

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

Building Science

Retrofit Case Studies

presented by www.buildingscience.com



Building Science Corporation

Joseph Lstiburek 2



Building Science Corporation

Joseph Lstiburek 3



Building Science Corporation

Joseph Lstiburek 4



Building Science Corporation

Joseph Lstiburek 5



Building Science Corporation

Joseph Lstiburek 6



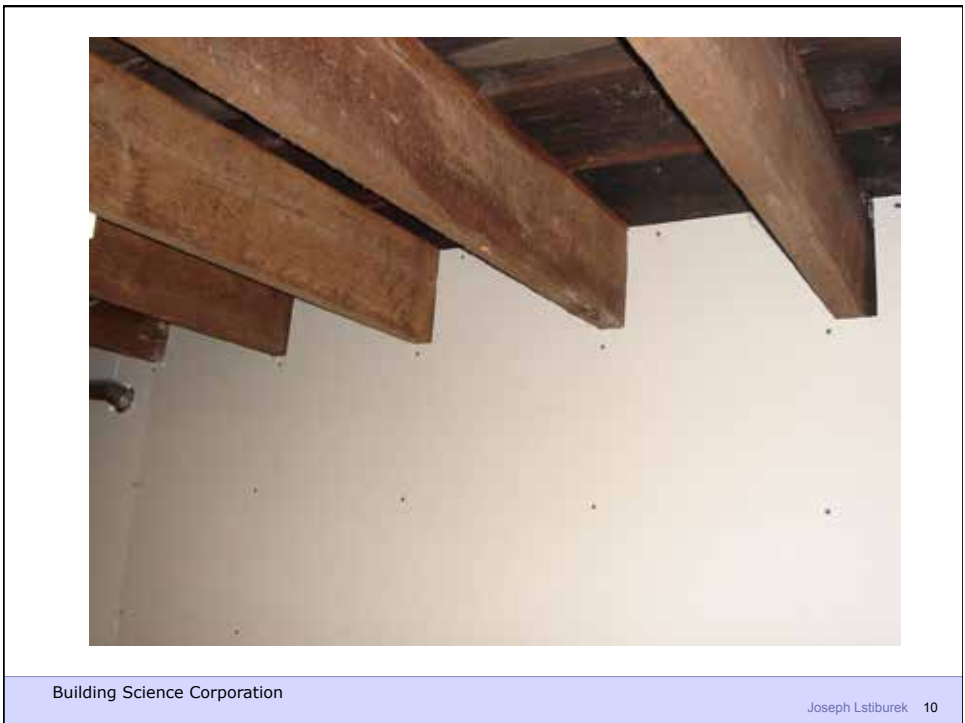
Building Science Corporation

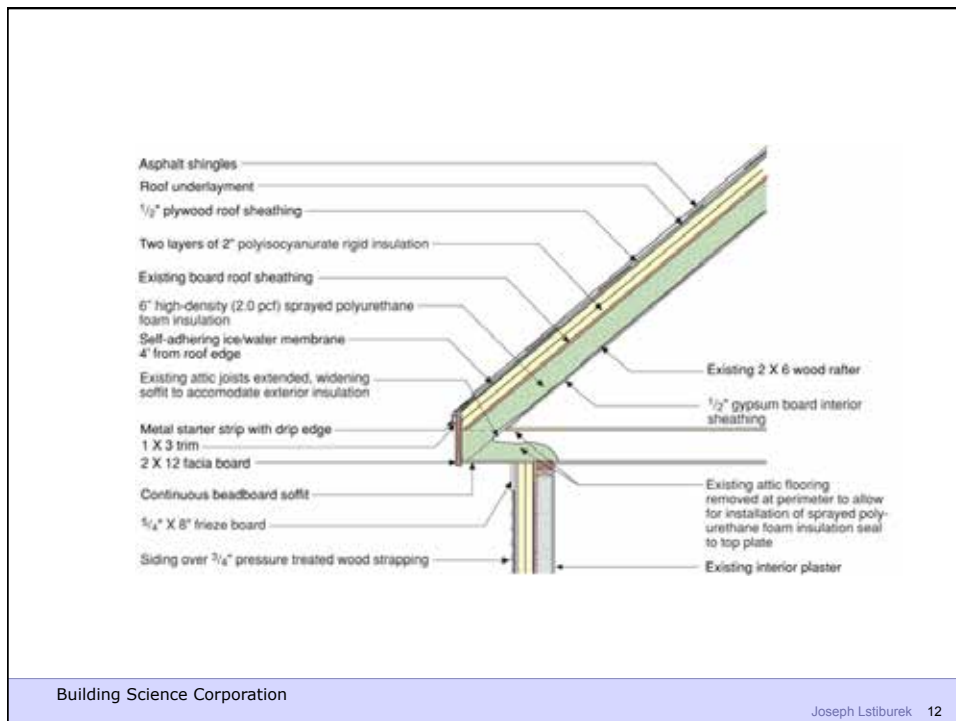
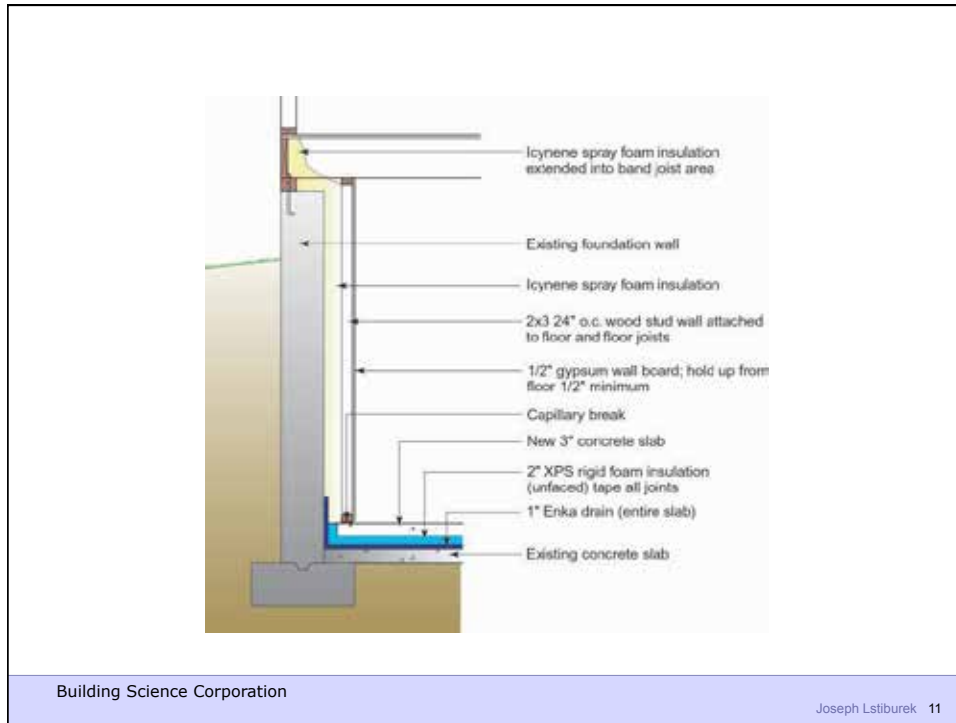
Joseph Lstiburek 7



Building Science Corporation

Joseph Lstiburek 8







Building Science Corporation

Joseph Lstiburek 13



Building Science Corporation

Joseph Lstiburek 14



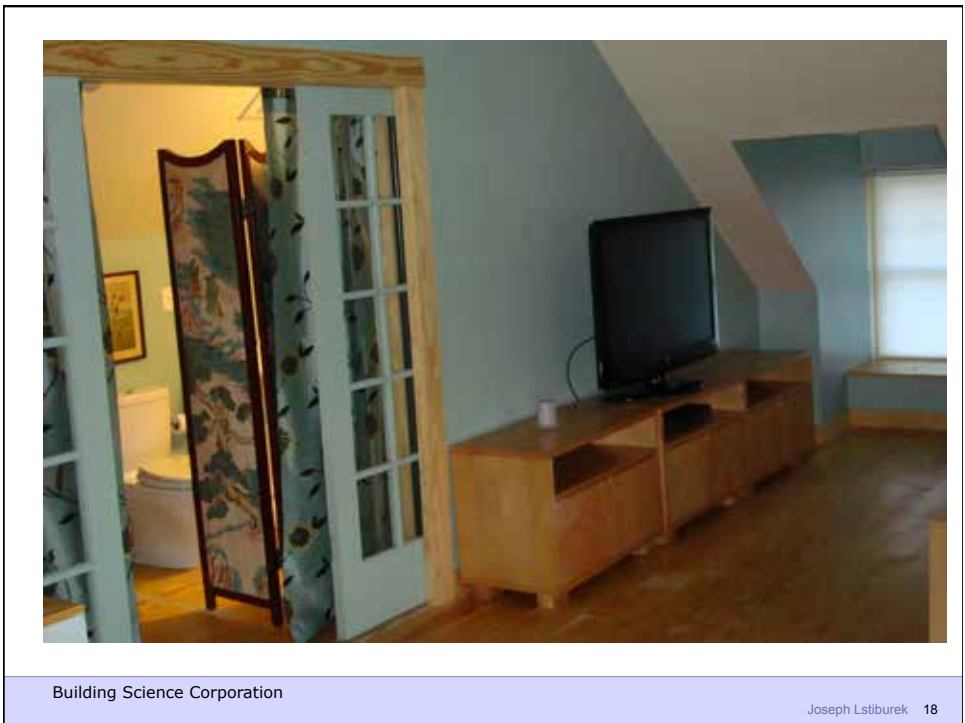
Building Science Corporation

Joseph Lstiburek 15



Building Science Corporation

Joseph Lstiburek 16





Building Science Corporation

Joseph Lstiburek 19



Building Science Corporation

Joseph Lstiburek 20



Building Science Corporation

Joseph Lstiburek 21



Building Science Corporation

Joseph Lstiburek 22



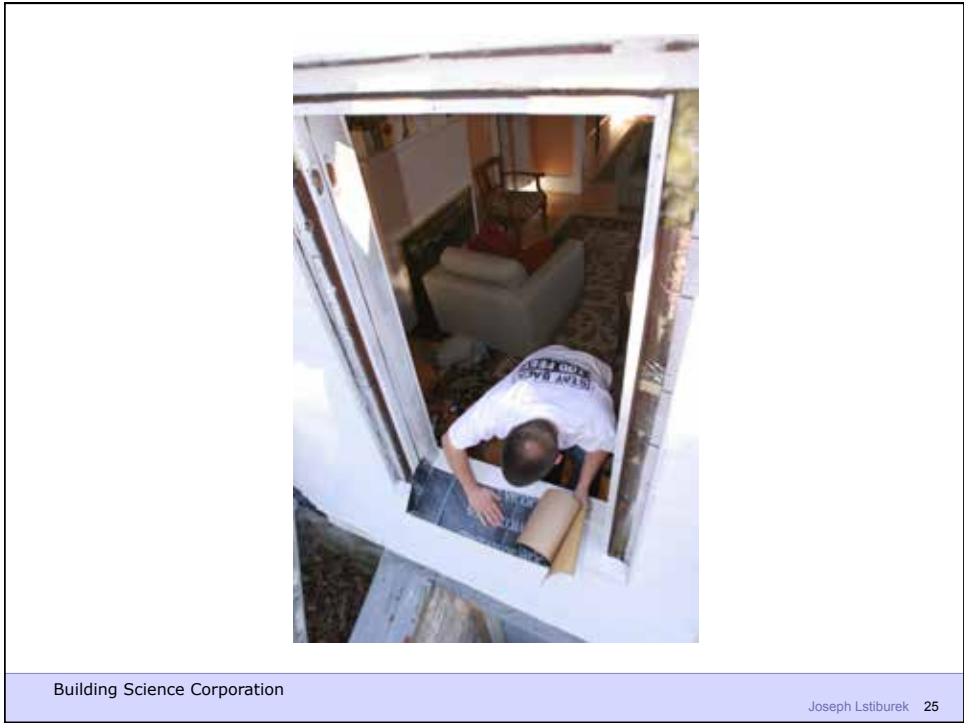
Building Science Corporation

Joseph Lstiburek 23



Building Science Corporation

Joseph Lstiburek 24





Building Science Corporation

Joseph Lstiburek 27



Building Science Corporation

Joseph Lstiburek 28



Building Science Corporation

Joseph Lstiburek 29



Building Science Corporation

Joseph Lstiburek 30



Building Science Corporation

Joseph Lstiburek 31



Building Science Corporation

Joseph Lstiburek 32



Building Science Corporation

Joseph Lstiburek 33



Building Science Corporation

Joseph Lstiburek 34



Building Science Corporation



Building Science Corporation



Building Science Corporation

Joseph Lstiburek 37



Building Science Corporation

Joseph Lstiburek 38



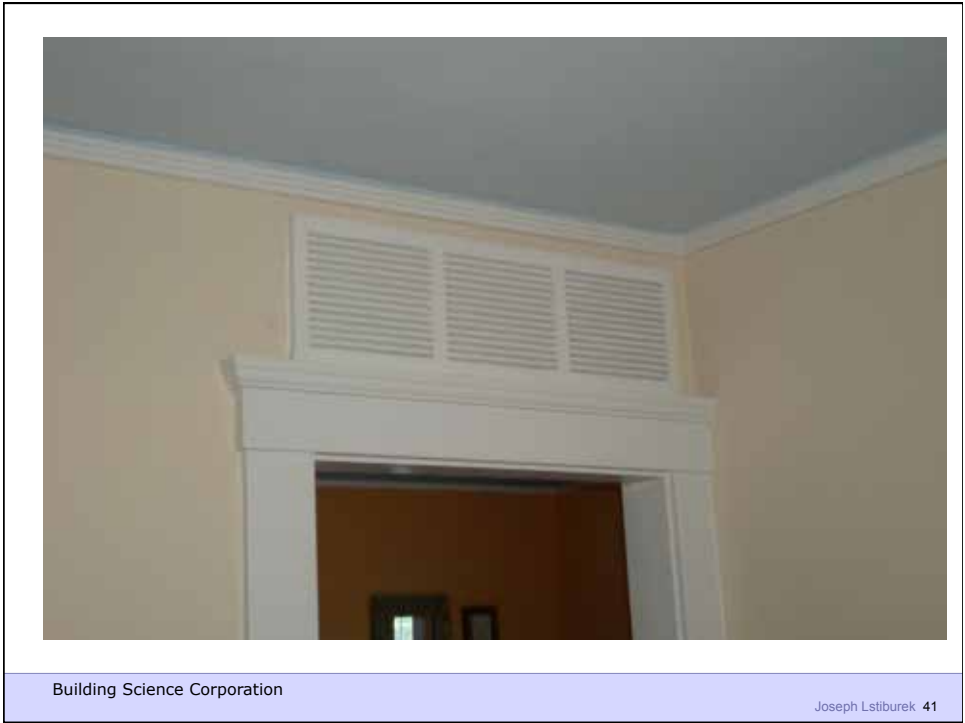
Building Science Corporation

Joseph Lstiburek 39



Building Science Corporation

Joseph Lstiburek 40





Building Science Corporation

Joseph Lstiburek 43



Building Science Corporation

Joseph Lstiburek 44



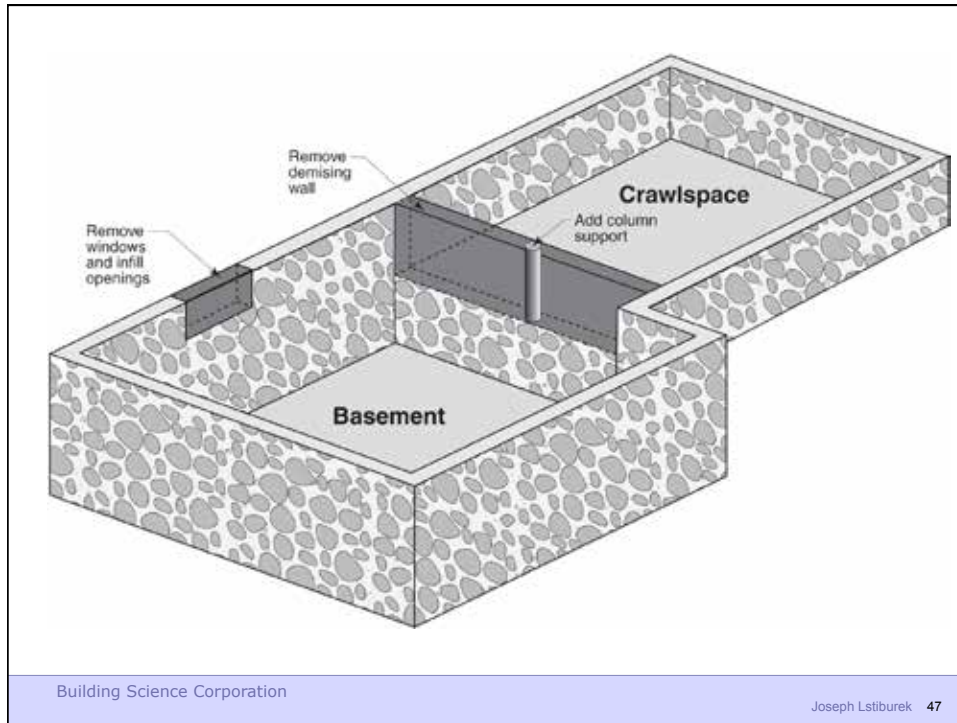
Building Science Corporation

Joseph Lstiburek 45

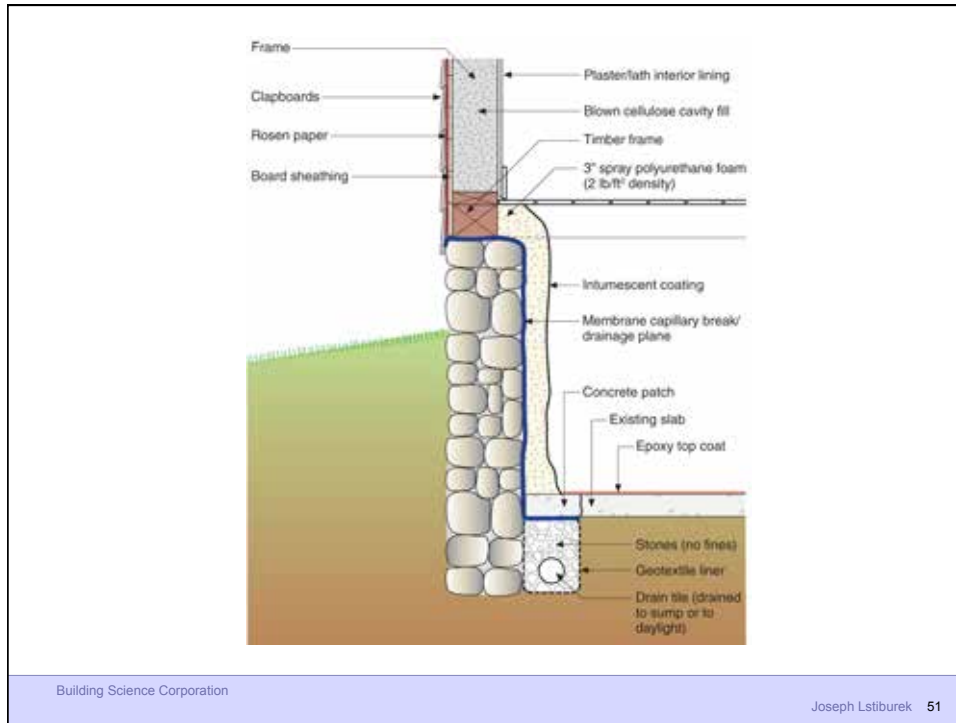


Building Science Corporation

Joseph Lstiburek 46











Building Science Corporation

Joseph Lstiburek 55



Building Science Corporation

Joseph Lstiburek 56











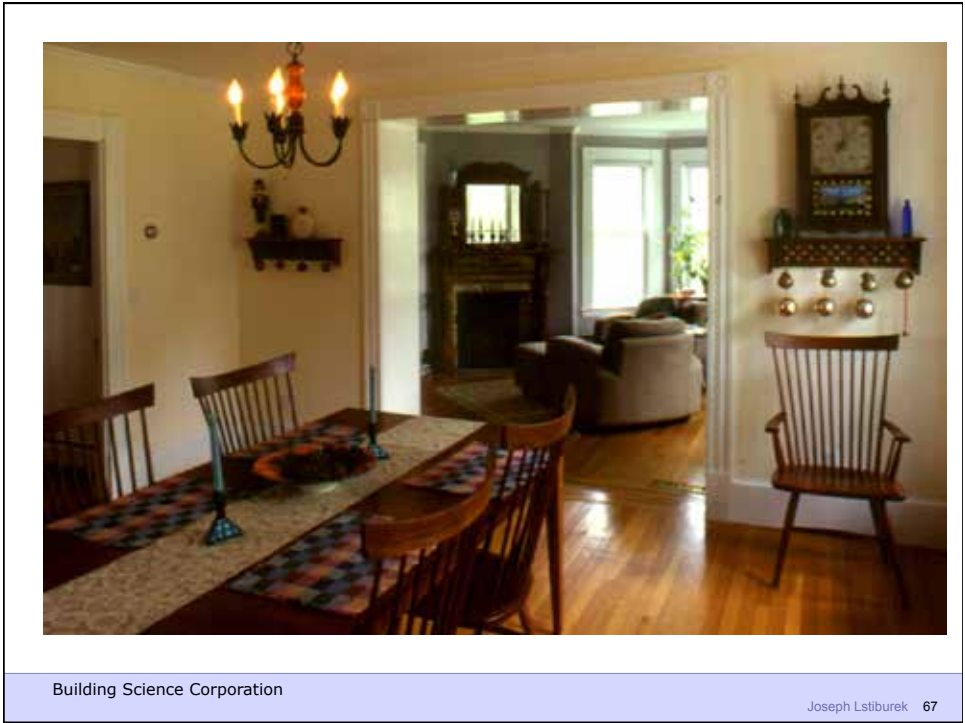
Building Science Corporation

Joseph Lstiburek 65



Building Science Corporation

Joseph Lstiburek 66







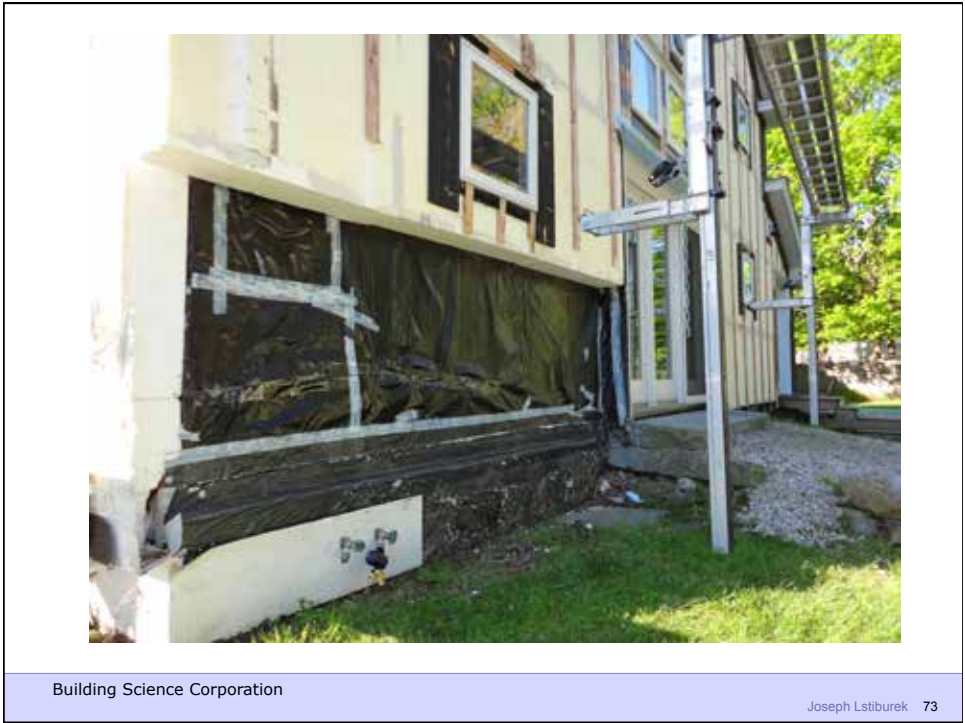
Building Science Corporation

Joseph Lstiburek 71

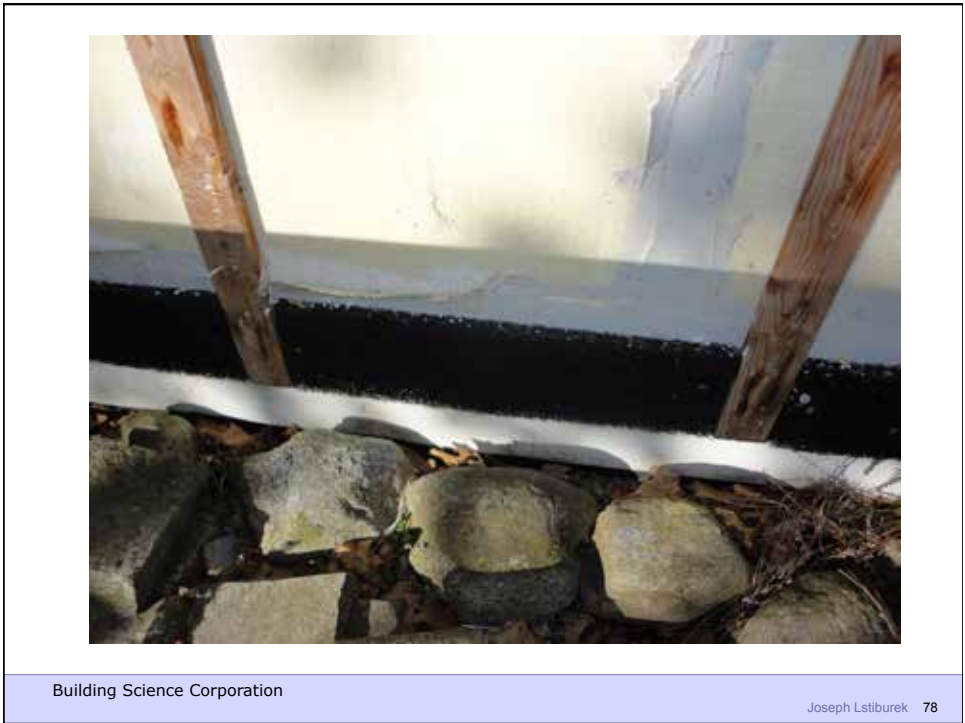


Building Science Corporation

Joseph Lstiburek 72



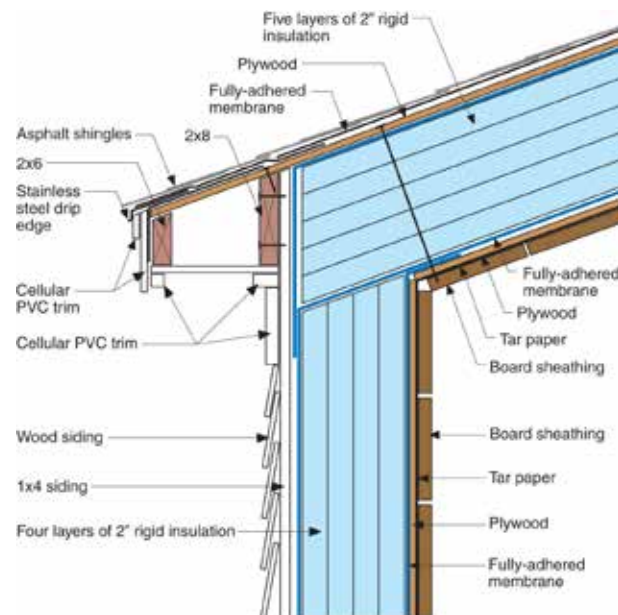






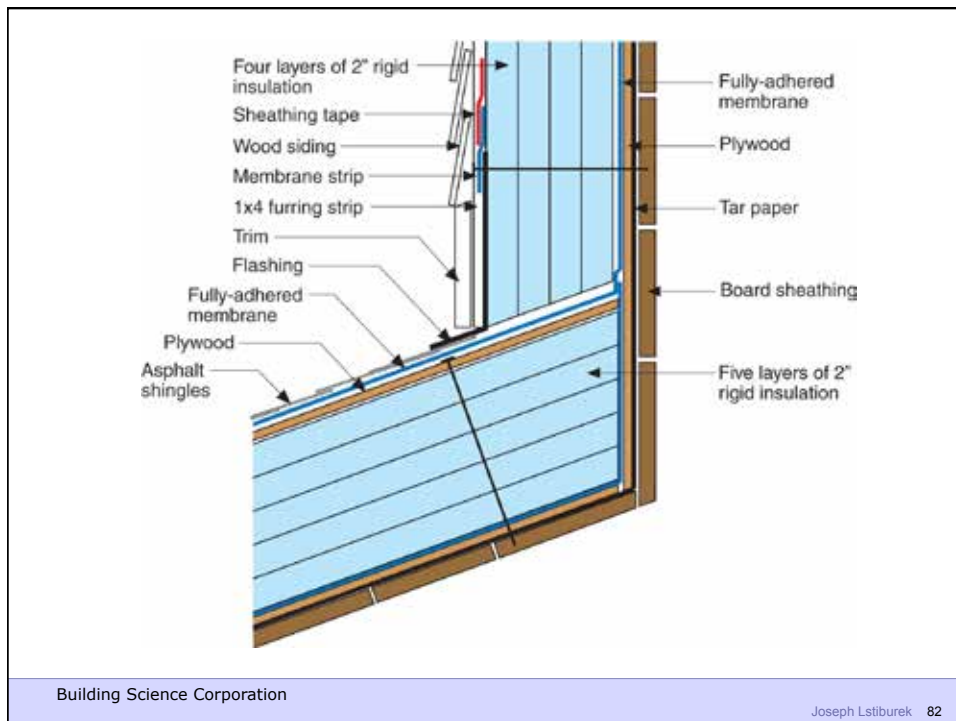
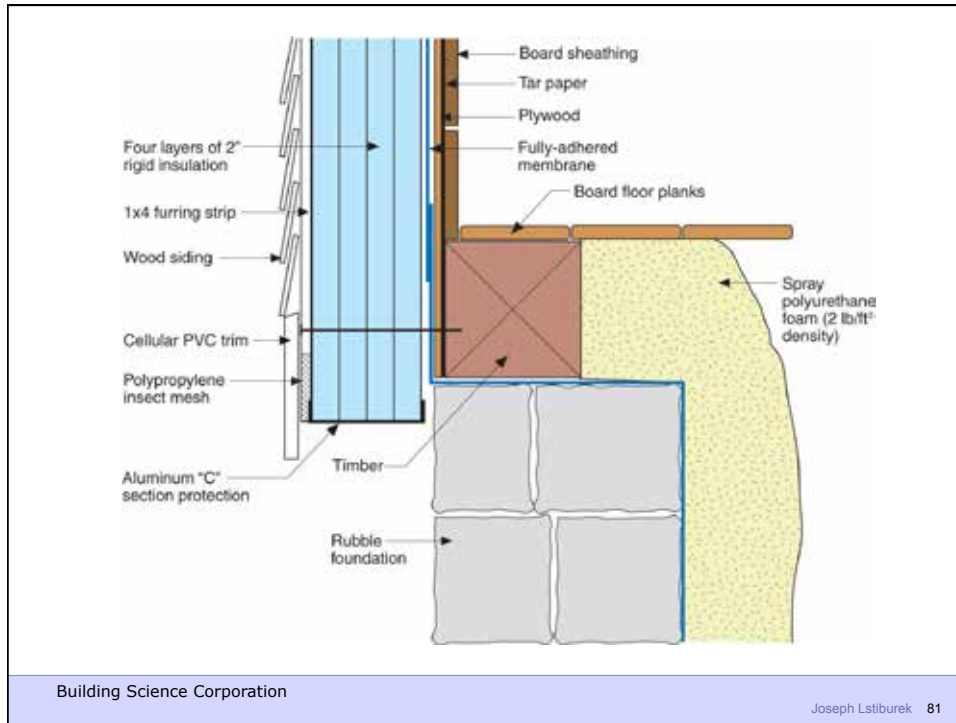
Building Science Corporation

Joseph Lstiburek 79



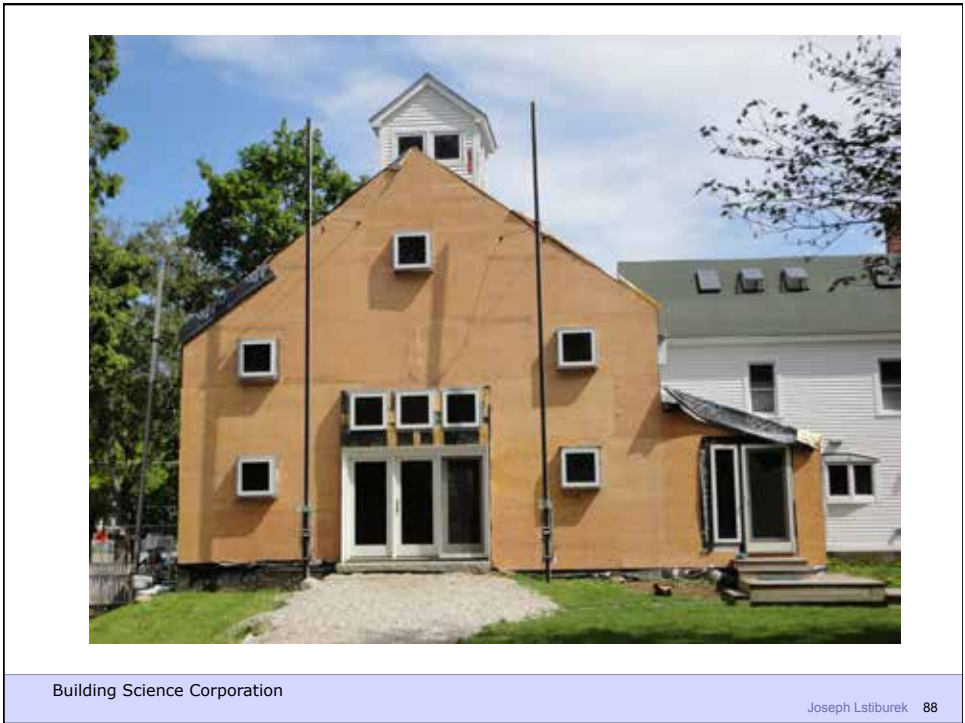
Building Science Corporation

Joseph Lstiburek 80











Building Science Corporation

Joseph Lstiburek 89



Building Science Corporation

Joseph Lstiburek 90



Building Science Corporation

Joseph Lstiburek 91



Building Science Corporation

Joseph Lstiburek 92



Building Science Corporation

Joseph Lstiburek 93



Building Science Corporation

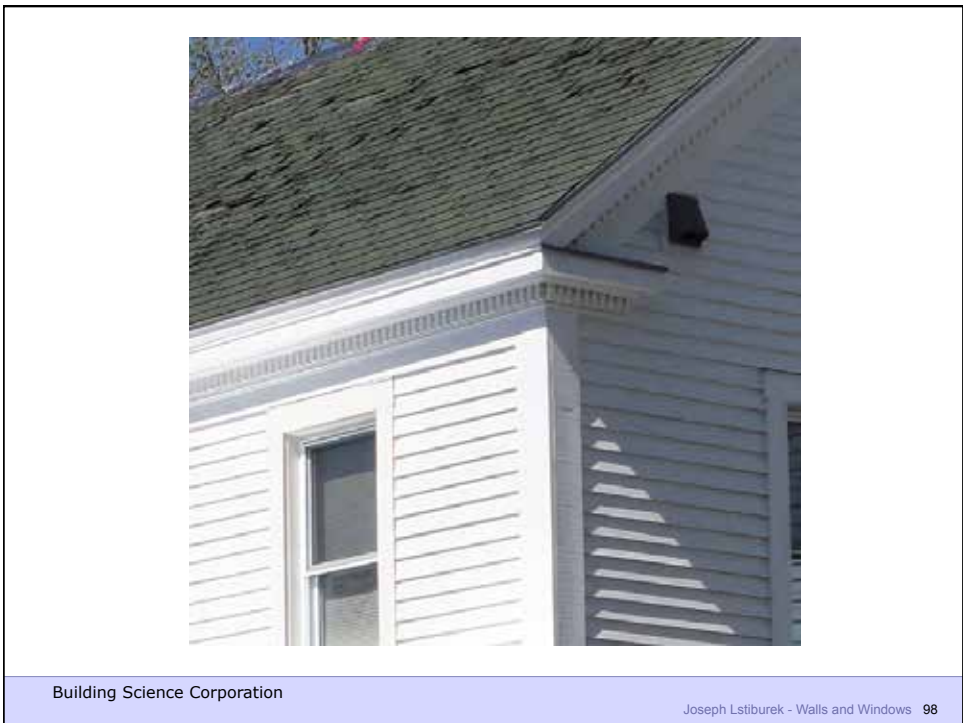
Joseph Lstiburek - Walls and Windows 94



Building Science Corporation



Building Science Corporation

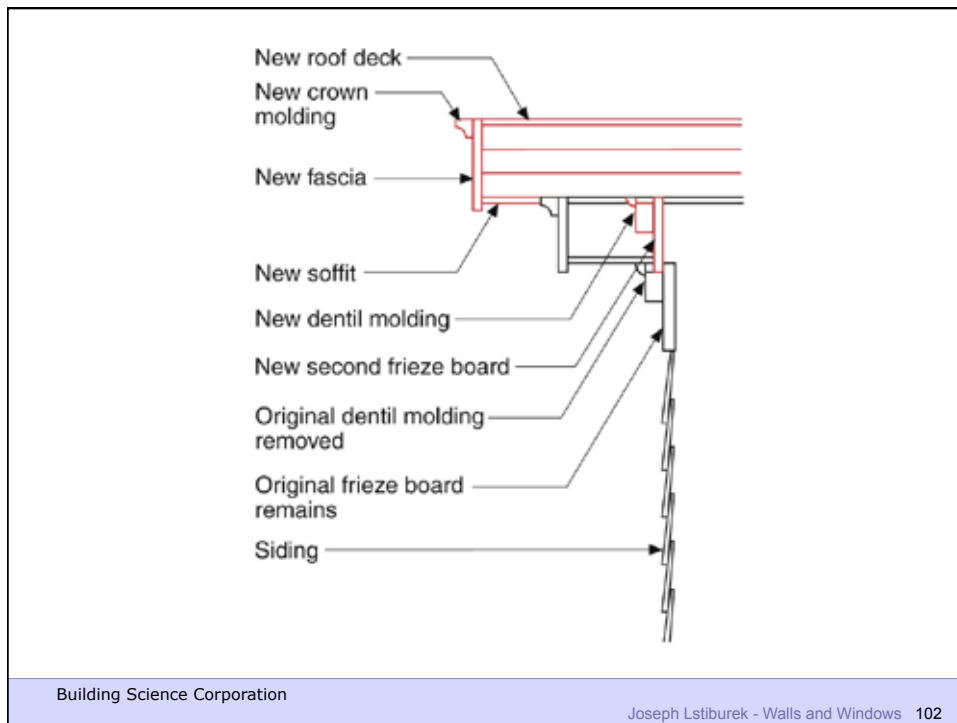
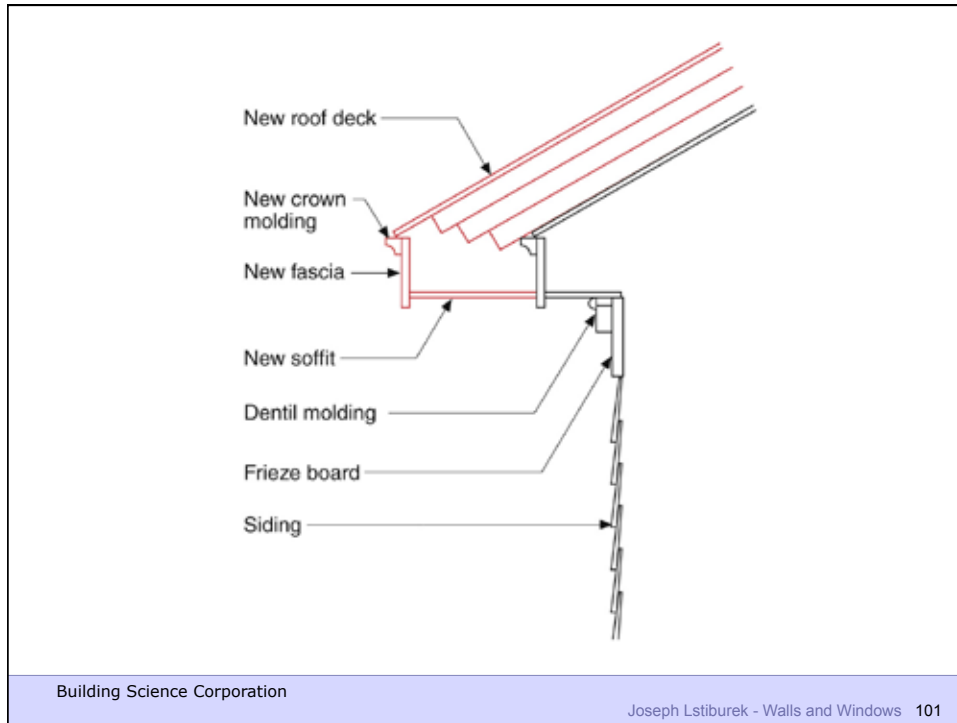




Building Science Corporation



Building Science Corporation







Building Science Corporation



Building Science Corporation



Building Science Corporation

Joseph Lstiburek - Walls and Windows 107



Building Science Corporation

Joseph Lstiburek - Walls and Windows 108



Building Science Corporation



Building Science Corporation



Building Science Corporation



Building Science Corporation



Building Science Corporation



Building Science Corporation