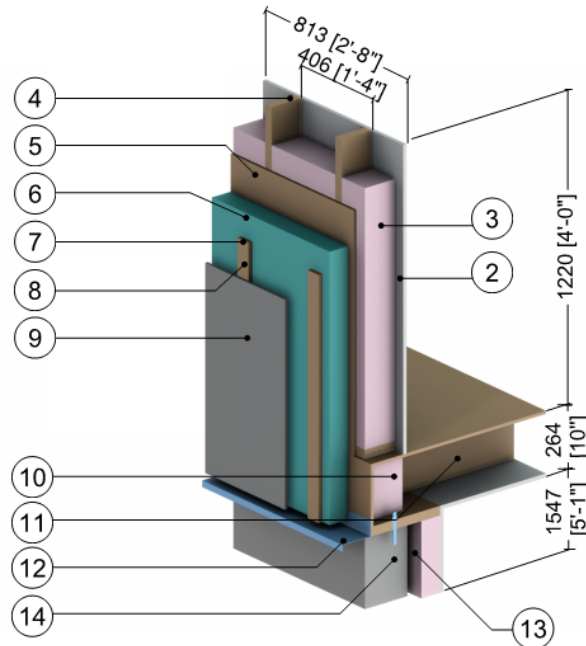


## Detail 8.6.2

### Exterior and Interior Insulated 2x6 Wood Stud (16" o.c.) Wall Assembly with Continuous Insulation and Wood Strapping Supporting Fiber Cement Board and R-19 Batt Insulation in Stud Cavity – Rim Joist and Interior Insulated At-Grade Foundation Wall Intersection



| ID | Component                                                                                                         | Thickness<br>Inches<br>(mm) | Conductivity<br>Btu·in /<br>ft <sup>2</sup> ·hr·°F<br>(W/m K) | Nominal Resistance<br>hr·ft <sup>2</sup> ·°F/Btu<br>(m <sup>2</sup> K/W) | Density<br>lb/ft <sup>3</sup><br>(kg/m <sup>3</sup> ) | Specific<br>Heat<br>Btu/lb·°F<br>(J/kg K) |
|----|-------------------------------------------------------------------------------------------------------------------|-----------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------|
| 1  | Interior Film <sup>1</sup>                                                                                        | -                           | -                                                             | R-0.7 to R-0.9<br>(0.12 RSI to 0.16 RSI)                                 | -                                                     | -                                         |
| 2  | Gypsum Board                                                                                                      | 1/2" (13)                   | 1.1 (0.16)                                                    | R-0.5 (0.08 RSI)                                                         | 50 (800)                                              | 0.26 (1090)                               |
| 3  | Fiberglass Batt Insulation                                                                                        | 5 1/2" (140)                | 0.29 (0.042)                                                  | R-19 (3.3 RSI)                                                           | 0.9 (14)                                              | 0.17 (710)                                |
| 4  | 2x6 Wood Stud (16" o.c.)                                                                                          | 5 1/2" (140)                | 0.69 (0.10)                                                   | -                                                                        | 31 (500)                                              | 0.45 (1880)                               |
| 5  | Exterior Plywood Sheathing                                                                                        | 1/2" (13)                   | 0.69 (0.10)                                                   | R-0.7 (0.13 RSI)                                                         | 31 (500)                                              | 0.45 (1880)                               |
| 6  | Exterior Insulation                                                                                               | Varies                      | -                                                             | R-5 to R-15<br>(0.88 RSI to 2.64 RSI)                                    | 1.8 (28)                                              | 0.29 (1220)                               |
| 7  | 1x3 Wood Strapping                                                                                                | 1 1/2" (38)                 | 0.69 (0.10)                                                   | -                                                                        | 31 (500)                                              | 0.45 (1880)                               |
| 8  | Steel Fasteners (16" o.c.)                                                                                        | 0.35" (9) Ø                 | 347 (50)                                                      | -                                                                        | 489 (7830)                                            | 0.12 (500)                                |
| 9  | Fiber Cement Board Cladding with 3/4" (19mm) vented airspace incorporated into exterior heat transfer coefficient |                             |                                                               |                                                                          |                                                       |                                           |
| 10 | Fiberglass Batt Insulation at Joist                                                                               | 5 1/2" (140)                | 0.29 (0.042)                                                  | R-19 (3.3 RSI)                                                           | 0.9 (14)                                              | 0.17 (710)                                |
| 11 | 2x10 Wood Joist (16" o.c.)                                                                                        | 9 1/4" (235)                | 0.69 (0.10)                                                   | -                                                                        | 31 (500)                                              | 0.45 (1880)                               |
| 12 | Steel Flashing                                                                                                    | 18 Gauge                    | 430 (62)                                                      | -                                                                        | 489 (7830)                                            | 0.12 (500)                                |
| 13 | 2x4 Wood Stud (16" o.c.)                                                                                          | 3 1/2" (89)                 | 0.69 (0.10)                                                   | -                                                                        | 31 (500)                                              | 0.45 (1880)                               |
| 14 | Concrete Foundation Wall                                                                                          | 8" (203)                    | 12.5 (1.8)                                                    | R-0.6 (0.11 RSI)                                                         | 140 (2250)                                            | 0.20 (850)                                |
| 15 | Exterior Film <sup>1,2</sup>                                                                                      | -                           | -                                                             | R-0.7 (0.12 RSI)                                                         | -                                                     | -                                         |

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

<sup>2</sup> Except at foundation wall adjacent soil