

CONSTRUCTING WALLS WITH QUEEN SIZE BRICK

Queen size brick - typically 2 3/4" wide by 2 3/4" tall by 7 5/8" long - are being used by builders in markets all over the country and in areas where their use has been limited in the past.

Modular size (3 5/8" x 2 1/4" x 7 5/8") and Engineer size/Oversize (3 5/8" x 2 3/4" x 7 5/8") may be the common size laid in certain areas and there are slight differences in construction between the sizes. Larger face-sized units, such as Queen size brick, can offer cost savings for builders. A square foot of wall only requires 6 Queen size brick versus 7 Modular size brick. Larger sizes such as Queen size brick will also require less mortar and typically reduces the installation time. The larger face size also offers the customer a premium size unit and look. For these reasons larger face-sized units such as Queen size have become popular with builders

Installation. Since there are differences in installation using Queens, masons and builders may not be familiar with the techniques used for this size. For example, because of the reduced bed depth of the queen size unit, it does not automatically turn a corner on 1/2 bond. While laying Queen size brick in 1/3 bond is acceptable to many (Fig. 1), if 1/2 bond is desired the first brick laid on the corner of every course will need to be cut to approximately 3/4 length (Fig. 2). This method has been used in many markets with varying skill levels of masons.

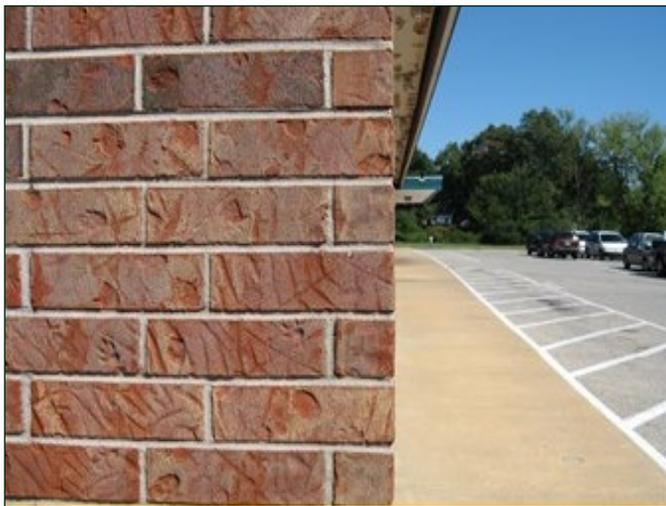


Figure 1. One-Third Bond



Figure 2. Half Bond

Coursing. Coursing and placement of brick will also be different at various locations in a brick wall. It is easier for the mason if the soffit is framed with a 3 3/4" cavity between the back of the frieze board and the sheathing. This cavity depth will allow for a brick with a 2 3/4" nominal width dimension and a 1" air space. However, as shown in Figure 3, if the framing is already established with a wider brick unit in mind and then a queen is selected, the veneer can be corbelled out to meet the frieze in a variety of ways.

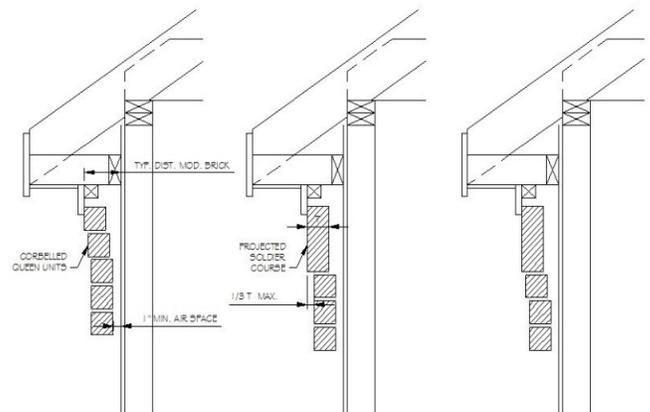


Figure 3. Top of Brick Wall and Frieze Boards

Soldier Courses. Another area which is different than using modular brick is when a soldier course is desired above a window. The length of a Queen size brick when installed vertically will not automatically course out with the body of the veneer. The height of a soldier (7 5/8") will not course out with the oversize brick, since oversize brick course out at +/- 9" in 3 courses. What often happens is that a soldier is placed and then a 1" high stretcher is laid above it, as shown in Figure 4. Since cutting brick in this manner isn't efficient or aesthetically pleasing to most people, there are other ways to enhance the appearance of a window head. By alternating a cut above and below a brick turned as a header, a two-brick soldier is created. This method will course out at +/- 9" and is easy to create, as shown in Figure 5.

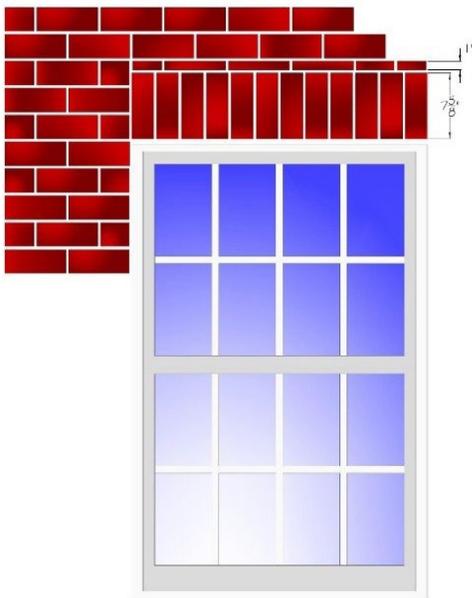


Figure 4. Cut Brick at Top of Soldier

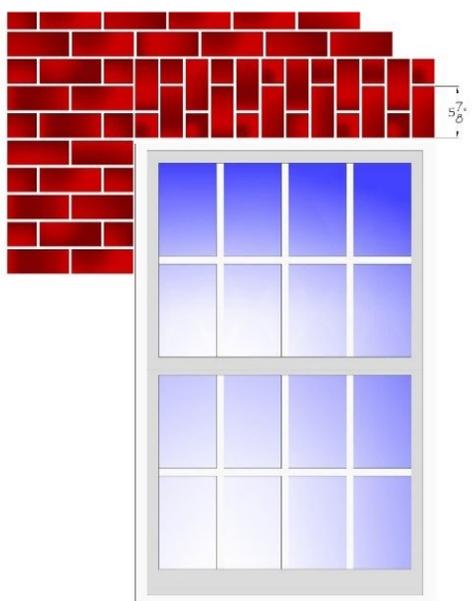


Figure 5. Two-Brick Soldier

Quoins. Quoins are another feature that may require cutting brick. Mortar joints are often increased in thickness to create a quoin when using modular size brick. The same issue will occur with Queen size brick and a dry layout should be done to find the right size to use.

Brick Ledges. A cost savings you can have from using Queen size brick is achieved from reducing the depth of a brick ledge and steel angles used over windows and doors. Homeowners will not want to see a steel angle protruding from the wall, so a steel angle with a narrower horizontal leg must be used. For Modular size an angle with a 3 1/2" horizontal leg is used. For Queen size brick, a 3" horizontal leg can be used. For any bearing situation, at least two-thirds of the brick's width must bear on its support. The layout of a brick ledge at the foundation could also be changed to accommodate the narrower depth.

Wall Height. Since Queen size brick do not have as wide a bed depth as some brick types, there is some concern about how high a wall using Queen size can be built. The IRC does not impose any added restriction for Queens on wall height. The code has a height limit for residential brick veneer of 30 feet and an additional 8 feet in a gable. There may be some limitations on the height brick can be laid in a single day depending on environmental conditions. As long as the Queen size brick wall has proper bearing and proper wall ties there is no concern that the brick has adequate strength.

Brick come in a variety of colors, textures, sizes and shapes which is why most homeowners want a brick house. If using Queen size brick is a part of this house, there are ways to accommodate its difference in size.

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