



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/economy](http://www.miamidade.gov/economy)

**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 EAV-66 6" Aluminum Louver System**

**APPROVAL DOCUMENT:** Drawing No. **1504**, titled "EAV-66 Vertical Louver System", sheets 1 through 9 of 9, dated 10/18/2006, with last revision C dated 08/01/2016, prepared by W. W. Schaefer Engineering and consulting, P.A., signed and sealed, by Warren W. Schaefer, P.E. on 12/17/2021, bearing the Miami-Dade County Product Control revision stamp with the Notice of Acceptance number and the expiration date by the Miami-Dade County Product Control Section.

**MISSILE IMPACT RATING: Large and Small Missile Impact Resistant**

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**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 NOA #21-1228.08** and consists of this page 1 and evidence pages E-1, E-2, E-3 and E-4 as well as approval document mentioned above.

The submitted documentation was reviewed by **Helmy A. Makar, P.E., M.S.**



*Helmy A. Makar*  
09/14/2023

NOA No. 23-0713.11  
Expiration Date: 03/15/2027  
Approval Date: 09/14/2023  
Page 1

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**1. EVIDENCE SUBMITTED UNDER PREVIOUS NOAs**

**A. DRAWINGS “Submitted under NOA #16-0808.13”**

1. Drawing No. **1504**, titled “EAV-66 Vertical Louver System”, sheets 1 through 9 of 9, dated 10/18/2006, with last revision C dated 08/01/2016, prepared by W. W. Schaefer Engineering and consulting, P.A., signed and sealed, by Warren W. Schaefer, P.E.

**B. TESTS “Submitted under NOA # 08-0904.01”**

1. Test report on Large Missile Test (Level E) and on Cyclic Load Test per ASTM 1886/1996 of an **EAV-66 Aluminum Louver System**, prepared by Hurricane Test Laboratories LLC., Test Report No. **0198-0109-07**, dated 03/08/2007, signed and sealed by Vinu J. Abraham, P.E.
2. Test report on Wind Driven Rain Test per TAS 100(A) of an EAV-66 Aluminum Louver with AFD-20 Damper, prepared by PRI Construction Materials Technologies, LLC, Test Report No. **AWV-006-02-01**, dated 02/07/2008, signed and sealed by Duc T. Nguyen, P.E.
3. Test report on Wind Driven Rain Test per TAS 100(A) of an EAV-66 Aluminum Louver with AC-525, prepared by PRI Construction Materials Technologies, LLC, Test Report No. **AWV/AUI-006-02-01**, dated 02/14/2008, signed and sealed by Duc T. Nguyen, P.E.

**“Submitted under NOA # 06-1211.03”**

4. Test report on Large Missile Impact Test per FBC, TAS 201, Cyclic Wind Pressure Test per FBC, TAS 203 and Uniform Static Air Pressure Test per FBC, TAS 202 of an EAV-66 Aluminum Louver System, prepared by Hurricane Test Laboratories, LLC, Report No. **0198-0712-06**, dated 11/07/2006, signed and sealed by Vinu J. Abraham, P.E.

**C. CALCULATIONS “Submitted under NOA #16-0808.13”**

1. Anchor calculations prepared by W.W. Schaefer Engineering and Consulting P.A., dated 08/01/2016, signed and sealed by Warren W. Schaefer, P.E.

**“Submitted under NOA # 11-1115. 02”**

2. Anchor calculations prepared by W.W. Schaefer Engineering and Consulting P.A., dated 11/07/2011, signed and sealed by Warren W. Schaefer, P.E.

**“Submitted under NOA # 08-0904.01”**

3. Anchorage, stress and deflection calculations of the Louver System with AFD-20 Dampers, sheets 1 through 4 of 4 and with AC-525/526 Dampers, sheets 1 and 2 of 2, both dated 07/22/2008, prepared by W.W. Schaefer Engineering and Consulting P.A., signed and sealed by Warren W. Schaefer, P.E.

**“Submitted under NOA # 06-1211.03”**

4. Anchorage calculations, 13 pages for Arrow United Industries, **Model EAV-66** Vertical Louver, prepared by W.W. Schaefer Engineering and Consulting P.A., signed and sealed on 11/07/2006 by Warren W. Schaefer, P.E.

**D. QUALITY ASSURANCE**

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



**Helmy A. Makar, P.E., M.S.**  
**Product Control Section Supervisor**

**NOA No. 23-0713.11**

**Expiration Date: 03/15/2027**

**Approval Date: 09/14/2023**



**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**E. MATERIAL CERTIFICATIONS**

1. None.

**F. STATEMENTS “Submitted under NOA #16-0808.13”**

1. Statement letter of code conformance to the 5<sup>th</sup> edition (2014) FBC issued by W.W. Schaefer Engineering and Consulting P.A., dated 08/01/2016, signed and sealed by Warren W. Schaefer, P.E.
2. Statement letter of no financial interest issued by W.W. Schaefer Engineering and Consulting P.A., dated 08/01/2016, signed and sealed by Warren W. Schaefer, P.E.

**2. EVIDENCE SUBMITTED UNDER NOA # 20-0622.12**

**A. DRAWINGS**

1. None.

**B. TESTS**

1. None.

**C. CALCULATIONS**

1. None.

**D. QUALITY ASSURANCE**

1. None.

**E. MATERIAL CERTIFICATIONS**

1. None.

**F. STATEMENTS**

1. Statement letter of code conformance to the 6<sup>th</sup> Edition (2017) and 7<sup>th</sup> Edition (2020) FBC issued by W. W. Schaefer Engineering & Consulting, P.A., dated 06/03/2020, signed and sealed by Warren W. Schaefer, P.E.



Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 23-0713.11  
Expiration Date: 03/15/2027  
Approval Date: 09/14/2023

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**3. EVIDENCE SUBMITTED UNDER NOA # 21-1228.08**

**A. DRAWINGS**

1. Drawing No. **1504**, titled "EAV-66 Vertical Louver System", sheets 1 through 9 of 9, dated 10/18/2006, with last revision C dated 08/01/2016, prepared by W. W. Schaefer Engineering and consulting, P.A., signed and sealed, by Warren W. Schaefer, P.E. on 12/17/2021.

**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 (Level E, 80 fps)  
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
along with installation diagram of Model EAV-66 Aluminum Louvers, prepared by Intertek, Test Report No. **M9248.01-109-18**, dated 12/14/2021, signed and sealed by Vinu J. Abraham, P.E.

**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. Statement letter of code conformance to the 7<sup>th</sup> Edition (2020) of the FBC, issued by W. W. Schaefer Engineering & Consulting, P.A., dated 12/17/2021, signed and sealed by Warren W. Schaefer, P.E.
2. Statement letter of no financial interest issued by W.W. Schaefer Engineering and Consulting P.A., dated 12/17/2021, signed and sealed by Warren W. Schaefer, P.E.



Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 23-0713.11  
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**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**4. NEW EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. None.

**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. Statement letter of code conformance to the 7<sup>th</sup> Edition (2020) of the FBC, issued by W. W. Schaefer Engineering & Consulting, P.A., dated 12/17/2021, signed and sealed by Warren W. Schaefer, P.E.
2. Statement letter of no financial interest issued by W.W. Schaefer Engineering and Consulting P.A., dated 12/17/2021, signed and sealed by Warren W. Schaefer, P.E.
3. Statement letter of code conformance to the 7<sup>th</sup> Edition (2020) and the 8<sup>th</sup> Edition (2023) of the FBC, issued by W. W. Schaefer Engineering & Consulting, P.A., dated 07/01/2023, signed and sealed by Warren W. Schaefer, P.E.

  
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Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
NOA No. 23-0713.11  
Expiration Date: 03/15/2027  
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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. THE DETAILS & SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS TESTED & PROPOSED FOR CONFORMANCE WITH THE FLORIDA BUILDING CODE PROTOCOLS TAS-201, 202 & 203 FOR LARGE MISSILE IMPACT PRODUCTS.
5. THIS PRODUCT HAS BEEN DESIGNED IN ACCORDANCE WITH AND MEETS THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).
6. IMPACT SHUTTERS ARE NOT REQUIRED WITH THIS PRODUCT.
7. 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.
8. 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.
9. NO INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE CERTIFICATION OF THIS PRODUCT. WIND LOAD DURATION FACTOR  $C_d = 1.6$  WAS USED FOR WOOD SCREW ANALYSIS ONLY.
10. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF FLORIDA BUILDING CODE.
11. EACH LOUVER ASSEMBLY SHALL BE PERMANENTLY LABELED AS FOLLOWS: "ARROW UNITED INDUSTRIES, WYALUSING, PA, MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED".
12. ALL CONCRETE SUBSTRATE SHALL BE MIN. 3000 PSI.
13. ALL WOOD SUBSTRATE SHALL BE MIN.  $G = 0.55$  DENSITY.
14. ALL METAL STUD SUBSTRATE SHALL BE MIN. 16 GA. 50 KSI STUDS.
15. ALL STRUCTURAL STEEL SUBSTRATE SHALL BE MIN. 12 GAGE  $F_y = 36$  KSI.
16. INDIVIDUAL PANEL WIDTHS ARE UNLIMITED IN DIMENSION. PANEL HEIGHTS ARE LIMITED BY THE DIMENSIONS SHOWN IN THE ELEVATIONS.
17. INDIVIDUAL PANELS MAY BE STACKED HORIZONTALLY IN AN UNLIMITED QUANTITY. IT IS THE RESPONSIBILITY OF THE SUPPORTING STRUCTURES DESIGN ENGINEER/ARCHITECT TO INSURE THE SUPPORTING STRUCTURE WILL SUPPORT ALL DESIGN LOADS TRANSFERRED BY THE LOUVERS.
18. THESE LOUVERS HAVE PASSED TESTING IN ACCORDANCE WITH ASTM E1886 & E1996 FOR ESSENTIAL FACILITIES LEVEL "E" 80 FT/S LARGE MISSILE IMPACT SPEED. THEREFORE, THESE LOUVER SYSTEMS ARE APPROVED FOR USE WITH ESSENTIAL FACILITIES.
19. THIS SYSTEM HAS BEEN TESTED FOR WATER INFILTRATION RESISTANCE AND IS A WATER RESISTANT SYSTEM WHEN AN AFD-20 OR AC525/526 DAMPER IS INSTALLED WITH THE LOUVER PANEL.
20. UNLESS THE AFD-20 OR AC525/526 DAMPER IS ATTACHED TO 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.

CORNER & BLADE END CONSTRUCTION

BLADE TO HEAD & SILL:  
BLADE END IS SQUARE CUT, BUTTED AND JOINED TO HEAD AND SILL WITH TWO NO. 8 X 1" S.S. SMS SCREWS PER BLADE END.  
HEAD & SILL TO JAMB:  
SIDE JAMB IS SQUARE CUT, BUTTED AND JOINED TO HEAD AND SILL WITH TWO 1/4" X 1" SELF TAPPING SCREWS.

FASTENER SCHEDULE

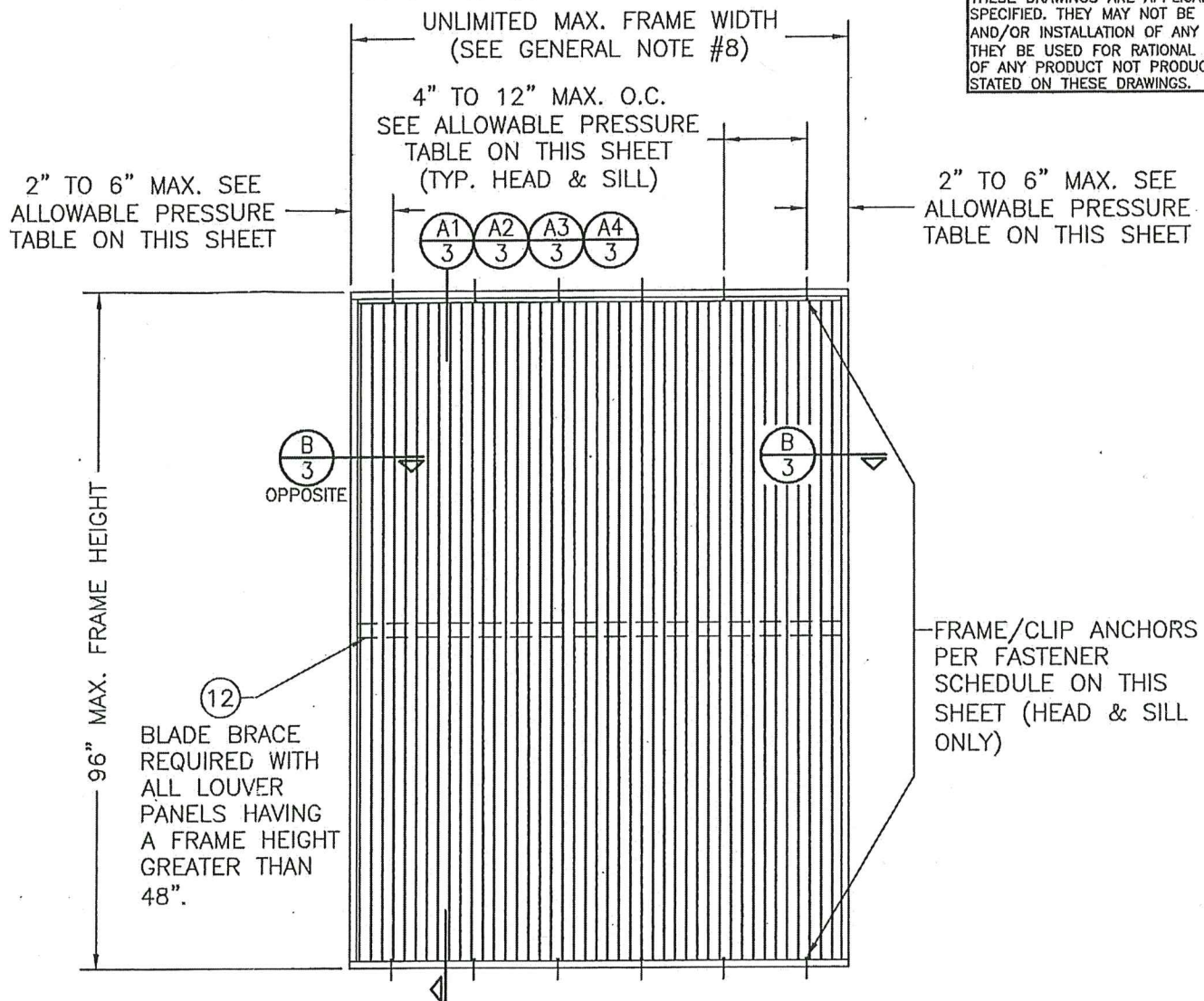
ANCHOR TYPE	(4) SUBSTRATE	MINIMUM EMBEDMENT	MINIMUM EDGE DIST.
(3) NO. 10 S.S. SCREW	WOOD	1 1/4"	3/4"
(5) NO. 10-16 SELF TAPPING/DRILLING SCREW	METAL STUD	FULL	3/4"
(1) 1/4" CONCRETE SCREW	CONCRETE	1 1/2"	2"
(2) 1/4" BOLT	STEEL OR METAL STUD	FULL	3/4"
(5) 1/4-20 OR 1/4-14 SELF TAPPING/DRILLING SCREW	STEEL	FULL	3/4"

- (1) CONCRETE SCREWS SHALL BE ELCO ULTRACONS, ELCO CRETE-FLEX, ITW RAMSET/RED HEAD TAPCONS OR HILTI Kwik-CON II (HARDENED STEEL OR S.S.).
- (2) BOLT SHALL BE MIN. A307 GALVANIZED OR 304 S.S. ( $F_y = 10,000$  PSI MIN.)
- (3) SMS WOOD SCREWS SHALL HAVE MIN. YIELD STRENGTH OF  $F_y = 80,000$  PSI
- (4) SEE GENERAL NOTES FOR SUBSTRATE REQUIREMENTS.
- (5) SELF TAPPING SCREWS SHALL BE CORROSION RESISTANT MIN. SAE GRADE 2 STEEL OR MIN. ALLOY GROUP 1, 2 & 3 CONDITION "A" STAINLESS STEEL.

(2) ALLOWABLE DESIGN PRESSURE & ANCHOR SPACING REQUIREMENTS (LOUVER PANELS)

(1) MAX. ANCHOR SPACING	(1) MAX. ANCHOR END DISTANCE	ALLOWABLE PRESSURE
4"	2"	+/-150 PSF
8"	4"	+/-75 PSF
12"	6"	+/-50 PSF

- (1) WHEN LOUVERS ARE USED TO PROTECT ESSENTIAL FACILITIES, MAX. ANCHOR SPACING SHALL NOT EXCEED 4" & MAX. ANCHOR END DISTANCE SHALL NOT EXCEED 2" REGARDLESS OF PRESSURE REQUIRED.
- (2) FOR ALLOWABLE PRESSURE ON DAMPERS, SEE SHEET 5 OR 7.



EXTERIOR ELEVATION  
SINGLE LOUVER PANEL  
(ARCHITECTURAL & NON-ARCHITECTURAL)

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

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.

DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1=24		DATE: 10/18/06	
NO.	REVISION DESCRIPTION	BY	DATE
A1	UPDATE TO PRESENT STANDARDS	W.W.S.	07/14/08
A2	ADDED DAMPER CONDITIONS	W.W.S.	07/14/08
A3	ADDED ESSENTIAL FACILITIES USE	W.W.S.	07/14/08
B	UPDATE TO CURRENT STANDARDS	W.R.M.	11/08/11
C	UPDATE TO CURRENT STANDARDS	W.W.S.	09/01/18

DRAWING TITLE: EAV-66 VERTICAL 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. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424

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

DRAWING NO. 1504 REV. C SHEET NO. 1 OF 9

PRODUCT RENEWED  
as complying with the Florida  
Building Code  
NOA-No. 21-1228.08  
Expiration Date 03/15/2027  
By [Signature]  
Miami-Dade Product Control

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No 23-0713.11  
Expiration Date 03/15/2027  
By [Signature]  
Miami-Dade Product Control

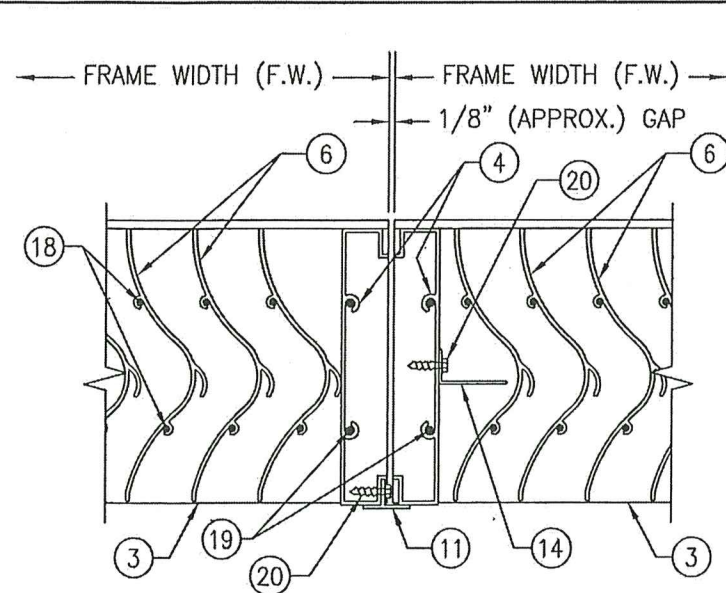




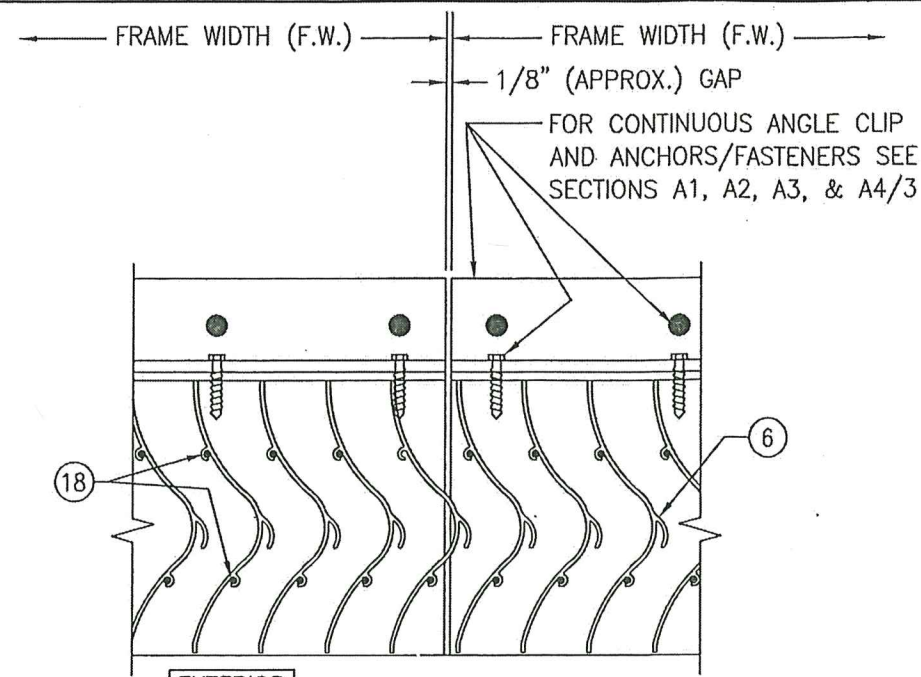








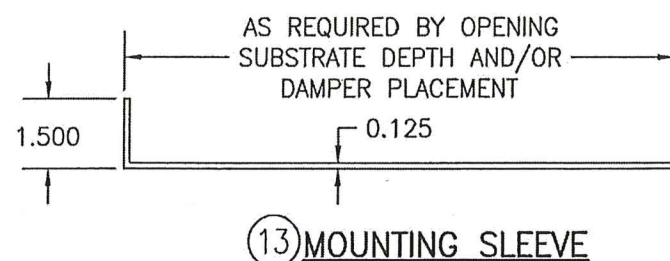
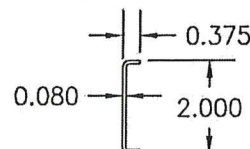
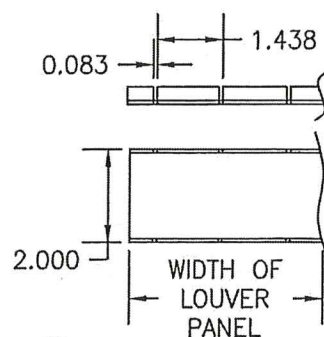
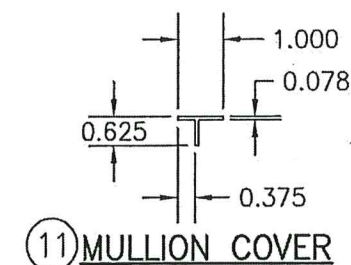
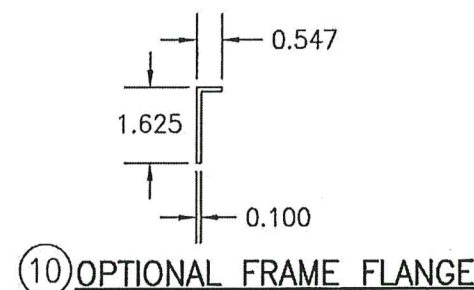
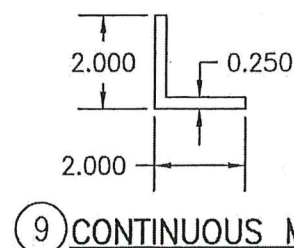
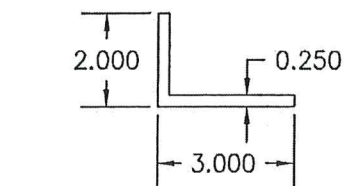
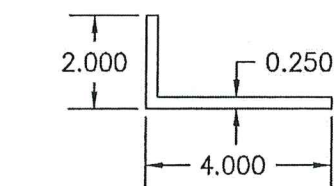
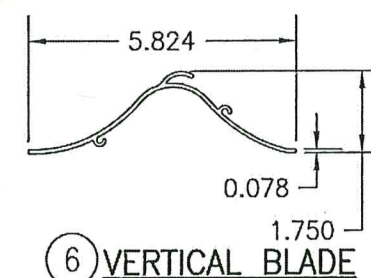
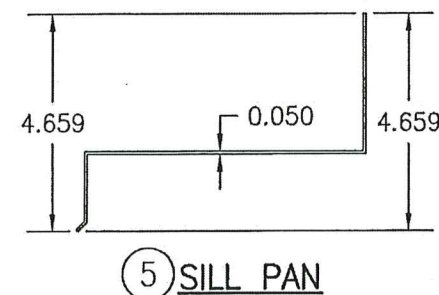
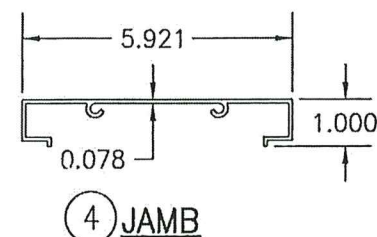
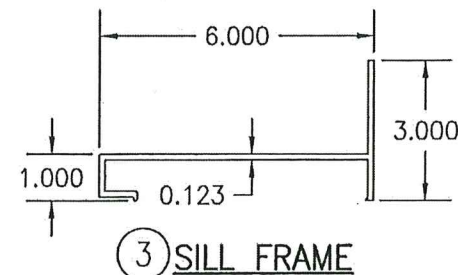
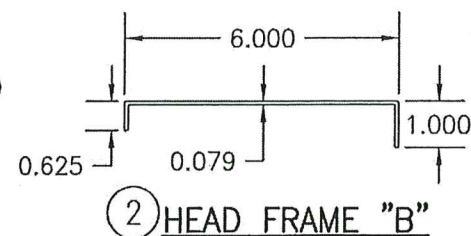
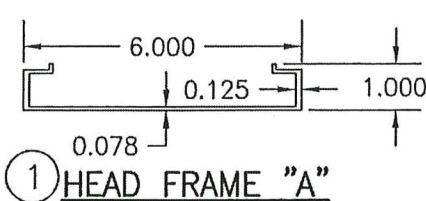
SECTION D  
SCALE: 1/4 FULL



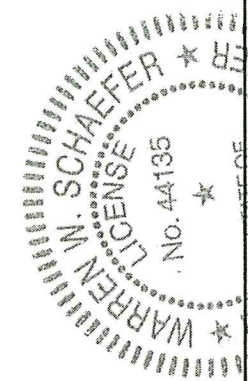
SECTION E  
SCALE: 1/4 FULL

ITEM #	ITEM DESCRIPTION	MANUFACTURER/NOTES
PARTS		
1	HEAD FRAME "A"	6063-T6 ALUMINUM
2	HEAD FRAME "B"	6063-T5 ALUMINUM
3	SILL FRAME	6063-T6 ALUMINUM
4	JAMB	6063-T6 ALUMINUM
5	SILL PAN	5052-H32 ALUMINUM
6	VERTICAL BLADE	6063-T6 ALUMINUM
7	CONTINUOUS MOUNTING CLIP	6063-T5 ALUMINUM
8	CONTINUOUS MOUNTING CLIP	6063-T5 ALUMINUM
9	CONTINUOUS MOUNTING CLIP	6063-T5 ALUMINUM
10	OPTIONAL FRAME FLANGE	6063-T52/T6 ALUMINUM
11	MULLION COVER	6063-T52/T6 ALUMINUM
12	BLADE RETAINER CHANNEL	5052-H32 ALUMINUM
13	MOUNTING SLEEVE	5052-H32 ALUMINUM
14	SIGHT-PROOF ANGLE	6063-T5 ALUMINUM
MISC. FASTENERS		
17	NO. 14 X 1 1/4" 410 SS TEK SCREW	FOR SPACING REQUIREMENTS SEE ALLOWABLE PRESSURE TABLE ON SHEET 1
18	NO. 8 X 1" 18-8 SS SMS SCREW	2 PER BLADE END
19	1/4" X 1" 410 S.S. SELF TAPPING SCREW	2 PER FRAME CORNER
20	NO. 8 X 3/4" 18-8 SS SMS SCREW	2" FROM ENDS & 15" O.C.

PRODUCT REVISED  
as complying with the Florida  
Building Code 23-0713.11  
Acceptance No. 15 MAR 2027  
By *Heidi M. Miller*  
Miami-Dade Product Control

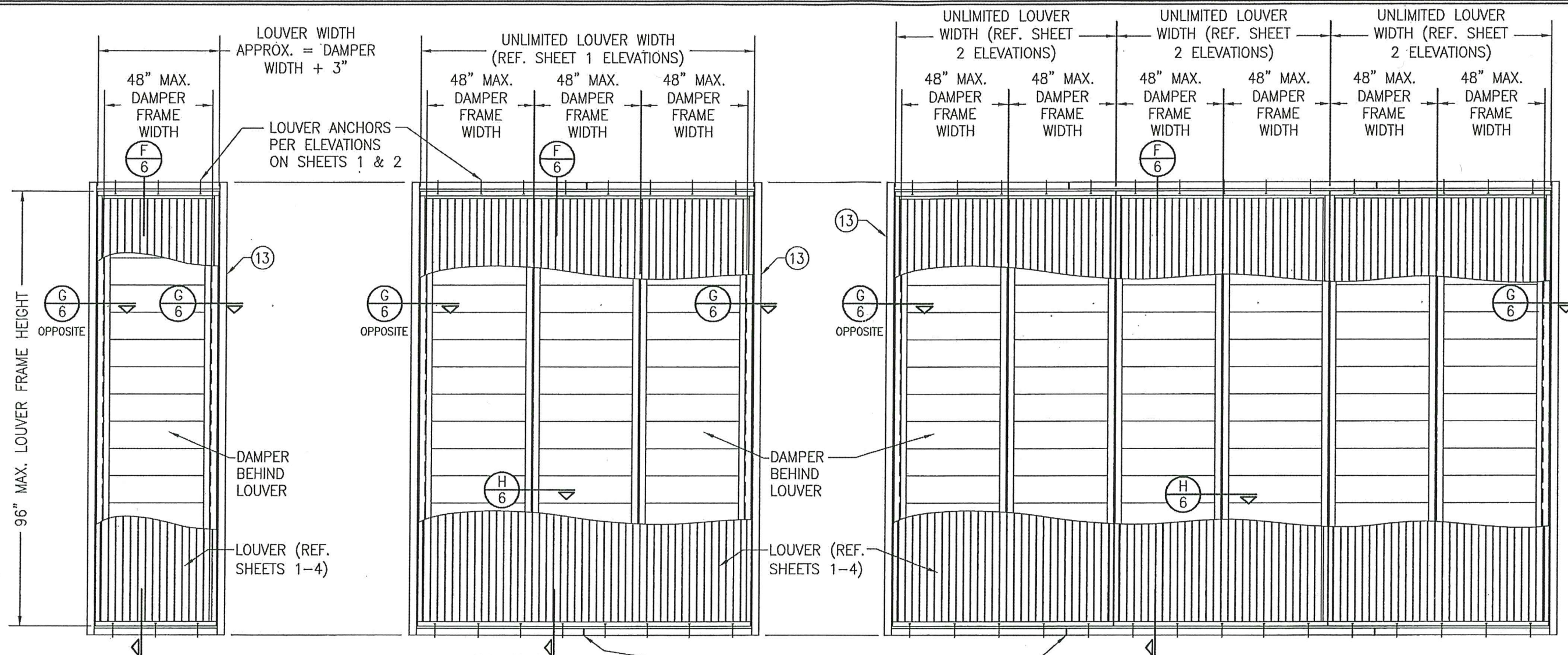


PRODUCT RENEWED  
as complying with the Florida  
Building Code 21-1228.08  
NOA-No. 03/15/2027  
By *Heidi M. Miller*  
Miami-Dade Product Control



DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1=4	DATE: 10/18/06
DATE	BY
REVISION DESCRIPTION	NO.
DRAWING TITLE EAV-66 VERTICAL 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. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424	
P.E. NO. 44135 WARREN W. SCHAEFER, P.E.	
DRAWING NO. 1504	REV. C
SHEET NO. 4	OF 9





**EXTERIOR ELEVATION:  
SINGLE LOUVER PANEL WITH A  
SINGLE AFD-20 DAMPER**

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

**EXTERIOR ELEVATION:  
SINGLE LOUVER PANEL WITH  
MULTIPLE AFD-20 DAMPERS**

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

- 1) NUMBER OF DAMPERS BEHIND A LOUVER PANEL IS UNLIMITED.
- 2) EACH INDIVIDUAL DAMPER PANEL IS LIMITED TO A 48" FRAME WIDTH.

SUPPORT SLEEVE SPLICE MAY OCCUR MID-WAY BETWEEN ANCHORS AT ANY LOCATION PROVIDING NO SLEEVE SECTION LENGTH IS LESS THAN THE DAMPER PANEL FRAME WIDTHS. SPLICING OF SLEEVES SHALL BE DONE IN A MANNER THAT DOES NOT ALLOW WATER LEAKAGE THROUGH THE SPLICE.

**EXTERIOR ELEVATION:  
MULTIPLE LOUVER PANELS WITH  
MULTIPLE AFD-20 DAMPERS**

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

- 1) NON-ARCHITECTURAL LOUVERS SHOWN. ARCHITECTURAL LOUVERS ALSO APPLY.
- 2) MORE THAN 1 DAMPER MAY BE PLACED BEHIND EACH LOUVER PANEL.
- 3) DAMPER MULLIONS/SEAMS DO NOT HAVE TO ALIGN WITH LOUVER PANEL SEAMS.
- 4) EACH INDIVIDUAL DAMPER PANEL IS LIMITED TO A 48" FRAME WIDTH.

**ALLOWABLE DESIGN PRESSURE (AFD-20 DAMPERS)**

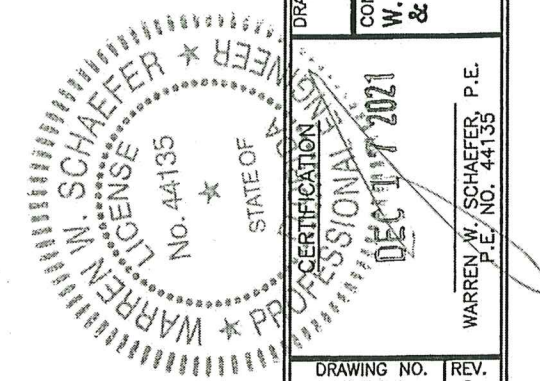
MAX. DAMPER FRAME HEIGHT (IN.)	MAX. DAMPER FRAME WIDTH (1) (IN.)	ALLOWABLE PRESSURE (+/- PSF)	MAX. DAMPER FRAME HEIGHT (IN.)	MAX. DAMPER FRAME WIDTH (1) (IN.)	ALLOWABLE PRESSURE (+/- PSF)
90.5	48	90.1	72.5	48	122.3
	42	103.0		42	139.8
	36	120.1		38	150.0
	30	144.2	66.5	48	133.4
	28	150.0		42	150.0
84.5	48	104.2	60.5	48	146.6
	42	119.0		46	150.0
	36	138.9	(1) DAMPER FRAME HEIGHT IS APPROXIMATELY 5.5" LESS THAN THE LOUVER FRAME HEIGHT.		
78.5	33	150.0			
	48	113.0			
	42	129.1			
	36	150.0			

**DAMPER CORNER CONSTRUCTION (AFD-20):** HEAD AND SILL ARE BUTTED TO THE SIDE JAMBS, SECURED WITH 4 NO. 7 X 1" SELF TAPPING 410 S.S. SCREWS AND SEALED WITH SEALANT.

**SLEEVE CORNER CONSTRUCTION:** SIDE MEMBERS ARE JOINED & FULLY WELDED TO HEAD & SILL MEMBERS

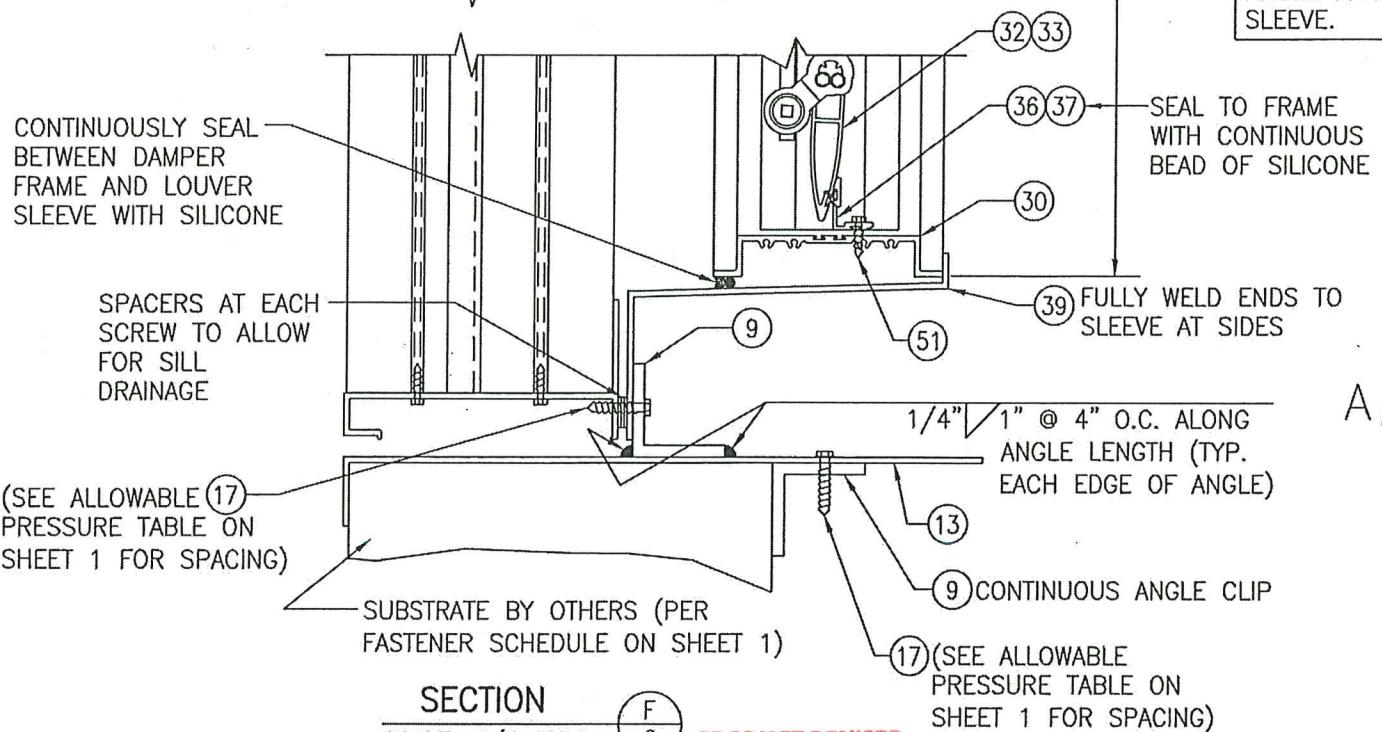
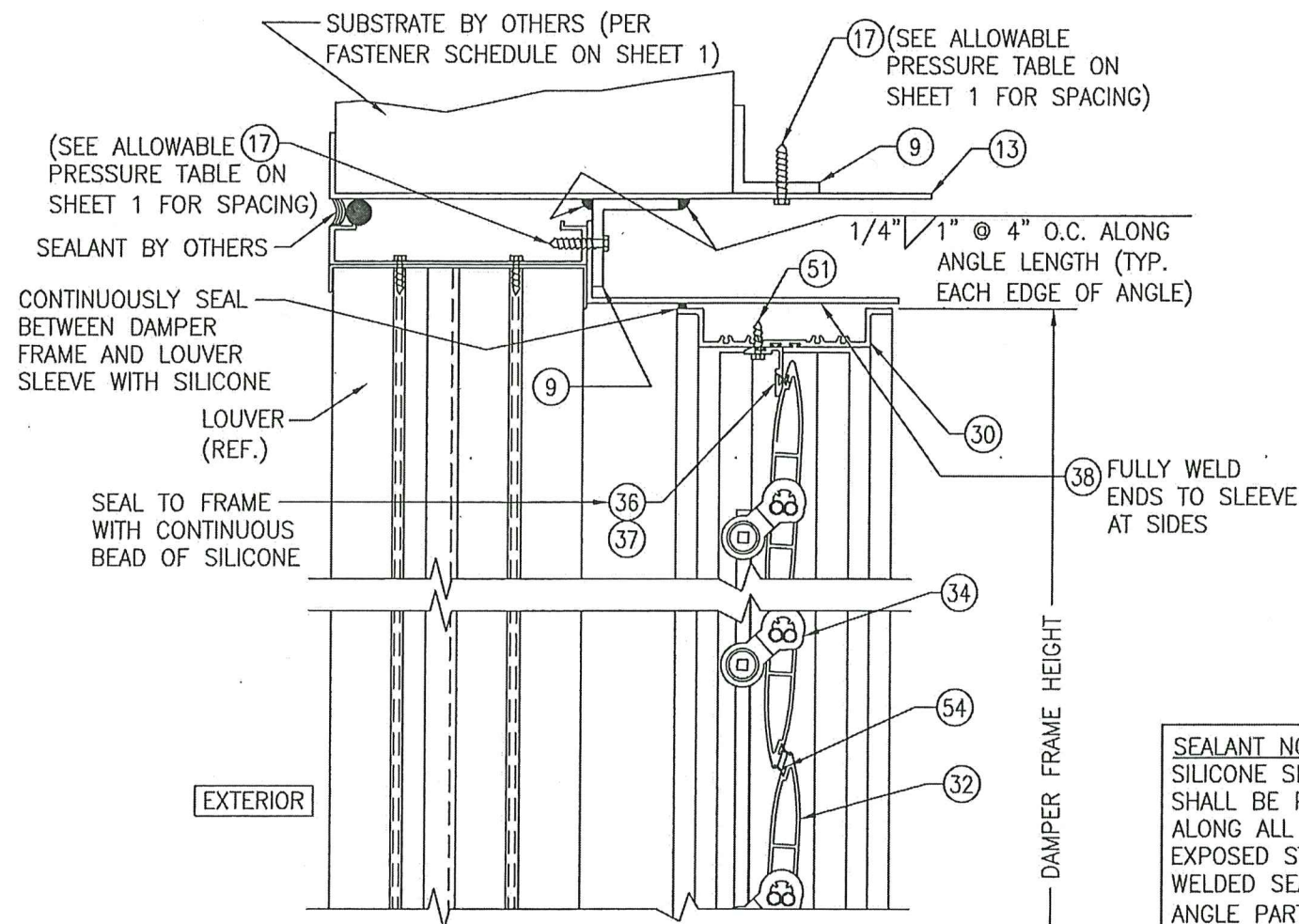
PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 23-0713.11  
Expiration Date 15 MAR 2027  
By *Heidi A. Mohr*  
Miami-Dade Product Control

**PRODUCT RENEWED**  
as complying with the Florida  
Building Code  
NOA-No. 21-1228.08  
Expiration Date 03/15/2027  
By *RF*  
Miami-Dade Product Control



DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1=24		DATE: 10/18/06	
NO.	REVISION DESCRIPTION	BY	DATE
DRAWING TITLE EAV-66 VERTICAL 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. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424	
CERTIFICATION DEC 17 2021 PROFESSIONAL ENGINEER WARREN W. SCHAEFER No. 44135 STATE OF FLORIDA		DRAWING NO. 1504 SHEET NO. 5 OF 9 REV. C	





SECTION F  
SCALE: 1/4 FULL

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 23-0713.1.1  
Expiration Date 15 MAR 2027  
By *Healy M. Miller*  
Miami-Dade Product Control

PRODUCT RENEWED  
as complying with the Florida  
Building Code  
NOA-No. 21-1228.08

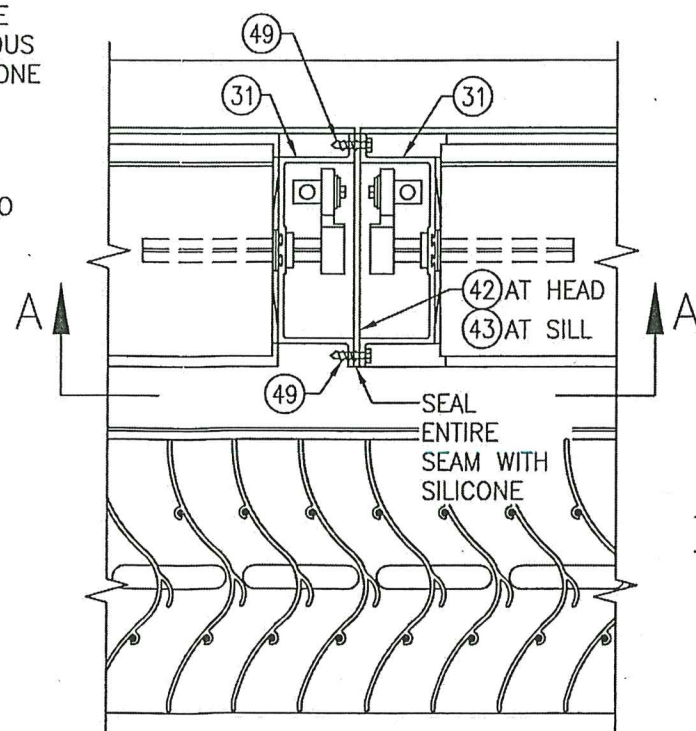
Expiration Date 03/15/2027

By *Healy M. Miller*  
Miami-Dade Product Control

STITCH WELD ANGLE TO JAMB  
WITH 1/8" X 1" WELDS  
WITHIN 6" OF CORNERS &  
MAX. 12" O.C. THEN SEAL  
SEAM WITH SILICONE.

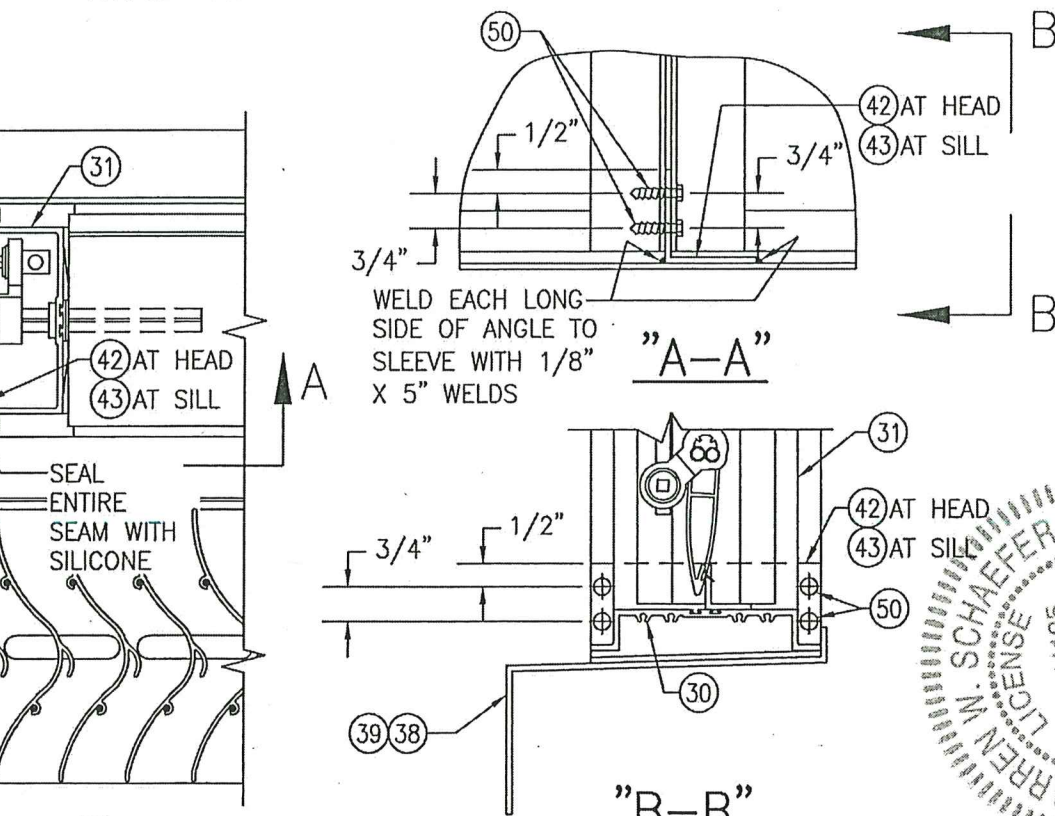
PLACE 1/4" BEAD OF  
SILICONE BETWEEN  
ANGLES PRIOR TO  
JOINING

SEALANT NOTE:  
SILICONE SEALANT  
SHALL BE PLACED  
ALONG ALL EXTERIOR  
EXPOSED STITCH  
WELDED SEAMS JOINING  
ANGLE PART #9 TO  
SLEEVE.



SECTION H  
SCALE: 1/4 FULL

NOTE: Z-BRACKET PART #40 AND DAMPER SUPPORT  
ANGLE PART #41 MAY BE TURNED IN AS SHOWN OR  
TURNED OUT.

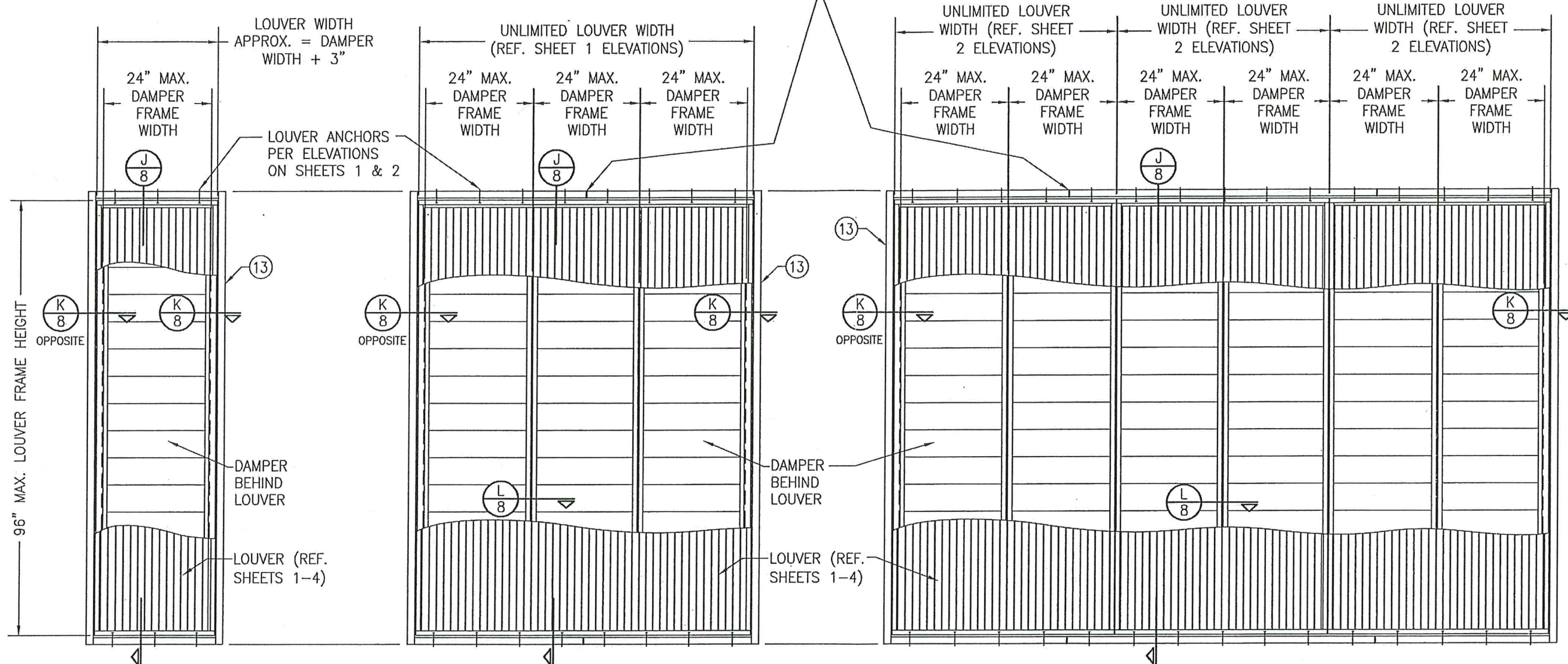


(SILL SECTION SHOWN, HEAD IS SIMILAR)

DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1=4	DATE: 10/18/06
DATE	BY
REVISION DESCRIPTION	NO.
DRAWING TITLE EAV-66 VERTICAL 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. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424	
CERTIFICATION STATE OF FLORIDA WARREN W. SCHAEFER P.E. NO. 44135	
DRAWING NO. 1504	REV. C
SHEET NO. 6	OF 9



SUPPORT SLEEVE SPLICE MAY OCCUR MID-WAY BETWEEN ANCHORS AT ANY LOCATION PROVIDING NO SLEEVE SECTION LENGTH IS LESS THAN THE DAMPER PANEL FRAME WIDTHS. SPLICING OF SLEEVES SHALL BE DONE IN A MANNER THAT DOES NOT ALLOW WATER LEAKAGE THROUGH THE SPLICE.



**EXTERIOR ELEVATION:**  
**SINGLE LOUVER PANEL WITH A**  
**SINGLE AC-525/526 DAMPER**  
SCALE: 1/2" = 1'-0"

**EXTERIOR ELEVATION:**  
**SINGLE LOUVER PANEL WITH**  
**MULTIPLE AC-525/526 DAMPERS**  
SCALE: 1/2" = 1'-0"  
1) NUMBER OF DAMPERS BEHIND A LOUVER PANEL IS UNLIMITED.  
2) EACH INDIVIDUAL DAMPER PANEL IS LIMITED TO A 24" FRAME WIDTH.

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
Acceptance No. 23-0713.11  
Expiration Date 15 MAR 2027  
By *W. Schaefer*  
Miami-Dade Product Control

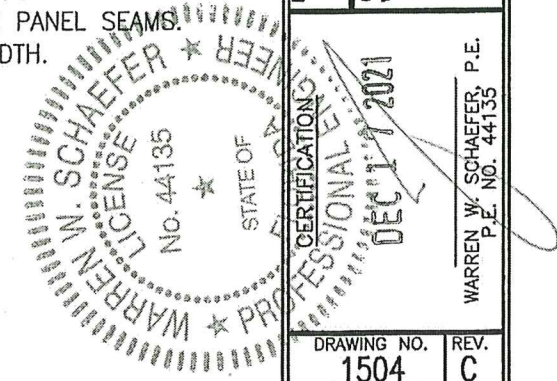
**EXTERIOR ELEVATION:**  
**MULTIPLE LOUVER PANELS WITH**  
**MULTIPLE AC-525/526 DAMPERS.**  
SCALE: 1/2" = 1'-0"  
1) NON-ARCHITECTURAL LOUVERS SHOWN. ARCHITECTURAL LOUVERS ALSO APPLY.  
2) MORE THAN 1 DAMPER MAY BE PLACED BEHIND EACH LOUVER PANEL.  
3) DAMPER MULLIONS/SEAMS DO NOT HAVE TO ALIGN WITH LOUVER PANEL SEAMS.  
4) EACH INDIVIDUAL DAMPER PANEL IS LIMITED TO A 24" FRAME WIDTH.

**DAMPER CORNER CONSTRUCTION (AC-525/526):** HEAD AND SILL ARE BUTTED TO THE SIDE JAMBS, SECURED WITH 4 NO. 8 X 3/4" 410 S.S. SHEET METAL SCREWS AND SEALED WITH SEALANT.

**SLEEVE CORNER CONSTRUCTION:** SIDE MEMBERS ARE JOINED & FULLY WELDED TO HEAD & SILL MEMBERS

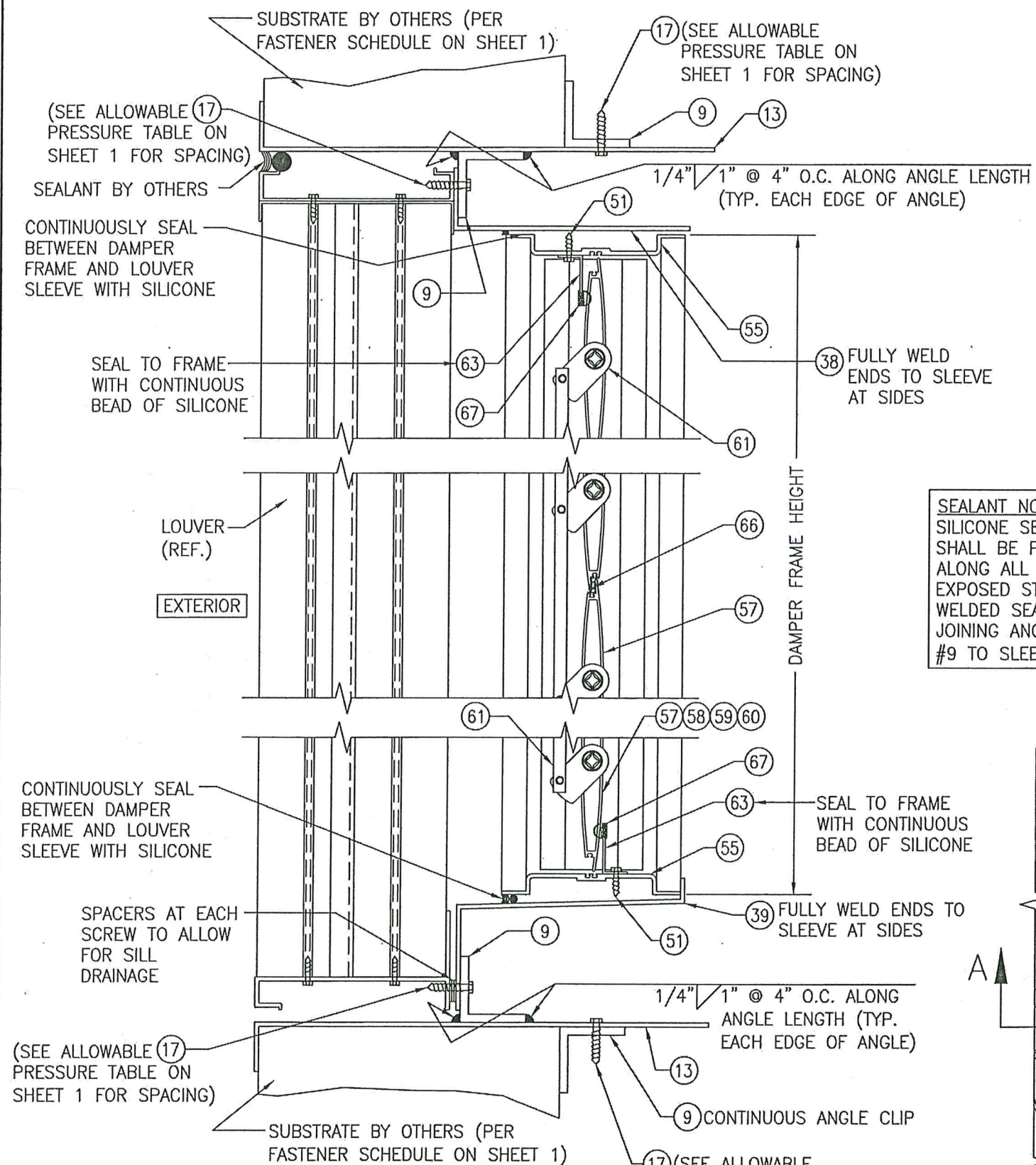
**ALLOWABLE DESIGN PRESSURE**  
**(AC-525/526 DAMPERS)**  
**+150/-150 PSF**

**PRODUCT RENEWED**  
as complying with the Florida  
Building Code  
NOA-No. 21-1228.08  
Expiration Date 03/15/2027  
By *W. Schaefer*  
Miami-Dade Product Control



DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1=24		DATE: 10/18/08	
NO.	REVISION DESCRIPTION	BY	DATE
DRAWING TITLE: EAV-66 VERTICAL LOUVER SYSTEM			
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424		MANUFACTURER: ARROW UNITED INDUSTRIES, INC. A DIVISION OF MESTEK, INC. 450 RIVERSIDE DRIVE WYALUSING, PA 18853 570-746-1888	
DRAWING NO. 1504		REV. C	
SHEET NO. 7 OF 9			





SECTION J  
8

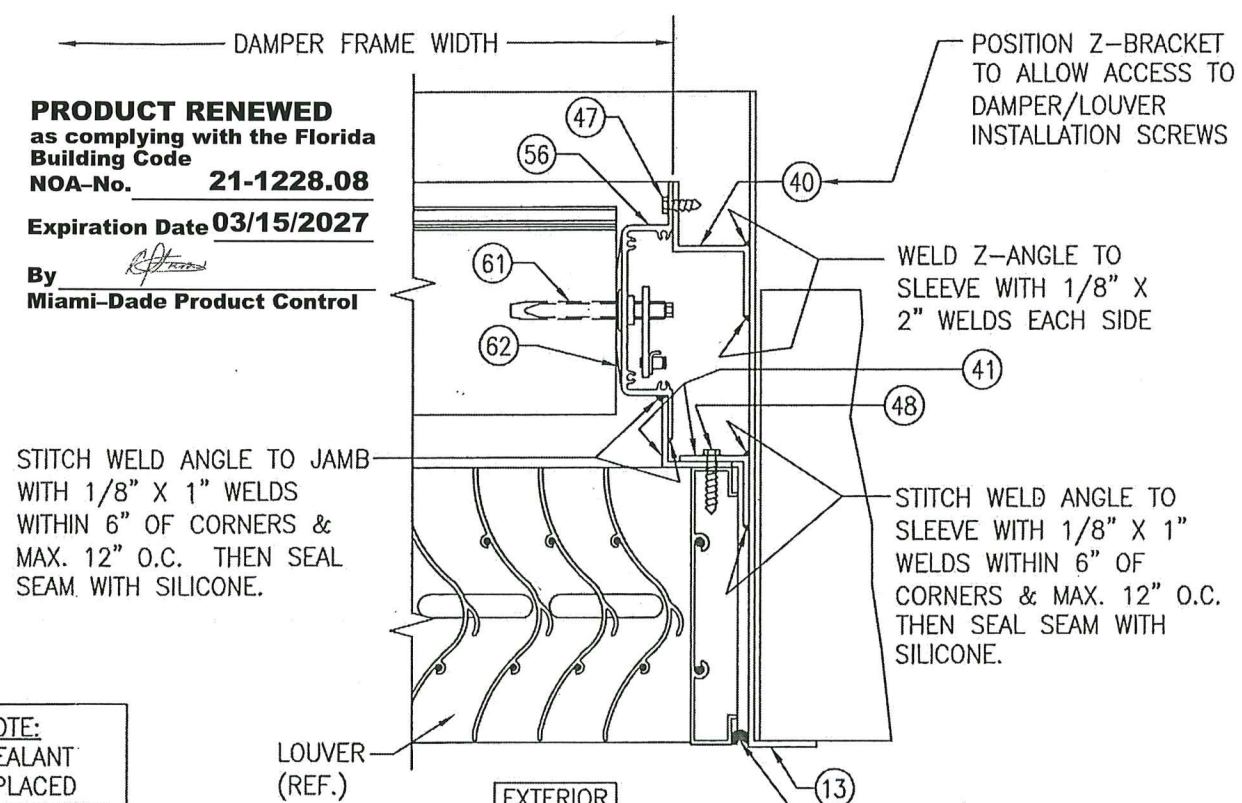
SCALE: 1/4" = 1' FULL

PRODUCT REVISED SHEET 1 FOR SPACING,  
as complying with the Florida  
Building Code 23-0713-11  
Acceptance No. 15 MAR 2027  
Expiration Date  
By *[Signature]*  
Miami Trade Product Control

**PRODUCT RENEWED**  
as complying with the Florida  
Building Code  
NOA-No. **21-1228.08**

**Expiration Date 03/15/2027**

By   
Miami-Dade Product Control



STITCH WELD ANGLE TO JAMB  
WITH 1/8" X 1" WELDS  
WITHIN 6" OF CORNERS &  
MAX. 12" O.C. THEN SEAL  
SEAM WITH SILICONE.

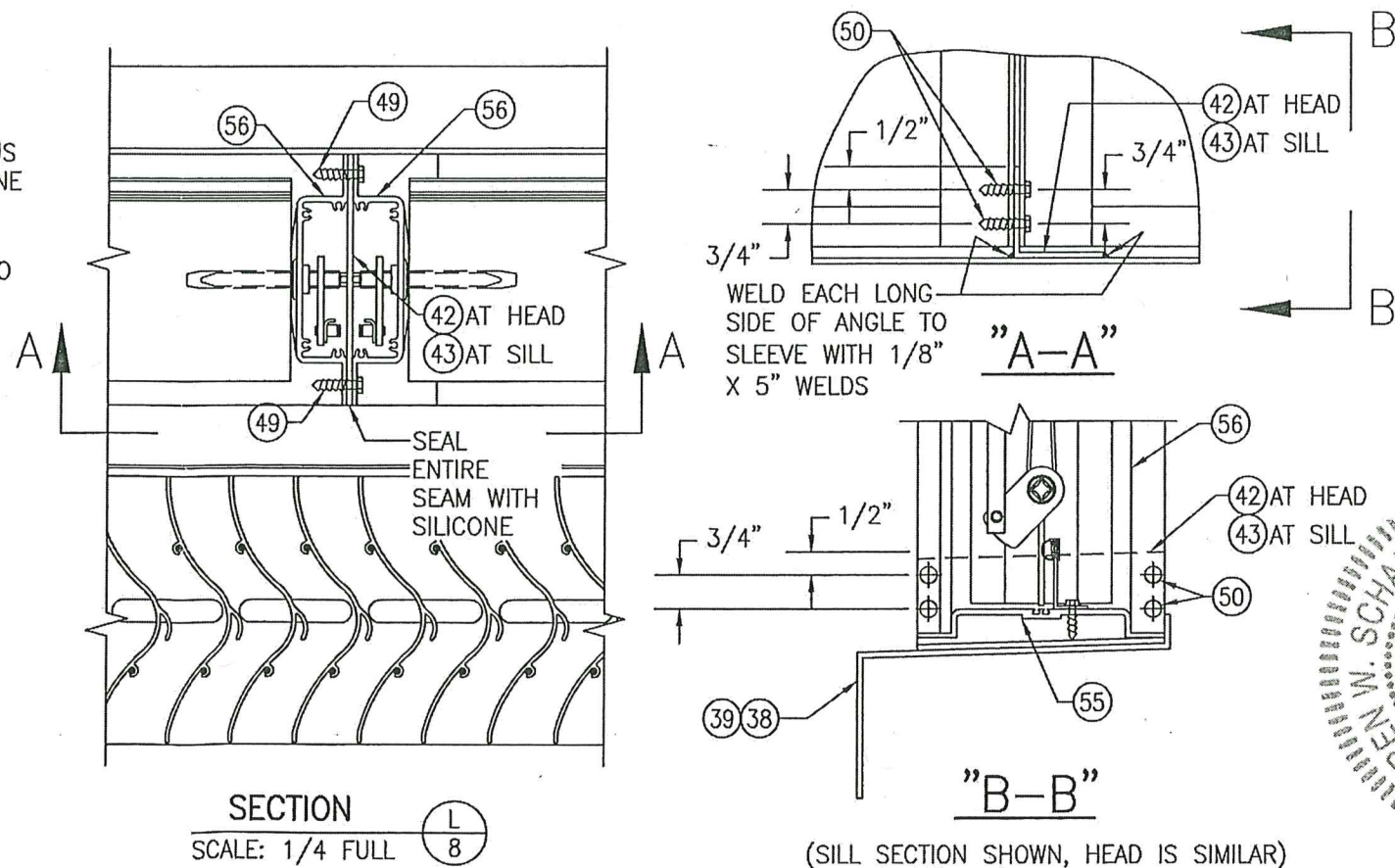
**SEALANT NOTE:**  
SILICONE SEALANT  
SHALL BE PLACED  
ALONG ALL EXTERIOR  
EXPOSED STITCH  
WELDED SEAMS  
JOINING ANGLE PART  
#9 TO SLEEVE.

NOTE: Z-BRACKET PART #40 AND DAMPER SUPPORT  
ANGLE PART #41 MAY BE TURNED IN AS SHOWN OR  
TURNED OUT.

SECTION K  
8

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SCALE: 1/4" FULL



(SILL SECTION SHOWN, HEAD IS SIMILAR)

[illegible]



