General Notes

A. CONCRETE & FOUNDATION DESIGN:

1. ALL CONCRETE GRADE BEAMS AND FOOTINGS SHALL BE 3000 PSI MINIMUM.
2. ALL CONCRETE FILLED SUPPORTED SLABS SHALL BE 2500 PSI MINIMUM, 3 1/2" NOMINAL THICKNESS.
3. FIBERMESH (3/4" PER CUBIC YARD MIN.) MEETING APPROPRIATE ACI AND ASTM REQUIREMENTS MAY BE USED IN LIEU OF WELDED WIRE MESH
4. ALL SLABS ON GRADE SHALL BE 4" THICK WITH FIBERMESH.
5. ALL REINFORCING SHALL CONFORM TO ASTM A615, BE GRADE 60 (60 KSI MIN.) DEFORMED BARS, #3 BARS MAY BE GRADE 40
6. ALL OVER POUR CONCRETE FILLED SUPPORTED SLABS SHALL BE 3000 PSI MIN., 2" MINIMUM. THICKNESS.
7. SOIL BEARING PRESSURE SHALL BE A MINIMUM OF 1500 PSF.
8. THE CONCRETE SHALL CONFORM TO ASTM C94 FOR THE FOLLOWING:
   OPC (PORTLAND CEMENT TYPE 1,- ASTM C 150).
   AGGREGATES - #6 STONE , ASTM C 33 SIZE NO. 67 LESS THAN 3/4".
   AIR ENTRAINING +/- 1% - ASTM C 260.
   WATER REDUCING AGENT - ASTM C 494.
   CLEAN POTABLE WATER.
   OTHER ADMIXTURES SHALL NOT BE PERMITTED.
9. METAL WELDED WIRE SHALL CONFORM TO ASTM A 185.
10. PREPARE & PLACE CONCRETE ACCORDING TO AMERICAN CONCRETE INSTITUTE MANUAL STANDARD PRACTICE, PART 1, 2, & 3 ALONG WITH HOT WEATHER CONDITIONS RECOMMENDATIONS.
11. IF UTILIZING EXISTING CONCRETE FOR FOUNDATION, CONCRETE SHALL BE A MINIMUM OF 4" IN THICKNESS, VISIBLY FREE OF ANY STRUCTURAL EXCESSIVE CRACKING, SPALLING OR OTHER DETERIORATION.

B. MASONRY:

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 OF TYPE M OR S.
3. ALL GROUT SHALL BE 2000 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 HEIGHT.

C. ALUMINUM:

1. ALL STRUCTURAL ALUMINUM SHALL CONFORM TO THE MINIMUM REQUIREMENTS OF **6005-T5** FOR ALLOY WITH A MINIMUM THICKNESS OF 0.040" FOR SUPPORTING MEMBERS.
2. WHERE KICK PLATES ARE USED A MINIMUM THICKNESS OF 0.024" SHALL APPLY.
3. STRUCTURAL ALUMINUM DESIGN CONFORMS TO "PART 1-A - SPECIFICATIONS FOR ALUMINUM STRUCTURES - ALLOWABLE STRESS DESIGN" OR "PART 1-B - SPECIFICATIONS FOR ALUMINUM STRUCTURES - BUILDING LOAD AND RESISTANCE FACTOR DESIGN" OF THE ALUMINUM DESIGN MANUAL PREPARED BY THE ALUMINUM ASSOCIATION, INC.WASHINGTON D.C. THE *FLORIDA BUILDING CODE 7th EDITION* (CHAPTER 16 STRUCTURAL DESIGN & CHAPTER 20 ALUMINUM).
4. WHERE ALUMINUM COMES INTO CONTACT WITH STEEL, OR PRESSURE TREATED LUMBER PROVIDE DIELECTRIC SEPARATION.
5. ALUMINUM MEMBERS SHALL BE STITCHED WITH NO LESS THAN #10 SMS 6" FROM THE ENDS AND 12" ON CENTER, IF USING #12 SPACING MAY BE 24" ON CENTER.
6. VINYL AND ACRYLIC PANELS SHALL BE REMOVABLE. THEY SHALL BE IDENTIFIED WITH A DECAL ESSENTIALLY STATING "REMOVABLE PANEL SHALL BE REMOVED WHEN WIND SPEEDS EXCEED 75 MPH" . DECAL SHALL BE PLACED SO IT IS VISIBLE WHEN PANEL IS INSTALLED.
7. 1"X2"X0.045" NON-STRUCTURAL MEMBERS SHALL BE ATTACHED TO HOST WITH 1/4"Ø X 1-3/4" EMBEDMENT & 24" O.C. MASONRY SCREW FOR CONCRETE & EQUIVALENT SIZE WOOD SCREW WHEN IN WOOD & #10X 1/2" EMBEDMENT SMS OR TEK SCREWS IN ALUMINUM MEMBERS TYPICAL.

D. FASTENERS:

1. ALL LAG BOLTS SHALL CONFORM TO STAINLESS STEEL TYPE 300 18-8, WITH STANDARD FLAT WASHER UNLESS MANUFACTURER GALVANIZES BOLTS SPECIFIES FOR USE WITH ACQ PRESSURE TREATED WOOD.
2. HEX BOLTS HAS TO BE ASTM A 325, PLATED WITH STANDARD FLAT WASHERS AND NUTS.
3. ALL CONCRETE SCREWS SHALL BE, SIMPSON, HILTI, RAWL, TAPCON, REDHEAD, DYNABOLT, PORTECT OR APPROVED EQUAL.
4. ALL METAL TIES AND ASSOCIATED ACCESSORIES SHALL BE HOT DIPPED GALVANIZED.
5. ALL LAG BOLTS SHALL HAVE A MINIMUM EMBEDMENT OF 8X BOLT DIAMETER INTO STRUCTURAL FRAMING (G=.42 MIN.).
6. LAG BOLTS AND SCREWS INTO WOOD FRAMING SHALL BE PROVIDED WITH PILOT HOLES HAVING A DIAMETER NOT GREATER THAN 70 PERCENT OF THE THREAD DIAMETER OF THE BOLT OR SCREW. ALL LAG BOLTS AND SCREWS SHALL BE INSERTED IN PILOT HOLES BY TURNING AND UNDER NO CIRCUMSTANCES BY DRIVING WITH A HAMMER.
7. ALL EXPANSION ANCHORS SHALL BE DESIGNED IN ACCORDANCE WITH THE SPECIFIC MANUFACTURER'S REQUIREMENTS AND ALLOWABLE LOADS AND SHALL ONLY BE APPLIED IN CONDITIONS ACCEPTABLE TO MANUFACTURER. FASTENERS SHALL BE A MINIMUM OF SAE GRADE #5 OR BETTER ZINC PLATED.
8. ALL FASTENERS CONNECTING ALUMINUM COMPONENTS OR PRESSURE TREATED LUMBER ARE STAINLESS STEEL TYPE 300 18-8, UNLESS MANUFACTURER GALVANIZED BOLTS SPECIFIES FOR USE WITH ACQ PRESSURE TREATED WOOD, OR OTHERWISE NOTED ON PLANS.
9. ALL FASTENERS SHALL COMPLY WITH ASTM A153.
10. ALL CONNECTORS SHALL COMPLY WITH ASTM A653 CLASS G-185.
11. FOR SMS, THE MINIMUM CENTER-TO-CENTER SPACING SHALL BE 3/4" AND MINIMUM CENTER-TO-EDGE SHALL BE 1/2" UNLESS NOTED OTHER WISE.

E. REFERENCE STANDARDS:

ASTM E 119
ASTM E 1300
CURRENT ASCE 7
CURRENT ALUMINUM DESIGN MANUAL-AA ASM35, AND SPEC. FOR ALUMINUM PART 1-A, & 1-B
ASTM C94
ASTM C150
ASTM C33
ASTM C260
ASTM C494
ASTM A615
ASTM A185
FLORIDA BUILDING CODE 7th EDITION (CHAPTERS 16, 20 & 23).

F. ABBREVIATIONS:

THE FOLLOWING LIST OF ABBREVIATIONS IS NOT INTENDED TO REPRESENT ALL THOSE USED ON THESE DRAWINGS, BUT TO SUPPLEMENT THE MORE COMMON ABBREVIATIONS.

1. TYP -- TYPICAL
2. SIM -- SIMILAR
3. UON -- UNLESS OTHERWISE NOTED
4. CONT -- CONTINUOUS
5. VIF -- VERIFY IN FIELD

G. RESPONSIBILITY:

1. ALL SITE WORK SHALL BE PERFORMED BY A LICENSED CONTRACTOR IN ACCORDANCE WITH APPLICABLE BUILDING CODES, LOCAL ORDINANCES, ETC.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND DETAILS, NOTIFYING ENGINEER OF ANY DISCREPANCIES BETWEEN DRAWINGS, FABRICATED ITEMS, OR ACTUAL FIELD CONDITIONS.
3. THESE DRAWINGS REPRESENT THE ACCEPTABILITY OF THE 'SUNROOM' ROOM ADDITION ELEMENTS AS PROVIDED BY THE CONTRACTOR.
4. ALL DETAILS ON THESE DRAWINGS ARE ENGINEERED BASED ON INFORMATION PROVIDED BY THE CONTRACTOR AND MANUFACTURER.
5. ANY DETAILS NOT SHOWN ARE TO BE ENGINEERED BY A LICENSED P.E. IN ACCORDANCE WITH STANDARD ENGINEERING PRACTICES.

H. MISCELLANEOUS:

1. 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 MUST BE ENGINEERED SO THAT NO ADDITIONAL LOADING IS PLACED ON THE MANUFACTURED HOME.
2. IF ENCLOSURE CONTAINS A SWIMMING POOL OR SPA, THE ENCLOSURE SHALL COMPLY WITH RESIDENTIAL SWIMMING BARRIER REQUIREMENTS OF *THE FBC 7th EDITION* R 4501.17 IN ITS ENTIRETY.
3. DOOR LOCATIONS MAY BE DETERMINED IN THE FIELD BY CONTRACTOR.
4. IF PAVERS ARE UNDER ALUMINUM MEMBERS THEY SHALL HAVE EPOXY ADHESIVE TO CONCRETE OR IF USING GROUT, ENSURE BONDING AGENT IS USED FIRST AND ADHERED WITH MINIMUM 3000 PSI GROUT.
5. SCREENING MATERIAL SHALL BE 18X14X0.013 OR EQUIVALENT DENSITY SCREEN MESH ONLY UNLESS NOTED ON DRAWING S-2.

DESIGN DATA:

1. ULTIMATE DESIGN WIND SPEED Vult, (3 SECOND GUST): **130 MPH**
   NOMINAL DESIGN WIND SPEED Vasd: **101 MPH**
2. RISK CATEGORY: **1**
3. WIND EXPOSURE: **B**
4. WIND LOADS:
   SCREEN ROOF: N/A
   SCREEN WALLS: 23 PSF
   SOLID ROOF (SCREEN WALL): 20 PSF
5. FACTOR APPLIED TO SCREEN WIND LOADS FOR 18X14X0.013 OR EQUIVALENT DENSITY SCREEN MESH: 0.88
6. FACTOR APPLIED TO SCREEN WIND LOADS FOR ALLOWABLE STRESS DESIGN: 0.6
7. LIVE LOAD:
   300 lb. VERTICAL DOWNLOAD ON PRIMARY SCREEN ENCLOSURE MEMBERS.
   200 lb. VERTICAL DOWNLOAD ON SCREEN ENCLOSURE PURLINS.
   10 PSF VERTICAL DOWNLOAD ON SOLID ROOF.
8. EXISTING 8"X8" FOOTING W/ 4 SLAB MEETS THE REQUIREMENTS TO RESIST THE UPLOADS FOR THE PROPOSED STRUCTURE.
9. SCREEN ROOF TYPE : **N/A**
10. SOLID ROOF TYPE: **3"X48"X0.024" ELITE EPS COMPOSITE PANEL ROOF 1lb FOAM DENSITY, FLORIDA PRODUCT APPROVAL, FL 7561-R5.**

ALUMINUM STRUCTURAL MEMBERS

HOLLOW SECTIONS

2 x 2: ----------2" x 2" x 0.044"
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"
3 x 3: ----------3" x 3" x 0.125"

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 SMS:----------2" x 2" x 0.045"
2 x 3 SMS: ----------2" x 3" x 0.072"
2 x 4 SMS:---------- 2" x 4" x 0.045"
3 x 3 SMS:---------- 3" x 3" x 0.090"

SELF MATING (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 0.118"
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 0.224"
2 x 9 SMB:---------- 2" x 9" x 0.072" x 0.224"
2 x 10 SMB:---------- 2" x 10" x 0.092" x 0.374"

TUBE SECTIONS

2 x 2: ----------2" x 2" x 0.090"

THOMAS L HANSON LICENSE No. 38654 STATE OF FLORIDA PROFESSIONAL ENGINEER

PROFESSIONAL ENGINEER SEAL

COLUMBIA COUNTY BUILDING DEPARTMENT Received for FILE COPY Code Compliance PLANS EXAMINER

ENGINEER OF RECORD:
David W. Smith P.E.
FLORIDA LICENSE: 53608
Thomas L. Hanson P.E.
FLORIDA LICENSE: 38654
Myron Max Neal P.E.
FLORIDA LICENSE: 86663
Joel Falardeau P.E.
FLORIDA LICENSE: 70667
Erik Stuart P.E.
FLORIDA LICENSE: 77605

FBC Plans & Engineering Services, Inc.
6272 Abbott Station Dr. Unit 101
Zephyrhills, FL 33542
Ph# (813)788-5314
Fax# 1-(866)824-7894
E-mail-erb@fbcplans.com
Website-www.fbcplans.com
C.O.A.-#29054

DATE: 01/22/2021
DRAWN BY: ST

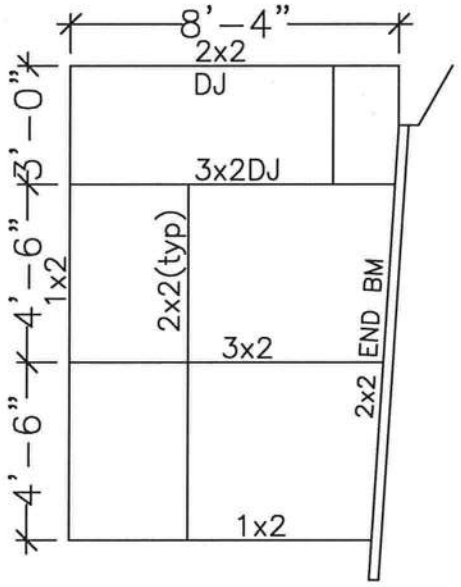
REVISION:	DATE:
RO 1	
RO 2	
RO 3	
RO 4	

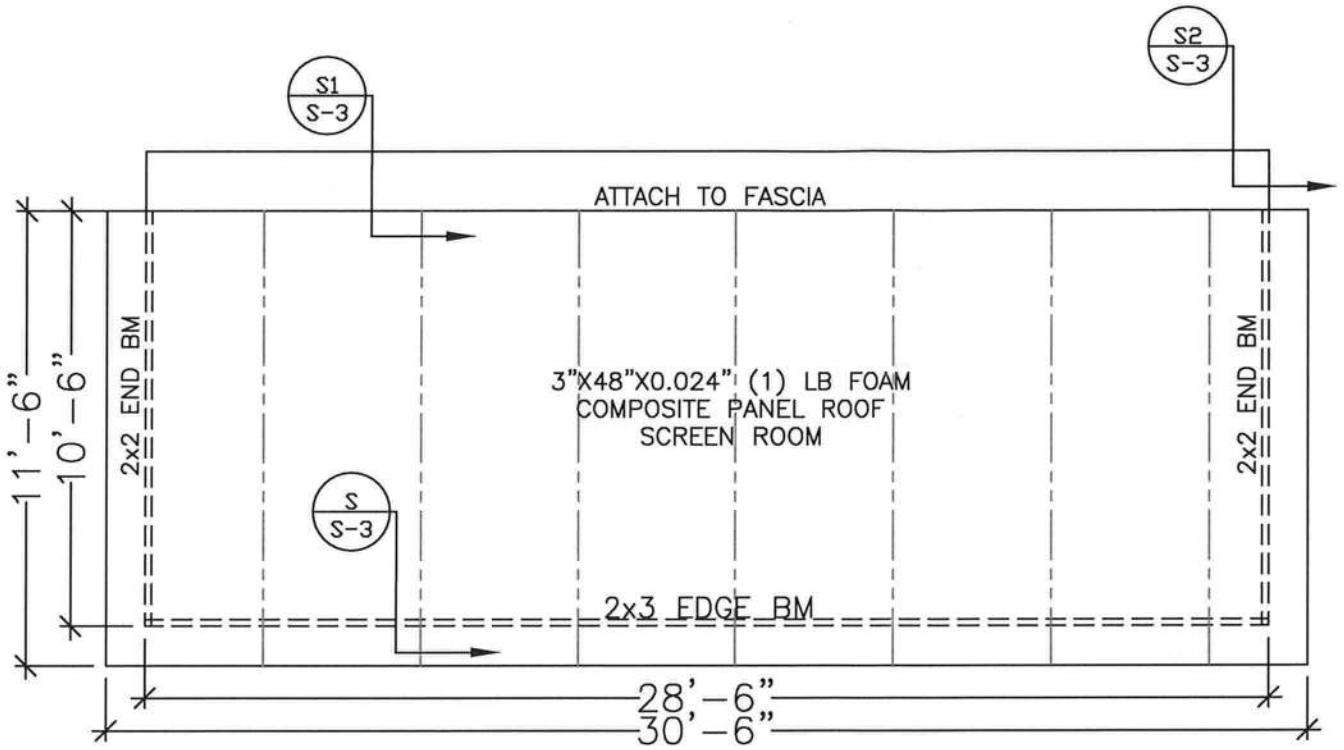
Job# 21_0122_409
PROJECT ADDRESS:
PAX
1506 NW FRONTIER DR
LAKE CITY, FL 32055

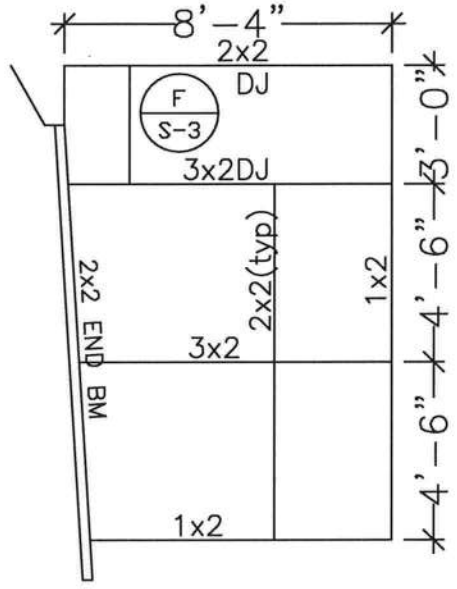
CONTRACTOR:
RICHARDSON ALUMINUM

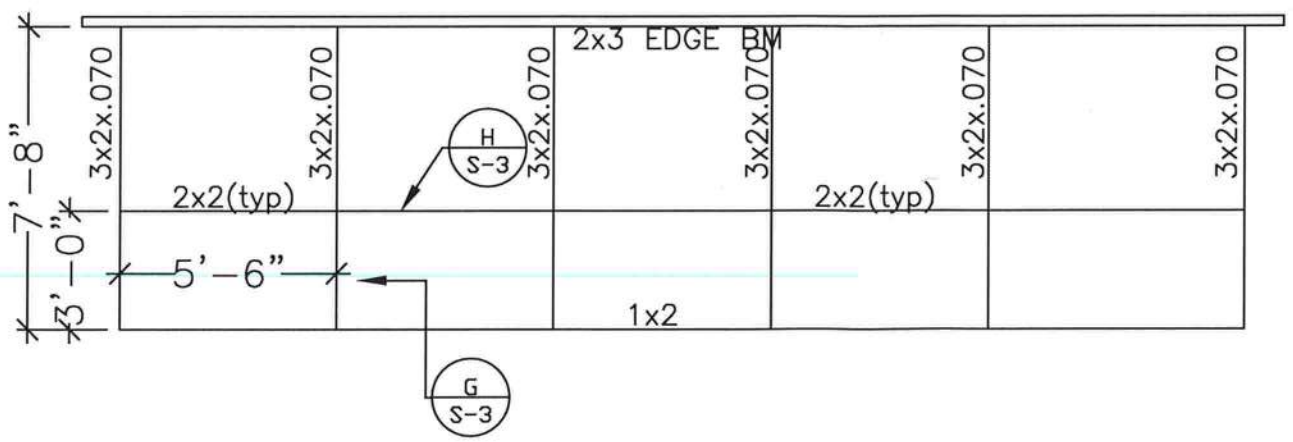
NOTES
S-1

DOOR LOCATION MAY BE DETERMINED
IN THE FIELD BY THE CONTRACTOR.









ENGINEER OF RECORD:
David W. Smith P.E.
FLORIDA LICENSE: 53608
Thomas L. Hanson P.E.
FLORIDA LICENSE: 38654
Myron Max Neal P.E.
FLORIDA LICENSE: 86663
Joel Falardeau P.E.
FLORIDA LICENSE: 70667
Erik Stuart P.E.
FLORIDA LICENSE: 77605

FBC Plans & Engineering Services, Inc.
6272 Abbott Station Dr. Unit 101
Zephyrhills, FL 33542
Ph# (813)788-5314
Fax# 1-(866)824-7894
E-mail-erb@fbcplans.com
Website-www.fbcplans.com
C.O.A.-#29054

DATE: 01/22/2021

DRAWN BY: ST

REVISION:	DATE:
RO 1	
RO 2	
RO 3	
RO 4	

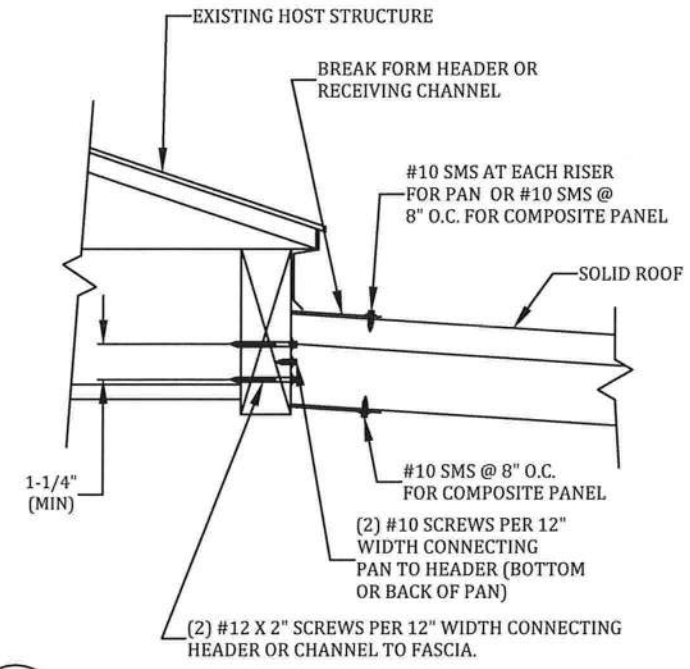
Job# 21_0122_409

PROJECT ADDRESS:
PAX
1506 NW FRONTIER DR
LAKE CITY, FL 32055

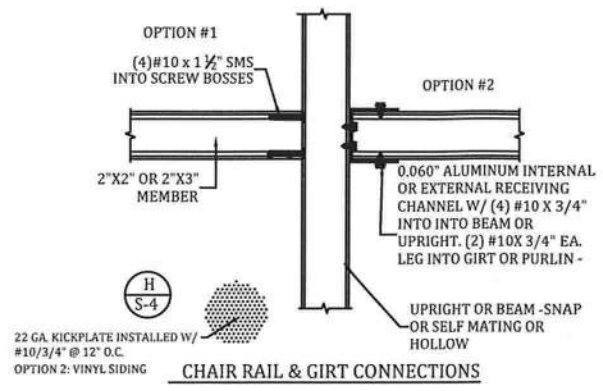
CONTRACTOR:
RICHARDSON ALUMINUM

FLOOR PLAN

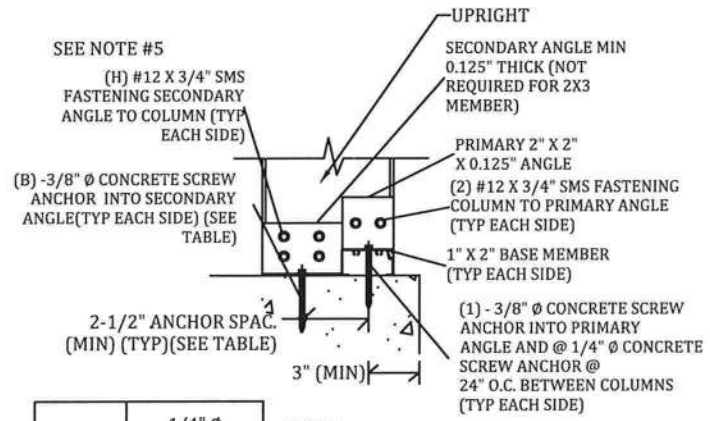
S-2



S1 / S-3 ROOF PANEL TO FASCIA CONNECTION DETAILS
SCALE: NTS



CHAIR RAIL & GIRT CONNECTIONS

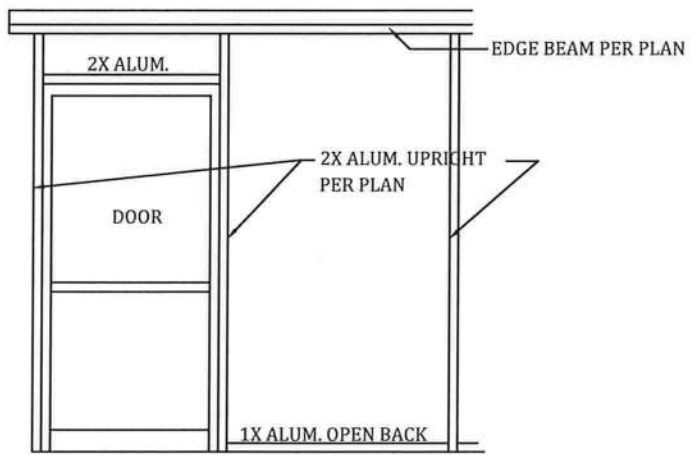


Column Size	1/4" Ø Concrete Screw Anchor	
	B	Min. Spa
2x3	0	0"
2x4	1	3"

Column Size	3/8" Ø Concrete Screw Anchor	
	B	Min. Spa
2x5	1	3"
2x6	1	4"
2x7	1	5"
2x8	2	3"
2x9	2	4"
2x10	2	4.5"

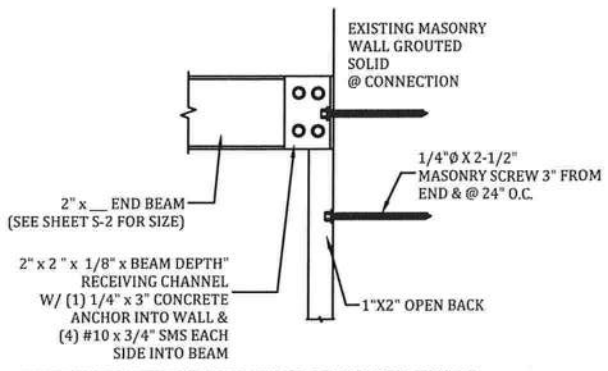
NOTES:
1. NUMBER OF ANCHORS "B" IS EACH SIDE INTO THE SECONDARY ANGLE AND DOES NOT INCLUDE THE ANCHOR INTO THE 1X2.
2. MINIMUM EMBEDMENT OF ANCHORS INTO CONCRETE FOOTING SHALL BE 2-3/4" AT AT ALL UPRIGHT LOCATIONS. ALL SCREW LENGTHS AT UPRIGHT CONNECTIONS SHALL BE OF SUFFICIENT LENGTH FOR REQUIRED EMBEDMENT INTO CONCRETE FOOTING WHEN A PAVER DECK IS PRESENT.
3. CONCRETE SCREW ANCHOR DESIGNS ARE BASED ON FASTENERS APPROVED ON THE S-1 NOTES PAGE.
4. 2X3W/1X2 CORNER POST SHALL REQUIRE SAME BASE CONNECTIONS AS 2X4 SHOWN IN TABLE.
5. FOR A 2x4 POST: FOLLOW FASTENING DETAIL ABOVE USING (2) 2"X2"x2"x.125 ANGLE CLIPS ON EACH SIDE. USE (2) #12X3/4" SMS FASTENING COLUMN TO ANGLE CLIP (TYP @ EACH ANGLE CLIP) (4 TOTAL SCREWS ON EACH SIDE OF POST)
6. FOR A 2x5 POST: FOLLOW FASTENING DETAIL ABOVE USING (2) 2"X2"x2"x.125 ANGLE CLIPS ON EACH SIDE. USE (3) #12X3/4" SMS FASTENING COLUMN TO ANGLE CLIP (TYP @ EACH ANGLE CLIP) (5 TOTAL SCREWS ON EACH SIDE OF POST)

G / S-3 2" x 3" OR LARGER UPRIGHT TO CONCRETE W/WO PAVER DETAILS
SCALE: NTS
USE CONNECTION DETAIL FOR TOP AND BOTTOM WHEN APPLICABLE



F / S-3 TYPICAL SCREEN DOOR CONNECTION DETAIL
SCALE: NTS

NOTES:
1. HINGES SHALL BE ATTACHED TO STRUCTURE W/ (3) #10 x 3/4" SMS MINIMUM.
2. DOOR SHALL BE ATTACHED TO ENCLOSURE w/(3) HINGES MINIMUM.
3. HINGES SHALL BE ATTACHED TO DOOR WITH (3)#10 x 3/4" SMS. FASTEN A 1" x 2" x 0.044" TO UPRIGHT W/#12 x 1-1/2" SMS @ 12" O.C. AND WITHIN 3" FROM END OF THE UPRIGHT.



NOTE: WHEN ATTACHING TO WOOD STRUCTURES, WOOD LAG SCREW ANCHOR DESIGNS SHALL BE OF IDENTICAL SIZE AND EMBEDMENT AS THAT OF MASONRY ANCHOR SCREWS.

S2 / S-3 END BEAM TO HOST STRUCTURE DETAIL
SCALE: NTS

THOMAS L. HANSON LICENSE No. 38654 STATE OF FLORIDA PROFESSIONAL ENGINEER
PROFESSIONAL ENGINEER SEAL

ENGINEER OF RECORD:
David W. Smith P.E.
FLORIDA LICENSE: 53608
Thomas L. Hanson P.E.
FLORIDA LICENSE: 38654
Myron Max Neal P.E.
FLORIDA LICENSE: 86663
Joel Falardeau P.E.
FLORIDA LICENSE: 70667
Erik Stuart P.E.
FLORIDA LICENSE: 77605

FBC Plans & Engineering Services, Inc.
6272 Abbott Station Dr. Unit 101
Zephyrhills, FL 33542
Ph# (813)788-5314
Fax# 1-(866)824-7894
E-mail-erb@fbcplans.com
Website-www.fbcplans.com
C.O.A.-#29054

DATE: 01/22/2021
DRAWN BY: ST

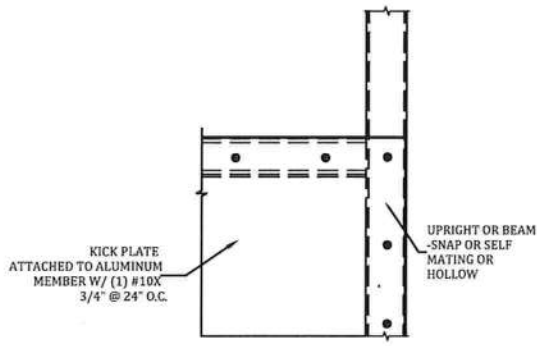
REVISION:	DATE:
RO 1	
RO 2	
RO 3	
RO 4	

Job# 21_0122_409

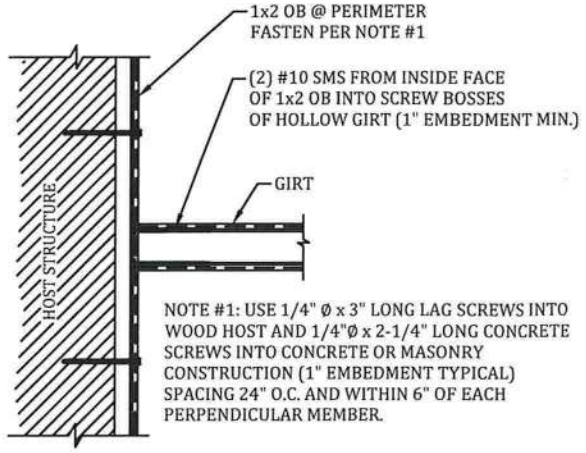
PROJECT ADDRESS:
PAX
1506 NW FRONTIER DR
LAKE CITY, FL 32055

CONTRACTOR:
RICHARDSON ALUMINUM

DETAILS
S-3

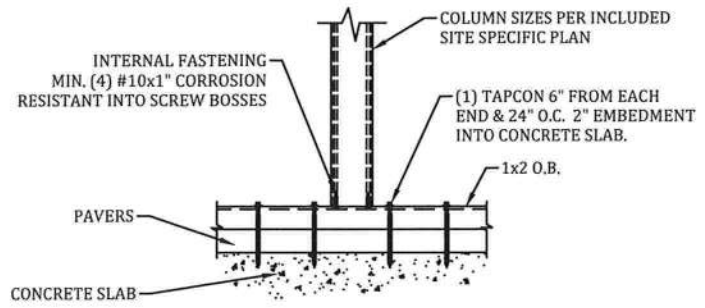


KICK PLATE ATTACHED TO ALUMINUM MEMBER
SCALE: NTS



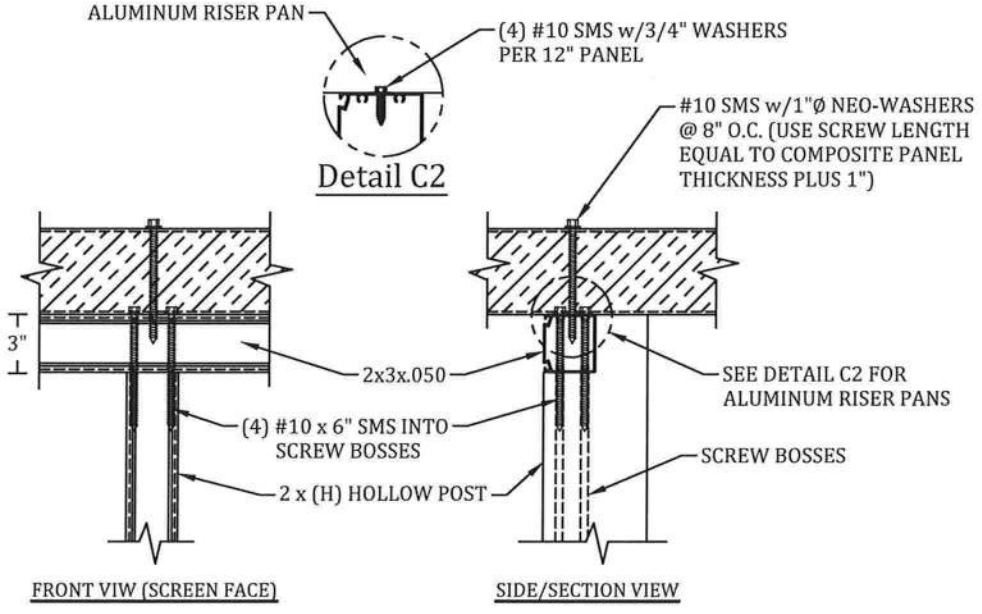
CONNECTION W/CONCEALED FASTENERS

2 X 2 GIRT TO 1 X 2 CONNECTIONS
SCALE: NTS

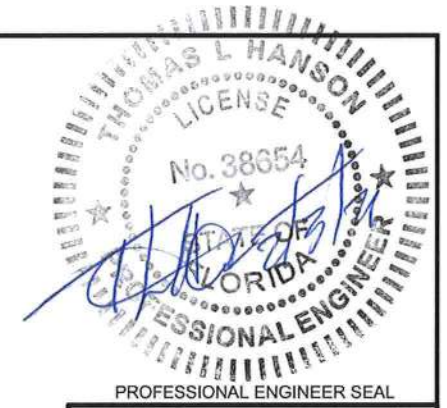


NOTES:
1. WHEN PAVERS ARE USED TAPCON FASTENERS SHALL PASS THRU PAVERS TO PROVIDE 2" EMBEDMENT INTO EXISTING CONCRETE SLAB.
2. WHEN WOOD DECK IS PRESENT USE SAME SCREW PATTERNS BUT REPLACE CONCRETE ANCHORS w/1/4" LAG SCREWS w/SAME EMBEDMENT.

INTERNAL FASTENING CONNECTION DETAIL TO BASE RAIL
SCALE: NTS



EDGE/END BEAM FASTENING DETAILS - 2x3 W/HOLLOW POST
SCALE: NTS



PROFESSIONAL ENGINEER SEAL

ENGINEER OF RECORD:
David W. Smith P.E.
FLORIDA LICENSE: 53608
Thomas L. Hanson P.E.
FLORIDA LICENSE: 38654
Myron Max Neal P.E.
FLORIDA LICENSE: 86663
Joel Falardeau P.E.
FLORIDA LICENSE: 70667
Erik Stuart P.E.
FLORIDA LICENSE: 77605

FBC Plans & Engineering Services, Inc.
6272 Abbott Station Dr. Unit 101
Zephyrhills, FL 33542
Ph# (813)788-5314
Fax# 1-(866)824-7894
E-mail-erb@fbcplans.com
Website-www.fbcplans.com
C.O.A.-#29054

DATE: 01/22/2021

DRAWN BY: ST

REVISION:	DATE:
RO 1	
RO 2	
RO 3	
RO 4	

Job# 21_0122_409

PROJECT ADDRESS:
PAX
1506 NW FRONTIER DR
LAKE CITY, FL 32055

CONTRACTOR:
RICHARDSON ALUMINUM

DETAILS
S-4