Steel Strong-Wall® Cold-Formed Steel 1st-Story Floor Systems

Steel Strong-Wall® panels designed for use on concrete foundations can be used with cold-formed steel floor systems by extending the anchor bolts and installing compression nuts and stud blocking below the wall.

Material & Finish: See page 146.

For product data and naming scheme information, see page 146.

For a complete set of wall profile drawings, see page 146.

CFS First-Floor Wall Connection Kit

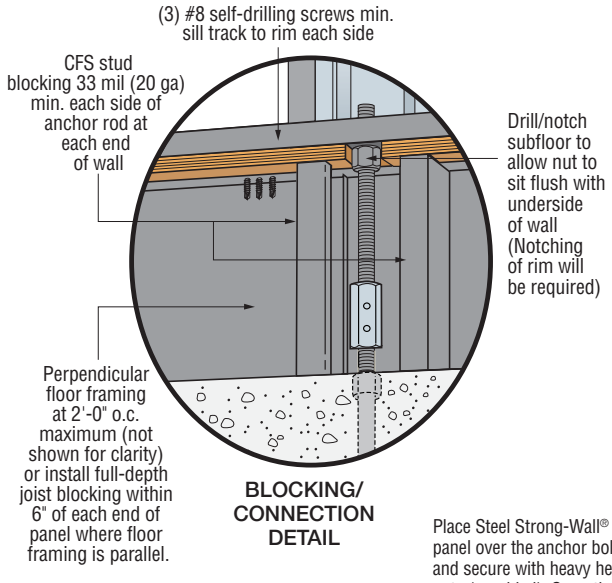
Wall Width (in.)	Model No.	Contents
12	SSW12-1KT	(1) Shear-Transfer Plate (with #14 self-drilling screws) (2) ¾" or 1"x18" Threaded Rods F1554 Grade 36 (2) Coupler Nuts (2) Heavy Hex Nuts Installation Instructions
15	SSW15-1KT	
18	SSW18-1KT	
21	SSW21-1KT	
24	SSW24-1KT	

1. Two heavy hex nuts included with each wall.

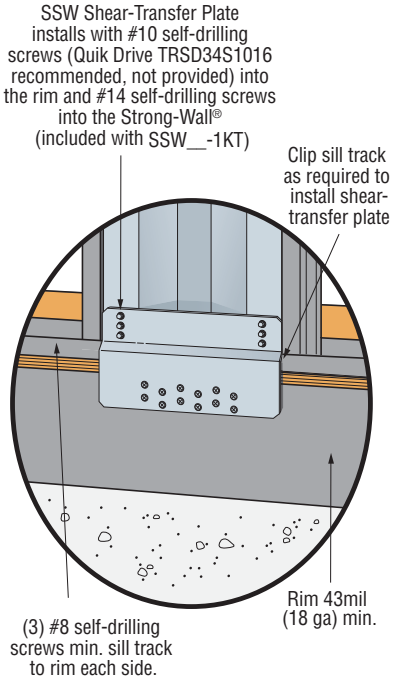
DO NOT cut wall or enlarge existing holes

Shear-Transfer Plate Fasteners for Raised-Floor Applications

Strong-Wall Width	Fastener #14 Screws	Quantity #10 Screws
12" Wall	4	6
15" Wall	4	10
18" Wall	6	12
21" Wall	6	16
24" Wall	7	18

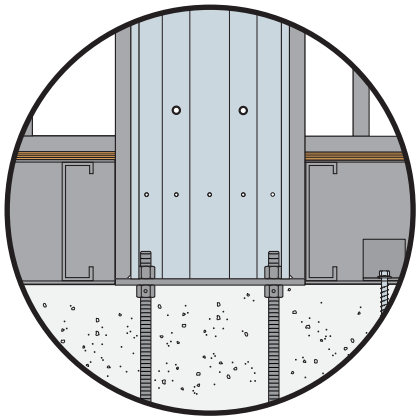


BLOCKING/ CONNECTION DETAIL



EXTERIOR VIEW OF SHEAR-TRANSFER PLATE

Cold-Formed Steel 1st-Story Floor System
U.S. Patent 8,281,551; Canadian Patent 2,489,845



Alternate 1st-Floor Installation
Specify taller wall model to allow for floor framing and use load values for installation on concrete; see pages 146–147.

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2012 International Building Code®

S/SSW Model	Seismic[2]			Wind		
	Allowable ASD Shear Load V (lbs.)	Drift at Allowable Shear (in.)	Anchor Tension at Allowable Shear[4] (lbs.)	Allowable ASD Shear Load V (lbs.)	Drift at Allowable Shear (in.)	Anchor Tension at Allowable Shear[4] (lbs.)
S/SSW12x8	435	0.40	6135	435	0.40	6135
S/SSW15x8	1050	0.42	11010	1150	0.46	12060
S/SSW18x8	1525	0.36	12075	1525	0.36	12075
S/SSW21x8	1900	0.29	12085	1900	0.29	12085
S/SSW24x8	2270	0.24	12065	2270	0.24	12065
S/SSW12x9	390	0.47	6185	390	0.47	6185
S/SSW15x9	900	0.48	10605	1025	0.54	12080
S/SSW18x9	1355	0.42	12055	1355	0.42	12055
S/SSW21x9	1690	0.34	12080	1690	0.34	12080
S/SSW24x9	2020	0.28	12065	2020	0.28	12065
S/SSW15x10	785	0.53	10270	925	0.63	12100
S/SSW18x10	1220	0.48	12050	1220	0.48	12050
S/SSW21x10	1520	0.39	12060	1520	0.39	12060
S/SSW24x10	1820	0.32	12065	1820	0.32	12065

1. Loads are applicable to 1st-Story Cold-Formed Steel Raised-Floor installations supported on concrete or masonry foundations using the ASD basic (Section 1605.3.1) or the alternative basic (Section 1605.3.2) load combinations. Load values include evaluation of anchor rod compression capacity and do not require further evaluation by the Designer.
2. For seismic designs based on the 2012 IBC using R = 6.5. For other codes, use the seismic coefficients corresponding to light-frame bearing walls with wood structural panels or sheet steel panels.
3. Minimum standard-strength anchor bolts required. See pages 156-163 for SSWAB anchor bolt information and anchorage solutions. Tabulated anchor tension loads assume no resisting axial load. Anchor rod tension at design shear load and including the effect of axial load may be determined using the Strong-Wall Selector™ software or the following equation:
   T = [(V x h) / B] - P/2, where: T = Anchor rod tension load (lbs.)
   V = design shear load (lbs.)
   h = Strong-Wall® height per page 146 (in.)
   P = applied axial load (lbs.)
   B = Anchor bolt centerline dimension (in.)
   (6⅞" for S/SSW12, 9¼" for S/SSW15, 12¼" for S/SSW18, 15¼" for S/SSW21, and 18¼" for S/SSW24)
4. Allowable shear loads assume a maximum first-floor joist depth of 12".
5. Allowable shear loads are based on 1000 lbs. total uniformly distributed axial load acting on the entire panel in combination with the shear load. For allowable shear loads at 2000 lbs. uniformly distributed axial load, multiply table values by 0.92 for S/SSW12x models, and 0.96 for other S/SSW widths.
6. Top-of-wall screws for the S/SSW shall be approved ¼" or #14 self-drilling screws with a minimum nominal shear strength (P_{SS}) of 2000 lbs. Top of panel shall be connected to a minimum 43 mil (18 ga) thick steel member typical.