

FASTENER SCHEDULE

| ANCHOR TYPE | (5) SUBSTRATE | MINIMUM EMBEDMENT | MINIMUM EDGE DIST. |
|---------------------------|---------------------|-------------------|--------------------|
| (5) NO. 10 S.S. SCREW | WOOD | 1 3/8" | 3/4" |
| (6) NO. 10 SELF TAP SCREW | METAL STUD OR STEEL | FULL | 3/4" |
| (1) 1/4" CONCRETE SCREW | C90 CONCR. BLOCK | 1 1/4" | 2 1/2" |
| (1) 1/4" CONCRETE SCREW | CONCRETE | 1 1/2" | 2" |
| (2) 1/4" BOLT | STEEL OR METAL STUD | FULL | 3/4" |
| (4) 3/8" SLEEVE ANCHOR | CONCRETE | 2 1/2" | 2 1/2" |
| (2) 3/8" BOLT | STEEL | FULL | 3/4" |

- (1) CONCRETE SCREWS SHALL BE ELCO ULTRACONS OR HILTI KWIK-CON II. (HARDENED STEEL OR S.S.)
- (2) BOLT SHALL BE MIN. A307 GALVANIZED OR 304 S.S. (Fv = 10,000 PSI MIN.)
- (3) WOOD SCREWS SHALL HAVE MIN. YIELD STRENGTH OF Fyb = 80,000 PSI
- (4) SLEEVE ANCHORS MAY BE GALVANIZED OR S.S. RAMSET RED HEAD DYNABOLTS OR POWERS RAWL POWER BOLT.
- (5) SEE GENERAL NOTES FOR SUBSTRATE REQUIREMENTS.
- (6) SELF TAPPING SCREWS SHALL BE CORROSION RESISTANT MIN. SAE GRADE 2 STEEL OR MIN. ALLOY GROUP 1, 2 & 3 CONDITION "A" STAINLESS STEEL.

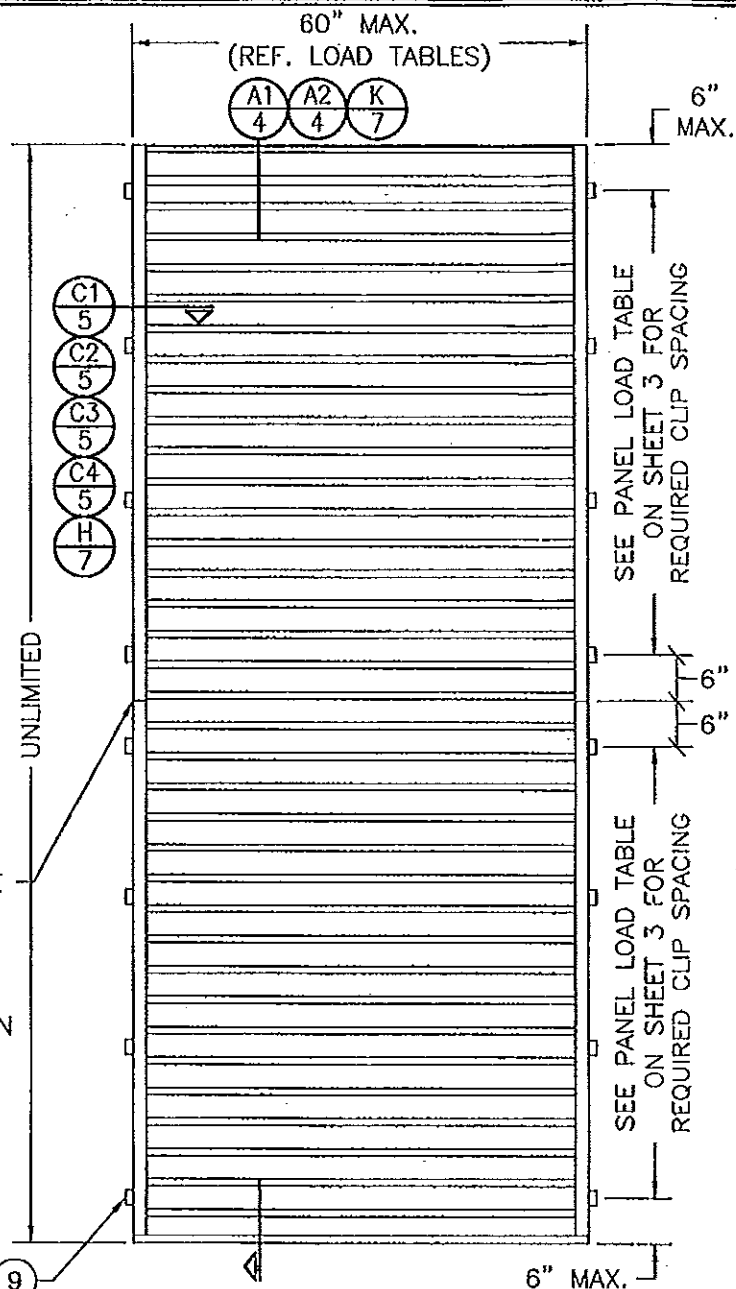
CORNER & BLADE END CONSTRUCTION

BLADE TO JAMB:
WELDED CONDITION: BLADE END BUTTS TO JAMB, IS WELDED WITH ONE 1/8" X 5" WELD AND SCREWED TO JAMB WITH TWO NO. 8 X 3/4" S.S. SMS SCREWS THROUGH JAMB AND INTO BLADE SCREW SPLINES.
SCREWED CONDITION: BLADE END BUTTS TO JAMB & IS SCREWED TO JAMB WITH TWO (2) 1/4"-20 X 1 1/2" TYPE "F" SCREWS THROUGH JAMB AND INTO BLADE SCREW SPLINES.
HEAD TO JAMB: HEAD FRAME IS SQUARE CUT, BUTTED AND JOINED TO JAMB WITH ONE 1/8" X 5" WELD AND TWO NO. 8 X 3/4" S.S. SMS SCREWS THROUGH JAMB AND INTO HEADER SCREW SPLINES.
SILL TO JAMB: SIDE JAMB BUTTS TO SILL AND IS JOINED TO SILL WITH THREE(3) 1/8" X 1" WELDS AND TWO NO. 8 X 3/4" S.S. SMS SCREWS THROUGH SILL AND INTO JAMB SCREW SPLINES.

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

GENERAL NOTES:

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

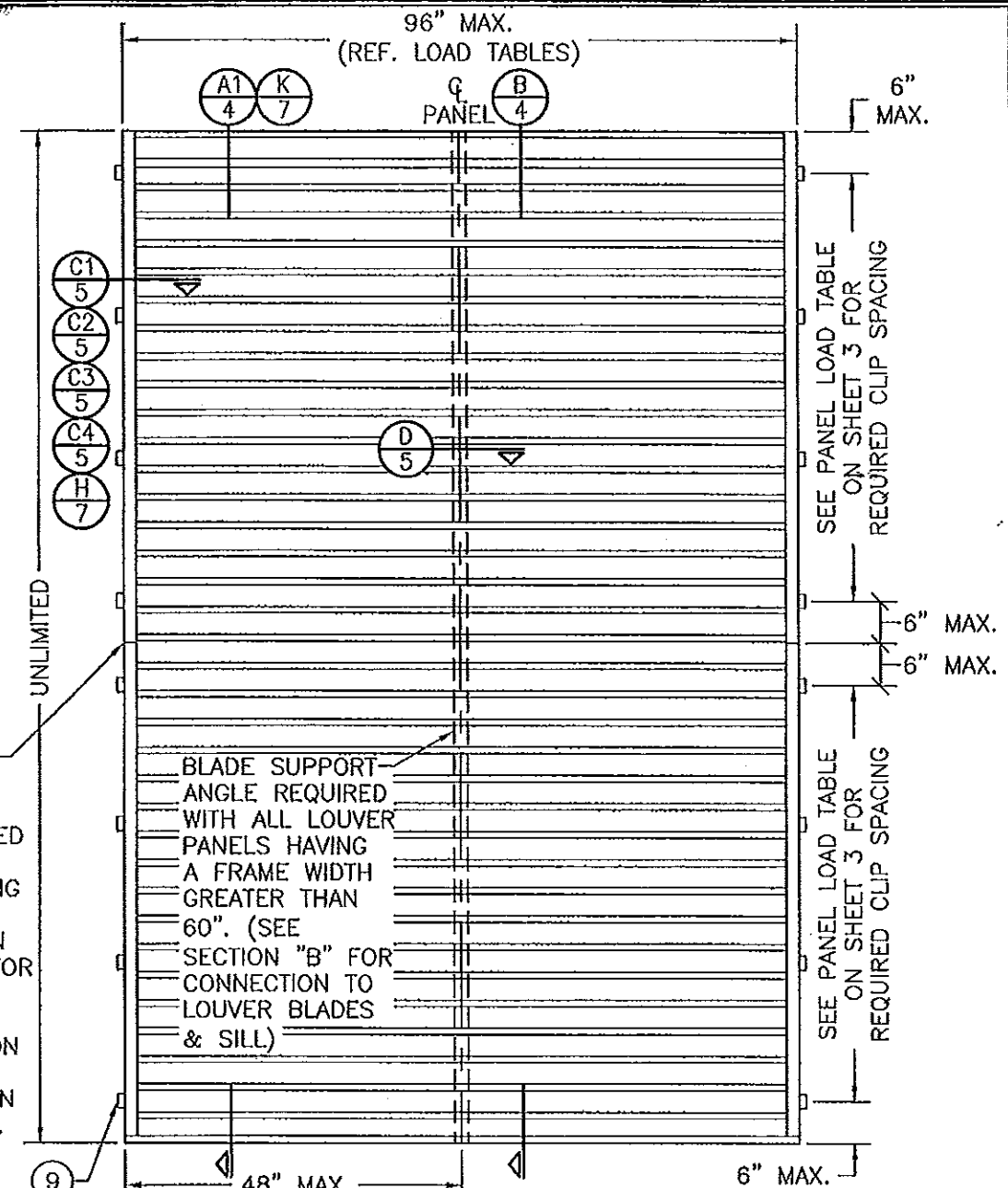


EXTERIOR ELEVATION SINGLE LOUVER PANEL WITHOUT BLADE SUPPORT ANGLE

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

INSTALLATION CLIPS ARE NOT APPLICABLE WHEN LOUVER IS SLEEVE MOUNTED

PRODUCT REVISED as complying with the Florida Building Code Acceptance No 11-1117.09 Expiration Date 04/22/2014 By Miami Dade Product Control

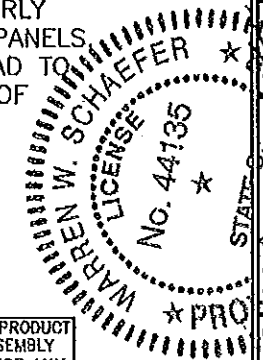


EXTERIOR ELEVATION SINGLE LOUVER PANEL WITH BLADE SUPPORT ANGLE

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

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

PRODUCT RENEWED as complying with the Florida Building Code Acceptance No 12-1017.04 Expiration Date 04/22/2019 By Miami Dade Product Control



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: 12/02/05 |
| DATE: 11/07/11 | |
| BY: W.R.M. | |
| REVISION: DESCRIPTION | |
| A1 UPDATE TO CURRENT STANDARDS | |
| NO. 1 | |

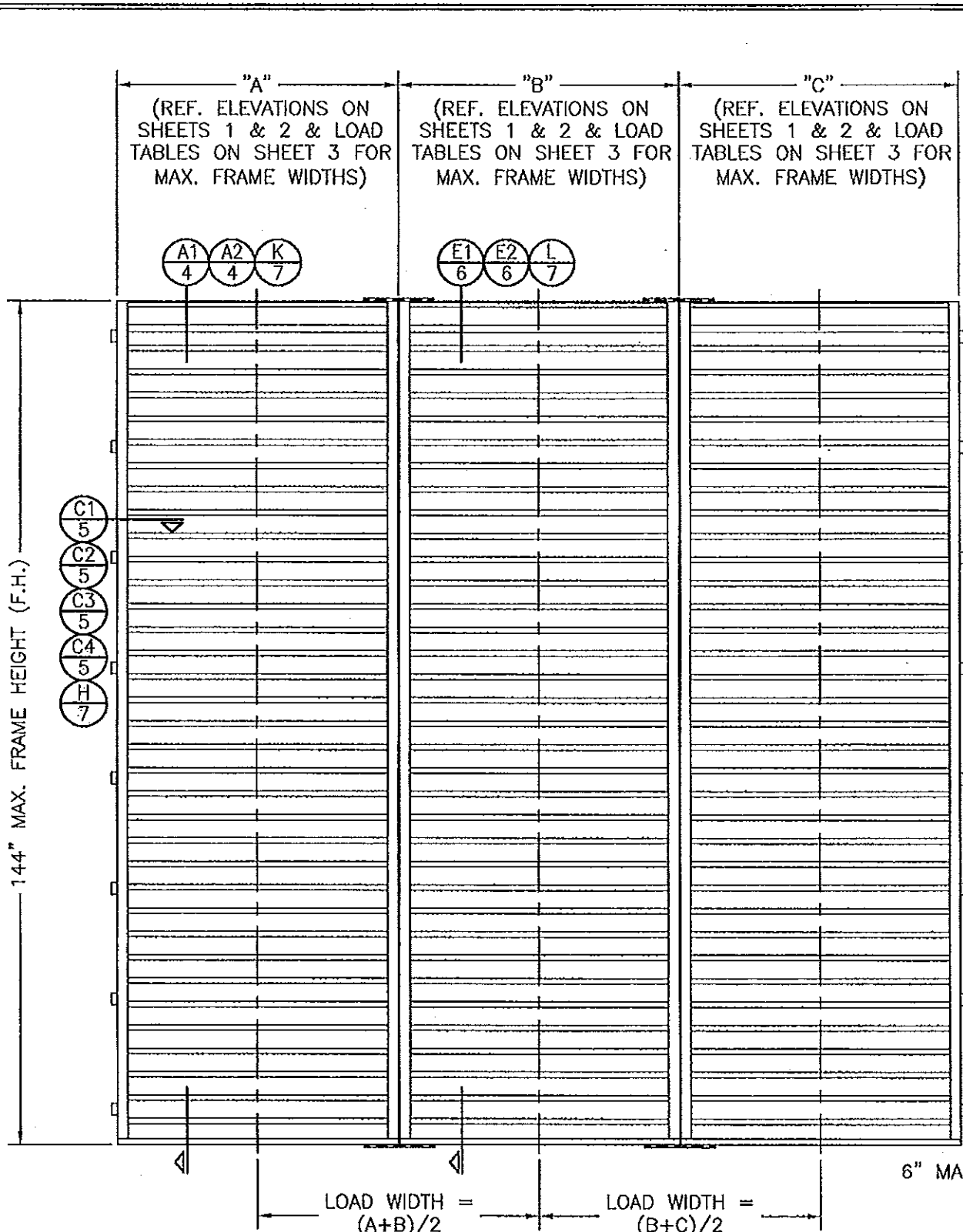
EA-64 LOUVER SYSTEM

MANUFACTURER: **ARROW UNITED INDUSTRIES**
 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

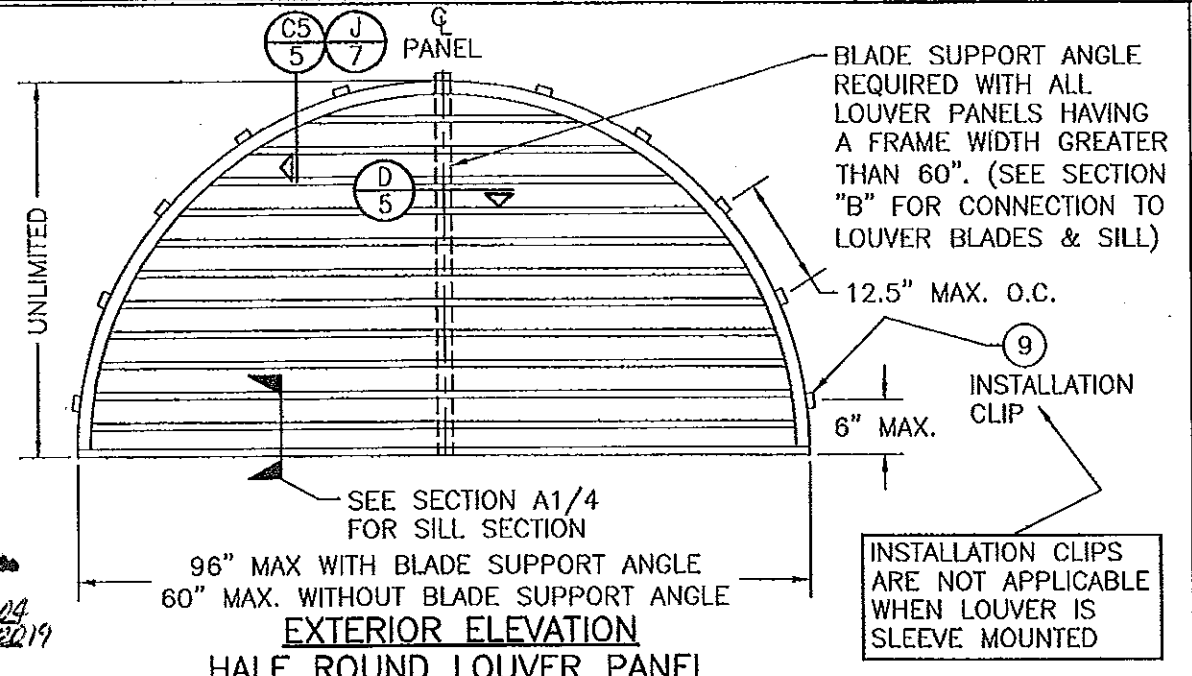
DRAWING NO. 1464
 SHEET NO. 1 OF 15

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

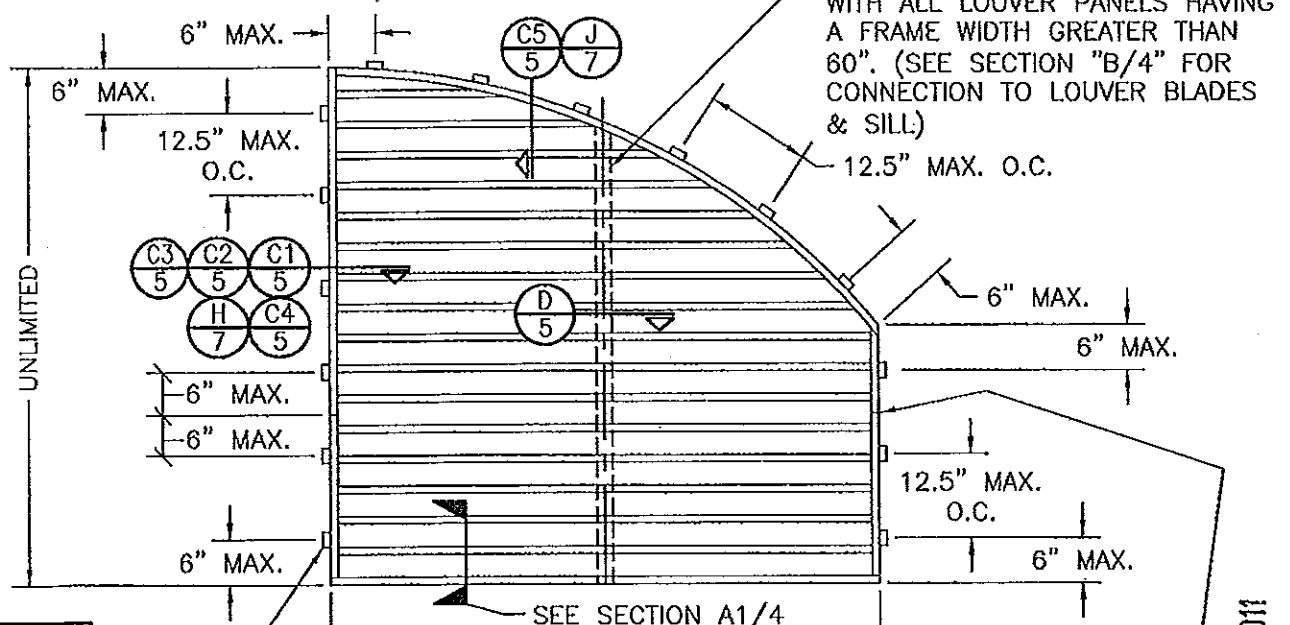


PRODUCT REVISED
 as complying with the Florida Building Code
 Acceptance No 11-1117-09
 Expiration Date 04/22/2014
 By [Signature]
 Miami Dade Product Control

PRODUCT RENEWED
 as complying with the Florida Building Code
 Acceptance No 13-1017-04
 Expiration Date 04/22/2014
 By [Signature]
 Miami Dade Product Control



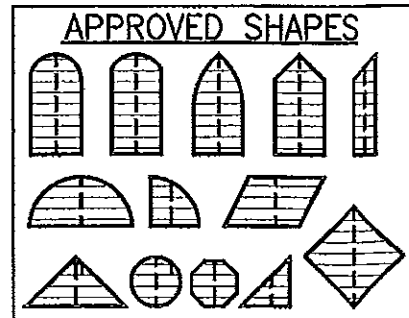
**EXTERIOR ELEVATION
 HALF ROUND LOUVER PANEL**
 (OTHER SHAPES APPLICABLE PER APPROVED SHAPE TABLE)



**EXTERIOR ELEVATION
 PARTIAL ARCH TOP PANEL**
 (OTHER SHAPES APPLICABLE PER APPROVED SHAPE TABLE)

**EXTERIOR ELEVATION
 MULLIED UNITS**
 (3 PANEL UNIT SHOWN; MORE THAN 3 PANELS MAY BE MULLIED/STACKED HORIZONTALLY)

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

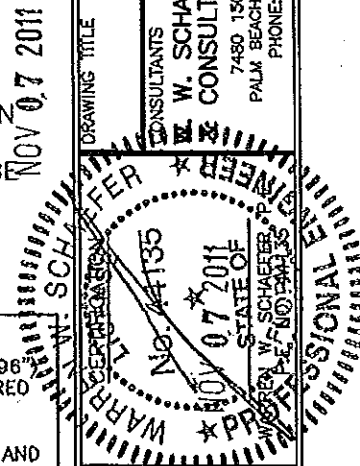


- NOTES:**
1. OTHER SHAPES MAY APPLY PROVIDING THEY ARE SIMILAR TO THOSE SHOWN & HAVE CORNER CONSTRUCTION AS DESCRIBED ON ALL SHEETS.
 2. ALL SHAPED LOUVER PANELS ARE RESTRICTED TO THE SAME PANEL WIDTHS & PRESSURE AS THE RECTANGULAR LOUVER PANELS & MAY BE STACKED VERTICALLY & HORIZONTALLY THE SAME AS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

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

MANUFACTURER
ARROW UNITED INDUSTRIES
 450 RIVERSIDE DRIVE
 WYALUSING, PA 18853
 570-746-1888

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



MULLION LOAD TABLE (SEE INSTRUCTIONS BELOW)

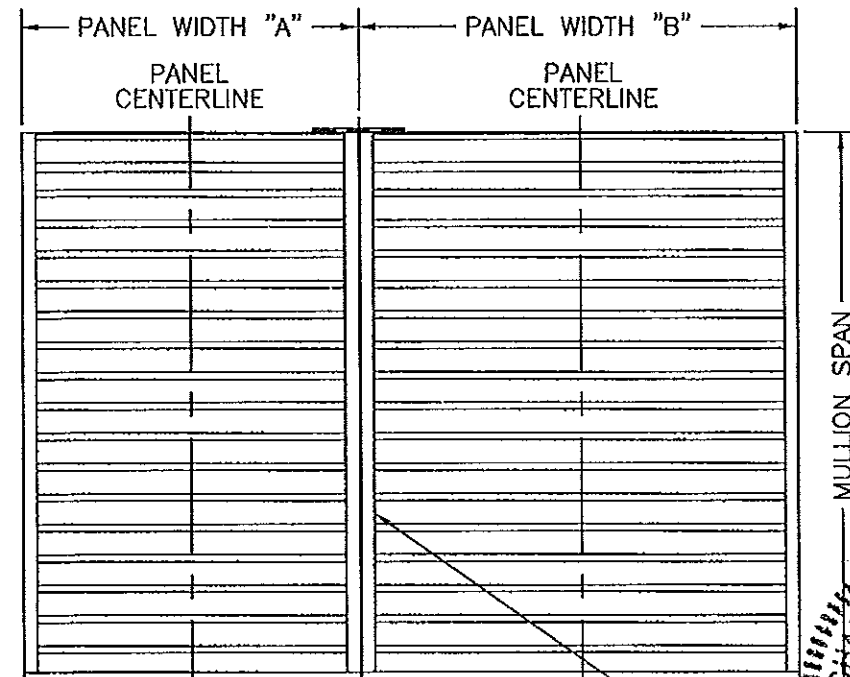
| MULLION SPAN (IN.) | LOAD WIDTH (IN.) | ALLOWABLE PRESSURE (+/- PSF) | MULLION SPAN (IN.) | LOAD WIDTH (IN.) | ALLOWABLE PRESSURE (+/- PSF) | MULLION SPAN (IN.) | LOAD WIDTH (IN.) | ALLOWABLE PRESSURE (+/- PSF) | MULLION SPAN (IN.) | LOAD WIDTH (IN.) | ALLOWABLE PRESSURE (+/- PSF) | | | |
|--------------------|------------------|------------------------------|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

PANEL LOAD TABLE

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

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

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



MULLION "LOAD WIDTH" = (A + B)/2
LOUVER ASSEMBLY

MULLION LOAD TABLE INSTRUCTIONS:

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

PRODUCT RENEWED
 as complying with the Florida Building Code
 Acceptance No 13-1017.04
 Expiration Date 03/23/2019

By *[Signature]*
 Miami Dade Product Control

PRODUCT REVISED
 as complying with the Florida Building Code
 Acceptance No 11-1117.09
 Expiration Date 04/24/2019

By *[Signature]*
 Miami Dade Product Control

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

MANUFACTURER
 ARROW UNITED INDUSTRIES
 450 RIVERSIDE DRIVE
 WYALUSING, PA 18853
 570-746-1888

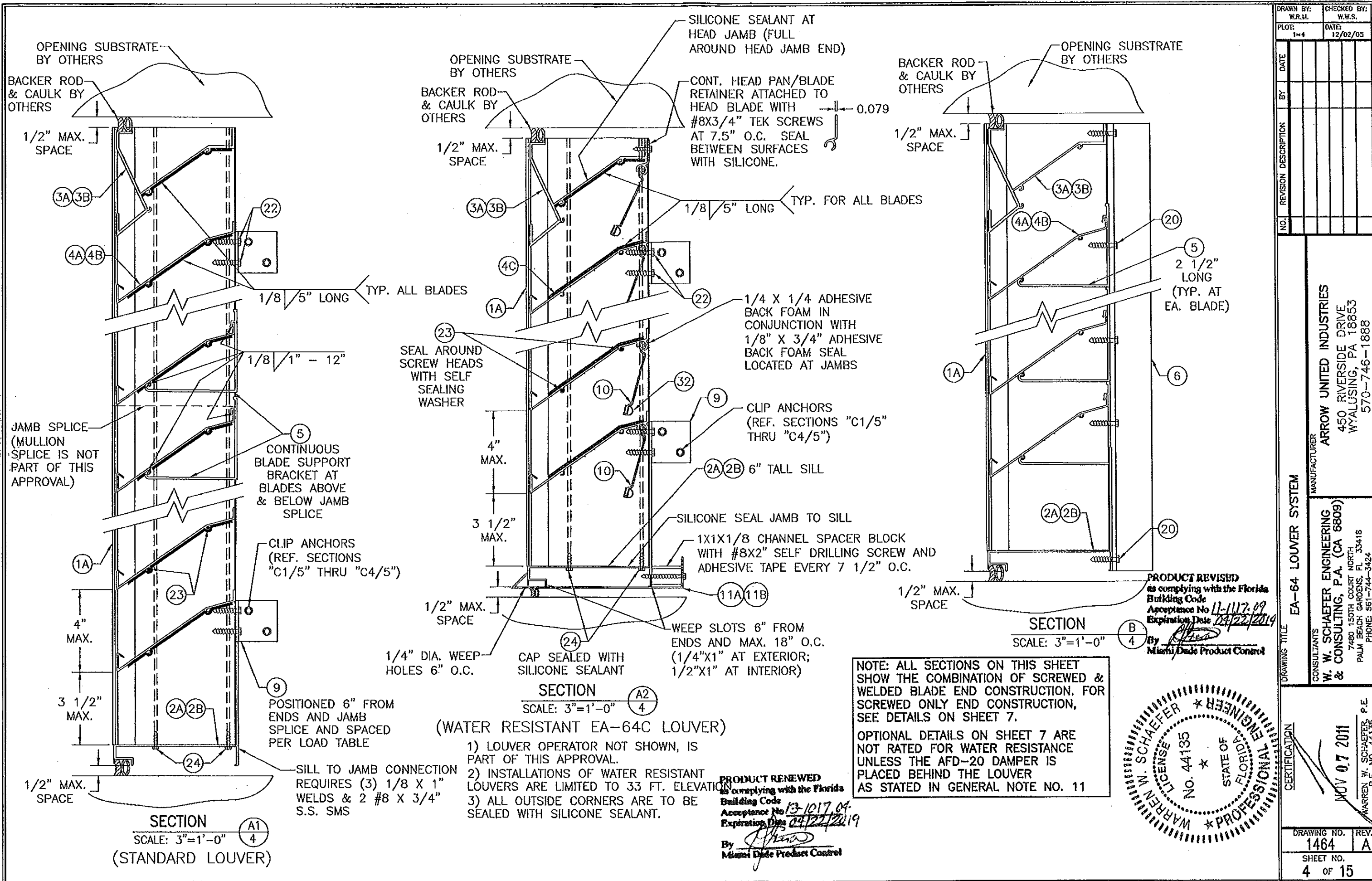
CONSULTANTS
 W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)
 7480 150TH COURT NORTH
 PALM BEACH GARDENS, FL 33418
 PHONE: 561-744-3424

DRAWING TITLE
 EA-64 LOUVER SYSTEM

NOV 07 2011
 W. SCHAEFER
 ENGINEER
 NO. 44330
 PROJECT NO. 0504

DRAWING NO. REV.
 1464 A

SHEET NO.
 3 OF 15



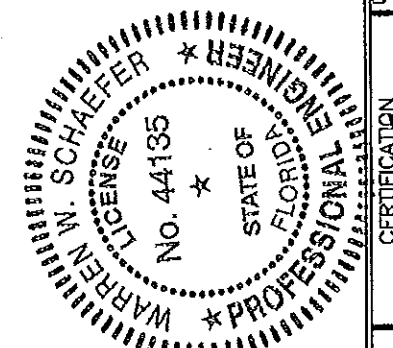
| | | | |
|-----------------------|--------|-------------|----------|
| DRAWN BY: | W.R.M. | CHECKED BY: | W.W.S. |
| PLOT: | 1x4 | DATE: | 12/02/05 |
| DATE: | | | |
| BY: | | | |
| REVISION DESCRIPTION: | | | |
| NO. | | | |

MANUFACTURER
ARROW UNITED INDUSTRIES
 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

DRAWING TITLE
EA-64 LOUVER SYSTEM

PRODUCT REVISED
 as complying with the Florida
 Building Code
 Acceptance No 11-1117.09
 Expiration Date 04/22/2019
 By *[Signature]*
 Miami Dade Product Control



CERTIFICATION
NOV 07 2011
 WARREN W. SCHAEFER P.E.
 P.E. NO. 44135

| | | | |
|-------------|---------|------|---|
| DRAWING NO. | 1464 | REV. | A |
| SHEET NO. | 4 OF 15 | | |

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

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

PRODUCT RENEWED
 as complying with the Florida
 Building Code
 Acceptance No 13-1017.04
 Expiration Date 04/22/2019
 By *[Signature]*
 Miami Dade Product Control

(WATER RESISTANT EA-64C LOUVER)

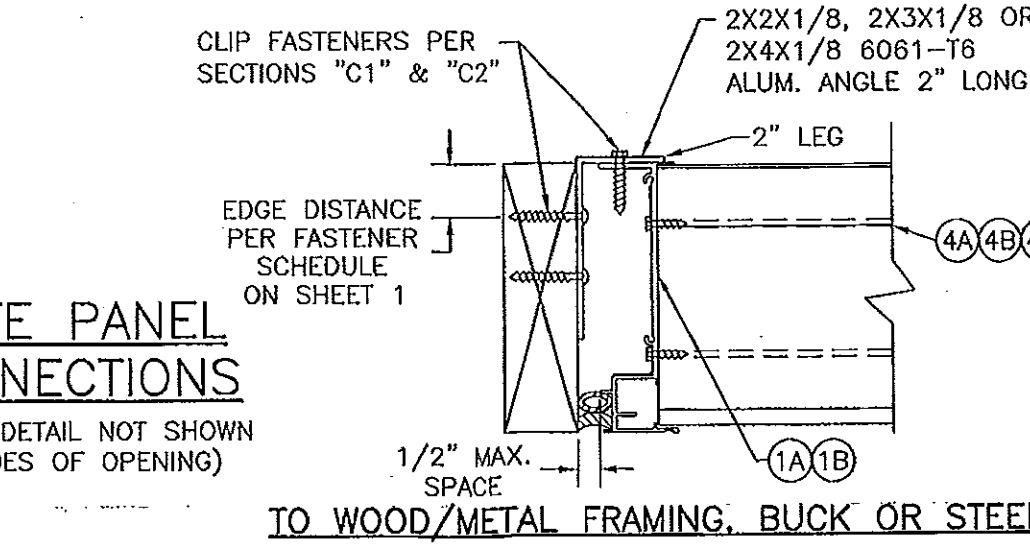
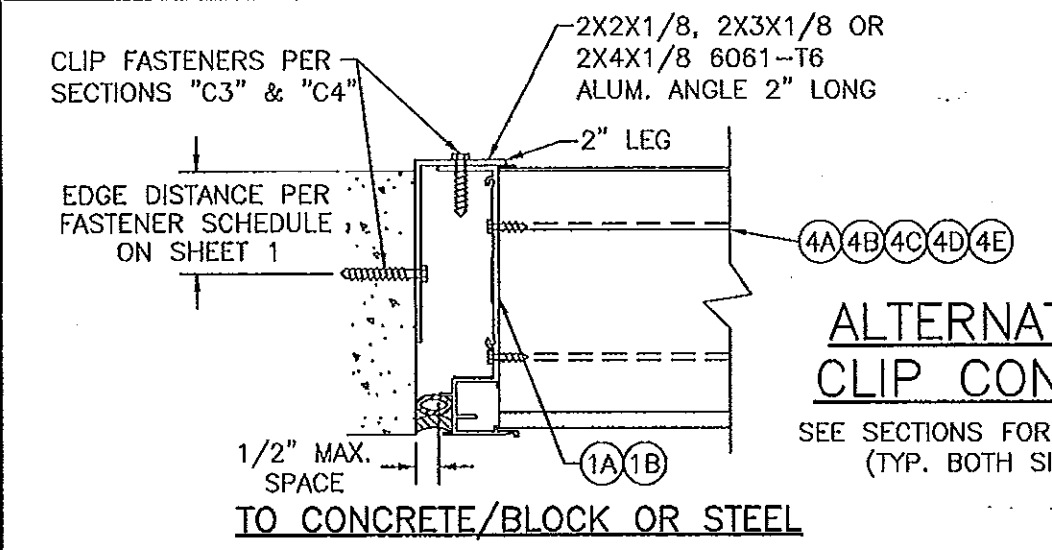
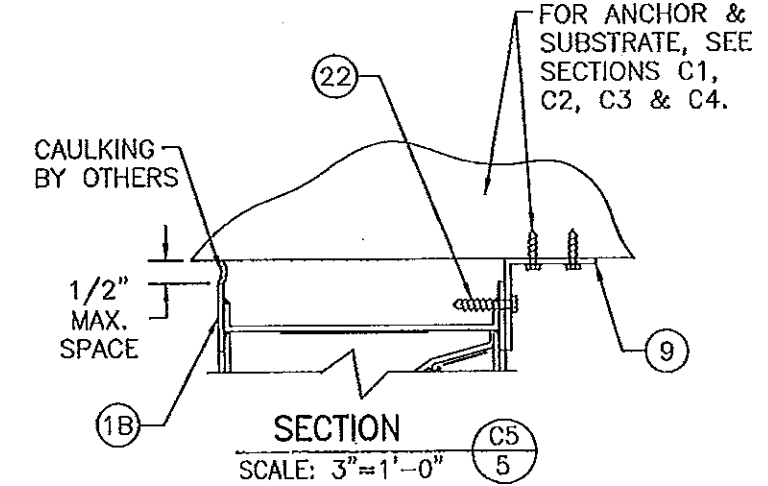
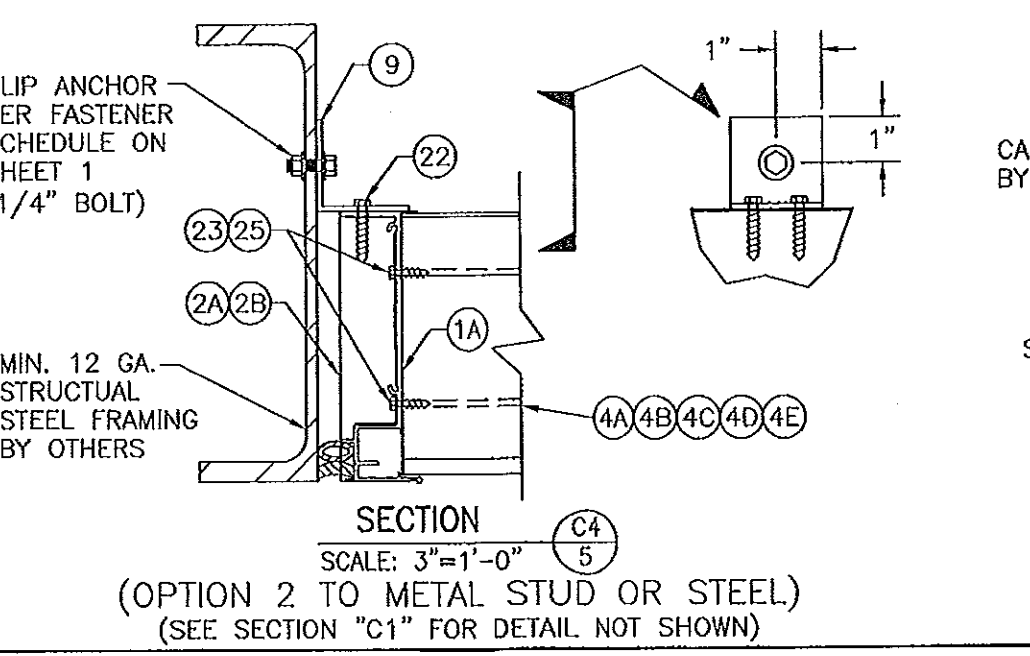
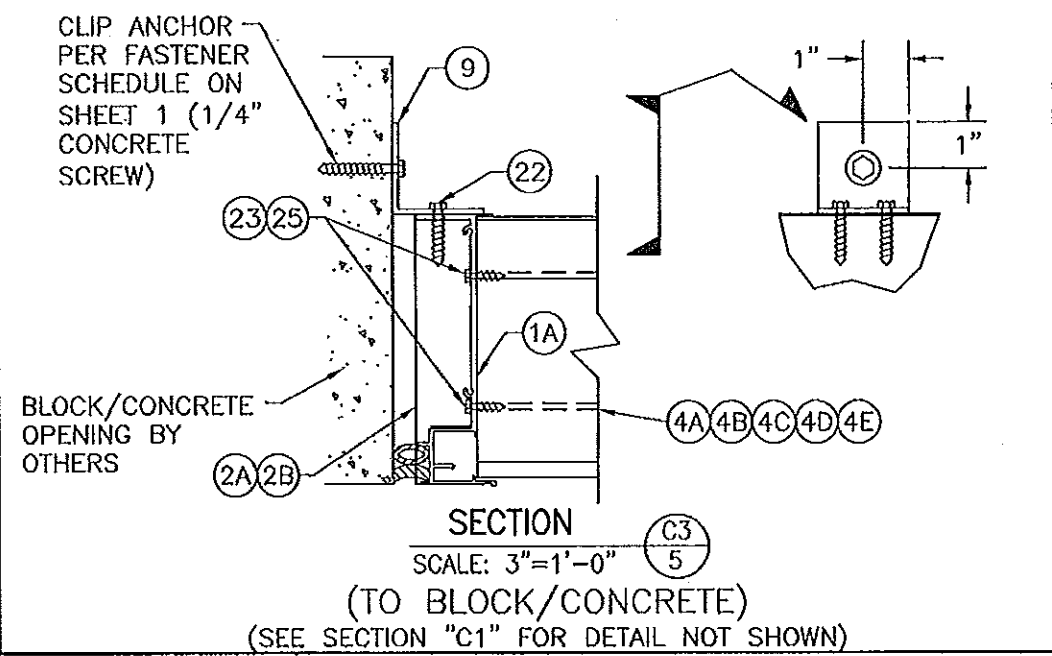
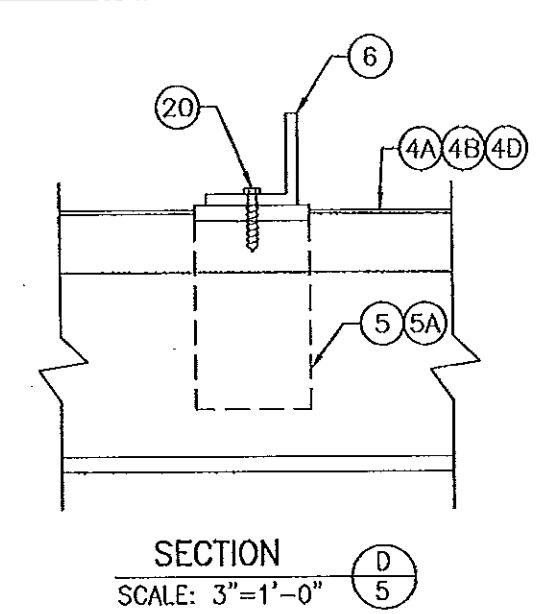
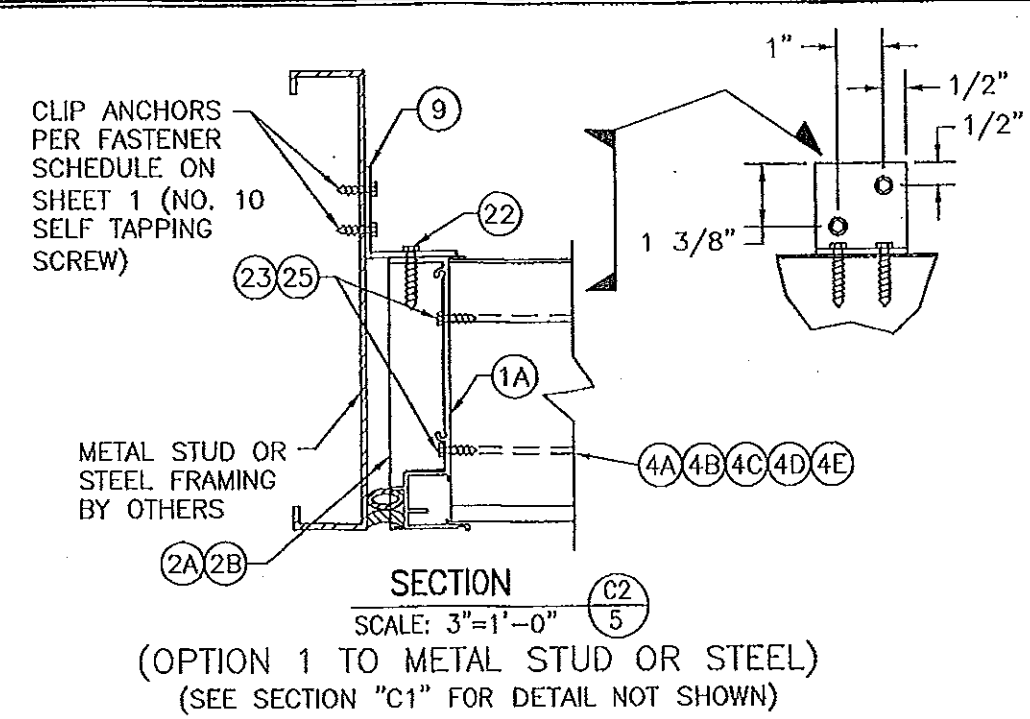
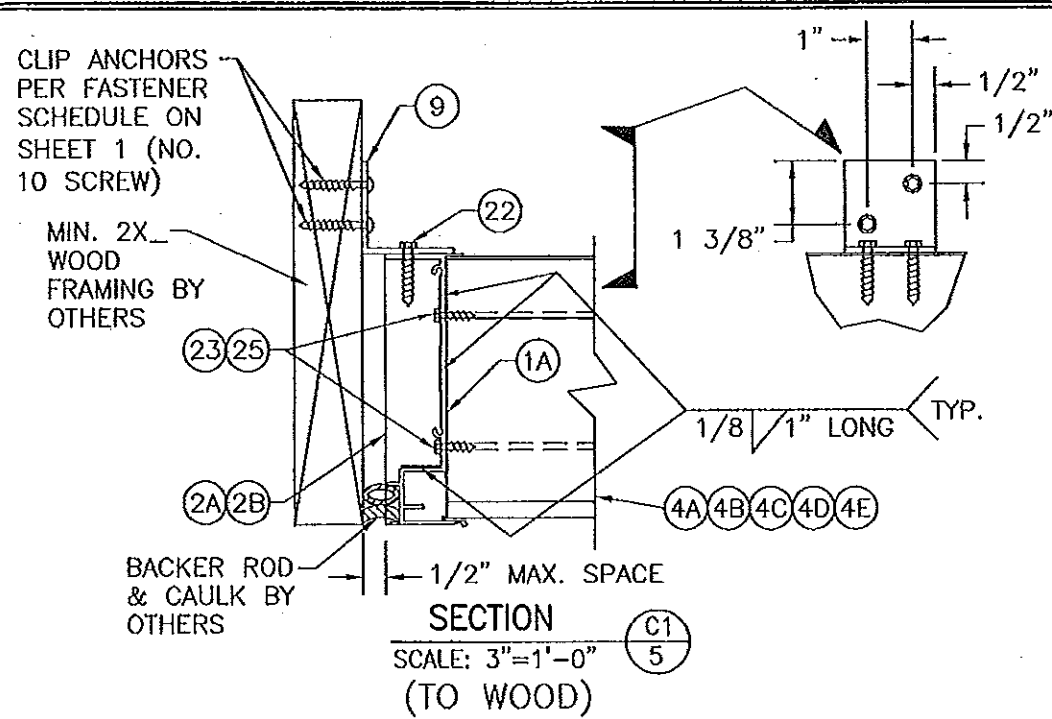
- 1) LOUVER OPERATOR NOT SHOWN, IS PART OF THIS APPROVAL.
- 2) INSTALLATIONS OF WATER RESISTANT LOUVERS ARE LIMITED TO 33 FT. ELEVATION
- 3) ALL OUTSIDE CORNERS ARE TO BE SEALED WITH SILICONE SEALANT.

SILL TO JAMB CONNECTION REQUIRES (3) 1/8 X 1" WELDS & 2 #8 X 3/4" S.S. SMS

SECTION A1
 SCALE: 3"=1'-0"
(STANDARD LOUVER)

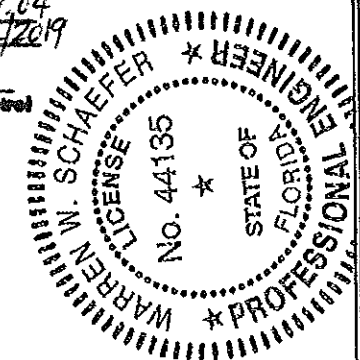
SECTION A2
 SCALE: 3"=1'-0"
(WATER RESISTANT EA-64C LOUVER)

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

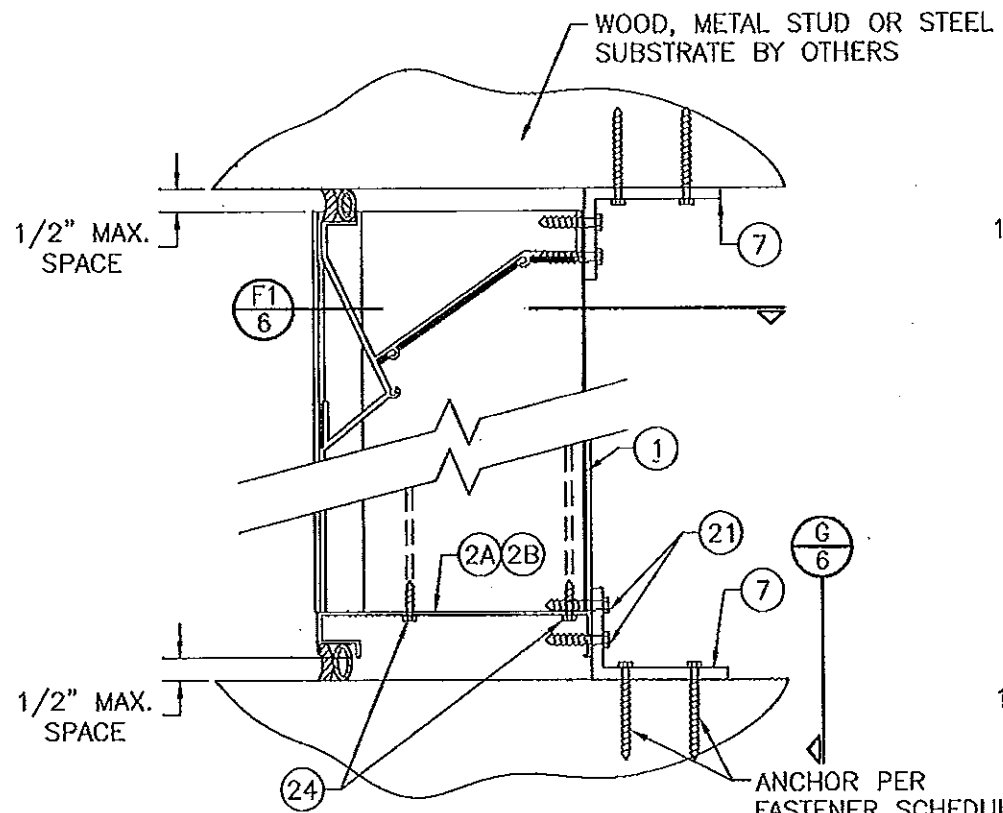


PRODUCT RENEWED as complying with the Florida Building Code
Acceptance No 13-1017.04
Expiration Date 04/22/2019
By [Signature]
Miami/Dade Product Control

PRODUCT REVISIT as complying with the Florida Building Code
Acceptance No 11-1117.09
Expiration Date 04/22/2014
By [Signature]
Miami/Dade Product Control

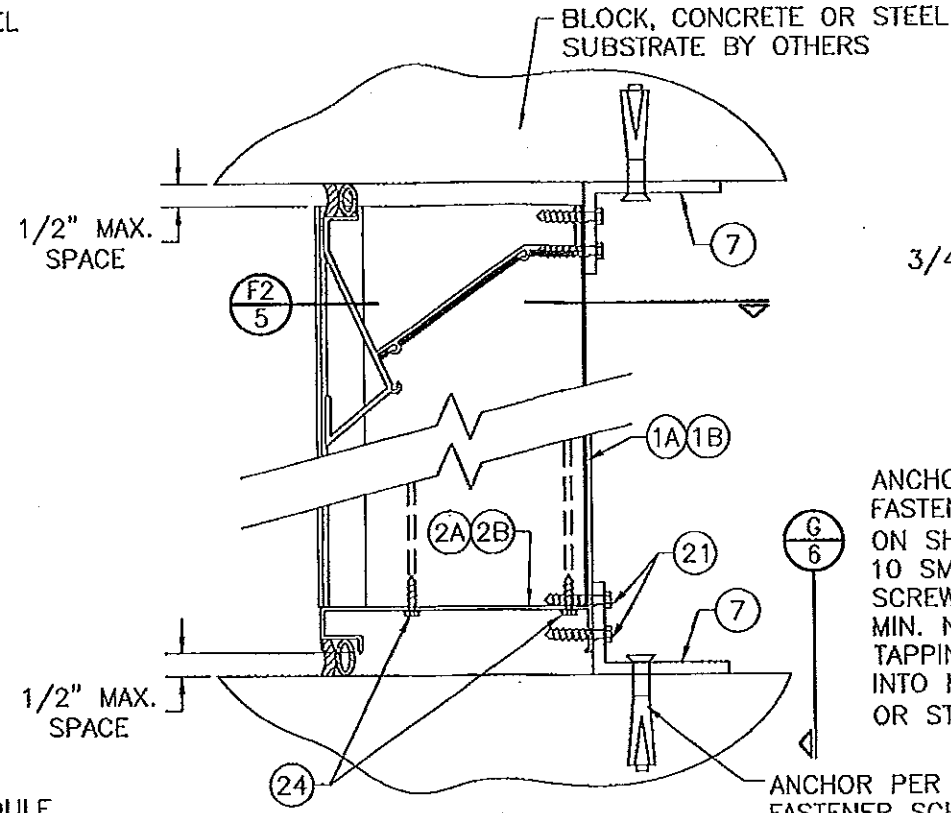


| | |
|--|-----------------------|
| DRAWN BY: W.R.M. | CHECKED BY: W.W.S. |
| PLOT: 1=4 | DATE: 12/02/05 |
| DATE | |
| BY | |
| REVISION DESCRIPTION | |
| NO. | |
| DRAWING TITLE EA-64 LOUVER SYSTEM | |
| MANUFACTURER ARROW UNITED INDUSTRIES 450 RIVERSIDE DRIVE WYALISING, PA 18853 570-746-1888 | |
| CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE 561-744-3424 | DRAWING NO. 1464 |
| REVISIONS | REV. A |
| SHEET NO. 5 OF 15 | |



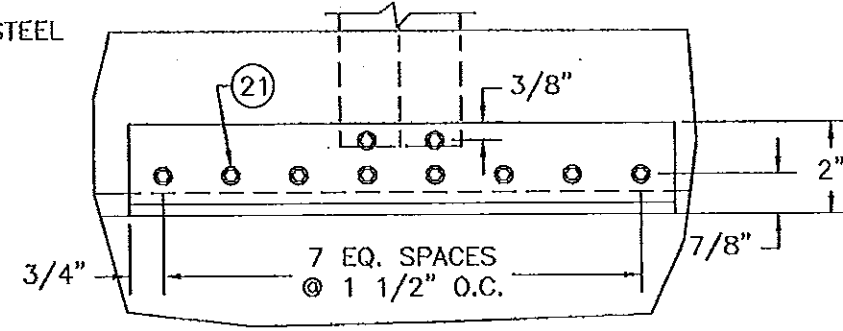
SECTION E1
SCALE: 3"=1'-0"
(INTO WOOD, METAL STUD OR STEEL OPENING)

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



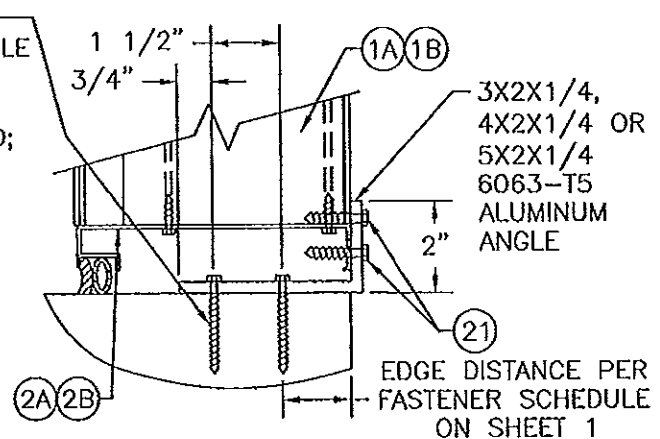
SECTION E2
SCALE: 3"=1'-0"
(INTO CONCRETE OR STRUCTURAL STEEL OPENING)

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



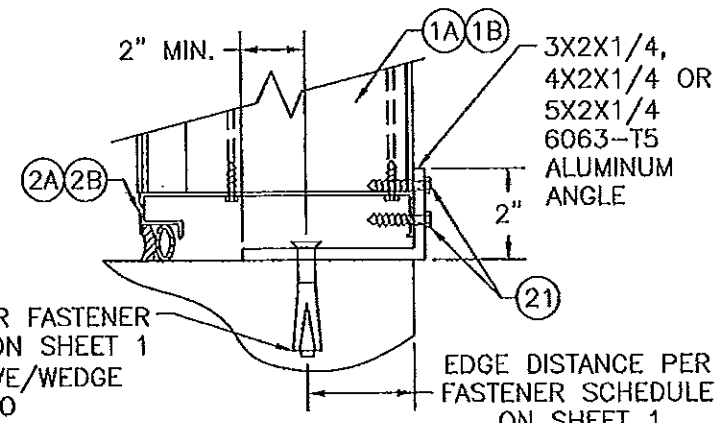
VIEW G
SCALE: 3"=1'-0"
(SEE SECTION E1/6 OR E2/6 FOR ANCHORS TO OPENING OR J/7 FOR WELDS TO SLEEVE)

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



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

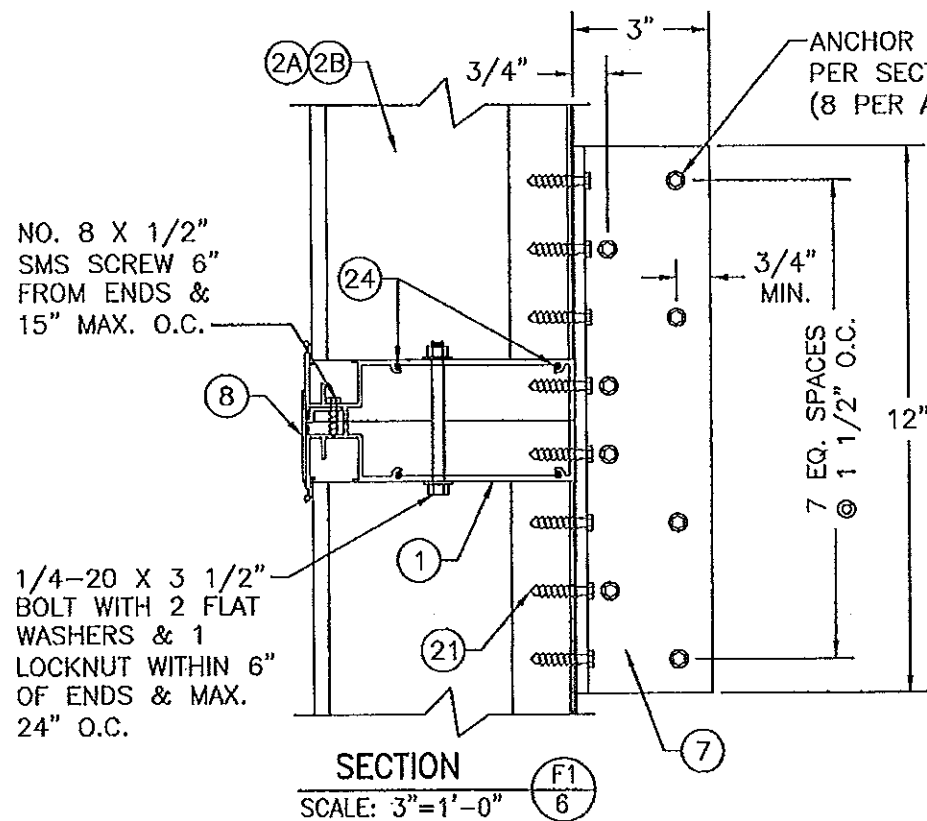
EDGE DISTANCE PER FASTENER SCHEDULE ON SHEET 1



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

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

EDGE DISTANCE PER FASTENER SCHEDULE ON SHEET 1

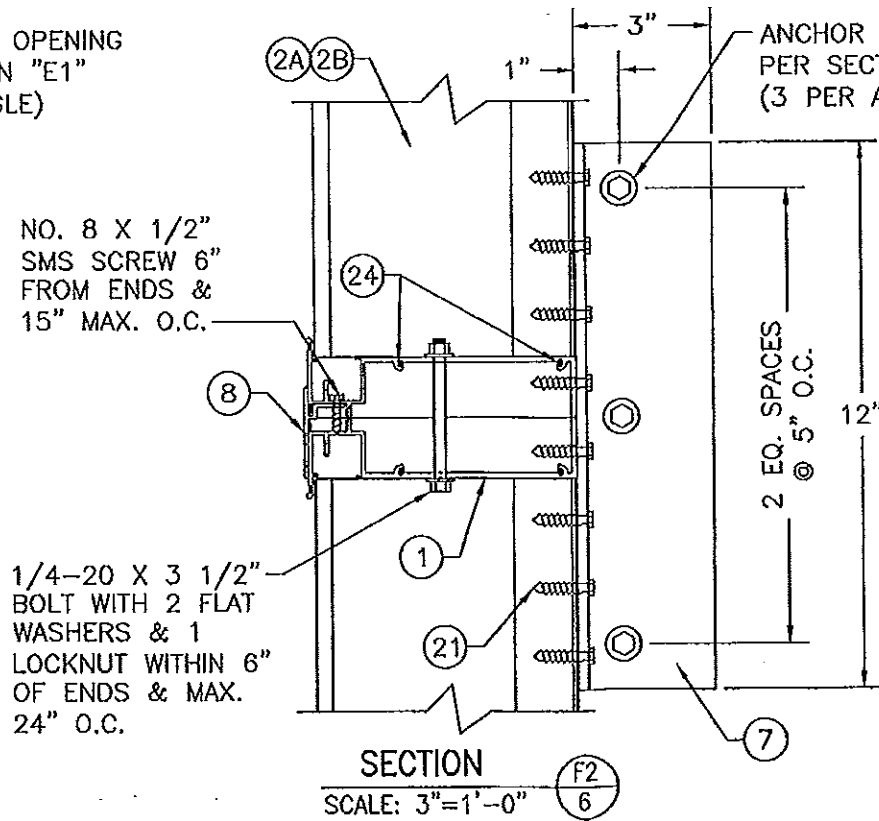


SECTION F1
SCALE: 3"=1'-0"

NO. 8 X 1/2" SMS SCREW 6" FROM ENDS & 15" MAX. O.C.

1/4-20 X 3 1/2" BOLT WITH 2 FLAT WASHERS & 1 LOCKNUT WITHIN 6" OF ENDS & MAX. 24" O.C.

ANCHOR TO OPENING PER SECTION "E1" (8 PER ANGLE)



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

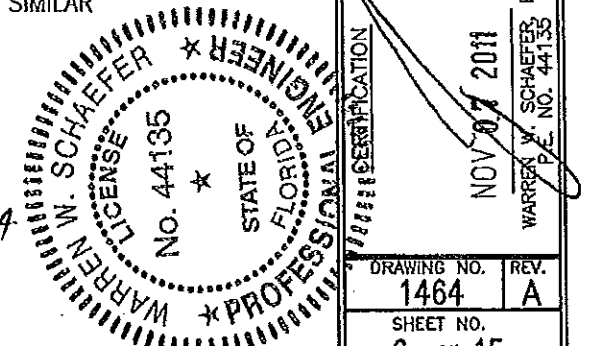
NO. 8 X 1/2" SMS SCREW 6" FROM ENDS & 15" MAX. O.C.

1/4-20 X 3 1/2" BOLT WITH 2 FLAT WASHERS & 1 LOCKNUT WITHIN 6" OF ENDS & MAX. 24" O.C.

ANCHOR TO OPENING PER SECTION "E2" (3 PER ANGLE)

PRODUCT RENEWED
as complying with the Florida Building Code
Acceptance No 13-1017-04
Expiration Date 02/22/2019
By Miami Dade Product Control

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 11-1117-09
Expiration Date 02/22/2019
By Miami Dade Product Control

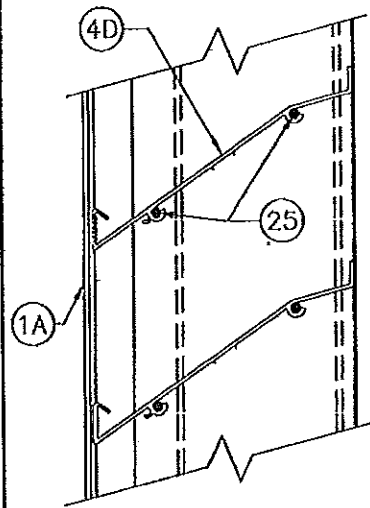


| | | | |
|-----------|--------|----------------------|----------|
| DRAWN BY: | W.R.M. | CHECKED BY: | W.W.S. |
| PLOT: | 1-4 | DATE: | 12/02/05 |
| NO. | | REVISION DESCRIPTION | |
| BY | DATE | | |

EA-64 LOUVER SYSTEM
MANUFACTURER
ARROW UNITED INDUSTRIES
450 RIVERSIDE DRIVE
WYALUSING, PA 18853
570-746-1888

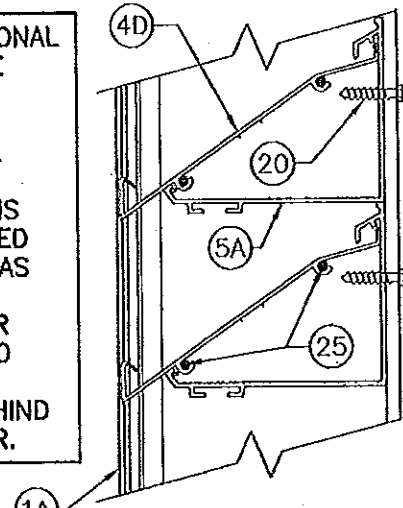
CONSULTANTS
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)
7480 150TH COURT NORTH
PALM BEACH GARDENS, FL 33418
PHONE: 561-744-3424

DRAWING NO. 1464
REV. A
SHEET NO. 6 OF 15

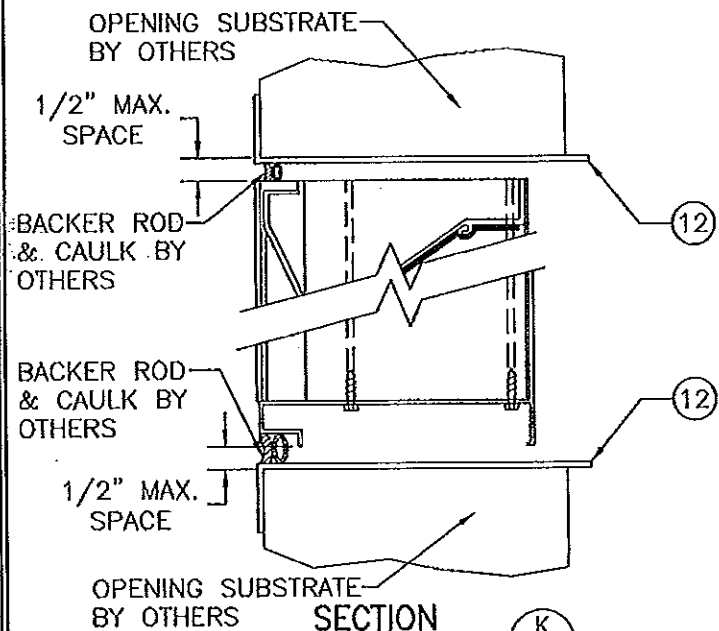


OPTIONAL BLADE DETAIL WITH SCREWED END CONSTRUCTION (STANDARD LOUVER)

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

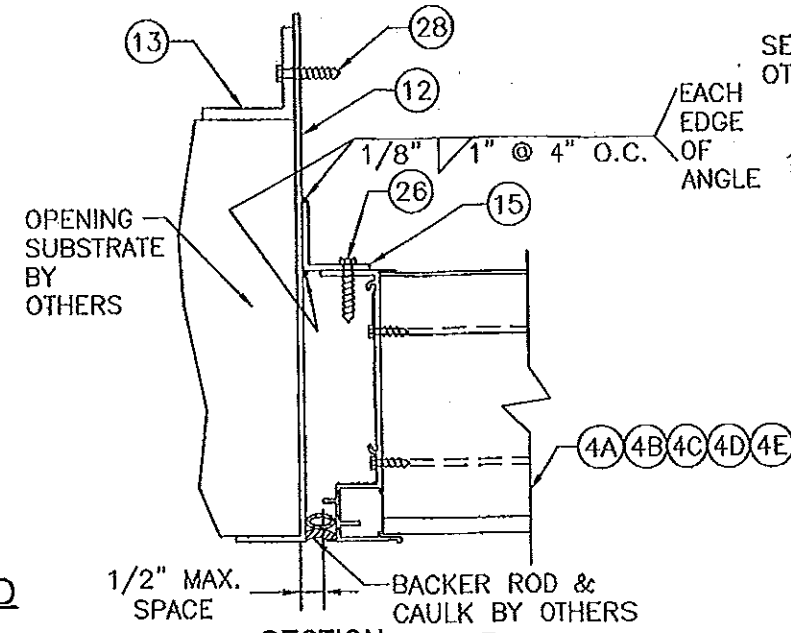


OPTIONAL BLADE SUPPORT BRACKET DETAIL WITH SCREWED END CONSTRUCTION

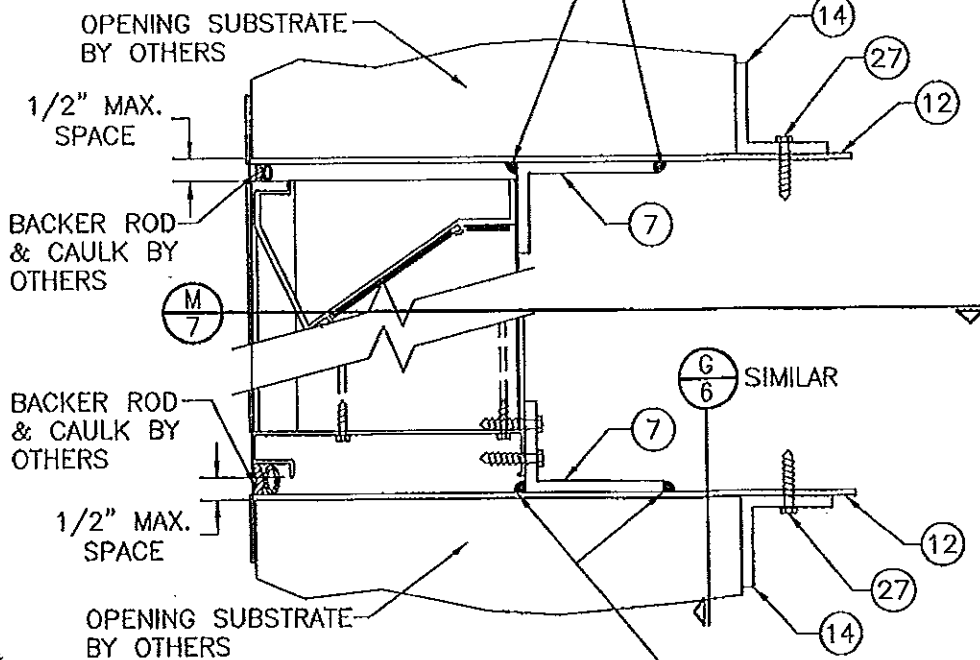


(SLEEVE MOUNT CONDITION)
(FOR LOUVER DETAIL NOT SHOWN, SEE SECTION A1/4 OR A2/4)

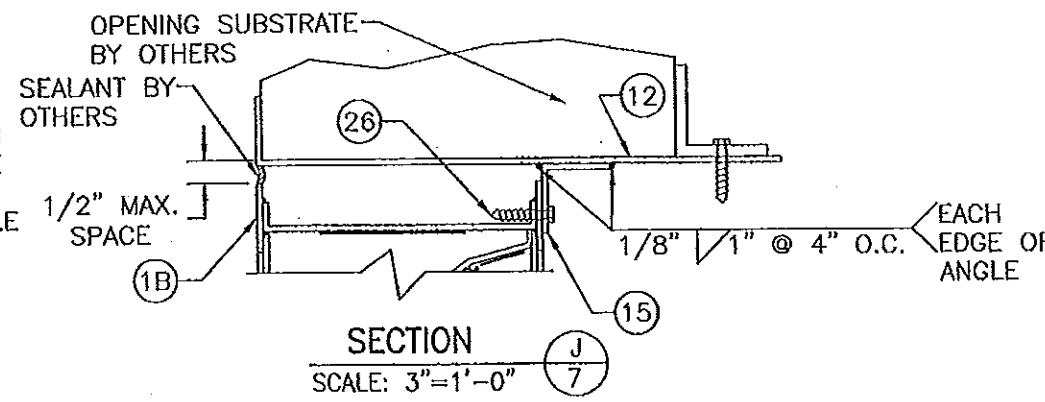
PRODUCT RENEWED as complying with the Florida Building Code
 Acceptance No. 13-1017.04
 Expiration Date 04/22/2019
 By [Signature]
 Miami Dade Product Control



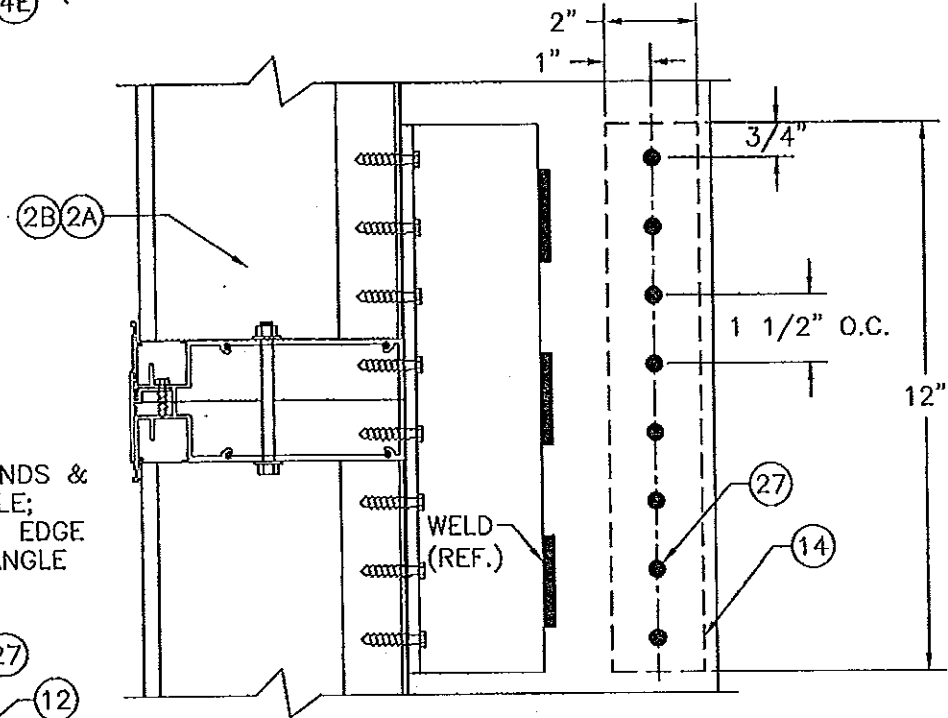
(SLEEVE MOUNT CONDITION)
(FOR LOUVER DETAIL NOT SHOWN, SEE SECTION C1/5)



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



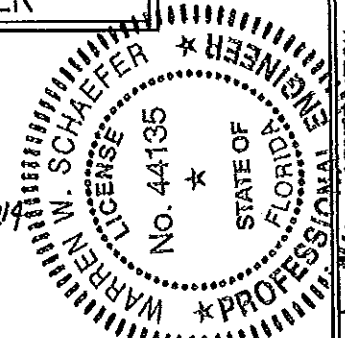
(SLEEVE MOUNT CONDITION)
(FOR LOUVER DETAIL NOT SHOWN, SEE SECTION C5/5)



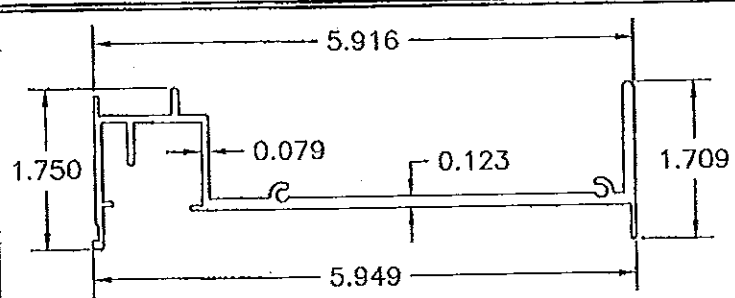
(FOR LOUVER DETAIL NOT SHOWN, SEE SECTION F1/6)

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

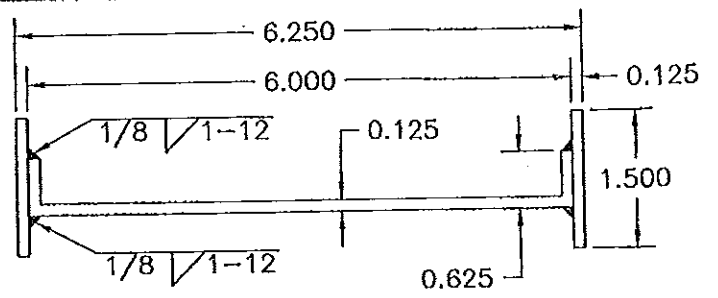
PRODUCT REVISED as complying with the Florida Building Code
 Acceptance No. 11-1117.09
 Expiration Date 04/22/2019
 By [Signature]
 Miami Dade Product Control



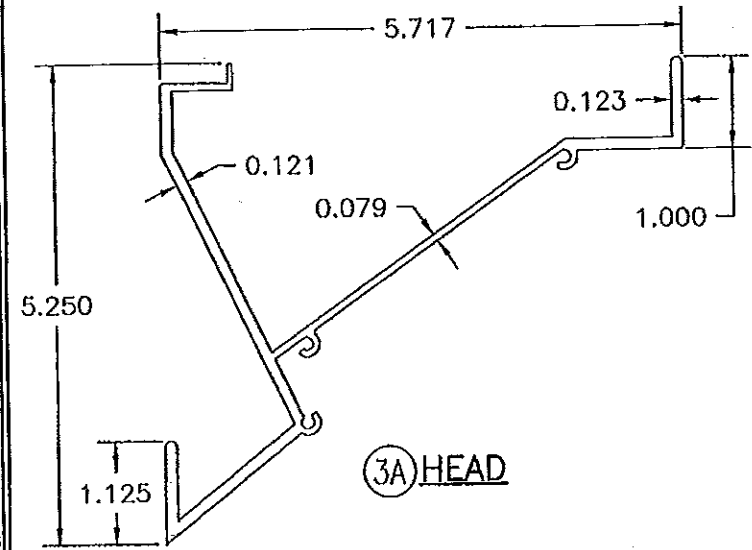
| | |
|--|---|
| DRAWN BY: W.R.M. | CHECKED BY: W.V.S. |
| DATE: 1-4 | DATE: 12/02/05 |
| NO. | REVISION DESCRIPTION |
| | |
| DRAWING TITLE: EA-64 LOUVER SYSTEM | |
| MANUFACTURER: ARROW UNITED INDUSTRIES | |
| 450 RIVERSIDE DRIVE WYALUSING, PA 18853 570-746-1888 | |
| CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) | 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-9424 |
| DATE: NOV 07 2011 | WARREN W. SCHAEFER, P.E. P.E. NO. 44135 |
| DRAWING NO. 1464 | REV. A |
| SHEET NO. 7 OF 15 | |



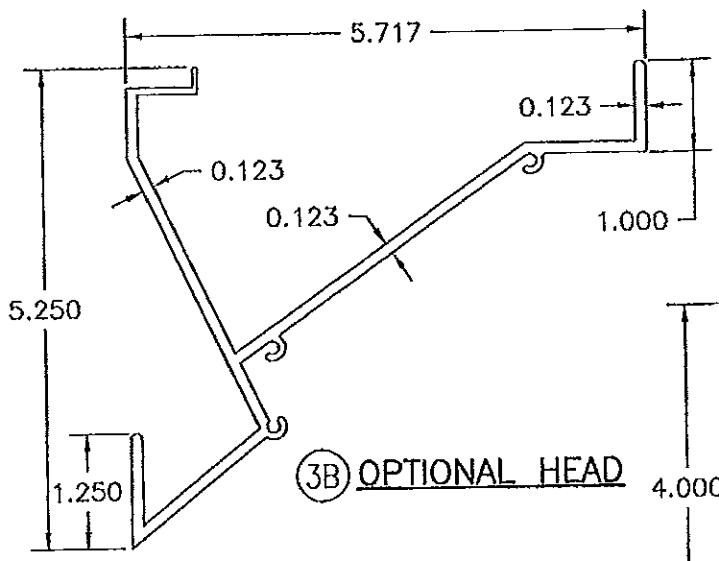
①A STANDARD STRAIGHT JAMB



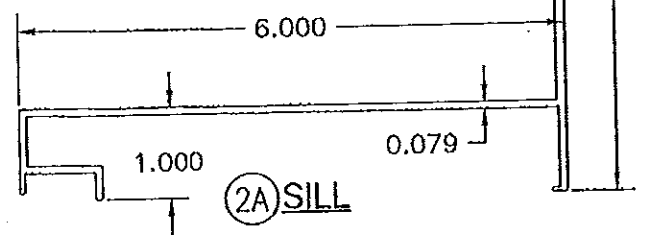
①B RADIUS JAMB



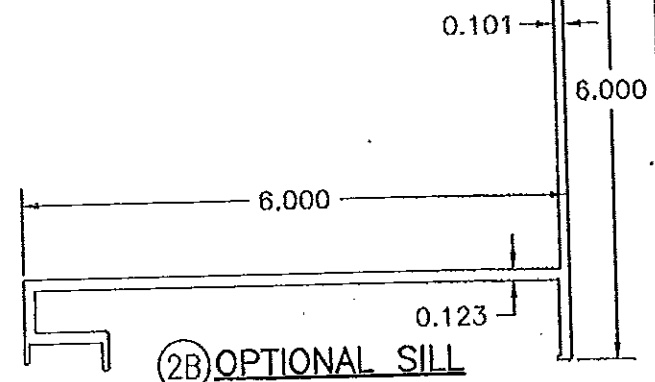
③A HEAD



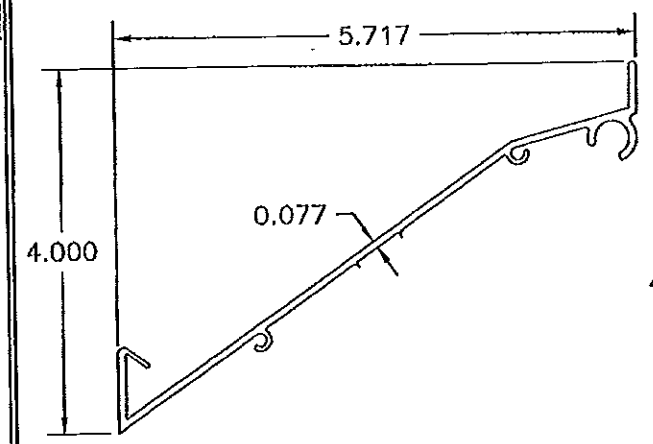
③B OPTIONAL HEAD



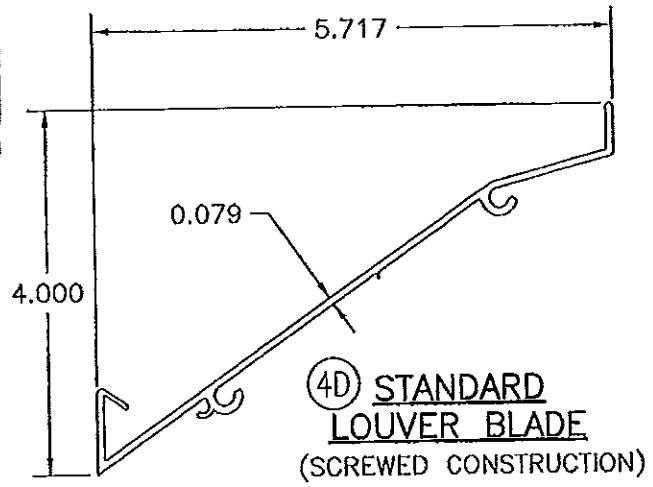
②A SILL



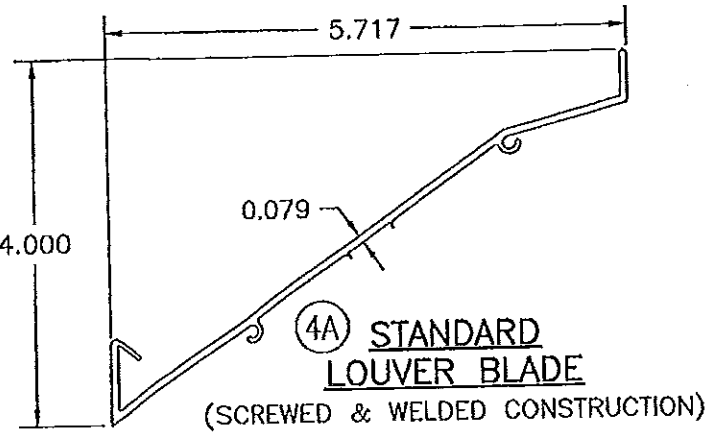
②B OPTIONAL SILL



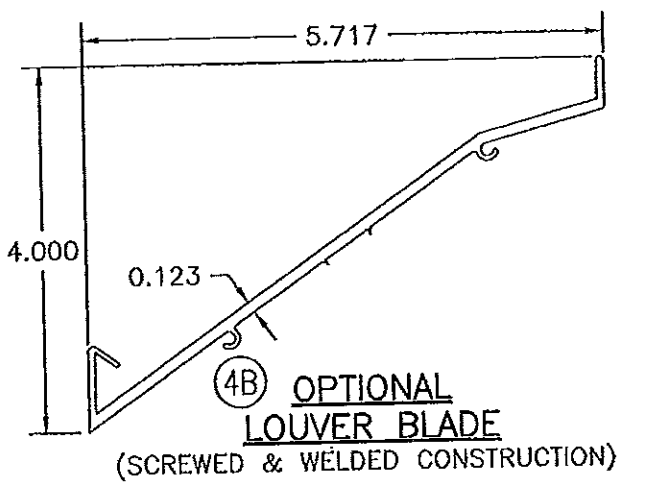
④C WATER RESISTANT LOUVER BLADE (SCREWED & WELDED CONSTRUCTION)



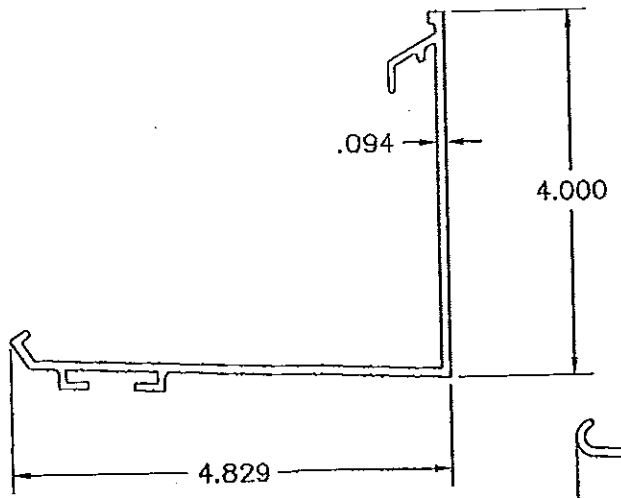
④D STANDARD LOUVER BLADE (SCREWED CONSTRUCTION)



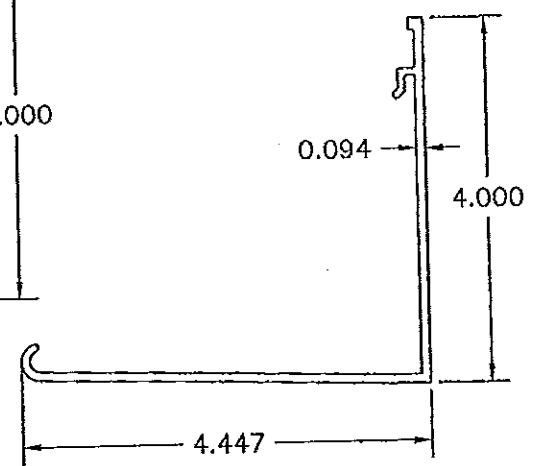
④A STANDARD LOUVER BLADE (SCREWED & WELDED CONSTRUCTION)



④B OPTIONAL LOUVER BLADE (SCREWED & WELDED CONSTRUCTION)



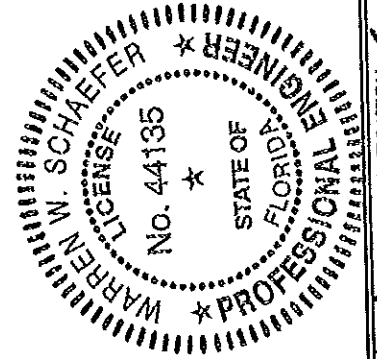
⑤A BLADE SUPPORT BRACKET (SCREWED CONSTRUCTION)



⑤ BLADE SUPPORT BRACKET (SCREWED & WELDED CONSTRUCTION)

PRODUCT RENEWED as complying with the Florida Building Code
 Acceptance No 13-1017-24
 Expiration Date 04/22/2019
 By *[Signature]*
 Miami Dade Product Control

PRODUCT REVISED as complying with the Florida Building Code
 Acceptance No 11-1117-09
 Expiration Date 04/22/2014
 By *[Signature]*
 Miami Dade Product Control



| | |
|---------------------|-----------------------|
| DRAWN BY: W.R.M. | CHECKED BY: W.W.S. |
| PLOT: 1=2 | DATE: 12/02/03 |
| NO. | REVISION DESCRIPTION |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

EA-64 LOUVER SYSTEM
 MANUFACTURER
 ARROW UNITED INDUSTRIES
 450 RIVERSIDE DRIVE
 WYALUSING, PA 18853
 570-746-1888

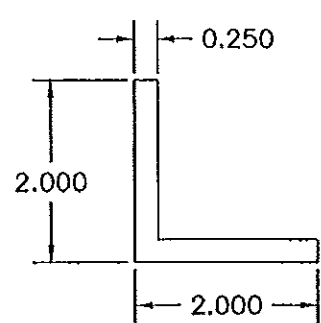
CONSULTANTS
 W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)
 7480 150TH COURT NORTH
 PALM BEACH GARDENS, FL 33418
 PHONE: 561-744-5424

CERTIFICATION
 NOV 07 2011
 WARREN W. SCHAEFER, P.E.
 P.E. NO. 44135

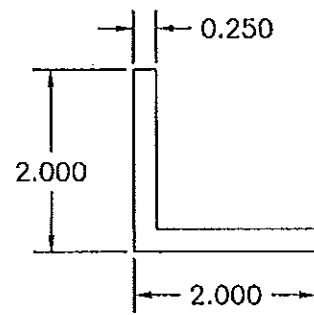
| | |
|----------------------|-----------|
| DRAWING NO. 1464 | REV. A |
| SHEET NO. 8 OF 15 | |

| ITEM # | ITEM DESCRIPTION | MANUFACTURER/NOTES |
|------------------|--|--|
| PARTS | | |
| 1A | STANDARD STRAIGHT JAMB | 6063-T6 ALUMINUM |
| 1B | RADIUS JAMB | 5052-H32 ALUMINUM |
| 2A | SILL | 6063-T6 ALUMINUM |
| 2B | OPTIONAL SILL | 6063-T5 ALUMINUM |
| 3A | HEAD | 6063-T5 ALUMINUM |
| 3B | OPTIONAL HEAD | 6063-T5 ALUMINUM |
| 4A | STANDARD LOUVER BLADE (SCREWED & WELDED ENDS) | 6063-T5 ALUMINUM |
| 4B | OPTIONAL LOUVER BLADE (SCREWED & WELDED ENDS) | 6063-T5 ALUMINUM |
| 4C | (1) WATER RESISTANT LOUVER BLADE (SCREWED & WELDED ENDS) | 6063-T5 ALUMINUM |
| 4D | SCREWED END LOUVER BLADE | 6063-T5 ALUMINUM |
| 5A | BLADE SUPPORT BRACKET | 6063-T5 ALUMINUM (USED WITH BLADE 4D) |
| 5 | BLADE SUPPORT BRACKET | 6063-T5 ALUMINUM (USED WITH BLADES 4A, 4B & 4C) |
| 6 | BLADE SUPPORT ANGLE | 6063-T5 ALUMINUM |
| 7 | MULLION END SUPPORT ANGLE | 6061-T6 ALUMINUM |
| 8 | MULLION COVER | 6063-T6 ALUMINUM |
| 9 | SIDE JAMB CLIP ANGLE | 6061-T6 ALUMINUM |
| 10 | DAMPER BLADE | 6063-T5 ALUMINUM (USED WITH PART 4B) |
| 11A | STANDARD SILL PAN | 16 GA. 5052-H32 ALUMINUM |
| 11B | OPTIONAL SILL PAN | 16 GA. 5052-H32 ALUMINUM |
| 12 | MOUNTING SLEEVE | 5052-H32 ALUMINUM |
| 13 | CONTINUOUS MOUNTING ANGLE | 6063-T5 ALUMINUM |
| 14 | MULLION END SUPPORT ANGLE | 6063-T5 ALUMINUM |
| 15 | CONTINUOUS MOUNTING ANGLE | 6063-T5 ALUMINUM |
| FASTENERS | | |
| 20 | 1/4-14 X 1 1/4" SELF DRILLING SCREW | 1 THROUGH SUPPORT ANGLE AT EACH SUPPORT BRACKET AND AT HEAD & SILL |
| 21 | 1/4-14 X 1 1/4" HILTI TEK SCREW | 10 PER MULLION SUPPORT ANGLE INTO FRAME |
| 22 | 1/4-14 X 1 1/4" HILTI TEK SCREW | 2 PER EACH CLIP ANGLE INTO JAMB |
| 23 | NO. 8 X 3/4" S.S. SMS | 2 THROUGH JAMB INTO EACH LOUVER BLADE |
| 24 | NO. 8 X 3/4" S.S. SMS | 2 THROUGH SILL INTO EACH SIDE & MULLION JAMB |
| 25 | 1/4-14 X 1 1/2" SELF DRILLING SCREW | 2 THROUGH JAMB INTO EACH LOUVER BLADE |
| 26 | 1/4-14 X 1 1/4" SELF DRILLING SCREW | WITHIN 3" OF ENDS & MAX. 6" O.C. |
| 27 | 1/4-14 X 1 1/4" SELF DRILLING SCREW | 8 PER MULLION END SUPPORT ANGLE |
| 28 | 1/4-14 X 1 1/4" SELF DRILLING SCREW | WITHIN 6" OF CORNERS & MAX. 12 1/2" O.C. |
| SEALS & SEALANTS | | |
| 32 | BULB SEAL | MCL 743091 |

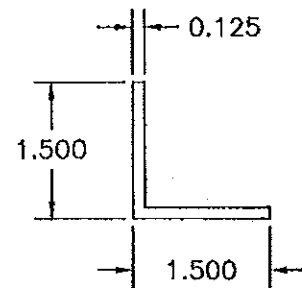
(1) PARTS 4C & 10 SHALL BE USED IN PLACE OF PART 4A OR 4B WHEN LOUVER IS REQUIRED TO RESIST WATER PENETRATION.



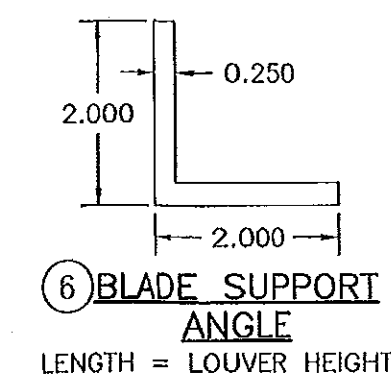
⑬ CONTINUOUS MOUNTING ANGLE



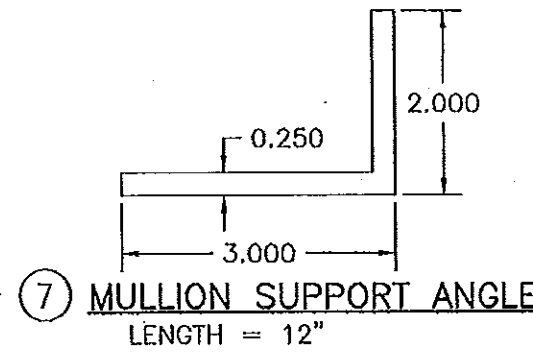
⑭ MULLION END SUPPORT ANGLE
LENGTH = 12"



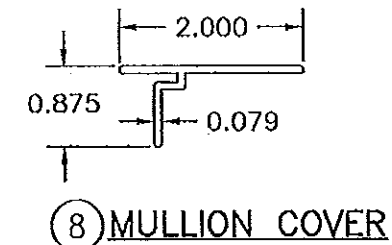
⑮ CONTINUOUS MOUNTING ANGLE



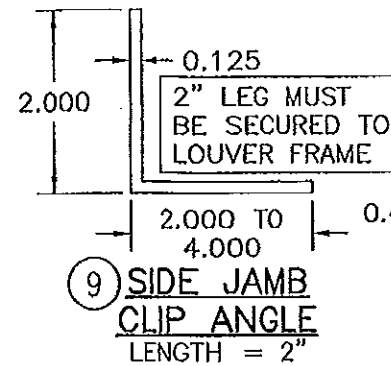
⑥ BLADE SUPPORT ANGLE
LENGTH = LOUVER HEIGHT



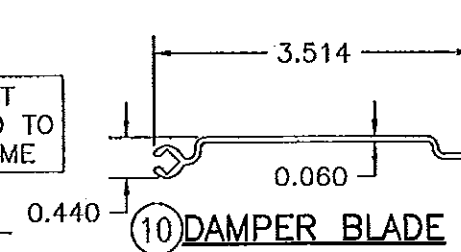
⑦ MULLION SUPPORT ANGLE
LENGTH = 12"



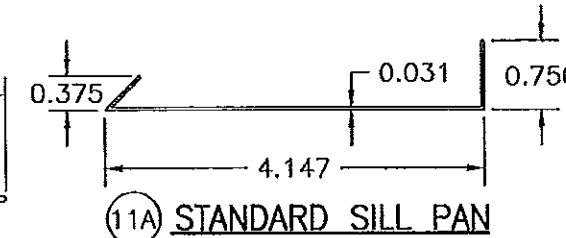
⑧ MULLION COVER



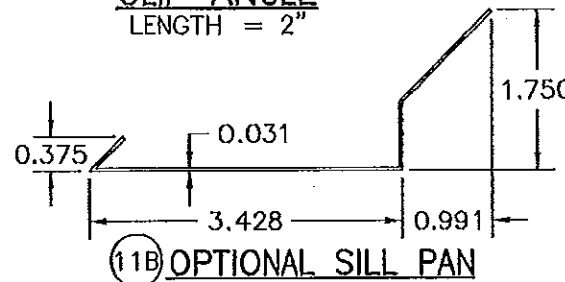
⑨ SIDE JAMB CLIP ANGLE
LENGTH = 2"



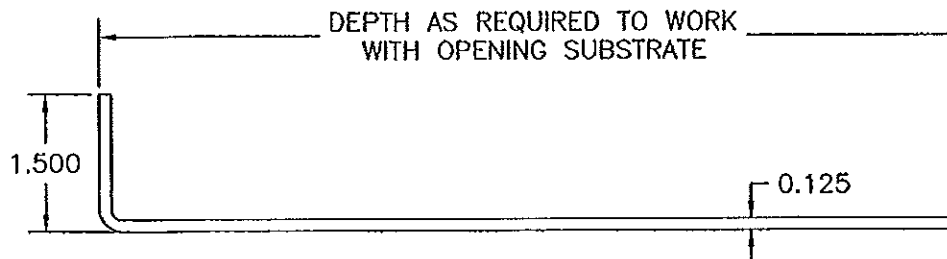
⑩ DAMPER BLADE



⑪A STANDARD SILL PAN



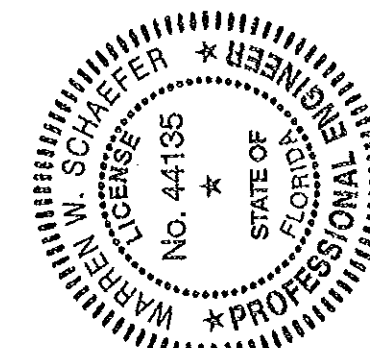
⑪B OPTIONAL SILL PAN



⑫ MOUNTING SLEEVE
(CONTINUOUS AT ALL SIDES; WELDED AT CORNERS)

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 11-1117-09
Expiration Date 04/22/2014
By *[Signature]*
Miami Dade Product Control

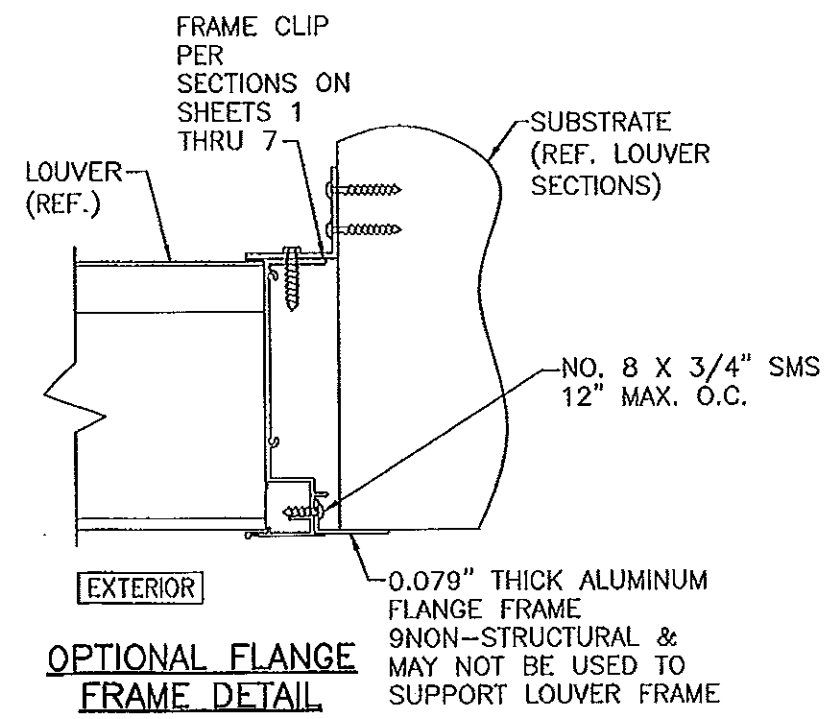
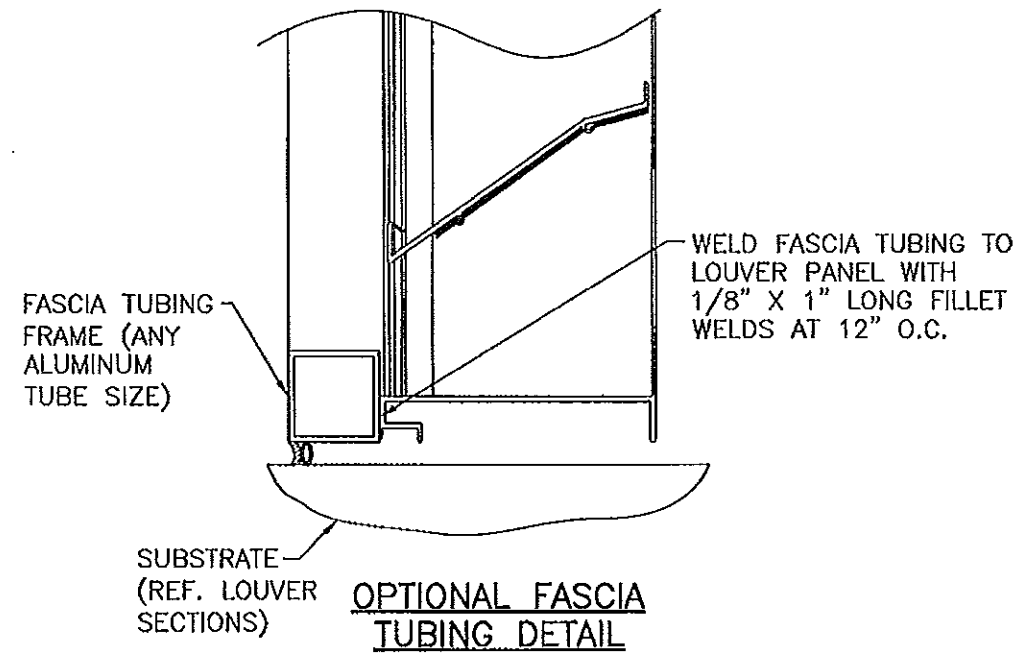
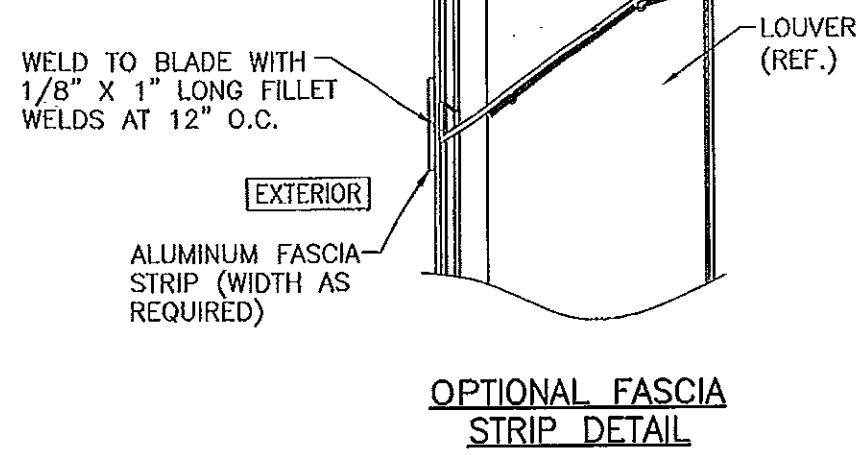
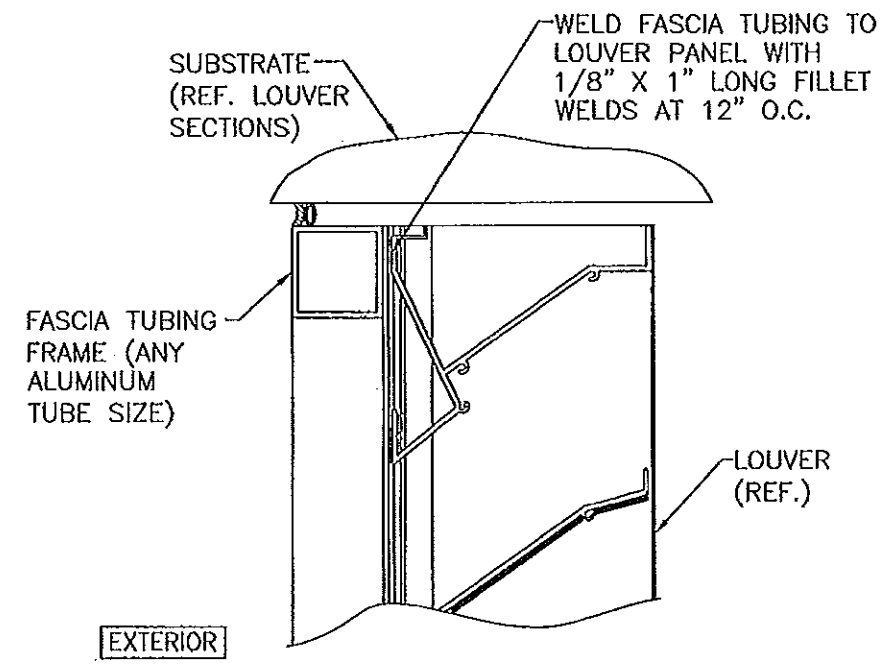
PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No 13-1017-04
Expiration Date 04/22/2014
By *[Signature]*
Miami Dade Product Control



| | |
|--|-----------------------|
| DRAWN BY: W.R.M. | CHECKED BY: W.W.S. |
| PLOT: 1-2 | DATE: 12/02/05 |
| DATE | |
| BY | |
| REVISION DESCRIPTION | |
| NO. | |
| DRAWING TITLE EA-64 LOUVER SYSTEM | |
| MANUFACTURER ARROW UNITED INDUSTRIES 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: 561-744-5424 | |
| CERTIFICATION NOV 07 2011 WARREN W. SCHAEFER, P.E. P.E. NO. 44135 | |
| DRAWING NO. 1464 | REV. A |
| SHEET NO. 9 OF 15 | |

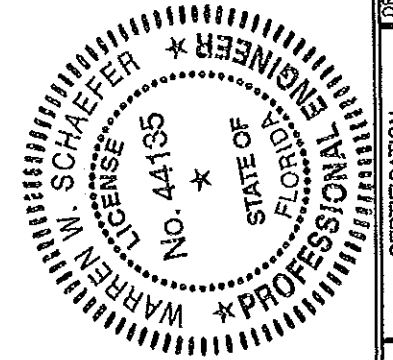
| | |
|----------------------|-----------------------|
| DRAWN BY: W.R.M. | CHECKED BY: W.W.S. |
| PLOT: 1-4 | DATE: 12/02/05 |
| DATE | |
| BY | |
| REVISION DESCRIPTION | |
| NO. | |

FOR LOUVER DETAILS,
SEE SHEETS 1-9



PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 11-1117.09
Expiration Date 04/22/2014
By *[Signature]*
Miami Dade Product Control

PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No 13-1012.04
Expiration Date 04/22/2019
By *[Signature]*
Miami Dade Product Control



MANUFACTURER
ARROW UNITED INDUSTRIES
450 RIVERSIDE DRIVE
WYALUSING, PA 18853
570-746-1888

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

CERTIFICATION
[Signature]
NOV 07 2011
WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

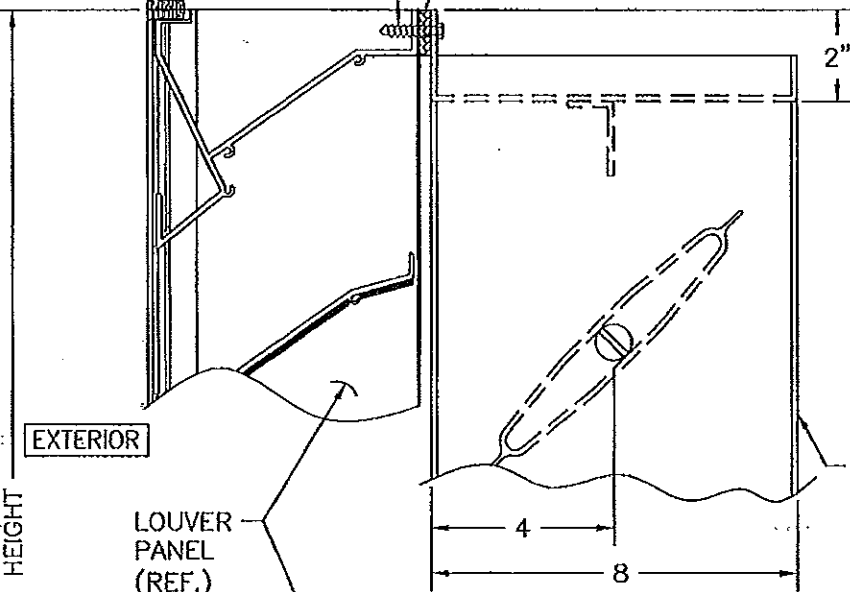
| | |
|-----------------------|-----------|
| DRAWING NO. 1464 | REV. A |
| SHEET NO. 10 OF 15 | |

DRAWING TITLE
EA-64 LOUVER SYSTEM

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

1/4" X 1" CONTINUOUS PVC GASKET

SUBSTRATE (REF. LOUVER SECTIONS)



LOUVER PANEL (REF.)

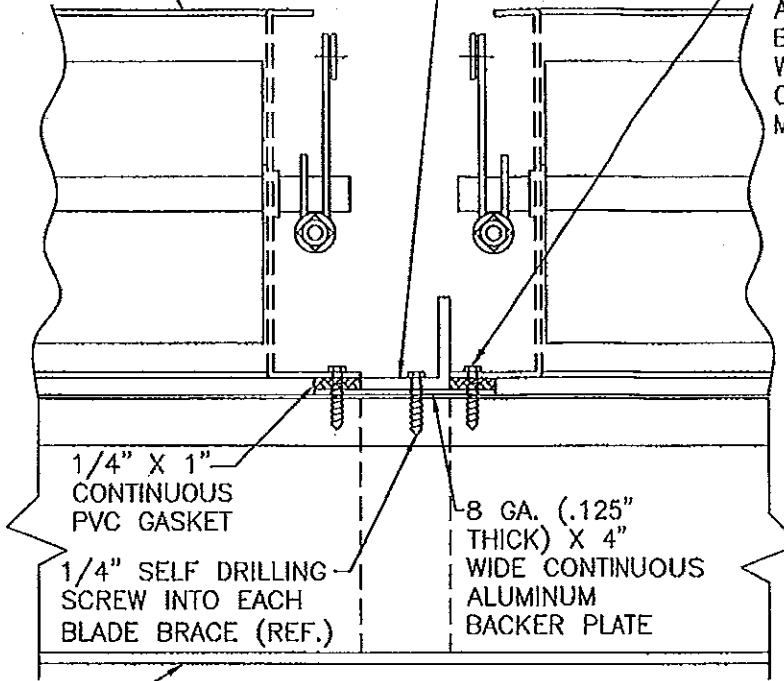
VOLUME CONTROL DAMPER

LOUVER HEIGHT

VOLUME CONTROL DAMPER

BLADE SUPPORT ANGLE (REF.)

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



1/4" X 1" CONTINUOUS PVC GASKET
1/4" SELF DRILLING SCREW INTO EACH BLADE BRACE (REF.)

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

LOUVER PANEL (REF.)

EXTERIOR

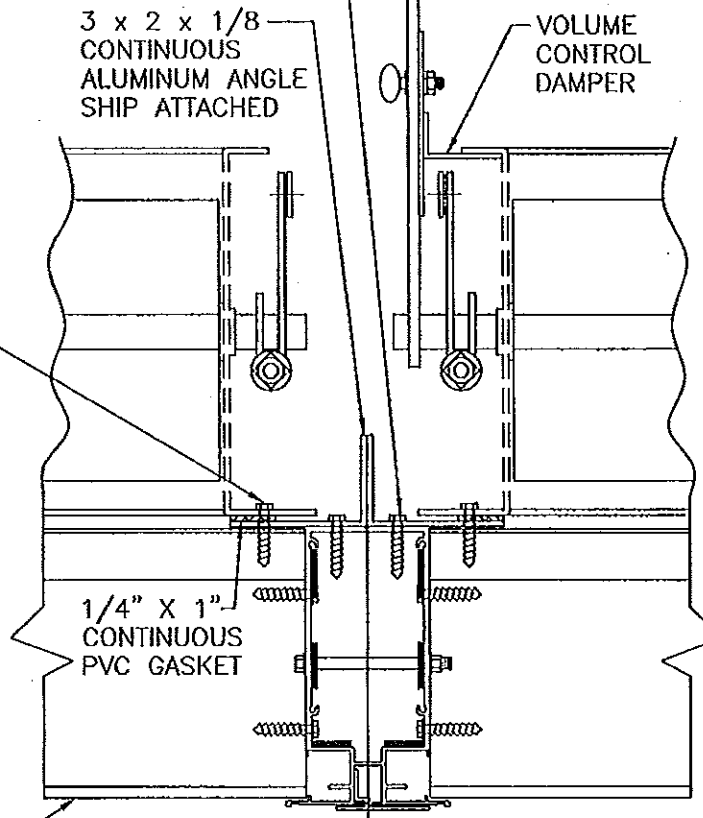
VC-822 OR VC-28/29 DAMPER SECTION AT BLADE STIFFENER

PRODUCT RENEWED
as complying with the Florida Building Code
Acceptance No 13-1017.04
Expiration Date 04/22/2014
By *[Signature]*
Miami Dade Product Control

LOUVER PANEL (REF.)

3 x 2 x 1/8 CONTINUOUS ALUMINUM ANGLE SHIP ATTACHED

1/4" SELF DRILLING SCREWS (TO ATTACH ANGLES TO LOUVER FRAME) WITHIN 5" OF ENDS & MAX. 10" O.C.



1/4" X 1" CONTINUOUS PVC GASKET

EXTERIOR

VC-822 OR VC-28/29 DAMPER SECTION AT MULLION

FOR LOUVER DETAILS, SEE SHEETS 1-9

INSTALLATION CLIP (REF. LOUVER SECTIONS)

VOLUME CONTROL DAMPER

1/4" X 1" CONTINUOUS PVC GASKET

LOUVER PANEL (REF.)

EXTERIOR

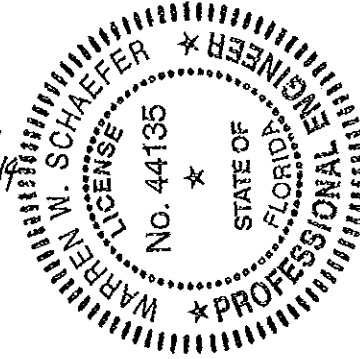
LOUVER WIDTH

VC-822 OR VC-28/29 DAMPER JAMB DETAIL

SUBSTRATE (REF. LOUVER SECTIONS)

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

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 11-1117.09
Expiration Date 04/22/2014
By *[Signature]*
Miami Dade Product Control



SUBSTRATE (REF. LOUVER SECTIONS)

VERTICAL CROSS SECTION VC-822 OR VC-28/29 DAMPER DETAIL

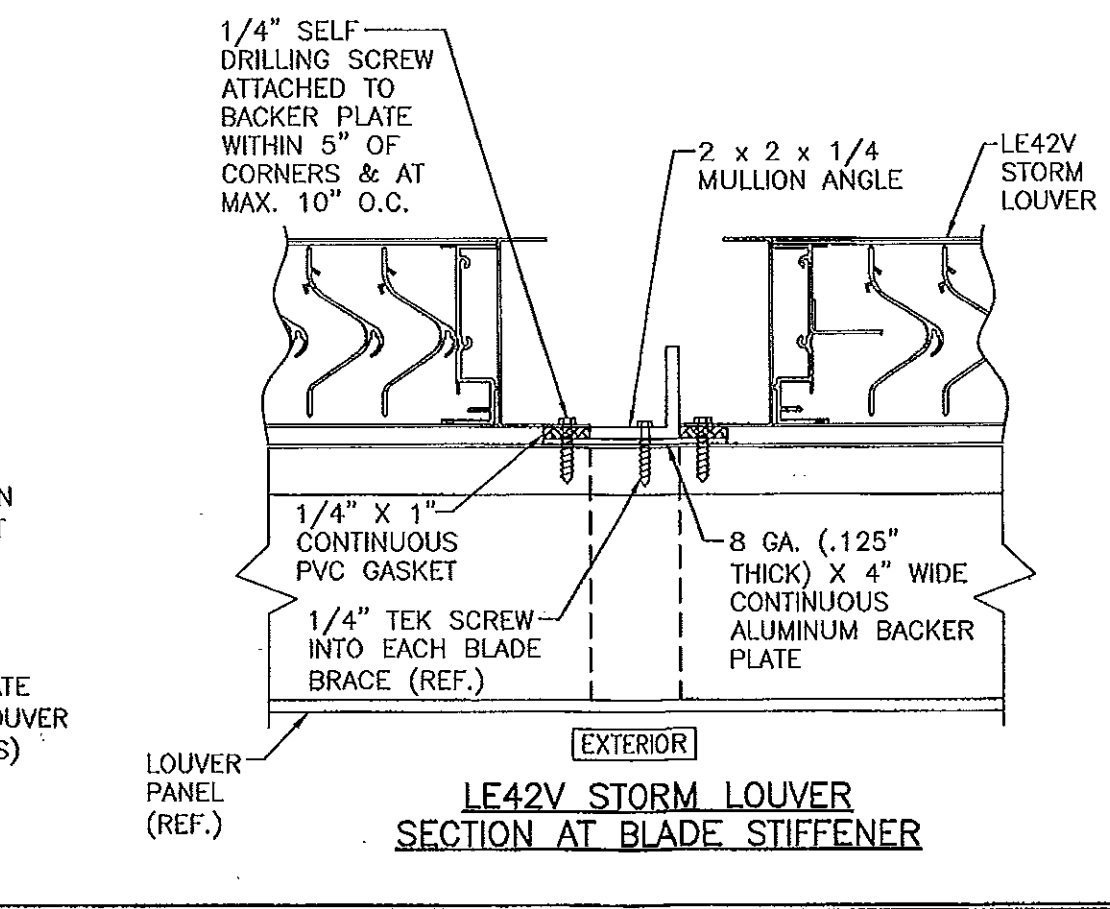
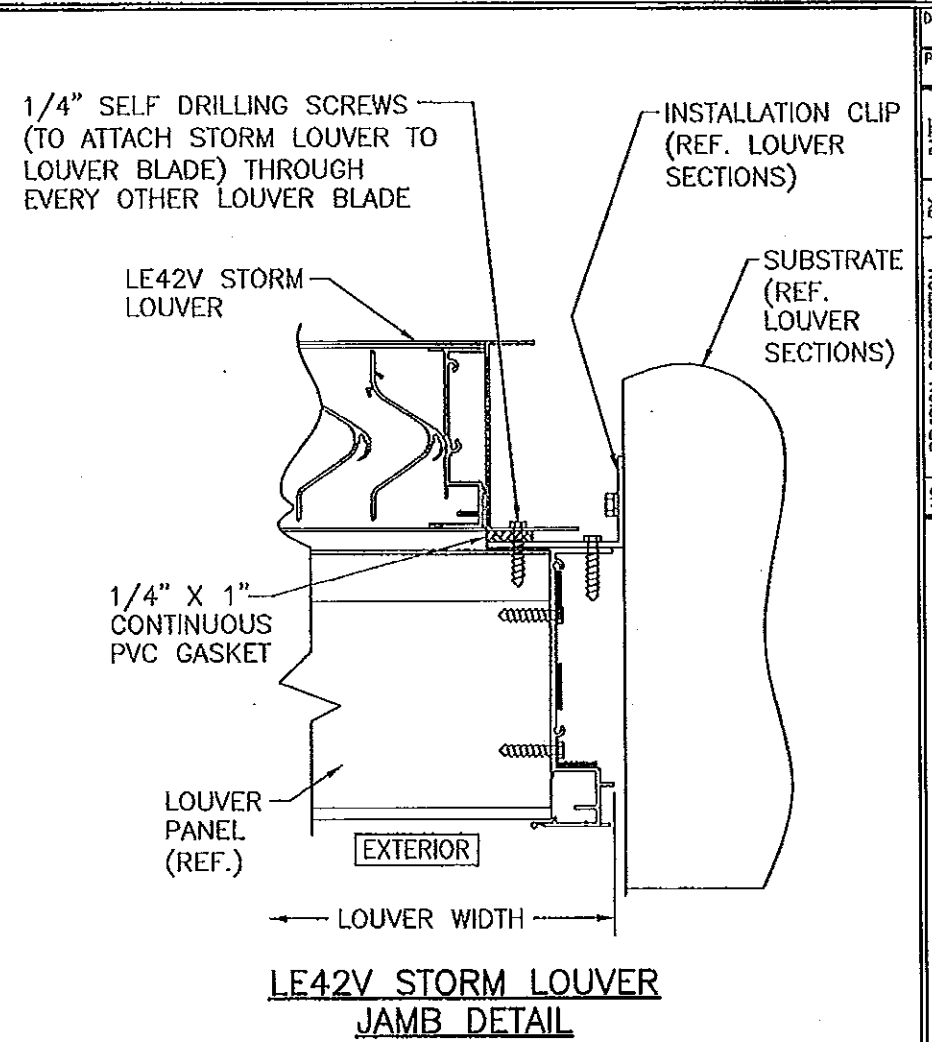
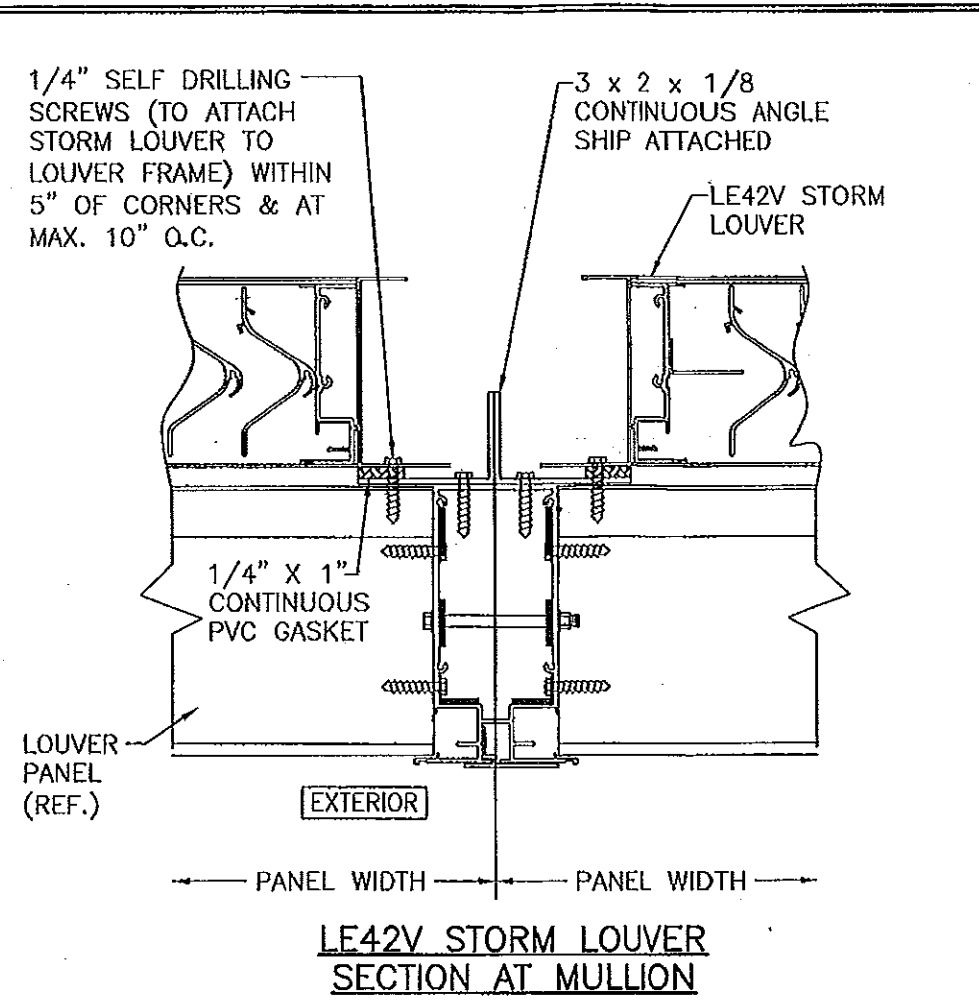
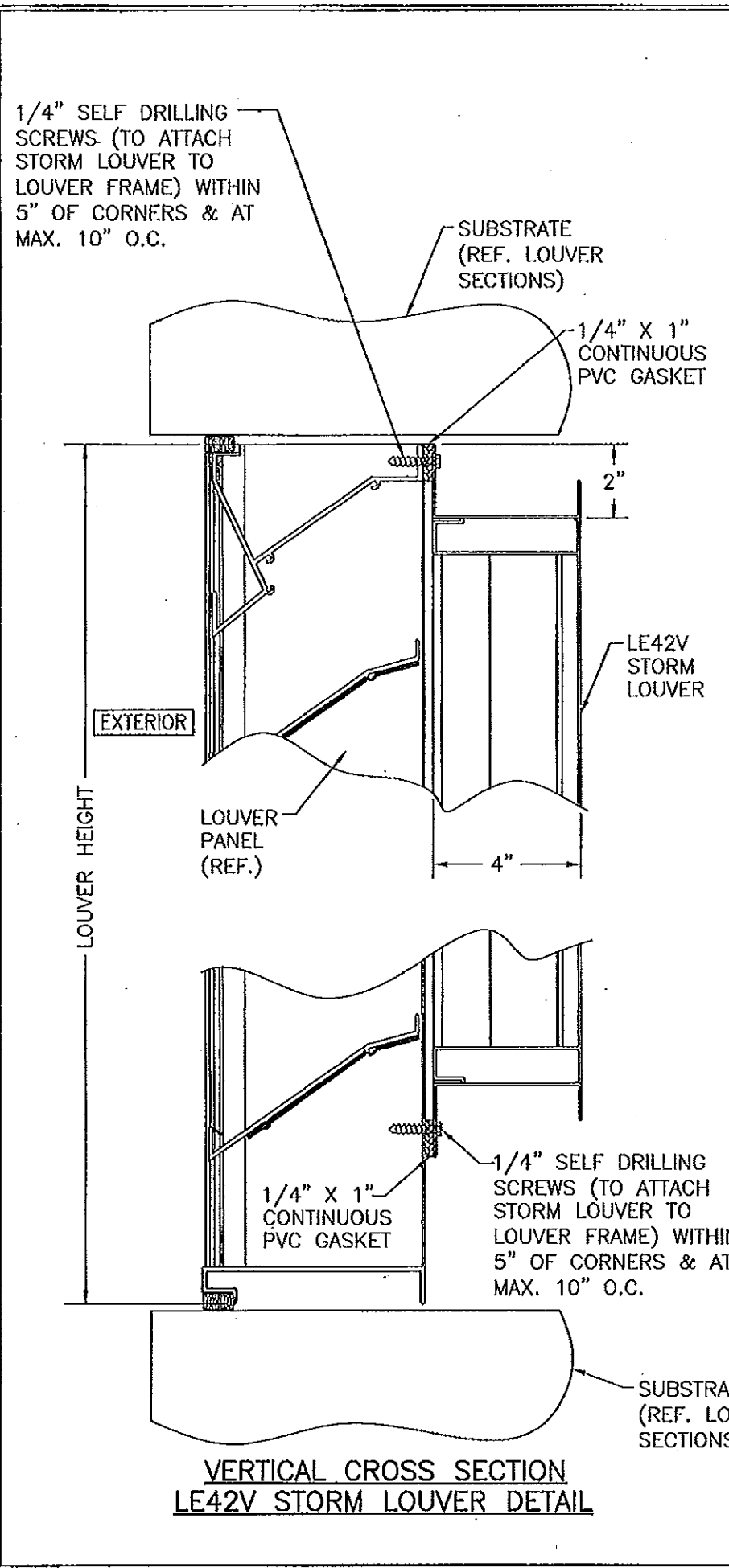
| | | | |
|----------------------|----------|-------------|--------|
| DRAWN BY: | W.R.M. | CHECKED BY: | W.W.S. |
| DATE: | 12/02/05 | | |
| NO. | | | |
| REVISION DESCRIPTION | | | |
| BY | | | |
| DATE | | | |

EA-64 LOUVER SYSTEM
MANUFACTURER
ARROW UNITED INDUSTRIES
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
NOV 07 2011
WARREN M. SCHAEFER, P.E.
P.E. NO. 44135

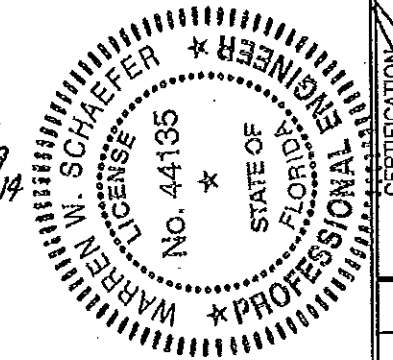
| | | | |
|-------------|----------|------|---|
| DRAWING NO. | 1464 | REV. | A |
| SHEET NO. | 11 OF 15 | | |



**FOR LOUVER DETAILS,
SEE SHEETS 1-9**

PRODUCT RENEWED
as complying with the Florida
Building Code
Acceptance No. 13-1012.04
Expiration Date 04/22/2019
By *[Signature]*
Miami/Dade Product Control

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 11-1117.09
Expiration Date 04/22/2019
By *[Signature]*
Miami/Dade Product Control



| | |
|--|-----------------------|
| DRAWN BY: W.R.M. | CHECKED BY: W.W.S. |
| PLOT: 1-4 | DATE: 12/02/05 |
| NO. | REVISION DESCRIPTION |
| BY | DATE |
| DRAWING TITLE EA-64 LOUVER SYSTEM | |
| MANUFACTURER ARROW UNITED INDUSTRIES 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 NOV 07 2011 WARREN W. SCHAEFER, P.E. P.E. NO. 44135 | |
| DRAWING NO. 1464 | REV. A |
| SHEET NO. 12 OF 15 | |

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

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

3 x 2 x 1/8 CONTINUOUS ANGLE SHIP ATTACHED

DUCT TRANSITION SLEEVE FOR CONNECTION OF DUCTS TO LOUVER FRAME

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

DUCT TRANSITION SLEEVE FOR CONNECTION OF DUCTS TO LOUVER FRAME

INSTALLATION CLIP (REF. LOUVER SECTIONS)

SUBSTRATE (REF. LOUVER SECTIONS)

SUBSTRATE (REF. LOUVER SECTIONS)

1/4" X 1" CONTINUOUS PVC GASKET

1/4" X 1" CONTINUOUS PVC GASKET

1/4" X 1" CONTINUOUS PVC GASKET

EXTERIOR

EXTERIOR

EXTERIOR

LOUVER PANEL (REF.)

LOUVER PANEL (REF.)

LOUVER PANEL (REF.)

LOUVER HEIGHT

PANEL WIDTH

PANEL WIDTH

LOUVER WIDTH

VARIES

DUCT TRANSITION SLEEVE SECTION AT MULLION

DUCT TRANSITION SLEEVE JAMB DETAIL

1/4" X 1" CONTINUOUS PVC GASKET

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

2 x 2 x 1/4 MULLION ANGLE

DUCT TRANSITION SLEEVE FOR CONNECTION OF DUCTS TO LOUVER FRAME

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

FOR LOUVER DETAILS, SEE SHEETS 1-9

1/4" X 1" CONTINUOUS PVC GASKET

1/4" X 1" CONTINUOUS PVC GASKET

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

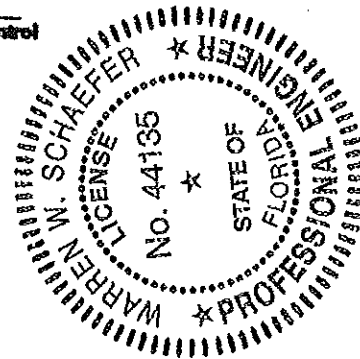
1/4" SELF DRILLING SCREW INTO EACH BLADE BRACE (REF.)

SUBSTRATE (REF. LOUVER SECTIONS)

LOUVER PANEL (REF.)

DUCT TRANSITION SLEEVE SECTION AT BLADE STIFFENER

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 13-1017.04
Expiration Date 02/22/2019
By *[Signature]*
Miami Dade Product Control



VERTICAL CROSS SECTION DUCT TRANSITION SLEEVE DETAIL

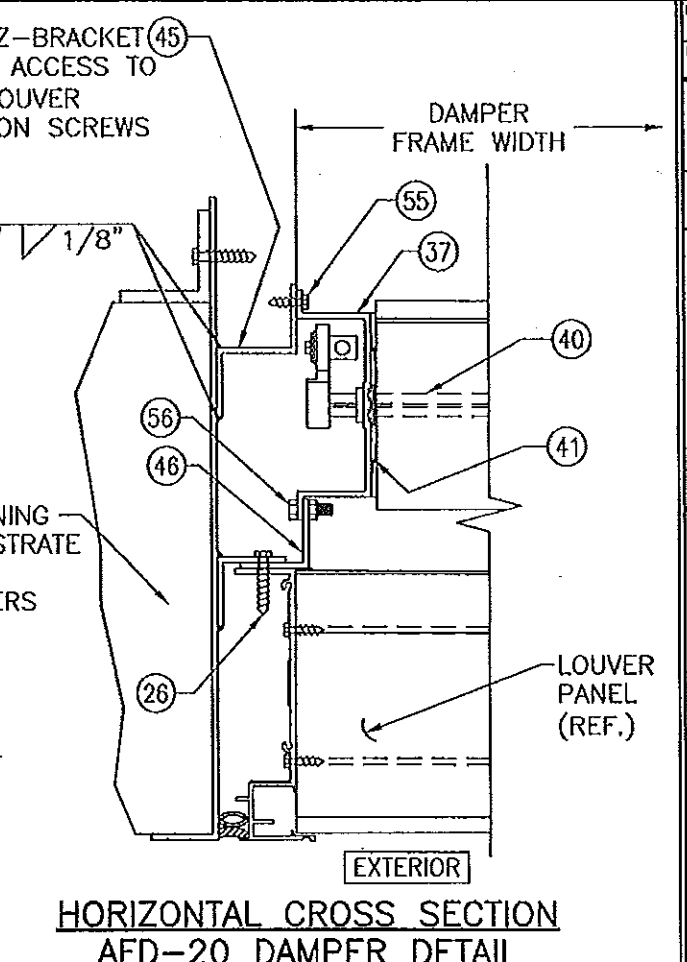
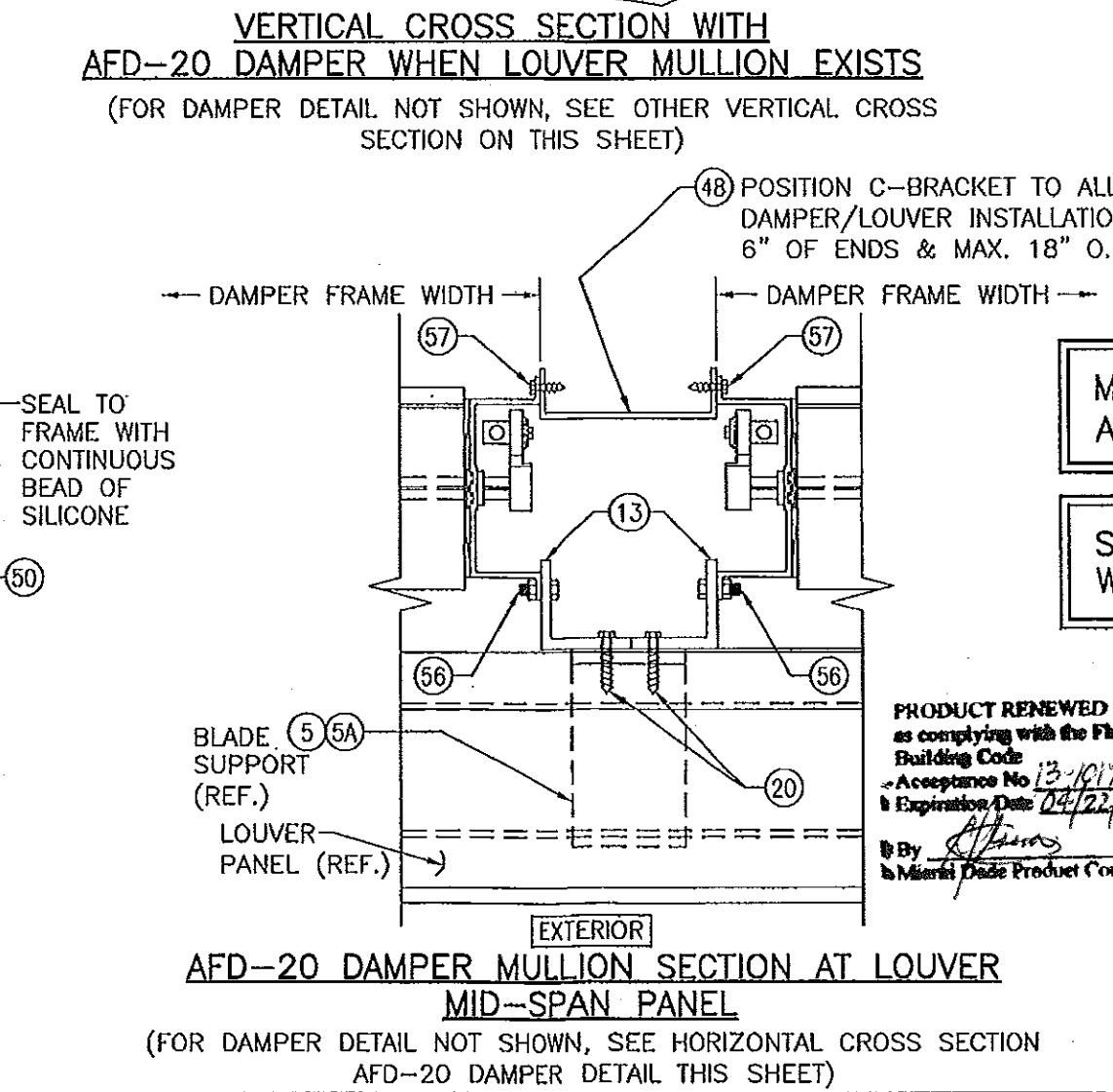
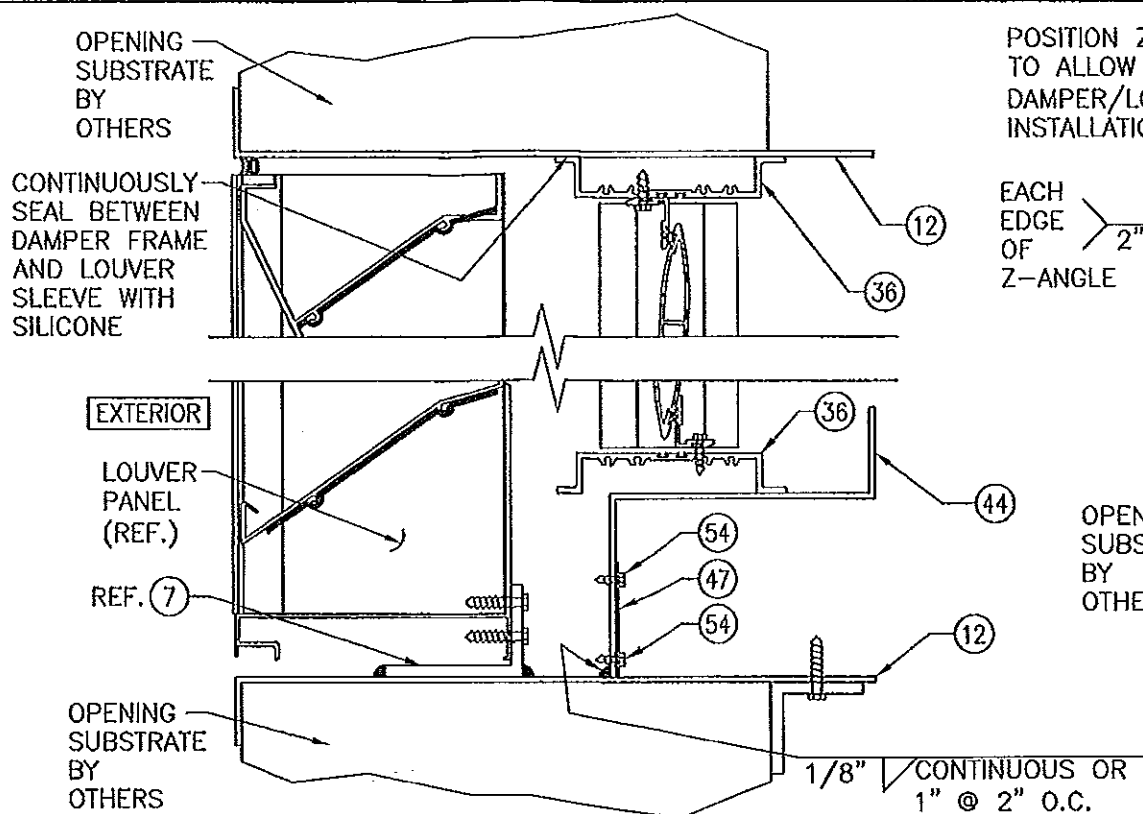
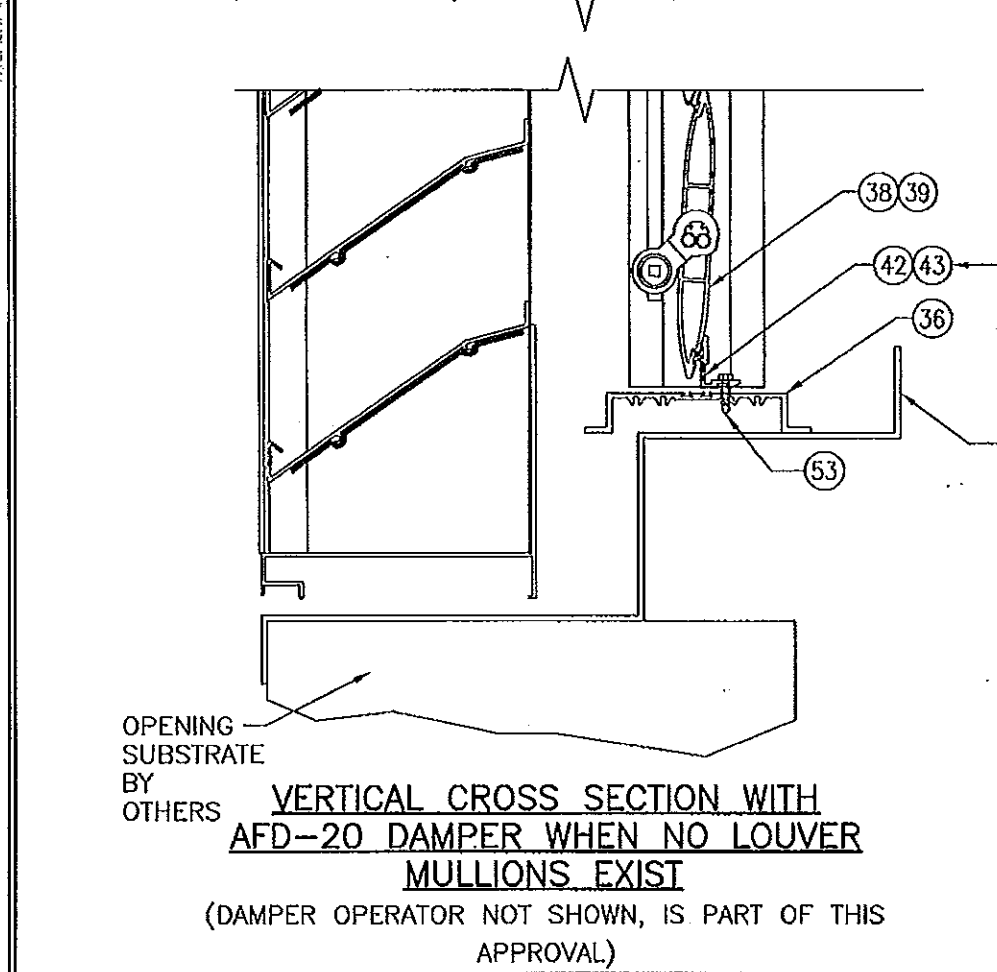
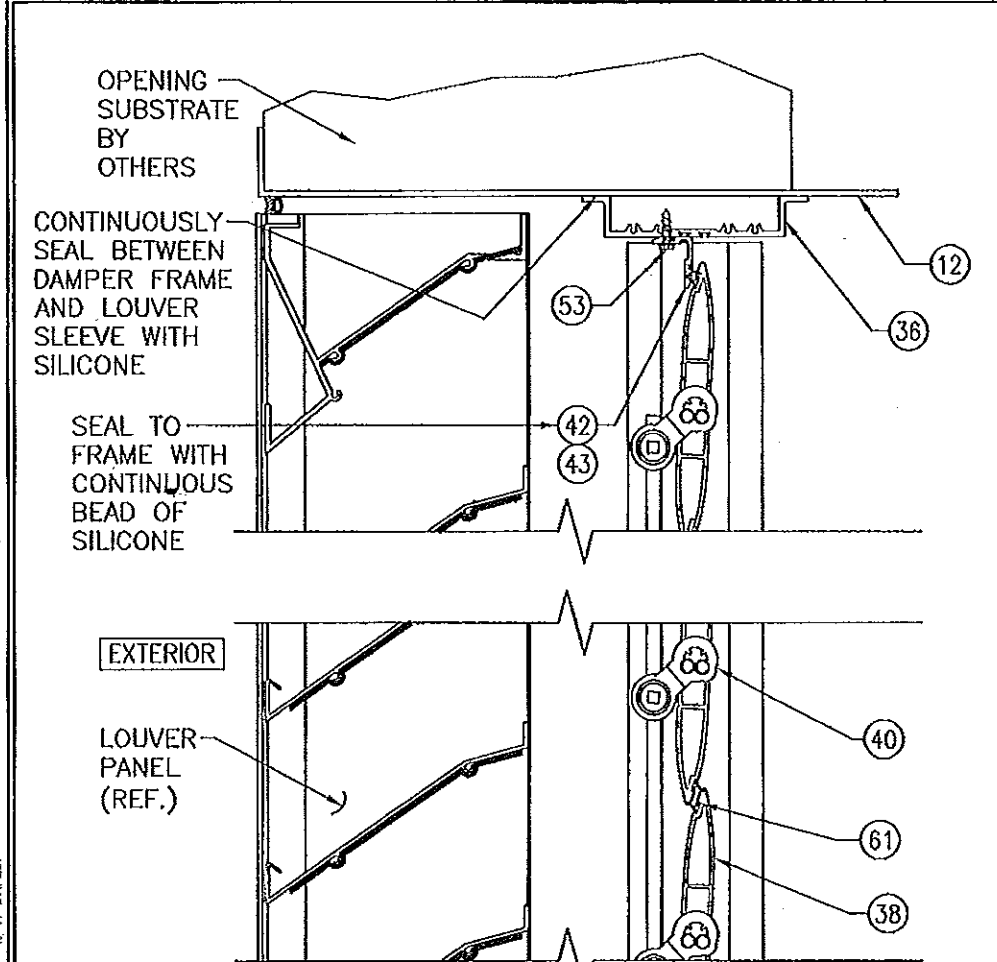
| | | | |
|-----------|--------|----------------------|----------|
| DRAWN BY: | W.R.M. | CHECKED BY: | W.W.S. |
| PLOT: | 1-4 | DATE: | 12/02/05 |
| NO. | | REVISION DESCRIPTION | |
| BY | | | |
| DATE | | | |

MANUFACTURER
ARROW UNITED INDUSTRIES
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
NOV 07 2011
WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

| | | | |
|-------------|----------|------|---|
| DRAWING NO. | 1464 | REV. | A |
| SHEET NO. | 13 OF 15 | | |



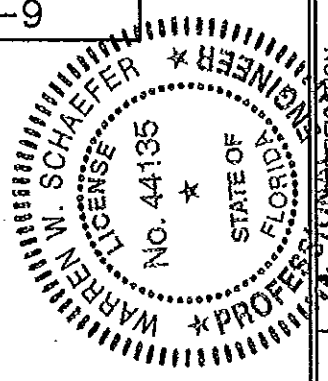
MAX. WIDTH OF ANY SINGLE AFD-20 DAMPER PANEL IS 48"

SEAL ALL STITCH WELDED SEAMS WITH SILICONE SEALANT

FOR LOUVER DETAILS, SEE SHEETS 1-9

PRODUCT RENEWED as complying with the Florida Building Code
 Acceptance No. 13-1017.09
 Expiration Date 04/22/2019
 By [Signature]
 Miami Dade Product Control

PRODUCT REVISED as complying with the Florida Building Code
 Acceptance No. 11-1117.09
 Expiration Date 04/22/2019
 By [Signature]
 Miami Dade Product Control



| | |
|---------------------|-----------------------|
| DRAWN BY: W.R.M. | CHECKED BY: W.W.S. |
| PLOT: 1=4 | DATE: 12/02/05 |
| NO. | REVISION DESCRIPTION |
| | |
| | |
| | |
| | |
| | |

EA-64 LOUVER SYSTEM
 MANUFACTURER
ARROW UNITED INDUSTRIES
 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

| | |
|---------------|-------------|
| DRAWING TITLE | NO. 07 2011 |
| DRAWING NO. | REV. |
| 1464 | A |
| SHEET NO. | 14 OF 15 |

AFD-20 DAMPER (ALL PARTS BY ARROW UNITED INDUSTRIES)

| ITEM # | ITEM DESCRIPTION | MANUFACTURER/NOTES |
|------------------|----------------------------------|--|
| PARTS | | |
| 36 | HEAD & SILL FRAME | 6063-T5 ALUMINUM |
| 37 | JAMB | 6063-T6 ALUMINUM |
| 38 | BLADE | 6063-T5 ALUMINUM |
| 39 | HALF-BLADE | 6063-T5 ALUMINUM |
| 40 | BLADE LINKAGE ASSEMBLY | BY AWW |
| 41 | JAMB SEAL | 304 STAINLESS STEEL |
| 42 | BLADE STOP | 6063-T5 ALUMINUM |
| 43 | BLADE STOP (OPTIONAL) | 6063-T5 ALUMINUM |
| 44 | SILL PAN | 5052-H32 ALUMINUM |
| 45 | Z-BRACKET | 5052-H32 ALUMINUM |
| 46 | CONTINUOUS SUPPORT ANGLE | 6063-T5 ALUMINUM |
| 47 | C-BRACKET | 5052-H32 ALUMINUM |
| 48 | CHANNEL BRACKET | 5052-H32 ALUMINUM |
| 49 | C-BRACKET | 5052-H32 ALUMINUM |
| 50 | 1-PIECE SILL PAN | 5052-H32 ALUMINUM |
| MISC. FASTENERS | | |
| 53 | NO. 8 X 3/4" SELF DRILLING SCREW | WITHIN 2" OF CORNERS & MAX. 12" O.C. |
| 54 | NO. 8 X 1/2" SELF DRILLING SCREW | 4 PER PLATE |
| 55 | NO. 8 X 3/4" SELF DRILLING SCREW | 2 PER Z-BRACKET |
| 56 | 1/4-20 X 3/4" BOLT & NUT | WITHIN 1 1/2" FROM ENDS & MAX. 4" O.C. |
| 57 | NO. 8 X 3/4" SELF DRILLING SCREW | 2 PER CHANNEL BRACKET |
| SEALS & SEALANTS | | |
| 61 | BLADE SEAL | SOLID SILICONE |

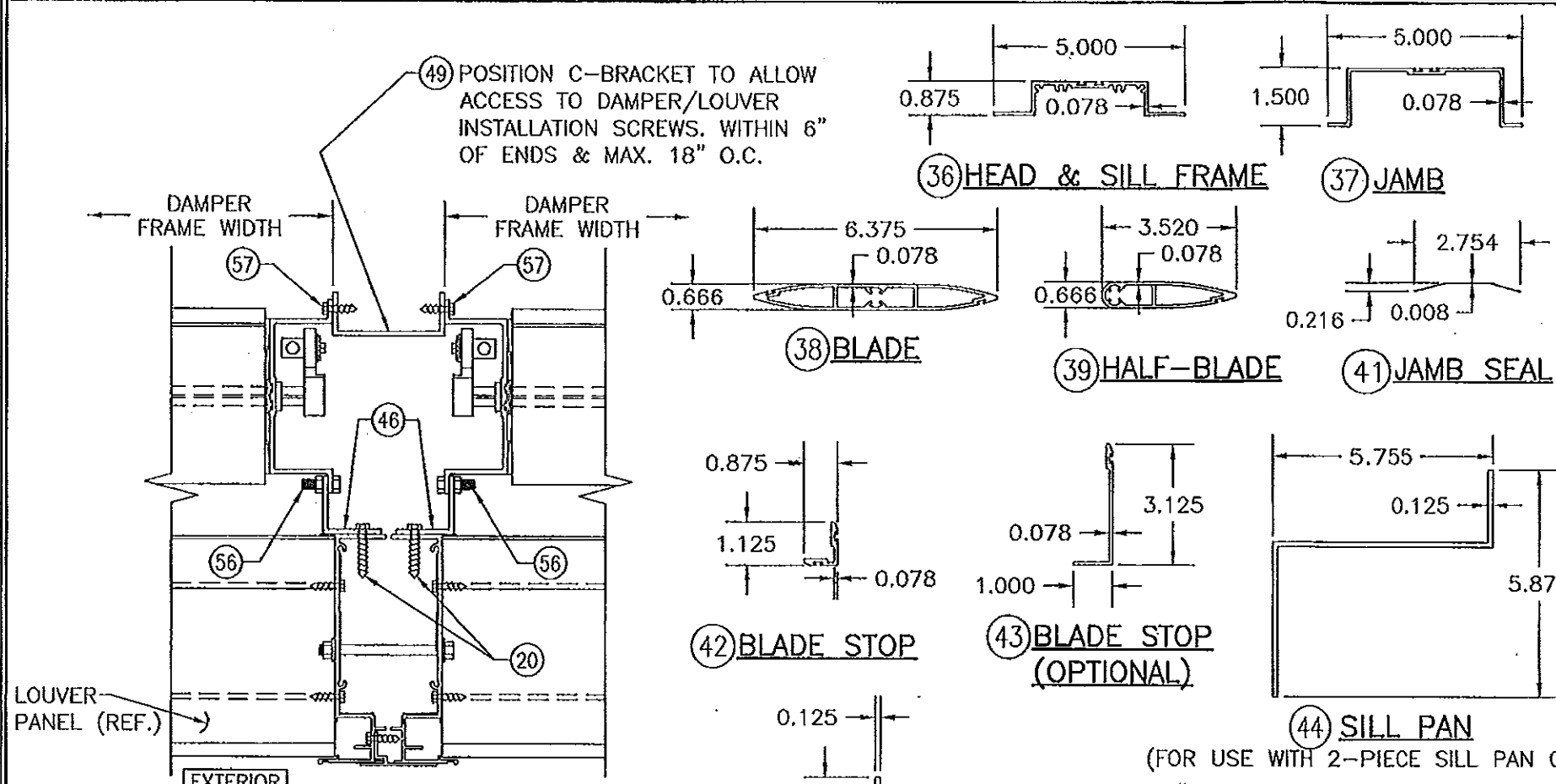
| | |
|---------------------|-----------------------|
| DRAWN BY: W.R.M. | CHECKED BY: W.W.S. |
| DATE: 12/02/05 | DATE: 12/02/05 |
| NO. | REVISION DESCRIPTION |
| 1 | 1-1 |

ARROW UNITED INDUSTRIES
450 RIVERSIDE DRIVE
WYALUSING, PA 18853
570-746-1888

EA-64 LOUVER SYSTEM
MANUFACTURER
CONSULTANTS
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)
7480 150TH COURT NORTH
PALM BEACH GARDENS, FL 33418
PHONE 561-744-3424

CERTIFICATION
NOV 07 2011
WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

| | |
|-------------|----------|
| DRAWING NO. | REV. |
| 1464 | A |
| SHEET NO. | 15 OF 15 |

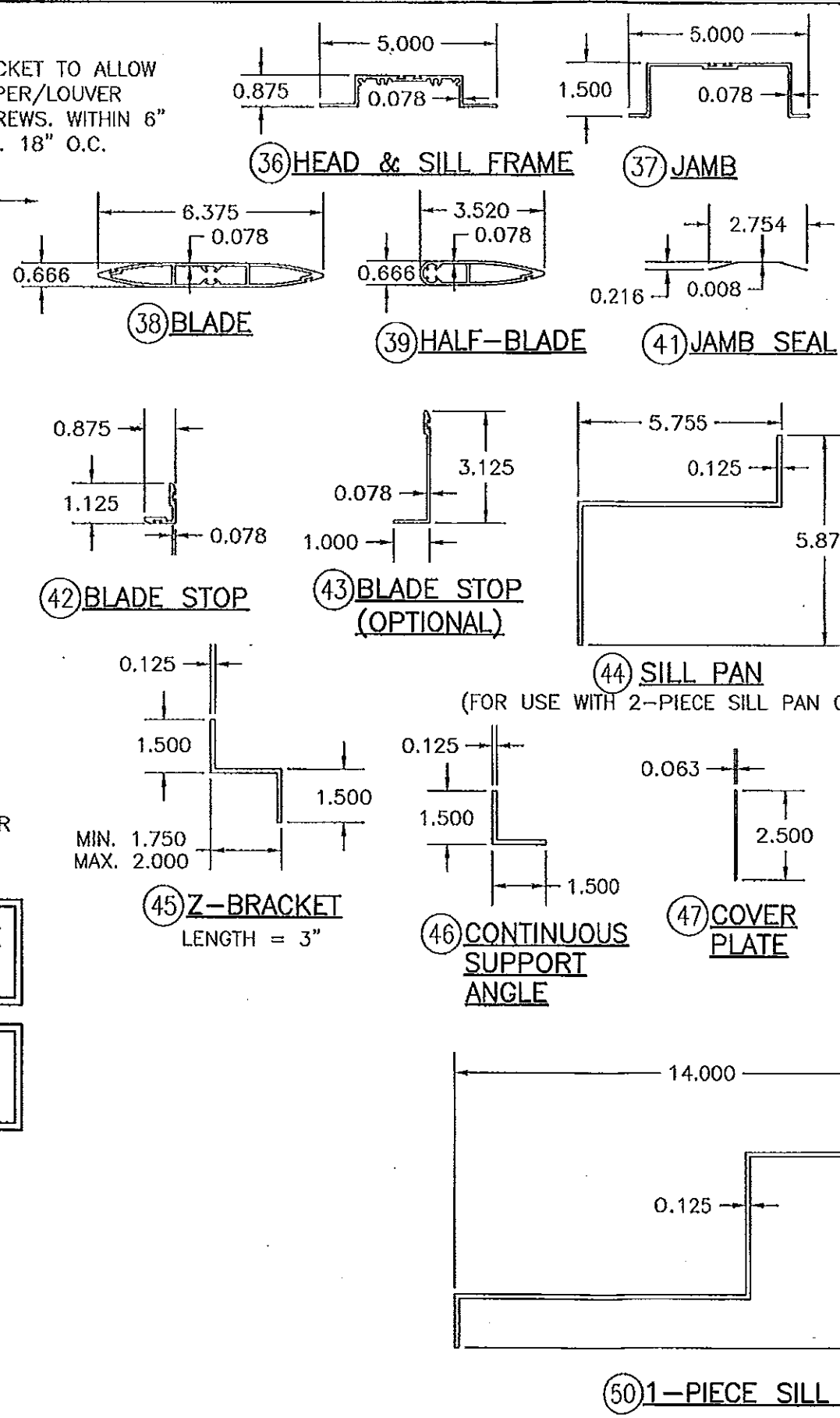


AFD-20 DAMPER MULLION SECTION AT LOUVER MULLION
(FOR DAMPER DETAIL NOT SHOWN, SEE OTHER DAMPER MULLION SECTION ON SHEET 14)

MAX. FRAME WIDTH OF ANY SINGLE AFD-20 DAMPER PANEL IS 48"

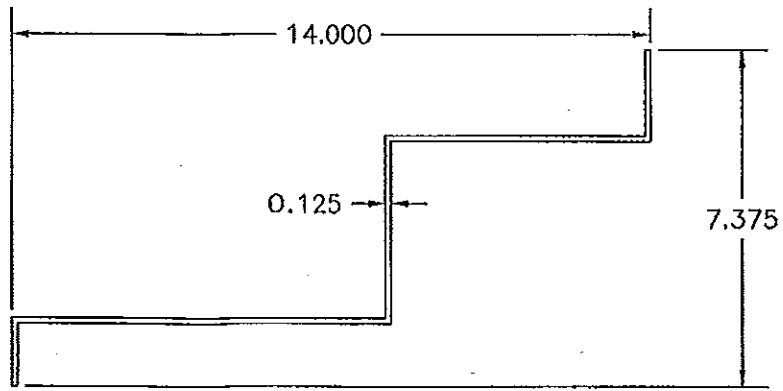
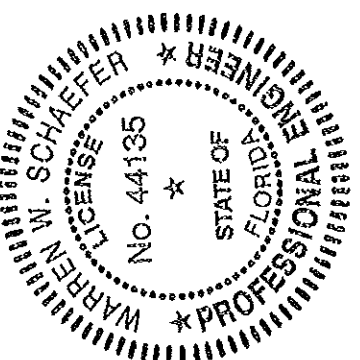
SEAL ALL STITCH WELDED SEAMS WITH SILICONE SEALANT

FOR LOUVER DETAILS, SEE SHEETS 1-9



PRODUCT RENEWED as complying with the Florida Building Code
Acceptance No 13-1017.04
Expiration Date 24/22/2019
By [Signature]
Miami Dade Product Control

PRODUCT REVISED as complying with the Florida Building Code
Acceptance No 11-1117.09
Expiration Date 04/22/2014
By [Signature]
Miami Dade Product Control



50 1-PIECE SILL PAN