

# STEEL STRONG-WALL®: Cold-Formed Steel on Concrete Foundations

## 2006 INTERNATIONAL BUILDING CODE®

S/SSW Model	Max. H (in.)	Allowable Axial Load (lbs)	Seismic <sup>2</sup>			Wind		
			Allowable ASD Shear Load V (lbs)	Drift at Allowable Shear (in)	Uplift at Allowable Shear <sup>6</sup> (lbs)	Allowable ASD Shear Load V (lbs)	Drift at Allowable Shear (in)	Uplift at Allowable Shear <sup>6</sup> (lbs)
S/SSW12x7	80	1000	845	0.35	8460	1070	0.44	11405
		4000	845	0.35	8460	1060	0.44	11265
		7500	845	0.35	8460	885	0.37	8950
S/SSW15x7	80	1000	1645	0.34	13340	1810	0.38	15135
		4000	1640	0.34	13290	1640	0.34	13290
		7500	1440	0.30	11290	1440	0.30	11290
S/SSW18x7	80	1000	2800	0.33	18690	3375	0.40	24545
		4000	2800	0.33	18690	3250	0.38	23135
		7500	2800	0.33	18690	2980	0.35	20370
S/SSW21x7	80	1000	4050	0.32	22590	4440	0.35	25710
		4000	4050	0.32	22590	4440	0.35	25710
		7500	4050	0.32	22590	4310	0.34	24635
S/SSW24x7	80	1000	5250	0.30	24710	5250	0.30	24710
		4000	5250	0.30	24710	5250	0.30	24710
		7500	5250	0.30	24710	5250	0.30	24710
S/SSW12x8X	97	1000	645	0.42	7710	820	0.54	10360
		4000	645	0.42	7710	775	0.51	9640
		7500	610	0.40	7220	610	0.40	7220
S/SSW15x8X	97	1000	1280	0.42	12390	1415	0.47	14090
		4000	1250	0.41	12025	1250	0.41	12025
		7500	1070	0.35	9955	1070	0.35	9955
S/SSW18x8X	97	1000	2140	0.41	16895	2785	0.54	24565
		4000	2140	0.41	16895	2680	0.52	23130
		7500	2140	0.41	16895	2460	0.48	20400
S/SSW21x8X	97	1000	3265	0.41	21905	3870	0.48	27930
		4000	3265	0.41	21905	3765	0.47	26790
		7500	3265	0.41	21905	3460	0.43	23715
S/SSW24x8X	97	1000	4540	0.39	26335	4985	0.43	30045
		4000	4540	0.39	26335	4890	0.42	29220
		7500	4540	0.39	26335	4555	0.39	26455
S/SSW12x9X	109	1000	545	0.48	7255	695	0.61	9735
		4000	545	0.48	7255	605	0.53	8210
		7500	445	0.39	5755	445	0.39	5755
S/SSW15x9X	109	1000	1090	0.48	11725	1180	0.52	12955
		4000	1025	0.45	10875	1025	0.45	10875
		7500	850	0.37	8720	850	0.37	8720
S/SSW18x9X	109	1000	1835	0.47	16105	2365	0.61	22835
		4000	1835	0.47	16105	2365	0.61	22835
		7500	1835	0.47	16105	2150	0.55	19890
S/SSW21x9X	109	1000	2800	0.46	20855	3275	0.54	25900
		4000	2800	0.46	20855	3025	0.50	23140
		7500	2735	0.45	20220	2735	0.45	20220
S/SSW24x9X	109	1000	4005	0.46	26025	4220	0.48	27970
		4000	3950	0.45	25540	3950	0.45	25540
		7500	3630	0.41	22855	3630	0.41	22855
S/SSW15x10X	121	1000	945	0.53	11185	990	0.56	11845
		4000	835	0.47	9645	835	0.47	9645
		7500	665	0.37	7425	665	0.37	7425
S/SSW18x10X	121	1000	1605	0.53	15515	2045	0.67	21490
		4000	1605	0.53	15515	1960	0.64	20225
		7500	1605	0.53	15515	1715	0.56	16890
S/SSW21x10X	121	1000	2440	0.52	19970	2650	0.56	22275
		4000	2405	0.51	19600	2405	0.51	19600
		7500	2120	0.45	16730	2120	0.45	16730
S/SSW24x10X	121	1000	3425	0.50	24275	3425	0.50	24275
		4000	3160	0.46	21875	3160	0.46	21875
		7500	2855	0.42	19275	2855	0.42	19275

**NOTE:**

For models with an "X" suffix, specify height when ordering (example: S/SSW12x8X, h=95").

1. Allowable shear loads and anchor uplifts are applicable to installation on concrete with minimum  $f'_c = 2500$  psi using the ASD basic (Section 1605.3.1) or the alternative basic (Section 1605.3.2) load combinations. Load values include evaluation of bearing stresses.
2. For seismic designs based on the 2006 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. Top-of-wall screws for the S/SSW shall be approved  $\frac{1}{4}$ " or #14 self-drilling screws with a minimum nominal shear strength (Pss) of 2000 lbs. Top of panel shall be connected to a minimum 43 mil (18 ga) thick steel member typical. S/SSW18 and wider panels up to 97 inches tall require connection to a minimum 54 mil (16 ga) thick steel member. When connected to a minimum 43 mil (18 ga) thick steel member, the allowable load shall be limited to 2720 lbs. for S/SSW18, 3625 lbs. for S/SSW21, and 4230 lbs. for S/SSW24.
4. Allowable shear, drift, and uplift values may be interpolated for intermediate height or axial loads. See example on page 42.
5. High-strength anchor bolts are required for anchor tension (uplift) forces exceeding the allowable load for standard-strength bolts tabulated on pages 50–51. See pages 50–54 for SSWAB anchor bolt information and anchorage solutions.
6. Tabulated anchor tension (uplift) loads assume no resisting axial load. For anchor tension loads at design shear values and including the effect of axial load, refer to the Strong-Wall Selector™ software or use the equations on page 43. Drifts at lower design shear may be linearly reduced.
7. See page 42 for allowable out-of-plane loads and axial capacities.