



## Webinar Q & A

### Wood-Framed Building over Podium Slab in RISA | 9/30/15

Q: Why is the concrete slab modelled as semi-rigid?

A: You can model the concrete slab as rigid or semi-rigid. Look to ASCE 7 and IBC for when a slab may be assumed as fully rigid versus semi-rigid.-

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Q: How are point loads from the ends of the ends of the beams beign taken down? What about the post designs?

A: The loads from the beam ends are taken down through the wall panel. The wall studs are designed for the vertical load in the wall panel.-

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Q: Will RISA be adding a post tensioning option at any point?

A: There are long-term plans to add post-tensioned slab design, however in the near term we plan to further improve the analysis and design of mild steel slabs.-

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Q: Is that for the typical studs (2x8 @ 16" o.c.) or for a stud pack placed below the point loads on the wall?

A: The wood wall stud design assumes that the load is shared among equally spaced studs. For very large point loads where a post must be embedded in the wall that design must be done seperately.-

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Q: Is a Studrail design available?

A: Studrail design is not yet included, but we plan to add it in an upcoming version of RISAFloor ES-

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Q: Are the small shear caps used in the flexural calculation for rebar?

A: The small shear caps are only used for punching shear. We plan to add larger "drop panels" that will affect the flexural calculations. These Drop Panels will be included in the next version of RISAFloor ES-

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Q: How does Floor treat the RF over the shear cap? Does it increase the d value for the top steel?

A: No, the "Shear Cap" does not affect flexural design or the "d" value. We are going to introduce a "Drop Panel" element in the next version of RISAFloor ES that will account for that.-

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Q: How do you add a post in the middle of a wall without splitting the wall at the post location?

A: There is no way to embed a post in a wall in RISAFloor without splitting the wall. However, when you bring the model into RISA-3D you can draw a post in manually.-

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Q: Since RISAFloor doesn't account for LL reduction among multiple floors, this will result in a pretty conservative concrete slab design and foundation. Any plans to include LL reduction in the near future?

A: RISAFloor does Live Load Reduction in RISAFloor which is where the concrete slab design is done. There are plans to make significant improvement to Live Load Reduction in RISA-3D and RISAFoundation. It is trickier than it sounds which is why it hasn't been done already.-

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Q: Can you integrate a typical bottom mat in the design?

A: In the current version the rebar is optimized per strip as opposed to having a "typical" mat. The typical mat is something that we have planned to include all along, and will be included in an upcoming version-

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Q: Is the wind speed input in RISA-3D Vult or Vasd?

A: If you specify ASCE 7-10 then the program will be looking for wind speed per ASCE 7-10 (i.e. V-ult). If you specify ASCE 7-05 then the program will be looking for wind speed per ASCE 7-05 (i.e. V-asd)-

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Q: Can you use continuous rod holdowns for the wood shearwalls?

A: We do not currently have a mechanism for continuous rod hold-downs. That is planned in the future as part of an overall enhancement of our wood wall panels. For now we calculate straps at each floor level, and a hold-down at the bottom.-

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Q: Is the force in the wall reported? I didn't see that.

A: The wall forces are reported in the Detail Report for the wall-

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Q: Can we have a suggested design for slab in RISAFloor?

A: RISAFloor ES optimizes the rebar in a slab, however you must manually specify a thickness.-

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Q: Can we do sloping members in RISAFloor?

A: You can slope the roof (i.e. Top Floor) of a building in RISAFloor.-

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Q: Can we use a Precast Double tee section for Podium Slab?

A: No, the podium slab design illustrated here was using a two-way slab. Double-tee beams would be part of a one-way slab design.-

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Q: Is the long term deflection considered in deflection calculations? And if so, what factor is used for creep?

A: We do not currently calculate or report a long-term deflection. We do, however, use a cracked factor for the flexural stiffness of the slab-

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Q: Does the FEA model of the wood walls account for the flexural stiffness of the number of hold-down studs?

A: The FEA does not account for hold-down stiffness, however we also report an "empirical" deflection for the wall which does.-

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Q: Can we put moving loads on the podium?

A: You can apply a moving load to a semi-rigid diaphragm in RISA-3D using dummy members. This will not affect the rebar design in the slab, but it will attribute the load to the supports and you can get the forces from the slab.-

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Q: Why were the upper floor wood diaphragms modeled as rigid?

A: You can specify the wood diaphragm as flexible or rigid. For today's example we chose rigid, but see ASCE 7 and IBC for guidance on which assumption (i.e. rigid, flexible, semi-rigid) is appropriate for your building-

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Q: Does RISA have steel deck w/ concrete

A: In a beam supported, you can model steel deck with concrete to get composite design.-

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Q: Can you import Revit Model into RISA?

A: Yes, you can import a Revit Model into RISAFloor or RISA-3D.-

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Q: Can you model semi-rigid plywood diaphragms

A: Not currently, however we plan to add semi-rigid diaphragms to beam supported floors in an upcoming version-

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Q: Can you model double sided wood shear walls?

A: Yes, the Wall Design Rules allow you to specify whether sheathing is on one or both sides.-

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Q: Can you do a 2 stage lateral analysis to take into account different Rs

A: No, you must specify one R value for each direction-

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Q: Can RISA Floor recognize the openings from a DXF file import?

A: You can import any line or polyline from the DXF as an underlay which allows you to draw the slab openings.-

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Q: Does RISA 3D design the wood posts at wall openings along with the headers?

A: For Segmented Design of wood walls, yes the "chord" members adjacent to openings pick up the load from the header. This is not the case for Perforated or FTAO design methods though.-