

NON-SITE-SPECIFIC STRUCTURAL PERFORMANCE EVALUATION. A DESIGN PROFESSIONAL SHALL BE RESPONSIBLE FOR CERTIFYING THE APPLICATION OF THIS INFORMATION TO ANY SITE-SPECIFIC LOCATION.

Digitally signed
by Richard Neet
Date: 2025.04.22
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DRAWING INDEX	
SHEET NO.	DESCRIPTION
1	COVER/ISO VIEW
2	ELEV VIEWS/COMPONENTS
3	DESIGN SCHED

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1. THIS SYSTEM HAS BEEN DESIGNED AND SHALL BE FABRICATED IN ACCORDANCE WITH THE STRUCTURAL PROVISIONS OF THE FLORIDA BUILDING CODE EIGHTH EDITION (2023) AS WELL AS THE 2018 AND 2021 INTERNATIONAL BUILDING CODE.
2. MAXIMUM DIMENSIONS AND WEIGHT OF A/C UNIT SHALL CONFORM TO SPECIFICATIONS STATED HEREIN, MINIMUM 75LB OR MAXIMUM AS LISTED HEREIN.
3. 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.
4. 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.
5. ALL FASTENERS TO BE MINIMUM #10 OR GREATER SAE GRADE 5 OR 316 STAINLESS STEEL, UNLESS NOTED OTHERWISE, CADCUM 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 (3) PITCHES MIN PAST THREAD PLANE.
6. ALL EXTRUDED MEMBERS SHALL BE ALUMINUM ALLOY TYPE 6061-T6 OR 6005-T5.
7. ALL STEEL CLIPS OR STRAPS (IF APPLICABLE) SHALL BE $F_y=33\text{KSI}$ MINIMUM, U.N.O.
8. ALL EXISTING CONCRETE SUBSTRATE SHALL HAVE MINIMUM f'_c COMPRESSIVE STRENGTH OF 3000 PSI AS VERIFIED BY OTHERS, U.N.O.
9. ALUMINUM WELDING SHALL BE PERFORMED IN ACCORDANCE WITH FBC SECTION 2003.8.1 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.
10. THE CONTRACTOR IS RESPONSIBLE TO INSULATE MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
11. 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.
12. 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.
13. 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.
14. EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.
15. AC STANDS SHALL LABELED PER MIAMI-DADE REQUIREMENTS FOR NON-MANDATORY PRODUCT APPROVALS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE.

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Marblehead, MA 01945

617-548-2813

Aluminum Stand for Mechanical Units Performance Evaluation

Florida/International Building Code

REMARKS	INIT ISSUE	RN	DRWN	CHKD	DATE
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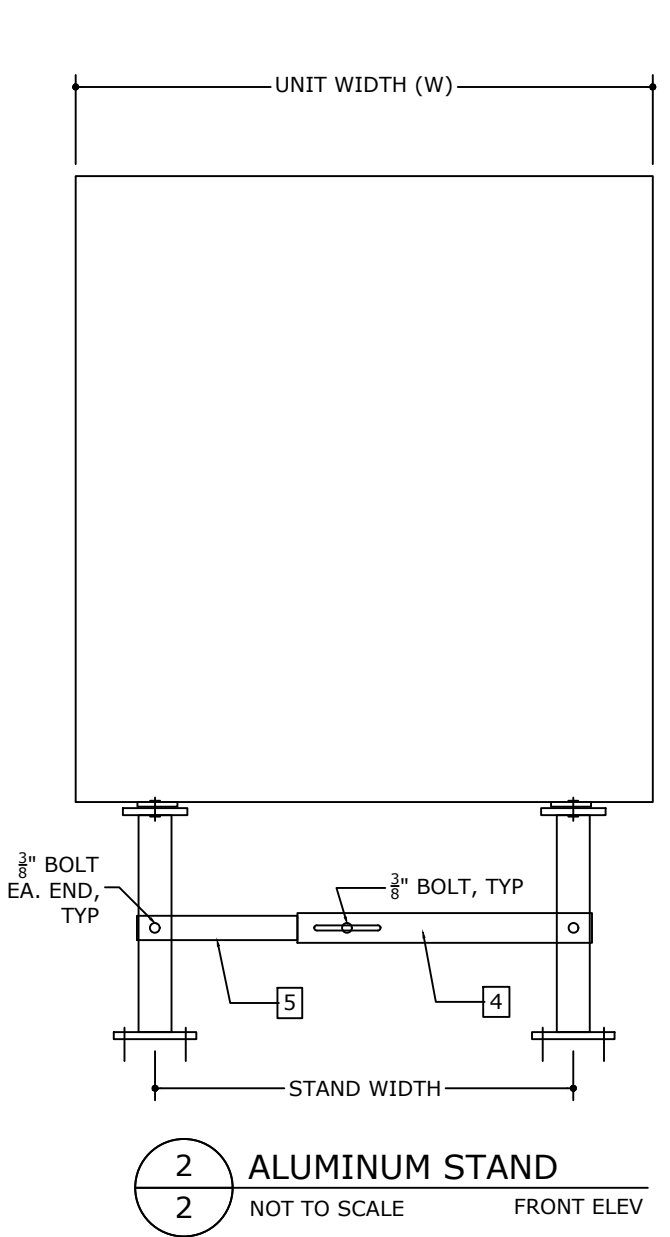
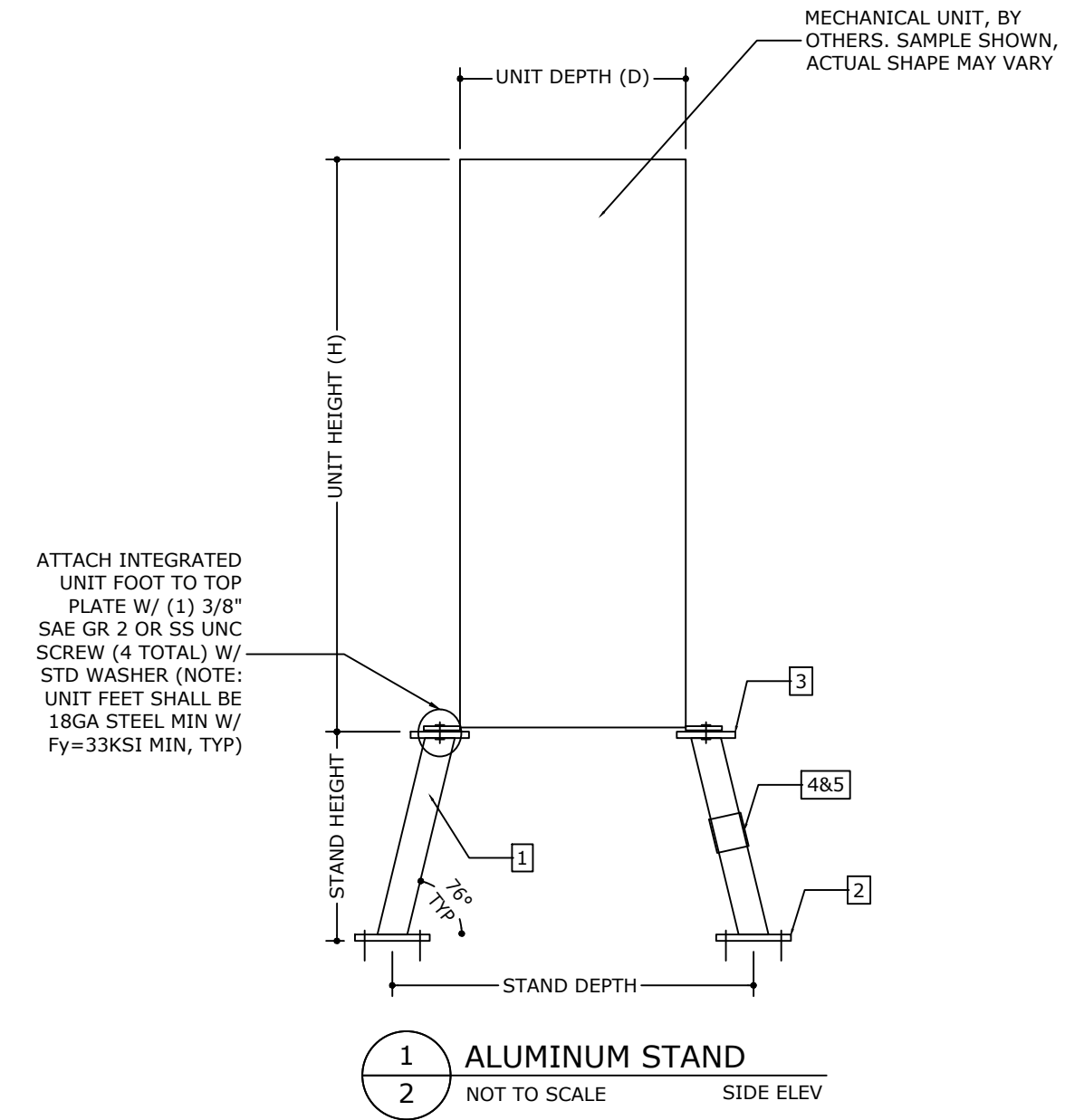
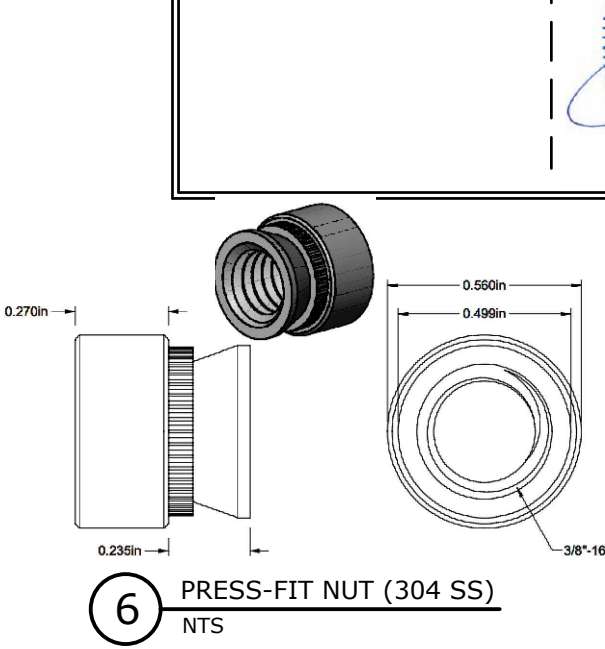
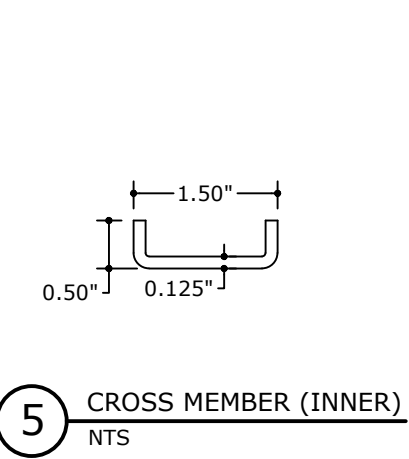
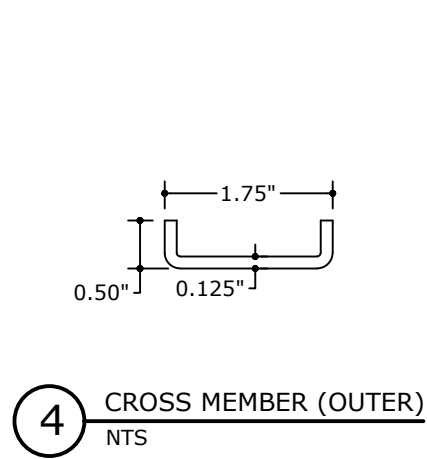
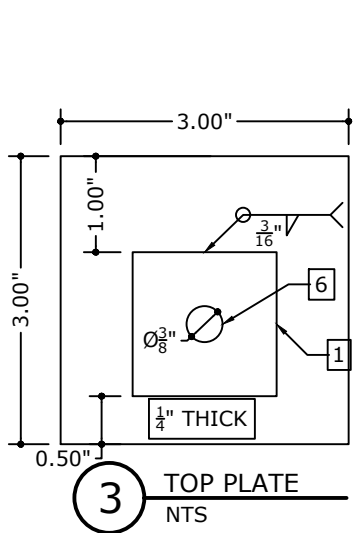
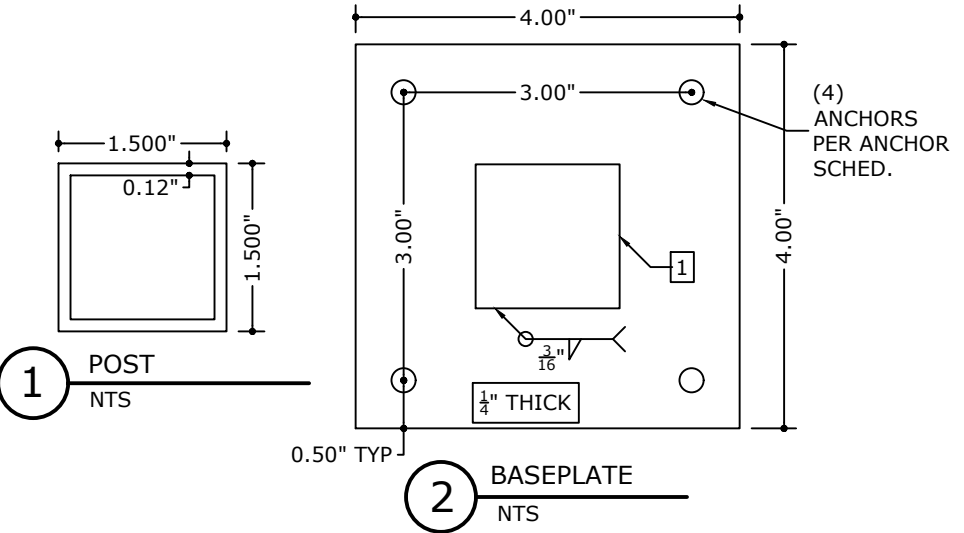
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SCALE: NTS UNLESS NOTED

13

STAND COMPONENTS
(6061-T6 ALUM)

RICHARD NEET, P.E.
PE# 86488 CA# 9885



ANCHOR SCHEDULE

ANCHOR TYPE	HOST STRUCTURE	ANCHOR DESCRIPTION
1	STEEL	1/4"Ø SAE GRADE 5 OR SS BOLT WITH STD SAE GR WASHERS, TO STRUCTURAL A36 STEEL MEMBERS (1/8" MIN HOST THICKNESS)
2A	CONCRETE (3.0 KSI MIN)	1/4"Ø DEWALT CARBON STEEL SCREW-BOLT CONCRETE ANCHOR WITH 2" EMBEDMENT & 5" MIN EDGE DISTANCE, SEE BASE PLATE COMPONENT #2 (ON SHEET 2) FOR TYPICAL ANCHOR SPACING.
2B	CONCRETE (5.0 KSI MIN)	3/8"Ø DEWALT MINI-DROPIN ANCHOR WITH 3/4" EMBEDMENT & 5" MIN EDGE DISTANCE, SEE BASE PLATE COMPONENT #2 (ON SHEET 2) FOR TYPICAL ANCHOR SPACING.
3	WOOD*	*SEE DETAIL 4/4 OR SITE SPECIFIC ENGINEERING IS REQUIRED

ANCHOR NOTES:

1. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
2. ENSURE MINIMUM EDGE DISTANCE AS NOTED IN ANCHOR SCHEDULE FOR EACH ANCHOR.
3. 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, U.N.O. CONCRETE SUBSTRATE THICKNESS SHALL BE GREATER THAN OR EQUAL TO 1.5xANCHOR EMBEDMENT. INSTALL CONCRETE ANCHORS TO UN-CRACKED CONCRETE ONLY.
4. MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR SCHEDULE. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES ROOFING FINISHES.
5. WHERE EXISTING STRUCTURE IS WOOD TRUSSES, EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD TRUSS MEMBERS, NOT INTO PLYWOOD.

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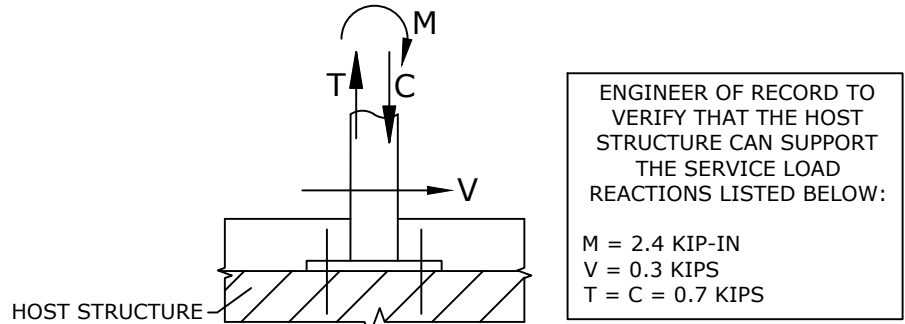
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ALUMINUM STAND DESIGN SCHEDULE

STAND DESIGN SCHEDULE (MAXIMUM ALLOWABLE LATERAL/UPLIFT PRESSURES)

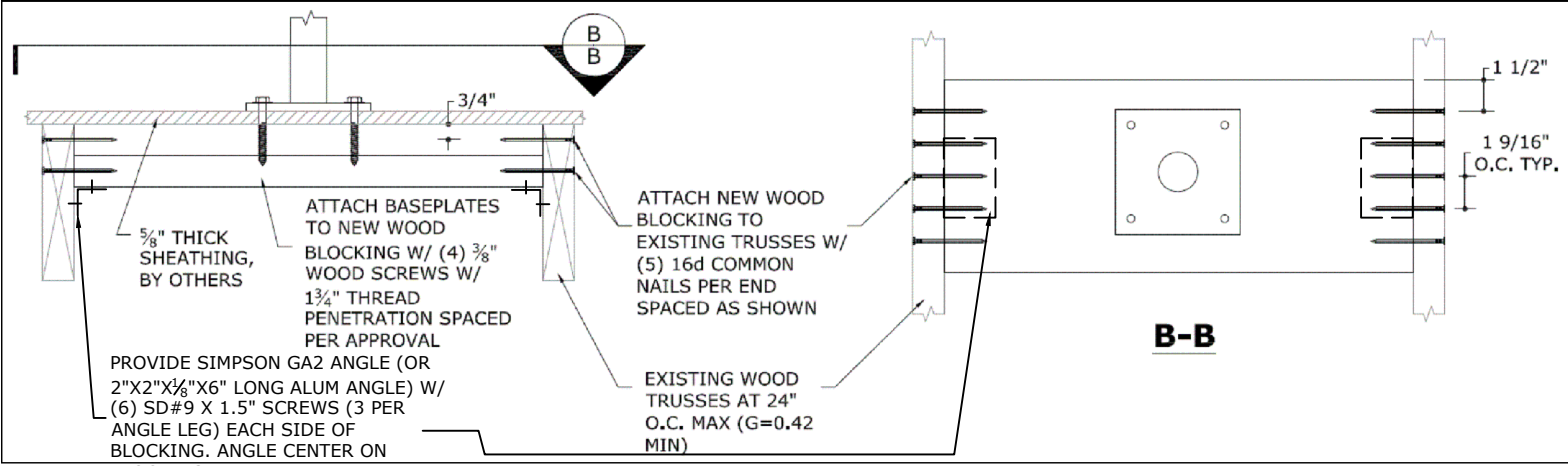
MAX UNIT HEIGHT	MAX FACE AREA	MAX POST HEIGHT	MAX ALLOWABLE PRESSURES	
			LATERAL	UPLIFT
60.0 in	576.0 in ² (= 4.0 sqft)	12 in	200 psf	158 psf
		18 in	133 psf	105 psf
		24 in	100 psf	79 psf
	870.0 in ² (= 6.0 sqft)	12 in	132 psf	105 psf
		18 in	88 psf	70 psf
		24 in	66 psf	52 psf
	1008.0 in ² (= 7.0 sqft)	12 in	114 psf	90 psf
		18 in	76 psf	60 psf
		24 in	57 psf	45 psf
	1152.0 in ² (= 8.0 sqft)	12 in	100 psf	79 psf
		18 in	67 psf	53 psf
		24 in	50 psf	39 psf
	1296.0 in ² (= 9.0 sqft)	12 in	89 psf	70 psf
		18 in	59 psf	47 psf
		24 in	44 psf	35 psf
	1512.0 in ² (= 10.5 sqft)	12 in	76 psf	60 psf
		18 in	51 psf	40 psf
		24 in	38 psf	30 psf
	1728.0 in ² (= 12.0 sqft)	12 in	67 psf	53 psf
		18 in	44 psf	35 psf
		24 in	33 psf	26 psf
	1944.0 in ² (= 13.5 sqft)	12 in	59 psf	47 psf
		18 in	40 psf	31 psf
		24 in	30 psf	23 psf
	2160.0 in ² (= 15.0 sqft)	12 in	53 psf	42 psf
		18 in	36 psf	28 psf
		24 in	27 psf	21 psf

- DESIGN SCHEDULE NOTES:
1. MAX UNIT FACE AREA = [UNIT WIDTH (W)]x[UNIT HEIGHT (H)]. FOR EXAMPLE, IF W=24" AND H=24" --> MAX FACE AREA = 24"x24"=576in²
 2. MAXIMUM STAND WIDTH OR DEPTH SHALL NOT EXCEED 4'-0" O.C. (SEE ELEVATIONS)
 3. MINIMUM ALLOWABLE STAND DEPTH = 20"
 4. ALL STANDS SHALL HAVE (4) POSTS TOTAL. ALTERNATE CONFIGURATIONS SHALL BE DESIGNED SEPARATELY ON A SITE SPECIFIC BASIS.
 5. REFERENCE STAND DETAILS HEREIN FOR STAND COMPONENTS AND INSTALLATION OPTIONS.
 6. SEE ELEVATIONS FOR UNIT TIEDOWN REQUIREMENTS AND LIMITATIONS.
 7. UNIT OR STAND DIMENSIONS OUTSIDE THE PARAMETERS LISTED IN THIS SCHEDULE WILL REQUIRE SEPARATE SITE SPECIFIC ENGINEERING.
 8. REQUIRED DESIGN PRESSURES FOR INSTALLATION SHALL BE CALCULATED ON A SITE SPECIFIC BASIS AND BE LESS THAN OR EQUAL TO THE MAX ALLOWABLE PRESSURES LISTED IN THIS DRAWING.
 9. INTERPOLATION BETWEEN UNIT HEIGHTS, FACE AREA OR POST HEIGHT IS **NOT** PERMITTED.
 10. THE UNIT DEPTH SHALL NOT EXCEED THE MAX UNIT HEIGHT LISTED.



ENGINEER OF RECORD TO VERIFY THAT THE HOST STRUCTURE CAN SUPPORT THE SERVICE LOAD REACTIONS LISTED BELOW:

M = 2.4 KIP-IN
V = 0.3 KIPS
T = C = 0.7 KIPS



ALT. BASEPLATE TO WOOD TRUSS
ATTACHMENT (2X10 WOOD BLOCKING)
SCALE: NTS WOOD (G=0.55 MIN.)

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