

Shear Wall Sole Plate Fastening Recommendations into Trus Joist TimberStrand® LSL Structural Composite Lumber

The lateral load transfer between wood framed shear walls via their sole plate fasteners into the rimboard/blocking below is a critical connection that needs careful specification.

Weyerhaeuser evaluates and promotes TimberStrand® LSL as the preferred rimboard/blocking material due to economics, TJI® joist depth compatibility, width availability, fastening capabilities, and meeting the criteria in the 2021 International Building Code (IBC) section 2303.1.13.

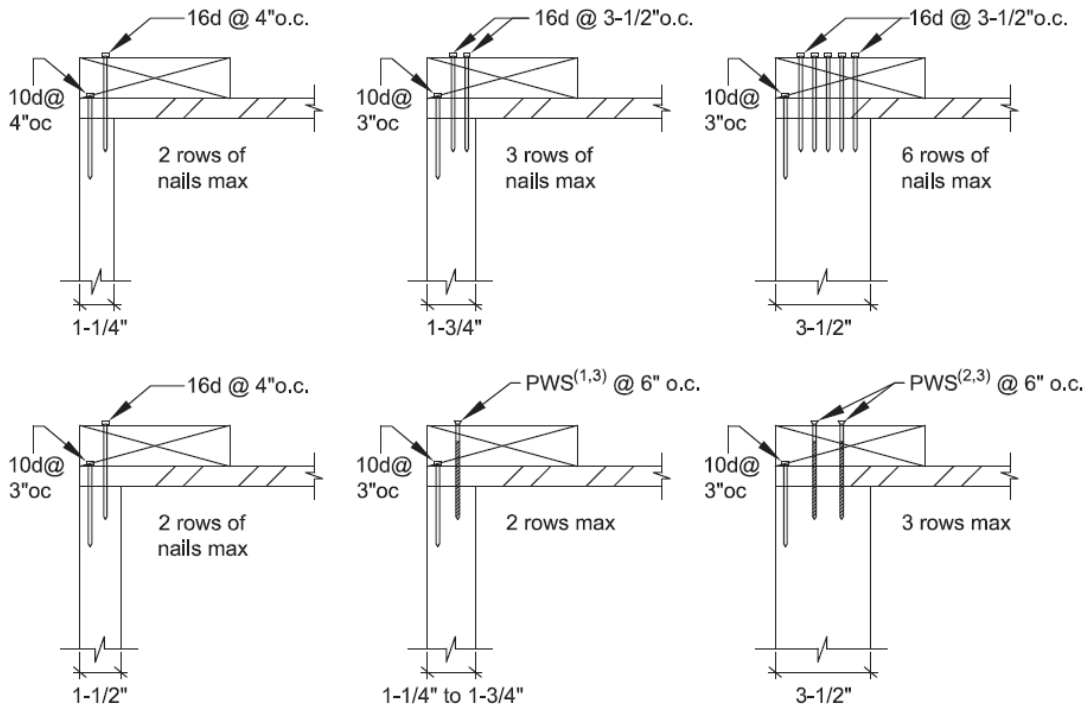
The sole plate's fastener type, number of rows, spacing and the width of the TimberStrand® LSL rimboard/blocking should be properly specified, scheduled, and detailed in the construction documents. A clear specification also helps suppliers create an accurate material list and avoids framing issues during construction.

Weyerhaeuser publishes two documents to help an Engineer of Record to correctly specify TimberStrand® LSL to avoid potential splitting and achieve lateral load transfer between floors.

- [ICC-ES ESR-1387](#)
- [Technical Bulletin TB-206](#)

Section details below summarize the fastener minimum spacings, maximum number of rows and width requirements:

(Note: PWS = Proprietary Wood Screws; 1.25" & 1.5" widths are 1.3E grade, while 1.75" & 3.5" are 1.55E grade. Minimum edge distances and spacing between rows per TB-206)



- (1) For 1-3/4" TimberStrand® LSL, a single row of SDWS Timber Screws or SDWH Hex screws may be installed at 4" o.c. to attach the wall plate to rim board.
- (2) For 3-1/2" TimberStrand® LSL, two rows of SDWS or SDWH screws may be installed at 4" o.c. to attach the wall plate to rim board.
- (3) For additional information, reference Simpson Strong-Tie® design catalog, *Fastening Systems Technical Guide (C-F-2019TECHSUP)*.