RISA Help

Hide Back Home Print Options RISA Support

Contents Index Search

Type in the keyword to find:

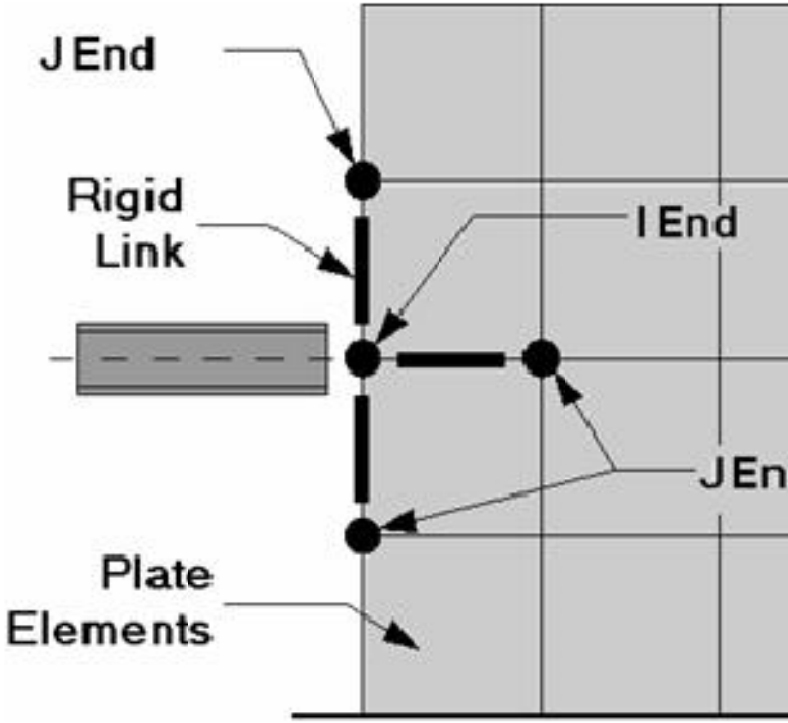
Beam fixed to a shear wall

Model Merge
Model View
Modeling Tips
Applying in-plane moment to plates
Beam fixed to a shear wall
Cables
Composite Behavior
Dynamics
Inclined Supports / Reactions
Large Models
One member crossing over another
Plates
Reaction at enforced displacement
Rigid Links
Modes (program)
Modify Menu
Modifying
Members
Plates
Wall Panels
Moving Elements
Moving Loads
NDS
Nesting load combinations
New Models
Normal Stress
NPS Shapes
Nu (Poisson's Ratio)
Number of Sections
Occupancy Category

Display

Modeling a Beam Fixed to a Shear Wall

Occasionally you may need to model the situation where you have a beam element that is fixed into
would be a concrete beam that was cast integrally with the shear wall or a steel beam that was cast i
attached to the joint at the wall because the plate/shell element does not model in-plane rotational s
links to transfer the bending moment from the joint at the wall as shear force to the surrounding join
section to learn how to create rigid links. This modeling method provides a more accurate analysis
"drilling degree of freedom" which attempts to directly model the in-plane rotation. See the figure b



The only trick to this method is getting the proper member end releases for the rigid links. We want
interior wall joints without having the rigid links affect the stiffness of the shear wall. Notice from t
connected to the beam element, while the J-joints are the ends that extend into the shear wall. The J
My, and Mz degrees of freedom released. Only the y and z degrees of freedom (local axes shears) s
wall joints. This release configuration will allow the shears to be transferred into the wall, but the w
presence of the rigid links.