

DESIGN CRITERIA:

APPLICABLE CODES, REGULATIONS & STANDARDS

1. THE 2020 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 7-16 & 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 1.
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: 110 MPH EXPOSURE CATEGORY, PARAGRAPH 1609.4.3: C
3. WIND LOADS PER FBC TABLE 2002.4 (MWFRS) VULT = 110 MPH & EXPOSURE = C

FOR 20 X 20 X 0.013" MESH SCREEN
 HORIZONTAL PRESSURES ON WINDWARD SURFACES = 24 PSF
 HORIZONTAL PRESSURES ON LEEWARD SURFACES = 18 PSF
 VERTICAL PRESSURES ON SCREEN SURFACES = 7 PSF
 VERTICAL PRESSURES ON SOLID SURFACES = 19 PSF

FOR 18 X 14 X 0.013" MESH SCREEN, APPLIED FACTOR = .88
 FOR ALLOWABLE STRESS DESIGN, APPLIED FACTOR = .6

FOUNDATION DESIGN

EXISTING APPROVED 12" X 12" RIBBON FOOTER W/ (2) # 5 REBAR CONT.

MISCELLANEOUS

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.

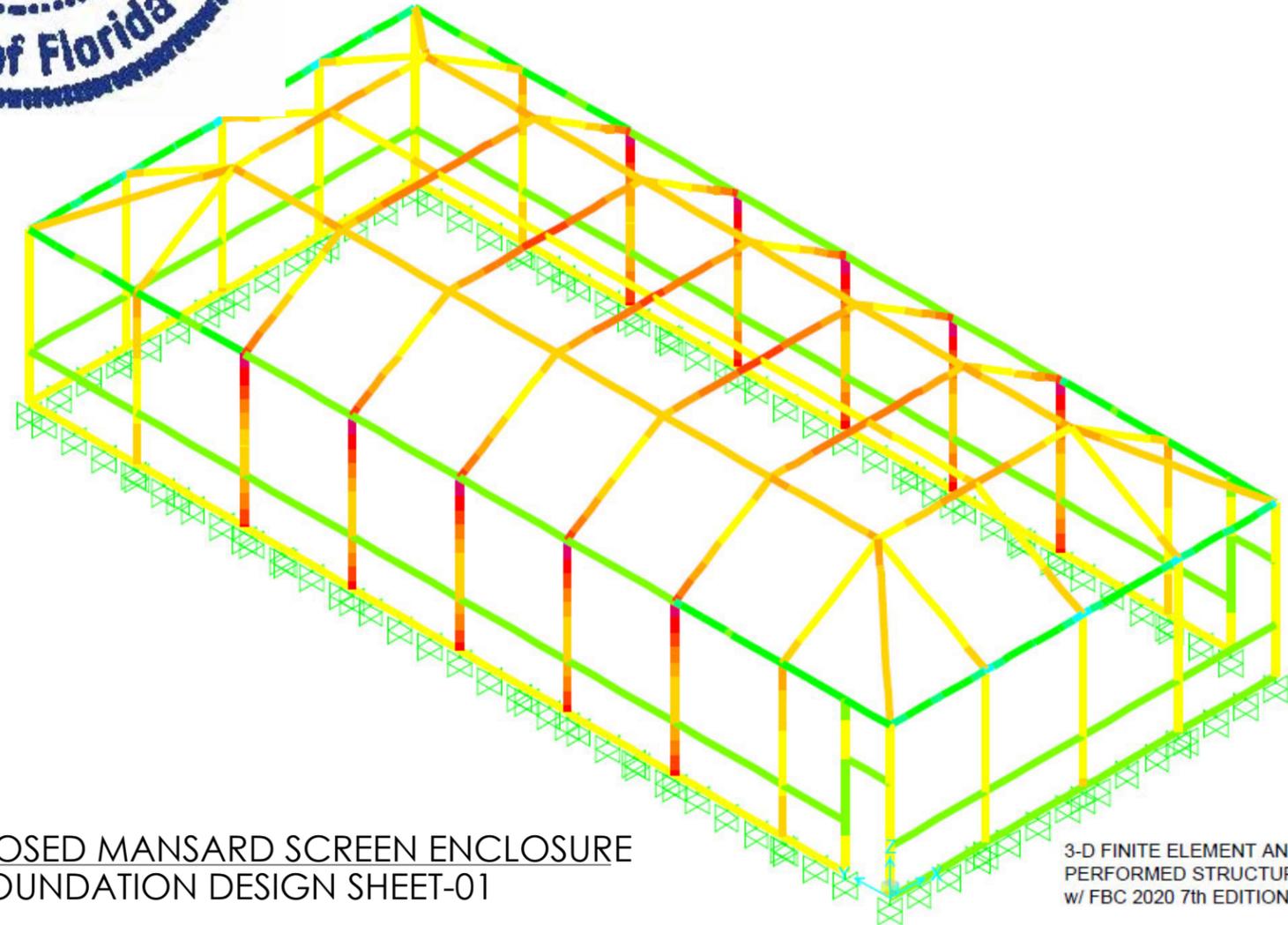
FASTENER SPECIFICATIONS

1. FASTENERS ARE REQUIRED TO BE SAE GRADE 2 OR BETTER ZINC PLATED. (CONCRETE ANCHORS ARE TO BE TAPCONS OR BETTER, INSTALLED TO MFG. SPECIFICATIONS)
2. IT IS THE OWNERS RESPONSIBILITY TO MAINTAIN THE SCREENS, FASTENERS AND SCREENS TO MANUFACTURING SPECIFICATIONS.
3. WHERE WOOD DECK IS PRESENT USE 1/4" X 3-1/2" GALV. LAG SCREWS IN LIEU OF MASONRY ANCHORS. UNLESS OTHERWISE SPECIFIED.
4. 1"X2" NON STRUCTURAL MEMBERS ATTACHED TO HOST
 - A. FOR MASONRY/CONCRETE APPLICATION USE GALVANIZED 1/4" X 2-3/4" TAPCONS OR EQUAL AT 24" O.C. AND 6" FROM ENDS
 - B. FOR WOOD APPLICATION USE #14 X 2-3/4" WOOD SCREW AT 24" O.C. AND 6" FROM ENDS.
 - C. FOR ALUMINUM APPLICATION USE #10 X 1-1/2" SMS OR TEK SCREW AT 24" O.C. AND 6" FROM ENDS
 - D. WHERE 1"X2" INSTALLED THROUGHOUT AN "OPEN VIEW" SPACING SHALL BE REDUCED TO 18" O.C. AND 6" FROM ENDS

RESPONSIBILITIES

1. 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. FOR "PICTURE WINDOW" MODIFICATION TO EXISTING SCREEN ENCLOSURES, ALL OTHER "EXISTING SCREEN ENCLOSURE" FEATURES ARE TO MEET THE TYPICAL DETAILS AS PROVIDED IN THESE DETAILS. CONTRACTOR IS TO VERIFY & ASSURE EXISTING SCREEN ENCLOSURE IS STRUCTURALLY SOUND.
4. CONTRACTOR TO PROVIDE NOA'S & INSTALL ALL MATERIALS AS PER MANUFACTURER'S SPECIFICATIONS.
5. INTEGRITY OF EXISTING/ HOST STRUCTURE SHALL NOT BE COMPROMISED WITH THE ATTACHMENT OF THE PROPOSED STRUCTURE.

SHEET NO.	DRAWING INDEX
S/01	GENERAL NOTES
S/02	PLAN/ ELEVATIONS
S/03	DETAILS
S/04	DETAILS



PROPOSED MANSARD SCREEN ENCLOSURE
 SEE FOUNDATION DESIGN SHEET-01

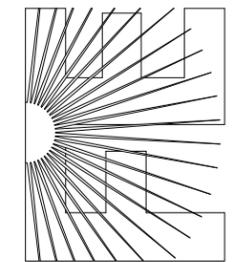
3-D FINITE ELEMENT ANALYSIS
 PERFORMED STRUCTURE COMPLIES
 W/ FBC 2020 7th EDITION

ALLOWABLE STRESS IS 21.2 KSI



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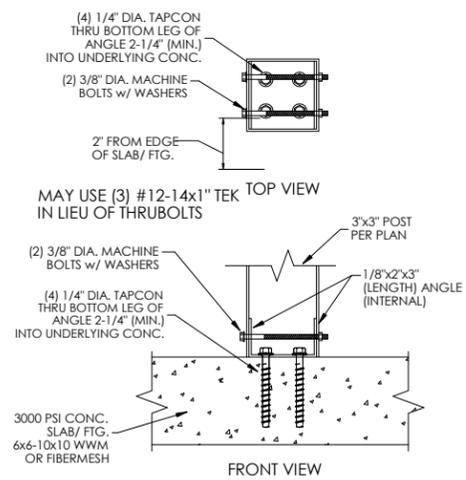
PROJECT NO. 2219549

CA CERT. #30782

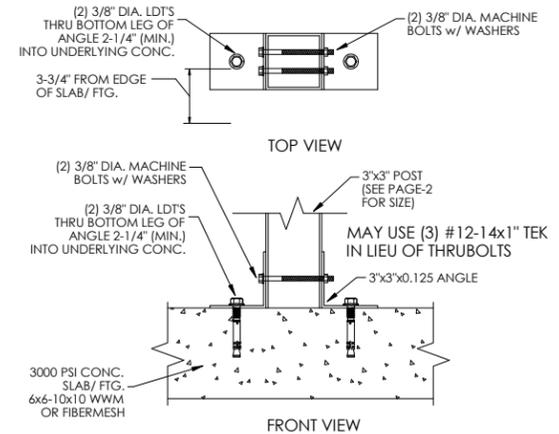
CONTRACTOR:
 SCREENWORKS INC

PROJECT ADDRESS:
 WILLIAMS
 1999 S MARION AVE
 LAKE CITY, FL 32025

DESIGN DATE:	07/16/2022	SHEET: 01
REVISION 1:	DATE	
REVISION 2:	DATE	
DRAWN BY:	MBG	
SCALE:	NTS	



3"x3" POST CONNECTION DETAIL (INTERNAL BASE) SCALE: N.T.S.

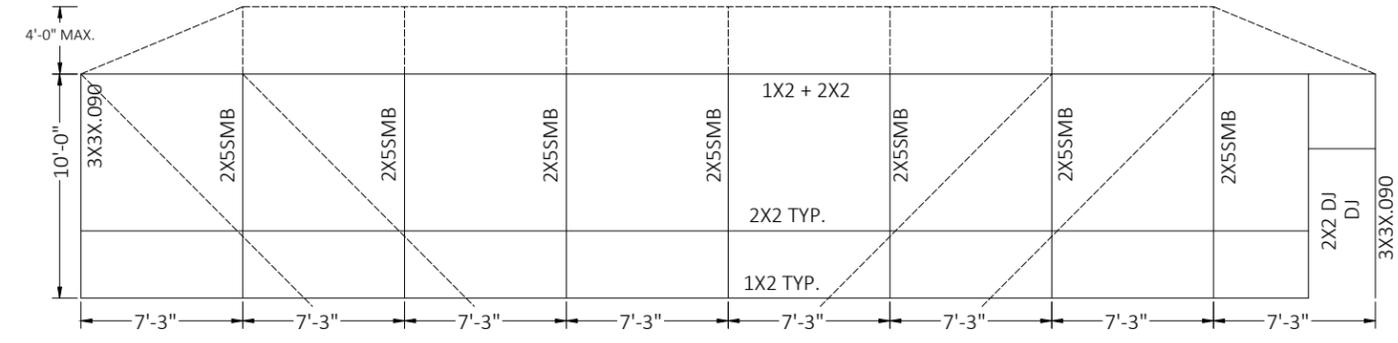
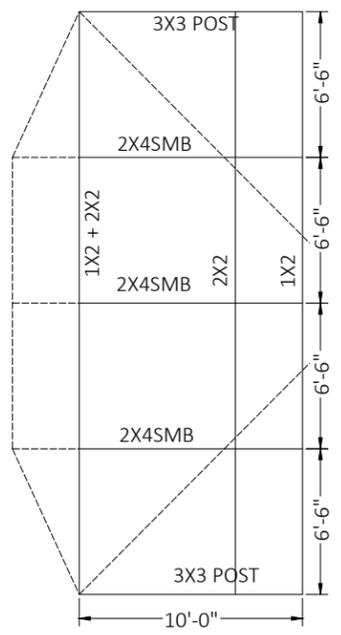
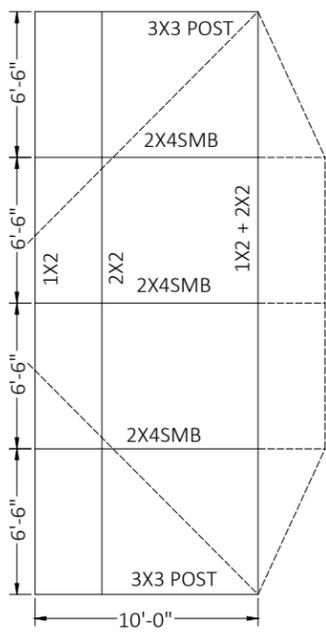
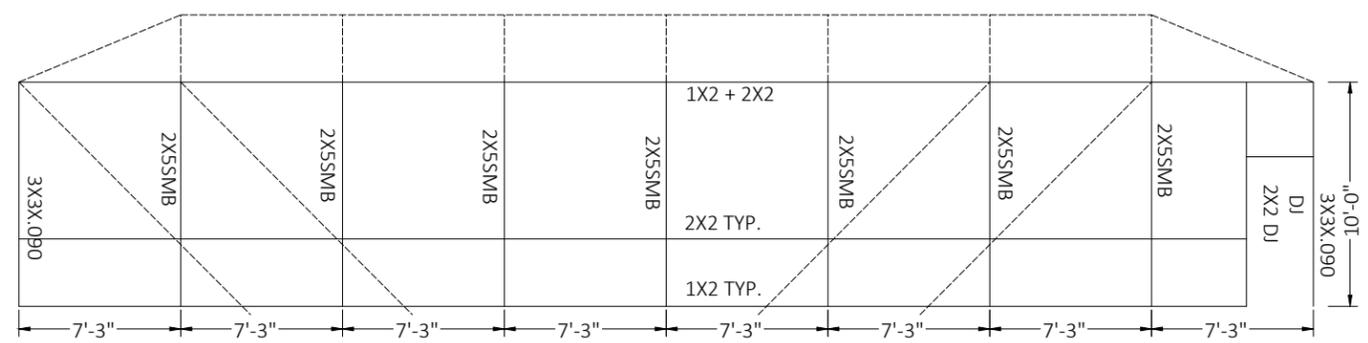


3"x3" POST CONNECTION DETAIL SCALE: NTS

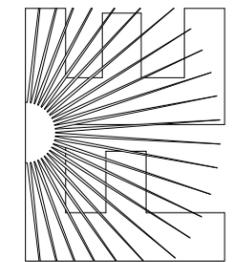
ALUMINUM SPECIFICATIONS

1. ALUMINUM EXTRUSIONS SHALL BE 6005 T5 ALLOY UNLESS OTHERWISE NOTED.
2. 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 CENTER.
3. ROOF BRACING SHALL BE A MINIMUM 2"x2"x.050".
4. THE MINIMUM NORMAL THICKNESS OF PROTECTOR PANELS (KICKPLATES) SHALL BE AN INDUSTRY STANDARD OF 0.024 INCHES.
5. VINYL AND ACRYLIC PANELS SHALL BE REMOVED WHEN WIND SPEEDS EXCEED 75 MPH PER FBC.
6. SCREEN MATERIAL SHALL BE 18/14 SCREEN UNLESS APPROVED BY FLORIDA ENGINEERING LLC.
7. 1"x2" & 1"x3" NON STRUCTURAL MEMBERS MAY BE USED INTERCHANGEABLY.
8. DOOR LOCATION MAY BE DETERMINED/ RELOCATED BY CONTRACTOR IN THE FIELD.

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PROJECT ADDRESS:
**WILLIAMS
1999 S MARION AVE
LAKE CITY, FL 32025**

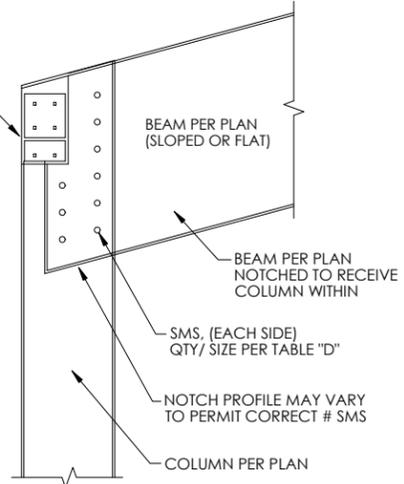
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02

1"x2" FASTEN TO COL. (INTERNAL) w/(2) #10x1-1/2" SMS. FASTEN TO EAVE RAILS ABOVE w/#10 1-1/2" SMS 24" O.C. AND 6" WITHIN COL.

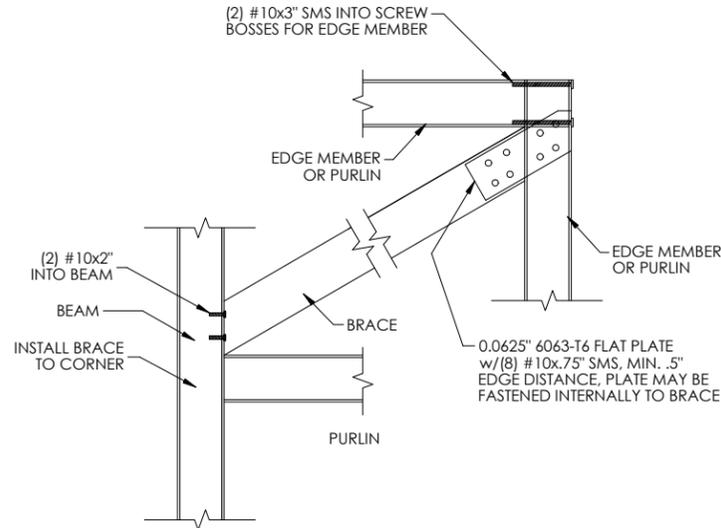
TABLE "D"

BEAM	QTY/ SIZE EACH SIDE
2 x 3	(4)/ #12
2 x 4	(5)/ #12
2 x 5	(5)/ #12
2 x 6	(6)/ #12
2 x 7	(7)/ #12
2 x 8	(8)/ #14
2 x 9	(9)/ #14
2 x 10	(9)/ #14



MAINTAIN MIN. OF 5/8" SEPERATION FROM EDGE OF BEAM SMS O.C.

DETAIL E - UPRIGHT TO BEAM CONNECTION SCALE: NTS



DETAIL "D" - ROOF BRACING CONNECTION SCALE: NTS

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"

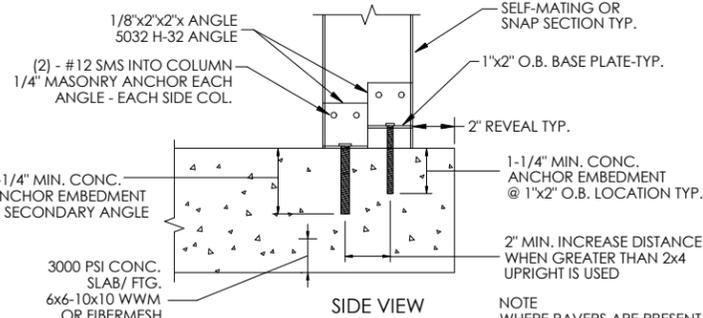
SELF MATING (SMB)
 2 x 4 SMB: 2" x 4" x 0.046" x 0.100"
 2 x 5 SMB: 2" x 5" x 0.050" x 0.116"
 2 x 6 SMB: 2" x 6" x 0.050" x 0.120"
 2 x 7 SMB: 2" x 7" x 0.055" x 0.120"
 2 x 8 SMB: 2" x 8" x 0.072" x 0.224"
 2 x 9 SMB: 2" x 9" x 0.072" x 0.224"
 2 x 9(H) SMB: 2" x 9" x 0.082" x 0.306"
 2 x 10 SMB: 2"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

DETAIL A

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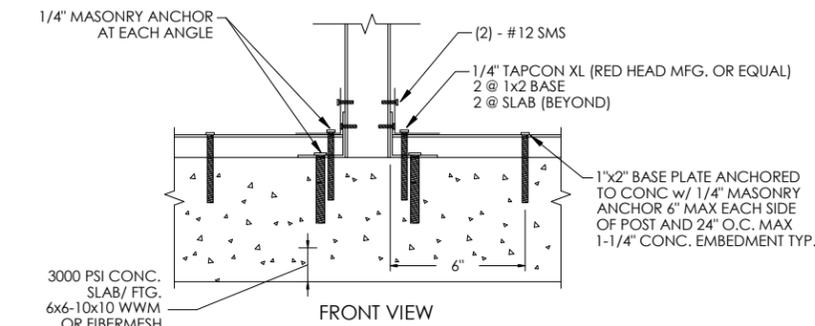
MINIMUM NUMBER OF TAPCONS INTO CONCRETE & # 12 X 3/4" S.M.S. INTO UPRIGHT / EACH SIDE OF BEAM THROUGH SECONDARY 2" X 2" X 0.125" ANGLES (SEE BELOW)

- 2X4 S.M.B. (1) 1/4" X 2-1/4" S.S. TAPCON & (2) # 12 X 3/4" S.M.S.
- 2X5 S.M.B. (1) 1/4" X 2-1/4" S.S. TAPCON & (2) # 12 X 3/4" S.M.S.
- 2X6 S.M.B. (2) 1/4" X 2-1/4" S.S. TAPCON & (3) # 12 X 3/4" S.M.S.
- 2X7 S.M.B. (2) 1/4" X 2-1/4" S.S. TAPCON & (4) # 12 X 3/4" S.M.S.
- 2X8 S.M.B. (3) 1/4" X 2-1/4" S.S. TAPCON & (5) # 12 X 3/4" S.M.S.
- 2X9 S.M.B. (4) 1/4" X 2-1/4" S.S. TAPCON & (6) # 12 X 3/4" S.M.S.
- 2X10 S.M.B. (5) 1/4" X 2-1/4" S.S. TAPCON & (7) # 12 X 3/4" S.M.S.



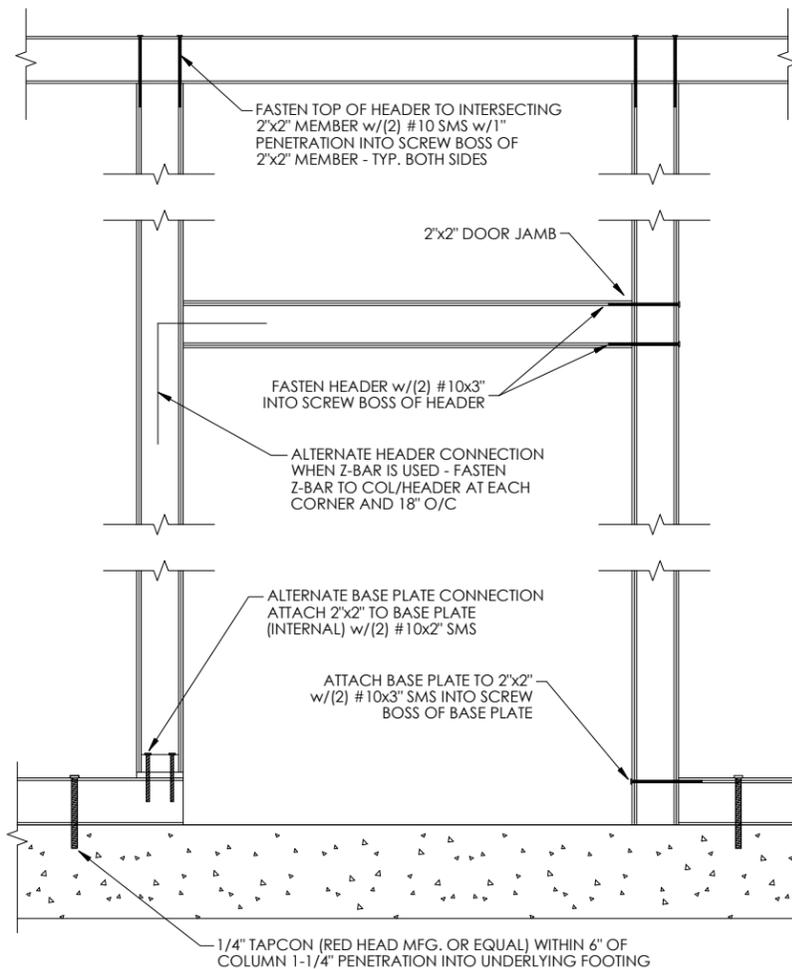
SIDE VIEW

FRONT VIEW

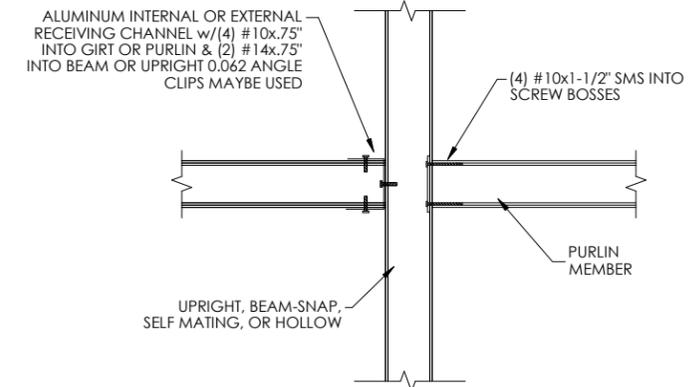


FRONT VIEW

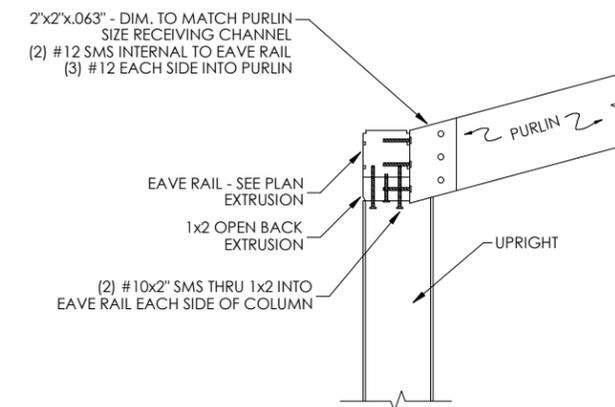
DETAIL "B" - 2"x4" OR LARGER SELF MATING UPRIGHT TO DECK DETAILS SCALE: NTS



DETAIL "F" - DOOR JAMB & HEADER CONNECTION SCALE: NTS

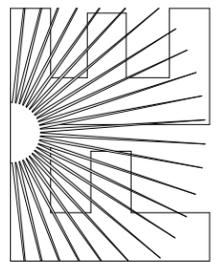


DETAIL "C" - GIRT OR PURLIN TO BEAM OR POST DETAIL SCALE: NTS



DETAIL "G" - SLOPED PURLIN CONNECTION SCALE: NTS

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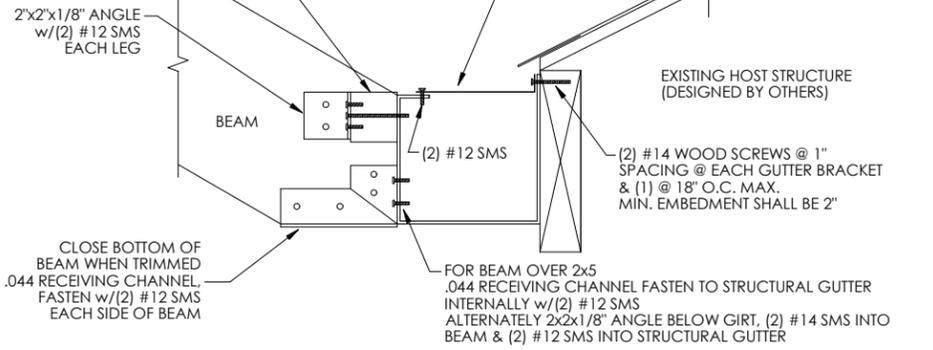
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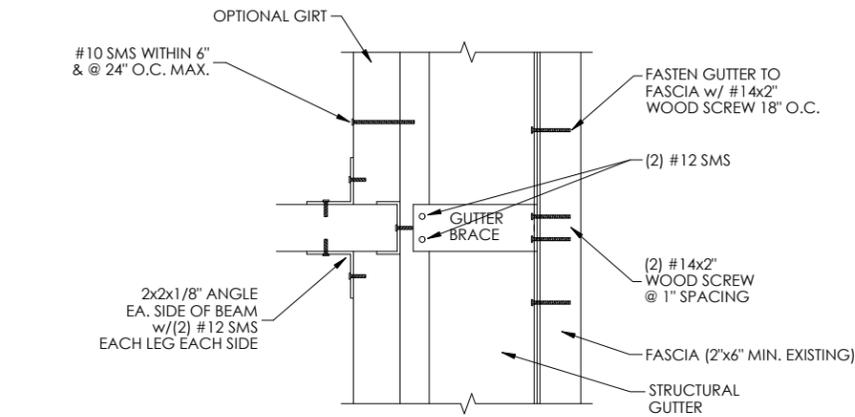
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GIRT FASTENED INTERNALLY AT EACH END w/ #10x1.5" EACH SCREW GROOVE. FASTEN TO BEAM w/ 2"x2"x1/8" ANGLE (2) #12 SMS INTO BEAM & (2) #10x1.5 THRU ANGLE INTO GUTTER WHERE NO GIRT IS PRESENT, ATTACH ANGLE DIRECTLY TO GUTTER



SIDE VIEW



TOP VIEW

DETAIL "H" BEAM TO GUTTER CONNECTION SCALE: NTS

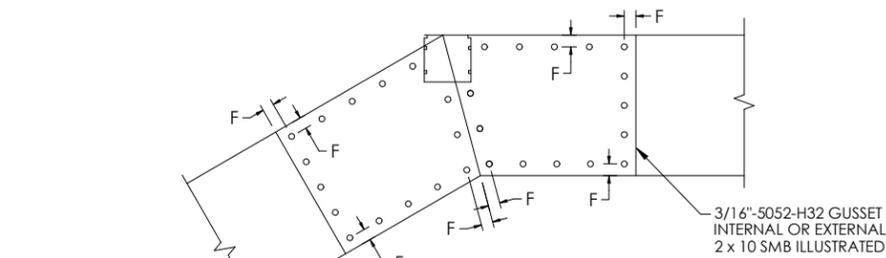
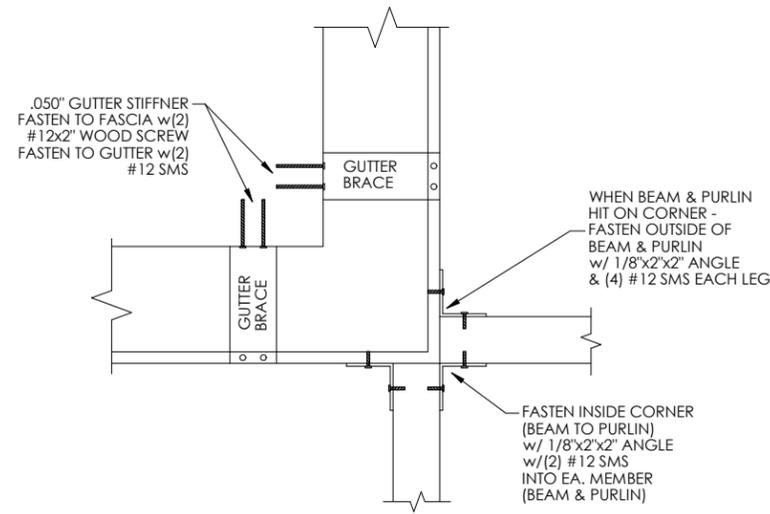
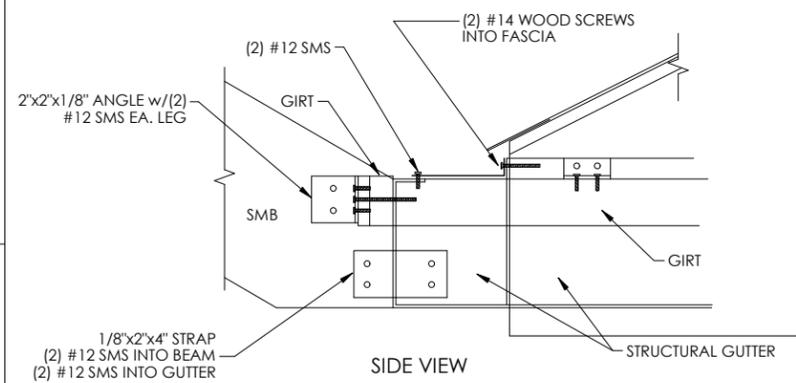


TABLE B-1		
BEAM SIZE	COL. TO BEAM QTY SMS/SIDE OF COL.	BEAM TO BEAM QTY SMS/EA. FACE/SIDE
2 x 4	(5) #12	(9) #12
2 x 5	(5) #12	(9) #12
2 x 6	(7) #12	(9) #12
2 x 7	(10) #12	(10) #12
2 x 8	(12) #12	(14) #12
2 x 9	(14) #14	(14) #14
2 x 10	(16) #14	(15) #14

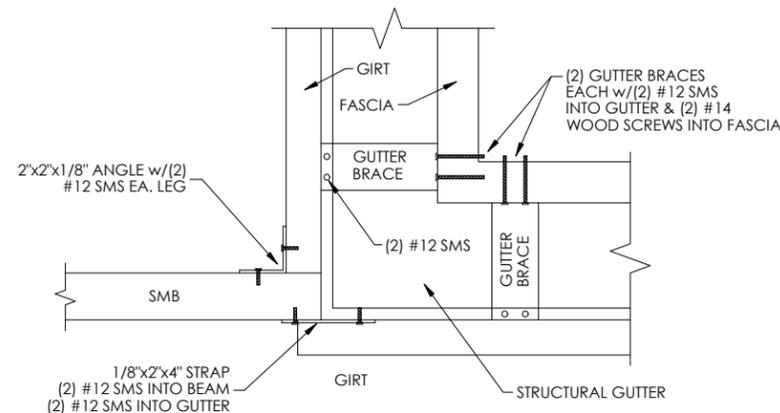
DETAIL "K" GUSSET CONNECTION SCALE: NTS



DETAIL "M" BEAM & PURLIN TO GUTTER CONNECTION SCALE: NTS

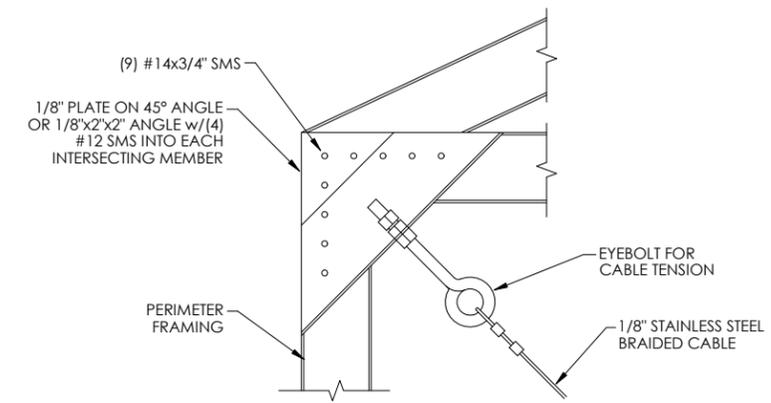


SIDE VIEW

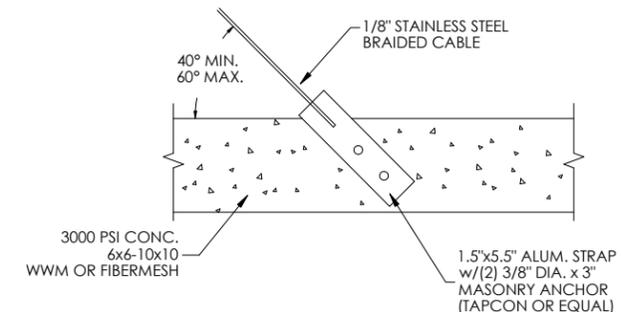
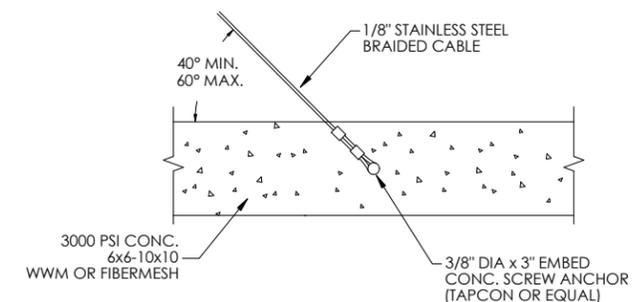
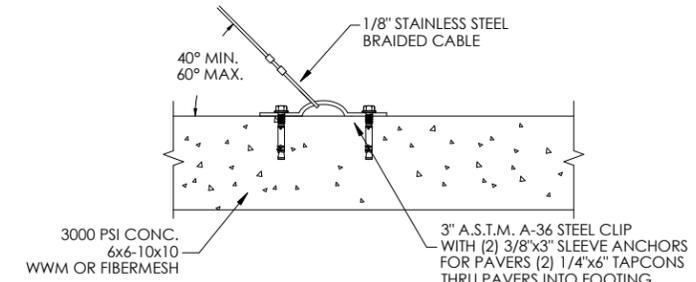


TOP VIEW

DETAIL "L" CORNER CONNECTION SCALE: NTS



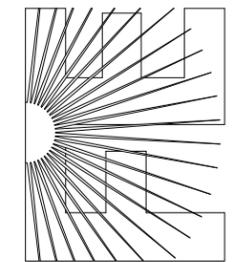
DETAIL "I-2" CABLE CONNECTION AT CORNER SCALE: NTS



DETAIL "I-1" CABLE CONNECTION AT FOUNDATION SCALE: NTS

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