



**BUILDING CODE COMPLIANCE OFFICE**  
METRO-DADE FLAGLER BUILDING  
140 WEST FLAGLER STREET, SUITE 1603  
MIAMI, FLORIDA 33130-1563  
(305) 375-2901 FAX (305) 375-2908

**CONTRACTOR LICENSING SECTION**  
(305) 375-2527 FAX (305) 375-2558

**CONTRACTOR ENFORCEMENT DIVISION**  
(305) 375-2966 FAX (305) 375-2908

**PRODUCT CONTROL DIVISION**  
(305) 375-2902 FAX (305) 372-6339

**PRODUCT CONTROL NOTICE OF ACCEPTANCE**

**Hurd Millwork Company**  
**575 S. Whelen Avenue**  
**Medford ,WI 54451**

Your application for Notice of Acceptance (NOA) of:

**Clipped Aluminum Tube Mullion-Impact**

under Chapter 8 of the Code of Miami-Dade County governing the use of Alternate Materials and Types of Construction, and completely described herein, has been recommended for acceptance by the Miami-Dade County Building Code Compliance Office (BCCO) under the conditions specified herein.

This NOA shall not be valid after the expiration date stated below. BCCO reserves the right to secure this product or material at any time from a jobsite or manufacturer's plant for quality control testing. If this product or material fails to perform in the approved manner, BCCO may revoke, modify, or suspend the use of such product or material immediately. BCCO reserves the right to revoke this approval, if it is determined by BCCO that this product or material fails to meet the requirements of the South Florida Building Code.

The expense of such testing will be incurred by the manufacturer.

Raul Rodriguez  
Chief Product Control Division

**ACCEPTANCE NO.: 01-1012.04**  
**EXPIRES: 02/14/2007**

**THIS IS THE COVERSHEET, SEE ADDITIONAL PAGES FOR SPECIFIC AND GENERAL  
CONDITIONS  
BUILDING CODE & PRODUCT REVIEW COMMITTEE**

This application for Product Approval has been reviewed by the BCCO and approved by the Building Code and Product Review Committee to be used in Miami-Dade County, Florida under the conditions set forth above.

Francisco J. Quintana, R.A.  
Director  
Miami-Dade County  
Building Code Compliance Office

**APPROVED: 02/14/2002**

**Hurd Millwork Co. Inc.**

**ACCEPTANCE No.:** 01-1012.04

**APPROVED** : February 14, 2002

**EXPIRES** : February 14, 2007

**NOTICE OF ACCEPTANCE: SPECIFIC CONDITIONS**

**1. SCOPE**

- 1.1** This approves clipped aluminum tube mullion, as described in Section 2 of this Notice of Acceptance, designed to comply with the South Florida Building Code (SFBC), 1994 Edition for Miami-Dade County, for the locations where the pressure requirements, as determined by SFBC Chapter 23, do not exceed the Design Pressure Rating values indicated in the approved drawings.

**2. PRODUCT DESCRIPTION**

- 2.1** The Hurd series **Clipped Aluminum Tube Mullions-Large Missile Impact Resistant** and its components shall be constructed in strict compliance with the following documents: Drawing No **1047A**, titled "Clipped Impact & Non-impact Aluminum Tube Mullions" Sheets 1 through 6 of 6, dated 07-24-2001, 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 approval stamp with the Notice of Acceptance number and approval date by the Miami-Dade County Product Control Division. These documents shall hereinafter be referred to as the approved drawings.

**3. LIMITATIONS**

- 3.1** This approval applies only to application of a clipped mullion used with the maximum span and tributary width, as shown in approved drawings and with a current Notice of Acceptance of doors or windows manufactured by **Hurd Millwork Inc.**
- 3.2** This approval applies to structural mullions to be installed vertically or horizontally, as shown in the approved drawings.

**4. INSTALLATION**

- 4.1** The clipped mullion system and its components shall be installed in strict compliance with the approved drawings.
- 4.2** This mullion **can** be installed as part of an impact or non-impact resistant unit.

**5. LABELING**

- 5.1** 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".

**6. BUILDING PERMIT REQUIREMENTS**

- 6.1** Application for building permit shall be accompanied by copies of the following:
- 6.1.1** This Notice of Acceptance
- 6.1.2** If applicable, the Notice of Acceptance of "Windows/Doors" by Hurd Millwork Inc.
- 6.1.3** Duplicate copies of the approved drawings, as identified in Section 2 of this Notice of Acceptance, clearly marked to show the components selected for the proposed installation.
- 6.1.4** Any other documents required by the Building Official or the South Florida Building Code (SFBC) in order to properly evaluate the installation of this system.

Ishaq I. Chanda  
Ishaq I. Chanda, P.E. Product Control Examiner  
Product Control Division

**Hurd Millwork Co. Inc.**

**ACCEPTANCE No.:** 01-1012.04

**APPROVED** : February 14, 2002

**EXPIRES** : February 14, 2007

**NOTICE OF ACCEPTANCE: STANDARD CONDITIONS**

1. Renewal of this Acceptance (approval) shall be considered after a renewal application has been filed and the original submitted documentation, including test supporting data, engineering documents, are no older than eight (8) years.
2. Any and all approved products shall be permanently labeled with the manufacturer's name, city, state, and the following statement: "Miami-Dade County Product Control Approved", or as specifically stated in the specific conditions of this Acceptance.
3. Renewals of Acceptance will not be considered if:
  - a) There has been a change in the South Florida Building Code affecting the evaluation of this product and the product is not in compliance with the code changes;
  - b) The product is no longer the same product (identical) as the one originally approved;
  - c) If the Acceptance holder has not complied with all the requirements of this acceptance, including the correct installation of the product;
  - d) The engineer who originally prepared, signed and sealed the required documentation initially submitted is no longer practicing the engineering profession.
4. Any revision or change in the materials, use, and/or manufacture of the product or process shall automatically be cause for termination of this Acceptance, unless prior written approval has been requested (through the filing of a revision application with appropriate fee) and granted by this office.
5. Any of the following shall also be grounds for removal of this Acceptance:
  - a) Unsatisfactory performance of this product or process.
  - b) Misuse of this Acceptance as an endorsement of any product, for sales, advertising or any other purpose.
6. The Notice of Acceptance 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 Notice of Acceptance is displayed, then it shall be done in its entirety.
7. A copy of this Acceptance as well as approved drawings and other documents, where it applies, shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at all time. The engineer need not reseal the copies.
8. Failure to comply with any section of this Acceptance shall be cause for termination and removal of Acceptance.
9. This Notice of Acceptance consists of pages 1, 2 and this last page 3.

Ishaq I. Chanda  
Ishaq I. Chanda, P. E., Product Control Examiner  
Product Control Division

**END OF THIS ACCEPTANCE**

Hurd Millwork Co. Inc.

ACCEPTANCE No.: 01-1012.04

APPROVED : February 14, 2002

EXPIRES : February 14, 2007

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

(For File ONLY. Not part of NOA)

**A. DRAWINGS**

1. Manufacturer's parts and section drawings.
2. **1047A**, titled "Clipped Impact & Non-impact Aluminum Tube Mullions" Sheets 1 through 6 of 6, dated 07-24-2001, 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 PA 202-94
  - 2) Uniform Load Static Air Pressure Test, per PA 202-94
  - 3) Water Resistance Test, per PA 202-94
  - 4) Forced Entry Resistance Test, per SFBC3603.2 (b) 5.
  - 5) Large Missile Impact Test, SFBC PA 201-94
  - 6) Cyclic Loading Test, per SFBC PA 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. (This test reports were revised by addendum letter dated 11-29-2001 & 12-18-2001, signed and sealed by Ramesh Patel, P. E.)

**C. CALCULATIONS**

1. Anchor verification calculations and structural performance dated 07-20-01 and revised on 12-06-01 and 01-04-2002, prepared by W. W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E.

**D. MATERIAL CERTIFICATIONS**

1. None

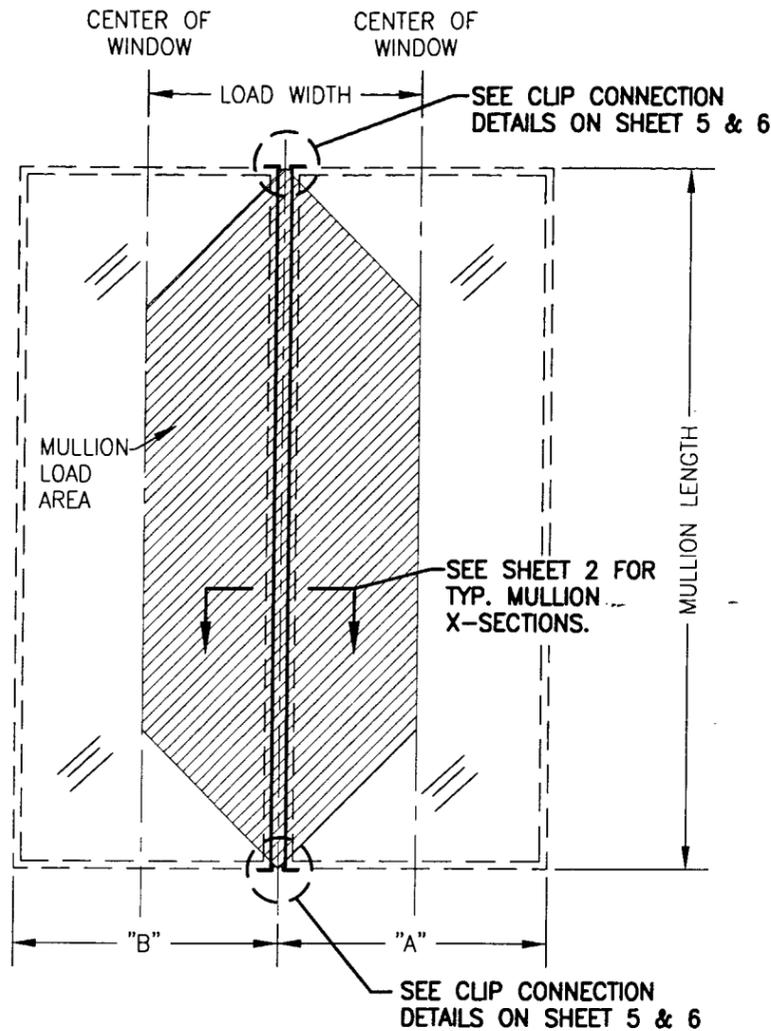
**E. STATEMENTS**

1. Statement letter of conformance and " No financial interest", dated July 19, 2001, signed by Warren W. Schaefer, P.E.
2. Statement letter of Lab compliance , part of the report, issued by Certified Testing Lab, signed and sealed by Ramesh Patel, P. E.
3. Addendum letter to test report CTLA-679WB & CTLA-679WF issued by Certified Testing Lab, dated November 19, 2001, signed and sealed by Ramesh Patel, P. E.

**F. OTHER**

1. Proposal No. 00-0177, dated January 11, 2001, approved by BCCO.

Ishaq I. Chanda  
Ishaq I. Chanda, P.E. Product Control Examiner  
Product Control Division



**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

**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 SOUTH FLORIDA BUILDING CODE, 1994 EDITION.
- THIS MULLION PRODUCT HAS BEEN TESTED IN ACCORDANCE WITH DADE COUNTY PROTOCOLS PA-201, PA-202 & PA-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.

FIXED WINDOW TO FIXED WINDOW TABLE							
LENGTH (IN.)	LOAD WIDTH (IN.)	ALLOWABLE PRESSURES (PSF)					
		4X1X1/8 TUBE		4X2X1/8 TUBE		5X2X1/8 TUBE	
		CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"
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
72	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
	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
84	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
	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
	36	59.2	59.2	86.5	86.5	100.0	100.0
	42	50.8	50.8	74.2	74.2	100.0	92.1
	48	44.4	44.4	64.9	64.9	100.0	84.6
96	54	39.5	39.5	57.7	57.7	100.0	79.2
	60	35.5	35.5	51.9	51.9	90.8	75.2
	66	32.3	32.3	47.2	47.2	82.6	72.4
	72	29.6	29.6	43.3	43.3	75.7	70.5
	24	59.5	59.5	87.0	87.0	100.0	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	86.8
	42	34.0	34.0	49.7	49.7	86.9	77.3

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

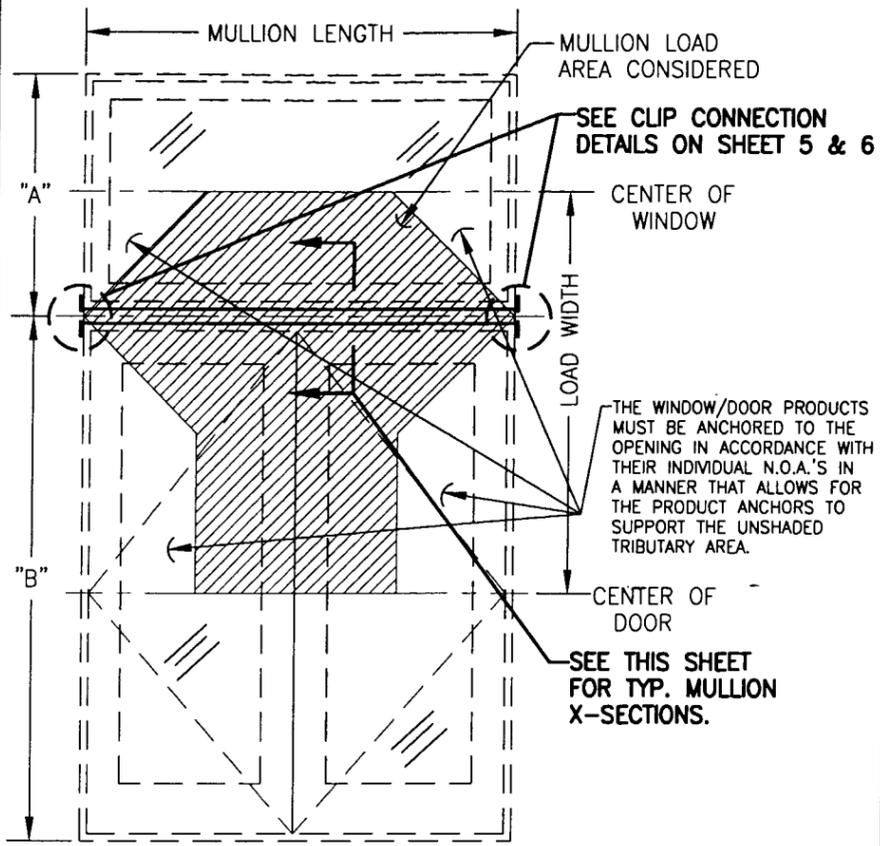
FIXED WINDOW TO FIXED WINDOW TABLE							
LENGTH (IN.)	LOAD WIDTH (IN.)	ALLOWABLE PRESSURES (PSF)					
		4X1X1/8 TUBE		4X2X1/8 TUBE		5X2X1/8 TUBE	
		CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"	CONN. "A"	CONN. "B"
108	24	41.8	41.8	61.1	61.1	100.0	100.0
	30	33.4	33.4	48.9	48.9	85.5	85.5
	36	27.9	27.9	40.7	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
	60	-	-	-	-	42.7	42.7
	66	-	-	-	-	38.8	38.8
120	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
	48	-	-	-	-	29.3	29.3
	54	-	-	-	-	26.0	26.0
144	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"

APPROVED AS COMPLYING WITH THE  
 SOUTH FLORIDA BUILDING CODE  
 DATE FEBRUARY 14, 2002  
 BY Ishaq J. Chaudhry  
 PRODUCT CONTROL DIVISION  
 BUILDING CODE COMPLIANCE OFFICE  
 ACCEPTANCE NO. 01-1012-04

DRAWN BY: W.W.S.		CHECKED BY: W.W.S.	
PLOT: 1=24		DATE: 07/24/01	
DATE	BY	REVISION	DESCRIPTION
CLIPPED IMPACT & NON-IMPACT ALUMINUM TUBE MULLIONS			
CONSULTANTS		MANUFACTURER	
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.		HURD MILLWORK CO., INC.	
600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903		575 S. WHELEN AVE. MEDFORD, WI 54451 800-433-4873	
DRAWING TITLE			
DRAWING NO. 1047A			
SHEET NO. 1 OF 6			



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

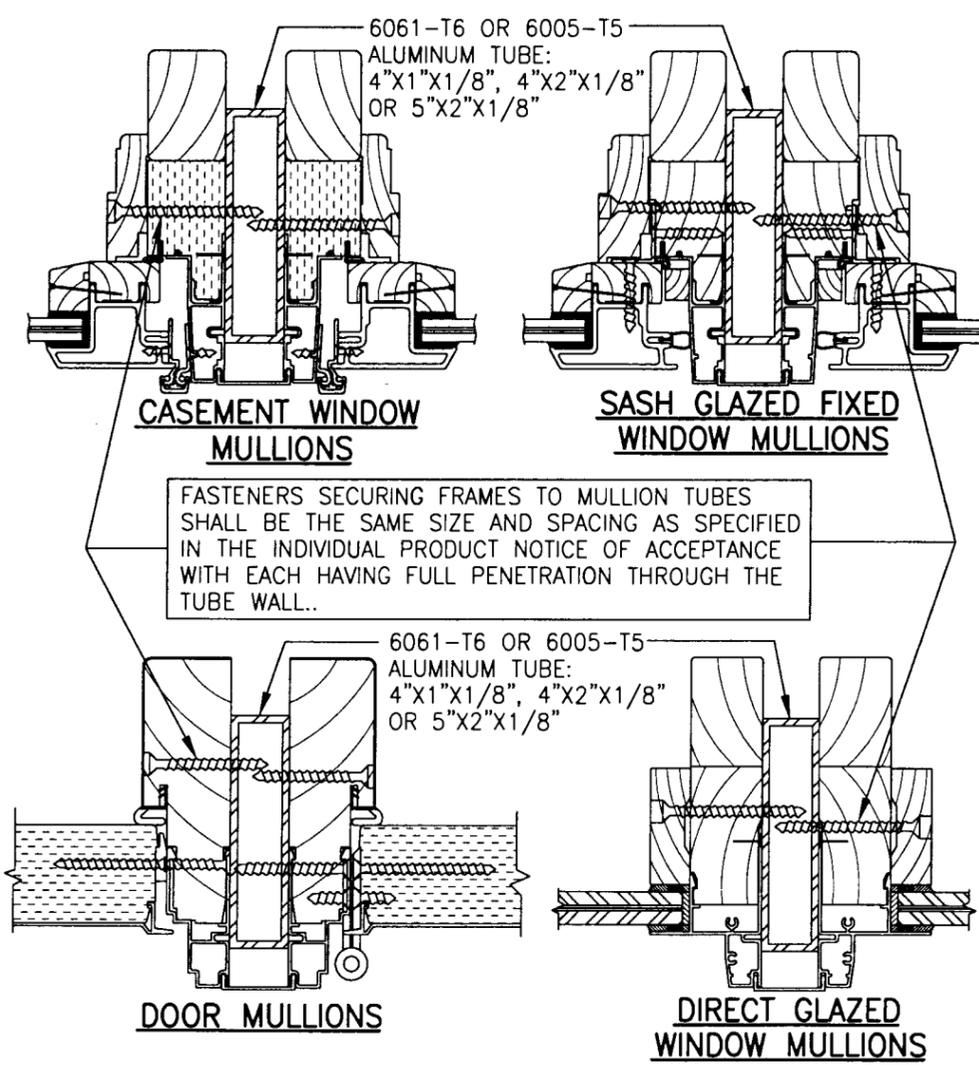
NOTE: "TRANSOM" MAY BE A SASH GLAZED FIXED WINDOW, DIRECT GLAZED FIXED WINDOW OR A FIXED DOOR PANEL UNDER SEPERATE APPROVAL.

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.)	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	100.0	100.0	100.0	100.0	100.0
	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	93.0	100.0	93.0	100.0	93.0
54	84	100.0	86.3	100.0	86.3	100.0	86.3
	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	100.0	100.0	100.0	100.0	100.0
	66	100.0	97.7	100.0	97.7	100.0	97.7
	72	100.0	89.5	100.0	89.5	100.0	89.5
60	78	100.0	82.6	100.0	82.6	100.0	82.6
	84	95.6	76.7	100.0	76.7	100.0	76.7
	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	97.5	96.7	100.0	96.7	100.0	96.7
	66	88.7	87.9	100.0	87.9	100.0	87.9
66	72	81.3	80.6	100.0	80.6	100.0	80.6
	78	75.0	74.4	100.0	74.4	100.0	74.4
	84	69.7	69.1	100.0	69.1	100.0	69.1
	48	91.6	91.6	100.0	100.0	100.0	100.0
	54	81.4	81.4	100.0	97.7	100.0	97.7
	60	73.3	73.3	100.0	87.9	100.0	87.9
72	66	66.6	66.6	97.3	79.9	100.0	79.9
	72	61.1	61.1	89.2	73.2	100.0	73.2
	78	56.4	56.4	82.4	67.6	100.0	67.6
	84	52.3	52.3	76.5	62.8	95.0	62.8
	48	70.6	70.6	100.0	100.0	100.0	100.0
	54	62.7	62.7	91.6	89.5	100.0	89.5
78	60	56.4	56.4	82.5	80.6	100.0	80.6
	66	51.3	51.3	75.0	73.2	100.0	75.0
	72	47.0	47.0	68.7	67.1	100.0	67.1
	78	43.4	43.4	63.4	62.0	93.8	62.0
	84	40.3	40.3	58.9	57.6	87.1	57.6
	48	55.5	55.5	81.1	81.1	100.0	93.0
84	54	49.3	49.3	72.1	72.1	100.0	82.6
	60	44.4	44.4	64.9	64.9	100.0	74.4
	66	40.4	40.4	59.0	59.0	100.0	67.6
	72	37.0	37.0	54.0	54.0	93.8	62.0
	78	34.1	34.1	49.9	49.9	86.6	57.2
	84	31.7	31.7	46.3	46.3	80.4	53.1
84	48	44.4	44.4	64.9	64.9	100.0	86.3
	54	39.5	39.5	57.7	57.7	100.0	76.7
	60	35.5	35.5	51.9	51.9	90.8	69.1
	66	32.3	32.3	47.2	47.2	82.6	62.8
	72	29.6	29.6	43.3	43.3	75.7	57.6
	78	27.3	27.3	39.9	39.9	69.9	53.1
84	25.4	25.4	37.1	37.1	64.9	49.3	

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"

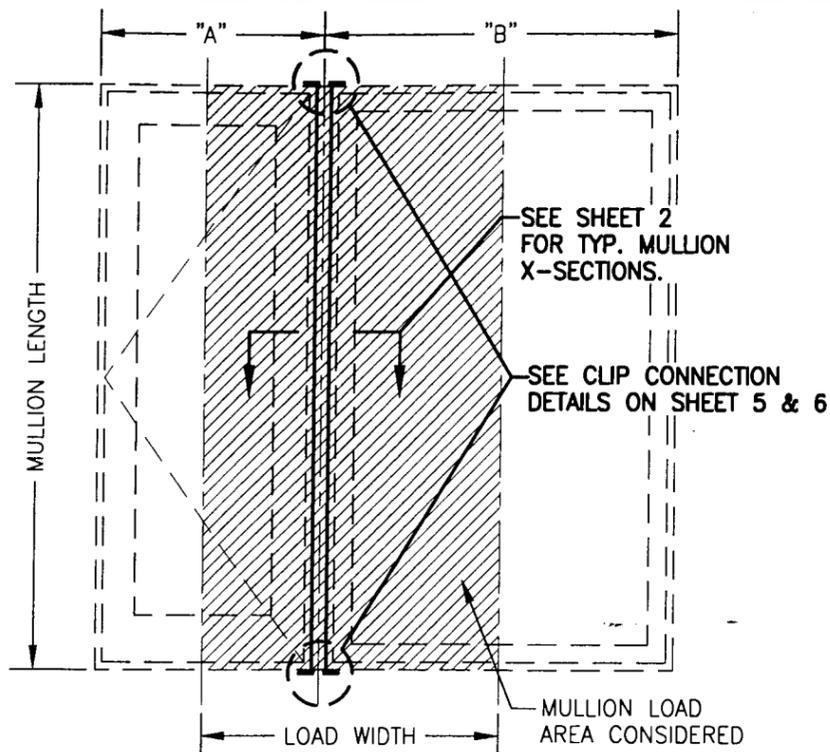


**TYPICAL MULLION CONDITIONS**

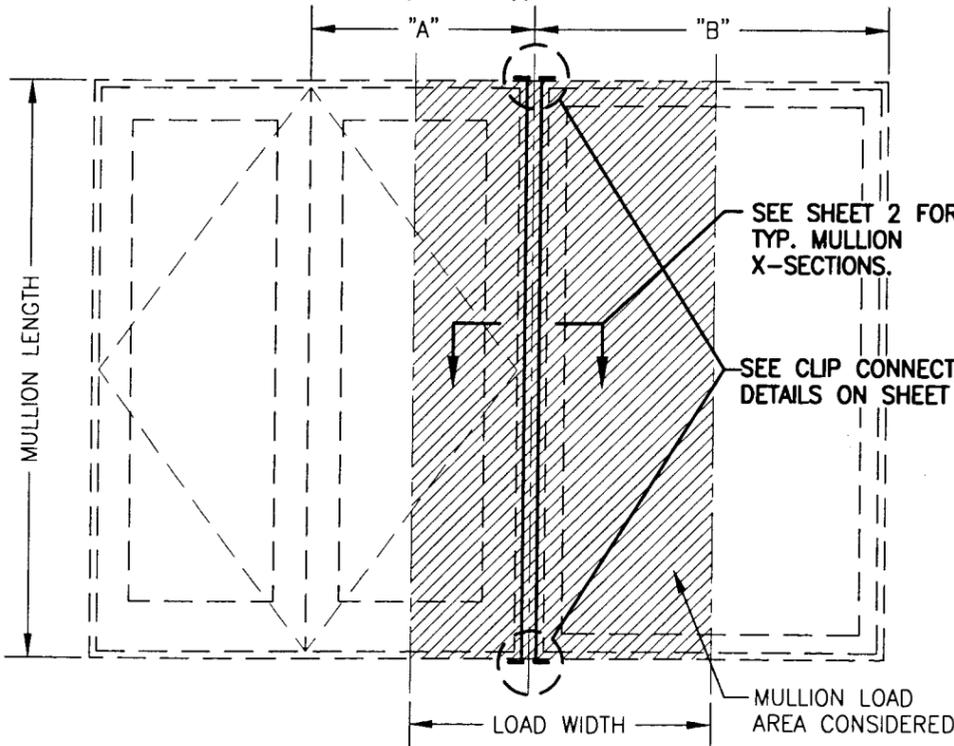
NOTE: PRODUCTS CAN BE INTERMIXED & ARE NOT LIMITED TO THOSE SHOWN. PRODUCTS USED WITH THE MULLIONS MUST BE ALUMINUM CLAD WOOD WINDOW/DOOR PRODUCTS MANUFACTURED BY HURD MILLWORK CO. & MUST HOLD A MIAMI-DADE COUNTY "NOTICE OF ACCEPTANCE"

APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE  
DATE FEB 14, 2002  
BY [Signature]  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE  
ACCEPTANCE NO. 01-1012.04

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1-24	DATE: 07/24/01
DATE	BY
NO.	REVISION DESCRIPTION
CLIPPED IMPACT & NON-IMPACT ALUMINUM TUBE MULLIONS	
MANUFACTURER: HURD MILLWORK CO., INC. 575 S. WHELEN AVE. MEDFORD, WI 54451 800-433-4873	
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	
CERTIFICATION	JAN 24 2002
WARREN W. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING NO. 1047A	REV.
SHEET NO. 2 OF 6	



CENTER OF DOOR OR WINDOW      CENTER OF WINDOW  
**SINGLE DOOR OR CASEMENT WITH SIDELIGHT,  
 DOOR TO DOOR OR CASEMENT TO CASEMENT**  
 LOAD WIDTH = (A + B)/2



CENTER OF DOOR PANEL      CENTER OF WINDOW  
**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	94.0	100.0	94.0	100.0	94.0
	60	100.0	84.6	100.0	84.6	100.0	84.6
54	42	100.0	100.0	100.0	100.0	100.0	100.0
	48	100.0	94.0	100.0	94.0	100.0	94.0
	54	100.0	83.6	100.0	83.6	100.0	83.6
	60	100.0	75.2	100.0	75.2	100.0	75.2
60	36	100.0	100.0	100.0	100.0	100.0	100.0
	42	100.0	96.7	100.0	96.7	100.0	96.7
	48	100.0	84.6	100.0	84.6	100.0	84.6
	54	100.0	75.2	100.0	75.2	100.0	75.2
66	36	100.0	100.0	100.0	100.0	100.0	100.0
	42	100.0	87.9	100.0	87.9	100.0	87.9
	48	91.6	76.9	100.0	76.9	100.0	76.9
	54	81.4	68.4	100.0	68.4	100.0	68.4
72	30	100.0	100.0	100.0	100.0	100.0	100.0
	36	94.1	94.1	100.0	94.0	100.0	94.0
	42	80.6	80.6	100.0	80.6	100.0	80.6
	48	70.6	70.6	100.0	70.5	100.0	70.5
	54	62.7	62.7	91.6	62.7	94.8	62.7
	60	56.4	56.4	82.5	56.4	85.3	56.4

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	86.8	100.0	86.8
	42	63.4	63.4	92.7	74.4	100.0	74.4
	48	55.5	55.5	81.1	65.1	98.5	65.1
80	24	100.0	100.0	100.0	100.0	100.0	100.0
	30	82.3	82.3	100.0	100.0	100.0	100.0
	36	68.6	68.6	100.0	84.6	100.0	84.6
	42	58.8	58.8	85.9	72.5	100.0	72.5
	48	51.4	51.4	75.1	63.5	96.0	63.5
	54	45.7	45.7	66.8	56.4	85.3	56.4
	60	41.1	41.1	60.1	50.8	76.8	50.8
84	24	88.9	88.9	100.0	100.0	100.0	100.0
	30	71.1	71.1	100.0	96.7	100.0	96.7
	36	59.2	59.2	86.5	80.6	100.0	80.6
	42	50.8	50.8	74.2	69.1	100.0	69.1
	48	44.4	44.4	64.9	60.4	91.4	60.4
	54	39.5	39.5	57.7	53.7	81.3	53.7
	60	35.5	35.5	51.9	48.3	73.1	48.3
	66	31.7	31.7	46.7	43.8	65.0	43.8
92	24	67.6	67.6	98.8	98.8	100.0	100.0
	30	54.1	54.1	79.1	79.1	100.0	88.3
	36	45.1	45.1	65.9	65.9	100.0	73.6
	42	38.7	38.7	56.5	56.5	95.4	63.1
	48	33.8	33.8	49.4	49.4	83.5	55.2
	54	30.1	30.1	43.9	43.9	74.2	49.0
	60	27.1	27.1	39.5	39.5	66.8	44.1
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	84.6
	36	39.7	39.7	58.0	58.0	100.0	70.5
	42	34.0	34.0	49.7	49.7	86.9	60.4
	48	29.8	29.8	43.5	43.5	76.0	52.9
	54	26.5	26.5	38.7	38.7	67.6	47.0
	60	23.8	23.8	34.8	34.8	60.8	42.3

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

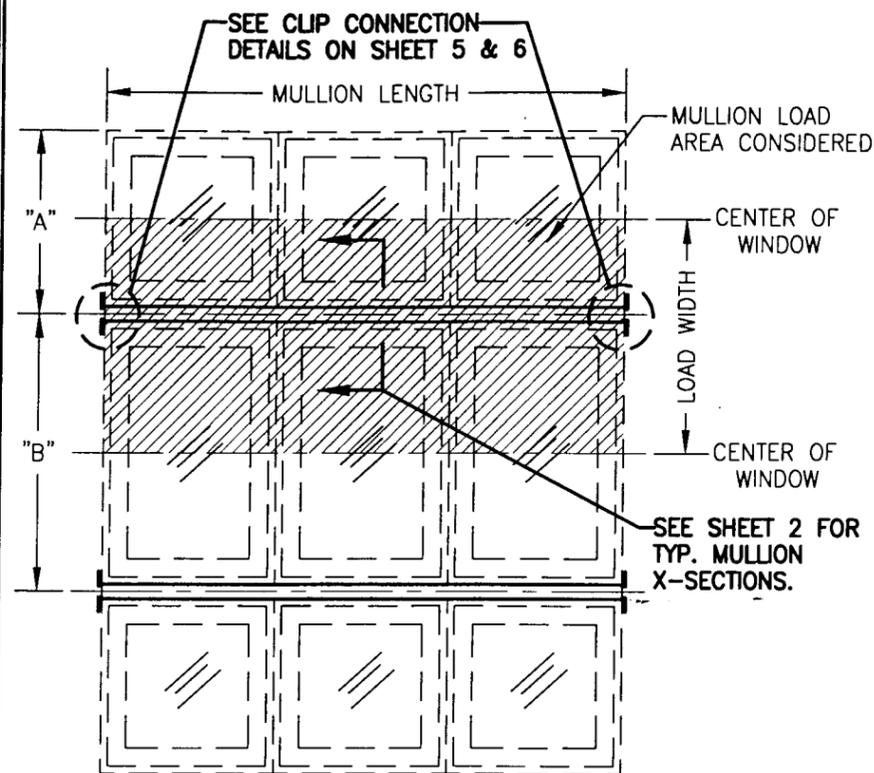
NOTE: INDIVIDUAL UNIT SIZES & SHUTTER REQUIREMENTS ARE LIMITED BY THEIR OWN INDIVIDUAL "NOTICE OF ACCEPTANCE"

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.

APPROVED AS COMPLYING WITH THE  
 SOUTH FLORIDA BUILDING CODE  
 DATE Feb 14, 2002  
 BY Ishaq J. Chaudhary  
 PRODUCT CONTROL DIVISION  
 BUILDING CODE COMPLIANCE OFFICE  
 ACCEPTANCE NO. 01-1012.04

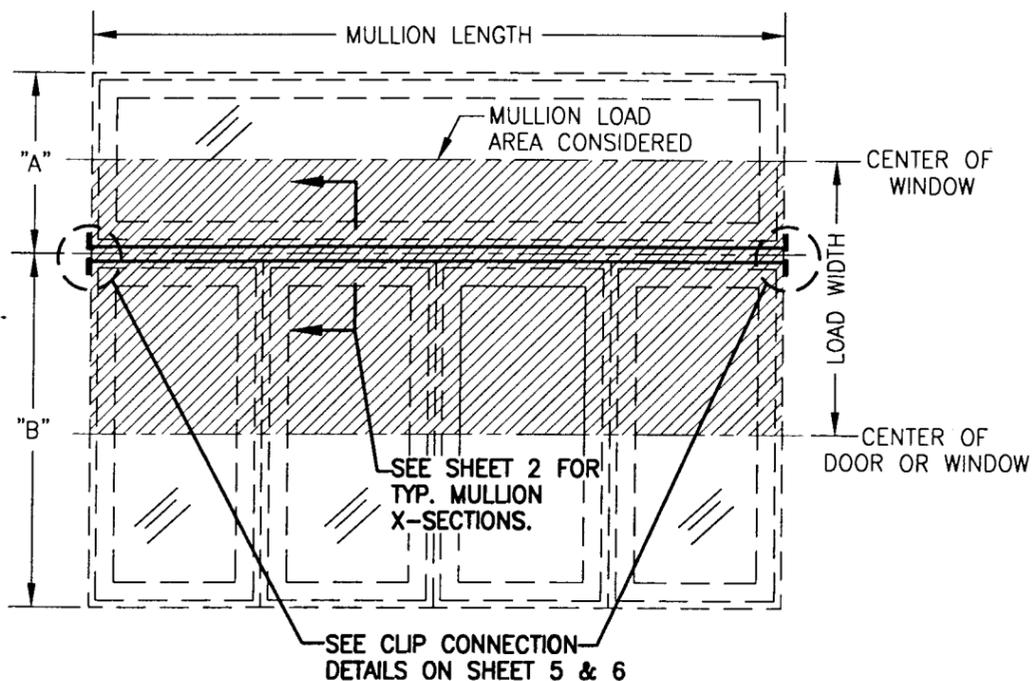
DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1-24	DATE: 07/24/01
DATE	REVISION DESCRIPTION
NO.	
<b>CLIPPED IMPACT &amp; NON-IMPACT ALUMINUM TUBE MULLIONS</b> MANUFACTURER <b>HURD MILLWORK CO., INC.</b> 575 S. WHELEN AVE. MEDFORD, WI 54451 800-433-4873	
CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A.</b> 600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	
DRAWING TITLE <b>CLIPPED IMPACT &amp; NON-IMPACT ALUMINUM TUBE MULLIONS</b>	
CERTIFICATION <b>JAN 24 2002</b> WARREN W. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING NO. 1047A	REV.
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	94.0	100.0	94.0	100.0	94.0
	78	100.0	86.8	100.0	86.8	100.0	86.8
42	54	100.0	100.0	100.0	100.0	100.0	100.0
	60	100.0	96.7	100.0	96.7	100.0	96.7
	66	100.0	87.9	100.0	87.9	100.0	87.9
48	72	100.0	80.6	100.0	80.6	100.0	80.6
	78	100.0	74.4	100.0	74.4	100.0	74.4
	84	100.0	68.2	100.0	68.2	100.0	68.2
54	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	66	100.0	76.9	100.0	76.9	100.0	76.9
	72	100.0	70.5	100.0	70.5	100.0	70.5
	78	98.5	65.1	98.5	65.1	98.5	65.1
66	42	100.0	100.0	100.0	100.0	100.0	100.0
	48	100.0	94.0	100.0	94.0	100.0	94.0
	54	100.0	83.6	100.0	83.6	100.0	83.6
72	60	100.0	75.2	100.0	75.2	100.0	75.2
	66	100.0	68.4	100.0	68.4	100.0	68.4
	72	94.8	62.7	94.8	62.7	94.8	62.7
78	78	87.5	57.8	87.5	57.8	87.5	57.8
	84	80.6	52.1	80.6	52.1	80.6	52.1
	90	73.6	46.4	73.6	46.4	73.6	46.4
84	36	100.0	100.0	100.0	100.0	100.0	100.0
	42	100.0	96.7	100.0	96.7	100.0	96.7
	48	100.0	84.6	100.0	84.6	100.0	84.6
90	54	100.0	75.2	100.0	75.2	100.0	75.2
	60	97.5	67.7	100.0	67.7	100.0	67.7
	66	88.7	61.5	93.1	61.5	93.1	61.5
96	72	81.3	56.4	85.3	56.4	85.3	56.4
	78	75.0	52.1	78.8	52.1	78.8	52.1
	84	68.2	46.4	72.0	46.4	72.0	46.4
102	30	100.0	100.0	100.0	100.0	100.0	100.0
	36	94.1	94.0	100.0	94.0	100.0	94.0
	42	80.6	80.6	100.0	80.6	100.0	80.6
108	48	70.6	70.5	100.0	70.5	100.0	70.5
	54	62.7	62.7	91.6	62.7	94.8	62.7
	60	56.4	56.4	82.5	56.4	85.3	56.4
114	66	51.3	51.3	75.0	51.3	77.6	51.3
	72	47.0	47.0	68.7	47.0	71.1	47.0
	78	43.4	43.4	63.4	43.4	65.6	43.4
120	24	88.9	88.9	100.0	100.0	100.0	100.0
	30	66.6	66.6	97.4	90.6	100.0	90.6
	36	59.2	59.2	86.5	80.6	100.0	80.6
126	42	50.8	50.8	74.2	69.1	100.0	69.1
	48	44.4	44.4	64.9	60.4	91.4	60.4
	54	39.5	39.5	57.7	53.7	81.3	53.7
132	60	35.5	35.5	51.9	48.3	73.1	48.3
	66	32.3	32.3	47.2	43.9	66.5	43.9
	72	29.6	29.6	43.3	40.3	61.0	40.3
138	78	27.3	27.3	39.9	37.2	56.3	37.2

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

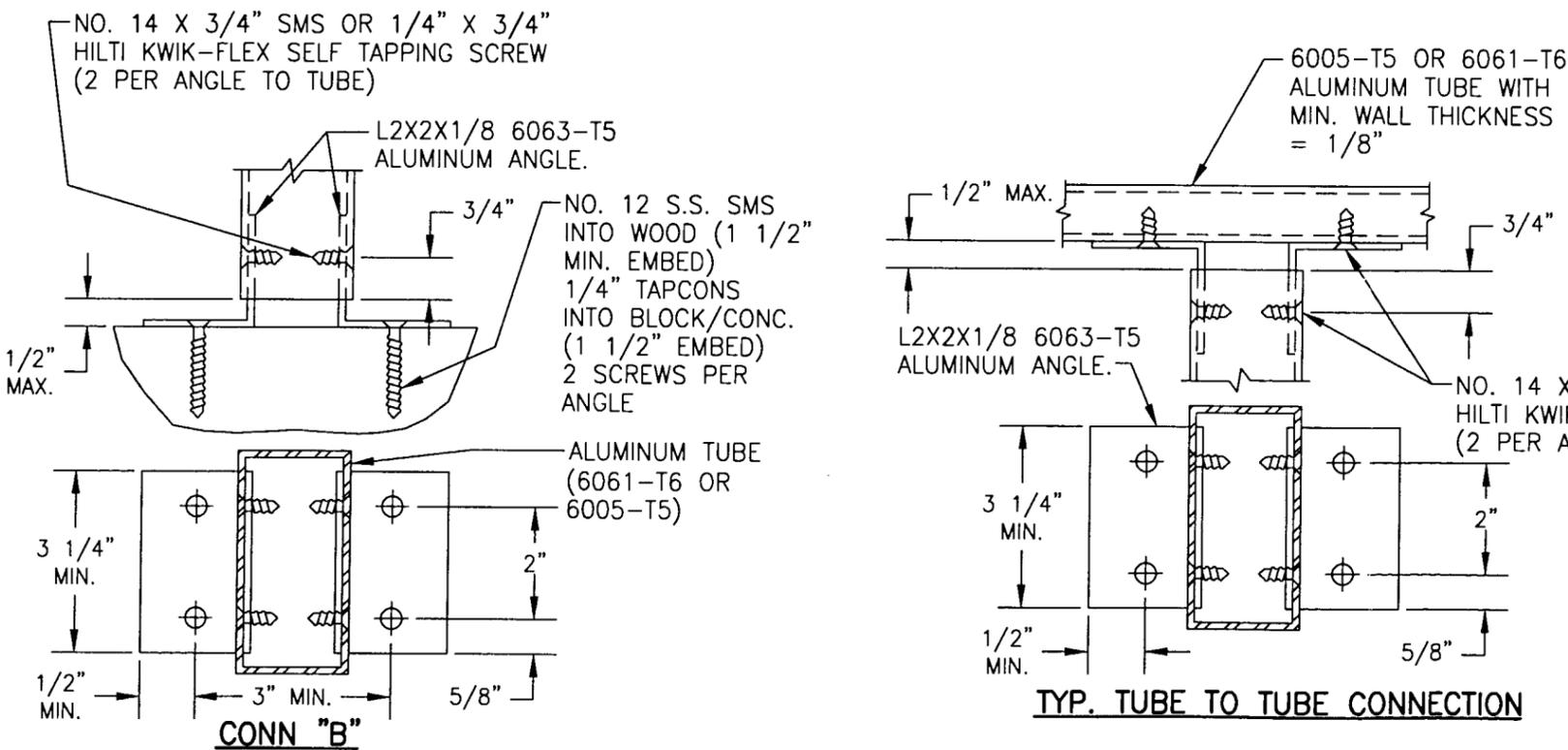
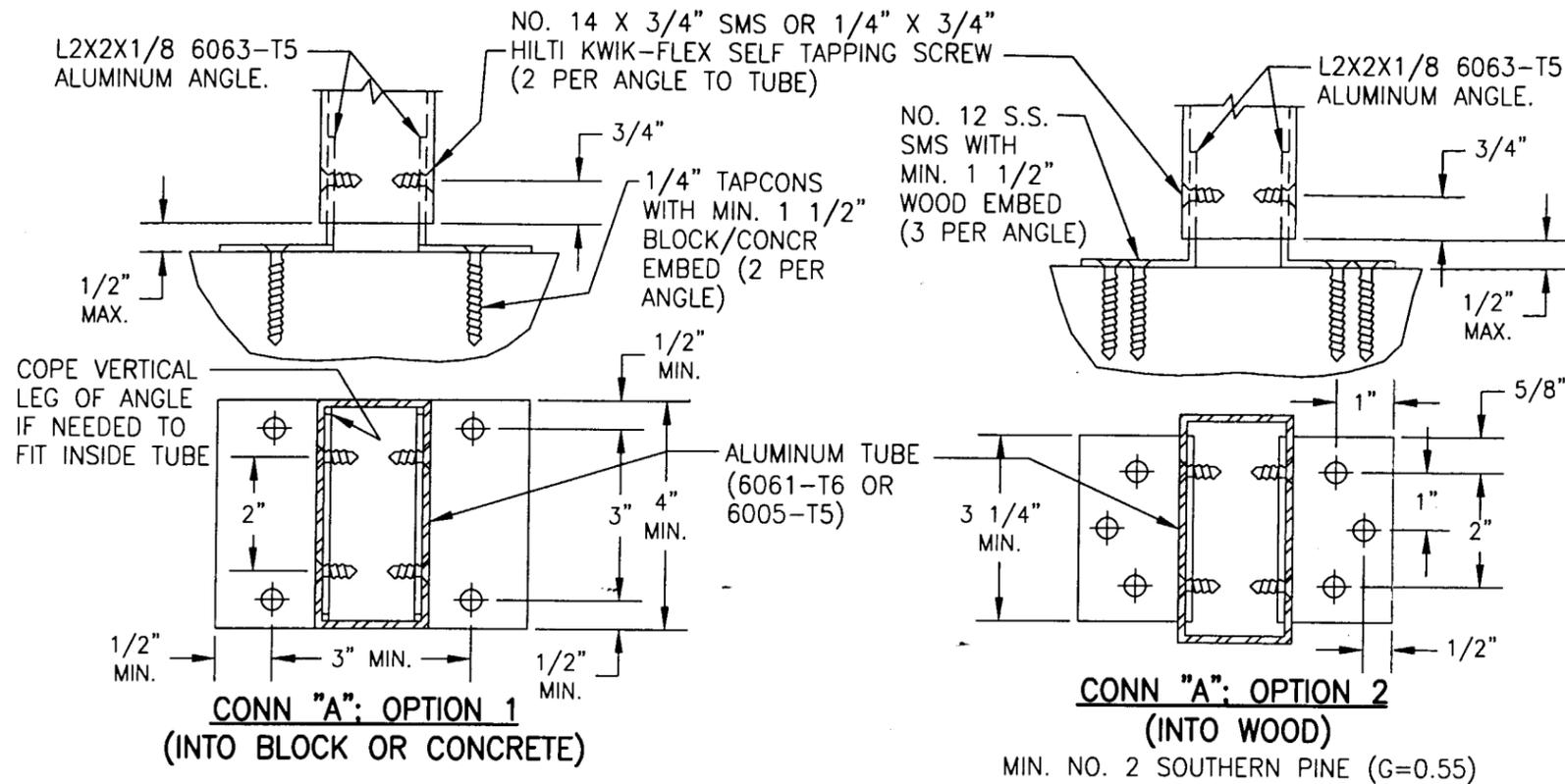
NOTE: INDIVIDUAL UNIT SIZES & SHUTTER REQUIREMENTS ARE LIMITED BY THEIR OWN INDIVIDUAL "NOTICE OF ACCEPTANCE"

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"
24	24	59.5	59.5	87.0	87.0	100.0	100.0
	30	47.6	47.6	69.6	69.6	100.0	84.6
	36	39.7	39.7	58.0	58.0	100.0	70.5
36	42	34.0	34.0	49.7	49.7	86.9	60.4
	48	29.8	29.8	43.5	43.5	76.0	52.9
	54	26.5	26.5	38.7	38.7	67.6	47.0
42	60	-	-	34.8	34.8	60.8	42.3
	66	-	-	31.6	31.6	55.3	38.5
	72	-	-	29.0	29.0	50.7	35.3
48	78	-	-	26.8	26.8	46.8	32.5
	84	-	-	24.4	24.4	42.7	29.7
	90	-	-	22.0	22.0	38.7	26.8
54	24	41.8	41.8	61.1	61.1	100.0	94.0
	30	33.4	33.4	48.9	48.9	85.5	75.2
	36	27.9	27.9	40.7	40.7	71.2	62.7
60	42	23.9	23.9	34.9	34.9	61.0	53.7
	48	-	-	30.5	30.5	53.4	47.0
	54	-	-	27.1	27.1	47.5	41.8
66	60	-	-	24.4	24.4	42.7	37.6
	66	-	-	-	-	38.8	34.2
	72	-	-	-	-	35.6	31.3
72	78	-	-	-	-	32.9	28.9
	84	-	-	-	-	30.5	26.8
	90	-	-	-	-	28.1	24.7
78	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
84	42	-	-	25.4	25.4	44.5	44.5
	48	-	-	-	-	38.9	38.9
	54	-	-	-	-	34.6	34.6
90	60	-	-	-	-	31.1	31.1
	66	-	-	-	-	28.3	28.3
	72	-	-	-	-	26.0	26.0
96	78	-	-	-	-	23.6	23.6
	84	-	-	-	-	21.2	21.2
	90	-	-	-	-	18.8	18.8
102	24	-	-	33.5	33.5	58.5	58.5
	30	-	-	26.8	26.8	46.8	46.8
	36	-	-	-	-	39.0	39.0
108	42	-	-	-	-	33.4	33.4
	48	-	-	-	-	29.3	29.3
	54	-	-	-	-	26.0	26.0
114	60	-	-	25.8	25.8	45.1	45.1
	66	-	-	-	-	36.0	36.0
	72	-	-	-	-	30.0	30.0
120	84	-	-	-	-	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.

APPROVED AS COMPLYING WITH THE  
 SOUTH FLORIDA BUILDING CODE  
 DATE FEB 14 2002  
 BY Ishag J. Lhanda  
 PRODUCT CONTROL DIVISION  
 BUILDING CODE COMPLIANCE OFFICE  
 ACCEPTANCE NO. 01-1012-04

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>	
MANUFACTURER <b>HURD MILLWORK CO., 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 JAN 24 2002	WARREN W. SCHAEFER, P.E. P.E. NO. 44135
DRAWING NO. 1047A	REV.
SHEET NO. 4	OF 6



**FASTENER EDGE DISTANCE REQUIRED  
(TO WOOD/CONCR./BLOCK)**

1/4" TAPCON	2 1/8" & 2 1/2"
NO. 12 SMS	3/4"

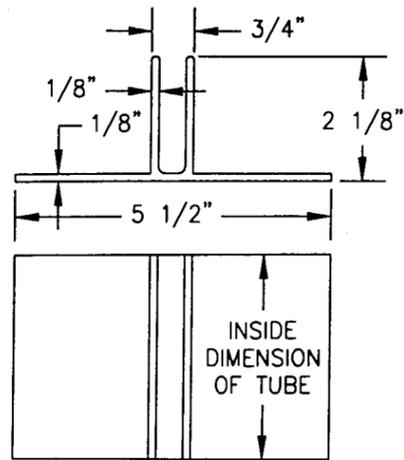
2 1/8" REQ'D AT ONE EDGE OF WALL AND 2 1/2" AT OPPOSITE EDGE.

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

**MULLION END CONNECTION DETAILS  
USING CLIP ANGLES**

APPROVED AS COMPLYING WITH THE  
SOUTH FLORIDA BUILDING CODE  
DATE FEB 14, 2002  
BY Ishag J. Zhande  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE CENTER  
ACCEPTANCE NO. 01-101204

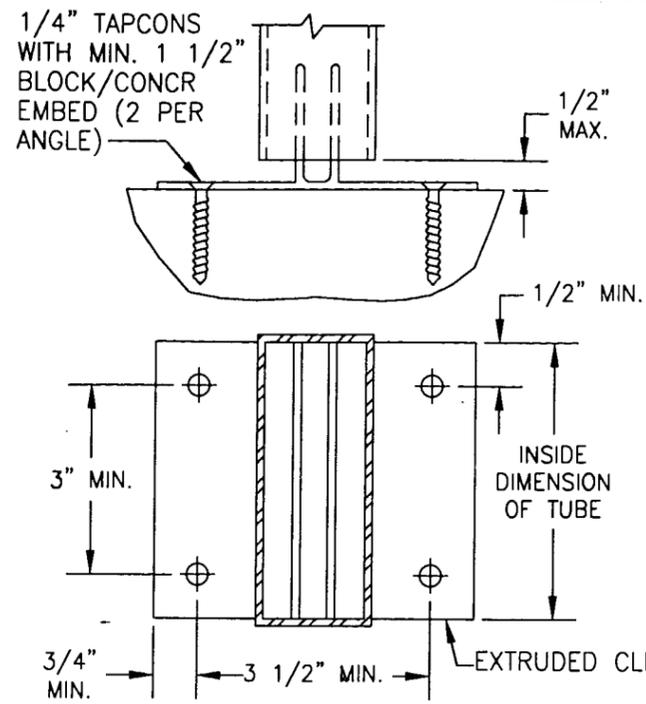
DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1-3	DATE: 07/24/01
DATE	
BY	
REVISION DESCRIPTION	
NO.	
<b>DRAWING TITLE</b>	
CLIPPED IMPACT & NON-IMPACT ALUMINUM TUBE MULLIONS	
<b>CONSULTANTS</b>	
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.	
600 SANDTREE DRIVE, SUITE 203B PALM BEACH GARDENS, FL 33403 PHONE: 561-775-4902 FAX: 561-775-4903	
<b>MANUFACTURER</b>	
HURD MILLWORK CO., INC.	
575 S. WHELEN AVE. MEDFORD, WI 54451 800-433-4873	
<b>CERTIFICATION</b>	
JAN 24 2002	
WARREN W. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING NO. 1047A	REV.
SHEET NO. 5	OF 6



**EXTRUDED CLIP**  
6063-T5 ALUMINUM

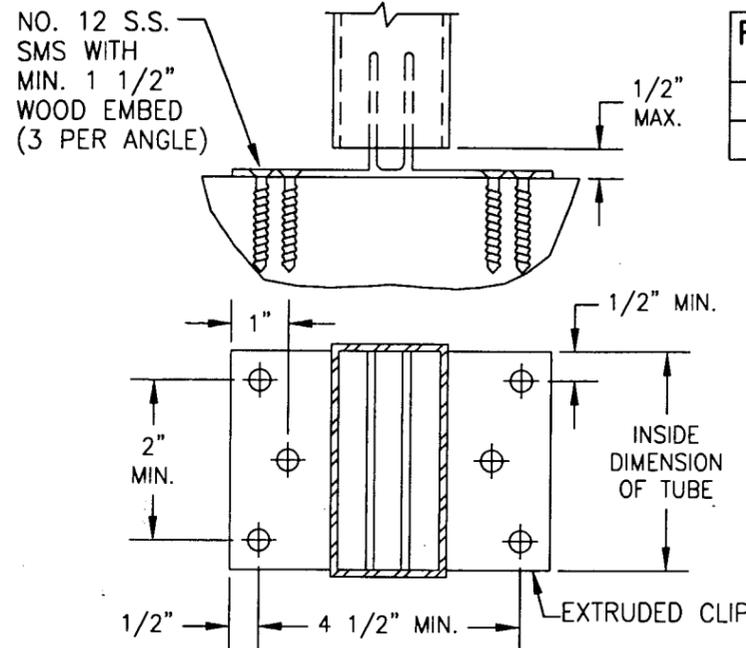
**INSTALLATION INSTRUCTION:**

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.



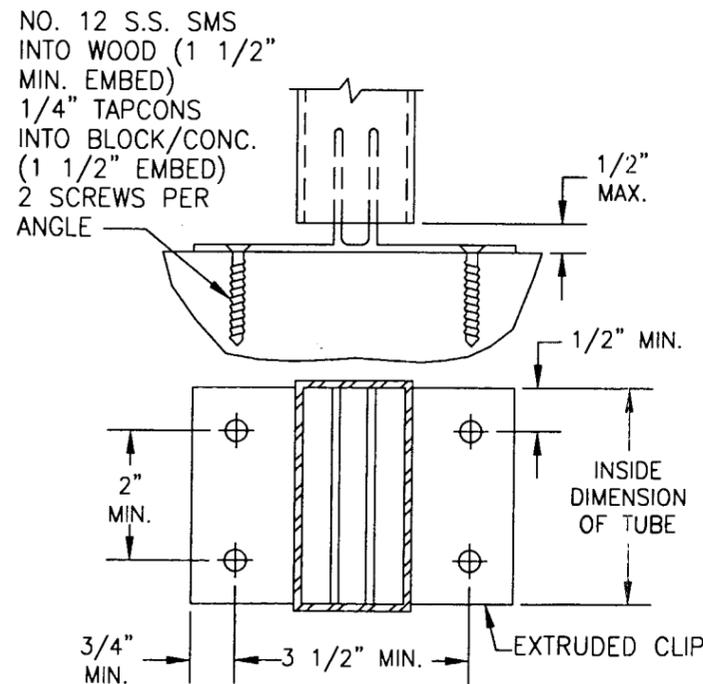
**CONN "A": OPTION 1**  
**(INTO BLOCK OR CONCRETE)**

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



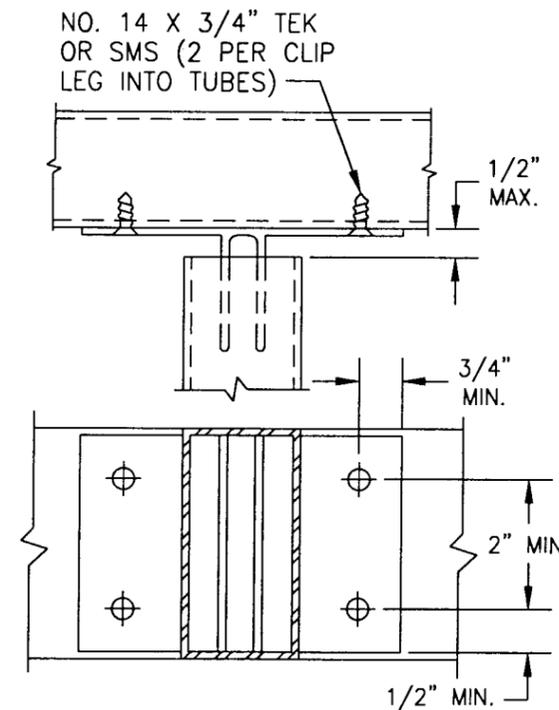
**CONN "A": OPTION 2**  
**(INTO WOOD)**

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



**CONN "B"**

**(INTO BLOCK, CONCRETE OR 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 1/8" & 2 1/2"
NO. 12 SMS	3/4"

2 1/8" REQ'D AT ONE EDGE OF WALL AND 2 1/2" AT OPPOSITE EDGE.

**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>	
MANUFACTURER <b>HURD MILLWORK CO., 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 24 2002</b> WARREN W. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING NO. <b>1047A</b>	REV.
SHEET NO. <b>6 OF 6</b>	

APPROVED AS COMPLYING WITH THE  
SOUTH FLORIDA BUILDING CODE  
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By Iskay J. Zhanda  
PROJECT CONTROL DIVISION  
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