



**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**

**NOTICE OF ACCEPTANCE (NOA)**

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

**Southern Metal Products, LLC**  
**450 West McNab Road**  
**Ft. Lauderdale, Florida 33309**

**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: "Wronofold A.I.R." Aluminum Accordion Shutter**

**APPROVAL DOCUMENT:** Drawing No. 05-409, titled " Air Accordion Shutter ", sheets 1 through 5 of 5, prepared by Thornton-Tomasetti Group, dated October 10, 2005, last revision #1 dated August 17, 2006, signed and sealed by J. W. 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 unit 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** NOA # **03-0716.03** and consists of this page 1, evidence submitted pages E-1, E-2, E-3, & E-4 as well as approval document mentioned above.

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



*Helmy A. Makar*  
 09/07/2006

**NOA No 05-1013.03**  
**Expiration Date: 07/23/2008**  
**Approval Date: 09/07/2006**  
**Page 1**

**Southern Metal Products, LLC**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #98-0616.05**

**A. DRAWINGS**

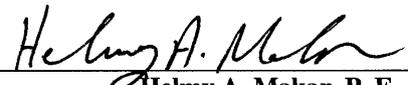
1. *Drawing prepared by Al-Farooq Corporation, titled "Accordion Shutter Details," Drawing No. 94-46, dated June 10, 1994, last revised June 15, 1998, sheets 1 through 4 of 4, signed and sealed by Dr. Humayoun Farooq, P.E. on June 15, 1998.*

**B. TESTS**

1. *Test report on Uniform Static Air Pressure Test of std. accordion shutter (111" blade), prepared by Hurricane Engineering & Testing, Inc., Report No. HETI-94-132, dated June 6, 1994, signed and sealed by Arshad Viqar, P.E.*
2. *Test report on Uniform Static Air Pressure Test of std. accordion shutter (111" blade), prepared by Hurricane Engineering & Testing, Inc., Report No. HETI-94-354, dated October 27, 1994, signed and sealed by Hector M. Medina, P.E.*
3. *Test report on Uniform Static Air Pressure Test of std. accordion shutter (84", 150", 118" and 111" blade), prepared by Hurricane Engineering & Testing, Inc., Report No. HETI-94-387, dated December 6, 1994, signed and sealed by Hector M. Medina, P.E.*
4. *Test report on Large Missile Impact Test and Cyclic Wind Pressure Test of std. accordion shutter (96" blade) 3 specimens, prepared by Hurricane Engineering & Testing, Inc., Report No. HETI-94-133, dated June 6, 1994, signed and sealed by Arshad Viqar, P.E.*
5. *Test report on Large Missile Impact Test and Cyclic Wind Pressure Test of std. accordion shutter, prepared by Hurricane Engineering & Testing, Inc., Report No. HETI-94-177 (96" blade), dated July 7, 1994, signed and sealed by Arshad Viqar, P.E.*
6. *Test report on Large Missile Impact Test of std. accordion shutter, prepared by Hurricane Engineering & Testing, Inc., Report No. HETI-94-290 (111" blade), dated September 9, 1994, signed and sealed by Hector M. Medina, P.E.*
7. *Test report on Large Missile Impact Test of std. accordion shutter (96" blade) 3 specimens, prepared by Hurricane Engineering & Testing, Inc., Report No. HETI-94-369, dated November 10, 1994, signed and sealed by Hector M. Medina, P.E.*

**C. CALCULATIONS**

1. *Comparative analysis and anchor calculations prepared by Al-Farooq Corporation, signed and sealed by Humayoun Farooq, P.E., on January 10, 1995.*

  
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Helmy A. Makar, P. E.

Product Control Examiner

NOA No 05-1013.03

Expiration Date: 07/23/2008

Approval Date: 09/07/2006

**Southern Metal Products, LLC**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**D. MATERIAL CERTIFICATIONS**

1. *Mill Certified Test Report No. 0042, extended by Benada Aluminum of Florida, dated May 25, 1994 with mechanical properties and chemical composition of aluminum alloy 6063-T6.*
2. *Tensile and Chemical Test Report No. 70-02-94-219 prepared by ATEC Associates, Inc. dated June 15, 1994.*
3. *Tensile Test Report No. HETI-94-T58 prepared by Hurricane Engineering & Testing, Inc. dated January 31, 1995, signed and sealed by Hector M. Medina, P.E.*

**E. STATEMENTS**

1. *Letter issued by the All Broward Hurricane Panel, Inc., dated June 10, 1998, signed by Mr. LeRoy Peterson, informing Mr. Raul Rodriguez that they purchased the Miami-Dade Product Approvals for the Wrono Enterprises Corporation's products. Additionally, they are requesting to replace the Wrono Enterprises Corporation's name with All Broward Hurricane Panel, Inc.*
2. *Copy of the United States Bankruptcy Court, Southern District of Florida, Case No. 98-20840-BKC-PGH, Chapter 7, in reference to Wrono Enterprise Corporation.*

**F. OTHER**

1. *This approval revises NOA No. 97-0623.04, which was issued on July 23, 1997.*

**2. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #00-0424.08**

**A. DRAWINGS**

1. *Drawing No. 94-46, prepared by Al-Farooq Corporation, titled "Accordion Shutter Details", dated June 10, 1994, last revision #E dated March 27, 2000, sheets 1 through 4 of 4, signed and sealed by Humayoun Farooq, P.E. on April 4, 2000.*

**B. TESTS**

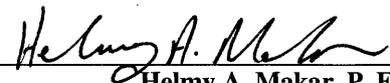
1. *None.*

**C. CALCULATIONS**

1. *None.*

**D. MATERIAL CERTIFICATIONS**

1. *None.*



Helmy A. Makar, P. E.  
Product Control Examiner  
NOA No 05-1013.03  
Expiration Date: 07/23/2008  
Approval Date: 09/07/2006

**Southern Metal Products, LLC**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**3. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #02-0904.05**

**A. DRAWINGS**

1. *Drawing No. 94-46, titled "Accordion Shutter Details", sheets 1 through 4 of 4, prepared by Al-Farooq Corporation, dated June 10, 1994, last revision #G dated July 12, 2002, signed and sealed by Humayoun Farooq, P.E.*

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

1. *None.*

**D. MATERIAL CERTIFICATIONS**

1. *None.*

**4. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #03-0612.03**

**A. DRAWINGS**

1. *None.*

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

1. *None.*

**D. MATERIAL CERTIFICATIONS**

1. *None.*

**5. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 03-0716.03**

**A. DRAWINGS**

1. *Drawing No. 94-46, titled "Accordion Shutter Details", sheets 1 through 6 of 6, prepared by Al-Farooq Corporation, dated June 10, 1994, last revision #J dated January 23, 2004, signed and sealed by Humayoun Farooq, P.E.*

**B. TESTS**

1. *Test report on Large Missile Impact Test and Cyclic Wind Pressure Test of an accordion shutter, prepared by Construction Testing Corporation, Report No. 03-012, dated May 31, 2003, signed and sealed by Yamil G. Kuri, P.E.*



Helmy A. Makar, P. E.

Product Control Examiner

NOA No 05-1013.03

Expiration Date: 07/23/2008

Approval Date: 09/07/2006

**Southern Metal Products, LLC**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**C. CALCULATIONS**

1. *Anchor calculations, sheets A-1 through A-24, AP-1 through AP-18, and C-1 through C-22, prepared by Al-Farooq Corporation, dated June 3, 2003, signed and sealed by Humayoun Farooq, P.E., on June 10, 2003.*

**D. QUALITY ASSURANCE**

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

**E. MATERIAL CERTIFICATIONS**

1. *None.*

**6. NEW EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. *Drawing No. 05-409, titled " Air Accordion Shutter ", sheets 1 through 5 of 5, prepared by Thornton-Tomasetti Group, dated October 10, 2005, last revision #1 dated August 17, 2006, signed and sealed by J. W. Knezevich, P.E.*

**B. TESTS**

1. *None.*

**C. CALCULATIONS**

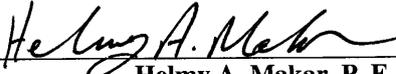
1. *Comparative analysis and anchor calculations, pages 1 through 80 of 80, prepared by Thornton-Tomasetti Group, dated September 21, 2005, signed and sealed by J. W. Knezevich, P.E.*

**D. QUALITY ASSURANCE**

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

**E. MATERIAL CERTIFICATIONS**

1. *None.*

  
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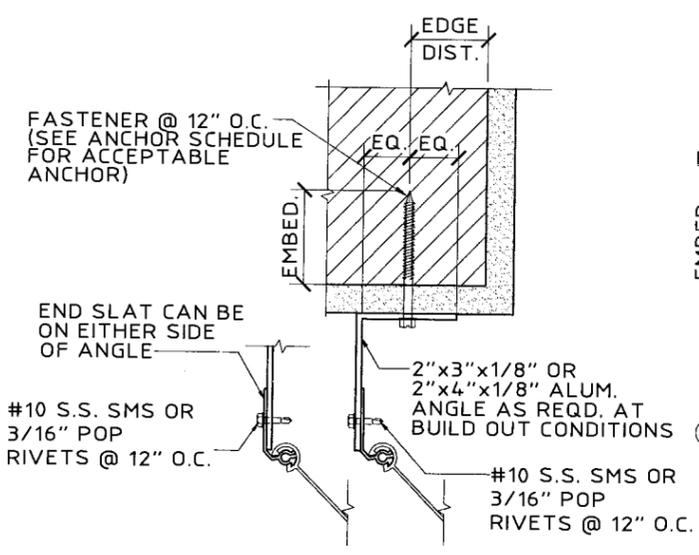
**Helmy A. Makar, P. E.**

**Product Control Examiner**

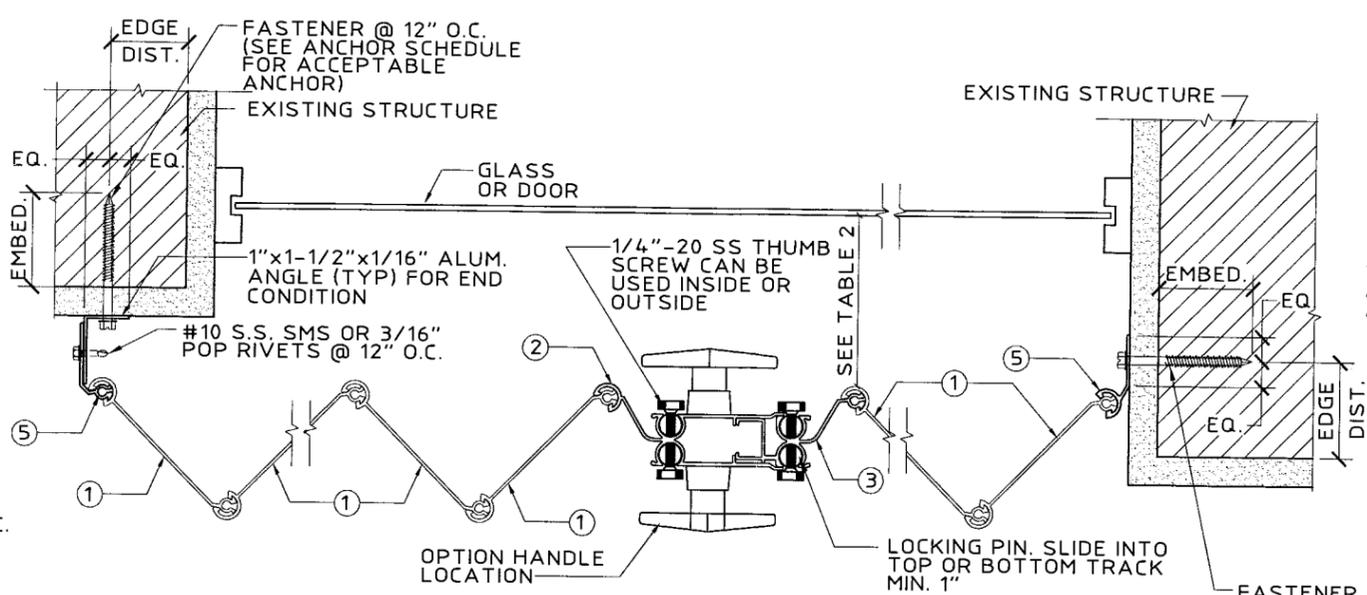
**NOA No 05-1013.03**

**Expiration Date: 07/23/2008**

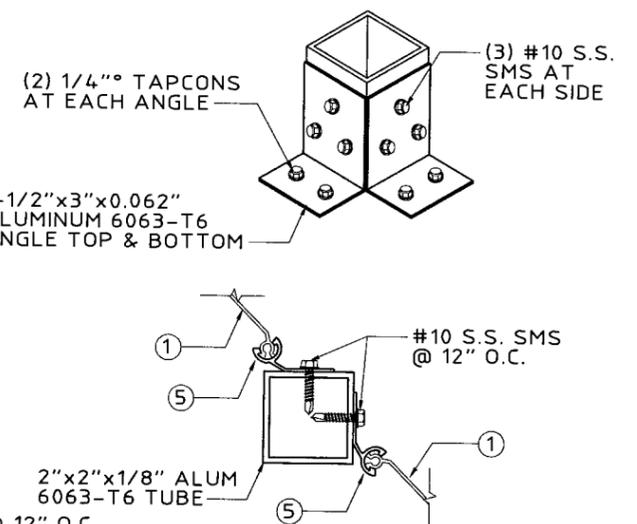
**Approval Date: 09/07/2006**



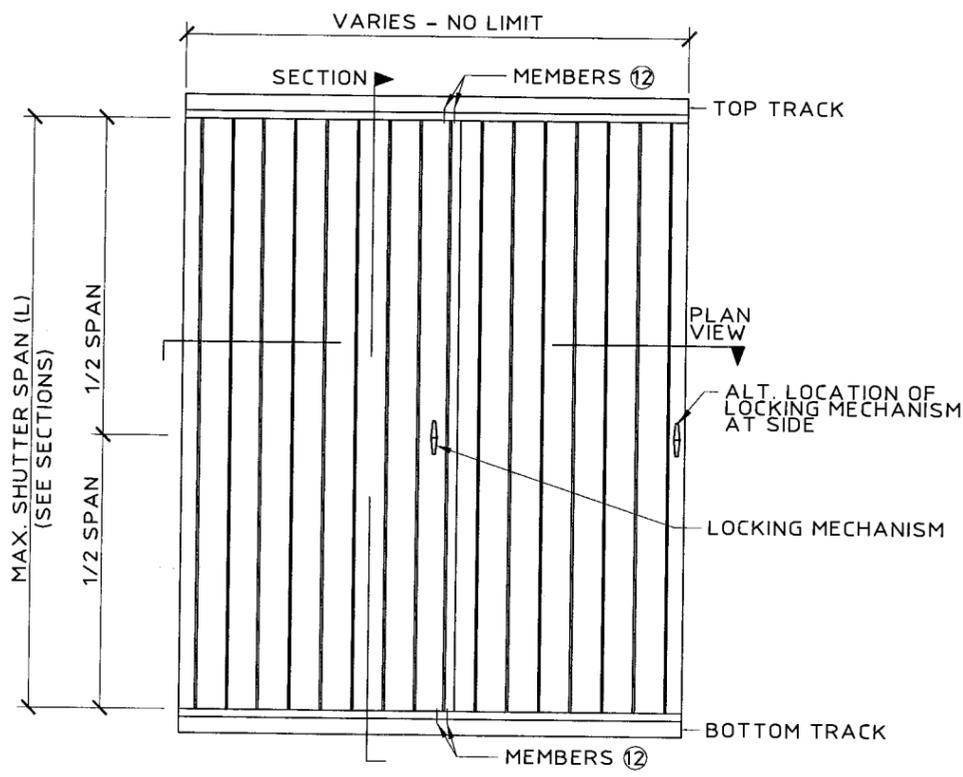
**BUILD-OUT PLAN VIEW**  
SCALE : 3" = 1' - 0"



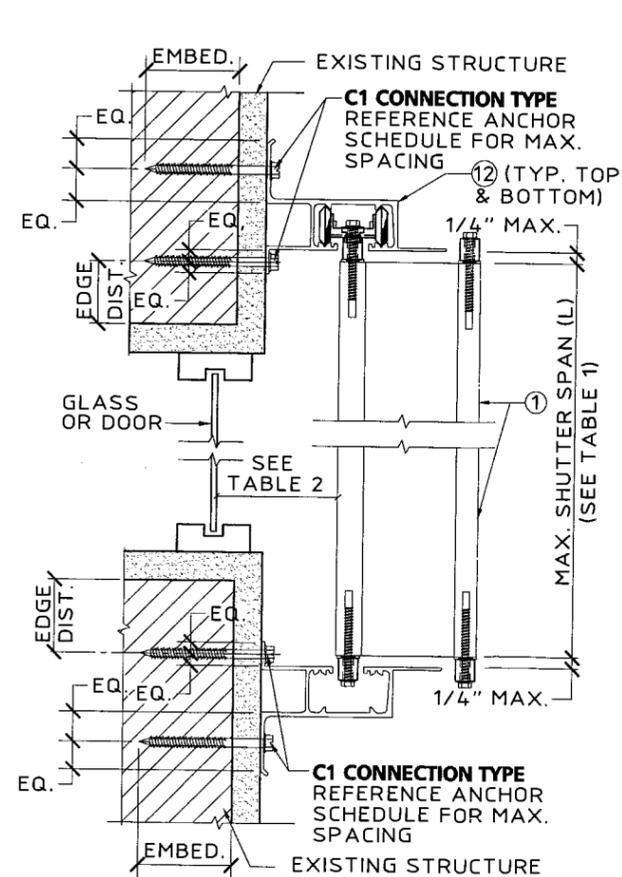
**TYPICAL PLAN VIEW**  
SCALE : 3" = 1' - 0"



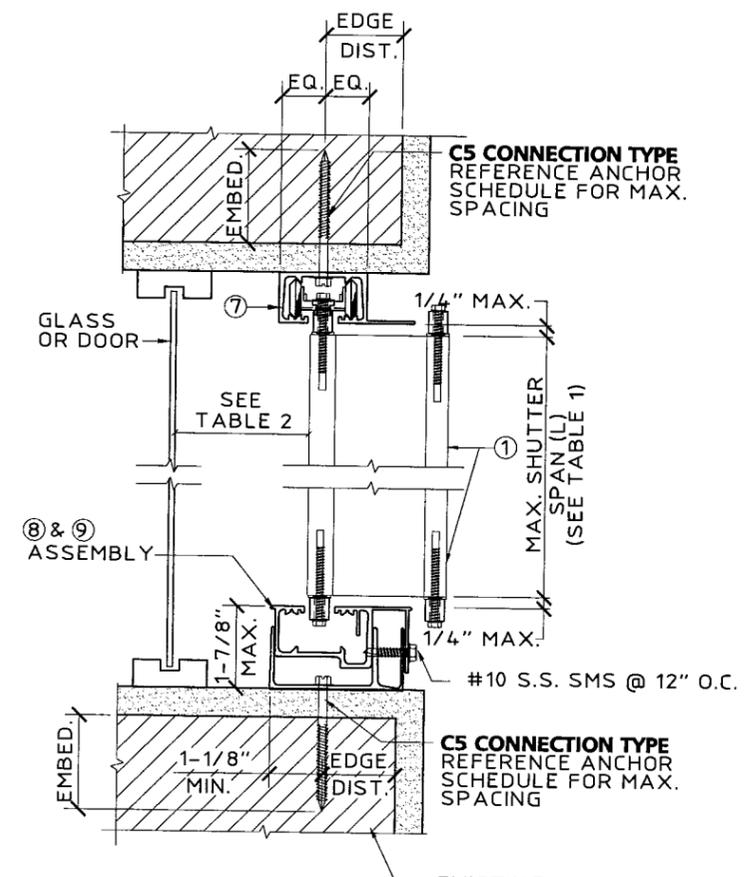
**TYPICAL CORNER DETAIL**  
SCALE : 3" = 1' - 0"



**TYPICAL ELEVATION**  
N.T.S.



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



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

PRODUCT REVISED as complying with the Florida Building Code  
Acceptance No 05-1013.03  
Expiration Date 07/23/2008  
By *Helmut A. M...*  
Miami Dept. Product Control Division

**Thornton-Tomasetti Group**  
330 N. Andrews Ave., Suite 450 • Ft. Lauderdale, FL 33301  
Tel. (954) 522-3690 • Fax (954) 522-3691 • COA # 7519  
Website: www.TheTTGroup.com  
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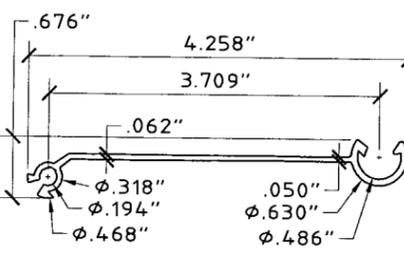
**AIR ACCORDION SHUTTER**  
SOUTHERN METAL PRODUCTS, LLC - D.B.A.  
**ALBROWARD**  
150 West McNab Road  
Ft. Lauderdale, FL 33309  
1-800-HURRICANE  
**HURRICANE** P A N E L

J.W. Knezevich  
Professional Engineer  
FL License No.: PE 0041961

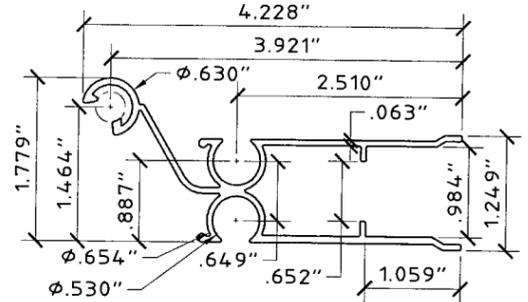
17 2006

no.	date	by	description
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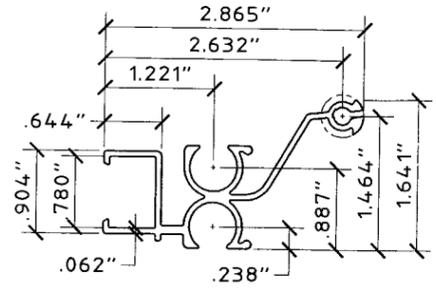
date 10/10/2005  
Scale AS NOTED drawn by MCR/ARV  
design by ZL checked by JWK  
drawing no. 05-409  
sheet 2 of 5



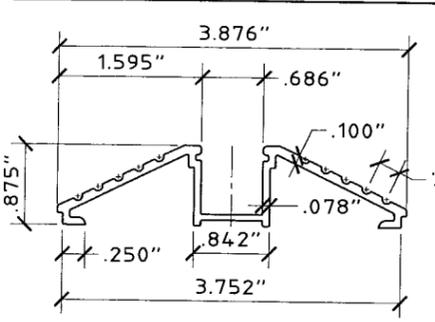
1 BLADE  
SCALE: HALF SIZE



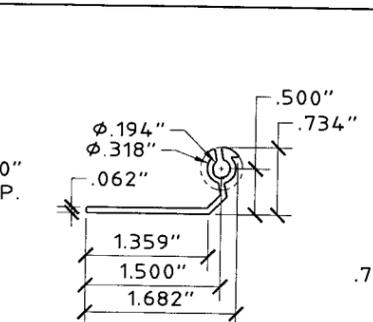
2 FEMALE LOCKING SLAT  
SCALE: HALF SIZE



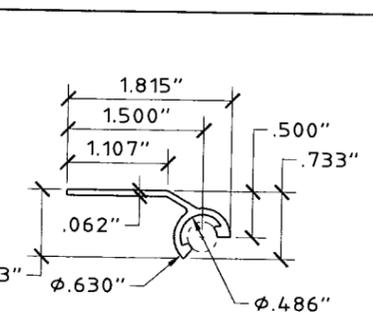
3 MALE LOCKING SLAT  
SCALE: HALF SIZE



4 THRESHOLD TRACK  
SCALE: HALF SIZE



5 MALE END SLAT  
SCALE: HALF SIZE

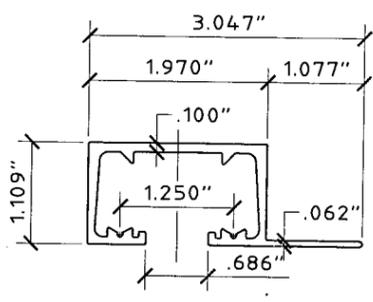


6 FEMALE END SLAT  
SCALE: HALF SIZE

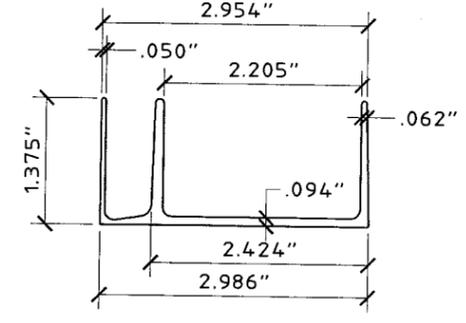
**GENERAL NOTES:**

- 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.
- 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 LAG 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 THE 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.
- EACH SHUTTER ASSEMBLY SHALL BE PERMANENTLY LABELED AT THE BOTTOM END OF THE LOCKING SLAT AS FOLLOWS:
 

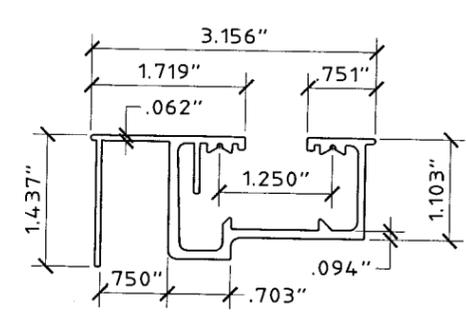
**ALL BROWARD HURRICANE PANEL INC.**  
**MIAMI, FL. ORIDA**  
**MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED**
- ALL EXTRUSIONS SHALL BE 6063-T6 ALUMINUM ALLOY, U.O.N
- ALL BOLTS AND WASHERS SHALL BE GALVANIZED OR STAINLESS STEEL WITH A MINIMUM TENSILE STRENGTH OF 33 K.S.I., U.O.N. POP RIVETS SHALL BE 3/16" DIA. 5052 ALUMINUM ALLOY.
- ALL SHUTTERS SHALL HAVE A LOCKING MECHANISM AT CENTER OR SIDE CLOSURE.
- THE MAXIMUM SHUTTER BLADE LENGTH TESTED WAS 150".
- CLOSURE STRIP FOR BUILD-OUT MOUNT SHALL BE AN ANGLE OF SUFFICIENT SIZE TO FULLY COVER BOTH OPEN SIDES OF STORM SHUTTER INSTALLATION. CLOSURE STRIP SHALL BE ATTACHED TO WALL WITH 1/4"  $\phi$  FASTENER @ MIN. 12" O.C. (TYPE TO BE DETERMINED FROM ANCHOR SCHEDULE). SHUTTERS NEED NOT BE ATTACHED TO CLOSURE STRIP.



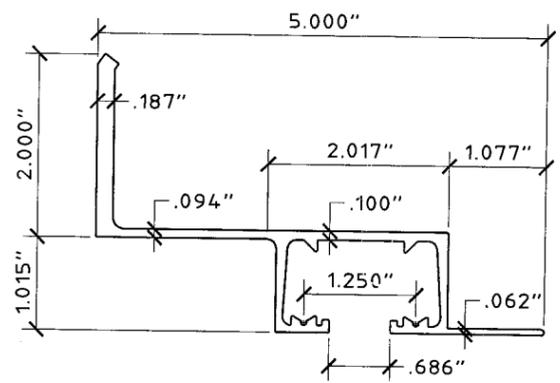
7 CEILING MOUNT HEADER  
SCALE: HALF SIZE



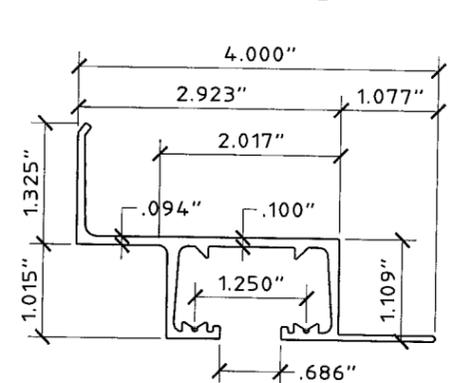
8 TRACK ADAPTER  
SCALE: HALF SIZE



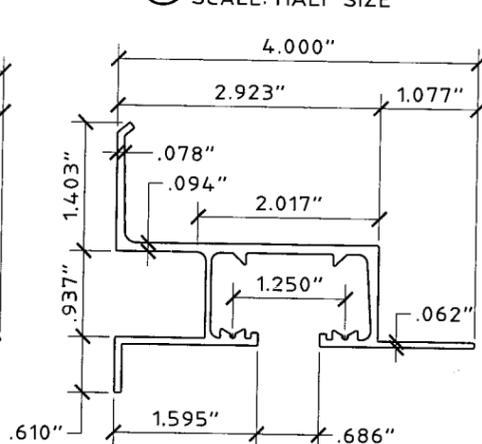
9 ADJ. HEADER OR SILL  
SCALE: HALF SIZE



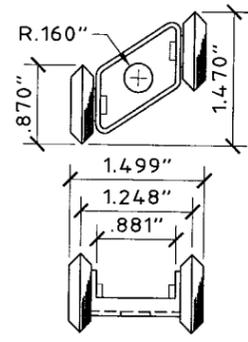
10 ALT. WALL MOUNT  
HEADER OR SILL  
SCALE: HALF SIZE



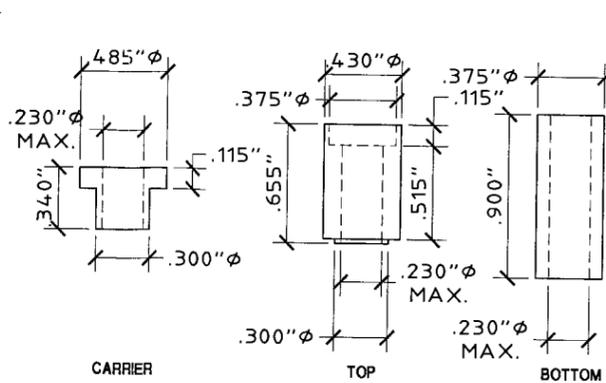
11 TRACK ADAPTER  
SCALE: HALF SIZE



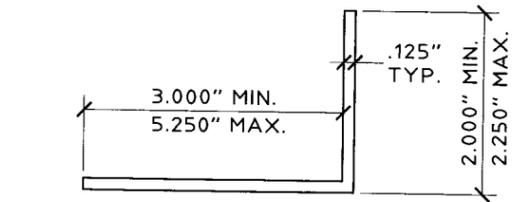
12 ADJ. HEADER OR SILL  
SCALE: HALF SIZE



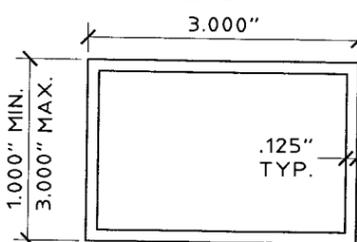
13 ROLLER ASSEMBLY  
SCALE: HALF SIZE



14 BUSHINGS  
SCALE: FULL SIZE



15 ANGLE (ALUM. 6063-T6)  
SCALE: HALF SIZE



16 TUBE (ALUM. 6063-T6)  
SCALE: HALF SIZE

**PRODUCT REVISED**  
as complying with the Florida Building Code  
Acceptance No. **05-1013.03**  
Expiration Date **07/23/2008**  
By *Helmut A. M...*  
Miami-Dade Product Control Division

**Thornton-Tomasetti Group**  
330 N. Andrews Ave., Suite 450 • Ft. Lauderdale, FL 33301  
Tel. (954) 522-3690 • Fax (954) 522-3691 • COA # 7519  
Website: www.TheTTGroup.com  
Copyright © 2005 Thornton-Tomasetti Group, Inc.

**AIR ACCORDION SHUTTER**  
SOUTHERN METAL PRODUCTS, LLC - D.B.A.  
**AL BROWARD HURRICANE**  
450 West McNab Road  
Ft. Lauderdale, FL 33304  
1-800-HURRICANE  
P A N E L

**J.W. Knezevich**  
Professional Engineer  
FL License No.: PE 0041961

**AUG 17 2006**

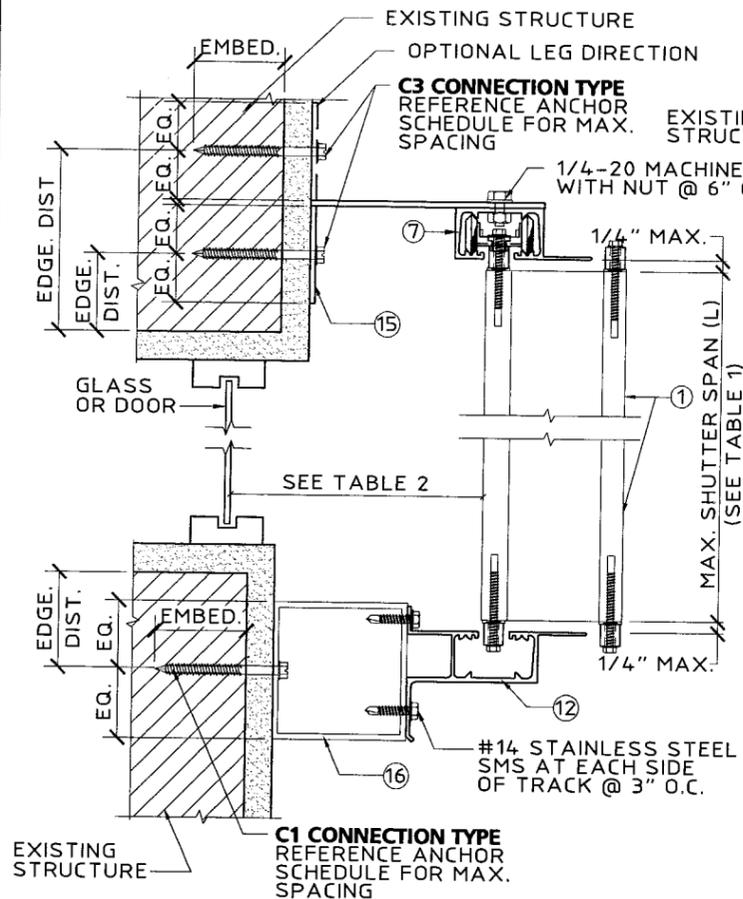
no.	date	description
1	08/17/06 NW	COUNTY COMMENTS

revisions

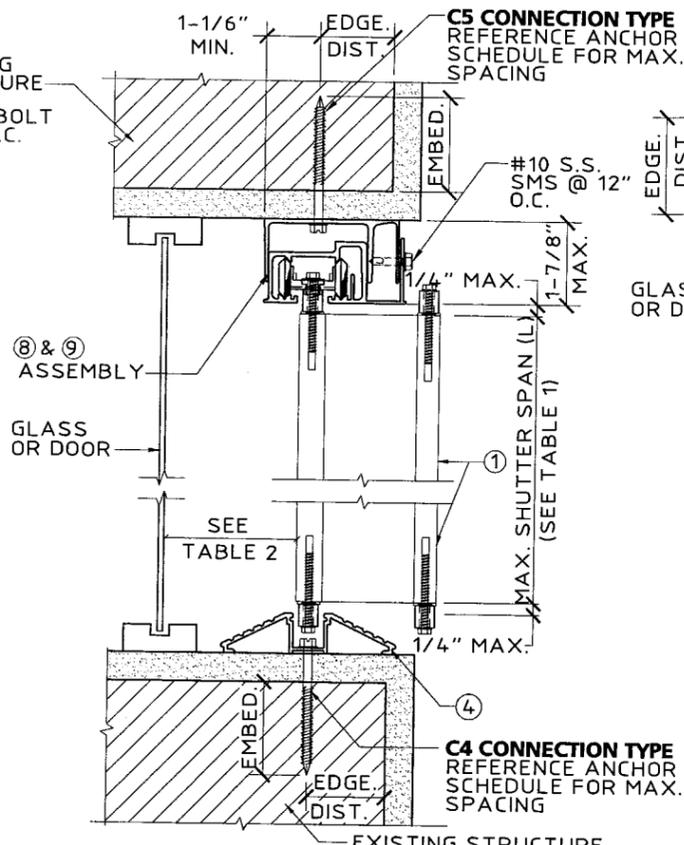
scale AS NOTED  
design by ZL  
checked by JWK  
division

date 10/10/2005  
drawn by MCR/ARV  
checked by JWK

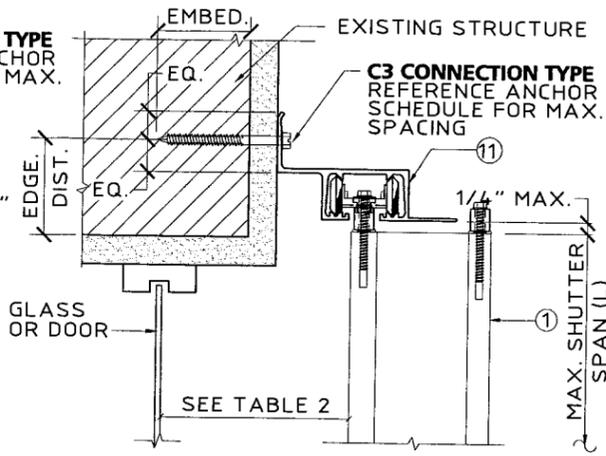
drawing no. **05-409**  
sheet 1 of 5



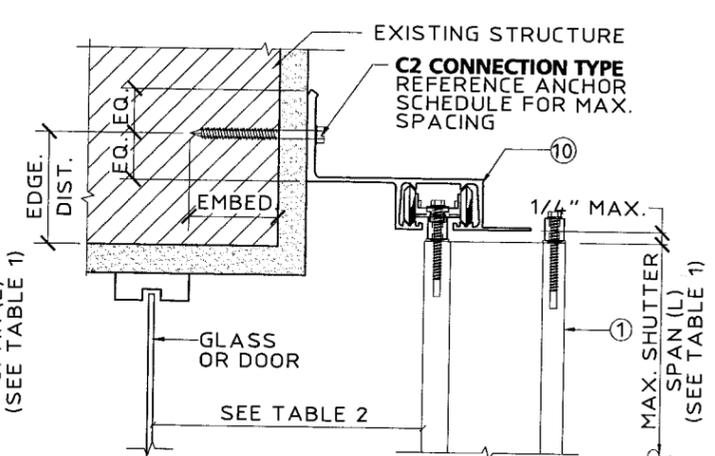
**C BUILDOUT MOUNT SECTION**  
SCALE: 3" = 1'-0"



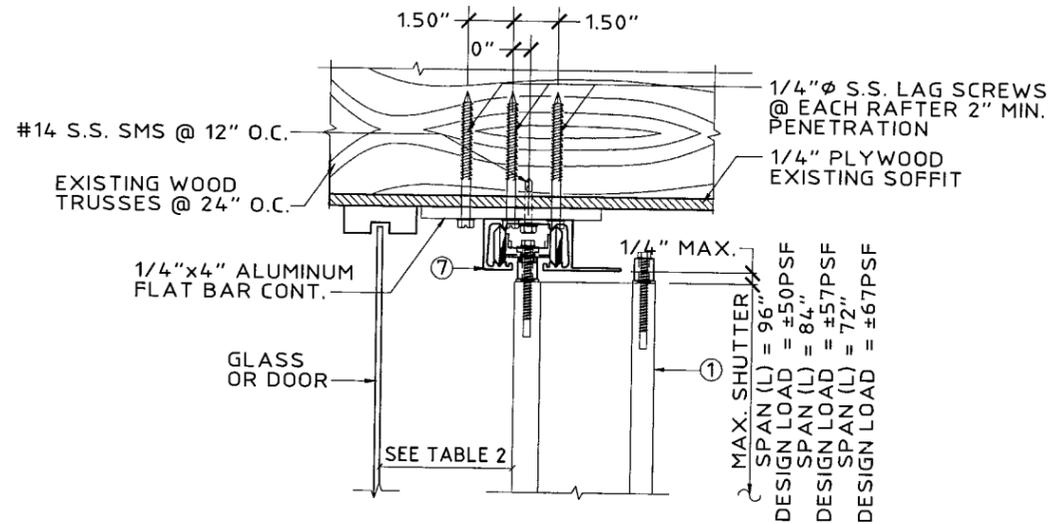
**D ALT. INSIDE MOUNT**  
SCALE: 3" = 1'-0"



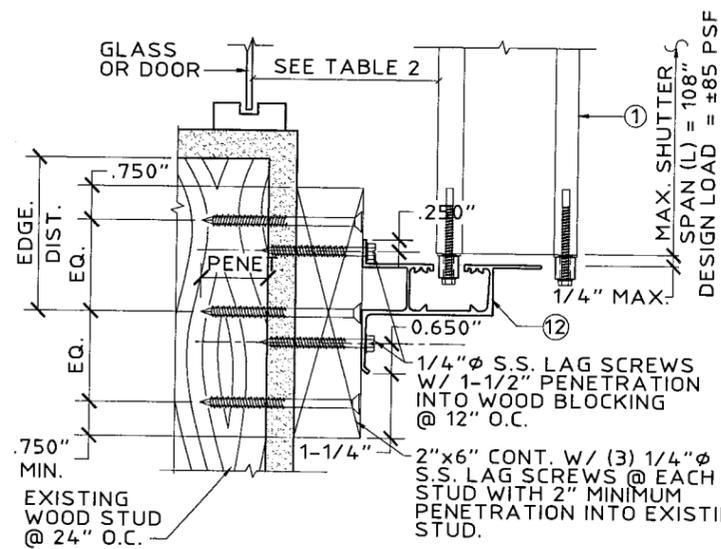
**E WALL MOUNT SECTION**  
SCALE: 3" = 1'-0"



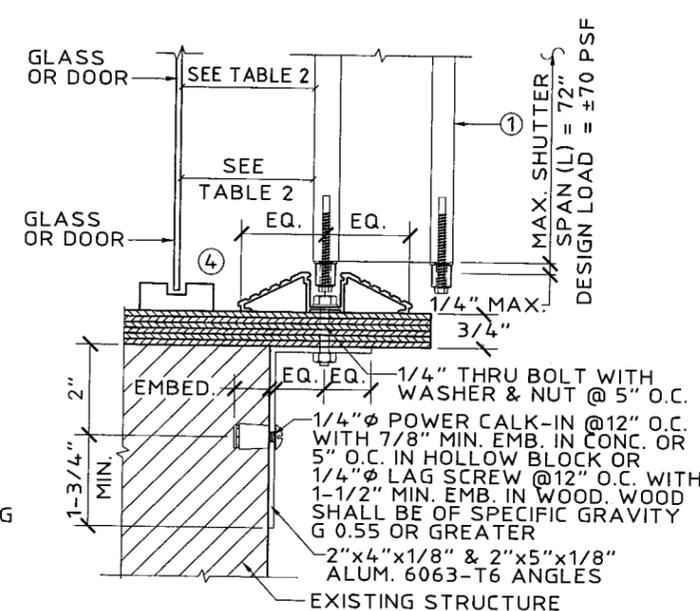
**F WALL MOUNT SECTION**  
SCALE: 3" = 1'-0"



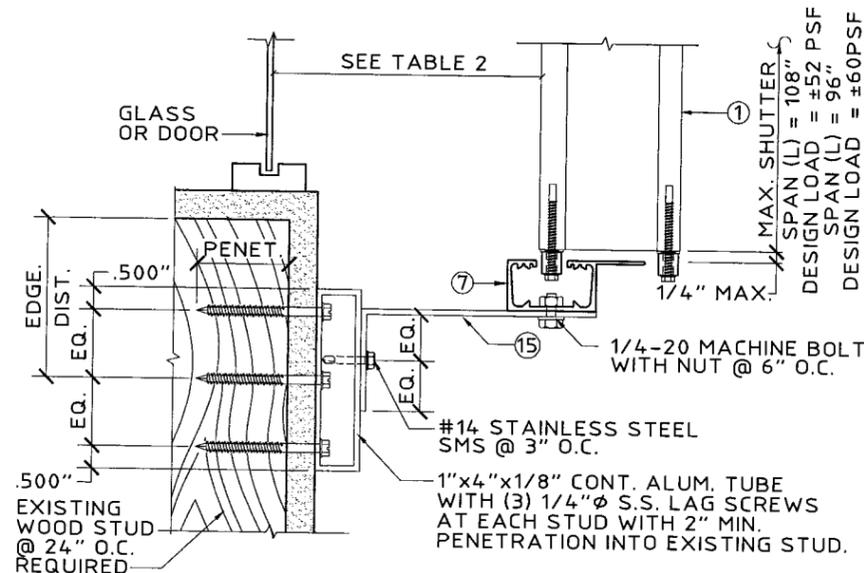
**G SOFFIT CONNECTION DETAIL**  
SCALE: 3" = 1'-0"



**H BUILDOUT MOUNT SECTION**  
SCALE: 3" = 1'-0"



**J PASS THRU DETAIL**  
SCALE: 3" = 1'-0"



**K BUILDOUT MOUNT SECTION**  
SCALE: 3" = 1'-0"

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 05-1013.03  
Expiration Date 07/23/2008  
By: *Heather A. Walker*  
Miami Door Product Control  
Division

**Thornton-Tomasetti Group**  
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**AIR ACCORDION SHUTTER**  
SOUTHERN METAL PRODUCTS, LLC - D.B.A.  
450 West McNab Road  
Ft. Lauderdale, FL 33306  
1-800-HURRICANE  
**AUBROWARD HURRICANE PANEL**

J.W. Knezevich  
Professional Engineer  
FL License No.: PE 0041961

AUG 17 2006

no.	date	by	description
1	08/17/06	NW	COUNTY COMMENTS

scale AS NOTED  
design by ZL  
checked by JWK  
date 10/10/2005  
drawn by MCR/ARV  
drawing no. 05-409  
sheet 3 of 5



