



Greater Accuracy of Structural Models with Revit 2015

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SE6348-R This class will discuss and demonstrate the new features and tools in Revit 2015 software that enable structural engineers to create far more accurate physical models. Whether the intent of the model is comprehensive design or as-built conditions, the new features in Revit 2015 software greatly enhance the user's ability to achieve greater precision and accuracy. This class will cover these many new features, from fine-tuning the ends of framing members to controlling the joining of members. Furthermore, this class will discuss how these new tools enable structural models to provide greater accuracy in the physical model while still maintaining greatly accurate analytical models.

Summary of key take-away points

- Refer to handout for a summary of all of the new tools and features that were discussed
- Changing the reference of a framing member and coping does accurately update the material (reduces the beam's volume by the amount removed by the cope)
- With the new y and z justification tools (the dots), rotations do not affect the direction – both the rotation and justifications work the same together as they do separately
 - However, the y and z offsets do still act erratically if there is a cross-section rotation applied. Z and Y are still local axes, specific to the cross-section itself
- Start and End extension shape handles work the same as the numerical values do
 - Still only apply to the geometry, not the symbolic line
 - Tip: use a beam or column that is only the symbolic line to help with cantilevers – email Dezi if you would like her families for this.
- Location lines – category that can be toggled on and off in visibility graphics – check view templates and appearance through links
 - They print – change the color to something that doesn't show up, or turn them off
- Disallow join tool does not support multiple clicks
- Section Shape parameter may help with analytical software mapping
 - Will schedule, but not an option to filter
 - Does not seem to be any user-defined options
- Elevation at top parameter refers to project coordinates only
- Flip structural framing – right click on the element, not just right click after selecting
 - Tip: Color your start and end reaction tags to help with differentiating start and end
 - Offsets and connections remain accurate after flipping