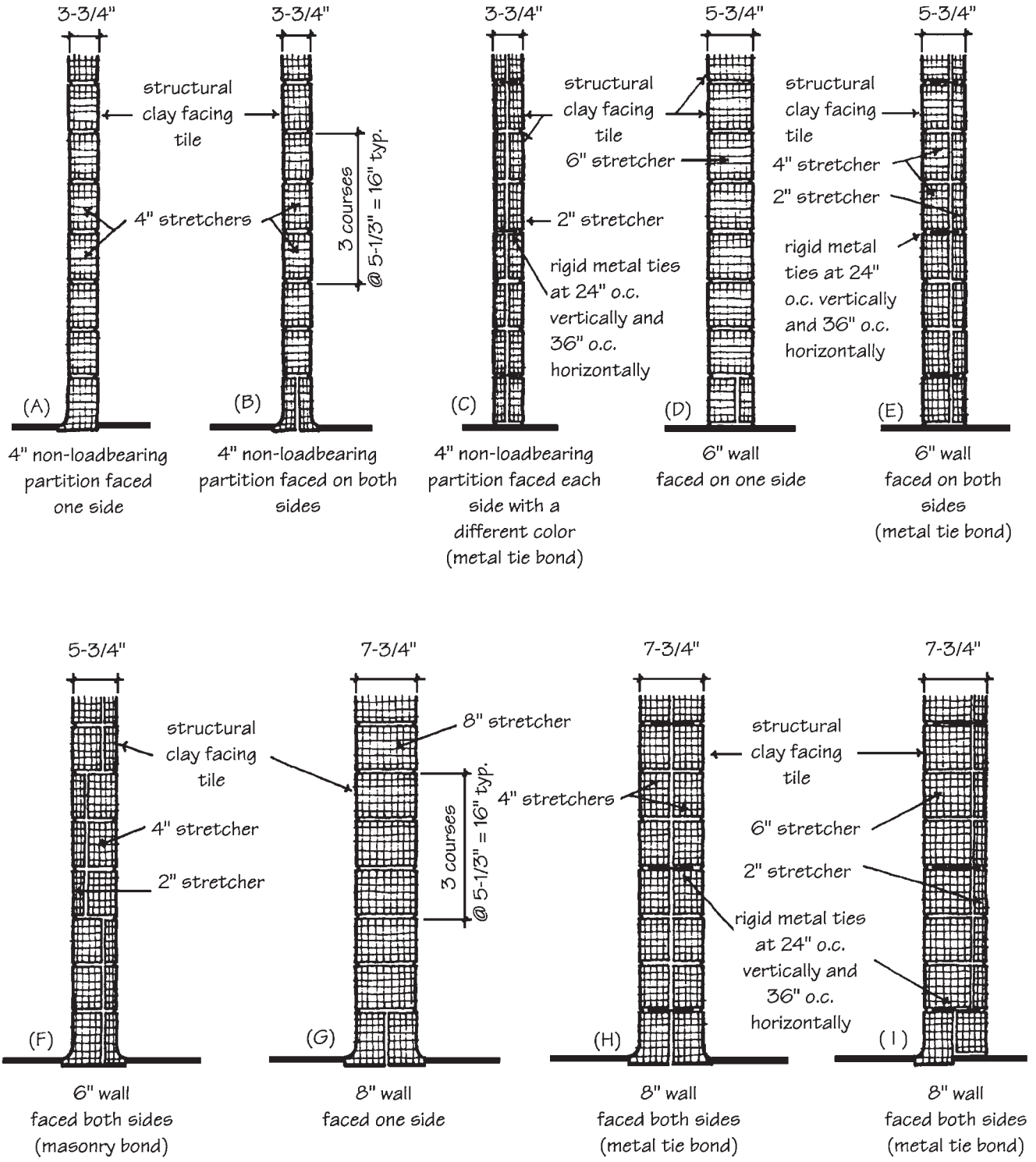

Figure 10-3 Non-loadbearing structural clay tile partitions can be faced on one or both sides and bonded with masonry headers or metal ties. (*From BIA,* Technical Note 22.)

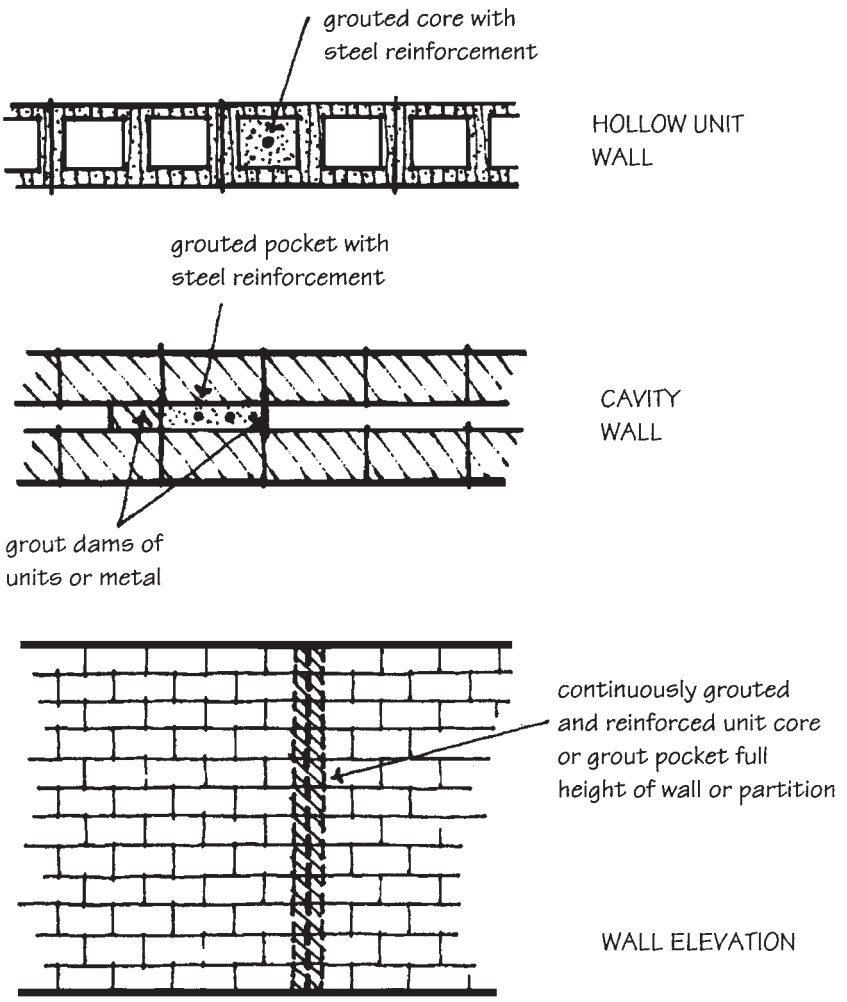

Figure 10-4 In-wall columns provide lateral support for empirically designed hollow unit masonry walls and cavity walls.

projecting on one or both sides. The coursing of the screen panels must overlap the coursing of the piers to provide adequate structural connection. Regardless of exact design, however, the pattern of units in a pierced wall must provide continuous vertical paths for load transfer to the foundation, and the bearing width of these paths or "columns" should be at least 2 in. (*see Fig. 10-7*).

Concrete screen block and clay screen tile are made with a decorative pattern of holes in the units, so it is not necessary to separate them with open head joints. Most unit types are designed to be laid with continuous vertical and horizontal mortar joints in stack bond patterns. The larger area of mortar bedding increases the lateral load resistance of the wall. The continuous bed joints accommodate the installation of horizontal joint reinforcement, and bond beam courses can be added at the top and bottom of the wall for even greater strength.

The NCMA has done considerable research on concrete masonry screen walls, and as a result, more is known about this type of unit strength and wall performance than any other type of screen wall. Units should have a minimum compressive strength of 1000 psi (gross) when tested with the