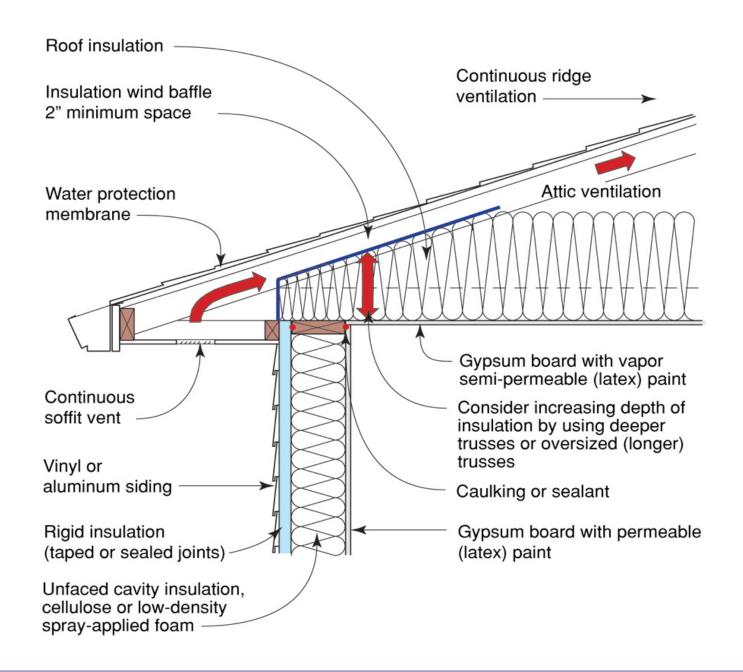
Joseph Lstiburek, Ph.D., P.Eng, ASHRAE Fellow

Building Science

Roofs





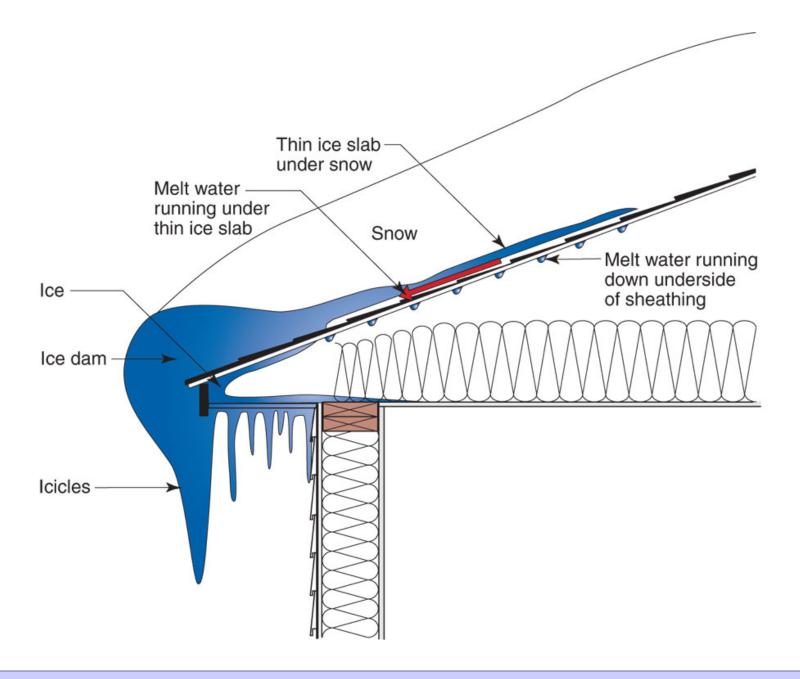








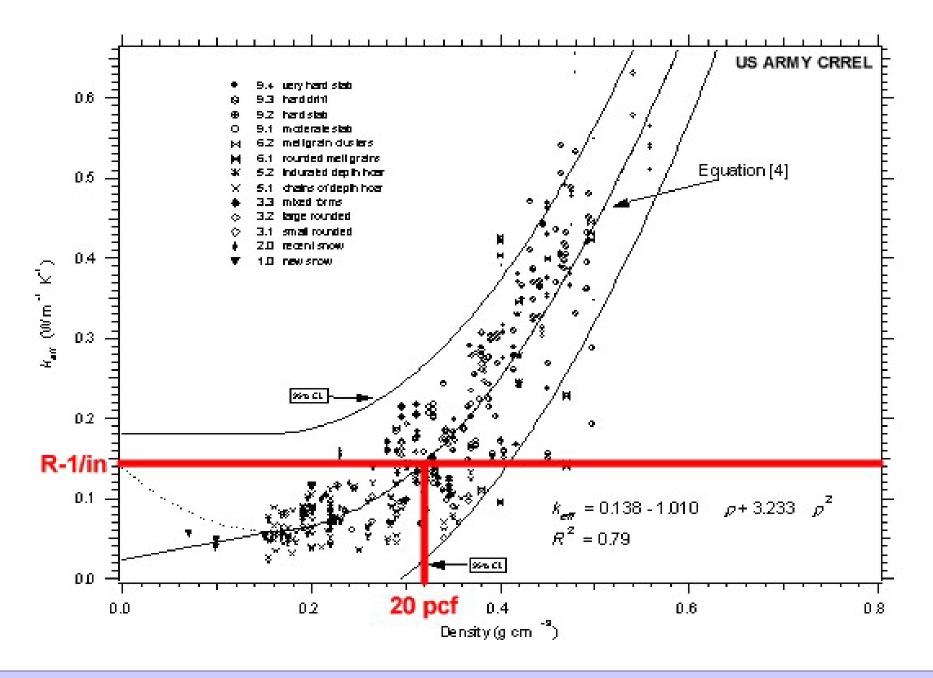






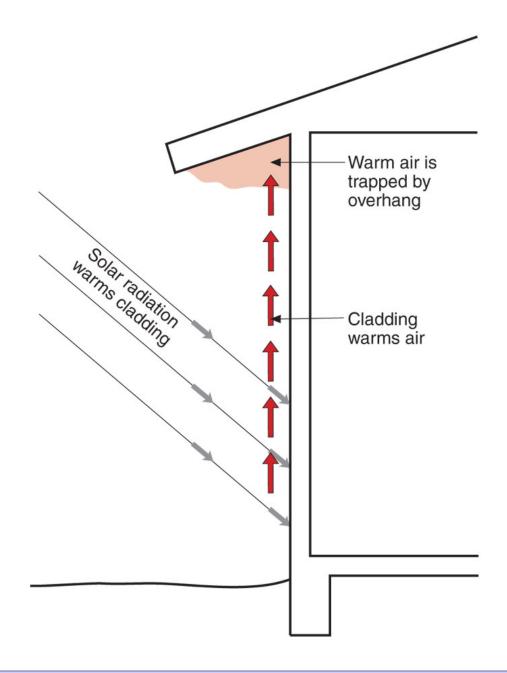










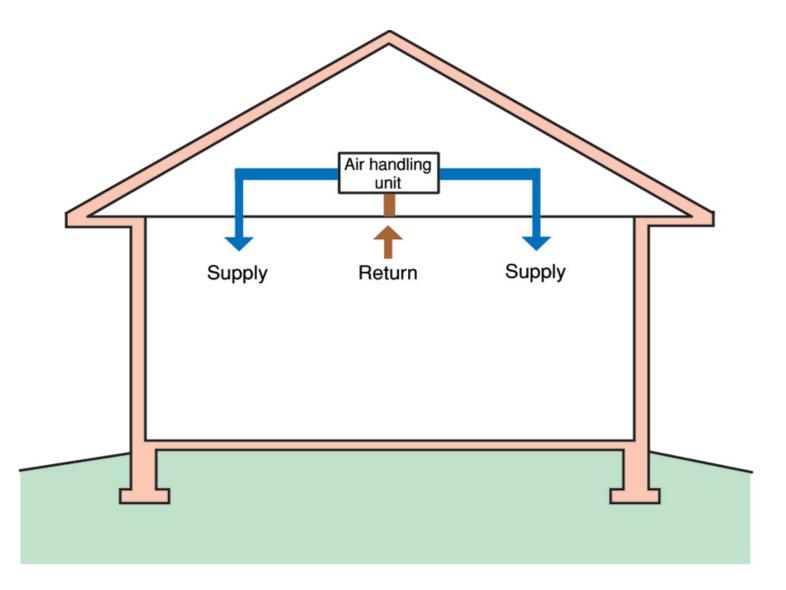




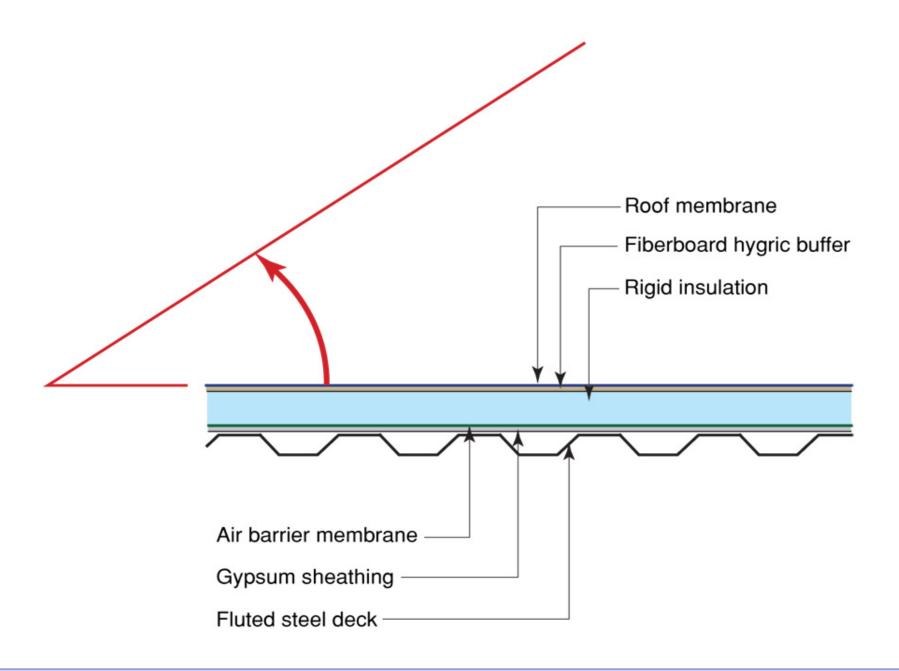


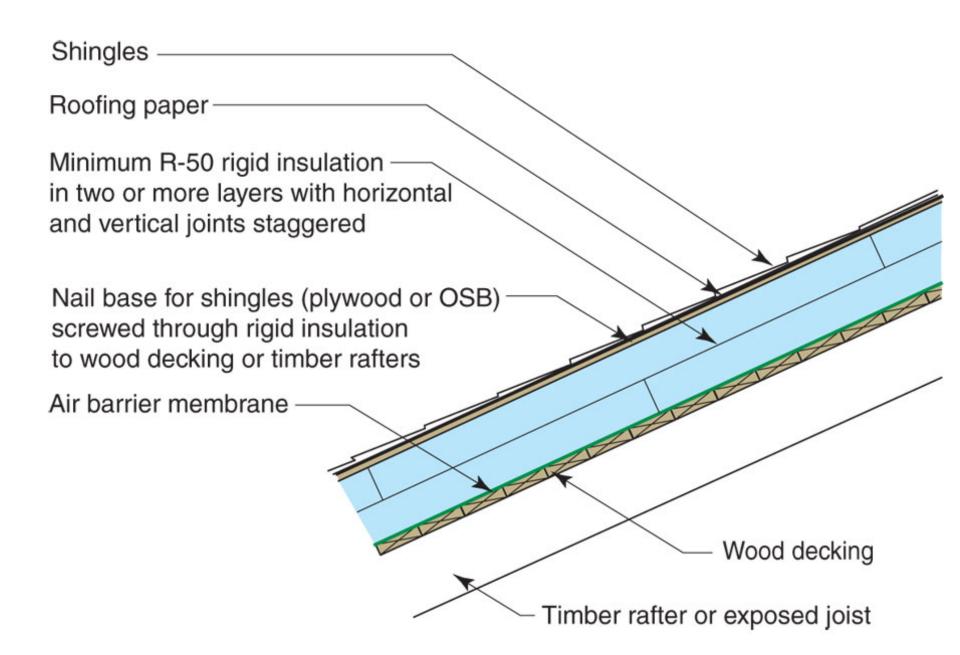


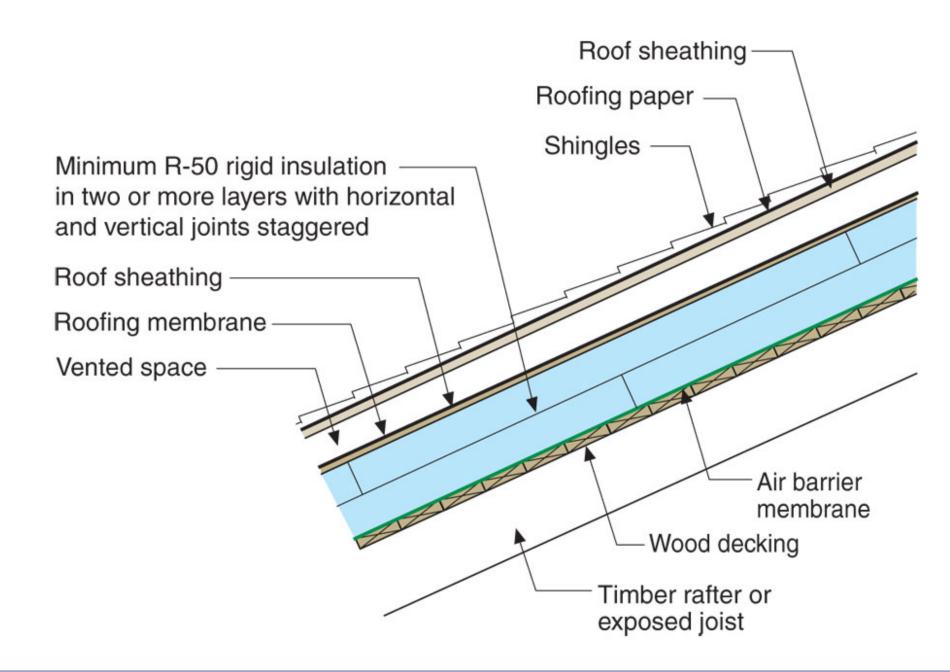


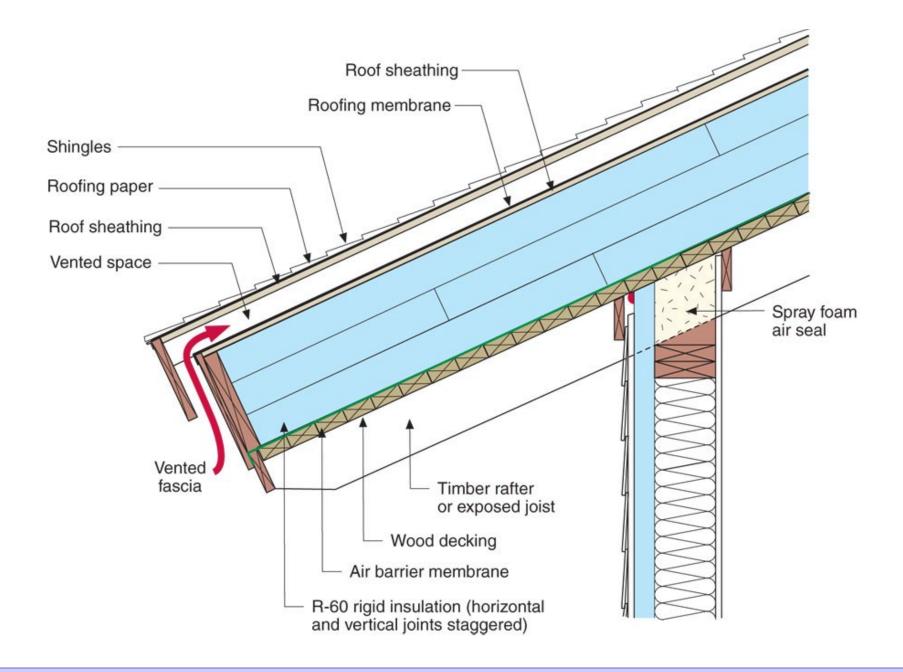


Note: Colored shading depicts the building's thermal barrier and pressure boundary. The thermal barrier and pressure boundary enclose the conditioned space.



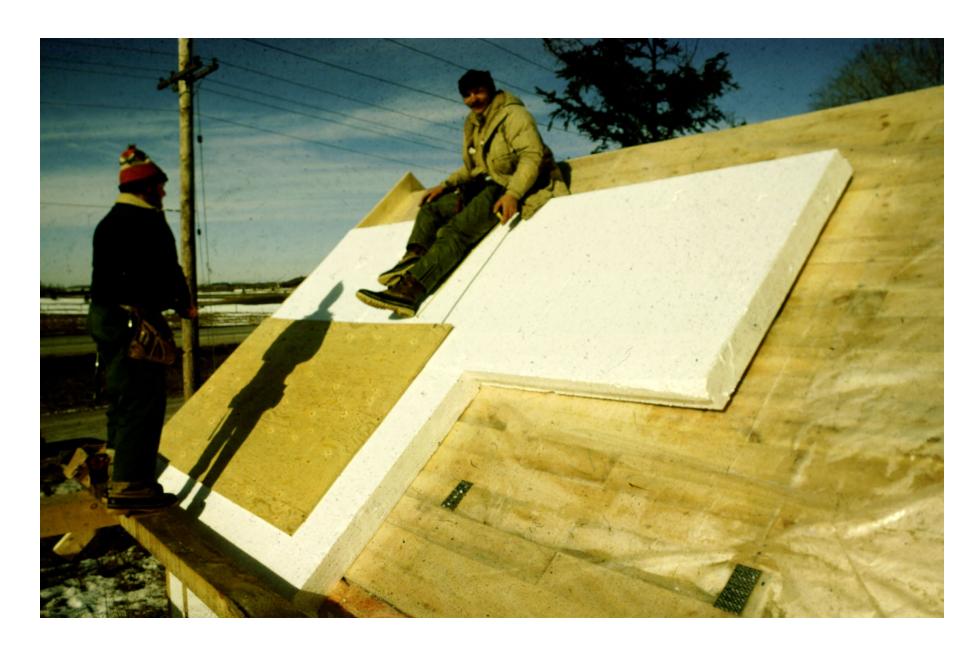


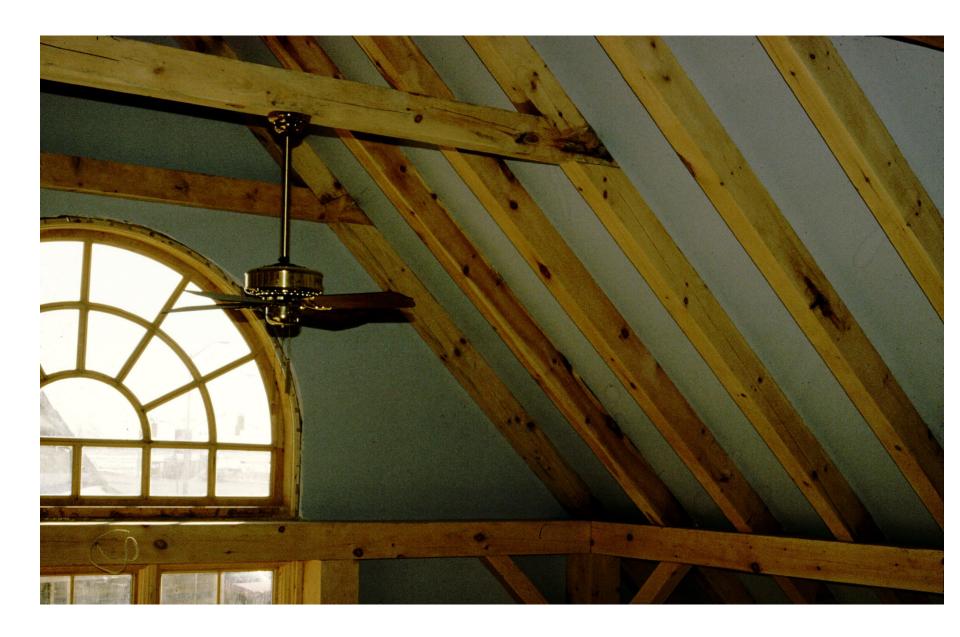












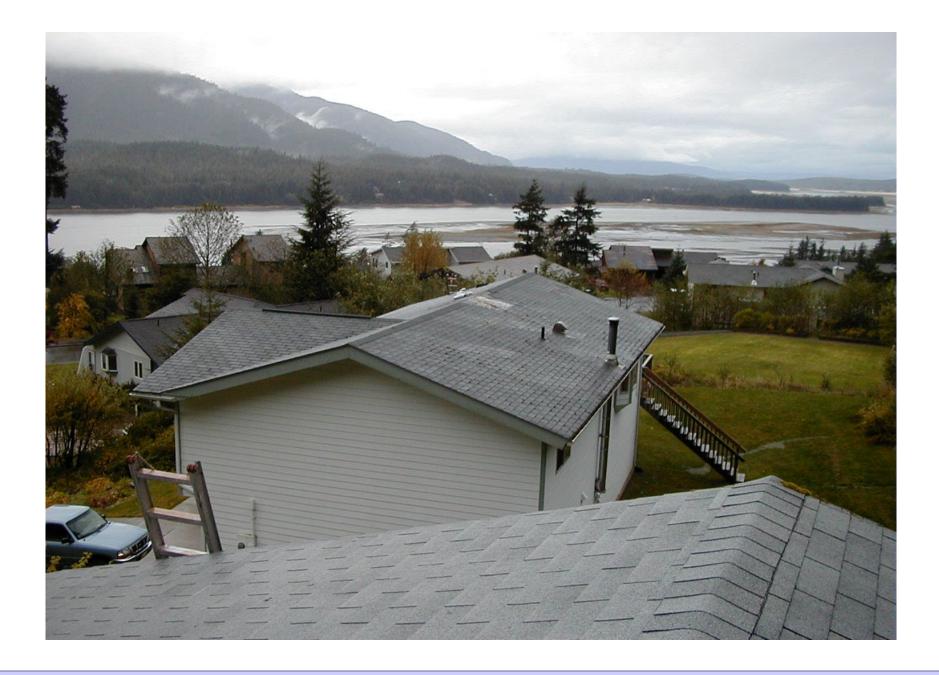










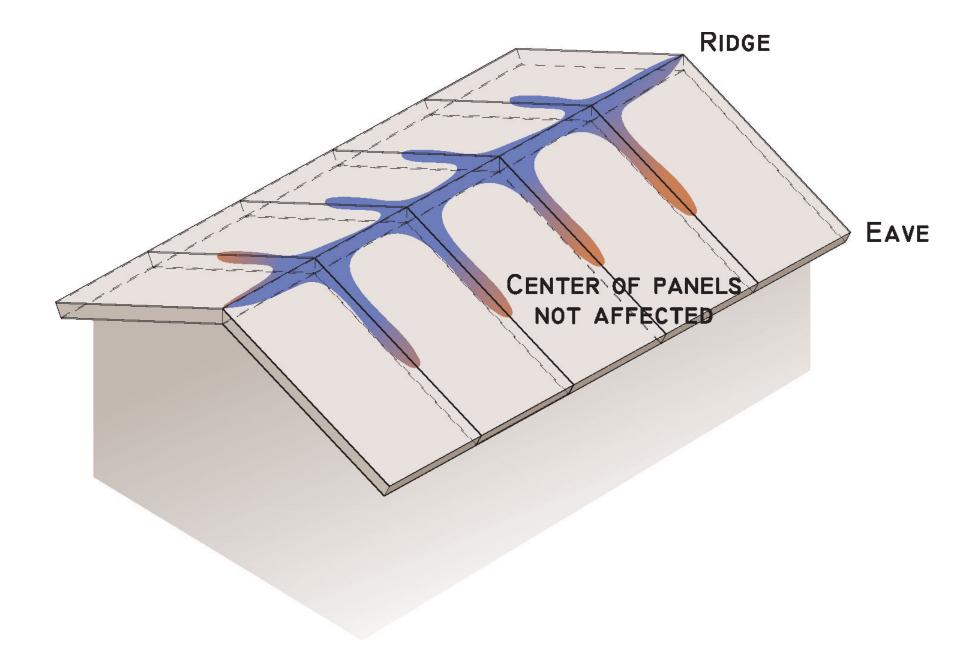




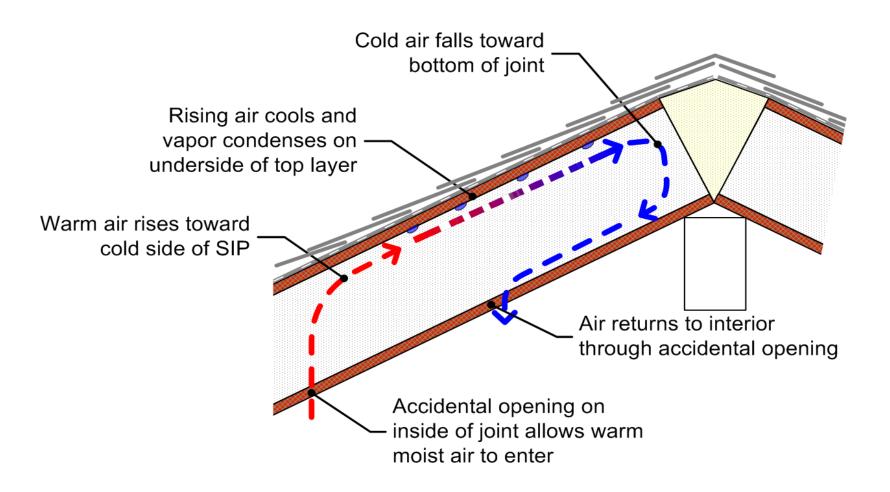








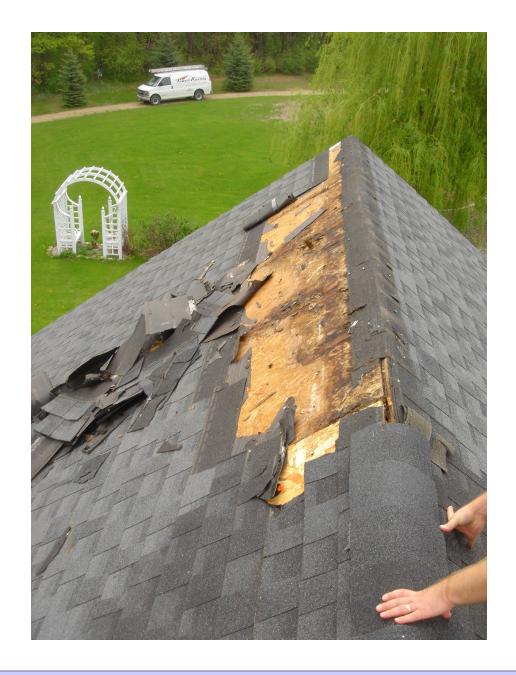




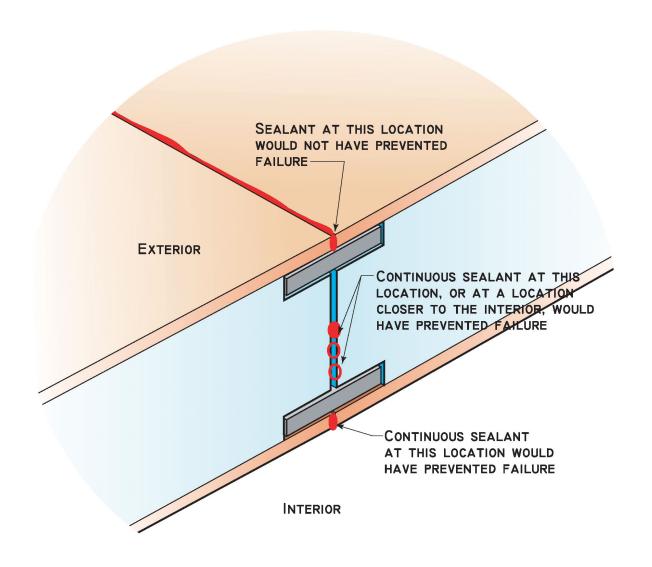


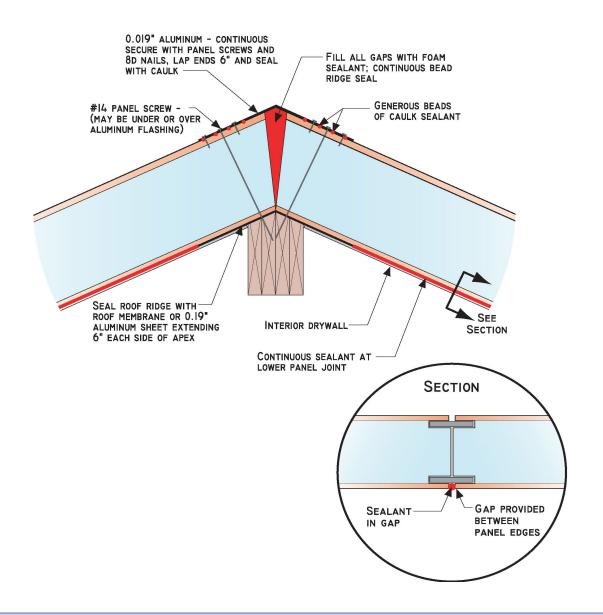


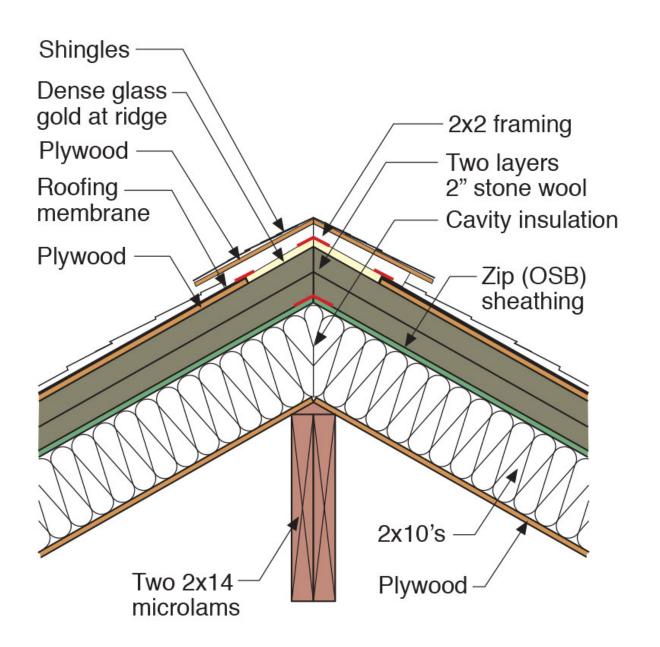


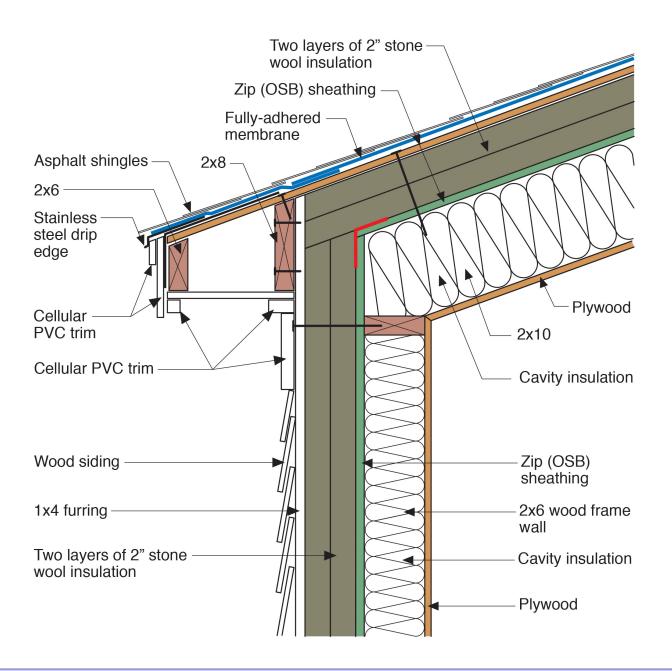




















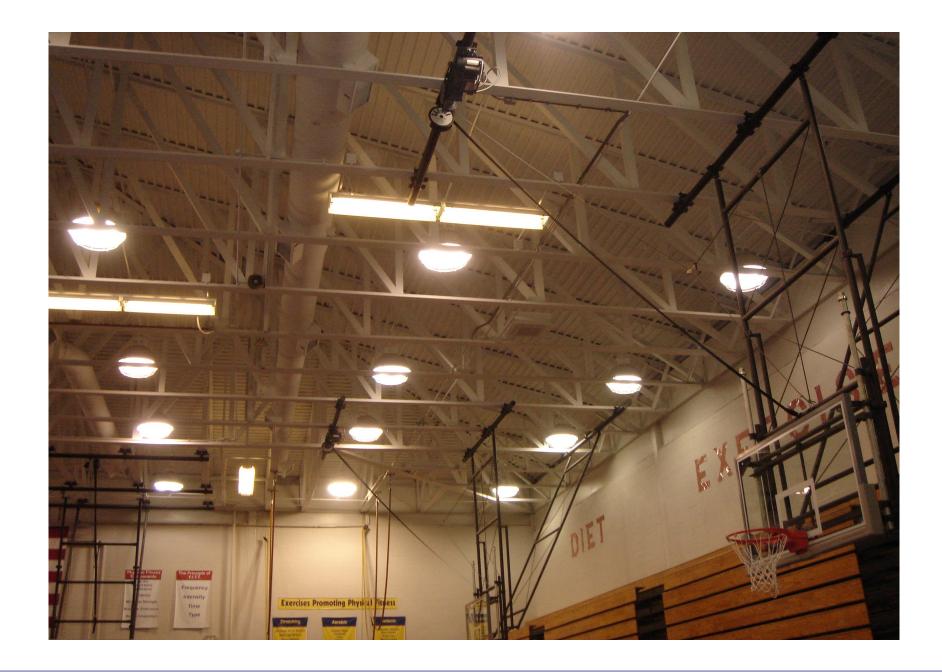










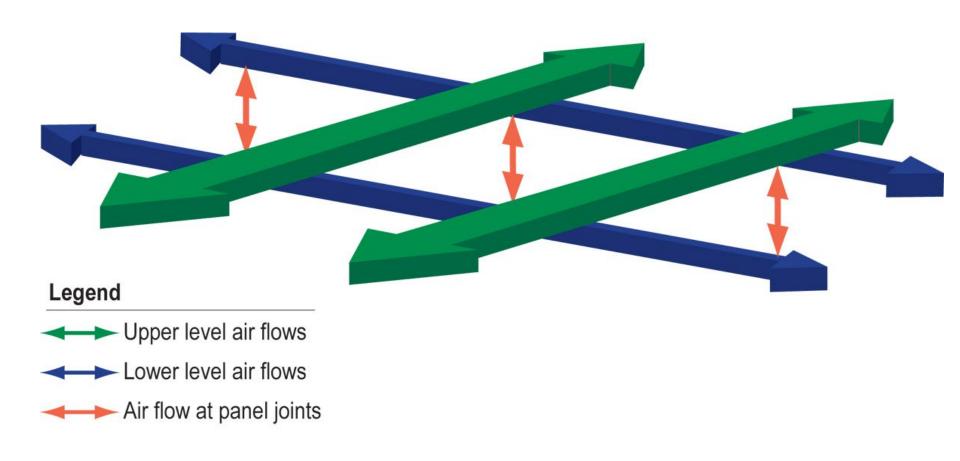


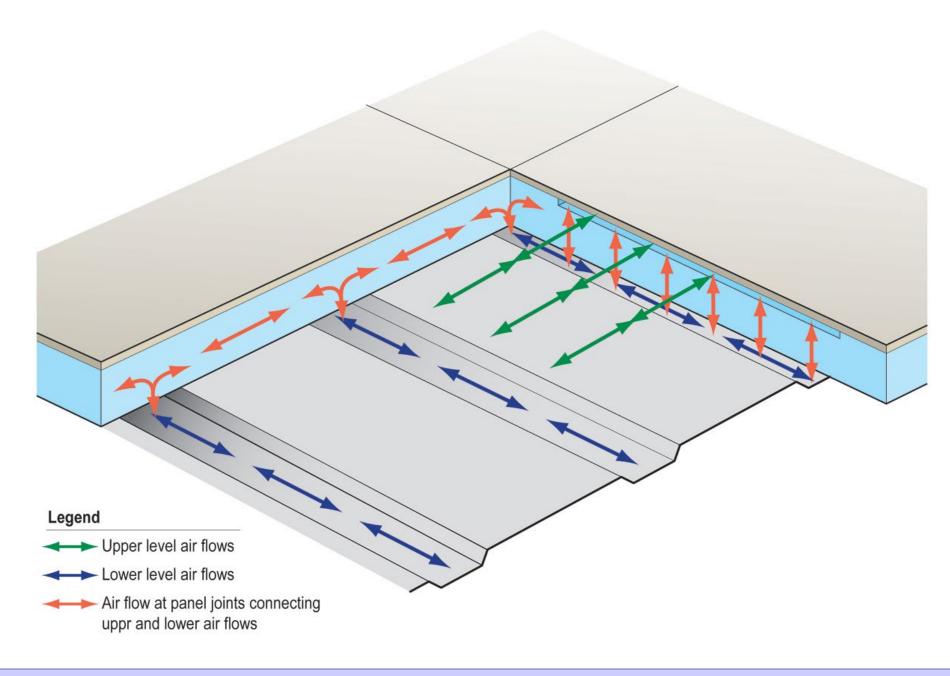


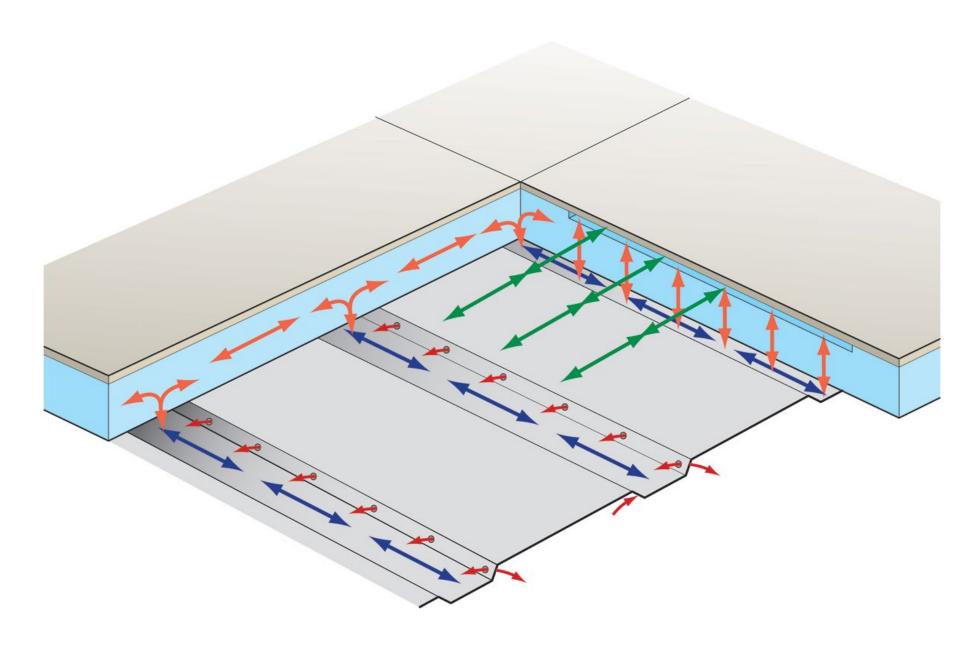




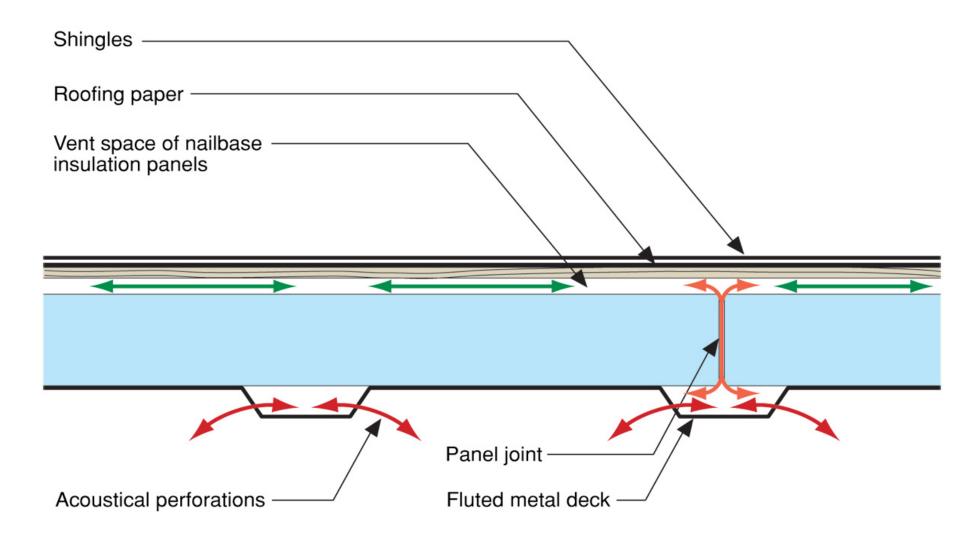


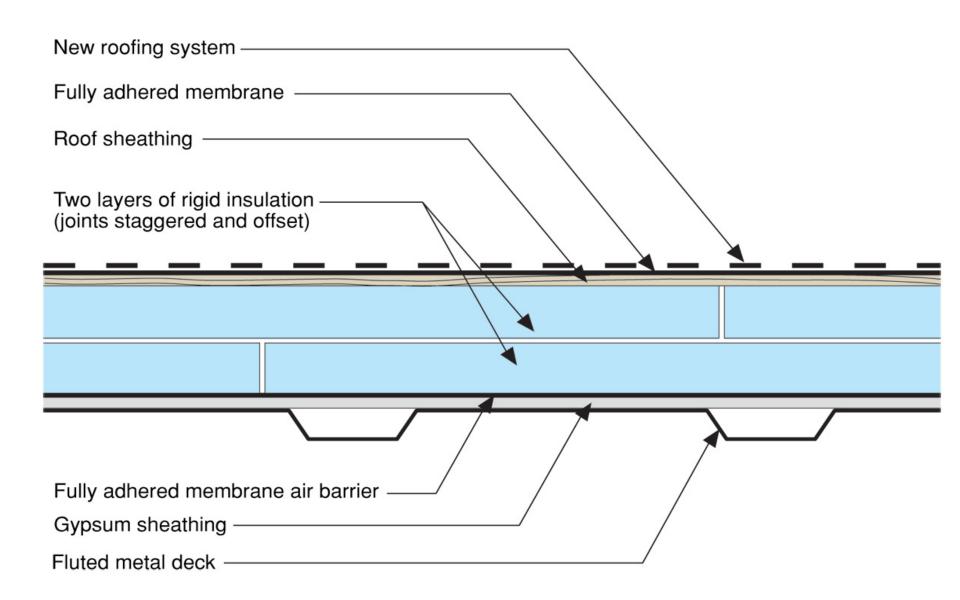


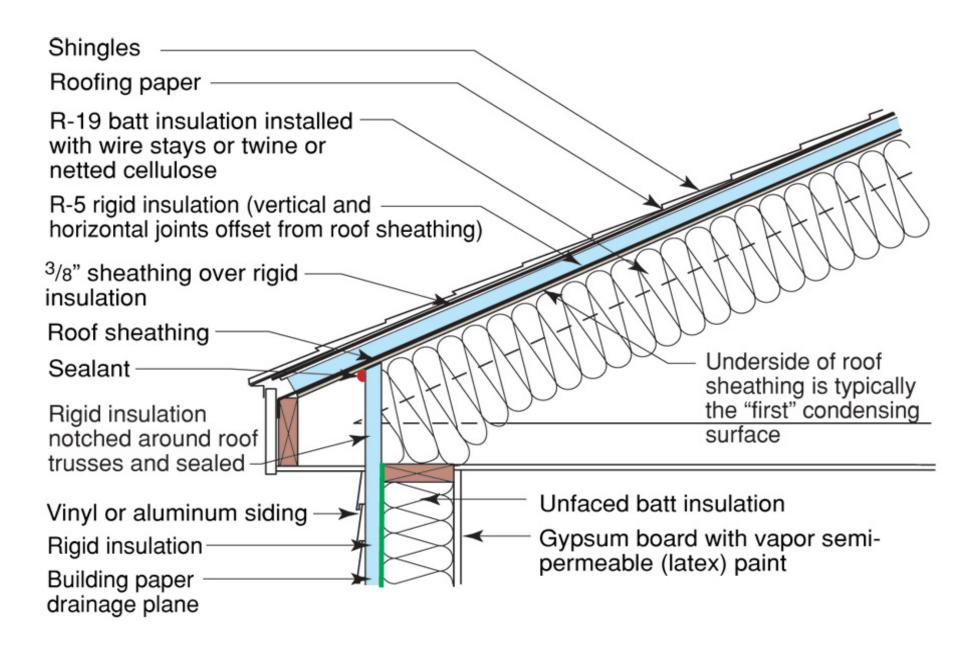


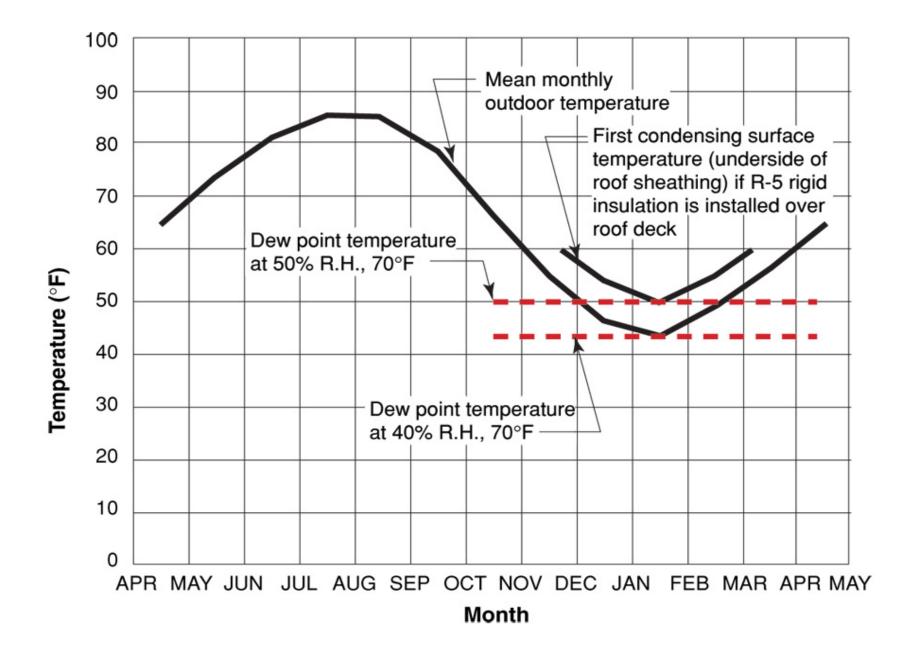


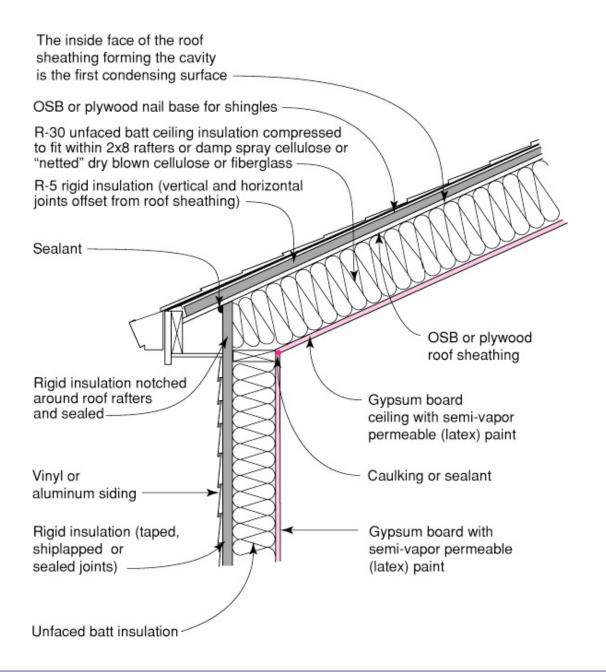


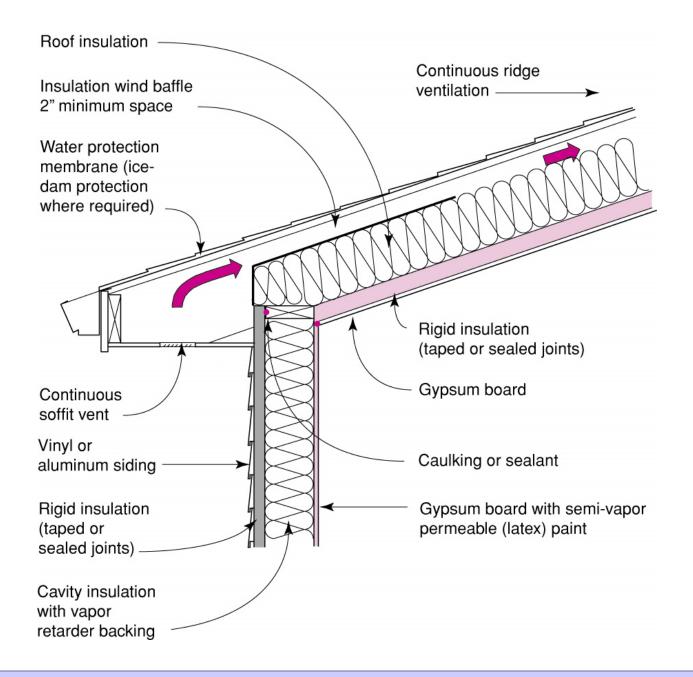


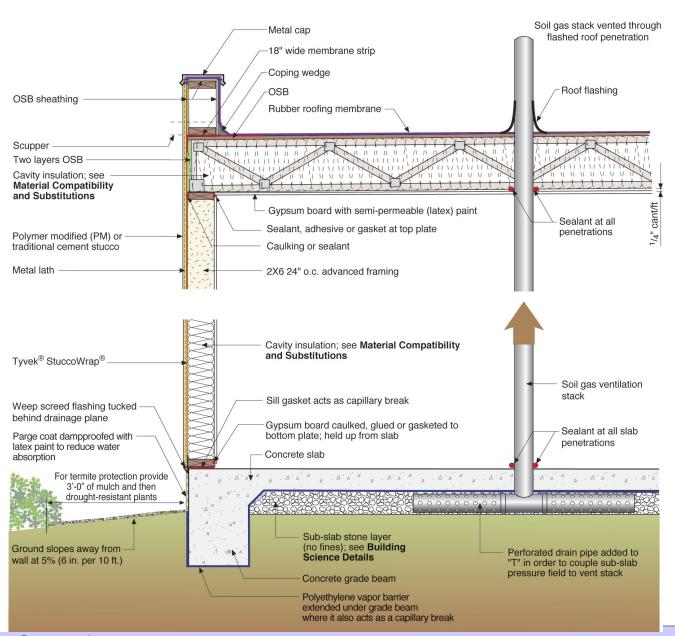


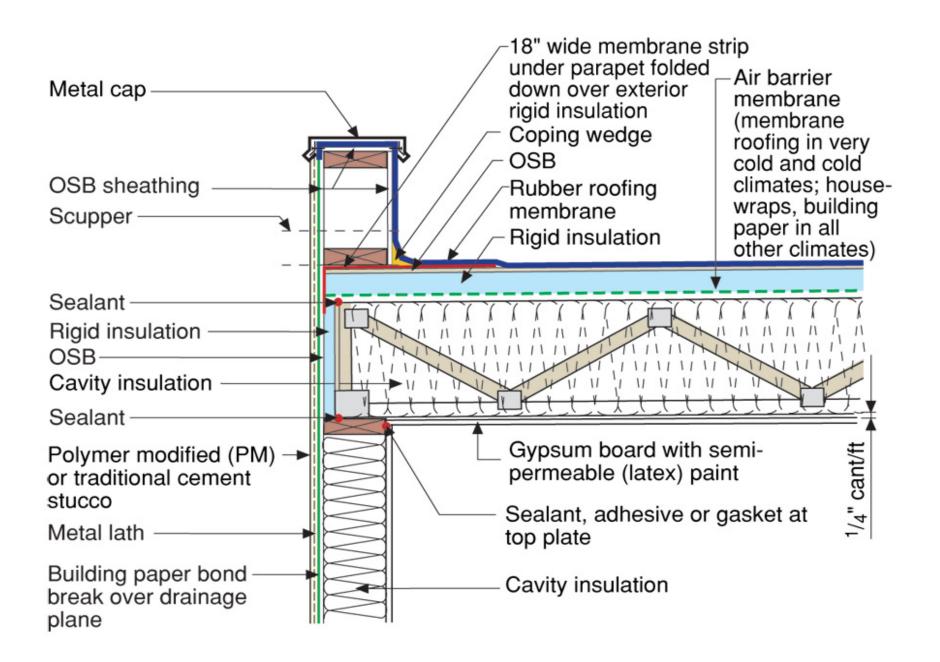


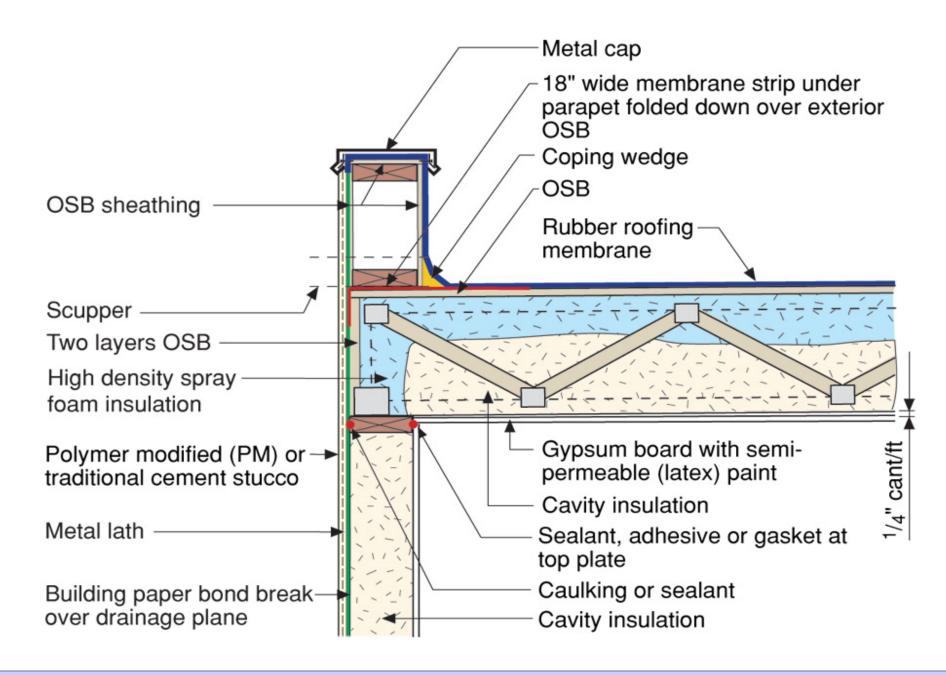


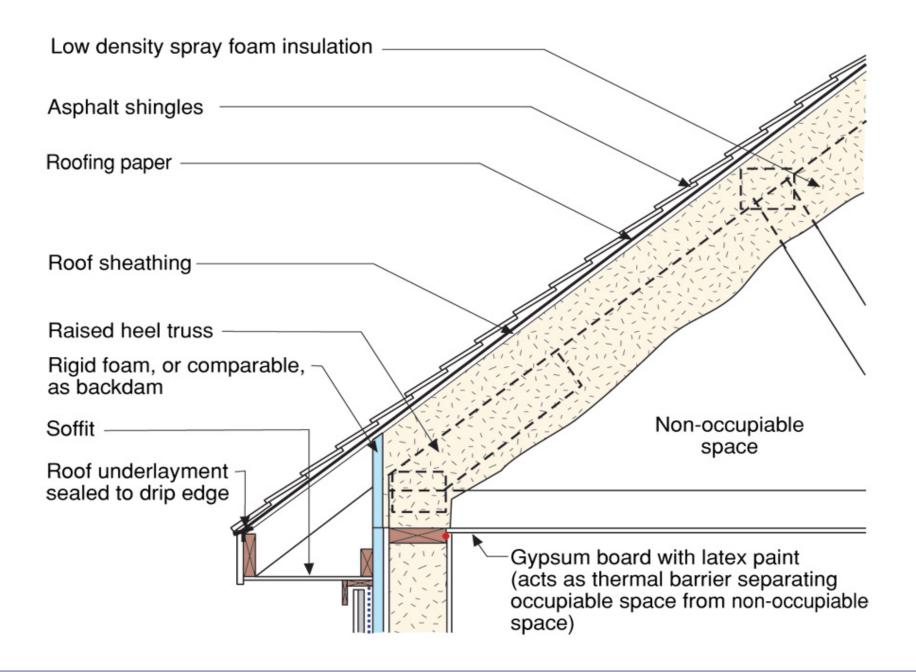




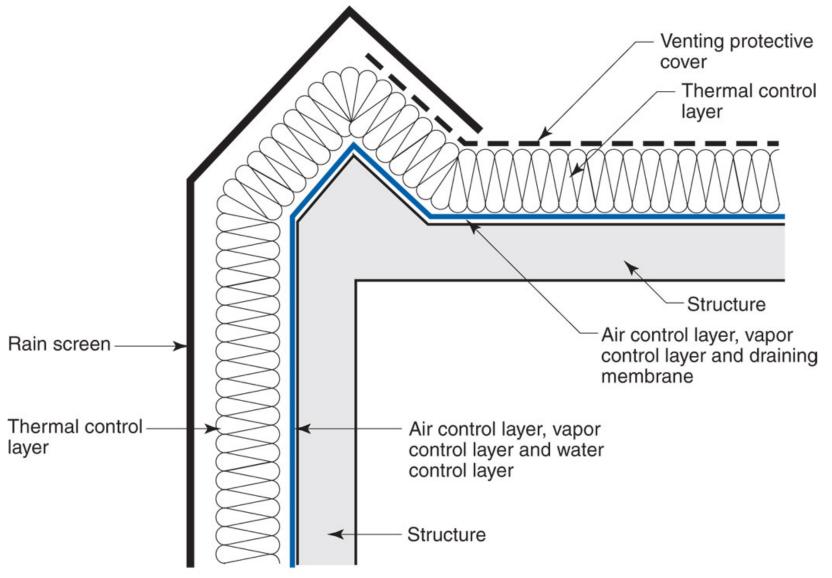












Adapted from Baker, M.; Roofs, 1980; Courtesy National Research Council of Canada

