

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

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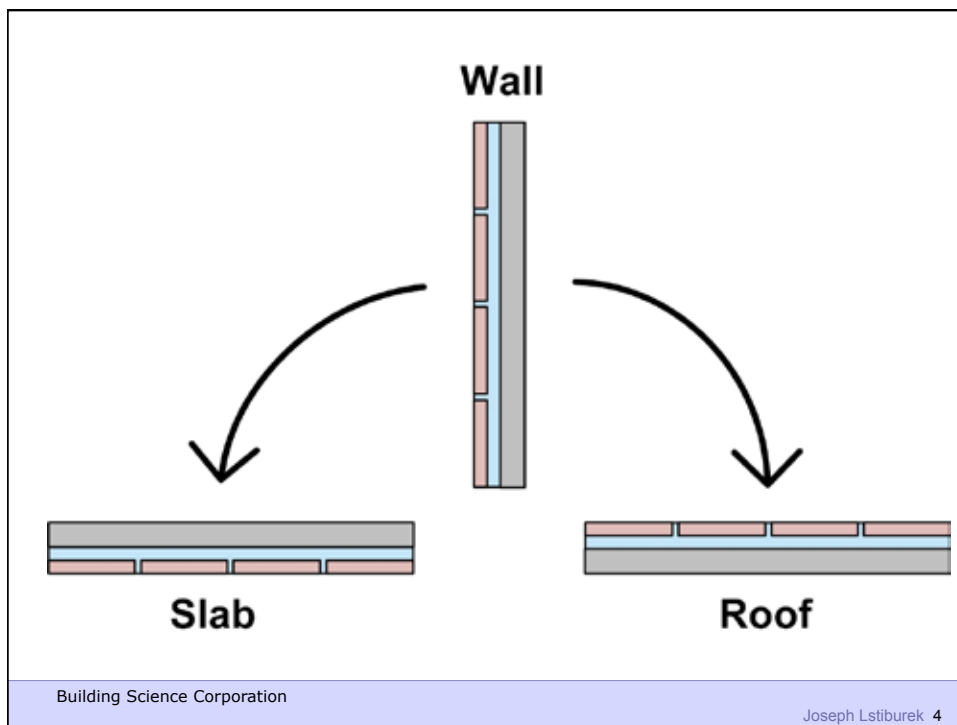
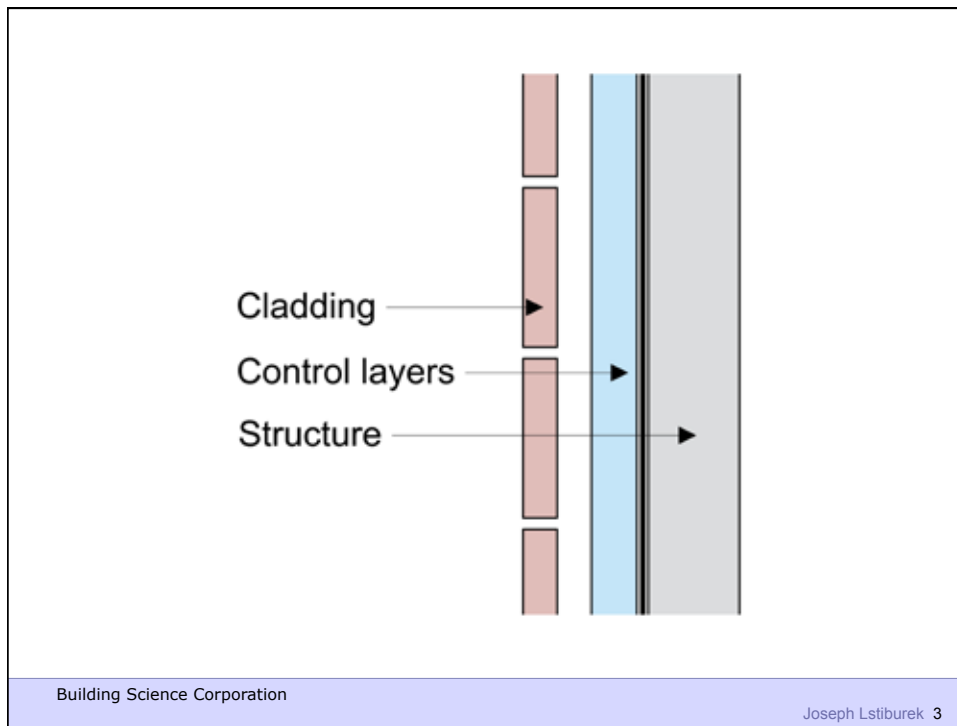
Roofs

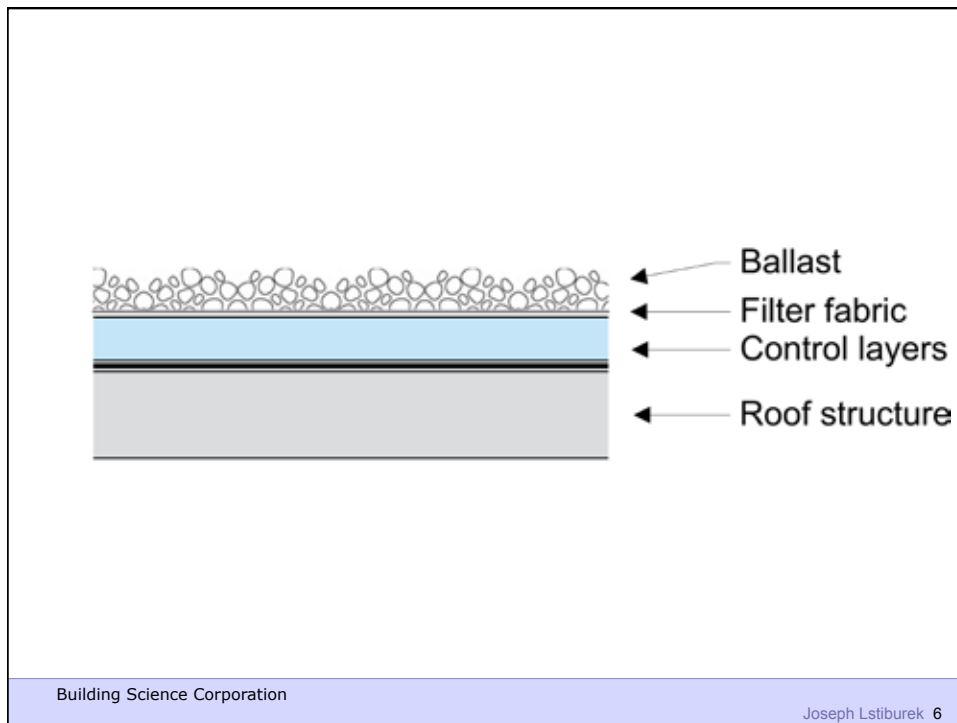
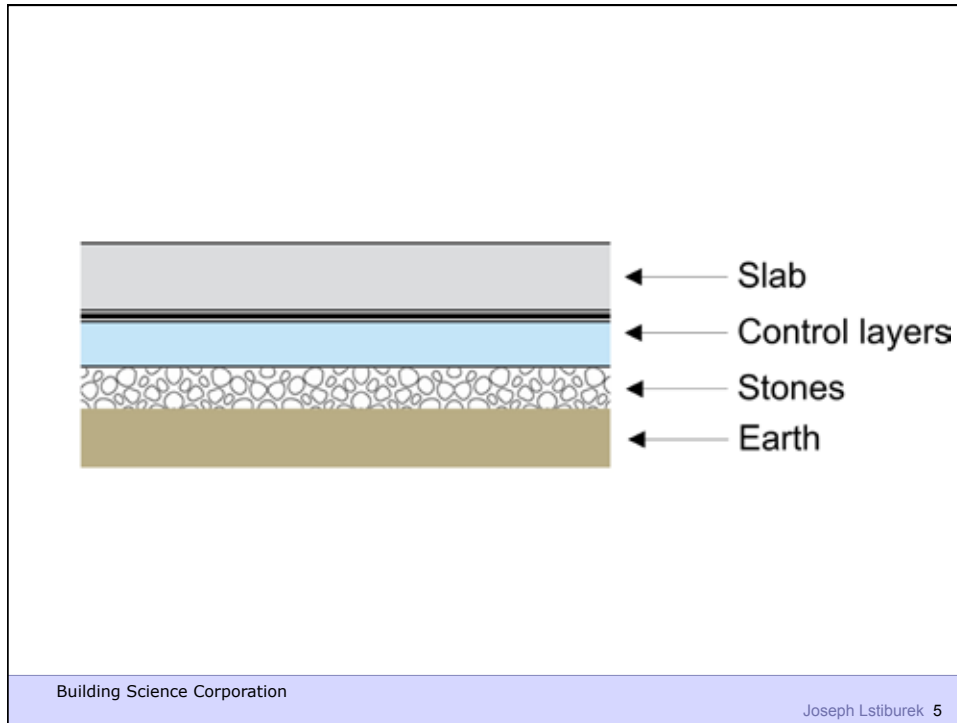
presented by www.buildingscience.com

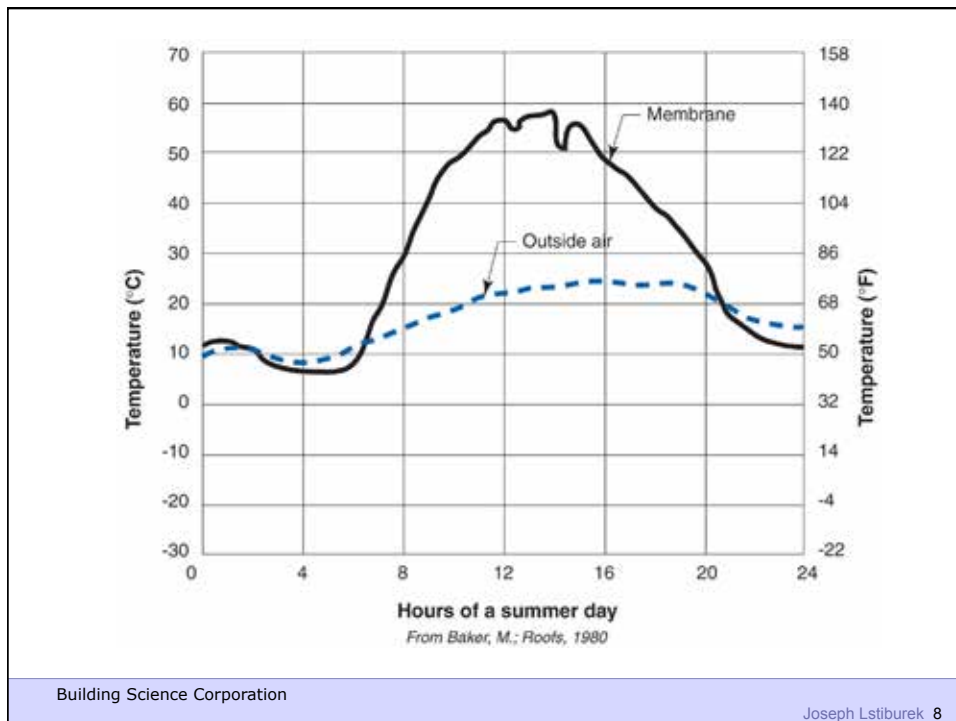
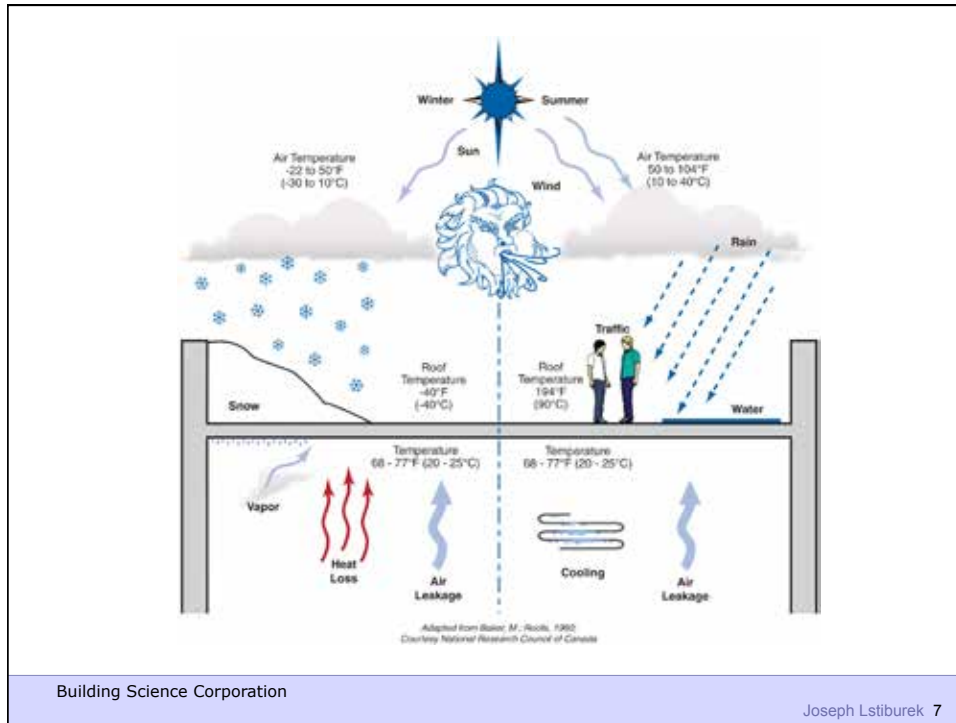
Water Control Layer
Air Control Layer
Vapor Control Layer
Thermal Control Layer

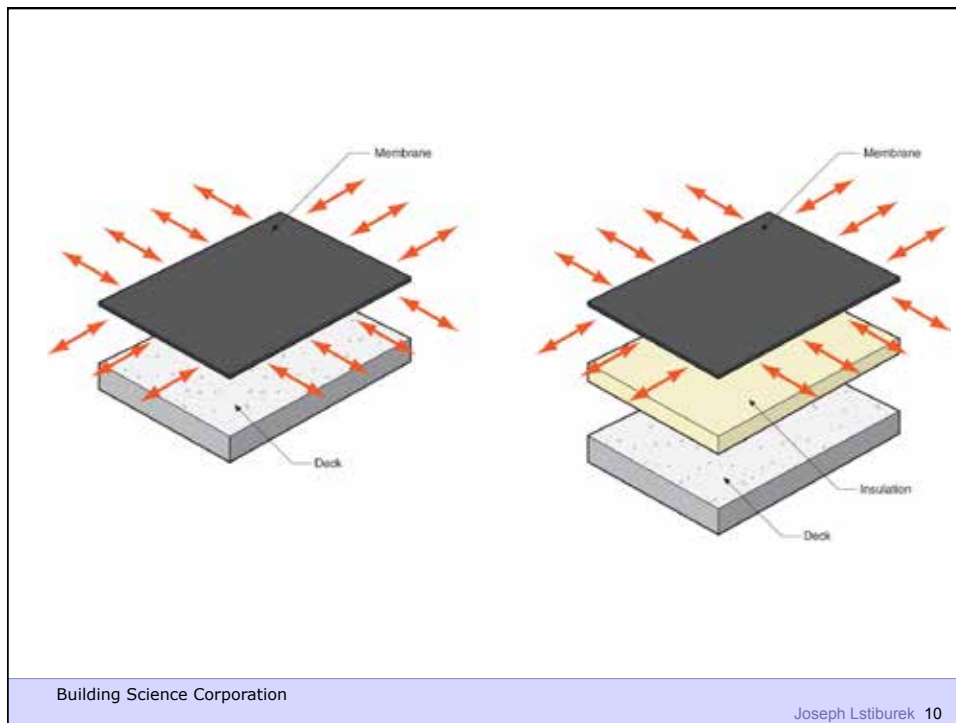
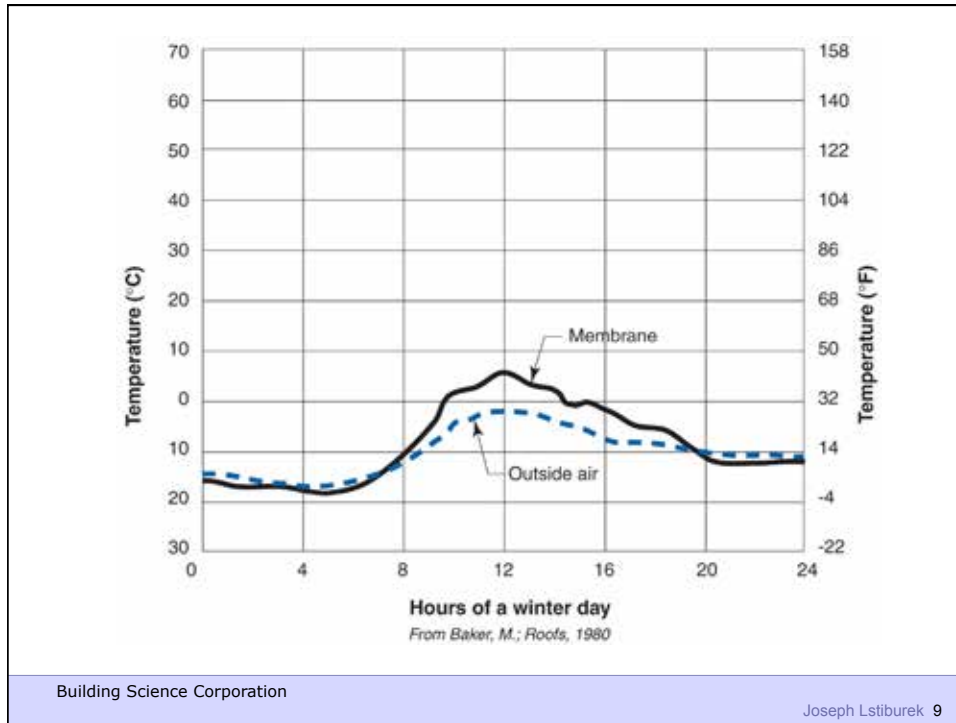
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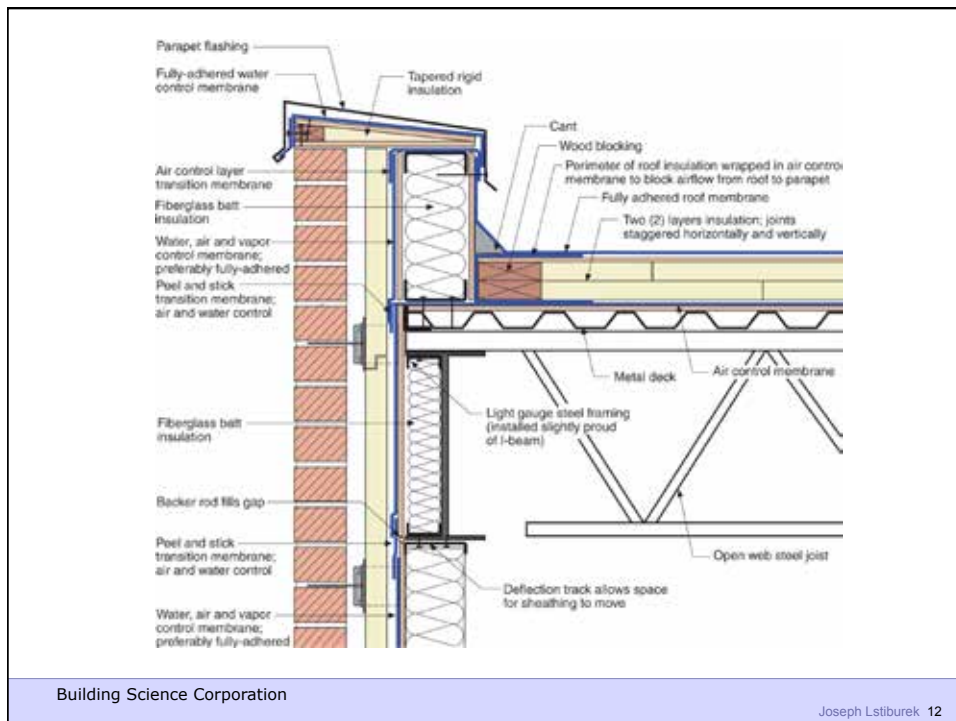
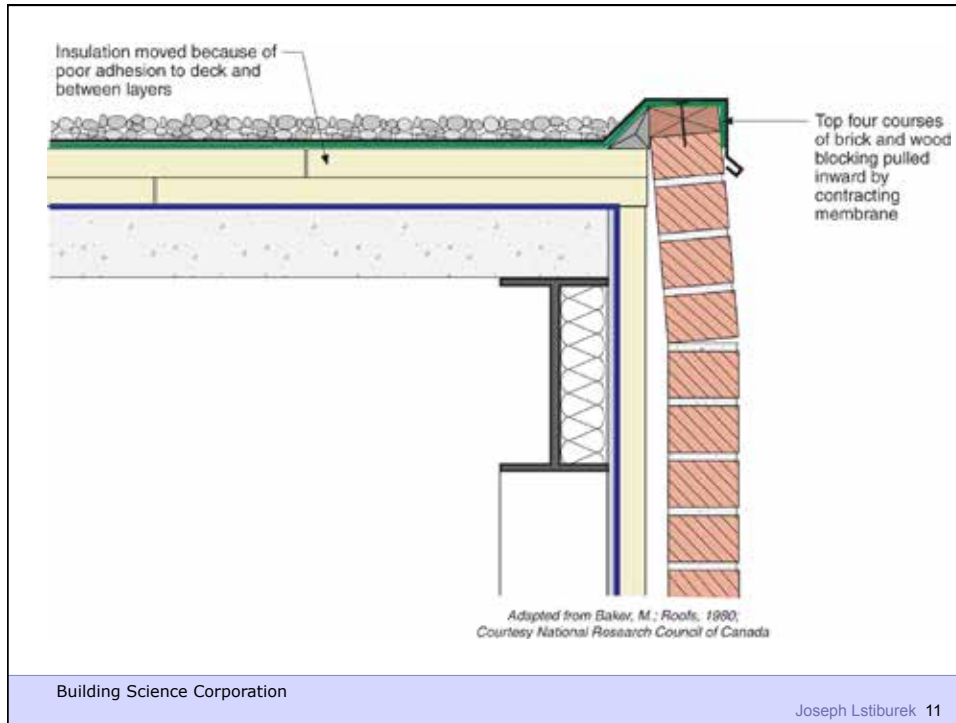
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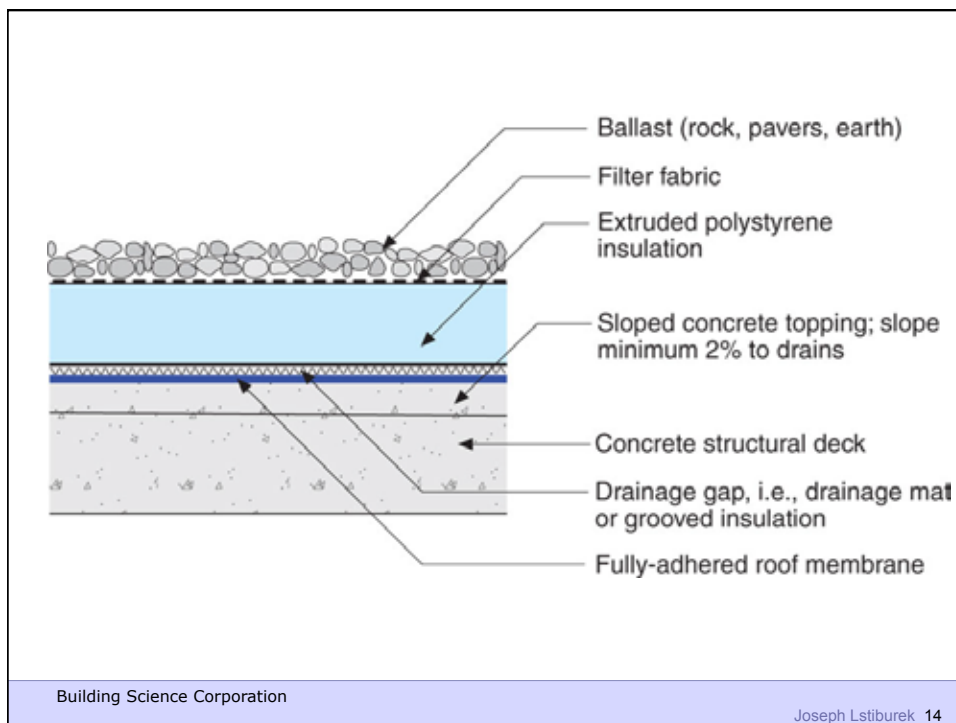
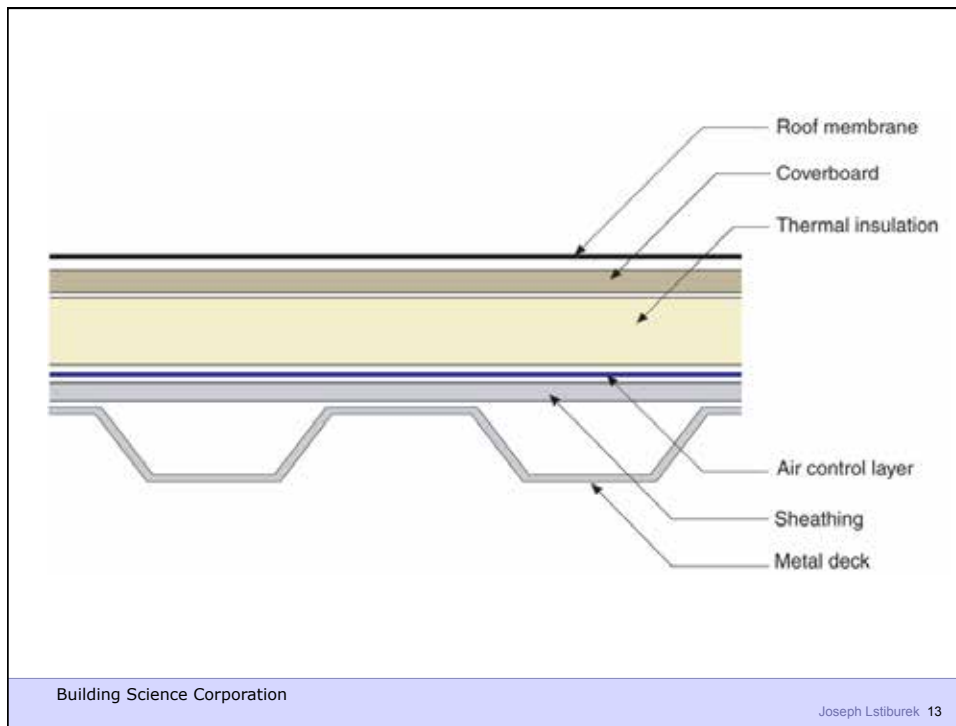


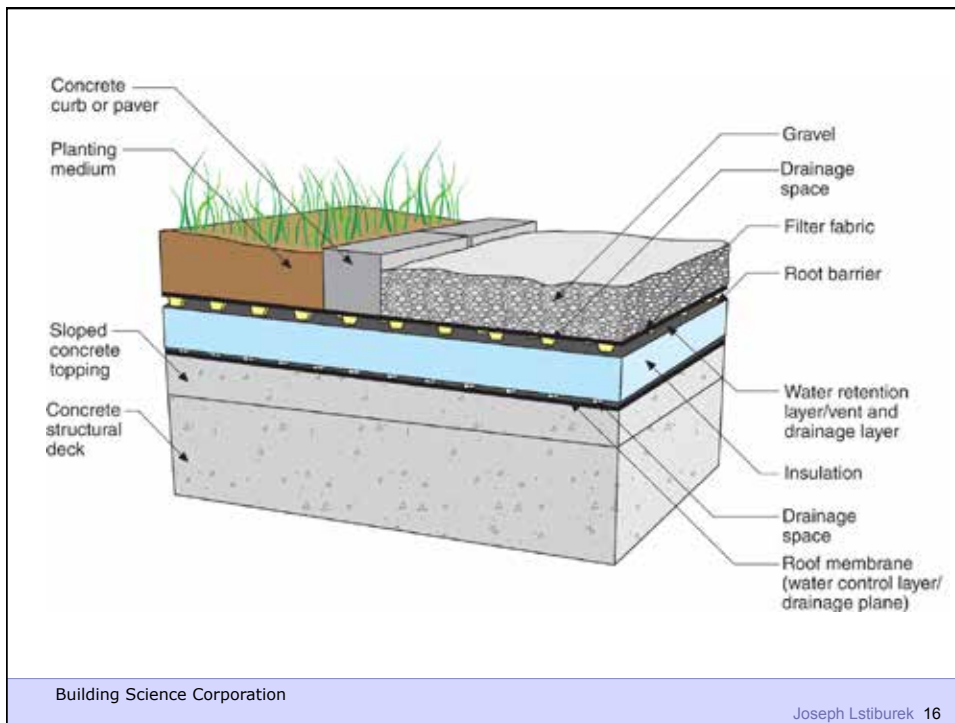














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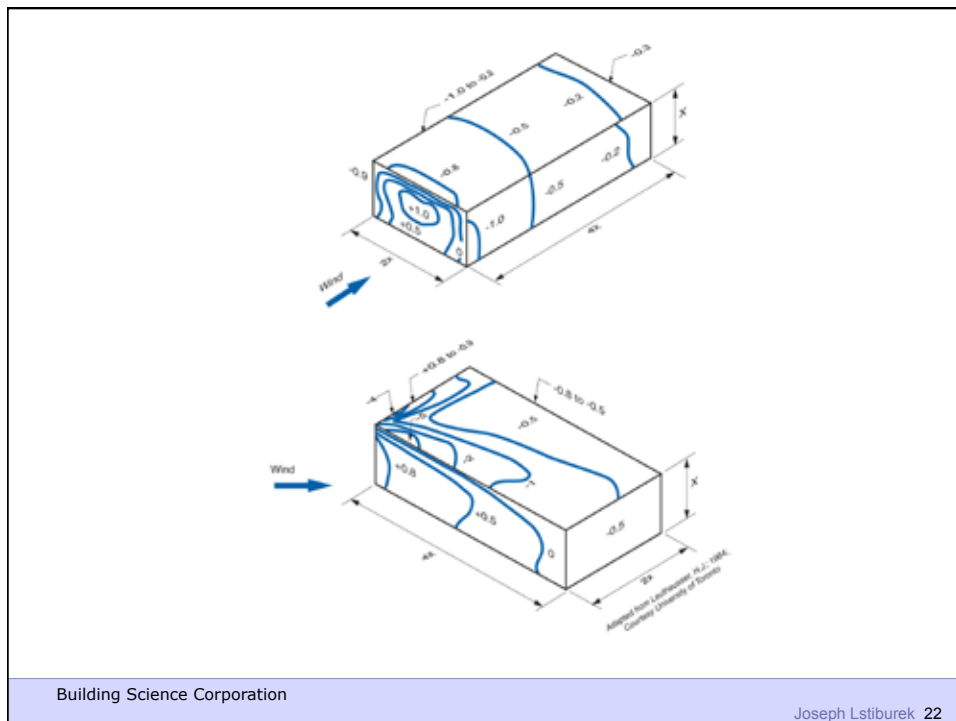
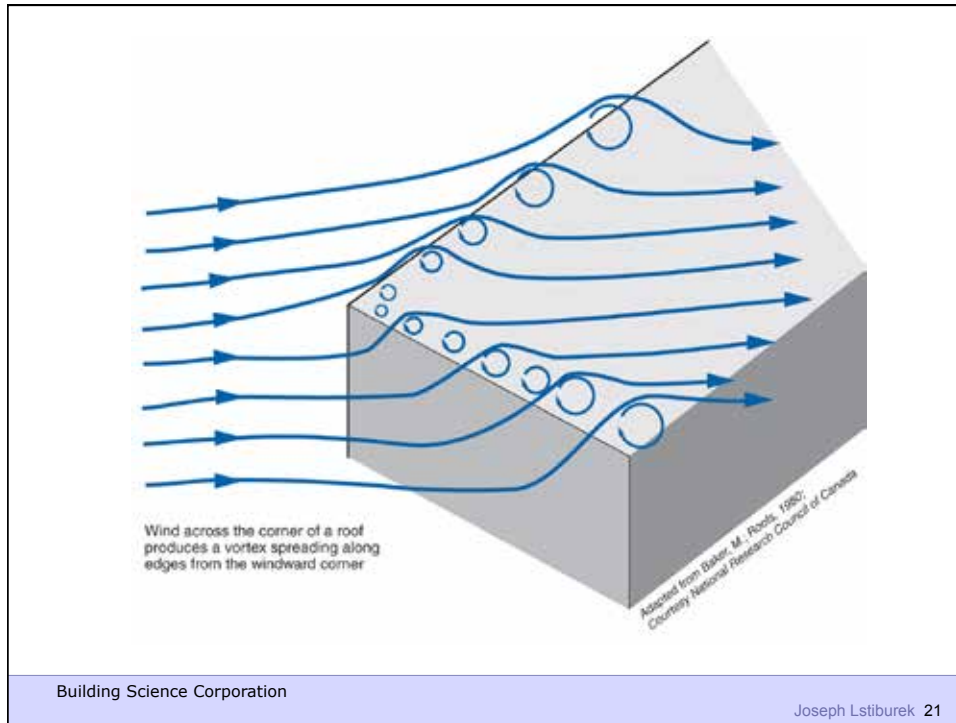
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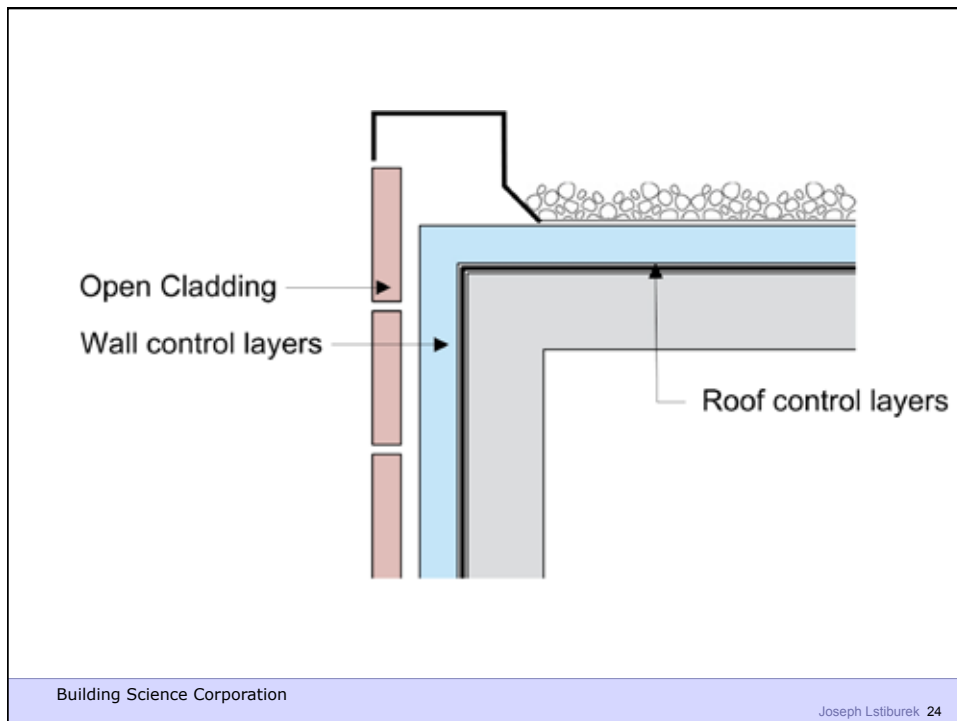
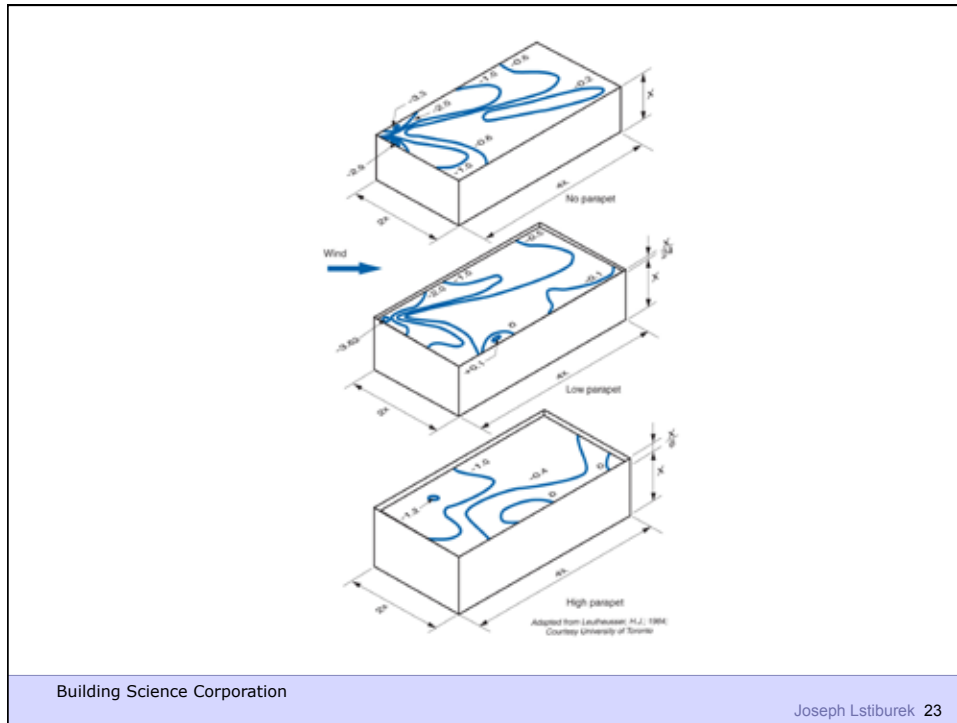
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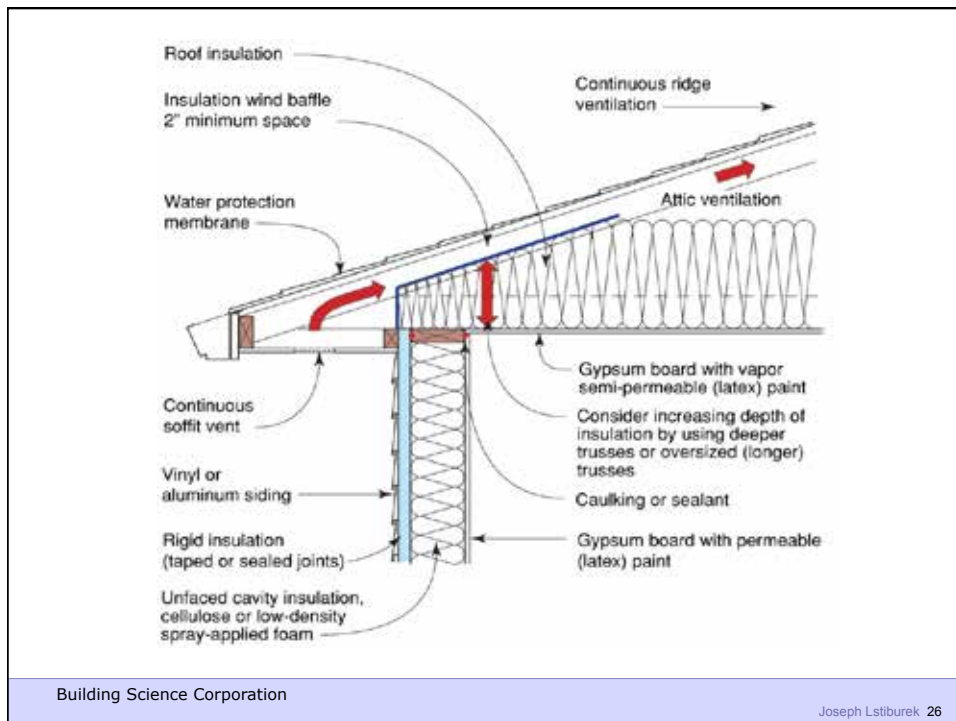
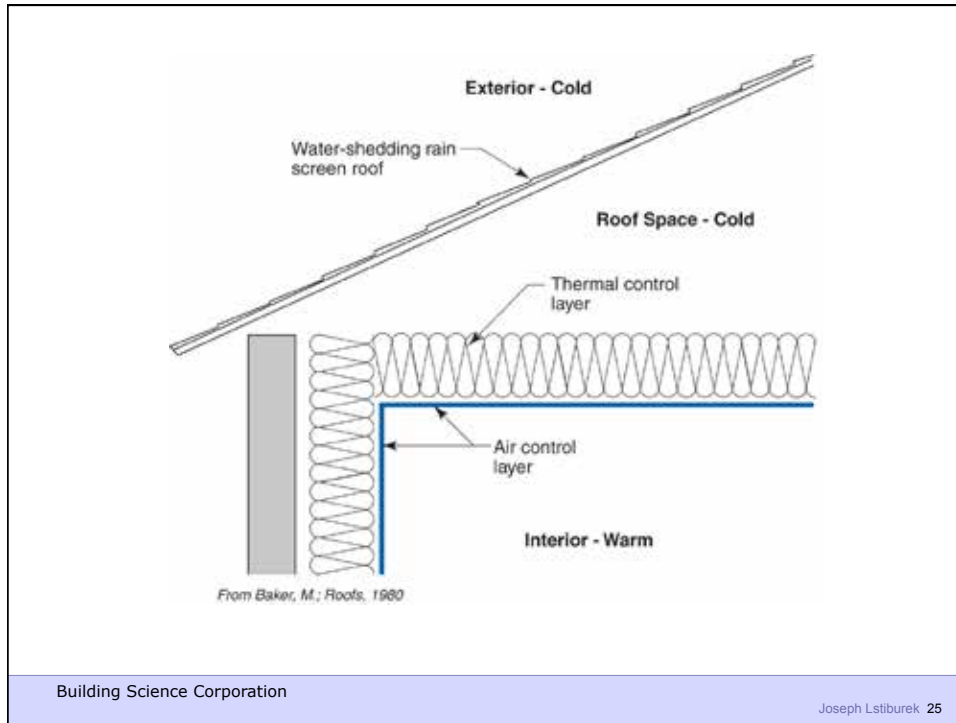


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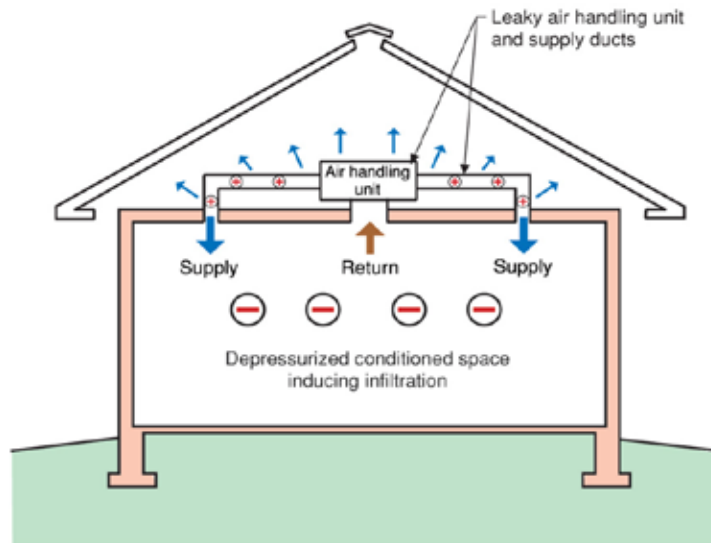






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Note: Colored shading depicts the building's thermal barrier and pressure boundary. The thermal barrier and pressure boundary enclose the conditioned space.

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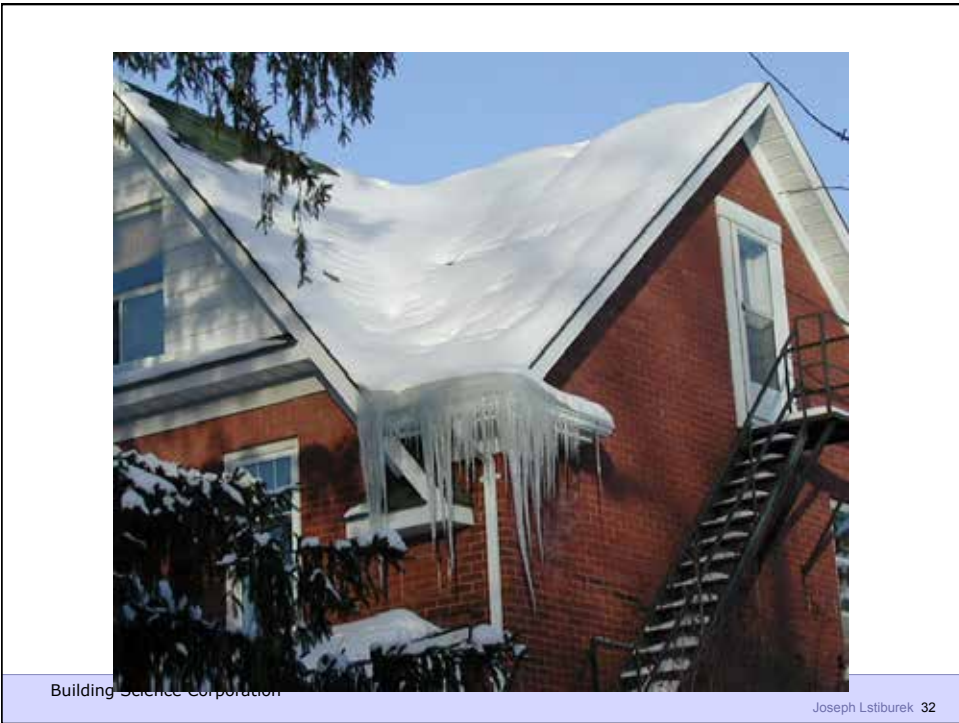
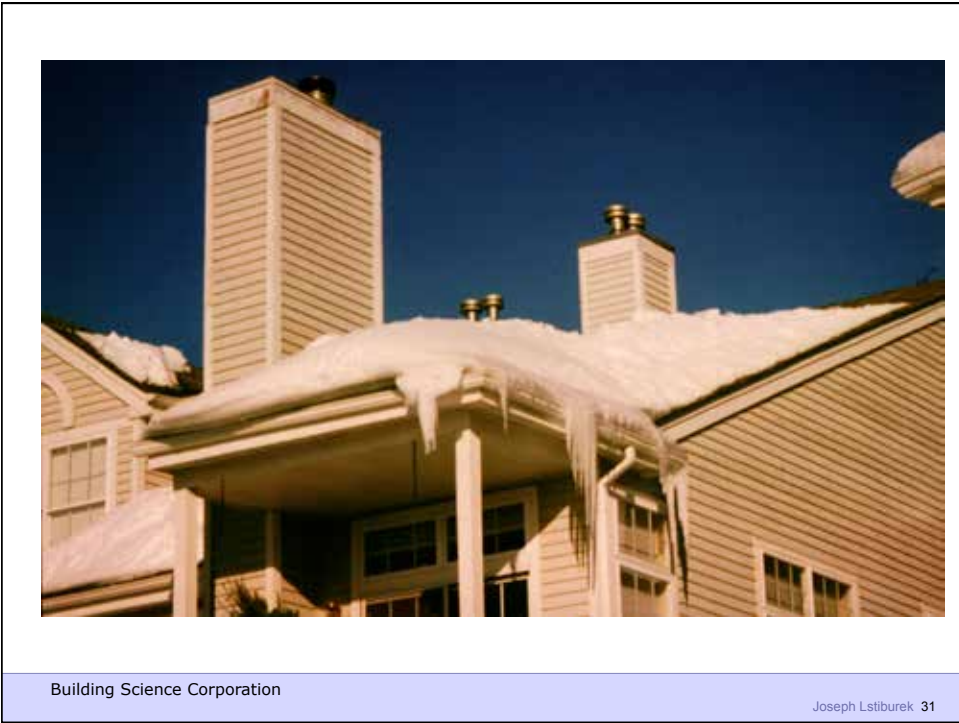
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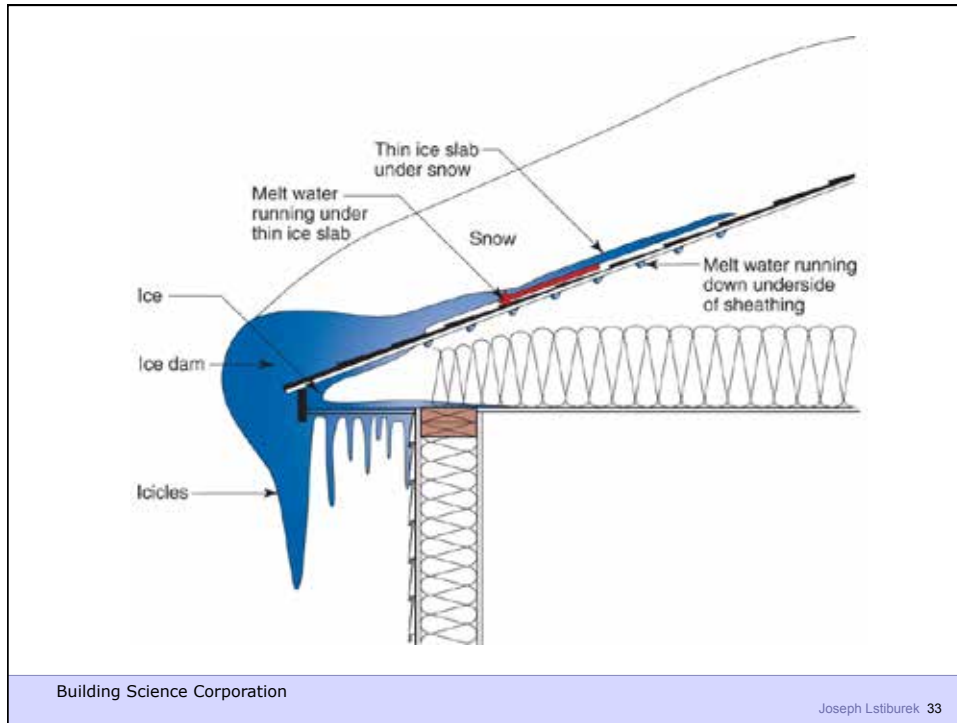
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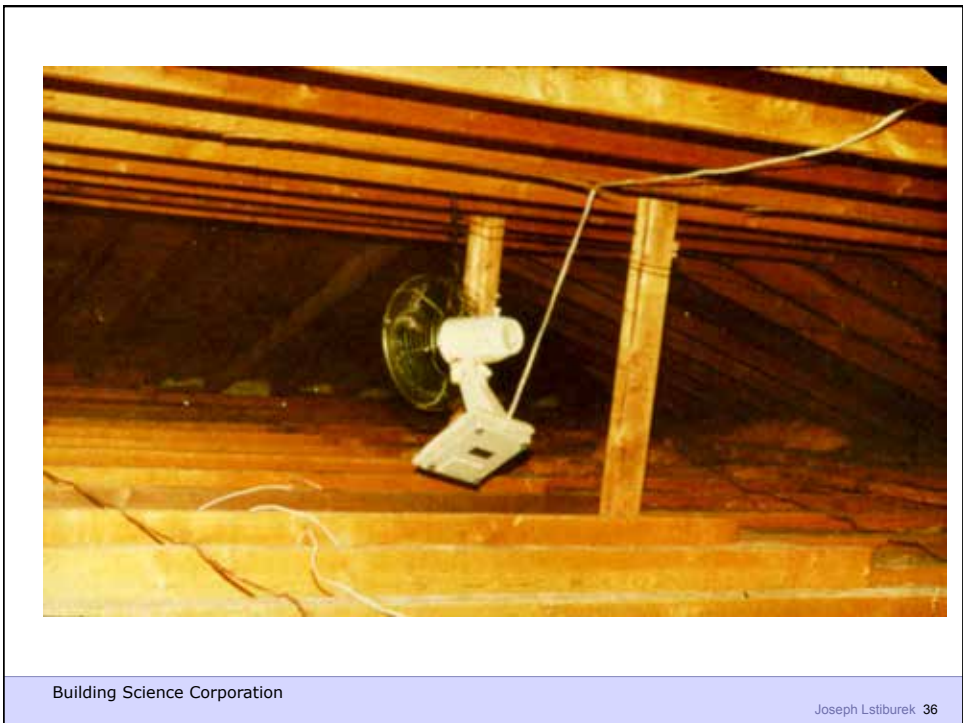


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Joseph Lstiburek 37



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Joseph Lstiburek 38



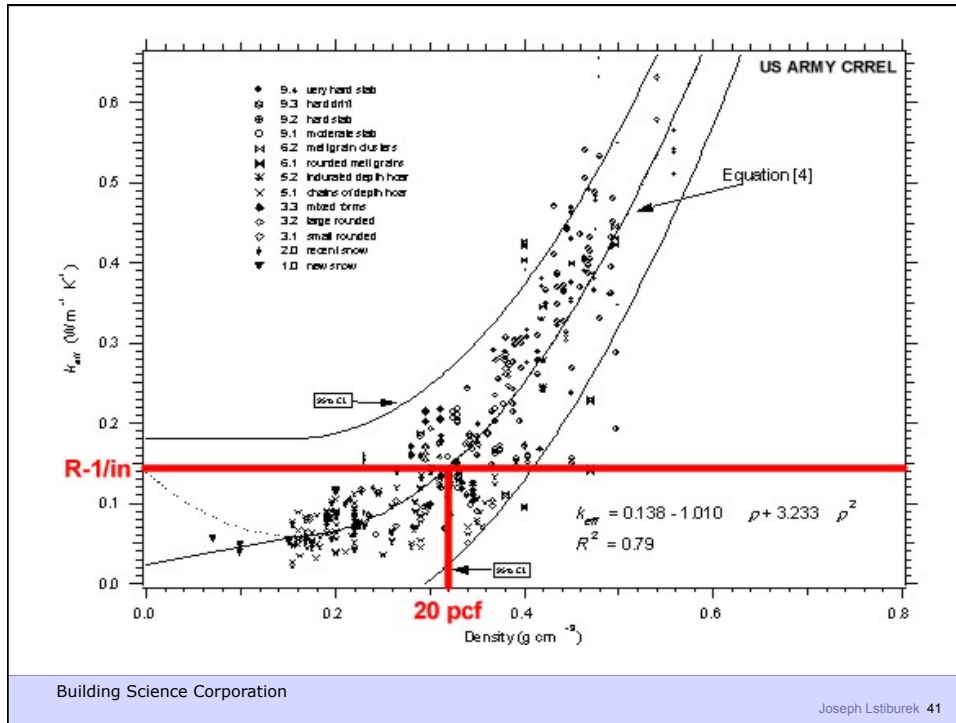
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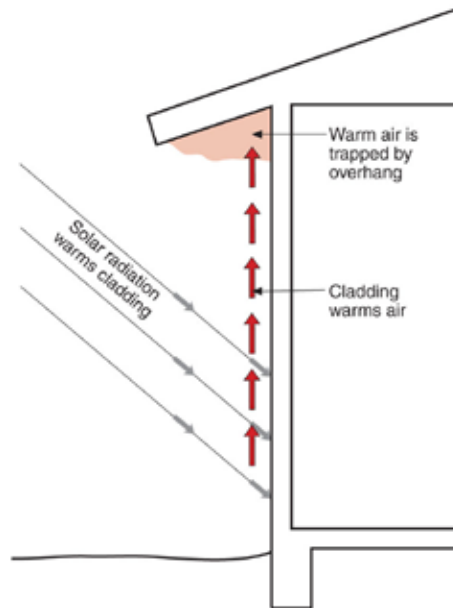
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Joseph Lstiburek 44



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Joseph Lstiburek 45



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Joseph Lstiburek 46



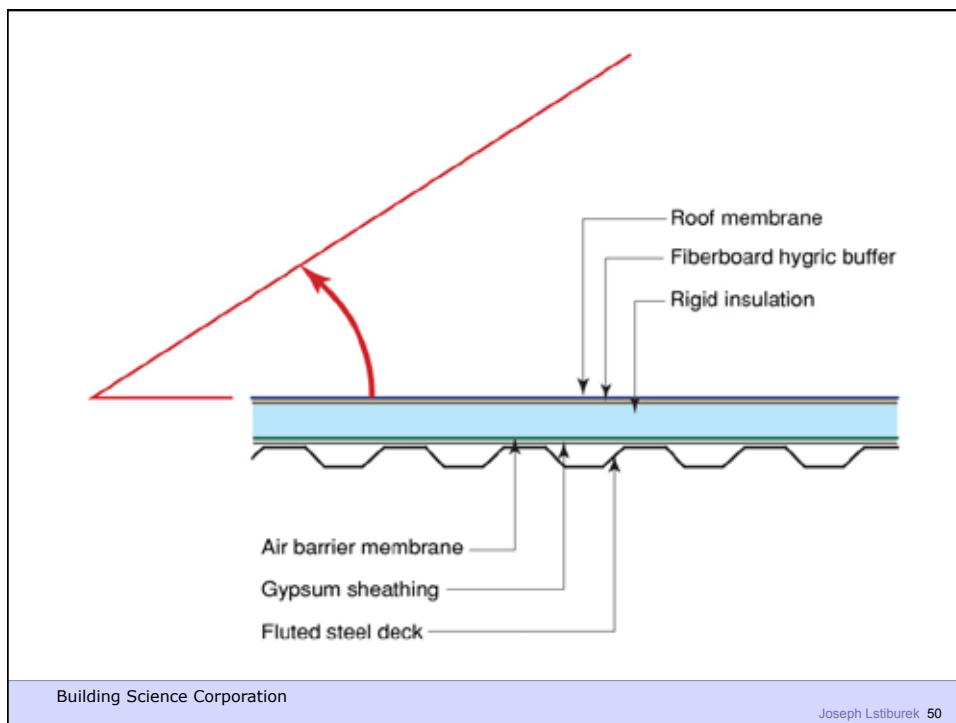
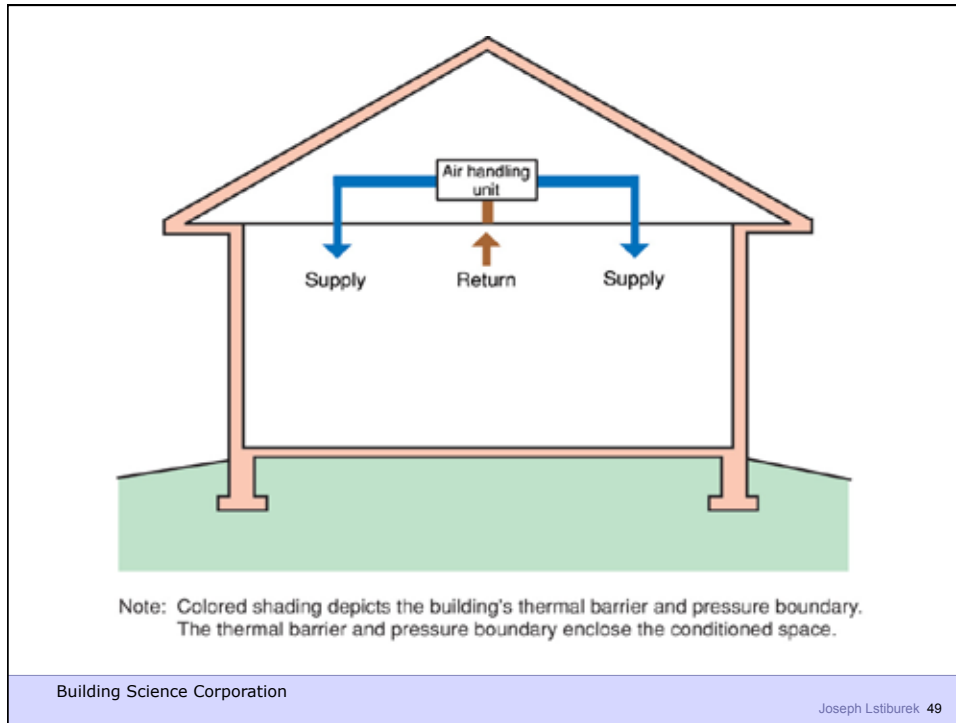
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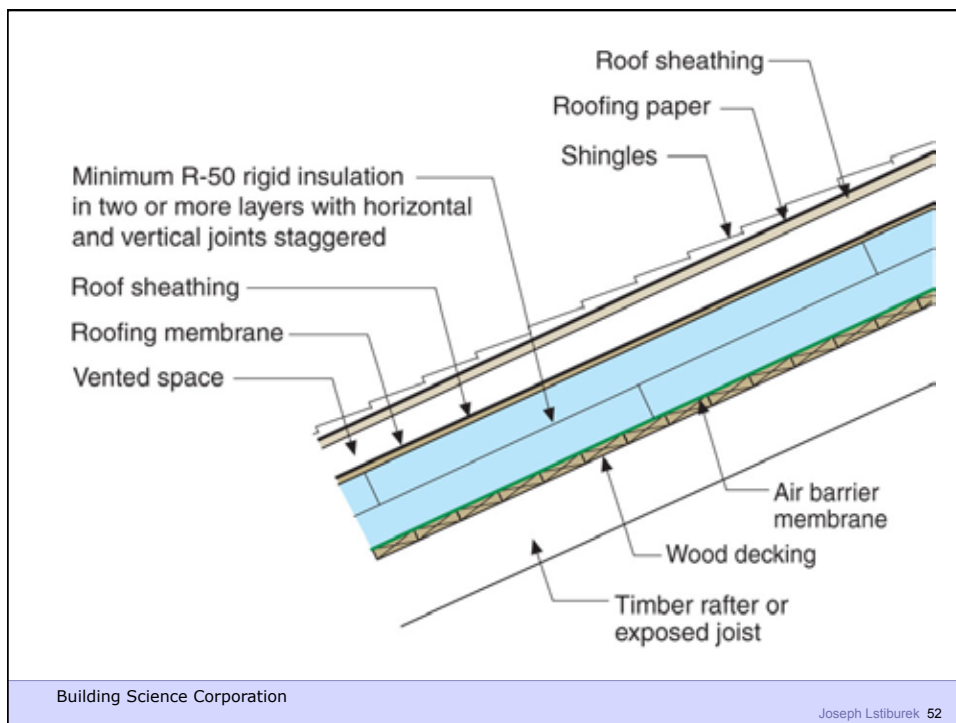
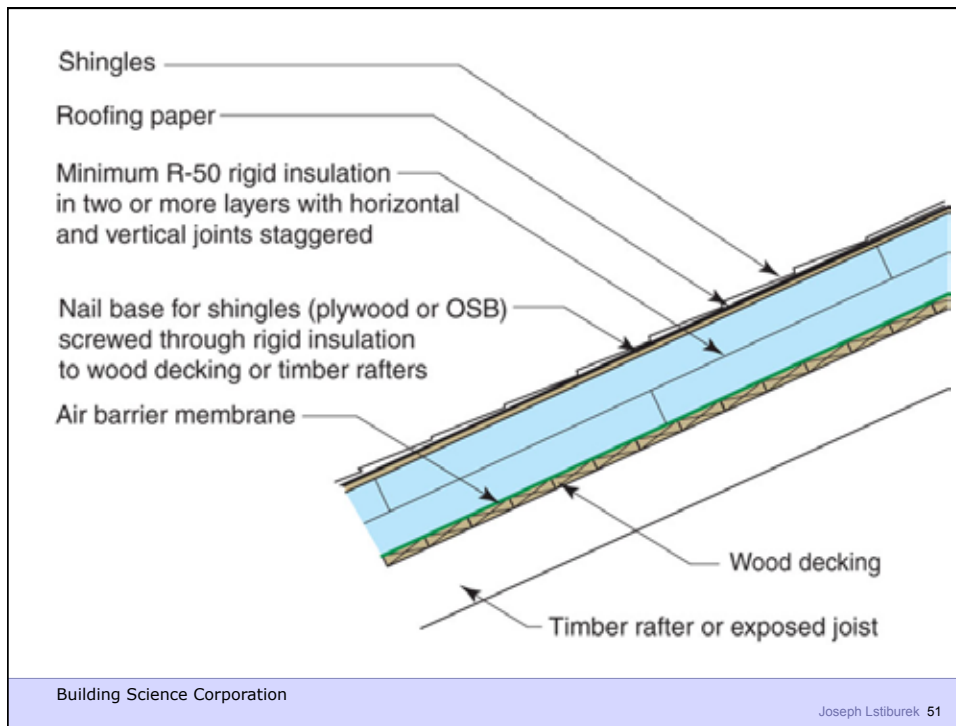
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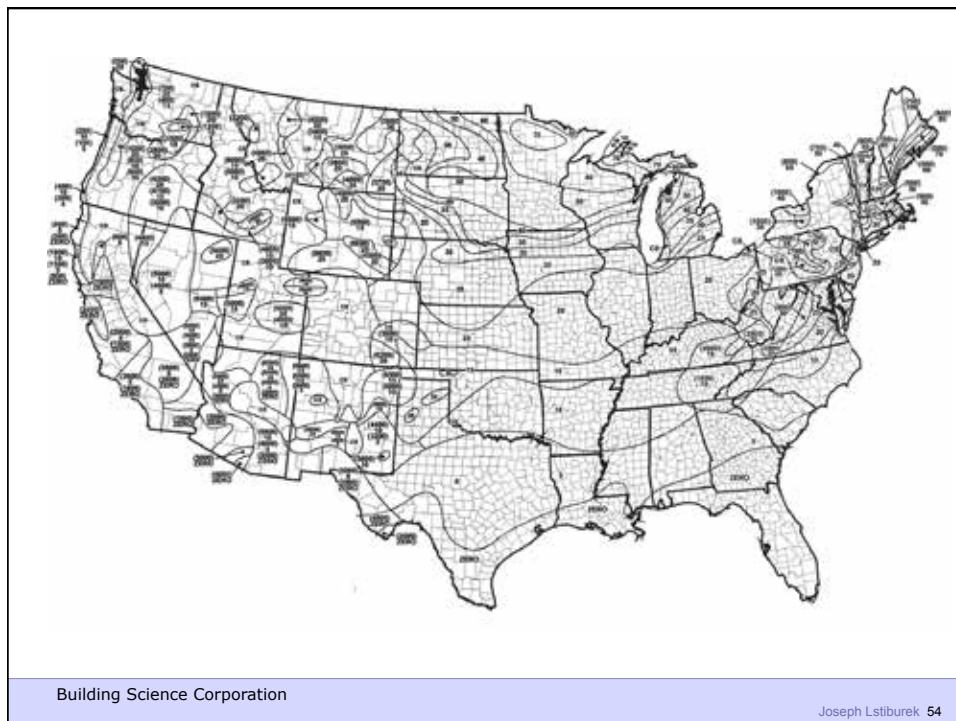
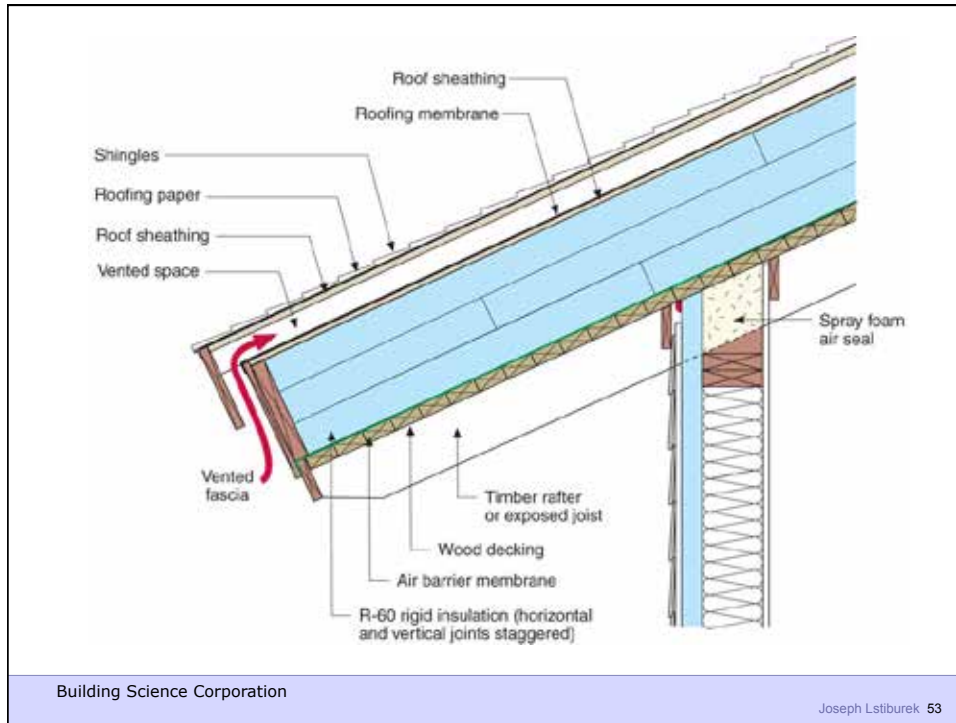


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Joseph Lstiburek 56



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Joseph Lstiburek 59



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Joseph Lstiburek 60



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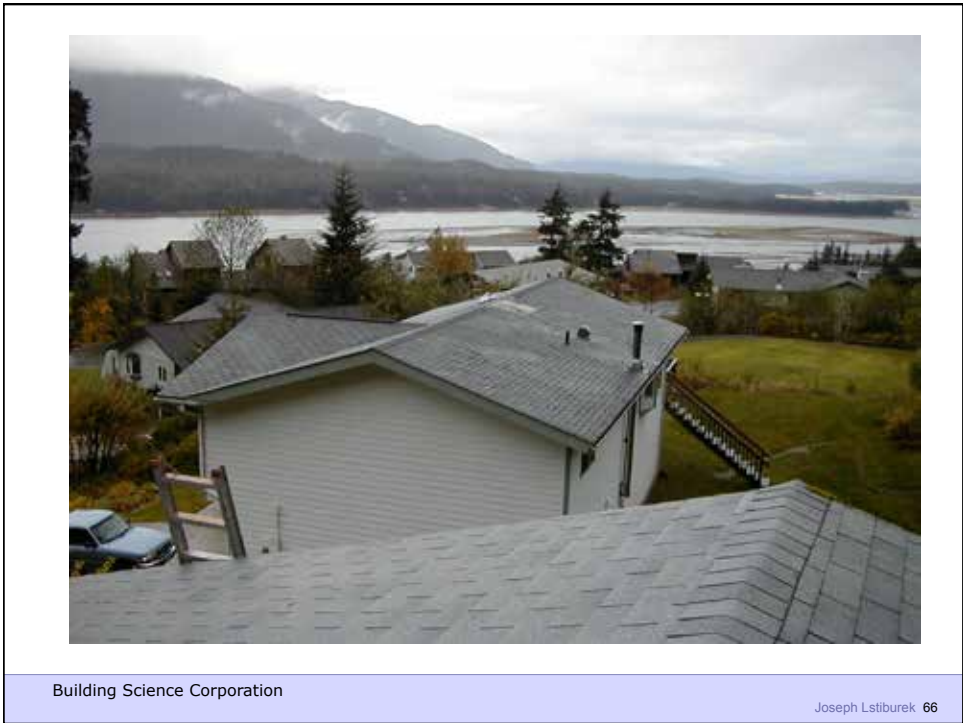
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Joseph Lstiburek 67



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Joseph Lstiburek 68



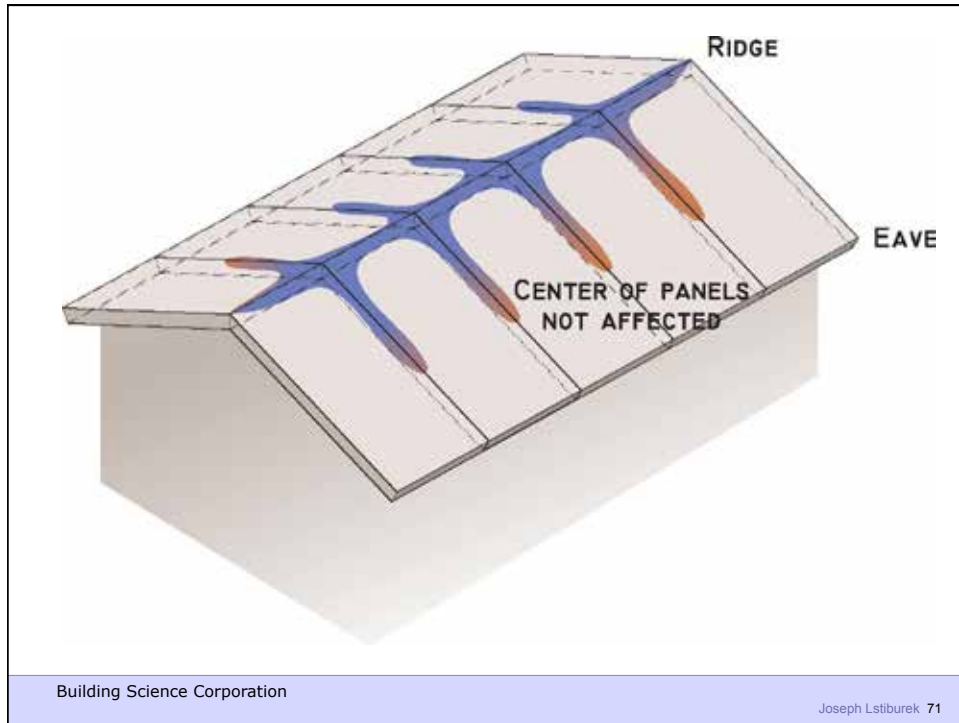
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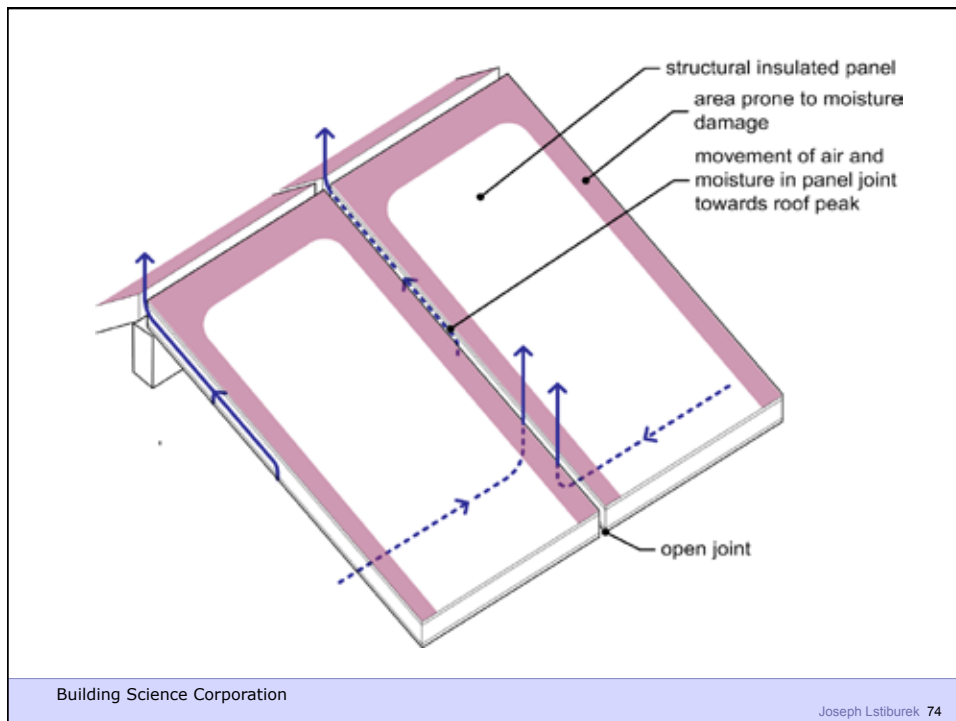
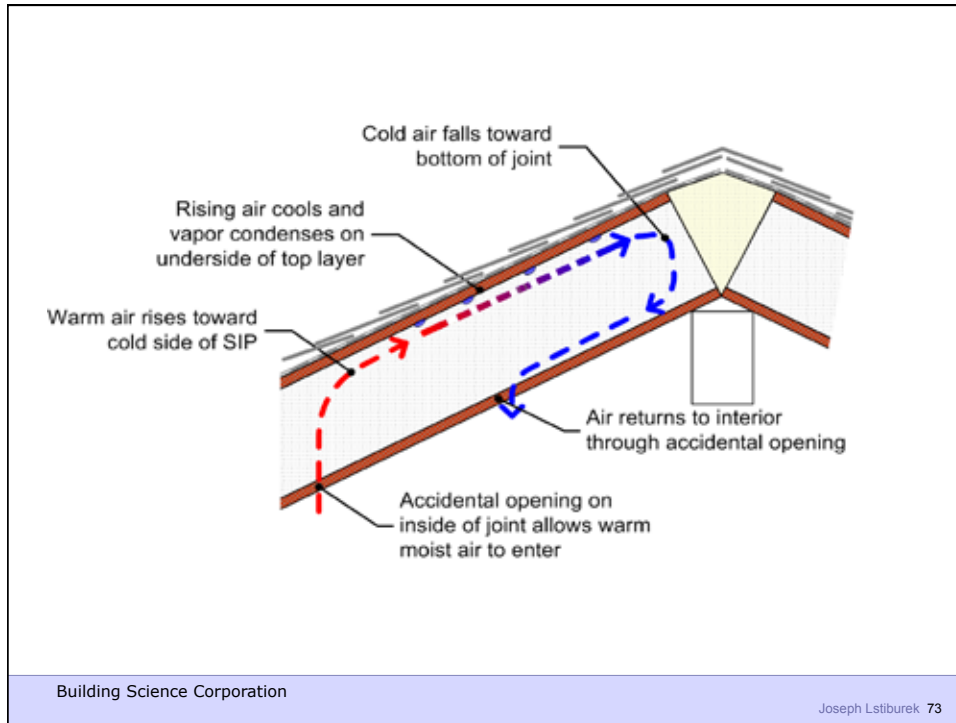
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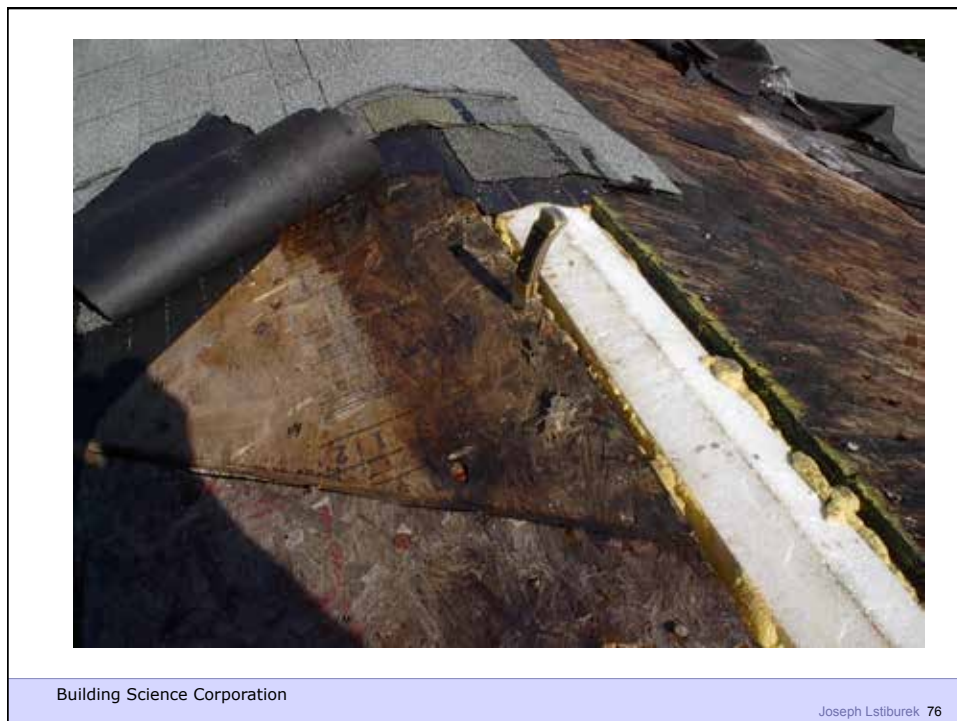
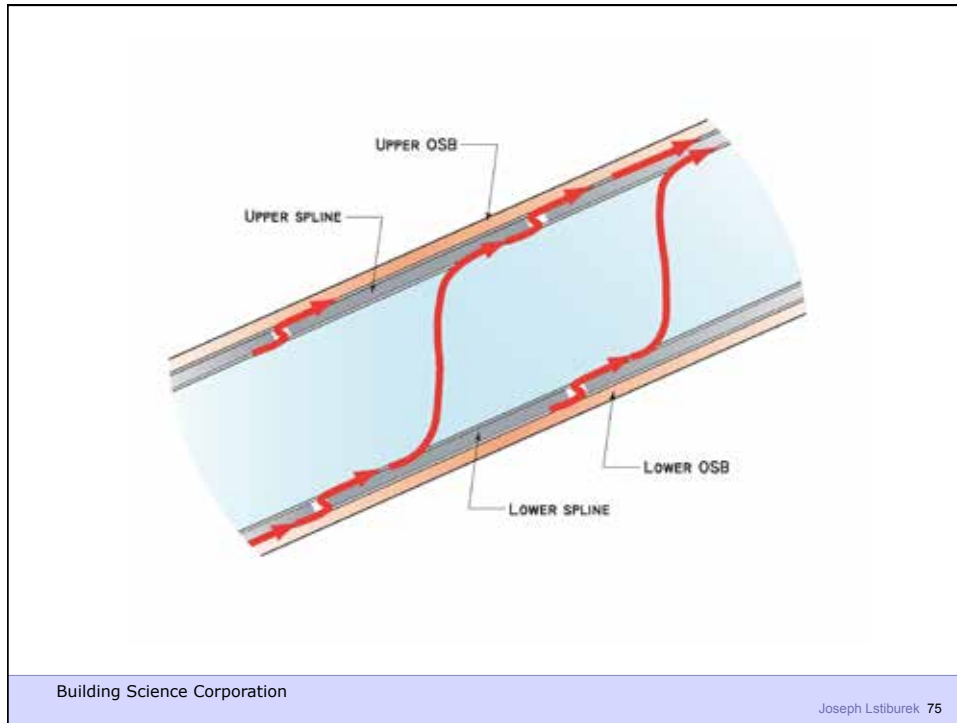


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Joseph Lstiburek 80



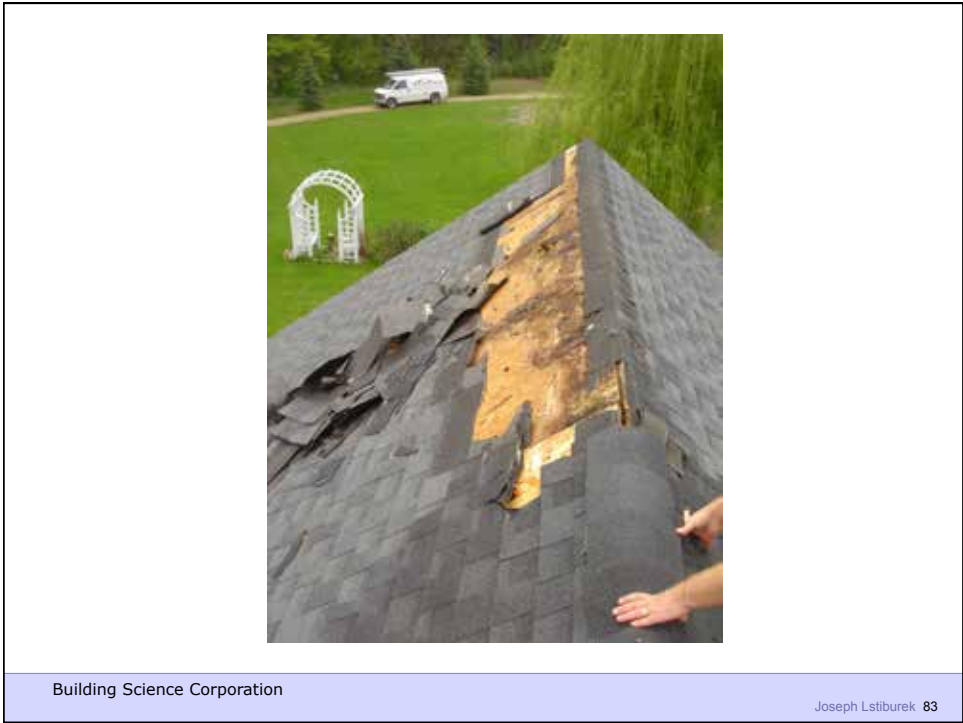
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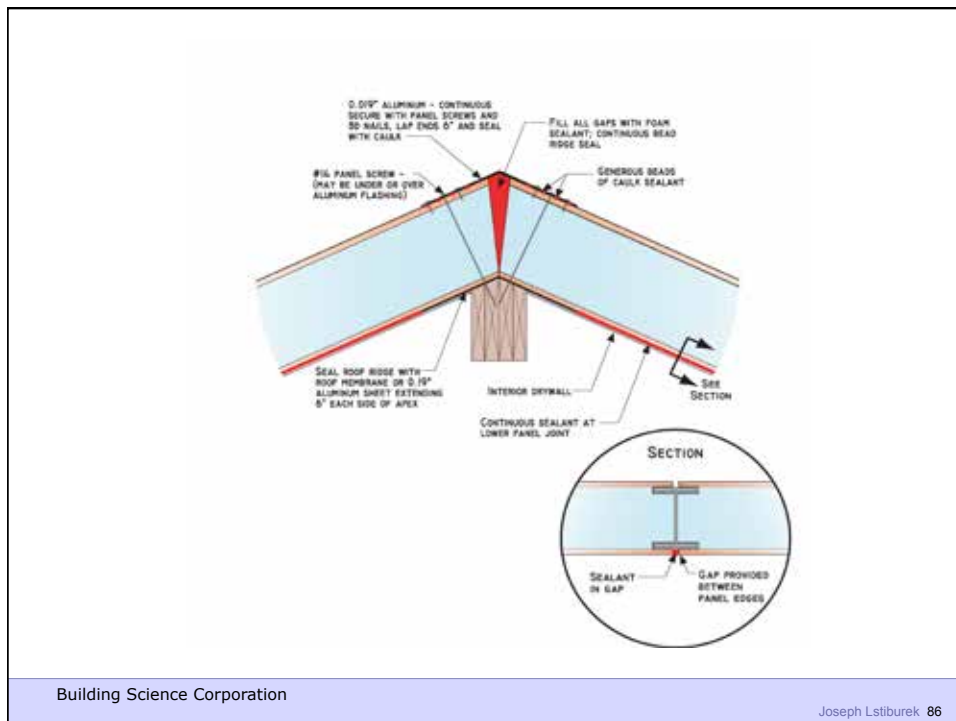
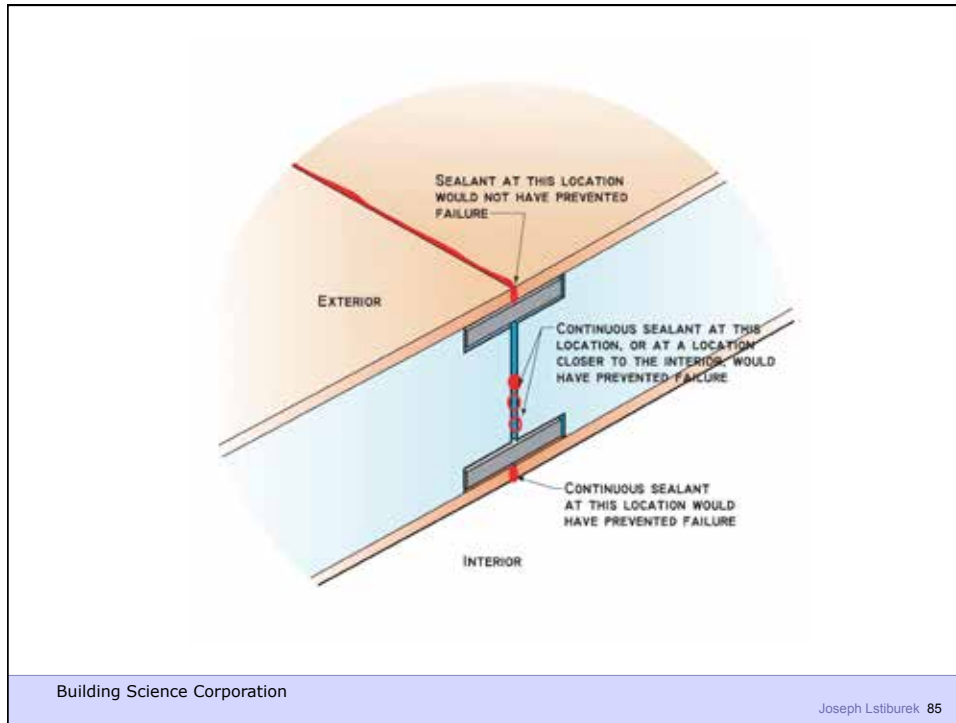
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Joseph Lstiburek 87



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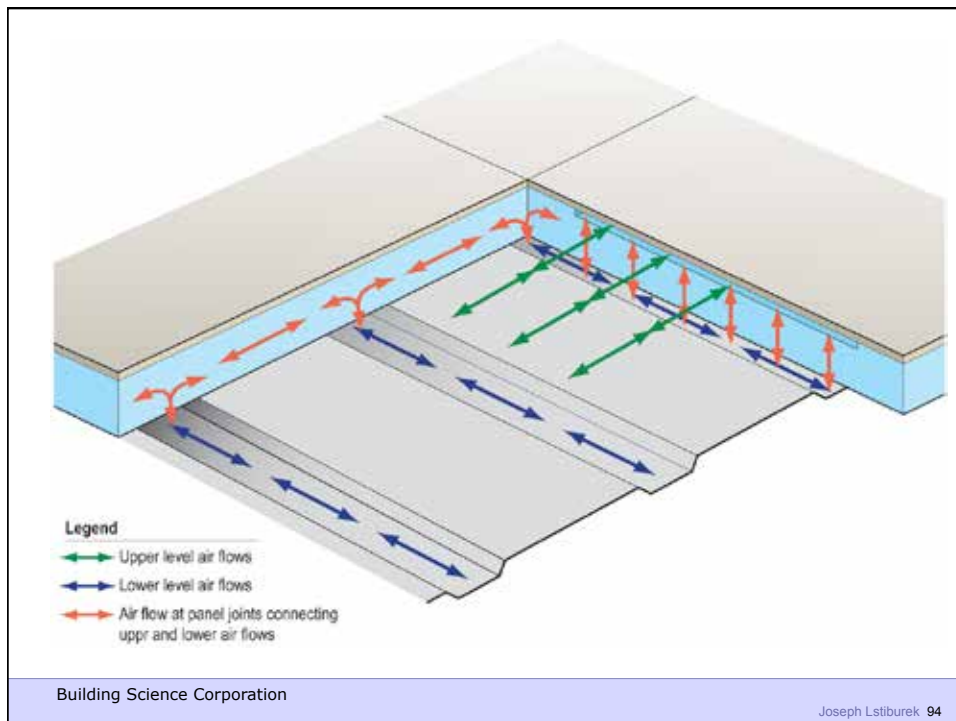
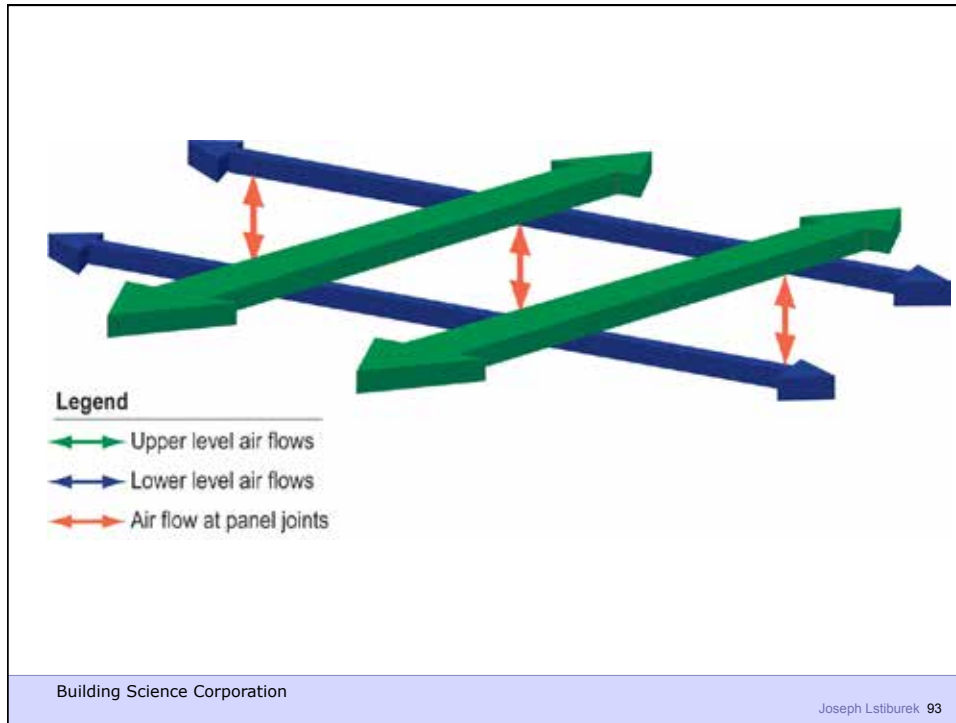
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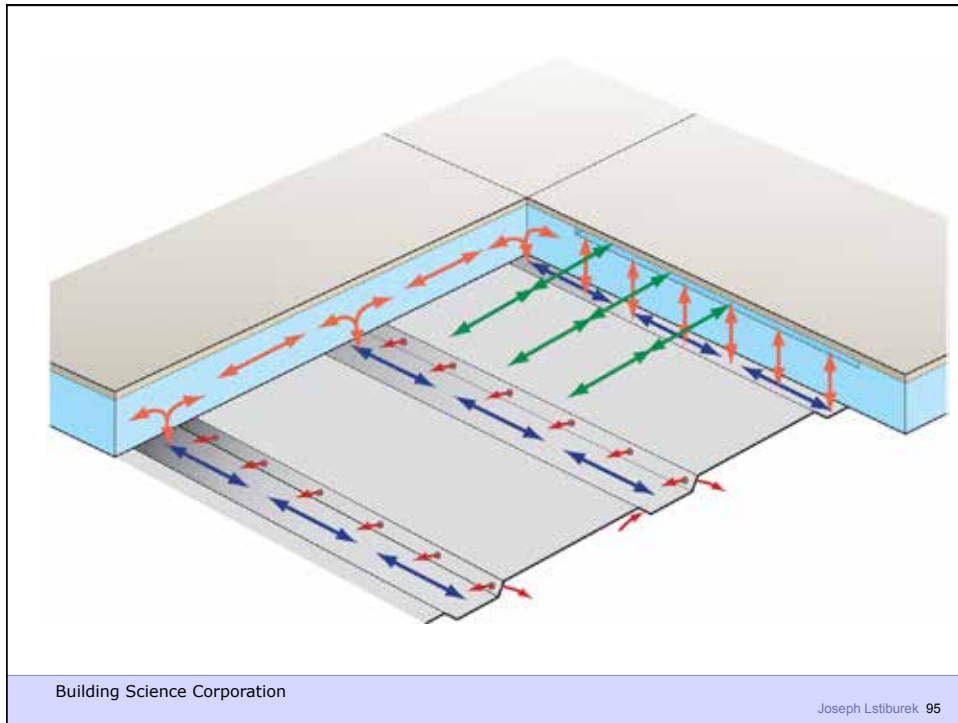
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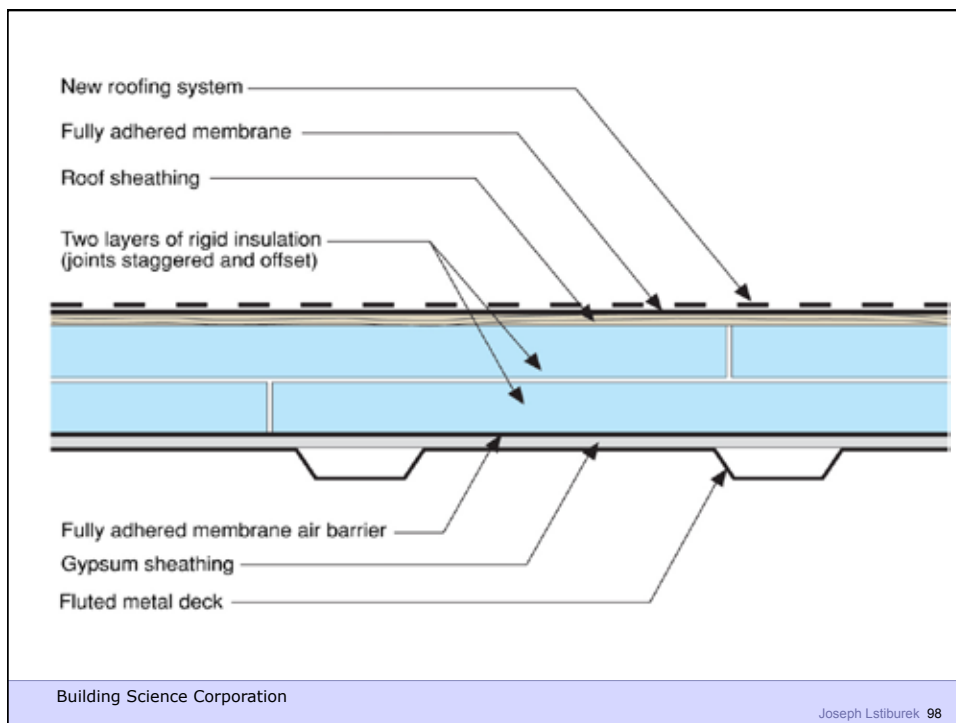
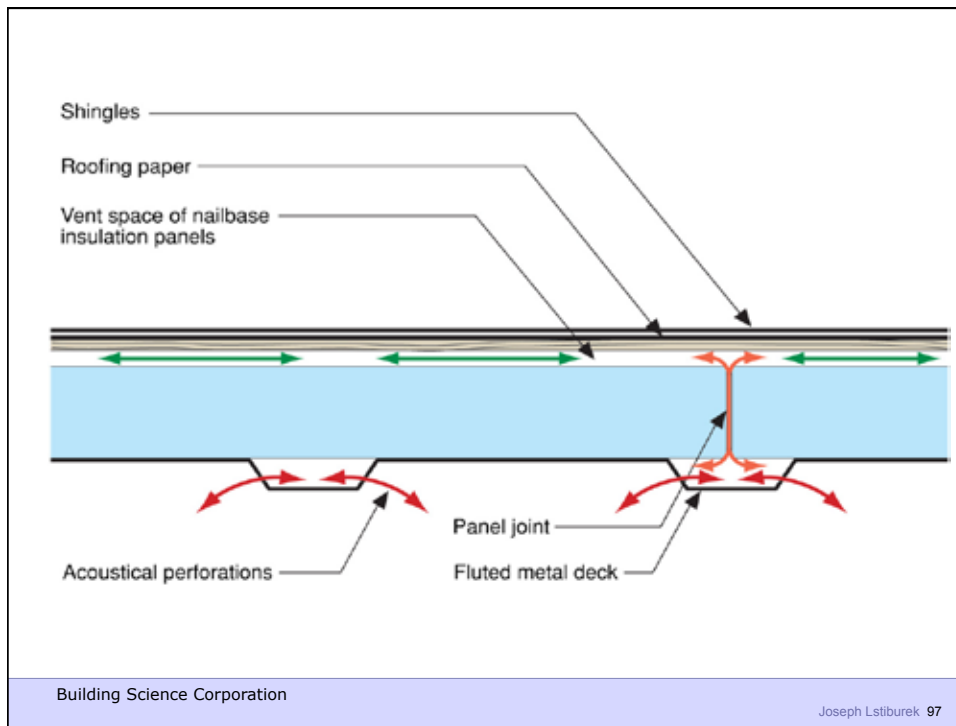


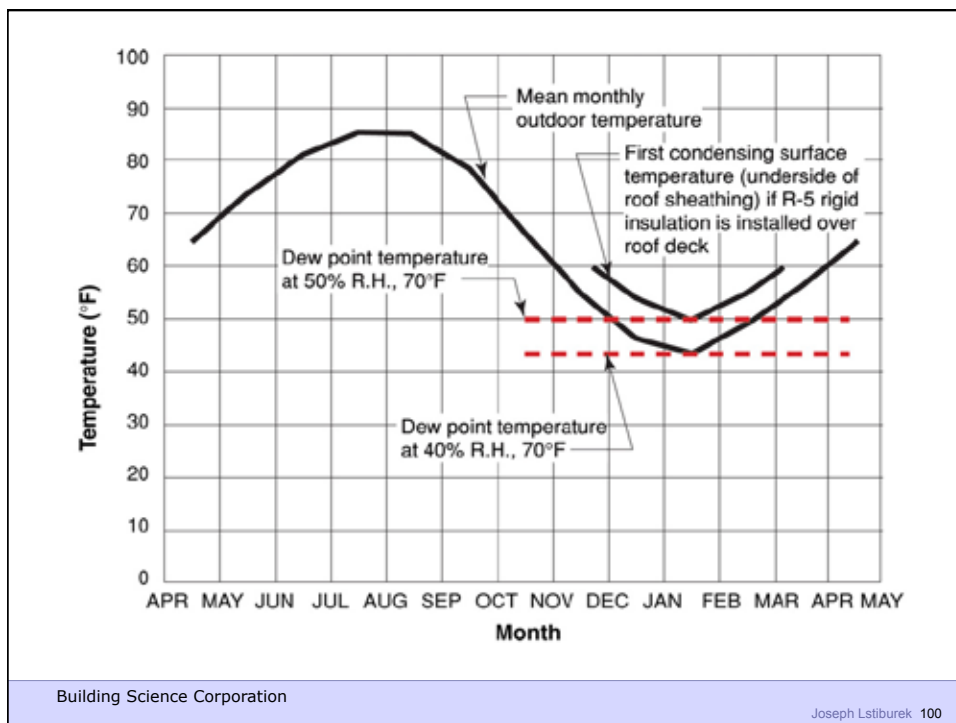
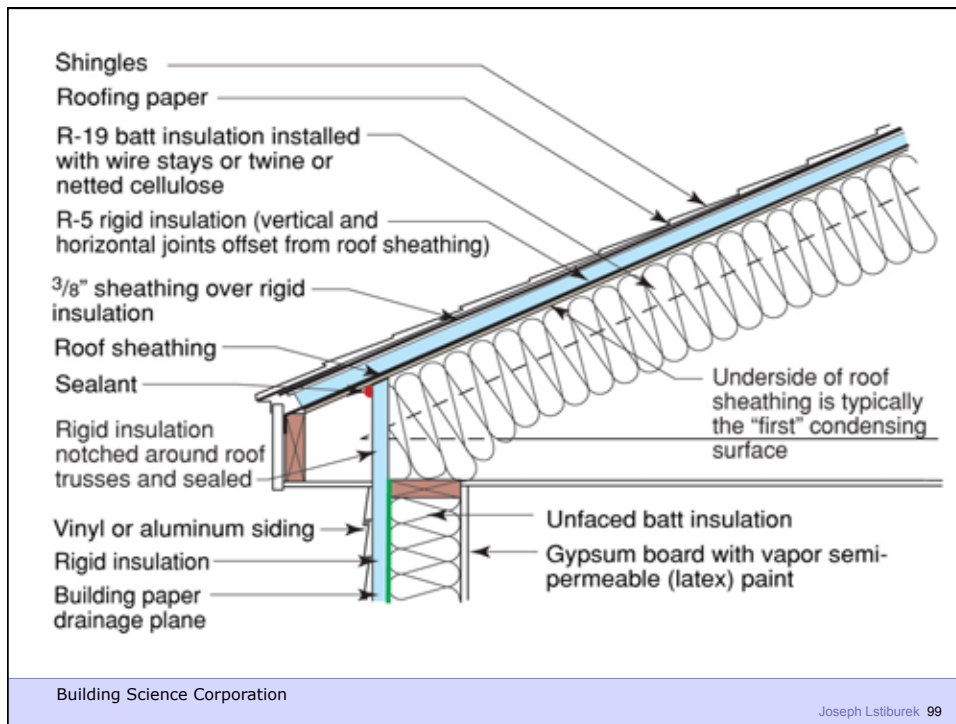
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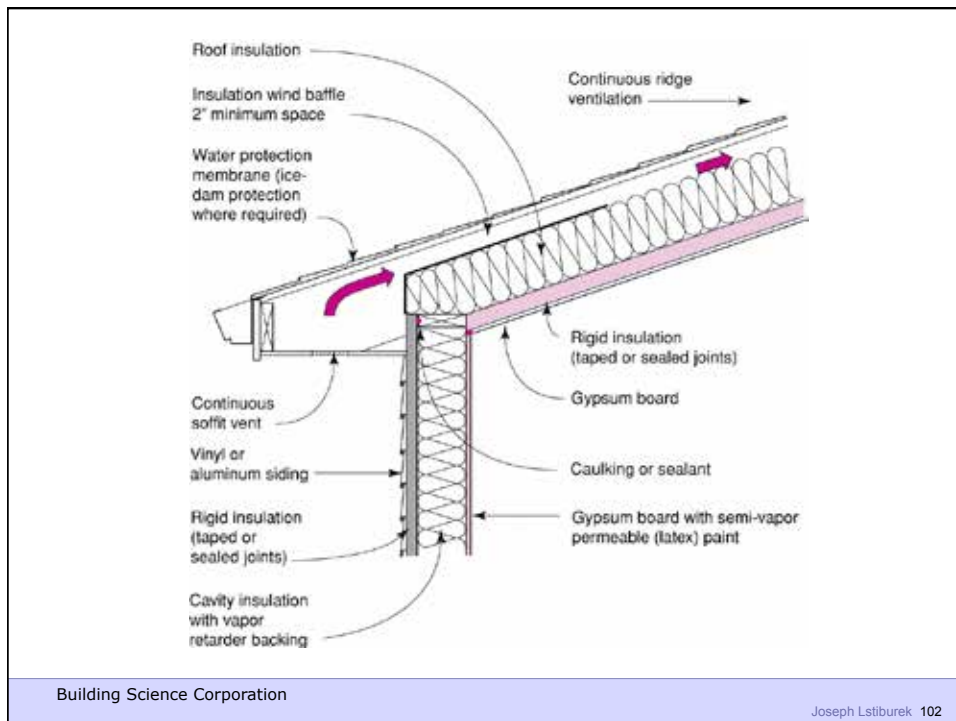
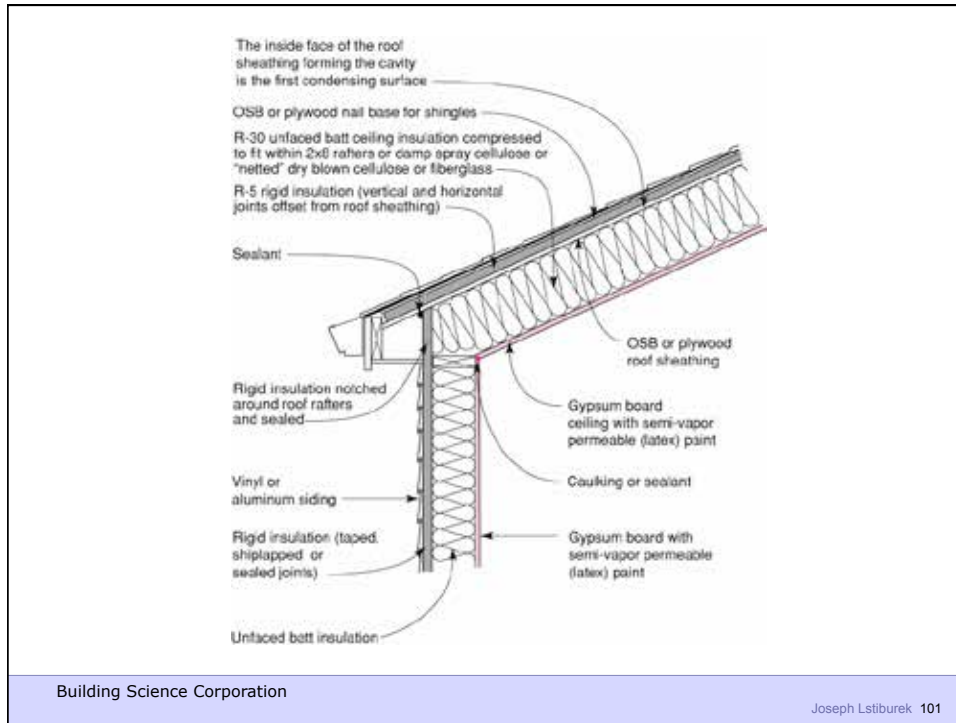
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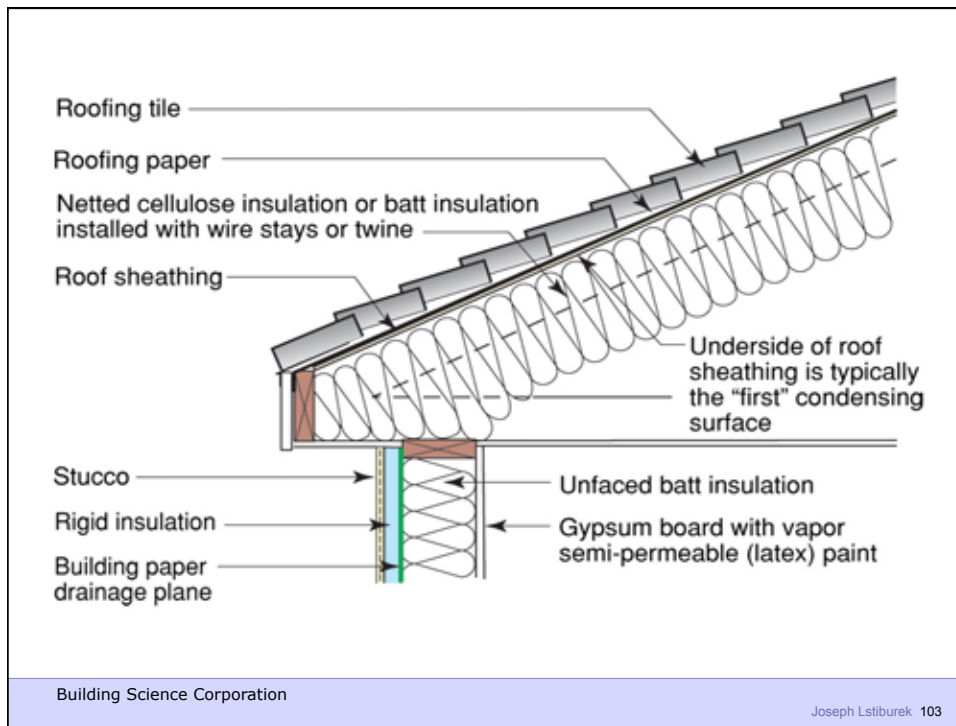














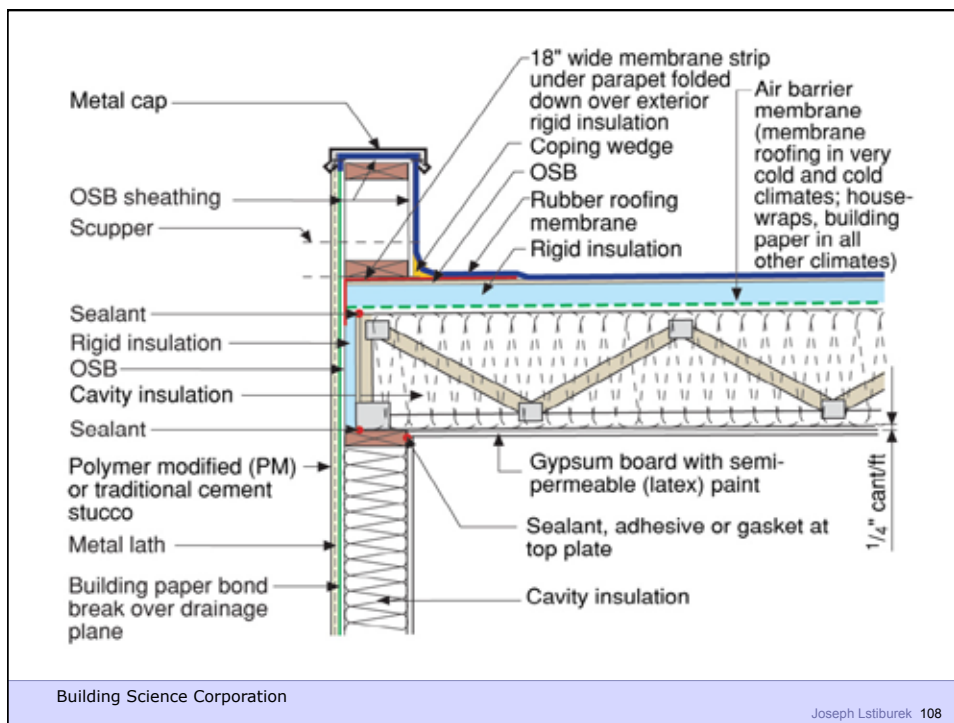
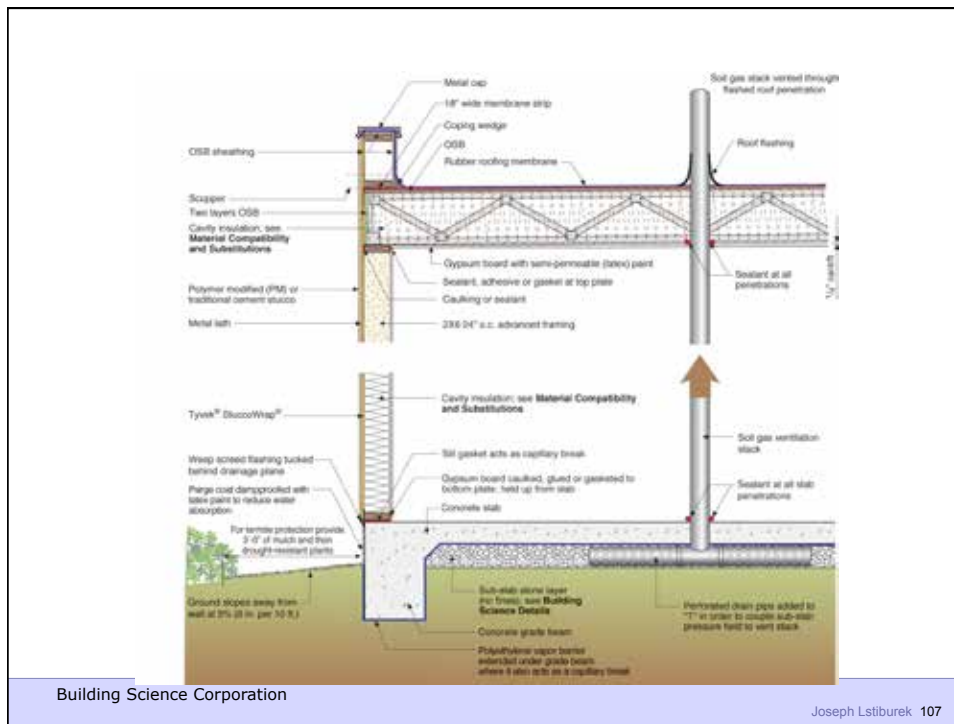
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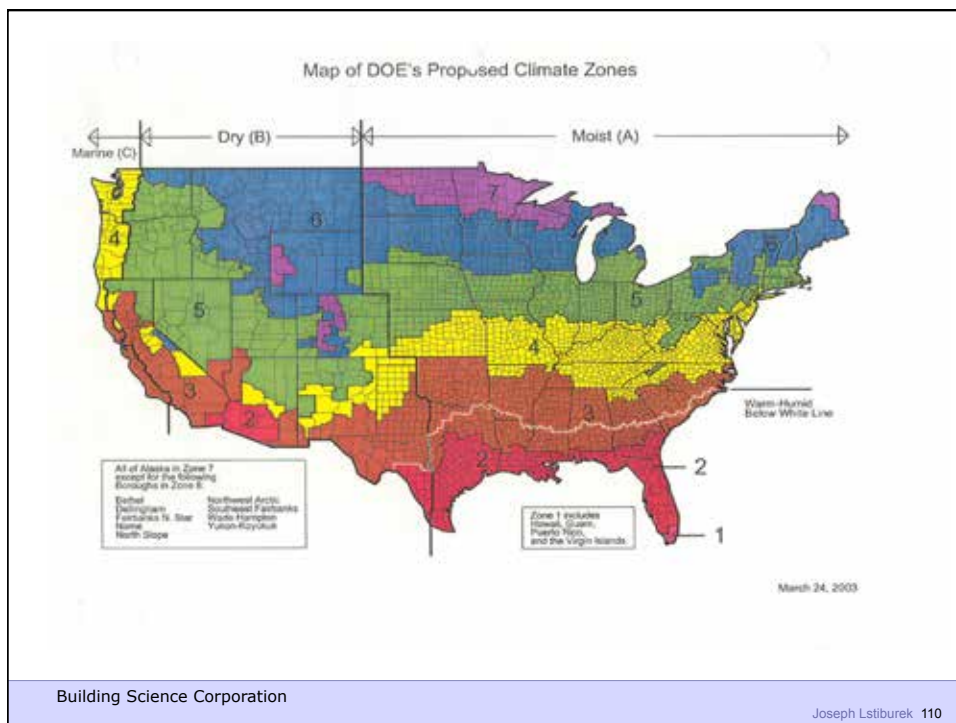
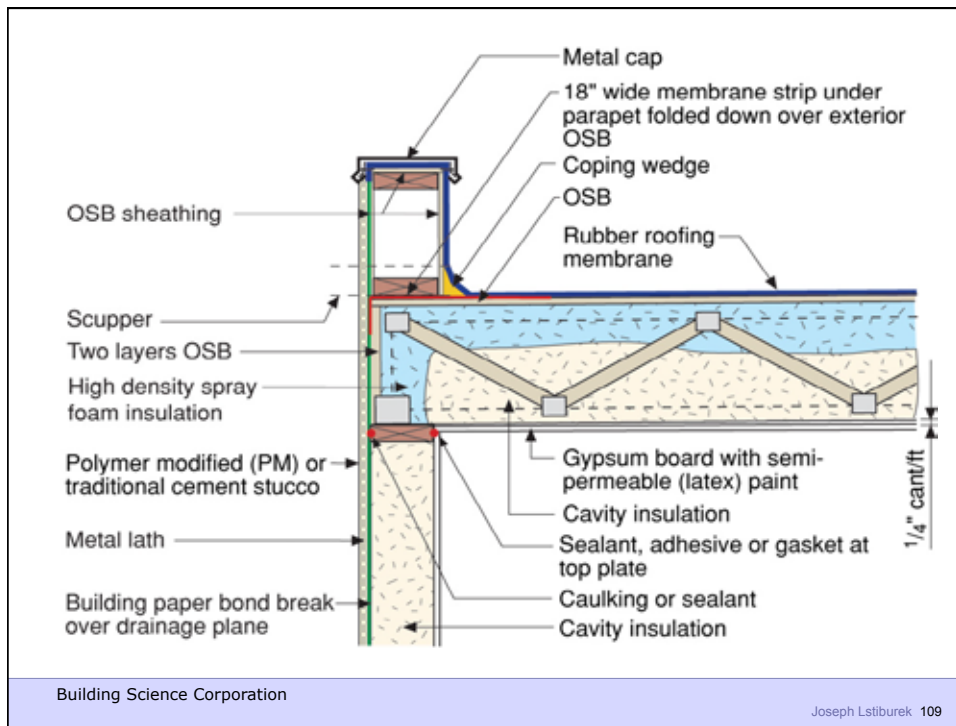
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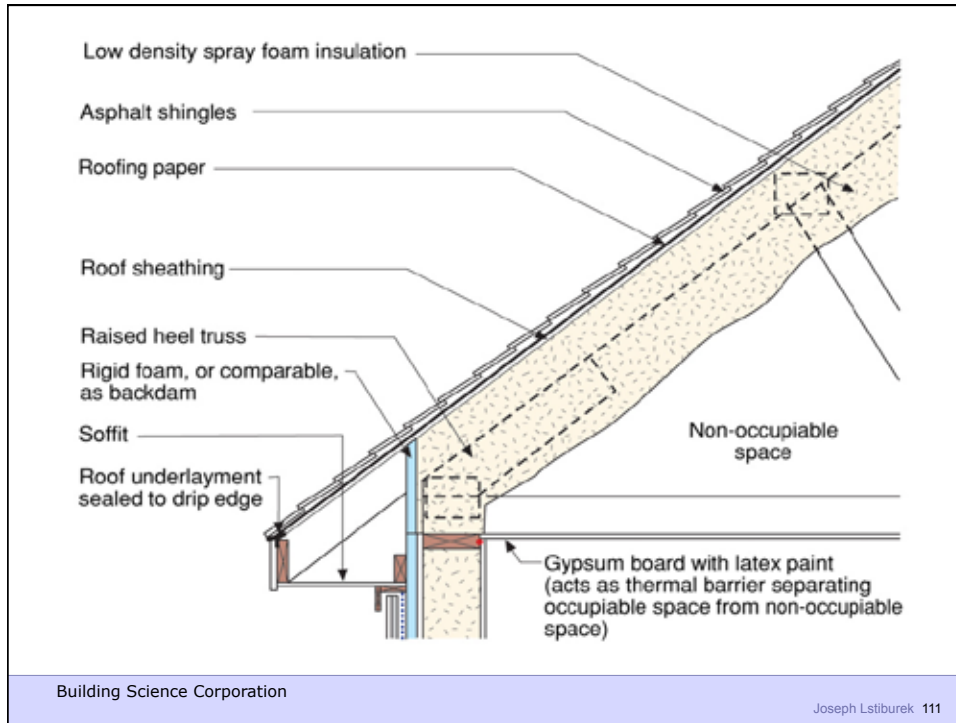


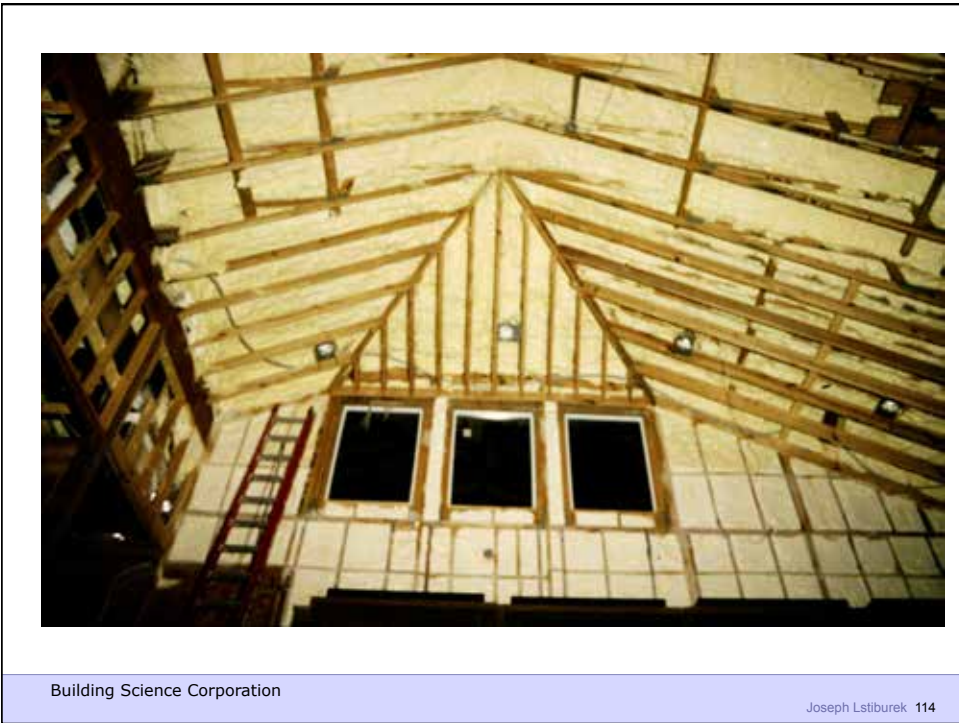
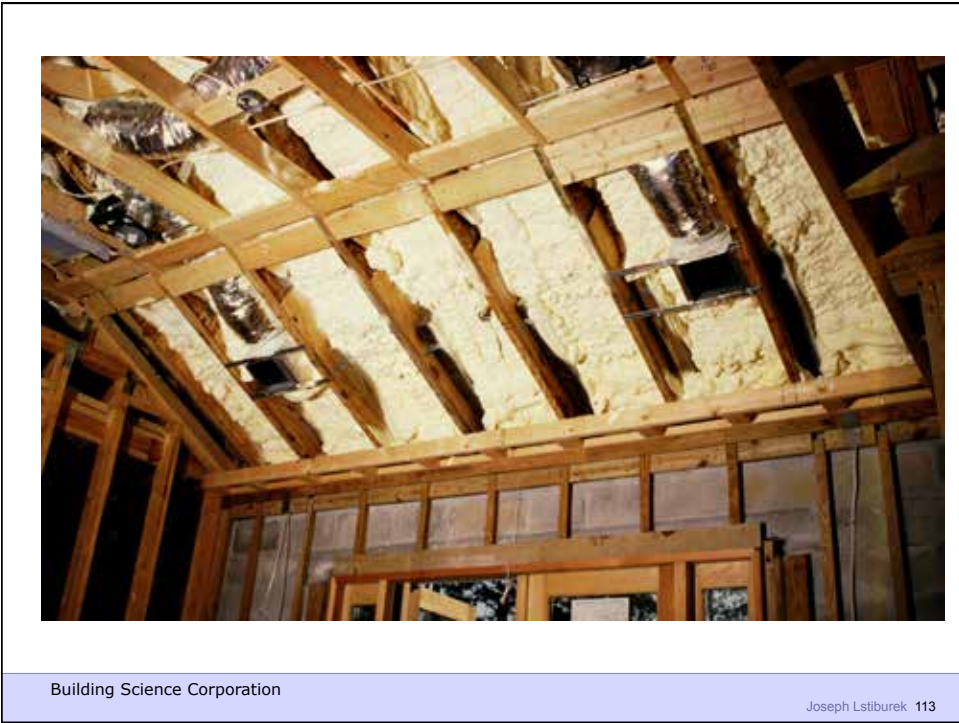
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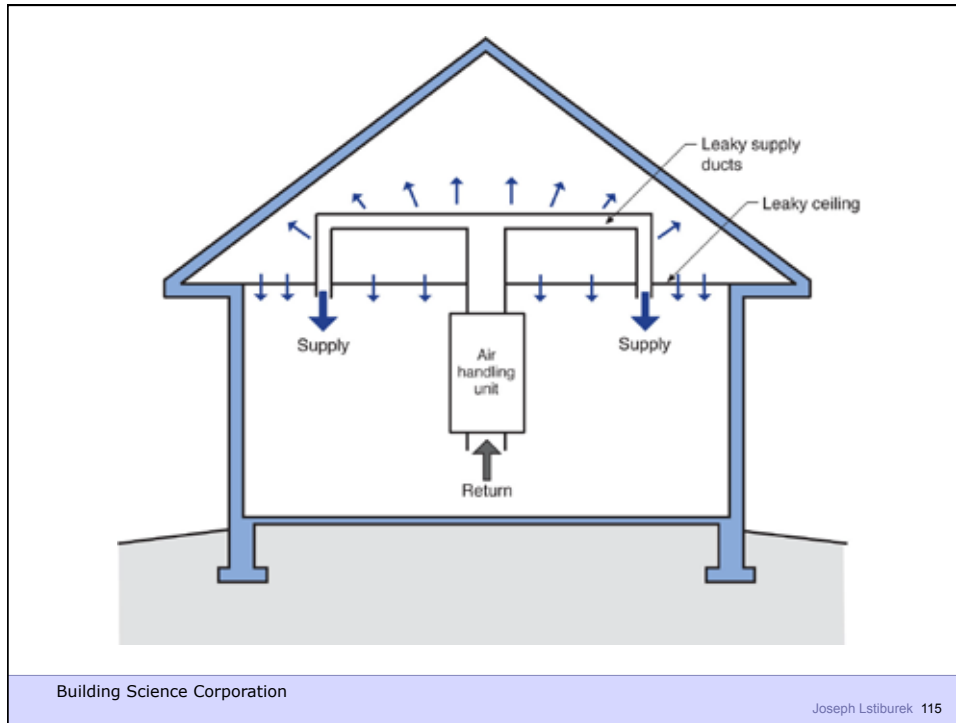
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