

DESIGN CRITERIA:

APPLICABLE CODES, REGULATIONS & STANDARDS:

1. THE 2023 FLORIDA BUILDING CODE, SPECIFICALLY CHAPTER 16 STRUCTURAL DESIGN, CHAPTER 20 ALUMINUM & 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: II
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: 150 MPH EXPOSURE CATEGORY, PARAGRAPH 1609.4.3: C

APPLICABLE LOADS:

1. GUARDRAILS AND HANDRAILS
 - I. LINEAR LOAD: 50 LBF
 - II. CONCENTRATED LOAD: 200 LBF
2. INTERMEDIATE RAILS
CONCENTRATED LOAD: 50 LBF

GENERAL NOTES AND SPECIFICATIONS:

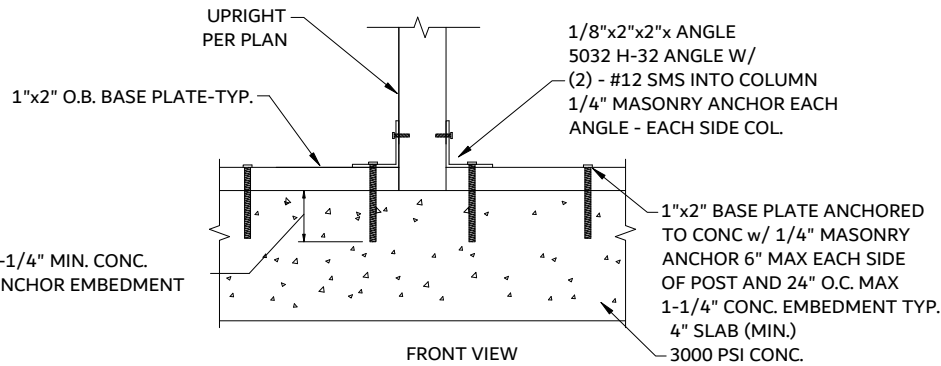
1. THE STRUCTURES INDICATED HERIN ARE DESIGNED TO BE INSTALLED WITHIN MASONRY, WOOD, STEEL OR ALUMINUM FRAME HOST STRUCTURES OF ADEQUTE STRUCTURAL CAPACITY. THE CONTRACTOR SHALL VERIFY THAT THE HOST STRUCTURE IS IN GOOD CONDITION AND OF SUFFICIENT STRENGTH TO SUPPORT THE PROPOSED ADDITION.
2. ALUMINUM EXTRUSIONS SHALL MEET THE STRENGTH REQUIREMENTS OF ASTM B221 AFTER POWDER COATING.
3. ALL ALUMINUM EXTRUSIONS ARE TO BE A MINIMUM 6063 T6
4. ALL SELF MATING BEAM SECTIONS ARE TO BE STITCHED WITH #12 SCREWS 6" FROM ENDS & 24" CENTER TO CENTER. #10 SCREW 6" FROM ENDS & 12" CENTER TO CENETER.
5. THE MINIMUM NORMAL THICKNESS OF PROTECTOR PANELS (KICKPLATES) SHALL BE AN INDUSTRY STANDARD OF 0.024 INCHES.
6. VINYL AND ACRYLIC PANELS SHALL BE REMOVED WHEN WIND SPEEDS EXCEED 75 MPH PER FBC.
7. SCREEN MATERIAL SHALL BE 18/14 SCREEN UNLESS APPROVED BY ELITE3 ENGINEERING SOLUTION.
8. 1"x2" & 1"x3" NON STRUCTURAL MEMBERS MAY BE USED INTERCHANGEABLY.
9. DOOR LOCATION MAY BE DETERMINED/ RELOCATED BY CONTRACTOR IN THE FIELD.

ASSEMBLY NOTES:

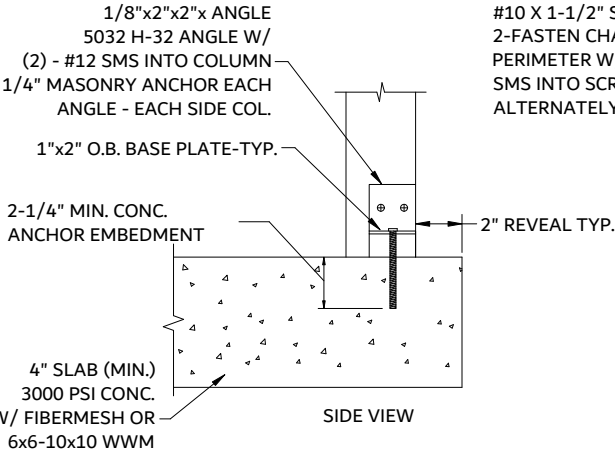
1. FASTEN CHAIR RAIL (INTERNAL)TO PERIMETER W/(4) #10 X 2" S.S. S.M.S. INTO SCREW BOSS OF CHAIR RAIL.
2. FASTEN PERIMETER MEMBERS AT CORNERS(INTERNAL) W/(2) #10 X 2" S.S. S.M.S. INTO SCREW BOSSES.

INSTALLATION NOTES:

1. FASTEN PERIMETER TO ALUM. EAVE RAIL W/ #12 X 1-1/2" SMS 24" O/C AND WITHIN 6" OF INTERSECTING MEMBERS AND JOINTS.
2. FASTEN PERIMETER TO MASONRY W/ 1/4" X 2-1/4" TAPCON 24" O/C AND WITHIN 6" OF INTERSECTING MEMBERS AND JOINTS.
3. FASTEN PERIMETER TO WOOD W/ 1/4"X 2-1/2" GALV. LAG BOLTS 24" O/C AND WITHIN 6" OF INTERSECTING MEMBERS AND JOINTS.
4. FASTEN PERIMETER TO STEEL W/ #12-14 X 1-1/2" SDS OR STS 24" O/C AND WITHIN 6" OF INTERSECTING MEMBERS AND JOINTS.



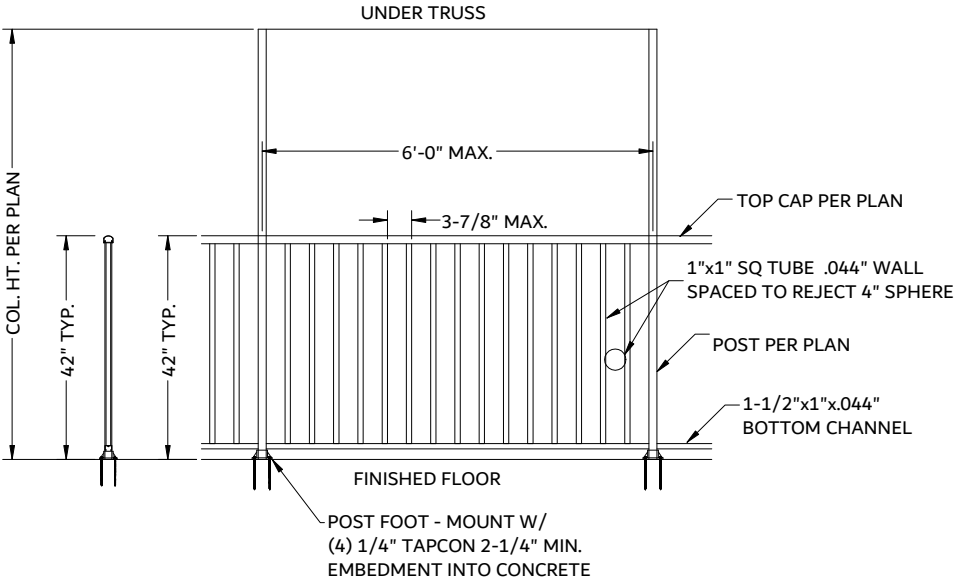
1 2"x2"/3" UPRIGHT TO DECK (FRONT+SIDE VIEW)
CONNECTION DETAILS SCALE: NTS



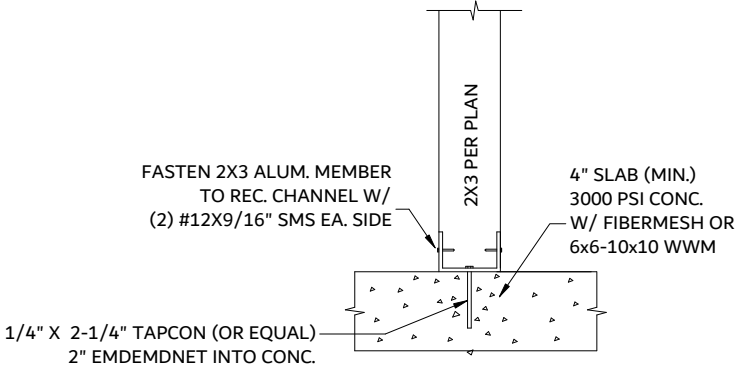
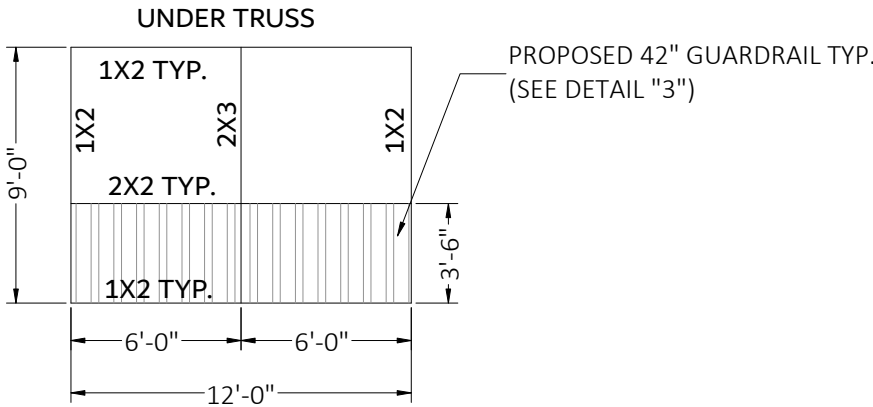
- ASSEMBLY NOTES:
- 1-FASTEN PERIMETER MEMBERS AT CORNERS (INTERNAL) W/(2) #10 X 1-1/2" SMS INTO SCREW BOSSES
 - 2-FASTEN CHAIR RAIL (INTERNAL) TO PERIMETER W/(4) #10X1-1/2" SMS INTO SCREW BOSS OF CHAIR RAIL. ALTERNATELY DETAIL C.

SEE INSTALLATION NOTES FOR ANCHORAGE

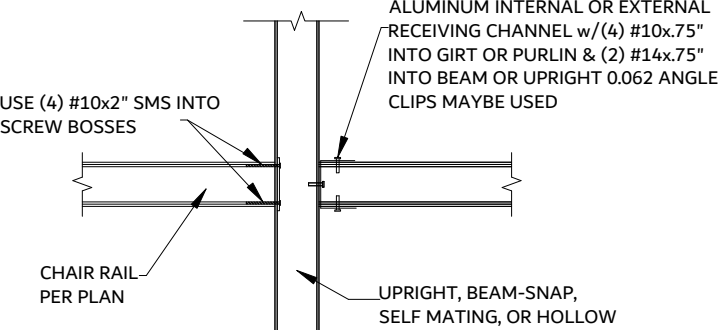
FIGURE 1
SCALE: N.T.S.



3 COMMERCIAL GUARD RAIL DETAIL
SCALE: N.T.S.



3 2"x2"/3" UPRIGHT TO DECK ALTERNATE
CONNECTION DETAILS SCALE: NTS



2 CHAIR RAIL TO POST DETAIL
SCALE: N.T.S.

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"

This item has been electronically signed and sealed by Bikash. Khanal, P.E. on date below using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.



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PROJECT NO. 2420402 -2

DESIGN DATE:	07/22/2024
REV 1:	07/25/2024
REV 2:	DATE
DRAWN BY:	MKS
SCALE:	NTS

SHEET:
01

JOB ADDRESS:
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