

# Advanced Topics About the RISA-Autodesk® Revit® Structure Link

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# Introduction

# **Integrated Programs**

- Autodesk® Revit® Structure 2014 (Update Release 1)
- RISA-Revit Link 2014 v2 (Beta)
- RISAFloor v8.0 (Beta)
- RISA-3D v12.0 (Beta)

## **RISA-Revit Link Status (Dec 2013)**

Still Available:        2013 Link v2

Current Version:       2014 Link

Coming Soon:         2014 Link v2

Coming Spring:       2015 Link

# **Recap of Last Year's Improvements**

- Major Speed Improvements
- Export Changed Items Only
- Glulam Shape Type (Mapping File)
- Ability to set a Prefix for shape/joint names
- Dummy Members for Missing Shapes (Revit to RISA)
- Pre Import/Export Verifier
- Aluminum Members
- Cold Formed Steel Members
- Wall Material and Thickness Transfer (General, Masonry, Concrete)
- Composite Flag
- Shaft Openings

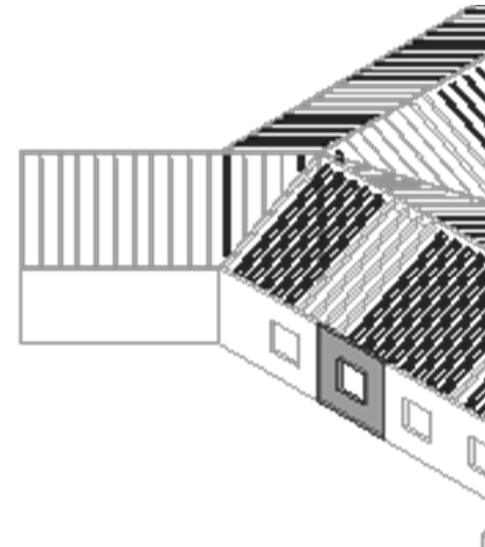
# **RISA-Revit 2014 Link v2 Improvements**

- 14 Significant New Features
- 17 Minor New Features and Bug Fixes

# RISA-Revit 2014 Link v2 Improvements

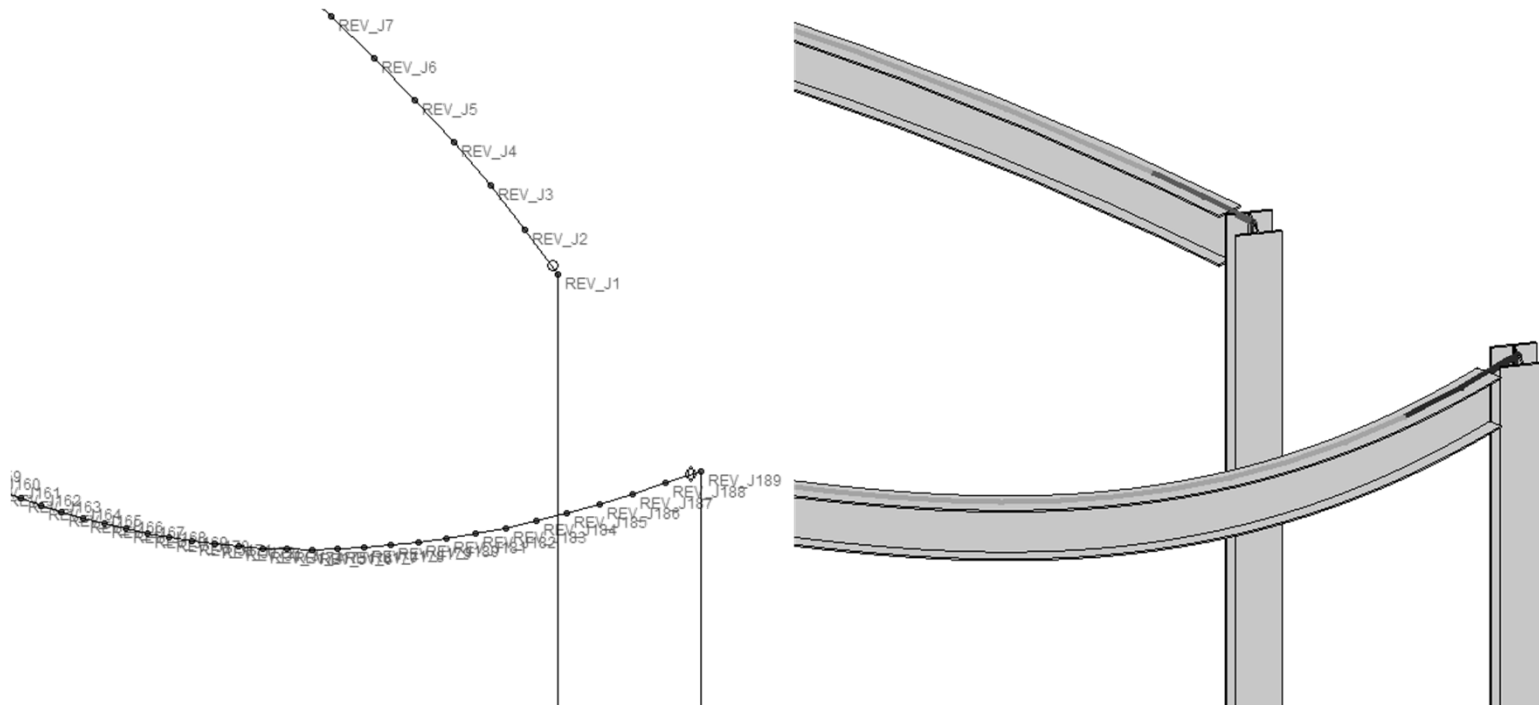
- Better Wood Wall Transfer

Phasing		^
Phase Created	New Construction	
Phase Demolished	None	
Structural Analysis		^
RISA Sheathing Grade	RS	
RISA Sheathing	(1)x0.375"	
RISA Nailing	8d@6"	
<a href="#">Properties help</a>		▼
		Apply



# RISA-Revit 2014 Link v2 Improvements

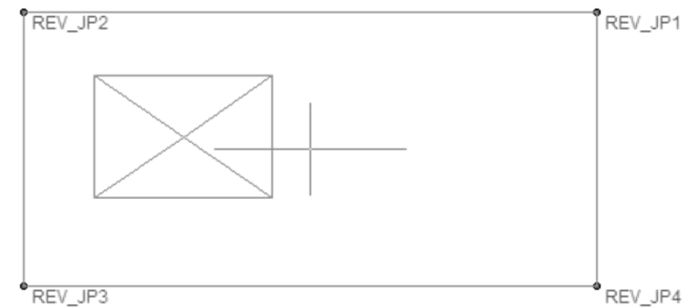
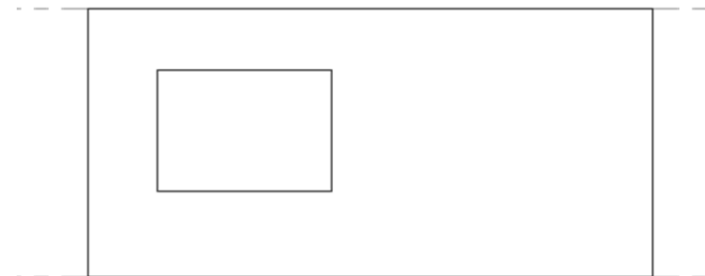
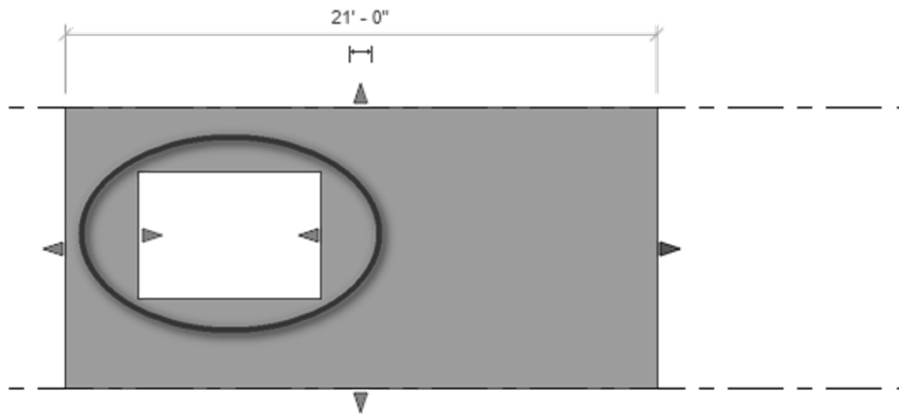
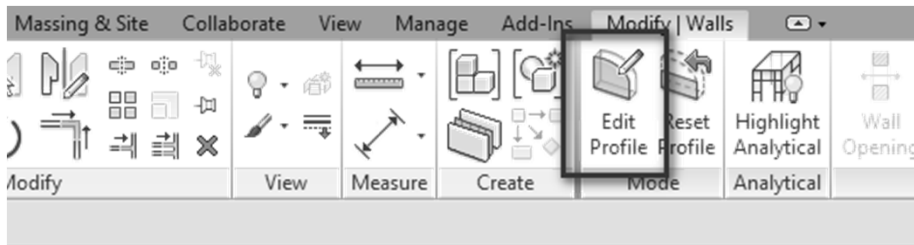
- Better Round Tripping of Curved Beams (RISA-3D Only)





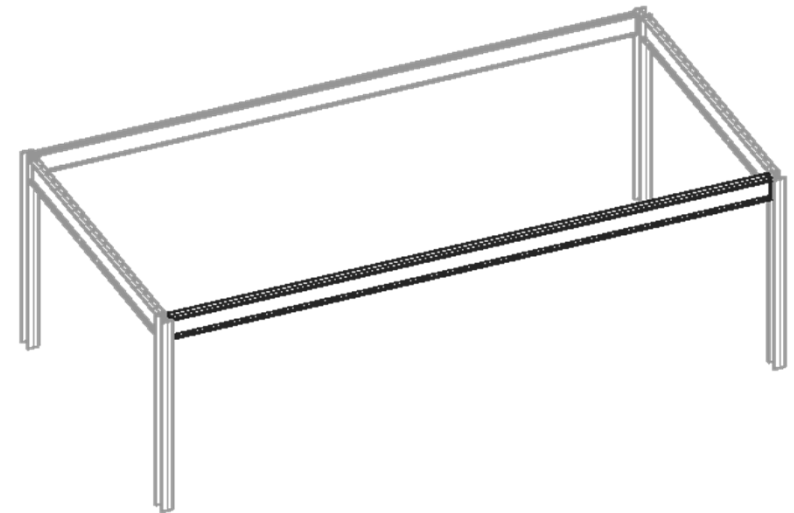
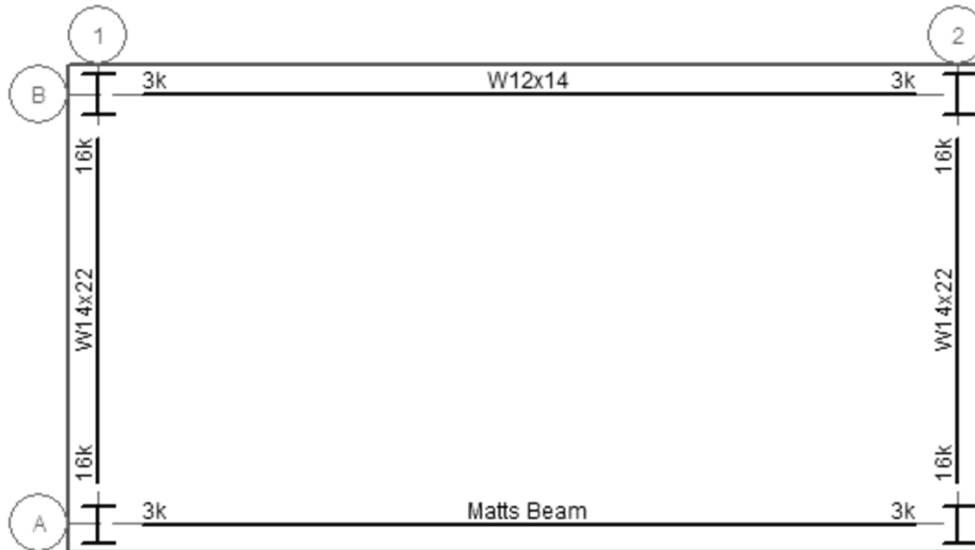
# RISA-Revit 2014 Link v2 Improvements

- Support for “Edit Profile” Wall Openings (Windows Only)



# RISA-Revit 2014 Link v2 Improvements

- Dummy Members for Missing Shapes (RISA to Revit)



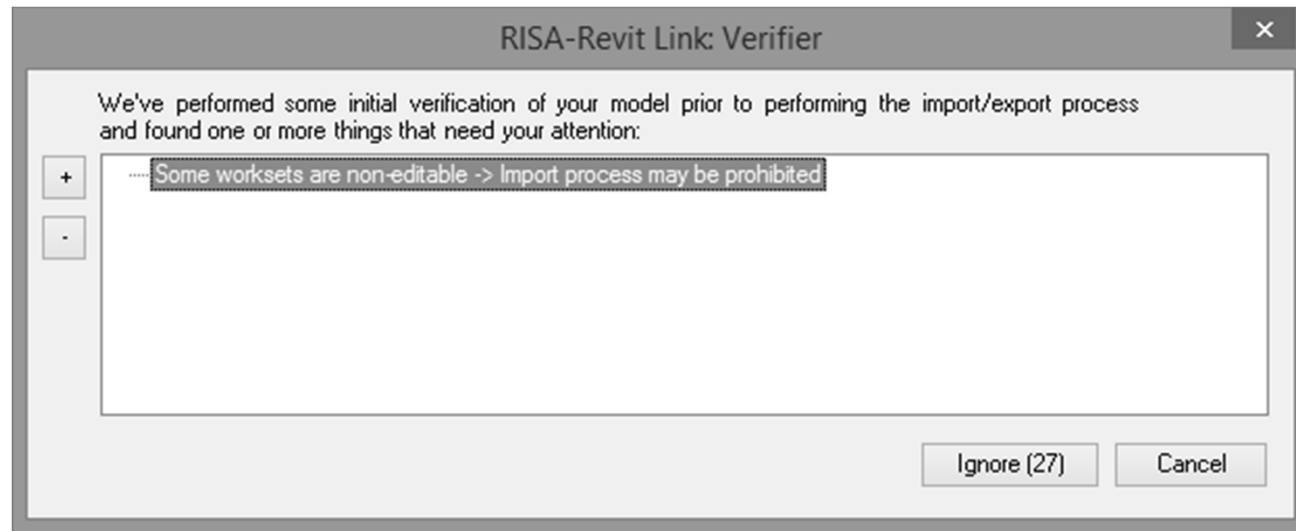
# RISA-Revit 2014 Link v2 Improvements

- Support for Partitioning Revit Model to multiple RISA models (when using export selected items only)



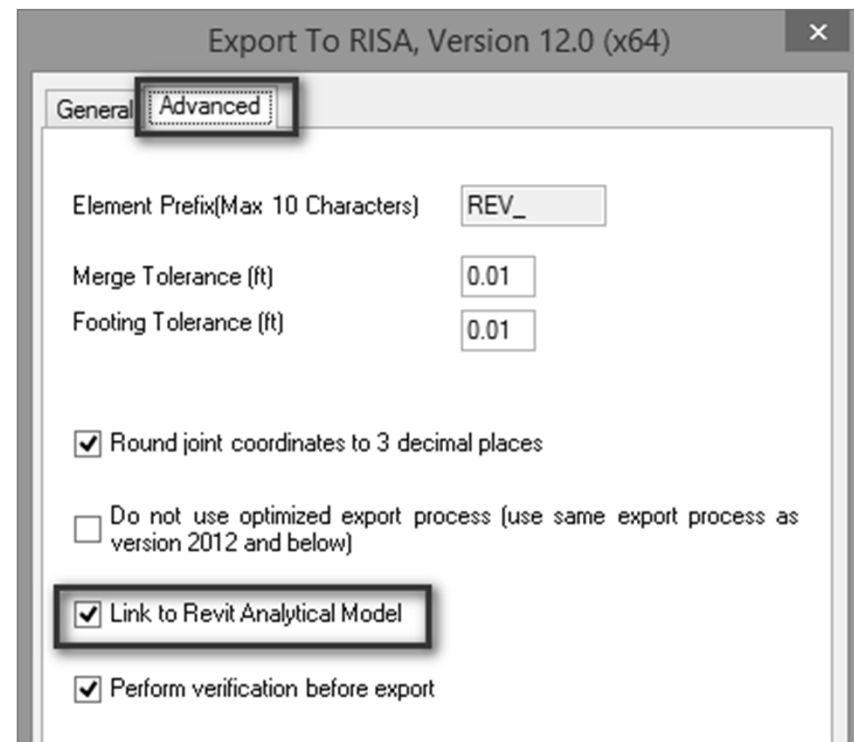
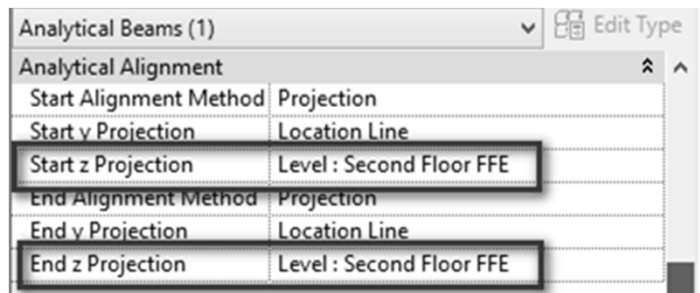
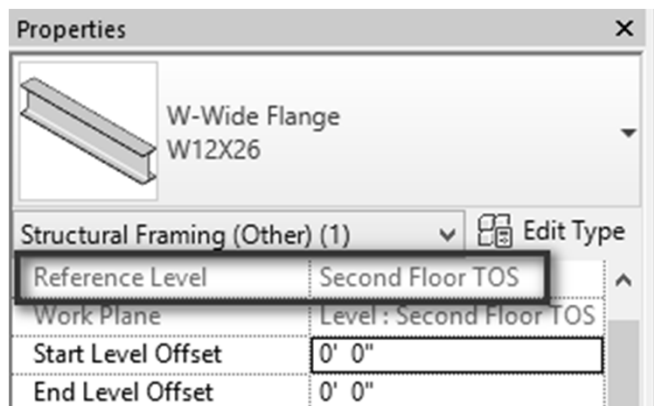
# RISA-Revit 2014 Link v2 Improvements

- Uneditable Revit Elements Check (Better Support for Worksets)



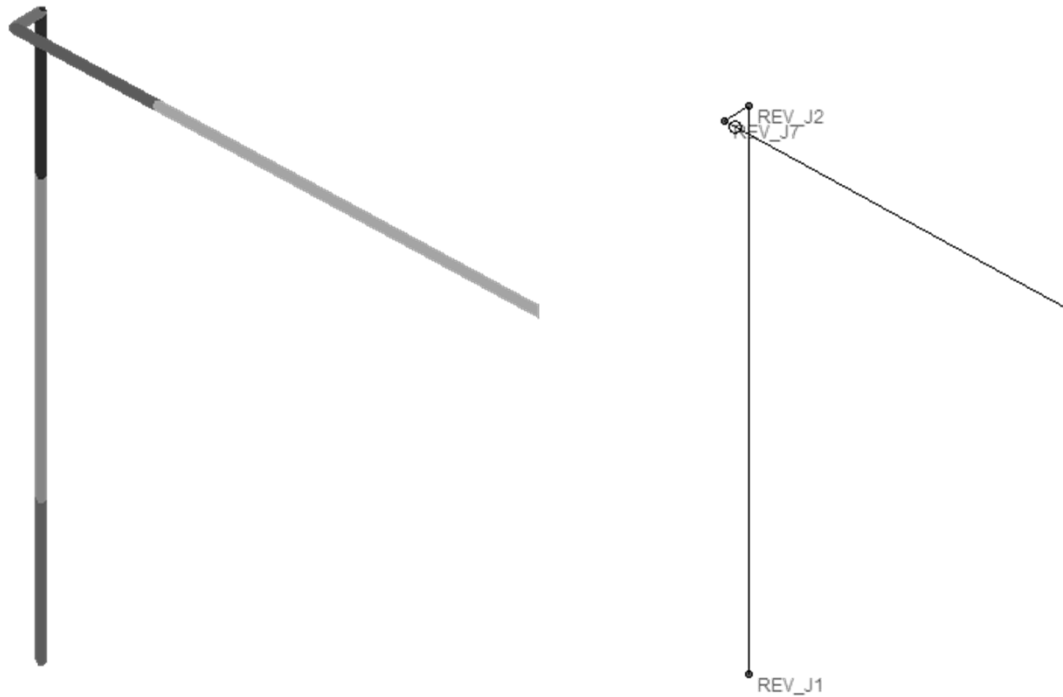
# RISA-Revit 2014 Link v2 Improvements

- Link Revit Analytical Model to RISAFloor (instead of Physical Model)



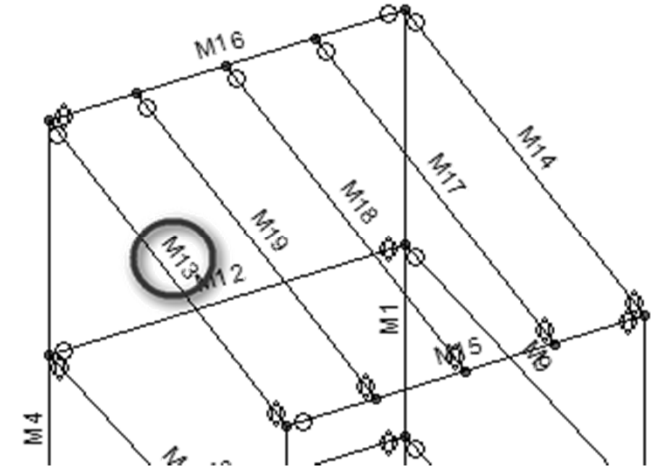
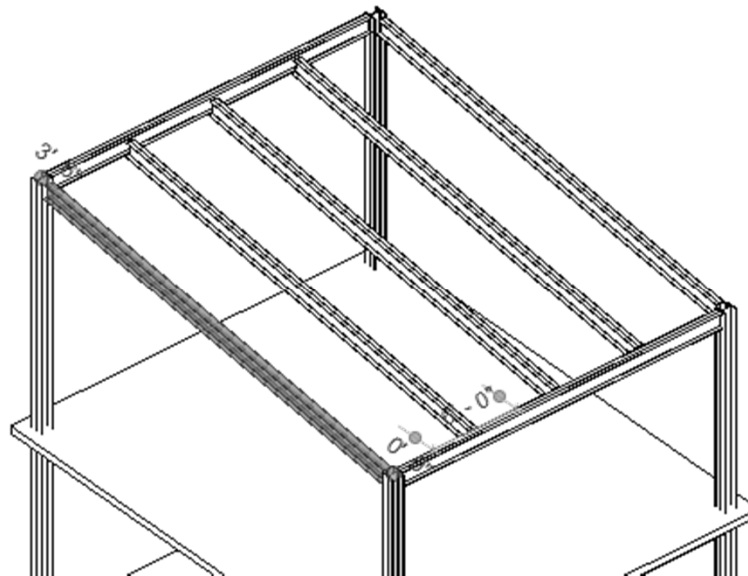
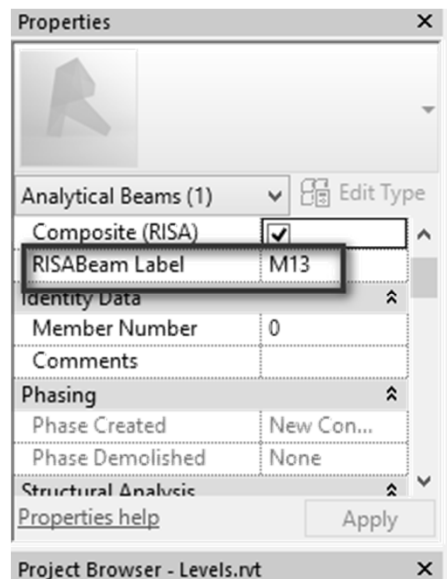
# RISA-Revit 2014 Link v2 Improvements

- Support for Analytical Links (RISA-3D Only)



# RISA-Revit 2014 Link v2 Improvements

- RISA Member Label Property in Revit



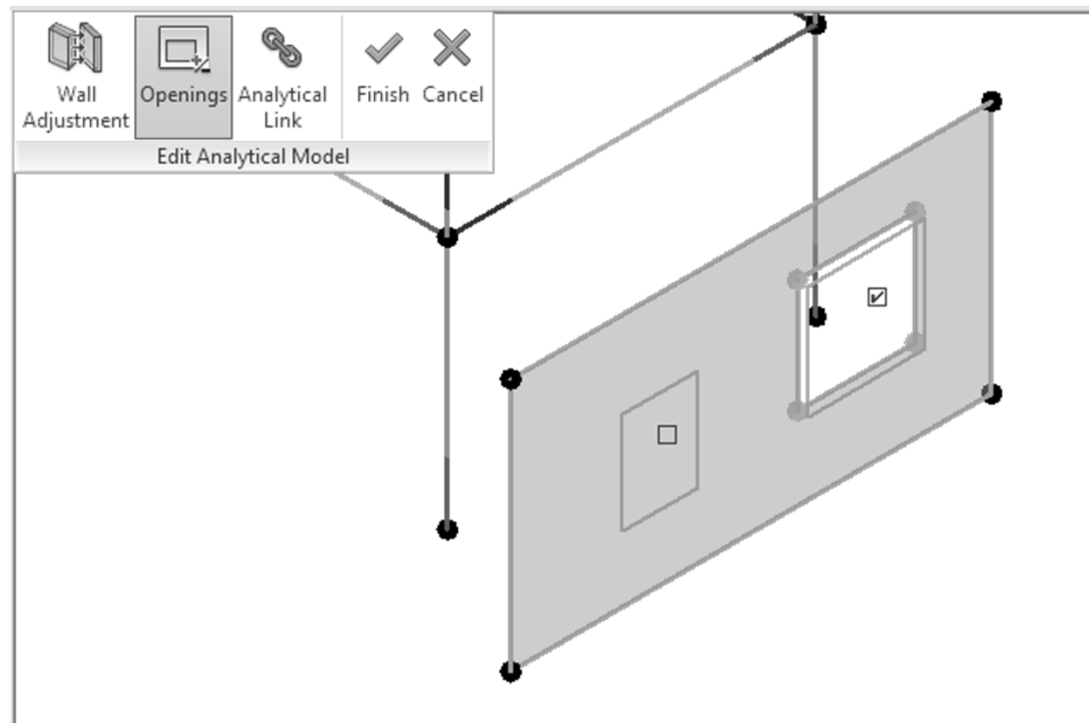
# **RISA-Revit 2014 Link v2 Improvements**

- RISA Joint and Member Label Persistence through Round Trips
  1. In Revit, beams have no names
  2. Transfer to RISA. The Link creates a RISA name for the beam (REV\_M1)
  3. User renames the beam in RISA to (Matt)
  4. Import the RISA model back to Revit
  5. Export the Revit model back to RISA
  6. The beam will still be called (Matt).
    - The previous version of the link would have renamed it back to (REV\_M1)



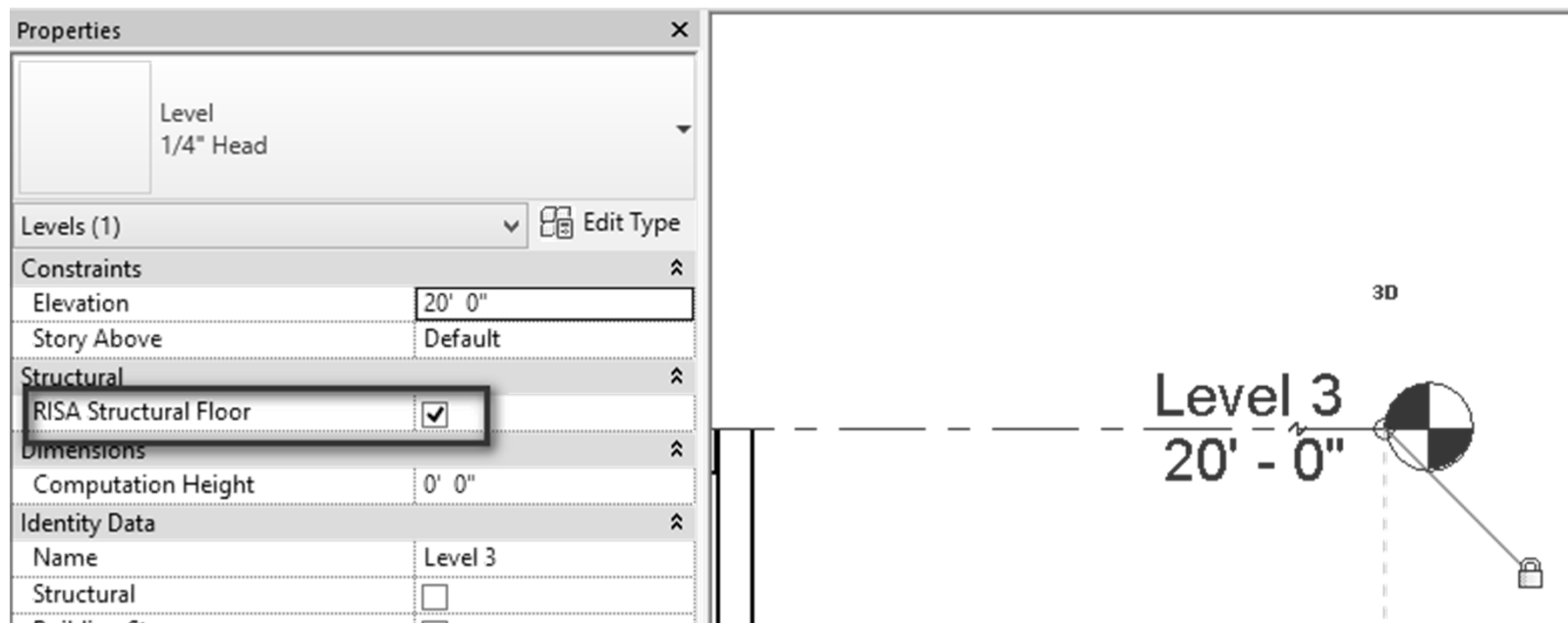
# RISA-Revit 2014 Link v2 Improvements

- Support for Disabled Analytical Wall Openings



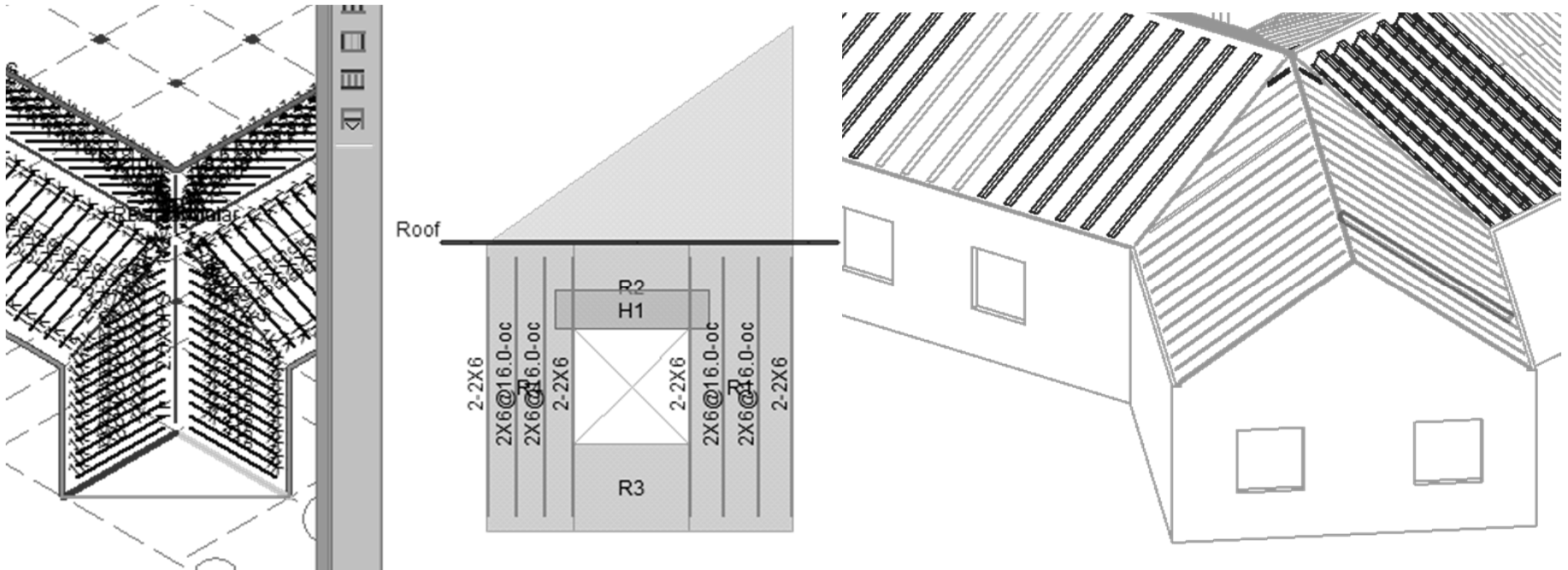
# RISA-Revit 2014 Link v2 Improvements

- Ability to Choose which Levels transfer to RISAFloor



# RISA-Revit 2014 Link v2 Improvements

- Support for Sloped Walls



# RISA-Revit 2014 Link v2 Improvements

- Improved Round Tripping of Column Splices to RISAFloor

The screenshot displays the RISA-Revit 2014 Link v2 interface. On the left, the Properties panel shows the selected element as a 'W-Wide Flange-Column W10X49'. The 'Structural Columns (1)' section is expanded, and the 'Top Connection' dropdown menu is open, showing options: 'None', 'Moment Column Connection', and 'Shear Column Connection'. The 'Base Connection' is set to 'None'. The 'Enable Analytical Model' checkbox is checked. The 'Dimensions' section shows a volume of '1.33 CF'. The 'Project Browser' at the bottom shows the current project as '3332.rvt'. On the right, a 'Temporary Hide/Isolate' view shows a 3D model of a column splice. A table is overlaid on the right side of the image, detailing the splice configuration.

Splice	Distance Below [ft]	Splice Type
<input checked="" type="checkbox"/>	6.5	Default (Moment)
<input checked="" type="checkbox"/>	6.5	Moment
<input checked="" type="checkbox"/>	6.5	Shear
<input type="checkbox"/>		

## **Preview of Next Year's Improvements**

- RISA-Revit 2015 Link (due at release of Revit 2015)
- Support for Concurrent Workflow
- Major Concrete Improvements (rebar transfer, flat slabs)
- Link Between Revit and RISAFoundation

