



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/economy

United Enertech Holdings, LLC
3005 South Hickory Street
Chattanooga, TN 37407

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 SED-5.1 Aluminum Louver with or without CD-151 Damper

APPROVAL DOCUMENT: Drawing No. **23-069**, titled "SED-5.1 Louver System with or without CD-151 Damper Assembly", sheets 1 through 16 (including sheet 4A) of 16, dated 07/07/2023, prepared by Tilteco, Inc., signed and sealed by Walter A. Tillit Jr., 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: A permanent label with the manufacturer's name or logo, Chattanooga, TN or Hartford, AL, model/series, and following statement: "Miami-Dade County Product Control Approved", is to be located on each unit.

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 and revises NOA # 20-0811.16** and consists of this page 1 and evidence pages E-1, E-2, E-3 and E-4, as well as approval document mentioned above.

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



NOA No. 23-0726.10
Expiration Date: November 20, 2028
Approval Date: September 21, 2023
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

A. DRAWINGS “Submitted under NOA # 16-0209.13”

1. Drawing No. **15-026**, titled “SED-5.1 Louver System with or without CD-151 Damper Assembly”, sheets 1 through 16 (including sheet 4A) of 16, dated 03/16/2015, with revision 2 dated 01/19/2016, prepared by Tilteco, Inc., signed and sealed by Walter A. Tillit Jr., P.E.

B. TESTS “Submitted under NOA # 08-1003.07”

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 Model SED-5.1 Louver System, prepared by American Test Lab of South Florida, Test Report No. **0514.01-08**, dated 09/15/2008, signed and sealed by William R. Mehner, P.E., and Henry Hattem, P.E.
2. Test Report on Wind and Wind Driven Rain Resistance Test per TAS 100(A)-95 of a Model CD-151 Parallel Blade Damper, prepared by PRI Asphalt Technologies, Report No. **UEC-001-02-01**, dated 02/08/2005, signed and sealed by Charles L. Thomas, P.E.

C. CALCULATIONS “Submitted under NOA # 15-0420.02 and # 08-1003.07”

1. Anchor calculations, prepared by Tilteco Inc, dated 03/16/2015, sheets 1 through 3 of 3, complying with F.B.C. 2014, signed and sealed by Walter A. Tillit Jr., P.E.
2. Anchor, stress and deflection calculations, prepared by Tilteco Inc, dated 09/09/2009, sheets 1 through 13 of 13, complying with F.B.C. 2007, signed and sealed by Walter A. Tillit Jr., P.E.
3. Anchor, stress and deflection calculations, prepared by Tilteco Inc, dated 09/17/2008, sheets 1 through 79 of 79, complying with F.B.C. 2004, signed and sealed by Walter A. Tillit Jr., 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 # 15-0420.02”

1. Statement letter of code conformance to the 5th edition (2014) FBC issued by Tilteco, Inc. on 03/31/2015, signed and sealed by Walter A. Tillit Jr., P.E.
2. Statement letter of code conformance to 2010 FBC issued by Tilteco, Inc. on 05/28/2013, signed and sealed by Walter A. Tillit Jr., P.E. **“Submitted under NOA # 13-0604.09”**
3. No financial interest letter issued by Tilteco, Inc., dated 09/10/2009, signed and sealed by Walter A. Tillit Jr., P.E. **“Submitted under NOA # 08-1003.07”**.

2. EVIDENCE SUBMITTED UNDER NOA # 17-0823.08

A. DRAWINGS

1. Drawing No. **17-125**, titled “SED-5.1 Louver System with or without CD-151 Damper Assembly”, sheets 1 through 16 (including sheet 4A) of 16, dated 08/02/2017, prepared by Tilteco, Inc., signed and sealed by Walter A. Tillit, Jr., P.E.

B. TESTS

1. None.



Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 23-0726.10

Expiration Date: November 20, 2028
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NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. EVIDENCE SUBMITTED UNDER NOA # 17-0823.08 (Continued)

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 **6th Edition (2017) FBC**, issued by Tilteco, Inc., dated 08/02/2017, signed and sealed by Walter A. Tillit Jr., P.E.

3. EVIDENCE SUBMITTED UNDER NOA #19-0520.01

A. DRAWINGS

1. None.

B. TESTS (Verification 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 marked-up drawings and installation diagram of Model SED-5.1 Louver System w/ CD-151 damper, prepared by PRI Construction Materials Technologies, LLC, Test Report No. **UNEN-003-02-02**, dated 04/23/2019, signed and sealed by Zachary Priest, P.E.
2. Test Report on Wind and Wind Driven Rain Resistance Test per TAS 100(A)-95 of a Model SED-5.1 Louver System w/ CD-151 damper, prepared by PRI Construction Materials Technologies, LLC, Report No. **UNEN-003-02-01**, dated 04/17/2019, signed and sealed by Zachary Priest, P.E.

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 for renewal with verification test, issued by Tilteco, Inc., dated 05/16/2019, signed and sealed by Walter A. Tillit Jr., P.E.



Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 23-0726.10

Expiration Date: November 20, 2028
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NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

4. EVIDENCE SUBMITTED UNDER NOA # 20-0115.02

A. DRAWINGS

1. Drawing No. **17-125**, titled “SED-5.1 Louver System with or without CD-151 Damper Assembly”, sheets 1 through 16 (including sheet 4A) of 16, dated 08/02/2017, with revision 2 dated 11/08/2019, prepared by Tilteco, Inc., signed and sealed by Walter A. Tillit Jr., 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. Letter requesting the company name change from “United Enertech Corp.” to its parent company, “United Enertech Holdings, LLC”, issued by Winstead PC, dated 01/31/2020, signed by Andrew J. Ostapko, Attorney.
2. Certificate of merger between “United Enertech Corp.” and “Enertech Acquisition Corp.”, issued by the State of Delaware, dated 01/04/2017.
3. Amended and restated certificate of incorporation of “United Enertech Corp.” (F/K/A “Enertech Acquisition Corp.”, issued by the State of Delaware, dated 12/30/2016.
4. Certificate of formation of “United Enertech Holdings, LLC”, issued by the State of Delaware, dated 12/02/2016.



Carlos M. Utrera, P.E.
Product Control Examiner
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NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

5. EVIDENCE SUBMITTED UNDER NOA # 20-0811.16 AND NEW

A. DRAWINGS

1. Drawing No. **23-069**, titled “SED-5.1 Louver System with or without CD-151 Damper Assembly”, sheets 1 through 16 (including sheet 4A) of 16, dated 07/07/2023, prepared by Tilteco, Inc., signed and sealed by Walter A. Tillit Jr., 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 8th edition (2023) of the FBC, issued by Tilteco, Inc. on 07/07/2023, signed and sealed by Walter A. Tillit Jr., P.E.
2. Statement letter of code conformance to the 7th edition (2020) of the FBC, issued by Tilteco, Inc. on 07/27/2020, signed and sealed by Walter A. Tillit Jr., P.E.



Carlos M. Utrera, P.E.
Product Control Examiner
NOA No. 23-0726.10

Expiration Date: November 20, 2028
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GENERAL NOTES:

1). SED-5.1 LOUVER SYSTEM WITH OR WITHOUT CD-151 DAMPER SHOWN ON THIS PRODUCT APPROVAL DOCUMENT (P.A.D.) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2023 (8th EDITION) AND 2020 (7th EDITION) OF THE FLORIDA BUILDING CODE. THIS SED-5.1 LOUVER SYSTEM WITH OR WITHOUT CD-151 DAMPER MAY BE INSTALLED AT HIGH VELOCITY HURRICANE ZONES (H.V.H.Z) (MIAMI-DADE / BROWARD COUNTIES).

DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1620 OF THE ABOVE MENTIONED CODE, USING ASCE 7-22 (FBC 2023) & ASCE 7-16 (FBC 2020) SHALL NOT EXCEED THE MAXIMUM (A.S.D.) DESIGN PRESSURE RATINGS INDICATED ON SHEETS 4A & 15.

IN ORDER TO VERIFY THE ABOVE CONDITION, ULTIMATE DESIGN WIND LOADS DETERMINED PER ASCE 7-22 OR ASCE 7-16 SHALL BE FIRST REDUCED TO A.S.D. DESIGN WIND LOADS BY MULTIPLYING THEM BY 0.6 IN ORDER TO COMPARE THESE W/ MAX. (A.S.D) DESIGN PRESSURE RATINGS INDICATED ON SHEETS 4A & 15.

IN ORDER TO VERIFY THAT COMPONENTS ON THIS (P.A.D.), AS TESTED, WERE NOT OVERSTRESSED, A 33% INCREASE IN ALLOWABLE STRESS FOR WIND LOADS WAS NOT USED IN THEIR ANALYSIS.

ALUMINUM SED-5.1 LOUVER SYSTEM WITH OR WITHOUT CD-151 DAMPER ADEQUACY FOR IMPACT AND FATIGUE RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION 1626 OF THE ABOVE MENTIONED CODES AS PER AMERICAN TESTING LAB REPORT# 0514.01-08 AS PER TAS-201, TAS-202, TAS-203, AS WELL AS PER ANSI/AMCA IMPACT STANDARD 540, PER INTERTEK/ARCHITECTURAL TESTING REPORT # F 3136.01-550-44 & PRI TECHNOLOGIES LAB REPORT # UEC-001-02-01, PER TAS-100A (WIND DRIVEN RAIN, EXCEEDS ANSI/AMCA 550-15 STANDARD). THE LOUVER MUST HAVE THE CD-151 DAMPER INSTALLED BEHIND IT (AND IN THE CLOSED BLADE POSITION) TO MEET THE TAS 100(A) OR AMCA 550 REQUIREMENTS.

A.S.D. DESIGN PRESSURE RATING:

VARIES (psf), FOR ALL SINGLE UNITS W/ SQUARE EDGES WITHOUT MULLIONS WITH OR WITHOUT DAMPER. (SEE SCHEDULE ON SHEET 4A), AND +150, -150 psf. FOR ALL SINGLE UNITS W/ CURVED EDGES W/O DAMPER.

VARIES (psf), FOR ALL MULTIPLE UNITS WITH MULLIONS (12L) WITH OR WITHOUT DAMPER (SEE SCHEDULE ON SHEET 15).


- 2). ALL ALUMINUM EXTRUSIONS SHALL BE 6063-T5 ALLOY WITH MIN. SPECIFIC YIELD STRENGTHS AS SHOWN ON SHEET 2 AND 3.
- 3). ALL SCREWS TO BE STAINLESS STEEL 304 OR 316 SERIES WITH 50 ksi YIELD POINT AND 90 ksi TENSILE STRENGTH OR CORROSION RESISTANT CARBON STEEL AS PER DIN 50018 AND SHALL COMPLY W/ FLORIDA BUILDING CODE SECTION 2411.3.3.4.
- 4). ALL WELDING OF ALUMINUM FRAMING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY A.W.S. D.1.2 REGULATIONS. USE CERTIFIED WELDERS. USE ER-5356 ELECTRODES.
- 5). ANCHORS TO EXISTING STRUCTURE'S JAMBS SHALL BE AS FOLLOWS (SEE SHEETS 11 AND 16):
- ANCHORS SHALL BE INSTALLED FOLLOWING ALL OF THE RECOMMENDATIONS AND SPECIFICATIONS OF THE ANCHOR'S MANUFACTURER. E.D. IS BEYOND ANY WALL FINISH.

ANCHOR TYPE	MANUFACTURER	DIAMETER OR GAGE	MIN. EMBEDMENT			MIN. EDGE DISTANCE (E.D.)	
			TO CONCRETE (f'c=319psi) MIN.	TO CONCRETE BLOCK (C-90 UNIT)	TO 1/8" MIN. STEEL Fy=33 ksi (MIN.)	CONCRETE OR CONCRETE BLOCK	STEEL
TAPCONS	ITW/ BUILDEX	1/4"	1-3/4"	1-1/4"	N/A	3"	N/A
TEK SCREWS	ITW/ BUILDEX	1/4"	N/A	N/A	3/4"	N/A	1"

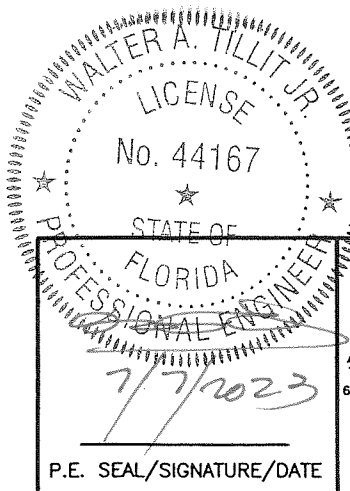
- ANCHORS FOR MULLION CONNECTIONS SHALL BE AS INDICATED ON SHEETS 12 AND 13

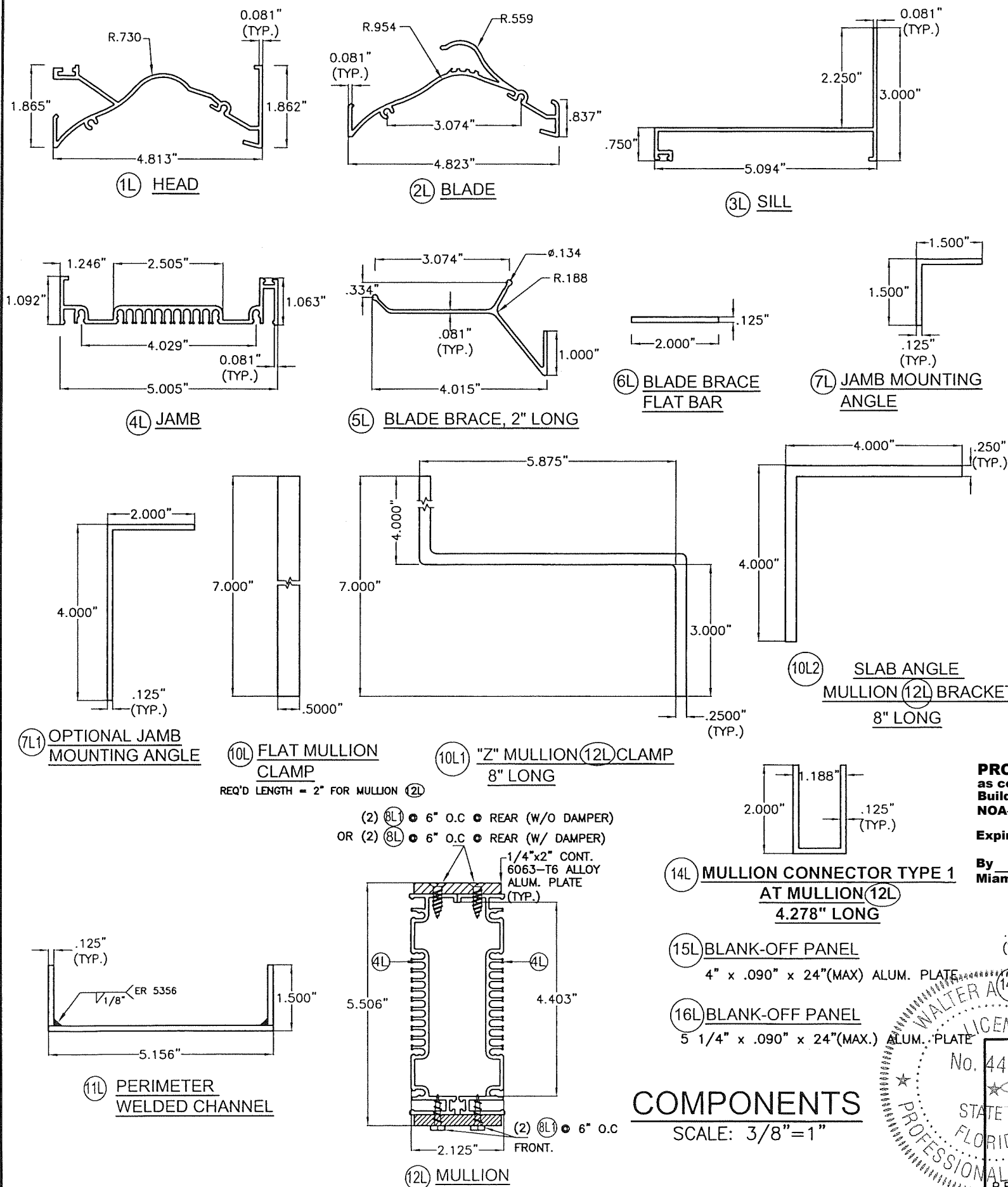
- 6). SED-5.1 LOUVER SYSTEM WITHOUT CD-151 DAMPER SHALL ONLY BE INSTALLED IN A LOCATION WHERE THE ROOM BEHIND THE LOUVER IS DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM, AND THE ROOM WILL HOUSE WATER RESISTANT/WATER PROOF EQUIPMENT, COMPONENTS OR SUPPLIES.
- 7). SED-5.1 LOUVER SYSTEM WITH CD-151 DAMPER MAY BE INSTALLED IN LOCATIONS WHERE THE ROOM BEHIND THE LOUVER IS NOT DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM, OR THE ROOM WILL HOUSE NON-WATER RESISTANT EQUIPMENT, COMPONENTS, OR SUPPLIES. INSTALLATION ON LOUVER WITH DAMPER IS LIMITED TO 40 FT IN HEIGHT ACCORDING TO TABLE 3 OF TAS 100(A)-95.
- 8). CD-151 DAMPER IS AN OPERABLE ASSEMBLY, IT MAY BE OPERATED BY MEANS OF A HAND QUADRANT HANDLE MECHANISM (AS SHOWN ON SHEET 7) OR THROUGH AN ELECTRICAL OR PNEUMATIC ACTUATOR. DAMPER'S OPERATIVE MECHANISM IS NOT PART OF THIS APPROVAL, BUT SHALL BE CERTIFIED BY AN INDEPENDENT TESTING AGENCY.
- 9). ALL ALUMINUM EXTRUSIONS IN CONTACT WITH DISSIMILAR MATERIALS SHALL COMPLY WITH SECTION III-6 OF THE 2020 & 2015 ALUMINUM DESIGN MANUAL.
- 10). IT SHALL BE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SOUNDNESS OF THE STRUCTURE WHERE LOUVER SYSTEM IS TO BE ATTACHED TO INSURE PROPER ANCHORAGE.
- 11).
- (A) THIS PRODUCT APPROVAL DOCUMENT (P.A.D.) PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC PROJECT; i.e. WHERE THE SITE CONDITIONS DEVIATE FROM THE PRODUCT APPROVAL DOCUMENT (P.A.D.)
 - (B) CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION INCLUDING LIFE SAFETY OF THIS PRODUCT, BASED ON THIS PRODUCT APPROVAL DOCUMENT (P.A.D.), PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT. CONSTRUCTION SAFETY AT SITE IS THE CONTRACTOR'S RESPONSIBILITY.
 - (C) THIS PRODUCT APPROVAL DOCUMENT (P.A.D.) WILL BE CONSIDERED INVALID IF MODIFIED.
 - (D) SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.A.D.
 - (E) ORIGINAL PRODUCT APPROVAL DOCUMENT (P.A.D.) SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OR RECORD THAT PREPARED IT.
- 12). PRODUCT MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION AT PRODUCT IN ACCORDANCE WITH SECTION 1703.5 OF FLORIDA BUILDING CODE. ONE LABEL SHALL BE PLACED FOR EVERY OPENING.

THIS DRAWING SHALL ONLY BE USED TO OBTAIN PERMITS IN THE STATE OF FLORIDA

PRODUCT REVISED as complying with the Florida Building Code
NOA-No. 23-0726.10
Expiration Date 11/20/2028
By 
Miami-Dade Product Control

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

 <p>P.E. SEAL/SIGNATURE/DATE</p>	<p>© 2023 TILTECO INC.</p> <p>TILTECO INC.</p> <p>TILLIT TESTING & ENGINEERING COMPANY 6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166 Phone: (305)871-1530 Fax: (305)871-1531 e-mail: tilteco@aol.com CA-0006719 WALTER A. TILLIT Jr. P.E. FLORIDA Lic. # 44167</p>	<p>SED-5.1 LOUVER SYSTEM WITH OR WITHOUT CD-151 DAMPER ASSEMBLY</p> <p>UNITED ENERTECH HOLDINGS, LLC</p> <p>3005 SOUTH HICKORY ST. 159 GENCO DRIVE CHATTANOOGA, TN 37407 HARTFORD, AL 36344 PHONE: (423)698-7715 FAX:(423)698-6629</p> <table><tr><th>REV. No</th><th>DESCRIPTION</th><th>DATE</th><th>REV. No</th><th>DESCRIPTION</th><th>DATE</th></tr><tr><td>1</td><td>OLD 20-208</td><td>7/7/2023</td><td>3</td><td></td><td></td></tr><tr><td>2</td><td></td><td></td><td>4</td><td></td><td></td></tr></table>	REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE	1	OLD 20-208	7/7/2023	3			2			4			<p>Y.M. DRAWN BY</p> <p>7/7/2023 DATE</p> <p>23-069 DRAWING No</p> <p>SHEET 1 OF 16</p>
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE																
1	OLD 20-208	7/7/2023	3																		
2			4																		



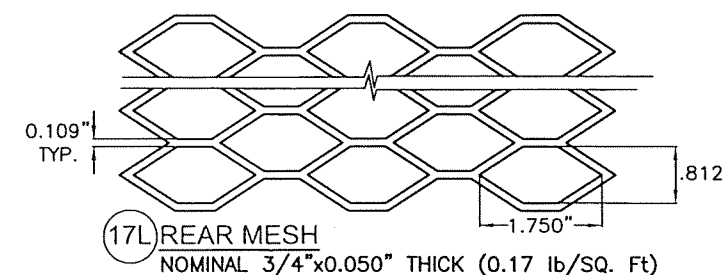
BILL OF MATERIALS SED-5.1 LOUVER ASSEMBLY				
ITEM	DESCRIPTION	MATERIAL	SIZE	REMARKS
1L	EXTRUDED ALUM. HEAD	6063-T5 ALLOY	SEE DETAIL	Fy (MIN.) = 16 ksi
2L	EXTRUDED ALUM. BLADE	6063-T5 ALLOY	SEE DETAIL	Fy (MIN.) = 16 ksi
3L	EXTRUDED ALUM. SILL	6063-T5 ALLOY	SEE DETAIL	Fy (MIN.) = 16 ksi
4L	EXTRUDED ALUM. JAMB	6063-T5 ALLOY	SEE DETAIL	Fy (MIN.) = 16 ksi
5L	EXTRUDED ALUM. BLADE BRACE	6063-T5 ALLOY	SEE DETAIL	Fy (MIN.) = 16 ksi
6L	EXTRUDED ALUM. FLAT BAR	6063-T5 ALLOY	SEE DETAIL	Fy (MIN.) = 16 ksi
7L	EXTRUDED ALUM. JAMB MOUNTING ANGLE	6063-T6 ALLOY	SEE DETAIL	Fy (MIN.) = 25 ksi
7L1	OPTIONAL EXTRUDED ALUM. JAMB MOUNTING ANGLE	6063-T6 ALLOY	SEE DETAIL	Fy (MIN.) = 25 ksi
8L	FLAT HEAD TEK SCREWS	ZINC PLATED STEEL	1/4"ø x 3/4" LONG	ITW / BUILDDEX
8L1	HEX HEAD TEK SCREWS	ZINC PLATED STEEL	1/4"ø x 1" LONG	ITW / BUILDDEX
9L	NEOPRENE WASHER HEAD S.M.S.	410 STAINLESS STEEL	#8 x 1-1/2" LONG	LOUVER BLADE AND FRAME ASSEMBLY (1L, 2L, & 4L)
10L	FLAT MULLION CLAMP	ASTM A-36 OR ASTM A-653 GRADE 40 OR AISI 304 S.S. *	SEE DETAIL	REQ'D LENGTH = 2" FOR MULLION (2L) Fy (MIN.) = 36 ksi
10L1	"Z" MULLION (12L) CLAMP	ASTM A-36 OR ASTM A-653 GRADE 40 OR AISI 304 S.S. *	SEE DETAIL	8" LONG AT HEAD & SILL AT BLADE W/ MULLION (12L) Fy (MIN.) = 36 ksi
10L2	ANGLE MULLION BRACKET	6063-T6 ALLOY	SEE DETAIL	8" LONG AT HEAD & SILL AT BLADE W/ MULLIONS. Fy (MIN.) = 25 ksi
11L	PERIMETER WELDED CHANNEL	6063-T5 ALLOY	SEE DETAIL	Fy (MIN.) = 16 ksi
12L	MULLION	6063-T5 ALLOY	SEE DETAIL	Fy (MIN.) = 16 ksi
14L	MULLION CONNECTOR TYPE 1 AT MULLION (12L)	6063-T6 ALLOY	SEE DETAIL	Fy (MIN.) = 16 ksi
14L1	MULLION CONNECTOR TYPE 2 AT MULLION (12L)	ASTM A-36 *	SEE DETAIL	Fy (MIN.) = 36 ksi
15L	BLANK-OFF PANEL	6063-T5 ALLOY	SEE DETAIL	Fy (MIN.) = 16 ksi
16L	BLANK-OFF PANEL	6063-T5 ALLOY	SEE DETAIL	Fy (MIN.) = 16 ksi
17L	REAR MESH	3003-H14 ALLOY	SEE DETAIL	Fy (MIN.) = 16 ksi

* NOTE: STEEL COMPONENTS SHALL BE PROTECTED FROM CORROSION W/ A PRIMER CONSISTING OF RED OXIDE PAINT OR SIMILAR W/ GALVANIZING (G-60) AS AN OPTION. ADDITIONALLY, FINAL (FINISH) PAINT FOR THESE PROFILES SHALL BE IN ACCORDANCE W/ SECTION 2003.8.4.2 OF THE F.B.C., ADDRESSING PROTECTION OF ALUMINUM IN CONTACT W/ METALS NOT CONSIDERED COMPATIBLE.

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 23-0726.10

Expiration Date 11/20/2028

By *[Signature]*
Miami-Dade Product Control

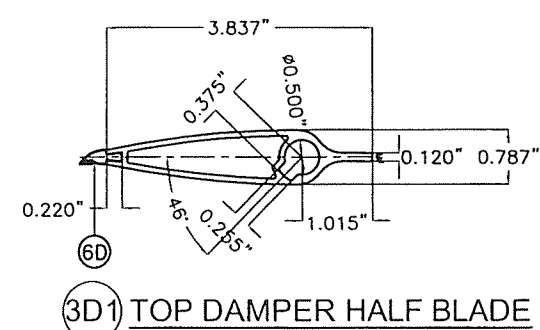
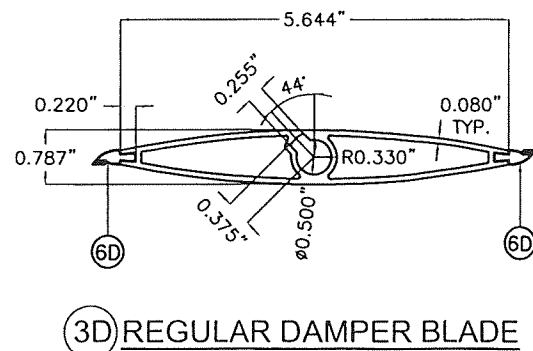
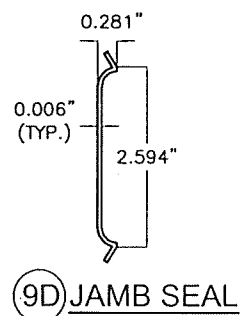
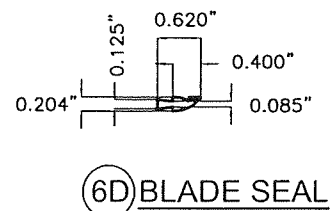
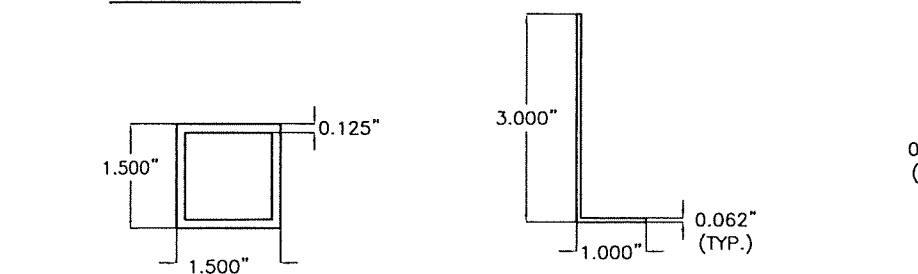
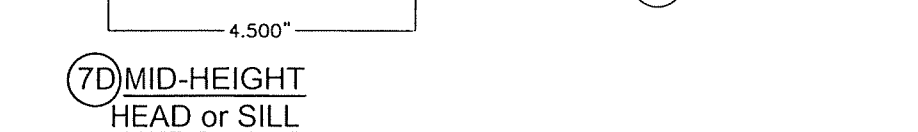
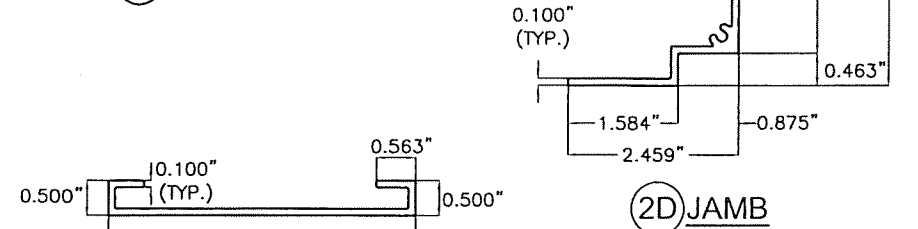
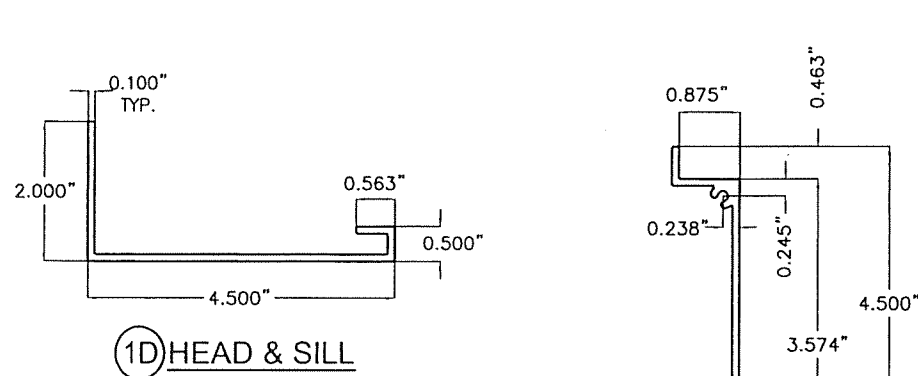


COMPONENTS
SCALE: 3/8"=1"

WALTER A. TILLIT JR.
No. 44167
STATE OF FLORIDA
PROFESSIONAL ENGINEER
P.E. SEAL/SIGNATURE/DATE

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TILLIT TESTING & ENGINEERING COMPANY
6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166
Phone: (305)871-1530 Fax: (305)871-1531
e-mail: tilteco@aol.com
CA-0006719
WALTER A. TILLIT JR. P.E.
FLORIDA Lic. # 44167


FLORIDA BUILDING CODE (High Velocity Hurricane Zone)					
SED-5.1 LOUVER SYSTEM WITH OR WITHOUT CD-151 DAMPER ASSEMBLY				Y.M. DRAWN BY	
UNITED ENERTECH HOLDINGS, LLC				7/7/2023 DATE	
3005 SOUTH HICKORY ST. CHATTANOOGA, TN 37407 159 GENCO DRIVE HARTFORD, AL 36344 PHONE: (423)698-7715 FAX: (423)698-6629				23-069 DRAWING No	
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 20-208	7/7/2023	3		
2			4		
SHEET 2 OF 16					

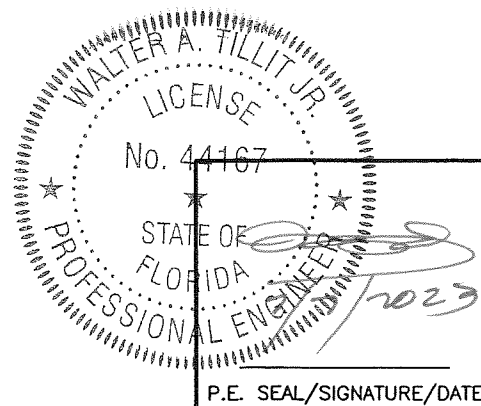


BILL OF MATERIALS CD-151 DAMPER ASSEMBLY				
ITEM	DESCRIPTION	MATERIAL	SIZE	REMARKS
1D	EXTRUDED ALUM. HEAD & SILL	6063-T5 ALUMINUM ALLOY	SEE DETAIL	Fy(MIN.)=33.4 ksi
2D	EXTRUDED ALUM. JAMB	6063-T5 ALUMINUM ALLOY	SEE DETAIL	Fy(MIN.)=31.6 ksi
3D	EXTRUDED ALUM. REGULAR DAMPER BLADE	6063-T5 ALUMINUM ALLOY	SEE DETAIL	Fy(MIN.)=31.8 ksi
3D1	EXTRUDED ALUM. TOP DAMPER HALF BLADE	6063-T5 ALUMINUM ALLOY	SEE DETAIL	Fy(MIN.)=31.8 ksi
4D	BUSHING	BRONZE	1/2" I.D. (5/8" O.D.) x 1/4"	0.059" THICK @ WASHER SIDE
5D	AXLE PIN	ZAMAC No. 3 ZINC	1/2"x3 1/8"	WITH NYLON WASHER & LOCK RING
6D	BLADE SEAL	SILICONE	SEE DETAIL	ASTM D-2000, 60-65 DUROMETER
7D	MID-HEIGHT EXTRUDED ALUM. HEAD or SILL	6063-T5 ALUMINUM ALLOY	SEE DETAIL	Fy(MIN.)=29.8 ksi
8D	ALUM. ANGLE BLADE STOP	6063-T5 ALUMINUM ALLOY	SEE DETAIL	WITH VINYL WEATHER STRIP AT END OF 3" LEG
9D	JAMB SEAL	STAINLESS STEEL 316 SERIES	SEE DETAIL	ATTACHED TO 2D W/(3) DOUBLE SIDED (1"x1/8") TAPES
10D	S.D.S. TEK SCREW	ZINC PLATED	#8 X 1/2"	FASTEN TO 6D @ 12" O.C., 2 1/2" FROM ENDS
1I	INTERMEDIATE TUBE FRAME	6063-T5 ALUMINUM ALLOY	SEE DETAIL IN THIS SHEET AND SHEET 9.	Fy(MIN.)=31.9 ksi INSTALL BETWEEN DAMPER & LOUVER FRAME.

CD-151 DAMPER AND INTERMEDIATE TUBE FRAME COMPONENTS (EXCLUDES COMPONENTS FOR OPERATIVE MECHANISM, SEE NOTE 8/1)

COMPONENTS
SCALE: 3/8"=1"

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Expiration Date 11/20/2028
By 
Miami-Dade Product Control

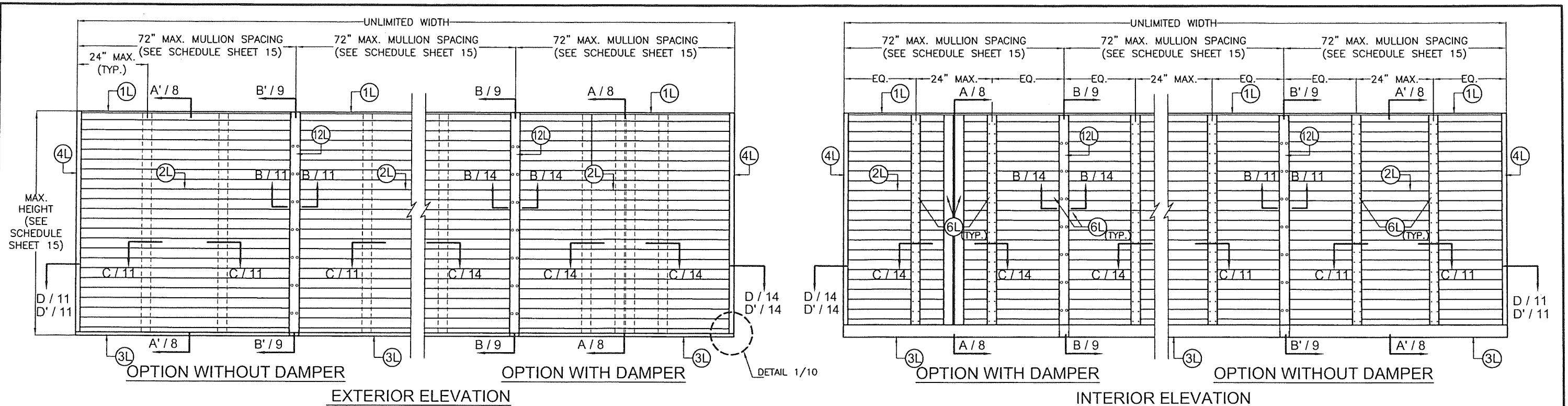


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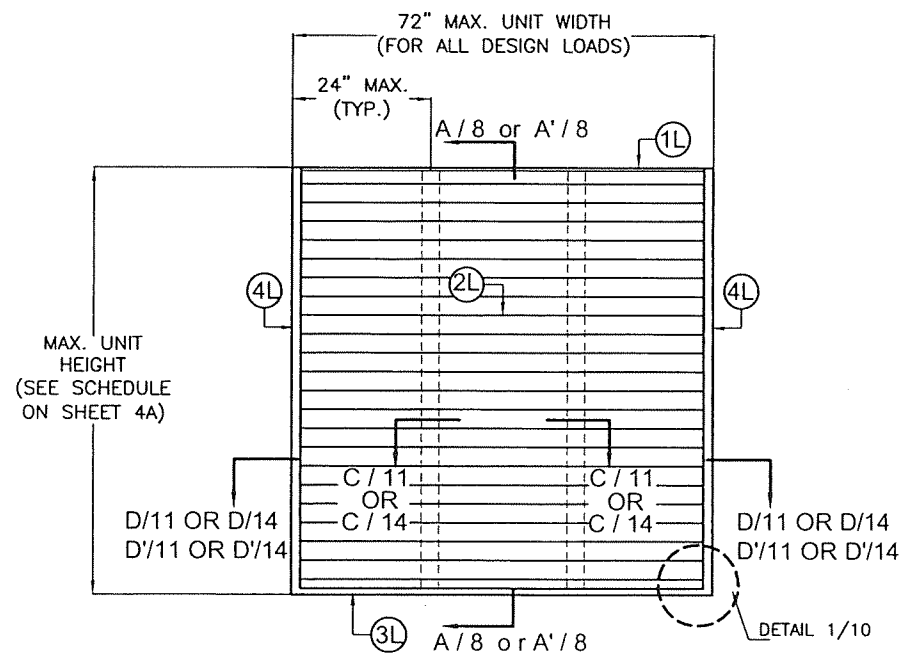
TILLIT TESTING & ENGINEERING COMPANY
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3005 SOUTH HICKORY ST. 159 GENCO DRIVE CHATTANOOGA, TN 37407 HARTFORD, AL 36344 PHONE: (423) 698-7715 FAX: (423) 698-6629				23-069 DRAWING No	
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				SHEET 3 OF 16	



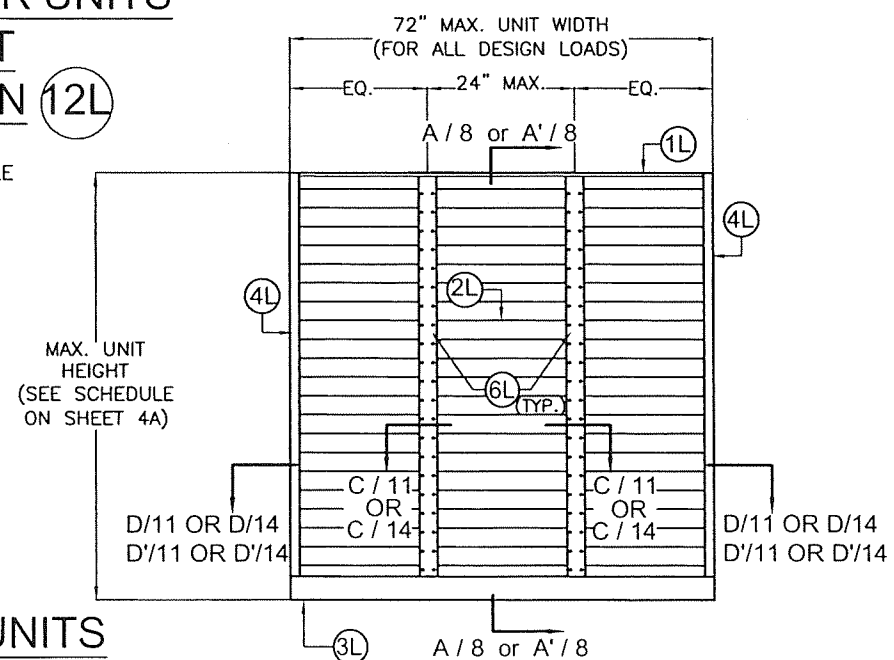
MULTIPLE SED 5.1 LOUVER UNITS WITH OR WITHOUT DAMPER WITH MULLION 12L

N.T.S.
(PRESURE RATING VARIES, SEE SCHEDULE
ON SHEET 15)



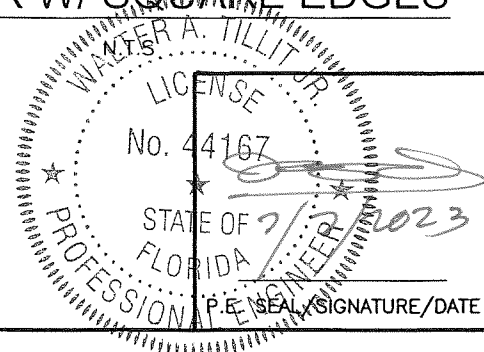
EXTERIOR ELEVATION
WITH OR WITHOUT DAMPER
PRESURE RATING: (VARIES SEE SCHEDULE)

SINGLE SED 5.1 LOUVER UNITS WITH OR WITHOUT DAMPER W/ SQUARE EDGES



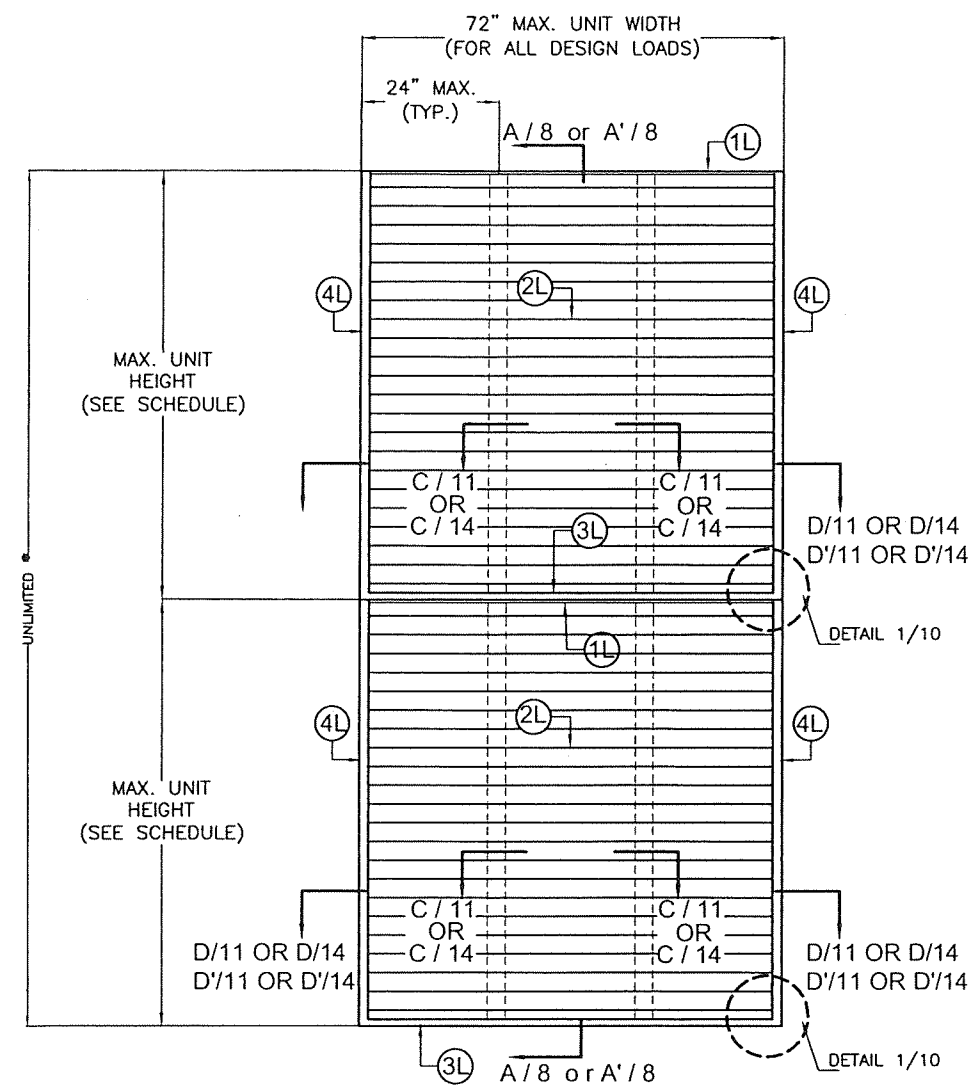
INTERIOR ELEVATION
WITH OR WITHOUT DAMPER
PRESURE RATING: (VARIES SEE SCHEDULE)

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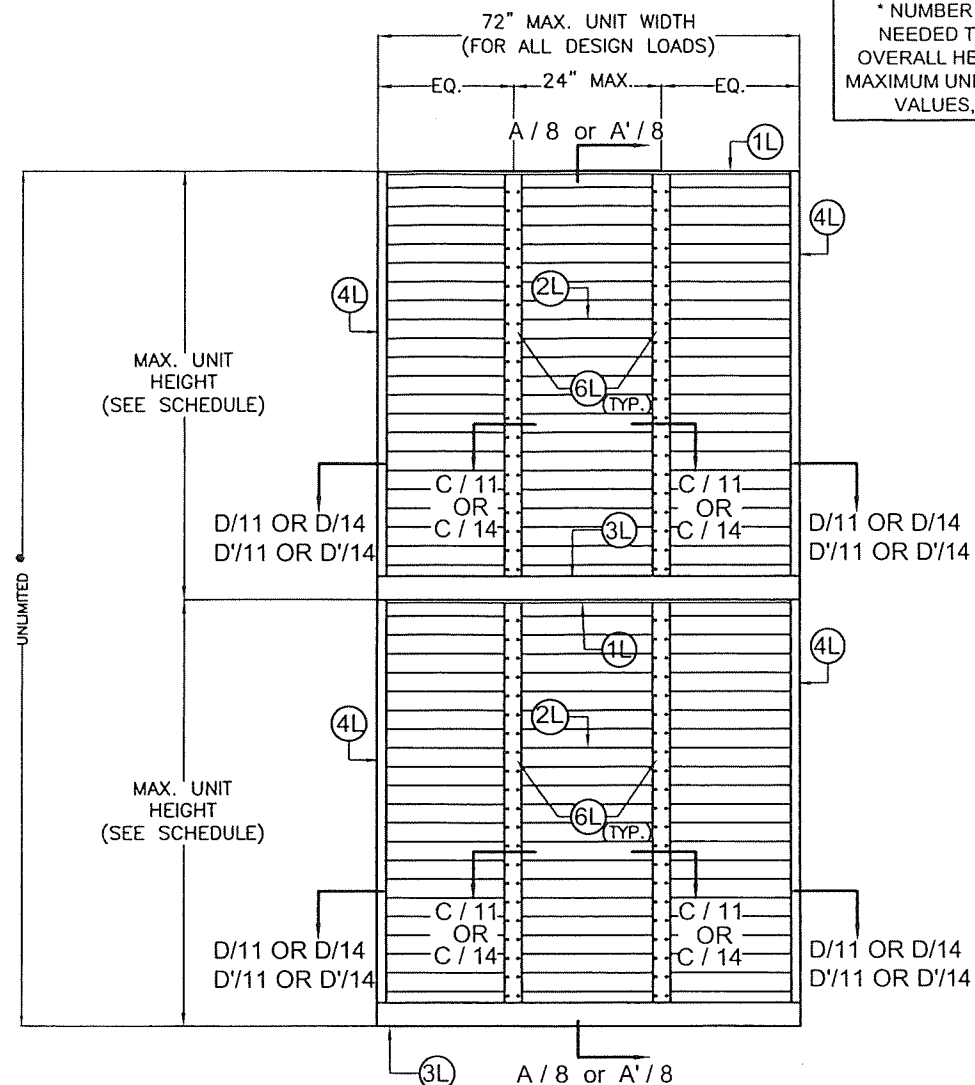


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UNITED ENERTECH HOLDINGS, LLC			7/7/2023 DATE		
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1	OLD 20-208	7/7/2023	3		
2			4		



**EXTERIOR ELEVATION
WITH OR WITHOUT DAMPER**
PRESURE RATING: (VARIES SEE SCHEDULE)



**INTERIOR ELEVATION
WITH OR WITHOUT DAMPER**
PRESURE RATING: (VARIES SEE SCHEDULE)

* NUMBER OF LOUVER PANEL UNITS
NEEDED TO ACHIEVE THE OPENING
OVERALL HEIGHT MAY VARY. HOWEVER
MAXIMUM UNIT HEIGHT SHALL NO EXCEED
VALUES, SHOWN ON SCHEDULE.

MAX. UNIT HEIGHT FOR A GIVEN A.S.D. DESIGN
PRESSURE RATING SCHEDULE, APPLICABLE
TO SINGLE UNITS W/ SQUARE EDGES
W/O MULLION

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f)	MAX. UNIT HEIGHT
40	10'-0"
45	10'-0"
50	10'-0"
55	10'-0"
60	10'-0"
65	10'-0"
70	10'-0"
75	9'-11"
80	9'-7"
85	9'-4"
90	9'-0"
95	8'-10"
100	8'-7"
105	8'-4"
110	8'-2"
115	7'-12"
120	7'-10"
125	7'-8"
130	7'-6"
135	7'-5"
140	7'-3"
145	7'-1"
150	7'-0"

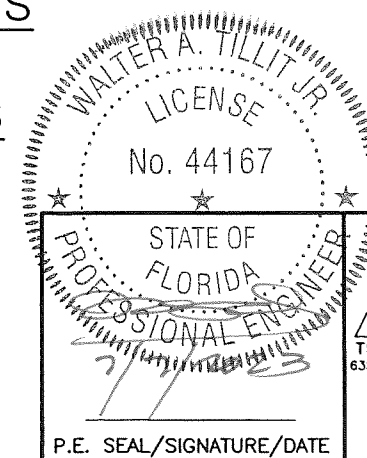
**SINGLE SED 5.1 LOUVER UNITS
WITH OR WITHOUT
DAMPER W/ SQUARE EDGES**

N.T.S

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SED-5.1 LOUVER SYSTEM WITH OR
WITHOUT CD-151 DAMPER ASSEMBLY

UNITED ENERTECH HOLDINGS, LLC
3005 SOUTH HICKORY ST. 159 GENCO DRIVE
CHATTANOOGA, TN 37407 HARTFORD, AL 36344
PHONE: (423)698-7715 FAX: (423)698-6629

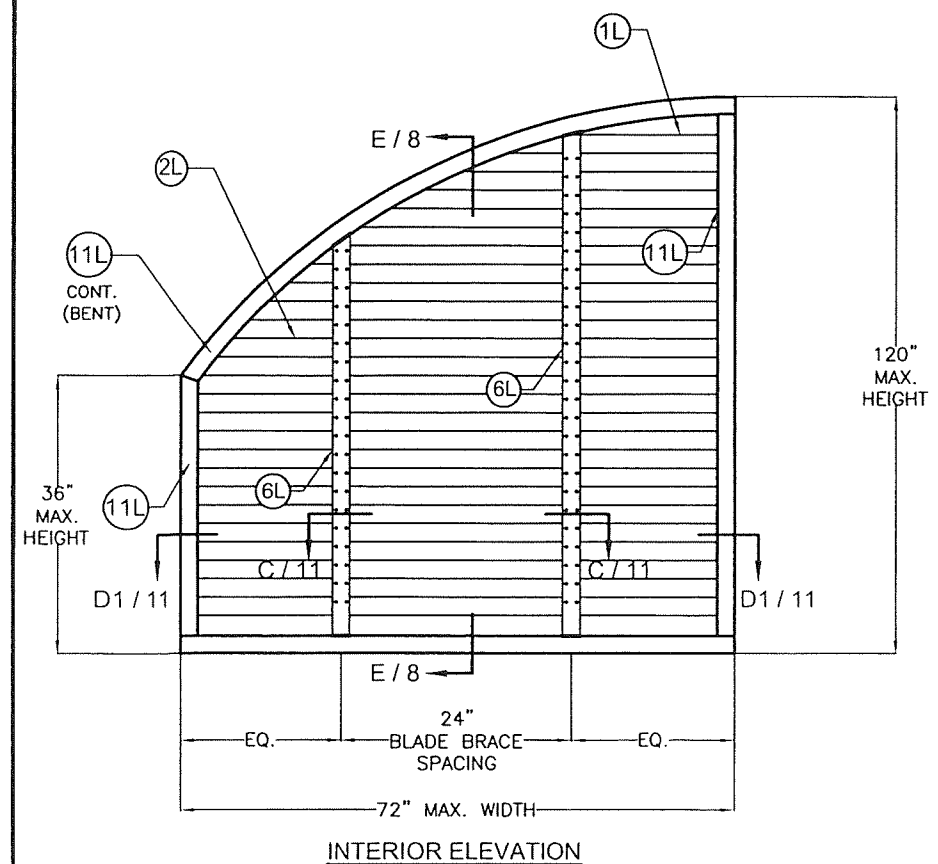
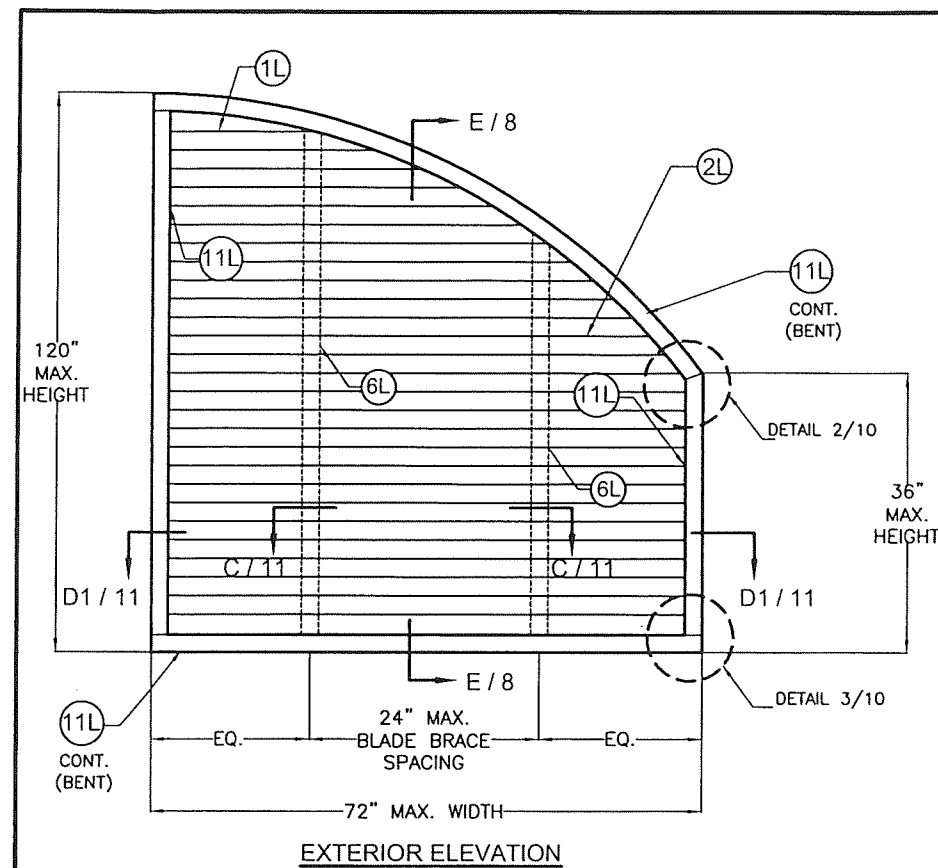
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
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2			4		

Y.M.
DRAWN BY

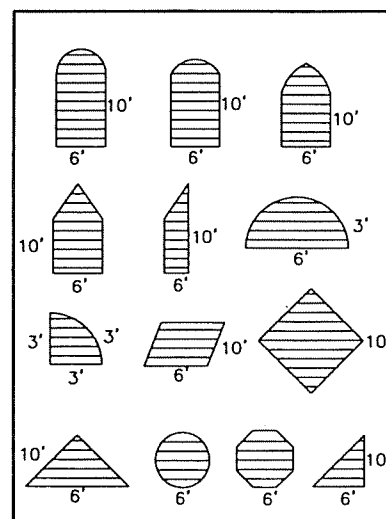
7/7/2023
DATE

23-069
DRAWING No

SHEET 4A OF 16



QUALIFIES THE FOLLOWING SHAPES:



SINGLE SED 5.1 LOUVER UNITS WITHOUT DAMPER W/ CURVED EDGES

N.T.S
(A.S.D. DESIGN PRESSURE RATING: +150, -150 PSF)

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[Signature]
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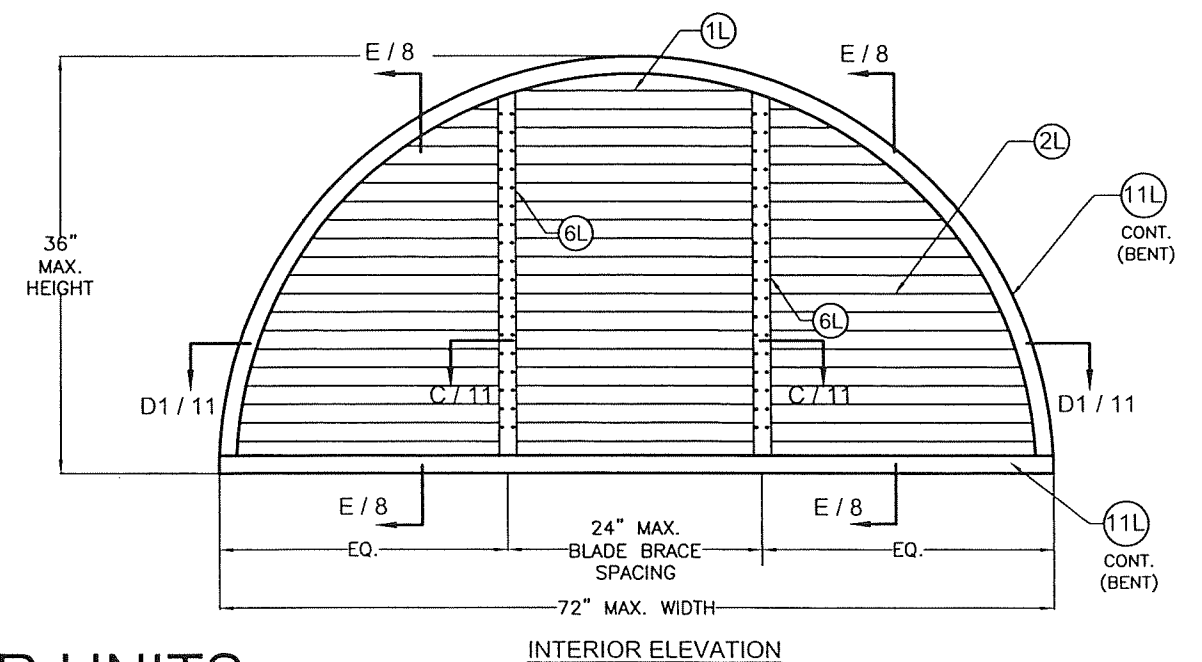
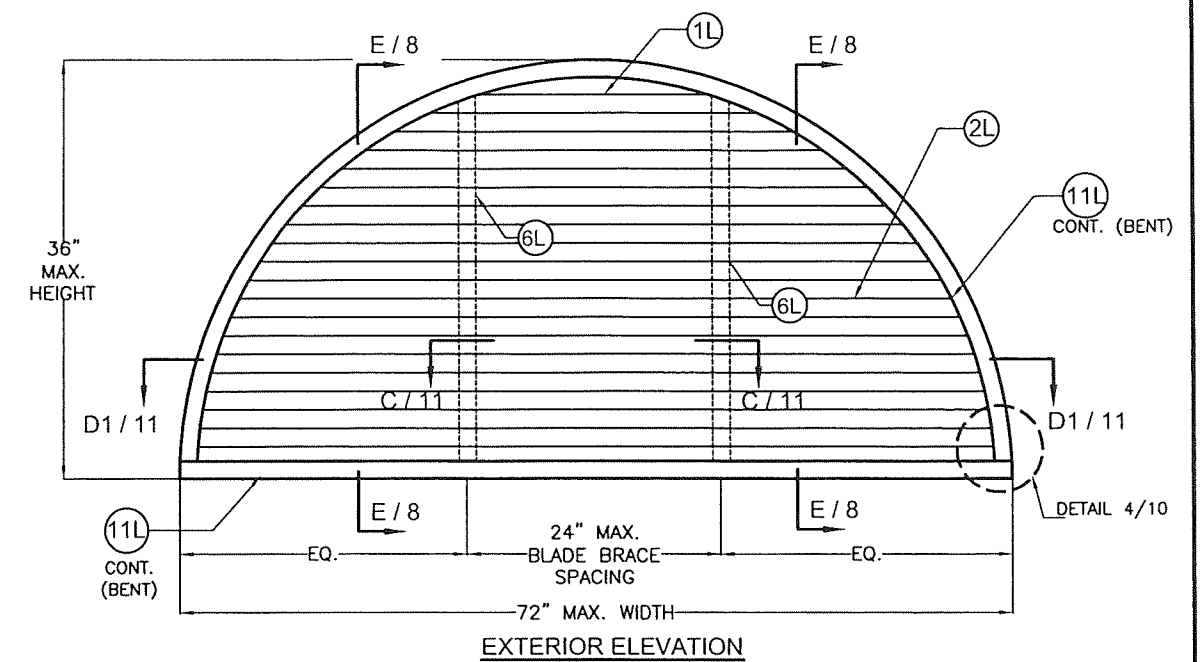
SED-5.1 LOUVER SYSTEM WITH OR
WITHOUT CD-151 DAMPER ASSEMBLY

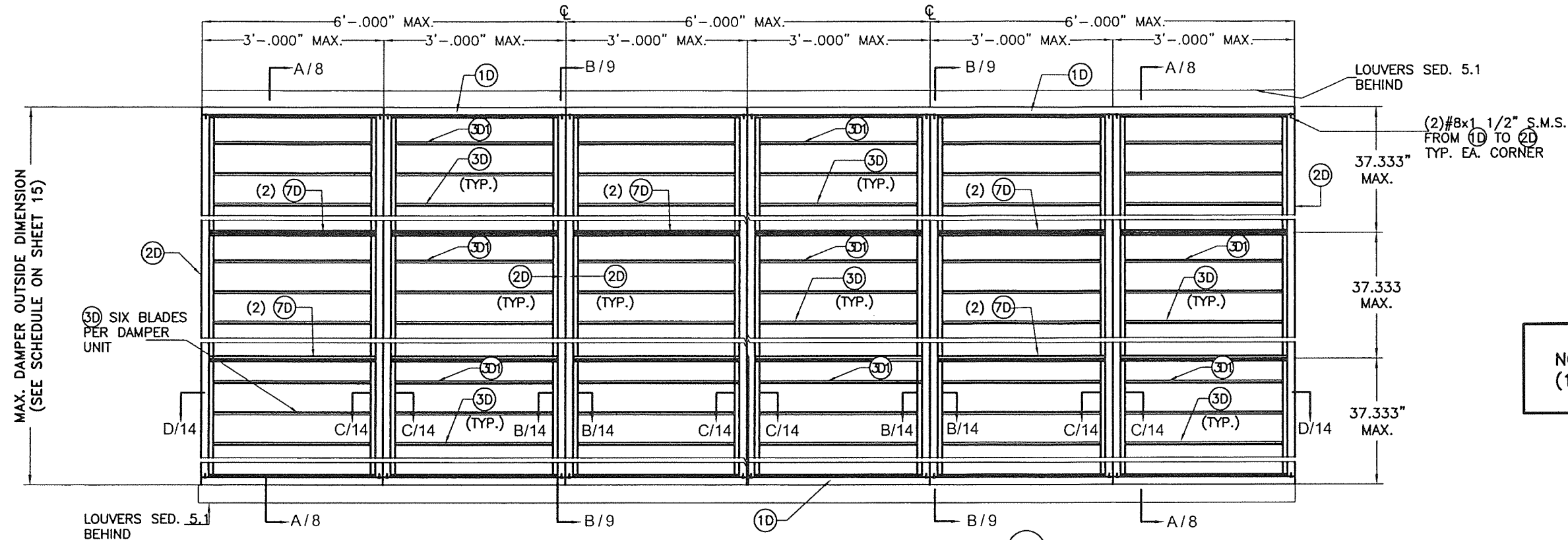
UNITED ENERTECH HOLDINGS, LLC

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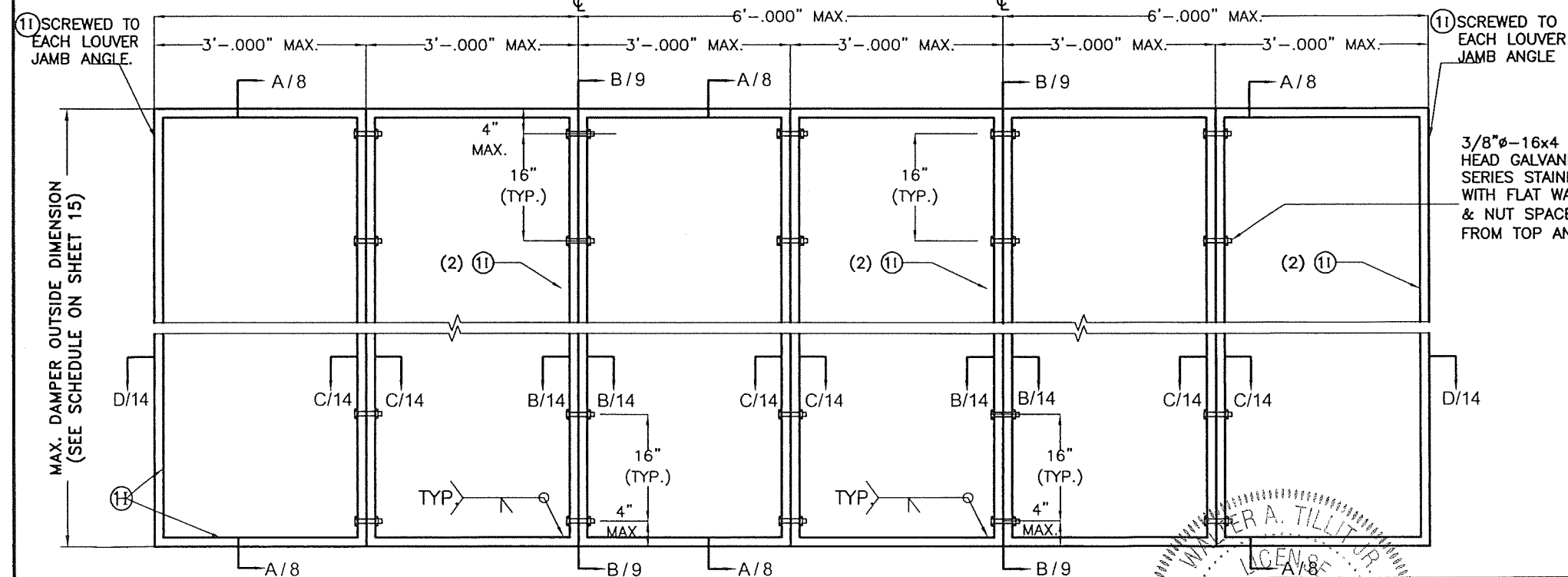
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DRAWN BY
7/7/2023
DATE
23-069
DRAWING No
SHEET 5 OF 16





INTERIOR ELEVATION: CD-151 DAMPER MULTIPLE UNITS WITH MULLION (12L)

SCALE: 1/2"=1'-0"



EXTERIOR ELEVATION: INTERMEDIATE TUBE FRAME FOR CD-151 DAMPER ATTACHMENT AT MULTIPLE UNITS WITH MULLION (12L)

SCALE: 1/2"=1'-0"

NOTE:
(1) SEE COMPONENTS ON SHEET 3.

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Miami-Dade Product Control

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

No. 44167

STATE OF

FLORIDA

PROFESSIONAL ENGINEER

WALTER A. TILLIT JR.

FLORIDA Lic. # 44167

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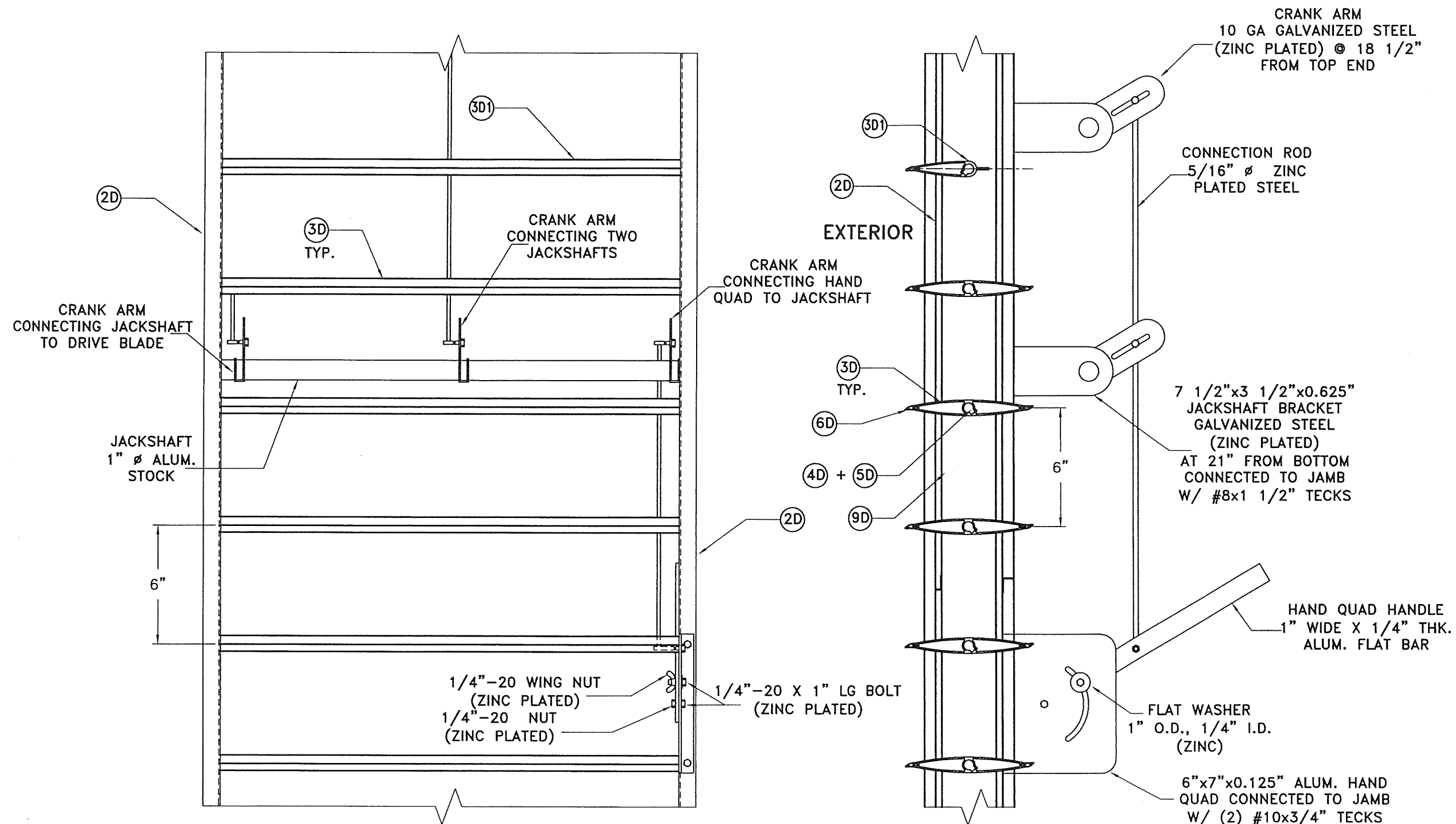
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Y.M.
DRAWN BY

7/7/2023
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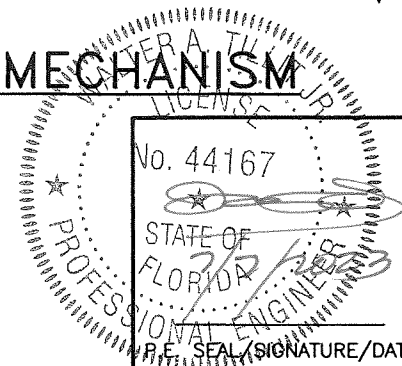
23-069
DRAWING No

SHEET 6 OF 16



HAND QUADRANT HANDLE MECHANISM N.T.S.

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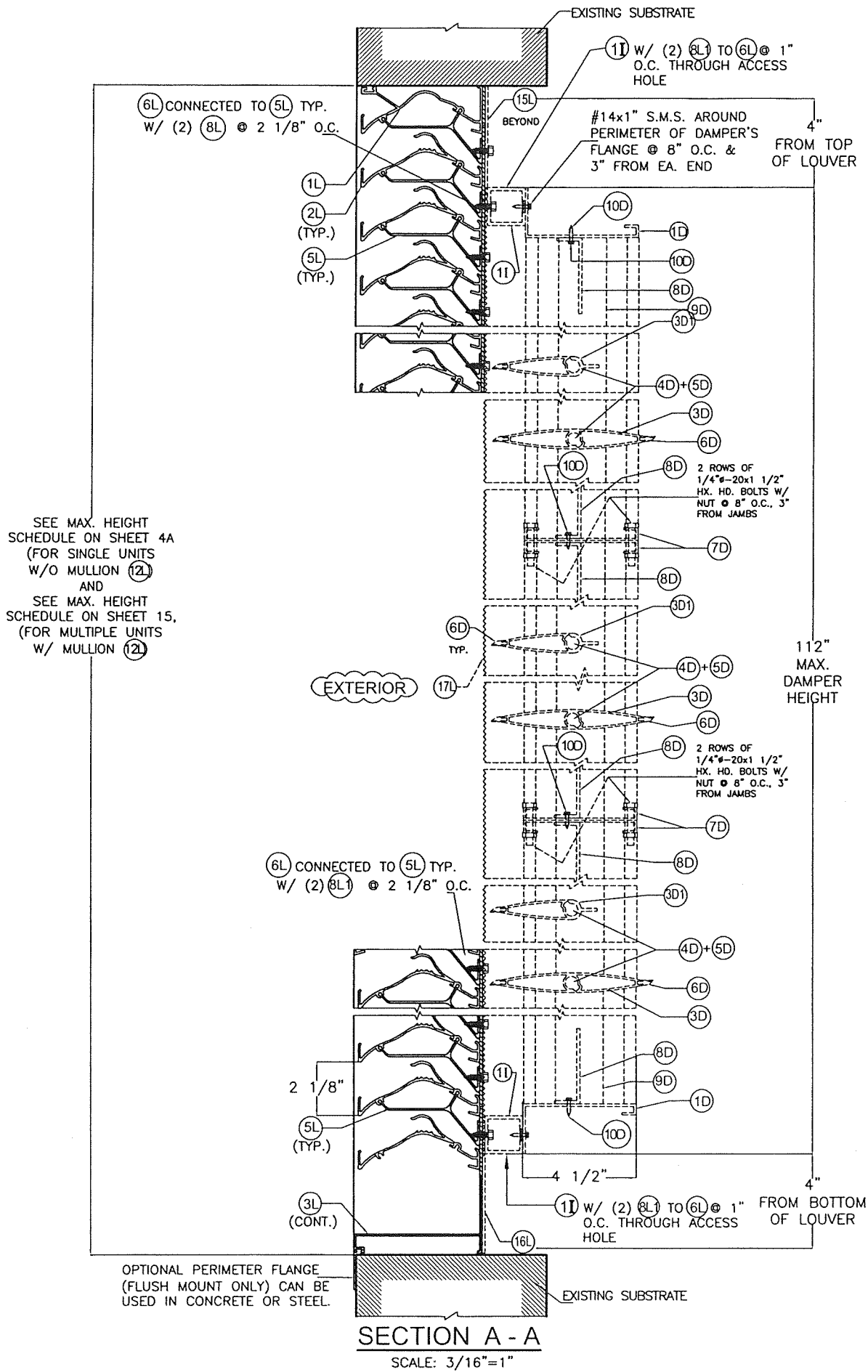
23-069
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SHEET 7 OF 16

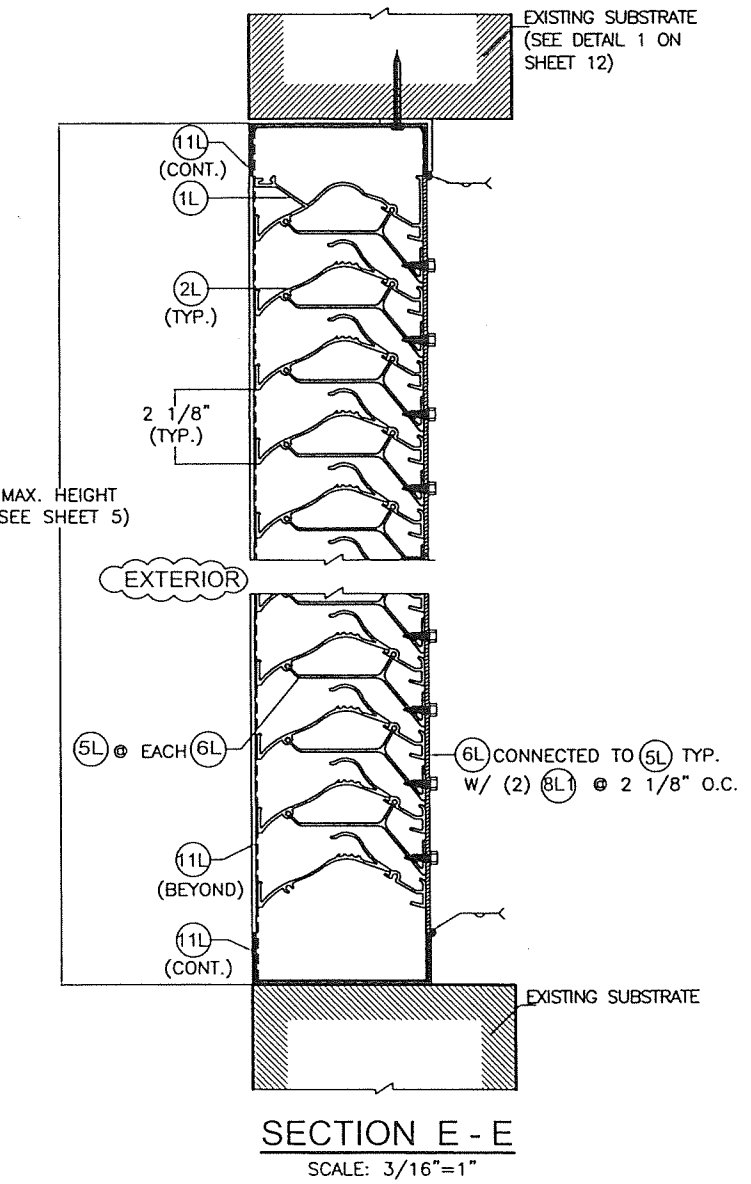
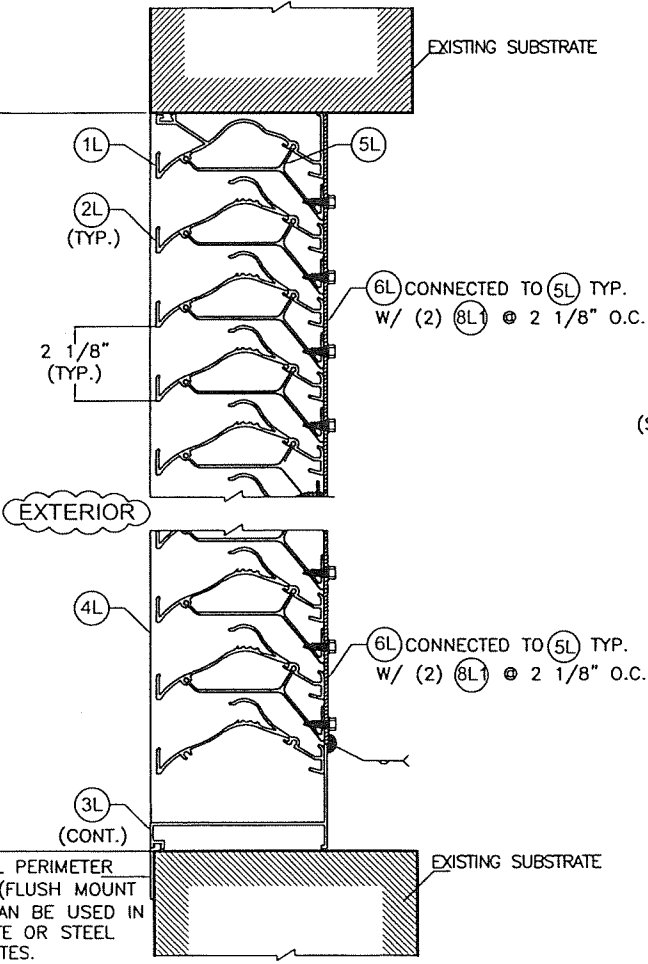
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SEE MAX. HEIGHT
SCHEDULE ON SHEET 4A
(FOR SINGLE UNITS
W/O MULLION 12L)
AND
SEE MAX. HEIGHT
SCHEDULE ON SHEET 15,
(FOR MULTIPLE UNITS
W/ MULLION 12L)



WALTER A. TILLIT JR.
LICENSE
No. 44167
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
2023
P.E. SEAL/SIGNATURE/DATE

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2			4		

SHEET 8 OF 16

EXISTING SUBSTRATE
(SEE SHEET 12 FOR CONNECTION
DETAILS 2 OR 3)

11 W/ (2) 8L TO 6L @ 1"
O.C. THROUGH ACCESS
HOLE

#14x1" S.M.S. AROUND
PERIMETER OF DAMPER'S
FLANGE @ 8" O.C. & 3"
FROM EA. END

4"
FROM TOP
OF LOUVER

15L
(BEYOND)

12L

10D

10D

8D

9D

3D

4D+5D

3D

6D

10D

8D

7D

8D

3D

4D+5D

3D

6D

10D

8D

7D

8D

3D

4D+5D

6D

3D

8D

9D

10D

11 W/ (2) 8L TO 6L @ 1"
O.C. THROUGH ACCESS
HOLE

16L
(BEYOND)

EXISTING SUBSTRATE
(SEE SHEET 12 FOR CONNECTION
DETAILS 2 OR 3)

SECTION B - B

SCALE: 3/16"=1"
(DAMPER BEYOND)

MAX. HEIGHT
(SEE SCHEDULE
ON SHEET 15)

EXTERIOR

112"
MAX. HEIGHT

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MAX. HEIGHT
(SEE SCHEDULE
ON SHEET 15)

EXTERIOR

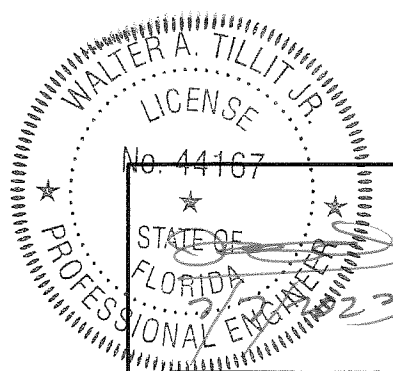
12L

EXISTING SUBSTRATE
(SEE SHEET 12 FOR CONNECTION
DETAILS 2 OR 3)

EXISTING SUBSTRATE
(SEE SHEET 12 FOR CONNECTION
DETAILS 2 OR 3)

SECTION B' - B'

SCALE: 3/16"=1"



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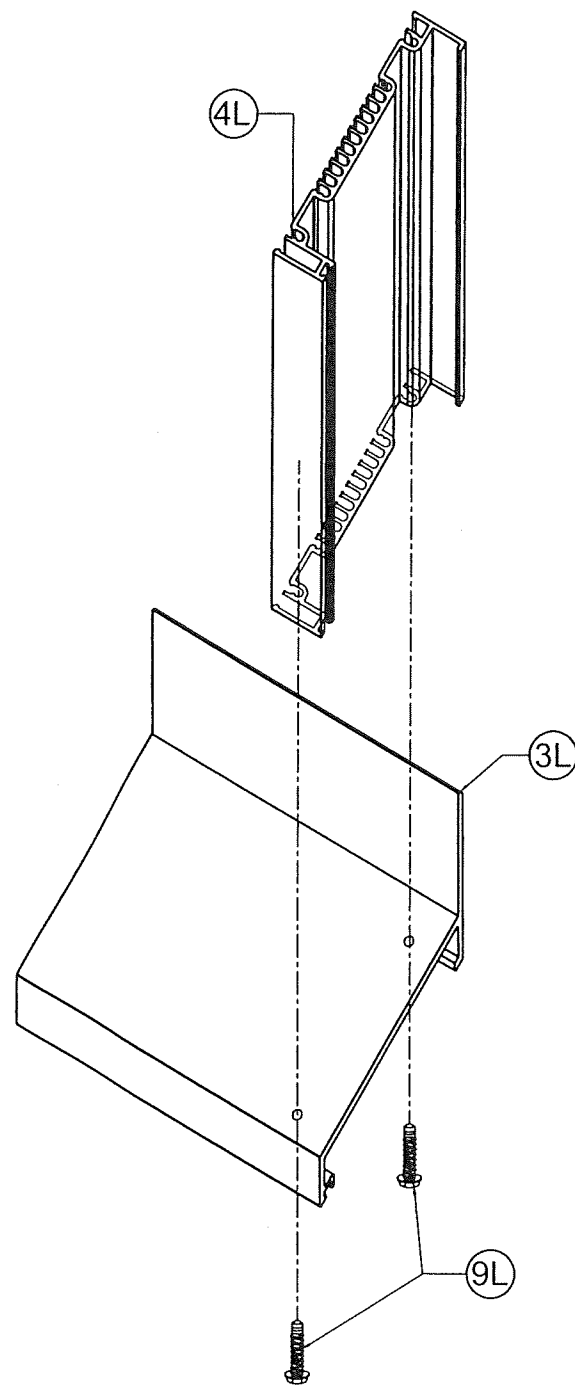
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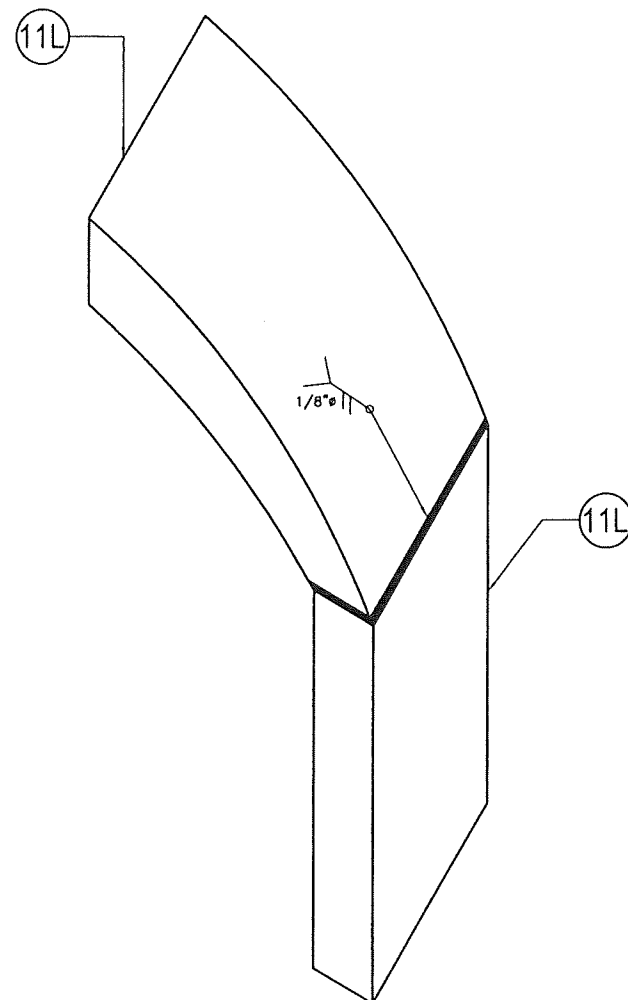
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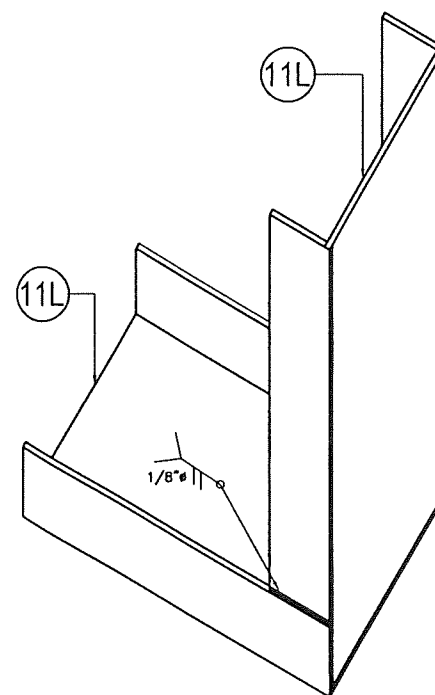
SHEET 9 OF 16



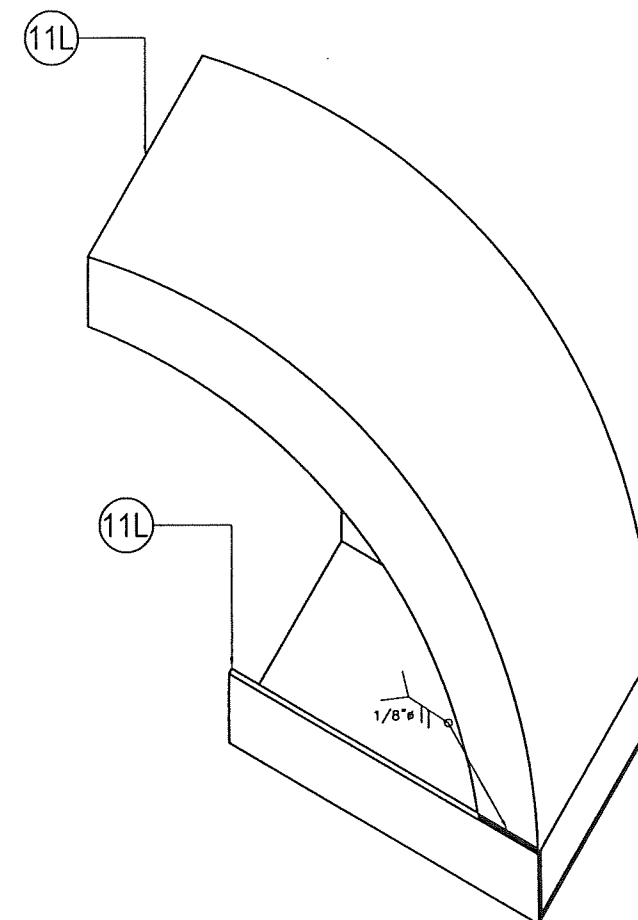
DETAIL 1
CORNER AT BOTTOM
N.T.S



DETAIL 2
CORNER AT TOP
N.T.S

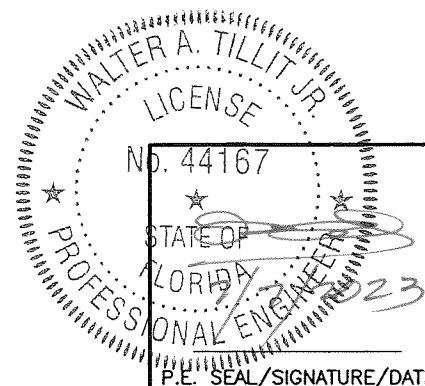


DETAIL 3
CORNER AT BOTTOM
N.T.S



DETAIL 4
CORNER AT BOTTOM
N.T.S

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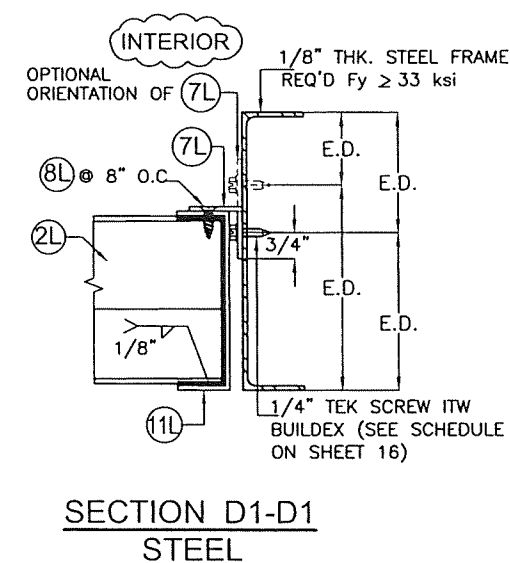
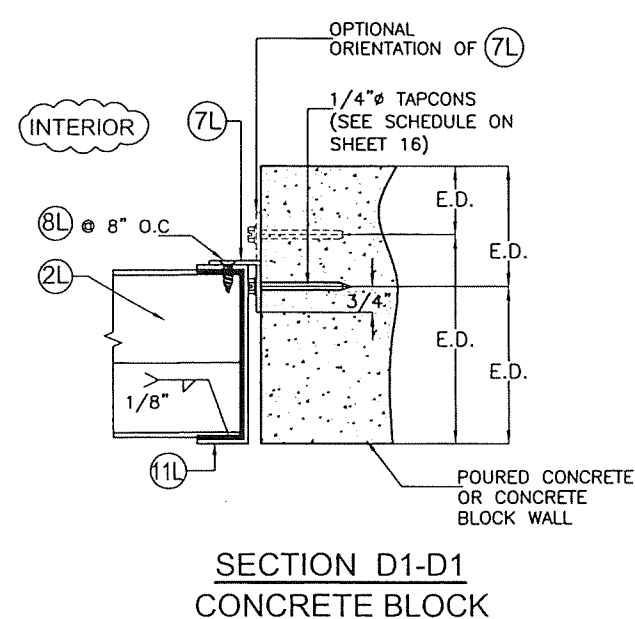
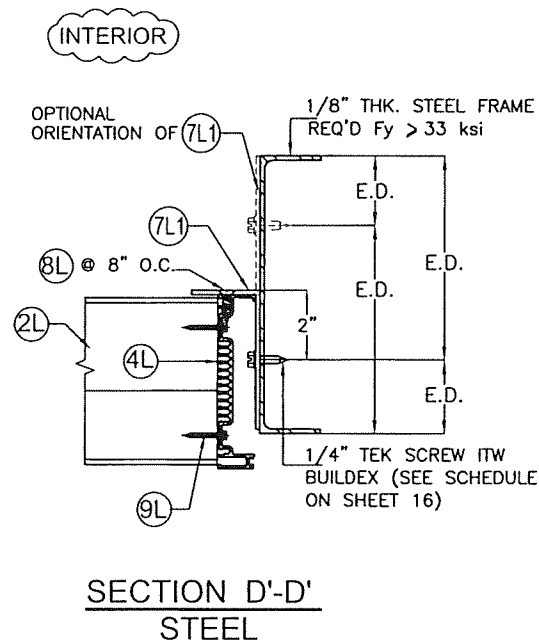
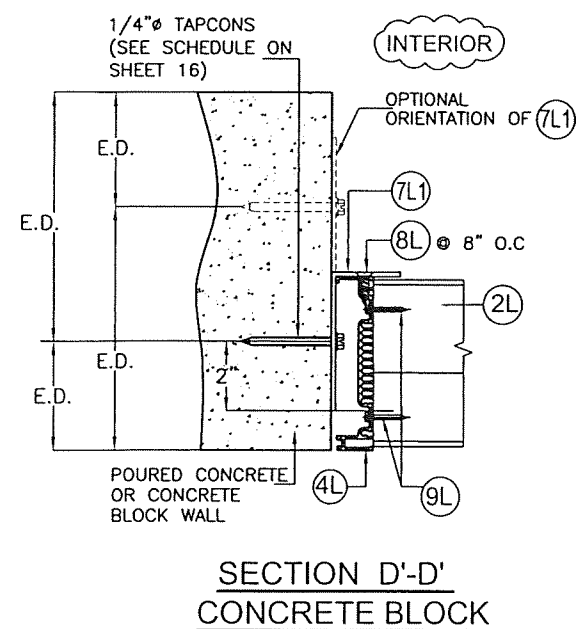
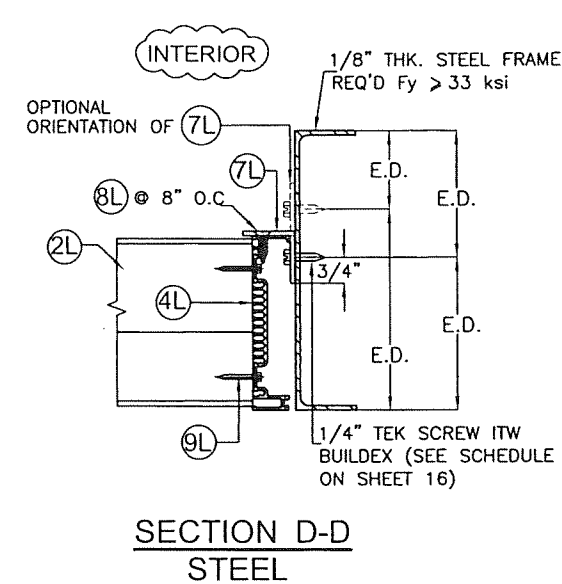
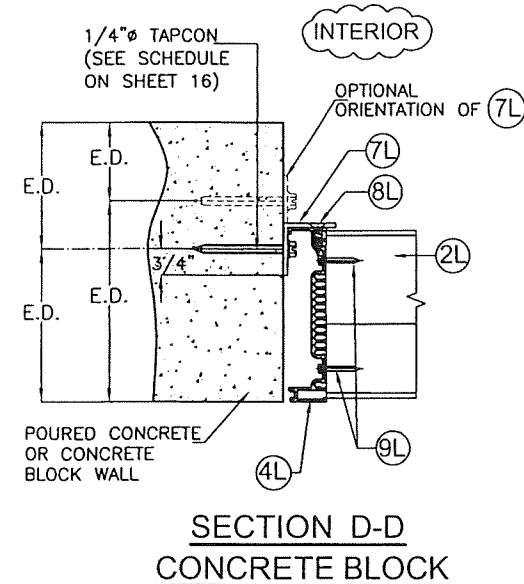
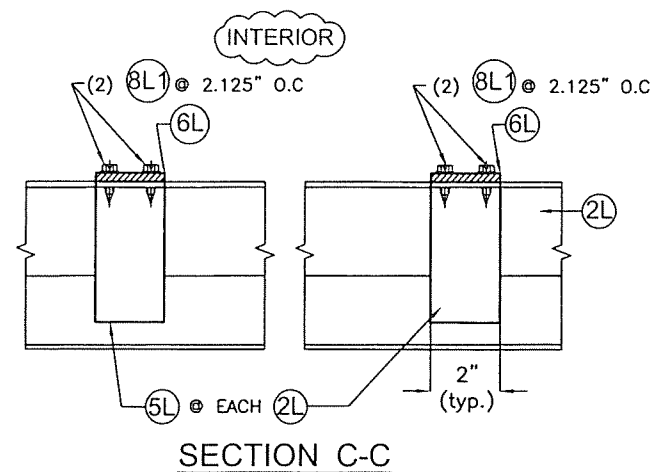
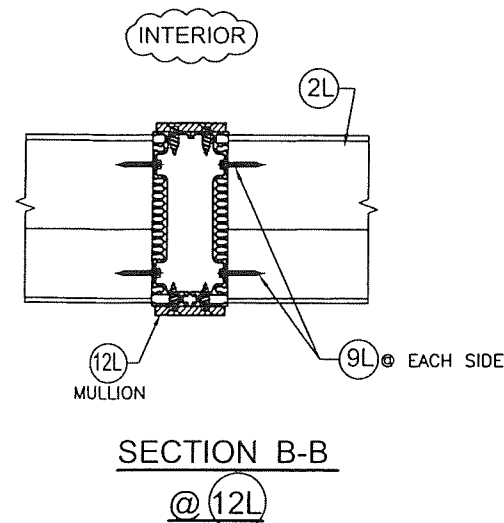
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TILTECO INC.
TILLIT TESTING & ENGINEERING COMPANY
6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166
Phone: (305)871-1530 Fax: (305)871-1531
e-mail: tilteco@aol.com
CA-0006719
WALTER A. TILLIT Jr., P.E.
FLORIDA Lic. # 44167

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

SED-5.1 LOUVER SYSTEM WITH OR WITHOUT CD-151 DAMPER ASSEMBLY
UNITED ENERTECH HOLDINGS, LLC
3005 SOUTH HICKORY ST. 159 GENCO DRIVE
CHATTANOOGA, TN 37407 HARTFORD, AL 36344
PHONE: (423)698-7715 FAX: (423)698-6629

REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 20-208	7/7/2023	3		
2			4		

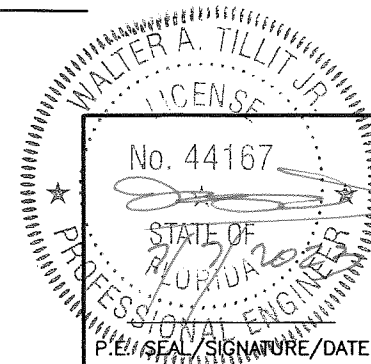
Y.M.
DRAWN BY
7/7/2023
DATE
23-069
DRAWING No
SHEET 10 OF 16



CONNECTION DETAILS

SCALE: 3/16"=1"

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 23-0726.10
Expiration Date 11/20/2028
By *[Signature]*
Miami-Dade Product Control



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FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

SED-5.1 LOUVER SYSTEM WITH OR
WITHOUT CD-151 DAMPER ASSEMBLY

UNITED ENERTECH HOLDINGS, LLC

3005 SOUTH HICKORY ST. 159 GENCO DRIVE
CHATTANOOGA, TN 37407 HARTFORD, AL 36344
PHONE: (423) 698-7715 FAX: (423) 698-6629

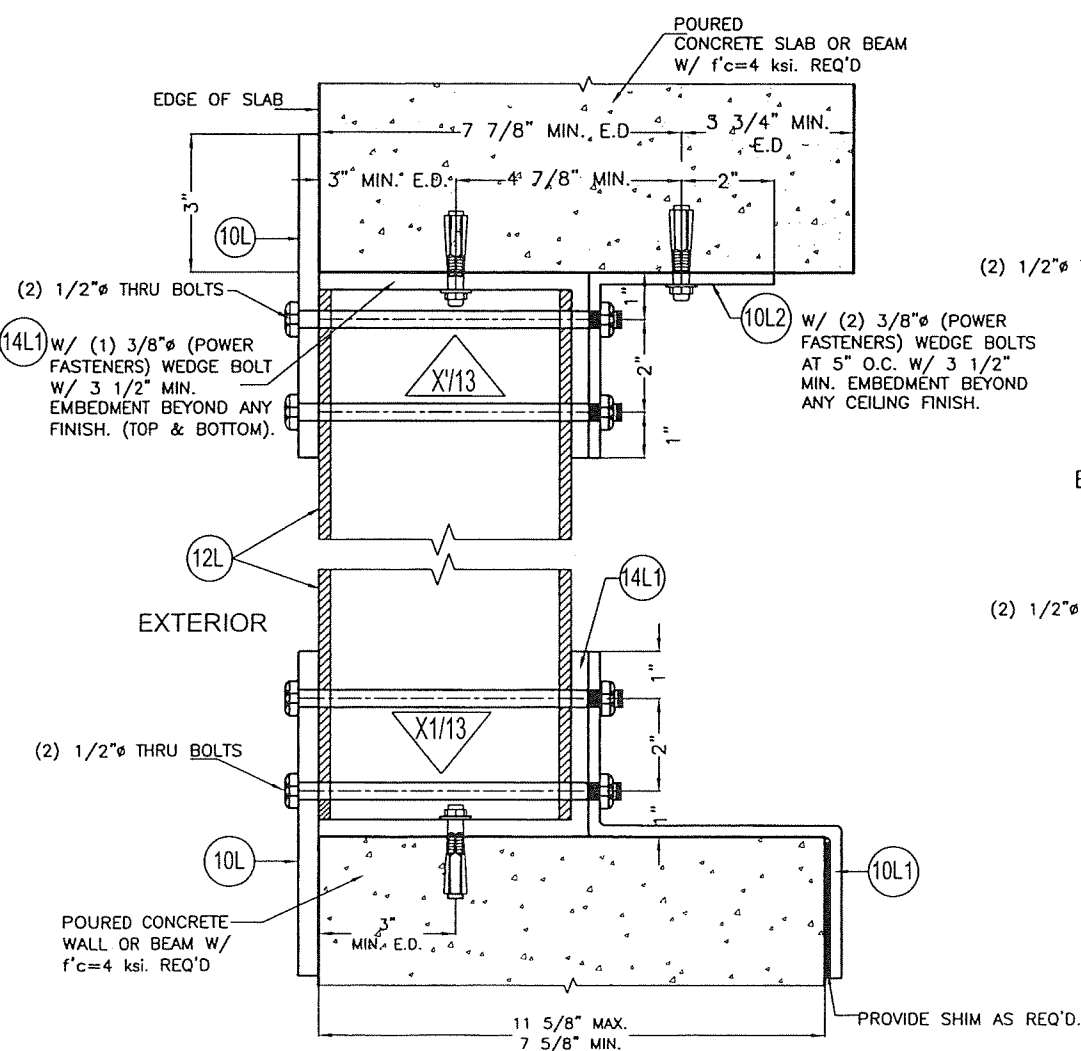
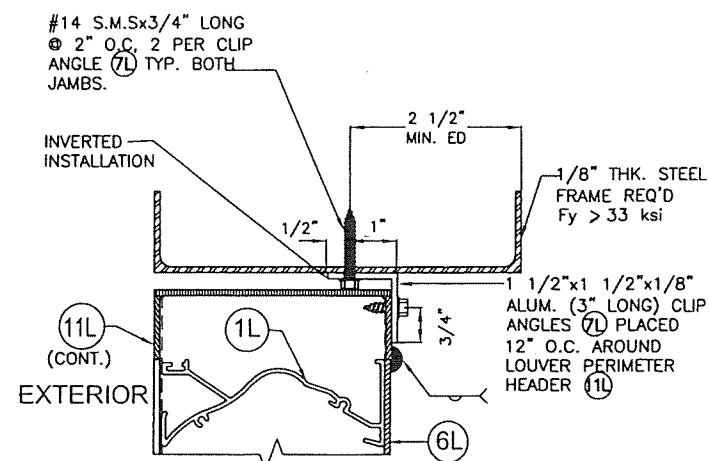
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 20-208	7/7/2023	3		
2			4		

Y.M.
DRAWN BY

7/7/2023
DATE

23-069
DRAWING No

SHEET 11 OF 16



Technical drawing of a window frame assembly, showing cross-sections and details. The drawing includes the following elements:

- Top Section:**
 - Frame: 1/8" THK. STEEL FRAME REQ'D Fy ≥ 33 ksi.
 - Shim: PROVIDE SHIM AS REQ'D.
 - Dimensions: 1 3/8" (total width), 1 1/4" (individual widths).
 - Gap: 1 1/8" MAX. GAP.
 - Labels: (10L), (14L1).
- Middle Section:**
 - Labels: (2) 1/2" Ø THRU BOLTS, (12L), EXTERIOR.
 - Symbol: Y'13.
- Bottom Section:**
 - Labels: (2) 1/2" Ø THRU BOLTS, (14L1), (10L).
 - Dimensions: 1 3/8" (total width), 1 1/4" (individual widths).
 - Frame: 1/8" THK. STEEL FRAME REQ'D Fy ≥ 33 ksi.
 - Shim: PROVIDE SHIM AS REQ'D.
 - Labels: (10L), (14L1).
- Right Side Detail:**
 - Labels: (10L1), 3" MIN. E.
 - Text: W/ (3) 3/8" Ø - 16x1 1/2" S.S M.S INTO STEEL MEMBER W/ NUT & MULLION W/ 1 1/8" (MAX.) GAP IN BETWEEN END OF MULLION & (14L1) AT TOP.
 - Text: W/ (3) 3/8" Ø - 16x1 1/2" S.S M.S INTO TAPPED STEEL MEMBER @ BOTTOM OR TOP WHEN THERE IS NO GAP BETWEEN END OF MULLION & (14L1).
- Bottom Right Stamp:**
 - WALLER, TILLIT JR.
 - LICENSE
 - No. 44167

CONNECTION DETAILS

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NOA-No. 23-0726.10

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Miami-Dade Product Control

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

NOTE: TOP & BOTTOM MOUNTINGS MAY BE INTERCHANGEABLE

(SEE SHEET 15 FOR MAX. MULLION HEIGHT SCHEDULE GIVEN A MULLION SPACING
AND A.S.D. DESIGN PRESSURE RATING FOR APPLICABILITY OF THIS DETAIL)

P.E. SEAL/SIGNATURE/DATE

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TILTECO INC.

TILT TESTING & ENGINEERING COMPANY
1635 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33161
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e-mail: tiltco@aol.com
CA-0006719
WALTER A. TILLOT Jr. P.E.
FLORIDA Lic. # 44167

SED-5.1 LOUVER SYSTEM WITH OR WITHOUT CD-151 DAMPER ASSEMBLY

UNITED ENERTECH HOLDINGS, LLC

3005 SOUTH HICKORY ST. 159 GENCO DRIVE
CHATTANOOGA, TN 37407 HARTFORD, AL 36344
PHONE: (423)698-7715 FAX:(423)698-6629

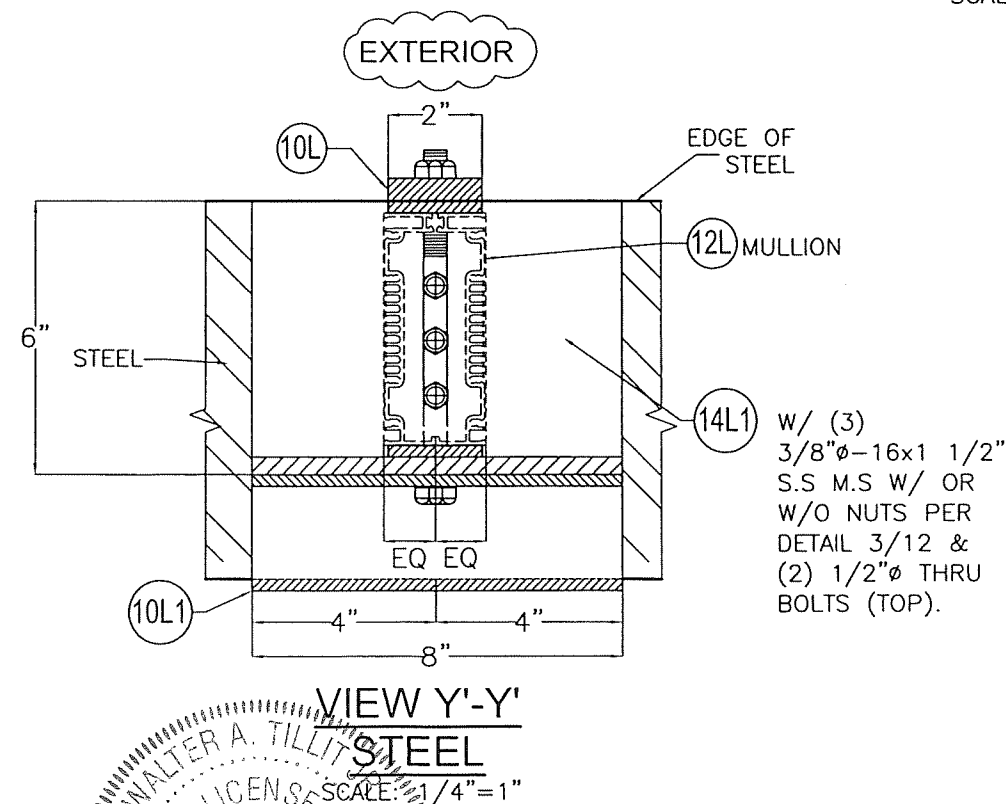
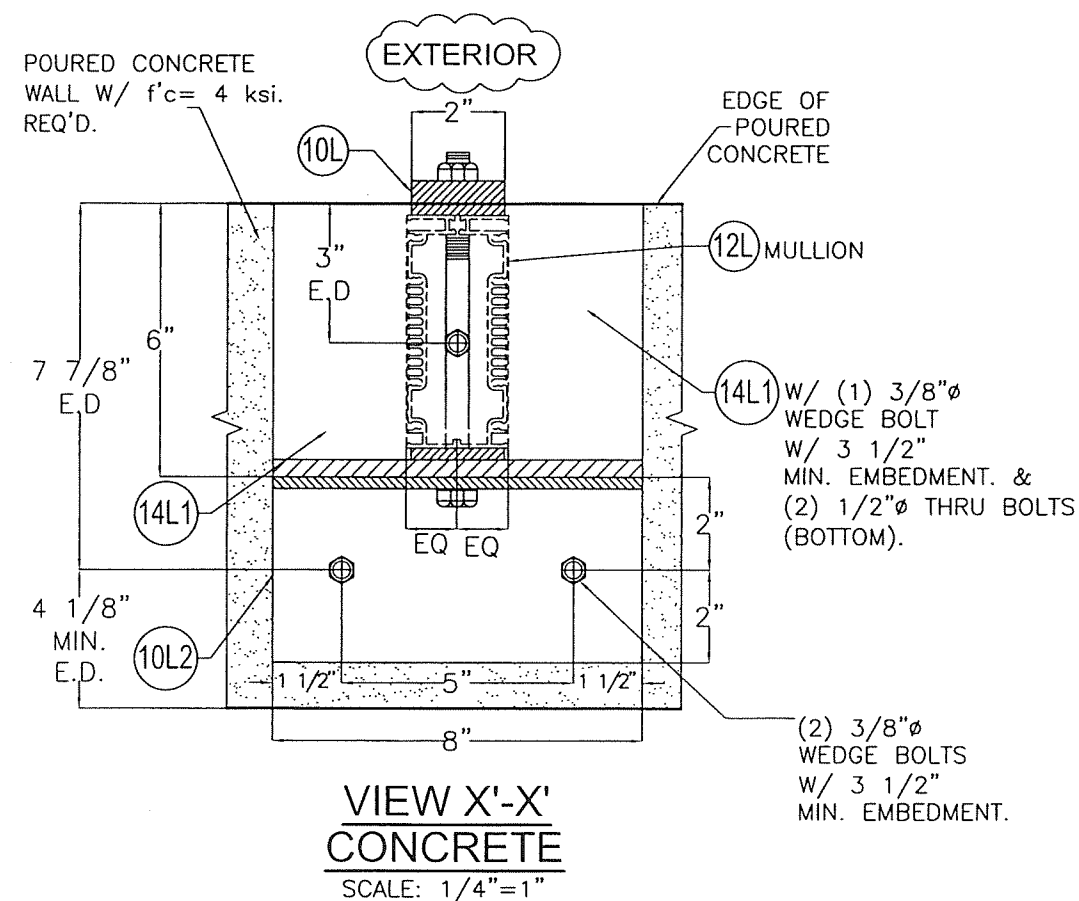
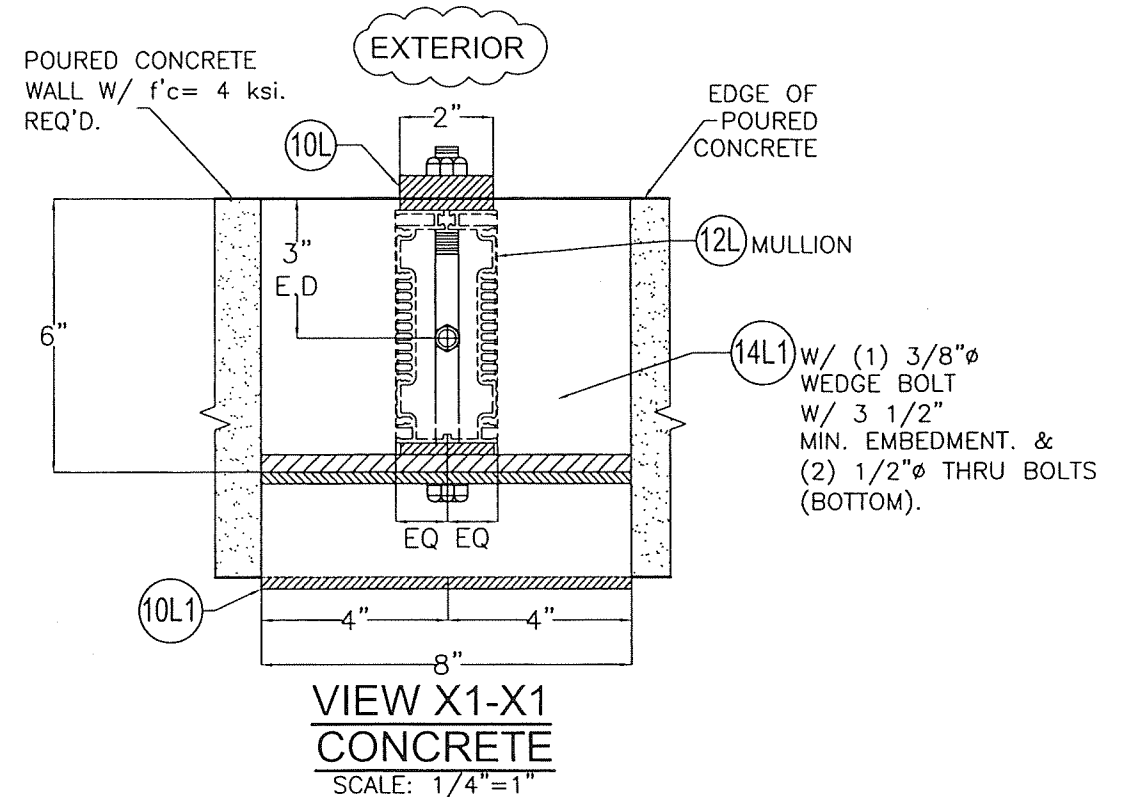
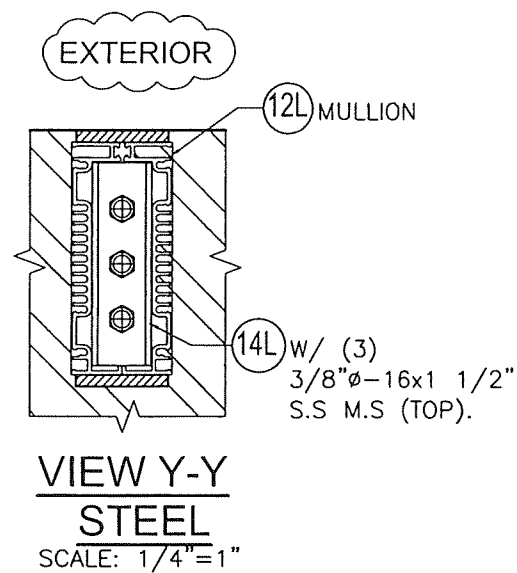
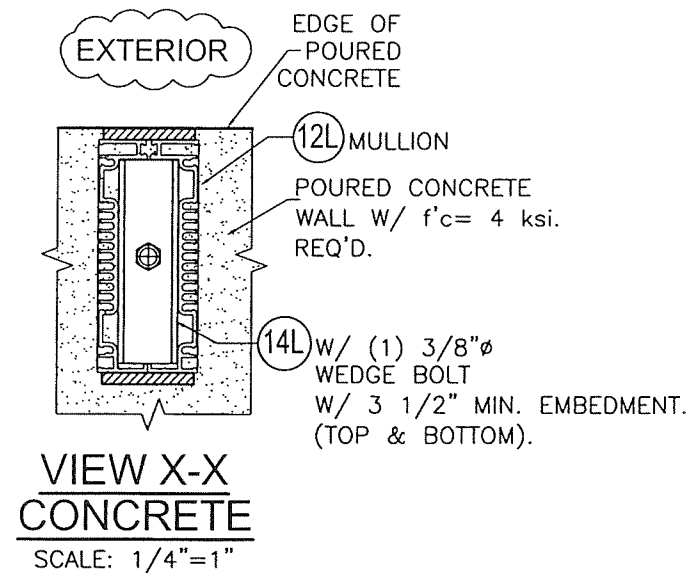
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 20-208	7/1/2023	3		
2			4		

Y.M.
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7/7/2023
DATE

23-069
DRAWING No

SHEET 12 OF 16



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NOA-No. 23-0726.10

NOA-No. 23-0726.10

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Miami-Dade Product Control

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

SED-5.1 LOUVER SYSTEM WITH OR WITHOUT CD-151 DAMPER ASSEMBLY

Y.M.
DRAWN BY

UNITED ENERTECH HOLDINGS, LLC

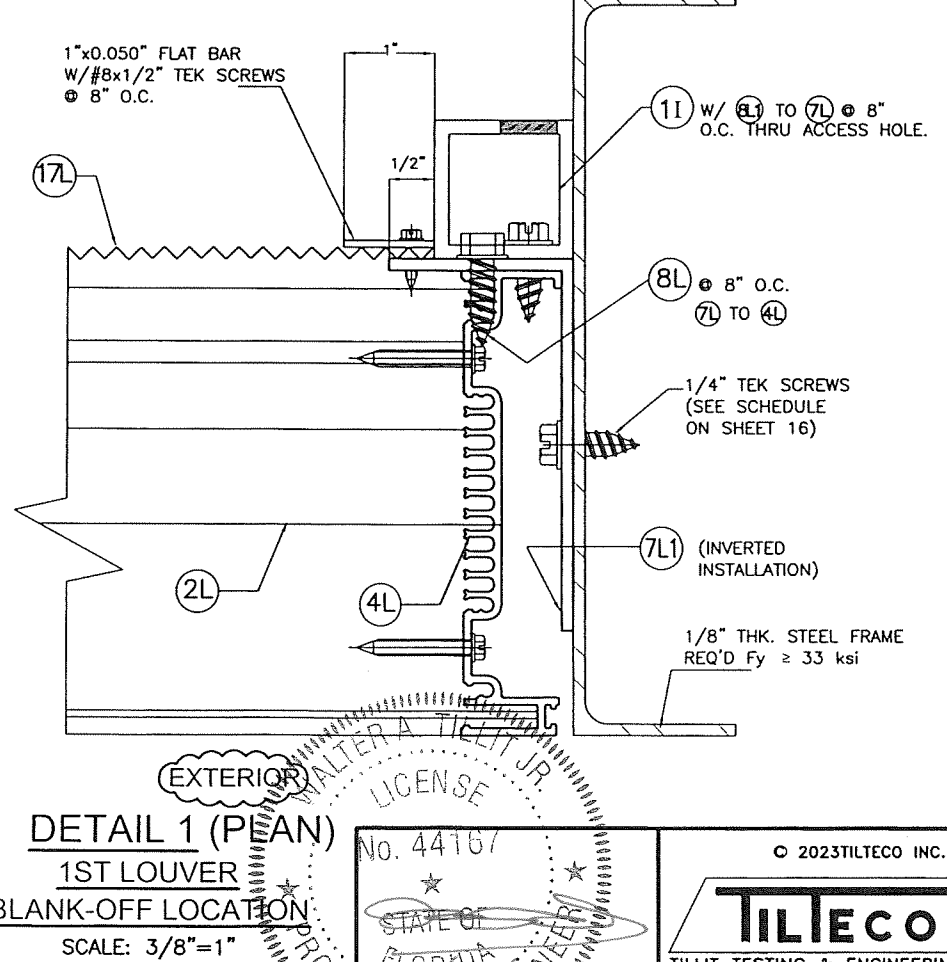
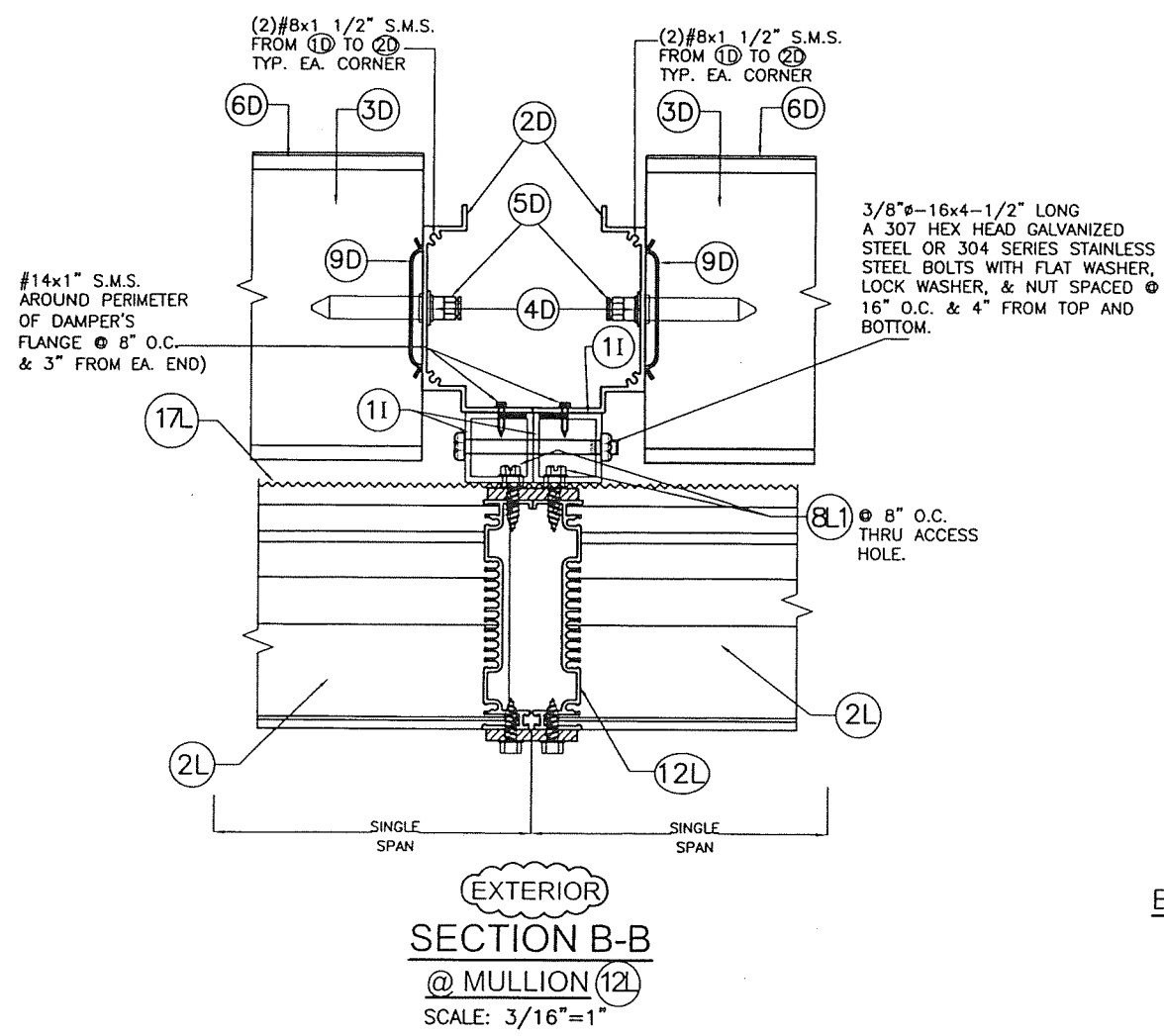
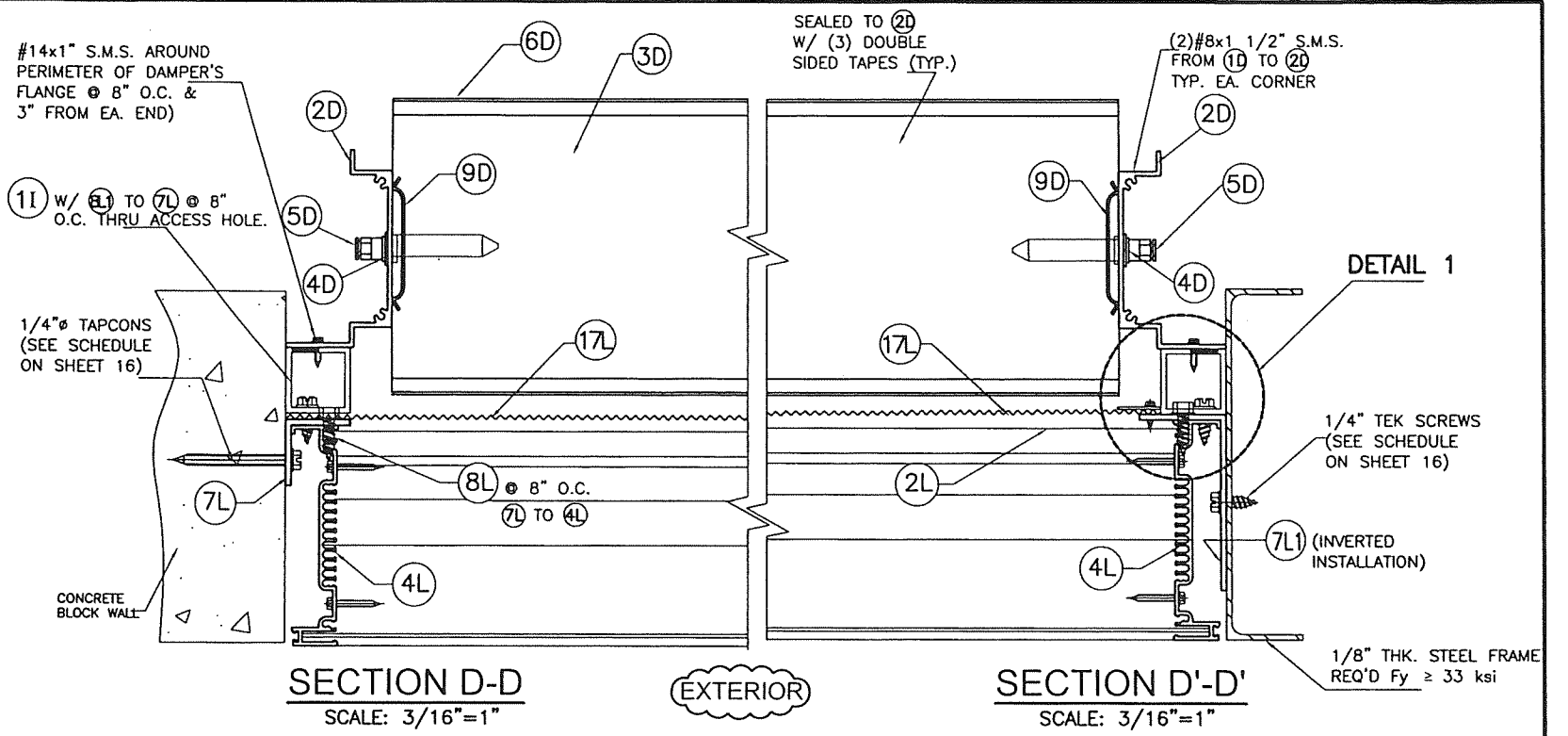
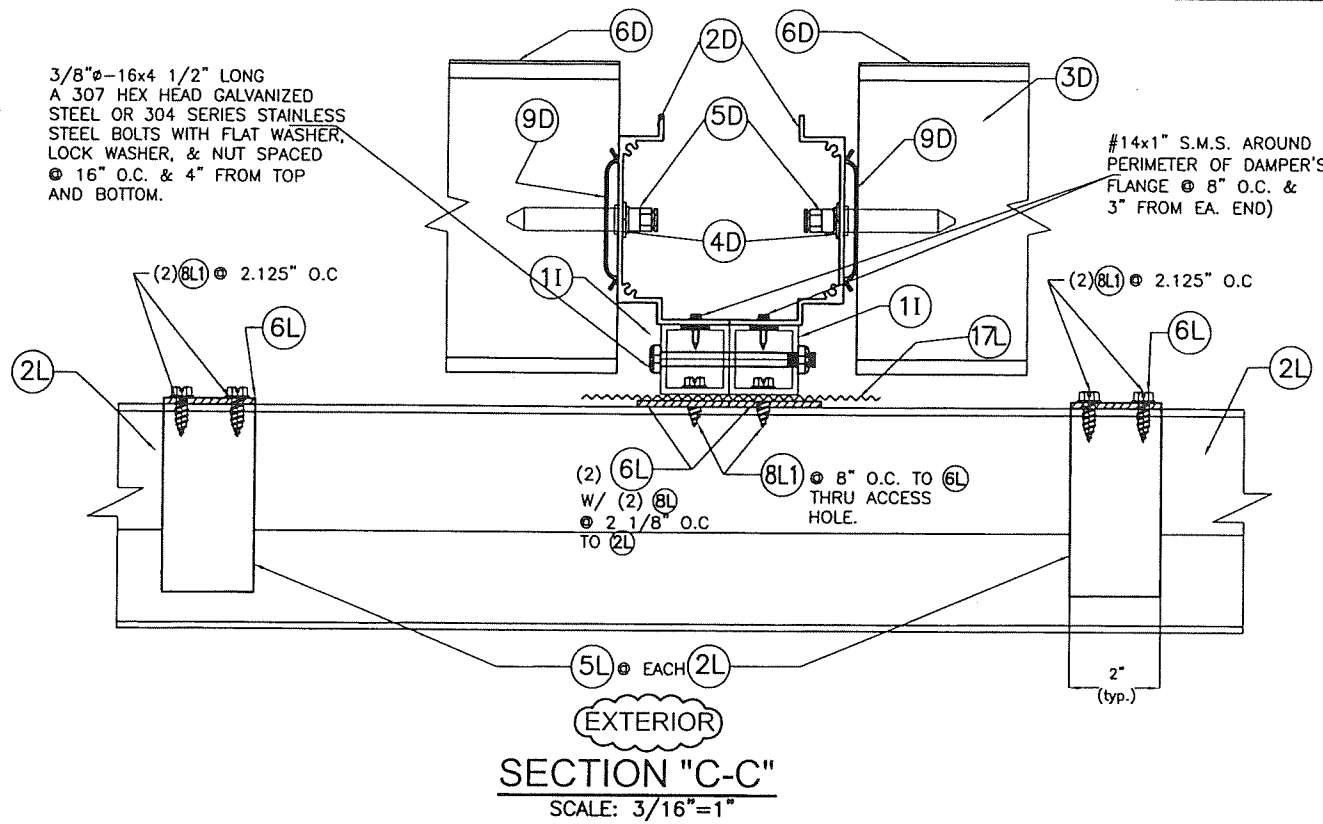
3005 SOUTH HICKORY ST. 159 GENCO DRIVE
CHATTANOOGA, TN 37407 HARTFORD, AL 36344
PHONE: (423)698-7715 FAX:(423)698-6629

DATE _____

23-069
DRAWING No

REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 20-208	7/7/2023	3		
2			4		

SHEET 13 OF 16



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NOA-No. 23-0726.10
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By *[Signature]*
Miami-Dade Product Control

EXTERIOR
DETAIL 1 (PLAN)
1ST LOUVER
BLANK-OFF LOCATION
SCALE: 3/8"=1"

WALTER A. TILLIT JR.
LICENSE
No. 44167
STATE OF FLORIDA
PROFESSIONAL ENGINEER
P.E. SEAL/SIGNATURE/DATE

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TILLIT TESTING & ENGINEERING COMPANY
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e-mail: tilteco@aol.com
CA-0006719
WALTER A. TILLIT Jr., P.E.
FLORIDA Lic. # 44167

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)					
SED-5.1 LOUVER SYSTEM WITH OR WITHOUT CD-151 DAMPER ASSEMBLY				Y.M. DRAWN BY	
UNITED ENERTECH HOLDINGS, LLC				7/7/2023 DATE	
3005 SOUTH HICKORY ST. 159 GENCO DRIVE CHATTANOOGA, TN 37407 HARTFORD, AL 36344 PHONE: (423) 698-7715 FAX: (423) 698-6629				23-069 DRAWING No	
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 20-208	7/7/2023	3		
2			4		

MAXIMUM LOUVER SYSTEM HEIGHT (ft) SCHEDULE FOR A GIVEN
A.S.D. DESIGN PRESSURE RATING (psf) AND A (12) MULLION
SPACING (ft), APPLICABLE TO MULLION CONNECTION TO
CONCRETE OR STEEL TOP AND BOTTOM COVERED BY DETAIL 2,
SHEET 12 W/ ED. = 3" (FOR CONCRETE W/ MIN. f_c = 4 ksi.)

		Concrete	Steel			Concrete	Steel
40	48	10'- 0"	10'- 0"	100	48	4'- 11"	6'- 10"
	60	9'- 10"	10'- 0"		60	3'- 11"	5'- 5"
	72	8'- 3"	10'- 0"		72	3'- 3"	4'- 7"
45	48	10'- 0"	10'- 0"	105	48	4'- 8"	6'- 6"
	60	8'- 9"	10'- 0"		60	3'- 9"	5'- 2"
	72	7'- 4"	10'- 0"		72	3'- 2"	4'- 4"
50	48	9'- 10"	10'- 0"	110	48	4'- 6"	6'- 2"
	60	7'- 11"	10'- 0"		60	3'- 7"	4'- 12"
	72	6'- 7"	9'- 1"		72	2'- 12"	4'- 2"
55	48	8'- 12"	10'- 0"	115	48	4'- 3"	5'- 11"
	60	7'- 2"	9'- 11"		60	3'- 5"	4'- 9"
	72	5'- 12"	8'- 3"		72	2'- 10"	3'- 11"
60	48	8'- 3"	10'- 0"	120	48	4'- 1"	5'- 8"
	60	6'- 7"	9'- 1"		60	3'- 3"	4'- 7"
	72	5'- 6"	7'- 7"		72	2'- 9"	3'- 9"
65	48	7'- 7"	10'- 0"	125	48	3'- 11"	5'- 5"
	60	6'- 1"	8'- 5"		60	3'- 2"	4'- 4"
	72	5'- 1"	6'- 12"		72	2'- 8"	3'- 8"
70	48	7'- 1"	9'- 9"	130	48	3'- 10"	5'- 3"
	60	5'- 8"	7'- 10"		60	3'- 0"	4'- 2"
	72	4'- 8"	6'- 6"		72	2'- 6"	3'- 6"
75	48	6'- 7"	9'- 1"	135	48	3'- 8"	5'- 1"
	60	5'- 3"	7'- 3"		60	2'- 11"	4'- 0"
	72	4'- 5"	6'- 1"		72	2'- 5"	3'- 4"
80	48	6'- 2"	8'- 6"	140	48	3'- 6"	4'- 10"
	60	4'- 11"	6'- 10"		60	2'- 10"	3'- 11"
	72	4'- 1"	5'- 8"		72	2'- 4"	3'- 3"
85	48	5'- 10"	8'- 0"	145	48	3'- 5"	4'- 8"
	60	4'- 8"	6'- 5"		60	2'- 9"	3'- 9"
	72	3'- 10"	5'- 4"		72	2'- 3"	3'- 2"
90	48	5'- 6"	7'- 7"	150	48	3'- 3"	4'- 7"
	60	4'- 5"	6'- 1"		60	2'- 8"	3'- 8"
	72	3'- 8"	5'- 1"		72	2'- 2"	3'- 0"
95	48	5'- 2"	7'- 2"				
	60	4'- 2"	5'- 9"				
	72	3'- 6"	4'- 9"				

MAXIMUM LOUVER SYSTEM HEIGHT (ft) SCHEDULE FOR A GIVEN
A.S.D. DESIGN PRESSURE RATING (psf) AND A (12) MULLION
SPACING (ft), APPLICABLE TO MULLION CONNECTION TO
CONCRETE OR STEEL TOP AND BOTTOM COVERED BY DETAIL 2,
SHEET 12 W/ ED. = 4" (FOR CONCRETE W/ MIN. f_c = 4 ksi.)


		Concrete	Steel			Concrete	Steel
40	48	10'- 0 "	10'- 0 "	100	48	6'-12"	7'- 3 "
	60	10'- 0 "	10'- 0 "		60	5'- 7 "	5'-10"
	72	10'- 0 "	10'- 0 "		72	4'- 8 "	4'-10"
45	48	10'- 0 "	10'- 0 "	105	48	6'- 8 "	6'-11"
	60	10'- 0 "	10'- 0 "		60	5'- 4 "	5'- 6 "
	72	10'- 0 "	10'- 0 "		72	4'- 5 "	4'- 7 "
50	48	10'- 0 "	10'- 0 "	110	48	6'- 4 "	6'- 7 "
	60	10'- 0 "	10'- 0 "		60	5'- 1 "	5'- 3 "
	72	9'- 4 "	9'- 8 "		72	4'- 3 "	4'- 5 "
55	48	10'- 0 "	10'- 0 "	115	48	6'- 1 "	6'- 4 "
	60	10'- 0 "	10'- 0 "		60	4'-10"	5'- 1 "
	72	8'- 6 "	8'-10"		72	4'- 1 "	4'- 3 "
60	48	10'- 0 "	10'- 0 "	120	48	5'-10"	6'- 1 "
	60	9'- 4 "	9'- 8 "		60	4'- 8 "	4'-10"
	72	7'- 9 "	8'- 1 "		72	3'-11"	4'- 0 "
65	48	10'- 0 "	10'- 0 "	125	48	5'- 7 "	5'-10"
	60	8'- 7 "	8'-11"		60	4'- 6 "	4'- 8 "
	72	7'-2 "	7'-5 "		72	3'- 9 "	3'-10"
70	48	9'-12"	10'- 0 "	130	48	5'- 5 "	5'- 7 "
	60	7'-12"	8'- 4 "		60	4'- 4 "	4'- 6 "
	72	6'- 8 "	6'-11"		72	3'- 7 "	3'- 9 "
75	48	9'- 4 "	9'- 8 "	135	48	5'- 2 "	5'- 5 "
	60	7'- 6 "	7'- 9 "		60	4'- 2 "	4'- 4 "
	72	6'- 3 "	6'- 5 "		72	3'- 5 "	3'- 7 "
80	48	8'- 9 "	9'- 1 "	140	48	4'-12"	5'- 2 "
	60	6'-12"	7'- 3 "		60	3'-12"	4'- 2 "
	72	5'-10"	6'- 1 "		72	3'- 4 "	3'- 6 "
85	48	8'- 3 "	8'- 7 "	145	48	4'-10"	5'- 0 "
	60	6'- 7 "	6'-10"		60	3'-10"	4'- 0 "
	72	5'- 6 "	5'- 8 "		72	3'- 3 "	3'- 4 "
90	48	7'- 9 "	8'- 1 "	150	48	4'- 8 "	4'-10"
	60	6'- 3 "	6'- 5 "		60	3'- 9 "	3'-10"
	72	5'- 2 "	5'- 5 "		72	3'- 1 "	3'- 3 "
95	48	7'- 4 "	7'- 8 "				
	60	5'-11"	6'- 1 "				
	72	4'-11"	5'- 1 "				

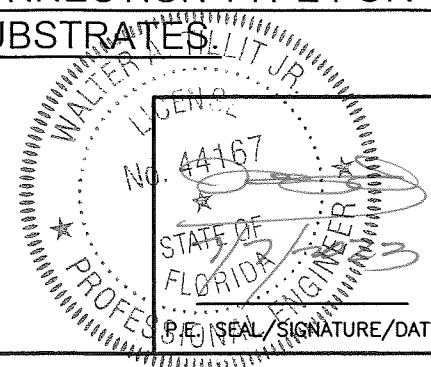
MAXIMUM LOUVER SYSTEM HEIGHT (ft) SCHEDULE FOR A GIVEN
A.S.D. DESIGN PRESSURE RATING (psf) AND A (12) MULLION
SPACING (ft), APPLICABLE TO MULLION CONNECTION TO
CONCRETE OR STEEL TOP AND BOTTOM COVERED BY DETAIL 3,
SHEET 12 W/ ED. = 3" (FOR CONCRETE W/ MIN. f_c = 4 ksi.)

40	48	10'-0"	100	48	9'-2"
	60	10'-0"		60	8'-6"
	72	10'-0"		72	8'-0"
45	48	10'-0"	105	48	9'-0"
	60	10'-0"		60	8'-5"
	72	10'-0"		72	7'-11"
50	48	10'-0"	110	48	8'-11"
	60	10'-0"		60	8'-3"
	72	10'-0"		72	7'-9"
55	48	10'-0"	115	48	8'-9"
	60	10'-0"		60	8'-2"
	72	9'-9"		72	7'-8"
60	48	10'-0"	120	48	8'-8"
	60	10'-0"		60	8'-0"
	72	9'-6"		72	7'-6"
65	48	10'-0"	125	48	8'-6"
	60	9'-10"		60	7'-11"
	72	9'-3"		72	7'-5"
70	48	10'-0"	130	48	8'-5"
	60	9'-7"		60	7'-10"
	72	9'-0"		72	7'-4"
75	48	10'-0"	135	48	8'-4"
	60	9'-4"		60	7'-8"
	72	8'-10"		72	7'-3"
80	48	9'-11"	140	48	8'-2"
	60	9'-2"		60	7'-7"
	72	8'-8"		72	7'-2"
85	48	9'-8"	145	48	8'-1"
	60	8'-12"		60	7'-6"
	72	8'-6"		72	7'-1"
90	48	9'-6"	150	48	8'-0"
	60	8'-10"		60	7'-5"
	72	8'-4"		72	7'-0"
95	48	9'-4"			
	60	8'-8"			
	72	8'-2"			

NOTE: TOP & BOTTOM MOUNTINGS AT DETAIL 3 MAY BE
INTERCHANGEABLE.

MAXIMUM MULLION (12) HEIGHT FOR MULTIPLE LOUVER SYSTEM SED 5.1 W/ OR W/O DAMPER FOR A GIVEN A.S.D.
DESIGN PRESSURE RATING, MULLION SPACING AND CONNECTION TYPE FOR CONNECTIONS INTO CONCRETE OR
STEEL SUBSTRATES


PRODUCT REVISED
as complying with the Florida
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NOA-No. 23-0726.10
Expiration Date 11/20/2028
By 
Miami-Dade Product Control



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TILLIT TESTING & ENGINEERING COMPANY
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Phone: (305)871-1530 Fax: (305)871-1531
e-mail: tilteco@aol.com
CA-0006719
WALTER A. TILLIT JR., P.E.
FLORIDA Lic. # 44167

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

SED-5.1 LOUVER SYSTEM WITH OR WITHOUT CD-151 DAMPER ASSEMBLY						Y.M. DRAWN BY
UNITED ENERTECH HOLDINGS, LLC						7/7/2023 DATE
3005 SOUTH HICKORY ST. CHATTANOOGA, TN 37407 159 GENCO DRIVE HARTFORD, AL 36344 PHONE: (423)698-7715 FAX: (423)698-6629						23-069 DRAWING No
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE	SHEET 15 OF 16
1	OLD 20-208	7/7/2023	3			
2			4			

PRODUCT REVISED
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Building Code
NOA-No. 23-0726.10
Expiration Date 11/20/2028
By 
Miami-Dade Product Control

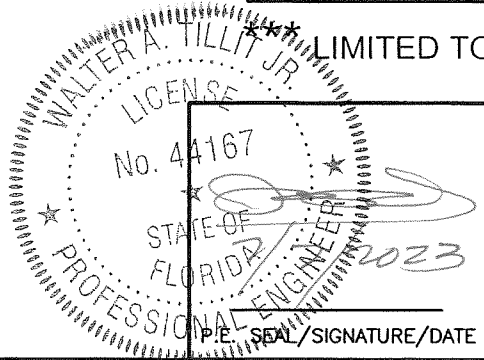
ANCHOR SPACING SCHEDULE AT JAMBS, VALID FOR CONNECTION TO
CONCRETE, CONCRETE BLOCK & STEEL SUBSTRATES.

ANCHOR SPACING SCHEDULE AT JAMBS W/ⓇⓁ (1 1/2"x1 1/2"x1/8" ANGLE)				
A.S.D. DESIGN PRESSURE RATING	SINGLE UNIT WIDTH OR MULLION	MAX. SPACING (in)		
(psf.)	SPACING (S) AT MULTIPLE UNITS	TO CONCRETE	TO CONCRETE BLOCK	TO STEEL
75 OR LESS	48	8" O.C	4" O.C	8" O.C
	60	8" O.C	3" O.C	8" O.C
	72	8" O.C	3" O.C	8" O.C
> 75 TO 110	48	8" O.C	3" O.C	8" O.C
	60	8" O.C	3" O.C**	8" O.C
	72	7" O.C	N/A	7 1/2" O.C
> 110 TO 150	48	8" O.C	3" O.C *	8" O.C
	60	6 1/2" O.C	N/A	6 1/2" O.C
	72	5" O.C	N/A	5 1/2" O.C

ANCHOR SPACING SCHEDULE AT JAMBS W/ⓇⓁ1 (2"x4"x1/8" ANGLE)				
A.S.D. DESIGN PRESSURE RATING	SINGLE UNIT WIDTH OR MULLION	MAX. SPACING (in)		
(psf.)	SPACING (S) AT MULTIPLE UNITS	TO CONCRETE	TO CONCRETE BLOCK	TO STEEL
75 OR LESS	48	8" O.C	7" O.C	8" O.C
	60	8" O.C	6" O.C	8" O.C
	72	8" O.C	5" O.C	8" O.C
> 75 TO 110	48	8" O.C	5" O.C	8" O.C
	60	8" O.C	4" O.C	8" O.C
	72	8" O.C	3" O.C	8" O.C
> 110 TO 150	48	8" O.C	3" O.C	8" O.C
	60	8" O.C	3" O.C	8" O.C
	72	7 1/2" O.C	3" O.C***	8" O.C

* LIMITED TO 114.0 psf. A.S.D. DESIGN PRESSURE RATING.
** LIMITED TO 91.0 psf. A.S.D. DESIGN PRESSURE RATING.

*** LIMITED TO 127.0 psf. A.S.D. DESIGN PRESSURE RATING.



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TILTECO INC.

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Phone: (305)871-1530 . Fax: (305)871-1531
e-mail: tilteco@aol.com
CA-0006719
WALTER A. TILLIT Jr. P.E.
FLORIDA Lic. # 44167

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

SED-5.1 LOUVER SYSTEM WITH OR
WITHOUT CD-151 DAMPER ASSEMBLY

Y.M.
DRAWN BY

7/7/2023
DATE

23-069
DRAWING No

UNITED ENERTECH HOLDINGS, LLC
3005 SOUTH HICKORY ST. 159 GENCO DRIVE
CHATTANOOGA, TN 37407 HARTFORD, AL 36344
PHONE: (423)698-7715 FAX:(423)698-6629

REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 20-208	7/7/2023	3		
2			4		

SHEET 16 OF 16