

Engineering Services

Technical Bulletin

Large masonry openings can require heavy and expensive steel lintels. However, many building code officials recognize an alternate method of support that incorporates the concept of reinforcing the brick veneer. This technique allows the use of ladder wire joint reinforcing in the first few horizontal mortar joints above the openings illustrated in the diagram below.

Construction Consideration

- 1. The maximum opening allowed by this method is 18 feet 3 inches with a minimum of 1 foot 6 inches of brick required on either side of the opening. A maximum height of 5 feet of brick may be supported above the opening provided there is a minimum of 13 inches of veneer above the opening edges (approximately 5 brick courses).
- 3. A maximum height of 12 feet of brick may be supported above the opening provided there is a minimum of 2 feet of veneer above the opening edges (*approximately 9 brick courses*).
- 4. A maximum height of 35 feet of brick may be supported above the opening provided there is a minimum of 5 feet of veneer above the opening edges (*approximately 22 brick courses*).
- 5. Care must be taken with the placement of additional openings (i.e. windows) above the garage opening. If the height of veneer is less than 3 feet no openings should be placed. For veneer heights above 3 feet the depth of openings should be limited to ½ the height of the veneer and they must be placed within 12 inches of the bottom and 6 inches from the top of the veneer.
- 6. A 5" x 3½" x $^{5}/_{16}$ " angle should be used to facilitate installation and should be shored for at least 7 days after installation.

