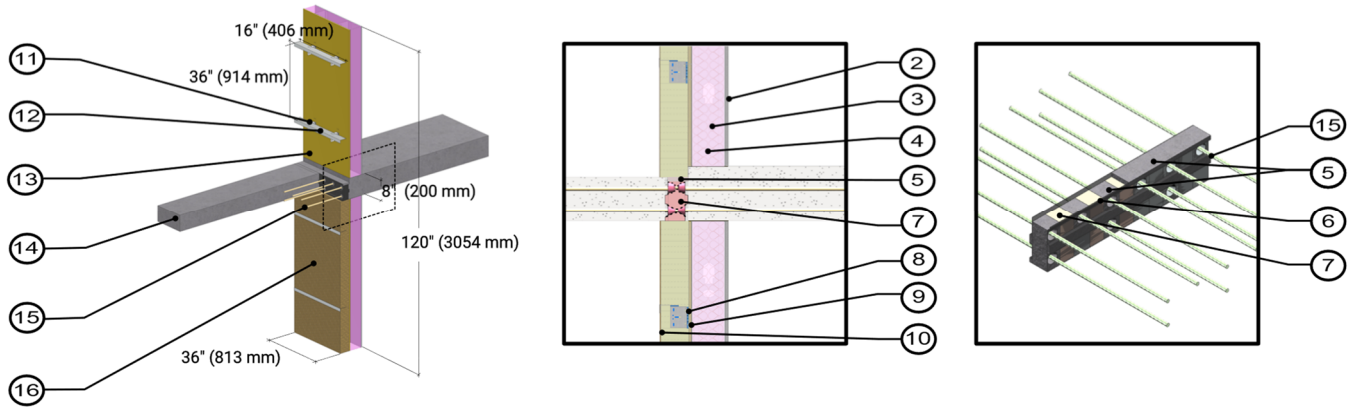


Detail 5.2.53

Exterior and Interior Insulated 6" x 1 5/8" Steel Stud (16 o.c.) Wall Assembly with Thermally Isolated Steel Clip System with Horizontal Girt Supporting Metal Cladding and R-20 Batt Insulation in Stud Cavity- Concrete Projection with TBS Thermal Break and Exterior Insulated Curb



ID	Component	Thickness Inches (mm)	Conductivity Btu-in / ft ² ·hr·°F (W/m K)	Nominal Resistance hr·ft ² ·°F/Btu (m ² K/W)	Density lb/ft ³ (kg/m ³)	Specific Heat Btu/lb·°F (J/kg K)
1	Interior Film ¹	-	-	R-0.6 to R-1.1 (0.11 RSI to 0.20 RSI)	-	-
2	Gypsum Board	1/2" (13)	1.1 (0.16)	R-0.5 (0.08 RSI)	50 (800)	0.26 (1090)
3	6" x 1 5/8" Steel Studs with Top and Bottom Tracks	18 Gauge	430 (62)	-	489 (7830)	0.12 (500)
4	Fiberglass Batt Insulation	6" (152)	0.30 (0.043)	R-20 (3.52 RSI)	0.55 (8.8)	0.17 (710)
5	Thermal Break Concrete Mix	-	3.6 (0.52)	-	122 (1940)	0.20 (850)
6	Plastic (PE) Shell	1/16" (1.6)	2.8 (0.4)	-	72 (1150)	0.20 (850)
7	Phenolic Foam	-	0.17 (0.025)	-	2.5 (40)	0.35 (1500)
8	HDPE Isolator	1/2" (12.7)	3.1 (0.45)	-	-	-
9	#14 Steel Fasteners	1/4" (6) Ø	347 (50)	-	489 (7830)	0.12 (500)
10	Generic Cladding with 1/2" (13mm) vented air space is incorporated into exterior heat transfer coefficient					
11	Galvanized Metal Clip	14 gauge	430 (62)	-	489 (7830)	0.12 (500)
12	Horizontal L-angle	16 gauge	430 (62)	-	489 (7830)	0.12 (500)
13	Exterior Sheathing	1/2" (13)	1.1 (0.16)	R-0.5 (0.08 RSI)	50 (800)	0.26 (1090)
14	Concrete Slab	-	12.5 (1.8)	-	140 (2250)	0.20 (850)
15	MST-BAR GFRP Rebar	-	2.4 (0.35)	-	152 (2450)	0.35 (1500)
16	Exterior Insulation	5" (152)	0.24 (0.034)	R-21.0 (3.70 RSI)	4.5 (72)	0.20 (850)
17	Exterior Film ¹	-	-	R-0.2 to R-0.7 (0.03 RSI to 0.12 RSI)	-	-

¹ Value selected from table 1, p. 26.1 of 2009 ASHRAE Handbook – Fundamentals depending on surface orientation