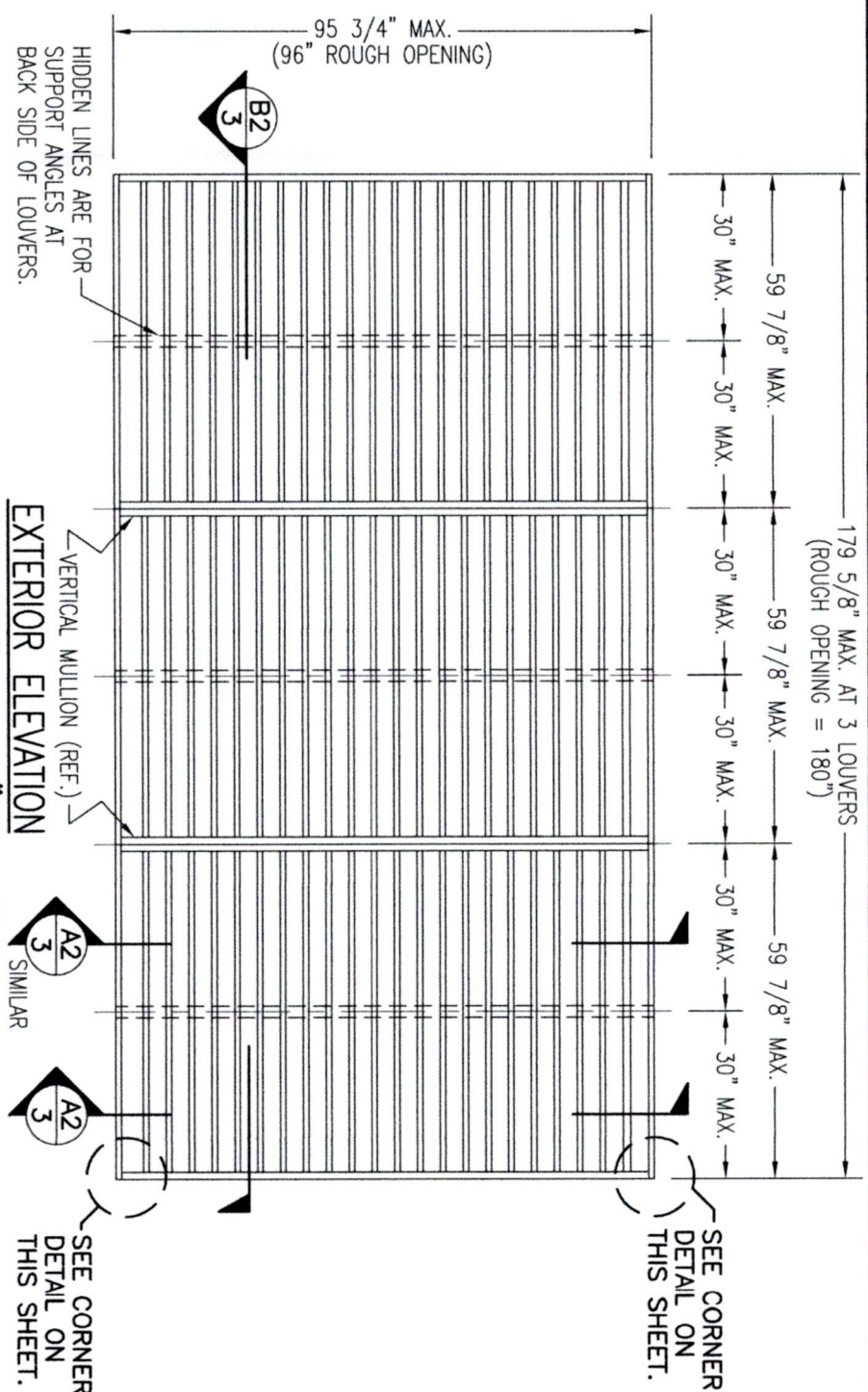
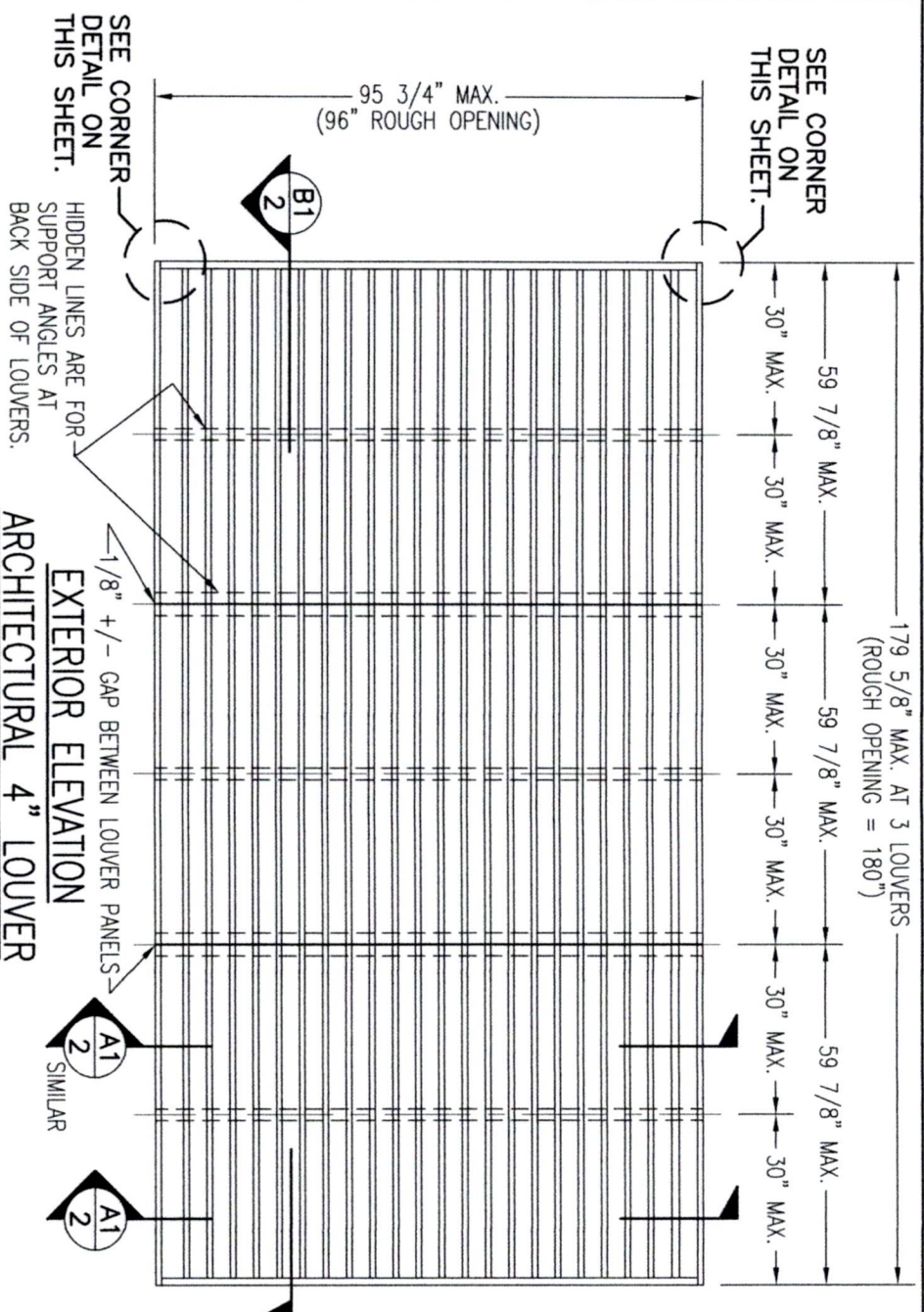




SCALE: 3/8"=1'-0"

NOTE: THIS LOUVER SYSTEM MAY CONSIST OF AN UNLIMITED NUMBER OF SECTIONS PROVIDING EACH SECTION DOES NOT EXCEED 59 7/8" X 95 3/4" IN SIZE.

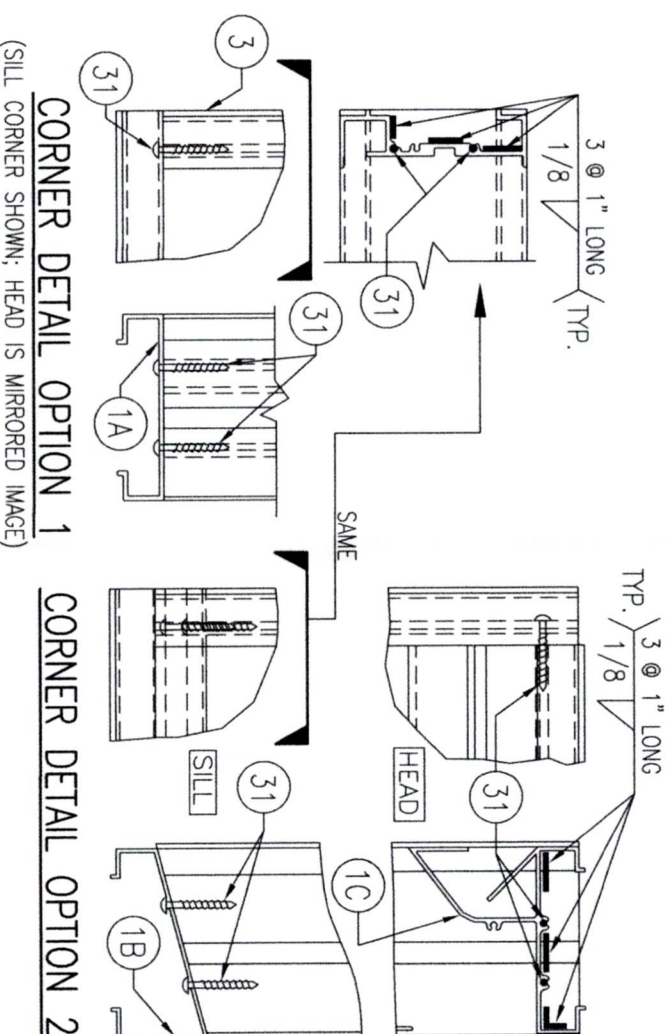
SCALE: 3/8"=1'-0"

NOTE: THIS LOUVER SYSTEM MAY CONSIST OF AN UNLIMITED NUMBER OF SECTIONS PROVIDING EACH SECTION DOES NOT EXCEED 59 7/8" X 95 3/4" IN SIZE.

GENERAL NOTES:

1. THIS PRODUCT HAS BEEN TESTED, ANALYZED & APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN PRESSURE TABLE(S)".
2. OPENINGS, BUCKING & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE.
3. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & SHALL NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS. SPECIFIED ANCHOR EMBED TO BASE MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.
4. THIS PRODUCT HAS BEEN DESIGNED IN ACCORDANCE WITH AND MEETS THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC), INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ) & IS BOTH SMALL & LARGE MISSILE IMPACT RATED.
5. IMPACT SHUTTERS ARE NOT REQUIRED WITH THIS PRODUCT.
6. ALL ANCHORS SECURING PRODUCT FRAMES TO PRESSURE TREATED BUCKS OR WOOD FRAMING SHALL BE CAPABLE OF RESISTING CORROSION CAUSED BY THE PRESSURE TREATING CHEMICALS IN THE WOOD.
7. DETERMINE THE POSITIVE & NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, A DIRECTIONALITY FACTOR OF $K_d = 0.85$ MAY BE APPLIED PER THE ASCE-7 STANDARD.
8. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF FLORIDA BUILDING CODE.
9. TO THE BEST OF OUR KNOWLEDGE, THE PRODUCT SHOWN HEREIN IS QUALITY ASSURED BY A FLORIDA STATE APPROVED CERTIFICATION/CA ENTITY & SHALL BE LABELED IN ACCORDANCE WITH THE FBC AND THE FLORIDA DEPARTMENT OF BUSINESS & PROFESSIONAL REGULATION SPECIFICATIONS. THESE DRAWINGS SHOW ALL APPLICABLE ELEVATION, COMBINATION, INSTALLATION & COMPAGNATIVE ANALYSIS CONDITIONS AS DETERMINED THROUGH TESTING & ENGINEERING RATIONAL ANALYSIS. PRODUCT ASSEMBLY SHALL BE IN ACCORDANCE WITH THESE DRAWINGS, THE MANUFACTURER'S QUALITY ASSURANCE SPECIFICATIONS & TESTING REPORTS.
10. CERTIFICATION OF THIS PRODUCT SHALL BE CONSIDERED VOID IF IT IS INSTALLED WITHOUT A BUILDING PERMIT FROM THE APPLICABLE LOCAL BUILDING DEPARTMENT OR IF IT IS INSTALLED BY ANYONE OTHER THAN A LICENSED CONTRACTOR EXPERIENCED WITH INSTALLATIONS OF THIS TYPE OF PRODUCT.
11. MAXIMUM ALLOWABLE INDIVIDUAL PANEL SIZE = 59' 7/8" X 95' 3/4".
12. MAXIMUM ASSEMBLY SIZE = UNLIMITED WIDTH; UP TO 95' 3/4" HEIGHT.
13. ASSEMBLIES/SECTIONS MAY BE STACKED VERTICALLY PROVIDING A STRUCTURAL SUPPORT IS DESIGNED & INSTALLED BY OTHERS TO SUPPORT ALL LOADS TRANSFERRED FROM THE LOWER ASSEMBLY.
14. MAXIMUM UNSUPPORTED BLADE LENGTH SHALL NOT EXCEED 30".
15. ALL FASTENERS SHALL BE PLATED STEEL OR 304 STAINLESS STEEL.
16. SPECIFIED SUBSTRATE REQUIREMENTS:

EVALUATION OF THIS PRODUCT IS BASED ON APPLICABLE STANDARDS AND/OR INFORMATION & RESULTS FROM APPLICABLE TEST REPORTS. THE FLORIDA BUILDING CODE VERSION CONSIDERED WITH THIS EVALUATION WAS THAT IN FORCE AT THE TIME OF THE EVALUATION. IN THE EVENT OF CODE VERSION CHANGES/UPDATES OR IN THE EVENT THAT NEW OR ADDITIONAL TESTING IS COMPLETED ON THIS PRODUCT, PRIOR TO STATING CODE COMPLIANCE WITH THE STATE, THE MANUFACTURER SHALL CONFIRM WITH THE EVALUATION ENGINEER OF RECORD THAT EVERYTHING SPECIFIED HERE-IN IS CURRENT WITH ALL CURRENT TESTING CODES AND APPLICABLE STANDARDS.



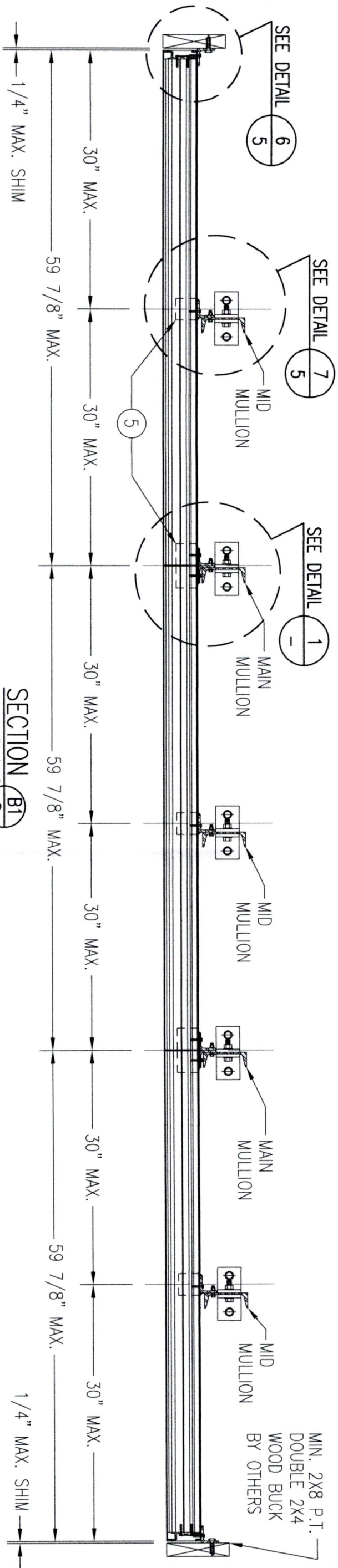
Digitally signed
by Warren W
Schaefer
Date:
2023.02.09
07:10:09 -05'00'

MAX. ALLOWABLE DESIGN WIND PRESSURE	
POSITIVE	NEGATIVE
150 PSF	150 PSF

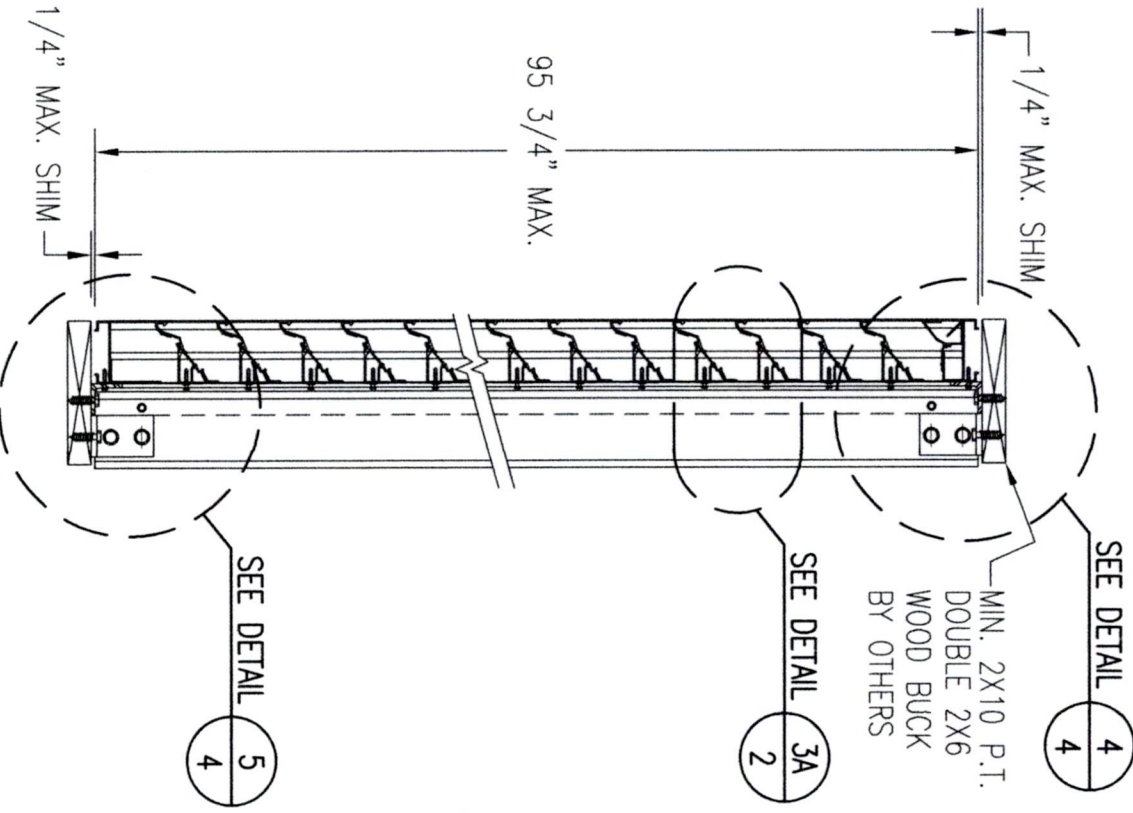
NOTE: SEE LOAD TABLE ON SHEET 7 FOR VARIATIONS OF PRESSURES WITH RESPECT TO PANEL WIDTH & CLIP SPACING.

[illegible]

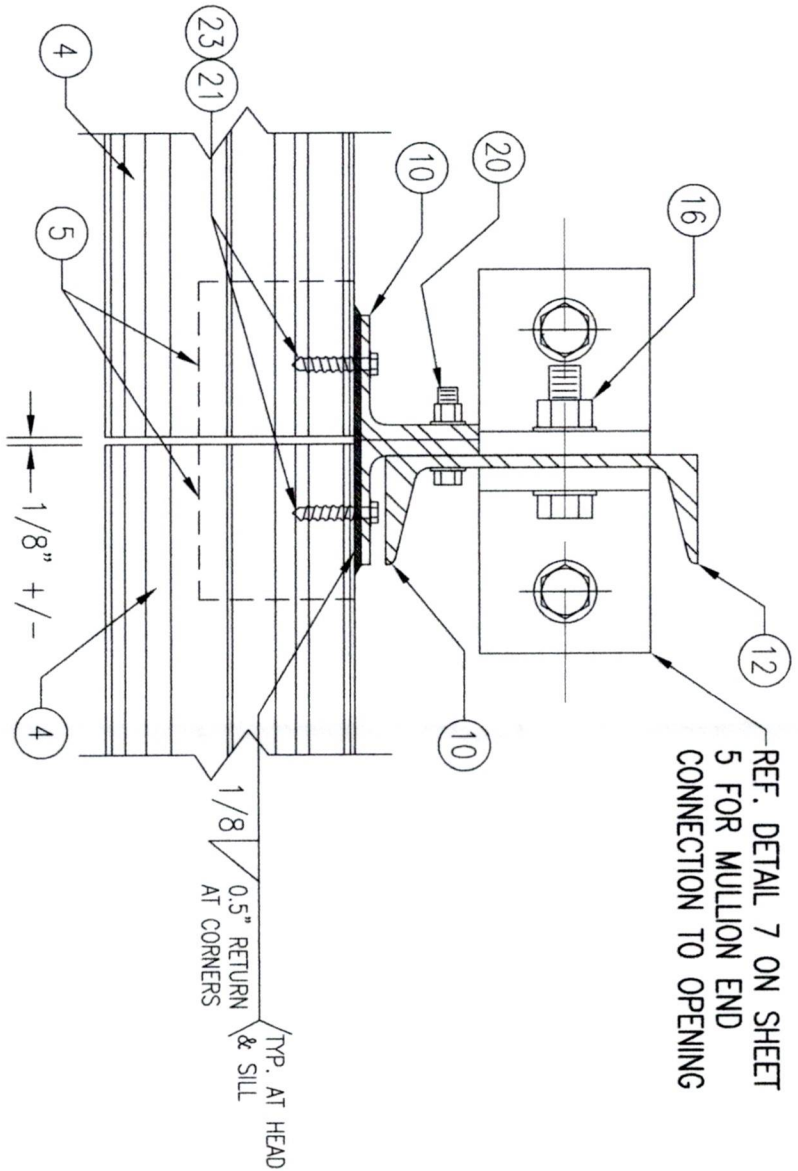
DRAWING NO. 2014 SHEET NO. 1 OF 7	<u>CERTIFICATION</u> WARREN W. SCHAEFER, P.E. P.E. NO. 44135	<u>DRAWING TITLE</u> MODEL EA-22 4" LOUVER SYSTEM
	CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 26376 NADIR ROAD; UNIT 309 PUNTA GORDA, FL 33983 PHONE: 561-744-3424	MANUFACTURER ARROW UNITED INDUSTRIES A DIVISION OF MESTEK, INC. 450 RIVERSIDE DRIVE WYALUSING, PA 18853 570-746-1888



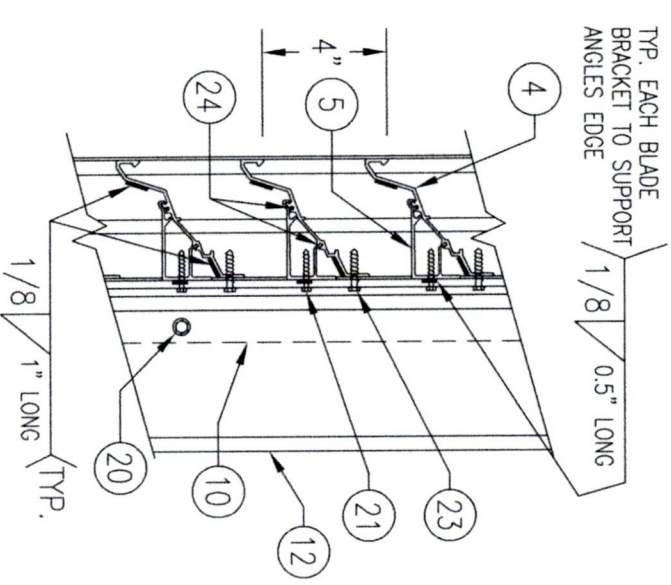
SECTION B1
SCALE: 1"=1'-0"
ARCHITECTURAL LOUVER



SECTION A1
SCALE: 1"=1'-0"
ARCHITECTURAL LOUVER



DETAIL 1
SCALE: 1/3 FULL
ARCHITECTURAL LOUVER



DETAIL 3A
SCALE: 2"=1'-0"
TYP. AT ALL MULLIONS THIS SHEET

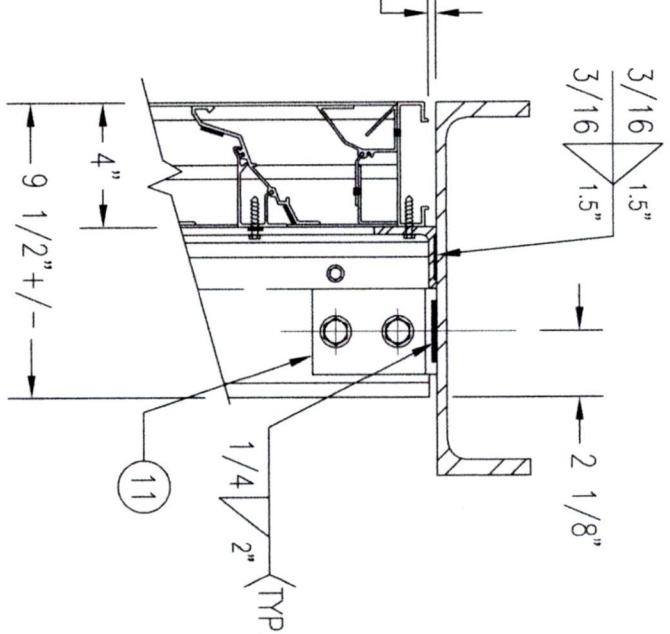
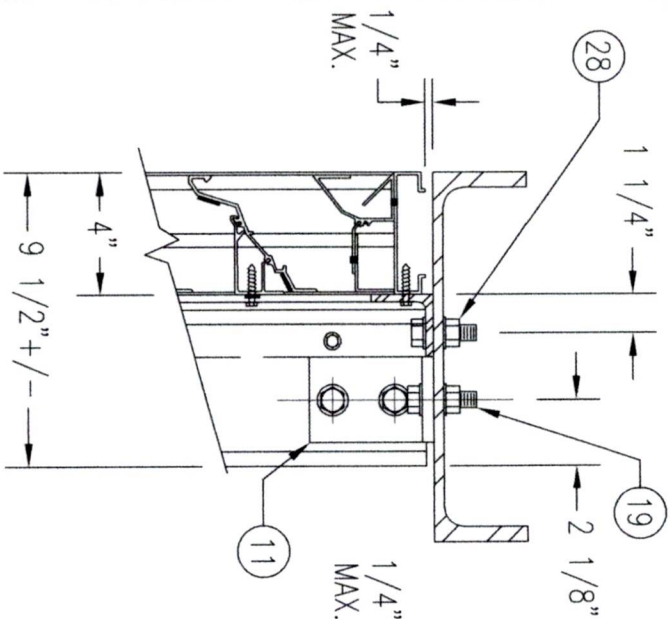
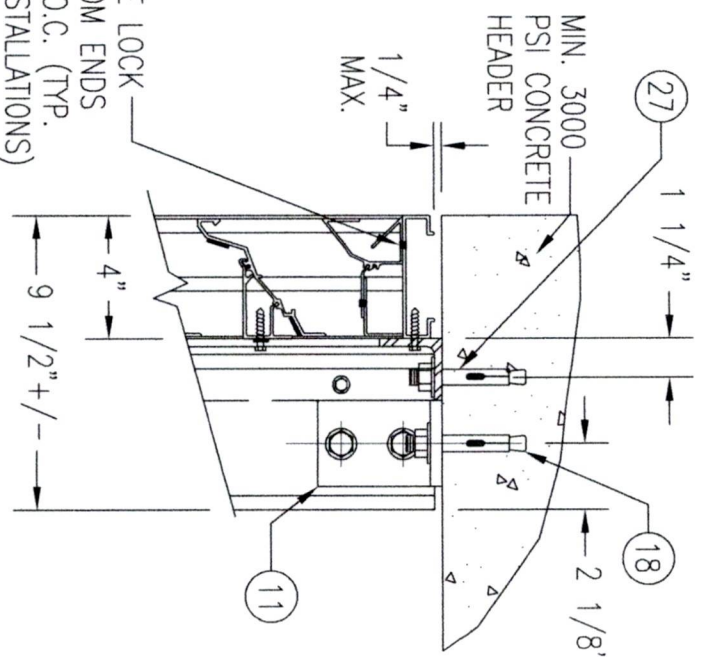
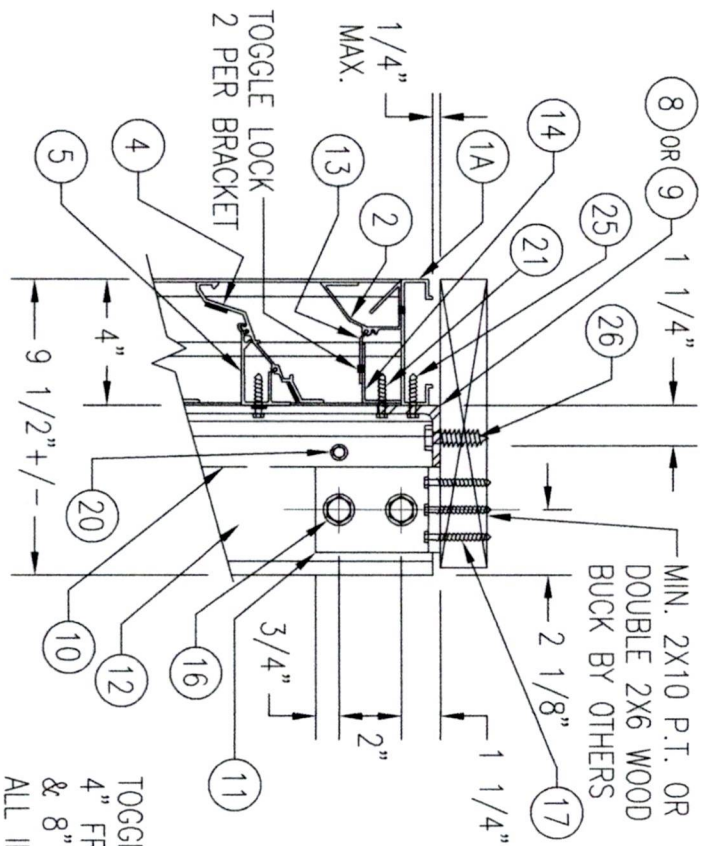
NO.	REVISION	DESCRIPTION	BY	DATE

DRAWN BY: W.W.S. CHECKED BY: W.W.S.
PLOT: 1=12 DATE: 02/08/23
CONSULTANTS
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)
26376 NADIR ROAD; UNIT 309
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PHONE: 561-744-3424
MANUFACTURER
ARROW UNITED INDUSTRIES
A DIVISION OF MESTEK, INC.
450 RIVERSIDE DRIVE
WYALUSING, PA 18853
570-746-1888

DRAWING TITLE
MODEL EA-22 4" LOUVER SYSTEM

CERTIFICATION
WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

DRAWING NO.: **2014**
SHEET NO.: **2** OF **7**



WOOD FRAMED OPENING

SEE "DETAIL 3A & 3B" FOR LOUVER BLADE DETAILS
NOTE: STANDARD HEADER (ITEMS #1A & 2) IS SHOWN IN THIS VIEW. 1-PIECE HEADER (ITEM 1C) ALSO APPLIES.

CONCRETE HEAD

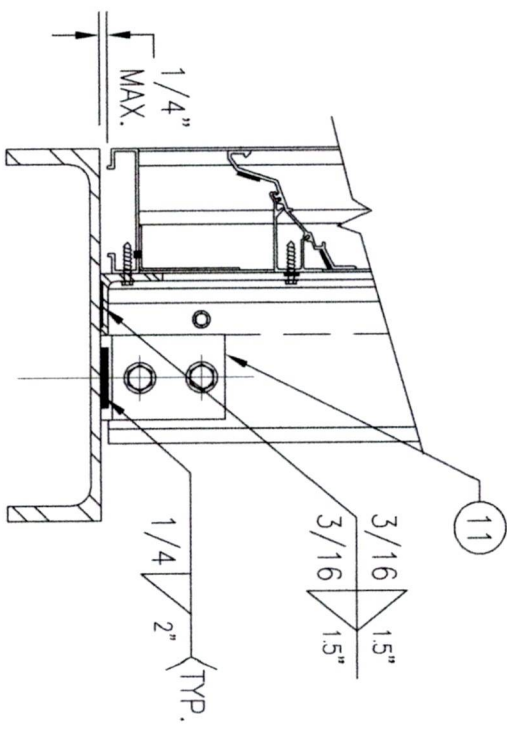
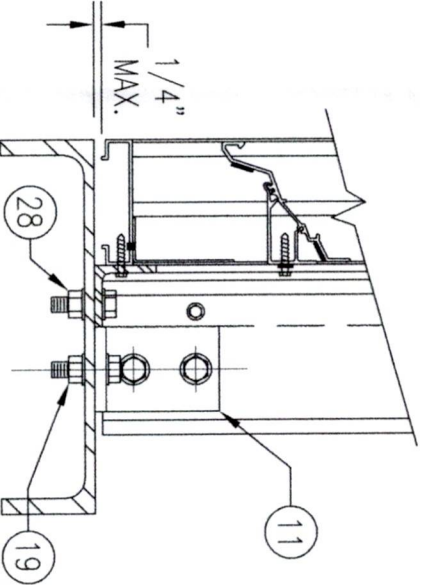
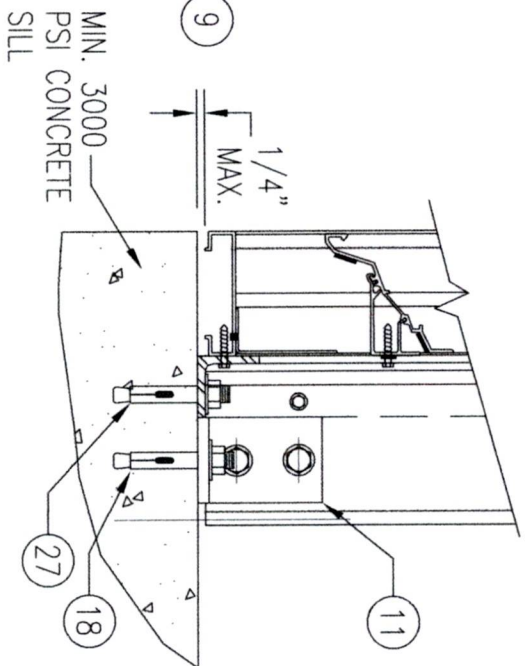
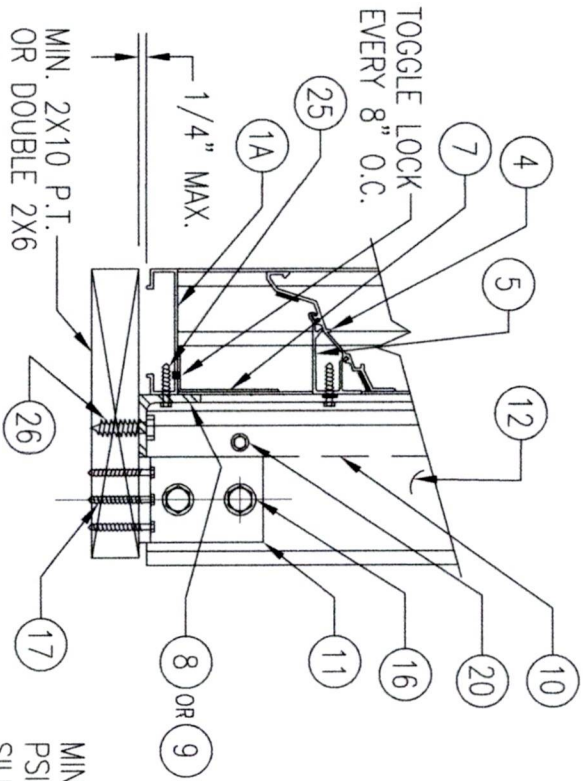
SEE "WOOD OPENING" FOR DETAIL NOT SHOWN
(MASONRY ACCEPTABLE AT SIDES ONLY AND MAY NOT BE USED AT HEAD OR SILL)

STEEL FRAME OPENING (BOLTED)

SEE "WOOD OPENING" FOR DETAIL NOT SHOWN

STEEL FRAME OPENING (WELDED)

SEE "WOOD OPENING" FOR DETAIL NOT SHOWN



WOOD FRAMED OPENING

SEE "DETAIL 3A & 3B" FOR LOUVER BLADE DETAILS
NOTE: STANDARD SILL (ITEM #1A) IS SHOWN IN THIS VIEW. SLOPED SILL (ITEM 1B) ALSO APPLIES.

CONCRETE SILL

SEE "WOOD OPENING" FOR DETAIL NOT SHOWN
(MASONRY ACCEPTABLE AT SIDES ONLY AND MAY NOT BE USED AT HEAD OR SILL)

STEEL FRAME OPENING (BOLTED)

SEE "WOOD OPENING" FOR DETAIL NOT SHOWN

STEEL FRAME OPENING (WELDED)

SEE "WOOD OPENING" FOR DETAIL NOT SHOWN

MASONRY MAY ONLY BE USED AT SIDES OF LOUVER PANELS & MAY NOT BE USED AT THE HEAD OR SILL.

DETAIL 5
SCALE: 2"=1'-0"

DRAWN BY:		CHECKED BY:	
W.M.S.		W.M.S.	
DATE:		02/08/23	
1=6			
NO.	REVISION DESCRIPTION	BY	DATE

MODEL EA-22 4" LOUVER SYSTEM

CONSULTANTS
W. W. SCHAEFER ENGINEERING
& CONSULTING, P.A. (CA 6809)
26376 NADIR ROAD, UNIT 309
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PHONE: 561-744-3424

MANUFACTURER
ARROW UNITED INDUSTRIES
A DIVISION OF MESTEK, INC.
450 RIVERSIDE DRIVE
WYALUSING, PA 18853
570-746-1888

CERTIFICATION
WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

DRAWING NO. 2014
SHEET NO. 4 OF 7

Technical drawing of a window assembly cross-section. The drawing shows a window frame assembly with various components labeled with circled numbers and dimensions. The components are labeled as follows:

- 1A OR 1B BELOW: Points to the top of the window frame.
- 1/4" MAX.: Dimension for the gap between the frame and the wall.
- 3 @ 1" LONG: Dimension for the length of the frame.
- 1 1/4": Dimension for the width of the frame.
- 4": Dimension for the width of the window frame.
- 4: Points to the bottom of the window frame.
- 8 OR 9: Points to the window frame.
- 25: Points to the window frame.
- 26: Points to the window frame.
- 24: Points to the window frame.
- 3: Points to the window frame.

Technical drawing showing a cross-section of a window sill and jamb assembly. The drawing includes the following labels and dimensions:

- Labels:** 1A OR 1B, 1B, 1, 1/4", 3, 1/8", 1/4" MAX., 3, 24, 4, 25, 28, 8 OR 9, 9.
- Dimensions:** 1 1/4", 1/8", 1/4" MAX., 4".
- Text:** TYP. 3 @ 1" LONG.
- Notes:** X 1 SMS THROUGH SILL & INTO JAMB SPLINES.

STEEL FRAME OPENING (WELDED)

STEEL FRAME OPENING (WELDED)

SEE "WOOD OPENING" FOR DETAIL NOT SHOWN

DETAIL

SCALE: 2" = 1'-0"

7/5

Technical drawing of a rectangular plate with the following dimensions and features:

- Overall width: 3"
- Overall height: 2.5"
- Distance from top edge to center of top hole: 1"
- Distance from left edge to center of left hole: 1.75"
- Distance from right edge to center of right hole: 2.75"
- Distance from top edge to center of bottom hole: 0.5"
- Distance from left edge to center of bottom hole: 0.5"
- Three circular holes are shown, with one hole labeled with a circled number 17.

[illegible]

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WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

DRAWING NO.	REV.
2014	
SHEET NO.	
5	OF 7

ALLOWABLE WIND PRESSURE VS. JAMB CLIP SPACING
AND PANEL WIDTH

PANEL WIDTH (INCHES)	CLIP SPACING (INCHES)	ALLOWABLE PRESSURE WITH MID SPAN MULLION (PSF)	ALLOWABLE PRESSURE WITHOUT MID SPAN MULLION (PSF)
16	8	150	150
	12	150	150
	16	150	140
	20	150	105
	24	150	70
20	8	150	150
	12	150	140
	16	150	112
	20	150	84
	24	150	56
24	8	150	140
	12	150	117
	16	150	93
	20	150	70
	24	125	47
28	8	150	82
	12	150	68
	16	150	54
	20	150	41
	24	107	27
30	8	150	62
	12	150	52
	16	150	41
	20	140	31
	24	93	-
36	8	150	-
	12	150	-
	16	150	-
	20	125	-
	24	83	-
42	8	150	-
	12	150	-
	16	142	-
	20	107	-
	24	71	-
48	8	150	-
	12	150	-
	16	125	-
	20	93	-
	24	62	-
54	8	150	-
	12	138	-
	16	111	-
	20	83	-
	24	55	-
60	8	150	-
	12	125	-
	16	100	-
	20	75	-
	24	50	-

MATERIAL LIST

NO.	DESCRIPTION	PARTS/EXTRUSIONS	NOTES/SPECIFICATIONS
1A	STANDARD HEADER & SILL JAMB	6063-T5 ALUMINUM	
1B	OPTIONAL SLOPED SILL	6063-T5 ALUMINUM	
1C	OPTIONAL 1-PIECE HEADER	6063-T5 ALUMINUM	
2	PARTIAL BLADE & HEAD	6063-T5 ALUMINUM	
3	SIDE JAMB	6063-T5 ALUMINUM	
4	LOUVER BLADE	6063-T5 ALUMINUM	
5	BLADE SUPPORT BRACKET (2 1/2" LONG)	6063-T5 ALUMINUM	
6	MULLION CAP	6063-T5 ALUMINUM; FULL LENGTH OF MULLION JAMBS	
7	SILL ANGLE	6063-T5 ALUMINUM; FULL WIDTH OF PANEL	
8	L2X2X1/4 JAMB CONNECTION ANGLE 2" LONG	6063-T5 ALUMINUM; WITHIN 4" OF JAMB ENDS & SPACED PER LOAD TABLE ON SHIT. 2	
9	L2X2X1/4 OPTIONAL JAMB CONNECTION ANGLE 2" LONG	A36 STEEL; WITHIN 4" OF JAMB ENDS & SPACED PER LOAD TABLE ON SHIT. 2	
10	L2X2X1/4 CONTINUOUS MULLION CONNECTION ANGLE	6063-T5 ALUMINUM; FULL LENGTH OF CHANNEL MULLION	
11	L4X3X3/8 MULLION END CONNECTION ANGLE 2 3/4" LONG	A36 STEEL; 2 PER MULLION END	
12	C5X6.7 MULLION	A36 STEEL; FULL HEIGHT OF PANELS	
13	PARTIAL BLADE REINFORCEMENT PLATE (2 1/2" LONG)	6063-T5 ALUMINUM	
14	PARTIAL BLADE REINFORCEMENT ANGLE (2 1/2" LONG)	6063-T5 ALUMINUM	
15	OPEN		
FASTENERS			
16	1/2" X 2" A307 HEX HEAD PLATED STEEL OR S/STL BOLT	WITH FLAT WASHERS, LOCK WASHER & NUT; 2 PER MULLION END	
17	NO. 14 S.S. SMS SCREWS	3 PER MULLION END CLIP WITH MIN. 1 1/2" WOOD EMBED	
18	5/8" X 2 1/4" SLEEVE ANCHOR WITH FLAT WASHER	USA KINGPIN ANCHOR; 1 PER CHANNEL END CONNECTION ANGLE INTO CONCRETE ONLY	
19	1/2" X 2" A307 HEX HEAD PLATED STEEL OR S/STL BOLT	WITH FLAT WASHERS, LOCK WASHER & NUT; 1 PER CHANNEL END CONNECTION ANGLE INTO STEEL FRAME	
20	5/16-18 UNC X 1 1/2" HEX HEAD STEEL OR S/STL BOLT	WITH FLAT WASHER, LOCK WASHER & NUT; WITHIN 4" OF MULLION ENDS & MAX. 8" O.C.	
21	NO. 8 X 3/4" SMS SCREW	1 AT EACH LOUVER BLADE SUPPORT BRACKET AT ARCHITECTURAL MAIN MULLIONS & ALL MID-SPAN MULLIONS	
22	NO. 14 X 1 1/4" HILTI TEK SCREW	WITHIN 3/4" OF MULLION ENDS & MAX. 4" O.C. INTO FRAME	
23	NO. 14 X 1" SMS SCREW	1 AT EACH LOUVER BLADE AT ALL ARCHITECTURAL MAIN MULLIONS & ALL MID-SPAN MULLIONS	
24	NO. 7 X 1" SMS SCREW	2 PER EACH LOUVER BLADE END THROUGH JAMB & INTO BLADE SPLINES	
25	NO. 14 X 1 1/4" HILTI TEK SCREW	2 PER EACH HEAD, SILL & SIDE JAMB CONNECTION ANGLE	
26	1/2" X 2" LAG SCREW WITH FLAT WASHER	1 PER EACH HEAD, SILL & SIDE JAMB CONNECTION ANGLE INTO WOOD FRAME	
27	5/8" X 2 1/4" SLEEVE ANCHOR WITH FLAT WASHER	USA KINGPIN ANCHOR; 1 PER EACH HEAD, SILL & SIDE JAMB CONNECTION ANGLE INTO CONCRETE ONLY	
28	1/2" X 2" HEX HEAD A307 PLATED STEEL OR S/STL BOLT	WITH FLAT WASHERS, LOCK WASHER & NUT; 1 PER EA. JAMB CONNECTION ANGLE INTO STEEL FRAME	
29	3/8" X 1 7/8" SLEEVE ANCHOR WITH FLAT WASHER	RED HEAD DYNABOLT WITH MIN 1 1/2" BLOCK/CONCRETE EMBED (1 PER FRAME SUPPORT CLIP)	
30	NO. 8 X 1/2" SMS SCREW	WITHIN 2" OF MULLION ENDS & MAX. 12" O.C. (MULLION CAP TO MULLION)	
31	NO. 7 X 1" SMS SCREWS	2 PER FRAME CORNER THROUGH SILL/HEAD FRAME & INTO JAMB SPLINES	

PRESSURE TABLE NOTES:

1. WHEN THE PANEL WIDTH IS 30" OR LESS, NO MID SPAN MULLION IS REQUIRED PROVIDING COMPLIANCE WITH THE TABLE.
2. ALL PRESSURES IN THIS TABLE ARE FOR BOTH POSITIVE & NEGATIVE WIND PRESSURE.

DRAWN BY:	CHECKED BY:
W.W.S.	W.W.S.
DATE:	DATE:
02/08/23	

NO.	REVISION	DESCRIPTION	BY	DATE

MODEL EA-22 4" LOUVER SYSTEM

CONSULTANTS
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& CONSULTING, P.A. (CA 6809)
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CERTIFICATION

WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

DRAWING NO. REV.

2014

SHEET NO. 7 OF 7