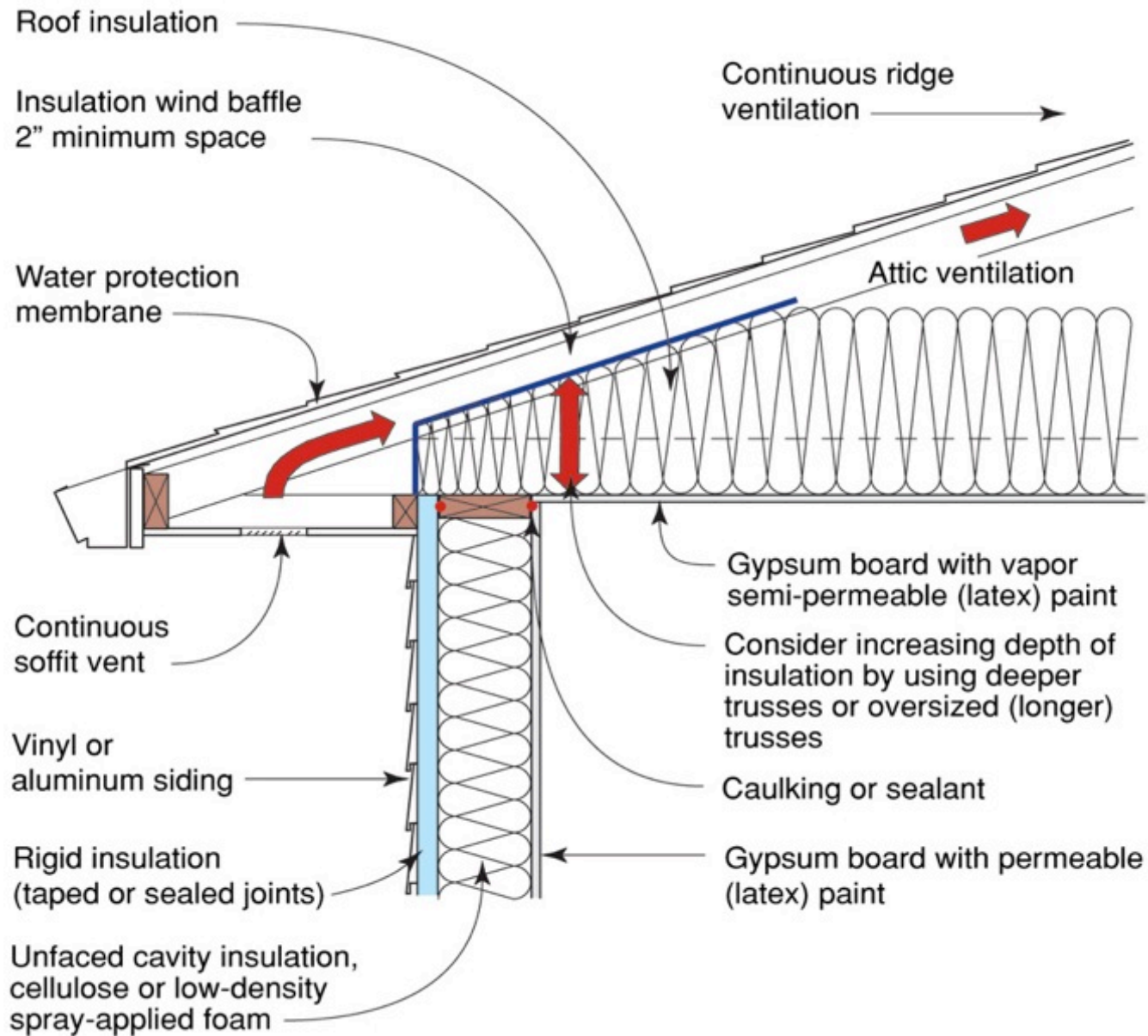


Joseph Lstiburek, Ph.D., P.Eng, ASHRAE Fellow

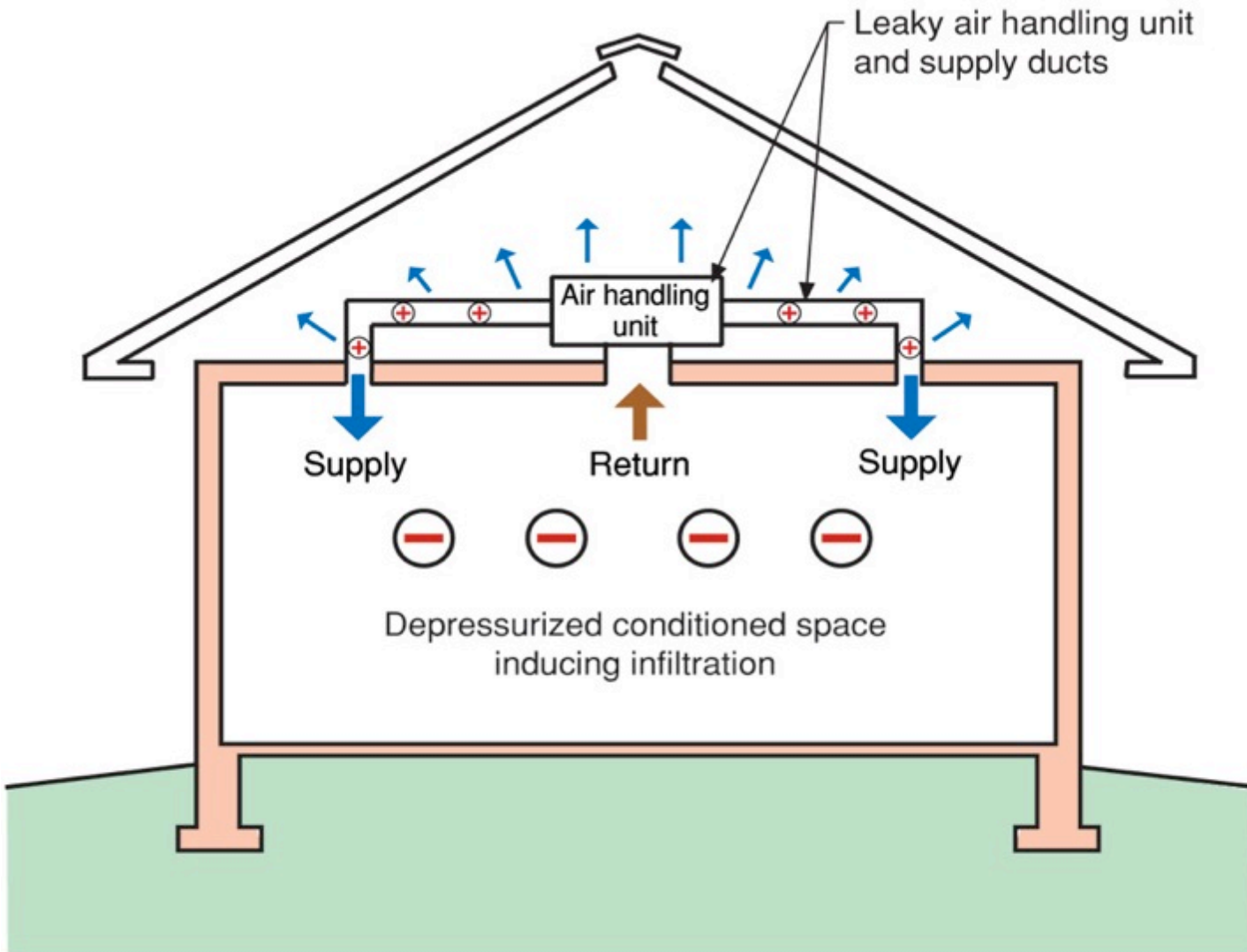
Building Science

Unvented Roof Assemblies

presented by www.buildingscience.com



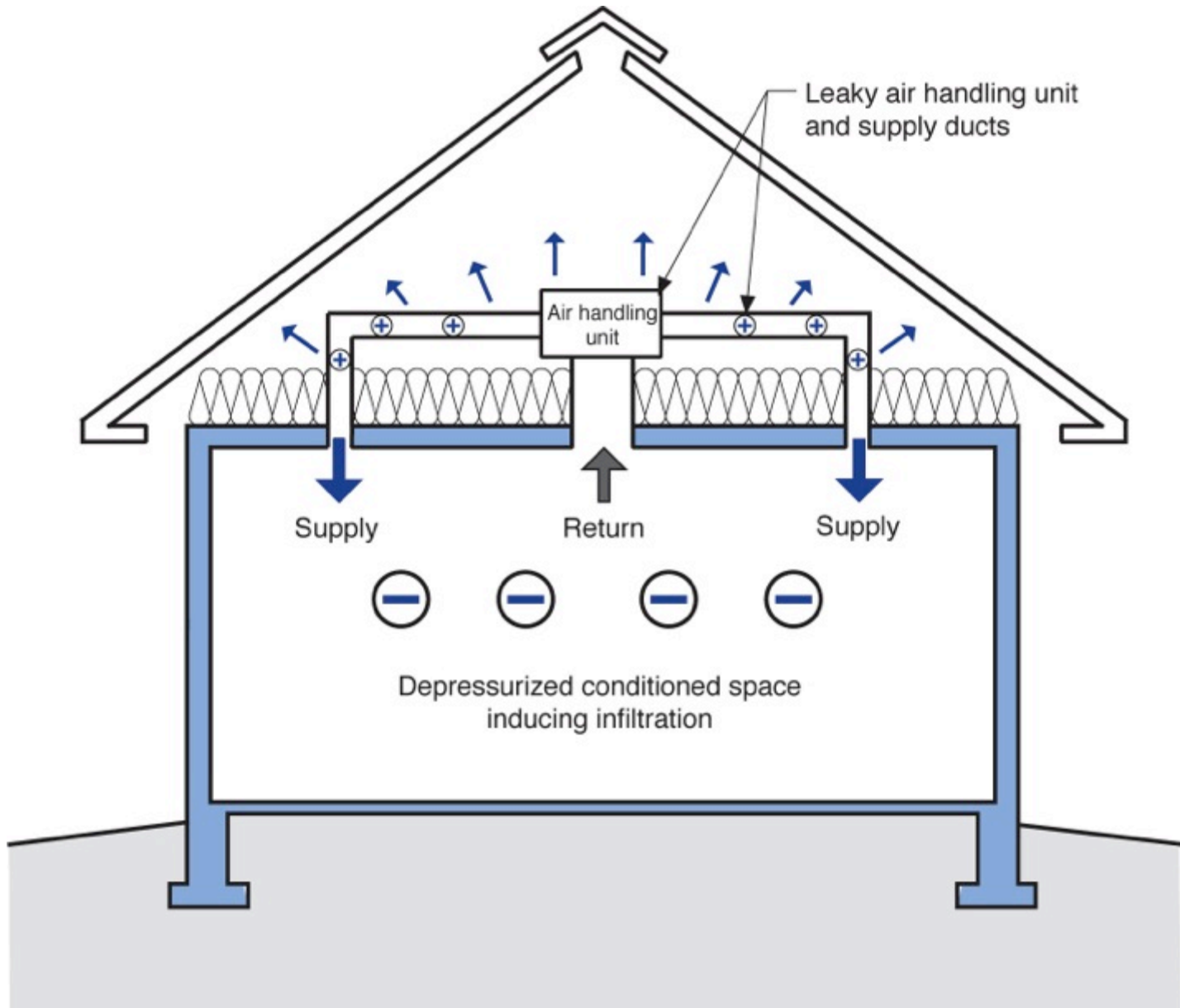


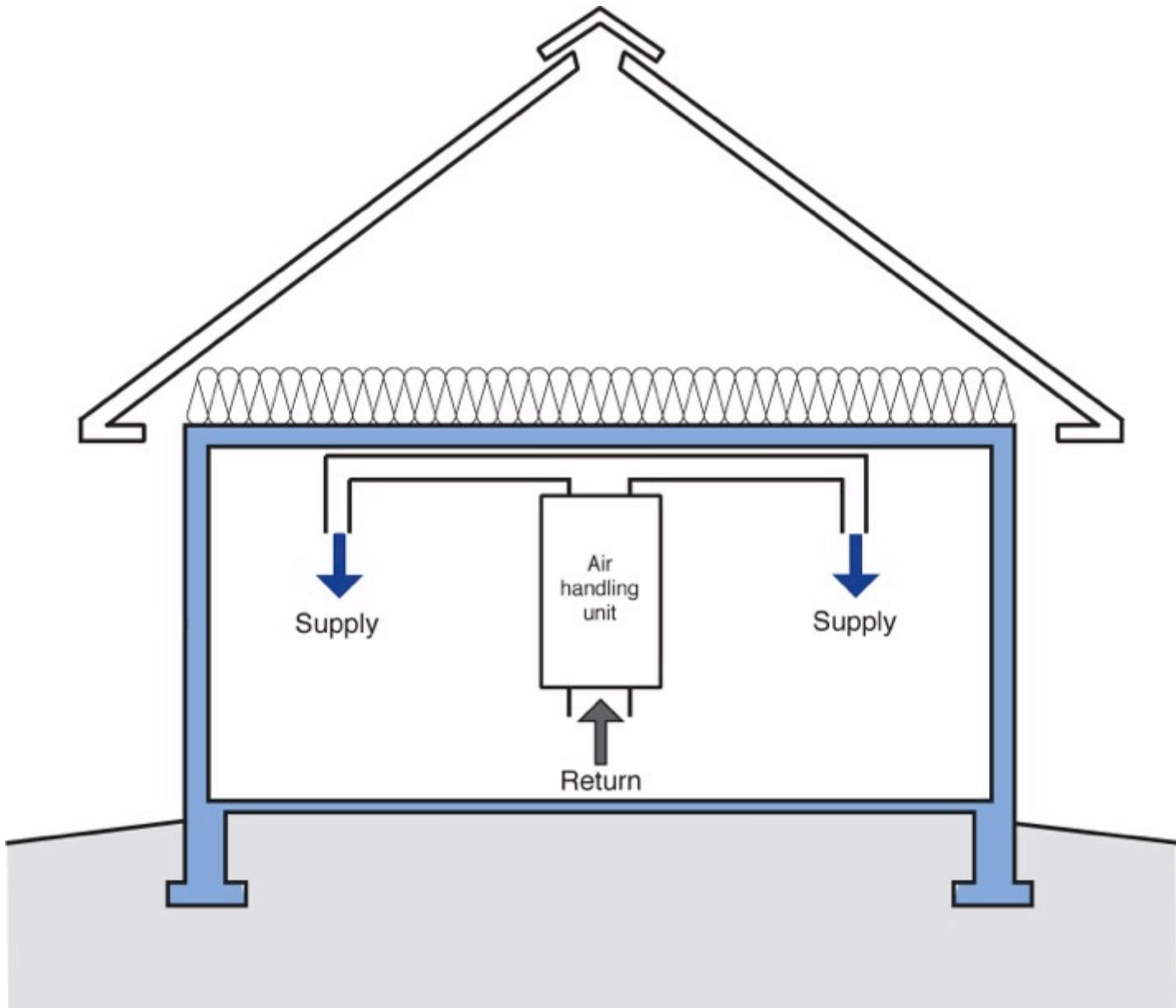


Note: Colored shading depicts the building's thermal barrier and pressure boundary. The thermal barrier and pressure boundary enclose the conditioned space.

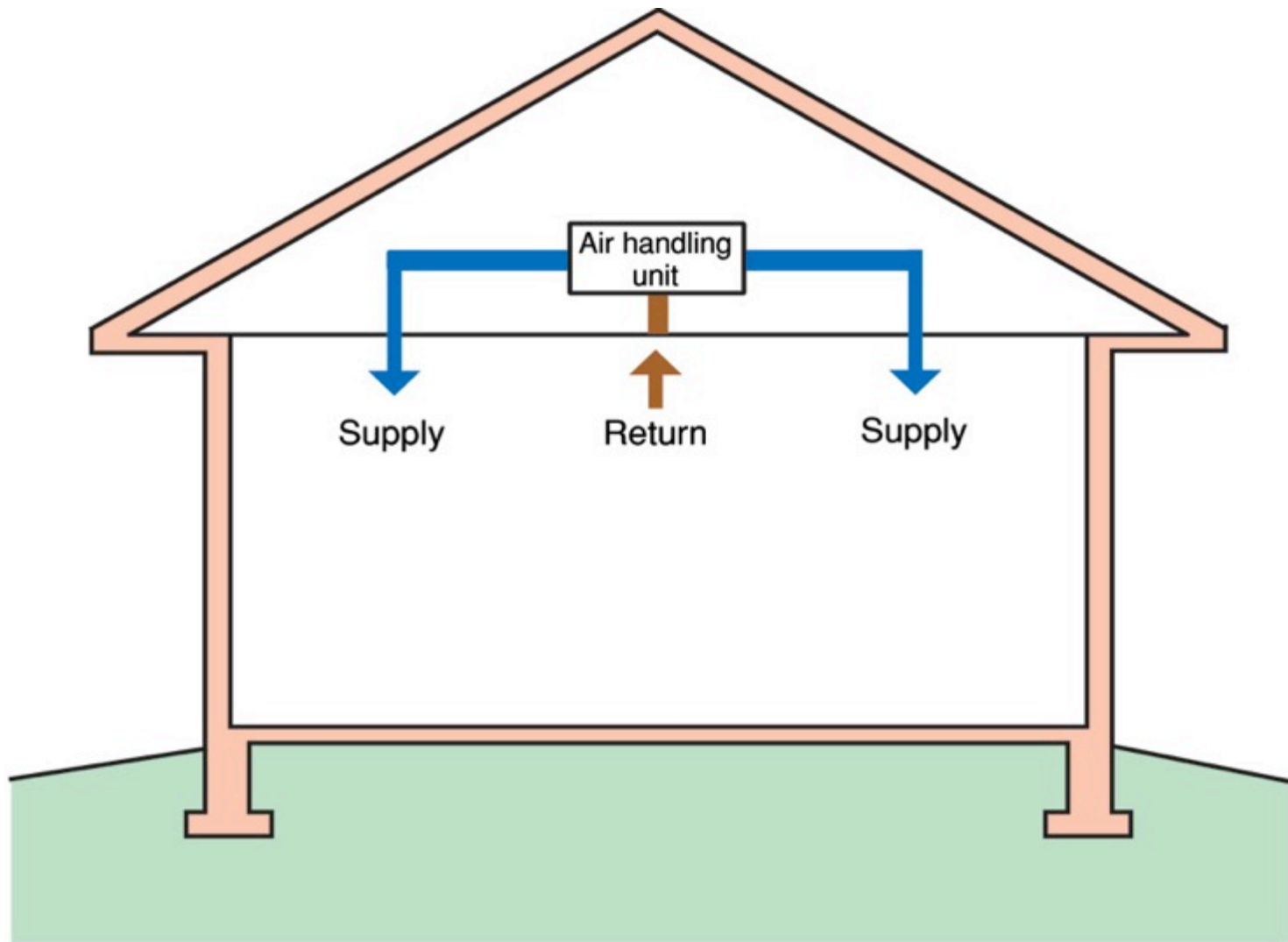




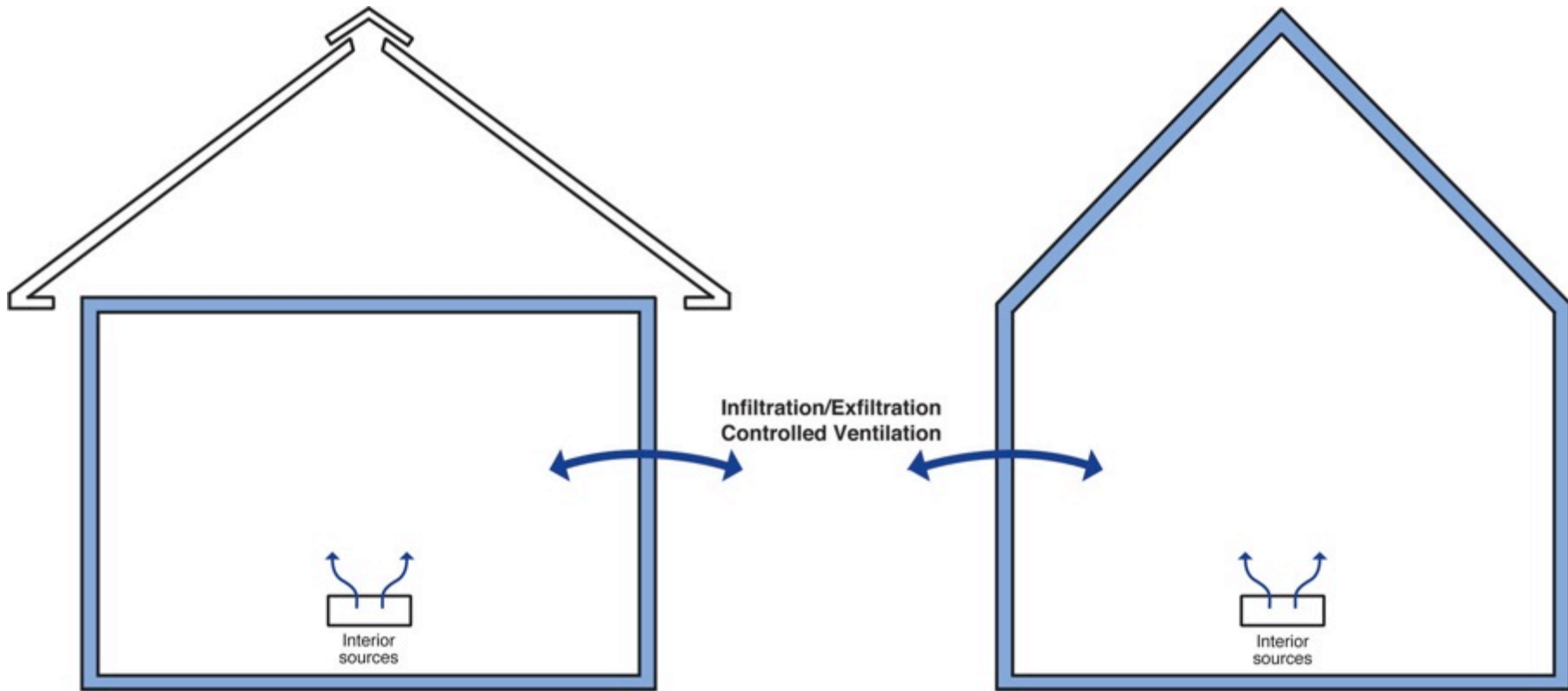


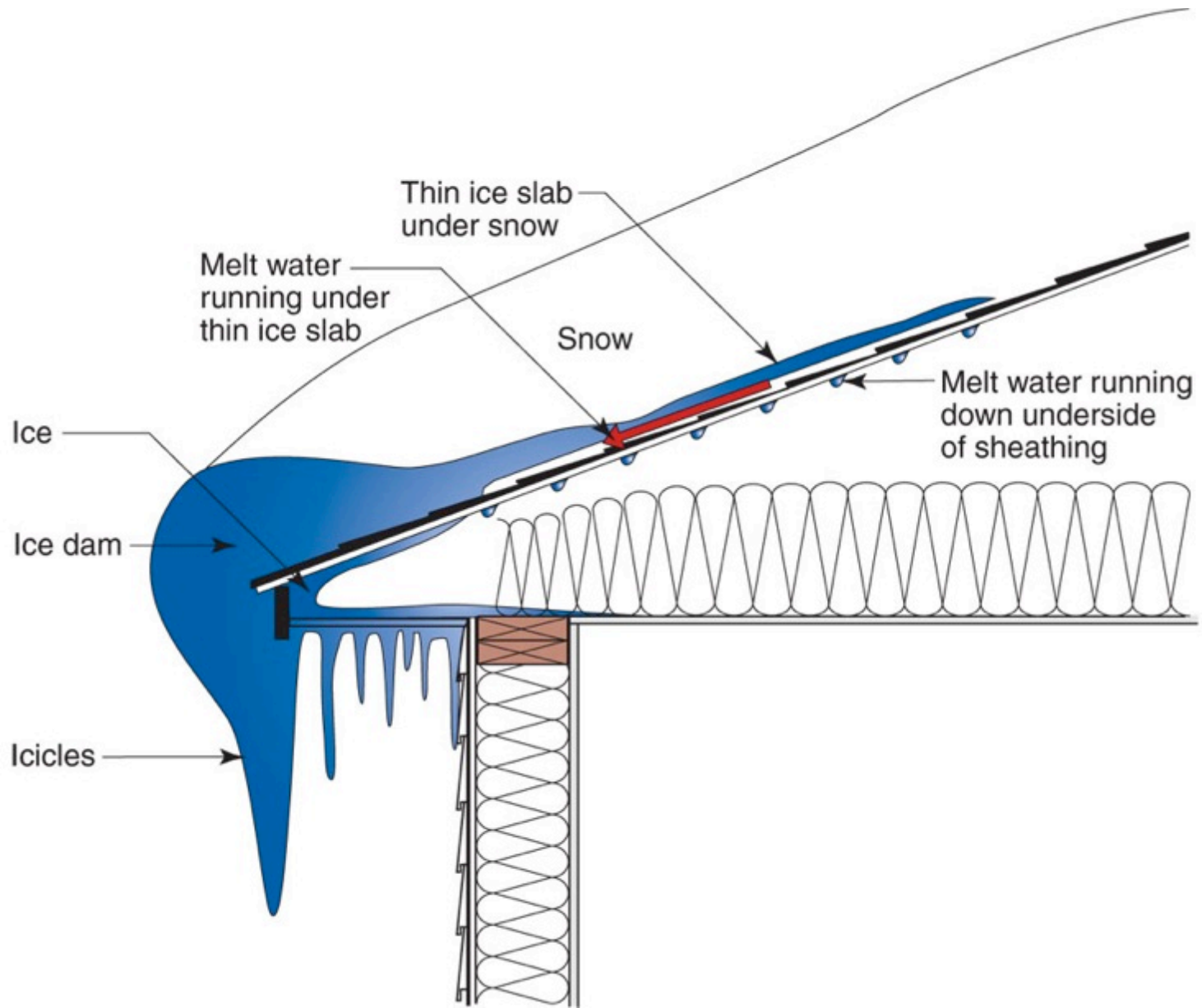




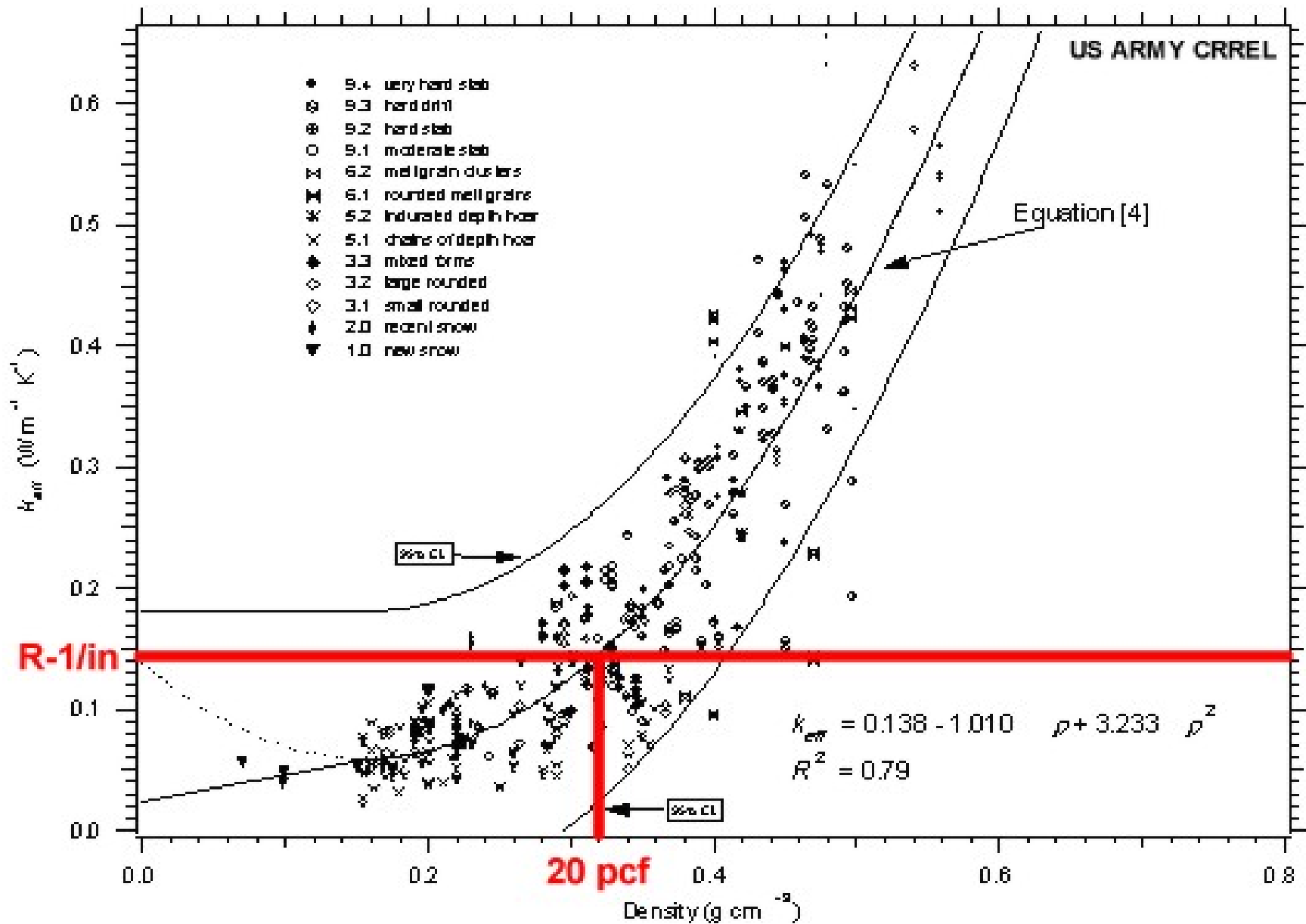


Note: Colored shading depicts the building's thermal barrier and pressure boundary. The thermal barrier and pressure boundary enclose the conditioned space.

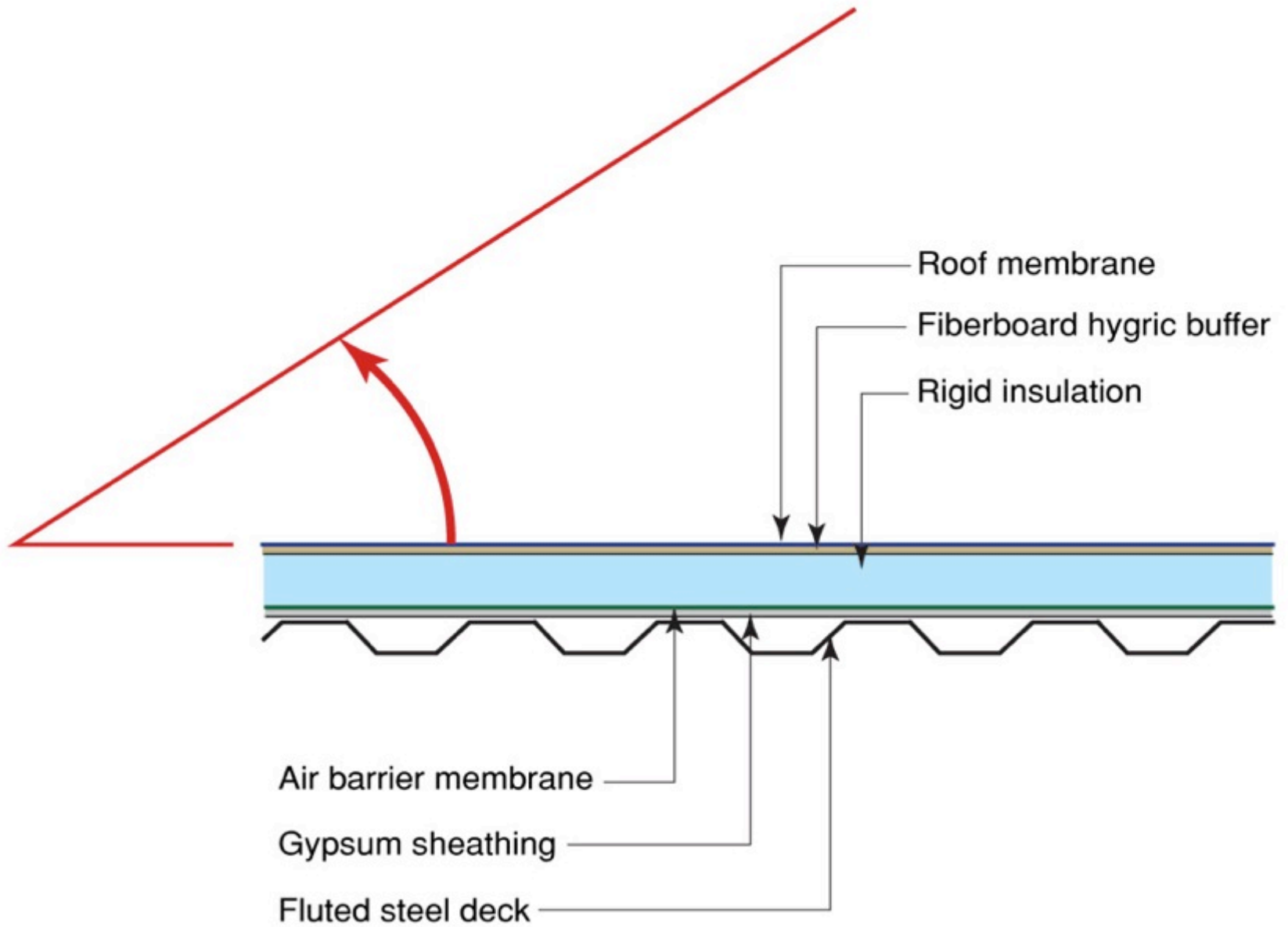


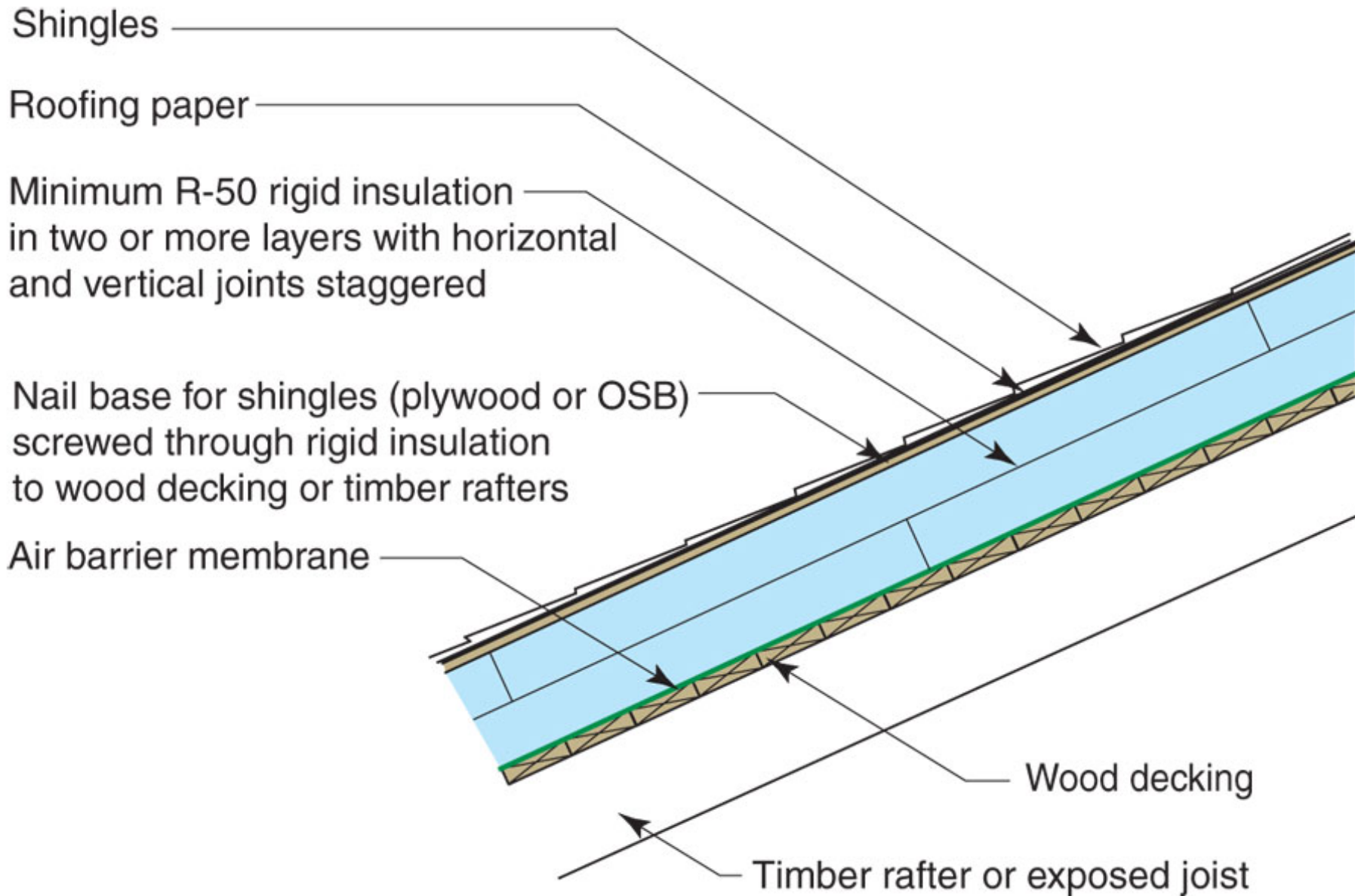


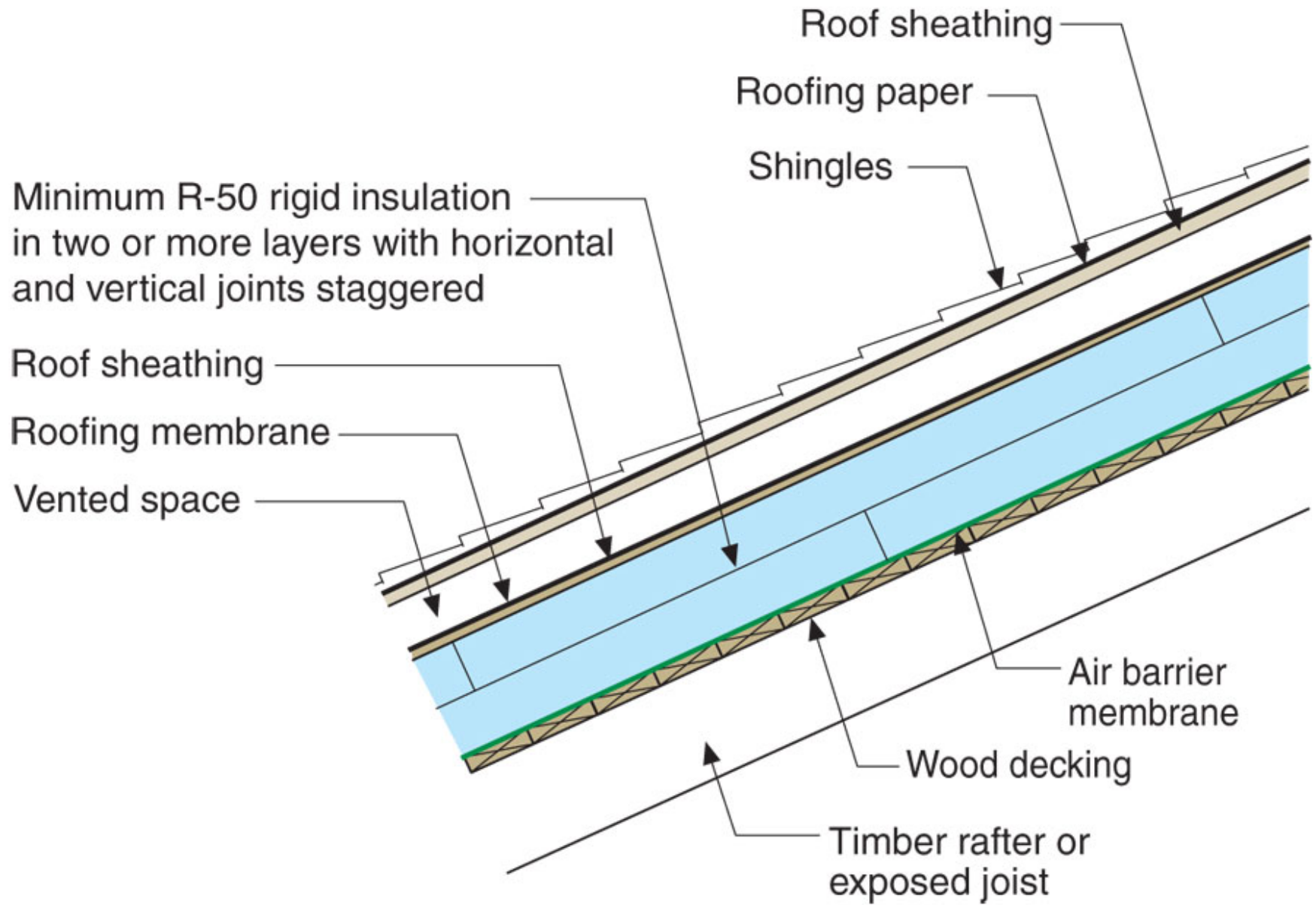


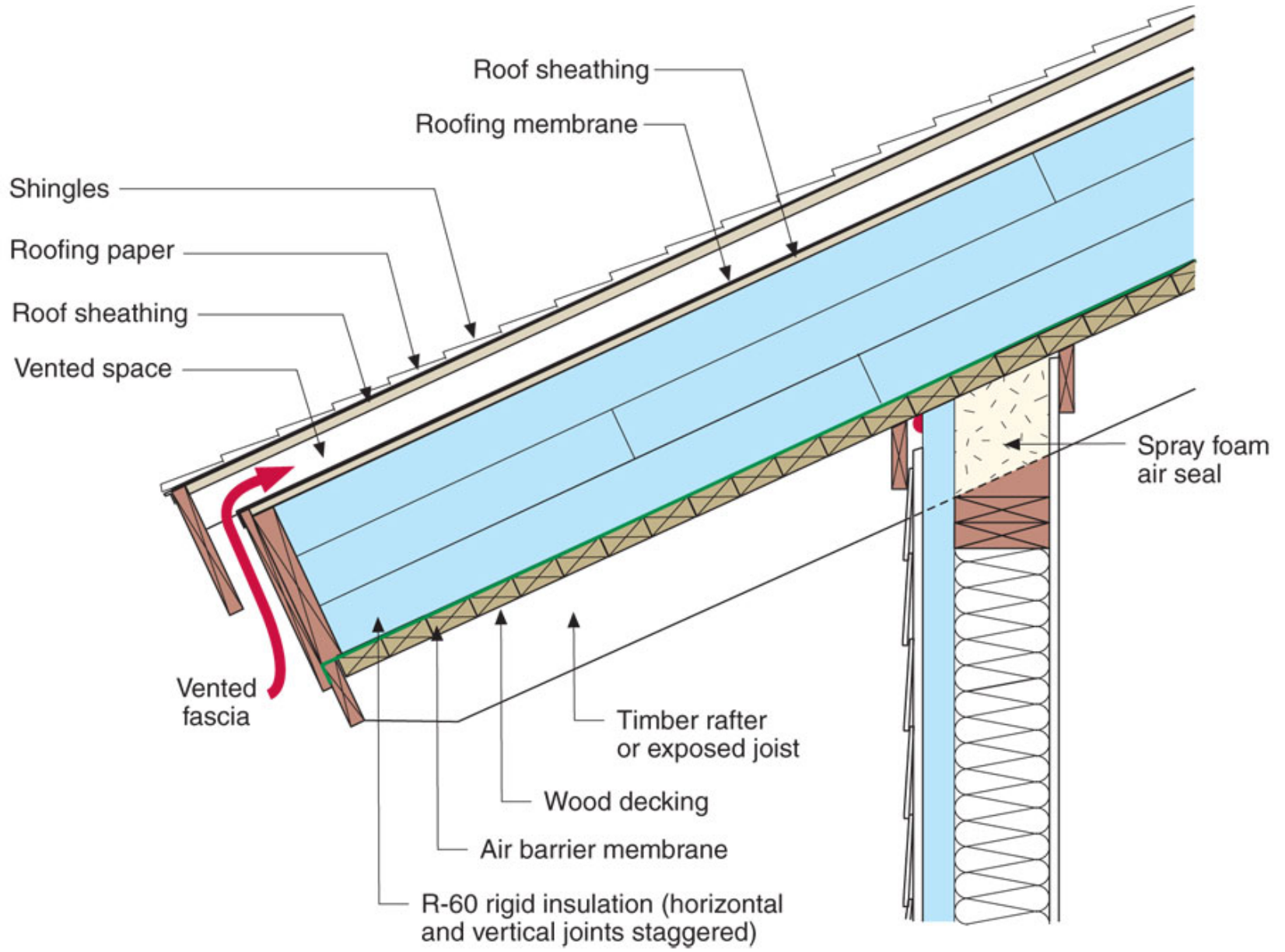


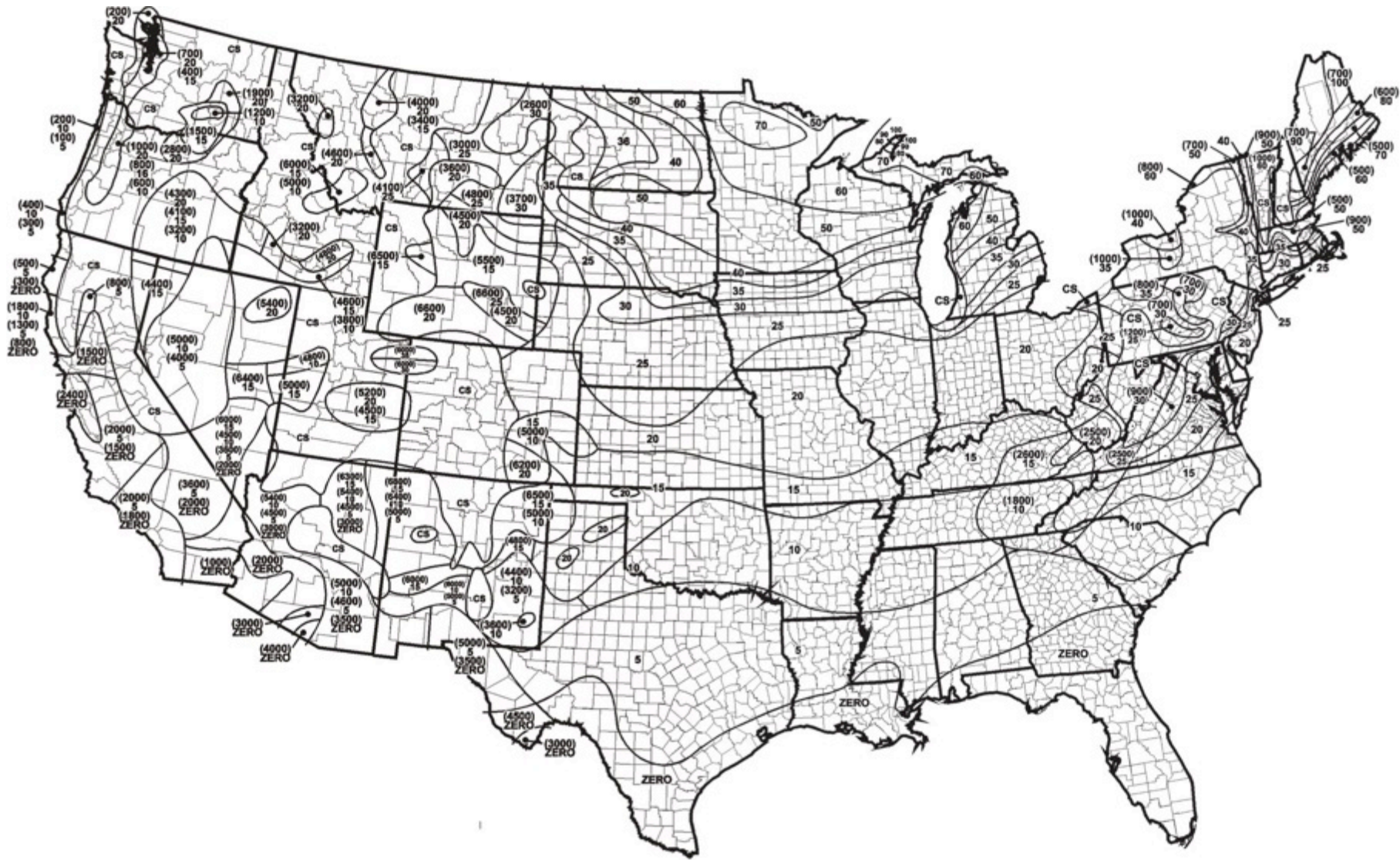


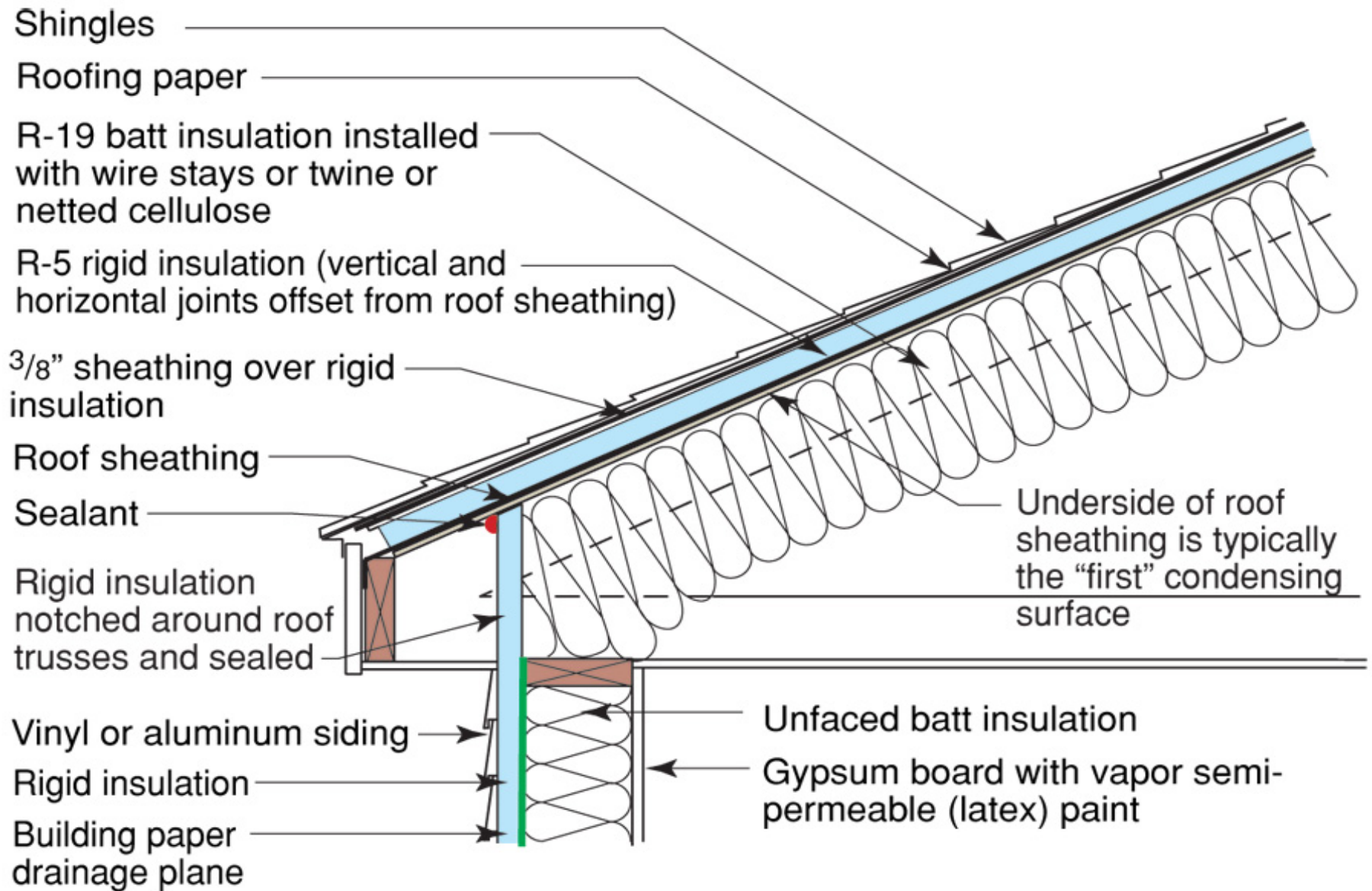


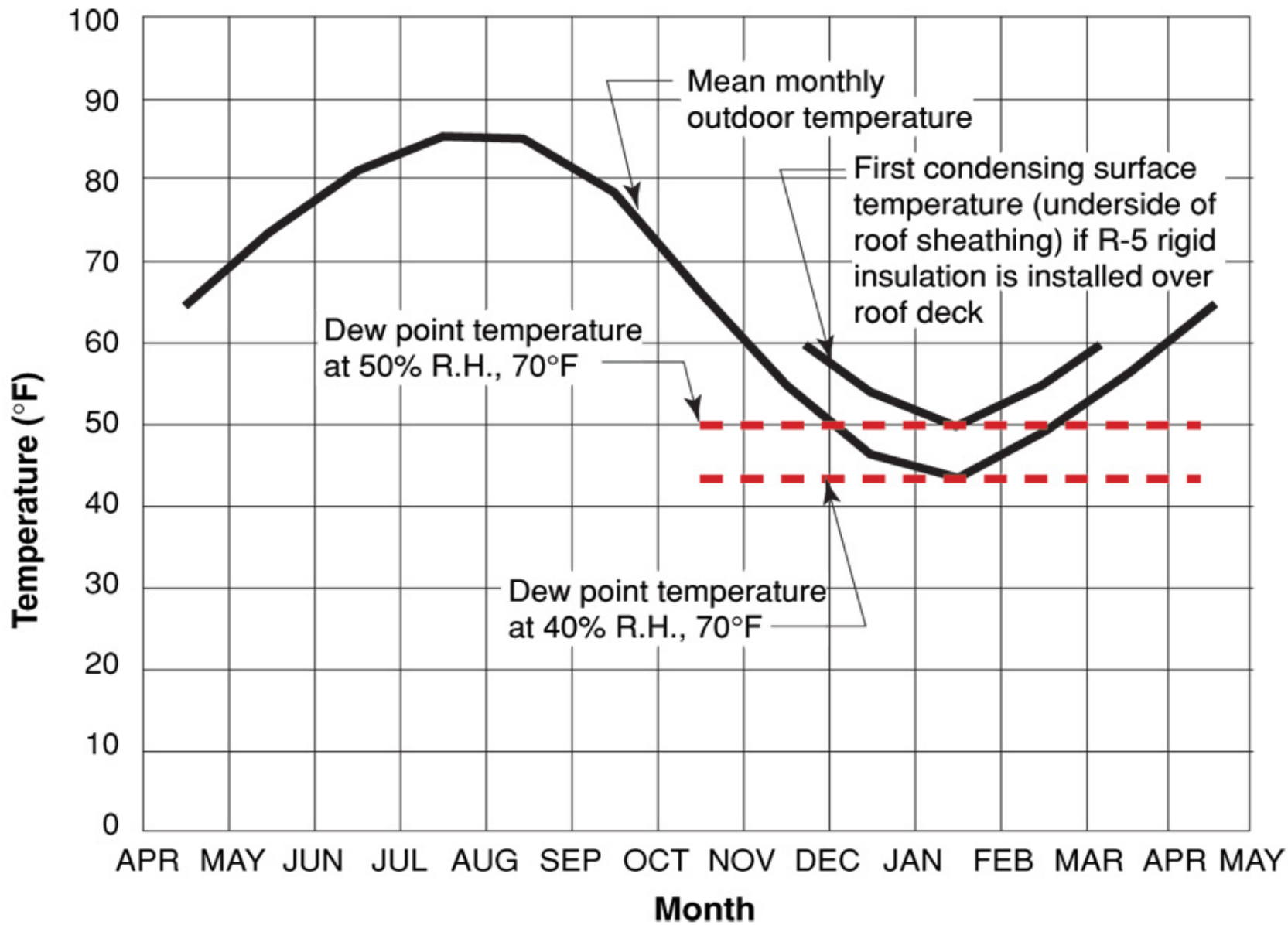


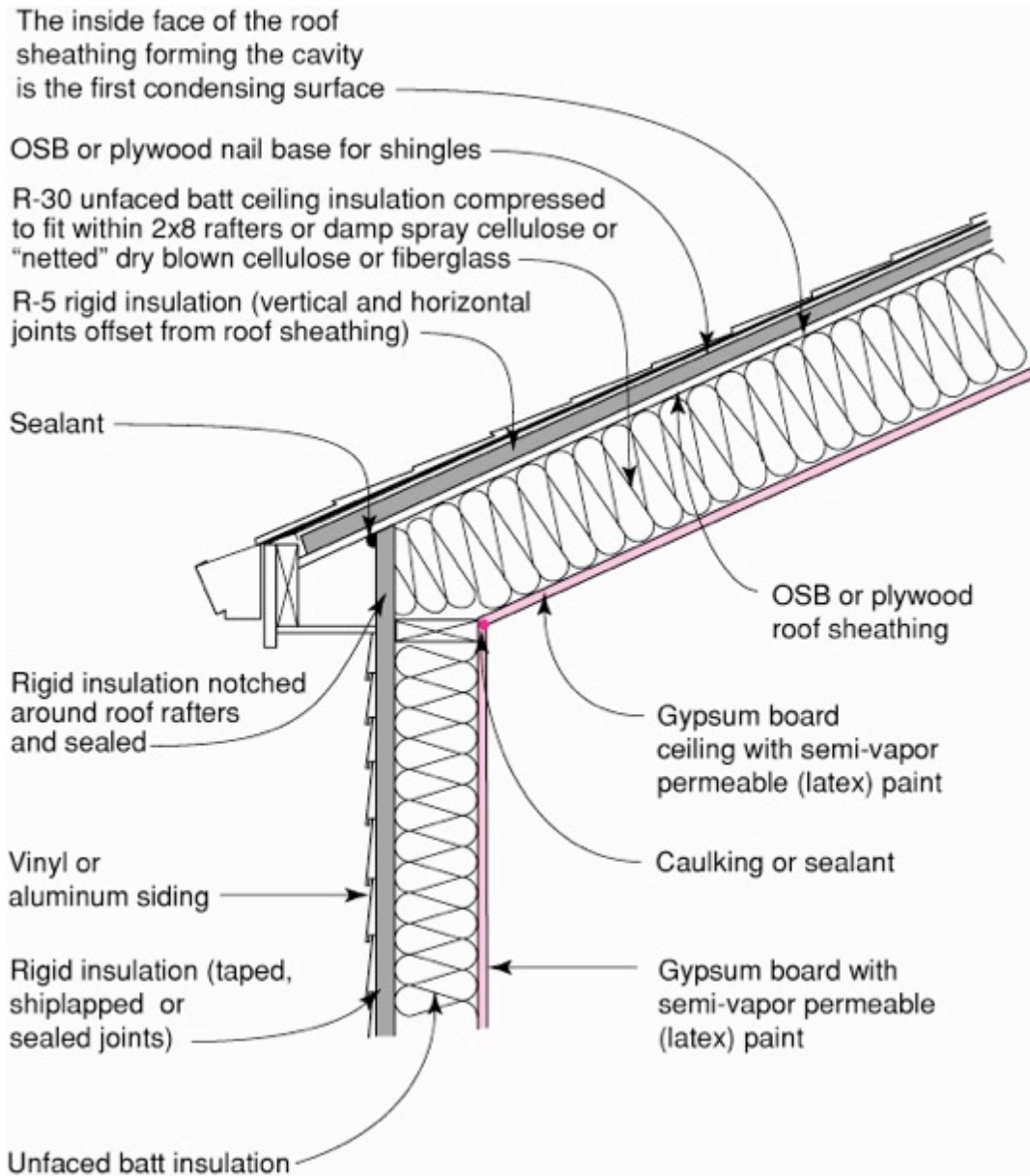


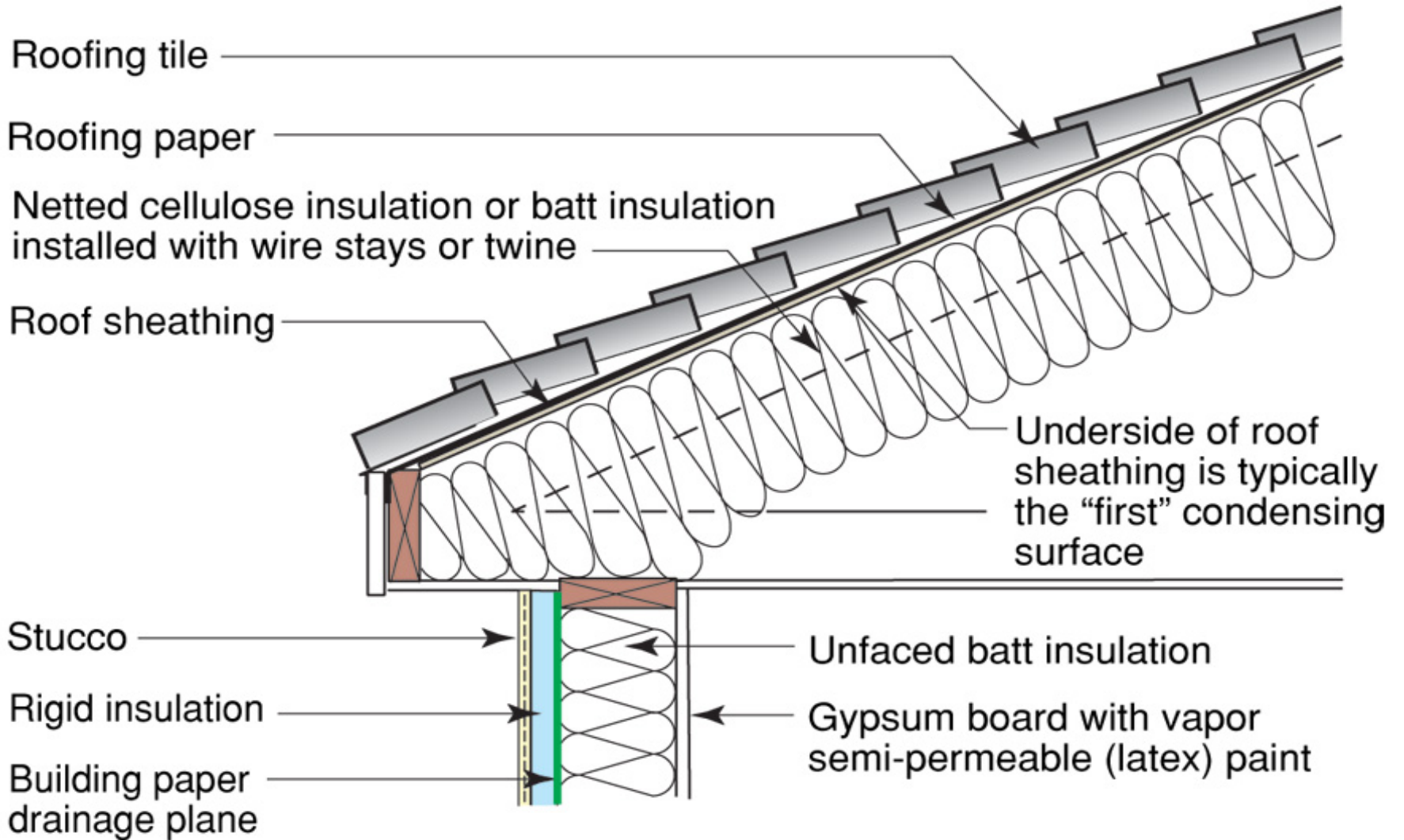








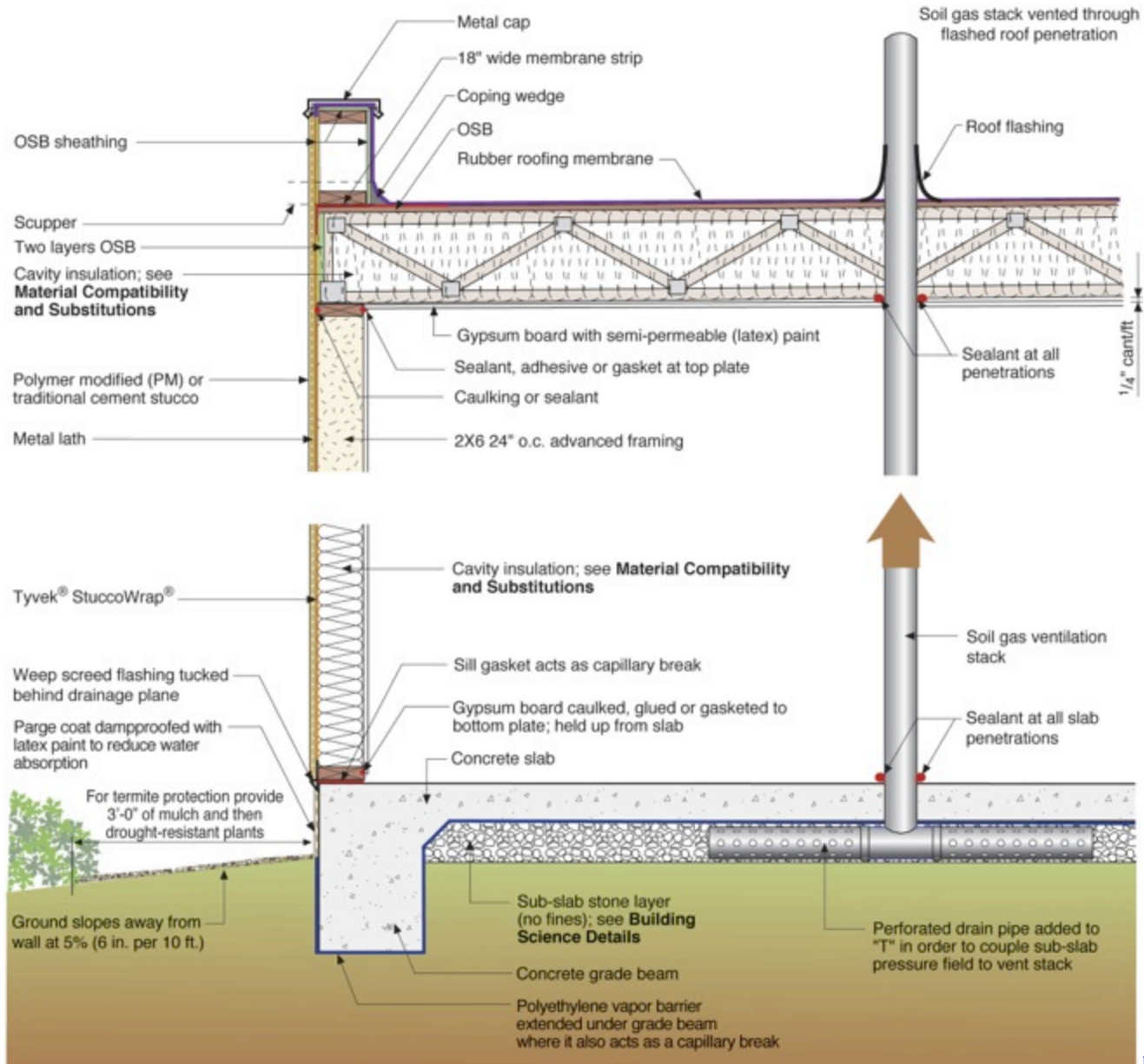


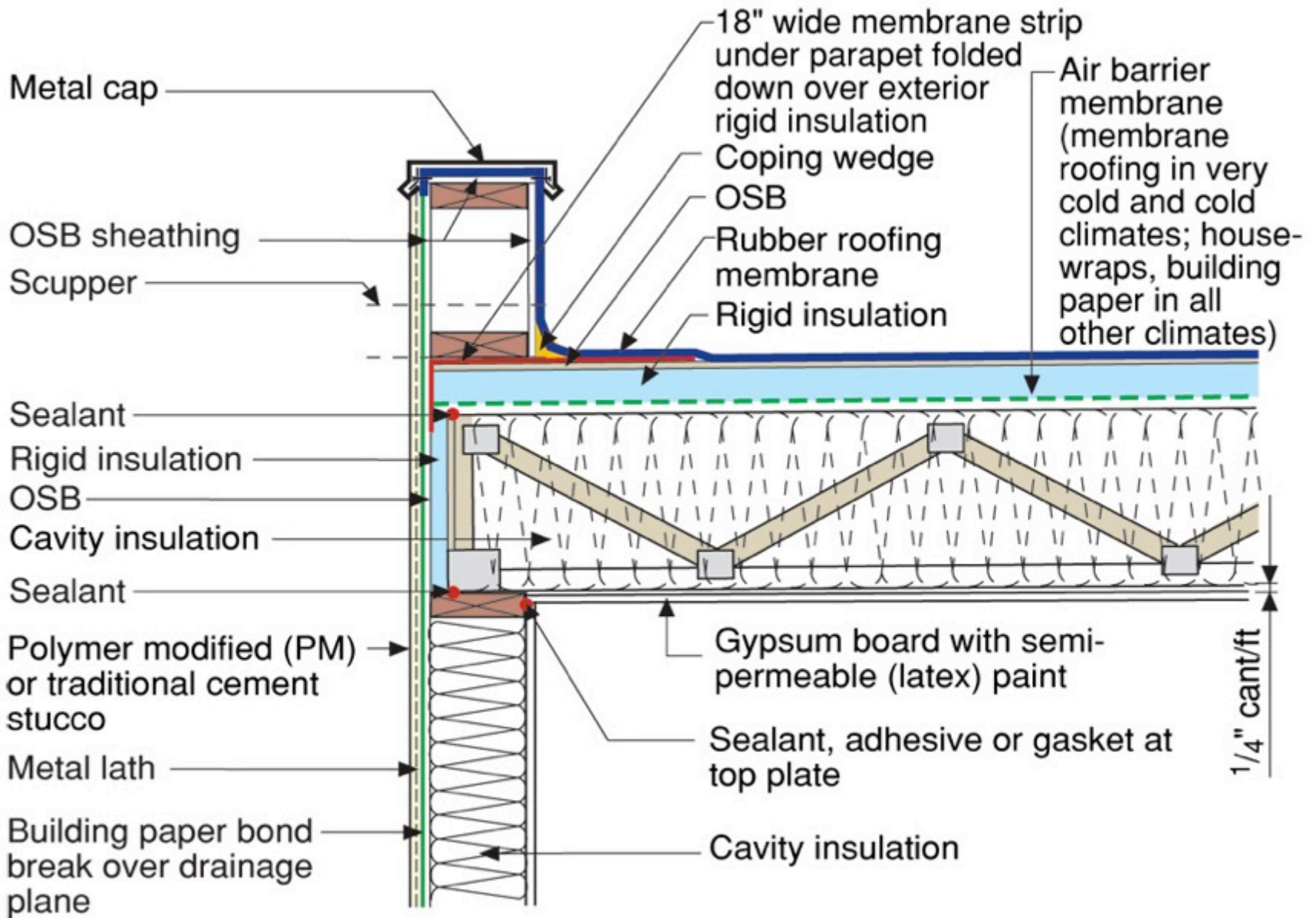


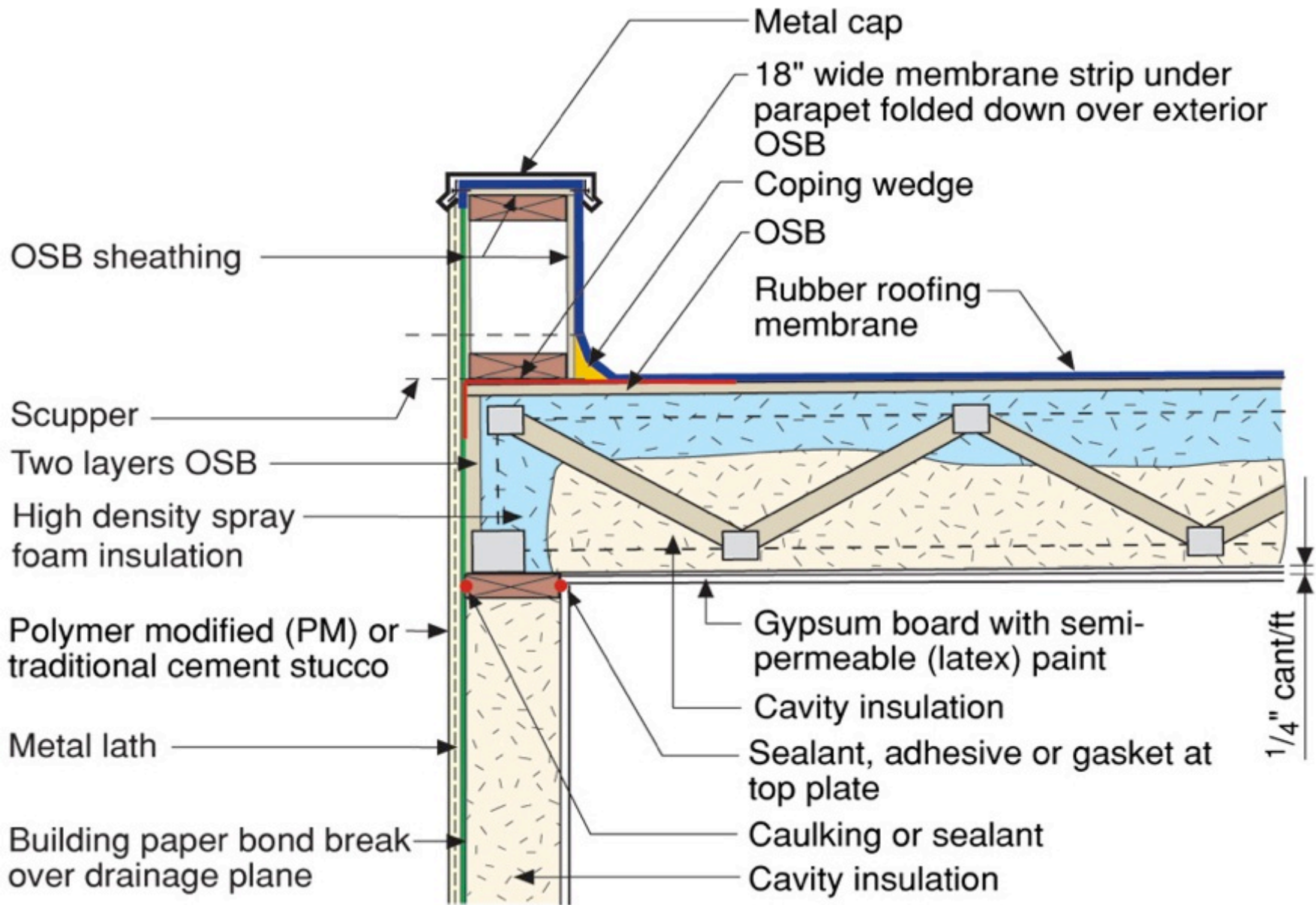




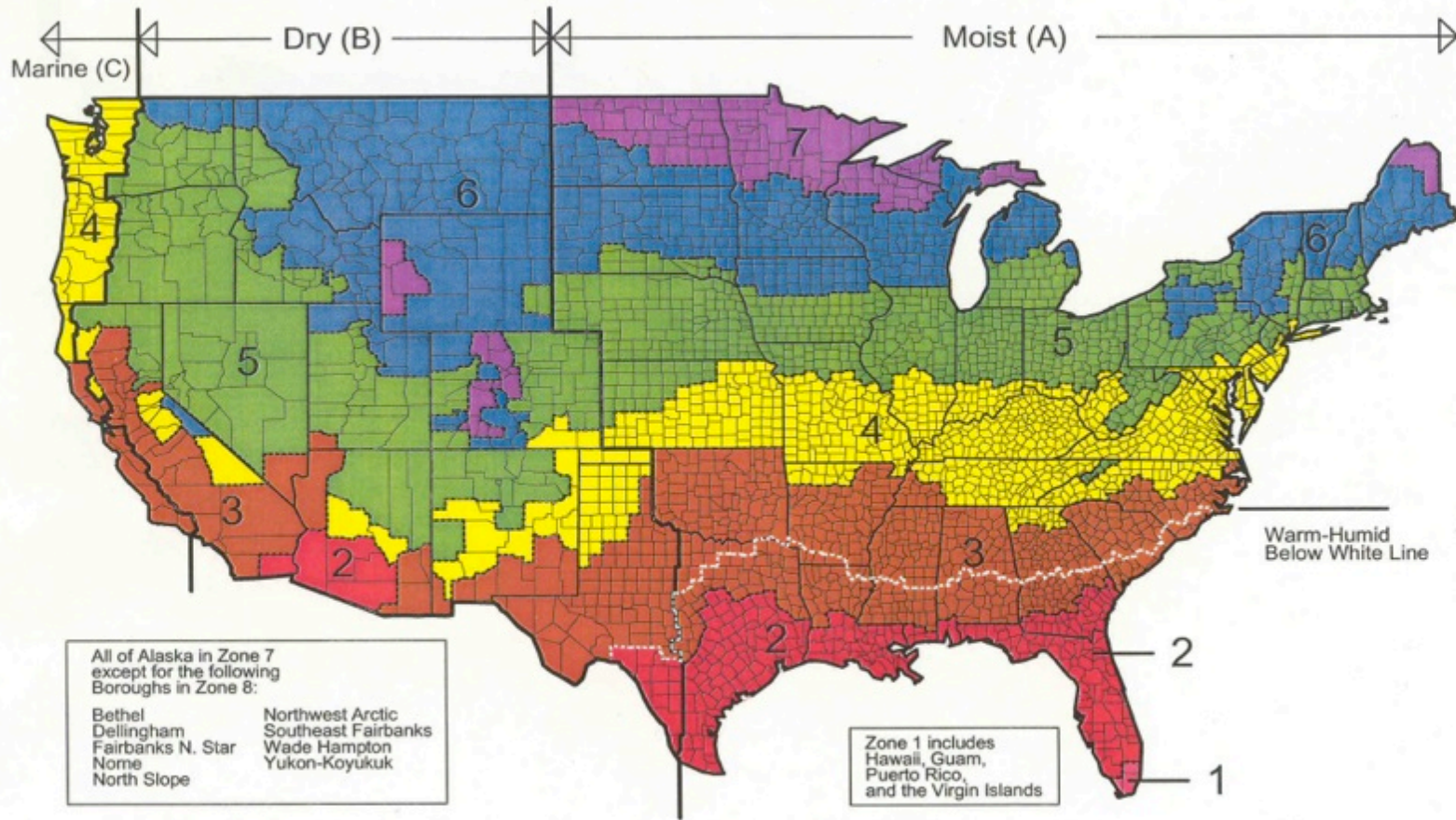




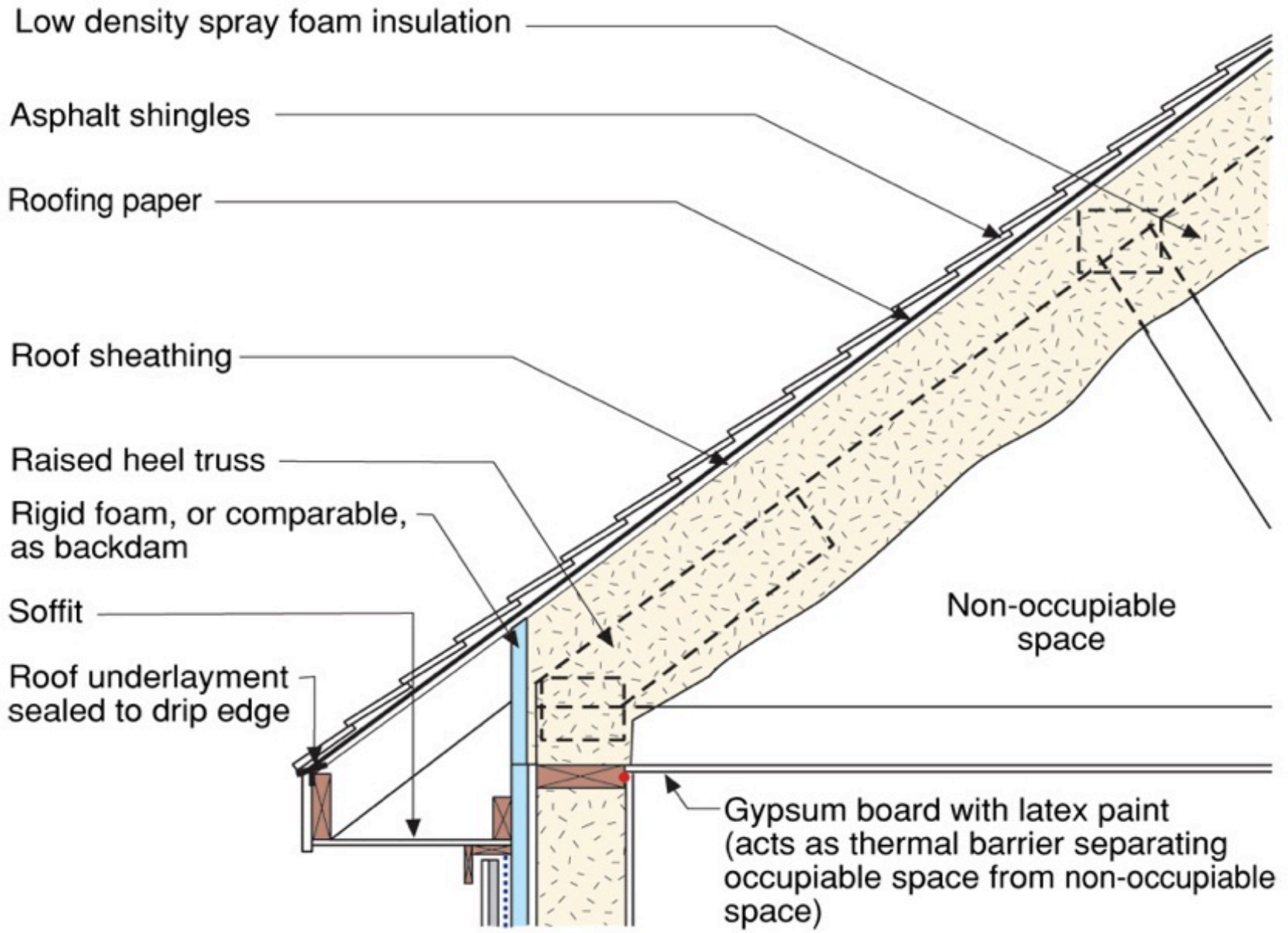




Map of DOE's Proposed Climate Zones



March 24, 2003



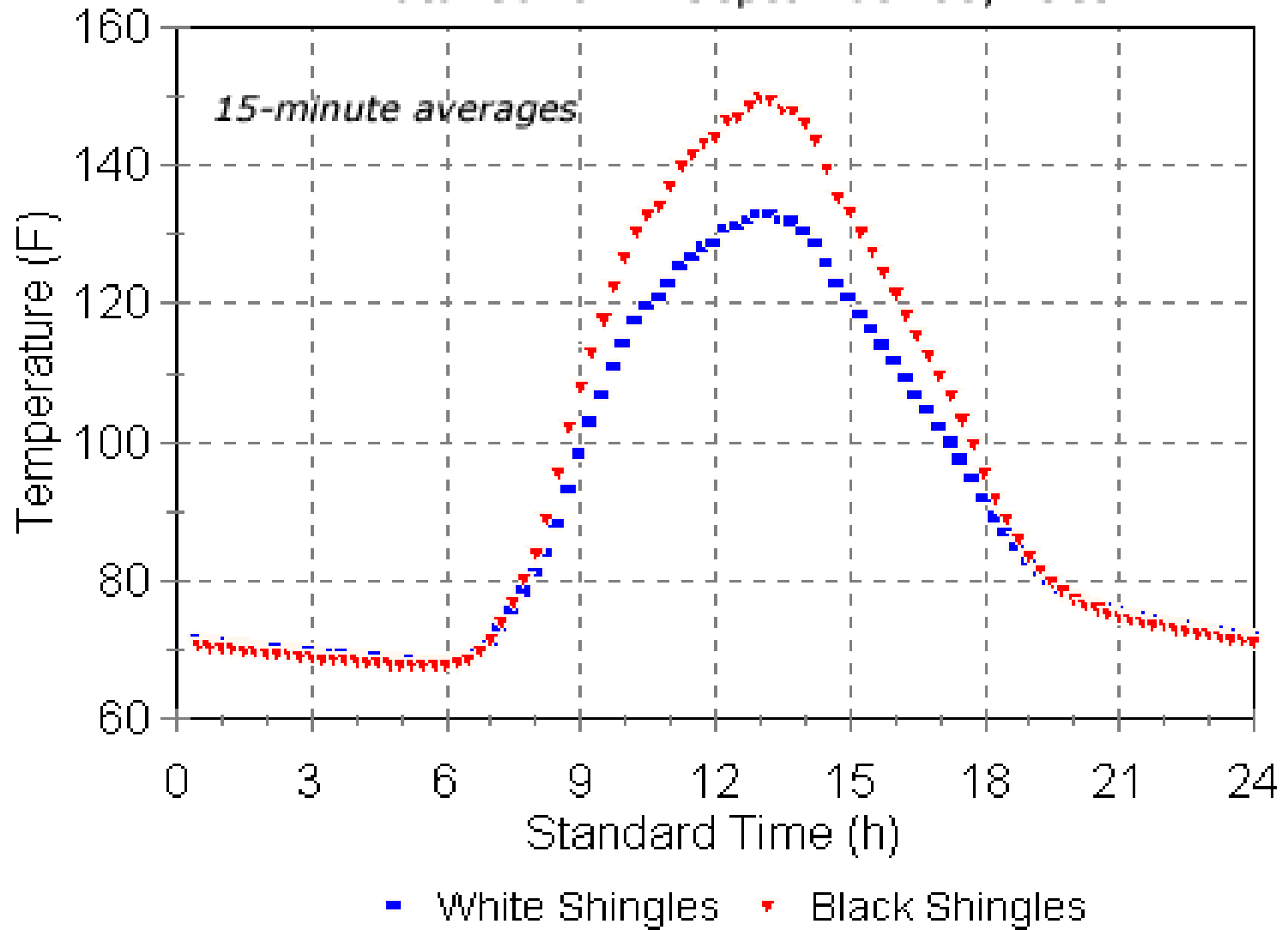




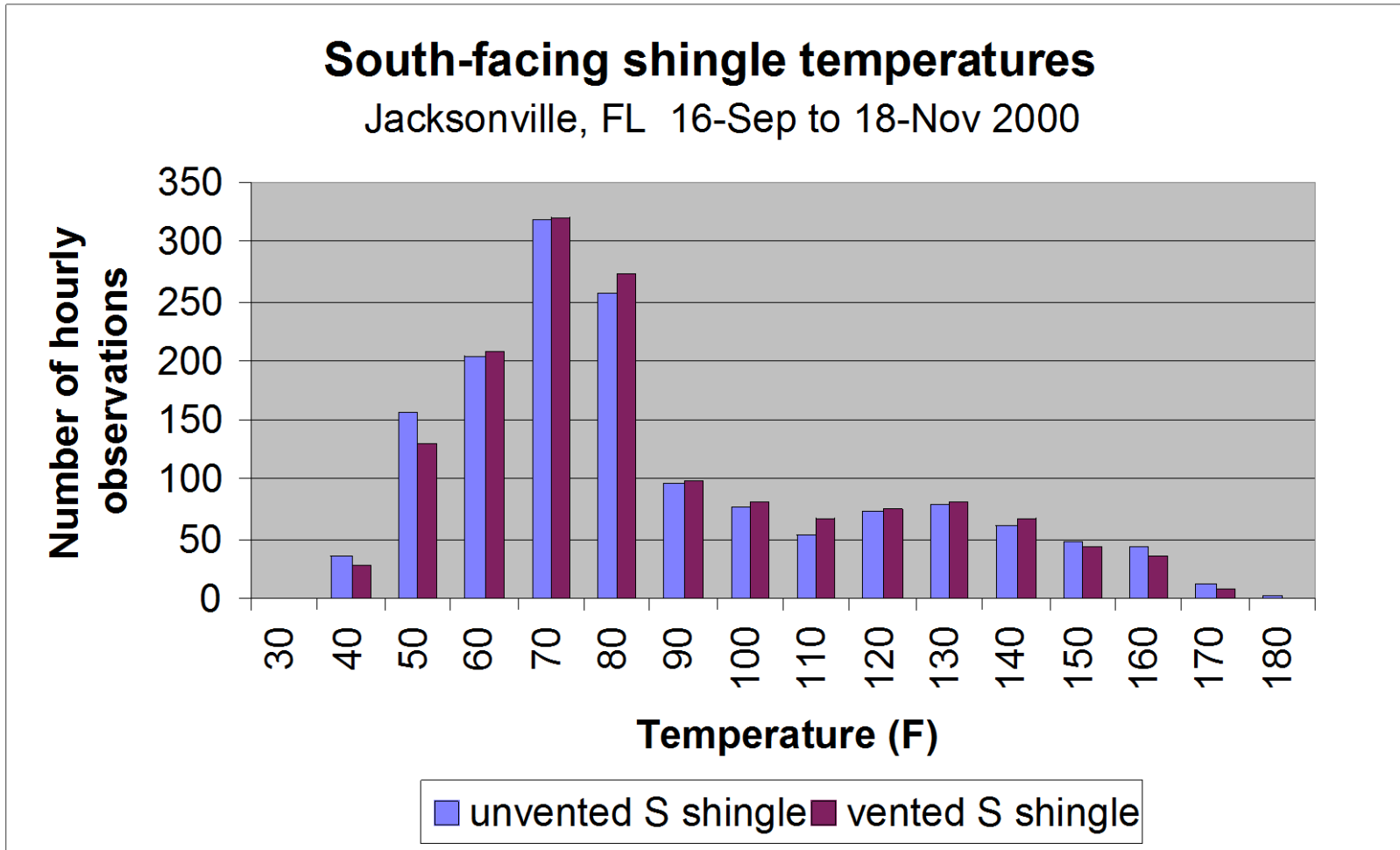




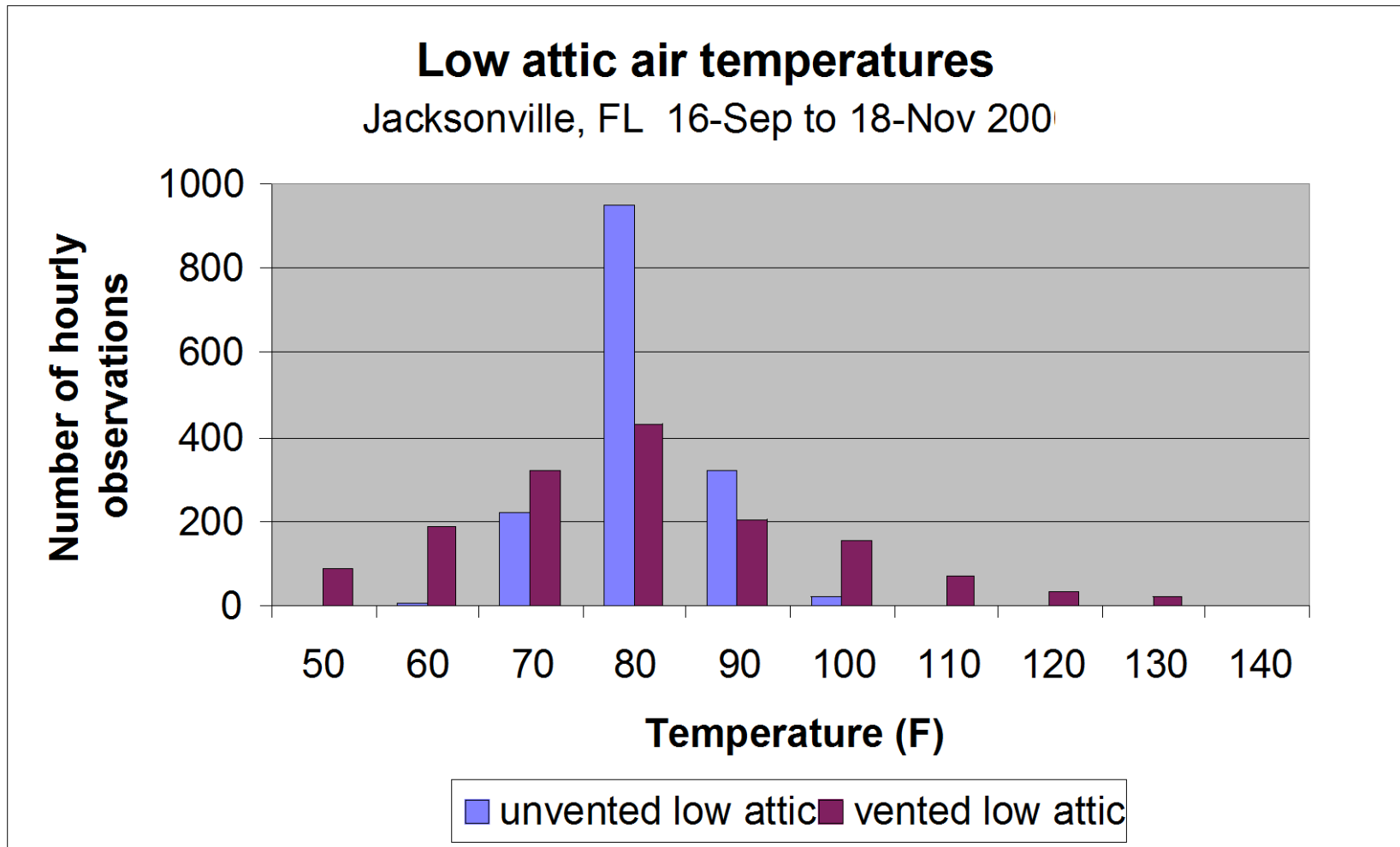
FRF Data: June 1 - September 30, 1989



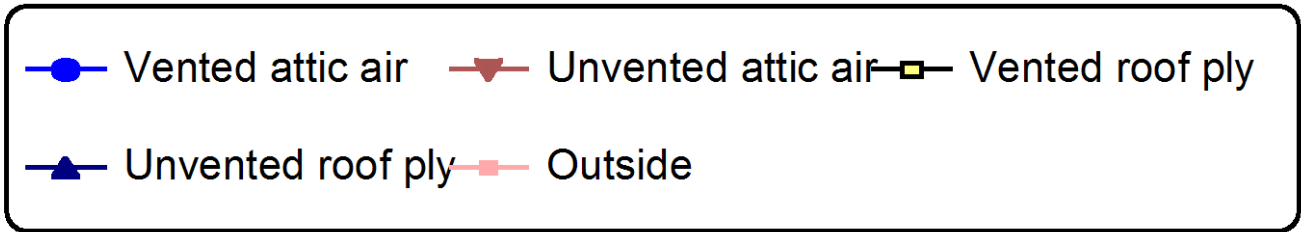
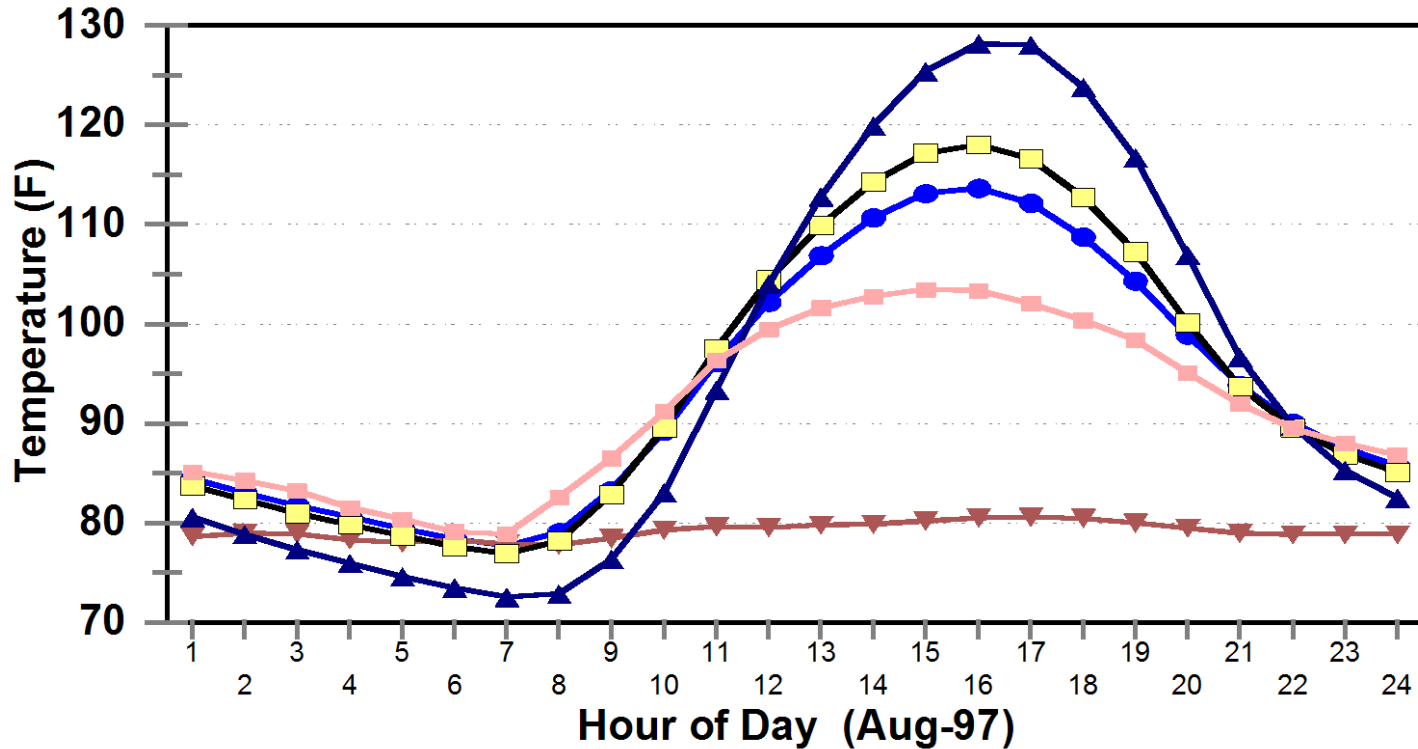
Vented vs. unvented shingle temperatures



Vented vs. unvented attic air temperatures

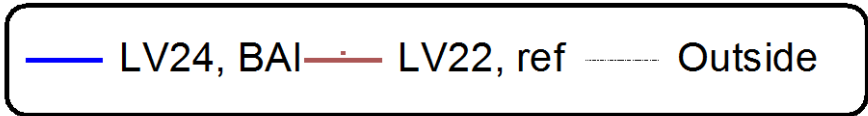
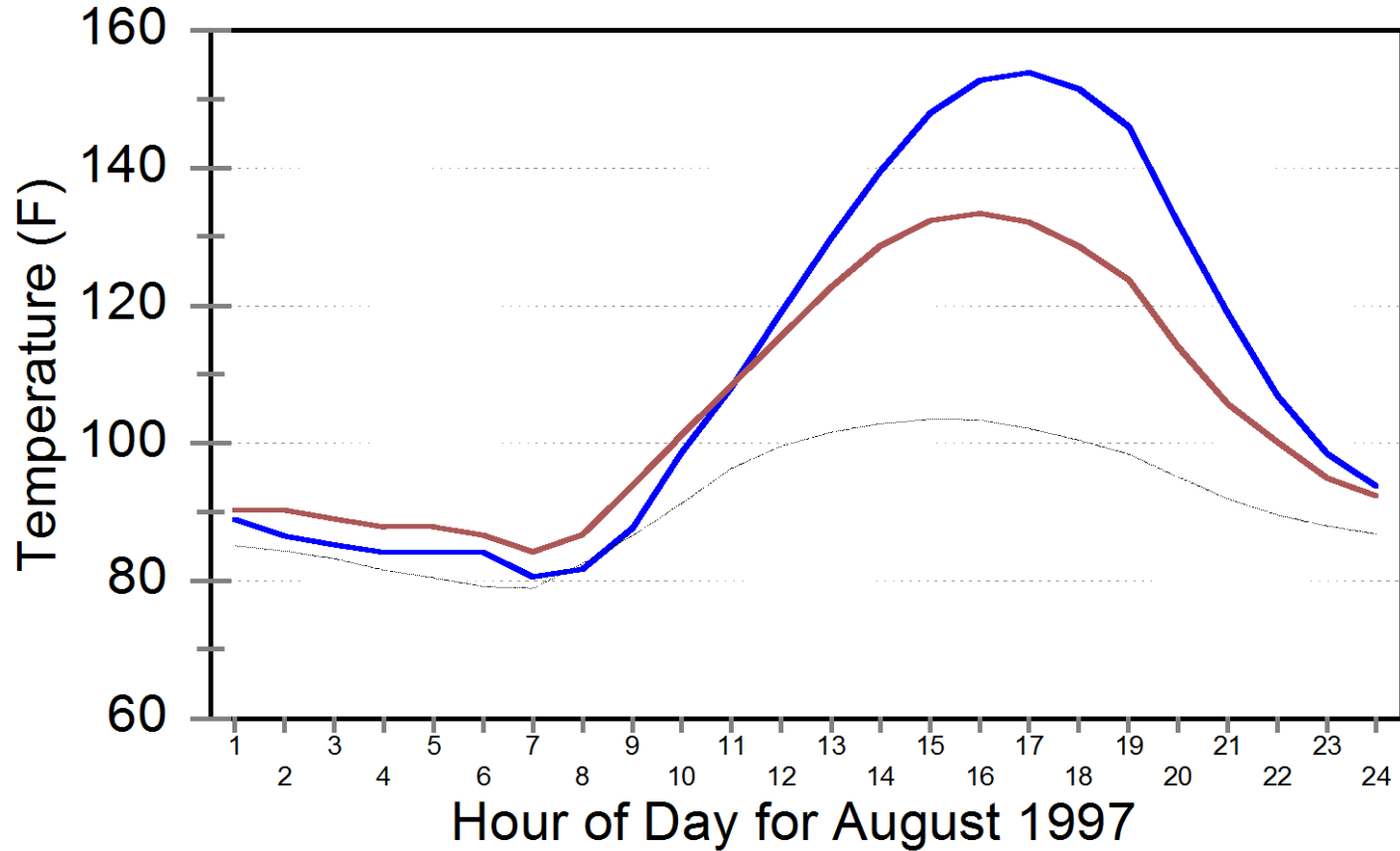


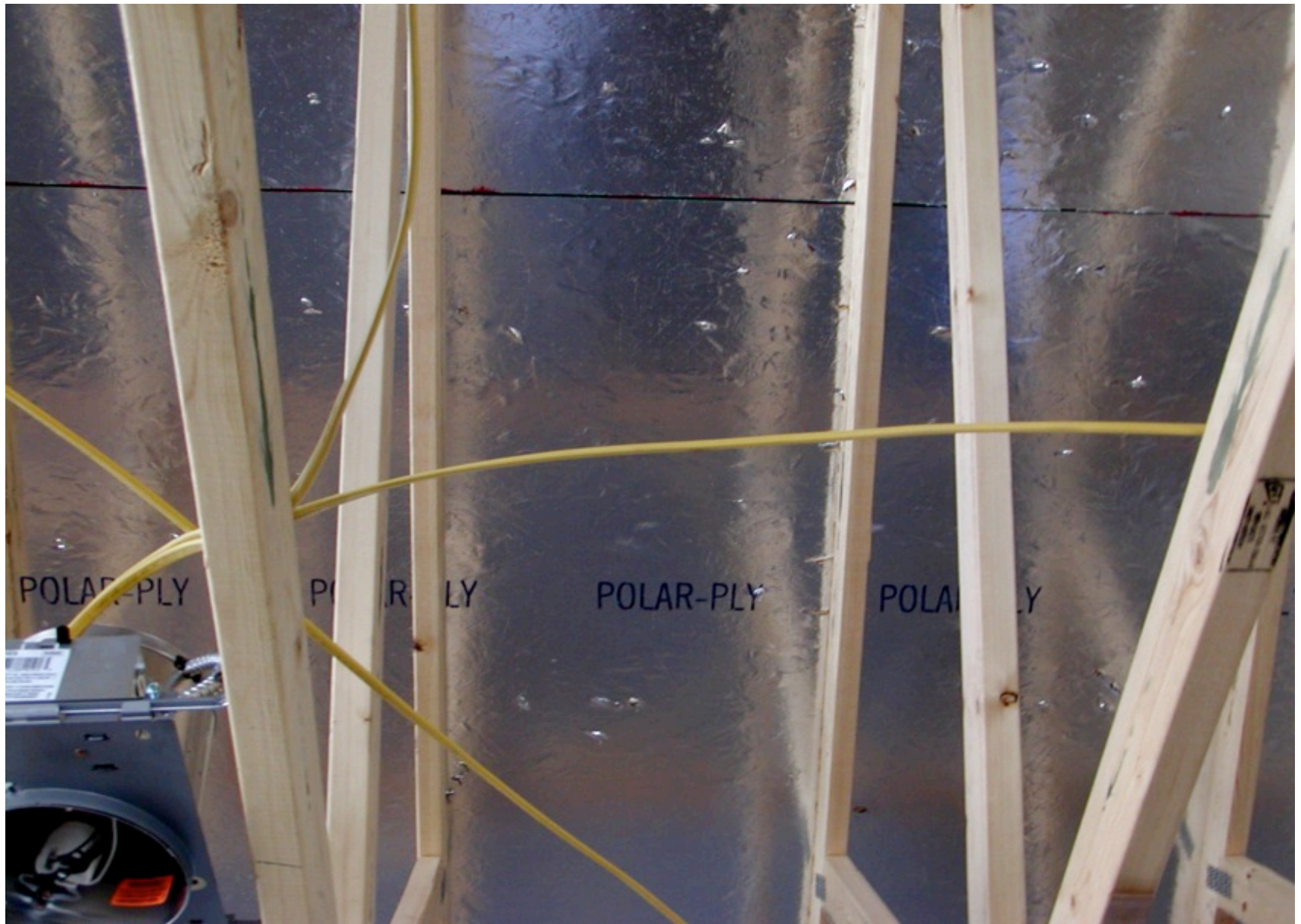
Average Temperatures Vented and Unvented Attics, Aug-97



Hourly Maximim Roof Deck Temperature

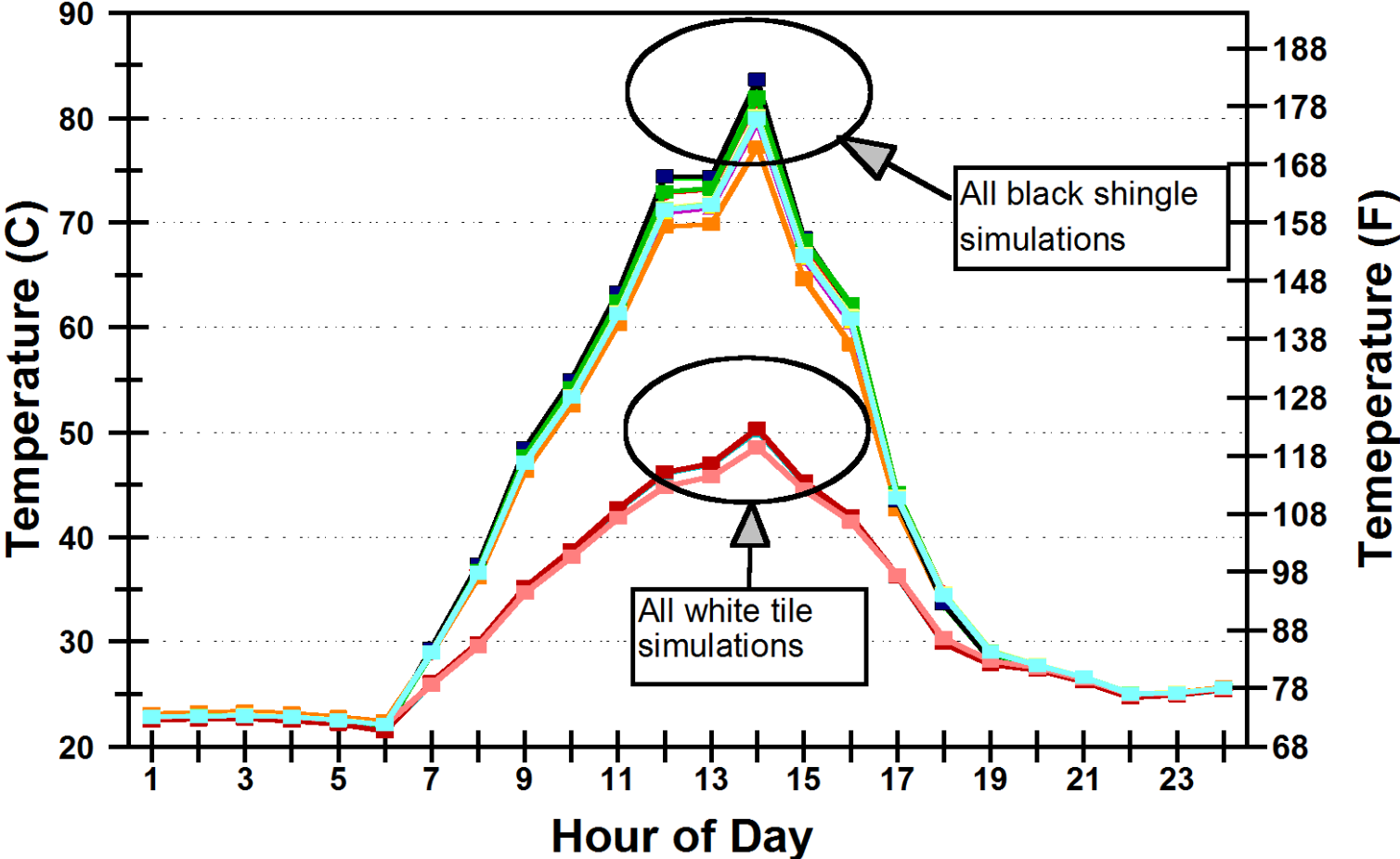
LV24 and LV22





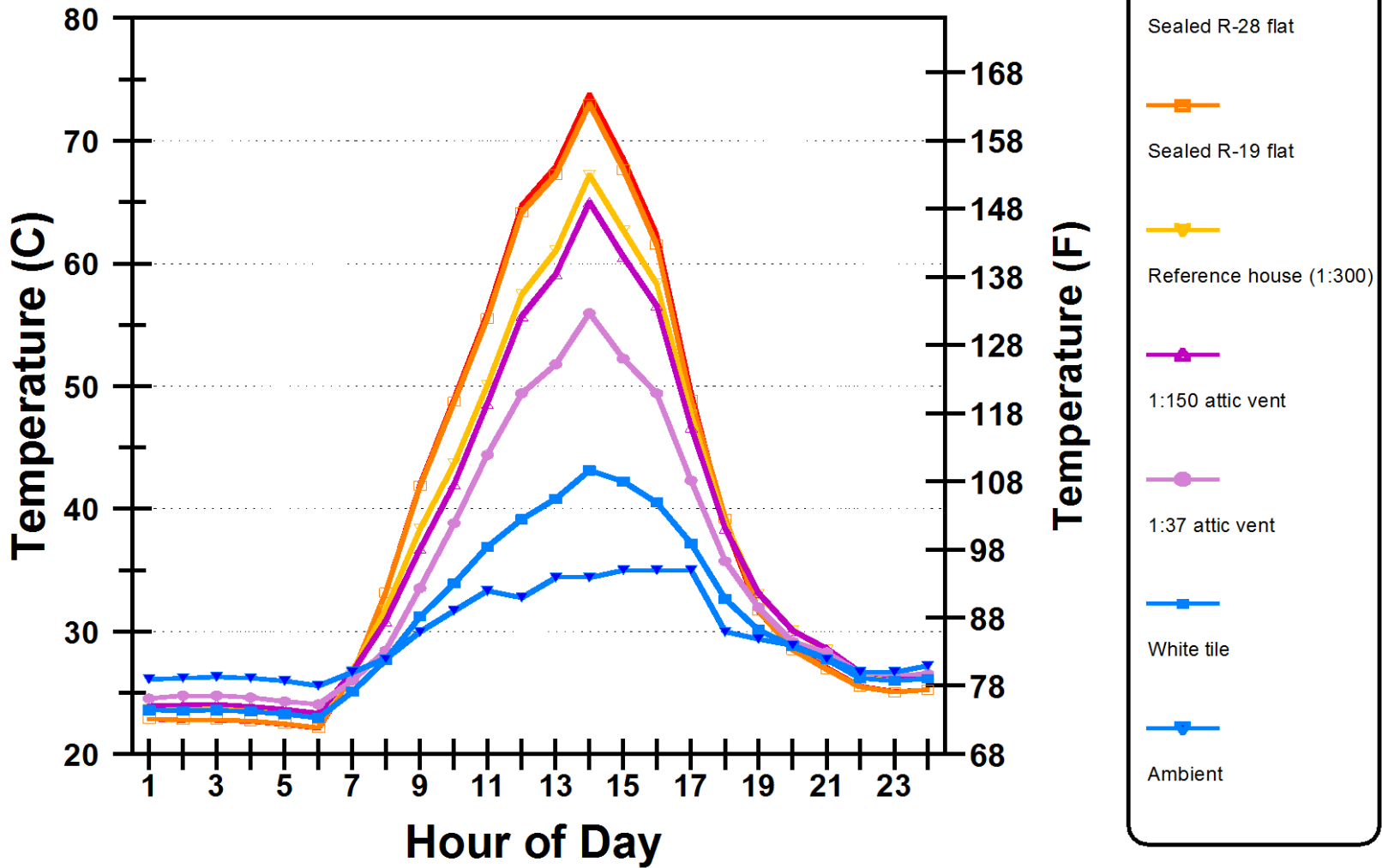
Roof Shingle Temperature

FSEC 3.0: Orlando, 1-Aug



Bottom of Roof Plywood Temperature

FSEC 3.0: Orlando, 1-Aug













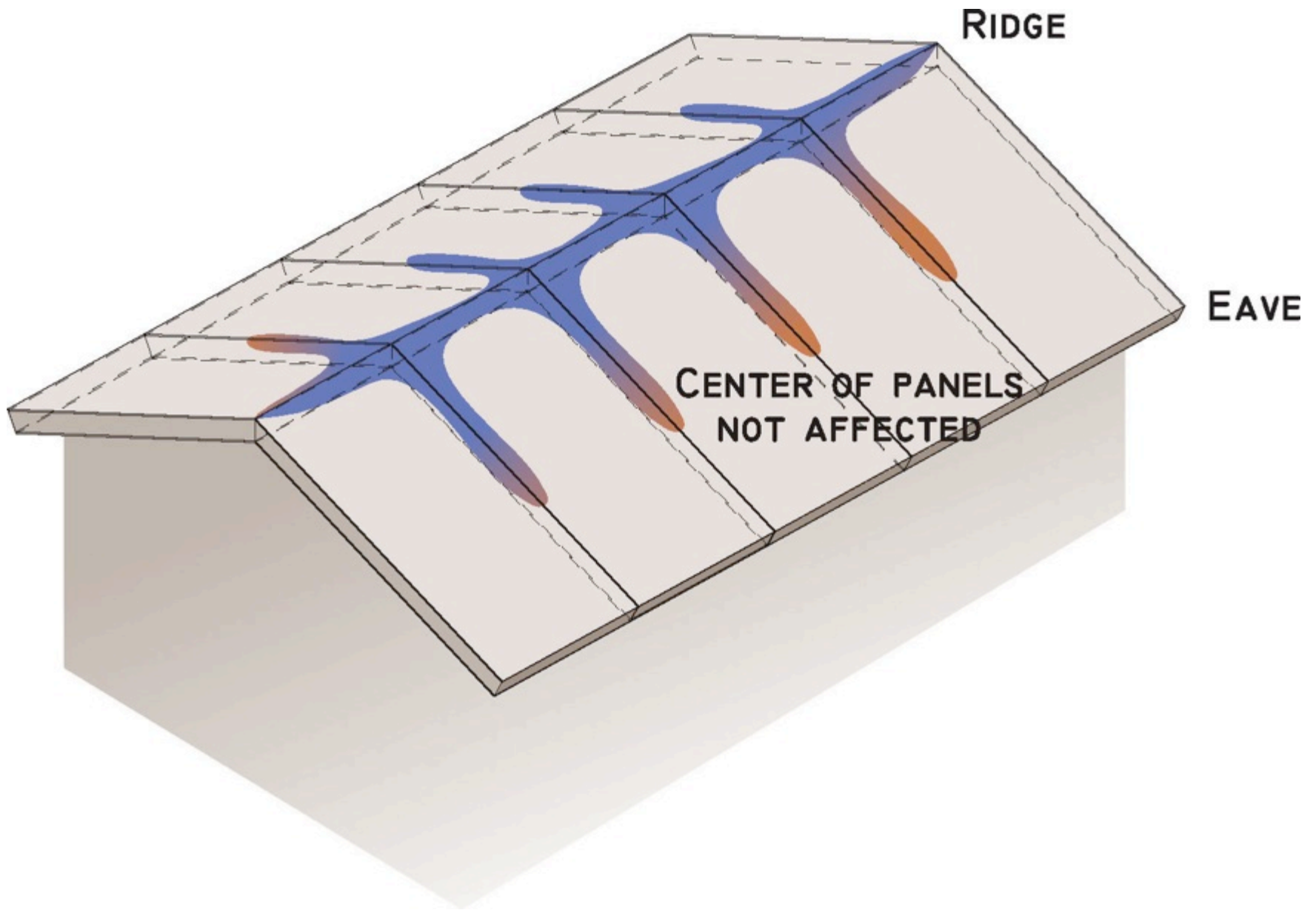










Figure 1

- Remove strip of OSB from each side of ridge

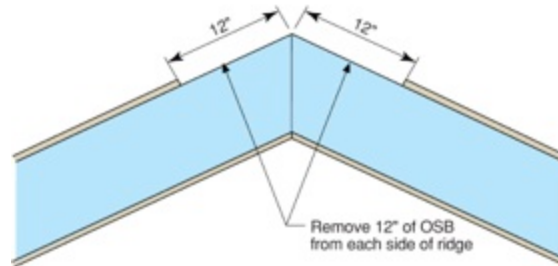


Figure 2

- Create air seal with strip of Tyvek® (tape seams of Tyvek®)
- Hold Tyvek® sheet in place with metal strapping

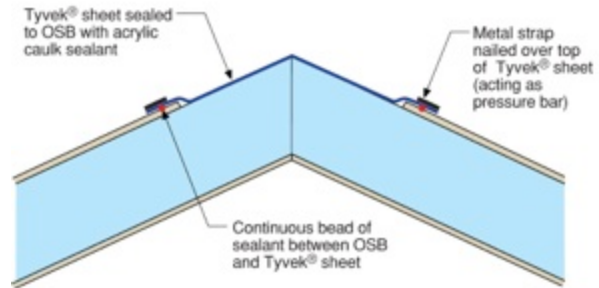


Figure 3

- Construct wood ridge vent with 2x2 furring
- Use Cobra® Ridge Vent roll mesh at edges of vent to control insect entry

