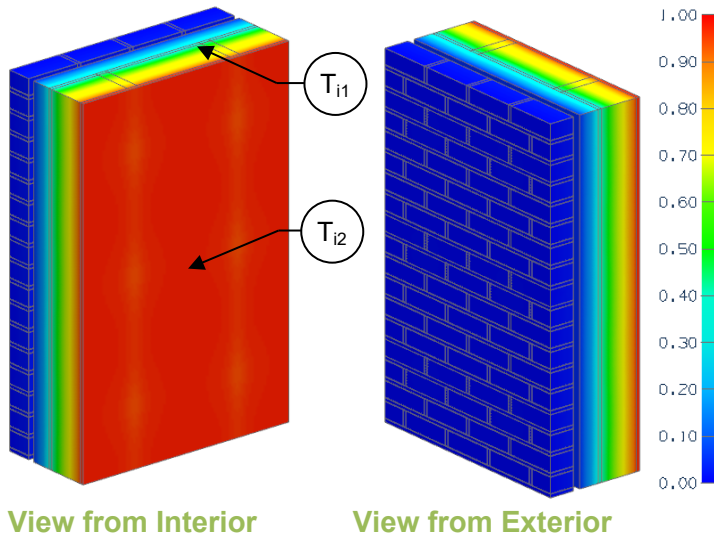


Detail 8.1.19

Exterior and Interior Insulated 2x6 Wood Stud (16" o.c.) Wall Assembly with Brick Ties Supporting Brick Veneer and R-19 Batt Insulation in Stud Cavity – Clear Wall



Thermal Performance Indicators

Assembly 1D (Nominal) R-Value	R_{1D}	R-27.4 (4.83 RSI) + exterior insulation
Transmittance / Resistance without Anomaly	U_o, R_o	“clear wall” U- and R-value
Surface Temperature Index ¹	T_i	0 = exterior temperature 1 = interior temperature

¹Assumptions and limitations for surface temperatures identified in ASHRAE 1365-RP

Nominal (1D) vs. Assembly Performance Indicators

Exterior Insulation 1D R-Value (RSI)	R_{1Dw} ft ² ·hr·°F / Btu (m ² K / W)	R_w ft ² ·hr·°F / Btu (m ² K / W)	U_w Btu/ft ² ·hr·°F (W/m ² K)
R-0 (0.00)	R-27.4 (4.83)	R-19.8 (3.49)	0.050 (0.29)
R-5 (0.88)	R-32.4 (5.71)	R-24.1 (4.25)	0.041 (0.24)
R-10 (1.76)	R-37.4 (6.59)	R-28.0 (4.93)	0.036 (0.20)
R-15 (2.64)	R-42.4 (7.47)	R-31.5 (5.54)	0.032 (0.18)

Temperature Indices

	R0	R5	R10	R15	
T_{i1}	0.18	0.28	0.34	0.39	T on sheathing, at studs near brick ties
T_{i2}	0.15	0.33	0.42	0.50	T on sheathing, at studs between brick ties