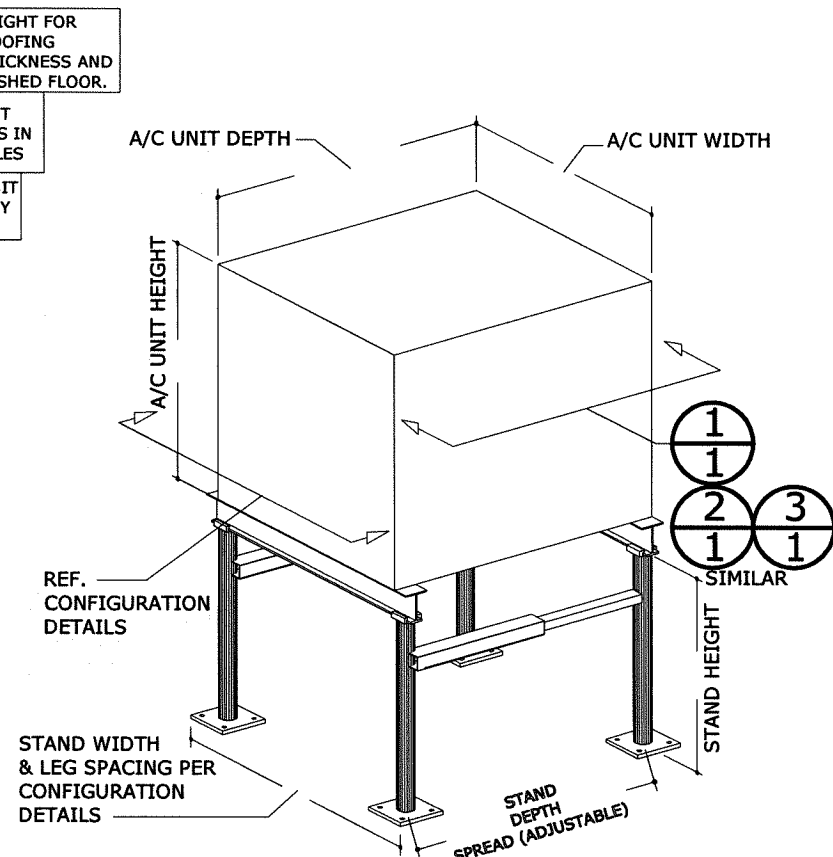
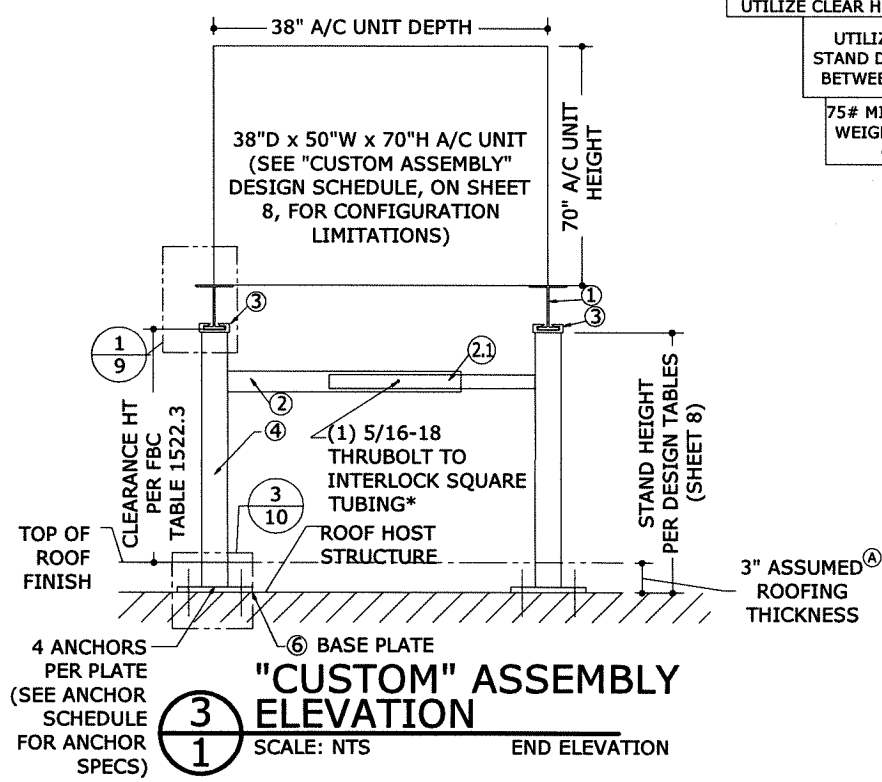
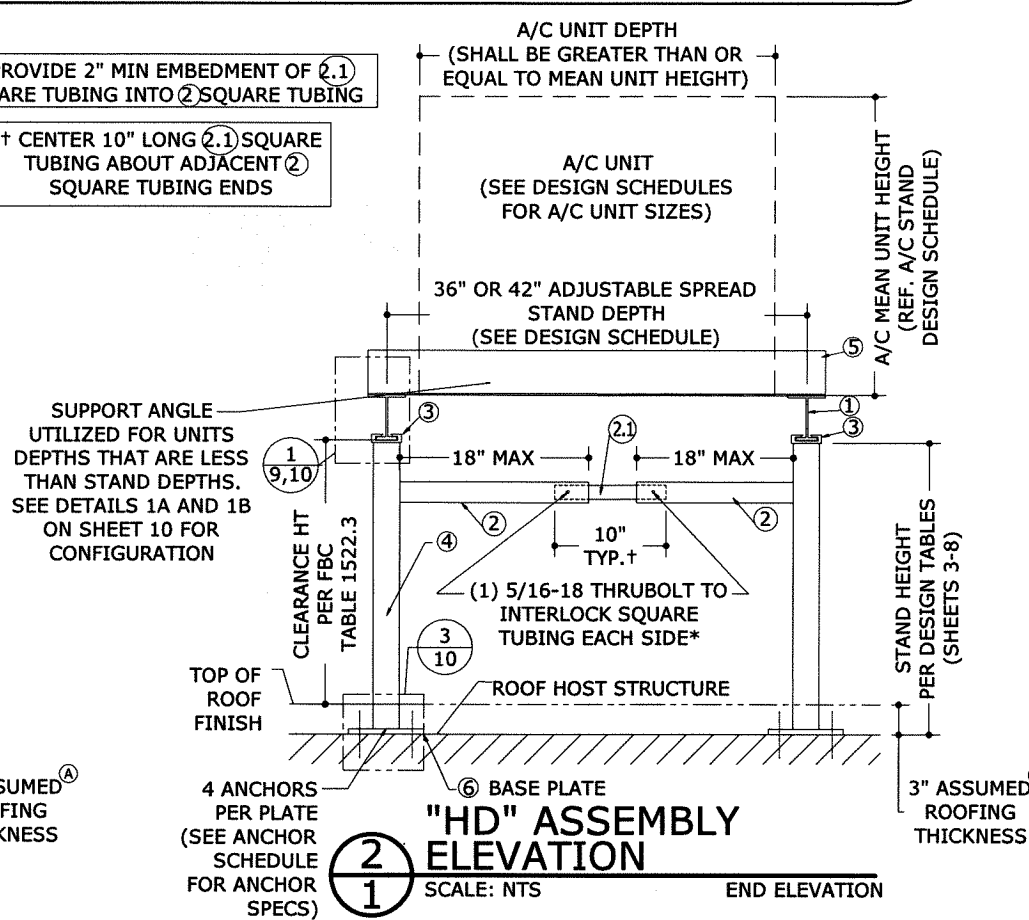
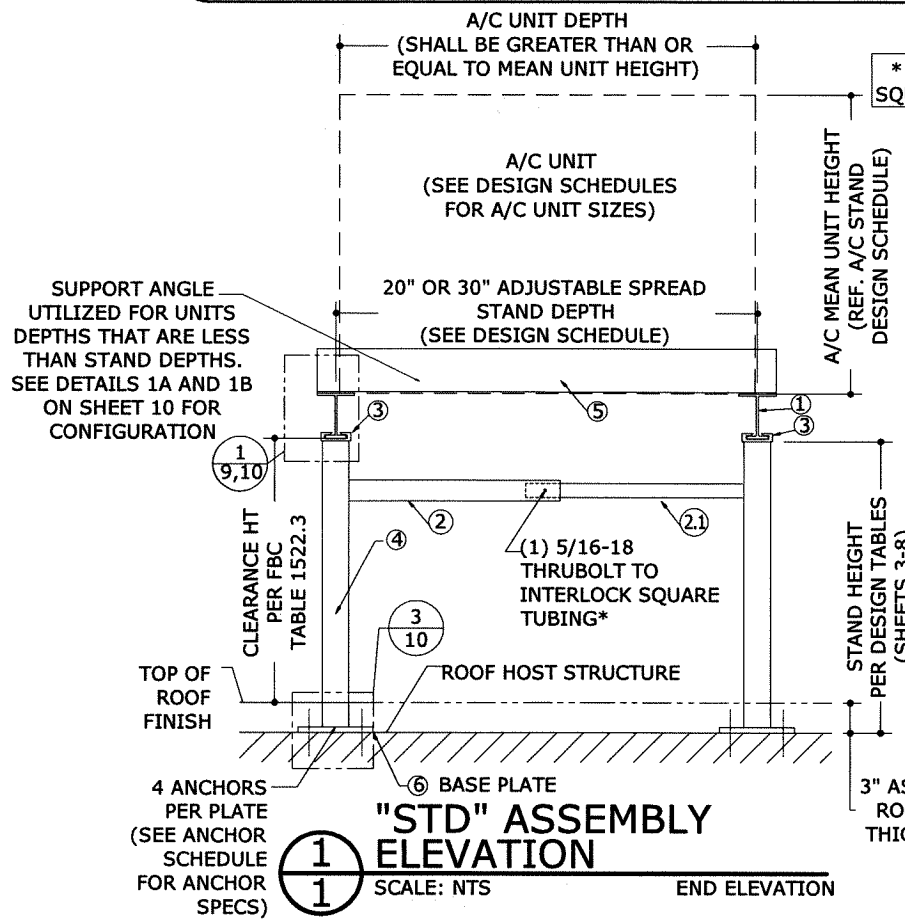


# ALUMINUM STANDS FOR MECHANICAL UNITS



UTILIZE NEXT-HIGHEST STAND HEIGHT FOR LARGER ROOF THICKNESS. FOR ROOFING WITHOUT INSULATION OMIT 3" THICKNESS AND UTILIZE CLEAR HEIGHT FROM FINISHED FLOOR.

UTILIZE NEXT-SMALLEST STAND DEPTH FOR VALUES IN BETWEEN EXISTING TABLES

75# MIN./450 # MAX UNIT WEIGHT AS VERIFIED BY OTHERS, TYP.

**MAXIMUM ALLOWABLE DESIGN PRESSURES:**  
AS NOTED IN DESIGN SCHEDULES

**DESIGN NOTES:**  
DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED SEPARATELY ON A JOB-SPECIFIC BASIS IN ACCORDANCE WITH THE GOVERNING CODE USING ASD METHODOLOGY. SITE-SPECIFIC PRESSURE REQUIREMENTS AS DETERMINED IN ACCORDANCE WITH ASCE 7-10 AND CHAPTER 16 OF THE FLORIDA BUILDING CODE SIXTH EDITION (2017) SHALL BE LESS THAN OR EQUAL TO THE LATERAL AND UPLIFT DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN.

**GENERAL NOTES**

- THIS SYSTEM HAS BEEN DESIGNED AND SHALL BE FABRICATED IN ACCORDANCE WITH THE STRUCTURAL PROVISIONS OF THE FLORIDA BUILDING CODE SIXTH EDITION (2017).
- MAXIMUM DIMENSIONS AND WEIGHT OF A/C UNIT SHALL CONFORM TO SPECIFICATIONS STATED HEREIN, MINIMUM 75LB OR MAXIMUM AS LISTED HEREIN.
- THE ARCHITECT/ENGINEER OF RECORD FOR THE PROJECT SUPERSTRUCTURE WITH WHICH THIS DESIGN IS USED SHALL BE RESPONSIBLE FOR THE INTEGRITY OF ALL SUPPORTING SURFACES TO THIS DESIGN WHICH SHALL BE COORDINATED BY THE PERMITTING CONTRACTOR.
- REACTION FORCES LISTED FOR USE WITH HOST STRUCTURE VERIFICATION ARE CALCULATED USING ASD METHODOLOGY. DESIGN PROFESSIONAL OF RECORD TO VERIFY APPLICABILITY AND/OR ADDITIONAL FACTORS FOR USE WITH HOST STRUCTURE VERIFICATION.
- ALL FASTENERS TO BE #10 OR GREATER SAE GRADE 5, UNLESS NOTED OTHERWISE, CADMIUM PLATED OR OTHERWISE CORROSION RESISTANT MATERIAL AND SHALL COMPLY WITH J.3.3, SPECIFICATIONS FOR ALUM. STRUCTURES -SECTION 1, THE ALUMINUM ASSOCIATION, INC., & APPLICABLE FEDERAL, STATE, AND LOCAL CODES. PROVIDE (5) PITCHES MIN PAST THREAD PLANE.
- ALL EXTRUDED MEMBERS SHALL BE ALUMINUM ALLOY TYPE 6061-T6 OR 6005-T5.
- ALL 22GA DEFORMED STEEL STRAPS USED FOR UNIT TIE-DOWNS SHALL BE ASTM A36 MIN. STEEL. FABRICATION OF STEEL STRAPS SHALL BE BY STRAP MANUFACTURER ONLY.
- ALL EXISTING CONCRETE SUBSTRATE SHALL HAVE MINIMUM  $f_c$  COMPRESSIVE STRENGTH OF 3000 PSI AS VERIFIED BY OTHERS.
- ALUMINUM WELDING SHALL BE PERFORMED IN ACCORDANCE WITH FBC SECTION 2003.8.1.4 WITH WELD FILLER ALLOYS MEETING ANSI/AWS A5.10 STANDARDS TO ACHIEVE ULTIMATE DESIGN STRENGTH IN ACCORDANCE WITH THE ALUMINUM DESIGN MANUAL, TABLE J.2.1. SUGGESTED WELD FILLER: 5356 ELECTRODES. ALL ALUMINUM CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE TOLERANCES, QUALITY AND METHODS OF CONSTRUCTION AS SET FORTH IN FBC SECTION 2003.2 AND THE AMERICAN WELDING SOCIETY'S STRUCTURAL WELDING CODE-ALUMINUM (D1.2). MINIMUM WELD IS  $\frac{1}{8}$ " THROAT FULL PERIMETER FILLET WELD UNLESS OTHERWISE NOTED.
- THE CONTRACTOR IS RESPONSIBLE TO INSULATE MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
- ELECTRICAL GROUND, WHEN REQUIRED, TO BE DESIGNED & INSTALLED BY OTHERS. ALL MECHANICAL SPECIFICATIONS (CLEAR SPACE, TONNAGE, ETC.) SHALL BE AS PER MANUFACTURER RECOMMENDATIONS AND ARE THE EXPRESS RESPONSIBILITY OF THE CONTRACTOR.
- ENGINEER SEAL AFFIXED HERETO VALIDATES STRUCTURAL DESIGN AS SHOWN ONLY. USE OF THIS SPECIFICATION BY CONTRACTOR, et. al. INDEMNIFIES & SAVES HARMLESS THIS ENGINEER FOR ALL COST & DAMAGES INCLUDING LEGAL FEES & APPELLATE FEES RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION, CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE, & FEDERAL CODES & FROM DEVIATIONS OF THIS PLAN.
- THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT.
- EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.
- AC STANDS SHALL BE LABELED PER MIAMI-DADE REQUIREMENTS FOR NON-MANDATORY PRODUCT APPROVALS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE.

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FLORIDA STATEWIDE APPROVAL  
FL #24546.1

DRWN	CHKD	DATE
KL	KL	01/10/07
KL	KL	05/03/07
TSB	CL	09/30/08
CSL	TSB	05/10/12
CSL	TSB	08/18/12
RWN	CSL	07/07/15
RWN	FLB	05/07/16
RWN	FLB	11/01/17

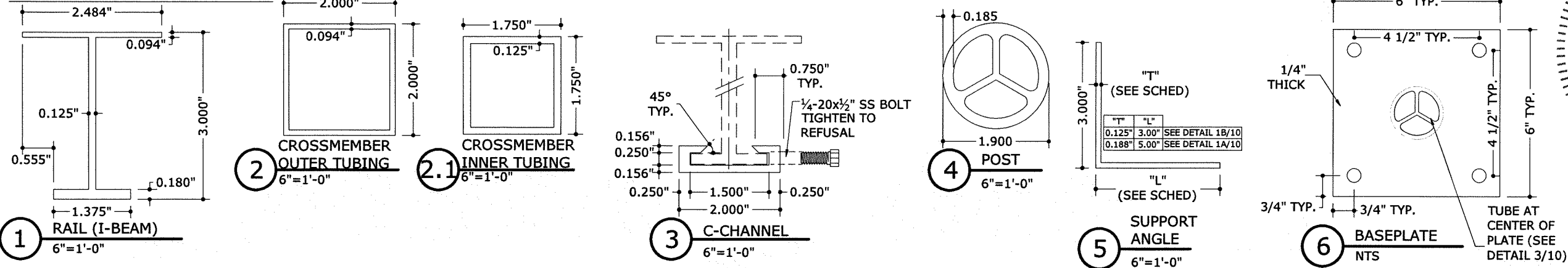
REMARKS  
INT. ISSUE  
REV. TELESCOPIC BOLTS  
UPDATE PER 07 FBC  
UPDATE PER 10 FBC  
REV. PER COMMENTS  
FBC UPDATE  
REV. PER MD COMMENTS  
REV. 2017 FBC  
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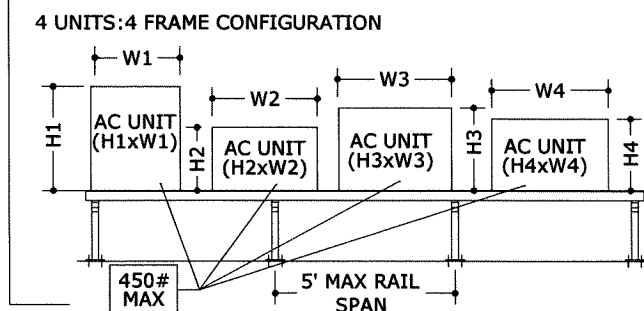
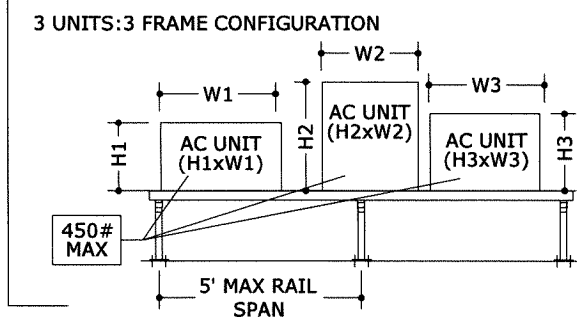
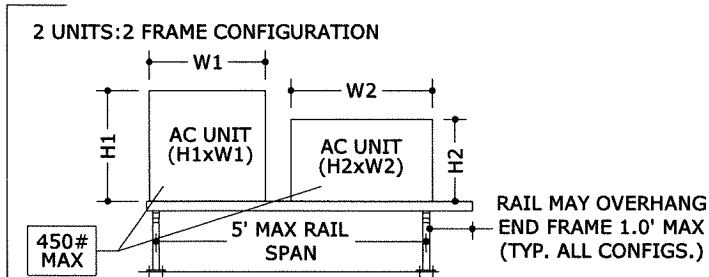
# STAND COMPONENTS



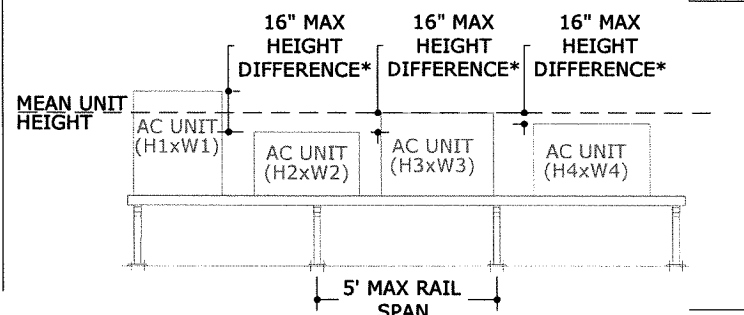
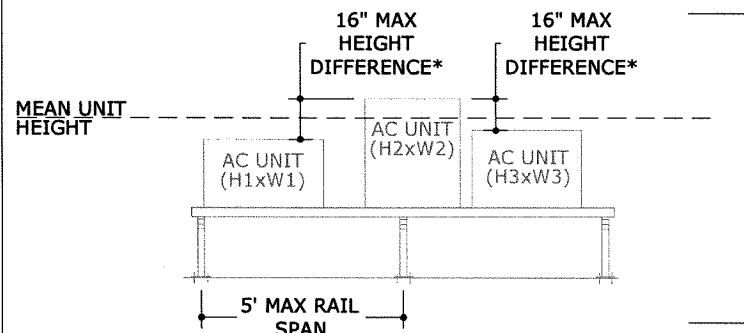
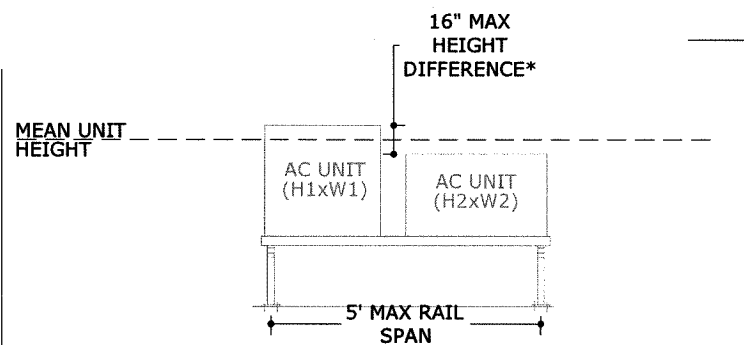
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## MEAN UNIT HEIGHT & MAX FACE AREA CALCULATION DIRECTIVE: THIS DIRECTIVE SHALL BE USED TO CALCULATE THE MEAN UNIT HEIGHT & MAXIMUM FACE AREA OF ANY MULTIPLE UNIT CONFIGURATION.

### EXAMPLE CONFIGURATIONS:



NOTE: THE NUMBER OF UNITS PER STAND CONFIGURATION MAY BE UNLIMITED PROVIDED THAT MULTIPLE UNITS CONFORM TO THE MEAN UNIT HEIGHT & MAXIMUM UNIT FACE AREA RESTRICTIONS UTILIZED IN THE DESIGN SCHEDULES.



\*MAXIMUM ALLOWABLE HEIGHT DIFFERENCE BETWEEN ANY UNITS IN A MULTIPLE UNIT CONFIGURATION IS RESTRICTED TO 16" MAX.

### FORMULAS USED FOR DETERMINING MEAN UNIT HEIGHT & MAXIMUM UNIT FACE AREA:

1. CALCULATE THE MEAN UNIT HEIGHT BY THE FOLLOWING EQUATION:

- TWO UNITS:  $\frac{H1+H2}{2}$
- THREE UNITS:  $\frac{H1+H2+H3}{3}$
- FOUR UNITS:  $\frac{H1+H2+H3+H4}{4}$
- "n" UNITS:  $\frac{H1+H2+H3+...+Hn}{n}$

2. CALCULATE THE MAXIMUM UNIT FACE AREA BY THE FOLLOWING EQUATION:

- TWO UNITS:  $(H1xW1)+(H2xW2)$
- THREE UNITS:  $(H1xW1)+(H2xW2)+(H3xW3)$
- FOUR UNITS:  $(H1xW1)+(H2xW2)+(H3xW3)+(H4xW4)$
- "n" UNITS:  $(H1xW1)+...+(HnxWn)$

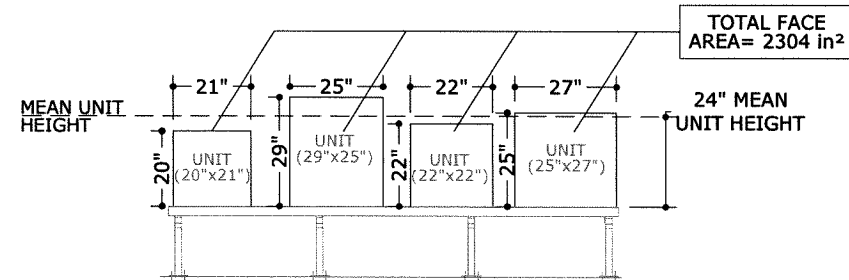
### EXAMPLE SCENARIO:

- CONSIDER A FOUR UNIT CONFIGURATION WITH THE DIMENSIONS AS SHOWN BELOW.
- CALCULATE THE MEAN UNIT HEIGHT.

FOUR UNITS:  $\frac{H1+H2+H3+H4}{4} = \frac{20''+29''+22''+25''}{4} = 24''$  MEAN UNIT HEIGHT

3. CALCULATE THE MAXIMUM FACE AREA.

FOUR UNITS:  $(H1xW1)+(H2xW2)+(H3xW3)+(H4xW4) = (20''x21'')+(29''x25'')+(22''x22'')+(25''x27'')$   
 = 2304 in<sup>2</sup>



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# "STD" STAND DESIGN SCHEDULES & STAND DIRECTIVE EXAMPLE

## 20" STAND DEPTH MINIMUM: MAX FACE AREA (3600in<sup>2</sup> - 12600in<sup>2</sup>), FRAME QUANTITY (5-8 FRAMES)

STAND CLEAR HEIGHT	MAX MEAN UNIT HEIGHT	MAX FACE AREA	UNIT TO FRAME RATIO																LOAD TRANSFER INFORMATION FOR USE WITH HOST STRUCTURE VERIFICATION ONLY			
			MAX FACE AREA : 8 FRAMES				MAX FACE AREA : 7 FRAMES				MAX FACE AREA : 6 FRAMES				MAX FACE AREA : 5 FRAMES				MAX. BASE MOMENT (M)	MAX. BASE SHEAR (V)	MAX. BASE UPLIFT (T)	MAX. BASE GRAVITY (C)
			ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3		ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3		ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3		ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3					
MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT					
18"	30"	3600 in <sup>2</sup>	189.9 PSF	149.9 PSF	189.9 PSF	149.9 PSF	189.9 PSF	149.9 PSF	189.9 PSF	149.9 PSF	178.7 PSF	141.1 PSF	166.0 PSF	131.1 PSF	148.9 PSF	117.5 PSF	138.5 PSF	109.3 PSF	360.40 LB-FT	409.6 LB	1691.0 LB	1374.4 LB
24"			184.6 PSF	145.7 PSF	184.6 PSF	145.7 PSF	161.5 PSF	127.5 PSF	161.5 PSF	127.5 PSF	138.4 PSF	109.3 PSF	138.4 PSF	109.3 PSF	115.3 PSF	91.1 PSF	115.3 PSF	91.1 PSF	360.40 LB-FT	317.3 LB	1500.9 LB	1285.6 LB
30"			150.9 PSF	119.1 PSF	150.9 PSF	119.1 PSF	132.0 PSF	104.2 PSF	132.0 PSF	104.2 PSF	113.1 PSF	89.3 PSF	113.1 PSF	89.3 PSF	94.3 PSF	74.4 PSF	94.3 PSF	74.4 PSF	360.40 LB-FT	259.3 LB	1379.9 LB	1231.1 LB
18"	40"	6000 in <sup>2</sup>	99.2 PSF	78.3 PSF	99.2 PSF	78.3 PSF	99.2 PSF	78.3 PSF	99.2 PSF	78.3 PSF	99.2 PSF	78.3 PSF	98.1 PSF	77.5 PSF	91.4 PSF	72.1 PSF	81.8 PSF	64.6 PSF	360.40 LB-FT	409.6 LB	1882.5 LB	1588.8 LB
24"			99.2 PSF	78.3 PSF	99.2 PSF	78.3 PSF	99.1 PSF	78.3 PSF	99.1 PSF	78.3 PSF	85.0 PSF	67.1 PSF	85.0 PSF	67.1 PSF	70.8 PSF	55.9 PSF	70.8 PSF	55.9 PSF	360.40 LB-FT	317.3 LB	1650.2 LB	1451.6 LB
30"			92.6 PSF	73.1 PSF	92.6 PSF	73.1 PSF	81.0 PSF	64.0 PSF	81.0 PSF	64.0 PSF	69.4 PSF	54.8 PSF	69.4 PSF	54.8 PSF	57.9 PSF	45.7 PSF	57.9 PSF	45.7 PSF	360.40 LB-FT	259.3 LB	1503.5 LB	1366.8 LB
18"	50"	9000 in <sup>2</sup>	58 (85) PSF	67.1 PSF	58 (85) PSF	67.1 PSF	58 (85) PSF	67.1 PSF	58 (85) PSF	67.1 PSF	58 (74.6) PSF	58.8 PSF	58 (74.1) PSF	58.5 PSF	58 (63.9) PSF	50.5 PSF	58 (61.8) PSF	48.8 PSF	360.40 LB-FT	409.6 LB	2085.1 LB	1799.5 LB
24"			58 (76.6) PSF	60.5 PSF	58 (74.3) PSF	58.6 PSF	58 (67) PSF	52.9 PSF	58 (65) PSF	51.3 PSF	57.4 PSF	45.3 PSF	55.7 PSF	44.0 PSF	47.9 PSF	37.8 PSF	46.5 PSF	36.7 PSF	360.40 LB-FT	317.3 LB	1806.2 LB	1614.9 LB
30"			58 (62.6) PSF	49.4 PSF	58 (62.6) PSF	49.4 PSF	54.8 PSF	43.2 PSF	54.8 PSF	43.2 PSF	46.9 PSF	37.0 PSF	46.9 PSF	37.0 PSF	39.1 PSF	30.9 PSF	39.1 PSF	30.9 PSF	360.40 LB-FT	259.3 LB	1629.4 LB	1500.3 LB
18"	60"	12600 in <sup>2</sup>	36.8 (57) PSF	45.0 PSF	36.8 (57) PSF	45.0 PSF	36.8 (57) PSF	45.0 PSF	36.8 (51.8) PSF	40.9 PSF	36.8 (53.5) PSF	42.2 PSF	36.8 (44.5) PSF	35.1 PSF	36.8 (44.5) PSF	35.1 PSF	36.8 (37.1) PSF	29.3 PSF	360.40 LB-FT	409.6 LB	2285.8 LB	2008.4 LB
24"			36.8 (55.2) PSF	43.6 PSF	36.8 (51.9) PSF	40.9 PSF	36.8 (48.3) PSF	38.1 PSF	36.8 (45.4) PSF	35.8 PSF	36.8 (41.4) PSF	32.7 PSF	36.8 (38.9) PSF	30.7 PSF	34.5 PSF	27.2 PSF	32.5 PSF	25.6 PSF	360.40 LB-FT	317.3 LB	1961.7 LB	1776.8 LB
30"			36.8 (45.1) PSF	35.6 PSF	36.8 (45.1) PSF	35.6 PSF	36.8 (39.5) PSF	31.2 PSF	36.8 (39.5) PSF	31.2 PSF	33.8 PSF	26.7 PSF	33.8 PSF	26.7 PSF	28.2 PSF	22.2 PSF	28.2 PSF	22.2 PSF	360.40 LB-FT	259.3 LB	1756.5 LB	1632.5 LB

## 20" STAND DEPTH MINIMUM: MAX FACE AREA (2880in<sup>2</sup> - 10080in<sup>2</sup>), FRAME QUANTITY (4-7 FRAMES)

STAND CLEAR HEIGHT	MAX MEAN UNIT HEIGHT	MAX FACE AREA	UNIT TO FRAME RATIO																LOAD TRANSFER INFORMATION FOR USE WITH HOST STRUCTURE VERIFICATION ONLY			
			MAX FACE AREA : 7 FRAMES				MAX FACE AREA : 6 FRAMES				MAX FACE AREA : 5 FRAMES				MAX FACE AREA : 4 FRAMES				MAX. BASE MOMENT (M)	MAX. BASE SHEAR (V)	MAX. BASE UPLIFT (T)	MAX. BASE GRAVITY (C)
			ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3		ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3		ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3		ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3					
MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT					
18"	30"	2880 in <sup>2</sup>	189.9 PSF	149.9 PSF	189.9 PSF	149.9 PSF	189.9 PSF	149.9 PSF	189.9 PSF	149.9 PSF	186.1 PSF	146.9 PSF	172.9 PSF	136.5 PSF	148.9 PSF	117.5 PSF	138.5 PSF	109.3 PSF	360.40 LB-FT	409.6 LB	1691.7 LB	1374.4 LB
24"			189.9 PSF	149.9 PSF	189.9 PSF	149.9 PSF	173.0 PSF	136.6 PSF	173.0 PSF	136.6 PSF	144.2 PSF	113.8 PSF	144.2 PSF	113.8 PSF	115.3 PSF	91.1 PSF	115.3 PSF	91.1 PSF	360.40 LB-FT	317.3 LB	1500.0 LB	1285.6 LB
30"			165.0 PSF	130.3 PSF	165.0 PSF	130.3 PSF	141.4 PSF	111.6 PSF	141.4 PSF	111.6 PSF	117.9 PSF	93.0 PSF	117.9 PSF	93.0 PSF	94.3 PSF	74.4 PSF	94.3 PSF	74.4 PSF	360.40 LB-FT	259.3 LB	1381.1 LB	1231.1 LB
18"	40"	4800 in <sup>2</sup>	99.2 PSF	78.3 PSF	99.2 PSF	78.3 PSF	99.2 PSF	78.3 PSF	99.2 PSF	78.3 PSF	99.2 PSF	78.3 PSF	99.2 PSF	78.3 PSF	91.4 PSF	72.1 PSF	81.8 PSF	64.6 PSF	360.40 LB-FT	409.6 LB	1882.5 LB	1588.8 LB
24"			99.2 PSF	78.3 PSF	99.2 PSF	78.3 PSF	99.2 PSF	78.3 PSF	99.2 PSF	78.3 PSF	88.5 PSF	69.9 PSF	88.5 PSF	69.9 PSF	70.8 PSF	55.9 PSF	70.8 PSF	55.9 PSF	360.40 LB-FT	317.3 LB	1648.2 LB	1451.6 LB
30"			99.2 PSF	78.3 PSF	99.2 PSF	78.3 PSF	86.8 PSF	68.5 PSF	86.8 PSF	68.5 PSF	72.3 PSF	57.1 PSF	72.3 PSF	57.1 PSF	57.9 PSF	45.7 PSF	57.9 PSF	45.7 PSF	360.40 LB-FT	259.3 LB	1502.5 LB	1366.8 LB
18"	50"	7200 in <sup>2</sup>	58 (85) PSF	67.1 PSF	58 (85) PSF	67.1 PSF	58 (85) PSF	67.1 PSF	58 (79.9) PSF	63.0 PSF	58 (77.2) PSF	61.0 PSF	58 (66.6) PSF	52.6 PSF	58 (61.8) PSF	48.8 PSF	53.3 PSF	42.1 PSF	360.40 LB-FT	409.6 LB	2085.8 LB	1799.5 LB
24"			58 (83.8) PSF	66.1 PSF	58 (81.2) PSF	64.1 PSF	58 (71.8) PSF	56.7 PSF	58 (69.6) PSF	55.0 PSF	58 (59.8) PSF	47.2 PSF	58 (58.1) PSF	45.8 PSF	47.9 PSF	37.8 PSF	46.5 PSF	36.7 PSF	360.40 LB-FT	317.3 LB	1807.4 LB	1614.9 LB
30"			58 (68.5) PSF	54.0 PSF	58 (68.5) PSF	54.0 PSF	58 (58.7) PSF	46.3 PSF	58 (58.7) PSF	46.3 PSF	48.9 PSF	38.6 PSF	48.9 PSF	38.6 PSF	39.1 PSF	30.9 PSF	39.1 PSF	30.9 PSF	360.40 LB-FT	259.3 LB	1630.6 LB	1500.3 LB
18"	60"	10080 in <sup>2</sup>	36.8 (57) PSF	45.0 PSF	36.8 (57) PSF	45.0 PSF	36.8 (57) PSF	45.0 PSF	36.8 (55.5) PSF	43.8 PSF	36.8 (55.7) PSF	43.9 PSF	36.8 (46.3) PSF	36.5 PSF	36.8 (44.5) PSF	35.1 PSF	36.8 (37.1) PSF	29.3 PSF	360.40 LB-FT	409.6 LB	2286.6 LB	2008.4 LB
24"			36.8 (55.2) PSF	43.6 PSF	36.8 (56.7) PSF	44.8 PSF	36.8 (51.8) PSF	40.9 PSF	36.8 (48.6) PSF	38.4 PSF	36.8 (43.1) PSF	34.0 PSF	36.8 (40.6) PSF	32.0 PSF	34.5 PSF	27.2 PSF	32.5 PSF	25.6 PSF	360.40 LB-FT	317.3 LB	1960.8 LB	1776.8 LB
30"			36.8 (49.4) PSF	39.0 PSF	36.8 (49.4) PSF	39.0 PSF	36.8 (42.3) PSF	33.4 PSF	36.8 (42.3) PSF	33.4 PSF	35.2 PSF	27.8 PSF	35.2 PSF	27.8 PSF	28.2 PSF	22.2 PSF	28.2 PSF	22.2 PSF	360.40 LB-FT	259.3 LB	1757.7 LB	1632.5 LB

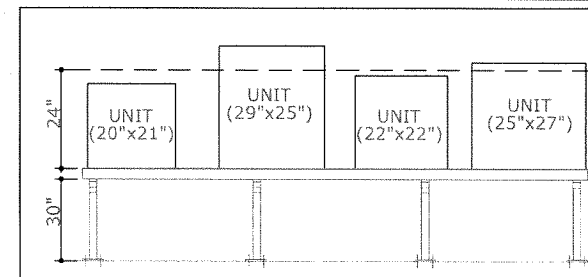
## STAND EXAMPLE

(THE FOLLOWING EXAMPLE ILLUSTRATES THE PROCEDURE USED TO DETERMINE THE MAXIMUM ALLOWABLE WIND PRESSURE & UPLIFT FOR ANY GIVEN MECHANICAL UNIT CONFIGURATION THAT CONFORMS TO THE DIMENSION RESTRICTIONS LISTED HEREIN. SEE SHEET 2 FOR MEAN UNIT HEIGHT & MAXIMUM FACE AREA CALCULATION DIRECTIVE. SEE SHEET 2 FOR COMPONENT SCHEDULE. SEE SHEET 9 FOR ANCHOR SCHEDULES.)

### MECHANICAL UNIT/STAND CRITERIA:

CONSIDER THE INSTALLATION OF (4) MECHANICAL UNITS, (1)-20" TALL x 24" DEEP x 21" WIDE, (1)-29" TALL x 24" DEEP x 25" WIDE, (1)-22" TALL x 24" DEEP x 22" WIDE, (1)-25" TALL x 27" DEEP x 27" WIDE, [350 LB MAX WEIGHT] INSTALLED WITH THE FOLLOWING CRITERIA:

- NUMBER OF LEG FRAMES= (4) FRAMES
- STAND HEIGHT= 30" HEIGHT
- STAND DEPTH= 20" STAND DEPTH SPREAD
- HOST STRUCTURE TYPE= 3,000 PSI CONCRETE (AS VERIFIED BY OTHERS).



### PROCEDURE:

1	DETERMINE THE MEAN UNIT HEIGHT FOR THE GIVEN CONFIGURATION	SEE SHEET 2, CALCULATION DIRECTIVE STEP #1 FOR METHOD OF CALCULATING THE MEAN UNIT HEIGHT. FOR CLARIFICATION, THIS CONFIGURATION HAS BEEN WORKED OUT IN THE EXAMPLE SCENARIO. <b>(MEAN UNIT HEIGHT = 24 in)</b>
2	DETERMINE THE MAXIMUM FACE AREA FOR THE GIVEN CONFIGURATION	SEE SHEET 2, CALCULATION DIRECTIVE STEP #2 FOR METHOD OF CALCULATING THE MAXIMUM TOTAL UNIT FACE AREA. FOR CLARIFICATION, THIS CONFIGURATION HAS BEEN WORKED OUT IN THE EXAMPLE SCENARIO. <b>(MAXIMUM UNIT FACE AREA = 2304 in<sup>2</sup>)</b>
3	LOCATE DESIGN SCHEDULE THAT APPLIES TO THE GIVEN CONFIGURATION	SEE SHEET 3 FOR THE 20" STAND DEPTH WITH A MAXIMUM FACE AREA OF 2304 in <sup>2</sup> .
4	DETERMINE THE MAXIMUM ALLOWABLE LATERAL & UPLIFT WIND LOADS	FOR A 2304 in <sup>2</sup> MAX TOTAL UNIT FACE AREA ON A 30" STAND HEIGHT WITH (4) SUPPORTING FRAMES, THE ALLOWABLE WIND LOADS ARE AS FOLLOWS: <ul style="list-style-type: none"> <li>ALLOWABLE LATERAL WIND LOAD: <b>94.3 PSF</b> (FROM TABLE ABOVE)</li> <li>ALLOWABLE UPLIFT WIND LOAD: <b>74.4 PSF</b></li> </ul>
5	INSTALL STAND PER PERMISSIBLE ANCHOR TYPES AND VERIFY HOST STRUCTURE TYPE	UTILIZE ANCHOR TYPES FROM DESIGN SCHEDULE ASSOCIATED WITH THE ALLOWABLE WIND VALUES DETERMINED IN STEP 4. FOR THE TABLE LISTING, <b>ANCHOR TYPES 2 &amp; 3 MAY BE APPLIED</b> . FOR THIS EXAMPLE UTILIZE ANCHOR TYPE 2 FOR CONCRETE HOST STRUCTURE TYPE. INSTALL STANDS PER ANCHOR SCHEDULE AND DETAILS AS ILLUSTRATED ON SHEET 9.

### RESULT:

1	DETERMINE THE MEAN UNIT HEIGHT FOR THE GIVEN CONFIGURATION	SEE SHEET 2, CALCULATION DIRECTIVE STEP #1 FOR METHOD OF CALCULATING THE MEAN UNIT HEIGHT. FOR CLARIFICATION, THIS CONFIGURATION HAS BEEN WORKED OUT IN THE EXAMPLE SCENARIO. <b>(MEAN UNIT HEIGHT = 24 in)</b>
2	DETERMINE THE MAXIMUM FACE AREA FOR THE GIVEN CONFIGURATION	SEE SHEET 2, CALCULATION DIRECTIVE STEP #2 FOR METHOD OF CALCULATING THE MAXIMUM TOTAL UNIT FACE AREA. FOR CLARIFICATION, THIS CONFIGURATION HAS BEEN WORKED OUT IN THE EXAMPLE SCENARIO. <b>(MAXIMUM UNIT FACE AREA = 2304 in<sup>2</sup>)</b>
3	LOCATE DESIGN SCHEDULE THAT APPLIES TO THE GIVEN CONFIGURATION	SEE SHEET 3 FOR THE 20" STAND DEPTH WITH A MAXIMUM FACE AREA OF 2304 in <sup>2</sup> .
4	DETERMINE THE MAXIMUM ALLOWABLE LATERAL & UPLIFT WIND LOADS	FOR A 2304 in <sup>2</sup> MAX TOTAL UNIT FACE AREA ON A 30" STAND HEIGHT WITH (4) SUPPORTING FRAMES, THE ALLOWABLE WIND LOADS ARE AS FOLLOWS: <ul style="list-style-type: none"> <li>ALLOWABLE LATERAL WIND LOAD: <b>94.3 PSF</b> (FROM TABLE ABOVE)</li> <li>ALLOWABLE UPLIFT WIND LOAD: <b>74.4 PSF</b></li> </ul>
5	INSTALL STAND PER PERMISSIBLE ANCHOR TYPES AND VERIFY HOST STRUCTURE TYPE	UTILIZE ANCHOR TYPES FROM DESIGN SCHEDULE ASSOCIATED WITH THE ALLOWABLE WIND VALUES DETERMINED IN STEP 4. FOR THE TABLE LISTING, <b>ANCHOR TYPES 2 &amp; 3 MAY BE APPLIED</b> . FOR THIS EXAMPLE UTILIZE ANCHOR TYPE 2 FOR CONCRETE HOST STRUCTURE TYPE. INSTALL STANDS PER ANCHOR SCHEDULE AND DETAILS AS ILLUSTRATED ON SHEET 9.

### CONCLUSION:

6	MAXIMUM ALLOWABLE LATERAL DESIGN PRESSURE= MAXIMUM ALLOWABLE UPLIFT DESIGN PRESSURE=	= 94.3 PSF = 74.4 PSF (FROM TABLE ABOVE)
7	COMPARE TO SITE SPECIFIC DESIGN CONDITIONS	COMPARE VALUES FROM STEP #6 TO THE SEPARATE SITE SPECIFIC REQUIRED DESIGN WIND PRESSURE PROVIDED BY A LICENSED ENGINEER OR REGISTERED ARCHITECT; NOT INCLUDED IN THIS CERTIFICATION. SITE-SPECIFIC PRESSURE REQUIREMENTS SHALL BE LESS THAN OR EQUAL TO THE LATERAL AND UPLIFT DESIGN PRESSURE ALLOWABLE CAPACITY VALUES LISTED.

## DESIGN SCHEDULE NOTES:

- MAXIMUM CALCULATED FACE AREA SHALL BE EQUAL TO OR LESS THAN THE MAXIMUM ALLOWABLE FACE AREA FOR EACH CONFIGURATION.
- REFERENCE ANCHOR SCHEDULE FOR ANCHOR TYPES LISTED HEREIN.
- DESIGN VALUES IN PARENTHESIS REPRESENT CAPACITIES WHEN TIE-DOWN STRAPS ARE USED. SEE DETAIL 5 ON SHEET 9 FOR STRAP DETAILS.

### TABLE LEGEND:

○ - DENOTES EXAMPLE VALUE FOR USE WITH COVER PAGE DIRECTIVE

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FLORIDA STATEWIDE APPROVAL  
FL#24546.1

REMARKS	DATE	DRWN	CHKD
INIT ISSUE	01/10/07	KL	CL
REV. TELESCOPIC BOLTS	05/03/07	KL	CL
UPDATE PER 07 FBC	09/30/08	TSB	CL
UPDATE PER 10 FBC	05/10/12	CSL	TSB
REV. PER COMMENTS	08/16/12	CSL	TSB
FBC UPDATE	07/07/15	RWN	CSL
REV. PER MD COMMENTS	05/07/16	RWN	FLB
REV. 2017 FBC	11/01/17	RWN	FLB

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## "STD" STAND DESIGN SCHEDULE CONTINUED

**30" STAND DEPTH MINIMUM: MAX FACE AREA (2880in<sup>2</sup> - 10080in<sup>2</sup>), FRAME QUANTITY (4-7 FRAMES)**

STAND CLEAR HEIGHT	MAX MEAN UNIT HEIGHT	MAX FACE AREA	UNIT TO FRAME RATIO																LOAD TRANSFER INFORMATION FOR USE WITH HOST STRUCTURE VERIFICATION ONLY			
			MAX FACE AREA : 7 FRAMES				MAX FACE AREA : 6 FRAMES				MAX FACE AREA : 5 FRAMES				MAX FACE AREA : 4 FRAMES				MAX. BASE MOMENT (M)	MAX. BASE SHEAR (V)	MAX. BASE UPLIFT (T)	MAX. BASE GRAVITY (C)
			ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3		ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3		ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3		ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3					
			MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT				
18"	30"	2880 in <sup>2</sup>	200.0 PSF	157.8 PSF	200.0 PSF	157.8 PSF	200.0 PSF	157.8 PSF	200.0 PSF	157.8 PSF	176.2 PSF	139.1 PSF	176.2 PSF	139.1 PSF	141.0 PSF	111.3 PSF	141.0 PSF	111.3 PSF	360.40 LB-FT	387.8 LB	1135.4 LB	843.1 LB
24"			192.6 PSF	152.0 PSF	192.6 PSF	152.0 PSF	165.1 PSF	130.3 PSF	165.1 PSF	130.3 PSF	137.5 PSF	108.6 PSF	137.5 PSF	108.6 PSF	110.0 PSF	86.8 PSF	110.0 PSF	86.8 PSF	360.40 LB-FT	302.6 LB	1008.4 LB	808.7 LB
30"			158.3 PSF	125.0 PSF	158.3 PSF	125.0 PSF	135.7 PSF	107.1 PSF	135.7 PSF	107.1 PSF	113.1 PSF	89.3 PSF	113.1 PSF	89.3 PSF	90.4 PSF	71.4 PSF	90.4 PSF	71.4 PSF	360.40 LB-FT	248.8 LB	926.3 LB	788.4 LB

**30" STAND DEPTH MINIMUM: MAX FACE AREA (2160in<sup>2</sup> - 7560in<sup>2</sup>), FRAME QUANTITY (3-6 FRAMES)**

STAND CLEAR HEIGHT	MAX MEAN UNIT HEIGHT	MAX FACE AREA	UNIT TO FRAME RATIO												LOAD TRANSFER INFORMATION FOR USE WITH HOST STRUCTURE VERIFICATION ONLY							
			MAX FACE AREA : 6 FRAMES				MAX FACE AREA : 5 FRAMES				MAX FACE AREA : 4 FRAMES				MAX FACE AREA : 3 FRAMES				MAX. BASE MOMENT (M)	MAX. BASE SHEAR (V)	MAX. BASE UPLIFT (T)	MAX. BASE GRAVITY (C)
			ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3		ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3		ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3		ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3					
			MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT				
18"	30"	2160 in <sup>2</sup>	200.0 PSF	157.8 PSF	200.0 PSF	157.8 PSF	200.0 PSF	157.8 PSF	200.0 PSF	157.8 PSF	188.0 PSF	148.4 PSF	188.0 PSF	148.4 PSF	141.0 PSF	111.3 PSF	141.0 PSF	111.3 PSF	360.40 LB-FT	387.8 LB	1136.5 LB	843.1 LB
24"			200.0 PSF	157.8 PSF	200.0 PSF	157.8 PSF	183.4 PSF	144.8 PSF	183.4 PSF	144.8 PSF	146.7 PSF	115.8 PSF	146.7 PSF	115.8 PSF	110.0 PSF	86.8 PSF	110.0 PSF	86.8 PSF	360.40 LB-FT	302.6 LB	1007.8 LB	808.7 LB
30"			180.9 PSF	142.8 PSF	180.9 PSF	142.8 PSF	150.8 PSF	119.0 PSF	150.8 PSF	119.0 PSF	120.6 PSF	95.2 PSF	120.6 PSF	95.2 PSF	90.4 PSF	71.4 PSF	90.4 PSF	71.4 PSF	360.40 LB-FT	248.8 LB	927.9 LB	788.4 LB

**30" STAND DEPTH MINIMUM: MAX FACE AREA (1440in<sup>2</sup> - 5040in<sup>2</sup>), FRAME QUANTITY (2-5 FRAMES)**

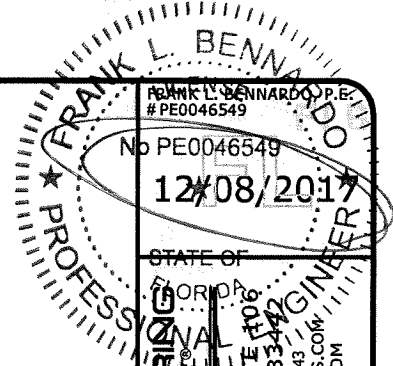
STAND CLEAR HEIGHT	MAX MEAN UNIT HEIGHT	MAX FACE AREA	UNIT TO FRAME RATIO										LOAD TRANSFER INFORMATION FOR USE WITH HOST STRUCTURE VERIFICATION ONLY									
			MAX FACE AREA : 5 FRAMES				MAX FACE AREA : 4 FRAMES				MAX FACE AREA : 3 FRAMES				MAX FACE AREA : 2 FRAMES				MAX. BASE MOMENT (M)	MAX. BASE SHEAR (V)	MAX. BASE UPLIFT (T)	MAX. BASE GRAVITY (C)
			ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3		ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3		ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3		ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3					
			MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT				
18"	30"	1440 in <sup>2</sup>	200.0 PSF	157.8 PSF	200.0 PSF	157.8 PSF	200.0 PSF	157.8 PSF	200.0 PSF	157.8 PSF	200.0 PSF	157.8 PSF	200.0 PSF	157.8 PSF	141.0 PSF	111.3 PSF	141.0 PSF	111.3 PSF	360.40 LB-FT	387.8 LB	1130.9 LB	843.1 LB
24"			200.0 PSF	157.8 PSF	200.0 PSF	157.8 PSF	200.0 PSF	157.8 PSF	200.0 PSF	157.8 PSF	165.1 PSF	130.3 PSF	165.1 PSF	130.3 PSF	110.0 PSF	86.8 PSF	110.0 PSF	86.8 PSF	360.40 LB-FT	302.6 LB	1006.3 LB	808.7 LB
30"			200.0 PSF	157.8 PSF	200.0 PSF	157.8 PSF	180.9 PSF	142.8 PSF	180.9 PSF	142.8 PSF	135.7 PSF	107.1 PSF	135.7 PSF	107.1 PSF	90.4 PSF	71.4 PSF	90.4 PSF	71.4 PSF	360.40 LB-FT	248.8 LB	927.9 LB	788.4 LB

**30" STAND DEPTH MINIMUM: MAX FACE AREA (720in<sup>2</sup> - 2520in<sup>2</sup>), FRAME QUANTITY (2-3 FRAMES)**

STAND CLEAR HEIGHT	MAX MEAN UNIT HEIGHT	MAX FACE AREA	UNIT TO FRAME RATIO								LOAD TRANSFER INFORMATION FOR USE WITH HOST STRUCTURE VERIFICATION ONLY			
			MAX FACE AREA : 3 FRAMES				MAX FACE AREA : 2 FRAMES				MAX. BASE MOMENT (M)	MAX. BASE SHEAR (V)	MAX. BASE UPLIFT (T)	MAX. BASE GRAVITY (C)
			ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3		ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3					
			MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT				
18"	30"	720 in <sup>2</sup>	200.0 PSF	157.8 PSF	200.0 PSF	157.8 PSF	200.0 PSF	157.8 PSF	200.0 PSF	157.8 PSF	255.50 LB-FT	274.9 LB	806.6 LB	569.6 LB
24"			200.0 PSF	157.8 PSF	200.0 PSF	157.8 PSF	200.0 PSF	157.8 PSF	200.0 PSF	157.8 PSF	327.40 LB-FT	274.9 LB	916.6 LB	679.6 LB
30"			200.0 PSF	157.8 PSF	200.0 PSF	157.8 PSF	180.9 PSF	142.8 PSF	180.9 PSF	142.8 PSF	360.40 LB-FT	248.8 LB	927.9 LB	720.9 LB

**DESIGN SCHEDULE NOTES:**

- MAXIMUM CALCULATED FACE AREA SHALL BE EQUAL TO OR LESS THAN THE MAXIMUM ALLOWABLE FACE AREA FOR EACH CONFIGURATION.
- REFERENCE ANCHOR SCHEDULE FOR ANCHOR TYPES LISTED HEREIN.



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 FL#24546.1

DRWN	CHKD	DATE
KL	KL	01/10/07
TSB	TSB	05/03/07
CSL	CSL	09/30/08
CSL	CSL	05/10/12
CSL	CSL	08/18/12
CSL	CSL	07/07/15
CSL	CSL	05/07/16
CSL	CSL	11/01/17

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 rickn  
 12/08/2017 - 3:40pm



"HD" STAND DESIGN SCHEDULE CONTINUED

36" STAND DEPTH MINIMUM: MAX FACE AREA (720in<sup>2</sup> - 2520in<sup>2</sup>), FRAME QUANTITY (2-3 FRAMES)

LOAD TRANSFER INFORMATION FOR USE WITH HOST STRUCTURE VERIFICATION ONLY

Table for 36" stand depth minimum with columns for stand clear height, max mean unit height, max face area, unit to frame ratio (anchors), max allowable lateral load, max allowable uplift, max base moment (M), max base shear (V), max base uplift (T), and max base gravity (C).

DESIGN SCHEDULE NOTES:

- 1. MAXIMUM CALCULATED FACE AREA SHALL BE EQUAL TO OR LESS THAN THE MAXIMUM ALLOWABLE FACE AREA FOR EACH CONFIGURATION. 2. REFERENCE ANCHOR SCHEDULE FOR ANCHOR TYPES LISTED HEREIN.

Professional Engineer seal for Frank J. Bennardo, P.E. License #PE0046349, dated 12/08/2010. Includes contact information for Miami Tech, Inc. in Deerfield Beach, FL.

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FLORIDA STATEWIDE APPROVAL
FL# 24546-1

Table with columns: DRWN, CHKD, DATE, CL, INIT, ISSUE, REV, TELESCOPIC BOLTS, UPDATE PER 07 FBC, UPDATE PER 10 FBC, REV, PER COMMENTS, FBC UPDATE, REV, PER MD COMMENTS, REV, PER FIB, REV, PER FIB. Includes revision dates and descriptions.

15-2476
SCALE: NTS
PAGE DESCRIPTION: COVER SHEET

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42" STAND DEPTH MINIMUM: MAX FACE AREA (3600in<sup>2</sup> - 12600in<sup>2</sup>), FRAME QUANTITY (5-8 FRAMES)

LOAD TRANSFER INFORMATION FOR USE WITH HOST STRUCTURE VERIFICATION ONLY

Table for 42" stand depth minimum with columns for stand clear height, max mean unit height, max face area, unit to frame ratio (anchors), max allowable lateral load, max allowable uplift, max base moment (M), max base shear (V), max base uplift (T), and max base gravity (C).

42" STAND DEPTH MINIMUM: MAX FACE AREA (2880in<sup>2</sup> - 10080in<sup>2</sup>), FRAME QUANTITY (4-7 FRAMES)

LOAD TRANSFER INFORMATION FOR USE WITH HOST STRUCTURE VERIFICATION ONLY

Table for 42" stand depth minimum with columns for stand clear height, max mean unit height, max face area, unit to frame ratio (anchors), max allowable lateral load, max allowable uplift, max base moment (M), max base shear (V), max base uplift (T), and max base gravity (C).

42" STAND DEPTH MINIMUM: MAX FACE AREA (2160in<sup>2</sup> - 7560in<sup>2</sup>), FRAME QUANTITY (3-6 FRAMES)

LOAD TRANSFER INFORMATION FOR USE WITH HOST STRUCTURE VERIFICATION ONLY

Table for 42" stand depth minimum with columns for stand clear height, max mean unit height, max face area, unit to frame ratio (anchors), max allowable lateral load, max allowable uplift, max base moment (M), max base shear (V), max base uplift (T), and max base gravity (C).

12/08/2017 - 3:40pm rickn V:\Projects\15-2476 NOA Existing - Update 13-1017.09 for 2014 Florida Bldg Code\Project\WP2017 FBC Update\FSA Submittal\15-2476 by A/C Stand (FSA).dwg

## "HD" STAND DESIGN SCHEDULE CONTINUED

### 42" STAND DEPTH MINIMUM: MAX FACE AREA (1440in<sup>2</sup> - 5040in<sup>2</sup>), FRAME QUANTITY (2-5 FRAMES)

STAND CLEAR HEIGHT	MAX MEAN UNIT HEIGHT	MAX FACE AREA	UNIT TO FRAME RATIO												LOAD TRANSFER INFORMATION FOR USE WITH HOST STRUCTURE VERIFICATION ONLY							
			MAX FACE AREA : 5 FRAMES				MAX FACE AREA : 4 FRAMES				MAX FACE AREA : 3 FRAMES				MAX FACE AREA : 2 FRAMES				MAX. BASE MOMENT (M)	MAX. BASE SHEAR (V)	MAX. BASE UPLIFT (T)	MAX. BASE GRAVITY (C)
			ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3		ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3		ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3		ANCHOR TYPE: 1 OR 4		ANCHORS TYPE: 2 OR 3					
MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT					
18"	30"	1440 in <sup>2</sup>	198.0 PSF	156.3 PSF	198.0 PSF	156.3 PSF	198.0 PSF	156.3 PSF	198.0 PSF	156.3 PSF	198.0 PSF	156.3 PSF	198.0 PSF	156.3 PSF	137.9 PSF	108.9 PSF	137.9 PSF	108.9 PSF	360.40 LB-FT	379.3 LB	845.6 LB	567.5 LB
24"			198.0 PSF	156.3 PSF	198.0 PSF	156.3 PSF	198.0 PSF	156.3 PSF	198.0 PSF	156.3 PSF	161.8 PSF	127.8 PSF	161.8 PSF	127.8 PSF	107.9 PSF	85.2 PSF	107.9 PSF	85.2 PSF	360.40 LB-FT	296.7 LB	749.0 LB	558.1 LB
30"			198.0 PSF	156.3 PSF	198.0 PSF	156.3 PSF	177.8 PSF	140.3 PSF	177.8 PSF	140.3 PSF	133.3 PSF	105.2 PSF	133.3 PSF	105.2 PSF	88.9 PSF	70.1 PSF	88.9 PSF	70.1 PSF	360.40 LB-FT	244.5 LB	688.0 LB	553.5 LB
18"	40"	2400 in <sup>2</sup>	125.0 PSF	98.6 PSF	125.0 PSF	98.6 PSF	125.0 PSF	98.6 PSF	125.0 PSF	98.6 PSF	125.0 PSF	98.6 PSF	125.0 PSF	98.6 PSF	84.6 PSF	66.8 PSF	84.6 PSF	66.8 PSF	360.40 LB-FT	379.3 LB	927.0 LB	666.7 LB
24"			125.0 PSF	98.6 PSF	125.0 PSF	98.6 PSF	125.0 PSF	98.6 PSF	125.0 PSF	98.6 PSF	99.3 PSF	78.4 PSF	99.3 PSF	78.4 PSF	66.2 PSF	52.3 PSF	66.2 PSF	52.3 PSF	360.40 LB-FT	296.7 LB	812.7 LB	635.7 LB
30"			125.0 PSF	98.6 PSF	125.0 PSF	98.6 PSF	109.1 PSF	86.1 PSF	109.1 PSF	86.1 PSF	81.8 PSF	64.6 PSF	81.8 PSF	64.6 PSF	54.5 PSF	43.0 PSF	54.5 PSF	43.0 PSF	360.40 LB-FT	244.5 LB	740.5 LB	617.4 LB
18"	50"	3600 in <sup>2</sup>	83.1 (122.8) PSF	113.0 PSF	83.1 (122.8) PSF	113.0 PSF	83.1 (114.5) PSF	90.4 PSF	83.1 (114.5) PSF	90.4 PSF	83.1 (85.8) PSF	67.8 PSF	83.1 (85.8) PSF	67.8 PSF	57.2 PSF	45.2 PSF	57.2 PSF	45.2 PSF	360.40 LB-FT	379.3 LB	1025.4 LB	762.5 LB
24"			83.1 (111.9) PSF	88.4 PSF	83.1 (111.9) PSF	88.4 PSF	83.1 (89.5) PSF	70.7 PSF	83.1 (89.5) PSF	70.7 PSF	67.1 PSF	53.0 PSF	67.1 PSF	53.0 PSF	44.7 PSF	35.3 PSF	44.7 PSF	35.3 PSF	360.40 LB-FT	296.7 LB	885.0 LB	710.7 LB
30"			83.1 (92.2) PSF	72.8 PSF	83.1 (92.2) PSF	72.8 PSF	73.8 PSF	58.2 PSF	73.8 PSF	58.2 PSF	55.3 PSF	43.7 PSF	55.3 PSF	43.7 PSF	36.9 PSF	29.1 PSF	36.9 PSF	29.1 PSF	360.40 LB-FT	244.5 LB	797.4 LB	679.2 LB
18"	60"	5040 in <sup>2</sup>	59.2 (98.9) PSF	81.4 PSF	59.2 (98.9) PSF	81.4 PSF	59.2 (82.5) PSF	65.1 PSF	59.2 (82.5) PSF	65.1 PSF	59.2 (61.9) PSF	48.8 PSF	59.2 (61.9) PSF	48.8 PSF	41.2 PSF	32.5 PSF	41.2 PSF	32.5 PSF	360.40 LB-FT	379.3 LB	1111.9 LB	856.6 LB
24"			59.2 (80.7) PSF	63.7 PSF	59.2 (80.7) PSF	63.7 PSF	59.2 (64.6) PSF	51.0 PSF	59.2 (64.6) PSF	51.0 PSF	48.4 PSF	38.2 PSF	48.4 PSF	38.2 PSF	32.3 PSF	25.5 PSF	32.3 PSF	25.5 PSF	360.40 LB-FT	296.7 LB	952.8 LB	784.3 LB
30"			59.2 (66.5) PSF	52.5 PSF	59.2 (66.5) PSF	52.5 PSF	53.2 PSF	42.0 PSF	53.2 PSF	42.0 PSF	39.9 PSF	31.5 PSF	39.9 PSF	31.5 PSF	26.6 PSF	21.0 PSF	26.6 PSF	21.0 PSF	360.40 LB-FT	244.5 LB	853.2 LB	739.8 LB

### 42" STAND DEPTH MINIMUM: MAX FACE AREA (720in<sup>2</sup> - 2520in<sup>2</sup>), FRAME QUANTITY (2-3 FRAMES)

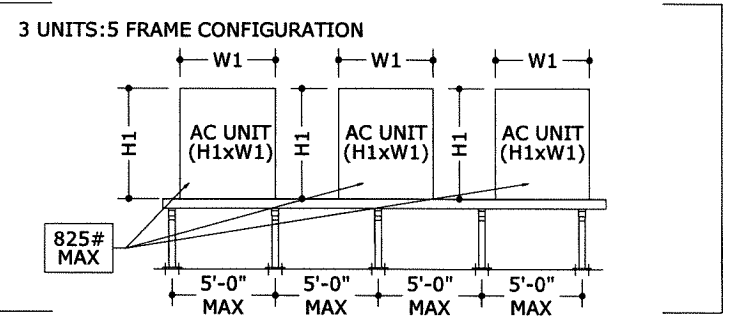
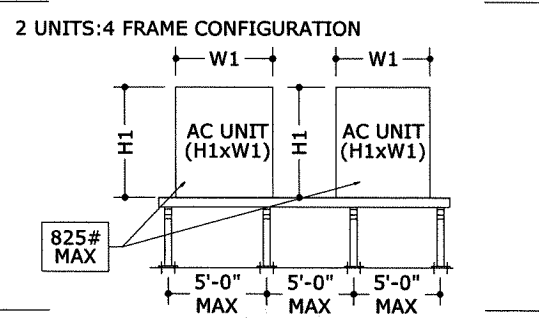
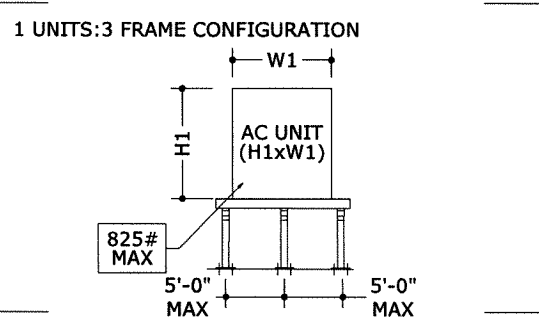
STAND CLEAR HEIGHT	MAX MEAN UNIT HEIGHT	MAX FACE AREA	UNIT TO FRAME RATIO						LOAD TRANSFER INFORMATION FOR USE WITH HOST STRUCTURE VERIFICATION ONLY									
			MAX FACE AREA : 3 FRAMES			MAX FACE AREA : 2 FRAMES			MAX. BASE MOMENT (M)	MAX. BASE SHEAR (V)	MAX. BASE UPLIFT (T)	MAX. BASE GRAVITY (C)						
			ANCHOR TYPE: 1 OR 4		ANCHOR TYPE: 2 OR 3	ANCHOR TYPE: 1 OR 4		ANCHOR TYPE: 2 OR 3										
MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT									
18"	30"	720 in <sup>2</sup>	198.0 PSF	156.3 PSF	198.0 PSF	156.3 PSF	198.0 PSF	156.3 PSF	198.0 PSF	156.3 PSF	258.70 LB-FT	272.3 LB	611.9 LB	377.9 LB				
24"			198.0 PSF	156.3 PSF	198.0 PSF	156.3 PSF	198.0 PSF	156.3 PSF	198.0 PSF	156.3 PSF	330.70 LB-FT	272.3 LB	689.7 LB	455.7 LB				
30"			198.0 PSF	156.3 PSF	198.0 PSF	156.3 PSF	177.8 PSF	140.3 PSF	177.8 PSF	140.3 PSF	360.40 LB-FT	244.5 LB	688.0 LB	486.0 LB				
18"	40"	1200 in <sup>2</sup>	125.0 PSF	98.6 PSF	125.0 PSF	98.6 PSF	125.0 PSF	98.6 PSF	125.0 PSF	98.6 PSF	266.00 LB-FT	279.9 LB	689.5 LB	459.9 LB				
24"			125.0 PSF	98.6 PSF	125.0 PSF	98.6 PSF	125.0 PSF	98.6 PSF	125.0 PSF	98.6 PSF	340.00 LB-FT	279.9 LB	769.5 LB	539.8 LB				
30"			125.0 PSF	98.6 PSF	125.0 PSF	98.6 PSF	109.1 PSF	86.1 PSF	109.1 PSF	86.1 PSF	360.40 LB-FT	244.5 LB	740.5 LB	549.9 LB				
18"	50"	1800 in <sup>2</sup>	83.1 (122.8) PSF	119.0 PSF	83.1 (122.8) PSF	119.0 PSF	83.1 (114.5) PSF	90.4 PSF	83.1 (114.5) PSF	90.4 PSF	90.4 PSF	360.40 LB-FT	379.3 LB	1023.1 LB	695.0 LB			
24"			83.1 (122.8) PSF	106.1 PSF	83.1 (122.8) PSF	106.1 PSF	83.1 (89.5) PSF	70.7 PSF	83.1 (89.5) PSF	70.7 PSF	360.40 LB-FT	296.7 LB	886.5 LB	643.2 LB				
30"			83.1 (110.7) PSF	87.4 PSF	83.1 (110.7) PSF	87.4 PSF	73.8 PSF	58.2 PSF	73.8 PSF	58.2 PSF	360.40 LB-FT	244.5 LB	798.9 LB	611.7 LB				
18"	60"	2520 in <sup>2</sup>	59.2 (98.9) PSF	97.7 PSF	59.2 (98.9) PSF	97.7 PSF	59.2 (82.5) PSF	65.1 PSF	59.2 (82.5) PSF	65.1 PSF	59.2 (64.6) PSF	51.0 PSF	59.2 (64.6) PSF	51.0 PSF	360.40 LB-FT	379.3 LB	1113.4 LB	789.1 LB
24"			59.2 (96.9) PSF	76.5 PSF	59.2 (96.9) PSF	76.5 PSF	59.2 (64.6) PSF	51.0 PSF	59.2 (64.6) PSF	51.0 PSF	360.40 LB-FT	296.7 LB	954.3 LB	716.8 LB				
30"			59.2 (79.8) PSF	63.0 PSF	59.2 (79.8) PSF	63.0 PSF	53.2 PSF	42.0 PSF	53.2 PSF	42.0 PSF	360.40 LB-FT	244.5 LB	854.7 LB	672.3 LB				

### DESIGN SCHEDULE NOTES:

1. MAXIMUM CALCULATED FACE AREA SHALL BE EQUAL TO OR LESS THAN THE MAXIMUM ALLOWABLE FACE AREA FOR EACH CONFIGURATION.
2. REFERENCE ANCHOR SCHEDULE FOR ANCHOR TYPES LISTED HEREIN.

## "CUSTOM ASSEMBLY" DESIGN SCHEDULE

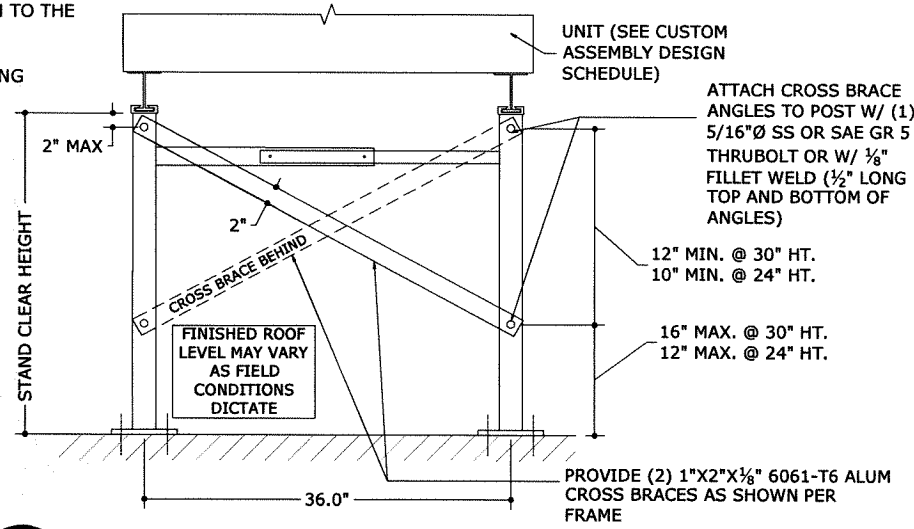
### CUSTOM ASSEMBLY ALLOWABLE CONFIGURATIONS:



**NOTE:** FOR THE "CUSTOM ASSEMBLY" STANDS, THE NUMBER OF UNITS PER STAND IS RESTRICTED TO THE CONFIGURATIONS ILLUSTRATED ABOVE. SEE DESIGN SCHEDULE FOR MORE INFORMATION.

MAX UNIT WIDTH	MAX UNIT DEPTH	MAX UNIT HEIGHT	STAND CLEAR HEIGHT	(1) UNITS TO (3) FRAMES				(2) UNITS TO (4) FRAMES				(3) UNITS TO (5) FRAMES			
				ANCHOR TYPE: 1 OR 4		ANCHOR TYPE: 2 OR 3		ANCHOR TYPE: 1 OR 4		ANCHOR TYPE: 2 OR 3		ANCHOR TYPE: 1 OR 4		ANCHOR TYPE: 2 OR 3	
				MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT	MAX ALLOWABLE LATERAL LOAD	MAX ALLOWABLE UPLIFT
50"	38"	70"	24"	94.5 PSF	74.6 PSF	94.5 PSF	74.6 PSF	63.0 PSF	49.7 PSF	63.0 PSF	49.7 PSF	52.5 PSF	41.4 PSF	52.5 PSF	41.4 PSF
			30"	79.5 PSF	62.8 PSF	79.5 PSF	62.8 PSF	53.0 PSF	41.8 PSF	53.0 PSF	41.8 PSF	44.3 PSF	35.0 PSF	44.3 PSF	35.0 PSF

- CUSTOM ASSEMBLY NOTES:**
1. EACH UNIT SHALL UTILIZE (4) TIE-DOWN STRAPS INSTALLED PER DETAIL 5/9 OF THIS DRAWING IN ADDITION TO THE TIE-DOWNS PER DETAIL 2/9 OR 3/9.
  2. EACH FRAME (POST PAIR) SHALL UTILIZE THE CROSS BRACING PER DETAIL 1/8 ON THIS SHEET.
  3. EACH STAND SHALL UTILIZE (3) SUPPORT ANGLES PER DETAIL 1/10 OF THIS DRAWING EQUALLY SPACED ALONG LENGTH OF STAND (12" MINIMUM FROM ENDS OF STAND).



**1** CROSS BRACE DETAIL - CUSTOM ASSEMBLY  
SCALE: NTS  
**8** ELEVATION VIEW

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ALUMINUM A/C STAND  
FLORIDA STATEWIDE APPROVAL  
FL#24546-1

DRWN	CHKD	DATE
KL	KL	07/10/07
KL	KL	05/03/07
TSB	TSB	09/30/08
CSL	TSB	05/10/12
CSL	TSB	08/16/12
RWN	CSL	07/07/15
RWN	FLB	05/07/16
RWN	FLB	11/01/17

REMARKS  
REV. TELESCOPIC BOLTS  
UPDATE PER 07/FBC  
UPDATE PER 10/FBC  
REV. PER COMMENTS  
FBC UPDATE  
REV. PER MD COMMENTS  
REV. 2017 FBC  
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**15-2476**

SCALE: NTS

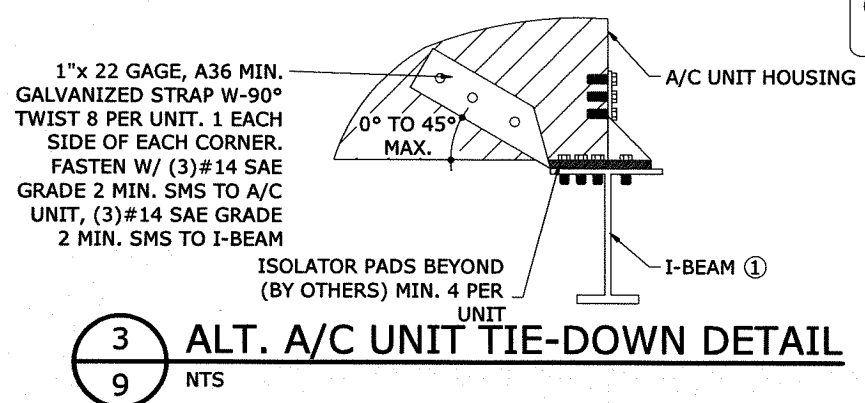
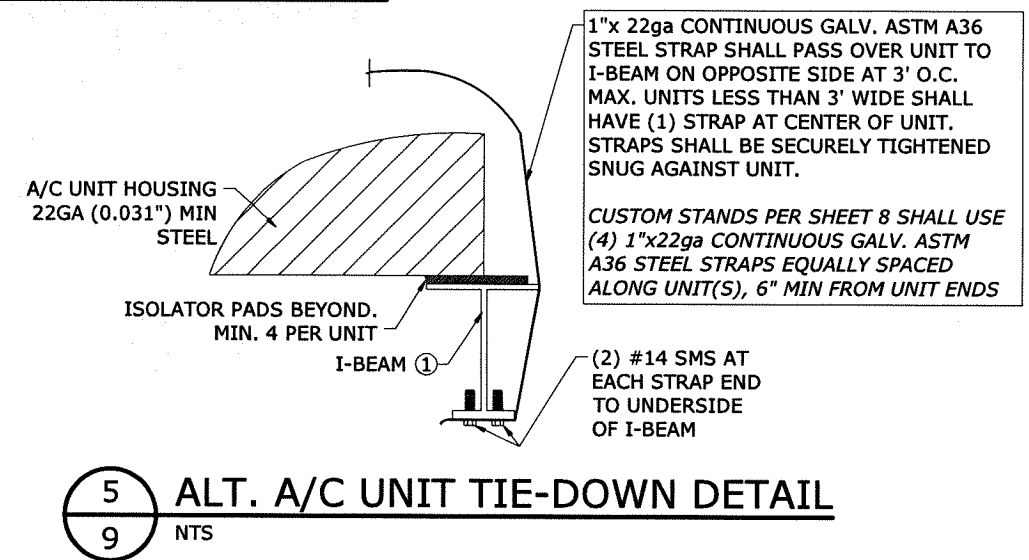
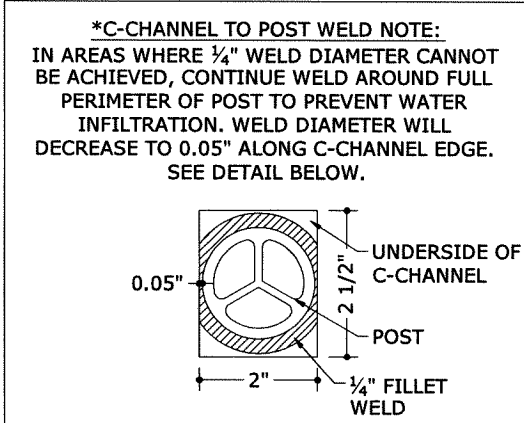
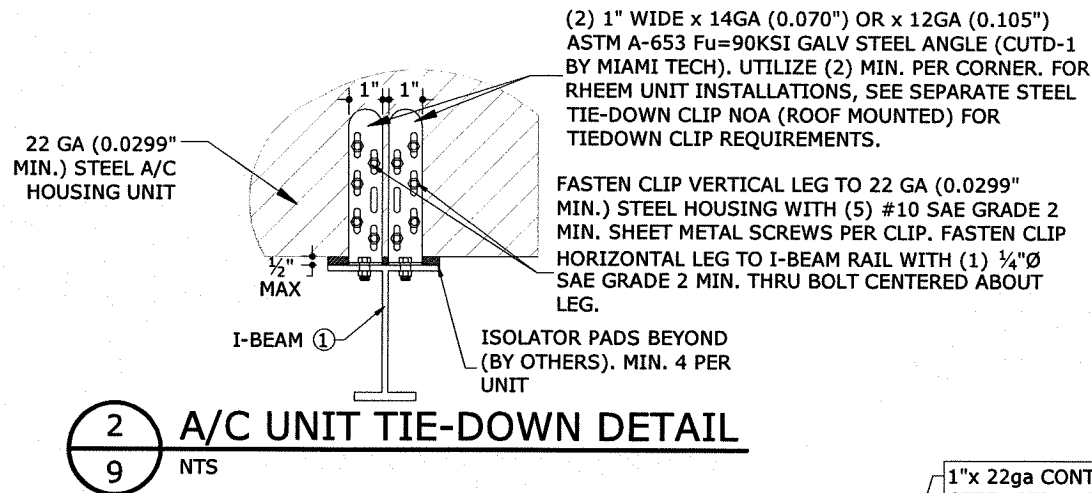
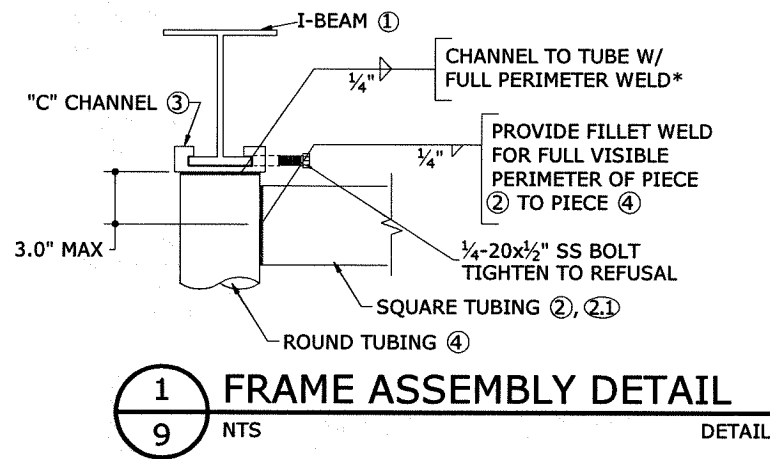
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OF 10

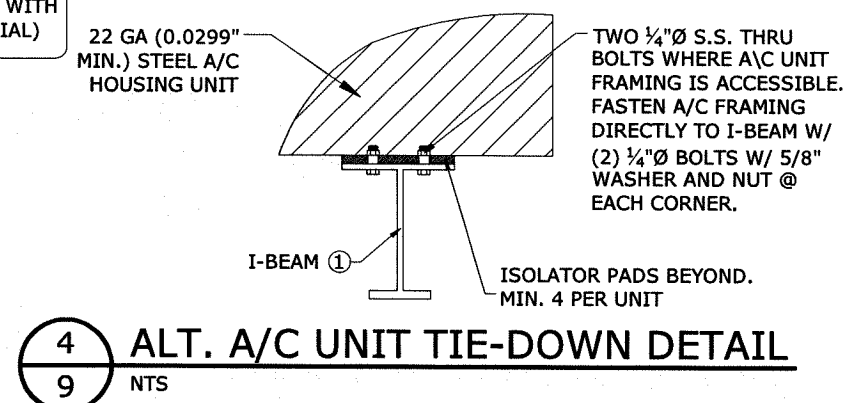
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# FRAME ASSEMBLY & UNIT TIE-DOWN DETAILS:



NOTE: UNIT TIEDOWN DETAILS MAY ALSO BE USED TO ANCHOR THE UNIT TO THE SUPPORT ANGLE SHOWN ON SHEET 10. (I.E. I-BEAM CAN BE SUBSTITUTED WITH ANGLE SUPPORT AS BASE MATERIAL)



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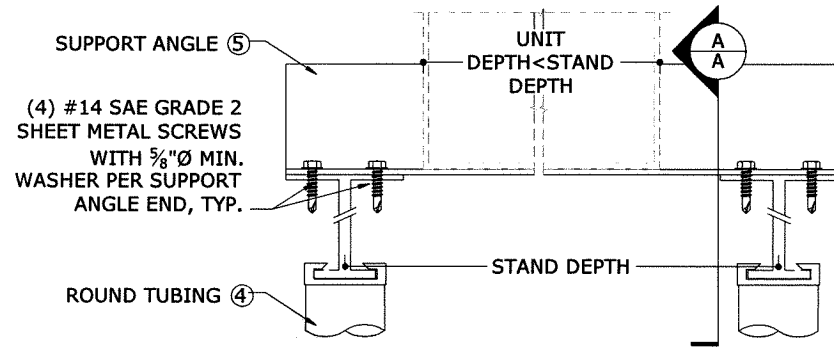
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INIT ISSUE	KL	CL	01/10/07
REV. TELESCOPIC BOLTS	KL	CL	05/03/07
UPDATE PER '07 FCC	TSB	CL	09/30/08
UPDATE PER '10 FCC	CSL	TSB	05/10/12
REV. PER COMMENTS	CSL	TSB	08/16/12
FBC UPDATE	RWN	ICSL	07/07/15
REV. PER MD COMMENTS	RWN	FLB	05/07/16
REV. 2017 FCC	RWN	FLB	11/01/17

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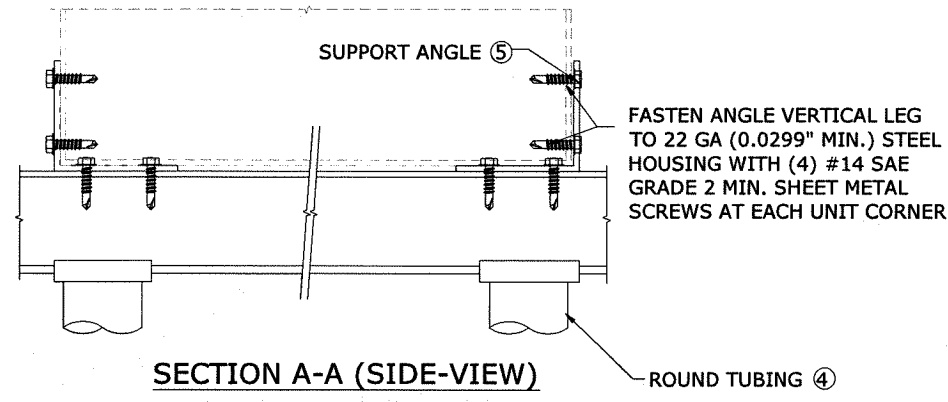
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12/08/2017 - 3:40pm rckn V:\Projects\15-2476 NOA Existing - Update 13-1017.09 for 2014 Florida Bldg Code-Project\WP2017\FBC Update\FSA Submittal\15-2476 AC Stand (FSA).dwg



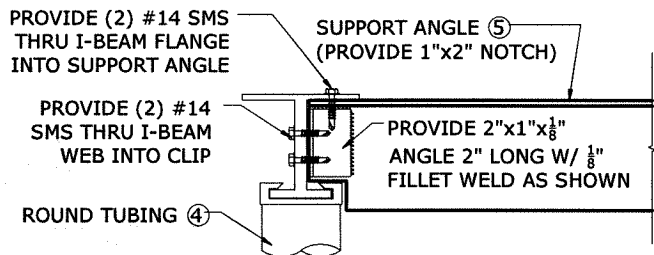
**1A**  
**10** NTS  
**SUPPORT ANGLE ATTACHMENT DETAIL**



**SECTION A-A (SIDE-VIEW)**

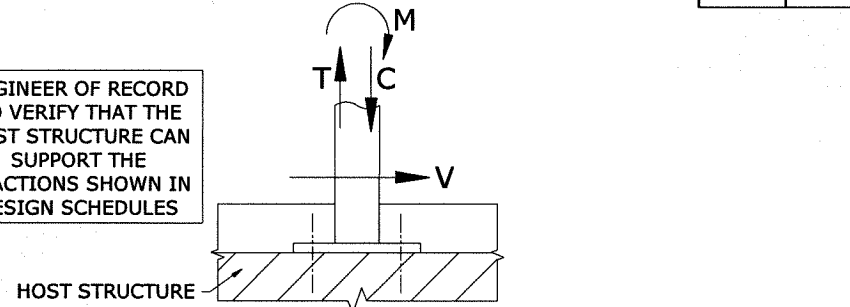
**ANCHOR SCHEDULE**

ANCHOR TYPE	HOST STRUCTURE	ANCHOR DESCRIPTION
1	STEEL	3/8"Ø SAE GRADE 5 SHEET METAL SCREWS WITH 1"Ø MIN. WASHER, TO STRUCTURAL A36 STEEL MEMBERS (3/16" MIN HOST THICKNESS)
2	CONCRETE	3/8"Ø POWERS CARBON STEEL WEDGE-BOLT CONCRETE ANCHOR WITH 1"Ø MIN. WASHER, 2-1/2" EMBEDMENT & 6" MIN EDGE DISTANCE, SEE BASE PLATE COMPONENT #6 (ON SHEET 2) FOR TYPICAL ANCHOR SPACING.
3	WOOD*	*SEE DETAIL 4/10 OR SITE SPECIFIC ENGINEERING IS REQUIRED
4	STEEL	3/8"Ø SAE GRADE 5 THURBOLT WITH 1"Ø MIN. WASHER & NUT, TO STRUCTURAL A36 STEEL MEMBERS (3/16" MIN HOST THICKNESS)



**1B**  
**10** NTS  
**SUPPORT ANGLE ATTACHMENT DETAIL**

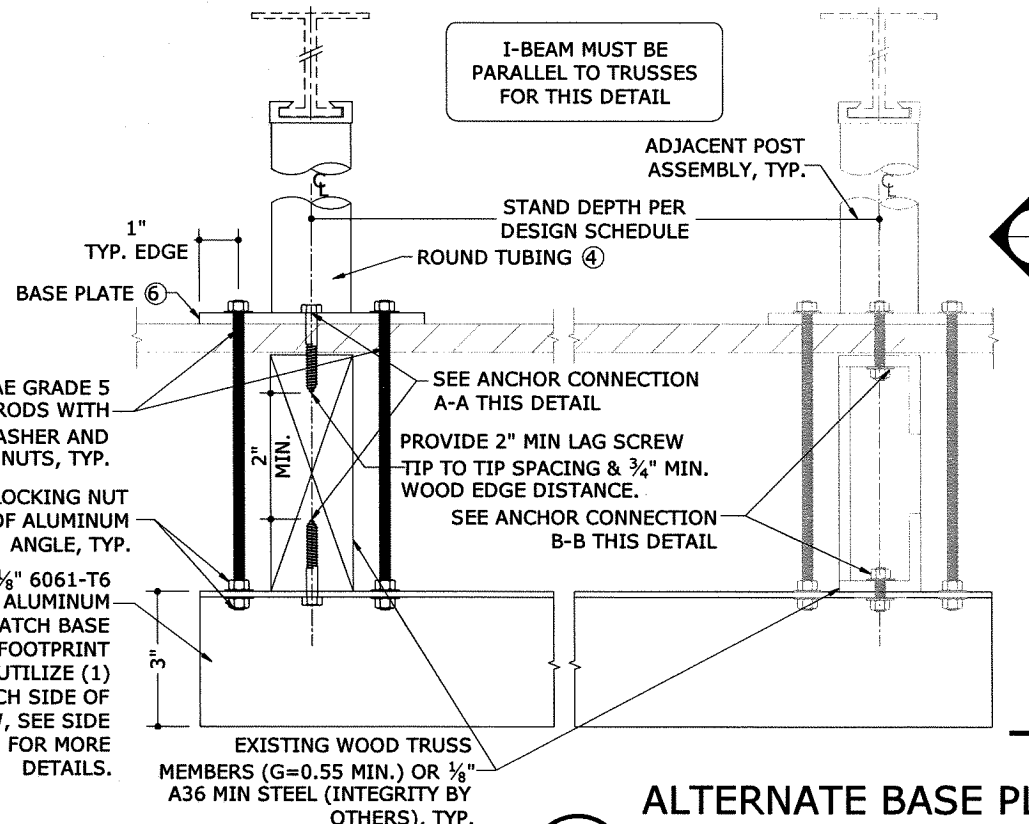
ENGINEER OF RECORD TO VERIFY THAT THE HOST STRUCTURE CAN SUPPORT THE REACTIONS SHOWN IN DESIGN SCHEDULES



**2**  
**10** NTS  
**BASE PLATE REACTIONS**

**ANCHOR NOTES:**

- ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
- ENSURE MINIMUM EDGE DISTANCE AS NOTED IN ANCHOR SCHEDULE FOR EACH ANCHOR.
- WOOD HOST STRUCTURE SHALL BE "SOUTHERN PINE" G=0.55 OR GREATER DENSITY. ALL CONCRETE SUBSTRATE SHALL BE UN-CRACKED CONCRETE AND SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI. CONCRETE SUBSTRATE THICKNESS SHALL BE GREATER THAN OR EQUAL TO 1.5xANCHOR EMBEDMENT. INSTALL CONCRETE ANCHORS TO UN-CRACKED CONCRETE ONLY.
- MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR SCHEDULE. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES ROOFING FINISHES.
- WHERE EXISTING STRUCTURE IS WOOD TRUSSES, EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD TRUSS MEMBERS, NOT INTO PLYWOOD.

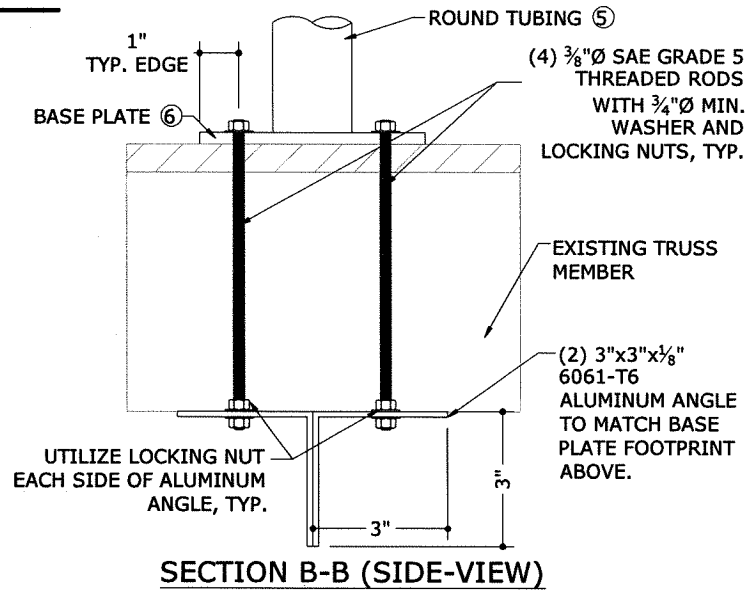


**4**  
**10** NTS  
**ALTERNATE BASE PLATE ATTACHMENT AT WOOD/STEEL TRUSS MEMBERS**

**3**  
**10** NTS  
**STANDARD BASE PLATE ATTACHMENT DETAIL**

**ANCHOR A-A (WOOD MEMBER)**  
ADD (4) 1/4"Ø LAG SCREW, 5/8"Ø MIN. WASHER, 3 1/2" MIN. EMBED, 3/4" MIN. EDGE DISTANCE. UTILIZE (2) TOP AND (2) BOTTOM, TYP.

**ANCHOR B-B (STEEL MEMBER)**  
ADD (4) 3/8"Ø THURBOLT, 3/4"Ø MIN. WASHER AND LOCKING NUT. UTILIZE (2) TOP AND (2) BOTTOM, TYP.



**SECTION B-B (SIDE-VIEW)**

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FBC UPDATE	RWN	CSL	07/07/15
REV. PER MD COMMENTS	IRWN	FLB	05/07/16
REV. 2017 FBC	IRWN	FLB	11/01/17

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