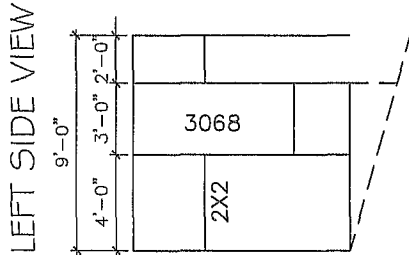
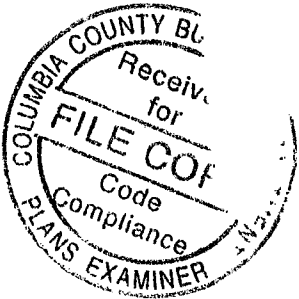


GENERAL NOTES FOR ~ SCREEN ENCLOSURES

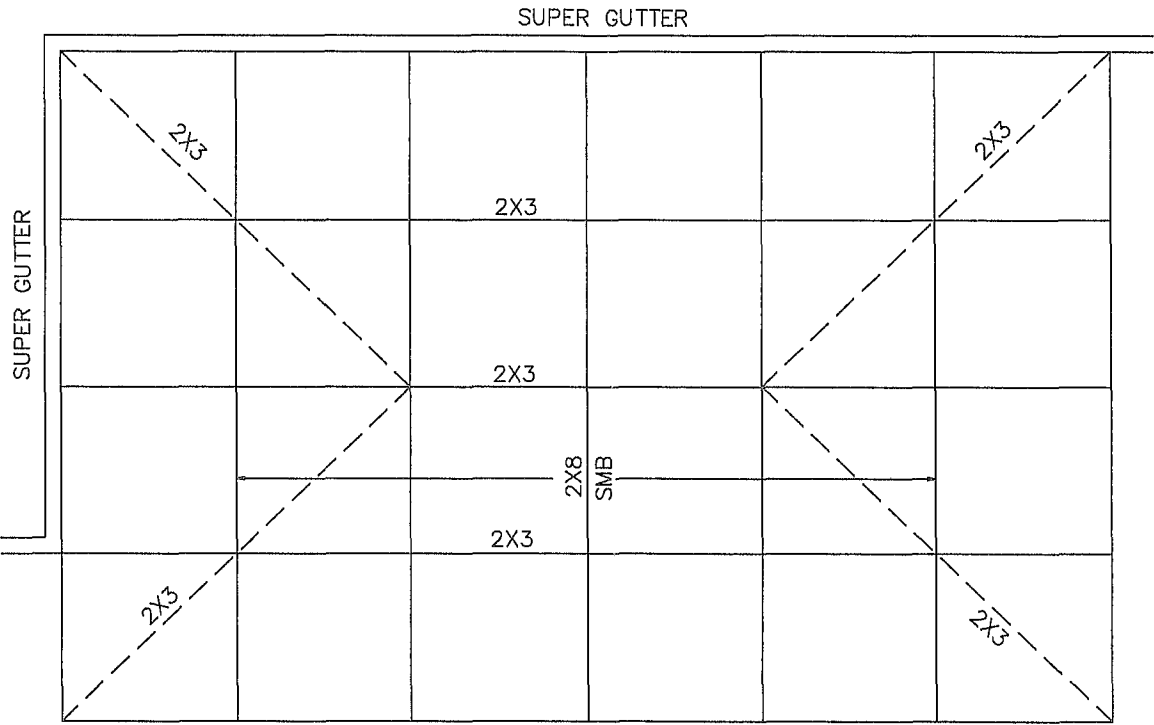
- 1) Design pressures taken from Table 2002.4, 2010 Aluminum Association of Florida Design Guide (mean roof height up to 30ft)
- 2) Extrusions assumed to be alloy 6005T5 or 6061T6 unless noted otherwise.
- 3) Drawings and Details are typically schematic and should not be scaled.
- 4) "Approved Masonry Fastener" for connection to foundation must meet the following specifications for 2½" embedment into 2,500 psi (minimum) concrete:
 - a. 3/8" Ø: allowable tension 1,055 #, shear 1,716 #
 - b. 1/4" Ø: allowable tension 567 #, shear 394 #
- 5) For mansard beams, connection at host end of beams (i.e. fascia/gutter) height must be equal or greater than the eave height of the enclosure.

CARRIER BEAMS IN SCREEN ENCLOSURES:

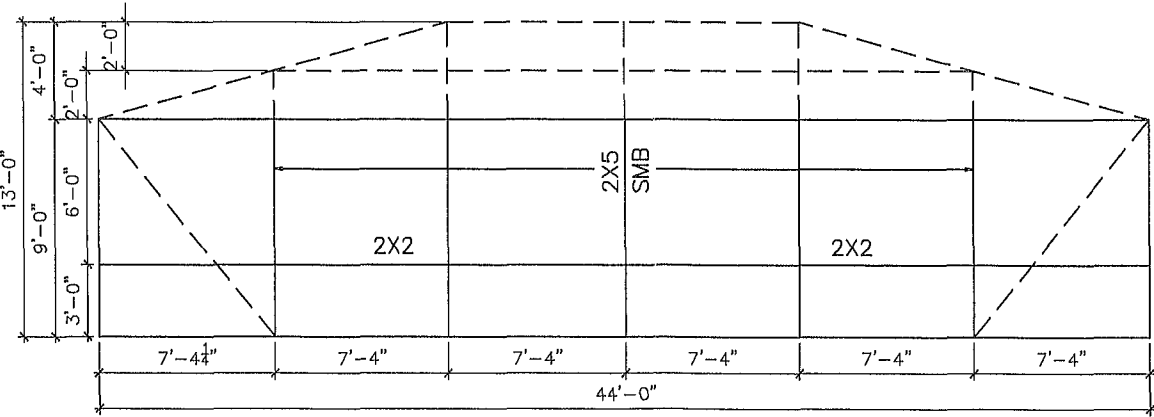
- 1) Carrier Beams (Refer to schematic diagrams for limitations) must be horizontal and may not exceed a single span of 16 ft.
 - 2) At least one end of carrier beam must be supported by the host structure.
 - 4) Connect 2x8 SMB post/column at foundation using Details provided
- Concrete Cover: For foundations, minimum concrete over reinforcing bars shall be 3 inches in foundations where the concrete is cast against and permanently in contact with the earth. For No. 5 and smaller bars 1½" where concrete is formed and will be exposed to the earth or weather. Where concrete is not exposed to weather, the minimum concrete cover for reinforcing shall be 1½ inches regardless of bar size.



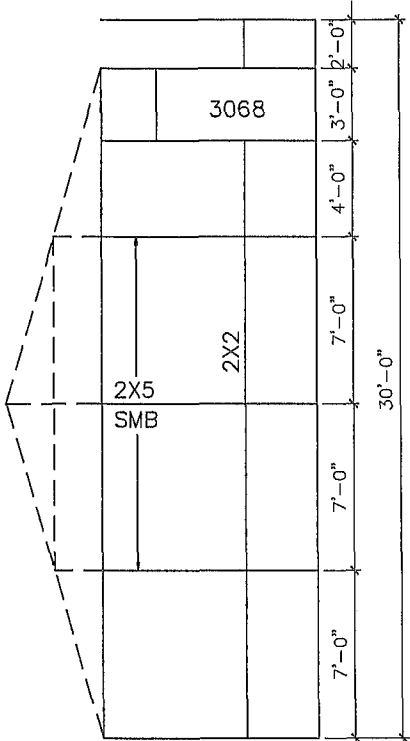
2X3 MEMBERS ARE
.050 HOLLOW
6005T5 OR 6061T6
ALUMINUM



PLAN VIEW

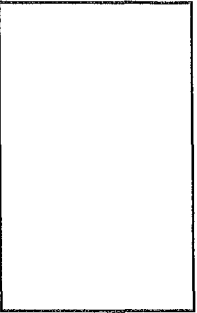


FRONT VIEW



RIGHT SIDE VIEW

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The Pyne Residence
368 Southwest Sapling Glen
Lake City, Florida

John F. Kilgaur III, P.E.
Reg. No. 78884
Date: 4/22/13

John F. Kilgaur III, P.E.
Reg. No. 78884
Date: 4/22/13

DRAWN BY: JFK
MODEL: SCREEN
MASTER NO.: MA-ALUM-1
SCALE: N.T.S.
FILE DATE: 1-20-2012
DATE DRAWN: 05-15-2013
SHEET: C1
OF 6 SHEETS
FILE NO.: MA-65-2014

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DESIGN PRESSURES MODIFIED March 15th 2012 for 2010 FBC
Mansard, Gable or Horizontal Roof Beam & Post CALCULATOR

(2D Calculator based upon Roof Up and Wall In for Beam Design

Contractor Name: Merritt Aluminum
Owner Name: The Pyne Residence
Site Address: 362 SW Sapling Glen, Lake City, FL

Date: 28-Apr-14

Value
Value

FOR WIND ZONE: 120
SCREEN DENSITY: 18/14
mph in Exposure Category: B

Design Pressures	
Windward Wall:	10.6
Leeward Wall:	8.2
Roof:	3.3

BEAM SPAN: 28 ft
Eave Height: 9 ft
Rise: 4 ft
Beam/Post Spacing: 7.3 ft

(NOTE: THIS ANALYSIS IS BASED UPON ALLOWABLE STRESS DESIGN)

Load on the column: 77.4 lbs/ft
Horizontal Load on Rise: 77.4 lbs/ft on Windward Side
(Leeward): 59.6 lbs/ft on Leeward Side
Wall pressure Horizontal Reaction at Shoulder: 503.4 lbs
Horizontal Reaction at Shoulder (Mansard Leg): 154.9 lbs
(Horizontal) Reaction at Splice: 658.3 lbs (compression to plateau portion of beam)
Load on Beam: 23.8 lbs/ft

Beam Moment 1 (uniform load): 28.0 in-kips
Additional Moment (from shoulder): 24.2 in-kips (eccentric load from shoulder)
Additional Moment (Windward sloping beam): 7.4 in-kips
Additional Moment (Leeward sloping beam): 5.7 in-kips

		Compression (lbs)
Total Beam Moment (Mmax):	65.3 in-kips	658
Column Bending Moment:	9.4 in-kips	334

Members Sizes Suggested
(by Bending Only) 6005T5
2X8 SMB
2X5 SMB

Member SELECTOR:		Inches	Deflection			Interaction Ratio
		Deflection	RATIO	f _a factor	f _b factor	Total
SELECT BEAM:	2X8 SMB	4.59	L / 73	15.0%	98.00%	113.01%
SELECT POSTS:	2X5 SMB	0.31	L / 348	12.9%	67.71%	80.62%

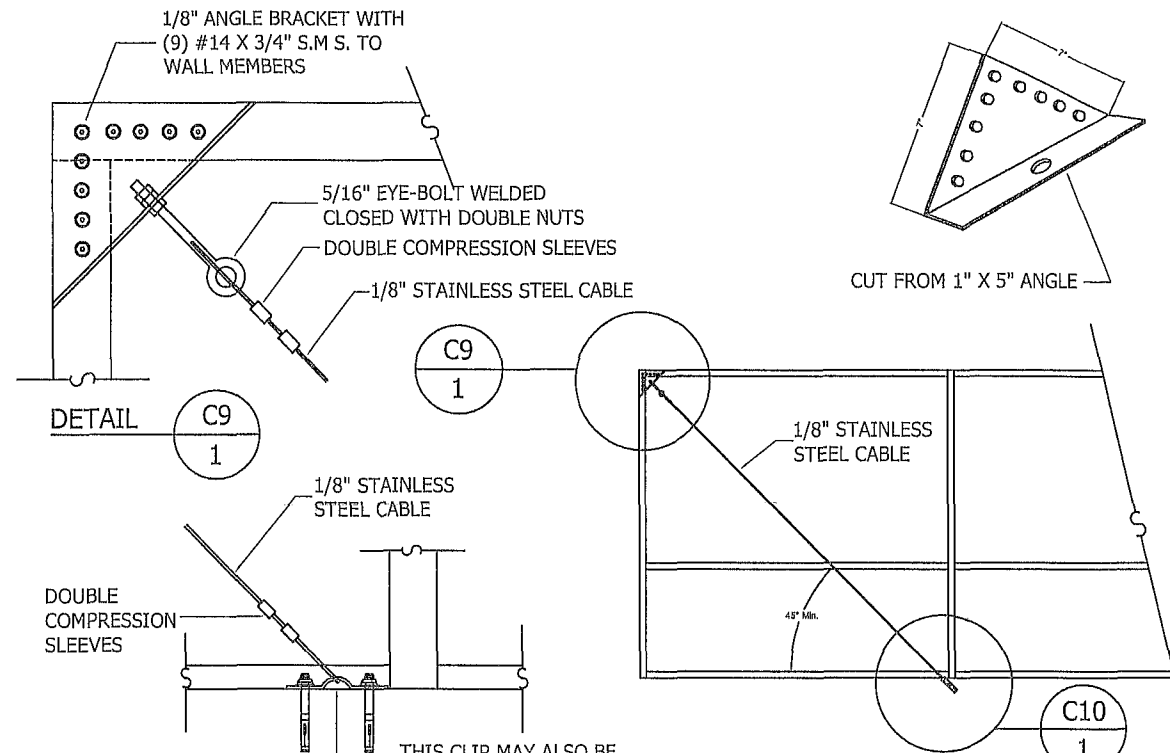
Merritt Aluminum, Inc.
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The Pyne Residence
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John F. Kilduff III, P.E.
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05-15-2013
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61
OF 6 SHEETS
FILE NO.
MA-65-2014



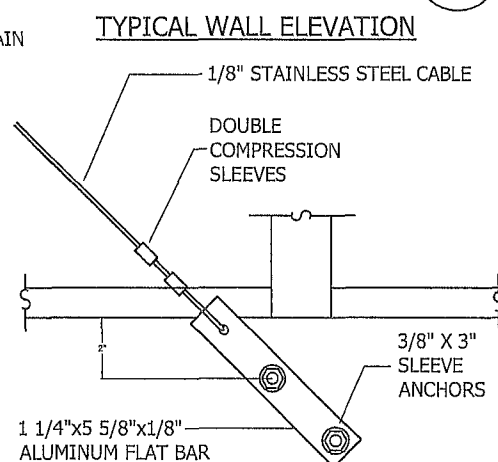
1/8" X 3/4" X 3" A.S.T.M. A-36 STAINLESS STEEL CLIP WITH 2-3/8" X 3" SLEEVE ANCHORS TO CONCRETE DECK

THIS CLIP MAY ALSO BE USED ON SIDE OF CONCRETE SLAB. MAINTAIN 2" MIN. EDGE DISTANCE

DETAIL (ALTERNATIVE 1) C10 1

**EACH WALL NOT LATERALLY SUPPORTED BY HOST STRUCTURE MUST BE CABLED - TABULAR VALUES REPRESENT WALLS PERPENDICULAR TO CABLED WALL FOR NUMBER OF CABLES REFER TO TABLE 12

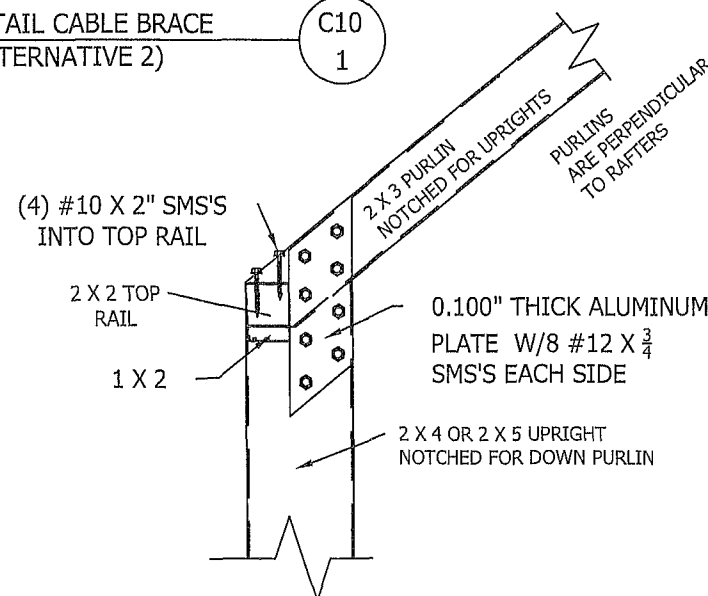
TYPICAL CABLE BRACE DETAIL, USE THIS DETAIL OR TYPICAL WALL BRACING CONNECTION DETAIL ON D4



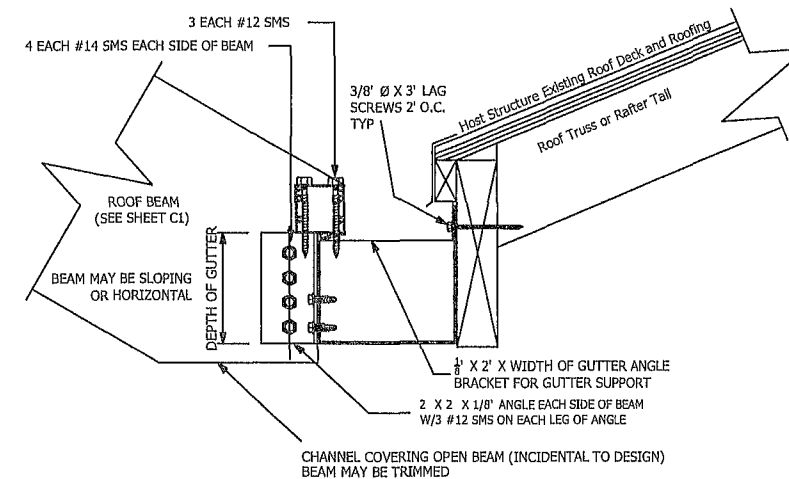
DETAIL CABLE BRACE (ALTERNATIVE 2) C10 1

TABLE 12 BEAM ALLOWABLE AREAS OF WALL (WIND) EXPOSURE BY ZONE FOR WALL BRACING

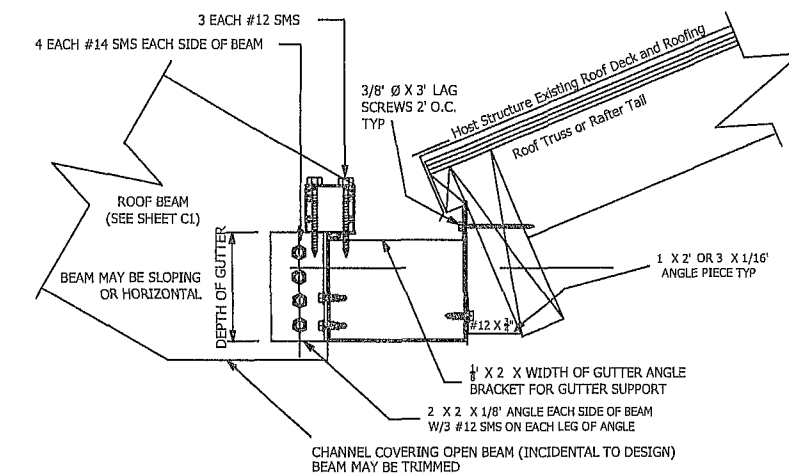
CABLE PAIRS	PRESSURE = >	15.9 PSF	19.2 PSF	22.8 PSF	26.8 PSF	31.1 PSF	35.7 PSF
	WIND ZONE = >	100	110	120	130	140	150
1	TABULAR VALUES IN SQ. FT.	181	150	128	107	92	81
2		337	279	235	200	172	150
3		448	371	312	266	229	198
36" LONG SOLID PANEL (PAIRS)							
1		377	313	263	224	193	168
2		698	578	487	414	357	311



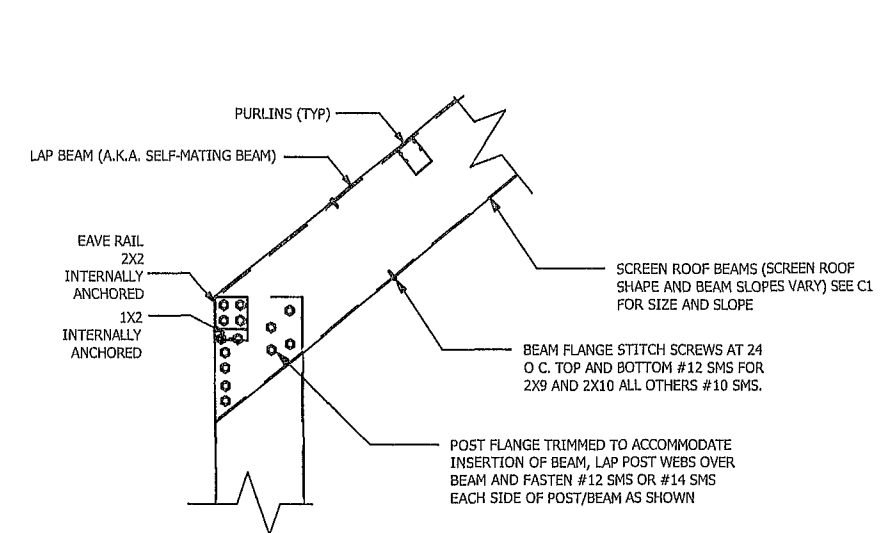
TYPICAL PURLIN TO WALL CONNECTION



TYPICAL BEAM TO GUTTER TO FASCIA CONNECTION



TYPICAL BEAM TO GUTTER TO FASCIA CONNECTION ANGLED FASCIA



TYPICAL BEAM/POST CONNECTION SECTION

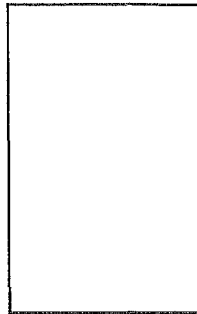
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MODEL SCREEN
MASTER NO MA-ALUM-1
SCALE N.T.S.
FILE DATE 1-20-2012
DATE DRAWN 04-04-2013
SHEET D1
OF 6 SHEETS
FILE NO. MA-1-2012

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2/21/2013	JFK



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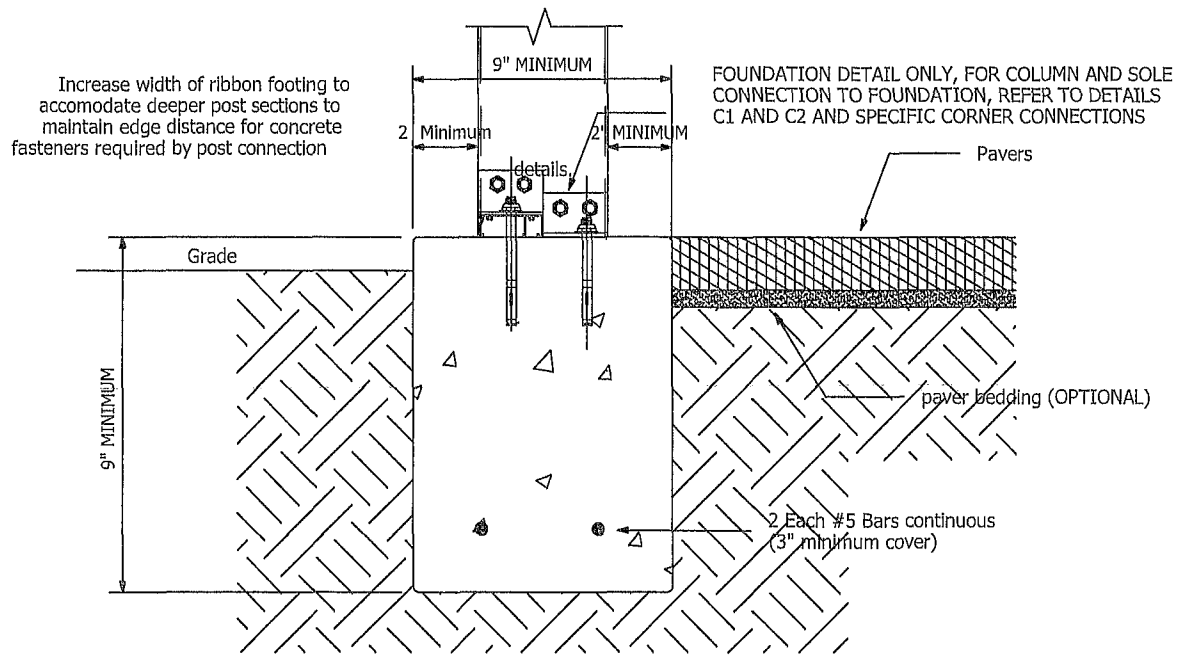
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Reg. No. 57884
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DATE DRAWN
04-04-2013
SHEET

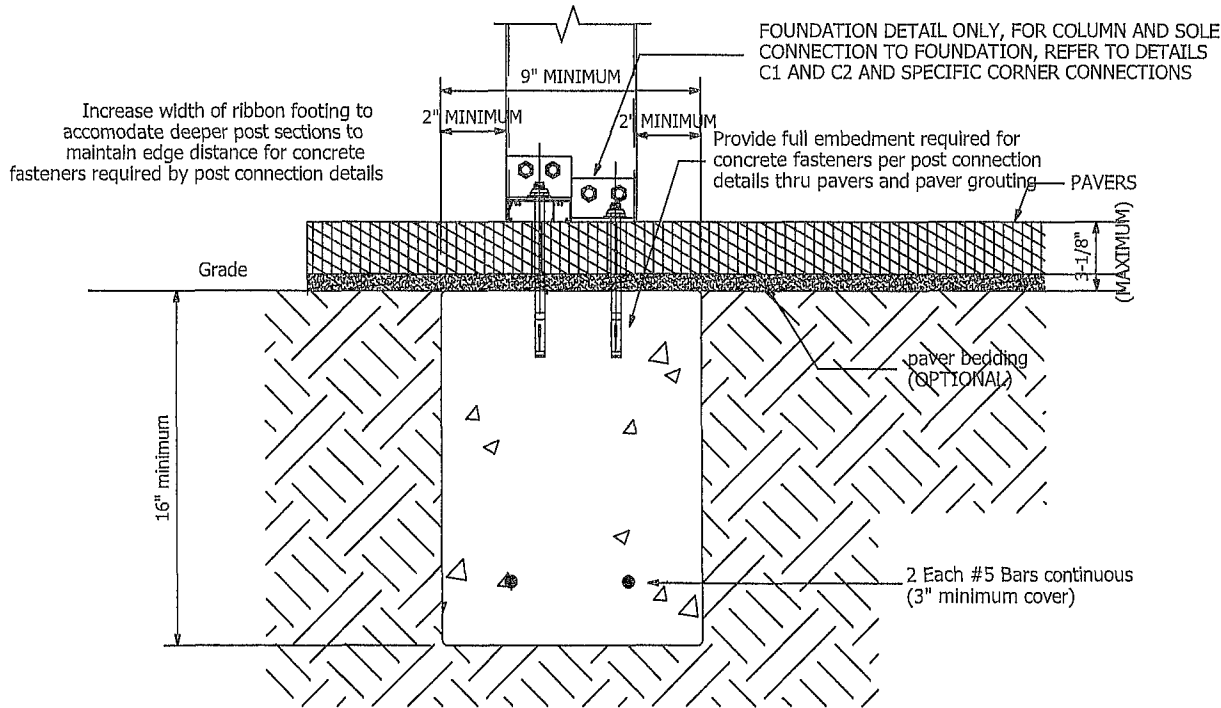
D2

6

FILE NO.
MA-1-2012



Typical "Ribbon" Footing Section [RECOMMENDED METHOD FOR PAVERS]
(THIS DETAIL ALSO APPLIES TO NON-MONOLITHIC FOUNDATION INSTALLATIONS)

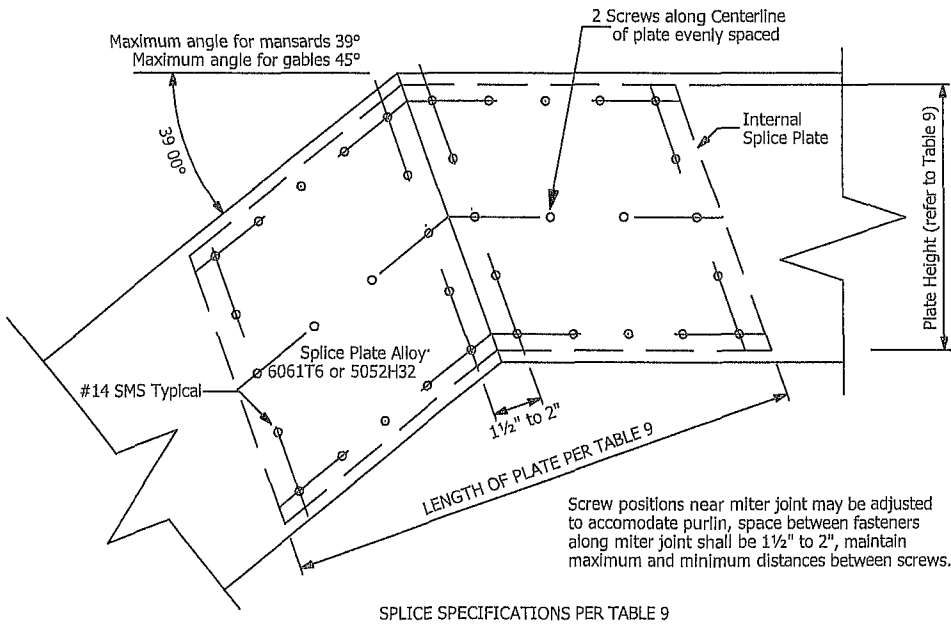


Typical Ribbon Footing Section
(Alternative Connection W/Pavers)

TABLE 9 BEAM SPLICE PLATE SIZE AND FASTENING REQUIREMENTS
BEAM SPLICE PLATE REQUIREMENTS FOR BEAMS OF 6005T5 ALLOY

MEMBER SMB	PLATE LENGTH	BEAMS OF 6005T5 ALLOY			#15 SMS PER SIDE PER END	TOTAL #14 SMS PER SPLICE	FASTENER SPACES	
		Ma 6005T5	5052H32	6061T6			NUMBER OF SPACES HORIZONTAL	VERTICAL
2 X 4	10"	8.7	3/8"	1/2"	8	32	2	2
2 X 5	12"	13.9	3/8"	1/2"	12	48	3	2
2 X 6	12"	17.4	3/8"	1/2"	14	56	3	3
2 X 7	14"	22.3	3/8"	1/2"	14	56	3	3
2 X 8	18"	68.7	3/8"	1/2"	18	72	4	4
2 X 9	18"	107.0	3/8"	1/2"	24	96	6	5
2 X 10	20"	147.5	3/8"	1/2"	28	104	6	6

- Table 9 Notes:
1 6061T6 beams use same plates as 6005T5 beams
2 5052H32 is a sheet alloy, 6061T6 is a plate alloy
3 Ma (allowable moments for beams in in-kips)



SPLICE SPECIFICATIONS PER TABLE 9

TYPICAL ELEVATION FOR BEAM MITER SPLICE

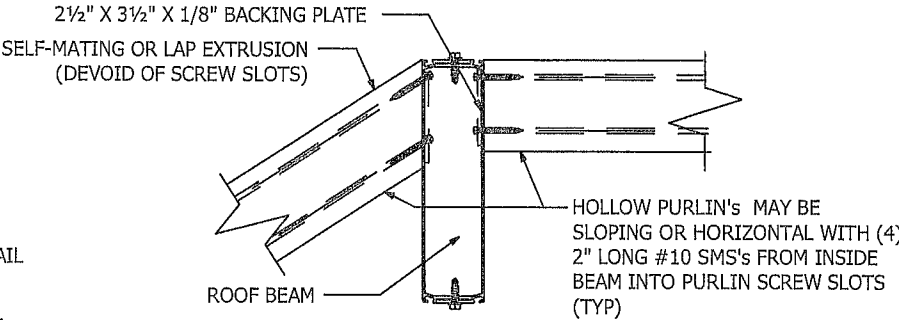
[DETAIL MAY BE ROTATED FOR GABLE RIDGE SPLICE, AND MAY ALSO
SERVE AS SPECIFICATIONS FOR A STRAIGHT SPLICE, MAINTAIN
PLATE AND CONNECTOR SPECIFICATIONS IN TABLE 9 FOR ALL]

SUBSTITUTE ANCHORS

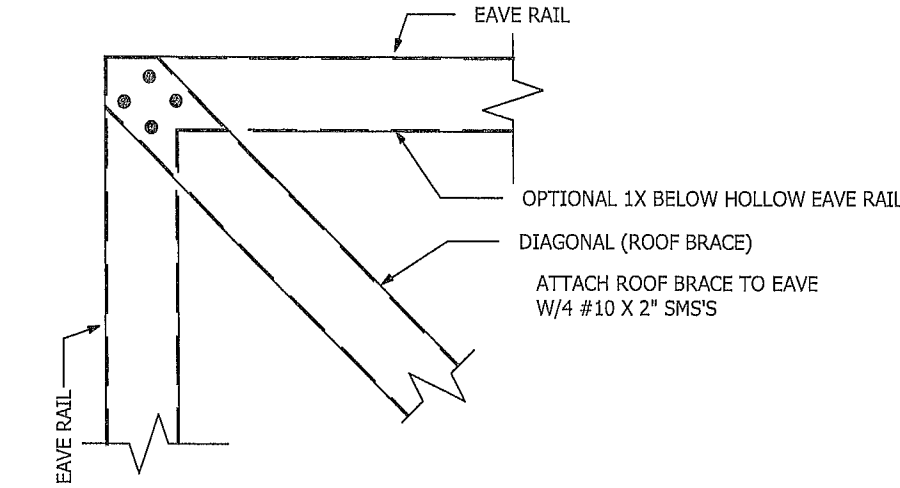
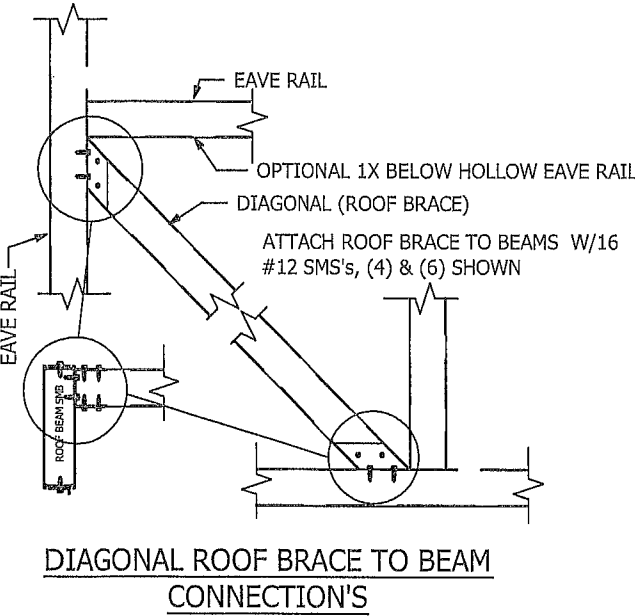
TAPCON ULTIMATE HOLDING VALUES IN BLOCK BLUE AND WHITE CLIMASEAL TAPCON®					
ANCHOR DIA. (IN)	EMBEDMENT DEPTH (IN)	LIGHT WEIGHT BLOCK		MEDIUM WEIGHT BLOCK	
		TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)
3/16	1	220	400	340	730
1/4	1	250	620	500	1000

TAPCON ULTIMATE HOLDING VALUES IN NORMAL WEIGHT CONCRETE BLUE AND WHITE CLIMASEAL TAPCON®					
ANCHOR DIA. (IN)	EMBEDMENT DEPTH (IN)	2000 PSI CONCRETE		4000 PSI CONCRETE	
		TENSION (LBS)	SHEAR (LBS)	TENSION (LBS)	SHEAR (LBS)
3/16	1	600	720	650	720
	1-1/2	1090	860	1090	860
	1-3/4	1450	870	1460	990
1/4	1	750	900	800	1380
	1-1/2	1380	1200	1620	1380
	1-3/4	2020	1670	2380	1670

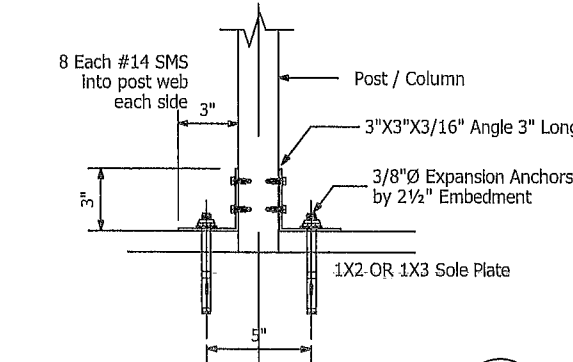
WHERE PURLINS ARE ADJACENT TO DIAGONAL ROOF BRACING, BRACING CONNECTIONS REQUIRE BACKING PLATES, EXTEND DIAGONAL BRACING BACKING PLATES AND UTILIZE FOR PURLIN CONNECTION



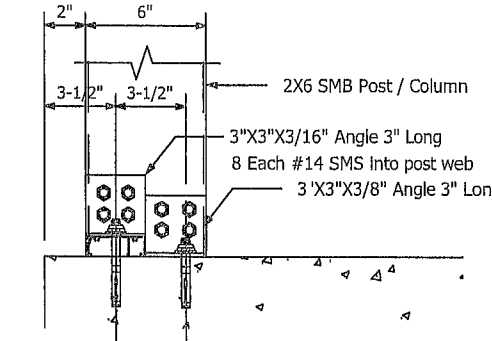
SECTION INTERNAL FASTENING AT PURLINS



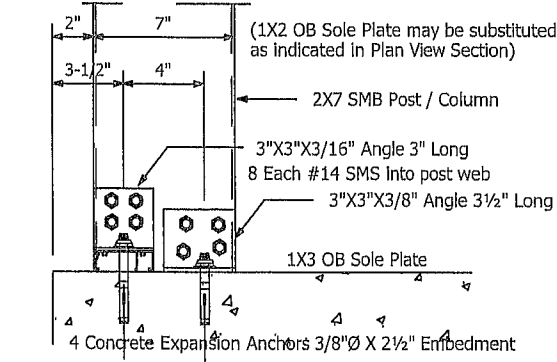
DIAGONAL ROOF BRACE TO CORNER & EAVE CONNECTION SECTION



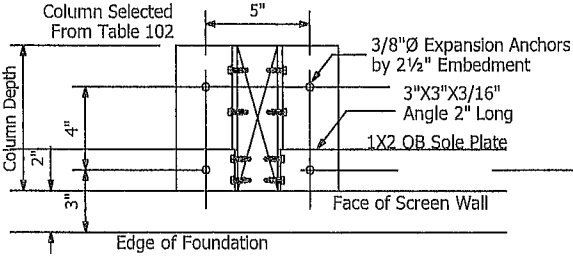
Wall Face Partial Elevation
Typical C2 Post/Column at Foundation
Minimum Column Size for Detail C2
(support of K-Bracing) 2X6 SMB



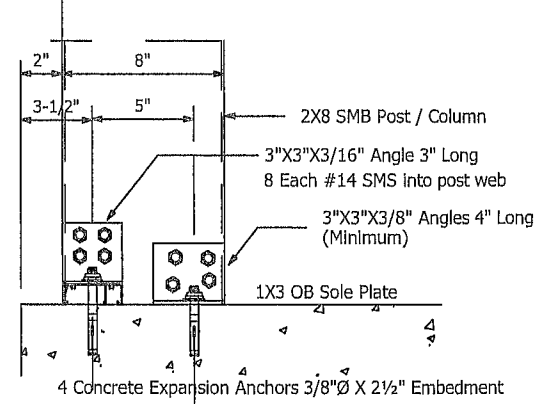
Section / Side Elevation / 2X6 SMB Post
(Locations supporting K-Bracing)



Section / Side Elevation / 2X7 SMB Post
(Locations supporting K-Bracing)



Plan View Section (w/ 1X2 Sole Plate)
Typical C2 Post/Column at Foundation
Minimum Column Size for Detail C2
(support of K-Bracing) 2X6 SMB



Section / Side Elevation / 2X8 SMB Post
(Locations supporting K-Bracing)

2X8 SMB Connection Detail C2 also applies to 2X9 and 2X10
(maintain required component sizes and fastener spacings)

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STRUCTURAL DETAILS
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DATE DRAWN
04-04-2013
SHEET

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OF 6 SHEETS
FILE NO.
MA-1-2012

TABLE 6 K-BRACE LEGEND	
KEY	EXTRUSION
A	2 X 2 X 0.046 HOL
B	2 X 3 X 0.050
C	2 X 2 X 0.090
D	2 X 3 X 0.072
E	3 X 3 X 0.072
F	3 X 3 X 0.090

TABLE 7 MINIMUM LENGTH OF K-BRACING AREA FOR ONE END OF LONGITUDINAL WALL																
ENCLOSURE PROTECTION	MAXIMUM TOTAL HEIGHT OF ENCLOSURE BY WIND ZONE															
	110				120				130				140			
20	5	5	6	5	5	6	5	5	7	5	8	8	5	7	9	
25	5	5	6	5	5	7	5	5	8	5	8	10	5	7	12	
30	5	6	7	5	6	8	5	6	10	5	7	12	5	8	14	
35	5	6	8	5	7	10	5	7	11	5	8	13	5	9	15	
40	5	6	10	5	7	11	5	8	13	5	10	15	5	12	17	

K-BRACING REQUIREMENTS ON LONGITUDINAL WALL(S)

- 1) QUALITY K-BRACING SHALL BE PROVIDED AT BOTH ENDS OF THE LONGITUDINAL WALL UNLESS BRACED BY HOST STRUCTURE AS PROVIDED IN SCHEMATICS.
- 2) LOOKUP ENCLOSURE HEIGHT ENCLOSURE PROJECTION AND LONGITUDINAL PANEL WIDTH IN TABLE 8 TO FIND DIAGONAL EXTRUSION TYPE AND END FASTENING (EXTRUSION KEY TABLE 106) ALL SCREWS #14 SMS EACH SIDE EACH END
- 3) TABLE 7 INDICATES MINIMUM LENGTH OF K-BRACING AREA FOR ONE END
- 4) TABLE 7 DOES NOT DICTATE POST SPACING I.E. LENGTH OF K-BRACING PROVIDED BY DESIGN MAY EXCEED TABULAR VALUE BUT MAY NOT BE LESS THAN TABULAR VALUE.
- 5) ORDER OF PROFILES IN TABLE 8 INDICATE RELATIVE STRENGTH FROM WEAKEST (A) TO STRONGEST (F) A STRONGER MEMBER THAN REQUIRED MAY BE SUBSTITUTED
- 6) INTEGER AFTER SLANT SIGN IN TABLE 108 INDICATES NUMBER OF #14 SMS PER SIDE PER END OF DIAGONAL.
- 7) LONGITUDINAL GABLE ENDS REQUIRE ADDITIONAL BRACING A MINIMUM OF 2 BAYS EACH AND BAY NEARER CENTER (HIGHEST) MUST BE BRACED TO TOP OF COLUMN (REFER OR ISOMETRIC SCHEMATICS AT BEGINNING OF CHAPTER).

K-BRACING REQUIREMENTS FOR SIDE WALLS:

- 1) WHEN SIDE WALL IS 3 BAYS PROVIDE K-BRACING IN CORNER (1st) BAY
- 2) FOR 1 OR 2 BAY SIDE WALLS, K-BRACING OPTIONAL.
- 3) FOR SIDE WALLS OF 4 BAYS OR MORE, PROVIDE ONE BAY K-BRACING IN 2nd BAY

TABLE 8 REQUIRED K-BRACE DIAGONAL EXTRUSION 120 mph ZONE						
AND NUMBER OF #14 SMS / SIDE / END						
PANEL WIDTH	ENCLOSURE HEIGHT	ENCLOSURE PROJECTION FROM HOST				
		20	25	30	35	40
5'	UP TO 12'	A/3	B/3	B/3	C/2	D/3
6'	UP TO 12'	B/2	B/3	C/2	D/3	E/3
7'	UP TO 12'	B/2	C/2	C/2	E/3	E/3
8'	UP TO 12'	B/2	C/2	E/2	E/3	E/3
5'	12' AND OVER	E/3	E/3	E/4	E/4	E/4
6'	12' AND OVER	E/3	E/3	E/3	E/4	E/4
7'	12' AND OVER	E/2	E/3	E/3	E/4	F/4
8'	12' AND OVER	E/2	E/3	E/3	E/3	F/4

EXTRUSION KEY IN TABLE 6 BY LETTER, X=SITE SPECIFIC

TABLE 8 REQUIRED K-BRACE DIAGONAL EXTRUSION 130 mph ZONE						
AND NUMBER OF #14 SMS / SIDE / END						
PANEL WIDTH	ENCLOSURE HEIGHT	ENCLOSURE PROJECTION FROM HOST				
		20	25	30	35	40
5'	UP TO 12'	B/3	B/3	C/2	D/3	E/4
6'	UP TO 12'	B/3	C/2	D/3	E/3	E/4
7'	UP TO 12'	C/2	C/2	E/3	E/3	E/3
8'	UP TO 12'	C/2	E/2	E/3	E/3	E/3
5'	12' AND OVER	E/3	E/4	E/4	F/4	F/X
6'	12' AND OVER	E/3	E/3	E/4	F/4	F/4
7'	12' AND OVER	E/3	E/3	E/4	F/3	F/4
8'	12' AND OVER	E/3	E/3	E/3	F/3	F/X

EXTRUSION KEY IN TABLE 6 BY LETTER, X=SITE SPECIFIC

TABLE 8 REQUIRED K-BRACE DIAGONAL EXTRUSION 140 mph ZONE						
AND NUMBER OF #14 SMS / SIDE / END						
PANEL WIDTH	ENCLOSURE HEIGHT	ENCLOSURE PROJECTION FROM HOST				
		20	25	30	35	40
5'	UP TO 12'	B/3	C/2	D/3	E/4	E/4
6'	UP TO 12'	C/2	D/3	E/3	E/4	E/4
7'	UP TO 12'	C/2	E/3	E/3	E/3	E/4
8'	UP TO 12'	E/2	E/3	E/3	E/3	E/4
5'	12' AND OVER	E/4	E/4	F/4	F/X	F/X
6'	12' AND OVER	E/3	E/4	F/4	F/4	F/X
7'	12' AND OVER	E/3	E/4	F/3	F/X	F/X
8'	12' AND OVER	E/3	E/3	F/3	F/X	F/X

EXTRUSION KEY IN TABLE 6 BY LETTER, X=SITE SPECIFIC

$1\frac{7}{8}$ " x 12" x $\frac{1}{16}$ "
ALUMINUM PLATE
W/(17) #12 X $\frac{3}{4}$ "
SMS'S TYP. @ END

$1\frac{7}{8}$ " x 12" x $\frac{1}{16}$ "
ALUMINUM PLATE
W/(10) #12 X $\frac{3}{4}$ "
SMS'S TYP.

TYPICAL WALL BRACING CONNECTION DETAIL
USE THIS DETAIL AND/OR CABLE BRACE DETAIL ON D1

REVISIONS	BY
2/21/2013	JFK

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3900 Southeast 45th Court, Ocala, Florida 34480
Phone: (352) 624-2325
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STRUCTURAL DETAILS
FLORIDA BUILDING CODE 2010

John F. Kilduff III, P.E. Reg. No. 75684 Date: 7/26/14	DRAWN BY JFK
	MODEL SCREEN
	MASTER NO. MA-ALUM-1
	SCALE N.T.S.
	FILE DATE 1-20-2012
	DATE DRAWN 04-04-2013
	SHEET D4
	OF 6 SHEETS
	FILE NO MA-1-2012