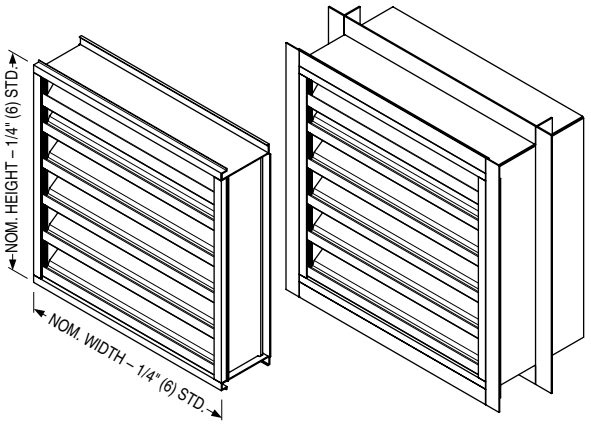
Nailor® Industries Inc.

EXTRUDED ALUMINUM STATIONARY LOUVER
MIAMI-DADE QUALIFIED • FLORIDA PRODUCT APPROVED
HIGH PERFORMANCE DRAINABLE BLADE
6" (152) DEEP • HORIZONTAL BLADE
MODEL: 1606DHPM

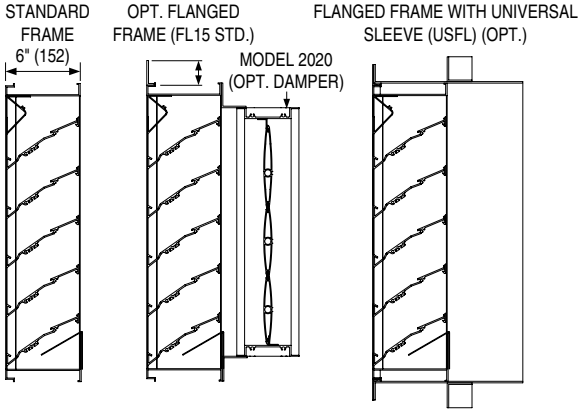
QUALIFICATIONS:

- **Miami-Dade County NOA No. : 24-0516.04**
- **Florida Product Approval No. : 28078.3**
- **Texas Department of Insurance Evaluation ID : LVR-27**
- **Tested in accordance with: TAS-100A (Wind-Driven Rain [with optional Model 2020 damper in closed position]), TAS-201 (Large Missile Impact Test), TAS-202 (Uniform Static Air Pressure Test) and TAS-203 (Cyclic Wind Pressure Loading Test).**
- **AMCA 500-L (Water Penetration, Air Performance).**
- **AMCA 540 (Wind-Borne Debris Impact Test [Enhanced "Level E" Protection]).**
- **AMCA 550 (High Velocity Wind-Driven Rain Resistance Test [with optional Model 2020 damper in closed position]).**
- **Wind load rating +/– 150 PSF.**



STANDARD CONSTRUCTION:

FRAME:	6" (152) deep, Type 6063-T6 extruded aluminum, .120" (3.05) nominal wall thickness. Integral downspouts and caulking slot provided.
BLADES:	Type 6063-T6 extruded aluminum, .100" (2.54) nominal wall thickness, with reinforcing bosses.
BLADE ANGLE:	Fixed at 37.5 degrees.
BLADE SPACING:	Approximately 4" (102) on centers.
BLADE SUPPORT:	Concealed type, factory installed on rear of louver. Reinforced with 2" x 2" (51 x 51) angle (adds approximately 2" [51] to overall louver depth).
SCREEN:	3/4" x .050 (19 x 1.27) expanded, flattened aluminum bird screen in removable frame, inside (rear) mount (adds approx. 3/8" [10] to louver depth).
FINISH:	Mill.
MINIMUM SIZE:	12" W x 12" H (305 x 305).
MAX. SINGLE SECTION SIZE:	72" W x 120" H (1829 x 3048). 60 sq. ft. (5.6 m^2) (36" W x 120" H [914 x 3048] with optional Model 2020 damper). Larger louvers will require field assembly of smaller sections.
MAXIMUM SIZE:	Unlimited Width x 120" H (3048).



OPTIONS:

- ❑ **FL15** Flanged Frame, 1 1/2" (38).
- ❑ **FL20** Flanged Frame, 2" (51).
- ❑ **USFL** Universal Sleeve/Flanged Frame.
- ❑ **BSSS** Type 304 S.S. Bird Screen.
- ❑ **BSN** No Bird Screen.
- ❑ **ISA** Aluminum Insect Screen.
- ❑ **ISSS** Type 304 S.S. Insect Screen.
- ❑ **ESI** Extended Sill.
- ❑ **PASI** Sill Pan.
- ❑ Other: _____ .

OPTIONAL FINISHES:

- ❑ **PC3** Powder Coat AAMA 2603. Color: _____ .
- ❑ **PC4** High Performance Powder Coat AAMA 2604 (Equivalent to 50% Kynar®). Color: _____ .
- ❑ **PC5** Fluoropolymer Powder Coat AAMA 2605 (Equivalent to 70% Kynar®). Color: _____ .
- ❑ **PCC** Prime Coat.
- ❑ **AN04** Clear Anodized 204-R1.
- ❑ **AN15** Clear Anodized 215-R1.
- ❑ **ANLB** Light Bronze.
- ❑ **ANMB** Medium Bronze.
- ❑ **ANDB** Dark Bronze.
- ❑ **ANBK** Black.

OPT. FACTORY MOUNTED 2020 CONTROL DAMPER:

- Extruded Aluminum
- Opposed Airfoil Blades
- Concealed Linkage
- Silicone Blade Seal
- Cambered Stainless Steel Jamb Seals
- 1/2" (13) Plated Steel Axles

SCHEDULE TYPE:	For Installation Instructions, see approved NOA.			
PROJECT:	Page 1 of 3 Dimensions are in inches (mm).			
ENGINEER:	**DATE**	**B SERIES**	**SUPERSEDES**	**DRAWING NO.**
CONTRACTOR:	**8 - 23 - 24**	**1600F**	**5 - 23 - 24**	**1606DHPM**

Nailor® Industries Inc.

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MIAMI-DADE QUALIFIED • FLORIDA PRODUCT APPROVED
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MODEL: 1606DHPM

FREE AREA in Square Feet and Square Meters

Height in Inches and Meters	**Width in Inches and** Meters										
	12 0.30	**18** 0.46	**24** 0.61	**30** 0.76	**36** 0.91	**42** 1.07	**48** 1.22	**54** 1.37	**60** 1.52	**66** 1.68	**72** 1.83
12 0.30	**0.31** 0.03	**0.51** 0.05	**0.70** 0.07	**0.89** 0.08	**1.09** 0.10	**1.28** 0.12	**1.48** 0.14	**1.67** 0.16	**1.87** 0.17	**2.06** 0.19	**2.25** 0.21
18 0.46	**0.60** 0.06	**0.98** 0.09	**1.35** 0.13	**1.73** 0.16	**2.11** 0.20	**2.48** 0.23	**2.86** 0.27	**3.23** 0.30	**3.61** 0.34	**3.99** 0.37	**4.36** 0.41
24 0.61	**0.90** 0.08	**1.47** 0.14	**2.03** 0.19	**2.60** 0.24	**3.16** 0.29	**3.73** 0.35	**4.29** 0.40	**4.85** 0.45	**5.42** 0.50	**5.98** 0.56	**6.55** 0.61
30 0.76	**1.19** 0.11	**1.93** 0.18	**2.68** 0.25	**3.42** 0.32	**4.16** 0.39	**4.90** 0.46	**5.64** 0.52	**6.39** 0.59	**7.13** 0.66	**7.87** 0.73	**8.61** 0.80
36 0.36	**1.33** 0.12	**2.16** 0.20	**3.00** 0.28	**3.83** 0.36	**4.66** 0.43	**5.49** 0.51	**6.32** 0.59	**7.15** 0.66	**7.98** 0.74	**8.81** 0.82	**9.65** 0.90
42 1.07	**1.77** 0.16	**2.87** 0.27	**3.97** 0.37	**5.07** 0.47	**6.17** 0.57	**7.27** 0.68	**8.37** 0.78	**9.47** 0.88	**10.57** 0.98	**11.67** 1.08	**12.78** 1.19
48 1.22	**2.05** 0.19	**3.33** 0.31	**4.61** 0.43	**5.89** 0.55	**7.17** 0.67	**8.45** 0.79	**9.65** 0.90	**11.01** 1.02	**12.29** 1.14	**13.57** 1.26	**14.85** 1.38
54 1.37	**2.34** 0.22	**3.80** 0.35	**5.26** 0.49	**6.73** 0.62	**8.19** 0.76	**9.65** 0.90	**11.11** 1.03	**12.57** 1.17	**14.03** 1.30	**15.49** 1.44	**16.95** 1.57
60 1.52	**2.64** 0.24	**4.28** 0.40	**5.92** 0.55	**7.57** 0.70	**9.21** 0.86	**10.86** 1.01	**12.50** 1.16	**14.14** 1.31	**15.79** 1.47	**17.43** 1.62	**19.07** 1.77
66 1.68	**2.92** 0.27	**4.74** 0.44	**6.56** 0.61	**8.39** 0.78	**10.21** 0.95	**12.03** 1.12	**13.85** 1.29	**15.67** 1.46	**17.49** 1.63	**19.31** 1.79	**21.13** 1.96
72 1.83	**3.21** 0.30	**5.22** 0.48	**7.22** 0.67	**9.22** 0.86	**11.23** 1.04	**13.23** 1.23	**15.24** 1.42	**17.24** 1.60	**19.24** 1.79	**21.25** 1.97	**23.25** 2.16
78 1.98	**3.50** 0.33	**5.68** 0.53	**7.87** 0.73	**10.05** 0.93	**12.23** 1.14	**14.41** 1.34	**16.60** 1.54	**18.78** 1.74	**20.96** 1.95	**23.14** 2.15	**25.33** 2.35
84 2.13	**3.79** 0.35	**6.16** 0.57	**8.52** 0.79	**10.89** 1.01	**13.25** 1.23	**15.61** 1.45	**17.98** 1.67	**20.34** 1.89	**22.71** 2.11	**25.07** 2.33	**27.43** 2.55
90 2.29	**4.08** 0.38	**6.63** 0.62	**9.17** 0.85	**11.72** 1.09	**14.26** 1.32	**16.81** 1.56	**19.35** 1.80	**21.89** 2.03	**24.44** 2.27	**26.98** 2.51	**29.53** 2.74
96 2.44	**4.37** 0.41	**7.09** 0.66	**9.82** 0.91	**12.54** 1.17	**15.27** 1.42	**17.99** 1.67	**20.71** 1.92	**23.44** 2.18	**26.16** 2.43	**28.89** 2.68	**31.61** 2.94
102 2.59	**4.66** 0.43	**7.57** 0.70	**10.47** 0.97	**13.38** 1.24	**16.28** 1.51	**19.19** 1.78	**22.09** 2.05	**25.00** 2.32	**27.90** 2.59	**30.81** 2.86	**33.71** 3.13
108 2.74	**4.95** 0.46	**8.04** 0.75	**11.12** 1.03	**14.21** 1.32	**17.29** 1.61	**20.38** 1.89	**23.46** 2.18	**26.55** 2.47	**29.63** 2.75	**32.72** 3.04	**35.80** 3.33
114 2.90	**5.24** 0.49	**8.51** 0.79	**11.78** 1.09	**15.04** 1.40	**18.31** 1.70	**21.58** 2.00	**24.84** 2.31	**28.11** 2.61	**31.38** 2.92	**34.65** 3.22	**37.91** 3.52
120 3.05	**5.53** 0.51	**8.98** 0.83	**12.42** 1.15	**15.87** 1.47	**19.31** 1.79	**22.76** 2.11	**26.21** 2.43	**29.65** 2.75	**33.10** 3.07	**36.54** 3.40	**39.99** 3.72

Nailor® Industries Inc.

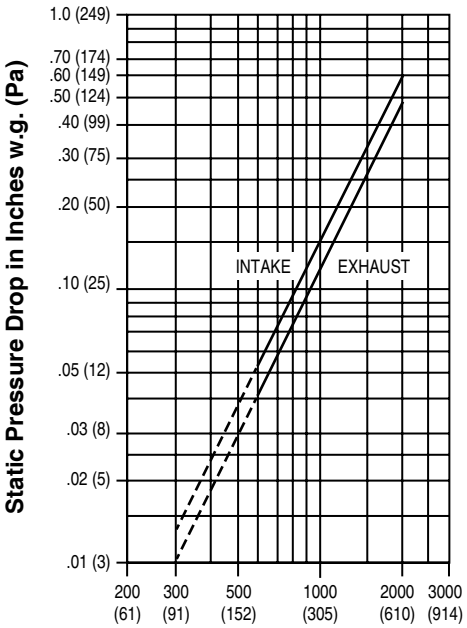
EXTRUDED ALUMINUM STATIONARY LOUVER
MIAMI-DADE QUALIFIED • FLORIDA PRODUCT APPROVED
HIGH PERFORMANCE DRAINABLE BLADE
6" (152) DEEP • HORIZONTAL BLADE • PERFORMANCE DATA
MODEL: 1606DHPM

AIRFLOW/ WATER PENETRATION DATA
for 48" x 48" (1219 x 1219) Louver Size

	Free Area %	60%
	Free Area sq. ft. (sq. m.)	9.65 (0.90)
INTAKE	Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	1186 fpm (361 m/min.)
INTAKE	Air Volume at 1186 fpm Free Area Velocity	11,445 cfm (5401 l/s)
INTAKE	Pressure Drop @ 1186 fpm	.19 in. w.g. (47 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the beginning point of water penetration.

PRESSURE DROP



Air Velocity in Feet (Meters) Per Minute Through Free Area

Louver test size: 48" x 48" (1219 x 1219 mm).
Standard air density @ 0.075 lbs/ft³.
Tested to AMCA Fig. 5.5 – 6.5.

Nailor Industries Inc. certifies that the Model 1606DHPM shown herein is licensed to bear the AMCA Certified Ratings Program seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Program Seal applies to Air Performance and Water Penetration performance ratings.

Louvers were tested in accordance with AMCA Standard 500-L.

HIGH VELOCITY RAIN RESISTANT WITH BLADES FULLY CLOSED AND IMPACT RESISTANT LOUVER
Enhanced Protection Level E
See www.AMCA.org for all certified or listed products

This label does not signify AMCA airflow performance certification.

Nailor Industries Inc. certifies that the 1606DHPM shown herein is approved to bear the AMCA International Listing Label. The ratings shown are based on tests and procedures performed in accordance with AMCA publications and comply with the requirements of the AMCA International Listing Label program. The AMCA International Listing Label applies to pressure cycle tested Wind Borne Debris impact resistant louvers rated for "Enhanced Protection" and +/- 150PSF with a minimum blade span of 12 in. (305mm) and a maximum unsupported blade span of 58 in. (1346 mm) and to High Velocity Wind-Driven Rain Resistant Louvers tested in the fully closed position that stops airflow through the louver.

SCHEDULE TYPE:				
PROJECT:	Dimensions are in inches (mm).			
ENGINEER:	**DATE**	**B SERIES**	**SUPERSEDES**	**DRAWING NO.**
CONTRACTOR:	**8 - 23 - 24**	**1600F**	**5 - 23 - 24**	**1606DHPM**

Nailor® Industries Inc.

Louver Finishes & Color Guide

Slate Blue **LF01**	Medium Bronze **LF02**	Sandstone **LF03**
Light Gray **LF04**	Charcoal **LF05**	Bone White **LF06**
Western Tan **LF07**	Architectural Bronze **LF08**	Regal Blue **LF09**
Forest Green **LF10**	Surrey Beige **LF11**	Royal Brown **LF12**
Barn Red **LF13**	Burgundy **LF14**	Clay **LF15**
Almond **LF16**	Coastal White **LF17**	Vista Green **LF18**
Black **LF19**	Gloss Black **LF20**	Campus Green **LF21**

Nailor offers 21 standard paint colors selected for architectural exterior use which meet or exceed AAMA specifications and performance requirements for color retention, chalk resistance, gloss retention, erosion, corrosion and chemical resistance as well as dry film thickness and hardness. Our state-of-the-art powder coat system provides an environment friendly finishing solution with more uniform coverage and coating thickness. The result is an exceptional finish that better resists scratching, fading and general wear. Additional liquid coat facilities for special requirements complete our ability to provide unmatched beauty and durability for any application.

Custom color matching is also available upon request. Contact your local Nailor representative.

Available Finishes

FINISH TYPE	DESCRIPTION	STANDARD WARRANTY
Fluoropolymer Powder Coat AAMA 2605-Superior Finish (AKA: Powdura® 5000, Coraflon® Powder, Interpon® D3000-Fluoromax, IFS 500FP)	**"Ultimate"** - A next generation hyper durable powder coating, based on FEVE fluoropolymer resins and ceramic pigmentation that the industry has acknowledged as the foundation for superior performance coatings. They provide a hard surface that is resistant to scratching and scuffing, with superior color and gloss retention, when applied to a variety of exterior architectural applications. This technology represents the "ultimate" in environmentally friendly finishes, with Zero-VOC emissions. A superior alternative to traditional 70% Kynar 500® / Hylar 500® PVDF fluoropolymer liquid coatings.	10 years (Consult Nailor for availability of extended warranty)
High Performance Powder Coat AAMA 2604 - High Performance Finish (AKA: Powdura® 4000, Envirocron® Ultra Durable Powder, Dynadure™ 400, Interpon® D2000, IFS 400SD)	**"Better"** - A high performance polyester powder coating, based on "super durable" resins that utilize infrared reflective pigments, which provides excellent resistance to outdoor weathering. A harder and more environmentally friendly coating than other liquid paint counterparts and with Zero-VOC emissions. A good alternative to 50% Kynar 500® / Hylar 5000® liquid coatings.	5 years
Durable Powder Coat AAMA 2603 - Pigmented Organic Coatings (AKA: Powdura® 3000, Envirocron® Durable Powder, Dynadure™ 300, Interpon® D1000, IFS 300SP)	**"Good"** - A durable powder coat based on thermosetting polyester resin technology. Provides a good economical combination of physical and chemical resistance properties. Environmentally superior to liquid spray paints and Zero – VOC emissions.	1 year
Clear Anodize 215-R1 AA-M10C22A41 (0.7 mil. min.)	Architectural Class I. Clear, colorless and hard oxide aluminum coating that resists weathering and chemical attack. Recommended for severely corrosive and abrasive atmospheric exposure.	5 years
Clear Anodize 204-R1 AA-M10C22A31 (0.4 - 0.7 mil.)	Architectural Class II. Clear, colorless and hard oxide aluminum coating that resists weathering and chemical attack. Recommended for normal weather exposure.	1 year
Color Anodize AA-M10C22A44 (0.7 mil. min.)	Architectural Class I. "Two-step" aluminum coating process. Following a standard anodizing procedure, a second electrolytic process deposits colored metallic pigments which penetrate the aluminum oxide pores, producing a corrosion resistant, colorfast finish. Available in light, medium, dark bronze and black.	5 years
Prime Coat	Prime coat provides a stable base for painting of louvers in the field. Surface pretreatment includes degreasing and a chemical cleaning before an epoxy prime coat is applied. Finish coat should be field applied as soon as possible for best adhesion, after a thorough cleaning for dust etc. that can contaminate the final finish and cause premature flaking or peeling.	N/A

Paint finish warranties are not applicable to steel products.

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

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

NOTICE OF ACCEPTANCE (NOA)

Nailor Industries Inc.
4714 Winfield Road
Houston, TX 77039

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 1606DHPM Aluminum Louver w/ and w/o Damper – L.M.I.

APPROVAL DOCUMENT: Drawing No. **1606DHPM**, titled "1606DHPM Louver w/ and w/o Damper", sheets 1 through 27 of 27, prepared by manufacturer, dated 11/29/2021, with revision B dated 08/14/2024, signed and sealed by Wayne K. Helmila, 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, Houston, TX, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

LIMITATION: This system 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/waterproof equipment, components, or supplies.

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 No. 23-0724.23** 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.**

MIAMI-DADE COUNTY APPROVED

08/15/24

NOA No. 24-0516.04
Expiration Date: August 30, 2028
Approval Date: August 15, 2024

Nailor Industries Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

A. DRAWINGS ***"Submitted under NOA No. 18-0117.12"***

1. Drawing No. **1606DHPM**, titled "1606DHPM Louver w/ and w/o Damper", sheets 1 through 21 of 21, dated 06/14/17, prepared by the manufacturer, signed and sealed by Wayne K. Helmila, P.E.

B. TESTS ***"Submitted under NOA No. 18-0117.12"***

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 installation diagram of Model 1606 DHPM Louver System, prepared by Intertek, Test Report No. **H1900.01-801-18-R2**, dated 09/21/17 and revised on 05/23/18, signed and sealed by Tyler Westerling, P.E.

2. Test Report on Wind Driven Rain Resistance per TAS 100(A)-95 on a Model 1606 DHPM Aluminum Louver with damper, prepared by Intertek, Test Report No. **H0222.04-801-18,** dated 09/27/17, signed and sealed by Tyler Westerling, P.E.

3. Test Report on High Velocity Wind Driven Rain Resistance per ANSI/AMCA 550-09 on a Model 1606 DHPM Aluminum Louver, prepared by Intertek, Test Report No. **H0222.03-801-18,** dated 09/28/17, signed and sealed by Tyler Westerling, P.E.

C. CALCULATIONS ***"Submitted under NOA No. 18-0117.12"***

1. Louver structural calculations dated 11/03/17, prepared by Rice Engineering, signed and sealed by Wayne K. Helmila, 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 **FBC 6th Edition (2017)** issued by Rice Engineering, dated 04/16/18, signed and sealed by Wayne K. Helmila, P.E.

2. Statement letter of no financial interest issued by Rice Engineering, dated 04/16/18, signed and sealed by Wayne K. Helmila, P.E.

Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 24-0516.04
Expiration Date: August 30, 2028
Approval Date: August 15, 2024

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. EVIDENCE SUBMITTED UNDER NOA # 21-0630.10 AND NEW

A. DRAWINGS

1. Drawing No. **1606DHPM**, titled "1606DHPM Louver w/ and w/o Damper", sheets 1 through 27 of 27, prepared by manufacturer, dated 11/29/2021, with revision B dated 08/142024, prepared by the manufacturer, signed and sealed by Wayne K. Helmila, P.E.

B. TESTS

1. None.

C. CALCULATIONS

1. Louver calculations, prepared by Rice Engineering, dated 08/14/2024, signed and sealed by Wayne K. Helmila, 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 8th edition (2023) of the FBC, issued by Rice Engineering, dated 07/22/2024, signed and sealed by Wayne K. Helmila, P.E.

2. Statement letter of no financial interest issued by Rice Engineering, dated 07/22/2024, signed and sealed by Wayne K. Helmila, P.E.

"Submitted under NOA # 21-0630.10"

3. Statement letter of code conformance to the **7th edition (2020) FBC**, issued by Rice Engineering, dated 08/16/2021, signed and sealed by Wayne K. Helmila, P.E.

Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 24-0516.04
Expiration Date: August 30, 2028
Approval Date: August 15, 2024

DRAWING INDEX:

NOTES:

1) THE 1606DHPM HAS BEEN TESTED IN ACCORDANCE WITH THE MIAMI-DADE COUNTY PROTOCOLS TAS - 100 (A),TAS-201, 202, & 203 FOR LARGE MISSILE IMPACT, UNIFORM PRESSURE AND CYCLIC WIND PRESSURE.

2) THIS LOUVER SYSTEM IS APPROVED FOR APPLICATIONS WITH DESIGN PRESSURES OF +/- 150 PSF OR LESS

3) THIS LOUVER SYSTEM IS NON-BEARING AND IS NOT DESIGNED TO WITHSTAND BUILDING DEAD LOADS.

4) LOUVER ANCHORS ARE REVIEWED FOR ATTACHMENT INTO STEEL, CONCRETE, MASONRY, OR TIMBER SUBSTRUCTURE. MIMIMUM EDGE DISTANCE AND EMBEDMENT REQUIREMENTS ARE SHOWN. NAILOR IND. DOES NOT DETERMINE THE STURCTURE INTEGRITY OF THE SUBSTRUCTURE.

5) MAXIMMUM SINGLE SECTION SIZE : 72" WIDE X 120" HIGH.

6) MAXIMUM ASSEMBLED LOUVER SIZE UNLIMITED WIDE X 120" HIGH. MAX. MULLION SPACING IS 72".

7) SECTIONS OR ASSEMBLIES MAY BE STACKED VERTICALLY PROVIDING A SUITABLE STRUCTURAL SUPPORT IS DESIGNED AND INSTALLED BY OTHERS TO SUPPORT ALL LOADS TRANSFERRED FROM THE LOUVER.

TESTS PREFORMED:
TAS-100 (A) WIND DRIVEN RAIN RESISTANCE
TAS-201 LARGE MISSILE IMPACT
TAS-202 UNIFORM STATIC AIR PRESSURE TEST
TAS-203 CYCLIC WIND PRESUSRE TEST
DESIGN PRESSURE RATING 150 PSF

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.04
Expiration Date 08/30/2028
By
Miami-Dade Product Control

REVISIONS:
REV B: UPDATED DRAWING INDEX
REV B : PG 20,21,22,23,2425,26,27

DWN BY: fcortinas | CHK BY: BDennis
DATE: 11/29/2021 | SCALE: NTS

SHEET: 1 OF 27

DWG. NO. 1606DHPM

REV B

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
www.nailor.com TEL: 281-590-1172 FAX: 281-590-3086

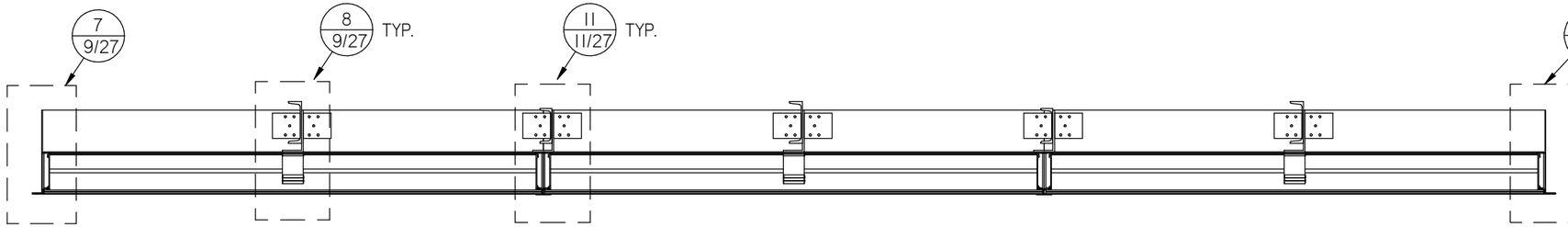
TITLE: 1606DHPM LOUVER W/ AND W/O DAMPER INDEX

WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF FLORIDA
PROFESSIONAL ENGINEER

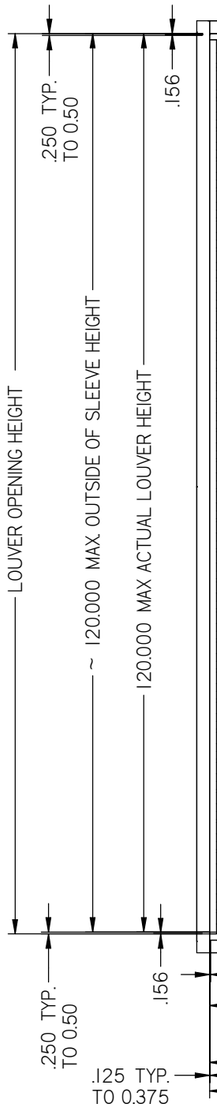
07/23/2024
COA: 9090

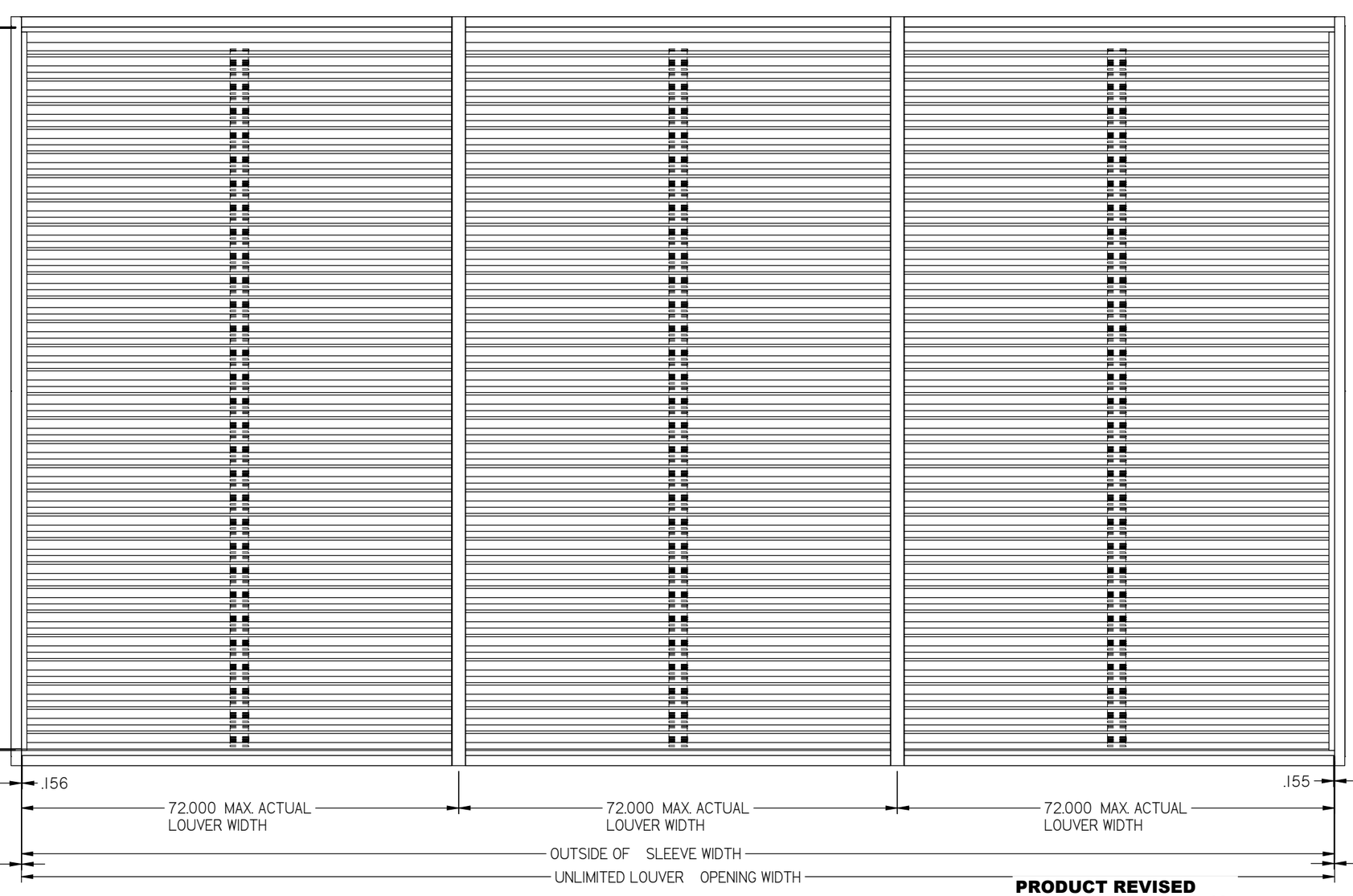
RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com

Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

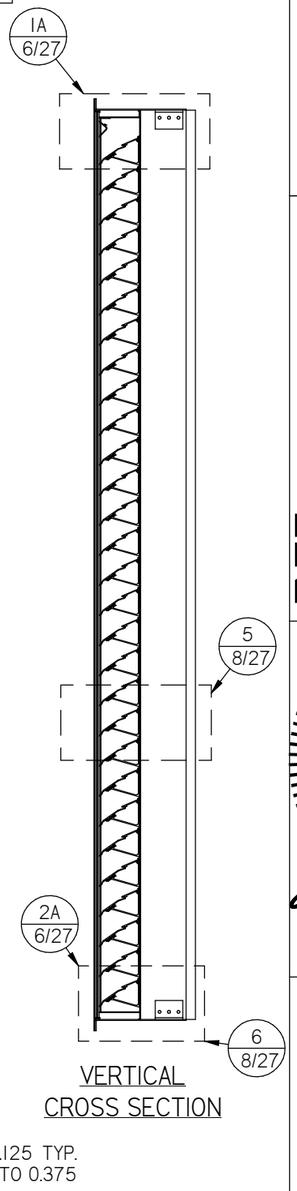


HORIZONTAL CROSS SECTION





ELEVATION



VERTICAL CROSS SECTION

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.04
Expiration Date 08/30/2028
By
Miami-Dade Product Control

DWN BY: fcortinas | CHK BY: BDennis
DATE: 11/29/2021 | SCALE: NTS

SHEET: 2 OF 27

REV B

DWG. NO. 1606DHPM

TITLE: 1606DHPM LOUVER FLANGE FRAME SLEEVE MOUNT

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
www.nailor.com TEL: 281-590-1172 FAX: 281-590-3086

WAYNE K. HELMILA
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No. 59092
STATE OF FLORIDA
PROFESSIONAL ENGINEER

07/23/2024
COA: 9090

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105 School Creek Trail
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Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com

Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
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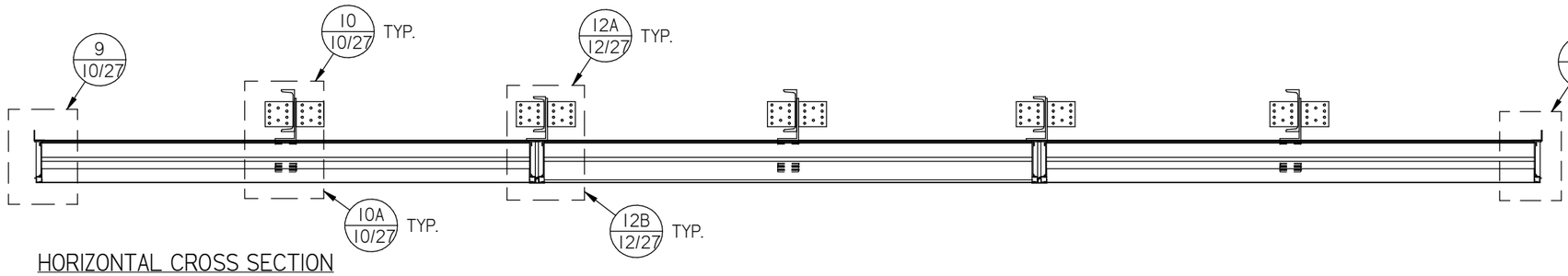
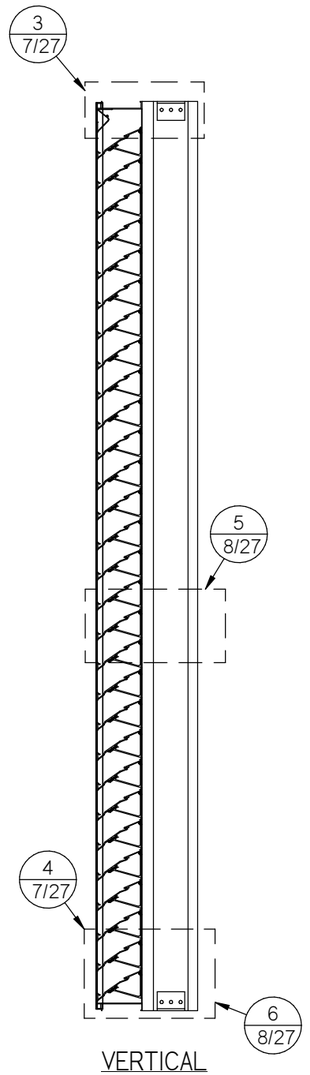


HORIZONTAL CROSS SECTION

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.04
Expiration Date 08/30/2028
By
Miami-Dade Product Control

ELEVATION



VERTICAL
CROSS SECTION

DWN BY: fcortinas
CHK BY: BDennis
DATE: 11/29/2021
SCALE: NTS
SHEET: 3 OF 27
REV B
DWG. NO. 1606DHPM

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
TEL: 281-590-1172 FAX: 281-590-3086
www.nailor.com

TITLE: 1606DHPM LOUVER
CONTINUOUS ANGLE MOUNT

WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF FLORIDA
PROFESSIONAL ENGINEER

07/23/2024
COA: 9090

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105 School Creek Trail
Luxemburg, WI 54217
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Fax: (920) 617-1100
www.rice-inc.com

Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
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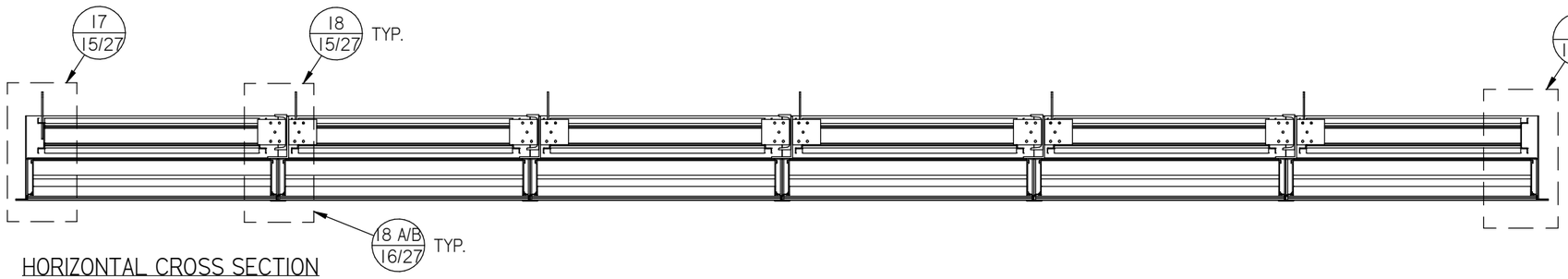

HORIZONTAL CROSS SECTION

PRODUCT REVISED
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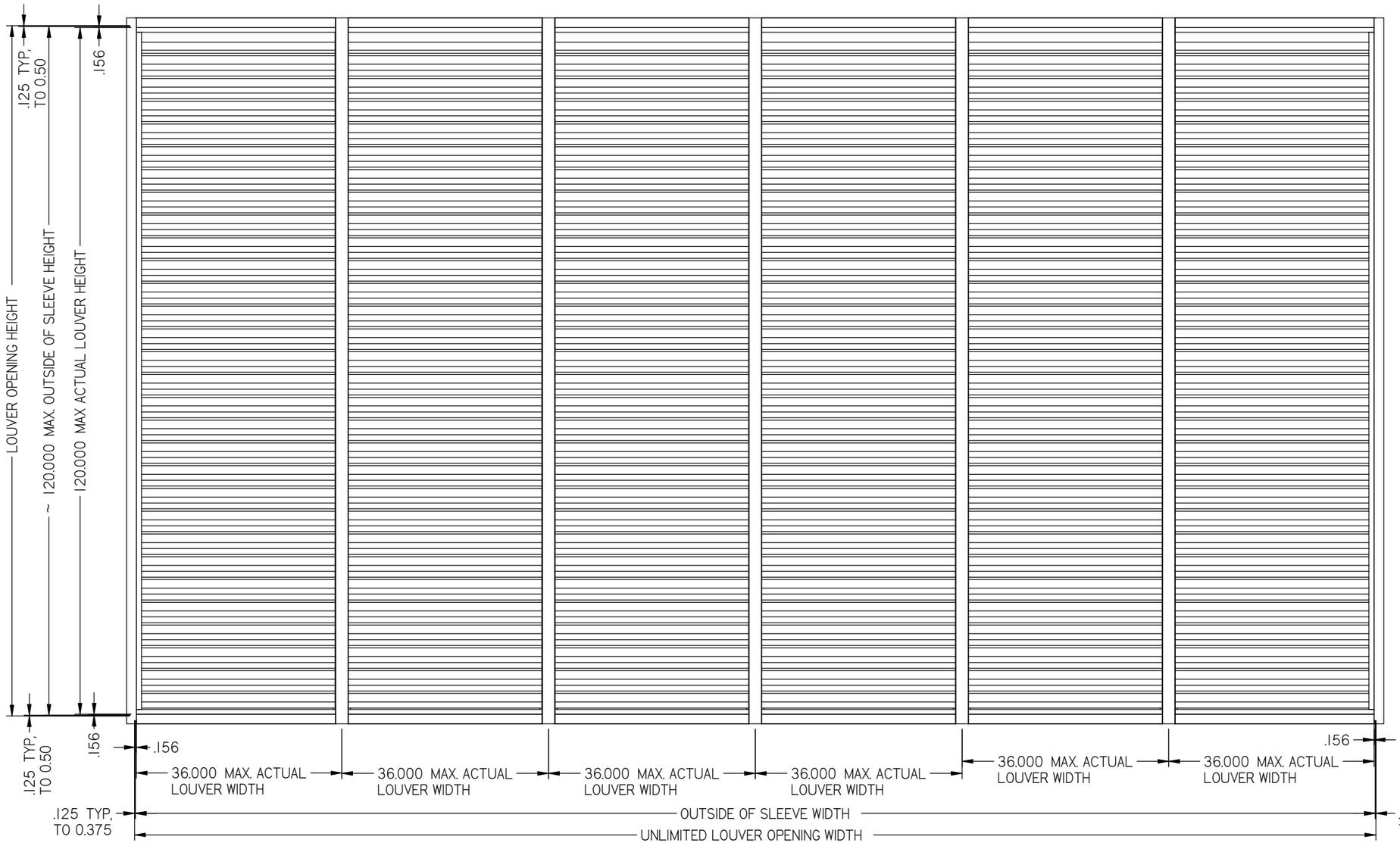
NOA-No. 24-0516.04
Expiration Date 08/30/2028
By
Miami-Dade Product Control



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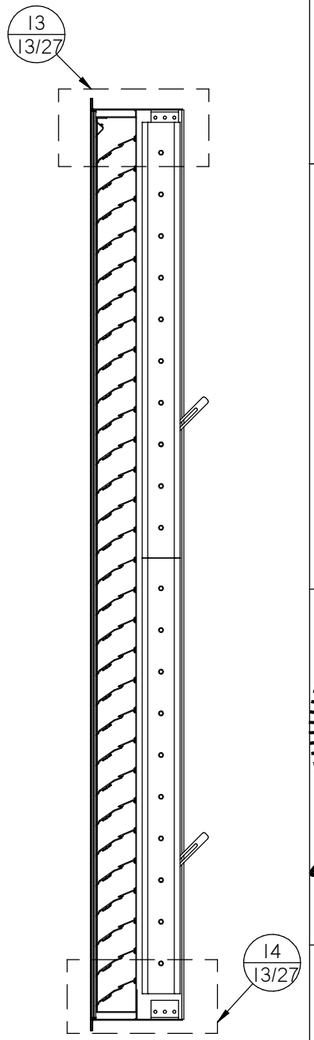

VERTICAL CROSS SECTION

DWN BY: fcortinas	CHK BY: BDennis
DATE: 11/29/2021	SCALE: NTS

SHEET: 4 OF 27

REV B

DWG. NO. 1606DHPM

TITLE: 1606DHPM / DAMPER
FLANGE FRAME
SLEEVE MOUNT

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
TEL: 281-590-1172 FAX: 281-590-3086
www.nailor.com

WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

07/23/2024
COA: 9090

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ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com

Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
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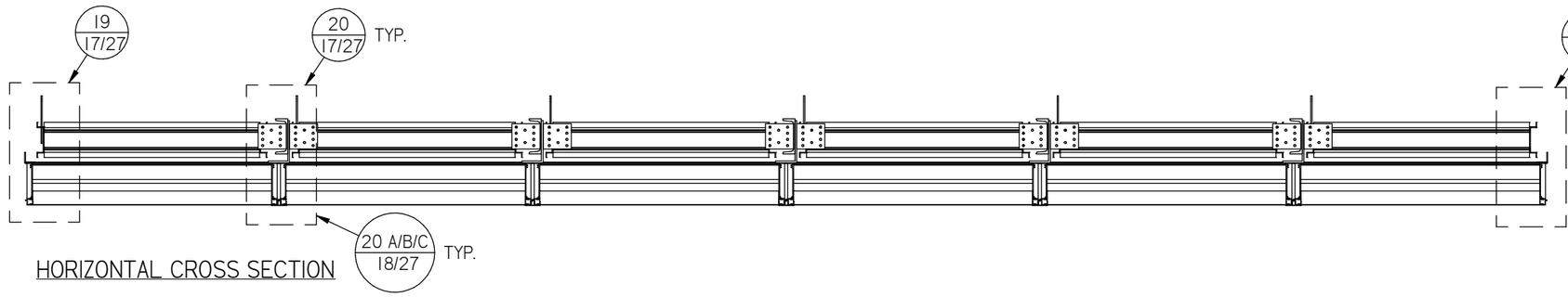
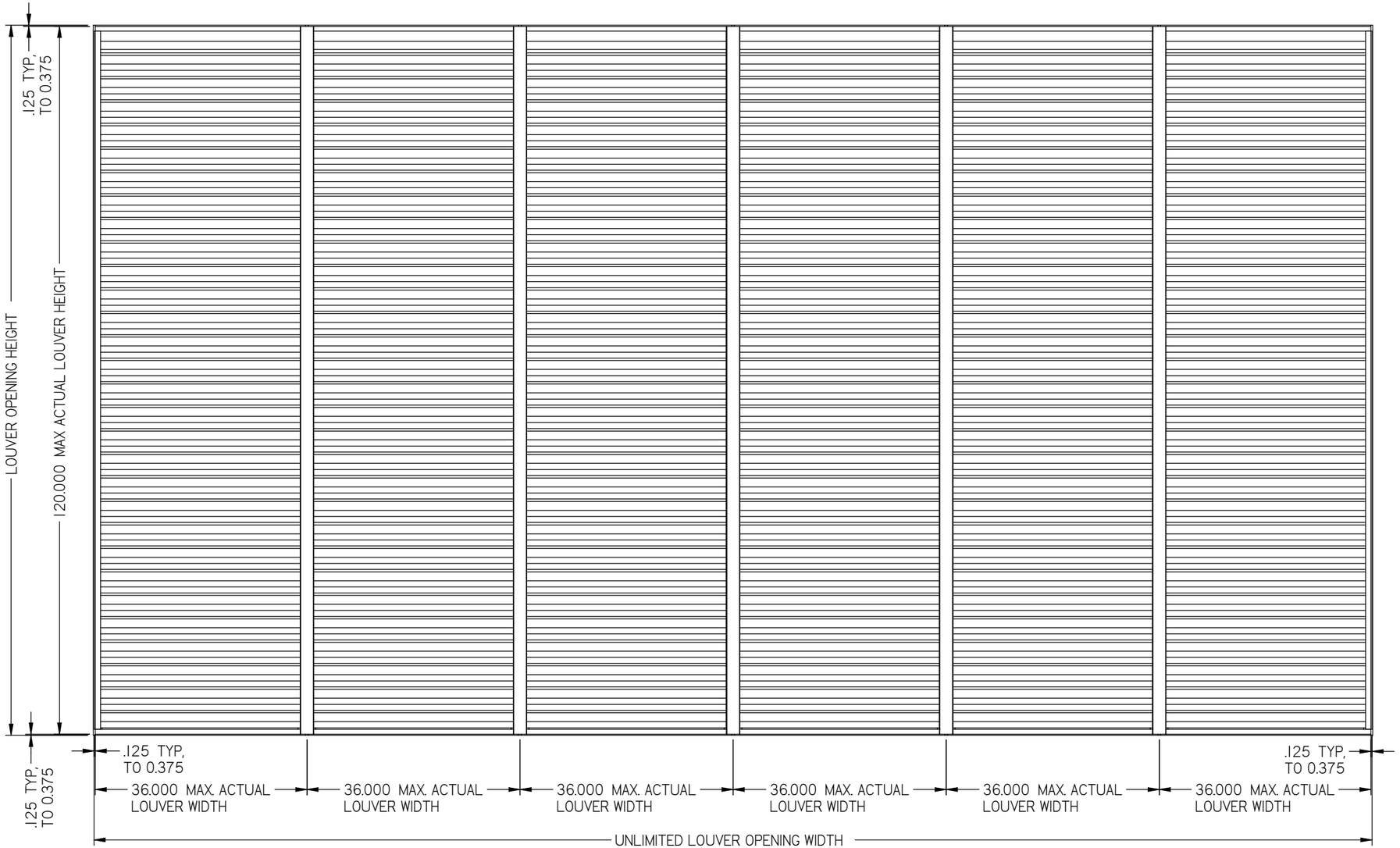
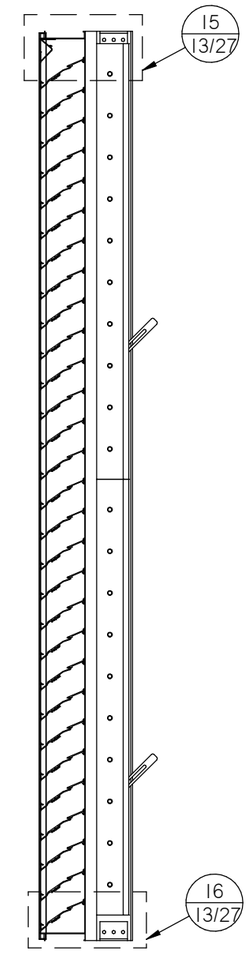


HORIZONTAL CROSS SECTION

PRODUCT REVISED
as complying with the Florida Building Code
NOA–No. 24–0516.04
Expiration Date 08/30/2028
By
Miami–Dade Product Control



ELEVATION



VERTICAL
CROSS SECTION

DWN BY: fcortinas	CHK BY: BDennis
DATE: 11/29/2021	SCALE: NTS

SHEET: 5 OF 27

DWG. NO. 1606DHPM

REV B

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
www.nailor.com TEL: 281-590-1172 FAX: 281-590-3086

TITLE: 1606DHPM / DAMPER
CONTINUOUS ANGLE MOUNT

WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

07/23/2024
COA: 9090

RICE
ENGINEERING
105 School Creek Trail
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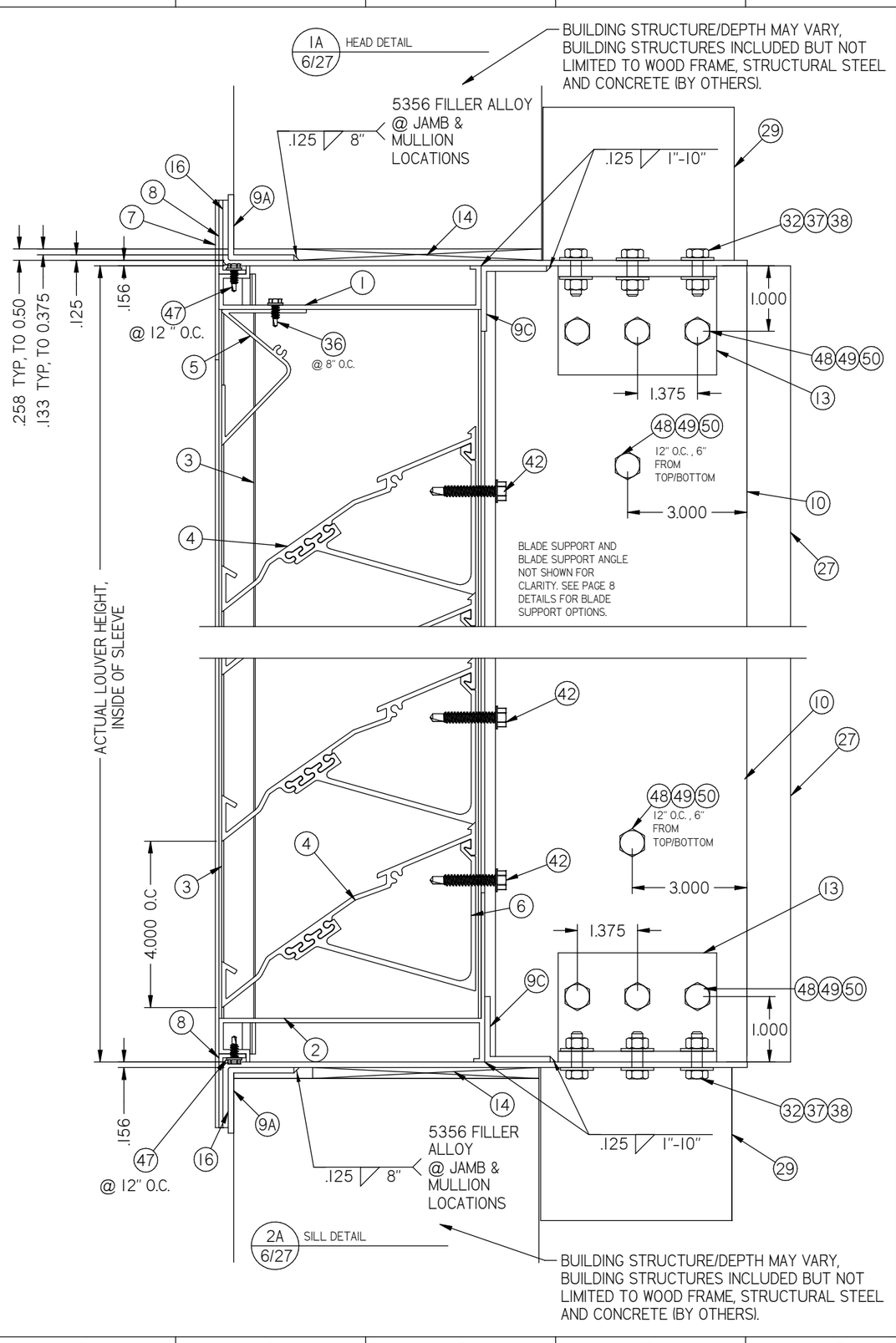
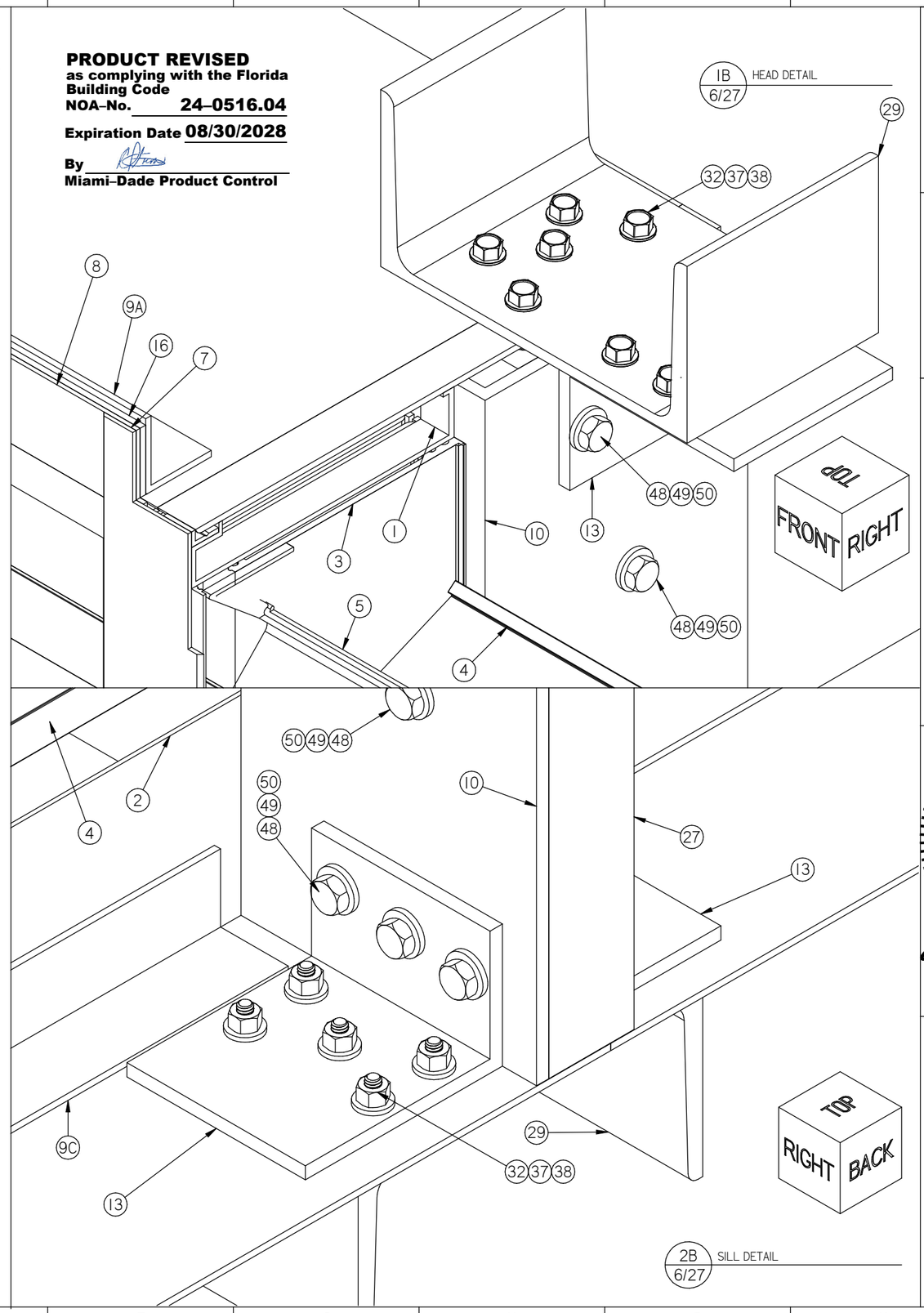
Fax: (920) 617-1100
www.rice-inc.com

Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092



PRODUCT REVISED
as complying with the Florida Building Code
NOA–No. 24–0516.04
Expiration Date 08/30/2028
By
Miami–Dade Product Control



DWN BY: fcortinas
CHK BY: BDennis
DATE: 11/29/2021
SCALE: NTS

SHEET: 6 OF 27
REV B
DWG. NO. 1606DHPM

TITLE: 1606DHPM LOUVER
FLANGE FRAME
SLEEVE MOUNT
HEAD & SILL DETAIL

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
TEL: 281-590-1172 FAX: 281-590-3086
www.nailor.com

WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF FLORIDA
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07/23/2024
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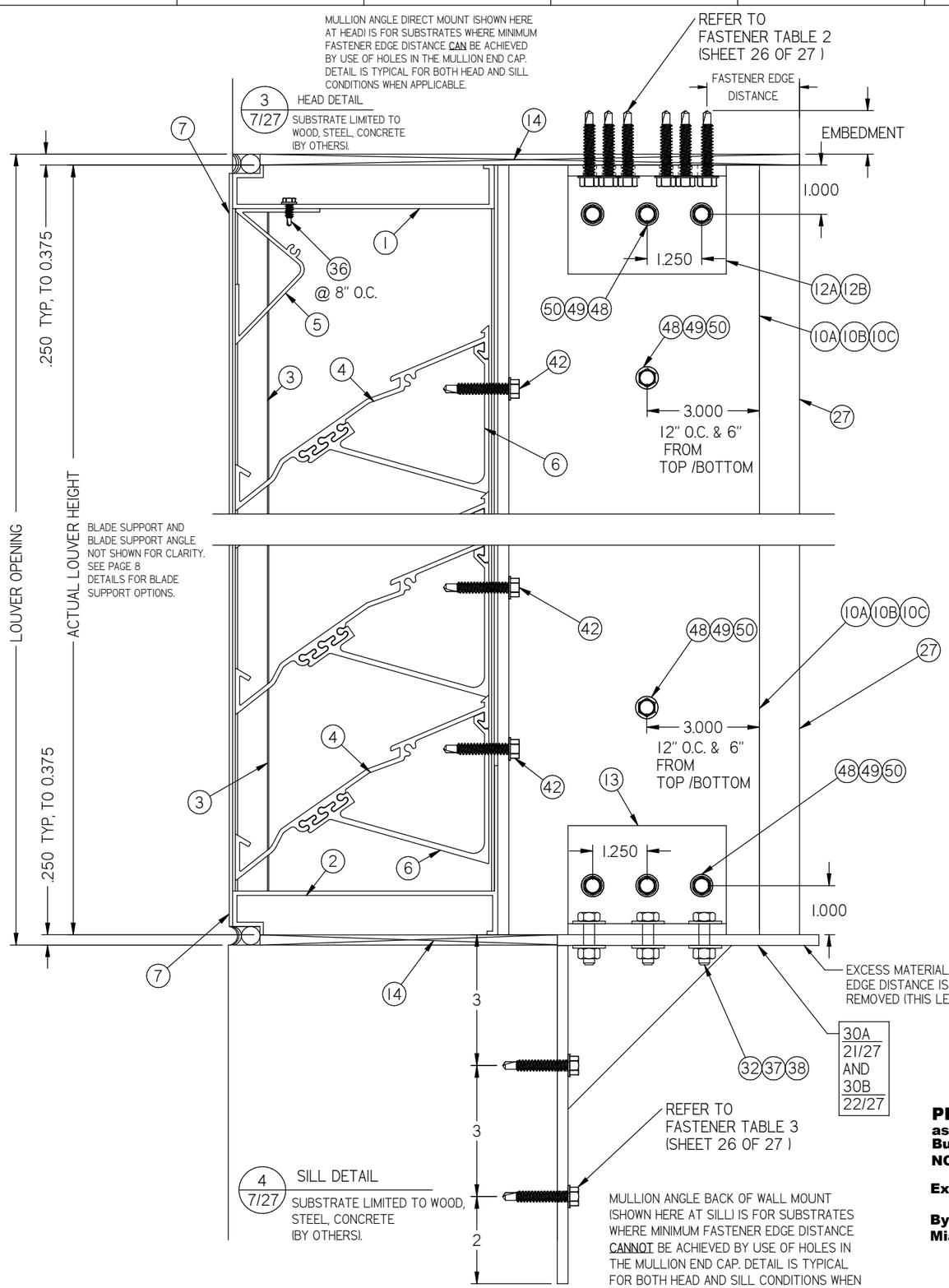

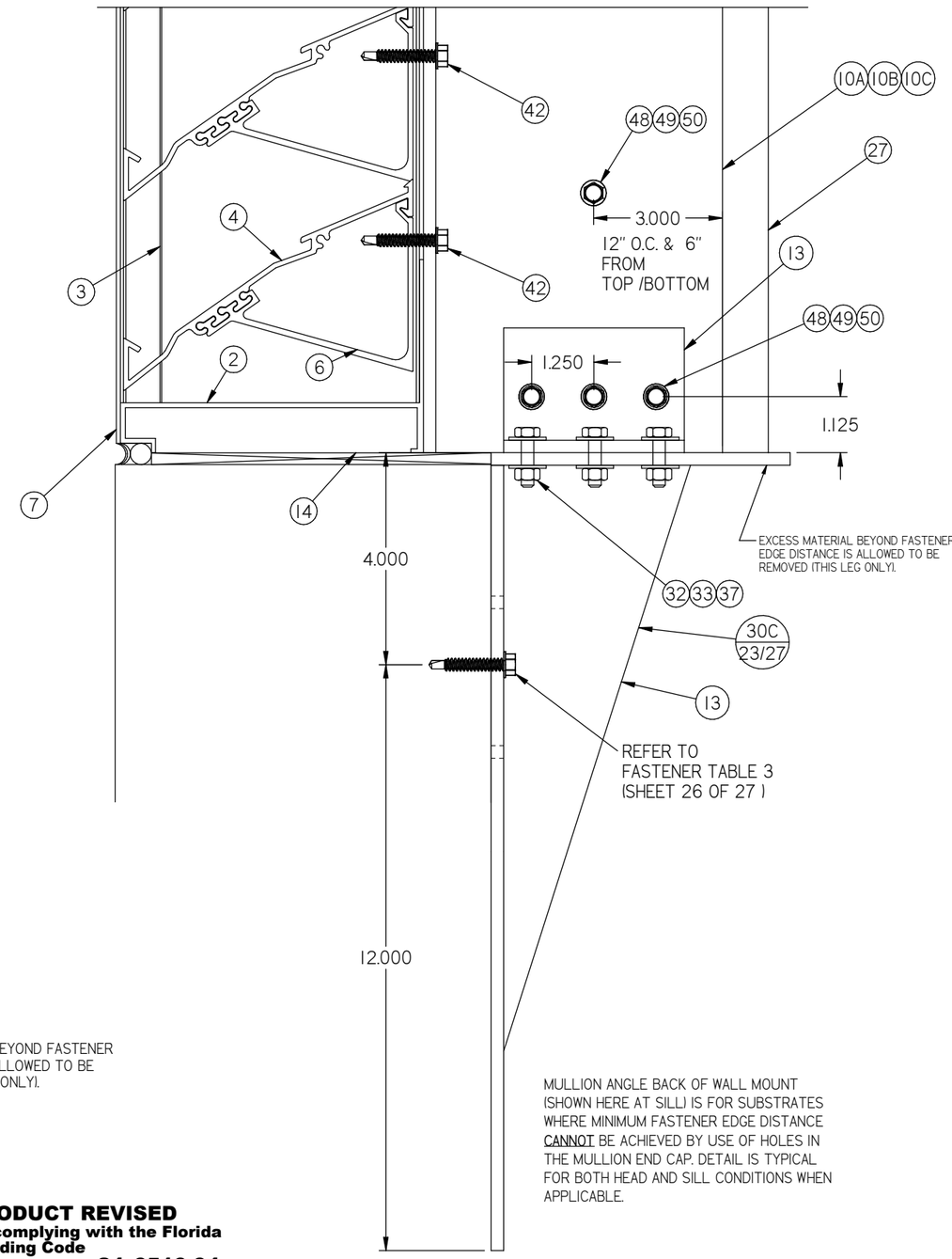

PRODUCT REVISED
as complying with the Florida Building Code
NOA–No. 24–0516.04
Expiration Date 08/30/2028
By
Miami–Dade Product Control

REVISIONS:
REV B: ADDED 16" TALL MASONRY WALL BRACKET
REV B: UPDATED FASTENER TABLES

DWN BY: fcortinas | CHK BY: BDennis
DATE: 11/29/2021 | SCALE: NTS

SHEET: 7 OF 27

REV B

DWG. NO. 1606DHPM

TITLE:
1606DHPM LOUVER
MULLION ANGLE MOUNT
HEAD & SILL DETAILS

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
www.nailor.com TEL: 281-590-1172 FAX: 281-590-3086

WAYNE K. HELMILA LICENSE No. 59092 STATE OF FLORIDA PROFESSIONAL ENGINEER

07/23/2024
COA: 9090

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ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
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Fax: (920) 617-1100
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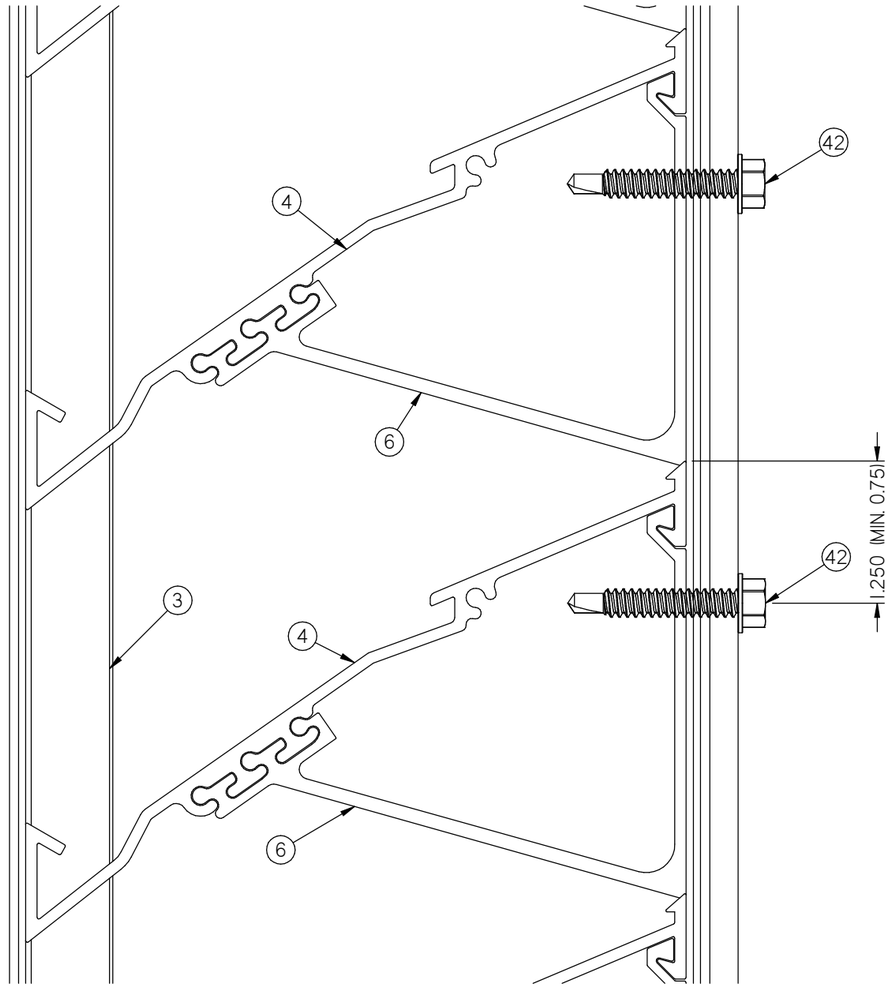
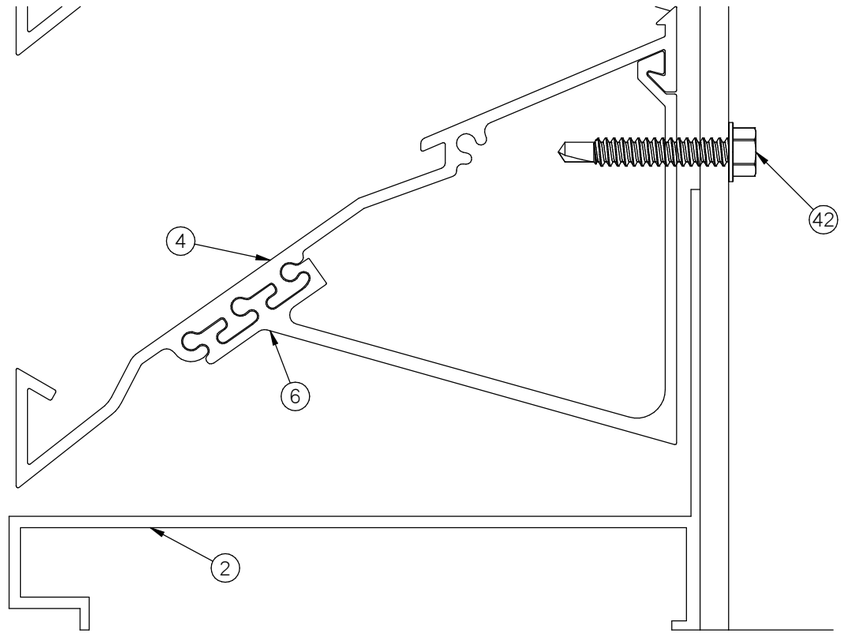


5 8/27 BLADE SUPPORT DETAIL

NOTE: THE BLADE SUPPORT ANGLE (ITEM 10 IS NOT SHOWN IN THE DETAILS IN ORDER TO IMPROVE CLARITY. THE BLADE SUPPORT ANGLE IS ATTACHED TO THE BLADE SUPPORT BRACE (ITEM 6).
BLADE SUPPORT BRACKET 6 (SHOWN) IS ANY OF THE DRAWINGS FOR DETAIL 6.



6 8/27 BOTTOM BLADE SUPPORT DETAIL

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.04
Expiration Date 08/30/2028
By
Miami-Dade Product Control

DWN BY: fcortinas | CHK BY: BDennis
DATE: 11/29/2021 | SCALE: NTS

SHEET: 8 OF 27

DWG. NO. 1606DHPM REV B

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
www.nailor.com TEL: 281-590-1172 FAX: 281-590-3086

TITLE: 1606DHPM LOUVER BLADE SUPPORT DETAIL

WAYNE K. HELMILA LICENSE No. 59092 STATE OF FLORIDA PROFESSIONAL ENGINEER

07/23/2024
COA: 9090

RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
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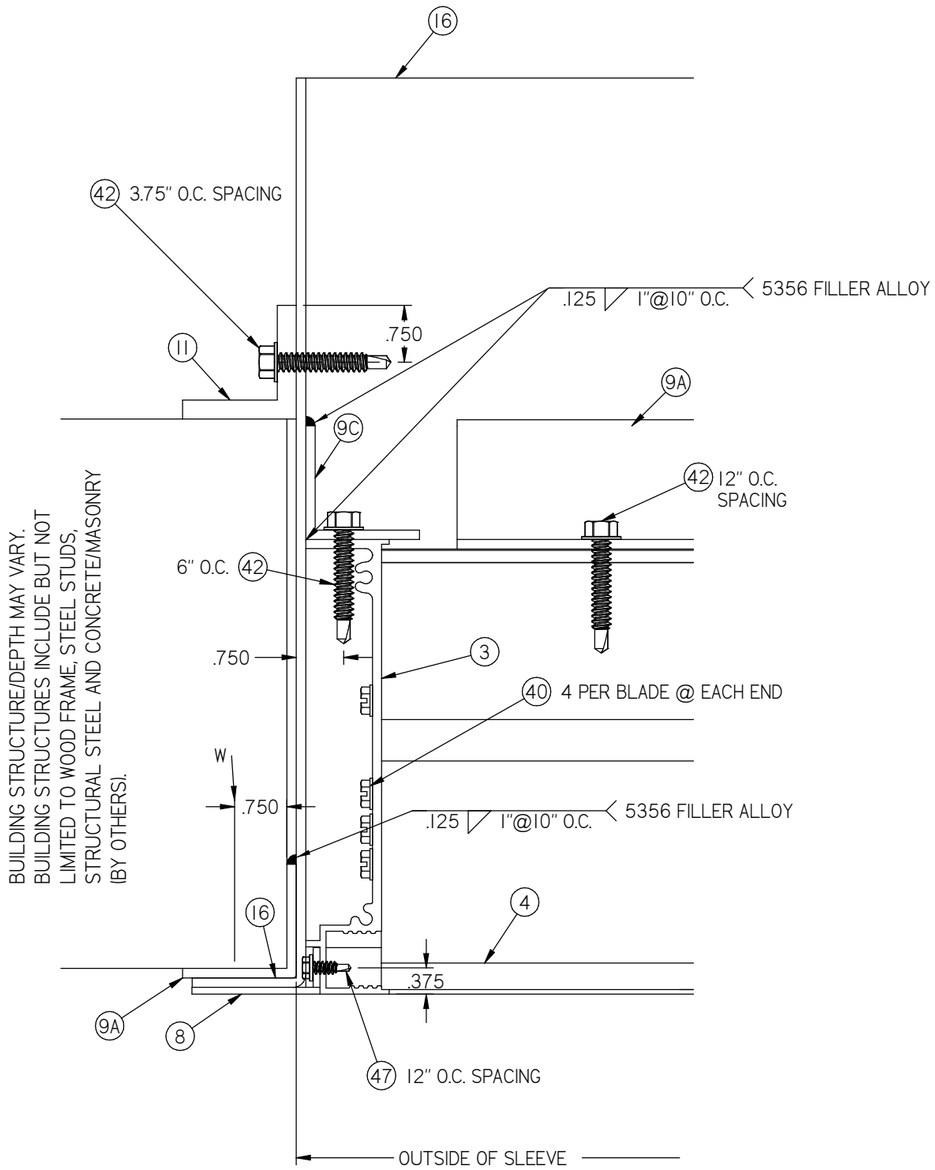
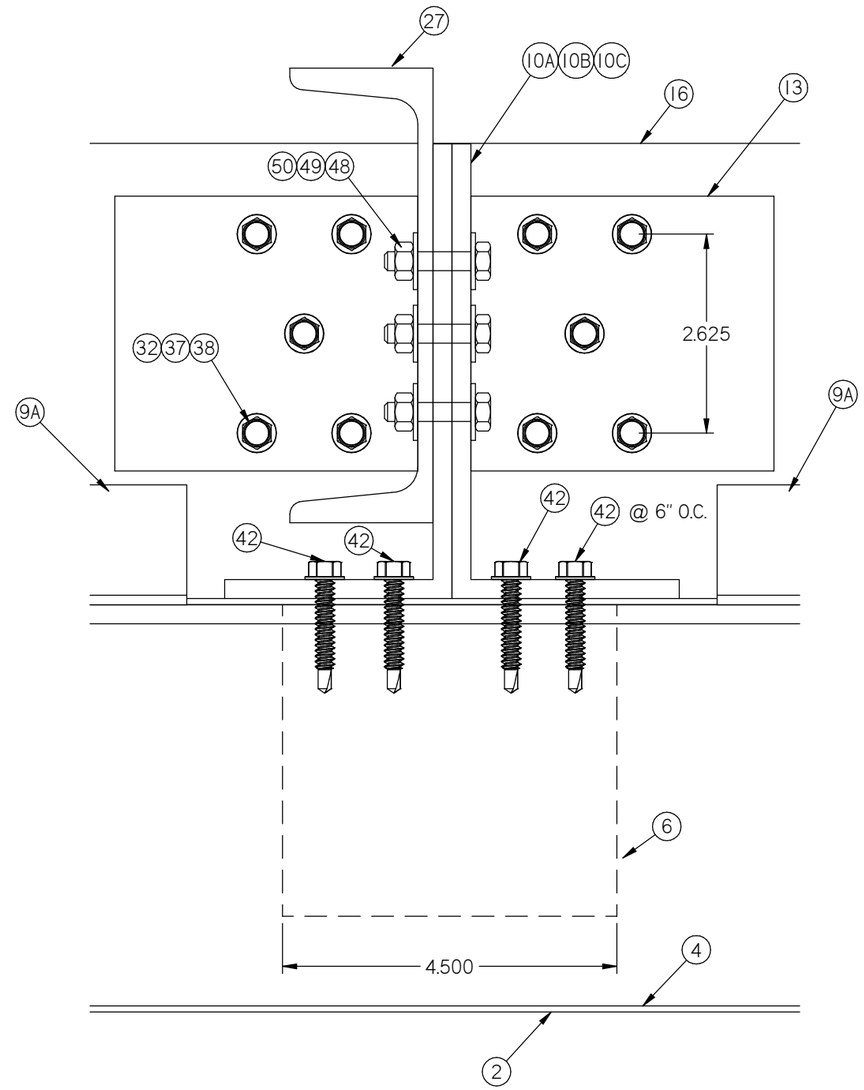


7/9/27 JAMB DETAIL



8/9/27 BLADE SUPPORT DETAIL
SLEEVE MOUNT

PRODUCT REVISED
as complying with the Florida Building Code
NOA–No. 24–0516.04
Expiration Date 08/30/2028
By
Miami–Dade Product Control

DWN BY: fcortinas	CHK BY: BDennis	SHEET: 9 OF 27	REV B
DATE: 11/29/2021	SCALE: NTS	DWG. NO. 1606DHPM	

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
www.nailor.com TEL: 281-590-1172 FAX: 281-590-3086

TITLE: 1606DHPM LOUVER
FLANGE FRAME SLEEVE MOUNT
JAMB DETAILS

WAYNE K. HELMILA LICENSE No. 59092 STATE OF FLORIDA PROFESSIONAL ENGINEER

07/23/2024
COA: 9090

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PRODUCT REVISED
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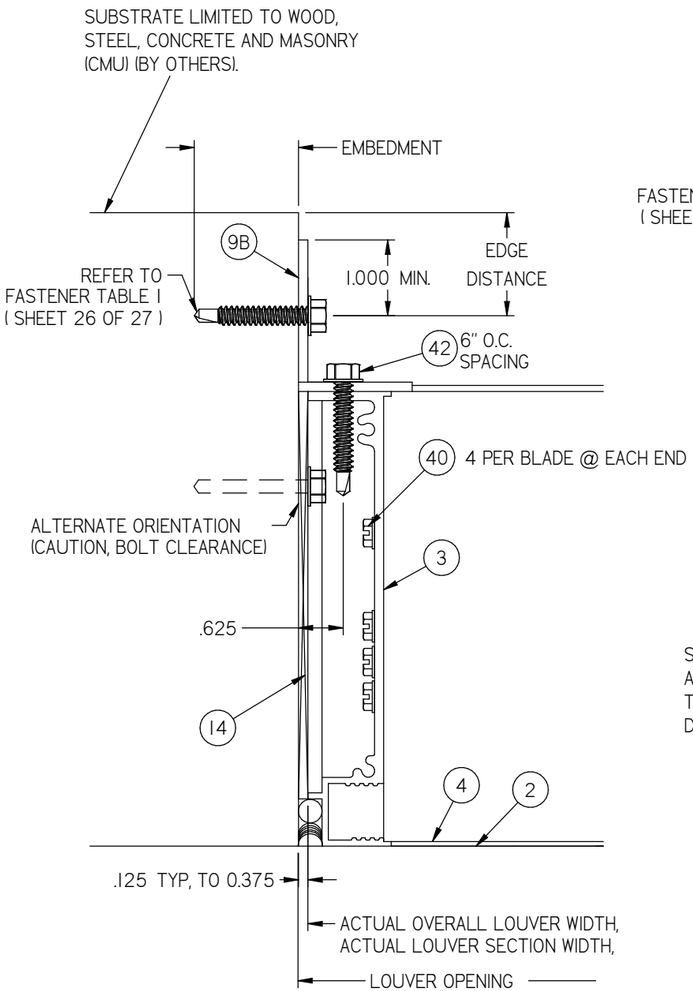
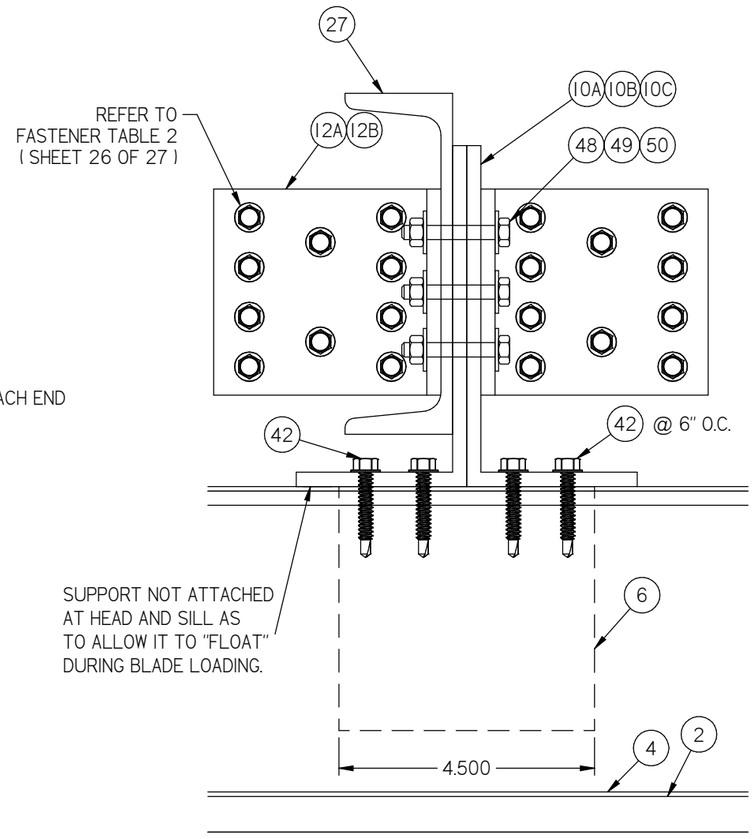
NOA–No. 24–0516.04
Expiration Date 08/30/2028
By
Miami–Dade Product Control

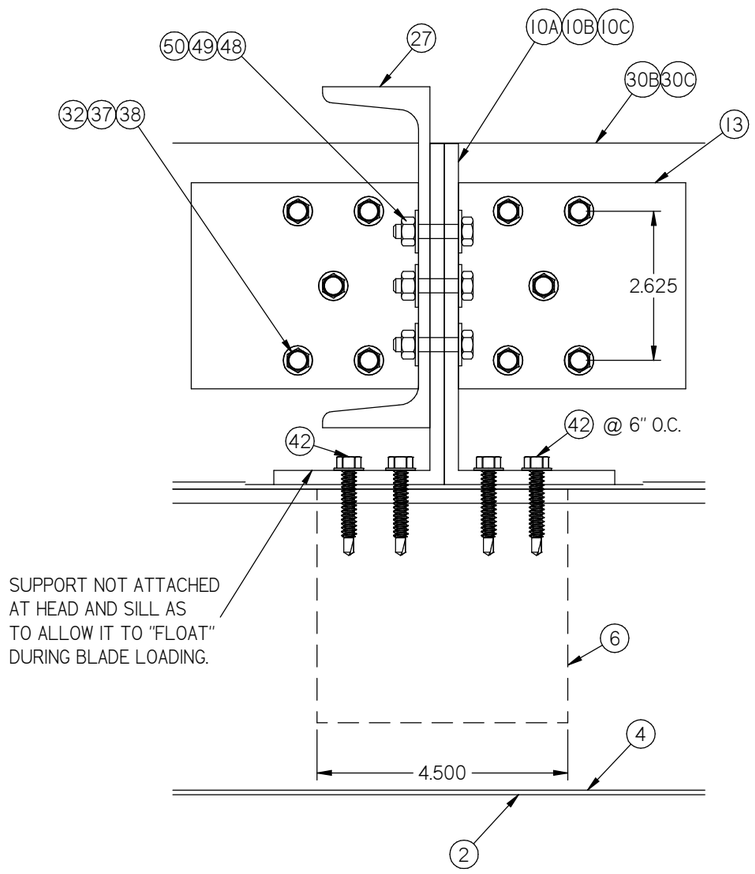


9 / 10/27 JAMB DETAIL



BLADE SUPPORT DIRECT MOUNT

10 / 10/27 BLADE SUPPORT DETAIL DIRECT MOUNT



BLADE SUPPORT BACK OF WALL

10A / 10/27 BLADE SUPPORT DETAIL BACK OF OF WALL MOUNT FOR CONT. ANGLE

REVISIONS:
REV B: UPDATED FASTENER TABLES

DWN BY: fcortinas | CHK BY: BDennis
DATE: 11/29/2021 | SCALE: NTS

SHEET: 10 OF 27

REV B

DWG. NO. 1606DHPM

TITLE: 1606DHPM LOUVER
COUNTINOUS ANGLE MOUNT
JAMB DETAIL

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
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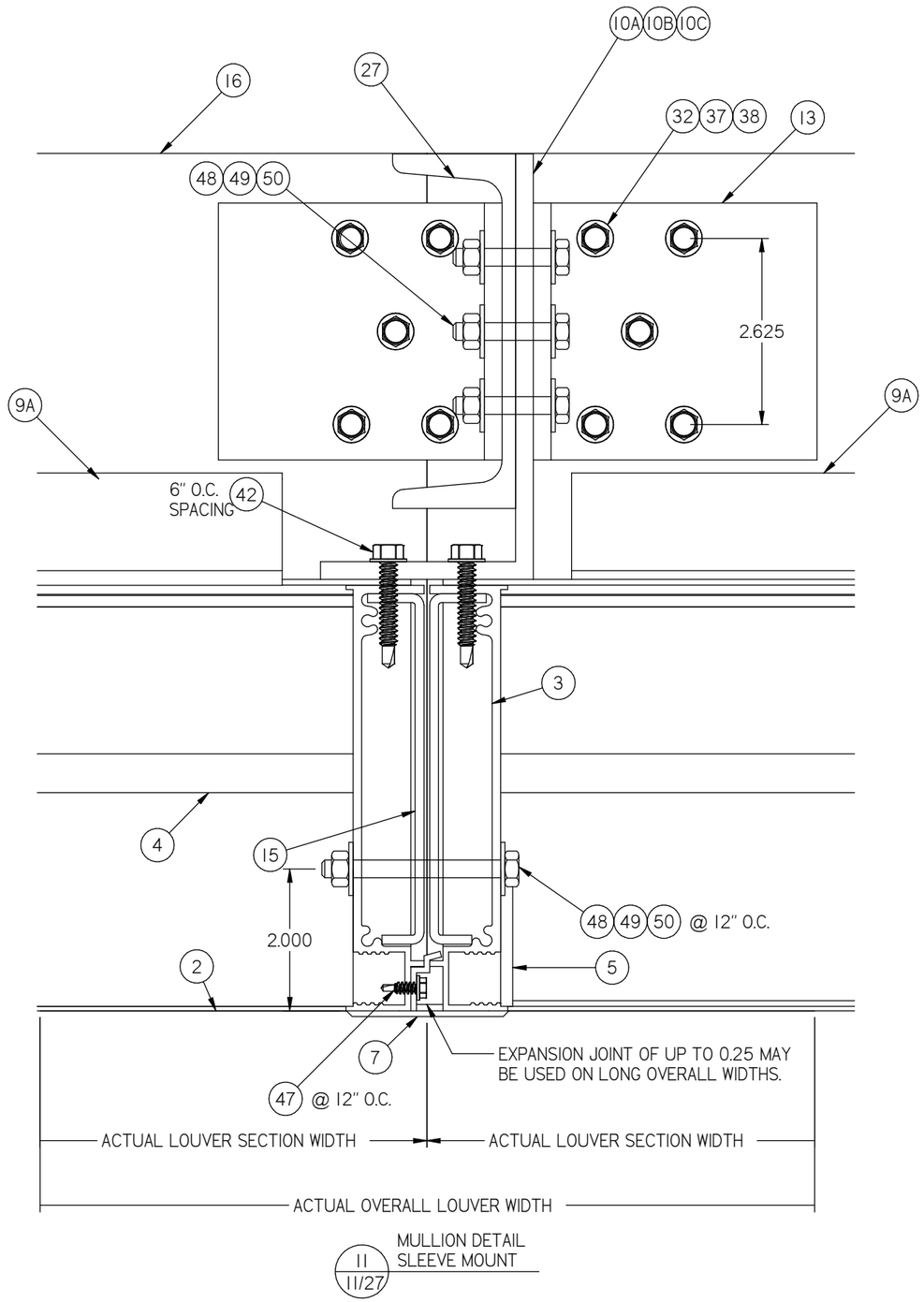

11/27 MULLION DETAIL SLEEVE MOUNT

PRODUCT REVISED
as complying with the Florida Building Code
NOA–No. 24–0516.04
Expiration Date 08/30/2028
By
Miami–Dade Product Control

DWN BY: fcortinas | CHK BY: BDennis
DATE: 11/29/2021 | SCALE: NTS

SHEET: 11 OF 27

REV B

DWG. NO. 1606DHPM

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
www.nailor.com TEL: 281-590-1172 FAX: 281-590-3086

TITLE:
1606DHPM LOUVER
FLANGE FRAME SLEEVE MOUNT
MULLION DETAIL

WAYNE K. HELMILA LICENSE No. 59092 STATE OF FLORIDA PROFESSIONAL ENGINEER

07/23/2024
COA: 9090

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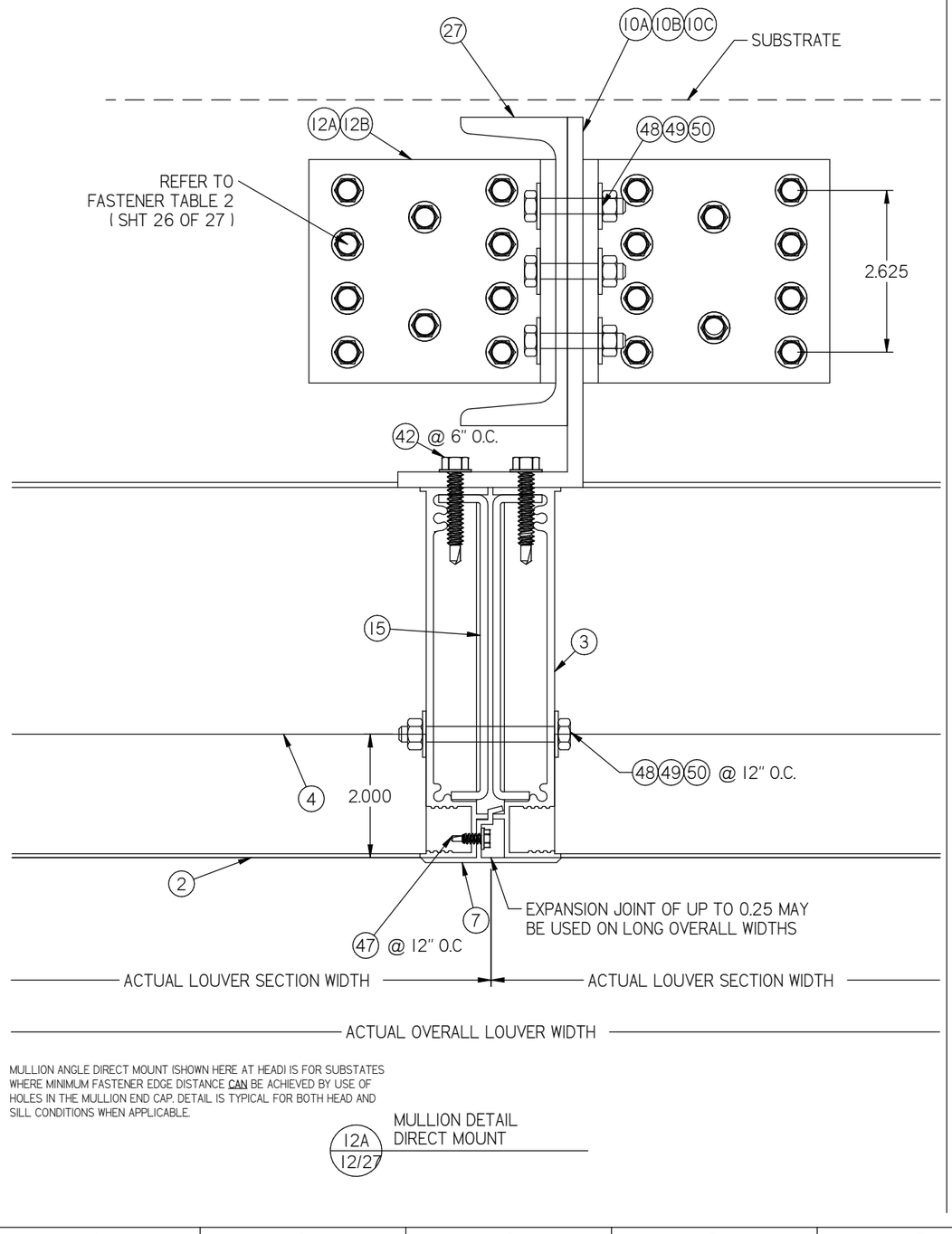
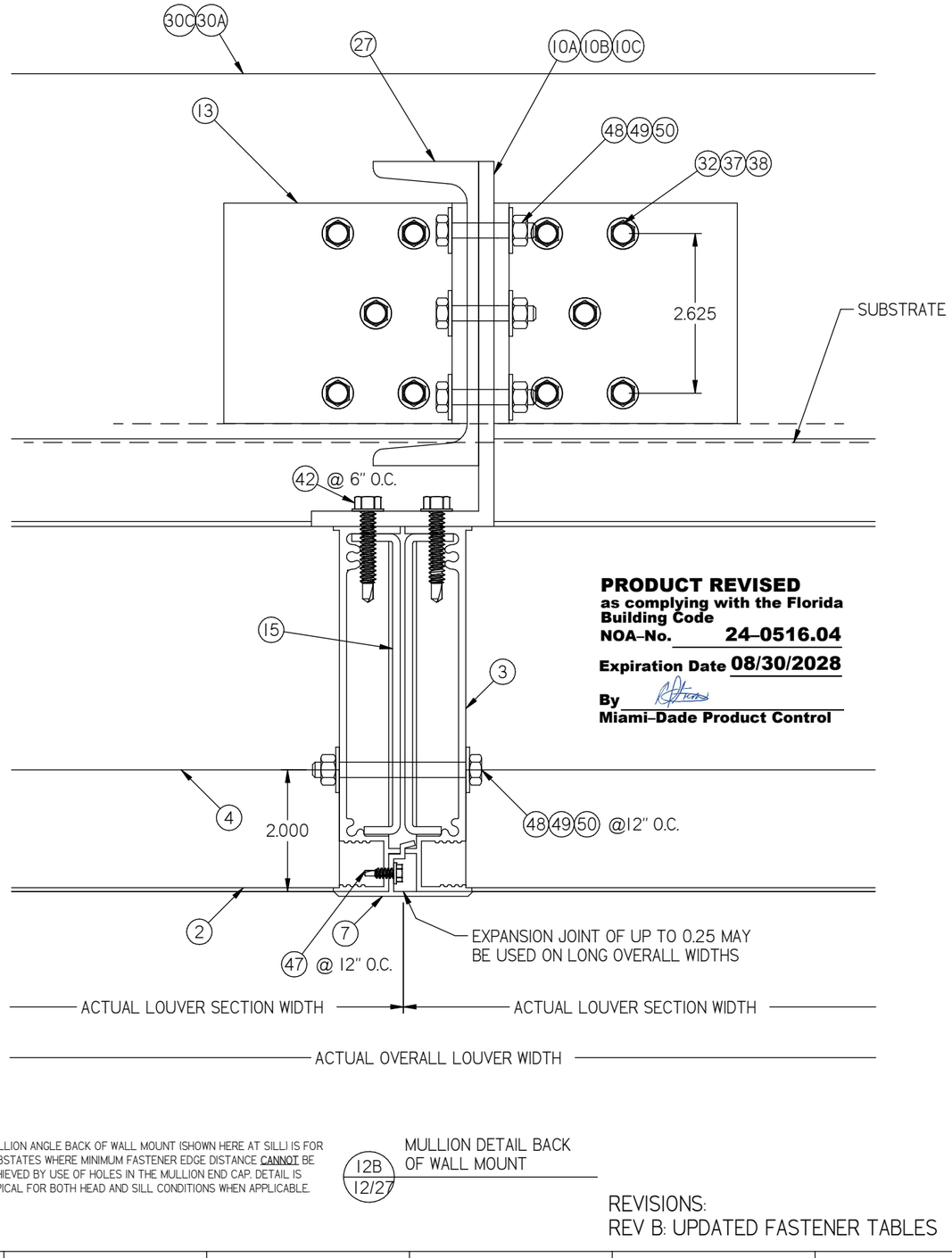


MULLION ANGLE DIRECT MOUNT (SHOWN HERE AT HEAD) IS FOR SUBSTATES WHERE MINIMUM FASTENER EDGE DISTANCE CAN BE ACHIEVED BY USE OF HOLES IN THE MULLION END CAP. DETAIL IS TYPICAL FOR BOTH HEAD AND SILL CONDITIONS WHEN APPLICABLE.

12A / 12/27 MULLION DETAIL DIRECT MOUNT



PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.04
Expiration Date 08/30/2028
By
Miami-Dade Product Control

MULLION ANGLE BACK OF WALL MOUNT (SHOWN HERE AT SILL) IS FOR SUBSTATES WHERE MINIMUM FASTENER EDGE DISTANCE CANNOT BE ACHIEVED BY USE OF HOLES IN THE MULLION END CAP. DETAIL IS TYPICAL FOR BOTH HEAD AND SILL CONDITIONS WHEN APPLICABLE.

12B / 12/27 MULLION DETAIL BACK OF WALL MOUNT

REVISIONS:
REV B: UPDATED FASTENER TABLES

DWN BY: fcortinas | CHK BY: BDennis
DATE: 11/29/2021 | SCALE: NTS

SHEET: 12 OF 27

DWG. NO. 1606DHPM REV B

TITLE: 1606DHPM LOUVER
CONTINUOUS ANGLE MOUNT
MULLION DETAIL

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
www.nailor.com TEL: 281-590-1172 FAX: 281-590-3086

WAYNE K. HELMILA
LICENSE
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07/23/2024
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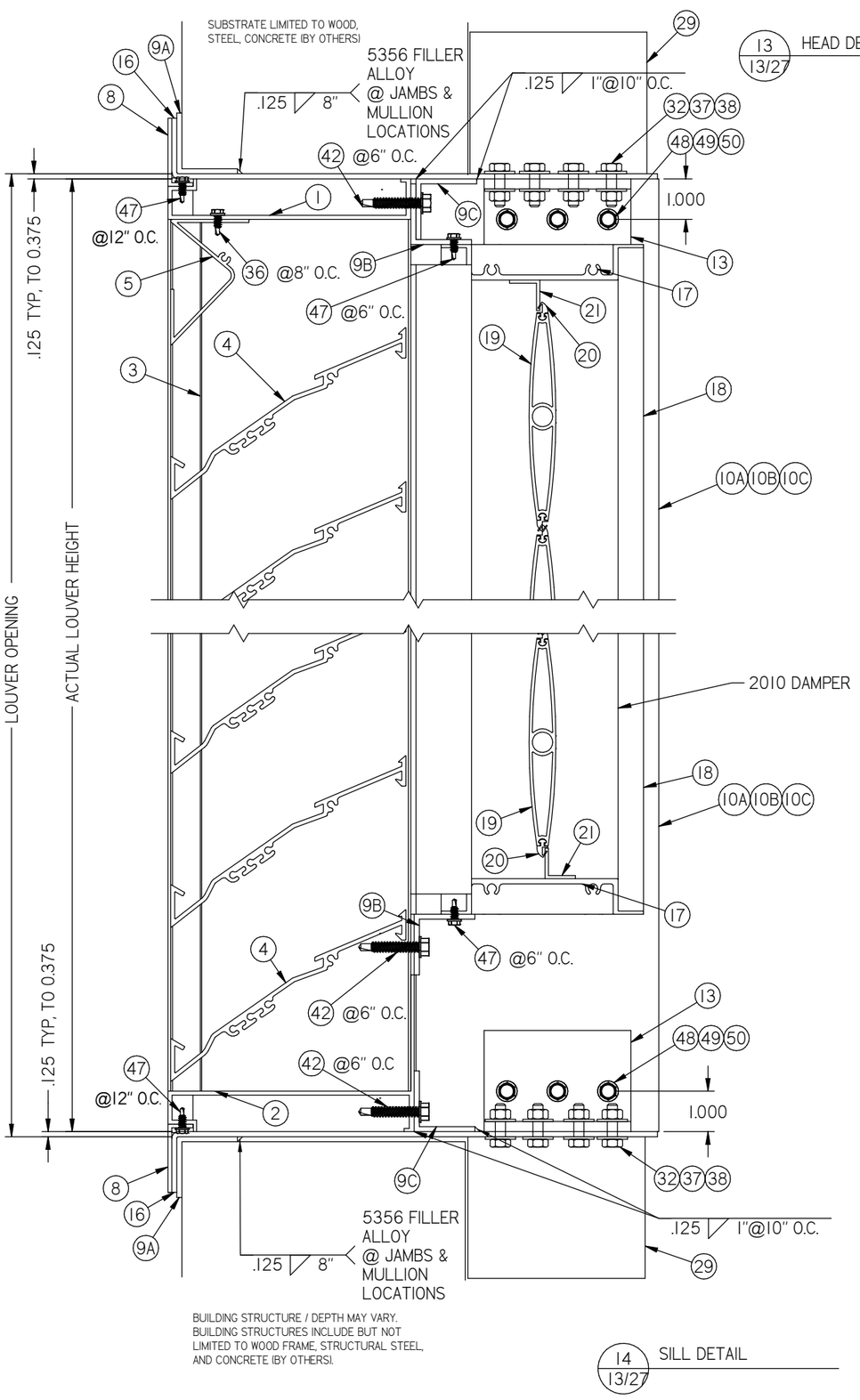
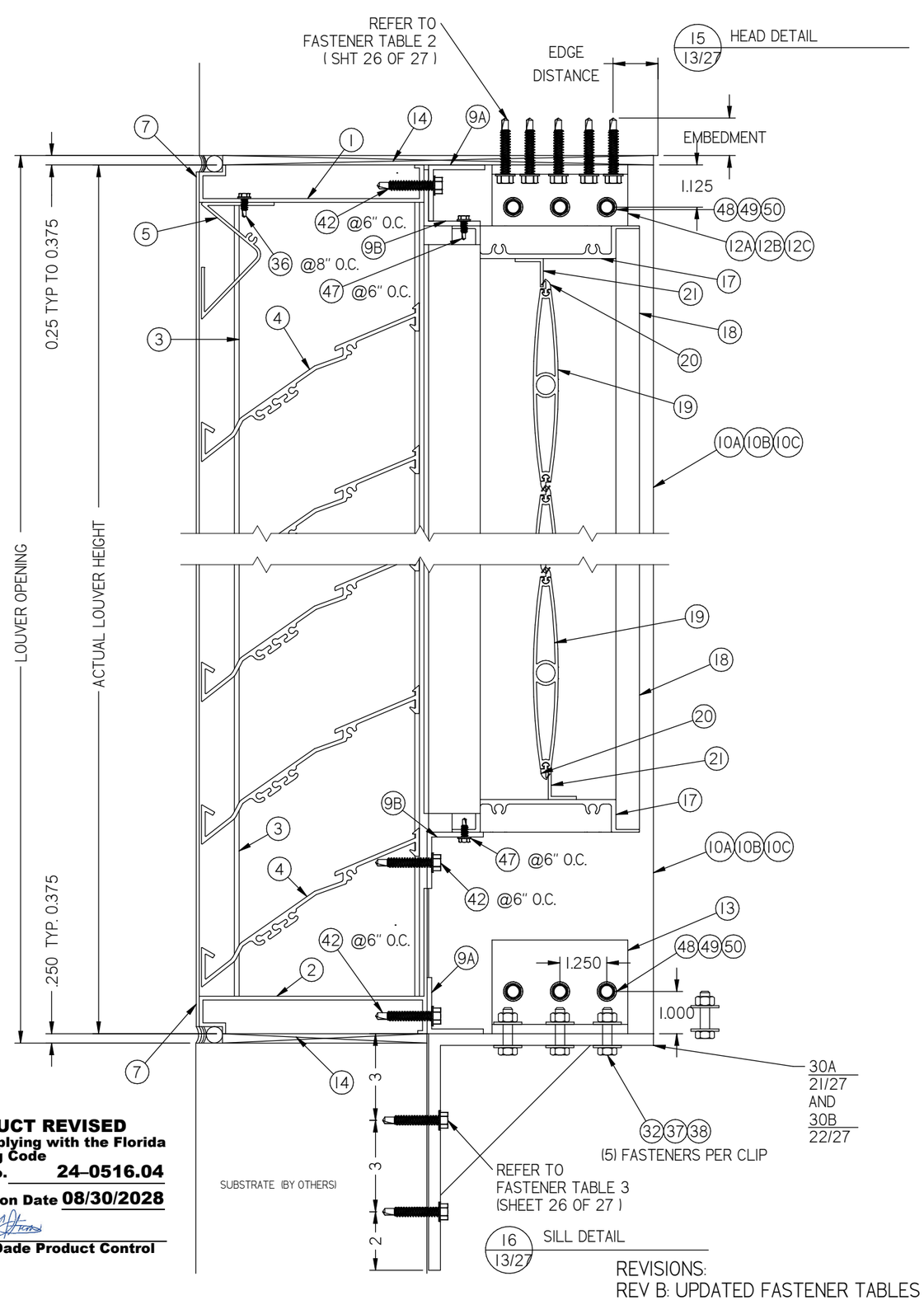
Registration No: 59092





PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.04
Expiration Date 08/30/2028
By
Miami-Dade Product Control

REVISIONS:
REV B: UPDATED FASTENER TABLES

DWN BY: fcortinas | CHK BY: BDennis
DATE: 11/29/2021 | SCALE: NTS

SHEET: 13 OF 27

REV B

DWG. NO. 1606DHPM

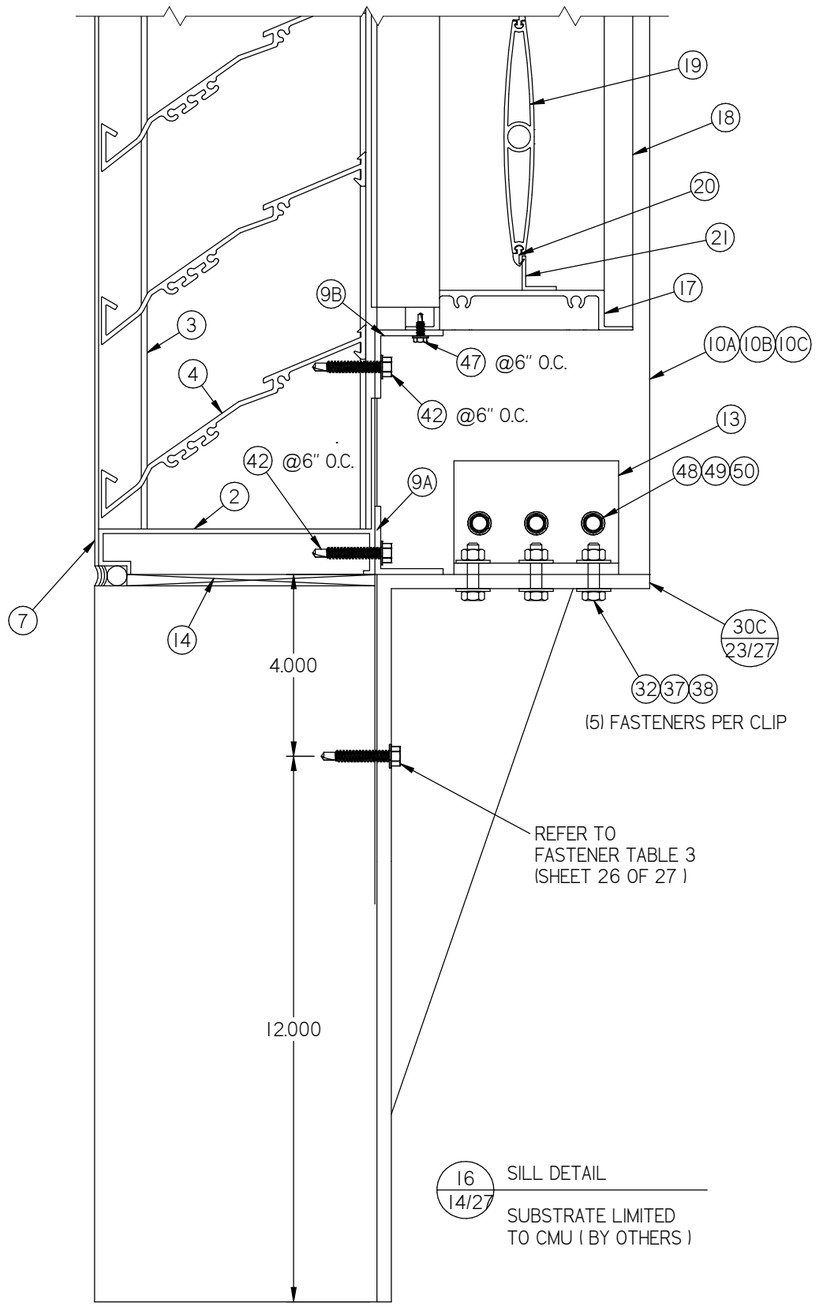
TITLE: 1606DHPM LOUVER / DAMPER FLANGE FRAME W/SLEEVE MULLION ANGLE MOUNT HEAD & SILL DETAIL

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
TEL: 281-590-1172 FAX: 281-590-3086
www.nailor.com

WAYNE K. HELMILA LICENSE No. 59092 STATE OF FLORIDA PROFESSIONAL ENGINEER

07/23/2024
COA: 9090

RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092



PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.04
Expiration Date 08/30/2028
By
Miami-Dade Product Control

REVISIONS:
REV B: ADDED 16" TALL
MASONRY WALL BRACKET
W/ UPDATED FASTENER TABLES

DWN BY: fcortinas | CHK BY: BDennis
DATE: 11/29/2021 | SCALE: NTS

SHEET: 14 OF 27

REV B

DWG. NO. 1606DHPM

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
www.nailor.com TEL: 281-590-1172 FAX: 281-590-3086

TITLE:
1606DHPM LOUVER / DAMPER
MULLION ANGLE MOUNT
CMU SUBSTRATE
HEAD & SILL DETAIL

WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF FLORIDA
PROFESSIONAL ENGINEER

07/23/2024
COA: 9090

RICE
ENGINEERING
105 School Creek Trail
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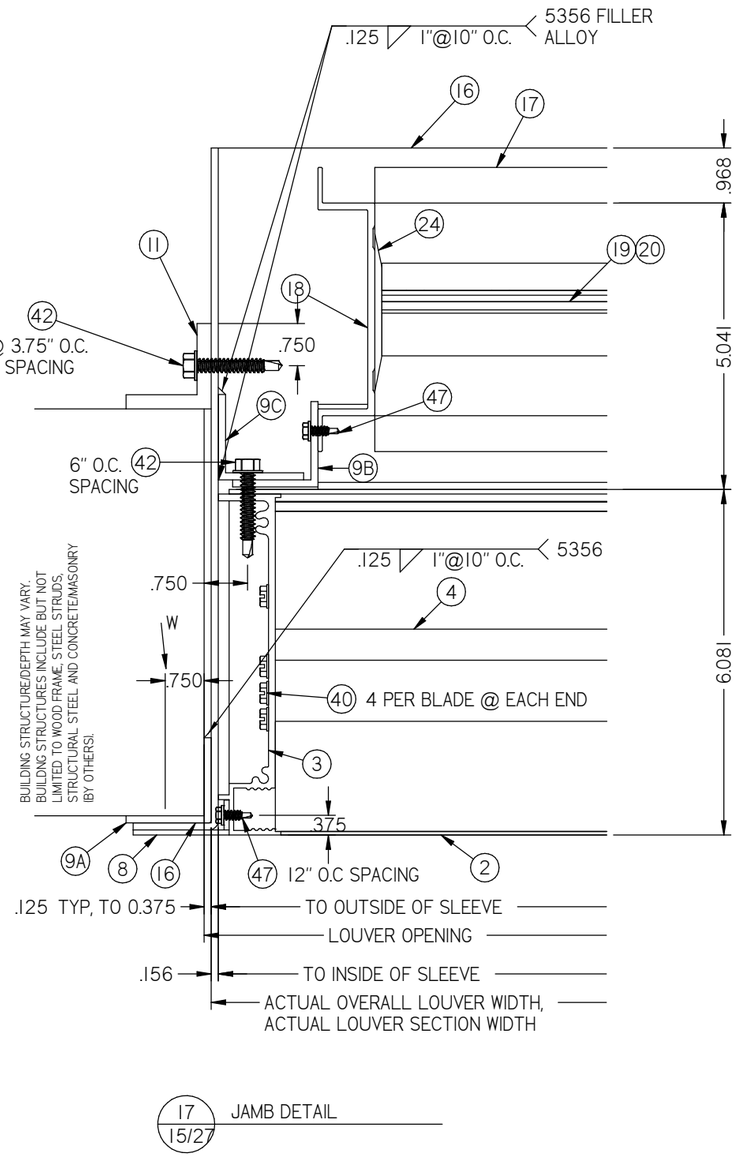
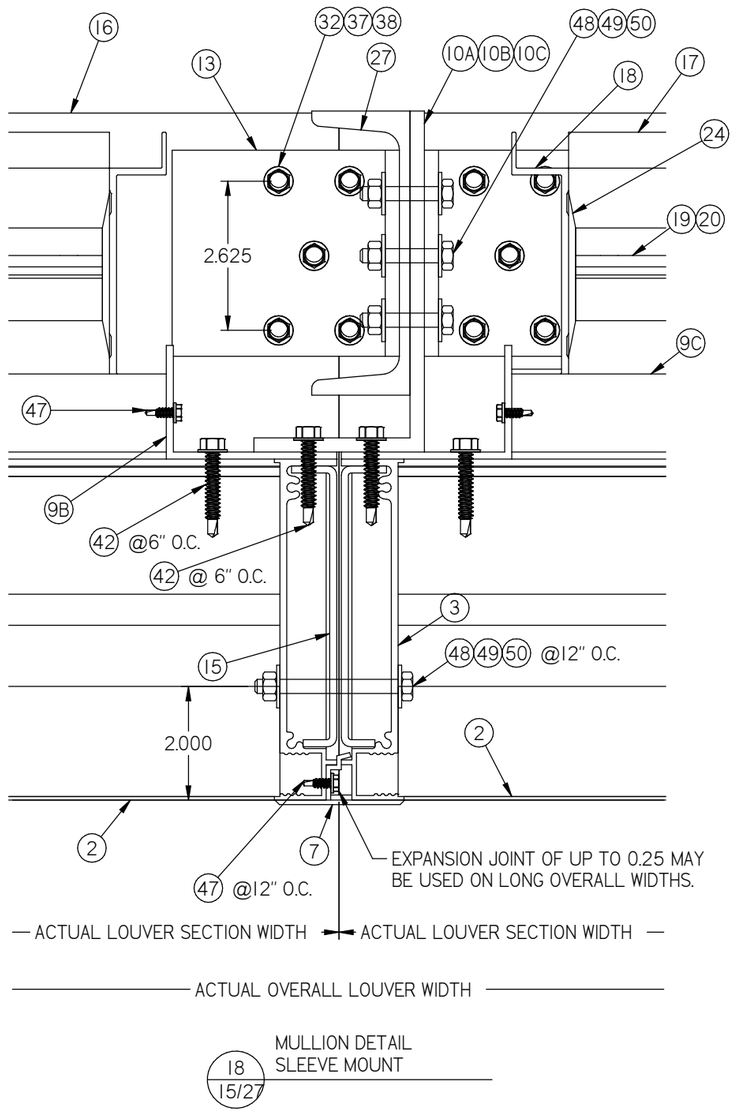
By
Miami-Dade Product Control



17 / 15/27 JAMB DETAIL



18 / 15/27 MULLION DETAIL SLEEVE MOUNT

REVISIONS:
REV B: UPDATED PAGE NUMBERS

DWN BY: fcortinas | CHK BY: BDennis
DATE: 11/29/2021 | SCALE: NTS

SHEET: 15 OF 27

DWG. NO. 1606DHPM | REV B

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
www.nailor.com TEL: 281-590-1172 FAX: 281-590-3086

TITLE: 1606DHPM LOUVER / DAMPER FLANGE FRAME SLEEVE MOUNT JAMB AND MULLION DETAIL

WAYNE K. HELMILA LICENSE No. 59092 STATE OF FLORIDA PROFESSIONAL ENGINEER

07/23/2024
COA: 9090

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105 School Creek Trail
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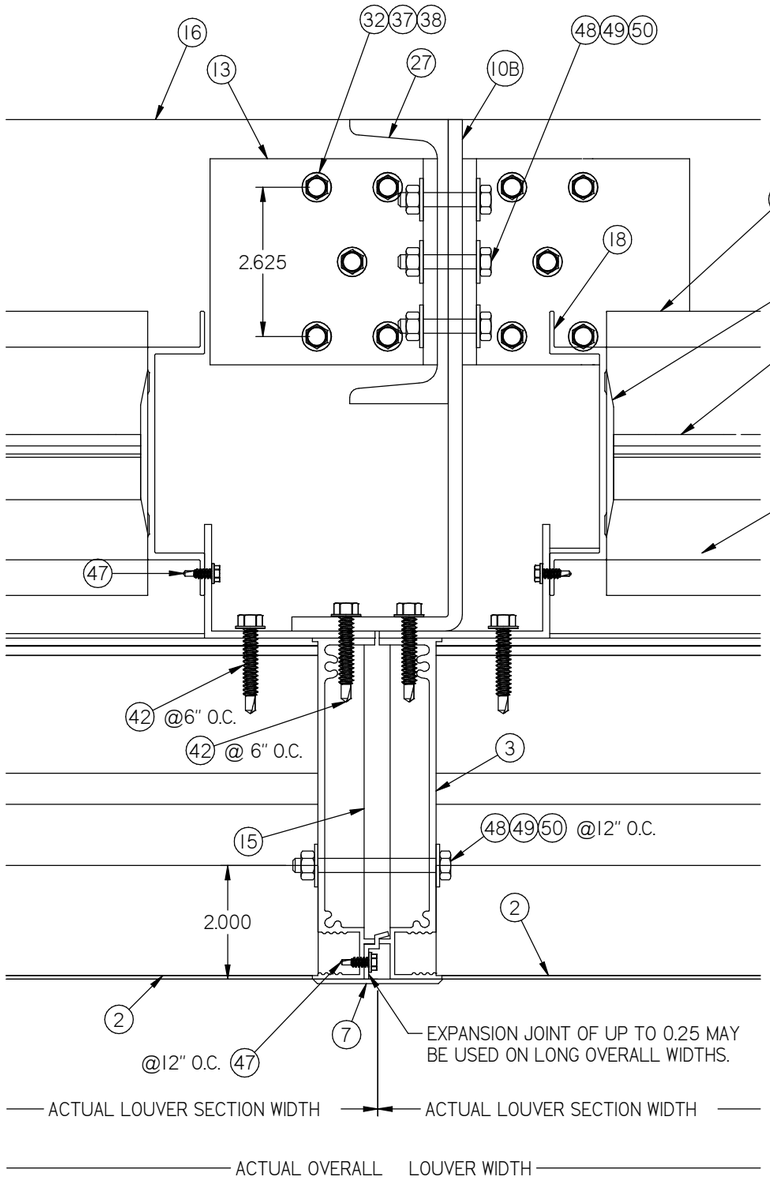
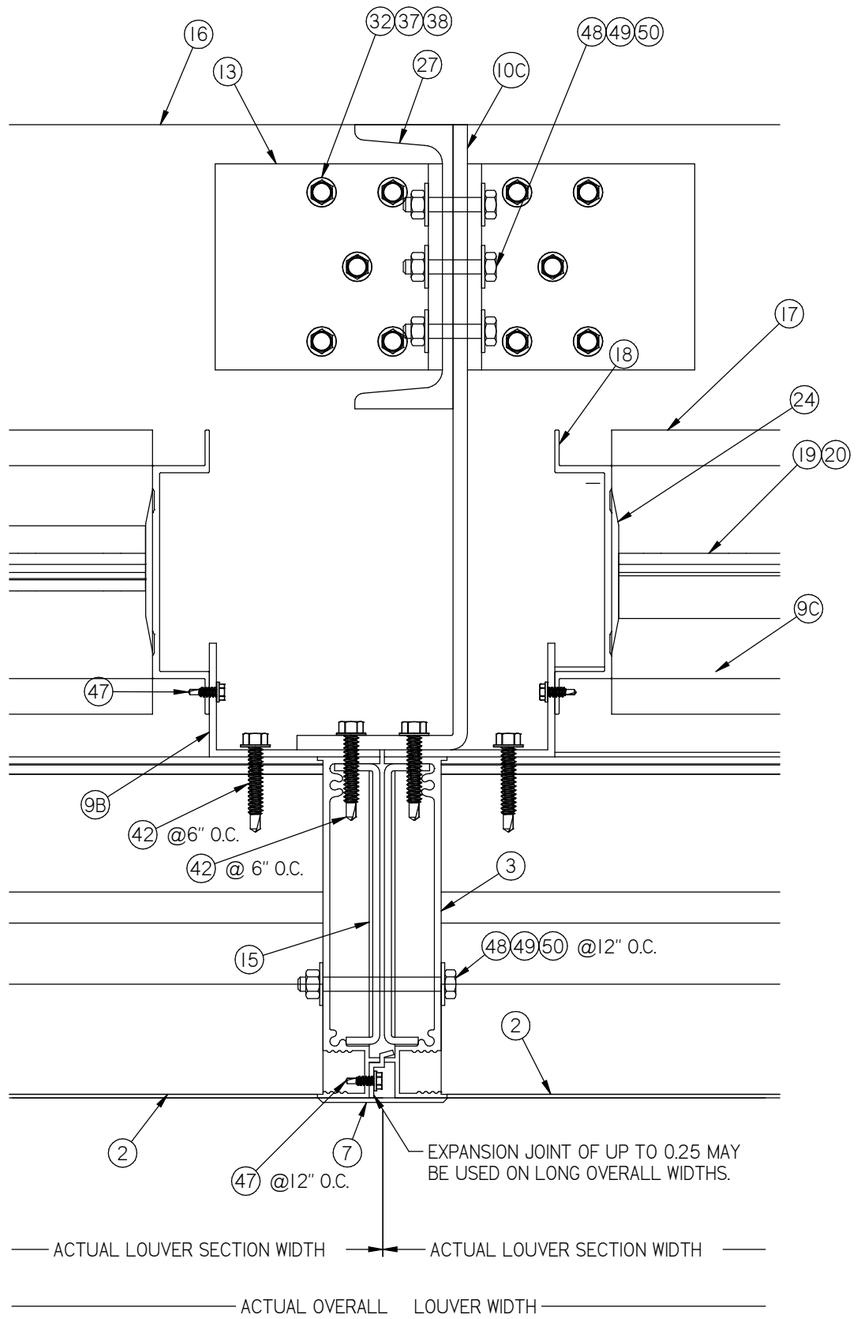


18A / 16/27

MULLION DETAIL
SLEEVE MOUNT

FOR 36" BLADE SLEEVE MOUNT
STEEL C6X8.2 & ALUM 9X3 X 1/4 "



18B / 16/27

MULLION DETAIL
SLEEVE MOUNT

FOR 36" BLADE SLEEVE MOUNT
STEEL C6X8.2 & ALUM 11X3 X 1/4 "

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.04
Expiration Date 08/30/2028
By
Miami-Dade Product Control

REVISIONS:
REV B: ADDED 9X3 ANGLE AND 11 X 3 ANGLE SECTION.
REV B: UPDATED PAGE NUMBER.

DWN BY: fcortinas
CHK BY: BDennis
DATE: 11/29/2021
SCALE: NTS

SHEET: 16 OF 27

DWG. NO. 1606DHPM
REV B

TITLE: 1606DHPM LOUVER / DAMPER
FLANGE FRAME SLEEVE MOUNT
9 X3 X 1/4 & 9 X 11 X 1/4 ANGLE
MULLION DETAIL

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4714 Winfield Road Houston, TX 77039
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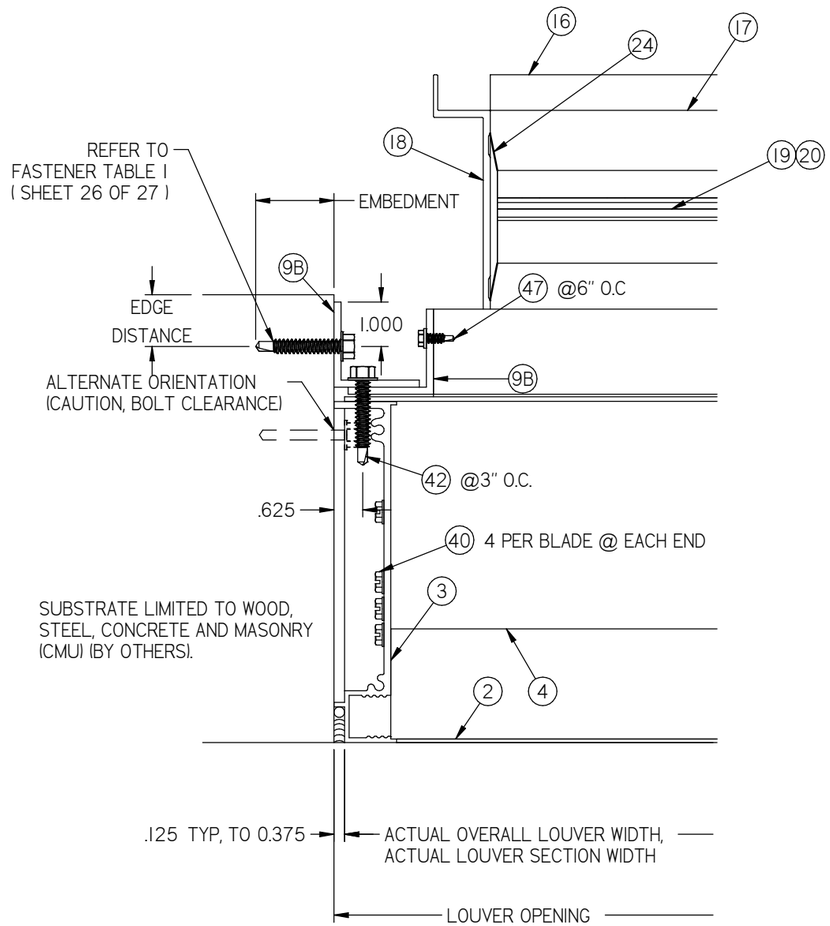
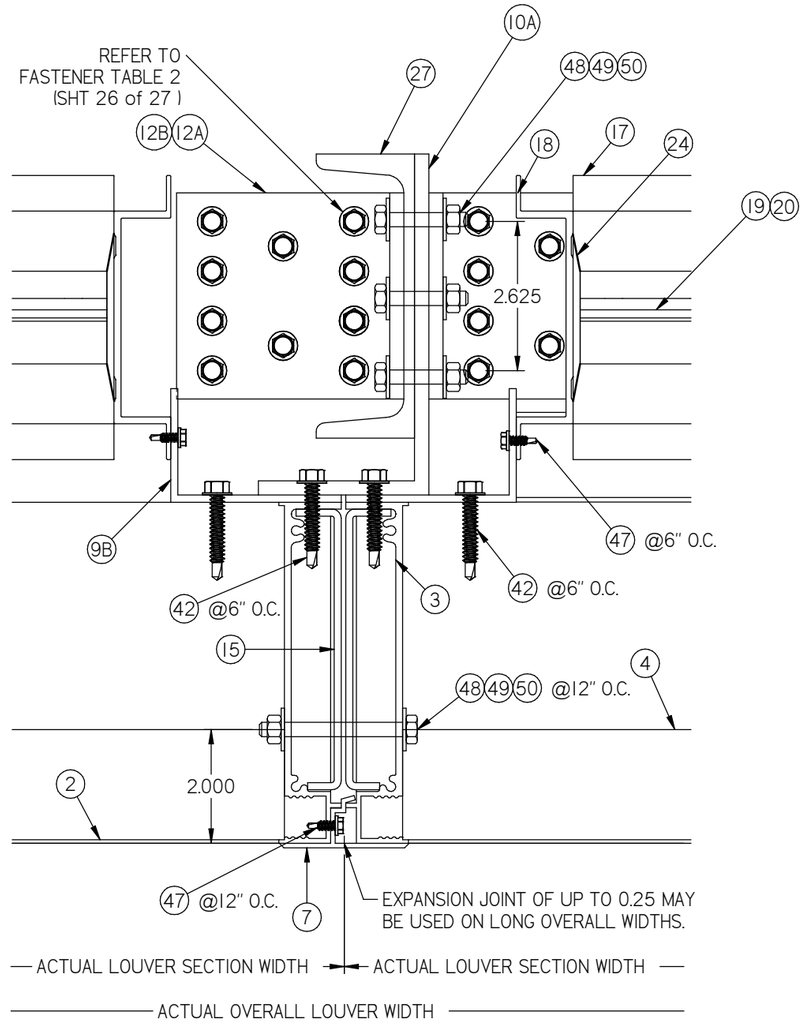


19 / 17/27 JAMB DETAIL



20 / 17/27 MULLION DETAIL DIRECT MOUNT

PRODUCT REVISED
as complying with the Florida Building Code
NOA–No. 24–0516.04
Expiration Date 08/30/2028
By
Miami–Dade Product Control

REVISIONS:
REV B: UPDATED FASTENER TABLES AND PAGE NUMBERS.

DWN BY: fcortinas | CHK BY: BDennis
DATE: 11/29/2021 | SCALE: NTS

SHEET: 17 OF 27

DWG. NO. 1606DHPM REV B

TITLE: 1606DHPM LOUVER / DAMPER
CONTINUOUS ANGLE MOUNT
JAMB AND MULLION DETAIL

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
www.nailor.com TEL: 281-590-1172 FAX: 281-590-3086

WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF FLORIDA
PROFESSIONAL ENGINEER

07/23/2024
COA: 9090

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105 School Creek Trail
Luxemburg, WI 54217
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Florida Firm No: F-01000005061
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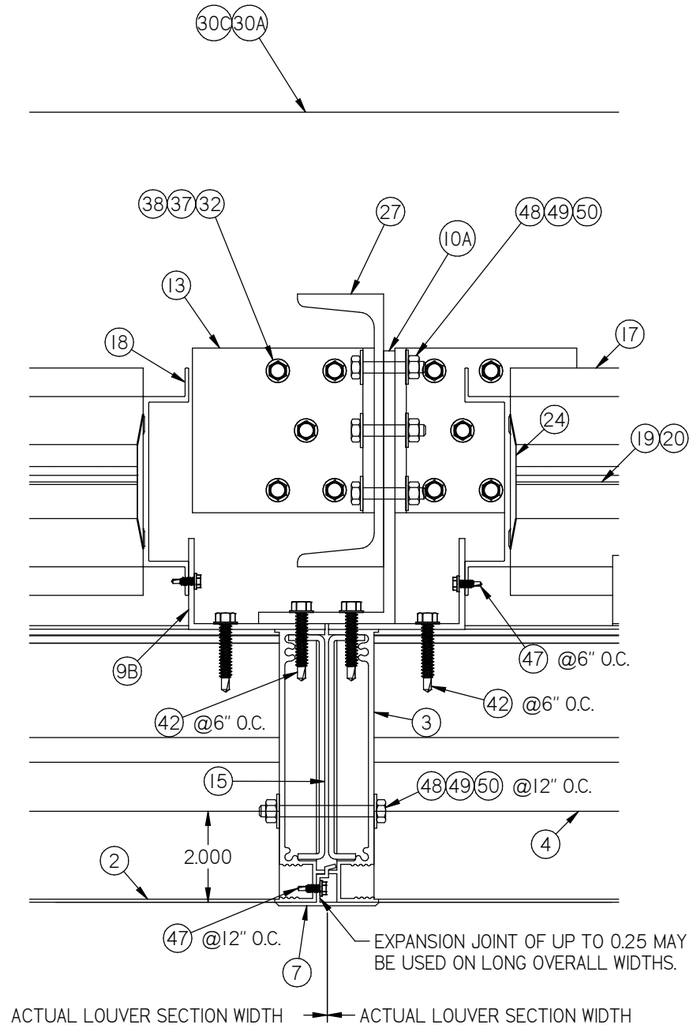
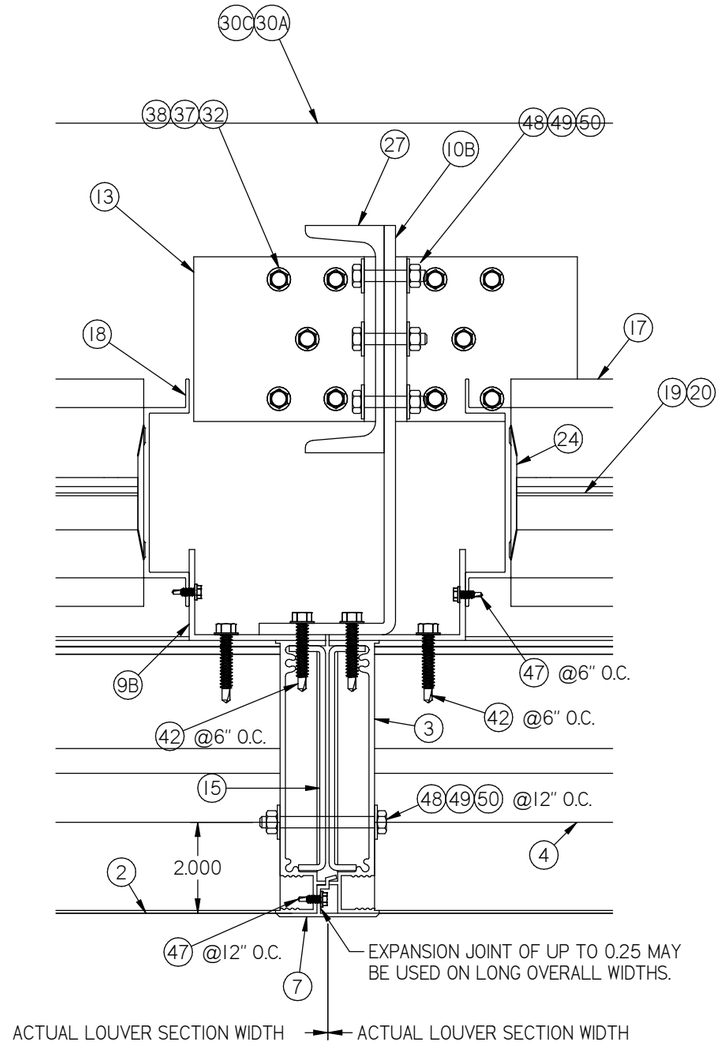


20 A
18/27

MULLION DETAIL BACK OF WALL MOUNT

FOR 36" BLADE SLEEVE MOUNT
STEEL C6X8.2 & ALUM 6X3 X 1/4 "



20 B
18/27

MULLION DETAIL BACK OF WALL MOUNT

FOR 36" BLADE SLEEVE MOUNT
STEEL C6X8.2 & ALUM 9X3 X 1/4 "

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.04
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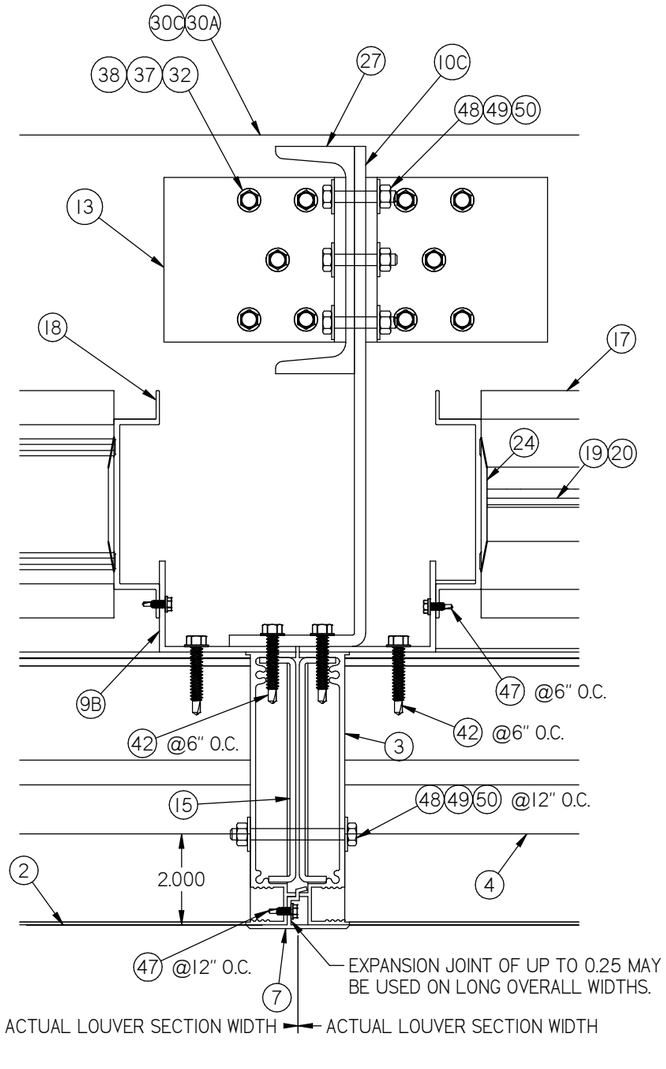
By
Miami-Dade Product Control



20C
18/27

MULLION DETAIL BACK OF WAL MOUNT

FOR 36" BLADE SLEEVE MOUNT
STEEL C6X8.2 & ALUM 11X3 X 1/4 "

REVISIONS:
REV B: ADDED 9X3 ANGLE AND 11 X 3 ANGLE SECTION.
REV B: UPDATED PAGE NUMBER.

DWN BY: fcortinas
CHK BY: BDennis
DATE: 11/29/2021
SCALE: NTS

SHEET: 18 OF 27

REV B

DWG. NO. 1606DHPM

TITLE: 1606DHPM LOUVER / DAMPER
CONTINUOUS ANGLE MOUNT
9 X3 X 1/4 & 9 X 11 X 1/4 ANGLE
MULLION DETAIL

Nailor Industries Inc.
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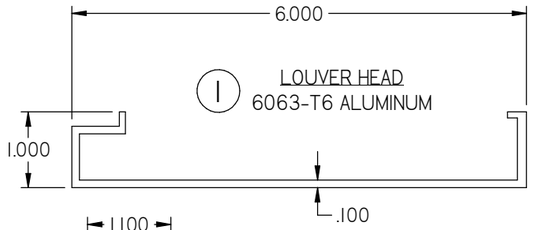
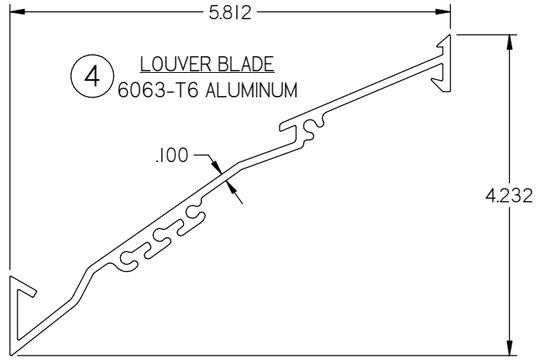
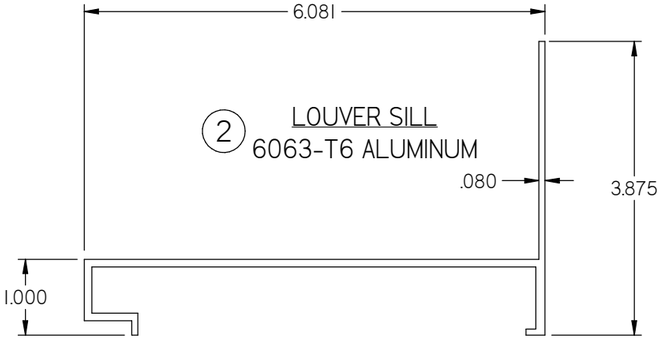


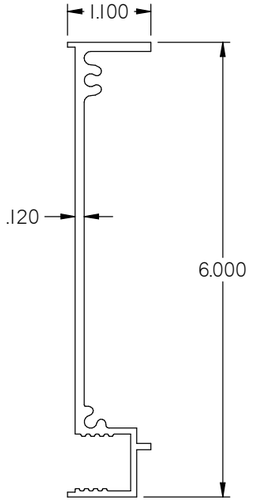
1 LOUVER HEAD
6063-T6 ALUMINUM



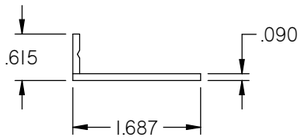
4 LOUVER BLADE
6063-T6 ALUMINUM



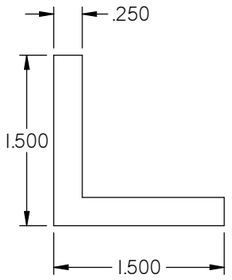
2 LOUVER SILL
6063-T6 ALUMINUM

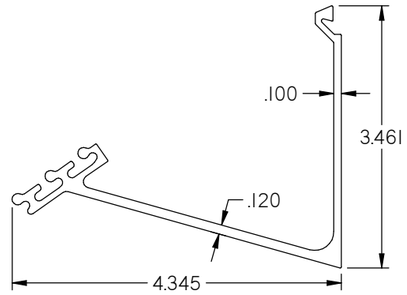


3 LOUVER JAMB
6063-T6 ALUMINUM

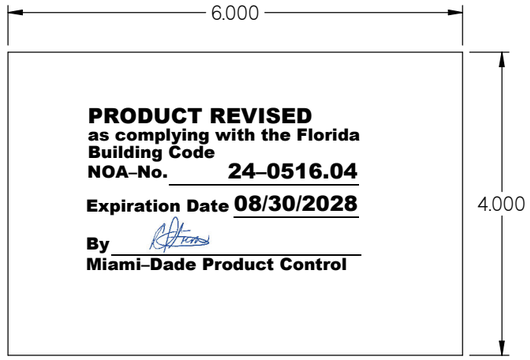


8 LOUVER FLANGE
6063-T6 ALUMINUM





6 LOUVER BLADE BRACE
6063-T6 ALUMINUM



PRODUCT REVISED
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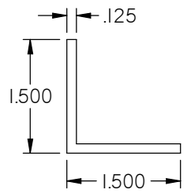
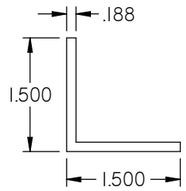
By
Miami-Dade Product Control

7 MULLION COVER
6063-T6 ALUMINUM

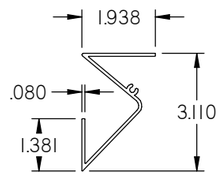
11 LOUVER SLEEVE MOUNT ANGLE
6063-T6 ALUMINUM



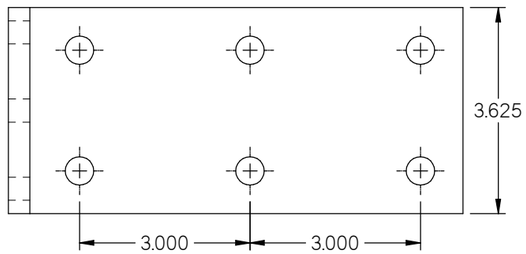
9A LOUVER SLEEVE ATTACHMENT ANGLE CONT.
6063-T6 ALUMINUM

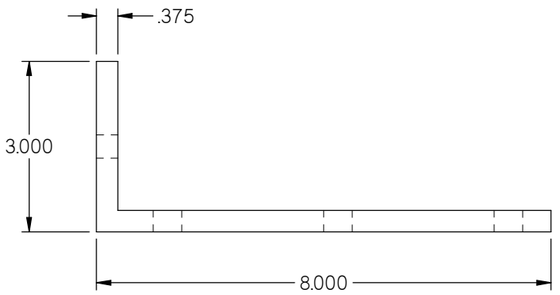


9C LOUVER SLEEVE ATTACHMENT ANGLE CONT.
6061-T6 ALUMINUM



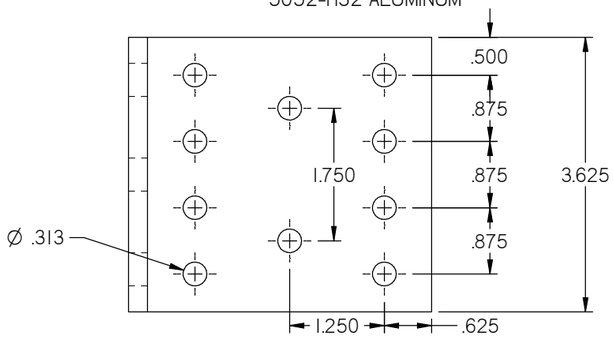
5 DRAIN HEAD
6063-T6 ALUMINUM

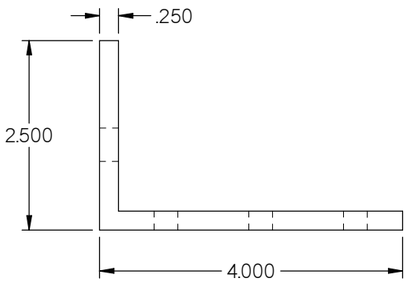




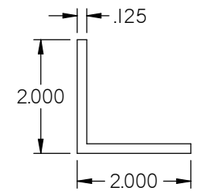
12B MULLION MOUNTING ANGLE
3.00 X 8.00X 0.375 X 3.625 LONG
6061-T6 ALUM. ANGLE
FOR 1/2 " DIA SS. LAG SCREW

14 ALUMNUM SUPPORT SHIM
1/4"THICK
5052-H32 ALUMINUM





12A MULLION MOUNTING ANGLE
4.00 X 2.50 X 0.25 X 3.625 LONG
6061-T6 ALUM. ANGLE



9B LOUVER SLEEVE ATTACHMENT ANGLE CONT.
6063-T6 ALUMINUM

DWN BY: fcortinas | CHK BY: BDennis
DATE: 11/29/2021 | SCALE: NTS

SHEET: 19 OF 27

REV B

DWG. NO. 1606DHPM

TITLE: 1606DHPM LOUVER, W/ AND W/O DAMPER SLEEVE/CONTINUOUS MOUNT PART PROFILES

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
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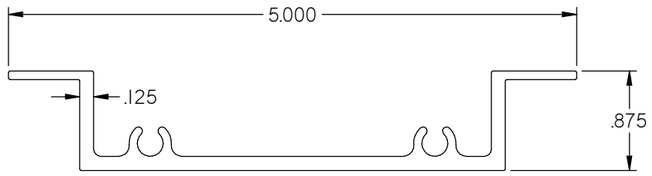
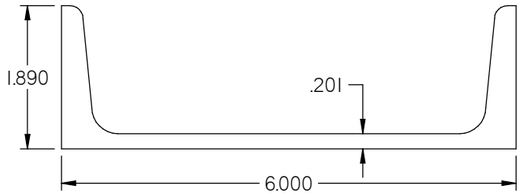
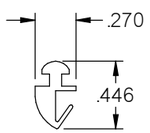


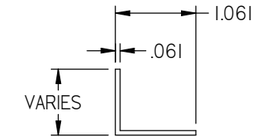
17 DAMPER HEAD/SILL
6063-T6 ALUMINUM



27 LOUVER BRACE SUPPORT CHANNEL
C6X8.2 ASTM A36 STEEL CHANNEL

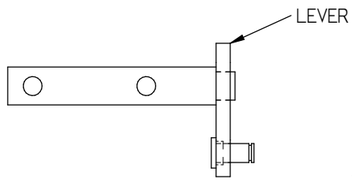


20 DAMPER BLADE SEAL
MATERIAL VARIES



21 DAMPER TOP/BOTTOM CLOSUER
ALUMINUM

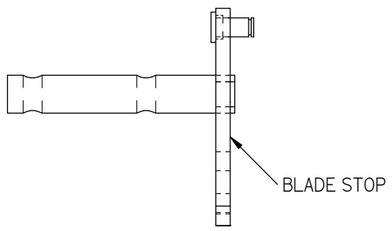
22 DAMPER BUSHING
MATERIAL VARIES



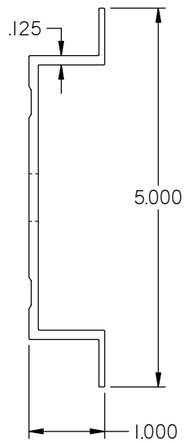
25 NON DRIVE DAMPER AXEL ASM
MATERIAL VARIES

23 DAMPER LINKAGE BAR
MATERIAL VARIES

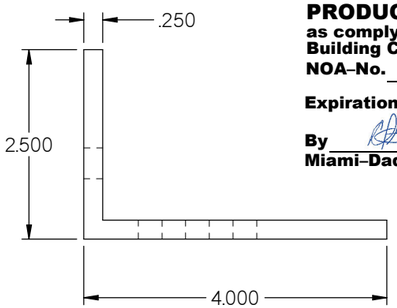
24 DAMPER JAMB SEAL
STAINLESS STEEL



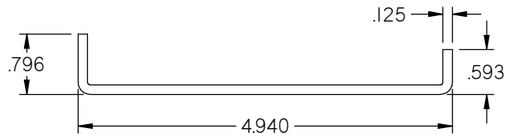
26 DRIVE SIDE DAMPER AXLE ASM
MATERIAL VARIES



18 DAMPER JAMB
6063-T6 ALUMINUM

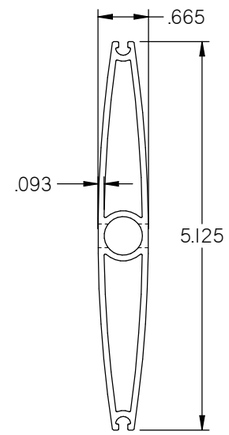


13 SLEEVE ATTACHMENT ANGLE
4.00X 2.50 X 0.25 X 3.625 LONG
6061-T6 ALUM. ANGLE



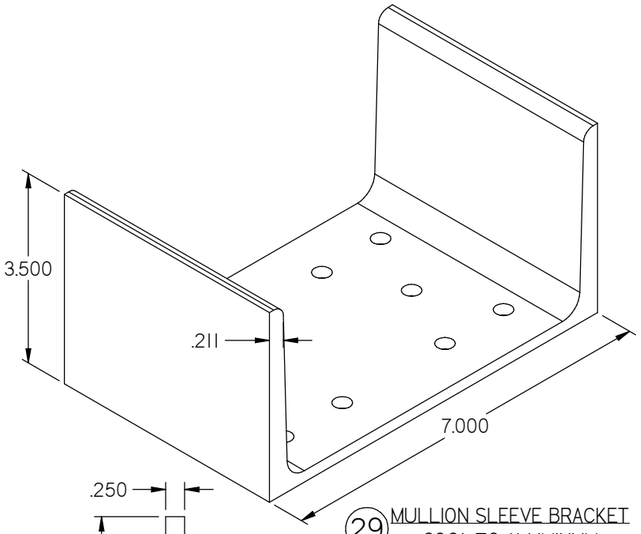
15 MULLION STIFFNER ALUM.
6063-T6 ALUMINUM

16 SLEEVE FORMED ALUM.
5052-H32 ALUMINUM

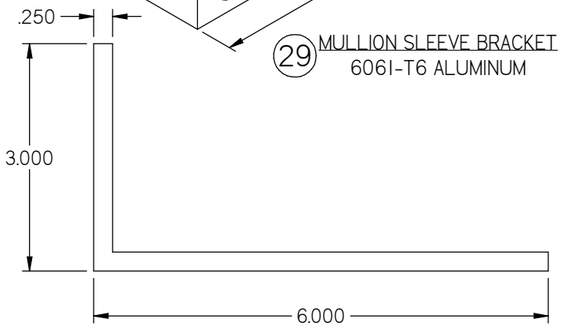


19 DAMPER BLADE
6063-T6 ALUMINUM

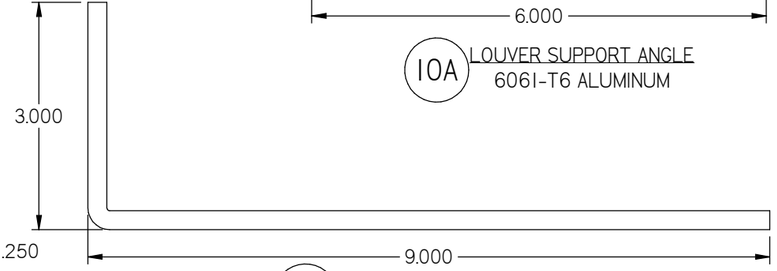
PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.04
Expiration Date 08/30/2028
By
Miami-Dade Product Control



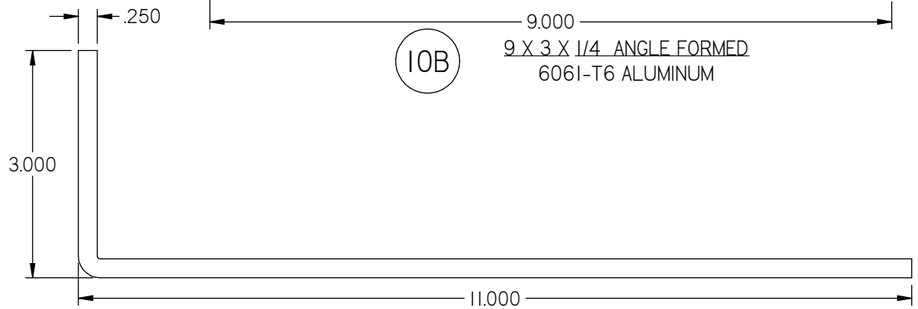
29 MULLION SLEEVE BRACKET
6061-T6 ALUMINUM



10A LOUVER SUPPORT ANGLE
6061-T6 ALUMINUM



10B 9 X 3 X 1/4 ANGLE FORMED
6061-T6 ALUMINUM



10C 11 X 3 X 1/4 ANGLE FORMED
6061-T6 ALUMINUM

REVISIONS:
REV B: ADDED 10A, 9X3 X .25 ANGLE
10B, 11X3X.25 ANGLE.

DWN BY: fcortinas | CHK BY: BDennis
DATE: 11/29/2021 | SCALE: NTS

SHEET: 20 OF 27

DWG. NO. 1606DHPM REV B

TITLE: 1606DHPM LOUVER W/ AND W/O DAMPER SLEEVE/CONTINUOUS MOUNT PART PROFILES CONT.

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
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WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF FLORIDA
PROFESSIONAL ENGINEER

07/23/2024
COA: 9090

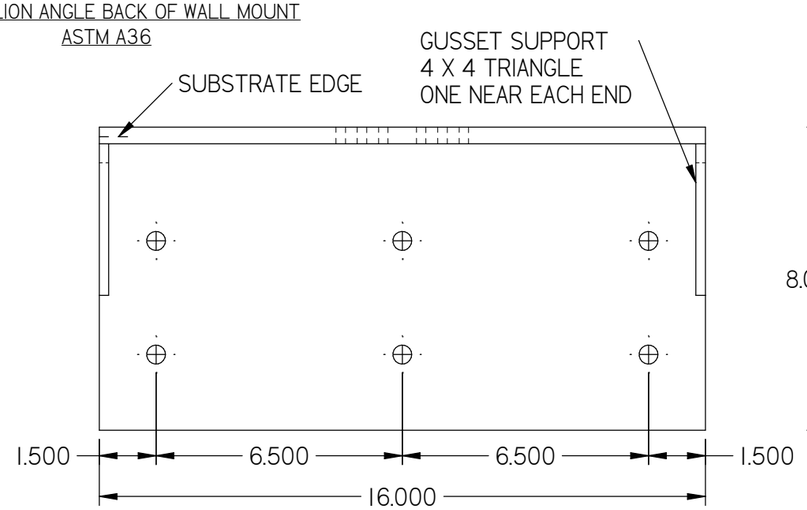
RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com

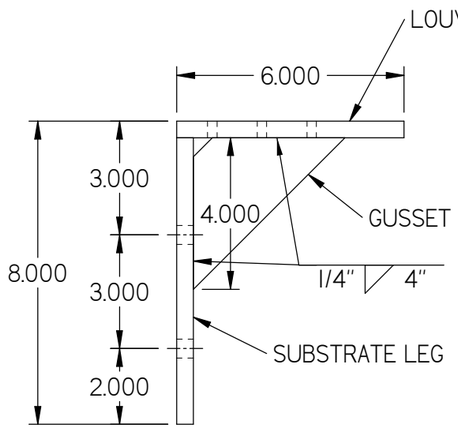
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

30A

MULLION MOUNTING BRACKET
FOR MULLION ANGLE BACK OF WALL MOUNT
ASTM A36

L8X6X7/16 AT 16" LONG
STEEL (A36)





1/2" DIA S.S. 316 HILTI KWIK HUS-EZ

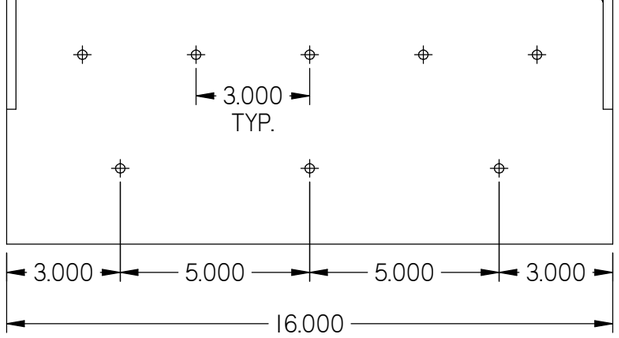
USE (6) 1/2" DIA. S.S. 316 HILTI KWIK HUS-EZ
3" EMBEDMENT
6.5" SPACING (HORIZ.) / 3" SPACING (VERT.)
3" MIN. EDGE DISTANCE
4" MIN END DISTANCE
SPACING AS SHOWN
ASSUME FC'= 4000 PSI CRACKED CONCRETE

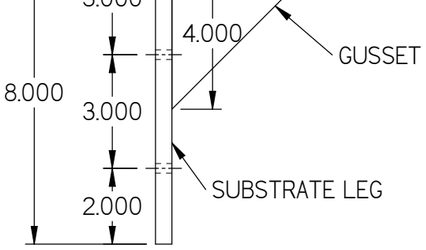
THESE MOUNTING BRACKETS ARE
FOR DETAILS 12B-12/27,
20A-18/27, 20B-18/27, AND
20C-18/27
(CONCRETE AND WOOD)

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.04
Expiration Date 08/30/2028
By
Miami-Dade Product Control

1/4" DIA LAG SCREWS ANCHORS:

USE (8) 1/4"DIA. X 6" LONG
STANDARD HEX S.S. SERIES 300
LAG SCREW
3-9/32" FULL THREAD ENGAGMENT
1-1/2" MIN. EDGE/END DISTANCE
SPACING AS SHOWN
ASSUME: SPRUCE/PINE/FIR, SG=0.42



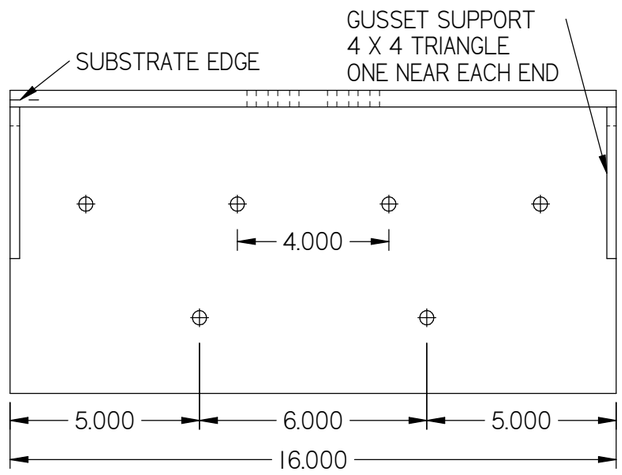


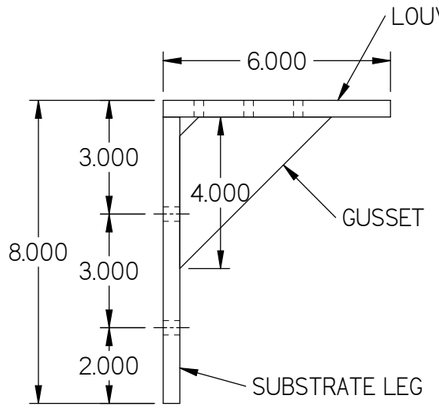
1/4-20 DIA. S.S ELCO BI-FLEX AND DRIL-FLEX ANCHORS:

USE (8) 1/4" DIA. S.S. SERIES 300
ELCO BI-FLEX OR
ELCO DRIL-FLEX FASTENERS
FULL THREAD ENGAGEMENT
1" MIN. EDGE/END DISTANCE
SPACING AS SHOWN
ASSUME: 1/4" STEEL (A-36)
SEAL DRIL-FLEX FASTENERS WITH LIQUID PROSOCO
FLASHING IF EXPOSED TO EXTERIOR CONDITIONS.

3/8" DIA. LAG SCREWS ANCHORS:

USE (6) 3/8" DIA. X 6" LONG
STANDARD HEX S.S. SERIES 300
LAG SCREW
3-9/32"FULL THREAD ENGAGMENT
1-1/2" MIN. EDGE/END DISTANCE
SPACING AS SHOWN
ASSUME: SPRUCE / PINE / FIR, SG= 0.42





5/16-24 DIA. DRIL-FLEX ANCHORS

USE (6) 5/16" DIA.
S.S. ELCO DRIL-FLEX FASTENERS
FULL THREAD ENGAGMENT
1" MIN. EDGE/END DISTANCE
SPACING AS SHOWN
ASSUME: 1/4" STEEL (A36)
SEAL DRIL-FLEX FASTENERS WITH LIQUID PROSOCO
FLASHING IF EXPOSED TO EXTERIOR CONDITIONS

REVISIONS:
REV B: UPDATED 16" MULLION BRACKET

CHK BY: BDennis
DWN BY: fcortinas
SCALE: NTS
DATE: 11/29/2021
SHEET: 21 OF 27
REV B
DWG. NO. 1606DHPM

TITLE: 16" MULLION ANGLES BACK OF THE WALL MOUNT

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
TEL: 281-590-1172 FAX: 281-590-3086
www.nailor.com

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LICENSE
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07/23/2024
COA: 9090

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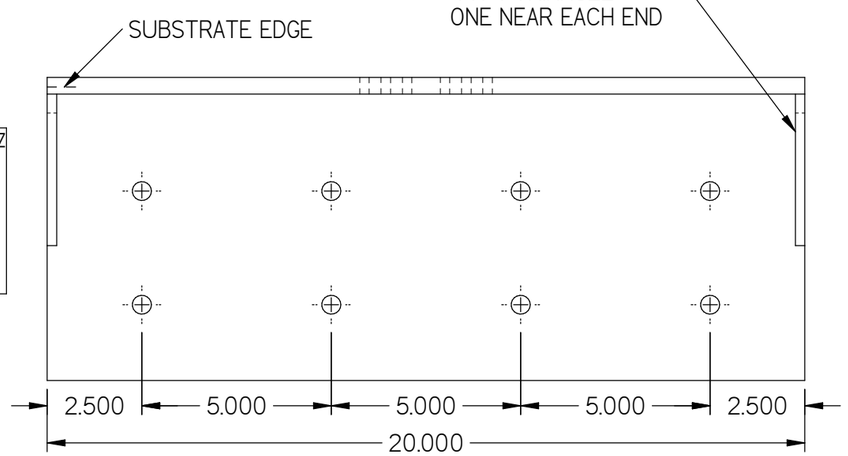
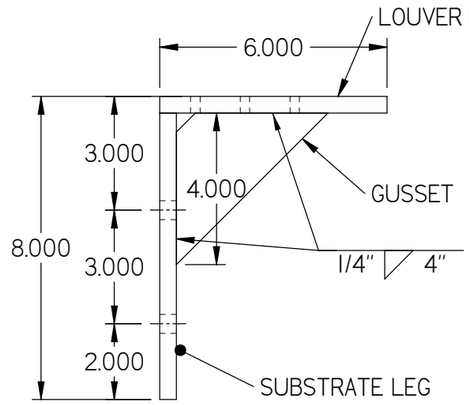
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

30B

MULLION MOUNTING BRACKET
FOR MULLION ANGLE BACK OF WALL MOUNT
ASTM A36

L8X6X7/16 AT 20" LONG
STEEL (A36)



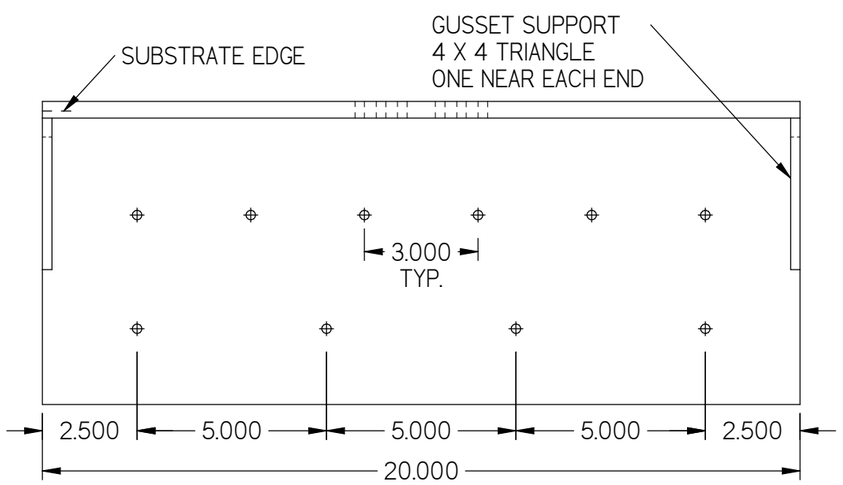


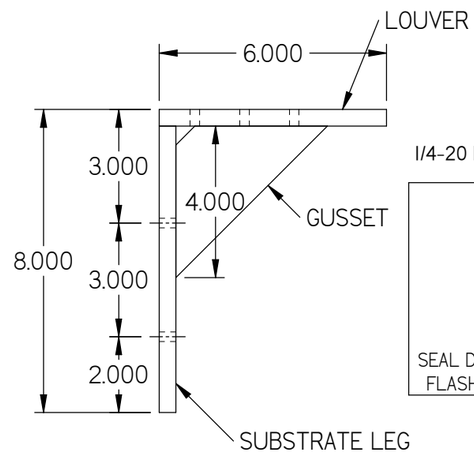
THESE MOUNTING BRACKETS ARE
FOR DETAILS 10A-10/27
(CONCRETE AND WOOD)

1/2" DIA S.S. SERIES 300 HILTI KWIK BOLT EZ

USE (8) 1/2" DIA. S.S. SERIES 300 HILTI KWIK BOLT-EZ
4-1/4" EMBEDMENT
5" SPACING (HORIZ.) / 3" SPACING (VERT.)
3" MIN. EDGE DISTANCE
4" MIN END DISTANCE
SPACING AS SHOWN
ASSUME FC'= 4000 PSI CRACKED CONCRETE

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.04
Expiration Date 08/30/2028
By
Miami-Dade Product Control



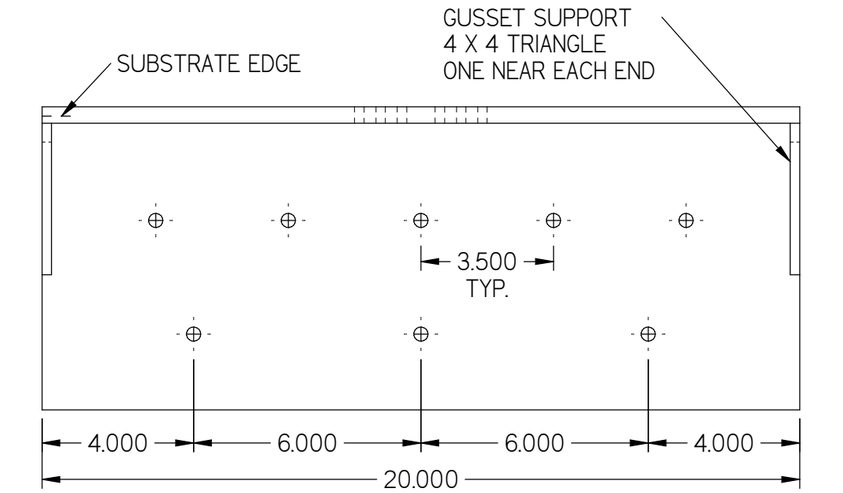


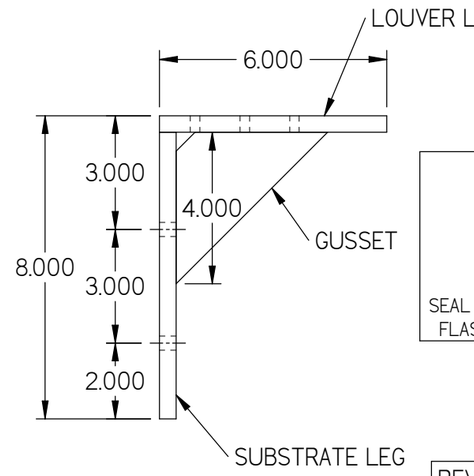
1/4" DIA LAG SCREWS ANCHORS

USE (10) 1/4"DIA. X 6" LONG
STANDARD HEX S.S. SERIES 300
LAG SCREW
3-11/32" FULL THREAD ENGAGMENT
1" MIN. EDGE/END DISTANCE
SPACING AS SHOWN
ASSUME: SPRUCE/PINE/FIR, SG=0.42

1/4-20 DIA. S.S. ELCO BI-FLEX AND DRIL-FLEX ANCHOR

USE (10) 1/4" DIA. S.S. SERIES 300
ELCO BI-FLEX OR
ELCO DRIL-FLEX FASTENERS
FULL THREAD ENGAGEMENT
1" MIN. EDGE/END DISTANCE
SPACING AS SHOWN
ASSUME: 1/4" STEEL (A-36)
SEAL DRIL-FLEX FASTENERS WITH LIQUID PROSOCO
FLASHING IF EXPOSED TO EXTERIOR CONDITIONS.





3/8" DIA. LAG SCREWS ANCHORS

USE (8) 3/8" DIA. X 6" LONG
STANDARD HEX S.S. SERIES 300
LAG SCREW
3-9/32"FULL THREAD ENGAGMENT
1-1/2" MIN. EDGE/END DISTANCE
SPACING AS SHOWN
ASSUME: SPRUCE / PINE / FIR, SG= 0.42

5/16-24 DIA. DRIL-FLEX ANCHOR

USE (8) 5/16" DIA.
ELCO DRIL-FLEX FASTENERS
FULL THREAD ENGAGMENT
1" MIN. EDGE/END DISTANCE
SPACING AS SHOWN
ASSUME: 1/4" STEEL (A36)
SEAL DRIL-FLEX FASTENERS WITH LIQUID PROSOCO
FLASHING IF EXPOSED TO EXTERIOR CONDITIONS

REVISIONS:
REV B: ADDED 20" MULLION BRACKET

CHK BY: BDennis
DWN BY: fcortinas
SCALE: NTS
DATE: 11/29/2021
SHEET: 22 OF 27
REV B
DWG. NO. 1606DHPM

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
TEL: 281-590-1172 FAX: 281-590-3086
www.nailor.com

TITLE:
20" MULLION ANGLES
BACK OF THE WALL MOUNT

WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

07/23/2024
COA: 9090

RICE
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105 School Creek Trail
Luxemburg, WI 54217
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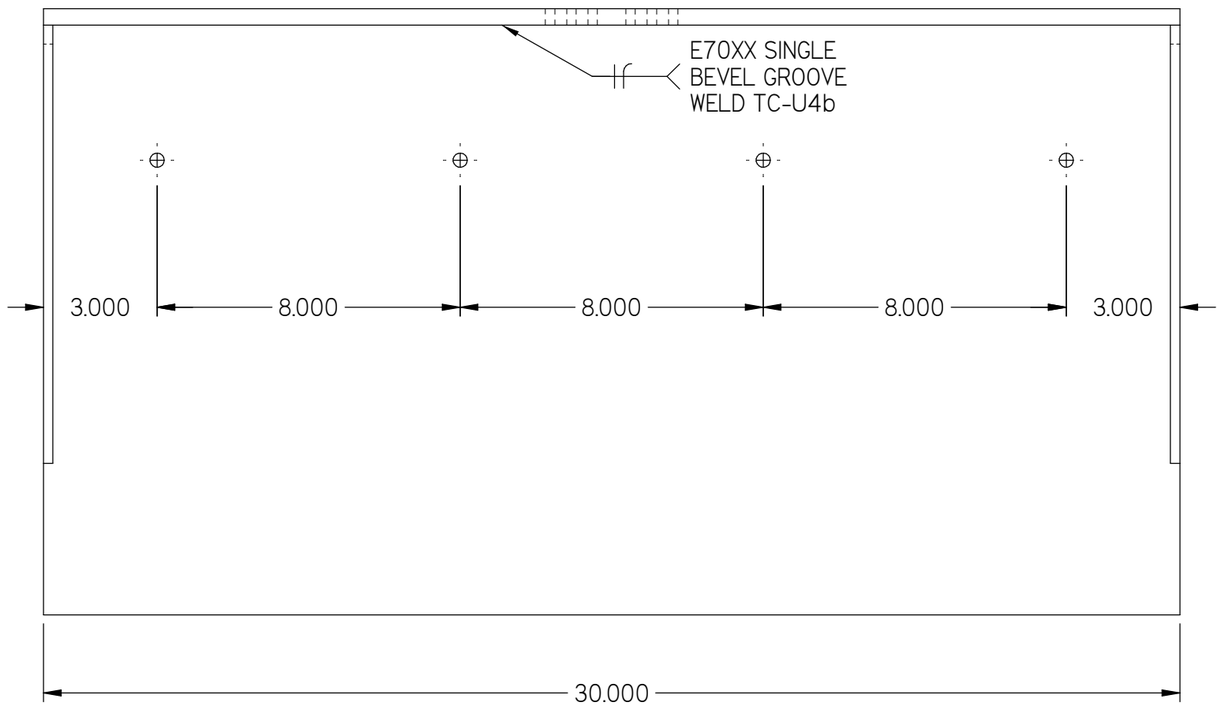
www.rice-inc.com

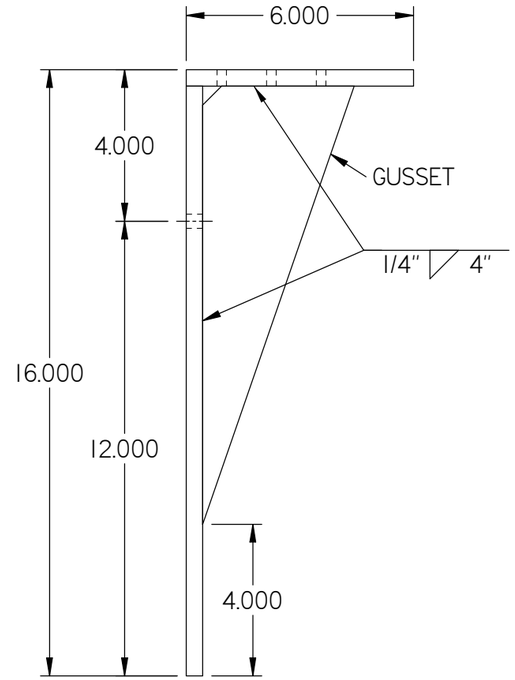
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

30C

MULLION MOUNTING BRACKET
FOR MULLION ANGLE BACK OF WALL MOUNT
ASTM A36

USE 16" X 6" X 1/2" STEEL PLATE ANGLE
AT 30" LONG AS SHOWN (A36 OR BETTER)
WELD 1/2" STEEL PLATE ANGLE TOGETHER WITH FULL PENETRATION BEVEL GROOVE WELD.
(2) 1/4" X 4" GUSSET PLATES AT 12" LONG WELDED TO EACH END
WELD 1/4" GUSSET PLATES WITH FILLET WELDS.





USE (4) 1/2" DIA. HILTI KWIK HUZ-EZ SCREW ANCHORS
4-1/4" EMBEDMENT
8" SPACING AS SHOWN. LOCATE (1) FASTENER IN THE CENTER OF EACH MASONRY CELL. BRACKET CAN BE INSTALL 4" LEFT OR RIGHT OF MULLION CENTERLINE SO ANCHORS CAN BE INSTALLED AT CENTER OF MASONRY CELLS.
4" MIN. EDGE DISTANCE
4" MIN END DISTANCE
ASSUME GROUT FILLED MASONRY FM'= 2000 PSI (DESIGNED BY OTHERS)
SEAL FASTENERS WITH LIQUID PROSOCO FLASHING AT EXTERIOR CONDITIONS.

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.04
Expiration Date 08/30/2028
By _____
Miami-Dade Product Control

THESE MOUNTING BRACKETS ARE FOR DETAILS 10A-10/27, 12B-12/27, 20A-18/27/, 20B-18/27, AND 20C-18/27 (GROUT FILLED CMU)

REVISIONS:
REV B: ADDEDD 30" MULLION BRACKET

DWN BY: fcortinas | CHK BY: BDennis
DATE: 11/29/2021 | SCALE: NTS

SHEET: 23 OF 27

REV B

DWG. NO. 1606DHPM

TITLE: 30" CMU MULLION ANGLES BACK OF THE WALL MOUNT

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
TEL: 281-590-1172 FAX: 281-590-3086
www.nailor.com

WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF FLORIDA
PROFESSIONAL ENGINEER

07/23/2024
COA: 9090

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Florida Firm No: F-01000005061
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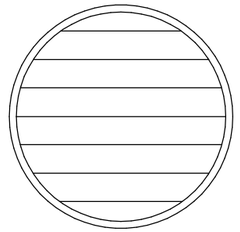
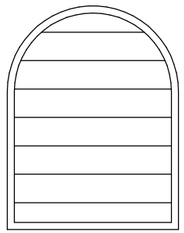
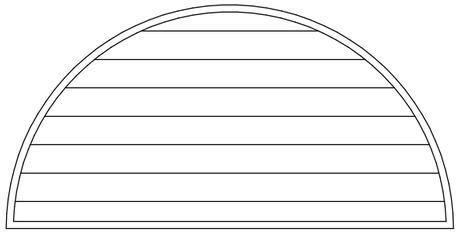
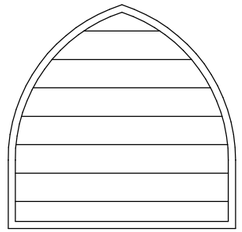
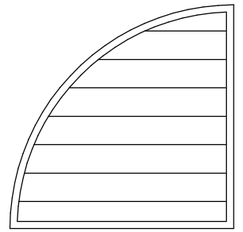
Registration No: 59092

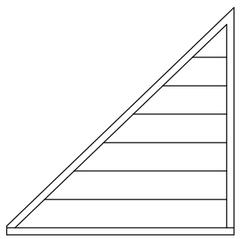


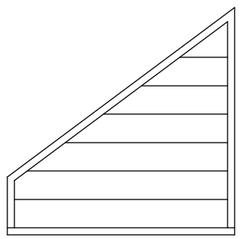


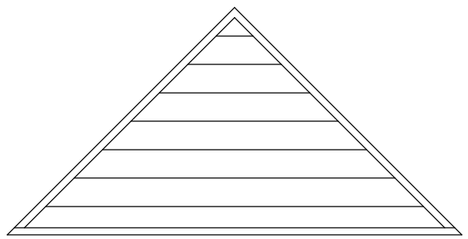


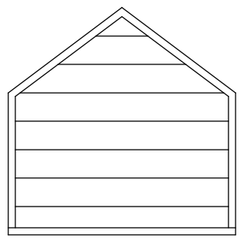


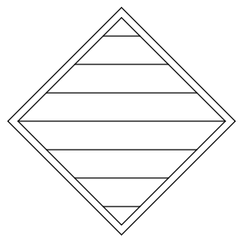


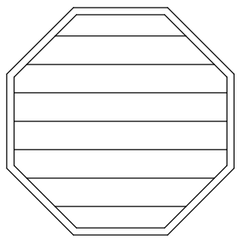


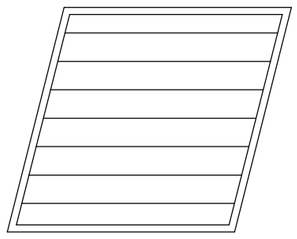












NOTES:

1. OTHER SHAPES MAY APPLY PROVIDINGTHEY ARE SIMILAR TO THOSE SHOWN AND HAVE CORNER CONSTRUCTION AS DESCRIBED ON ALL SHEETS.

2. ALL SHAPED LOUVER PANELS ARE RESTRICTED TO THE SAME PANEL WIDTH AND PRESSURE AS THE RECTANGULAR LOUVER PANELS AND BE STACKED VERTICALLY AND HORIZONTALLY THE SAME AS THE RECTANGULAR PANELS.

3. WHEN SECTION EXCEED 36" IN LENGTH BLADE SUPPORT ANGLES AND BRACKETS ARE REQUIRED.

4. USE CONTIUOUS ANGLES TO ANCHOR OTHER LOUVER SHAPES TO BUILDING SUBSTRATE. SEE ANCHOR SCHEDULE FOR SUBSTRATE-SPECIFIC LIMITATIONS.

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.04
Expiration Date 08/30/2028
By _____
Miami-Dade Product Control

DWN BY: fcortinas
DATE: 11/29/2021
CHK BY: BDennis
SCALE: NTS
SHEET: 24 OF 27
REV B
DWG. NO. I606DHPM

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
www.nailor.com TEL: 281-590-1172 FAX: 281-590-3086

TITLE:
I606DHPM LOUVER
W/ AND W/O DAMPER
AVAILABLE SHAPES

WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

07/23/2024
COA: 9090

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BILL OF MATERIALS

ITEM	DESCRIPTION	MATERIAL	NOTES
1	C6-139 LOUVER HEAD	6063-T6 ALUMINIUM	
2	C6-140 LOUVER SILL	6063-T6 ALUMINIUM	
3	C6-141 LOUVER JAMB	6063-T6 ALUMINIUM	
4	C6-142 LOUVER BLADE	6063-T6 ALUMINIUM	
5	C6-168 LOUVER DRAIN	6063-T6 ALUMINIUM	
6	C6-143 LOUVER BLADE BRACE	6063-T6 ALUMINIUM	
7	C6-104 MULLION COVER	6063-T6 ALUMINIUM	
8	C6-096 LOUVER FLANGE	6063-T6 ALUMINIUM	
9A	C6-176 1 1/2 X 1 1/2 X 1/8 ANGLE CONT.	6063-T6 ALUMINIUM	USED AT HEAD/SILL/JAMB, OF LOUVER AND SLEEVE
9B	C6-160 2 X 2 X 1/8 ANGLE CONT.	6063-T6 ALUMINIUM	USE AS ATTACHMENT ANGLE
9C	1 1/2 X 1 1/2 X 3/16 ANGLE CONT.	6063-T6 ALUMINIUM	USE AS ATTACHMENT ANGLE
10A	C6-161B 6 X 3 X 1/4 ANGLE	6061-T6 ALUMINIUM	USED AT BLADE SUPPORT AND JAMB SUPPORT
10B	9 X3 X 1/4 ANGLE	6061-T6 ALUMINIUM	FORMED ALUM ANGLE
10C	11/ X 3 X 1/4 ANGLE	6061-T6 ALUMINIUM	FORMED ALUM ANGLE
11	1 1/2 X 1 1/2 X 1/4 ANGLE	6063-T6 ALUMINIUM	USED AT HEAD/SLILL/JAMB OF SLEEVE
12A	4 X 2.50 X 1/4 X 3 5/8 LONG ANGLE	6063-T6 ALUMINIUM	USED AT HEAD/ SILL OF MULLION ATTACHMENT
12B	8 X 3 X 3-5/8 LONG ANGLE	6063-T6 ALUMINIUM	USED AT HEAD/ SILL OF MULLION ATTACHMENT W/ 1/2" LAG
13	4 X 2.50 X 1/4 3 5/8 LONG ANGLE	6061-T6 ALUMINIUM	USED AT HEAD/ SILL OF LOUVER SLEEVE ATTACHMENT
14	6 X 4 X 1/4 ALUMININM SUPPORT SHIM	6063-T6 ALUMINIUM	USED AT SILL FOR SUPPORT ANGLE
15	MULLION STIFFENER ALUM	6063-T6 ALUMINIUM	1/8 FORMED ALUM CHANNEL USED AT MULLION
16	FORMED SLEEVE 1/8 THK	5052-H32 ALUMINIUM	1/8 FORMED SLEEVE - DEPTH VARIES
17	B2-610 DAMPER HEAD/SILL	6063-T6 ALUMINIUM	
18	B2-609 DAMPER JAMB	6063-T6 ALUMINIUM	
19	B2-527 DAMPER BLADE	6063-T6 ALUMINIUM	
20	DAMPER BLADE SEAL	SILICONE / RUBBER TYPE	MATERIAL VARIES
21	DAMPER TOP/BOTTOM CLOSURE	ALUMINIUM	
22	DAMPER BUSHING	BRONZE / SS	
23	DAMPER LINKAGE BAR	SS	
24	DAMPER JAMB SEAL	SS	
25	NON DRIVE DAMPER AXEL ASM	SS	
26	DRIVE SIDE DAMPER AXEL ASM	SS	
27	C6 X 8.2 STEEL CHANNEL	ASTM A36	USED AT BLADE BLACE & MULLION
29	7" X 21" ALUMINIUM SLEEVE BRACKET	6061-T6	MULLION SLEEVE BRACKET
30	MULLION MOUNTING ANGLE BRACKET	ASTM A36	MULLION MOUNTING
31	C6-180	SCREW,MTL,10-24X1,HEX	
32	C6-181	1/4 NYLON INSERT LOCKNUT	
33	C6-182	1/4-20x2-1/2 HEX CAP SCREW	
34	C6-183	WASHER,BONDED,10X1/2,SS	300 SERIES, SS COND. CW FY = 65 KSI
35	C6-184	SCREW,MTL,12-24-1-1/4,HEX	300 SERIES, SS COND. CW FY = 65 KSI
36	C6-185	1/4-20x1 HEX SCREW	300 SERIES, SS COND. CW FY = 65 KSI
37	C6-186	1/4 COMM'L FLAT WASHER	300 SERIES, SS COND. CW FY = 65 KSI
38	C6-187	1/4-20x1 HEX CAP SCREW 18-8 SS	
39	C6-188	SCREW, MTL,HEX, 8-32 X 1,	300 SERIES, SS COND. CW FY = 65 KSI
40	C6-189	SCREW, METAL, HW, 10-24 X 1-1/2,	300 SERIES, SS COND. CW FY = 65 KSI
41	C6-192	SCREW, MTL, HEX, 8 X 1-1/2,	300 SERIES, SS COND. CW FY = 65 KSI
42	C6-193	SCREW, METAL, HEX, 1/4-20 X 1-1/2	300 SERIES, SS COND. CW FY = 65 KSI
43	C6-194	SCREW, METAL, HEX, 12 X 1-1/2, SS	300 SERIES, SS COND. CW FY = 65 KSI
44	C6-195	1/4-20 X 1 1/4 HEX CAP SCREW 18-8 S/S	
45	C6-196	1/4-20 FIN. HEX NUT 18-8 S/S	
46	C6-197	1/4 LOCKWASHER 18-8 S/S	
47	C6-198	SCREW, MTL, HEX, 8 X 3/4,	300 SERIES, SS COND. CW FY = 65 KSI
48		3/8"-16 X 2 18-6 HEX HEAD BOLT SS	300 SERIES, SS COND. CW FY = 65 KSI
49		3/8-16 HEX LOCK NUT SS	300 SERIES, SS COND. CW FY = 65 KSI
50		3/8-FLAT WASHER SS	300 SERIES, SS COND. CW FY = 65 KSI

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 24-0516.04
Expiration Date 08/30/2028
By
Miami-Dade Product Control

REVISIONS:
REV B: UPDATED BILL OF MATERIAL

DWN BY: fcortinas | CHK BY: BDennis
DATE: 11/29/2021 | SCALE: NTS

SHEET: 25 OF 27

DWG. NO. 1606DHPM | REV B

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
www.nailor.com TEL: 281-590-1172 FAX: 281-590-3086

TITLE: 1606DHPM LOUVER W/ AND W/O DAMPER SLEEVE / CONTINUOUS MOUNT BILL OF MATERIAL

WAYNE K. HELMILA LICENSE No. 59092 STATE OF FLORIDA PROFESSIONAL ENGINEER

07/23/2024
COA: 9090

RICE
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105 School Creek Trail
Luxemburg, WI 54217
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Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

*EMBEDMENT DEPTH IS EQUAL TO OVERALL LENGTH FOR CONCRETE /CMU FASTENERS. IF SHIMS ARE USED, FASTENER LENGTH MUST BE INCREASED BY THICKNESSOF SHIMS

LOUVER MODEL 1606DHPM FASTENER TABLES

JAMB ANGLE MOUNT FASTENER, WIDTH <= 72 INCHES (TABLE 1)

WOOD	STEEL STUD	STEEL	CONRETE	CMU	MIN.	FASTENER TYPE	DIAMETER	# Rqd	CENTERS	EDGE	END	EMBEDMENT
X					SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	1/4"	1	3"	2"		2"
X					SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	3/8"	1	5"	2"		2"
	X				16 Ga.	ELCO BI-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi)	1/4"	1	4-1/2"	2"		3 THREAD BEYOND SUBSTRATE
		X			A-36	ELCO BI-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi)	1/4"	1	13-1/2"	2"		1/4"
		X			A-36	ELCO DRILL-FLEX DRILLING SCREWS (COND. CW- Fy= 65ksi) SEALED w/ PROSOCO SEALANT	5/16"	1	20"	2"		1/4"
			X-CRACKED 6" DEEP		4ksi	HILTI KWIK HUS-EZ SS316 ANCHOR	1/4"	1	7"	4"		2"
			X-CRACKED 6" DEEP		4ksi	HILTI KWIK HUS-EZ SS316 ANCHOR	3/8"	1	12"	4"		2"
				X	2ksi	HILTI KWIK HUS-EZ SS316 ANCHOR	3/8"	1	12"	4"		3-1/4"
				X	2ksi	DEWALT GALVANIZED SCREW-BOLT+ ANCHOR	3/8"	1	4.-1/2"	1-1/2"	1-1/2"	3-1/4"

MULLION ANGLE MOUNT FASTENERS, HEIGHT<= 120 INCHES (TABLE 2)

WOOD	STEEL STUD	STEEL	CONRETE	CMU	MIN.	FASTENER TYPE	DIAMETER	# Rqd / CLIP	CENTERS	EDGE	END	EMBEDMENT
X					SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	1/4"	10	1-1/4 X 7/8	2"		2-5/8 "
X					SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	3/8"	6	2-1/8 X 3	2"		1-5/8"
		X			A-36	ELCO BI-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi)	1/4"	4	2-1/2"X 2-5/8"	2"		1/4"
		X			A-36	ELCO DRILL-FLEX DRILLING SCREWS (COND. CW- Fy= 65ksi) SEALED w/ PROSOCO SEALANT	5/16"	4	2-1/2" X 2-5/8"	2"		1/4"

MULLION ANGLE MOUNT BACK OF WALL FASTENERS, HEIGHT <= 120 INCHES (TABLE 3)

WOOD	STEEL STUD	STEEL	CONRETE	CMU	MIN.	FASTENER TYPE	DIAMETER	# Rqd	CENTERS	EDGE	END	EMBEDMENT
X					SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	1/4"	8	VARIES	1"		3-11/32"
X					SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	1/4"	10	VARIES	1"		3-11/32"
X					SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	3/8"	6	VARIES	1-1/2"		3-9/32"
X					SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	3/8"	8	VARIES	1-1/2"		3-9/32"
		X			A-36	ELCO BI-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi)	1/4"	8	VARIES	1"		FULL THREAD ENGAGEMENT
		X			A-36	ELCO BI-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi)	1/4"	10	VARIES	1"		FULL THREAD ENGAGEMENT
		X			A-36	ELCO BI-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi)	1/4"	10	VARIES	1"		FULL THREAD ENGAGEMENT
		X			A-36	ELCO DRILL-FLEX DRILLING SCREWS (COND. CW- Fy= 65ksi) SEALED w/ PROSOCO SEALANT	5/16"	6	VARIES	1"		FULL THREAD ENGAGEMENT
		X			A-36	ELCO DRILL-FLEX DRILLING SCREWS (COND. CW- Fy= 65ksi) SEALED w/ PROSOCO SEALANT	5/16"	8	VARIES	1"		FULL THREAD ENGAGEMENT
			X-CRACKED 8" DEEP		4ksi	HILTI KWIK BOLT EZ SS 300 SERIES **	1/2"	6	6-1/2 X 3	3"	4"	3"
			X-CRACKED 8" DEEP		4ksi	HILTI KWIK BOLT EZ SS 300 SERIES **	1/2"	8	5 X 3	3"	4"	4-1/4"
				X	2ksi	HILTI KWIK HUS-EZ SCREW ANCHORS - SEAL w/ LIQUID PROSOCO @ EXTERIOR CONDITIONS	1/2"	4	8"	4"	4"	4-1/4"

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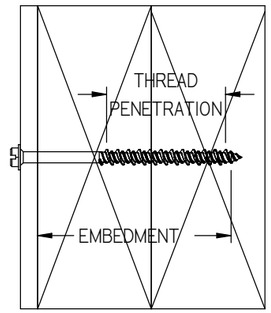

REVISIONS:
REV B: UPDATED FASTENER TABLES

CHK BY: BDennis
DWN BY: fcortinas
SCALE: NTS
DATE: 11/29/2021

SHEET: 26 OF 27
REV B
DWG. NO. 1606DHPM

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
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TITLE: 1606DHPM LOUVER W/ AND W/O DAMPER FASTENER TABLES

WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF FLORIDA
PROFESSIONAL ENGINEER

08/14/2024
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Wayne K. Helmila
Registration No: 59092

GENERAL NOTES:

1. IT SHALL BE THE RESPONISBILITY OF THE ENGINEER OF RECORD TO VERIFY THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURE TO SUPPORT THE LOADS IMPOSED BY THE LOUVER(S).
2. THE 1606DHPM WITH /WITHOUT DAMPER HAVE BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC) AND TEST PROTOCALS TAS 100(A) WIND DRIVEN RAIN, TAS-201 (IMPACT), TAS-202 (UNIFORM STATIC PRESSURE) , AND TAS-203 (CYCLIC FATIGUE).
3. MAXIMUM SINGLE SECTION SIZE IS 72" WIDE X 120" HIGH.
4. MAXIMUM ASSEMBLED LOUVER SIZE IS UNLIMITED WIDE X 120" HIGH.
5. SECTIONS OR ASSEMBLIES MAY BE STACKED VERTICALLY PROVIDING A SUITABLE STRUCTURAL SUPPORT IS DESIGNED AND INSTALLED BY OTHERS TO SUPPORT ALL LOADS TRANSFERRED FROM THE LOUVER.
6. CMU SHALL BE ASTM C90, TYPE II, 2,000 MIN PSI GROUT-FILLED, STEEL STUDS TO BE 16 G.A. FY=50ksi MIN.
7. THE SLEEVE MOUNT STYLE LOUVER UTILIZES AN ANCHORLESS INSTALLATION METHOD THAT DOES NOT REQUIRE THE USE OF FASTENERS INTO THE SUBSTRATE. IT MAY BE INSTALLED IN ANY SUBSTRATE THAT WILL WITHSTAND THE LOADS TRANSFERRED TO IT BY THE LOUVER. NAILOR IND. DOES NOT DETERMINE THE STRUCTURAL INTERGRITY OF THE SUBSTRATE STRUCTURE.
8. THE CONTINUOUS ANGLE MOUNT STYLE UTILIZES A CONTINUOUS JAMB ANGLETHAT IS ATTACHED TO THE SUBSTRATE BY FASTENERS. IT MAY BE INSTALLED IN CONCRETE, CMU, STEEL, OR WOOD ACCORDING TO THE FASTENER SCHEDULE. NAILOR IND. DOES NOT DETERMINE THE STRUCTRAL INTERGRITY OF THE SUBSTRATE STUCTURE.
9. LOUVER ASSEMBLY IS QUALIFIEDFOR A MAXIMUM DESIGN LOAD OF +/− 150 PSF.
10. LOUVER ASSEMBLY WITH AND WITHOUT DAMPER SHALL ONLY 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, AND / OR SUPPLIES.
11. INSTALLER TO PROVIDE SEPERATION OF DISSIMILAR MATERIALS AS REQUIRED.
12. THE 2020 DAMPER MAY BE OPERATIED BY A MANUAL QUADRANT OR BY AN ELECTRIC OR PNEUMATIC ACTUALTOR, THE DAMPER'S ACTUATOR IS NOT PART OF THIS APPROVAL, BUT SHALL BE CERTIFIED BY AN INDEPENDENT TESTING AGENCY.
13. FRAME CONSTRUCTION, HEAD AND SILL ARE SQUARE CUT, JAMBS ARE SQUARE CUT @ HEAD AND SILL. CORNERS ARE SECURED WITH (2) #10-24 x 1 1/2 HW, BLADES ARE SECURED TO JAMBS WITH (4) #10-24 X 1 1/2 HW, @ EACH END.
14. STEEL / STAINLESS-STEEL/ ALUMINIUM PARTS MAY BE MADE OUT OF ALTERNATE ALLOY THA HAS EQUAL OR GREATER YIELD STRENGTH.
15. BLADE SUPPORT ANGLE AND BLADE SUPPORT BRACE ONLY REQUIRED WHEN ACTUAL LOUVER SECTION WIDTH IS GREATER THAN 36 INCHES.
16. THREAD PENETRATION LENGTH SIGNIFIES THE REQUIRED LENGTH OF THE THREADED PORTION OF THE FASTENER INTO THE WOOD SUBSTRATE PROVIDING FULL CONTACT WITH WOOD. LAG SCREW TIP CANNOT BE CONSIDERED PART OF THE THREADED PORTION OF THE SCREW. LAG SCREWS ARE NOT TO BE INSTALLED AT WOOD JOINTS/SPLICES WHERE THE LAG SCREW COULD FALL BETWEEN MEMEBERS.

** NOTE ENGINEER OF RECORD (EOR) IS RESPONSIBLE FOR DETERMINING IF CONCRETE IS TO BE CONSIDERED CRACKED OR UNCRACKED.

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TITLE:
1606DHPM LOUVER
W/ AND W/O DAMPER
GENERAL NOTES

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