



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 EA-22 4” Aluminum Louver System**

**APPROVAL DOCUMENT:** Drawing No. **35972-4**, titled “EA-22 Test Louver, Architectural & Non-Architectural Louver”, sheets 1 through 7 of 7, dated 06/16/2000, with revision **C1**, dated 11/08/2011, 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:** 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 # 18-0321.01** 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 **Carlos M. Utrera, P.E.**



**NOA No. 20-0622.13**  
**Expiration Date: July 27, 2023**  
**Approval Date: August 20, 2020**  
Page 1

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**1. EVIDENCE SUBMITTED UNDER PREVIOUS NOAs**

**A. DRAWINGS “Submitted under NOA No. 11-1117.07”**

1. Drawing No. **35972-4**, titled “EA-22 Test Louver, Architectural & Non-Architectural Louver”, sheets 1 through 7 of 7, dated 06/16/2000, with revision **C1**, dated 11/08/2011, prepared by W. W. Schaefer Engineering & Consulting, P.A. signed and sealed by Warren W. Schaefer, P.E.

**B. TESTS “Submitted under NOA No. 08-1030.03”**

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 “A.U.I. EA-22 Architectural & Non-Architectural Fixed Louver”, prepared by Hurricane Test Laboratory, Inc., Report No. **0198-0811-08**, dated 09/17/2008, signed and sealed by Vinu J. Abraham, P.E.  
**“Submitted under NOA No. 03-0514.13”**
2. 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 “A.U.I. EA-22 Architectural & Non-Architectural Fixed Louver”, prepared by Hurricane Test Laboratory, Inc., Report No. **0199-0518-99** and **0199-0615-99**, dated 12/06/1999, signed and sealed by Vinu J. Abraham, P.E.

**C. CALCULATIONS “Submitted under NOA # 13-0422.09”**

1. Wood anchors calculations prepared by W.W. Schaefer Engineering & Consulting, P.A., dated 04/10/2013, signed and sealed by Warren W. Schaefer, P.E.  
**“Submitted under NOA No. 08-1030.03”**
2. Revision calculations prepared by W.W. Schaefer Engineering & Consulting, P.A., dated 04/17/2008, signed and sealed by Warren W. Schaefer, P.E.

**D. QUALITY ASSURANCE**

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

**E. MATERIAL CERTIFICATIONS**

1. None.

**F. STATEMENTS “Submitted under NOA # 14-0423.20”**

1. Statement letter of code conformance to 2010 and 5<sup>th</sup> edition (2014) FBC issued by W. W. Schaefer Engineering & Consulting, P.A., dated 04/10/2014, signed and sealed by Warren W. Schaefer, P.E.  
**“Submitted under NOA # 13-0422.09”**
2. No financial interest letter issued by W. W. Schaefer Engineering & Consulting, P.A., dated 04/10/2013, signed and sealed by Warren W. Schaefer, P.E.



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**Carlos M. Utrera, P.E.**  
**Product Control Examiner**  
**NOA No. 20-0622.13**  
**Expiration Date: July 27, 2023**  
**Approval Date: August 20, 2020**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**2. EVIDENCE SUBMITTED UNDER NOA # 18-0321.01**

**A. DRAWINGS**

1. None.

**B. TESTS**

1. None.

**C. CALCULATIONS**

1. Revision calculations prepared by W.W. Schaefer Engineering & Consulting, P.A., dated 02/27/2018, signed and sealed by Warren W. Schaefer, P.E.

**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 5<sup>th</sup> Edition (2014) and 6<sup>th</sup> Edition (2017) FBC issued by W. W. Schaefer Engineering & Consulting, P.A., dated 02/27/2018, signed and sealed by Warren W. Schaefer, P.E.
2. No financial interest letter issued by W. W. Schaefer Engineering & Consulting, P.A., dated 02/27/2018, signed and sealed by Warren W. Schaefer, P.E.



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**Carlos M. Utrera, P.E.**  
**Product Control Examiner**  
**NOA No. 20-0622.13**  
**Expiration Date: July 27, 2023**  
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**Arrow United Industries a division of Mestek, Inc.**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**3. 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.

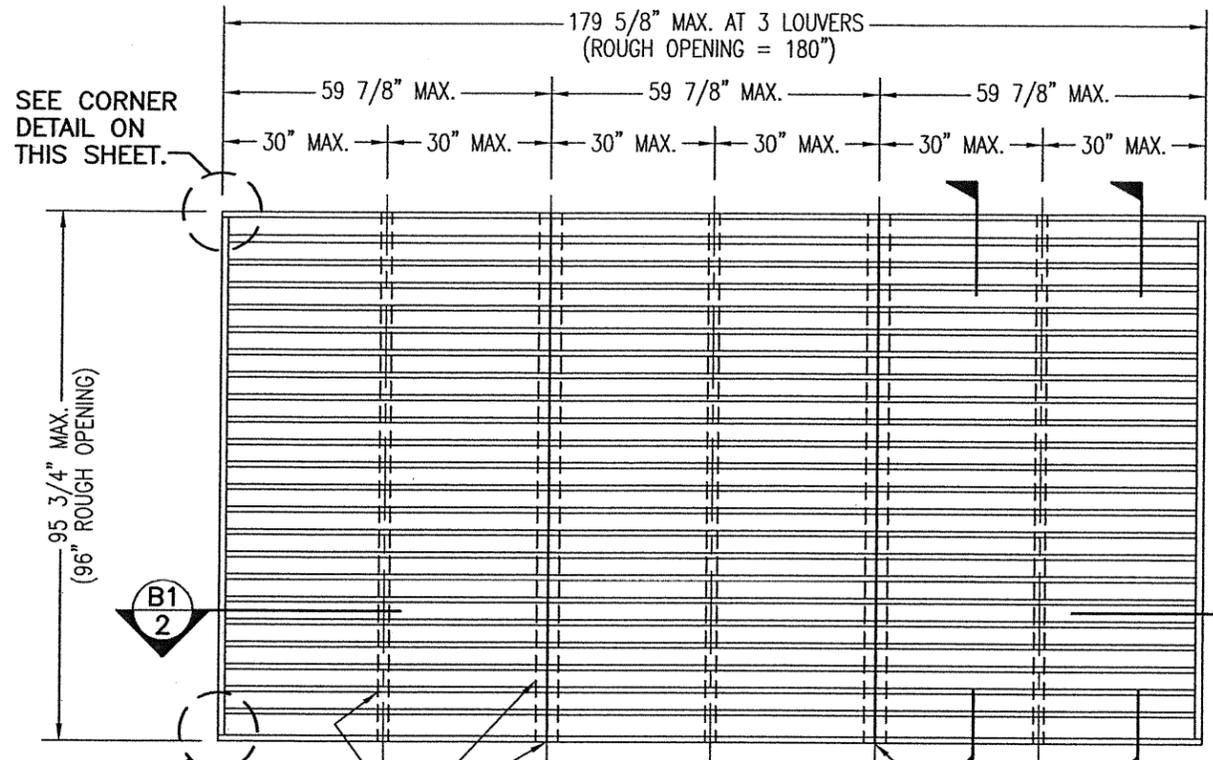
**F. STATEMENTS**

1. Statement letter of code conformance to the 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.



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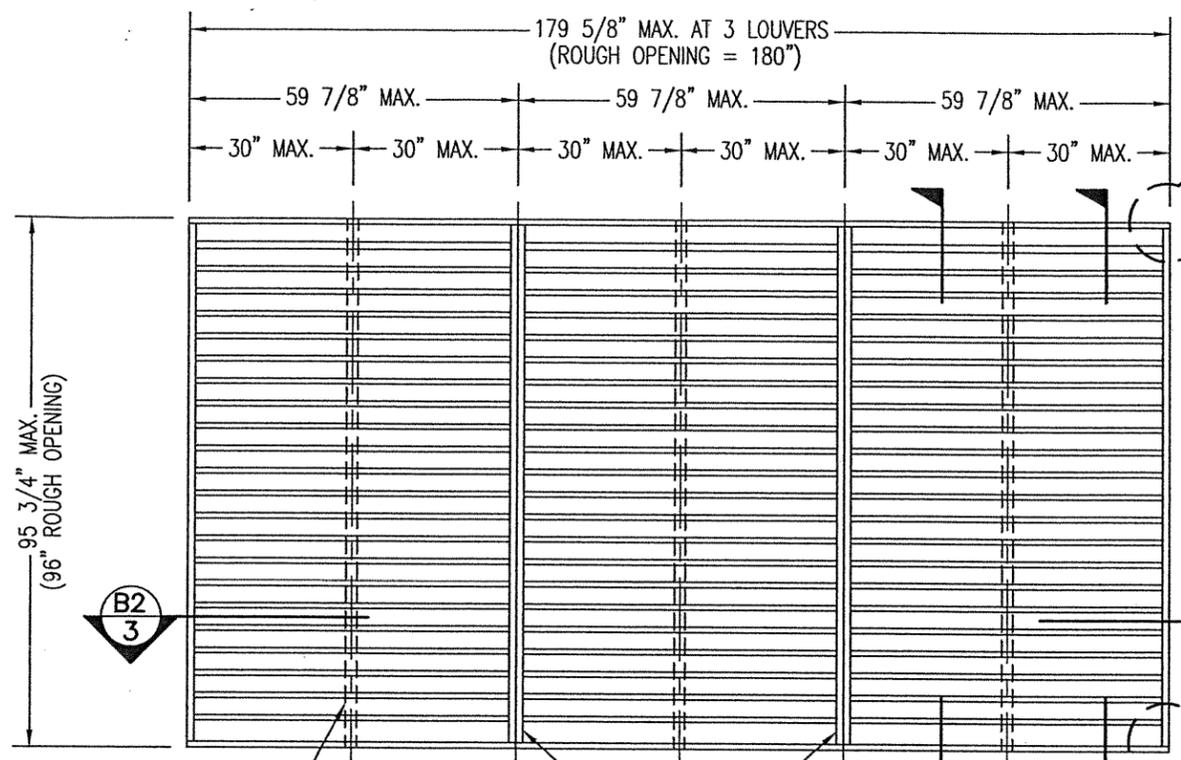
**Carlos M. Utrera, P.E.**  
**Product Control Examiner**  
**NOA No. 20-0622.13**  
**Expiration Date: July 27, 2023**  
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**EXTERIOR ELEVATION  
ARCHITECTURAL 4" LOUVER**

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.



**EXTERIOR ELEVATION  
NON-ARCHITECTURAL 4" LOUVER**

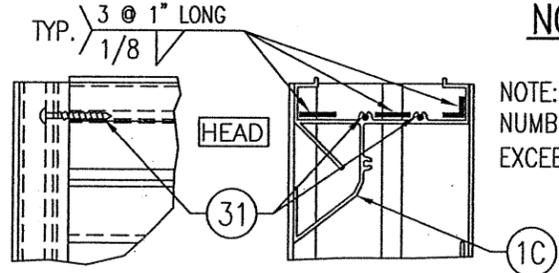
SCALE: 3/8"=1'-0"

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.

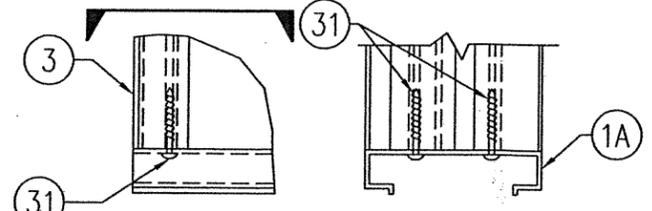
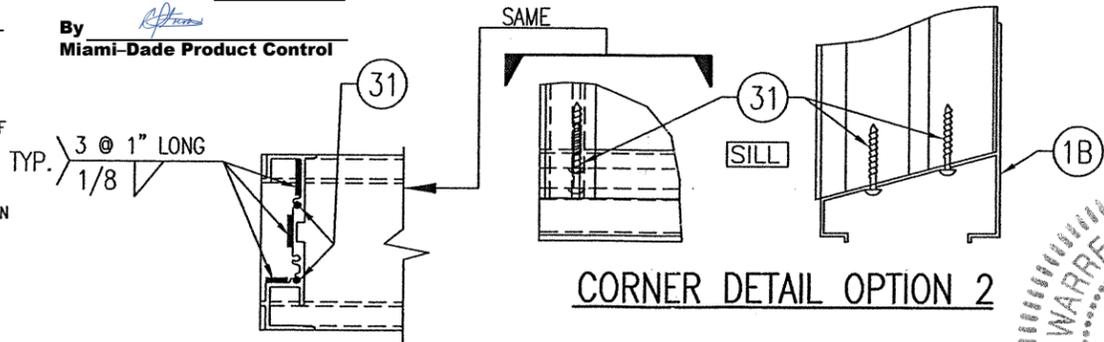
**GENERAL NOTES:**

1. THESE LOUVER SYSTEMS HAVE BEEN TESTED, ANALYZED & APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN PRESSURE TABLE(S)".
2. OPENINGS MUST BE PROPERLY DESIGNED & CONSTRUCTED 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 IMPACT, CYCLIC & UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH THE FLORIDA BUILDING CODE PROTOCOLS TAS-201, 202 & 203 FOR LARGE MISSILE IMPACT LOUVERS.
5. THESE LOUVER SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH AND MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).
6. ALL ANCHORS SECURING LOUVER FRAME 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. 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.
9. 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.
10. MAXIMUM ALLOWABLE INDIVIDUAL PANEL SIZE = 59 7/8" X 95 3/4".
11. MAXIMUM ASSEMBLY SIZE = UNLIMITED WIDTH; UP TO 95 3/4" HEIGHT.
12. ASSEMBLIES/SECTIONS MAY BE STACKED VERTICALLY PROVIDING A STRUCTURAL SUPPORT IS DESIGNED & INSTALLED BY OTHERS TO SUPPORT ALL LOADS TRANSFERRED FROM THE LOUVER ASSEMBLY.
13. MAXIMUM UNSUPPORTED BLADE LENGTH SHALL NOT EXCEED 30"
14. ALL FASTENERS SHALL BE PLATED STEEL OR 304 STAINLESS STEEL.
15. SPECIFIED SUBSTRATES REQUIREMENTS:  
 CONCRETE: MIN. 3000 PSI  
 MASONRY: MIN. C90 CMU  
 WOOD: MIN. GRADE 2; G = 0.55  
 STEEL: MIN. 1/8" THICK A36 (36 KSI)
16. THIS SYSTEM HAS NOT BEEN TESTED FOR WATER INFILTRATION RESISTANCE & IS NOT A WATER RESISTANT SYSTEM.

**PRODUCT REVISED**  
 as complying with the Florida Building Code  
 NOA-No. 20-0622.13  
 Expiration Date 07/27/2023  
 By *[Signature]*  
 Miami-Dade Product Control



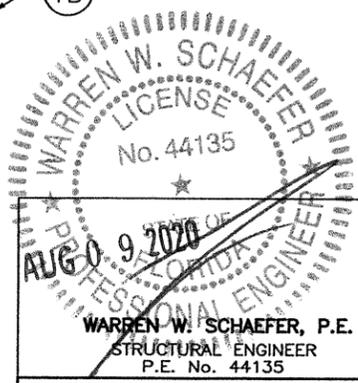
**CORNER DETAIL OPTION 2**



**CORNER DETAIL OPTION 1**  
 (SILL CORNER SHOWN; HEAD IS MIRRORED IMAGE)

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.



**W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)**  
 STRUCTURAL CONSULTING ENGINEERS  
 7480 150TH COURT NORTH  
 PALM BEACH GARDENS, FL 33418  
 PHONE: 561-744-3424

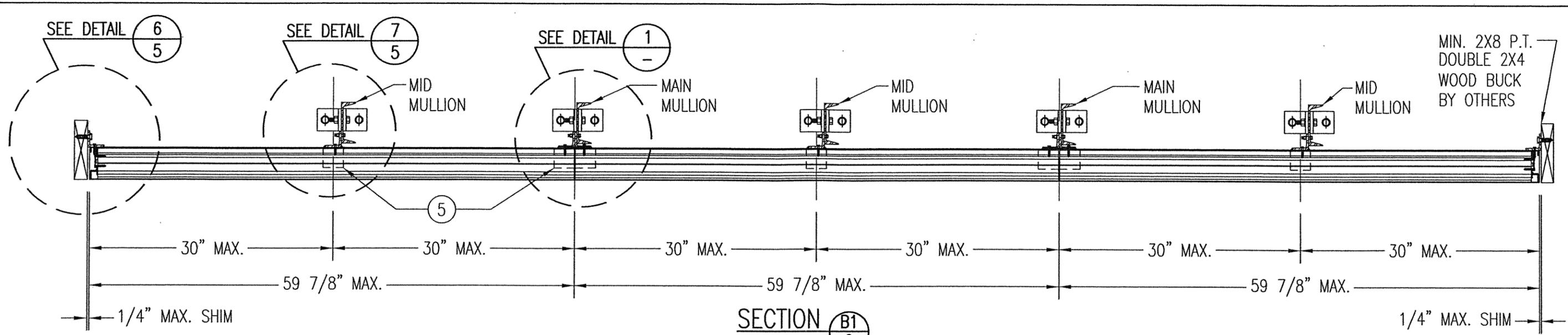
THESE DRAWINGS ARE APPLICABLE ONLY TO THE PRODUCT SPECIFIED. THEY MAY NOT BE USED FOR THE ASSEMBLY AND/OR INSTALLATION OF ANY OTHER PRODUCT NOR MAY THEY BE USED FOR RATIONAL AND/OR LOCAL APPROVAL OF ANY PRODUCT NOT PRODUCED BY THE MANUFACTURER STATED ON THESE DRAWINGS.

REVISION	DATE	DRN	APPD
A1	04/29/03	K.P.S.	W.W.S.
A2	04/29/03	K.P.S.	W.W.S.
B1	04/17/08	W.R.M.	W.W.S.
C1	11/08/11	W.R.M.	W.W.S.

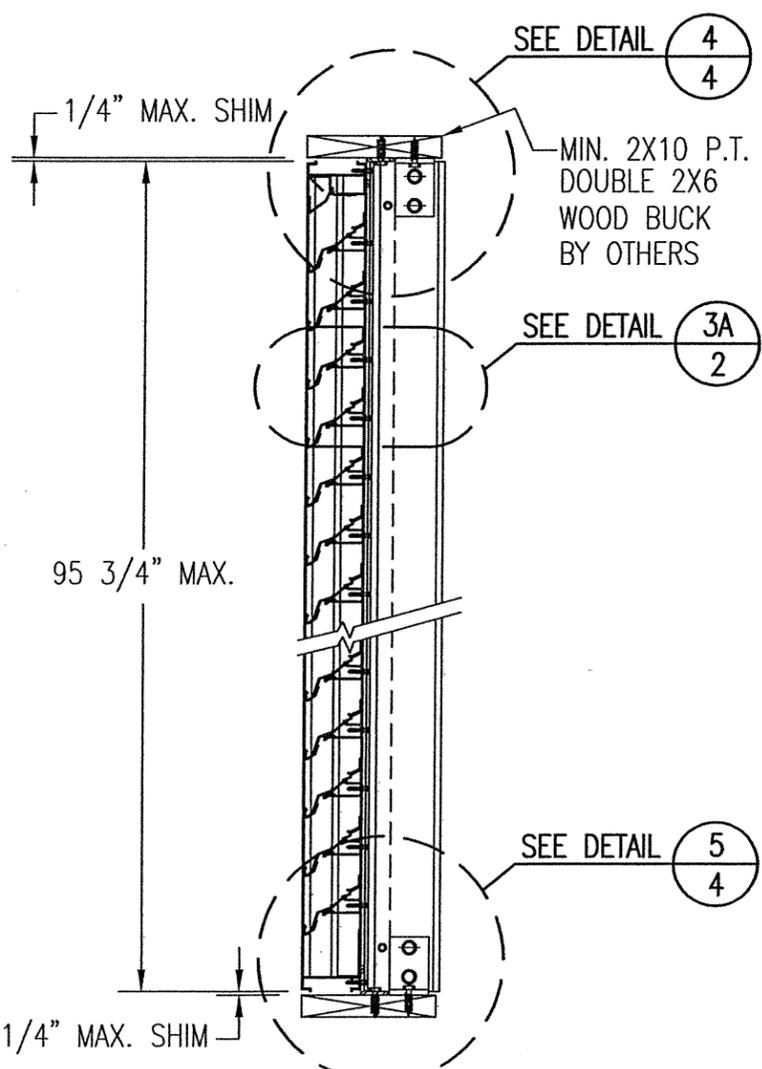
**ARROW UNITED INDUSTRIES**  
 A Division of Mestek, Inc.  
 450 RIVERSIDE DRIVE - P.O. BOX 69  
 WYALUSING, PA 18853  
 PHONE 570-746-1888; FAX 570-746-9286

**EA-22 TEST LOUVER  
 ARCHITECTURAL & NON-ARCHITECTURAL LOUVER  
 ELEVATIONS & NOTES**

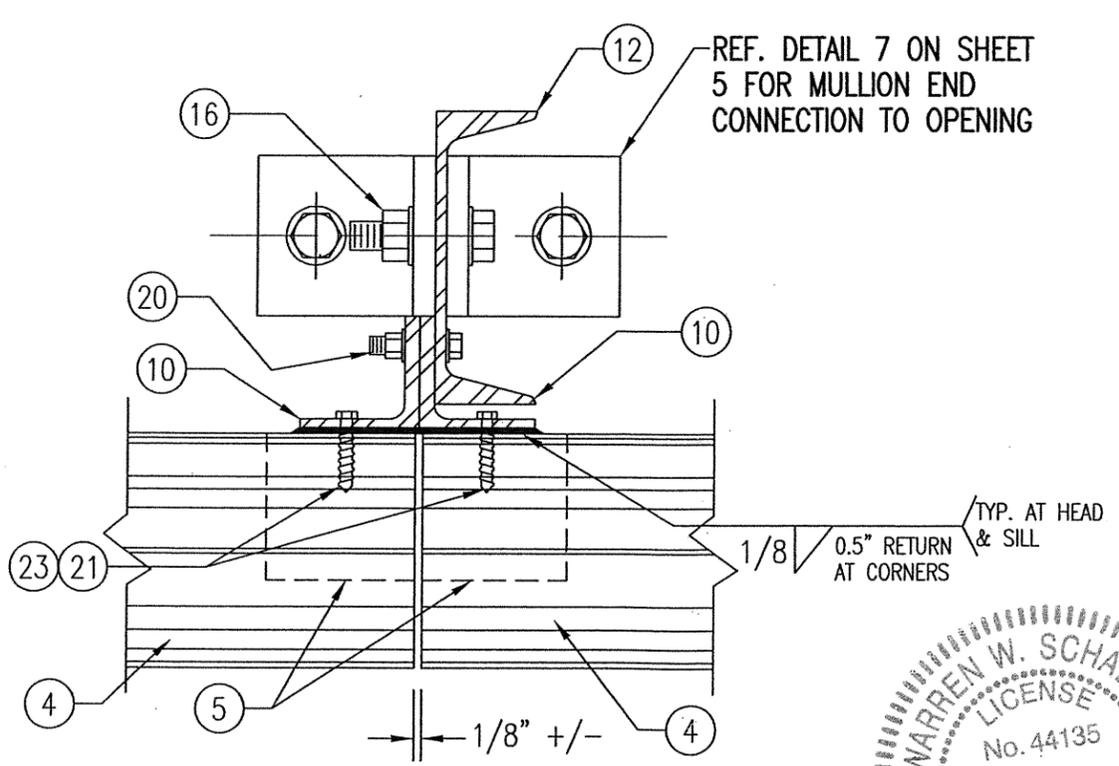
CKD.BY	APPD.BY W.W.S.	SHEET: 1 of 7
DRN.BY W.W.S.	DWG. NO. 35972-4	REV. C
DATE 06-16-00		



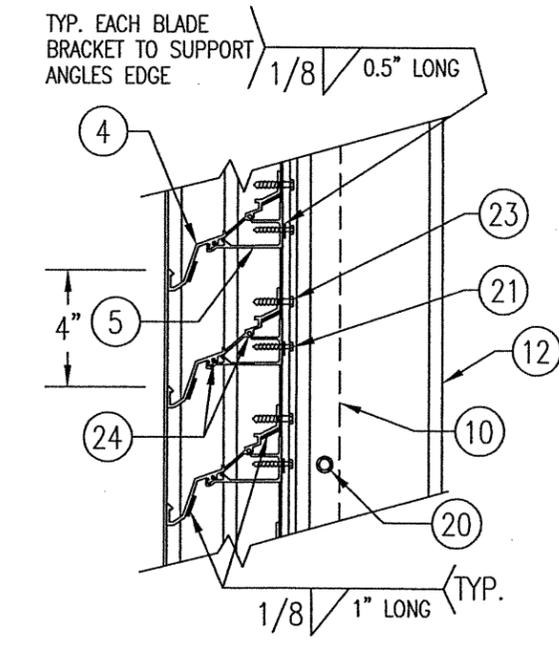
**SECTION B1**  
SCALE: 1"=1'-0" **2**  
ARCHITECTURAL LOUVER



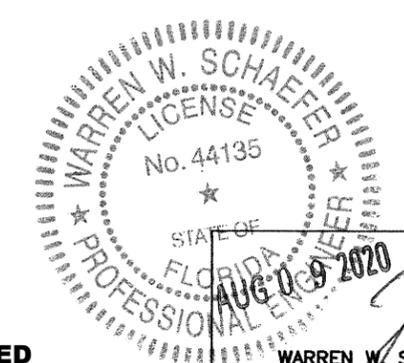
**SECTION A1**  
SCALE: 1"=1'-0" **2**  
ARCHITECTURAL LOUVER



**DETAIL 1**  
SCALE: 1/3 FULL **1**  
ARCHITECTURAL LOUVER



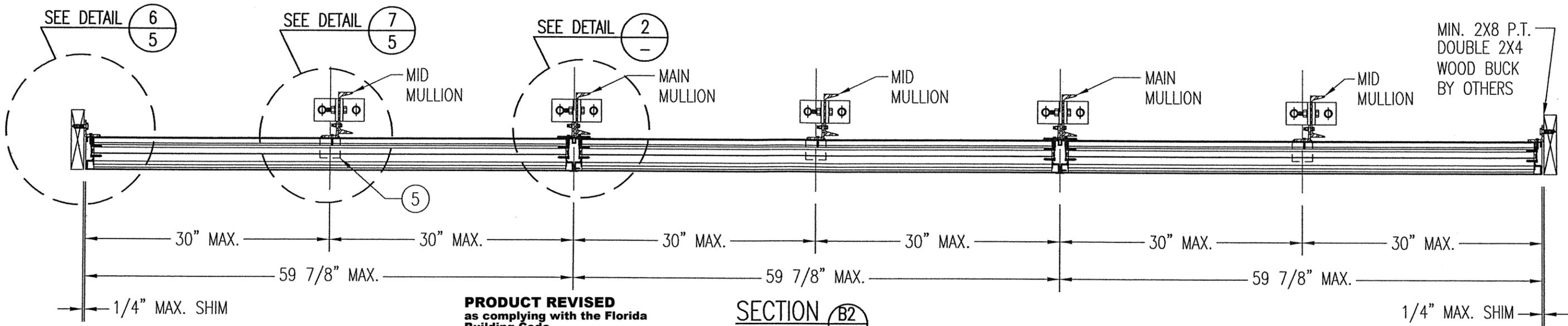
**DETAIL 3A**  
SCALE: 2"=1'-0" **2**  
TYP. AT ALL MULLIONS THIS SHEET



**PRODUCT REVISED**  
as complying with the Florida Building Code  
NOA-No. 20-0622.13  
Expiration Date 07/27/2023  
By *[Signature]*  
Miami-Dade Product Control

**WARREN W. SCHAEFER, P.E.**  
STRUCTURAL ENGINEER  
P.E. No. 44135  
**W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)**  
STRUCTURAL CONSULTING ENGINEERS  
7480 150TH COURT NORTH  
PALM BEACH GARDENS, FL 33418  
PHONE: 561-744-3424

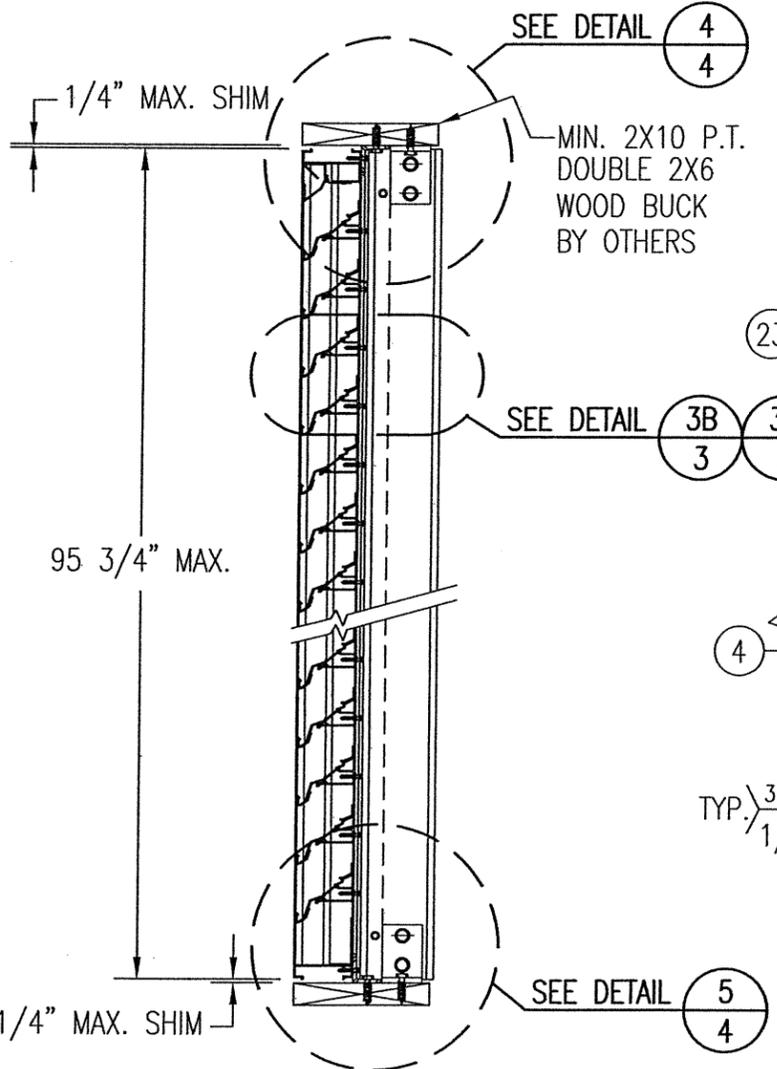
REVISION	DATE	DRN	CK	APPD
<b>ARROW UNITED INDUSTRIES</b> A Division of Mestek, Inc.				
450 RIVERSIDE DRIVE - P.O. BOX 69 WYALUSING, PA 18853 PHONE 570-746-1888; FAX 570-746-9286				
<b>EA-22 TEST LOUVER</b> ARCHITECTURAL LOUVER SECTIONS & DETAILS				
CKD.BY	APPD.BY	W.W.S.	SHEET: 2 of 7	
DRN.BY	W.W.S.	DWG. NO.	REV.	
DATE	06-16-00	35972-4	C	



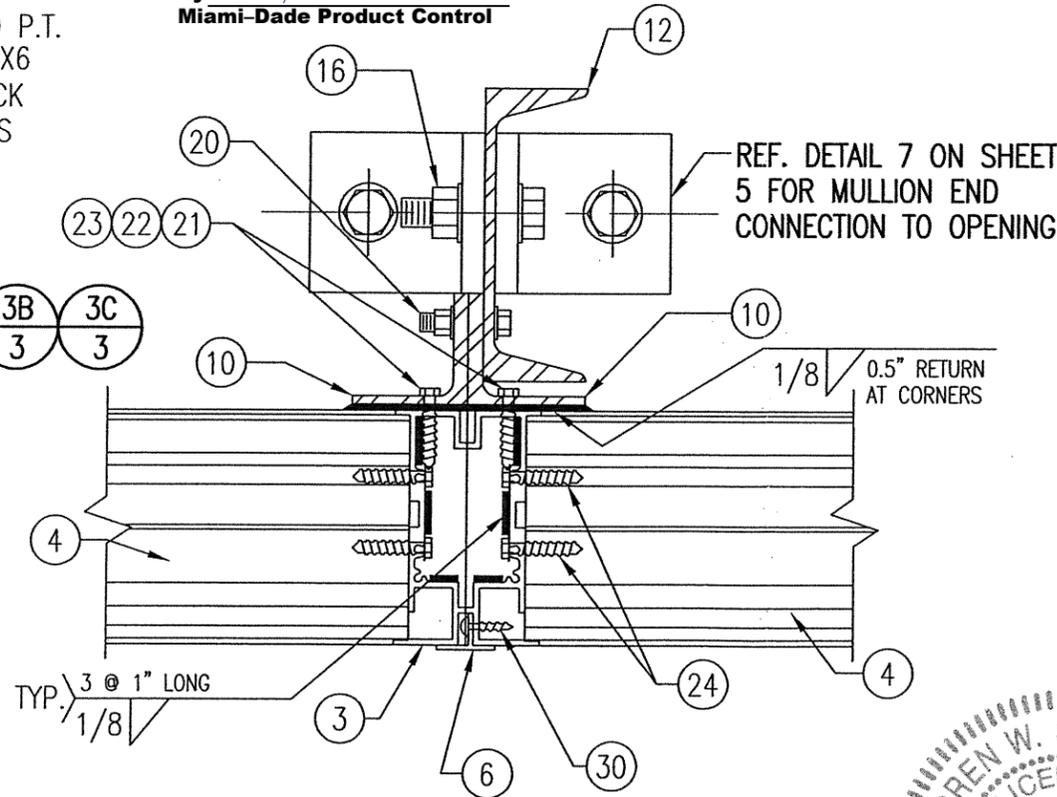
**PRODUCT REVISED**  
 as complying with the Florida  
 Building Code  
 NOA-No. 20-0622.13  
 Expiration Date 07/27/2023  
 By *R. J. [Signature]*  
 Miami-Dade Product Control

**SECTION B2**  
 SCALE: 1"=1'-0"  
**3**

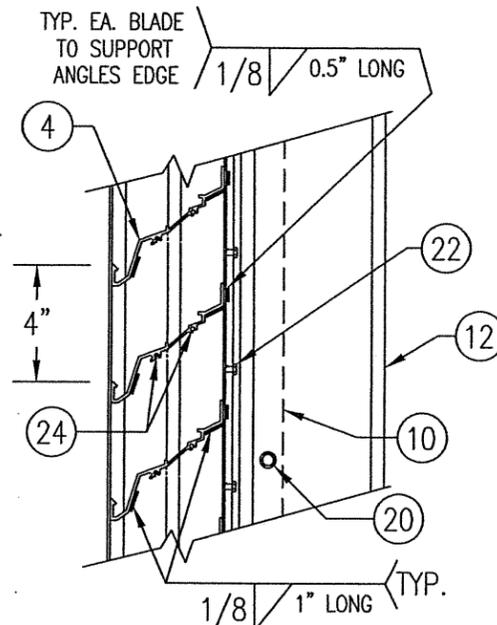
**NON-ARCHITECTURAL LOUVER**



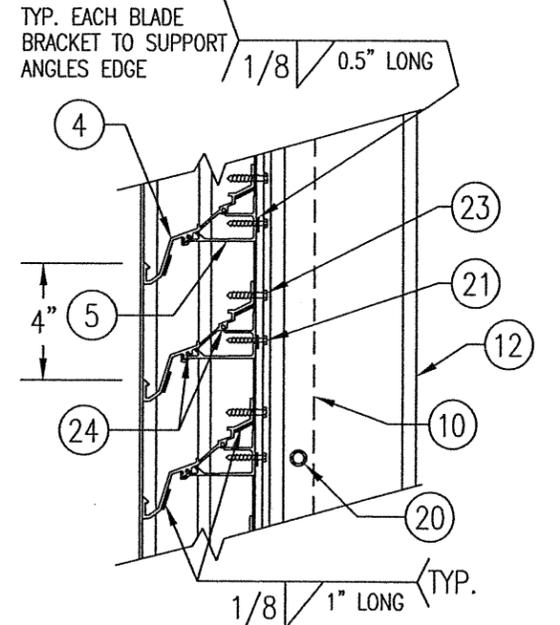
**SECTION A2**  
 SCALE: 1"=1'-0"  
**3**  
**NON-ARCHITECTURAL LOUVER**



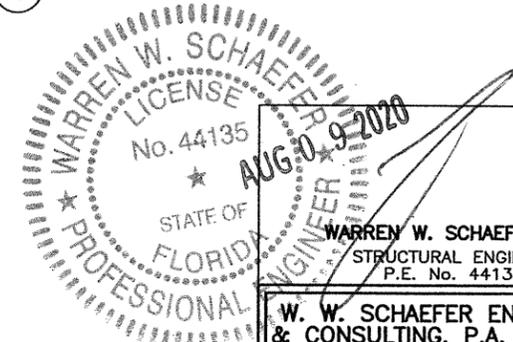
**DETAIL 2**  
 SCALE: 2"=1'-0"  
**NON-ARCHITECTURAL LOUVER**  
 NOTE: SIDE JAMBS ARE ADDITIONALLY FASTENED TO THE SILL & HEAD WITH 2 NO. 7 X 1" SMS THROUGH SILL & INTO JAMB SPLINES.



**DETAIL 3B**  
 SCALE: 2"=1'-0"  
**3**  
 TYP. AT MAIN MULLIONS THIS SHEET

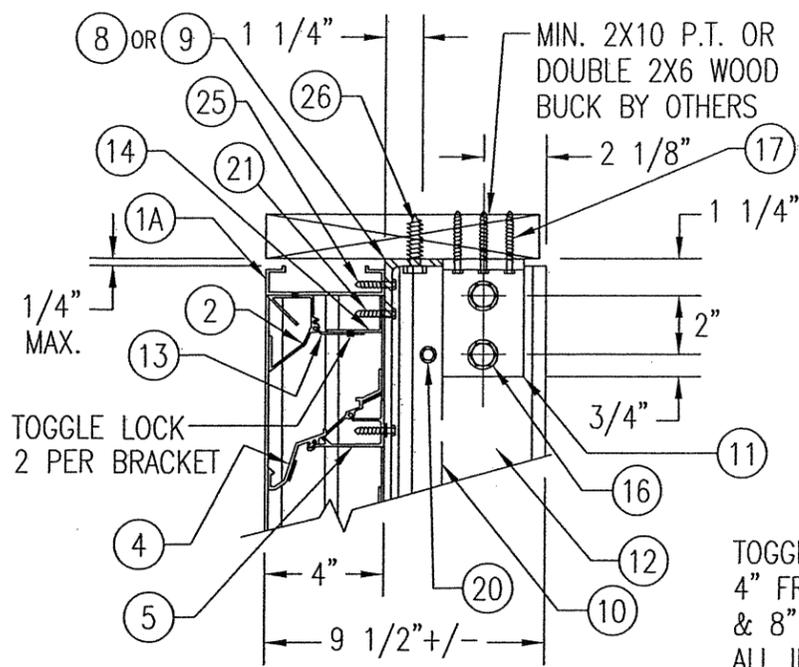


**DETAIL 3C**  
 SCALE: 2"=1'-0"  
**3**  
 TYP. AT ALL MID-SPAN MULLIONS THIS SHEET



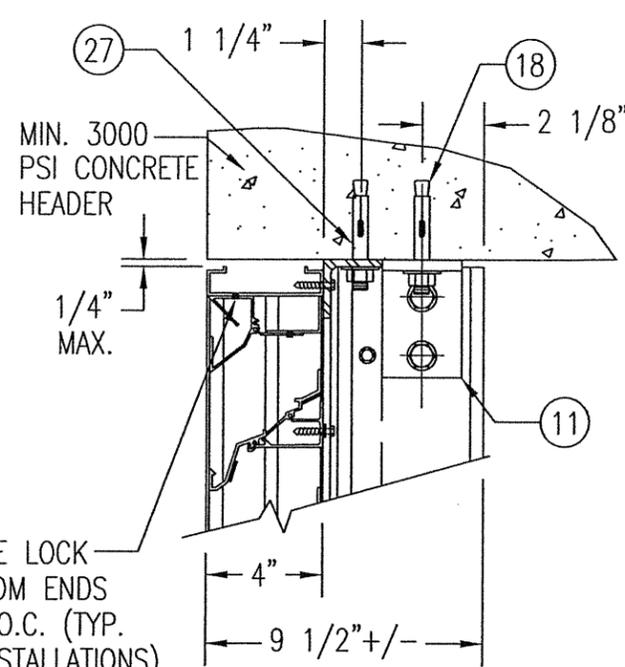
**WARREN W. SCHAEFER, P.E.**  
 STRUCTURAL ENGINEER  
 P.E. No. 44135  
**W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)**  
 STRUCTURAL CONSULTING ENGINEERS  
 7480 150TH COURT NORTH  
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 PHONE: 561-744-3424

REVISION	DATE	DRN	CK	APPD
<b>ARROW UNITED INDUSTRIES</b> A Division of Mestek, Inc.				
450 RIVERSIDE DRIVE - P.O. BOX 69 WYALUSING, PA 18853 PHONE 570-746-1888; FAX 570-746-9286				
<b>EA-22 TEST LOUVER</b> <b>ARCHITECTURAL LOUVER</b> <b>SECTIONS &amp; DETAILS</b>				
CKD.BY	APPD.BY	W.W.S.	SHEET: 3 of 7	
DRN.BY	W.W.S.	DWG. NO.	35972-4	
DATE	06-16-00	REV.	C	



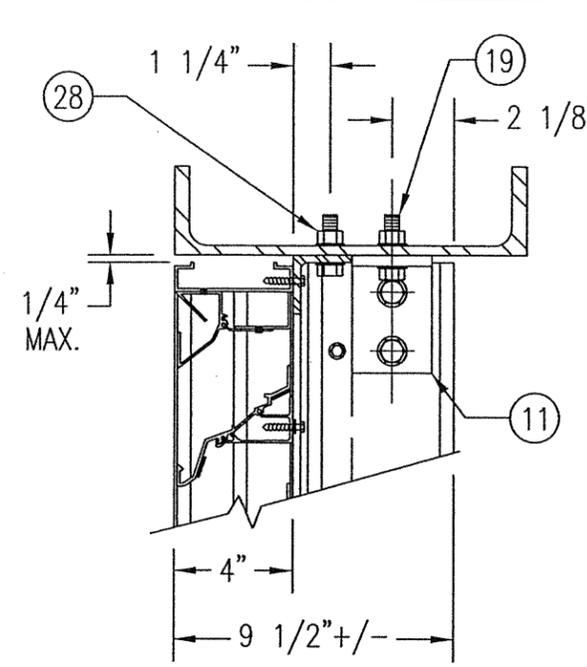
**WOOD FRAMED OPENING**

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.



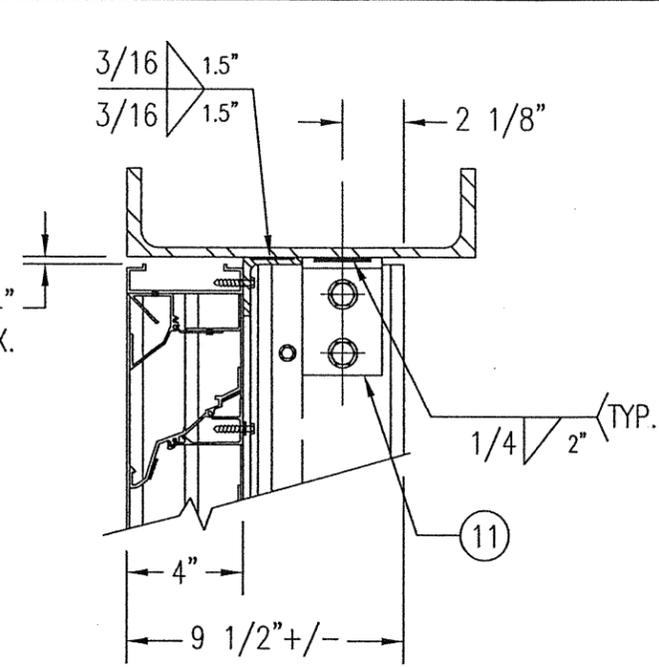
**CONCRETE HEAD**

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



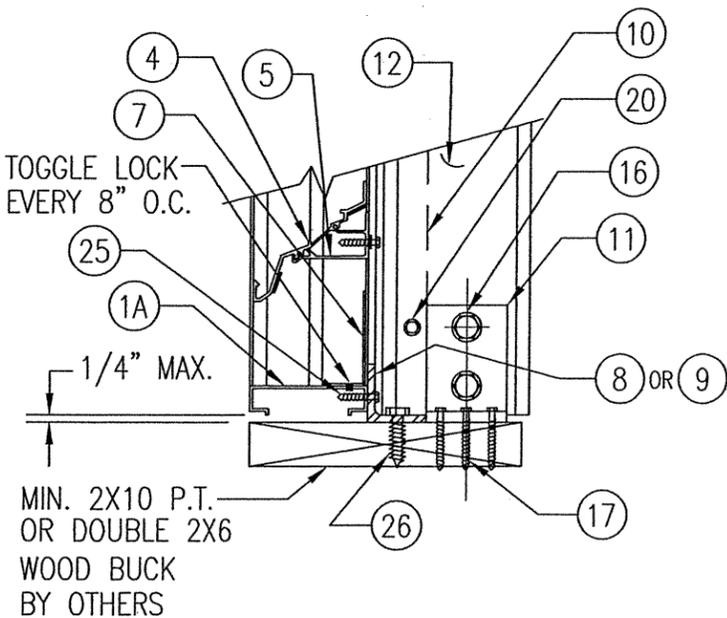
**STEEL FRAME OPENING (BOLTED)**

SEE "WOOD OPENING" FOR DETAIL NOT SHOWN



**STEEL FRAME OPENING (WELDED)**

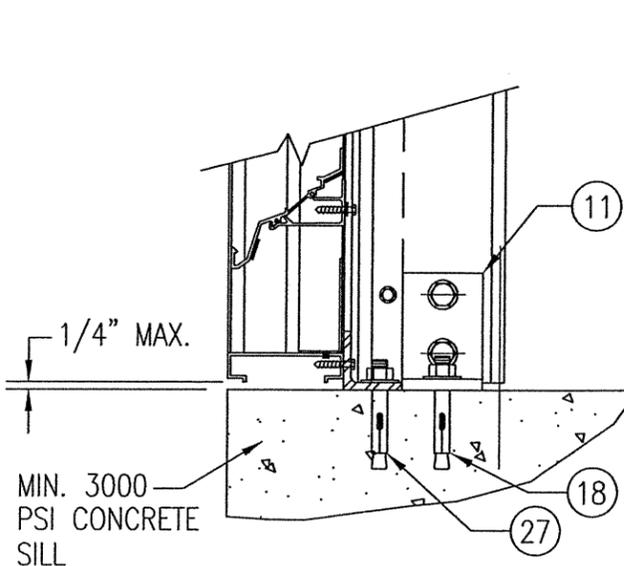
SEE "WOOD OPENING" FOR DETAIL NOT SHOWN



**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.

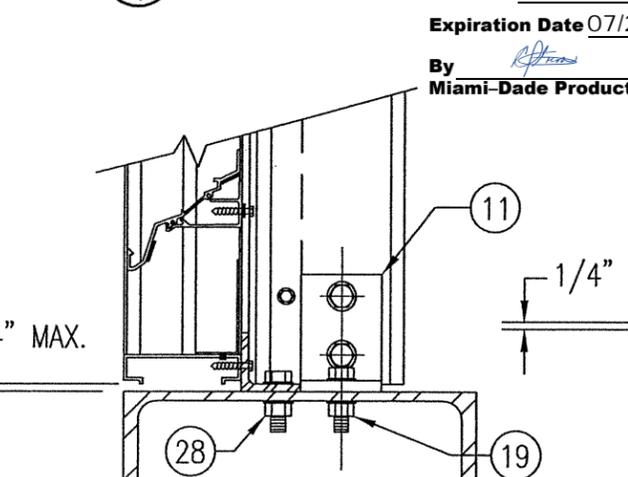
MASONRY MAY ONLY BE USED AT SIDES OF LOUVER PANELS & MAY NOT BE USED AT THE HEAD OR SILL.



**CONCRETE SILL**

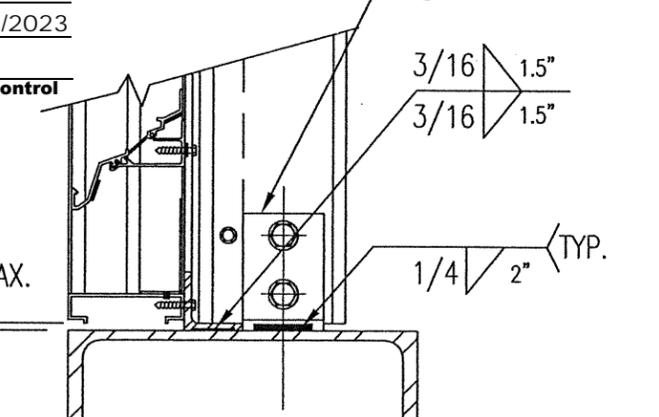
SEE "WOOD OPENING" FOR DETAIL NOT SHOWN (MASONRY ACCEPTABLE AT SIDES ONLY AND MAY NOT BE USED AT HEAD OR SILL)

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



**STEEL FRAME OPENING (BOLTED)**

SEE "WOOD OPENING" FOR DETAIL NOT SHOWN



**STEEL FRAME OPENING (WELDED)**

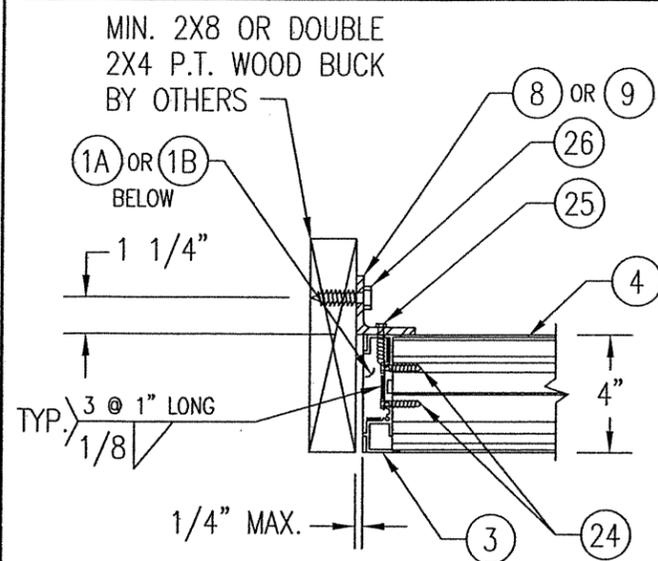
SEE "WOOD OPENING" FOR DETAIL NOT SHOWN

**DETAIL 4**  
 SCALE: 2"=1'-0"

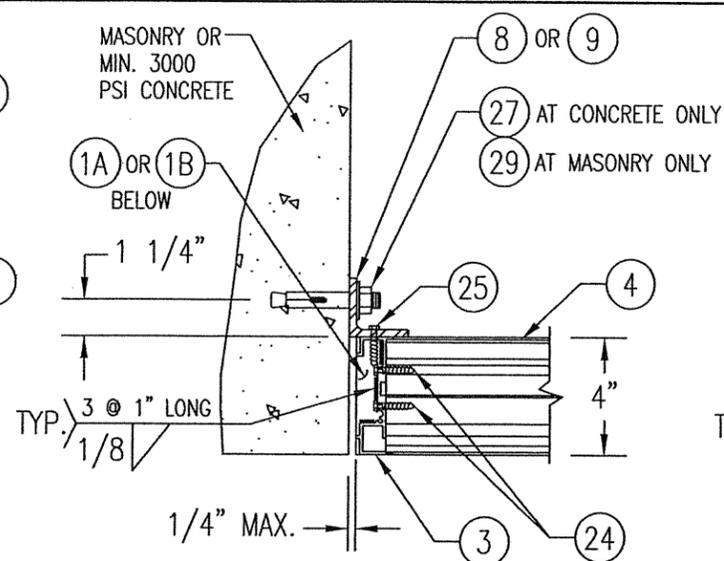
**PRODUCT REVISED**  
 as complying with the Florida Building Code  
 NOA-No. 20-0622.13  
 Expiration Date 07/27/2023  
 By Miami-Dade Product Control

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 7480 150TH COURT NORTH  
 PALM BEACH GARDENS, FL 33418  
 PHONE: 561-744-3424

A1	BUBBLE "1A" WAS "1"; ADDED NOTES TO "WOOD FRAMED OPENING"	04/29/03	K.P.S.	W.W.S.
	REVISION	DATE	DRN	APPD
<b>ARROW UNITED INDUSTRIES</b> A Division of Mestek, Inc.				
450 RIVERSIDE DRIVE - P.O. BOX 69 WYALUSING, PA 18853 PHONE 570-746-1888; FAX 570-746-9286				
<b>EA-22 TEST LOUVER</b> ARCHITECTURAL & NON-ARCHITECTURAL LOUVER DETAILS				
CKD.BY	APPD.BY	W.W.S.	SHEET: 4 of 7	
DRN.BY	W.W.S.	DWG. NO.	35972-4	
DATE	06-16-00			REV. C

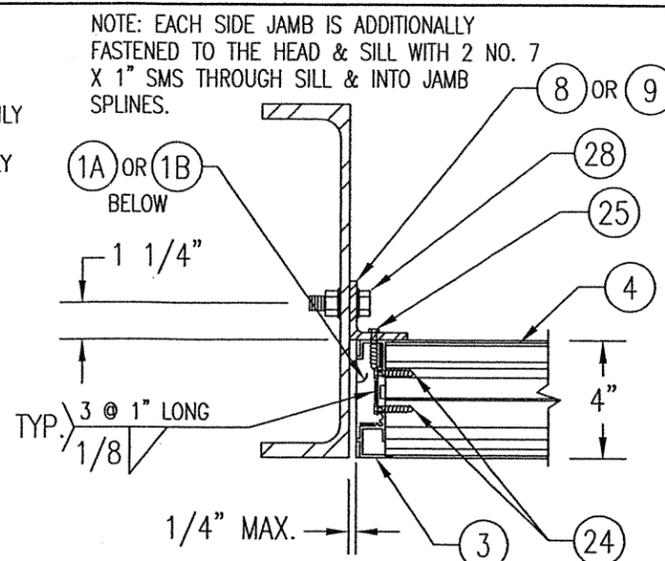


**WOOD FRAMED OPENING**

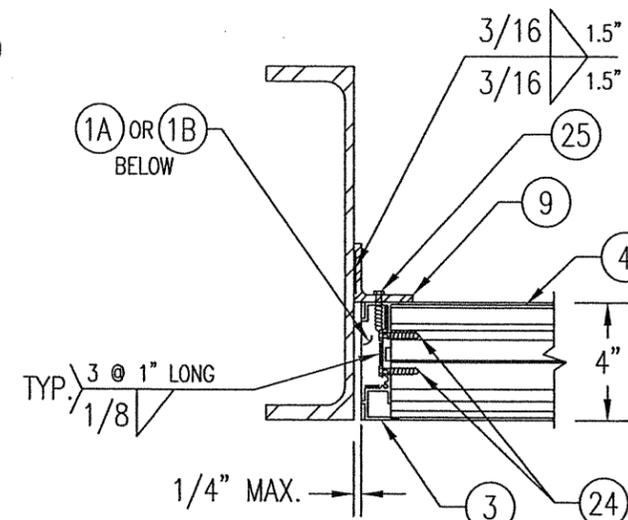


**CONCRETE/MASONRY OPENING**

(MASONRY ACCEPTABLE AT SIDES ONLY AND MAY NOT BE USED AT HEAD OR SILL)

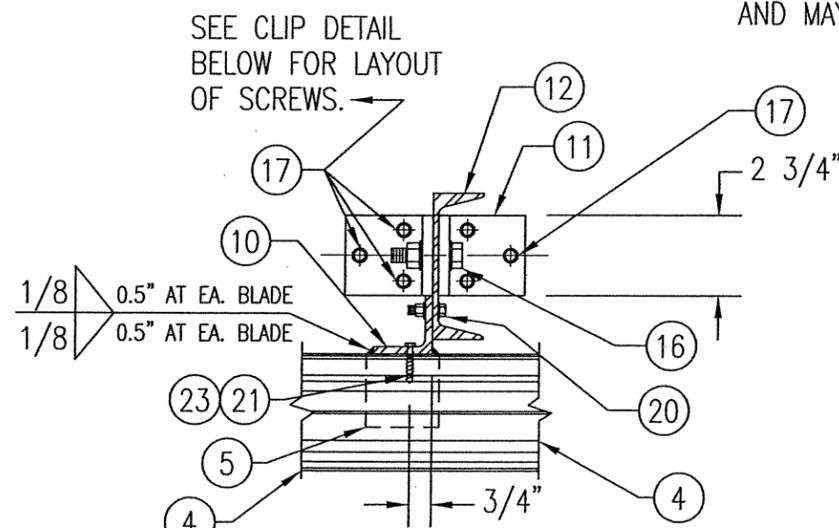


**STEEL FRAME OPENING (BOLTED)**

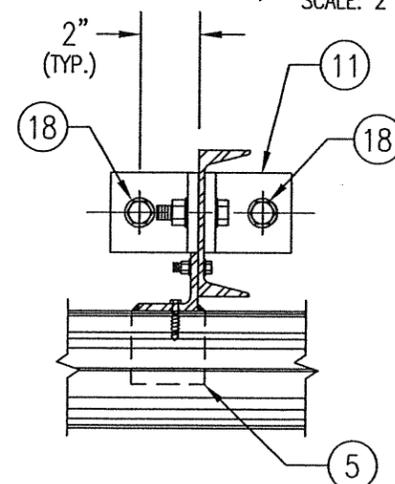


**STEEL FRAME OPENING (WELDED)**

**DETAIL 6**  
SCALE: 2"=1'-0"

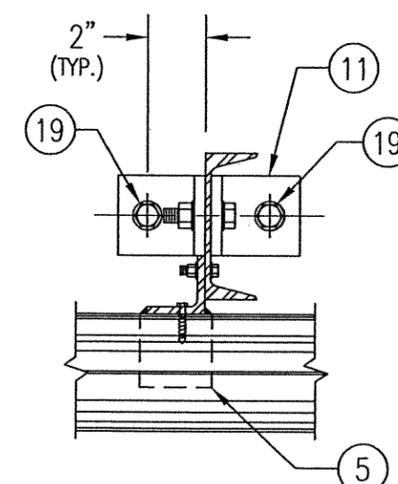


**WOOD FRAMED OPENING**



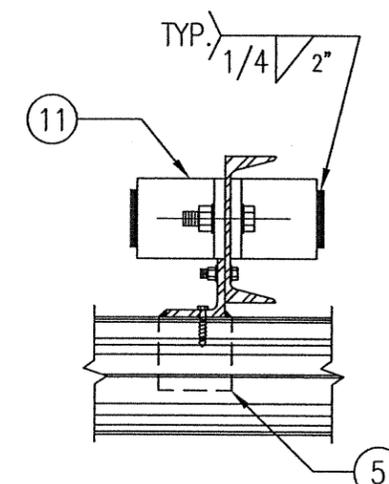
**CONCRETE SILL & HEAD**

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



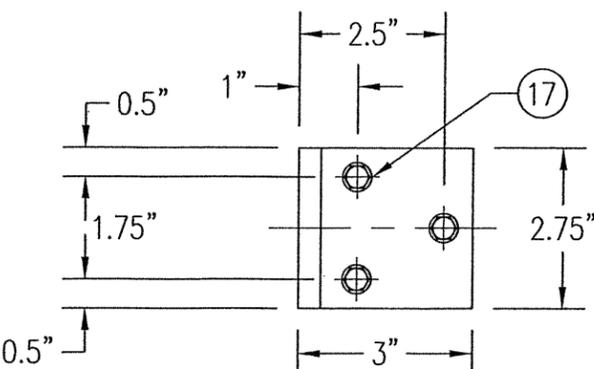
**STEEL FRAME OPENING (BOLTED)**

SEE "WOOD OPENING" FOR DETAIL NOT SHOWN



**STEEL FRAME OPENING (WELDED)**

SEE "WOOD OPENING" FOR DETAIL NOT SHOWN

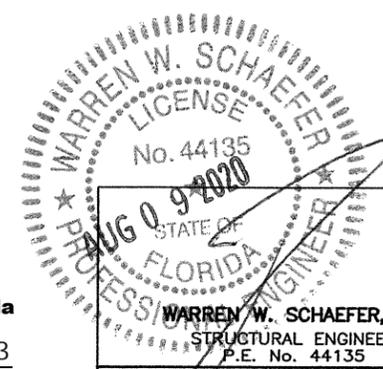


**MULLION CLIP DETAIL @ WOOD INSTALLATION**

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

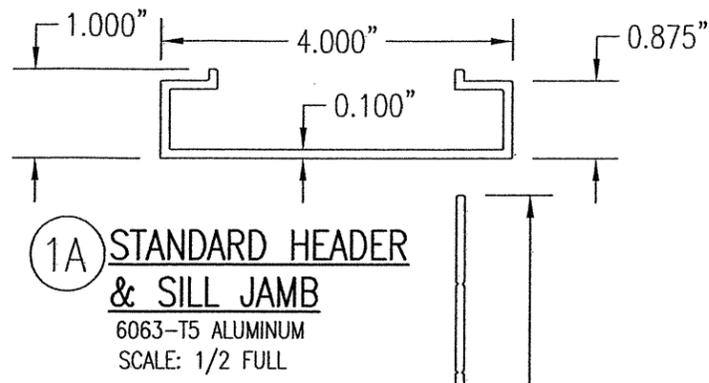
**DETAIL 7**  
SCALE: 2"=1'-0"

**PRODUCT REVISED**  
as complying with the Florida Building Code  
NOA-No. 20-0622.13  
Expiration Date 07/27/2023  
By *R. J. [Signature]*  
Miami-Dade Product Control

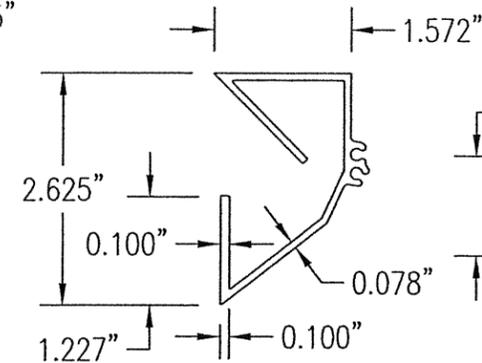


**W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)**  
STRUCTURAL CONSULTING ENGINEERS  
7480 150TH COURT NORTH  
PALM BEACH GARDENS, FL 33418  
PHONE: 561-744-3424

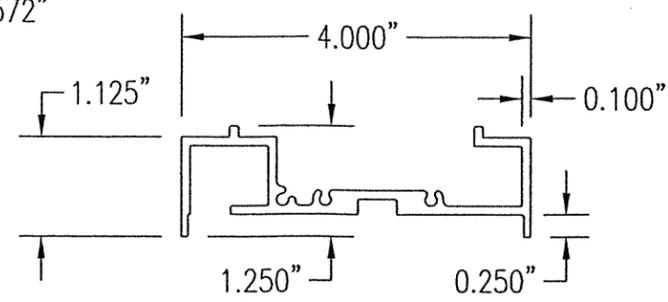
A1	BUBBLE "1A" WAS "1"	04/29/03	K.P.S.	W.W.S.
	REVISION	DATE	DRN	APPD
<b>ARROW UNITED INDUSTRIES</b> A Division of Mestek, Inc.				
450 RIVERSIDE DRIVE - P.O. BOX 69 WYALUSING, PA 18853 PHONE 570-746-1888; FAX 570-746-9286				
<b>EA-22 TEST LOUVER</b> ARCHITECTURAL & NON-ARCHITECTURAL LOUVER DETAILS				
CKD.BY	APPD.BY W.W.S.	SHEET: 5 of 7		
DRN.BY W.W.S.	DWG. NO.	35972-4		
DATE 06-16-00				REV. C



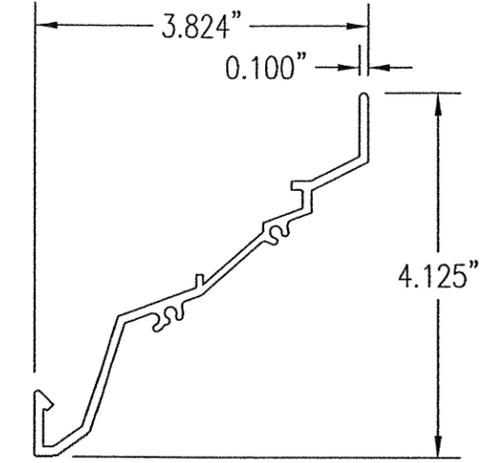
1A STANDARD HEADER & SILL JAMB  
6063-T5 ALUMINUM  
SCALE: 1/2 FULL



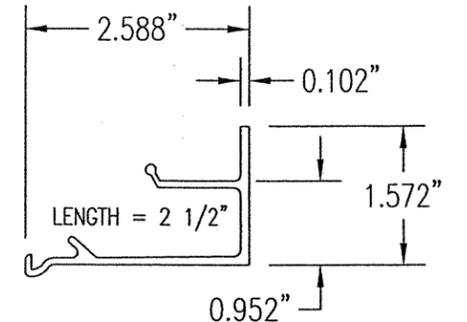
2 PARTIAL BLADE  
6063-T5 ALUMINUM  
SCALE: 1/2 FULL



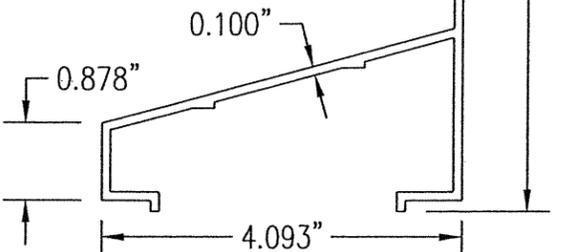
3 SIDE JAMB  
6063-T5 ALUMINUM  
SCALE: 1/2 FULL



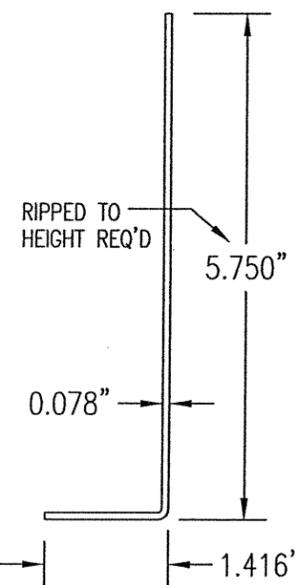
4 LOUVER BLADE  
6063-T5 ALUMINUM  
SCALE: 1/2 FULL



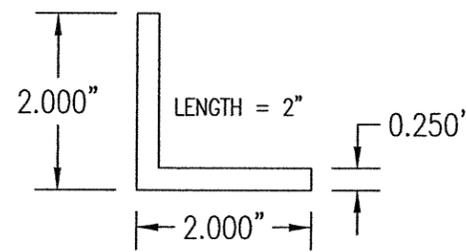
5 BLADE BRACE  
6063-T5 ALUMINUM  
SCALE: 1/2 FULL



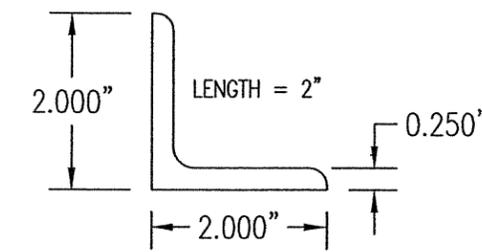
1B OPTIONAL SLOPED SILL  
6063-T5 ALUMINUM  
SCALE: 1/2 FULL



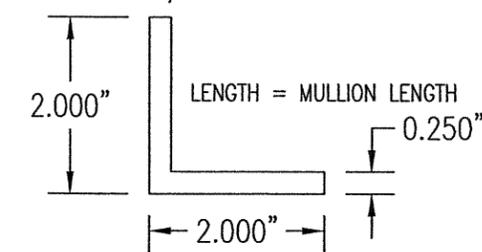
7 SILL ANGLE  
6063-T5 ALUMINUM  
SCALE: 1/2 FULL



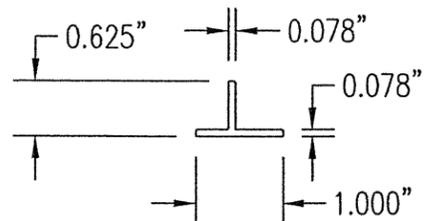
8 CONNECTION ANGLE  
6063-T5 ALUMINUM  
SCALE: 1/2 FULL



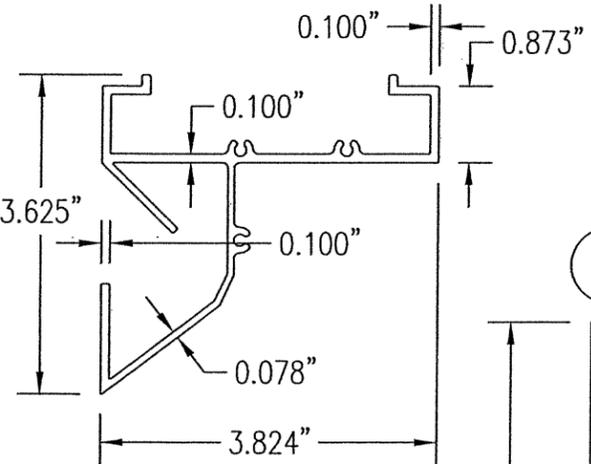
9 CONNECTION ANGLE  
A36 STEEL  
SCALE: 1/2 FULL



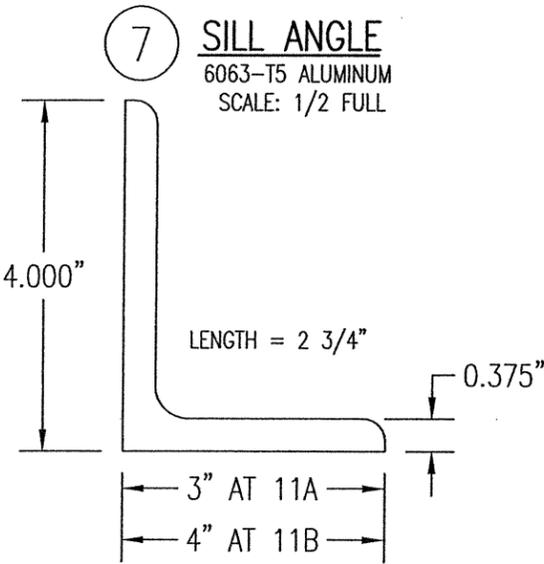
10 MULLION ANGLE  
6063-T5 ALUMINUM  
SCALE: 1/2 FULL



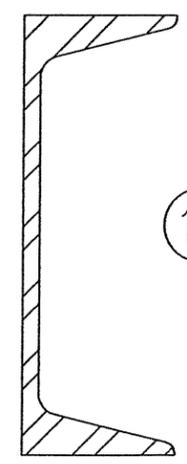
6 MULLION CAP  
6063-T5 ALUMINUM  
SCALE: 1/2 FULL



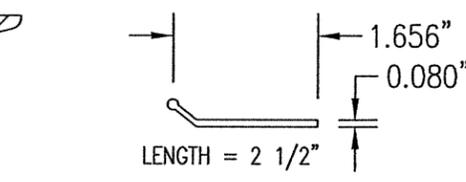
1C OPTIONAL 1-PIECE HEADER  
6063-T5 ALUMINUM  
SCALE: 1/2 FULL



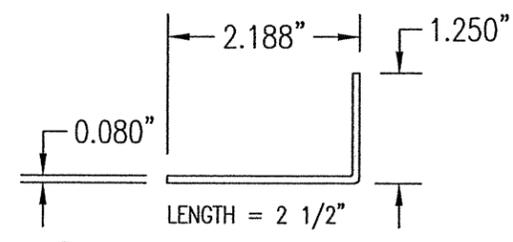
11A 11B MULLION END CONNECTION ANGLE  
A36 STEEL  
SCALE: 1/2 FULL



12 C5X6.7 MULLION  
A36 STEEL  
SCALE: 1/2 FULL



13 PARTIAL BLADE REINFORCEMENT PLATE  
6063-T5 ALUMINUM  
SCALE: 1/2 FULL



14 PARTIAL BLADE REINFORCEMENT ANGLE  
6063-T5 ALUMINUM  
SCALE: 1/2 FULL

**PRODUCT REVISED**  
as complying with the Florida Building Code  
NOA-No. 20-0622.13  
Expiration Date 07/27/2023  
By *[Signature]*  
Miami-Dade Product Control

WARREN W. SCHAEFER  
LICENSE  
No. 44135  
AUG 9 2020  
STATE OF FLORIDA  
WARREN W. SCHAEFER, P.E.  
STRUCTURAL ENGINEER  
P.E. No. 44135

W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)  
STRUCTURAL CONSULTING ENGINEERS  
7480 150TH COURT NORTH  
PALM BEACH GARDENS, FL 33418  
PHONE: 561-744-3424

A1	ITEM "1A" WAS "1"; ADDED ITEMS "1B" & "1C"	04/29/03	K.P.S.	W.W.S.
	REVISION	DATE	DRN	APPD
			CK	

**ARROW UNITED INDUSTRIES**  
A Division of Mestek, Inc.  
450 RIVERSIDE DRIVE - P.O. BOX 69  
WYALUSING, PA 18853  
PHONE 570-746-1888; FAX 570-746-9286

EA-22 TEST LOUVER  
ARCHITECTURAL & NON-ARCHITECTURAL LOUVER  
PARTS & EXTRUSIONS

CKD.BY	APPD.BY W.W.S.	SHEET: 6 of 7
DRN.BY W.W.S.	DWG. NO. 35972-4	REV. C
DATE 06-16-00		

**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	-

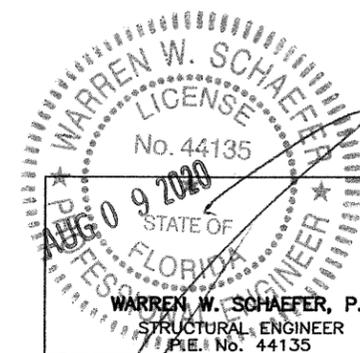
**MATERIAL LIST**

NO.	DESCRIPTION	NOTES/SPECIFICATIONS
PARTS/EXTRUSIONS		
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 SHT. 2
9	L2X2X1/4 OPTIONAL JAMB CONNECTION ANGLE 2" LONG	A36 STEEL; WITHIN 4" OF JAMB ENDS & SPACED PER LOAD TABLE ON SHT. 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

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 By *[Signature]*  
 Miami-Dade Product Control

**PRESSURE TABLE NOTES:**

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



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 STRUCTURAL CONSULTING ENGINEERS  
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 PHONE: 561-744-3424

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<b>ARROW UNITED INDUSTRIES</b> A Division of Mestek, Inc. 450 RIVERSIDE DRIVE - P.O. BOX 69 WYALUSING, PA 18853 PHONE 570-746-1888; FAX 570-746-9286				
<b>EA-22 TEST LOUVER</b> <b>ARCHITECTURAL &amp; NON-ARCHITECTURAL LOUVER</b> <b>MATERIAL LIST &amp; LOAD TABLE</b>				
CKD.BY	APPD.BY	W.W.S.	SHEET: 7 of 7	
DRN.BY	W.W.S.	DWG. NO.	35972-4	REV. C
DATE	06-16-00			