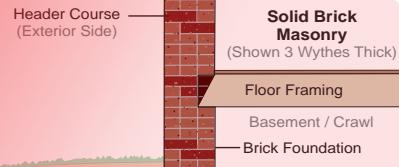


# SFSafeTraining.com

## Identifying Solid Brick Masonry



### Basic Description

Brick masonry construction is characterized by structural walls made of clay brick. Homes are typically no longer constructed in this manner due to material and labor costs, but many older and often historic homes are constructed of solid brick masonry.

The bricks are bonded together with mortar made from cement, lime, sand and water. The solid brick walls support the floors and roof and serve as the exterior finish. Bricks may remain exposed on the interior side but the brick wall is most commonly furred out and finished with plaster. The roof and floor structure and interior walls are typically of wood frame construction. However, there may be load bearing interior walls that are also made of solid brick, especially in larger brick homes.

Residential brick masonry construction declined steadily into the mid-1900's with the advent of wood framing. Brick has generally been applied as a masonry veneer since the mid-1900's (See reverse side for info & visual clues on brick veneer.)

### Visual Clues

#### 1. Lintels & Masonry Arches

Perhaps the best identifier of solid brick masonry is the use of large stone lintels or masonry brick or stone arches above windows and doors.

#### 2. Multiple Wythes Revealed

Solid masonry walls are several layers thick, each layer is termed a "wythe". Veneers are only one wythe thick. Windows and doors set back more than one wythe reveal the home is built of solid masonry brick construction.

#### 3. Header Courses Present

Header course shows ends of bricks that tie the wall's multiple wythes together.

#### 4. Home Built Before 1950

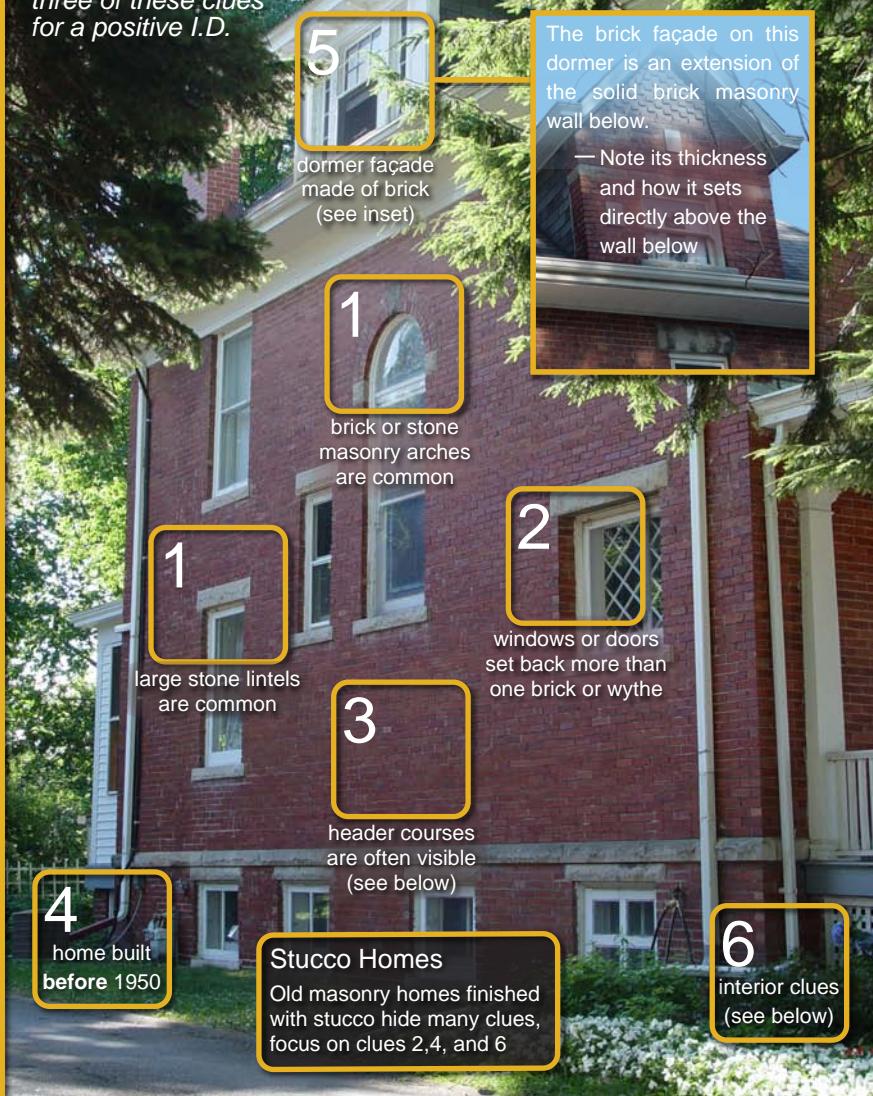
Verify the home's age with the homeowner.

#### 5. Brick Façade on Dormers

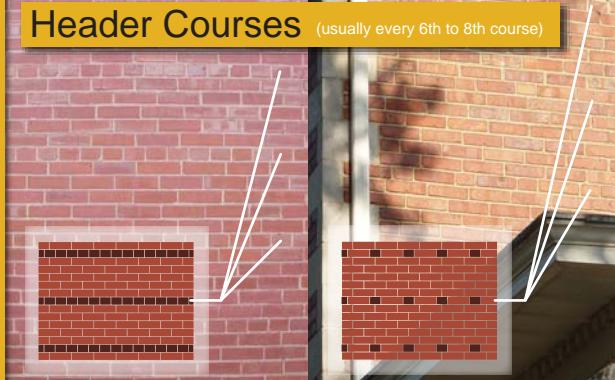
Dormers are often constructed of wood, even on solid masonry homes, as shown in the larger image. But on older homes the masonry wall was often extended up through the roof to "dress up" the dormer.

### Visual Clues - Exterior

*NOTE: Verify at least three of these clues for a positive I.D.*



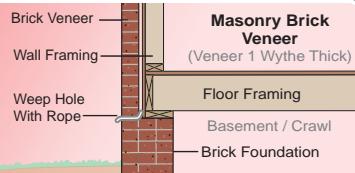
#### Header Courses (usually every 6th to 8th course)



#### Interior

#### 6. Wall Openings

Solid masonry walls are thick. Window sills and door thresholds tend to be very deep.



## Basic Description

Solid brick masonry foundations remained popular through the mid-1900's, eventually losing ground to poured and masonry concrete alternatives. But with wood framing being used extensively during this time period, brick was increasingly used only as a veneer above the solid masonry foundations.

Today brick is almost always applied as a masonry veneer on exposed foundations as well as above ground. Brick veneer generally serves as an exterior finish. It provides no structural support for the home.

## Visual Clues

### 1. Decorative Lintels & Arches

Perhaps the best identifier of masonry brick veneer is at the lintels and arches above windows and doors. Masonry veneers generally use steel angle iron to support the brick veneer above "square" openings, so what may appear as lintels is decorative, not structural.

In general, because lintels are flat they have to be substantial, solid, and extend into the walls on both sides of the opening to be supportive. If the "lintel" is simply a course of vertically laid bricks (termed a soldier course) then it is purely decorative. Brick veneer is most obvious when there is no attempt to provide a decorative brick "lintel" and brick are simply laid above the windows and doors to match the brick pattern on the rest of the wall. (See inset.)

The same goes for arches, if they are simply a single course of bricks and not a substantial arch of stone or brick, then it is most likely decorative in nature.

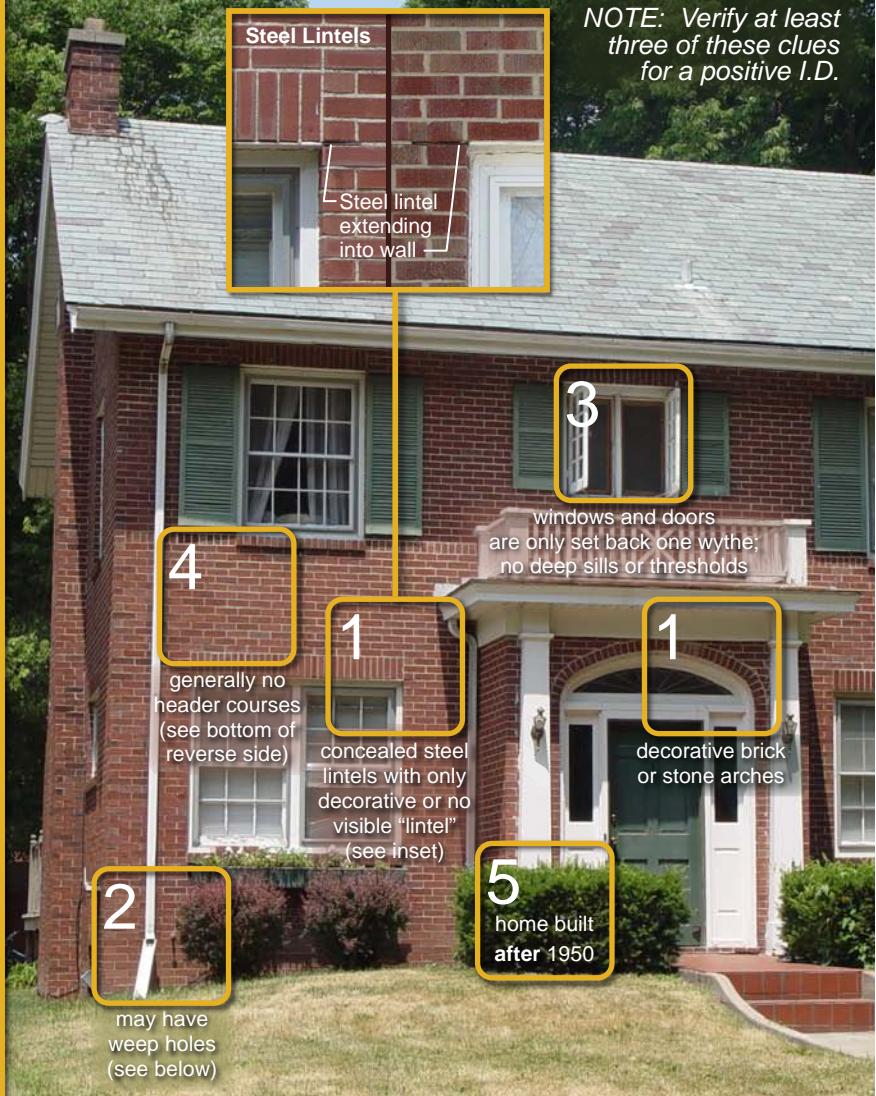
### 2. Weep Holes Present

Weep holes, tubes, or rope wicks near the base of the exterior wall indicate a veneer wall. These openings or rope allow trapped moisture to escape from the wall assembly. However, holes weren't always installed or they may be patched or buried.

### 3. Only One Wythe Visible

Brick veneer is only one wythe thick, so only one wythe will appear on the exterior side of window and door openings. Inside the home sills and thresholds will be typical woodframing depth and not overly deep.

## Visual Clues - Exterior



### 4. No Header Courses Visible

Certainly a brick mason could "fake" a header course with a brick pattern, but this is not very likely. Remember though, absent header courses don't guarantee a veneer, as solid brick masonry can be done without a visible header course.

### 5. Home Built After 1950

Homes with brick exteriors and foundations built after the mid-1900's are more likely to be a veneer. But keep in mind there were wood framed brick veneer homes built in the early 1900's as well.

## Weep Holes

