

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

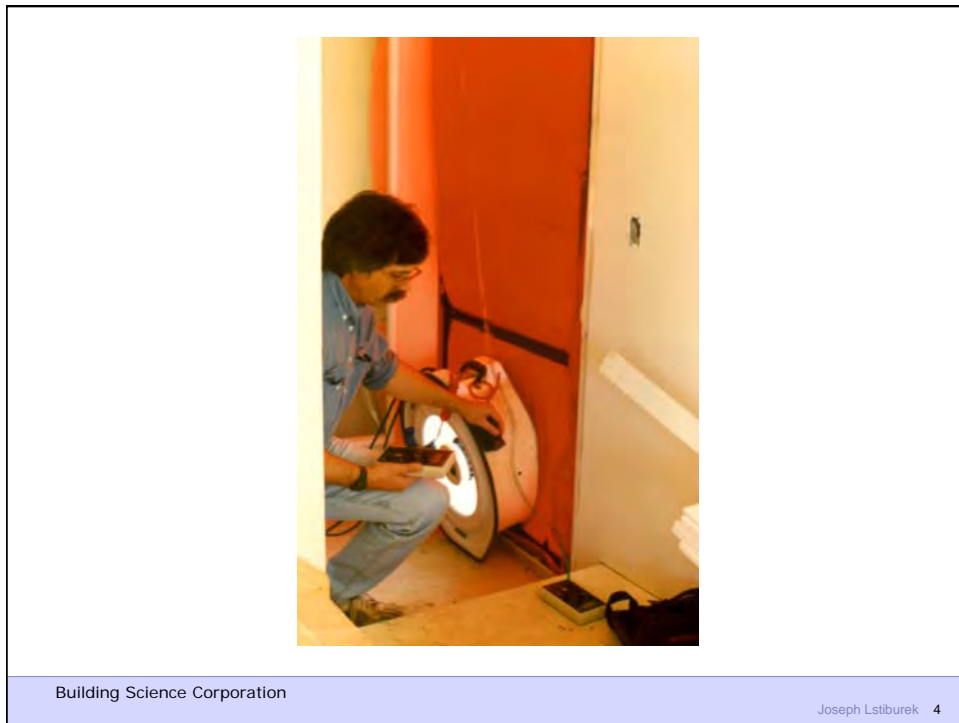
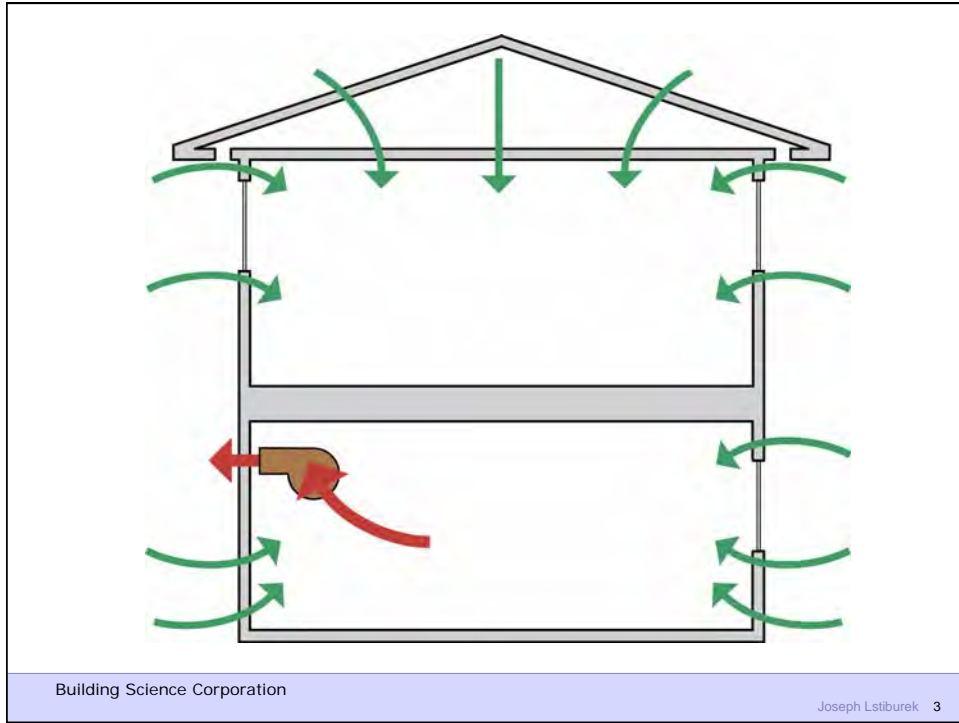
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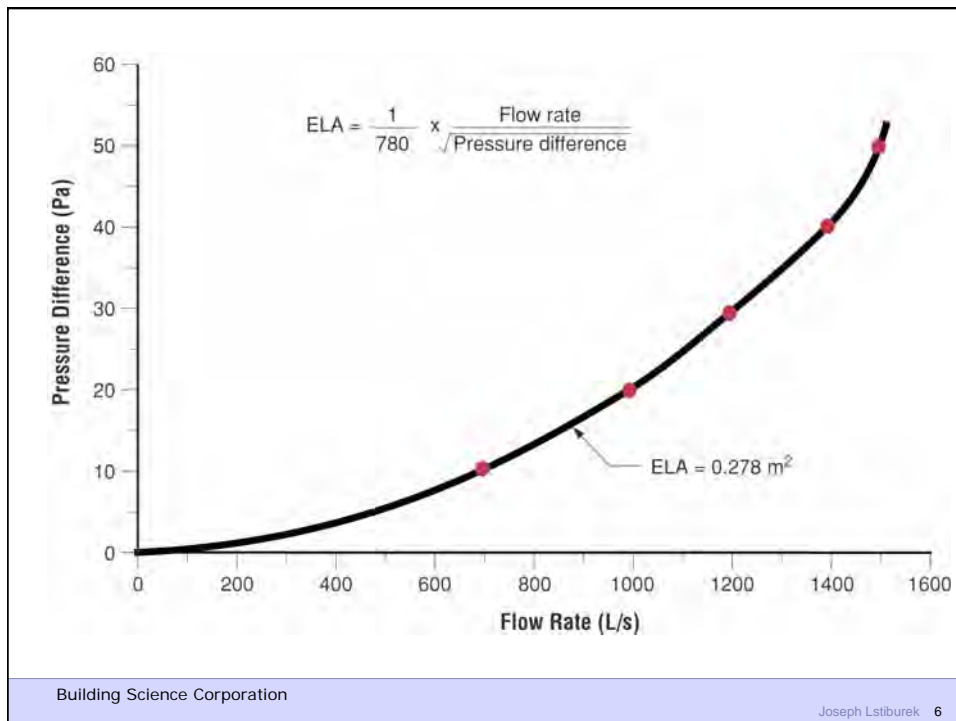
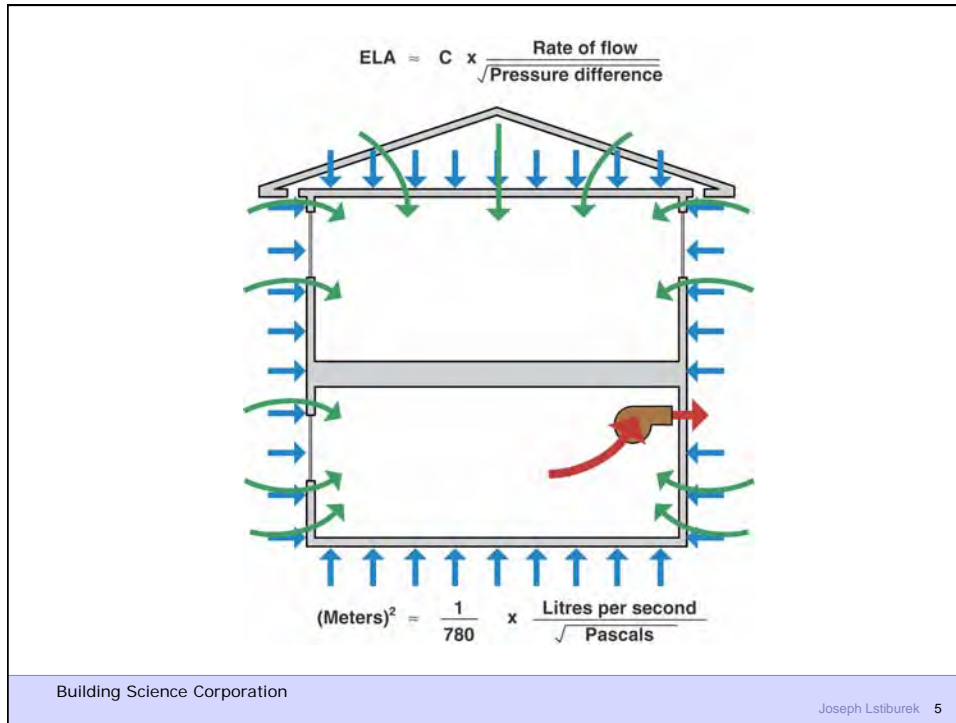
HVAC

presented by www.buildingscience.com

Air Barrier Metrics

Material	0.02 l/(s-m ²)@75 Pa
Assembly	0.20 l/(s-m ²)@75 Pa
Enclosure	2.00 l/(s-m ²)@75 Pa







Duct Leakage Should Be Less Than 5% of
Rated Flow As Tested by Pressurization To
25 Pascals

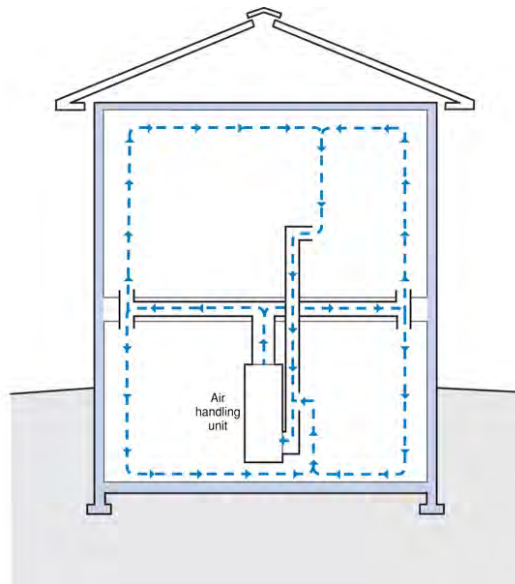


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Figure 3.12
Ductwork and Air Handlers in Basements

- No air pressure differences result in a house with an air handler and ductwork located in a basement if there are no leaks in the supply ducts, the return ducts or the air handler and if the amount of air delivered to each room equals the amount removed



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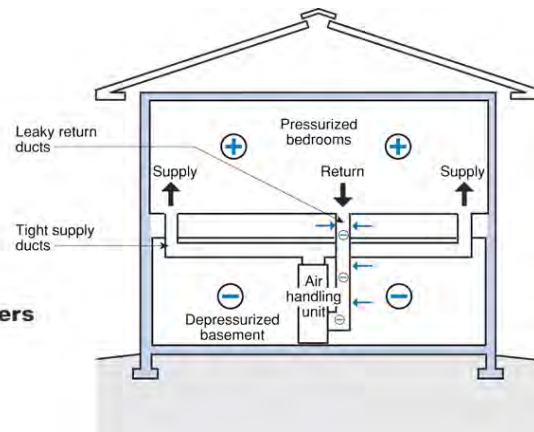


Figure 3.14
Leaky Ductwork and Air Handlers in Basements

- Air pressurization patterns in a house with leaky ductwork in the basement

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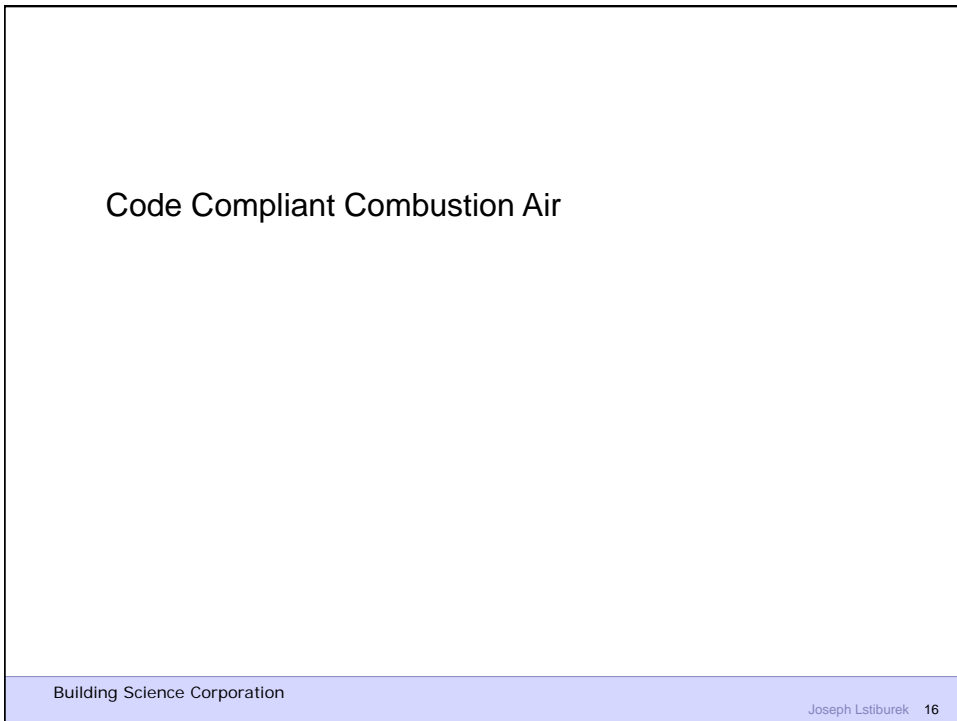
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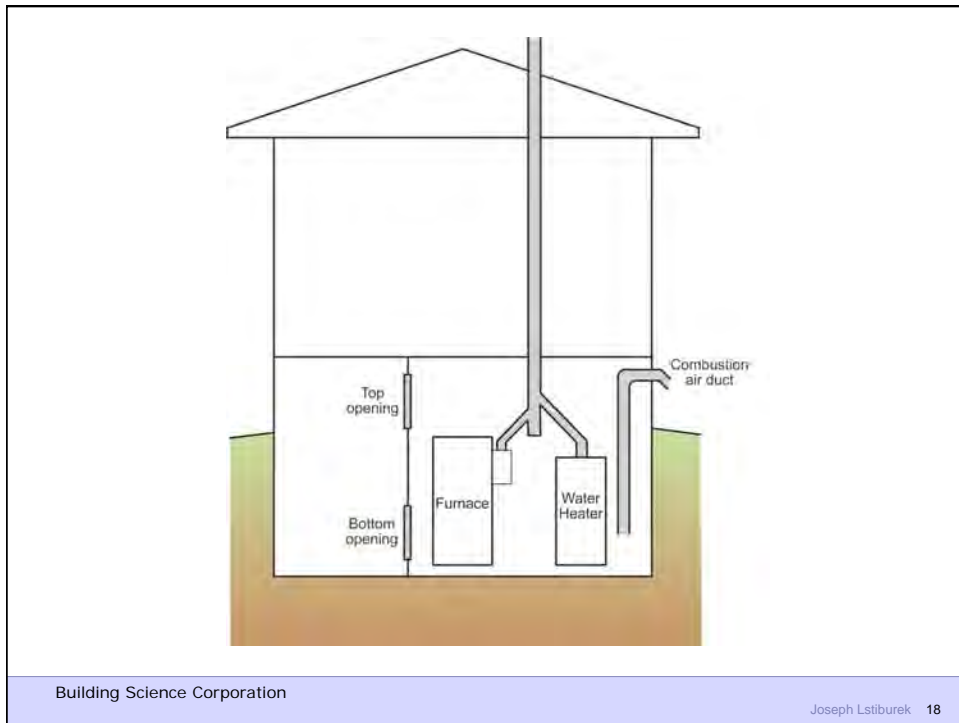
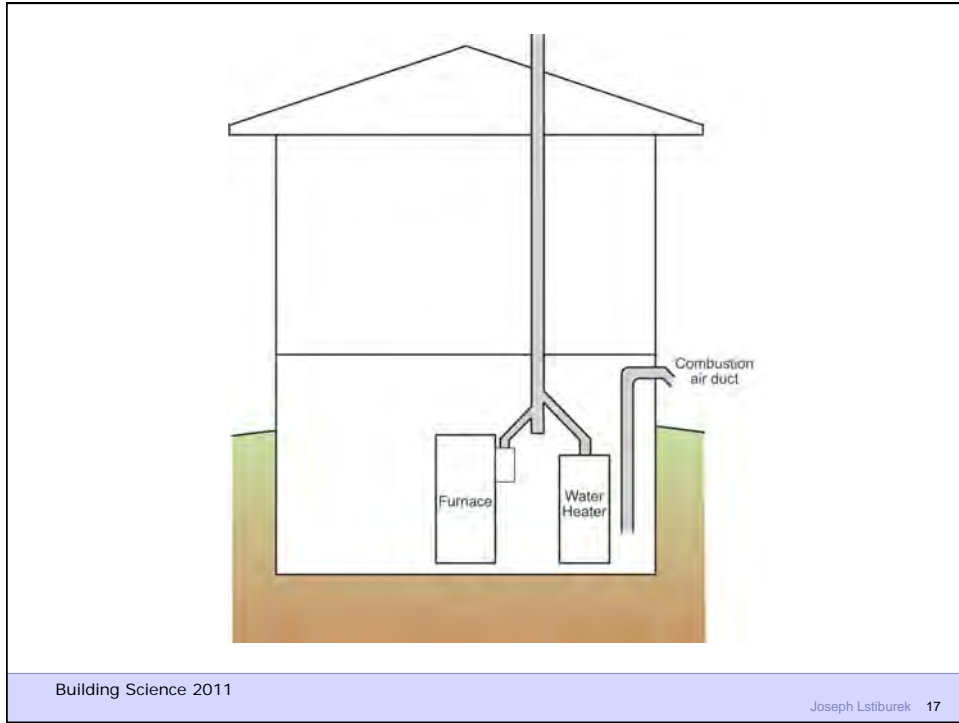


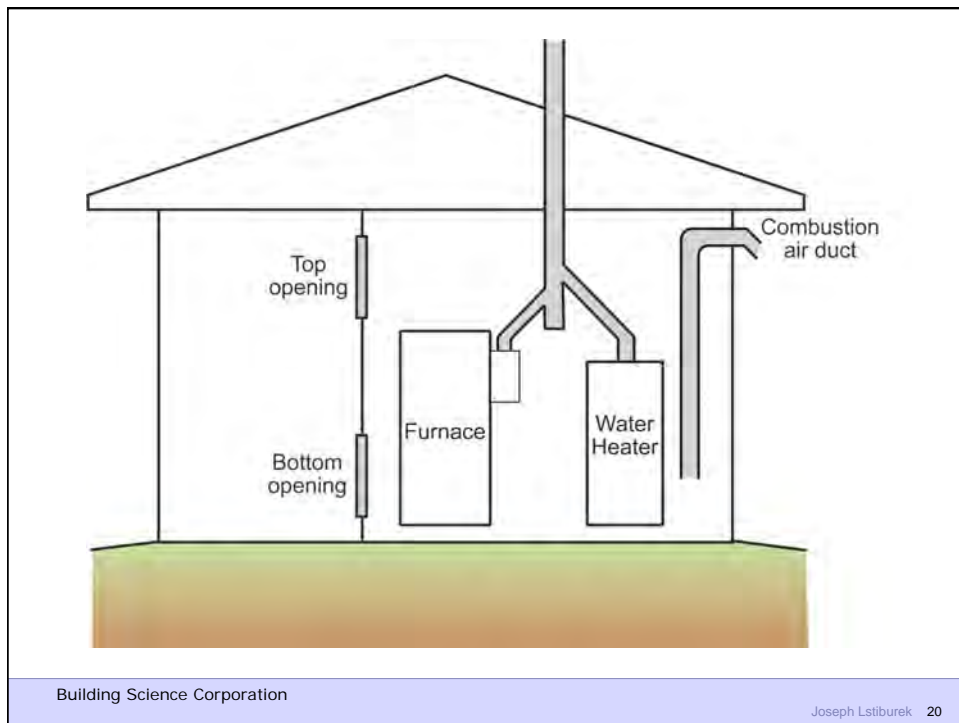
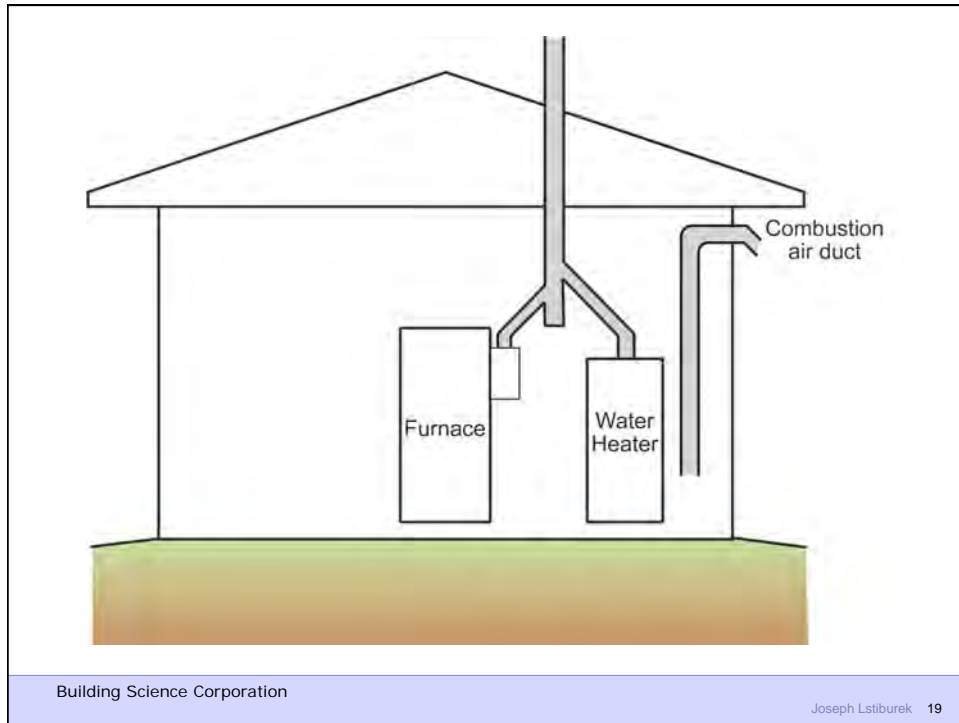
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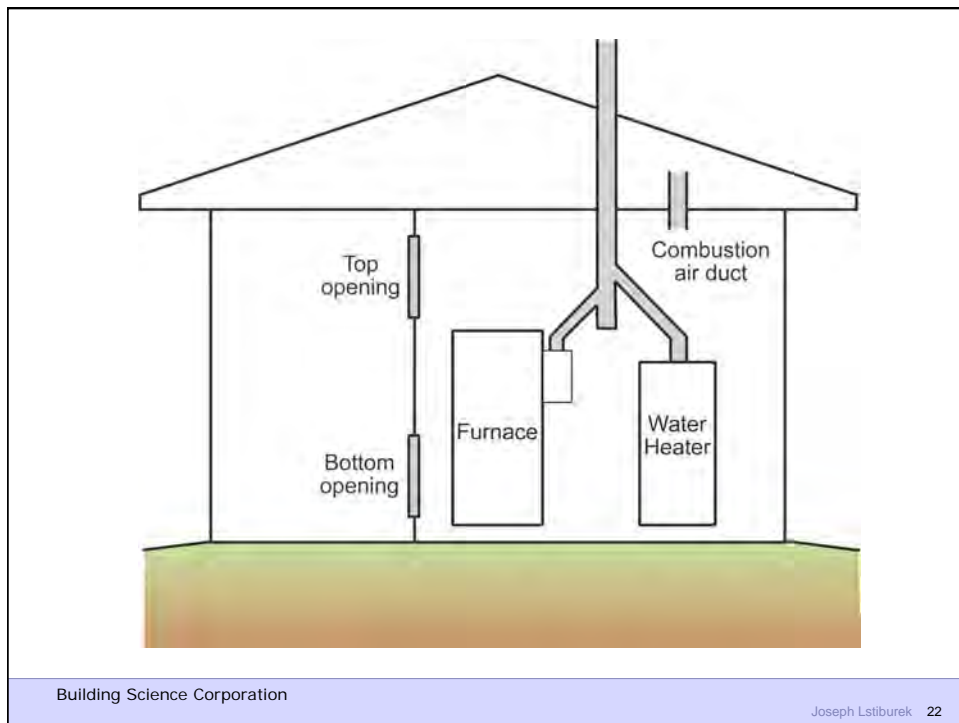
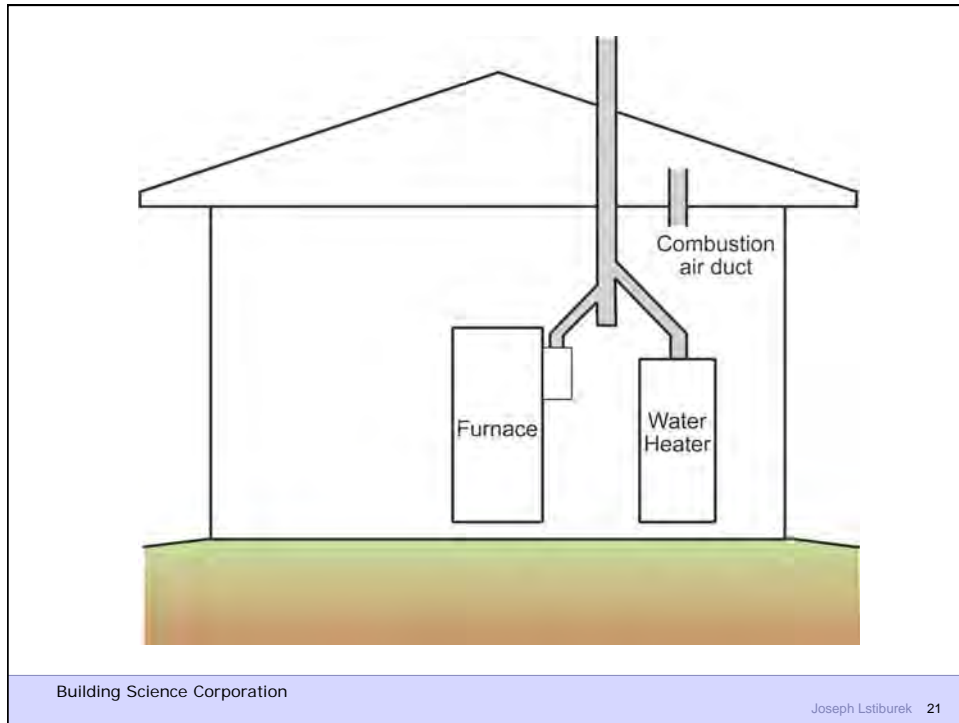


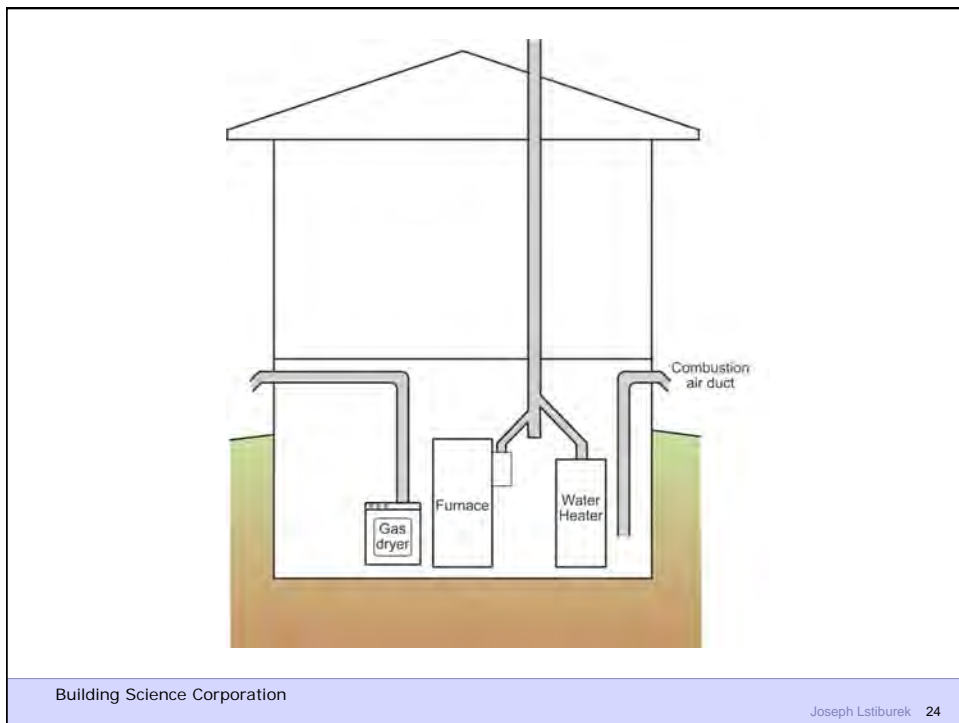
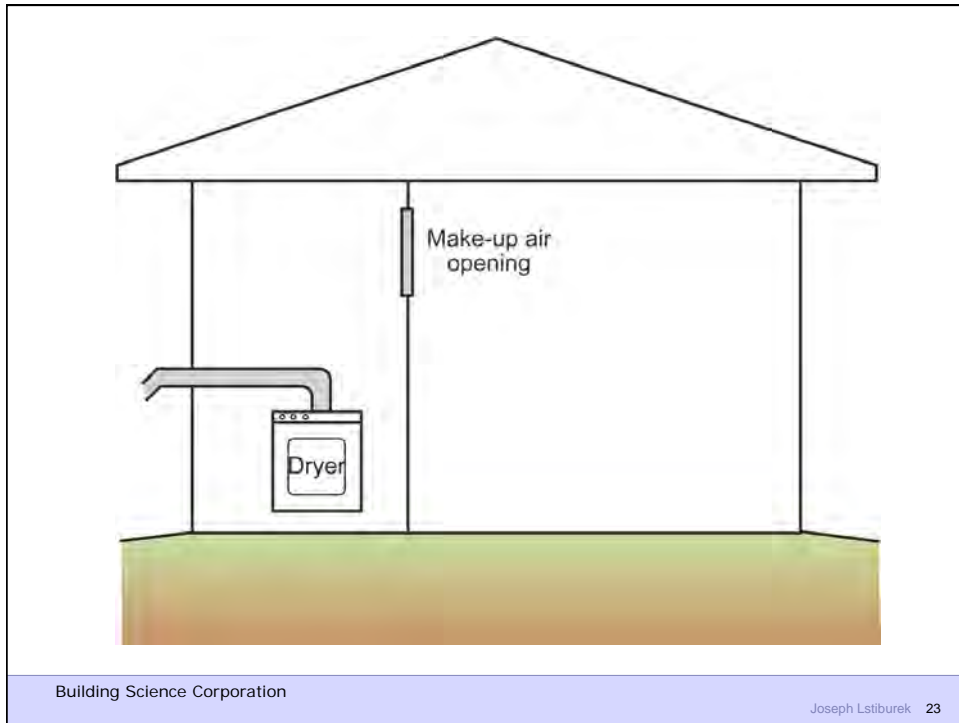
Code Compliant Combustion Air

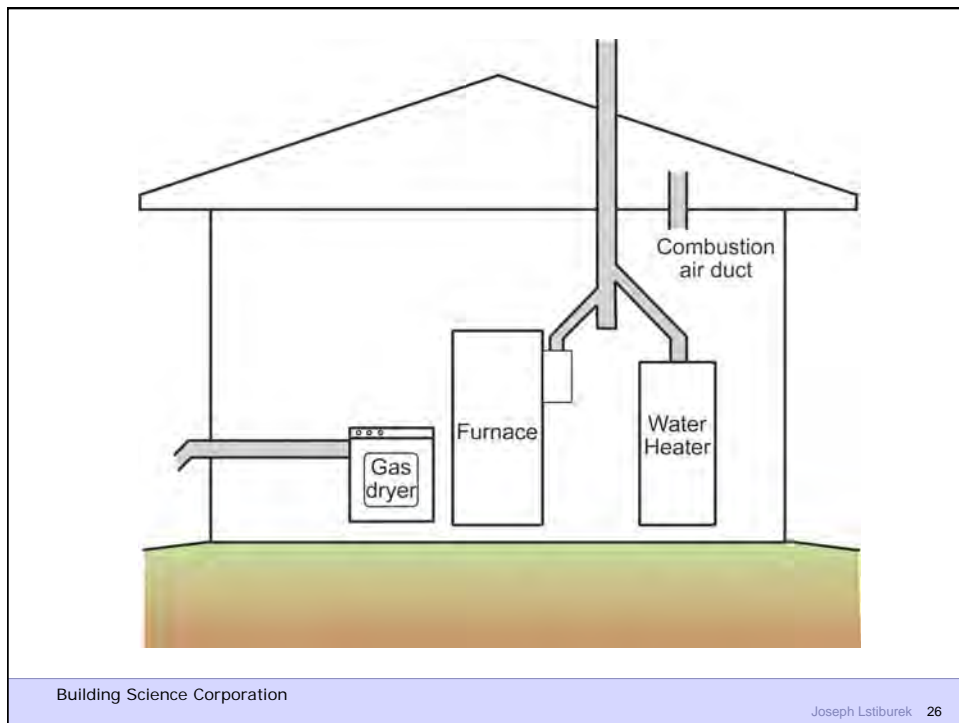
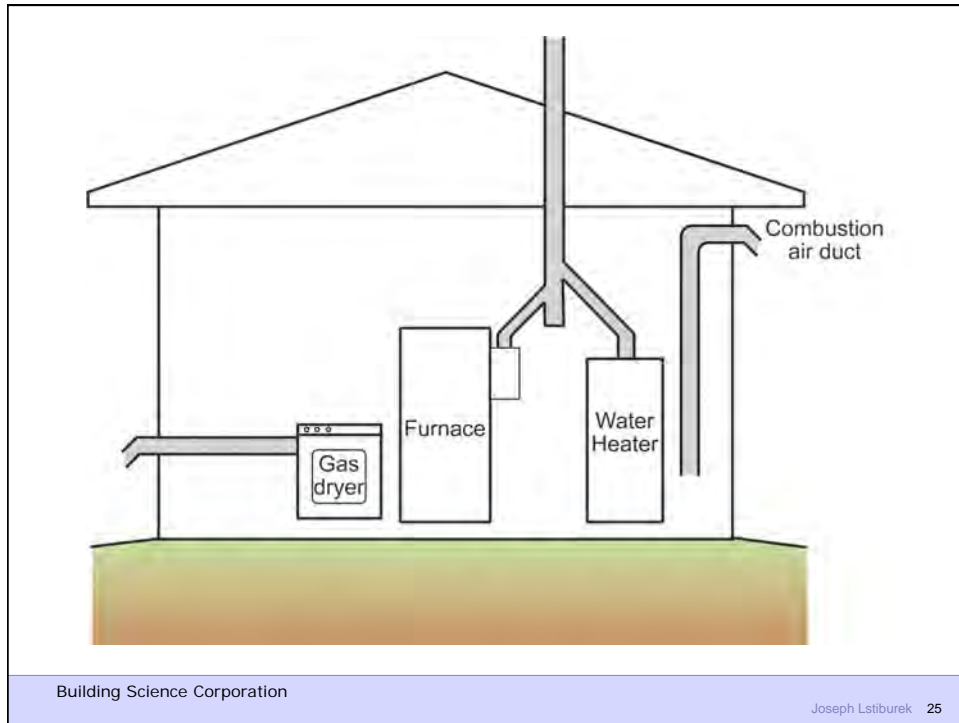












Sealed Combustion Appliances





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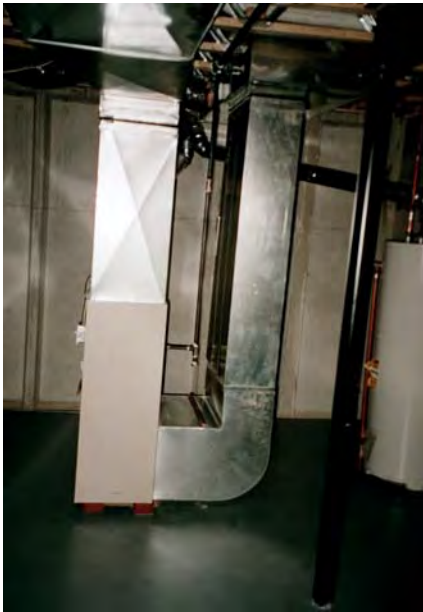
Control Pressures



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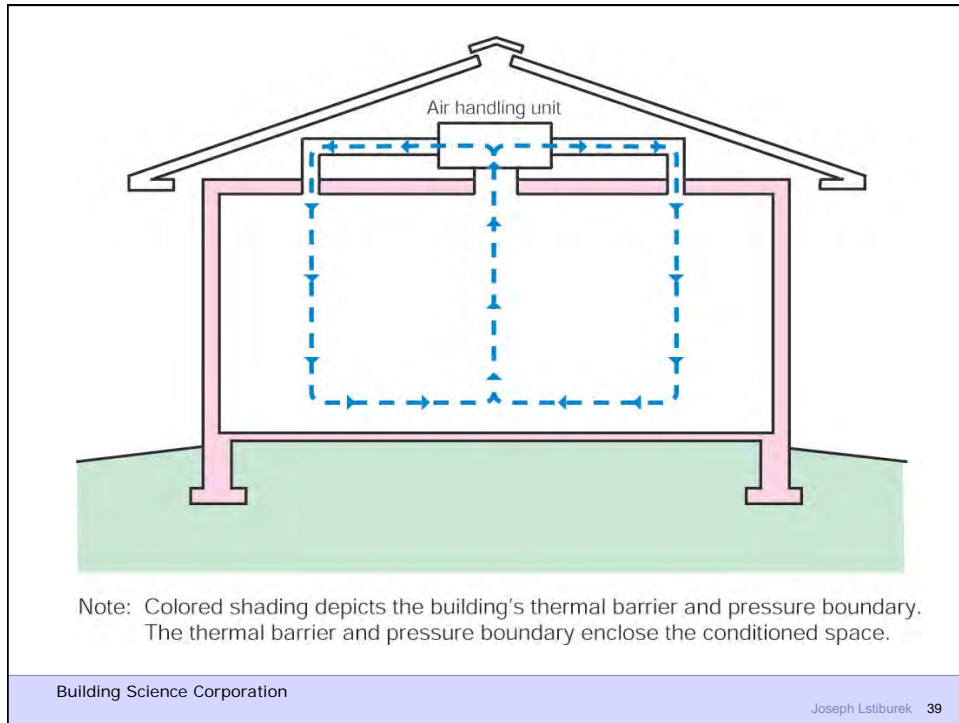
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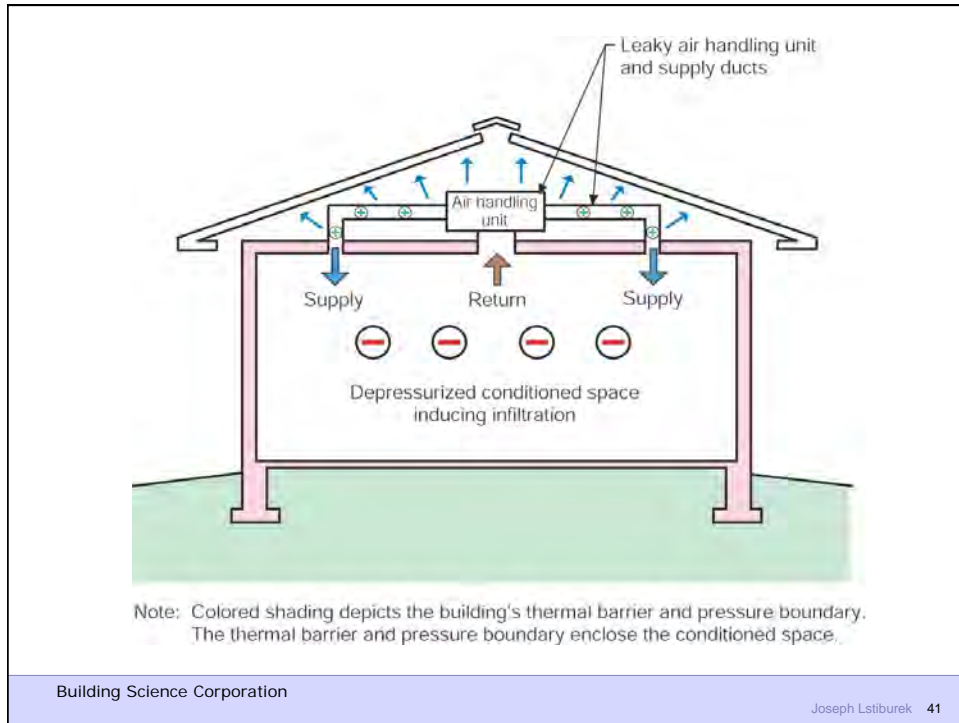
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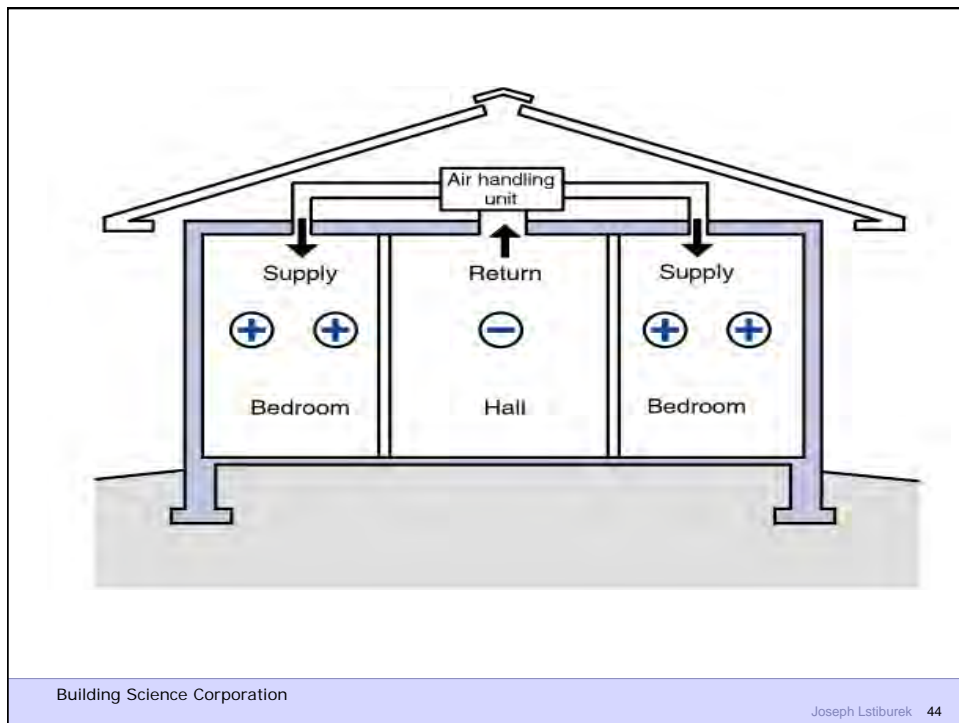
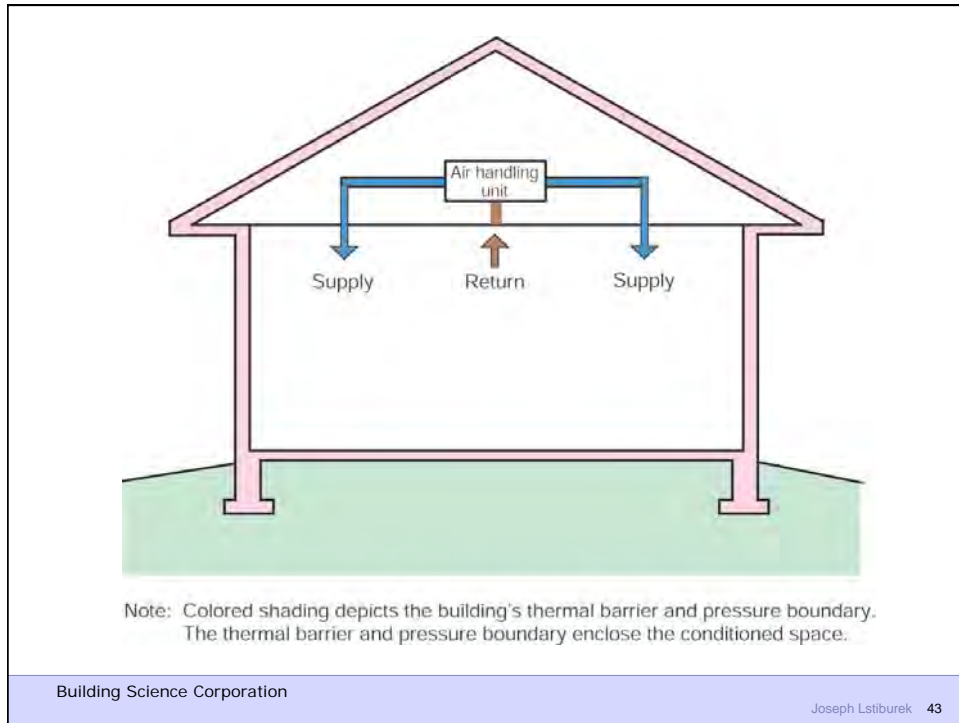


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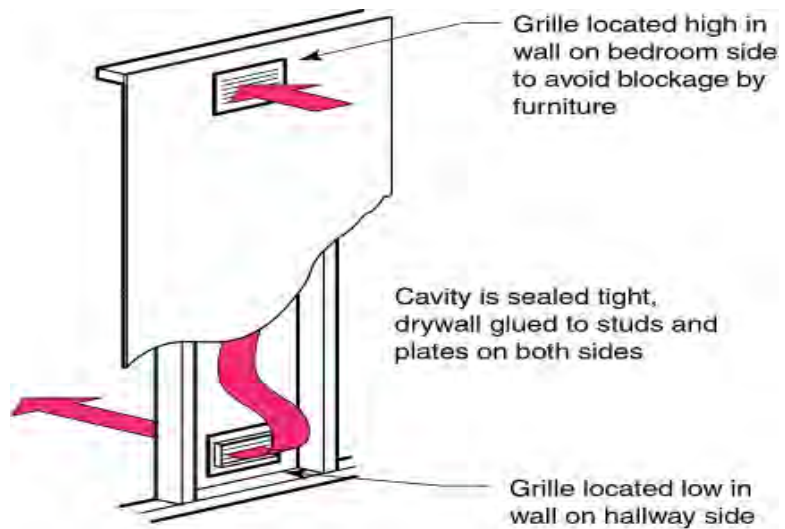
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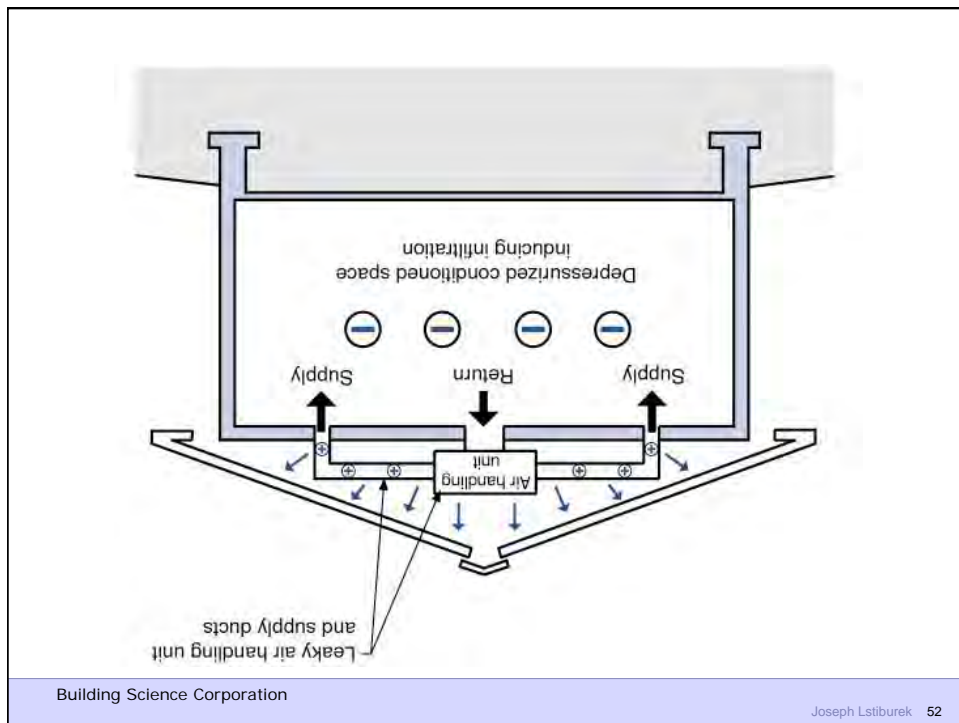
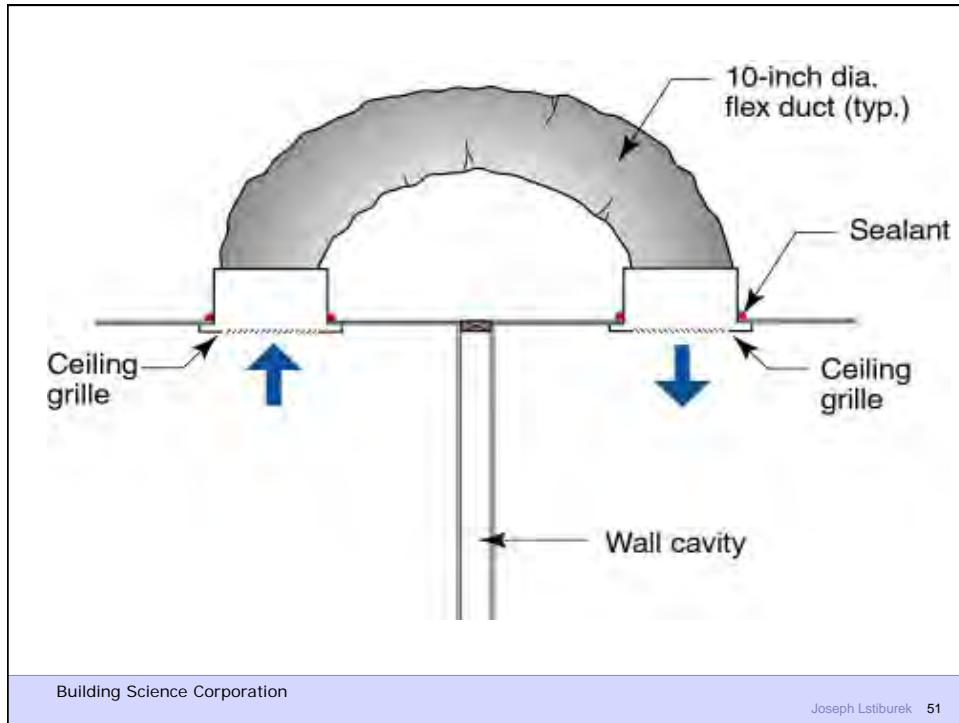
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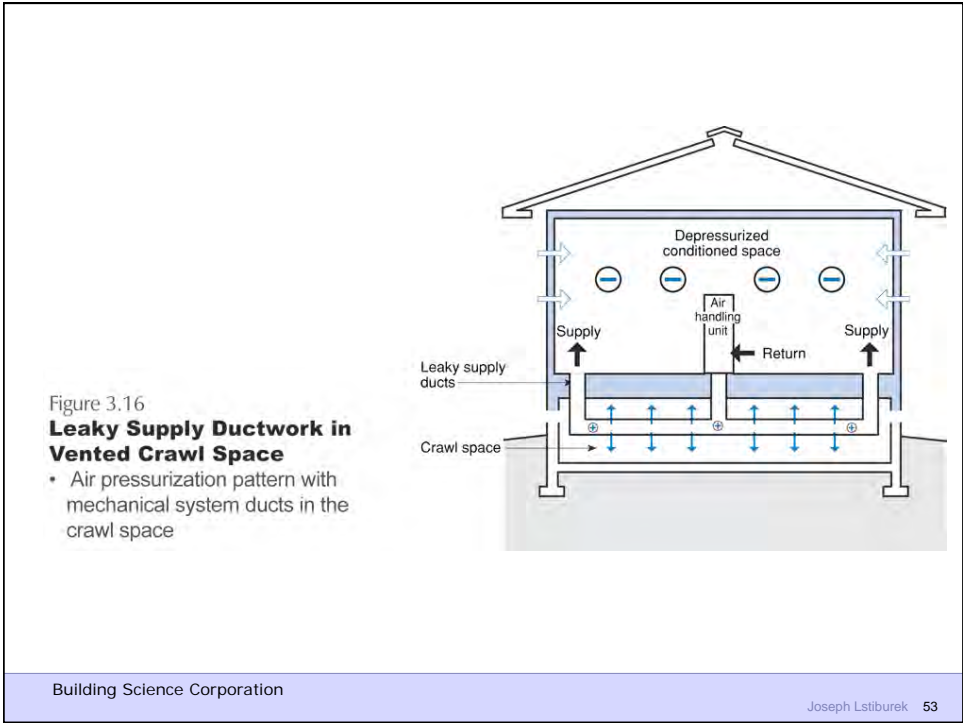
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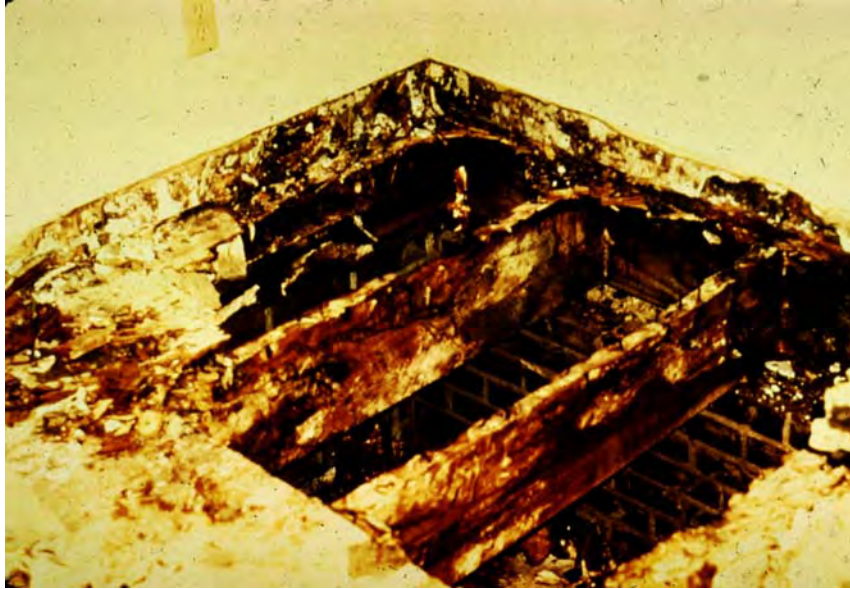
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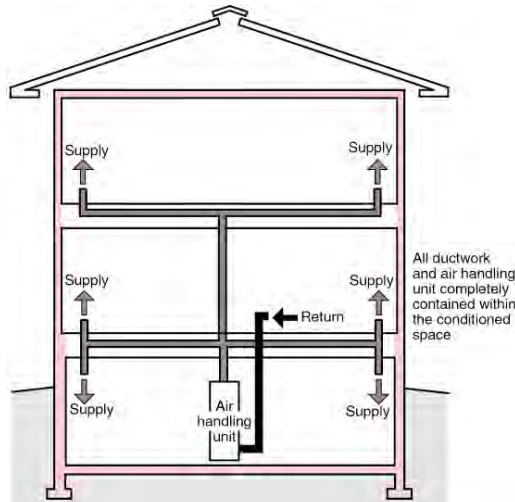
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Note: Colored shading depicts the building's thermal barrier and pressure boundary. The thermal barrier and pressure boundary enclose the conditioned space.

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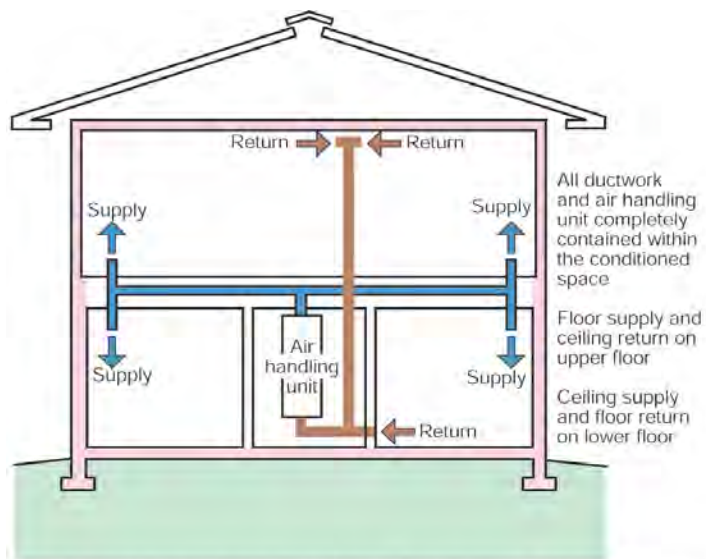
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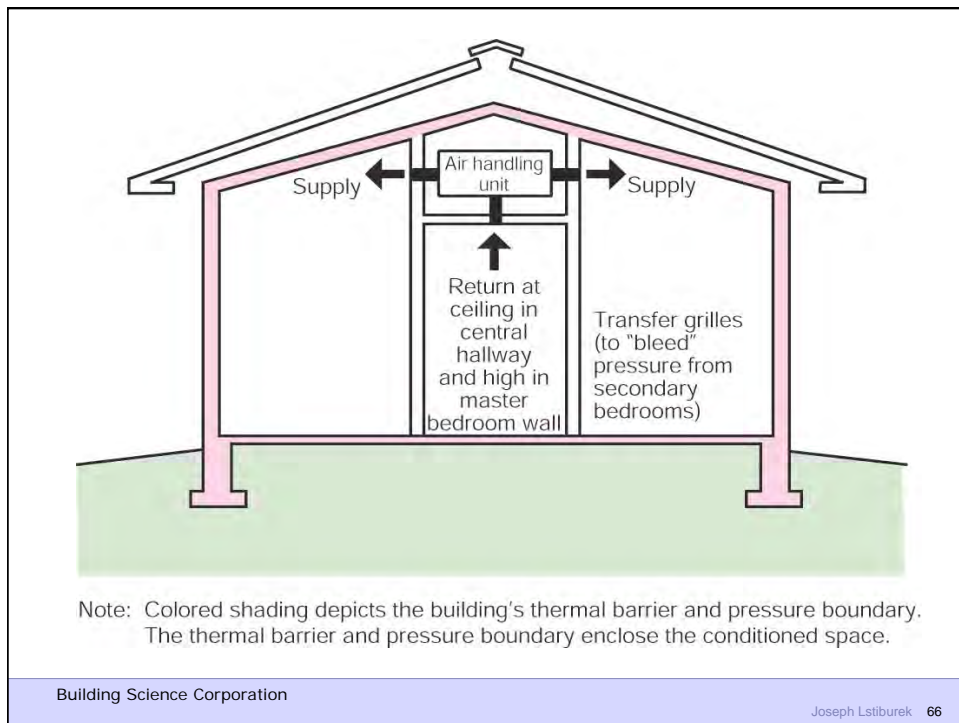
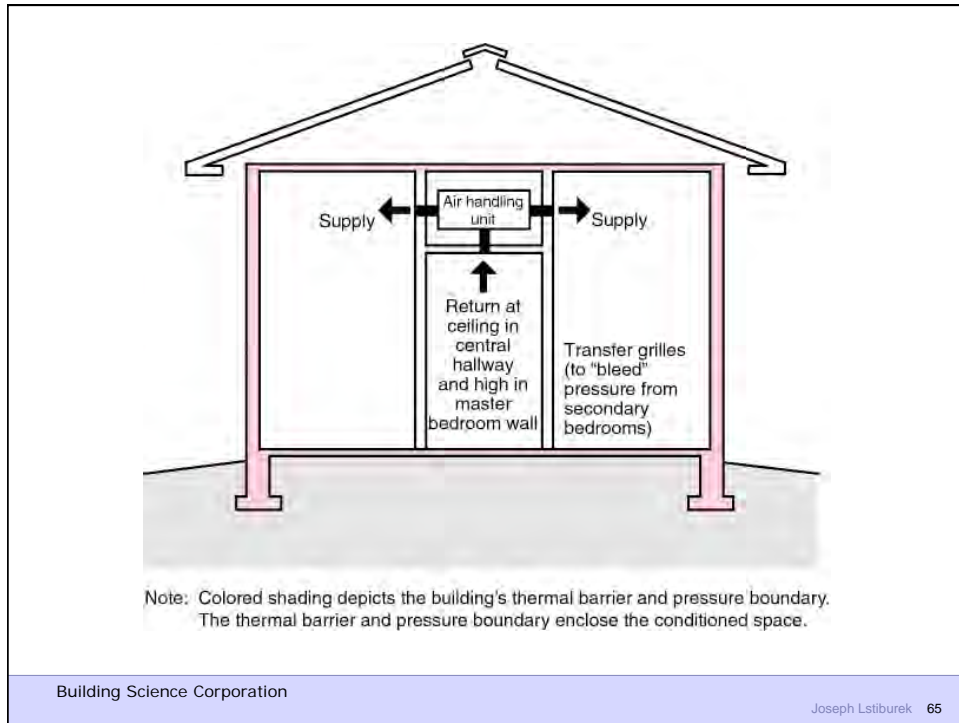
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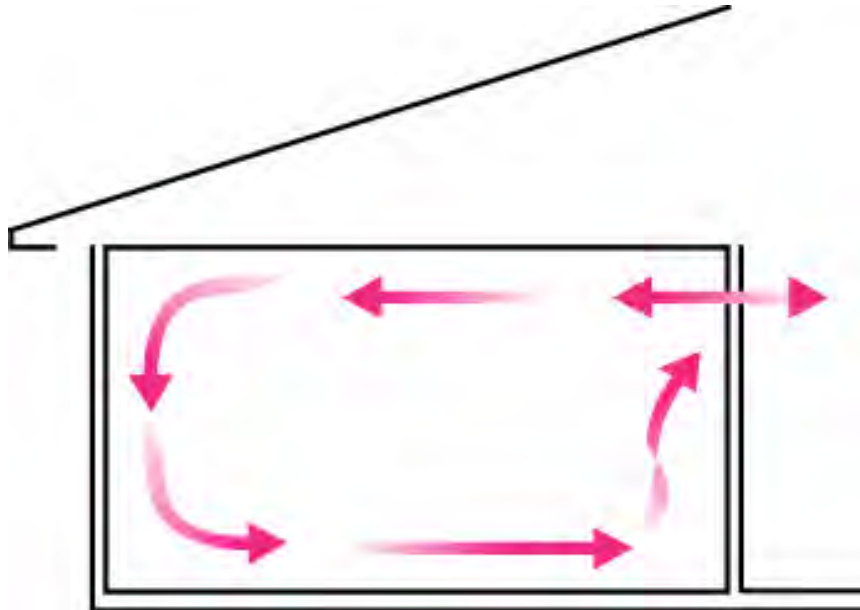
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