



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)

Hialeah Aluminum Supply, Inc.
2260 West 76th Street
Hialeah, Florida 33016

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: 0.070" (min.) Aluminum Storm Panels Shutter

APPROVAL DOCUMENT: Drawing No. 3127, titled "0.070" Aluminum Storm Panels", sheets 1 through 4 of 4, prepared by Ramms Engineering, Inc., dated April 10, 2007, last revised on 09/21/2007, signed and sealed by Robert S. Monsour, P.E., on 09/24/2007 bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and the expiration 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 **revises & renews** NOA #02-0221.02 and consists of this page 1, evidence submitted pages E-1 & 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
 10/18/2007

NOA No. 07-0423.01
Expiration Date: 08/08/2008
Approval Date: 10/18/2007

Hialeah Aluminum Supply, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL No. 96-0311.02

A. DRAWINGS

1. *Drawing No. 3127, Hialeah Aluminum Supply, Inc., Sheets 1 through 4 of 4 prepared by Ramms Engineering, Inc., dated 03/07/96, revised 07/03/96, signed and sealed by Robert Monsour, P.E.*

B. TESTS

1. *Test report on: Uniform Static Air Pressure Test, Large Missile Impact Test, and Cyclic Wind Pressure Test prepared by Miami Testing Laboratory, Report No. MTL-16670, dated 02/23/96, signed and sealed by David Gale Ober, P.E.*

C. CALCULATIONS

1. *Comparative Analysis and Anchor Calculations, dated 03/11/96, Pages 1 through 5 of 5 and Pages 1 through 8 of 8, dated 05/01/96, prepared by Ramms Engineering, Inc., signed and sealed by Robert Monsour, P.E.*
2. *Comparative Analysis, Pages 1 through 7 of 7, dated 06/06/96 and Anchor Calculations, Pages 1 through 7 of 7, dated 06/15/96, prepared by Ramms Engineering, Inc., signed and sealed by Robert Monsour, P.E.*

D. MATERIAL CERTIFICATIONS

1. *Mill Certified Inspection Report issued by Jupiter Aluminum Corp., dated 02/21/96.*
2. *Certified Tensile Test Report issued by Center for Applied Engineering, Inc., Job No. MTS-257560, dated March 1, 1995, signed and sealed by R.G. Miller, P.E.*

2. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #02-0221.02

A. DRAWINGS

1. *None.*

B. TESTS

1. *None.*

C. CALCULATIONS

1. *None.*

D. MATERIAL CERTIFICATIONS

1. *None.*



Helmy A. Makar, P.E., M.S.
Product Control Examiner
NOA No. 07-0423.01
Expiration Date: 08/08/2008
Approval Date: 10/18/2007

Hialeah Aluminum Supply, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

3. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. *Drawing No. 3127, titled " 0.070" Aluminum Storm Panels ", sheets 1 through 4 of 4, prepared by Ramms Engineering, Inc., dated April 10, 2007, last revised on 09/21/2007, signed and sealed by Robert S. Monsour, P.E., on 09/24/2007.*

B. TESTS

1. *None.*

C. CALCULATIONS

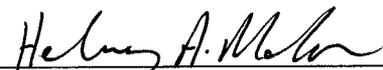
1. *Anchor Calculations, 22 sheets, prepared by Ramms Engineering, Inc., dated April 13, 2007, signed and sealed by Robert S. Monsour, P.E., on April 13, 2007.*

D. QUALITY ASSURANCE

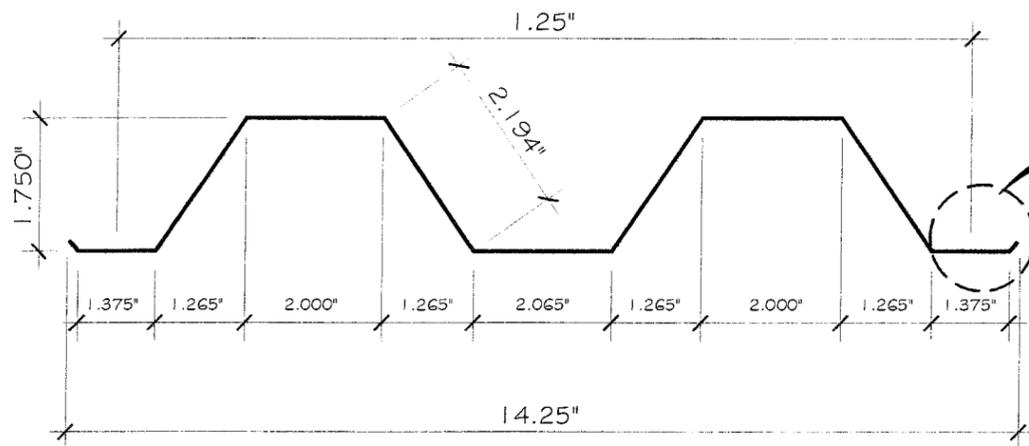
1. *By Miami-Dade County Building Code Compliance Office.*

E. MATERIAL CERTIFICATIONS

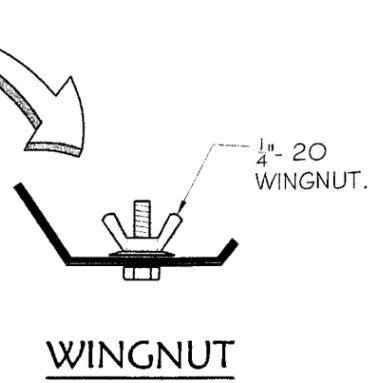
1. *None.*



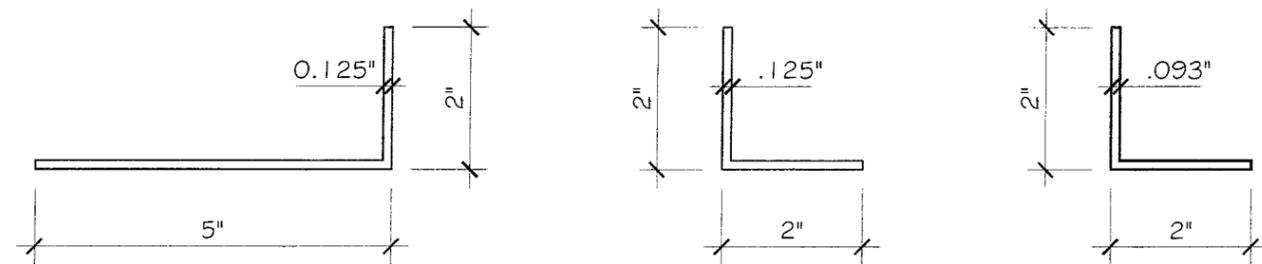
Helmy A. Makar, P.E., M.S.
Product Control Examiner
NOA No. 07-0423.01
Expiration Date: 08/08/2008
Approval Date: 10/18/2007



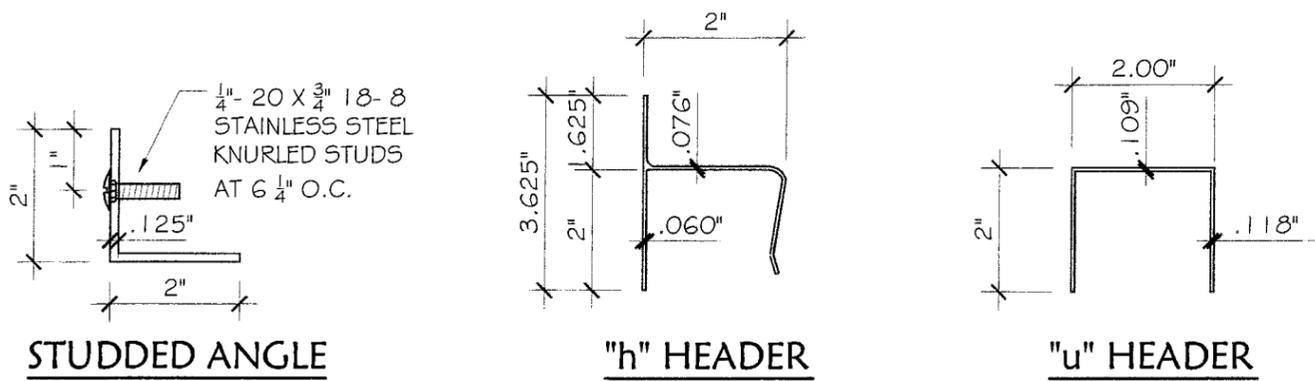
TYPICAL PANEL SECTION
 .070" (MIN.) ALUMINUM STORM PANELS
 ALUMINUM ALLOY 3105-H14



WINGNUT



VARIOUS ANGLES DETAIL



STUDED ANGLE

"h" HEADER

"u" HEADER

*Monson
9/24/07*

DESIGN PRESSURE RATING:

- FOR DESIGN PRESSURE RATINGS, REFER TO THE CHART OF PAGE 4 OF 4
- NOTE: NO INCREASE IN ALLOWABLE STRESS WAS USED IN THE DESIGN OF THIS PRODUCT AND ALSO IN THE FASTENER ANALYSIS.

.070" (MIN) ALUMINUM STORM PANELS.

- ALUMINUM ALLOY 3105-H14

COMPLIES WITH:

- FLORIDA BUILDING CODE, 2004 EDITION AND ASCE 7-02 WIND CODE.

DESIGN CRITERIA:

- WIND LOAD PER FLORIDA BUILDING CODE, 2004 PRESSURE REQUIREMENT CALCULATIONS MUST BE PERFORMED PER ASCE 7-02 "MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES" DEFLECTION - L/30 W/2" MAX (POSITIVE LOAD)

GENERAL NOTES:

- THIS ALUMINUM STORM PANEL IS DESIGNED FOR COASTAL AND NON COASTAL ZONE BUILDINGS.
- ALL ALUMINUM EXTRUSIONS TO BE ALLOY 6063-T6 SMOOTH OR EMBOSSED.
- THE STORM PANEL SHUTTER MAY BE INSTALLED VERTICALLY OR HORIZONTALLY, IN ACCORDANCE TO THE DETAILED SPECIFICATIONS HEREIN.
- ANCHORAGE OF THE SHUTTER SYSTEM TO CONCRETE OR MASONRY SHALL CONSIST OF 1/4" DIA. X 1 1/4" NAIL-IN ANCHORS, 1/4"- 20 MACHINE SCREW AND EXPANSION ANCHORS, 1/4" X 2" 1/4" MASONRY SCREW ANCHORS, 1/4"-20 X 1" TRUSS HEAD MACHINE BOLTS, 1/4"- 20 X 9/16" BRASS INSERT WITH 1/4"- 20 X 1" MACHINE BOLTS, USED IN COMBINATION WITH 1/4"-20 MACHINE SCREWS WITH 1/4"-20 NUTS AND WASHERS, 1/4"-20 WASHERED WING NUTS, KEYHOLE WASHERS AND KNURLED STUDS. SPACING AS INDICATED ON THIS DRAWING. ANCHOR SHALL PROVIDE A MINIMUM OF 1 1/4" EMBEDMENT INTO THE MASONRY, BRICK AND /OR CONCRETE ANCHORS LENGTH MAY VARY TO ACHIEVE THE PROPER EMBEDMENT.
- ANCHORAGE TO WOOD CONSTRUCTION SHALL BE 1/4"- 20 X 9/16" THREADED BRASS WOOD INSERT WITH 1/4"- 20 X 1" TRUSS HEAD MACHINE BOLT
- EACH PANEL SHALL BEAR A PERMANENT LABEL SHOWING "MIAMI-DADE COUNTY PRODUCT APPROVED" (HIALEAH ALUMINUM SUPPLY HIALEAH, FLORIDA)
- WARNING TO OWNER OR TENANT LOCATED IN HEADER STATING "STORM PANELS WILL NOT OFFER HURRICANE PROTECTION UNLESS ALL 1/4"- 20 STITCHING REINFORCING IS PROPERLY INSTALLED DURING WIND VELOCITIES EXCEEDING 75 M.P.H.
- WARNINGS AND LABELS MUST ALSO BE PERMANENTLY PRINTED ON EACH STORM PANEL.
- PERMANENT FASTENER COMPONENTS, EMBEDDED ANCHORS BOLTS, THREADED CONES OR METAL SHIELDS, NOT IN USE MUST BE PROTECTED AGAINST CORROSION, CONTAMINATION AND DAMAGE AT ALL TIMES.

PRODUCT REVISED
 as complying with the Florida Building Code
 Acceptance No. 07-0423.01
 Expiration Date 08/08/2012
 By *Helmy A. M...*
 Miami Dade Product Control Division

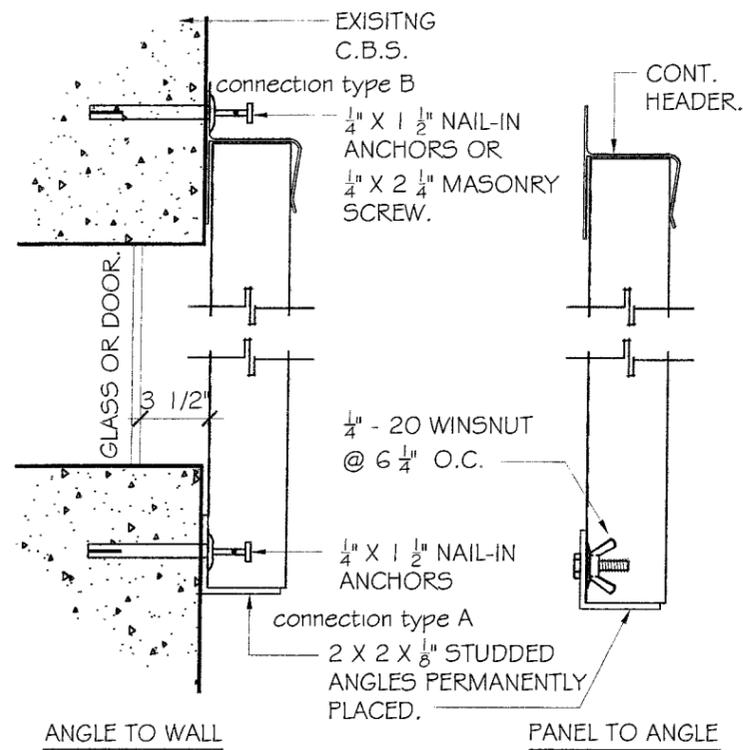
REVISIONS	BY:
6/12/96	
7/3/96	
4/10/07	J.J.
9/6/07	J.J.
9/21/07	J.J.

RAMMS ENGINEERING, INC.
Structural Design
 Robert S. Monson
 2100 W. 76th STREET, SUITE 311
 HIALEAH, FLORIDA 33016
 PH: 305-822-3141

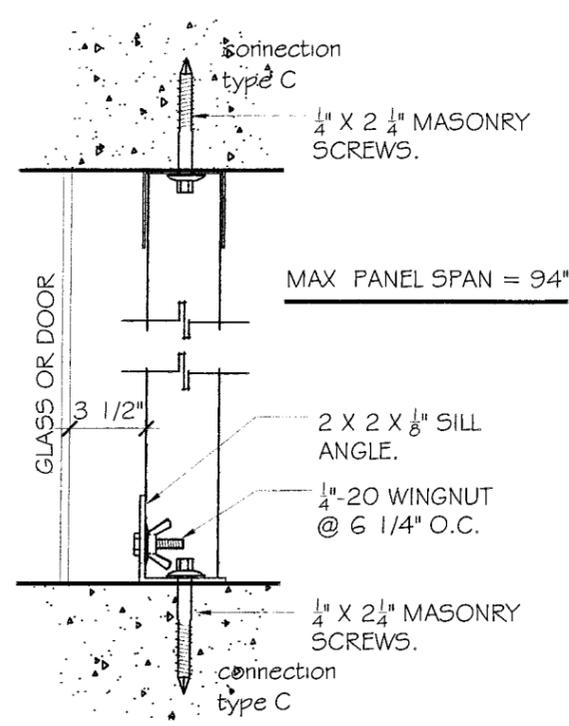
Hialeah Aluminum Supply Inc.
 Hialeah Aluminum Supply Inc.
 2310 W 76 ST.
 HIALEAH, FLORIDA
 EB 0006024
 Lic. # 11955
 PH 305-821-0103

DRAWN BY:	JUAN JARA
DATE:	4-10-07
SCALE:	N.T.S.
JOB No:	3127
SHEET	1
OF: 4	

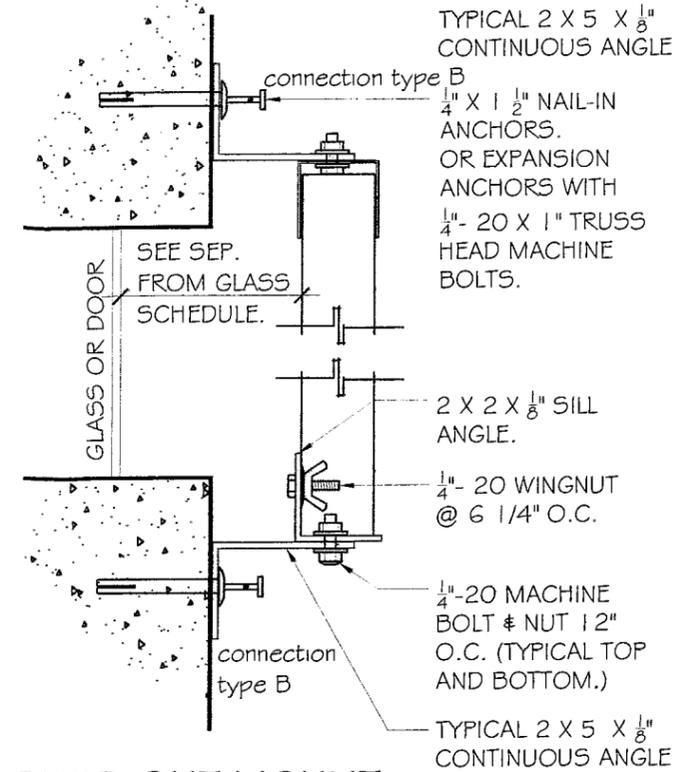
.070 ALUMINUM STORM PANELS



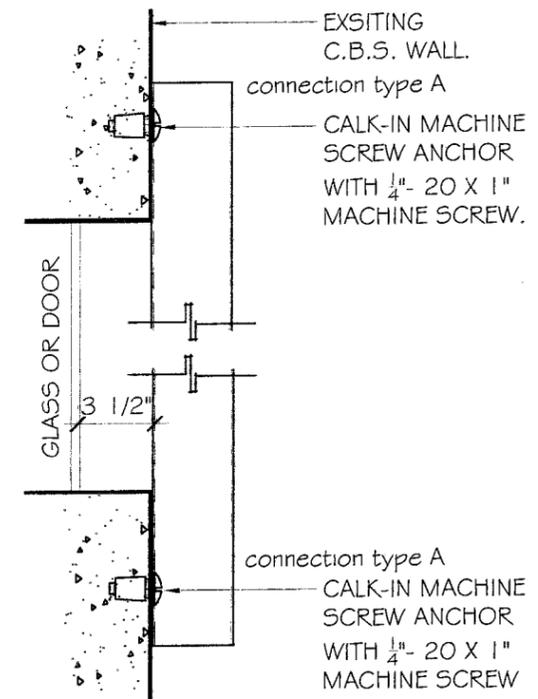
WALL MOUNT SECTION.



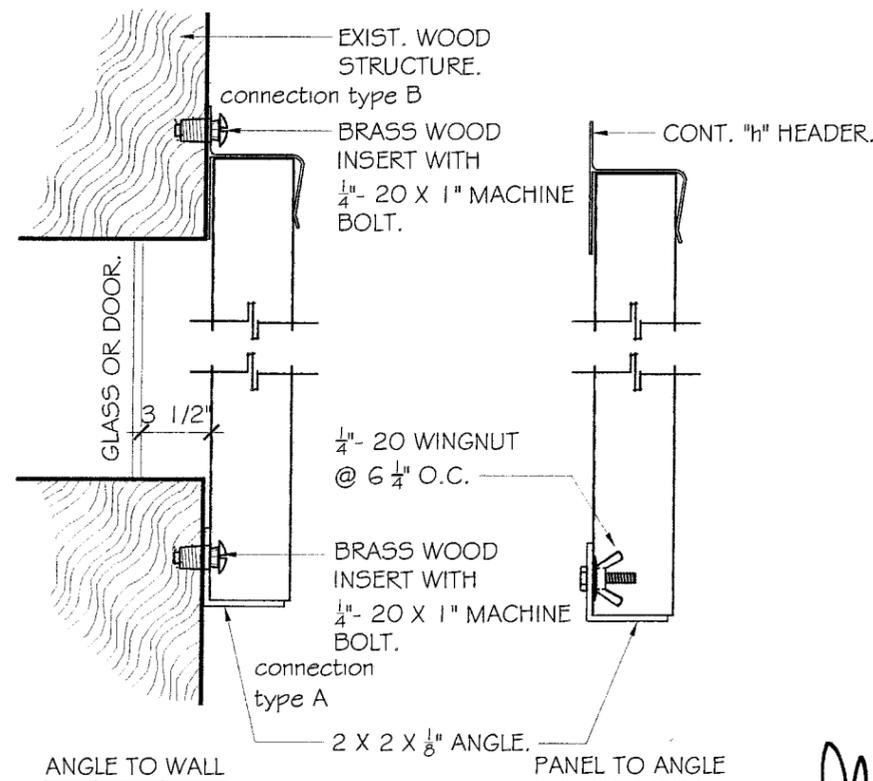
CEILING/INSIDE MOUNT.



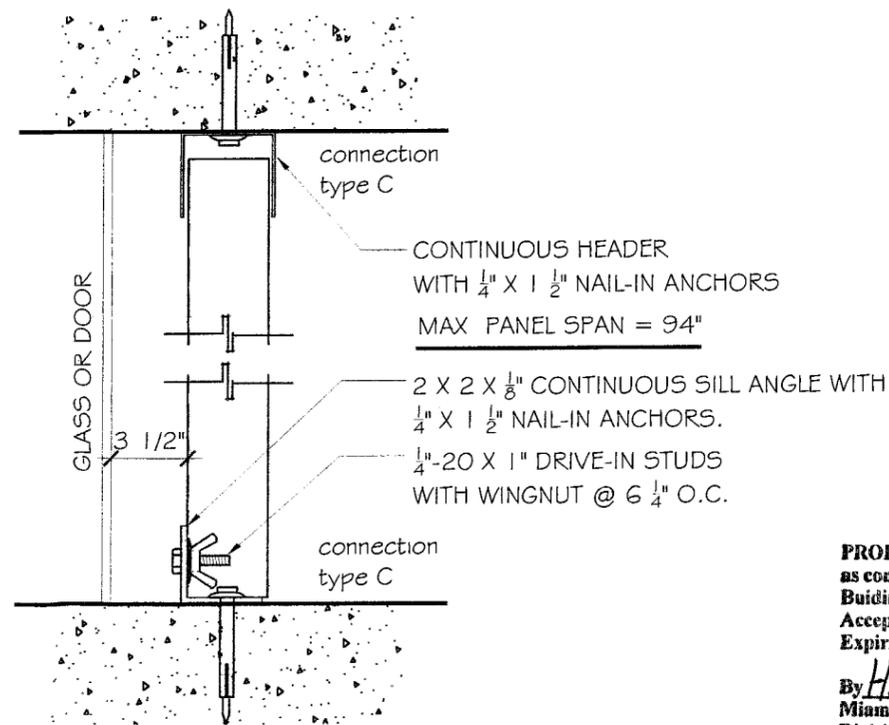
BUILD OUT MOUNT.



**WALL MOUNT SECTION.
DIRECT MOUNT.**



WALL MOUNT SECTION.



CEILING / INSIDE MOUNT.

monday 9/11/07

PRODUCT REVISED
 as complying with the Florida
 Building Code
 Acceptance No. 07-0423.01
 Expiration Date 08/08/2012
 By *Heather A. Allen*
 Miami Dade Product Control
 Division

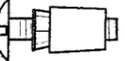
.070 ALUMINUM STORM PANELS

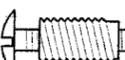
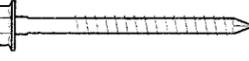
REVISIONS	BY:
6/12/96	
7/3/96	
4/10/07	J.J.
9/6/07	J.J.
9/21/07	J.J.

RAMMS ENGINEERING, INC.
Structural Design
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 HIALEAH, FLORIDA 33016
 PH: 305-822-3141
 EB 0005024
 Lic. # 11965

AAI
 Hialeah Aluminum Supply Inc.
 2310 W 76 ST.
 HIALEAH, FLORIDA
 PH: 305-821-0103

DESIGNED BY:	JUAN JARRA
DATE:	4-10-07
SCALE:	N.T.S.
JOB No:	3127
SHEET	2
Of: 4	

HARDWARE SCHEDULES			59.5 PSF						71.5 PSF						91.4 PSF					
			POURED CONCRETE			CONCRETE BLOCK			POURED CONCRETE			CONCRETE BLOCK			POURED CONCRETE			CONCRETE BLOCK		
	SPAN	E.D.	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
	$\frac{1}{4}$ " X $1\frac{1}{2}$ " NAIL-IN ANCHORS.	68" SPAN	3"	8"	8"	8"	8"	8"	7"	8"	8"	8"	8"	8"	6"	8"	8"	6"	8"	6"
2"			8"	8"	8"	8"	8"	6"	8"	8"	6"	8"	8"	5"	8"	7"	5"	8"	5"	4"
88" SPAN		3"	8"	8"	7"	8"	8"	6"	8"	7"	6"	8"	5"	5"	8"	4"	5"	7"	3"	4"
		2"	8"	8"	8"	8"	8"	5"	8"	6"	5"	7"	3"	4"	8"	3"	4"	6"	3"	3"
104" SPAN	3"	8"	7"	6"	8"	5"	5"	8"	4"	5"	7"	3"	4"	7"	3"	4"	5"	3"	3"	
	2"	8"	7"	5"	7"	5"	4"	8"	4"	4"	6"	3"	3"	7"	3"	3"	5"	3"	3"	
	PANEL	E.D.	A <th>B</th> <th>C</th> <th>A</th> <th>B</th> <th>C</th>	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
	68" SPAN	3"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	7"	8"	8"	8"	8"	7"	5"
		2"	8"	8"	8"	8"	8"	7"	8"	8"	8"	8"	8"	6"	8"	8"	8"	8"	6"	5"
	88" SPAN	3"	8"	8"	8"	8"	8"	6"	8"	8"	8"	8"	7"	5"	8"	6"	7"	8"	3"	4"
		2"	8"	8"	8"	8"	8"	5"	8"	8"	7"	8"	6"	4"	8"	5"	6"	7"	3"	3"
	104" SPAN	3"	8"	8"	8"	8"	7"	5"	8"	7"	8"	8"	4"	4"	8"	4"	6"	7"	3"	4"
		2"	8"	8"	7"	8"	6"	4"	8"	6"	6"	8"	4"	4"	8"	4"	5"	6"	3"	3"
	PANEL		A <th>B</th> <th>C</th> <th>A</th> <th>B</th> <th>C</th>	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
68" SPAN	3"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	7"	8"	8"	8"	8"	7"	5"	
	2"	8"	8"	8"	8"	8"	7"	8"	8"	8"	8"	8"	6"	8"	8"	8"	8"	6"	5"	
88" SPAN	3"	8"	8"	7"	8"	8"	7"	8"	8"	7"	8"	7"	5"	8"	7"	8"	8"	3"	4"	
	2"	8"	8"	8"	8"	8"	6"	8"	8"	8"	8"	6"	5"	8"	6"	6"	7"	3"	4"	
104" SPAN	3"	8"	8"	6"	8"	5"	5"	8"	8"	6"	8"	4"	5"	8"	5"	6"	7"	3"	4"	
	2"	8"	7"	5"	7"	5"	5"	8"	7"	7"	7"	4"	4"	8"	5"	5"	6"	3"	3"	
	PANEL		A <th>B</th> <th>C</th> <th>A</th> <th>B</th> <th>C</th>	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
	68" SPAN	3"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	7"	8"	8"	8"	8"	7"	5"
		2"	8"	8"	8"	8"	8"	7"	8"	8"	8"	8"	8"	6"	8"	8"	8"	8"	6"	5"
	88" SPAN	3"	8"	8"	7"	8"	8"	7"	8"	8"	7"	8"	7"	5"	8"	7"	8"	8"	3"	4"
2"		8"	8"	8"	8"	8"	6"	8"	8"	8"	8"	6"	5"	8"	6"	6"	7"	3"	4"	
104" SPAN	3"	8"	8"	6"	8"	5"	5"	8"	8"	6"	8"	4"	5"	8"	5"	6"	7"	3"	4"	
	2"	8"	7"	5"	7"	5"	5"	8"	7"	7"	7"	4"	4"	8"	5"	5"	6"	3"	3"	

HARDWARE SCHEDULES			59.6 PSF			71.5 PSF			91.4 PSF		
			CONNECTION TYPE			CONNECTION TYPE			CONNECTION TYPE		
	DIA.	SPAN	A	B	C	A	B	C	A	B	C
	BRASS WOOD BUSHING	1/4 - 20	68" SPAN	8"	8"	8"	8"	8"	4"	8"	6"
88" SPAN			8"	8"	4"	8"	6"	3"	7"	3"	3"
104" SPAN			8"	6"	3"	8"	4"	3"	6"	2"	2"
	1/4"	68" SPAN	8"	8"	7"	8"	8"	6"	8"	8"	5"
		88" SPAN	8"	8"	6"	8"	6"	5"	8"	4"	4"
		104" SPAN	8"	7"	5"	8"	5"	4"	7"	3"	3"
	5/16"	68" SPAN	8"	8"	8"	8"	8"	8"	8"	8"	6"
		88" SPAN	8"	8"	7"	8"	8"	6"	8"	5"	5"
		104" SPAN	8"	7"	6"	8"	8"	5"	7"	3"	4"

NOTE:
A SAFETY FACTOR OF 4.0 WAS TAKEN FOR ALL HARDWARE WITH NO INCREASE IN ALLOWABLE STRESS USED IN THE DESIGN OF THIS PRODUCT AND ALSO IN THE FASTENER ANALYSIS.

* ALSO KNOW AS EXPANSION ANCHOR WITH $\frac{1}{4}$ " - 20 X 1" TRUSS HEAD MACHINE BOLT.

*Morgan
A. Miller*

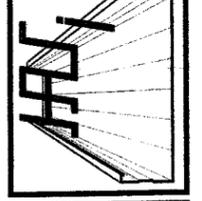
PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 07-0423.01
Expiration Date 08/08/2012
By *Helmut A. Miller*
Miami Dade Product Control
Division

* ALL WOOD FASTNERS TO HAVE A MINIMUM EDGE DISTANCE OF 2 1/2"

REVISIONS	BY:
6/12/96	
7/3/96	
4/10/07	J.J.
9/6/07	J.J.
9/21/07	J.J.

RAMMS ENGINEERING, INC.
Structural Design
Robert S. Monsour
PH: 305-822-3141
2100 W. 76th STREET, SUITE 311
HIALEAH, FLORIDA 33016
EB 0008024
Lic. # 11955

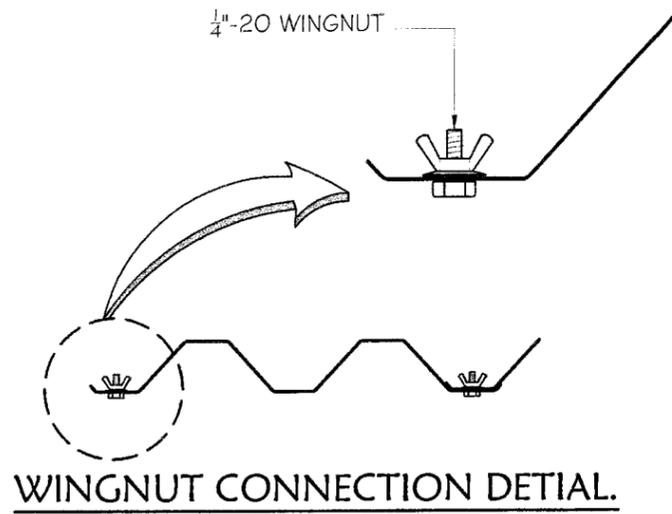
Hialeah Aluminum Supply Inc.
2310 W 76 ST.
HIALEAH, FLORIDA
PH 305-821-0103



DRAWN BY:	JUAN JARA
DATE:	4-10-07
SCALE:	N.T.S.
JOB No:	3127
SHEET	3
OF: 4	

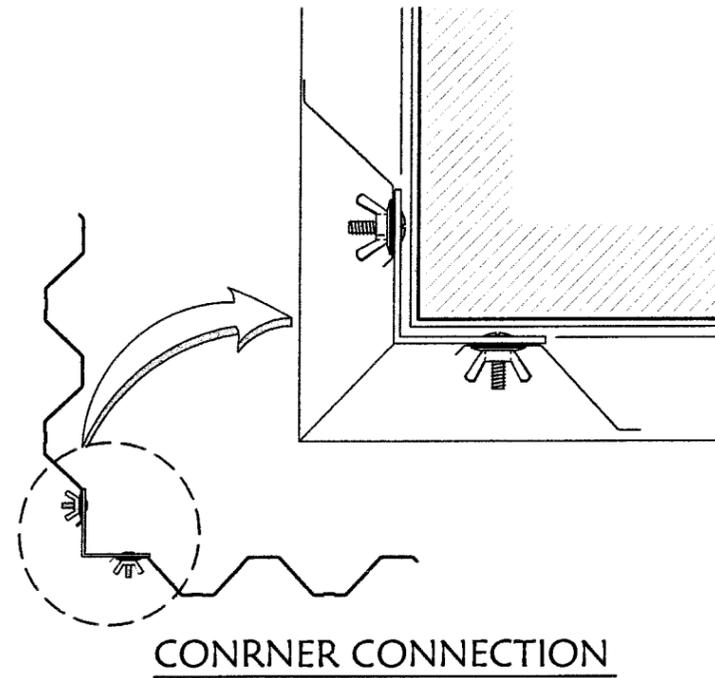
.070 ALUMINUM STORM PANELS

DESIGN PRESSURE	PANEL SPAN
36.00	131"
59.00	116"
72.00	110"
91.44	104"

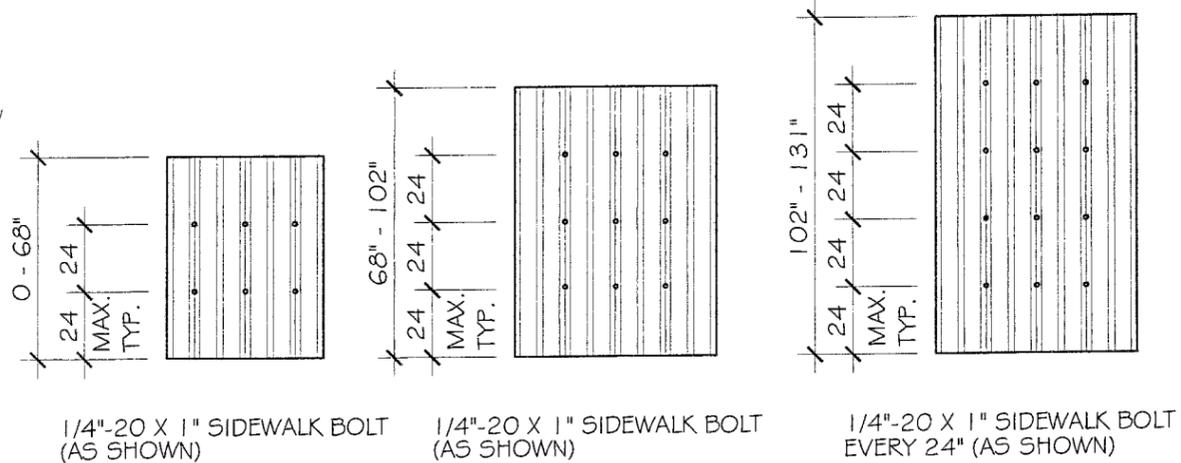


ADDITIONAL HARDWARE

$1/4"-20 \times 1"$ PAN OR TRUSS HEAD	$1/4"-20 \times 3/4"$ KNURLE STUD 18-8 STAINLESS STEEL.	$1/4"-20$ WASHED WINGNUT 7/8" O.D.
$1/4"-20 \times 1"$ HEX HEAD.	$1/4"-20 \times 1"$ FLOOR PLUGS (SIDEWALK BOLT) 18-8 STAINLESS STEEL	$1/4"$ I.D. $3/4"$ O.D. FLAT WASHER
$1/4"-20$ LOCK NUT.		KEYHOLE WASHER
$1/4"-20$ NUT.		



PRODUCT REVISED
 as complying with the Florida
 Building Code
 Acceptance No. 07-0423.01
 Expiration Date 08/08/2012
 By Helmy A. Helmy
 Miami Dade Product Control
 Division



VERTICAL ELEVATIONS.

PANEL HEIGHT	0" - 68"	68" - 102"	102" - 131"
	MIN. DISTANCE BETWEEN GLASS AND PANEL		
WALL MOUNT	3 1/2"	3 1/2"	3 1/2"
INSIDE MOUNT	3 1/2"	3 1/2"	3 1/2"
BUILD OUT	3 1/2"	3 1/2"	3 1/2"
DIRECT MOUNT	3 1/2"	3 1/2"	3 1/2"

GENERAL NOTES:

- WHEN ANCHORING INTO WOOD, THE WOOD MUST BE A MINIMUM 2 X 4 EQUAL TO #2 SOUTHERN PINE AND STRUCTURALLY PART OF THE FRAMING STRUCTURE OR SECURELY ATTACHED TO FRAMING STRUCTURE.
- NOTE: NO INCREASE IN ALLOWABLE STRESS WAS USED IN THE DESIGN OF THIS PRODUCT AND ALSO IN THE FASTENER ANALYSIS.
- REFER TO SCHEDULES FOR MINIMUM DISTANCES BETWEEN GLASS AND PANEL, ANCHOR SPACING FOR SPECIFIC ANCHORS AND EDGE DISTANCE (E.D.) FOR SPECIFIC ANCHORS.

Mansour
 4/10/07

.070 ALUMINUM STORM PANELS

REVISIONS	BY:
6/12/96	
7/3/96	
4/10/07	J.J.
9/6/07	J.J.
9/21/07	J.J.

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DRAWN BY: **JUAN JARRA**
 DATE: **4-10-07**
 SCALE: **N.T.S.**
 JOB No: **3127**
 SHEET
4
 OF: 4