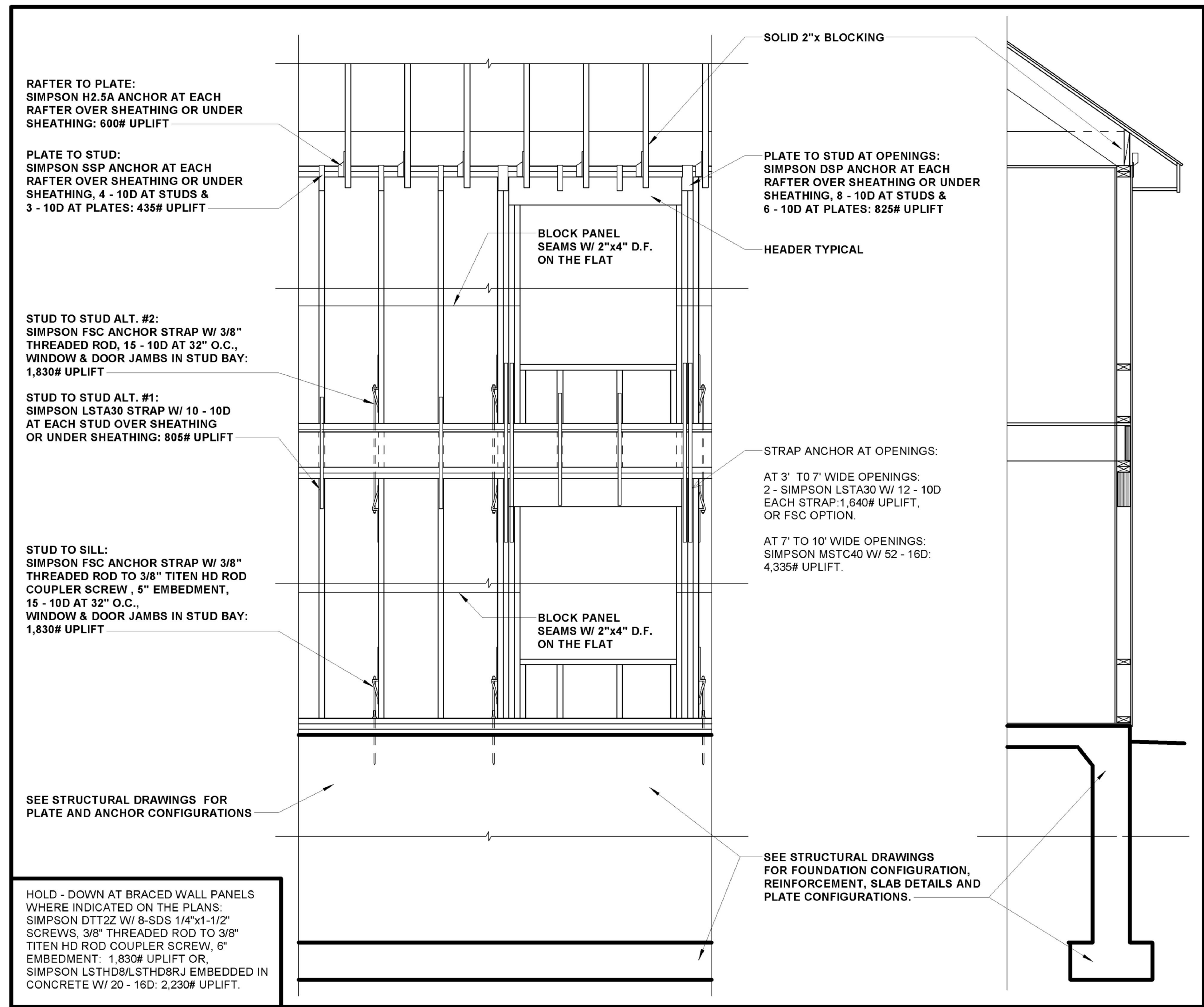


Typical Wall Framing @ Building Corners



Typical Continuous Sheathed Braced Wall System

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENERS ^{a, b, c}	SPACING OF FASTENERS
1	Blocking between joists or rafters to top plate, toe nail	3-8d (2 1/2\" × 0.135\")	—
2	Ceiling joists to plate, toe nail	3-8d (2 1/2\" × 0.135\")	—
3	Ceiling joists not attached to parallel rafters, laps over partitions, face nail	3-10d	—
4	Collar tie rafter, face nail or 1 1/2\" × 20 gage ridge strap	3-10d (3\" × 0.128\")	—
5	Rafter to plate, toe nail	2-16d (3 1/2\" × 0.135\")	—
6	Roof rafters to ridge, valley or hip rafters, toe nail	4-16d (3 1/2\" × 0.135\")	—
	face nail	3-16d (3 1/2\" × 0.135\")	—
	Wall		
7	Build-up corner studs	10d (3\" × 0.128\")	24\" o.c.
8	Build-up header, two pieces with 1/2\" spacer	16d (3 1/2\" × 0.135\")	16\" o.c. along each edge
9	Continued header, two pieces	16d (3 1/2\" × 0.135\")	16\" o.c. along each edge
10	Continuous header to stud, toe nail	4-8d (2 1/2\" × 0.113\")	—
11	Double studs, face nail	10d (3\" × 0.128\")	24\" o.c.
12	Double top plates, face nail	10d (3\" × 0.128\")	24\" o.c.
13	Double top plates, minimum 24-inch offset of end joints, face nail in lapped area	8-16d (3 1/2\" × 0.135\")	—
14	Sole plate to joist or blocking, face nail	16d (3 1/2\" × 0.135\")	16\" o.c.
15	Sole plate to joist or blocking at braced wall panels	3-16d (3 1/2\" × 0.135\")	16\" o.c.
16	Stud to sole plate, toe nail	3-8d (2 1/2\" × 0.113\")	—
17	Top or sole plate to stud, end nail	2-16d (3 1/2\" × 0.135\")	—
18	Top plates, laps at corners and intersections, face nail	2-10d (3\" × 0.128\")	—
19	1\" brace to each stud and plate, face nail	2-8d (2 1/2\" × 0.113\")	2 staples 1 1/2\"
20	1\" × 6\" sheathing to each bearing, face nail	2-8d (2 1/2\" × 0.113\")	2 staples 1 1/2\"
21	1\" × 8\" sheathing to each bearing, face nail	2-8d (2 1/2\" × 0.113\")	3 staples 1 1/2\"
22	Wider than 1\" × 8\" sheathing to each bearing, face nail	3-8d (2 1/2\" × 0.113\")	4 staples 1 1/2\"
	Floor		
23	Joist to sill or girder, toe nail	3-8d (2 1/2\" × 0.113\")	—
24	1\" × 6\" subfloor or less to each joist, face nail	2-8d (2 1/2\" × 0.113\")	2 staples 1 1/2\"
25	2\" subfloor to joist or girder, blind and face nail	2-16d (3 1/2\" × 0.135\")	—
26	Rim joist to top plate, toe nail (roof applications also)	8d (2 1/2\" × 0.113\")	6\" o.c.
27	2\" planks (plank & beam—floor or roof)	2-16d (3 1/2\" × 0.135\")	at each bearing
28	Built-up girders and beams, 2-inch lumber layers	10d (3\" × 0.128\")	Nail each layer as follows: 32\" o.c. at top and bottom and staggered. Two nails at ends and at each splice.
29	Ledger strip supporting joists or rafters	3-16d (3 1/2\" × 0.135\")	At each joist or rafter

(continued)

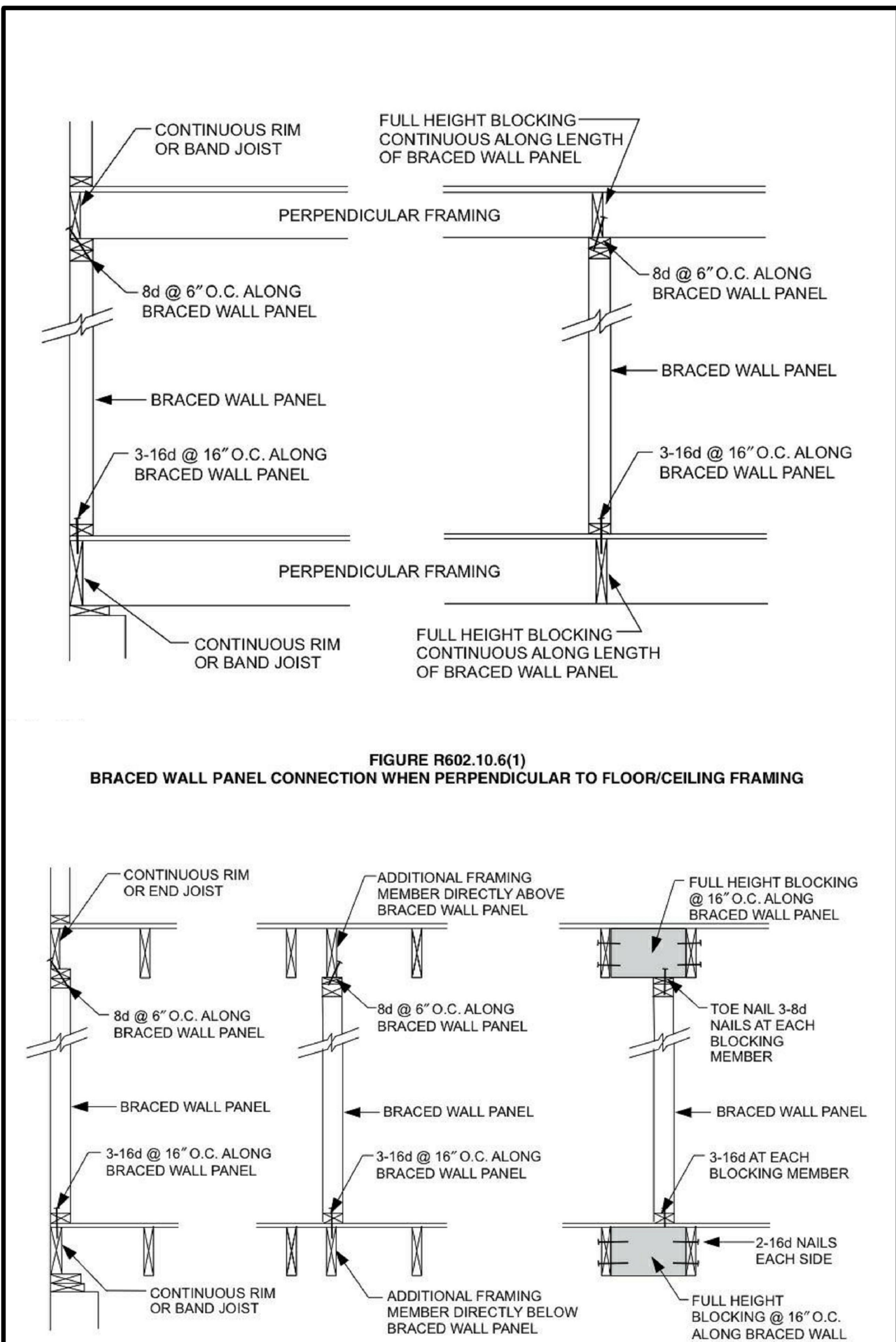
FASTENER SCHEDULE

ITEM	DESCRIPTION OF BUILDING MATERIALS	DESCRIPTION OF FASTENERS ^{a, b, c}	Edges (inches)	Intermediate supports (inches)
	Wood structural panels, subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing			
30	1/2\" × 1/2\"	6d common (2\" × 0.113\") nail (subfloor wall) 8d common (2 1/2\" × 0.131\") nail (roof)	6	12"
31	3/4\" × 1"	8d common nail (2 1/2\" × 0.131\")	6	12"
32	1 1/2\" × 1 1/2\"	10d common (3\" × 0.148\") nail or 8d (2 1/2\" × 0.131\") deformed nail	6	12"
	Other wall sheathing ^d			
33	1/2\" structural cellulose fiberboard sheathing	1 1/2\" galvanized roofing nail, 7/16\" crown or 1\" crown staple 16 ga., 1 1/2\" long	3	6
34	3/4\" structural cellulose fiberboard sheathing	1 1/2\" galvanized roofing nail, 7/16\" crown or 1\" crown staple 16 ga., 1 1/2\" long	3	6
35	1/2\" gypsum sheathing ^d	1 1/2\" galvanized roofing nail, staple galvanized, 1 1/2\" long, 1 1/2\" screws, Type W or S	7	7
36	3/4\" gypsum sheathing ^d	1 1/2\" galvanized roofing nail, staple galvanized, 1 1/2\" long, 1 1/2\" screws, Type W or S	7	7
	Wood structural panels, combination subfloor-underlayment to framing			
37	3/4\" and less	6d deformed (2\" × 0.135\") nail or 8d common (2 1/2\" × 0.131\") nail	6	12"
38	7/8\" - 1"	8d common (2 1/2\" × 0.131\") nail or 8d deformed (2 1/2\" × 0.120\") nail	6	12"
39	1 1/2\" × 1 1/2\"	10d common (3\" × 0.148\") nail or 8d deformed (2 1/2\" × 0.120\") nail	6	12"

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 mile per hour = 0.447 m/s, 1 ksi = 6.895 MPa.
a. All nails are smooth-common, box or deformed shanks except where otherwise noted. Nails used for framing and sheathing connections shall have a minimum bending yield strength as shown: 80 ksi for shank diameter of 0.192 inch (2M common nail), 90 ksi for shank diameters larger than 0.142 inch and larger than 0.171 inch, and 100 ksi for shank diameters of 0.142 inch or less.
b. Staples are 16 gage wire and have a minimum 7/16\" × 1/2\" inch on diameter corner width.
c. Nails shall be spaced at not more than 6 inches on center at all supports where spans are 48 inches or greater.
d. Four-tooth-by-8-tooth or 4-tooth-by-10-tooth panels shall be applied vertically.
e. Spacing of fasteners not included in this table shall be based on Table R602.3(2).
f. For regions having basic wind speed of 110 mph or greater, 8d deformed (2 1/2\" × 0.120) nails shall be used for attaching plywood and wood structural panel sheathing to framing within minimum 48-inch distance from gable end walls, if mean roof height is more than 25 feet, up to 35 feet maximum.
g. For regions having basic wind speed of 100 mph or less, nails for attaching wood structural panel roof sheathing to gable end wall framing shall be spaced on center. When basic wind speed is greater than 100 mph, nails for attaching wood structural panel roof sheathing to gable end wall framing shall be spaced 6 inches on center. Minimum 48-inch distance from ridges, eaves and gable end walls, and 4 inches on center to gable end wall framing.
h. Gypsum sheathing shall conform to ASTM C 1396 and shall be installed in accordance with GA 283. Fiberboard sheathing shall conform to ASTM 1.
i. Spacing of fasteners on floor sheathing panel edges applies to panel edges supported by framing members and required blocking and at all floor perimeters. Spacing of fasteners on roof sheathing panel edges applies to panel edges supported by framing members and required blocking. Blocking of roof or floor panel edges perpendicular to the framing members need not be provided except as required by other provisions of this code. Floor perimeter shall be supported by framing members or solid blocking.

NOMINAL MATERIAL THICKNESS (inches)	DESCRIPTION ^{a, b} OF FASTENER AND LENGTH (inches)	Edges (inches)	Intermediate support (inches)
	Wood structural panels subfloor, roof and wall sheathing to framing and particleboard wall sheathing to framing ^c		
up to 1/2	Staple 15 ga. 1 1/2	4	8
	0.097 - 0.099 Nail 2 1/4	3	6
	Staple 16 ga. 1 1/2	3	6
1/2 and 3/4	0.113 Nail 2	3	6
	Staple 15 and 16 ga. 2	4	8
	0.097 - 0.099 Nail 2 1/4	4	8
	Staple 14 ga. 2	4	8
3/4 and 1	Staple 15 ga. 1 1/4	3	6
	0.097 - 0.099 Nail 2 1/4	4	8
	Staple 16 ga. 2	4	8
	Staple 14 ga. 2 1/4	4	8
	0.113 Nail 2 1/4	3	6
	Staple 15 ga. 2 1/4	4	8
	0.097 - 0.099 Nail 2 1/2	4	8
	Floor underlayment, plywood-hardboard-particleboard ^d		
	Plywood		
1/2 and 3/4	1 1/2 ring or screw shank nail—minimum 12 1/2 ga. (0.099) shank diameter	3	6
	Staple 18 ga., 7/16 crown width	2	5
1/2 and 3/4	1 1/2 ring or screw shank nail—minimum 12 1/2 ga. (0.099) shank diameter	6	8
1/2 and 3/4	1 1/2 ring or screw shank nail—minimum 12 1/2 ga. (0.099) shank diameter	6	8
	Staple 16 ga. 1 1/2	6	8
	Hardboard ^e		
0.200	1 1/2 ring ring-grooved underlayment nail	6	6
	4d cement-coated stinker nail	6	6
	Staple 18 ga., 7/16 long (plastic coated)	3	6
	Particleboard		
1/4	4d ring-grooved underlayment nail	3	6
	Staple 18 ga., 7/16 long, 7/16 crown	3	6
3/8	6d ring-grooved underlayment nail	6	10
	Staple 16 ga., 1 1/2 long, 1/2 crown	3	6
1/2 and 3/4	6d ring-grooved underlayment nail	6	10
	Staple 16 ga., 1 1/2 long, 1/2 crown	3	6

For SI: 1 inch = 25.4 mm.
a. Nail is a general description and may be Thread, modified round head or round head.
b. Staples shall have a minimum crown width of 7/16\" × 1/2\" on diameter except as noted.
c. Nails or staples shall be spaced at not more than 6 inches on center at all supports where spans are 48 inches or greater. Nails or staples shall be spaced at not more than 12 inches on center at intermediate supports for floors.
d. Fasteners shall be placed in a grid pattern throughout the body of the panel.
e. For 5-ply panels, intermediate nails shall be spaced not more than 12 inches on center each way.
f. Hardboard underlayment shall conform to CPAN/AIA 35.4.



BRACED WALL PANEL FRAMING

MINIMUM NAIL		MINIMUM WOOD STRUCTURAL PANEL SPAN RATING	MINIMUM NOMINAL PANEL THICKNESS (inches)	MAXIMUM WALL STUD SPACING (inches)	PANEL NAIL SPACING		MAXIMUM WIND SPEED		
Size	Penetration (inches)				Edges (inches o.c.)	Field (inches o.c.)	Wind exposure category		
							B	C	D
6d Common (2.0" × 0.113")	1.5	24/0	3/8	16	6	12	110	90	85
8d Common (2.5" × 0.131")	1.75	24/16	7/16	16	6	12	130	110	105
				24	6	12	110	90	85

For SI: 1 inch = 25.4 mm, 1 mile per hour = 0.447 m/s.
a. Panel strength axis parallel or perpendicular to supports. Three-ply plywood sheathing with studs spaced more than 16 inches on center shall be applied with panel strength axis perpendicular to supports.
b. Table is based on wind pressures acting toward and away from building surfaces per Section R301.2. Lateral bracing requirements shall be in accordance with Section R602.10.
c. Wood Structural Panels with span ratings of Wall-16 or Wall-24 shall be permitted as an alternate to panels with 24/0 span rating. Plywood siding rated 16 oc or 24 oc shall be permitted as an alternate to panels with a 24/16 span rating. Wall-16 and Plywood siding 16 oc shall be used with studs spaced a maximum of 16 inches on center.

BRACED WALL PANEL FASTENING SCHEDULE

CONSTRUCTION DETAILS 1

SCALE: 1/4\" = 1'-0\"
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NOTES:
THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING ALL DIMENSIONS IN THE FIELD. THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE ARCHITECT WITH ANY DISCREPANCIES FROM THE DRAWINGS. DO NOT SCALE THE DRAWINGS. THE ARCHITECT SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS OR SAFETY PRECAUTIONS.

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DATE: 07/08/15
REV 1: SITE PLAN UPDATE 3-14-14
REV 2: ARCH. UPDATE 4-9-14
REV 3: ARCH. UPDATE 6-19-14
REV 4: FOUNDATION C.D. 9-17-14
REV 5: BUILDING PERMIT 6-30-16

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