

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

Miami, Florida 33175-2474 T (786) 315-2590 F (786) 315-2599 www.miamidade.gov/economy

MIAMI-DADE COUNTY

**Reliable Products 1300 Enterprise Road** (P.O. Box 580) Geneva, AL 36340

**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 4375DC Aluminum Louver**

APPROVAL DOCUMENT: Drawing No. 60-022136-00D, titled "4375DC Louver", sheets 1 through 11 of 11, dated 11/11/2008, with revision A dated 03/07/2018, prepared by Reliable Products, signed and sealed by Melissa M. Massar, P.E., bearing the Miami-Dade County Product Control renewal stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control 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, Geneva, AL and Juarez, Mexico, model/ series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

LIMITATION: This louver is to be installed in a location where the room behind the louver is designed to drain water penetrating into the room, and the room will house water resistant/ water proof equipment, components, or supplies.

**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 # 20-0909.09 and consists of this page 1 and evidence pages E-1, E-2 and E-3, as well as approval document mentioned above.

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



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NOA-No. 22-1215.06 **Expiration Date: January 03, 2028 Approval Date: December 29, 2022** Page 1

# **NOTICE OF ACCEPTANCE:** EVIDENCE SUBMITTED

# 1. EVIDENCE SUBMITTED UNDER PREVIOUS NOAs

#### A. DRAWINGS "Submitted under NOA # 08-1202.04"

1. Drawing No. 60-022136-01D, 02D, 03D, 04B, 05B, titled "4375DC Louver", sheets 1 through 5 of 5, dated 11/11/2008, prepared by Reliable Products, signed and sealed by Daniel J. Rau, P.E.

#### B. TESTS "Submitted under NOA # 07-0621.07"

- 1. Test reports on 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
  - 2) Large Missile Impact Test per FBC, TAS 201-94

3) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of 4375DC Test Louver, prepared by National Certified Testing Laboratories, Test Report No. **210-3377-1**, dated 03/19/2007, signed and sealed by Gerard J. Ferrara, P.E.

#### C. CALCULATIONS "Submitted under NOA # 07-0621.07"

1. Louver and anchor calculations prepared, dated 05/14/2007 and 11/20/2007, signed and sealed by Daniel J. Rau, P.E.

# **D. QUALITY ASSURANCE**

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

# E. MATERIAL CERTIFICATIONS "Submitted under NOA # 12-0816.02"

1. Test report on impact test of an ELF375DXD louver per AMCA 540, prepared, Test Report No. 053012E, dated 05/30/2012, signed and sealed by Daniel J. Rau, P.E.

# F. STATEMENTS "Submitted under NOA # 13-0219.09"

- 1. Statement letter of code conformance to 2010 FBC issued, dated 02/06/2013, signed and sealed by Daniel J. Rau, P.E.
- 2. No financial interest letter issued, dated 02/06/2013, signed and sealed by Daniel J. Rau, P.E.
- **3.** Private label agreement dated 02/05/2013.

Carlos M. Utrera, P.E. Product Control Examiner NOA-No. 22-1215.06 Expiration Date: January 03, 2028 Approval Date: December 29, 2022

# **NOTICE OF ACCEPTANCE:** EVIDENCE SUBMITTED

# 2. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

#### A. DRAWINGS "Submitted under NOA # 17-0222.01"

1. Drawing No. 60-022136-00D, titled "4375DC Louver", sheets 1 through 11 of 11, dated 11/11/2008, with revision A dated 03/07/2018, prepared by Reliable Products, signed and sealed by Melissa M. Massar, P.E.

#### B. TESTS "Submitted under NOA # 18-0201.08"

- 1. Test reports on 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
  - 2) Large Missile Impact Test per FBC, TAS 201-94
  - 3) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of ELF375DXD Test Louver, prepared by National Certified Testing Laboratories, Inc., Test Report No. NCTL-210-4090-01, dated 12/07/2017, signed and sealed by Douglas J. McDougall, P.E.

#### C. CALCULATIONS "Submitted under NOA # 18-0201.08"

1. Louver wind load review prepared, dated 03/08/2018, signed and sealed by Melissa M. Massar, P.E.

# D. QUALITY ASSURANCE

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

# E. MATERIAL CERTIFICATIONS

1. None.

#### D. STATEMENTS "Submitted under NOA # 18-0201.08"

- 1. Statement letter of code conformance to the 6<sup>th</sup> edition (2017) FBC issued, dated 03/08/2018, signed and sealed by Melissa M. Massar, P.E.
- 2. Statement letter of no financial interest issued, dated 03/08/2018, signed and sealed by Melissa M. Massar, P.E.
- **3.** Laboratory compliance letter for Test Report No. **NCTL-210-4090-01**, issued by National Certified Testing Laboratories, Inc., dated 12/07/2017, signed and sealed by Douglas J. McDougall, P.E.

Carlos M. Utrera, P.E. Product Control Examiner NOA-No. 22-1215.06 Expiration Date: January 03, 2028 Approval Date: December 29, 2022

# **NOTICE OF ACCEPTANCE:** EVIDENCE SUBMITTED

# 3. EVIDENCE SUBMITTED UNDER NOA # 17-0222.01 AND # 20-0909.09

#### A. DRAWINGS

1. Drawing No. 60-022136-00D, titled "4375DC Louver", sheets 1 through 11 of 11, dated 11/11/2008, with revision A dated 03/07/2018, prepared by Reliable Products, signed and sealed by Melissa M. Massar, P.E.

# **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.

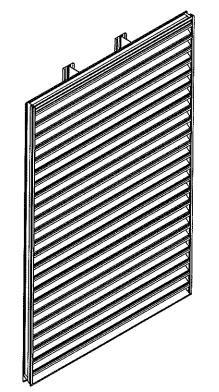
# F. STATEMENTS

- 1. Statement letter of code conformance to the 7<sup>th</sup> edition (2020) FBC issued by Reliable Products, dated 08/25/2020, signed and sealed by Melissa M. Massar, P.E.
- 2. Statement letter of no changes and not been affected by any changes in the 2020 FBC issued by Reliable Products, dated 08/25/2020, signed and sealed by Melissa M. Massar, P.E.

Carlos M. Utrera, P.E. Product Control Examiner NOA-No. 22-1215.06 Expiration Date: January 03, 2028 Approval Date: December 29, 2022

	PARTS LIST						
	FOR CHANNEL	FRAME LOUVER					
ITEM	DESCRIPTION	MATERIAL	ALLOY				
1	HEAD FRAME	.080" THK EXTRUDED ALUM.	6063-T6				
2	SILL FRAME	.125" THK EXTRUDED ALUM.	6063-T6				
	JAMB FRAME	.080" THK EXTRUDED ALUM.	6063-T6				
4	BLADE	.080" THK EXTRUDED ALUM.	6063-T6				
5	BLADE BRACE	.080" THK EXTRUDED ALUM.	6063-T6				
6	2 X .125 STRAP	.125" THK EXTRUDED ALUM.	6063-T6				
7	H.V.B.S.	VARIES REF TABLE 1	6063-T6				
7A	H.V.B.S.	VARIES REF TABLE 1	6063-T6				
	MULTI SECTION C	ONNECTION PARTS					
8	MULLION SUPPORT	VARIES REF TABLE 2	6063-T6				
<u>8A</u>	MULLION SUPPORT	VARIES REF TABLE 2	6063-T6				
9	3/8-16 X 3.000" LG A307 GRADE A						
9	HHB W/ WASHER & LOCKNUT	ZINC PLATED	н				
10	1/4-20 X 1.500" LG A307 GRADE A						
10 HHB BOLT W/ WASHER & LOCKNUT		ZINC PLATED	-				
	STANDARD UN	IVERSAL SLEEVE					
11	FRONT FLANGE UNIVERSAL SLEEVE		3003-H14 OR				
			5005-H34				
12	HEAD FRAME W/ INTEGRAL FLANGE	.080" THK EXTRUDED ALUM.	6063-T6				
13	SILL FRAME W/ INTEGRAL FLANGE	.125" THK EXTRUDED ALUM.	6063-T6				
14	JAMB FRAME W/ INTEGRAL FLANGE	.080" THK EXTRUDED ALUM.	6063-T6				
15	CONT. RETAINING ANGLE	.250" THK EXTRUDED ALUM.	6063-T6				
16	1/4-14 SAE GRADE 2 "HWH" TYPE						
10	"SD" SCREW	ZINC PLATED	-				
17	UNIVERSAL SLEEVE ATTACHMENT						
ANGLE		.250" THK EXTRUDED ALUM.	6063-T6				
INSTALLATION PARTS							
18			6063-T6				
19	#10-16 SAE GRADE 2 "HW/H" "SD"						
	SCREW W/ WASHER	LINC PLATED	-				
20	SUBSTRATE FASTENER (BY						
20	OTHERS)	VARIES REF TABLE 3/11	••				

	TABLE 1								
		H.V.B.S.							
ITEM	ITEM LOUVER SIZE SUPPORT MATERIAL								
7	HEIGHT > 60"	.094" THK EXTRUDED ALUM.							
7A	HEIGHT $\leq 60"$	.080" THK EXTRUDED ALUM.							
	TABLE 2								
MULLION SUPPORT									
8	HEIGHT > 60"	(2)70-021466-00B	.094" THK EXTRUDED ALUM.						
8A	HEIGHT $\leq 60"$	(2)70-021468-00B	.080" THK EXTRUDED ALUM.						



#### **RECTANGLE LOUVER**

N.T.S. CHANNEL FRAME REF. SHEETS 02 THRU 05 UNIVERSAL SLEEVE REF. SHEETS 06 THRU 08

# NOTES;

- CYCLIC WIND PRESSURE,
- WITHSTAND BUILDING DEAD LOADS.
- SUPPLIES.
- ONLY.
- LOADS TRANSFERRED FROM THE LOUVER.
- MIN. TENSILE STRENGTH OF 24 KSI.

# DRAWING INDEX:

SHEET 01 - NOTES, PARTS LIST & DRAWING INDEX SHEET 02 - ASSEMBLY 'A' CHANNEL FRAME & DETAILS SHEET 03 - ASSEMBLY 'A' CONNECTION DETAILS SHEET 04 - ASSEMBLY 'A' ATTACHMENT DETAILS SHEET 05 - ASSEMBLY 'A' ATTACHMENT DETAILS SHEET 06 - ASSEMBLY 'B' UNIVERSAL SLEEVE & DETAILS SHEET 07 - ASSEMBLY 'B' CONNECTION DETAILS SHEET 08 - ASSEMBLY 'B' ATTACHMENT DETAILS SHEET 09 - PARTS SHEET 10 - PARTS SHEET 11 - PARTS

# **ABBREVIATIONS:**

- CONT. CONTINUOUS H.V.B.S.- HIDDEN VERTICAL BLADE SUPPORT H.H.B.S.- HIDDEN HORIZONTAL BLADE SUPPORT L.D. - LOUVER DIMENSION MAX, - MAXIMUM MIN. - MINIMUM NOM. - NOMINAL N.T.E. - NOT TO EXCEED O/C - ON CENTER
- OPP OPPOSITE
- R.O. ROUGH OPENING
- SIM. SIMILAR
- S.S. SHIP SECTION
- S.S.D. SHIP SECTION DIMENSION
- TYP. TYPICAL
- **U.N.C.- UNLESS NOTED OTHERWISE**
- DIM. DIMENSION
- FLG. FLANGE
- D SUBSTRATE DEPTH
- SUB. -SUBSTRATE



1) THE 4375DC HAS BEEN TESTED IN ACCORDANCE WITH MIAMI-DADE COUNTY PROTOCOLS TAS-201, 202 & 203 FOR LARGE MISSILE IMPACT, UNIFORM PRESSURE AND

2) THIS LOUVER SYSTEM IS APPROVED FOR APPLICATIONS WITH DESIGN PRESSURES OF +/- 130 PSF OR LESS. THIS LOUVER IS NON-BEARING AND IS NOT DESIGNED TO

3) THIS LOUVER IS TO BE INSTALLED IN LOCATIONS WHERE THE ROOM BEHIND THE LOUVER IS DESIGNED TO DRAIN WATER THAT PENETRATES INTO THE ROOM AND THE ROOM WILL HOUSE WATER RESISTANT/ WATER PROOF EQUIPMENT, COMPONENTS, OR

4) RELIABLE DOES NOT DETERMINE THE STRUCTURAL INTEGRITY OF THE STRUCTURE. SUBSTRATE REQUIREMENTS GIVEN IN TABLE 3 ON SHEET 11 ARE AS NEEDED FOR ANCHORAGE

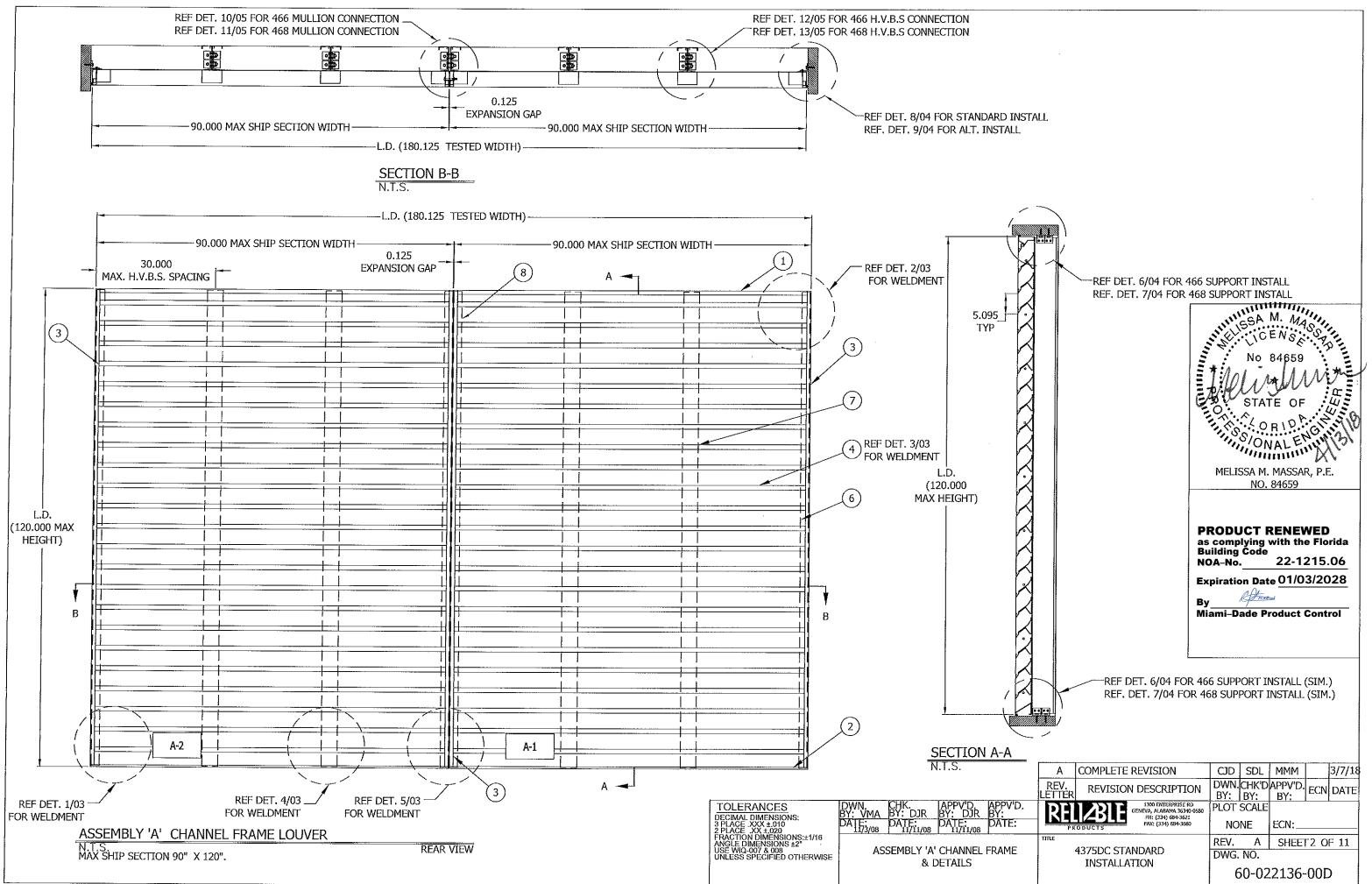
5) MAXIMUM SINGLE SECTION SIZE: 90" WIDE X 120" HIGH, UNLIMITED WIDTH CAN BE ACCOMPLISHED BY PLACING SINGLE SECTIONS SIDE BY SIDE

6) SECTIONS OR ASSEMBLIES MAY BE STACKED VERTICALLY PROVIDING A SUITABLE STRUCTURAL SUPPORT IS DESIGNED AND INSTALLED BY OTHERS TO SUPPORT ALL

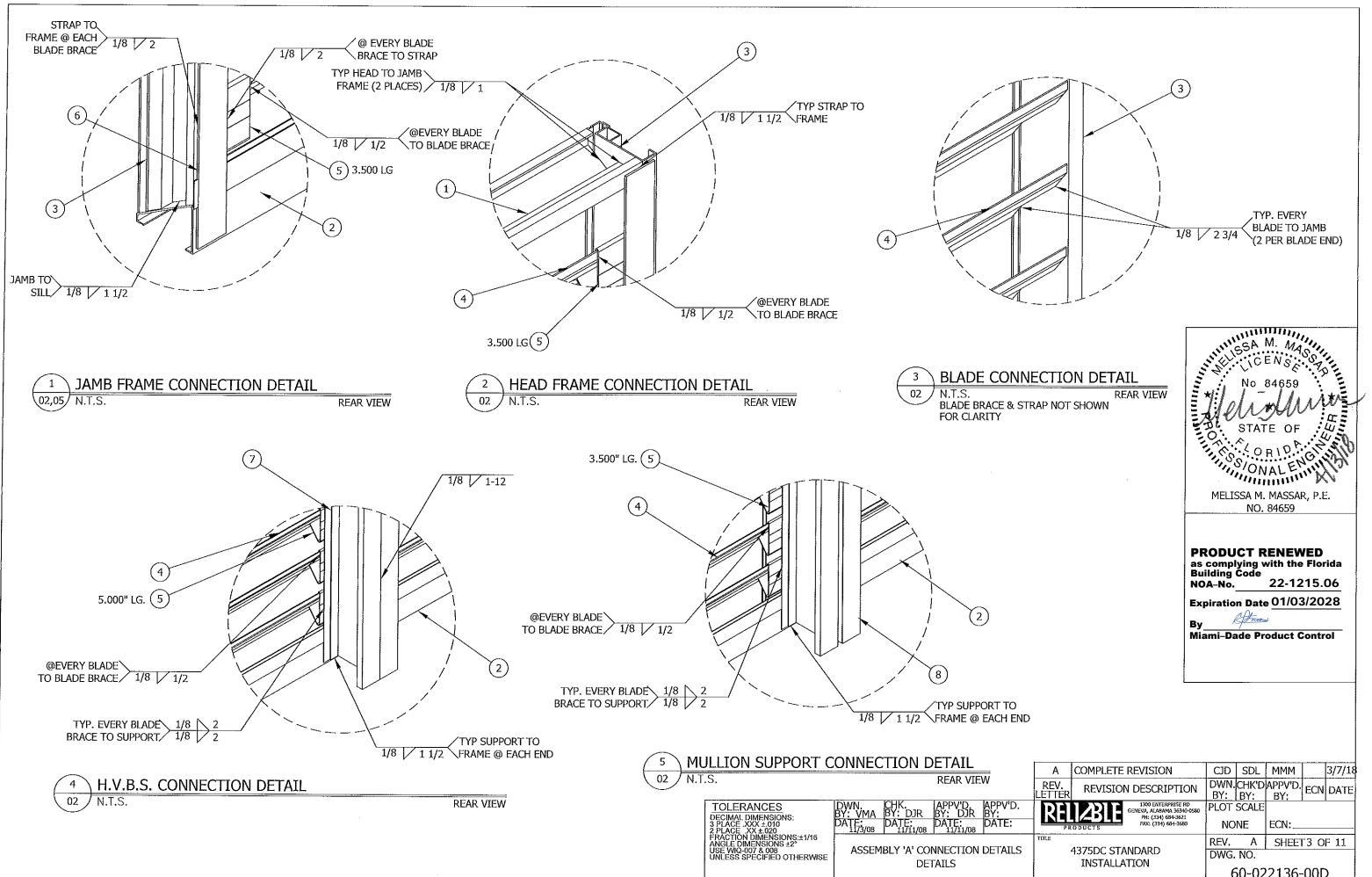
7) ALL CMU BLOCK MUST BE GROUT FILLED. MIN. PRISM STRENGTH OF 1500 PSI AT TIME OF INSTALLATION. CMU BLOCKS MUST BE MN. TYPE 1, GRADE N, LIGHT, MEDIUM, OR NORMAL WEIGHT PER ASTM C90. GROUT AND MORTAR MUST COMPLY WITH FBC.

8) ALL WELDED ATTACHMENTS REQUIRE MIN. FILLER METAL OF 4043 ALUMINUM ALLOY WITH

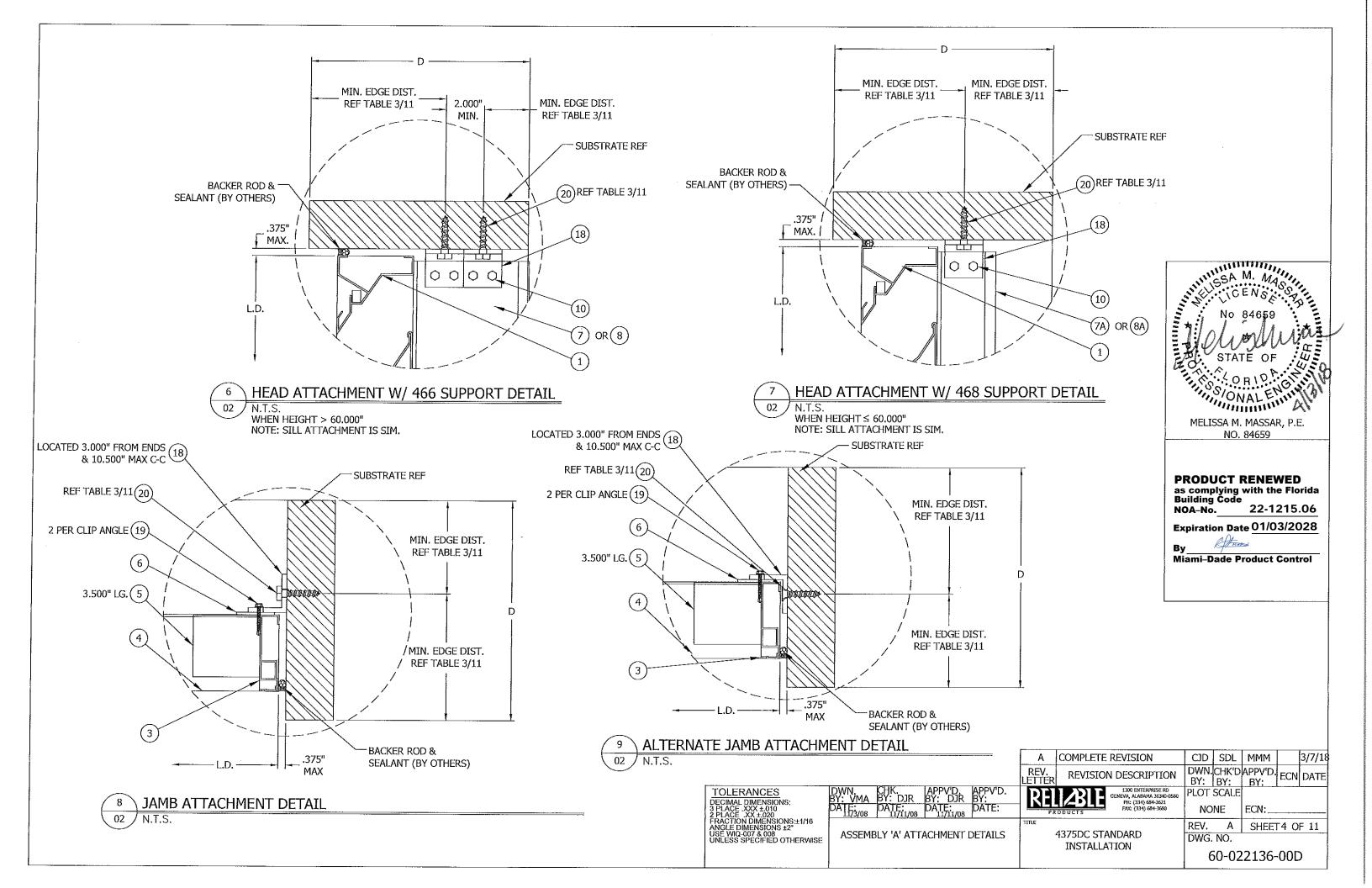
<u>5</u> <u>8</u>							
	А	COMPLETE REVISION	CJD	SDL	MMM		3/7/18
	REV. LETTER	REVISION DESCRIPTION		CHK'D BY:	APPV'D. BY:	ECN	DATE
	REI	1300 ENTERPRISE RD GENEVA, ALABANA 36340-0580 Phi: (334) 684-3621	PLOT	SCALE			
	P R	ODUCTS FAX: (334) 684-3680	NO	NE	ECN:		
IS	τme		REV.	Α	SHEET	10	F 11
S	4375DC STANDARD INSTALLATION		DWG. NO.				
			60-022136-00D				

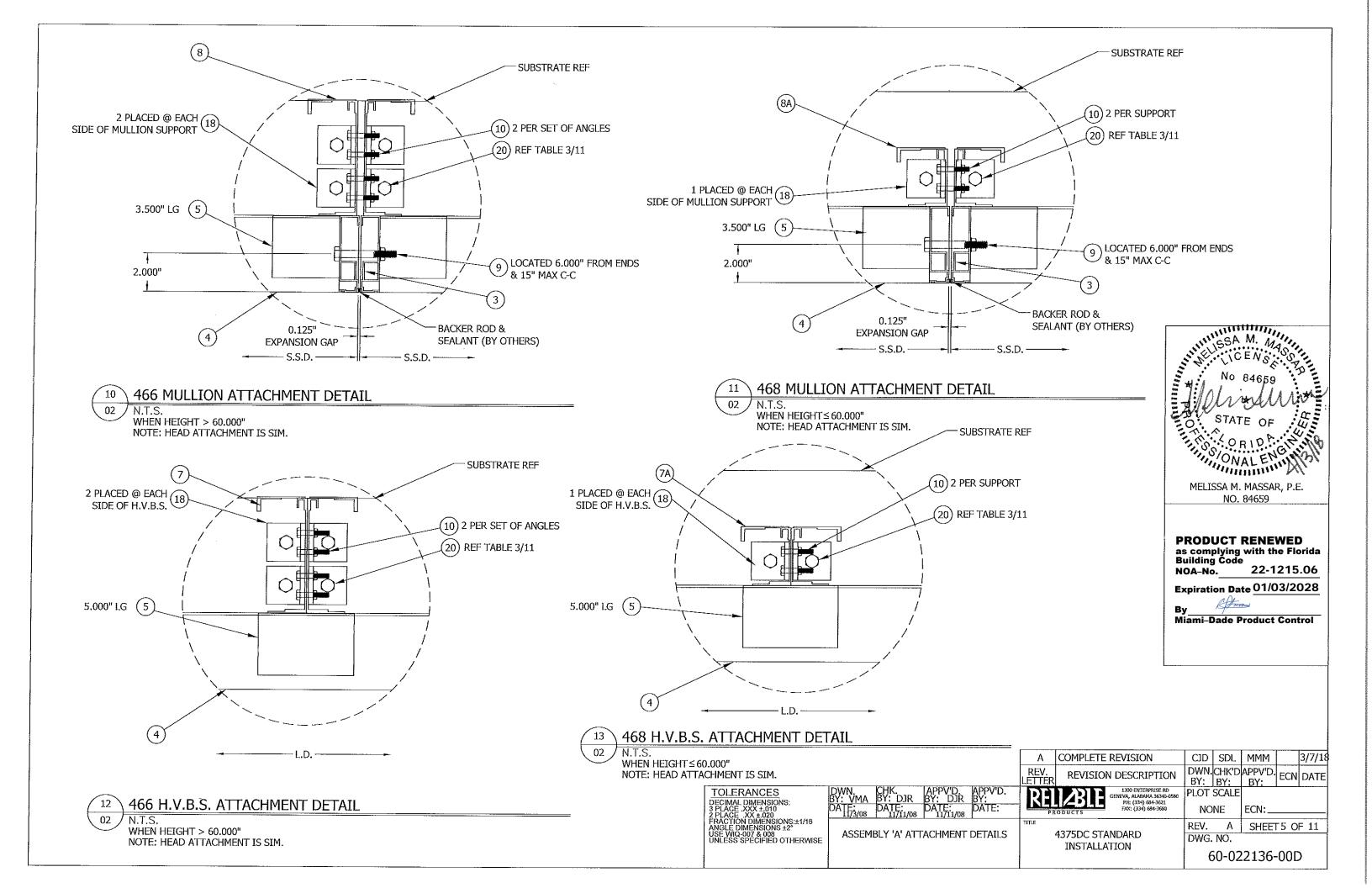


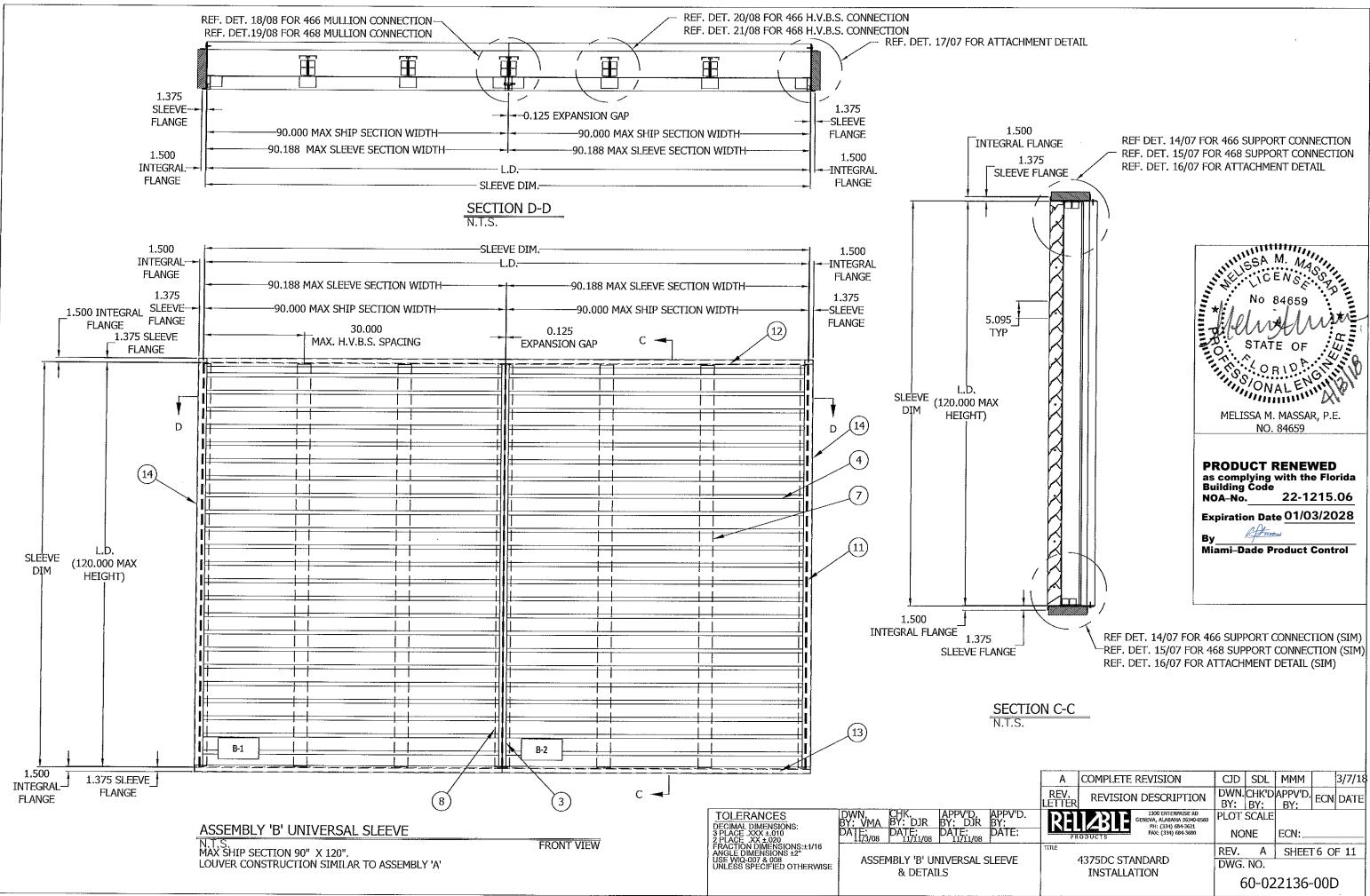
PRODUCTS FAX: (334) 684-3680	NONE	ECN;
	REV. A	SHEET 2 OF 1
4375DC STANDARD INSTALLATION	DWG. NO.	
INSTALLATION	60-02	22136-00D



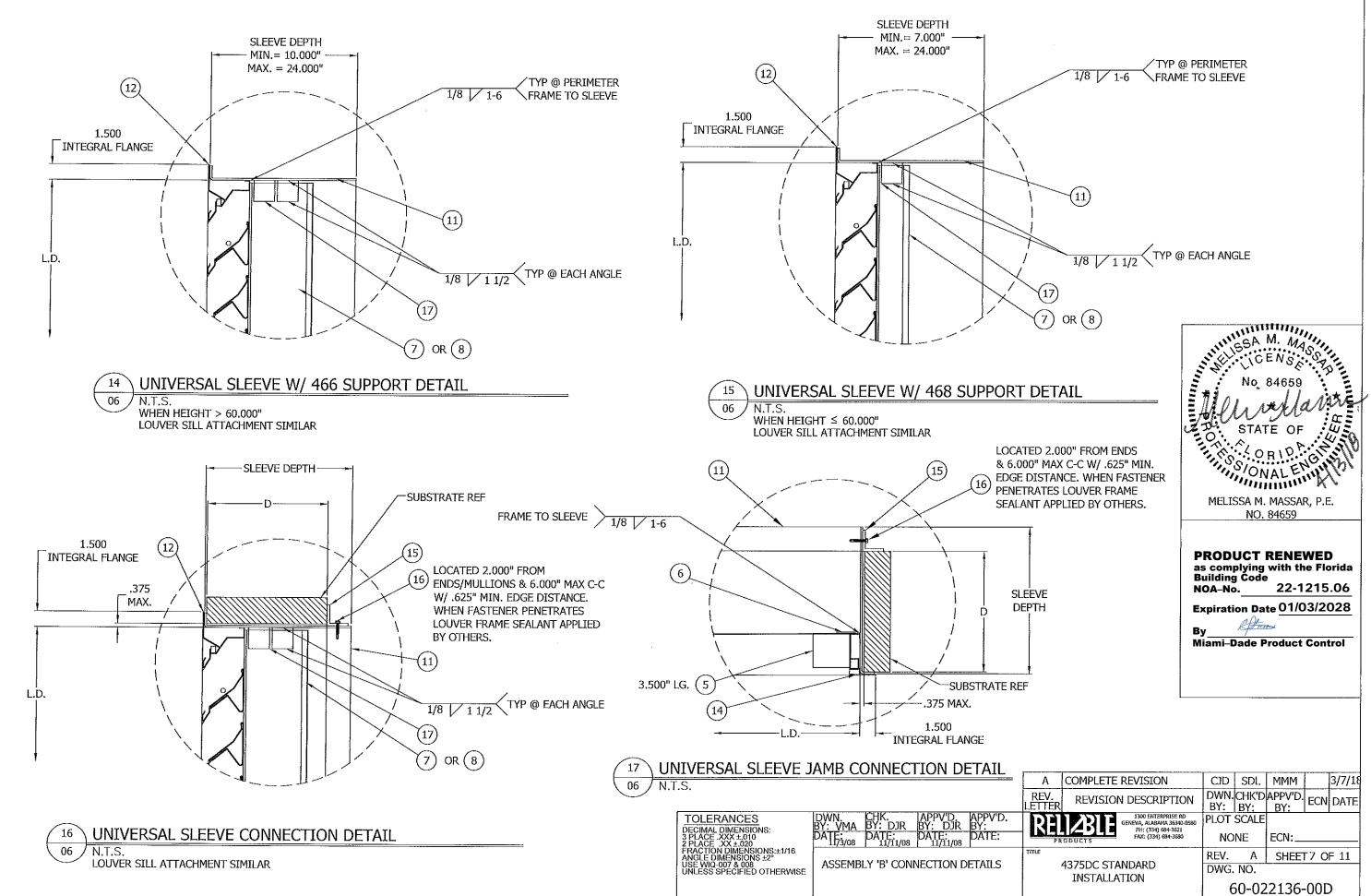
			r.—				
	A	COMPLETE REVISION	CJD	SDL	MMM		3/7/18
	REV. LETTER	REVISION DESCRIPTION	DWN. BY:	CHK'D BY:	APPV'D. BY:	ECN	DATE
	DEI		PLOT	SCALE			
	PH: (334) 684-3621 PRODUCTS PRODUCTS PRODUCTS		NONE		ECN:		
	4375DC STANDARD INSTALLATION		REV.	Α	SHEET	r3 0	F 11
			DWG. NO.				
			60-022136-00D				)



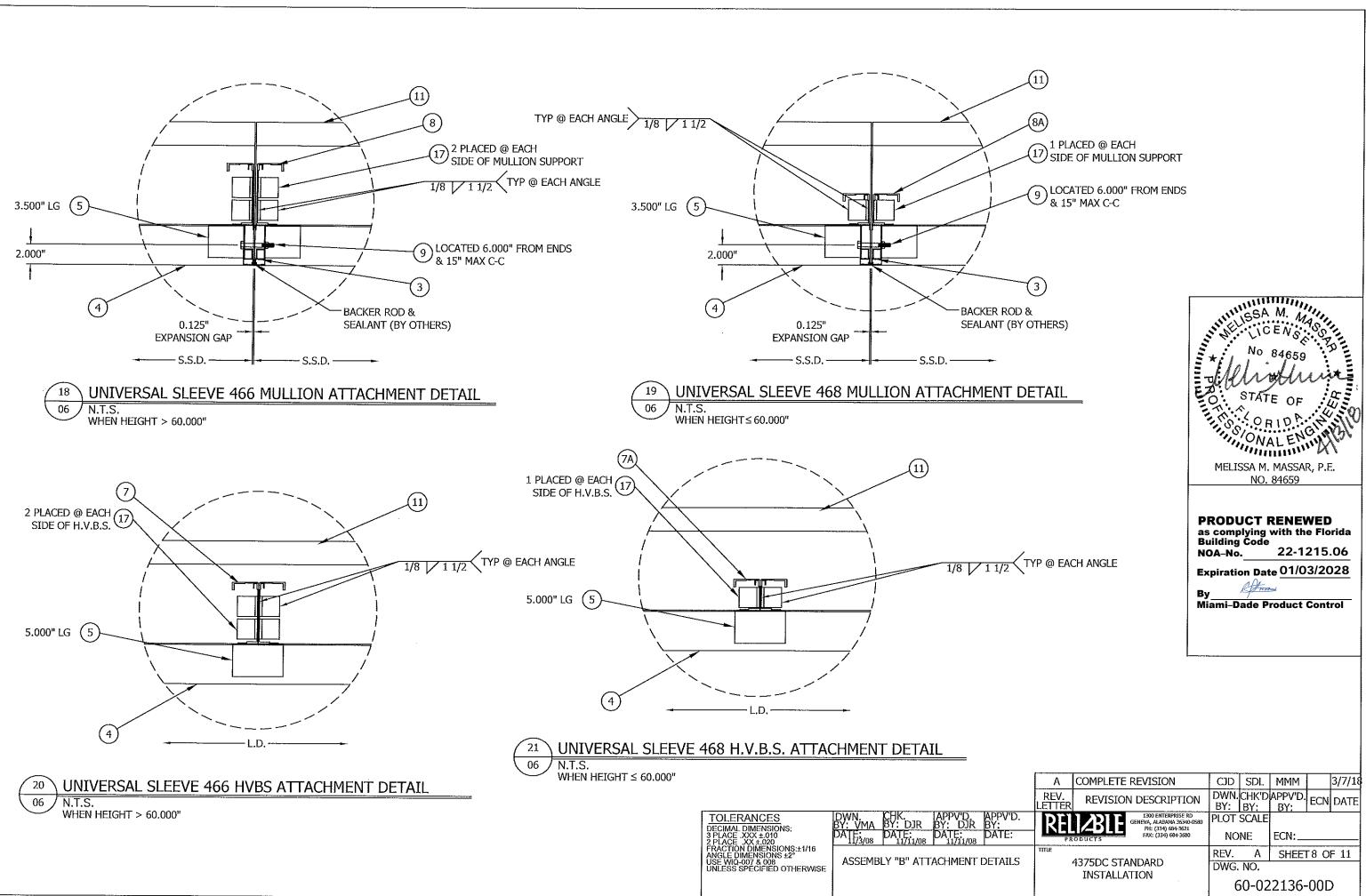




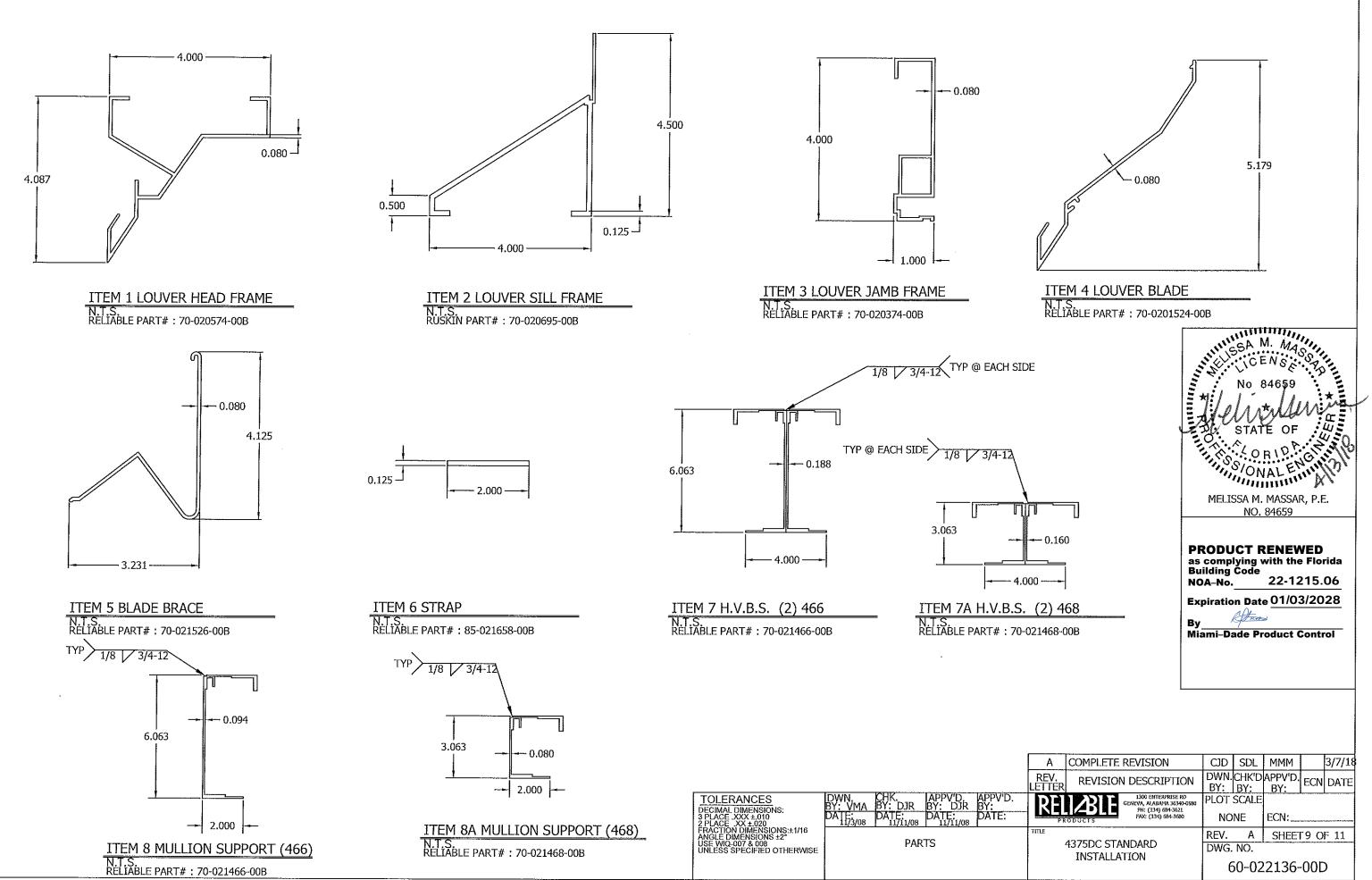
	FRODUCTS     GENEVA, ALABANA 36340-0580       PRODUCTS     PH: (334) 684-3620	NON	 ECN:	
	TITLE 4375DC STANDARD INSTALLATION	REV. DWG. N 6(	 SHEET 6	 11
1				



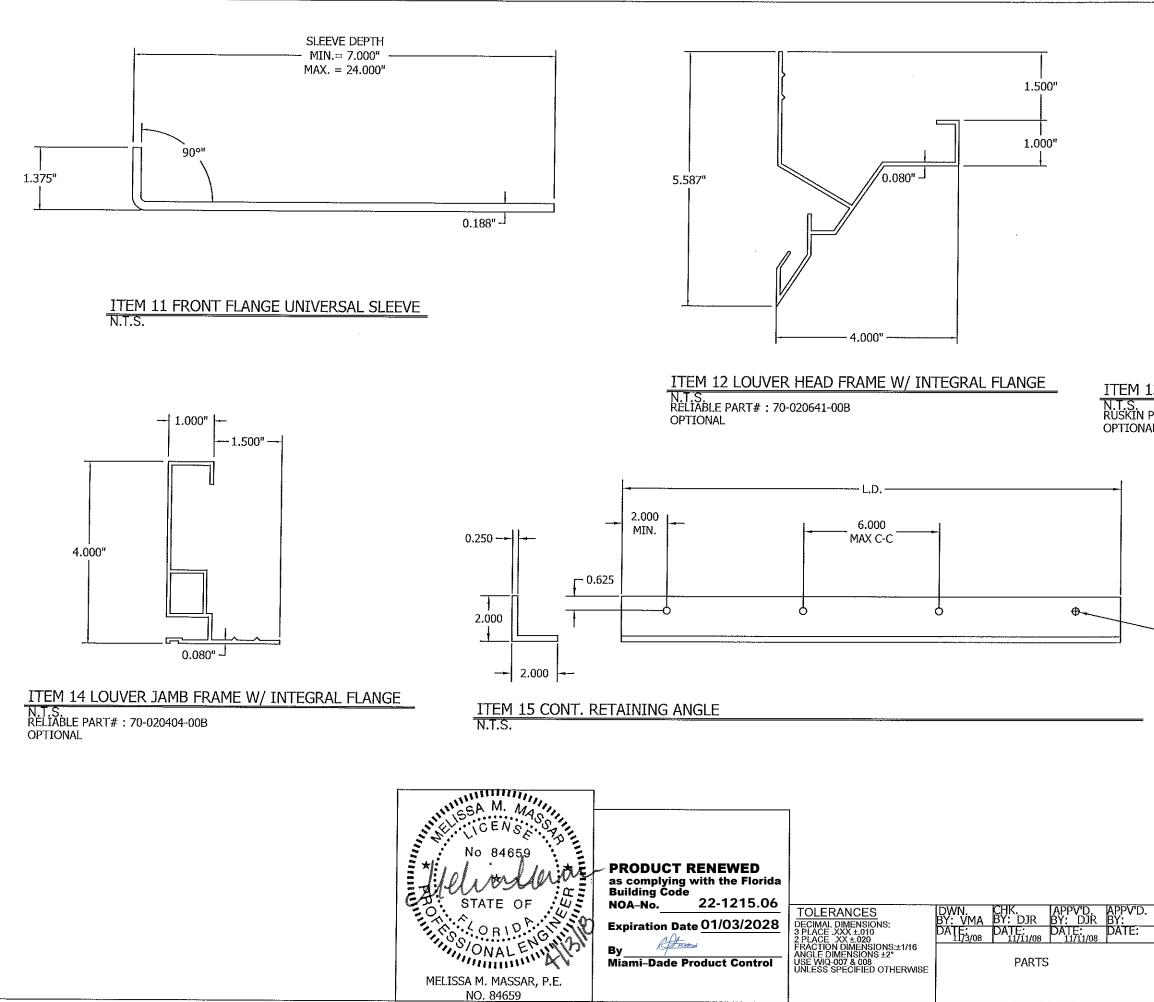
-	A	COMPLETE REVISION	CJD	SDL	MMM		3/7/18
	REV. LETTER	REVISION DESCRIPTION	DWN. BY:	CHK'D BY:	APPV'D. BY:	ECN	DATE
•	<b>R</b> FI	1300 ENTERPRISE RD GENEVA, ALABAMA 36340-0580 PH; (334) 684-3621	PLOT	SCALE			
	PR	GDUCTS FAX: (334) 684-3680	NO	NE	ECN:		
	TITLE		REV.	Α	SHEET	F7 0	F 11
	4375DC STANDARD INSTALLATION		DWG. NO. 60-022136-00D				
							)

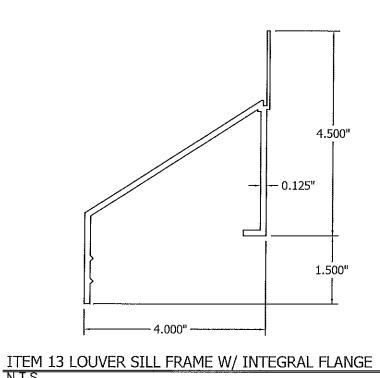


Α	COMPLETE REVISION	CJD	SDL	MMM		3/7/18
REV. LETTER	REVISION DESCRIPTION	DWN. BY:	CHK'D BY:	APPV'D. BY:	ECN	DATE
RE	RELIZED     1300 ENTERPROISE RD       PRODUCTS     GENEVA, ALABANA 35340-0550       PRODUCTS     FAX: (334) 684-3621       FAX: (334) 684-3620     FAX: (334) 684-3620		scale Ne	ECN:		
TRE	4375DC STANDARD INSTALLATION	REV. DWG.		SHEE		



Α	COMPLETE REVISION	CJD	SDL	MMM		3/7/18
REV. LETTER	REVISION DESCRIPTION	DWN. BY:	CHK'D BY:	APPV'D. BY:	ECN	DATE
DEI	GENLYA, ACABADA 30340-0380	PLOT	SCALE			
 PH: (334) 684-3620 PRODUCTS PRODUCTS		NONE		ECN:		
TITLE		REV.	Α	SHEET	r9 O	F 11
4375DC STANDARD INSTALLATION		DWG. NO.				
	INSTALLATION		60-022136-00D			

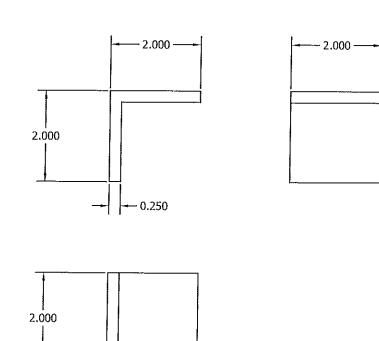




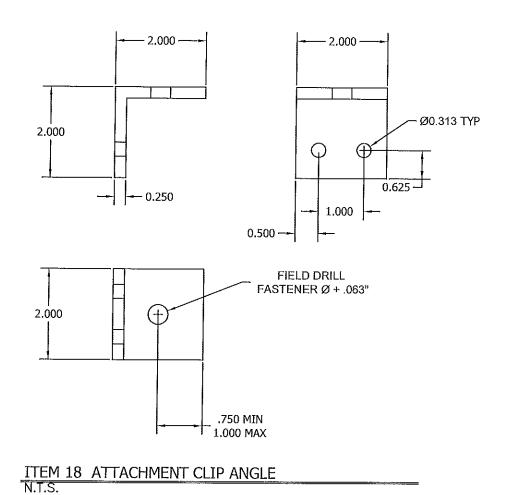
N.T.S. RUSKIN PART# : 70-020836-00B OPTIONAL

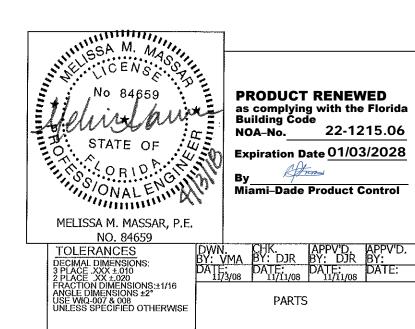
	А	COMPLETE REVISION	CJD	SDL	MMM		3/7/18
	REV. LETTER	REVISION DESCRIPTION	DWN. BY:	CHK'D BY:	APPV'D. BY:	ECN	DATE
	REL	PRODUCTS PRODUCTS PRODUCTS PRODUCTS PRODUCTS PRODUCTS PRODUCTS PRODUCTS PRODUCTS PRODUCTS PRODUCTS PRODUCTS PRODUCTS PRODUCTS PRODUCTS PRODUCTS PRODUCTS			ECN:		
4375DC STANDARD INSTALLATION			REV. DWG.		SHEE		

SUBSTRATE	TABLE 3 SUBSTRATE FASTENER (BY OTHERS) (ITEM 20)							
TYPE	MIN. SUBSTRATE REQUIREMENTS	FASTENER TYPE	MIN. EMBEDMENT	JAMB CLIP ANGLES	HVBS/MULLION SUPPORT CLIP ANGLES			
WOOD		3/8" DIA. BOLT W/ NUT, MIN. A307 GRADE A	3 THREADS BEYOND NUT	1 1/2"	1 1/2"			
	OD 3" THICK, 0.42 SPECIFIC GRAVITY	3/8" DIA. LAG SCREW, MIN. A307 GRADE A	2 5/8"	1 1/2"	1 1/2"			
	EL 18 GA, 45 KSI TENSILE STRENGTH, 33 KSI YIELD STRENGTH 14 GA, 45 KSI TENSILE STRENGTH, 33 KSI YIELD STRENGTH	3/8" DIA. BOLT W/ NUT, MIN. A307 GRADE A	3 THREADS BEYOND NUT	3/4"	3/4"			
STEEL		1/4" DIA. SELF DRILLING SCREW, MIN. SAE GRADE 2*	3 THREADS BEYOND SUB. THICKNESS	1/2"	1/2"			
ALUMINUM	0.060" THICK, 20 KSI TENSILE STRENGTH, 15 KSI YIELD STRENGTH	3/8" DIA. BOLT W/ NUT, MIN. A307 GRADE A	3 THREADS BEYOND NUT	3/4"	3/4"			
ALUMINUM	0.125" THICK, 20 KSI TENSILE STRENGTH, 15 KSI YIELD STRENGTH	5/16" DIA. SELF DRILLING SCREW, MIN. SAE GRADE 2*	3 THREADS BEYOND SUB, THICKNESS	5/8"	5/8"			
	CRACKED, 2500 PSI COMP.	1/4" DIA. HILTI KWIK HUS EZ, CARBON STEEL	2 1/2"	1 5/8"	5 1/2"			
CONCRETE	STRENGTH	3/8" DIA. DEWALT SCREW-BOLT+, CARBON STEEL	3 1/4ª	1 1/2"	4 7/8"			
CONCRETE	UNCRACKED, 2500 PSI COMP.	1/4" DIA. ELCO AGGRE-GATOR, 300 SERIES SS*	1 3/8"	3"	3"			
	STRENGTH	3/8" DIA. ITW RED HEAD WEDGE ANCHOR, CARBON STEEL	2 3/8"	1 3/4"	3 7/8"			
GROUT FILLED	ASTM C-90 BLOCK, 1500 PSI GROUT	1/4" DIA. DEWALT SCREW-BOLT+, CARBON STEEL	2 1/2"	2 3/8"	3"			
CMU	COMP. STRENGTH	1/4" DIA. ELCO AGGRE-GATOR, 300 SERIES SS*	2"	4"	4"			



# ITEM 17 UNIVERSAL SLEEVE ATTACHMENT ANGLE N.T.S.





A   COMPLETE REVISION   CJD   SDL   MMM   3/7/18     REV. LETTER   REVISION DESCRIPTION   DWN. CHK'D APPV'D. BY:   ECN   DATE     PRODUCTS   GENEYA, ALABAYA 36340-0580 PH: (334) 664-3600   PLOT SCALE   PLOT SCALE     VITUL   4375DC STANDARD INSTALLATION   REV. A   SHEET110F 11     DWG. NO.   60-022136-00D								
Image: Construction of the second state of the se		A	COMPLETE REVISION	CJD	SDL	MMM		3/7/18
TITLE REV. A SHEET110F 11   4375DC STANDARD INSTALLATION DWG. NO.		REV. LETTER	REVISION DESCRIPTION	1		·	ECN	DATE
4375DC STANDARD INSTALLATION		RE	GENEVA, ALABAMA 36340-0560 PH: (334) 684-3621 EAY: (334) 684-3650			ECN:		
	4375DC STANDARD INSTALLATION							