



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 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 21 of 21, prepared by manufacturer, dated 06/14/17, with revision A, signed and sealed by Wayne K. Helmila, P.E. on 06/24/2021, bearing the Miami-Dade County Product Control Renewal stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control 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 **renews NOA No. 21-0630.10** 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.**



NOA No. 23-0724.23
Expiration Date: August 30, 2028
Approval Date: September 7, 2023
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

A. DRAWINGS

1. Manufacturer's die drawings and sections.
(Submitted under NOA No. 18-0117.12)
2. 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. *(Submitted under NOA No. 18-0117.12)*

B. TESTS

1. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with 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.
(Submitted under NOA No. 18-0117.12)
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.
(Submitted under NOA No. 18-0117.12)
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.
(Submitted under NOA No. 18-0117.12)

C. CALCULATIONS

1. Louver structural calculations dated 11/03/17, prepared by Rice Engineering, signed and sealed by Wayne K. Helmila, P.E. *(Submitted under NOA No. 18-0117.12)*

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. None.



Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 23-0724.23
Expiration Date: August 30, 2028
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Nailor Industries Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's (CONTINUED)

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.
(Submitted under NOA No. 18-0117.12)
2. Statement letter of no financial interest issued by Rice Engineering, dated 04/16/18, signed and sealed by Wayne K. Helmila, P.E.
(Submitted under NOA No. 18-0117.12)

2. EVIDENCE SUBMITTED UNDER NOA # 21-0630.10

A. DRAWINGS

1. Drawing No. **1606DHPM**, titled "1606DHPM Louver w/ and w/o Damper", sheets 1 through 21 of 21, dated 06/14/17, with revision A, prepared by the manufacturer, signed and sealed by Wayne K. Helmila, P.E. on 06/24/2021.

B. TESTS

1. None.

C. CALCULATIONS

1. None.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

1. Statement letter of code conformance to the **7th edition (2020) FBC**, issued by Rice Engineering, dated 08/16/21, signed and sealed by Wayne K. Helmila, P.E.



Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 23-0724.23
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DRAWING INDEX:

1. INDEX TO DRAWINGS AND NOTES.
2. 1606DHPM LOUVER- FLANGE FRAME SLEEVE MOUNT
3. 1606DHPM LOUVER- CONTINUOUS ANGLE MOUNT
4. 1606DHPM / DAMPER- FLANGE FRAME SLEEVE MOUNT
5. 1606DHPM / DAMPER- CONTINUOUS ANGLE MOUNT
6. 1606DHPM LOUVER- FLANGE FRAME SLEEVE MOUNT HEAD & SILL DETAIL
7. 1606DHPM LOUVER- CONTINUOUS ANGLE MOUNT HEAD & SILL DETAIL.
8. 1606DHPM LOUVER- BLADE SUPPORT DETAIL.
9. 1606DHPM LOUVER- FLANGE FRAME SLEEVE MOUNT JAMB DETAIL
10. 1606DHPM LOUVER- CONTINUOUS ANGLE MOUNT JAMB DETAIL.
11. 1606DHPM LOUVER- FLANGE FRAME SLEEVE MOUNT MULLION DETAIL.
12. 1606DHPM LOUVER- CONTINUOUS ANGLE MOUNT MULLION DETAIL.
13. 1606DHPM LOUVER / DAMPER FLANGE FRAME W/ SLEEVE & MULLION ANGLE MOUNT HEAD & SILL DETAIL.
14. 1606DHPM / DAMPER- FLANGE FRAME SLEEVE MOUNT JAMB AND MULLION DETAIL
15. 1606DHPM LOUVER / DAMPER CONTINUOUS ANGLE MOUNT JAMB AND MULLION DETAIL.
16. 1606DHPM LOUVER W/ AND W/O DAMPER- SLEEVE / CONTINUOUS MOUNT PART PROFILES.
17. 1606DHPM LOUVER W/ AND W/O DAMPER- SLEEVE / CONTINUOUS MOUNT PART PROFILES.
18. MULLION ANGLE BACK OF THE WALL MOUNT
19. 1606DHPM LOUVER W/ AND W/O DAMPER AVAILABLE SHAPES
20. 1606DHPM LOUVER W/ AND W/O DAMPER- SLEEVE / CONTINUOUS MOUNT BILL OF MATERIAL.
21. 1606DHP LOUVER W/ AND W/O DAMPER - NOTES AND FASTENER SCHEDULE

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. MINIMUM EDGE DISTANCE AND EMBEDMENT REQUIREMENTS ARE SHOWN. NAILOR IND. DOES NOT DETERMINE THE STURCTURE INTEGRITY OF THE SUBSTRUCTURE.
- 5) MAXIMUM 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:

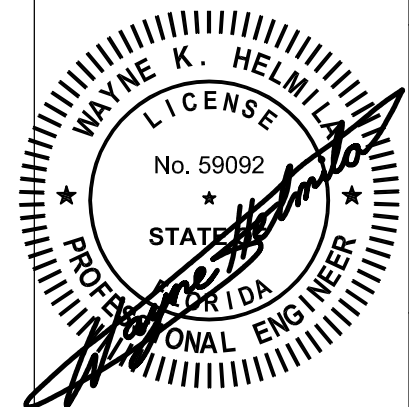
TAS-100 (A) WIND DRIVEN RAIN RESISTANCE
 TAS-201 LARGE MISSILE IMPACT
 TAS-202 UNIFORM STATIC AIR PRESSURE TEST
 TAS-203 CYCLIC WIND PRESUSRE TEST
 DESIGN PRESSURE RATING 150 PSF

CHK BY: Mastourian	SCALE: NTS	SHEET: 1 OF 21	REV A
DWN BY: f cortinas	DATE: 6/14/2017		
DWN BY: f cortinas		DWG. NO.	1606DHPM

Nailor Industries Inc.
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TITLE:
 1606DHPM LOUVER
 W/ AND W/O DAMPER
 INDEX

PRODUCT RENEWED
 as complying with the Florida Building Code
 NOA-No. 23-0724.23
 Expiration Date 08/30/2028
 By: *[Signature]*
 Miami-Dade Product Control



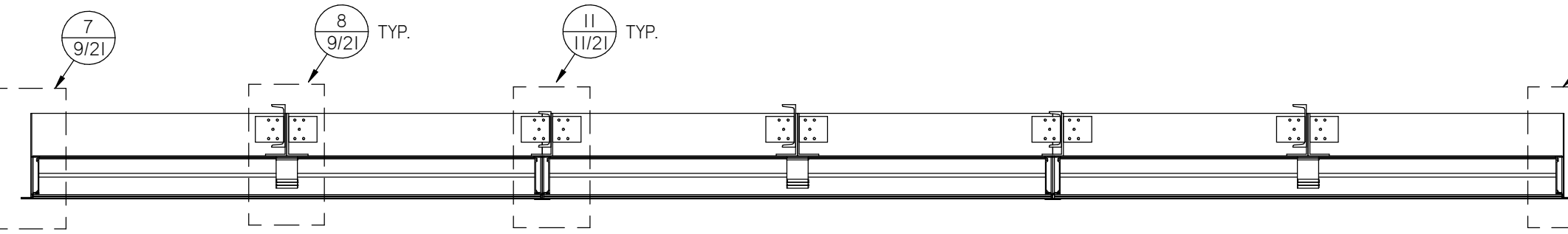
06/24/2021
 COA: 9090

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

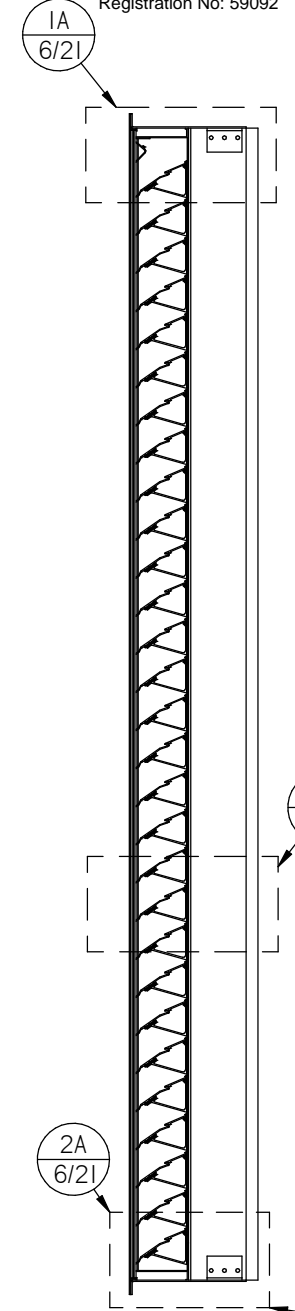
REVISIONS:
 REV A: PG 16,17,18,20, 21

PRODUCT REVISED
 as complying with the Florida Building Code
 NOA-No. 21-0630.10
 Expiration Date: 08/30/2023
 By: *[Signature]*
 Miami-Dade Product Control

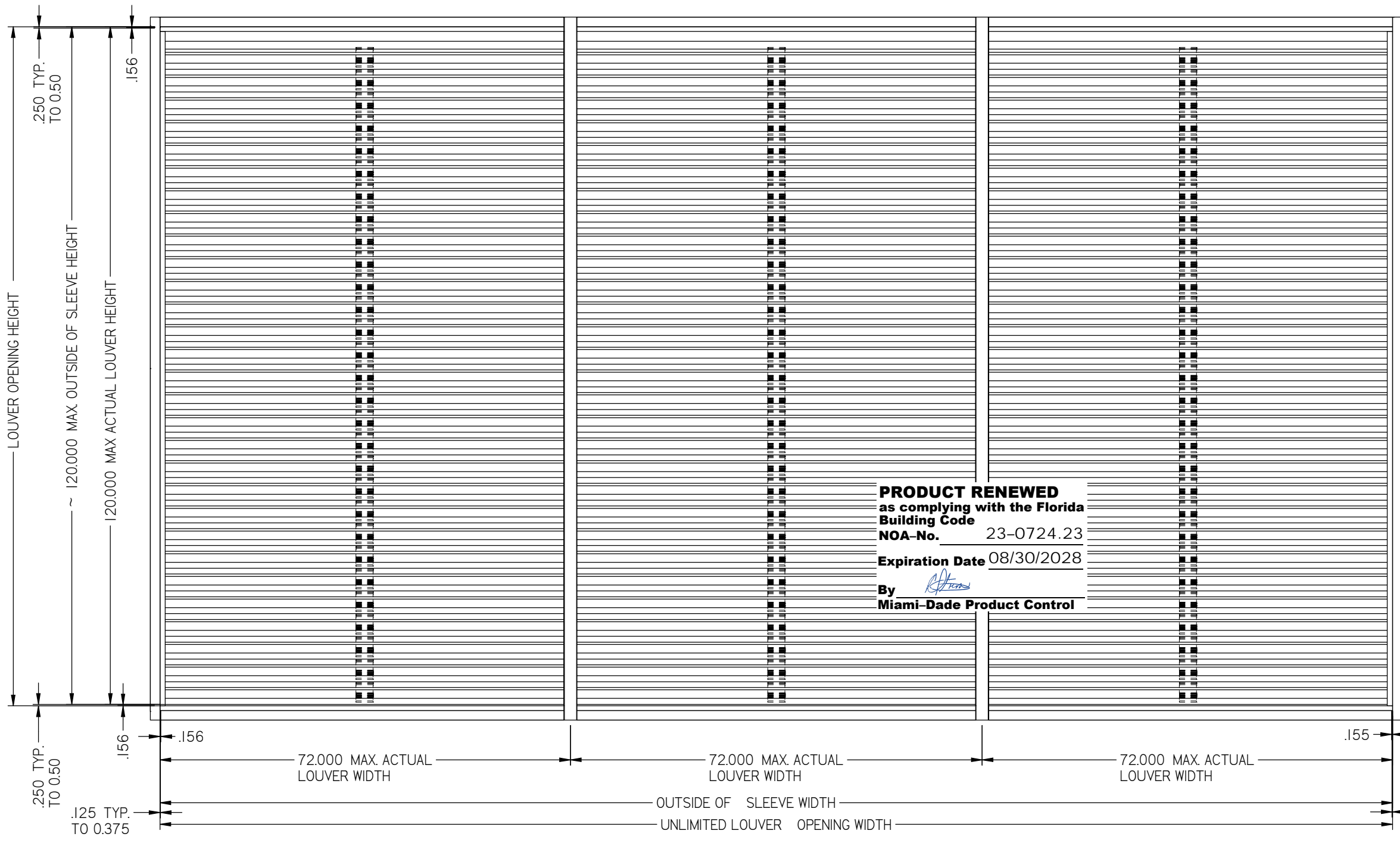


HORIZONTAL CROSS SECTION

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Wayne K. Helmila
Registration No: 59092

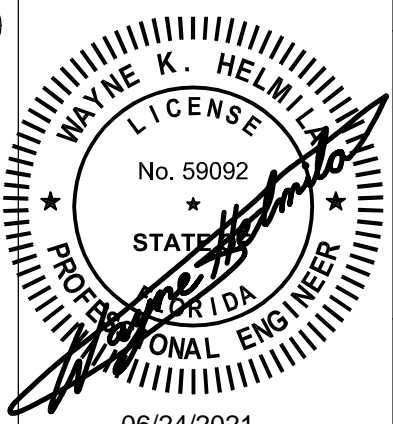


VERTICAL CROSS SECTION



ELEVATION

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 23-0724.23
Expiration Date 08/30/2028
By *R. Torres*
Miami-Dade Product Control

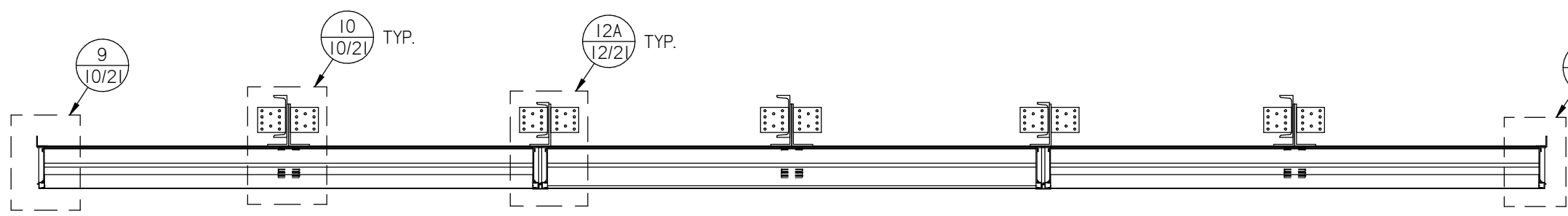


06/24/2021
COA: 9090

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Building Code
NOA-No. 21-0630.10
Expiration Date: 08/30/2023
By: *Manuel Perez*
Miami-Dade Product Control

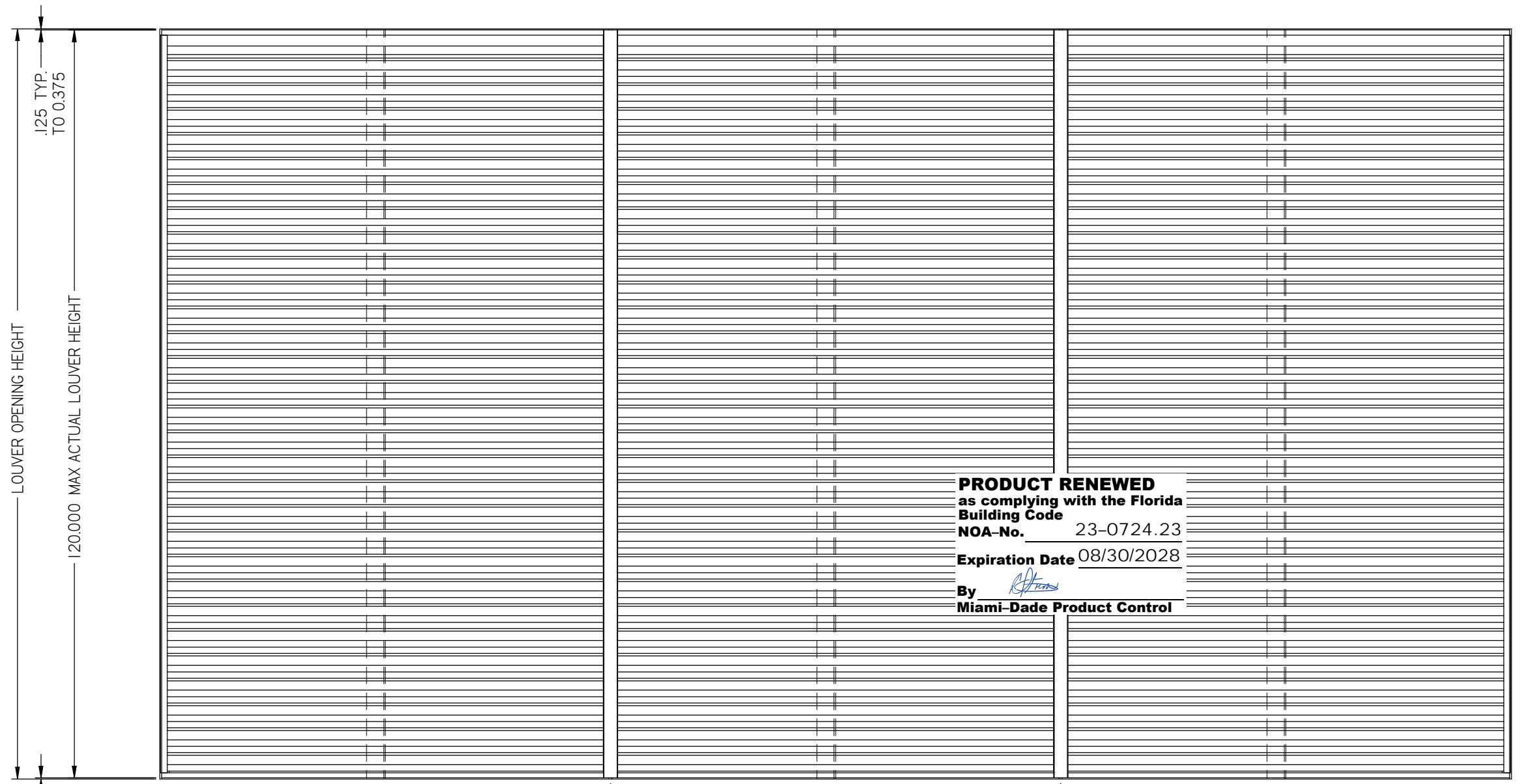
CHK BY: Mastourian
DWN BY: f cortinas
DATE: 6/14/2017
SCALE: NTS
SHEET: 2 OF 21
DWG. NO. 1606DHPM
REV A

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

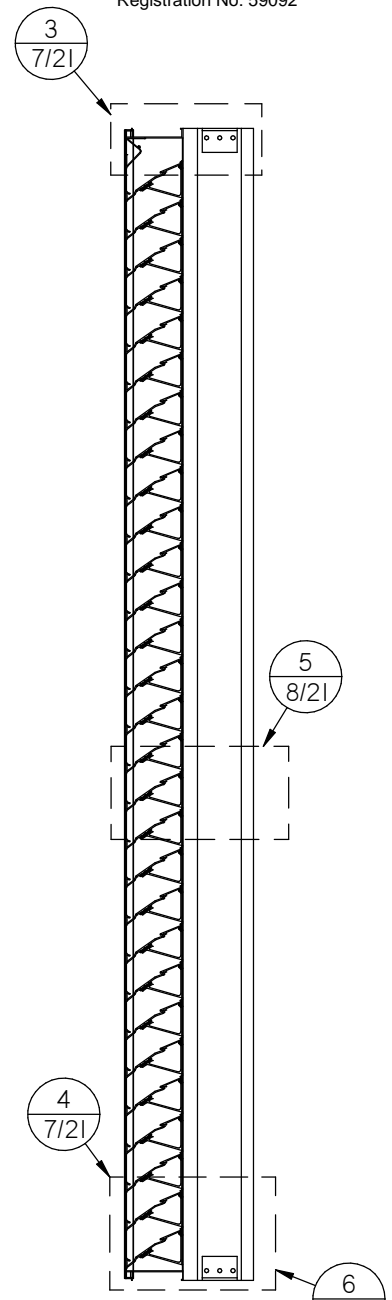


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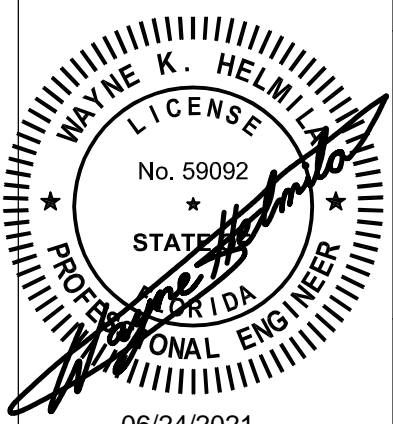


ELEVATION



VERTICAL CROSS SECTION

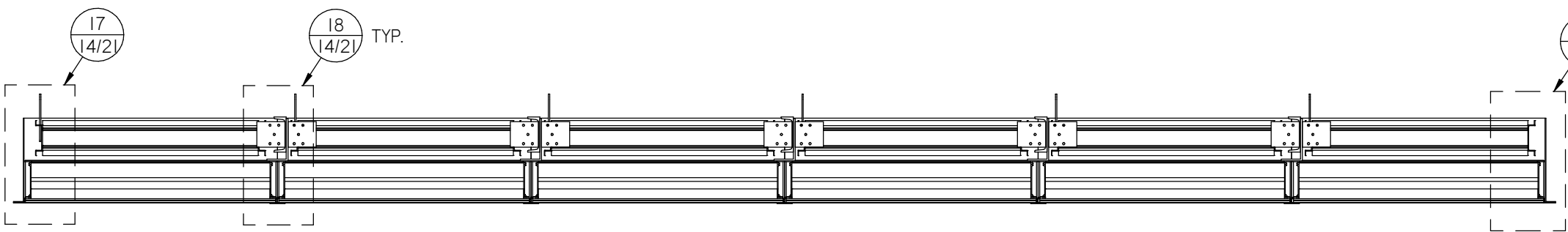
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06/24/2021
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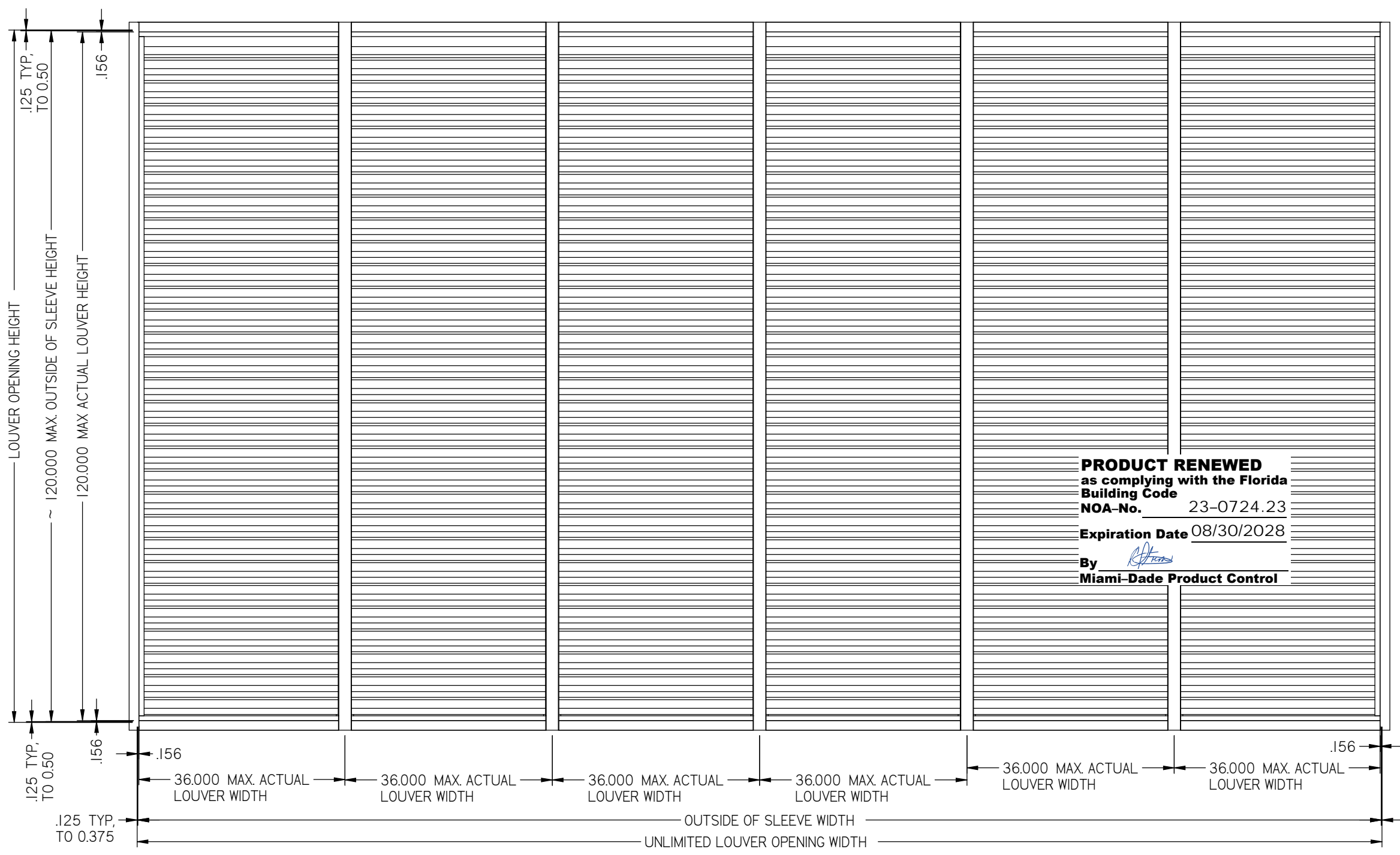
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By: *[Signature]*
Miami-Dade Product Control

CHK BY: Mastourian	SCALE: NTS	SHEET: 3 OF 21	DWG. NO. 1606DHPM
DWN BY: fcoirtinas	DATE: 6/14/2017		
Nailor Industries Inc. 4714 Winfield Road Houston, TX 77039 www.nailor.com TEL: 281-590-1172 FAX: 281-590-3086		TITLE: 1606DHPM LOUVER CONTINUOUS ANGLE MOUNT	

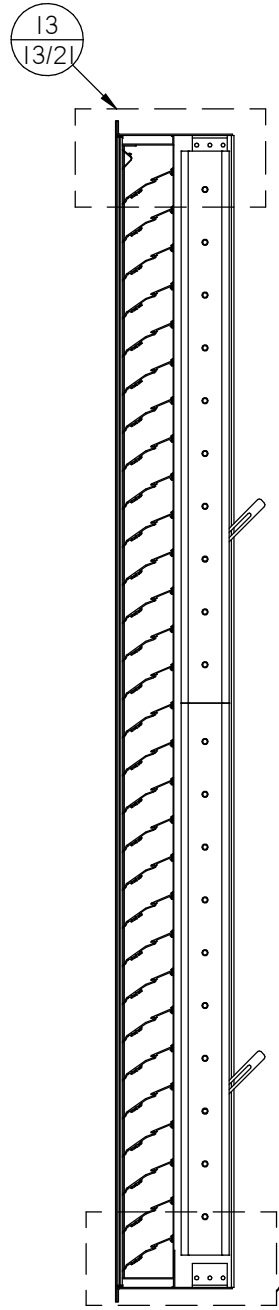


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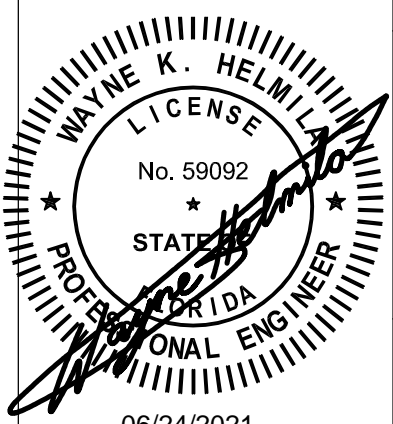


ELEVATION



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 By *[Signature]*
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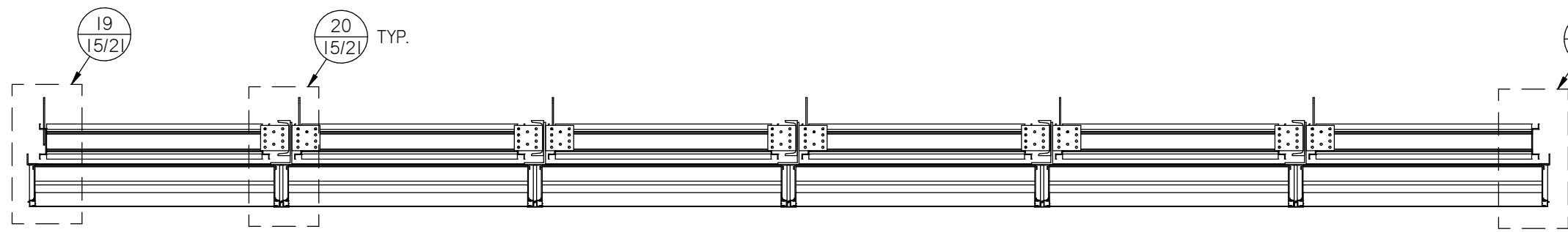


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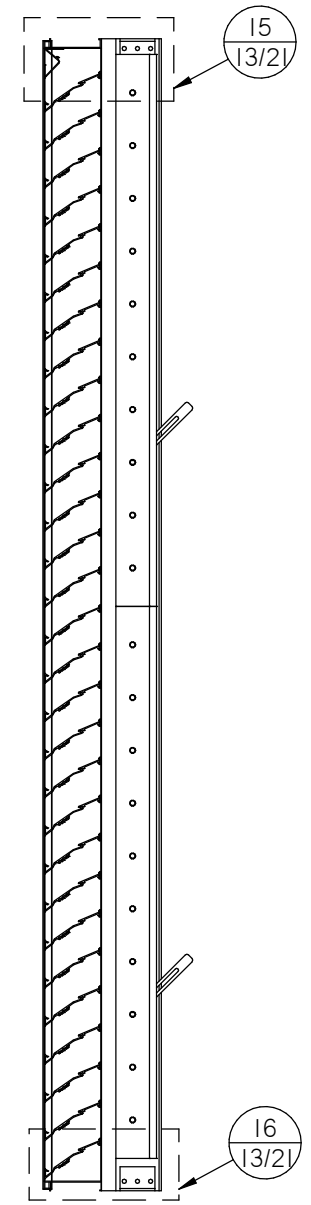
CHK BY: Mastourian
 DWN BY: fcoirtinas
 DATE: 6/14/2017
 SCALE: NTS
 SHEET: 4 OF 21
 DWG. NO. 1606DHPM
 REV A

Nailor Industries Inc.
 4714 Winfield Road Houston, TX 77039
 www.nailor.com TEL: 281-590-1172 FAX: 281-590-3086
TITLE:
 1606DHPM / DAMPER
 FLANGE FRAME
 SLEEVE MOUNT

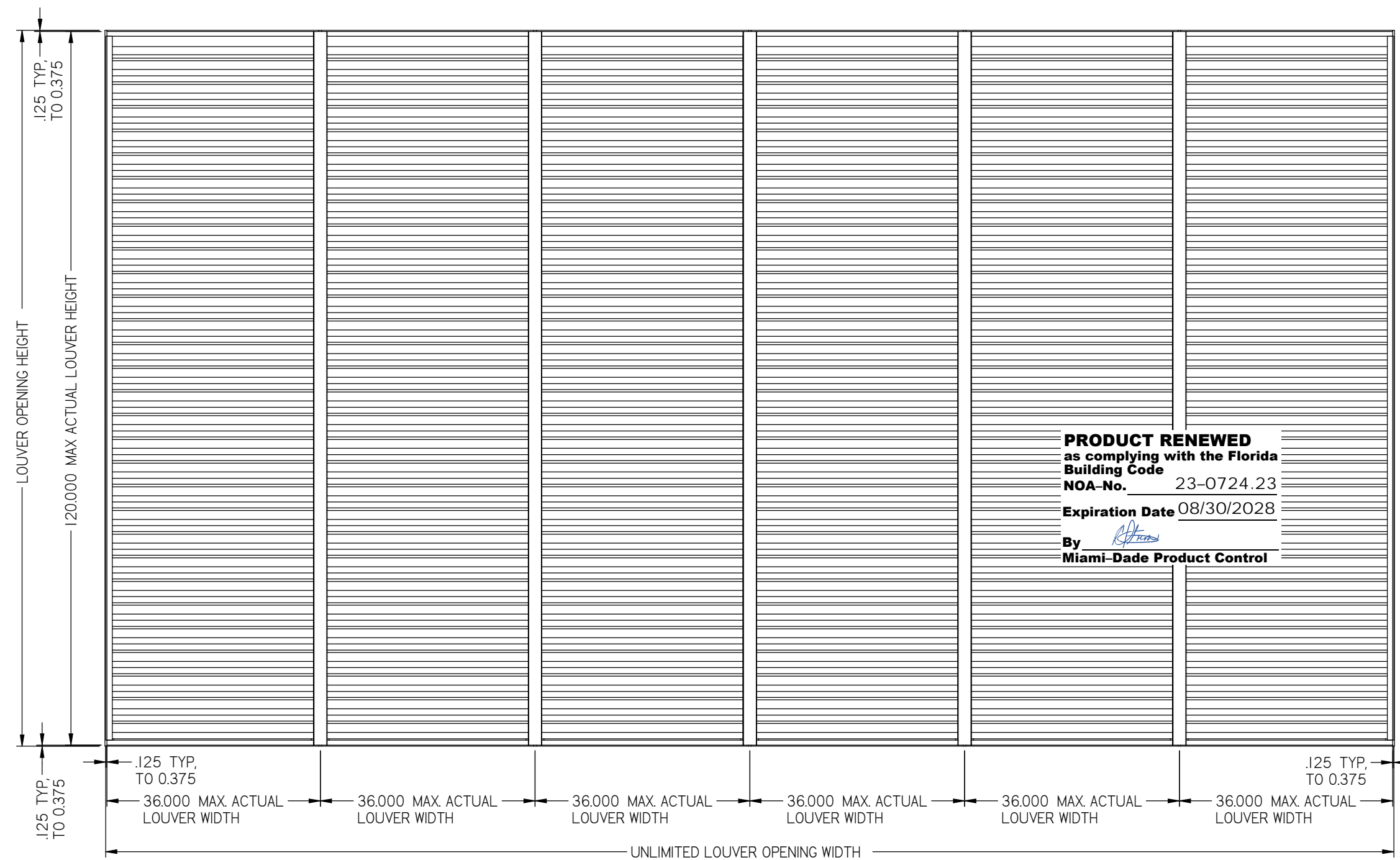


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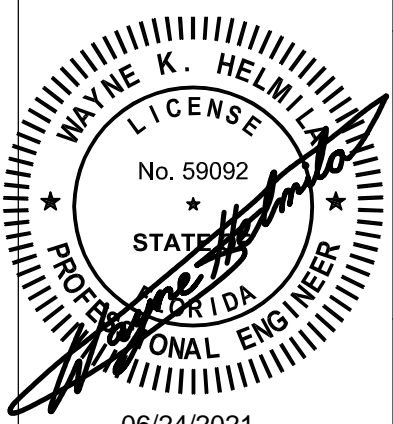


VERTICAL CROSS SECTION



ELEVATION

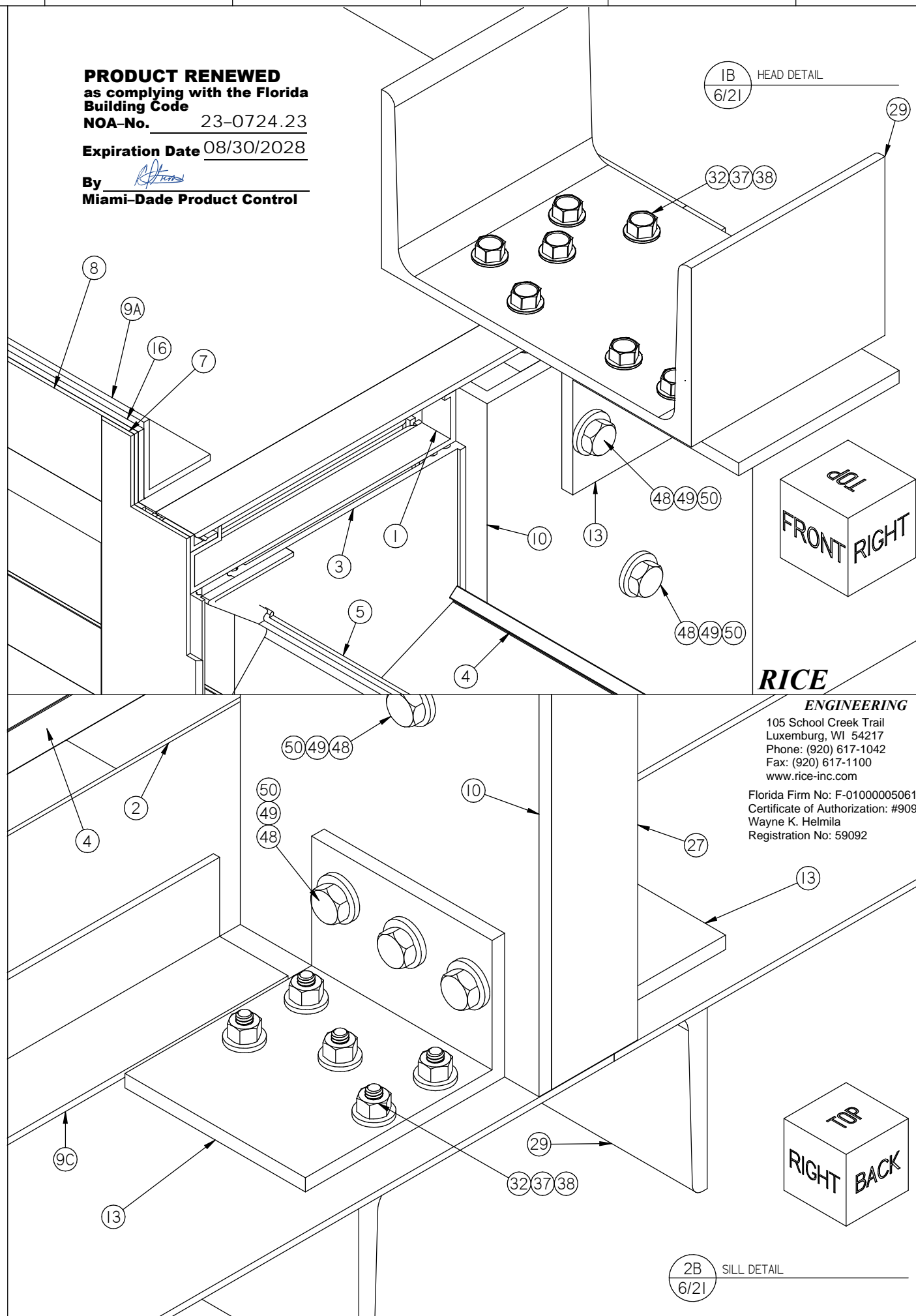
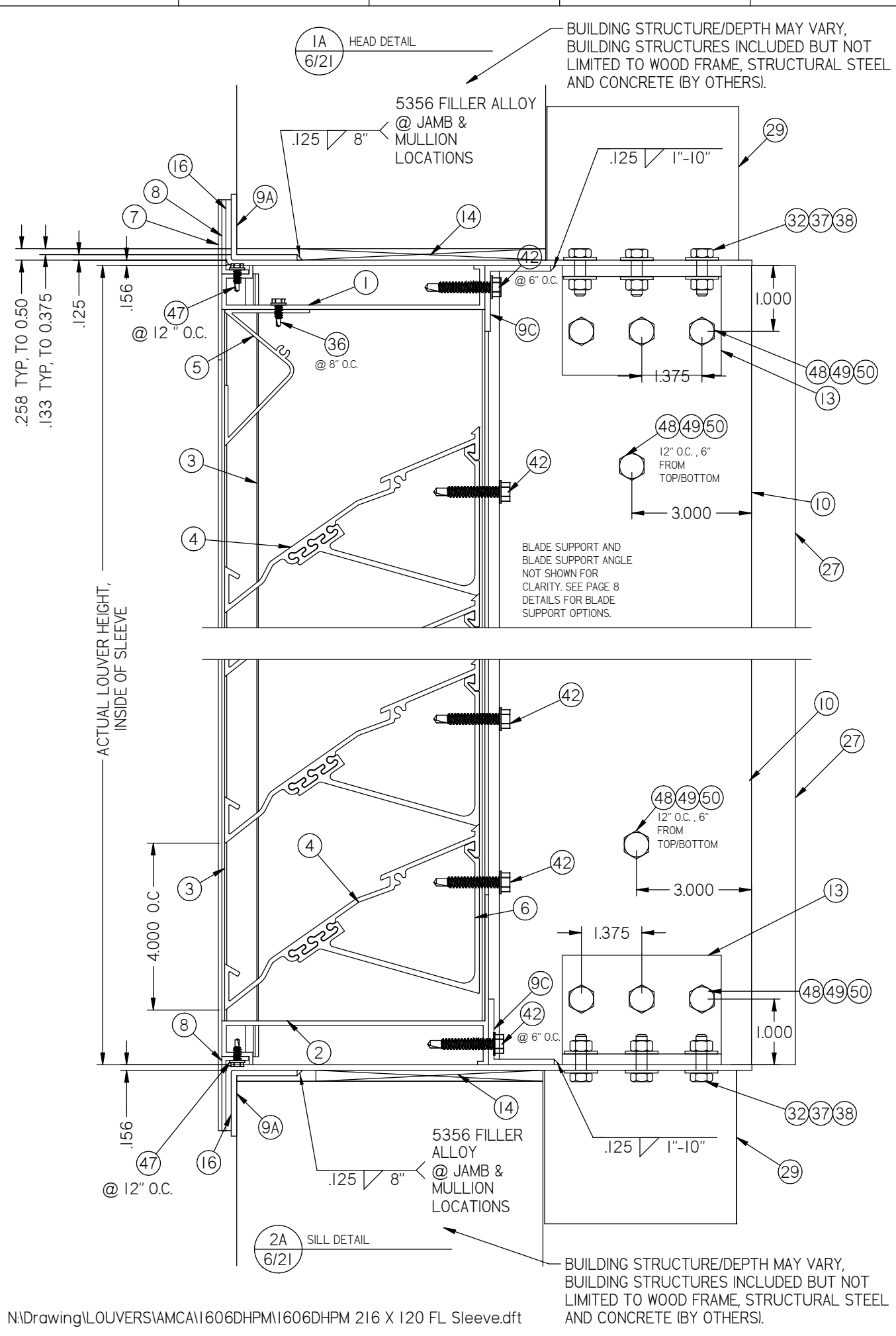
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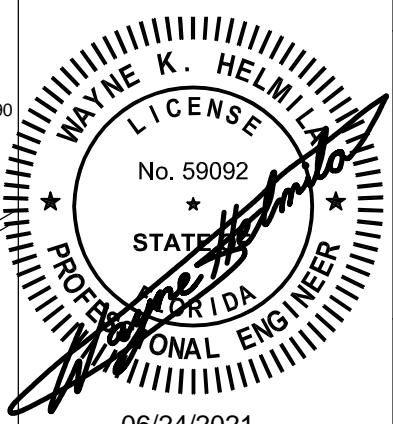
CHK BY: Mastourian	SCALE: NTS	SHEET: 5 OF 21	REV A
DWN BY: fcoirtinas	DATE: 6/14/2017		
 4714 Winfield Road Houston, TX 77039 www.nailor.com TEL: 281-590-1172 FAX: 281-590-3086		DWG. NO. 1606DHPM	
TITLE:		1606DHPM / DAMPER CONTINUOUS ANGLE MOUNT	



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CHK BY: Mastourian
 DWN BY: fcorntinas
 DATE: 6/14/2017
 SCALE: NTS
 SHEET: 6 OF 21
 DWG. NO. 1606DHPM
 REV. A

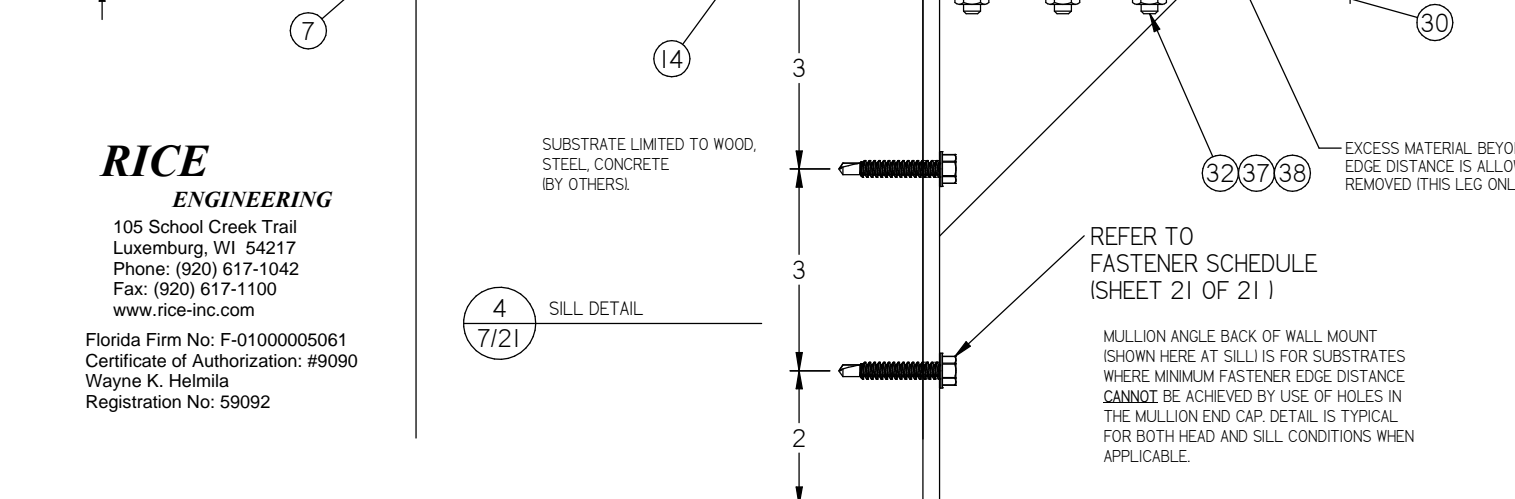
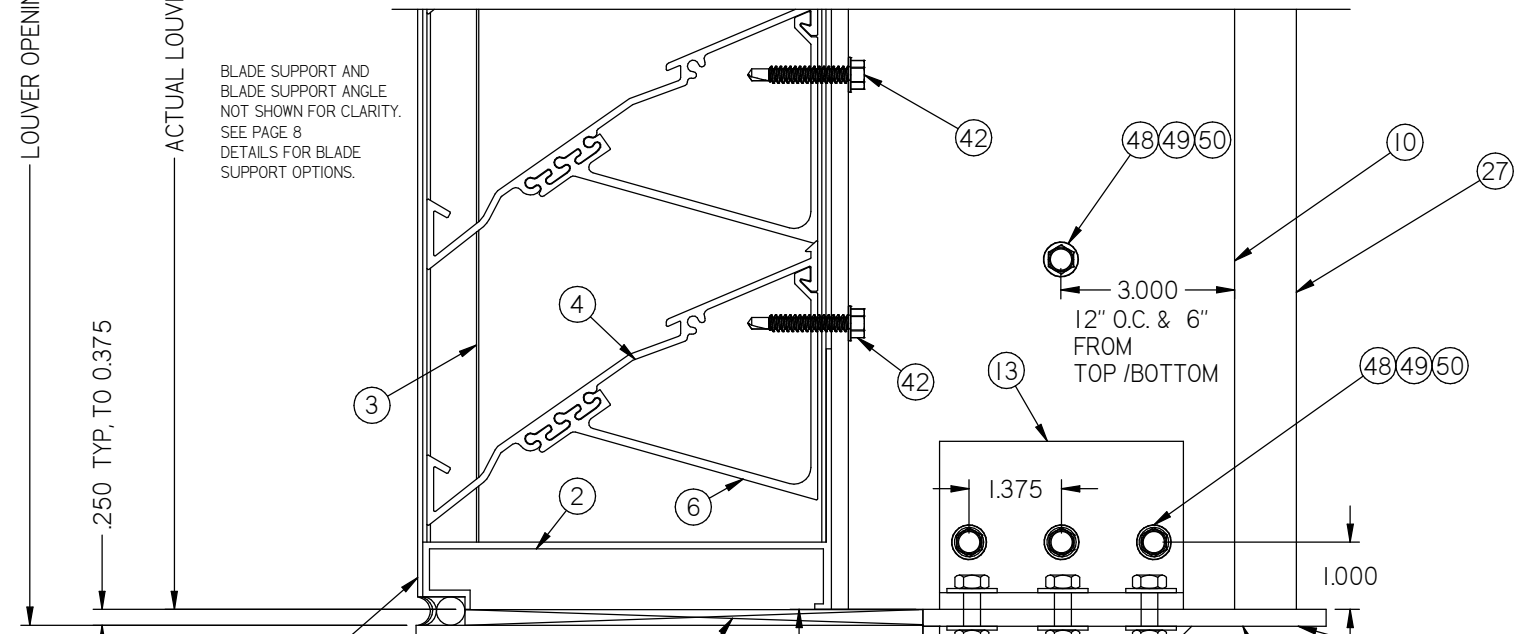
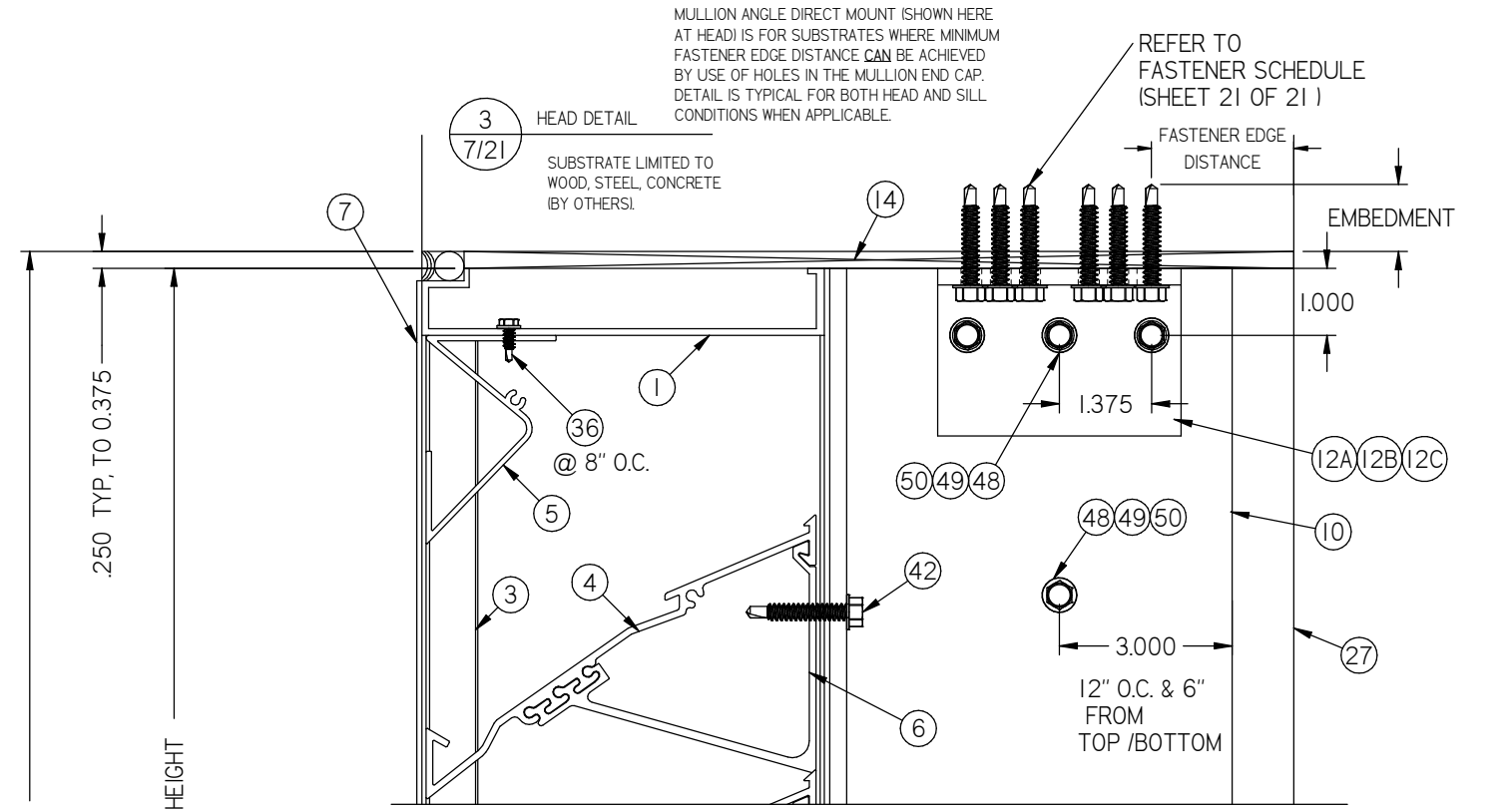
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MULLION ANGLE DIRECT MOUNT (SHOWN HERE AT HEAD) IS FOR SUBSTRATES WHERE MINIMUM FASTENER EDGE DISTANCE CAN BE ACHIEVED BY USE OF HOLES IN THE MULLION END CAP. DETAIL IS TYPICAL FOR BOTH HEAD AND SILL CONDITIONS WHEN APPLICABLE.

REFER TO FASTENER SCHEDULE (SHEET 21 OF 21)



BLADE SUPPORT AND BLADE SUPPORT ANGLE NOT SHOWN FOR CLARITY. SEE PAGE 8 DETAILS FOR BLADE SUPPORT OPTIONS.

SUBSTRATE LIMITED TO WOOD, STEEL, CONCRETE (BY OTHERS!)

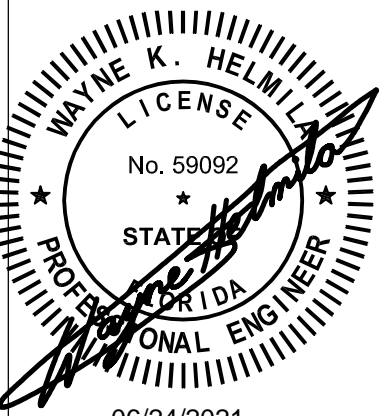
REFER TO FASTENER SCHEDULE (SHEET 21 OF 21)

MULLION ANGLE BACK OF WALL MOUNT (SHOWN HERE AT SILL) IS FOR SUBSTRATES 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.

EXCESS MATERIAL BEYOND FASTENER EDGE DISTANCE IS ALLOWED TO BE REMOVED (THIS LEG ONLY).

PRODUCT RENEWED
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Expiration Date 08/30/2028
By [Signature]
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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-0100005061
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Wayne K. Helmila
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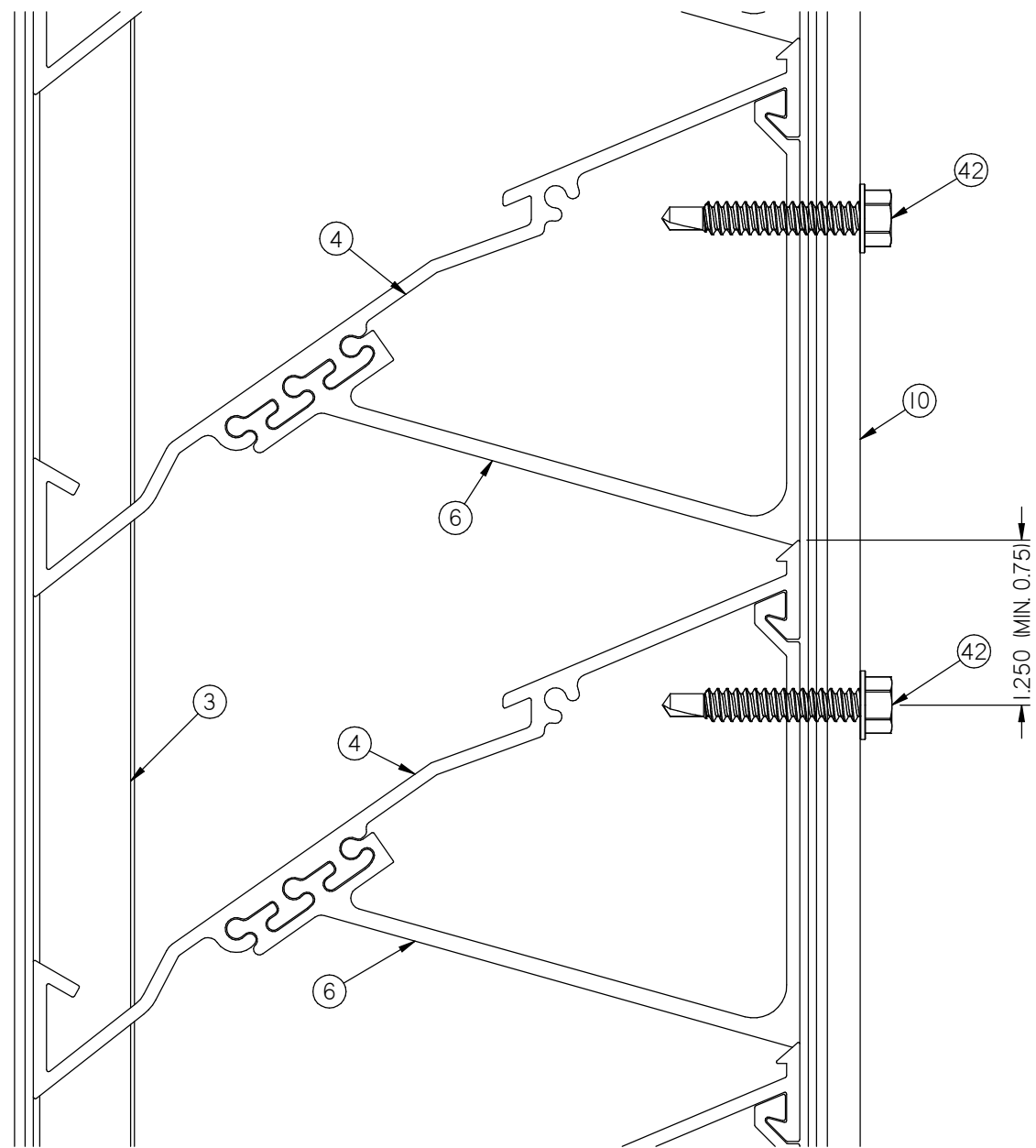


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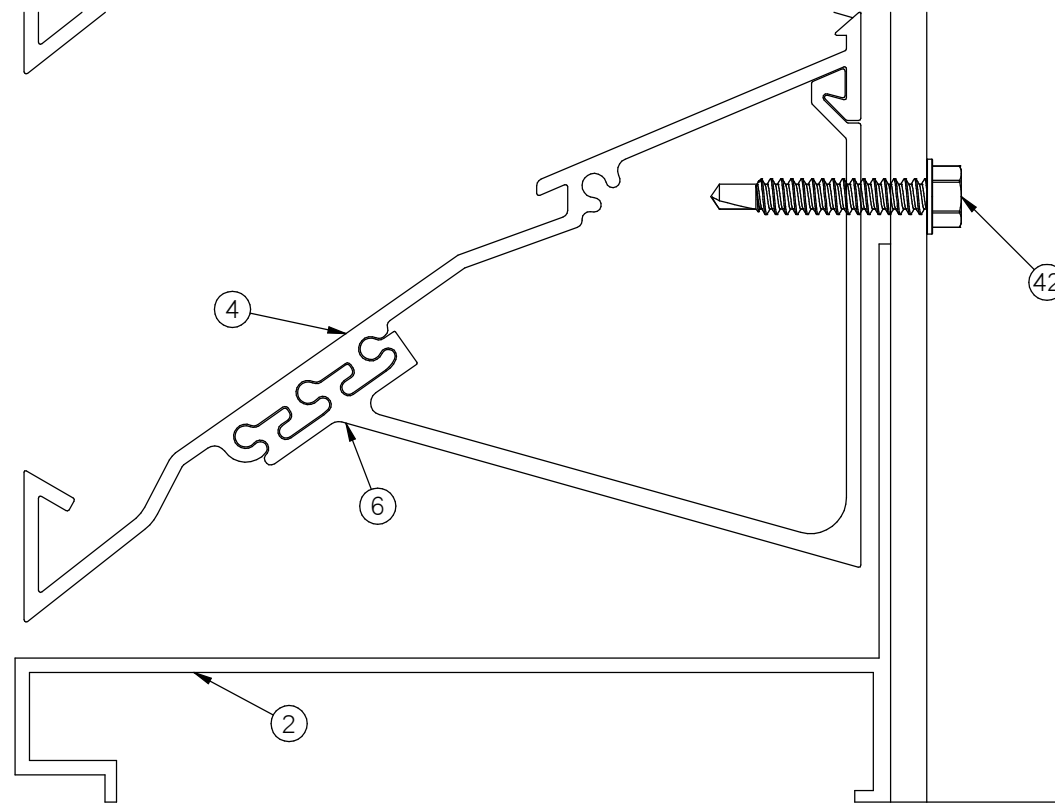
CHK BY: Mastourian
DWN BY: fcorinas
DATE: 6/14/2017
SCALE: NTS
SHEET: 7 OF 21
DWG. NO. 1606DHPM
REV A

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
www.nailor.com TEL: 281-590-1172 FAX: 281-590-3086
TITLE: 1606DHPM LOUVER MULLION ANGLE MOUNT HEAD & SILL DETAILS



5 BLADE SUPPORT DETAIL
8/21

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.

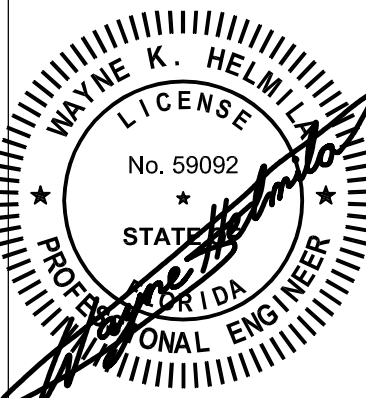


6 BOTTOM BLADE SUPPORT DETAIL
8/21

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 23-0724.23
Expiration Date 08/30/2028
By: *[Signature]*
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



06/24/2021
COA: 9090

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 21-0630.10
Expiration Date: 08/30/2023
By: *[Signature]*
Miami-Dade Product Control

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

DWN BY: fcortinas

DATE: 6/14/2017

CHK BY: Mastourian

SCALE: NTS

SHEET: 8 OF 21

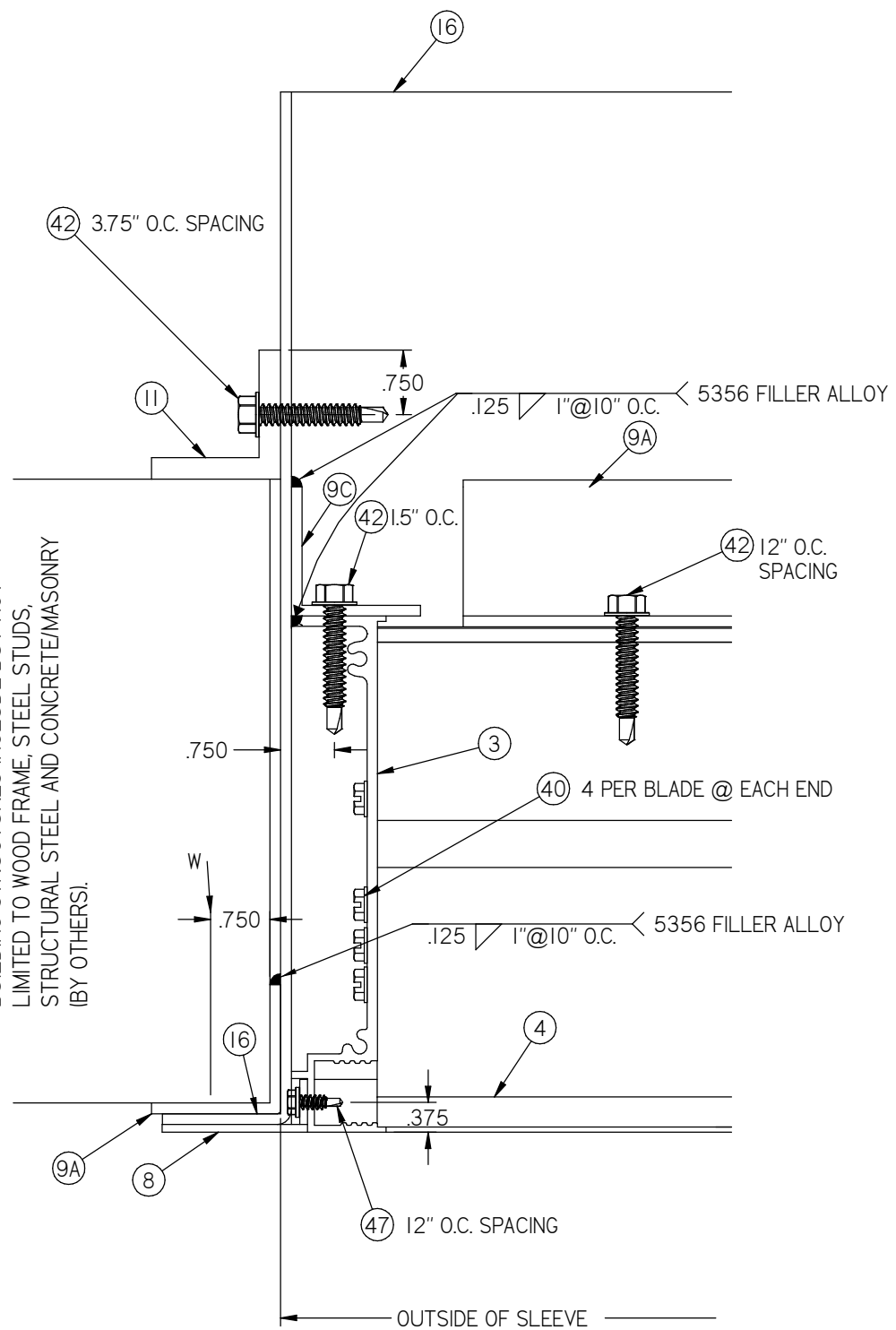
DWG. NO.

1606DHPM

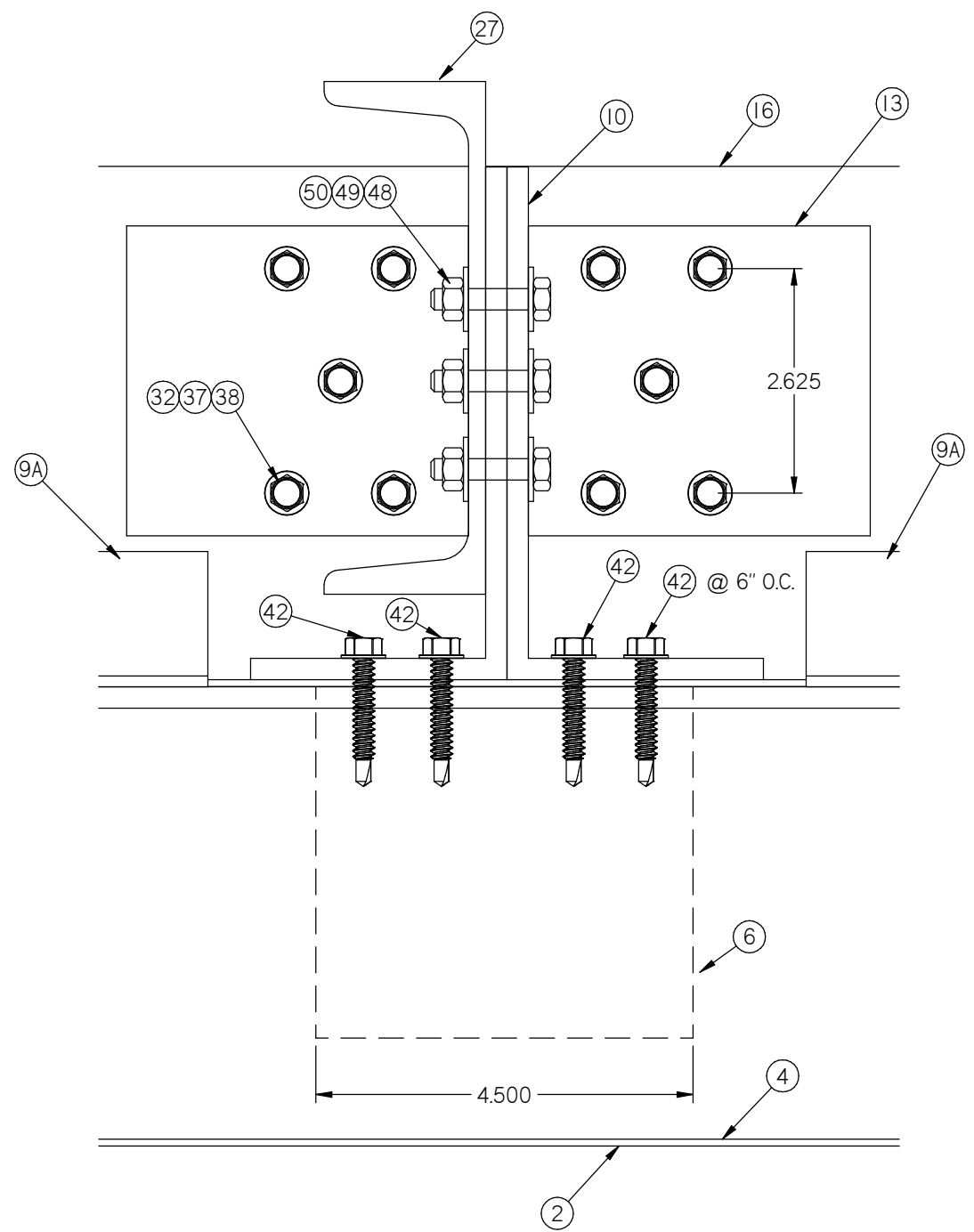
REV

A

BUILDING STRUCTURE/DEPTH MAY VARY.
 BUILDING STRUCTURES INCLUDE BUT NOT
 LIMITED TO WOOD FRAME, STEEL STUDS,
 STRUCTURAL STEEL AND CONCRETE/MASONRY
 (BY OTHERS).



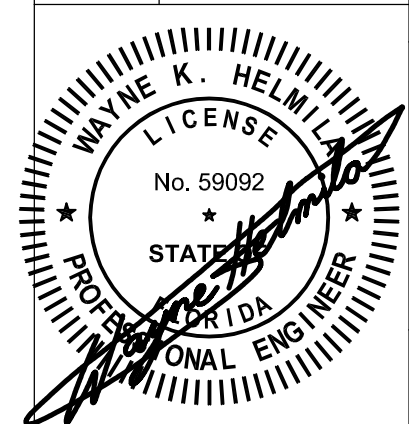
7 JAMB DETAIL
9/21



8 SUPPORT DETAIL
9/21

PRODUCT RENEWED
 as complying with the Florida
 Building Code
 NOA-No. 23-0724.23
 Expiration Date 08/30/2028
 By *[Signature]*
 Miami-Dade Product Control

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 ENGINEERING
 105 School Creek Trail
 Luxemburg, WI 54217
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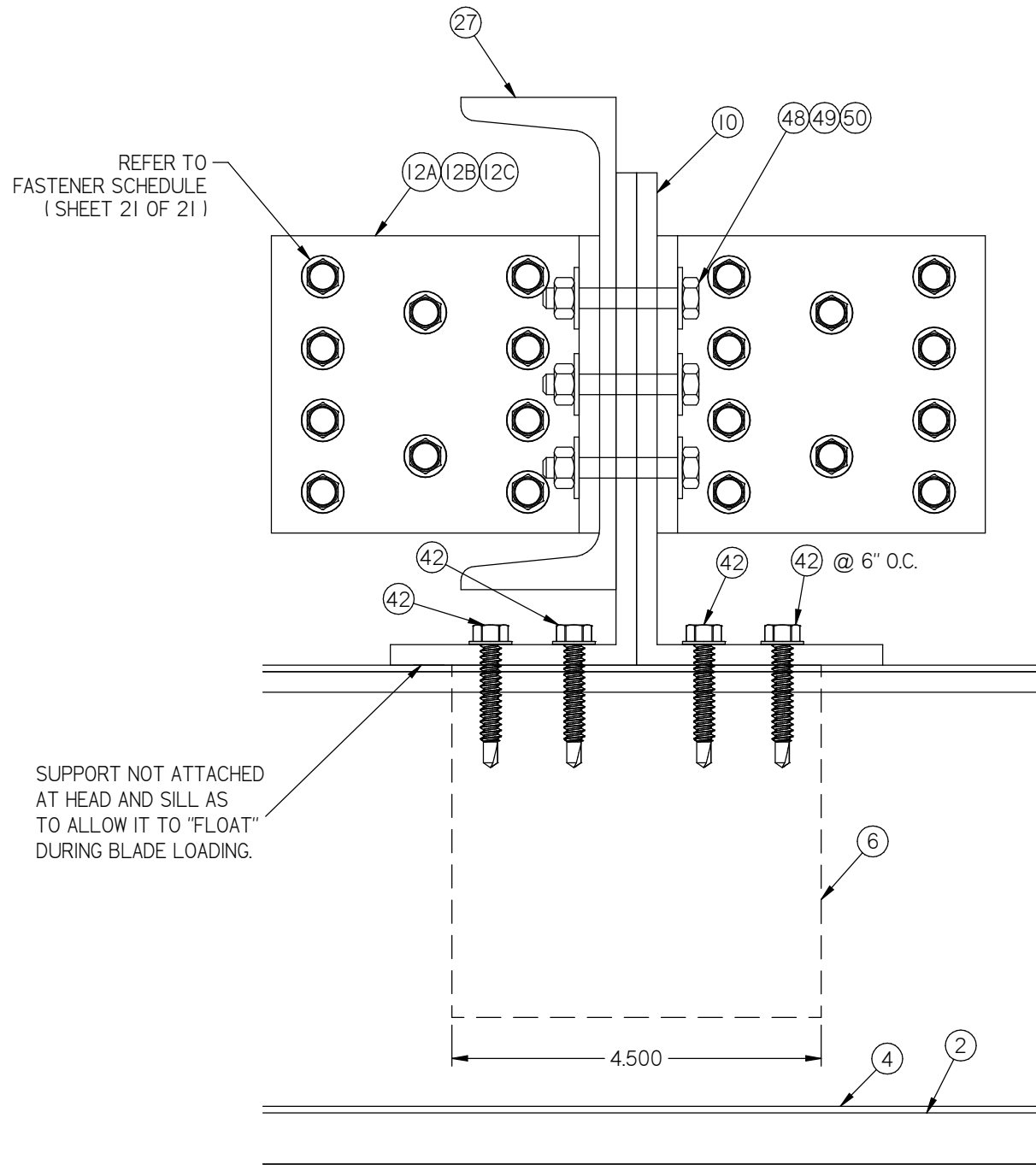
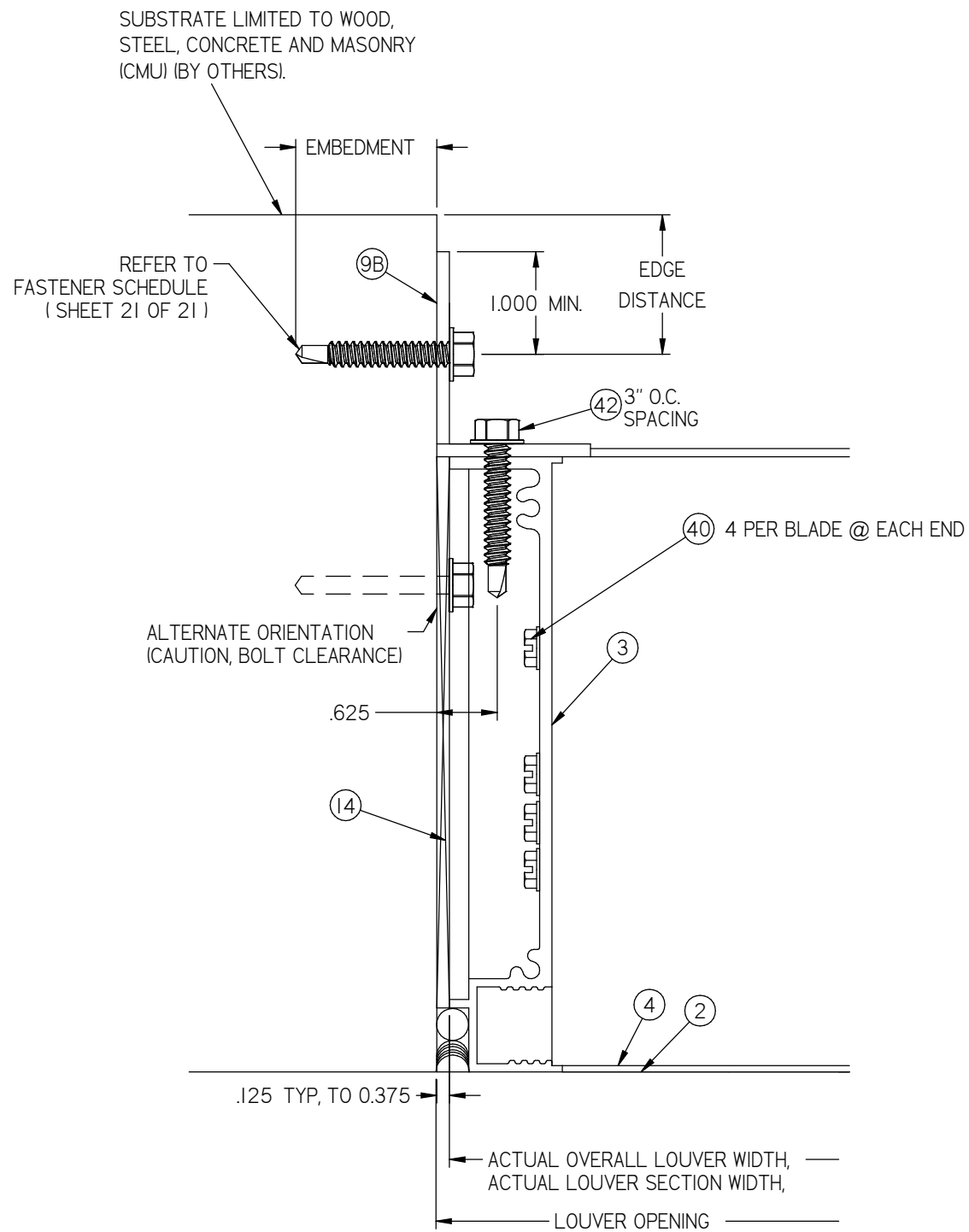


06/24/2021
 COA: 9090

PRODUCT REVISED
 as complying with the Florida
 Building Code
 NOA-No. 21-0630.10
 Expiration Date: 08/30/2023
 By: *[Signature]*
 Miami-Dade Product Control

DWN BY: f cortinas
 DATE: 6/14/2017
 SCALE: NTS
 SHEET: 9 OF 21
 DWG. NO. 1606DHPM
 REV A

Nailor Industries Inc.
 4714 Winfield Road Houston, TX 77039
 www.nailor.com TEL: 281-590-1172 FAX: 281-590-3086
1606DHPM LOUVER
FLANGE FRAME SLEEVE MOUNT
JAMB DETAILS



SUPPORT NOT ATTACHED AT HEAD AND SILL AS TO ALLOW IT TO "FLOAT" DURING BLADE LOADING.

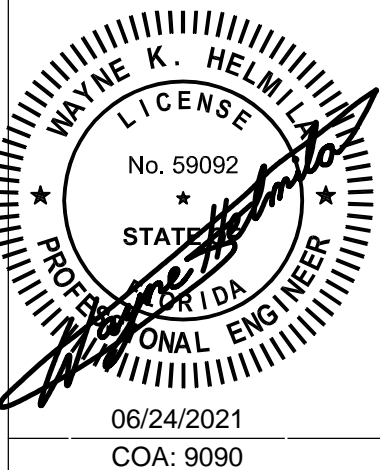
MULLION ANGLE DIRECT MOUNT

9 JAMB DETAIL
10/21

10 SUPPORT DETAIL
10/21

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 23-0724.23
Expiration Date 08/30/2028
By *[Signature]*
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

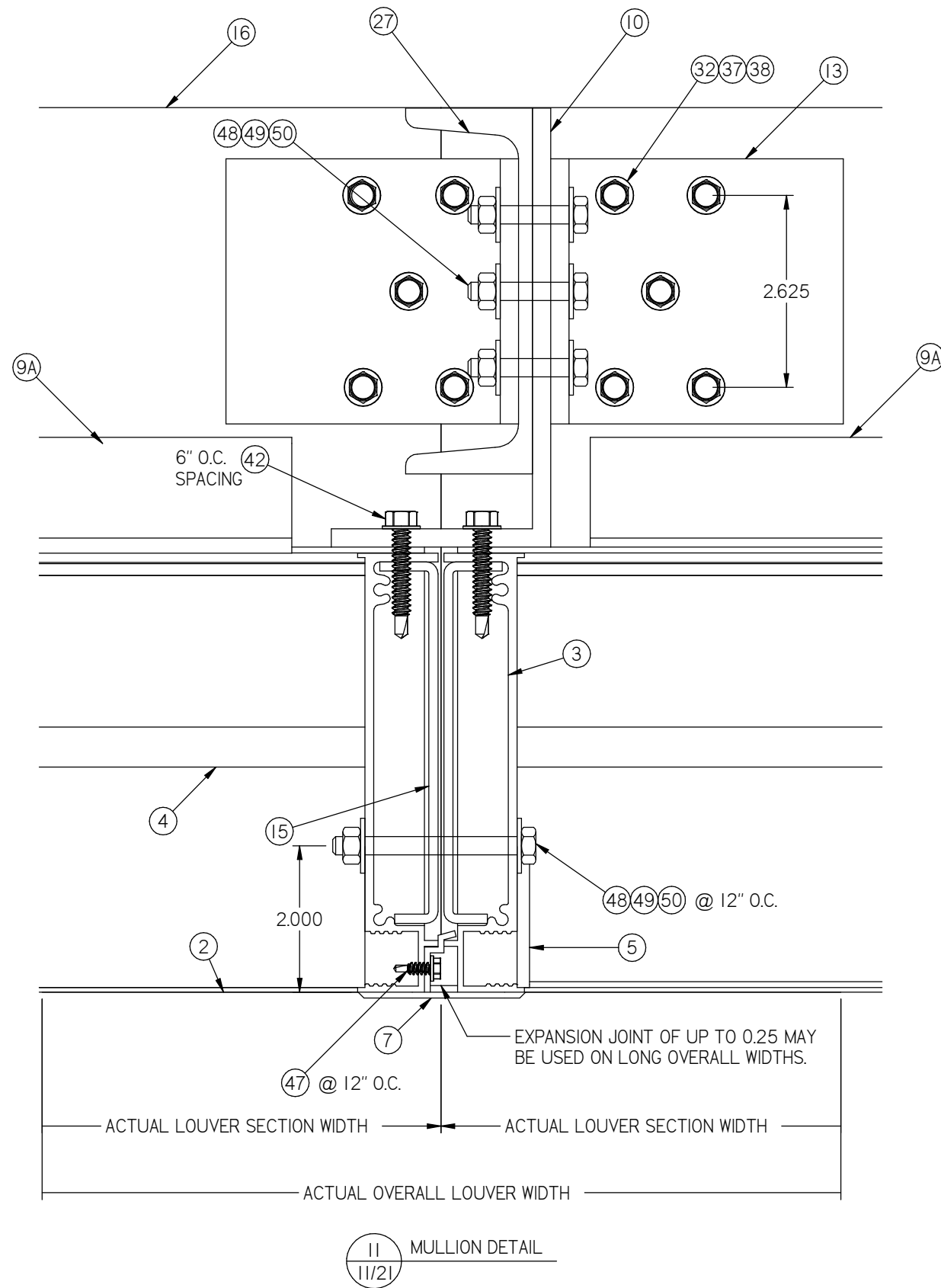


PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 21-0630.10
Expiration Date: 08/30/2023
By: *[Signature]*
Miami-Dade Product Control

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

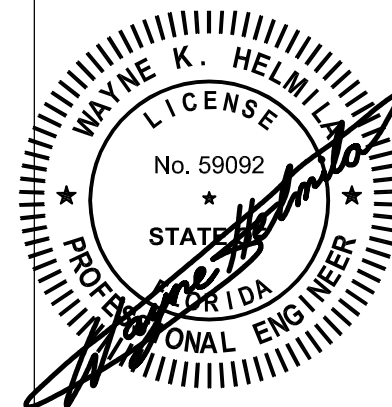
TITLE:
1606DHPM LOUVER
COUNTINOUS ANGLE MOUNT
JAMB DETAIL

DWN BY: fcartinas
CHK BY: Mastourian
DATE: 6/14/2017
SCALE: NTS
SHEET: 10 OF 21
DWG. NO. 1606DHPM
REV. A



PRODUCT RENEWED
 as complying with the Florida
 Building Code
 NOA-No. 23-0724.23
 Expiration Date 08/30/2028
 By [Signature]
 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



06/24/2021
 COA: 9090

PRODUCT REVISED
 as complying with the Florida
 Building Code
 NOA-No. 21-0630.10
 Expiration Date: 08/30/2023
 By: [Signature]
 Miami-Dade Product Control

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**

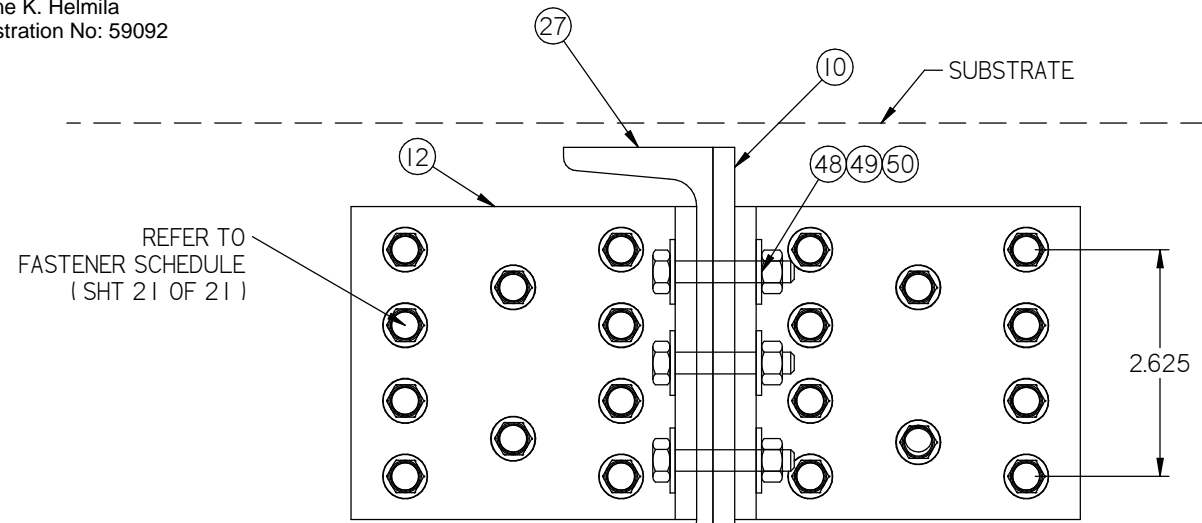
DWN BY: fcortinas
 DATE: 6/14/2017
 CHK BY: Mastourian
 SCALE: NTS

SHEET: 11 OF 21
 DWG. NO. **1606DHPM**
 REV A

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



42 @ 6" O.C.

15

3

4

2.000

48, 49, 50 @ 12" O.C.

2

47 @ 12" O.C.

EXPANSION JOINT OF UP TO 0.25 MAY BE USED ON LONG OVERALL WIDTHS

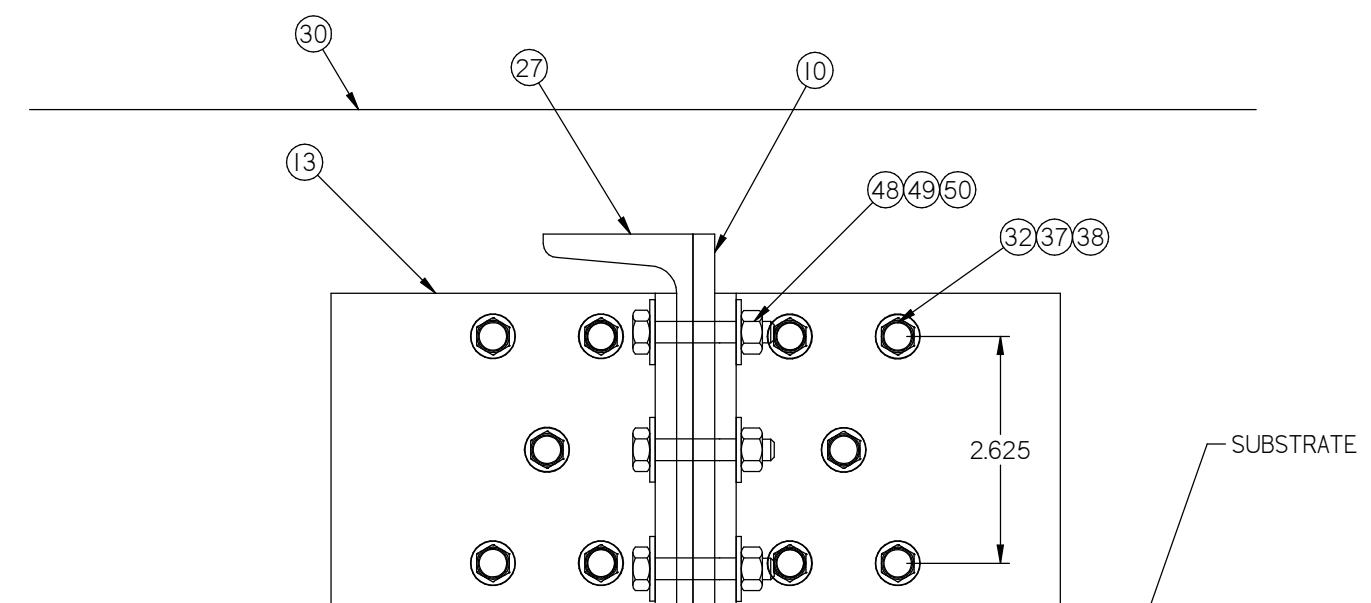
ACTUAL LOUVER SECTION WIDTH

ACTUAL LOUVER SECTION WIDTH

ACTUAL OVERALL LOUVER WIDTH

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 MULLION DETAIL
12/21



42 @ 6" O.C.

15

3

4

2.000

48, 49, 50 @ 12" O.C.

2

47 @ 12" O.C.

EXPANSION JOINT OF UP TO 0.25 MAY BE USED ON LONG OVERALL WIDTHS

ACTUAL LOUVER SECTION WIDTH

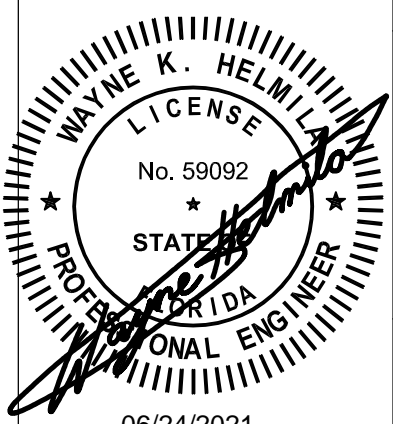
ACTUAL LOUVER SECTION WIDTH

ACTUAL OVERALL LOUVER WIDTH

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 MULLION DETAIL
12/21

PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 23-0724.23
Expiration Date 08/30/2028
By *[Signature]*
Miami-Dade Product Control



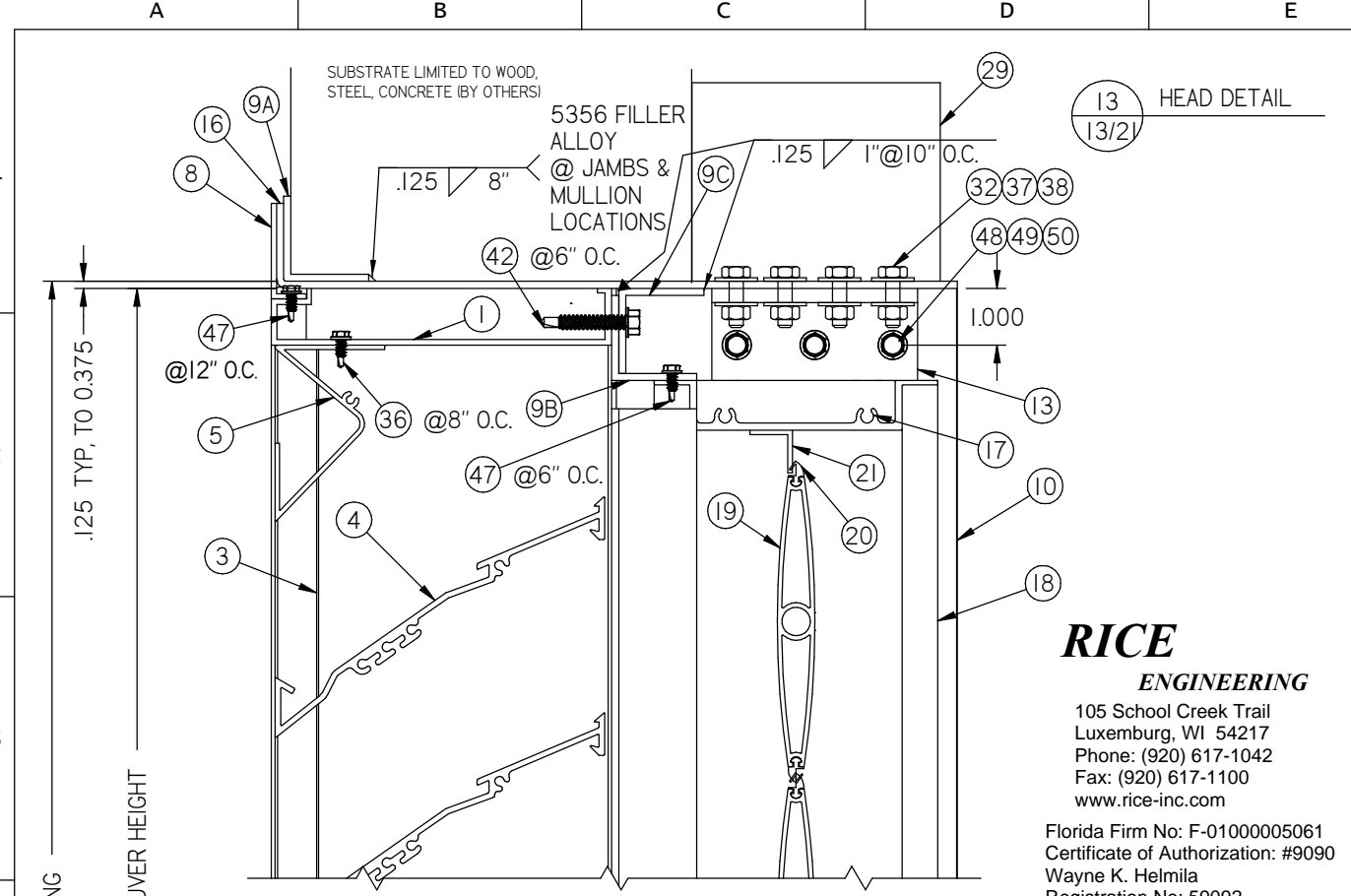
06/24/2021
COA: 9090

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 21-0630.10
Expiration Date: 08/30/2023
By *[Signature]*
Miami-Dade Product Control

CHK BY: Mastourian
DWN BY: fcoirtinas
DATE: 6/14/2017
SCALE: NTS
SHEET: 12 OF 21
DWG. NO. 1606DHPM
REV. A

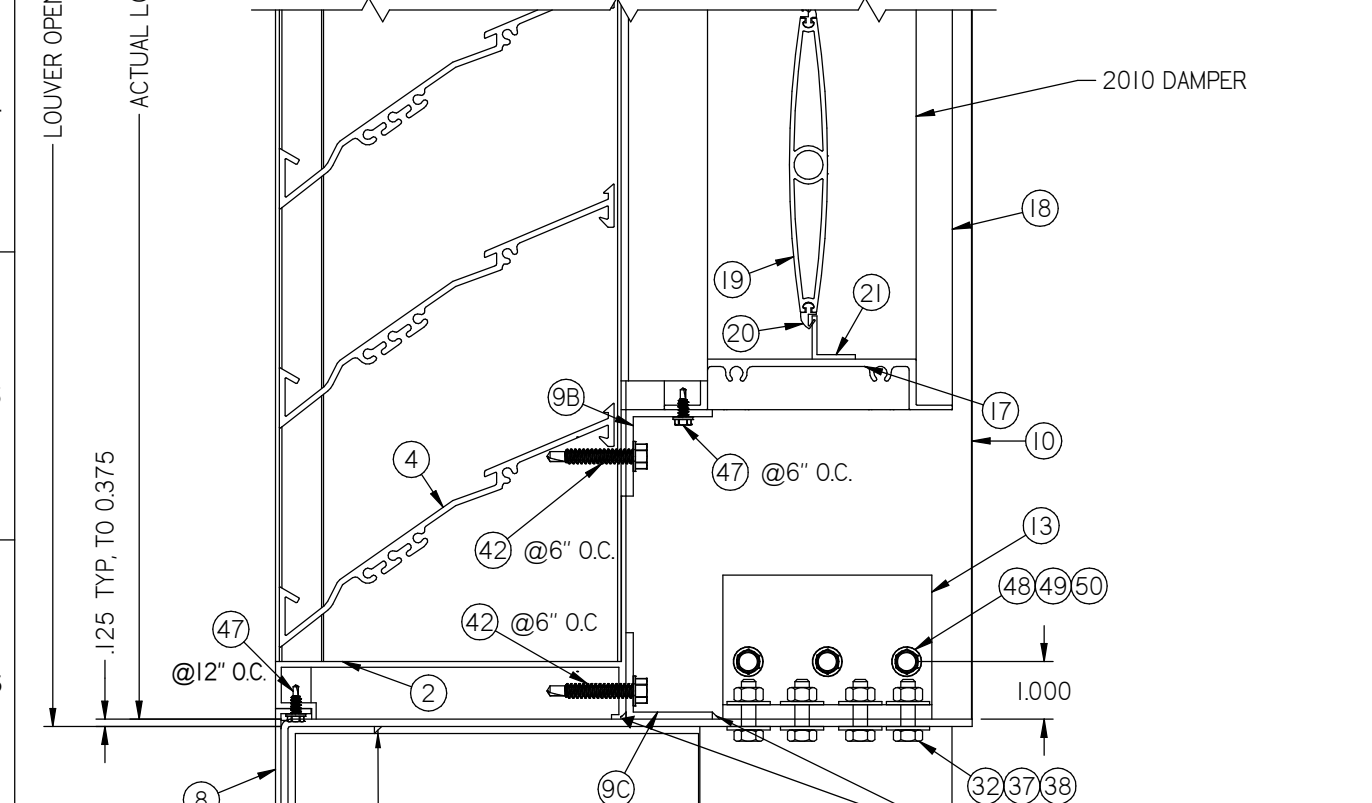
Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
www.nailor.com TEL: 281-590-1172 FAX: 281-590-3086
TITLE: 1606DHPM LOUVER COUNTINOUS ANGLE MOUNT MULLION DETAIL

SUBSTRATE LIMITED TO WOOD, STEEL, CONCRETE (BY OTHERS)



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

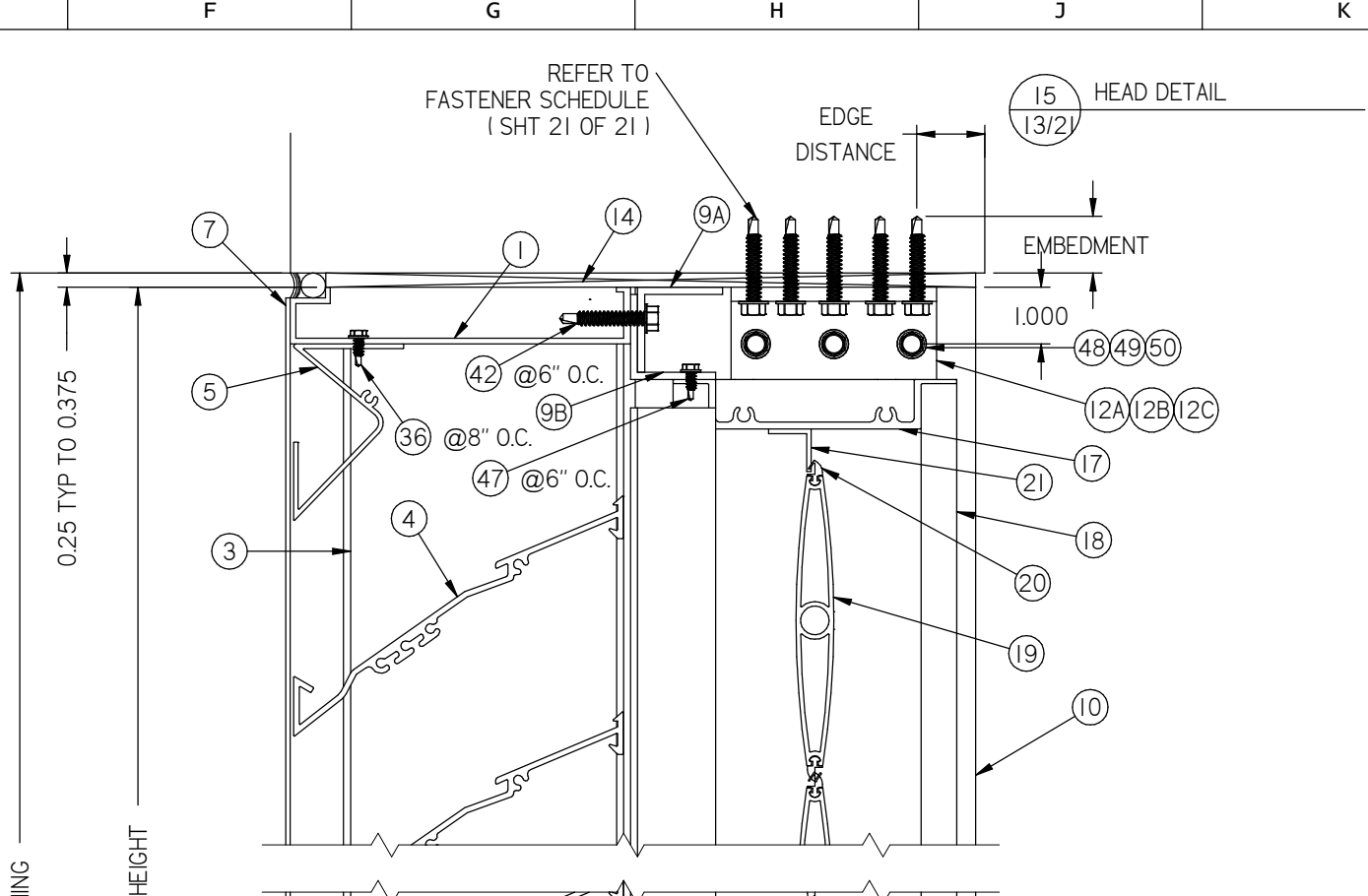
2010 DAMPER



5356 FILLER ALLOY @ JAMBS & MULLION LOCATIONS
1.25 8" @ 6" O.C.
SILL DETAIL 14 13/21
BUILDING STRUCTURE / DEPTH MAY VARY. BUILDING STRUCTURES INCLUDE BUT NOT LIMITED TO WOOD FRAME, STRUCTURAL STEEL, AND CONCRETE (BY OTHERS).
N:\Drawing\LOUVERS\AMCA\1606DHPM\1606DHPM 216 X 120 FL Sleeve.dft

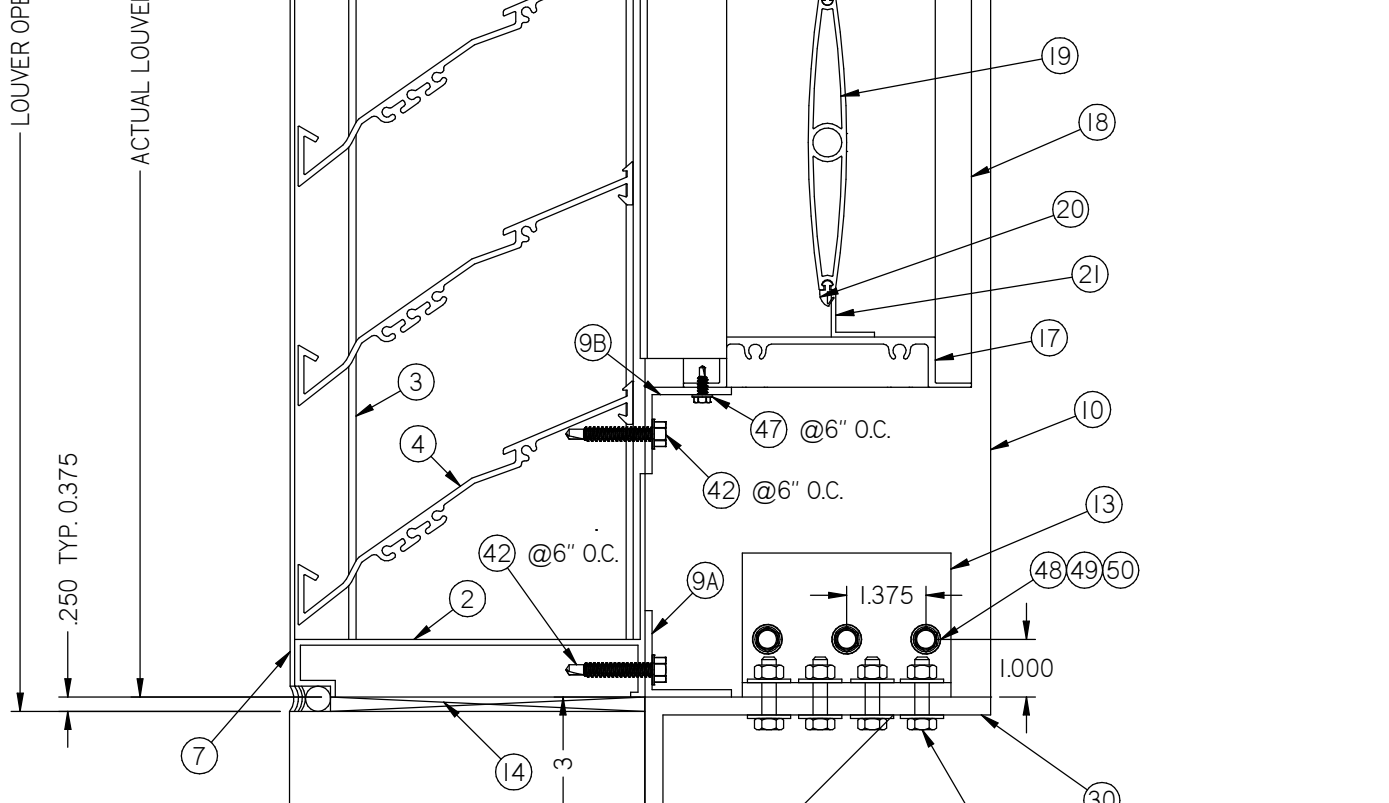
PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 23-0724.23
Expiration Date 08/30/2028
By *[Signature]*
Miami-Dade Product Control

REFER TO FASTENER SCHEDULE (SHT 21 OF 21)



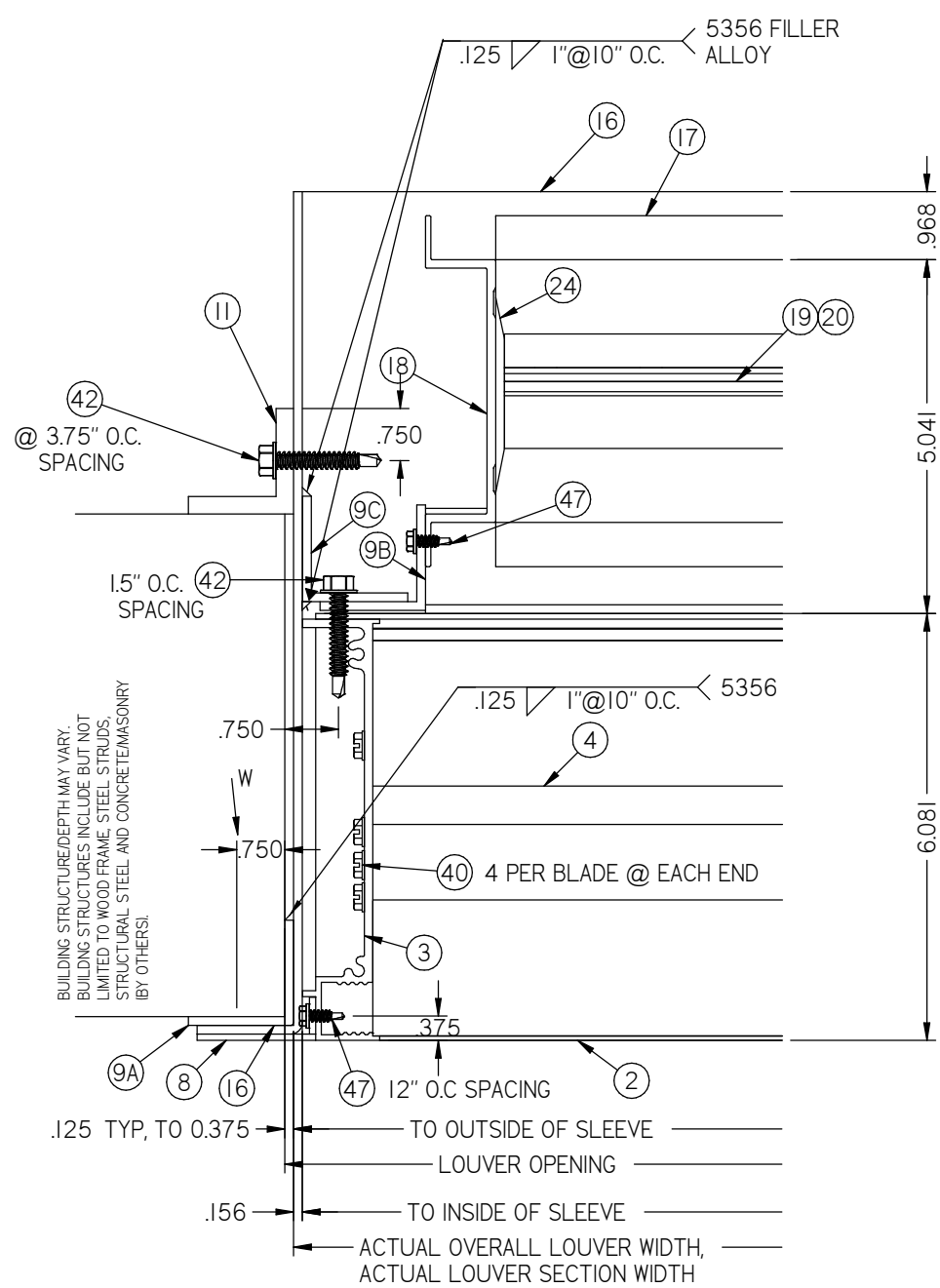
SUBSTRATE (BY OTHERS)

REFER TO FASTENER SCHEDULE (SHEET 21 OF 21)

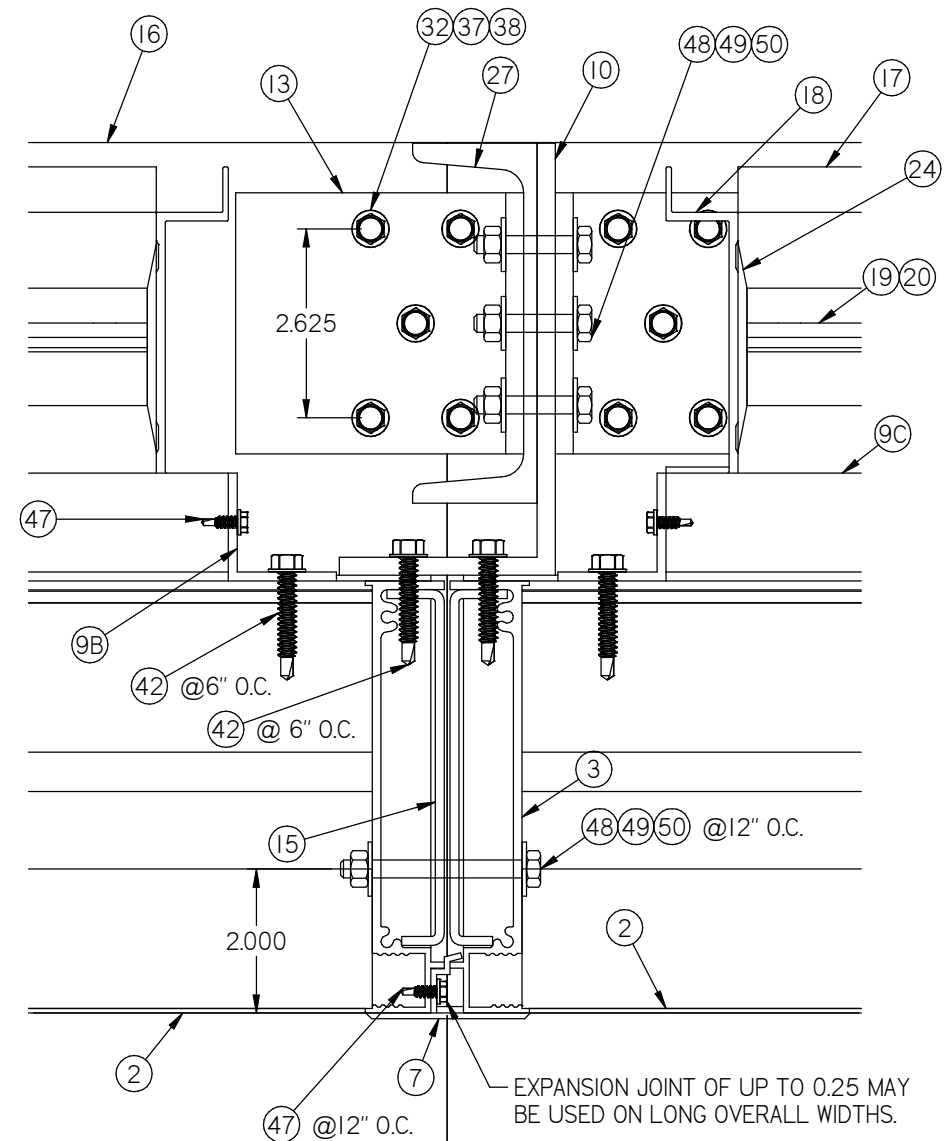


SILL DETAIL 16 13/21

CHK BY: Mastourian		SCALE: NTS	SHEET: 13 OF 21	REV A
DWN BY: fcortinas	DATE: 6/14/2017			
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 W/SLEEVE MULLION ANGLE MOUNT HEAD & SILL DETAIL		
 06/24/2021 COA: 9090		PRODUCT REVISED as complying with the Florida Building Code NOA-No. 21-0630.10 Expiration Date: 08/30/2023 By: <i>[Signature]</i> Miami-Dade Product Control		



17 JAMB DETAIL
14/21

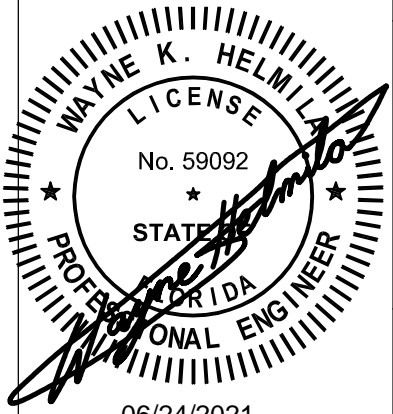


18 MULLION DETAIL
14/21

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 23-0724.23
Expiration Date 08/30/2028
By *[Signature]*
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



06/24/2021
COA: 9090

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 21-0630.10
Expiration Date: 08/30/2023
By: *[Signature]*
Miami-Dade Product Control

DWN BY: fcortinas
CHK BY: Mastourian
DATE: 6/14/2017
SCALE: NTS
SHEET: 14 OF 21
DWG. NO. 1606DHPM
REV. A

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

REFER TO FASTENER SCHEDULE (SHEET 21 OF 21)

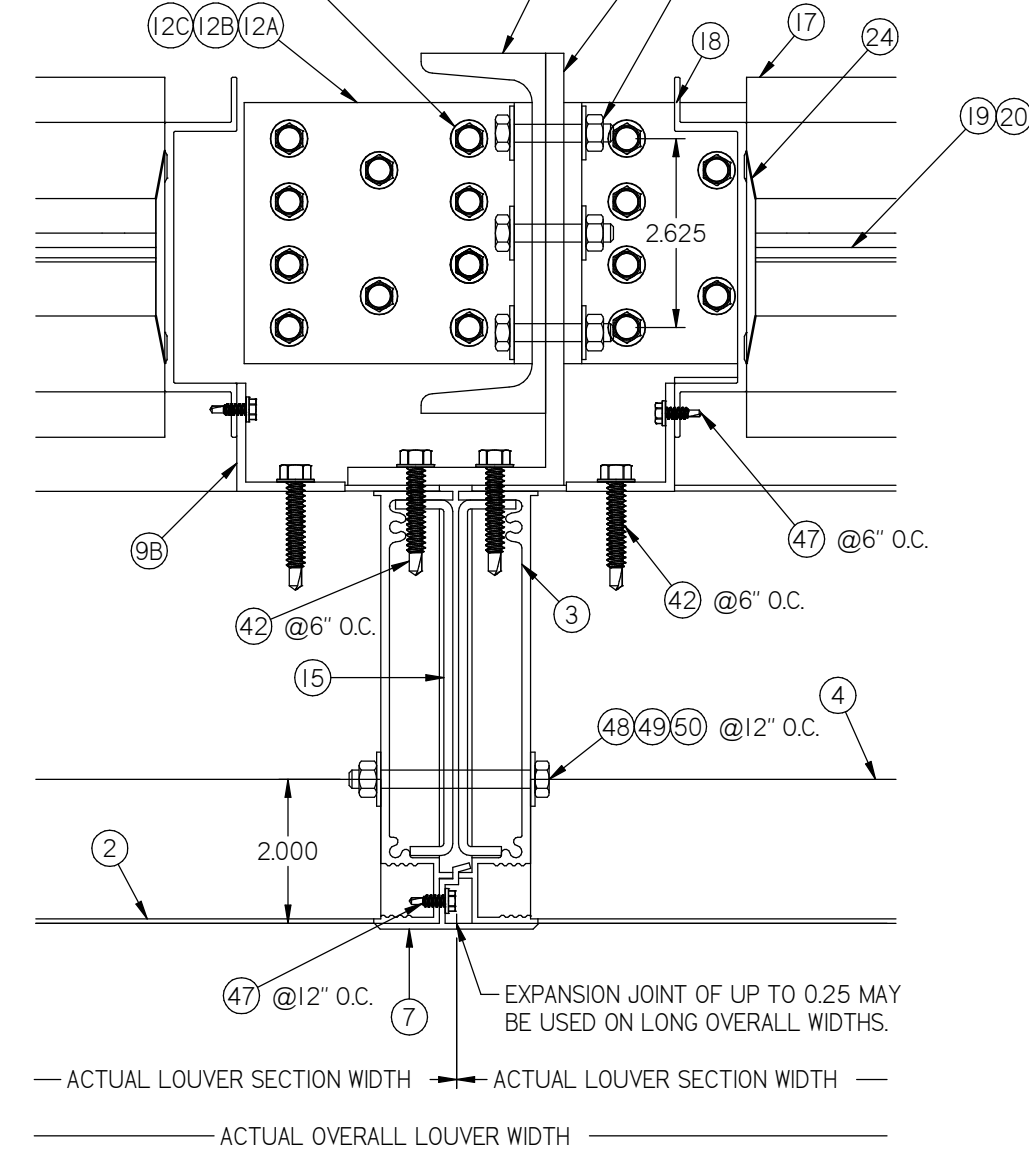
EDGE DISTANCE
ALTERNATE ORIENTATION (CAUTION, BOLT CLEARANCE)

SUBSTRATE LIMITED TO WOOD, STEEL, CONCRETE AND MASONRY (CMU) (BY OTHERS).

.125 TYP, TO 0.375
ACTUAL OVERALL LOUVER WIDTH, ACTUAL LOUVER SECTION WIDTH
LOUVER OPENING

19 JAMB DETAIL
15/21

REFER TO FASTENER SCHEDULE (SHT 21 of 21)



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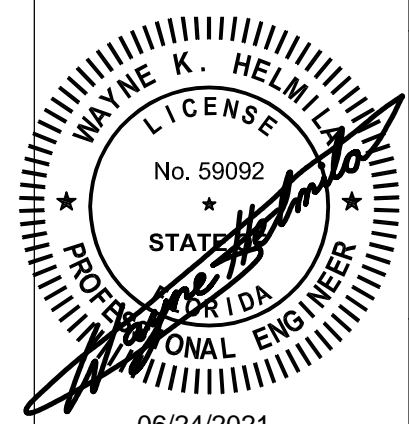
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092

20 MULLION DETAIL
15/21

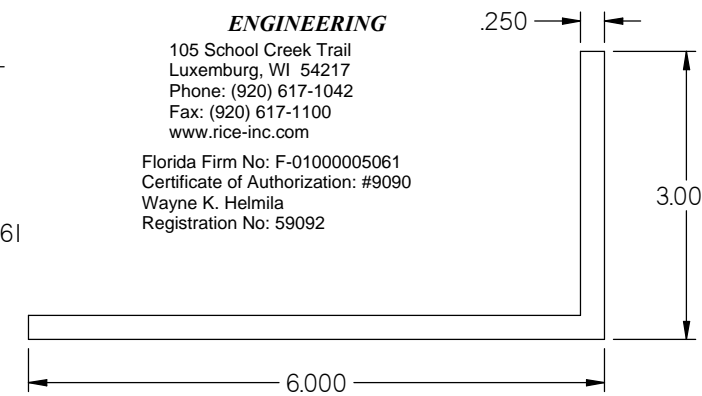
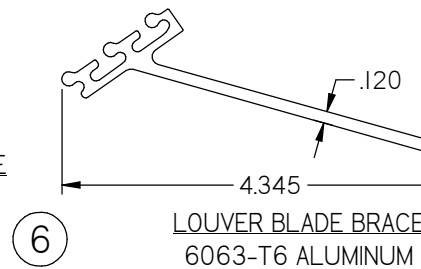
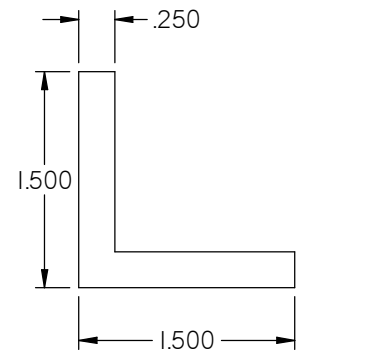
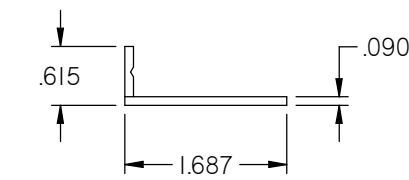
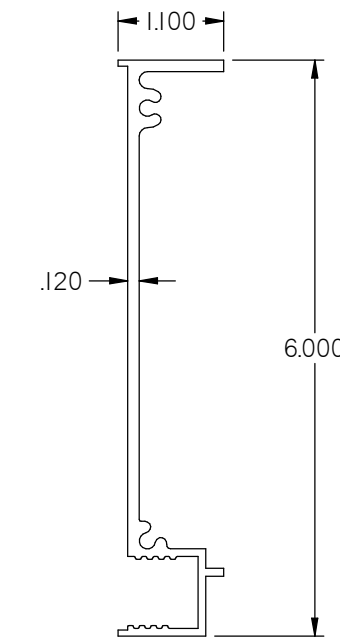
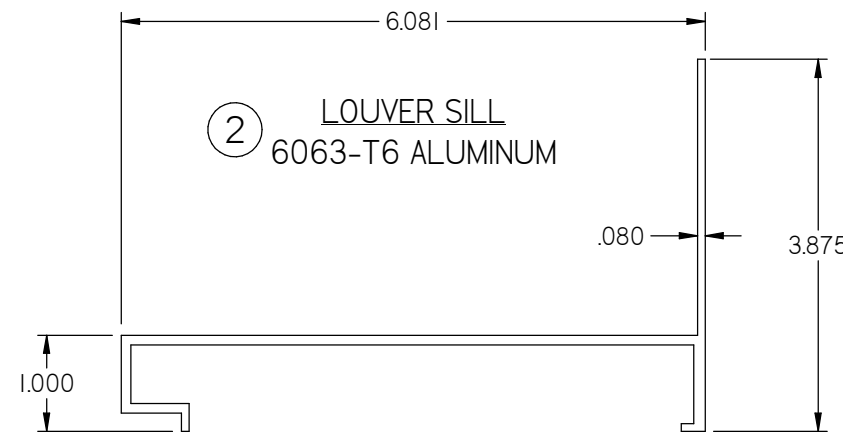
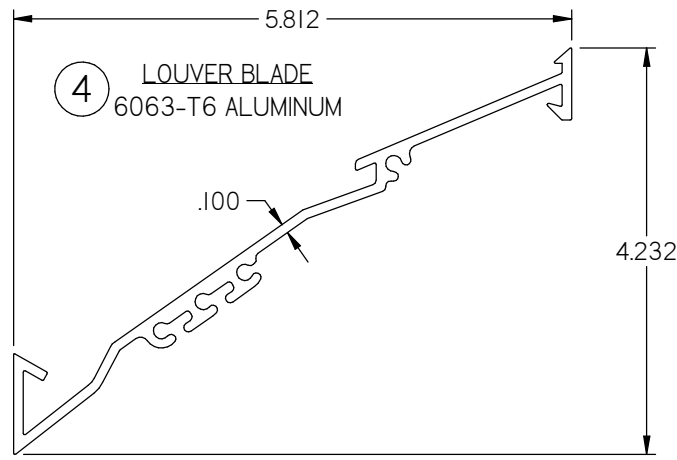
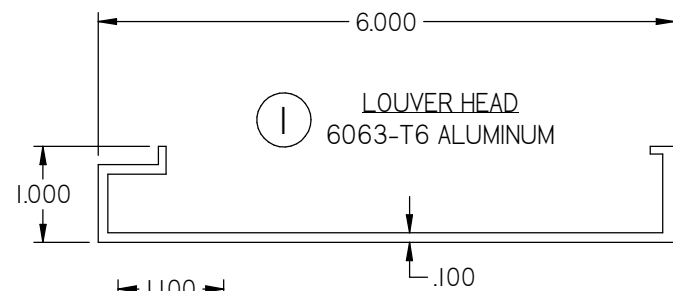
PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 23-0724.23
Expiration Date 08/30/2028
By *[Signature]*
Miami-Dade Product Control

CHK BY: Mastourian
DWN BY: fcortinas
DATE: 6/14/2017
SCALE: NTS
SHEET: 15 OF 21
DWG. NO. 1606DHPM
REV. A

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
www.nailor.com TEL: 281-590-1172 FAX: 281-590-3086
TITLE: 1606DHPM LOUVER / DAMPER CONTINUOUS ANGLE MOUNT JAMB AND MULLION DETAIL



06/24/2021
COA: 9090
PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 21-0630.10
Expiration Date: 08/30/2023
By: *[Signature]*
Miami-Dade Product Control



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Wayne K. Helmila
Registration No: 59092

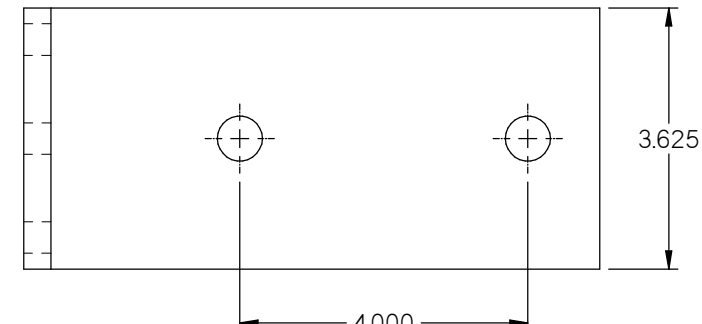
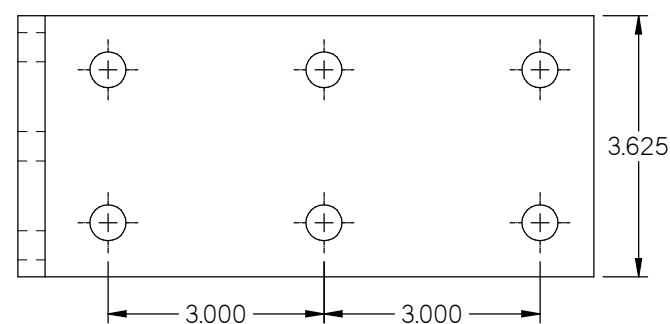
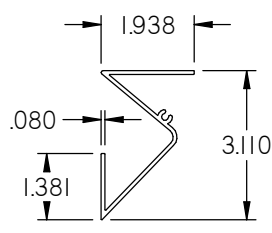
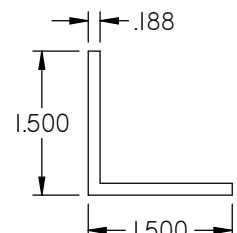
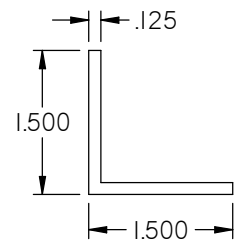
③ LOUVER JAMB
6063-T6 ALUMINUM

⑦ MULLION COVER
6063-T6 ALUMINUM

⑪ LOUVER SLEEVE MOUNT ANGLE
6063-T6 ALUMINUM

⑥ LOUVER BLADE BRACE
6063-T6 ALUMINUM

⑩ LOUVER SUPPORT ANGLE
6061-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 8.00 X 0.375 X 3.625 LONG
6061-T6 ALUM. ANGLE
FOR 1/2" DIA SS. LAG SCREW

⑫C MULLION MOUNTING ANGLE
3.00 X 8.00 X 0.375 X 3.625 LONG
6061-T6 ALUM. ANGLE
FOR 5/8" HILTI KWIK BOLT TZ SS 304 ANCHOR

PRODUCT RENEWED
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NOA-No. 23-0724.23
Expiration Date 08/30/2028
By *[Signature]*
Miami-Dade Product Control



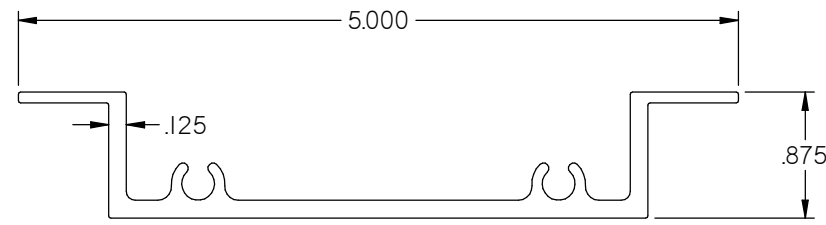
06/24/2021
COA: 9090

PRODUCT REVISED
as complying with the Florida Building Code
NOA-No. 21-0630.10
Expiration Date: 08/30/2023
By *[Signature]*
Miami-Dade Product Control

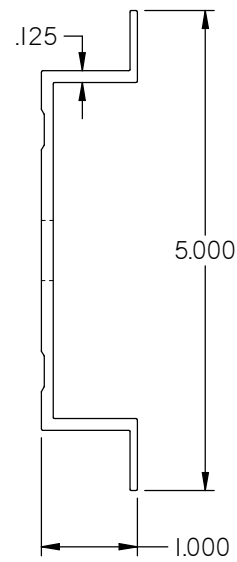
REVISIONS:
ADDED 12A, 12B, 12C
MOVED 13, 14, 15 TO PG17 OF 21

DWN BY: fcortinas
CHK BY: Mastourian
DATE: 6/14/2017
SCALE: NTS
SHEET: 16 OF 21
DWG. NO. 1606DHPM
REV. A

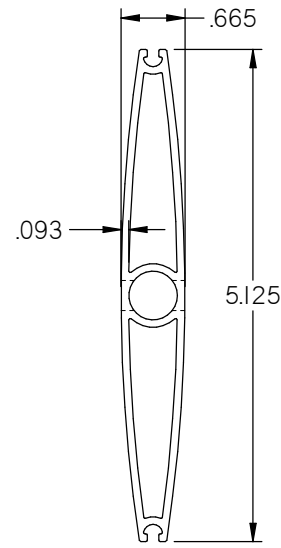
Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
www.nailor.com TEL: 281-590-1172 FAX: 281-590-3086
TITLE: 1606DHPM LOUVER, W/ AND W/O DAMPER SLEEVE/CONTINUOUS MOUNT PART PROFILES



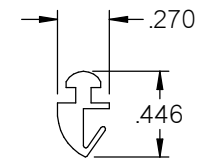
17 DAMPER HEAD/SILL
6063-T6 ALUMINUM



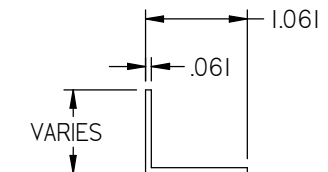
18 DAMPER JAMB
6063-T6 ALUMINUM



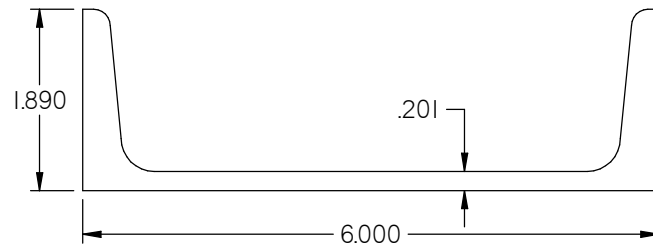
19 DAMPER BLADE
6063-T6 ALUMINUM



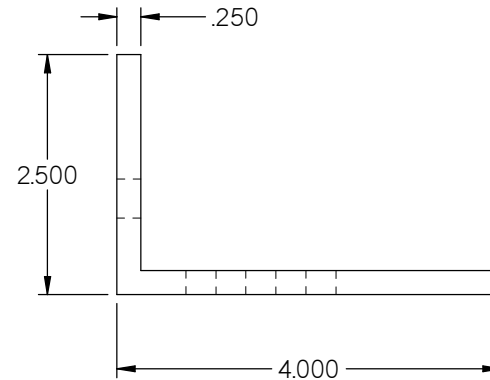
20 DAMPER BLADE SEAL
MATERIAL VARIES



21 DAMPER TOP/BOTTOM
CLOSER
ALUMINUM

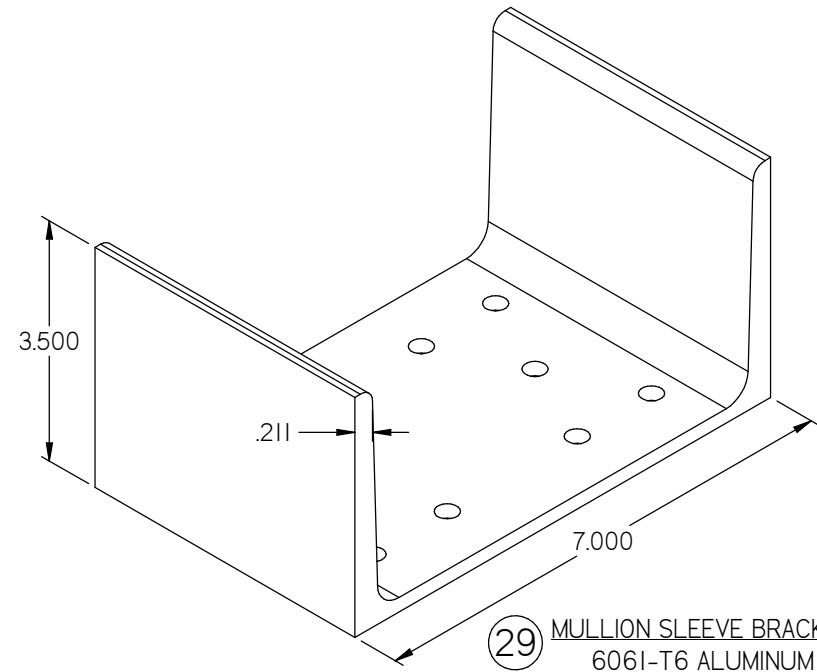


27 LOUVER BRACE
SUPPORT CHANNEL
C6X8.2 ASTM A36 STEEL CHANNEL



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

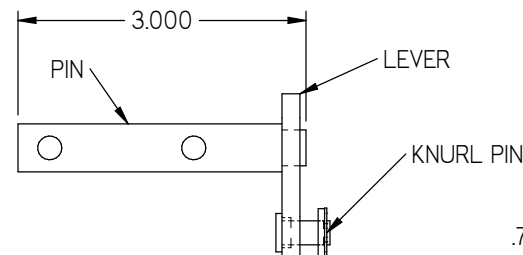
RICE
ENGINEERING
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092



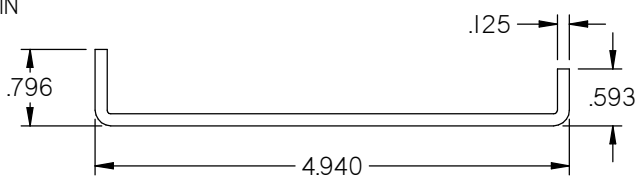
29 MULLION SLEEVE BRACKET
6061-T6 ALUMINUM



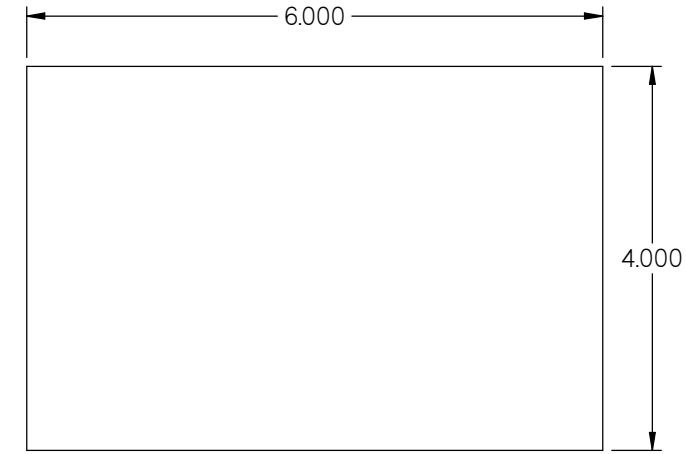
22 DAMPER BUSHING
MATERIAL VARIES



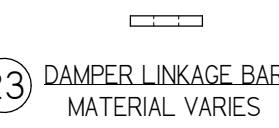
25 NON DRIVE DAMPER AXEL ASM
MATERIAL VARIES



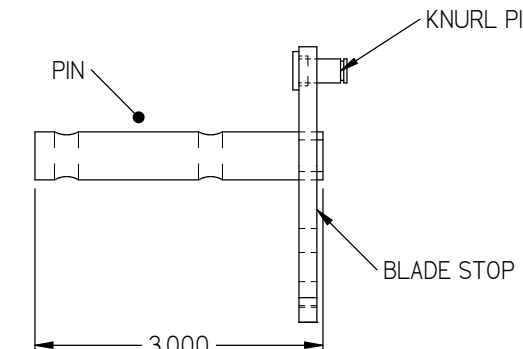
15 MULLION STIFFNER ALUM.
6063-T6 ALUMINUM



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



23 DAMPER LINKAGE BAR
MATERIAL VARIES



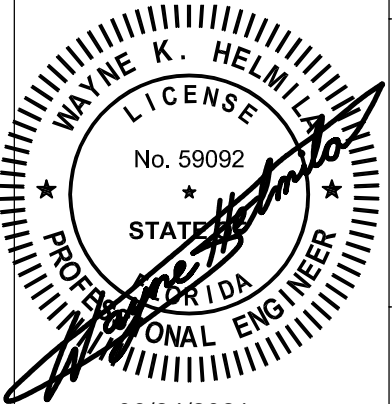
26 DRIVE SIDE DAMPER AXLE ASM
MATERIAL VARIES



16 SLEEVE FORMED ALUM.
5052-H32 ALUMINUM

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 23-0724.23
Expiration Date 08/30/2028
By *[Signature]*
Miami-Dade Product Control

REVISIONS:
REV A: MOVED MULLION BRACKET TO 18 OF 21
MOVED 13, 14, 15, 16, FROM PG 16 OF 21



06/24/2021
COA: 9090

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 21-0630.10
Expiration Date: 08/30/2023
By: *[Signature]*
Miami-Dade Product Control

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
PART PROFILES

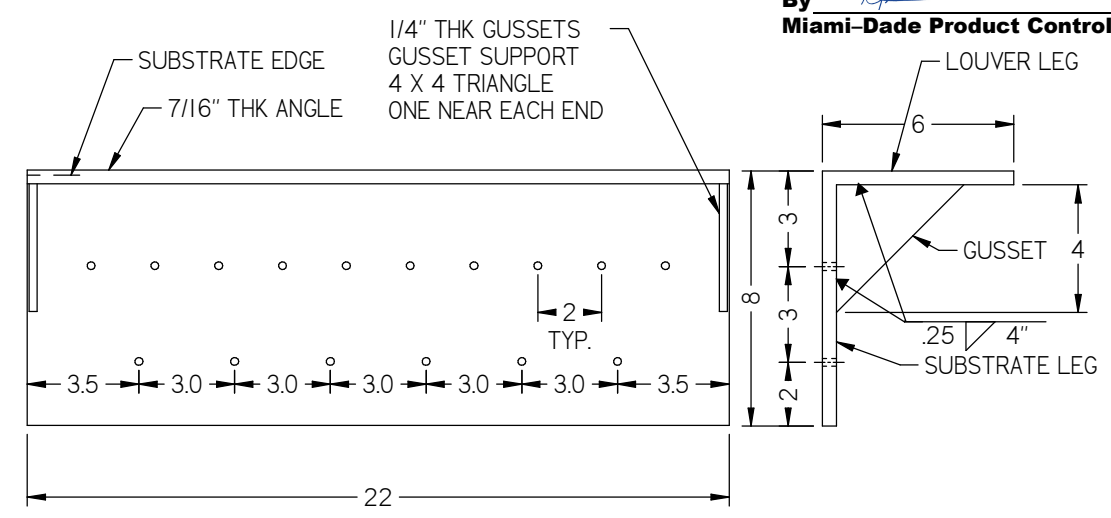
DWN BY: fcoirtinas
CHK BY: Mastourian
DATE: 6/14/2017
SCALE: NTS
SHEET: 17 OF 21
DWG. NO. 1606DHPM
REV. A

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

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 23-0724.23
Expiration Date 08/30/2028
By *[Signature]*
Miami-Dade Product Control

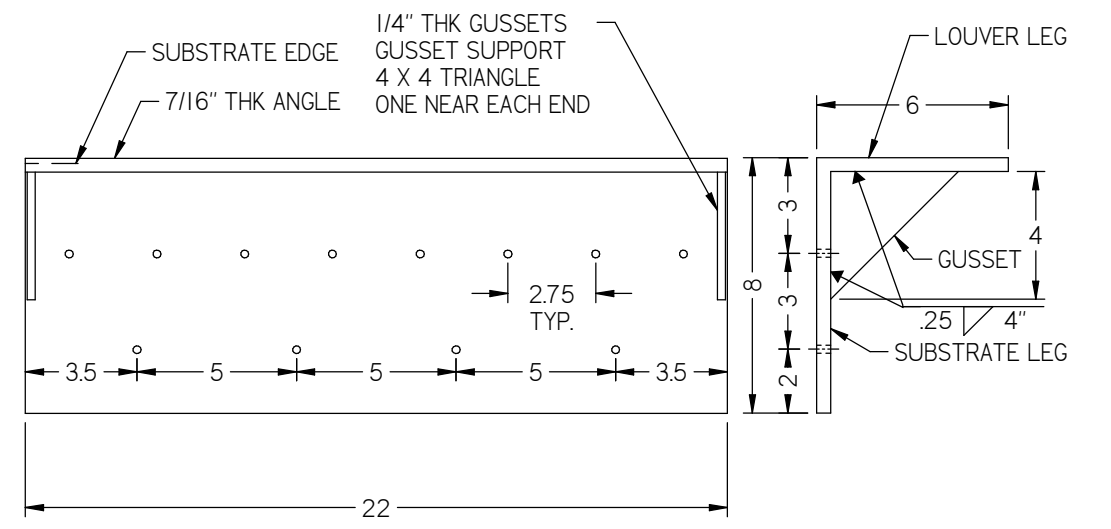
1/4" DIA LAG SCREWS ANCHORS:

USE (I6) 1/4" DIA X 6" LONG
STANDARD HEX LAG SCREW
6" FULL THREAD ENGAGEMENT
1" MIN. EDGE/END DISTANCE
SPACING AS SHOWN
ASSUME: SPRUCE/PINE/FIR, SG=0.42



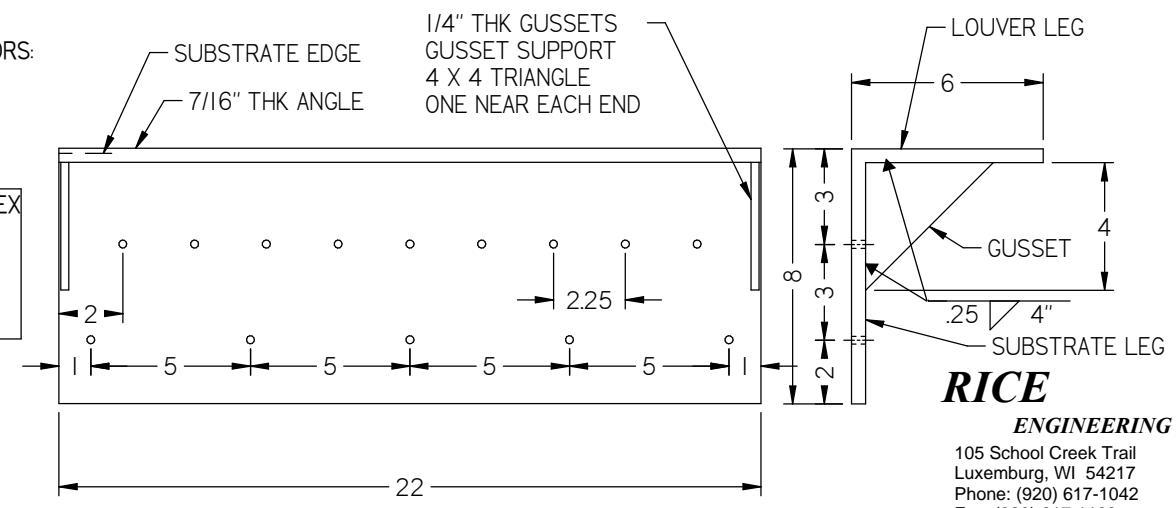
3/8" DIA. LAG SCREWS ANCHORS:

USE (I2) 3/8" DIA X 6 LONG
STANDARD HEX LAG SCREW
6" FULL THREAD ENGAGEMENT
1-1/2" MIN. EDGE/END DISTANCE
SPACING AS SHOWN
ASSUME: SPRUCE/PINE/FIR, SG=0.42

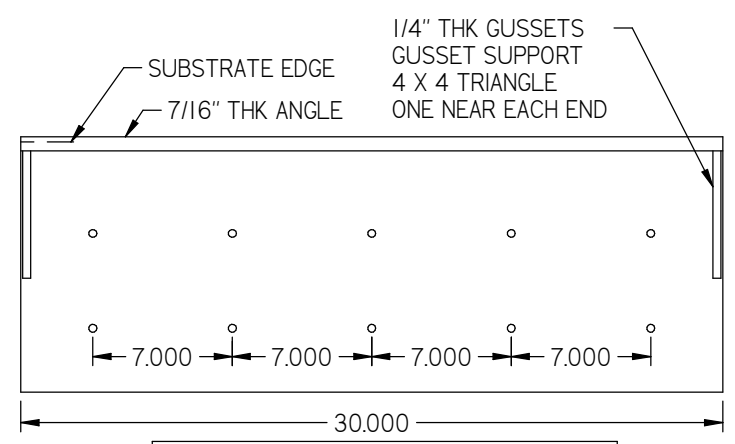


1/4-20 DIA. S.S. ELCO DRIL-FLEX ANCHORS:

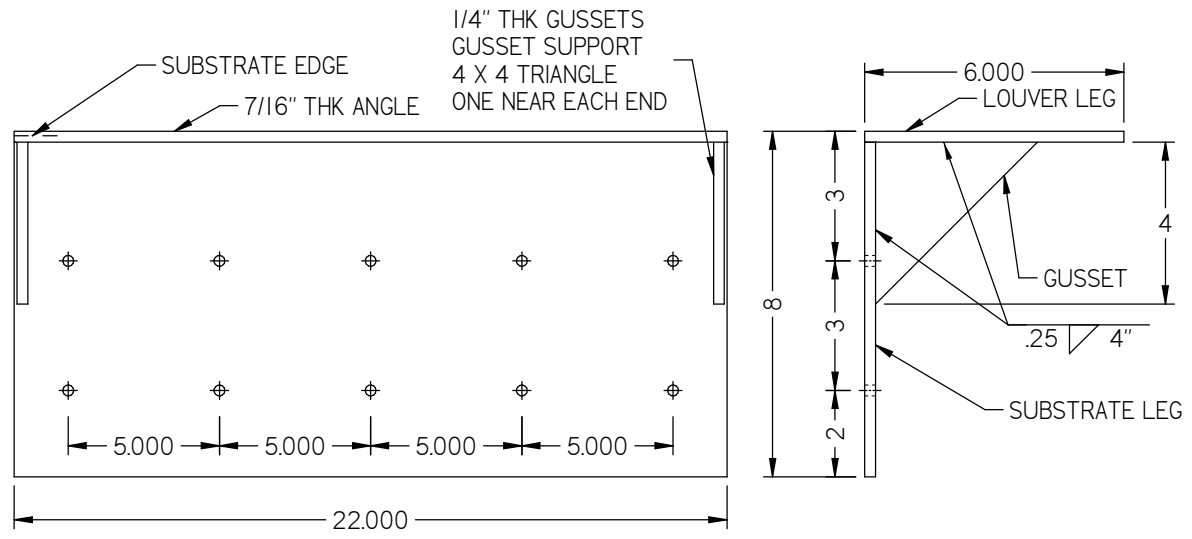
USE (I4) 1/4-20 DIA. S.S. ELCO DRIL-FLEX
FULL THREAD ENGAGEMENT
1" MIN. EDGE/END DISTANCE
SPACING AS SHOWN
ASSUME: 1/4" STEEL (A-36)



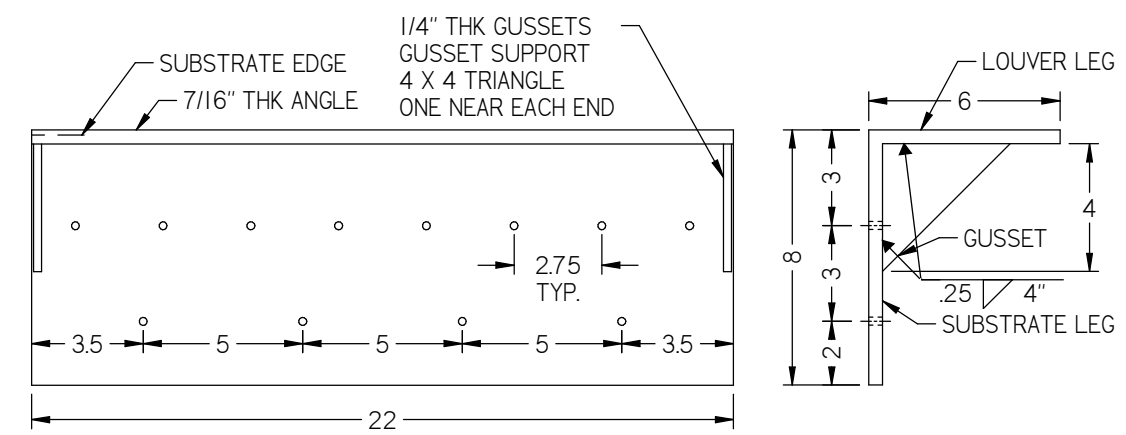
RICE
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www.rice-inc.com
Florida Firm No: F-01000005061
Certificate of Authorization: #9090
Wayne K. Helmila
Registration No: 59092



USE (I0) 1/2" DIA HILTI KWIK BOLT TZ
3 5/8" EMBEDMENT
7" SPACING (HORIZ.) / 3" SPACING (VERT.)
3" MIN. EDGE DISTANCE
4" MIN. END DISTANCE
ASSUME FC' : 4000 PSI CRACKED CONCRETE



USE (I0) 1/2" HILTI KWIK HUS-EZ
4-1/4" EMBEDMENT
5" SPACING (HORIZ.) / 3" SPACING (VERT.)
3" MIN. EDGE / END DISTANCE
SPACING AS SHOWN
ASSUME: fc' = 4000 PSI UNCRACKED CONCRETE



USE (I2) 5/16" DIA. S.S. ELCO DRIL-FLEX
FULL THREAD ENGAGEMENT
1" MIN. EDGE/END DISTANCE
SPACING AS SHOWN
ASSUME: 1/4" STEEL (A36)

REVISIONS:
REV A: MOVED MULLION BRACKET
FROM PG 17 TO 18 OF 21

CHK BY: Mastourian	SCALE: NTS	SHEET: 18 OF 21	REV A
DWN BY: fcortinas	DATE: 6/14/2017		

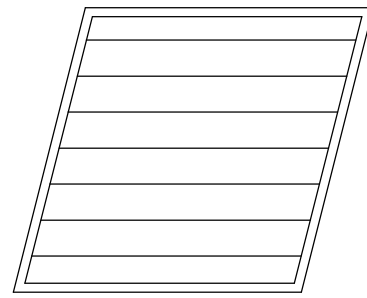
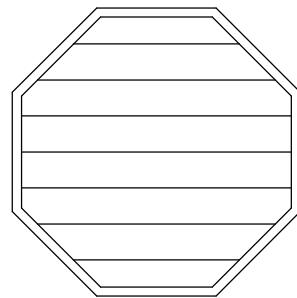
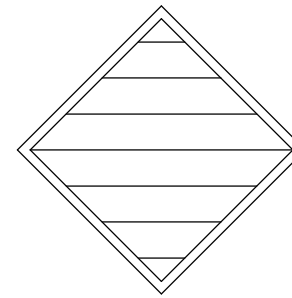
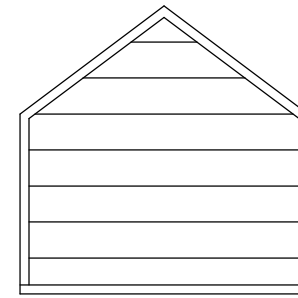
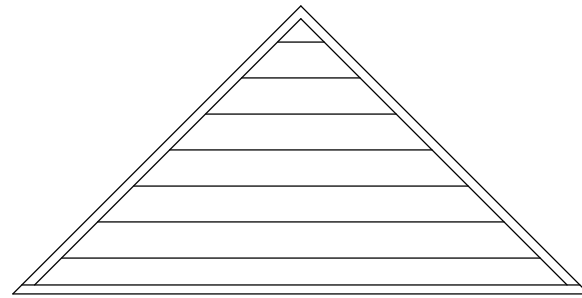
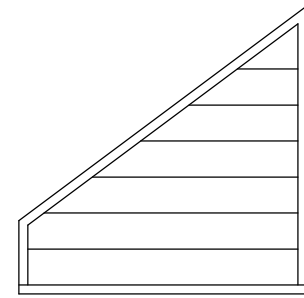
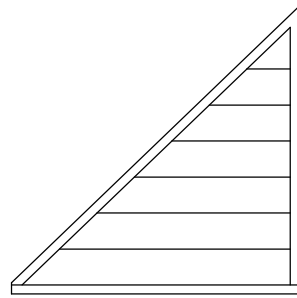
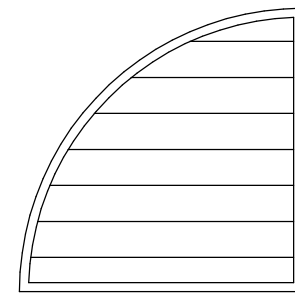
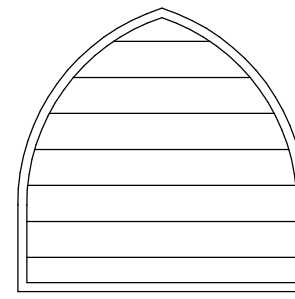
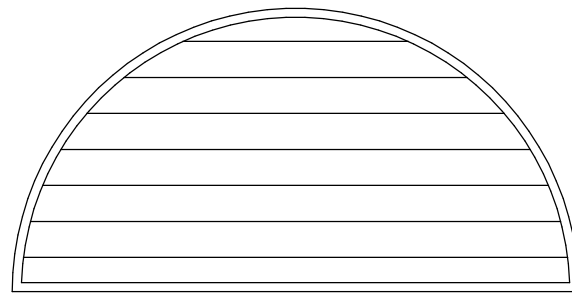
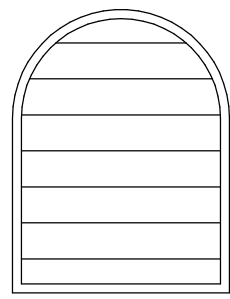
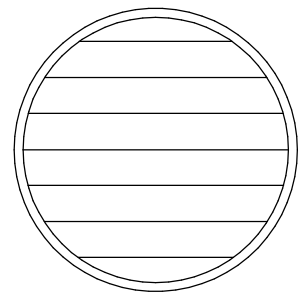
Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
www.nailor.com TEL: 281-590-1172 FAX: 281-590-3086

TITLE:
MULLION ANGLES
BACK OF THE WALL MOUNT



06/24/2021
COA: 9090


PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 21-0630.10
Expiration Date: 08/30/2023
By: *[Signature]*
Miami-Dade Product Control



RICE
ENGINEERING

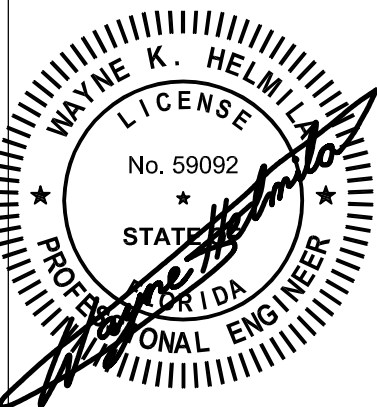
105 School Creek Trail
Luxemburg, WI 54217
Phone: (920) 617-1042
Fax: (920) 617-1100
www.rice-inc.com

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

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 23-0724.23
Expiration Date 08/30/2028
By 
Miami-Dade Product Control

NOTES:

- OTHER SHAPES MAY APPLY PROVIDING THEY ARE SIMILAR TO THOSE SHOWN AND HAVE CORNER CONSTRUCTION AS DESCRIBED ON ALL SHEETS.
- 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.
- WHEN SECTION EXCEED 36" IN LENGTH BLADE SUPPORT ANGLES AND BRACKETS ARE REQUIRED.
- USE CONTINUOUS ANGLES TO ANCHOR OTHER LOUVER SHAPES TO BUILDING SUBSTRATE. SEE ANCHOR SCHEDULE FOR PROPER ANCHORAGE AND FOR SUBSTRATE-SPECIFIC LIMITATIONS.



06/24/2021
COA: 9090

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NOA-No. 21-0630.10
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By: 
Miami-Dade Product Control

 **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
AVAILABLE SHAPES**

DWN BY: f cortinas
CHK BY: Mastourian
DATE: 6/14/2017
SCALE: NTS

SHEET: 19 OF 21

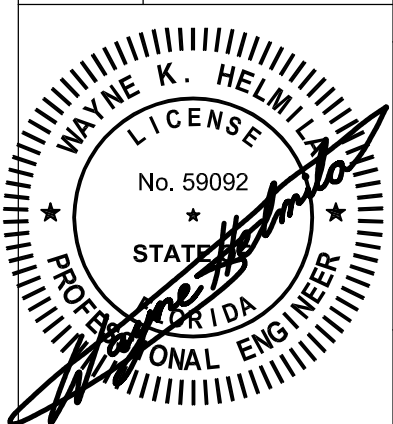
DWG. NO. **1606DHPM**
REV. A

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
10	C6-161B 6 X 3 X 1/4 ANGLE	6061-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/SILL/JAMB OF SLEEVE
12A	4 X 2.50 X 1/4 X 3 5/8 LONG ANGLE	6061-T6 ALUMINIUM	USED AT HEAD/ SILL OF MULLION ATTACHMENT
12B	8 X 3 X 3/8 LONG ANGLE	6061-T6 ALUMINIUM	USED AT HEAD/ SILL OF MULLION ATTACHMENT W/ 1/2" LAG
12C	8 X 3 X 3/8 LONG ANGLE	6061-T6 ALUMINIUM	USE AT HEAD/SILL OF MULLION ATTACHMENT W/ 5/8" ANCHOR
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 ALUMINUM SUPPORT SHIM	5052-H32 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 AXLE ASM	SS	
27	C6X8.2 STEEL CHANNEL	ASTM A36	USED AT BLADE BLACE & MULLION
28			
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 SS	
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, 14 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

N:\Drawing\LOUVERS\AMCA\1606DHPM\1606DHPM 216 X 120 FL Sleeve.dft

CHK BY: Mastourian
DWN BY: fcoirtinas
DATE: 6/14/2017
SCALE: NTS
SHEET: 20 OF 21
REV A
DWG. NO. 1606DHPM

Nailor Industries Inc.
4714 Winfield Road Houston, TX 77039
www.nailor.com TEL: 281-590-1172 FAX: 281-590-3086
**1606DHPM LOUVER
W/ AND W/O DAMPER
SLEEVE / CONTINUOUS MOUNT
BILL OF MATERIAL**



PRODUCT RENEWED
as complying with the Florida Building Code
NOA-No. 23-0724.23
Expiration Date 08/30/2028
By *Manuel Perez*
Miami-Dade Product Control

RICE ENGINEERING
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06/24/2021
COA: 9090
PRODUCT REVISED
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Expiration Date: 08/30/2023
By: *Manuel Perez*
Miami-Dade Product Control

REVISIONS:
REV A: ADDED 12A, 12B, 12C

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

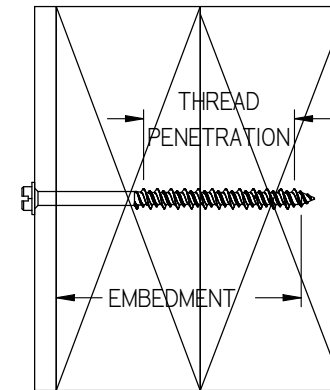
LOUVER MODEL I606DHPM FASTENER SCHEDULE

WOOD	STEEL STUD	STEEL	CONCRETE	CMU	MIN.	FASTENER TYPE	DIAMETER	# Rqd	CENTERS	EDGE	END	EMBEDMENT
JAMB ANGLE MOUNT FASTENER, WIDTH ≤ 72 INCHES												
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 DRILL-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi) SEALED w/ PROSOCO SEALANT	1/4"	1	2-1/2"	2"		3 THREAD BEYOND SUBSTRATE
		X			A-36	ELCO DRILL-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi) SEALED w/ PROSOCO SEALANT	1/4"	1	13-1/2"	2"		1/4"
		X			A-36	ELCO DRILL-FLEX DRILLING SCREWS (300 SERIES SS- 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	5-3/4"	4"		2-1/2"
			X-CRACKED 4" DEEP		4ksi	HILTI KWIK HUS-EZ SS316 ANCHOR	3/8"	1	8"	4"		2"
				X	2ksi	DEWALT GALVANIZED SCREW-BOLT+ ANCHOR	3/8"	1	4-3/4"	1-1/2"	1-1/2"	3-1/4"
				X	2ksi	HILTI KWIK-HUZ-EZ SS316 ANCHOR	3/8"	1	8"	4"		3-1/4"
MULLION ANGLE MOUNT FASTENERS, HEIGHT ≤ 120 INCHES												
X					SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	1/4"	10	VARIES	2"		4"
X					SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	1/2"	6	VARIES	2"		2-1/4"
		X			A-36	ELCO DRILL-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi) SEALED w/ PROSOCO SEALANT	1/4"	4	VARIES	2"		1/4"
		X			A-36	ELCO DRILL-FLEX DRILLING SCREWS (300 SERIES SS- 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 TZ SS 304 ANCHOR **	5/8"	4	VARIES	8"	9"	4-7/16"
MULLION ANGLE MOUNT BACK OF WALL FASTENERS, HEIGHT ≤ 120 INCHES												
X					SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	1/4"	16	VARIES	1"		6"
X					SG 0.42	LAG SCREW (300 SERIES SS- COND. CW- Fy = 65ksi)	3/8"	12	VARIES	1-1/2"		6"
		X			A-36	ELCO DRILL-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi) SEALED w/ PROSOCO SEALANT	1/4"	14	VARIES	1"		1/4"
		X			A-36	ELCO DRILL-FLEX DRILLING SCREWS (300 SERIES SS- COND. CW- Fy= 65ksi) SEALED w/ PROSOCO SEALANT	5/16"	12	VARIES	1"		1/4"
			X-CRACKED 8" DEEP		4ksi	HILTI KWIK HUS-EZ SS316 ANCHOR **	1/2"	10	VARIES	3"	4"	4-1/4"
			X-CRACKED 8" DEEP		4ksi	HILTI KWIK BOLT TZ SS 304 ANCHOR **	1/2"	10	VARIES	3"	4"	3-5/8"

GENERAL NOTES:

- IT SHALL BE THE RESPONSIBILITY OF THE ENGINEER OF RECORD TO VERIFY THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURE TO SUPPORT THE LOADS IMPOSED BY THE LOUVER(S).
- THE I606DHPM WITH /WITHOUT 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).
- MAXIMUM SINGLE SECTION SIZE IS 72" WIDE X 120" HIGH.
- MAXIMUM ASSEMBLED LOUVER SIZE IS UNLIMITED WIDE X 120" HIGH.
- 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.
- CMU SHALL BE ASTM C90, TYPE II, 2,000 MIN PSI GROUT-FILLED, STEEL STUDS TO BE 16 GA. Fy=50ksi MIN.
- 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.
- THE CONTINUOUS ANGLE MOUNT STYLE UTILIZES A CONTINUOUS JAMB ANGLE THAT 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 STRUCTURAL INTEGRITY OF THE SUBSTRATE STRUCTURE.
- LOUVER ASSEMBLY IS QUALIFIED FOR A MAXIMUM DESIGN LOAD OF +/- 150 PSF.
- 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.
- INSTALLER TO PROVIDE SEPERATION OF DISSIMILAR MATERIALS AS REQUIRED.
- THE 2020 DAMPER MAY BE OPERATED BY A MANUAL QUADRANT OR BY AN ELECTRIC OR PNEUMATIC ACTUATOR, THE DAMPER'S ACTUATOR IS NOT PART OF THIS APPROVAL, BUT SHALL BE CERTIFIED BY AN INDEPENDENT TESTING AGENCY.
- 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.
- STEEL / STAINLESS-STEEL / ALUMINIUM PARTS MAY BE MADE OUT OF ALTERNATE ALLOY THAT HAS EQUAL OR GREATER YIELD STRENGTH.
- BLADE SUPPORT ANGLE AND BLADE SUPPORT BRACE ONLY REQUIRED WHEN ACTUAL LOUVER SECTION WIDTH IS GREATER THAN 36 INCHES.
- 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.



PRODUCT RENEWED
 as complying with the Florida Building Code
 NOA-No. 23-0724.23
 Expiration Date 08/30/2028
 By *[Signature]*
 Miami-Dade Product Control

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REVISIONS:
 REV A: UPDATED FASTENER SCHEDULE

CHK BY: Mastourian
 DWN BY: fcoirtinas
 DATE: 6/14/2017

SCALE: NTS

SHEET: 21 OF 21

DWG. NO. I606DHPM

Nailor Industries Inc.
 4714 Winfield Road Houston, TX 77039
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TITLE:
 I606DHPM LOUVER
 W/ AND W/O DAMPER
 NOTES AND
 FASTENER SCHEDULE

06/24/2021
 COA: 9090

PRODUCT REVISED
 as complying with the Florida Building Code
 NOA-No. 21-0630.10
 Expiration Date: 08/30/2023
 By: *[Signature]*
 Miami-Dade Product Control