

9/26/2023 1:17

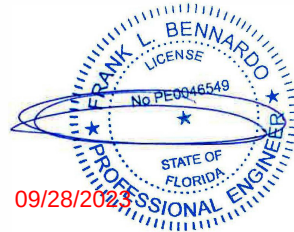
c:\users\milton\engineering express\production - documents\projects\23-123-60777 2023 product fbc update fl 12163\work\2023 fbc\drawings & cad\23-60777a - fl12163.1 - doc.dwg
9/26/2023 1:17 PM MILTON

MAXIMUM (ASD) ALLOWABLE
DESIGN PRESSURES:

+ 70 PSF
- 70 PSF

FRANK BENNARDO, P.E.
PE# 0046549 CA# 9885

SEPTEMBER 26, 2023



FL 12163.1

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Four Seasons Solar Products, LLC

5005 Veterans Memorial Highway
Holbrook, NY 11741
(631) 563-4000

230 Sun and Stars Roof System

FLORIDA BUILDING CODE EIGHTH EDITION (2023)
FLORIDA STATEWIDE APPROVAL (FSA FL#12163.1)

REMARKS	DATE	DRWN	CHKD	DATE
PREV. SUBMITTAL (20-29440)	07/28/20	CCB	RWN	07/28/20
2023 FBC UPDATE		MRT	ERJRN	08/14/23

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SCALE: NTS UNLESS NOTED

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OF 21

DESIGN NOTES:

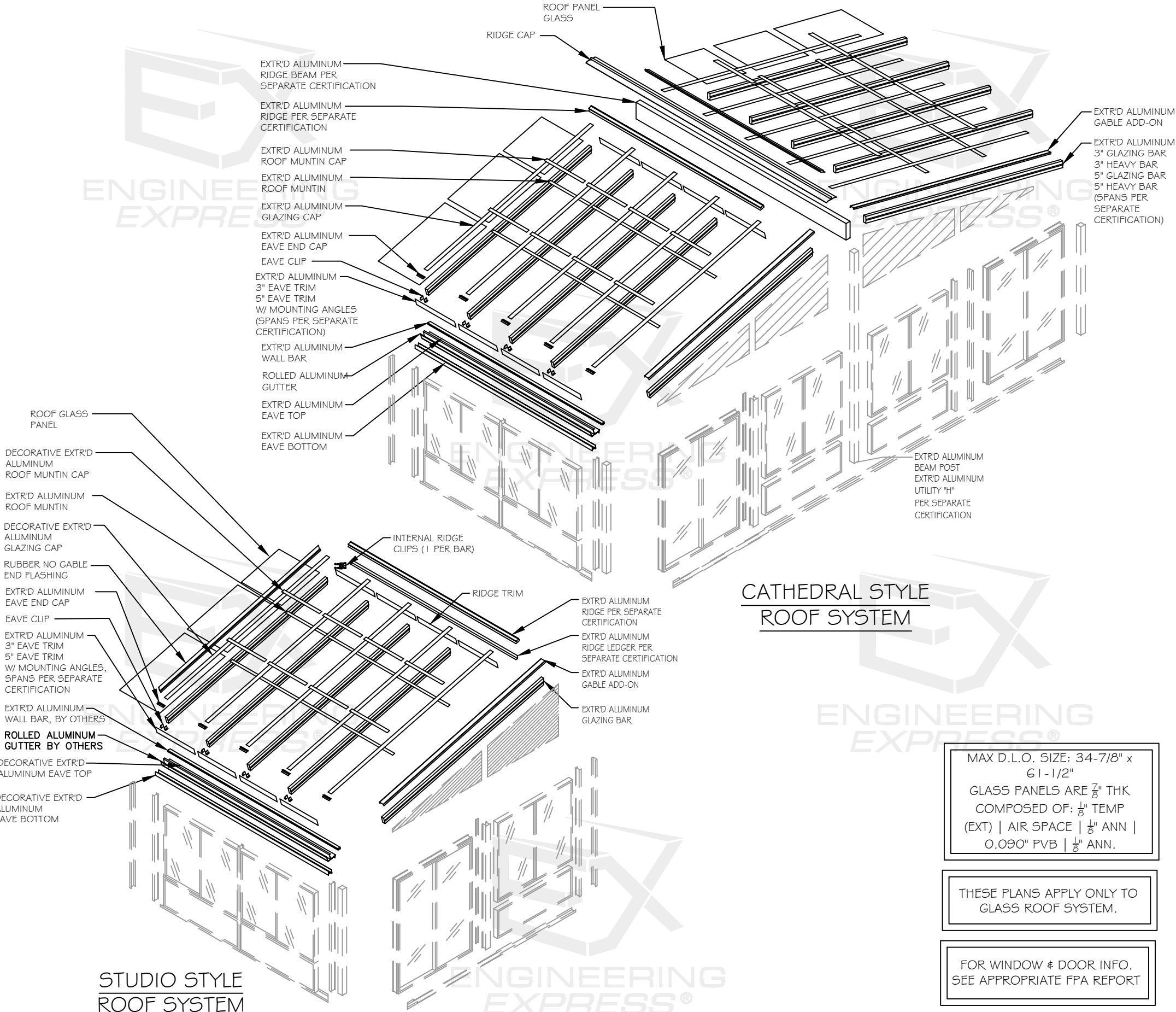
POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED BY OTHERS ON A JOB-SPECIFIC BASIS IN ACCORDANCE WITH THE GOVERNING CODE. SITE-SPECIFIC WIND LOAD REQUIREMENTS SHALL BE DETERMINED IN ACCORDANCE WITH ASCE 7 AND THE GOVERNING BUILDING CODE BY SEPARATE ENGINEERING CERTIFICATION AND SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUE LISTED HEREIN FOR ANY ASSEMBLY WITHIN THE LIMITATIONS STATED HEREIN.

GENERAL NOTES:

- THIS SPECIFICATION HAS BEEN DESIGNED AND SHALL BE FABRICATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE EIGHTH EDITION (2023) FOR USE WITHIN AND OUTSIDE THE HVHZ. CONTRACTOR SHALL INVESTIGATE AND CONFORM TO ALL LOCAL BUILDING CODE AMENDMENTS WHICH MAY APPLY. DESIGN CRITERIA BEYOND AS STATED HEREIN MAY REQUIRE ADDITIONAL SITE-SPECIFIC SEALED ENGINEERING.
- DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY 1.5 SAFETY FACTOR
- THE ARCHITECT/ENGINEER OF RECORD FOR THE PROJECT SUPERSTRUCTURE WITH WHICH THIS DESIGN IS USED SHALL BE RESPONSIBLE FOR THE INTEGRITY OF ALL SUPPORTING SURFACES TO THIS DESIGN WHICH SHALL BE COORDINATED BY THE PERMITTING CONTRACTOR. WOOD BUCKS (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO EXISTING STRUCTURE
- SEPARATE 'SITE-SPECIFIC' SEALED ENGINEERING SHALL BE REQUIRED IN ORDER TO DEVIATE FROM LOADS, DEFLECTIONS, OR SPANS CONTAINED HEREIN. CONTACT THIS ENGINEER FOR ALTERNATE SPAN CALCULATIONS AS MAY BE REQUIRED.
- FASTENERS SHALL BE CADMIUM-PLATED OR OTHERWISE CORROSION-RESISTANT MATERIAL AND SHALL COMPLY WITH "SPECIFICATIONS FOR ALUMINUM STRUCTURES" SECTION J.3.7.2 BY THE ALUMINUM ASSOCIATION INC. AND ANY APPLICABLE FEDERAL, STATE AND OR LOCAL CODES.
- REFER TO FASTENER MANUFACTURER'S PUBLISHED DATA SHEETS AND RECOMMENDATIONS FOR FASTENER INSTALLATION INSTRUCTIONS.
- THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT.
- THE CONTRACTOR SHALL CAREFULLY CONSIDER POSSIBLE IMPOSING LOADS ON ROOF, INCLUDING BUT NOT LIMITED TO ANY CONCENTRATED LOADS WHICH MAY JUSTIFY GREATER DESIGN CRITERIA. THIS ADDITIONAL ROOF LOAD CRITERIA SHALL BE PROPERLY ANALYZED BY A LICENSED ENGINEER OR REGISTERED ARCHITECT.
- THE CONTRACTOR IS RESPONSIBLE TO INSULATE OR PROTECT ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
- ENGINEER SEAL AFFIXED HERETO VALIDATE STRUCTURAL DESIGN AS SHOWN ONLY. USE OF THIS SPECIFICATION BY CONTRACTOR, et. al. INDEMNIFIES & SAVES HARMLESS THIS ENGINEER FOR ALL COST & DAMAGES INCLUDING LEGAL FEES & APPELLATE FEES RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION, & CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE & FEDERAL CODES & FROM DEVIATIONS OF THIS PLAN.
- EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.
- ALTERATIONS, ADDITIONS, HIGHLIGHTING, OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE THIS CERTIFICATION.

SYSTEM PERFORMANCE
DERIVATIONS:

- SYSTEM PERFORMANCE DERIVED FROM CERTIFIED TEST REPORTS Nos. ETC-08-1014-21317.0 AND ETC-08-1014-21649.0 BY ETC LABORATORIES.



CATHEDRAL STYLE
ROOF SYSTEM

MAX D.L.O. SIZE: 34-7/8" x 61-1/2"
GLASS PANELS ARE 7/8" THK
COMPOSED OF: 1/8" TEMP
(EXT) | AIR SPACE | 1/8" ANN |
0.090" PVB | 1/8" ANN.

THESE PLANS APPLY ONLY TO
GLASS ROOF SYSTEM.

FOR WINDOW & DOOR INFO.
SEE APPROPRIATE FPA REPORT

STUDIO STYLE
ROOF SYSTEM



FL 12163.1

Four Seasons Solar Products, LLC

230 Sun and Stars Roof System
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FOR WINDOW & DOOR INFO.
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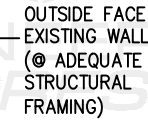
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NOTE:

1. DIM. TO OUTSIDE FACE OF WALL.
2. COLUMN SPACING VARIES DEPENDING UPON WINDOW & DOOR SIZES & CONFIGURATION. 6'-1 1/2" MAX. ON CENTER SPACING.
3. 30 5/8" & 36 5/8" BAY SPACING VARIES DEPENDING ON ROOM MODEL.
4. ALL ROOF SECTION REFERENCE DETAILS WITH 3" GLAZING BARS. FOR 5" GLAZING BARS SEE SHEET 14.

FOR WINDOW & DOOR INFO.
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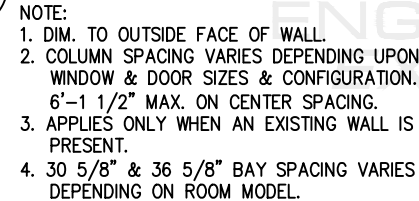
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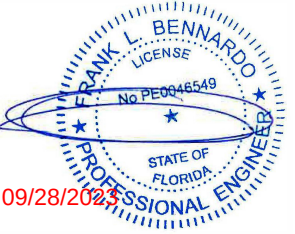
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FOR WINDOW & DOOR INFO,
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230 Sun and Stars Root System

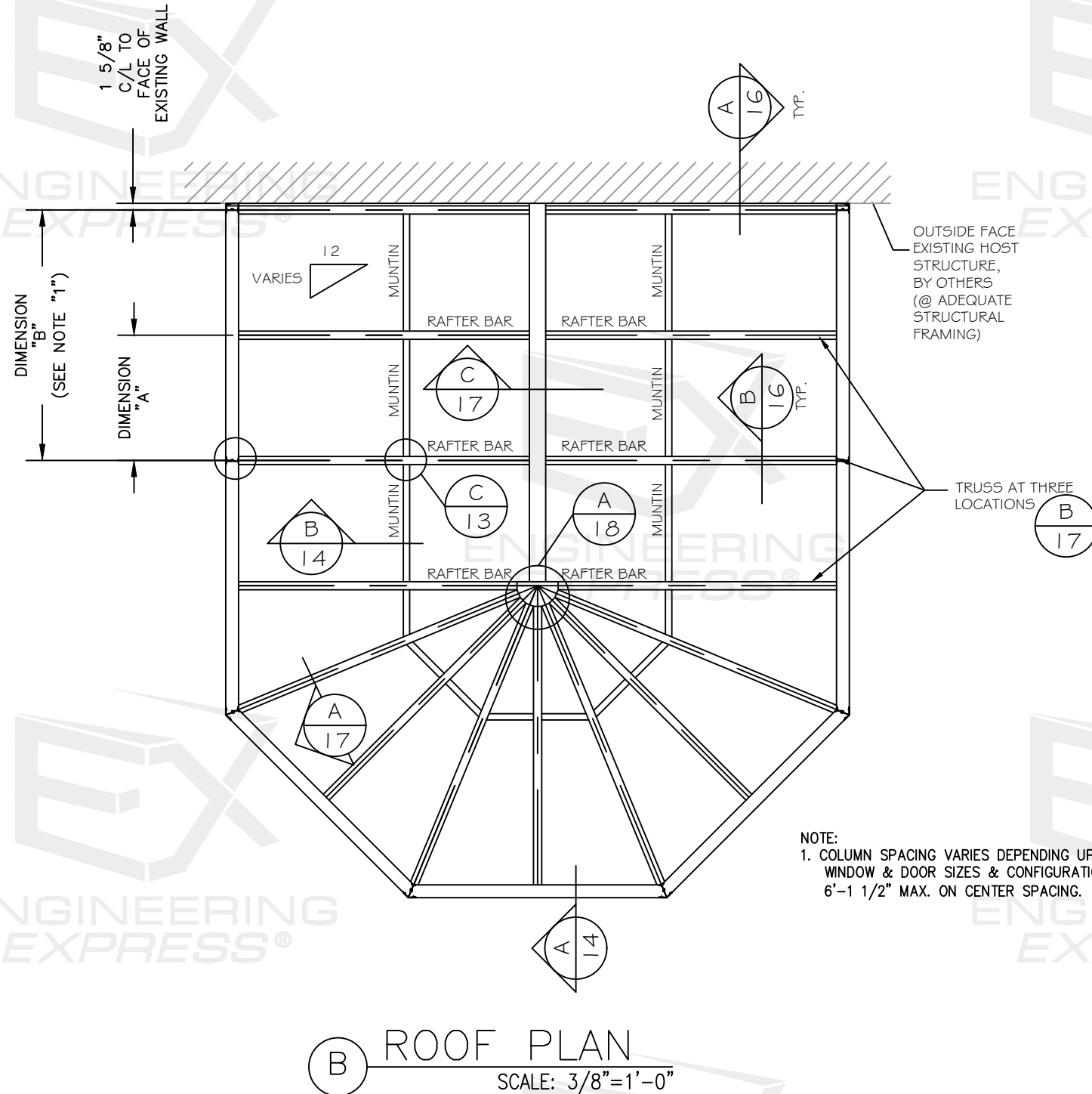
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SERIES 230 SUN & STARS VICTORIAN
ROOF MODEL CONFIGURATION

MODEL #	DIMENSION "A" RAFTER BAR O.C. SPACING	DIMENSION "B" WALL "H" POST SPACING
C4**13***	30 5/8"	61 1/4"
C4**15***	36 5/8"	73 1/4"

THESE PLANS APPLY ONLY TO
GLASS ROOF SYSTEM.

FOR USE IN HVHZ SEE
INFO ON SHEETS 20 & 21

FOR WINDOW & DOOR INFO.
SEE APPROPRIATE FPA REPORT



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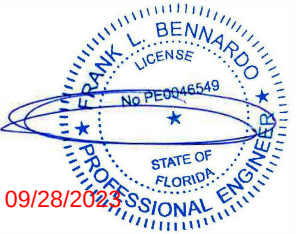
SCALE = 3/8" = 1' - 0"

NOTE:

1. DIM. TO OUTSIDE FACE OF WALL.
2. COLUMN SPACING VARIES DEPENDING UPON WINDOW & DOOR SIZES & CONFIGURATION. 6'-1 1/2" MAX. ON CENTER SPACING.
3. APPLIES ONLY WHEN AN EXISTING WALL IS PRESENT.
4. 30 5/8" & 36 5/8" BAY SPACING VARIES DEPENDING ON ROOM MODEL.
5. ALL ROOF SECTION REFERENCE DETAILS WITH 3" GLAZING BARS. FOR 5" GLAZING BARS SEE SHEET 14.

(B) ROOF PLAN
SCALE: 3/8"=1'-0"

FOR WINDOW & DOOR INFO.
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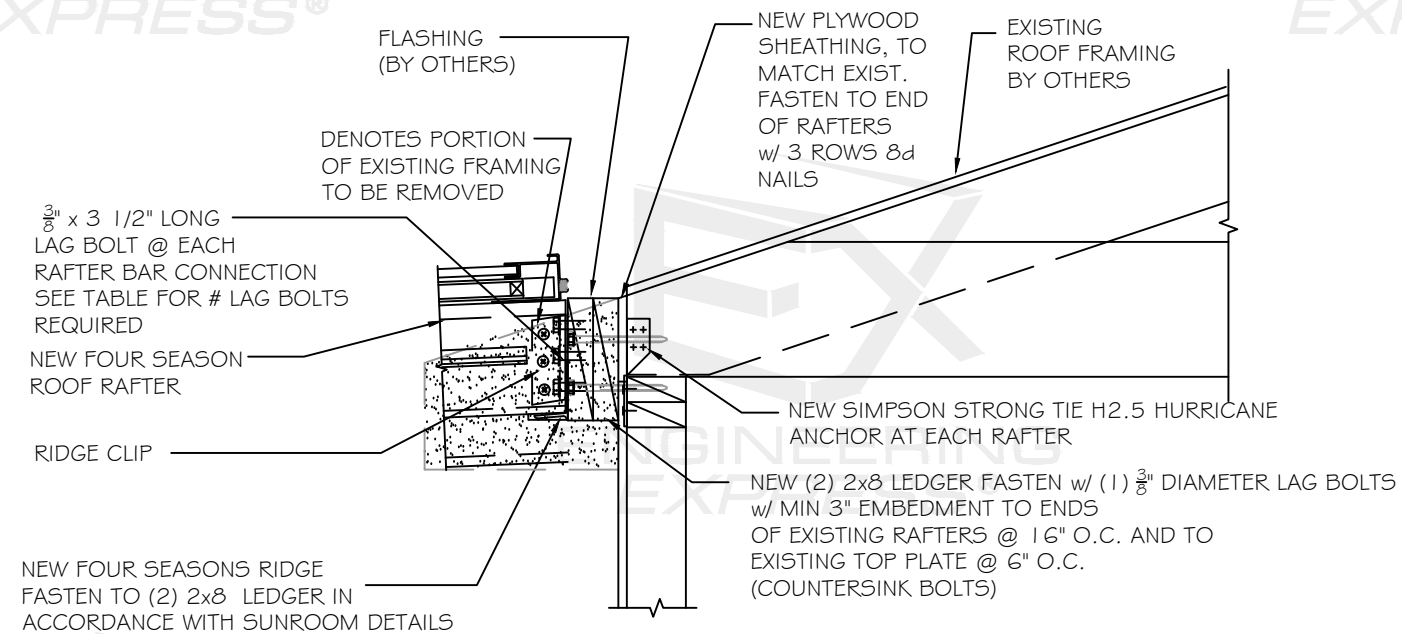
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A) TYP SUN & STARS STRAIGHT EAVE CONNECTION DETAIL AT EXIST STRUCTURE

NOT TO SCALE

NOTE:

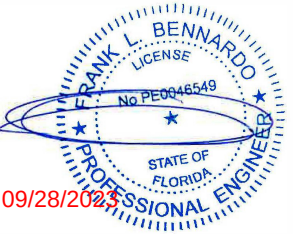
1. WHEN FASTENING TO MASONRY OR CONCRETE, FASTEN SUNROOM RIDGE DIRECTLY TO MASONRY WITH (3) $\frac{3}{8}$ " DIAMETER x 3" LONG HILTI METAL HIT ANCHOR (2 $\frac{1}{2}$ " MINIMUM EMBEDMENT)
2. DO NOT FASTEN RAFTERS DIRECTLY TO MASONRY VENEERS.

WIND SPEED (MPH)	MAX. ALLOW. SPAN		MIN No.LAG BOLTS PER RAFTER BAR
	2.5' BAYS	3' BAYS	
85 EXP B	24'-0"	23'-0"	2
90 EXP B	24'-0"	21'-0"	2
100 EXP B	20'-0"	17'-0"	2
105 EXP B	19'-0"	15'-0"	2
110 EXP C	20'-0"	17'-0"	3
120 EXP C	18'-0"	14'-0"	3
125 EXP C	16'-0"	13'-0"	3
130 EXP C	15'-0"	12'-0"	3
140 EXP C	13'-0"	10'-0"	3
145 EXP C	12'-0"	10'-0"	3
150 EXP C	10'-0"	8'-0"	3

NOTE: MAX ALLOWABLE SPANS SHOWN BASED ON CONNECTION CAPACITY OF DETAIL A/B ONLY. ACTUAL ROOM SPAN MUST BE DETERMINED UTILIZING INFORMATION SHOWN ON EVALUATION REPORT

THESE PLANS APPLY ONLY TO
GLASS ROOF SYSTEM.

FOR WINDOW & DOOR INFO.
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FOR WINDOW & DOOR INFO.
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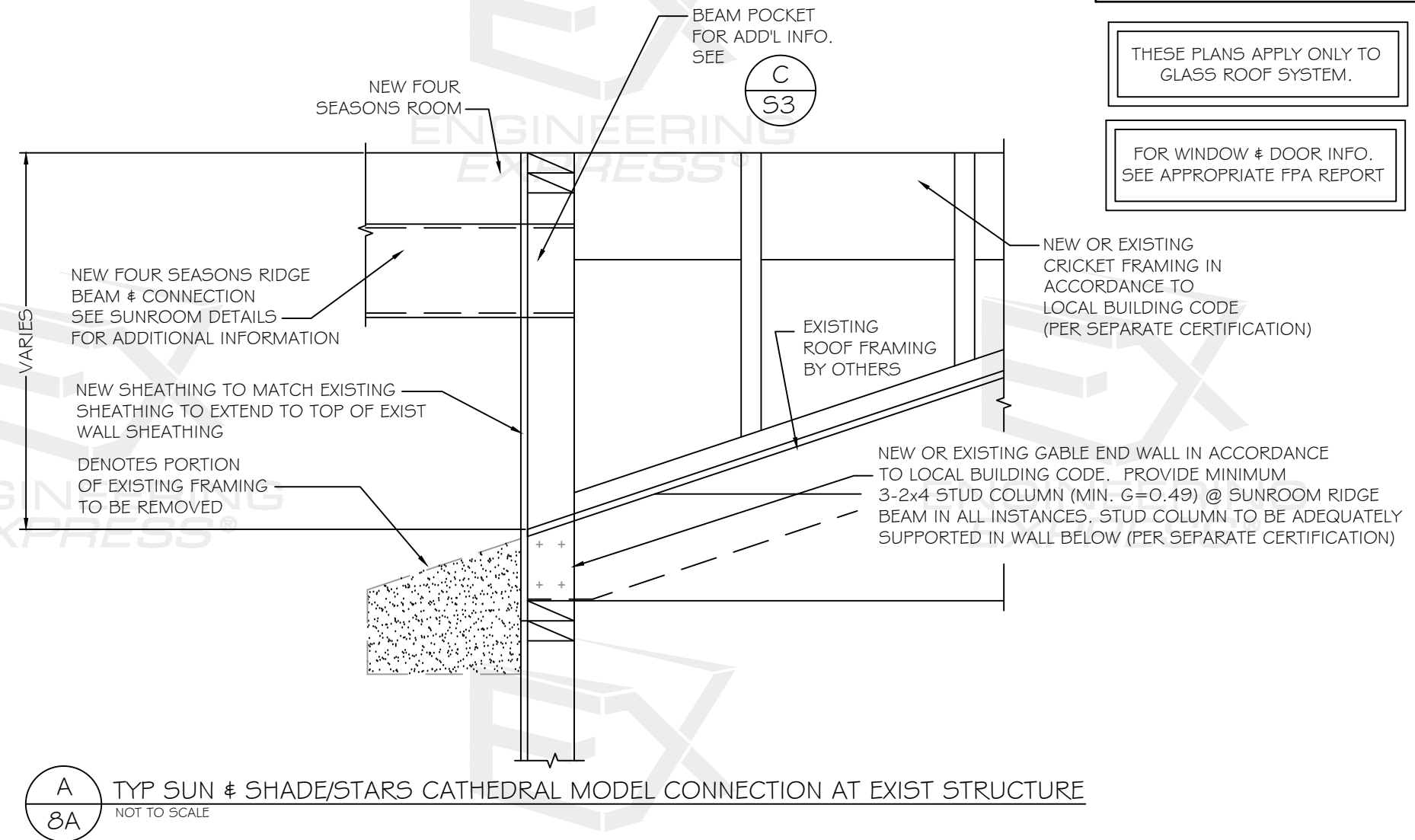
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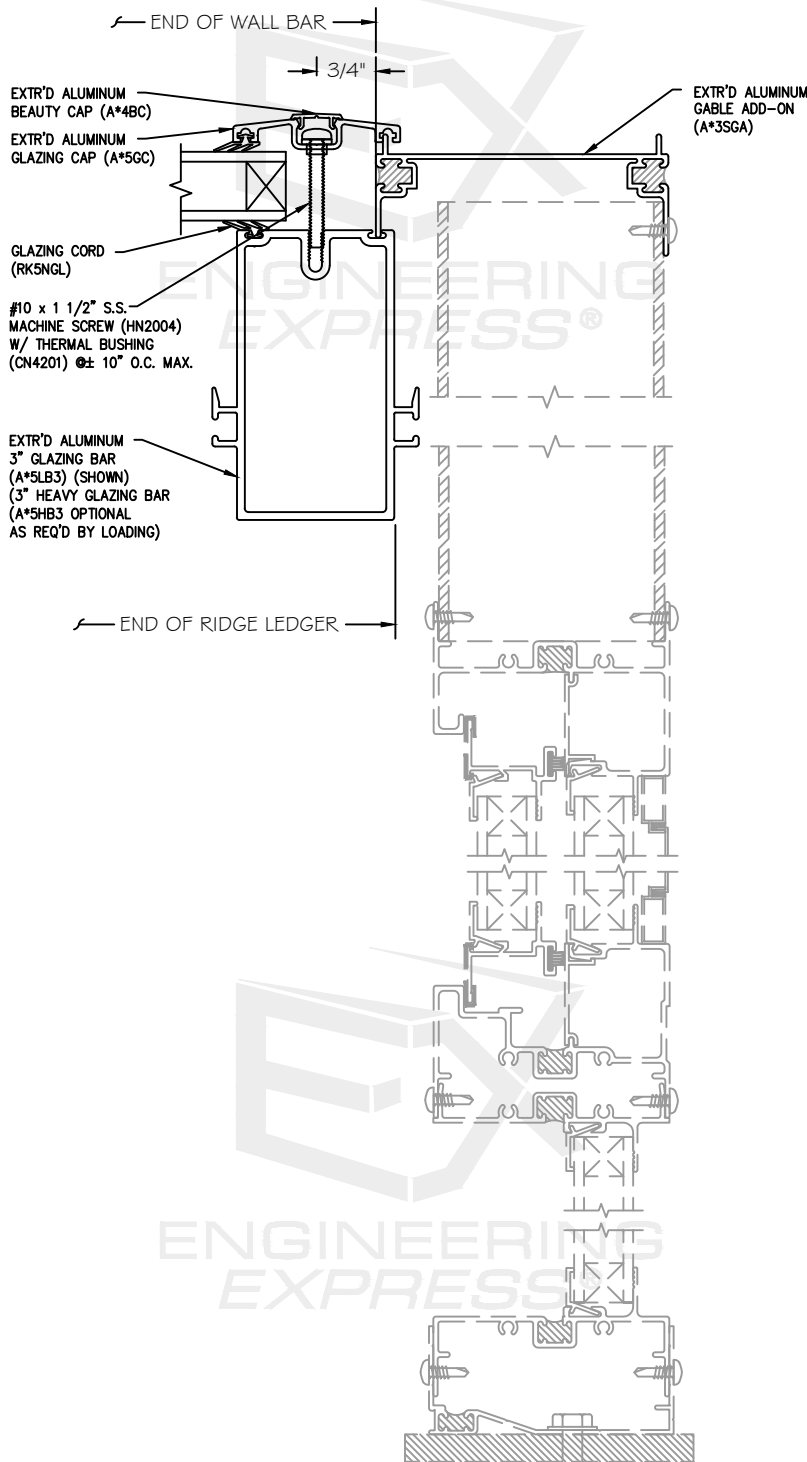



A TYP SUN & SHADE/STARS CATHEDRAL MODEL CONNECTION AT EXIST STRUCTURE
 8A NOT TO SCALE

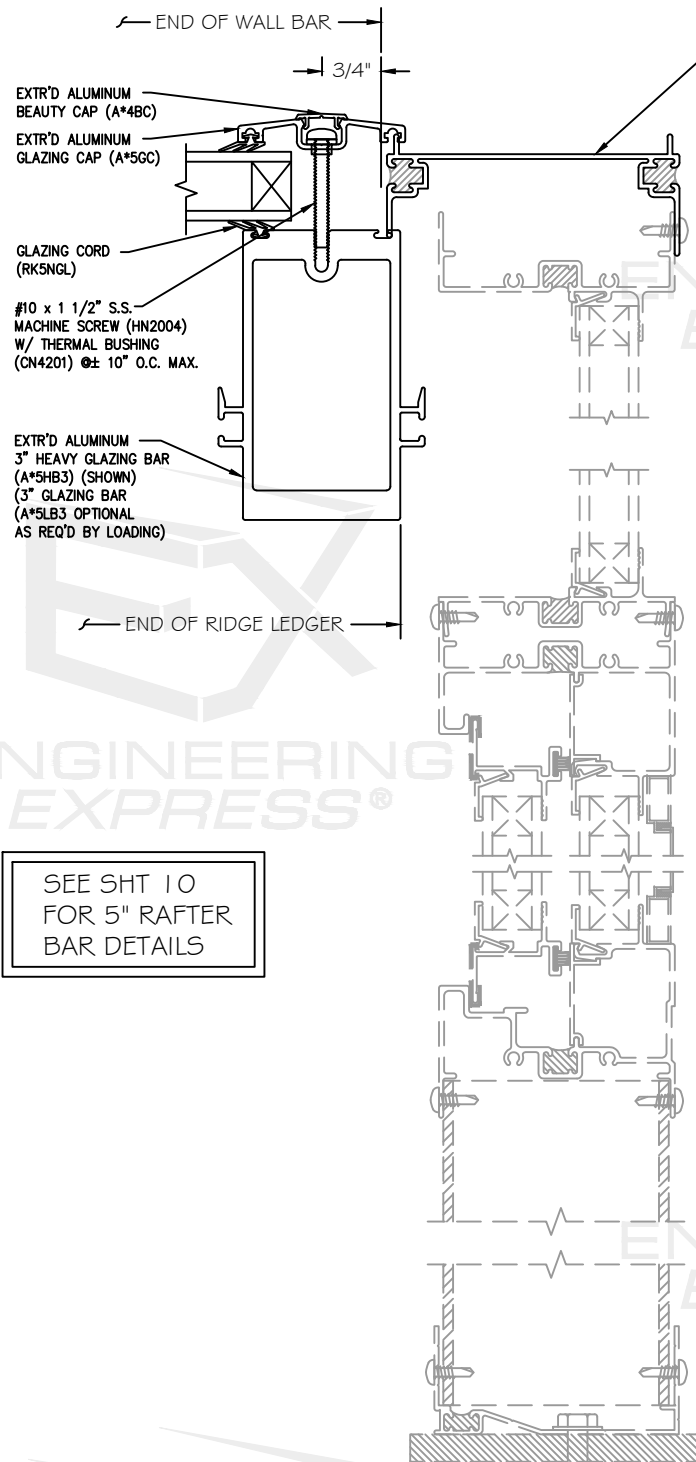
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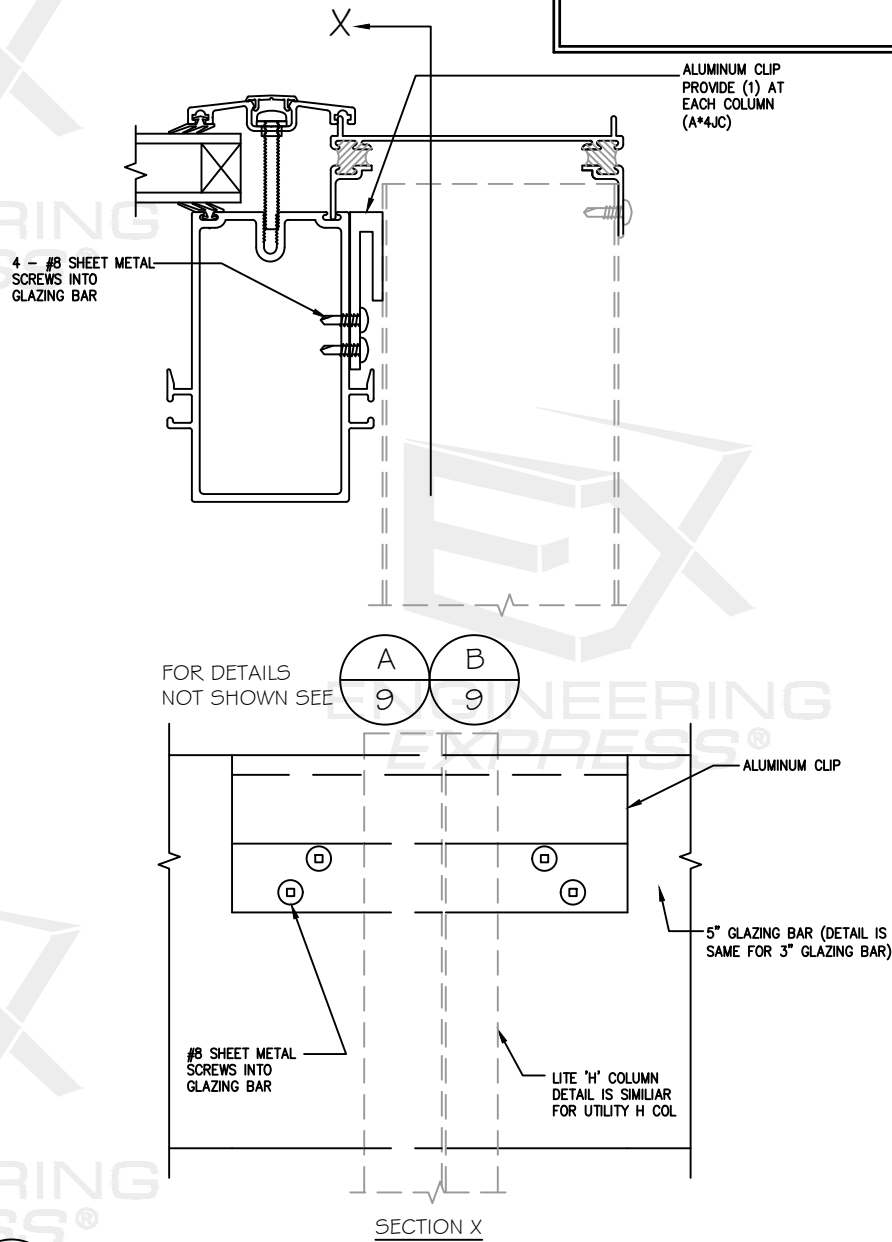
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A
9 GABLE END WALL SECTION w/ SOLID TRAP
NOT TO SCALE



B
9 GABLE END WALL SECTION w/ STD. OR CUSTOM GLASS TRAP
NOT TO SCALE



C
9 STRAIGHT EAVE GABLE WALL SECTION @ COLUMN CONNECTION
NOT TO SCALE

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FOR WINDOW & DOOR INFO,
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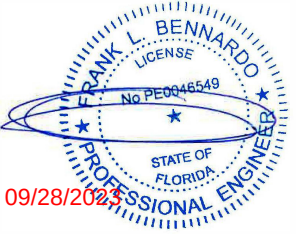
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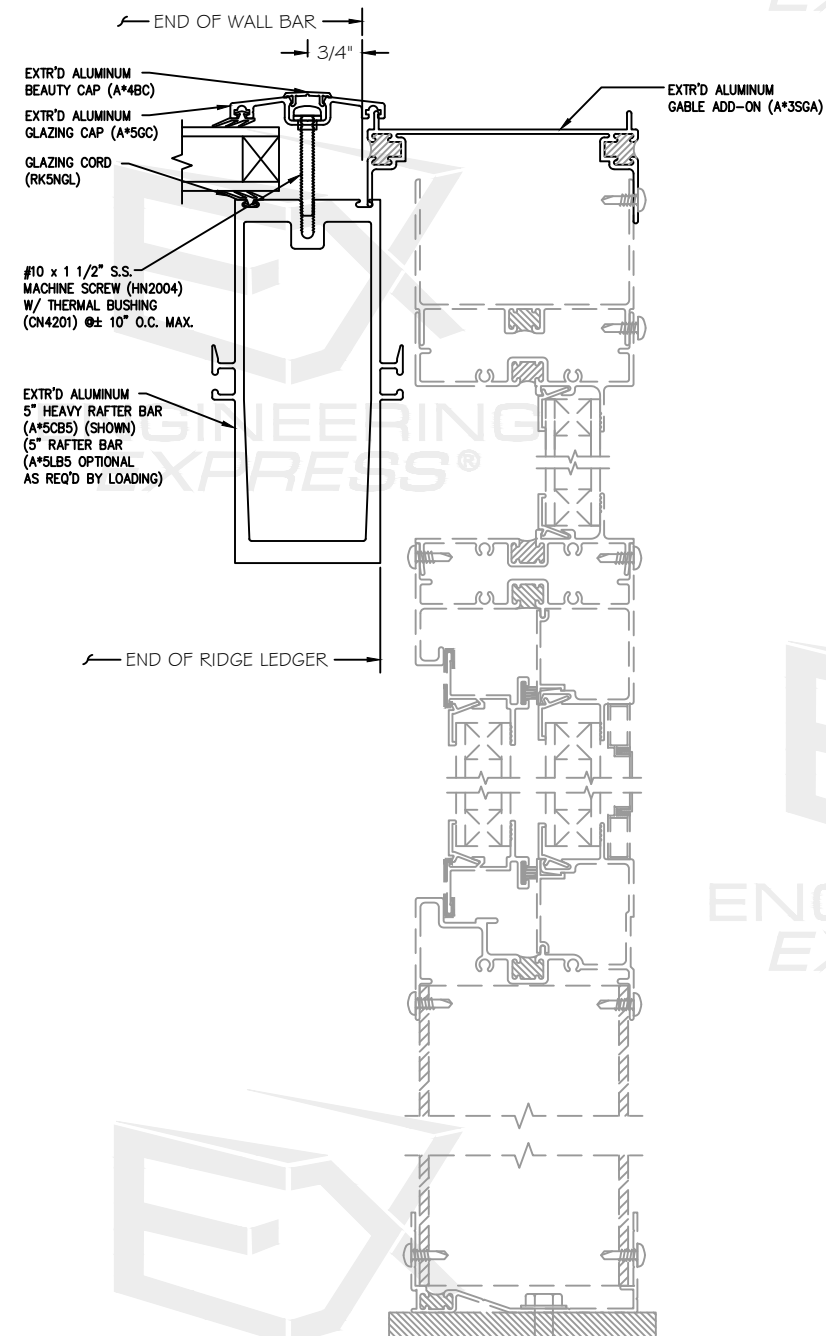
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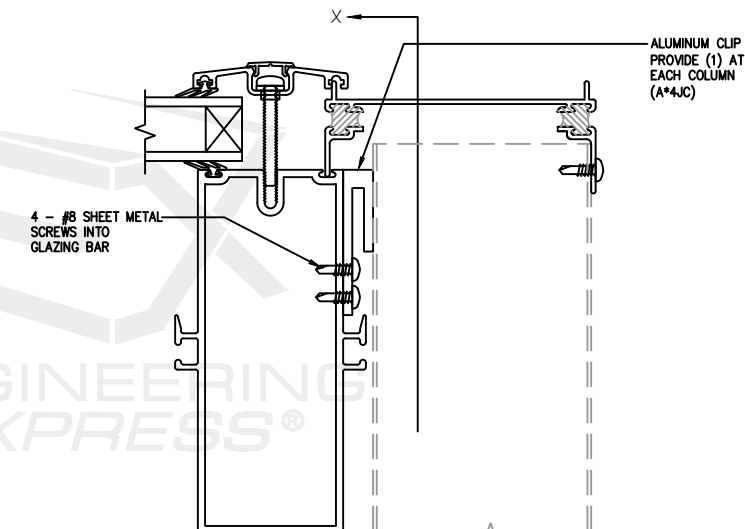
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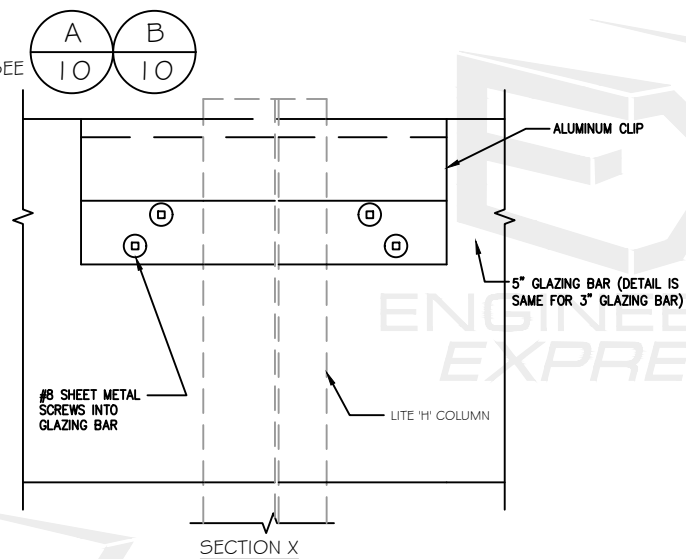


 GABLE WALL SECTION w/ SOLID TRAP
 SCALE: 1/2" = 1'-0"

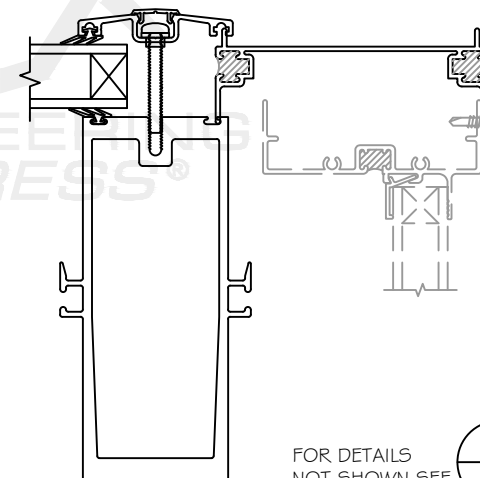

 STD. GABLE WALL SECTION w/ STD. OR CUSTOM GLASS TRAP
 SCALE: 1/2" = 1'-0"



FOR DETAILS
NOT SHOWN SEE



SECTION 7.7
STRAIGHT EAVE GABLE WALL SECTION @ COLUMN SUPPORT
NOT TO SCALE

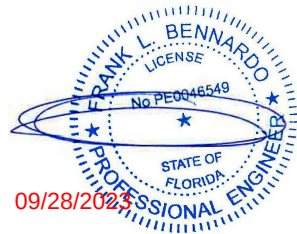


FOR DETAILS
NOT SHOWN SEE

OPTIONAL GABLE WALL SECTION w/ CUSTOM TRAP

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FOR WINDOW & DOOR INFO.
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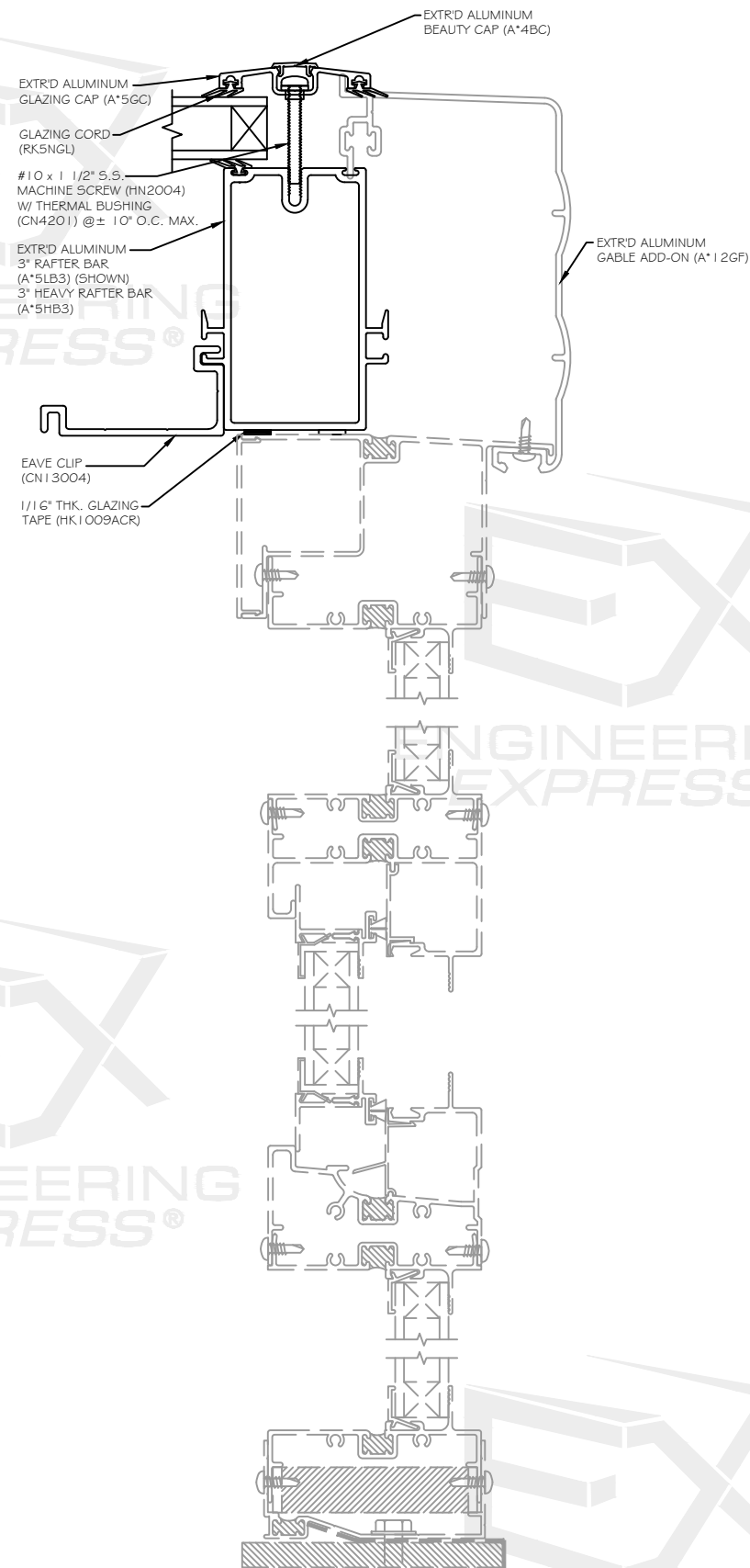
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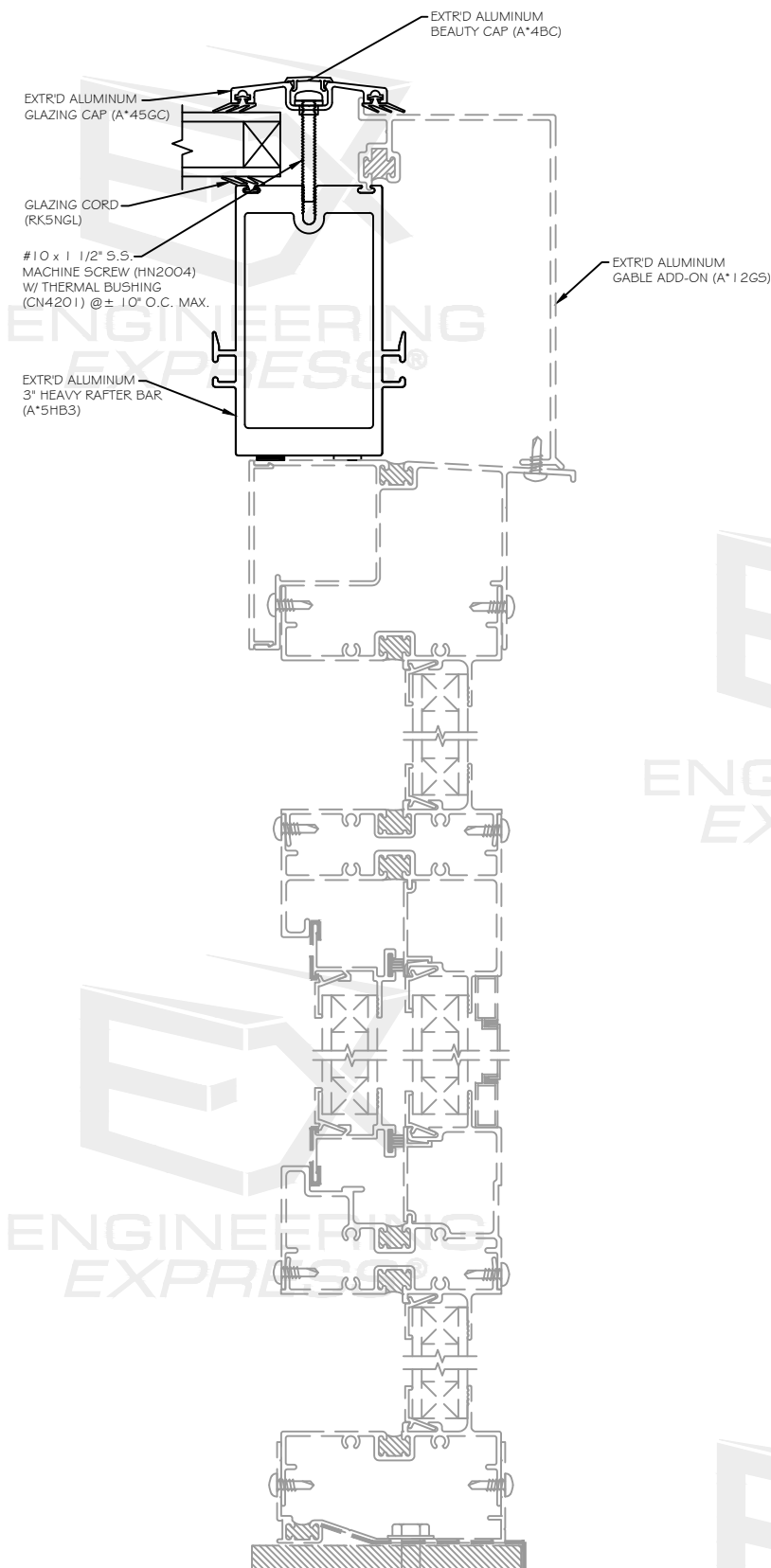
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 GABLE END WALL SECTION
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 GABLE END WALL SECTION w/ STD. OR CUSTOM GLASS TRAP
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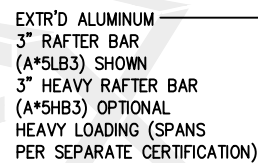
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EAVE DETAIL
SCALE: 6" = 1'-0"



3" CROSS MUNTIN SECTION
SCALE: 6" = 1'-0"



$\frac{D}{12}$

CROSS MUNTIN & RAFTER BAR CONNECTION
SCALE: 6" = 1'-0"



3" RIDGE SECTION
SCALE: 6" = 1'-0"

SEE SHT 13
FOR 5" RAFTER
BAR DETAILS

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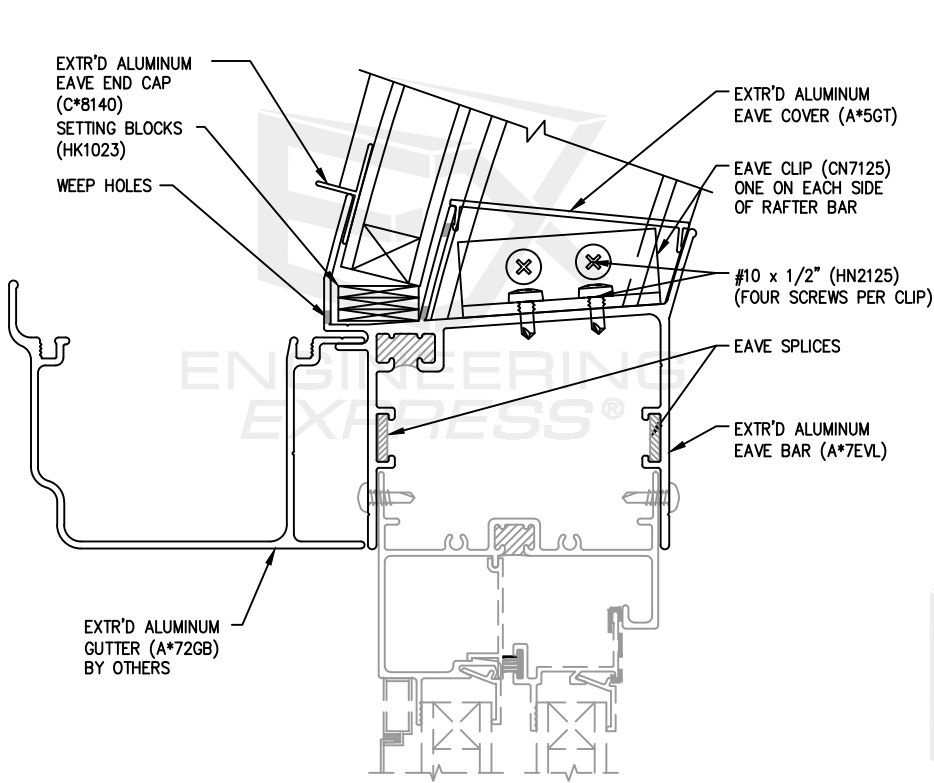
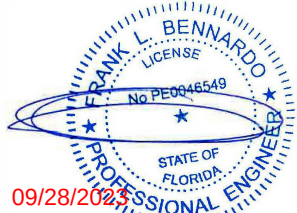
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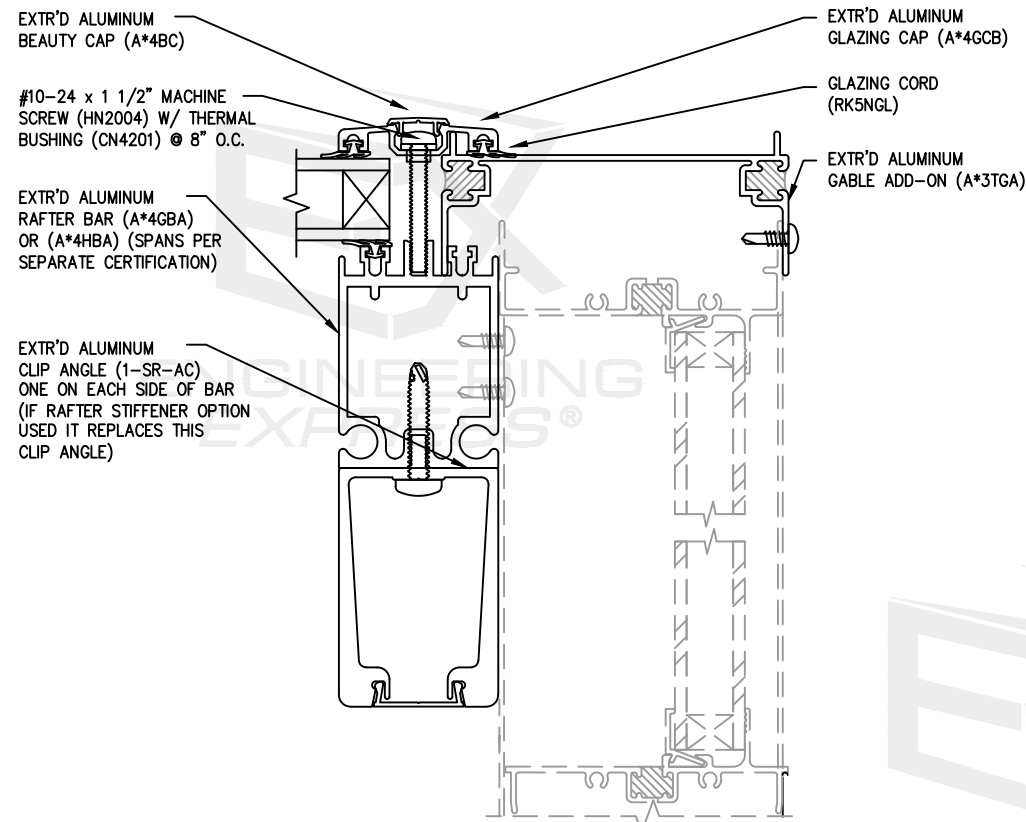
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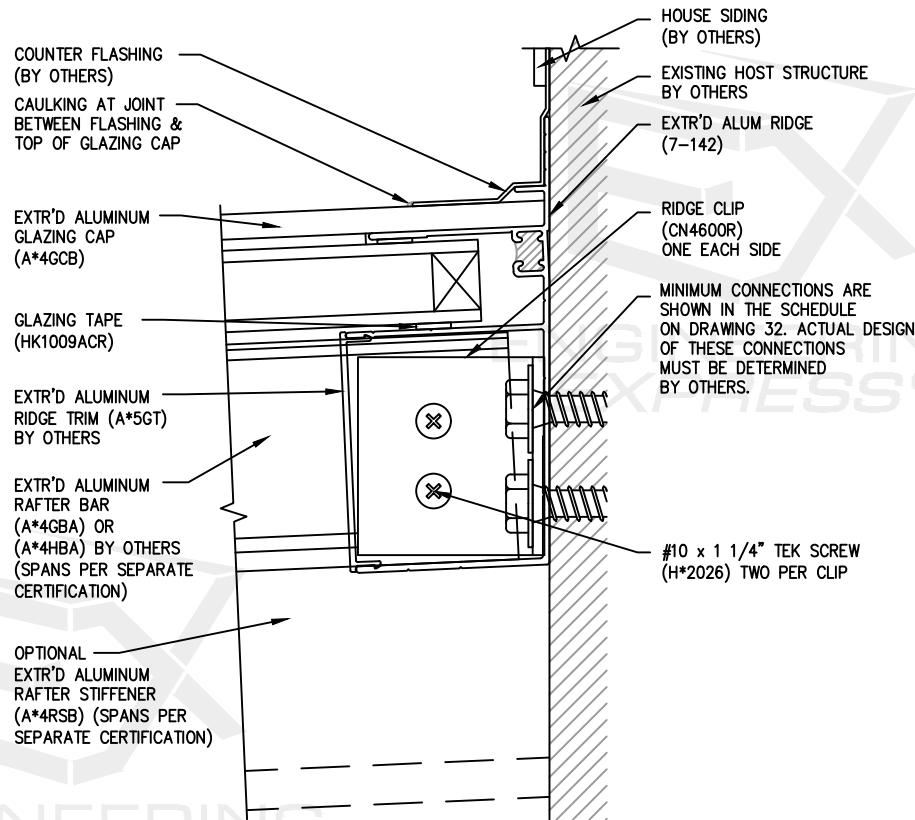
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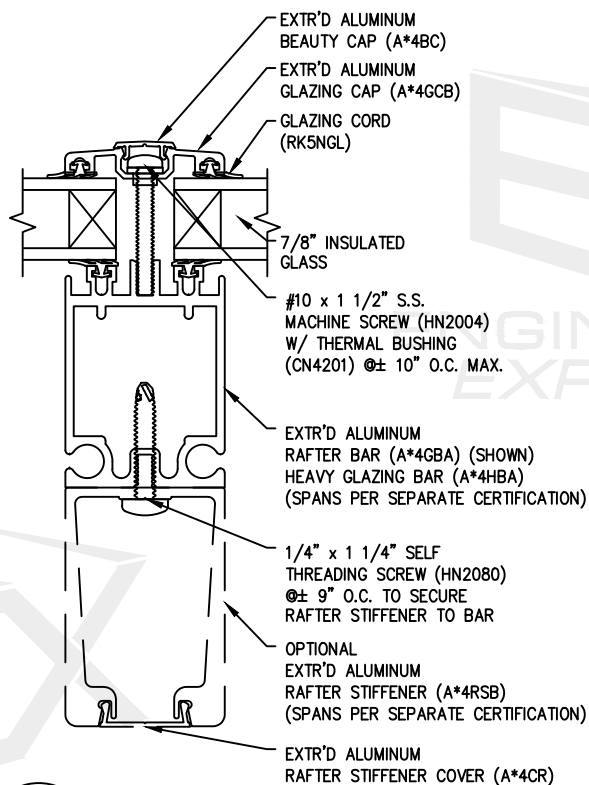
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EAVE SECTION
SCALE: 1/2" = 1'-0"



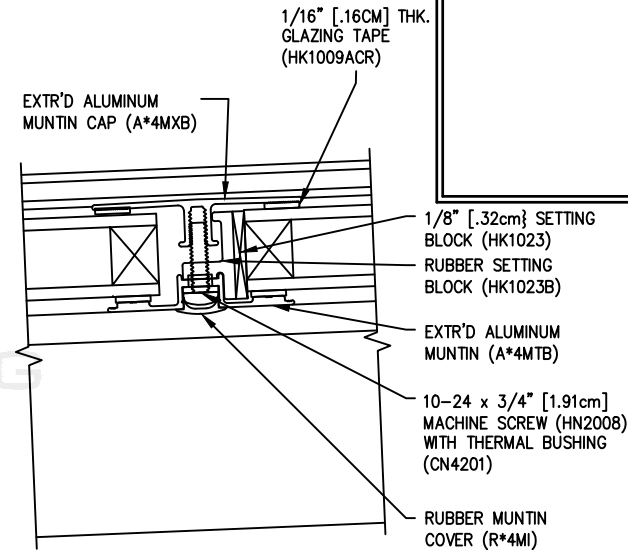
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GABLE END SECTION
SCALE: 1/2" = 1'-0"



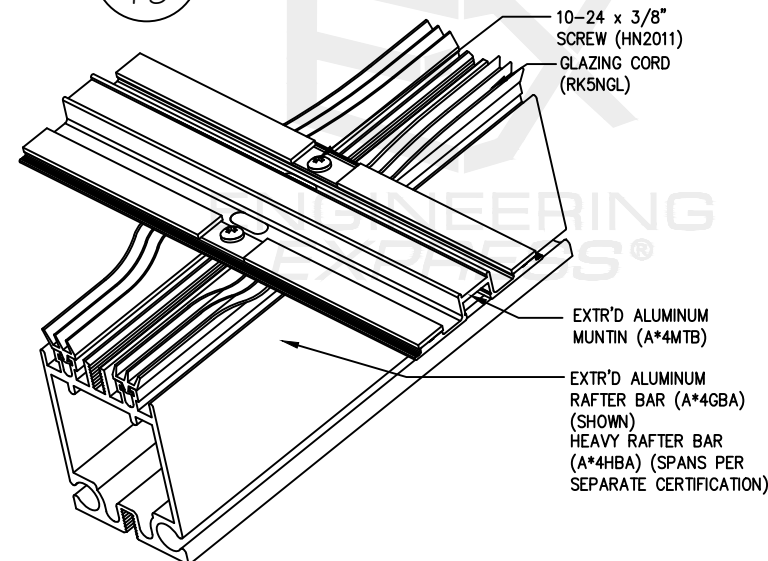
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RIDGE SECTION
SCALE: 1/2" = 1'-0"



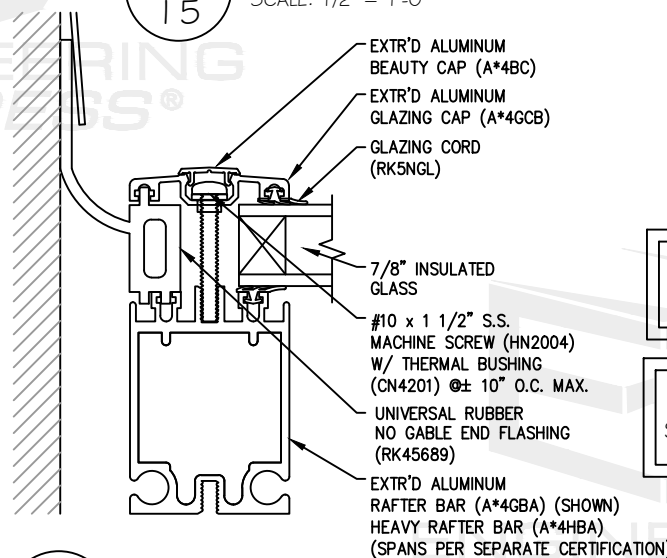
F
15
RAFTER BAR DETAIL
SCALE: 1/2" = 1'-0"



C
15
CROSS MUNTIN SECTION
SCALE: 1/2" = 1'-0"



D
15
CROSS MUNTIN & RAFTER BAR CONNECTION
SCALE: 1/2" = 1'-0"



G
15
RAFTER BAR (NO GABLE END)
SCALE: 1/2" = 1'-0"

THESE PLANS APPLY ONLY TO
GLASS ROOF SYSTEM.

FOR WINDOW & DOOR INFO.
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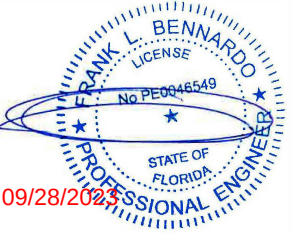
Four Seasons Solar Products, LLC
5005 Veterans Memorial Highway
Hollywood, FL 33021
(352) 563-4000
230 Sun and Stars Roof System
FLORIDA BUILDING CODE EIGHTH EDITION (2023)
FLORIDA STATEWIDE APPROVAL (FSA FL#12163.1)

REMARKS	DRWN	CHKD	DATE
PREV. SUBMITTAL (20-29440)	CCB	RWN	07/28/20
2023 FBC UPDATE	MRT	ER/JRN	08/14/23

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SCALE: NTS UNLESS NOTED

15 OF 21



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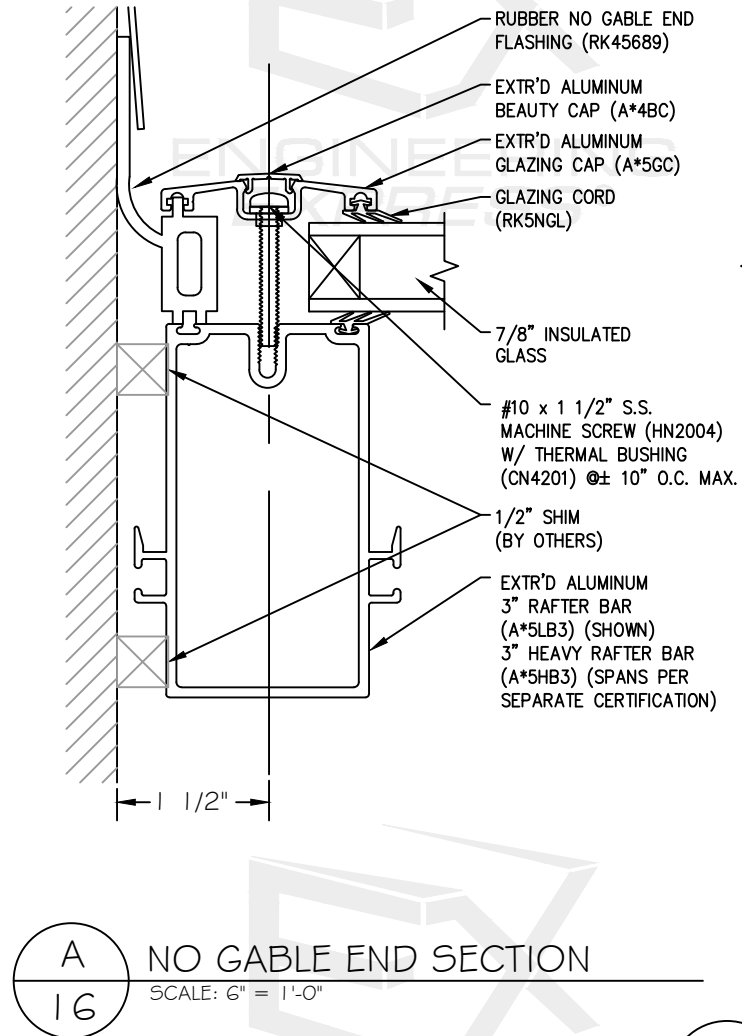
Four Seasons Solar Products, LLC

Holbrook, NY 11741
(631) 563-4000

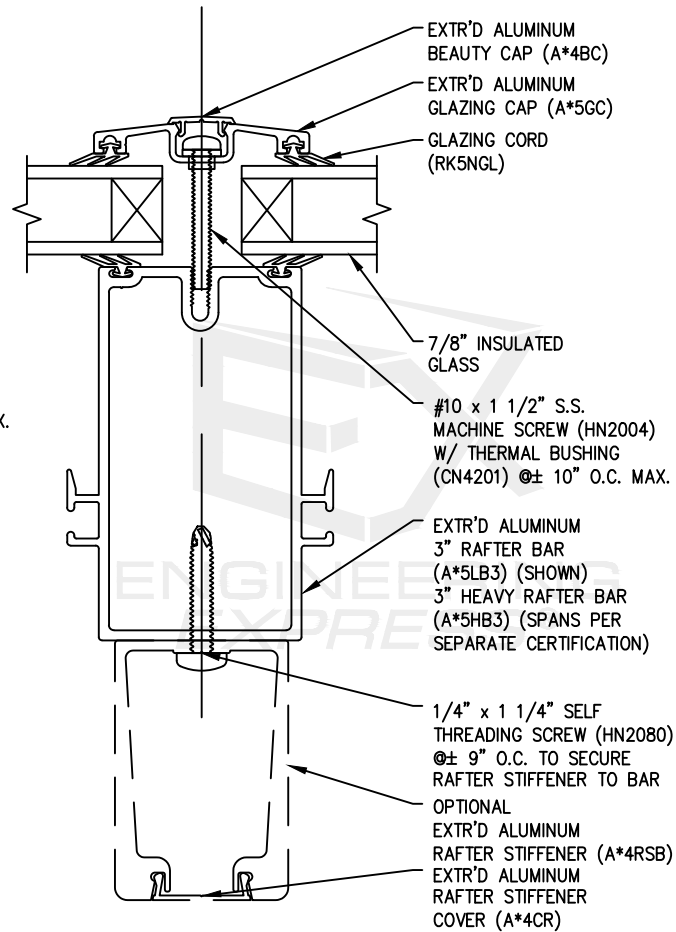
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FLORIDA STATEWIDE APPROVAL (FSA FL#12163.1)

REMARKS	DRWN	CHKD	DATE
PREV. SUBMITTAL (20-29440)	CB	RWN	
2023 FBC UPDATE	MRT	ERRN	08/14/23
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-	-	-	-
-	-	-	-

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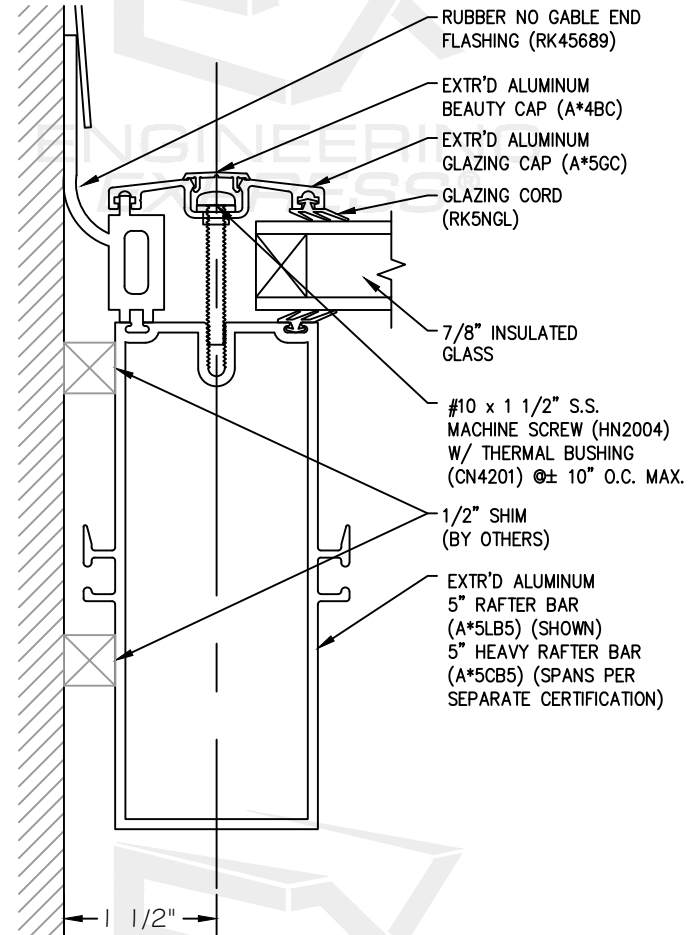
SCALE: NTS UNLESS NOTED16²¹

NO GABLE END SECTION
SCALE: 6" = 1'-0"



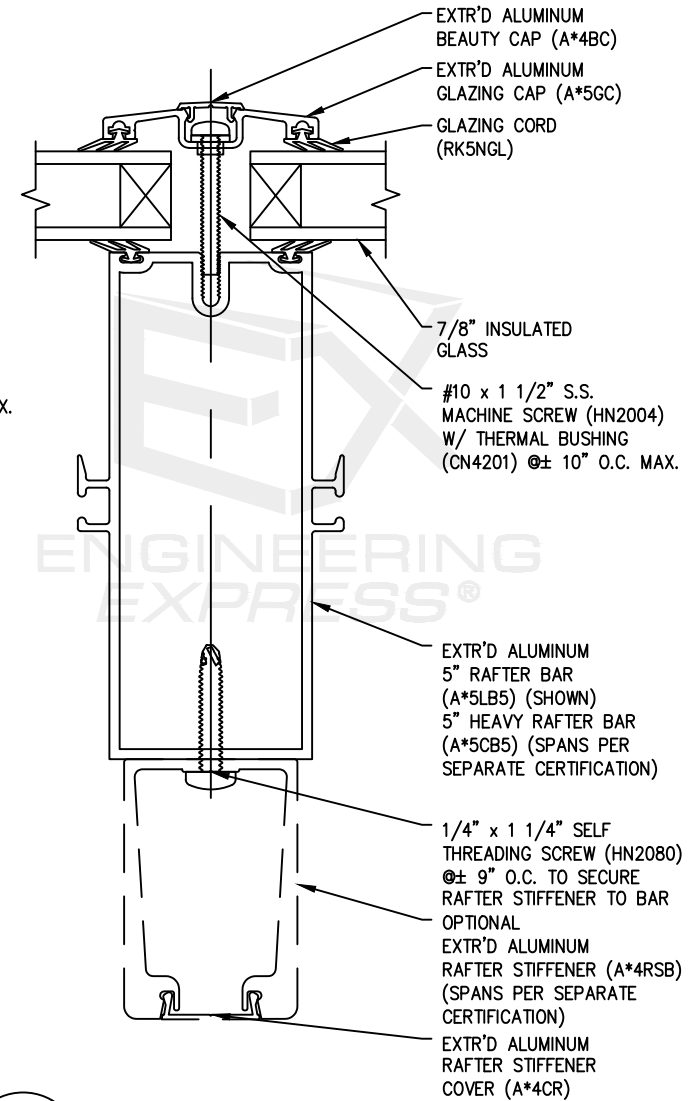
B
16

3" RAFTER BAR SECTION
SCALE: 6" = 1'-0"



NO GABLE END SECTION

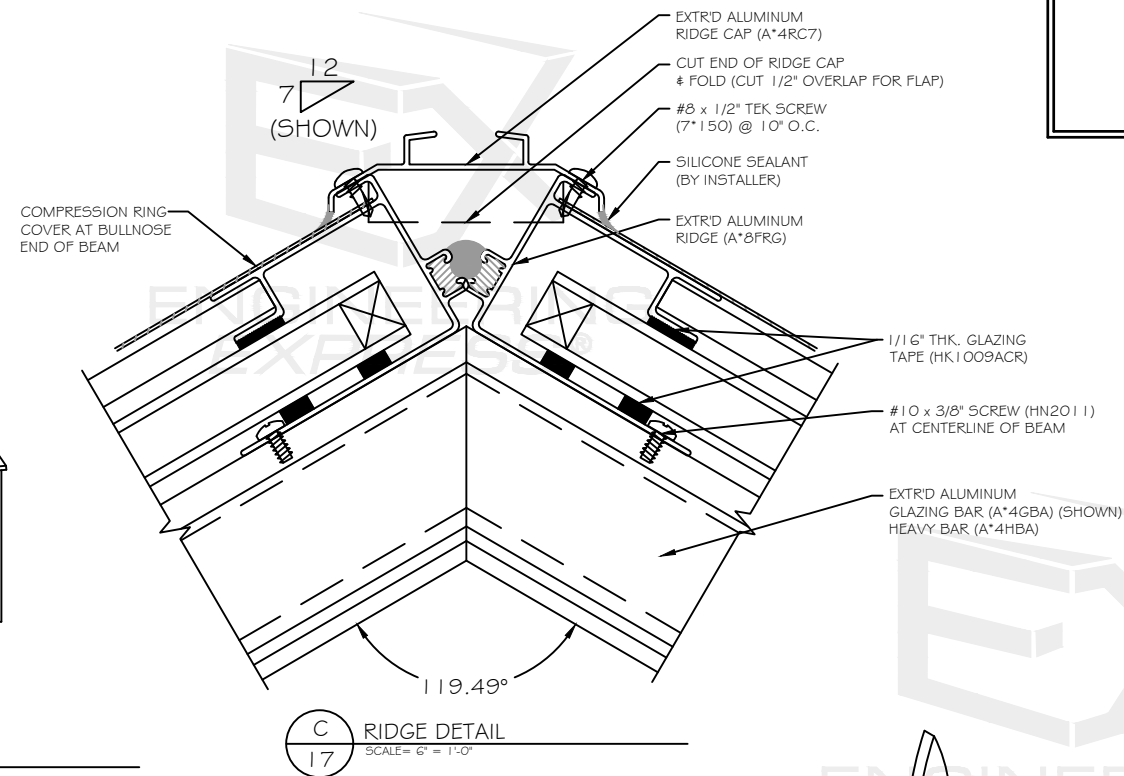
SCALE: 6" = 1'-0"



5" RAFTER BAR SECTION
SCALE: 6" = 1'-0"

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REMARKS	DRWN	CHKD	DATE
PREV. SUBMITTAL (20-29440)	CCB	RWN	RWN
2023 FBC UPDATE	MRT	ERR/RN	08/14/23
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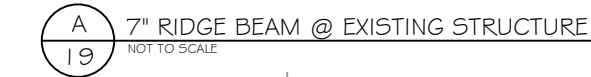
A
18

COMPRESSION RING DETAIL

NOT TO SCALE

EXTR'D ALUMINUM
GLAZING BAR (A*4GBA) (SHOWN)
HEAVY BAR (A*4HBA)

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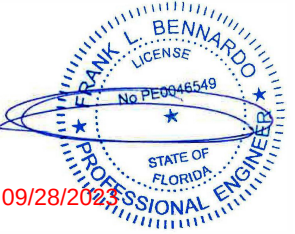
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FLORIDA BUILDING CODE EIGHTH EDITION (2023)
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REMARKS	DRWN	CHKD	DATE
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2023 FBC UPDATE	MRT	ERIRN	08/14/23
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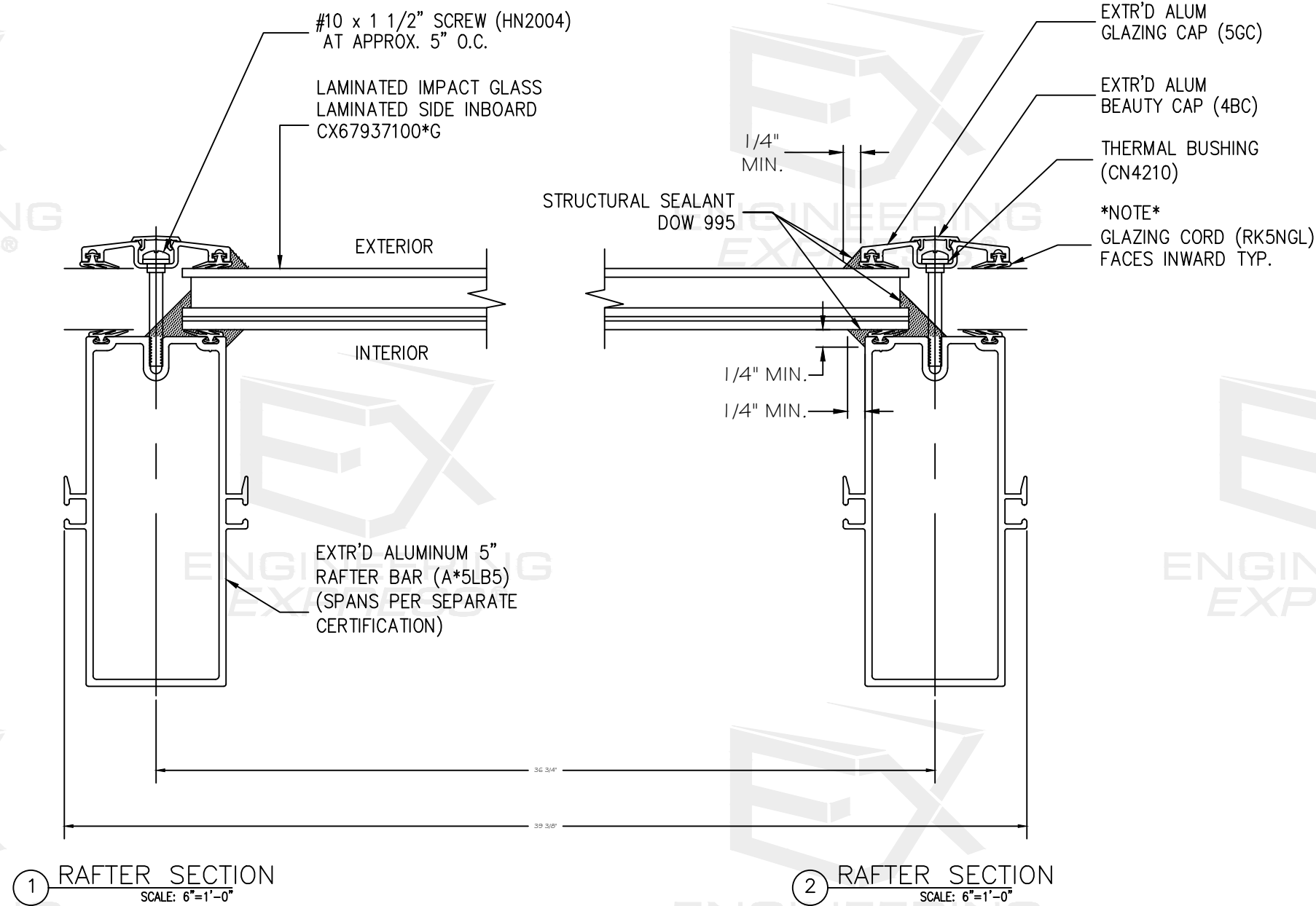
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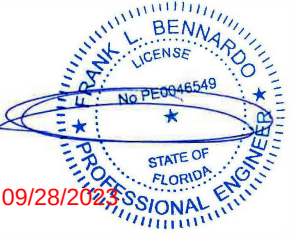
REMARKS	DRWN	CHKD	DATE
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-	-	-	-
-	-	-	-
-	-	-	-

CALE: NTS UNLESS NOTED20²¹

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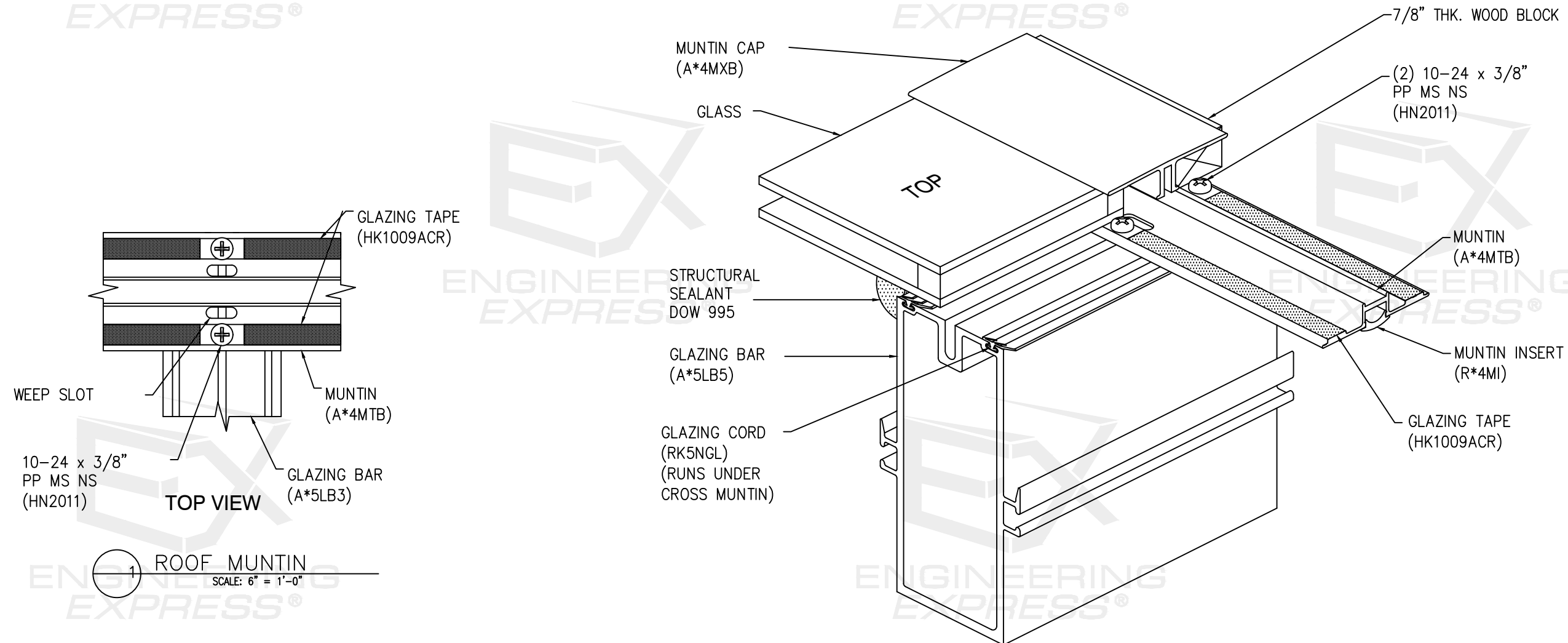
REMARKS	DRWN	CHKD	DATE
PREV. SUBMITTAL (20-29440)	CCB	RWN	07/28/20
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