

Greater Accuracy of Structural Models with Revit 2015

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Class summary

This session offers a forum to discuss the new tools and features, available in Revit 2015, that facilitate the modeling of more accurate structural framing.

Learning Objectives

1. Understand the new features in Revit 2015 that allow for greater accuracy in structural models
2. Learn how to use the new 2015 tools to adjust the ends of framing members
3. Learn how to use the new 2015 tools to control joins of framing members
4. Discuss how the new features in 2015 help with physical model accuracy without affecting the accuracy of the analytical model

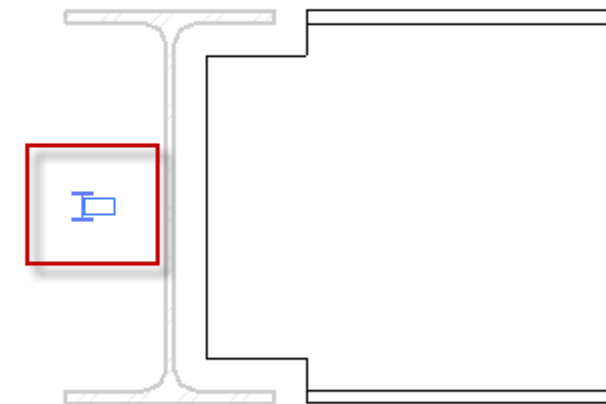
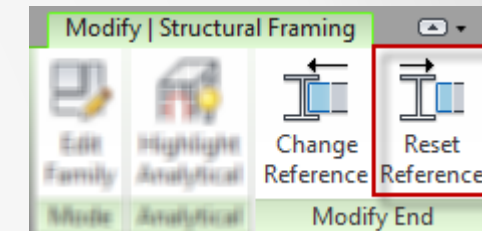
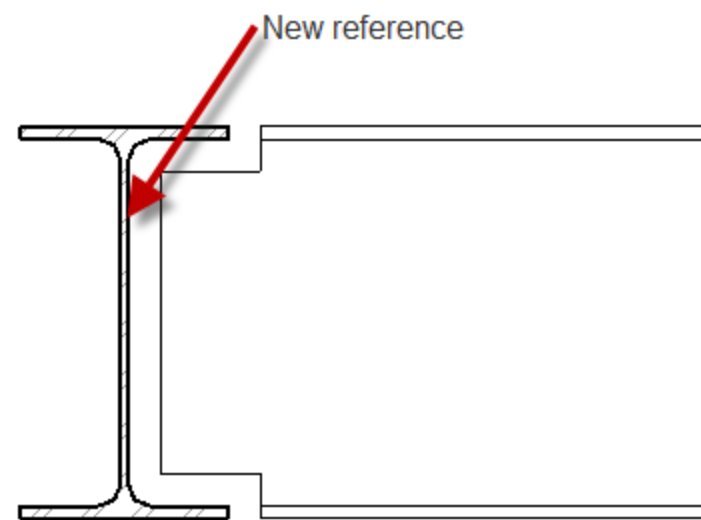
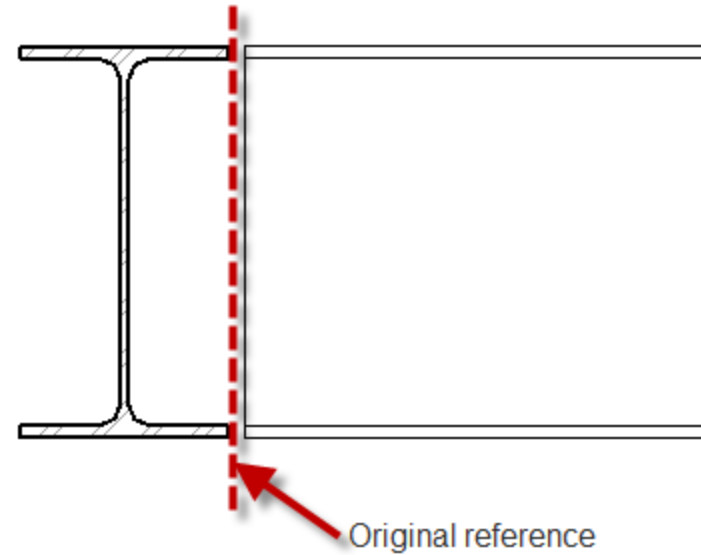
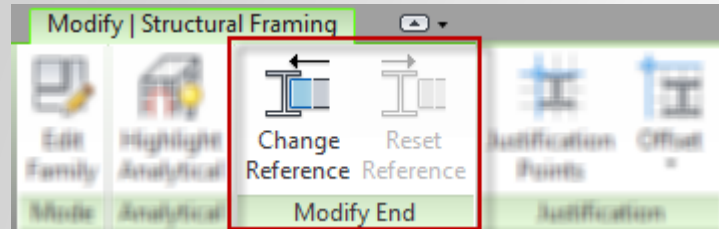
Things to keep in mind...

We will work our way through several new features/discussion topics. We may not get through all of them, or we may find ourselves discussing items not on the original list. Notes will be taken and distributed.

Questions to consider for each topic:

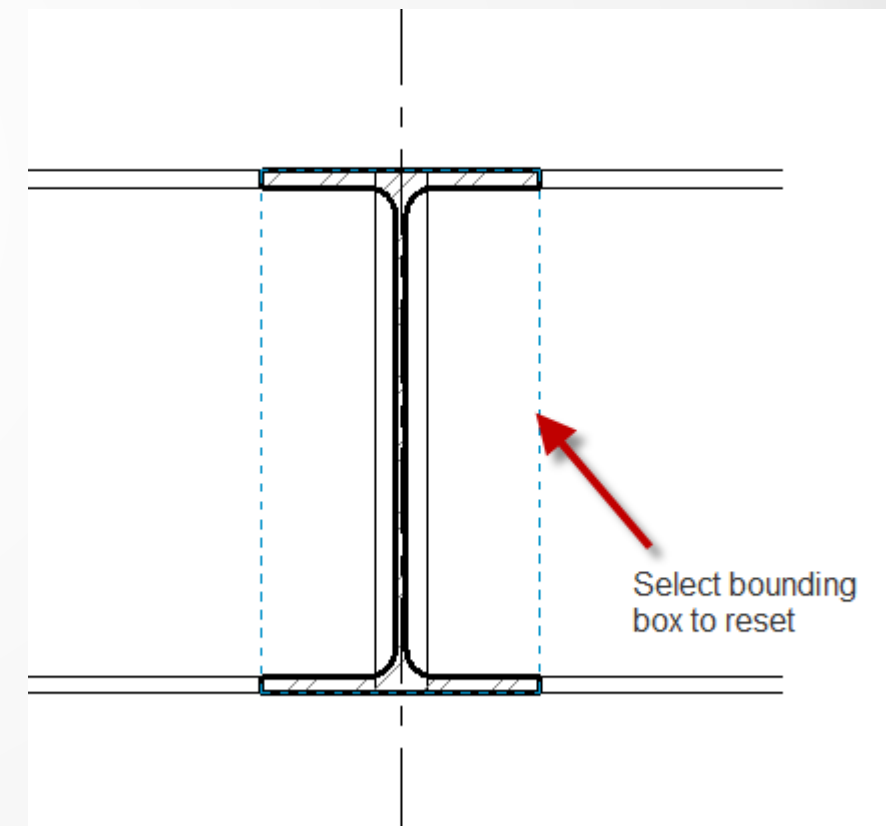
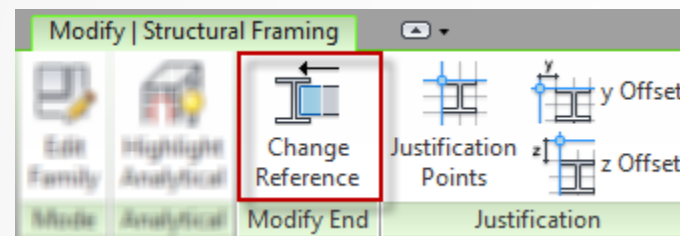
- Did you know about this new feature?
- Do you know how this new tool works?
- Have you used the new tool?
 - If not, why?
 - If so, did you like it? Was it useful in making a more accurate model? Was it easy to use?
- What would make this new feature better?
- What other new tools/features would help make more accurate structural models?

Change Reference – Original Release



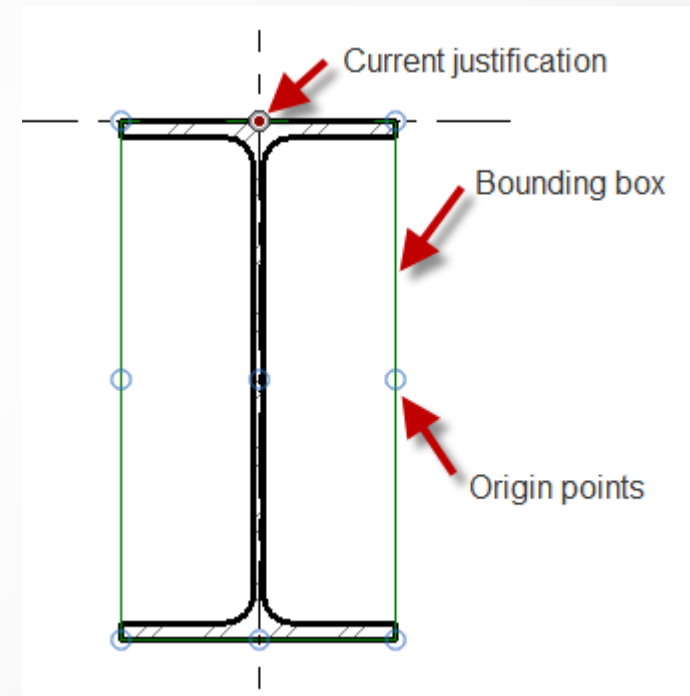
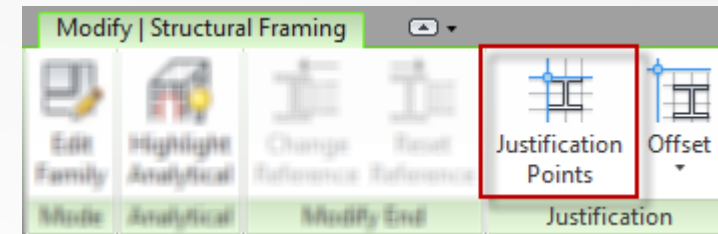
Change Reference – Release 2

- Multiple
- No Reset button



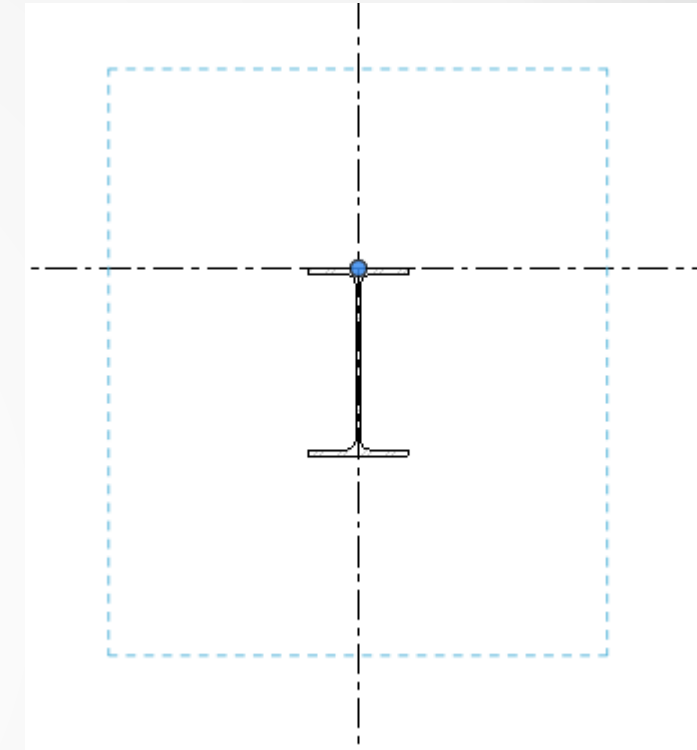
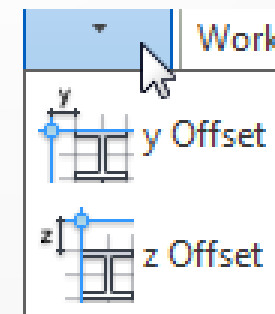
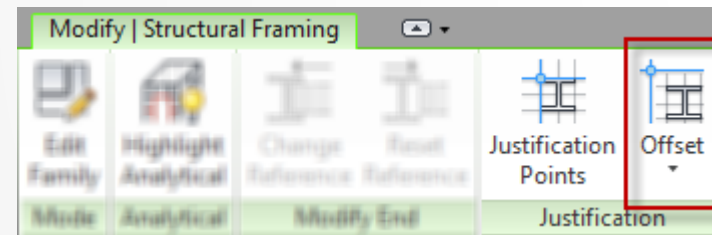
Justification Points

- Red = The current justification of the framing member
- Blue = The origins of the framing member
- Green = The bounding box of the framing member



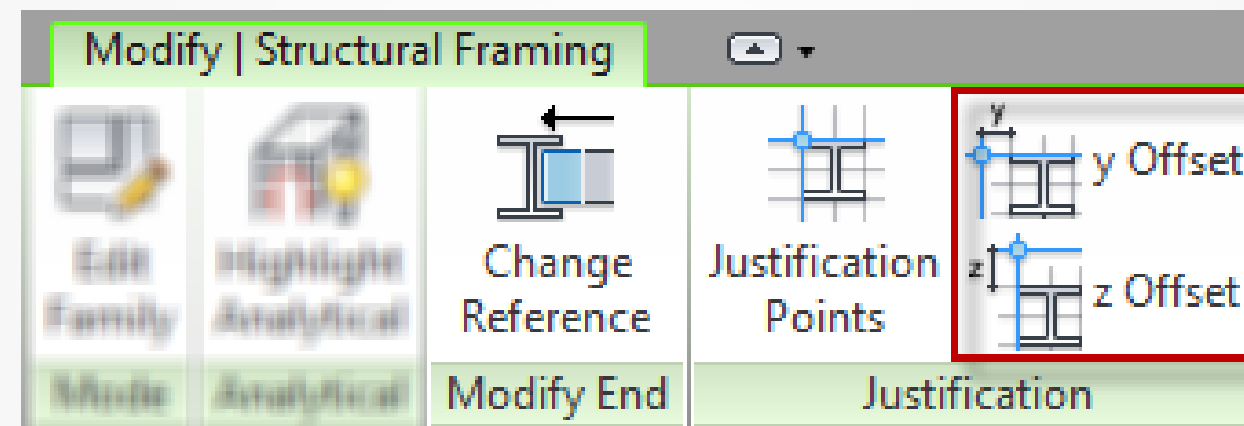
Offset Points – Original Release

- Edit Y and Z offsets on screen
- Feels like a move command

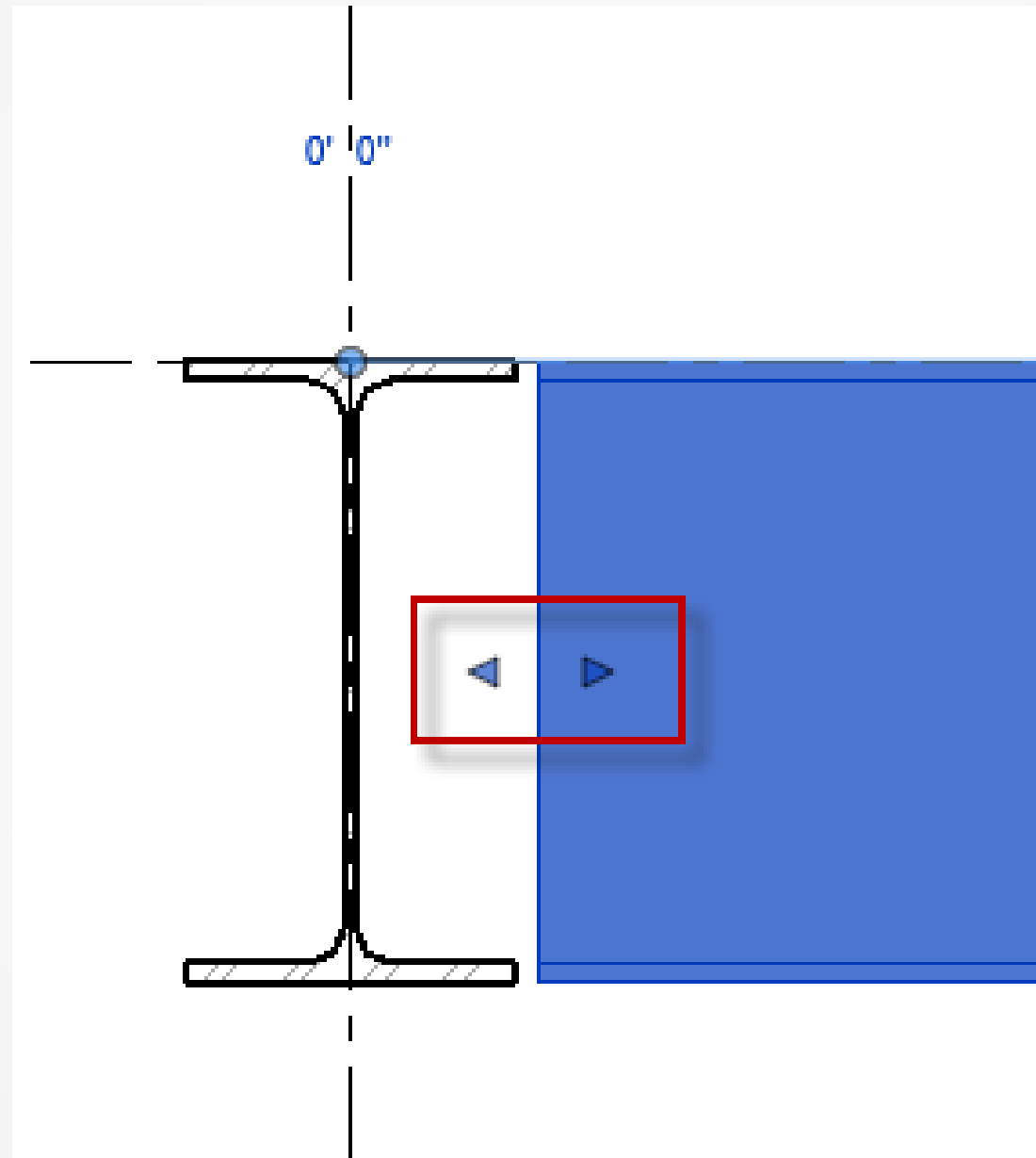


Offset Points – Release 2

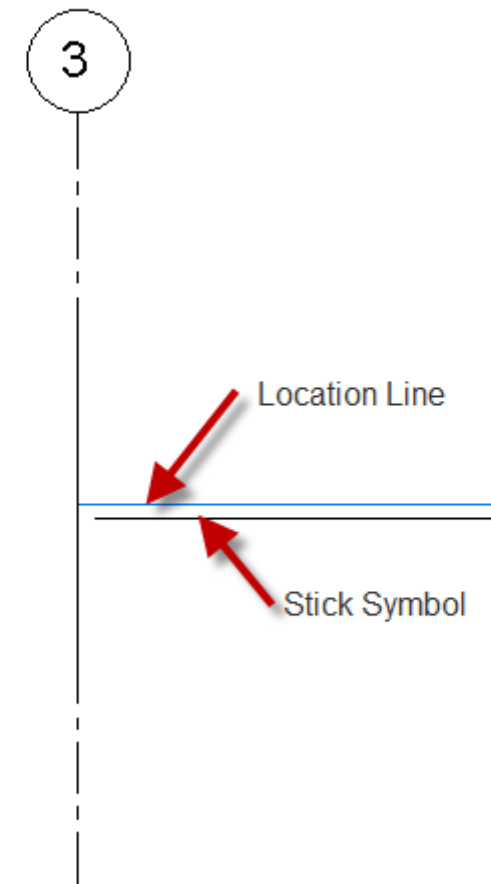
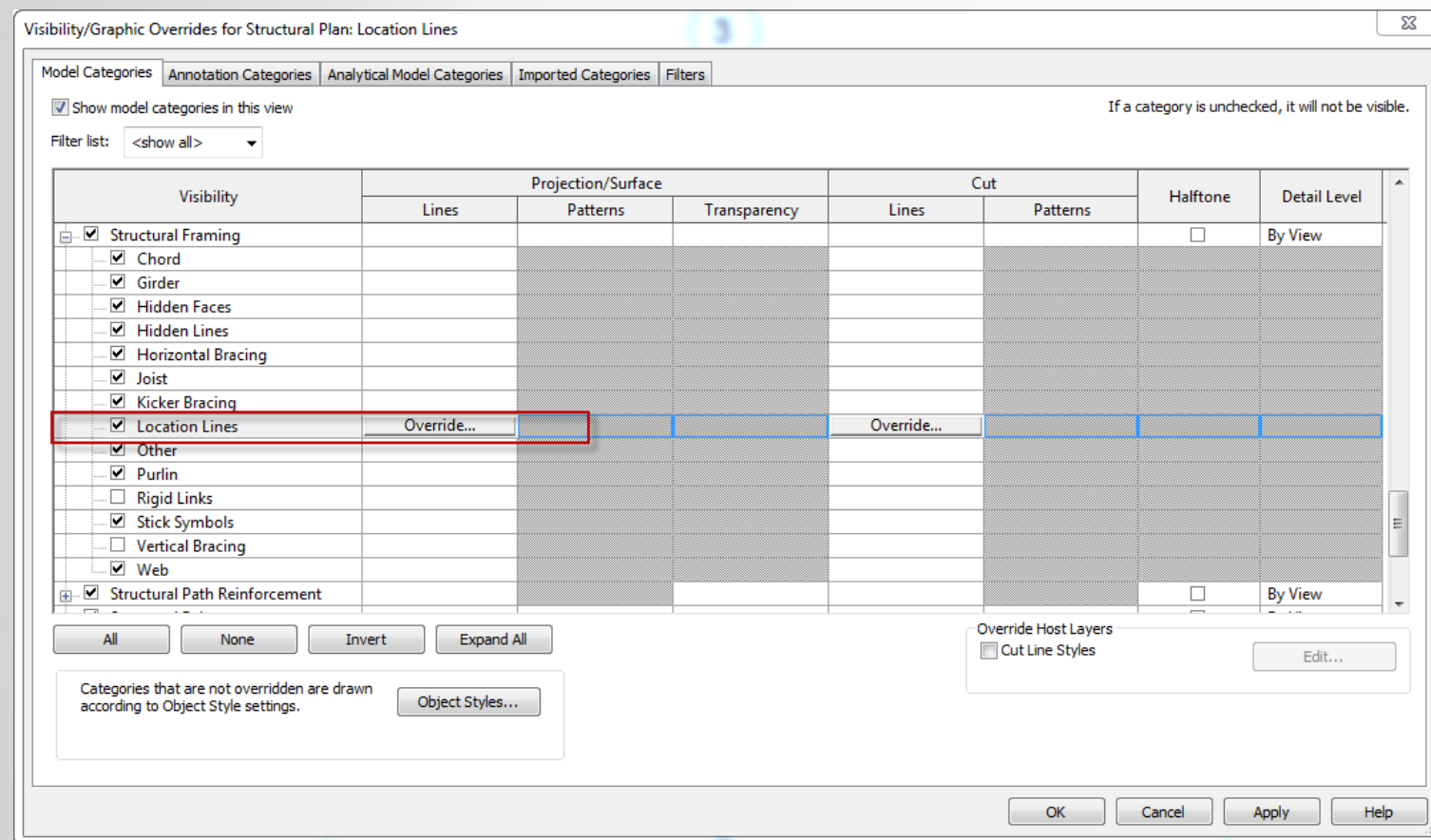
- No menu, separate buttons



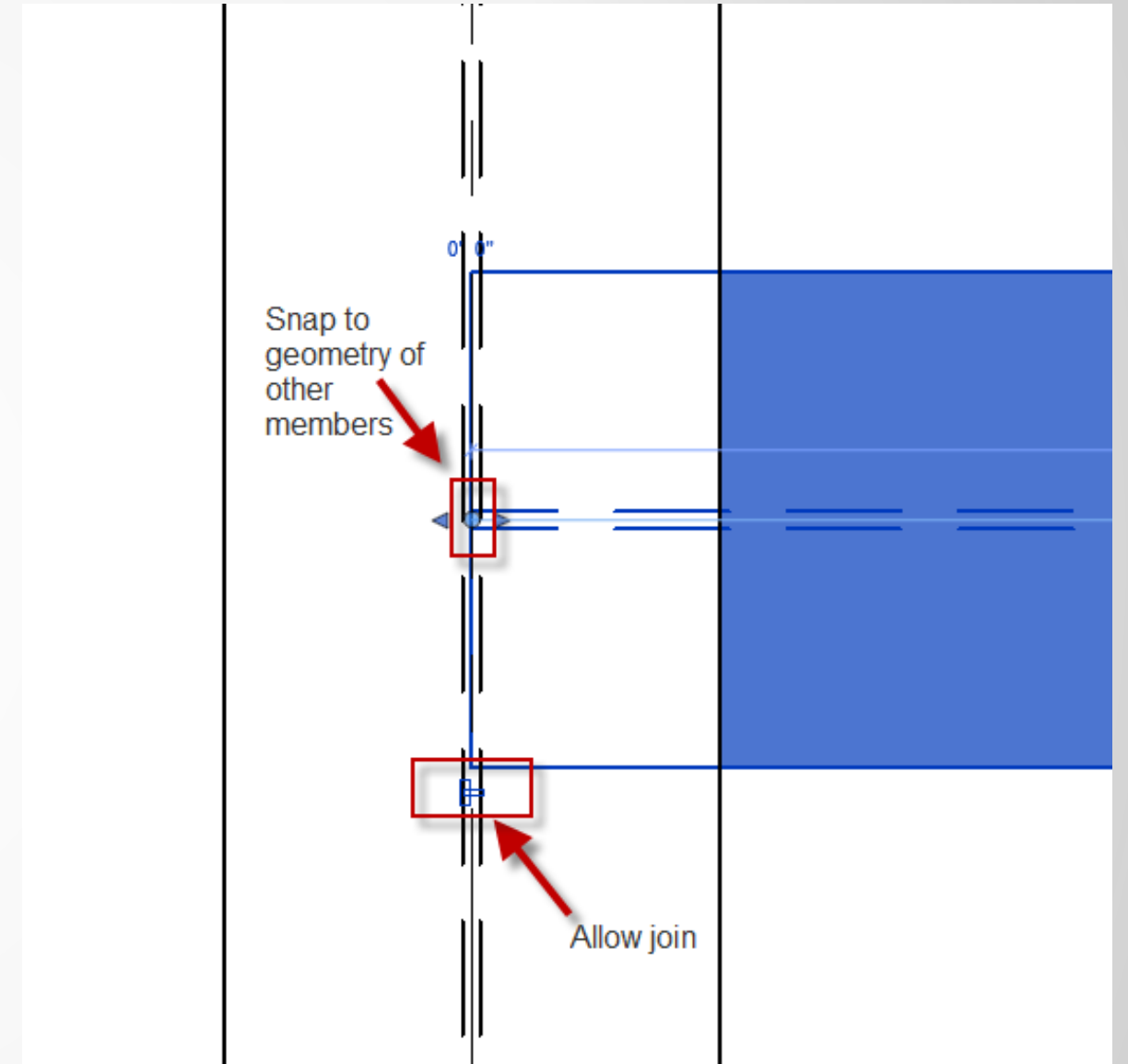
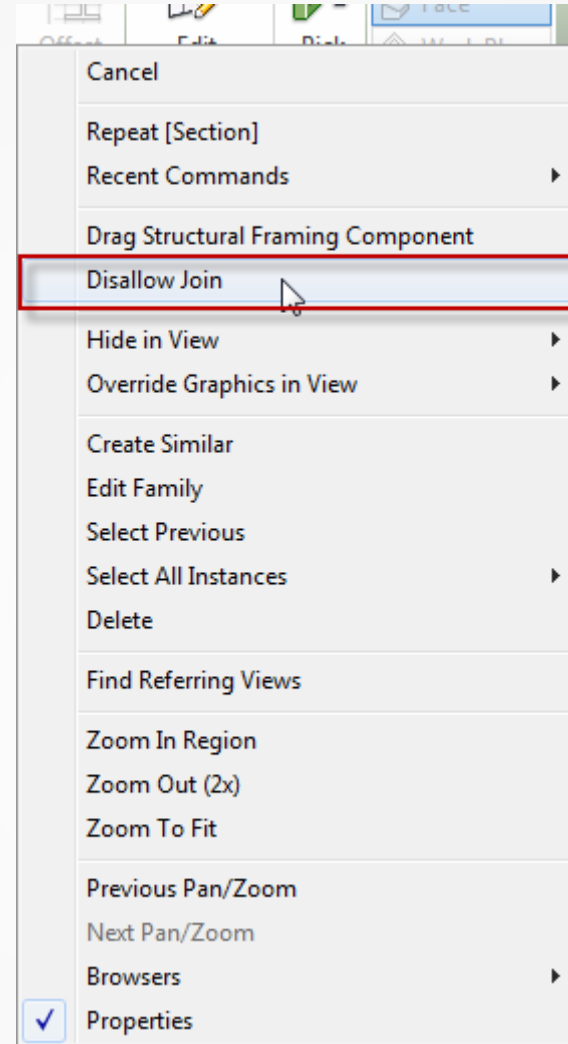
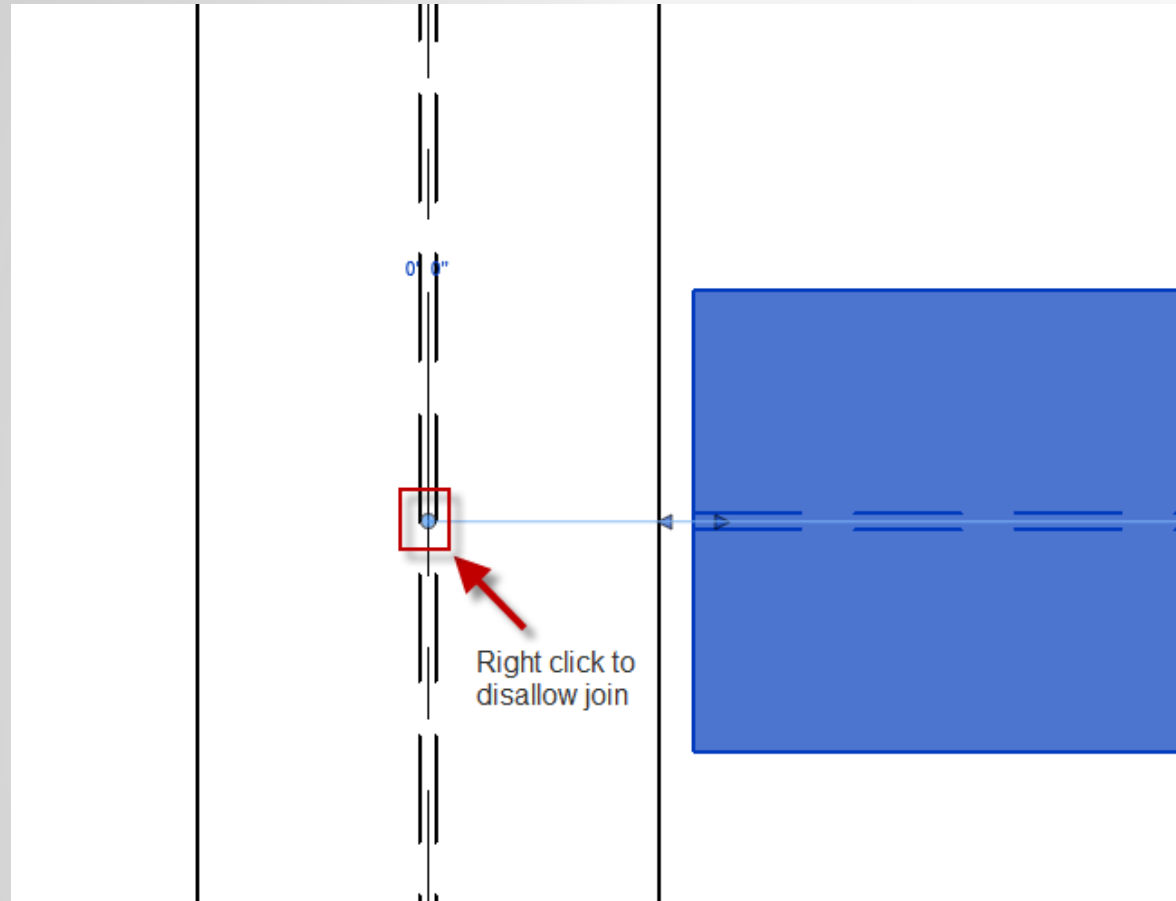
Extension Shape Handles



Location Lines



Disallow Join



Section Shape

Properties

Family: Structural Framing [Edit Type](#)

Constraints

Host

Structural

Structural Framing Length R... 0' 0"

Section Shape I-shape Parallel Flange

Material for Model Behavior Steel

Always export as geometry ☐

Identity Data

OmniClass Number 23.25.30.11.14.14

OmniClass Title Beams

Other

Work Plane-Based ☐

Always vertical ☒

Cut with Voids When Loaded ☐

Symbolic Representation From Project Settings

[Properties help](#) [Apply](#)

Type Properties

Family: W-Wide Flange [Load...](#)

Type: W12X26 [Duplicate...](#) [Rename...](#)

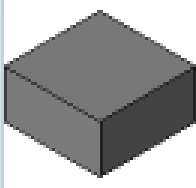
Type Parameters

Parameter	Value
Structural	
W	26.000000
A	0.05 SF
Section Shape	I-shape Parallel Flange
Dimensions	
bf	0' 6 125/256"
d	1' 0 7/32"
k	0' 1 1/16"
k2	0' 0 175/256"
tf	0' 0 97/256"
tw	0' 0 59/256"
Width	
Height	
Flange Thickness	
Web Thickness	
Web Fillet	
Centroid Horizontal	
Centroid Vertical	
Identity Data	

<< Preview OK Cancel Apply

Elevation at Top

Properties

 Ftg-Cap MM
F6x6

Structural Foundations (1)  Edit Type

Rebar Cover - Bottom Face	CONCRETE PLACED AGAIN...
Rebar Cover - Other Faces	CONCRETE PLACED AGAIN...

Dimensions

Elevation at Top	0' 0"
Elevation at Bottom	-1' 10"

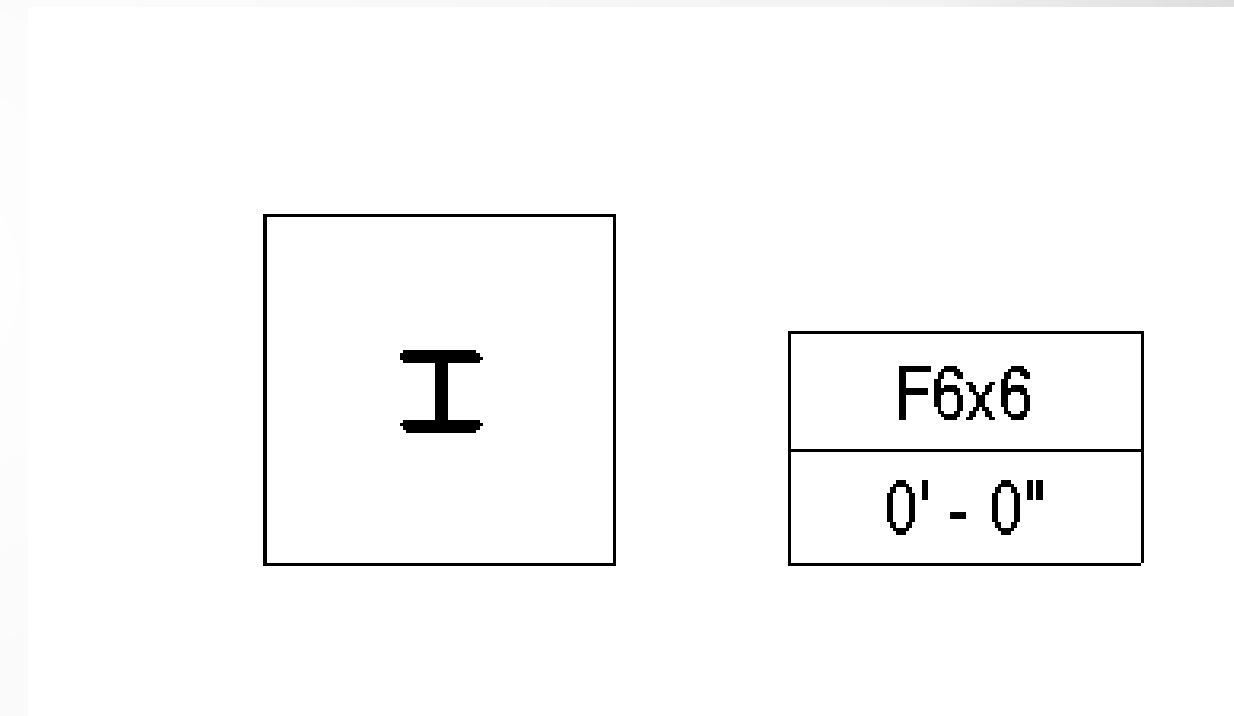
Identity Data

Image	
Comments	
Mark	

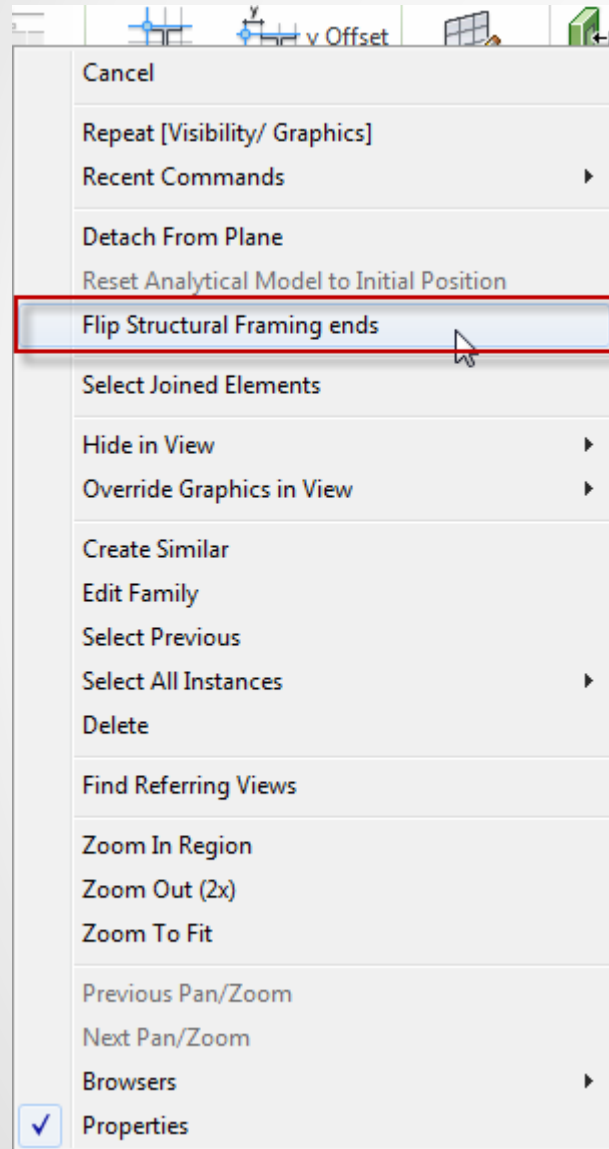
Phasing

Phase Created	New Construction
Phase Demolished	None

[Properties help](#) Apply



Structural Framing Orientation



Bonus Topic: Drawings??

- With more accurate models, are drawings less necessary?

Questions/Discussion?

Remember to fill out your surveys! Thank You!



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