Background

Composite floor systems:

Prescriptive design:
- How buildings should be constructed to resist fire
- “Designs” based on standard fire results

Performance-based design (PBD):
- How a structure is to perform in a fire
- Incorporate engineering analysis

Research Questions

- How do standard fire conditions translate to real building systems?
- What fire/heat transfer/structural modeling complexity is warranted for design?
- How can we improve resiliency of buildings to fire?

Experiments

Modeling and Results

References