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# Building Science

Adventures In Building Science

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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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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

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Damage Functions

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Damage Functions  
Water  
Heat  
Ultra Violet Radiation

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80 Percent of all Construction Problems are  
Related to Water

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Heat  
Air  
Moisture

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HAM

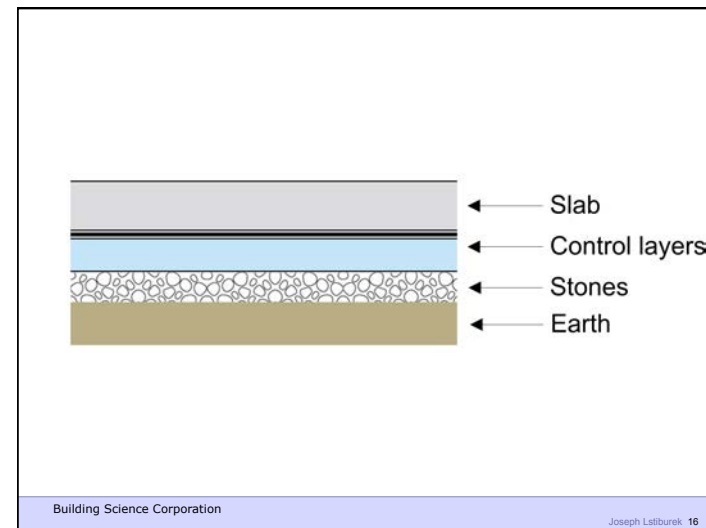
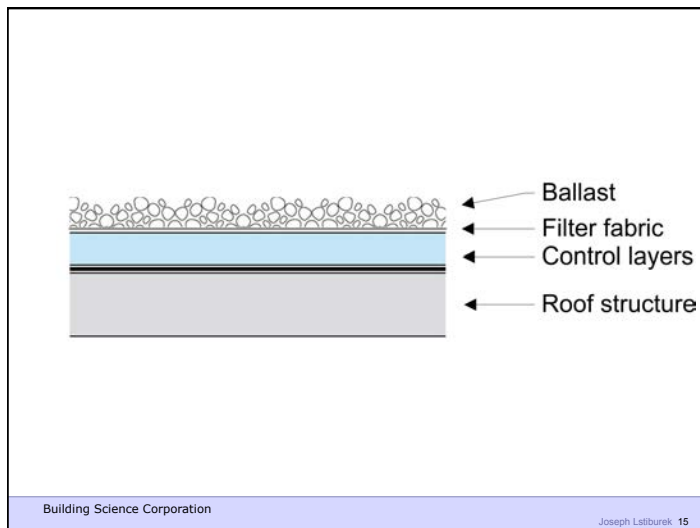
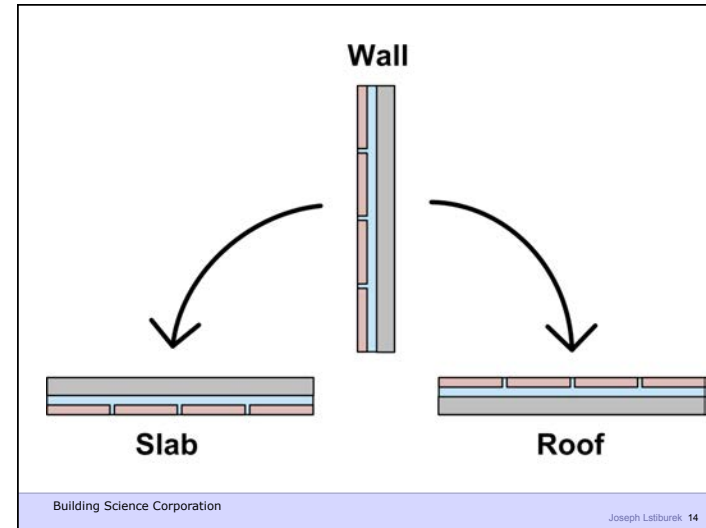
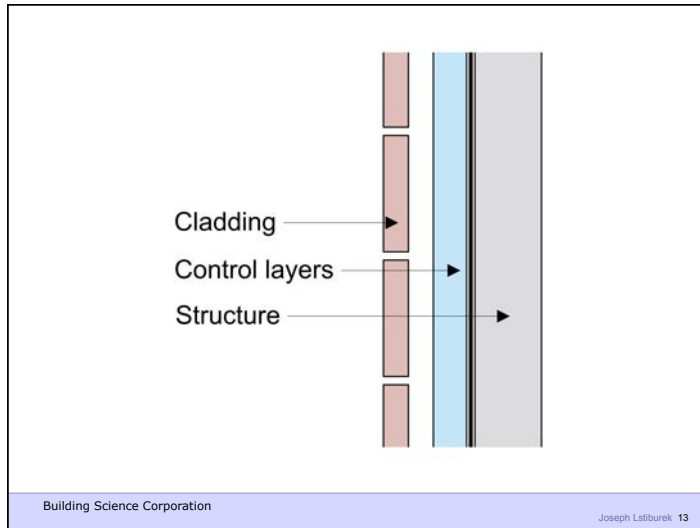
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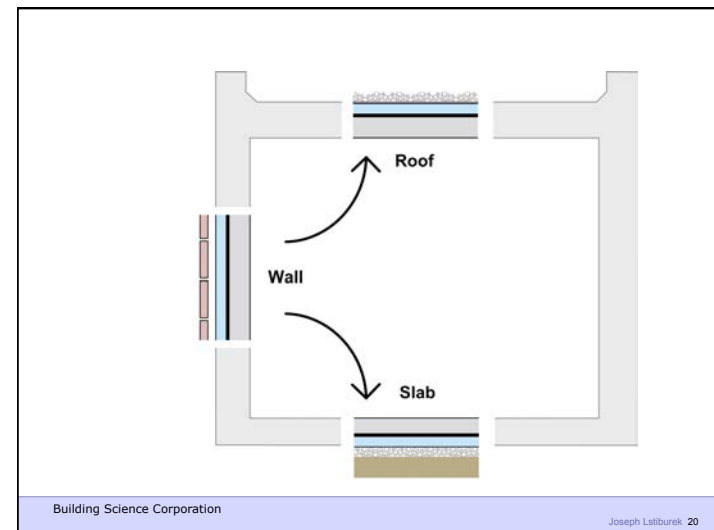
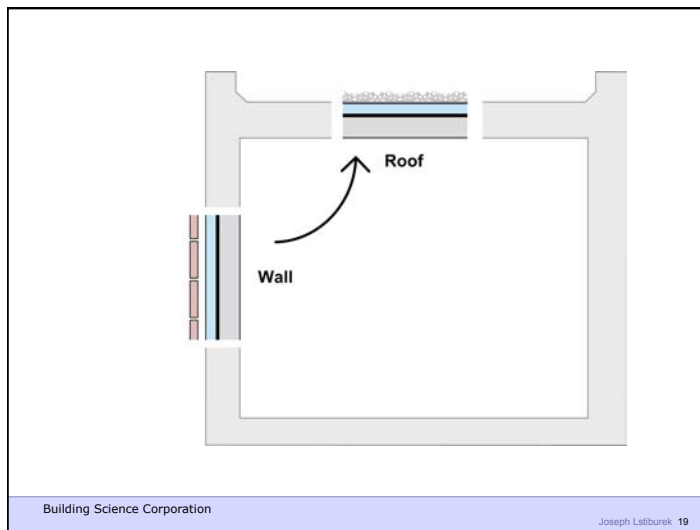
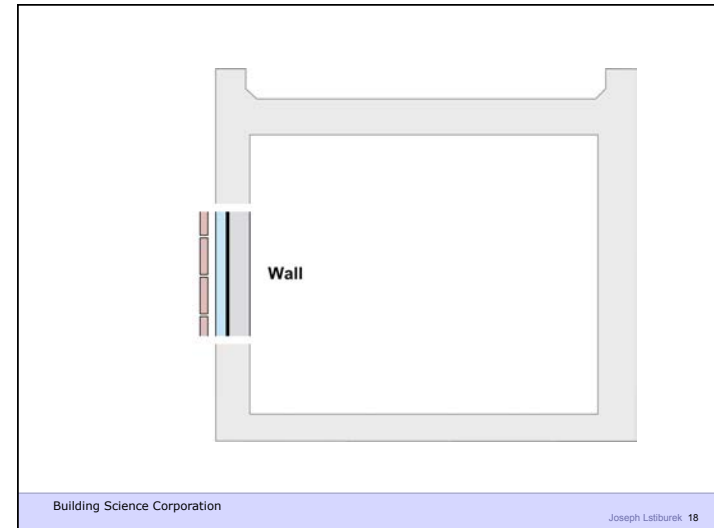
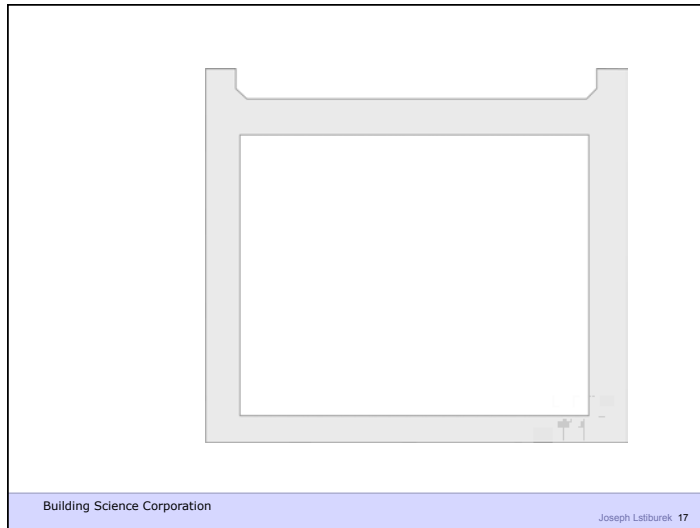
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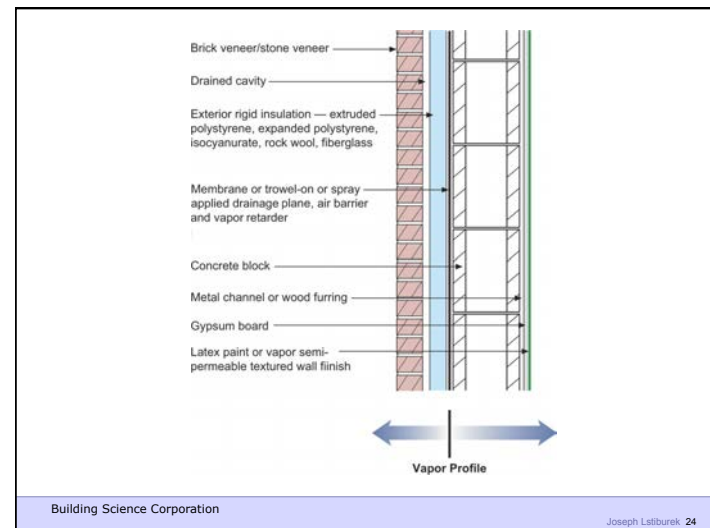
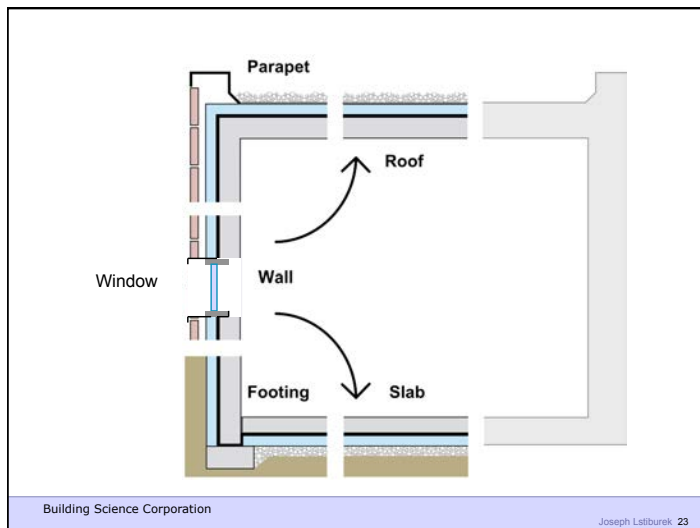
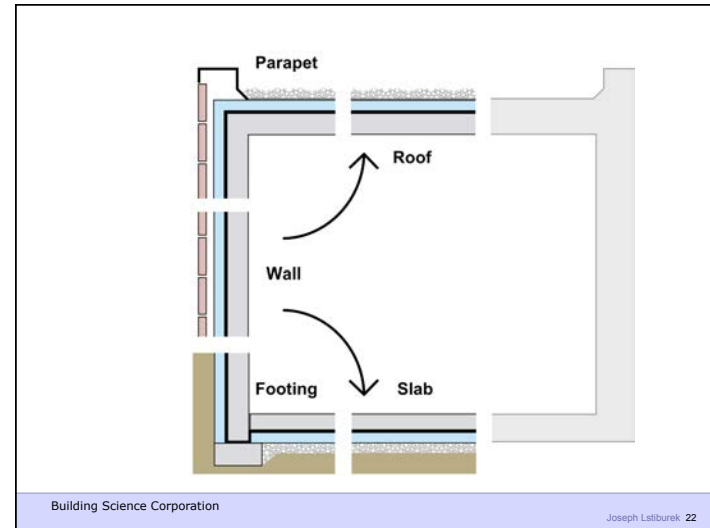
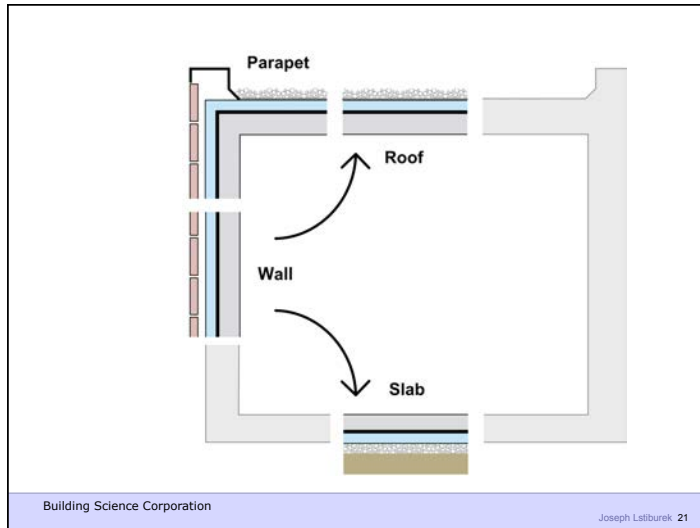
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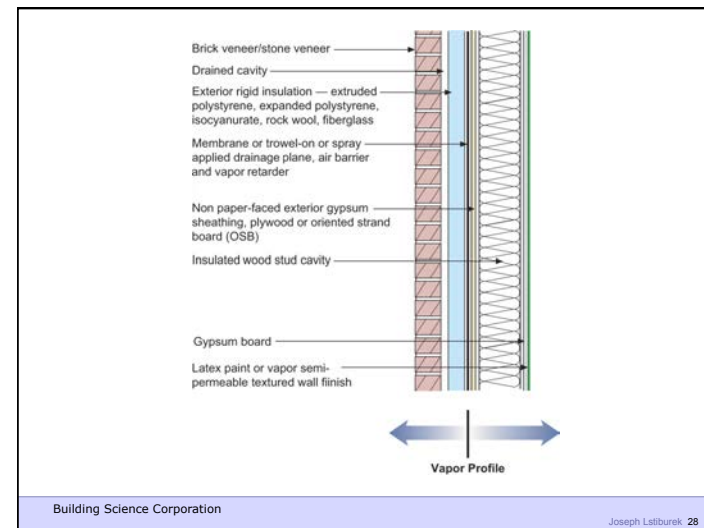
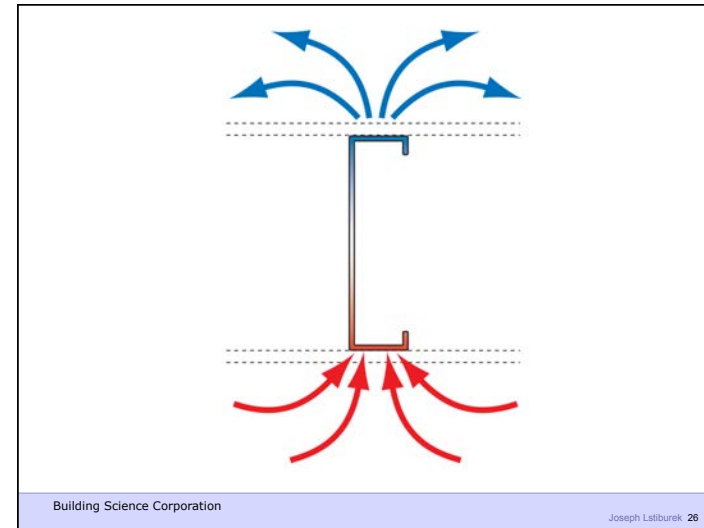
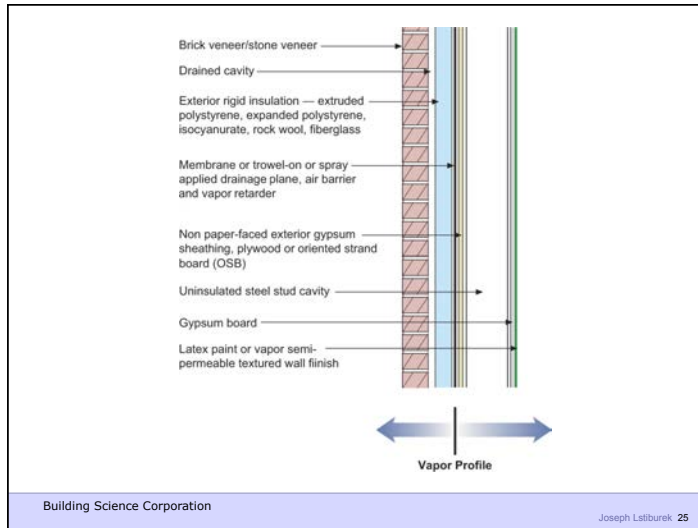
Water Control Layer  
Air Control Layer  
Vapor Control Layer  
Thermal Control Layer

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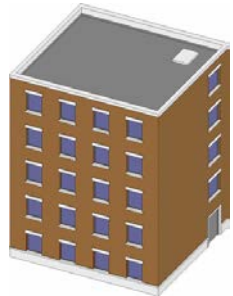








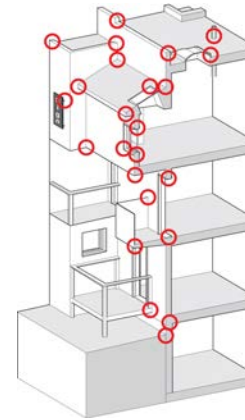
### Commercial Enclosure: Simple Layers



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

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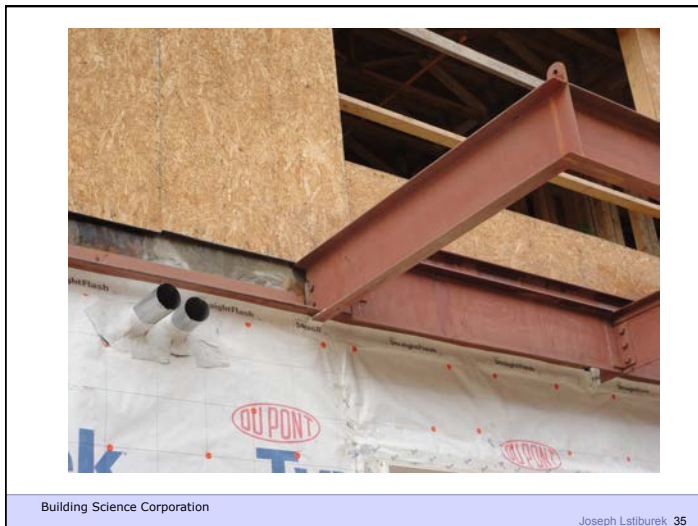
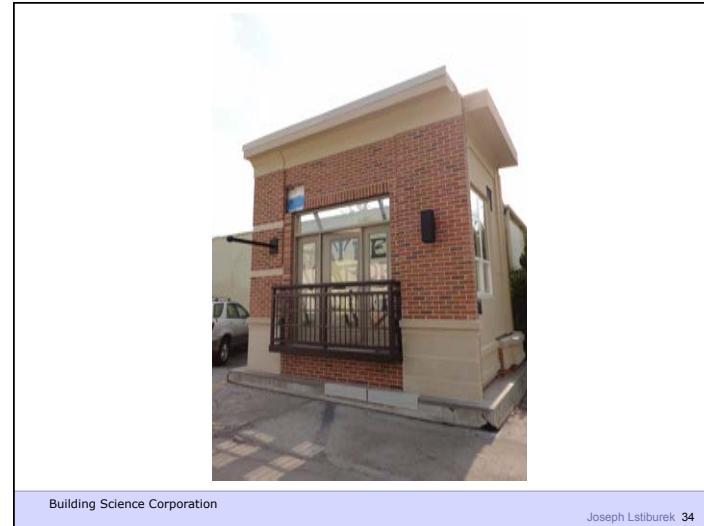
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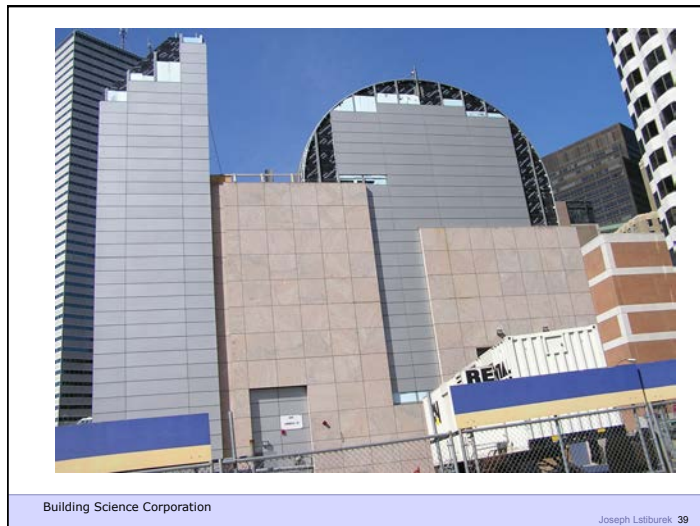
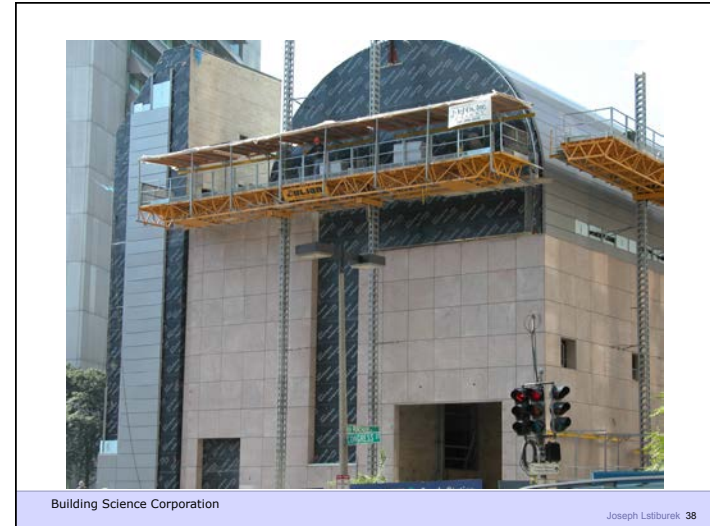


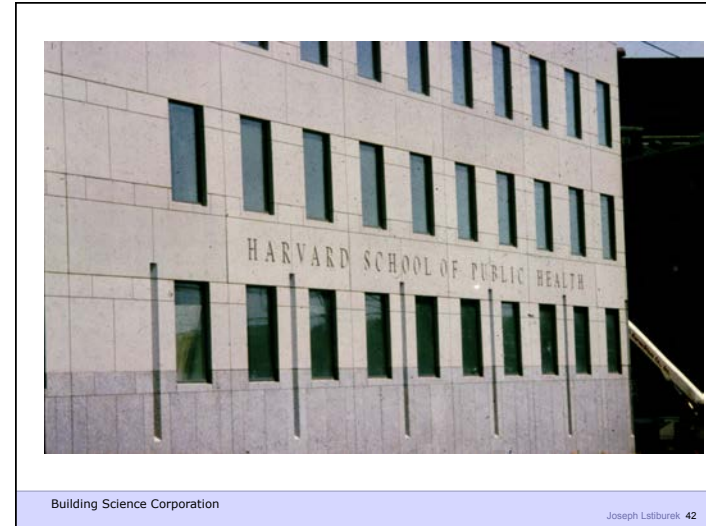
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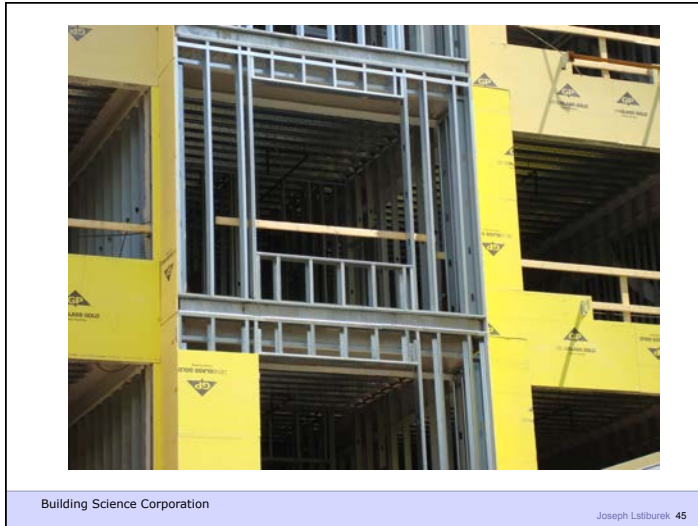
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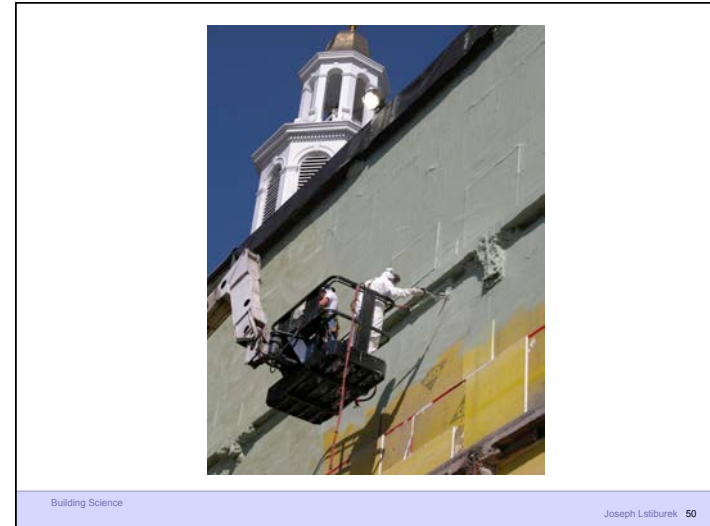


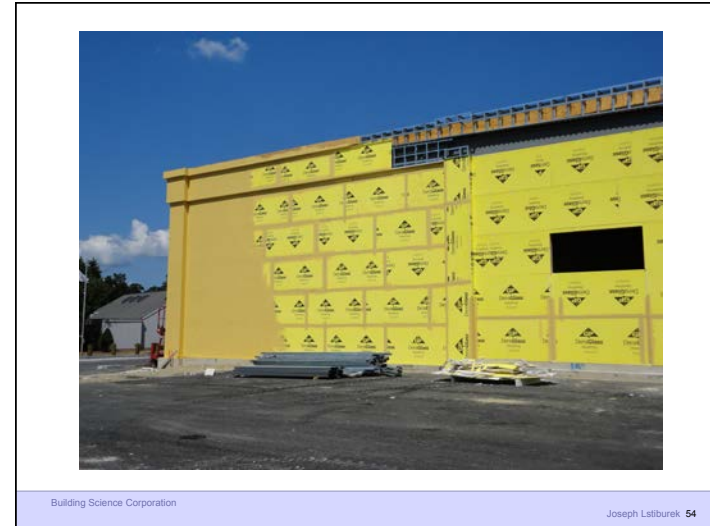




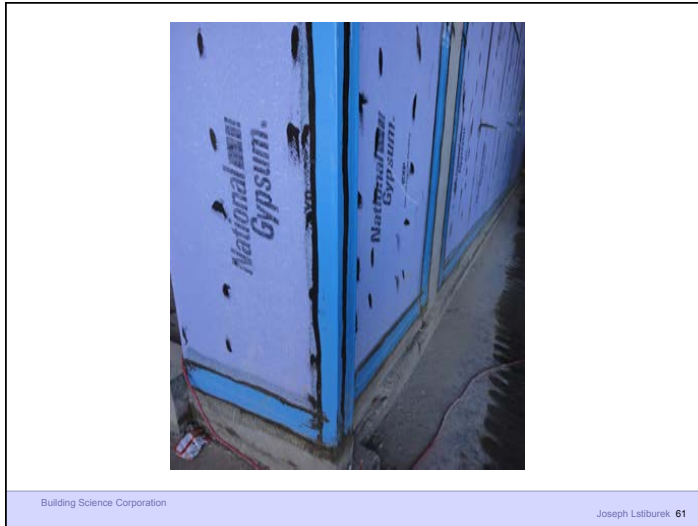






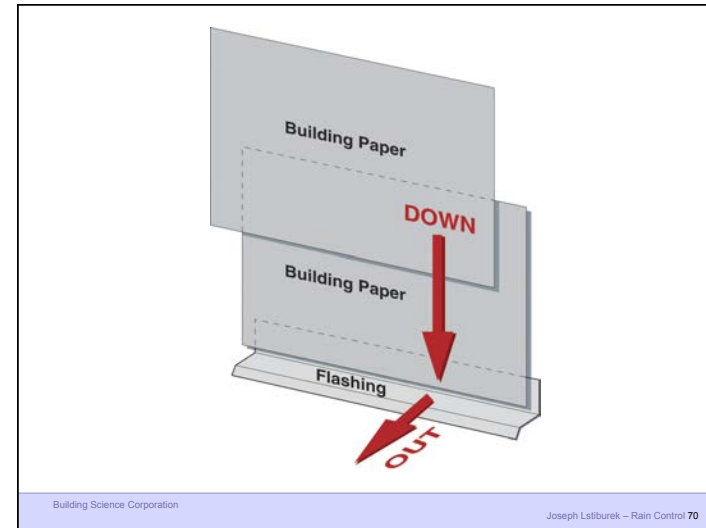
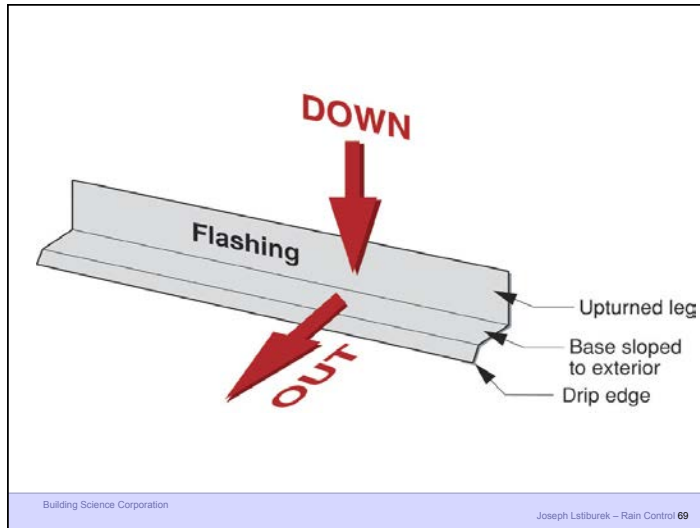


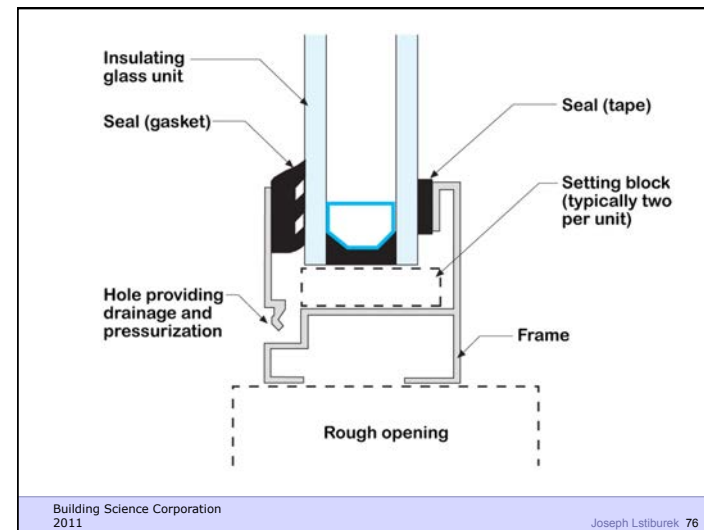
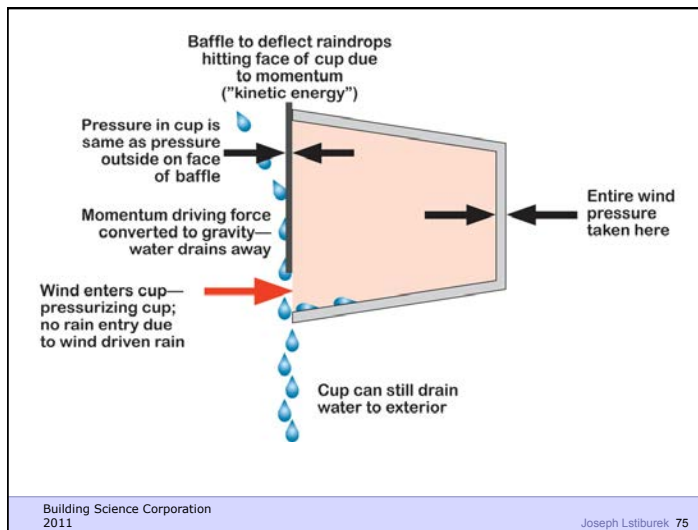
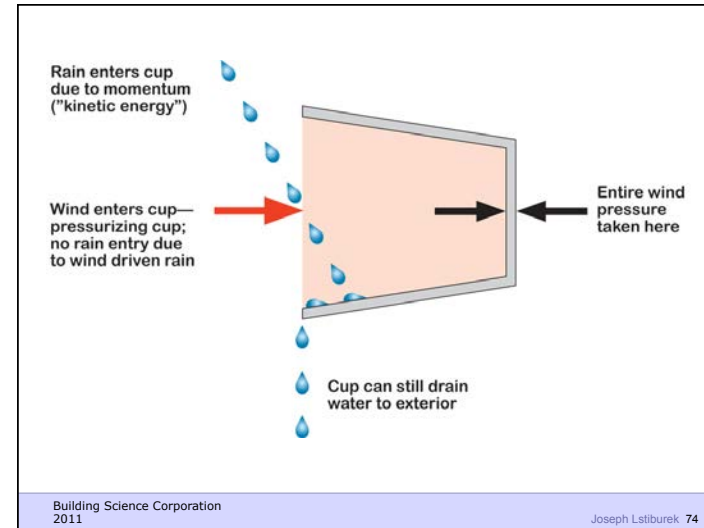
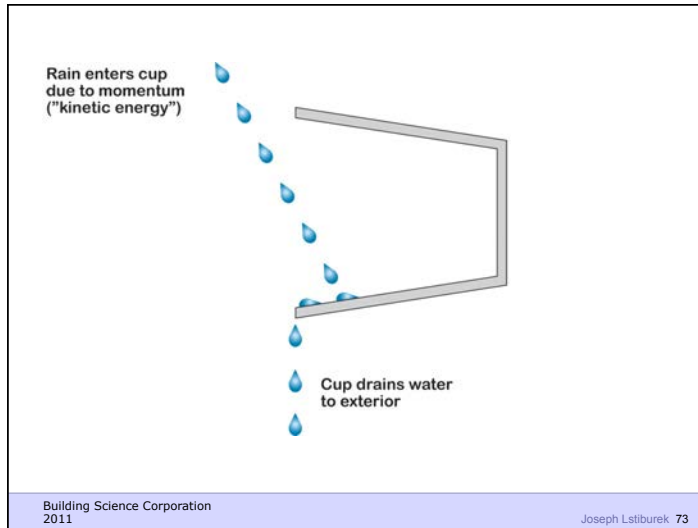


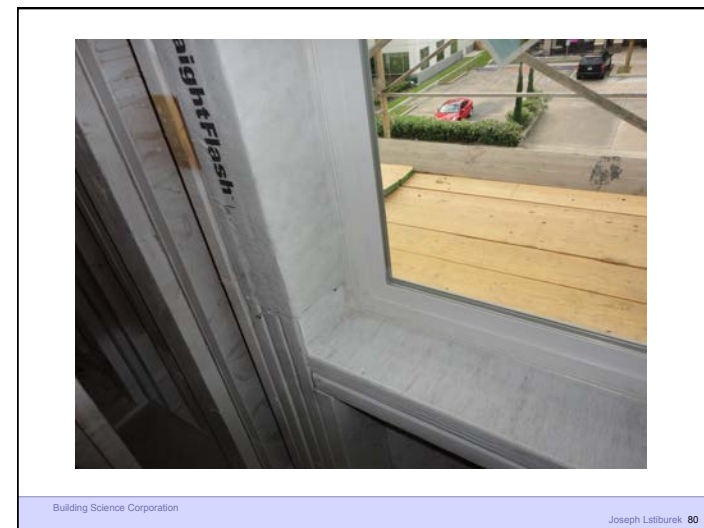
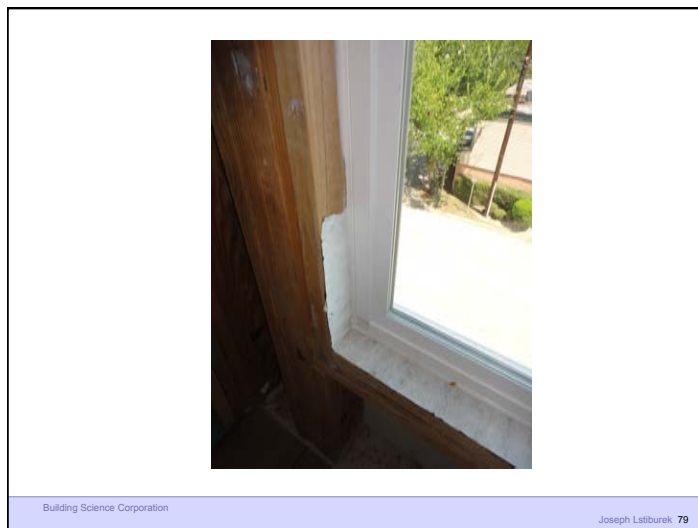
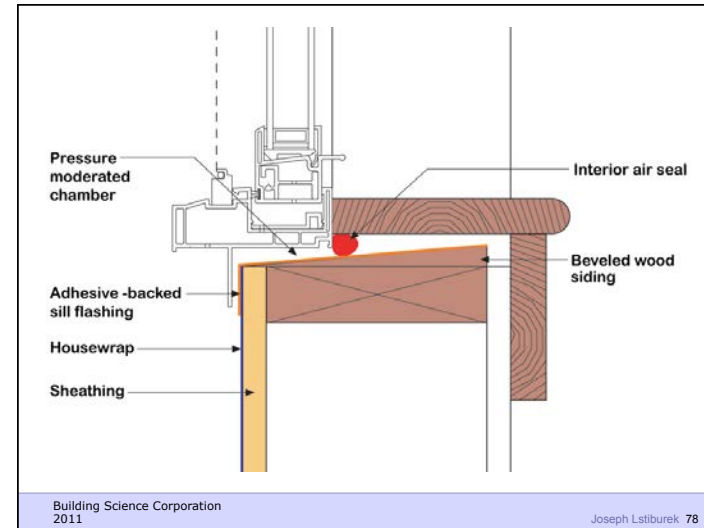
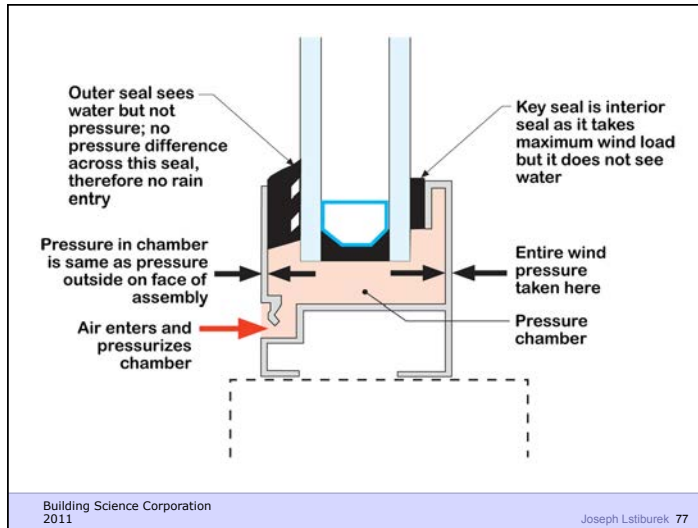


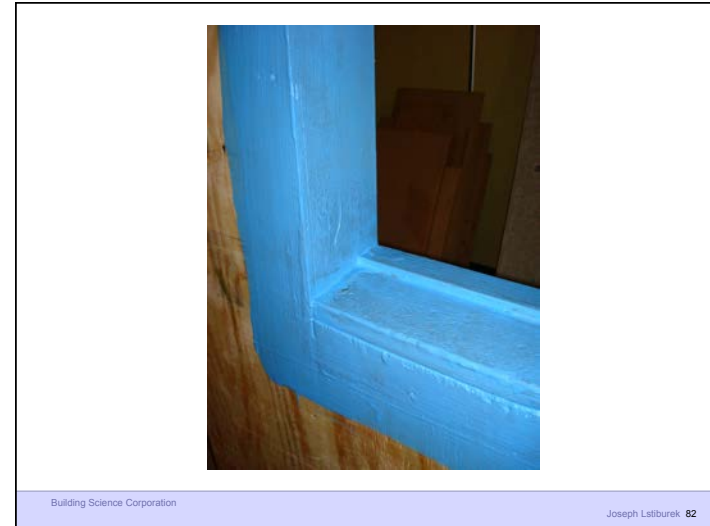


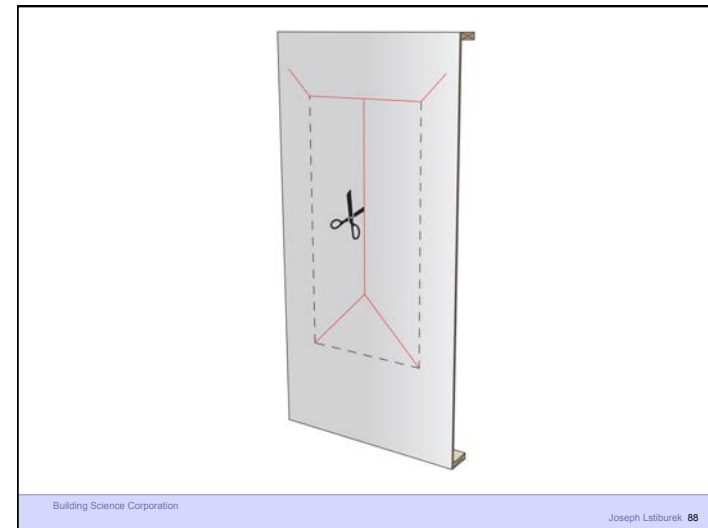
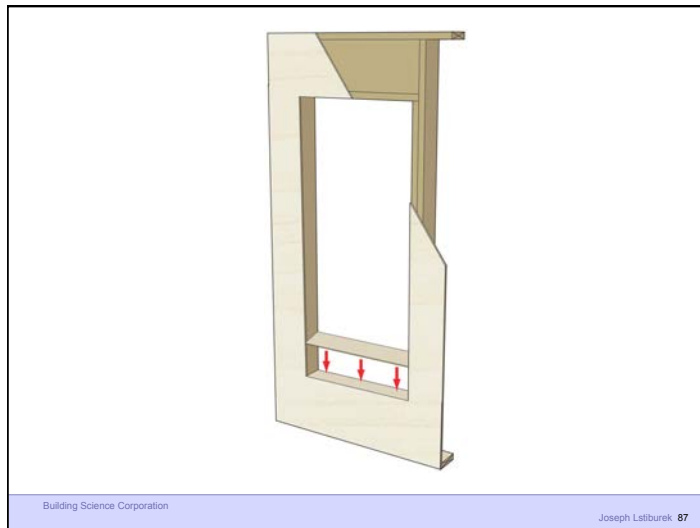
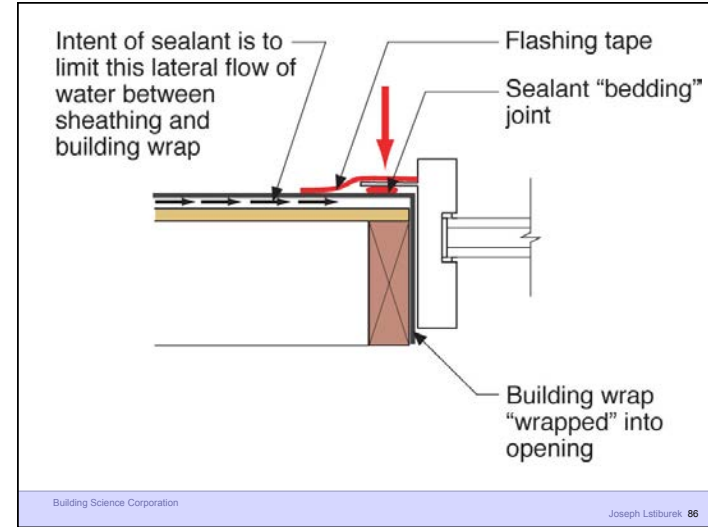
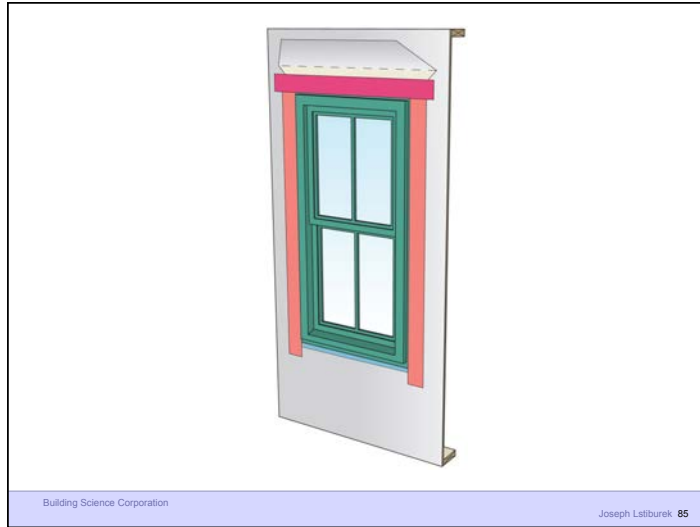


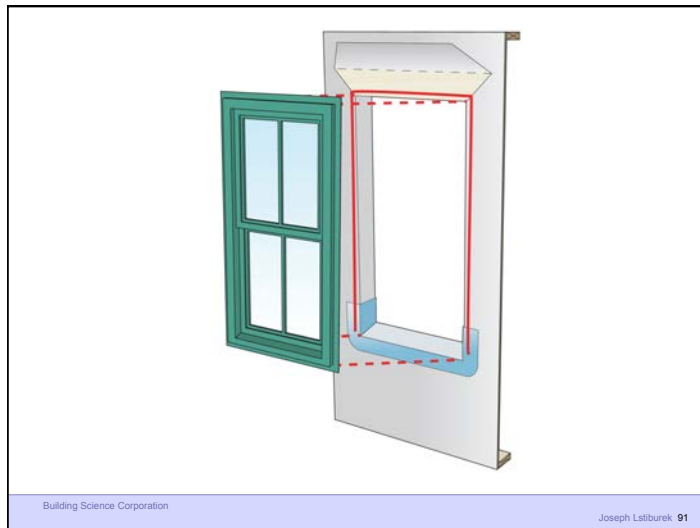
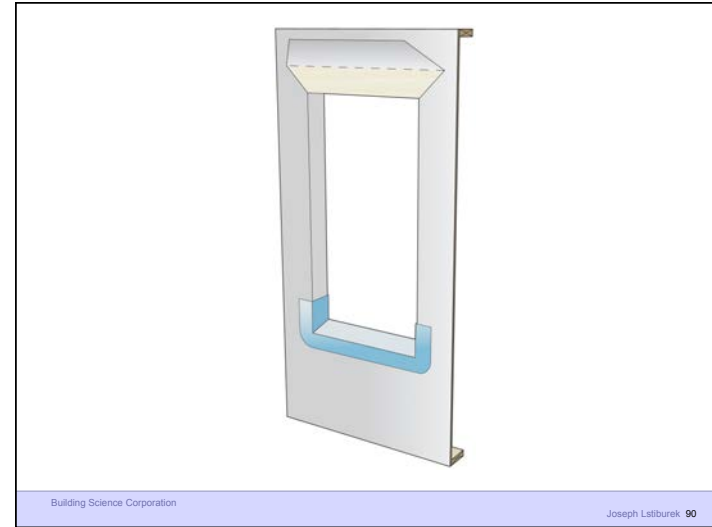
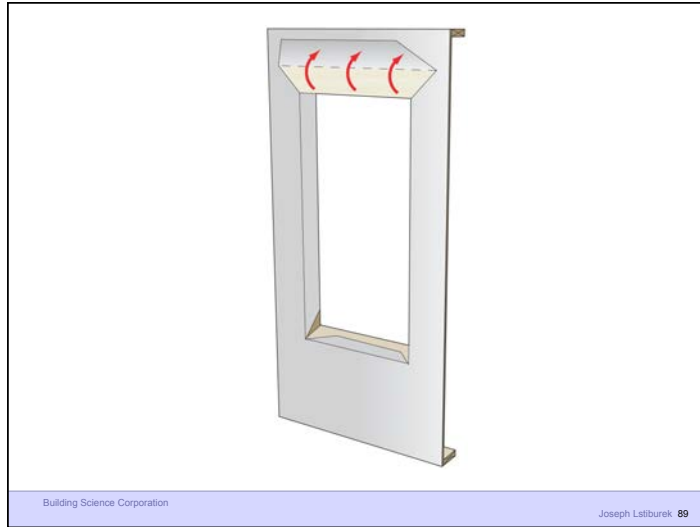






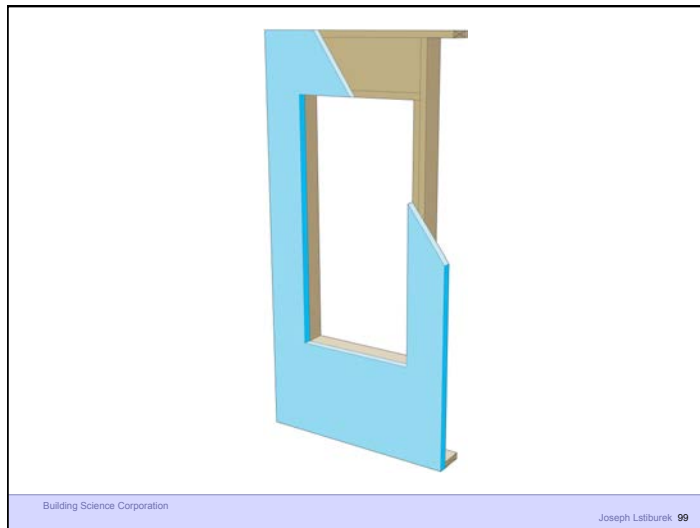


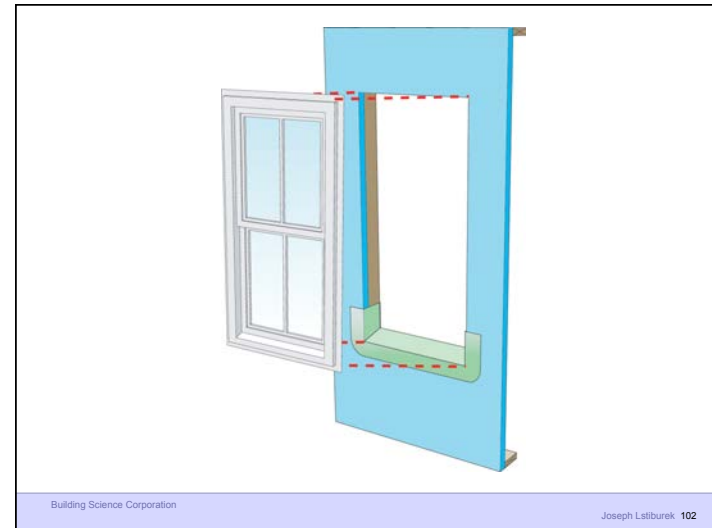
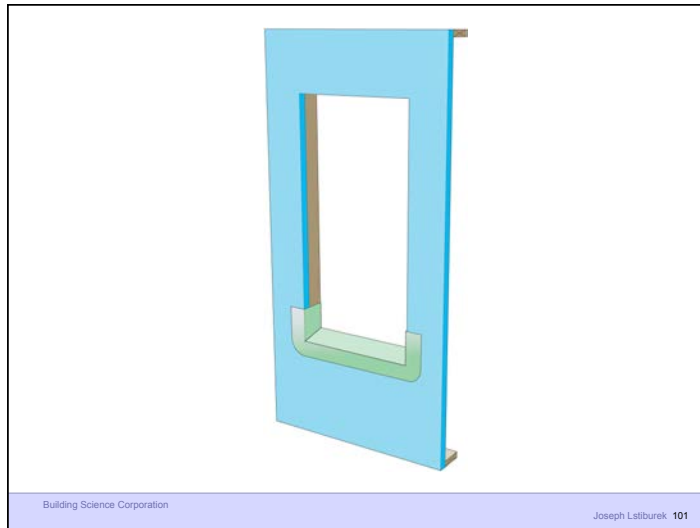


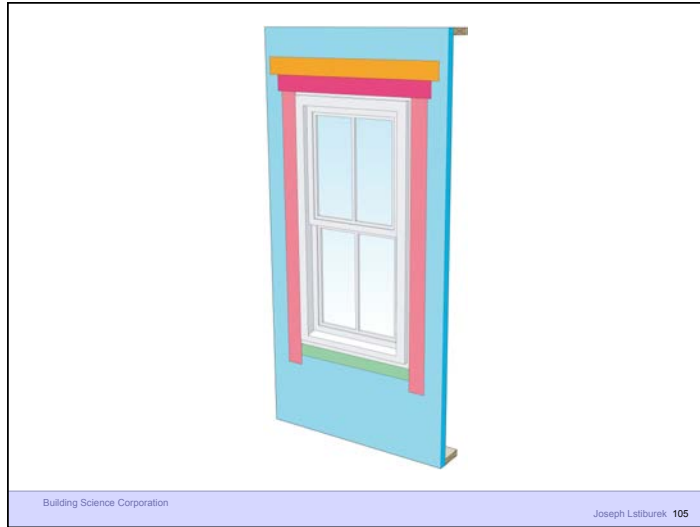


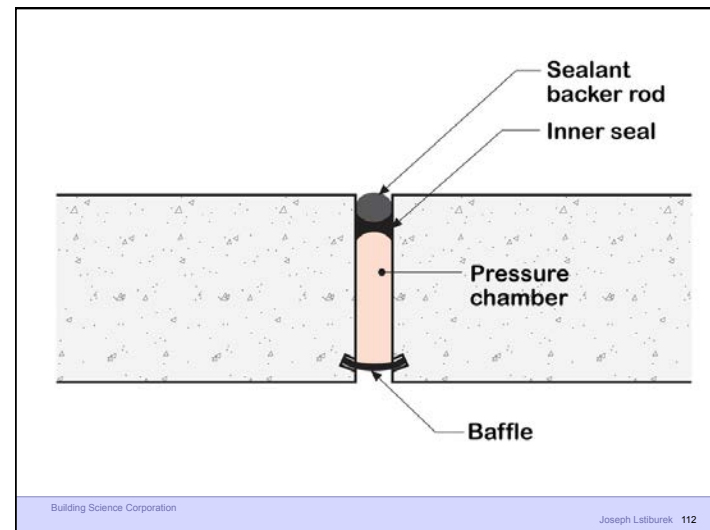
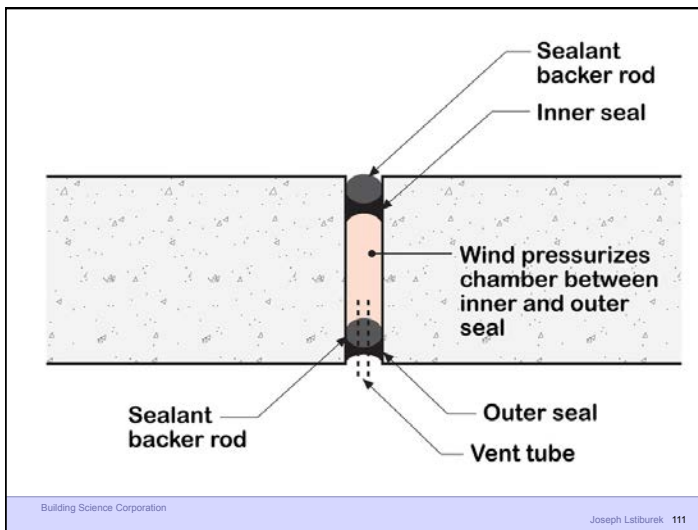
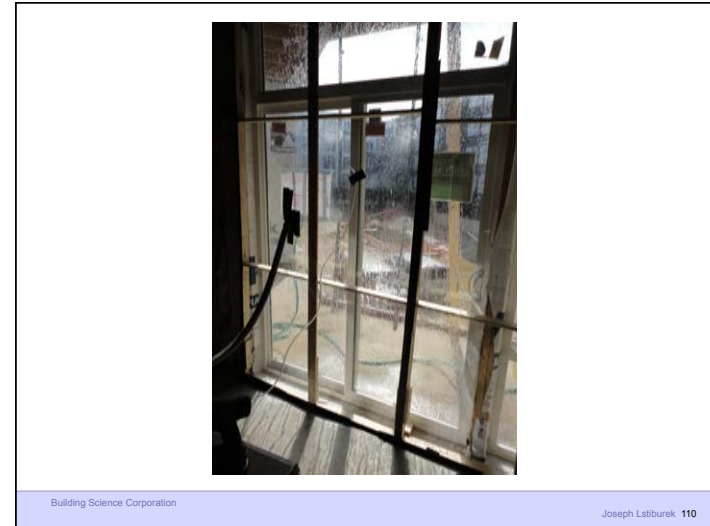


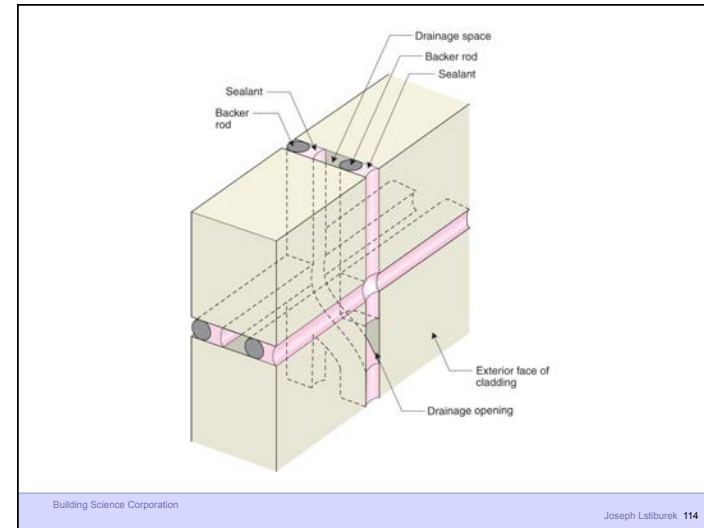
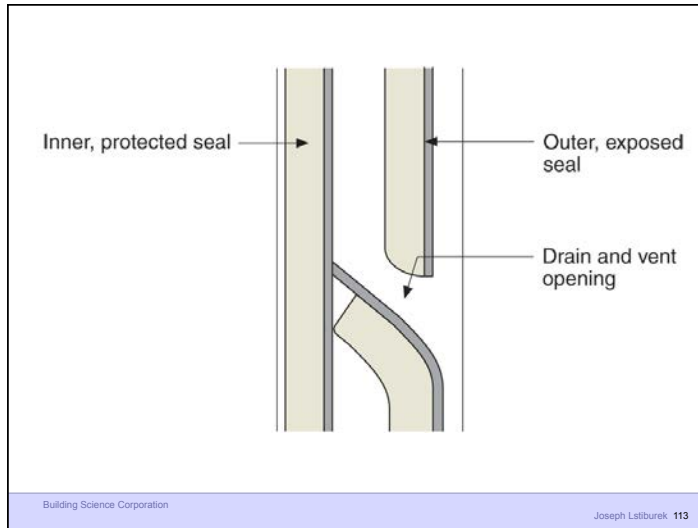


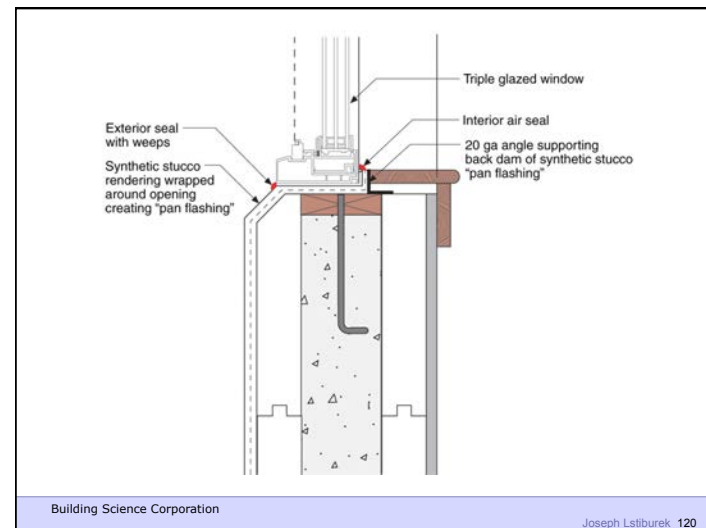


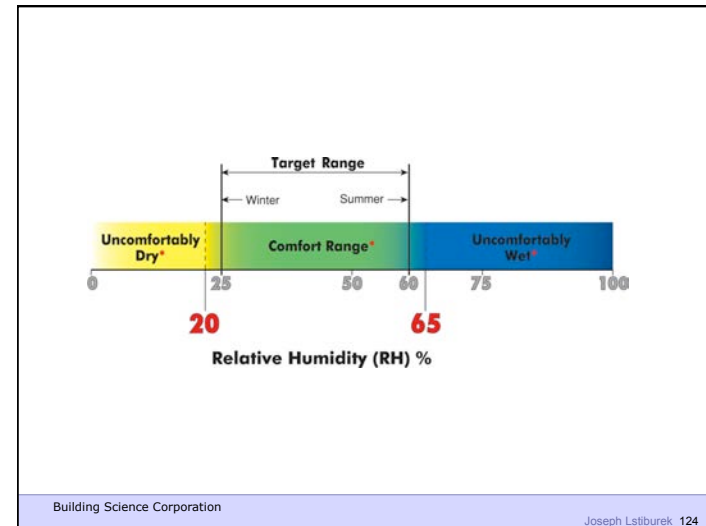
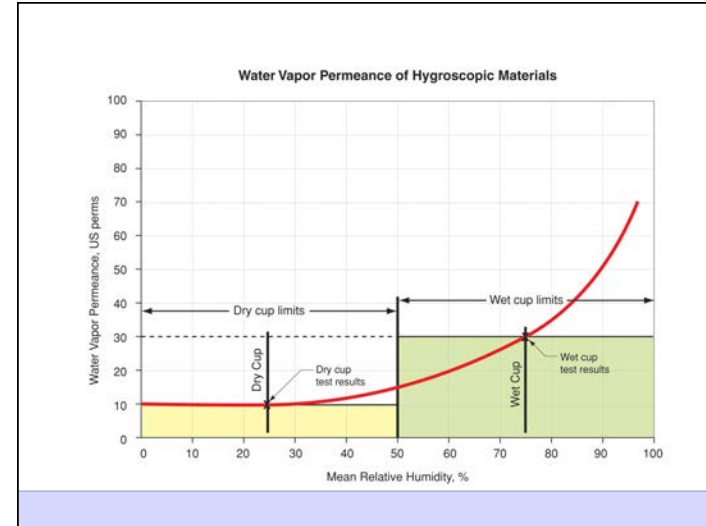
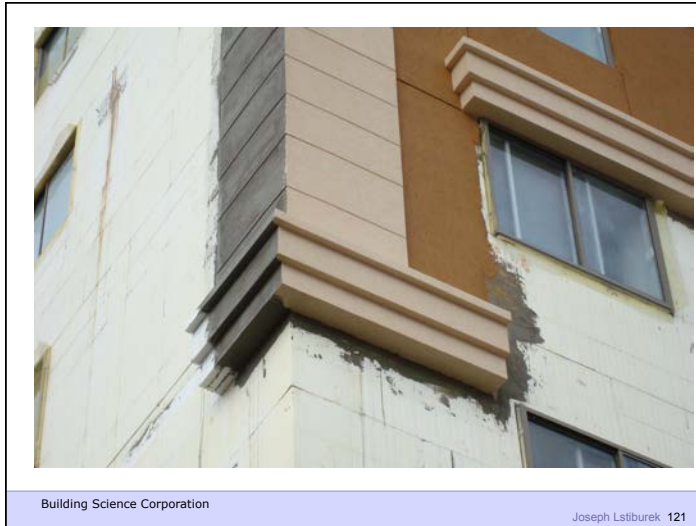


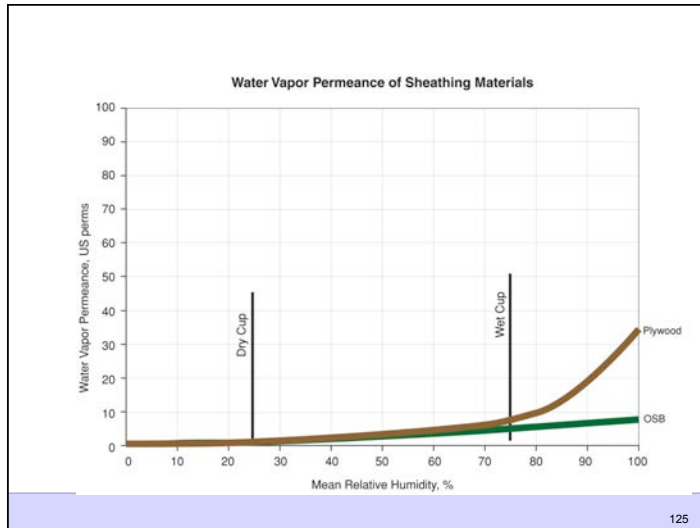




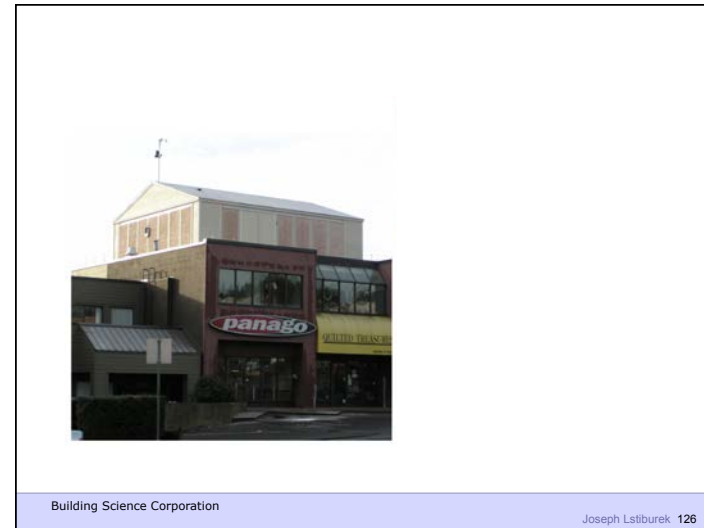






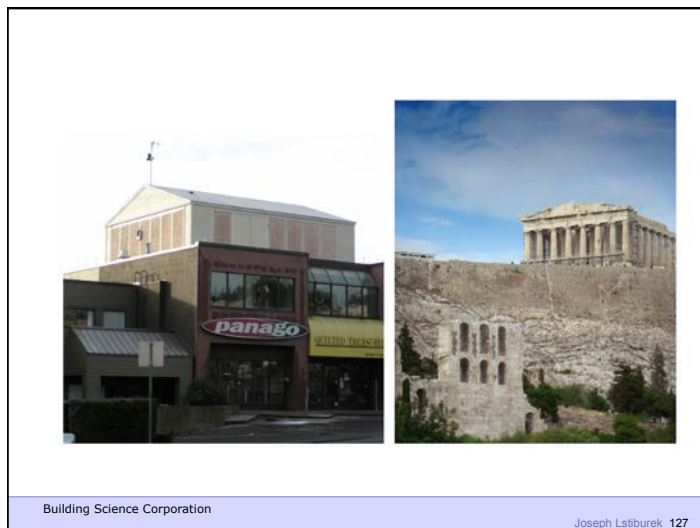


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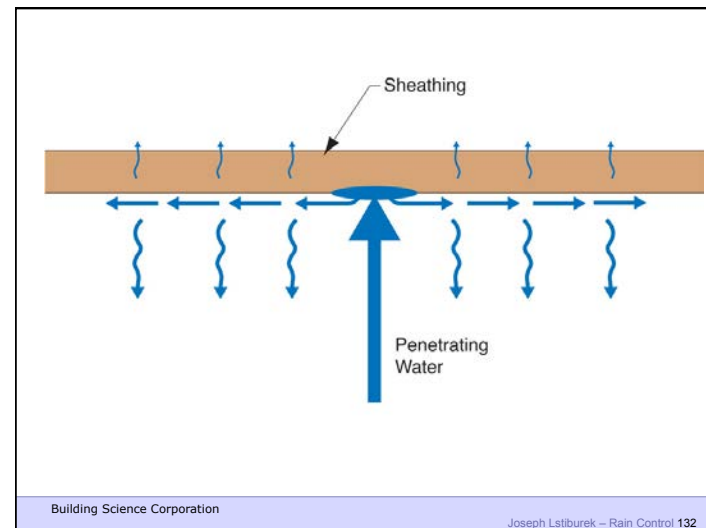
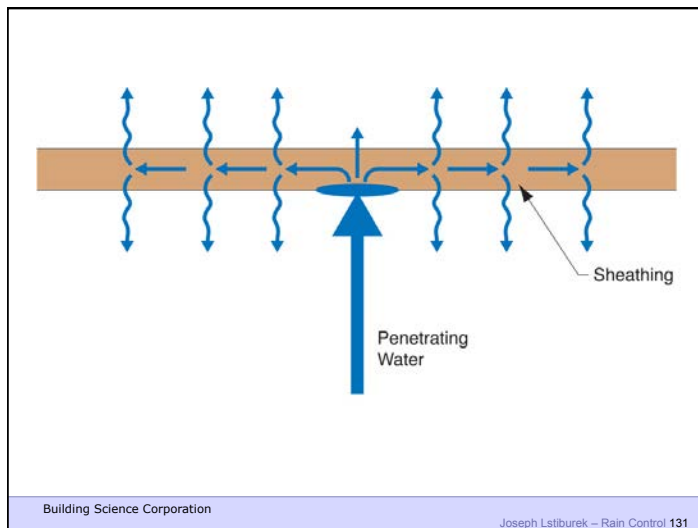
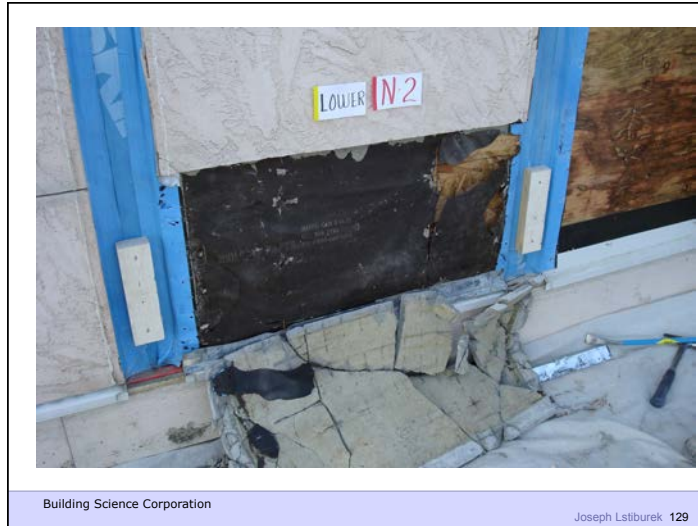
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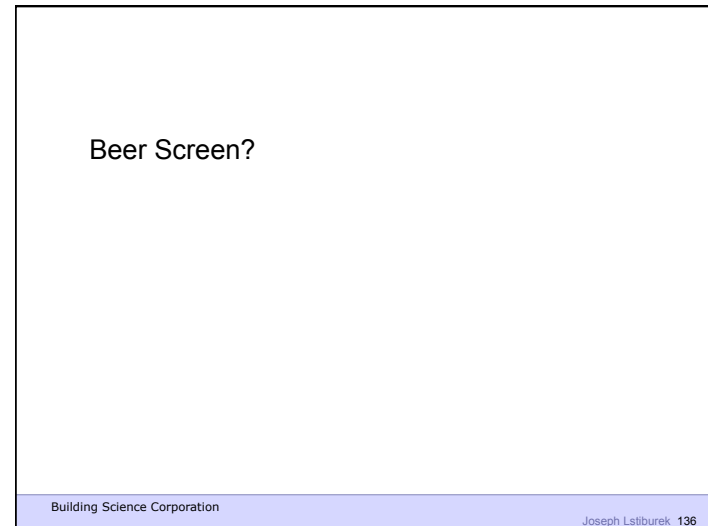
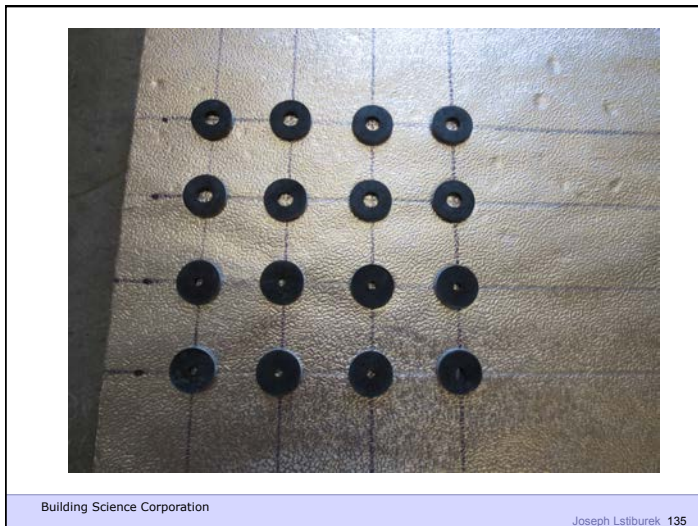
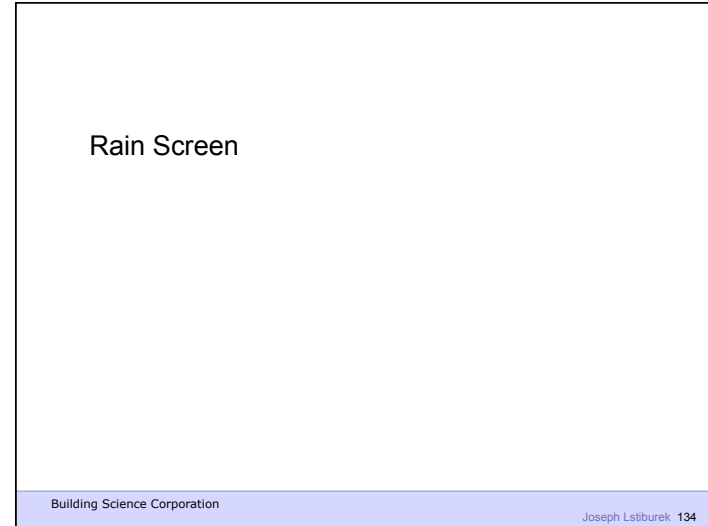


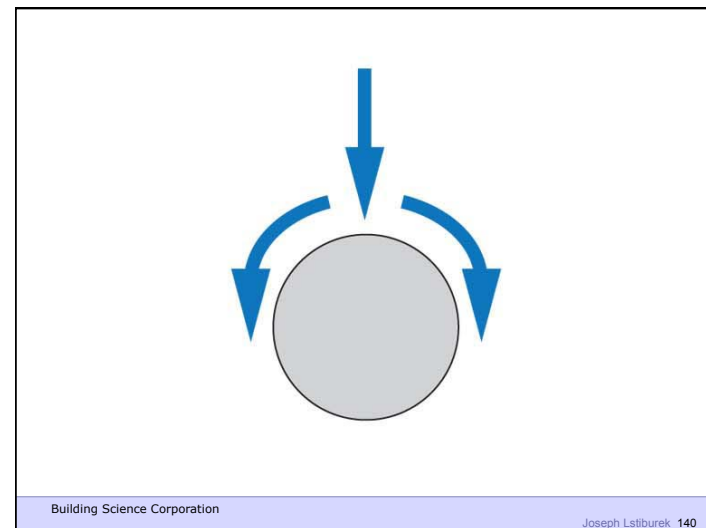
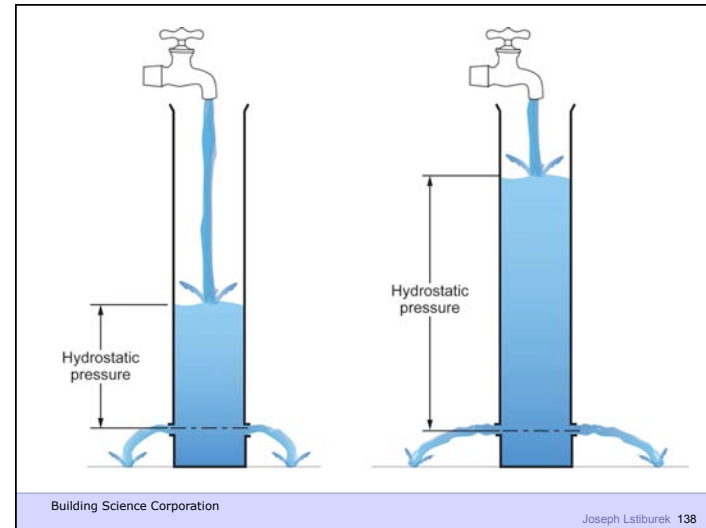
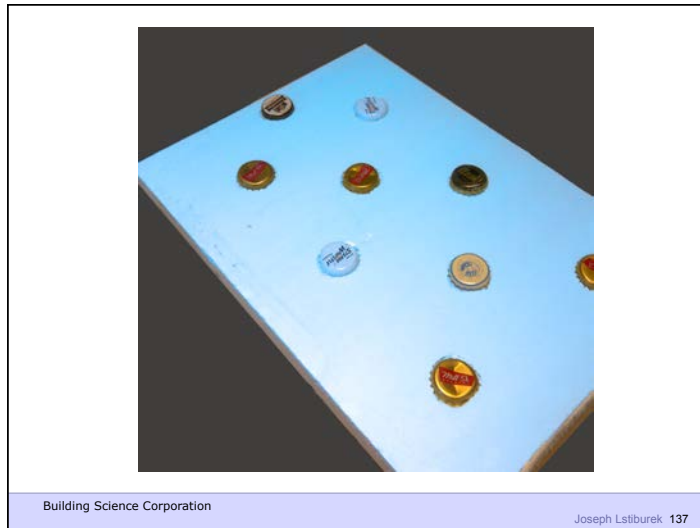
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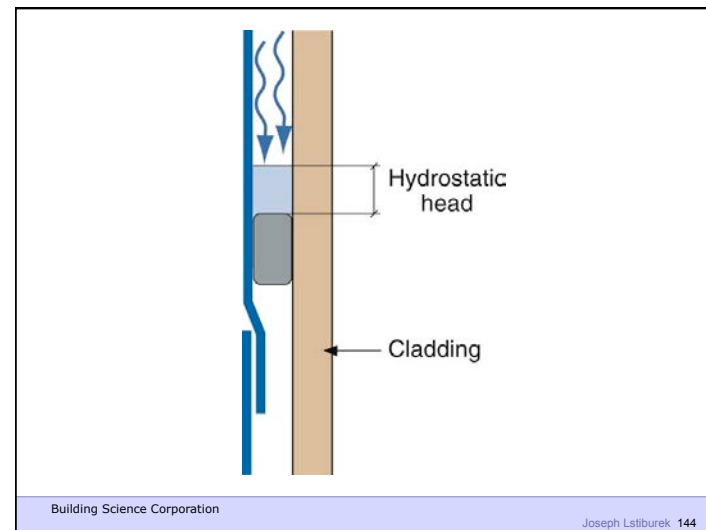
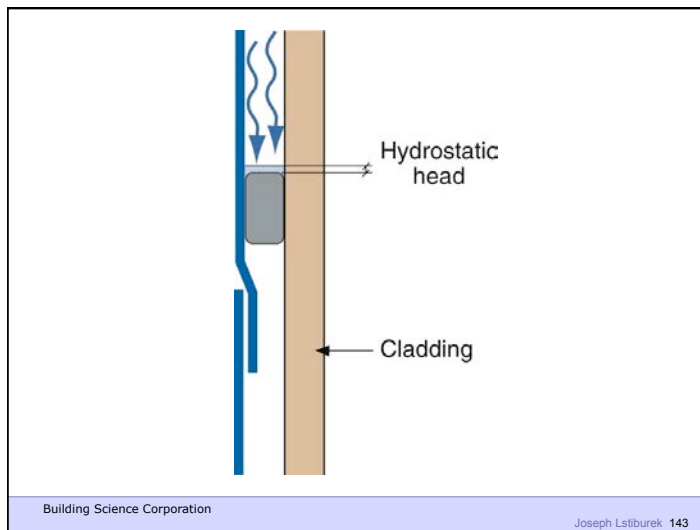
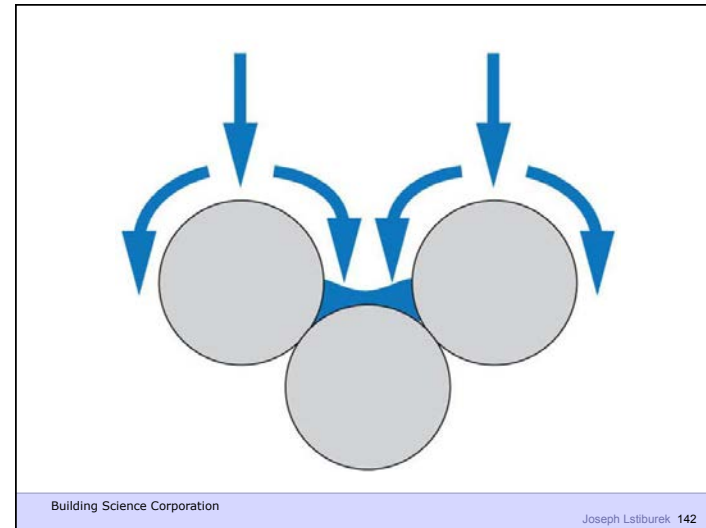
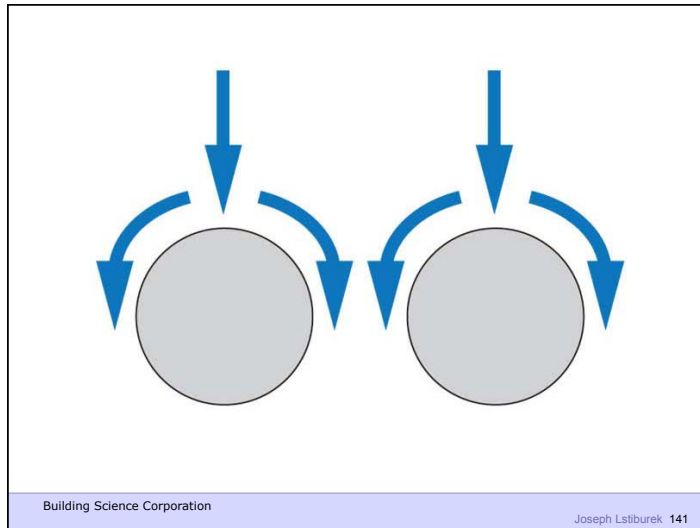
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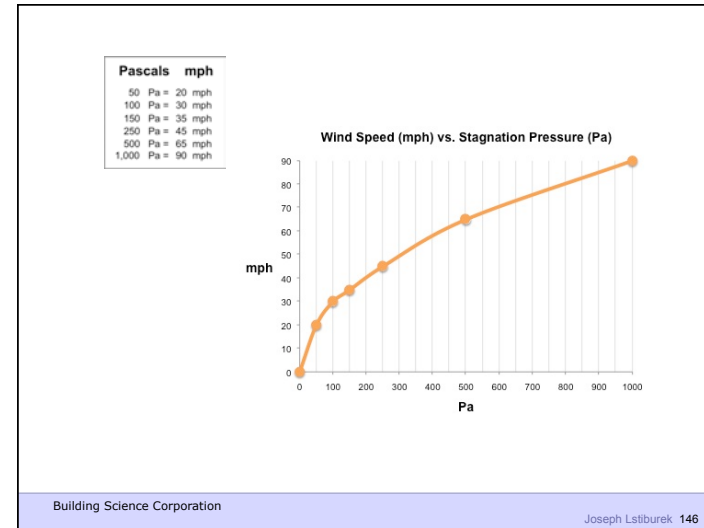
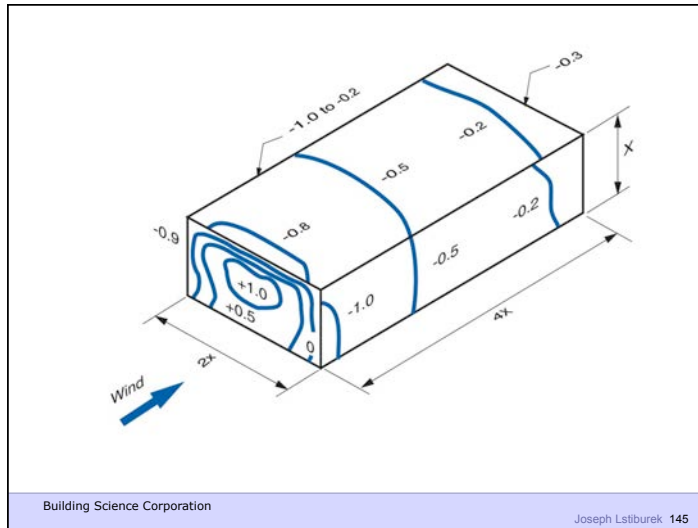


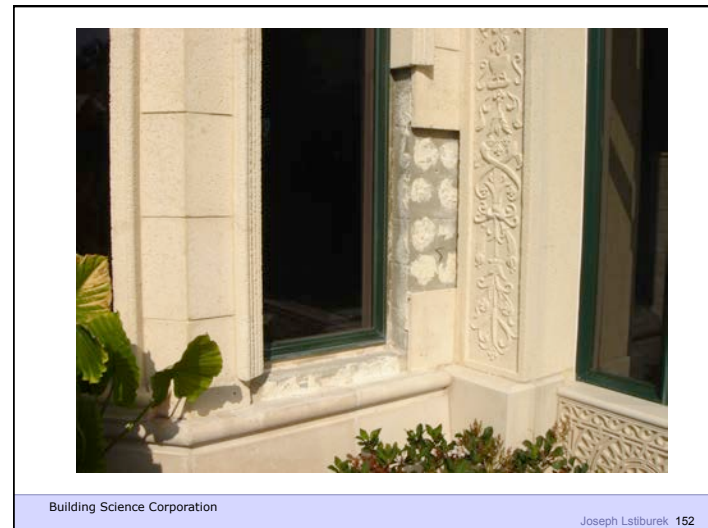
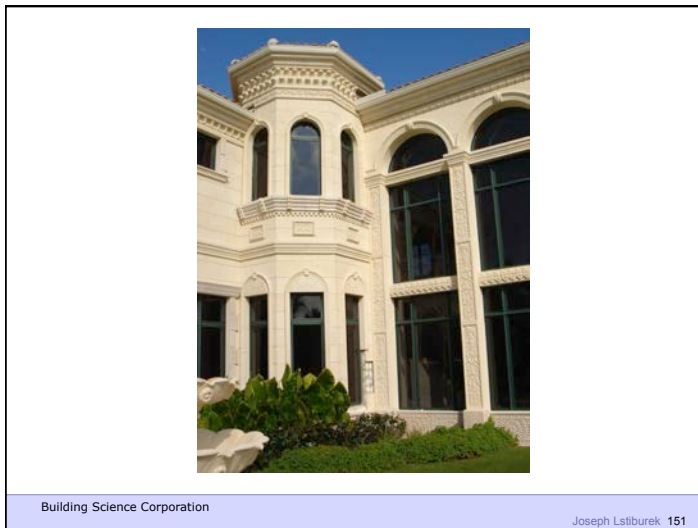


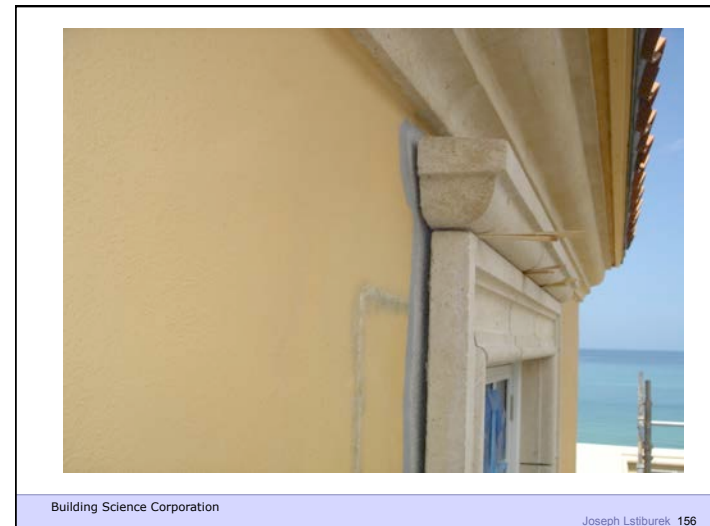
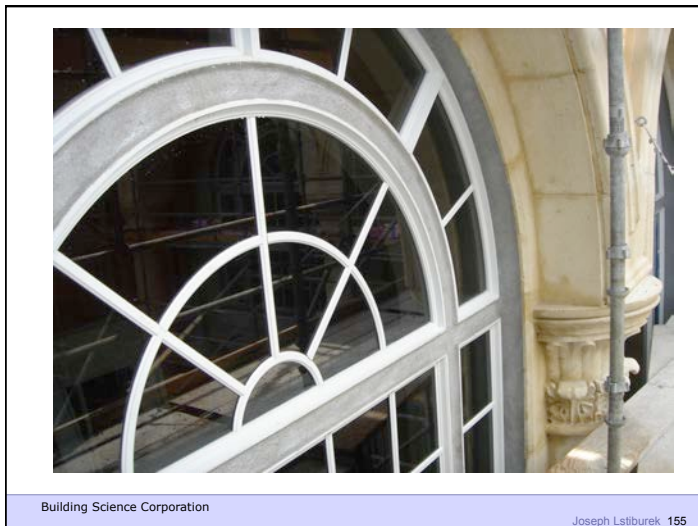
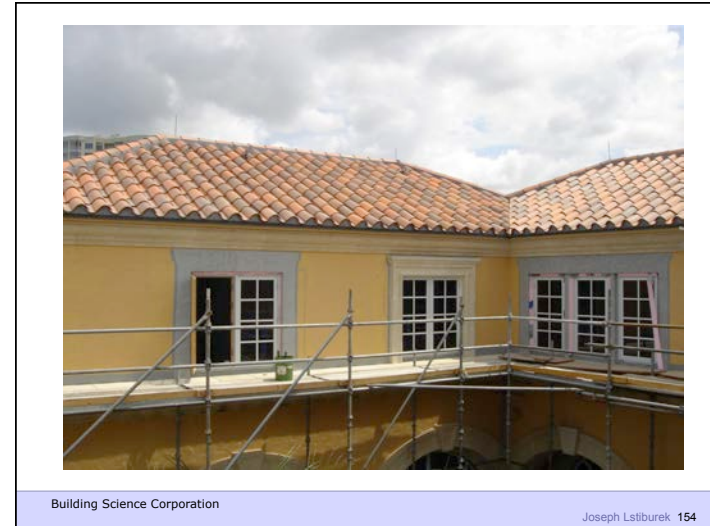


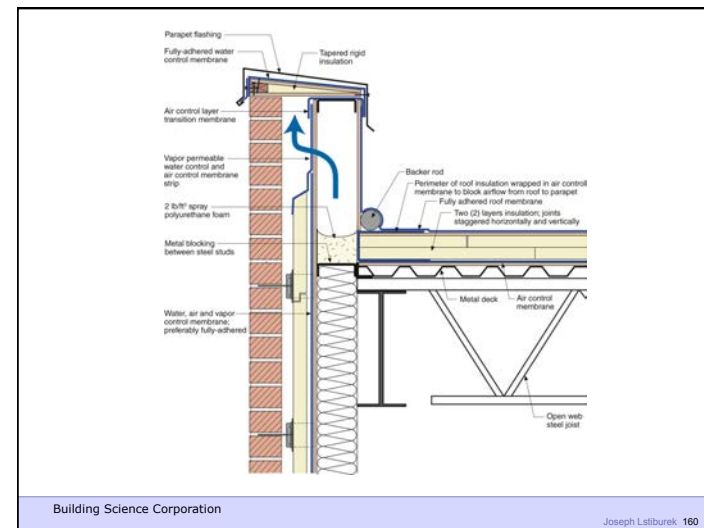
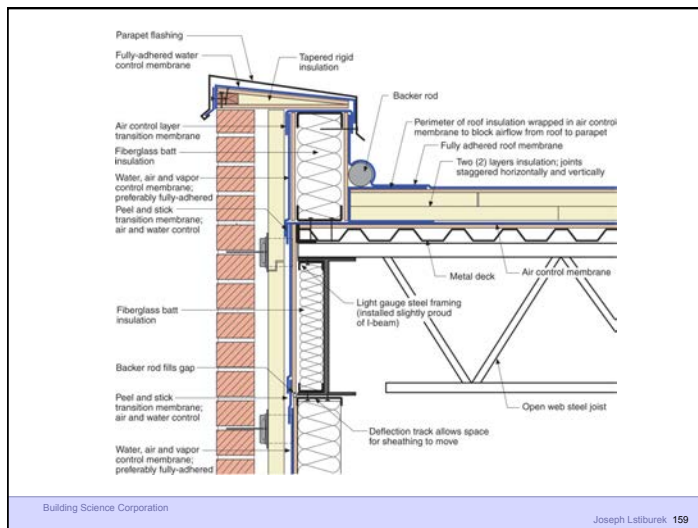
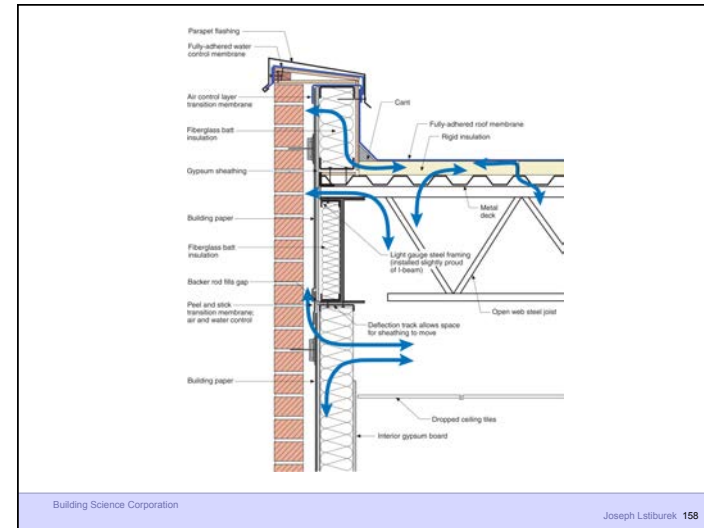
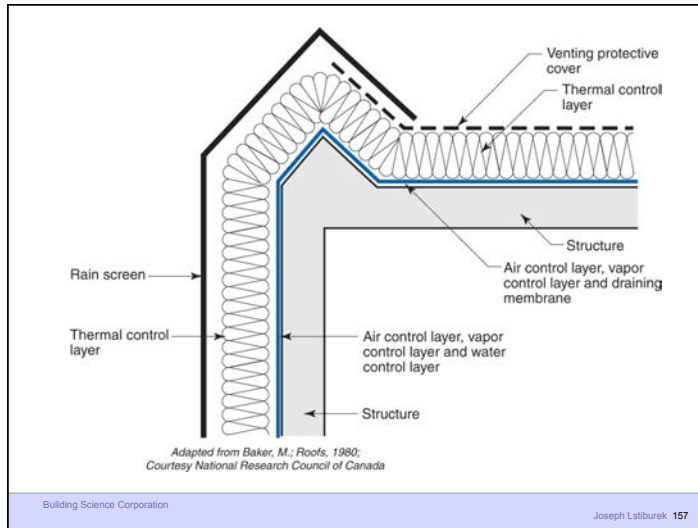




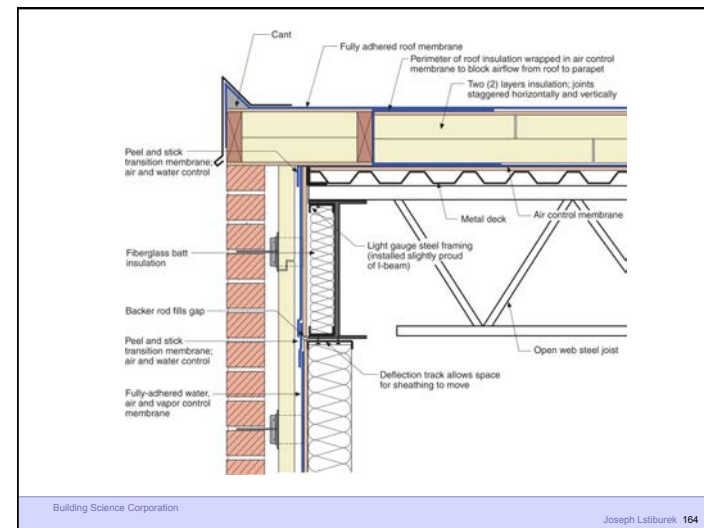
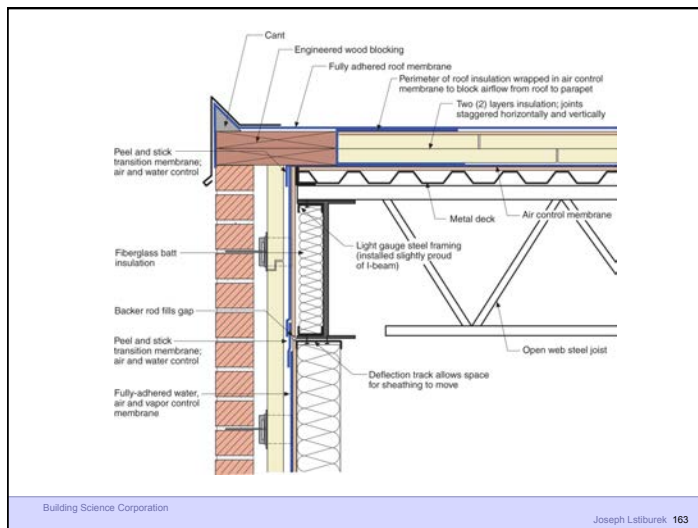
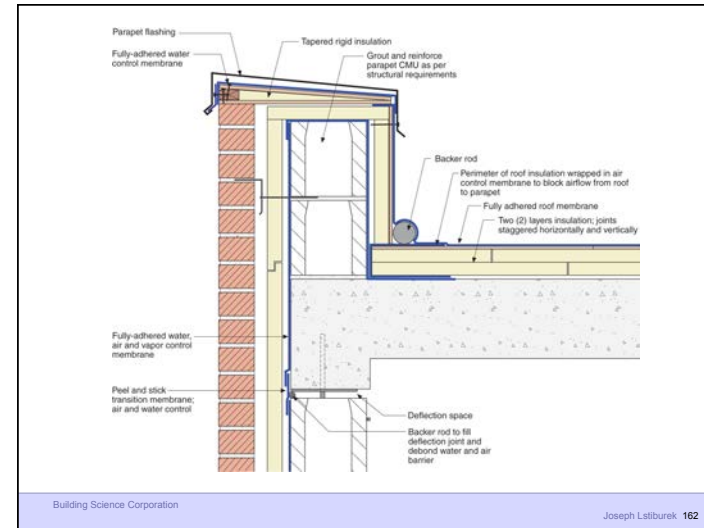
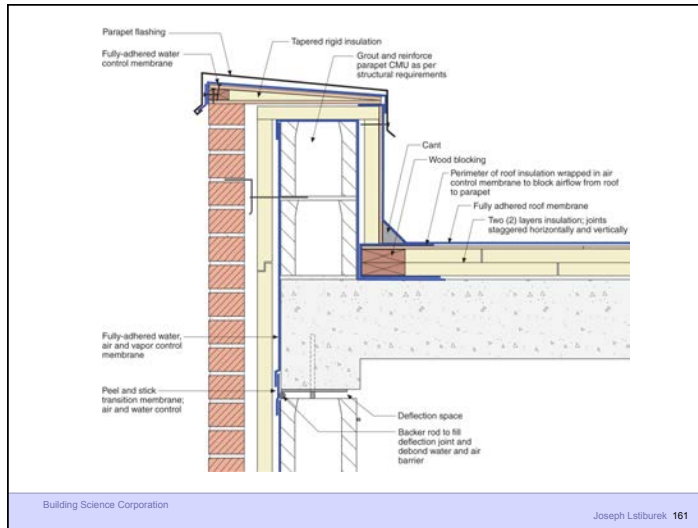


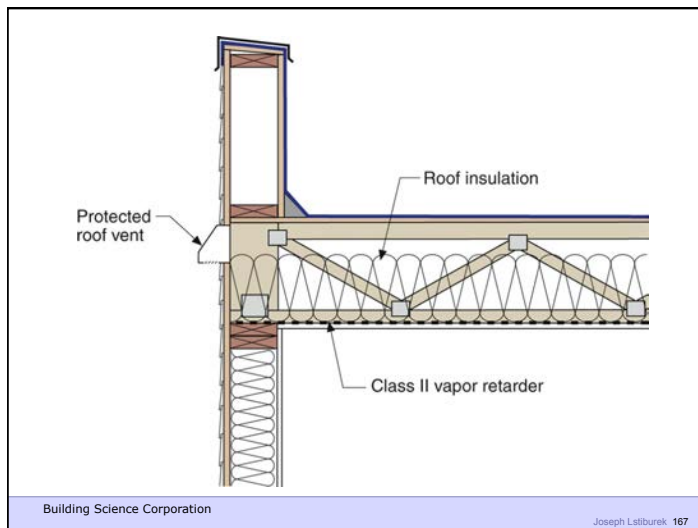
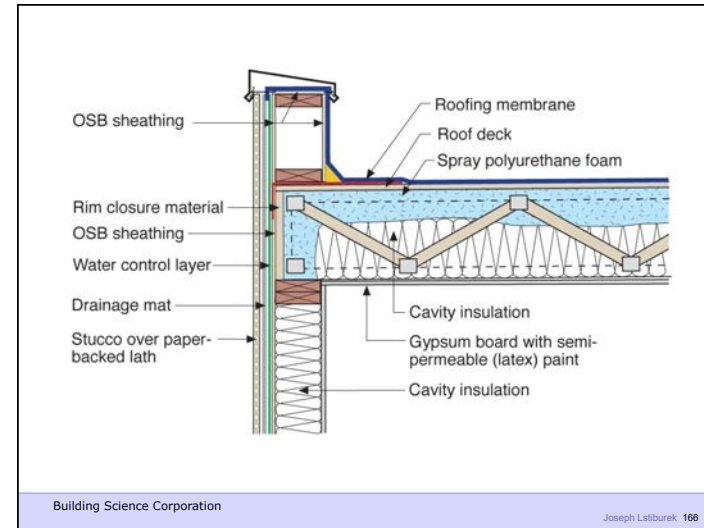
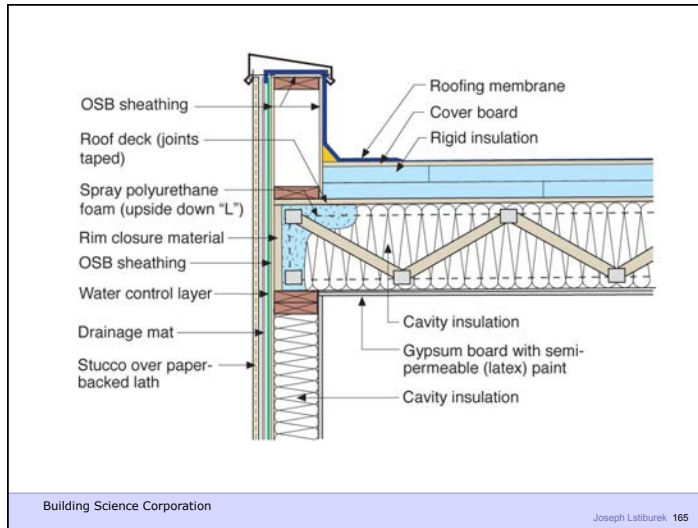


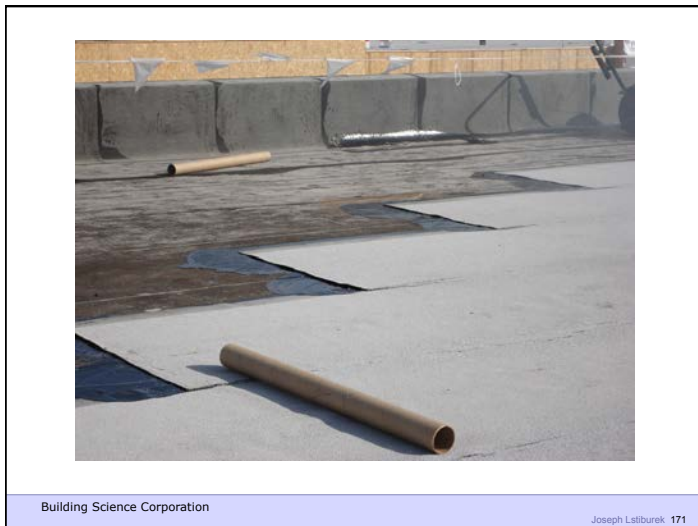
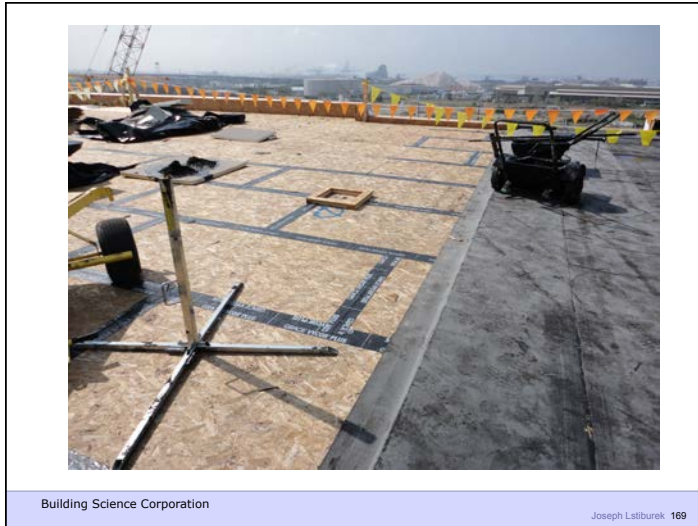


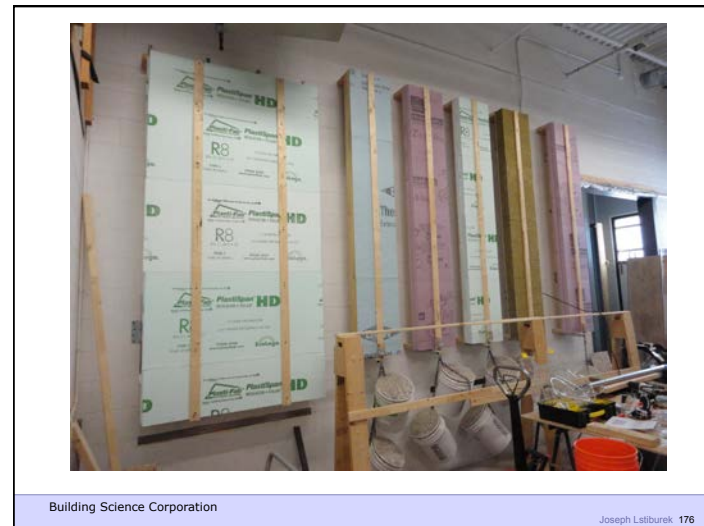
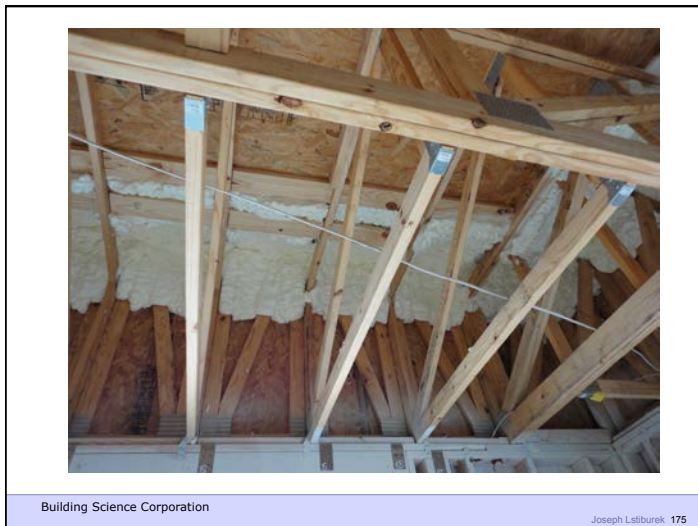
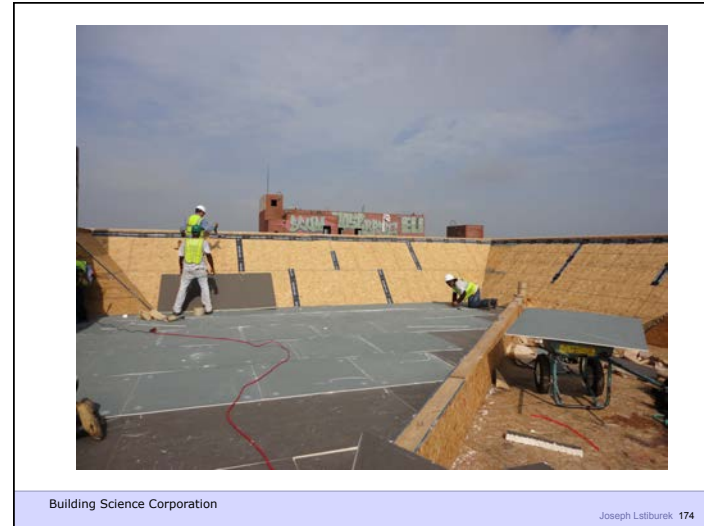


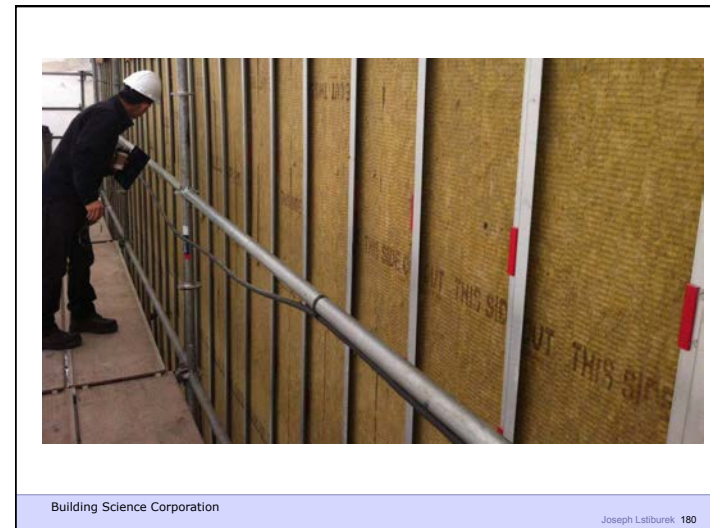
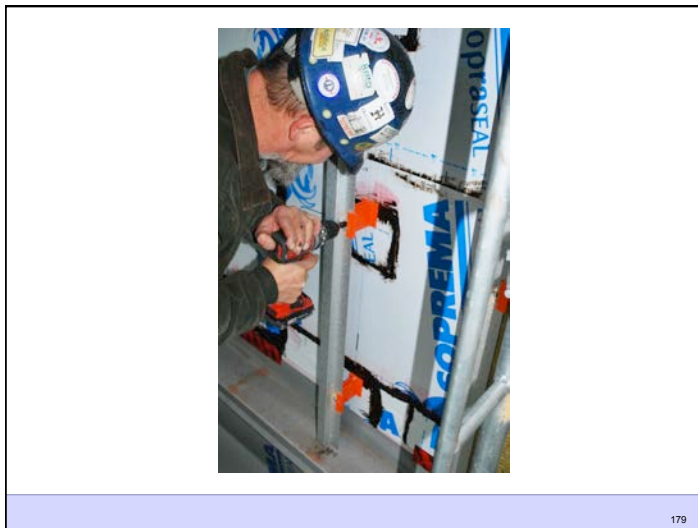
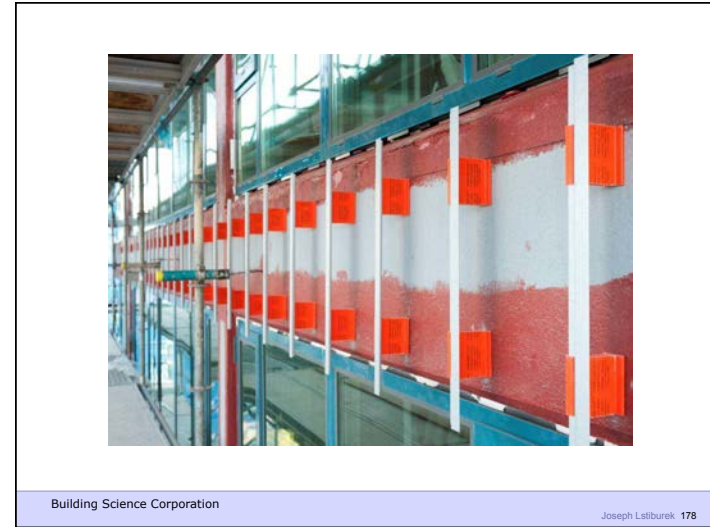
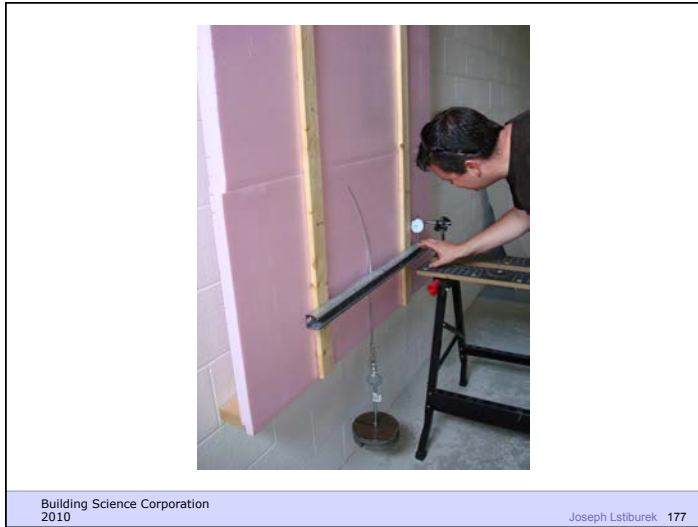


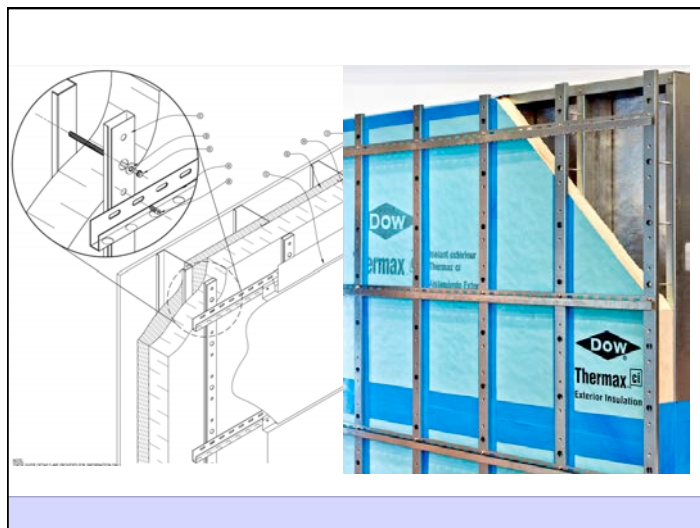
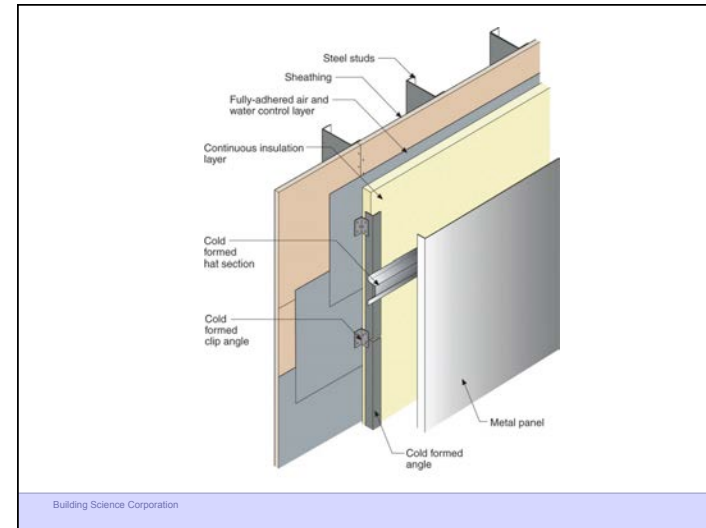
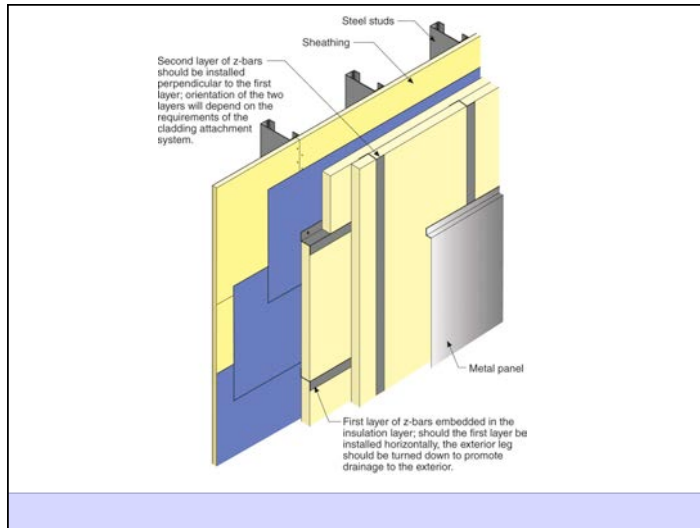












Life is Tough Enough As it Is...

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

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Don't Do Stupid Things

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