



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/building

Arrow United Industries, a division of Mestek, Inc.
450 Riverside Drive
Wyalusing, PA 18853

SCOPE: This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Model EA-64 6" Aluminum Louver System

APPROVAL DOCUMENT: Drawing No. **1464**, titled "EA-64 Louver System", sheets 1 through 15 of 15, dated 12/02/05, with revision **D1** dated 04/18/23, prepared by W. W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren. W. Schaefer, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: A permanent label with the manufacturer's name or logo, manufacturing plant's city, state, model/ series, and the statement reading: "Miami-Dade County Product Control Approved", is to be located on each unit.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

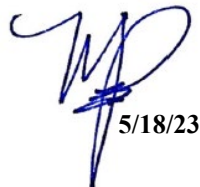
ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **revises and renews** NOA No. **20-0622.15** and consists of this page 1 and evidence pages E-1, E-2 and E-3, as well as approval document mentioned above.

The submitted documentation was reviewed by **Manuel Perez, P.E.**




5/18/23

NOA No. 23-0426.02
Expiration Date: April 22, 2029
Approval Date: May 25, 2023
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

A. DRAWINGS

1. Manufacturer's die drawings and sections.
(Submitted under NOA No. 05-1206.04)
2. Drawing No. **1464**, titled "EA-64 Louver System", sheets 1 through 15 of 15, dated 12/02/05, with revision **C1** dated 02/26/19, prepared by W. W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren. W. Schaefer, P.E.
(Submitted under NOA No. 19-0306.02)

B. TESTS

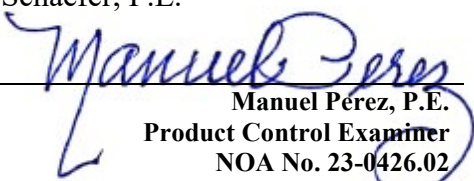
1. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of an EA-64 Louver, prepared by Intertek, Test Report No. **J3223.01-109-18**, dated 02/26/2019, signed and sealed by Daniel C. Culbert, P.E.
(Submitted under NOA No. 19-0306.02)

	<u>Test Report</u>	<u>Test Standard</u>	<u>Test Date</u>	<u>Signature</u>
2.	HTL 0198-0508-03	TAS 201,202 & 203	05/15-10/03	Vinu J.A braham, P.E.
3.	HTL.0198-0618-03	TAS 201, 202 & 203	06/06-25/03	Vinu J. Abraham, P.E.
4.	HTL 0198-0804-03	TAS 201, 202 & 203	08/06-08/03	Vinu J. Abraham, P.E.
5.	HTL 0198-0508-03	TAS 201, 202 & 203	05/08-13/03	Vinu J. Abraham, P.E.
6.	HTL 0198-0804-03	TAS 201, 202 & 203	08/08-11/03	Vinu J. Abraham, P.E.
7.	HTL 0198-0324-03	TAS 201, 202 & 203	03/24-26/03	Vinu J. Abraham, P.E.
8.	HTL 0198-0324-03	TAS 201, 202 & 203	03/24-04/16	Vinu J. Abraham, P.E.
9.	HTL 0198-0324-03	TAS 201, 202 & 203	03/24-24/03	Vinu J. Abraham, P.E.
10.	HTL 0198-0324-03	TAS 201, 202 & 203	03/25-04/21	Vinu J. Abraham, P.E.
11.	HTL 0198-0128-03	TAS 201, 202 & 203	02/10-04/21	Vinu J. Abraham, P.E.
12.	HTL 0198-0508-03	TAS 202	05/13-13/03	Vinu J. Abraham, P.E.
13.	HTL 0198-0324-03	TAS 202	03/27-27/03	Vinu J. Abraham, P.E.
14.	HTL 0198-0324-03	TAS 201 & 203	03/24-04/21	Vinu J. Abraham, P.E.
15.	HTL G198-0101-05	TAS 201, 202 & 203	02/15/05	Vinu J. Abraham, P.E.
16.	AWV/AUI-011-02-01	TAS 100 (A)-95	05/13/08	Duc T. Nguyen, P.E.
17.	ATI 45720.03-122-18	TAS 100 (A)-95	01/16/09	Joseph A. Reed, P.E.

(Submitted under NOA No. 08-1224.03)

C. CALCULATIONS

1. Anchoring calculations dated 02/26/19, prepared by W.W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, P.E.


Manuel Pérez, P.E.
Product Control Examiner
NOA No. 23-0426.02
Expiration Date: April 22, 2029
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Arrow United Industries, a division of Mestek, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's (CONTINUED)

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

E. MATERIAL CERTIFICATIONS

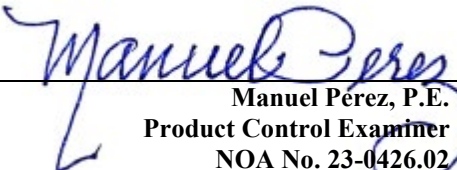
1. None.

F. STATEMENTS

1. Statement letter of code conformance to the **FBC 6th Edition (2017)** and **FBC 7th Edition (2020)**, dated 06/03/20, issued by W.W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, P.E.
(Submitted under NOA No. 20-0622.15)
2. Statement letter of no financial interest, dated 02/26/19, issued by W.W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, P.E.
(Submitted under NOA No. 19-0306.02)

G. OTHERS

1. Notice of Acceptance No. **19-0306.02**, issued to Arrow United Industries, a division of Mestek, Inc. for their Model EA-64 6" Aluminum Louver System, approved on 04/25/19 and expiring on 04/22/24.


Manuel Pérez, P.E.
Product Control Examiner
NOA No. 23-0426.02
Expiration Date: April 22, 2029
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Arrow United Industries, a division of Mestek, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. **1464**, titled “EA-64 Louver System”, sheets 1 through 15 of 15, dated 12/02/05, with revision **D1** dated 04/18/23, prepared by W. W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren. W. Schaefer, P.E.

B. TESTS

1. None.

C. CALCULATIONS

1. None.

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

E. MATERIAL CERTIFICATIONS


1. None.

F. STATEMENTS

1. None.

G. OTHERS

1. Notice of Acceptance No. **20-0622.15**, issued to Arrow United Industries, a division of Mestek, Inc. for their Model EA-64 6” Aluminum Louver System, approved on 08/20/20 and expiring on 04/22/24.


Manuel Pérez, P.E.
Product Control Examiner
NOA No. 23-0426.02
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FASTENER SCHEDULE			
ANCHOR TYPE	(5) SUBSTRATE	MINIMUM EMBEDMENT	MINIMUM EDGE DIST.
(3) NO. 10 S.S. SCREW	WOOD	1 3/8"	3/4"
(6) NO. 10 SELF TAP SCREW	METAL STUD OR STEEL	FULL	3/4"
(1) 1/4" CONCRETE SCREW	C90 CONCR. BLOCK	1 1/4"	2 1/2"
(1) 1/4" CONCRETE SCREW	CONCRETE	1 1/2"	2"
(2) 1/4" BOLT	STEEL OR METAL STUD	FULL	3/4"
(4) 3/8" SLEEVE ANCHOR	CONCRETE	2 1/2"	2 1/2"
(2) 3/8" BOLT	STEEL	FULL	3/4"
(1) CONCRETE SCREWS SHALL BE ELCO ULTRACONS (C.S.), ELCO CRETE-FLEX (S.S.) OR HILTI KWIK-CON II (C.S. OR S.S.).			
(2) BOLT SHALL BE MIN. A307 GALVANIZED OR 304 S.S. (Fv = 10,000 PSI MIN.)			
(3) WOOD SCREWS SHALL HAVE MIN. YIELD STRENGTH OF Fyb = 80,000 PSI			
(4) SLEEVE ANCHORS MAY BE GALVANIZED OR S.S. RAMSET RED HEAD DYNABOLTS OR POWERS RAWL POWER BOLT.			
(5) SEE GENERAL NOTES FOR SUBSTRATE REQUIREMENTS.			
(6) SELF TAPPING SCREWS SHALL BE CORROSION RESISTANT MIN. SAE GRADE 2 STEEL OR MIN. ALLOY GROUP 1, 2 & 3 CONDITION "A" STAINLESS STEEL.			

CORNER & BLADE END CONSTRUCTION

BLADE TO JAMB:
WELDED CONDITION: BLADE END BUTTS TO JAMB, IS WELDED WITH ONE 1/8" X 5" WELD AND SCREWED TO JAMB WITH WITH 2 NO. 8 X 3/4" S.S. SMS SCREWS THROUGH JAMB AND INTO BLADE SCREW SPLINES.
SCREWED CONDITION: BLADE END BUTTS TO JAMB & IS SCREWED TO JAMB WITH TWO (2) 1/4"-20 X 1 1/2" TYPE "F" SCREWS THROUGH JAMB AND INTO BLADE SCREW SPLINES.

HEAD TO JAMB: HEAD FRAME IS SQUARE CUT, BUTTED AND JOINED TO JAMB WITH ONE 1/8" X 5" WELD AND 2 NO. 8 X 3/4" S.S. SMS SCREWS THROUGH JAMB AND INTO HEADER SCREW SPLINES.

SILL TO JAMB: SIDE JAMB BUTTS TO SILL AND IS JOINED TO SILL WITH THREE(3) 1/8" X 1" WELDS AND 2 NO. 8 X 3/4" S.S. SMS SCREWS THROUGH SILL AND INTO JAMB SCREW SPLINES.

- GENERAL NOTES:**
- IT SHALL BE THE RESPONSIBILITY OF THE PERMIT HOLDER TO VERIFY THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURE TO SUPPORT THE LOADS SUPERIMPOSED BY THE LOUVERS.
 - THESE LOUVER SYSTEMS HAVE BEEN DESIGNED & TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC) AND PROTOCOLS TAS-100, 201, 202 & 203 INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).
 - EACH LOUVER ASSEMBLY SHALL BE PERMANENTLY LABELED AS FOLLOWS: ARROW UNITED INDUSTRIES
WYALUSING, PA
MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED
 - ALL CONCRETE SUBSTRATE SHALL BE MIN. 3000 PSI.
 - ALL WOOD SUBSTRATE SHALL BE MIN. G = 0.55 DENSITY.
 - ALL METAL STUD SUBSTRATE SHALL BE MIN. 16 GA. Fy = 33 ksi.
 - ALL STRUCTURAL STEEL SUBSTRATE SHALL BE MIN. 12 GA. Fy = 36 ksi.
 - PANEL WIDTHS & HEIGHTS ARE LIMITED AS SHOWN IN ELEVATIONS.
 - MULLED PANELS MAY BE HORIZONTALLY INSTALLED TO AN UNLIMITED NUMBER. VERTICAL STACKING OF MULLED PANELS MAY OCCUR PROVIDING A STRUCTURAL SUPPORT IS DESIGNED & INSTALLED BY OTHERS TO SUPPORT ALL LOADS TRANSFERRED FROM THE LOUVER ASSEMBLY (SINGLE PANELS MAY RUN TO UNLIMITED HEIGHT PER ELEVATION IF NO MULLION EXISTS).
 - MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF FLORIDA BUILDING CODE CHAPTER 20.
 - THIS SYSTEM HAS BEEN TESTED FOR WATER INFILTRATION RESISTANCE AND IS A WATER RESISTANT SYSTEM WHEN THE LOUVER BLADE ENDS ARE SCREWED & WELDED AND THE DAMPER BLADE IS ATTACHED TO THE LOUVER BLADES AS SHOWN IN SECTION "A2/4" (NOT RATED FOR WATER RESISTANCE WHEN LOUVER BLADE ENDS ARE SCREW CONNECTED ONLY). THIS SYSTEM IS ALSO A WATER RESISTANT SYSTEM WHEN THE AFD-20 DAMPER IS PLACED BEHIND THE LOUVER.
 - UNLESS THE DAMPER BLADE IS ATTACHED TO THE LOUVER BLADES OR THE AFD-20 DAMPER IS PLACED BEHIND THE LOUVER, THE LOUVER IS TO BE INSTALLED IN A LOCATION WHERE THE ROOM BEHIND THE LOUVER IS DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM, AND THE ROOM WILL HOUSE WATER RESISTANT/WATER PROOF EQUIPMENT, COMPONENTS OR SUPPLIES.
 - ALL DETAILS OF SHEETS 10 THRU 15 MUST COMPLY WITH THE LOUVER DETAILS SHOWN ON SHEETS 1 THRU 9. ANY DISCREPANCY IS CONTROLLED BY THE DETAILS ON SHEETS 1 THRU 9.

JAMB SPLICE WHEN REQUIRED FOR STACKING (SEE SECTION A1/4 FOR DETAIL). SPLICE LOCATION TO BE BETWEEN BLADES.

**EXTERIOR ELEVATION
SINGLE LOUVER PANEL WITHOUT
BLADE SUPPORT ANGLE**

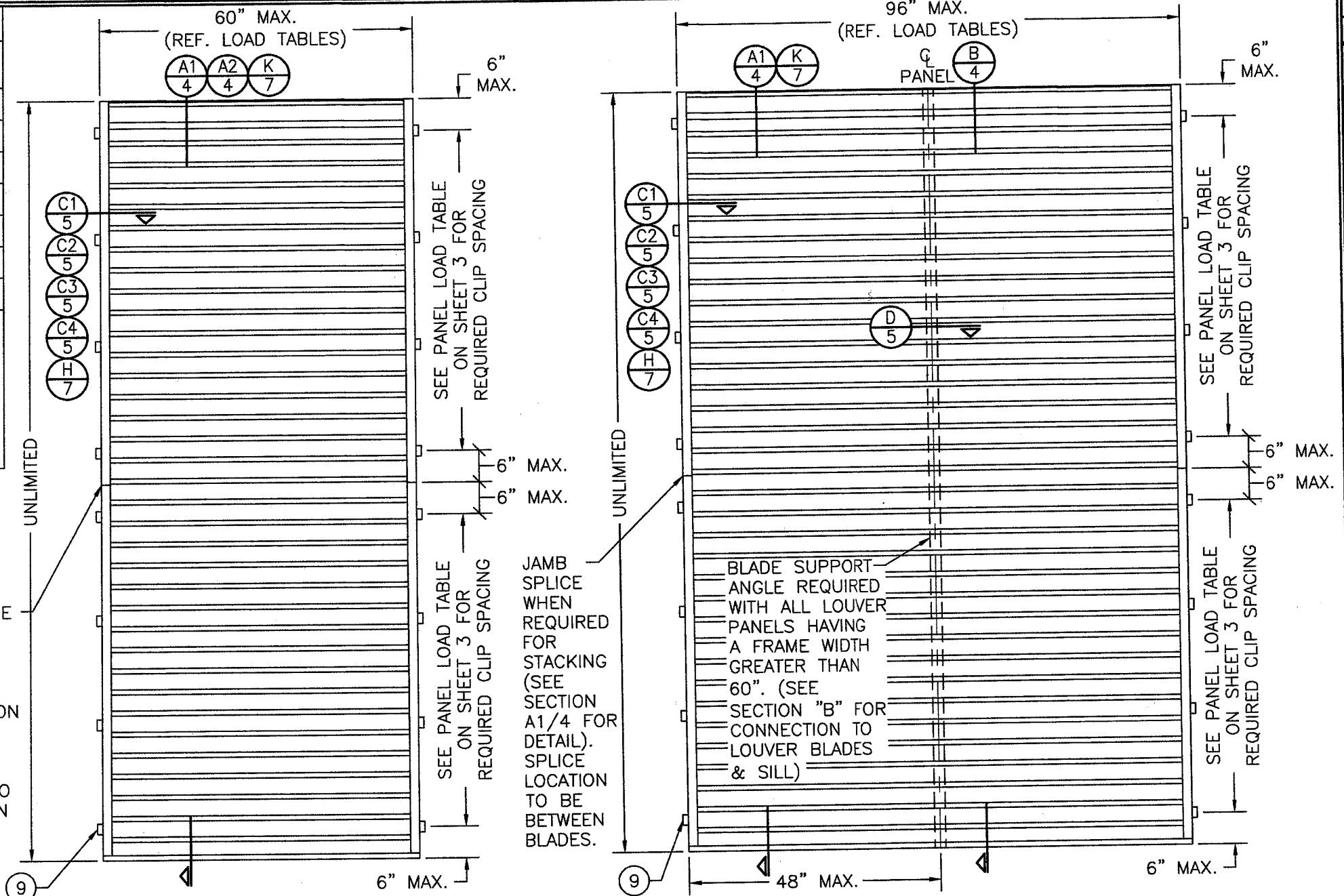
NOTE: LOUVER PANELS MAY BE STACKED/SPLICED VERTICALLY OR THE LOUVER PANEL MAY RUN VERTICALLY TO INFINITE HEIGHT PROVIDING OPENING IS PROPERLY DESIGNED BY OTHERS TO SUPPORT THE LOUVER PANELS.

INSTALLATION CLIPS ARE NOT APPLICABLE WHEN LOUVER IS SLEEVE MOUNTED

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. **23-0426.02**
Expiration Date: **04/22/2029**
By: *Manuel Perez*
Miami-Dade Product Control

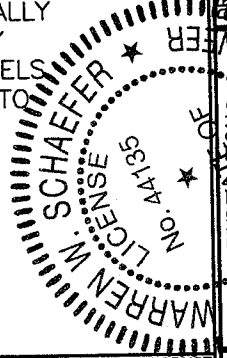
ALLOWABLE PRESSURES
PRESSURES VARY WITH PANEL SIZE, CLIP SPACING & MULLION CONDITIONS & SHALL BE CONTROLLED BY THE LESSER OF THE ALLOWABLE PRESSURE FOR EACH OF THOSE APPLICABLE CONDITIONS. SEE LOAD TABLES ON SHEET 3 FOR ALLOWABLE PRESSURES.

THESE DRAWINGS ARE APPLICABLE ONLY TO THE PRODUCT SPECIFIED. THEY MAY NOT BE USED FOR THE ASSEMBLY AND/OR INSTALLATION OF ANY OTHER PRODUCT NOR MAY THEY BE USED FOR RATIONAL AND/OR LOCAL APPROVAL OF ANY PRODUCT NOT PRODUCED BY THE MANUFACTURER STATED ON THESE DRAWINGS.



**EXTERIOR ELEVATION
SINGLE LOUVER PANEL WITH
BLADE SUPPORT ANGLE**

NOTE: LOUVER PANELS MAY BE STACKED/SPLICED VERTICALLY OR THE LOUVER PANEL MAY RUN VERTICALLY TO INFINITE HEIGHT PROVIDING OPENING IS PROPERLY DESIGNED BY OTHERS TO SUPPORT THE LOUVER PANELS. BLADE SUPPORT ANGLE IS CONTINUOUS FROM HEAD TO SILL AND SPLICING OF THIS ANGLE IS NOT PART OF THIS APPROVAL.



DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1=24		DATE: 12/02/05	
NO.	REVISION	DESCRIPTION	DATE
A1	1	UPDATE TO CURRENT STANDARDS	11/07/11
B1	1	MANUFACTURER NAME CHANGE	07/05/17
C1	1	CHANGED CLIP SPACING	02/26/19
D1	1	UPDATED NOTES	04/18/23

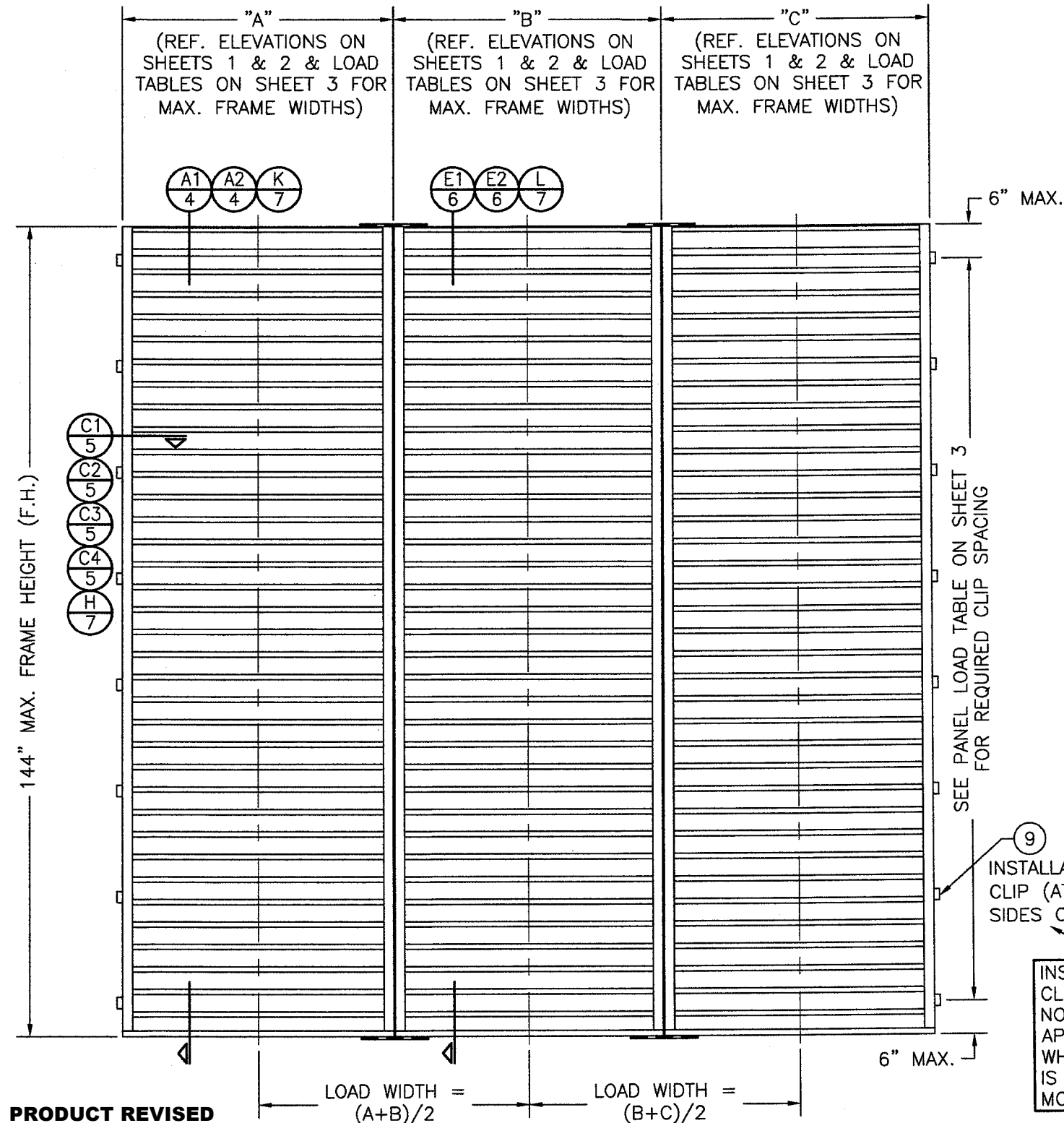
EA-64 LOUVER SYSTEM

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

CONSULTANTS:
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.
26376 NADIR ROAD, UNIT 309
PUNTA GORDA, FL 33983
PHONE: 561-744-5424

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

DRAWING NO. **1464** REV. **D**
SHEET NO. **1 OF 15**

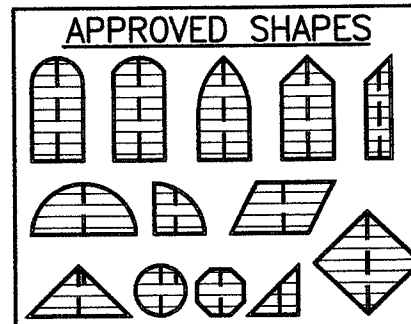


EXTERIOR ELEVATION MULLED UNITS

(3 PANEL UNIT SHOWN; MORE THAN 3 PANELS MAY BE MULLED/STACKED HORIZONTALLY)

RECTANGULAR PANELS SHOWN; SHAPED PANELS MAY ALSO BE MULLED PROVIDING THE MULLION END CONNECTIONS ARE AS DETAILED WITH THE ABOVE RECTANGULAR ELEVATION.

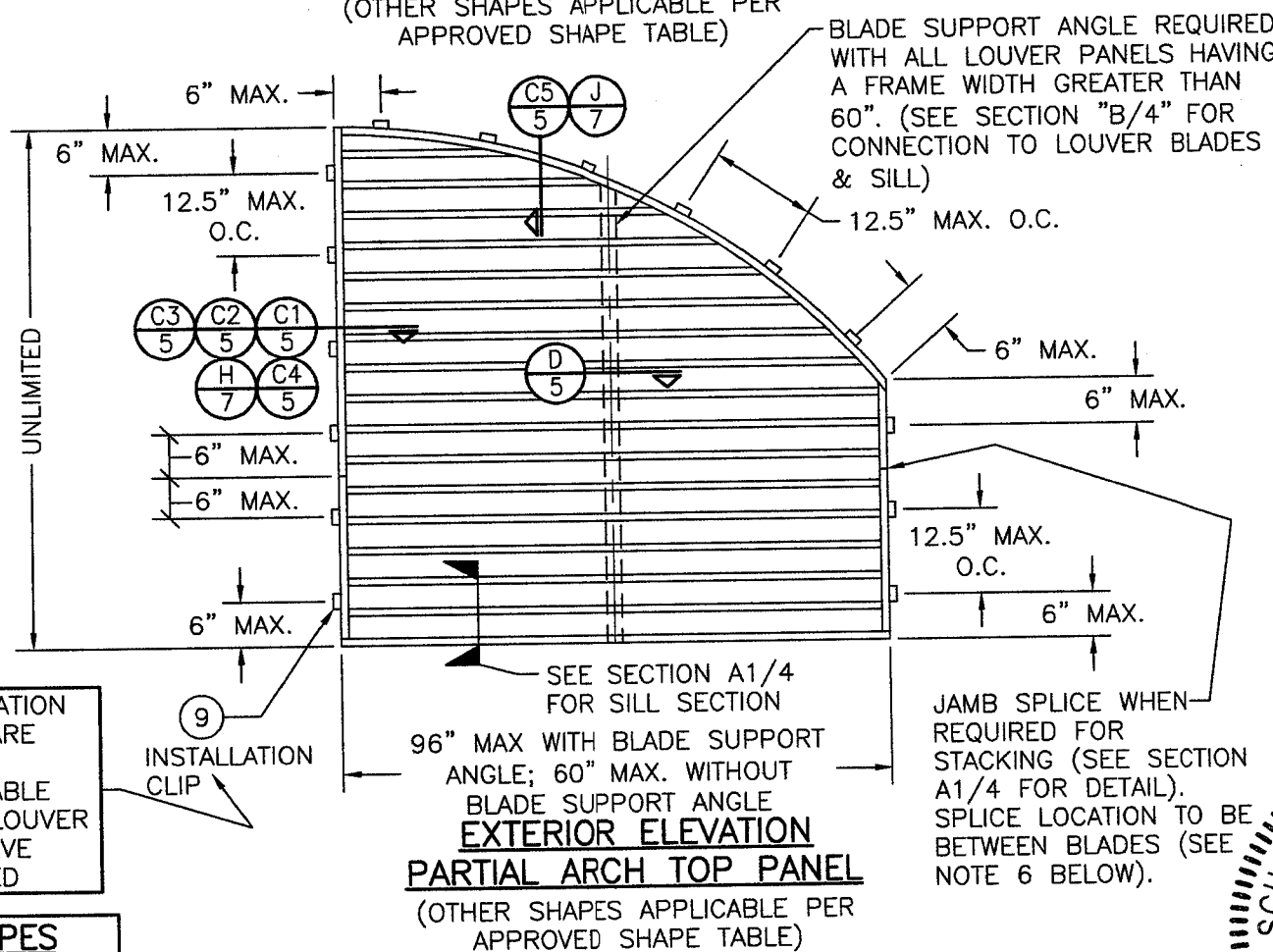
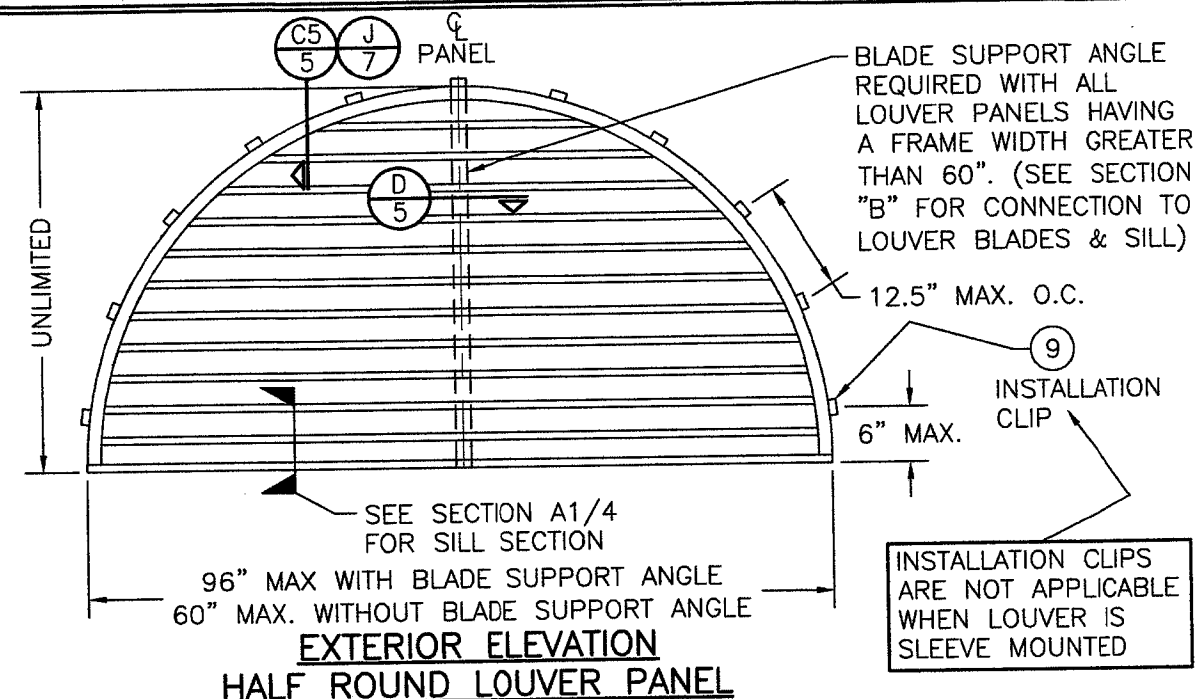
PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. **23-0426.02**
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By: *Manuel Perez*
Miami-Dade Product Control



NOTES:

1. OTHER SHAPES MAY APPLY PROVIDING THEY ARE SIMILAR TO THOSE SHOWN & HAVE CORNER CONSTRUCTION AS DESCRIBED ON ALL SHEETS.
2. ALL SHAPED LOUVER PANELS ARE RESTRICTED TO THE SAME PANEL WIDTHS & PRESSURE AS THE RECTANGULAR LOUVER PANELS & MAY BE STACKED VERTICALLY & HORIZONTALLY THE SAME AS THE RECTANGULAR PANELS.
3. CLIP SPACING IS RESTRICTED TO 6" FROM ENDS & 12.5" MAX. O.C. FOR ALL SHAPED LOUVER PANELS.

4. WHEN BLADES EXCEED 60" IN LENGTH (UP TO 96" BLADE SUPPORT ANGLE AND BRACKETS ARE REQUIRED AT A MAXIMUM OF 48" FROM BLADE ENDS.
5. ALL OTHER SHAPES, EXCEPT SQUARE & RECTANGULAR, MUST HAVE BLADE SUPPORT ANGLE AND BRACKETS AT CENTER OF SPAN REGARDLESS OF BLADE LENGTH.
6. SPLICES MAYNOT EXIST ON BENT OR SLOPED JAMBS. ONLY STRAIGHT VERTICAL JAMBS MAY BE SPLICED.



DRAWN BY:	W.R.M.	CHECKED BY:	W.W.S.
PLOT:	1=24	DATE:	12/02/05
NO.		REVISION DESCRIPTION	
DATE		BY	

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

CONSULTANTS
W.W. SCHAEFER ENGINEERING & CONSULTING, P.A.
26376 NADIR ROAD; UNIT 308
PUNTA GORDA, FL 33983
PHONE: 561-744-3424

DRAWING TITLE	EA-64 LOUVER SYSTEM
NO.	44135
DATE	MAY 17 2023
REV.	D
SHEET NO.	2 OF 15

MULLION LOAD TABLE (SEE INSTRUCTIONS BELOW)

MULLION SPAN (IN.)	LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (+/- PSF)	MULLION SPAN (IN.)	LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (+/- PSF)	MULLION SPAN (IN.)	LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (+/- PSF)	MULLION SPAN (IN.)	LOAD WIDTH (IN.)	ALLOWABLE PRESSURE (+/- PSF)
18"	96"	180.0	60"	96"	65.7	84"	96"	47.0	120"	96"	32.9
24"	96"	164.3		90"	70.1		90"	50.1		90"	35.1
	90"	175.3		84"	75.1		84"	53.7		84"	37.6
	84"	180.0		78"	80.9		78"	57.8		78"	40.4
	96"	131.5		72"	87.6		72"	62.6		72"	43.8
30"	90"	140.2		66"	95.6		66"	68.3		66"	47.8
	84"	150.2		60"	105.2		60"	75.1		60"	52.6
	78"	161.8		54"	116.9		54"	83.5		54"	58.4
	72"	175.3		48"	131.5		48"	93.9		48"	65.7
36"	66"	180.0		42"	150.2		42"	107.3		42"	75.1
	96"	109.6	66"	36"	175.3	96"	36"	125.2	132"	36"	87.6
	90"	116.9		30"	180.0		30"	150.2		30"	105.2
	84"	125.2		96"	59.8		24"	180.0		24"	131.5
	78"	134.8		90"	63.7		96"	41.1		96"	27.2
	72"	146.1		84"	68.3		90"	43.8		90"	29.0
42"	66"	159.3		78"	73.5		84"	47.0		84"	31.1
	60"	175.3		72"	79.7		78"	50.6		78"	33.5
	54"	180.0		66"	86.9		72"	54.8		72"	36.3
	96"	93.9		60"	95.6		66"	59.8		66"	39.6
	90"	100.2		54"	106.2		60"	65.7		60"	43.6
	84"	107.3		48"	119.5		54"	73.0		54"	48.4
	78"	115.6		42"	136.6		48"	82.2		48"	54.4
	72"	125.2		36"	159.3		42"	93.9		42"	62.2
48"	66"	136.6	72"	30"	180.0	108"	36"	109.6	144"	36"	72.6
	60"	150.2		96"	54.8		30"	131.5		30"	87.1
	54"	166.9		90"	58.4		24"	164.3		24"	108.9
	48"	180.0		84"	62.6		18"	180.0		18"	145.2
	96"	82.2		78"	67.4		96"	36.5		72"	28.0
	90"	87.6		72"	73.0		90"	39.0		66"	30.5
	84"	93.9		66"	79.7		84"	41.7		60"	33.5
	78"	101.1		60"	87.6		78"	44.9		54"	37.3
	72"	109.6		54"	97.4		72"	48.7		48"	41.9
	66"	119.5		48"	109.6		66"	53.1		42"	47.9
48"	60"	131.5		42"	125.2		60"	58.4		36"	55.9
	54"	146.1		36"	146.1		54"	64.9		30"	67.1
	48"	164.3		30"	175.3		48"	73.0		24"	83.9
	42"	180.0		24"	180.0		42"	83.5		18"	111.8
							36"	97.4			
							30"	116.9			
							24"	146.1			
							18"	180.0			

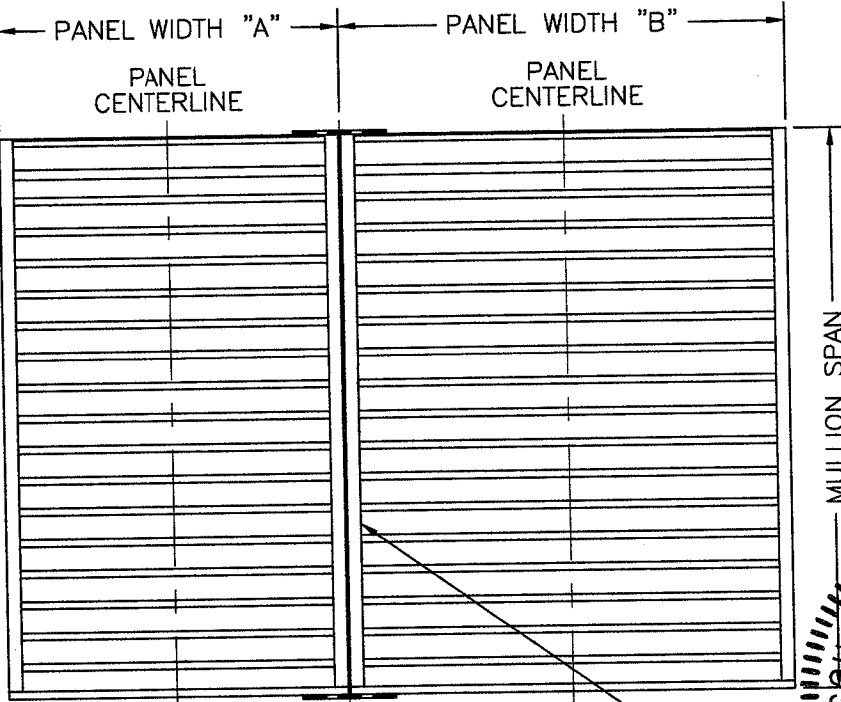
NOTE: CLIP SPACING SHOWN SHALL BE REDUCED TO 9.5" & 15" RESPECTFULLY WHEN SUBSTRATE IS CMU.

PANEL LOAD TABLE

PANEL WIDTH (IN.)	(1) CLIP SPACING (IN.)	(2) ALLOWABLE PRESSURE (+/- PSF)	PANEL WIDTH (IN.)	(1) CLIP SPACING (IN.)	(2) ALLOWABLE PRESSURE (+/- PSF)
36"	12.5"	180.0	72"	12.5"	100.0
	20"	127.3		20"	63.6
42"	12.5"	154.3	78"	12.5"	92.3
	20"	109.1		20"	58.7
48"	12.5"	120.0	84"	12.5"	85.0
	20"	95.5		20"	54.5
54"	12.5"	106.7	90"	12.5"	80.0
	20"	84.8		20"	50.9
60"	12.5"	90.0	96"	12.5"	75.0
	20"	76.4		20"	47.7
66"	12.5"	109.1			
	20"	69.4			

(1) ALL SHAPED LOUVER PANELS ARE RESTRICTED TO A FRAME CLIP SPACING OF 12.5" OR 9.5" O.C. 20" & 15" CLIP SPACING IS ONLY ALLOWED ON RECTANGULAR & SQUARE SHAPE LOUVERS.
(2) PRESSURES RELATING TO 12.5" & 9.5" CLIP SPACINGS SHALL BE APPLICABLE TO ALL SLEEVE MOUNTED LOUVERS

LOAD TABLE NOTE
(APPLICABLE TO MULLION & PANEL LOAD TABLES):
THE LESSER LOAD FROM THE MULLION LOAD TABLE & THE PANEL LOAD TABLE SHALL CONTROL AS THE ALLOWABLE FOR THE ENTIRE MULLED UNIT.



MULLION LOAD TABLE INSTRUCTIONS:

1. DETERMINE REQUIRED DESIGN PRESSURE OF THE LOUVER ASSEMBLY.
2. DETERMINE THE REQUIRED MULLION SPAN OF THE LOUVER ASSEMBLY.
3. DETERMINE THE PANEL WIDTH "A" & "B" AND THE MULLION LOAD WIDTH.
4. GO TO THE MULLION LOAD TABLE AND CHECK THE ALLOWABLE PRESSURE FOR THE RESPECTIVE MULLION SPAN/LOAD WIDTH.
5. GO TO THE PANEL LOAD TABLE AND CHECK THE ALLOWABLE PRESSURE FOR EACH PANEL WIDTH.
6. IF ALL THE ALLOWABLE PRESSURES OF INSTRUCTIONS 4 & 5 ARE GREATER THAN THE REQUIRED DESIGN PRESSURE, THE ASSEMBLY IS ACCEPTABLE.
7. IF ANY ALLOWABLE PRESSURE OF INSTRUCTIONS 4 & 5 ARE LESS THAN THE REQUIRED DESIGN PRESSURE, THE ASSEMBLY IS NOT ACCEPTABLE UNLESS THE ASSEMBLY SIZE OR PRESSURE IS REDUCED AND INSTRUCTIONS FROM 1 TO 7 ARE FOLLOWED AGAIN.

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 23-0426.02
Expiration Date: 04/22/2029
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LOUVER ASSEMBLY

DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1=24	DATE: 12/02/05
DATE	BY
REVISION DESCRIPTION	
NO.	

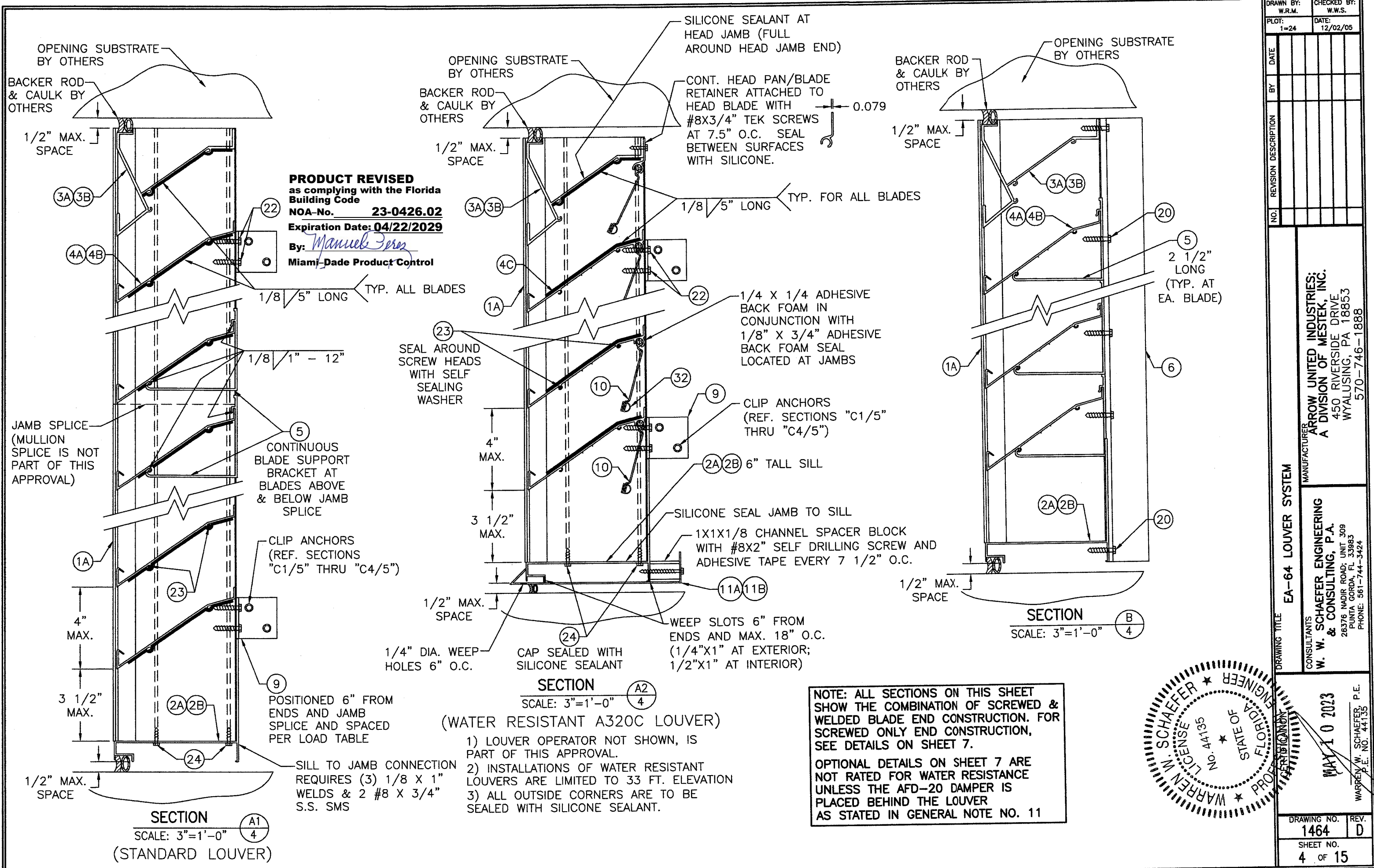
MANUFACTURER
ARROW UNITED INDUSTRIES, INC.
A DIVISION OF MESTEK, INC.
450 RIVERSIDE DRIVE
WYALUSING, PA 18853
570-746-1888

CONSULTANTS
W. SCHAEFER ENGINEERING
& CONSULTING, P.A.
26376 MAJOR ROAD, UNIT 308
PUNTA GORDA, FL 33983
PHONE: 561-744-3424

DRAWING TITLE
EA-64 LOUVER SYSTEM

WARRANTY
W. SCHAEFER ENGINEERING
No. 44135
MAY 1 2007
MADE IN U.S.A.

DRAWING NO. 1464
SHEET NO. 3 OF 15
REV. D



PRODUCT REVISED
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NOA-No. **23-0426.02**
Expiration Date: **04/22/2029**
By: *Manuel Perez*
Miami-Dade Product Control

SECTION A2
SCALE: 3"=1'-0"
(WATER RESISTANT A320C LOUVER)

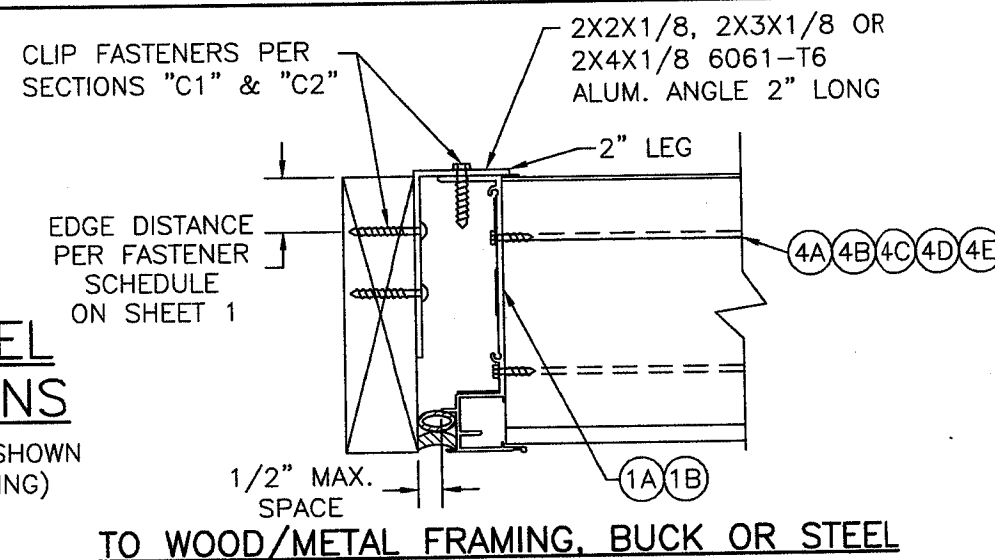
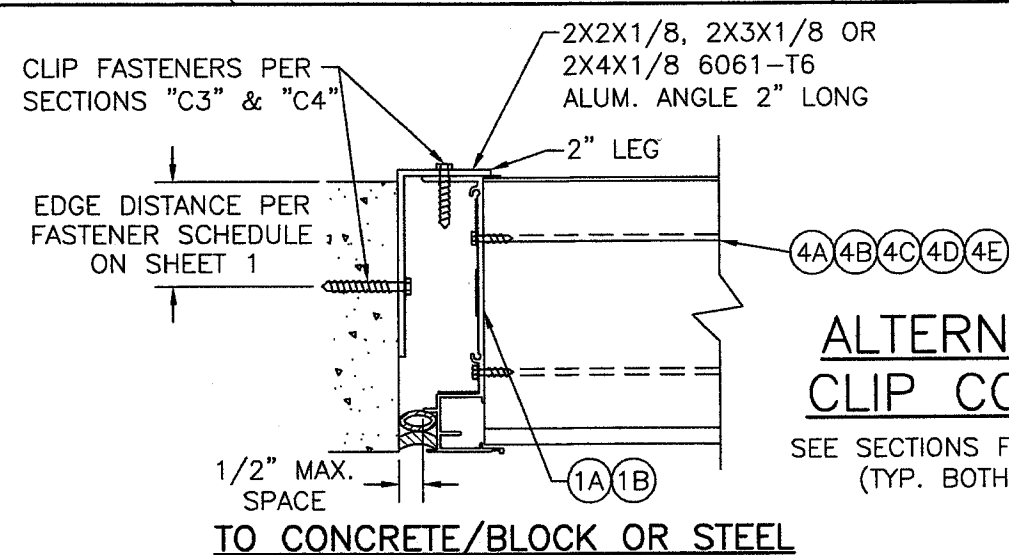
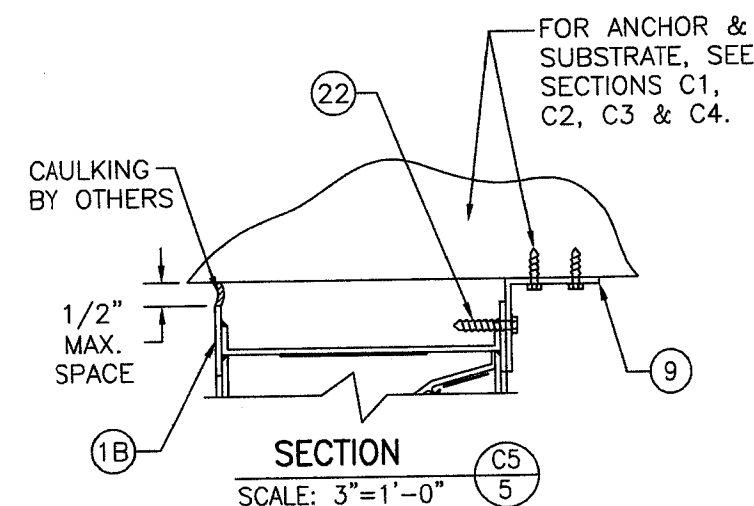
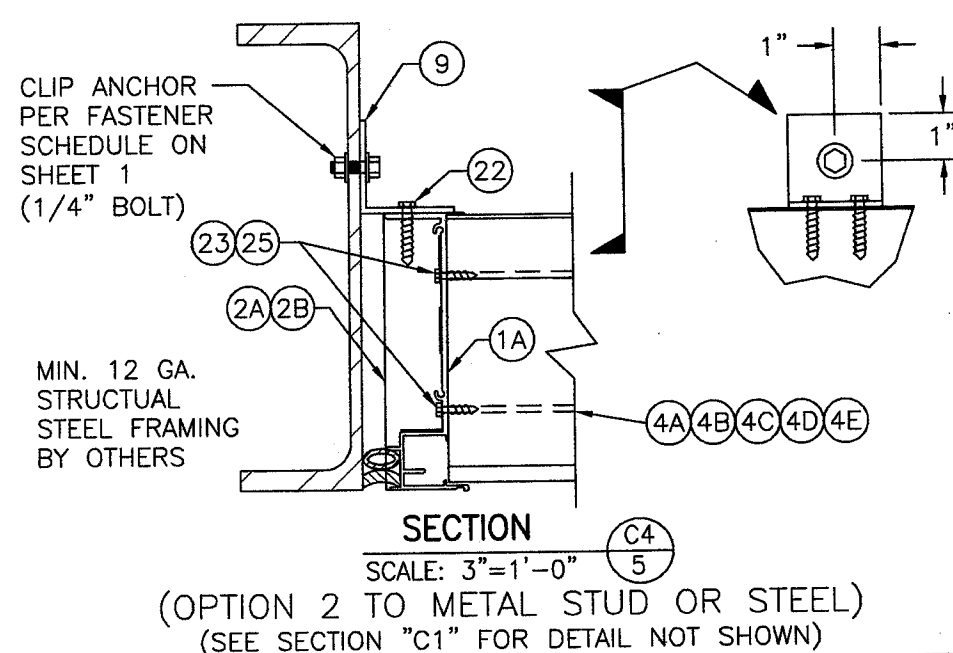
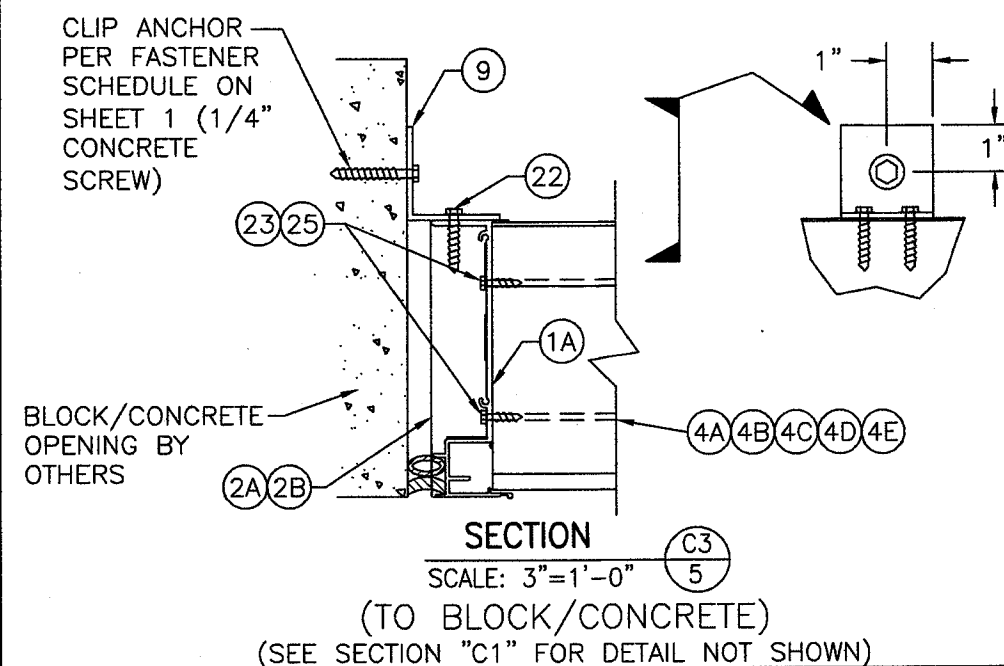
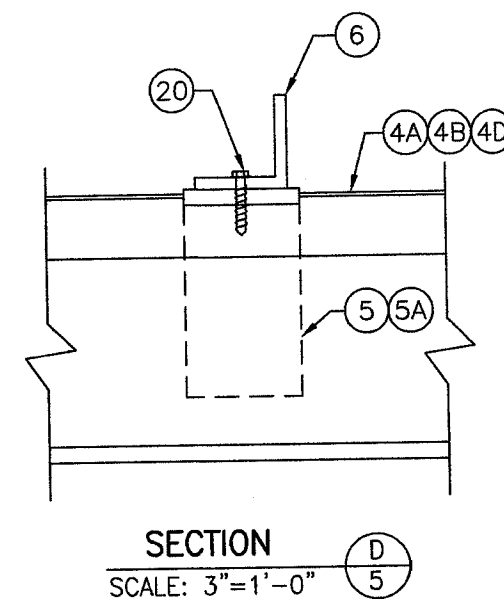
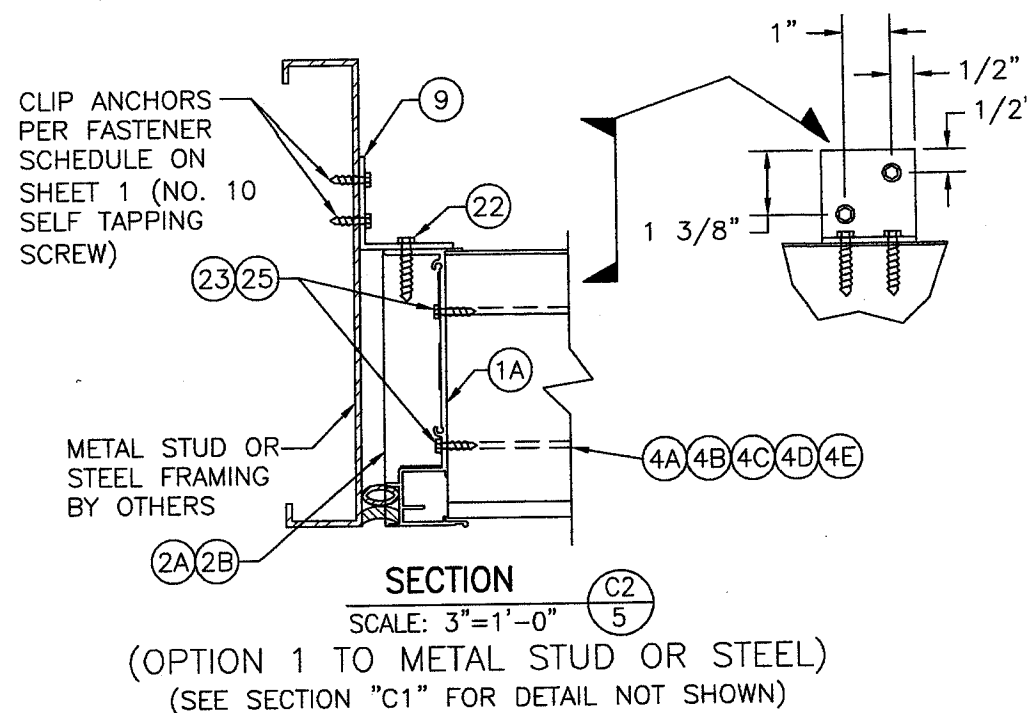
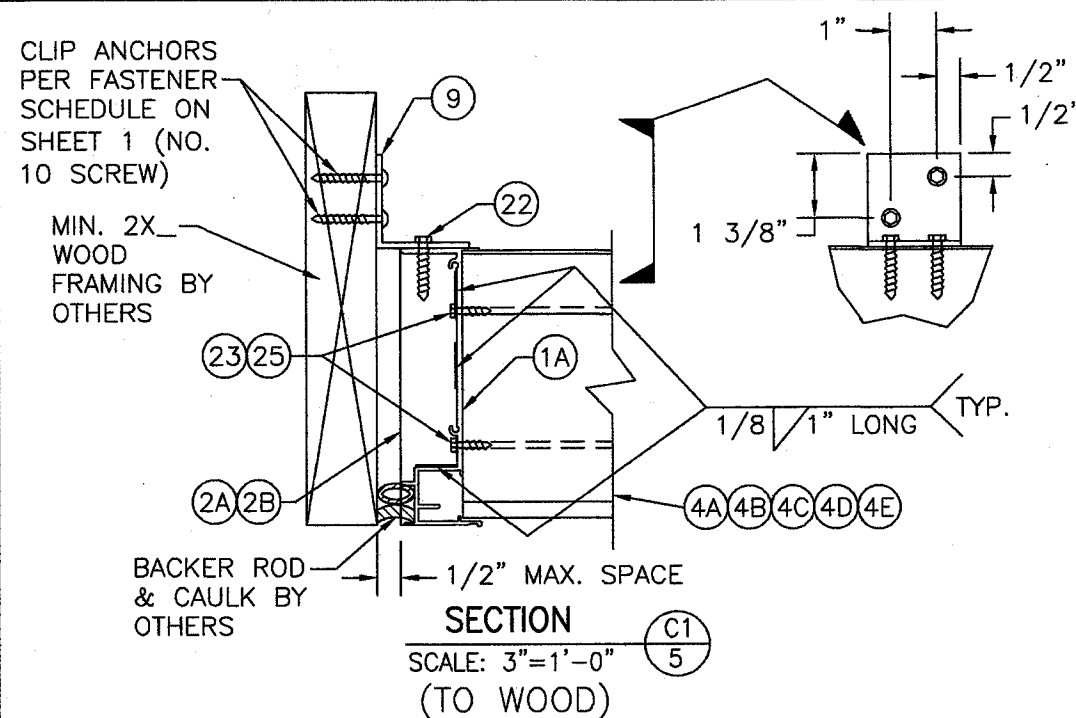
- 1) LOUVER OPERATOR NOT SHOWN, IS PART OF THIS APPROVAL.
- 2) INSTALLATIONS OF WATER RESISTANT LOUVERS ARE LIMITED TO 33 FT. ELEVATION
- 3) ALL OUTSIDE CORNERS ARE TO BE SEALED WITH SILICONE SEALANT.

NOTE: ALL SECTIONS ON THIS SHEET SHOW THE COMBINATION OF SCREWED & WELDED BLADE END CONSTRUCTION. FOR SCREWED ONLY END CONSTRUCTION, SEE DETAILS ON SHEET 7.

OPTIONAL DETAILS ON SHEET 7 ARE NOT RATED FOR WATER RESISTANCE UNLESS THE AFD-20 DAMPER IS PLACED BEHIND THE LOUVER AS STATED IN GENERAL NOTE NO. 11

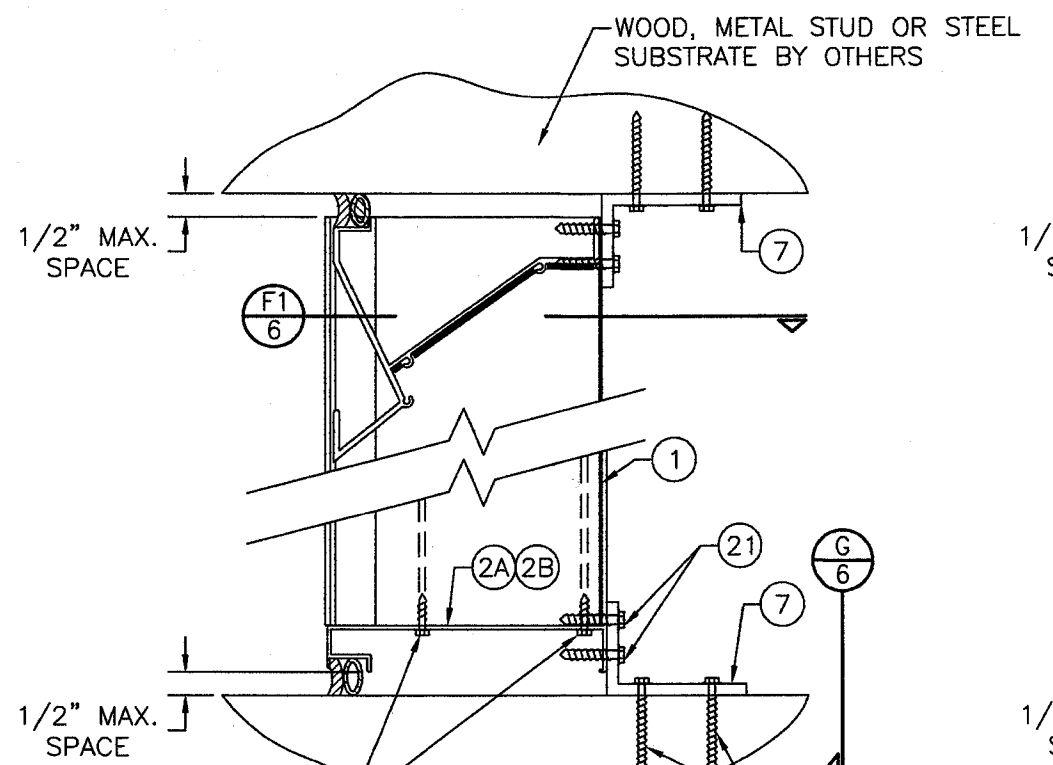


DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1-24		DATE: 12/02/05	
DATE	BY	REVISION DESCRIPTION	NO.
DRAWING TITLE: EA-64 LOUVER SYSTEM			
MANUFACTURER: ARROW UNITED INDUSTRIES; A DIVISION OF MESTEK, INC. 450 RIVERSIDE DRIVE WYALUSING, PA 18853 570-746-1888			
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 26376 NADIR ROAD, UNIT 309 PUNTA GORDA, FL 33983 PHONE: 561-744-3424			
DRAFTSMAN: WARREN W. SCHAEFER, P.E. P.E. NO. 44135			
DRAWING NO. 1464		REV. D	
SHEET NO. 4		OF 15	



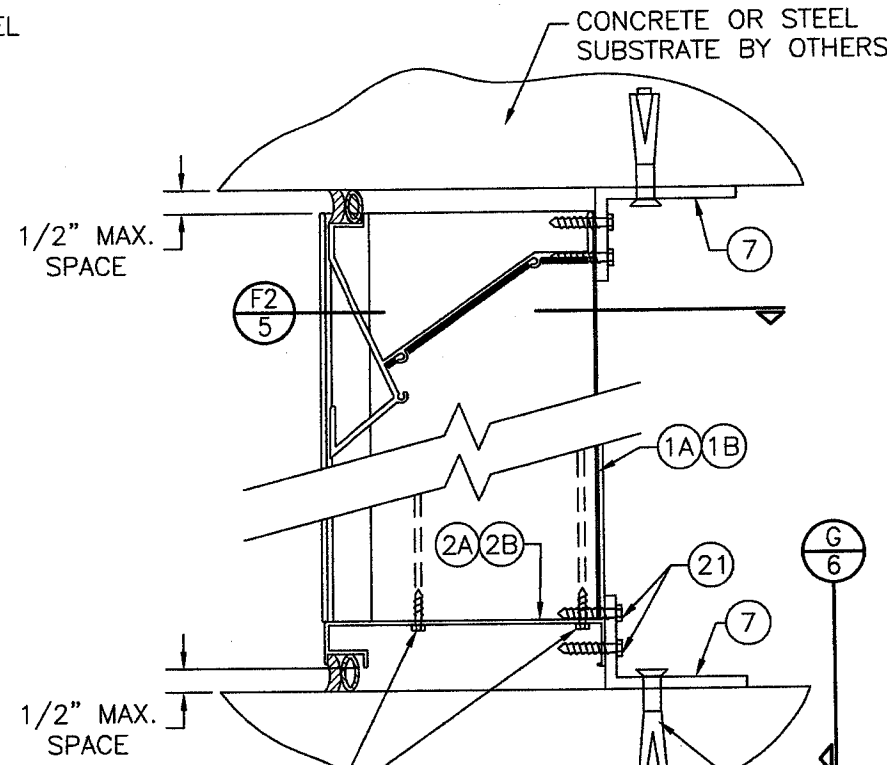
PRODUCT REVISED
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NOA-No. 23-0426.02
Expiration Date: 04/22/2029
By: Manuel Perez
Miami-Dade Product Control

[illegible]



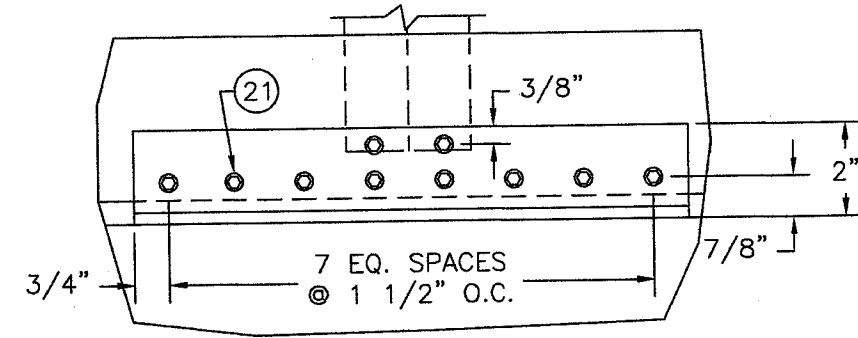
SECTION E1
SCALE: 3"=1'-0"
(INTO WOOD, METAL STUD OR STEEL OPENING)

ANCHOR PER FASTENER SCHEDULE ON SHEET 1 (NO. 10 SMS OR WOOD SCREW INTO WOOD; MIN. NO. 10 SELF TAPPING SCREW INTO METAL STUD OR STEEL)

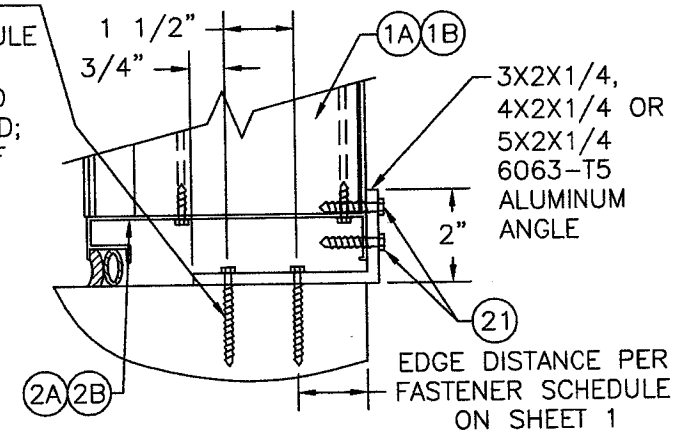


SECTION E2
SCALE: 3"=1'-0"
(INTO CONCRETE OR STRUCTURAL STEEL OPENING)

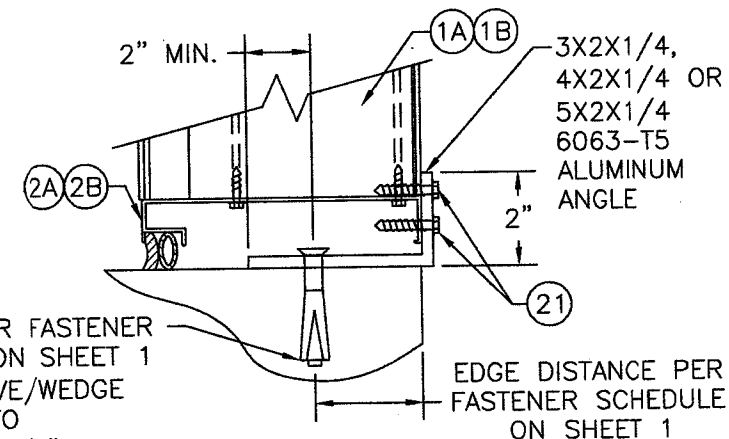
ANCHOR PER FASTENER SCHEDULE ON SHEET 1 (3/8" SLEEVE/WEDGE ANCHOR INTO CONCRETE; 3/8" BOLT INTO STEEL)



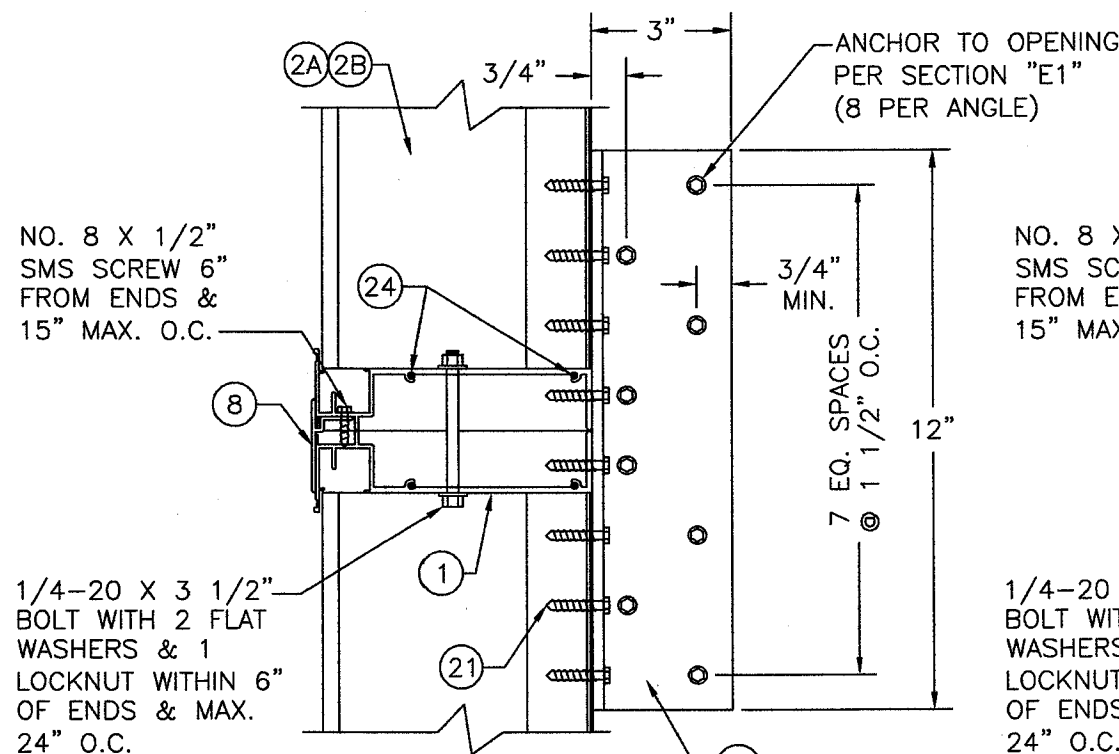
VIEW G
SCALE: 3"=1'-0"
(SEE SECTION E1/6 OR E2/6 FOR ANCHORS TO OPENING OR J/7 FOR WELDS TO SLEEVE)



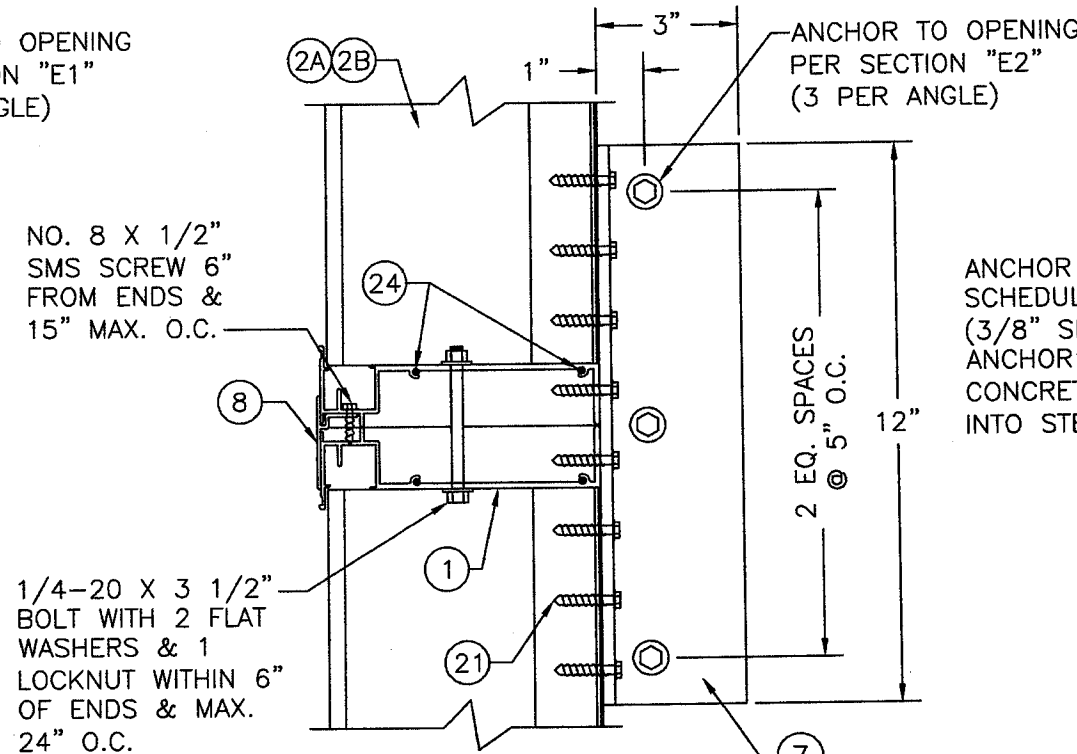
OPTIONAL SECTION E1
SCALE: 3"=1'-0"
SILL SHOWN; HEAD SIMILAR



OPTIONAL SECTION E2
SCALE: 3"=1'-0"
SILL SHOWN; HEAD SIMILAR



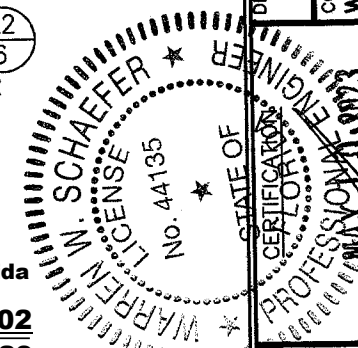
SECTION F1
SCALE: 3"=1'-0"



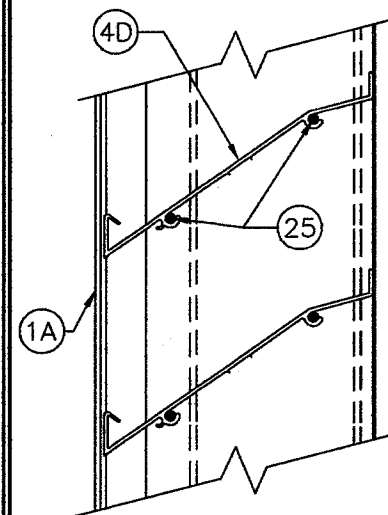
SECTION F2
SCALE: 3"=1'-0"

ANCHOR PER FASTENER SCHEDULE ON SHEET 1 (3/8" SLEEVE/WEDGE ANCHOR INTO CONCRETE; 3/8" BOLT INTO STEEL)

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NOA-No. **23-0426.02**
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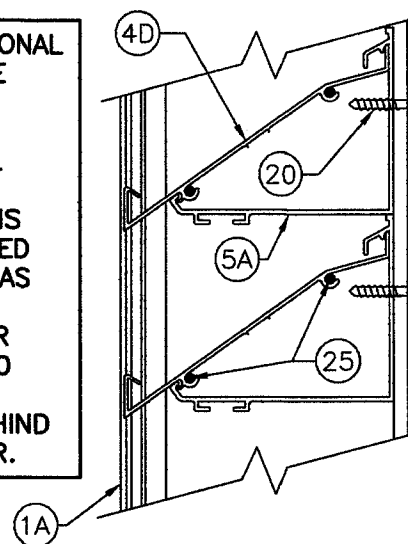


DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1=24		DATE: 12/02/05	
NO.	REVISION DESCRIPTION	BY	DATE
DRAWING TITLE EA-64 LOUVER SYSTEM		MANUFACTURER ARROW UNITED INDUSTRIES; A DIVISION OF MESTEK, INC. 450 RIVERSIDE DRIVE WYALUSING, PA 18853 570-746-1888	
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 26376 NADIR ROAD; UNIT 309 PUNTA GORDA, FL 33983 PHONE: 561-744-3424			
STATE OF FLORIDA CERTIFICATION PROFESSIONAL ENGINEER WARREN V. SCHAEFER, P.E. P.E. NO. 44135		DRAWING NO. 1464	
SHEET NO. 6 OF 15		REV. D	

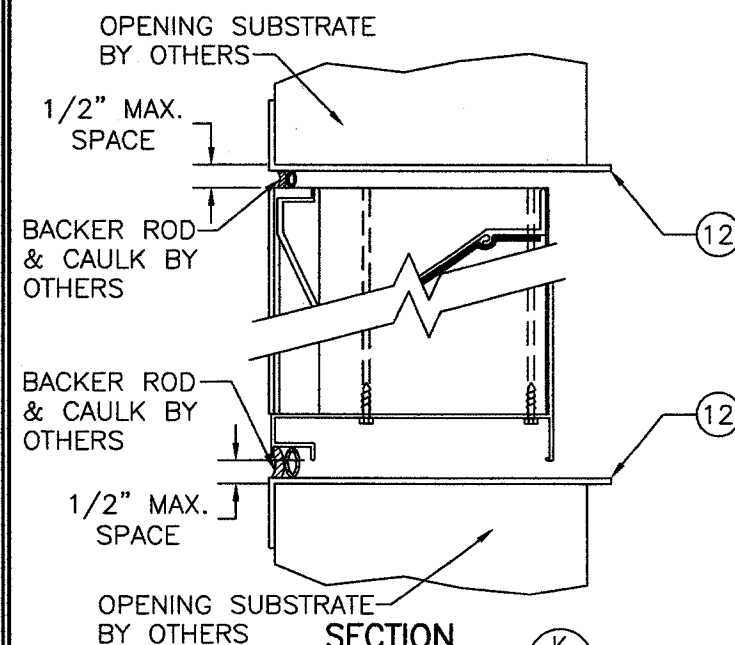


THESE OPTIONAL DETAILS ARE NOT WATER RESISTANT UNLESS ALL BLADE END CONNECTIONS ARE SCREWED & WELDED AS SHOWN ON SHEET 4 OR THE AFD-20 DAMPER IS PLACED BEHIND THE LOUVER.

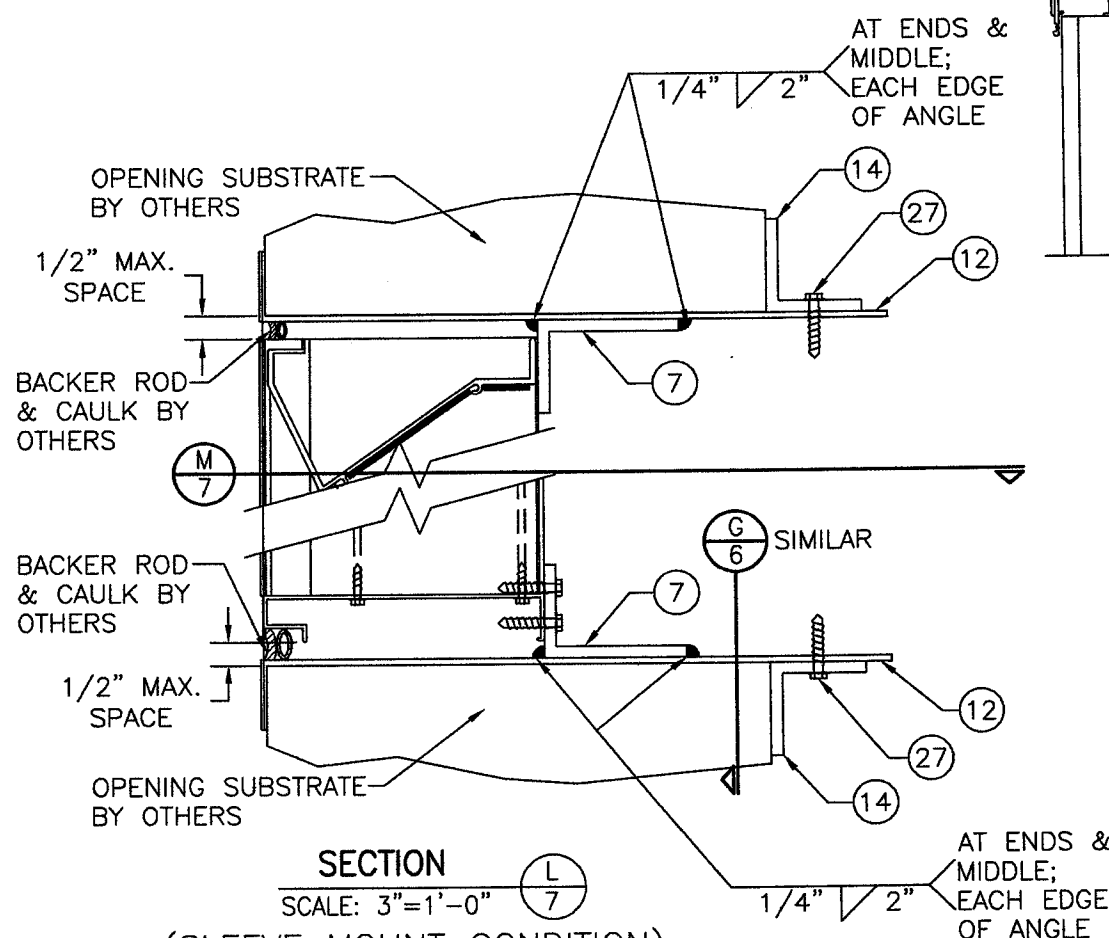
OPTIONAL BLADE DETAIL WITH SCREWED END CONSTRUCTION (STANDARD LOUVER)



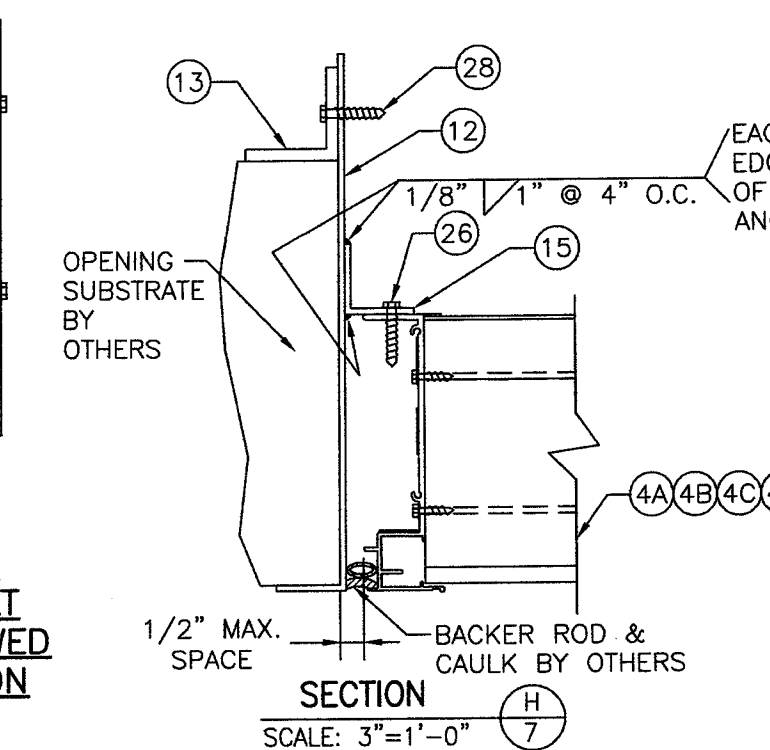
OPTIONAL BLADE SUPPORT BRACKET DETAIL WITH SCREWED END CONSTRUCTION



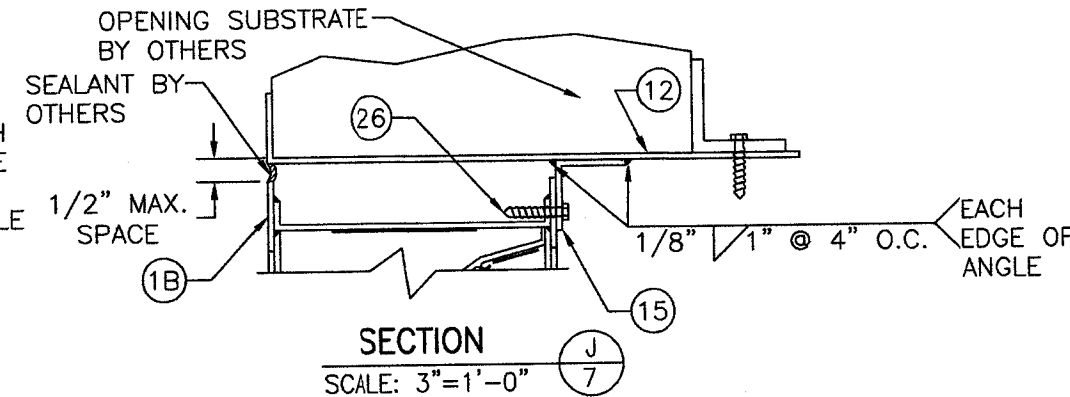
SECTION K (SLEEVE MOUNT CONDITION)
(FOR LOUVER DETAIL NOT SHOWN, SEE SECTION A1/4 OR A2/4)



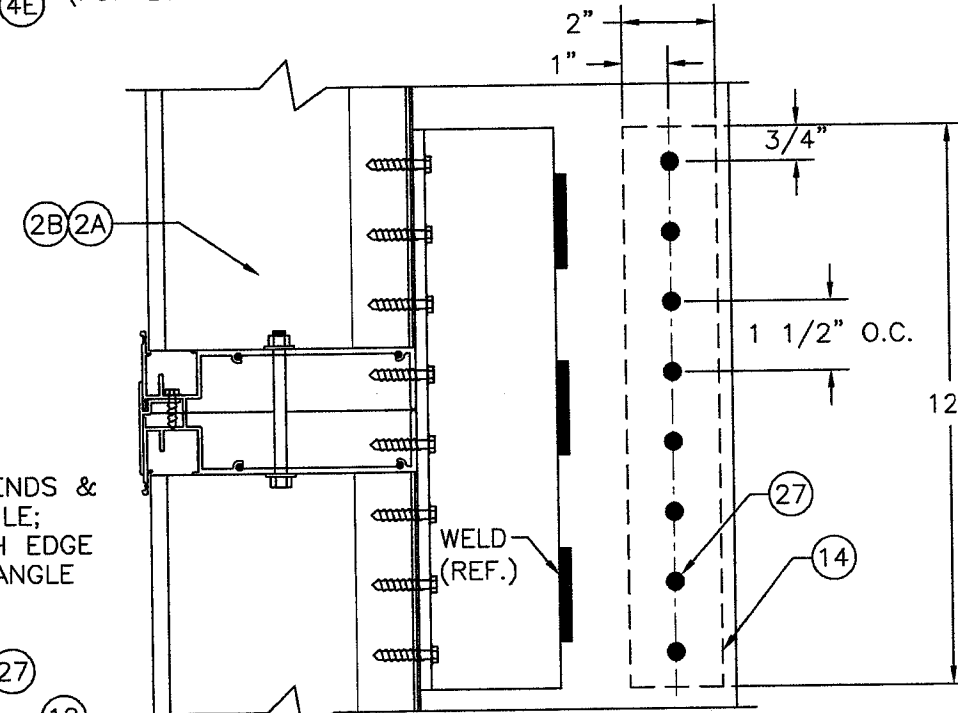
SECTION L (SLEEVE MOUNT CONDITION)
(FOR LOUVER DETAIL NOT SHOWN, SEE SECTION E1/6)



SECTION H (SLEEVE MOUNT CONDITION)
(FOR LOUVER DETAIL NOT SHOWN, SEE SECTION C1/5)



SECTION J (SLEEVE MOUNT CONDITION AT RADIUS)
(FOR LOUVER DETAIL NOT SHOWN, SEE SECTION C5/5)



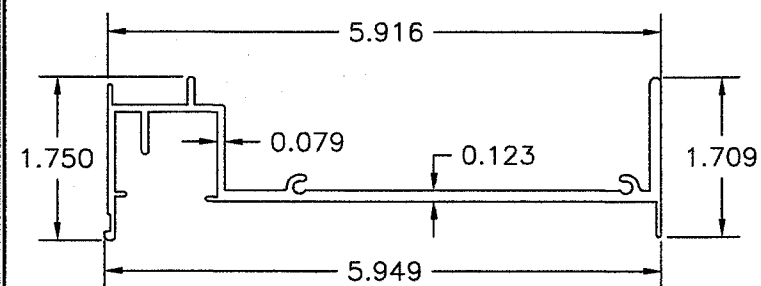
SECTION M (FOR LOUVER DETAIL NOT SHOWN, SEE SECTION F1/6)

PART 7 & 15 MAY BE POSITIONED WITH LEG TURNED OUT AS SHOWN IN THESE SECTIONS OR WITH LEG TURNED UNDER THE LOUVER

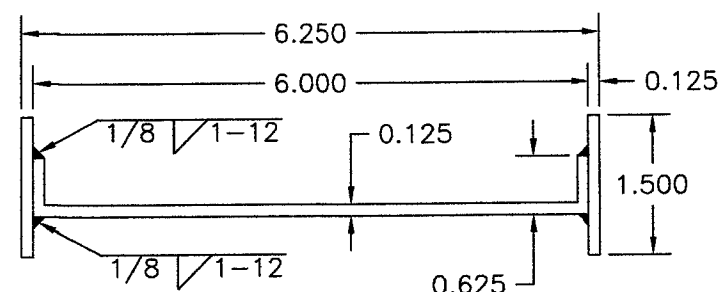
PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. **23-0426.02**
Expiration Date: **04/22/2029**
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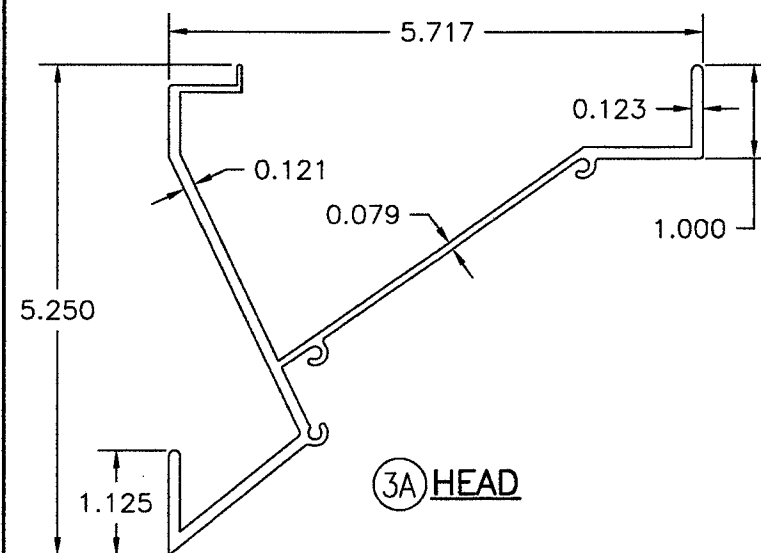
DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1=24	DATE: 12/02/05
DATE	BY
REVISION DESCRIPTION	NO.
EA-64 LOUVER SYSTEM MANUFACTURER: ARROW UNITED INDUSTRIES: A DIVISION OF MESTEK, INC. 450 RIVERSIDE DRIVE WYALUSING, PA 18853 570-746-1888 CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 26376 NADIR ROAD; UNIT 309 PUNTA GORDA, FL 33983 PHONE: 561-744-3424 PROFESSIONAL P.E. WARREN W. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING TITLE	DATE
CERTIFICATION	DATE
DRAWING NO.	REV.
1464	D
SHEET NO.	7 OF 15



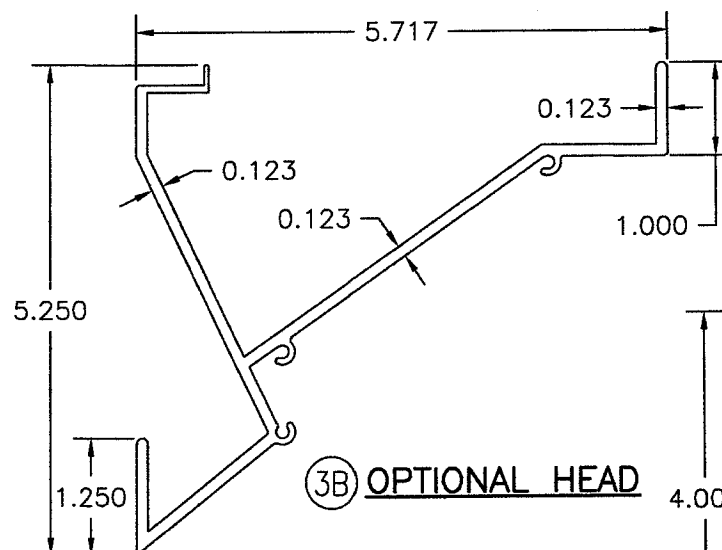
1A STANDARD STRAIGHT JAMB



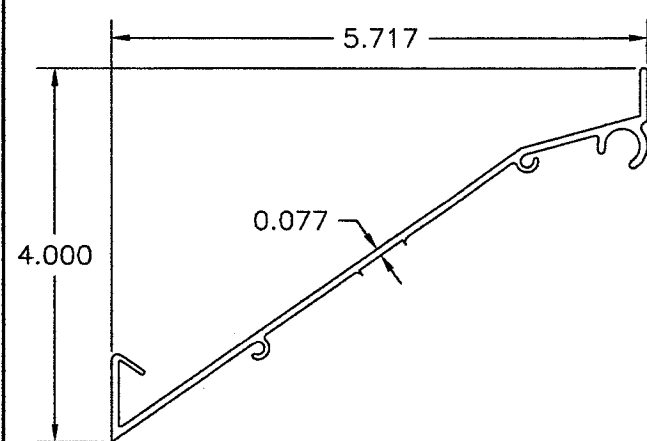
1B RADIUS JAMB



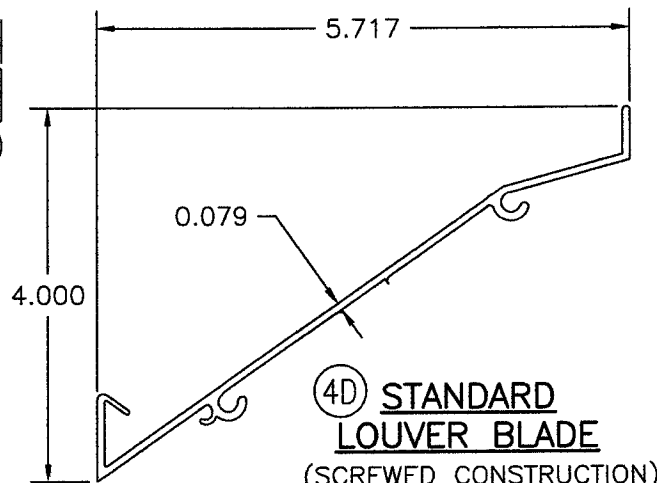
3A HEAD



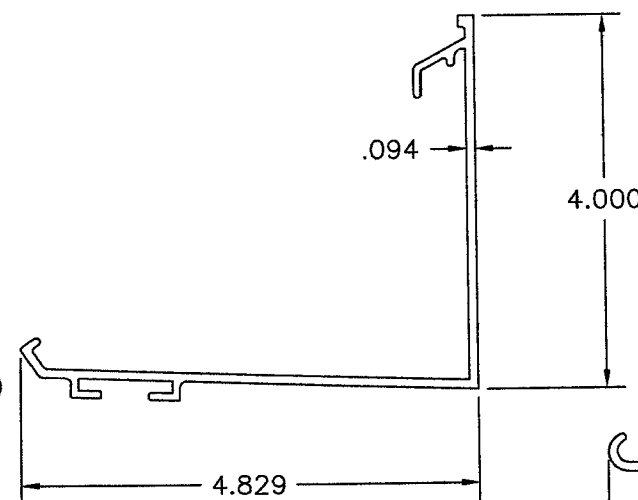
3B OPTIONAL HEAD



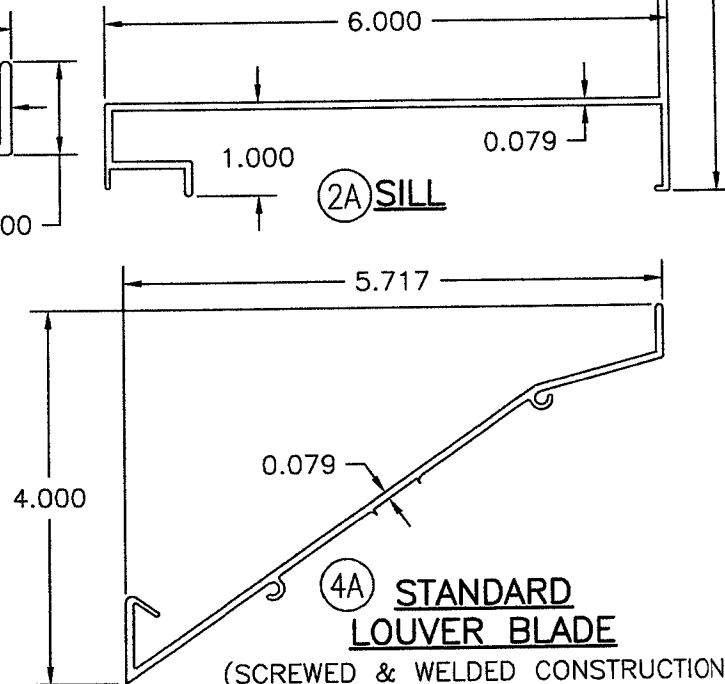
4C WATER RESISTANT LOUVER BLADE (SCREWED & WELDED CONSTRUCTION)



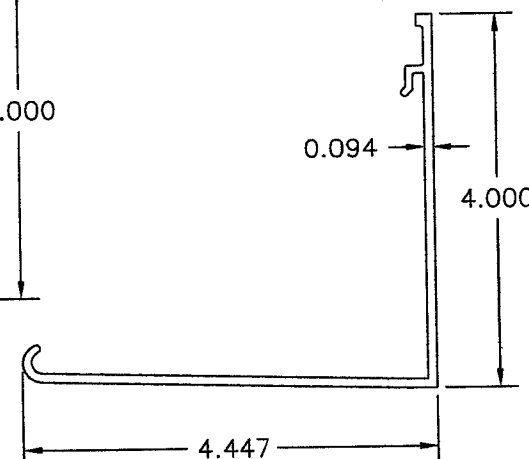
4D STANDARD LOUVER BLADE (SCREWED CONSTRUCTION)



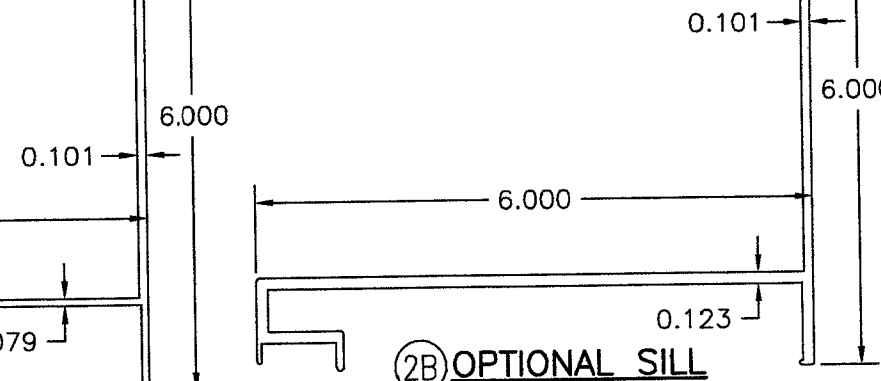
5A BLADE SUPPORT BRACKET (SCREWED CONSTRUCTION)



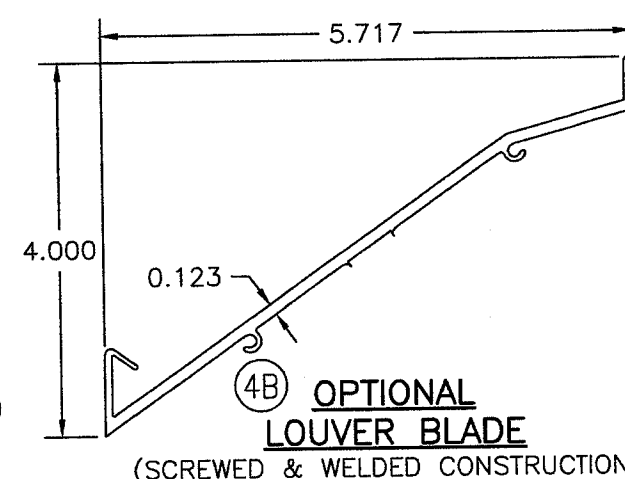
4A STANDARD LOUVER BLADE (SCREWED & WELDED CONSTRUCTION)



5 BLADE SUPPORT BRACKET (SCREWED & WELDED CONSTRUCTION)



2B OPTIONAL SILL



4B OPTIONAL LOUVER BLADE (SCREWED & WELDED CONSTRUCTION)

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By: *Manuel Perez*
Miami-Dade Product Control



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PLOT:	1=24	DATE:	12/02/05
NO.		REVISION DESCRIPTION	
BY			
DATE			

DRAWING TITLE
EA-64 LOUVER SYSTEM

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

CONSULTANTS
W. W. SCHAEFER ENGINEERING
& CONSULTING, P.A.
26376 NADIR ROAD, UNIT 309
PUNTA GORDA, FL 33983
PHONE: 561-744-3424

DRAWING NO.
1464

REV.
D

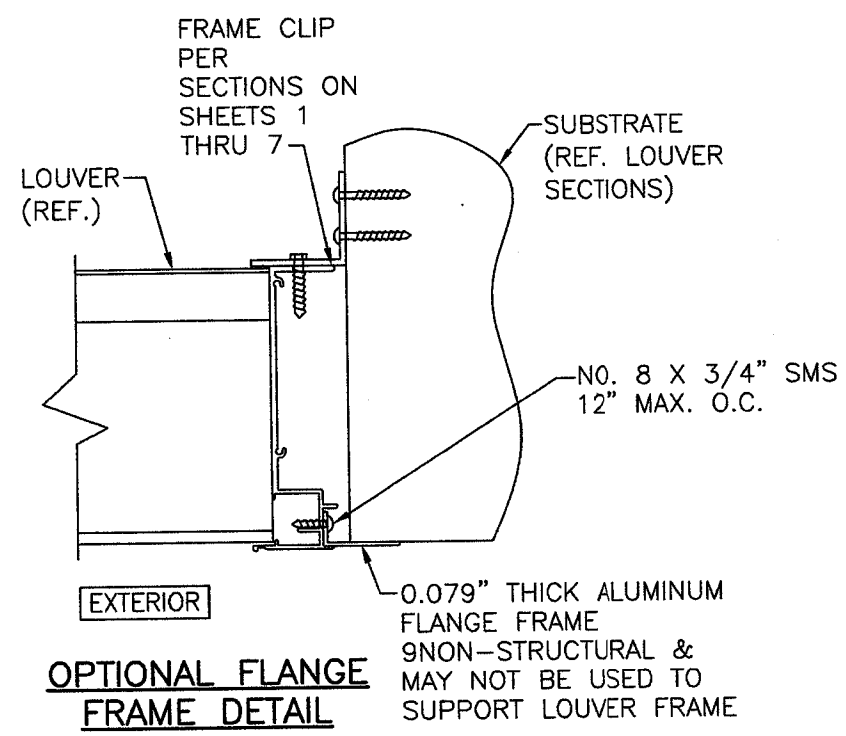
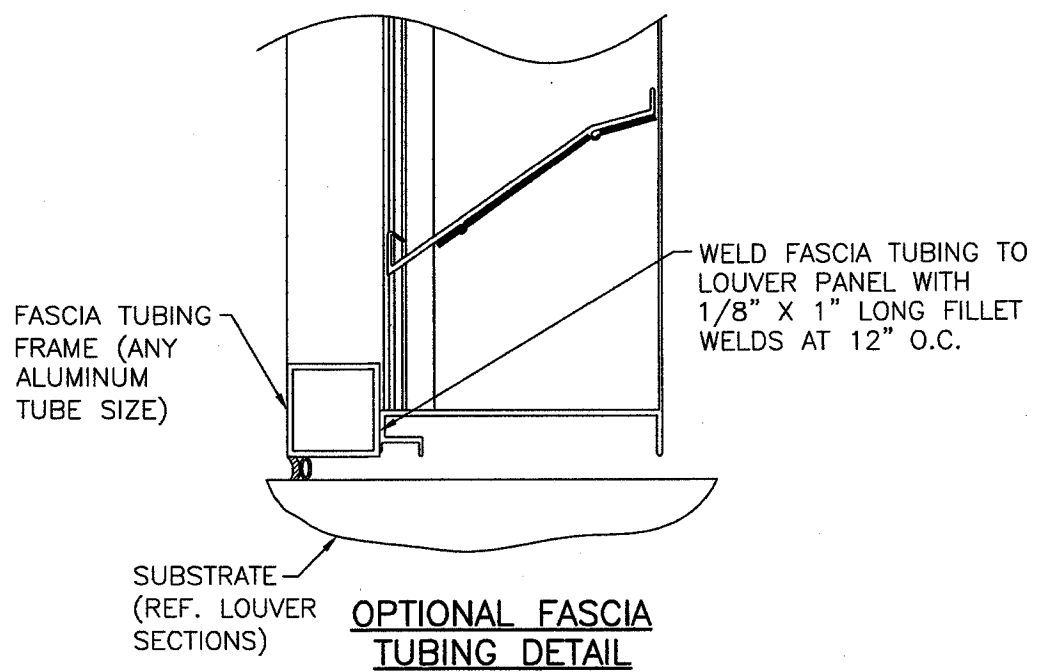
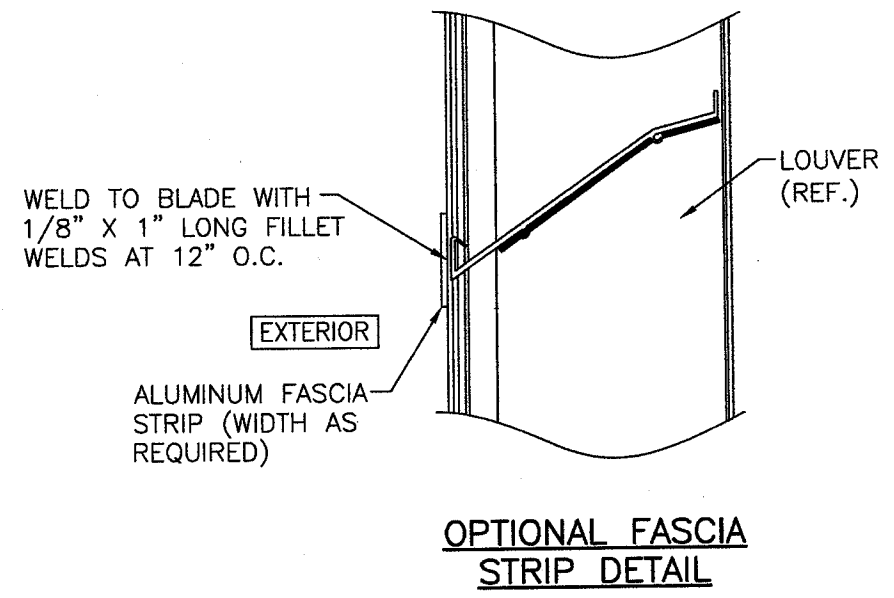
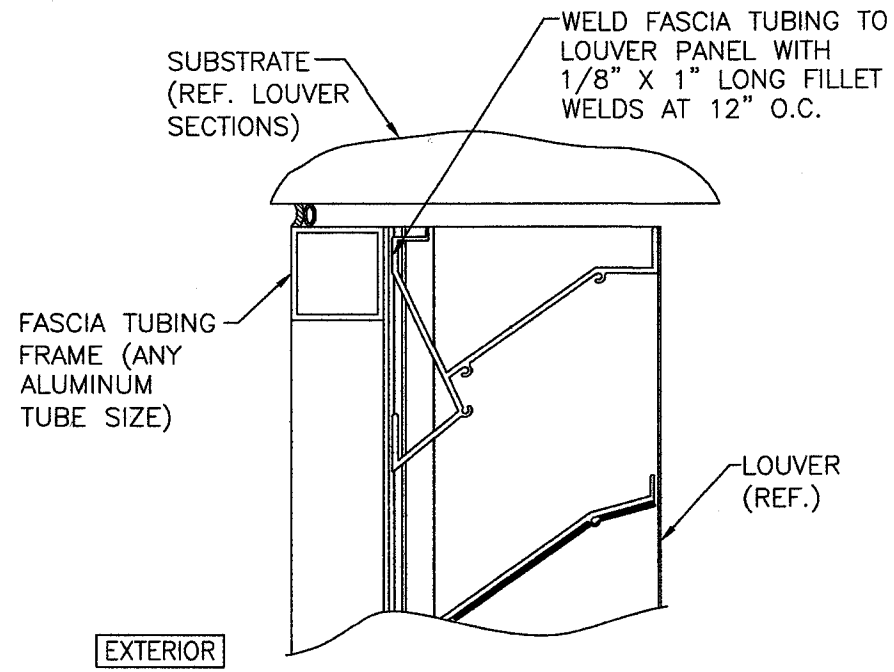
SHEET NO.
8 OF 15

DATE
MAY 10 2023

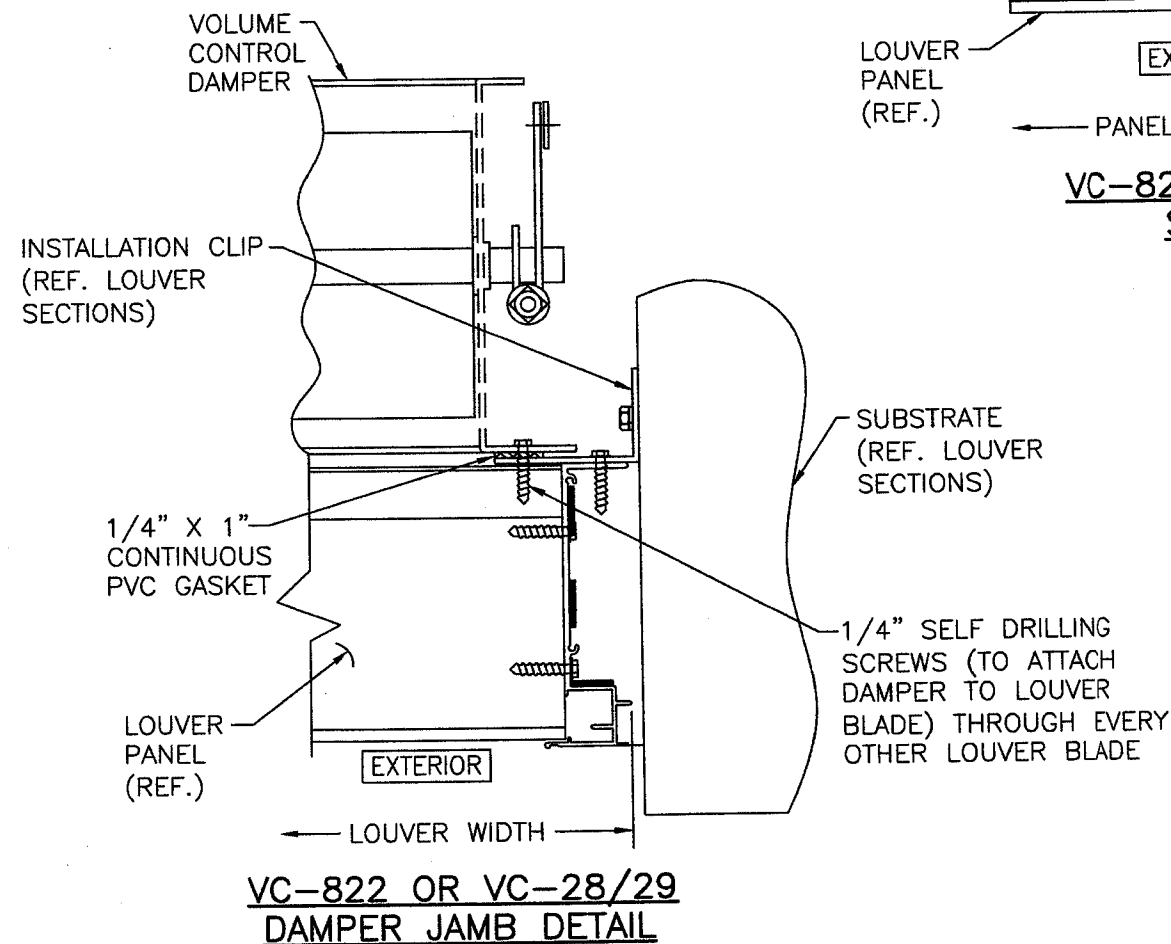
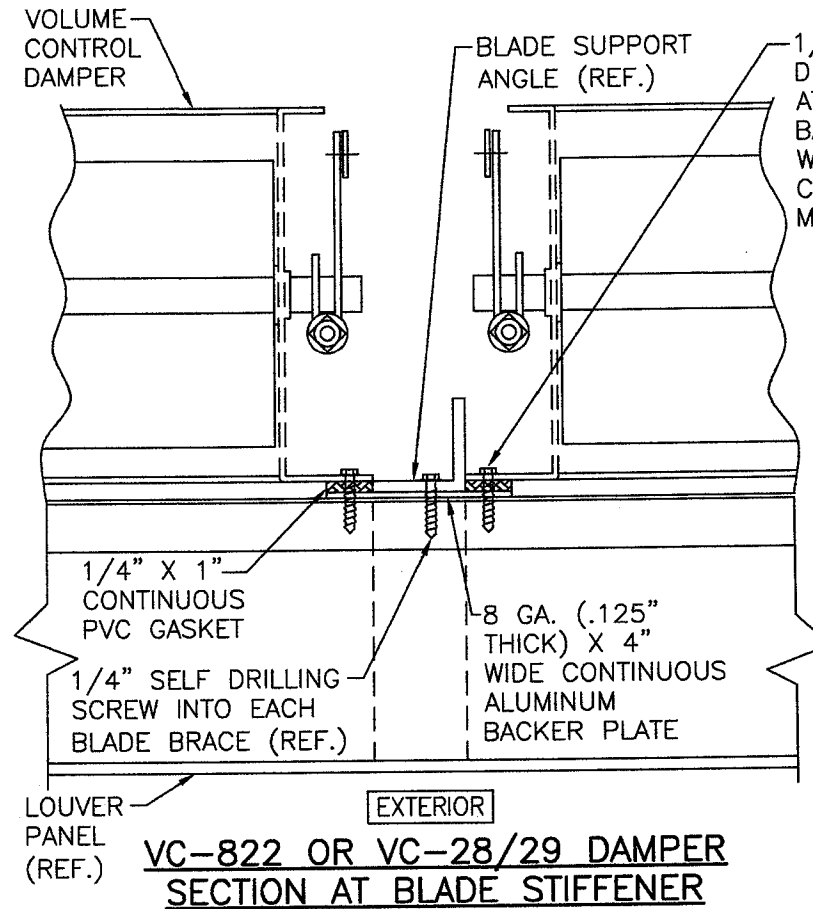
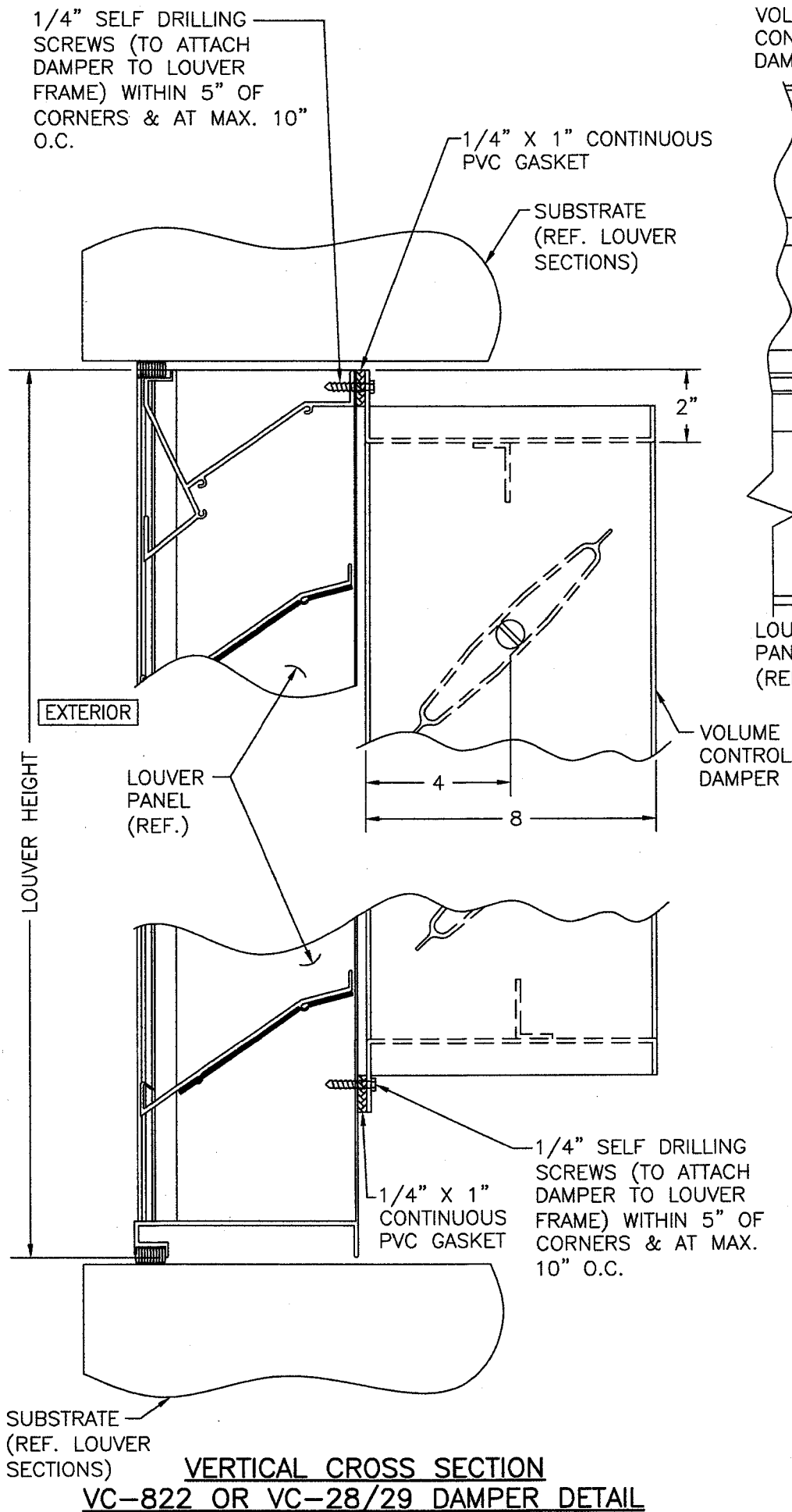
WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1=24		DATE: 12/02/05	
NO.	REVISION DESCRIPTION	BY	DATE
MANUFACTURER: ARROW UNITED INDUSTRIES: A DIVISION OF MESTEK, INC. 450 RIVERSIDE DRIVE WYALUSING, PA 18853 570-746-1888			
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 26376 NADIR ROAD: UNIT 309 PUNTA GORDA, FL 33983 PHONE: 561-744-3424			
DRAWING TITLE: EA-64 LOUVER SYSTEM			
MAY 10 2023 WARREN W. SCHAEFER, P.E. P.E. NO. 44135			
DRAWING NO. 1464		REV. D	
SHEET NO. 10 OF 15			

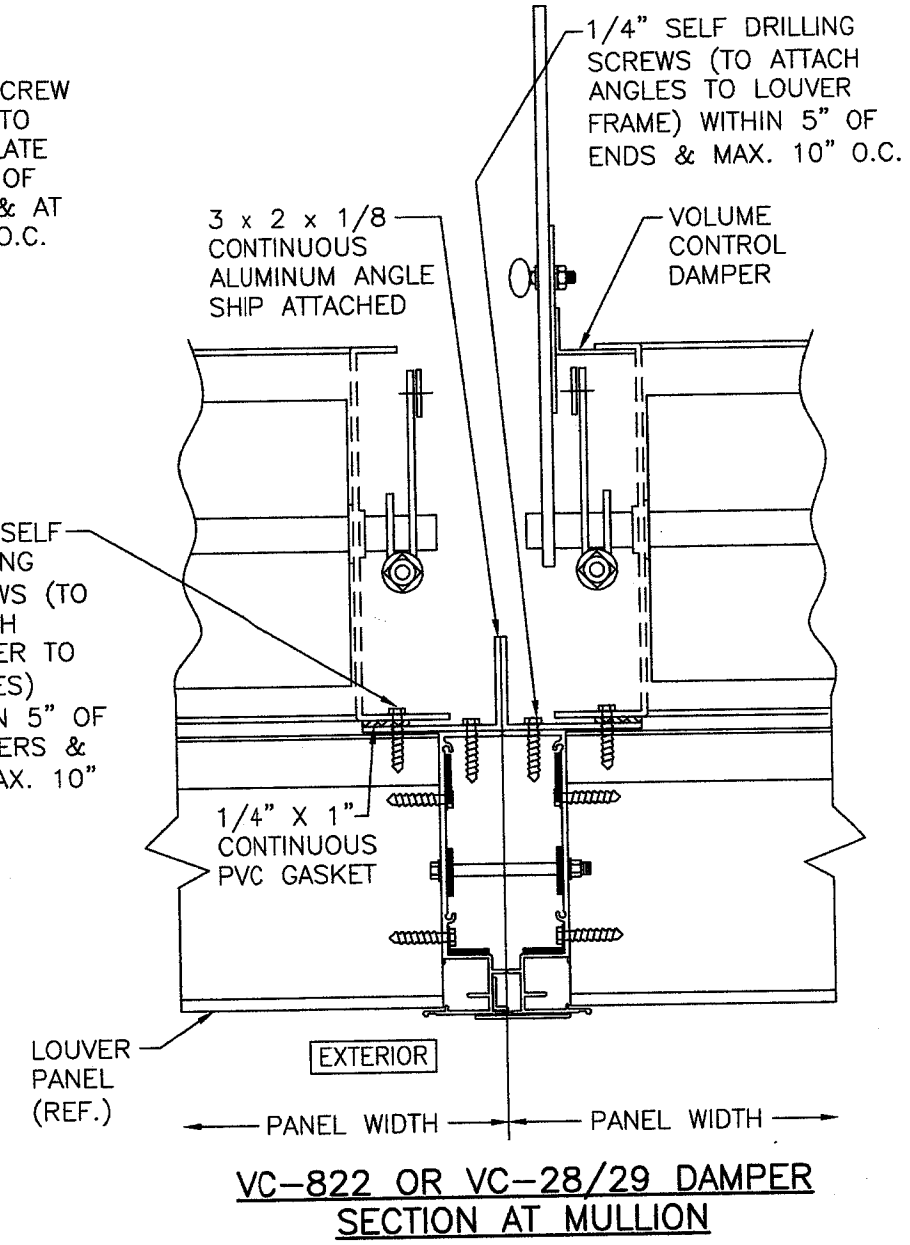
FOR LOUVER DETAILS,
SEE SHEETS 1-9



PRODUCT REVISED
 as complying with the Florida Building Code
 NOA-No. 23-0426.02
 Expiration Date: 04/22/2029
 By: *Manuel Perez*
 Miami-Dade Product Control

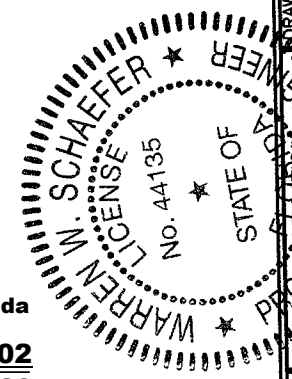


1/4" SELF DRILLING SCREWS (TO ATTACH DAMPER TO ANGLES) WITHIN 5" OF CORNERS & AT MAX. 10" O.C.

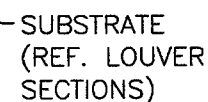
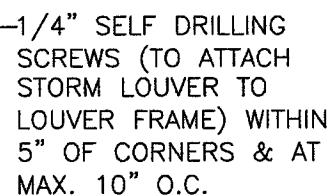
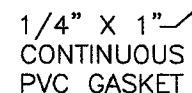
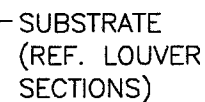
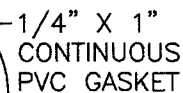
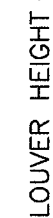
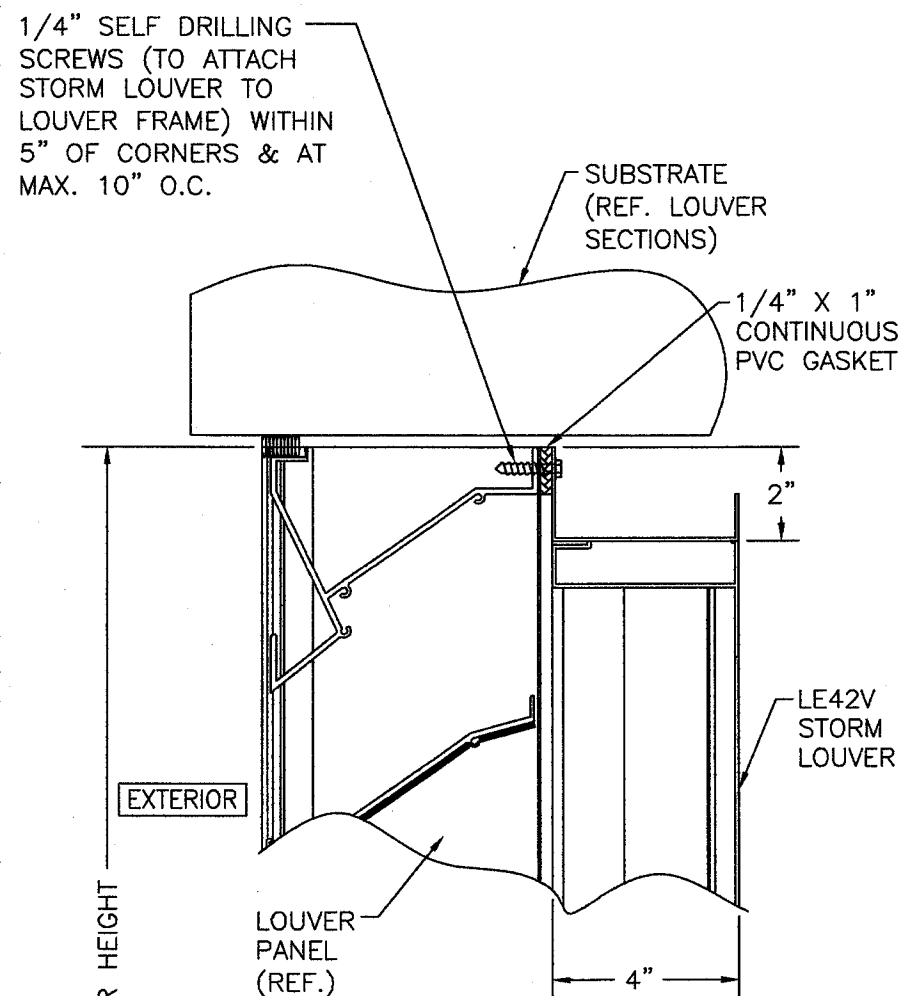


FOR LOUVER DETAILS, SEE SHEETS 1-9

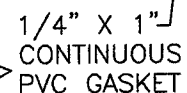
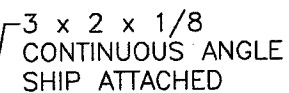
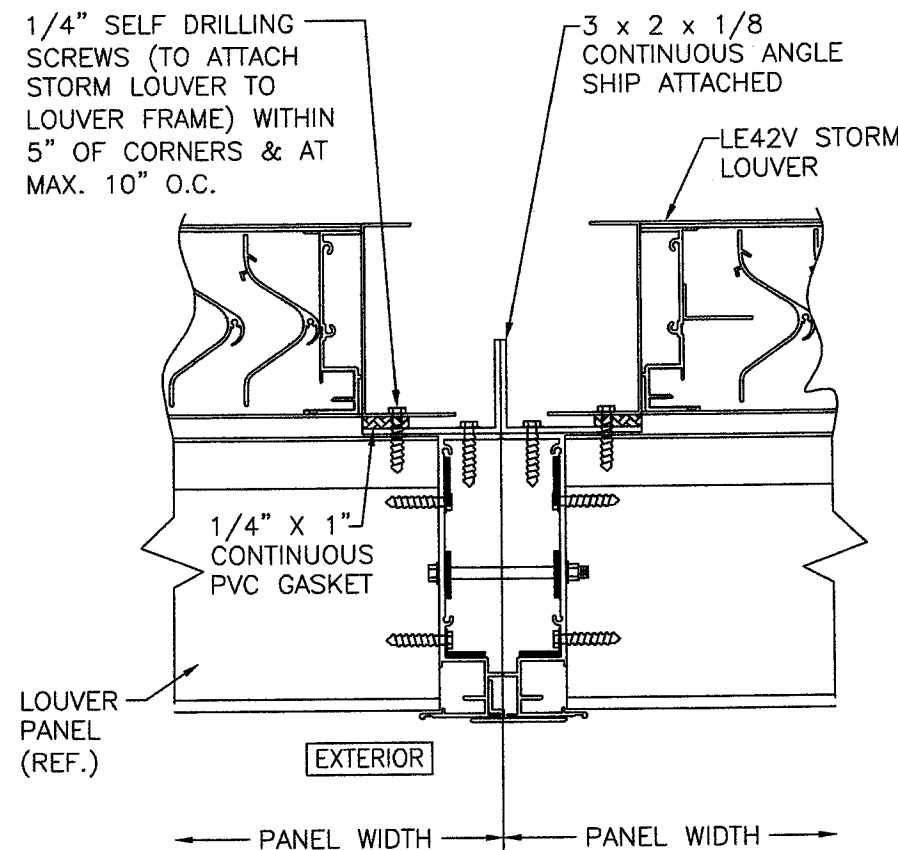
PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. **23-0426.02**
Expiration Date: **04/22/2029**
By: *Manuel Perez*
Miami-Dade Product Control



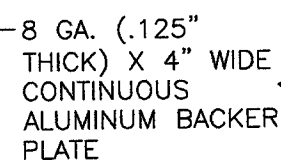
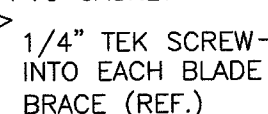
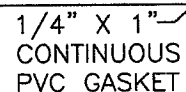
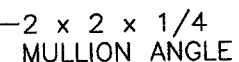
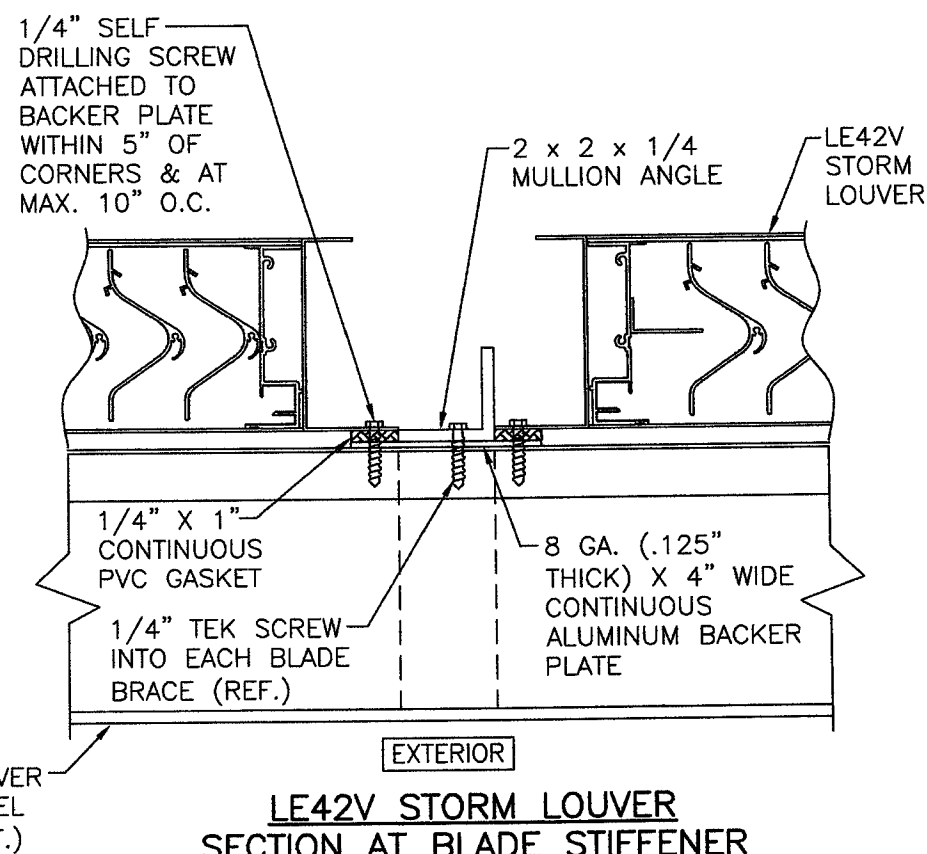
DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1=24	DATE: 12/02/05
NO.	DATE
BY	DATE
REVISION DESCRIPTION	DATE
EA-64 LOUVER SYSTEM	
MANUFACTURER ARROW UNITED INDUSTRIES; A DIVISION OF MESTEK, INC. 450 RIVERSIDE DRIVE WYALUSING, PA 18853 570-746-1888	
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 26376 NADIR ROAD, UNIT 309 PUNTA GORDA, FL 33983 PHONE: 561-744-3424	
DRAWING NO. 1464	REV. D
SHEET NO. 11	OF 15



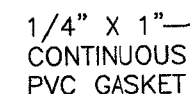
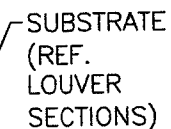
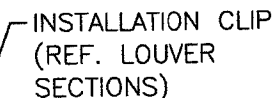
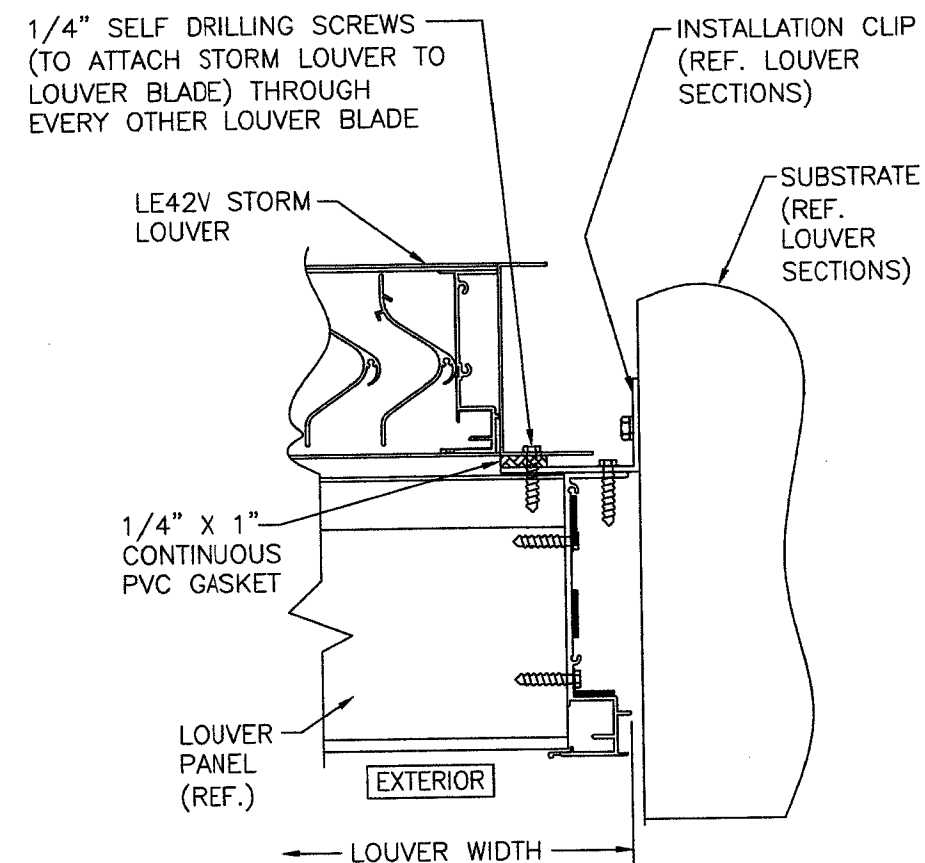
VERTICAL CROSS SECTION
LE42V STORM LOUVER DETAIL



LE42V STORM LOUVER
SECTION AT MULLION



LE42V STORM LOUVER
SECTION AT BLADE STIFFENER



LE42V STORM LOUVER
JAMB DETAIL

FOR LOUVER DETAILS,
SEE SHEETS 1-9

PRODUCT REVISED
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Miami-Dade Product Control

[illegible]

1/4" SELF DRILLING
SCREWS (TO ATTACH
TRANSITION SLEEVE TO
LOUVER FRAME) WITHIN
5" OF CORNERS & AT
MAX. 10" O.C.

SUBSTRATE
(REF. LOUVER
SECTIONS)

1/4" X 1"
CONTINUOUS
PVC GASKET

EXTERIOR

LOUVER
PANEL
(REF.)

VARIES

1/4" SELF DRILLING
SCREWS (TO ATTACH
TRANSITION SLEEVE TO
LOUVER FRAME) WITHIN
5" OF CORNERS & AT
MAX. 10" O.C.

3 x 2 x 1/8
CONTINUOUS ANGLE
SHIP ATTACHED

DUCT TRANSITION
SLEEVE FOR
CONNECTION OF
DUCTS TO
LOUVER FRAME

1/4" SELF DRILLING SCREWS
(TO ATTACH TRANSITION
SLEEVE TO LOUVER BLADE)
THROUGH EVERY OTHER
LOUVER BLADE

DUCT TRANSITION SLEEVE
FOR CONNECTION OF DUCTS
TO LOUVER FRAME

INSTALLATION
CLIP (REF.
LOUVER
SECTIONS)

SUBSTRATE
(REF.
LOUVER
SECTIONS)

1/4" X 1"
CONTINUOUS
PVC GASKET

LOUVER
PANEL
(REF.)

EXTERIOR

LOUVER WIDTH

DUCT TRANSITION
SLEEVE JAMB DETAIL

FOR LOUVER DETAILS,
SEE SHEETS 1-9

VERTICAL CROSS SECTION
DUCT TRANSITION SLEEVE DETAIL

SUBSTRATE
(REF.
LOUVER
SECTIONS)

1/4" X 1"
CONTINUOUS
PVC GASKET

1/4" SELF DRILLING
SCREWS (TO ATTACH
TRANSITION SLEEVE TO
LOUVER FRAME) WITHIN 5"
OF CORNERS & AT MAX.
10" O.C.

2 x 2 x 1/4
MULLION ANGLE

DUCT TRANSITION
SLEEVE FOR
CONNECTION OF
DUCTS TO
LOUVER FRAME

1/4" SELF DRILLING
SCREW ATTACHED TO
BACKER PLATE WITHIN
5" OF CORNERS &
AT MAX. 10" O.C.

1/4" X 1"
CONTINUOUS
PVC GASKET

1/4" SELF DRILLING
SCREW INTO EACH
BLADE BRACE (REF.)

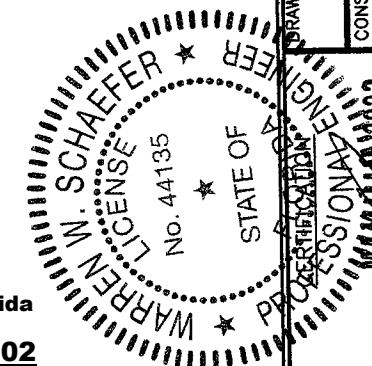
8 GA. (.125"
THICK) X 4" WIDE
CONTINUOUS
ALUMINUM BACKER
PLATE

LOUVER
PANEL
(REF.)

EXTERIOR

DUCT TRANSITION SLEEVE
SECTION AT BLADE STIFFENER

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Miami-Dade Product Control



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PLOT:	1-24	DATE:	12/02/05
NO.		REVISION DESCRIPTION	
DATE		BY	

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

DRAWING TITLE
EA-64 LOUVER SYSTEM

CONSULTANTS
**W. W. SCHAEFER ENGINEERING
& CONSULTING, P.A.**
26376 NADIR ROAD; UNIT 309
PUNTA GORDA, FL 33983
PHONE: 561-744-3424

PROFESSIONAL ENGINEER
WARREN M. SCHAEFER, P.E.
No. 44135
STATE OF FLORIDA
MAY 10 2023

DRAWING NO.	REV.
1464	D
SHEET NO.	
13 OF 15	

[illegible]

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