

QUALIFICATIONS:

- Miami-Dade County NOA No. : 24-0516.05
- Florida Product Approval No. 28078.1
- Texas Department of Insurance Evaluation ID: LVR-28
- Tested in accordance with: TAS-201 (Large Missile Impact Test), TAS-202 (Uniform Static Air Pressure Test), TAS-203 (Cyclic Wind Pressure Loading Test), TAS-100A (Wind-Driven Rain Test [with optional Model 2020 damper in closed position]).
- AMCA 500-L (Wind-Driven Rain, 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:** 5" (127) deep, Type 6063-T6 extruded aluminum, .080" (2.03) nominal wall thickness. Integral downspouts and caulking slot provided.
- BLADES:** Type 6063-T6 extruded aluminum, .080" (2.03) nominal wall thickness, with reinforcing bosses.
- BLADE ANGLE:** Fixed at 30 degrees.
- BLADE SPACING:** 1.86" (47) 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** 72" W x 120" H (1829 x 3048). 60 sq. ft. (5.6 m²)
- SECTION SIZE:** (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:** _____.

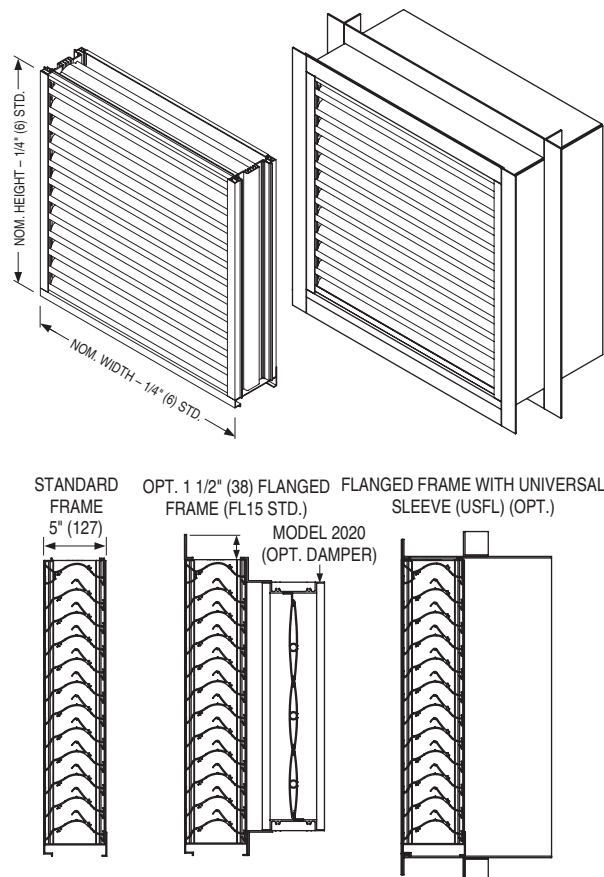
OPTIONAL FINISHES:

- ☐ **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:
PROJECT:
ENGINEER:
CONTRACTOR:

For Installation Instructions, see approved NOA.
 Page 1 of 3 Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
10 - 21 - 24	1600M	7 - 31 - 24	1605WDM



EXTRUDED ALUMINUM STATIONARY LOUVER
MIAMI-DADE QUALIFIED • FLORIDA PRODUCT APPROVED
WIND-DRIVEN RAIN RESISTANT
5" (127) DEEP • HORIZONTAL BLADE • PERFORMANCE DATA
MODEL: 1605WDM

FREE AREA in Square Feet and Square Meters

		Width in Inches and Meters										
		12	18	24	30	36	42	48	54	60	66	72
Height in Inches and Meters	12	0.27	0.43	0.60	0.76	0.93	1.09	1.26	1.42	1.59	1.75	1.92
	0.30	0.03	0.04	0.06	0.07	0.09	0.10	0.12	0.13	0.15	0.16	0.18
	18	0.47	0.76	1.05	1.34	1.63	1.92	2.20	2.49	2.78	3.07	3.36
	0.46	0.04	0.07	0.10	0.12	0.15	0.18	0.20	0.23	0.26	0.29	0.31
	24	0.74	1.19	1.65	2.10	2.56	3.01	3.46	3.92	4.37	4.82	5.28
	0.61	0.07	0.11	0.15	0.20	0.24	0.28	0.32	0.36	0.41	0.45	0.49
	30	0.94	1.52	2.10	2.68	3.25	3.83	4.41	4.99	5.56	6.14	6.72
	0.76	0.09	0.14	0.19	0.25	0.30	0.36	0.41	0.46	0.52	0.57	0.62
	36	1.15	1.85	2.55	3.25	3.95	4.65	5.35	6.05	6.76	7.46	8.16
	0.36	0.11	0.17	0.24	0.30	0.37	0.43	0.50	0.56	0.63	0.69	0.76
	42	1.35	2.17	3.00	3.82	4.65	5.47	6.30	7.12	7.95	8.77	9.60
	1.07	0.13	0.20	0.28	0.36	0.43	0.51	0.59	0.66	0.74	0.81	0.89
	48	1.62	2.61	3.60	4.59	5.58	6.57	7.59	8.55	9.54	10.53	11.52
	1.22	0.15	0.24	0.33	0.43	0.52	0.61	0.71	0.79	0.89	0.98	1.07
	54	1.82	2.93	4.05	5.16	6.27	7.39	8.50	9.62	10.73	11.84	12.96
	1.37	0.17	0.27	0.38	0.48	0.58	0.69	0.79	0.89	1.00	1.10	1.20
Height in Inches and Meters	60	2.02	3.26	4.50	5.73	6.97	8.21	9.45	10.68	11.92	13.16	14.40
	1.52	0.19	0.30	0.42	0.53	0.65	0.76	0.88	0.99	1.11	1.22	1.34
	66	2.22	3.58	4.95	6.31	7.67	9.03	10.39	11.75	13.11	14.47	15.84
	1.68	0.21	0.33	0.46	0.59	0.71	0.84	0.97	1.09	1.22	1.34	1.47
	72	2.49	4.02	5.55	7.07	8.60	10.12	11.65	13.18	14.70	16.23	17.76
	1.83	0.23	0.37	0.52	0.66	0.80	0.94	1.08	1.22	1.37	1.51	1.65
	78	2.7	4.35	6.00	7.65	9.30	10.95	12.6	14.25	15.90	17.55	19.20
	1.98	0.25	0.40	0.56	0.71	0.86	1.02	1.17	1.32	1.48	1.63	1.78
	84	2.9	4.67	6.44	8.22	9.99	11.77	13.54	15.31	17.09	18.86	20.63
	2.13	0.27	0.43	0.60	0.76	0.93	1.09	1.26	1.42	1.59	1.75	1.92
	90	3.10	5.00	6.89	8.79	10.69	12.59	14.48	16.38	18.28	20.18	22.07
	2.29	0.29	0.46	0.64	0.82	0.99	1.17	1.35	1.52	1.70	1.87	2.05
	96	3.30	5.32	7.34	9.37	11.39	13.41	15.43	17.45	19.47	21.49	23.51
	2.44	0.31	0.49	0.68	0.87	1.06	1.25	1.43	1.62	1.81	2.00	2.18
	102	3.57	5.76	7.94	10.13	12.32	14.50	16.69	18.87	21.06	23.25	25.43
	2.59	0.33	0.53	0.74	0.94	1.14	1.35	1.55	1.75	1.96	2.16	2.36
Height in Inches and Meters	108	3.77	6.08	8.39	10.70	13.01	15.32	17.63	19.94	22.25	24.56	26.87
	2.74	0.35	0.57	0.78	0.99	1.21	1.42	1.64	1.85	2.07	2.28	2.50
	114	3.98	6.41	8.84	11.28	13.71	16.14	18.58	21.01	23.45	25.88	28.31
	2.90	0.37	0.60	0.82	1.05	1.27	1.50	1.73	1.95	2.18	2.40	2.63
Height in Inches and Meters	120	4.18	6.73	9.29	11.85	14.41	16.96	19.52	22.08	24.64	27.19	29.75
	3.05	0.39	0.63	0.86	1.10	1.34	1.58	1.81	2.05	2.29	2.53	2.76

SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 2 of 3
Dimensions are in inches (mm).

DATE

B SERIES

SUPERSEDES

DRAWING NO.

10 - 21 - 24

1600M

7 - 31 - 24

1605WDM



EXTRUDED ALUMINUM STATIONARY LOUVER
MIAMI-DADE QUALIFIED • FLORIDA PRODUCT APPROVED
WIND-DRIVEN RAIN RESISTANT
5" (127) DEEP • HORIZONTAL BLADE • PERFORMANCE DATA
MODEL: 1605WDM

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

Free Area %		47%
Free Area sq. ft. (sq. m.)		7.59 (0.71)
I N T A K E	Free Area Velocity at Point of Beginning Water Penetration at .01 oz./sq. ft. (3 ml/sq. m) (15 min. test duration)	1250 fpm (381 m/min.)*
	Air Volume at 1250 fpm	9,488 cfm (4478 l/s)
	Free Area Velocity	
	Pressure Drop @ 1250 fpm	.36 in. w.g. (90 Pa)

NOTE: To minimize water penetration when sizing intake louvers, select a Free Area Velocity that is **below** the beginning point of water penetration.*Maximum Free Area Velocity tested is 1250 fpm. Beginning point of water penetration for this model is above 1250 fpm.

WIND DRIVEN RAIN PERFORMANCE

Core Ventilation	0	110	195	279	396	499	585	700	783	884	981
Rate in fpm (m/s)	(0.0)	(0.56)	(0.99)	(1.42)	(2.01)	(2.53)	(2.97)	(3.56)	(3.98)	(4.49)	(4.98)
Free Area Ventilation	0	216	382	547	776	978	1147	1372	1535	1733	1923
Rate in fpm (m/s)	(0.0)	(1.10)	(1.94)	(2.78)	(3.94)	(4.97)	(5.83)	(6.97)	(7.80)	(8.80)	(9.77)
Effectiveness Ratio (%)	100	100	100	100	100	99.6	99.5	99	97.3	94	91.4
Penetration Class	A	A	A	A	A	A	A	A	B	C	C

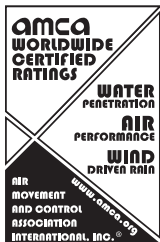
Test was based on a 39.375" x 39.375" (1.0 m x 1.0 m) core area louver tested at a rainfall rate of 3" per hour (76 mm/hour) with a wind velocity of **29 mph (13 m/s)**.

DISCHARGE LOSS COEFFICIENT CLASS (INTAKE): 3. (Discharge Loss Coefficient Classification is as follows: 1=0.4 and above, 2=0.3 to 0.399, 3 = 0.2 to 0.299, 4 = 0.199 and below.)

Core Ventilation	0	91	198	298	410	487	593	686	785	887	992
Rate in fpm (m/s)	(0.0)	(0.46)	(1.01)	(1.51)	(2.08)	(2.47)	(3.01)	(3.48)	(3.99)	(4.51)	(5.04)
Free Area Ventilation	0	178	388	584	804	955	1162	1345	1539	1739	1944
Rate in fpm (m/s)	(0.0)	(0.90)	(1.97)	(2.97)	(4.08)	(4.85)	(5.90)	(6.83)	(7.82)	(8.94)	(9.88)
Effectiveness Ratio (%)	100	99.6	99.3	99.2	98.6	98.1	97.7	96.4	93.4	89.8	85.5
Penetration Class	A	A	A	A	B	B	B	B	C	C	C

Test was based on a 39.375" x 39.375" (1.0 m x 1.0 m) core area louver tested at a rainfall rate of 8" per hour (203 mm/hour) with a wind velocity of **50 mph (22 m/s)**.

DISCHARGE LOSS COEFFICIENT CLASS (INTAKE): 3. (Discharge Loss Coefficient Classification is as follows: 1=0.4 and above, 2=0.3 to 0.399, 3 = 0.2 to 0.299, 4 = 0.199 and below.)

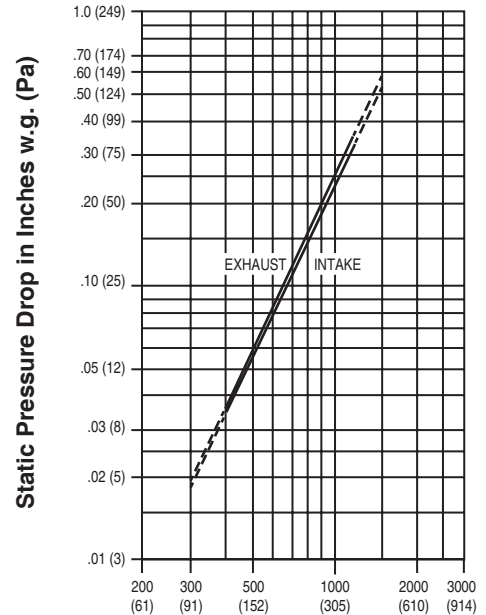


Nailor Industries Inc. certifies that the Model 1605WDM shown herein is licensed to bear the AMCA Certified Ratings Program seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Program seal applies to Water Penetration, Wind Driven Rain, and Air Performance ratings.

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



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.



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 1605WDM louver 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 less than 12 in. (305mm) and a maximum unsupported blade span of 34 in. (864mm). The AMCA International Listing Label applies to High Velocity Wind-Driven Rain Resistant Louvers tested in the fully closed position that stops airflow through a louver.

SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Page 3 of 3
Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
10 - 21 - 24	1600M	7 - 31 - 24	1605WDM



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, Corafalon® 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.

Powdura® is a registered trademark of The Sherwin-Williams Company.

Corafalon® and Envirocron® are registered trademarks of PPG Industries Ohio, Inc.

Interpon® is a registered trademark of Akzo Nobel Powder Coatings Ltd.

Kynar 500® is a registered trademark of Arkema, Inc.

Hylar 5000® is a registered trademark of Solvay Solexis, Inc.



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

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

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 1605WDM Aluminum Louver w/ and w/o Damper – L.M.I.

APPROVAL DOCUMENT: Drawing No. **1605WDM**, titled "1605WDM Louver w/ and w/o Damper", sheets 1 through 21 of 21, dated 09/18/2017, with revision B dated 08/20/2024, prepared by manufacturer, 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. 23-0724.24** 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.**



09/03/24

NOA No. 24-0516.05
Expiration Date: August 30, 2028
Approval Date: September 12, 2024
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

A. DRAWINGS “Submitted under NOA No. 18-0117.13”

1. Drawing No. **1605WDM**, titled “1605WDM Louver w/ and w/o Damper”, sheets 1 through 21 of 21, dated 09/18/17, prepared by the manufacturer, signed and sealed by Wayne K. Helmila, P.E.

B. TESTS “Submitted under NOA No. 18-0117.13”

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 1605WDM Louver System, prepared by Intertek, Test Report No. **H3539.01-801-18-R2**, dated 09/20/17 and revised on 05/24/18, signed and sealed by Tyler Westerling, P.E.
2. Test Report on Wind Driven Rain Resistance Test per TAS 100(A)-95 on a Model 1605 WDM Aluminum Louver with damper, prepared by Intertek, Test Report No. **H0223.04-801-18-R1**, dated 09/28/17 and revised on 11/21/17, signed and sealed by Tyler Westerling, P.E.
3. Test Report on High Velocity Wind Driven Rain Resistance Test per ANSI/AMCA 550-09 on a Model 1605WDM Aluminum Louver with damper, prepared by Intertek, Test Report No. **H0223.03-801-18-R1**, dated 09/28/17 and revised on 11/21/17, signed and sealed by Tyler Westerling, P.E.

C. CALCULATIONS “Submitted under NOA No. 18-0117.13”

1. Louver structural calculations dated 11/02/17, 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 “Submitted under NOA No. 18-0117.13”

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. 24-0516.05
Expiration Date: August 30, 2028
Approval Date: September 12, 2024

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. EVIDENCE SUBMITTED UNDER NOA # 21-0630.11 AND NEW

A. DRAWINGS

1. Drawing No. **1605WDM**, titled “1605WDM Louver w/ and w/o Damper”, sheets 1 through 21 of 21, dated 09/18/2017, with revision B dated 08/20/2024, 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 08/20/2024, signed and sealed by Wayne K. Helmila, P.E.
2. Statement letter of no financial interest, issued by Rice Engineering, dated 08/20/2024, signed and sealed by Wayne K. Helmila, P.E.

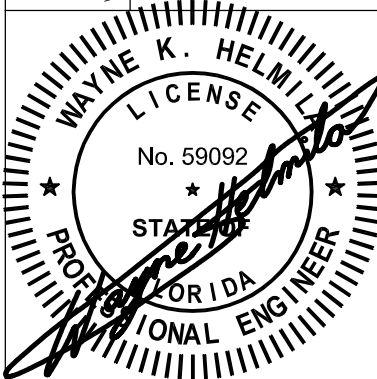
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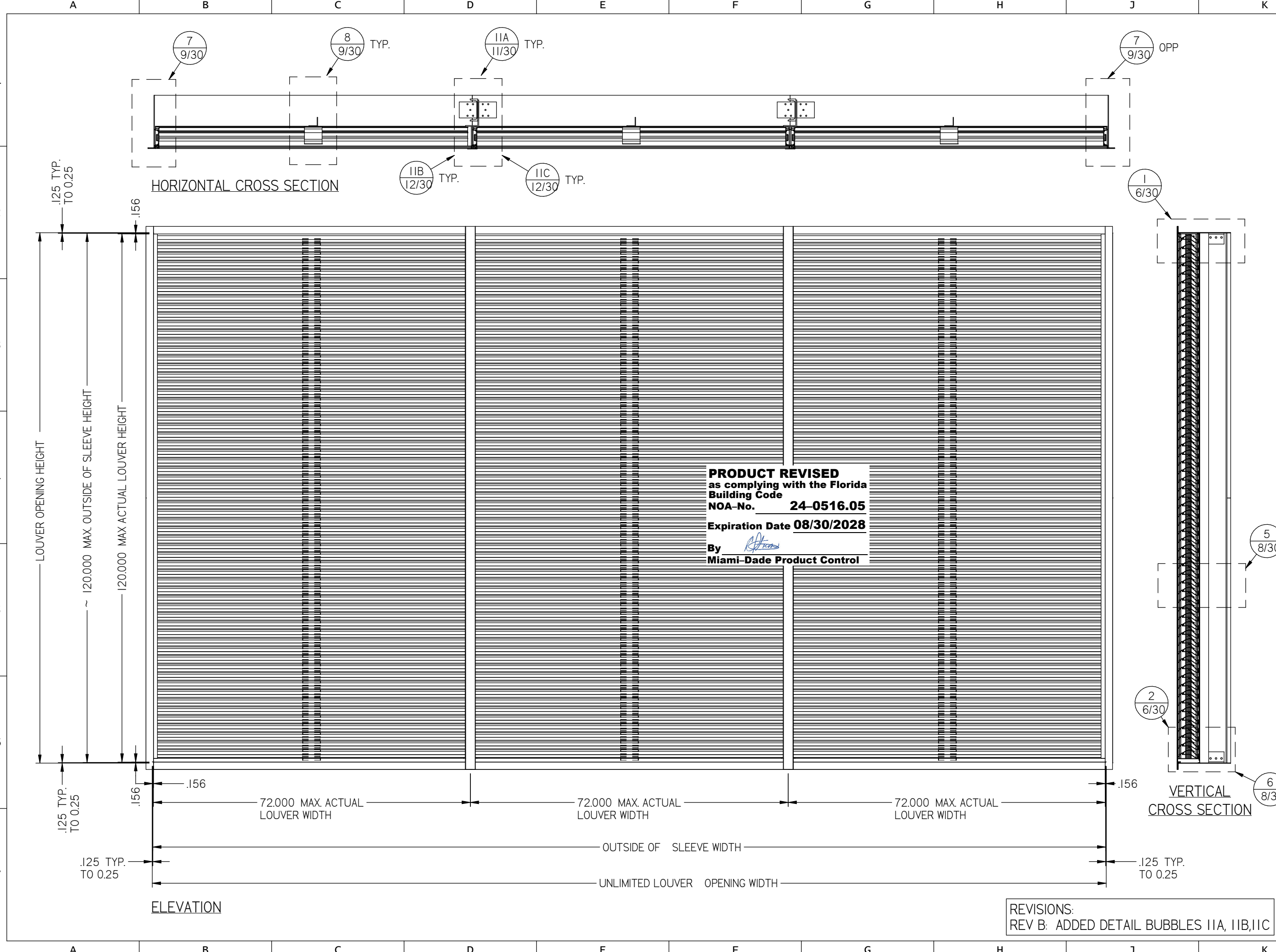
3. Statement letter of code conformance to the 7th edition (2020) FBC, issued by Rice Engineering, dated 05/19/21, signed and sealed by Wayne K. Helmila, P.E.



Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 24-0516.05

Expiration Date: August 30, 2028
Approval Date: September 12, 2024

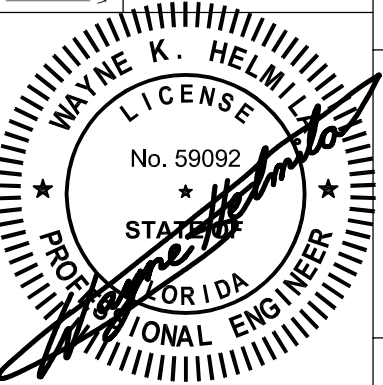
A	B	C	D	E	F	G	H	J	K	L				
DRAWING INDEX: 1. INDEX TO DRAWING AND NOTES. 2. I605WDM LOUVER- FLANGE FRAME SLEEVE MOUNT 3. I605WDM LOUVER- CONTINUOUS ANGLE MOUNT 4. I605WDM / DAMPER- FLANGE FRAME SLEEVE MOUNT 5. I605WDM / DAMPER- CONTINUOUS ANGLE MOUNT 6. I605WDM LOUVER- FLANGE FRAME SLEEVE MOUNT HEAD & SILL DETAIL 7. I605WDM LOUVER- CONTINUOUS ANGLE MOUNT & CMU MULLION ANGLE- HEAD & SILL DETAIL. 8. I605WDM LOUVER- BLADE SUPPORT DETAIL. 9. I605WDM LOUVER- FLANGE FRAME SLEEVE MOUNT JAMB & BLADE BRACE DETAIL 10. I605WDM LOUVER- CONTINUOUS ANGLE MOUNT JAMB & BLADE BRACE DETAIL 11. I605WDM LOUVER- FLANGE FRAME SLEEVE MOUNT MULLION DETAIL 12. I605WDM LOUVER- FLANGE FRAME SLEEVE MOUNT 72" BLADE MULLION DETAIL 13. I605WDM LOUVER- CONTINUOUS ANGLE MOUNT MULLION DETAIL. 14. I605WDM LOUVER- CONTINUOUS ANGLE MOUNT 72" BLADE MULLION DETAIL 15. I605WDM LOUVER / DAMPER FLANGE FRAME W/ SLEEVE & CONTINUOUS ANGLE HEAD & SILL DETAIL 16. I605WDM LOUVER-CONTINUOUS ANGLE MOUNT CMU MULLION ANGLE -HEAD & SILL DETAIL 17. I605WDM LOUVER / DAMPER- FLANGE FRAME SLEEVE MOUNT JAMB AND MULLION DETAIL 18. I605WDM LOUVER / DAMPER - FLANGE FRAME SLEEVE MOUNT 36" BLADE MULLION DETAIL 19. I605WDM LOUVER / DAMPER CONTINUOUS ANGLE MOUNT JAMB AND MULLION DETAIL 20. I605WDM LOUVER / DAMPER - CONTINUOUS ANGLE MOUNT 36" BLADE MULLION DETAIL 21. I605WDM LOUVER W/ AND W/O DAMPER- SLEEVE / CONTINUOUS MOUNT PART PROFILES. 22. I605WDM LOUVER W/ AND W/O DAMPER- SLEEVE / CONTINUOUS MOUNT PART PROFILES CONT. 23. 22" MULLION ANGLES BACK OF WALL MOUNT 24. 30" MULLION ANGLE - 22" MULLION ANGLES BACK OF THE WALL MOUNT 25. 16" MULLION ANGLES- BACK OF THE WALL MOUNTS 26. 30" CMU MULLION ANGLE- BACK OF THE WALL 27. I605WDM LOUVER W/ AND W/O DAMPER AVAILABLE SHAPES 28. I605WDM LOUVER W/ AND W/O DAMPER- SLEEVE / CONTINUOUS MOUNT BILL OF MATERIAL. 29. I605WDM LOUVER W/ AND W/O DAMPER SLEEVE FASTENER SCHEDULE. 30. I605WDM LOUVER W/ AND W/O DAMPER SLEEVE GENERAL NOTES			NOTES: 1) THE I605WDM HAS BEEN TESTEDIN ACCORDANCE WITH THE MIAMI-DADE COUNTY PROTOCOLS 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: TAS100 A WIND DRIVEN RAIN RESISTANCE W/ DAMPER TAS-201 LARGE MISSILE IMPACT TAS-202 UNIFORM STATIC AIR PRESSURE TEST TAS-203 CYCLIC WIND PRESUSRE TEST DESIGN PRESSURE RATING 150 PSF			CHK BY: Mastourian	SCALE: NTS	SHEET: 1 OF 30	REV B		
									DWN BY: fcortinas	DATE: 9/18/2017		DWG. NO. 1605WDM		
 Nailor Industries Inc. 4714 Winfield Road Houston, TX 77039 TEL: 281-590-1172 FAX: 281-590-3086 www.nailor.com			TITLE: 1605WDM LOUVER W/ AND W/O DAMPER INDEX			 08/20/2024 COA: 9090			PRODUCT REVISED as complying with the Florida Building Code NOA-No. 24-0516.05 Expiration Date 08/30/2028 By  Miami-Dade Product Control			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		
									REVISIONS: REV B: UPDATED DRAWING INDEX					
A	B	C	D	E	F	G	H	J	K	L				



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as complying with the Florida
Building Code
NOA-No. **24-0516.05**
Expiration Date **08/30/2028**
By *[Signature]*
Miami-Dade Product Control

REVISIONS:
REV B: ADDED DETAIL BUBBLES 11A, 11B, 11C

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

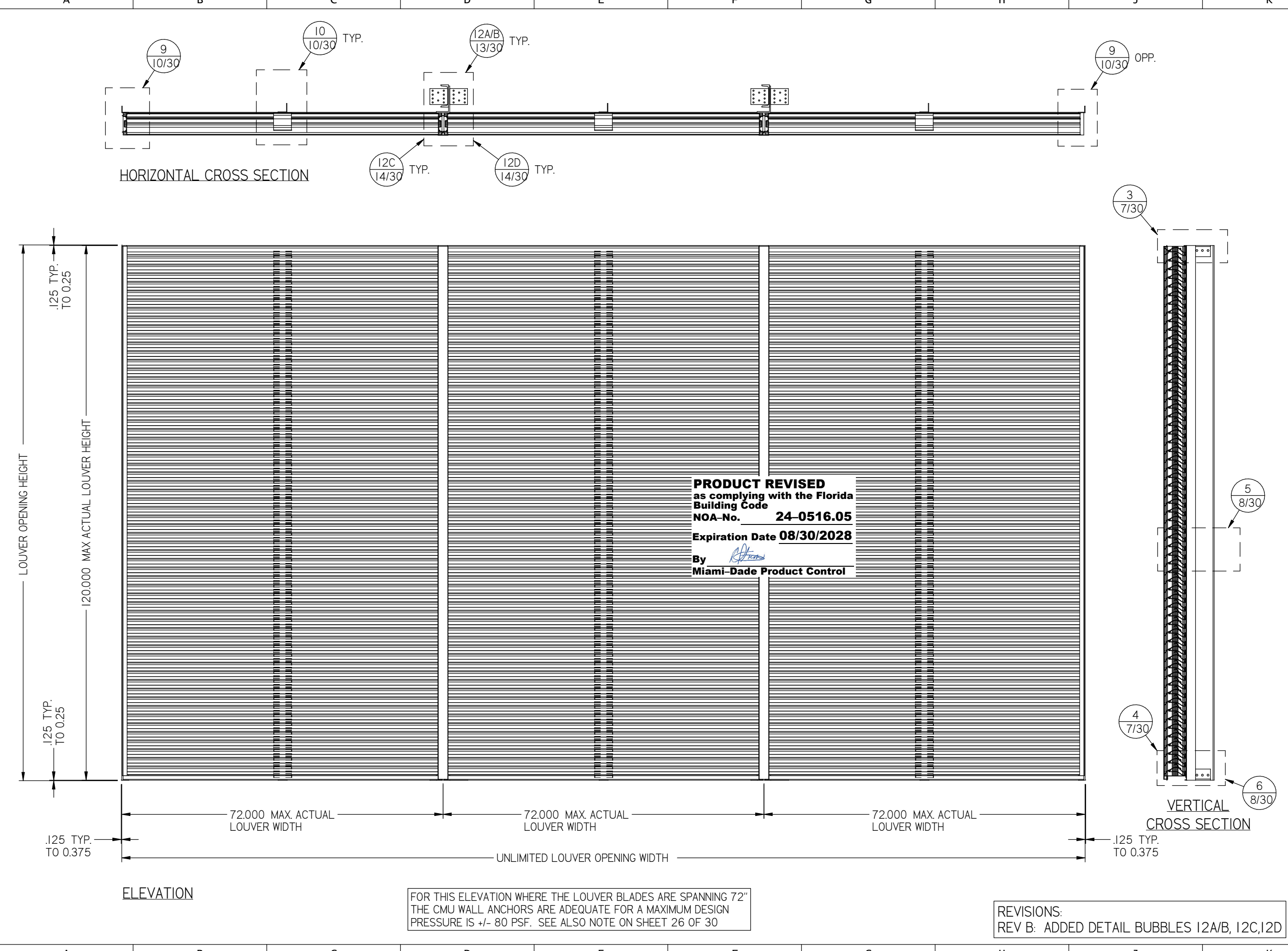


08/20/2024
COA: 9090

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

DWN BY: fcortinas CHK BY: Mastourian
DATE: 9/18/2017 SCALE: NTS
SHEET: 2 OF 30
DWG. NO. **1605WDM** REV B

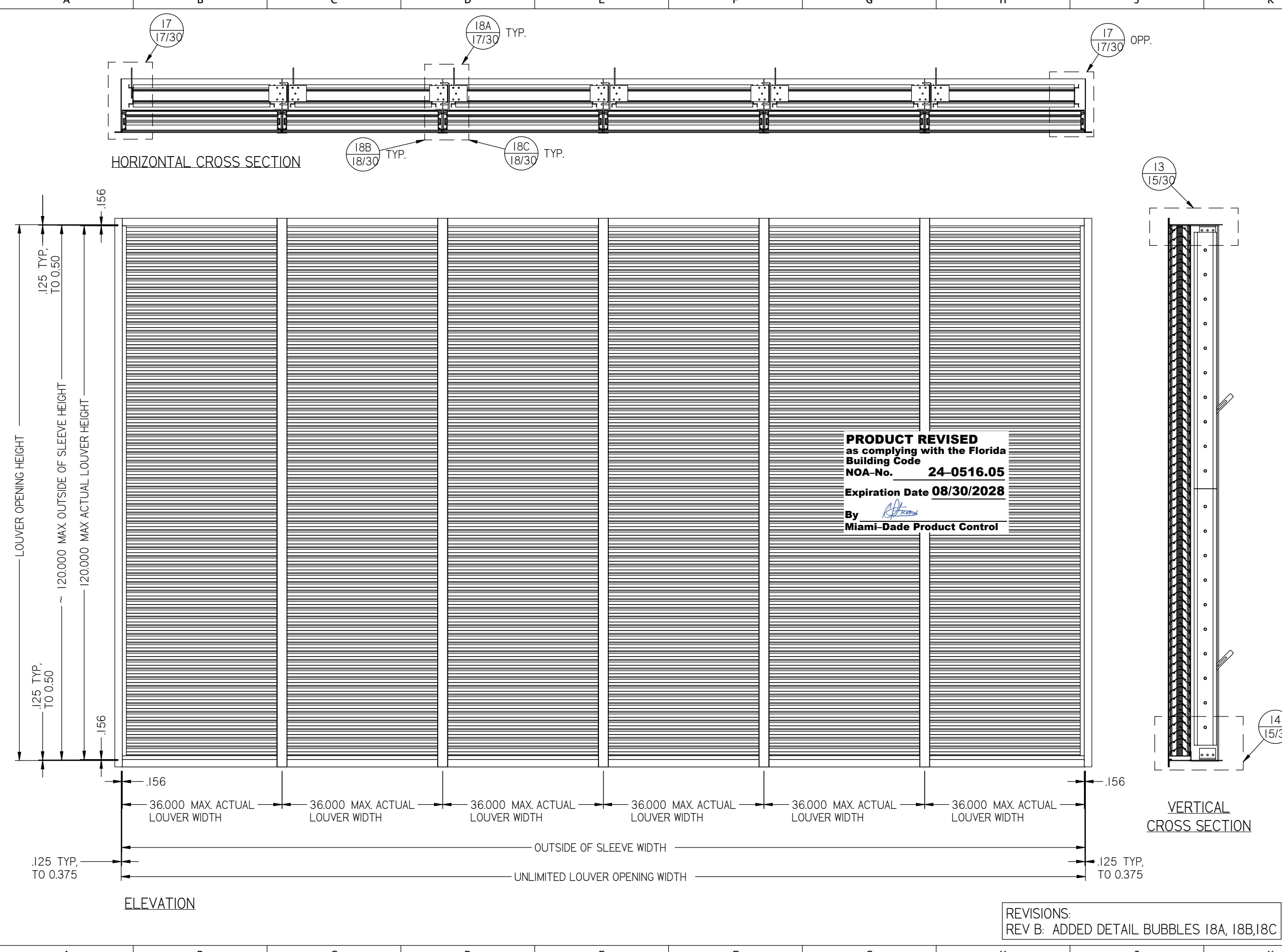


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DATE: 9/18/2017		SCALE: NTS	
SHEET: 3 OF 30		DWG. NO. 1605WDM	
Nailor Industries Inc. 4714 Winfield Road Houston, TX 77039 TEL: 281-590-1172 FAX: 281-590-3086 www.nailor.com		TITLE: 1605WDM LOUVER COUNTINOUS ANGLE MOUNT	
		RICE ENGINEERING 105 School 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	

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FOR THIS ELEVATION WHERE THE LOUVER BLADES ARE SPANNING 72"
THE CMU WALL ANCHORS ARE ADEQUATE FOR A MAXIMUM DESIGN
PRESSURE IS +/- 80 PSF. SEE ALSO NOTE ON SHEET 26 OF 30

REVISIONS:
REV B: ADDED DETAIL BUBBLES 12A/B, 12C, 12D



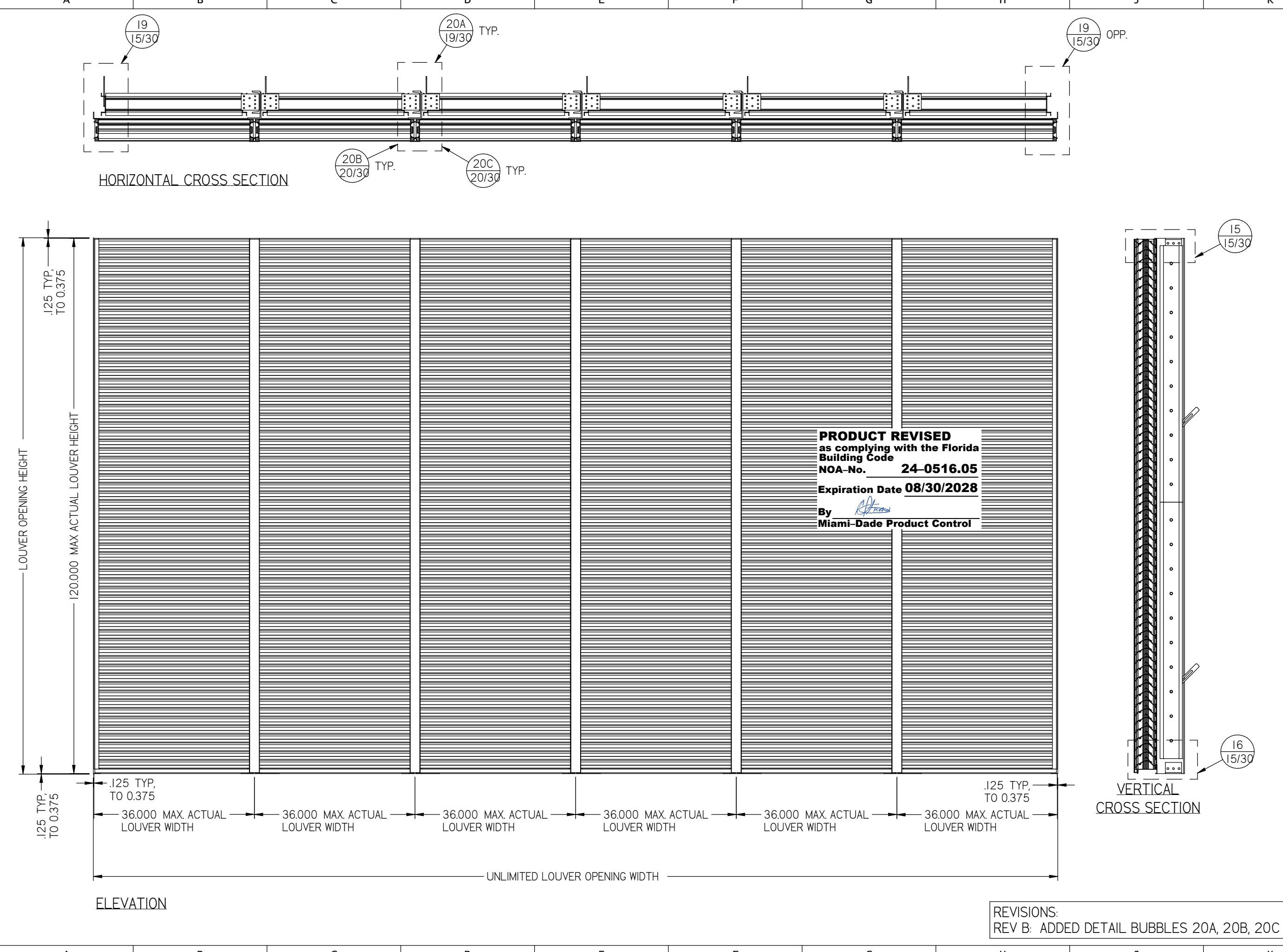
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DATE: 9/18/2017		SCALE: NTS	
SHEET: 4 OF 30		REV B	
DWG. NO. 1605WDM			

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

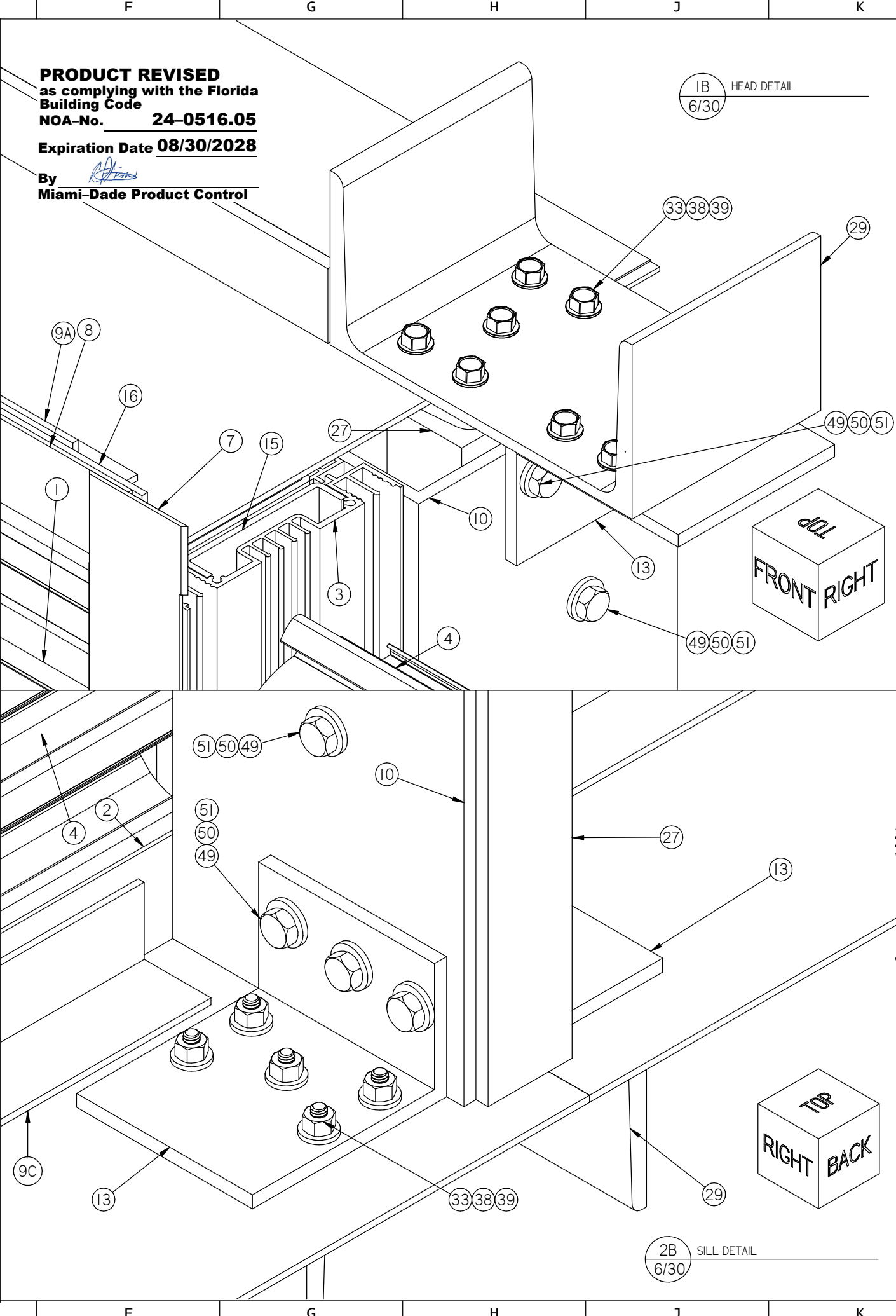
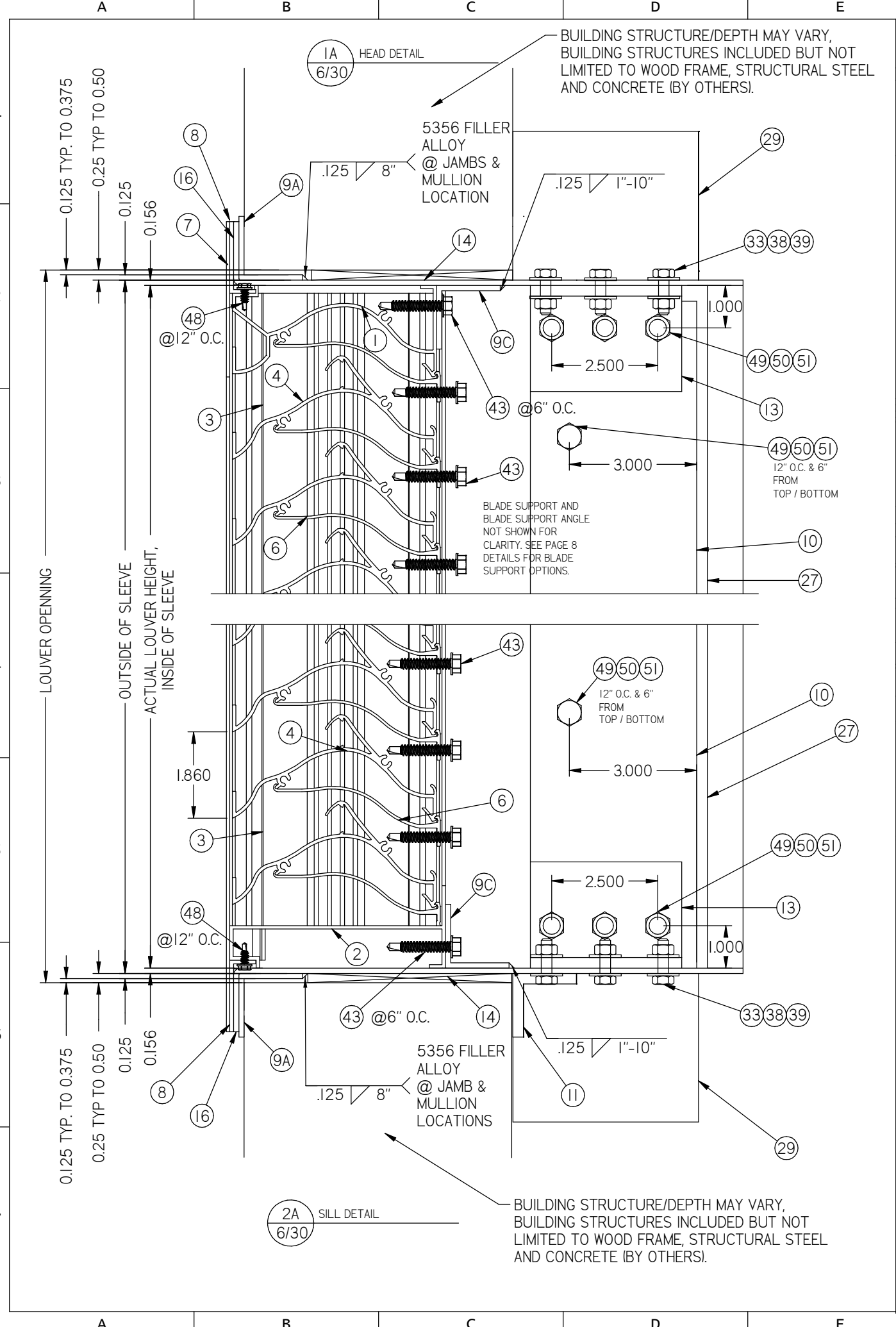
TITLE:
1605WDM / DAMPER
FLANGE FRAME
SLEEVE MOUNT

WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF FLORIDA
PROFESSIONAL ENGINEER
08/20/2024
COA: 9090

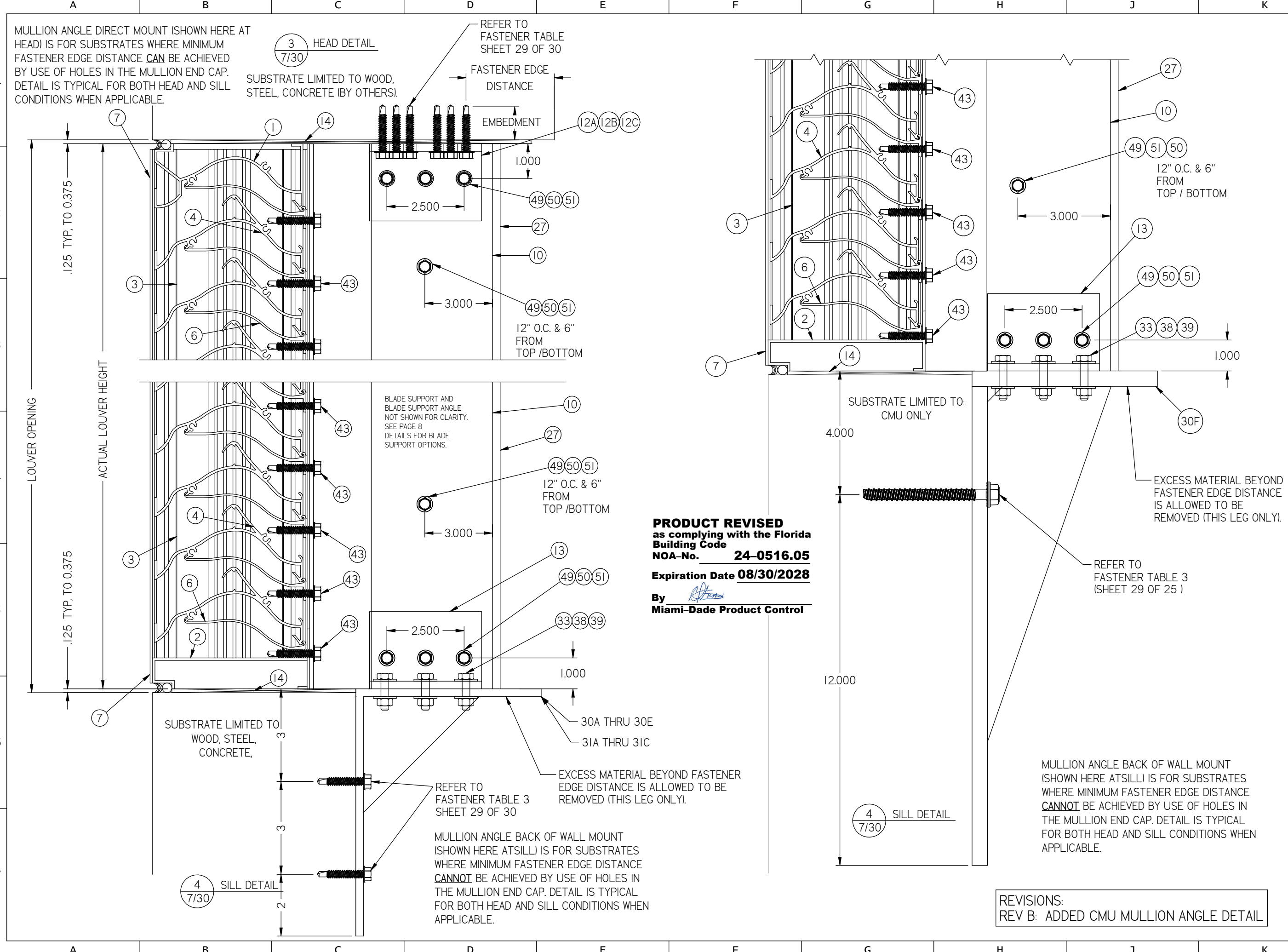
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105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092



DWN BY: f cortinas	CHK BY: Mastourian	DATE: 9/18/2017	SCALE: NTS	SHEET: 5 OF 30	REV
					B
DWN BY: f cortinas		CHK BY: Mastourian		DWG. NO.	1605WDM
Nailor Industries Inc. 4714 Winfield Road Houston, TX 77039 TEL: 281-590-1172 FAX: 281-590-3086 www.nailor.com		TITLE: 1605WDM / DAMPER CONTINUOUS ANGLE MOUNT		08/20/2024 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		WAYNE K. HELMILA LICENSE No. 59092 STATE OF FLORIDA PROFESSIONAL ENGINEER 08/20/2024 COA: 9090			



DWN BY: f cortinas		CHK BY: Mastourian	SHEET: 6 OF 30	REV B
DATE: 9/18/2017		SCALE: NTS		
Nailor Industries Inc. 4714 Winfield Road Houston, TX 77039 TEL: 281-590-1172 FAX: 281-590-3086 www.nailor.com		TITLE: 1605WDM LOUVER FLANGE FRAME SLEEVE MOUNT HEAD & SILL DETAIL		
WAYNE K. HELMILIA LICENSE No. 59092 STATE OF FLORIDA PROFESSIONAL ENGINEER 08/20/2024 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				



DWN BY: f cortinas		CHK BY: Mastourian
DATE: 9/18/2017		SCALE: NTS
SHEET: 7 OF 30		
DWG. NO. 1605WDM		REV B

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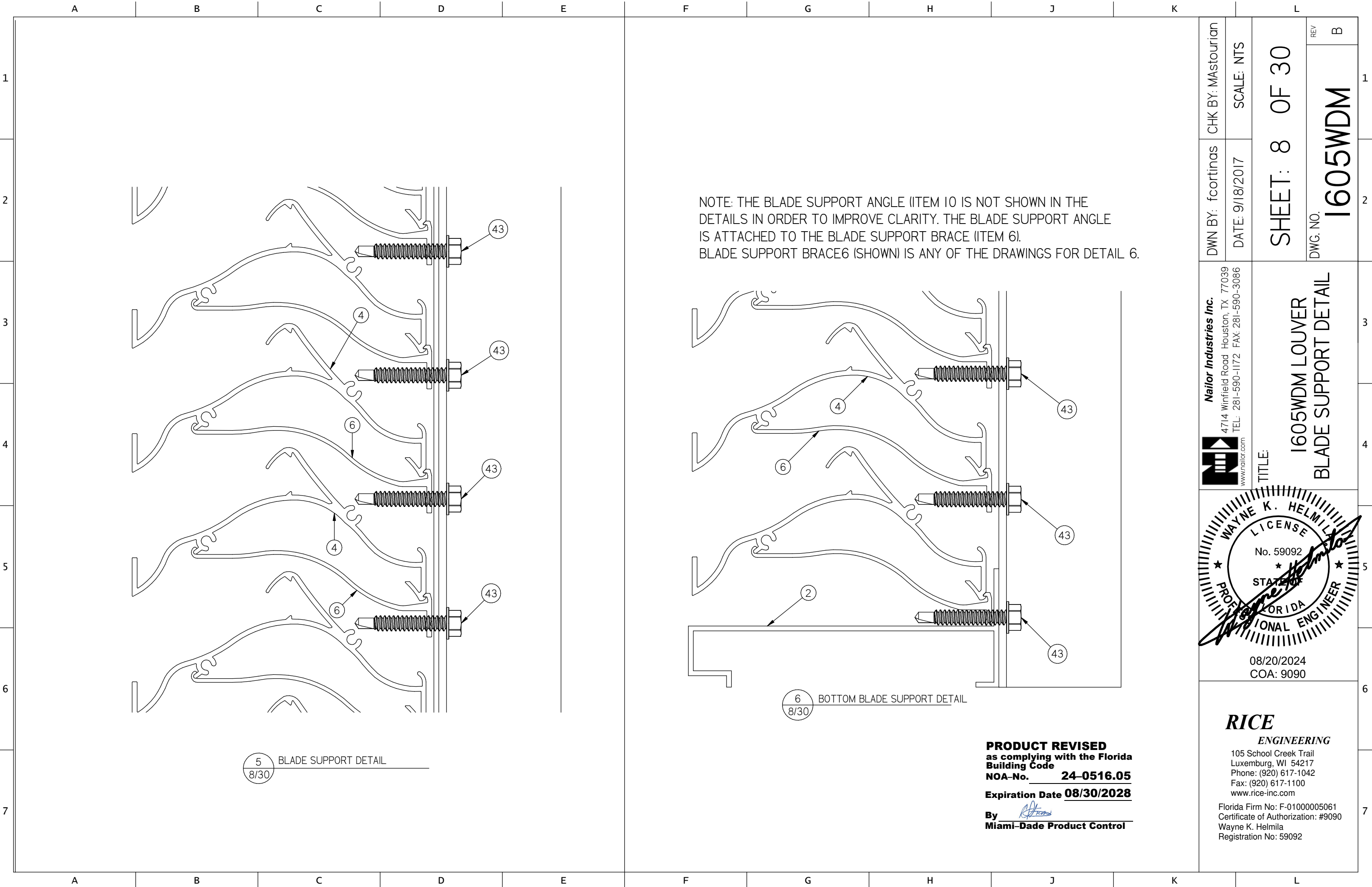
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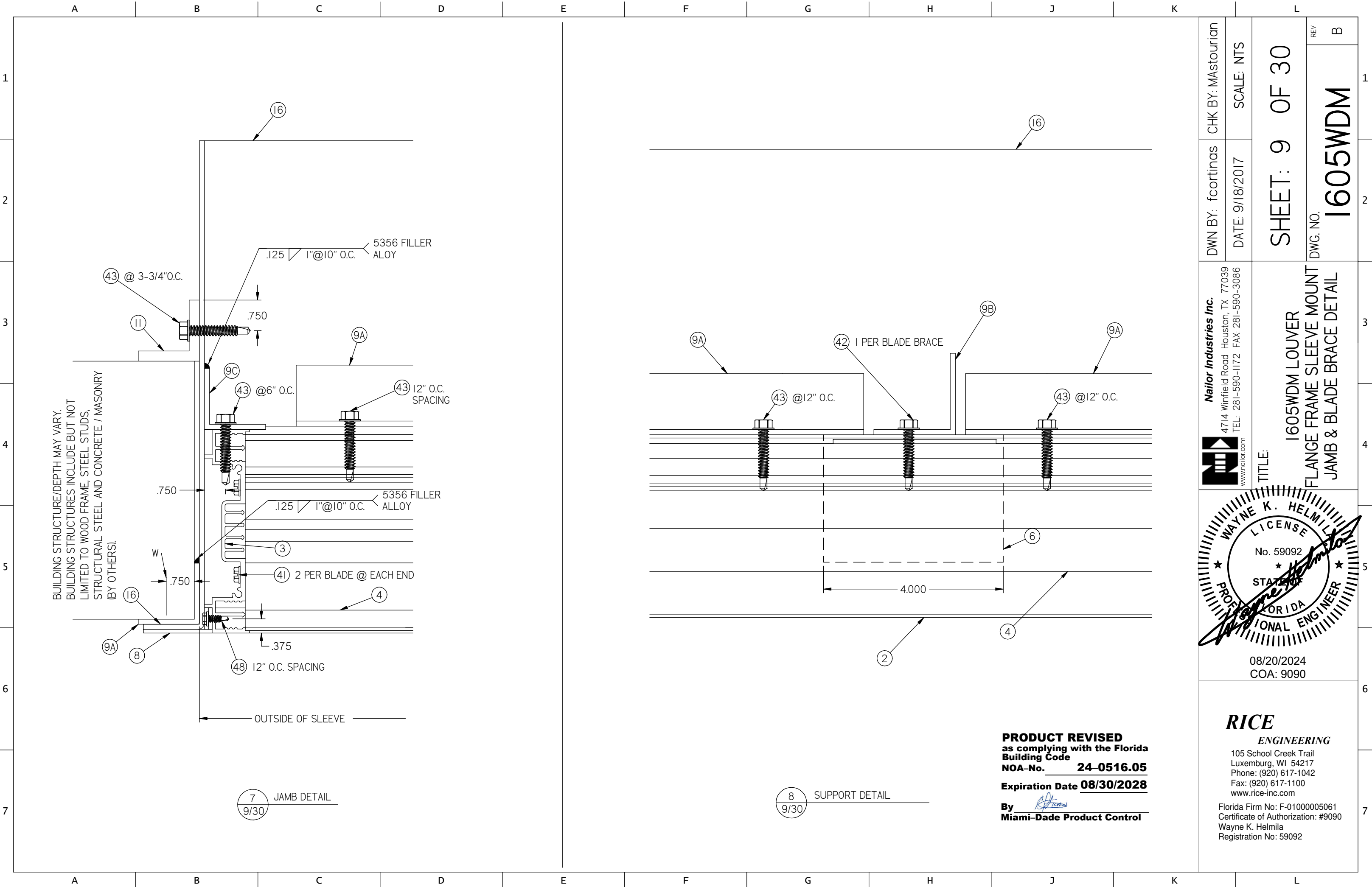
WAYNE K. HELMILA
LICENSE No. 59092
STATE OF FLORIDA
PROFESSIONAL ENGINEER
08/20/2024 COA: 9090

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Registration No: 59092

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REVISIONS:
REV B: ADDED CMU MULLION ANGLE DETAIL





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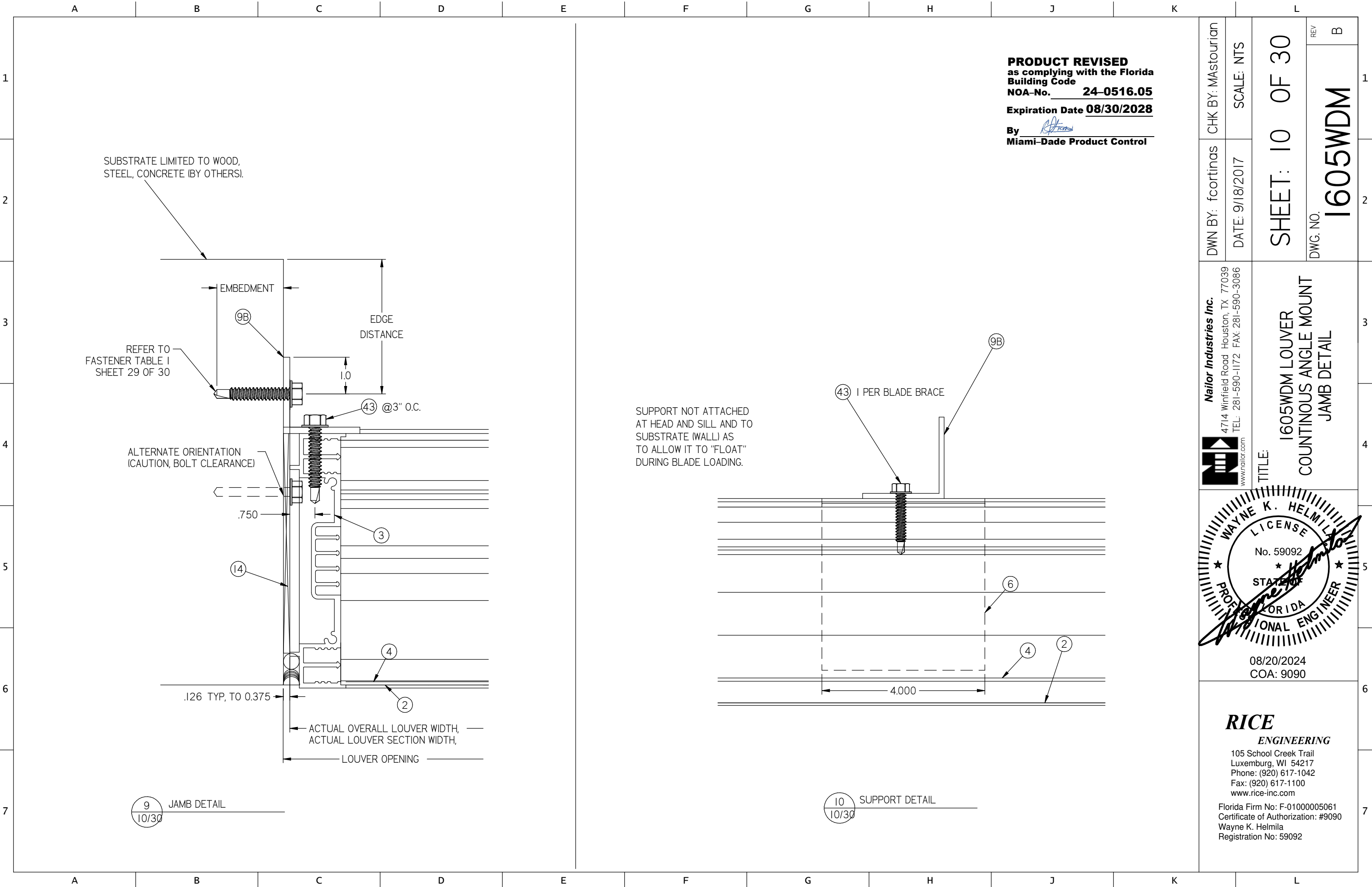
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DATE: 9/18/2017
CHK BY: Mastourian
SCALE: NTS
SHEET: 9 OF 30
DWG. NO. 1605WDM
REV. B

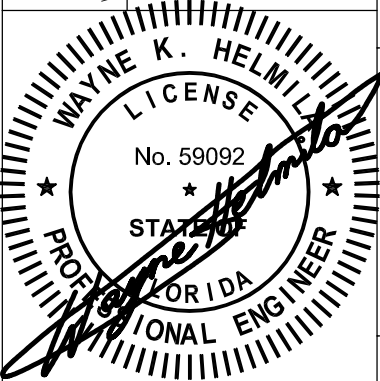
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1605WDM LOUVER
FLANGE FRAME SLEEVE MOUNT
JAMB & BLADE BRACE DETAIL

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 24-0516.05
Expiration Date 08/30/2028
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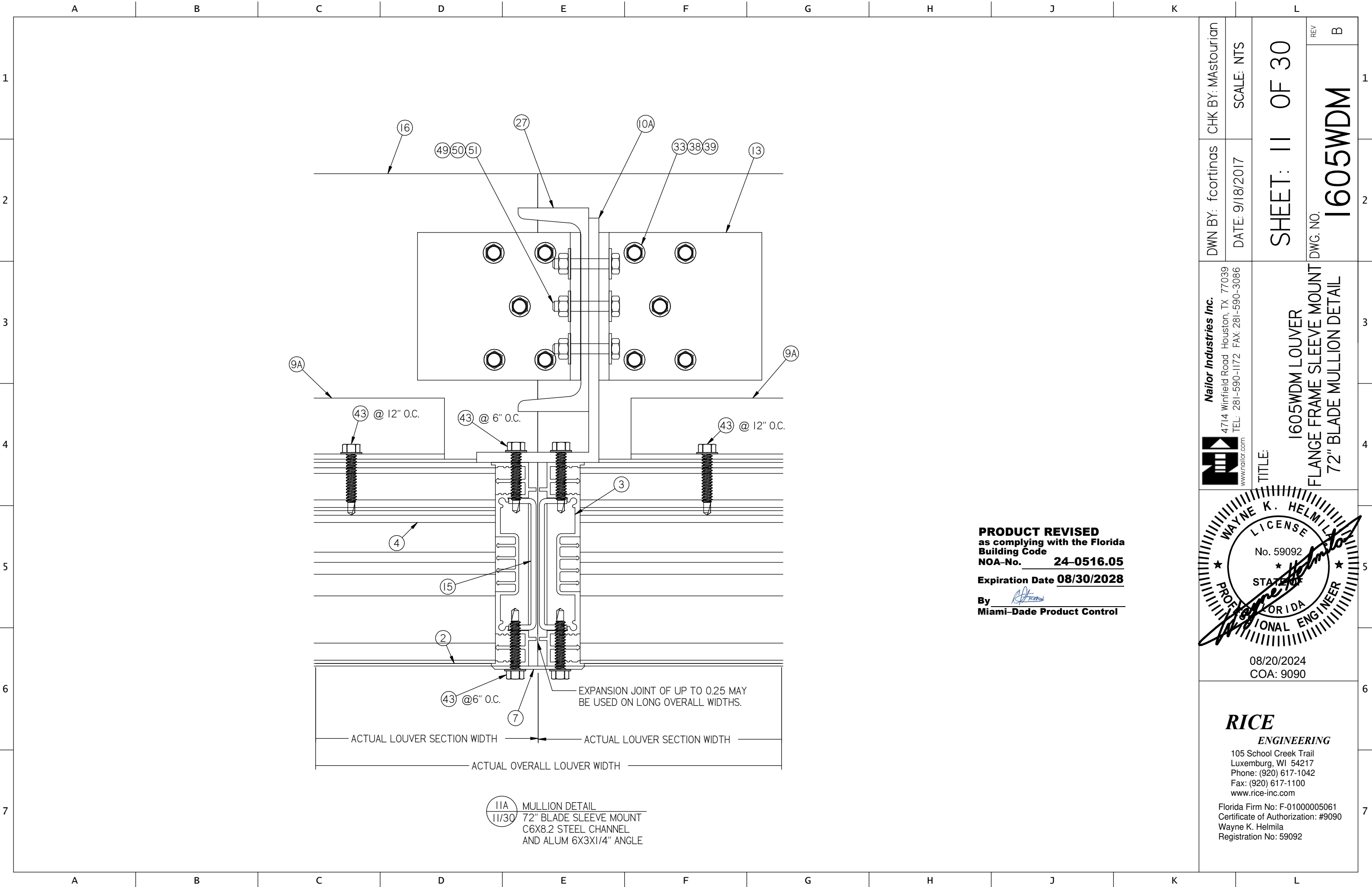


08/20/2024
COA: 9090

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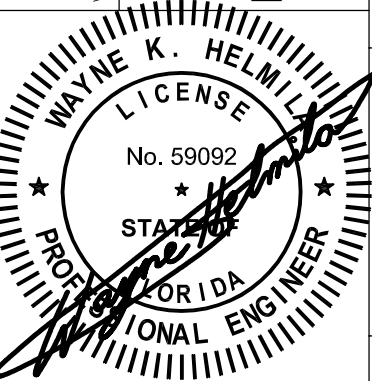
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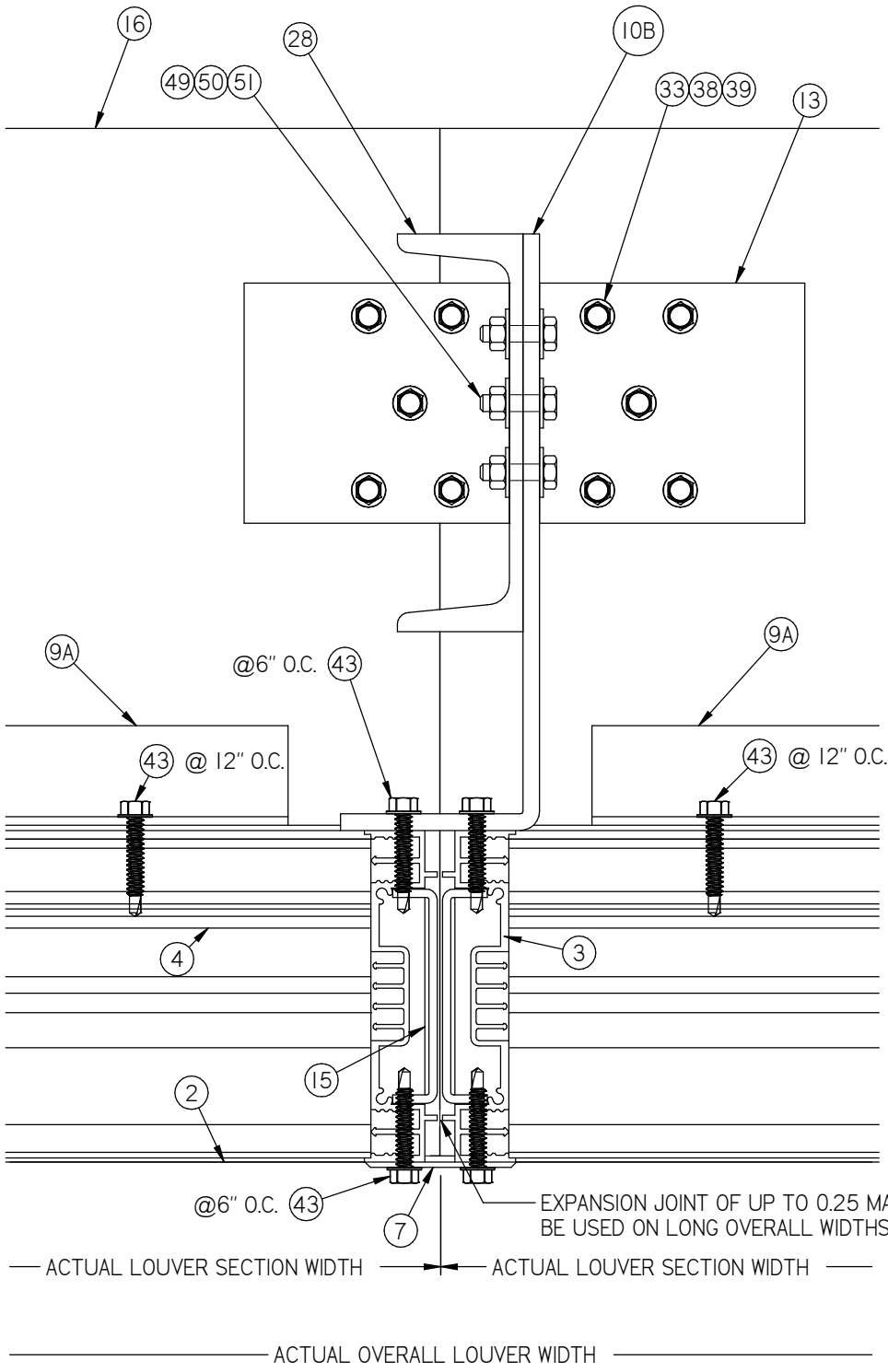


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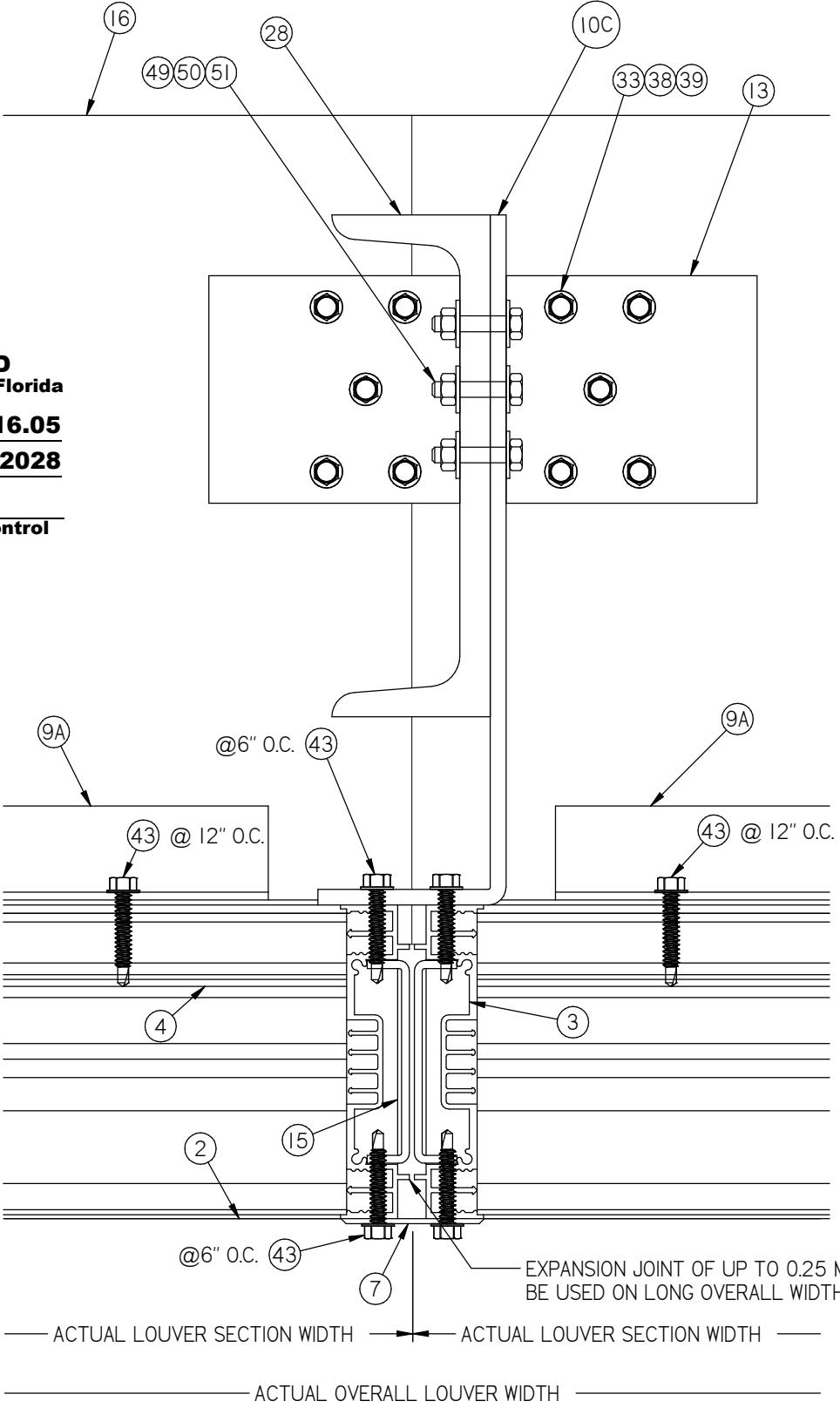
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

DWN BY: fcortinas
CHK BY: Mastourian
DATE: 9/18/2017
SCALE: NTS
SHEET: 11 OF 30
DWG. NO. 1605WDM
REV B



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11B MULLION DETAIL
12/30 72" BLADE SLEEVE MOUNT
C8X18.75 STEEL CHANNEL
AND ALUM 9X3X1/4" ANGLE



11C MULLION DETAIL
12/30 72" BLADE SLEEVE MOUNT
C8X18.75 STEEL CHANNEL
AND ALUM 11X3X1/4" ANGLE

REVISIONS:
REV B: ADDED PAGE DETAIL 11B, 11C

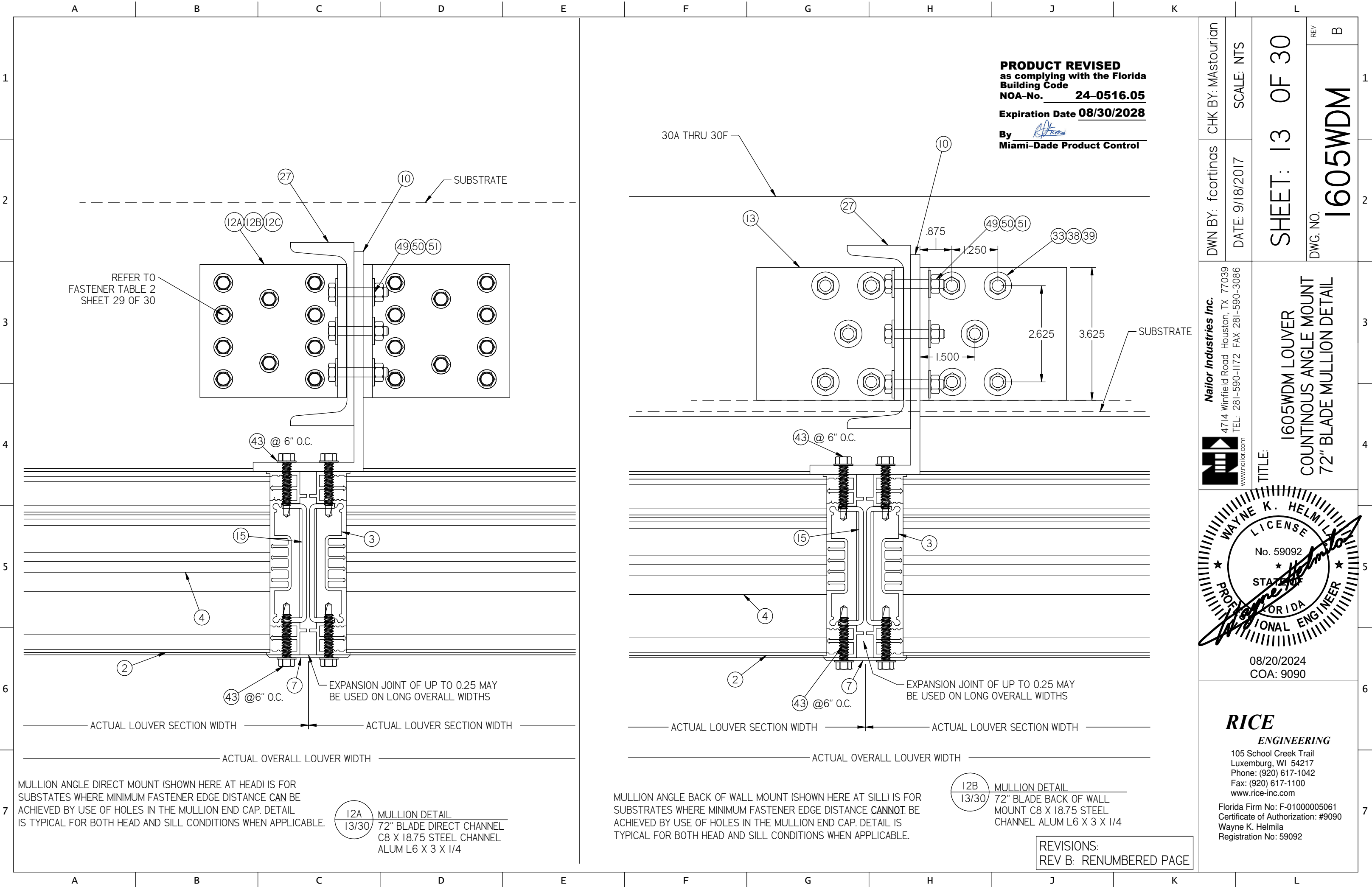
Nailor Industries Inc.
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TEL: 281-590-1172 FAX: 281-590-3086
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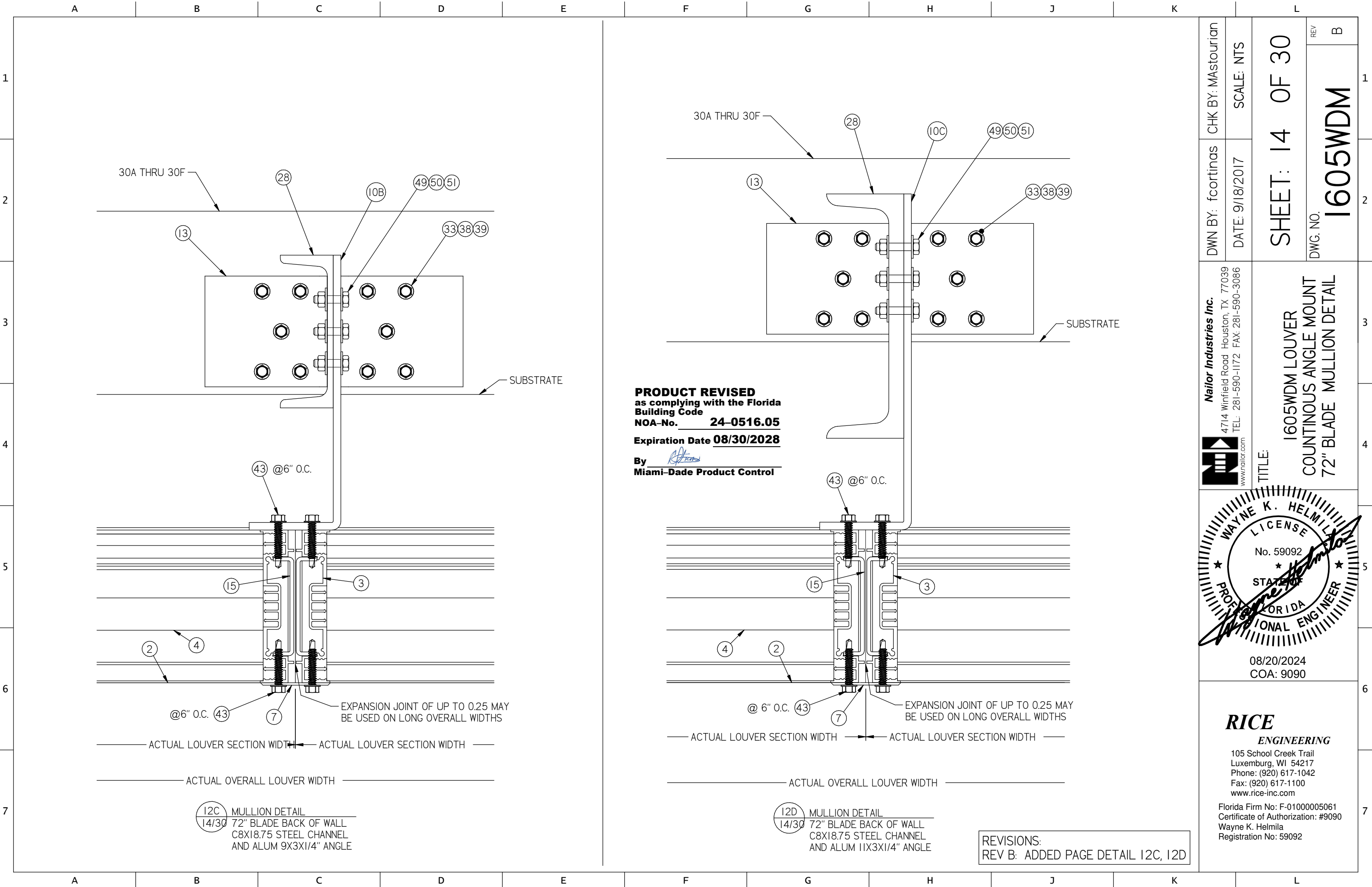


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DATE: 9/18/2017	SCALE: NTS
SHEET: 12 OF 30	
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1605WDM	

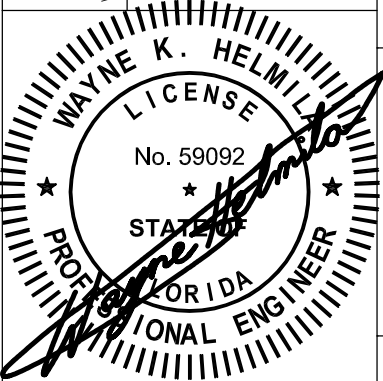




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REVISIONS:
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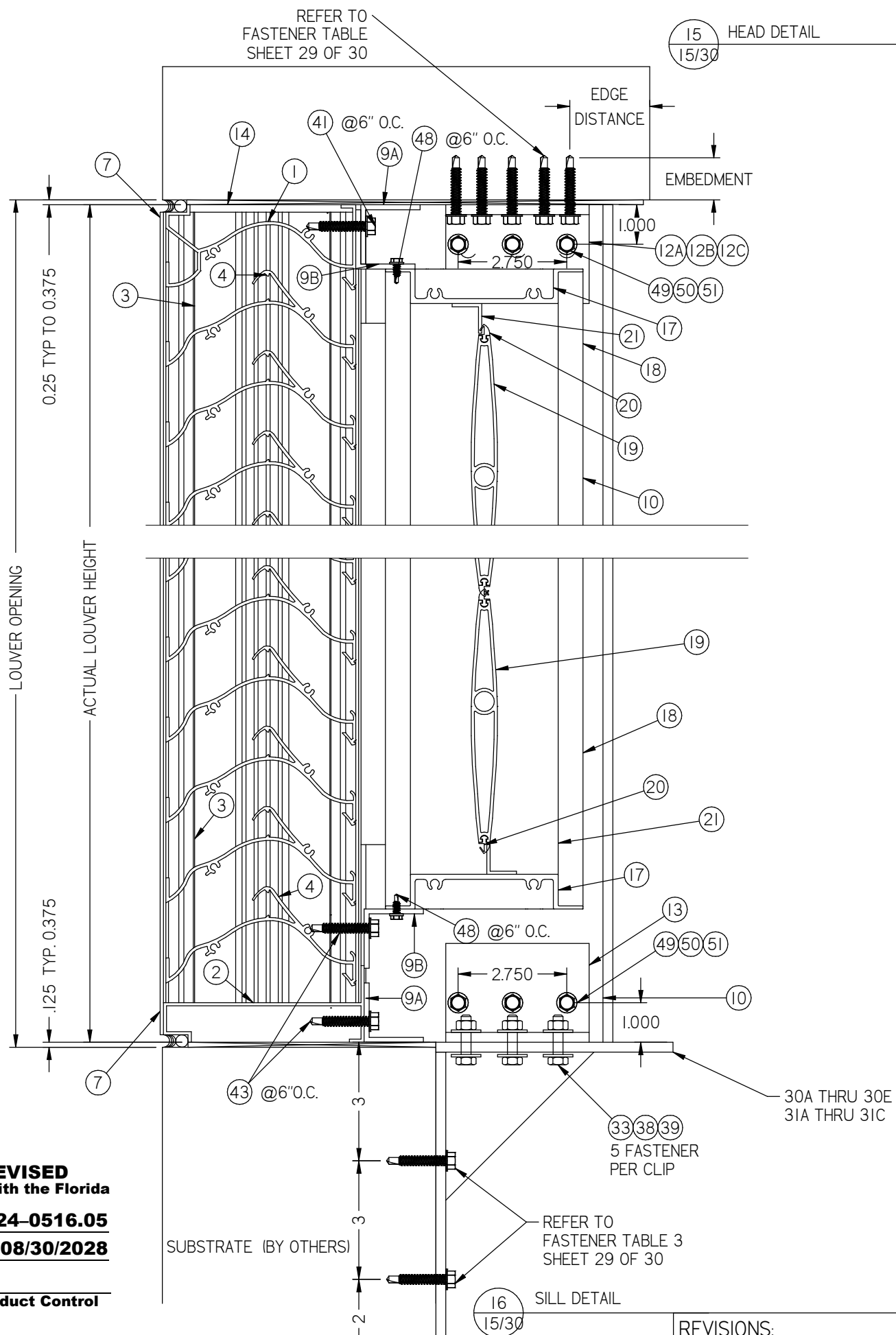
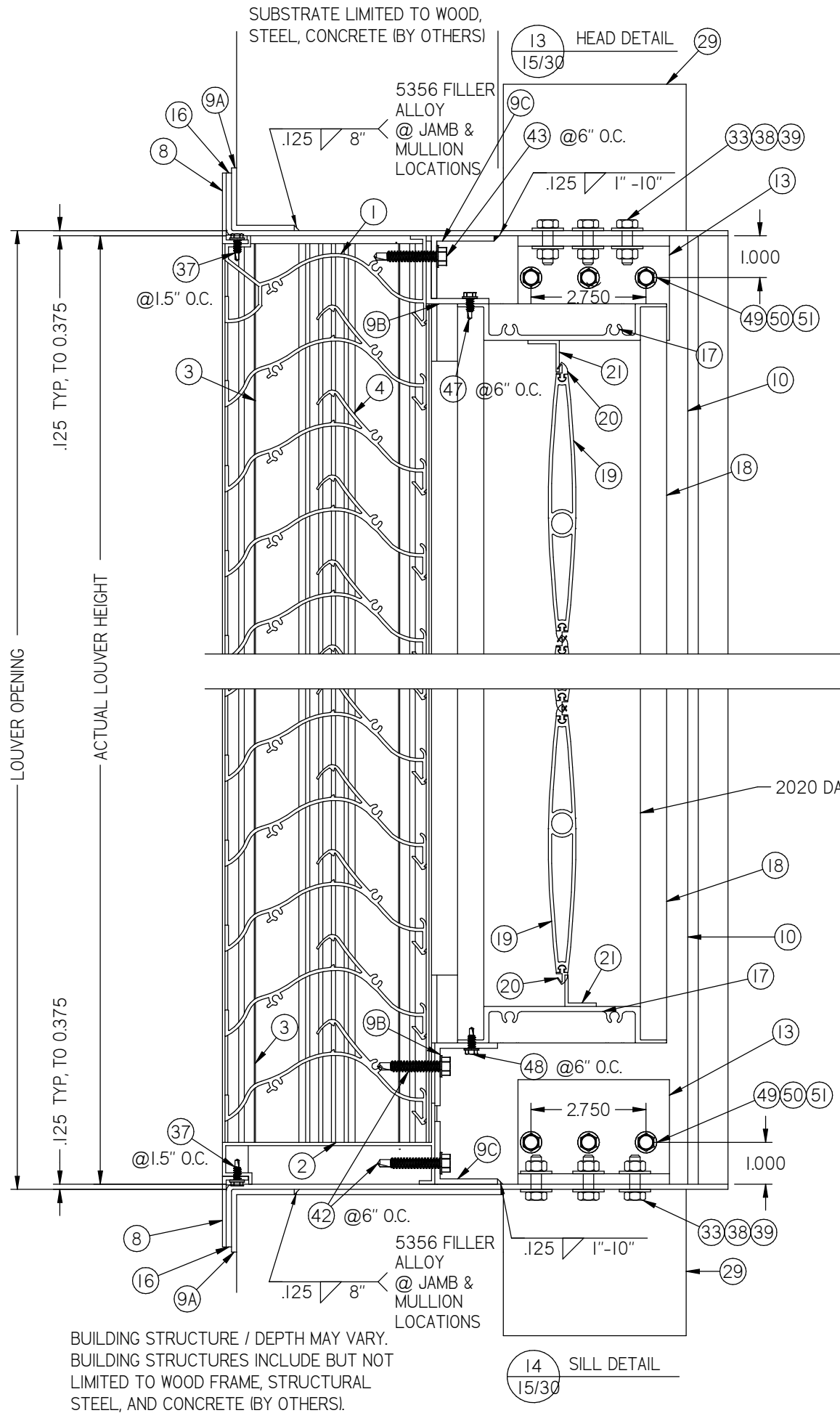
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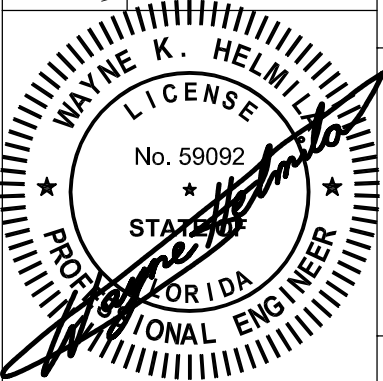
Florida Firm No: F-01000005061
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REV B: RENUMBERED PAGE

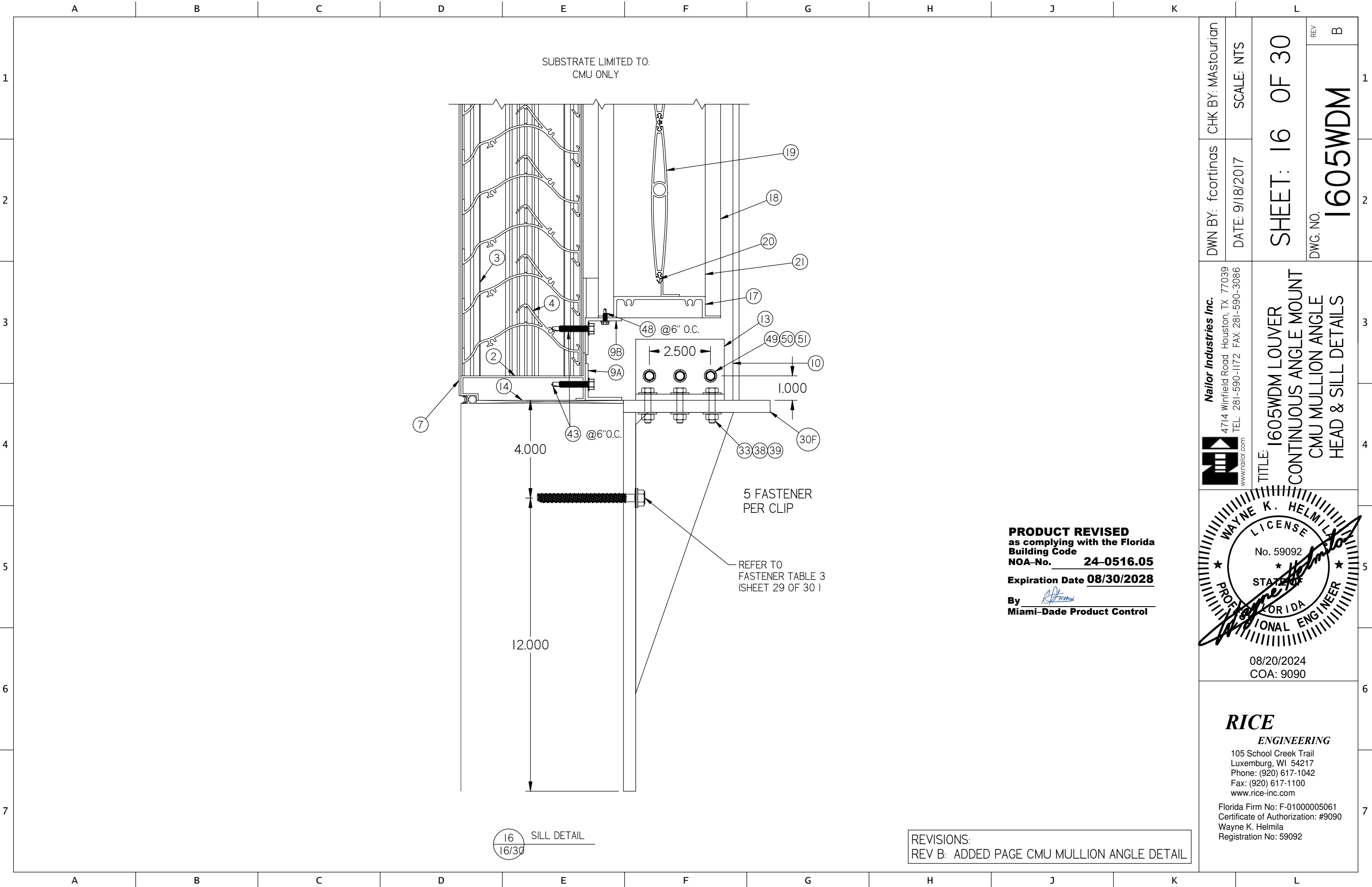
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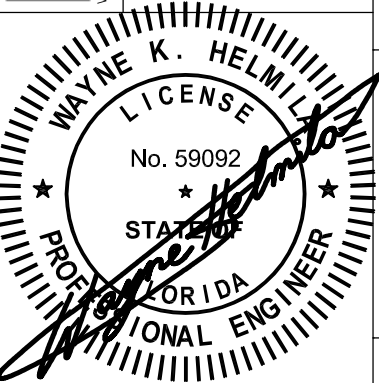
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DWN BY: f cortinas
CHK BY: Mastourian
DATE: 9/18/2017
SCALE: NTS
SHEET: 15 OF 30
DWG. NO. **1605WDM**
REV B



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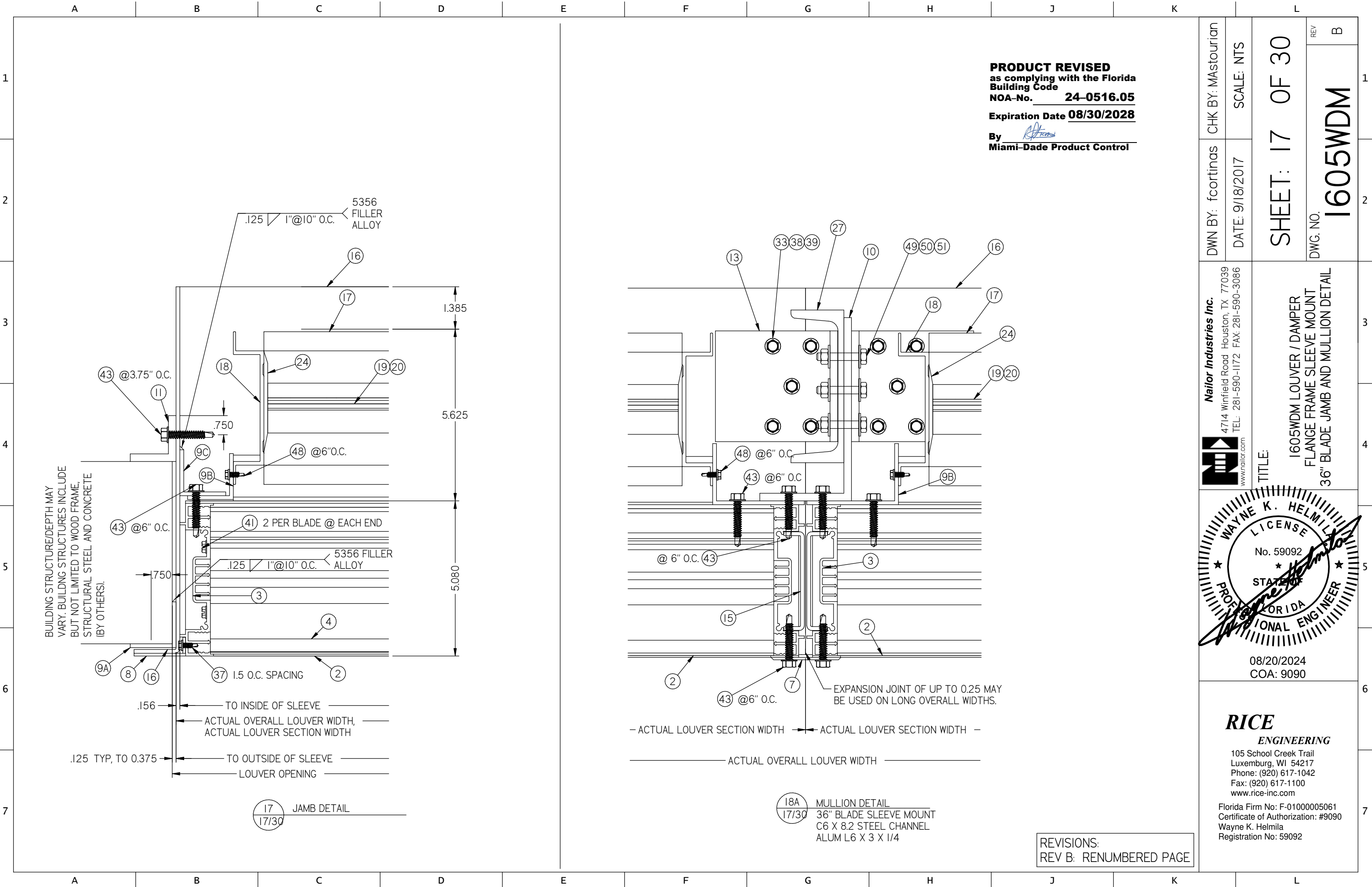


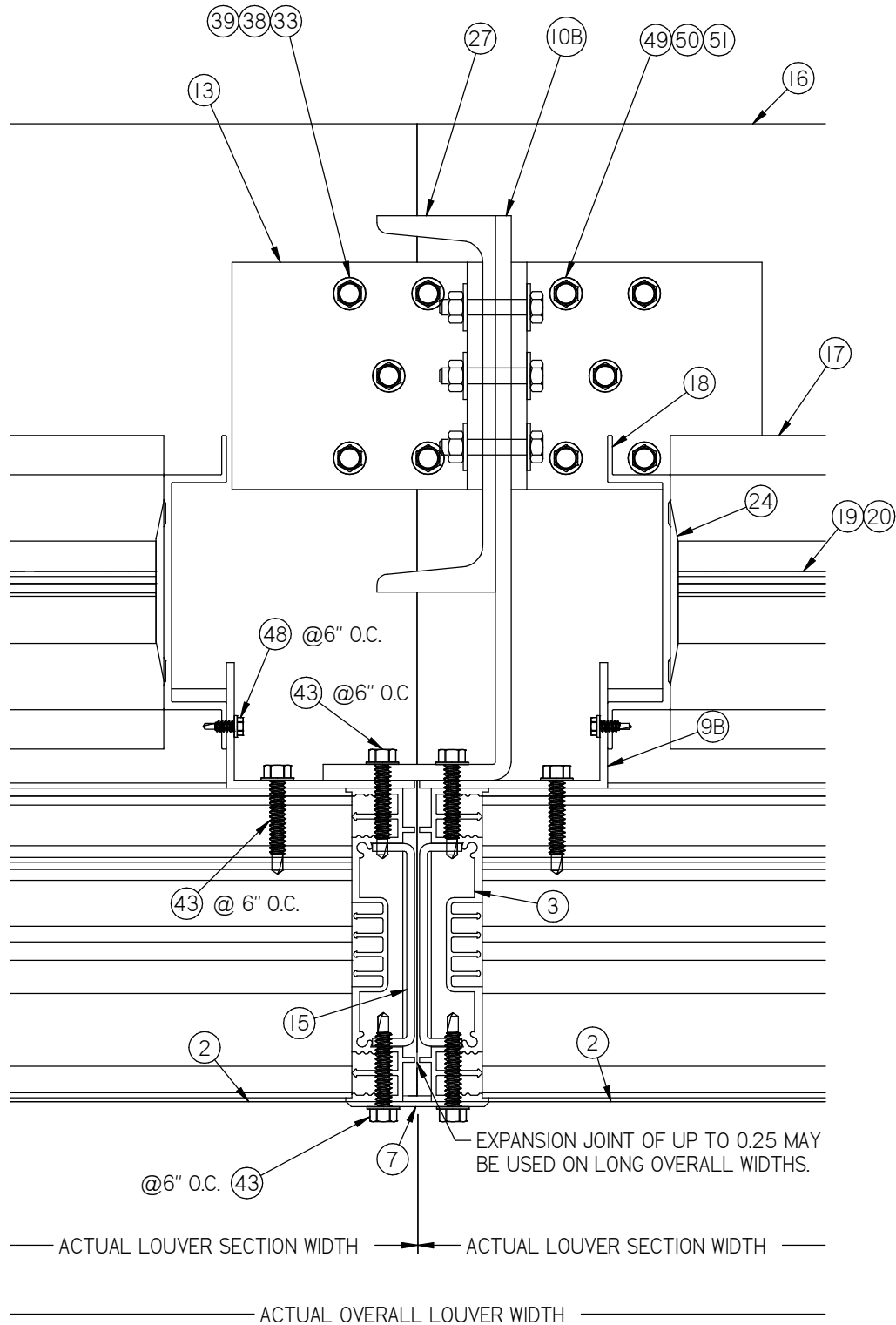
08/20/2024
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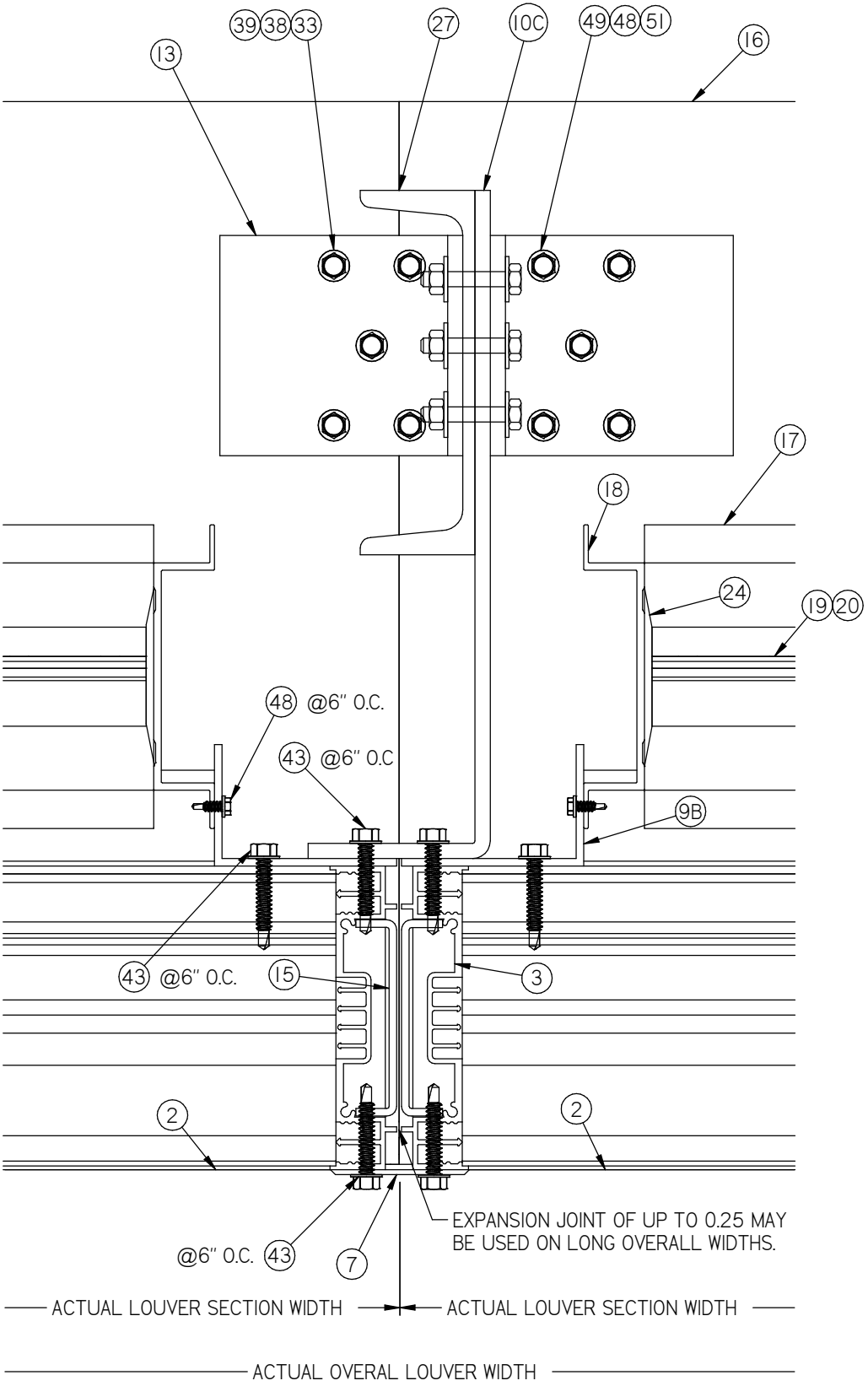
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18B MULLION DETAIL
18/30 36\"/>

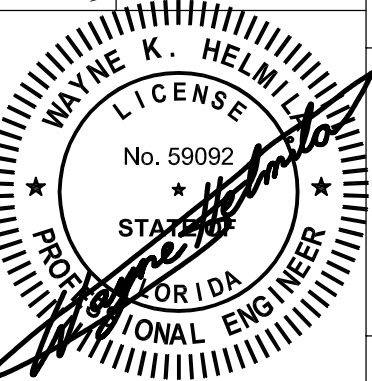
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18C MULLION DETAIL
18/30 36\"/>

REVISIONS:
REV B: ADDED PAGE MULLION DETAILS

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TEL: 281-590-1172 FAX: 281-590-3086
www.nailor.com



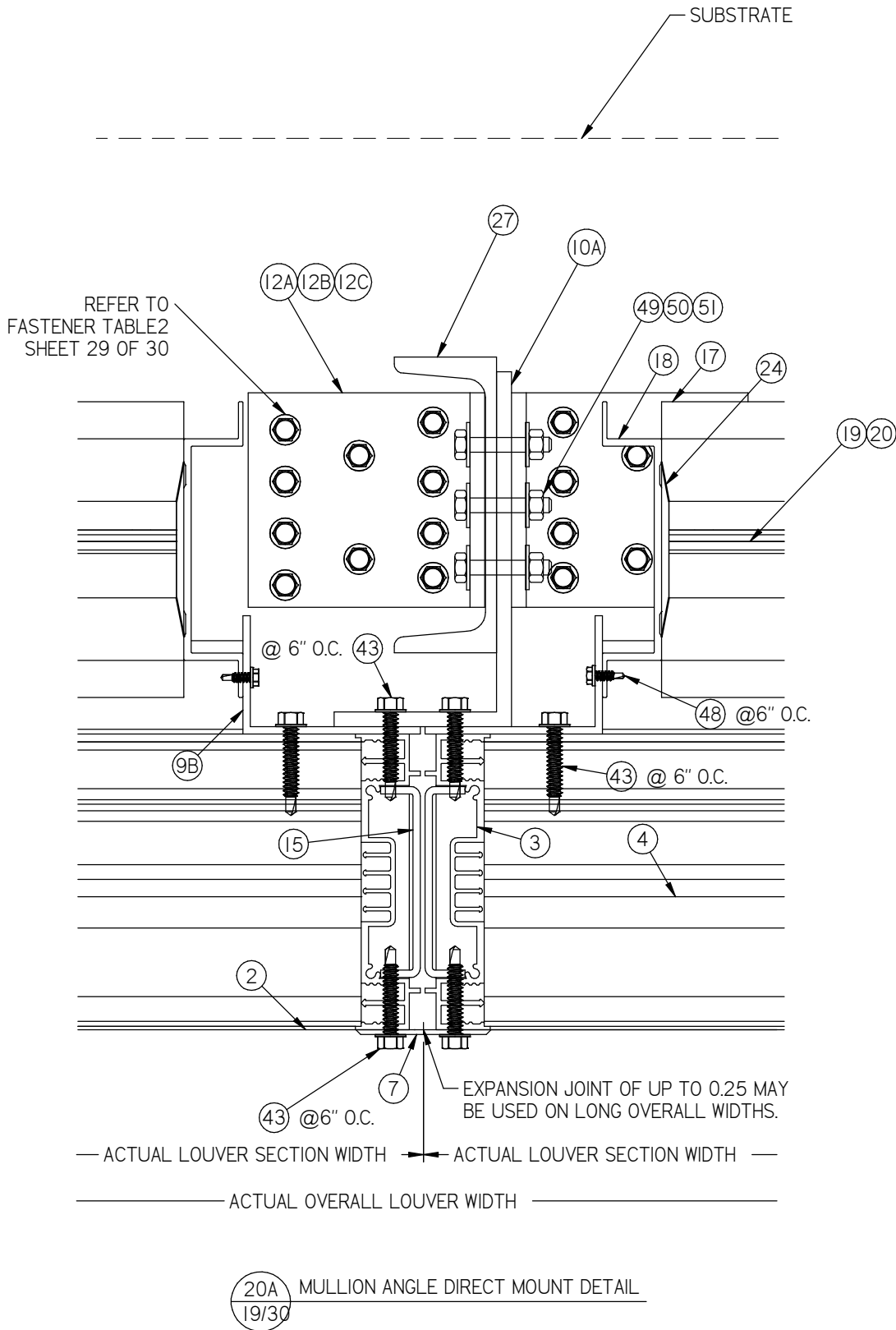
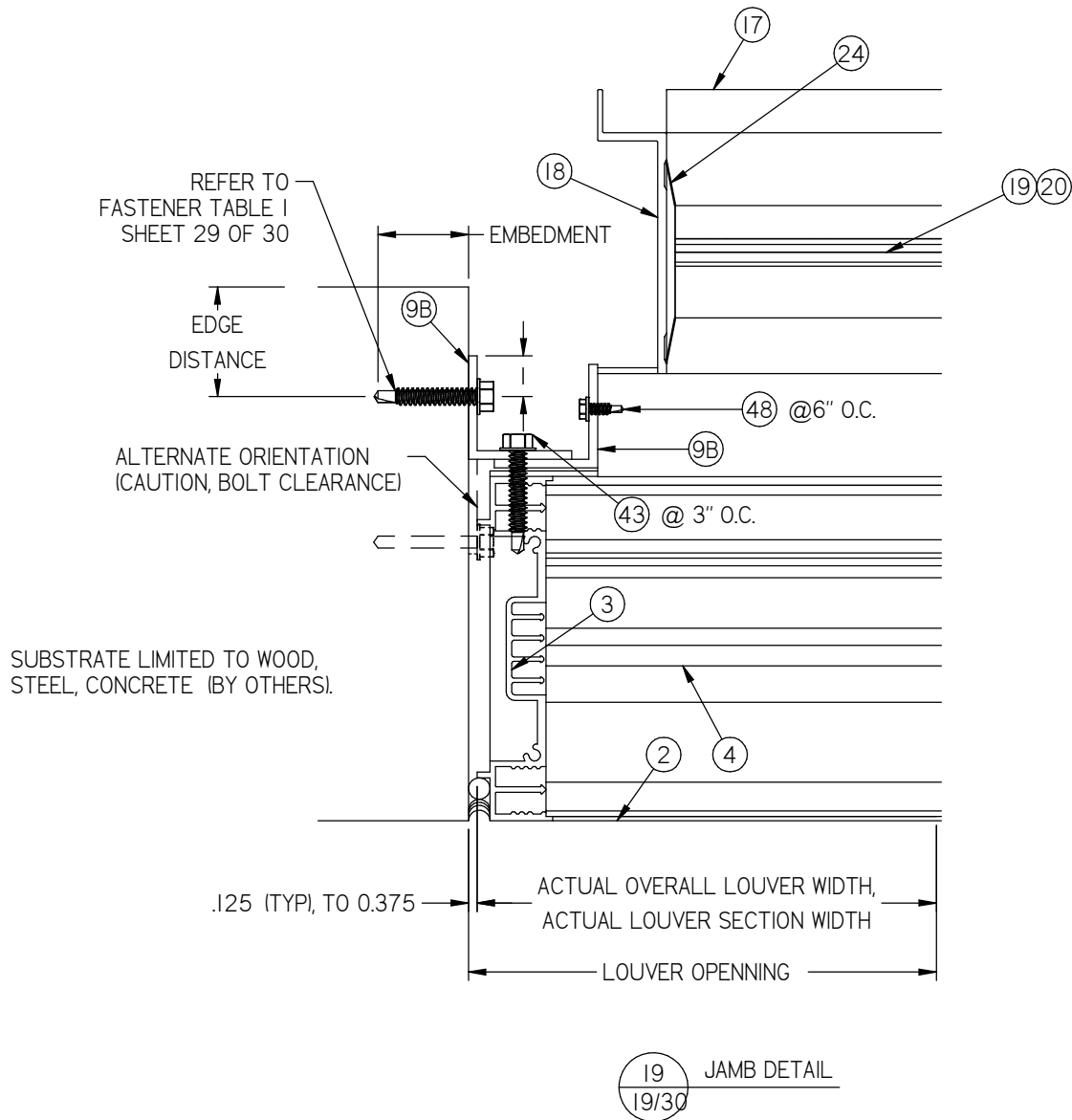
08/20/2024
COA: 9090

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

DWN BY: f cortinas CHK BY: Mastourian
DATE: 9/18/2017 SCALE: NTS
SHEET: 18 OF 30
DWG. NO. **1605WDM**
REV B

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 24-0516.05
Expiration Date 08/30/2028
By 
Miami-Dade Product Control



REVISIONS:
REV B: RENUMBERED PAGE

DWN BY: f.cortinas
CHK BY: Mastourian
DATE: 9/18/2017
SCALE: NTS
SHEET: 19 OF 30
DWG. NO. 1605WDM
REV B

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

TITLE:
1605WDM LOUVER / DAMPER
CONTINUOUS ANGLE MOUNT
JAMB AND MULLION DETAIL

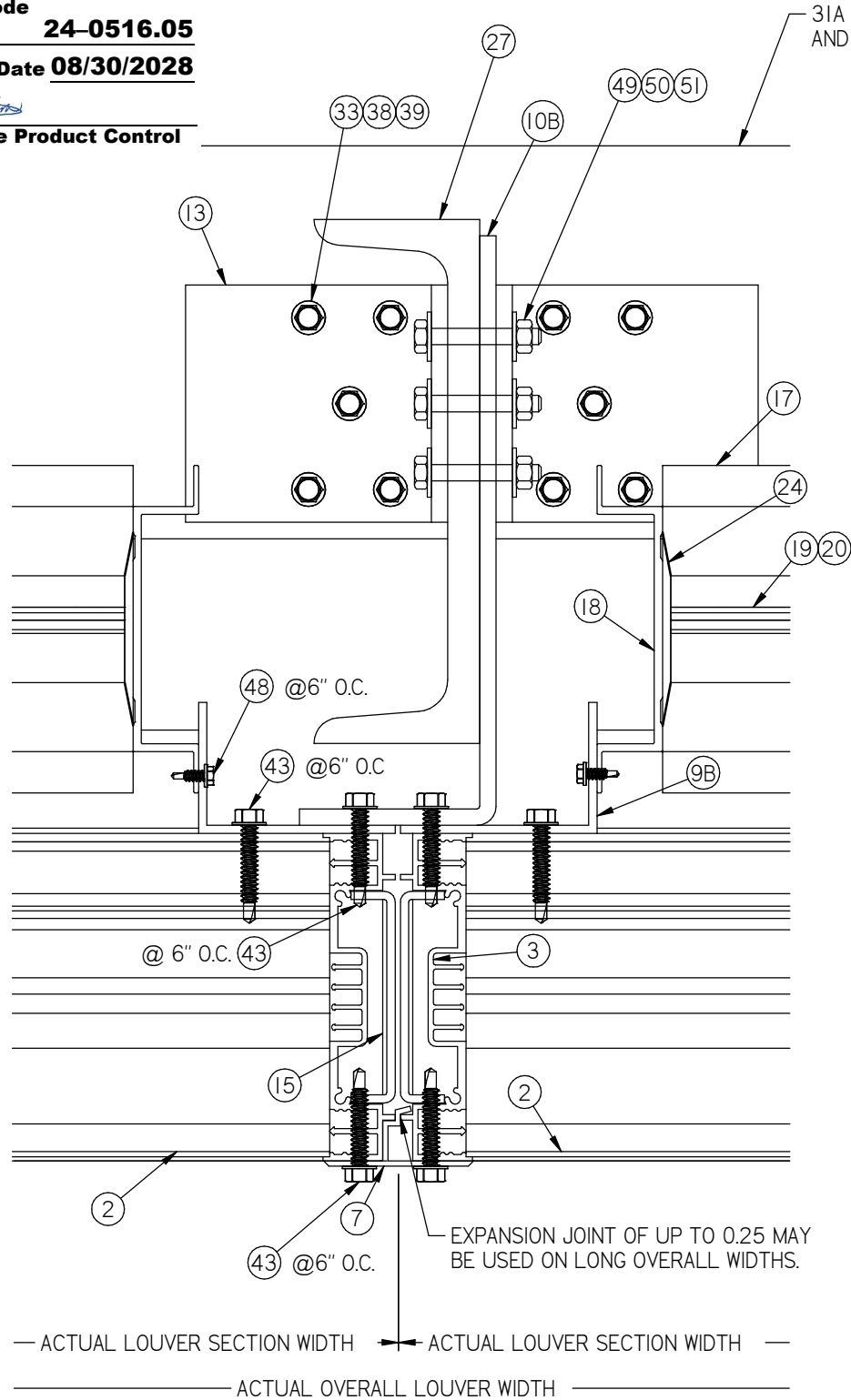


08/20/2024
COA: 9090

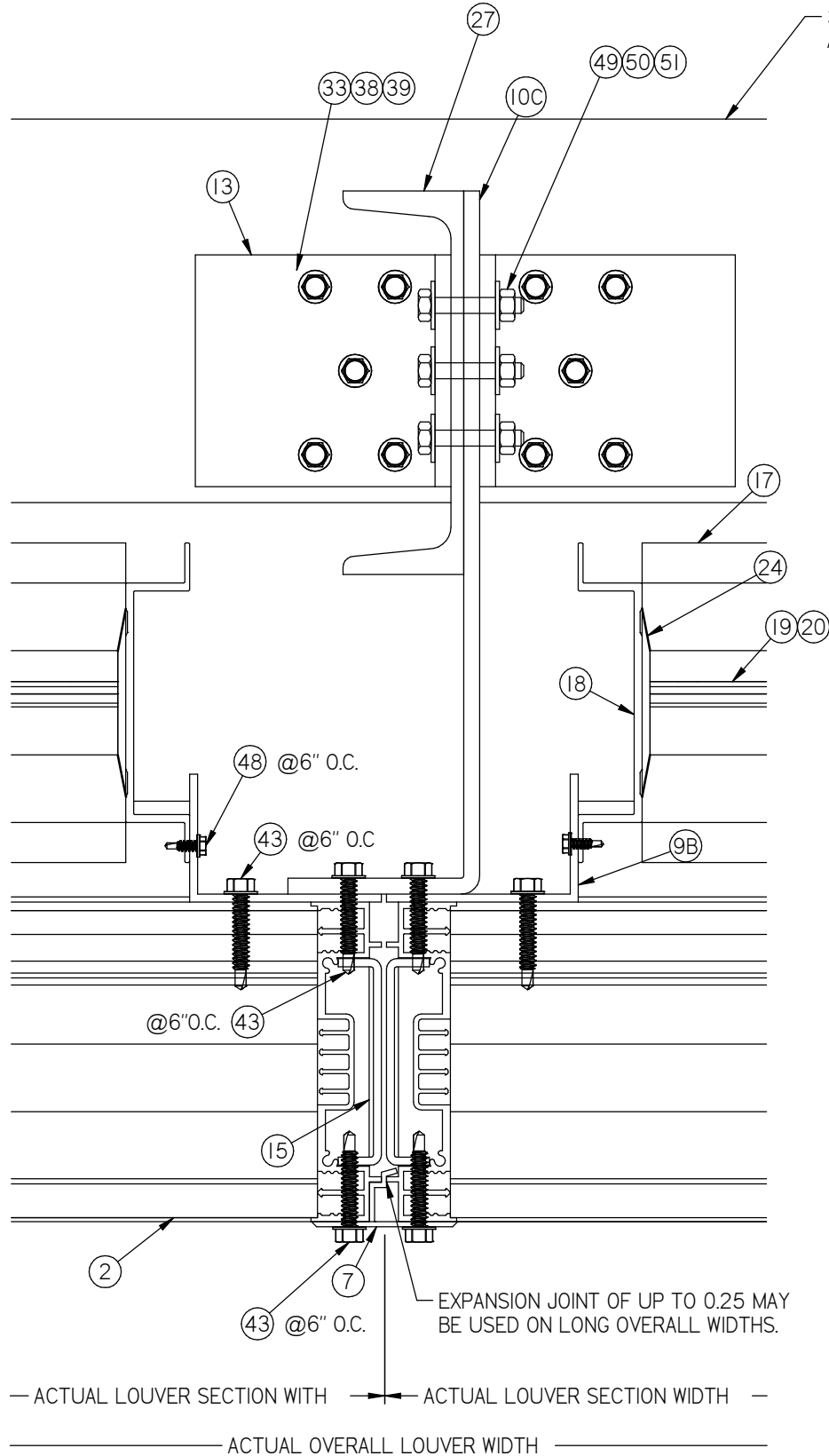
RICE
ENGINEERING

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

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **24-0516.05**
Expiration Date **08/30/2028**
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Miami-Dade Product Control



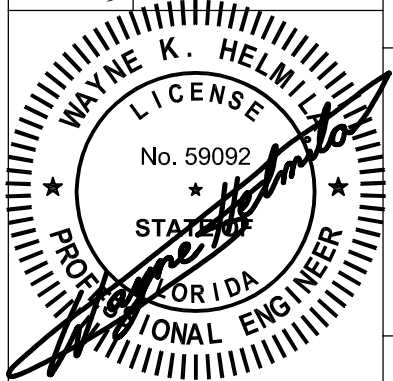
20B
20/30 MULLION DETAIL
36" BLADE BACK OF WALL MOUNT
C6X8.2 STEEL CHANNEL
AND ALUM 9X3X1/4" ANGLE



20C
20/30 MULLION DETAIL
36" BLADE BACK OF WALL MOUNT
C6X8.2 STEEL CHANNEL
AND ALUM 11X3X1/4" ANGLE

REVISIONS:
REV B: ADDED PAGE MULLION DETAILS

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
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www.nailor.com



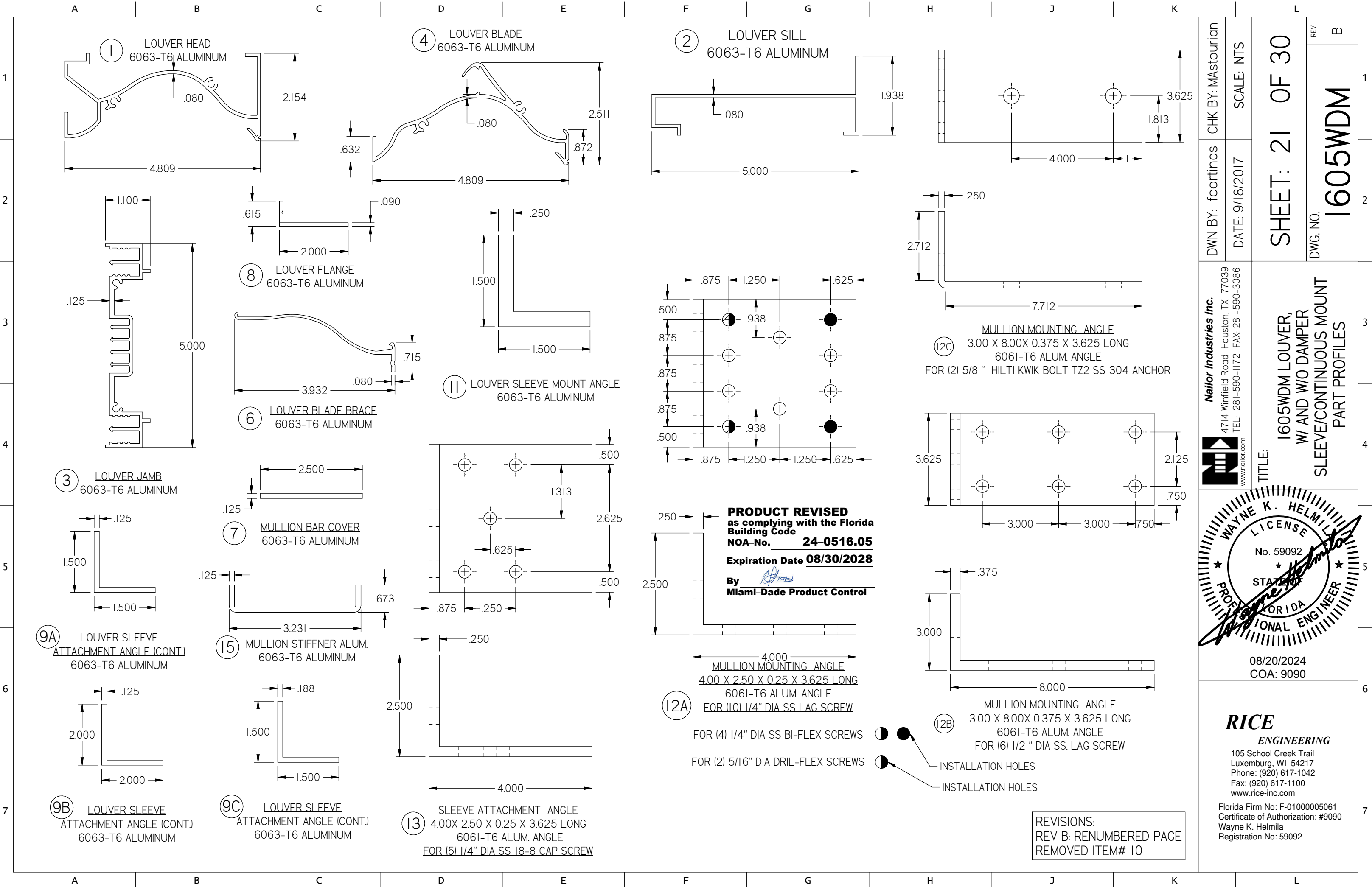
08/20/2024
COA: 9090

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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
Registration No: 59092

DWN BY: fcortinas CHK BY: Mastourian
DATE: 9/18/2017 SCALE: NTS
SHEET: 20 OF 30
DWG. NO. 1605WDM
REV B



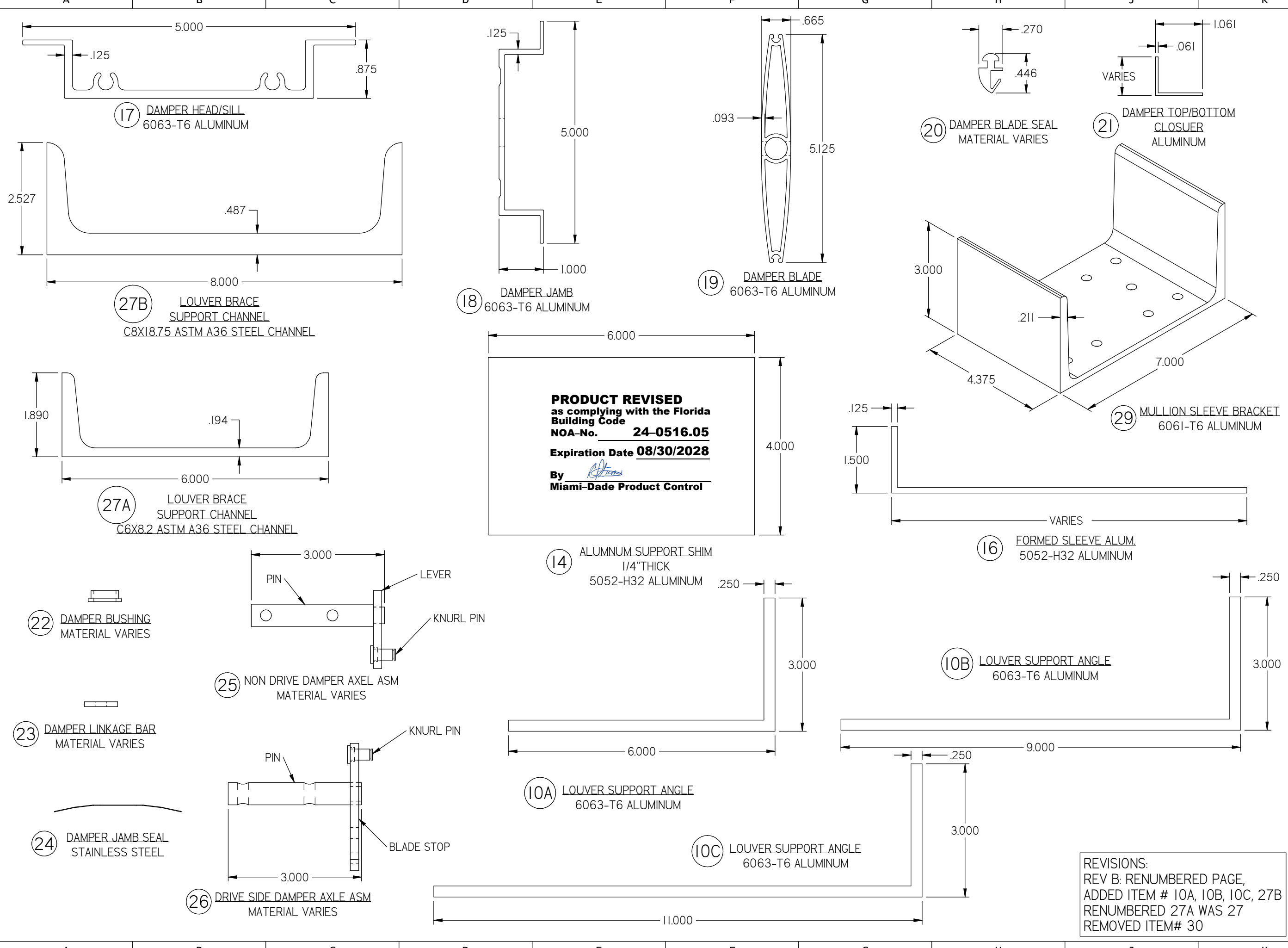
DWN BY: f cortinas
CHK BY: Mastourian
DATE: 9/18/2017
SCALE: NTS
SHEET: 21 OF 30
DWG. NO. 1605WDM
REV B

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
TEL: 281-590-1172 FAX: 281-590-3086
www.nailor.com
TITLE: 1605WDM LOUVER, W/ AND W/O DAMPER SLEEVE/CONTINUOUS MOUNT PART PROFILES

WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF FLORIDA
PROFESSIONAL ENGINEER
08/20/2024
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

REVISIONS:
REV B: RENUMBERED PAGE
REMOVED ITEM# 10



DWN BY: f cortinas	CHK BY: Mastourian
DATE: 9/18/2017	SCALE: NTS
SHEET: 22 OF 30	
DWG. NO.	REV B



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

TITLE:
1605WDM LOUVER
W/ AND W/O DAMPER
SLEEVE/CONTINUOUS MOUNT
PART PROFILES CONT.



08/20/2024
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

REVISIONS:
REV B: RENUMBERED PAGE,
ADDED ITEM # 10A, 10B, 10C, 27B
RENUMBERED 27A WAS 27
REMOVED ITEM# 30

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

L8X6"X7/16" STEEL ANGLE X 22" LONG
(A36 OR BETTER) TYPICAL
w/ (2) 1/4" X4" GUSSET PLATES WELDED TO EACH END

GUSSET SUPPORT
4 X 4 TRIANGLE
ONE NEAR EACH END

1/4" DIA LAG SCREWS ANCHORS:
USE (16) 1/4 " DIA X 6" LONG
STANDARD HEX S.S. SERIES 300
LAG SCREW
3-11/32" FULL THREAD ENGAGEMENT
1" MIN. EDGE/END DISTANCE
SPACING AS SHOWN
ASSUME: SPRUCE/PINE/FIR, SG=0.42

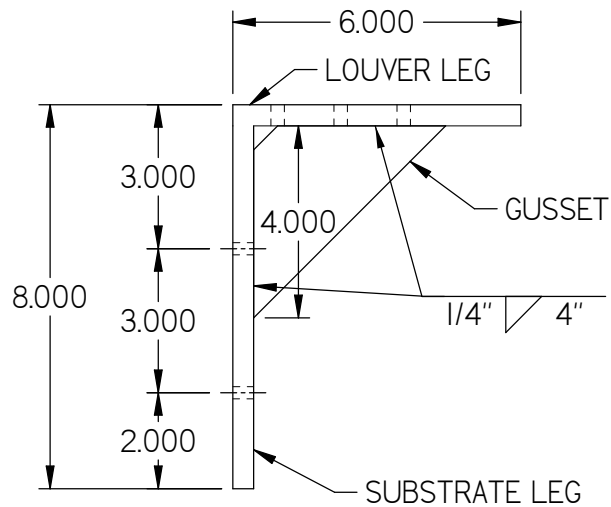
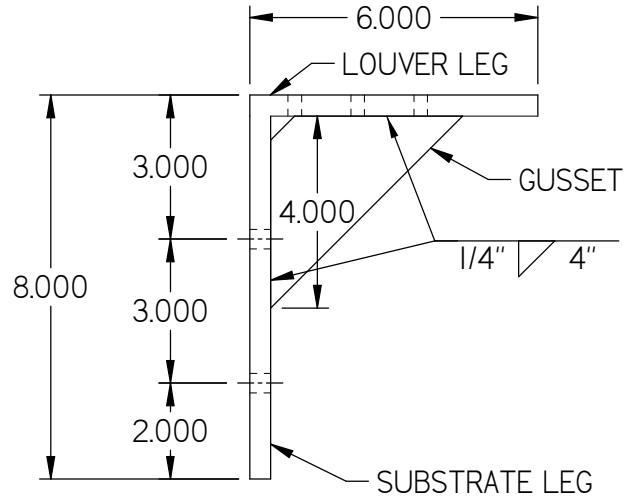
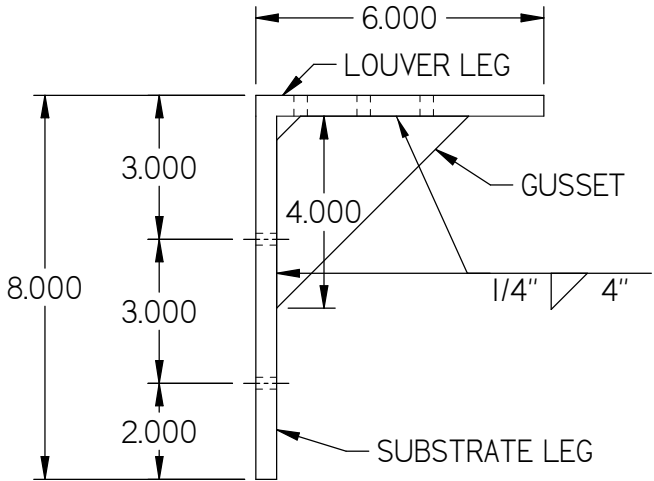
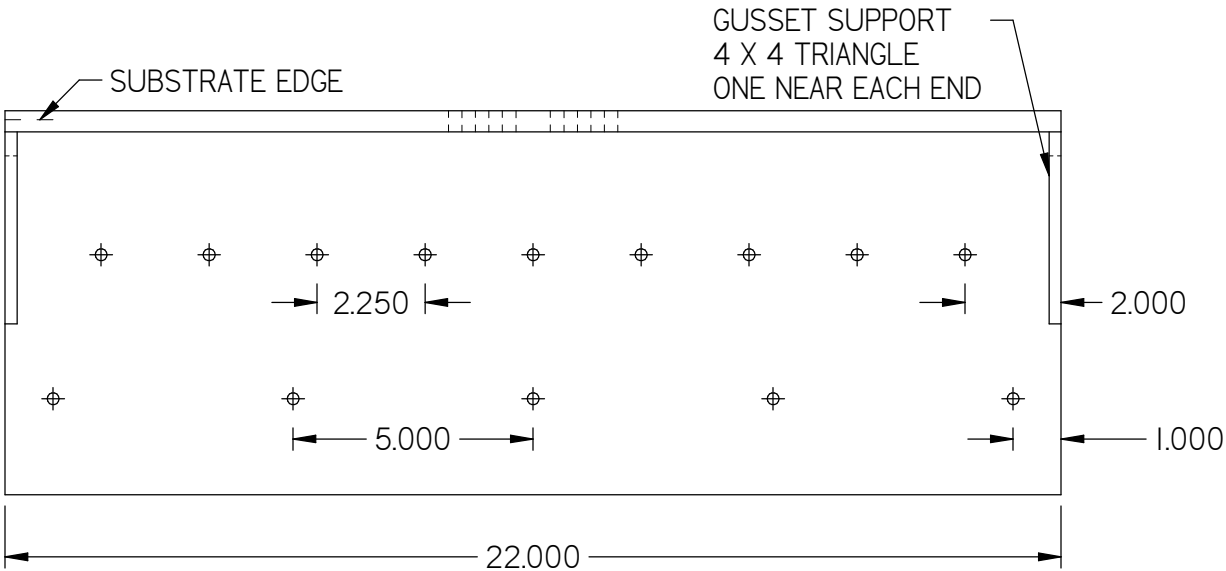
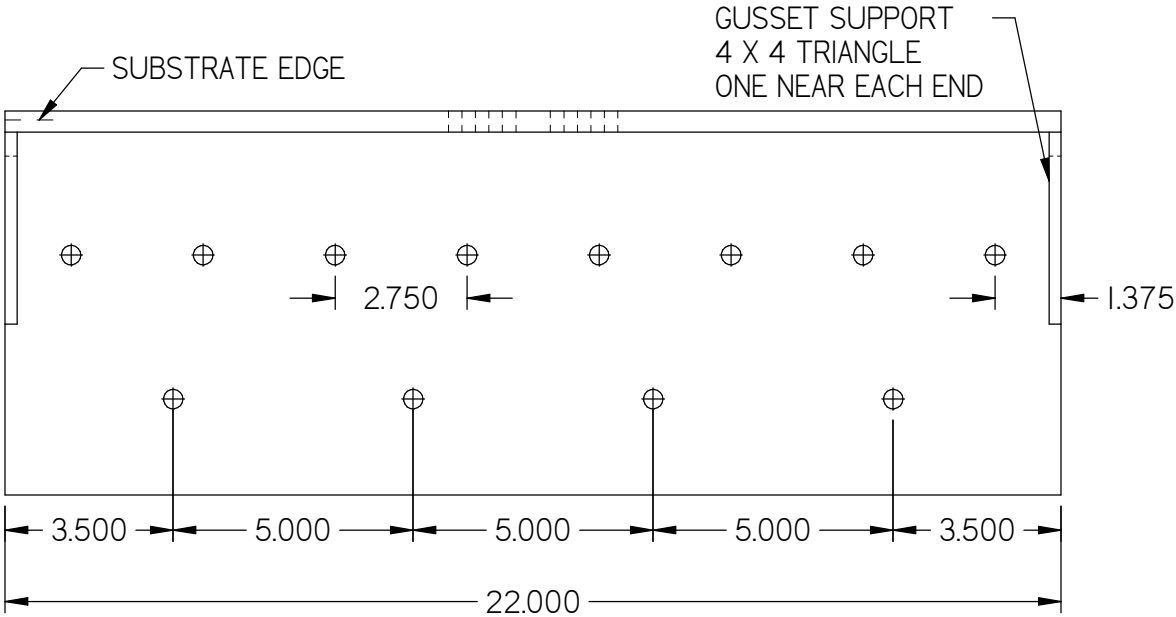
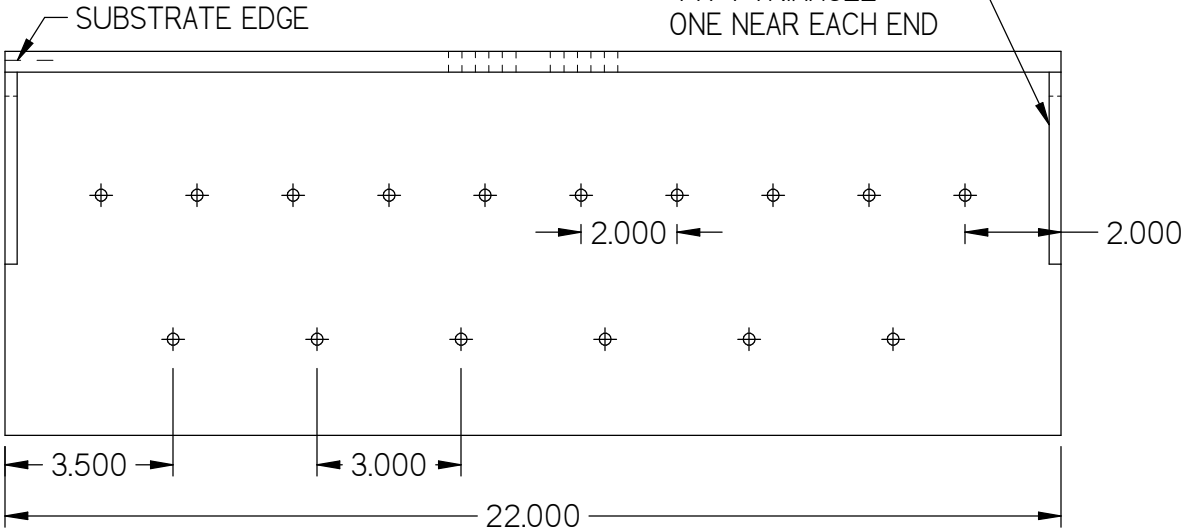
PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 24-0516.05
Expiration Date 08/30/2028

By 
Miami-Dade Product Control

3/8" DIA. LAG SCREWS ANCHORS:
USE (12) 3/8"DIA X 6 LONG
STANDARD HEX S.S. SERIES 300
LAG SCREW
3-9/32" FULL THREAD ENGAGEMENT
1-1/2" MIN. EDGE/END DISTANCE
SPACING AS SHOWN
ASSUME: SPRUCE/PINE/FIR, SG=0.42

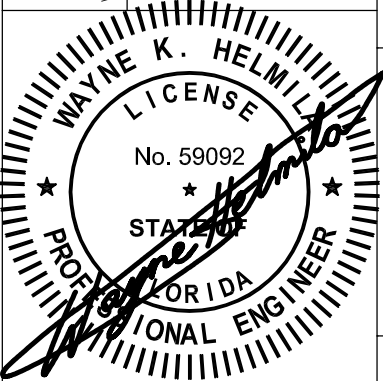
1/4-20 DIA S.S. ELCO BI-FLEX
AND DRIL FLEX ANCHORS:

USE (14) 1/4" DIA S.S. SERIES 300
ELCO DRIL-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.



REVISIONS:
REV B: RENUMBERED PAGE, UPDATED BRACKETS

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



08/20/2024
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

CHK BY: Mastourian

DWN BY: f cortinas

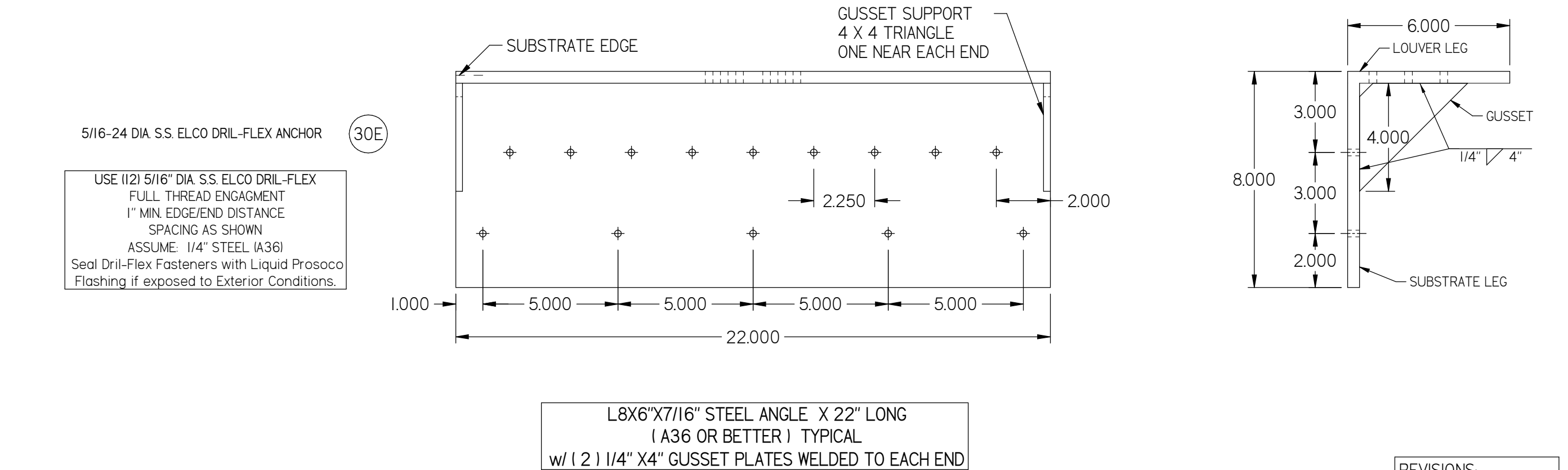
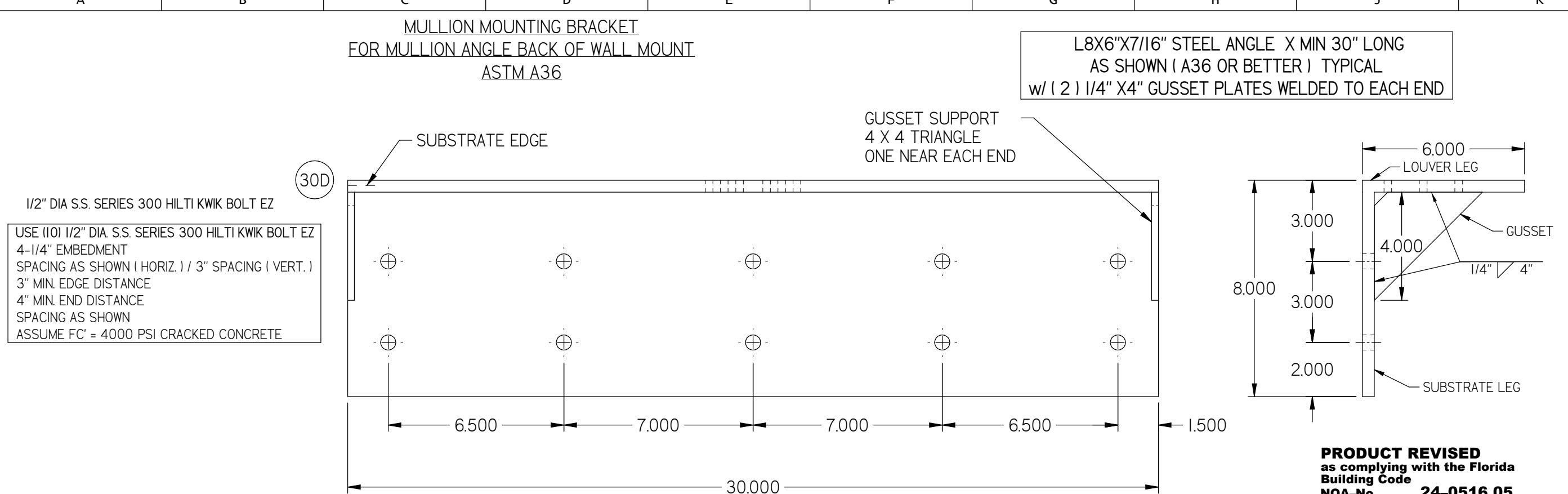
SCALE: NTS

DATE: 9/18/2017

SHEET: 23 OF 30

DWG. NO. 1605WDM

22" MULLION ANGLES
BACK OF THE WALL MOUNT



REVISIONS:
REV B: ADDED PAGE,
ADDED 30" BRACKET
ADDED 22" BRACKET

CHK BY: Mastourian	SCALE: NTS	SHEET: 24 OF 30	REV B
DWN BY: f cortinas	DATE: 9/18/2017		

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
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www.nailor.com

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **24-0516.05**
Expiration Date **08/30/2028**
By *[Signature]*
Miami-Dade Product Control

TITLE:
30" MULLION ANGEL
22" MULLION ANGLE
BACK OF THE WALL MOUNT

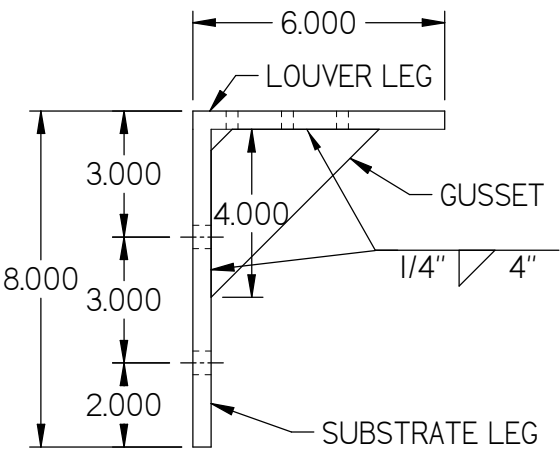
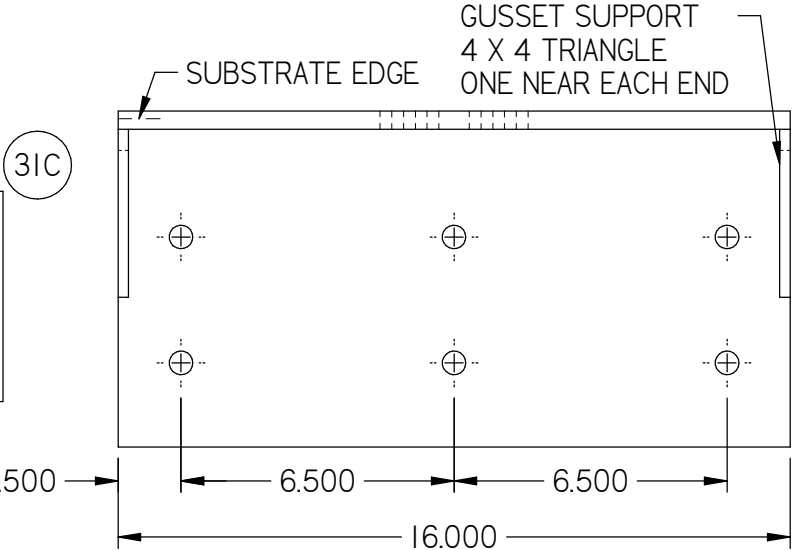
WAYNE K. HELMILA
LICENSE
No. 59092
STATE OF FLORIDA
PROFESSIONAL ENGINEER
08/20/2024
COA: 9090

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

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

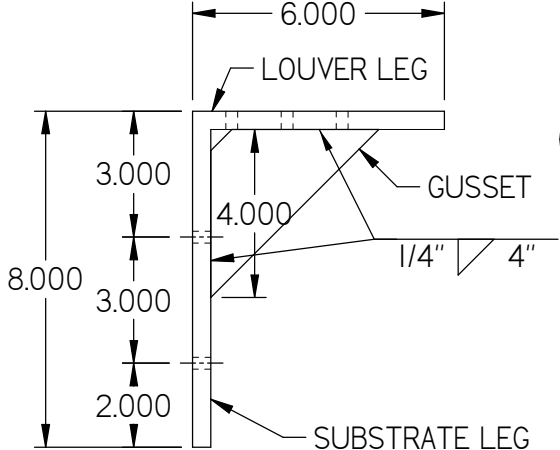
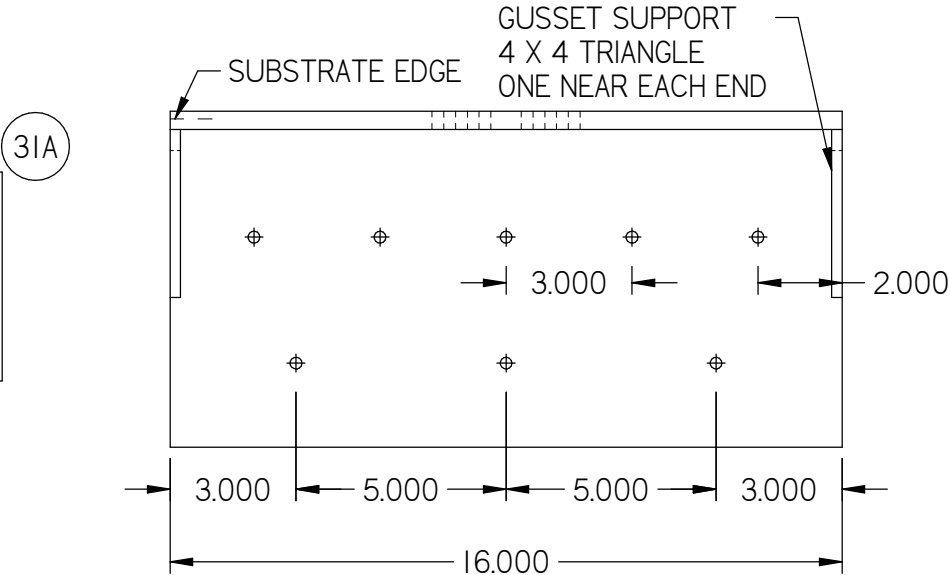
L8X6"X7/16" STEEL ANGLE
X 16" LONG AS SHOWN (A36 OR BETTER)
w/ (2) 1/4" X4" GUSSET PLATES WELDED TO EACH END

1/2" DIA S.S. HILTI KWIK BOLT EZ
USE (6) 1/2" DIA S.S. SERIES 300 HILTI KWIK BOLT EZ
3-5/8" 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



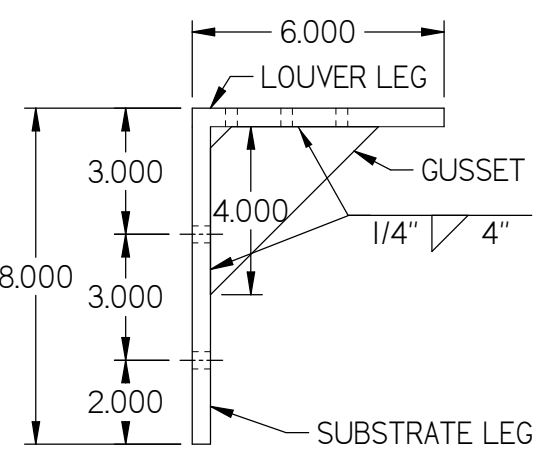
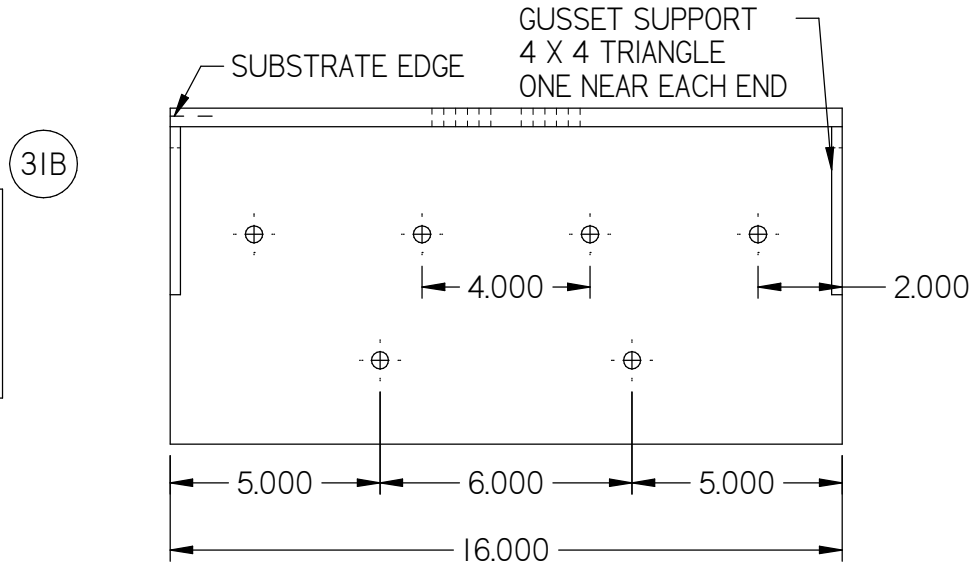
PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. **24-0516.05**
Expiration Date **08/30/2028**
By *[Signature]*
Miami-Dade Product Control

1/4" DIA LAG SCREWS ANCHORS
USE (8) 1/4" DIA. X 6" LONG
STANDARD HEX S.S. SERIES 300
LAG SCREW
3-11/32" FULL THREAD EMBEDMENT
1" MIN. EDGE / END DISTANCE
SPACING AS SHOWN
ASSUME= SPRUCE / PINE / FIR, SG= 0.42



31A 1/4-20 DIA S.S. ELCO BI-FLEX AND DRIL FLEX ANCHOR
USE (8) 1/4" DIA. S.S. SERIES 300
ELCO BI-FLEX OR
ELCO DRIL-FLEX FASTENERS
FULL THREAD EMBEDMENT
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.

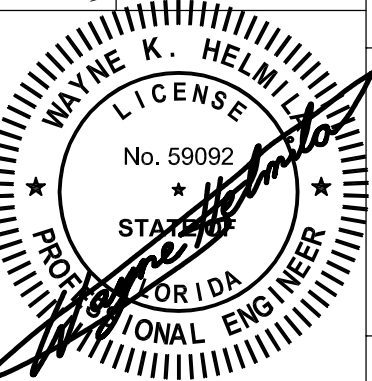
3/8" DIA LAG SCREWS ANCHORS
USE (6) 3/8" DIA X 6" LONG
STANDARD HEX S.S. SERIES 300
LAG SCREW
3-9/32" FULL THREAD EMBEDMENT
1-1/2" MIN. EDGE / END DISTANCE
SPACING AS SHOWN
ASSUME: SPRUCE / PINE / FIR, SG= 0.42



31B 5/16-24 DIA DRIL-FLEX ANCHORS
USE (6) 5/16" DIA
ELCO DRIL-FLEX FASTENERS
FULL THREAD EMBEDMENT
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.

REVISIONS:
REV B: ADDED PAGE,
ADDED 16" BRACKET

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
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www.nailor.com



08/20/2024
COA: 9090

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

DWN BY: f.cortinas
CHK BY: Mastourian

DATE: 9/18/2017
SCALE: NTS

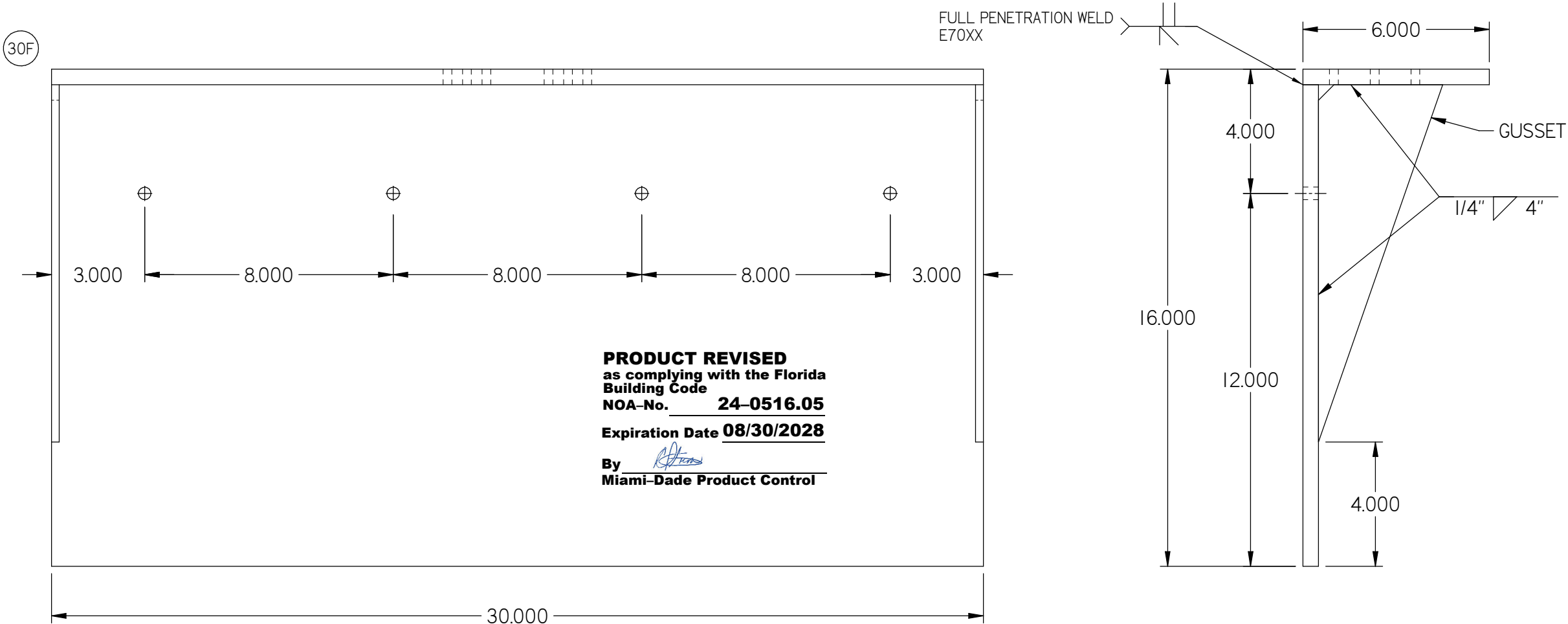
SHEET: 25 OF 30

REV B
DWG. NO. **1605WDM**

TITLE:
16" MULLION ANGLES
BACK OF THE WALL MOUNT

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

USE 16" X 6" 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.



PRODUCT REVISED
as complying with the Florida
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NOA-No. **24-0516.05**
Expiration Date **08/30/2028**
By *[Signature]*
Miami-Dade Product Control

NOTE:
THESE 3/8 " DIA HILTI HUS-EZ CMU ANCHORS
ARE ADEQUATE FOR DESIGN PRESSURE UP TO
150 PSF FOR 36" BLADE LOUVERS.

FOR LOUVER BLADES SPANNING 72" (SEE THE
ELEVATION SHOWN ON SHEET 3 OF 30) THE
MAXIMUM DESIGN PRESSURE IS +/- 80 PSF

USE (4) 3/8" DIA HILTI KWIK-HUS-EZ SCEW ANCHORS
3-1/4" EMBEDMENT
8" SPACING AS SHOWN. LOCATE (1) FASTENER IN THE CENTER OF EACH
MASONRY CELL. BRACKET CAN BE INSTALLED 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 (DESIGN BY OTHERS)
SEAL FASTENERS WITH LIQUID PROSOCO FLASHING AT EXTERIOR CONDITIONS.

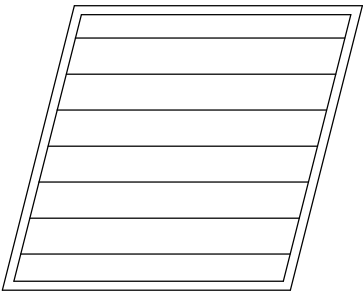
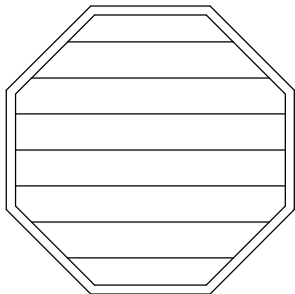
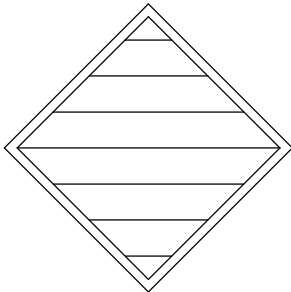
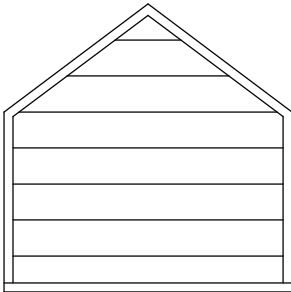
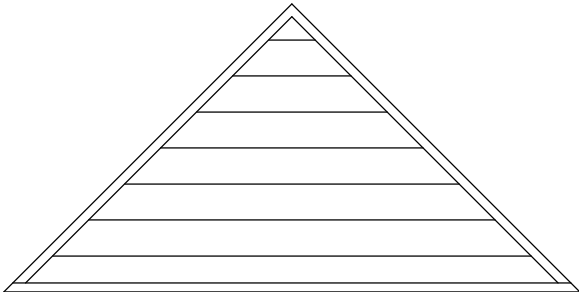
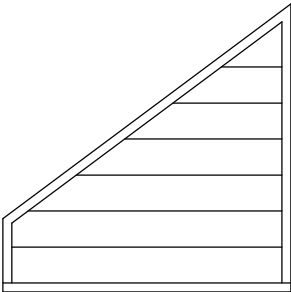
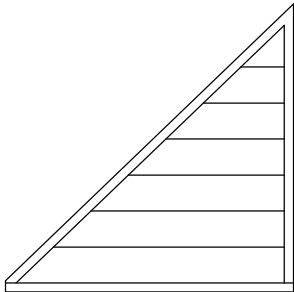
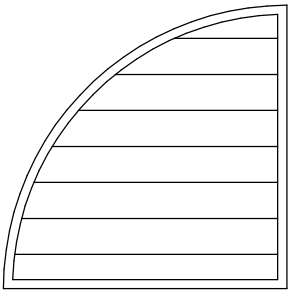
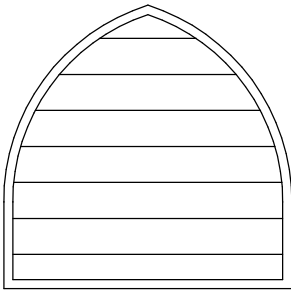
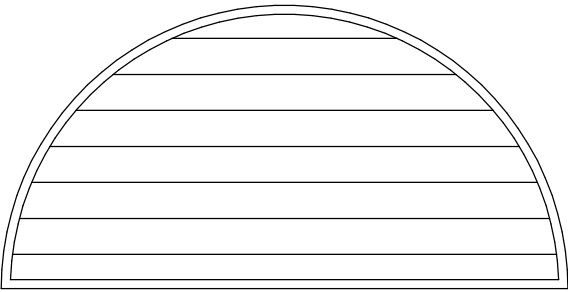
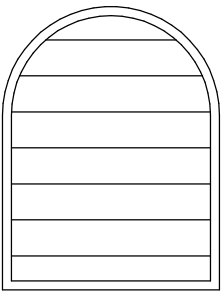
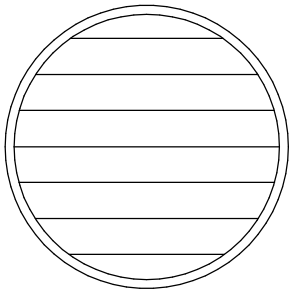
REVISIONS:
REV B: ADDED PAGE,
ADDED 30" CMU ONLY BRACKET

DWN BY: f cortinas	CHK BY: Mastourian
DATE: 9/18/2017	SCALE: NTS
SHEET: 26 OF 30	
DWG. NO.	REV B
1605WDM	

 Nailor Industries Inc. 4714 Winfield Road Houston, TX 77039 TEL: 281-590-1172 FAX: 281-590-3086 www.nailor.com	TITLE: 30" CMU MULLION ANGLES BACK OF THE WALL MOUNT
---	--


08/20/2024 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



NOTES:

1. OTHER SHAPES MAY APPLY PROVIDING THEY 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.

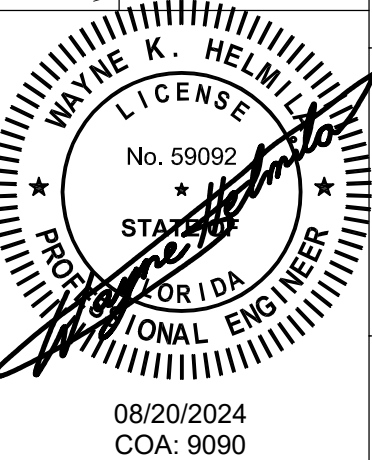
3. WHEN SECTION EXCEED 36" IN LENGTH BLADE SUPPORT ANGLES AND BRACKETS ARE REQUIRED.

4. USE CONTINUOUS 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. 24-0516.05
Expiration Date 08/30/2028
By 
Miami-Dade Product Control

REVISIONS:
REV B: RENUMBERED PAGE


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



RICE
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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
Registration No: 59092

DWN BY: fcortinas CHK BY: Mastourian
DATE: 9/18/2017 SCALE: NTS
SHEET: 27 OF 30
DWG. NO. 1605WDM
REV B

TITLE:
1605WDM LOUVER
W/ AND W/O DAMPER
AVAILABLE SHAPES

A		B		C		D		E		F		G		H		J		K		L	
BILL OF MATERIAL																					
ITEM	INTERNAL ID	DESCRIPTION		MATERIAL		NOTES															
1	C6-201	LOUVER HEAD		6063-T6 ALUMINIUM																	
2	C6-119	LOUVER SILL		6063-T6 ALUMINIUM																	
3	C6-199	LOUVER JAMB		6063-T6 ALUMINIUM																	
4	C6-200	LOUVER BLADE		6063-T6 ALUMINIUM																	
5	-	-		-																	
6	C6-202	LOUVER BLADE BRACE		6063-T6 ALUMINIUM																	
7	C6-179	MULLION BAR COVER		6063-T6 ALUMINIUM																	
8	C6-169	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		USED AS ATTACHMENT ANGLE															
9C		1 1/2 X 1 1/2 X 3/16 ANGLE CONT.		6063-T6 ALUMINIUM		USED AT HEAD/SILL/JAMB, OF LOUVER AND SLEEVE															
10A	C6-161B	6 X 3 X 1/4 ANGLE		6061-T6 ALUMINIUM		USED AT BLADE SUPPORT AND JAMB SUPPORT															
10B		9 X 3 X1/4 ANGLE		6063-T6 ALUMINIUM		USED AT BLADE SUPPORT AND JAMB SUPPORT															
10C		11 X 3 X 1/4 ANGLE		6063-T6 ALUMINIUM		USED AT BLADE SUPPORT AND JAMB SUPPORT															
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 1/2 X 1/4 X 3.625 LONG ANGLE		6061-T6 ALUMINIUM		USED AT HEAD/ SILL OF MULLION ATTACHMENT															
12B		3.00 X 8.00 X .375 X 3.625 LONG		6061-T6 ALUMINIUM		FOR 1/2" DIA SS LAG SCREW															
12C		3.00 X 8.00 X .375 X 3.625 LONG		6061-T6 ALUMINIUM		FOR 5/8" HILTI KWIK BOLT TZ SS 304 ANCHOR															
13		4 X 2 1/2 X 1/4 X 3.625 LONG ANGLE		6061-T6 ALUMINIUM		USED AT HEAD/ SILL OF LOUVER SLEEVE ATTACHMENT															
14		6 X 4 X 1/4 ALUMININM SUPPORT SHIM		5052-H3 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		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		STAINLESS																	
24		DAMPER JAMB SEAL		STAINLESS																	
25		NON DRIVE DAMPER AXEL ASM		STAINLESS																	
26		DRIVE SIDE DAMPER AXLE ASM		STAINLESS																	
27		C6X8.2 STEEL CHANNEL				USED AL MULLION															
28		CBX18.75 STEEL CHANNEL				USED AT MULLION															
29		7" X 21" ALUMINIUM SLEEVE BRACKET		6061-T6		MULLION SLEEVE BRACKET															
30	A,B,C,D,E,F	MULLION MOUNTING ANGLE BRACKET		ASTM A-36		MULLION MOUNTING															
31	A,B,C	MULLION MOUNTING ANGLE BRACKET		ASTM A-36		16" MOUNTING ANGLE															
32	C6-180	SCREW,MTL,10-24X1,HEX																			
33	C6-181	1/4 NYLON INSERT LOCKNUT																			
34	C6-182	1/4-20x2-1/2 HEX CAP SCREW		STAINLESS																	
35	C6-183	WASHER,BONDED,10X1/2		STAINLESS		300 SERIES, SS COND. CW FY - 65 KSI															
36	C6-184	SCREW,MTL,12-24-1-1/4,HEX				300 SERIES, SS COND. CW FY - 65 KSI															
37	C6-185	1/4-20x1 HEX SCREW		STAINLESS		300 SERIES, SS COND. CW FY - 65 KSI															
38	C6-186	1/4 COMM L FLAT WASHER				300 SERIES, SS COND. CW FY - 65 KSI															
39	C6-187	1/4-20x1 HEX CAP SCREW 18-8		STAINLESS																	
40	C6-188	SCREW, MTL,HEX, 8-32 X 1				300 SERIES, SS COND. CW FY - 65 KSI															
41	C6-189	SCREW, METAL, HW, 10-24 X 1-1/2				300 SERIES, SS COND. CW FY - 65 KSI															
42	C6-192	SCREW, MTL, HEX, 8 X 1-1/2		STAINLESS		300 SERIES, SS COND. CW FY - 65 KSI															
43	C6-193	SCREW, METAL, HEX, 14 X 1-1/2		STAINLESS		300 SERIES, SS COND. CW FY - 65 KSI															
44	C6-194	SCREW, METAL, HEX, 12 X 1-1/2		STAINLESS		300 SERIES, SS COND. CW FY - 65 KSI															
45	C6-195	1/4-20 X 1 1/4 HEX CAP SCREW 18-8		STAINLESS																	
46	C6-196	1/4-20 FIN. HEX NUT 18-8		STAINLESS																	
47	C6-197	1/4 LOCKWASHER 18-8		STAINLESS																	
48	C6-198	SCREW, MTL, HEX, 8 X 3/4		STAINLESS		300 SERIES, SS COND. CW FY - 65 KSI															
49		3/8"-16 X 2 18-6 HEX HEAD BOLT		STAINLESS		300 SERIES, SS COND. CW FY - 65 KSI															
50		3/8-16 HEX LOCK NUT		STAINLESS		300 SERIES, SS COND. CW FY - 65 KSI															
51		3/8-FLAT WASHER		STAINLESS		300 SERIES, SS COND. CW FY - 65 KSI															
A		B		C		D		E		F		G		H		J		K		L	

CHK BY: Mastourian

DWN BY: f cortinas

DATE: 9/18/2017

SCALE: NTS

SHEET: 28 OF 30

DWG. NO. 1605WDM

REV B

Nailor Industries Inc.

4714 Winfield Road Houston, TX 77039

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www.nailor.com

TITLE:

1605WDM LOUVER
W/ AND W/O DAMPER
SLEEVE / CONTINUOUS MOUNT
BILL OF MATERIAL

WAYNE K. HELMILA

LICENSE

No. 59092

STATE OF FLORIDA

PROFESSIONAL ENGINEER

08/20/2024
COA: 9090

RICE

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Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

REVISIONS:
REV B: RENUMBERED PAGE
ADDED ITEM #: 10A, 10B,10C, 28

CHK BY: Mastourian

DWN BY: f cortinas

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1605WDM LOUVER

W/ AND W/O DAMPER

SLEEVE / CONTINUOUS MOUNT

BILL OF MATERIAL

TITLE:

08/20/2024
COA: 9090

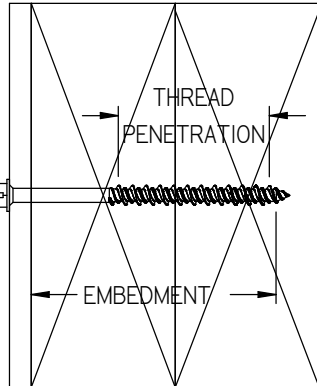
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ADDED ITEM #: 10A, 10B,10C, 28

A	B		C	D	E	F	G	H	J	K	L	
*EMBEDMENT DEPTH IS EQUAL TO OVERALL LENGTH FOR ALL FASTENERS. IF SHIMS ARE USED, FASTENER LENGTH MUST BE INCREASED BY THICKNESSOF SHIMS												
LOUVER MODEL 1605WDM FASTENER SCHEDULE												
JAMB ANGLE MOUNT FASTENER, WIDTH <= 72 INCHES (TABLE 1)												
WOOD	STEEL STUD	STEEL	CONCRETE	CMU	MIN.	FASTENER TYPE	DIAMETER	# Rqd	O.C. SPACING	EDGE	END	EMBEDMENT
X					SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	1/4"	1	3"	2"		1-5/8"
X					SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	3/8"	1	5"	2"		1-5/8"
	X				16 Ga.	ELCO BI-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi)	1/4"	1	4-1/2"	2"		3 THREADS 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	16"	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 KWIKI HUS-EZ SS316 ANCHOR	3/8"	1	12"	4"		3-1/4"
				X	2ksi	DEWALT GALANIZED SCREW-BOLT+ ANCHOR	3/8"	1	4-1/2"	1-1/2"	1-1/2"	3-1/4"
MULLION ANGLE DIRECT MOUNT FASTENERS, HEIGHT <= 120 INCHES (TABLE 2)												
WOOD	STEEL STUD	STEEL	CONCRETE	CMU	MIN.	FASTENER TYPE	DIAMETER	# Rqd / CLIP	O.C. SPACING	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)	1/2"	6	2-1/8" X 3"	2"		2"
		X			A-36	ELCO BI-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi)	1/4"	4	2-1/2" X 1-5/16"	2"		1/4"
		X			A-36	ELCO DRILL-FLEX DRILLING SCREWS (COND. CW- Fy= 65ksi) SEALED w/ PROSOCO SEALANT	5/16"	2	2-5/8"	2"		1/4"
			X-CRACKED 10" DEEP		4ksi	HILTI KWIK BOLT T22 SS 304 ANCHOR*	5/8"	2	4"	7"	8"	4"
MULLION ANGLE MOUNT BACK OF WALL FASTENERS, HEIGHT <= 120 INCHES (TABLE 3)												
WOOD	BRACKET TYPE	STEEL	CONCRETE	CMU	MIN.	FASTENER TYPE	DIAMETER	# Rqd	O.C. SPACING	EDGE	END	EMBEDMENT
X	30A				SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	1/4"	16	VARIES	1"	1"	3-11/32"
X	31A				SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	1/4"	8	VARIES	1"	1"	3-11/32"
X	30B				SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	3/8"	12	VARIES	1-1/2"	1-1/2"	3-9/32"
X	31B				SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	3/8"	6	VARIES	1-1/2"	1-1/2"	3-9/32"
	30C	X			A-36	ELCO BI-FLEX OR ELCO DRILL-FLEX DRILLING SCREWS (300 SERIES SS) SEAL DRILL-FLEX w/ PROSOCO SEALANT	1/4"	14	VARIES	1"	1"	1/4"
	31A	X			A-36	ELCO BI-FLEX OR ELCO DRILL-FLEX DRILLING SCREWS (300 SERIES SS) SEAL DRILL-FLEX w/ PROSOCO SEALANT	1/4"	8	VARIES	1"	1"	1/4"
	30E	X			A-36	ELCO DRILL-FLEX DRILLING SCREWS (COND. CW - Fy = 65ksi) SEALED w/ PROSOCO SEALANT	5/16"	12	VARIES	1"	1"	1/4"
	31B	X			A-36	ELCO DRILL-FLEX DRILLING SCREWS (COND. CW - Fy = 65ksi) SEALED w/ PROSOCO SEALANT	5/16"	6	VARIES	1"	1"	1/4"
	30D		X-CRACKED 8" DEEP		4ksi	HILTI KWIK BOLT EZ SS 316 ANCHOR **	1/2"	10	VARIES	3"	4"	4-1/4"
	31C		X-CRACKED 8" DEEP		4ksi	HILTI KWIK BOLT EZ SS 304 ANCHOR **	1/2"	6	VARIES	3"	4"	3-5/8"
	30F			X	2ksi	HILTI KWIK-HUS-EZ SCREW ANCHORS	3/8"	4	8	4"	4"	3-1/4"
PRODUCT REVISED as complying with the Florida Building Code NOA-No. 24-0516.05 Expiration Date 08/30/2028 By  Miami-Dade Product Control  REVISIONS: REV B: RENUMBERED PAGE UPDATED FASTENER TABLES REMOVED GENERAL NOTES												
A	B		C	D	E	F	G	H	J	K	L	

DWN BY: fcortinas

CHK BY: Mastourian

DATE: 9/18/2017

SCALE: NTS

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Nailor Industries Inc.

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TITLE: 1605WDM LOUVER
W/ AND W/O DAMPER SLEEVE
FASTENER TABLES

08/20/2024
COA: 9090

RICE

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Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

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

08/20/2024
COA: 9090

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SHEET: 29 OF 30

DWG. NO. 1605WDM



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A	B	C	D	E	F	G	H	J	K	L	
1	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 1605WDM WITH AND WITHOUT 2020 DAMPER HAVE BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC) AND TEST PROTOCOLS tas 100 A (WIND DRIVEN RAIN), TAS-201 (IMPACT), TAS-202 (UNIFORM STATIC PRESSURE), AND TAS-203 (CYCLIC FATIGUE). 3. MAXIMUM SINGLE SECTION SIXE 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 I6 GA. 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 INTEGRITY 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 STRUCTUAL INTEGRITY OF THE SUBSTRATE STRUCTURE. 9. LOUVER ASSEMBLY IS QUALIFIEDFOR A MAXIMUM DESIGN LOAD OF $\pm$ 150 PSF, WITH THE EXCEPTION OF THE GROUT FILLED CMU BACK OF WALL MOUNTING BRACKET ANCHORS FOR THE 72" BLADES WHERE THE MAXIMUM DESIGN LOAD IS $\pm$ 80 PSF. 10. LOUVER ASSEMBLY WITH AND WITHOUT 2020 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 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 (2) #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 PROVINDING FULL CONTACT WITH WOOD. LAG SCREW TIO CANNOT BE CONSIDERED PART OF THE TREADED PORTION OF THE SCREW. LAG SCREWS ARE NOT TO BE INSTALLED AT WOOD JOINTS / SPLICES WHERE THE LAG SCREW COULD FALL BETWEEN MEMBERS. NOTE ENGINEER OF RECORD (EOR) IS RESPONSIBLE FOR DETERMINING IF CONCRETE IS TO BE CONSIDERED CRACKED OR UNCRACKED.										
2											
3											
4											
5											
6											
7											

CHK BY: Mastourian

DWN BY: fcortinas

SCALE: NTS

DATE: 9/18/2017

SHEET: 30 OF 30

DWG. NO. 1605WDM

REV B

Nailor Industries Inc.

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TITLE:

1605WDM LOUVER
W/ AND W/O DAMPER SLEEVE
GENERAL NOTES

WAYNE K. HELMILA

LICENSE

No. 59092

STATE OF FLORIDA

PROFESSIONAL ENGINEER

08/20/2024
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PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 24-0516.05
Expiration Date 08/30/2028
By
Miami-Dade Product Control

REVISIONS:
REV B: ADDED PAGE,
ADDED GENERAL NOTES