

Joseph Lstiburek, Ph.D., P.Eng, ASHRAE Fellow

## Building Science

Adventures In Building Science

[www.buildingscience.com](http://www.buildingscience.com)

Life is Tough Enough As it Is...

Life is Tough Enough As it Is...  
It's Harder When You Are Stupid

Don't Do Stupid Things

**R2**



A photograph of a stone building with a conical roof, labeled R2. The building is constructed from grey stone blocks and has a small, dark doorway. It is set against a background of green hills and a clear blue sky.

**R2**



**R4**



A photograph of a stone building with a conical roof, labeled R2. To its right is a photograph of a stone building with a thatched roof, labeled R4. The thatched roof is made of yellowish-brown straw or reeds. The building has a small doorway and is surrounded by greenery.

**R2**



**R4**



**R6**



A photograph of a stone building with a conical roof, labeled R2. To its right is a photograph of a stone building with a thatched roof, labeled R4. Further right is a photograph of a half-timbered building, labeled R6. The half-timbered building has a dark roof and white walls with dark timber framing.

**R2**



**R4**



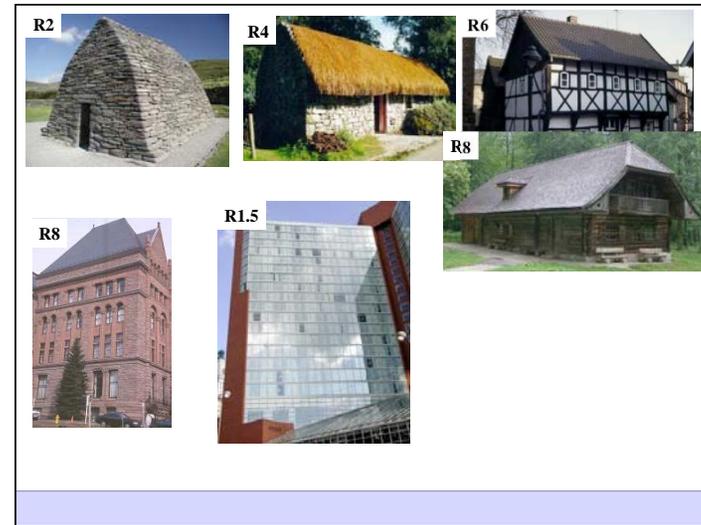
**R6**

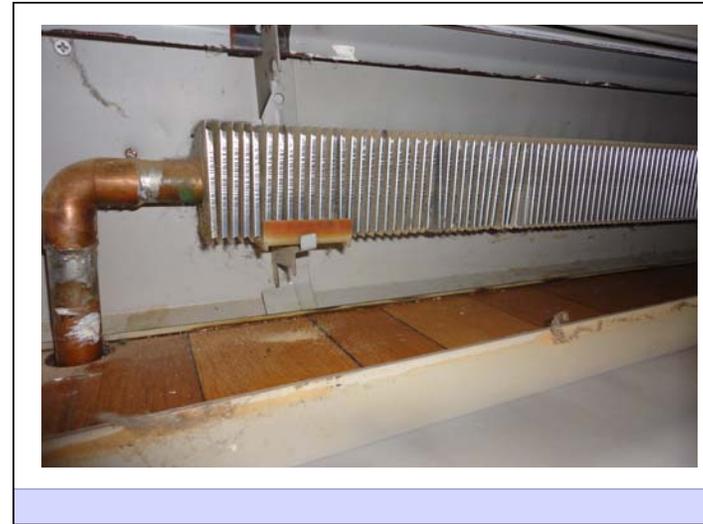


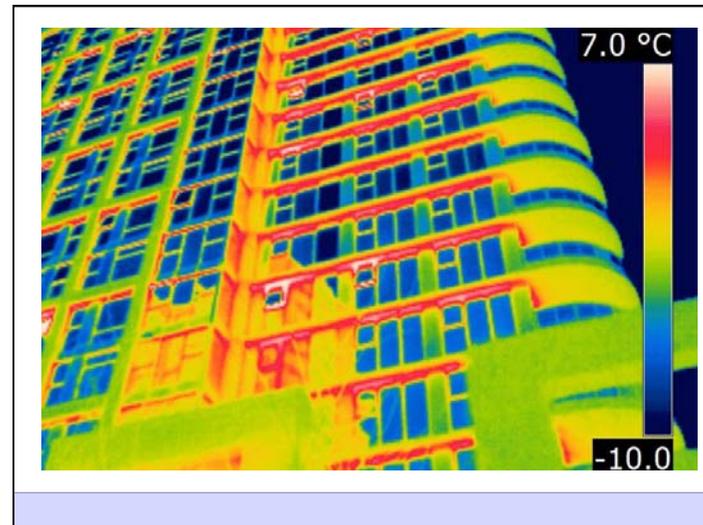
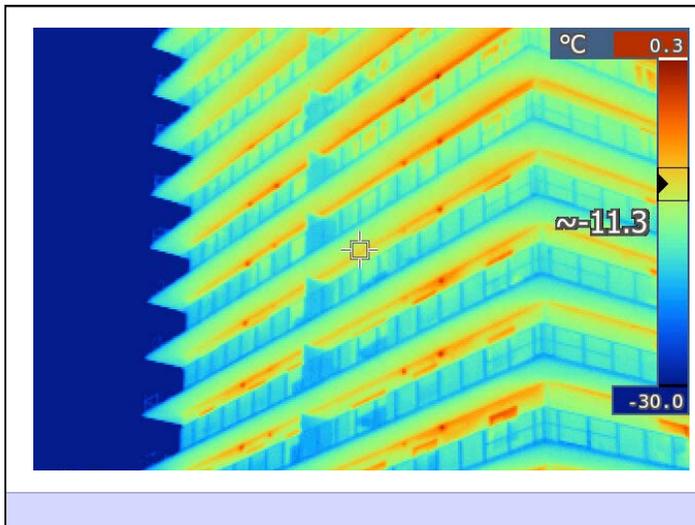
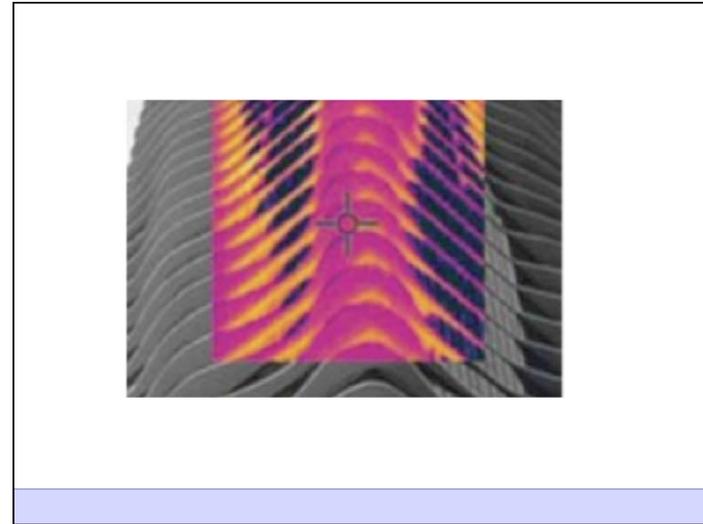
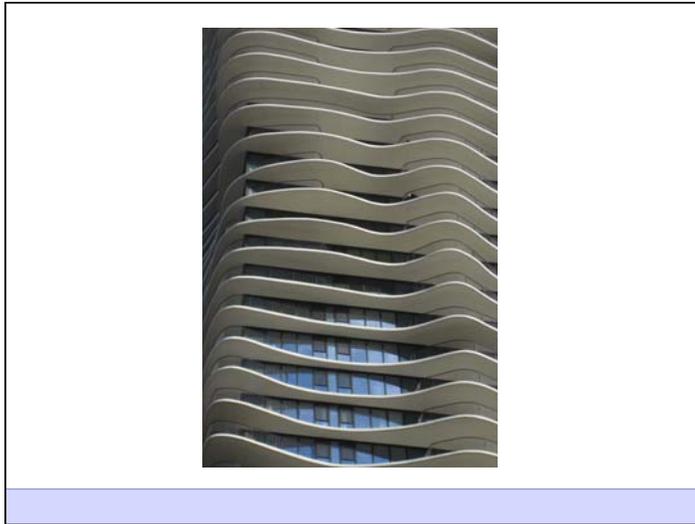
**R8**

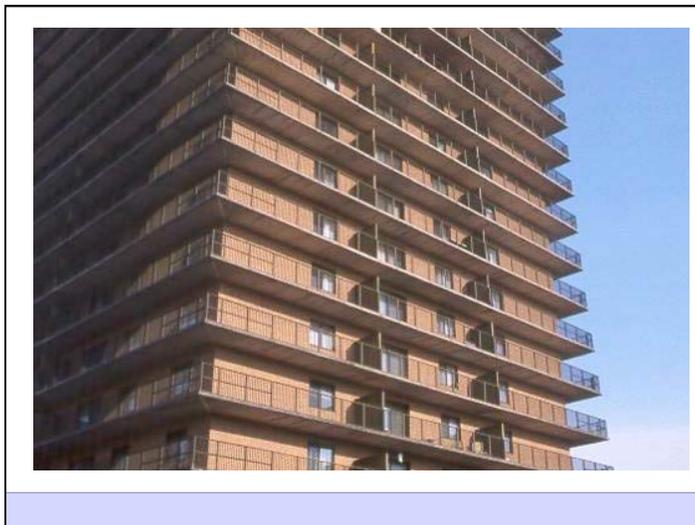
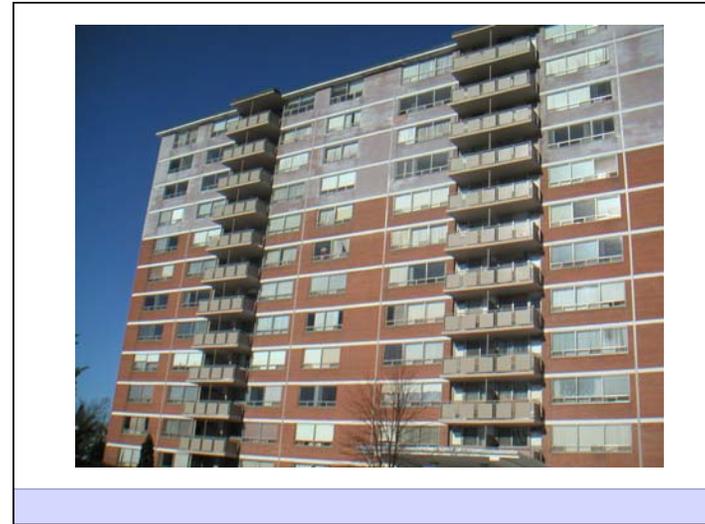


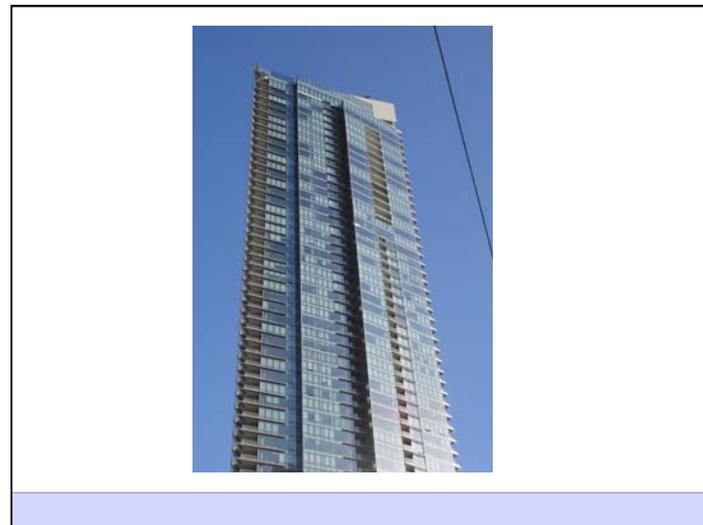
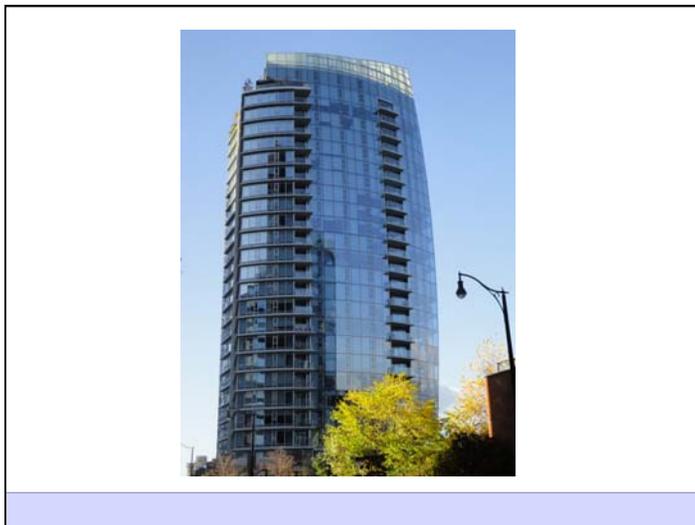
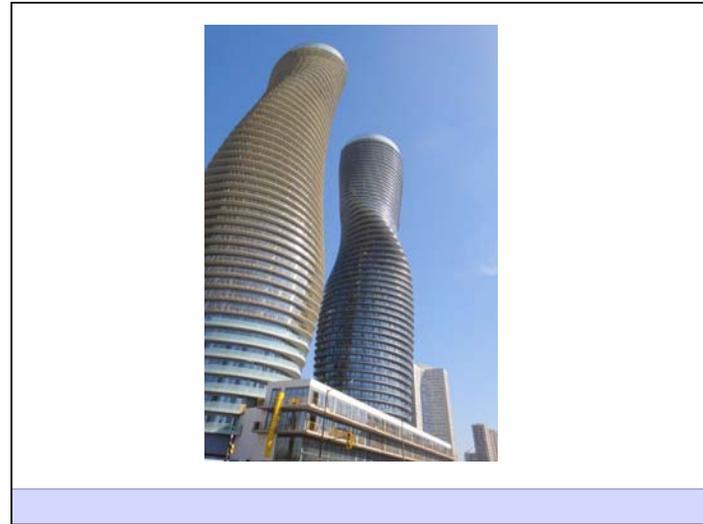
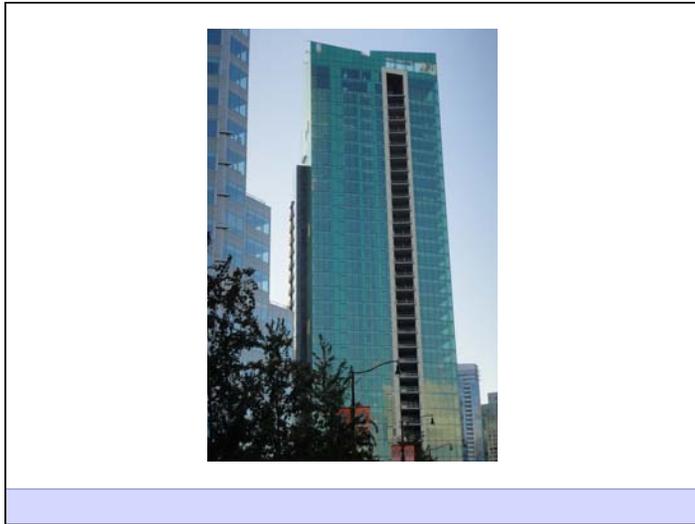
A photograph of a stone building with a conical roof, labeled R2. To its right is a photograph of a stone building with a thatched roof, labeled R4. Further right is a photograph of a half-timbered building, labeled R6. Below the R6 image is a photograph of a wooden building with a gabled roof, labeled R8. The wooden building has a dark roof and is surrounded by greenery.

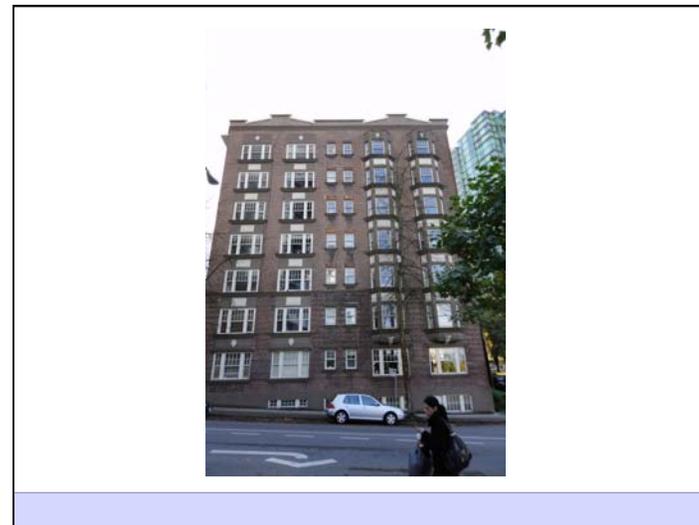
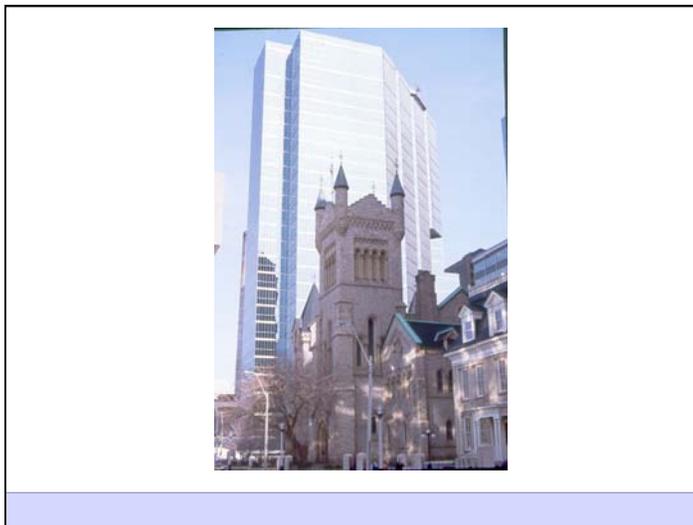
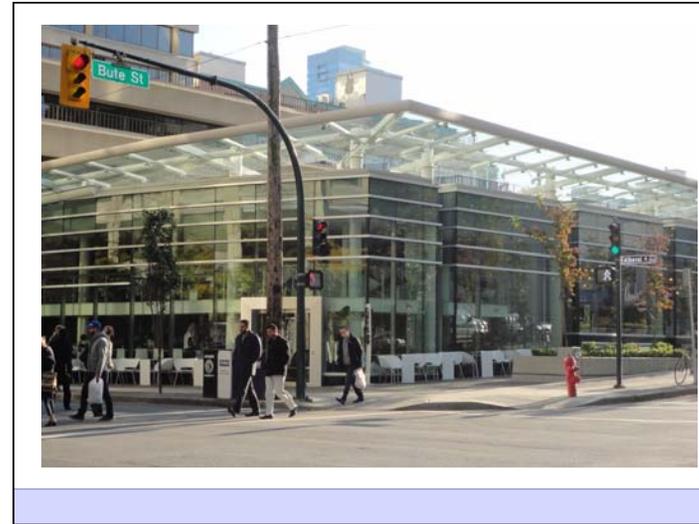


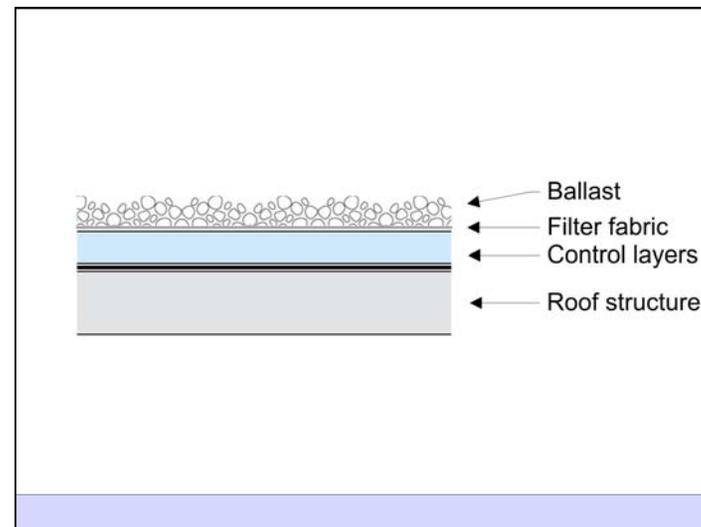
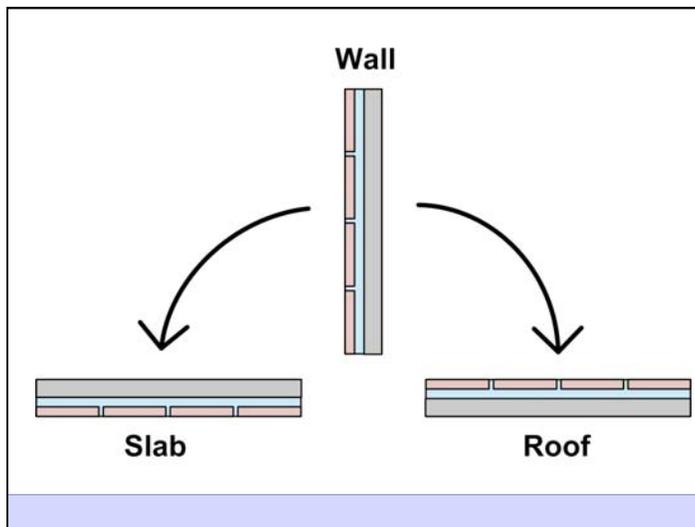
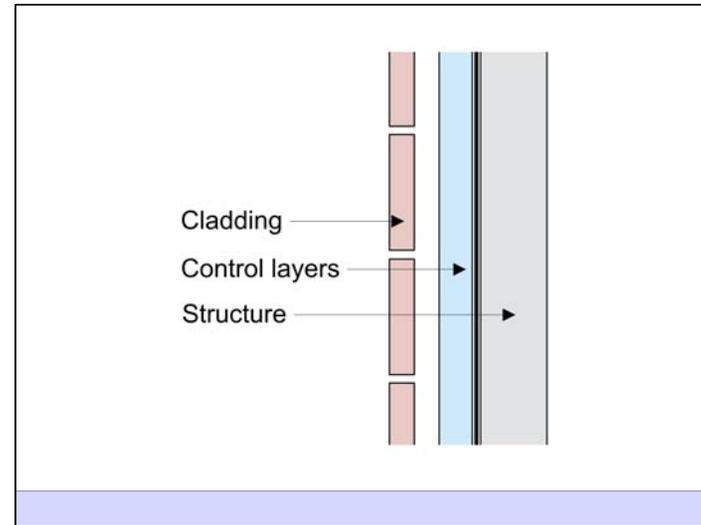
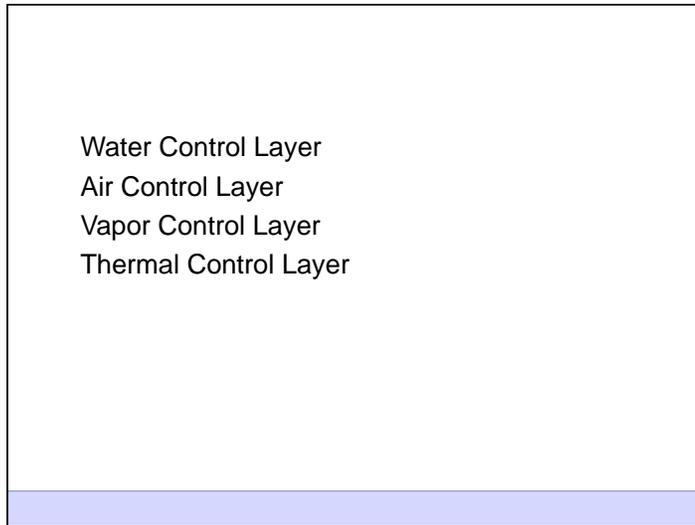


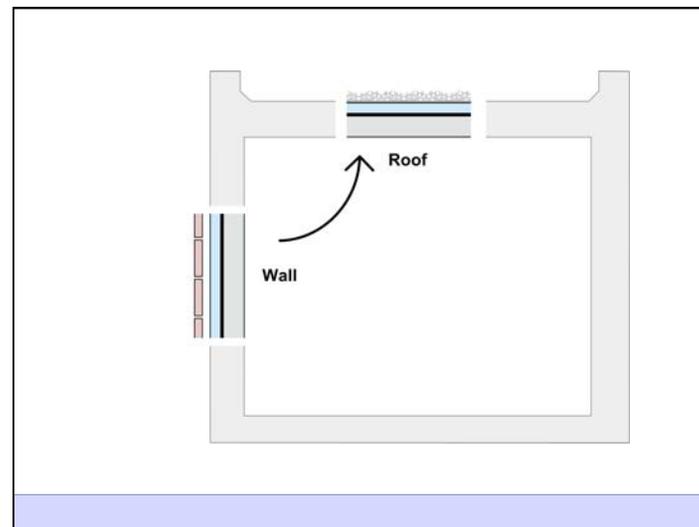
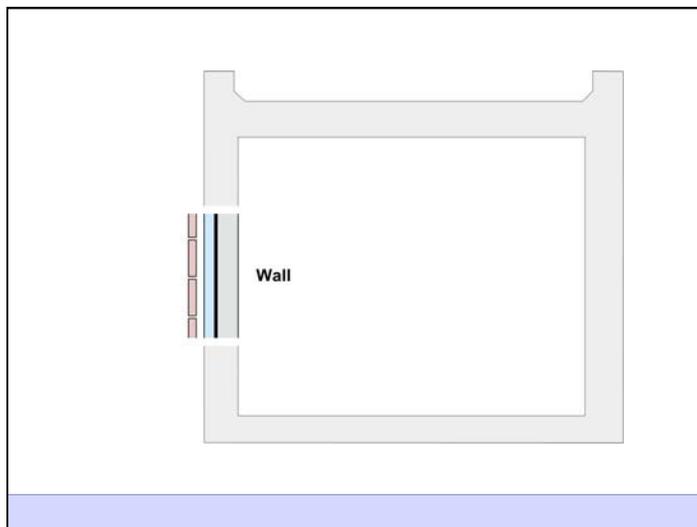
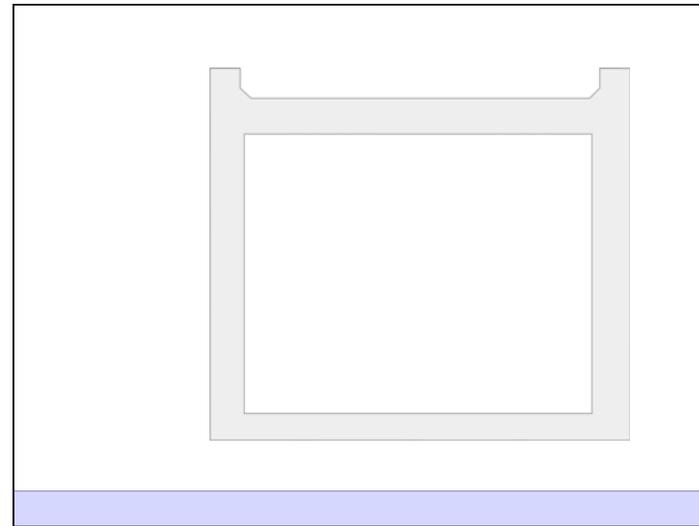
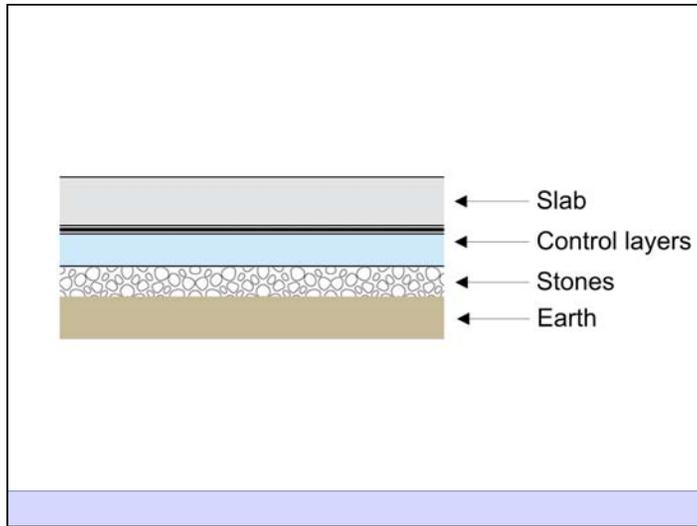


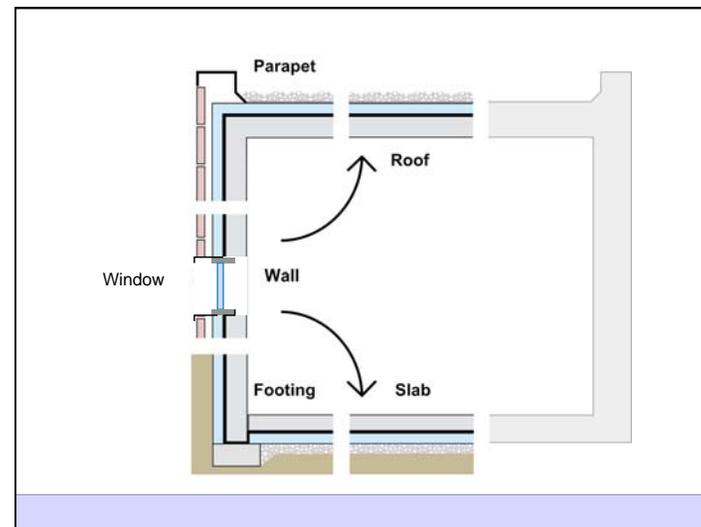
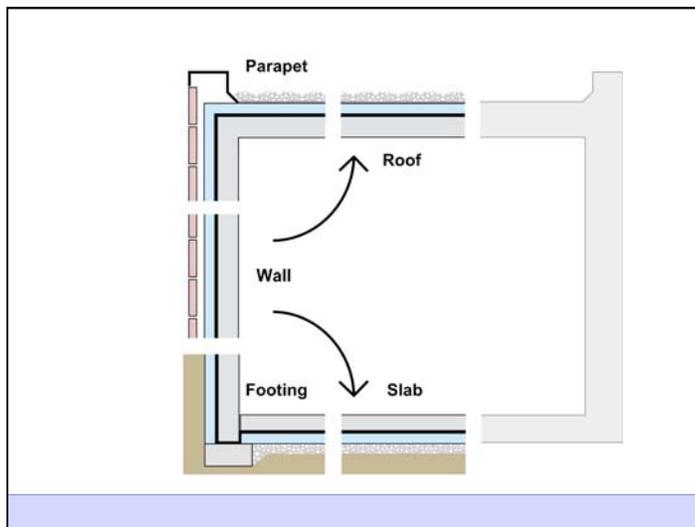
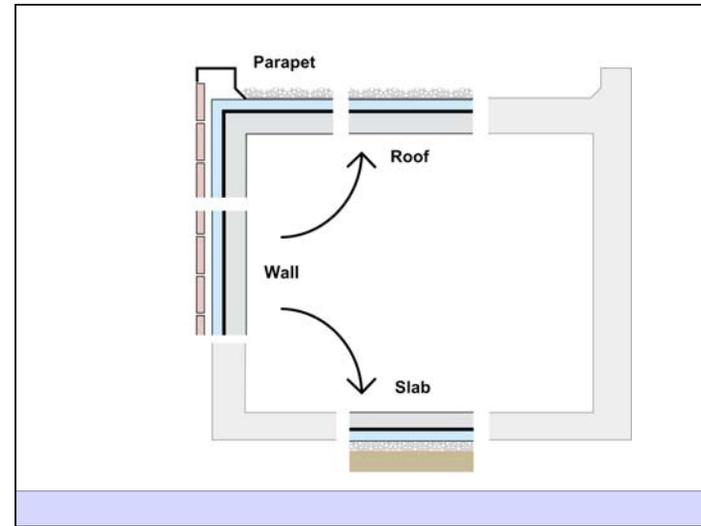
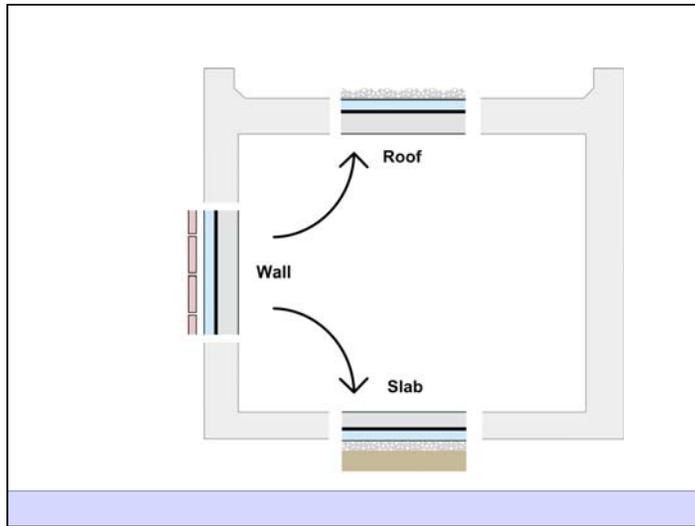


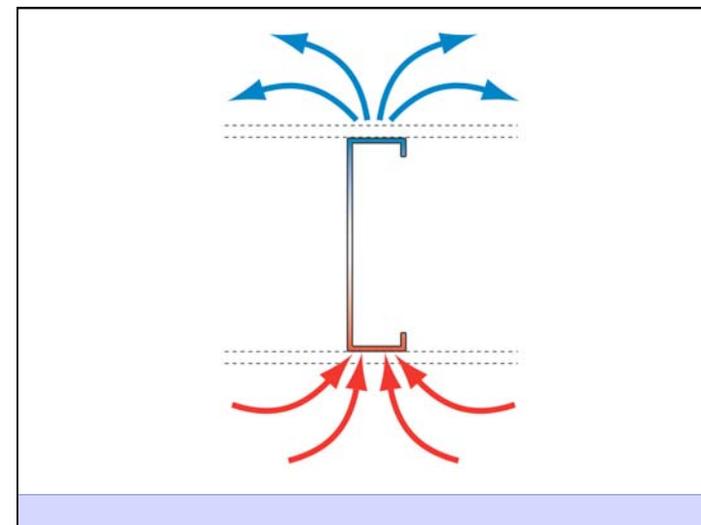
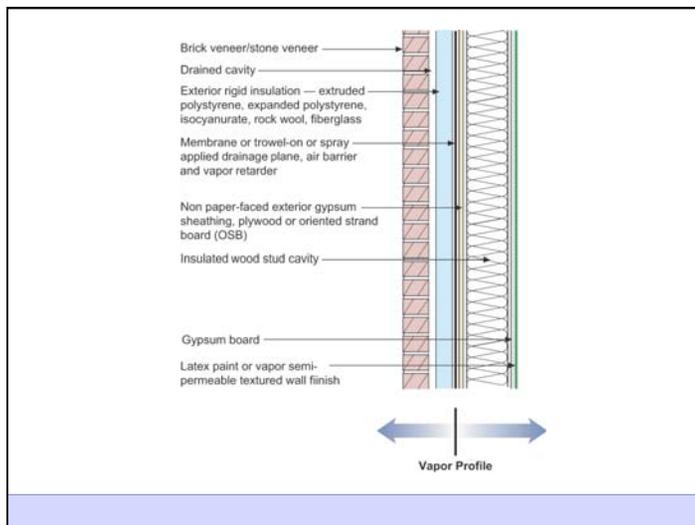
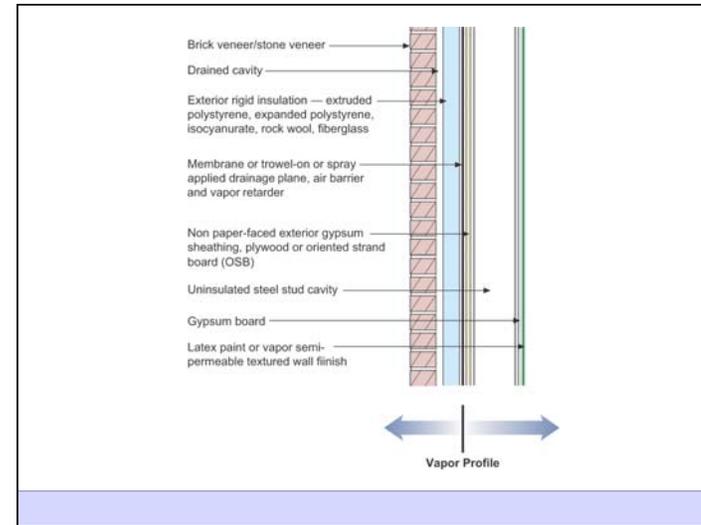
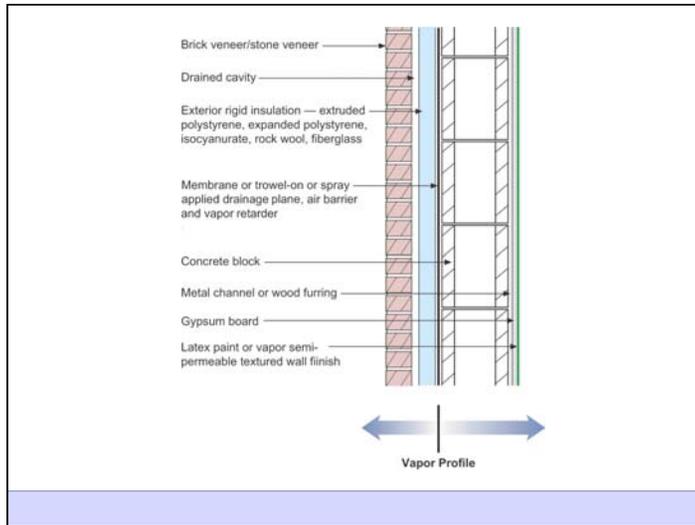


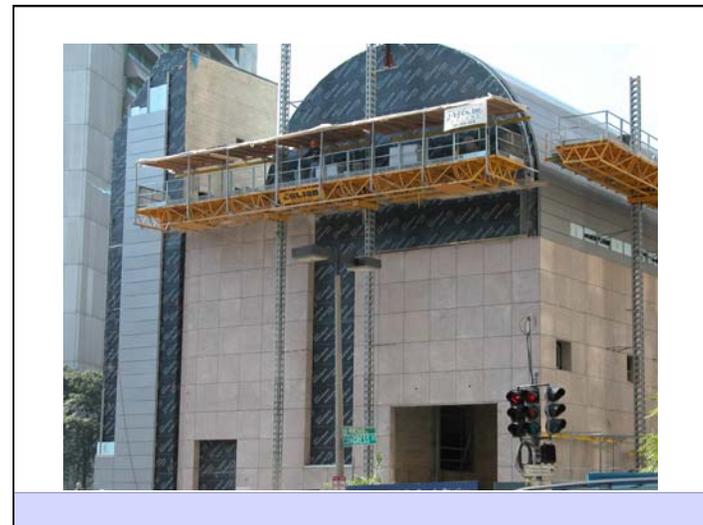


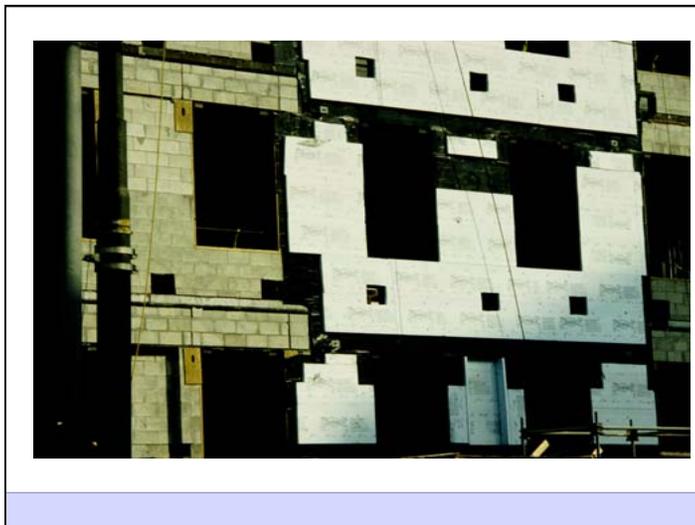
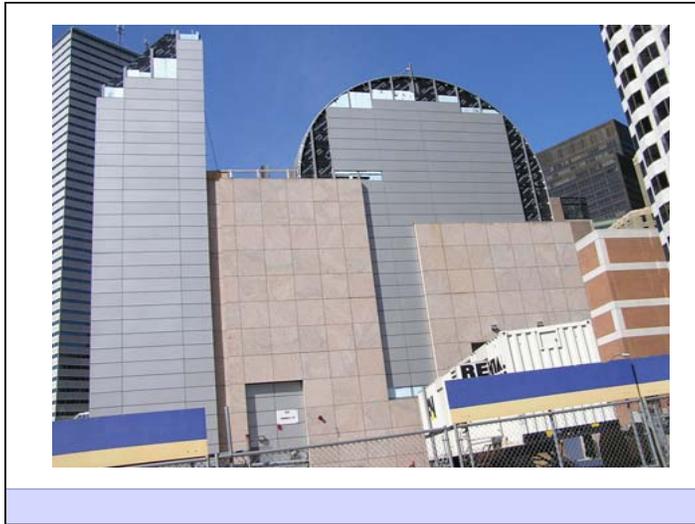


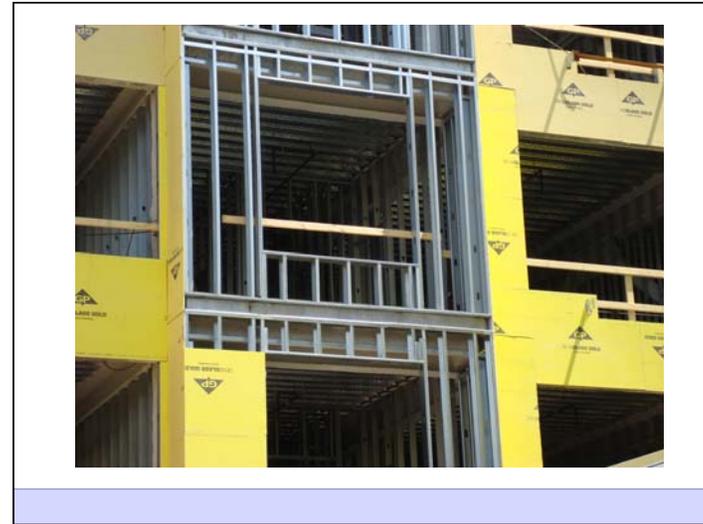


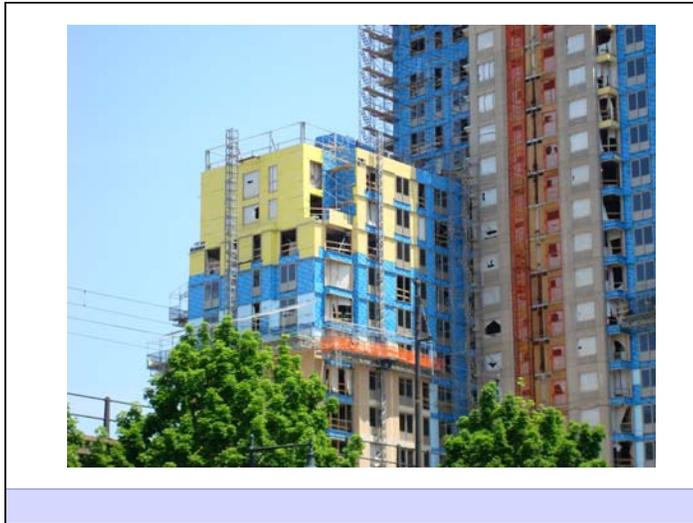












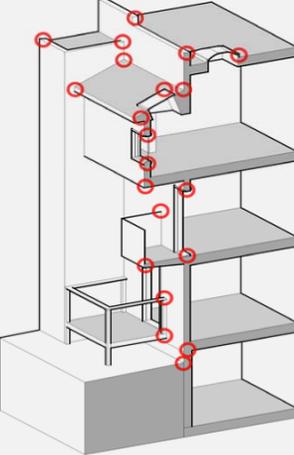
### Commercial Enclosure: Simple Layers



- Structure
- Rain/Air/Vapor
- Insulation
- Finish

### Enclosure Design: Details

- Details demand the same approach as the enclosure.
- Scaled drawings required at 



Don't Do Stupid Things

