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ZERH

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What is a Building?

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A Building is an Environmental Separator

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- Control heat flow
- Control airflow
- Control water vapor flow
- Control rain
- Control ground water
- Control light and solar radiation
- Control noise and vibrations
- Control contaminants, environmental hazards and odors
- Control insects, rodents and vermin
- Control fire
- Provide strength and rigidity
- Be durable
- Be aesthetically pleasing
- Be economical

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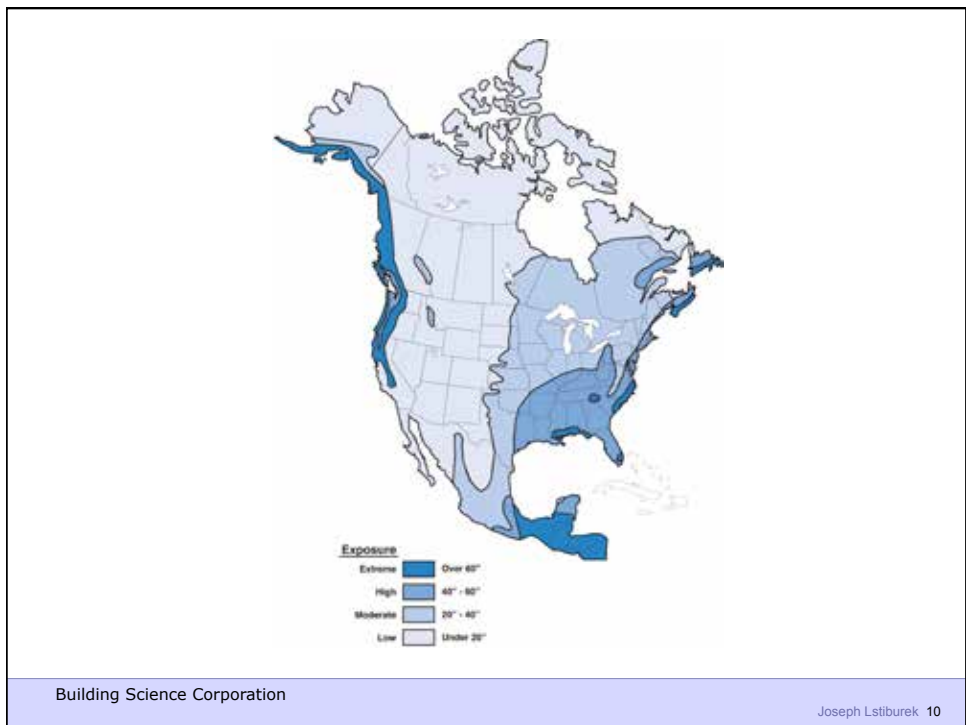
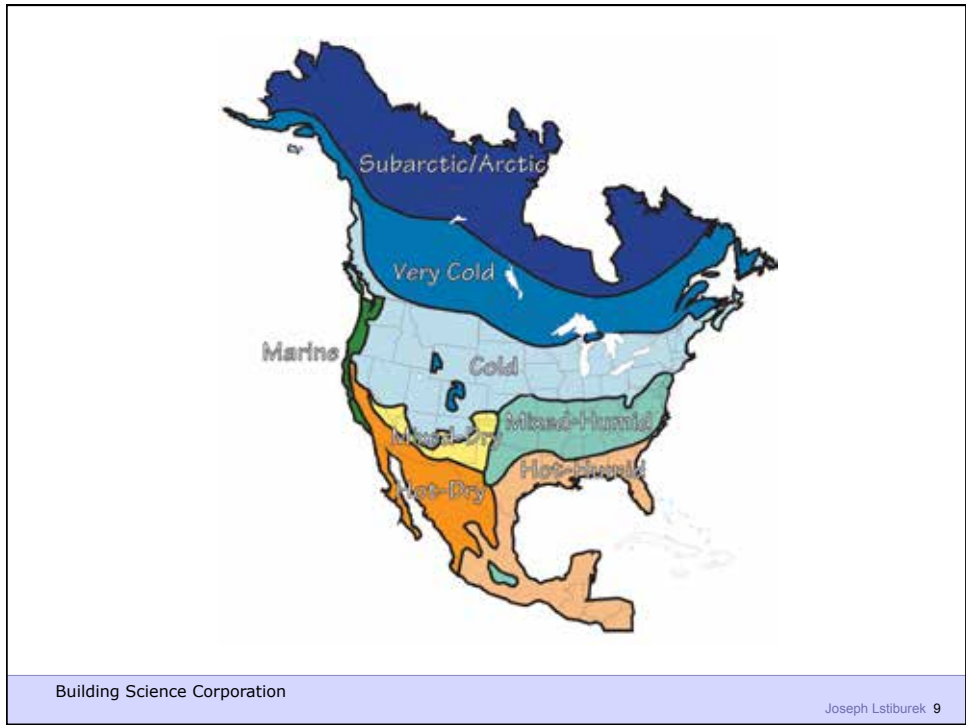
Zeroth Law – $A=B$ and $B=C$ therefore $A=C$
First Law - Conservation of Energy
Second Law - Entropy
Third Law – Absolute Zero

2nd Law of Thermodynamics

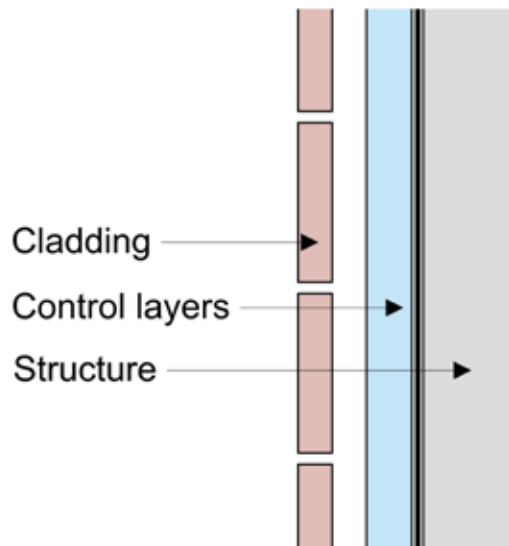
In an isolated system, a process can occur only if it increases the total entropy of the system

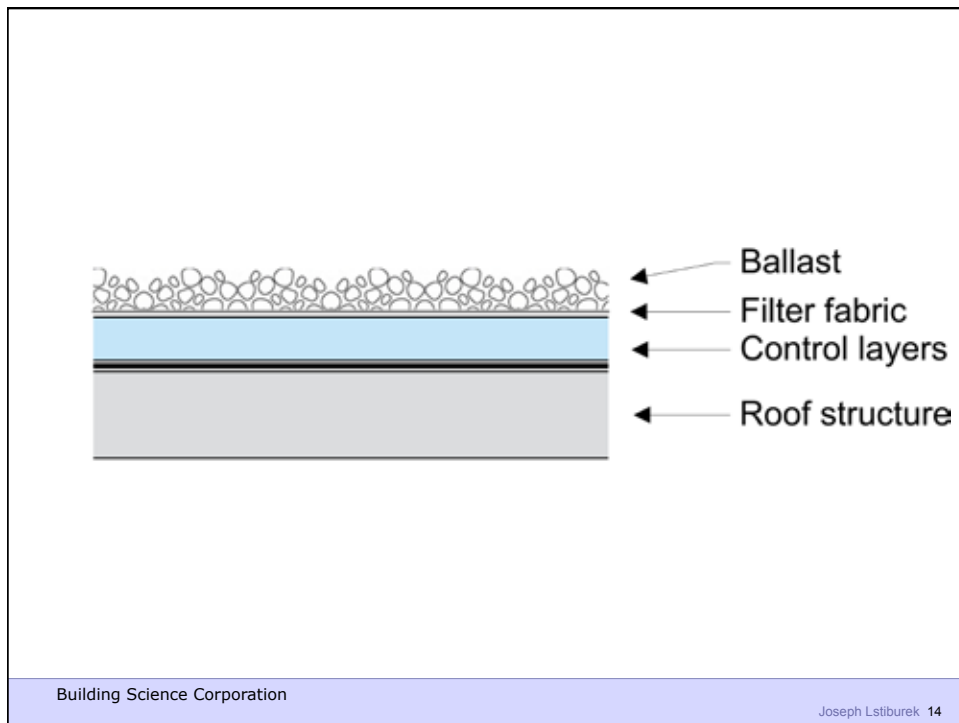
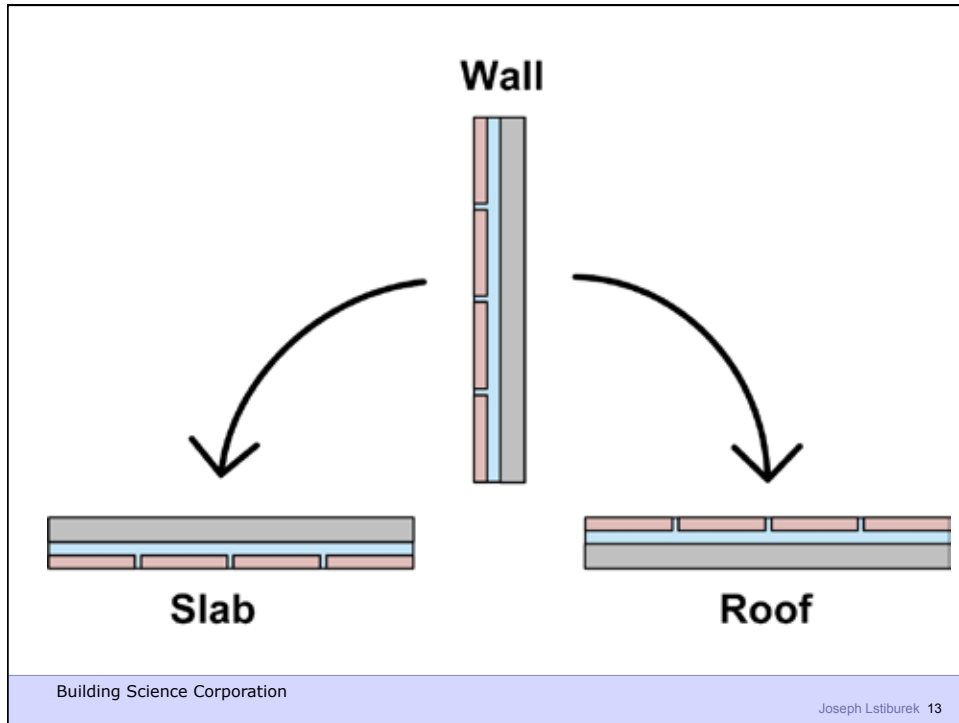
Rudolf Clausius

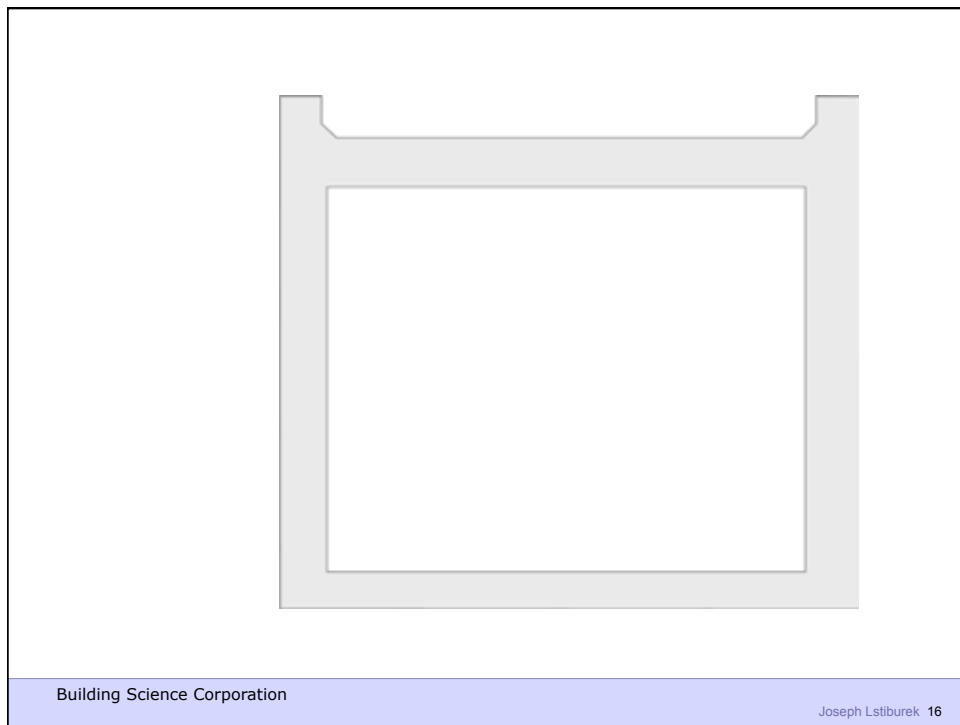
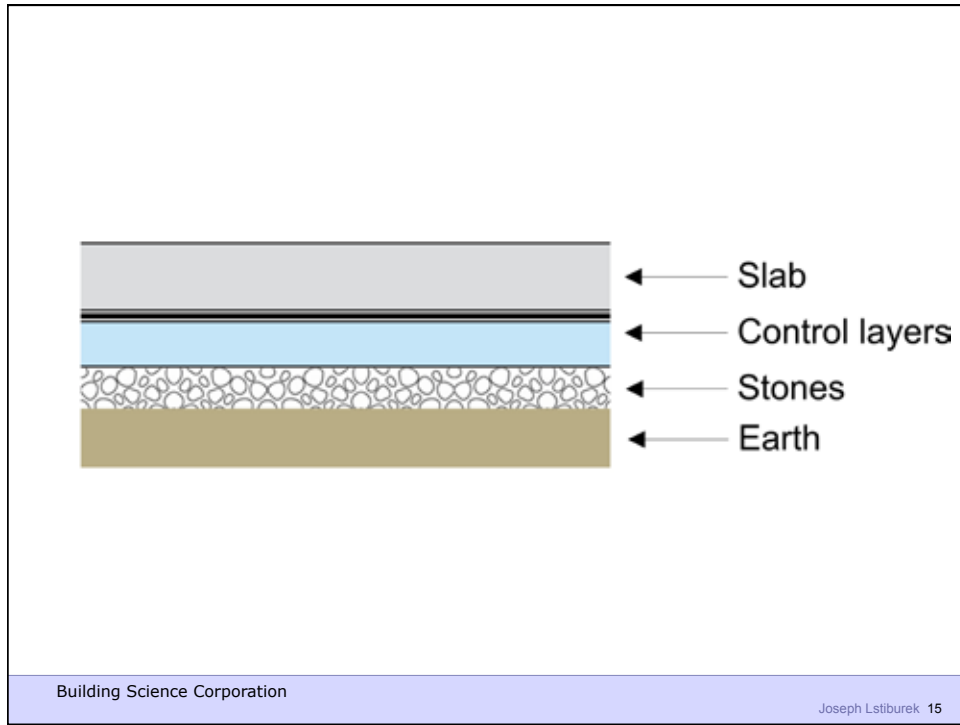
Heat Flow Is From Warm To Cold
Moisture Flow Is From Warm To Cold
Moisture Flow Is From More To Less
Air Flow Is From A Higher Pressure to a
Lower Pressure
Gravity Acts Down

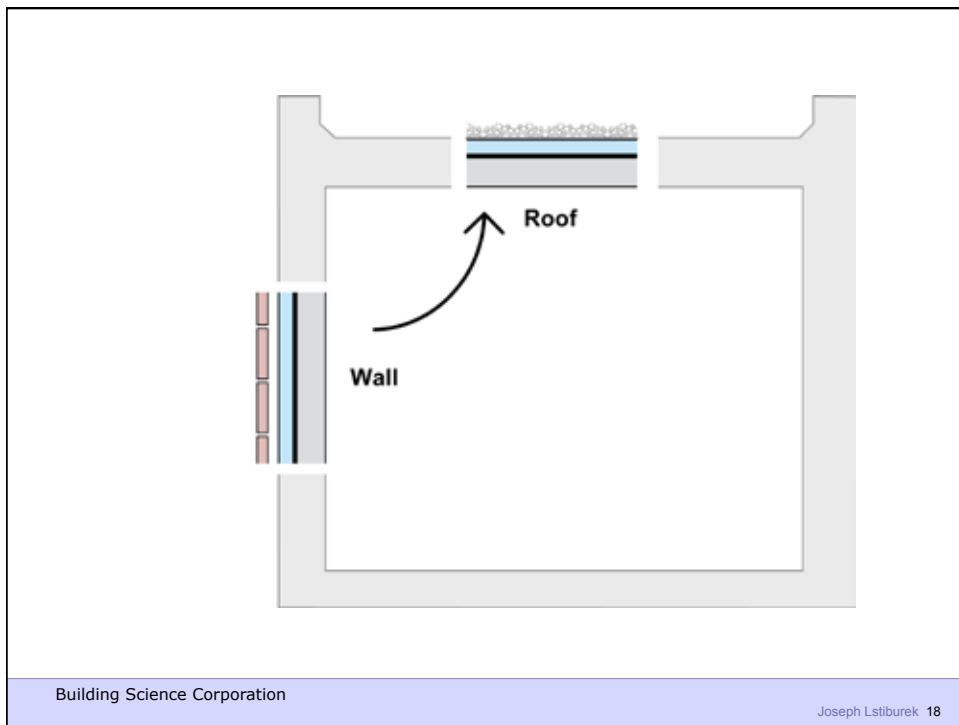
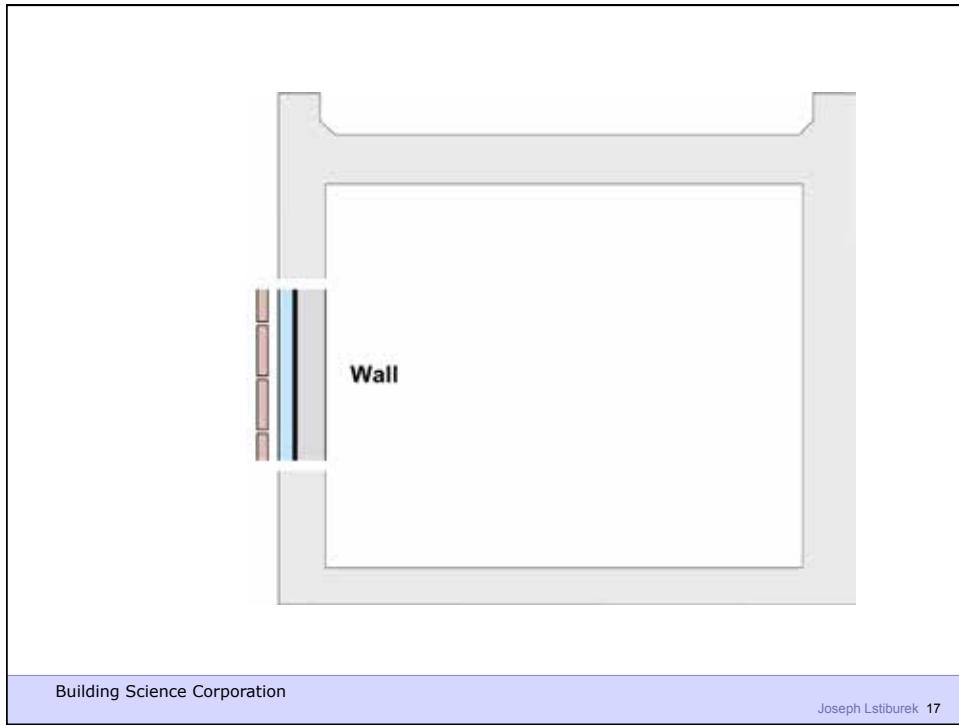


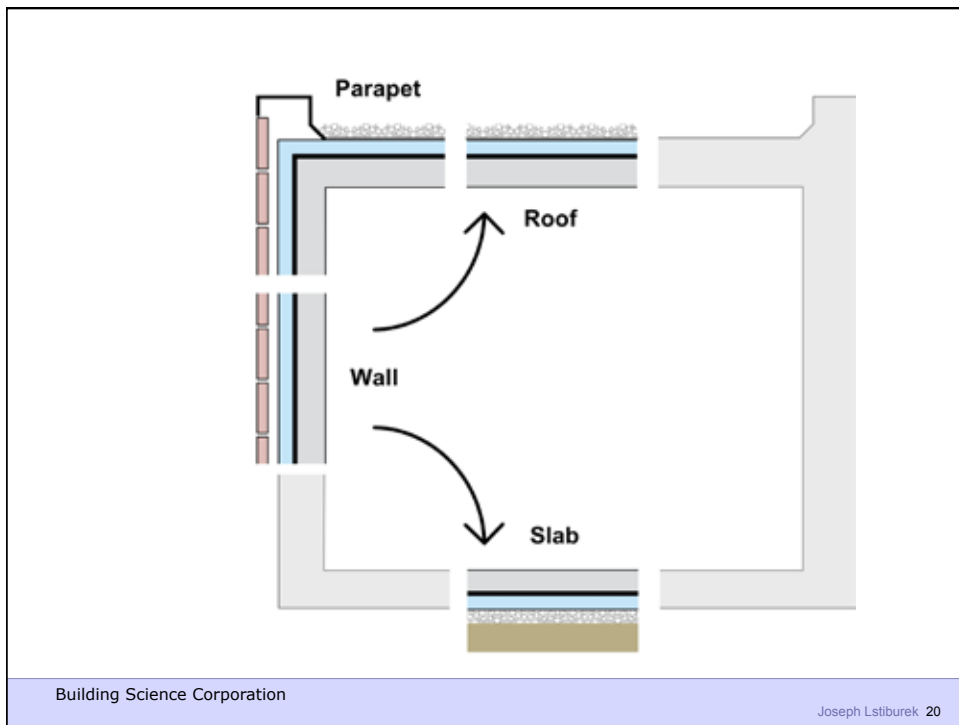
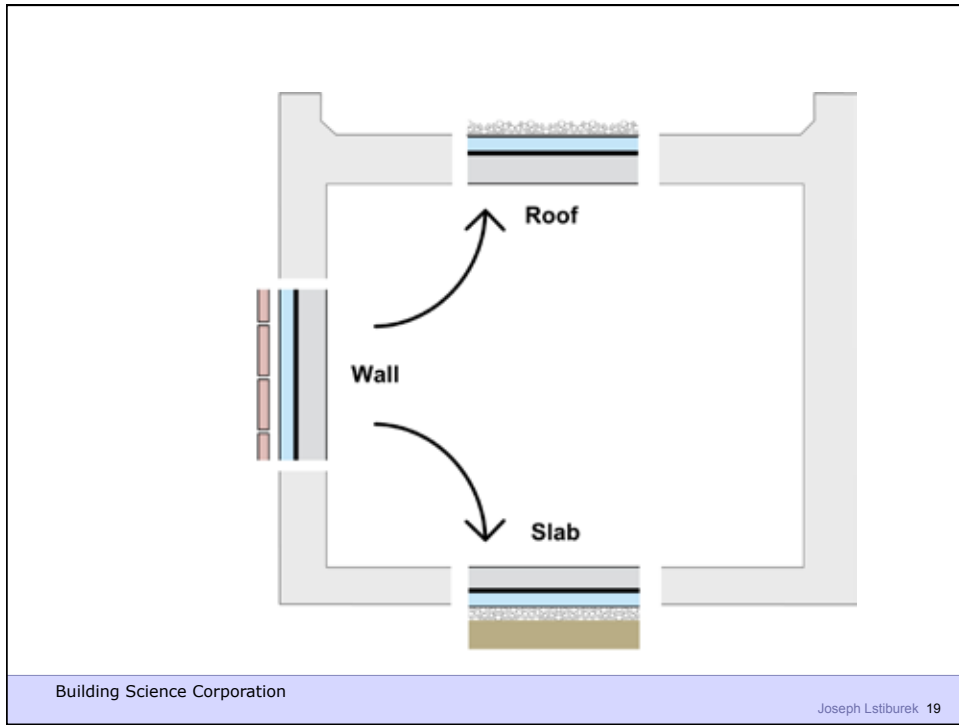
Water Control Layer
Air Control Layer
Vapor Control Layer
Thermal Control Layer

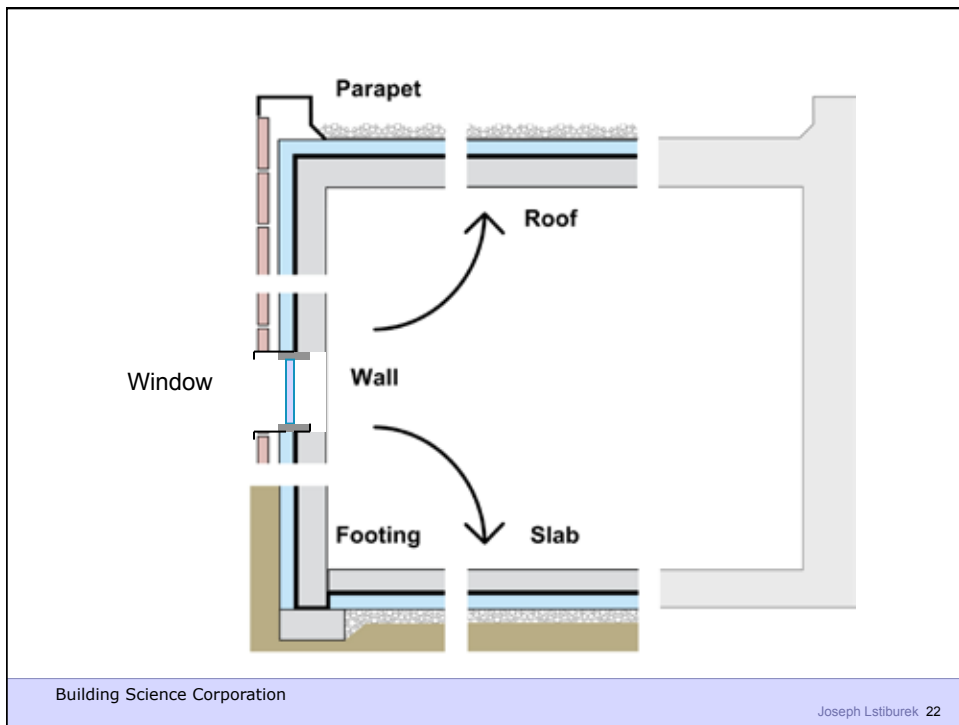
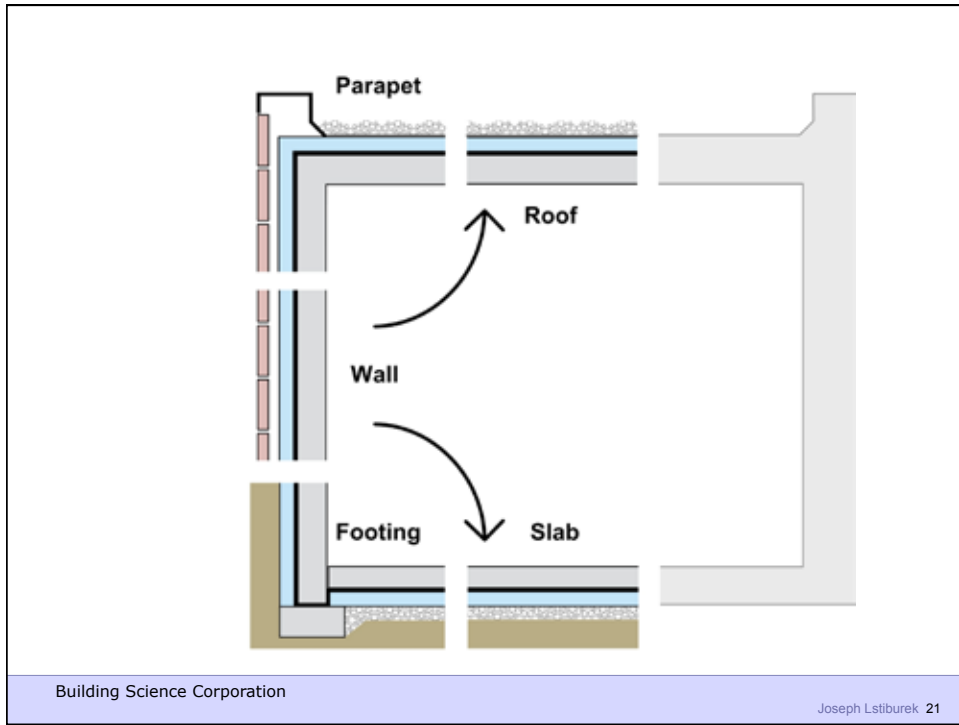


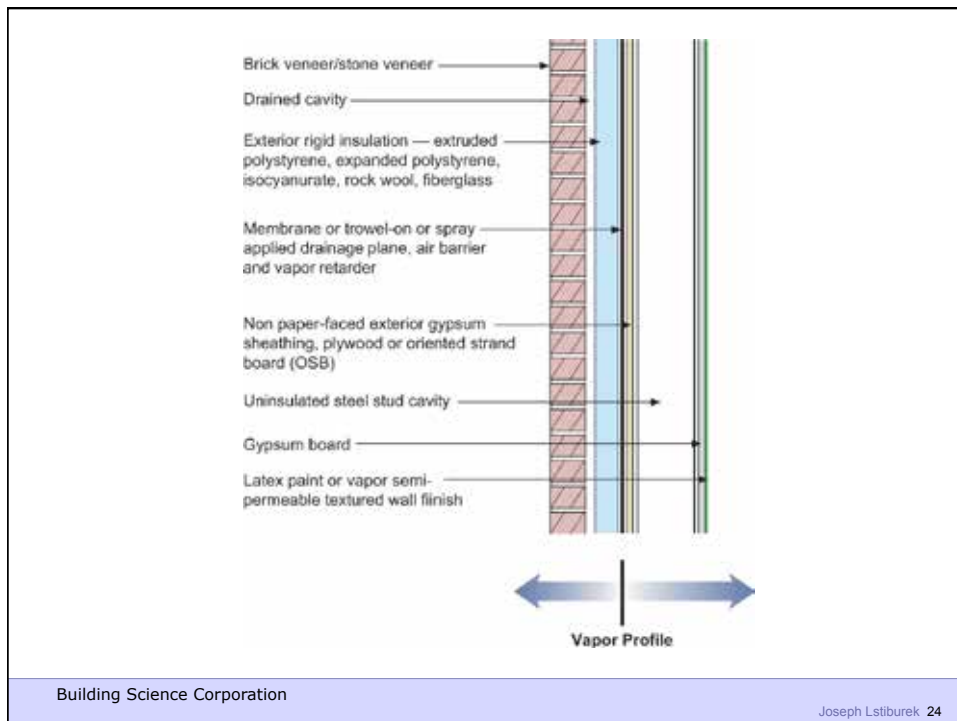
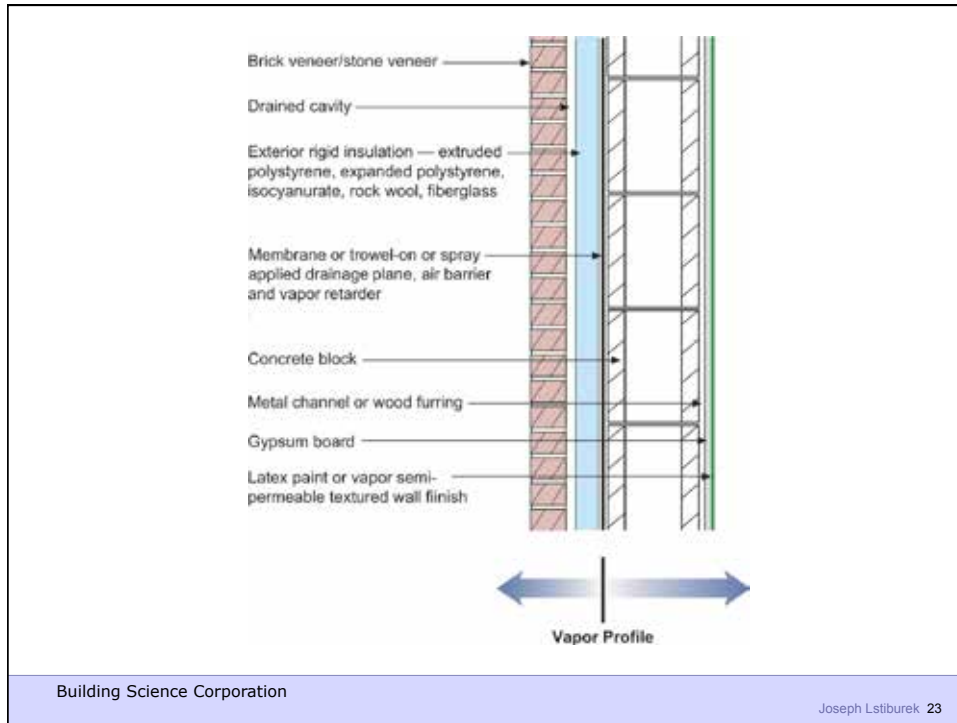


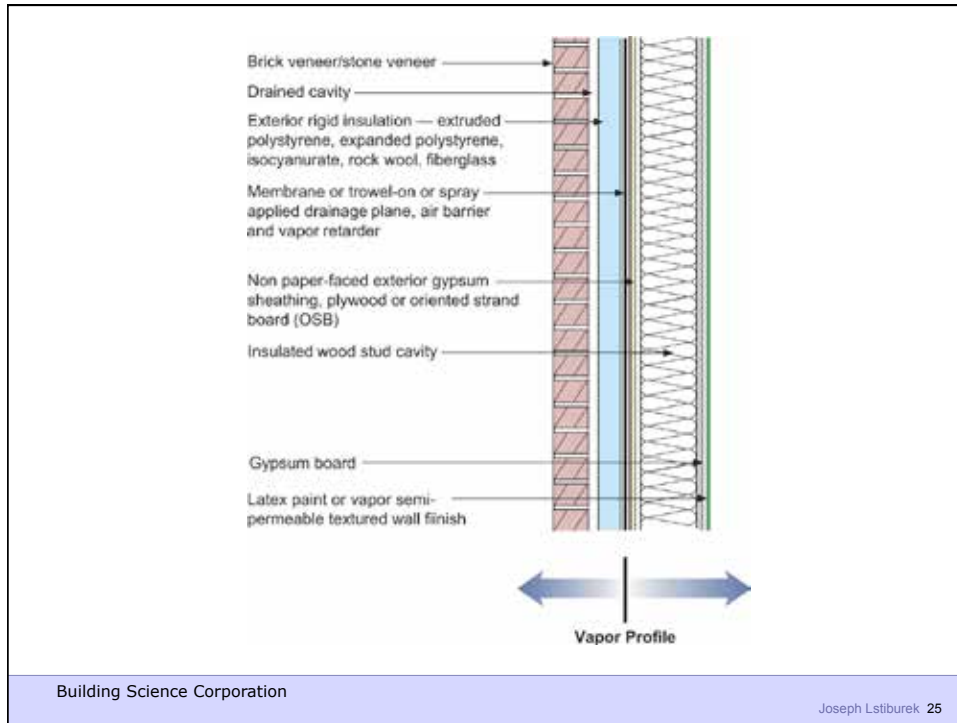














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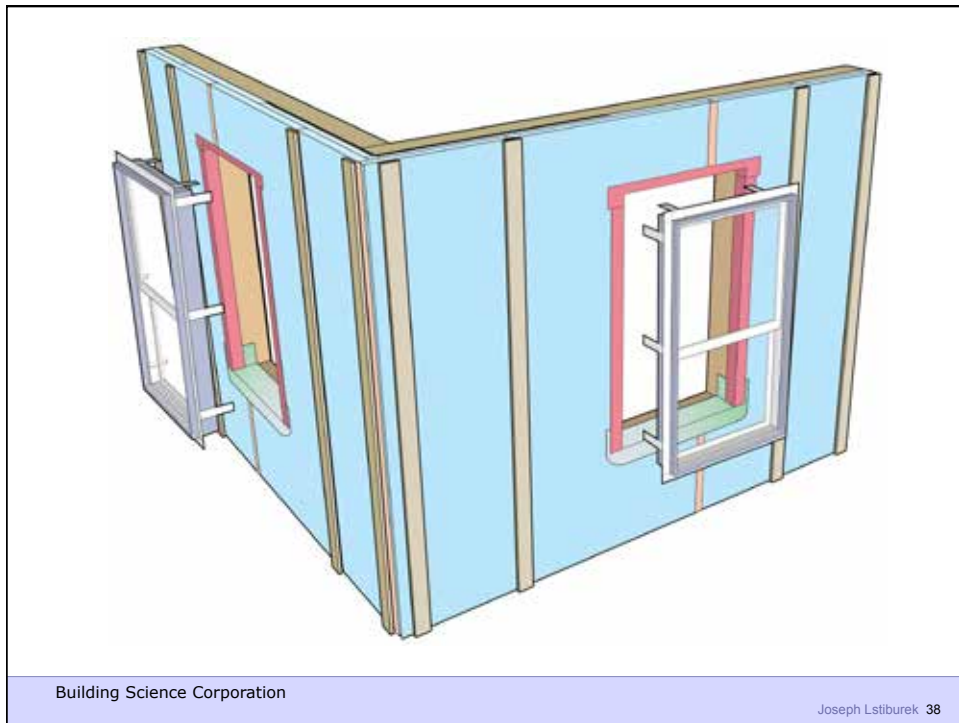
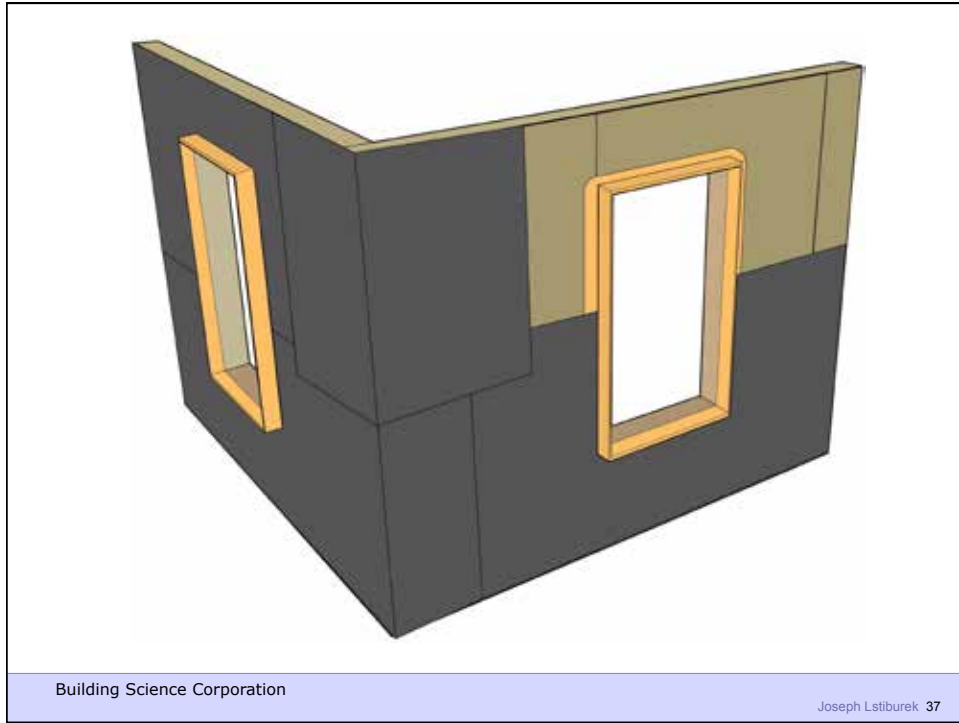
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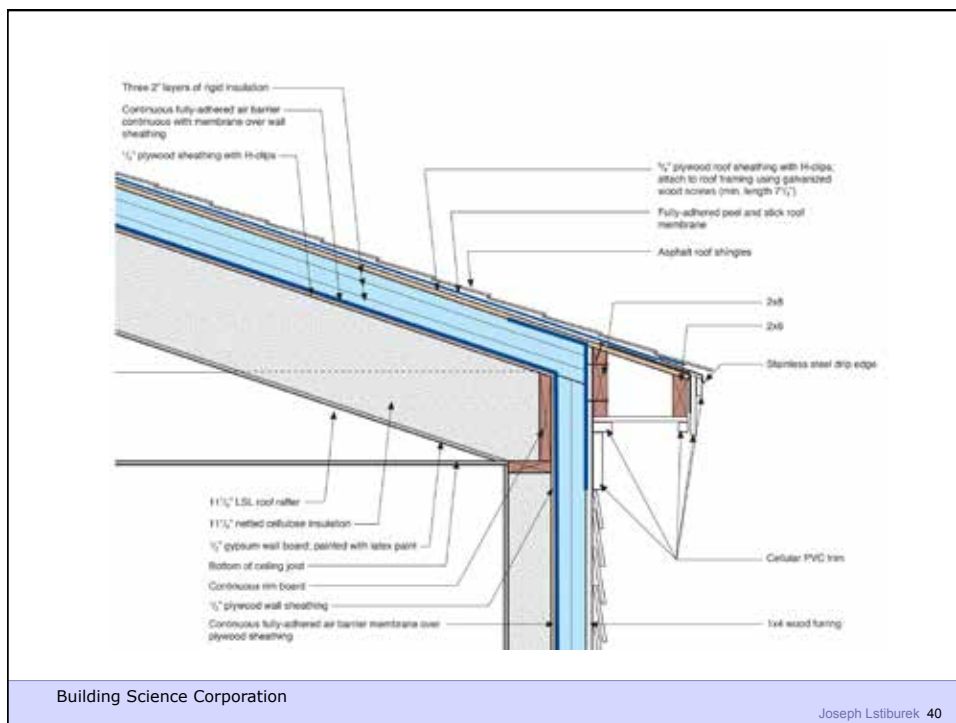
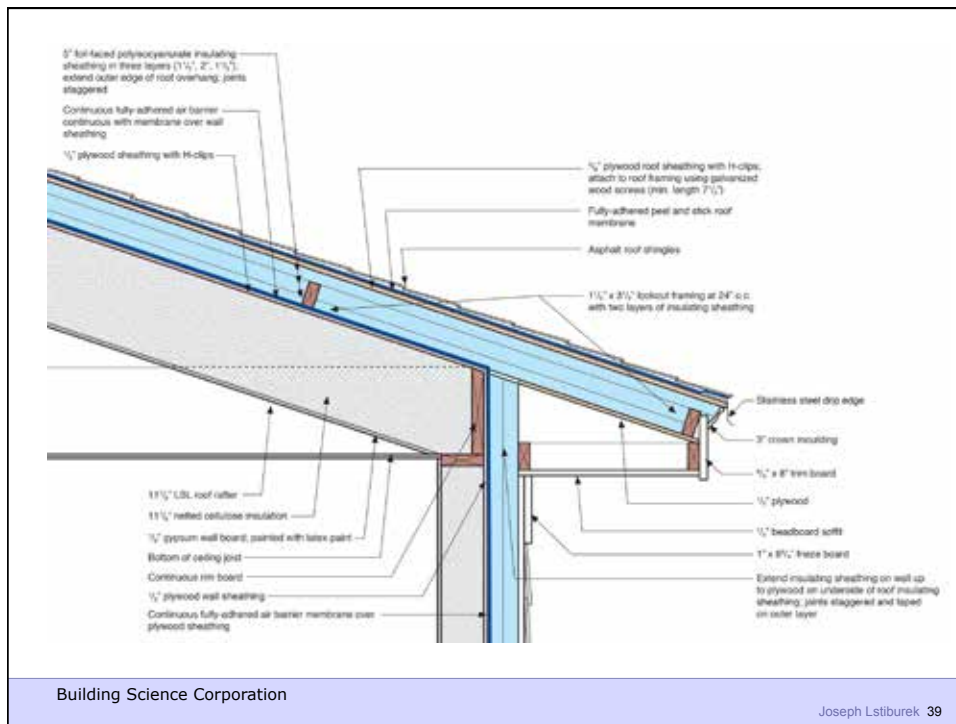
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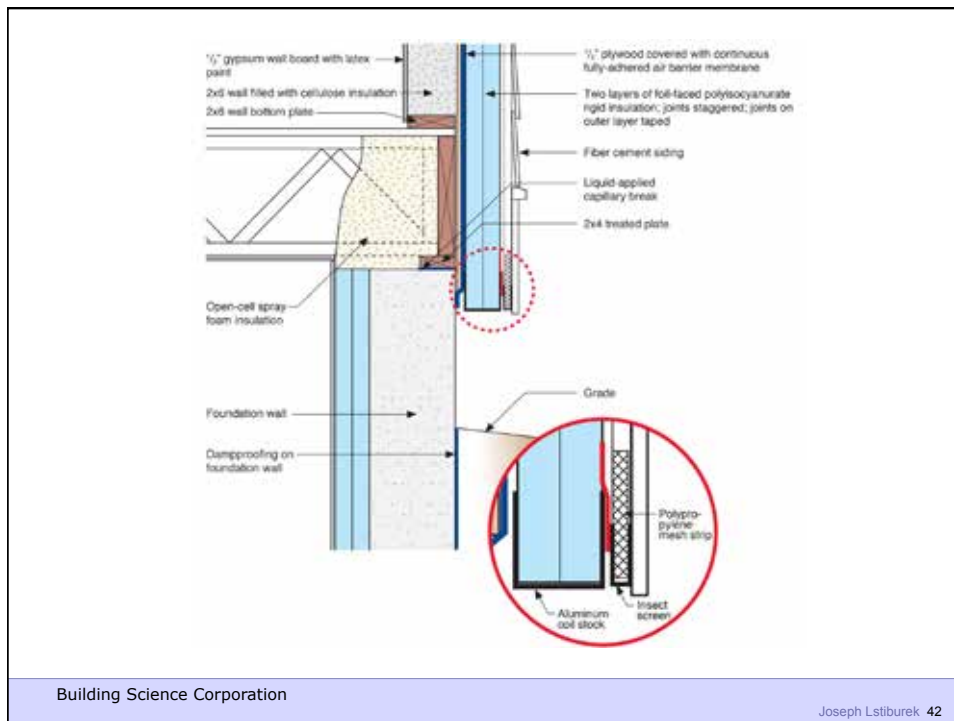
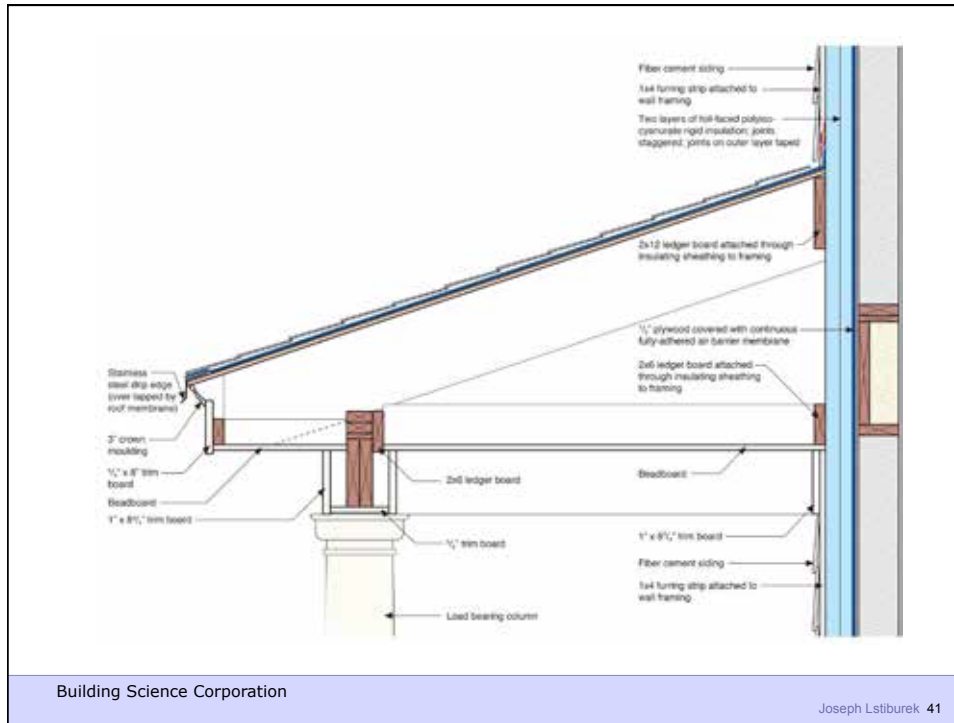


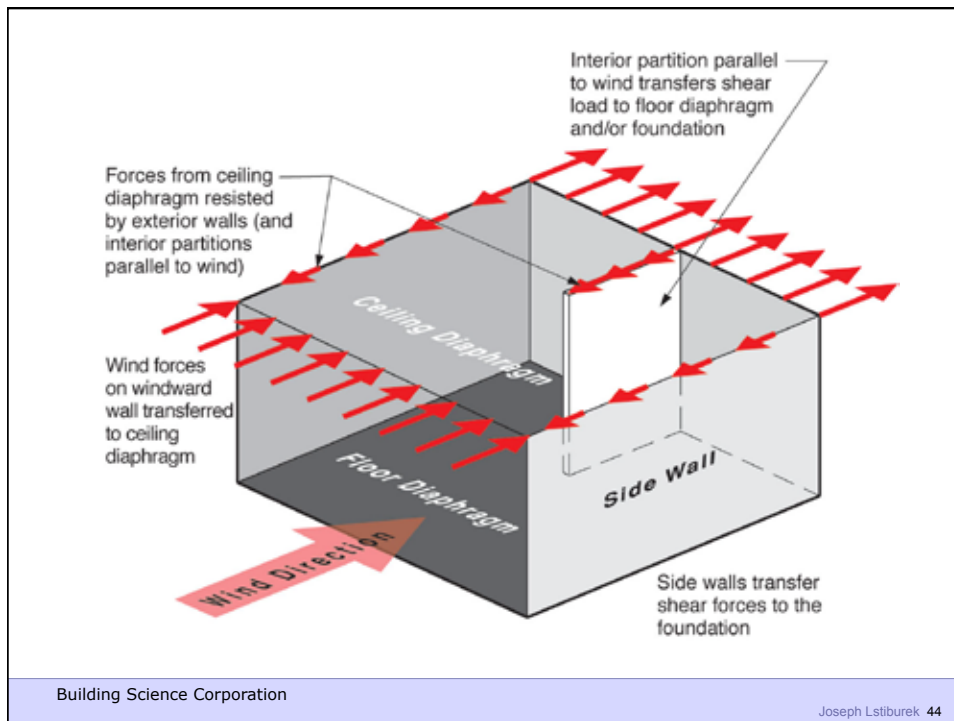
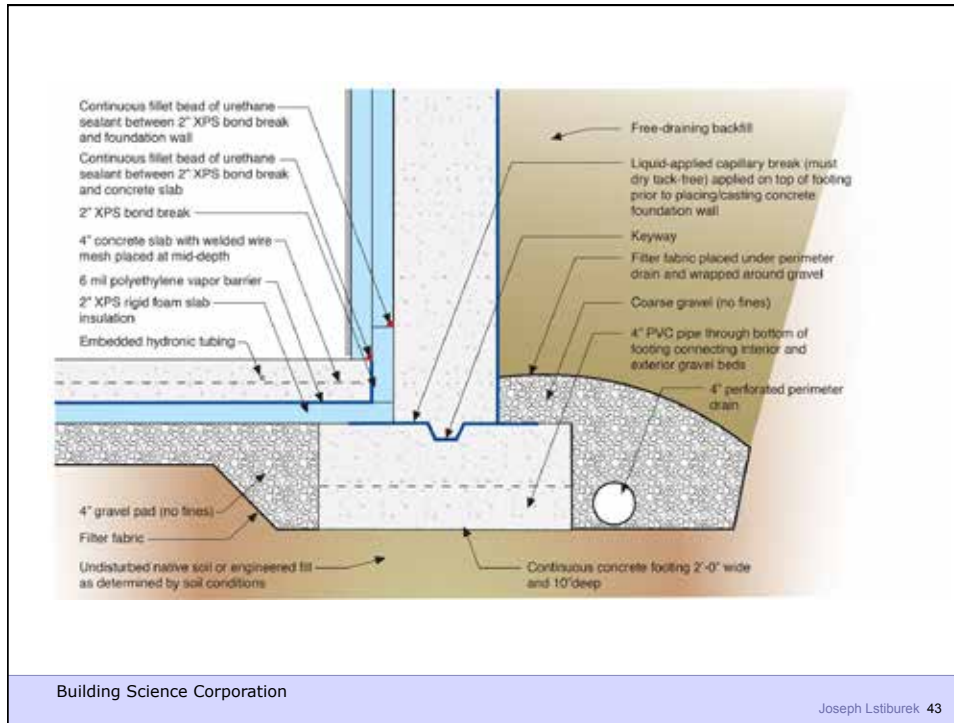
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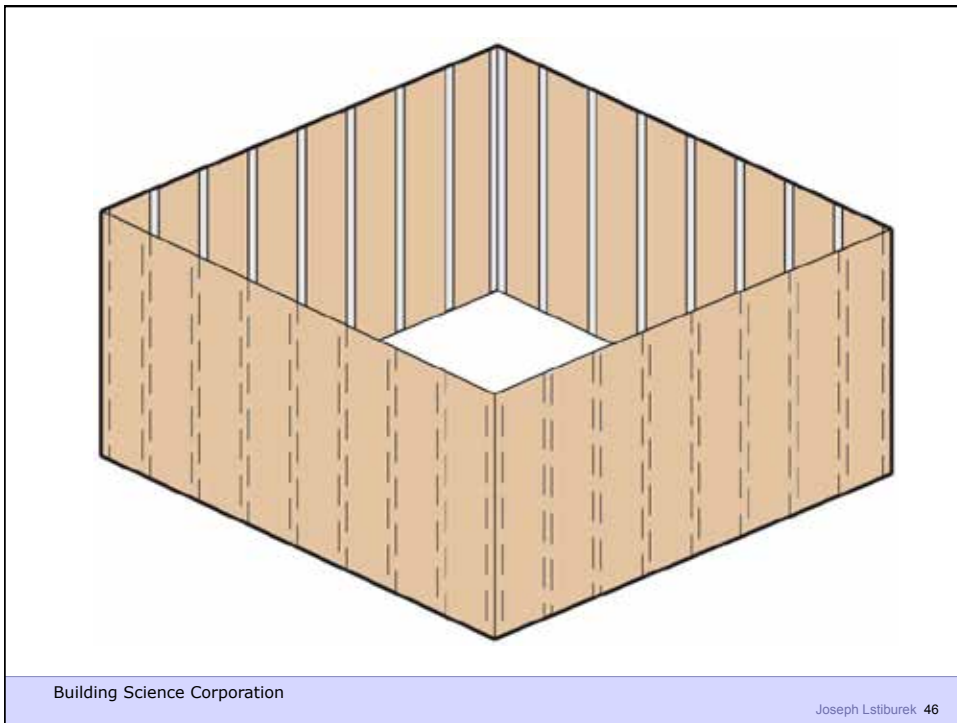
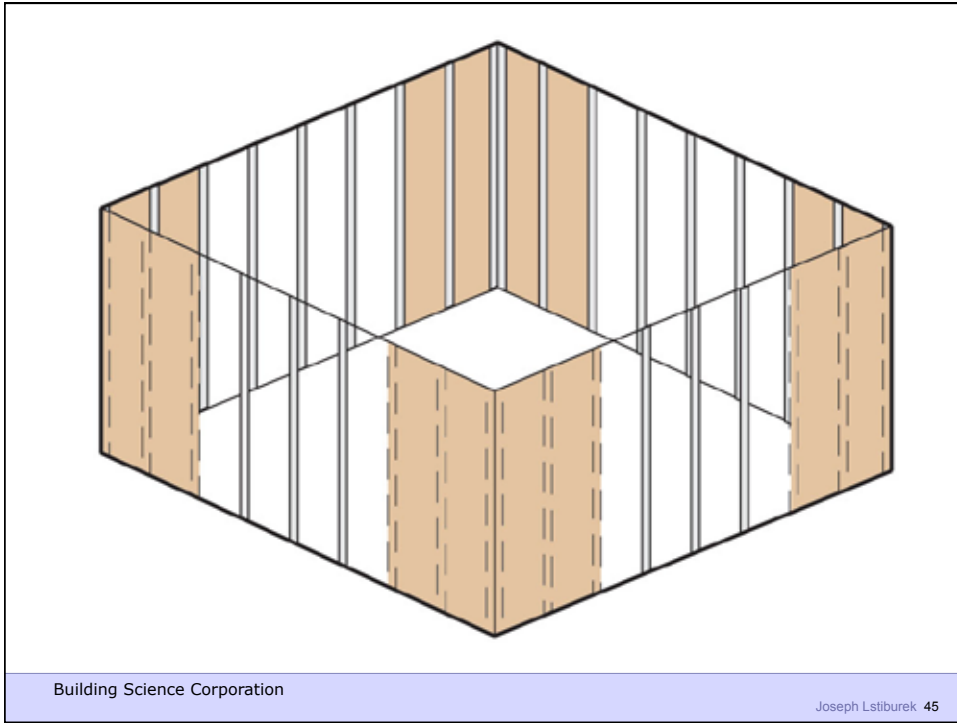
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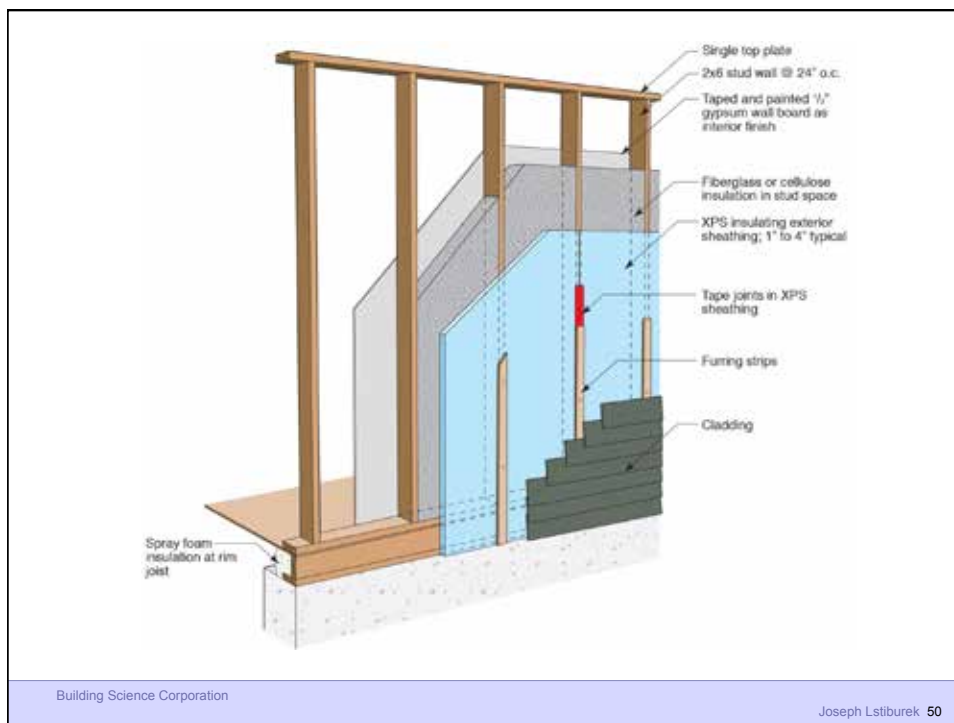
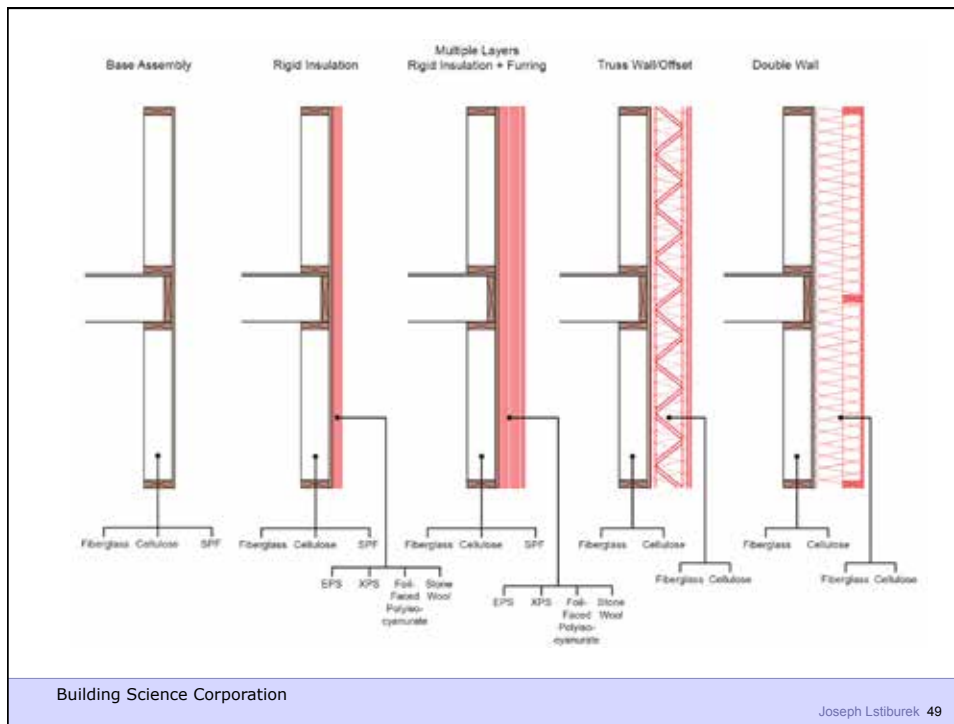


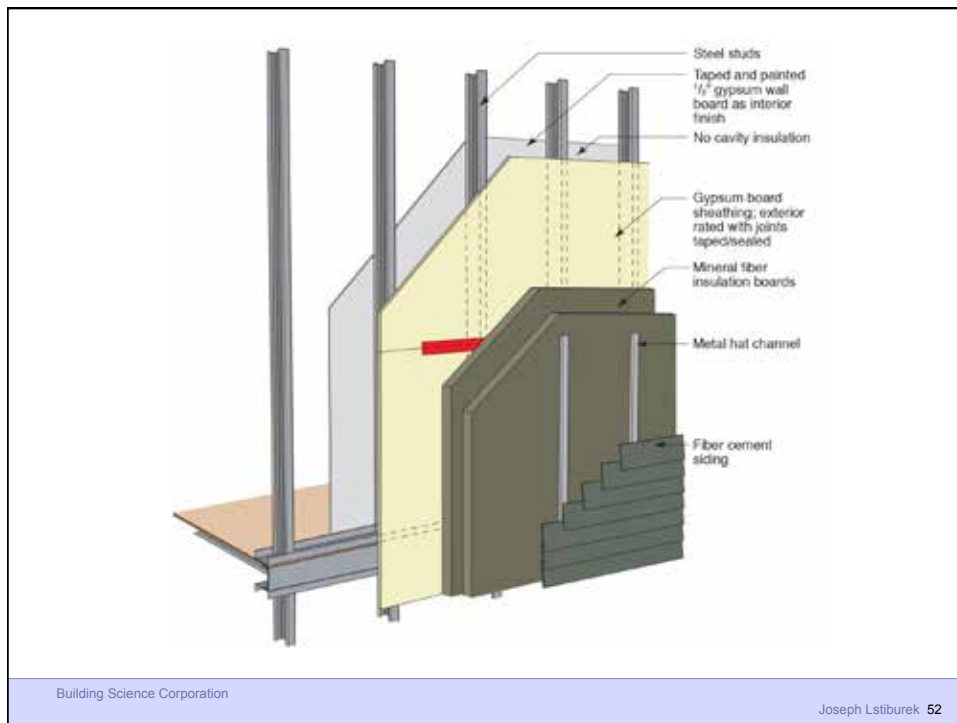
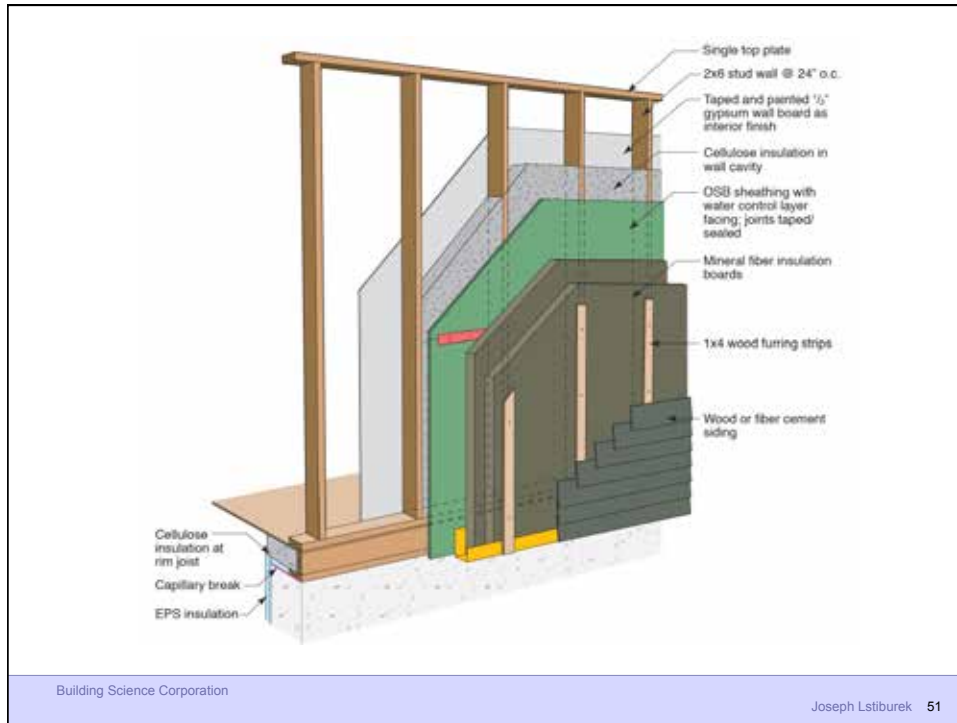


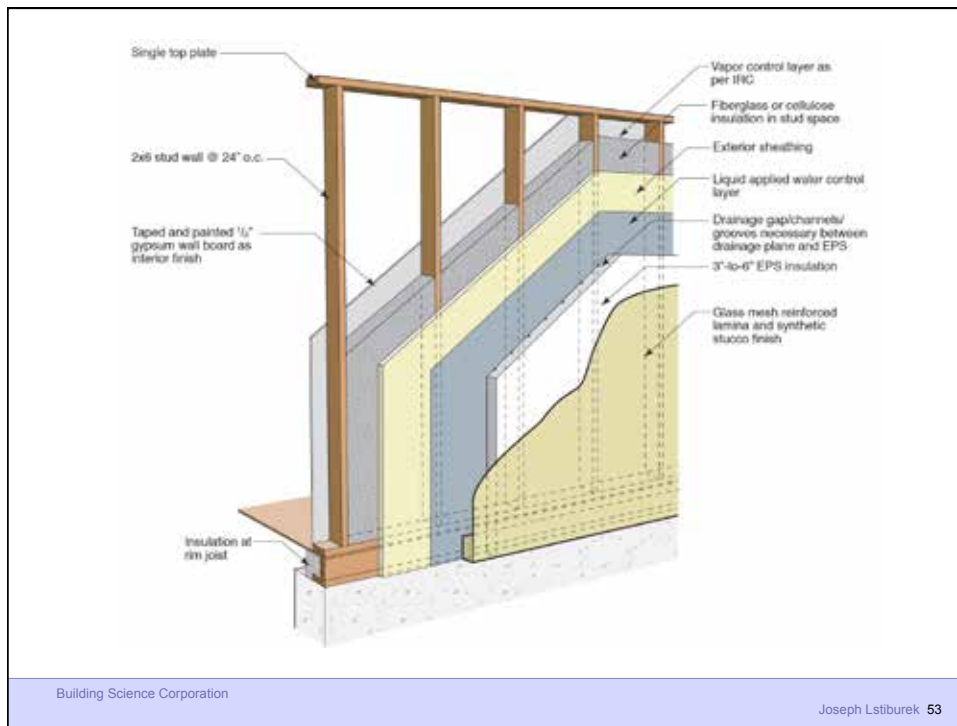


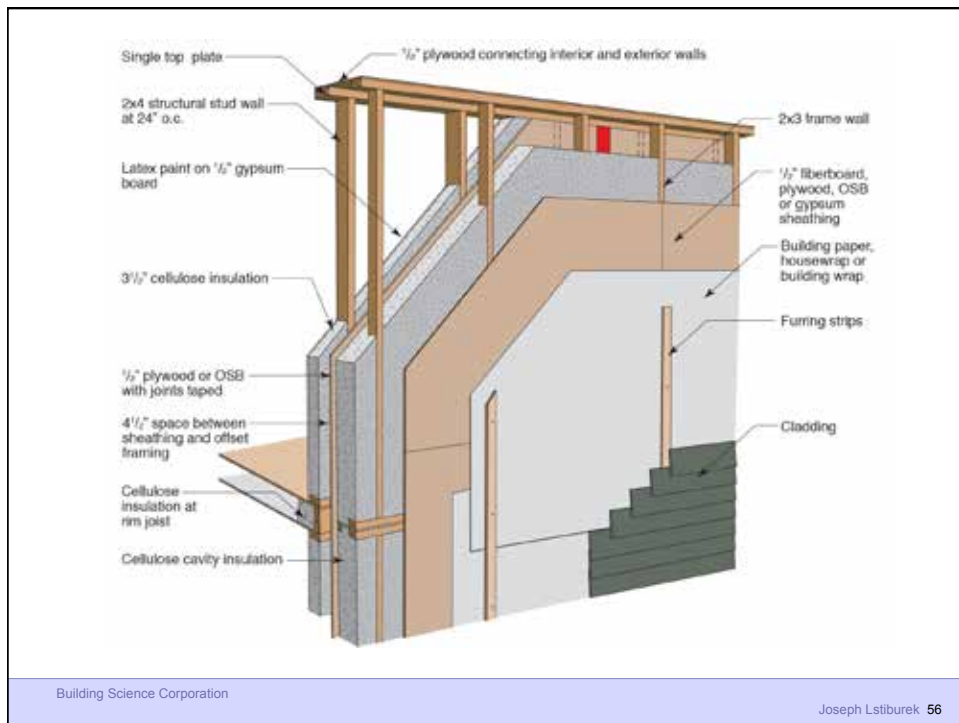
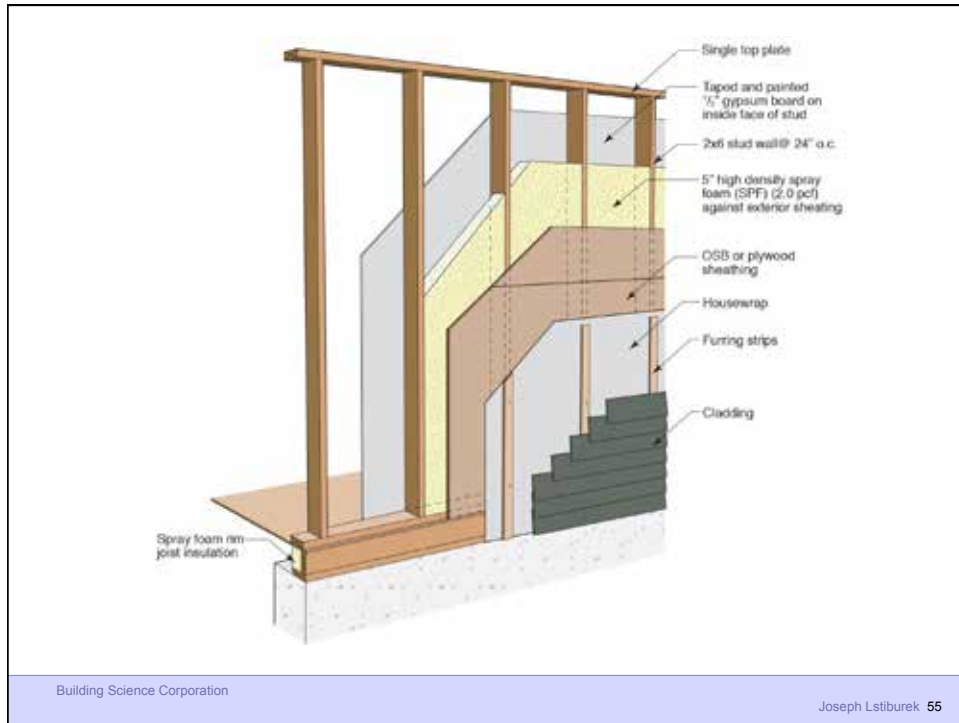
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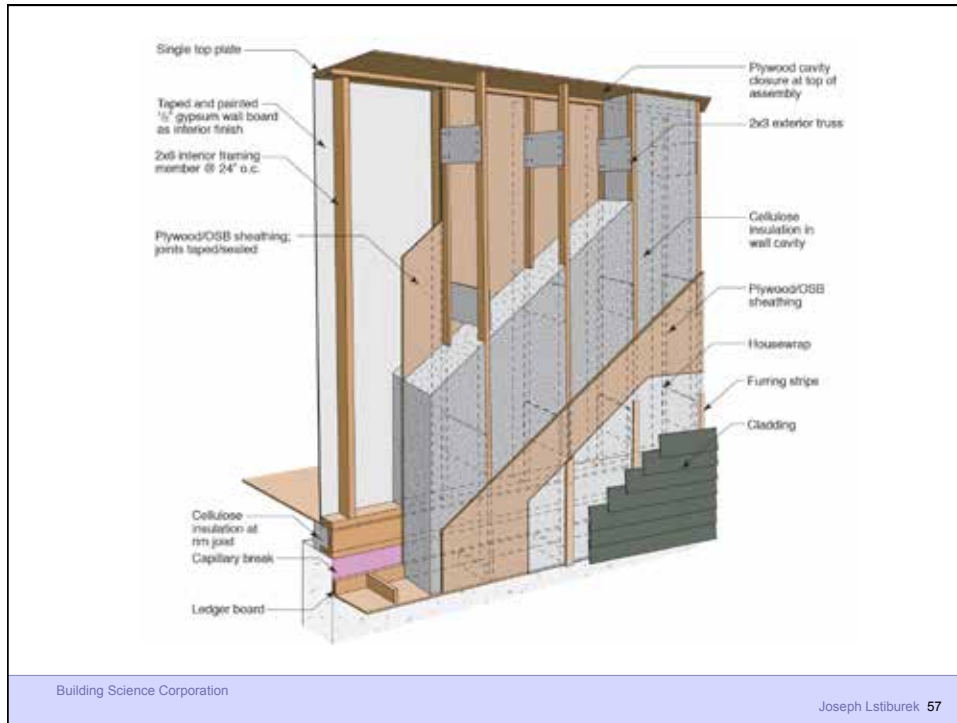
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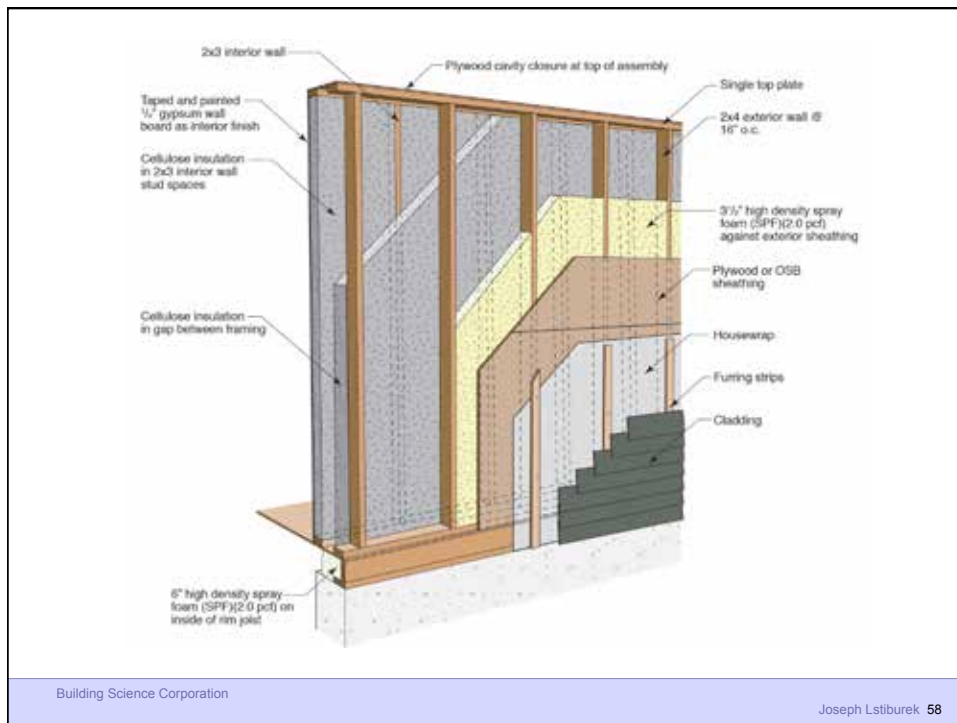






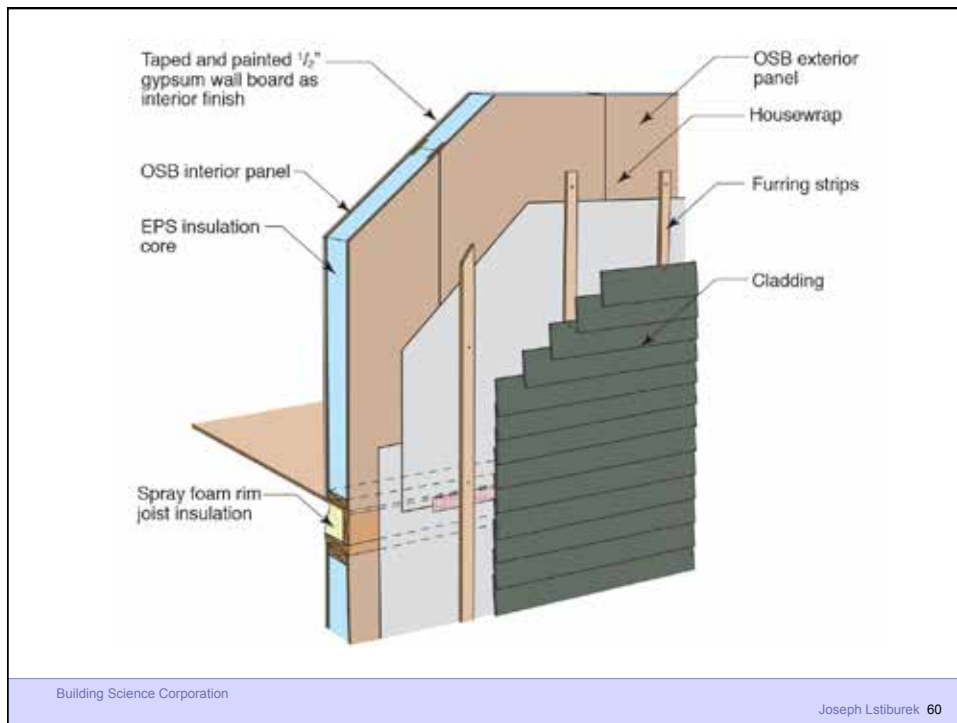
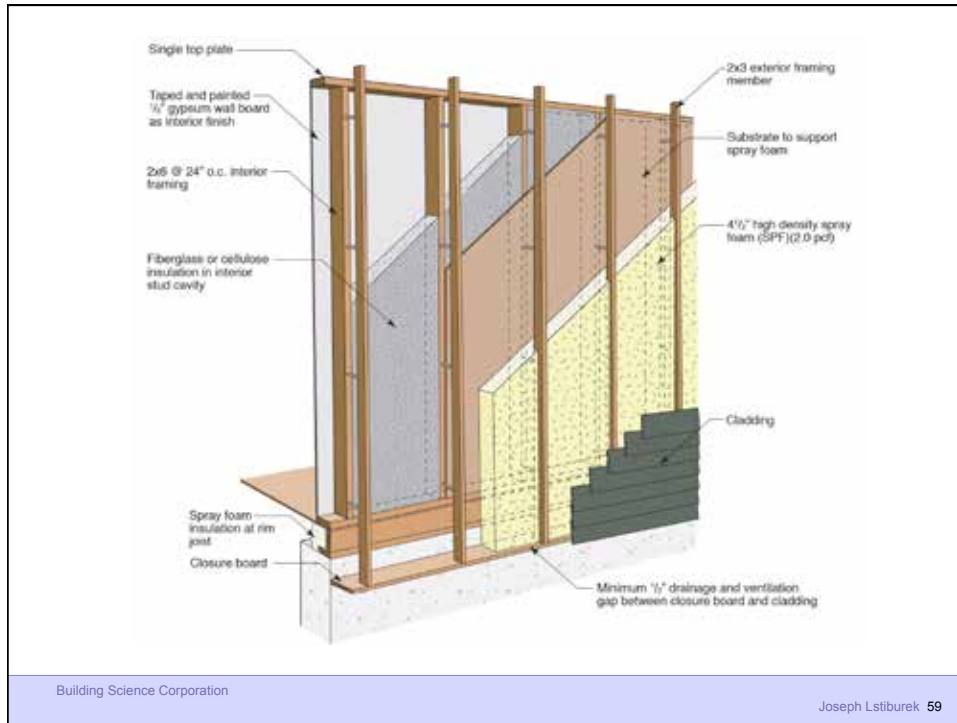
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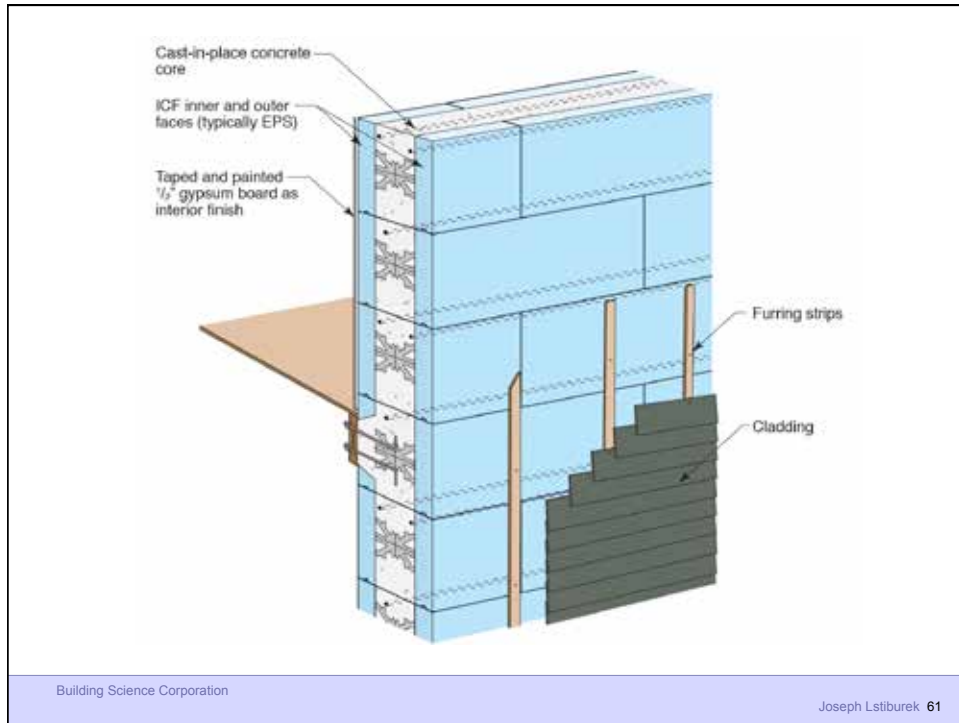
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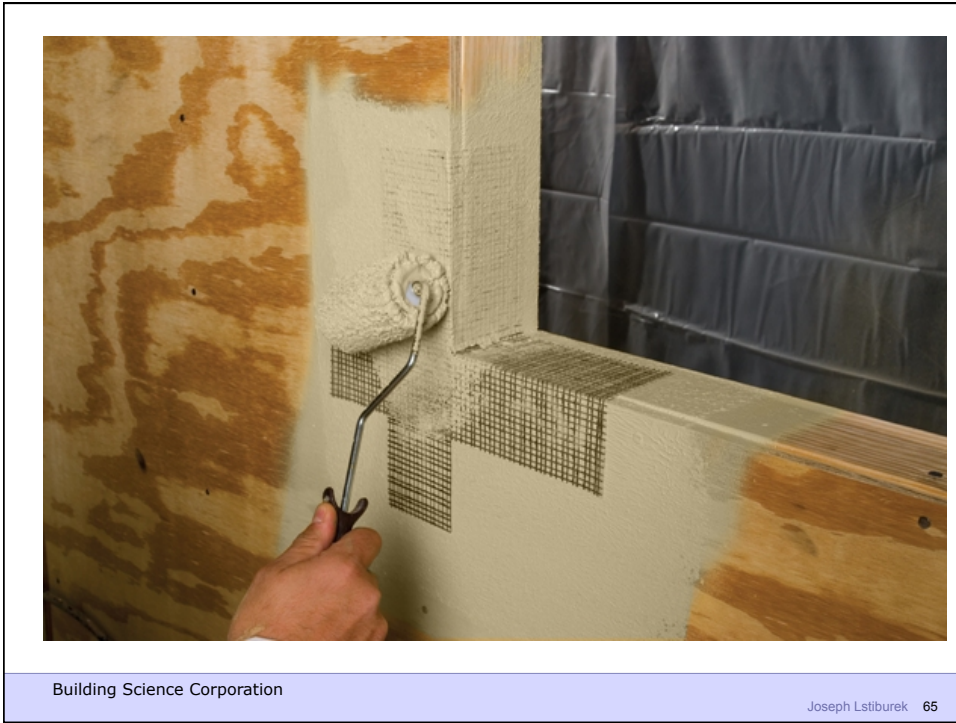
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