DESIGN CRITERIA:

APPLICABLE CODES, REGULATIONS & STANDARDS:

- 1. THE 2023 FLORIDA BUILDING CODE 8TH EDITION, SPECIFICALLY CHAPTER 16 STRUCTURAL DESIGN, CH. 20 ALUM. & CH. 23 WOOD.
- 2. AA ASM 35 & SPECIFICATIONS FOR ALUMINUM STRUCTURES, PART 1-A OF THE ALUMINUM DESIGN MANUAL PREPARED BY THE ALUMINUM ASSOCIATION, INC. WASHINGTON D.C. 2005 ED. 3. ASCE 7-22 & SE17
- 4. NDS NATIONAL DESIGN SPECIFICATION FOR WOOD.
- 5. ACI318 CONCRETE REFERENCE MANUAL.

WIND LOADS:

- 1. BUILDING OCCUPANCY CATEGORY, PARAGRAPH 1604.5 & TABLE 1604.5: RISK CATEGORY: I
- 2. BASIC WIND SPEED, TABLE 1609C, STATE OF FLORIDA DEBRIS REGION & BASIC WIND SPEED, PARAGRAPH 1609.3.1 & TABLE 1609.3.1 EQUIVALENT BASIC WIND SPEED: MPH EXPOSURE CATEGORY, PARAGRAPH 1609.4.3:
- 3. WIND LOADS PER FBC TABLE 2002.4 (MWFRS)

VULT = 120 MPH & EXPOSURE = C FOR 20 X 20 X 0.013" MESH SCREEN 25 PSF 19 PSF HORIZONTAL PRESSURES ON WINDWARD SURFACES = HORIZONTAL PRESSURES ON LEEWARD SURFACES = VERTICAL PRESSURES ON SCREEN SURFACES = VERTICAL PRESSURES ON SOLID SURFACES = 25 PSF FOR 18 X 14 X 0.013" MESH SCREEN, APPLIED FACTOR = FOR ALLOWABLE STRESS DESIGN, APPLIED FACTOR =

FOUNDATION DESIGN:

IF UTILIZING EXISTING CONCRETE AS THE FOUNDATION A MINIMUM 4" THICK (3-1/2" NOMINAL) CONCRETE SLAB SHALL BE PROVIDED IN SOUND CONDITION, VISIBLY FREE FROM STRUCTURAL CRACKING, SPALLING OR OTHER DETERIORATION.

- 1. SCREENED ENCLOSURES CONTAINING SWIMMING POOLS SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF FBC R4501.17 RESIDENTIAL SWIMMING BARRIER REQUIREMENTS
- 2. ALUMINUM ADDITIONS ARE NOT TO BE INSTALLED ON A MANUFACTURED HOME, TRAILER HOME, OR PRE-FAB HOME IF THE EXISTING STRUCTURE IS ONE OF THESE, A SEPARATE 4TH WALL SUPPORT SYSTEM IS SO TO BE ENGINEERED SO THAT NO ADDITIONAL LOADING IS PLACED ON THE MANUFACTURED HOME. 3. THE ENGINEERING ON THESE PLANS IS SITE SPECIFIC FOR (1)
- STRUCTURE ONLY AT THE PROVIDED ADDRESS(ES)

FASTENER SPECIFICATIONS:

- 1. FASTENERS ARE REQUIRED TO BE SAE GRADE 2 OR BETTER ZINC PLATED. (CONCRETE ANCHORS ARE TO BE 410 S.S. TAPCONS OR BETTER, INSTALLED TO MFG. SPECIFICATIONS)
- 2. WHERE WOOD DECK IS PRESENT USE 1/4" X 3-1/2" GALV. LAG SCREWS IN LIEU OF MASONRY ANCHORS. UNLESS OTHERWISE
- 3. FOR 1"x2" NON-STRUCTURAL MEMBERS ATTACHED TO HOST a. FOR MASONRY/CONCRETE APPLICATION USE GALVANIZED 1/4" X 2-3/4" TAPCONS 6" FROM ENDS & 24" CENTER TO CENETER b. FOR WOOD APPLICATION USE #14 X 2-3/4" WOOD SCREW AT 6" FROM ENDS & 24" CENTER TO CENETER.
- C. FOR ALUMINUM APPLICATION USE #10 X 1-1/2" SMS OR TEK 6" FROM ENDS & 24" CENTER TO CENETER.
- d. WHERE 1"x2" INSTALLED THROUGHOUT AN "OPEN VIEW" SPACING SHALL BE REDUCED TO 6" FROM ENDS & 18" C.C.

- ALL SITE WORK SHALL BE PERFORMED BY A LICENSED
 CONTRACTOR IN ACCORDANCE WITH APPLICABLE BUILDING CODES, LOCAL ORDANANCES, AND THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES.
- 2. FOR FASTENERS WHICH ARE NOT VISIBLE AFTER INSTALLATION, THE CONTRACTOR SHALL VERIFY AND ENSURE INSTALLATION HAS BEEN ACCOMPLISHED IN ACCORDANCE WITH
 MANUFACTURERS SPECIFICATIONS AND IN ACCORDANCE WITH THE ATTACHED DETAILS.
- 3. CONTRACTOR TO PROVIDE NOA'S & INSTALL ALL MATERIALS AS PER MANUFACTURER'S SPECIFICATIONS.
- 4. INTEGRITY OF EXISTING/HOST STRUCTURE SHALL NOT BE COMPROMISED WITH THE ATTACHMENT OF THE PROPOSED
- 5. IT IS THE OWNERS RESPONSIBILITY TO MAINTAIN THE SCREENS & FASTENERS TO MANUFACTURING SPECIFICATIONS.

ALUMINUM SPECIFICATIONS:

- 1. ALUMINUM EXTRUSIONS SHALL BE 6005 T5 ALLOY UNLESS OTHERWISE NOTED
- 2. ALL SELF MATING BEAM SECTIONS ARE TO BE STITCHED WITH a.#14 SCREWS 6" FROM ENDS & 24" CENTER TO CENTER. b. #12 SCREWS 6" FROM ENDS & 18" CENTER TO CENTER
- c. #10 SCREW 6" FROM ENDS & 12" CENTER TO CENETER.
 3. THE MINIMUM NORMAL THICKNESS OF PROTECTOR PANELS (KICKPLATES) SHALL BE AN INDUSTRY STANDARD OF 0.024
- 4. SCREEN MATERIAL SHALL BE 18/14 SCREEN UNLESS APPROVED BY FLORIDA ENGINEERING LLC.
- 5. 1"x2" & 1"x3" NON-STRUCTURAL MEMBERS MAY BE USED INTERCHANGEABLY.
- 6. DOOR LOCATION MAY BE DETERMINED/ RELOCATED BY CONTRACTOR IN THE FIELD. NOT TO AFFECT DESIGN SPANS AND STRUCTURAL MEMEBRS SHOWN

CONCRETE 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 AGENCIES, THE FOLLOWING SPECIFICATIONS ARE APPLICABLE:
- a. CONCRETE SHALL CONFORM TO ASTM C94 FOR THE FOLLOWING COMPONENTS:
- i. PORTLAND CEMENT TYPE 1 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
- d. PREPARE & PLACE CONCRETE PER AMERICAN CONCRETE INSTITUTE MANUAL OF STANDARD PRACTICE, PART 1, 2, & 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. FOR RISK CATEGORY II, III, & IV STRUCTURES ONLY.
- g. CONCRETE SLAB SHALL BE PLACED OVER A POLYETHYLENE VAPOR BARRIER. (SLAB ONLY)
- WHEN PAVERS ARE UNDER ALUMINUM MEMBERS, CONTRACTOR SHALL EPOXY TO DECK OR GROUT TO DECK W/ 2000 PSI GROUT WITH BONDING AGENT
- 3. WHEN APPLICABLE FOR NEW SLAB ADDITION TO ADJACENT DRILL & EPOXY #4 X 8" REBAR INTO EX. FOUNDATION EMBED 4" MIN W/ NON-SHRINKING SIMPSON EPOXY-TIE (OR EQUAL) 48" O.C. TYP. ALL LOCATIONS
- 4. WHEN APPLICABLE FOR NEW FOOTER TO EXISTING, DRILL & EPOXY NEW STEEL INTO EX. FOUNDATION WITH EMBED 6" MIN W/ NON-SHRINKING SIMPSON EPOXY-TIE (OR EQUAL) TYP. ALL LOCATIONS
- 5. WHERE PAVERS ARE UNDER ALUMINUM MEMBERS, CONTRACTOR SHALL EPOXY TO DECK OR GROUT TO DECK W/3000 PSI GROUT WITH BONDING AGENT.
- 6. MINIMUM CONCRETE STRENGTH 3000 PSI UNLESS OTHERWISE

MASONRY SPECIFICATIONS:

- 1. CONCRETE MASONRY UNITS (CMU) SHALL BE STANDARD HOLLOW UNITS AND SHALL BE 1900 PSI MINIMUM BASED ON TYPE M OR S MORTAR.
- 2. ALL MORTAR SHALL BE TYPE M OR S.
- 3. ALL GROUT SHALL BE 1800 PSI MINIMUM AND HAVE MAXIMUM COARSE AGGREGATE SIZE OF 3/8".
- 4. PROVIDE CLEAN-OUTS FOR REINFORCED CELLS CONTAINING REINFORCEMENT WHEN GROUT POUR EXCEEDS 5'-0" IN

FOOTER SPECIFICATIONS:

- 1. PROVIDE 1-1/2" COVERAGE TOP, SIDES, BOTTOM AND 1" BETWEEN ADJACENT REBAR LAPS.
- 2. PROVIDE MIN. 3" COVERAGE OF REBAR FOR ALL CONCRETE IN CONTACT WITH THE EARTH.
- 3. FOOTING CONCRETE SHALL BE MIN. 3000 PSI AT 28 DAYS
- 4. FOOTING REINFORCEMENT SHALL BE MIN. GRADE 60
- 5. MINIMUM REBAR LAP SPLICE (40d) d= DIAMETER OF REBAR 6. PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURE TO
- CITY / CO. REQUIREMENTS 7. PROVIDE 2000 PSF BEARING (TYPICAL) UNDER FOUNDATION

ALUMINUM MEMBERS DIMENSIONS:

HOLLOW SECTIONS 2 x 2: 2" x 2" x 0.050 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 0.044" 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 MATING (SMB) 2 x 4 SMB: 2" x 4" x 0.046" x 0.100" 2 x 5 SMB: 2" x 5" x 0.050" x 0.116' 2 x 6 SMB: 2" x 6" x 0.050" x 0.120" 2 x 7 SMB: 2" x 7" x 0.055" x 0.120" 2 x 8 SMB: 2" x 8" x 0.072" x 0.224" 2 x 9 SMB: 2" x 9" x 0.072" x 0.224" 2 x 9(H) SMB: 2" x 9" x 0.082" x 0.306" 2 x 10 SMB: 2" x 10" x 0.092" x 0.374"

ALL MAY NOT APPLY DETAIL "A" MEMEBR DIMENSIONS

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| DESIGN LOADS: 1. DEAD LOADS = 2. LIVE LOADS a. PRIMARY MEMBERS = b. SECONDARY MEMBERS = c. SCREEN ROOF = d. SOLID ROOF = | MEMBER SELF-WEIGHT 300 LB. VERT. LOAD 200 LB. VERT. LOAD 5 PSF 20 PSF | SHEET NO. | DRAWING INDEX |
|--|--|-----------|------------------|
| | | \$/01 | GENERAL NOTES |
| | | \$/02 | PLAN/ ELEVATIONS |
| | | \$/03 | DETAILS |
| | | \$/04 | DETAILS |
| | | \$/05 | DETAILS |
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PROJECT

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HIGHWAY 441 FLORIDA, 32055 DEVITA 11757 N US I LAKE CITY F PROJECT ADDRESS

07/08/2025 DESIGN DATE: REVISION 1: DATE **REVISION 2:** DATE DRAWN BY: MBG SCALE: NTS

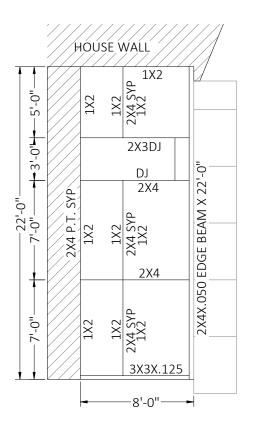
AMERICAN METALS

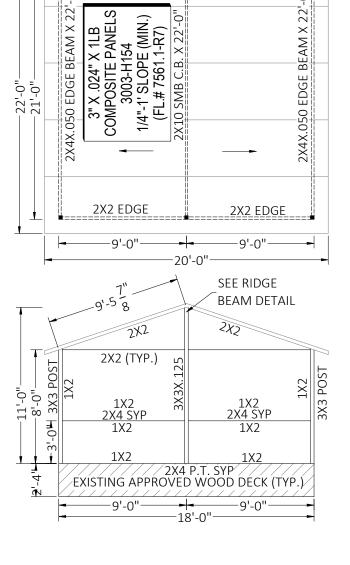
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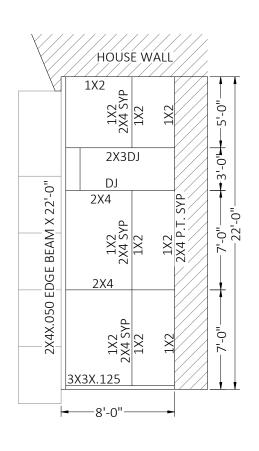
PROPOSED GABLE SCREEN ROOM & FLAT SCREEN ROOF PLAN/ ELEVATIONS SCALE: NTS

RESIDENCE

HOST 12" O/H (FASCIA MOUNT)







and seaded by Richard E. Walker,

P.E. on the date adjacent to the se
Printed copies of this document are
not considered signed and sealed
and the signature must be verified

HATCH/ SYMBOL LEGEND

HATCH INDICATES

EXIST. STRUCTURE

NOTE: ALL MAY NOT APPLY

■ = 3X3X.125

FLORIDA ENGINEERING LLC HAS NOT PERFORMED ANY ON SITE INSPECTIONS AT THIS LOCATION

THESE PLANS WERE PREPARED BASED ON THE PREMISE THAT THE EXISTING STRUCTURE
WAS DESIGNED BY A PROPERLY LICENSED PROFESSIONAL ENGINEER OF THE STATE OF FLORIDA, WAS PERMITTED BY THE APPROPRIATE PERMITTING AGENCY, WAS CONSTRUCTED BY A FLORIDA LICENSED CONTRACTOR AT THE TIME OF CONSTRUCTION, HAS NOT BEEN SUBJECT TO DAMAGE BY A MAJOR EVENT, AND HAS BEEN CERTIFIED BY THE CONTRACTOR THAT THE EXISTING STRUCTURE CURRENTLY SHOWS NO DEVIATIONS OR DEFECTS FROM THE STATE OF THE STRUCTURE AS PERMITTED BY THE FINAL INSPECTION OF THE PERMITTING AGENCY, ALSO, THE OWNER AND ALL PARTIES CONCERNED WILL INDEMNIFY FLORIDA ENGINEERING LLC FROM ANY DAMAGE OR CHANGES TO THE EXISTING STRUCTURE AS A RESULT OF ANY MODIFICATION OR FOR ANY OTHER REASON.

FLORIDA ENGINEERING LLC 4161 TAMIAMI TRAIL, UNIT 101 PORT CHARLOTTE, FLORIDA 33952 (941) 391-5980 FLEng.com Orders@FLEng.com

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2516355

PROJECT NO.



AMERICAN METALS LLC

PROJECT ADDRESS:

DEVITA
11757 N US HIGHWAY 441
LAKE CITY FLORIDA, 32055

DESIGN DATE: 07/08/2025

REVISION 1: DATE

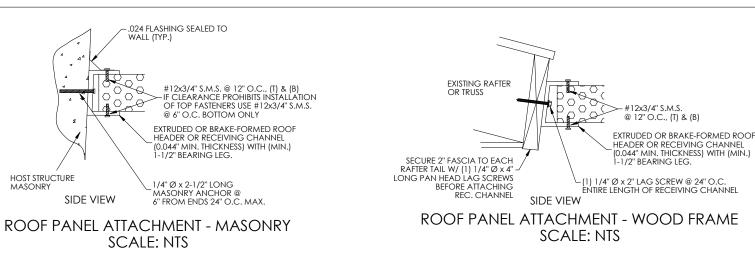
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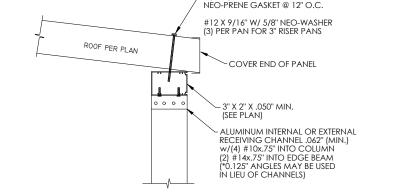
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SCALE:

CONTRACTOR TO PROVIDE DIELECTRIC SEPERATION WHERE ALUMINUM COMES IN DIRECT CONCTACT WITH STEEL OR PRESSURE TREATED LUMBER TO PREVENT ELECTROLYISIS.





FOR COMPOSITE PANELS #14x4",5" or 7" S.M.S. - w/ 1-1/4" Ø FENDER WASHER &

ROOF PANEL ATTACHMENT - WOOD FRAME

(4) #10x1-1/2" SMS INTO

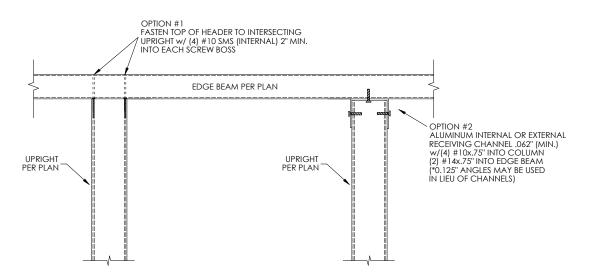
PURUN

MEMBER

SCREW BOSSES

ROOF PANEL TO CARRIER BEAM CONNECTION SCALE: N.T.S.

SIDE VIEW



SELE-MATING OR 1/8"x2"x2"x ANGLE 5032 H-32 ANGLE SNAP SECTION TYP. (2) - #12 SMS INTO COLUMN 1/4" MASONRY ANCHOR EACH I"x2" O.B. BASE PLATE-TYP. ANGLE - EACH SIDE COI 1-1/4" MIN. CONC ANCHOR EMBEDMENT 2" MIN. INCREASE DISTANCE 2-1/4" MIN CONO ANCHOR EMBEDMENT WHEN GREATER THAN 2x4 UPRIGHT IS USED SECONDARY ANGLE SLAB/ FTG SIDE VIEW OR FIBERMESH

DETAIL "B" - 2"x4" OR LARGER SELF MATING UPRIGHT TO DECK DETAILS SCALE: NTS

DETAIL "C" - GIRT OR PURLIN TO BEAM OR POST DETAIL **SCALE: NTS**

ALUMINUM INTERNAL OR EXTERNAL

RECEIVING CHANNEL .062" (MIN.) w/(4) #10x.75" INTO COLUMN

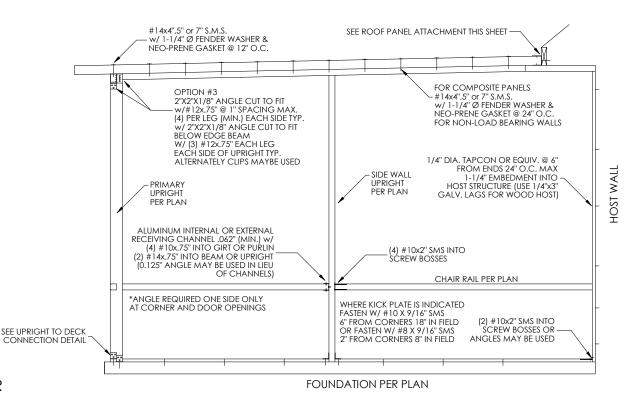
(2) #14x.75" INTO EDGE BEAM (*0.125" ANGLES MAY BE USED

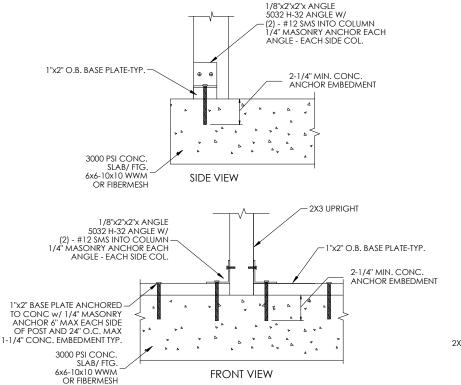
IN LIEU OF CHANNELS)

- LIPRIGHT REAM-SNAP

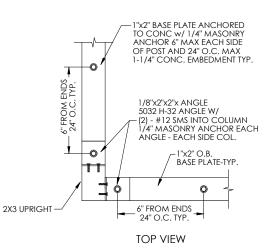
SELF MATING, OR HOLLOW

TYPICAL SCREEN ROOM EDGE BEAM TO UPRIGHT CONNECTION DETAIL SCALE: N.T.S.





DETAIL "B" - 2"x3" UPRIGHT TO DECK CONNECTION DETAILS **SCALE: NTS**



FOR WOOD APPLICATIONS USE IDENTICAL

FASTNERS PATTERN APPLIES

WOOD SCREW OR HOT DIPPED GALV. LAG IN

LIEU OF CONCRETE ANCHORS, SAME SIZE AND

DETAIL "B-II" - 2"x3" UPRIGHT @ CORNER SCALE: NTS CONNECTION DETAILS

SCREEN ROOM END WALL DETAIL SCALE: N.T.S.

AMERICAN METALS LL DESIGN DATE: 07/08/2025 REVISION 1: DATE **REVISION 2:** DATE SHEET: DRAWN BY: MBG SCALE:

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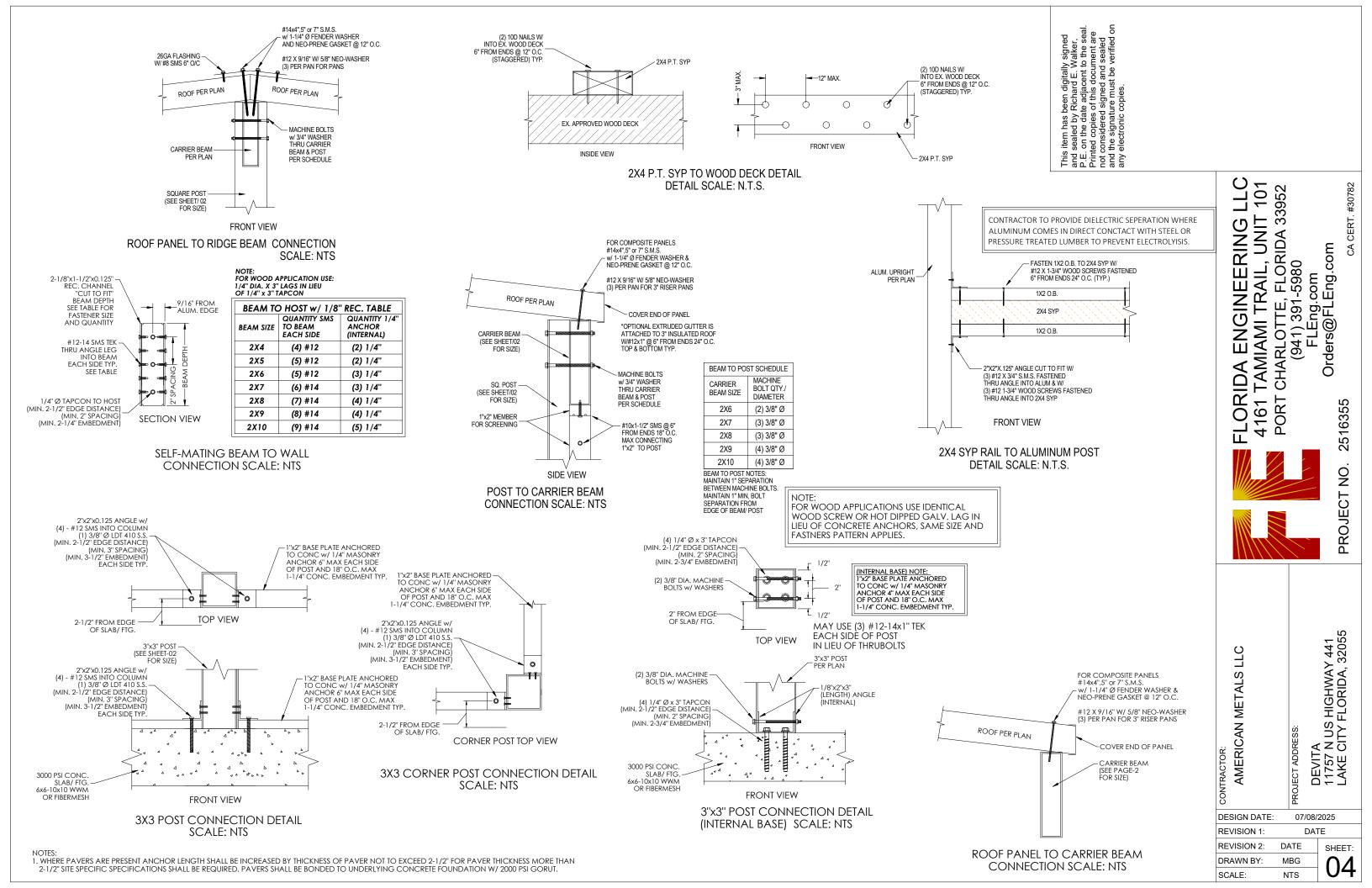
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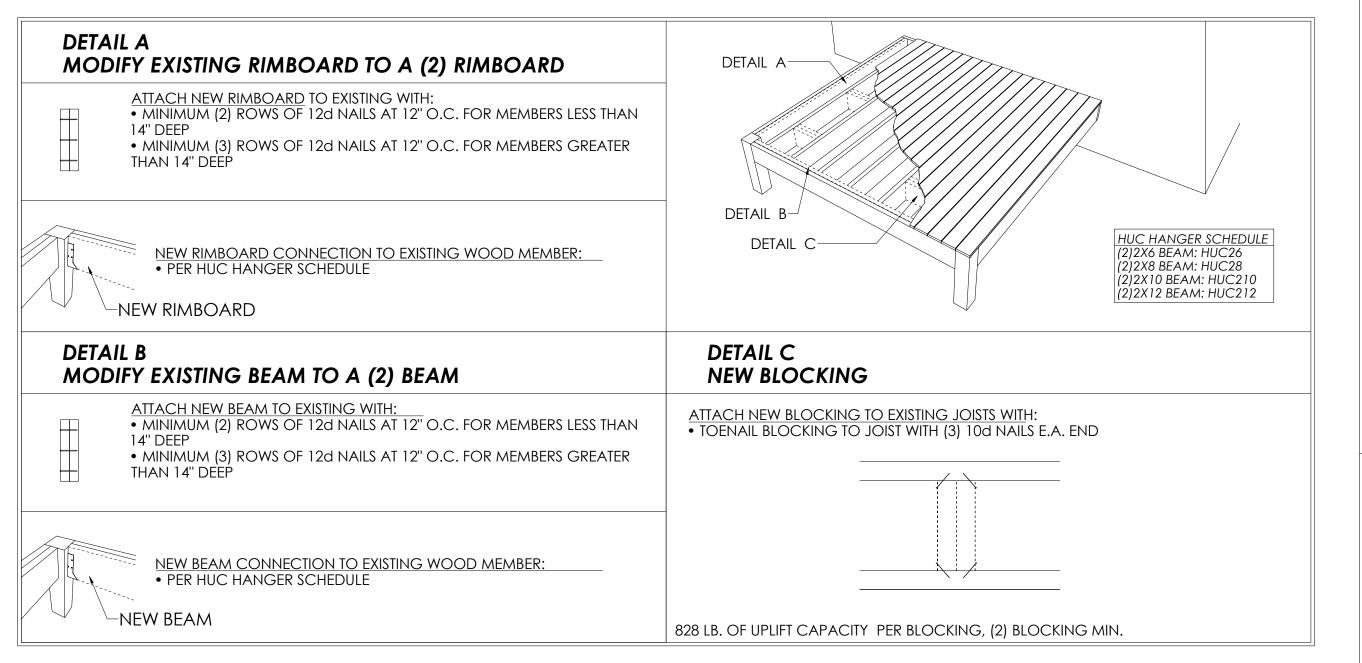
ENGINEERING

FLORIDA

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AMERICAN METALS LLC

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