



Fig. 18-14  
Wall foundations.

(e) Attach the base of the wall to the ground-floor diaphragm and basement floor to provide a horizontal force couple to react to the moment at the base of the wall.

(f) Use a mat foundation.

Wyllie [18-16] and Paulay and Priestly [18-17] both discuss shear-wall foundations.

### Required Size of Wall

In choosing a structural wall section for a given building, the wall must

- (a) have enough strength to resist the factored moments, shears, and axial loads acting on it; and
- (b) have enough stiffness to limit the lateral deflections.