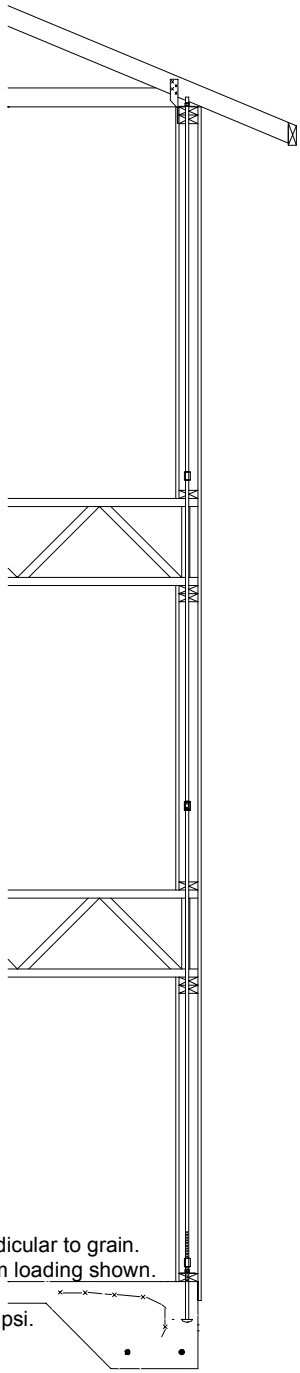
TIE MAX
QUICK REFERENCE



CONCRETE DESIGN VALUES

	MINIMUM EMBED (in.)	MIN. EDGE DISTANCE (in.)	TIE MAX ROD (in. Dia.)	ALLOWABLE UPLIFT	ALLOWABLE SHEAR (F)	NOTES
5/8" TIEMAX BOLT	7	2	1/2	5585 lbs.	5343 lbs.	A,B,D
	7	7	1/2	6023 lbs.	5343 lbs.	A,B,D,
	7	7	5/8	8377 lbs.	5343 lbs.	A,B,D
5/8" TIE MAX STUD	7	2	1/2	3349 lbs.	3468 lbs.	A,C,D,E
	7	7	1/2	4943 lbs.	3468 lbs.	A,C,D,E

TABLE 1-A

A. Capacity may be limited by top plate washer, see Tables 2-A or 2-B
B. Safety factor 3.0 per 1997 SBC
C. Power Bond Epoxy per manufacturer's recommendations
D. Concrete strength: Fc = 2500 psi minimum
E. Safety Factor 4.0
F. TIE MAX'S allowable Shear at bottom plate with washer and nut in place per 1997 SBC.

REINFORCED MASONRY BOND BEAM

	EMBED (in.)	DISTANCE (in.)	TIE MAX ROD (in. Dia.)	ALLOWABLE UPLIFT	ALLOWABLE SHEAR	NOTES
5/8" TIE MAX BOLT	7	2	1/2	1998 lbs.	-	A,B,C

TABLE 1-B

A. Reinforced Masonry Bond Beam with (1) #5 rebar minimum
B. Grout strength: 2000-psi minimum
C. Safety Factor 5.0 per ACI 530

TM TOP PLATE WASHERS, SYP

TOP PLATE WASHER	ALLOWABLE UPLIFT
2x2x1/8	2260 lbs.
2.5x2.5x3/16	3930 lbs.
3x3x1/4	5595 lbs.
3x3.5x1/4	6545 lbs.

TABLE 2-A

1. Loads controlled by wood bearing perpendicular to grain Fiber deformation of 0.04 inch at maximum loading shown Per NDS-1997.
2. Top plate SYP#2, minimum with Fc > 565 psi

TM TOP PLATE WASHER, SPF

TOP PLATE WASHER	ALLOWABLE UPLIFT
2x2x1/8	1513 lbs.
2.5x2.5x3/16	2330 lbs.
3x3x1/4	3315 lbs.
3x3.5x1/4	3880 lbs.

Table 2-B

1. Loads controlled by wood bearing perpendicular to grain. Fiber deformation of 0.04 inch at maximum loading shown. Per NDS-1997.
2. Top plate SPF#2, minimum with Fc > 335 psi.

GENERAL SPACING, SYP
(use 2.5x2.5x3/16 washer)

SPACING	Maximum Truss Uplift	
(ft.)	(plf)	24"o.c.
4	950	1900
6	595	1190
8	465	930

Table 3-A

General guide based on:
1. #2 Southern Yellow Pine Top Plate with min 7/16" OSB sheathing on one side nailed per 1997 SBC.
2. Allowable shear for TIE MAX is 4161 lbs at uplift and corresponding spacing. Allowable shear for reduced uplifts may be increased in accordance with interaction equations.
3. Uplift shall not exceed values of Table 1-A.

GENERAL SPACING, SPF
(use 2.5x2.5x3/16 washer)

SPACING	Maximum Truss Uplift	
(ft.)	(plf)	24"o.c.
4	527	1054
6	345	690
8	281	562

Table 3-B

General guide based on:
1. #2 Spruce Pine Fir Top Plate with minimum 7/16" OSB sheathing on one side nailed per 1997 SBC.
2. Allowable shear for TIE MAX is 4161 lbs at uplift and corresponding spacing. Allowable shear for reduced uplifts may be increased in accordance with interaction equations.
3. Uplift shall not exceed values of Table 1-A.

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LISTED SBCCI PST & ESI No. 9916B

The **TIE MAX** *System*

TIE MAX spacing	Nail Size	Nail spacing	Maximum Truss uplift*			
			Southern Yellow Pine		Spruce Pine Fir	
			(plf)	24"o.c.	(plf)	24"o.c.
4	6d	4	1075	2150	610	1220
4	8d	4	1170	2340	684	1368
4	10d	4	1255	2510	747	1495
4	**6d**	**6**	**950**	**1900**	**527**	**1054**
4	8d	6	1020	2040	577	1153
4	10d	6	1075	2150	619	1238
6	6d	4	710	1420	428	856
6	8d	4	805	1610	502	1003
6	10d	4	890	1780	565	1130
6	**6d**	**6**	**595**	**1190**	**345**	**690**
6	8d	6	655	1310	394	789
6	10d	6	710	1420	437	873
8	6d	4	585	1170	364	728
8	8d	4	680	1360	438	876
8	10d	4	760	1520	501	1002
8	**6d**	**6**	**465**	**930**	**281**	**562**
8	8d	6	530	1060	331	661
8	10d	6	585	1170	373	746

* values calculated based on the use of common wire nails.

Underlined values are from the TIE MAX Quick Reference Chart

Interior Wall Chart (No Sheathing)				
TIE MAX spacing	**Southern Yellow Pine**		**Spruce Pine Fir**	
4	**656**	**1313**	**328**	**656**
5	420	840	210	420
6	**292**	**583**	**146**	**292**
7	214	428	107	214
8	**164**	**328**	**82**	**164**