



**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](http://www.miamidade.gov)

**NOTICE OF ACCEPTANCE (NOA)**

**Poma Corporation**  
**9040 Belvedere Road**  
**West Palm Beach, FL 33411**

**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: 0.050" Aluminum Storm Panels Shutter**

**APPROVAL DOCUMENT:** Drawing No. 06-537, titled "0.050" Aluminum Storm Panel", sheets 1 through 4 of 4, prepared by Thornton Tomasetti, dated December 06, 2006, last revision #0 dated December 06, 2006, signed and sealed by V. J. Knezevich, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control 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 # **01-0410.10** 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*  
 03/22/2007

**NOA No. 06-0823.06**  
**Expiration Date: 08/16/2011**  
**Approval Date: 03/22/2007**  
 Page 1

**Poma Corporation**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 01-0410.10**

**A. DRAWINGS**

1. *Drawing No. 00-408, titled "0.050" Aluminum Storm Panel", prepared by Knezevich & Associates, Inc., signed and sealed by V. J. Knezevich, P.E., dated March 30, 2001, last revision #2 dated August 13, 2001, sheets 1 through 4 of 4.*

**B. TESTS**

1. *Test report on: 1) Uniform Static Air Pressure test Loading, per PA 202-94; 2) Large Missile Impact Test, per PA 201-94, and 3) Cyclic Loading Wind Pressure Test, per PA 203-94 of aluminum storm panels, prepared by Construction Testing Corporation, Report No. 01-005, dated 02/24/2001, signed and sealed by Christopher G. Tyson, P.E.*

**C. CALCULATIONS**

1. *Comparative analysis and anchor calculation, titled 0.050" Aluminum Alloy Storm Panels, dated March 30, 2001, pages 1 through 31 and anchor manufacturers appendix, prepared by Knezevich and Associates Inc., signed and sealed by V.J. Knezevich, P.E.*
2. *Comparative analysis, dated July 16, 2001, 3 pages, prepared by Knezevich and Associates Inc., signed and sealed by V.J. Knezevich, P.E.*

**D. MATERIAL CERTIFICATIONS**

1. *Mill Certified Inspection Invoice #167143 B, dated 08/18/00 for Aluminum Alloy 5052-H32 by Commonwealth Aluminum.*
2. *Certified Tensile Test Report No. CTL #0296G, issued by Certified Testing Laboratories dated 03/13/01 for Aluminum sample CTC-01-005, signed and sealed by Ramesh Patel, P.E.*

**2. NEW EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. *Drawing No. 06-537, titled "0.050" Aluminum Storm Panel", sheets 1 through 4 of 4, prepared by Thornton Tomasetti, dated December 06, 2006, last revision #0 dated December 06, 2006, signed and sealed by V. J. Knezevich, P.E.*

**B. TESTS**

1. *None.*



**Helmy A. Makar, P.E., M.S.**  
**Product Control Examiner**  
**NOA No. 06-0823.06**  
**Expiration Date: 08/16/2011**  
**Approval Date: 03/22/2007**

**Poma Corporation**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**C. CALCULATIONS**

1. *Revised Anchor Calculations and details for 0.050" Aluminum Storm Panels, dated December 05, 2006, pages 1 through 15 of 15, prepared by Thornton Tomasetti, signed and sealed by V. J. Knezevich, P.E.*

**D. QUALITY ASSURANCE**

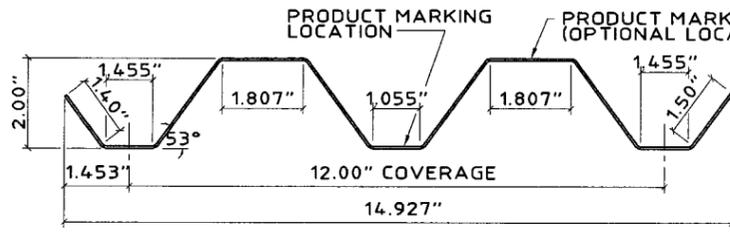
1. *By Miami-Dade County Building Code Compliance Office.*

**E. MATERIAL CERTIFICATIONS**

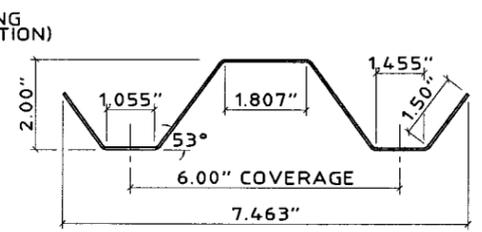
1. *None.*



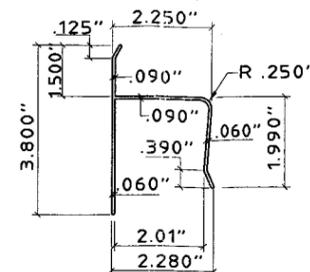
Helmy A. Makar, P.E., M.S.  
Product Control Examiner  
NOA No. 06-0823.06  
Expiration Date: 08/16/2011  
Approval Date: 03/22/2007



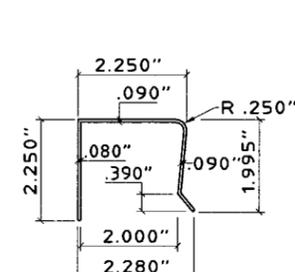
**1 STORM PANEL**  
SCALE: 3" = 1'-0"



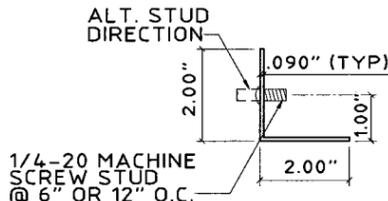
**1a HALF PANEL**  
SCALE: 3" = 1'-0"  
ONE HALF PANEL PER OPENING MAY BE USED AS REQUIRED TO COVER OPENING



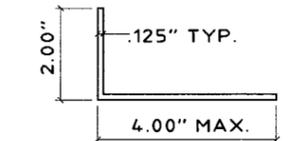
**2 "h" HEADER**  
SCALE: 3" = 1'-0"



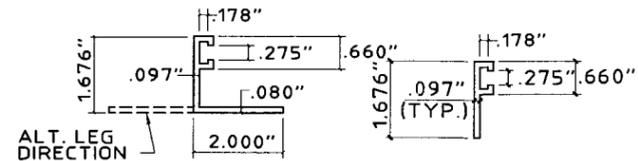
**3 "U" HEADER**  
SCALE: 3" = 1'-0"



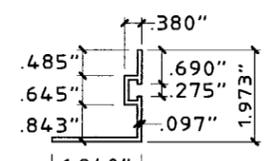
**4 STUDDED ANGLE**  
SCALE: 3" = 1'-0"



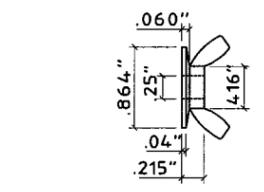
**5 ANGLE**  
SCALE: 3" = 1'-0"



**6 "E" TRACK**  
SCALE: 3" = 1'-0"

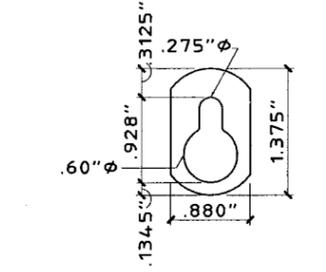


**6a "F" TRACK**  
SCALE: 3" = 1'-0"



**6b REV. "F" ANGLE**  
SCALE: 3" = 1'-0"

**7 ZAMAC ALLOY WASHED WINGNUT**  
SCALE: HALF SIZE

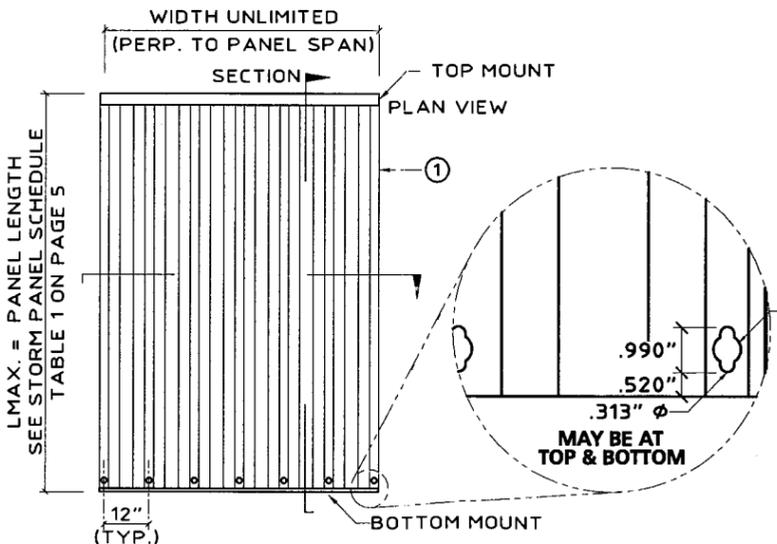


**8 "KEYHOLE" WASHER**  
SCALE: 3" = 1'-0"  
3003-H14 ALUMINUM ALLOY

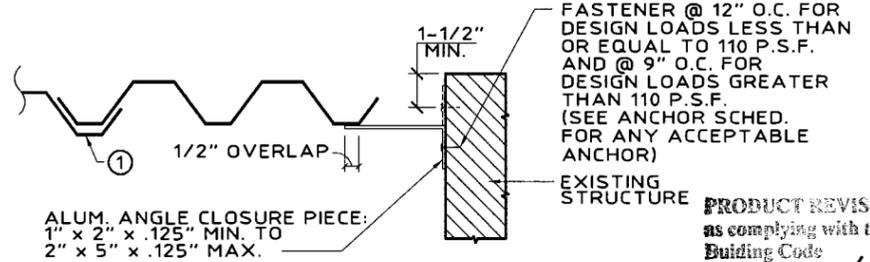
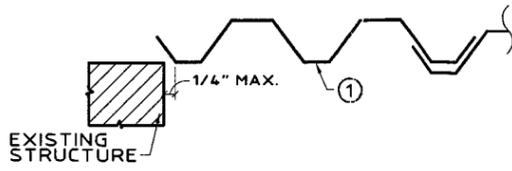
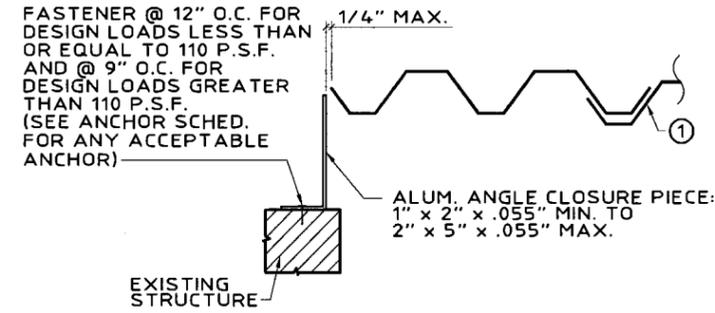
**GENERAL NOTES:**

- THESE APPROVAL DOCUMENTS REPRESENT A SHUTTER SYSTEM ANALYZED WITH THE PROVISION SET FOR THE ISSUANCE OF A NOTICE OF ACCEPTANCE (NOA) BY MIAMI-DADE COUNTY PRODUCT CONTROL DIVISION FOR THE HIGH VELOCITY HURRICANE ZONE (HVHZ) OF THE FLORIDA BUILDING CODE 2004 WITH 2005 SUPPLEMENT.
- NO INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS PRODUCT. WIND LOAD DURATION FACTOR  $C_d = 1.6$  WAS USED FOR WOOD SCREW DESIGN.
- DETERMINE THE POSITIVE AND NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH ASCE 7-02, A DIRECTIONALITY FACTOR OF  $K_d = 0.85$  SHALL BE USED.
- THESE APPROVAL DOCUMENTS ARE GENERIC AND DO NOT INCLUDE INFORMATION FOR SITE-SPECIFIC APPLICATION OF THIS SHUTTER SYSTEM.
- USE OF THESE APPROVAL DOCUMENTS SHALL COMPLY WITH CHAPTER 61G15-23 OF THE FLORIDA ADMINISTRATIVE CODE.
- THESE APPROVAL DOCUMENTS ARE SUITABLE TO BE APPLIED BY A LICENSED CONTRACTOR PROVIDED THE CONTRACTOR DOES NOT DEVIATE FROM THE CONDITIONS DETAILED HEREIN AND THE CONTRACTOR VERIFIES THAT THE EXISTING STRUCTURE DOES NOT DEVIATE IN EITHER FORM OR MATERIAL FROM THE STRUCTURAL SUBSTRATES DETAILED HEREIN.
- ANY MODIFICATIONS OR ADDITIONS TO THESE APPROVAL DOCUMENTS WILL VOID THE APPROVAL DOCUMENTS.
- WHEN THE SITE CONDITIONS DEVIATE FROM THESE APPROVAL DOCUMENTS, THE BUILDING OFFICIAL MAY ELECT ONE OF THE FOLLOWING OPTIONS:
  - REQUIRE THAT SITE SPECIFIC DOCUMENTS BE PREPARED, SIGNED, DATED AND SEALED BY A LICENSED ENGINEER OR REGISTERED ARCHITECT, WHICH DETAIL AND JUSTIFY THE DEVIATION. SAID DOCUMENTS SHALL BE SUBMITTED TO THE PRODUCT ENGINEER FOR REVIEW AS A CONDITION TO THE BUILDING OFFICIAL GRANTING HIS/HER APPROVAL.
  - REQUIRE THAT A ONE-TIME SITE SPECIFIC APPROVAL BE APPLIED FOR AND SECURED FROM THE MIAMI-DADE COUNTY PRODUCT CONTROL DIVISION
- WHEN THE SITE CONDITION DEVIATIONS OCCUR WITHIN THE HIGH VELOCITY HURRICANE ZONE AREAS ONLY OPTION "B" SHALL BE ACCEPTED BY THE BUILDING OFFICIAL.
- PRODUCT MARKINGS SHALL BE WITHIN 12" OF ONE END OF THE PANEL WITH A MINIMUM OF ONE MARKING PER PANEL AND SHALL BE PERMANENTLY LABELED AS FOLLOWS:
 

**POMA CORPORATION  
WEST PALM BEACH, FLORIDA  
MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED**
- STORM PANELS SHALL BE 3004-H34 OR 5052-H32 ALUMINUM ALLOY 0.050" THICK (WITH  $F_y = 28,850$  P.S.I. MIN.). ALL EXTRUSIONS SHALL BE 6063-T6 ALUMINUM ALLOY, U.O.N.
- ALL FASTENERS AND BOLTS TO BE 2024-T4 ALUMINUM ALLOY, 304 SERIES STAINLESS STEEL, OR GALVANIZED STEEL WITH A 33 K.S.I. MINIMUM YIELD STRENGTH.
- TOP & BOTTOM DETAILS SHOWN MAY BE INTERCHANGED AS FIELD CONDITIONS DICTATE. PANELS MAY BE MOUNTED HORIZONTALLY WHERE APPLICABLE.
- THE PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO SUSTAIN THE NEW SUPERIMPOSED LOADS AND TO VERIFY ALL DIMENSIONS AT THE JOB SITE BEFORE COMMENCING WITH THE WORK.



**9 TYPICAL ELEVATION**



**TYPICAL PLAN VIEWS**  
SCALE: 1-1/2" = 1'-0"

**Thornton Tomasetti**  
330 N. Andrews Ave., Suite 450 • Ft. Lauderdale, FL 33301  
T 954.522.3690 • F 954.522.3691 • COA # 7519  
Website: www.ThorntonTomasetti.com  
Copyright © 2006 Thornton-Tomasetti, Inc.

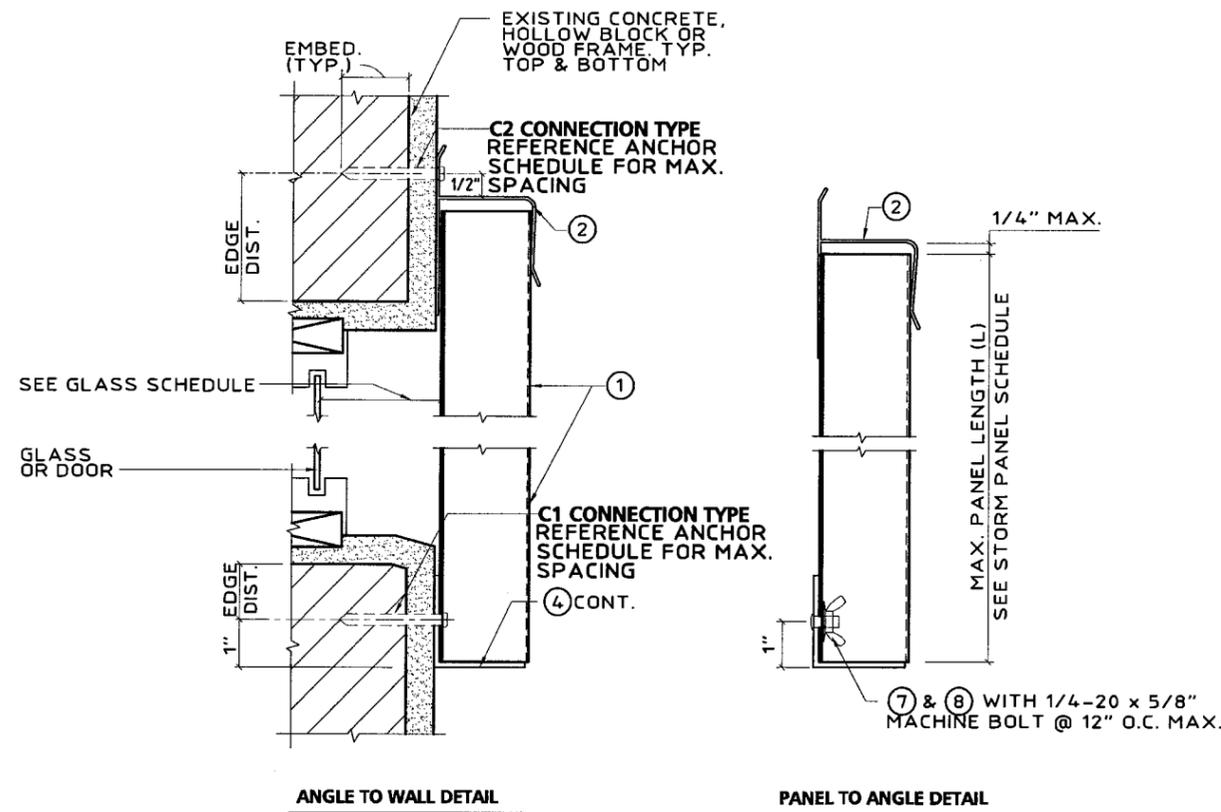
**0.050" ALUMINUM STORM PANEL**  
**POMA Corporation**  
9040 Belvedere Road  
West Palm Beach, FL 33411  
Tel: (561) 790-5799 • Fax (561) 792-9281

**V.J. Knezevich**  
Professional Engineer  
FL License No. PE 0013983  
DEC 06 2006

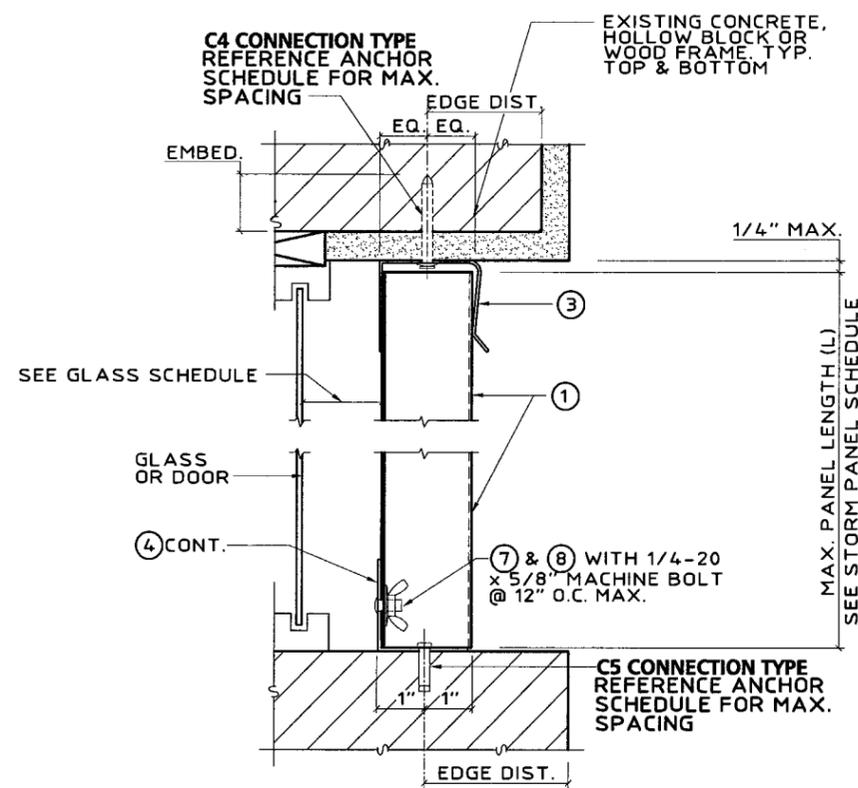
no.	date	description
0	12/06/2006	NW PREVIOUSLY DRAWING NO. 00-108

date: 12/06/2006  
scale: AS NOTED  
design by: NW  
checked by: VJK  
drawing no.: 06-537  
sheet 1 of 4

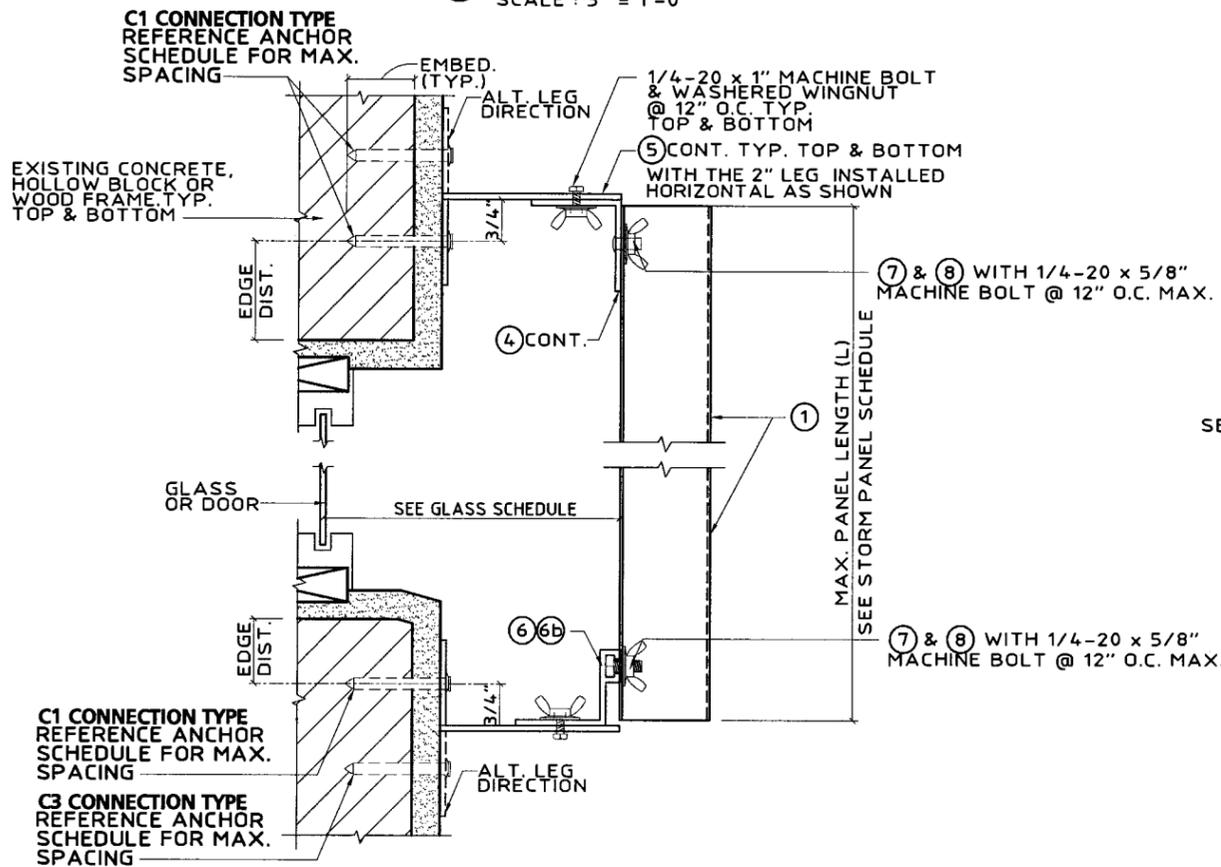
**PRODUCT REVISED**  
as complying with the Florida Building Code  
Acceptance No. 06-0823.06  
Expiration Date 08/16/2011  
By: *Helmut H. Melzer*  
Miami Dade Product Control Division



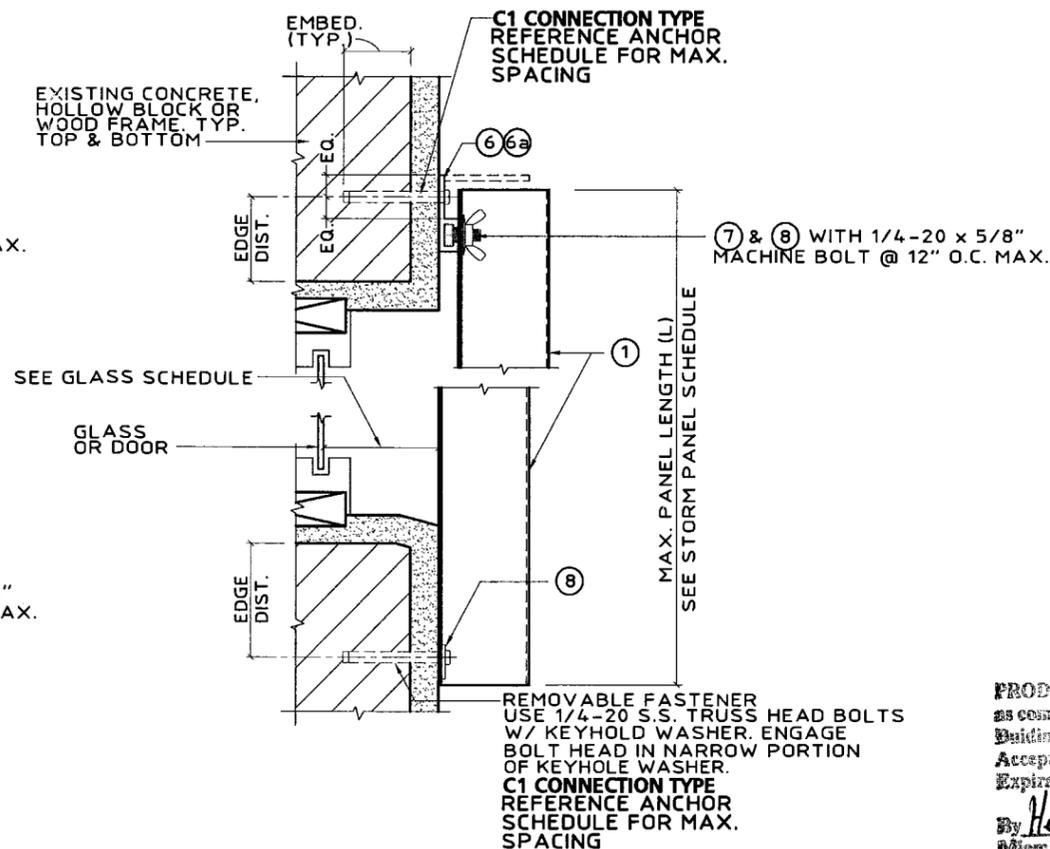
**A WALL MOUNT SECTION**  
SCALE: 3" = 1'-0"



**B CEILING/INSIDE MOUNT SECTION**  
SCALE: 3" = 1'-0"



**C BUILD-OUT MOUNT SECTION**  
SCALE: 3" = 1'-0"  
\* SIDE CLOSURE REQ'D. (SEE PLAN VIEW)



**D WALL MOUNT SECTION (DIRECT MOUNT)**  
SCALE: 3" = 1'-0"

**PRODUCT REVISED**  
 as complying with the Florida Building Code  
 Acceptance No 06-0823.06  
 Expiration Date 08/16/2011  
 By *Helmut A. Mader*  
 Miami Dade Product Control Division

**Thornton Tomasetti**  
 330 N. Andrews Ave., Suite 450 • Ft. Lauderdale, FL 33301  
 T 954-522-3690 • F 954-522-3691 • COA # 7519  
 Website: www.ThorntonTomasetti.com

**Poma Corporation**  
 9040 Belvedere Road  
 West Palm Beach, FL 33411  
 Tel: (561) 790-5799 • Fax (561) 792-9281

**V.J. Knezevich**  
 Professional Engineer  
 FL License No. PE 0010923

DEC 06 2006

no.	date	description
0	12/06/2006	NW

date 12/06/2006  
 scale AS NOTED  
 drawing by MCR  
 design by NW  
 checked by VJK  
 drawing no. 06-537  
 sheet 2 of 4



TABLE 2	MINIMUM STORM PANEL SEPARATION FROM GLASS (IN)*		
	POSITIVE DESIGN LOAD (W) (PSF)	ACTUAL SPAN (L) (FT - IN)	MIN. SEPARATION FROM GLASS FOR INSTALLATIONS LESS THAN 30' ABOVE GRADE (INCHES)
30.0	3 - 6	3-1/2	1-5/16
	8 - 8	3-1/2	1-7/8
	10 - 8	4-1/4	2-3/4
40.0	3 - 6	3-1/2	1-5/16
	8 - 8	3-1/2	2-1/8
	10 - 6	4-1/4	3-1/8
50.0	3 - 6	3-1/2	1-5/16
	8 - 8	3-1/2	2-3/8
	9 - 11	4-1/4	3-1/8
60.0	3 - 6	3-1/2	1-5/16
	8 - 8	3-1/2	2-9/16
	9 - 6	4-1/4	3-1/8
70.0	3 - 6	3-1/2	1-5/16
	8 - 8	3-1/2	2-3/4
	9 - 0	4-1/4	3
80.0	3 - 6	3-1/2	1-5/16
	6 - 6	3-1/2	1-13/16
	8 - 2	3-1/2	2-5/8
90.0	3 - 6	3-1/2	1-5/16
	5 - 6	3-1/2	1-9/16
	7 - 3	3-1/2	2-3/16
100.0	3 - 6	3-1/2	1-5/16
	6 - 7	3-1/2	2
110.0	3 - 6	3-1/2	1-5/16
	5 - 11	3-1/2	1-3/4

\* SEE TABLES 1 & 2 NOTE NUMBER 3

**TABLES 1 & 2 NOTES:**

1. ENTER TABLE 1 WITH NEGATIVE DESIGN LOAD TO DETERMINE MAX. PANEL SPAN (L<sub>max</sub>). POSITIVE LOADS LESS THAN OR EQUAL TO THE NEGATIVE LOAD ARE ACCEPTABLE.
2. FOR DESIGN LOADS BETWEEN TABULATED VALUES, USE NEXT HIGHER LOAD OR LINEAR INTERPOLATION MAY BE USED TO DETERMINE ALLOWABLE SPANS.
3. ENTER TABLE 2 WITH POSITIVE DESIGN LOAD TO DETERMINE MIN. SEPARATION FROM GLASS.

TABLE 1	MAXIMUM ALLOWABLE STORM PANEL SPAN SCHEDULE	
	NEG. DESIGN LOAD (PSF)	L <sub>max</sub> (FT - IN)
30.0	10 - 8	
35.0	10 - 8	
40.0	10 - 4	
45.0	10 - 0	
48.0	9 - 10	
50.0	9 - 9	
55.0	9 - 6	
60.0	9 - 4	
62.0	9 - 3	
65.0	9 - 1	
67.0	9 - 1	
70.0	8 - 11	
72.0	8 - 10	
75.0	8 - 8	
80.0	8 - 2	
90.0	7 - 3	
100.0	6 - 7	
110.0	5 - 11	
115.0	5 - 8	
120.0	5 - 5	
130.0	5 - 0	
140.0	4 - 8	
150.0	4 - 4	
160.0	4 - 1	
170.0	3 - 10	
180.0	3 - 7	
190.0	3 - 5	
200.0	3 - 3	

PRODUCT REVISED  
 as complying with the Florida  
 Building Code  
 Acceptance No. 06-9823-06  
 Expiration Date 08/16/2011  
 By Helmut A. M...  
 Miami Dade Product Control  
 Division

**Thornton Tomasetti**  
 330 N. Andrews Ave., Suite 450 • Ft. Lauderdale, FL 33301  
 T 954.522.3690 • F 954.522.3691 • COA # 7519  
 Website: www.ThorntonTomasetti.com  
 Copyright © 2006 Thornton-Tomasetti, Inc.

**0.050" ALUMINUM STORM PANEL**  
  
**Poma Corporation**  
 9040 Belvedere Road  
 West Palm Beach, FL 33411  
 Tel: (561) 790-5799 • Fax (561) 792-9281

V.J. Knezevich  
 Professional Engineer  
 FL License No. 0010985  
  
 DEC 06 2006

no	date	description
0	12/06/2006	NW

PREVIOUSLY DRAWING NO. 00-408

date 12/06/2006

scale AS NOTED drawn by MCR

design by NW checked by VJK

drawing no. **06-537**

sheet 4 of 4