



MIAMI-DADE COUNTY, FLORIDA  
METRO-DADE FLAGLER BUILDING  
140 WEST FLAGLER STREET, SUITE 1603  
MIAMI, FLORIDA 33130-1563  
(305) 375-2901 FAX (305) 372-6339  
[www.miamidade.gov/buildingcode](http://www.miamidade.gov/buildingcode)

BUILDING CODE COMPLIANCE OFFICE (BCCO)  
PRODUCT CONTROL DIVISION  
**NOTICE OF ACCEPTANCE (NOA)**

**Arrow United Industries**  
314 Riverside Drive (P.O. Box 69)  
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 by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) 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 Division (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. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division 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-32 6" Aluminum Louver System**

**APPROVAL DOCUMENT:** Drawing No. 35972-6, titled "EA-32 Test Louver, Architectural & Non-Architectural Louver", sheets 1 through 7 of 7, dated 06/16/00, with revision "B1", dated 04/17/08, 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 Renewal stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Division.

**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 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 **renews NOA # 08-0423.02** and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by **Carlos M. Utrera, P.E.**



*[Signature]*  
11/10/08

NOA No. 08-1030.02  
Expiration Date: July 27, 2013  
Approval Date: December 4, 2008  
Page 1

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. Drawing No. **35972-6**, titled "EA-32 Test Louver, Architectural & Non-Architectural Louver", sheets 1 through 7 of 7, dated 06/16/00, with revision "B1", dated 04/17/08, prepared by W. W. Schaefer Engineering & Consulting, P.A. signed and sealed by Warren W. Schaefer, P.E.

**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 "A.U.I. EA-22 Architectural & Non-Architectural Fixed Louver", prepared by Hurricane Test Laboratory, Inc., Report No. **0198-0811-08**, dated 09/17/08, signed and sealed by Vinu J. Abraham, P.E.

**C. CALCULATIONS**

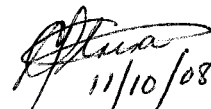
1. Revision calculations prepared by W.W. Schaefer Engineering & Consulting, P.A., dated 04/17/08, signed and sealed by Warren W. Schaefer, P.E.
1. Allowable Load Calculations, dated 11/10/99, pages 1 to 3 of 3, prepared by W. W. Schaefer Engineering & Consulting, P.A., signed and sealed by W. W. Schaefer, P.E.
2. Allowable Load Calculations, dated 04/14/00, pages 1 to 6 of 6, prepared by W. W. Schaefer Engineering & Consulting, P.A. signed and sealed by W. W. Schaefer, P.E.  
**"Submitted under NOA No. 03-0611.01"**

**D. QUALITY ASSURANCE**

1. Miami Dade Building Code Compliance Office (BCCO).

**E. MATERIAL CERTIFICATIONS**

1. None.



11/10/08

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Carlos M. Utrera, P.E.  
Product Control Examiner  
NOA No. 08-1030.02  
Expiration Date: July 27, 2013  
Approval Date: December 4, 2008

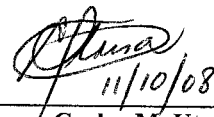
NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

**F. STATEMENTS**

1. Code compliance letter issued by W. W. Schaefer Engineering & Consulting, P.A., dated 04/18/08, signed and sealed by Warren W. Schaefer, P.E.
2. No change letter issued by W. W. Schaefer Engineering & Consulting, P.A., dated 10/28/08, signed and sealed by Warren W. Schaefer, P.E.
3. Test compliance letter issued by Hurricane Test Laboratory, Inc., dated 09/17/08, signed and sealed by Vinu J. Abraham, P.E.
4. No financial interest letter issued by W. W. Schaefer Engineering & Consulting, P.A., dated 10/28/08, signed and sealed by Warren W. Schaefer, P.E.

**G. OTHER**

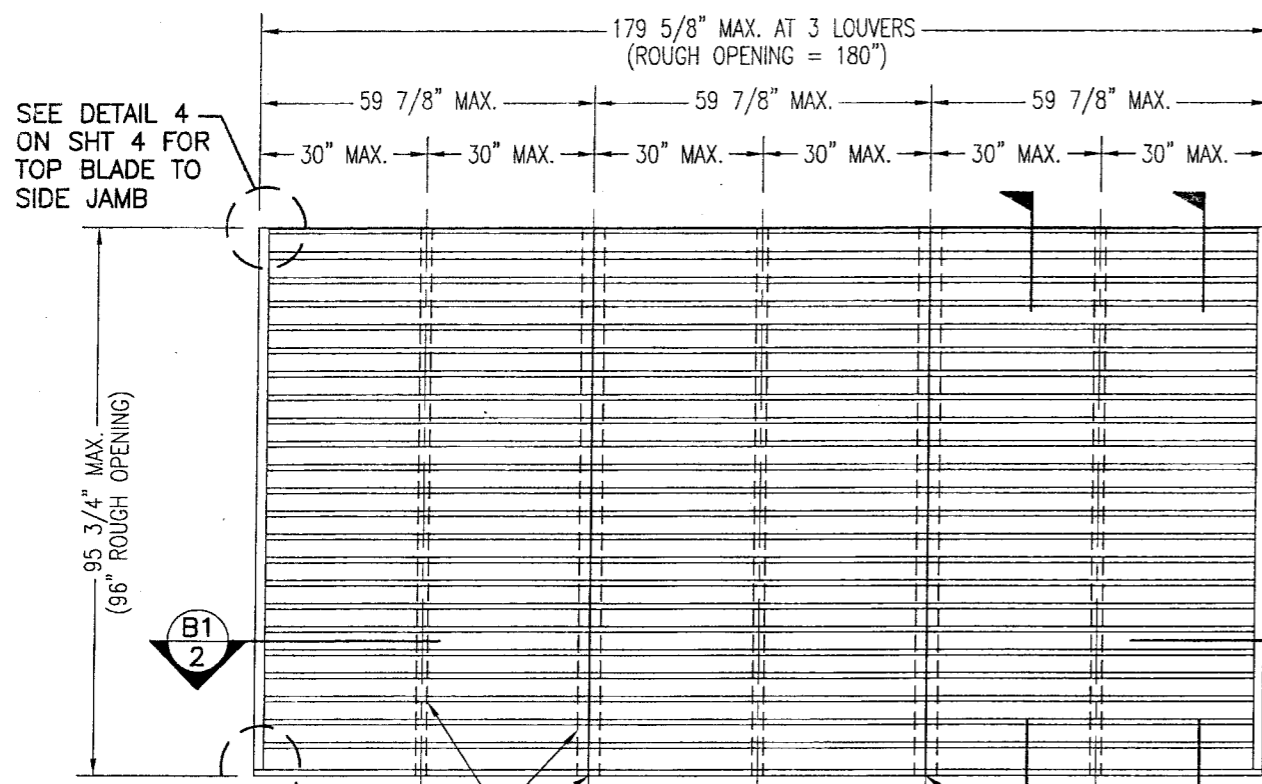
1. Notice of Acceptance No. **08-0423.02**, issued to Arrow United Industries, approved on 07/24/08 and expiring on 07/27/09.



11/10/08

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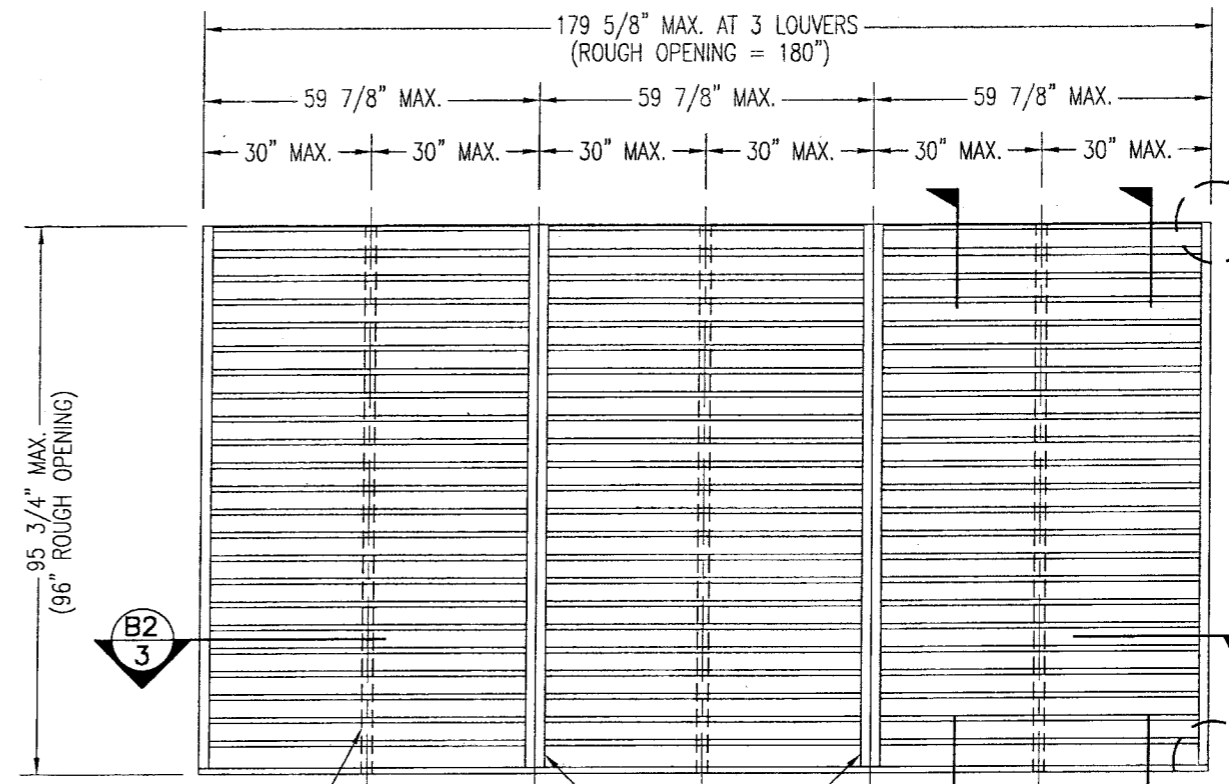
Carlos M. Utrera, P.E.  
Product Control Examiner  
NOA No. 08-1030.02  
Expiration Date: July 27, 2013  
Approval Date: December 4, 2008



**EXTERIOR ELEVATION  
ARCHITECTURAL 6" 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 6" LOUVER**

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

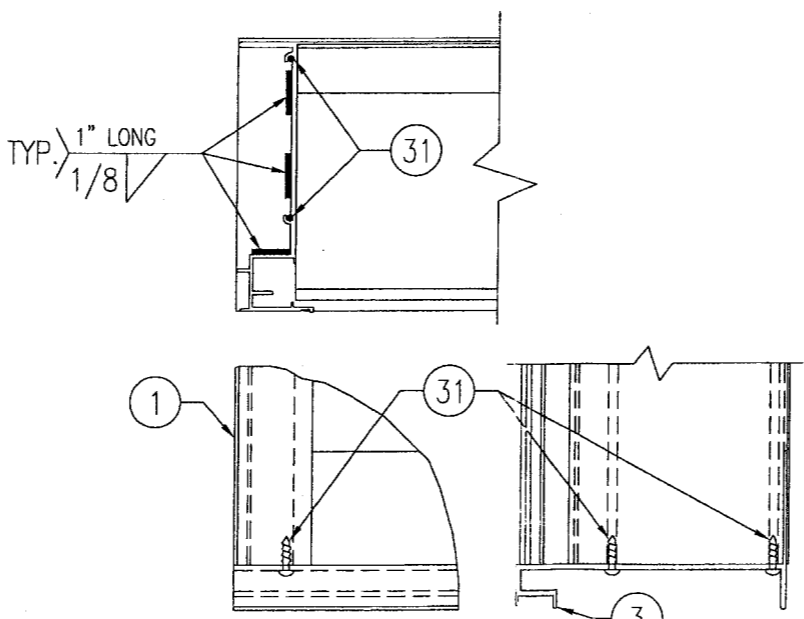
NOTE: THIS LOUVER SYSTEM MAY CONSIST OF AN UNLIMITED NUMBER OF SECTIONS PROVIDING EACH SECTION DOES NOT EXCEED 59 7/8" X 95 3/4" IN SIZE.

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.

**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 WHEN USED IN CONJUNCTION WITH LOAD COMBINATIONS SPECIFIED IN SECTION 2.0 OF 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.



**SILL CORNER DETAIL**

**PRODUCT RENEWED**  
 as complying with the Florida Building Code  
 Acceptance No 08-1030.02  
 Expiration Date 07/27/2013

**PRODUCT RENEWED**  
 as complying with the Florida Building Code  
 Acceptance No 08-0493.02  
 Expiration Date 07/27/2013

By *[Signature]*  
 Miami Dade Product Control Division

By *[Signature]*  
 Miami Dade Product Control Division

B1	UPDATE FOR CODE COMPLIANCE	04/17/08	WRM
A1	UPDATE GENERAL NOTES TO 2004 FBC COMPLIANT	08/23/05	WWS
REVISION		DATE	DRN/CK

APR 18 2008

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

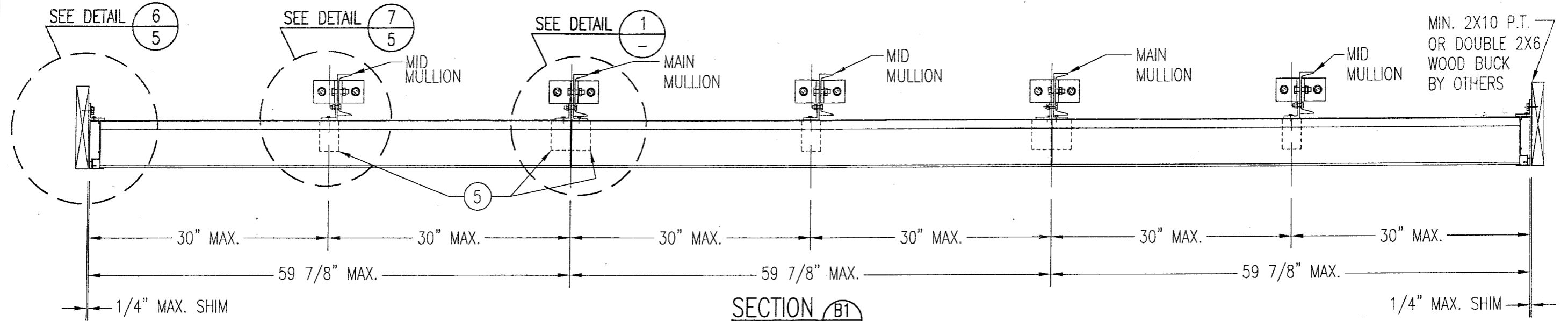
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.  
 STRUCTURAL CONSULTING ENGINEERS  
 8895 N. MILITARY TRAIL, SUITE C-204  
 PALM BEACH GARDENS, FL 33410  
 PHONE: 561-775-4902

**ARROW UNITED INDUSTRIES**  
 A Division of Mestek, Inc.

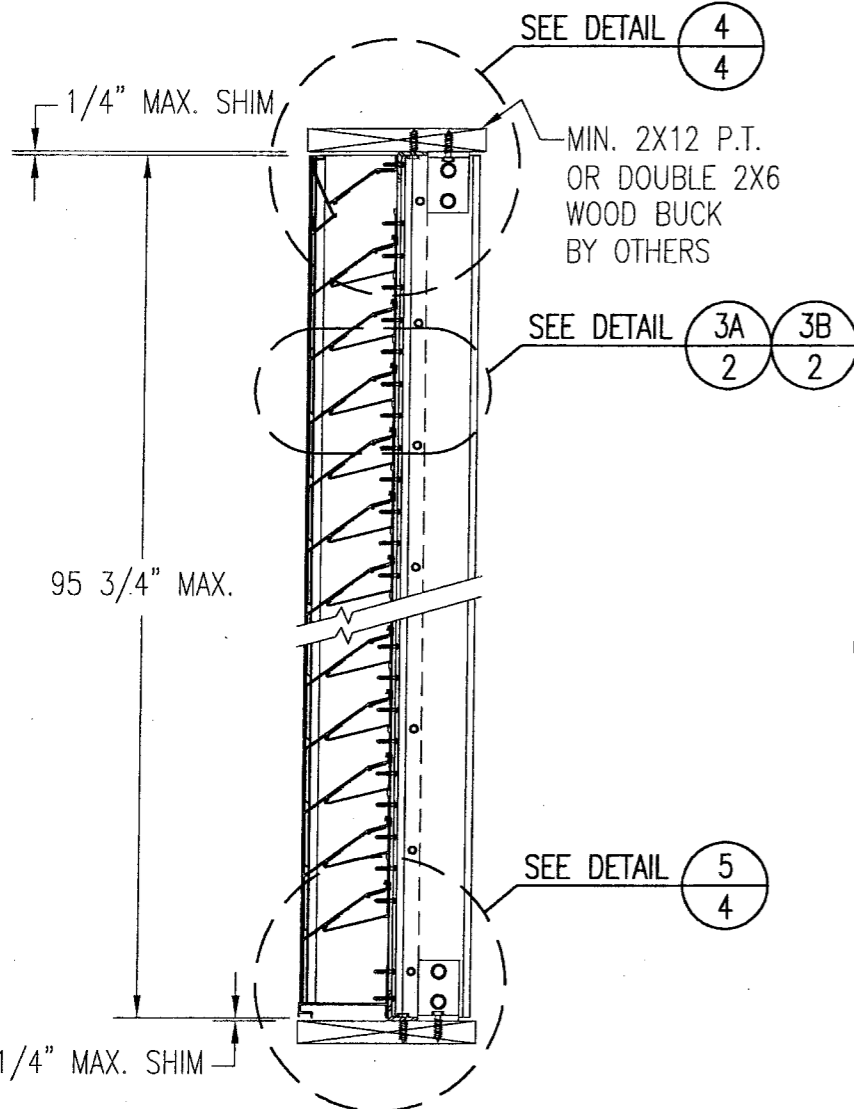
314 RIVERSIDE DRIVE - P.O. BOX 69  
 WYALUSING, PA 18853  
 PHONE 570-746-1888; FAX 570-746-9286

**EA-32 TEST LOUVER  
 ARCHITECTURAL & NON-ARCHITECTURAL LOUVER  
 ELEVATIONS & NOTES**

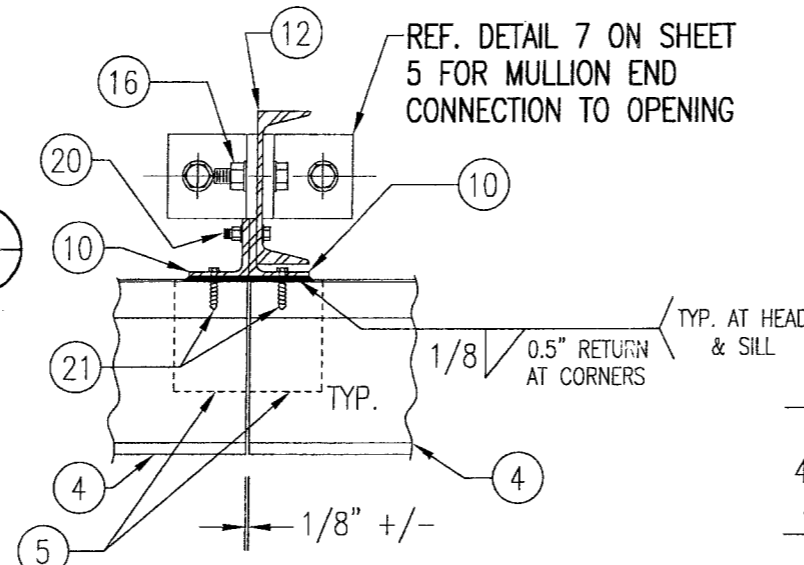
CKD.BY	APPD.BY W.W.S.	SHEET: 1 of 7
DRN.BY W.W.S.	DWG. NO. 35972-6	REV. B
DATE 06-16-00		



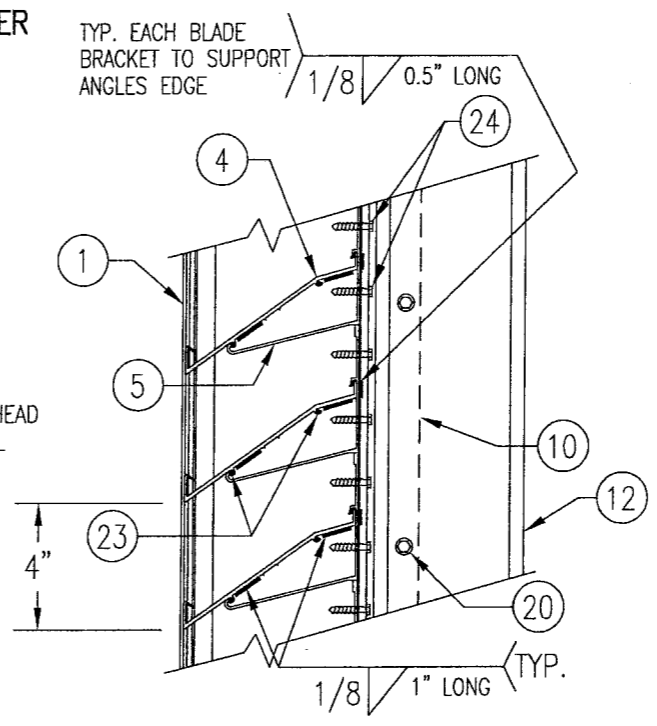
SECTION **B1**  
SCALE: 1"=1'-0"  
ARCHITECTURAL LOUVER



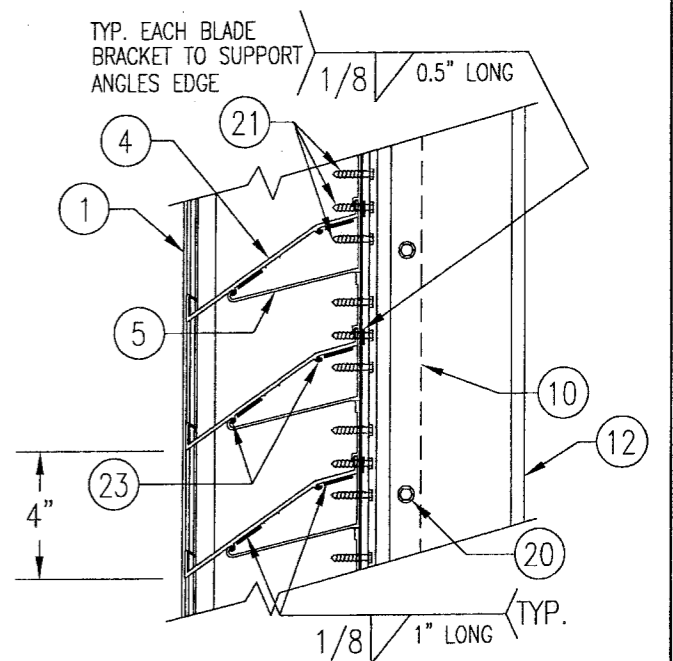
SECTION **A1**  
SCALE: 1"=1'-0"  
ARCHITECTURAL LOUVER



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



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



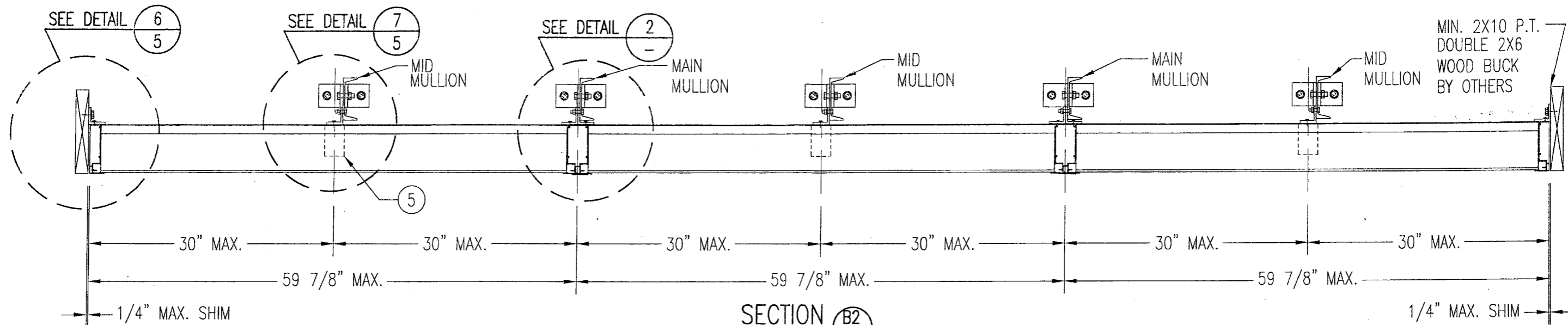
DETAIL **3B**  
SCALE: 2"=1'-0"  
TYP. AT ALL MAIN ARCHITECTURAL MULLIONS

**PRODUCT RENEWED**  
as complying with the Florida  
Building Code  
Acceptance No 08-1039.02  
Expiration Date 07/27/2013  
By [Signature]  
Miami Dade Product Control  
Division

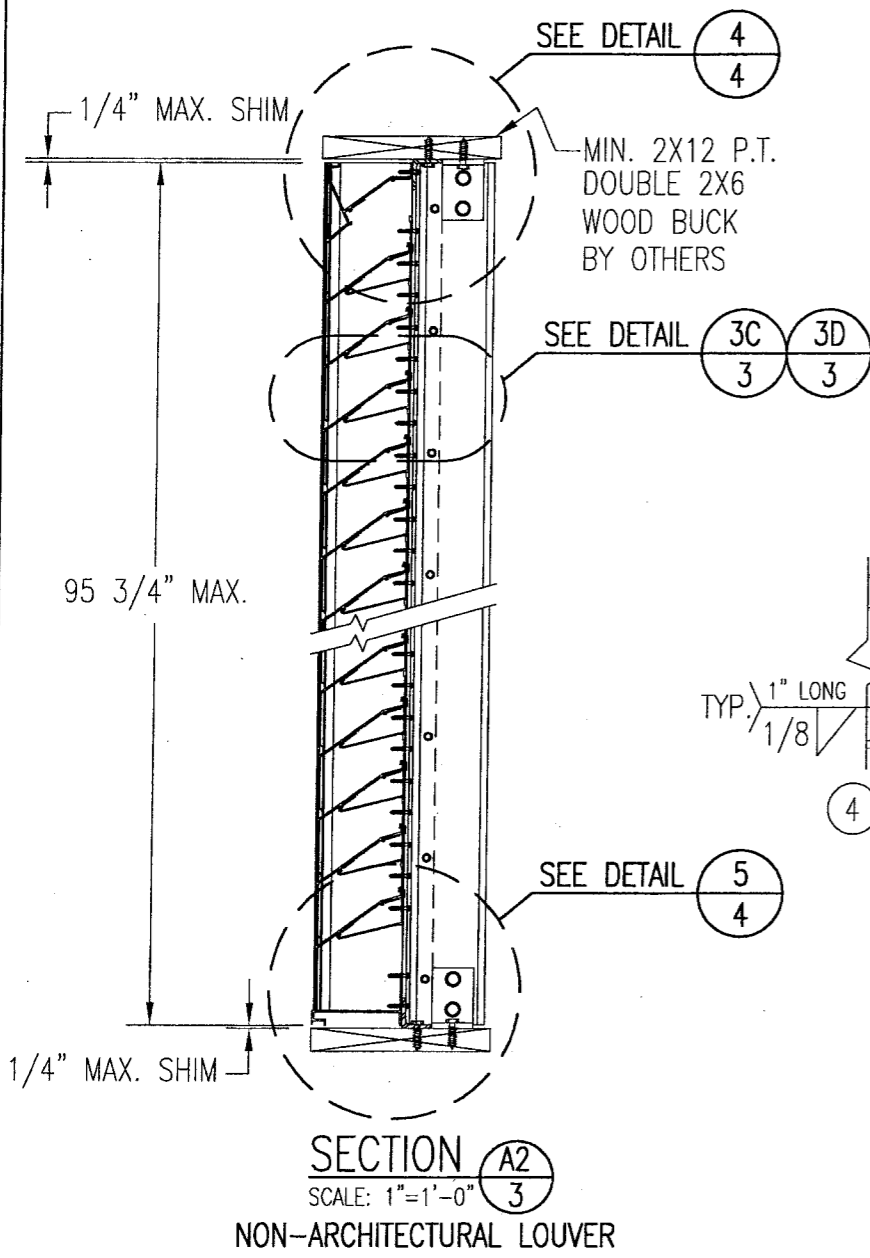
**PRODUCT RENEWED**  
as complying with the Florida  
Building Code  
Acceptance No 08-0423.02  
Expiration Date 07/27/2013  
By [Signature]  
Miami Dade Product Control  
Division

APR 18 2008  
WARREN W. SCHAEFER, P.E.  
STRUCTURAL ENGINEER  
P.E. No. 44135  
W. W. SCHAEFER ENGINEERING  
& CONSULTING, P.A.  
STRUCTURAL CONSULTING ENGINEERS  
8895 N. MILITARY TRAIL, SUITE C-204  
PALM BEACH GARDENS, FL 33410  
PHONE: 561-775-4902

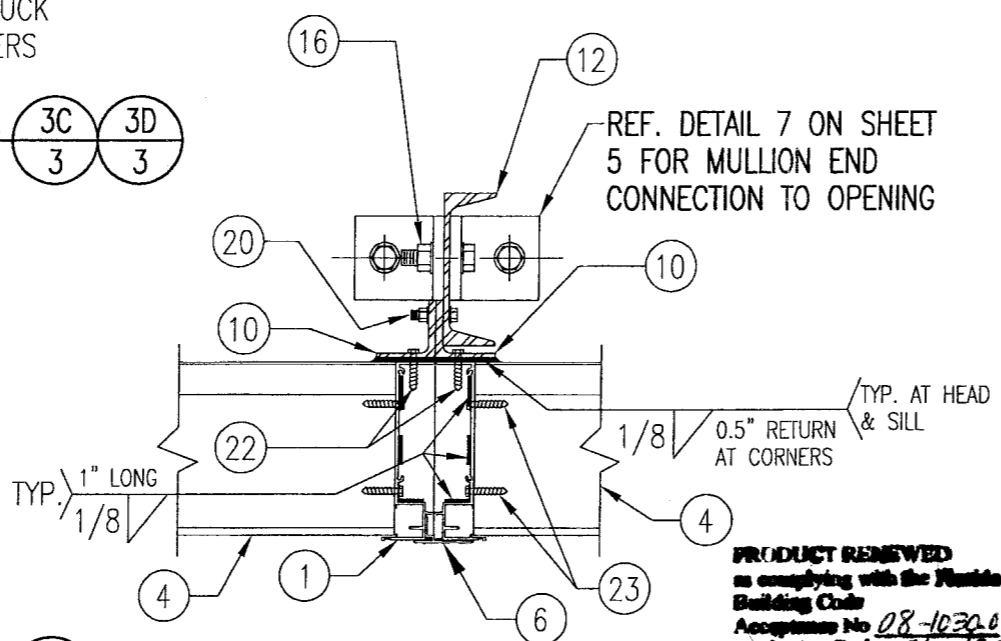
REVISION	DATE	DRN	CK	APPD
<b>ARROW UNITED INDUSTRIES</b> A Division of Mestek, Inc.				
314 RIVERSIDE DRIVE - P.O. BOX 69 WYALUSING, PA 18853 PHONE 570-746-1888; FAX 570-746-9286				
<b>EA-32 TEST LOUVER</b> ARCHITECTURAL LOUVER SECTIONS & DETAILS				
CKD.BY	APPD.BY	W.W.S.	SHEET: 2 of 7	
DRN.BY	W.W.S.	DWG. NO.	REV.	
DATE	06-16-00	35972-6	B	



**SECTION B2**  
SCALE: 1"=1'-0"  
NON-ARCHITECTURAL LOUVER

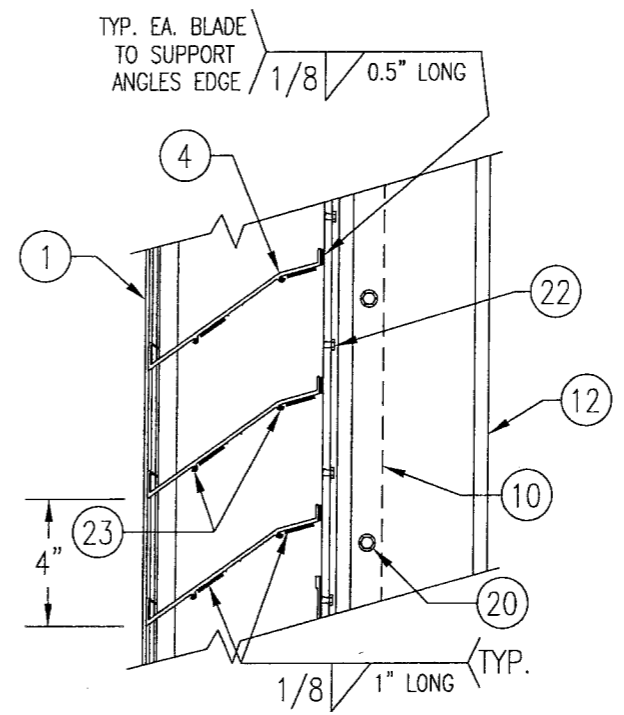


**SECTION A2**  
SCALE: 1"=1'-0"  
NON-ARCHITECTURAL LOUVER

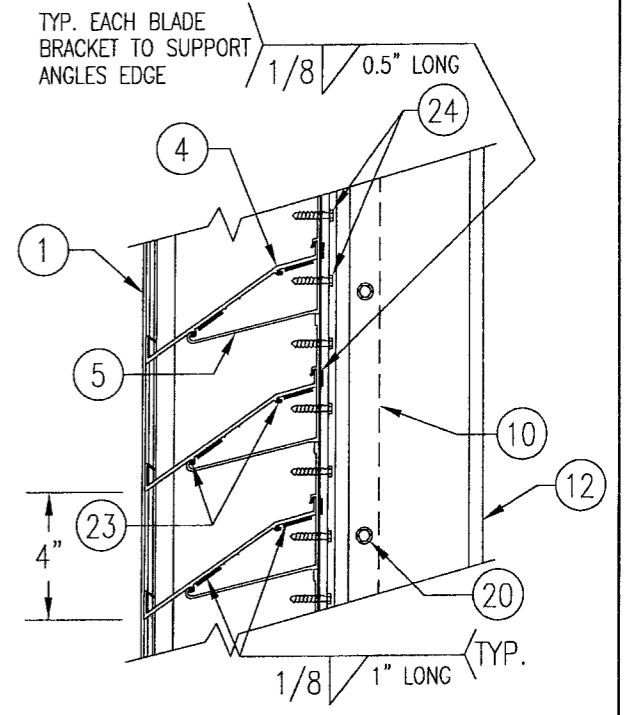


**DETAIL 2**  
SCALE: 2"=1'-0"

**NON-ARCHITECTURAL LOUVER**  
NOTE: SIDE JAMBS ARE ADDITIONALLY FASTENED TO THE SILL WITH 2 NO. 8 X 3/4" SMS THROUGH SILL & INTO JAMB SPLINES.



**DETAIL 3C**  
SCALE: 2"=1'-0"



**DETAIL 3D**  
SCALE: 2"=1'-0"

**PRODUCT RENEWED**  
as complying with the Florida Building Code  
Acceptance No. 08-1030.02 TYP. AT ALL MAIN NON-ARCHITECTURAL MULLIONS  
Expiration Date 07/27/2013

By *[Signature]*  
Miami Dade Product Control Division

**PRODUCT RENEWED**  
as complying with the Florida Building Code  
Acceptance No. 08-0423.02  
Expiration Date 07/27/2009

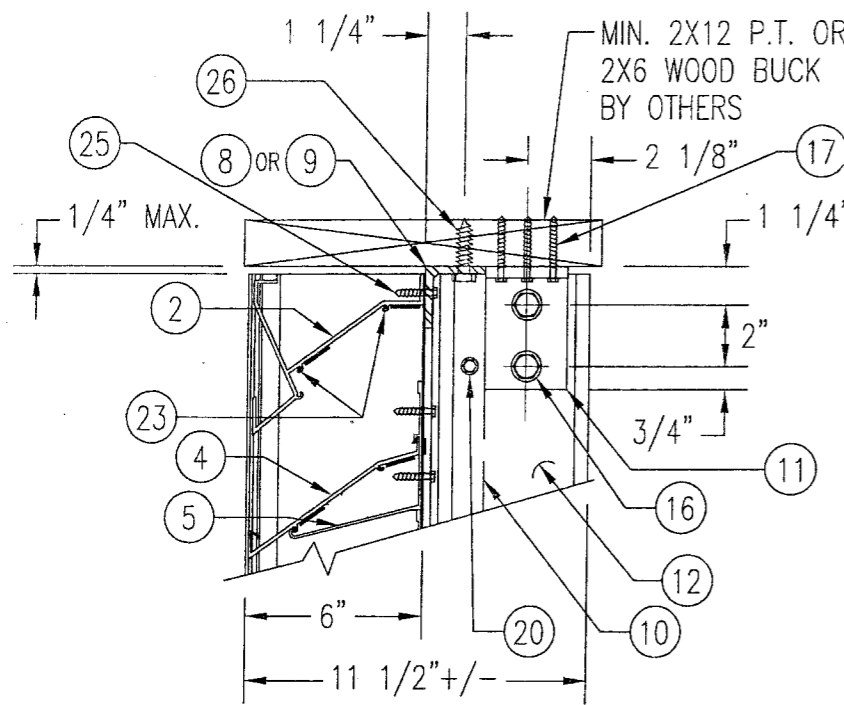
By *[Signature]*  
Miami Dade Product Control Division

APR 18 2008

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

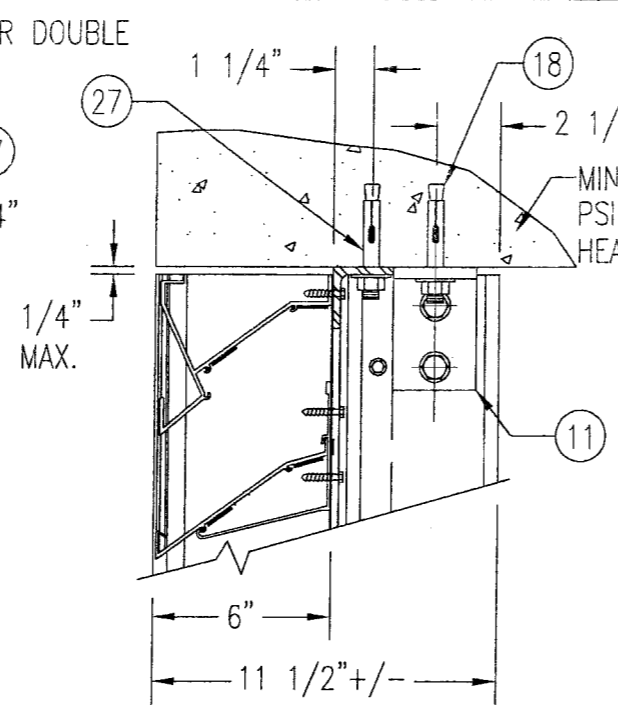
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.  
STRUCTURAL CONSULTING ENGINEERS  
8895 N. MILITARY TRAIL, SUITE C-204  
PALM BEACH GARDENS, FL 33410  
PHONE: 561-775-4902

REVISION		DATE	DRN	CK	APPD
<b>ARROW UNITED INDUSTRIES</b> A Division of Mestek, Inc.					
314 RIVERSIDE DRIVE - P.O. BOX 69 WYALUSING, PA 18853 PHONE 570-746-1888; FAX 570-746-9286					
<b>EA-32 TEST LOUVER</b> NON-ARCHITECTURAL LOUVER SECTIONS & DETAILS					
CKD.BY	APPD.BY	W.W.S.	SHEET: 3 of 7		
DRN.BY	W.W.S.	DWG. NO.	35972-6		
DATE	06-16-00			REV.	B



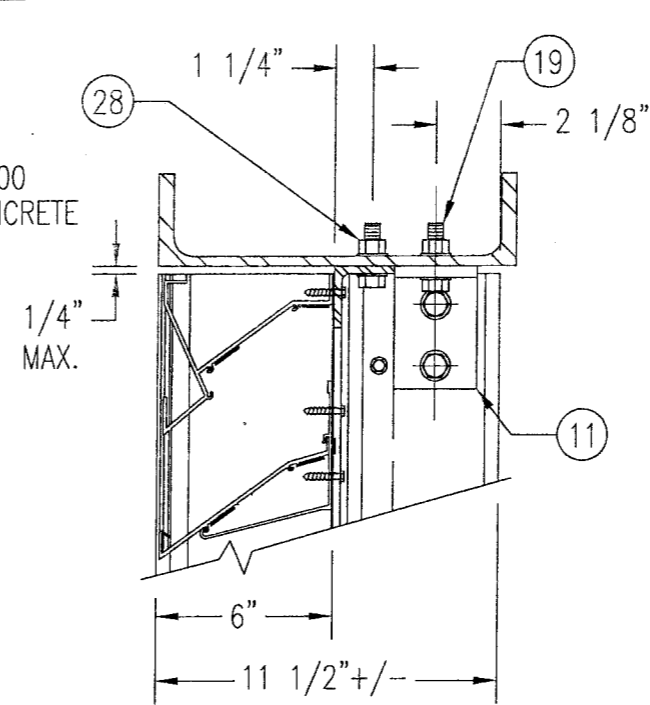
**WOOD FRAMED OPENING**

SEE "DETAIL 3A & 3B" FOR LOUVER BLADE DETAILS



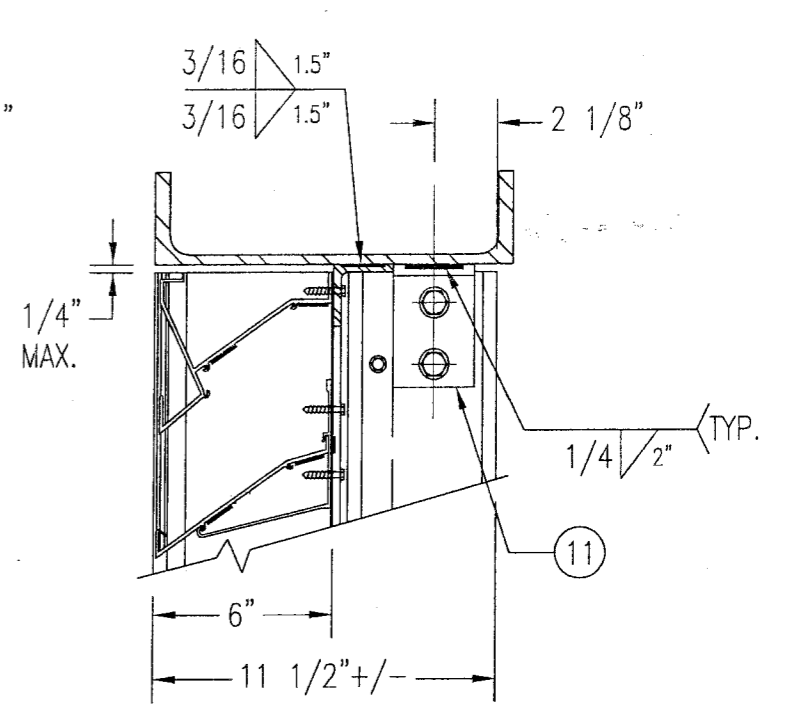
**CONCRETE HEAD**

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)**

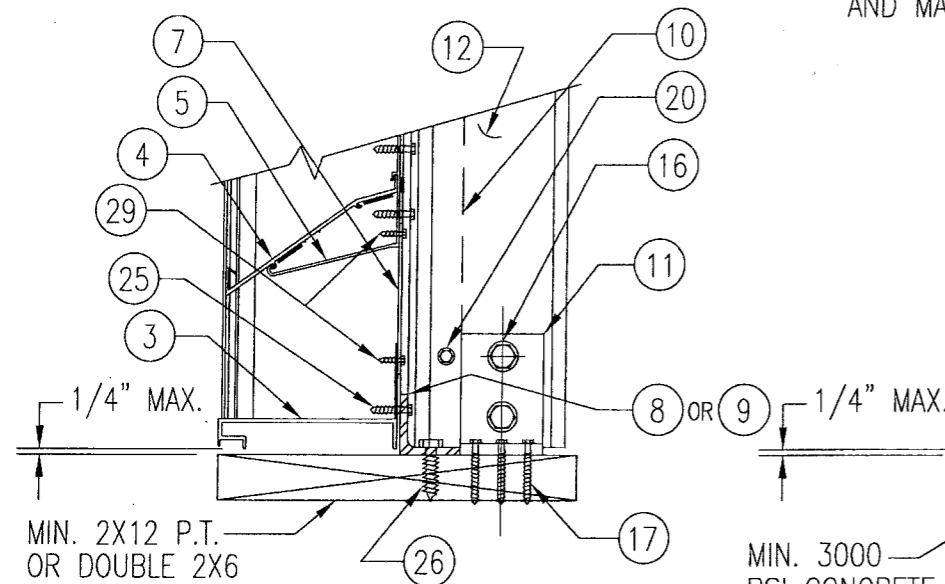
SEE "WOOD OPENING" FOR DETAIL NOT SHOWN



**STEEL FRAME OPENING (WELDED)**

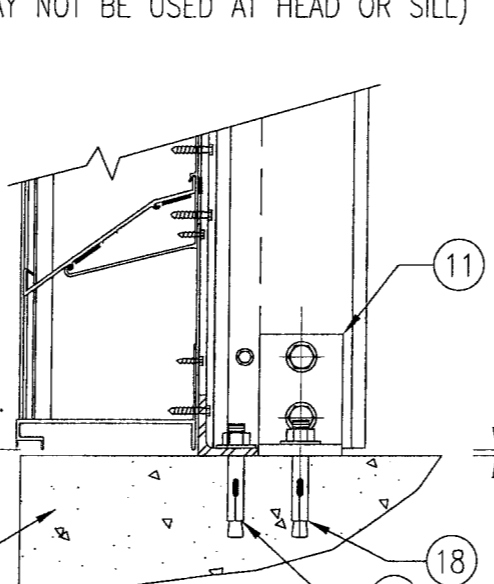
SEE "WOOD OPENING" FOR DETAIL NOT SHOWN

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



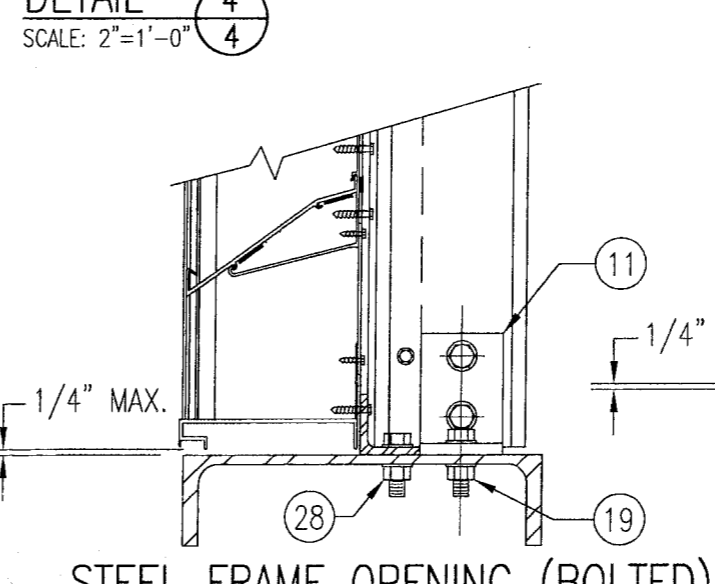
**WOOD FRAMED OPENING**

SEE "DETAIL 3A & 3B" FOR LOUVER BLADE DETAILS



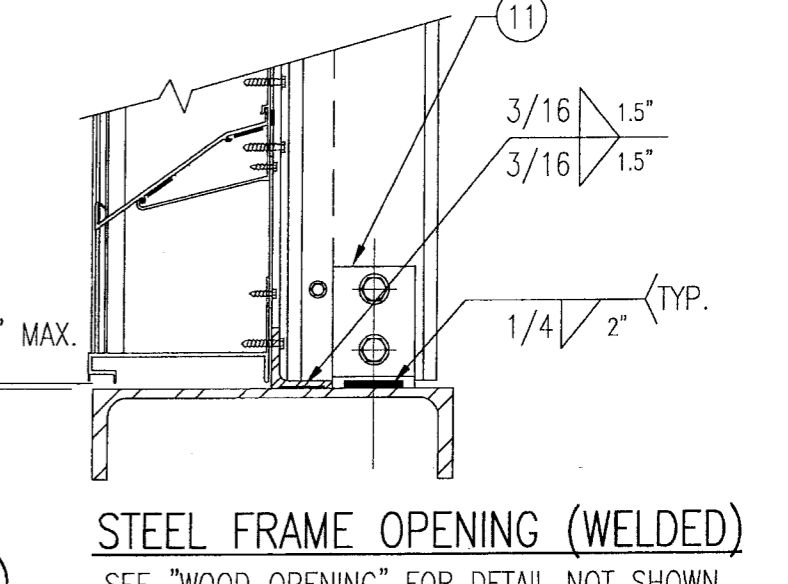
**CONCRETE SILL**

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



**STEEL FRAME OPENING (BOLTED)**

SEE "WOOD OPENING" FOR DETAIL NOT SHOWN



**STEEL FRAME OPENING (WELDED)**

SEE "WOOD OPENING" FOR DETAIL NOT SHOWN

**PRODUCT RENEWED**  
as complying with the Florida  
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Expiration Date 07/27/2013  
By *[Signature]*  
Miami/Dade Product Control  
Division

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


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

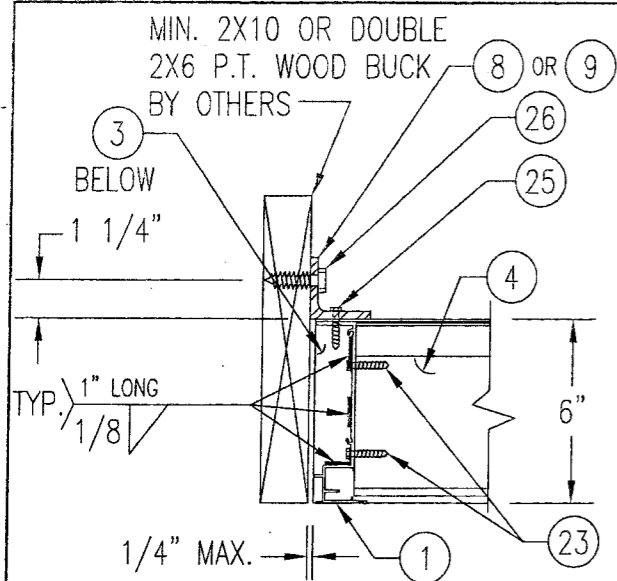
**PRODUCT RENEWED**  
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Acceptance No. 08-0423.02  
Expiration Date 07/27/2013  
By *[Signature]*  
Miami/Dade Product Control  
Division

APR 18 2008

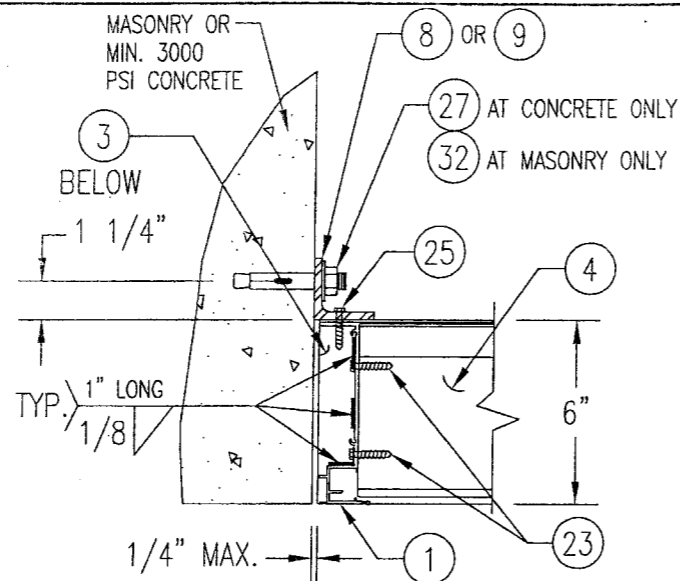
WARREN W. SCHAEFER, P.E.  
STRUCTURAL ENGINEER  
P.E. No. 44135

W. W. SCHAEFER ENGINEERING  
& CONSULTING, P.A.  
STRUCTURAL CONSULTING ENGINEERS  
8895 N. MILITARY TRAIL, SUITE C-204  
PALM BEACH GARDENS, FL 33410  
PHONE: 561-775-4902

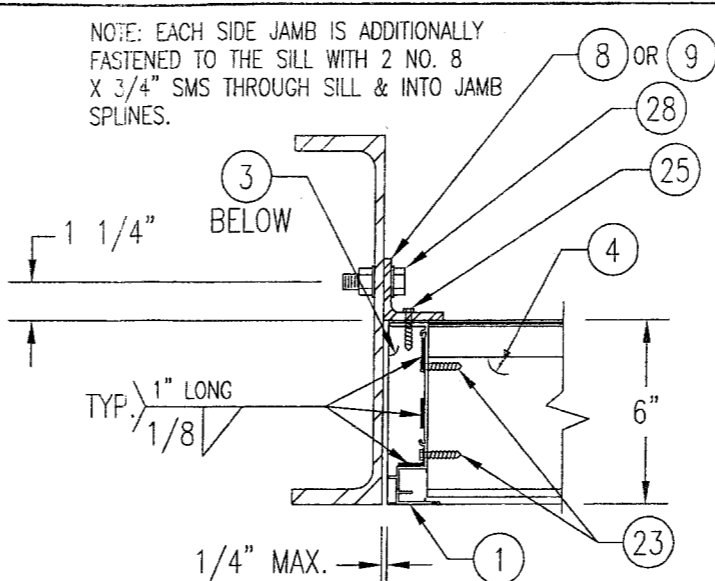
REVISION	DATE	DRN	CK	APPD
 <b>ARROW UNITED INDUSTRIES</b> A Division of Mestek, Inc. 314 RIVERSIDE DRIVE - P.O. BOX 69 WYALUSING, PA 18853 PHONE 570-746-1888; FAX 570-746-9286				
<b>EA-32 TEST LOUVER</b> ARCHITECTURAL & NON-ARCHITECTURAL LOUVER DETAILS				
CKD.BY	APPD.BY	W.W.S.	SHEET: 4 of 7	
DRN.BY	W.W.S.	DWG. NO.	35972-6	
DATE	06-16-00	REV.	B	



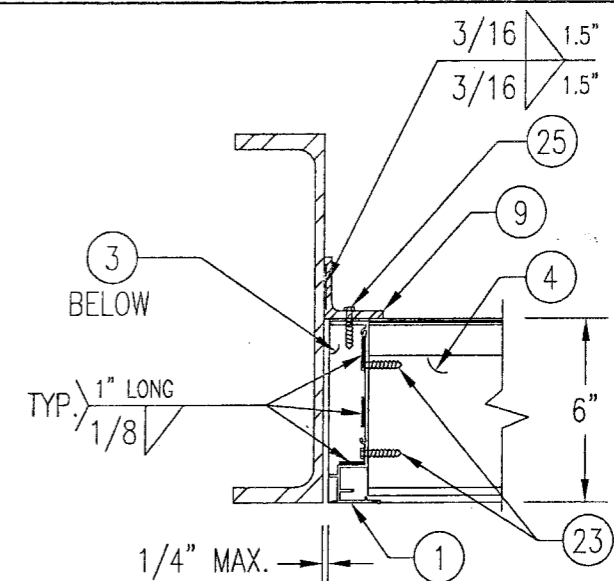
**WOOD FRAMED OPENING**



**CONCRETE/MASONRY OPENING**



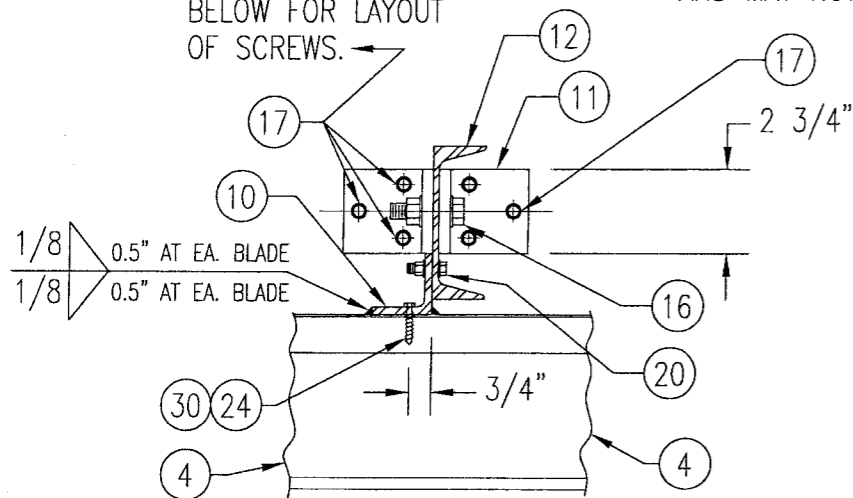
**STEEL FRAME OPENING (BOLTED)**



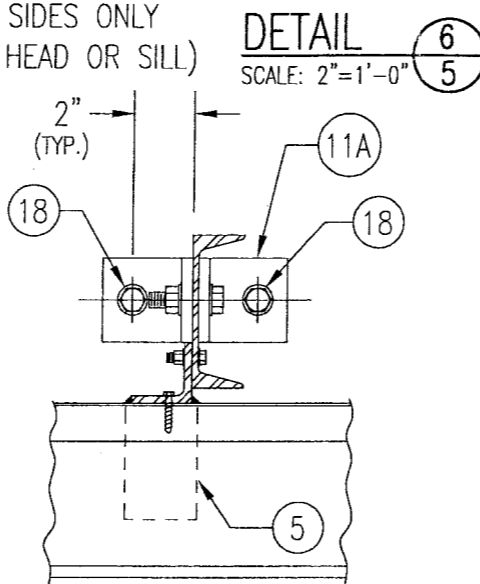
**STEEL FRAME OPENING (WELDED)**

NOTE: EACH SIDE JAMB IS ADDITIONALLY FASTENED TO THE SILL WITH 2 NO. 8 X 3/4\"/>

SEE CLIP DETAIL BELOW FOR LAYOUT OF SCREWS.

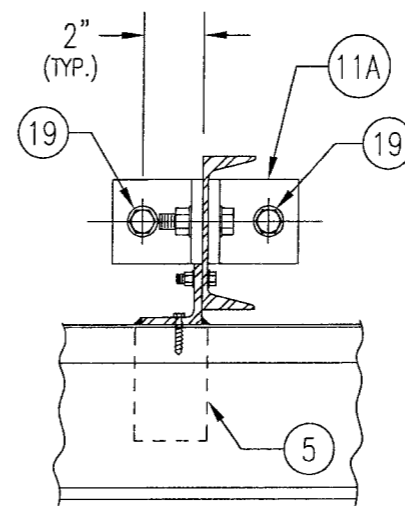


**WOOD FRAMED OPENING**



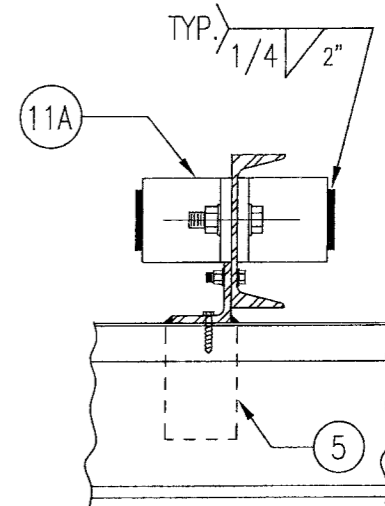
**CONCRETE HEAD & SILL**

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



**STEEL FRAME OPENING (BOLTED)**

SEE "WOOD OPENING" FOR DETAIL NOT SHOWN



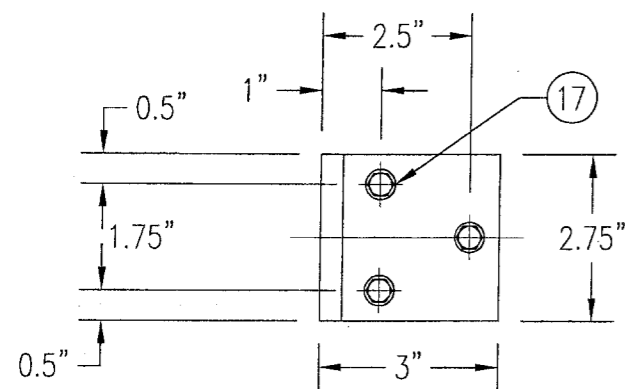
**STEEL FRAME OPENING (WELDED)**

SEE "WOOD OPENING" FOR DETAIL NOT SHOWN

DETAIL 6 SCALE: 2"=1'-0" 5

DETAIL 7 SCALE: 2"=1'-0" 5

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



**MULLION CLIP DETAIL @ WOOD INSTALLATION**

PRODUCT RENEWED as complying with the Florida Building Code Acceptance No 08-1030.02 Expiration Date 01/27/2013

By Miami Dade Product Control Division

PRODUCT RENEWED as complying with the Florida Building Code Acceptance No 08-0423.02 Expiration Date 07/27/2009

By Miami Dade Product Control Division

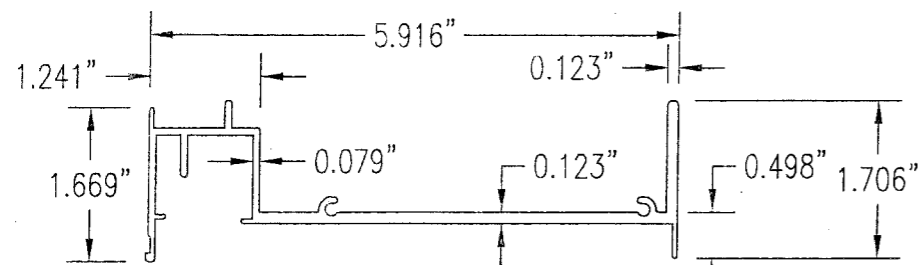
APR 18 2008

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

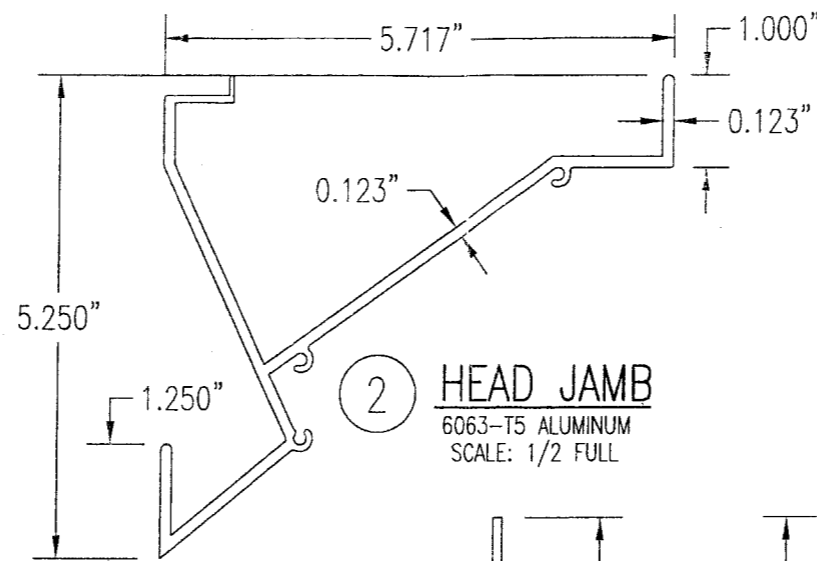
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. STRUCTURAL CONSULTING ENGINEERS 8895 N. MILITARY TRAIL, SUITE C-204 PALM BEACH GARDENS, FL 33410 PHONE: 561-775-4902

REVISION	DATE	DRN	CK	APPD
 A Division of Mestek, Inc. 314 RIVERSIDE DRIVE - P.O. BOX 69 WYALUSING, PA 18853 PHONE 570-746-1888; FAX 570-746-9286				
<b>EA-32 TEST LOUVER</b> <b>ARCHITECTURAL &amp; NON-ARCHITECTURAL LOUVER</b> <b>DETAILS</b>				
CKD. BY	APPD. BY W.W.S.	SHEET: 5 of 7		
DRN. BY W.W.S.	DWG. NO.	REV.		
DATE 06-16-00	35972-6	B		

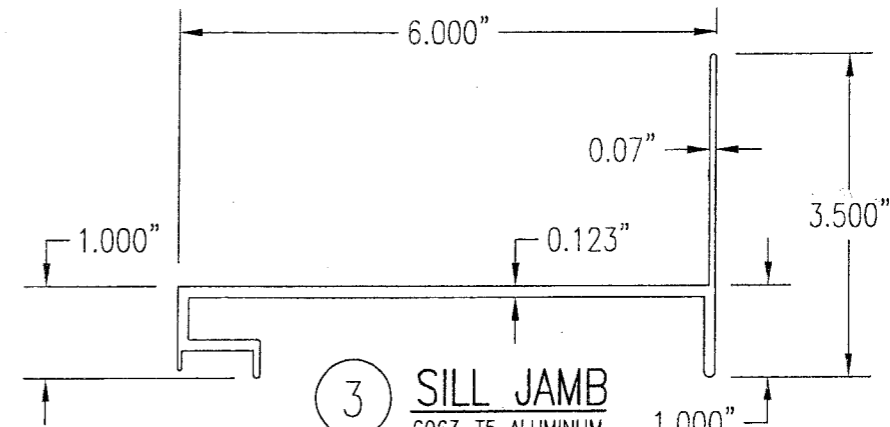




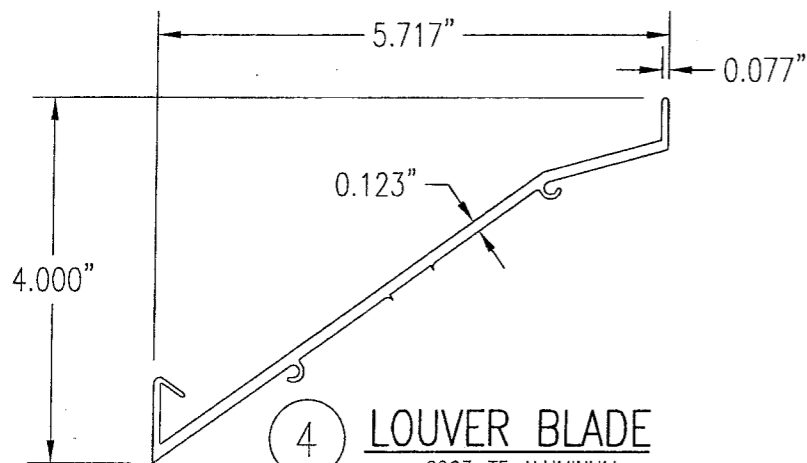
1 JAMB EXTRUSION  
6063-T5 ALUMINUM  
SCALE: 1/2 FULL



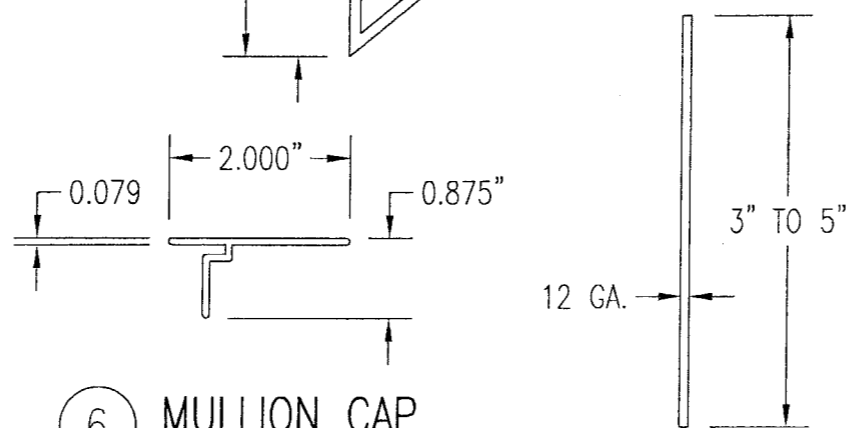
2 HEAD JAMB  
6063-T5 ALUMINUM  
SCALE: 1/2 FULL



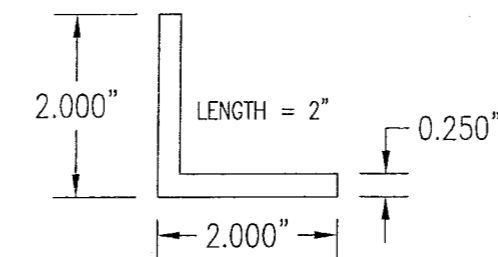
3 SILL JAMB  
6063-T5 ALUMINUM  
SCALE: 1/2 FULL



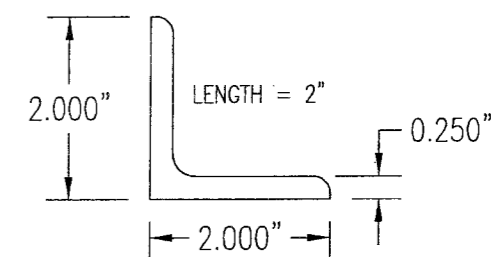
4 LOUVER BLADE  
6063-T5 ALUMINUM  
SCALE: 1/2 FULL



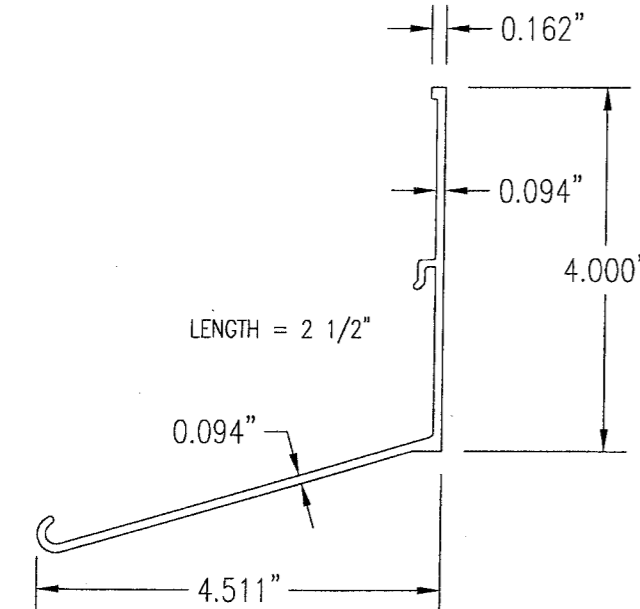
6 MULLION CAP  
6063-T5 ALUMINUM  
SCALE: 1/2 FULL



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

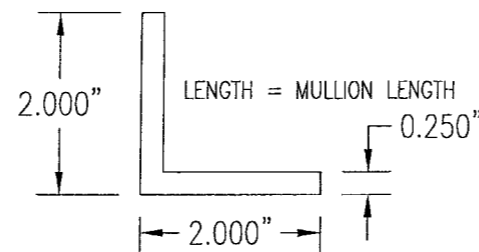


9 CONNECTION ANGLE  
A36 STEEL  
SCALE: 1/2 FULL

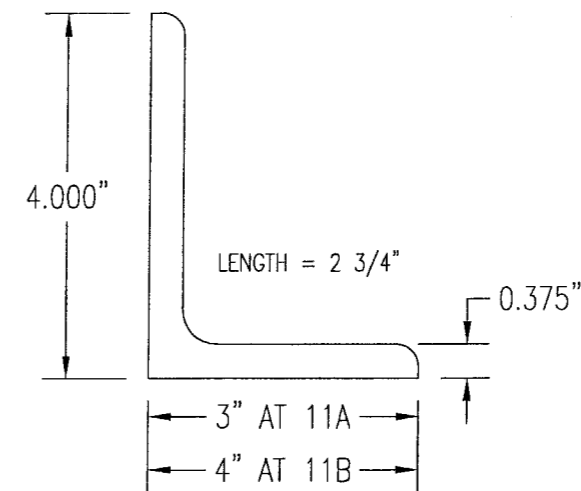


5 BLADE SUPPORT BRACKET  
6063-T5 ALUMINUM  
SCALE: 1/2 FULL

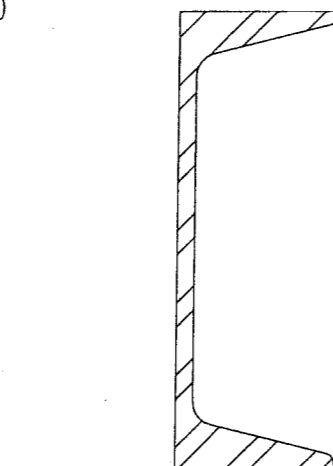
7 SILL PLATE  
3003/5005 ALUMINUM  
SCALE: 1/2 FULL



10 MULLION ANGLE  
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

PRODUCT RENEWED  
as complying with the Florida  
Building Code  
Acceptance No. 08-1030.02  
Expiration Date 07/27/2013  
By *[Signature]*  
Miami Dade Product Control  
Division

PRODUCT RENEWED  
as complying with the Florida  
Building Code  
Acceptance No. 08-0473.02  
Expiration Date 07/27/2009  
By *[Signature]*  
Miami Dade Product Control  
Division

APR 18 2000

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

W. W. SCHAEFER ENGINEERING  
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ARROW UNITED INDUSTRIES  
A Division of Mestek, Inc.

314 RIVERSIDE DRIVE - P.O. BOX 69  
WYALUSING, PA 18853  
PHONE 570-746-1888; FAX 570-746-9286

EA-32 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. 35972-6	REV. B
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		
1	SIDE JAMB FRAME/MULLION	6063-T5 ALUMINUM
2	HEAD FRAME	6063-T5 ALUMINUM
3	SILL FRAME	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 PLATE	3003/5005 ALUMINUM; FULL LENGTH OF PANEL SILL
8	L2X2X1/4 JAMB CONNECTION ANGLE 2" LONG	6063-T5 ALUMINUM; WITHIN 4" OF JAMB ENDS & SPACED PER LOAD TABLE ON THIS SHEET
9	L2X2X1/4 OPTIONAL JAMB CONNECTION ANGLE 2" LONG	A36 STEEL; WITHIN 4" OF JAMB ENDS & SPACED PER LOAD TABLE ON THIS SHEET
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	OPEN	
14	OPEN	
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. 14 X 1 1/4" HILTI TEK SCREW	3 AT EACH LOUVER BLADE SUPPORT BRACKET AT ARCHITECTURAL MAIN MULLIONS
22	NO. 14 X 1 1/4" HILTI TEK SCREW	WITHIN 1 1/4" OF MULLION ENDS & MAX. 4" O.C. INTO FRAME
23	NO. 8 X 3/4" SMS	2 PER EACH LOUVER BLADE END THROUGH JAMB & INTO BLADE SPLINES
24	NO. 14 X 1 1/4" HILTI TEK SCREW	2 AT EACH LOUVER BLADE SUPPORT BRACKET AT ALL MIDSPAN MULLIONS
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	NO. 8 X 3/4" SMS	2 SCREWS WITHIN 4" OF SILL PLATE ENDS & MAX. 12" O.C. (SILL PLATE TO SILL JAMB AND FIRST LOUVER BLADE)
30	NO. 14 X 1 1/4" HILTI TEK SCREW	1 AT EACH MULLION ANGLE INTO HEAD & SILL JAMB
31	NO. 8 X 3/4" SMS SCREWS	2 PER FRAME SILL CORNER THROUGH SILL & INTO JAMB SPLINES
32	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)

**PRESSURE TABLE NOTES:**

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

**PRODUCT RENEWED**  
 as complying with the Florida Building Code  
 Acceptance No. 08-0923-02  
 Expiration Date 07/27/2013  
 By *[Signature]*  
 Miami Dade Product Control Division

APR 18 2000  
 WARREN W. SCHAEFER, P.E.  
 STRUCTURAL ENGINEER  
 P.E. No. 44135  
 W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.  
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 8895 N. MILITARY TRAIL, SUITE C-204  
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REVISION	DATE	DRN	CK	APPD
 <b>ARROW UNITED INDUSTRIES</b> A Division of Mestek, Inc. 314 RIVERSIDE DRIVE - P.O. BOX 69 WYALUSING, PA 18853 PHONE 570-746-1888; FAX 570-746-9286 <b>EA-32 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.	35972-6	REV. B
DATE	06-16-00			