



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

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

NOTICE OF ACCEPTANCE (NOA)

Qualitas Manufacturing, Inc. (QMI)
1661 Glenlake Avenue
Itasca, ILL 60143

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 Division (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 High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: QOMPACT3-AL8 Roll-Up Hurricane Shutter (Trap Mount & Attachment to Mullions) L.M.I.

APPROVAL DOCUMENT: Drawing No. **23-60253**, titled "QOMPACT3-AL8 Roll-Up Hurricane Shutter (Trap Mount & Attachment to Mullions)", prepared by Engineering Express, last revised on 12/22/23, sheets 1 through 19 of 19, signed and sealed by Richard Neet, P.E., bearing Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and the expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LIMITATIONS:

1. Roll-down Mechanism is NOT part of this approval & must be certified by independent testing agency.
2. Minimum separation from interior storm bar to existing glass shall be as shown on sheet 1 of 19.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, the following statement: "Miami-Dade County Product Control Approved", and NOA number, per TAS-201, TAS-202, and TAS-203, unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

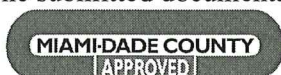
TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **revises** NOA #22-0727.09 and consists of this page 1 and evidence submitted pages E-1 and E-2 as well as approval document mentioned above.

The submitted documentation was reviewed by **Helmy A. Makar, P.E., M.S.**



Helmy A. Makar
01/18/2024

NOA No. 23-1010.07
Expiration Date: 08/25/2027
Approval Date: 01/18/2024

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL NOA #22-0727.09

A. DRAWINGS

1. *Drawing No. 20-32431.2, titled "QOMPACT3-AL8 Roll-Up Hurricane Shutter (Trap Mount & Attachment to Mullions), prepared by Engineering Express, last revised on 08/05/22, sheets 1 through 19 of 19, signed and sealed by Richard Neet, P.E.*

B. TESTS

1. Test report on: 1) Uniform Static Air Pressure Test per PA 202,
2) Large Missile Impact Test per PA 201
3) Cyclic Wind Pressure Test per PA 203
along with marked-up drawings and installation diagram of AL8 / QOM3 Roll Down Shutters, prepared by Intertek, Test Report # **L7254.01-450-18 R0** dated 06/23/21, signed and sealed by Vinu J. Abraham, P. E.
2. Test report on: 1) Uniform Static Air Pressure Test per PA 202,
2) Large Missile Impact Test per PA 201
3) Cyclic Wind Pressure Test per PA 203
along with marked-up drawings and installation diagram of AL8 / QOM3 Roll Down Shutters, prepared by Intertek, Test Report # **L7254.04-450-18 R0** dated 06/22/21, signed and sealed by Vinu J. Abraham, P. E.

C. CALCULATIONS

1. *Comparative analysis for slats; storm bars, headers, tracks, mullions and anchors, using rational analysis, 54 pages, dated 02/08/22, prepared by Engineering Express, signed and sealed by Richard Neet, P.E., on 02/08/22.*

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. *None.*

F. STATEMENTS

1. *Statement Letter of product compliance to FBC, 2020, prepared by Engineering Express, dated 02/17/2022, signed and sealed by Richard Neet, P.E.*



Helmy A. Makar, P.E., M.S.
Product Control Section Supervisor
NOA No. 23-1010.07
Expiration Date: 08/25/2027
Approval Date: 01/18/2024

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. *Drawing No. 23-60253, titled "QOMPACT3-AL8 Roll-Up Hurricane Shutter (Trap Mount & Attachment to Mullions), prepared by Engineering Express, last revised on 12/22/23, sheets 1 through 19 of 19, signed and sealed by Richard Neet, P.E.*

B. TESTS

1. *None.*

C. CALCULATIONS

1. *None.*

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. *None.*

F. STATEMENTS

1. *Statement Letter of product compliance to FBC, 2023, prepared by Engineering Express, dated 01/02/2023, signed and sealed by Richard Neet, P.E.*



Helmy A. Makar, P.E., M.S.
Product Control Section Supervisor
NOA No. 23-1010.07
Expiration Date: 08/25/2027
Approval Date: 01/18/2024

c:\users\milton\engineering\express\production - documents\projects\23-60253 2023 noa product update fl 22-0727.09\work\23-60253c noa dwg.dwg 12/22/2023 8:52 AM MILTON

QOMPACT3 - AL8 ROLL-UP HURRICANE SHUTTER: TRAP MOUNT & ATTACHMENT TO MULLIONS

FOR WALL MOUNT AND
BUILD-OUT MOUNT,
SEE NOA # 23-1010.06

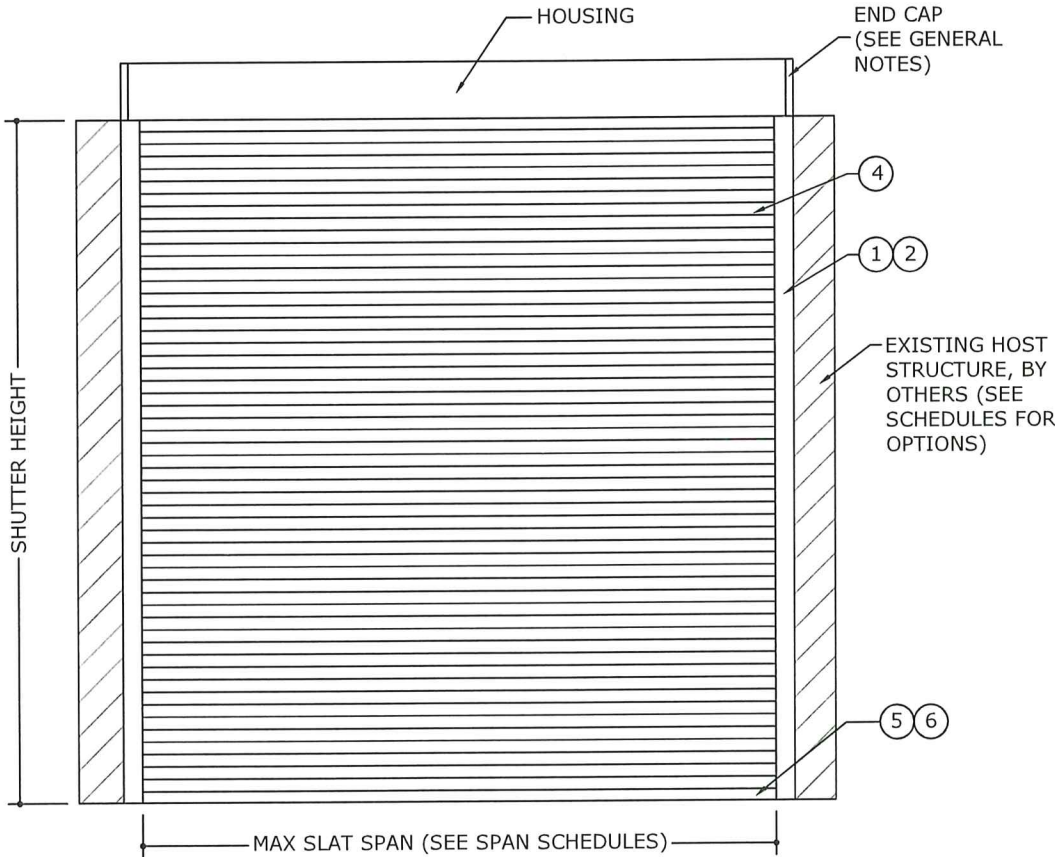
RICHARD NEET, P.E.
PE# 86488 CA# 9885

DECEMBER 22, 2023

FL

STATE OF FLORIDA
PROFESSIONAL ENGINEER
LICENSE
RICHARD NEET
P.E. 86488

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 23-1010.07
Expiration Date 08/25/2027
By *Heidi A. Miller*
Miami Trade Product Control



1 1 TYPICAL ROLL-UP SHUTTER
N.T.S. EXTERIOR ELEV
SEE REMAINING SHEETS FOR COMPLETE ELEVATION OPTIONS

GENERAL NOTES

- THE SYSTEM DESCRIBED HEREIN HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC) EIGHTH EDITION (2023) FOR USE INSIDE AND OUTSIDE THE HIGH-VELOCITY HURRICANE ZONE, PER ASTM E330, E1886, AND E1996 AND TAS 201, 202 & 203 STANDARDS. SEE PRODUCT APPROVAL EVALUATION FOR ADDITIONAL INFORMATION.
- NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS SYSTEM. WIND LOAD DURATION FACTOR Cd=1.6 HAS BEEN USED FOR WOOD ANCHOR DESIGN.
- POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED PER SEPARATE ENGINEERING IN ACCORDANCE WITH THE GOVERNING CODE. PRESSURE REQUIREMENTS AS DETERMINED IN ACCORDANCE WITH ASCE 7 AND CHAPTER 1609 OF THE FBC SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE ASD DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN.
- DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY A 1.5 SAFETY FACTOR.
- THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT.
- ROLL-UP MECHANISM, END CAP, AND HOOD ASSEMBLY ARE NOT PART OF THIS APPROVAL.
- THIS DOCUMENT CONTAINS INFORMATION RELEVANT TO THE NECESSARY STRUCTURAL REQUIREMENTS OF THE SYSTEM INSTALLATION. COMPONENTS AND FASTENERS NOT REFERENCED WHICH ARE PART OF THE INTERNAL FABRICATION OF THE SPECIFIED SYSTEMS OR ASSEMBLIES SHALL BE PER MANUFACTURER PUBLISHED SPECIFICATIONS.
- THE STRUCTURAL ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS BY THIS SYSTEM SHALL BE VERIFIED BY OTHERS.
- ALL EXTRUSIONS SHALL BE MINIMUM 6063-T6 ALUMINUM ALLOY, UNLESS NOTED OTHERWISE.
- "QOMPACT3" MAY BE ABBREVIATED TO "QOM3" AS USED IN THIS PRODUCT APPROVAL AND REFERS TO THE SAME SYSTEM.
- EACH SHUTTER ASSEMBLY SHALL BEAR A PERMANENT LABEL ON THE BOTTOM OF THE HOOD FACING THE EXTERIOR, OR ANYWHERE ELSE ALLOWED PER SECTIONS 1709.9.3 OF THE FBC 2020, TYP. LABEL SHALL PROVIDE THE PRODUCT INFORMATION AS REQUIRED BY THE MIAMI-DADE NOTICE OF ACCEPTANCE (NOA), TYP.
- ALL BOLTS & WASHERS SHALL BE ZINC COATED STEEL, GALVANIZED STEEL, OR STAINLESS STEEL WITH A MINIMUM TENSILE YIELD STRENGTH OF 60 KSI. ALL ALUMINUM 3/16"Ø OR 1/4"Ø POP RIVETS SHALL BE 7075-T6 OR STRONGER.
- ALL STEEL IN CONTACT WITH ALUMINUM SHALL BE PAINTED OR PLATED AS PRESCRIBED IN THE ABOVE-NOTED BUILDING CODE.
- ALTERATIONS, ADDITIONS, HIGHLIGHTING, OR OTHER MARKINGS TO THIS DOCUMENT ARE ONLY PERMITTED TO SHOW SITE-SPECIFIC CONDITIONS, HOWEVER ANY CHANGES, ALTERATIONS OR ADDITIONS MADE TO THE CONTENT OF THIS DOCUMENT WILL INVALIDATE THIS CERTIFICATION.

SPAN SCHEDULE	
SLAT SPAN	ALLOWABLE DESIGN PRESSURE
48"	± 246.7 PSF
54"	± 229.5 PSF
60"	± 214.3 PSF
66"	± 212.4 PSF
72"	± 213.3 PSF
78"	± 198.3 PSF
84"	± 187.0 PSF
90"	± 178.2 PSF
96"	± 171.0 PSF
102"	± 165.1 PSF
108"	± 160.1 PSF
114"	± 155.8 PSF
120"	± 152.0 PSF
126"	± 148.5 PSF
132"	± 145.4 PSF
138"	± 142.6 PSF
144"	± 140.0 PSF
150"	± 131.9 PSF
156"	± 124.7 PSF
162"	± 118.1 PSF
168"	± 112.1 PSF
174"	± 106.7 PSF
180"	± 101.7 PSF
186"	± 97.1 PSF
192"	± 92.9 PSF
198"	± 89.0 PSF
204"	± 85.4 PSF
210"	± 82.1 PSF
216"	± 79.0 PSF
222"	± 76.1 PSF
228"	± 73.4 PSF
236"	± 70.0 PSF

SPAN SCHEDULE NOTES:

- SLAT SPAN IS DEFINED AS THE DISTANCE BETWEEN RAILS FOR SINGLE SPAN ASSEMBLIES.
- LINEAR INTERPOLATION BETWEEN SHUTTER SPANS IS PERMITTED.

GLASS SEPARATION NOTES:

- SLAT SPAN IS DEFINED AS THE DISTANCE BETWEEN RAILS FOR SINGLE SPAN ASSEMBLIES.
- SEPARATION FROM GLAZING IS REQUIRED FOR ALL INSTALLATIONS THAT ARE REQUIRED TO MAINTAIN A MINIMUM SEPARATION BETWEEN THE SHUTTER AND ANY GLAZING, AS REQUIRED BY THE BUILDING DEPARTMENT OR AUTHORITY HAVING JURISDICTION.
- LINEAR INTERPOLATION BETWEEN SHUTTER SPANS IS NOT PERMITTED. FOR SPANS BETWEEN THOSE INDICATED ABOVE, THE SEPARATION FROM GLASS FOR THE NEXT HIGHER SPAN SHALL BE USED.

GLASS SEPARATION SCHEDULE		
SLAT SPAN	INSTALLATIONS ≤ 30' ABOVE	INSTALLATIONS > 30' ABOVE
48"	4.50"	4.50"
54"	6.00"	6.00"
60"	6.00"	6.00"
66"	7.00"	7.00"
72"	8.00"	8.00"
78"	8.00"	8.00"
84"	8.50"	8.50"
90"	8.50"	8.50"
96"	9.00"	9.00"
102"	9.00"	9.00"
108"	9.00"	9.00"
114"	9.50"	9.50"
120"	9.50"	9.50"
126"	9.50"	9.50"
132"	10.00"	10.00"
138"	10.00"	10.00"
144"	10.00"	10.00"
150"	14.00"	10.50"
156"	14.00"	10.50"
162"	14.00"	10.50"
168"	14.00"	11.00"
174"	14.00"	11.00"
180"	14.00"	11.50"
186"	14.00"	11.50"
192"	14.00"	12.00"
198"	14.00"	12.00"
204"	14.00"	12.00"
210"	14.00"	12.50"
216"	14.00"	12.50"
222"	14.00"	12.50"
228"	14.00"	13.00"
236"	14.00"	13.00"

QUALITAS MANUFACTURING INC. (QMI)

1661 GLENLAKE AVE
ITASCA, IL 60143
PHONE: (866) 980-1750

ENGINEERING
EXPRESS®

POSTAL ADDRESS:
2234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

QOMPACT3 - AL8 ROLL-UP HURRICANE SHUTTER
TRAP MOUNT & ATTACHMENT TO MULLIONS
FBC EIGHTH EDITION (2023) | MIAMI-DADE NOA

REMARKS	DATE	DRWN	CHKD
PREV. SUB. NOA 22-0727.09	08/05/22	EPN	RWN
2023 FBC UPDATE	09/26/23	EPN	RWN
ADDRESSING MD COMMENTS	12/22/23	MRT	RWN

COPYRIGHT ENGINEERING EXPRESS®

23-60253

SCALE: NTS UNLESS NOTED

1 OF 19

c:\users\milton\engineering express\production - documents\projects\23-60253 2023 noa product update fl 22-0727.09\work\2023 fbc docs for review\23-60253c noa dwg.dwg 12/22/2023 8:52 AM MILTON

RETAIN ONLY RAIL
PQ010218
QOM3 RAIL #1

1A N.T.S 6063-T6

RETAIN AND STOP RAIL
PQ010219
QOM3 RAIL #2

1B N.T.S 6063-T6

RETAIN ONLY RAIL
PQ010220
AL8 RAIL #1

2A N.T.S 6063-T6

RETAIN AND STOP RAIL
PQ010221
AL8 RAIL #2

2B N.T.S 6063-T6

PQ010229
RETAINING
SCREW

3 N.T.S 6063-T6

PQ010230
BUSHING

PQ010212
STARTER SLATS

PQ010213
STARTER SLATS

SLAT #1
QOM3 - AL8
PQ010200

SLAT #2
QOM3 - AL8
PQ010201

SLAT #3
QOM3 - AL8
PQ010202

SLAT #4
QOM3 - AL8
PQ010203

SLAT #5
QOM3
PQ010204

SLAT #6
QOM3
PQ010205

SLAT #7
QOM3
PQ010206

SLAT #8
QOM3
PQ010207

SLAT #9
QOM3
PQ010208

SLAT #10
QOM3
PQ010209

SLAT #11
QOM3
PQ010210

SLAT #12
QOM3
PQ010211

SINGLE WALL SLATS
PQ010242
COUPLER

4 N.T.S 0.055" THICK, TYP. 6063-T6

PQ010231
THUMB TURN
HOUSING

5A N.T.S 6063-T6

THUMB TURN
BASE SLAT ASSEMBLY
PQ010243
BODY
PQ010244
BASE

5B N.T.S 6063-T6

PQ010222
SLIDE LOCK
BASE SLAT

6A N.T.S 6063-T6

PQ010223
STANDARD
BASE SLAT

6B N.T.S 6063-T6

PQ010224
SMALL
LOW PROFILE
BASE SLAT

6C N.T.S 6063-T6

PQ010225
COUPLER

PQ010226
RAIL SNAP COVER

11 N.T.S 6063-T6

PQ010227
UTILITY SLAT SNAP COVER

13 N.T.S 6063-T6

PQ010228
HANDLE

14 N.T.S 6063-T6

BUILD OUT / TRAP
MOUNTED TUBES

7 N.T.S 6063-T6

BO/TRAP TUBE	b	h	t
7A	2"	2"	1/4"
7B	4"	4"	1/4"

BUILD OUT / TRAP
MOUNTED TUBES

8 N.T.S 6063-T6

MULLIONS	b	h	t
8A	4	4"	1/4"
8B	4"	4"	1/4"
8C	4"	6"	1/4"
8D	4"	8"	1/4"

(SLAT 4) (SLAT 6)
PQ010214 PQ010215
FINGER PULL SLATS

9 N.T.S 6063-T6

(SLAT 4) (SLAT 6)
PQ010216 PQ010217
UTILITY SLATS

12 N.T.S 6063-T6

RICHARD NEET, P.E.
PE# 86488 CA# 9885

DECEMBER 22, 2023

ENGINEERING
EXPRESS

POSTAL ADDRESS:
2234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

QUALITAS MANUFACTURING INC. (QMI)

1661 GLENLAKE AVE
ITASCA, IL 60143
PHONE: (866) 980-1750

COMPACT3 - AL8 ROLL-UP HURRICANE SHUTTER
TRAP MOUNT & ATTACHMENT TO MULLIONS
FBC EIGHTH EDITION (2023) | MIAMI-DADE NOA

REMARKS	DRWN	CHKD	DATE
PREV. SUB. NOA 22-0727.09	EPR	RVN	08/05/22
2023 FBC UPDATE	EPR	RVN	09/26/23
ADDRESSING MD COMMENTS	MRT	RVN	12/22/23

COPYRIGHT ENGINEERING EXPRESS®

23-60253

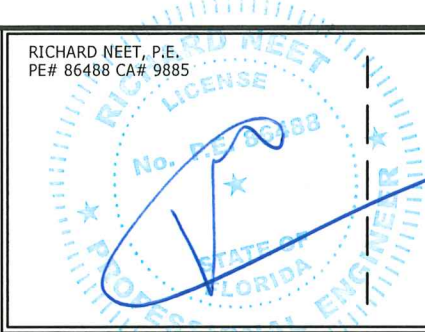
SCALE: NTS UNLESS NOTED

2 OF 19

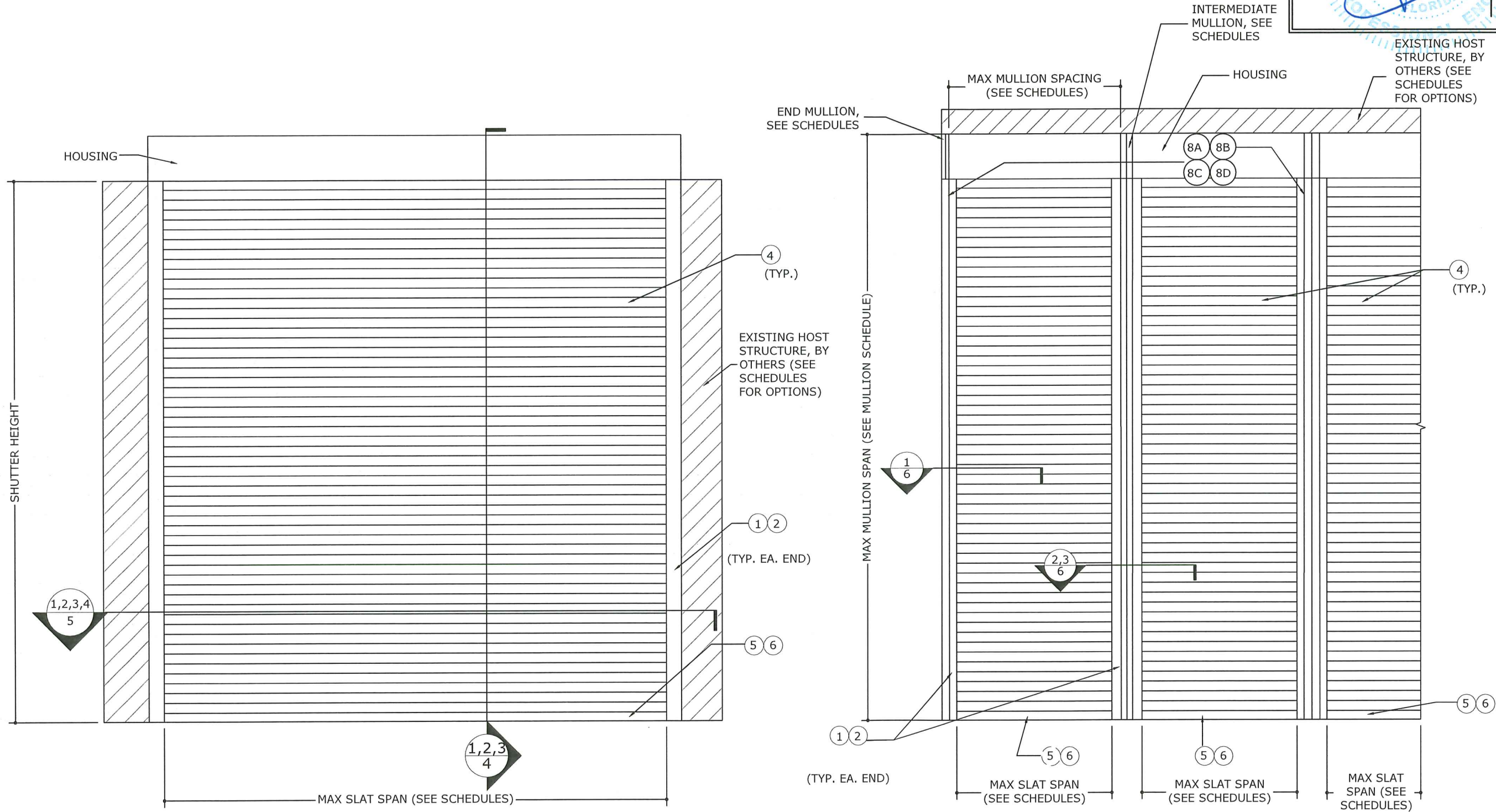
12/22/2023 8:52 AM MILTON c:\users\milton\engineering\express\production - documents\projects\23-123-60253 2023 noa product update fl 22-0727.09\work\2023 fbc docs for review\23-60253c noa dwg.dwg

RICHARD NEET, P.E.
PE# 86488 CA# 9885

DECEMBER 22, 2023



FL



1
3
TYPICAL SINGLE UNIT
ELEVATION W/O MULLIONS
N.T.S. EXTERIOR ELEV

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 23-1010.07
Expiration Date 09/25/2027
By *Hugh A. Miller*
Miami Dade Product Control

2
3
TYPICAL CONSECUTIVE SINGLE
UNIT ELEVATION WITH MULLIONS
N.T.S. EXTERIOR ELEV

ENGINEERING EXPRESS

POSTAL ADDRESS:
2234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

QUALITAS MANUFACTURING INC. (QMI)

1661 GLENLAKE AVE
ITASCA, IL 60143
PHONE: (866) 980-1750
QCOMPACT3 - AL8 ROLL-UP HURRICANE SHUTTER
TRAP MOUNT & ATTACHMENT TO MULLIONS
FBC EIGHTH EDITION (2023) | MIAMI-DADE NOA

REMARKS	DRWN	CHKD	DATE
PREV. SUB. NOA 22-0727.09	EPR	RVN	08/05/22
2023 FBC UPDATE	EPR	RVN	09/26/23
ADDRESSING MD COMMENTS	MRT	RVN	12/22/23

COPYRIGHT ENGINEERING EXPRESS®

23-60253

SCALE: NTS UNLESS NOTED

3

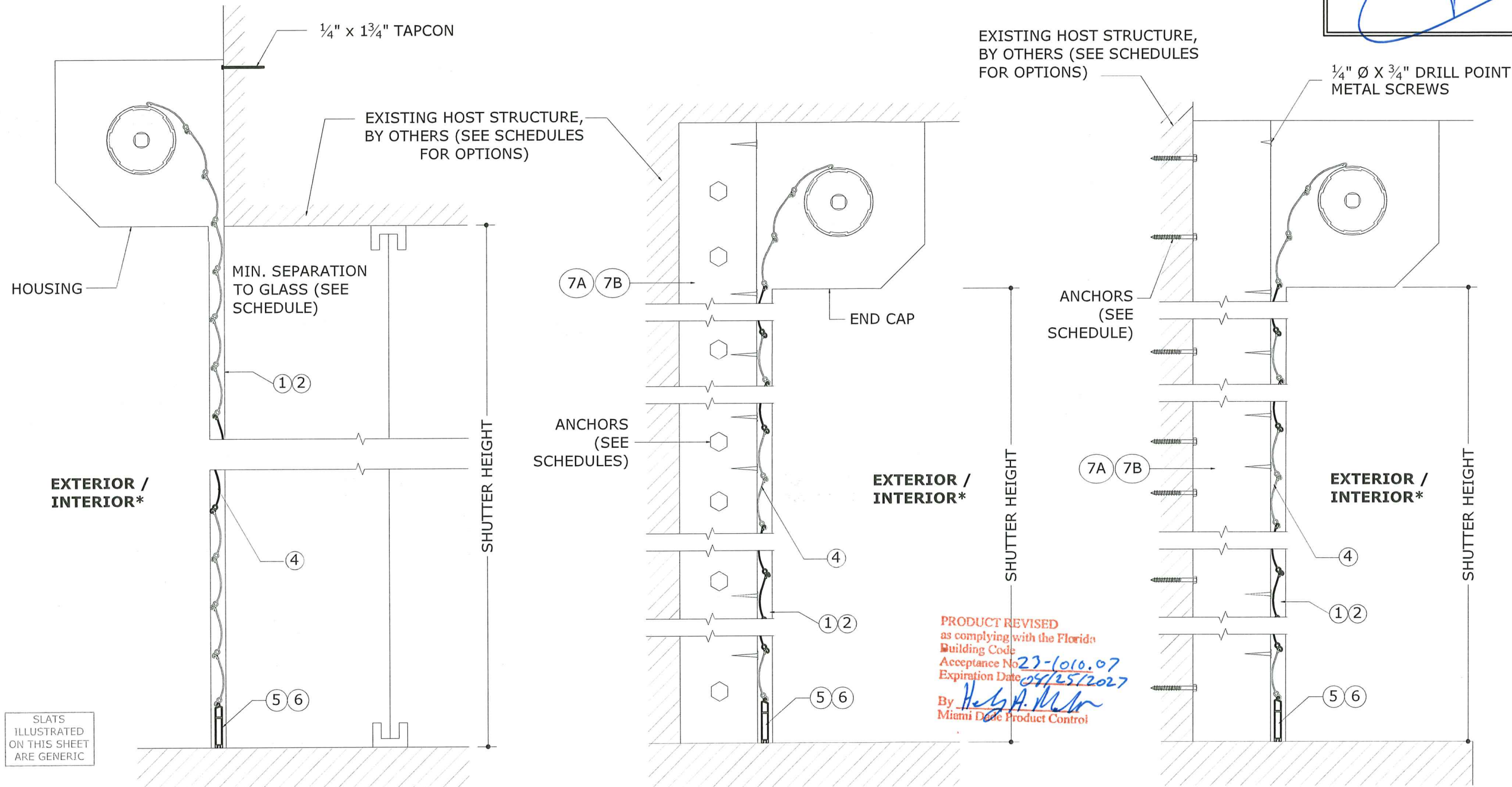
OF 19

c:\users\milton\engineering\express\production - documents\projects\23-123-60253 2023 noa product update fl 22-0727.09\work\2023 fbc docs for review\23-60253c noa dwg.dwg 12/22/2023 8:52 AM MILTON

RICHARD NEET, P.E.
PE# 86488 CA# 9885

DECEMBER 22, 2023

SHUTTER ATTACHMENT TO HOST



PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 23-1010.07
Expiration Date 09/25/2027
By: *Heidi A. Miller*
Miami Dade Product Control

* WHEN REVERSE MOUNTED ADD 1" OF GLASS SEPARATION PER "GLASS SEPARATION SCHEDULE" ON SHEET 1

1

4

WALL MOUNT

N.T.S. SECTION VIEW

SEE NOA # 23-1010.06

2

4

TRAP MOUNT

N.T.S. SECTION VIEW

3

4

BUILD-OUT MOUNT

N.T.S. SECTION VIEW

SEE NOA # 23-1010.06

HOUSING NOTES:

- HOUSING (0.034" THICK ALUM, 3105-H14 MIN)
- END CAP (CAST ALUM, SHALL BE CAPABLE OF SUPPORTING SLAT AND LIFT MECHANISM WEIGHT)

- HOOD HAS BEEN TESTED FOR IMPACT / CYCLING AND MAY BE INSTALLED WITHIN OPENING
- EXTRUSIONS SHOWN HEREIN ARE GENERIC AND DO NOT REPRESENT THE ACTUAL SYSTEM

**ENGINEERING
EXPRESS**

POSTAL ADDRESS:
2234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

QUALITAS MANUFACTURING INC. (QMI)

1661 GLENLAKE AVE
ITASCA, IL 60143
PHONE: (866) 980-1750

QCOMPACT3 - AL8 ROLL-UP HURRICANE SHUTTER
TRAP MOUNT & ATTACHMENT TO MULLIONS
FBC EIGHTH EDITION (2023) | MIAMI-DADE NOA

REMARKS	DRWN	CHKD	DATE
PREV. SUB. NOA 22-0727.09	EPR	IRVN	08/05/22
2023 FBC UPDATE	EPR	IRVN	09/26/23
ADDRESSING MD COMMENTS	MRT	IRVN	12/22/23

COPYRIGHT ENGINEERING EXPRESS®

23-60253

SCALE: NTS UNLESS NOTED

4

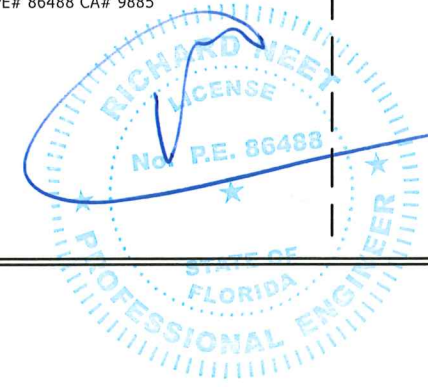
OF 19

c:\users\milton\engineering\express\production - documents\projects\23-123-60253\2023 noa product update fl 22-0727.09\work\2023 fbc docs for review\23-60253c noa dwg.dwg 12/22/2023 8:52 AM MILTON

SHUTTER ATTACHMENT TO HOST

RICHARD NEET, P.E.
PE# 86488 CA# 9885

DECEMBER 22, 2023



ENGINEERING EXPRESS®

POSTAL ADDRESS:
2234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

QUALITAS MANUFACTURING INC. (QMI)

1661 GLENLAKE AVE
ITASCA, IL 60143
PHONE: (866) 980-1750

QCOMPACT3 - AL8 ROLL-UP HURRICANE SHUTTER
TRAP MOUNT & ATTACHMENT TO MULLIONS
FBC EIGHTH EDITION (2023) | MIAMI-DADE NOA

REMARKS	DRWN	CHKD	DATE
PREV. SUB. NOA 22-0727.09	EPR	RWN	08/05/22
2023 FBC UPDATE	EPR	RWN	09/26/23
ADDRESSING MD COMMENTS	MRT	RWN	12/22/23

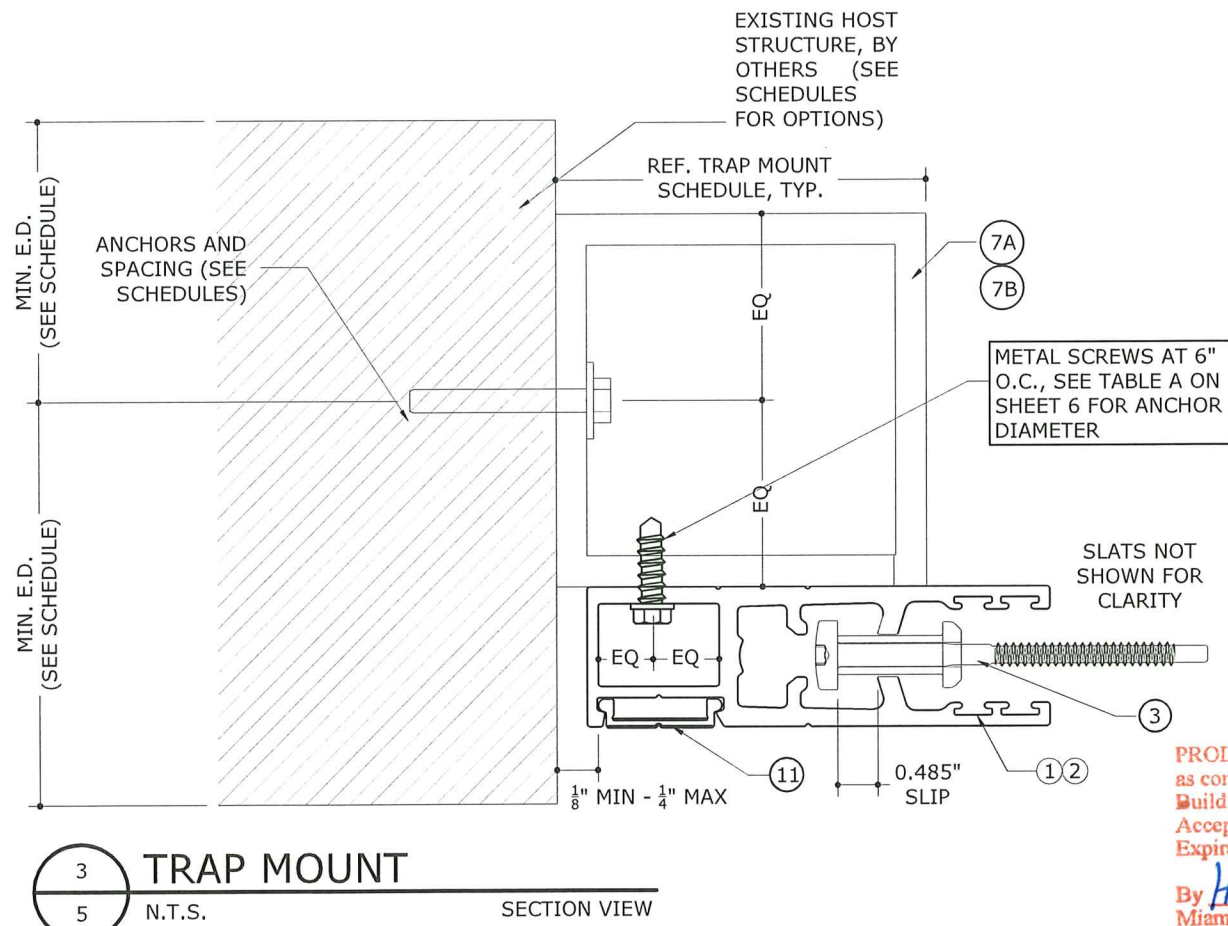
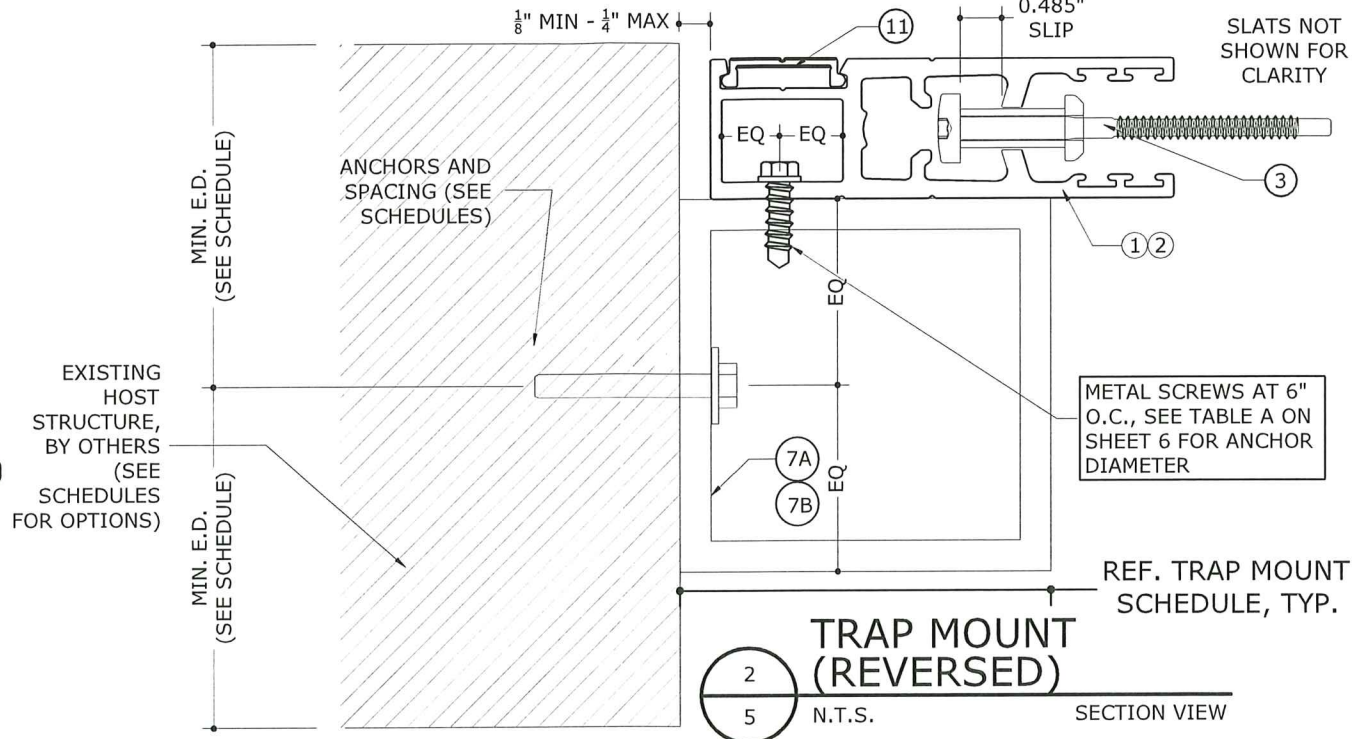
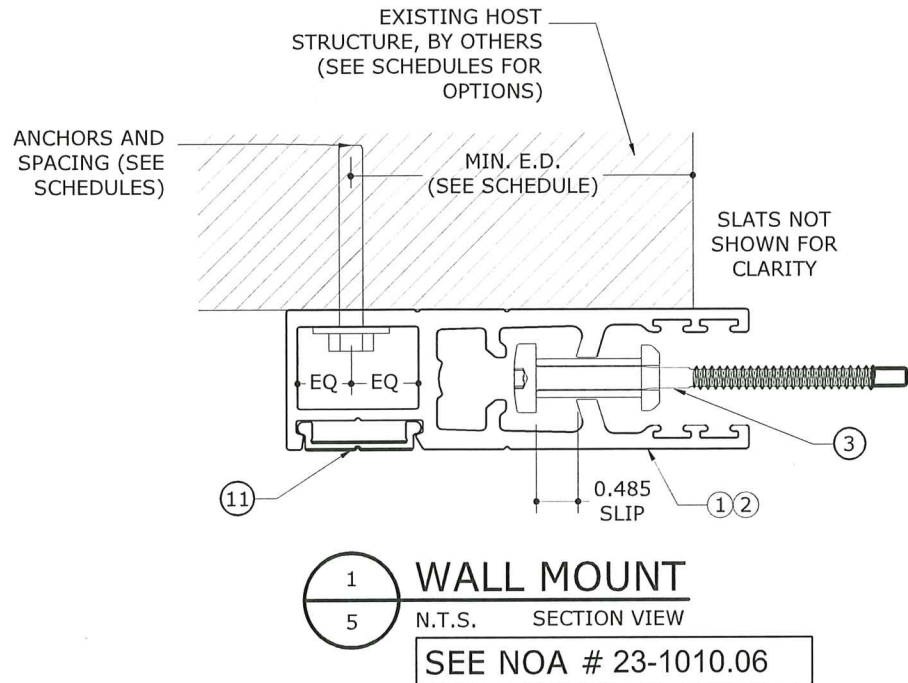
COPYRIGHT ENGINEERING EXPRESS®

23-60253

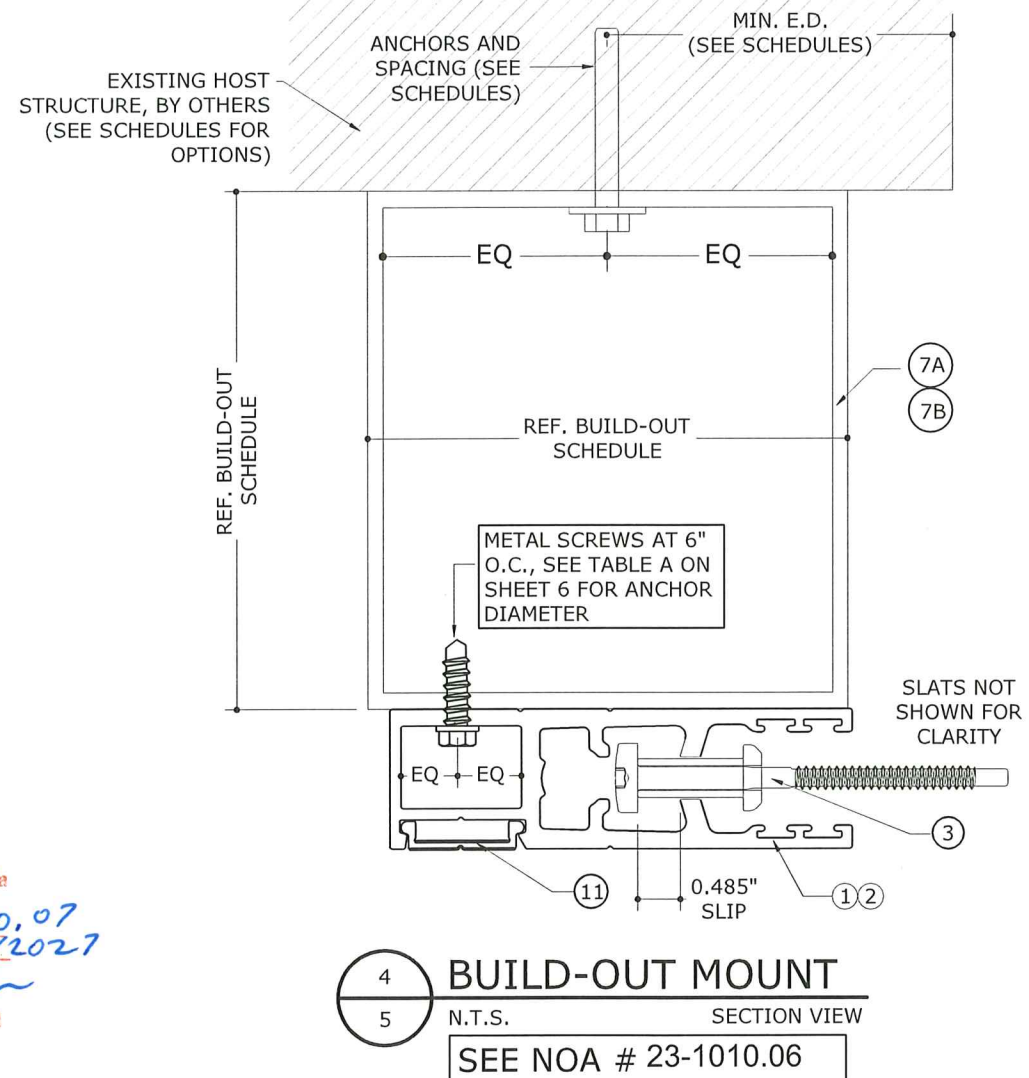
SCALE: NTS UNLESS NOTED

5

OF 19



PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 23-1010.07
Expiration Date 04/25/2027
By *Hely A. Miller*
Miami Date Product Control



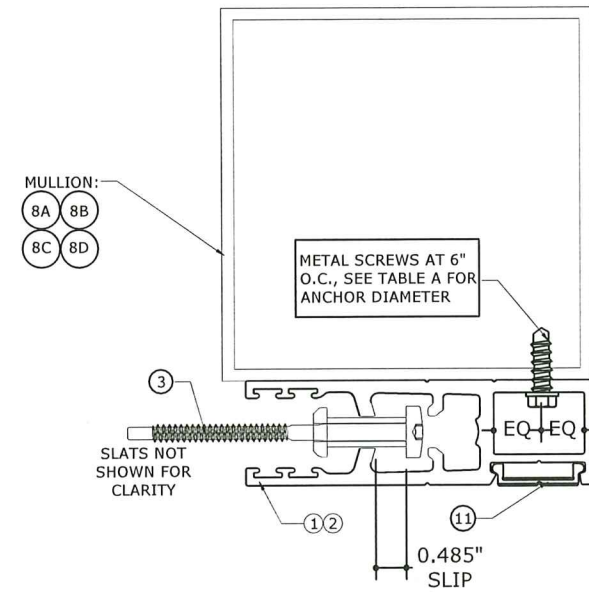
c:\users\milton\engineering\express\production - documents\projects\23-123-60253 2023 noa product update fl 22-0727.09\work\2023 fbc\docs for review\23-60253c noa dwg.dwg 12/22/2023 8:52 AM MILTON

SHUTTER ATTACHMENT OPTION TO TUBES & MULLIONS

RICHARD NEET, P.E.
PE# 86488 CA# 9885

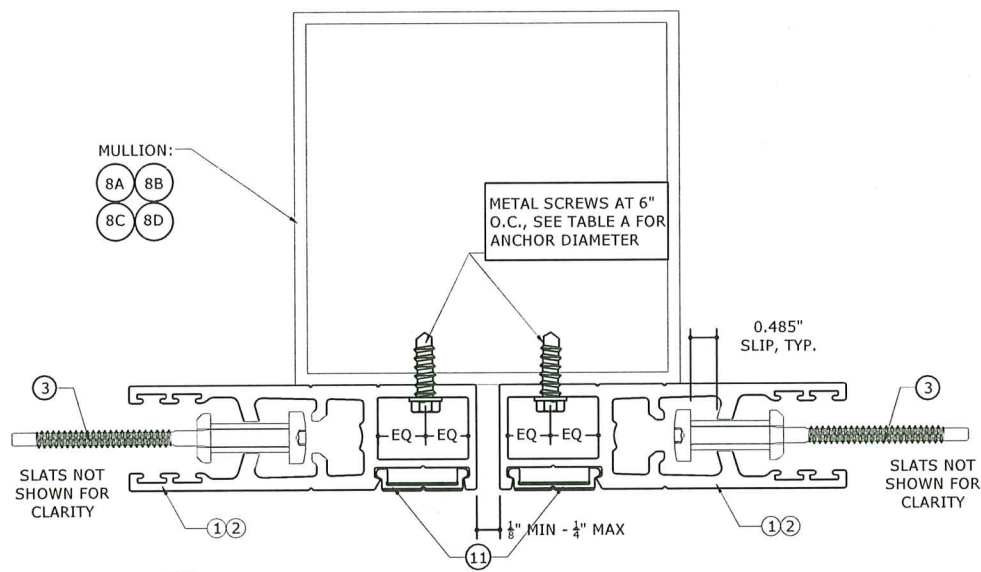
DECEMBER 22, 2023

FL



1 FACE MOUNT (END MULLION)
6 N.T.S. SECTION VIEW

ORIENTATION #2 FACE MOUNT END MULLION SEE NOA # 23-1010.06



3 FACE MOUNT (INT. MULLION)
6 N.T.S. SECTION VIEW

SEE NOA # 23-1010.06

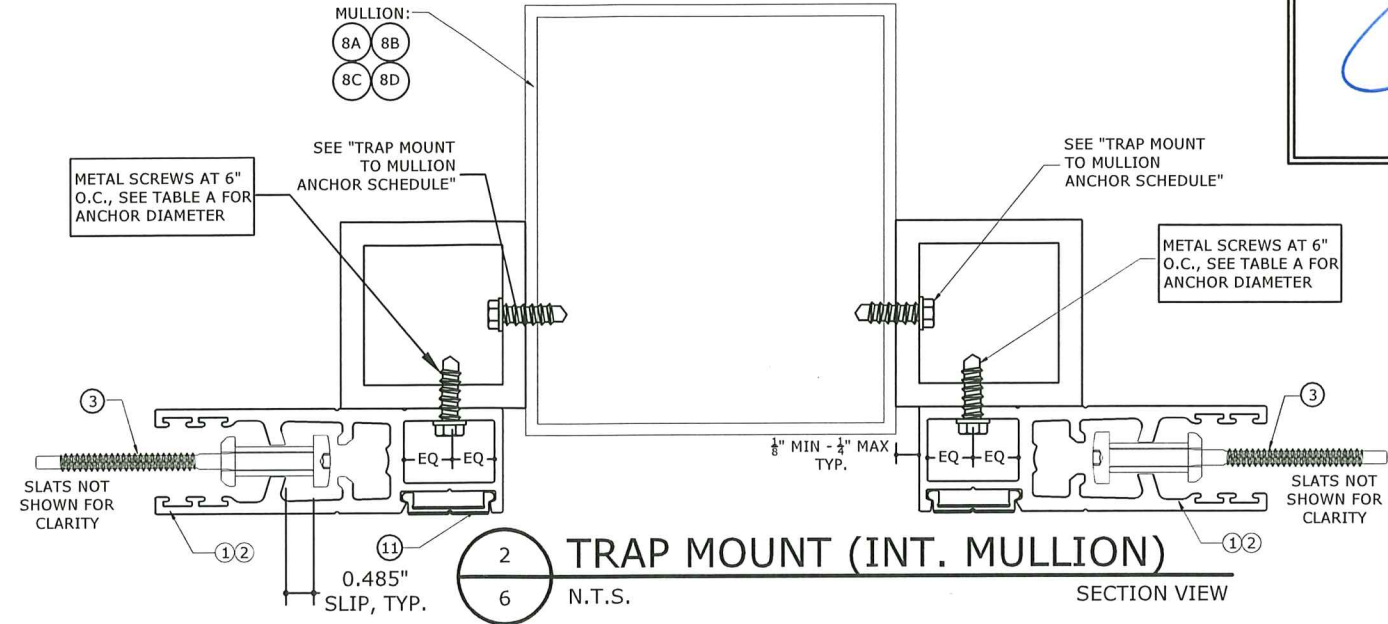
TABLE A:

FASTENER NOTE:
1. USE 5/16"Øx1 1/2" HEX HEAD METAL SCREWS (w/DRILL POINT) AT 6" O.C., FOR THE FOLLOWING SCENARIOS:
• ALL SHUTTER SPANS > 144"
• ALL SHUTTER SPANS w/ DESIGN PRESSURES EQUAL TO (OR GREATER THAN) THE LISTED PRESSURE:

SPAN	DP
48"	≥ 246.7 PSF
60"	≥ 214.3 PSF
72"	≥ 213.3 PSF
84"	≥ 187.0 PSF
96"	≥ 171.0 PSF
108"	≥ 160.1 PSF
120"	≥ 152.0 PSF
132"	≥ 145.4 PSF
144"	≥ 140.0 PSF

ALL OTHER SCENARIOS ARE PERMITTED TO USE 1/4"Øx1 1/2" HEX HEAD METAL SCREWS (w/DRILL POINT) AT 6" O.C.

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 23-1010.07
Expiration Date 08/25/2027
By *H. G. A. Miller*
Miami Dade Product Control



2 TRAP MOUNT (INT. MULLION)
6 N.T.S. SECTION VIEW

TRAP MOUNT TO MULLION ANCHOR SCHEDULE

SLAT SPAN		MAXIMUM SPACING (O.C.)				
		DESIGN PRESSURE	#14 410 SS (DRILL POINT SCREW) W/ FULL THREAD PENETRATION; TO 0.1875" MIN. 6061-T6 ALUM	5/16" 410 SS (DRILL POINT SCREW) W/ FULL THREAD PENETRATION; TO 0.1875" MIN. 6061-T6 ALUM	#14 410 SS (DRILL POINT SCREW) W/ FULL THREAD PENETRATION; TO 0.25" MIN. 6061-T6 ALUM	5/16" 410 SS (DRILL POINT SCREW) W/ FULL THREAD PENETRATION; TO 0.25" MIN. 6061-T6 ALUM
48"	+/- 40 PSF	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 90 PSF	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 140 PSF	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 190 PSF	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 246.7 PSF	6.0"	6.0"	6.0"	6.0"	6.0"
60"	+/- 40 PSF	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 80 PSF	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 120 PSF	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 170 PSF	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 214.3 PSF	6.0"	6.0"	6.0"	6.0"	6.0"
72"	+/- 40 PSF	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 80 PSF	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 120 PSF	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 160 PSF	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 213.3 PSF	6.0"	4.6"	6.0"	5.5"	6.0"
84"	+/- 40 PSF	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 70 PSF	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 110 PSF	4.7"	6.0"	5.0"	6.0"	6.0"
	+/- 150 PSF	5.2"	5.2"	6.0"	6.0"	6.0"
	+/- 187.0 PSF	4.0"	4.0"	4.7"	6.0"	6.0"
96"	+/- 30 PSF	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 60 PSF	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 100 PSF	4.0"	6.0"	4.2"	6.0"	6.0"
	+/- 130 PSF	4.8"	4.8"	5.6"	6.0"	6.0"
	+/- 171.0 PSF	3.5"	3.5"	4.1"	5.6"	6.0"
108"	+/- 30 PSF	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 60 PSF	5.7"	6.0"	6.0"	6.0"	6.0"
	+/- 90 PSF	3.6"	5.9"	3.7"	6.0"	6.0"
	+/- 120 PSF	4.3"	4.3"	4.9"	6.0"	6.0"
	+/- 160.0 PSF	3.2"	3.2"	3.6"	5.0"	6.0"
120"	+/- 30 PSF	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 60 PSF	4.6"	6.0"	4.8"	6.0"	6.0"
	+/- 90 PSF	4.9"	4.9"	5.6"	6.0"	6.0"
	+/- 120 PSF	3.6"	3.6"	4.1"	5.7"	6.0"
	+/- 152.0 PSF	3.2"	3.2"	3.2"	4.5"	6.0"
132"	+/- 30 PSF	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 50 PSF	4.8"	6.0"	5.0"	6.0"	6.0"
	+/- 80 PSF	4.8"	4.8"	5.5"	6.0"	6.0"
	+/- 110 PSF	3.4"	3.4"	3.9"	5.4"	6.0"
	+/- 145.4 PSF	3.2"	3.2"	3.2"	4.1"	6.0"
144"	+/- 20 PSF	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 50 PSF	4.1"	6.0"	4.2"	6.0"	6.0"
	+/- 80 PSF	4.2"	4.2"	4.7"	6.0"	6.0"
	+/- 110 PSF	3.0"	3.0"	3.4"	4.8"	6.0"
	+/- 140.0 PSF	3.7"	3.7"	3.7"	3.7"	6.0"

SLAT SPAN		MAXIMUM SPACING (O.C.)		
		DESIGN PRESSURE	5/16" 410 (DRILL POINT SCREW) SMS W/ FULL THREAD PENETRATION; TO 0.1875" MIN. 6061-T6 ALUM	5/16" 410 (DRILL POINT SCREW) SMS W/ FULL THREAD PENETRATION; TO 0.25" MIN. 6061-T6 ALUM
156"	+/- 20 PSF	6.0"	6.0"	6.0"
	+/- 40 PSF	6.0"	6.0"	6.0"
	+/- 70 PSF	4.3"	4.8"	6.0"
	+/- 90 PSF	3.3"	3.7"	5.2"
	+/- 124.7 PSF	3.7"	3.7"	3.7"
168"	+/- 20 PSF	6.0"	6.0"	6.0"
	+/- 40 PSF	6.0"	6.0"	6.0"
	+/- 60 PSF	4.5"	5.0"	6.0"
	+/- 80 PSF	3.3"	3.7"	5.3"
	+/- 112.1 PSF	3.7"	3.7"	3.7"
180"	+/- 20 PSF	6.0"	6.0"	6.0"
	+/- 40 PSF	6.0"	6.0"	6.0"
	+/- 60 PSF	4.1"	4.5"	6.0"
	+/- 80 PSF	3.0"	3.4"	4.8"
	+/- 101.7 PSF	3.7"	3.7"	3.7"
192"	+/- 20 PSF	6.0"	6.0"	6.0"
	+/- 30 PSF	6.0"	6.0"	6.0"
	+/- 50 PSF	4.5"	4.9"	6.0"
	+/- 70 PSF	3.2"	3.5"	5.0"
	+/- 92.9 PSF	3.7"	3.7"	3.7"
204"	+/- 20 PSF	6.0"	6.0"	6.0"
	+/- 30 PSF	6.0"	6.0"	6.0"
	+/- 50 PSF	4.1"	4.5"	6.0"
	+/- 60 PSF	3.4"	3.7"	5.3"
	+/- 85.4 PSF	3.7"	3.7"	3.7"
216"	+/- 20 PSF	6.0"	6.0"	6.0"
	+/- 30 PSF	6.0"	6.0"	6.0"
	+/- 40 PSF	4.7"	5.2"	6.0"
	+/- 60 PSF	3.1"	3.4"	4.9"
	+/- 79.0 PSF	3.7"	3.7"	3.7"
228"	+/- 20 PSF	6.0"	6.0"	6.0"
	+/- 30 PSF	5.8"	6.0"	6.0"
	+/- 40 PSF	4.4"	4.8"	6.0"
	+/- 60 PSF	3.2"	3.2"	4.5"
	+/- 73.4 PSF	3.7"	3.7"	3.7"
236"	+/- 20 PSF	6.0"	6.0"	6.0"
	+/- 30 PSF	5.6"	6.0"	6.0"
	+/- 40 PSF	4.1"	4.6"	6.0"
	+/- 50 PSF	3.3"	3.6"	5.2"
	+/- 70.0 PSF	3.7"	3.7"	3.7"

1. DESIGNATES ANCHOR CONDITIONS WHICH ARE NOT ACCEPTABLE FOR USE.

ENGINEERING EXPRESS

POSTAL ADDRESS:
2234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

QUALITAS MANUFACTURING INC. (QMI)

1661 GLENLAKE AVE
ITASCA, IL 60143
PHONE: (866) 980-1750

COMPACT3 - AL8 ROLL-UP HURRICANE SHUTTER
TRAP MOUNT & ATTACHMENT TO MULLIONS
FBC EIGHTH EDITION (2023) | MIAMI-DADE NOA

REMARKS	DRWN	CHKD	DATE
PREV. SUB. NOA 22-0727.09	EPR	RVN	08/05/22
2023 FBC UPDATE	EPR	RVN	08/26/23
ADDRESSING MD COMMENTS	MRT	RVN	12/22/23

COPYRIGHT ENGINEERING EXPRESS®

23-60253

SCALE: NTS UNLESS NOTED

OF 19

c:\users\milton\engineering express\production - documents\projects\23-123-60253 2023 noa product update fl 22-0727.09\work\2023 fbc\docs for review\23-60253c noa dwg.dwg

DECEMBER 22, 2023

RICHARD NEET, P.E.
PE# 86488 CA# 9885

ANCHOR NOTES:

- PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 23-1010-07
Expiration Date 08/25/2027
By Heidi A. Miller
Miami Dade Product Control

POSTAL ADDRESS:
2234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

1661 GLENLAKE AVE
ITASCA IL 60143

PHONE: (866) 980-1750

ALB BOLL - LIB HIBRICAN

TRAP MOUNT & ATTACHMENT TO MULLIONS
FBC EIGHTH EDITION (2023) | MIAMI-DADE NOA

[illegible]

COPYRIGHT ENGINEERING EXPRESS®

23-60253

SCALE: NTS UNLESS NOTED

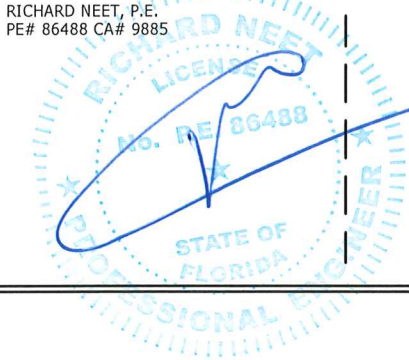
7

OF
19

c:\users\milton\engineering\express\production - documents\projects\23-123-60253 2023 noa product update fl 22-0727.09\work\2023 fbc\docs for review\23-60253c noa dwg.dwg 12/22/2023 8:52 AM MILTON

RICHARD NEET, P.E.
PE# 86488 CA# 9885

DECEMBER 22, 2023



FL

ANCHOR SCHEDULE: TRAP MOUNT, SPANS 156"-236", 1/4"Ø FASTENERS

SLAT SPAN	DESIGN PRESSURE	Rx	Ry	1/4" HILTI KH-EZ	1/4" ALL- POINTS SOLID-SET	1/4" DEWALT ULTRACON+	1/4" SS ITW TAPCON	1/4" DEWALT ULTRACON+ SS4	1/4" DEWALT POWER- BOLT	1/4" DEWALT SCREW BOLT+	1/4" DEWALT AGGRE- GATOR	1/4" DEWALT AGGRE- GATOR	1/4" DEWALT ULTRACON+	1/4" ALL- POINTS SOLID-SET	1/4" DEWALT AGGRE- GATOR	1/4" DEWALT AGGRE- GATOR	3/8" ELCO TAPFLEX	#14 (410 SS) DRILL POINT SCREW OR 1/4-20 (410 SS) THRU- BOLT	#14 (410 SS) DRILL POINT SCREW OR 1/4-20 (410 SS) THRU- BOLT
				CONCRETE	CONCRETE	CONCRETE	CONCRETE	CONCRETE	CONCRETE	GFB	GFB	GFB	GFB OR HOLLOW BLOCK	HOLLOW BLOCK	HOLLOW BLOCK	HOLLOW BLOCK	1/4" ALUM. OR STEEL	STEEL	ALUM.
				3000 PSI EMBED: 2.50" EDGE= 3.00"	3000 PSI EMBED: 0.88" EDGE= 3.00"	3000 PSI EMBED: 1.75" EDGE= 2.50"	3192 PSI EMBED: 1.75" EDGE= 2.50"	3000 EMBED: 1.75" EDGE= 2.50"	3000 PSI EMBED: 2.50" EDGE= 3.00"	ASTM C90 EMBED: 2.50" EDGE= 3.00"	ASTM C90 EMBED: 2.00" EDGE= 4.00"	ASTM C90 EMBED: 2.00" EDGE= 2.00"	ASTM C90 EMBED: 1.25" EDGE= 2.00"	ASTM C90 EMBED: 0.88" EDGE= 3.00"	ASTM C90 EMBED: 1.25" EDGE= 4.00"	ASTM C90 EMBED: 1.25" EDGE= 2.00"	6061-T6 OR A36 - EDGE= 0.75"	A36 - EDGE= 0.50"	6063-T6 - EDGE= 0.50"
156"	+/- 20 PSF	538 LB/FT	130 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	3.4"	5.7"	3.2"	3.1"	6.0"	6.0"	6.0"
	+/- 30 PSF	871 LB/FT	195 LB/FT	6.0"	6.0"	6.0"	4.9"	4.8"		5.7"	4.6"	3.9"		3.6"			6.0"	5.9"	3.8"
	+/- 40 PSF	1205 LB/FT	260 LB/FT	6.0"	4.5"	4.5"	3.6"	3.5"		4.1"	3.4"						6.0"	4.3"	
	+/- 50 PSF	1538 LB/FT	325 LB/FT	5.1"	3.5"	3.6"				3.3"	2.6"						6.0"	3.4"	
168"	+/- 20 PSF	635 LB/FT	140 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	5.3"		4.9"			6.0"	6.0"	5.3"
	+/- 30 PSF	1007 LB/FT	210 LB/FT	6.0"	5.4"	5.5"	4.3"	4.2"		5.0"	4.1"	3.4"		3.1"			6.0"	5.2"	3.3"
	+/- 40 PSF	1380 LB/FT	280 LB/FT	5.7"	4.0"	4.0"	3.2"	3.1"		3.7"	3.0"						6.0"	3.8"	
	+/- 46 PSF	1604 LB/FT	322 LB/FT	4.9"	3.4"	3.5"				3.2"	2.6"						6.0"	3.3"	
180"	+/- 10 PSF	317 LB/FT	75 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	5.8"	6.0"	5.5"	5.2"	6.0"	6.0"	6.0"
	+/- 20 PSF	731 LB/FT	150 LB/FT	6.0"	6.0"	6.0"	6.0"	5.8"	5.6"	6.0"	5.6"	4.7"		4.3"			6.0"	6.0"	4.6"
	+/- 30 PSF	1144 LB/FT	225 LB/FT	6.0"	4.8"	4.9"	3.8"	3.7"		4.4"	3.6"	3.0"					6.0"	4.6"	
	+/- 40 PSF	1558 LB/FT	300 LB/FT	5.1"	3.5"	3.6"				3.3"	2.7"						6.0"	3.4"	
192"	+/- 10 PSF	371 LB/FT	80 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	5.0"	6.0"	4.8"	4.5"	6.0"	6.0"	6.0"
	+/- 20 PSF	827 LB/FT	160 LB/FT	6.0"	6.0"	6.0"	5.3"	5.2"		6.0"	5.0"	4.2"		3.8"			6.0"	6.0"	4.1"
	+/- 30 PSF	1283 LB/FT	240 LB/FT	6.0"	4.3"	4.4"	3.5"	3.4"		4.0"	3.2"						6.0"	4.1"	
	+/- 40 PSF	1739 LB/FT	320 LB/FT	4.6"	3.2"	3.2"				3.0"	2.4"						6.0"	3.0"	
204"	+/- 10 PSF	424 LB/FT	85 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	4.4"	6.0"	4.2"	4.0"	6.0"	6.0"	6.0"
	+/- 20 PSF	924 LB/FT	170 LB/FT	6.0"	6.0"	6.0"	4.8"	4.7"		5.6"	4.5"	3.7"		3.5"			6.0"	5.7"	3.7"
	+/- 30 PSF	1423 LB/FT	255 LB/FT	5.7"	3.9"	4.0"	3.1"	3.0"		3.6"	2.9"						6.0"	3.7"	
	+/- 38 PSF	1823 LB/FT	323 LB/FT	4.5"	3.1"	3.1"				2.8"	2.3"						6.0"		
216"	+/- 10 PSF	477 LB/FT	90 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	4.0"	6.0"	3.8"	3.6"	6.0"	6.0"	6.0"
	+/- 20 PSF	1022 LB/FT	180 LB/FT	6.0"	5.5"	5.6"	4.4"	4.2"		5.1"	4.1"	3.4"		3.2"			6.0"	5.2"	3.4"
	+/- 30 PSF	1566 LB/FT	270 LB/FT	5.2"	3.6"	3.6"				3.3"	2.7"						6.0"	3.4"	
	+/- 36 PSF	1893 LB/FT	324 LB/FT	4.3"		3.0"				2.8"	2.2"						6.0"		
228"	+/- 10 PSF	530 LB/FT	95 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	3.6"	6.0"	3.4"	3.3"	6.0"	6.0"	6.0"
	+/- 20 PSF	1121 LB/FT	190 LB/FT	6.0"	5.0"	5.1"	4.0"	3.9"		4.7"	3.7"	3.1"					6.0"	4.8"	3.1"
	+/- 30 PSF	1712 LB/FT	285 LB/FT	4.8"	3.3"	3.4"				3.1"	2.5"						6.0"	3.1"	
	+/- 34 PSF	1948 LB/FT	323 LB/FT	4.2"		3.0"				2.7"	2.2"						6.0"		
236"	+/- 10 PSF	566 LB/FT	98 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	3.4"	5.7"	3.2"	3.1"	6.0"	6.0"	6.0"
	+/- 20 PSF	1188 LB/FT	197 LB/FT	6.0"	4.7"	4.8"	3.8"	3.7"		4.4"	3.5"						6.0"	4.5"	
	+/- 30 PSF	1810 LB/FT	295 LB/FT	4.6"	3.1"	3.2"				2.9"	2.3"						6.0"		
	+/- 33 PSF	1997 LB/FT	325 LB/FT	4.1"		2.9"				2.6"	2.1"						6.0"		

ENGINEERING
EXPRESS®

POSTAL ADDRESS:
2234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

QUALITAS MANUFACTURING INC. (QMI)

1661 GLENLAKE AVE
ITASCA, IL 60143

PHONE: (866) 980-1750

COMPACT3 - AL8 ROLL-UP HURRICANE SHUTTER
TRAP MOUNT & ATTACHMENT TO MULLIONS
FBC EIGHTH EDITION (2023) | MIAMI-DADE NOA

REMARKS	DRWN	CHKD	DATE
PREV. SUB. NOA 22-0727.09	EPR	RVN	08/05/22
2023 FBC UPDATE	EPR	RVN	08/26/23
ADDRESSING MD COMMENTS	MRT	RVN	12/22/23

COPYRIGHT ENGINEERING EXPRESS®

23-60253

SCALE: NTS UNLESS NOTED

8

OF
19

ANCHOR NOTES:

- ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
- MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR SCHEDULE. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES.
- ANCHOR SCHEDULE APPLIES TO ALL PRODUCTS CERTIFIED HEREIN, BUT ONLY PROVIDES MAXIMUM ALLOWABLE ANCHOR SPACING. MAXIMUM ALLOWABLE SPANS AND PRESSURES INDICATED IN SPAN SCHEDULE SHALL APPLY.
- WHERE EXISTING STRUCTURE IS WOOD FRAMING, EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD FRAMING MEMBERS, NOT INTO PLYWOOD.
- WOOD BUCKS (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE EXISTING STRUCTURE.

- MACHINE SCREWS SHALL HAVE MINIMUM OF 1/2" ENGAGEMENT OF THREADS IN BASE ANCHOR AND MAY HAVE EITHER A PAN HEAD, TRUSS HEAD, OR WAFER HEAD ("SIDEWALK BOLT") U.N.O.
- SHEET METAL SCREWS SHALL BE INSTALLED WITH FULL ENGAGEMENT OF THREADS INTO METAL HOST STRUCTURE.
- DESIGNATES ANCHOR CONDITIONS WHICH ARE NOT ACCEPTABLE FOR USE.
- ANCHORS TO GROUT-FILLED BLOCK SHALL PENETRATE THROUGH FACE SHELL INTO GROUTED CELL.
- + - #14 FASTENERS MAY BE SUBSTITUTED WITH 1/4" ELCO DRIL-FLEX FASTENERS.
- SEE PAGE 11 FOR TRAP MOUNT REACTION KEY.

PRODUCT REVISED

as complying with the Florida
Building Code
Acceptance No. 23-1010.07
Expiration Date 09/25/2027

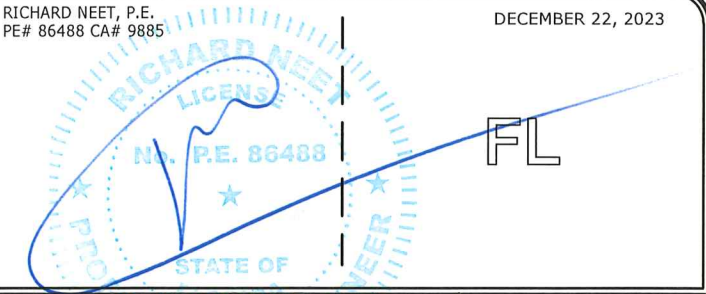
By *Heidi A. Miller*
Miami Date Product Control

c:\users\milton\engineering\express\production - documents\projects\23-123-60253 2023 noa product update fl 22-0727.09\work\2023 fbc docs for review\23-60253c noa dwg.dwg 12/22/2023 8:52 AM MILTON

ANCHOR SCHEDULE: TRAP MOUNT, SPANS 48"-96", ≥5/16"Ø FASTENERS

RICHARD NEET, P.E.
PE# 86488 CA# 9885

DECEMBER 22, 2023



SLAT SPAN	DESIGN PRESSURE	Rx	Ry	3/8" ELCO / DEWALT CONFLEX	3/8" DEWALT SCREW BOLT+	3/8" ELCO / DEWALT CONFLEX	3/8" DEWALT SCREW BOLT+	3/8" HILTI KH-EZ	3/8" HILTI KH-EZ	5/16" DEWALT ULTRACON	3/8" DEWALT SCREW BOLT+	5/16" ITW TAPCON XL	5/16" ITW TAPCON XL	3/8" ELCO TAPFLEX	5/16" ELCO DRIL-FLEX	5/16" (410 SS) DRILL POINT SCREW	5/16" (410 SS) DRILL POINT SCREW	#20 (0.32") WOOD SCREW
				CONCRETE	CONCRETE	CONCRETE	CONCRETE	CONCRETE	CONCRETE	CONCRETE	GFB	GFB	HOLLOW BLOCK	1/4" ALUM. OR STEEL	1/4" STEEL	1/4" STEEL	1/4" ALUM.	WOOD
				4510 PSI EMBED: 3.50" EDGE= 3.75"	3000 PSI EMBED: 3.25" EDGE= 5.00"	1819 PSI EMBED: 3.50" EDGE= 3.75"	3000 PSI EMBED: 3.25" EDGE= 4.00"	3000 PSI EMBED: 3.25" EDGE= 5.00"	3000 PSI EMBED: 3.25" EDGE= 4.00"	3500 PSI EMBED: 2.00" EDGE= 3.13"	ASTM C90 EMBED: 3.25" EDGE= 5.00"	ASTM C90 EMBED: 2.25" EDGE= 4.00"	ASTM C90 EMBED: 1.75" EDGE= 4.00"	6061-T6 OR A36 - EDGE= 0.75"	A36 - EDGE= 0.75"	A36 - EDGE= 0.75"	6063-T6 - EDGE= 0.63"	G=0.55 EMBED: 4.00" EDGE= 1.50"
48"	+/- 246.7 PSF	53 LB/FT	493 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 150 PSF	322 LB/FT	375 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 160 PSF	400 LB/FT	400 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 170 PSF	479 LB/FT	425 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 180 PSF	557 LB/FT	450 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 190 PSF	635 LB/FT	475 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 200 PSF	714 LB/FT	500 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
60"	+/- 210.0 PSF	792 LB/FT	525 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	5.4"
	+/- 214.3 PSF	826 LB/FT	536 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	5.3"
	+/- 90 PSF	335 LB/FT	270 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 100 PSF	438 LB/FT	300 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 110 PSF	542 LB/FT	330 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 120 PSF	645 LB/FT	360 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 130 PSF	749 LB/FT	390 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
72"	+/- 140 PSF	852 LB/FT	420 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 150 PSF	955 LB/FT	450 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	5.6"
	+/- 160 PSF	1059 LB/FT	480 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	5.2"
	+/- 170 PSF	1162 LB/FT	510 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	4.8"
	+/- 180 PSF	1266 LB/FT	540 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	4.5"
	+/- 190 PSF	1369 LB/FT	570 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	4.2"
	+/- 200 PSF	1472 LB/FT	600 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	4.0"
84"	+/- 210.0 PSF	1576 LB/FT	630 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	3.8"
	+/- 213.3 PSF	1610 LB/FT	640 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	3.7"
	+/- 60 PSF	345 LB/FT	210 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 70 PSF	475 LB/FT	245 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 80 PSF	606 LB/FT	280 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 90 PSF	737 LB/FT	315 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 100 PSF	867 LB/FT	350 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
96"	+/- 110 PSF	998 LB/FT	385 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 120 PSF	1129 LB/FT	420 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	5.5"
	+/- 130 PSF	1259 LB/FT	455 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	5.0"
	+/- 140 PSF	1390 LB/FT	490 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	4.6"
	+/- 150 PSF	1521 LB/FT	525 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	4.2"
	+/- 160 PSF	1652 LB/FT	560 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	3.9"
	+/- 170 PSF	1782 LB/FT	595 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	3.7"
96"	+/- 180 PSF	1913 LB/FT	630 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	3.5"
	+/- 187 PSF	2004 LB/FT	655 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	3.3"
	+/- 30 PSF	143 LB/FT	120 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 40 PSF	303 LB/FT	160 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 50 PSF	463 LB/FT	200 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 60 PSF	623 LB/FT	240 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 70 PSF	783 LB/FT	280 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
96"	+/- 80 PSF	943 LB/FT	320 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 90 PSF	1103 LB/FT	360 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 100 PSF	1263 LB/FT	400 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	5.4"
	+/- 110 PSF	1423 LB/FT	440 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	4.8"
	+/- 120 PSF	1583 LB/FT	480 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	4.4"
	+/- 130 PSF	1743 LB/FT	520 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	4.0"
	+/- 140 PSF	1903 LB/FT	560 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	3.7"
96"	+/- 150 PSF	2063 LB/FT	600 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	3.4"
	+/- 160 PSF	2223 LB/FT	640 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	3.2"
	+/- 171 PSF	2399 LB/FT	684 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	3.0"

ANCHOR NOTES:

- ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
- MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR SCHEDULE. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES.
- ANCHOR SCHEDULE APPLIES TO ALL PRODUCTS CERTIFIED HEREIN, BUT ONLY PROVIDES MAXIMUM ALLOWABLE ANCHOR SPACING. MAXIMUM ALLOWABLE SPANS AND PRESSURES INDICATED IN SPAN SCHEDULE SHALL APPLY.
- WHERE EXISTING STRUCTURE IS WOOD FRAMING, EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD FRAMING MEMBERS, NOT INTO PLYWOOD.
- WOOD BUCKS (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE EXISTING STRUCTURE.
- MACHINE SCREWS SHALL HAVE MINIMUM OF 1/2" ENGAGEMENT OF THREADS IN BASE ANCHOR AND MAY HAVE EITHER A PAN HEAD, TRUSS HEAD, OR WAFER HEAD ("SIDEWALK BOLT") U.N.O.
- SHEET METAL SCREWS SHALL BE INSTALLED WITH FULL ENGAGEMENT OF THREADS INTO METAL HOST STRUCTURE.
- DESIGNATES ANCHOR CONDITIONS WHICH ARE NOT ACCEPTABLE FOR USE.
- ANCHORS TO GROUT-FILLED BLOCK SHALL PENETRATE THROUGH FACE SHELL INTO GROUTED CELL.
- + - #14 FASTENERS MAY BE SUBSTITUTED WITH 1/4" ELCO DRIL-FLEX FASTENERS.
- SEE PAGE 11 FOR TRAP MOUNT REACTION KEY.

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 23-1010.07
Expiration Date 08/25/2027
By *[Signature]*
Miami Dade Product Control

**ENGINEERING
EXPRESS**
POSTAL ADDRESS:
2324 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

QUALITAS MANUFACTURING INC. (QMI)
1661 GLENLAKE AVE
ITASCA, IL 60143
PHONE: (866) 980-1750
COMPACT3 - AL8 ROLL-UP HURRICANE SHUTTER
TRAP MOUNT & ATTACHMENT TO MULLIONS
FBC EIGHTH EDITION (2023) | MIAMI-DADE NOA

REMARKS	DRWN	CHKD	DATE
PREV. SUB. NOA 22-0727.09	EPR	IRVN	08/05/22
2023 FBC UPDATE	EPR	IRVN	09/26/23
ADDRESSING MD COMMENTS	MRT	IRVN	12/22/23

COPYRIGHT ENGINEERING EXPRESS®
23-60253
SCALE: NTS UNLESS NOTED
OF 19

RICHARD NEET, P.E.
PE# 86488 CA# 9885

FL

ANCHOR NOTES:

1. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
2. MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR SCHEDULE. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES.
3. ANCHOR SCHEDULE APPLIES TO ALL PRODUCTS CERTIFIED HEREIN, BUT ONLY PROVIDES MAXIMUM ALLOWABLE ANCHOR SPACING. MAXIMUM ALLOWABLE SPANS AND PRESSURES INDICATED IN SPAN SCHEDULE SHALL APPLY.
4. WHERE EXISTING STRUCTURE IS WOOD FRAMING, EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD FRAMING MEMBERS, NOT INTO PLYWOOD.
5. WOOD BUCKS (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE EXISTING STRUCTURE.
6. MACHINE SCREWS SHALL HAVE MINIMUM OF 1/2" ENGAGEMENT OF THREADS IN BASE ANCHOR AND MAY HAVE EITHER A PAN HEAD, TRUSS HEAD, OR WAFER HEAD ("SIDEWALK BOLT") U.N.O.
7. SHEET METAL SCREWS SHALL BE INSTALLED WITH FULL ENGAGEMENT OF THREADS INTO METAL HOST STRUCTURE.
8.  DESIGNATES ANCHOR CONDITIONS WHICH ARE NOT ACCEPTABLE FOR USE.
9. ANCHORS TO GROUT-FILLED BLOCK SHALL PENETRATE THROUGH FACE SHELL INTO GROUTED CELL.
10. + - #14 FASTENERS MAY BE SUBSTITUTED WITH 1/4" ELCO DRIL-FLEX FASTENERS.
11. SEE PAGE 11 FOR TRAP MOUNT REACTION KEY.

PRODUCT REVISED
as complying with the Florida:
Building Code
Acceptance No 23-1010.07
Expiration Date 08/25/2027
By H. G. B. M. M.
Miami Dade Product Control

**ENGINEERING
EXPRESS®**

POSTAL ADDRESS:
2234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

QUALITAS MANUFACTURING INC. (QMI)

1661 GLENLAKE AVE
ITASCA, IL 60143
PHONE: (866) 980-175

PHONE: (866) 980-1750

QCOMPACT3 - AL8 ROLL-UP HURRICANE SHUTTER
TRAP MOUNT & ATTACHMENT TO MULLIONS

REMARKS	DRWN	CHKD	DATE
PREV SUB NOA 22-0727.09	EPR	RWN	08/05/22
2023 FBC UPDATE	EPR	RWN	09/26/23
ADDRESSING MD COMMENTS	MRT	RWN	12/22/23
-	-	-	-
-	-	-	-

23-60253

SCALE: NTS UNLESS NOTED

10

c:\users\milton\engineering express\production - documents\projects\23-123-60253 2023 noa product update fl 22-0727.09\work\2023 fbc docs for review\23-60253c noa dwg.dwg 12/22/2023 8:52 AM MILTON

ANCHOR SCHEDULE: TRAP MOUNT, SPANS 156"-236", ≥5/16"Ø FASTENERS

				3/8" ELCO / DEWALT CONFLX	3/8" DEWALT SCREW BOLT+	3/8" ELCO / DEWALT CONFLX	3/8" DEWALT SCREW BOLT+	3/8" HILTI KH-EZ	3/8" HILTI KH-EZ	5/16" DEWALT ULTRACON	3/8" DEWALT SCREW BOLT+	5/16" ITW TAPCON XL	5/16" ITW TAPCON XL	3/8" ELCO TAPFLEX	5/16" ELCO DRIL-FLEX	5/16" (410 SS) DRILL POINT SCREW	5/16" (410 SS) DRILL POINT SCREW	#20 (0.32") WOOD SCREW	
SLAT SPAN	DESIGN PRESSURE	Rx	Ry	CONCRETE	CONCRETE	CONCRETE	CONCRETE	CONCRETE	CONCRETE	CONCRETE	GFB	GFB	HOLLOW BLOCK	1/4" ALUM. OR STEEL	1/4" STEEL	1/4" STEEL	1/4" ALUM.	WOOD	
				4510 PSI	3000 PSI	1819 PSI	3000 PSI	3000 PSI	3000 PSI	3500 PSI	ASTM C90	ASTM C90	ASTM C90	6061-T6 OR A36	A36	A36	6063-T6	G=0.55	
				EMBED: 3.50" EDGE= 3.75"	EMBED: 3.25" EDGE= 5.00"	EMBED: 3.50" EDGE= 3.75"	EMBED: 3.25" EDGE= 4.00"	EMBED: 3.25" EDGE= 5.00"	EMBED: 3.25" EDGE= 4.00"	EMBED: 2.00" EDGE= 3.13"	EMBED: 3.25" EDGE= 5.00"	EMBED: 2.25" EDGE= 4.00"	EMBED: 1.75" EDGE= 4.00"	EDGE= 0.75"	EDGE= 0.75"	EDGE= 0.75"	EDGE= 0.63"	EMBED: 4.00" EDGE= 1.50"	
156"	+/- 20 PSF	538 LB/FT	130 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	5.2"	6.0"	6.0"	6.0"	6.0"	6.0"	
	+/- 30 PSF	871 LB/FT	195 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	5.5"	6.0"	6.0"		6.0"	6.0"	6.0"	6.0"	6.0"	
	+/- 40 PSF	1205 LB/FT	260 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	4.0"	6.0"	6.0"		6.0"	6.0"	6.0"	6.0"	6.0"	
	+/- 50 PSF	1538 LB/FT	325 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"		6.0"	5.9"		6.0"	6.0"	6.0"	6.0"	5.3"	
	+/- 60 PSF	1872 LB/FT	390 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"		5.1"	4.8"		6.0"	6.0"	6.0"	5.9"	4.4"	
	+/- 70 PSF	2205 LB/FT	455 LB/FT	6.0"	6.0"	6.0"	5.9"	6.0"	6.0"		4.4"	4.1"		6.0"	6.0"	5.7"	5.0"	3.7"	
	+/- 80 PSF	2538 LB/FT	520 LB/FT	6.0"	5.9"	6.0"	5.1"	6.0"	5.5"		3.8"			6.0"	5.2"	5.0"	4.4"	3.3"	
	+/- 90 PSF	2872 LB/FT	585 LB/FT	6.0"	5.2"		4.5"	5.3"	4.9"		3.3"			5.3"	4.6"	4.4"	3.9"	2.9"	
	+/- 100 PSF	3205 LB/FT	650 LB/FT	6.0"	4.7"		4.1"	4.7"	4.4"		3.0"			4.8"	4.1"	4.0"	3.5"	2.6"	
	+/- 110 PSF	3539 LB/FT	715 LB/FT	6.0"	4.3"		3.4"	4.3"	3.7"					4.3"	3.7"	3.6"	3.1"	2.4"	
	+/- 120 PSF	3872 LB/FT	780 LB/FT		3.6"		3.1"	3.6"	3.3"					3.9"	3.4"	3.3"			
	+/- 124.7 PSF	4029 LB/FT	811 LB/FT		3.5"		3.0"	3.5"	3.2"					3.8"	3.3"	3.2"			
168"	+/- 20 PSF	635 LB/FT	140 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	4.5"	6.0"	6.0"	6.0"	6.0"	6.0"	
	+/- 30 PSF	1007 LB/FT	210 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	4.8"	6.0"	6.0"		6.0"	6.0"	6.0"	6.0"	6.0"	
	+/- 40 PSF	1380 LB/FT	280 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"		6.0"	6.0"		6.0"	6.0"	6.0"	6.0"	6.0"	
	+/- 50 PSF	1753 LB/FT	350 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"		5.5"	5.2"		6.0"	6.0"	6.0"	6.0"	4.8"	
	+/- 60 PSF	2126 LB/FT	420 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"		4.6"	4.3"		6.0"	6.0"	6.0"	5.2"	4.0"	
	+/- 70 PSF	2499 LB/FT	490 LB/FT	6.0"	6.0"	6.0"	5.3"	6.0"	5.7"		3.9"			6.0"	5.3"	5.1"	4.5"	3.4"	
	+/- 80 PSF	2872 LB/FT	560 LB/FT	6.0"	5.3"		4.6"	5.3"	4.9"		3.4"			5.3"	4.6"	4.4"	3.9"	2.9"	
	+/- 90 PSF	3244 LB/FT	630 LB/FT	6.0"	4.7"		4.1"	4.7"	4.4"					4.7"	4.1"	3.9"	3.4"	2.6"	
	+/- 100 PSF	3617 LB/FT	700 LB/FT	6.0"	4.2"		3.4"	4.2"	3.6"					4.2"	3.7"	3.5"	3.1"	2.3"	
	+/- 110 PSF	3990 LB/FT	770 LB/FT		3.5"		3.1"	3.5"	3.3"					3.9"	3.3"	3.2"			
	+/- 112.1 PSF	4068 LB/FT	785 LB/FT		3.5"		3.0"	3.4"	3.2"					3.8"	3.3"	3.1"			
	180"	+/- 10 PSF	317 LB/FT	75 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
+/- 20 PSF		731 LB/FT	150 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	3.9"	6.0"	6.0"	6.0"	6.0"	6.0"	
+/- 30 PSF		1144 LB/FT	225 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	4.2"	6.0"	6.0"		6.0"	6.0"	6.0"	6.0"	6.0"	
+/- 40 PSF		1558 LB/FT	300 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"		6.0"	5.9"		6.0"	6.0"	6.0"	6.0"	5.5"	
+/- 50 PSF		1972 LB/FT	375 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"		4.9"	4.7"		6.0"	6.0"	6.0"	5.7"	4.3"	
+/- 60 PSF		2386 LB/FT	450 LB/FT	6.0"	6.0"	6.0"	5.6"	6.0"	6.0"		4.1"	3.9"		6.0"	5.6"	5.4"	4.7"	3.6"	
+/- 70 PSF		2799 LB/FT	525 LB/FT	6.0"	5.5"		4.7"	5.5"	5.1"		3.5"			5.5"	4.8"	4.6"	4.0"	3.1"	
+/- 80 PSF		3213 LB/FT	600 LB/FT	6.0"	4.6"		4.1"	4.8"	4.5"		3.0"			4.8"	4.2"	4.0"	3.5"	2.7"	
+/- 90 PSF		3627 LB/FT	675 LB/FT	6.0"	4.2"		3.4"	4.3"	3.6"					4.3"	3.7"	3.5"	3.1"	2.4"	
+/- 100 PSF		4040 LB/FT	750 LB/FT		3.5"		3.1"	3.5"	3.3"					3.6"	3.3"	3.2"			
+/- 101.7 PSF		4111 LB/FT	763 LB/FT		3.5"		3.0"	3.4"	3.2"					3.6"	3.3"	3.1"			
192"		+/- 10 PSF	371 LB/FT	80 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
	+/- 20 PSF	827 LB/FT	160 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	5.9"	6.0"	6.0"		6.0"	6.0"	6.0"	6.0"	6.0"	
	+/- 30 PSF	1283 LB/FT	240 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	3.8"	6.0"	6.0"		6.0"	6.0"	6.0"	6.0"	6.0"	
	+/- 40 PSF	1739 LB/FT	320 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"		5.6"	5.3"		6.0"	6.0"	6.0"	6.0"	5.0"	
	+/- 50 PSF	2195 LB/FT	400 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"		4.5"	4.2"		6.0"	6.0"	5.9"	5.1"	4.0"	
	+/- 60 PSF	2651 LB/FT	480 LB/FT	6.0"	5.8"	6.0"	5.0"	5.8"	5.4"		3.7"			5.8"	5.1"	4.9"	4.3"	3.3"	
	+/- 70 PSF	3107 LB/FT	560 LB/FT	6.0"	5.0"		4.3"	5.0"	4.6"		3.2"			5.0"	4.3"	4.2"	3.6"	2.8"	
	+/- 80 PSF	3563 LB/FT	640 LB/FT	6.0"	4.3"		3.5"	4.4"	4.1"					4.4"	3.8"	3.6"	3.2"	2.4"	
	+/- 90 PSF	4019 LB/FT	720 LB/FT		3.6"		3.1"	3.5"	3.3"					3.9"	3.4"	3.2"			
	+/- 92.9 PSF	4151 LB/FT	743 LB/FT		3.5"		3.0"	3.4"	3.2"					3.7"	3.3"	3.1"			
	204"	+/- 10 PSF	424 LB/FT	85 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"
		+/- 20 PSF	924 LB/FT	170 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	5.3"	6.0"	6.0"		6.0"	6.0"	6.0"	6.0"	6.0"
+/- 30 PSF		1423 LB/FT	255 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"		6.0"	6.0"		6.0"	6.0"	6.0"	6.0"	6.0"	
+/- 40 PSF		1923 LB/FT	340 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"		5.1"	4.8"		6.0"	6.0"	6.0"	5.9"	4.6"	
+/- 50 PSF		2423 LB/FT	425 LB/FT	6.0"	6.0"	6.0"	5.6"	6.0"	6.0"		4.1"	3.9"		6.0"	5.6"	5.4"	4.7"	3.6"	
+/- 60 PSF		2922 LB/FT	510 LB/FT	6.0"	5.3"		4.6"	5.3"	5.0"		3.4"			5.3"	4.6"	4.4"	3.9"	3.0"	
+/- 70 PSF		3422 LB/FT	595 LB/FT	6.0"	4.5"		3.7"	4.6"	4.3"					4.6"	4.0"	3.8"	3.3"	2.6"	
+/- 80 PSF		3922 LB/FT	680 LB/FT	6.0"	3.7"		3.2"	3.6"	3.4"					4.0"	3.5"	3.3"		2.3"	
+/- 85.4 PSF		4192 LB/FT	726 LB/FT		3.4"		3.4"	3.4"	3.2"					3.7"	3.2"	3.1"			
216"	+/- 10 PSF	477 LB/FT	90 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	
	+/- 20 PSF	1022 LB/FT	180 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	4.8"	6.0"	6.0"		6.0"	6.0"	6.0"	6.0"	6.0"	
	+/- 30 PSF	1566 LB/FT	270 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"		6.0"	6.0"		6.0"	6.0"	6.0"	6.0"	5.7"	
	+/- 40 PSF	2111 LB/FT	360 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"		4.7"	4.4"		6.0"	6.0"	6.0"	5.4"	4.2"	
	+/- 50 PSF	2656 LB/FT	450 LB/FT	6.0"	5.9"	6.0"	5.1"	5.9"	5.5"		3.8"			5.9"	5.1"	4.9"	4.3"	3.4"	
	+/- 60 PSF	3200 LB/FT	540 LB/FT	6.0"	4.9"		4.2"	4.9"	4.6"		3.1"			4.9"	4.3"	4.1"	3.6"	2.8"	
	+/- 70 PSF	3745 LB/FT	630 LB/FT	6.0"	4.2"		3.4"	4.2"	3.6"					4.2"	3.6"	3.5"	3.0"	2.4"	
	+/- 79 PSF	4235 LB/FT	711 LB/FT		3.4"		3.4"	3.4"	3.2"					3.7"	3.2"	3.1"			
228"	+/- 10 PSF	530 LB/FT	95 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	5.5"	6.0"	6.0"	6.0"	6.0"	6.0"	
	+/- 20 PSF	1121 LB/FT	190 LB/FT	6.0"	6.0"	6.0"	6.0"	6.0"	6.0"	4.4"	6.0"								

RICHARD NEET, P.E.
PE# 86488 CA# 9885

DECEMBER 22, 2023

FL

**ENGINEERING
EXPRESS®**

POSTAL ADDRESS:

2234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

QUALITAS MANUFACTURING INC. (QMI)

661 GLENLAKE AVE
ITASCA, IL 60143

PHONE: (866) 980-1750

QCOMPACT3 - AL8 ROLL-UP HURRICANE SHUTTER
TRAP MOUNT & ATTACHMENT TO MULLIONS
FBC EIGHTH EDITION (2023) | MIAMI-DADE NOA

[illegible]

COPYRIGHT ENGINEERING EXPRESS®

23-60253

SCALE: NTS UNLESS NOTED

12 19

1. VALUES SHOWN IN MULLION SCHEDULES ARE MAXIMUM ALLOWABLE MULLION LENGTHS AT EACH RESPECTIVE SLAT SPAN AND DESIGN PRESSURE.
2. "INTERMEDIATE MULLIONS" ARE AS DEFINED IN ELEVATION 2/3.
3. "END MULLIONS" ARE AS DEFINED IN ELEVATION 2/3
4. ALL MULLIONS SHALL BE 6061-T6 ALUMINUM OR EQUIVALENT.
5. ALLOWABLE DESIGN PRESSURES AND SLAT SPANS INDICATED ARE FOR DETERMINING PERMISSIBLE MULLION LENGTHS ONLY. ACTUAL SLAT SPANS AND DESIGN PRESSURES SHALL NOT EXCEED THOSE INDICATED IN SPAN SCHEDULES.
6. "END REACTIONS" ARE LISTED FOR EACH COMBINATION OF DESIGN LOAD, MULLION TYPE, SLAT TYPE (OPEN OR CLOSED) & SLAT SPAN. CHOOSE MOUNTING CONNECTIONS (PER APPLICABLE CONNECTION DETAILS HEREIN) THAT PROVIDES "CONNECTION CAPACITY" GREATER THAN OR EQUAL TO "END REACTIONS" GIVEN ABOVE.
7. "INTERMEDIATE MULLIONS" SHALL HAVE EQUAL SLAT SPANS (+/- 12") ON ADJACENT SIDES OF MULLION. OTHERWISE, USE "END MULLION" TABLES.

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 23-1010.07
Expiration Date 08/25/2027
By Hef A. Miller
Miami Dade Product Control

RICHARD NEET, P.E.
PE# 86488 CA# 9885

DECEMBER 22, 2023

FL

**ENGINEERING
EXPRESS®**

POSTAL ADDRESS:
2234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

1661 GLENLAKE AVE
ITASCA, IL 60143

PHONE: (866) 980-1750

PHONE: (866) 980-1750

QCOMPACT3 - AL8 ROLL-UP HURRICANE SHUTTER
TRAP MOUNT & ATTACHMENT TO MULLIONS
FBC EIGHTH EDITION (2023) | MIAMI-DADE NOA

[illegible]

SCALE: NTS UNLESS NOTED

13

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 23-1010.07
Expiration Date 07/25/2027
By Hedy A. Miller
Miami-Dade Product Control

RICHARD NEET, P.E.
PE# 86488 CA# 9885

DECEMBER 22, 2023

~~FL~~

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 2371010.07
Expiration Date 08/25/2027
By *Helga A. Mohr*
Miami Dade Product Control

PRODUCT REVISED
as complying with the

Building Code 23+1010.07
Acceptance No 08/25/202
Expiration Date

By Heidi A. M. M.
Miami Dade Product Control



POSTAL ADDRESS:
22234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

QUALITAS MANUFACTURING INC. (QMI)
1664 CLEMENT AVE

1661 GLENLAKE AVE
ITASCA, IL 60143

PHONE: (866) 980-1750

- AL8 ROLL-UP HURRICAN

QCOMPACT3 - AL8 ROLL-UP HURRICANE SHUTTER
TRAP MOUNT & ATTACHMENT TO MULLIONS
FBC EIGHTH EDITION (2023) | MIAMI-DADE NOA

[illegible]

COPYRIGHT ENGINEERING EXPRESS®

23-60253

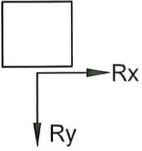
SCALE: NTS UNLESS NOTED

14

F
19

c:\users\milton\engineering\express\production - documents\projects\23-123-60253 2023 noa product update fl 22-0727.09\work\2023 fbc docs for review\23-60253c noa dwg.dwg 12/22/2023 8:52 AM MILTON

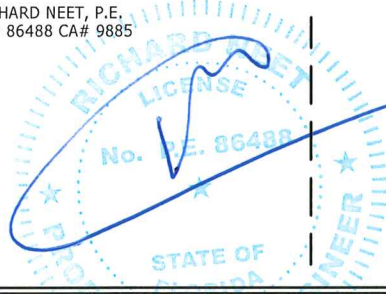
MULLION
SCHEDULE:
END
MULLIONS



END MULLION SCHEDULES

RICHARD NEET, P.E.
PE# 86488 CA# 9885

DECEMBER 22, 2023



FL

SLAT SPAN	DESIGN PRESSURE	4"x4"x0.1875" ALUM TUBE				4"x4"x0.25" ALUM TUBE				4"x6"x0.25" ALUM TUBE				4"x8"x0.25" ALUM TUBE			
		MAX MULLION LENGTH	END REACTION Rv	END REACTION Ri	END REACTION Rsum	MAX MULLION LENGTH	END REACTION Rv	END REACTION Ri	END REACTION Rsum	MAX MULLION LENGTH	END REACTION Rv	END REACTION Ri	END REACTION Rsum	MAX MULLION LENGTH	END REACTION Rv	END REACTION Ri	END REACTION Rsum
48"	+/- 40 PSF	144"	6 LB	480 LB	480 LB	144"	6 LB	480 LB	480 LB	144"	6 LB	480 LB	480 LB	144"	6 LB	480 LB	480 LB
	+/- 50 PSF	144"	6 LB	600 LB	600 LB	144"	6 LB	600 LB	600 LB	144"	6 LB	600 LB	600 LB	144"	6 LB	600 LB	600 LB
	+/- 60 PSF	144"	6 LB	720 LB	720 LB	144"	6 LB	720 LB	720 LB	144"	6 LB	720 LB	720 LB	144"	6 LB	720 LB	720 LB
	+/- 70 PSF	137"	6 LB	798 LB	798 LB	144"	6 LB	840 LB	840 LB	144"	6 LB	840 LB	840 LB	144"	6 LB	840 LB	840 LB
	+/- 80 PSF	131"	5 LB	873 LB	873 LB	142"	6 LB	946 LB	946 LB	144"	6 LB	960 LB	960 LB	144"	6 LB	960 LB	960 LB
	+/- 90 PSF	126"	5 LB	944 LB	944 LB	136"	6 LB	1023 LB	1023 LB	144"	6 LB	1080 LB	1080 LB	144"	6 LB	1080 LB	1080 LB
	+/- 100 PSF	122"	5 LB	1013 LB	1013 LB	132"	5 LB	1097 LB	1097 LB	144"	6 LB	1200 LB	1200 LB	144"	6 LB	1200 LB	1200 LB
	+/- 110 PSF	118"	5 LB	1079 LB	1079 LB	128"	5 LB	1169 LB	1169 LB	143"	6 LB	1308 LB	1308 LB	144"	6 LB	1320 LB	1320 LB
	+/- 120 PSF	114"	5 LB	1144 LB	1144 LB	124"	5 LB	1239 LB	1239 LB	139"	6 LB	1386 LB	1386 LB	144"	6 LB	1440 LB	1440 LB
	+/- 130 PSF	111"	5 LB	1206 LB	1206 LB	121"	5 LB	1307 LB	1307 LB	135"	6 LB	1462 LB	1462 LB	144"	6 LB	1560 LB	1560 LB
	+/- 140 PSF	109"	5 LB	1267 LB	1267 LB	118"	5 LB	1373 LB	1373 LB	132"	5 LB	1536 LB	1536 LB	143"	6 LB	1670 LB	1670 LB
	+/- 190 PSF	98"	4 LB	1553 LB	1553 LB	106"	4 LB	1683 LB	1683 LB	119"	5 LB	1882 LB	1882 LB	129"	5 LB	2047 LB	2047 LB
60"	+/- 246.7 PSF	90"	197 LB	1849 LB	1859 LB	97"	213 LB	2003 LB	2015 LB	109"	239 LB	2240 LB	2253 LB	118"	259 LB	2436 LB	2450 LB
	+/- 40 PSF	144"	6 LB	600 LB	600 LB	144"	6 LB	600 LB	600 LB	144"	6 LB	600 LB	600 LB	144"	6 LB	600 LB	600 LB
	+/- 50 PSF	142"	6 LB	740 LB	740 LB	144"	6 LB	750 LB	750 LB	144"	6 LB	750 LB	750 LB	144"	6 LB	750 LB	750 LB
	+/- 60 PSF	134"	6 LB	836 LB	836 LB	144"	6 LB	900 LB	900 LB	144"	6 LB	900 LB	900 LB	144"	6 LB	900 LB	900 LB
	+/- 70 PSF	127"	5 LB	926 LB	926 LB	138"	6 LB	1004 LB	1004 LB	144"	6 LB	1050 LB	1050 LB	144"	6 LB	1050 LB	1050 LB
	+/- 80 PSF	122"	5 LB	1013 LB	1013 LB	132"	5 LB	1097 LB	1097 LB	144"	6 LB	1200 LB	1200 LB	144"	6 LB	1200 LB	1200 LB
	+/- 90 PSF	117"	5 LB	1095 LB	1095 LB	127"	5 LB	1187 LB	1187 LB	142"	6 LB	1327 LB	1327 LB	144"	6 LB	1350 LB	1350 LB
	+/- 100 PSF	113"	5 LB	1175 LB	1175 LB	122"	5 LB	1273 LB	1273 LB	137"	6 LB	1424 LB	1424 LB	144"	6 LB	1500 LB	1500 LB
	+/- 110 PSF	109"	40 LB	1252 LB	1253 LB	118"	43 LB	1357 LB	1358 LB	132"	48 LB	1517 LB	1518 LB	144"	53 LB	1650 LB	1651 LB
	+/- 120 PSF	106"	385 LB	1327 LB	1382 LB	115"	418 LB	1438 LB	1497 LB	129"	467 LB	1608 LB	1674 LB	140"	508 LB	1748 LB	1820 LB
	+/- 130 PSF	103"	713 LB	1400 LB	1571 LB	112"	772 LB	1517 LB	1702 LB	125"	863 LB	1696 LB	1903 LB	136"	939 LB	1844 LB	2069 LB
	+/- 140 PSF	101"	1024 LB	1471 LB	1792 LB	109"	1110 LB	1593 LB	1942 LB	122"	1241 LB	1782 LB	2172 LB	133"	1349 LB	1937 LB	2361 LB
72"	+/- 170 PSF	85"	1691 LB	1501 LB	2261 LB	96"	1907 LB	1693 LB	2550 LB	115"	2285 LB	2028 LB	3055 LB	125"	2484 LB	2205 LB	3322 LB
	+/- 214.3 PSF	69"	2376 LB	1542 LB	2832 LB	78"	2680 LB	1739 LB	3195 LB	96"	3310 LB	2147 LB	3945 LB	112"	3855 LB	2501 LB	4595 LB
	+/- 40 PSF	144"	6 LB	720 LB	720 LB	144"	6 LB	720 LB	720 LB	144"	6 LB	720 LB	720 LB	144"	6 LB	720 LB	720 LB
	+/- 50 PSF	134"	6 LB	836 LB	836 LB	144"	6 LB	900 LB	900 LB	144"	6 LB	900 LB	900 LB	144"	6 LB	900 LB	900 LB
	+/- 60 PSF	126"	130 LB	944 LB	953 LB	136"	141 LB	1023 LB	1033 LB	144"	149 LB	1080 LB	1090 LB	144"	149 LB	1080 LB	1090 LB
	+/- 70 PSF	120"	639 LB	1046 LB	1226 LB	130"	692 LB	1134 LB	1328 LB	144"	769 LB	1260 LB	1476 LB	144"	769 LB	1260 LB	1476 LB
	+/- 80 PSF	114"	1104 LB	1144 LB	1589 LB	124"	1196 LB	1239 LB	1722 LB	139"	1337 LB	1386 LB	1926 LB	144"	1390 LB	1440 LB	2001 LB
	+/- 90 PSF	102"	1428 LB	1151 LB	1834 LB	111"	1548 LB	1247 LB	1988 LB	133"	1860 LB	1499 LB	2389 LB	144"	2010 LB	1620 LB	2582 LB
	+/- 100 PSF	94"	1709 LB	1169 LB	2071 LB	101"	1852 LB	1267 LB	2244 LB	129"	2350 LB	1608 LB	2847 LB	140"	2555 LB	1748 LB	3096 LB
	+/- 110 PSF	86"	1948 LB	1187 LB	2281 LB	94"	2132 LB	1299 LB	2497 LB	120"	2709 LB	1650 LB	3172 LB	135"	3059 LB	1863 LB	3581 LB
	+/- 120 PSF	80"	2161 LB	1206 LB	2474 LB	89"	2396 LB	1337 LB	2743 LB	111"	2997 LB	1672 LB	3432 LB	130"	3482 LB	1943 LB	3987 LB
	+/- 130 PSF	76"	2355 LB	1227 LB	2656 LB	85"	2645 LB	1378 LB	2983 LB	105"	3262 LB	1699 LB	3678 LB	121"	3784 LB	1972 LB	4267 LB
84"	+/- 140 PSF	71"	2536 LB	1250 LB	2828 LB	81"	2861 LB	1410 LB	3190 LB	99"	3507 LB	1729 LB	3911 LB	115"	4066 LB	2004 LB	4533 LB
	+/- 160 PSF	65"	2866 LB	1299 LB	3146 LB	73"	3232 LB	1465 LB	3549 LB	90"	3955 LB	1793 LB	4342 LB	104"	4578 LB	2075 LB	5026 LB
	+/- 213.3 PSF	54"	3604 LB	1432 LB	3878 LB	61"	4065 LB	1616 LB	4374 LB	74"	4958 LB	1971 LB	5336 LB	85"	5728 LB	2277 LB	6164 LB
	+/- 40 PSF	137"	476 LB	798 LB	929 LB	144"	501 LB	840 LB	978 LB	144"	501 LB	840 LB	978 LB	144"	501 LB	840 LB	978 LB
	+/- 50 PSF	119"	1060 LB	866 LB	1369 LB	129"	1148 LB	939 LB	1483 LB	144"	1285 LB	1050 LB	1659 LB	144"	1285 LB	1050 LB	1659 LB
	+/- 60 PSF	101"	1456 LB	887 LB	1705 LB	110"	1578 LB	961 LB	1847 LB	144"	2069 LB	1260 LB	2422 LB	144"	2069 LB	1260 LB	2422 LB
	+/- 70 PSF	91"	1804 LB	929 LB	2029 LB	99"	1955 LB	1007 LB	2199 LB	131"	2604 LB	1342 LB	2929 LB	144"	2853 LB	1470 LB	3209 LB
	+/- 80 PSF	84"	2121 LB	980 LB	2336 LB	91"	2298 LB	1062 LB	2531 LB	118"	2985 LB	1379 LB	3288 LB	137"	3456 LB	1597 LB	3807 LB
	+/- 90 PSF	79"	2412 LB	1031 LB	2623 LB	85"	2617 LB	1119 LB	2847 LB	108"	3324 LB	1421 LB	3615 LB	125"	3844 LB	1644 LB	4181 LB
	+/- 100 PSF	73"	2640 LB	1065 LB	2846 LB	81"	2918 LB	1177 LB	3147 LB	101"	3633 LB	1466 LB	3917 LB	116"	4198 LB	1694 LB	4527 LB
	+/- 110 PSF	69"	2849 LB	1099 LB	3054 LB	77"	3205 LB	1236 LB	3435 LB	94"	3918 LB	1511 LB	4199 LB	109"	4524 LB	1745 LB	4849 LB
	+/- 120 PSF	65"	3045 LB	1133 LB	3249 LB	73"	3435 LB	1278 LB	3665 LB	89"	4184 LB	1557 LB	4464 LB	103"	4828 LB	1797 LB	5152 LB
96"	+/- 130 PSF	62"	3229 LB	1167 LB	3434 LB	69"	3643 LB	1316 LB	3873 LB	84"	4434 LB	1602 LB	4714 LB	97"	5115 LB	1848 LB	5439 LB
	+/- 140 PSF	59"	3404 LB	1200 LB	3609 LB	66"	3839 LB	1353 LB	4071 LB	81"	4671 LB	1646 LB	4952 LB	93"	5387 LB	1899 LB	5711 LB
	+/- 150 PSF	56"	3570 LB	1232 LB	3777 LB	64"	4027 LB	1390 LB	4260 LB	77"	4896 LB	1690 LB	5180 LB	89"	5645 LB	1949 LB	5972 LB
	+/- 187.0 PSF	49"	4127 LB	1348 LB	4341 LB	56"	4655 LB	1520 LB	4897 LB	68"	5654 LB	1846 LB	5948 LB	78"	6514 LB	2127 LB	6852 LB
	+/- 30 PSF	136"	809 LB	680 LB	1057 LB	144"	856 LB	720 LB	1119 LB	144"	856 LB	720 LB	1119 LB	144"	856 LB	720 LB	1119 LB
	+/- 40 PSF	106"	1335 LB	706 LB	1510 LB	115"	1447 LB	765 LB	1636 LB	144"	1816 LB	960 LB	2054 LB	144"	1816 LB	960 LB	2054 LB
	+/- 50 PSF	92"	1771 LB	766 LB	1930 LB	100"	1920 LB	830 LB	2091 LB	136"	2631 LB	1137 LB	2866 LB	144"	2776 LB	1200 LB	3025 LB
	+/- 60 PSF	83"	2159 LB	832 LB	2314 LB	90"	2340 LB	902 LB	2508 LB	119"	3095 LB	1193 LB	3317 LB	138"	3574 LB	1377 LB	3830 LB
	+/- 70 PSF	77"	2515 LB	900 LB	2671 LB	84"	2725 LB	975 LB	2894 LB	107"	3499 LB	1252 LB	3716 LB	124"	4036 LB	1444 LB	4287 LB
	+/- 80 PSF	72"	2817 LB	956 LB	2974 LB	79"	3085 LB	1047 LB	3258 LB	98"	3862 LB	1311 LB	4078 LB	113"	4452 LB	1511 LB	4701 LB
	+/- 90 PSF	67"	3061 LB	999 LB	3220 LB	75"	3425 LB	1118 LB	3603 LB	91"	4194 LB	1369 LB	4412 LB	105"	4832 LB	1577 LB	5082 LB
	+/- 100 PSF	62"	3288 LB	1041 LB	3449 LB	70"	3708 LB	1175 LB	3890 LB	86"	4501 LB	1426 LB	4722 LB	99"	5184 LB	1642 LB	5438 LB
	+/- 110 PSF	59"	3500 LB	1082 LB	3663 LB	67"	3948 LB	1221 LB	4132 LB	81"	4789 LB	1481 LB	5013 LB	93"	5514 LB	1705 LB	5772 LB
	+/- 120 PSF	56"	3700 LB	1122 LB	3866 LB	63"	4173 LB	1266 LB	4361 LB	77"	5061 LB	1535 LB	5289 LB	88"	5825 LB	1767 LB	6087 LB
	+/- 130 PSF	54"	3890 LB	1161 LB	4059 LB	60"	4387 LB	1309 LB	4579 LB	73"	5319 LB	1587 LB	5551 LB	84"	6121 LB	1826 LB	6388 LB
	+/- 140 PSF	51"	4071 LB	1198 LB	4243 LB	58"	4592 LB	1351 LB	4786 LB	70"	5565 LB	1638 LB	5801 LB	81"	6403 LB	1885 LB	6675 LB
	+/- 171.0 PSF	46"	4587 LB	1308 LB	4770 LB	52"	5174 LB	1475 LB	5380 LB	63"	6267 LB	1787 LB	6517 LB	72"	7208 LB	2055 LB	7495 LB

QUALITAS MANUFACTURING INC. (QMI)
1661 GLENLAKE AVE
ITASCA, IL 60143
PHONE: (866) 980-1750

POSTAL ADDRESS:
2234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

QUALITAS MANUFACTURING INC. (QMI)

1661 GLENLAKE AVE
ITASCA, IL 60143

PHONE: (866) 980-1750

COMPACT3 - AL8 ROLL-UP HURRICANE SHUTTER
TRAP MOUNT & ATTACHMENT TO MULLIONS
FBC EIGHTH EDITION (2023) | MIAMI-DADE NOA

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 23-1010.07
Expiration Date 08



A diagram of a rectangular block. From the bottom-left corner of the block, two arrows originate: one pointing horizontally to the right labeled R_x , and one pointing vertically downwards labeled R_y .

END MULLION SCHEDULES

RICHARD NEET, P.E.
PE# 86488 CA# 9885

DECEMBER 22, 2023

FL

FL

		4"x4"x0.1875" ALUM TUBE				4"x4"x0.25" ALUM TUBE				4"x6"x0.25" ALUM TUBE				4"x8"x0.25" ALUM TUBE			
SLAT SPAN	DESIGN PRESSURE	MAX MULLION LENGTH	END REACTION Rv	END REACTION Rt	END REACTION Rsum	MAX MULLION LENGTH	END REACTION Rv	END REACTION Rt	END REACTION Rsum	MAX MULLION LENGTH	END REACTION Rv	END REACTION Rt	END REACTION Rsum	MAX MULLION LENGTH	END REACTION Rv	END REACTION Rt	END REACTION Rsum
108"	+/- 30 PSF	105"	1346 LB	593 LB	1471 LB	114"	1459 LB	642 LB	1594 LB	144"	1840 LB	810 LB	2010 LB	144"	1840 LB	810 LB	2010 LB
	+/- 40 PSF	90"	1860 LB	672 LB	1978 LB	97"	2016 LB	729 LB	2143 LB	134"	2787 LB	1008 LB	2964 LB	144"	2987 LB	1080 LB	3177 LB
	+/- 50 PSF	80"	2310 LB	754 LB	2430 LB	87"	2503 LB	817 LB	2633 LB	115"	3315 LB	1082 LB	3487 LB	133"	3819 LB	1247 LB	4018 LB
	+/- 60 PSF	74"	2720 LB	834 LB	2845 LB	80"	2947 LB	904 LB	3083 LB	103"	3771 LB	1156 LB	3944 LB	118"	4341 LB	1331 LB	4540 LB
	+/- 70 PSF	68"	3055 LB	898 LB	3185 LB	75"	3360 LB	988 LB	3502 LB	94"	4177 LB	1228 LB	4354 LB	108"	4806 LB	1413 LB	5009 LB
	+/- 80 PSF	63"	3328 LB	949 LB	3461 LB	71"	3749 LB	1069 LB	3898 LB	86"	4547 LB	1296 LB	4728 LB	99"	5230 LB	1491 LB	5438 LB
	+/- 90 PSF	59"	3580 LB	997 LB	3717 LB	67"	4039 LB	1125 LB	4192 LB	81"	4890 LB	1362 LB	5076 LB	93"	5622 LB	1566 LB	5836 LB
	+/- 100 PSF	56"	3816 LB	1044 LB	3956 LB	63"	4305 LB	1177 LB	4463 LB	76"	5210 LB	1425 LB	5401 LB	87"	5989 LB	1638 LB	6209 LB
	+/- 110 PSF	53"	4038 LB	1088 LB	4182 LB	60"	4555 LB	1228 LB	4717 LB	72"	5512 LB	1485 LB	5708 LB	83"	6335 LB	1707 LB	6561 LB
	+/- 120 PSF	50"	4249 LB	1131 LB	4397 LB	57"	4792 LB	1276 LB	4959 LB	69"	5797 LB	1544 LB	5999 LB	79"	6663 LB	1774 LB	6895 LB
	+/- 130 PSF	48"	4449 LB	1173 LB	4601 LB	54"	5018 LB	1323 LB	5190 LB	66"	6070 LB	1600 LB	6277 LB	75"	6975 LB	1839 LB	7213 LB
120"	+/- 140 PSF	46"	4641 LB	1213 LB	4797 LB	52"	5235 LB	1368 LB	5411 LB	63"	6331 LB	1655 LB	6543 LB	72"	7274 LB	1901 LB	7518 LB
	+/- 160.0 PSF	43"	5003 LB	1290 LB	5166 LB	48"	5643 LB	1455 LB	5827 LB	59"	6823 LB	1759 LB	7046 LB	67"	7838 LB	2021 LB	8094 LB
	+/- 30 PSF	92"	1755 LB	577 LB	1847 LB	100"	1901 LB	625 LB	2001 LB	139"	2634 LB	866 LB	2772 LB	144"	2737 LB	900 LB	2881 LB
	+/- 40 PSF	81"	2291 LB	673 LB	2388 LB	88"	2482 LB	730 LB	2587 LB	117"	3328 LB	978 LB	3469 LB	135"	3830 LB	1126 LB	3992 LB
	+/- 50 PSF	73"	2770 LB	765 LB	2874 LB	80"	3001 LB	829 LB	3114 LB	102"	3860 LB	1067 LB	4004 LB	118"	4438 LB	1226 LB	4604 LB
	+/- 60 PSF	67"	3171 LB	843 LB	3281 LB	74"	3479 LB	924 LB	3600 LB	92"	4327 LB	1150 LB	4477 LB	106"	4972 LB	1321 LB	5145 LB
	+/- 70 PSF	62"	3481 LB	900 LB	3596 LB	70"	3926 LB	1015 LB	4055 LB	84"	4748 LB	1228 LB	4904 LB	97"	5455 LB	1411 LB	5634 LB
	+/- 80 PSF	57"	3766 LB	955 LB	3886 LB	65"	4248 LB	1077 LB	4383 LB	78"	5135 LB	1302 LB	5297 LB	90"	5898 LB	1495 LB	6084 LB
	+/- 90 PSF	54"	4031 LB	1007 LB	4155 LB	61"	4547 LB	1136 LB	4687 LB	73"	5495 LB	1372 LB	5663 LB	84"	6310 LB	1576 LB	6504 LB
	+/- 100 PSF	51"	4280 LB	1056 LB	4408 LB	57"	4828 LB	1191 LB	4973 LB	69"	5832 LB	1439 LB	6007 LB	79"	6697 LB	1653 LB	6898 LB
	+/- 110 PSF	48"	4515 LB	1103 LB	4648 LB	54"	5093 LB	1245 LB	5243 LB	66"	6152 LB	1503 LB	6333 LB	75"	7063 LB	1726 LB	7271 LB
132"	+/- 120 PSF	46"	4738 LB	1149 LB	4876 LB	52"	5345 LB	1296 LB	5500 LB	63"	6455 LB	1565 LB	6642 LB	72"	7410 LB	1797 LB	7625 LB
	+/- 130 PSF	44"	4952 LB	1192 LB	5093 LB	50"	5585 LB	1345 LB	5745 LB	60"	6745 LB	1624 LB	6938 LB	69"	7743 LB	1865 LB	7964 LB
	+/- 140 PSF	42"	5156 LB	1235 LB	5302 LB	48"	5816 LB	1393 LB	5980 LB	58"	7023 LB	1682 LB	7221 LB	66"	8061 LB	1930 LB	8289 LB
	+/- 152.0 PSF	41"	5391 LB	1283 LB	5542 LB	46"	6081 LB	1448 LB	6251 LB	55"	7342 LB	1748 LB	7547 LB	63"	8427 LB	2006 LB	8663 LB
	+/- 30 PSF	84"	2101 LB	580 LB	2180 LB	91"	2277 LB	628 LB	2362 LB	126"	3138 LB	866 LB	3255 LB	144"	3587 LB	990 LB	3721 LB
	+/- 40 PSF	75"	2671 LB	686 LB	2758 LB	81"	2894 LB	743 LB	2988 LB	106"	3780 LB	971 LB	3903 LB	122"	4343 LB	1115 LB	4483 LB
	+/- 50 PSF	68"	3177 LB	783 LB	3272 LB	74"	3452 LB	851 LB	3555 LB	93"	4329 LB	1067 LB	4458 LB	107"	4970 LB	1225 LB	5119 LB
	+/- 60 PSF	62"	3535 LB	849 LB	3636 LB	69"	3967 LB	952 LB	4080 LB	84"	4815 LB	1156 LB	4952 LB	96"	5527 LB	1327 LB	5684 LB
	+/- 70 PSF	57"	3861 LB	910 LB	3966 LB	64"	4355 LB	1026 LB	4474 LB	77"	5257 LB	1239 LB	5401 LB	89"	6033 LB	1422 LB	6198 LB
	+/- 80 PSF	53"	4161 LB	967 LB	4272 LB	60"	4693 LB	1091 LB	4819 LB	72"	5664 LB	1317 LB	5815 LB	82"	6500 LB	1511 LB	6673 LB
	+/- 90 PSF	50"	4441 LB	1021 LB	4557 LB	56"	5009 LB	1152 LB	5140 LB	67"	6044 LB	1390 LB	6202 LB	77"	6935 LB	1595 LB	7116 LB
144"	+/- 100 PSF	47"	4704 LB	1073 LB	4825 LB	53"	5306 LB	1210 LB	5443 LB	64"	6402 LB	1460 LB	6566 LB	73"	7345 LB	1675 LB	7533 LB
	+/- 110 PSF	45"	4954 LB	1122 LB	5079 LB	50"	5587 LB	1266 LB	5729 LB	61"	6740 LB	1527 LB	6911 LB	70"	7733 LB	1752 LB	7929 LB
	+/- 120 PSF	43"	5191 LB	1170 LB	5321 LB	48"	5855 LB	1319 LB	6002 LB	58"	7063 LB	1591 LB	7240 LB	66"	8102 LB	1826 LB	8305 LB
	+/- 130 PSF	41"	5418 LB	1215 LB	5553 LB	46"	6111 LB	1371 LB	6263 LB	55"	7371 LB	1653 LB	7554 LB	64"	8455 LB	1896 LB	8665 LB
	+/- 140 PSF	39"	5636 LB	1259 LB	5775 LB	44"	6357 LB	1420 LB	6514 LB	53"	7667 LB	1713 LB	7856 LB	61"	8794 LB	1964 LB	9011 LB
	+/- 145.4 PSF	38"	5750 LB	1282 LB	5891 LB	43"	6486 LB	1446 LB	6645 LB	52"	7822 LB	1744 LB	8014 LB	60"	8972 LB	2000 LB	9192 LB
	+/- 20 PSF	93"	1713 LB	467 LB	1775 LB	101"	1856 LB	506 LB	1924 LB	140"	2571 LB	701 LB	2665 LB	144"	2640 LB	720 LB	2736 LB
	+/- 30 PSF	79"	2412 LB	590 LB	2484 LB	85"	2614 LB	640 LB	2691 LB	115"	3516 LB	861 LB	3620 LB	132"	4037 LB	988 LB	4156 LB
	+/- 40 PSF	70"	3022 LB	703 LB	3102 LB	76"	3274 LB	762 LB	3362 LB	97"	4179 LB	973 LB	4291 LB	112"	4796 LB	1117 LB	4924 LB
	+/- 50 PSF	63"	3492 LB	790 LB	3580 LB	70"	3873 LB	876 LB	3971 LB	86"	4751 LB	1075 LB	4871 LB	99"	5450 LB	1233 LB	5588 LB
	+/- 60 PSF	57"	3868 LB	859 LB	3962 LB	65"	4363 LB	968 LB	4469 LB	78"	5261 LB	1168 LB	5389 LB	89"	6034 LB	1340 LB	6181 LB
+/- 70 PSF	53"	4210 LB	922 LB	4310 LB	59"	4749 LB	1040 LB	4862 LB	72"	5726 LB	1254 LB	5862 LB	82"	6567 LB	1439 LB	6722 LB	
+/- 80 PSF	49"	4527 LB	982 LB	4632 LB	55"	5106 LB	1108 LB	5225 LB	67"	6156 LB	1335 LB	6299 LB	77"	7059 LB	1531 LB	7223 LB	
+/- 90 PSF	46"	4823 LB	1038 LB	4934 LB	52"	5440 LB	1171 LB	5565 LB	63"	6557 LB	1412 LB	6708 LB	72"	7519 LB	1619 LB	7691 LB	
+/- 100 PSF	44"	5102 LB	1092 LB	5217 LB	49"	5755 LB	1232 LB	5885 LB	59"	6936 LB	1484 LB	7093 LB	68"	7952 LB	1702 LB	8132 LB	
+/- 110 PSF	42"	5366 LB	1143 LB	5487 LB	47"	6053 LB	1289 LB	6189 LB	56"	7295 LB	1554 LB	7458 LB	65"	8363 LB	1781 LB	8551 LB	
+/- 120 PSF	40"	5618 LB	1192 LB	5743 LB	45"	6337 LB	1344 LB	6478 LB	54"	7637 LB	1620 LB	7807 LB	62"	8755 LB	1857 LB	8950 LB	
+/- 130 PSF	38"	5859 LB	1239 LB	5989 LB	43"	6609 LB	1397 LB	6755 LB	52"	7964 LB	1684 LB	8140 LB	59"	9130 LB	1930 LB	9332 LB	
+/- 140.0 PSF	37"	6091"	1284"	6225"	41"	6871 LB	1448 LB	7021 LB	50"	8279 LB	1745 LB	8461 LB	57"	9490 LB	2000 LB	9699 LB	

1661 GLENLAKE AVE
ITASCA, IL 60143
PHONE: (866) 980-1750

[illegible]

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 23-1010.07
Expiration Date 08/25/2027
By H. A. Matr
Miami Dade Product Control

23-60253

SCALE: NTS UNLESS NOTED

16

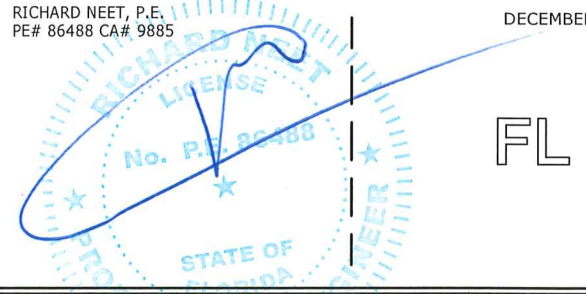
OF 19



A diagram showing a square object with a coordinate system. The horizontal axis is labeled R_x and the vertical axis is labeled R_y .

RICHARD NEET, P.E.
PE# 86488 CA# 9885

DECEMBER 22, 2023



PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 23-1010.07
Expiration Date 08/25/2027
By H. G. A. Miller
Miami Date Product Control



POSTAL ADDRESS:
2234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

QUALITAS MANUFACTURING INC. (QMI)

1661 GLENLAKE AVE
ITASCA, IL 60143

PHONE: (866) 980-1750

PHONE: (866) 980-1750

REMARKS	DWRN	CHKD	DATE
PREV SUB NOA 22-0727.09	EPR	RWN	08/05/22
2023 FBC UPDATE	EPR	RWN	09/26/23
ADDRESSING MD COMMENTS	MRT	RWN	12/22/23
i	i	i	i
	i	i	i

COPYRIGHT ENGINEERING EXPRESS®

23-60253

SCALE: NTS UNLESS NOTED

17 19

Richard Neet, P.E.
88 CA# 9885

DECEMBER

FL

STATE OF FLORIDA

PROFESSIONAL ENGINEER

80



N.T.S.

ISOMETRIC



N.T.S.

ISOMETRIC



N.T.S.

ISOMETRIC



N.T.S.

ISOMETRIC

ANCHOR TYPE	MINIMUM SPACING	MINIMUM EDGE DISTANCE	CONNECTION DETAIL	CONNECTION CAPACITY	
1/2" DEWALT CONFLX W/ 3-1/2" EMBED TO 3.0KSI MIN CONCRETE	6.0"	3.5"	1A, 1B	Tcap	3534 LB
				Vcap	3441 LB
	4.0"	3.5"	2A, 2B	Tcap	4948 LB
				Vcap	4818 LB
	4.0"	3.5"	3A, 3B	Tcap	9897 LB
				Vcap	9636 LB
3/8" DEWALT CONFLX W/ 3-1/2" EMBED TO 3.0KSI MIN CONCRETE	6.0"	3.75"	1A, 1B	Tcap	3246 LB
				Vcap	3523 LB
	4.0"	3.75"	2A, 2B	Tcap	4869 LB
				Vcap	5285 LB
	4.0"	3.75"	3A, 3B	Tcap	9739 LB
				Vcap	10570 LB
1/2" DEWALT 316SS WEDGE BOLT W/ 2-3/4" EMBED TO 3.0KSI MIN CONCRETE	6.0"	4.5"	1A, 1B	Tcap	1640 LB
				Vcap	2560 LB
	4.0"	4.5"	2A, 2B	Tcap	3280 LB
				Vcap	3584 LB
	4.0"	4.5"	3A, 3B	Tcap	6560 LB
				Vcap	7168 LB
3/8" DEWALT 316SS WEDGE BOLT W/ 3-1/2" EMBED TO 3.0KSI MIN CONCRETE	6.0"	3.0"	1A, 1B	Tcap	1930 LB
				Vcap	828LB
	4.0"	3.0"	2A, 2B	Tcap	3860LB
				Vcap	1656 LB
	4.0"	3.0"	3A, 3B	Tcap	7720 LB
				Vcap	3312 LB
1/2" HILTI KH-EZ W/ 4-1/2" EMBED TO 3.0KSI MIN CONCRETE	6.0"	3.0"	1A, 1B	Tcap	3556 LB
				Vcap	1461LB
	4.0"	3.0"	2A, 2B	Tcap	6234LB
				Vcap	2777 LB
	4.0"	3.0"	3A, 3B	Tcap	12469 LB
				Vcap	5554 LB

TABLE CONTINUES ON NEXT SHEET

1. FOR "TRAPPED MOUNT" CONDITIONS WITH END MULLIONS, 'Rsum' VALUES IN MULLION SCHEDULE SHALL NOT EXCEED MAX 'Vcap' VALUES NOTED IN THIS SCHEDULE.
2. FOR "FACE MOUNT" CONDITIONS WITH END MULLIONS, **Rv/Vcap + Rt/Tcap SHALL BE LESS THAN OR EQUAL TO 1.0**, WHERE 'Rv' AND 'Rt' ARE PER MULLION SCHEDULES, AND 'Tcap' AND 'Vcap' ARE PER THIS SCHEDULE.
3. FOR "TRAPPED MOUNT" CONDITIONS WITH INTERMEDIATE MULLIONS, 'Rt' VALUES IN MULLION SCHEDULES SHALL NOT EXCEED 'Vcap' VALUES NOTED IN THIS SCHEDULE.
4. FOR "FACE MOUNT" CONDITIONS WITH INTERMEDIATE MULLIONS, 'Rt' VALUES IN MULLION SCHEDULES SHALL NOT EXCEED 'Tcap' VALUES NOTED IN THIS SCHEDULE
5. * ANCHORS SHALL PENETRATE THROUGH FACE SHELL INTO GROUTED CELL.
6. ALTERNATE ANCHORS AND OR END CONNECTION CONFIGURATIONS MAY BE DESIGNED/CERTIFIED ON A SITE SPECIFIC BASIS BASED ON THE END LOADINGS LISTED IN THE MULLION SCHEDULES.
7. 1/2" UNC THRU BOLTS MAY BE USED IN LEIU OF $\frac{1}{4}$ " SMS PER THE FOLLOWING DIRECTIVE
 - 7.1. (4) SMS PER SIDE = (2) $\frac{1}{2}$ " UNC THRU BOLTS / (6) SMS PER SIDE = (3) $\frac{1}{4}$ " UNC THRU BOLTS

**ENGINEERING
EXPRESS®**

POSTAL ADDRESS:
2234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

QUALITAS MANUFACTURING INC. (QMI)
1004 CLEVELAND AVE

1661 GLENLAKE AVE
ITASCA, IL 60143
PHONE: (866) 980-1750

PHONE: (866) 980-1750

QCOMPACT3 - AL8 ROLL-UP HURRICANE SHUTTER
TRAP MOUNT & ATTACHMENT TO MULLIONS
FBC EIGHTH EDITION (2023) | MIAMI-DADE NOA

REMARKS	DRWN	CHKD	DATE
PREV. SUB. NO# 22-0727.09	EPR	RWN	08/05/22
2023 FBC UPDATE	EPR	RWN	09/26/23
ADDRESSING MD COMMENTS	MRT	RWN	12/22/23
-	-	-	-
-	-	-	-

COPYRIGHT ENGINEERING EXPRESS®

23-60253

SCALE: NTS UNLESS NOTED

18

19

c:\users\milton\engineering\express\production - documents\projects\23-123-60253 2023 noa product update fl 22-0727.09\work\2023 fbc docs for review\23-60253c noa dwg.dwg 12/22/2023 8:52 AM MILTON

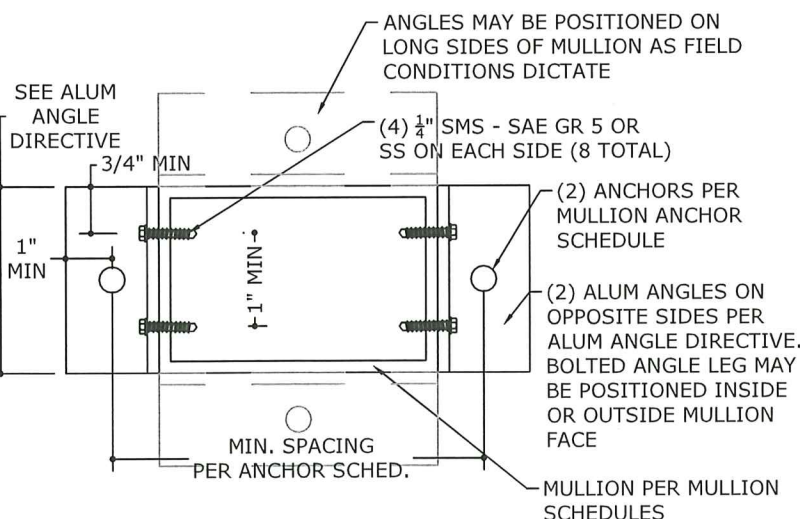
RICHARD NEET, P.E.
PE# 86488 CA# 9885

FL

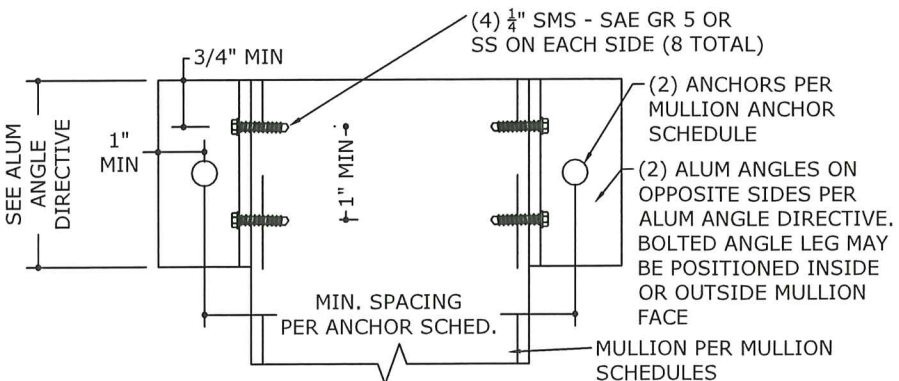
PROFESSIONAL ENGINEER
STATE OF FLORIDA
No. PE-26488

DECEMBER 22, 2023

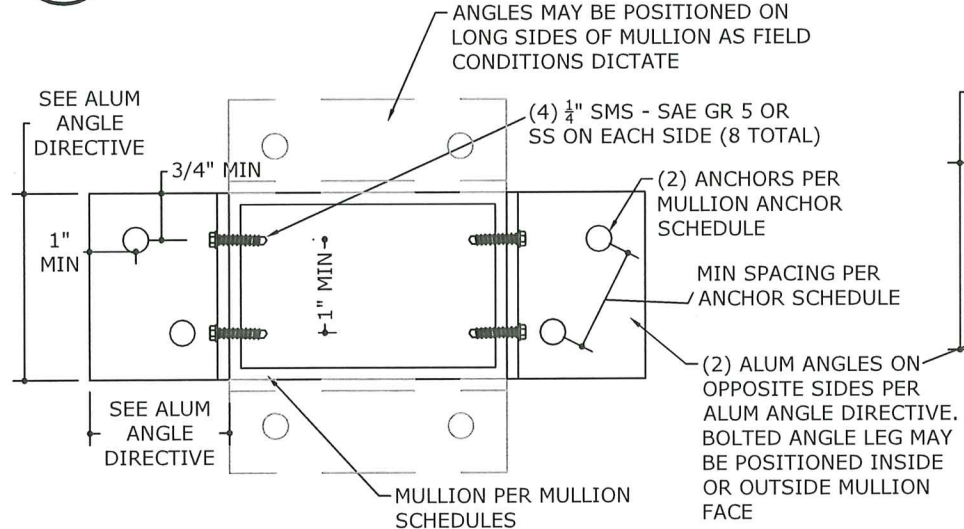
PRODUCT REVISED
as complying with the Florida:
Building Code
Acceptance No. 23-1010.07
Expiration Date 08/25/2027
By *[Signature]*
Miami Door Product Control



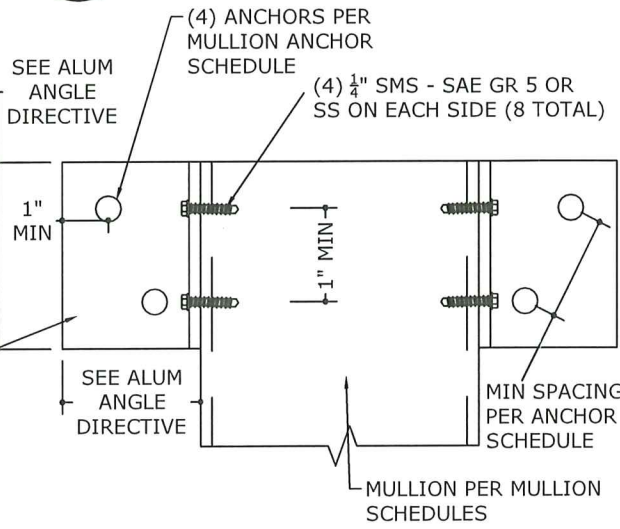
1A TRAPPED MOUNT OPTION 1
19 N.T.S.



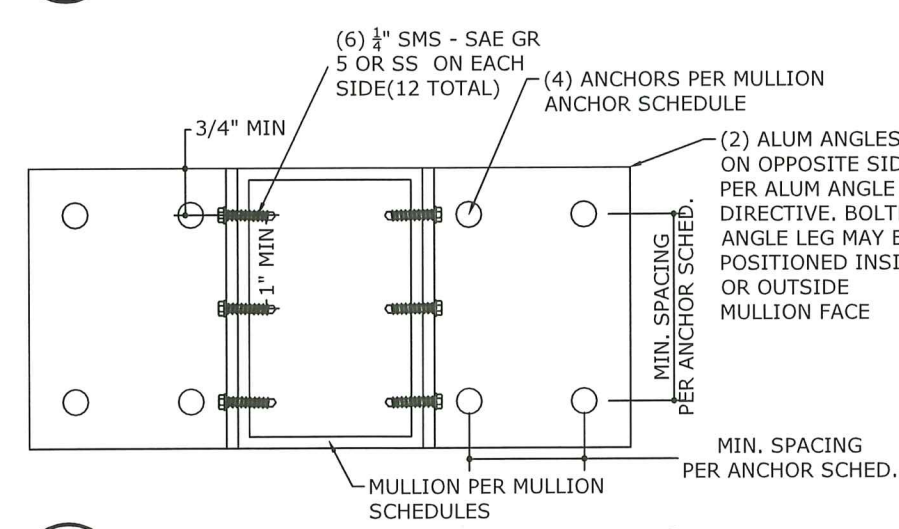
1B FACE MOUNT OPTION 1
19 N.T.S.



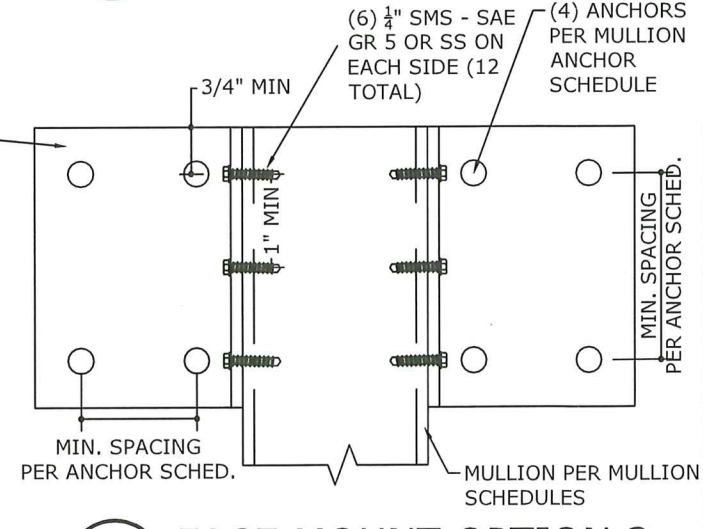
2A TRAPPED MOUNT OPTION 2
19 N.T.S.



2B FACE MOUNT OPTION 2
19 N.T.S.



3A TRAPPED MOUNT OPTION 3
19 N.T.S.

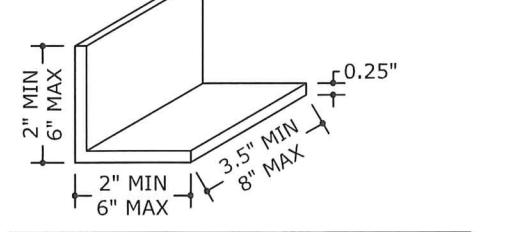


3B FACE MOUNT OPTION 3
19 N.T.S.

MULLION ANCHOR SCHEDULE (CONT'D)

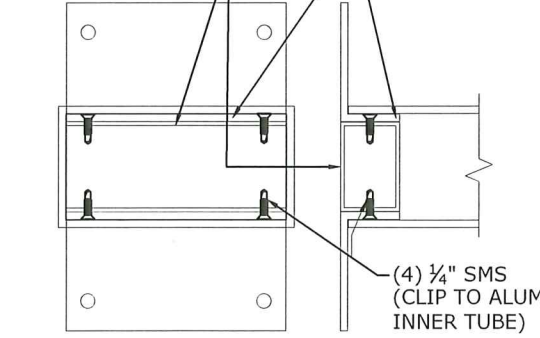
ANCHOR TYPE	MINIMUM SPACING	MINIMUM EDGE DISTANCE	CONNECTION DETAIL	CONNECTION CAPACITY	
1/2" DEWALT SCREW BOLTS (OR EQUIV.) W/ 2-1/2" EMBED TO 3KSI MIN. CONCRETE	6"	4.5"	1A, 1B	Tcap	3660 LB
	4.0"	4.5"	2A, 2B	Vcap	2249 LB
	4.0"	4.5"	3A, 3B	Tcap	6442 LB
3/8" DEWALT SCREW BOLTS (OR EQUIV.) W/ 2" EMBED TO 3KSI MIN. CONCRETE	6.0"	2.5"	1A, 1B	Tcap	4106 LB
	3.0"	2.5"	2A, 2B	Tcap	12883 LB
	3.0"	2.5"	3A, 3B	Vcap	8213 LB
3/8" DEWALT SCREW BOLTS (OR EQUIV.) W/ 3-1/4" EMBED TO GROUT-FILLED CONCRETE BLOCK*	6.0"	4.5"	1A, 1B	Tcap	1905 LB
	3.0"	4.5"	2A, 2B	Vcap	1007 LB
	3.0"	4.5"	3A, 3B	Tcap	3801 LB
5/16" LAG SCREW W/ 2" MIN. THREAD PENETRATION TO G=0.42 MIN WOOD	6.0"	4.5"	1A, 1B	Vcap	1700 LB
	2.0"	1.25"	2A, 2B	Tcap	7622 LB
	2.0"	1.25"	3A, 3B	Vcap	3399 LB
5/16" DEWALT ULTRACON (OR EQUIV.) W/ 2" EMBED TO 3.5KSI MIN CONCRETE	6.0"	4.5"	1A, 1B	Tcap	1953 LB
	3.0"	4.5"	2A, 2B	Vcap	1233 LB
	3.0"	4.5"	3A, 3B	Tcap	3906 LB
5/16" DEWALT ULTRACON (OR EQUIV.) W/ 2-1/4" EMBED TO GROUT-FILLED CONCRETE BLOCK	6.0"	4.5"	1A, 1B	Vcap	2467 LB
	2.0"	1.25"	2A, 2B	Tcap	7812 LB
	2.0"	1.25"	3A, 3B	Vcap	4934 LB
5/16" DEWALT ULTRACON (OR EQUIV.) W/ 2" EMBED TO 3.5KSI MIN CONCRETE	5.0"	3.125"	1A, 1B	Tcap	1310 LB
	3.75"	3.125"	2A, 2B	Vcap	302 LB
	3.75"	3.125"	3A, 3B	Tcap	2620 LB
5/16" DEWALT ULTRACON (OR EQUIV.) W/ 2-1/4" EMBED TO GROUT-FILLED CONCRETE BLOCK	5.0"	3.125"	1A, 1B	Vcap	604 LB
	5.0"	2.5"	2A, 2B	Tcap	3930 LB
	5.0"	2.5"	3A, 3B	Vcap	906 LB
5/16" DEWALT ULTRACON (OR EQUIV.) W/ 2-1/4" EMBED TO GROUT-FILLED CONCRETE BLOCK	5.0"	2.5"	1A, 1B	Tcap	1670 LB
	5.0"	2.5"	2A, 2B	Vcap	1700 LB
	5.0"	2.5"	3A, 3B	Tcap	1820 LB
5/16" DEWALT ULTRACON (OR EQUIV.) W/ 2-1/4" EMBED TO GROUT-FILLED CONCRETE BLOCK	5.0"	2.5"	1A, 1B	Vcap	2840 LB
	5.0"	2.5"	2A, 2B	Tcap	3640 LB
	5.0"	2.5"	3A, 3B	Vcap	5680 LB
5/16" DEWALT ULTRACON (OR EQUIV.) W/ 2-1/4" EMBED TO GROUT-FILLED CONCRETE BLOCK	5.0"	2.5"	1A, 1B	Tcap	580 LB
	5.0"	2.5"	2A, 2B	Vcap	750 LB
	5.0"	2.5"	3A, 3B	Tcap	1160 LB
5/16" DEWALT ULTRACON (OR EQUIV.) W/ 2-1/4" EMBED TO GROUT-FILLED CONCRETE BLOCK	5.0"	2.5"	1A, 1B	Vcap	1500 LB
	5.0"	2.5"	2A, 2B	Tcap	2320 LB
	5.0"	2.5"	3A, 3B	Vcap	3000 LB

ALUM ANGLE DIRECTIVE
N.T.S. 6061-T6 OR 6005-T5 ALUM



ANGLE DIMENSION NOTE: MINIMUM REQUIRED ANGLE LEG SIZES AND LENGTH SHALL BE DETERMINED BASED ON THE ANCHOR REQUIREMENTS IN THE MULLION ANCHOR SCHEDULE AND THE MULLION ATTACHMENT DETAILS HEREIN

PROVIDE 1/8" THICK ALUM INNER TUBE FULL WIDTH OF MULLION
VERTICAL CLIP LEG MAY SIT INSIDE MULLION



4 ALT. TRAPPED MOUNT OPTION
19 N.T.S.

ENGINEERING EXPRESS

QUALITAS MANUFACTURING INC. (QMI)

1661 GLENLAKE AVE
ITASCA, IL 60143
PHONE: (866) 980-1750

23-60253

SCALE: NTS UNLESS NOTED

POSTAL ADDRESS:
2234 NORTH FEDERAL HWY #7664
BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

QCOMPACT3 - AL8 ROLL-UP HURRICANE SHUTTER
TRAP MOUNT & ATTACHMENT TO MULLIONS
FBC EIGHTH EDITION (2023) | MIAMI-DADE NOA

REMARKS	DRWN	CHKD	DATE
PREV. SUB. NOA 22-0727.08	EPR	RWN	08/05/22
2023 FBC UPDATE	EPR	RWN	09/26/23
ADDRESSING MD COMMENTS	MRT	RWN	12/22/23