

CONTRACTOR: MARTIN EXTERIORS  
DESIGN CRITERIA:

- Applicable Codes, Regulations, and Standards**
1. The 6th Edition (2017) Florida Building Code, specifically Chapter 16 Structural Design, Chapter 20 Aluminum, and Chapter 23 Wood.
  2. AA ASM 35 and AA ADM1 Specifications for Aluminum Structures, Part 1-A of the Aluminum Design Manual prepared by The Aluminum Association, and the AAF Guide to Aluminum Construction in High Wind Areas.
  3. ASCE 7-10.

**Loading Criteria**

1. Live Load: **10 PSF per 6th Edition (2017) Florida Building Code, Appendix I Section 105.1**
2. Dead Load: **2 PSF**
3. Wind Load:
  - 3.1. Building Occupancy Category, Section 1604.5 and Table 1604.5: **Risk Category 1.**
  - 3.2. Ultimate Design Wind Speed:  $V_{ult} = 110$  MPH, Nominal Design Wind Speed:  $V_{50} = 85$  MPH
  - 3.3. Exposure Category, Section 1609.4.3: **Exposure C**
4. Building Category for Aluminum Structures, Section 2002.6: **Category TYPE 1 - Screen Enclosure / Screen Room: Non-Habitable, Unconditioned**

**Roof Type**

1. Roof Type: **MONOSLOPE / MANSARD**
2. Roof Material: **3" x 12" 0.030" American Metals Supply Riser Panel, Florida Product Approval Number FL 16952-R2**

**Foundation Design**

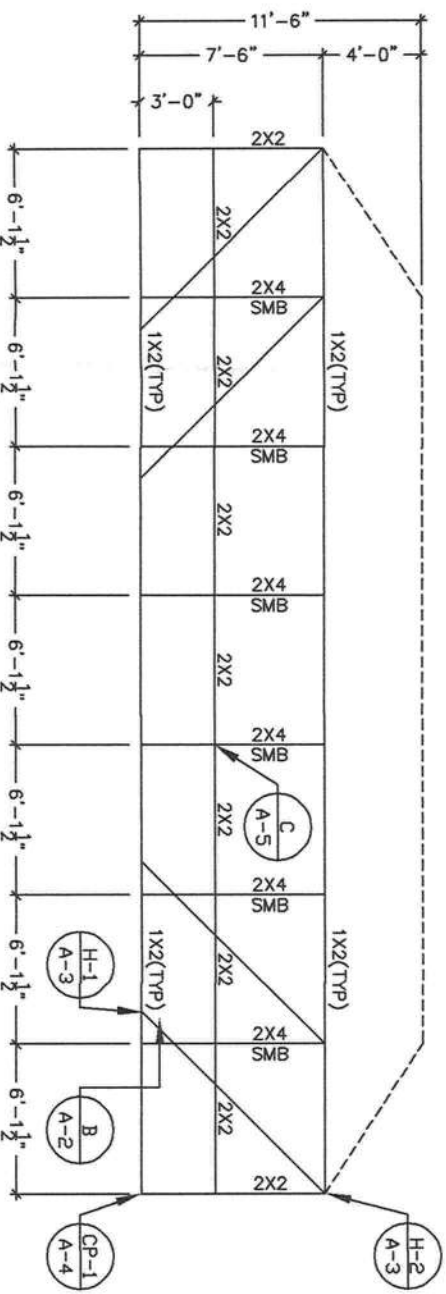
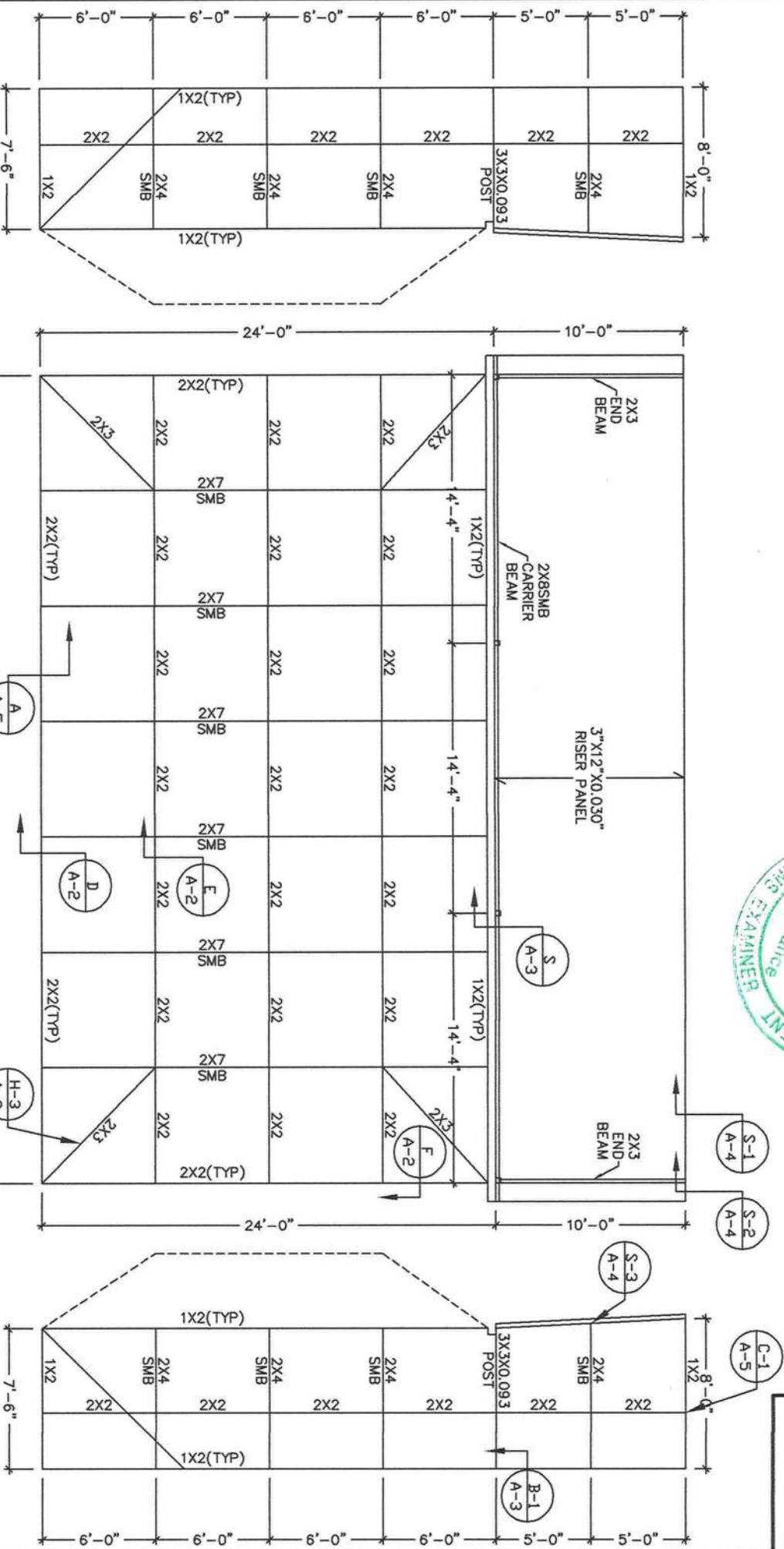
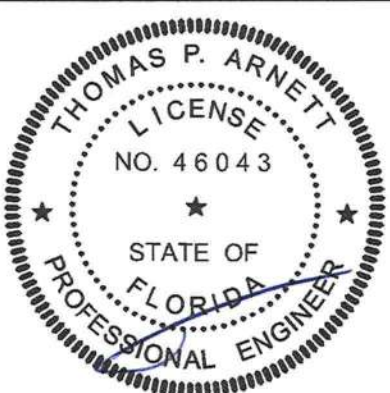
New Type II 4" Monolithic Concrete Slab - 8" x 8" w/(1) #5 Cont. 31" overlap at joints on 3" chairs and poured w/ 2,500 PSI concrete. The foundations are based on a minimum soil bearing pressure of 1,500 psf.

**Specifications**

The following specifications are applicable to this project:

1. Where concrete specifications are required, whether in the screen enclosure scope or not, by one or more regulatory agency, the following specifications are applicable:
  - a. Concrete shall conform to ASTM C94 for the following components:
    - i. Portland Cement Type I - ASTM C 150
    - ii. Aggregates - Large Aggregate 3/4" max - ASTM C 33
    - iii. Air entraining +/- 1% - ASTM C 260
    - iv. Water reducing agent - ASTM C 494
    - v. Clean Potable water
    - vi. Other admixtures not permitted
  - b. Metal accessories shall conform to:
    - i. Reinforcing Bars - ASTM A615, grade 60
    - ii. Welded wire fabric - ASTM A185
  - c. Concrete slump at discharge chute not less than 3" or more than 5". Water added after batching is not permitted.
  - d. Prepare and place concrete per American Concrete Institute Manual of Standard Practice, Parts 1, 2, and 3 including hot weather recommendations.
  - e. Moist cure or polyethylene curing permitted.
  - f. Prior to placing concrete, treat the entire subsurface area for termites in compliance with the FBC.
  - g. Concrete shall be placed over a polyethylene vapor barrier.
  - h. All aluminum components embedded within concrete shall be coated with a bituminous paint or epoxy.
2. Aluminum extrusions shall be 6005 T5 Alloy
3. Fasteners are required to be corrosion resistant, minimum SAE Grade 2 or better zinc plated to ASTM B633, or coated stainless steel series "300", or uncoated stainless steel series "400".
4. Approved concrete screw anchors to be Simpson Titen-UD or equivalent.
5. All Self Mating Beam Sections are to be stitched with either #14 screws 6" from ends and 24" center to center or #12 screws 6" from ends and 12" center to center.
6. The minimum nominal thickness of protector panels (kickplates) shall be an industry standard of 0.024 inches.
7. Screened enclosures containing swimming pools shall comply with the applicable requirements of FBC R4501.17 Residential Swimming Barrier requirements.
8. Screen material shall be 18/14 screen unless approved by Florida Aluminum Engineering, Inc.
9. Door location shall be determined by contractor in the field.
10. When installing pavers over concrete slab or footing which are supporting aluminum members, such as continuous screen tracks or upright, the pavers must be bonded to the concrete with an epoxy, thinset, or 3,000 PSI grout to ensure full positive contact with concrete.
11. All Flashing and waterproofing shall be provided by the contractor.
12. Use of these plans acknowledges and accepts a limit of liability not to exceed design and engineering fee.

WIND SPEED AND EXPOSURE HAVE  
BEEN DETERMINED USING THE ADVANCED  
TECHNOLOGY COUNCIL'S WEBSITE  
AND GOOGLE EARTH



<b>PROJECT ADDRESS:</b> SHERMAN 303 SE MOHAWK WAY LAKE CITY FL 32025		<b>FLORIDA ALUMINUM ENGINEERING, INC.</b> 5601 MARINER STREET SUITE 240 TAMPA FL 33609 TEL: (813) 374-2403 FAX: (813) 374-4516 FLORIDA LICENSE: CA LIC. NO. 32807		<b>PROFESSIONAL ENGINEER</b> THOMAS P. ARNETT, P.E. LICENSE No. #46043	
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<b>DATE DRAWN</b> 08/18/20					
<b>REVISION</b>					
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ALUMINUM MEMBERS DIMENSIONS

HOLLOW SECTIONS

- 2 x 2: 2" x 2" x 0.046"
- 2 x 3: 2" x 3" x 0.050"
- 2 x 4: 2" x 4" x 0.050"
- 2 x 5: 2" x 5" x 0.050"

OPEN BACK SECTIONS

- 1 x 2: 1" x 2" x 0.040"
- 1 x 3: 1" x 3" x 0.045"

SNAP SECTIONS

- 2 x 2 Snap: 2" x 2" x 0.045"
- 2 x 3 Snap: 2" x 3" x 0.050"
- 2 x 4 Snap: 2" x 4" x 0.045"

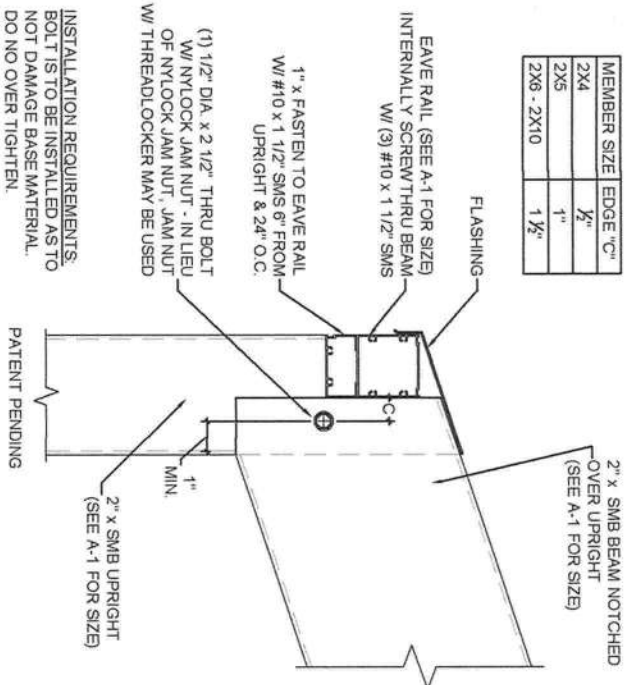
SELF MATTING (SMB)

- 2 x 4 SMB: 2" x 4" x 0.044" x 0.100"
- 2 x 5 SMB: 2" x 5" x 0.050" x 0.100"
- 2 x 6 SMB: 2" x 6" x 0.050" x 0.120"
- 2 x 7 SMB: 2" x 7" x 0.057" x 0.120"
- 2 x 8 SMB: 2" x 8" x 0.072" x 0.124"
- 2 x 9 SMB: 2" x 9" x 0.072" x 0.124"
- 2 x 10 SMB: 2" x 10" x 0.092" x 0.398"

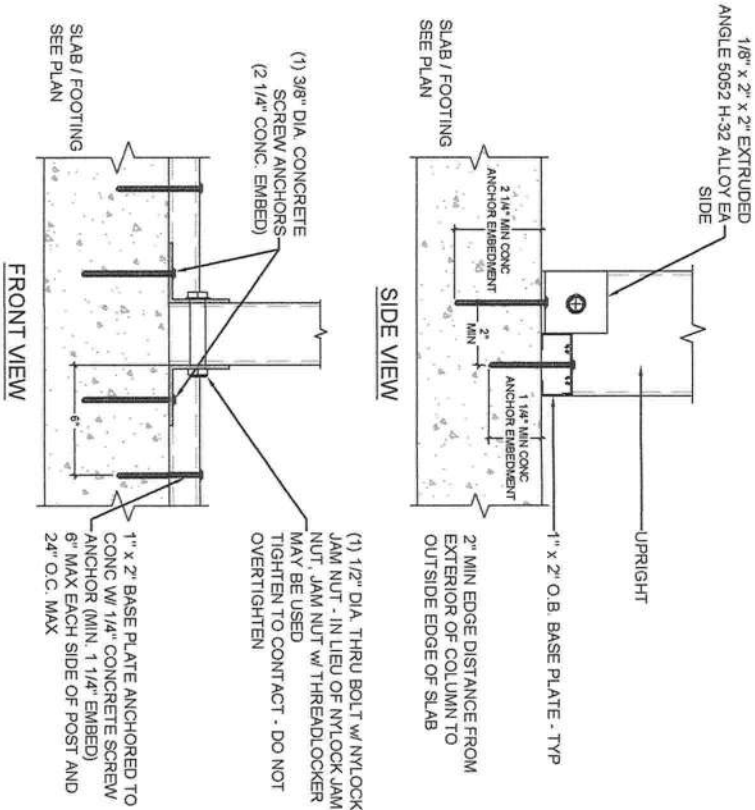
MINIMUM FASTENER EDGE DISTANCE: 1/2"  
MINIMUM FASTENER SPACING: 3/4"

CONCRETE SCREW ANCHOR:

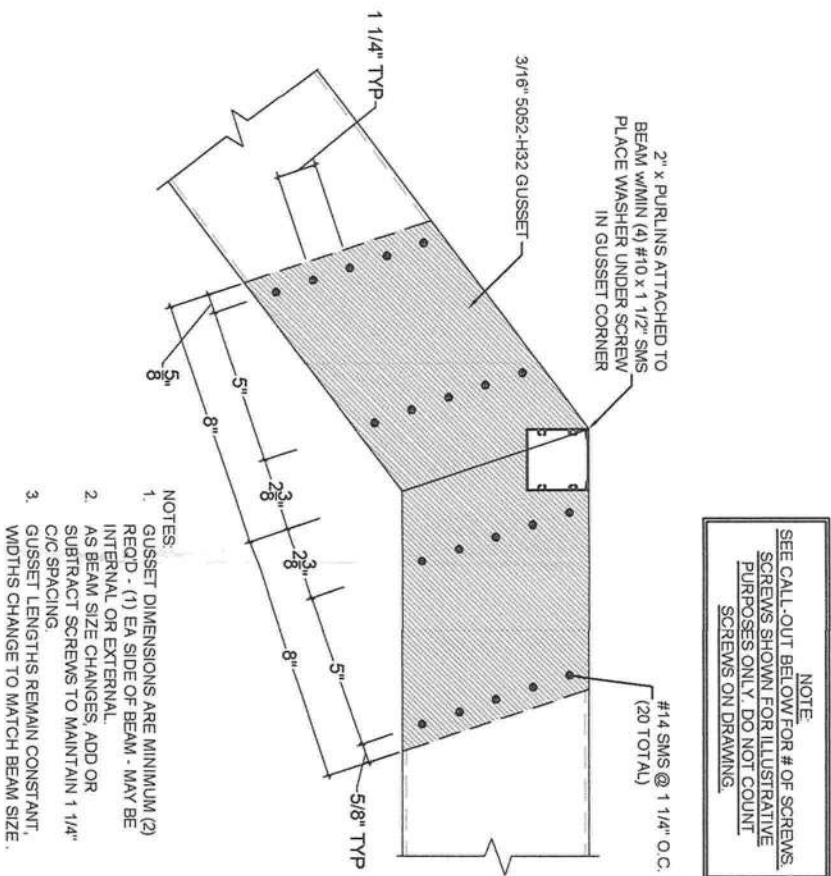
SIMPSON TITEN HD OR EQUIVALENT  
SHEET METAL SCREWS (SMS):  
11W / BUILDEX OR EQUIVALENT



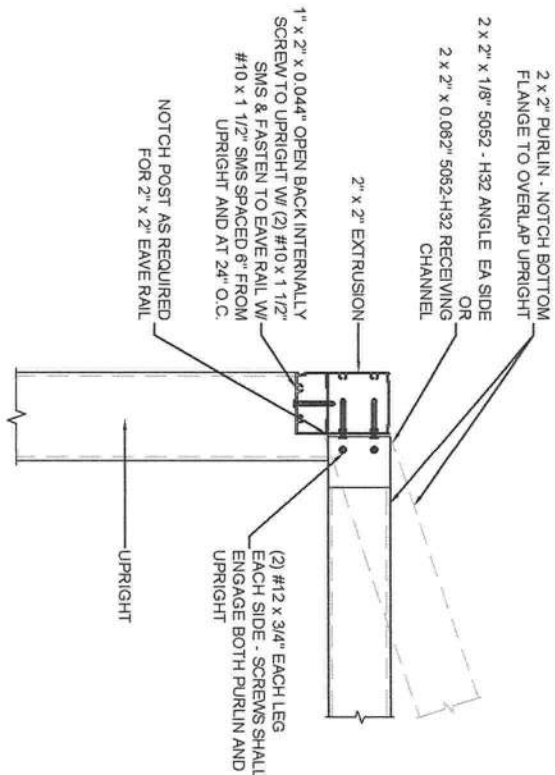
D UPRIGHT TO BEAM CONNECTION  
A-2  
SCALE: NTS



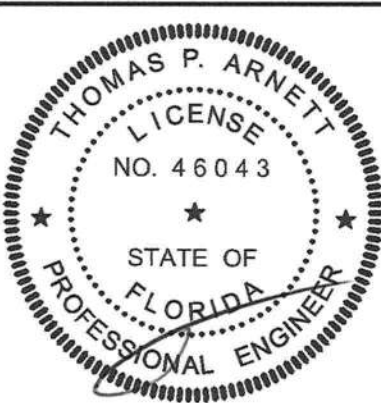
B 2" x 4" OR LARGER UPRIGHT TO CONCRETE DETAIL  
A-2  
SCALE: NTS



E TYPICAL INTERNAL OR EXTERNAL GUSSET DETAIL - RIGID MEDIUM  
A-2  
SCALE: NTS



F UPRIGHT TO PURLIN CONNECTION DETAIL  
A-2  
SCALE: NTS



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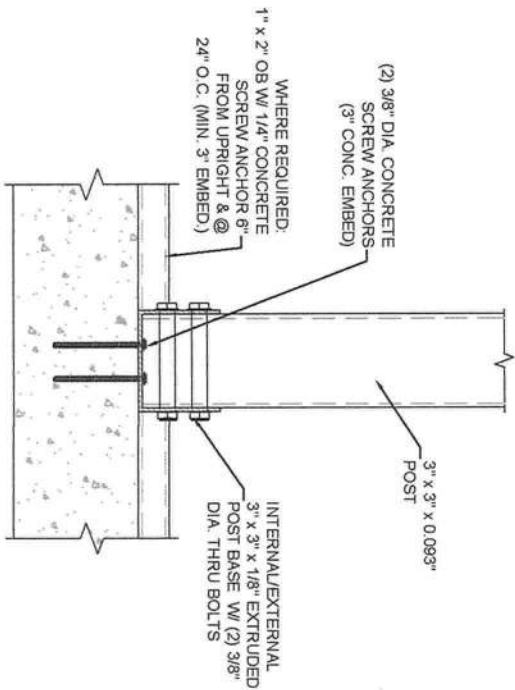
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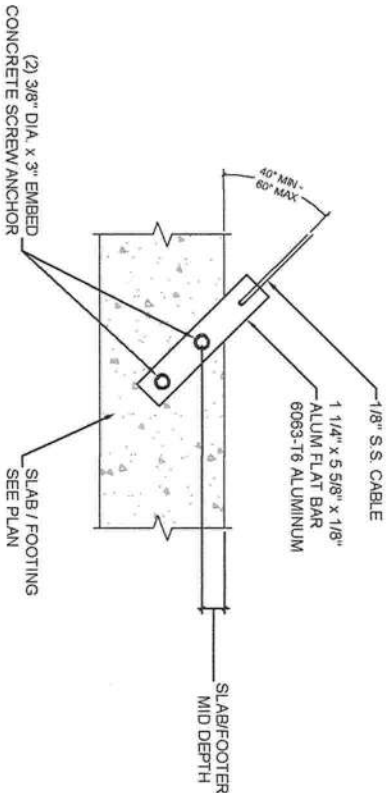
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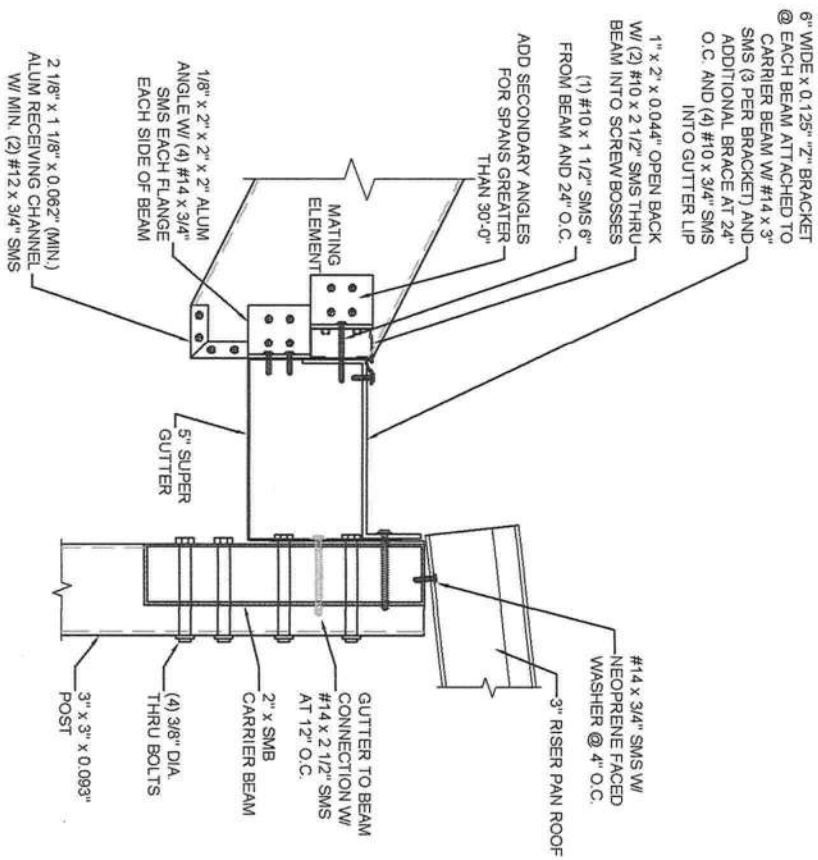
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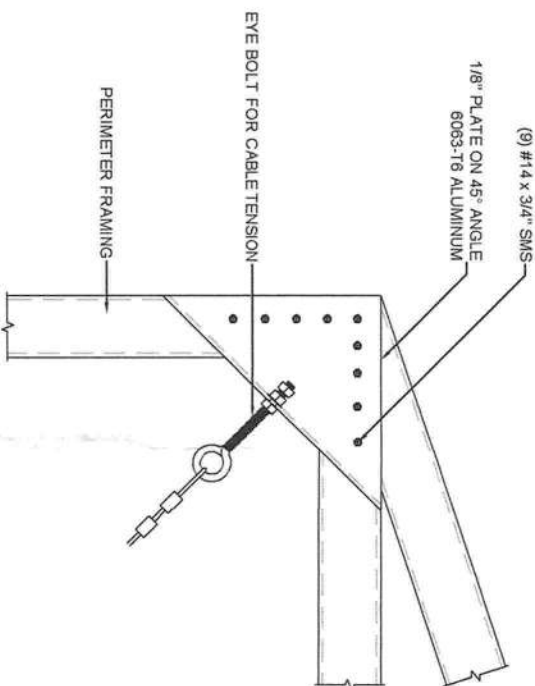
**B-1** 3" x 3" POST TO CONCRETE CONNECTION DETAIL  
SCALE: NTS



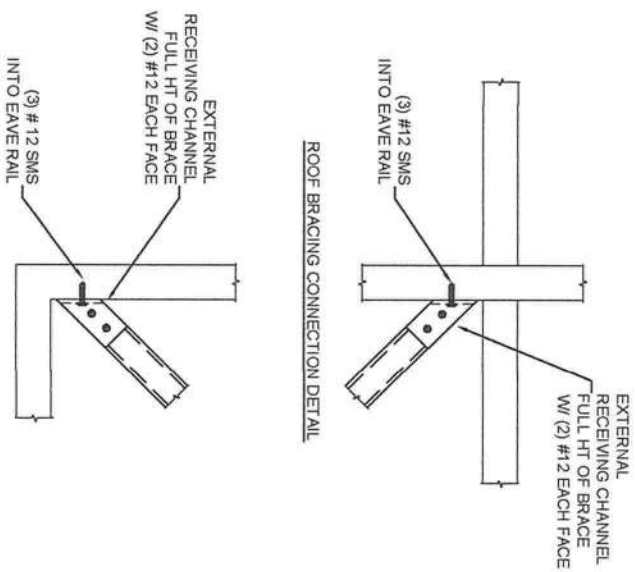
**H-1** CABLE CONNECTIONS AT FOUNDATION  
SCALE: NTS



**S** GUTTER BRACE TO POST TO ROOF PANEL ATTACHMENT DETAIL  
SCALE: NTS



**H-2** CABLE CONNECTION AT CORNER  
SCALE: NTS



**H-3** ROOF BRACING CONNECTION DETAIL  
SCALE: NTS



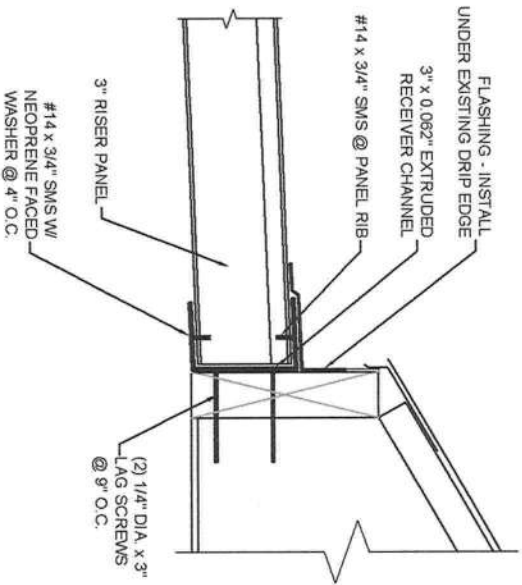
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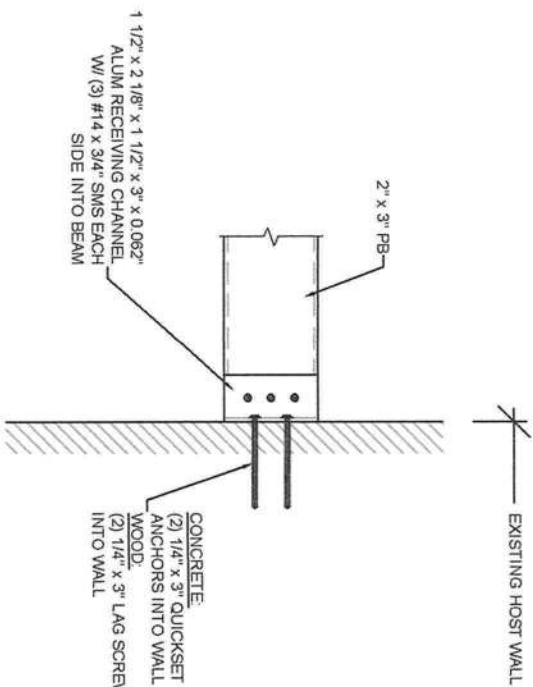
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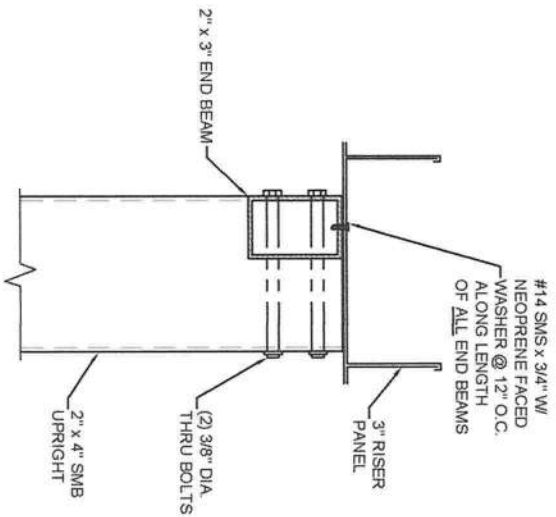
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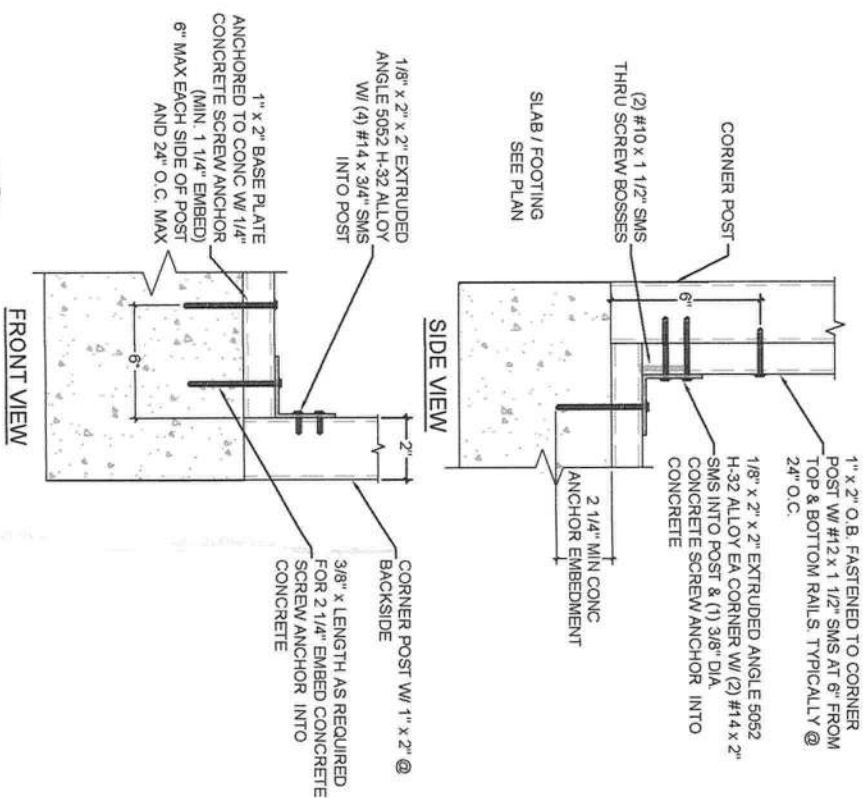
**S-1** RISER PANEL TO FASCIA DETAIL  
SCALE: NTS  
A-4



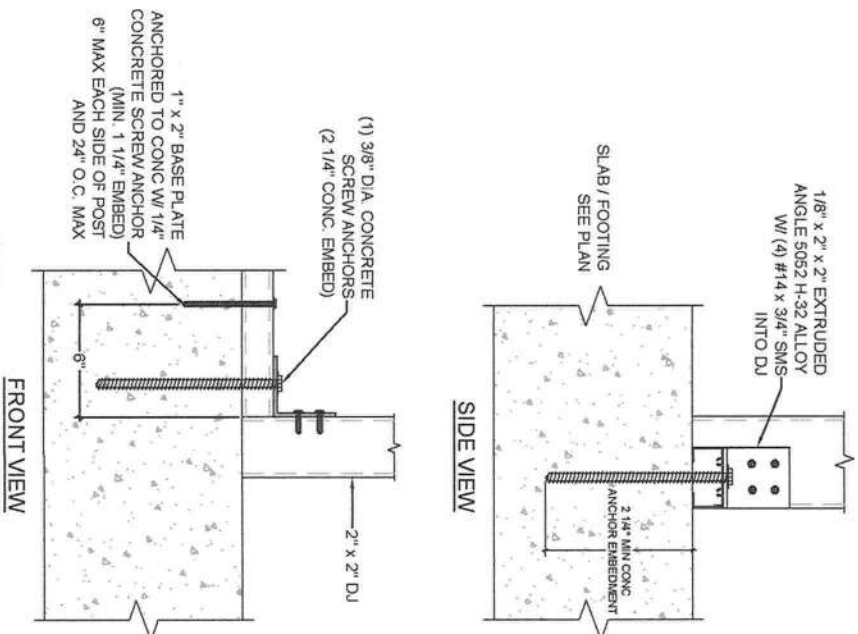
**S-2** BEAM TO HOST STRUCTURE ATTACHMENT DETAIL  
SCALE: NTS  
A-4



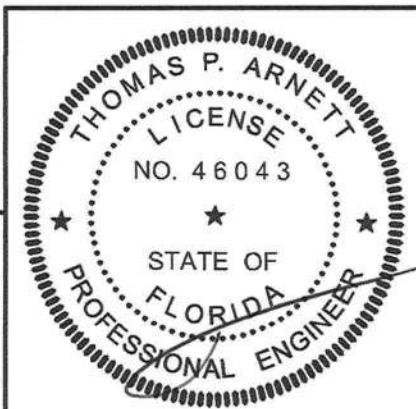
**S-3** RISER PANEL TO END WALL POST CONNECTION  
SCALE: NTS  
A-4



**CP-1** CORNER POST TO CONCRETE DETAIL  
SCALE: NTS  
A-4



**DJ-1** DOOR JAMB TO CONCRETE DETAIL  
SCALE: NTS  
A-4



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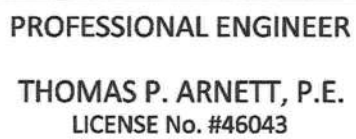
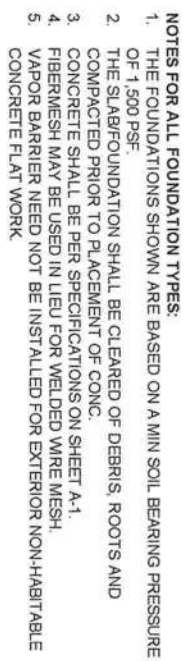
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