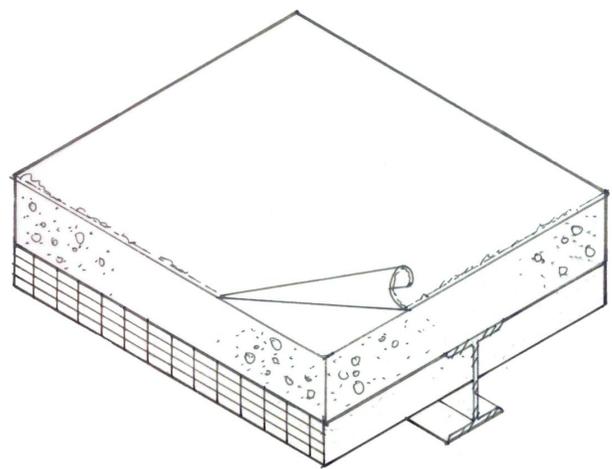
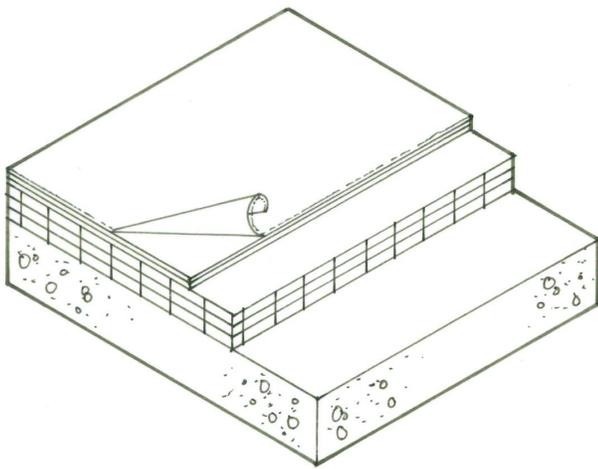




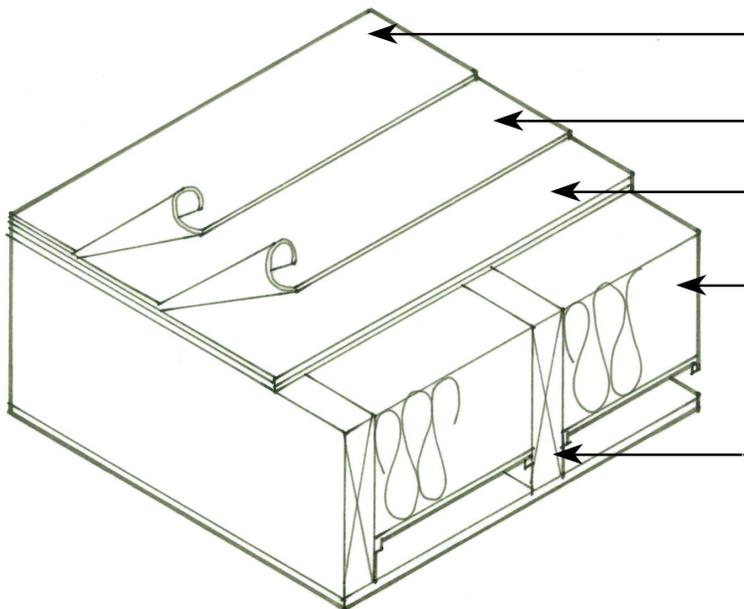
AEDG Implementation Recommendations: Floors

The Advanced Energy Design Guide (AEDG) seeks to achieve 30 percent savings over Standard 90.1-1999. This guide focuses on improvements to small office buildings, less than 20,000 square feet. The recommendations below are adapted from the implementation section of the guide, and should be used in cooperation with the whole document.* The full design guide is available from the ASHRAE website, [Advanced Energy Design Guide for Small Office Buildings](#).

Mass Floors



Insulation should be continuous and either integral to or above the slab. This can be achieved by placing high-density extruded polystyrene as continuous insulation (ci) above the slab with either plywood or a thin layer of concrete on top. Placing insulation below the deck is not recommended, due to losses through any concrete support columns or through the slab perimeter.



Carpet

Carpet pad

Plywood

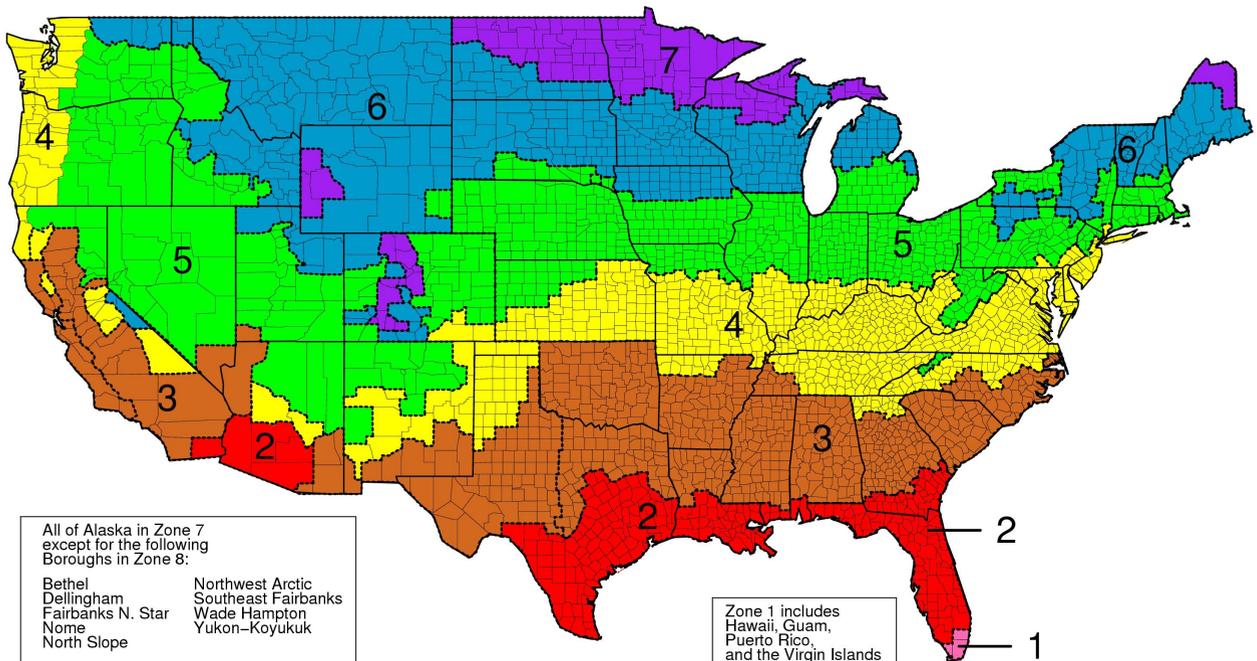
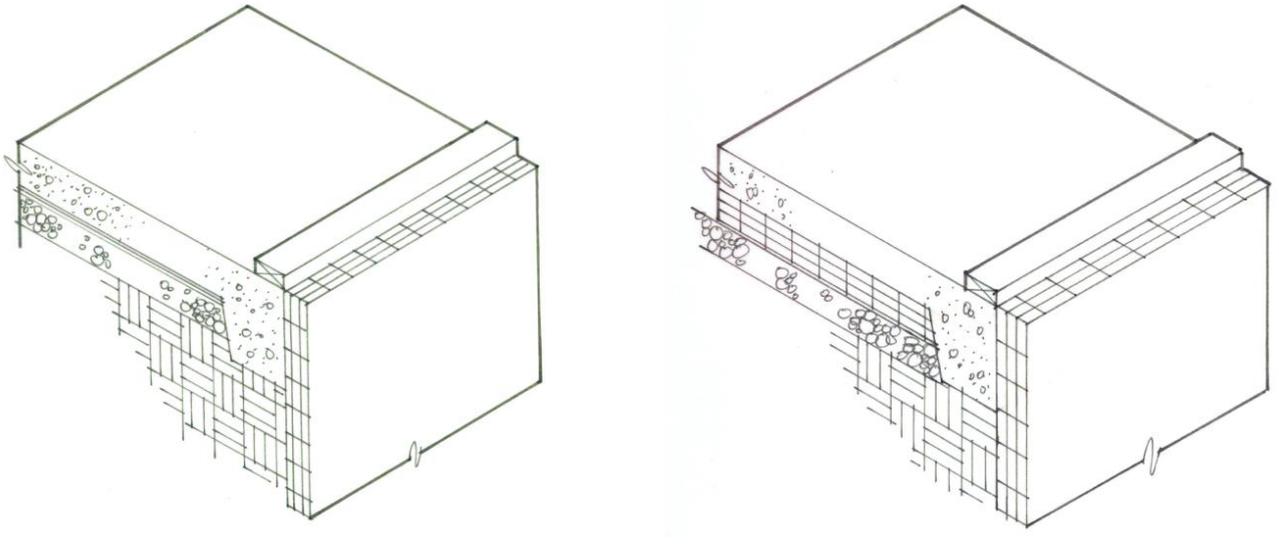
R-49 High Density Insulation

Wood Framing



Steel Joist or Wood Frame

Insulation is to be installed parallel to the framing members and in intimate contact with the flooring system supported by the framing member in order to avoid the potential thermal short circuiting associated with open or exposed air spaces. Non-rigid insulation should be supported from below, no less frequently than 24 inches on center.



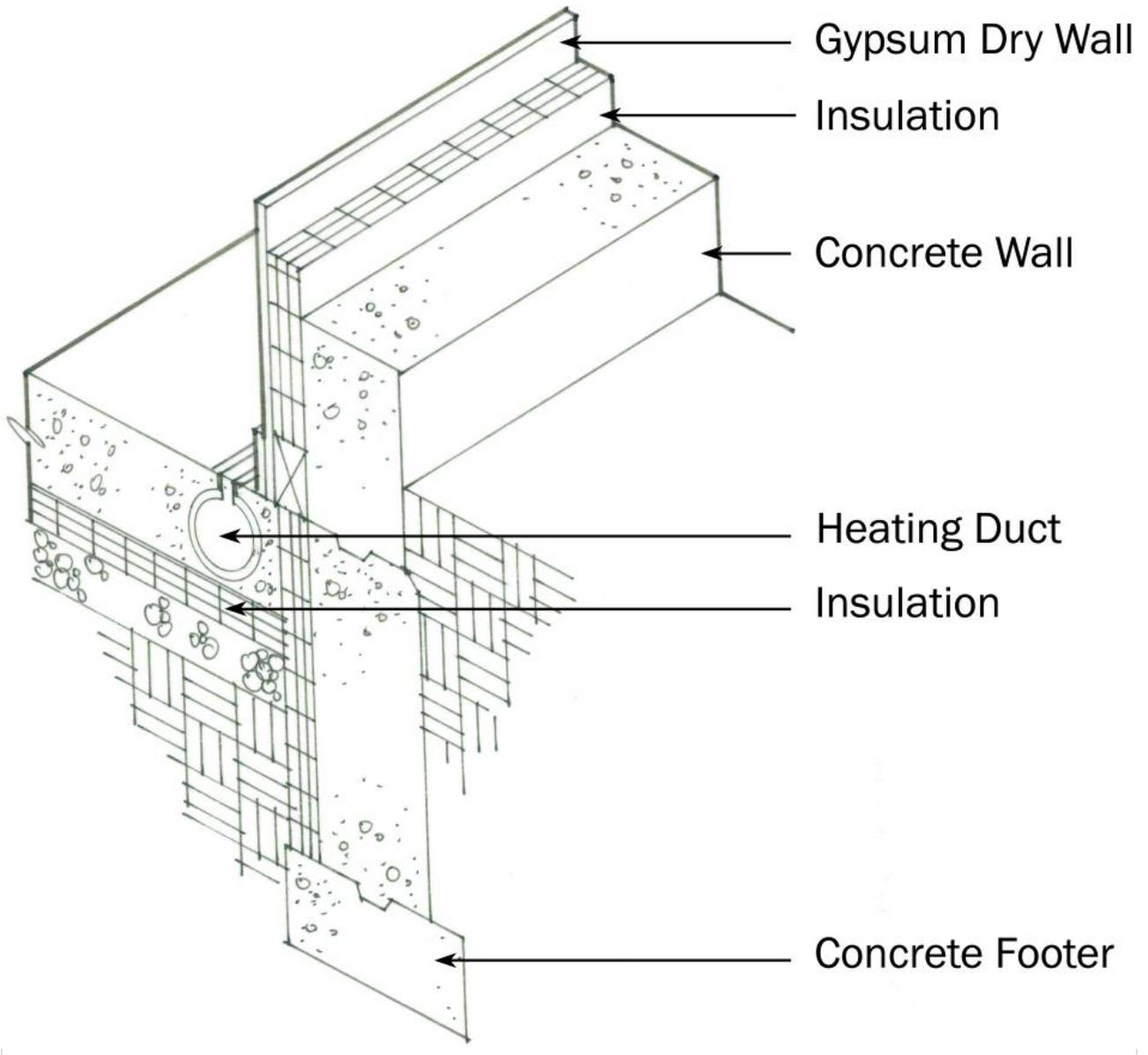
Slab-on-Grade Floors, Unheated (Climate Zones: 6 7 8)

Continuous rigid insulation should be used around the perimeter of the slab and should reach the depth listed



in the recommendation or to the bottom of the footing, whichever is deeper. Additionally, in climate zones 7 and 8 and in cases where the frost line is deeper than the footing, continuous insulation should be placed beneath the slab as well.

Slab-on-Grade Floors, Heated (Climate Zones: 4 5 6 7 8)



Continuous rigid insulation should be used around the perimeter of the slab and should reach to the depth listed or to the frost line, whichever is deeper. Additionally, in very cold climate zones, continuous insulation should be placed below the slab as well.

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