



MIAMI-DADE COUNTY
 BUILDING CODE COMPLIANCE OFFICE (BCCO)
 PRODUCT CONTROL DIVISION

MIAMI-DADE COUNTY, FLORIDA
 METRO-DADE FLAGLER BUILDING

140 WEST FLAGLER STREET, SUITE 1603
 MIAMI, FLORIDA 33130-1563
 (305) 375-2901 FAX (305) 375-2908

www.miamidade.gov

NOTICE OF ACCEPTANCE (NOA)

Metals USA Building Products LLP
 1221 Lamar, Suite 500
 Houston, TX 77010

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) 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. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division 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: Enforcer 0.050" Aluminum Storm Panels Shutter

APPROVAL DOCUMENT: Drawing No. 05-MEU-0002, titled "Enforcer 0.050" Aluminum Storm Panel", sheets 1 through 3 of 3, prepared by Engineering Express, dated March 09, 2007, last revision dated May 15, 2008, signed and sealed by Frank L. Bennardo, P.E., bearing the Miami-Dade County Product Control Approval stamp with the Notice of Acceptance number and the approval date by the Miami-Dade County Product Control Division.

MISSILE IMPACT RATING: Large and Small Missile Impact

LABELING: Each panel shall bear a permanent label with the manufacturer's name or logo, city, state and the following statement: "Miami-Dade County Product Control Approved", 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 consists of this page 1, evidence submitted page E-1 as well as approval document mentioned above. The submitted documentation was reviewed by **Helmy A. Makar, P.E., M.S.**



Helmy A. Makar
 06/19/2008

NOA No. 07-0320.07
 Expiration Date: 06/19/2013
 Approval Date: 06/19/2008

Metals USA Building Products LLP

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. *Drawing No. 05-MEU-0002, titled " Enforcer 0.050" Aluminum Storm Panel ", sheets 1 through 3 of 3, prepared by Engineering Express, dated March 09, 2007, last revision dated May 15, 2008, signed and sealed by Frank L. Bennardo, P.E.*

B. TESTS

1. *Test reports on Uniform Static Air Pressure Test, Loading per TAS 202-94, of 0.050" aluminum storm panels, prepared by Certified Testing Laboratories, Report Numbers CTLA 1541W, W-1 through W-4, dated July 28, 2006, signed and sealed by Ramesh Patel, P.E.*
2. *Test reports on Large Missile Impact Test, TAS 201-94, and Cyclic Loading Test, per TAS 203-94, of 0.050" aluminum storm panels, prepared by Certified Testing Laboratories, Report Numbers CTLA 1541W-5 through W-10, dated July 28, 2006, signed and sealed by Ramesh Patel, P.E.*
3. *Test reports on Large Missile Impact Test, TAS 201-94 of 0.050" aluminum storm panels, prepared by Certified Testing Laboratories, Report Numbers CTLA 1541W-11, dated July 28, 2006, signed and sealed by Ramesh Patel, P.E.*
4. *Correction to Test reports CTLA 1541W-5, W-6, W-7, W-8, W-9, W-10, & W-11, prepared by Certified Testing Laboratories, dated August 04, 2006, signed and sealed by Ramesh Patel, P.E.*

C. CALCULATIONS

1. *Comparative Analysis and Anchor calculations, dated March 09, 2007, pages 1 through 43, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E.*
2. *Revised calculations for Anchors, dated June 25, 2007, pages 1 through 20, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E.*
3. *Revised calculations for Anchors, dated May 16, 2008, pages 1 through 26, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E.*

D. QUALITY ASSURANCE

1. *By Miami-Dade County Building Code Compliance Office.*

E. MATERIAL CERTIFICATIONS

1. *Certified Tensile Test Report issued by Certified Testing Laboratories, Report Numbers CTLA 1541W, dated July 05, 2006, signed and sealed by Ramesh Patel, P.E.*



Helmy A. Makar, P.E., M.S.

Product Control Examiner

NOA No. 07-0320.07

Expiration Date: 06/19/2013

Approval Date: 06/19/2008

ENFORCER 0.050" ALUMINUM STORM PANEL

FRANK L. BENNARDO, P.E.
PE0046549

05/16/2008

ENGINEERING EXPRESS
160 SW 12th AVENUE, #106
DEERFIELD BEACH, FL 33442
PH: (954) 354-0660 FAX: (954) 354-0443
WWW.ENGEXP.COM
CERT. OF AUTH. #9885
A FRANK L. BENNARDO, P.E., INC. INNOVATION

METALS USA BUILDING PRODUCTS
7815 AMERICAN WAY
GROVELAND, FL 34736
ENFORCER 0.050" ALUMINUM STORM PANELS
HVHZ COMPLIANT
MIAMI-DADE NOTICE OF ACCEPTANCE

REMARKS	DRWN	CHKD	DATE
INIT. ISSUE	KL	CL	03/09/07
REV. PER COMMENTS	KL	CL	06/18/07
REV. PER BCCO COMMENT	KL	CL	05/15/08

05-MEU-0002

SCALE: 101

PAGE DESCRIPTION:

3

1

GENERAL NOTES

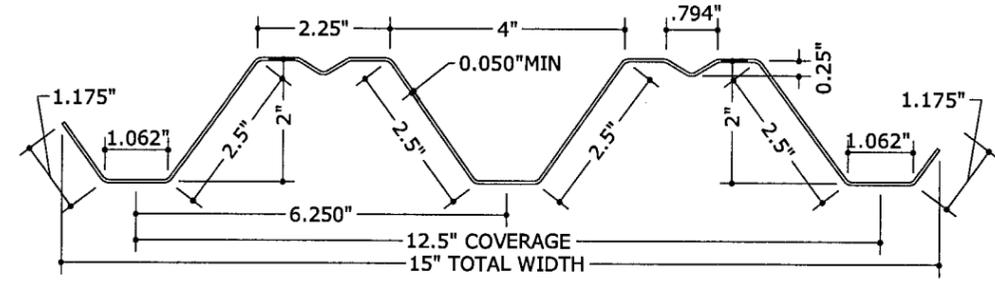
- THE SYSTEM DESCRIBED HEREIN HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE 2004 FLORIDA BUILDING CODE, FOR USE WITHIN THE HIGH VELOCITY HURRICANE ZONE, PER TAS 201, 202 AND 203 TEST PROTOCOLS.
- NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS SYSTEM. WIND LOAD DURATION 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 BY OTHERS ON A JOB-SPECIFIC BASIS IN ACCORDANCE WITH THE GOVERNING CODE.
- 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 AND SUBMIT FOR ONE-TIME NOTICE OF ACCEPTANCE APPROVAL IN CONJUNCTION WITH THIS DOCUMENT.
- PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS.
- ALL ALUMINUM STORM PANELS SHALL HAVE MIN THICKNESS t=0.050" AND SHALL BE 3004-H34 ALLOY WITH MIN. Fy = 23.7 Ksi.
- ALL EXTRUSIONS SHALL BE 6063-T6 ALUMINUM ALLOY, UNLESS NOTED OTHERWISE.
- PANELS SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF ONE LABEL PER PANEL CONTAINING THE FOLLOWING:
METALS USA BLDG PRODUCTS, GROVELAND, FL.
MIAMI-DADE PRODUCT CONTROL APPROVED
- TOP & BOTTOM DETAILS SHOWN MAY BE INTERCHANGED AS FIELD CONDITIONS DICTATE. PANELS MAY BE MOUNTED VERTICALLY OR HORIZONTALLY AS APPLICABLE.
- USE OF KEYHOLE WASHERS IS OPTIONAL IN CONJUNCTION WITH ALL MOUNTING CONDITIONS, EXCEPT THAT DIRECT MOUNT INSTALLATIONS SHALL REQUIRE A KEYHOLE WASHER AT EACH ANCHOR. WASHERED WINGNUTS SHALL HAVE 0.865" MINIMUM WASHER DIAMETER.
- ALL BOLTS & WASHERS SHALL BE ZINC COATED STEEL, GALVANIZED STEEL, OR STAINLESS STEEL WITH A MINIMUM TENSILE YIELD STRENGTH OF 60 KSI.

PANEL SPAN SCHEDULE

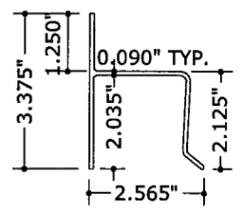
MAX PANEL SPAN	ALLOWABLE PRESSURES
48"	+75 psf / - 95 psf
104"	+55 psf / - 55 psf
132"	+25 psf / - 25 psf

SPAN SCHEDULE NOTES:

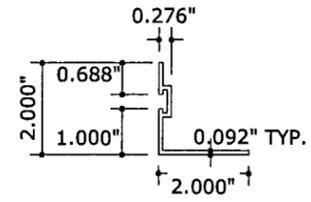
- SPANS SHOWN IN "PANEL SPAN SCHEDULE" ABOVE ARE MAXIMUM ALLOWABLE SPANS AT EACH RESPECTIVE DESIGN PRESSURE. THIS SCHEDULE MAY BE USED FOR ALL PANELS MOUNTED WITH ANY COMBINATION OF EXTRUSIONS OR DIRECTLY TO HOST STRUCTURE.
- TABLES ABOVE ARE VALID FOR PANELS MOUNTED HORIZONTALLY OR VERTICALLY.



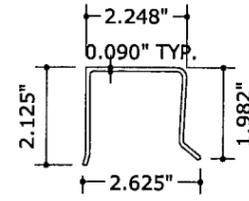
1 ALUMINUM STORM PANEL PROFILE
4" = 1'-0"
SECTION



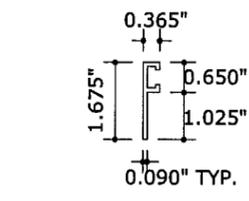
2 H-HEADER
3" = 1'-0"



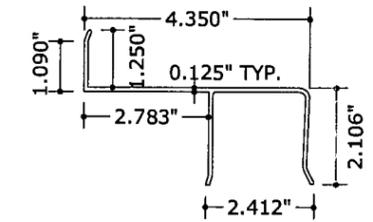
5 REVERSE F-TRACK
3" = 1'-0"



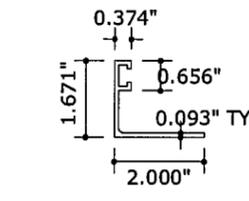
3 U-HEADER
3" = 1'-0"



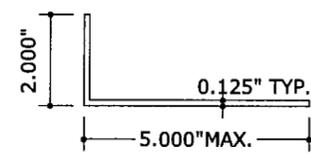
6 STUDLESS FLAT TRACK
3" = 1'-0"



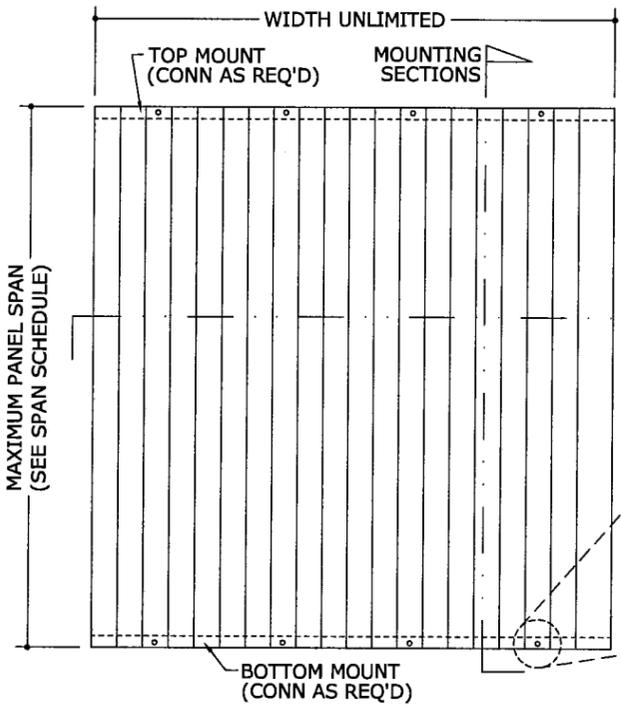
4 BUILDOUT HEADER
3" = 1'-0"



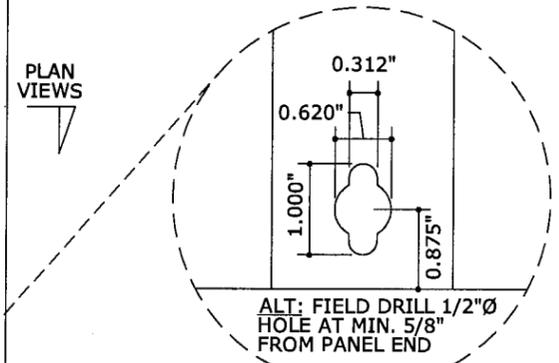
7 STUDLESS ANGLE TRACK
3" = 1'-0"



8 2 x 5 ANGLE
3" = 1'-0"



1 TYPICAL ELEVATION
1 N.T.S.



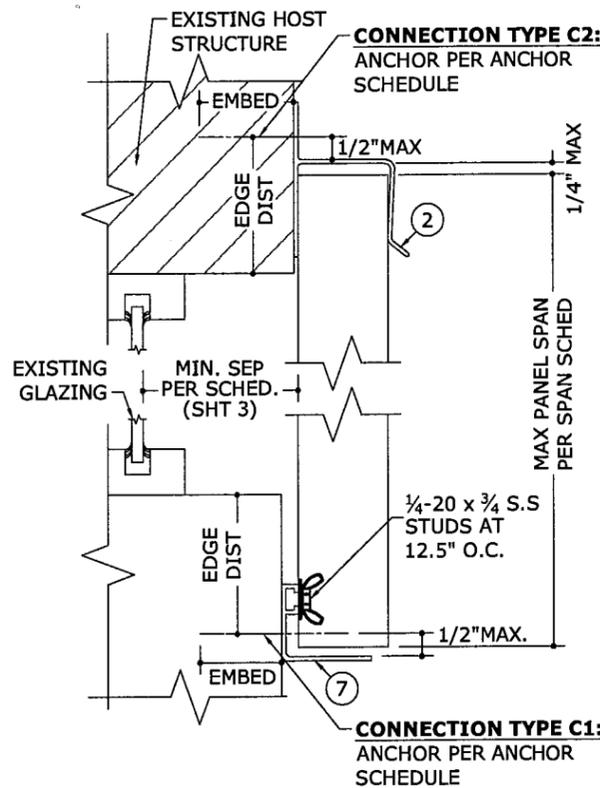
1 KEYHOLE DETAIL
1 N.T.S.

Approved as complying with the Florida Building Code
Date 06/19/2008
NOAH 07-0320-07
Miami Dade Product Control
Division
By *Helmut A. Weber*

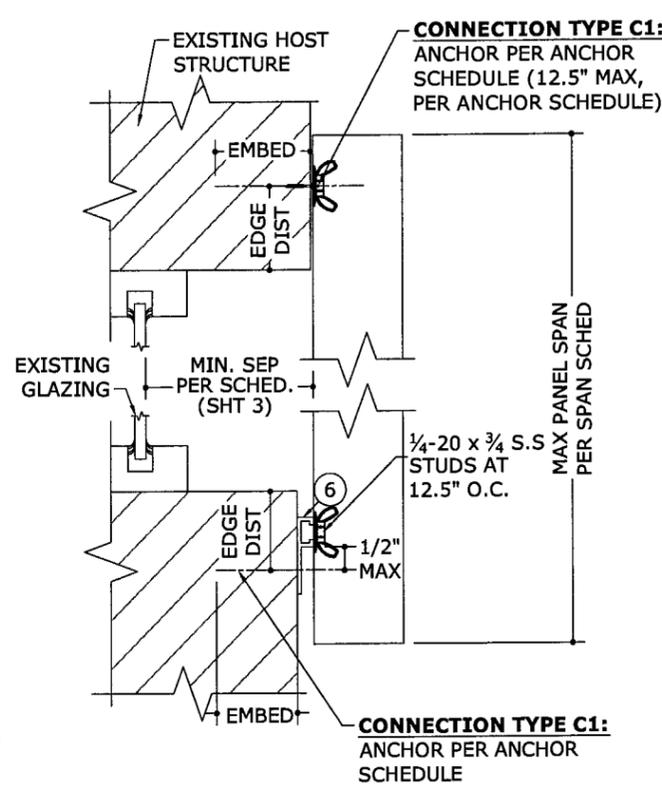
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05/16/2008 - 3:18pm keith

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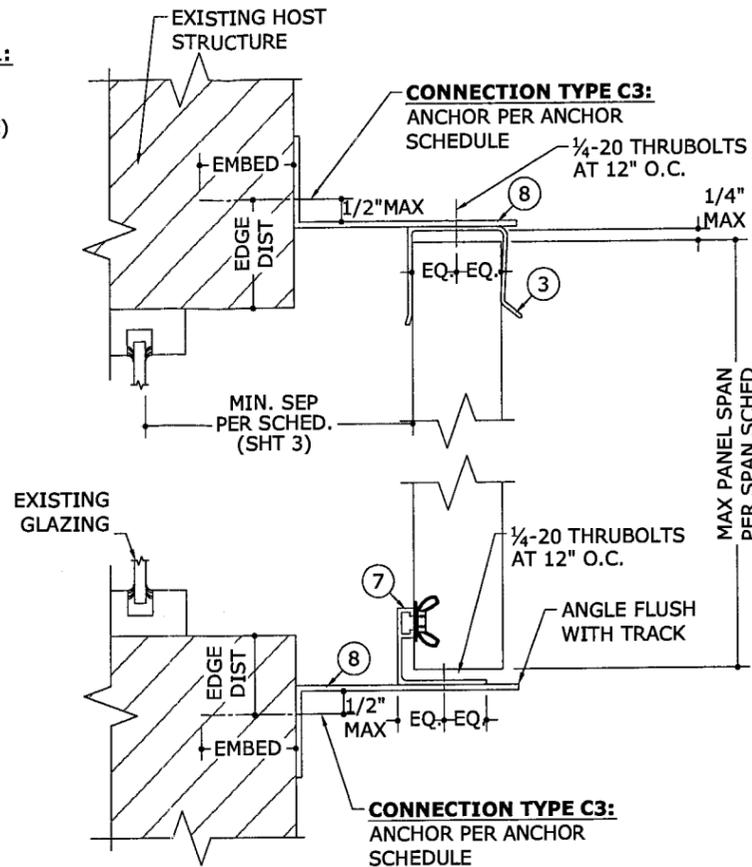
05/16/2008 - 3:18pm keith



1
2 "H" HEADER STUD ANGLE
3" = 1'-0" MOUNTING SECTION



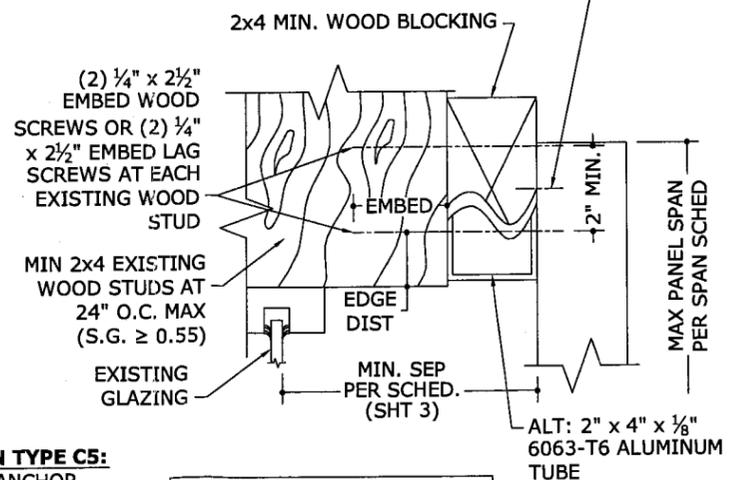
2
2 DIRECT MOUNT F TRACK MOUNT
3" = 1'-0" MOUNTING SECTION



5
2 2x5 + "U" HEADER STUDLESS ANGLE
3" = 1'-0" MOUNTING SECTION

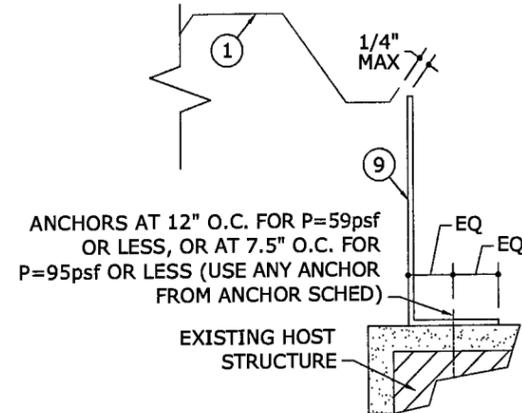
Approved as complying with the Florida Building Code
Date 06/19/2008
NOA# 07-6320-97
Miami Dade Product Control
Division
By Helmut A. Weber

1/4" x 1 1/2" EMBED WOOD SCREWS OR 1/4" x 1 1/2" EMBED LAG SCREWS TO WOOD BLOCKING, OR #14 SMS TO ALUMINUM TUBE @ 6 1/4" O.C.

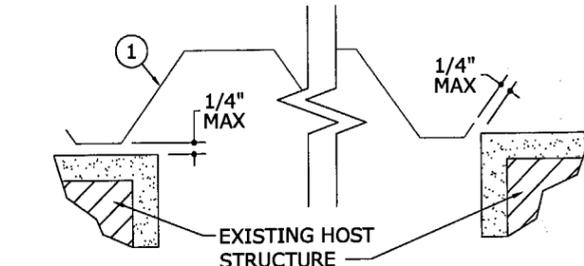


6
2 OPTIONAL BUILDOUT BLOCKING
3" = 1'-0" MOUNTING SECTION

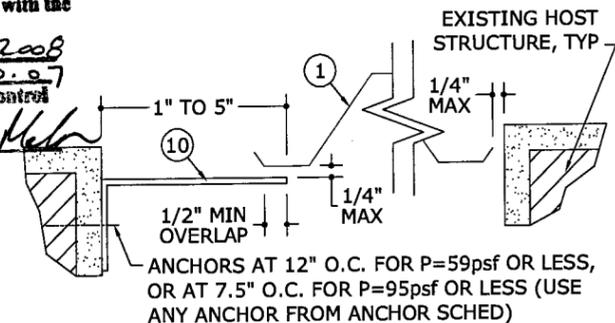
NOTE: TYPICAL TOP AND BOTTOM. APPLICABLE WITH ANY MOUNTING CONDITION.



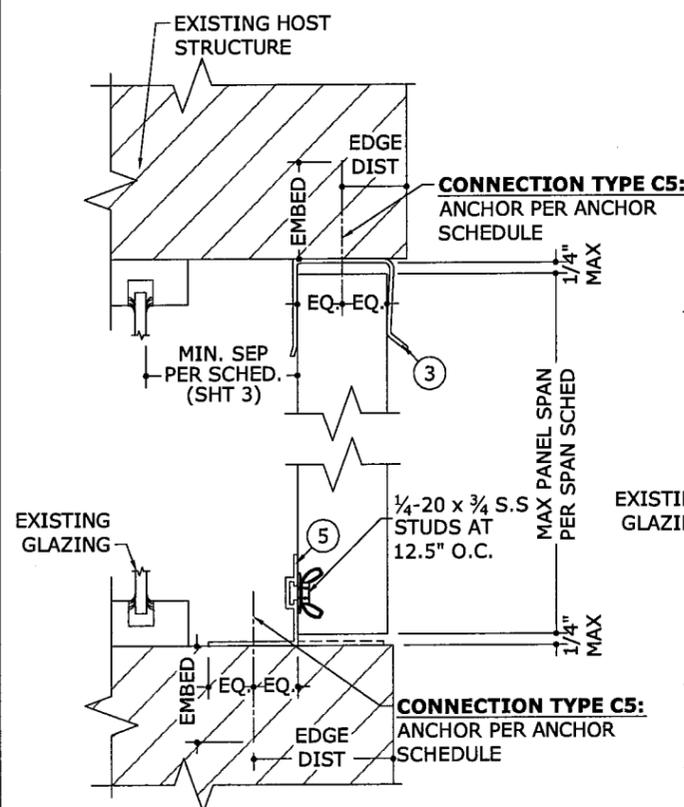
7
2 BUILD-OUT CLOSURE
3" = 1'-0" PLAN VIEW



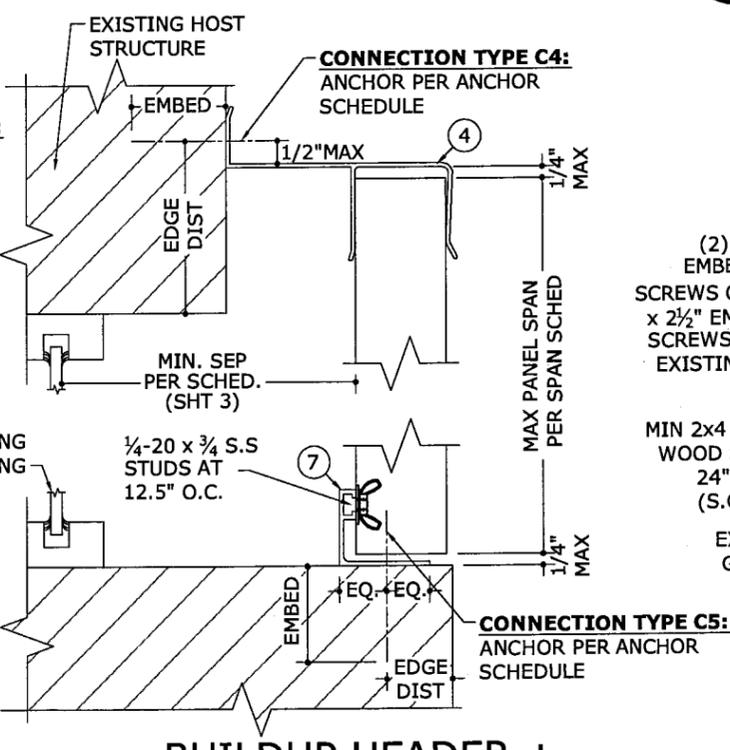
8
2 WALL MOUNT CLOSURE
3" = 1'-0" PLAN VIEW



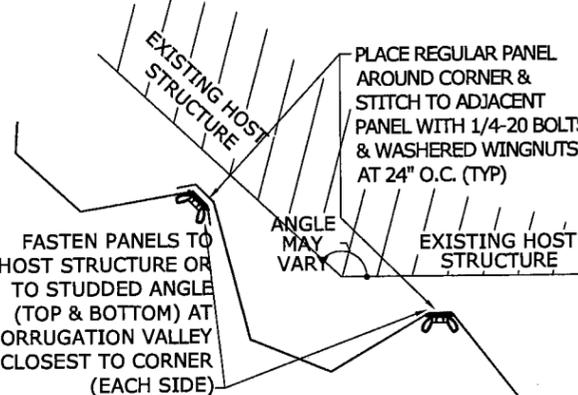
9
2 TRAP MOUNT CLOSURE
3" = 1'-0" PLAN VIEW



3
2 "U" HEADER + REV. "F" TRAK
3" = 1'-0" MOUNTING SECTION



4
2 BUILDUP HEADER + STUDLESS ANGLE
3" = 1'-0" MOUNTING SECTION



10
2 CORNER CLOSURE
N.T.S. PLAN VIEW

FRANK L. BENNARDO, P.E.
#PE0046549
05/16/2008

ENGINEERING EXPRESS

160 SW 12th AVENUE, #106
DEERFIELD BEACH, FL 33442
Ph: (954) 354-0660 FAX: (954) 354-0443
WWW.ENGINEERINGEXPRESS.COM
CERT OF AUTH #8865
A. FRANK L. BENNARDO, P.E., INC. INNOVATION

METALS USA BUILDING PRODUCTS

7815 AMERICAN WAY
GROVELAND, FL 34736

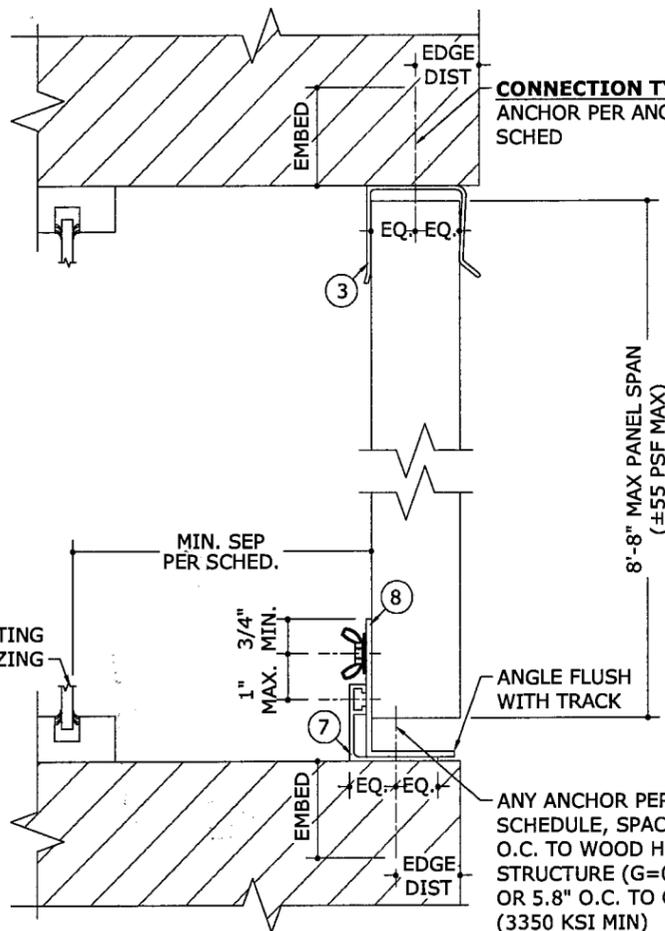
ENFORCER 0.050" ALUMINUM STORM PANELS
HVHZ COMPLIANT
MIAMI-DADE NOTICE OF ACCEPTANCE

DRWN	CHKD	DATE
KL	CL	03/09/07
KL	CL	06/18/07
KL	CL	05/15/08

05-MEU-0002
SCALE: 1/8" = 1'-0"
PAGE DESCRIPTION: 01

2

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CONNECTION TYPE C5:
ANCHOR PER ANCHOR SCHED

ANY ANCHOR PER ANCHOR SCHEDULE, SPACED 5.2" O.C. TO WOOD HOST STRUCTURE (G=0.55 MIN), OR 5.8" O.C. TO CONCRETE (3350 KSI MIN)

NOTE: MOUNTING SECTION SHOWN IS ONLY VALID UP TO A MAXIMUM SHUTTER SPAN OF 8'-8" AND MAXIMUM DESIGN PRESSURE OF ±55 PSF.

1 INTERIOR MOUNT
3 3" = 1'-0" MOUNTING SECTION

GLASS SEPARATION SCHEDULE:

POSITIVE DESIGN LOAD (PSF)	SPAN (FEET)	MIN. SEPARATION INSTALLATIONS < 30FT (INCHES)	MIN. SEPARATION INSTALLATIONS > 30FT (INCHES)
25	6'-0"	2.50"	1.17"
25	8'-8"	2.50"	1.74"
25	11'-0"	2.75"	2.25"
55	6'-0"	2.50"	1.37"
55	8'-8"	2.75"	2.75"
55	11'-0"	3.75"	3.75"
75	6'-0"	2.50"	1.51"
75	8'-8"	3.21"	3.21"
75	11'-0"	4.76"	4.76"

ANCHOR NOTES:

- ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
- TAPCONS MAY BE MANUFACTURED BY ELCO OR ITW. "ELCO PANELMATE" ANCHORS FOR USE IN CONCRETE, HOLLOW BLOCK, OR WOOD MAY BE MALE, FEMALE, OR PANELMATE PLUS.
- ENSURE MINIMUM 2-1/2" EDGE DISTANCE FOR ALL ANCHORS TO CONCRETE & TO HOLLOW BLOCK.
- WHERE ANCHORS FASTEN TO NARROW FACE OF STUD FRAMING, ANCHOR SHALL BE LOCATED IN CENTER OF NOMINAL 2x (MIN) WOOD STUD (i.e. 3/4" EDGE DISTANCE IS ACCEPTABLE FOR ANCHORS TO WOOD FRAMING).
- WOOD HOST STRUCTURE SHALL BE "SOUTHERN PINE" G=0.55 OR GREATER DENSITY.
- MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR SCHEDULE. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES.
- WHERE EXISTING STRUCTURE IS WOOD FRAMING, EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD FRAMING MEMBERS, NOT INTO PLYWOOD.
- 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.
- * DESIGNATES ANCHORS WHICH ARE REMOVABLE AND MAY BE USED FOR DIRECT MOUNT INSTALLATIONS.
- /// DENOTES INSTALLATION CONDITIONS NOT PERMITTED.

Approved as complying with the Florida Building Code
Date 06/19/2008
NOA# 07-0320-07
Miami Dade Product Control
Division
By Helmut A. Mehn

ANCHOR SCHEDULE:

HOST STRUCT.	ANCHOR	LOAD (psf)	2 1/2" MIN EDGE DISTANCE																				
			Spans Up To 4'-0" CONN TYPE					Spans Up To 8'-8" CONN TYPE					Spans Up To 11'-0" CONN TYPE										
			C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5						
CONCRETE	1/4" TAPCON (ELCO OR ITW) WITH 1-3/4" EMBED (3320psi MIN CONC)	25	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	
		55	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	11.6"	12.0"	10.3"	9.6"											
		65	12.0"	12.0"	12.0"	12.0"	12.0"																
		75	12.0"	12.0"	12.0"	12.0"	12.0"																
	1/4" ELCO PANELMATE (FEMALE OR MALE) W/ 1-3/4" MIN EMBED (3350psi MIN CONC)	25	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	
		55	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	10.4"									
		65	12.0"	12.0"	12.0"	12.0"	12.0"																
		75	12.0"	12.0"	12.0"	12.0"	12.0"																
	1/4-20 ALL POINTS SOLID-SET WITH 7/8" MIN EMBED (3000psi MIN CONC)	25	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	
		55	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	10.7"	12.5"	9.5"	9.5"											
		65	12.5"	12.5"	12.5"	12.5"	12.5"																
		75	12.5"	12.5"	12.5"	12.5"	12.5"																
1/4-20 POWERS CALK-IN WITH 7/8" MIN EMBED (3000psi MIN CONC)	25	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"		
	55	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	11.8"	12.5"	10.5"	7.7"												
	65	12.5"	12.5"	12.5"	12.5"	12.5"																	
	75	12.5"	12.5"	12.5"	12.5"	12.5"																	
HOLLOW BLOCK	1/4" TAPCON (ELCO OR ITW) WITH 1-1/4" EMBED	25	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	10.8"	12.0"	12.0"	12.0"	12.0"	8.5"							
		35	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	9.8"	12.0"	9.5"	7.7"											
		45	12.0"	12.0"	12.0"	12.0"	12.0"	9.5"	5.5"	9.5"	5.0"	5.8"											
		55	12.0"	12.0"	12.0"	12.0"	10.6"	7.7"	3.8"	7.7"	3.4"	4.2"											
	1/4" ELCO PANELMATE (FEMALE OR MALE) W/ 1-1/4" MIN EMBED	25	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	9.3"									
		35	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	9.3"												
		45	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	9.8"	12.0"	8.9"	7.1"											
		55	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	6.8"	12.0"	6.1"	5.3"											
	1/4-20 ALL POINTS SOLID-SET WITH 7/8" MIN EMBED	25	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	11.6"									
		35	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	11.6"												
		45	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	11.7"	8.9"												
		55	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	9.0"	12.5"	8.0"	6.6"											
1/4-20 POWERS CALK-IN WITH 7/8" MIN EMBED	25	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	11.9"	12.5"	12.5"	12.5"	12.5"	9.4"								
	35	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.2"	8.5"													
	45	12.5"	12.5"	12.5"	12.5"	12.5"	12.2"	7.1"	12.2"	6.5"	6.5"												
	55	12.5"	12.5"	12.5"	12.5"	11.7"	10.0"	5.0"	10.0"	4.4"	4.7"												
WOOD	1/4" TAPCON (ELCO OR ITW) OR #14 WOOD SCREW W/ 1-1/2" EMBED	25	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	
		35	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	11.1"											
		45	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	8.5"											
		55	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	11.1"	6.6"											
	1/4" ELCO PANELMATE (FEMALE OR MALE) W/ 1-7/8" MIN EMBED	25	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	
		35	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	
		45	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	
		55	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	12.5"	11.7"	7.4"										
	1/4" LAG SCREW WITH 1.5" MIN THREAD PENETR	25	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	
		35	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	10.6"								
		45	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	8.2"								
		55	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	6.4"								

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REV PER BCCO COMMENT	KL	KL	05/15/08

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