



**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.buildingcodeonline.com](http://www.buildingcodeonline.com)**

**NOTICE OF ACCEPTANCE (NOA)**

**Hurd Windows & Doors, Inc.  
575 S. Whelen Avenue  
Medford, WI 54451**

**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 had been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

**DESCRIPTION: Clipped Aluminum Tube Mullion- Impact**

**APPROVAL DOCUMENT:** Drawing No. 1047A, titled "Clipped Impact & Non-impact Aluminum Tube Mullions" Sheets 1 through 6 of 6, dated 07/24/01 with revision "A1" dated 07/28/05, prepared by W. W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren W. Schaefer, 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 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 # 01-1012.04 and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by **Jaime D. Gascon, P.E.**



**NOA No 05-0822.05  
Expiration Date: February 14, 2007  
Approval Date: March 9, 2006  
Page 1**

Hurd Windows & Doors, Inc.

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. Manufacturer's die drawings and sections.
2. Drawing No. **1047A**, titled "Clipped Impact & Non-impact Aluminum Tube Mullions" Sheets 1 through 6 of 6, dated 07/24/01 with revision "A1" dated 07/28/05, prepared by W. W. Schaefer Engineering & Consulting, P. A. , signed and sealed by Warren W. Schaefer, P. E.

**B. TESTS**

1. Test reports on
  - 1) Air Infiltration Test, per FBC, TAS 202-94
  - 2) Uniform Load Static Air Pressure Test, per FBC, TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Forced Entry Resistance Test, per FBC, TAS 202-94
  - 5) Large Missile Impact Test, FBC, TAS 201-94
  - 6) Cyclic Loading Test, per FBC, TAS 203-94

along with installation diagram of clipped aluminum mullion, marked-up by Certified Testing Laboratory, Inc., Test Report No. **CTLA-679WB, specimen #1 & CTLA-679WF, specimen #1, #2** both dated 10/02/01, signed and sealed by Ramesh Patel, P. E  
*"Submitted under NOA# 01-1012.04"*

**C. CALCULATIONS**

1. Revised Anchor verification calculations and structural performance dated 07/20/01, prepared by W. W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E

**D. QUALITY ASSURANCE BY:**

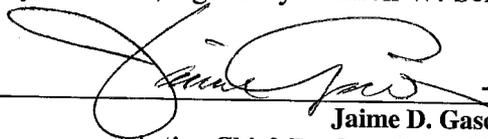
1. Miami Dade Building Code Compliance Office (BCCO).

**E. MATERIAL CERTIFICATIONS**

1. None

**F. STATEMENTS**

1. Statement letter of conformance and "No financial interest", dated July 19, 2001, signed by Warren W. Schaefer, P.E.  
*"Submitted under NOA# 01-1012.04"*
2. Statement letter of Lab compliance , part of the report, issued by Certified Testing Lab, signed and sealed by Ramesh Patel, P. E.  
*"Submitted under NOA# 01-1012.04"*
3. Statement letter of conformance dated July 28, 2005, signed by Warren W. Schaefer, P.E.

  
Jaime D. Gascon, P.E.  
Acting Chief, Product Control Division.

NOA No 05-0822.05

Expiration Date: February 14, 2007

Approval Date: March 9, 2006

**Hurd Windows & Doors, Inc.**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**G. OTHER**

1. Notice of Acceptance No. **01-1012.04**, issued to Hurd Window and Doors, Inc., for Clipped Aluminum Tube Mullion- Impact, dated 02/14/02 and expiring on 02/14/07.

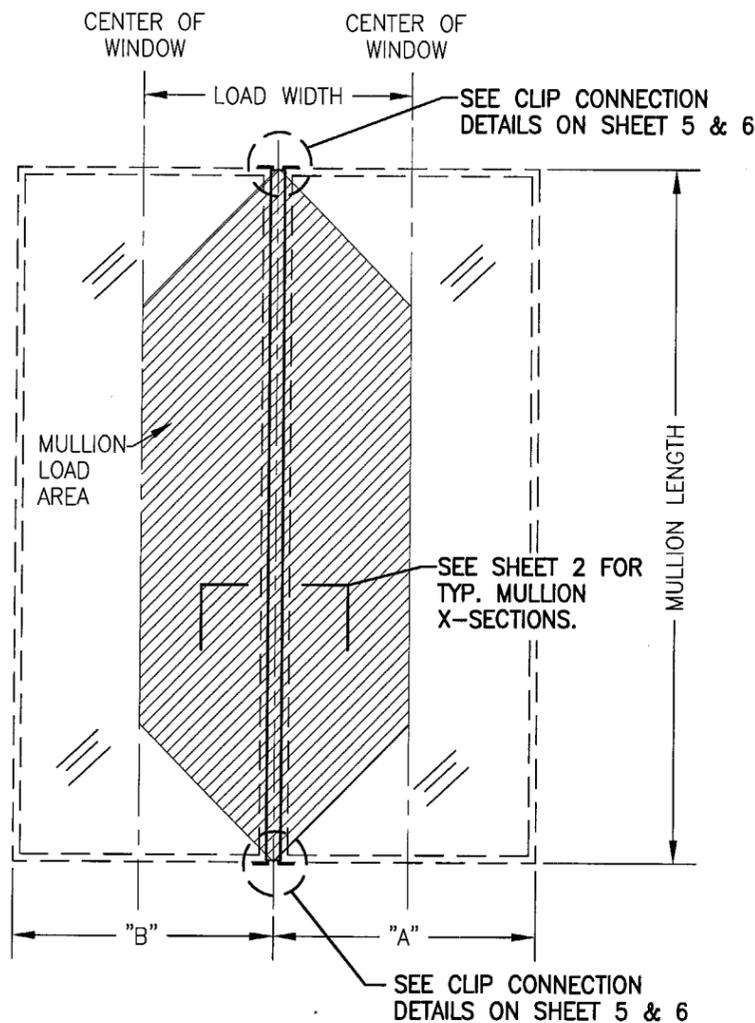


**Jaime D. Gascon, P.E.**  
**Acting Chief, Product Control Division.**

**NOA No 05-0822.05**

**Expiration Date: February 14, 2007**

**Approval Date: March 9, 2006**



**FIXED WINDOW TO FIXED WINDOW**  
LOAD WIDTH = (A + B)/2

NOTE: "FIXED WINDOW" MAY BE A SASH GLAZED FIXED OR A DIRECT GLAZED FIXED WINDOW UNDER SEPERATE APPROVAL.

NOTE: MULLION MAY BE HORIZONTAL OR VERTICAL

FIXED WINDOW TO FIXED WINDOW TABLE							
LENGTH (IN.)	LOAD WIDTH (IN.)	ALLOWABLE PRESSURES (PSF)					
		4X1X1/8 TUBE		4X2X1/8 TUBE		5X2X1/8 TUBE	
		A+B/2	CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"	CONN. "A"
60	54	100.0	100.0	100.0	100.0	100.0	100.0
	60	97.5	97.5	100.0	100.0	100.0	100.0
	66	97.5	97.5	100.0	100.0	100.0	100.0
	72	97.5	97.5	100.0	100.0	100.0	100.0
66	42	100.0	100.0	100.0	100.0	100.0	100.0
	48	91.6	91.6	100.0	100.0	100.0	100.0
	54	81.4	81.4	100.0	100.0	100.0	100.0
	60	73.3	73.3	100.0	100.0	100.0	100.0
	66	66.6	66.6	97.3	97.3	100.0	100.0
	72	66.6	66.6	100.0	100.0	100.0	100.0
72	24	100.0	100.0	100.0	100.0	100.0	100.0
	30	100.0	100.0	100.0	100.0	100.0	100.0
	36	94.1	94.1	100.0	100.0	100.0	100.0
	42	80.6	80.6	100.0	100.0	100.0	100.0
	48	70.6	70.6	100.0	100.0	100.0	100.0
	54	62.7	62.7	91.6	91.6	100.0	100.0
	60	56.4	56.4	82.5	82.5	100.0	96.7
	66	51.3	51.3	75.0	75.0	100.0	94.7
	72	47.0	47.0	68.7	68.7	100.0	94.0
	84	24	88.9	88.9	100.0	100.0	100.0
30		71.1	71.1	100.0	100.0	100.0	100.0
36		59.2	59.2	86.5	86.5	100.0	100.0
42		50.8	50.8	74.2	74.2	100.0	100.0
48		44.4	44.4	64.9	64.9	100.0	95.2
54		39.5	39.5	57.7	57.7	100.0	89.1
60		35.5	35.5	51.9	51.9	90.8	84.6
66		32.3	32.3	47.2	47.2	82.6	81.5
72		29.6	29.6	43.3	43.3	75.7	75.7
96		24	59.5	59.5	87.0	87.0	100.0
	30	47.6	47.6	69.6	69.6	100.0	100.0
	36	39.7	39.7	58.0	58.0	100.0	97.6
	42	34.0	34.0	49.7	49.7	86.9	86.9
	48	29.8	29.8	43.5	43.5	76.0	76.0
	54	26.5	26.5	38.7	38.7	67.6	67.6
	60	-	-	34.8	34.8	60.8	60.8
	66	-	-	31.6	31.6	55.3	55.3
	72	-	-	29.0	29.0	50.7	50.7

ALL ALUMINUM TUBES SHALL BE 6061-T6 OR 6005-T5 ALUMINUM

FIXED WINDOW TO FIXED WINDOW TABLE							
LENGTH (IN.)	LOAD WIDTH (IN.)	ALLOWABLE PRESSURES (PSF)					
		4X1X1/8 TUBE		4X2X1/8 TUBE		5X2X1/8 TUBE	
		A+B/2	CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"	CONN. "A"
108	24	41.8	41.8	61.1	61.1	100.0	100.0
	30	33.4	33.4	48.9	48.9	85.5	85.5
	36	27.9	27.9	40.7	40.7	71.2	71.2
	42	-	-	34.9	34.9	61.0	61.0
	48	-	-	30.5	30.5	53.4	53.4
	54	-	-	27.1	27.1	47.5	47.5
120	60	-	-	-	-	42.7	42.7
	66	-	-	-	-	38.8	38.8
	72	-	-	-	-	35.6	35.6
	24	30.5	30.5	44.5	44.5	77.9	77.9
	30	24.4	24.4	35.6	35.6	62.3	62.3
	36	-	-	29.7	29.7	51.9	51.9
	42	-	-	25.4	25.4	44.5	44.5
	48	-	-	-	-	38.9	38.9
	54	-	-	-	-	34.6	34.6
	60	-	-	-	-	31.1	31.1
132	66	-	-	-	-	28.3	28.3
	72	-	-	-	-	26.0	26.0
	24	-	-	33.5	33.5	58.5	58.5
	30	-	-	26.8	26.8	46.8	46.8
	36	-	-	-	-	39.0	39.0
	42	-	-	-	-	33.4	33.4
144	48	-	-	-	-	29.3	29.3
	54	-	-	-	-	26.0	26.0
	24	-	-	25.8	25.8	45.1	45.1
	30	-	-	-	-	36.0	36.0
36	-	-	-	-	30.0	30.0	
42	-	-	-	-	25.7	25.7	

CONN "A" = CONNECTION METHOD "A". SEE SHEET 5 & 6 FOR DETAIL.  
CONN "B" = CONNECTION METHOD "B". SEE SHEET 5 & 6 FOR DETAIL.  
NOTE: TUBE TO TUBE CONNECTION, AS DETAILED ON SHEET 5 & 6, IS ACCEPTABLE FOR ALL CONN. "A" LOADS.

NOTE: INDIVIDUAL UNIT SIZES & SHUTTER REQUIREMENTS ARE LIMITED BY THEIR OWN INDIVIDUAL "NOTICE OF ACCEPTANCE"

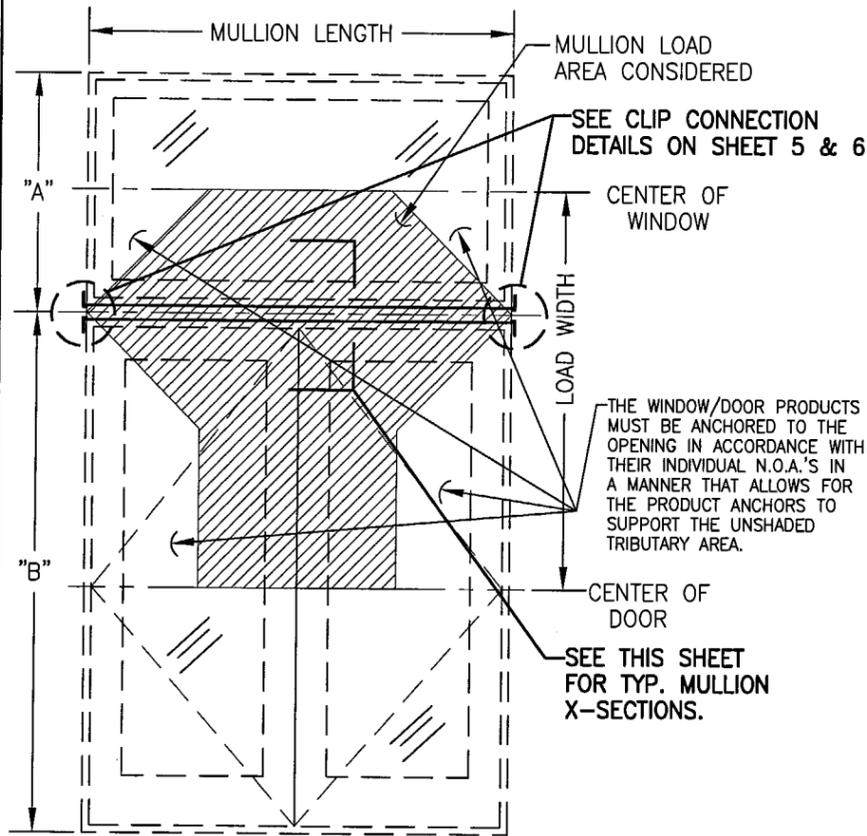
**Product Advised**  
as complying with the Florida Building Code  
Acceptance No 05-0822-05  
Expiration Date February 14, 2007  
By: *[Signature]*  
Miami Dade Product Control Division

**GENERAL NOTES (ALL DRAWING SHEETS):**

- DOORS ARE APPROVED UNDER SEPERATE N.O.A. WITH AN ALUMINUM PLATE MULLION AS AN UN-CLIPPED MULLION. CASEMENT WINDOWS & SASH GLAZED FIXED WINDOWS ARE APPROVED UNDER SEPERATE N.O.A. WITH AN UNREINFORCED JAMB TO JAMB MULLION. SEE THE PRODUCTS SPECIFIC N.O.A. FOR USE OF THESE MULLIONS WHEN THEY APPLY.
- THESE MULLION SYSTEMS HAVE BEEN TESTED, ANALYZED AND APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN ON THESE DRAWINGS.
- BLOCK AND FRAME OPENINGS MUST BE DESIGNED & CONSTRUCTED TO WITHSTAND WIND LOADS TRANSFERRED BY THE MULLIONS & SUPPORTED WINDOWS/DOORS.
- ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & MAY NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS.
- THESE MULLION SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2004 FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).
- THIS MULLION PRODUCT HAS BEEN TESTED IN ACCORDANCE WITH DADE COUNTY PROTOCOLS TAS-201, TAS-202 & TAS-203 FOR LARGE MISSILE IMPACT, STRUCTURAL & CYCLIC TESTING.

- ALL PRODUCTS TO BE USED WITH THESE MULLIONS MUST BE ALUMINUM CLAD WOOD FRAMED PRODUCTS MANUFACTURED BY HURD MILLWORK CO. AND MUST HOLD A DADE COUNTY IMPACT OR NON-IMPACT NOTICE OF ACCEPTANCE (N.O.A.)
- ALLOWABLE PRESSURE ON THE MULLED UNIT SHALL BE CONTROLLED BY THE LESSER ALLOWABLE PRESSURE OF THE MULLION OR THE INDIVIDUAL DOOR/WINDOW UNITS.
- FOR WINDOW OR DOOR FRAME TO OPENING ATTACHMENT, SEE THE RESPECTIVE PRODUCT APPROVAL DRAWINGS FOR THE WINDOW/DOOR.
- MULLION LENGTHS ARE RESTRICTED BY THOSE SHOWN IN THE TABLES.
- THE LOADS IN THESE GRAPHS CONSIDER WORSE CASE OF MULLION STRESS, DEFLECTION AND END REACTION.
- ANY CONDITIONS NOT COVERED IN THIS APPROVAL SHALL BE SUBJECT TO SEPERATE ENGINEERING REVIEW.
- ALL TUBES SHALL BE 6061-T6 OR 6005-T5 ALUMINUM. ALL CONNECTION ANGLES SHALL BE 6063-T5 ALUMINUM
- ALL EMBEDMENTS SPECIFIED ARE TO BE BEYOND WALL FINISH.
- MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF 2004 FLORIDA BUILDING CODE SECTION 2003.8.4.

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=24	DATE: 07/24/01
DATE: 07/28/05	
BY: W.W.S.	
REVISION DESCRIPTION	
NO. A1	UPDATE TO 2004 CODE
<b>CLIPPED IMPACT &amp; NON-IMPACT ALUMINUM TUBE MULLIONS</b> MANUFACTURER <b>HURD WINDOWS &amp; DOORS, INC.</b> 575 S. HELEN AVE. MEDFORD, WI 54451 800-433-4873	
CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b> 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	
CERTIFICATION <b>JAN 18 2006</b> <i>[Signature]</i> WARREN W. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING NO. 1047A	REV. A
SHEET NO. 1 OF 6	



**DOUBLE DOOR WITH TRANSOM**  
LOAD WIDTH = (A + B)/2

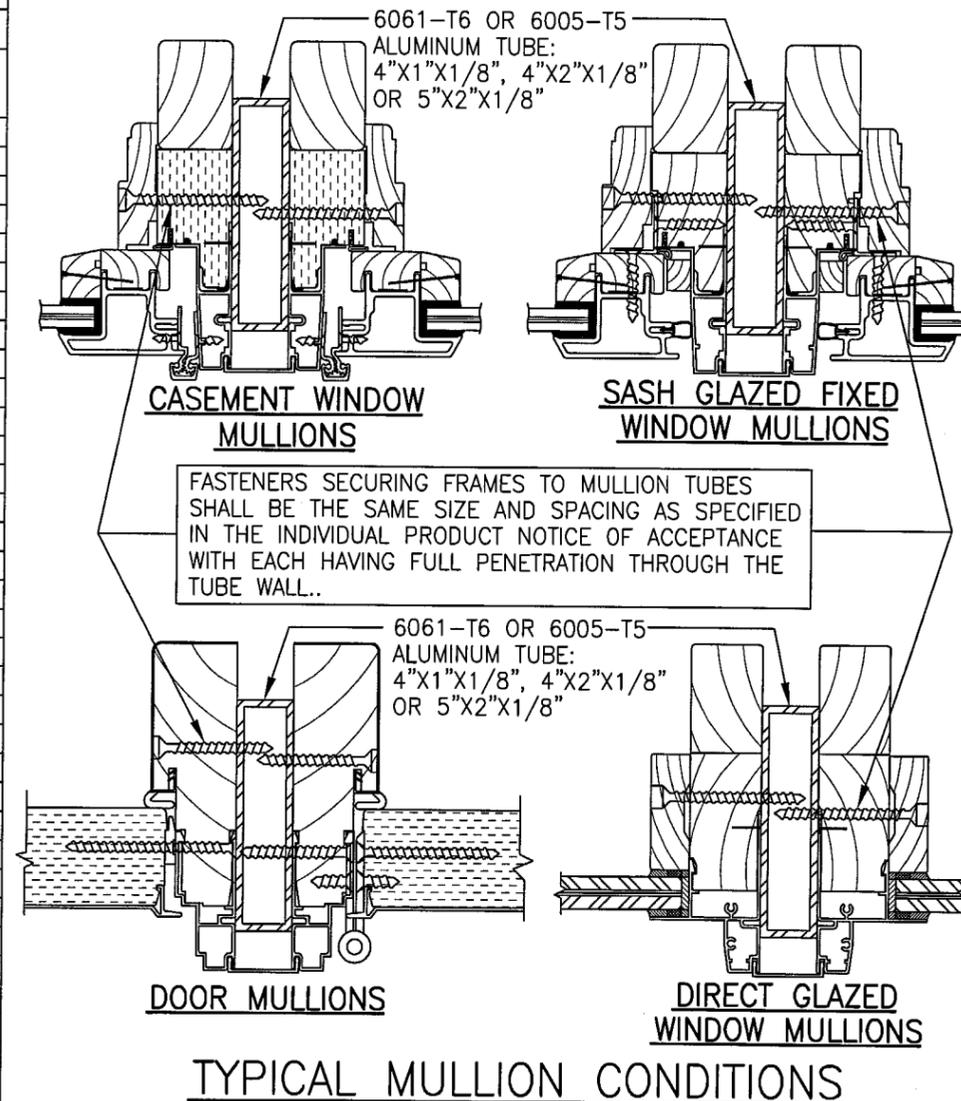
NOTE: "TRANSOM" MAY BE A SASH GLAZED FIXED WINDOW, DIRECT GLAZED FIXED WINDOW OR A FIXED DOOR PANEL UNDER SEPERATE APPROVAL.

CONN "A" = CONNECTION METHOD "A". SEE SHEET 5 & 6 FOR DETAIL.  
CONN "B" = CONNECTION METHOD "B". SEE SHEET 5 & 6 FOR DETAIL.  
NOTE: TUBE TO TUBE CONNECTION, AS DETAILED ON SHEET 5 & 6, IS ACCEPTABLE FOR ALL CONN. "A" LOADS.

DOUBLE DOOR WITH TRANSOM							
LENGTH (IN.)	LOAD WIDTH (IN.) A+B 2	ALLOWABLE PRESSURES (PSF)					
		4X1X1/8 TUBE		4X2X1/8 TUBE		5X2X1/8 TUBE	
		CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"
48	78	100.0	100.0	100.0	100.0	100.0	100.0
	84	100.0	97.1	100.0	97.1	100.0	97.1
54	72	100.0	100.0	100.0	100.0	100.0	100.0
	78	98.1	93.0	100.0	93.0	100.0	93.0
60	84	91.1	86.3	100.0	86.3	100.0	86.3
	54	100.0	100.0	100.0	100.0	100.0	100.0
66	60	97.5	97.5	100.0	100.0	100.0	100.0
	66	88.7	88.7	100.0	98.9	100.0	98.9
	72	81.3	81.3	100.0	90.7	100.0	90.7
	78	75.0	75.0	100.0	83.7	100.0	83.7
72	84	69.7	69.7	100.0	77.7	100.0	77.7
	48	91.6	91.6	100.0	100.0	100.0	100.0
	54	81.4	81.4	100.0	100.0	100.0	100.0
	60	73.3	73.3	100.0	98.9	100.0	98.9
78	66	66.6	66.6	97.3	89.9	100.0	89.9
	72	61.1	61.1	89.2	82.4	100.0	82.4
	78	56.4	56.4	82.4	76.1	100.0	76.1
	84	52.3	52.3	76.5	70.6	95.0	70.6
84	48	70.6	70.6	100.0	100.0	100.0	100.0
	54	62.7	62.7	91.6	91.6	100.0	100.0
	60	56.4	56.4	82.5	82.5	100.0	90.7
	66	51.3	51.3	75.0	75.0	100.0	82.4
84	72	47.0	47.0	68.7	68.7	100.0	75.6
	78	43.4	43.4	63.4	63.4	93.8	69.7
	84	40.3	40.3	58.9	58.9	87.1	64.8
	48	55.5	55.5	81.1	81.1	100.0	100.0
84	54	49.3	49.3	72.1	72.1	100.0	93.0
	60	44.4	44.4	64.9	64.9	100.0	83.7
	66	40.4	40.4	59.0	59.0	100.0	76.1
	72	37.0	37.0	54.0	54.0	93.8	69.7
84	78	34.1	34.1	49.9	49.9	86.6	64.4
	84	31.7	31.7	46.3	46.3	80.4	59.8
	48	44.4	44.4	64.9	64.9	100.0	97.1
	54	39.5	39.5	57.7	57.7	100.0	86.3
84	60	35.5	35.5	51.9	51.9	90.8	77.7
	66	32.3	32.3	47.2	47.2	82.6	70.6
	72	29.6	29.6	43.3	43.3	75.7	64.8
	78	27.3	27.3	39.9	39.9	69.9	59.8
84	25.4	25.4	37.1	37.1	64.9	55.5	

ALL ALUMINUM TUBES SHALL BE 6061-T6 OR 6005-T5 ALUMINUM

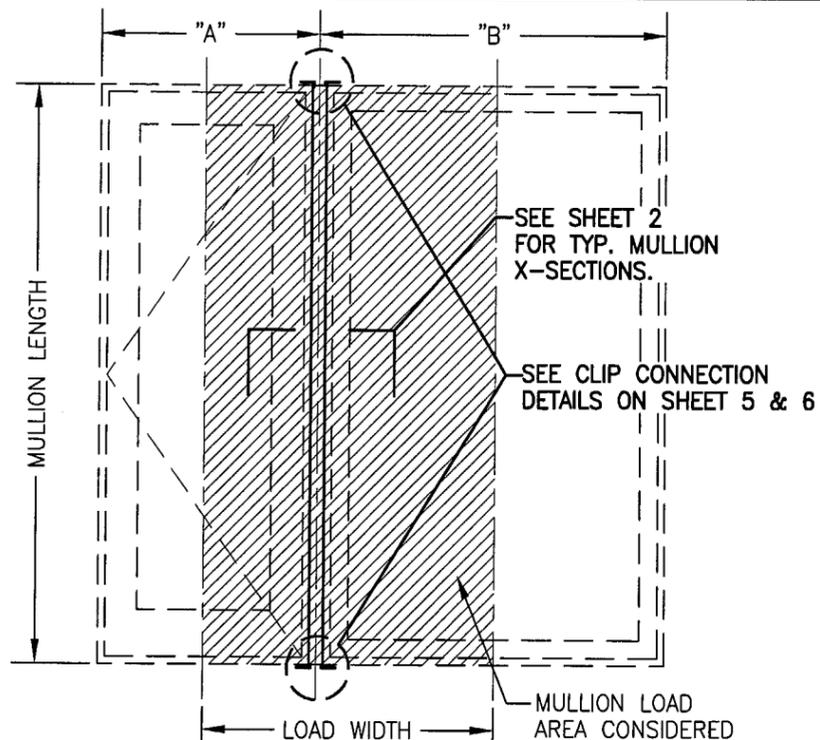
NOTE: INDIVIDUAL UNIT SIZES & SHUTTER REQUIREMENTS ARE LIMITED BY THEIR OWN INDIVIDUAL "NOTICE OF ACCEPTANCE"



NOTE: PRODUCTS CAN BE INTERMIXED & ARE NOT LIMITED TO THOSE SHOWN. PRODUCTS USED WITH THE MULLIONS MUST BE ALUMINUM CLAD WOOD WINDOW/DOOR PRODUCTS MANUFACTURED BY HURD MILLWORK CO. & MUST HOLD A MIAMI-DADE COUNTY "NOTICE OF ACCEPTANCE"

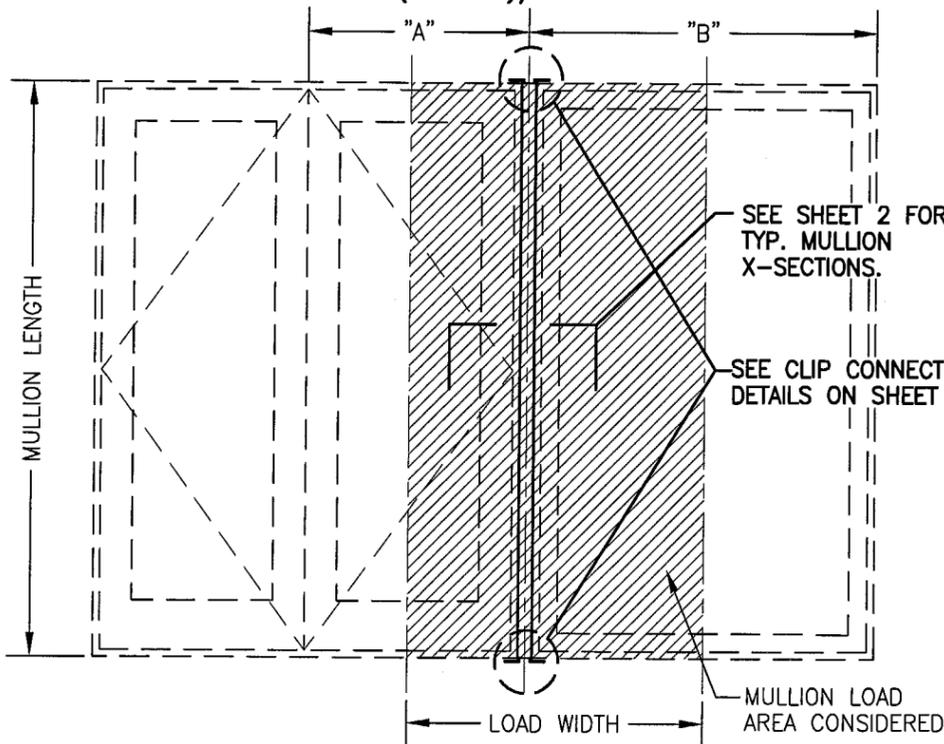
PRODUCT REVISED as complying with the Florida Building Code  
Acceptance No. 05-0822.05  
Expiration Date February 14, 2007  
By: [Signature]  
Miami Dade Product Control Division

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=24	DATE: 07/24/01
DATE	BY
REVISION DESCRIPTION	NO.
DRAWING TITLE <b>CLIPPED IMPACT &amp; NON-IMPACT ALUMINUM TUBE MULLIONS</b>	
CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b> 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	
MANUFACTURER <b>HURD WINDOWS &amp; DOORS, INC.</b> 575 S. HELEN AVE. MEDFORD, WI 54451 800-433-4873	
CERTIFICATION JAN 18 2006 WARREN W. SCHAEFER, P.E. P.E. NO. 44135	DRAWING NO. REV. 1047A A
SHEET NO. 2 OF 6	



**SINGLE DOOR OR CASEMENT WITH SIDELIGHT,  
DOOR TO DOOR OR CASEMENT TO CASEMENT**

$LOAD\ WIDTH = (A + B)/2$



**DOUBLE DOOR W/SIDELIGHT OR DOUBLE DOOR TO DOOR**

$LOAD\ WIDTH = (A + B)/2$

DOOR OR CASEMENT WITH SIDELIGHT							
LENGTH (IN.)	LOAD WIDTH (IN.)  A+B 2	ALLOWABLE PRESSURES (PSF)					
		4X1X1/8 TUBE		4X2X1/8 TUBE		5X2X1/8 TUBE	
		CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"
48	48	100.0	100.0	100.0	100.0	100.0	100.0
	54	100.0	100.0	100.0	100.0	100.0	100.0
	60	100.0	95.2	100.0	95.2	100.0	95.2
54	42	100.0	100.0	100.0	100.0	100.0	100.0
	48	100.0	100.0	100.0	100.0	100.0	100.0
	54	100.0	94.0	100.0	94.0	100.0	94.0
	60	100.0	84.6	100.0	84.6	100.0	84.6
60	36	100.0	100.0	100.0	100.0	100.0	100.0
	42	100.0	100.0	100.0	100.0	100.0	100.0
	48	100.0	95.2	100.0	95.2	100.0	95.2
	54	100.0	84.6	100.0	84.6	100.0	84.6
66	36	100.0	100.0	100.0	100.0	100.0	100.0
	42	100.0	98.9	100.0	98.9	100.0	98.9
	48	91.6	86.5	100.0	86.5	100.0	86.5
	54	81.4	76.9	100.0	76.9	100.0	76.9
72	30	100.0	100.0	100.0	100.0	100.0	100.0
	36	94.1	94.1	100.0	100.0	100.0	100.0
	42	80.6	80.6	100.0	90.7	100.0	90.7
	48	70.6	70.6	100.0	79.3	100.0	79.3
60	54	62.7	62.7	91.6	70.5	94.8	70.5
	60	56.4	56.4	82.5	63.5	85.3	63.5

NOTE: "SIDELIGHT" MAY BE A SASH GLAZED FIXED WINDOW, A DIRECT GLAZED FIXED WINDOW, OR A FIXED DOOR PANEL UNDER SEPERATE APPROVAL.

NOTE: IF DOOR IS MULLED TO DOOR, DIMENSION "B" WILL BE HALF THE WIDTH OF THE DOOR PANEL AS WITH DIMENSION "A".

DOOR OR CASEMENT WITH SIDELIGHT							
LENGTH (IN.)	LOAD WIDTH (IN.)  A+B 2	ALLOWABLE PRESSURES (PSF)					
		4X1X1/8 TUBE		4X2X1/8 TUBE		5X2X1/8 TUBE	
		CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"
78	24	100.0	100.0	100.0	100.0	100.0	100.0
	30	88.8	88.8	100.0	100.0	100.0	100.0
	36	74.0	74.0	100.0	97.6	100.0	97.6
	42	63.4	63.4	92.7	83.7	100.0	83.7
80	48	55.5	55.5	81.1	73.2	98.5	73.2
	54	49.3	49.3	72.1	65.1	87.5	65.1
	60	44.4	44.4	64.9	58.6	78.8	58.6
	24	100.0	100.0	100.0	100.0	100.0	100.0
84	30	82.3	82.3	100.0	100.0	100.0	100.0
	36	68.6	68.6	100.0	95.2	100.0	95.2
	42	58.8	58.8	85.9	81.6	100.0	81.6
	48	51.4	51.4	75.1	71.4	96.0	71.4
88	54	45.7	45.7	66.8	63.5	85.3	63.5
	60	41.1	41.1	60.1	57.1	76.8	57.1
	24	88.9	88.9	100.0	100.0	100.0	100.0
	30	71.1	71.1	100.0	100.0	100.0	100.0
92	36	59.2	59.2	86.5	86.5	100.0	90.7
	42	50.8	50.8	74.2	74.2	100.0	77.7
	48	44.4	44.4	64.9	64.9	91.4	68.0
	54	39.5	39.5	57.7	57.7	81.3	60.4
96	60	35.5	35.5	51.9	51.9	73.1	54.4
	24	67.6	67.6	98.8	98.8	100.0	100.0
	30	54.1	54.1	79.1	79.1	100.0	99.3
	36	45.1	45.1	65.9	65.9	100.0	82.8
100	42	38.7	38.7	56.5	56.5	95.4	71.0
	48	33.8	33.8	49.4	49.4	83.5	62.1
	54	30.1	30.1	43.9	43.9	74.2	55.2
	60	27.1	27.1	39.5	39.5	66.8	49.7
104	24	59.5	59.5	87.0	87.0	100.0	100.0
	30	47.6	47.6	69.6	69.6	100.0	95.2
	36	39.7	39.7	58.0	58.0	100.0	79.3
	42	34.0	34.0	49.7	49.7	86.9	68.0
108	48	29.8	29.8	43.5	43.5	76.0	59.5
	54	26.5	26.5	38.7	38.7	67.6	52.9
112	60	23.8	23.8	34.8	34.8	60.8	47.6

ALL ALUMINUM TUBES SHALL BE 6061-T6 OR 6005-T5 ALUMINUM

NOTE: INDIVIDUAL UNIT SIZES & SHUTTER REQUIREMENTS ARE LIMITED BY THEIR OWN INDIVIDUAL "NOTICE OF ACCEPTANCE"

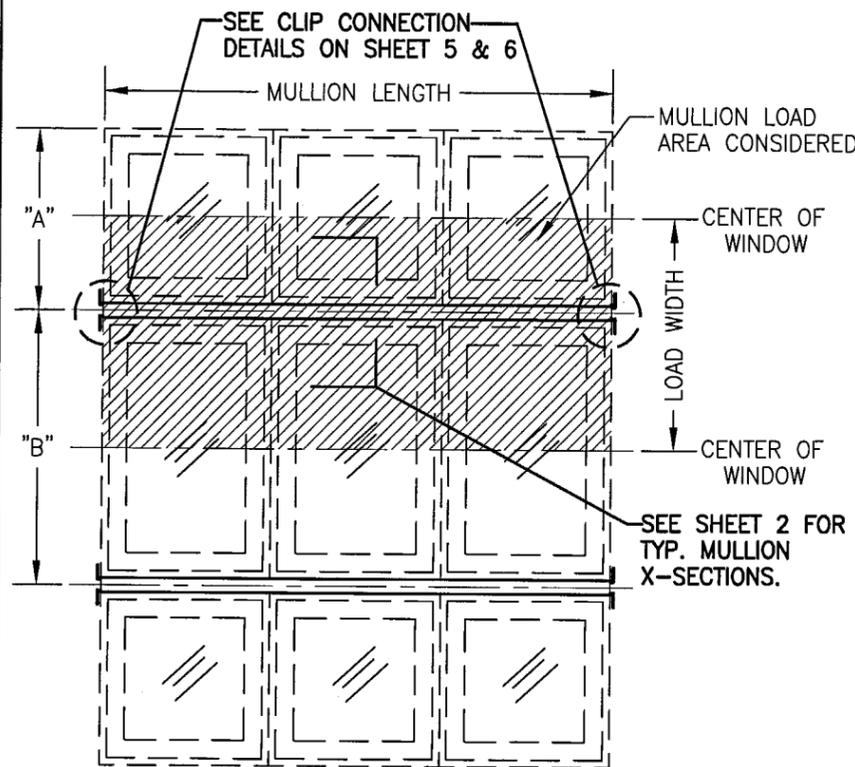
CONN "A" = CONNECTION METHOD "A". SEE SHEET 5 & 6 FOR DETAIL.  
CONN "B" = CONNECTION METHOD "B". SEE SHEET 5 & 6 FOR DETAIL.

NOTE: TUBE TO TUBE CONNECTION, AS DETAILED ON SHEET 5 & 6, IS ACCEPTABLE FOR ALL CONN. "A" LOADS.

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
Acceptance No. 05-0822-05  
Expiration Date February 14, 2007

By *[Signature]*  
Miami Dade Product Control  
Division

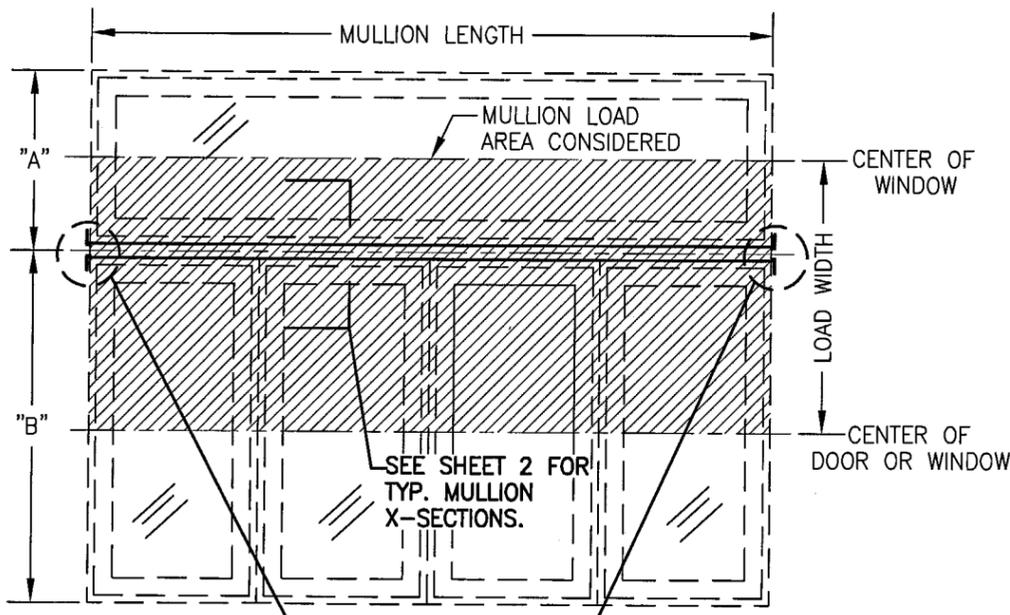
DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=24	DATE: 07/24/01
NO.	REVISION DESCRIPTION
DATE	BY
DRAWING TITLE <b>CLIPPED IMPACT &amp; NON-IMPACT ALUMINUM TUBE MULLIONS</b>	
CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b> 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	MANUFACTURER <b>HURD WINDOWS &amp; DOORS, INC.</b> 575 S. WHELEN AVE. MEDFORD, WI 54451 800-433-4873
CERTIFICATION JAN 18 2006 WARREN W. SCHAEFER, P.E. P.E. NO. 44133	DRAWING NO. REV. 1047A A SHEET NO. 3 OF 6



**MULTIPLE WINDOWS (HORIZONTAL MULLION)**

LOAD WIDTH = (A + B)/2

MULLIONS MAY BE HORIZONTAL OR VERTICAL



**MULTIPLE WINDOWS/DOORS WITH TRANSOM**

LOAD WIDTH = (A + B)/2

TRANSOM MAY BE SINGLE OR MULTIPLE WINDOWS

MULTIPLE WINDOWS/DOORS							
LENGTH (IN.)	LOAD WIDTH (IN.) A+B 2	ALLOWABLE PRESSURES (PSF)					
		4X1X1/8 TUBE		4X2X1/8 TUBE		5X2X1/8 TUBE	
		CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"
36	66	100.0	100.0	100.0	100.0	100.0	100.0
	72	100.0	100.0	100.0	100.0	100.0	100.0
	78	100.0	97.6	100.0	97.6	100.0	97.6
42	54	100.0	100.0	100.0	100.0	100.0	100.0
	60	100.0	100.0	100.0	100.0	100.0	100.0
	66	100.0	98.9	100.0	98.9	100.0	98.9
48	72	100.0	90.7	100.0	90.7	100.0	90.7
	78	100.0	83.7	100.0	83.7	100.0	83.7
	84	100.0	76.7	100.0	76.7	100.0	76.7
54	48	100.0	100.0	100.0	100.0	100.0	100.0
	54	100.0	100.0	100.0	100.0	100.0	100.0
	60	100.0	95.2	100.0	95.2	100.0	95.2
60	66	100.0	86.5	100.0	86.5	100.0	86.5
	72	100.0	79.3	100.0	79.3	100.0	79.3
	78	98.5	73.2	98.5	73.2	98.5	73.2
66	42	100.0	100.0	100.0	100.0	100.0	100.0
	48	100.0	100.0	100.0	100.0	100.0	100.0
	54	100.0	94.0	100.0	94.0	100.0	94.0
72	60	100.0	84.6	100.0	84.6	100.0	84.6
	66	100.0	76.9	100.0	76.9	100.0	76.9
	72	94.8	70.5	94.8	70.5	94.8	70.5
78	78	87.5	65.1	87.5	65.1	87.5	65.1
	84	80.6	65.1	80.6	65.1	80.6	65.1
	90	73.6	65.1	73.6	65.1	73.6	65.1
84	36	100.0	100.0	100.0	100.0	100.0	100.0
	42	100.0	100.0	100.0	100.0	100.0	100.0
	48	100.0	95.2	100.0	95.2	100.0	95.2
90	54	100.0	84.6	100.0	84.6	100.0	84.6
	60	97.5	76.2	100.0	76.2	100.0	76.2
	66	88.7	69.2	93.1	69.2	93.1	69.2
96	72	81.3	63.5	85.3	63.5	85.3	63.5
	78	75.0	58.6	78.8	58.6	78.8	58.6
	84	68.0	53.7	71.9	53.7	71.9	53.7
102	30	100.0	100.0	100.0	100.0	100.0	100.0
	36	94.1	94.1	100.0	100.0	100.0	100.0
	42	80.6	80.6	100.0	90.7	100.0	90.7
108	48	70.6	70.6	100.0	79.3	100.0	79.3
	54	62.7	62.7	91.6	70.5	94.8	70.5
	60	56.4	56.4	82.5	63.5	85.3	63.5
114	66	51.3	51.3	75.0	57.7	77.6	57.7
	72	47.0	47.0	68.7	52.9	71.1	52.9
	78	43.4	43.4	63.4	48.8	65.6	48.8
120	24	88.9	88.9	100.0	100.0	100.0	100.0
	30	66.6	66.6	97.4	97.4	100.0	100.0
	36	59.2	59.2	86.5	86.5	100.0	90.7
126	42	50.8	50.8	74.2	74.2	100.0	77.7
	48	44.4	44.4	64.9	64.9	91.4	68.0
	54	39.5	39.5	57.7	57.7	81.3	60.4
132	60	35.5	35.5	51.9	51.9	73.1	54.4
	66	32.3	32.3	47.2	47.2	66.5	49.5
	72	29.6	29.6	43.3	43.3	61.0	45.3
138	78	27.3	27.3	39.9	39.9	56.3	41.8

ALL ALUMINUM TUBES SHALL BE 5061-T6 OR 6005-T5 ALUMINUM

NOTE: INDIVIDUAL UNIT SIZES & SHUTTER REQUIREMENTS ARE LIMITED BY THEIR OWN INDIVIDUAL "NOTICE OF ACCEPTANCE"

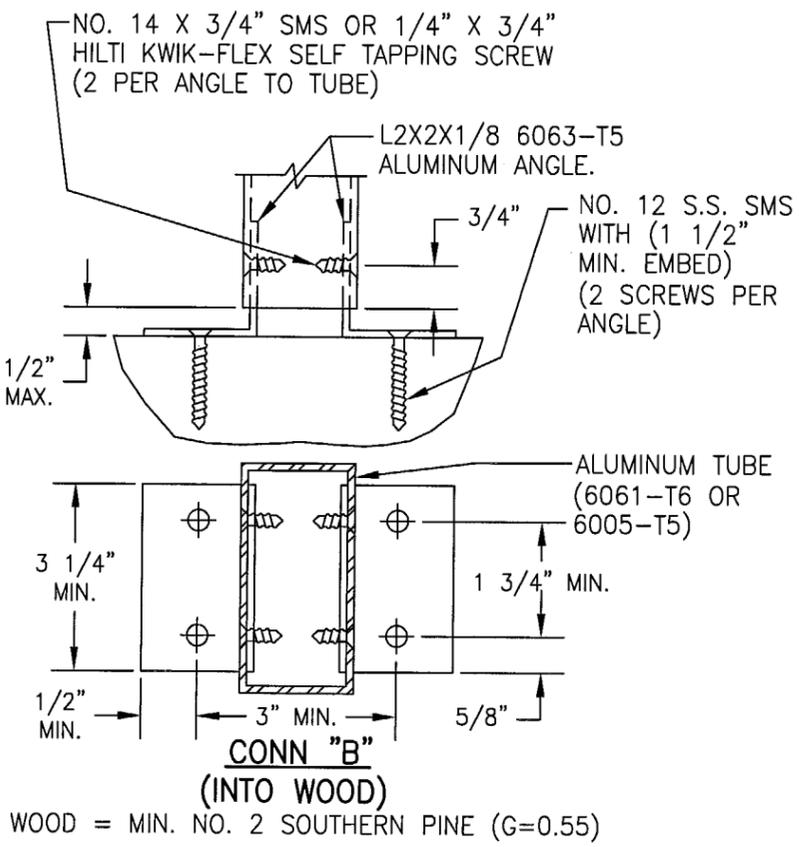
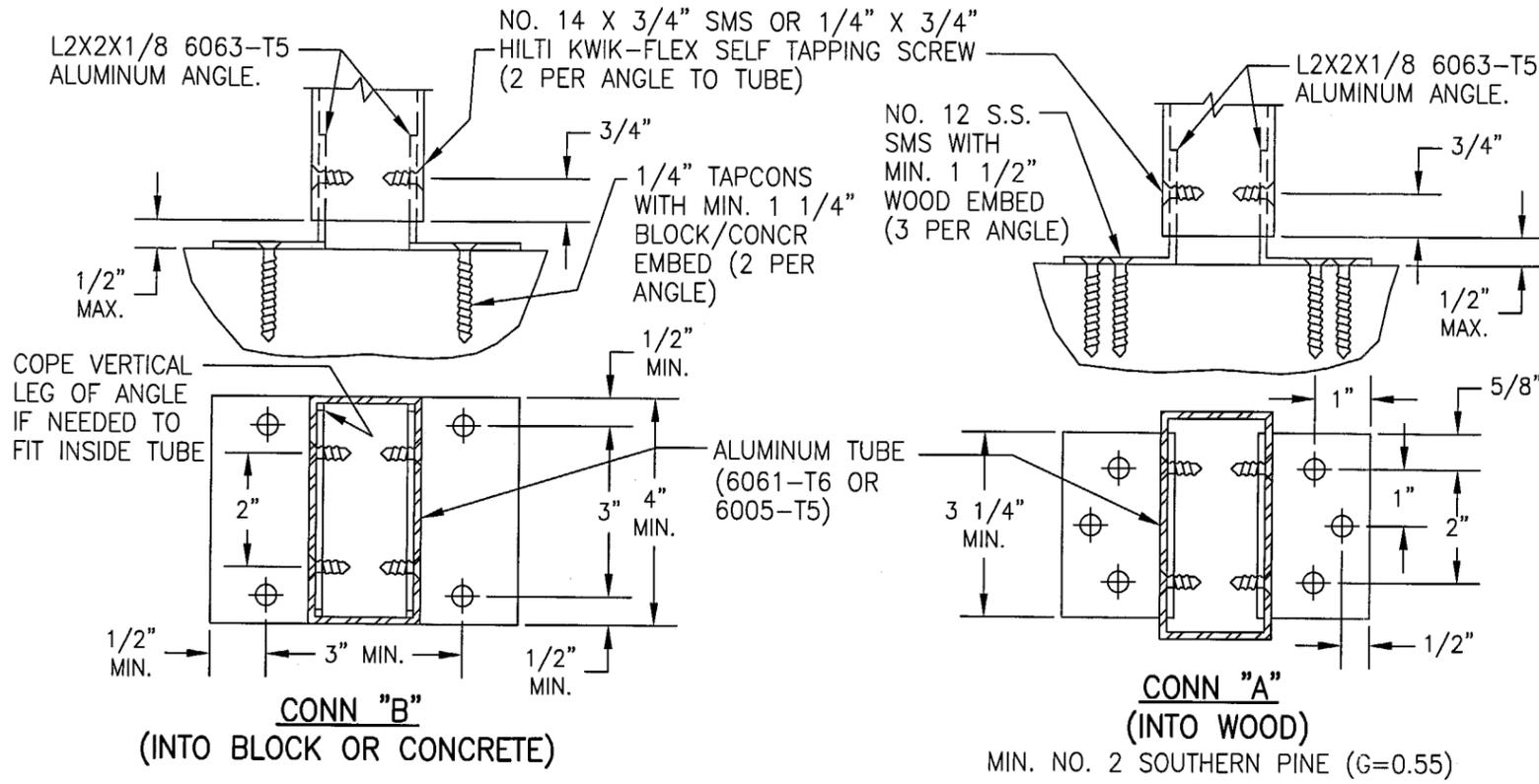
MULTIPLE WINDOWS/DOORS							
LENGTH (IN.)	LOAD WIDTH (IN.) A+B 2	ALLOWABLE PRESSURES (PSF)					
		4X1X1/8 TUBE		4X2X1/8 TUBE		5X2X1/8 TUBE	
		CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"
96	24	59.5	59.5	87.0	87.0	100.0	100.0
	30	47.6	47.6	69.6	69.6	100.0	95.2
	36	39.7	39.7	58.0	58.0	100.0	79.3
102	42	34.0	34.0	49.7	49.7	86.9	68.0
	48	29.8	29.8	43.5	43.5	76.0	59.5
	54	26.5	26.5	38.7	38.7	67.6	52.9
108	60	-	-	34.8	34.8	60.8	47.6
	66	-	-	31.6	31.6	55.3	43.3
	72	-	-	29.0	29.0	50.7	39.7
114	78	-	-	26.8	26.8	46.8	36.6
	84	-	-	24.4	24.4	42.7	33.5
	90	-	-	22.1	22.1	38.5	30.4
120	24	41.8	41.8	61.1	61.1	100.0	100.0
	30	33.4	33.4	48.9	48.9	85.5	84.6
	36	27.9	27.9	40.7	40.7	71.2	70.5
126	42	23.9	23.9	34.9	34.9	61.0	60.4
	48	-	-	30.5	30.5	53.4	52.9
	54	-	-	27.1	27.1	47.5	47.0
132	60	-	-	24.4	24.4	42.7	42.3
	66	-	-	-	-	38.8	38.5
	72	-	-	-	-	35.6	35.3
138	78	-	-	-	-	32.9	32.5
	84	-	-	-	-	30.4	30.0
	90	-	-	-	-	28.0	27.6
144	24	30.5	30.5	44.5	44.5	77.9	77.9
	30	24.4	24.4	35.6	35.6	62.3	62.3
	36	-	-	29.7	29.7	51.9	51.9
150	42	-	-	25.4	25.4	44.5	44.5
	48	-	-	-	-	38.9	38.9
	54	-	-	-	-	34.6	34.6
156	60	-	-	-	-	31.1	31.1
	66	-	-	-	-	28.3	28.3
	72	-	-	-	-	26.0	26.0
162	24	-	-	33.5	33.5	58.5	58.5
	30	-	-	26.8	26.8	46.8	46.8
	36	-	-	-	-	39.0	39.0
168	42	-	-	-	-	33.4	33.4
	48	-	-	-	-	29.3	29.3
	54	-	-	-	-	26.0	26.0
174	24	-	-	25.8	25.8	45.1	45.1
	30	-	-	-	-	36.0	36.0
	36	-	-	-	-	30.0	30.0
180	42	-	-	-	-	25.7	25.7

CONN "A" = CONNECTION METHOD "A". SEE SHEET 5 & 6 FOR DETAIL.  
 CONN "B" = CONNECTION METHOD "B". SEE SHEET 5 & 6 FOR DETAIL.  
 NOTE: TUBE TO TUBE CONNECTION, AS DETAILED ON SHEET 5 & 6, IS ACCEPTABLE FOR ALL CONN. "A" LOADS.

**PRODUCT REVISED**  
 as complying with the Florida Building Code  
 Acceptance No 05-0822-05  
 Expiration Date February 14, 2007

By *[Signature]*  
 Miami Dade Product Control Division

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=24	DATE: 07/24/01
DATE	BY
REVISION DESCRIPTION	NO.
<b>CLIPPED IMPACT &amp; NON-IMPACT ALUMINUM TUBE MULLIONS</b> MANUFACTURER <b>HURD WINDOWS &amp; DOORS, INC.</b> 575 S. WHELEN AVE. MEDFORD, WI 54451 800-433-4873	
CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b> 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	
CERTIFICATION <b>JAN 18 2006</b> WAREN W. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING NO. 1047A	REV. A
SHEET NO. 4 OF 6	



FASTENER EDGE DISTANCE REQUIRED (TO WOOD/CONCR./BLOCK)	
1/4" TAPCON	2 1/4"
NO. 12 SMS	3/4"

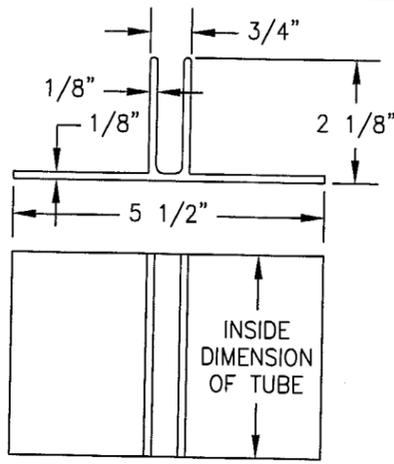
NOTE: CLIPS MAY BE PLACED INSIDE OR OUTSIDE OF THE TUBE.

## MULLION END CONNECTION DETAILS USING CLIP ANGLES

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 05-0822.05  
Expiration Date February 14, 2007

By *[Signature]*  
Miami Dade Product Control  
Division

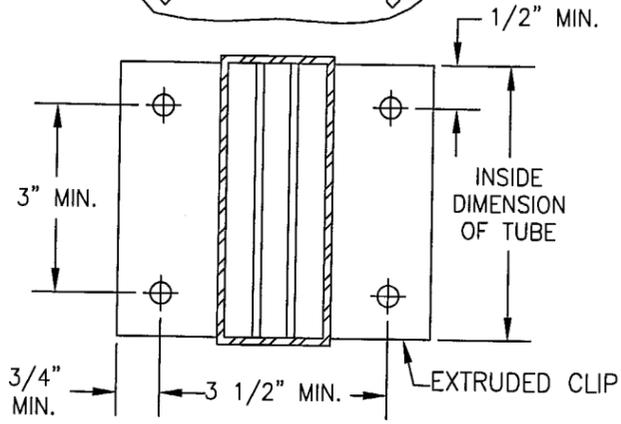
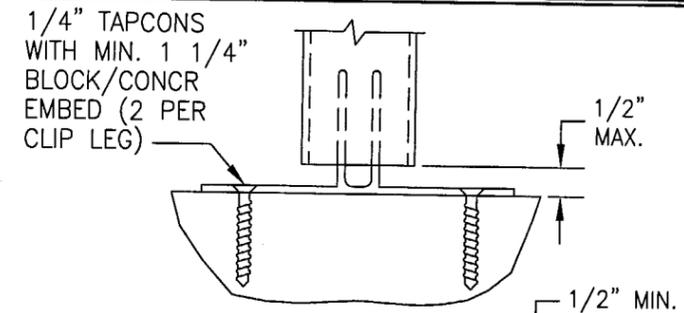
DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1-3	DATE: 07/24/01
DATE	
BY	
REVISION DESCRIPTION	
NO.	
DRAWING TITLE <b>CLIPPED IMPACT &amp; NON-IMPACT ALUMINUM TUBE MULLIONS</b>	
CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b> 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	MANUFACTURER <b>HURD WINDOWS &amp; DOORS, INC.</b> 575 S. WHELEN AVE. MEDFORD, WI 54451 800-433-4873
CERTIFICATION <i>[Signature]</i> JAN 18 2006 WARREN W. SCHAEFER, P.E. P.E. NO. 44135	DRAWING NO. 1047A REV. A SHEET NO. 5 OF 6



**EXTRUDED CLIP**  
6063-T5 ALUMINUM

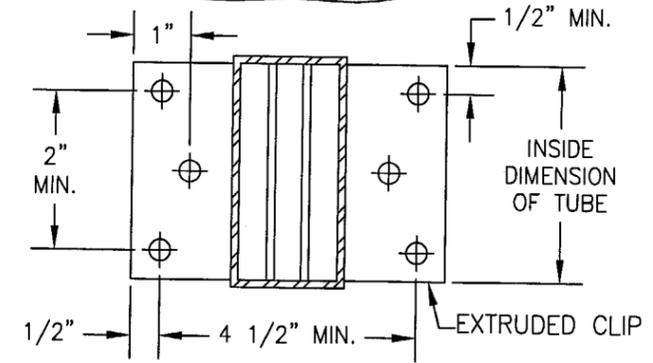
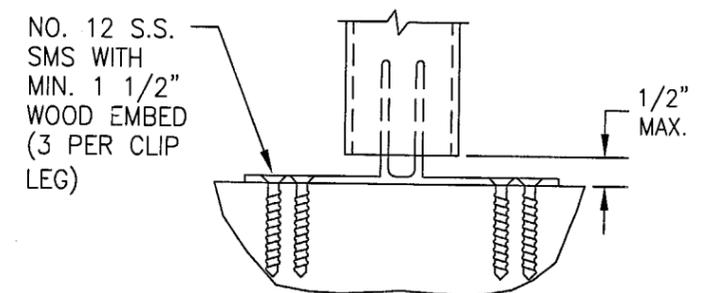
**INSTALLATION INSTRUCTION:**

1. SLIP CLIP INTO TUBE (CLIP MUST BE CUT TO THE INSIDE DIMENSION OF THE TUBE & BE CENTERED WITH THE TUBE). NOTE THAT NO SCREWING OF TUBE TO CLIP IS REQUIRED.
2. SECURE CLIP TO STRUCTURE USING FASTENING METHOD DESCRIBED WITH EACH CONNECTION TYPE "A" & "B" AND THE APPLICABLE OPTION CONSIDERING ALL DIMENSION REQUIREMENTS SPECIFIED AS MIN & MAX.



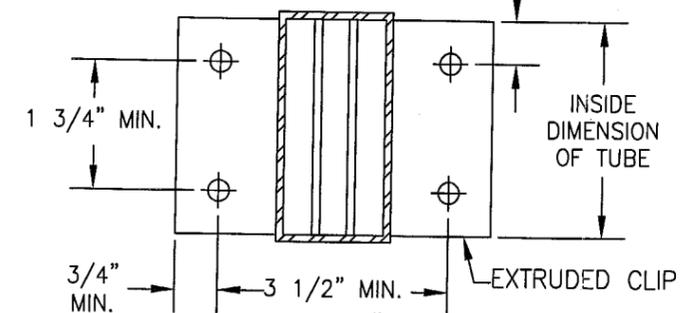
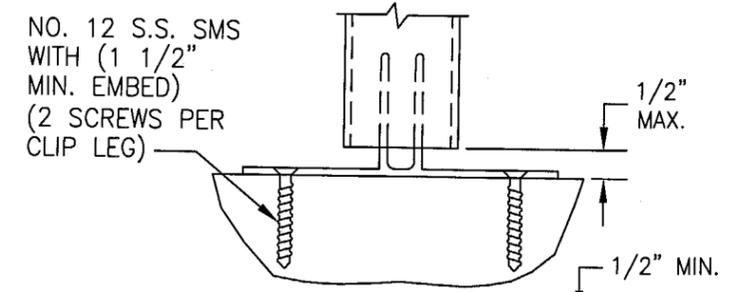
**CONN "B"**  
(INTO BLOCK OR CONCRETE)

IF REQUIRED TO FIT INSIDE A 4" TUBE, THE VERTICAL LEGS MAY BE TRIMMED TO FIT INSIDE THE TUBE.



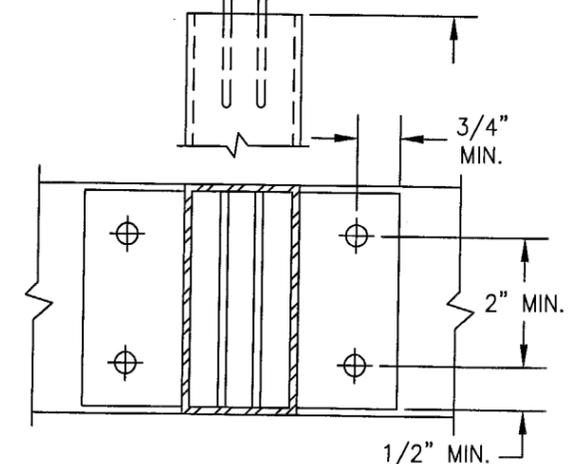
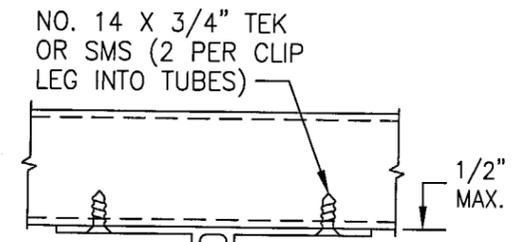
**CONN "A"**  
(INTO WOOD)

MIN. NO. 2 SOUTHERN PINE (G=0.55)



**CONN "B"**  
(INTO WOOD)

WOOD = MIN. NO. 2 SOUTHERN PINE (G=0.55)



**TYP. TUBE TO TUBE CONNECTION**

FASTENER EDGE DISTANCE REQUIRED (TO WOOD/CONCR./BLOCK)	
1/4" TAPCON	2 1/4"
NO. 12 SMS	3/4"

**MULLION END CONNECTION DETAILS  
USING EXTRUDED CLIP**

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=24	DATE: 07/24/01
DATE	
BY	
REVISION DESCRIPTION	
NO.	
DRAWING TITLE <b>CLIPPED IMPACT &amp; NON-IMPACT ALUMINUM TUBE MULLIONS</b>	
CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b> 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	MANUFACTURER <b>HURD WINDOWS &amp; DOORS, INC.</b> 575 S. WHELEN AVE. MEDFORD, WI 54451 800-433-4873
CERTIFICATION JAN 18 2006	By: <i>Warren W. Schaefer</i> WARREN W. SCHAEFER, P.E. P.E. NO. 44135
DRAWING NO. 1047A	REV. A
SHEET NO. 6	OF 6

**PRODUCT REVISED**  
as complying with the Florida Building Code  
Acceptance No. 05-0822.05  
Expiration Date February 14, 2007  
By: *Warren W. Schaefer*  
Miami Dade Product Control Division