# Technical Bulletin

How to Read ICC Evaluation Service® ESR-1539©
Part IV Shear Wall Allowable Shear Tables

**Preface:**

This is the fourth in a series of technical bulletins designed to provide a greater understanding of the ICC Evaluation Service evaluation report ESR-1539©.

The focus of this Part IV document is to address allowable shear values for shear wall constructed from wood structural and other materials detailed in Tables 8 - 9 of ESR-1539©.

The driven fasteners (nails and staples) described in the evaluation report are used in engineered and non-engineered (prescriptive) structural connections and are primarily installed using power tools. This technical bulletin references **ESR-1539© Reissue Date 07/2022.**
http://www.icc-es.org/Reports/pdf_files/ESR-1539.pdf

**Background:**

The first technical bulletin in this series Terminology Used In ICC EvaluationService Report® ESR-1539© provides a brief description of several technical and administrative terms used.

Part I: Basic ESR Information covers the first four pages of ESR-1539© and provides information on the document format, subject matter, and product descriptions.

Part II: Fastener Basics and Tables 1-3 covers the Table of Contents, fastener basics, applicable codes and information on the reference lateral design value of nails in some of the common species of wood used in building construction

Part III: Fastener Withdrawal & Diaphragm Allowable Shear Tables addresses values for nail and staple withdrawal for a variety of wood specific gravities and details the allowable shear tables for wood structural products.

Figure A (Table 8 from ESR-1539©) represents the first of the Allowable Shear tables for Shear Walls. There are some similarities to the Allowable Shear tables for diaphragms discussed in How to Read ESR-1539© Part III. The shear wall table references type of sheathing, framing material, nominal nail diameter or staple gage, minimum fastener length and values for seismic and wind loading.

In Figure A, Structural 1 sheathing is referenced when used with Douglas-Fir-Larch or Southern Pine framing.

> If framing materials are different than the listed materials, then adjustment factors must be made for differences in material specific gravity. Figure C, Footnote 2 details how the adjustment is to be made.

The shear wall tables differ from the diaphragm table in that the values are based on sheathing material being applied directly to:

- A Wood framing
- B Applied over ½ or $^5/_8$ inch gypsum sheathing.

Although shear wall panels can be blocked or unblocked as addressed in section 4.3 of AWC's Special Design Provisions for Wind and Seisimc (SDPSW)©, the allowable shear wall data in ESR-1539© Tables 8 and 9 only references fastening on panel edges and makes no reference to blocked or unblocked panels. There are no references to any of the "cases" that were seen in the diaphragm tables.

The IBC Table 2308.9.3(3) prescribes a minimum wall sheathing thickness of $^3/_8$ inch. SDPWS referenced material thicknesses listed in Figure A are:

- C $^3/_8$ inch
- D $^7/_{16}$ inch
- E $^{15}/_{32}$ inch

**TABLE 8—ALLOWABLE SHEAR FOR WIND OR SEISMIC LOADING FOR WOOD STRUCTURAL PANEL SHEAR WALLS WITH FRAMING OF DOUGLAS FIR-LARCH OR SOUTHERN PINE AND STRUCTURAL I SHEATHING (plf)[1,2,3,4,5,6,7,8,9,10,11]**

| NOMINAL NAIL DIAMETER (inch) OR STAPLE GAGE<br>Nails must be smooth or deformed, carbon steel (bright or galvanized) nails | MINIMUM NOMINAL FASTENER LENGTH (inches) | | SEISMIC | | | | WIND | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Panels Applied Directly to Framing | Panels Applied Over 1/2 inch or 5/8 inch Gypsum Sheathing | Fastener Spacing at Panel Edges (inches) | | | | Fastener Spacing at Panel Edges (inches) | | | |
| | | | 6 | 4 | 3 | 2 | 6 | 4 | 3 | 2 |
| | A | B | 3/8-inch Nominal Panel Thickness | | | | C | | | |
| 0.148 | 2 | — | 230 | 360 | 460 | 610 | 320 | 505 | 645 | 855 |
| | — | 2 1/2 | 280 | 430 | 550 | 730 | 390 | 600 | 770 | 1020 |
| 0.135 | 2 | — | 230 | 360 | 460 | 610 | 320 | 505 | 645 | 855 |
| | — | 2 1/2 | 280 | 430 | 550 | 730 | 390 | 600 | 770 | 1020 |
| 0.131 | 1 3/4 | — | 230 | 360 | 460 | 610 | 320 | 505 | 645 | 855 |
| | — | 2 1/2 | 235 | 360 | 460 | 610 | 330 | 505 | 645 | 855 |
| 0.120 | 1 3/4 | — | 200 | 310 | 395 | 520 | 275 | 435 | 550 | 730 |
| | — | 2 1/2 | 200 | 310 | 395 | 520 | 280 | 430 | 550 | 725 |
| 0.113 | 1 3/4 | — | 180 | 280 | 355 | 470 | 245 | 390 | 495 | 655 |
| | — | 2 1/2 | 180 | 275 | 355 | 470 | 250 | 385 | 495 | 655 |
| 14, 15, 16 Gage | 1 1/2 | — | 155 | 235 | 315 | 400 | 155 | 235 | 315 | 400 |
| 14, 15, 16 Gage | — | 2 | 155 | 235 | 310 | 400 | 155 | 235 | 310 | 400 |
| | | | 7/16-inch Nominal Panel Thickness | | | | D | | | |
| 0.148 | 2 | — | 260 | 395 | 505 | 670 | 355 | 550 | 705 | 935 |
| | — | 2 1/2 | 280 | 430 | 550 | 730 | 390 | 600 | 770 | 1020 |
| 0.135 | 2 | — | 260 | 395 | 505 | 670 | 355 | 550 | 705 | 935 |
| | — | 2 1/2 | 250 | 385 | 490 | 650 | 345 | 535 | 685 | 905 |
| 0.131 | 2 | — | 260 | 395 | 505 | 670 | 355 | 550 | 705 | 935 |
| | — | 2 1/2 | 235 | 365 | 465 | 615 | 330 | 505 | 650 | 860 |
| 0.120 | 2 | — | 225 | 340 | 435 | 580 | 305 | 475 | 610 | 805 |
| | — | 2 1/2 | 205 | 310 | 400 | 530 | 285 | 435 | 555 | 735 |
| 0.113 | 2 | — | 205 | 310 | 395 | 520 | 280 | 430 | 550 | 730 |
| | — | 2 1/2 | 170 | 260 | 330 | 440 | 235 | 360 | 460 | 610 |
| 14, 15, 16 Gage | 1 1/2 | — | 170 | 260 | 345 | 440 | 170 | 260 | 345 | 440 |
| 14, 15, 16 Gage | — | 2 | 155 | 235 | 310 | 400 | 155 | 235 | 310 | 400 |
| | | | 15/32-inch Nominal Panel Thickness | | | | E | | | |
| 0.148 | 2 | — | 340 | 510 | 665 | 870 | 475 | 715 | 930 | 1215 |
| | — | 2 1/2 | 280 | 430 | 550 | 730 | 390 | 600 | 770 | 1020 |
| 0.135 | 2 | — | 305 | 455 | 590 | 775 | 425 | 635 | 825 | 1080 |
| | — | 2 1/2 | 250 | 385 | 490 | 650 | 345 | 535 | 685 | 905 |
| 0.131 | 2 | — | 280 | 430 | 550 | 730 | 390 | 600 | 770 | 1020 |
| | — | 2 1/2 | 240 | 365 | 465 | 615 | 330 | 505 | 650 | 860 |
| 0.120 | 2 | — | 245 | 375 | 475 | 630 | 340 | 520 | 665 | 880 |
| | — | 2 1/2 | 205 | 315 | 400 | 530 | 285 | 435 | 560 | 740 |
| 0.113 | 2 | — | 220 | 340 | 430 | 570 | 305 | 470 | 605 | 800 |
| | — | 2 1/2 | 185 | 285 | 365 | 480 | 260 | 395 | 510 | 670 |
| 14, 15, 16 Gage | 1 1/2 | — | 185 | 280 | 375 | 475 | 185 | 280 | 375 | 475 |
| 14, 15, 16 Gage | — | 2 | 155 | 235 | 300 | 400 | 155 | 235 | 300 | 400 |

***Figure A – (Table 8 Annotation added for clarity of design example)***

SDPWS references

- A An 8d common nail (2½ x 0.131 inch) for use with $^{3}/_{8}$, $^{7}/_{16}$ inch Structural 1 sheathing when nailed directly to framing
- B An 8d common and a 10d common (3 x 0.148) nail for $^{15}/_{32}$ inch Structural 1 sheathing when nailed directly to framing
- C When applied over ½ or $^{5}/_{8}$ inch gypsum wallboard or gypsum sheathing board a 10d common nail is prescribed for all three material thicknesses.

The minimum nominal fastener lengths listed in Figure A are calculated from the requirements of SDPWS.

ICC-ES® Acceptance Criteria, AC116 has provisions within the principles of mechanics that allow for the lateral connection strength of an alternate nail to be compared to the closest but larger code-prescribed nail. These principles were used to develop the shear strength values for the 0.135, 0.120 and 0.113 inch diameter nails when applied directly to framing for all three sheathing thicknesses in Figure A.

Because the AC116 provisions are for the closest but larger code-prescribed nail, a comparison cannot be extended for the 0.135 and 0.148 inch nail as it is larger than the code-prescribed 0.131 diameter nail applied directly to framing for $^{3}/_{8}$ & $^{7}/_{16}$ inch Structural 1. The allowable shear values listed for the 0.131 inch nail must be used for the 0.148 inch nail. (Figure B Item D )

AC201 Acceptance Criteria for Staples does not have a method of comparison for lateral connection strength, thus the most restrictive values (those for 16 gage staples), must be applied to the 14 & 15 gage staples.

Staple allowable shear values in Figures A & B are permitted to be increased 40 percent for wind design per Sections 2306.2 & 2306.3 of the IBC®.

**TABLE 8—ALLOWABLE SHEAR FOR WIND OR SEISMIC LOADING FOR WOOD STRUCTURAL PANEL SHEAR WALLS WITH FRAMING OF DOUGLAS FIR-LARCH OR SOUTHERN PINE AND STRUCTURAL I SHEATHING (plf)[1,2,3,4,5,6,7,8,9,10,11]**

| NOMINAL NAIL DIAMETER (inch) OR STAPLE GAGE<br>Nails must be smooth or deformed, carbon steel (bright or galvanized) nails | MINIMUM NOMINAL FASTENER LENGTH (inches) | | SEISMIC | | | | WIND | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Panels Applied Directly to Framing | Panels Applied Over 1/2 inch or 5/8 inch Gypsum Sheathing | Fastener Spacing at Panel Edges (inches) | | | | Fastener Spacing at Panel Edges (inches) | | | |
| | | | 6 | 4 | 3 | 2 | 6 | 4 | 3 | 2 |
| **3/8-inch Nominal Panel Thickness** | | | | | | | | | | |
| 0.148 | 2 | — | 230 | 360 | 460 | 610 | 320 | 505 | 645 | 855 |
| | — | 2 1/2 | 280 | 430 | 550 | 730 | 390 | 600 | 770 | 1020 |
| 0.135 | 2 | — | 230 | 360 | 460 | 610 | 320 | 505 | 645 | 855 |
| | — | 2 1/2 | 250 | 380 | 485 | 645 | 345 | 530 | 680 | 900 |
| 0.131 | 1 3/4 | — | 230 | 360 | 460 | 610 | 320 | 505 | 645 | 855 |
| | — | 2 1/2 | 235 | 360 | 460 | 610 | 330 | 505 | 645 | 855 |
| 0.120 | 1 3/4 | — | 200 | 310 | 395 | 520 | 275 | 435 | 550 | 730 |
| | — | 2 1/2 | 200 | 310 | 395 | 520 | 280 | 430 | 550 | 725 |
| 0.113 | 1 3/4 | — | 180 | 280 | 355 | 470 | 245 | 390 | 495 | 655 |
| | — | 2 1/2 | 180 | 275 | 355 | 470 | 250 | 385 | 495 | 655 |
| 14, 15, 16 Gage | 1 1/2 | — | 155 | 235 | 315 | 400 | 155 | 235 | 315 | 400 |
| 14, 15, 16 Gage | — | 2 | 155 | 235 | 310 | 400 | 155 | 235 | 310 | 400 |
| **7/16-inch Nominal Panel Thickness** | | | | | | | | | | |
| 0.148 | 2 | — | 260 | 395 | 505 | 670 | 355 | 550 | 705 | 935 |
| | — | 2 1/2 | 280 | 430 | 550 | 730 | 390 | 600 | 770 | 1020 |
| 0.135 | 2 | — | 260 | 395 | 505 | 670 | 355 | 550 | 705 | 935 |
| | — | 2 1/2 | 250 | 385 | 490 | 650 | 345 | 535 | 685 | 905 |
| 0.131 | 2 | — | 260 | 395 | 505 | 670 | 355 | 550 | 705 | 935 |
| | — | 2 1/2 | 235 | 365 | 465 | 615 | 330 | 505 | 650 | 860 |
| 0.120 | 2 | — | 225 | 340 | 435 | 580 | 305 | 475 | 610 | 805 |
| | — | 2 1/2 | 205 | 310 | 400 | 530 | 285 | 435 | 555 | 735 |
| 0.113 | 2 | — | 205 | 310 | 395 | 520 | 280 | 430 | 550 | 730 |
| | — | 2 1/2 | 170 | 260 | 330 | 440 | 235 | 360 | 460 | 610 |
| 14, 15, 16 Gage | 1 1/2 | — | 170 | 260 | 345 | 440 | 170 | 260 | 345 | 440 |
| 14, 15, 16 Gage | — | 2 | 155 | 235 | 310 | 400 | 155 | 235 | 310 | 400 |
| **15/32-inch Nominal Panel Thickness** | | | | | | | | | | |
| 0.148 smooth | 2 | — | 340 | 510 | 665 | 870 | 475 | 715 | 930 | 1215 |
| | — | 2 1/2 | 280 | 430 | 550 | 730 | 390 | 600 | 770 | 1020 |
| 0.135 | 2 | — | 305 | 455 | 590 | 775 | 425 | 635 | 825 | 1080 |
| | — | 2 1/2 | 250 | 385 | 490 | 650 | 345 | 535 | 685 | 905 |
| 0.131 | 2 | — | 280 | 430 | 550 | 730 | 390 | 600 | 770 | 1020 |
| | — | 2 1/2 | 240 | 365 | 465 | 615 | 330 | 505 | 650 | 860 |
| 0.120 | 2 | — | 245 | 375 | 475 | 630 | 340 | 520 | 665 | 880 |
| | — | 2 1/2 | 205 | 315 | 400 | 530 | 285 | 435 | 560 | 740 |
| 0.113 | 2 | — | 220 | 340 | 430 | 570 | 305 | 470 | 605 | 800 |
| | — | 2 1/2 | 185 | 285 | 365 | 480 | 260 | 395 | 510 | 670 |
| 14, 15, 16 Gage | 1 1/2 | — | 185 | 280 | 375 | 475 | 185 | 280 | 375 | 475 |
| 14, 15, 16 Gage | — | 2 | 155 | 235 | 300 | 400 | 155 | 235 | 300 | 400 |

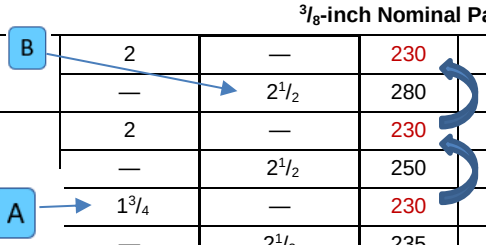


***Figure B – Table 8 - Annotation added for clarity of example)***

Table 9 in ESR-1539© [not shown in this bulletin] addresses allowable shear for wind and seismic loading for Rated Sheathing used in shear walls. This table was developed for 3/8, 7/16, 15/32 and 19/32 inch materials.

The same process and procedures used to determine values in ESR-1539© Table 8 were used in determining the information in Table 9.

**FOOTNOTE EXPLANATIONS FOR SHEAR WALL TABLES 8 AND 9**

[1]For **SI:** 1 inch = 25.4 mm, 1 plf = 14.6 N/m.

[2]Shear wall construction using nails must be in accordance with Section 4.3.6 and 4.3.7 of the ANSI/AWC Special Design Provisions for Wind and Seismic (SDPWS), and shear wall construction using staples must be in accordance with 2021, 2018 and 2015 IBC Table 2306.3(1) (similar for earlier codes), as applicable.

[3]Tabulated values are for short-time loading due to wind or seismic. The tabulated seismic values must be reduced by 37 percent and 44 percent for normal and permanent load duration, respectively.

[4]The tabulated values are for fasteners installed in Douglas Fir-larch or Southern Pine. For framing of other species: (1) Find the assigned specific gravity for species of lumber (see Section A1.3) (2) For staples find shear value from Table 7 (regardless of actual sheathing grade) and multiply value by 0.82 for species with specific gravity of 0.42 or greater, or 0.65 for all other species. (3) For nails find shear value from the applicable table and multiply by the following Specific Gravity Adjustment Factor = [1 - (0.5 – *G*)], where *G* = Assigned Specific Gravity of the framing lumber. This adjustment factor must not be greater than 1.

[5]Shear wall deflection must be determined in accordance with Section A3.0.

[6]Structural I and Rated Sheathing panels must comply with DOC PS1 or PS2. Install panels either horizontally or vertically. All panel edges must be backed by framing members.

[7]In structures assigned to Seismic Design category D, E, or F, where the allowable shear design value exceeds 350 plf, all framing members receiving edge nailing from abutting panels must not be less than a single 3-inch nominal member. Panel joint and sill plate nailing must be staggered in all cases. See Section 4.3.6.4 of SDPWS for sill plate size and anchorage requirements, as applicable.

[8]Space fasteners maximum 6 inches on center along intermediate framing members - Exception: When panel thickness is greater than $^{7}/_{16}$-inch or studs are spaced less than 24 inches on center, space fasteners maximum 12 inches on center.

[9]Nails must be bright or galvanized carbon steel, flat head nails denoted in Appendix B as meeting the head area ratio requirements for lateral force resisting assemblies. A deformed shank nail must have either a helical (screw) shank or an annular (ring) shank. Shear wall values for stainless steel nails are outside the scope of this report.

[10]Staples must have a $^{7}/_{16}$-inch minimum crown width and must be installed with their crown parallel to the long dimension of the framing members, and must be driven flush with the surface of the sheathing.

[11]The values for $^{3}/_{8}$-inch and $^{7}/_{16}$-inch panels applied directly to framing using nails may be increased to values shown for $^{15}/_{32}$-inch-thick panels of the same panel grade, provided studs are spaced a maximum of 16 inches on center or panels are applied with long dimension across studs.

***Figure C – Footnote Explanation for Shear Wall Tables 8 and 9***

Figure D (Table 10 of ESR-1539©) provides the Allowable Shear for Wind or Seismic loading for shear wall constructed with a variety of other structural materials. As most of the nails prescribed in the codes are not products listed in ESR-1539©, this table deals primarily with staples:

Column **1**: describes the various sheathing material (Fiberboard, Gypsum Lath, Gypsum Sheathing, Gypsum Wallboard, Expanded Metal or woven wire lath and Portland cement plaster & Plywood panel siding)

Column **2**: describes the nominal sheathing material thickness.

Column **3**: indicates the type of wall construction (blocked, unblocked, applied direct to framing, or over gypsum sheathing)

Column **4**: Required spacing of fasteners on panel edge and panel field if applicable.

Column **5**: Provides the shear values for the connection.

Column **6**: Provides fastener specification

Column **7**: Due to the large number of notes associated with the various connections the reader is directed to the codes and SDPWS to read the associated notes.

**TABLE 10 —ALLOWABLE SHEAR FOR WIND OR SEISMIC LOADING FOR SHEAR WALLS WITH FIBERBOARD SHEATHING, GYPSUM LATH, GYPSUM SHEATHING, GYPSUM WALLBOARD, LATH AND PLASTER OR PLYWOOD SIDING OVER WOOD FRAMING (plf)[1,3,4]**

| SHEATHING MATERIAL | THICKNESS OF MATERIAL | WALL CONSTRUCTION | REQUIRED SPACING (inches on center) | | SHEAR VALUE (plf) | | FASTENER SPECIFICATIONS | COMMENTS |
|---|---|---|---|---|---|---|---|---|
| | | | Panel Edges | Field | Seismic | Wind | | |
| 1 | 2 | 3 | 4 | 4 | 150 | 210 | 6 | 7 |
| Fiberboard Sheathing | 1/2" | Blocked | 4 | 6 | 150 | 210 | 1 1/4" long, 16, 15 & 14 gage staple | Reference IBC Table 2306.3(2)for applicable notes |
| | | | 3 | | 200 | 280 | | |
| | | | 2 | | 225 | 315 | | |
| | | | 4 | | 220 | 310 | 1 1/4" long, 1" crown, 16, 15 & 14 gage staple | |
| | | | 3 | | 290 | 405 | | |
| | | | 2 | | 325 | 455 | | |
| | 25/32" | Blocked | 4 | 6 | 150 | 210 | 1 1/2" long, 16, 15 & 14 gage staple | |
| | | | 3 | | 200 | 280 | | |
| | | | 2 | | 225 | 315 | | |
| | | | 4 | | 220 | 310 | 1 1/2" long, 1" crown, 16, 15 & 14 gage staple | |
| | | | 3 | | 290 | 405 | | |
| | | | 2 | | 325 | 455 | | |
| Gypsum Lath | 3/8" + 1/2" Plaster | Unblocked | 5 | | 100 | | 1 1/8" long, 3/4" crown, 16, 15 & 14 gage staple | Reference IBC Table 2306.3(3)for applicable notes |
| Gypsum Sheathing | 1/2" x 2' x 8' | Unblocked | 4 | | 75 | | 1 3/4" long, 16, 15 & 14 gage staple | |
| | 1/2" x 4' | Blocked | | | 175[2] | | | |
| | | Unblocked | 7 | | 100 | | | |
| Gypsum Wallboard | 1/2" | Unblocked | 7 | | 75[2] | | 1 1/2" long, 16, 15 & 14 gage staple | |
| | | | | | 100 | | | |
| | | | 4 | | 110[2] | | | |
| | | | | | 125 | | | |
| | | Blocked | 7 | | 125 | | | |
| | | | 4 | | 150 | | | |
| | 5/8" | Unblocked | 7 | | 115[2] | | 1 5/8" long, 16, 15 & 14 gage staple | |
| | | | 4 | | 145[2] | | | |
| | | Blocked | 7 | | 145 | | | |
| | | | 4 | | 175 | | | |
| | | Blocked two-ply | Base Ply - 9 | | 250 | | 1 5/8" long, 16, 15 & 14 gage staple | |
| | | | Face Ply - 7 | | | | 2 1/4" long, 15 & 14 gage staple | |
| Expanded metal or woven wire lath and Portland cement plaster | 7/8" | Unblocked | 6" On Center @ Each Framing Member | | 180 | | 7/8" long, 3/4" crown, 16, 15 & 14 gage staple | |
| Plywood Panel Siding Shear Walls with Framing of Douglas Fir-Larch or Southern Pine[2] | 3/8" | Panels Applied Directly To Framing | 6 | 6 | 160 | 225 | 2 1/2 x 0.113 smooth | Reference SDPWS Table 4.3A for applicable notes |
| | | | 4 | | 240 | 335 | | |
| | | | 3 | | 310 | 435 | | |
| | | | 2 | | 410 | 575 | | |
| | | | 6 | 6 | 140 | 195 | 1 1/2" long, 16, 15 & 14 gage staple | Reference IBC Table 2306.3(1)for applicable notes |
| | | | 4 | | 210 | 295 | | |
| | | | 3 | | 280 | 390 | | |
| | | | 2 | | 360 | 505 | | |
| | | Panels Applied Over 1/2" or 5/8" Gypsum Sheathing | 6 | 6 | 160 | 225 | 3 x 0.131 smooth nail | Reference SDPWS Table 4.3B for applicable notes |
| | | | 4 | | 240 | 335 | | |
| | | | 3 | | 310 | 435 | | |
| | | | 2 | | 410 | 575 | | |
| | | | 6 | 6 | 140 | 195 | 2" long, 16, 15 & 14 gage staple | Reference IBC Table 2306.3(1)for applicable notes |
| | | | 4 | | 210 | 295 | | |
| | | | 3 | | 280 | 390 | | |
| | | | 2 | | 360 | 505 | | |

For **SI**: 1 inch = 25.4 mm; 1 foot = 305 mm; 1 plf = 14.6 N/m.

[1]Shear values are based on maximum framing spacing of 16 inches on center, unless otherwise noted.
[2]Shear values are based on maximum framing spacing of 24 inches on center.
[3]Staples must have a minimum crown width of 7/16 inch, measured outside the legs, unless otherwise noted.
[4]Nails must be bright or galvanized carbon steel, flat head nails denoted in Appendix B as meeting the head area ratio requirements for lateral force resisting assemblies. Shear wall values for stainless steel nails are outside the scope of this report.
[5]In addition to requirements presented above for fastening of shear walls all other requirements of the applicable model code (such as, but not limited to, conditions of use and modification of design values for certain Seismic Design Categories) pertaining to shear wall design and construction must be met.

***Figure D – Table 10 Annotation added for Clarity of Example***

**Referenced Documents:**

*ANSI/AWC NDS-2018 National Design Specification for Wood © American Wood Council 2017*

*ANSI/AWC SDPWS – 2021 Special Design Provisions for Wind and Seismic © American Wood Council 2020*

*ASTM F1667/1667M-21a Standard Specifications for Driven Fasteners: Nails, Spikes and Staples © ASTM International February 2021*

*2021, 2018, 2015, 2012 International Building Code (IBC) ® © International Code Council Inc. ®*

*2021, 2018, 2015, 2012 International Residential Code (IRC) ® © International Code Council Inc. ®*

*AC116 ICC-ES Acceptance Criteria for Nails © ICC Evaluation Service (ICC-ES) ® March 2021*

*AC201 ICC-ES Acceptance Criteria for Staples © ICC Evaluation Service (ICC-ES) ® December 2020*

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