APA PRODUCT REPORT®

www.apawood.org

West Fraser TallWall/Windstorm/QuakeZone® Rated Sheathing for Use with IRC Energy-Heel Trusses

PR-N133

Revised February 20, 2025

Products: West Fraser TallWall/Windstorm/QuakeZone Rated Sheathing for Use with IRC Energy-Heel Trusses

West Fraser, 885 West Georgia Street, Suite 1500, Vancouver, BC V6C 3E8, Canada
(604) 895-2700
osb.westfraser.com

1. Basis of the product report:
   - 2024 International Residential Code (IRC): Section R104.2.2 Alternative materials, design and methods of construction and equipment
   - 2021, 2018, 2015, and 2012 International Residential Code (IRC): Section R104.11 Alternative materials, design and methods of construction and equipment
   - 2024, 2021, 2018, 2015, and 2012 International Residential Code (IRC): Sections R301.1.3 Engineered design, R602.3.5 Braced wall panel uplift load path, R602.10.2.1 Braced wall panel uplift load path, R602.10.8.2 Connections to roof framing, R604.1 Identification and grade, and Table R802.11.
   - 2024, and 2021 International Residential Code (IRC): Section R802.11 Roof tie uplift resistance, Table R301.2.1(1), and Table R301.2.1(2).
   - 2018, 2015, and 2012 International Residential Code (IRC): Section R802.11.1 Uplift resistance, Table R301.2(2), and Table R301.2(3).
   - ANSI/AWC WFCM-2024, Wood Frame Construction Manual for One- and Two-Family Dwellings
   - PS 2-18, Performance Standard for Wood Structural Panels
   - APA System Report SR-103, Use of Wood Structural Panels for Energy-Heel Trusses
   - APA System Report SR-101, Design for Combined Shear and Uplift from Wind
   - NAHB Research Center reports dated August 8, 2011, February 15, 2012, and December 26, 2012

2. Product description:
   West Fraser TallWall/Windstorm/QuakeZone oriented strand board (OSB) panels are made with strands of various species and strand classifications meeting the PS 2 requirements in accordance with the in-plant manufacturing standard approved by APA. West Fraser TallWall/Windstorm/QuakeZone OSB panels are edge sealed and available in Performance Categories from 3/8 to 1-1/8. The OSB panels are typically manufactured in lengths of 8 feet or longer to eliminate horizontal panel joints between the top and bottom plates of a wall. When used in conjunction with 15-1/4 to 24-inch energy-heel trusses installed in accordance with Figures 2 and 3, the long-length panels of Performance Category 7/16 or greater permit the overlapping of the TallWall/Windstorm/QuakeZone panels over the heel of the trusses, meeting the uplift load-path requirements of the 2024, 2021, 2018, 2015, and 2012 IRC Sections R602.3.5 and R602.10.2.1, and the lateral load load-path requirements of R602.10.8.2.

3. Design properties:
   West Fraser TallWall/Windstorm/QuakeZone OSB panels meet the design properties specified in APA *Panel Design Specification*, Form D510 (www.apawood.org/resource-library). The OSB panels are permitted for use in conjunction with 15-1/4 to 24-inch energy-heel trusses in compliance with the 2024, 2021, 2018, 2015, and 2012 IRC Method CS-WSP bracing and uplift attachment requirements when the requirements of Table 1a or Table 1b of this report are met.

Heel heights on energy-heel trusses along with corresponding anchor bolt requirements and sheathing attachment requirements, other than those described in this report, shall be permitted to be designed through engineering analysis.

4. Product installation:
West Fraser TallWall/Windstorm/QuakeZone OSB panels, when used as wall bracing Method CS-WSP in accordance with the 2024, 2021, 2018, 2015, and 2012 IRC Sections R602.10 through 12, shall be permitted for use in anchoring the heels of energy-heel trusses. The uplift requirements of the 2024, 2021, 2018, 2015, and 2012 IRC Section R602.3.5, 2024 and 2021 IRC Section R802.11, 2018, 2015, and 2012 IRC Section R802.11.1, as well as the wind bracing attachment requirements and the seismic bracing attachment requirements in seismic design categories A-C and townhouses A-B of the 2024, 2021, 2018, 2015, and 2012 IRC Section R602.10.8.2 shall be deemed to be satisfied by simply overlapping the TallWall/Windstorm/QuakeZone OSB panels over the truss heel with connection in accordance with Figure 2 and installing anchor bolts into the foundation in accordance with Tables 1a through 3b. If no solution is found in Tables 1a through 3b (the condition not covered or an “ED” is located in the cell within the tables), an engineered design is required.

5. Fastener attachment:
Attachment of the West Fraser TallWall/Windstorm/QuakeZone panels to framing shall be with 8d common nails (2-1/2 inches x 0.131 inch) at 6 inches o.c. at the panel sides and bottom edges. Panels shall be attached at the top plate with 8d common nails at 4 inches o.c. All panel field nailing shall be 8d common nails at 12 inches on center except at raised heel of trusses. See Figure 2.

Attachment at the raised heel of the trusses shall be with 8d common nails. A single nail shall be placed through the panel into the bottom chord of the truss. The additional nails required shall be placed in the raised heel of the truss in two rows, with the nails staggered and spaced at 4 inches o.c. in each row. Slant nailing is permitted in accordance with APA Technical Topics TT-058, *Slant Nailing* (see link above). The 15-1/4-inch energy-heel truss shall require a total of 5 nails into the heel of each truss and the 24-inch truss shall require a total of 7 nails in each heel. For trusses between 15-1/4 and 24 inches, interpolation shall be permitted for determining the minimum number of nails required. See Figure 2.

6. Limitations:
   a) West Fraser TallWall/Windstorm/QuakeZone OSB panels are limited for use in dry service conditions where the average equilibrium moisture content of sawn lumber is less than 16%.
   b) West Fraser TallWall/Windstorm/QuakeZone OSB panels shall be permitted for use with wall bracing Method CS-WSP, while meeting the IRC wind uplift attachment requirements in accordance with Tables 1a through 3b of this report.
   c) West Fraser TallWall/Windstorm/QuakeZone OSB panels shall be of sufficient capacity to resist the applied wind loads. See APA Technical Topics TT-110, *Wind Resistance of Wood Structural Panel Sheathed Wall* (see link above).
   d) This report is subject to re-examination in one year.

7. Identification:
West Fraser TallWall/Windstorm/QuakeZone OSB panels described in this report shall be identified by a label or stamp bearing the manufacturer's name and/or trademark (West Fraser TallWall/Windstorm/QuakeZone), the APA assigned plant number (424, 454, 498, 501, 502, 503, 504, 505, 506, 507, or 540), the product thickness and span rating, the APA logo, the report number PR-N133, and a means of identifying the date of manufacture.

Table 1a. Minimum unadjusted anchor bolt spacing (inches) for TallWall/Windstorm/QuakeZone OSB Panel overlapping a 15-1/4 to 24-inch energy-heel roof trusses to provide shear and wind uplift [a,b,c,d,e]
L/S ≥ 2:1

Roof Span (ft)	Exposure B							
	2024 IRC Basic Wind Speed, V_{asd}, or 2024 IBC Allowable Stress Design Wind Speed, V_{asd} (mph)							
	≤ 85		90		100		110	
	Roof pitch							
	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12
12	42	42	42	42	42	42	36	36
18	42	42	42	42	36	36	36	36
24	42	42	42	42	36	36	36	36
28	42	42	36	42	36	36	36	36
32	42	42	36	42	36	36	36	36
36	42	42	36	36	36	36	36	36

Roof Span (ft)	Exposure C							
	2024 IRC Basic Wind Speed, V_{asd}, or 2024 IBC Allowable Stress Design Wind Speed, V_{asd} (mph)							
	≤ 85		90		100		110	
	Roof pitch							
	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12
12	42	42	36	42	36	36	36	36
18	36	36	36	36	36	36	36	36
24	36	36	36	36	36	36	32	36
28	36	36	36	36	36	36	32	32
32	36	36	36	36	32	36	24	32
36	36	36	36	36	32	36	24	32

[a] Anchor bolts shall be a minimum ½-inch-diameter with 3- x 3- x 0.229-inch square-plate washers spaced as shown in the table above and embedded 7 inches minimum into the foundation per 2024 IRC R403.1.6.

[b] See Figure 1 for wall configuration.

[c] Based on the following assumptions. Walls shall be installed and attached in accordance with Figure 2. (Conditions beyond all assumptions listed above are outside the scope of this report).
Max mean roof height = 33 feet
Roof heel height = 15 ¼ to 24 inches
Max roof span = S = 36 feet
Max roof and ceiling assembly load = 15 psf
Max roof eave-to-roof height = 15 feet
Max wall height = 9 feet
Max roof slope = 12:12
Min wall length = L = 18 feet
Max roof overhang = 24 inches

[d] Extrapolation shall not be permitted.

[e] The minimum, unadjusted anchor bolt spacing provided above can be further adjusted by using the three steps below:
1. Go through the steps above to determine if overlapping the energy-heel truss with Tallwall/Windstorm/QuakeZone OSB panel is acceptable. If so, record the anchor bolt spacing derived from the table above.
2. Determine the ratio of the uninterrupted braced wall-line segment length over the actual amount of bracing in that segment.
3. Multiply the anchor bolt spacing found in step 1 by the ratio calculated in step 2, remembering that the maximum required, code-accepted anchor bolt spacing cannot exceed 72 inches per 2024 IRC R403.1.6 for low seismic regions. (When more than two stories, 48 inches maximum for all wood light-frame structures in SDCs D_0, D_1, and D_2, and light-frame wood townhouses in SDC C per 2024 IRC R403.1.6.1(4)).

Table 1b. Minimum unadjusted anchor bolt spacing (inches) for TallWall/Windstorm/QuakeZone OSB Panel overlapping a 15-1/4 to 24-inch energy-heel roof trusses to provide shear and wind uplift [a,b,c,d,e]
L/S ≥ 2:1

Roof Span (ft)	Exposure B							
	2024 IRC Ultimate Design Wind Speed, V_{ult}, or 2024 IBC Basic Design Wind Speed, V (mph)							
	≤ 110		115		130		140	
	Roof pitch							
	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12
12	42	42	42	42	42	42	36	36
18	42	42	42	42	36	36	36	36
24	42	42	42	42	36	36	36	36
28	42	42	36	42	36	36	36	36
32	42	42	36	42	36	36	36	36
36	42	42	36	36	36	36	36	36
Roof Span (ft)	Exposure C							
	2024 IRC Ultimate Design Wind Speed, V_{ult}, or 2024 IBC Basic Design Wind Speed, V (mph)							
	≤ 110		115		130		140	
	Roof pitch							
	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12
12	42	42	36	42	36	36	36	36
18	36	36	36	36	36	36	36	36
24	36	36	36	36	36	36	32	36
28	36	36	36	36	36	36	32	32
32	36	36	36	36	32	36	24	32
36	36	36	36	36	32	36	24	32

[a] Anchor bolts shall be minimum ½-inch-diameter with 3- x 3- x 0.229-inch square-plate washers spaced as shown in the table above and embedded 7 inches minimum into the foundation per 2024 IRC R403.1.6.

[b] See Figure 1 for wall configuration.

[c] Based on the following assumptions. Walls shall be installed and attached in accordance with Figure 2. (Conditions beyond all assumptions listed above are outside the scope of this report).

Max mean roof height = 33 feet
Roof heel height = 15 ¼ to 24 inches
Max roof span = S = 36 feet
Max roof and ceiling assembly load = 15 psf
Max roof eave-to-roof height = 15 feet
Max wall height = 9 feet
Max roof slope = 12:12
Min wall length = L = 18 feet
Max roof overhang = 24 inches

[d] Extrapolation shall not be permitted.

[e] The minimum, unadjusted anchor bolt spacing provided above can be further adjusted by using the three steps below:

1. Go through the steps above to determine if overlapping the energy-heel truss with Tallwall/Windstorm/QuakeZone OSB panel is acceptable. If so, record the anchor bolt spacing derived from the table above.
2. Determine the ratio of the uninterrupted braced wall-line segment length over the actual amount of bracing in that segment.
3. Multiply the anchor bolt spacing found in step 1 by the ratio calculated in step 2, remembering that the maximum required, code-accepted anchor bolt spacing cannot exceed 72 inches per 2024 IRC R403.1.6 for low seismic regions. (When more than two stories, 48 inches maximum for all wood light-frame structures in SDCs D_0, D_1, and D_2, and light-frame wood townhouses in SDC C per 2024 IRC R403.1.6.1(4)).

Table 2a. Minimum unadjusted anchor bolt spacing (inches) for TallWall/Windstorm/QuakeZone OSB Panels overlapping a 15-1/4 to 24-inch energy-heel roof trusses to provide shear and wind uplift [a,b,c,d,e,f]
2:1 > L/S ≥ 1:1

Roof Span (ft)	Exposure B							
	2024 IRC Basic Wind Speed, V_{asd}, or 2024 IBC Allowable Stress Design Wind Speed, V_{asd} (mph)							
	≤ 85		90		100		110	
	Roof pitch							
	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12
12	42	42	42	42	42	42	36	36
18	42	42	42	42	36	36	36	36
24	42	42	42	42	36	36	36	36
28	42	42	36	42	36	36	36	36
32	42	42	36	42	36	36	36	36
36	42	42	36	36	36	36	36	36
Roof Span (ft)	Exposure C							
	2024 IRC Basic Wind Speed, V_{asd}, or 2024 IBC Allowable Stress Design Wind Speed, V_{asd} (mph)							
	≤ 85		90		100		110	
	Roof pitch							
	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12
12	42	42	36	42	36	36	36	36
18	36	36	36	36	36	36	36	36
24	36	36	36	36	36	36	32	36
28	36	36	36	36	36	36	32	32
32	36	36	36	36	32	36	24	32
36	36	36	36	36	32	32	ED	ED

[a] Anchor bolts shall be minimum ½-inch-diameter with 3- x 3- x 0.229-inch square-plate washers spaced as shown in the table above and embedded 7 inches minimum into the foundation per 2024 IRC R403.1.6.

[b] See Figure 1 for wall configuration.

[c] Based on the following assumptions. Walls shall be installed and attached in accordance with Figure 2. (Conditions beyond all assumptions listed above are outside the scope of this report).
Max mean roof height = 33 feet
Roof heel height = 15 ¼ to 24 inches
Max roof span = S = 36 feet
Max roof and ceiling assembly load = 15 psf
Max roof eave-to-roof height = 15 feet
Max wall height = 9 feet
Max roof slope = 12:12
Min wall length = L = 18 feet
Max roof overhang = 24 inches

[d] Extrapolation shall not be permitted.

[e] ED = Engineered design required.

[f] The minimum, unadjusted anchor bolt spacing provided above can be further adjusted by using the three steps below:
1. Go through the steps above to determine if overlapping the energy-heel truss with Tallwall/Windstorm/QuakeZone OSB panel is acceptable. If so, record the anchor bolt spacing derived from the table above.
2. Determine the ratio of the uninterrupted braced wall-line segment length over the actual amount of bracing in that segment.
3. Multiply the anchor bolt spacing found in step 1 by the ratio calculated in step 2, remembering that the maximum required, code-accepted anchor bolt spacing cannot exceed 72 inches per 2024 IRC R403.1.6 for low seismic regions. (When more than two stories, 48 inches maximum for all wood light-frame structures in SDCs D_0, D_1, and D_2, and light-frame wood townhouses in SDC C per 2024 IRC R403.1.6.1(4)).

Table 2b. Minimum unadjusted anchor bolt spacing (inches) for TallWall/Windstorm/QuakeZone OSB Panels overlapping a 15-1/4 to 24-inch energy-heel roof trusses to provide shear and wind uplift [a,b,c,d,e,f]
2:1 > L/S ≥ 1:1

Roof Span (ft)	Exposure B							
	2024 IRC Ultimate Design Wind Speed, V_{ult}, or 2024 IBC Basic Design Wind Speed, V (mph)							
	≤ 110		115		130		140	
	Roof pitch							
	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12
12	42	42	42	42	42	42	36	36
18	42	42	42	42	36	36	36	36
24	42	42	42	42	36	36	36	36
28	42	42	36	42	36	36	36	36
32	42	42	36	42	36	36	36	36
36	42	42	36	36	36	36	36	36
Roof Span (ft)	Exposure C							
	2024 IRC Ultimate Design Wind Speed, V_{ult}, or 2024 IBC Basic Design Wind Speed, V (mph)							
	≤ 110		115		130		140	
	Roof pitch							
	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12
12	42	42	36	42	36	36	36	36
18	36	36	36	36	36	36	36	36
24	36	36	36	36	36	36	32	36
28	36	36	36	36	36	36	32	32
32	36	36	36	36	32	36	24	32
36	36	36	36	36	32	32	ED	ED

[a] Anchor bolts shall be minimum ½-inch-diameter with 3- x 3- x 0.229-inch square-plate washers spaced as shown in the table above and embedded 7 inches minimum into the foundation per 2024 IRC R403.1.6.

[b] See Figure 1 for wall configuration.

[c] Based on the following assumptions. Walls shall be installed and attached in accordance with Figure 2. (Conditions beyond all assumptions listed above are outside the scope of this report).
Max mean roof height = 33 feet
Roof heel height = 15 ¼ to 24 inches
Max roof span = S = 36 feet
Max roof and ceiling assembly load = 15 psf
Max roof eave-to-roof height = 15 feet
Max wall height = 9 feet
Max roof slope = 12:12
Min wall length = L = 18 feet
Max roof overhang = 24 inches

[d] Extrapolation shall not be permitted.

[e] ED = Engineered design required.

[f] The minimum, unadjusted anchor bolt spacing provided above can be further adjusted by using the three steps below:
1. Go through the steps above to determine if overlapping the energy-heel truss with Tallwall/Windstorm/QuakeZone OSB panel is acceptable. If so, record the anchor bolt spacing derived from the table above.
2. Determine the ratio of the uninterrupted braced wall-line segment length over the actual amount of bracing in that segment.
3. Multiply the anchor bolt spacing found in step 1 by the ratio calculated in step 2, remembering that the maximum required, code-accepted anchor bolt spacing cannot exceed 72 inches per 2024 IRC R403.1.6 for low seismic regions. (When more than two stories, 48 inches maximum for all wood light-frame structures in SDCs D_0, D_1, and D_2, and light-frame wood townhouses in SDC C per 2024 IRC R403.1.6.1(4)).

Table 3a. Minimum unadjusted anchor bolt spacing (inches) for TallWall/Windstorm/QuakeZone OSB Panels overlapping a 15-1/4 to 24-inch energy-heel roof trusses to provide shear and wind uplift[a,b,c,d,e,f]
1:1 > L/S ≥ ½:1

Roof Span (ft)	Exposure B							
	2024 IRC Basic Design Wind Speed, V_{asd}, or 2024 IBC Allowable Stress Design Wind Speed, V_{asd} (mph)							
	≤ 85		90		100		110	
	Roof pitch							
	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12
12	42	32	42	32	42	32	36	24
18	42	32	42	32	36	24	36	24
24	42	32	42	32	36	24	36	24
28	42	32	36	32	36	24	36	24
32	42	32	36	24	36	24	36	24
36	42	32	36	24	36	24	36	24

Roof Span (ft)	Exposure C							
	2024 IRC Basic Design Wind Speed, V_{asd}, or 2024 IBC Allowable Stress Design Wind Speed, V_{asd} (mph)							
	≤ 85		90		100		110	
	Roof pitch							
	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12
12	32	24	24	19.2	24	19.2	24	19.2
18	24	19.2	24	19.2	24	19.2	24	ED
24	24	19.2	24	19.2	24	19.2	ED	ED
28	24	19.2	24	19.2	24	ED	ED	ED
32	24	19.2	24	19.2	24	ED	ED	ED
36	24	19.2	24	ED	ED	ED	ED	ED

[a] Anchor bolts shall be minimum ½-inch-diameter with 3- x 3- x 0.229-inch square-plate washers spaced as shown in the table above and embedded 7 inches minimum into the foundation per 2024 IRC R403.1.6.

[b] See Figure 1 for wall configuration.

[c] Based on the following assumptions. Walls shall be installed and attached in accordance with Figure 2. (Conditions beyond all assumptions listed above are outside the scope of this report).
Max mean roof height = 33 feet
Roof heel height = 15 ¼ to 24 inches
Max roof span = S = 36 feet
Max roof and ceiling assembly load = 15 psf
Max roof eave-to-roof height = 15 feet
Max wall height = 9 feet
Max roof slope = 12:12
Min wall length = L = 18 feet
Max roof overhang = 24 inches

[d] Extrapolation shall not be permitted.

[e] ED = Engineered design required.

[f] The minimum, unadjusted anchor bolt spacing provided above can be further adjusted by using the three steps below:
1. Go through the steps above to determine if overlapping the energy-heel truss with Tallwall/Windstorm/QuakeZone OSB panel is acceptable. If so, record the anchor bolt spacing derived from the table above.
2. Determine the ratio of the uninterrupted braced wall-line segment length over the actual amount of bracing in that segment.
3. Multiply the anchor bolt spacing found in step 1 by the ratio calculated in step 2, remembering that the maximum required, code-accepted anchor bolt spacing cannot exceed 72 inches per 2024 IRC R403.1.6 for low seismic regions. (When more than two stories, 48 inches maximum for all wood light-frame structures in SDCs D_0, D_1, and D_2, and light-frame wood townhouses in SDC C per 2024 IRC R403.1.6.1(4)).

Table 3b. Minimum unadjusted anchor bolt spacing (inches) for TallWall/Windstorm/QuakeZone OSB Panels overlapping a 15-1/4 to 24-inch energy-heel roof trusses to provide shear and wind uplift[a,b,c,d,e,f]
1:1 > L/S ≥ ½:1

Roof Span (ft)	Exposure B							
	2024 IRC Ultimate Design Wind Speed, V_{ult}, or 2024 IBC Basic Design Wind Speed, V (mph)							
	≤ 110		115		130		140	
	Roof pitch							
	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12
12	42	32	42	32	42	32	36	24
18	42	32	42	32	36	24	36	24
24	42	32	42	32	36	24	36	24
28	42	32	36	32	36	24	36	24
32	42	32	36	24	36	24	36	24
36	42	32	36	24	36	24	36	24
Roof Span (ft)	Exposure C							
	2024 IRC Ultimate Design Wind Speed, V_{ult}, or 2024 IBC Basic Design Wind Speed, V (mph)							
	≤ 110		115		130		140	
	Roof pitch							
	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12	< 5:12	5:12 to 12:12
12	32	24	24	19.2	24	19.2	24	19.2
18	24	19.2	24	19.2	24	19.2	24	ED
24	24	19.2	24	19.2	24	19.2	ED	ED
28	24	19.2	24	19.2	24	ED	ED	ED
32	24	19.2	24	19.2	24	ED	ED	ED
36	24	19.2	24	ED	ED	ED	ED	ED

[a] Anchor bolts shall be minimum ½-inch-diameter with 3- x 3- x 0.229-inch square-plate washers spaced as shown in the table above and embedded 7 inches minimum into the foundation per 2024 IRC R403.1.6.

[b] See Figure 1 for wall configuration.

[c] Based on the following assumptions. Walls shall be installed and attached in accordance with Figure 2. (Conditions beyond all assumptions listed above are outside the scope of this report).
Max mean roof height = 33 feet
Roof heel height = 15 ¼ to 24 inches
Max roof span = S = 36 feet
Max roof and ceiling assembly load = 15 psf
Max roof eave-to-roof height = 15 feet
Max wall height = 9 feet
Max roof slope = 12:12
Min wall length = L = 18 feet
Max roof overhang = 24 inches

[d] Extrapolation shall not be permitted.

[e] ED = Engineered design required.

[f] The minimum, unadjusted anchor bolt spacing provided above can be further adjusted by using the three steps below:
1. Go through the steps above to determine if overlapping the energy-heel truss with Tallwall/Windstorm/QuakeZone OSB panel is acceptable. If so, record the anchor bolt spacing derived from the table above.
2. Determine the ratio of the uninterrupted braced wall-line segment length over the actual amount of bracing in that segment.
3. Multiply the anchor bolt spacing found in step 1 by the ratio calculated in step 2, remembering that the maximum required, code-accepted anchor bolt spacing cannot exceed 72 inches per 2024 IRC R403.1.6 for low seismic regions. (When more than two stories, 48 inches maximum for all wood light-frame structures in SDCs D_0, D_1, and D_2, and light-frame wood townhouses in SDC C per 2024 IRC R403.1.6.1(4)).

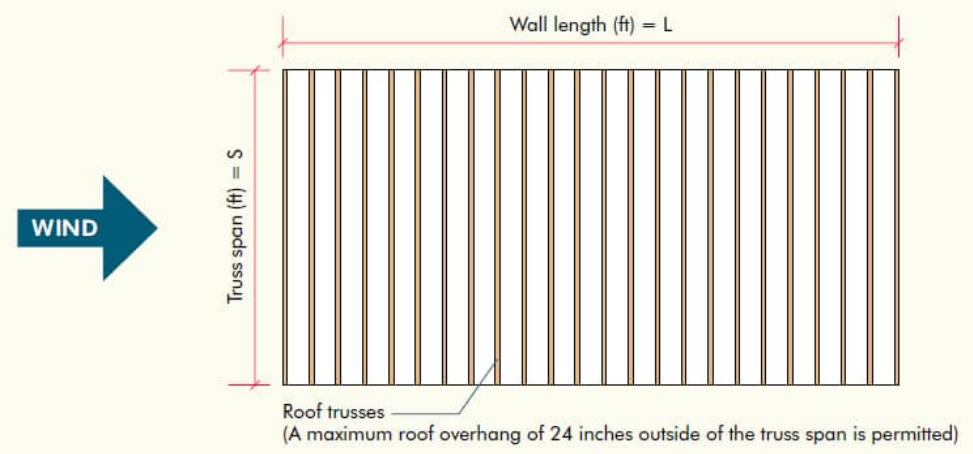
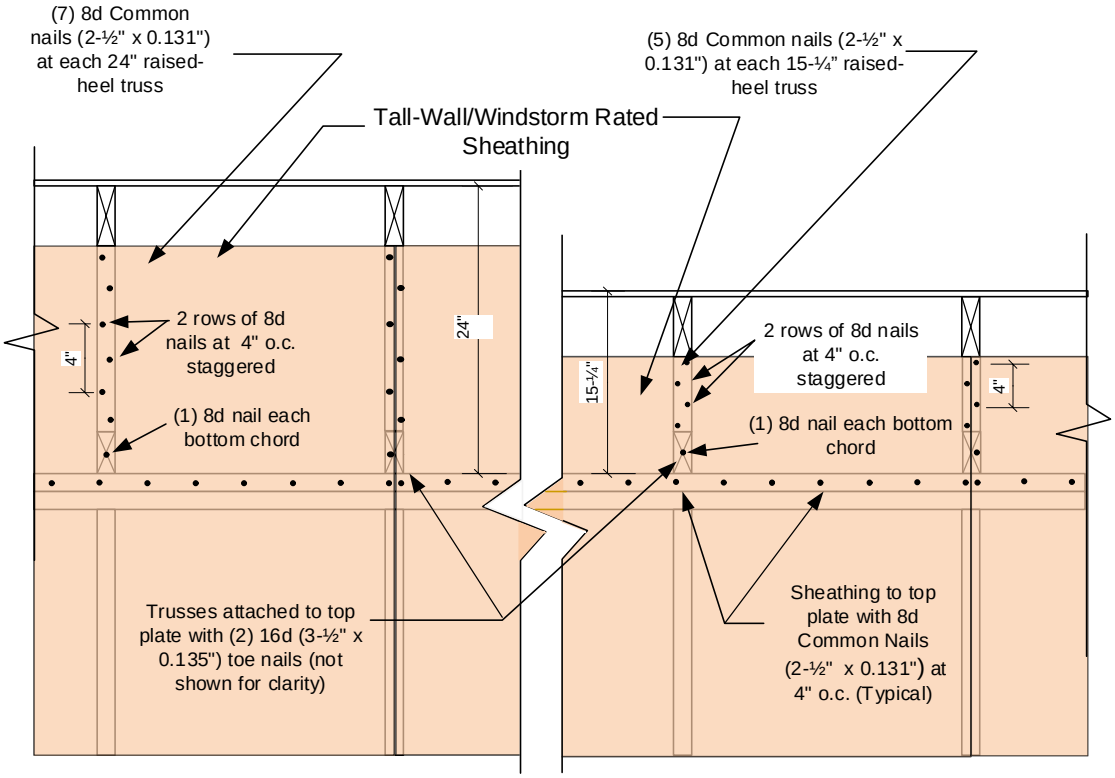


Figure 1. Definition of terms for Tables 1a - 3b



24" Raised Heel Truss **15-¼" Raised Heel Truss**

Sheathing attachment to framing at panel vertical edge, 8d Common nails (2-½" x 0.131") at 6" o.c. and 12" o.c., respectively. Sheathing attached to top plate with 8d Common nails (2-½" x 0.131") at 4" o.c. Normal panel nailing not shown for clarity.

Figure 2. 15-¼-inch and 24-inch energy-heel truss examples for compliance with the 2024, 2021, 2018, 2015, and 2012 IRC wind uplift and wind bracing attachment requirements using West Fraser TallWall/Windstorm/QuakeZone OSB panels

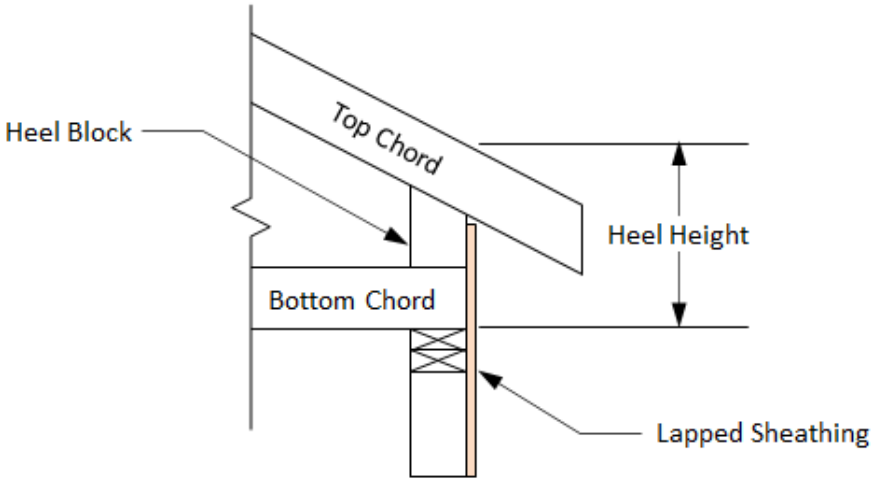


Figure 3. 15-¼-inch and 24-inch energy-heel truss examples for compliance with the 2021, 2018, 2015, and 2012 IRC wind uplift and wind bracing attachment requirements using West Fraser TallWall/Windstorm/QuakeZone OSB panels

APA – The Engineered Wood Association is an approved national standards developer accredited by American National Standards Institute (ANSI). APA publishes ANSI standards and Voluntary Product Standards for wood structural panels and engineered wood products. APA is an accredited certification body under ISO/IEC 17065 by Standards Council of Canada (SCC), an accredited inspection agency under ISO/IEC 17020 by ANSI National Accreditation Board (ANAB), and an accredited testing organization under ISO/IEC 17025 by ANAB. APA is also an approved Product Certification Agency, Testing Laboratory, Quality Assurance Entity, Validation Entity, and Product Evaluation Entity by the State of Florida, and an approved testing laboratory by City of Los Angeles.

APA – THE ENGINEERED WOOD ASSOCIATION
HEADQUARTERS
7011 So. 19th St. ▪ Tacoma, Washington 98466
Phone: (253) 565-6600 ▪ Fax: (253) 565-7265 ▪ Internet Address: www.apawood.org

PRODUCT SUPPORT HELP DESK
(253) 620-7400 ▪ *E-mail Address*: help@apawood.org

DISCLAIMER