Model Changes

Swap Rocker Bearing Locations

The rocker bearings are on the other 4 girders.

Center Pier Links

Model Rocker Bearings with XY Rigid Links

The pinned bearings used, release all rotational degrees of freedom. This is not a realistic representation of the true behavior of a rocker bearing. A rigid link in the XY plane will more properly release longitudinal translation. Furthermore, these new links should only extend from the bottom of the I-girder to the top of the box-girder. New nodes with rigid links to the component center nodes may need to be created to accomplish this.

Rocker Link

Model Elastomeric Bearings Differently

New nodes will need to be created at the bottom of the I-section girder (there appears to be a node already at the top of the box girder).

Bearing Locations

Existing node stiffness should be removed. This method of simulating a flexible connection between components is incorrect.

Node Stiffness

Rigid links will have to be modified such that they go from the center of the I-section girder to the bottom node, and the center of the box girder to the top node. The two nodes (girder bottom and box-girder top) will be connected with a pinned link and a spring-damper element.

Spring-damper element

The same process should be completed on the elastomeric bearings between the pier columns and the box-girder.