



RESIDENTIAL GARAGE DOOR INSTALLATION

Revised April 2019

Code Reference:

International Residential Code (IRC) – Section R609.4

International Building Code (IBC) – Section 1609

Similar to other doors and windows, the design and installation of garage doors and frames shall comply with the design wind load for the structure. The basic wind speed for the Kansas City Metropolitan area is 115 mph (3-second gust). For urban and suburban areas, Exposure Category B, this wind speed translates into 12.8 psf positive wind pressure and 14.8 psf negative wind pressure for a 9'x7' door; for larger doors the pressure exerted is 12.4 psf positive and 13.8 psf negative. Exposure B can be assumed unless the site meets the definition of another category (RE: IRC Section R301.2.1.4).

One means of establishing that the door is code compliant is through labeling. The trade association known as the Door and Access Systems Manufacturers Association International (DASMA) has a certified labeling program. The label that DASMA allows to be affixed to the door clearly indicates the wind speed (in psf) for which the door has been certified. For more information on this program, see DASMA's web site at: www.dasma.com. Also see DASMA Technical Data Sheet #155 for an overview of the IRC requirements.

Garage doors are usually the largest openings in a house. Their failure in strong winds can lead to partial collapse of the house.

Installation Procedures - Installation shall comply with the attached diagrams (Figures 1, 2, 3, and 4).

The door and track installation shall comply with the attached diagrams or the manufacturers' installation instructions, whichever is most restrictive.

Inspection Procedures - Door and frame installation shall be verified for compliance prior to final inspection.

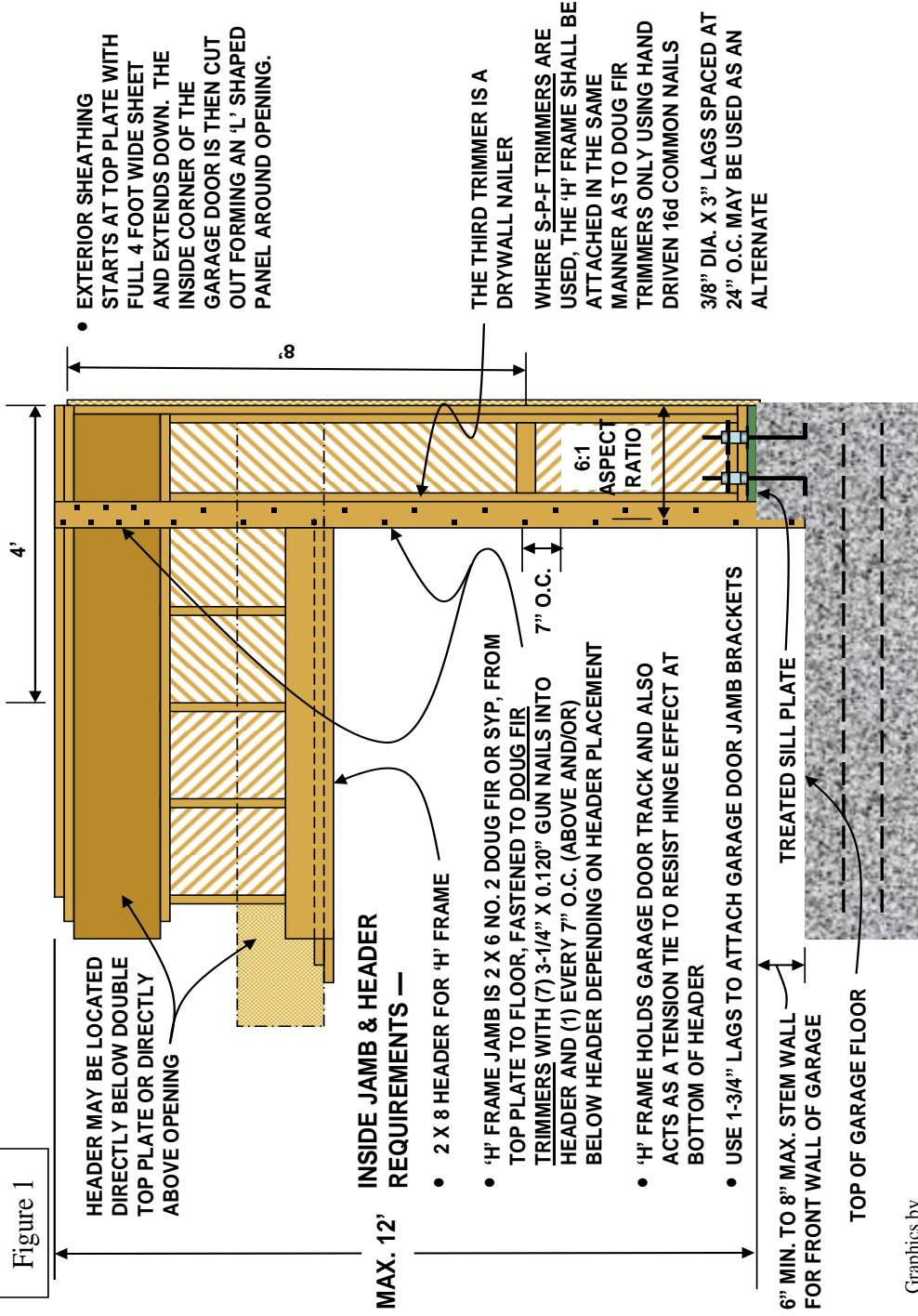
- The installer shall attach a certification label to the door indicating compliance with the 115 mph wind load conditions and that the installation conforms to the manufacturers' installation instructions.

This initiative has been developed by agreement with the Johnson County Building Officials (JOCOBO) and the Home Builders Association of Greater Kansas City.

INSIDE VIEW
"H" FRAME DETAIL FOR GARAGE DOOR OPENINGS



Figure 1



EXTERIOR SHEATHING STARTS AT TOP PLATE WITH FULL 4 FOOT WIDE SHEET AND EXTENDS DOWN. THE INSIDE CORNER OF THE GARAGE DOOR IS THEN CUT OUT FORMING AN 'L' SHAPED PANEL AROUND OPENING.

THE THIRD TRIMMER IS A DRYWALL NAILER WHERE S-P-F TRIMMERS ARE USED, THE 'H' FRAME SHALL BE ATTACHED IN THE SAME MANNER AS TO DOUG FIR TRIMMERS ONLY USING HAND DRIVEN 16d COMMON NAILS 3/8" DIA. X 3" LAGS SPACED AT 24" O.C. MAY BE USED AS AN ALTERNATE

HEADER MAY BE LOCATED DIRECTLY BELOW DOUBLE TOP PLATE OR DIRECTLY ABOVE OPENING

INSIDE JAMB & HEADER REQUIREMENTS —

- 2 X 8 HEADER FOR 'H' FRAME
- 'H' FRAME JAMB IS 2 X 6 NO. 2 DOUG FIR OR SYP, FROM TOP PLATE TO FLOOR, FASTENED TO DOUG FIR TRIMMERS WITH (7) 3-1/4" X 0.120" GUN NAILS INTO HEADER AND (1) EVERY 7" O.C. (ABOVE AND/OR BELOW HEADER DEPENDING ON HEADER PLACEMENT
- 'H' FRAME HOLDS GARAGE DOOR TRACK AND ALSO ACTS AS A TENSION TIE TO RESIST HINGE EFFECT AT BOTTOM OF HEADER
- USE 1-3/4" LAGS TO ATTACH GARAGE DOOR JAMB BRACKETS

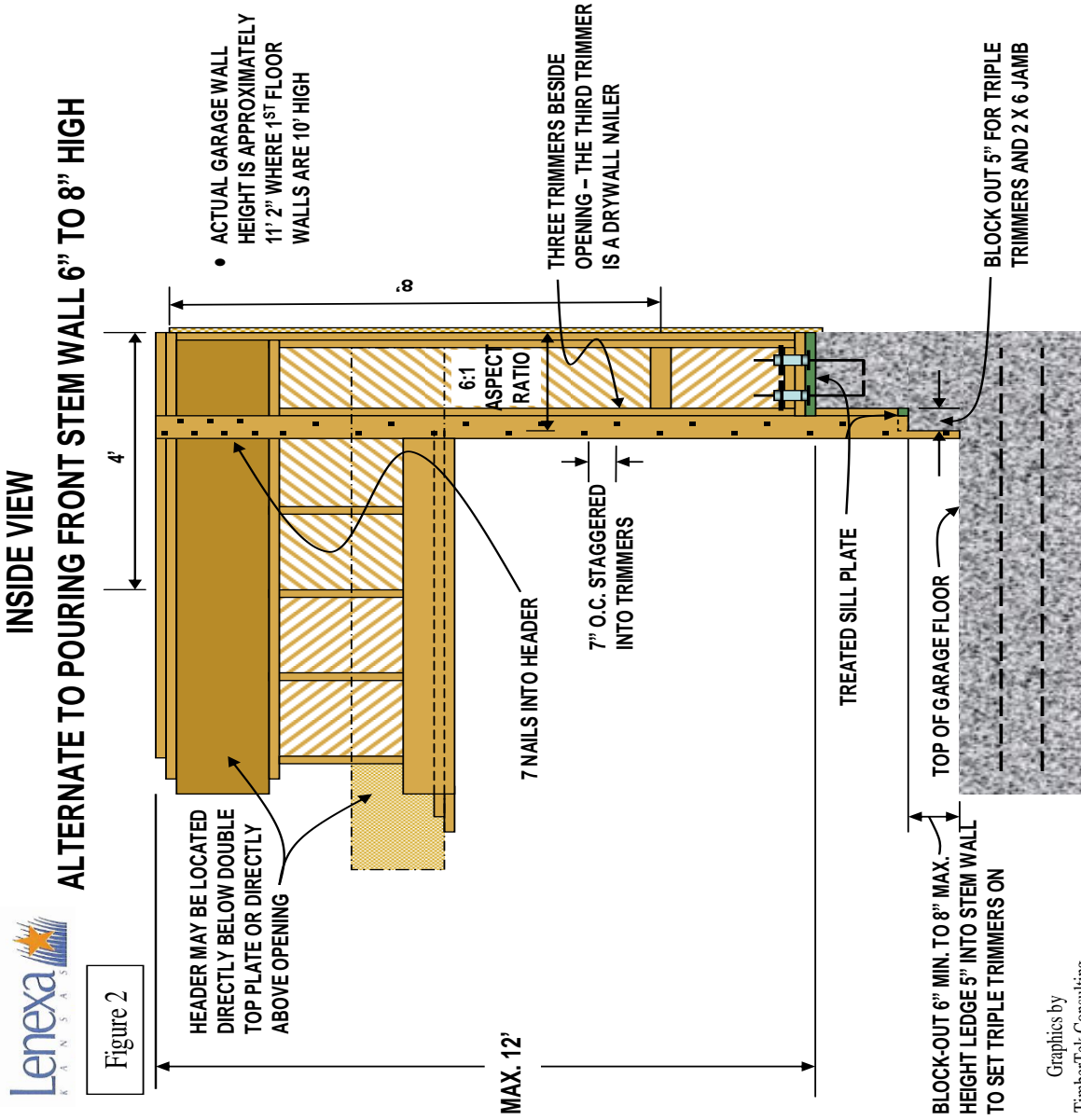
6" MIN. TO 8" MAX. STEM WALL FOR FRONT WALL OF GARAGE

TREATED SILL PLATE

TOP OF GARAGE FLOOR

OTHER ENGINEERED METHODS ON PLANS SUPERSEDE THIS DETAIL

Graphics by
TimberTek Consulting



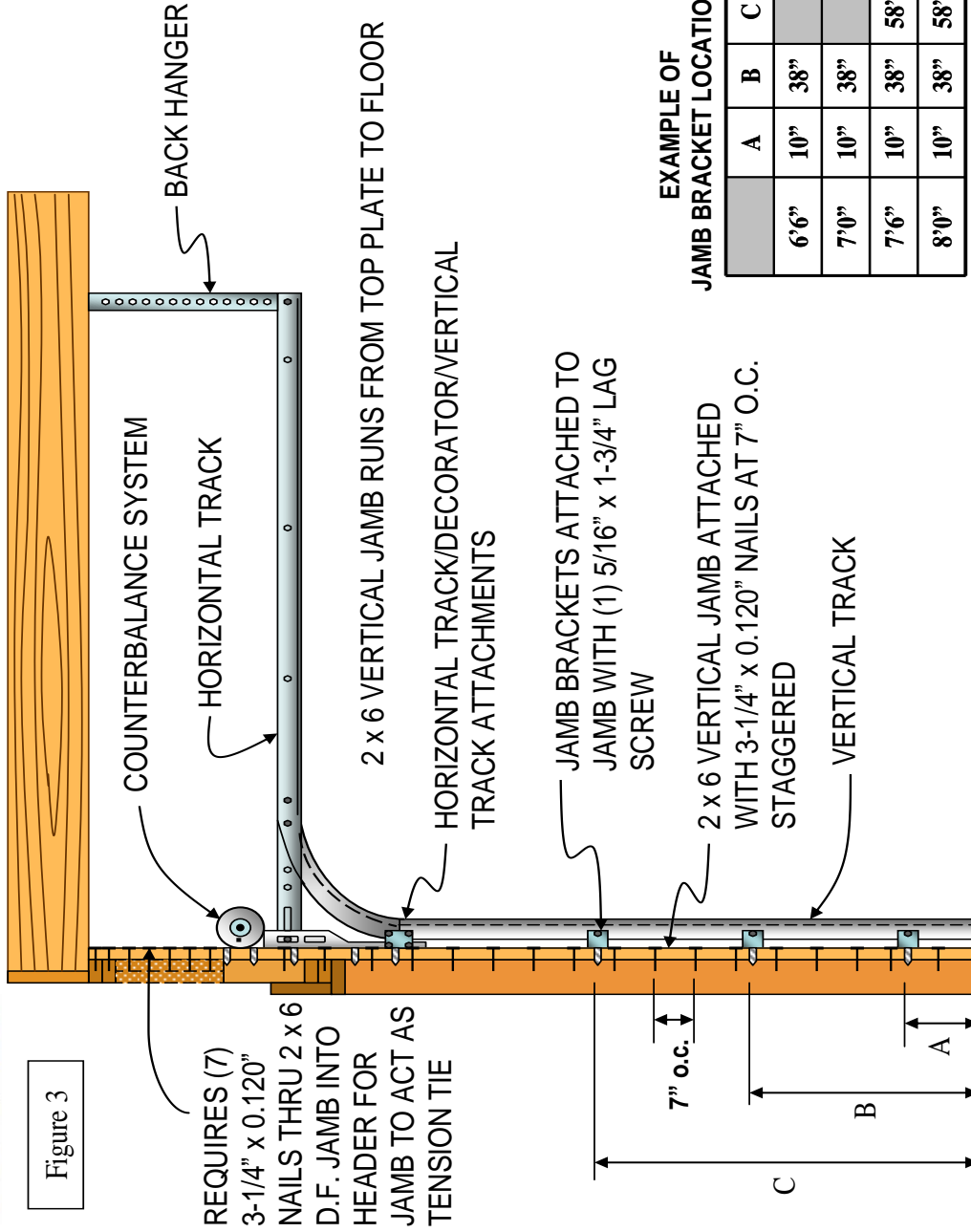
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BLOCK-OUT BESIDE GARAGE DOOR OPENING IF STEM WALL IS OVER 8 INCHES HIGH

2 x 6 VERTICAL JAMB ATTACHMENT & BRACKET MOUNTING



Figure 3



EXAMPLE OF JAMB BRACKET LOCATIONS*

	A	B	C
6'6"	10"	38"	
7'0"	10"	38"	
7'6"	10"	38"	58"
8'0"	10"	38"	58"

* Locations will vary based on door size, style and manufacturer.

Graphics by: TimberTek Consulting

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2 x 6 VERTICAL JAMB ATTACHMENT



Figure 4

