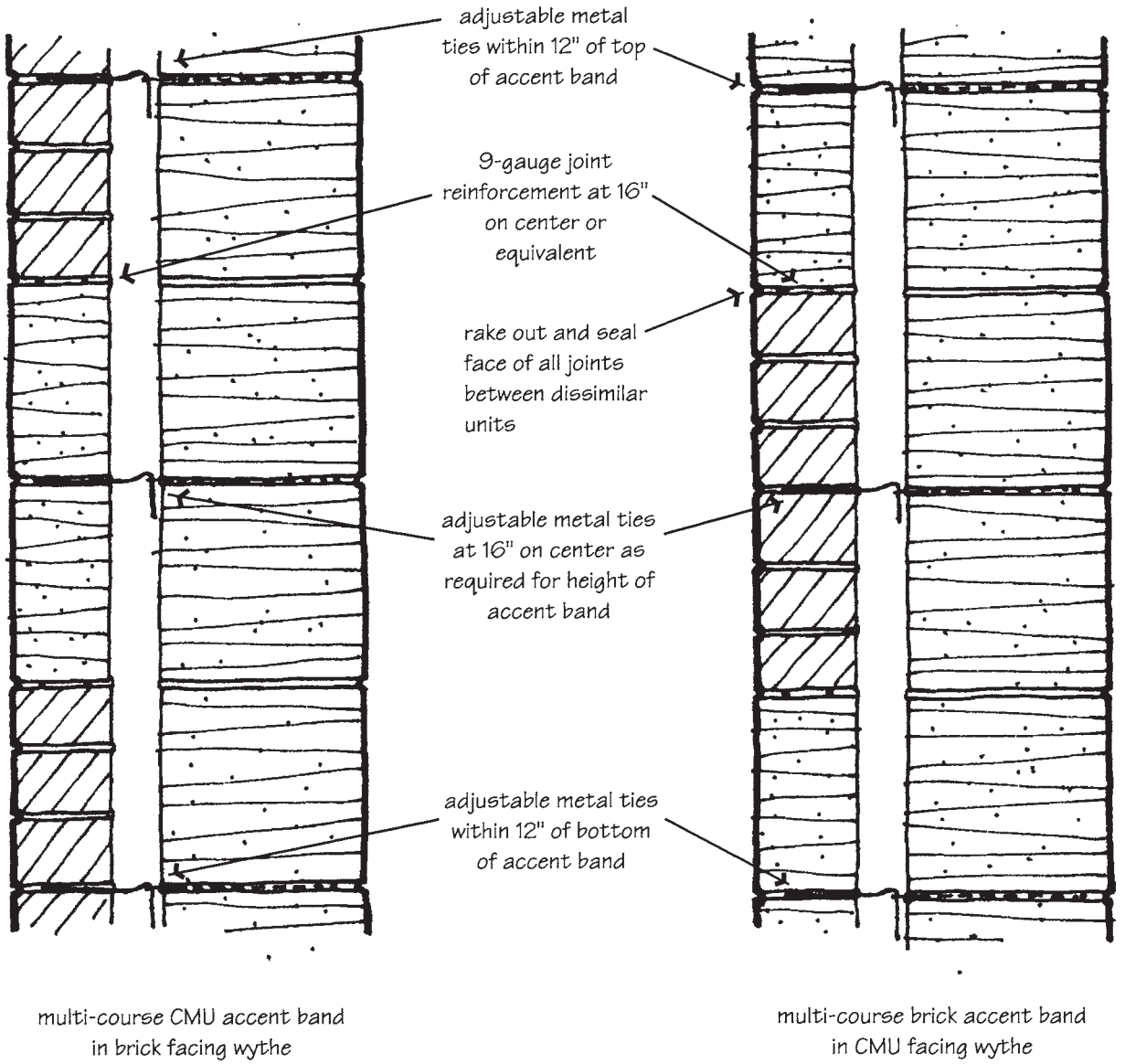

Figure 9-25 Differential movement between brick and CMU must be accommodated when combining units in the same wythe to create accent bands. (*Based on recommendations in National Concrete Masonry Association,* TEK Bulletin 5-2A, *NCMA, Herndon, VA.*)

into the surface of fresh sealant to remove the sheen and give it a weathered look. Project specifications should include general guidelines on the location of movement joints, but the architectural drawings should always show the location of control and expansion joints on the building elevations.

9.4 MOISTURE PROTECTION

Moisture is a consistent threat to any building. As wind-driven rain, ice, sleet, snow, hail, or water vapor, it may penetrate building walls, causing corrosion, decomposition, efflorescence, or mold.

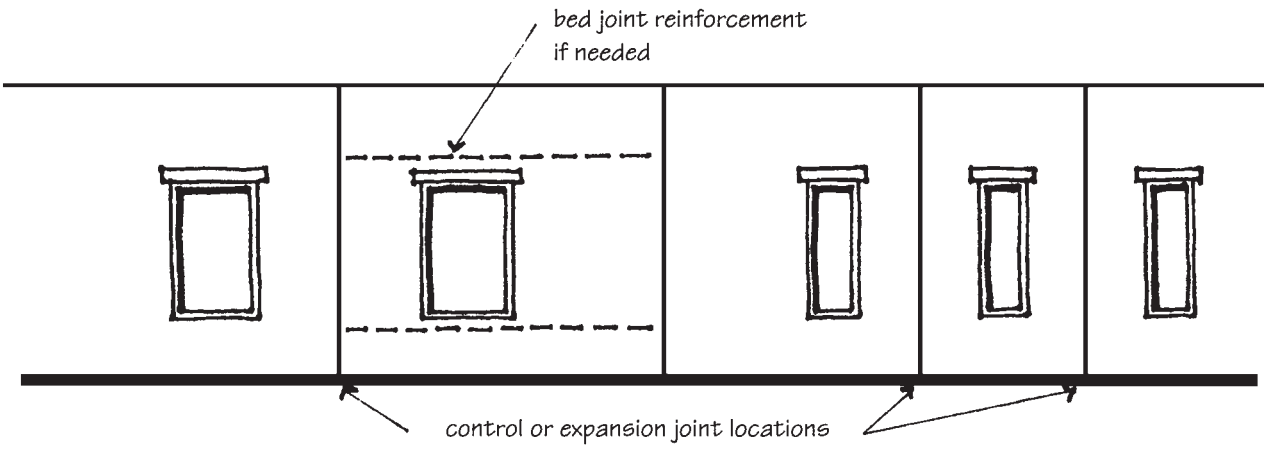

Figure 9-26 With proper planning, expansion and control joints can be placed between rather than immediately adjacent to window and door openings.

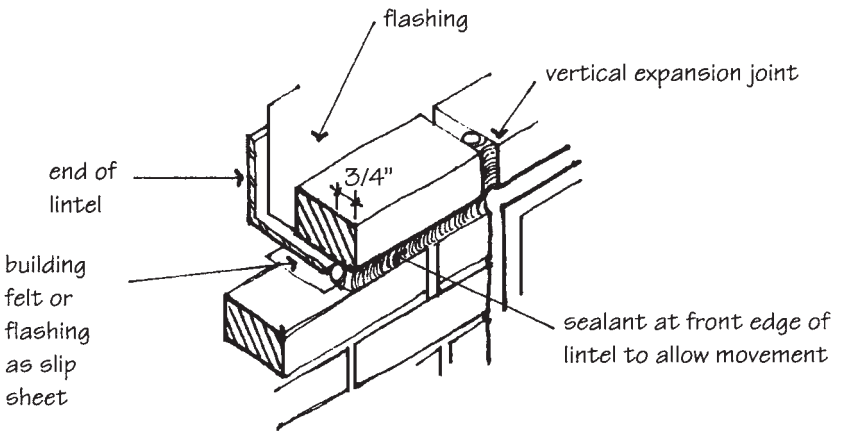

Figure 9-27 Expansion joint at steel lintel.

Masonry materials are porous, and absorptive. Rain can penetrate masonry walls through cracks or separations at the mortar bond line and through defects at copings, sealant joints, windows, parapets, and so on. Masonry does not support mold growth, but the sheathing and framing behind veneers can be a food source for mold spores. For successful performance, it is important to limit rain penetration and expedite moisture removal. The primary means of limiting moisture penetration are complete and intimate bond between units and mortar, full head and bed joints, adequate allowance for movement to prevent cracking, and good details. The primary means of removing moisture from the wall are continuous flashing, unobstructed weep holes, and good details.

Single-wythe walls are most vulnerable to moisture penetration and require the greatest care in material selection, design, and workmanship. Cavity walls and veneers which have a complete separation between backing and facing provide the best protection. This *drainage wall* concept permits moisture which enters the wall or condenses within the cavity to be collected on flashing membranes and expelled through weep holes (*see Fig. 9-29*). At