

Designing Wood Buildings in RISA

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Version 7.0



Version 11.0

LATEST VERSION



Image Courtesy of International Code Council

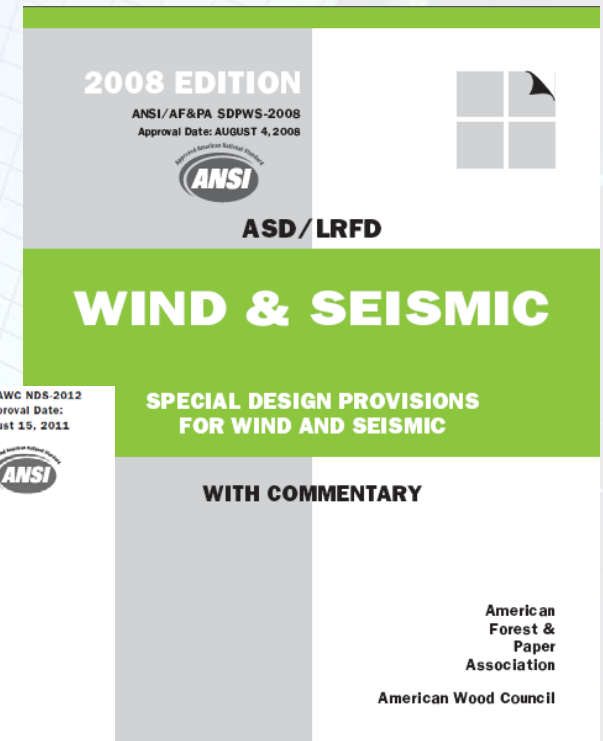
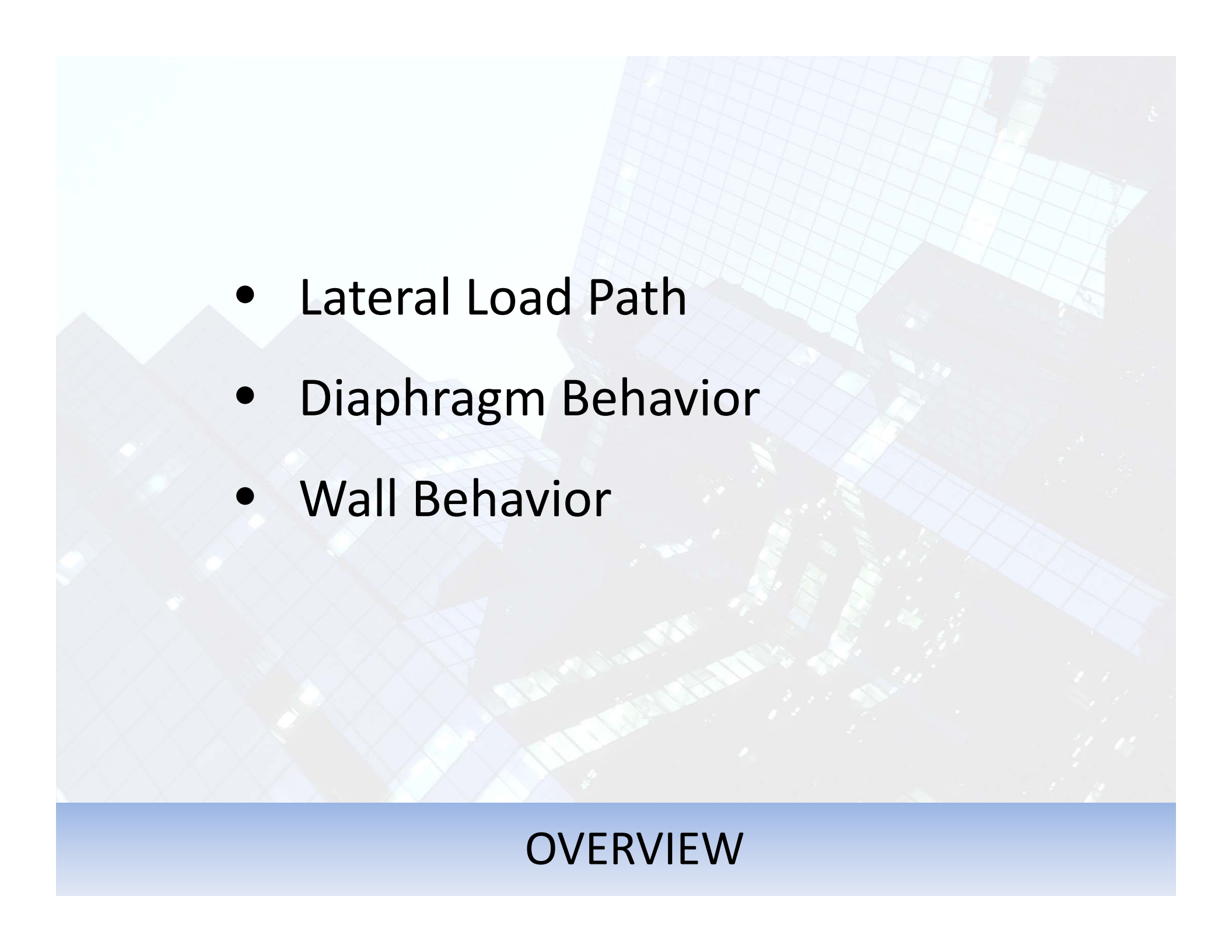
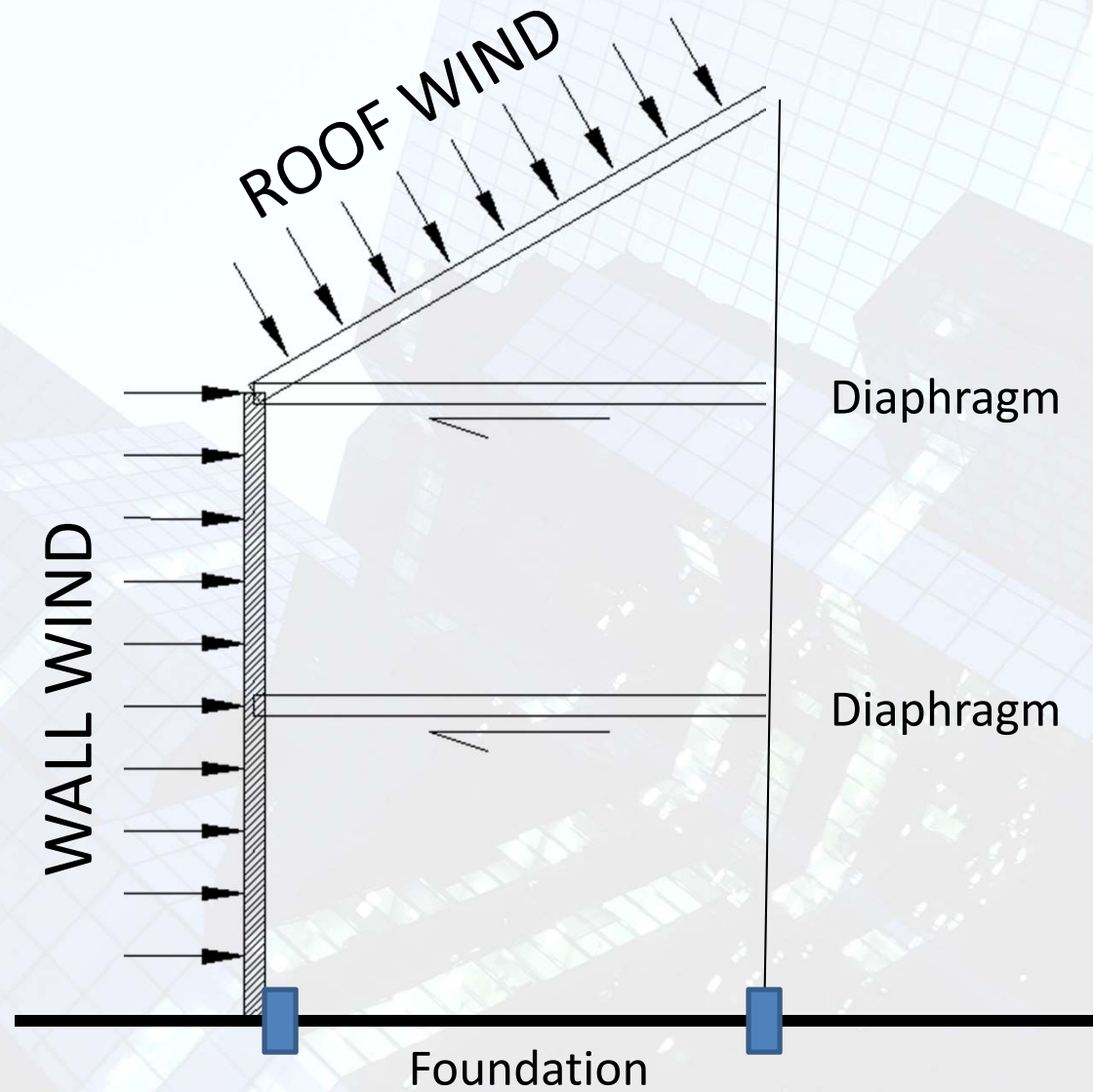


Image Courtesy of American Wood Council

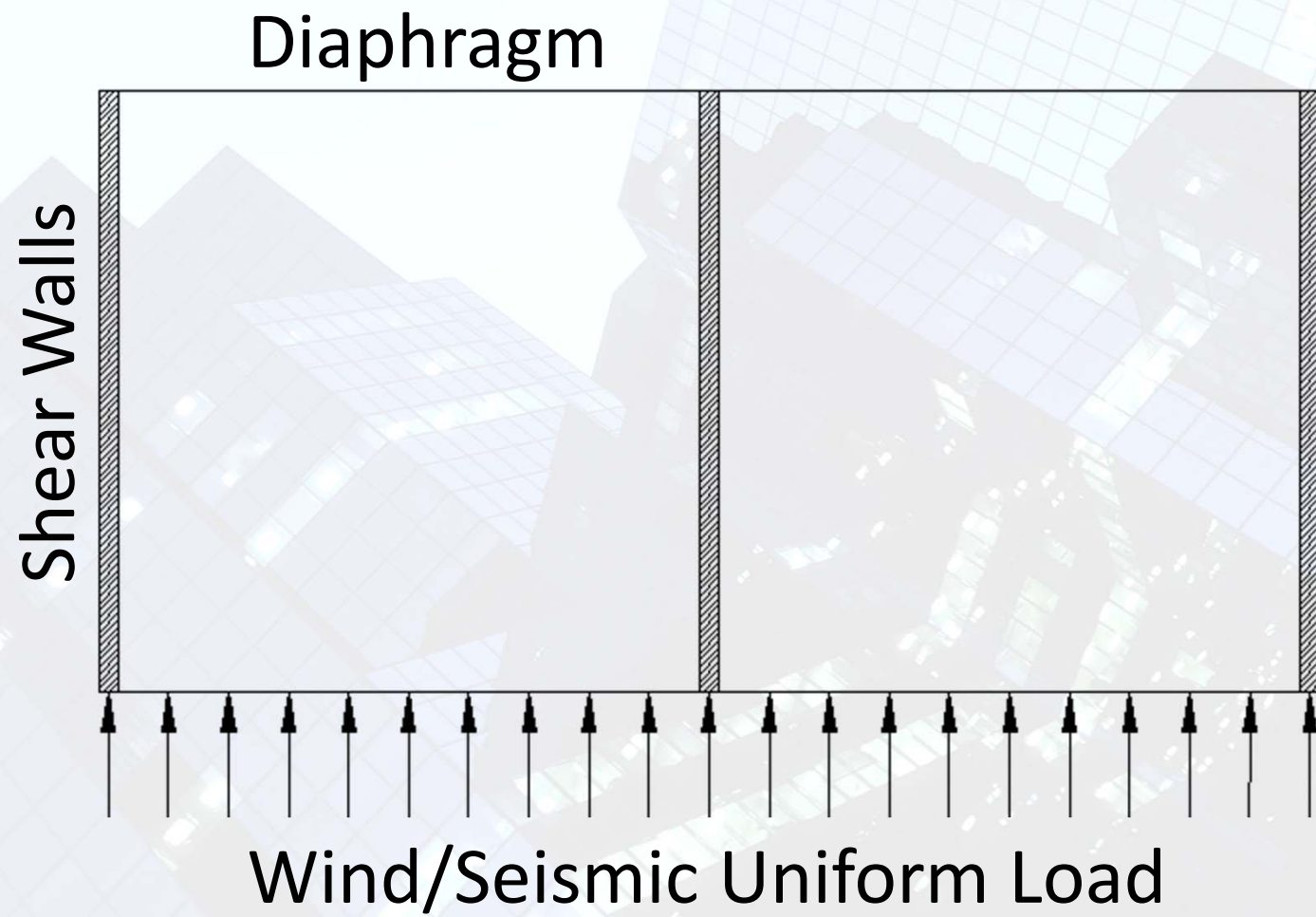
REFERENCED CODES

- 
- Lateral Load Path
 - Diaphragm Behavior
 - Wall Behavior

OVERVIEW



LOAD PATH ILLUSTRATED



DIAPHRAGM EXAMPLE



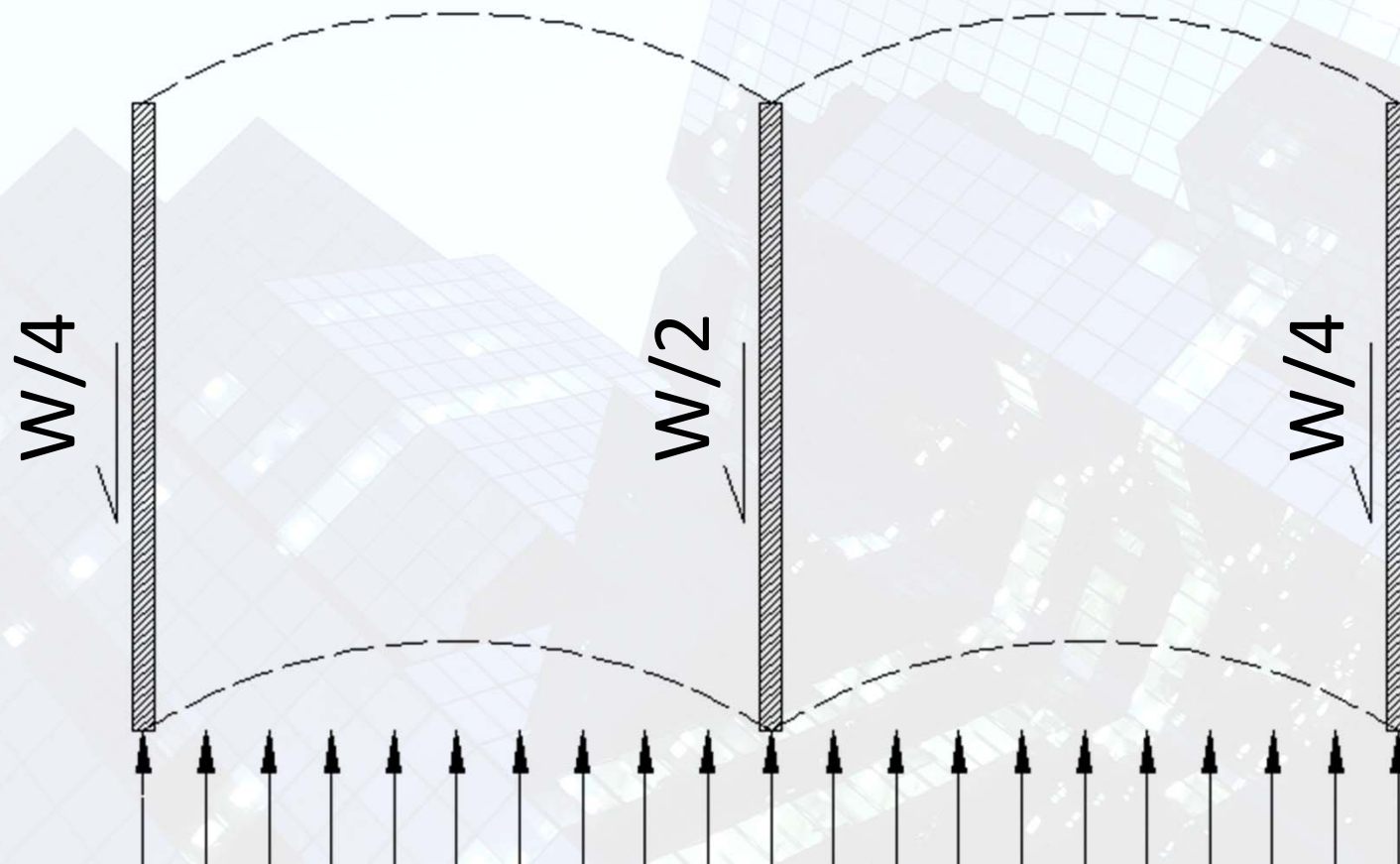
The diagram illustrates a structural model of a rigid diaphragm. It consists of three vertical columns, each represented by a hatched rectangle. These columns are connected at their top and bottom by dashed horizontal lines, forming a rectangular frame. A uniform upward load is applied to the bottom of the columns, represented by a series of 21 vertical arrows pointing upwards. Each column is labeled with the text $W/3$ to its left, indicating that the total load is divided equally among the three columns.

$W/3$

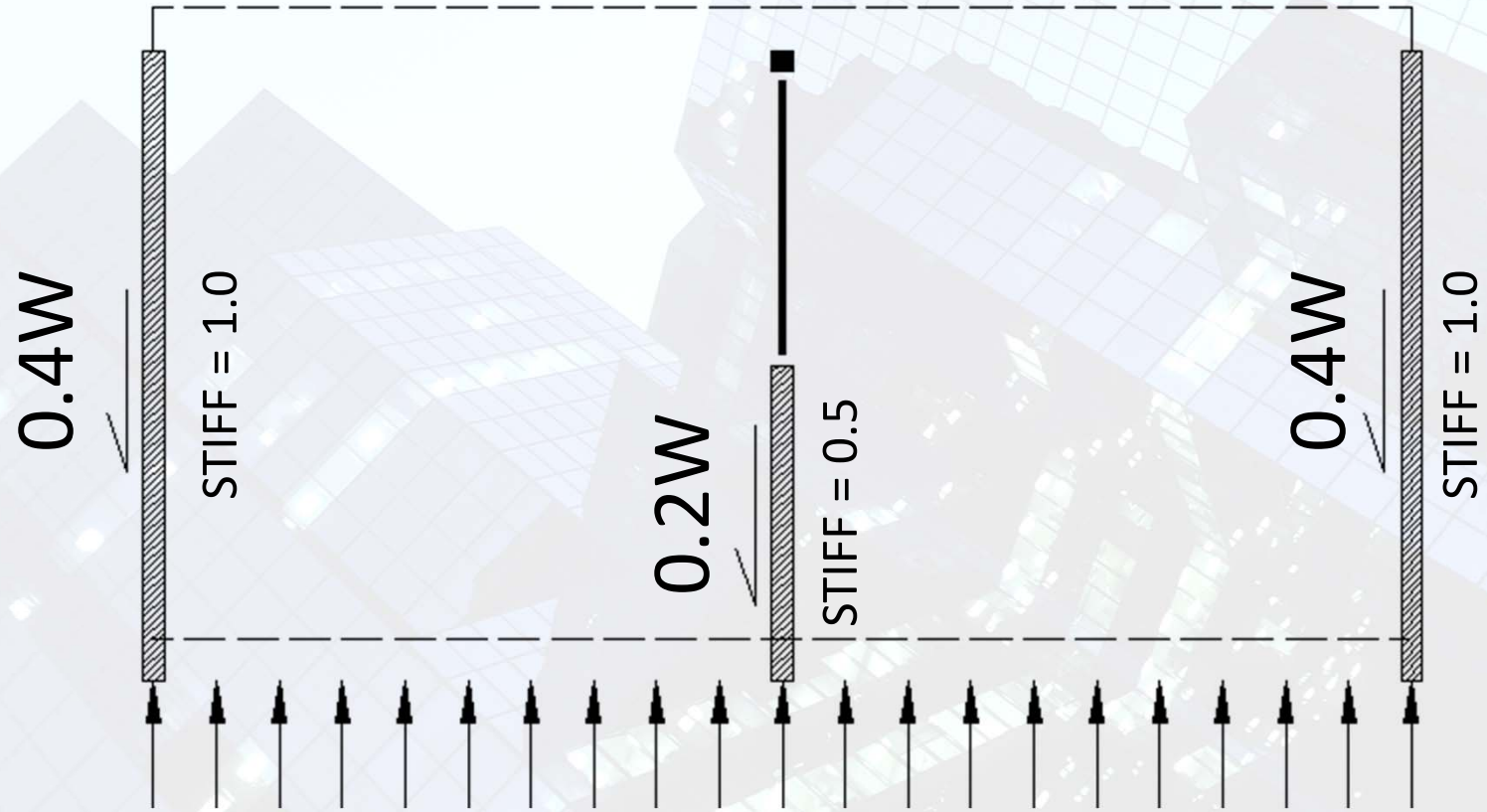
$W/3$

$W/3$

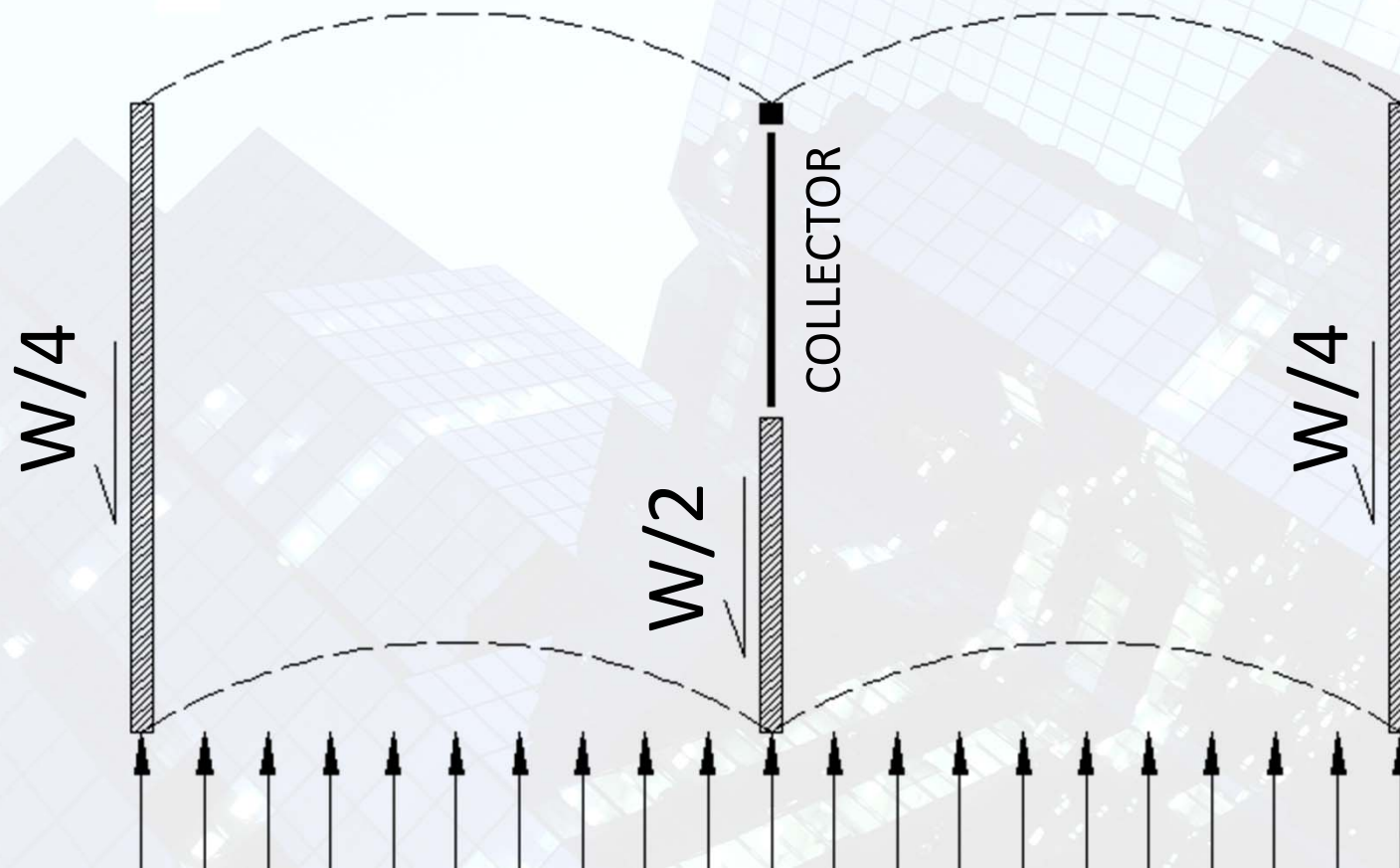
RIGID DIAPHRAGM



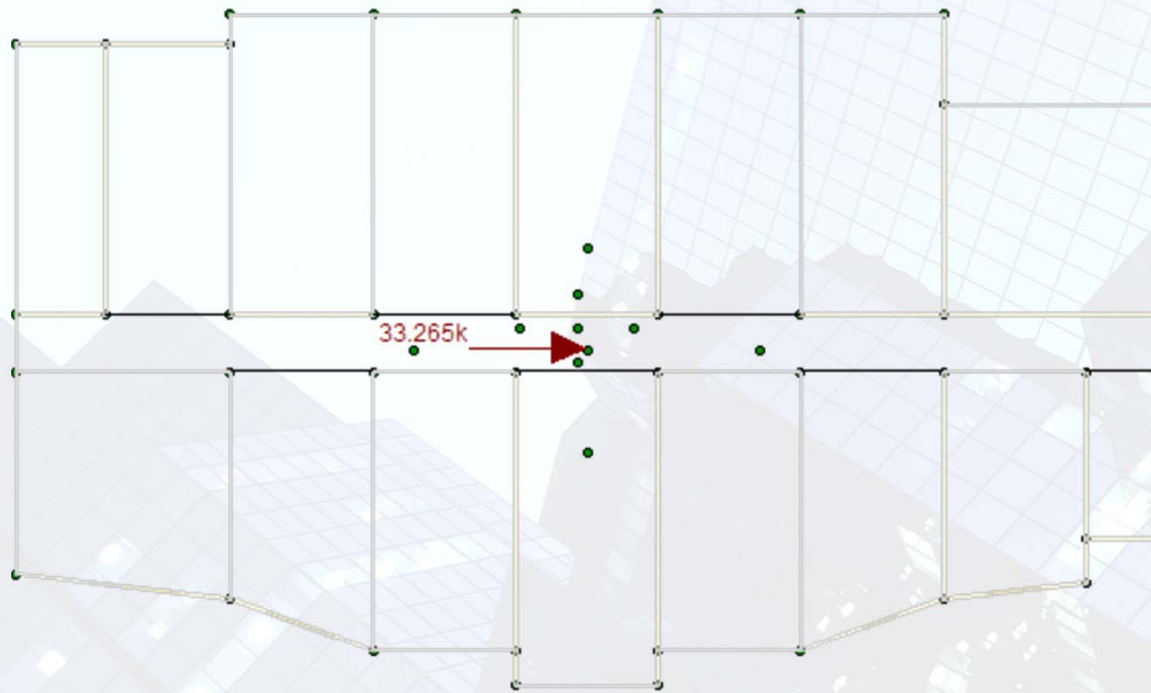
FLEXIBLE DIAPHRAGM



RIGID DIAPHRAGM



FLEXIBLE DIAPHRAGM

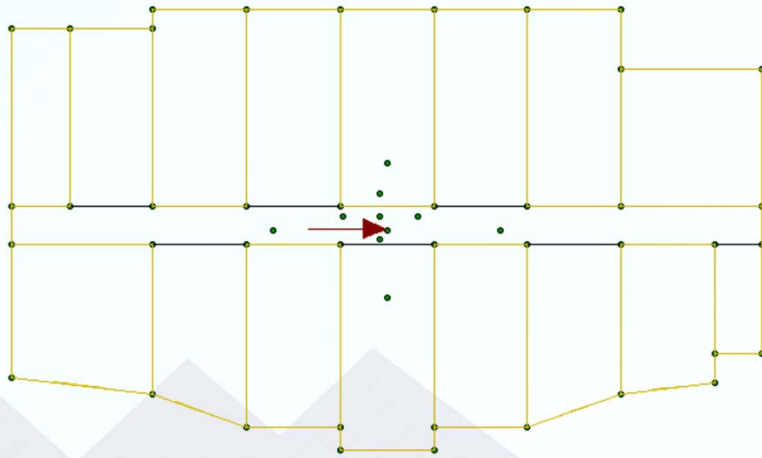


Plan View

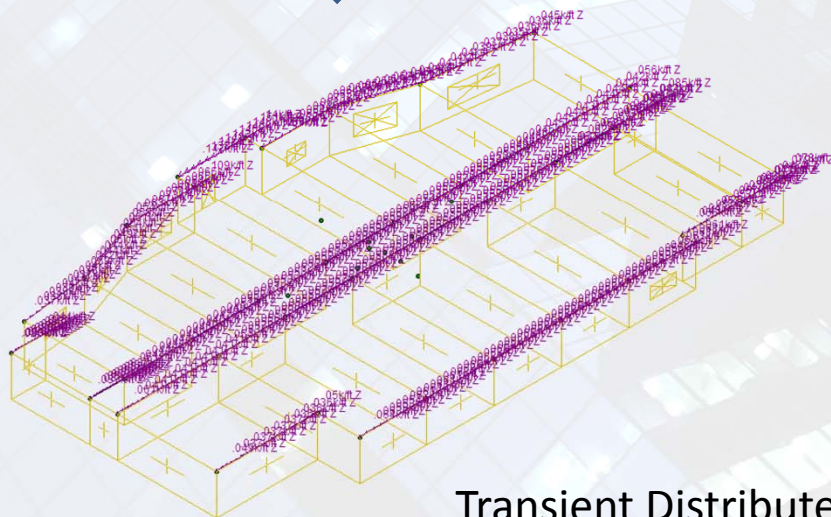


Elevation View

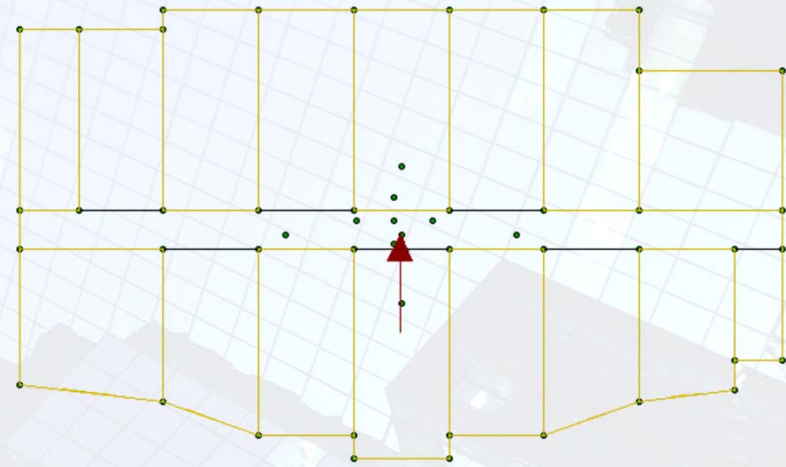
Rigid Diaphragm - Load Application



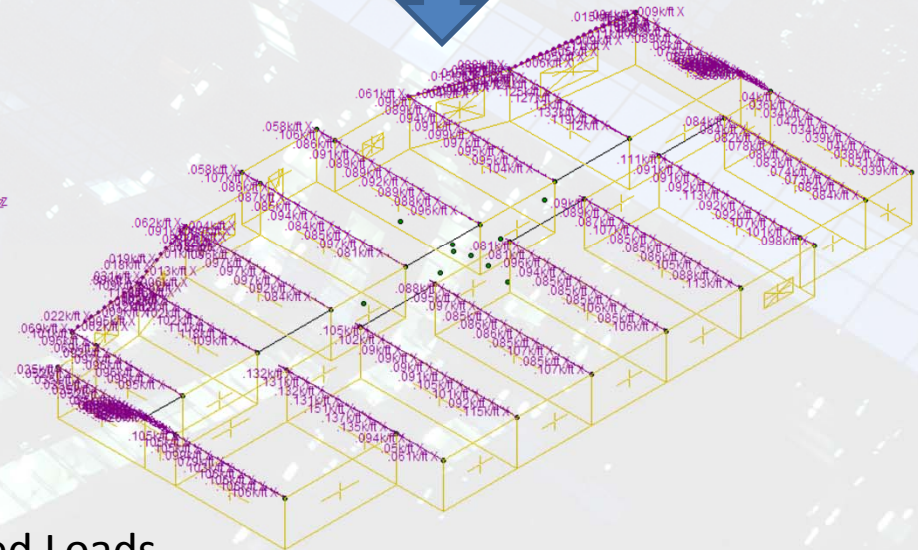
Wind Loads in Z direction



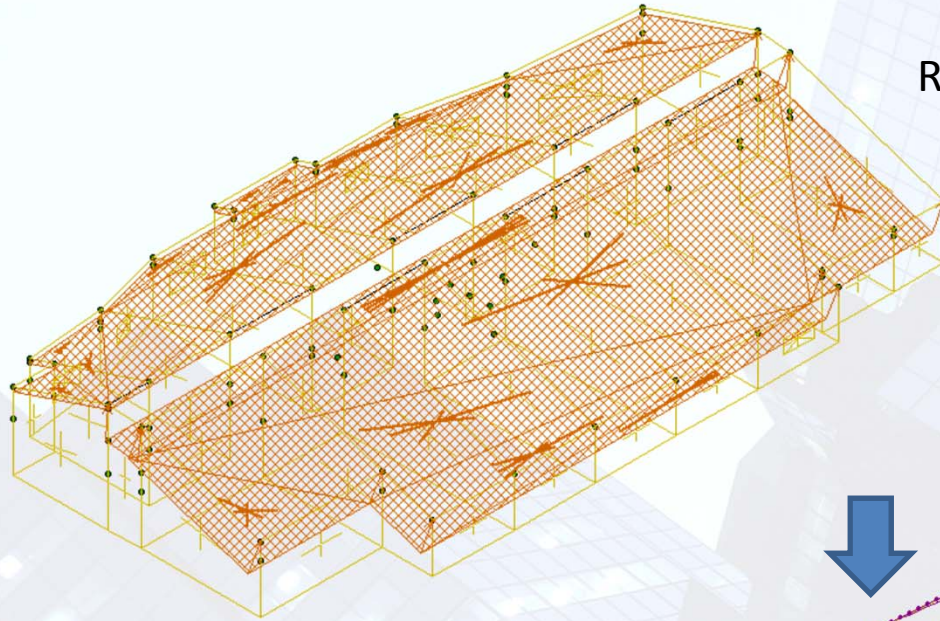
Transient Distributed Loads



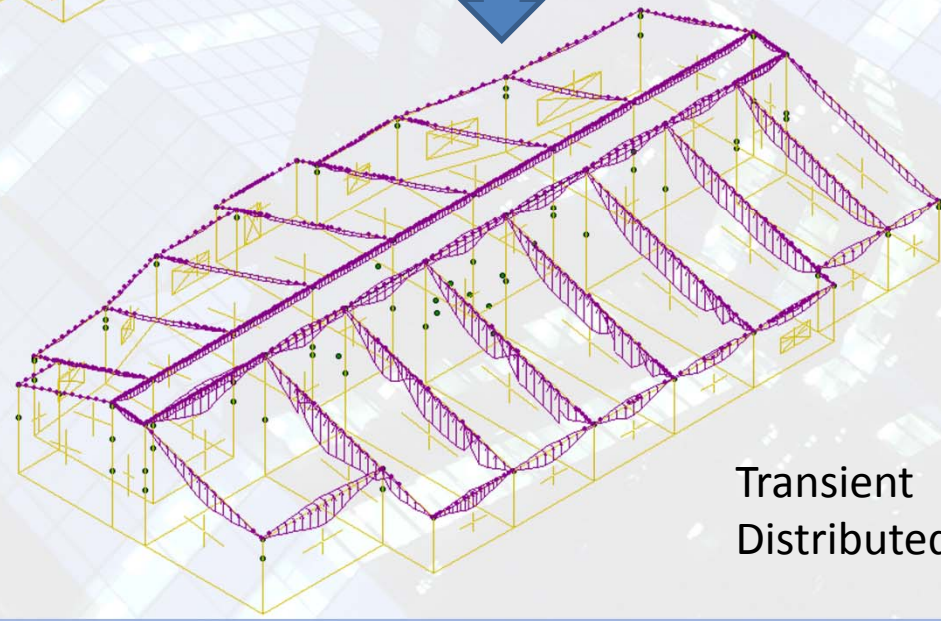
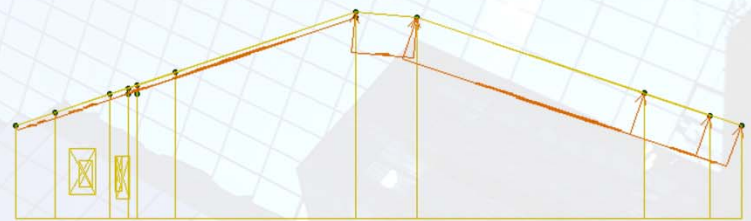
Wind Loads in X direction



Flexible Diaphragm - Load Application

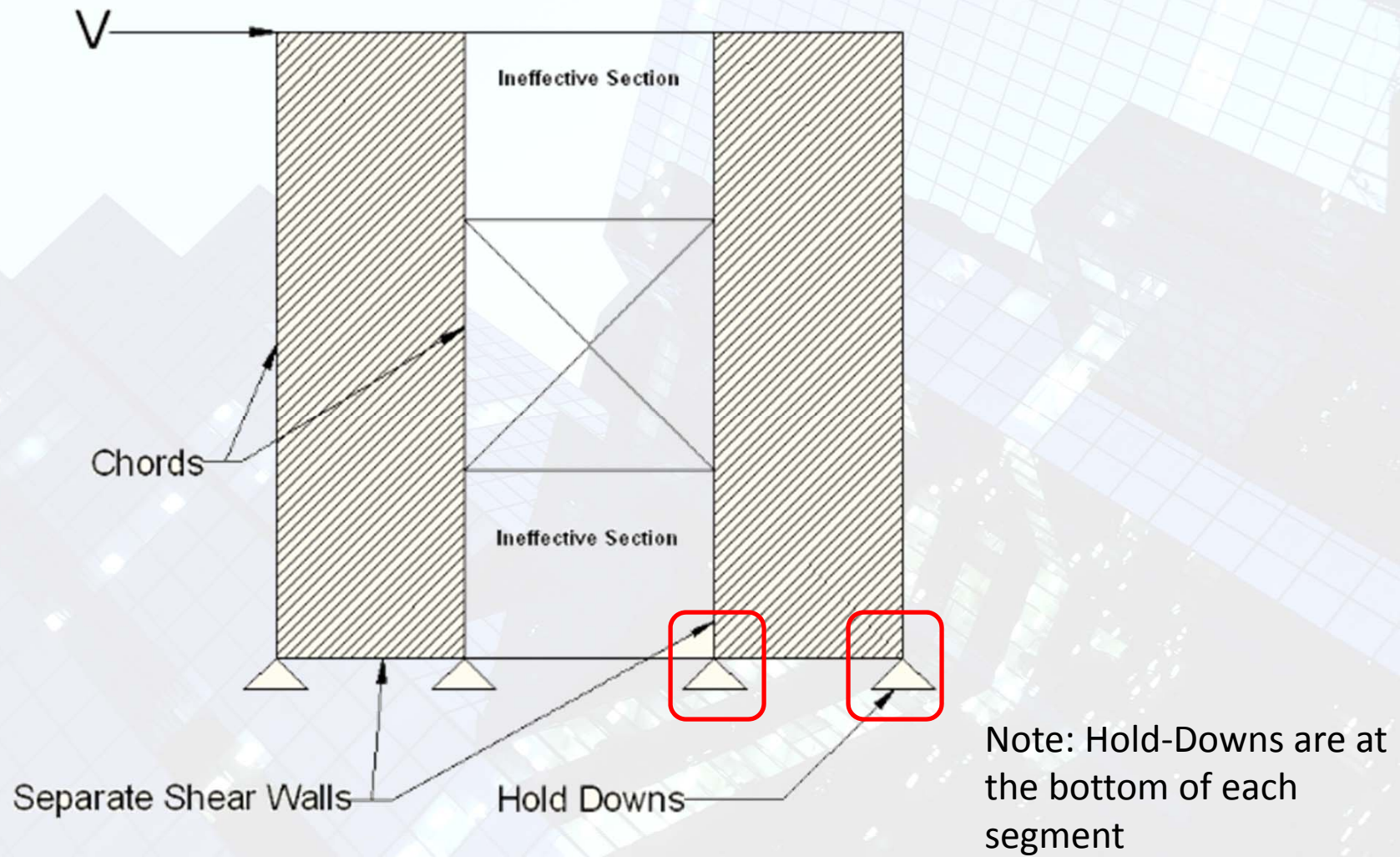


Roof Loads applied as Area Loads

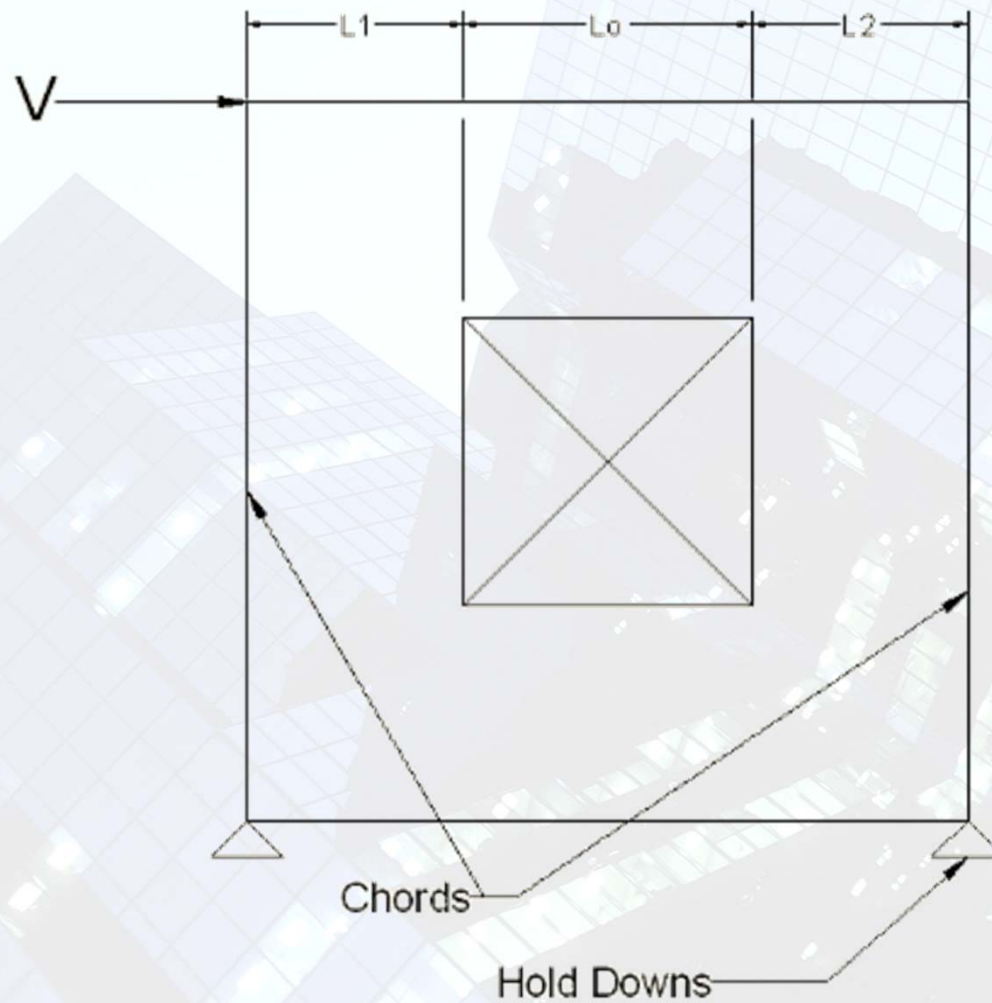


Transient
Distributed Loads

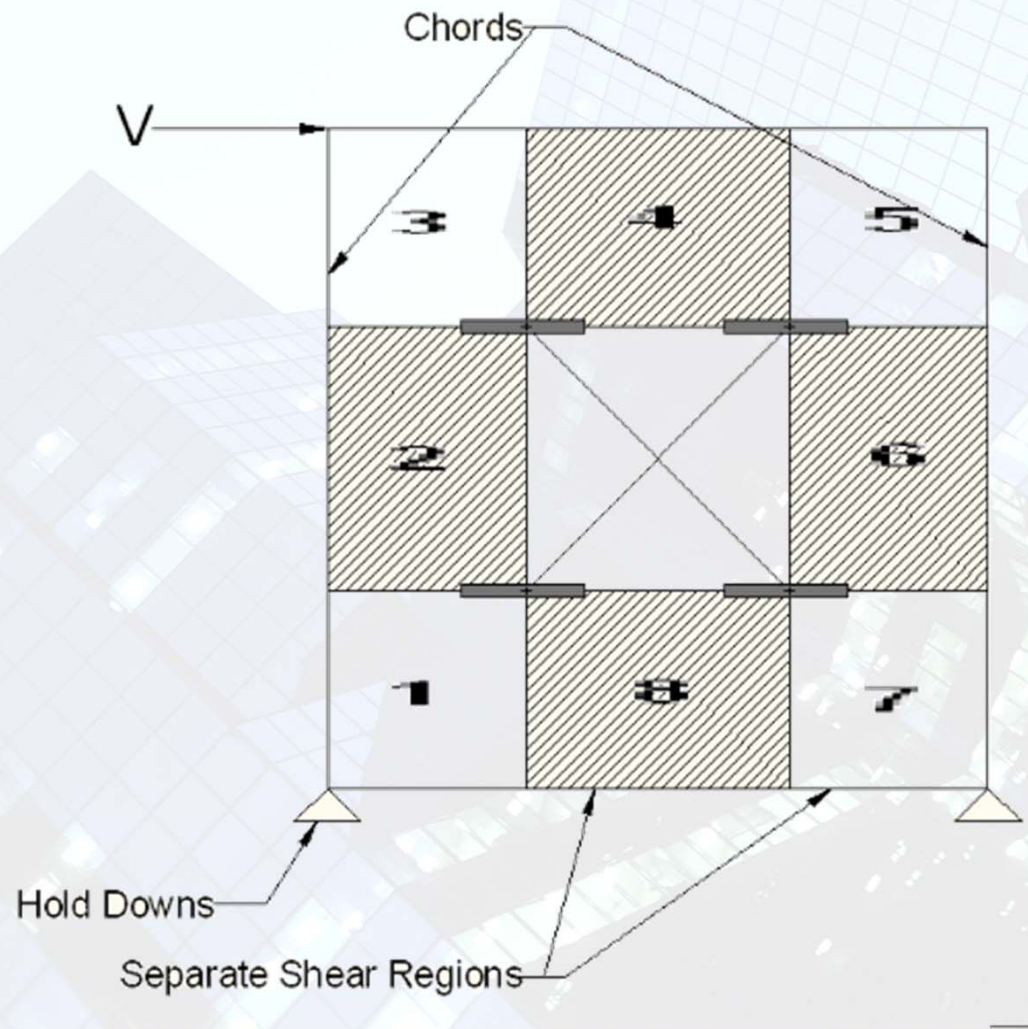
Roof Flexible Diaphragm - Load Application



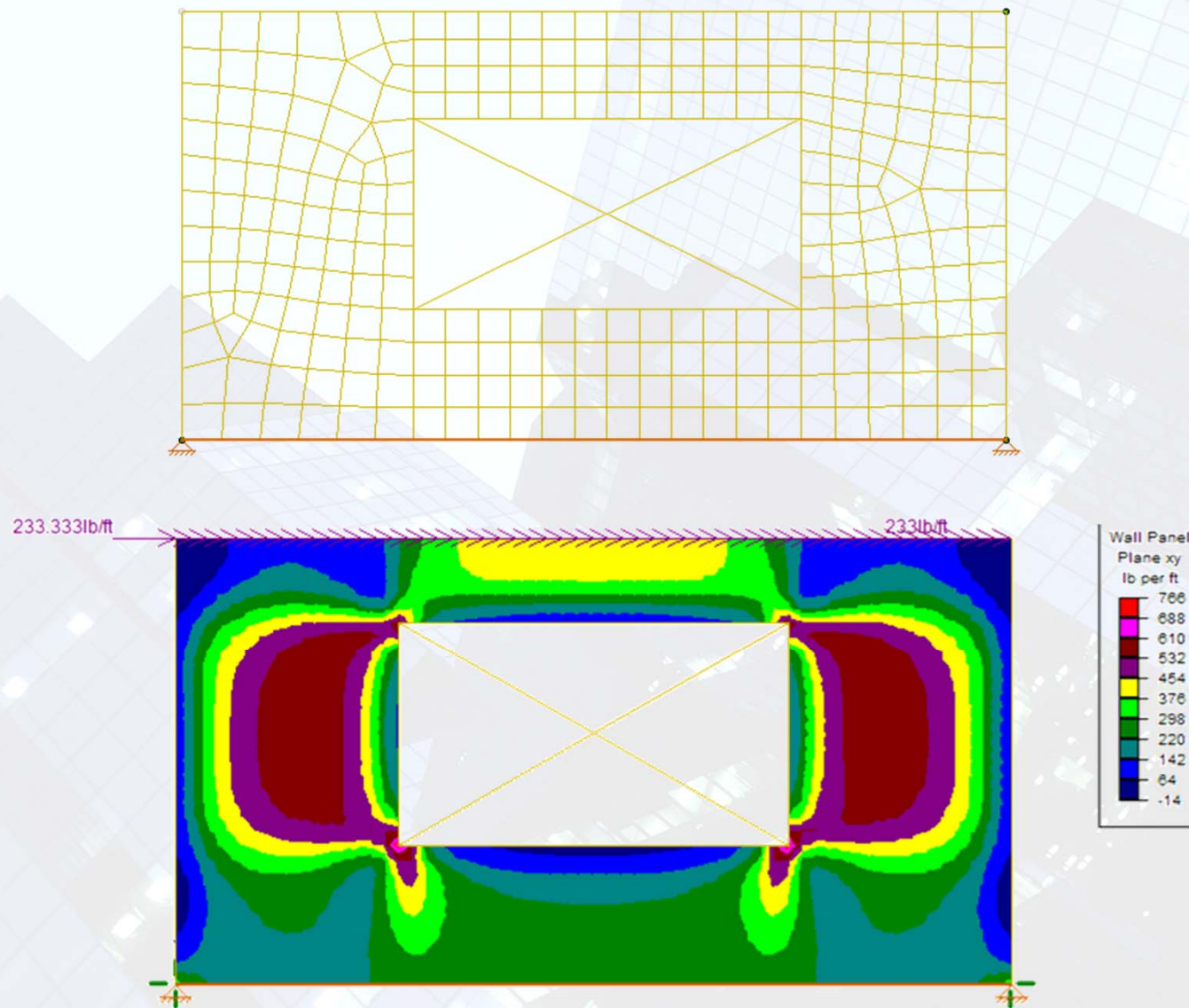
SEGMENTED WALL DESIGN



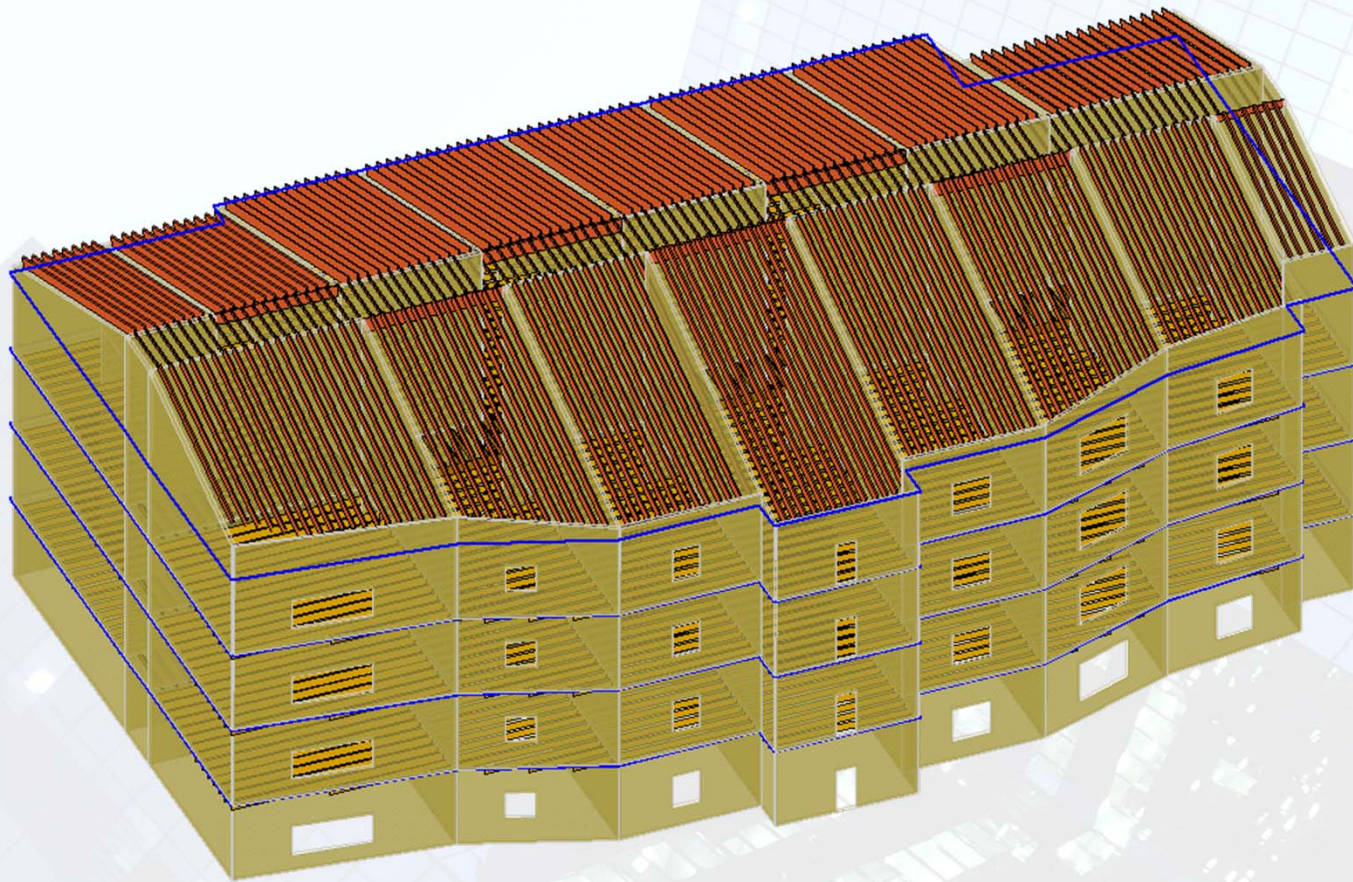
PERFORATED WALL DESIGN



FTAO WALL DESIGN



FINITE ELEMENT ANALYSIS



Let's Build a Model!



Additional Questions?

We'll be available for another few minutes to answer questions.

Or email info@risa.com

Further Wood Resources

Wood Products Council: www.woodworks.org

RISA Website: www.risa.com

RISA Articles: www.risanews.com

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