BETWEEN STATION LINE AND Beam-1: 15.999

SPAN	BEAM	BEAM SPAC. (CL BENT)	BEAM ANGLE (D M S)	BENT REPORT Pier1 / DISTANCE BETWEEN STATION LINE AND Beam-1: 15.999			
				DIST CL BENT TO CL BRNG	DIST CL BENT TO END OF BM	PERP TO CL BENT	ALONG CL BEAM
SupportLine1 - SupportLine2	Beam-1	0.000	87°08'08.8103"	0.749	0.750	-0.250	-0.250
SupportLine1 - SupportLine2	Beam-2	8.010	87°08'08.8103"	0.749	0.750	-0.250	-0.250
SupportLine1 - SupportLine2	Beam-3	8.010	87°08'08.8103"	0.749	0.750	-0.250	-0.250
SupportLine1 - SupportLine2	Beam-4	8.010	87°08'08.8103"	0.749	0.750	-0.250	-0.250
SupportLine1 - SupportLine2	Beam-5	7.970	87°08'08.7786"	0.749	0.750	-0.250	-0.250

Beam Report

TXDOT specific Report

BEAM REPORT, SPAN 1						
	HORIZONTAL DISTANCE C-C BENT	TRUE DISTANCE C-C BRG.	BOT. BM. FLG.	BEAM SLOPE	BEAM BEARING	
BEAM 1	62.7458	60.7437	62.2987	0.04144	N 74 0	8.07 E
BEAM 2	63.8500	61.8479	63.4020	0.04072	N 74 0	8.07 E
BEAM 3	64.9542	62.9521	64.5053	0.04003	N 74 0	8.07 E
BEAM 4	66.0585	64.0563	65.6087	0.03937	N 74 0	8.07 E
BEAM 5	67.1627	65.1606	66.7121	0.03871	N 74 0	8.07 E

Bridge Name: Tx62 40-Rdwy 2-Span

Bridge Unit: BU01 :: Beam Slab Concrete-Girders Bridge

BEAM REPORT / SPAN: Abutment 1 - Bent 2					
BEAM	CC BENT	CC BRG	BOT BM FLG	SLOPE	BEARING
Beam-1	62.7458	60.7416	62.2992	0.0414	N74°00'08.07"E
Beam-2	63.8500	61.8458	63.4025	0.0407	N74°00'08.07"E
Beam-3	64.9542	62.9500	64.5059	0.0400	N74°00'08.07"E
Beam-4	66.0585	64.0542	65.6092	0.0394	N74°00'08.07"E
Beam-5	67.1627	65.1585	66.7126	0.0387	N74°00'08.07"E

Bearing Report

For each Bearing reports

Beam Name

Nearest Bridge Alignment
Station

Offset from Alignment

X, Y

Depth below Ref. Line

Reference Elevation

Bearing Seat Elevation

Bearing Seat Elevations Report

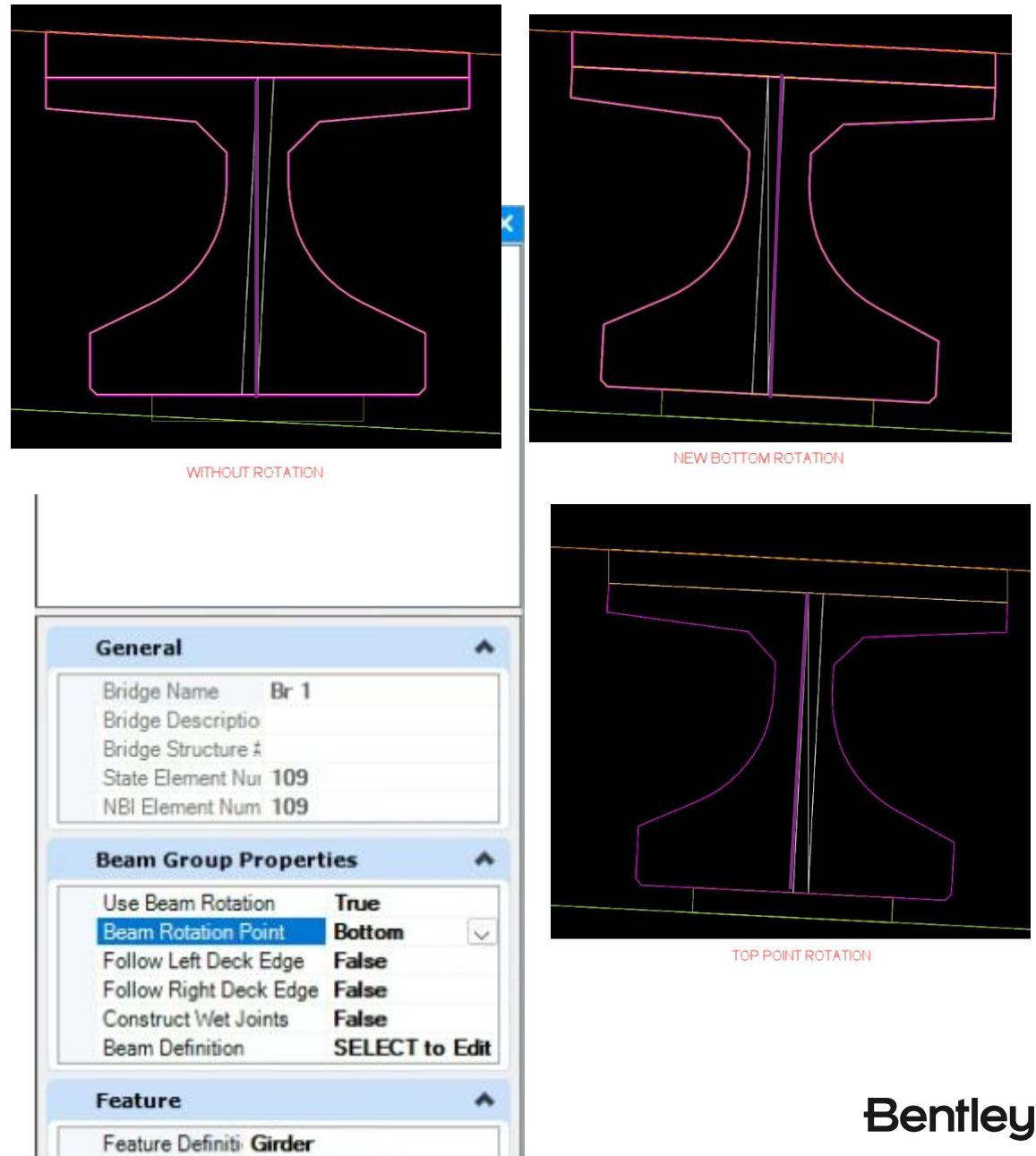
BEARING SEAT ELEVATIONS FOR ABUTMENT1

BEAM	NEAREST BRIDGE ROADWAY	OFFSET FROM BRIDGE ROADWAY	BEAM/BENT INTERSECTION COORDINATES X	BEAM/BENT INTERSECTION COORDINATES Y	DEPTH TO REF LINE	DEPTH BELOW REF LINE	REFERENCE ELEVATION	BEARING SEAT ELEV
BEAM REPORT, SPAN 2								
BEARING SEAT ELEVATIONS FOR BENT 2								
1	4+66.0331	-17.0639	1456.8021	1045.7301	0.0000	6.3975	118.3016	111.9041
2	4+66.0153	-8.5639	1459.6705	1037.7287	0.0000	6.3972	118.4709	112.0737
3	4+65.9980	-0.0640	1462.5389	1029.7273	0.0000	6.3973	118.6402	112.2429
4	4+65.9813	8.4360	1465.4073	1021.7259	0.0000	6.3974	118.8095	112.4121
5	4+65.9652	16.9360	1468.2756	1013.7245	0.0000	6.3972	118.9789	112.5817
BEARING SEAT ELEVATIONS FOR BENT 3								
1	5+28.9647	-17.0641	1512.5304	1069.8993	0.0000	8.9974	123.4187	114.4213
2	5+28.9826	-8.5641	1516.4119	1062.3373	0.0000	8.9973	123.5894	114.5921
3	5+28.9999	-0.0641	1520.2933	1054.7752	0.0000	8.9972	123.7601	114.7629
4	5+29.0166	8.4359	1524.1747	1047.2132	0.0000	8.9971	123.9308	114.9337
5	5+29.0328	16.9359	1528.0562	1039.6511	0.0000	8.9973	124.1014	115.1041
FF								
Beam-2	1+80.7426	-7.937	180.987	-12.596	5.737	99.841	94.104	
Beam-3	1+80.7501	0.079	179.199	-20.409	5.736	99.998	94.262	
Beam-4	1+80.7577	8.094	177.410	-28.223	5.736	99.838	94.102	
Beam-5	1+80.7654	16.047	175.636	-35.975	5.736	99.679	93.943	

TXDOT: Beam Rotation

This feature is applicable exclusively to straight, chorded beams and is limited to concrete beams only.

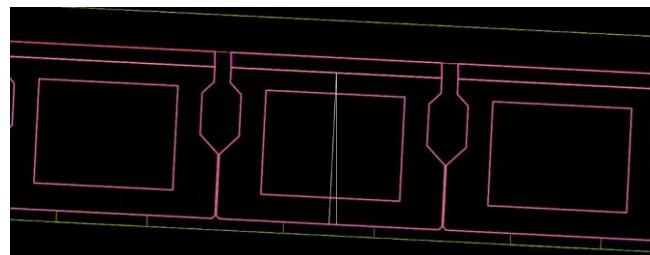
In the GUI, it can be found under Beam Group Properties, where the Beam Rotation Point can be set to either Top or Bottom.



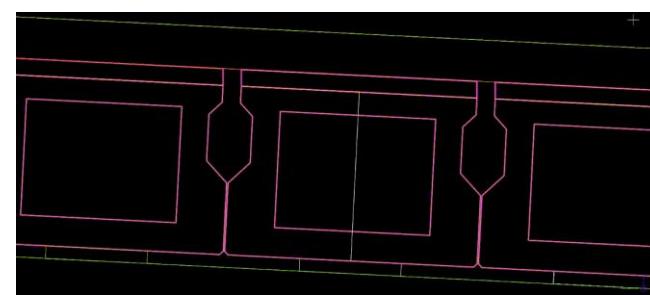
TXDOT: Beam Rotation

X beams positioned at Crown

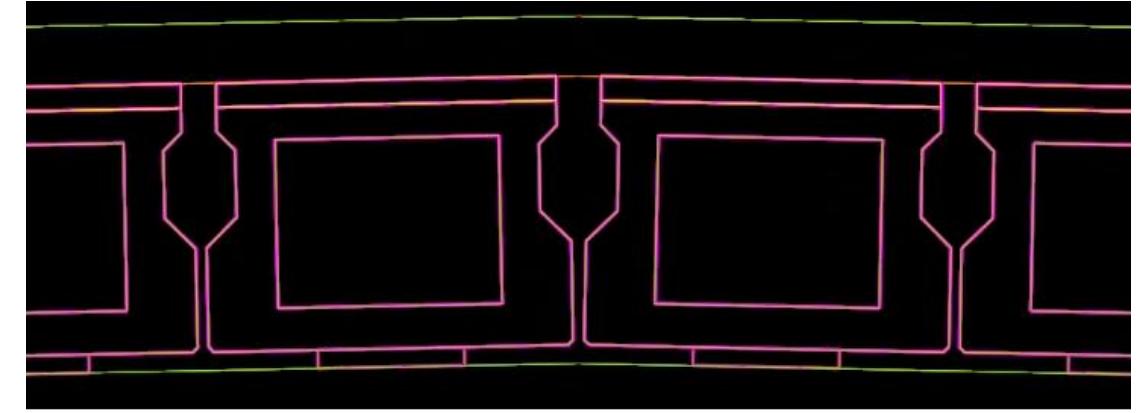
Overlap at the bottom is now prevented because the beams are rotated around the bottom rather than the top.



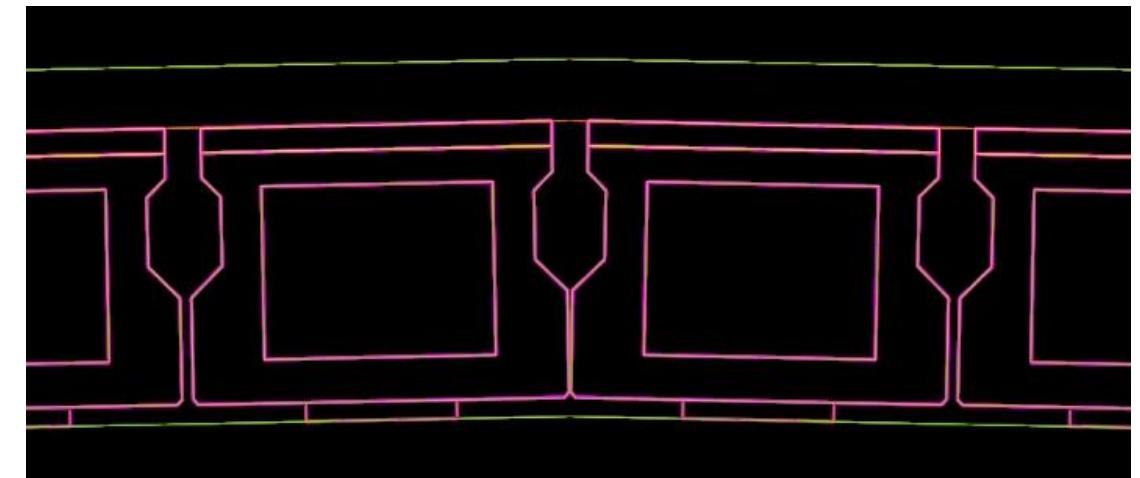
TOP ROTATION



BOTTOM ROTATION



BOTTOM ROTATION



TOP ROTATION

Concrete Beams: End Cuts

Beam Definition > Advanced Beam Definition >

Define Width and Depth

Depth is measured from the top of the beam along the vertical axis of the beam.

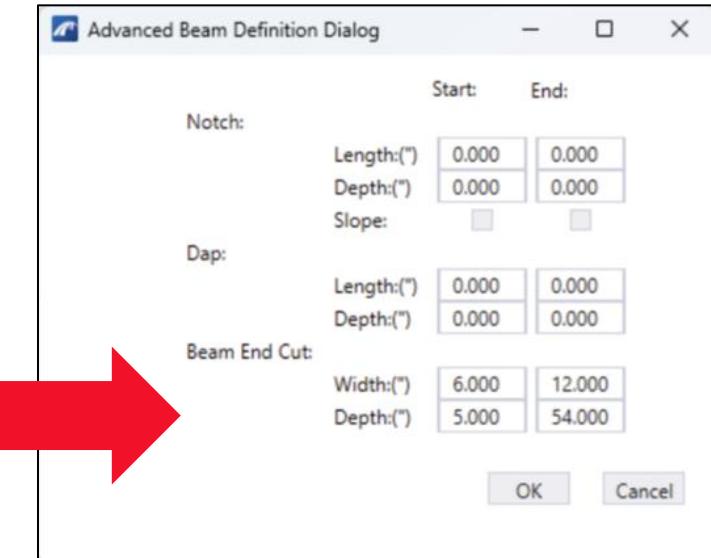
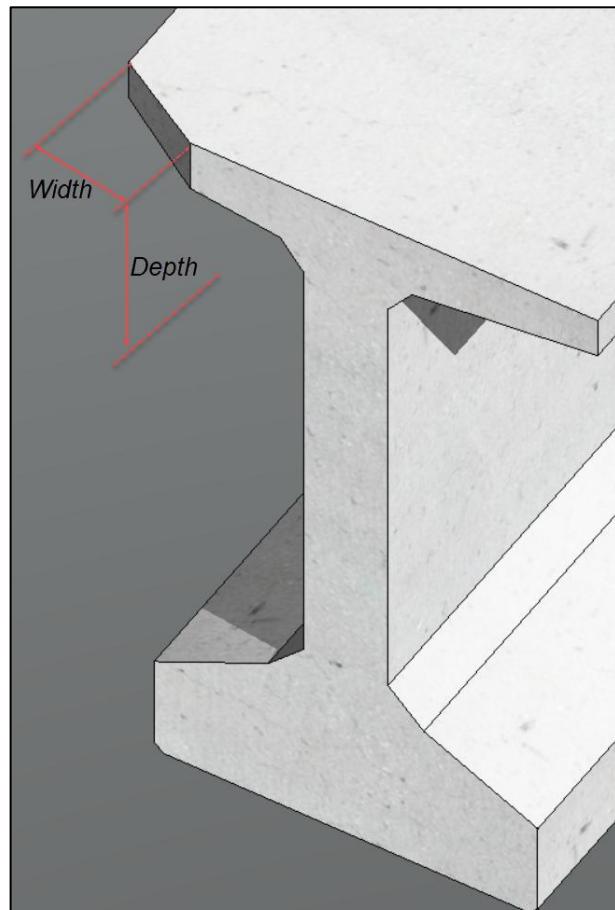
Width is measured perpendicular to the beam line from the beam edge.

Cut skew is determined by the skew of the support line.

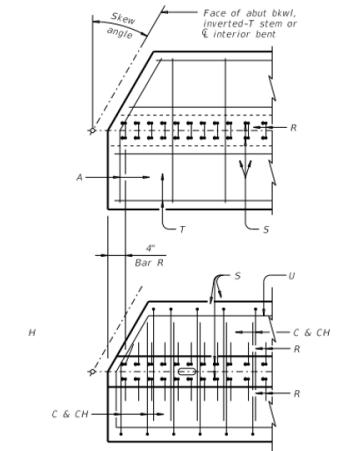
Haunch cuts are applied automatically.

Specify these dimensions at the start and/or end of each beam.

Options are available to copy settings to other beams.



IG-IGD-23

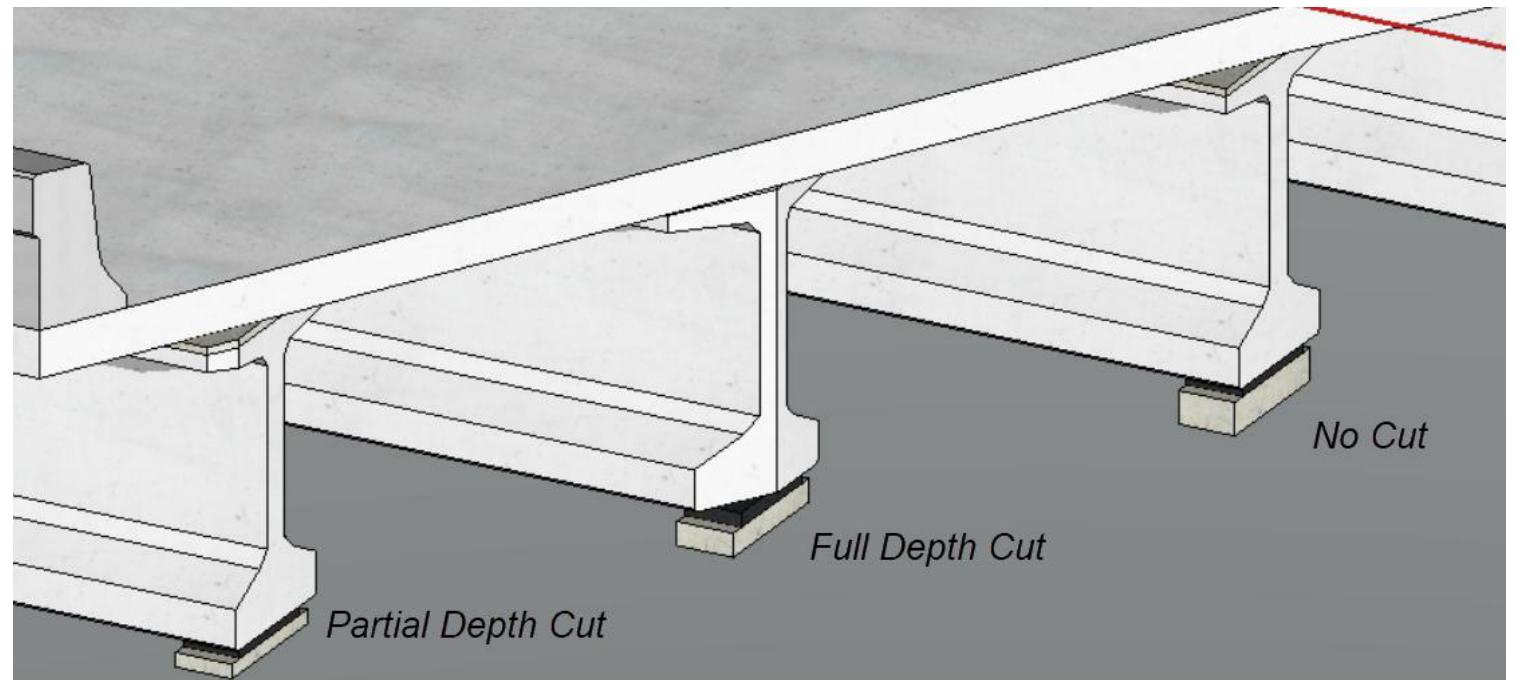
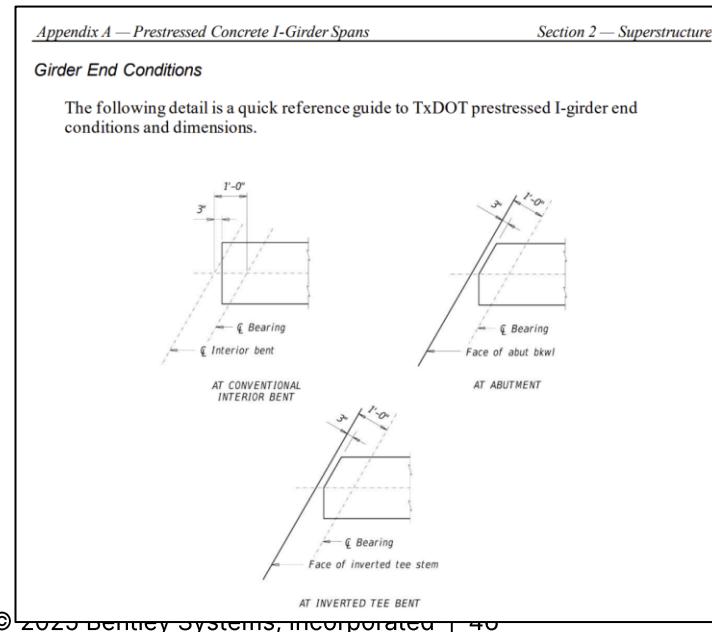
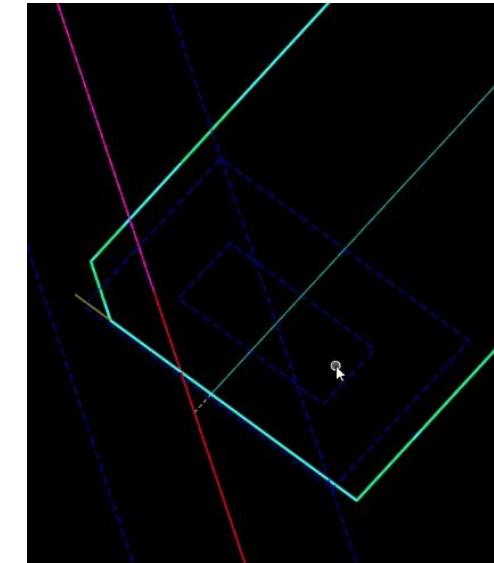


Beam End Cuts

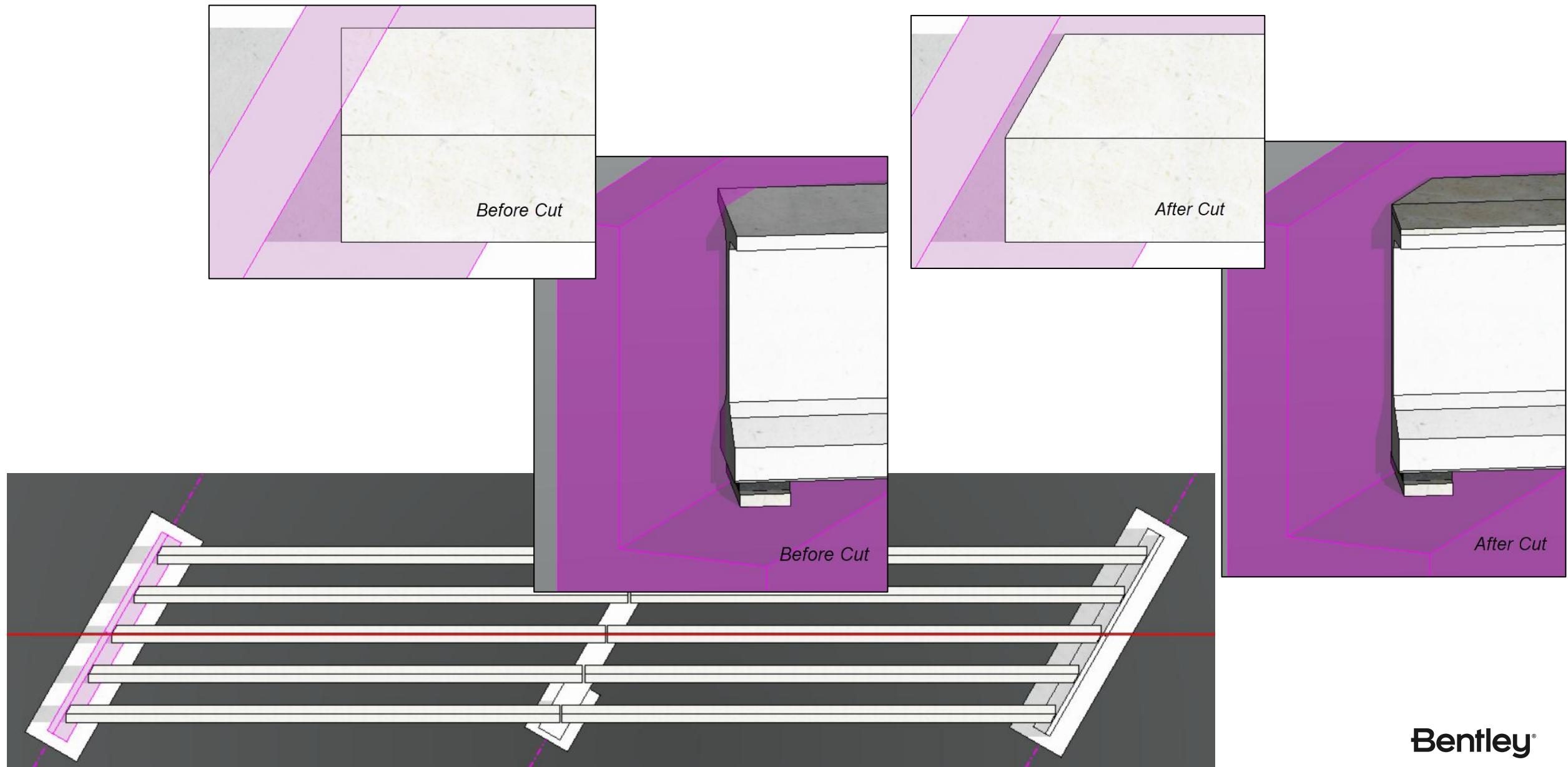
The process is not automatic; users must input the desired values manually.

Decorations have been revised to correspond with the cut.

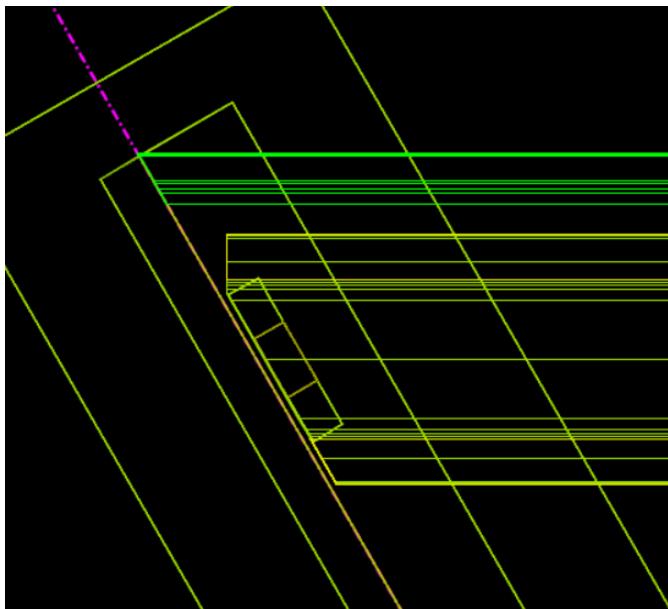
Cuts can only be made when the ends are skewed.



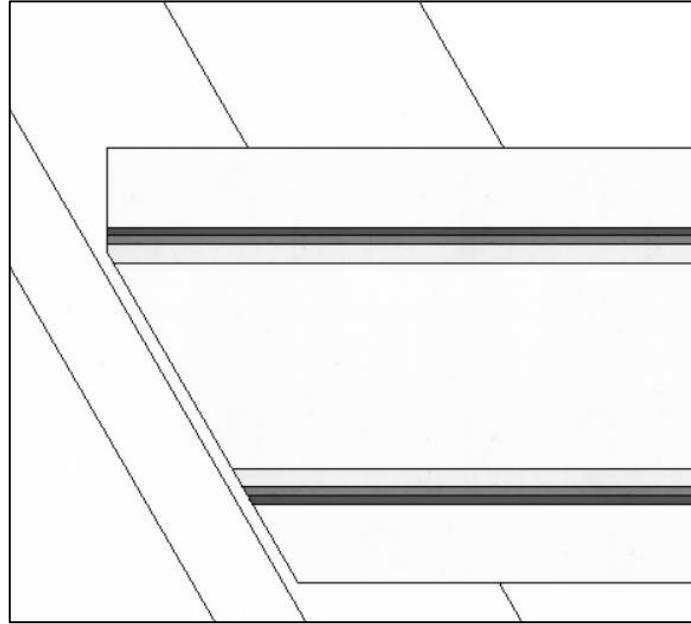
Beam End Cuts



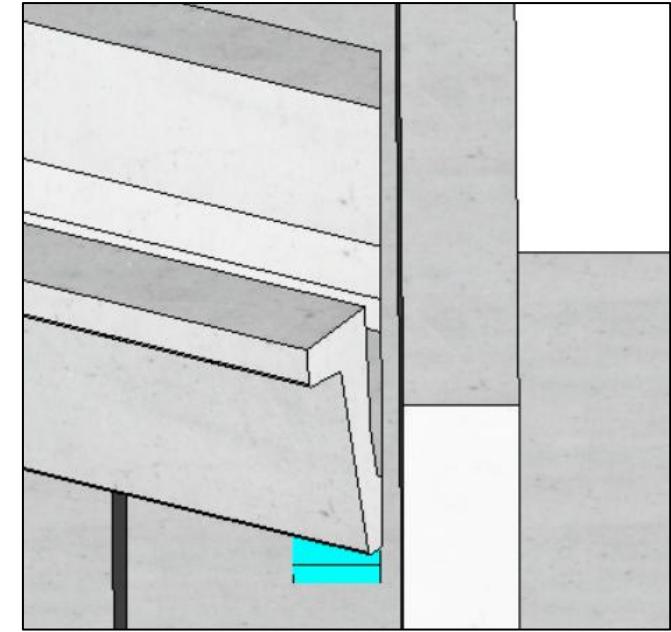
Beam End Cuts for U Beams



Plan View



Iso View



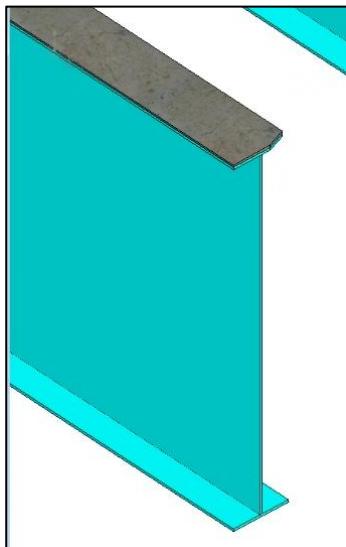
Beam End Cuts for Steel Beams

Applicable for:

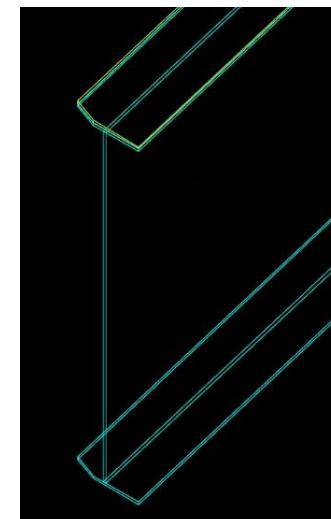
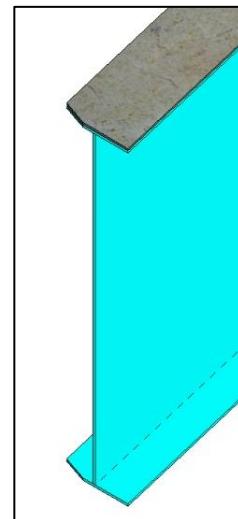
- Rolled Beams
- Built-up Beams

Restrictions: Currently not available for Tub Girders

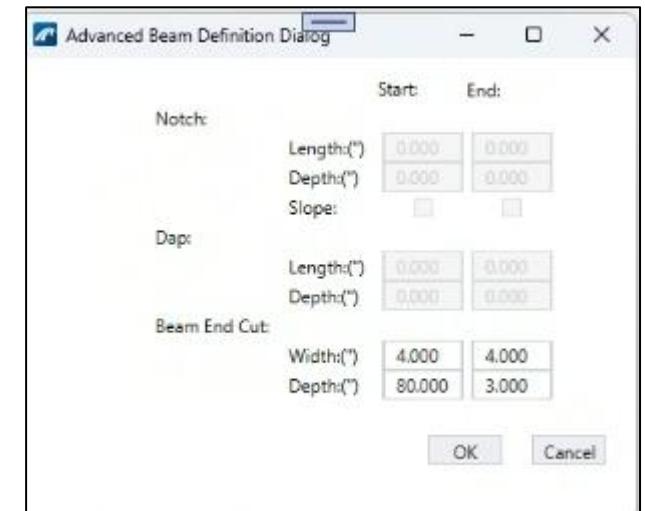
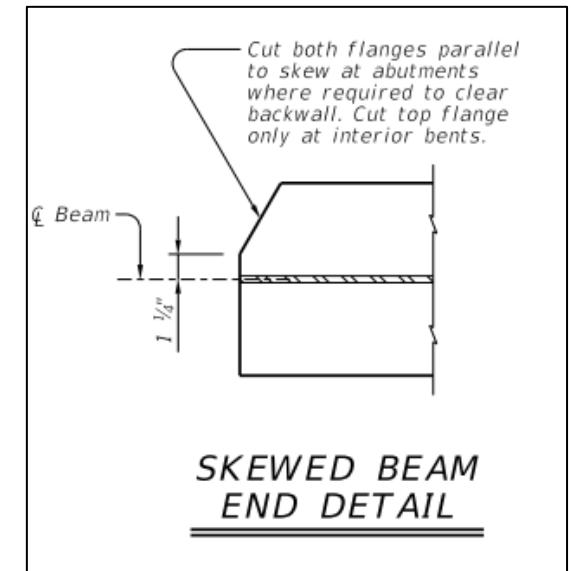
Allows entry of distinct values for the start and end points



Only Top Flange Clipped



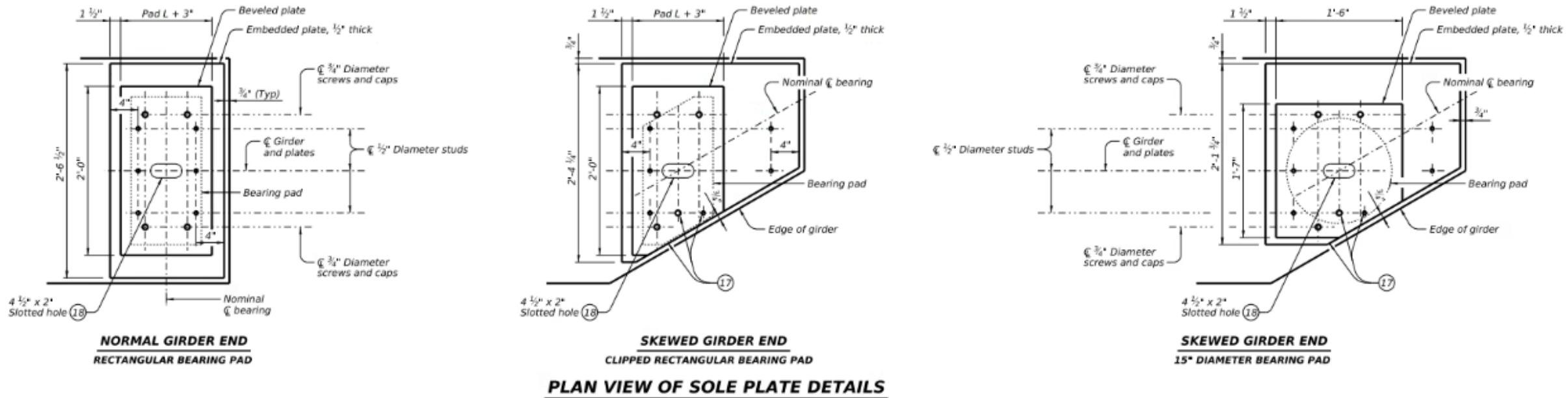
Both Top and Bottom Flanges Clipped



Bearing Clips along with Bearing Seat End Clips

Input large depth for cutting bearing and bearing seats

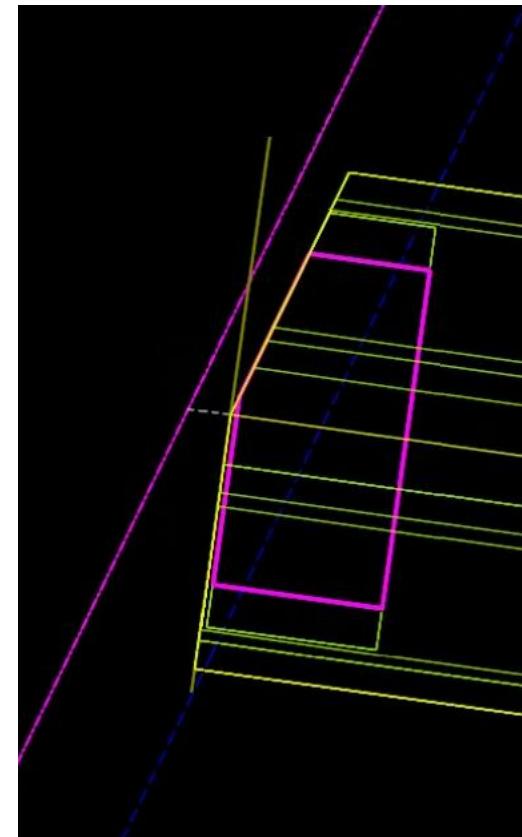
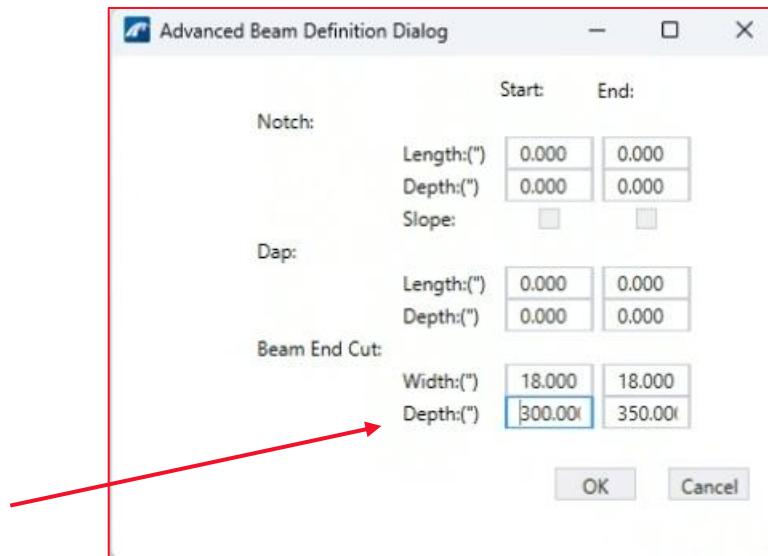
No tie to "Clip Bearing seats" flag (which is only by backwall or width of pier)



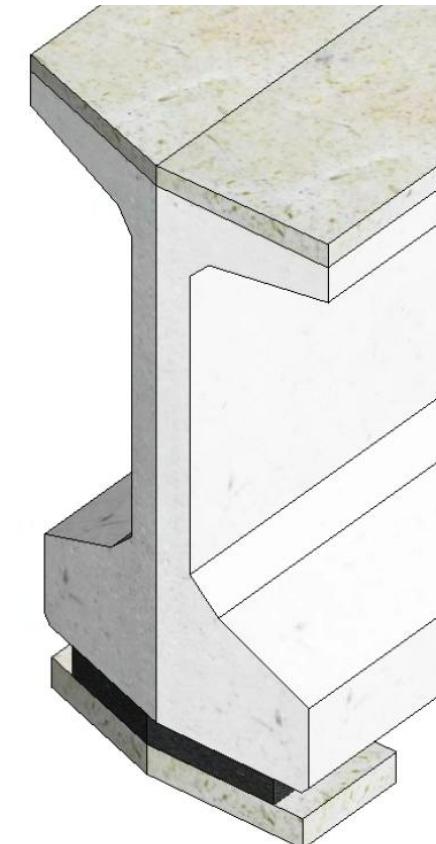
Bearing Clips along with Bearing Seat End Clips

Input large value to clip the bearing seats and bearings

Unrelated to the other setting for Clip Bearings



Plan View



Iso View

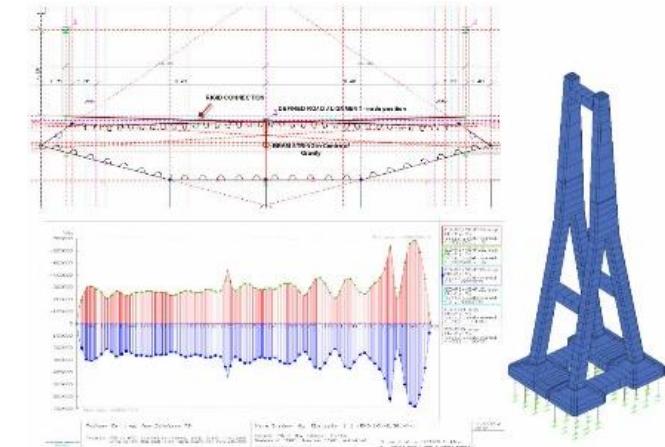
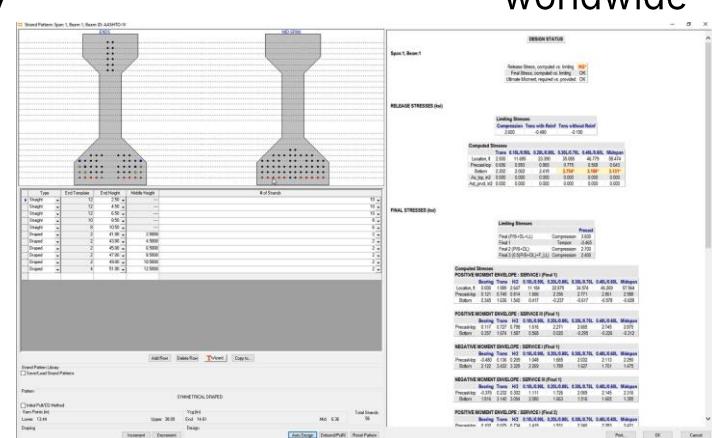
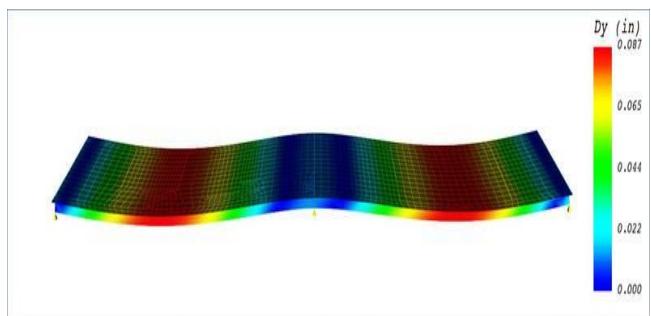
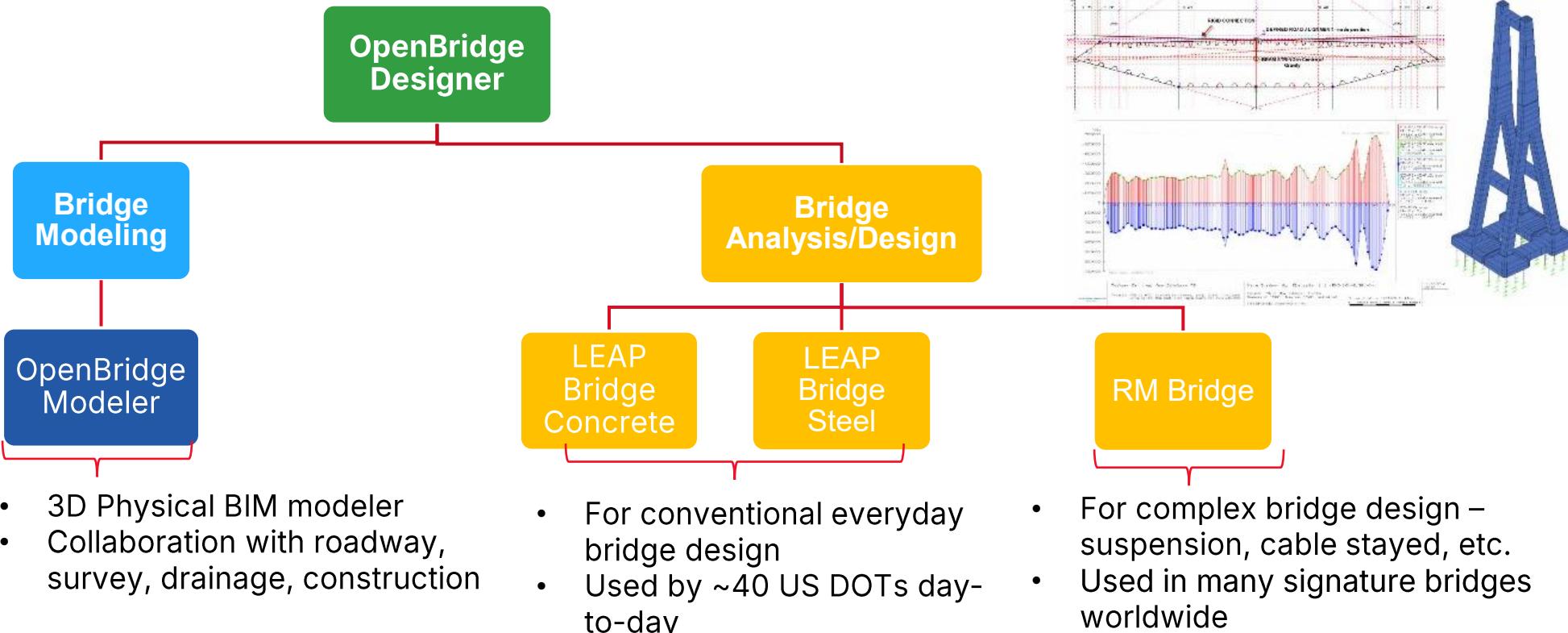
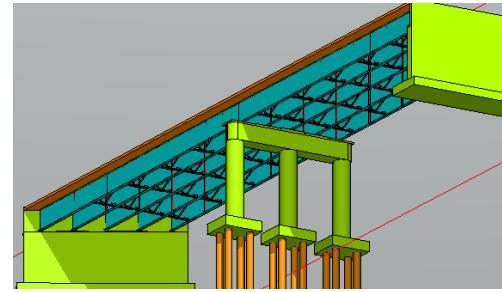
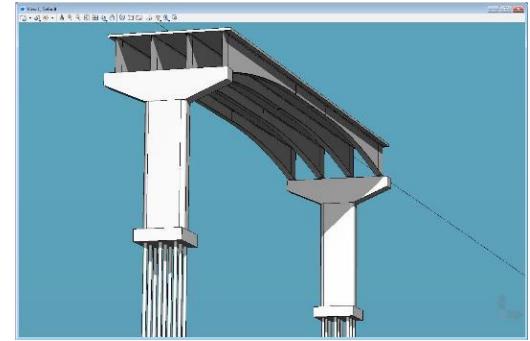
OpenBridge Designer 2025

Major release

Q4 - 2025

Bentley®

OpenBridge Designer



Ques

Who

??



OpenBridge - Designer

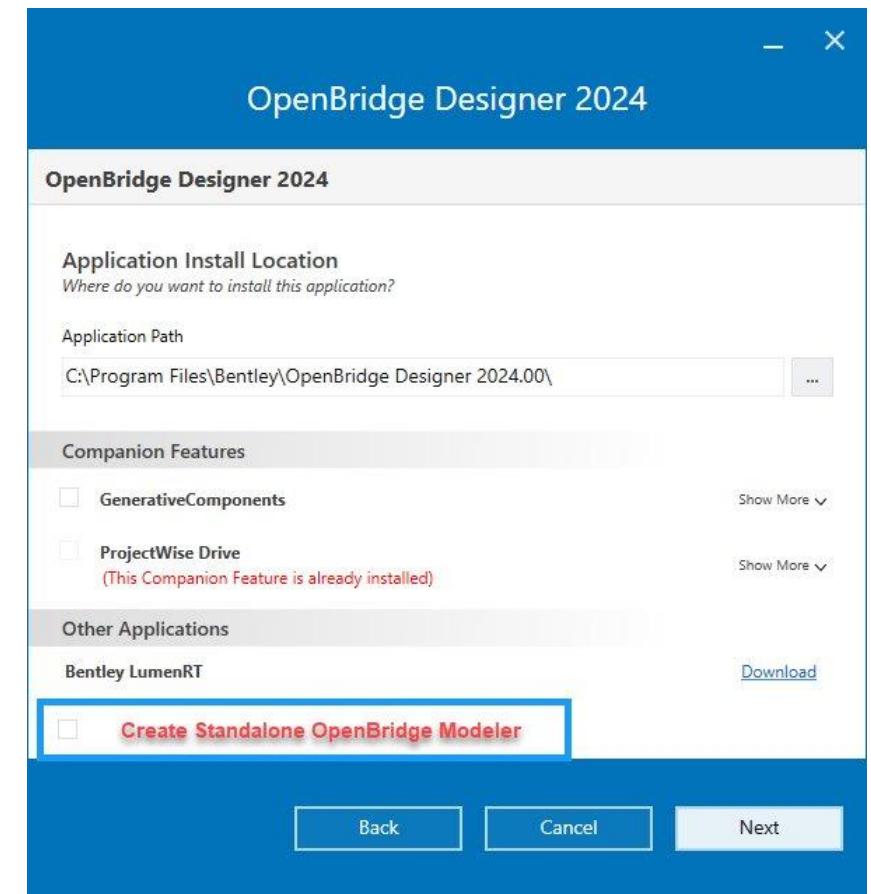
“Standalone” option for Modeler

Standalone Workflow:

- The OBD Installer will include an option allowing users to select a “standalone” version of OBM, operating independently from the OBD workflow.
- Selecting this option will create a new icon on the desktop.

When users launch the simplified OBM via this dedicated icon, the system will:

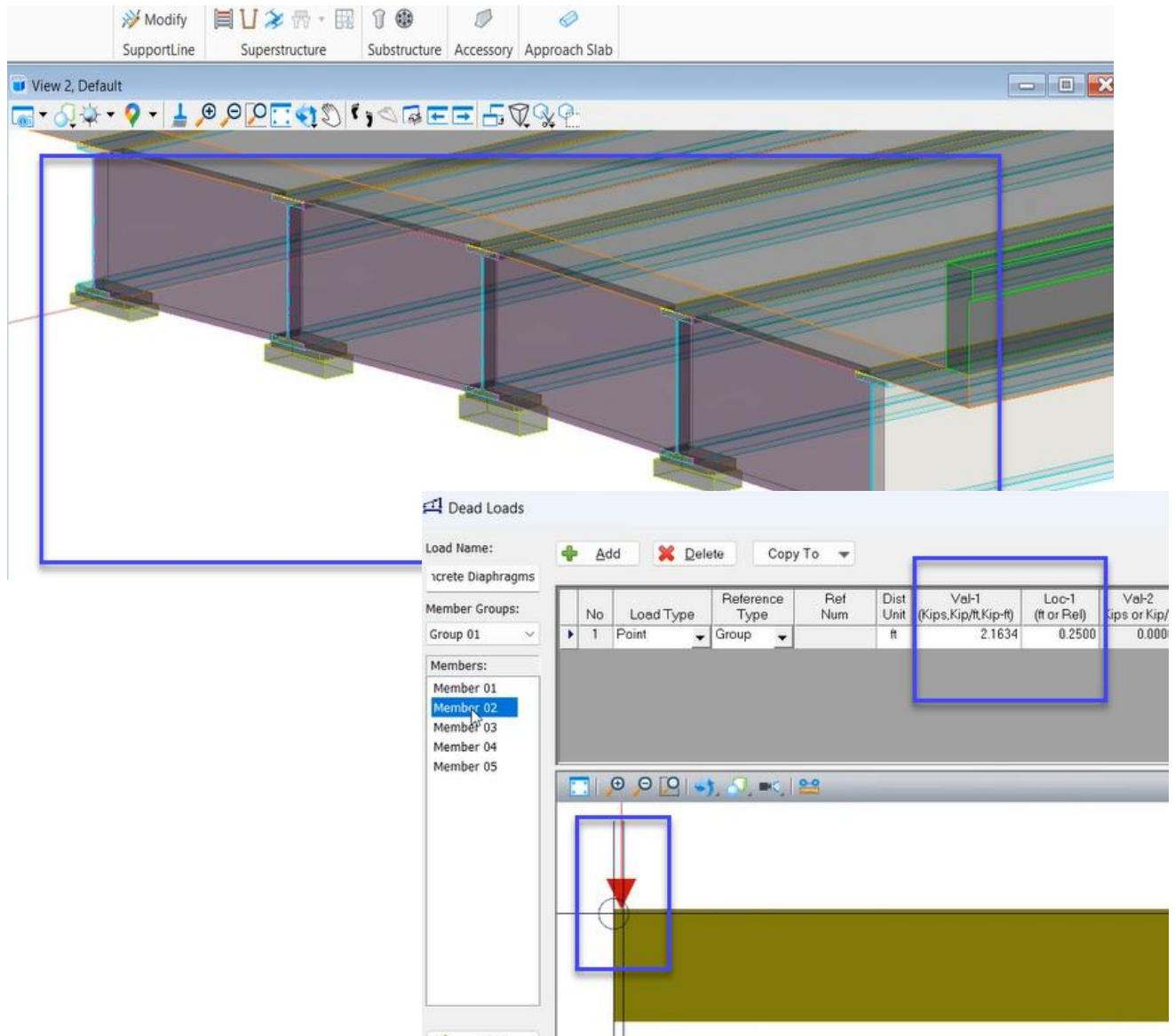
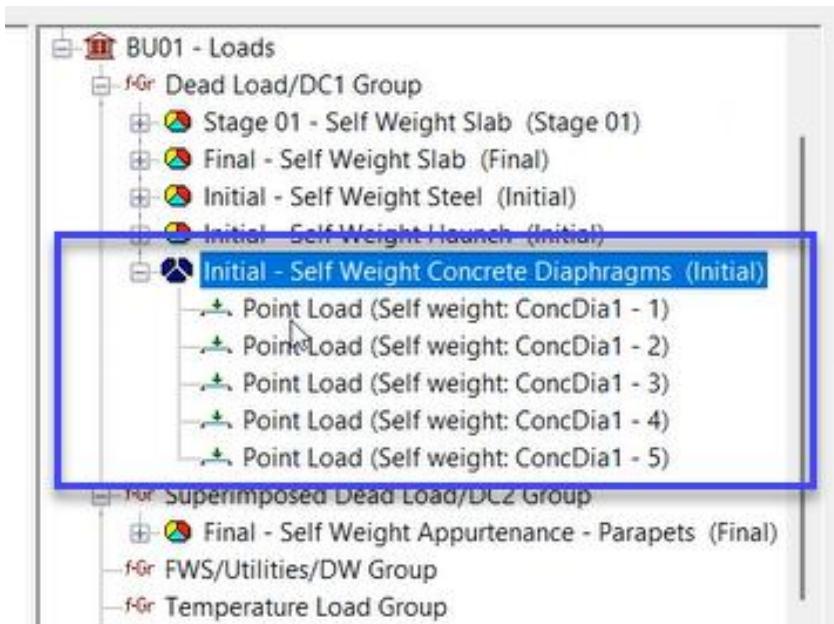
- Initiate a standalone instance of OBM.
- Treat the process as an OBD product, utilizing an OBD license rather than an OBM license.
- Limit or remove the ability to “Send to LEAP/RM,” disabling any connection with Analytics.
- Operate without integration to the OBD dashboard or project tree, functioning as a standard standalone OBM version.



Analytics

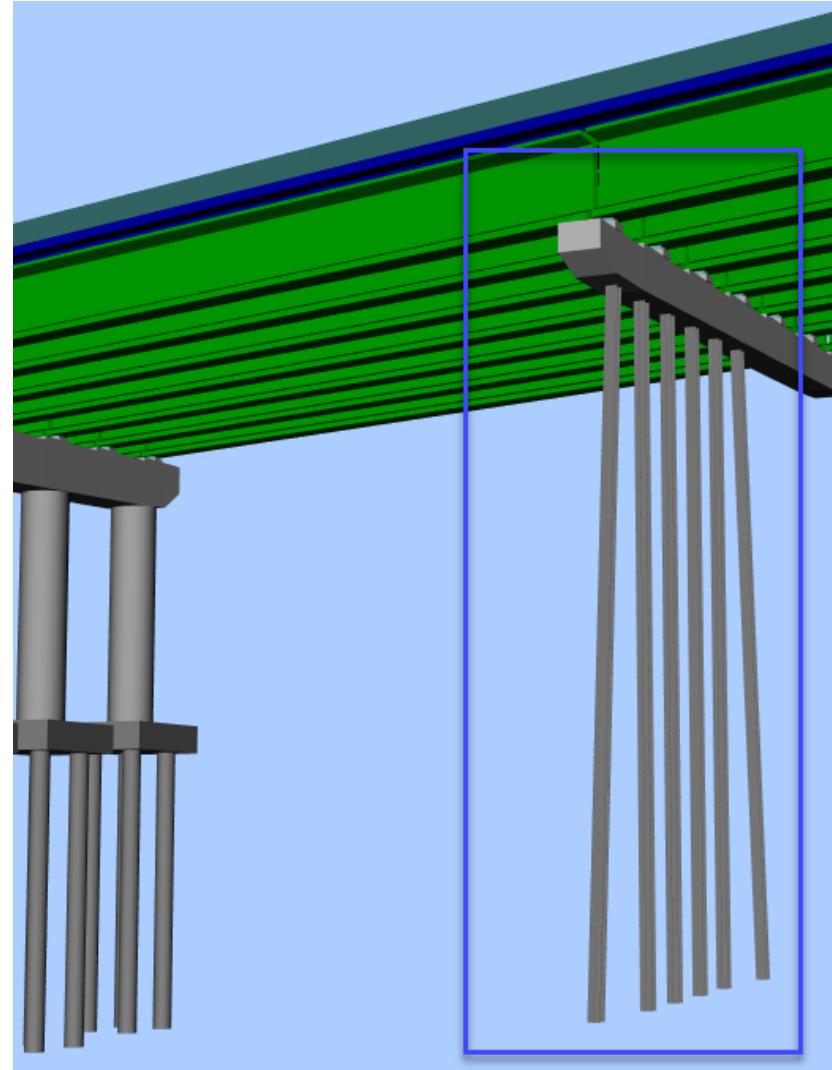
LEAP Analytics

Interoperability to Transfer Concrete End Diaphragm from OBM to LBS



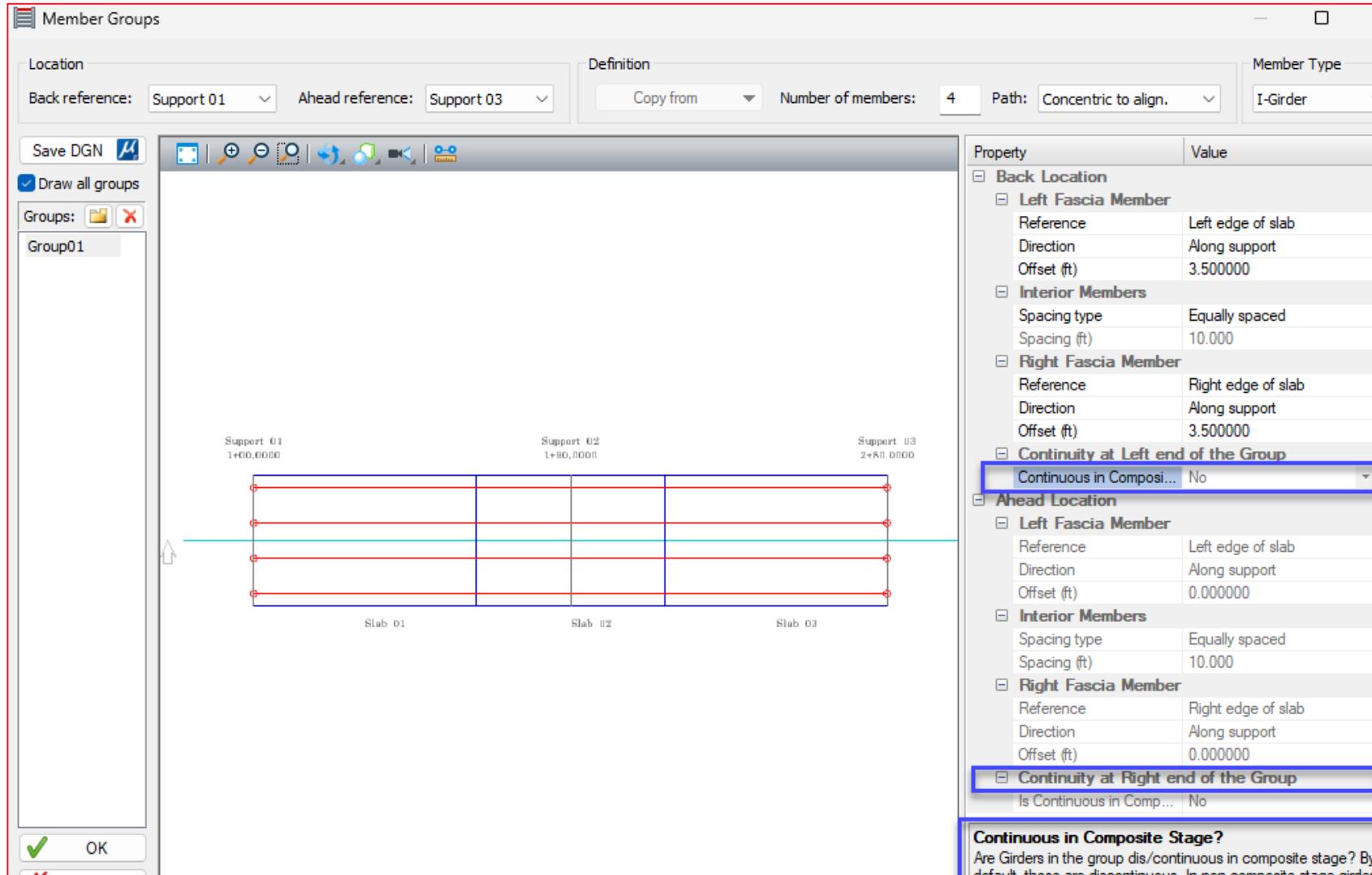
LEAP Analytics

Interoperability to Transfer Pile Bent with Steel H-Piles from OBM to LBS



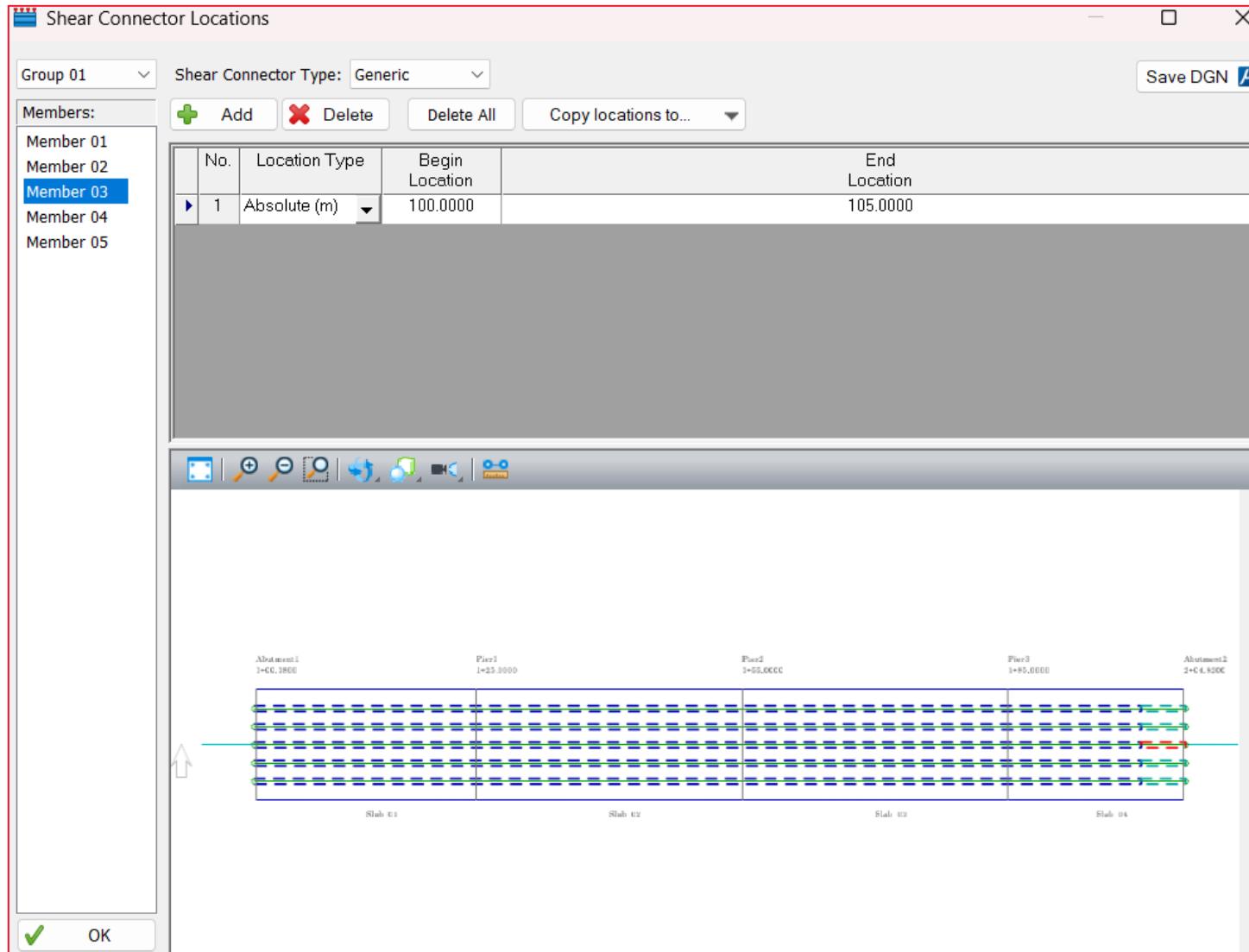
LEAP Analytics

Options to Allow Continuous or Non-continuous Analysis in LBS



LEAP Analytics

Improvement of Shear Connector Type Definition in LBS





What's New in OpenBridge 2025

Steve Willoughby, Bridge Services Manager



Bentley[®]