15.5 Construction Tolerances



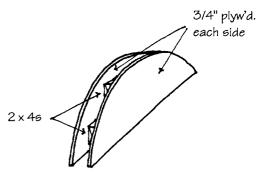


Figure 15-57 Arches require temporary support until the masonry attains strength.



Figure 15-58 Turn scaffold boards on edge at the end of the day to avoid splashing mortar droppings or dirt onto the face of the wall.

and cost effective. Few, if any, construction tolerances are based on hard data or engineering analysis. There has also never been any coordination among various industry groups even though steel and concrete are used together, masonry is attached to or supports both, windows must fit into openings in all three, and sealants are expected to fill all the gaps left between adjacent components.

Different materials and systems, because of the nature of their physical properties and manufacturing methods, have greater or lesser relative allowances for the manufacture or fabrication of components and the field assembly of parts. Masonry includes a variety of materials and unit types, each of which has its own set of tolerances.

Chapter 15 Installation and Workmanship



Figure 15-59 Lifting a prefabricated masonry panel into place.

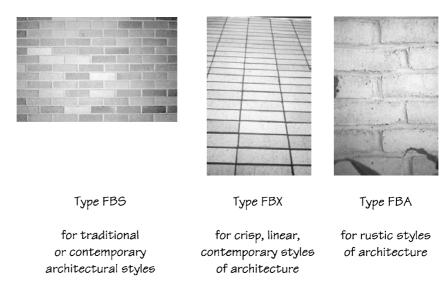


Figure 15-60 Type FBS, FBX, and FBA have the same quality but differ in appearance for variations in architectural style.

15.5.1 Masonry Size Tolerances

Allowances for the variation in sizes of face brick are covered in ASTM C216. Face brick tolerances are divided into Type FBX and Type FBS. The quality of the units is the same, but Type FBX is required to have tighter size tolerances so that when a designer wishes to create a crisp, linear appearance with, for example, a stack bond, the units and mortar joint variations are kept to a minimum (see Fig. 15-60). Type FBS bricks are more popular for both commercial and residential masonry using running bond and other patterns.

Type FBA bricks are not governed by size tolerances because they are supposed to vary significantly from one unit to the next so that they often look like rough, hand-molded brick. Type FBA bricks are very popular for residential masonry and for projects in historic areas.