

# Commercial Design in Javelin

In Javelin v5.1, we refined the capability to design members with a concentrated load check. This feature typically applies 2000 lbs over an area 2.5'x2.5' and moves this load along the member. This added check can take extra time to run designs, because of the number of load cases that could be involved.

Possible options to improve design time:

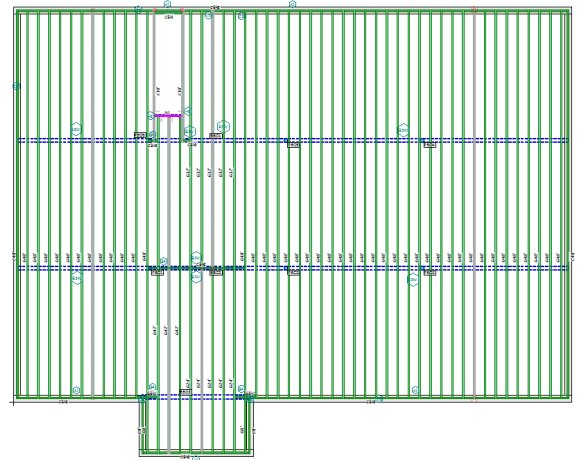
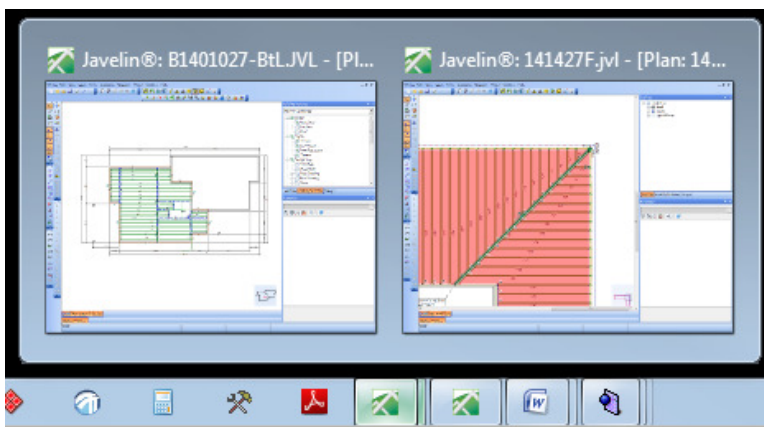
- First verify with Engineer Of Record that the concentrated load checks are required for the occupancy of the floor system being designed.
- Keep Joist spans to a maximum of two; this reduces the number of load cases that are created with pattern loading. Huge hit to design time when members have 3 spans or more.
- Use **Check Structure** and **Distribute Structure Loads** command when modeling the structure on the design tool bar.



- Export representative members using the **Export for Single Member Sizing** command (Forte); run them independent of the model. Javelin will still do the Structure Checks and Load Distribution through the model.



- Set the Floor Concentrated Line Load to 0lbs and add the 2000lbs load check after you have completed the model.
- It is also possible to **Run Design** and open a second instance of Javelin and work on other projects.



Properties

Floor: Container

**Scheme Information**

- General**
  - Use/Occupancy: Office Buildings - Floors above 15
  - Floor Type: Joist
  - Decking Material: 23/32"x48"x96" Weyerhaeuser Edg
  - Decking Attachment: Glue and Nail
- Floor Performance Options**
- Level and Floor Container Info**
- Loading and Deflection**
  - Floor Top Chord Dead Lo: 15.0 lb/ft<sup>2</sup>
  - Floor Live Load: 50.0 lb/ft<sup>2</sup>
  - Floor Partition Load: 20.0 lb/ft<sup>2</sup>
  - Floor Concentrated Live L: 2000 lb
  - Live Load Ratio L/: 480.000
  - Live Load Absolute Limit: 0.00"
  - Total Load Ratio L/: 240.000
  - Total Load Absolute Limit: 0.00"
- Framing Defaults**

**Floor Concentrated Live Load**  
May be required by building codes for certain commercial floor use/occupancies. This concentrated load is distributed over a...

Note: It may appear that Javelin has stopped working when designing these jobs but let Javelin continue to run and the design will complete given enough time.