

MATERIALS

8" precast lintel = 3500 psi prestressed lintel = 6000 psi
roul per ASTM C476 fc = 3000
w/ maximum 3/8 inch
regate & 8 to 11 inch slump
concrete Masonry Units (CMU) per
M C90 minimum net area
pressive strength = 1900 psi
ebar per ASTM A615 grade 60
restressing strand per ASTM A416
of 270 low relaxation
ortar per ASTM C270 type M or S

GENERAL NOTES

Provide full mortar bed and head joints.
shore filled lintels as required.
Installation of lintel must comply with the architectural
or structural documents.
U-Intels are manufactured with 5 1/2" long notches at
ends to accommodate vertical cell reinforcing and grouting.
All lintels meet or exceed L360 deflection, except lintels
1'-4" and longer with a nominal height of 8" meet or
exceed L180 deflection.
Bottom field added rebar to be located at the bottom
of the lintel cavity.
1/32" diameter wire stirrups are welded to the
stem steel for mechanical anchorage.
Cast-in-place concrete may be provided in composite lintel
lieu of concrete masonry units.

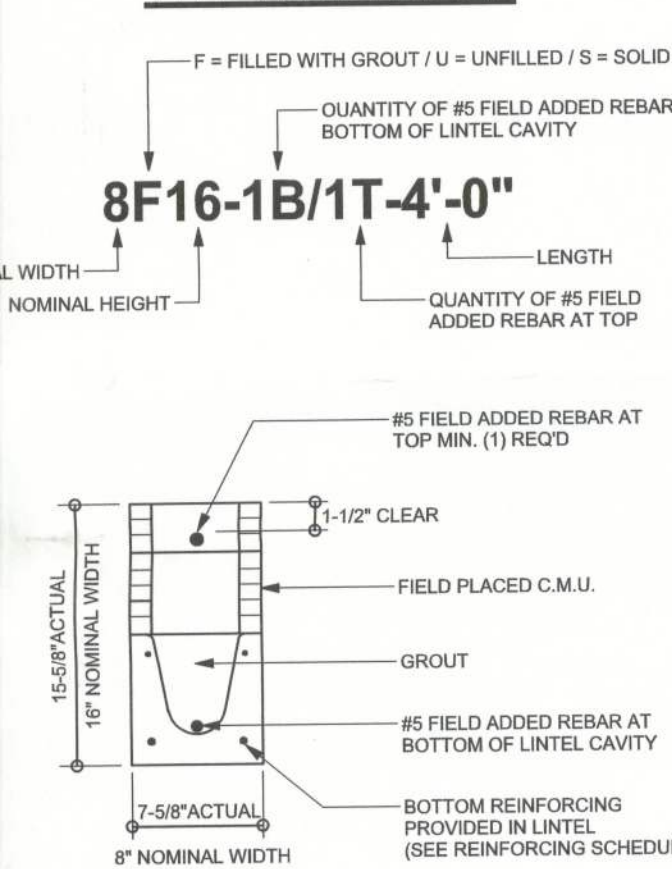
Safe load rating based on rational design analysis per
ACI 318 and ACI 530
Product Approvals: Miami-Dade County, Florida No.
0-0906.05

The exterior surface of lintels installed in exterior concrete
masonry walls shall have a coating of stucco applied in
accordance with ASTM C-290 or other approved coating.
Lintels loaded simultaneously with vertical (gravity or
plumb) and horizontal (lateral) loads should be checked
for the combined loading with the following equation:

Applied vertical load + Applied horizontal load ≤ 1.0
Safe vertical load Safe horizontal load

Additional lateral load capacity can be
obtained by the designer by providing additional reinforced
concrete masonry above the lintel. See detail at right:

TYPE DESIGNATION



SAFE LOAD TABLE NOTES

1. All values based on minimum 4 inch nominal bearing.
2. Exception: Safe loads for unfilled lintels must be reduced by 20% if bearing length is less than 6 1/2 inches.
3. N.R. = Not Rated
4. Safe loads are superimposed allowable loads.
5. All safe loads in units of pounds per linear foot.
6. One #7 rebar may be substituted for two #5 rebars in 8" lintels only
7. The designer may evaluate concentrated loads from the safe load tables by calculating the maximum resisting moment and shear at 6" away from face of support.
8. For composite lintel heights not shown, use safe load from next lower height shown.
9. For lintel lengths not shown, use safe load from next longest lintel shown
10. All safe loads in units of pounds per linear foot.
11. The number in the the parenthesis indicates the percent reduction for grade 40 field added rebar.
12. Example 7'-6" lintel type 8F32-1B safe gravity load = 6472(0.0469)/(15)H0.0781; w/ 15% reduction 6472 ⇒ (.85) = 5501 plf

SAFE GRAVITY LOADS FOR 8" PRECAST & PRESTRESSED U-LINTELS											
LENGTH	TYPE	8U8	SAFE LOAD - POUNDS PER LINEAR FOOT								
			8F9-0B	8F12-0B	8F16-0B	8F20-0B	8F24-0B	8F28-0B	8F32-0B		
2'-10" (34")	PRECAST	2231	3069	4605	6113	7547	8974	10394	11809		
3'-6" (42")	PRECAST	2231	3069	4605	6113	7547	8974	10394	11809		
4'-0" (48")	PRECAST	1966	2963	4605	6113	7547	8974	10394	11809		
4'-6" (54")	PRECAST	1599	1969	2110	2931	3753	4576	5400	6224		
5'-4" (64")	PRECAST	1217	1663	1900	3365	754(19)	8732(19)	10127(19)			
5'-10" (70")	PRECAST	1062	1451	2622	4360	7189(19)	8038(19)	9171(19)	10329(20)		
6'-8" (78")	PRECAST	908	1238	2177	3480	5301	7707	9383	10961		
7'-6" (90")	PRECAST	743	1011	1729	2632	4205	6698	8391	10065		
9'-4" (112")	PRECAST	554	752	1245	1943	2964	4485	6006	7527		
10'-6" (126")	PRECAST	475	643	1052	1533	2093	2781	3643(19)	4754(40)		
11'-4" (136")	PRECAST	362	582	945	1366	1846	2423	3127	4006		
12'-0" (144")	PRECAST	337	540	873	1254	1684	2193	2805	3552		
13'-4" (160")	PRECAST	296	471	755	1075	1428	1838	2316	2883		
14'-0" (168")	PRECAST	279	424	706	1002	1326	1697	2127	2630		
14'-8" (176")	PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR		
15'-4" (184")	PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR		
17'-4" (208")	PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR		
19'-4" (232")	PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR		
21'-4" (256")	PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR		
22'-0" (264")	PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR		
24'-0" (288")	PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR		

SAFE UPLIFT LOADS FOR 8" PRECAST & PRESTRESSED U-LINTELS											
LENGTH	TYPE	8U8	SAFE LOAD - POUNDS PER LINEAR FOOT								
			8F9-1T	8F12-1T	8F16-1T	8F20-1T	8F24-1T	8F28-1T	8F32-1T		
2'-10" (34")	PRECAST	1972	3173	4460	5747	7034	8321	9608			
3'-6" (42")	PRECAST	1569	2524	3547	4569	5591	6613	7636			
4'-0" (48")	PRECAST	1363	2192	3079	3966	4853	5740	6627			
4'-6" (54")	PRECAST	1207	1940	2724	3508	4292	5077	5861			
5'-4" (64")	PRECAST	1016	1632	2290	2949	3607	4265	4924			
5'-10" (70")	PRECAST	909	1492	2093	2694	3295	3897	4498			
6'-8" (78")	PRECAST	835 (12)	1340	1880	2419	2959	3498	4038			
7'-6" (90")	PRECAST	727 (12)	1166	1634	2102	2571	3039	3508			
9'-4" (112")	PRECAST	591	880	1133 (10)	1471 (10)	1811 (10)	2152 (10)	2494 (10)			
10'-6" (126")	PRECAST	530	856	1113 (10)	1451 (10)	1791 (10)	2132 (10)	2473 (10)			
11'-4" (136")	PRECAST	474	788	1034 (10)	1372 (10)	1710 (10)	2048 (10)	2386 (10)			
12'-0" (144")	PRECAST	470	788	1034 (10)	1372 (10)	1710 (10)	2048 (10)	2386 (10)			
13'-4" (160")	PRECAST	418 (10)	733	985 (10)	1232 (10)	1479 (10)	1726 (10)	1973 (10)			
14'-0" (168")	PRECAST	428	655	908 (10)	1155 (10)	1402 (10)	1649 (10)	1896 (10)			
14'-8" (176")	PRESTRESSED	230	323	519 (10)	671 (10)	823 (10)	976 (10)	1129 (10)			
15'-4" (184")	PRESTRESSED	230	364	609	897	1224 (10)	1562 (10)	1901 (10)			
17'-4" (208")	PRESTRESSED	187	255	404 (10)	550 (10)	697 (10)	844 (10)	991 (10)			
19'-4" (232")	PRESTRESSED	162	222	347 (10)	446 (10)	545 (10)	644 (10)	746 (10)			
21'-4" (256")	PRESTRESSED	142	198	306 (10)	393 (10)	480 (10)	567 (10)	654 (10)			
22'-0" (264")	PRESTRESSED	137	192	295 (10)	378 (10)	461 (10)	545 (10)	629 (10)			
24'-0" (288")	PRESTRESSED	124	175	267 (10)	341 (10)	416 (10)	491 (10)	566 (10)			

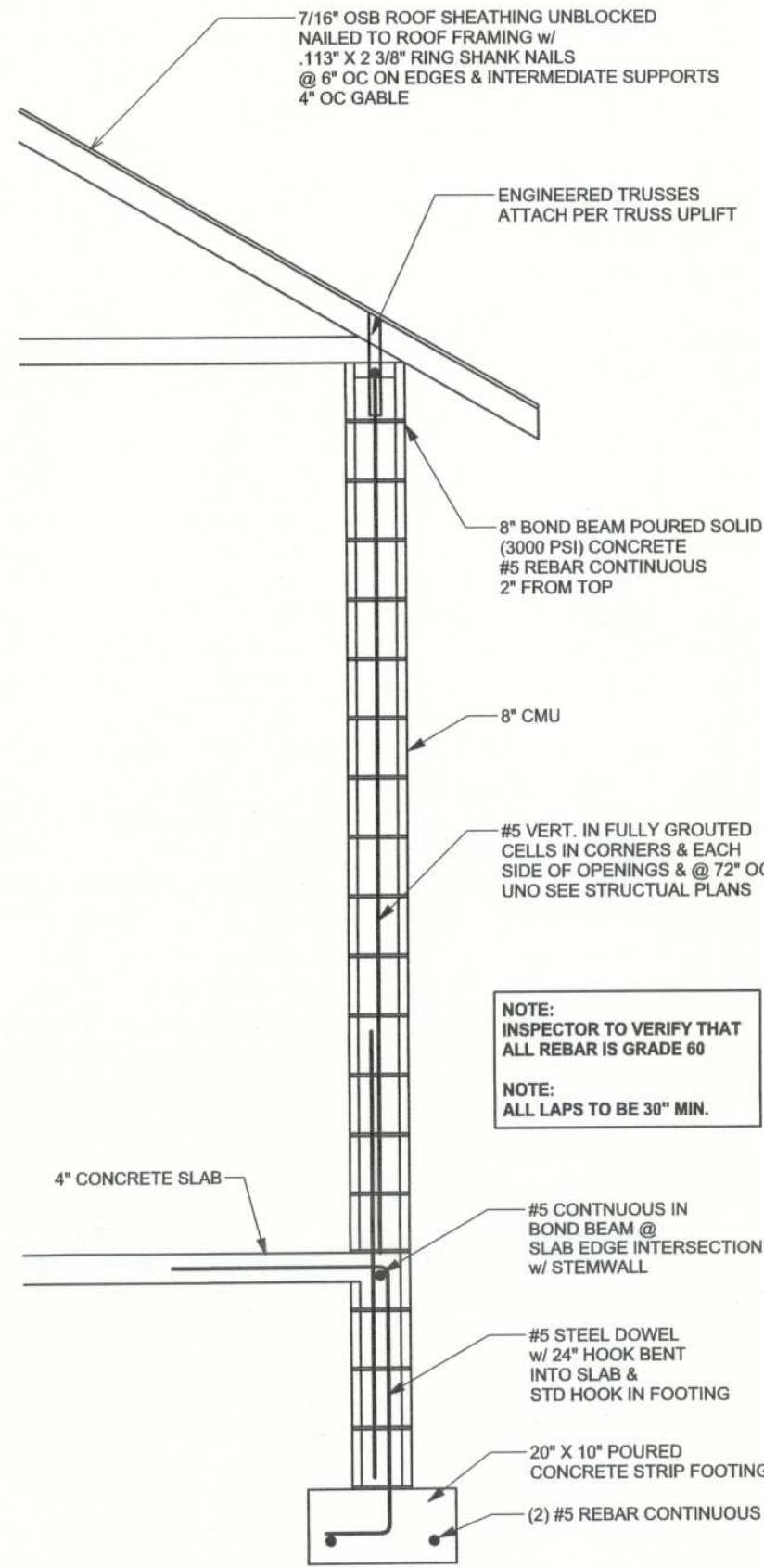
SAFE GRAVITY LOADS FOR 8" PRECAST w/ 2" RECESS DOOR U-LINTELS											
LENGTH	TYPE	8U8	SAFE LOAD - POUNDS PER LINEAR FOOT								
			8F9-0B	8F12-0B	8F16-0B	8F20-0B	8F24-0B	8F28-0B	8F32-0B		
4'-4" (52")	PRECAST	1635	1749	3355	5290	837	1296	1470			
4'-6" (54")	PRECAST	1494	1756	3699	5206	6639	8060	9479	10893		
5'-8" (68")	PRECAST	866	920	1770	1716	2277	2639	3402	3966		
5'-10" (70")	PRECAST	810	1167	2481	4567	6389	8090	9717	10311		
6'-8" (80")	PRECAST	797	860	1653	1600	2124	2646	3174	3700		
7'-6" (90")	PRECAST	669	755	1490	2459	3776	5743	7239	8623		
9'-8" (116")	PRECAST	411	466	999	1558	2253	3128	4091	5146		

SAFE UPLIFT LOADS FOR 8" PRECAST w/ 2" RECESS DOOR U-LINTELS											
LENGTH	TYPE	8U8	SAFE LOAD - POUNDS PER LINEAR FOOT								
			8F9-1T	8F12-1T	8F16-1T	8F20-1T	8F24-1T	8F28-1T	8F32-1T		
4'-4" (52")	PRECAST	805	1748	2635	3522	4409	5296	6183			
4'-6" (54")	PRECAST	805	1748	2635	3522	4409	5296	6183			
5'-8" (68")	PRECAST	675	867	1675	2525	3374	4224	5074	5924		
5'-10" (70")	PRECAST	675	1301	1960	2618	3277	3935	4594			
6'-8" (80")	PRECAST	655	1282	1900	2538	3176	3815	4453			
7'-6" (90")	PRECAST	570	1097	1651	2204	2758	3312	3865			
9'-8" (116")	PRECAST	395	589	1135	1514	1893	2272	2652			

EXTERIOR WALL STUD TABLE FOR SPF #2 STUDS

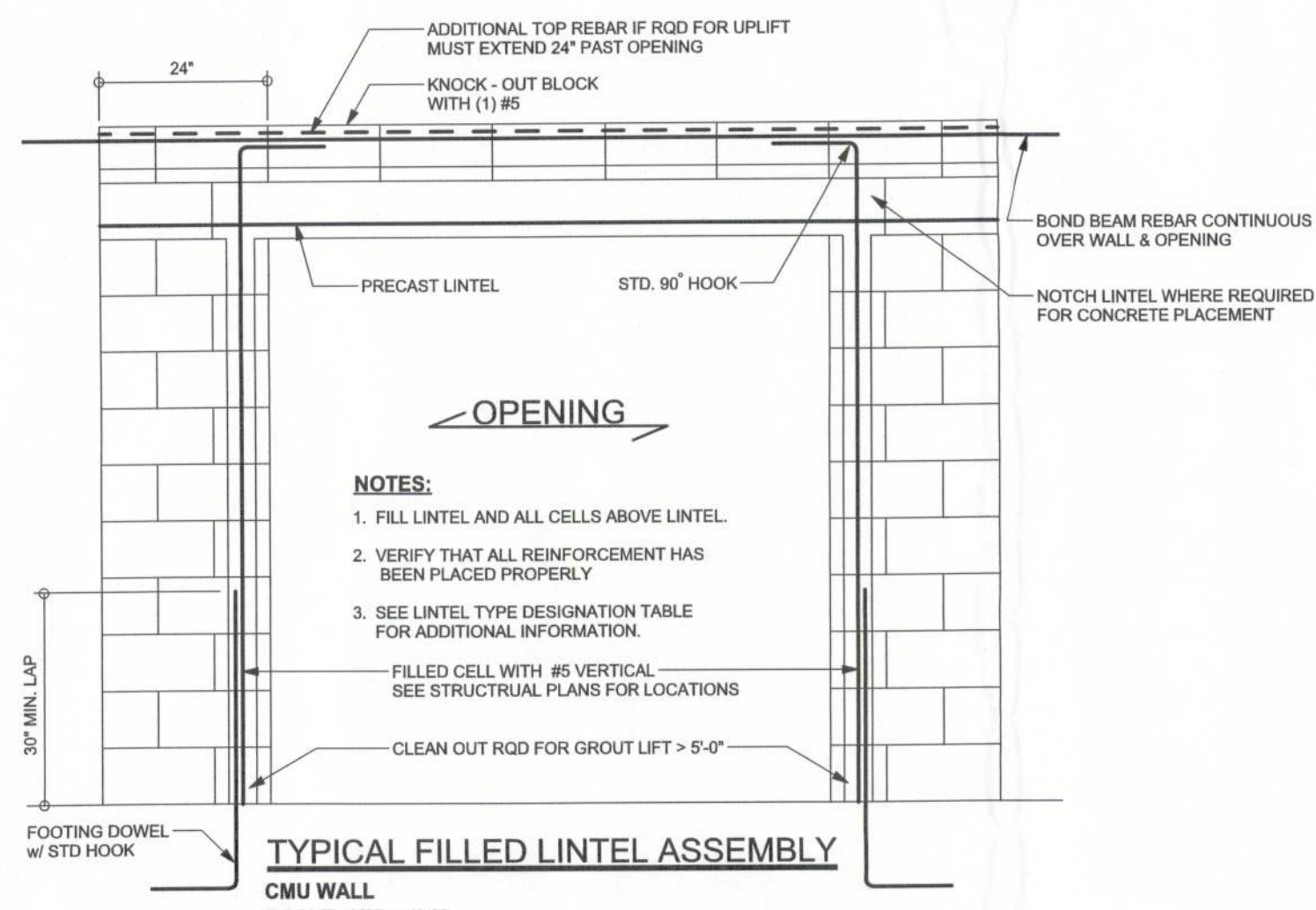
(1) 2x4 @ 16" OC	TO 10'-6" STUD HEIGHT
(1) 2x4 @ 12" OC	TO 11'-7" STUD HEIGHT
(1) 2x6 @ 16" OC	TO 16'-10" STUD HEIGHT
(1) 2x6 @ 12" OC	TO 18'-7" STUD HEIGHT

THIS STUD HEIGHT TABLE IS PER WFCM 2001, TABLE 3.20B, EXTERIOR LOAD BEARING & NON LOAD BEARING STUD LENGTHS RESISTING INTERIOR ZONE WINDLOADS 110 MPH EXPOSURE C. STUD SPACINGS SHALL BE MULTIPLIED BY 0.85 FOR FRAMING LOCATED WITHIN 4 FEET OF CORNERS FOR END ZONE LOADING. EXAMPLE 16" O.C. x 0.85 = 13.6" O.C.



EXTERIOR WALL ONE STORY CMU

CMU SCALE: 1/2" = 1'-0"



TYPICAL FILLED LINTEL ASSEMBLY CMU WALL SCALE: 1/2" = 1'-0"

GRADE & SPECIES TABLE

		Fb (psi)	E (10 ⁶ psi)
2x8	SYP #2	1200	1.6
2x10	SYP #2	1050	1.6
2x12	SYP #2	975	1.6
QLB	24F-V3 SP	2400	1.8
LSL	TIMBERSTRAND	1700	1.7
LVL	MICROLAM	2900	2.0
PSL	PARALAM	2900	2.0

DOOR & WINDOW BUCK ATTACHMENT

TAPCON IN FACE OF CMU
2 1/2" MIN. EDGE DISTANCE
1 1/4" MIN. EMBEDMENT
3" MIN. SPACING

WINDOWS & DOORS UP TO 6'X8'

3/16" TAPCONS @ 14" O.C.
1/4" TAPCONS @ 21" O.C.

WINDOWS & DOORS UP TO 8'X12'

3/16" TAPCONS @ 9" O.C.
1/4" TAPCONS @ 21" O.C.

SLIDERS UP TO 8'X20'W

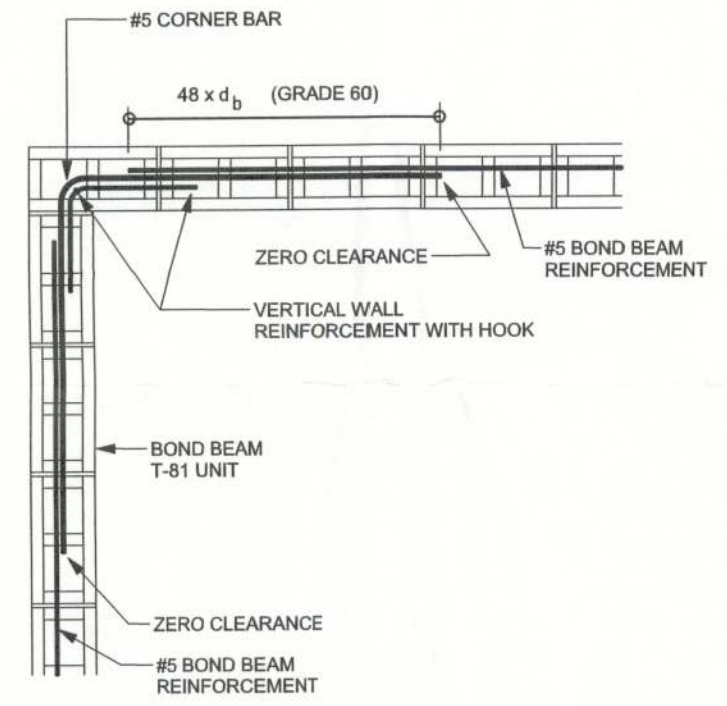
3/16" TAPCONS @ 7" O.C.
1/4" TAPCONS @ 10" O.C.

GARAGE DOOR UP TO 10'W

(2) 3/16" TAPCONS & 9" O.C.
(2) 1/4" TAPCONS & 14" O.C.

GARAGE DOOR UP TO 18'W

(2) 3/16" TAPCONS & 4" O.C.
(2) 1/4" TAPCONS & 7" O.C.



TYPICAL BOND BEAM CORNER

CMU SCALE: 1/2" = 1'-0"

WOOD ANCHOR TABLE

OBTAIN UPLIFT REQUIREMENTS FROM TRUSS MANUFACTURER'S ENGINEERING

UPLIFT LBS. SYP	UPLIFT LBS. SPF	TRUSS CONNECTOR*	TO PLATES	TO RAFTER/TRUSS	TO STUDS
< 420	< 245	H5A	3-8d	3-8d	
< 455	< 265	H5	4-8d	4-8d	
< 380	< 235	H4	4-8d	4-8d	
< 455	< 320	H3	4-8d	4-8d	
< 415	< 365	H2.5	5-8d	5-8d	
< 600	< 535	H2.5A	5-8d	5-8d	
< 950	< 820	H6	8-8d	8-8d	
< 745	< 565	H8	5-10d, 1 1/2"	5-10d, 1 1/2"	
< 1465	< 1050	H14-1	13-8d	12-8d, 1 1/2"	
< 1465	< 1050	H14-2	15-8d	12-8d, 1 1/2"	
< 990	< 850	H10-1	8-8d, 1 1/2"	8-8d, 1 1/2"	
< 760	< 655	H10-2	6-10d	6-10d	
< 1470	< 1265	H16-1	10-10d, 1 1/2"	2-10d, 1 1/2"	
< 1470	< 1265	H16-2	10-10d, 1 1/2"	2-10d, 1 1/2"	
< 1000	< 860	MTS24C	7-10d 1 1/2"	7-10d 1 1/2"	
< 1450	< 1245	HTS24	12-12d 1 1/2"	12-12d 1 1/2"	
< 2900	< 2490	2 - HTS24			
< 2050	< 1785	LG12	14 - 16d	14 - 16d	
		HEAVY GIRDER TIEDOWNS*			TO FOUNDATION
< 3965	< 3330	MG1		22 - 10d	1-5/8" THREADED ROD 12" EMBEDMENT
< 10980	< 6485	HGT-2		16 - 10d	2-5/8" THREADED ROD 12" EMBEDMENT
< 10530	< 9035	HGT-3		16 - 10d	2-5/8" THREADED ROD 12" EMBEDMENT
< 9250	< 9250	HGT-4		16 - 10d	2-5/8" THREADED ROD 12" EMBEDMENT
		STUD STRAP CONNECTOR*			TO STUDS
< 435	< 435	SSP DOUBLE TOP PLATE	3 - 10d		4 - 10d
< 455	< 420	SSP SINGLE SILL PLATE	1 - 10d		4 - 10d
< 825	< 825	DSP DOUBLE TOP PLATE	6 - 10d		8 - 10d
< 825	< 600	DSP SINGLE SILL PLATE	2 - 10d		8 - 10d
< 885	< 760	SP4			6-10d, 1 1/2"
< 1240	< 1065	SPH4			10-10d, 1 1/2"
< 885	< 760	SP6			6-10d, 1 1/2"
< 1240	< 1065	SPH6			10-10d, 1 1/2"
< 1235	< 1165	LST1A1	14 - 10d		
< 1235	< 1235	LST2A1	16 - 10d		
< 1705	< 1030	CS20	18-4d		
< 1030	< 1705	CS16	28-4d		
		STUD ANCHORS*	TO STUDS		TO FOUNDATION
< 1350	< 1305	LTT19	8-16d		1/2" AB
< 2310	< 2310	LTT31	18-10d, 1 1/2"		1/2" AB
< 2775	< 2570	HD2A	2-5/8" BOLTS		5/8" AB
< 4175	< 3695	HTT16	18 - 16d		5/8" AB
< 1400	< 1400	PAHD42	16 - 16d		
< 3335	< 3335	HPAHD22	16 - 16d		
< 2200	< 2200	ABU44	12 - 16d		1/2" AB
< 2300	< 2300	ABU66	12 - 16d		1/2" AB
< 2320	< 2320	ABU88	18 - 16d		2-5/8" AB