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: 160
   MPH EXPOSURE CATEGORY, PARAGRAPH 1609.4.3: C
3. WIND LOADS PER FBC TABLE 2002.4 (MWFRS)
   VULT = 160 MPH & EXPOSURE = C

FOR 20 X 20 X 0.013" MESH SCREEN

HORIZONTAL PRESSURES ON WINDWARD SURFACES =	49 PSF
HORIZONTAL PRESSURES ON LEEWARD SURFACES =	39 PSF
VERTICAL PRESSURES ON SCREEN SURFACES =	14 PSF
VERTICAL PRESSURES ON SOLID SURFACES =	41 PSF

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

FOUNDATION DESIGN

FOOTING SIZE EXISTING CONCRETE SLAB. NO ADDITIONAL FOOTING OR FOUNDATION SYSTEM IS REQUIRED BY THE PROPOSED CONSTRUCTION IF A MINIMUM 4" CONCRETE SLAB IS PROVIDED IN SOUND CONDITION, FREE FROM STRUCTURAL CRACKING, SPALLING & OTHER DETERIORATION. EXISTING FOUNDATION/FOOTING UNDER CONCRETE SLAB MINIMUM 8"x8" W/ (1) #5 BAR TO BE VERIFIED BY CONTRACTOR. SEE TYPICAL FOOTING DETAILS FOR NEW FOOTING DESIGN MINIMUM REQUIREMENTS.

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.

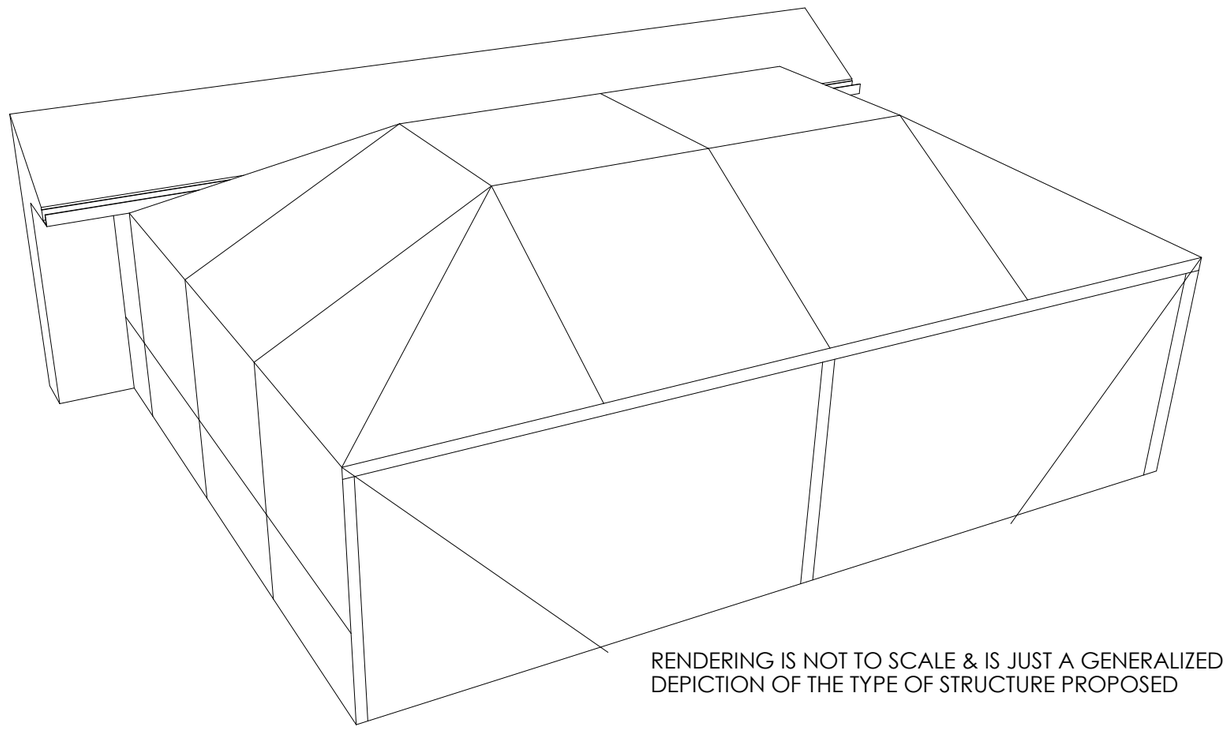
FASTENER SPECIFICATIONS

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
S/05	DETAILS



RENDERING IS NOT TO SCALE & IS JUST A GENERALIZED DEPICTION OF THE TYPE OF STRUCTURE PROPOSED

PROPOSED MANSARD SCREEN ENCLOSURE
SEE FOUNDATION DESIGN SHEET-01

This item has been electronically signed and sealed by Craig E. Gunderson, 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.

CRAIG E. GUNDERSON LICENSE No. 60102 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Craig E Gunderson
Date: 2023.09.11 15:55:24 -04'00'

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4161 TAMIAMI TRAIL, UNIT 101
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Orders@FLEng.com
CA CERT. #30782

PROJECT NO. 232499824998

CONTRACTOR:
KING CONSTRUCTION
8474 BARBIE LN
N FT M, FL 33917

PROJECT ADDRESS:
SONI
18450 ROYAL HAMMOCK BLVD
NAPLES, FL 34114

DESIGN DATE:	09/11/2023
REVISION 1:	DATE
REVISION 2:	DATE
DRAWN BY:	DNM-YD
SCALE:	NTS
SHEET:	01

HATCH/ SYMBOL LEGEND

HATCH	INDICATES
	EXIST. STRUCTURE

NOTE: ALL MAY NOT APPLY

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 CENETER.
3. ROOF BRACING SHALL BE A MINIMUM 2"X3"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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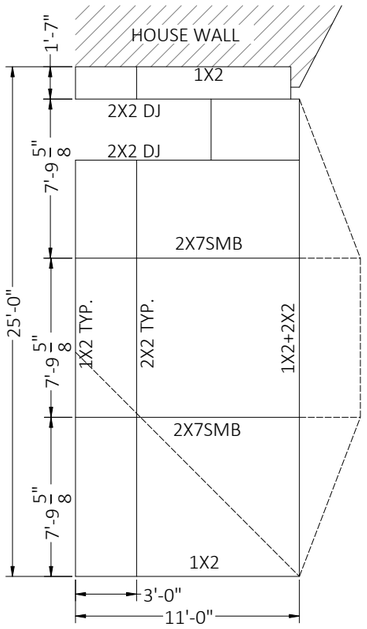

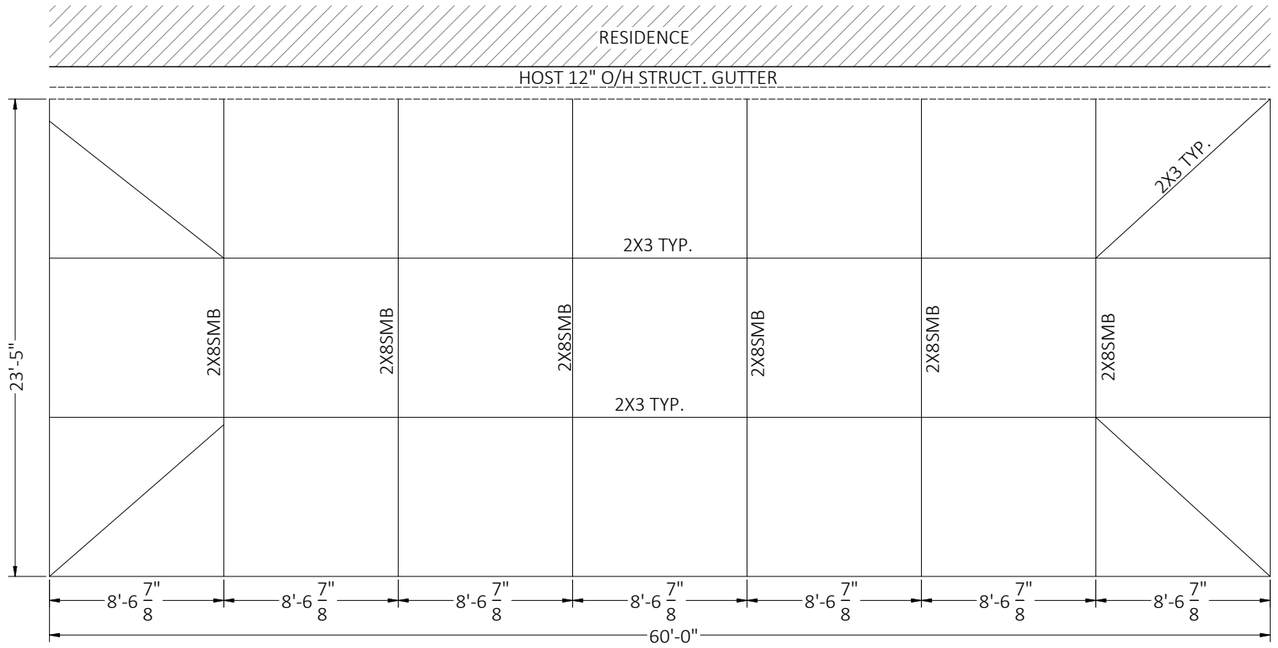

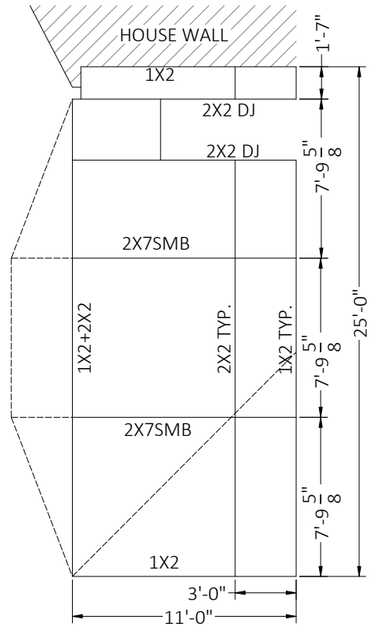

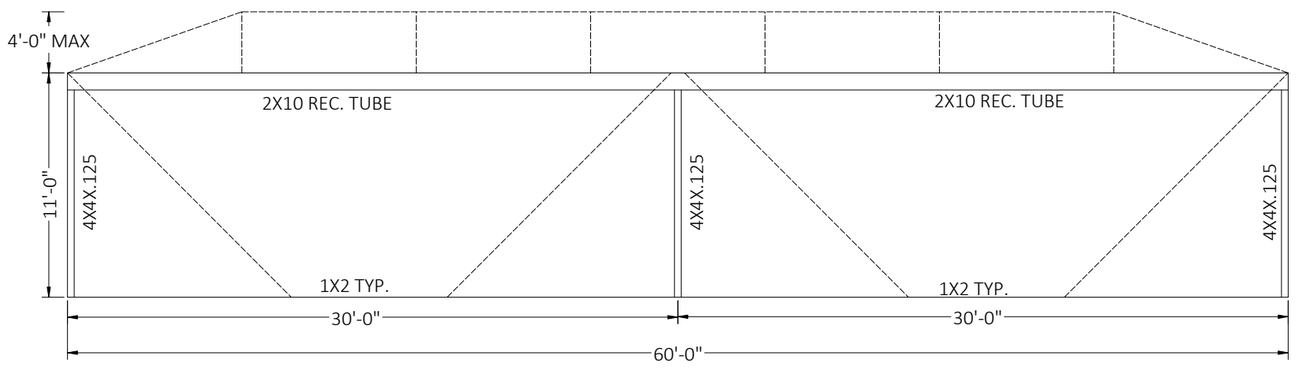

THE ENGINEERING ON THESE PLANS IS SITE SPECIFIC FOR (1) STRUCTURE ONLY AT THE PROVIDED ADDRESS(ES).

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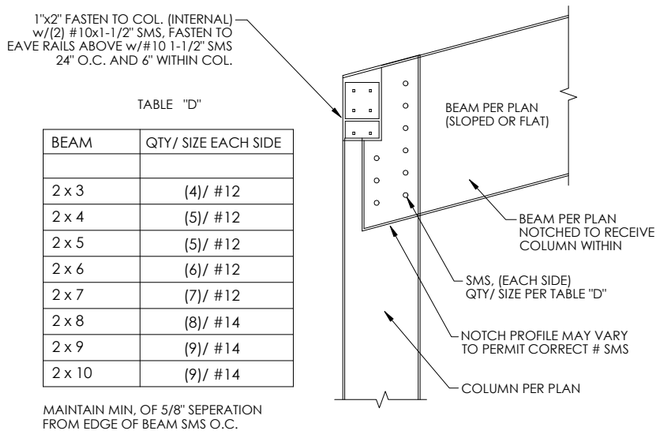
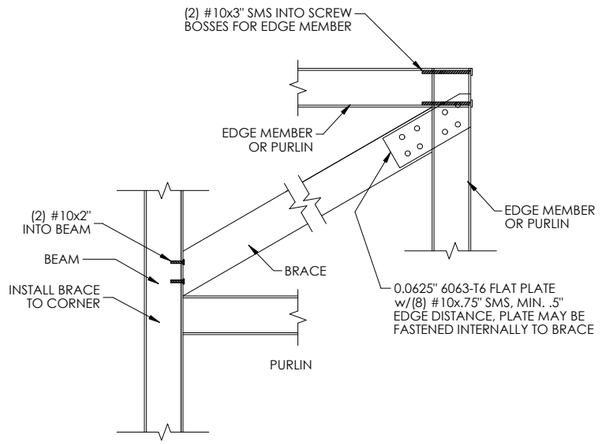


TABLE "D"

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"

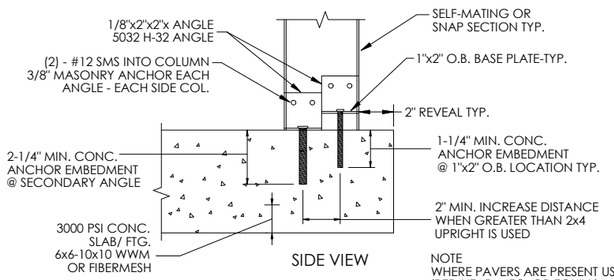
SELF MATING (SMB)
2 x 4 SMB: 2" x 4" x 0.046" x 0.100"
2 x 5 SMB: 2" x 5" x 0.050" x 0.116"
2 x 6 SMB: 2" x 6" x 0.050" x 0.120"
2 x 7 SMB: 2" x 7" x 0.055" x 0.120"
2 x 8 SMB: 2" x 8" x 0.072" x 0.224"
2 x 9 SMB: 2" x 9" x 0.072" x 0.224"
2 x 9(H) SMB: 2" x 9" x 0.082" x 0.306"
2 x 10 SMB: 2" x 10"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

ALL MAY NOT APPLY

DETAIL A

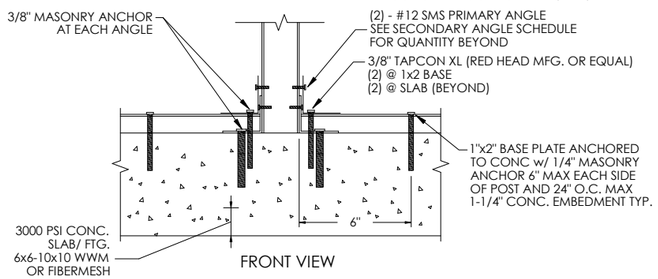
MINIMUM NUMBER OF TAPCONS INTO CONCRETE & # 12 X 3/4" S.M.S. INTO UPRIGHT / EACH SIDE OF BEAM THROUGH SECONDARY 2" X 2" X 0.125" ANGLES (SEE BELOW)

2X4 S.M.B. (0) 3/8" X 2-1/4" S.S. TAPCON & (0) # 12 X 3/4" S.M.S.
2X5 S.M.B. (0) 3/8" X 2-1/4" S.S. TAPCON & (0) # 12 X 3/4" S.M.S.
2X6 S.M.B. (1) 3/8" X 2-1/4" S.S. TAPCON & (4) # 12 X 3/4" S.M.S.
2X7 S.M.B. (1) 3/8" X 2-1/4" S.S. TAPCON & (4) # 12 X 3/4" S.M.S.
2X8 S.M.B. (2) 3/8" X 2-1/4" S.S. TAPCON & (5) # 12 X 3/4" S.M.S.
2X9 S.M.B. (2) 3/8" X 2-1/4" S.S. TAPCON & (6) # 12 X 3/4" S.M.S.
2X10 S.M.B. (2) 3/8" X 2-1/4" S.S. TAPCON & (7) # 12 X 3/4" S.M.S.



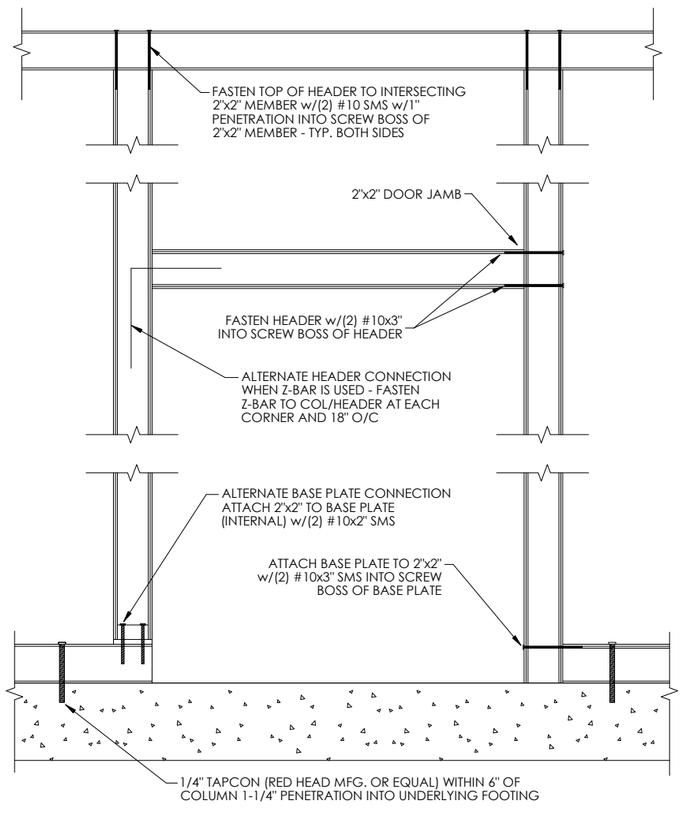
SIDE VIEW

NOTE
WHERE PAVERS ARE PRESENT USE 3/8" LDT (RED HEAD MFG. OR EQUIV.) MASONRY ANCHORS TO PENETRATE UNDERLYING CONCRETE FOOTING 2-1/4" (MIN.)

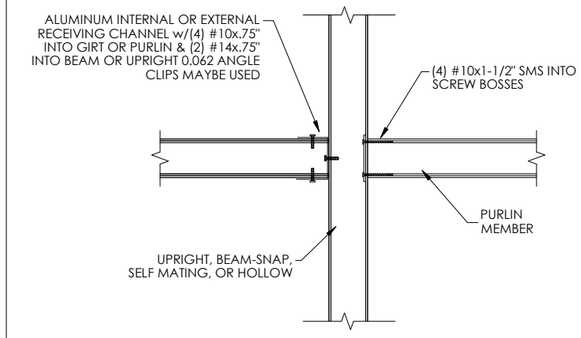


FRONT VIEW

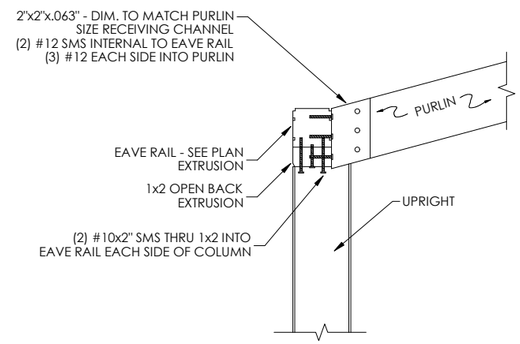
DETAIL "B" - 2"x4" OR LARGER SELF MATING UPRIGHT TO DECK DETAILS SCALE: NTS



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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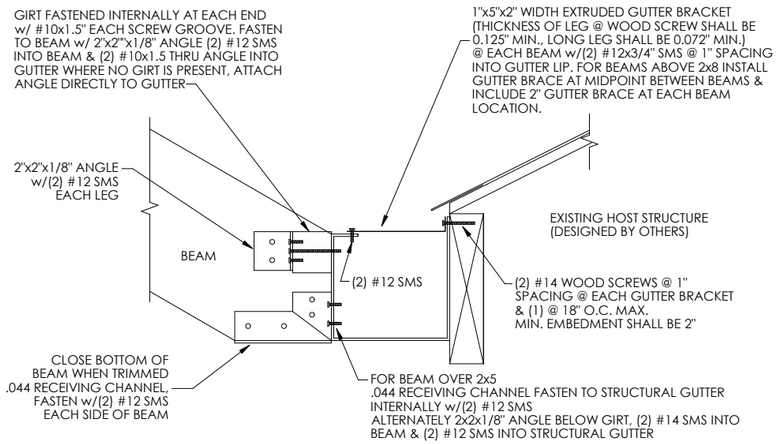
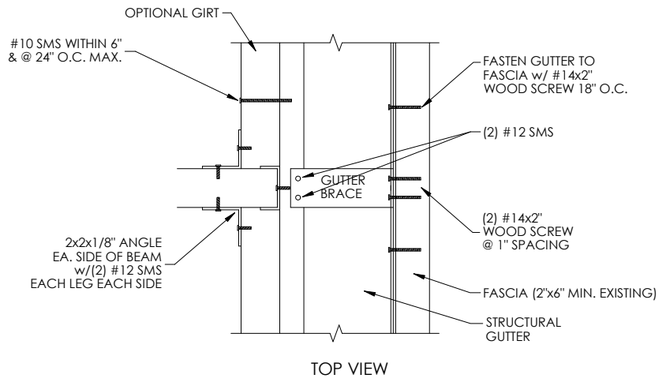
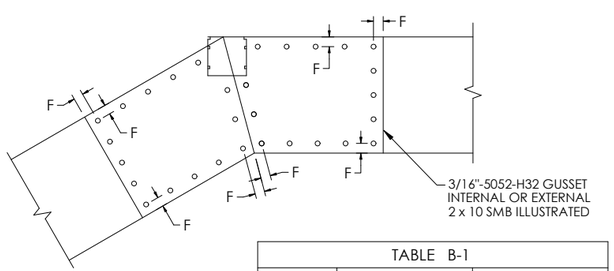


SIDE VIEW



TOP VIEW

DETAIL "H" BEAM TO GUTTER CONNECTION SCALE: NTS

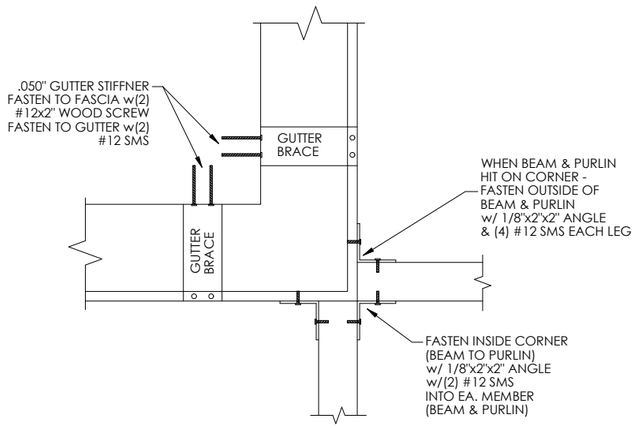


NOTE F
INSTALL FASTENERS ALONG PERIMETER OF GUSSET -BEAM JOINT 3/8" MIN. FROM EDGE. FASTENERS MAY BE STAGGERED TO INSURE PROPER QUANTITY PER TABLE B-1

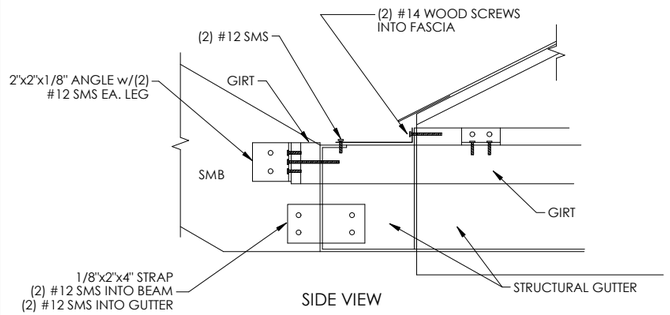
FASTENER PATTERN MAY APPEAR DIFFERENT FROM ILLUSTRATION.
MAINTAIN 1/2" SEPARATION BETWEEN FASTENERS.
MAINTAIN 3/8" MIN. FASTENER SEPARATION FROM BEAM JOINT OR EDGE OF BEAM LAP
FASTENERS MAY BE EVENLY SPACED AROUND EDGE OF GUSSET WITHIN 3/8" OF BEAM JOINT.
FASTENERS MAY BE STAGGERED TO INSURE PROPER QUANTITY PER TABLE B-1

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

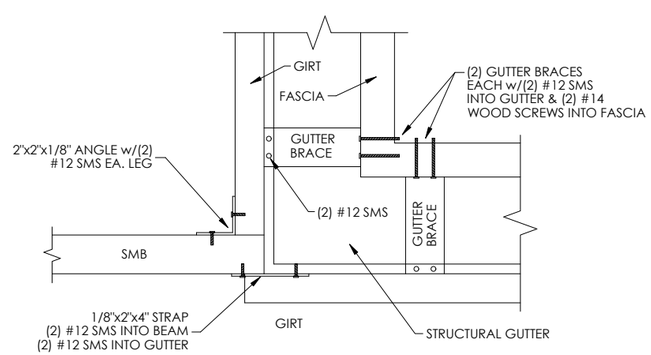
DETAIL "K" GUSSET CONNECTION SCALE: NTS



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

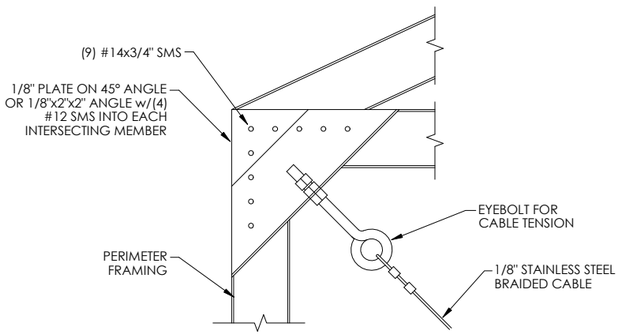


SIDE VIEW

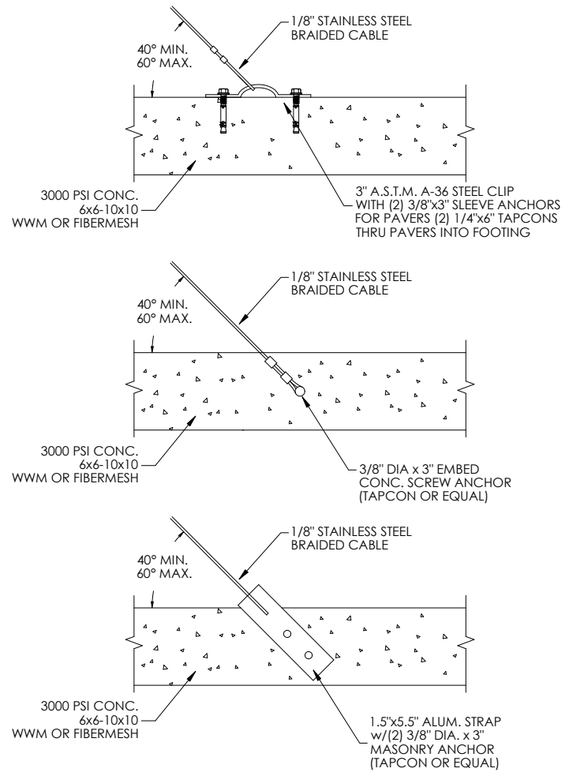


TOP VIEW

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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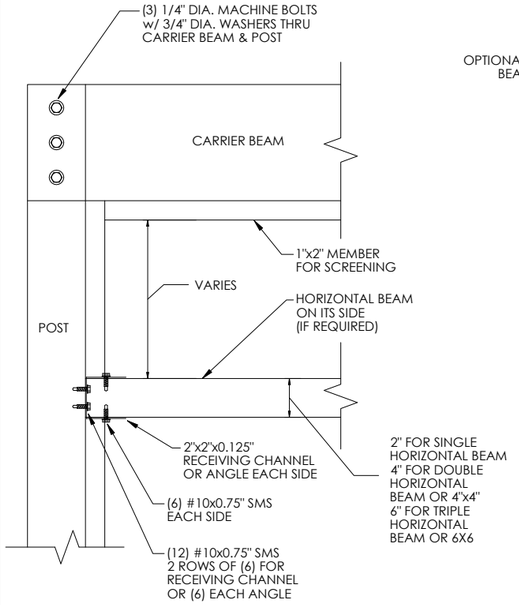
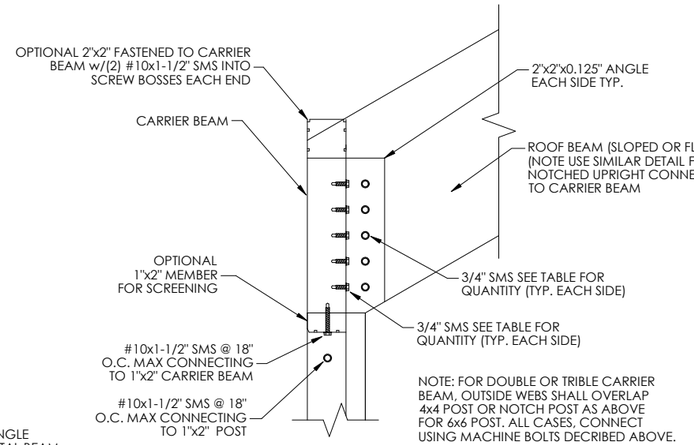
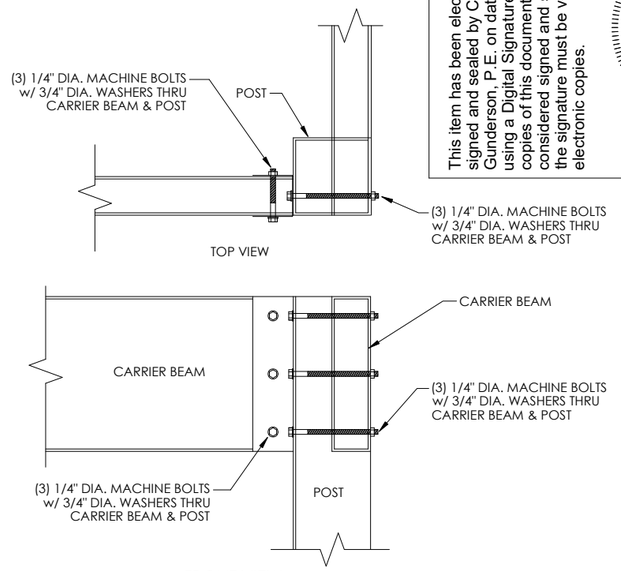


CARRIER BEAM TO POST DETAIL
SCALE: NTS

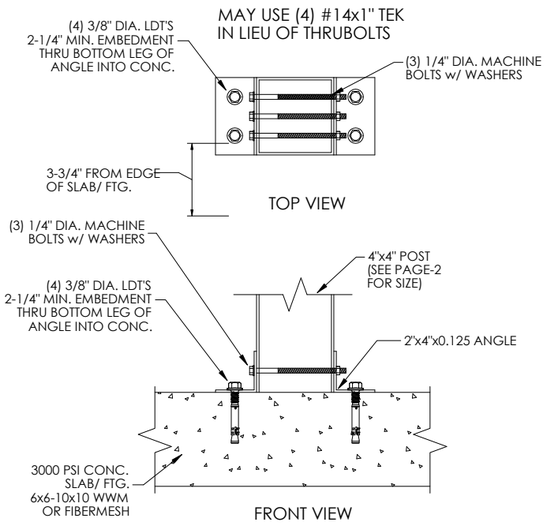


ROOF BEAM TO CARRIER BEAM
CONNECTION DETAIL SCALE: NTS

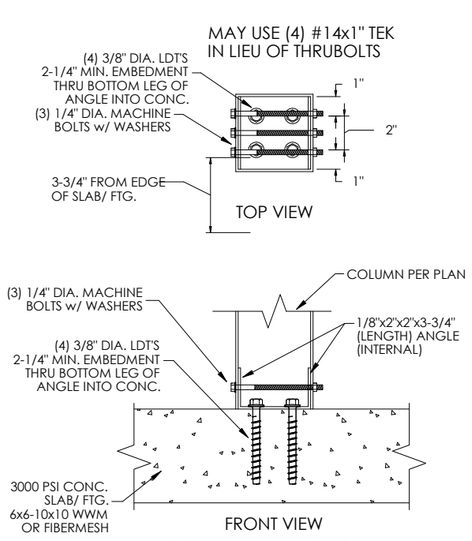
ROOF BEAM TO C.B. W/ 1/8" ANGLE TABLE	
BEAM SIZE	QUANTITY/ SIZE EA. LEG TO BEAM
2 x 4	(4) #12 OR (2) # 16
2 x 5	(5) #12 OR (3) # 16
2 x 6	(5) #12 OR (3) # 16
2 x 7	(6) #14 OR (4) # 16
2 x 8	(7) #14 OR (4) # 16
2 x 9	(8) #14 OR (5) # 16
2 x 10	(9) #14 OR (6) # 16



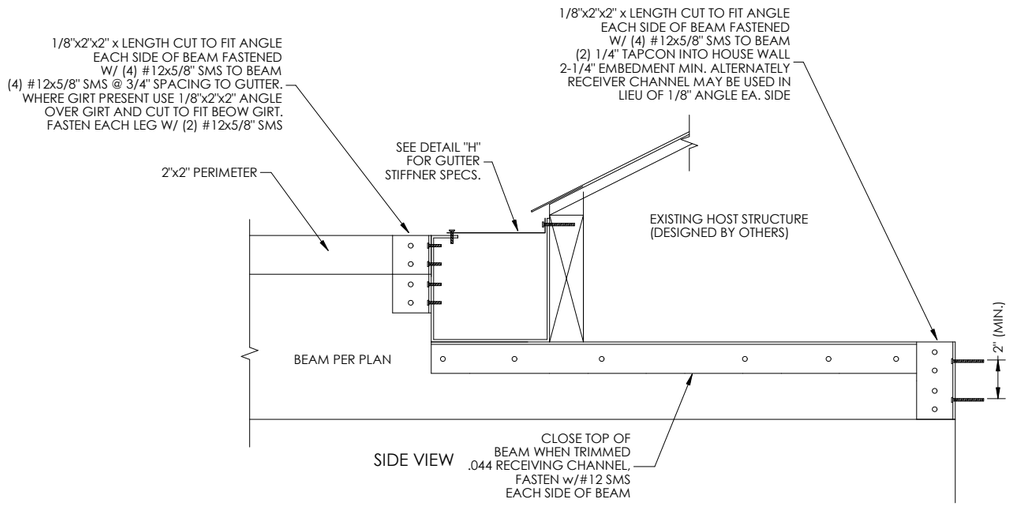
CORNER CARRIER BEAM CONNECTION DETAIL
SCALE: NTS



4"x4" POST CONNECTION DETAIL
SCALE: NTS



4X4 COLUMN ALT. BASE ATTACHMENT
DETAIL SCALE: NTS



BEAM TO GUTTER/HOST CONNECTION
DETAIL SCALE: NTS

NOTES:
1. 3x3 POST TO HAVE 3/8" RED HEAD - TRUBOLT WEDGE ANCHORS (STAINLESS STEEL, PROVIDE MINIMUM 2" FROM EDGE OF SLAB AND PROVIDE MINIMUM 2" SPACING TO ANY OTHER CONNECTOR. SEE MFG. NOTES FOR INSTALLATION REQUIREMENTS. THREADED ROD REQUIRES 3" MINIMUM EDGE DISTANCE.

2. WHERE 4x4 POST HAVE 1/2" RED HEAD - TRUBOLT WEDGE ANCHORS (STAINLESS STEEL), PROVIDE MINIMUM 3-3/4" FROM EDGE OF SLAB AND PROVIDE MINIMUM 3-3/4" SPACING TO ANY OTHER CONNECTOR. SEE MFG. NOTES FOR INSTALLATION REQUIREMENTS.

3. WHERE PAVERS ARE PRESENT ANCHOR LENGTH SHALL BE INCREASED BY THICKNESS OF PAVER NOT TO EXCEED 2-1/2" FOR PAVER THICKNESS MORE THAN 2-1/2" SPECIFICATIONS SHALL BE REQUIRED. PAVERS SHALL BE BONDED TO UNDERLYING CONCRETE FOUNDATION.

This item has been electronically signed and sealed by Craig E. Gunderson, 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.

CRAIG E. GUNDERSON LICENSE No. 60102 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Craig E Gunderson
Date: 2023.09.11 15:55:42 -04'00'

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PROJECT NO. 2324998

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8474 BARBIE LN
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PROJECT ADDRESS:
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DESIGN DATE:	09/11/2023
REVISION 1:	DATE
REVISION 2:	DATE
DRAWN BY:	DNM-YD
SCALE:	NTS
SHEET:	05