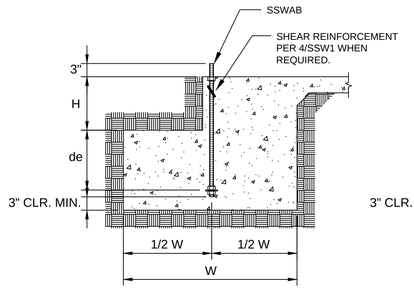
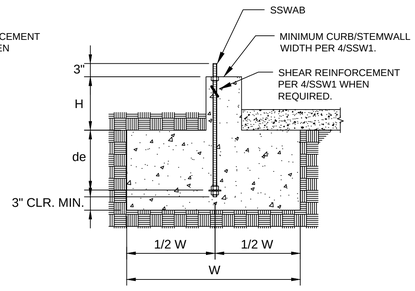
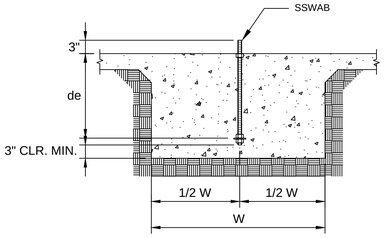


SLAB ON GRADE FOUNDATION

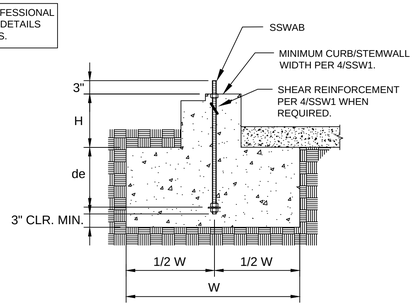


CURB OR STEMWALL FOUNDATION

REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.



INTERIOR FOUNDATION

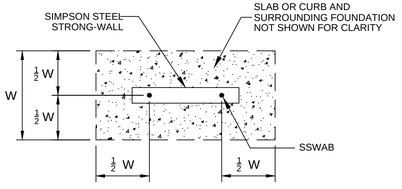


BRICK LEDGE FOUNDATION

NOTES:
1. SEE 2/SSW1 AND 3/SSW1 FOR DIMENSIONS AND ADDITIONAL NOTES.
2. SEE 4/SSW1 FOR SHEAR REINFORCEMENT WHEN REQUIRED.
3. MAXIMUM H = le - de. SEE 5/SSW1 AND 6/SSW1 FOR le.

STEEL STRONG-WALL ANCHORAGE - TYPICAL SECTIONS

1



SEE TABLES BELOW FOR DIMENSIONS

FOUNDATION PLAN VIEW

STEEL STRONG-WALL ANCHORAGE SOLUTIONS FOR 2500 PSI CONCRETE

DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	SSWAB 3/4" ANCHOR BOLT ASD ALLOWABLE UPLIFT (lbs)	SSWAB 3/4" ANCHOR BOLT W (in)	SSWAB 3/4" ANCHOR BOLT de (in)	SSWAB 1" ANCHOR BOLT ASD ALLOWABLE UPLIFT (lbs)	SSWAB 1" ANCHOR BOLT W (in)	SSWAB 1" ANCHOR BOLT de (in)
SEISMIC	CRACKED	STANDARD	8,800	22	8	16,100	33	11
			9,600	24	8	17,100	35	12
		HIGH STRENGTH	18,500	36	12	33,000	51	17
			19,900	38	13	35,300	54	18
	UNCRACKED	STANDARD	8,800	19	7	15,700	28	10
			9,600	21	7	17,100	30	10
		HIGH STRENGTH	18,300	31	11	32,300	44	15
			19,900	33	11	35,300	47	16
WIND	CRACKED	STANDARD	5,100	14	6	6,200	16	6
			7,400	18	6	11,400	24	8
		HIGH STRENGTH	9,600	22	8	17,100	32	11
			11,400	24	8	21,100	36	12
			13,600	27	9	27,300	42	14
			15,900	30	10	31,800	46	16
			19,900	35	12	35,300	50	17
	UNCRACKED	STANDARD	5,000	12	6	6,400	14	6
			7,800	16	6	12,500	22	8
		HIGH STRENGTH	9,600	19	7	17,100	28	10
			12,500	22	8	21,900	32	11
			14,300	24	8	26,400	36	12
			17,000	27	9	31,500	40	14
			19,900	30	10	35,300	43	15

NOTES:
1. ANCHORAGE DESIGNS CONFORM TO ACI 318-11 APPENDIX D WITH NO SUPPLEMENTARY REINFORCEMENT FOR CRACKED OR UNCRACKED CONCRETE AS NOTED.
2. ANCHOR STRENGTH INDICATES REQUIRED GRADE OF SSWAB ANCHOR BOLT. STANDARD (ASTM F1554 GRADE 36) OR HIGH STRENGTH (HS) (ASTM A449).
3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C THROUGH F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC ANCHORAGE DESIGNS CONFORM TO ACI 318-11 SECTION D.3.3.4.
4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C.
5. FOUNDATION DIMENSIONS ARE FOR ANCHORAGE ONLY. FOUNDATION DESIGN (SIZE AND REINFORCEMENT) BY OTHERS. THE REGISTERED DESIGN PROFESSIONAL MAY SPECIFY ALTERNATE EMBEDMENT, FOOTING SIZE OR ANCHOR BOLT.
6. REFER TO 1/SSW1 FOR de.

SSWAB TENSION ANCHORAGE SCHEDULE 2500 PSI

2

STEEL STRONG-WALL ANCHORAGE SOLUTIONS FOR 3500 PSI CONCRETE

DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	SSWAB 3/4" ANCHOR BOLT ASD ALLOWABLE UPLIFT (lbs)	SSWAB 3/4" ANCHOR BOLT W (in)	SSWAB 3/4" ANCHOR BOLT de (in)	SSWAB 1" ANCHOR BOLT ASD ALLOWABLE UPLIFT (lbs)	SSWAB 1" ANCHOR BOLT W (in)	SSWAB 1" ANCHOR BOLT de (in)
SEISMIC	CRACKED	STANDARD	9,000	20	7	15,700	29	10
			9,600	21	7	17,100	31	11
		HIGH STRENGTH	18,200	32	11	33,000	46	16
			19,900	34	12	35,300	48	16
	UNCRACKED	STANDARD	8,800	17	6	15,700	25	9
			9,600	19	7	17,100	27	9
		HIGH STRENGTH	18,600	28	10	32,600	40	14
			19,900	30	10	35,300	42	14
WIND	CRACKED	STANDARD	6,000	14	6	7,300	16	6
			7,300	16	6	13,500	24	8
		HIGH STRENGTH	9,600	20	7	17,100	29	10
			11,800	22	8	22,700	34	12
			13,500	24	8	27,400	38	13
			17,000	28	10	32,300	42	14
			19,900	32	11	35,300	45	15
	UNCRACKED	STANDARD	6,000	12	6	7,500	14	6
			7,500	14	6	12,800	20	7
		HIGH STRENGTH	9,600	17	6	17,100	25	9
			12,800	20	7	21,300	28	10
			14,800	22	8	26,000	32	11
			16,900	24	8	31,300	36	12
			19,900	27	9	35,300	39	13

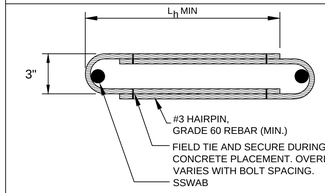
STEEL STRONG-WALL ANCHORAGE SOLUTIONS FOR 4500 PSI CONCRETE

DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	SSWAB 3/4" ANCHOR BOLT ASD ALLOWABLE UPLIFT (lbs)	SSWAB 3/4" ANCHOR BOLT W (in)	SSWAB 3/4" ANCHOR BOLT de (in)	SSWAB 1" ANCHOR BOLT ASD ALLOWABLE UPLIFT (lbs)	SSWAB 1" ANCHOR BOLT W (in)	SSWAB 1" ANCHOR BOLT de (in)
SEISMIC	CRACKED	STANDARD	8,700	18	6	16,000	27	9
			9,600	20	7	17,100	29	10
		HIGH STRENGTH	17,800	29	10	32,100	42	14
			19,900	32	11	35,300	45	15
	UNCRACKED	STANDARD	9,100	16	6	15,700	23	8
			9,600	17	6	17,100	25	9
		HIGH STRENGTH	17,800	25	9	32,500	37	13
			19,900	27	9	35,300	39	13
WIND	CRACKED	STANDARD	5,400	12	6	6,800	14	6
			8,300	16	6	11,600	20	7
		HIGH STRENGTH	9,600	18	6	17,100	26	9
			11,600	20	7	21,400	30	10
			13,400	22	8	25,800	34	12
			17,300	26	9	31,000	38	13
			19,900	29	10	35,300	42	14
	UNCRACKED	STANDARD	6,800	12	6	6,800	12	6
			8,500	14	6	12,400	18	6
		HIGH STRENGTH	9,600	16	6	17,100	23	8
			12,400	18	6	21,600	26	9
			14,500	20	7	26,700	30	10
			16,800	22	8	32,200	34	12
			19,900	25	9	35,300	36	12

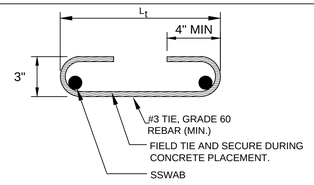
NOTES:
1. ANCHORAGE DESIGNS CONFORM TO ACI 318-11 APPENDIX D WITH NO SUPPLEMENTARY REINFORCEMENT FOR CRACKED OR UNCRACKED CONCRETE AS NOTED.
2. ANCHOR STRENGTH INDICATES REQUIRED GRADE OF SSWAB ANCHOR BOLT. STANDARD (ASTM F1554 GRADE 36) OR HIGH STRENGTH (HS) (ASTM A449).
3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C THROUGH F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC ANCHORAGE DESIGNS CONFORM TO ACI 318-11 SECTION D.3.3.4.
4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C.
5. FOUNDATION DIMENSIONS ARE FOR ANCHORAGE ONLY. FOUNDATION DESIGN (SIZE AND REINFORCEMENT) BY OTHERS. THE REGISTERED DESIGN PROFESSIONAL MAY SPECIFY ALTERNATE EMBEDMENT, FOOTING SIZE OR ANCHOR BOLT.
6. SEE 1/SSW1 AND 2/SSW1 FOR W AND de.

SSWAB TENSION ANCHORAGE SCHEDULE 3500/4500 PSI

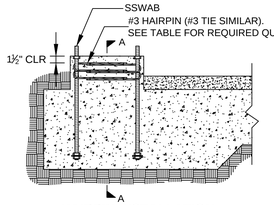
3



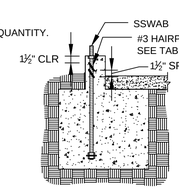
HAIRPIN SHEAR REINFORCEMENT



TIE SHEAR REINFORCEMENT



HAIRPIN INSTALLATION
(GARAGE CURB SHOWN. OTHER FOOTING TYPES SIMILAR.)



SECTION A-A

REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

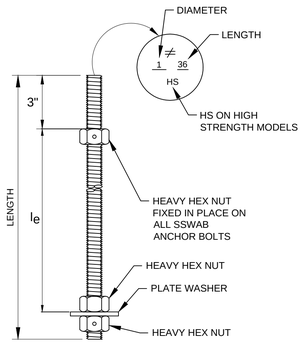
STEEL STRONG-WALL SHEAR ANCHORAGE

MODEL	SEISMIC[3] L_t OR L_{th} (in.)	SEISMIC[3] SHEAR REINFORCEMENT	SEISMIC[3] MIN. CURB / STEMWALL WIDTH (in.)	WIND[4] SHEAR REINFORCEMENT	WIND[4] MIN. CURB / STEMWALL WIDTH (in.)	WIND[4] ASD ALLOWABLE SHEAR LOAD V (lbs.)[6] 6" MIN CURB / STEMWALL UNCRACKED	6" MIN CURB / STEMWALL CRACKED	8" MIN CURB / STEMWALL UNCRACKED	8" MIN CURB / STEMWALL CRACKED
SSW12	9	(1) #3 TIE	6	NONE REQUIRED	-	1230	880	1440	1030
SSW15	12	(2) #3 TIES	6	NONE REQUIRED	-	1590	1135	1810	1295
SSW18	14	(1) #3 HAIRPIN	8[5]	(1) #3 HAIRPIN	6	HAIRPIN REINFORCEMENT ACHIEVES MAXIMUM ALLOWABLE SHEAR LOAD OF THE STEEL STRONG-WALL PANEL			
SSW21	15	(2) #3 HAIRPIN	8[5]	(1) #3 HAIRPIN	6				
SSW24	17	(2) #3 HAIRPIN	8[5]	(1) #3 HAIRPIN	6				

NOTES:
1. SHEAR ANCHORAGE DESIGNS CONFORM TO ACI 318-11 AND ASSUME MINIMUM f'c=2,500 PSI CONCRETE. SEE DETAILS 1/SSW1 TO 3/SSW1 FOR TENSION ANCHORAGE.
2. SHEAR REINFORCEMENT IS NOT REQUIRED FOR PANELS INSTALLED ON A WOOD FLOOR, INTERIOR FOUNDATION APPLICATIONS (PANEL INSTALLED AWAY FROM EDGE OF CONCRETE), OR BRACED WALL PANEL APPLICATIONS.
3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C THROUGH F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS.
4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B.
5. MINIMUM CURB/STEMWALL WIDTH IS 6" WHEN STANDARD STRENGTH SSWAB IS USED.
6. USE (1) #3 TIE FOR SSW12 AND SSW15 WHEN THE STEEL STRONG-WALL PANEL DESIGN SHEAR FORCE EXCEEDS THE TABULATED ANCHORAGE ALLOWABLE SHEAR LOAD.
7. CONCRETE EDGE DISTANCE FOR ANCHORS MUST COMPLY WITH ACI 318-11 D.8.2.

STEEL STRONG-WALL ANCHOR BOLT SHEAR ANCHORAGE

4

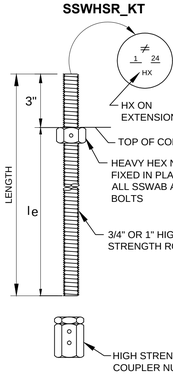


STEEL STRONG-WALL WIDTH	MODEL NO.	DIAMETER	LENGTH	l_e
12" MODEL	SSWAB3/4x24	3/4"	24"	19"
	SSWAB3/4x24HS	3/4"	24"	19"
	SSWAB3/4x30	3/4"	30"	25"
	SSWAB3/4x30HS	3/4"	30"	25"
	SSWAB3/4x36HS	3/4"	36"	31"
15", 18", 21 AND 24" MODELS	SSWAB1x24	1"	24"	19"
	SSWAB1x24HS	1"	24"	19"
	SSWAB1x30	1"	30"	25"
	SSWAB1x30HS	1"	30"	25"
	SSWAB1x36HS	1"	36"	31"

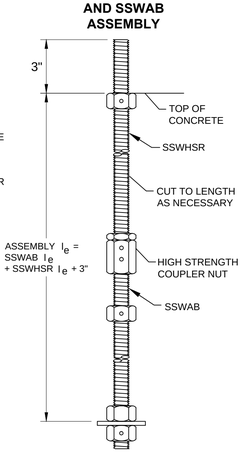
SSW ANCHOR BOLTS

5

SSWHSR_KT



SSWHSR AND SSWAB ASSEMBLY

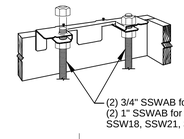


SSW WIDTH	MODEL NO.	DIAMETER	TOTAL LENGTH	l_e
12" MODEL	SSWHSR3/4-2KT	3/4"	24"	21"
	SSWHSR3/4-3KT	3/4"	36"	33"
15", 18", 21 AND 24" MODELS	SSWHSR1-2KT	1"	24"	21"
	SSWHSR1-3KT	1"	36"	33"

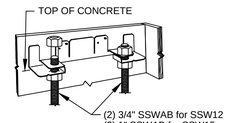
SSW ANCHOR BOLT EXTENSION

6

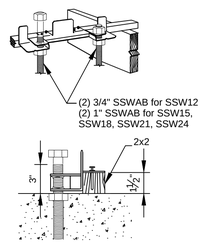
SSWT EXTERIOR INSTALLATION



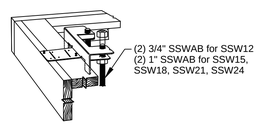
SSWTPF PANEL FORM INSTALLATION



SSWT INTERIOR INSTALLATION



SSWTBL BRICK LEDGE INSTALLATION



SSW ANCHOR BOLT TEMPLATES

7

NO.	DATE	REVISIONS
1	9/21/2009	2006 IBC REVISIONS
2	4/16/2014	2012 IBC REVISIONS

SIMPSON STRONG-TIE COMPANY, INC.
HOME OFFICE: POSITAS, BLVD.
5956 W. LAS POSITAS, BLVD.
PLEASANTON, CA 94588
TEL: (800) 999-5099

SIMPSON Strong-Tie THERE IS NO EQUAL

STEEL STRONG-WALL
ANCHORAGE DETAILS
ENGINEERED DESIGNS

SIMPSON Strong-Tie THERE IS NO EQUAL

NAME	
DATE	4-16-2014
SCALE	N.T.S.
CHECKED	
SHEET	SSW1
	OF SHEETS
JOB NO.	