



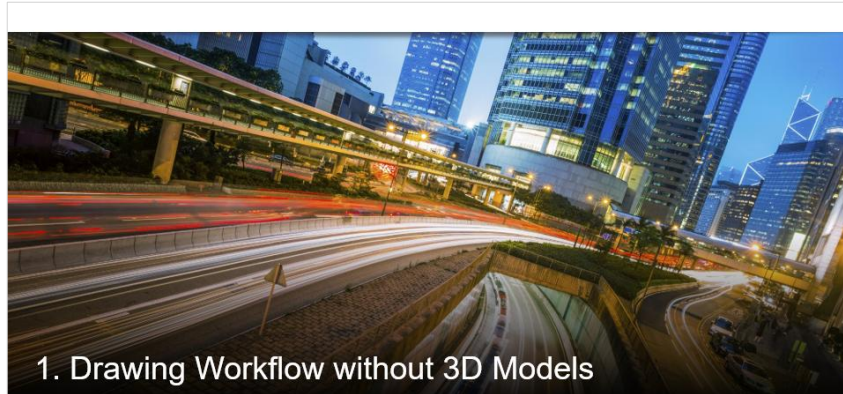
# OpenBridge Plans Production Tools

Sye Chakraborty  
Sr. Consultant, Bridges Services, Americas

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Advancing Infrastructure

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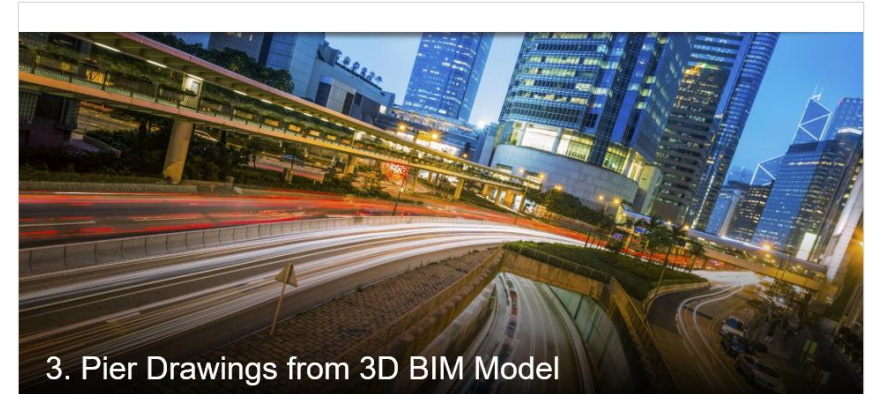




1. Drawing Workflow without 3D Models

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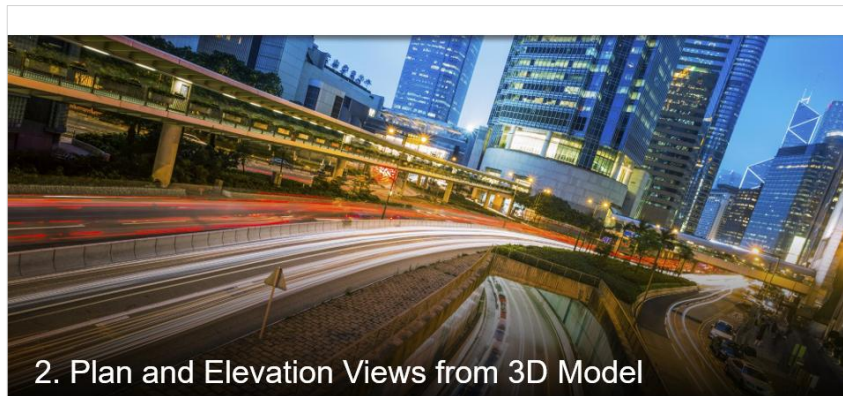
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3. Pier Drawings from 3D BIM Model

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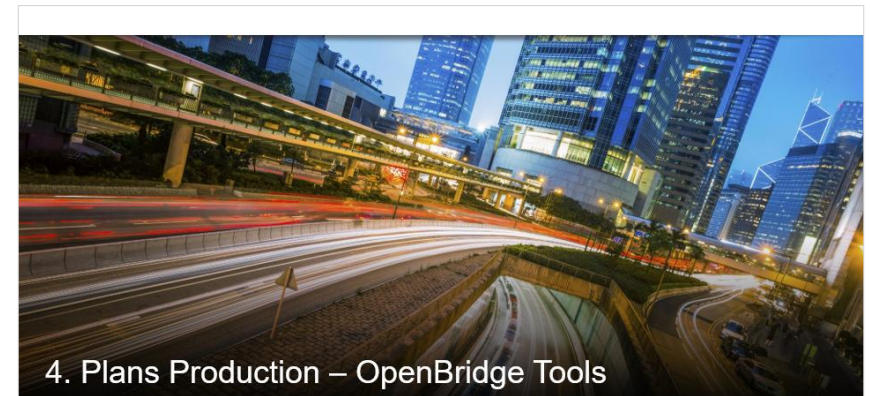
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2. Plan and Elevation Views from 3D Model

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4. Plans Production – OpenBridge Tools

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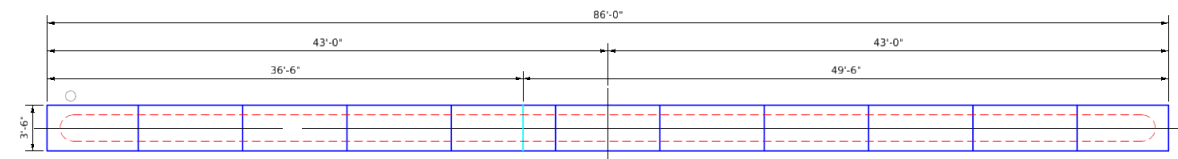
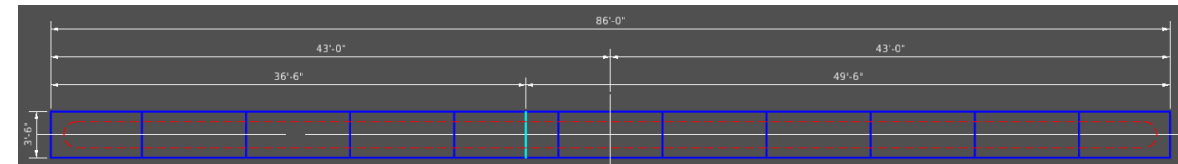
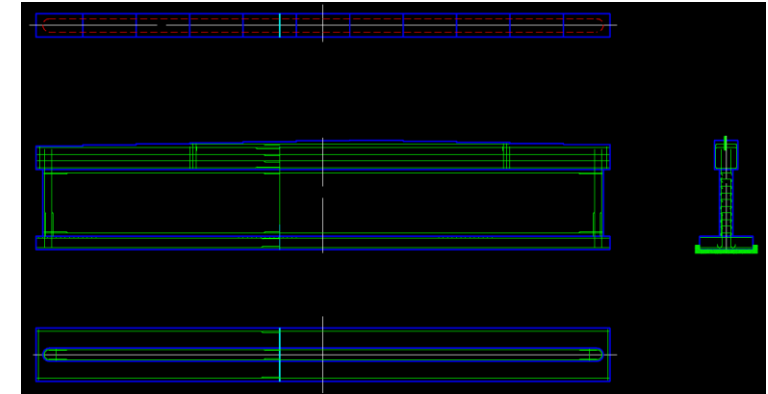


# 1. Drawing Workflow without 3D Models

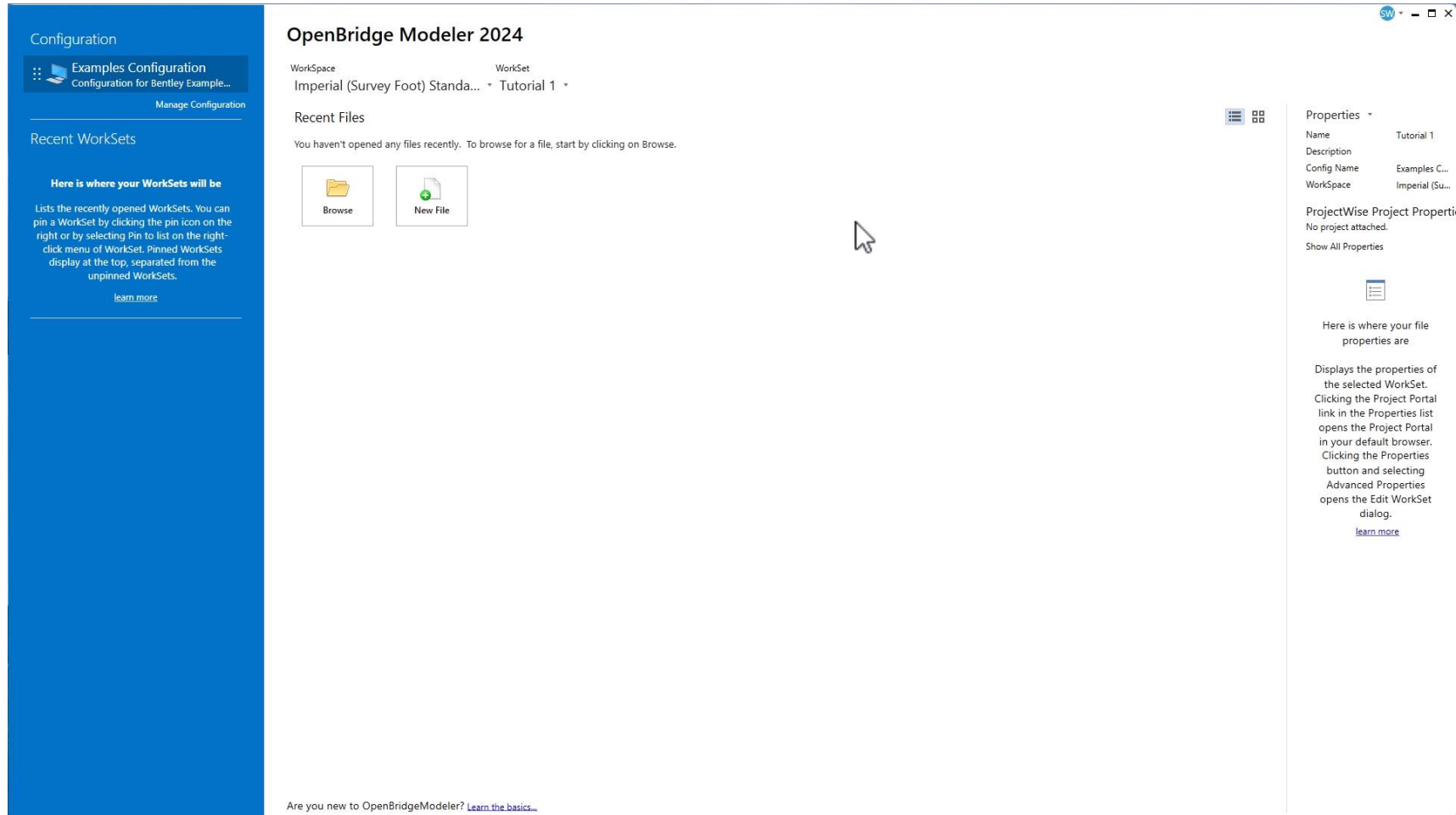


# 2D Drawing Generation – No 3D Model

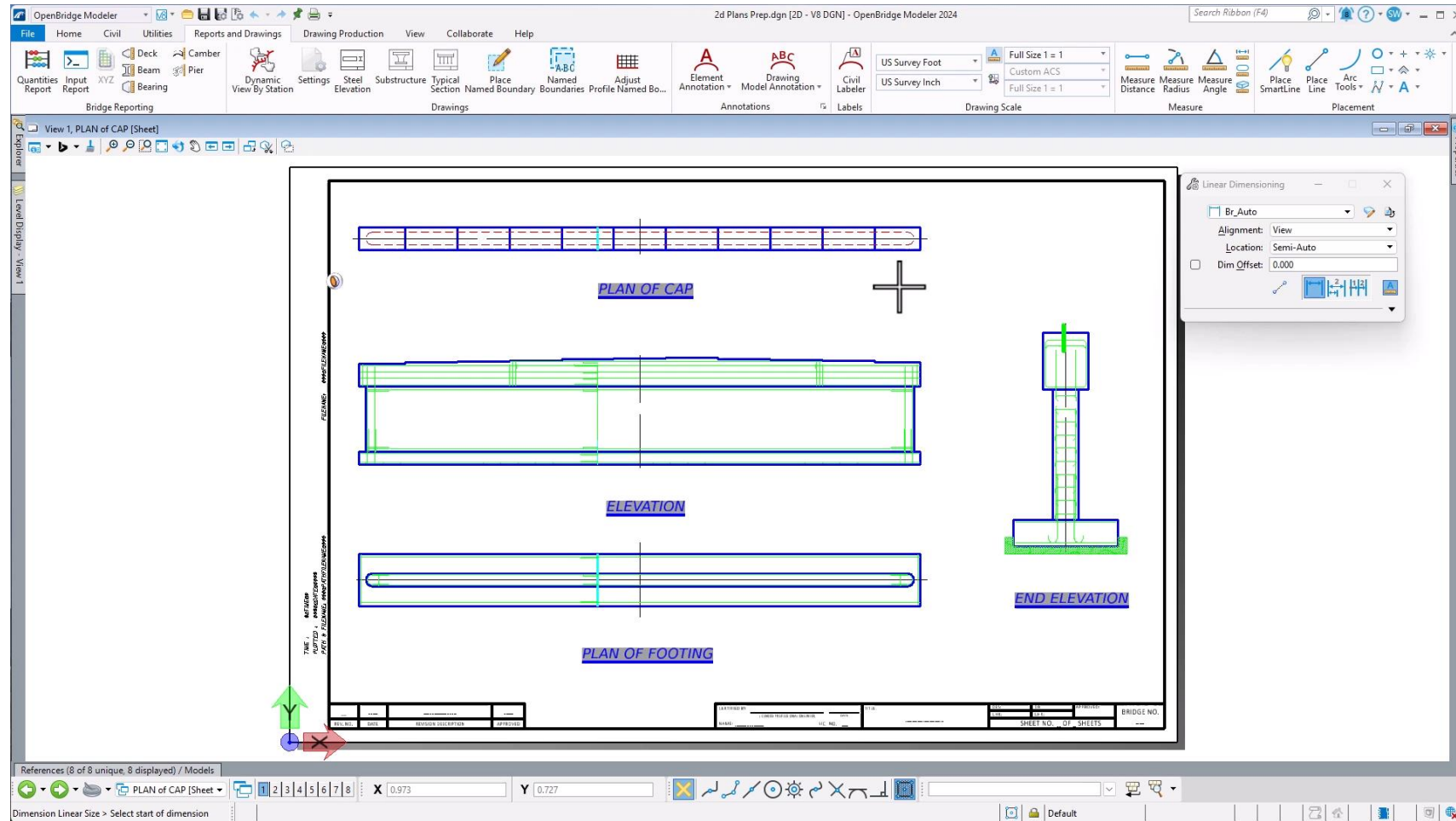
- Design, Drawing and Sheet Models
  - Draw detail in a 2D design model Full Scale
  - Reference to Drawing Model
  - Dimension in Drawing model
  - Reference Drawing Model to Sheet Model
- Primarily need to have text and dimension styles configured along with needed sheet models



# 2D Workflow – Design to Drawing to Sheet Models



# 2D Workflow – Add Dimensions to the Drawing Model





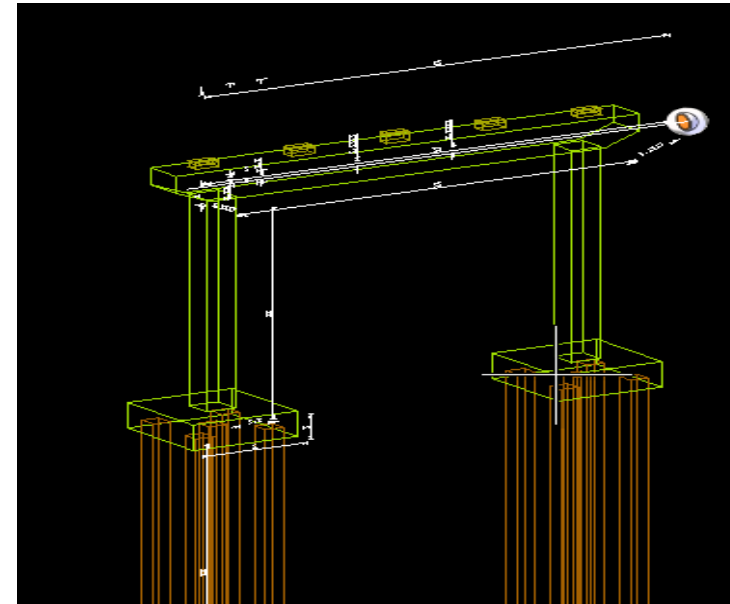
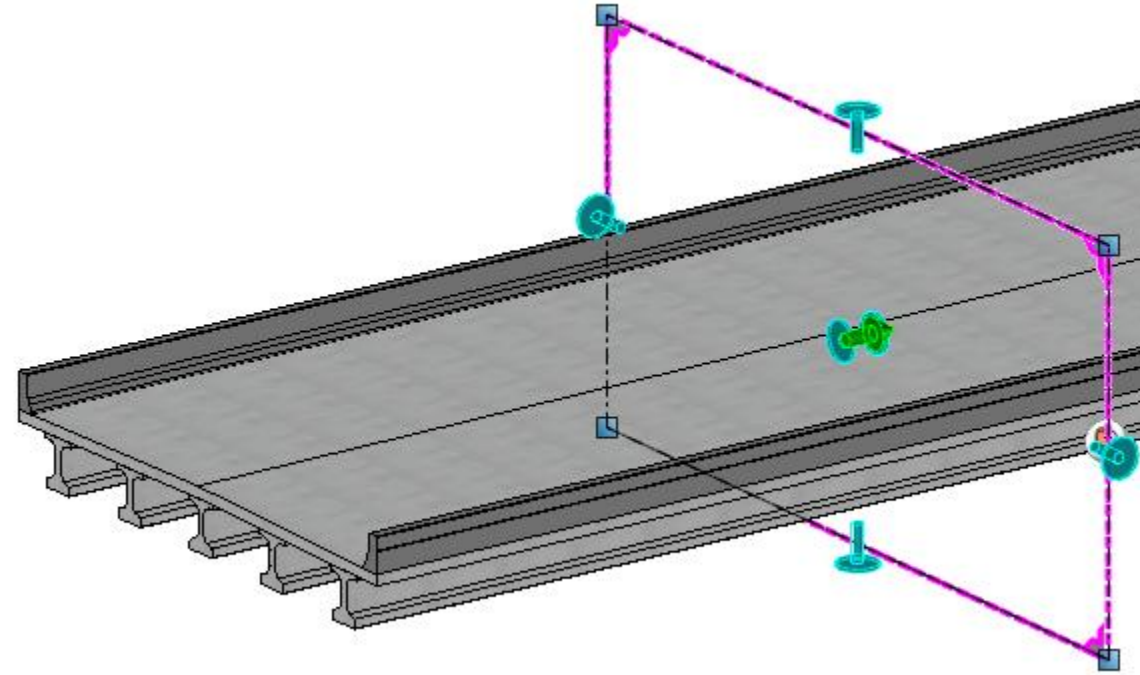
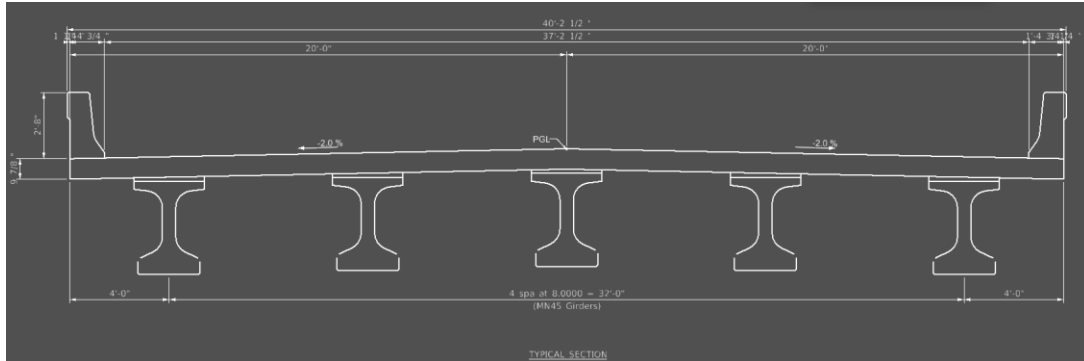


## 2. Plan and Elevation Views from 3D Model



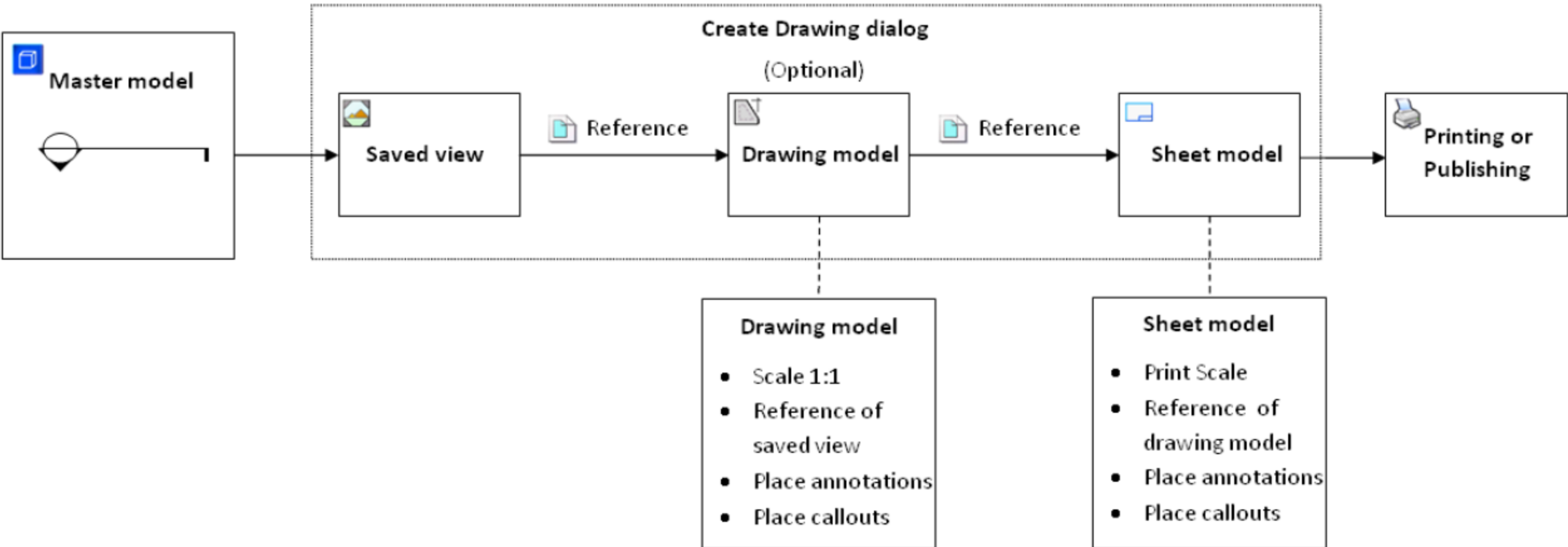
# Dynamic Views

- Quick section cut using Callout tools
- Sections, plan, elevation and detail callouts
- Links between model and 2D views
- Creates drawing and/or sheet models

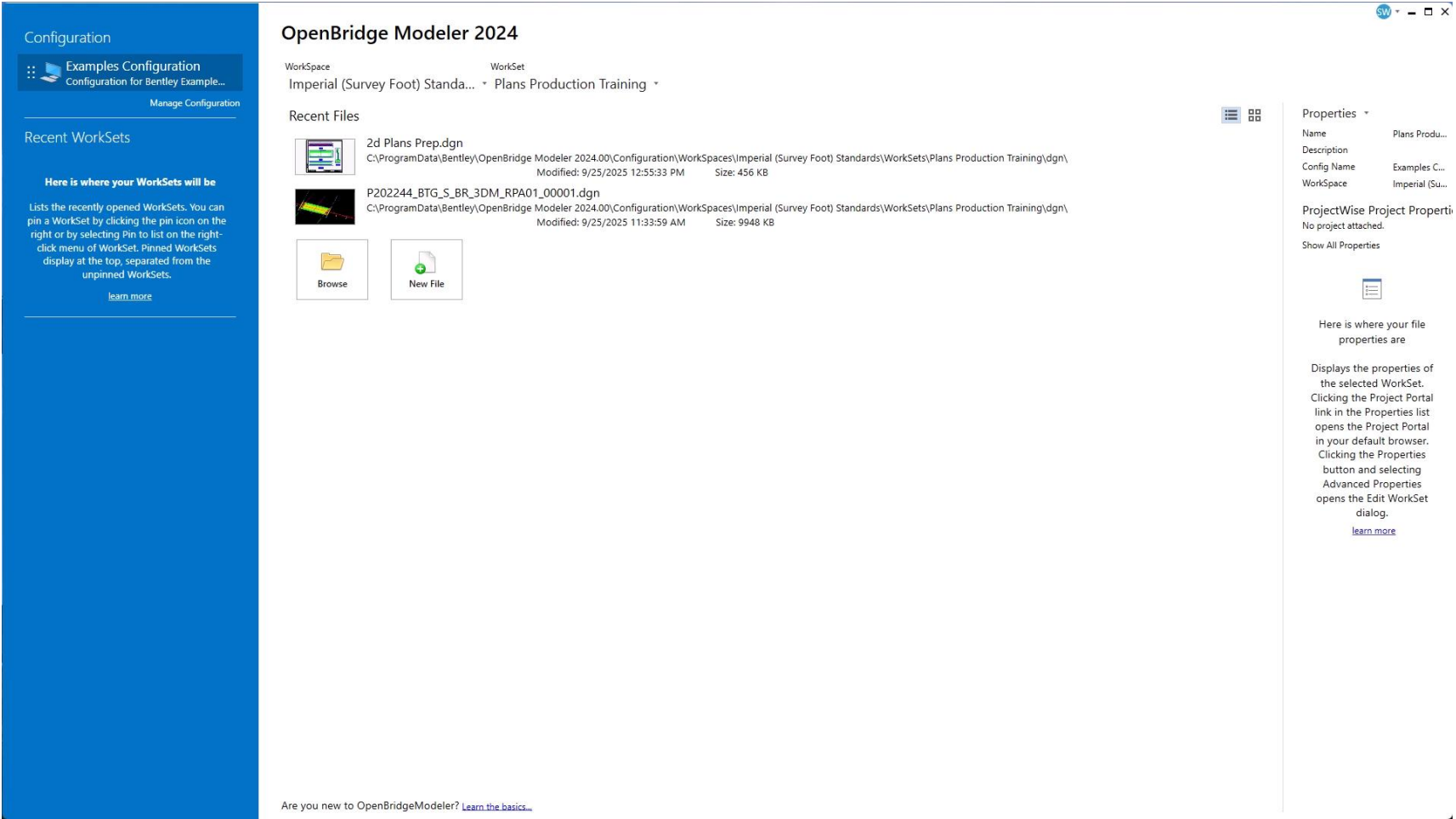




# Dynamic View Workflow



# 3D Plan Elevation Getting Started



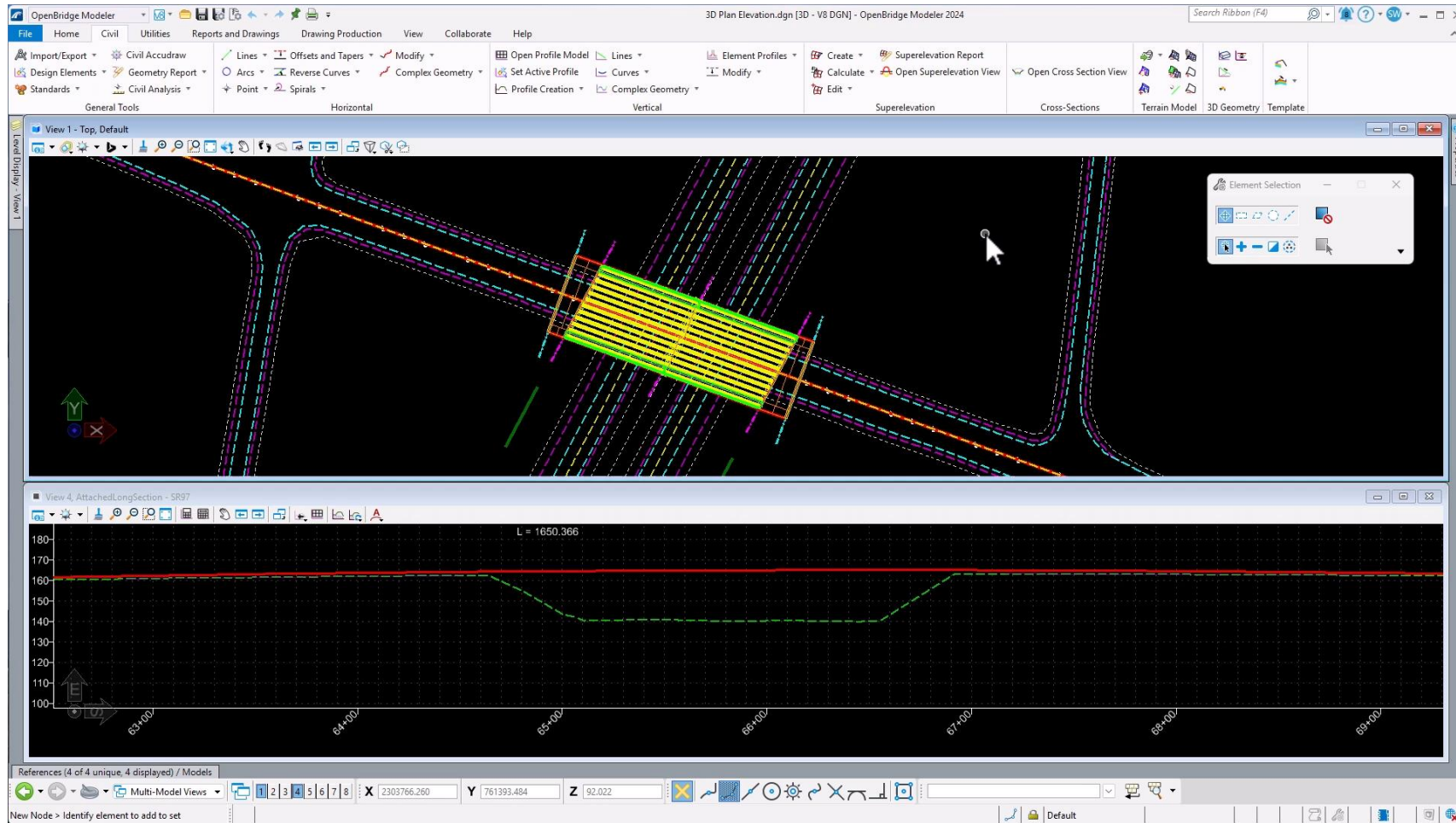


# Plan View

Depends on what's configured in the workspace:

- Place Named Boundary > Civil Plan
  - Best if multiple plan sheets needed
- Place Named Boundary > By Two Points
- Create Saved View > By Two Points

# Plan and Elevation View – Place Named Boundary

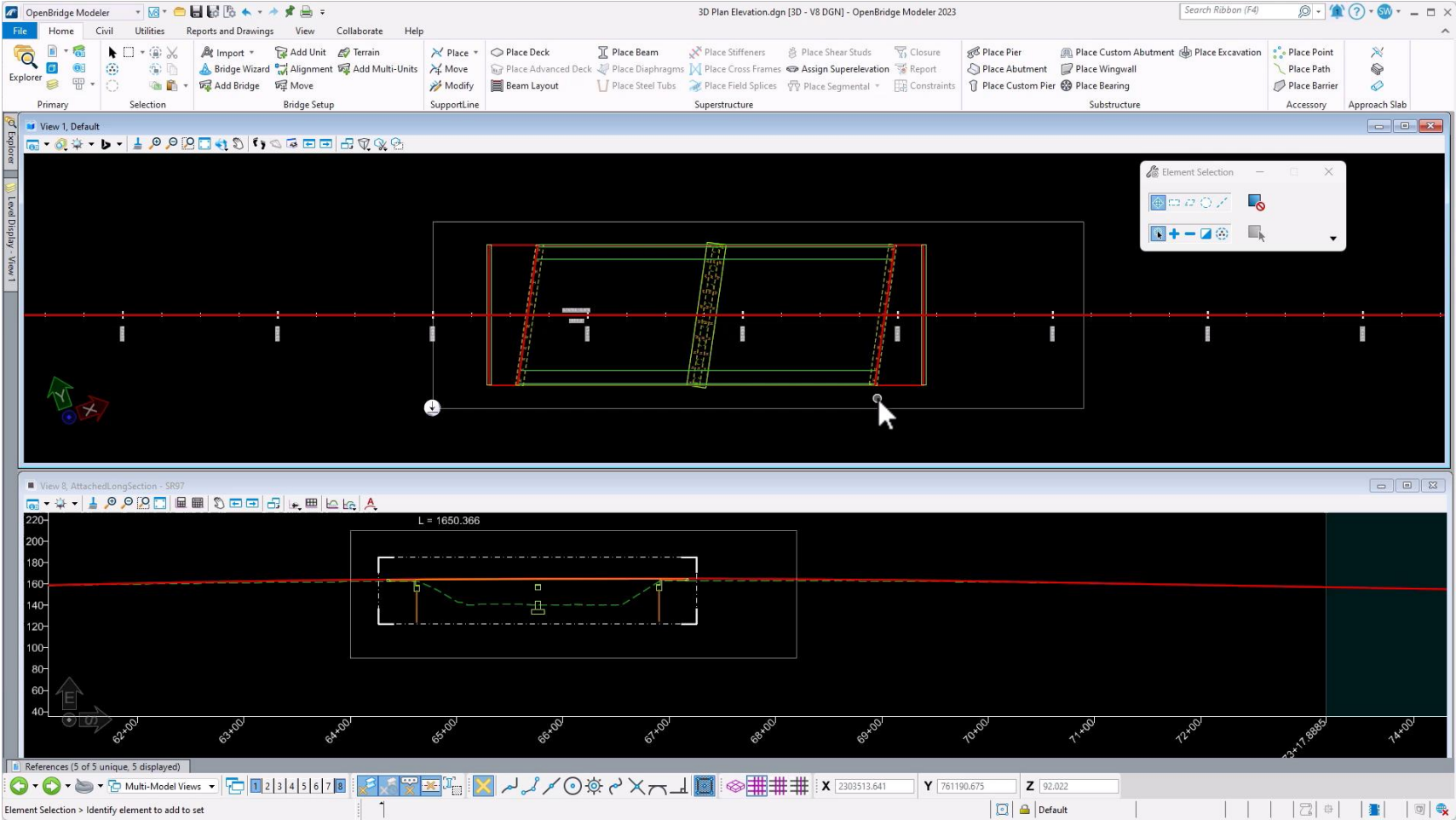




# Elevation View (Profile View)

- Differs from agency to agency
- Straight Bridges
  - Section Callout along CL
  - Section Callout parallel to structure
- Curved or Straight Bridges with/without Profile Grid
  - Profile View 3D Section Cut

# Elevation View – Section Callout along CL



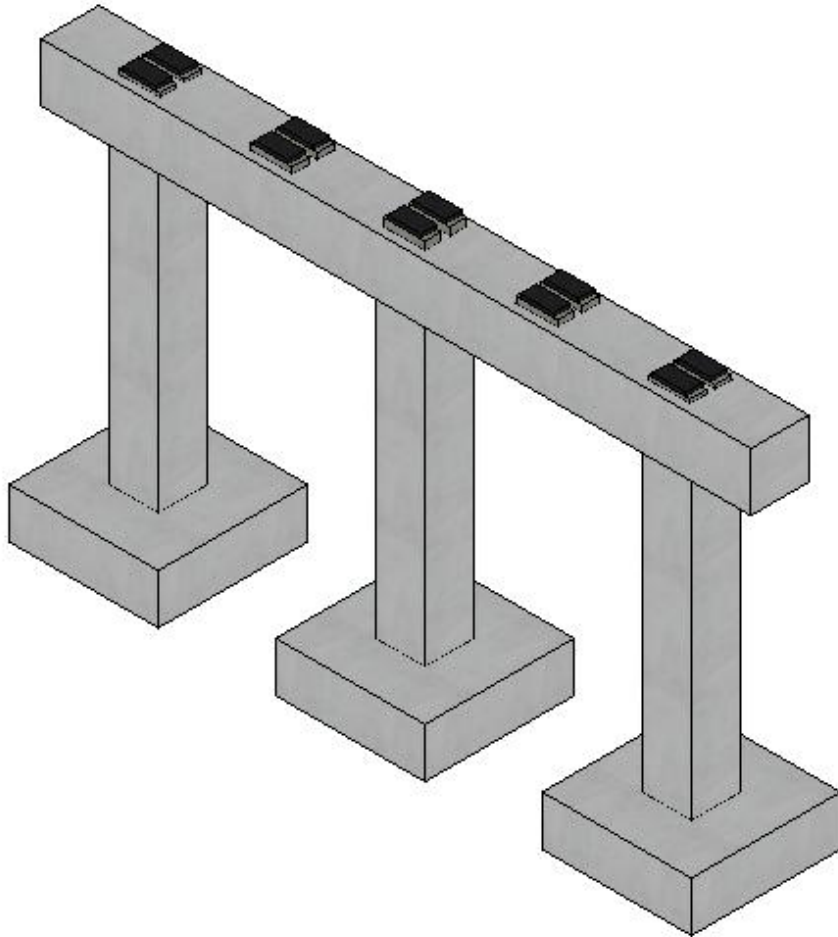




### 3. Pier Drawings from 3D BIM Model



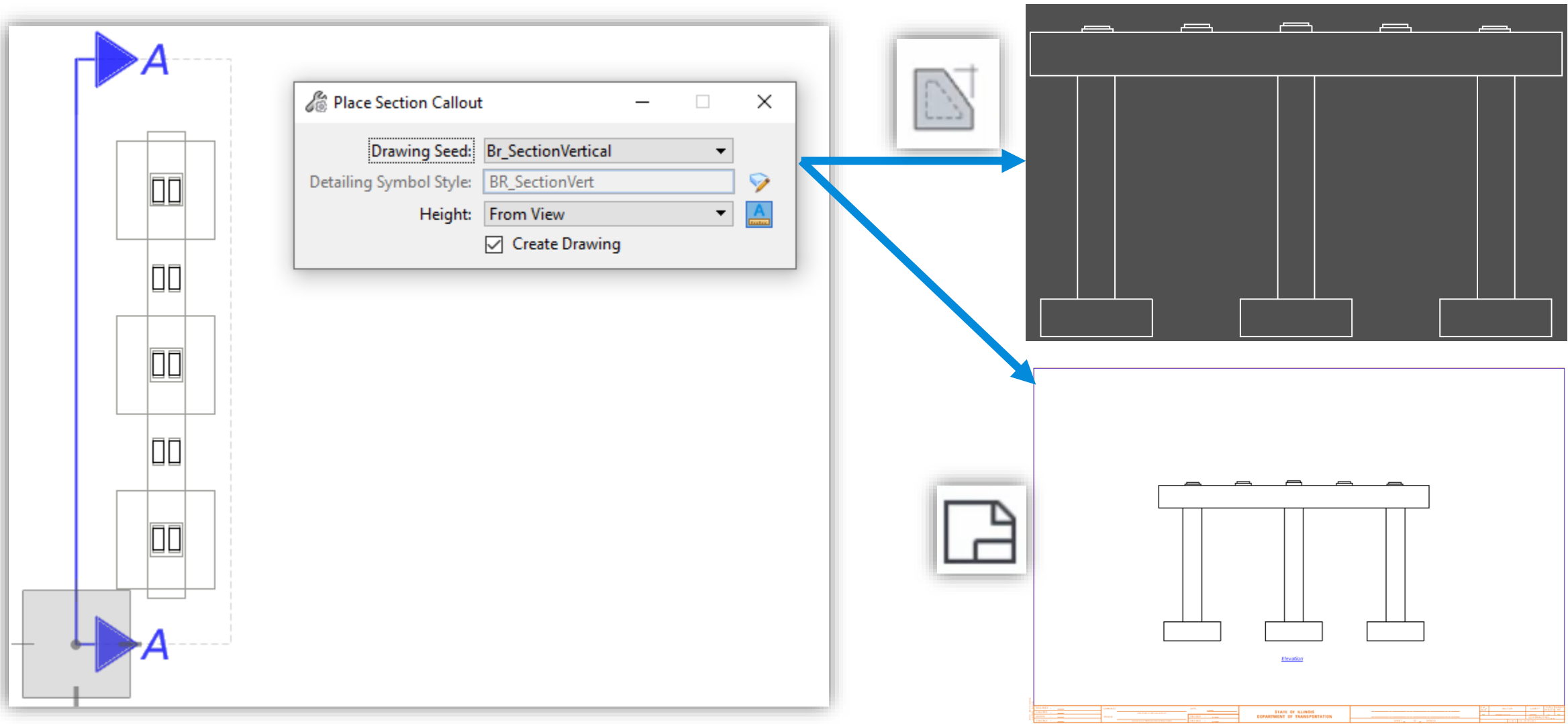
# Dynamic View Workflow – BIM Model



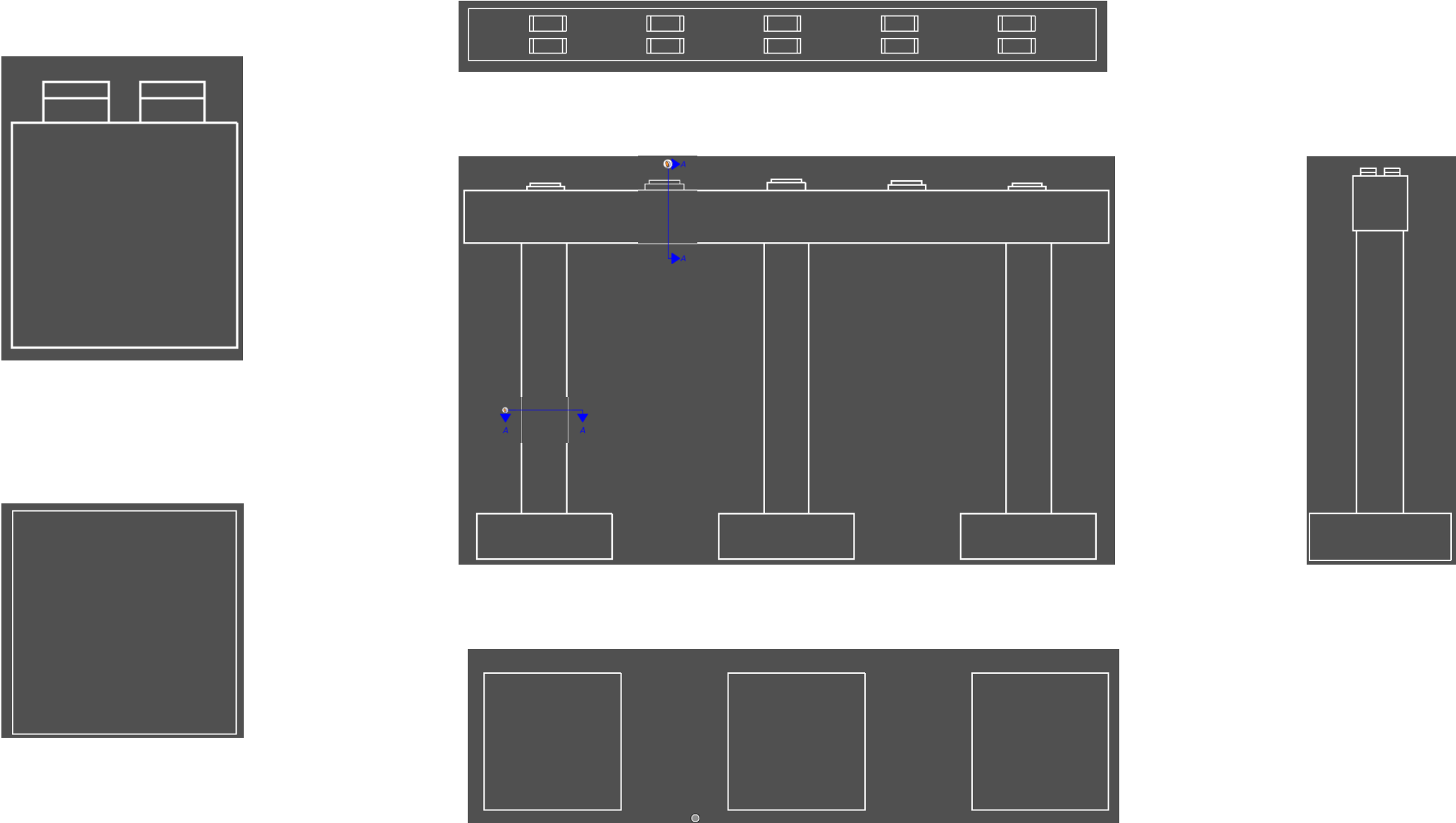
- Create New 3D Model
- Reference Bridge Model
- Turn levels on/off
- Use Section Callout from Top view to create elevation view



# Dynamic View Workflow – BIM Model



# Dynamic View Workflow – BIM Model



# Pier Sheet from Bridge Model

Configuration

Examples Configuration

Configuration for Bentley Example...

Manage Configuration

Recent WorkSets

Imperial (Survey Foot) Standards

Plans Production Training

Here is where your WorkSets will be

Lists the recently opened WorkSets. You can pin a WorkSet by clicking the pin icon on the right or by selecting Pin to list on the right-click menu of WorkSet. Pinned WorkSets display at the top, separated from the unpinned WorkSets.

[learn more](#)

OpenBridge Modeler 2024

WorkSpace

WorkSet

Imperial (Survey Foot) Standa... Plans Production Training

Recent Files

3D Plan Elevation.dgn  
C:\ProgramData\Bentley\OpenBridge Modeler 2024.00\Configuration\WorkSpaces\Imperial (Survey Foot) Standards\WorkSets\Plans Production Training\dgn\  
Modified: 9/25/2025 2:58:42 PM Size: 315 KB

2d Plans Prep.dgn  
C:\ProgramData\Bentley\OpenBridge Modeler 2024.00\Configuration\WorkSpaces\Imperial (Survey Foot) Standards\WorkSets\Plans Production Training\dgn\  
Modified: 9/25/2025 12:55:33 PM Size: 456 KB

P202244\_BTG\_S\_BR\_3DM\_RPA01\_00001.dgn  
C:\ProgramData\Bentley\OpenBridge Modeler 2024.00\Configuration\WorkSpaces\Imperial (Survey Foot) Standards\WorkSets\Plans Production Training\dgn\  
Modified: 9/25/2025 11:33:59 AM Size: 9948 KB

Browse

New File

Properties

Name

Plans Produ...

Description

Config Name

Examples C...

WorkSpace

Imperial (Su...

ProjectWise Project Properti

No project attached.

Show All Properties

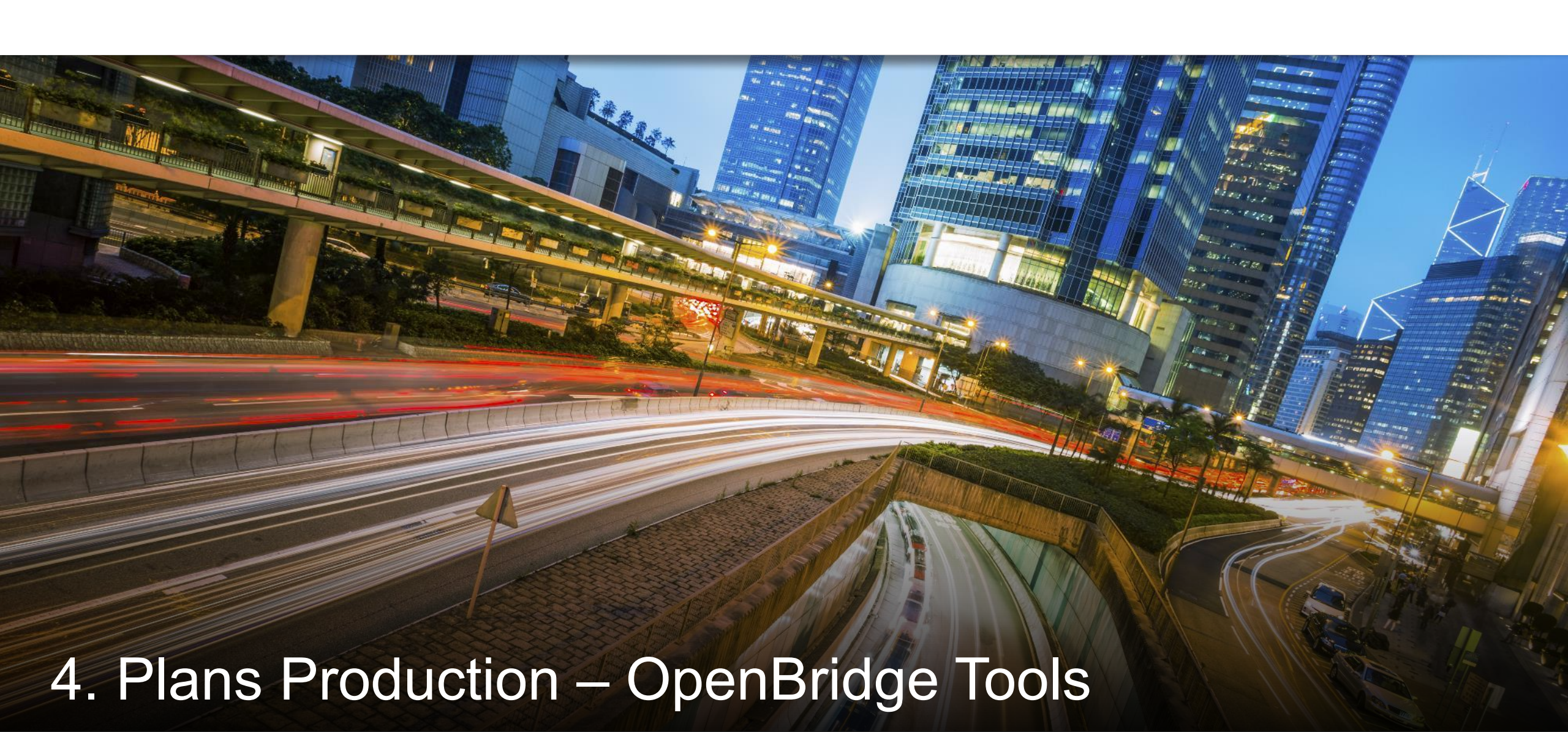
Here is where your file properties are

Displays the properties of the selected WorkSet. Clicking the Project Portal link in the Properties list opens the Project Portal in your default browser. Clicking the Properties button and selecting Advanced Properties opens the Edit WorkSet dialog.

[learn more](#)

Are you new to OpenBridgeModeler? [Learn the basics...](#)





## 4. Plans Production – OpenBridge Tools



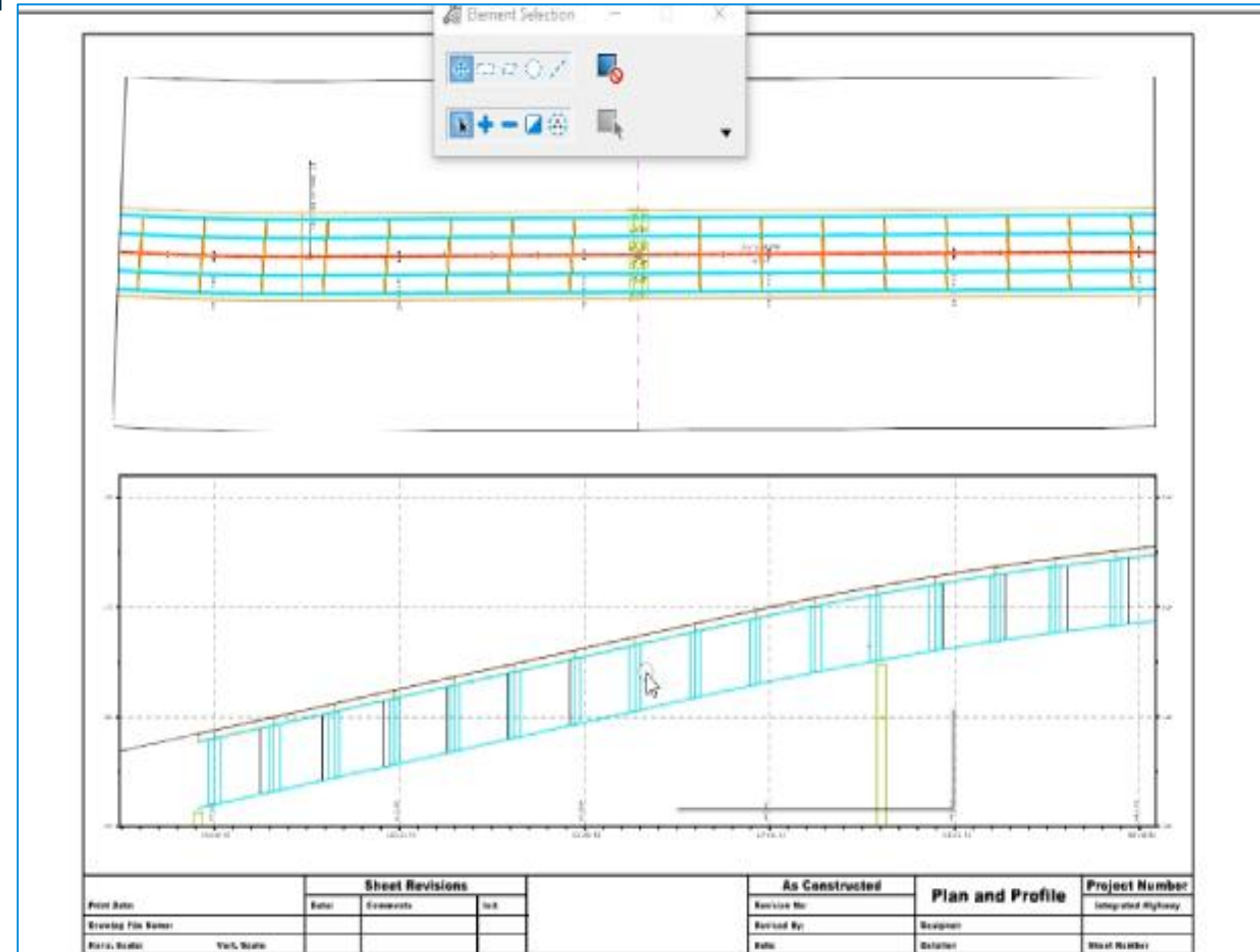
# Plans Production



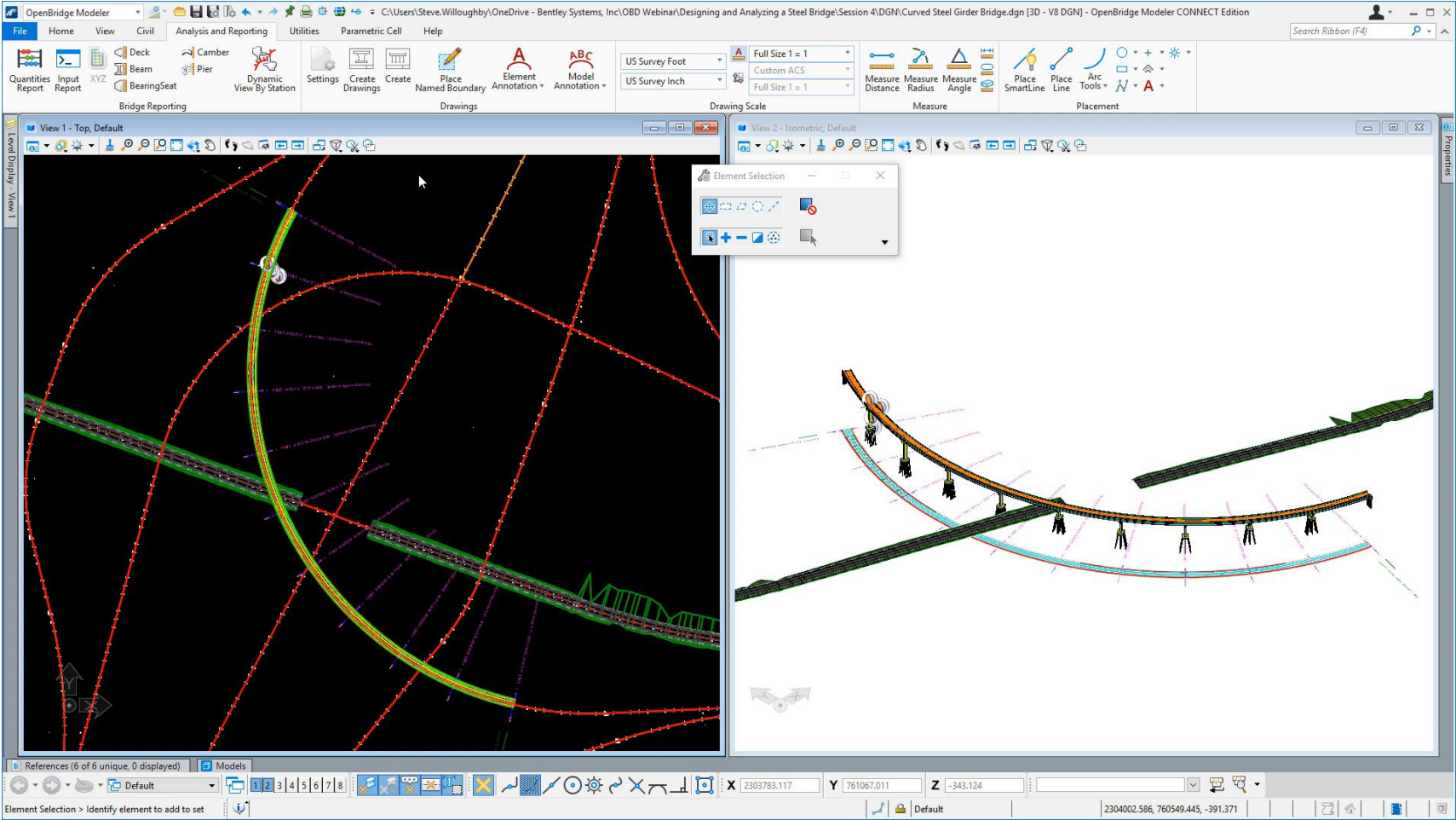
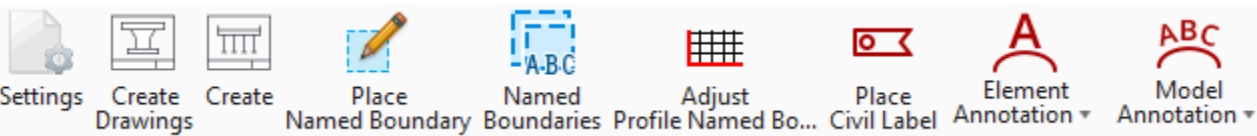
- Efficient workflows for 2D view generation from 3D models
- Model annotation by Civil tools
- Allows for rapid creation of section, plan and elevation views
- Dynamically updates 2D views based on 3D Model updates

US Survey Foot		1"=100'
US Survey Inch		Custom ACS
		1"=100'

Drawing Scale



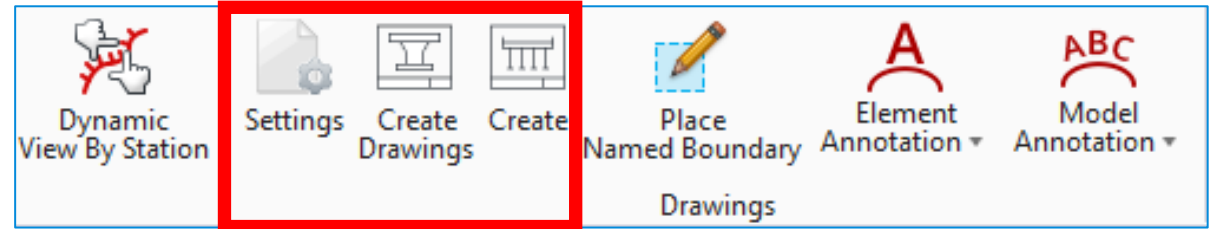
# Dynamic View by Station





# Drawing Generation

- Predetermined “cuts” for bridge typical section and substructure views
- User-defined settings for dimensioning styles
- Pre-defined clipping for Top, Right and Bottom views
- Creates drawings and sheet models



**Create Drawing**

Name: Section Pier

Drawing Seed: OBM\_Section\_English

View Type: Section

Discipline: General

Purpose: Section View

☒ Create Drawing Model

Seed Model: OpenBridgeModeler.DrawingSeedImperial.c

Filename: (Active File)

Visible Edges: Dynamic

☐ Create Sheet Model

Seed Model: OpenBridgeModeler.DrawingSeedImperial.c

Filename: (Active File)

Sheets: (New)

3/8" = 1'-0"

Drawing Boundary: (New)

Detail Scale: 3/8" = 1'-0"

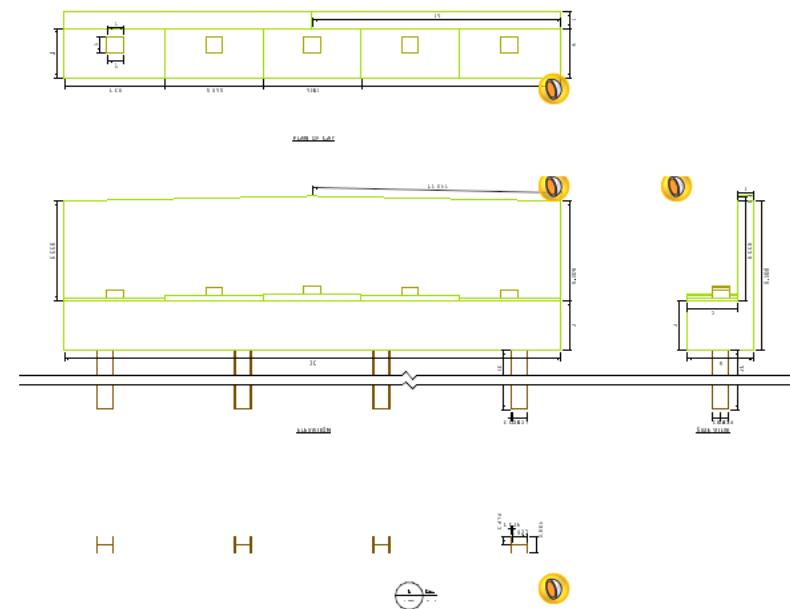
☐ Add To Sheet Index

☐ Make Sheet Coincident

☐ Replicate Drawing in Sheet File

☒ Open Model

OK Cancel



Print Date:	Sheet Revisions			As Constructed		Project Number
	Date	Comments	Init.	Revision No:	Designer	
Drawing File Name:				Revised By:	Detailer	Sheet Number
Horiz. Scale:	Vert. Scale:			Date:		

# Settings

Drawings: Dynamic View Settings

General

☒ Auto Dimensions

☒ Clip

☐ Auto Fit

Hidden Style Name: Forward Hidden Edges

Unit Dependent Data Set

Unit System: English

Dimension Style Name: OBM\_DimUS

Dual Dimension Style Name: OBM\_DimSecUS

Title Text Style Name: OBM\_Title\_US

Drawing Seed Model: OBM\_Section\_English

Pier Reference Copies

☒ Top

☒ Right

☒ Bottom

☐ Left

☐ Back

☒ Elevation

Auto Dimensions

Offset ('): 0.500

Style: Ignore Duplicate

☒ Parallel Plane

☒ Associated Points

☒ Project Sloped Dims

☒ Unique By Type

Levels

Clip

Cut: By Fixed Length

Length ('): 3.000

Cut Gap: By Fixed Length

Length ('): 1.000

☒ Columns

☒ Piles / Drilled Shafts

OK Cancel

- Auto Dimension
  - Specify your dimension styles
  - Ignore Duplicate
  - Parallel Plane
- Clip
  - By Percent or Fixed Distance
  - Columns
  - Piles/Drilled Shafts
  - Only Applies to the Sheet Model

# Settings – Pier Reference Copies

Drawings: Dynamic View Settings

General

☒ Auto Dimensions

☒ Clip

☐ Auto Fit

Hidden Style Name: Forward Hidden Edges

Unit Dependent Data Set

Unit System: English

Dimension Style Name: OBM\_DimUS

Dual Dimension Style Name: OBM\_DimSecUS

Title Text Style Name: OBM\_Title\_US

Drawing Seed Model: OBM\_Section\_English

Pier Reference Copies

☒ Top

☒ Right

☒ Bottom

☐ Left

☐ Back

☒ Elevation

Auto Dimensions

Offset ("): 0.500

Style: Ignore Duplicate

☒ Parallel Plane

☒ Associated Points

☒ Project Sloped Dims

☒ Unique By Type

Levels

Clip

Cut: By Fixed Length

Cut Gap: By Fixed Length

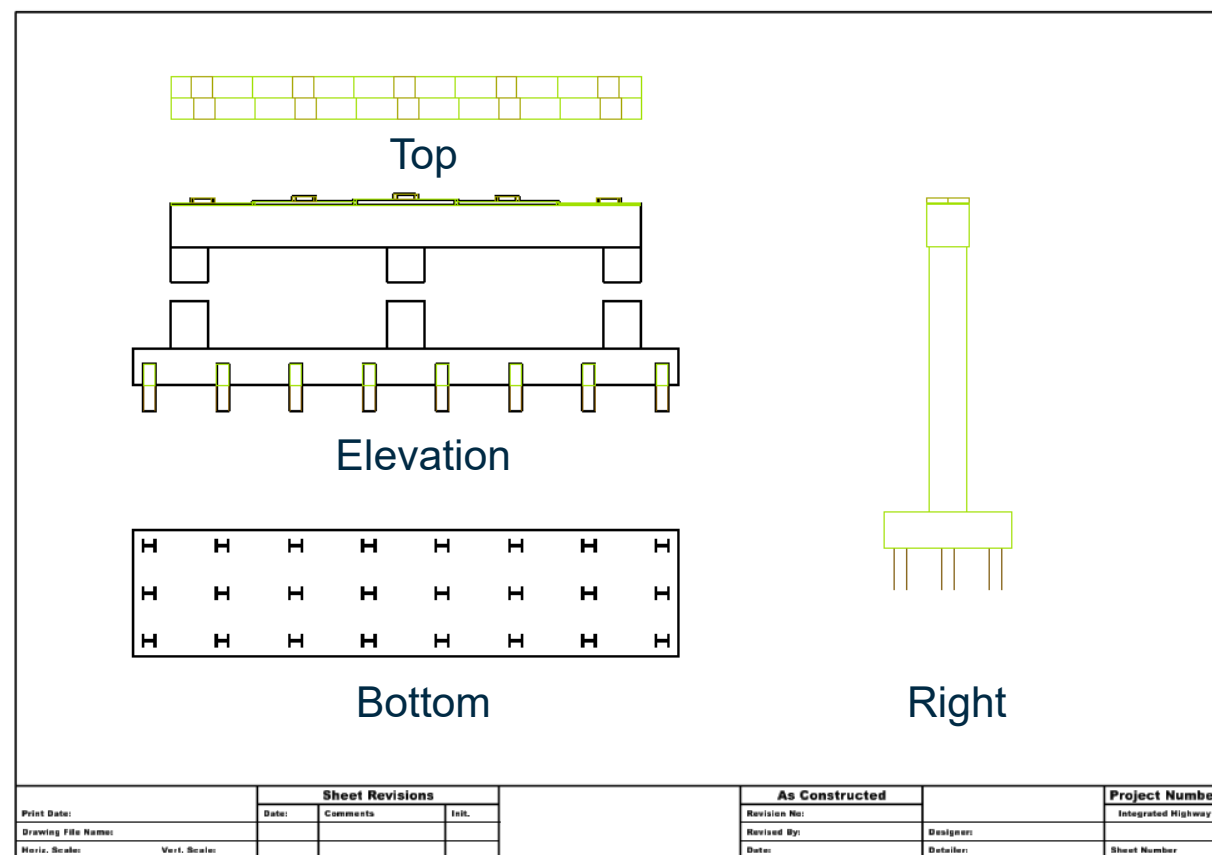
Length ("): 3.000

Length ("): 1.000

☒ Columns

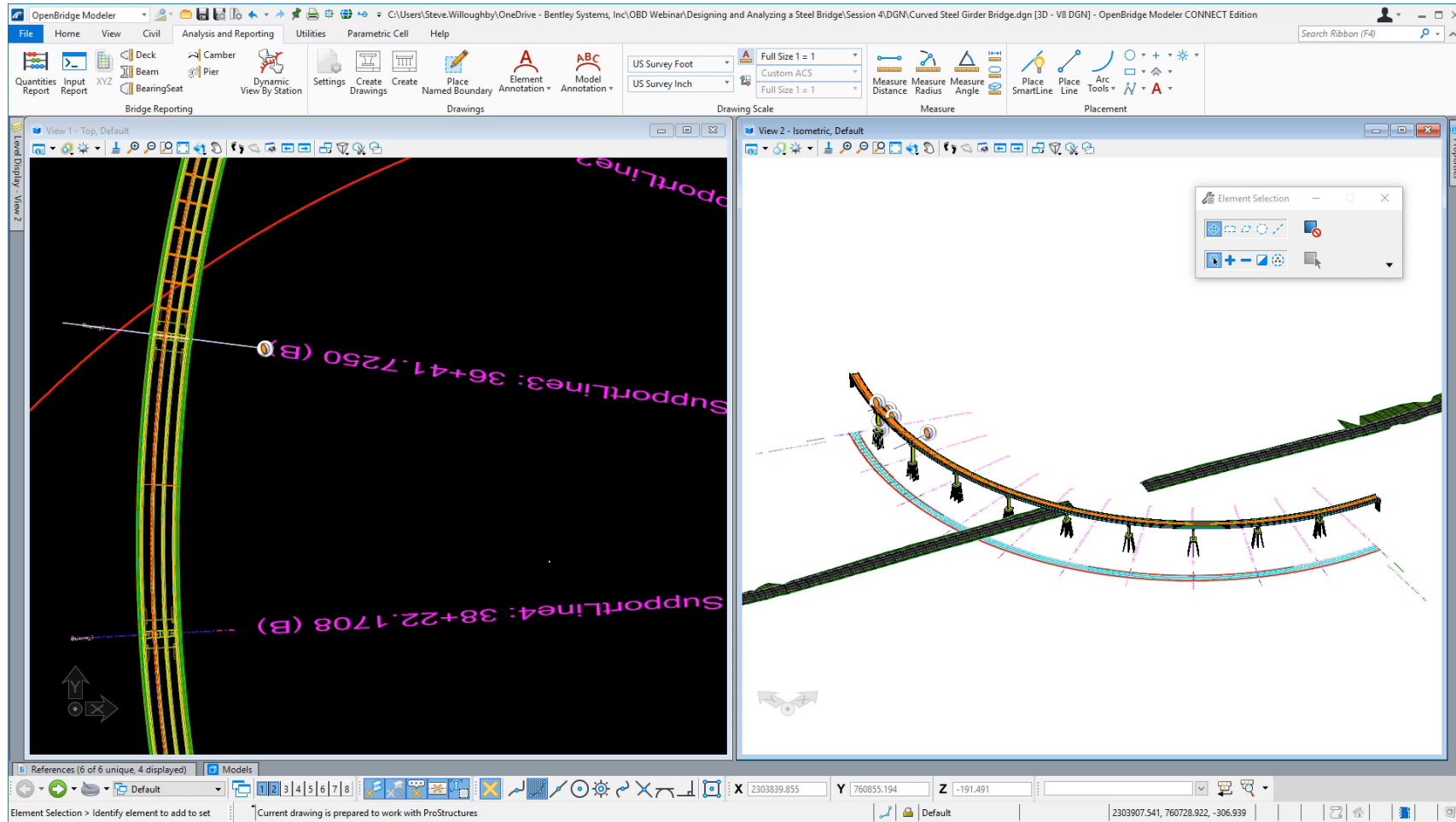
☒ Piles / Drilled Shafts

OK Cancel

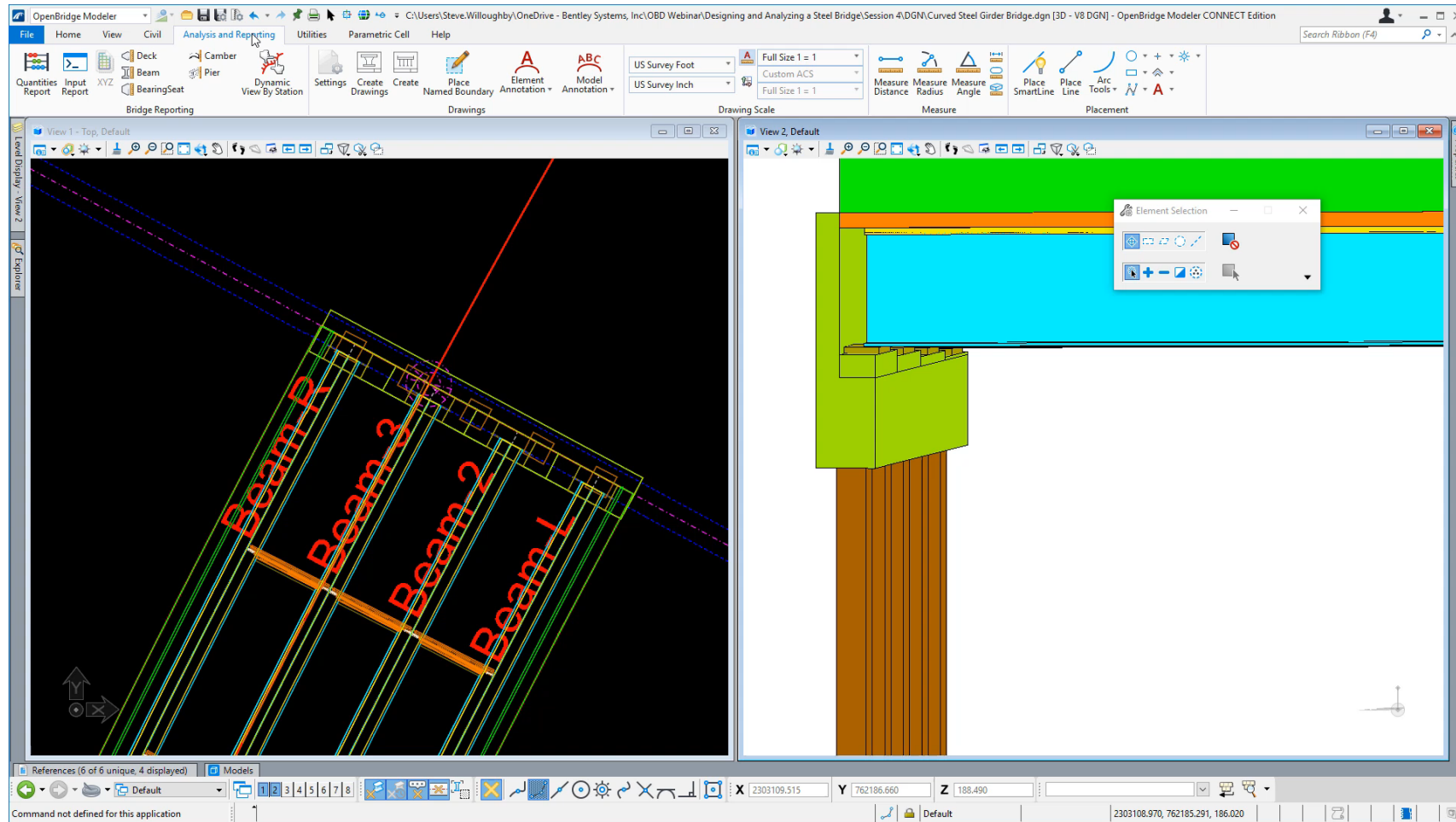




# Create Drawing Tools – Substructure and Superstructure



# Create Drawing Tools - Abutment







Thank You!