



**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)**

**R.C. Aluminum Industries, Inc.  
2805 NW 75<sup>th</sup> Ave.  
Miami, FL 33122**

**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 the BCCO and accepted by the Building Code and Product Review Committee (BCPRC) 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 BCCO (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. BCPRC reserves the right to revoke this acceptance, if it is determined by BCCO 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 Florida Building Code, including the High Velocity Hurricane Zone.

**DESCRIPTION: Series ML 100 Aluminum Tube Mullion**

**APPROVAL DOCUMENT:** Drawing No. **M04-05**, titled "Aluminum Tube Mullions," sheets 1 through 7 of 7, prepared by AL-Farooq Corporation, dated 05/02/04 revision "A" dated 07/13/04; signed and sealed by Humayoun Farooq, 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.

**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 consists of this page 1 and evidence pages E-1, as well as approval document mentioned above. The submitted documentation was reviewed by **Herminio F. Gonzalez, P.E. , Director, BCCO**

*JM*  
*8/29/04*  


**NOA No 04-0608.05  
Expiration Date: August 19, 2009  
Approval Date: August 19, 2004  
Page 1**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. Manufacturer's die drawings and sections.
2. Drawing No. **M04-05**, titled "Aluminum Tube Mullions," Sheets 1 through 7 of 7, prepared by AL-Farooq Corporation, dated 05/02/04 revision "A" dated 07/13/04, signed and sealed by Humayoun Farooq, P.E.

**B. TESTS**

1. Test reports on
  - 1) Air Infiltration Test, per FBC, TAS 202-94
  - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
  - 3) Large Missile Impact Test per FBC, TAS 201-94
  - 4) Forced Entry Test, per FBC 2411.3.2.1 (b) and TAS 202-94along with installation diagram of an aluminum single hung window, prepared by Hurricane Engineering & Testing Inc., Test Report No. **HETI-03-1346**, dated September 16<sup>th</sup>, 2003, signed and sealed by Rafael E. Droz-Seda, P.E.
2. Test reports on
  - 1) Air Infiltration Test, per FBC, TAS 202-94
  - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Cyclic Wind Pressure Loading per FBC, TAS 203-94along with installation diagram of an aluminum single hung window mulled together, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-4024**, dated January 14, 2004, signed and sealed by Edmundo Largespada, P.E.

**C. CALCULATIONS:**

1. Anchor Calculations, ASTM-E1300, and structural analysis, prepared by AL-Farooq Corporation, dated May 28, 2004, signed and sealed by Humayoun Farooq, P.E.

**D. QUALITY ASSURANCE**

1. Miami Dade Building Code Compliance Office (BCCO)

**E. MATERIAL CERTIFICATIONS**

1. None

**F. STATEMENTS**

1. Statement letter of conformance and no financial interest, May 28, 2004, signed and sealed by Humayoun Farooq, P.E.

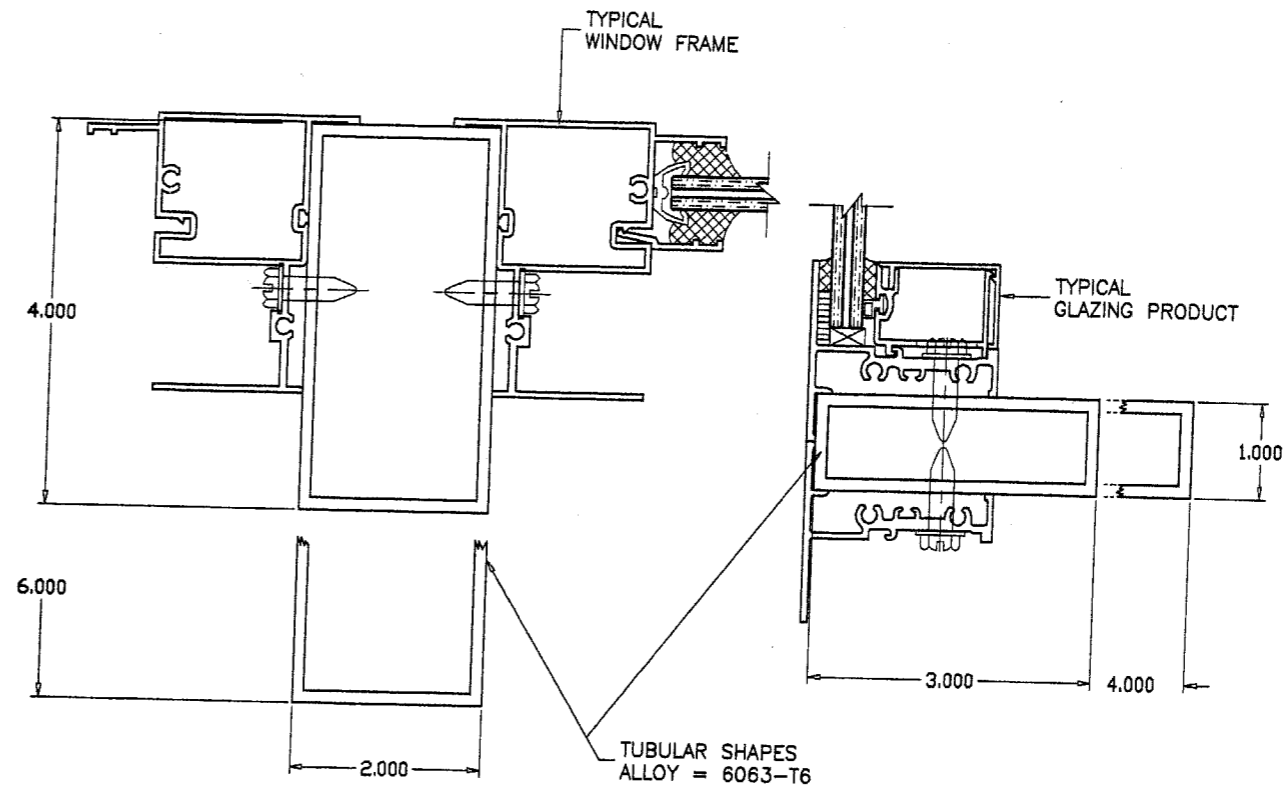
**G. OTHER**

1. Letter from the consultant stating that the product is in compliance with the Florida Building Code (FBC)



**Herminio F. Gonzalez, P.E.**  
**Director, Building Code Compliance Office**

**NOA No 04-0608.05**  
**Expiration Date: August 12, 2009**  
**Approval Date: August 12, 2004**



THESE MULLIONS ARE RATED FOR LARGE MISSILE IMPACT

RECTANGULAR ALUMINUM TUBE MULLIONS  
USING MULLION PROPERTIES ONLY

NOTES:

- THIS PRODUCT IS DESIGNED TO COMPLY WITH THE HIGH VELOCITY HURRICANE ZONE OF THE 2001 FLORIDA BUILDING CODE.
- ALL GLAZING PRODUCTS USED WITH THESE MULLIONS MUST MEET THE APPLICABLE BUILDING CODE REQUIREMENTS I.E: WIND LOAD, WATER INFILTRATION, FORCED ENTRY RESISTANCE, SAFEGUARDS ETC.
- WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.
- ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS, EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL COVERING (STUCCO, TILE ETC.).
- ANCHORING CONDITIONS OTHER THAN THOSE SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.
- ALL CONCRETE STRUCTURE TO BE 3000 PSI MIN. STRENGTH.

INSTRUCTIONS:

USE CHARTS AND GRAPHS AS FOLLOWS.

- STEP 1 DETERMINE DESIGN LOAD REQUIRED PER ASCE 7 FOR PARTICULAR OPENING.
- STEP 2 USE APPROVED GLAZING PRODUCTS MEETING ABOVE LOAD REQUIREMENTS.
- STEP 3 USE CONNECTION TO MULLION AS PER PRODUCT APPROVAL.
- STEP 4 USING CHARTS ON SHEET 3 SELECT MULLION SIZE WITH DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.
- STEP 5 USING ANCHOR TYPES ON SHEET 5 THRU 7 AND ANCHOR CHARTS ON SHEET 4, SELECT ANCHOR TYPE WITH DESIGN RATING MORE THAN THE DESIGN LOADS SPECIFIED IN STEP 1 ABOVE.

MULLIONS CONTAINING TYPICAL GLAZING PRODUCTS  
HORIZONTAL OR VERTICAL

SEE WINDOW OR DOOR APPROVAL FOR FASTENERS SIZES AND SPACING

Approved as complying with the  
 Florida Building Code  
 Date 08/19/04  
 NOAH 04-0208.05  
 Miami-Dade Product Control  
 Division  
 By *[Signature]*

Engr: DR. HUMAYOUN FAROOQ  
 STRUCTURES  
 FLA. PE # 16557  
 C.A.N. 3538  
 JUL 15 2004

*afc*

**AL-FAROOQ CORPORATION**  
 ENGINEERS, PLANNERS & PRODUCT DESIGN  
 1235 SW 87 AVE  
 MIAMI, FLORIDA 33174  
 TEL. (305) 264-8100 FAX. (305) 262-6978  
 MULLION M04-05RC

**ALUMINUM TUBE MULLIONS**

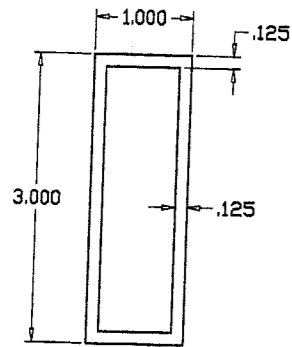
**R.C. ALUMINUM INDUSTRIES INC.**  
 2805 N.W. 75 TH AVE.  
 MIAMI, FL. 33122  
 TEL. (305) 592-1515 FAX. (305) 592-2184

revisions:	no	date	by	description	REV. PER BCCO COMMENTS
A	07.13.04				

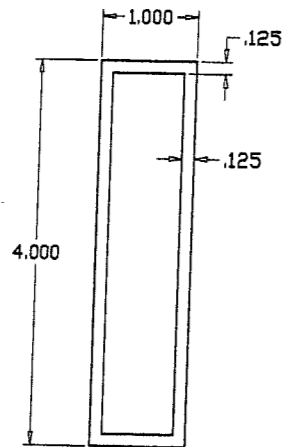
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 dr. by: HAMID  
 chk. by:

drawing no.  
**M04-05**

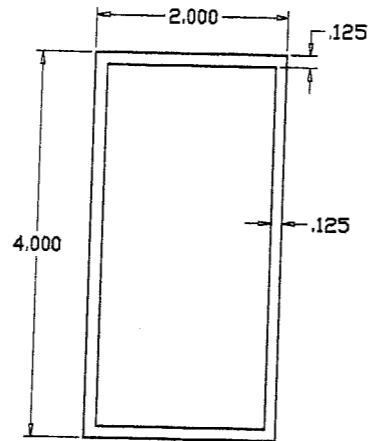
sheet 1 of 7



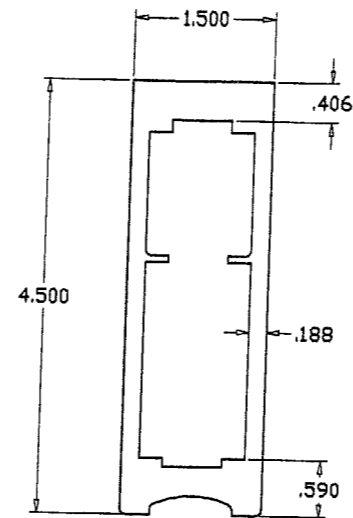
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STD. MULLION  
6063-T6



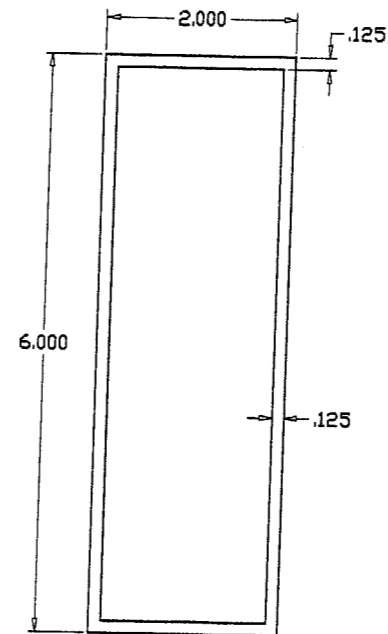
1 X 4  
STD. MULLION  
6063-T6



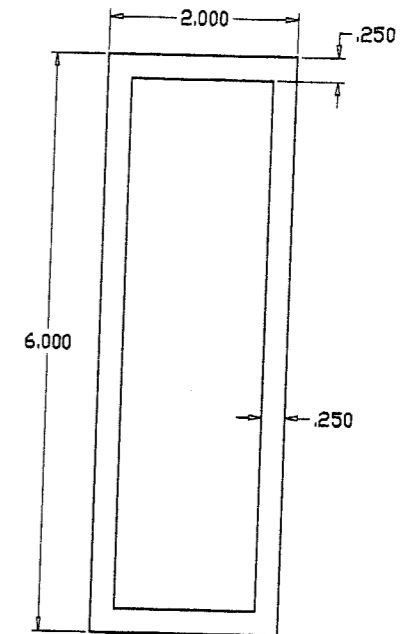
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STD. MULLION  
6063-T6



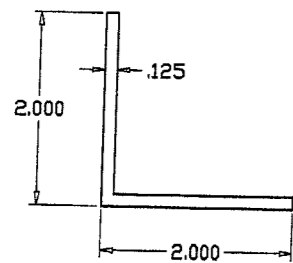
1-1/2 X 4-1/2  
CUSTOM MULLION  
6063-T6



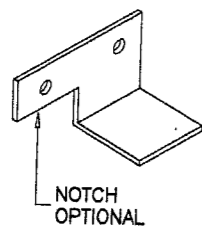
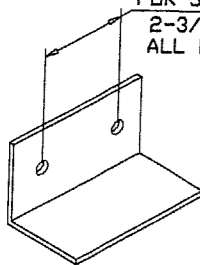
2 X 6  
STD. MULLION  
6063-T6



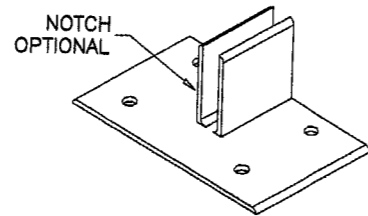
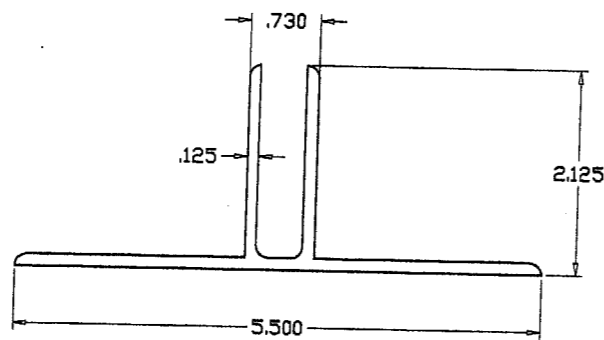
2 X 6  
HEAVY MULLION  
6063-T6



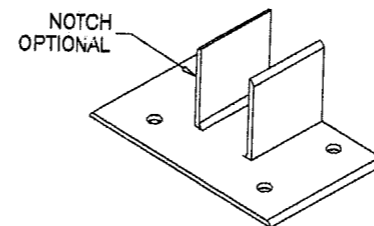
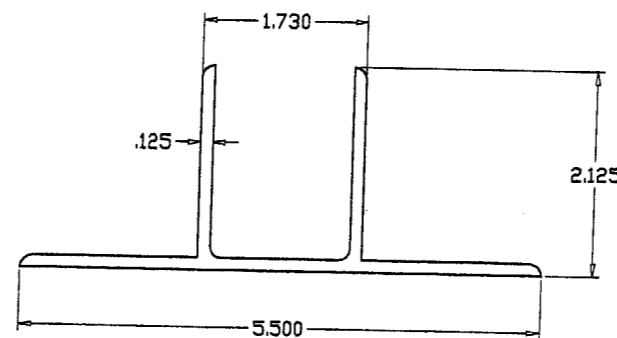
1-3/4" MIN.  
FOR 3" TUBES  
2-3/4" MIN.  
ALL OTHERS



ANGLE CLIP  
6063-T6



MULLION CLIP  
6063-T6



MULLION CLIP  
6063-T6

Approved as complying with the  
Florida Building Code  
Date: 08-19-04  
NOA# 04-0608-05  
Miami Dept. Product Control  
Division  
By: *[Signature]*

Engr: DR. HUMAYCUN FAROOQ  
STRUCTURES  
FLA. PE # 18557  
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JUL 15 2004

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no.	date	description
A	07.13.04	NO CHANGE THIS SHEET

date: 05-02-04  
scale: 1/2" = 1"  
dr. by: HAMID  
chk. by:

drawing no.  
M04-05

sheet 2 of 7

afc

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MULLION M04-05RC

DESIGN LOAD CAPACITY - PSF (TUBE MULLIONS)							
WINDOW DIMS.		DESIGN LOAD CAPACITY - PSF (TUBE MULLIONS)					
WIDTH (W)	MULL SPAN	1 X 3 STD.	1 X 4 STD.	2 X 4 STD.	1-1/2 X 4-1/2 CUSTOM	2 X 6 STD.	2 X 6 HEAVY
19-1/8"	38-3/8"	150.0	150.0	150.0	150.0	150.0	150.0
26-1/2"		150.0	150.0	150.0	150.0	150.0	150.0
30"		150.0	150.0	150.0	150.0	150.0	150.0
37"		150.0	150.0	150.0	150.0	150.0	150.0
42"		150.0	150.0	150.0	150.0	150.0	150.0
48"		150.0	150.0	150.0	150.0	150.0	150.0
54"		150.0	150.0	150.0	150.0	150.0	150.0
60"		150.0	150.0	150.0	150.0	150.0	150.0
66"		140.9	150.0	150.0	150.0	150.0	150.0
72"		129.2	150.0	150.0	150.0	150.0	150.0
19-1/8"	50-5/8"	150.0	150.0	150.0	150.0	150.0	150.0
26-1/2"		150.0	150.0	150.0	150.0	150.0	150.0
30"		150.0	150.0	150.0	150.0	150.0	150.0
37"		121.6	150.0	150.0	150.0	150.0	150.0
42"		107.1	150.0	150.0	150.0	150.0	150.0
48"		93.7	150.0	150.0	150.0	150.0	150.0
54"		83.3	150.0	150.0	150.0	150.0	150.0
60"		75.0	143.1	150.0	150.0	150.0	150.0
66"		68.2	130.1	150.0	150.0	150.0	150.0
72"		62.5	119.3	150.0	150.0	150.0	150.0
19-1/8"	60"	141.3	150.0	150.0	150.0	150.0	150.0
26-1/2"		102.0	150.0	150.0	150.0	150.0	150.0
30"		90.1	150.0	150.0	150.0	150.0	150.0
37"		73.0	150.0	150.0	150.0	150.0	150.0
42"		64.3	138.0	150.0	150.0	150.0	150.0
48"		56.3	120.7	150.0	150.0	150.0	150.0
54"		50.0	107.3	150.0	150.0	150.0	150.0
60"		45.0	96.6	141.1	150.0	150.0	150.0
66"		40.9	87.8	128.3	150.0	150.0	150.0
72"		37.5	80.5	117.6	150.0	150.0	150.0
19-1/8"	63"	122.1	150.0	150.0	150.0	150.0	150.0
26-1/2"		88.1	150.0	150.0	150.0	150.0	150.0
30"		77.8	150.0	150.0	150.0	150.0	150.0
37"		63.1	135.3	150.0	150.0	150.0	150.0
42"		55.6	119.2	150.0	150.0	150.0	150.0
48"		48.6	104.3	150.0	150.0	150.0	150.0
54"		43.2	92.7	135.4	150.0	150.0	150.0
60"		38.9	83.4	121.9	150.0	150.0	150.0
66"		35.4	75.8	110.8	150.0	150.0	150.0
72"		32.4	69.5	101.6	150.0	150.0	150.0

DESIGN LOAD CAPACITY - PSF (TUBE MULLIONS)							
WINDOW DIMS.		DESIGN LOAD CAPACITY - PSF (TUBE MULLIONS)					
WIDTH (W)	MULL SPAN	1 X 3 STD.	1 X 4 STD.	2 X 4 STD.	1-1/2 X 4-1/2 CUSTOM	2 X 6 STD.	2 X 6 HEAVY
19-1/8"	74-1/4"	74.6	150.0	150.0	150.0	150.0	150.0
26-1/2"		53.8	115.4	150.0	150.0	150.0	150.0
30"		47.5	101.9	148.9	150.0	150.0	150.0
37"		38.5	82.6	120.7	150.0	150.0	150.0
42"		33.9	72.8	106.4	150.0	150.0	150.0
48"		29.7	63.7	93.1	150.0	150.0	150.0
54"		26.4	56.6	82.7	150.0	150.0	150.0
60"		23.8	51.0	74.4	150.0	150.0	150.0
66"		21.6	46.3	67.7	150.0	150.0	150.0
72"		-	42.5	62.0	138.8	150.0	150.0
19-1/8"	84"	51.5	110.4	150.0	150.0	150.0	150.0
26-1/2"		37.2	79.7	116.4	150.0	150.0	150.0
30"		32.8	70.4	102.8	150.0	150.0	150.0
37"		26.6	57.1	83.4	150.0	150.0	150.0
42"		23.4	50.3	73.5	150.0	150.0	150.0
48"		20.5	44.0	64.3	143.8	150.0	150.0
54"		-	39.1	57.1	127.8	150.0	150.0
60"		-	35.2	51.4	115.0	140.8	150.0
66"		-	32.0	46.7	104.6	128.0	150.0
72"		-	29.3	42.8	95.9	117.3	150.0
19-1/8"	96"	34.5	74.0	108.1	150.0	150.0	150.0
26-1/2"		24.9	53.4	78.0	150.0	150.0	150.0
30"		22.0	47.2	68.9	150.0	150.0	150.0
37"		-	38.2	55.9	125.0	150.0	150.0
42"		-	33.7	49.2	110.1	136.8	150.0
48"		-	29.5	43.1	96.3	119.7	150.0
54"		-	26.2	38.3	85.6	106.4	150.0
60"		-	23.6	34.4	77.1	95.8	150.0
66"		-	21.4	31.3	70.1	87.1	150.0
72"		-	-	28.7	64.2	79.8	146.6
19-1/8"	108"	24.2	51.9	75.9	150.0	150.0	150.0
26-1/2"		-	37.5	54.8	122.6	150.0	150.0
30"		-	33.1	48.4	108.3	134.5	150.0
37"		-	26.9	39.2	87.8	109.1	150.0
42"		-	23.7	34.6	77.3	96.1	150.0
48"		-	20.7	30.2	67.7	84.1	150.0
54"		-	-	26.9	60.1	74.7	137.3
60"		-	-	24.2	54.1	67.3	123.6
66"		-	-	22.0	49.2	61.2	112.3
72"		-	-	20.2	45.1	56.1	103.0

DESIGN LOAD CAPACITY - PSF (TUBE MULLIONS)							
WINDOW DIMS.		DESIGN LOAD CAPACITY - PSF (TUBE MULLIONS)					
WIDTH (W)	MULL SPAN	1 X 3 STD.	1 X 4 STD.	2 X 4 STD.	1-1/2 X 4-1/2 CUSTOM	2 X 6 STD.	2 X 6 HEAVY
19-1/8"	120"	-	37.9	55.3	123.8	150.0	150.0
26-1/2"		-	27.3	39.9	89.3	111.0	150.0
30"		-	24.1	35.3	78.9	98.1	150.0
37"		-	-	28.6	64.0	79.5	146.1
42"		-	-	25.2	56.4	70.1	128.7
48"		-	-	22.0	49.3	61.3	112.6
54"		-	-	-	43.8	54.5	100.1
60"		-	-	-	39.5	49.0	90.1
66"		-	-	-	35.9	44.6	81.9
72"		-	-	-	32.9	40.9	75.1
19-1/8"	132"	-	28.5	41.6	93.0	115.6	150.0
26-1/2"		-	20.5	30.0	67.1	83.4	150.0
30"		-	-	26.5	59.3	73.7	135.4
37"		-	-	21.5	48.1	59.8	109.8
42"		-	-	-	42.4	52.6	96.7
48"		-	-	-	37.1	46.1	84.6
54"		-	-	-	32.9	40.9	75.2
60"		-	-	-	29.6	36.8	67.7
66"		-	-	-	27.0	33.5	61.5
72"		-	-	-	24.7	30.7	56.4
19-1/8"	144"	-	21.9	32.0	71.6	89.0	150.0
26-1/2"		-	-	23.1	51.7	64.3	118.0
30"		-	-	20.4	45.7	56.8	104.3
37"		-	-	-	37.0	46.0	84.5
42"		-	-	-	32.6	40.5	74.5
48"		-	-	-	28.5	35.5	65.2
54"		-	-	-	25.4	31.5	57.9
60"		-	-	-	22.8	28.4	52.1
66"		-	-	-	20.8	25.8	47.4
72"		-	-	-	-	23.7	43.4

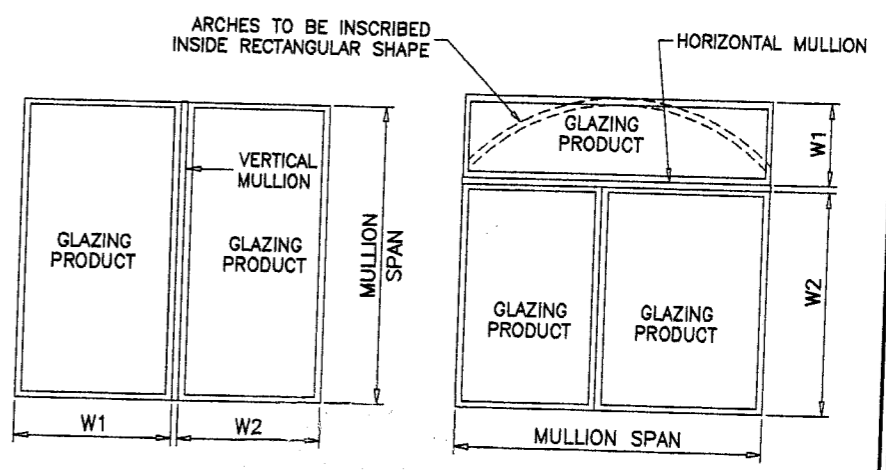
NOTE:  
MULLIONS RATED IN THESE CHARTS MAY BE ORIENTED VERTICALLY OR HORIZONTALLY.  
(INTERPOLATION BETWEEN WIDTHS ALLOWED)

Approved as complying with the Florida Building Code  
Date 08/19/04  
NOA# 04-0608-05  
Miami Trade Product Control Division  
By *[Signature]*

MULLIONS

TYPICAL MULLION ARRANGEMENTS

$$WIDTH (W) = \frac{W1 + W2}{2}$$



Engr: DR. HUMAYOUN FAROOQ  
STRUCTURES  
FLA. PE # 16557  
C.A.N. 3538  
*[Signature]*  
JUL 15 2004

*afc*

**AL-FAROOQ CORPORATION**  
ENGINEERS, PLANNERS & PRODUCT DESIGN  
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2805 N.W. 75 TH AVE.  
MIAMI, FL. 33122  
TEL. (305) 592-1515 FAX. (305) 592-2184

no. date	description
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revisions:

date: 05-02-04  
scale:  
dr. by: HAMID  
chk. by:

drawing no.  
**M04-05**

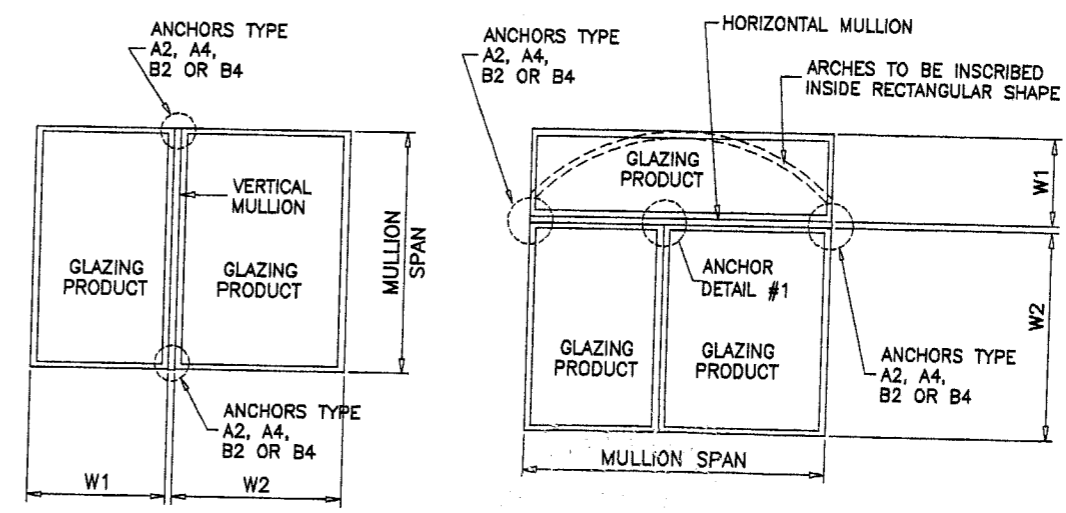
sheet 3 of 7

DESIGN LOAD CAPACITY - PSF					
WINDOW DIMS.		ANCHORS TYPE			
WIDTH (W)	MULL SPAN	A2	A4	B2	B4
19-1/8"	38-3/8"	150.0	150.0	150.0	150.0
26-1/2"		135.4	150.0	150.0	150.0
30"		119.6	150.0	150.0	150.0
37"		97.0	150.0	150.0	150.0
42"		85.4	150.0	150.0	150.0
48"		74.7	149.5	150.0	150.0
54"		66.4	132.9	147.6	150.0
60"		59.8	119.6	132.8	150.0
66"		54.4	108.7	120.8	150.0
72"		49.8	99.6	110.7	150.0
19-1/8"	50-5/8"	142.2	150.0	150.0	150.0
26-1/2"		102.6	150.0	150.0	150.0
30"		90.6	150.0	150.0	150.0
37"		73.5	147.0	150.0	150.0
42"		64.7	129.5	143.8	150.0
48"		56.7	113.3	125.9	150.0
54"		50.4	100.7	111.9	150.0
60"		45.3	90.6	100.7	150.0
66"		41.2	82.4	91.5	150.0
72"		37.8	75.5	83.9	150.0
19-1/8"	60"	120.0	150.0	150.0	150.0
26-1/2"		86.6	150.0	150.0	150.0
30"		76.5	150.0	150.0	150.0
37"		62.0	124.0	137.8	150.0
42"		54.6	109.3	121.4	150.0
48"		47.8	95.6	106.2	150.0
54"		42.5	85.0	94.4	150.0
60"		38.2	76.5	85.0	150.0
66"		34.8	69.5	77.2	150.0
72"		31.9	63.7	70.8	141.6
19-1/8"	63"	114.3	150.0	150.0	150.0
26-1/2"		82.5	150.0	150.0	150.0
30"		72.8	145.7	150.0	150.0
37"		59.1	118.1	131.2	150.0
42"		52.0	104.1	115.6	150.0
48"		45.5	91.0	101.1	150.0
54"		40.5	80.9	89.9	150.0
60"		36.4	72.8	80.9	150.0
66"		33.1	66.2	73.6	147.1
72"		30.3	60.7	67.4	134.9

DESIGN LOAD CAPACITY - PSF					
WINDOW DIMS.		ANCHORS TYPE			
WIDTH (W)	MULL SPAN	A2	A4	B2	B4
19-1/8"	74-1/4"	96.9	150.0	150.0	150.0
26-1/2"		70.0	139.9	150.0	150.0
30"		61.8	123.6	137.3	150.0
37"		50.1	100.2	111.3	150.0
42"		44.1	88.3	98.1	150.0
48"		38.6	77.3	85.8	150.0
54"		34.3	68.7	76.3	150.0
60"		30.9	61.8	68.7	137.3
66"		28.1	56.2	62.4	124.8
72"		25.8	51.5	57.2	114.4
19-1/8"	84"	85.7	150.0	150.0	150.0
26-1/2"		61.8	123.7	137.4	150.0
30"		54.6	109.3	121.4	150.0
37"		44.3	88.6	98.4	150.0
42"		39.0	78.0	86.7	150.0
48"		34.1	68.3	75.9	150.0
54"		30.3	60.7	67.4	134.9
60"		27.3	54.6	60.7	121.4
66"		24.8	49.7	55.2	110.3
72"		22.8	45.5	50.6	101.1
19-1/8"	96"	75.0	150.0	150.0	150.0
26-1/2"		54.1	108.2	120.2	150.0
30"		47.8	95.6	106.2	150.0
37"		38.8	77.5	86.1	150.0
42"		34.1	68.3	75.9	150.0
48"		29.9	59.8	66.4	132.8
54"		26.6	53.1	59.0	118.0
60"		23.9	47.8	53.1	106.2
66"		21.7	43.5	48.3	96.5
72"		19.9	39.8	44.3	88.5
19-1/8"	108"	66.6	133.3	148.1	150.0
26-1/2"		48.1	96.2	106.9	150.0
30"		42.5	85.0	94.4	150.0
37"		34.5	68.9	76.5	150.0
42"		30.3	60.7	67.4	134.9
48"		26.6	53.1	59.0	118.0
54"		23.6	47.2	52.4	104.9
60"		21.2	42.5	47.2	94.4
66"		-	38.6	42.9	85.8
72"		-	35.4	39.3	78.7

DESIGN LOAD CAPACITY - PSF					
WINDOW DIMS.		ANCHORS TYPE			
WIDTH (W)	MULL SPAN	A2	A4	B2	B4
19-1/8"	120"	60.0	120.0	133.3	150.0
26-1/2"		43.3	86.6	96.2	150.0
30"		38.2	76.5	85.0	150.0
37"		31.0	62.0	68.9	137.8
42"		27.3	54.6	60.7	121.4
48"		23.9	47.8	53.1	106.2
54"		21.2	42.5	47.2	94.4
60"		-	38.2	42.5	85.0
66"		-	34.8	38.6	77.2
72"		-	31.9	35.4	70.8
19-1/8"	132"	54.5	109.1	121.2	150.0
26-1/2"		39.4	78.7	87.4	150.0
30"		34.8	69.5	77.2	150.0
37"		28.2	56.4	62.6	125.2
42"		24.8	49.7	55.2	110.3
48"		21.7	43.5	48.3	96.5
54"		-	38.6	42.9	85.8
60"		-	34.8	38.6	77.2
66"		-	31.6	35.1	70.2
72"		-	29.0	32.2	64.4
19-1/8"	144"	50.0	100.0	111.1	150.0
26-1/2"		36.1	72.2	80.2	150.0
30"		31.9	63.7	70.8	141.6
37"		25.8	51.7	57.4	114.8
42"		22.8	45.5	50.6	101.1
48"		19.9	39.8	44.3	88.5
54"		-	35.4	39.3	78.7
60"		-	31.9	35.4	70.8
66"		-	29.0	32.2	64.4
72"		-	26.6	29.5	59.0

Approved as complying with the  
 Florida Building Code  
 Date 08/19/04  
 NOA# 04-0600.05  
 Miami-Dade Product Control  
 Division  
 By *[Signature]*



TYPICAL MULLION ARRANGEMENTS

$$\text{WIDTH (W)} = \frac{W1 + W2}{2}$$

**NOTE:**  
 ANY ANCHOR CONDITION SHOWN HEREIN MAY COVER  
 LOCATIONS AT HEAD, SILL OR JAMB ENDS.  
 FOR ANCHORS DESCRIPTION SEE SHEETS 5 THRU 7.  
 (INTERPOLATION BETWEEN WIDTHS OR SPANS ALLOWED)

**ANCHORS**

Eng: DR. HUMAYOUN FAROOQ  
 STRUCTURES  
 FLA. PE # 16557  
 C.A.N. 3538  
 JUL 15 2004

*afc*

**AL-FAROOQ CORPORATION**  
 ENGINEERS, PLANNERS & PRODUCT DESIGN  
 1235 SW 87 AVE  
 MIAMI, FLORIDA 33174  
 TEL. (305) 264-8100 FAX. (305) 262-6978

**ALUMINUM TUBE MULLIONS**  
**R.C. ALUMINUM INDUSTRIES INC.**  
 2805 N.W. 75 TH AVE.  
 MIAMI, FL. 33122  
 TEL. (305) 592-1515 FAX. (305) 592-2184

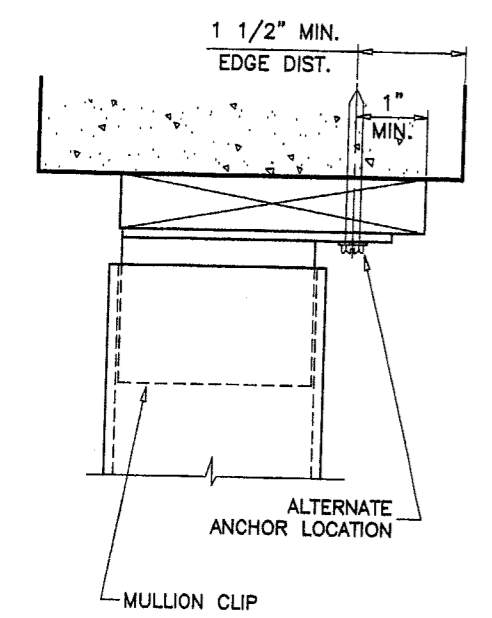
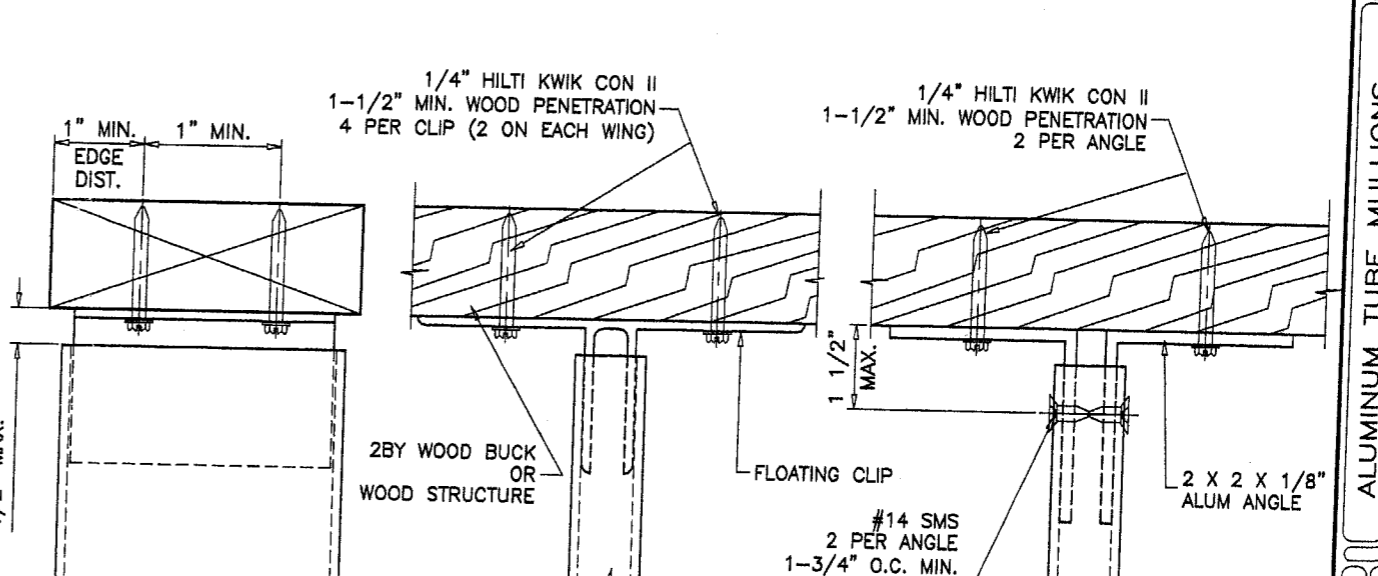
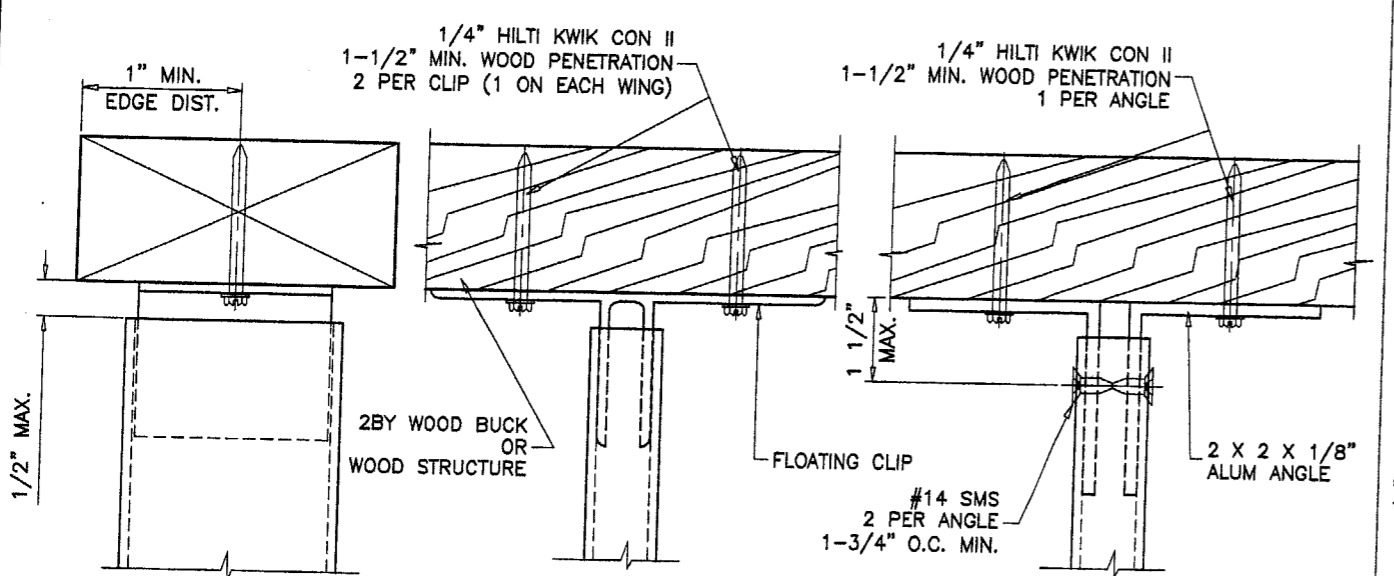
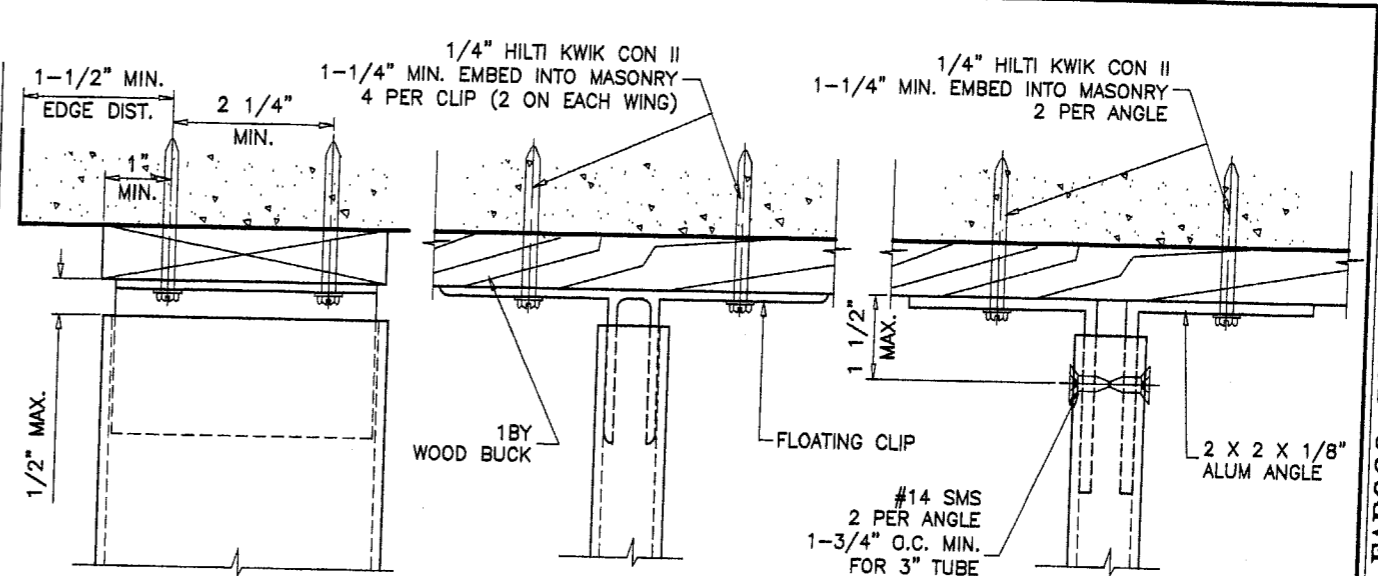
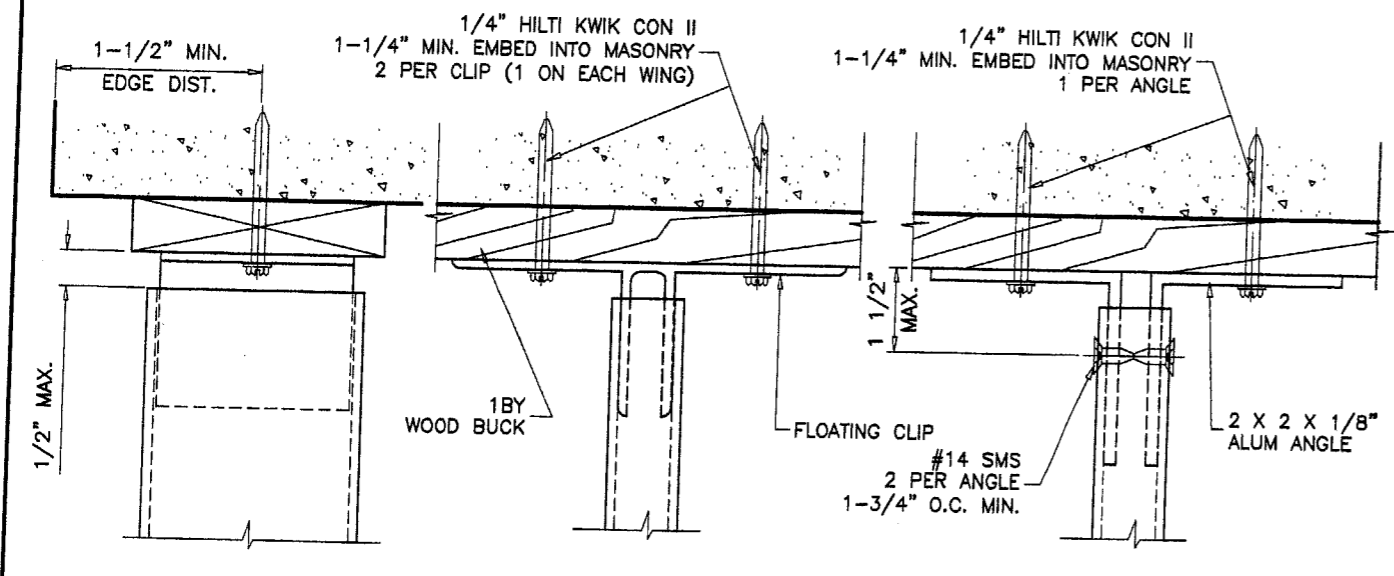
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A	07.13.04	NO CHANGE THIS SHEET

revisions: by description  
 no. date

date: 05-02-04  
 scale:  
 dr. by: HAMID  
 chk. by:

drawing no.  
**M04-05**

sheet 4 of 7



ANCHORS TYPE 'A2'

ANCHORS TYPE 'A4'

ALL CLIPS TO FIT SNUG INTO TUBE MULLIONS.  
TAPCONS MAY BE HEX OR FLAT HEAD.

Approved as complying with the  
Florida Building Code  
Date 08/19/04  
NOA# 04-0608.05  
Miami-Dade Product Control  
Division  
By [Signature]

Engr. DR. HUMAYDUN FAROOQ  
STRUCTURES  
FLA. PE # 16557  
C.A.N. 3538  
[Signature]  
JUL 15 2004

**afc**

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MIAMI, FLORIDA 33174  
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MULLION M04-05RC

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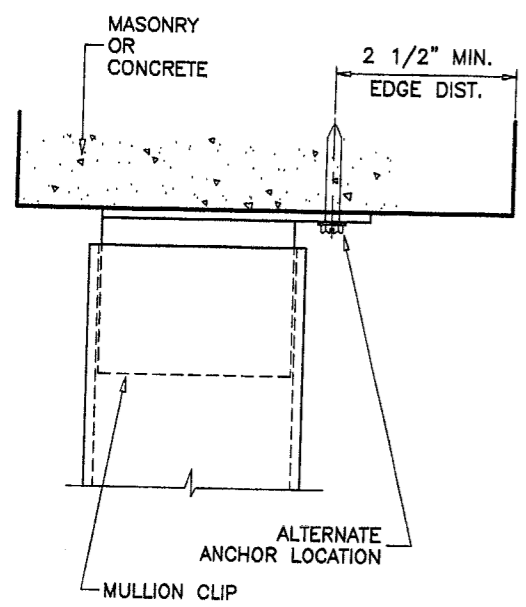
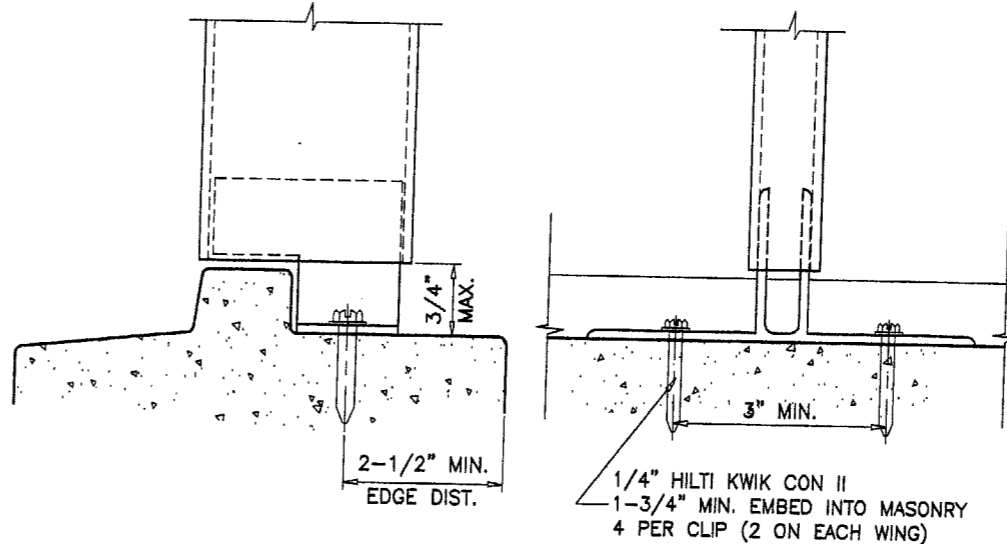
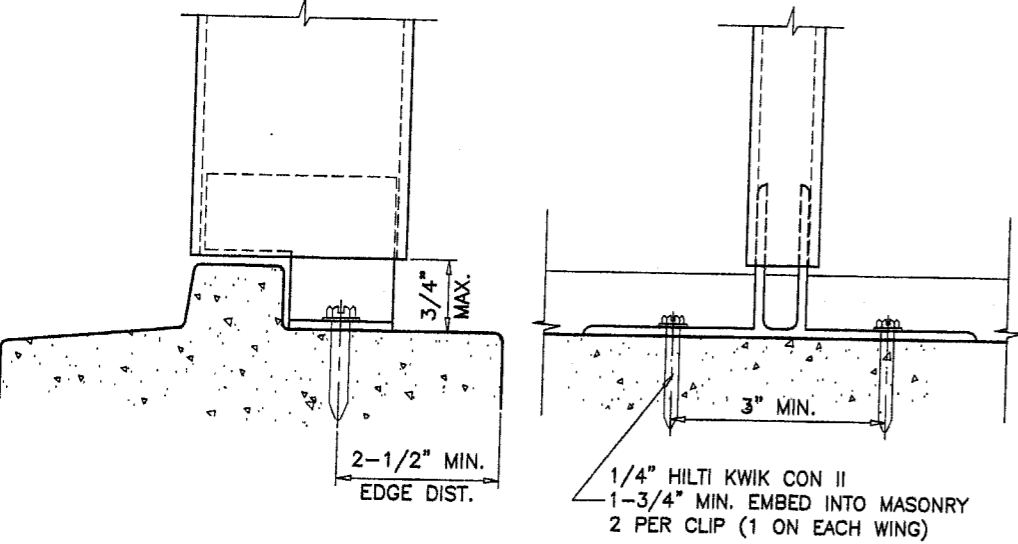
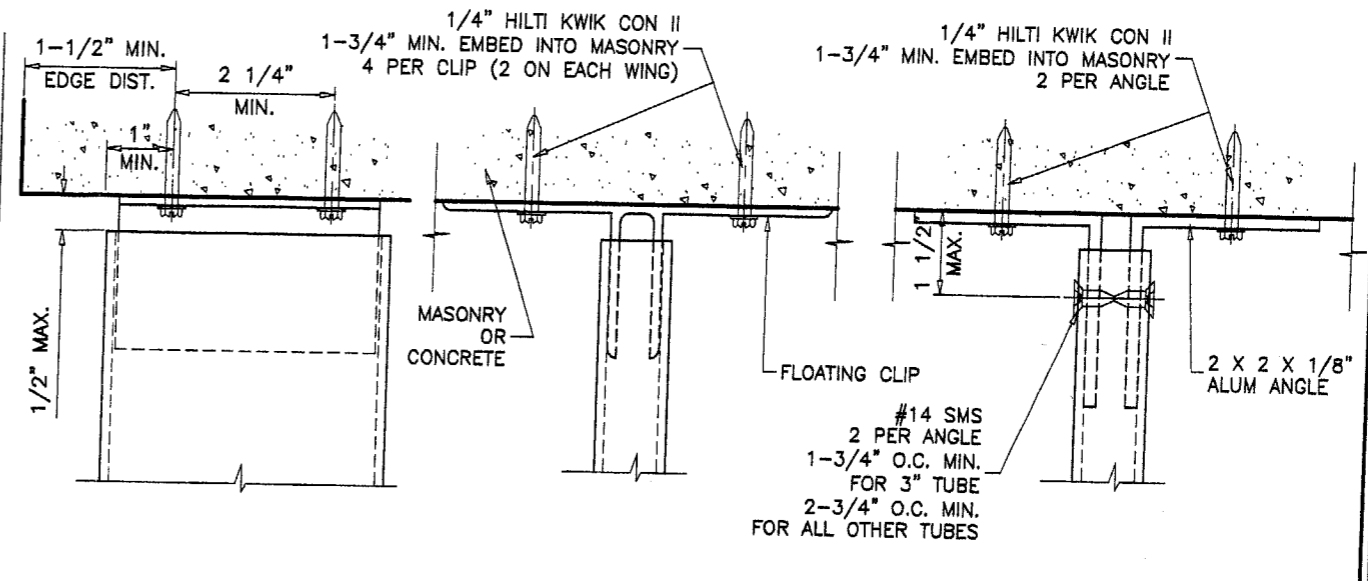
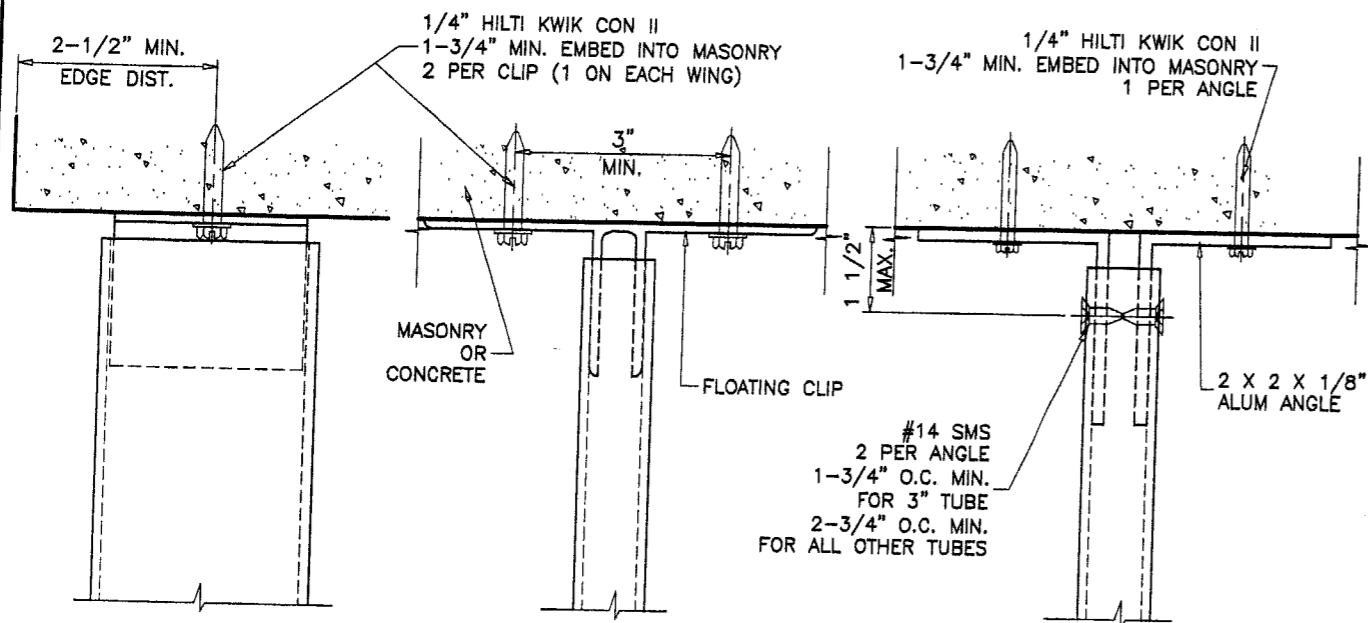
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revisions:

date: 05-02-04  
scale: 3/8" = 1"  
dr. by: HAMID  
chk. by:

drawing no.  
**M04-05**

sheet 5 of 7



**ANCHORS TYPE 'B2'**

**ANCHORS TYPE 'B4'**

ALL CLIPS TO FIT SNUG INTO TUBE MULLIONS.  
TAPCONS MAY BE HEX OR FLAT HEAD.

CLIPS OR ANGLES CONNECTED DIRECTLY TO MASONRY TO BE PROTECTED WITH ALKALI-RESISTANT COATINGS, SUCH AS BITUMINOUS PAINT OR WATER-WHITE METHACRYLATE LACQUER.

Approved as complying with the  
Florida Building Code  
Date 08/19/04  
NOA# 04-0608.05  
Miami Dade Product Control  
Division  
By [Signature]

Engr: DR. HUMAYOUN FAROOQ  
STRUCTURES  
FLA. PE # 18557  
C.A.N. 3538  
[Signature]  
JUL 15 2004

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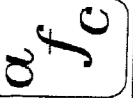
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chk. by:

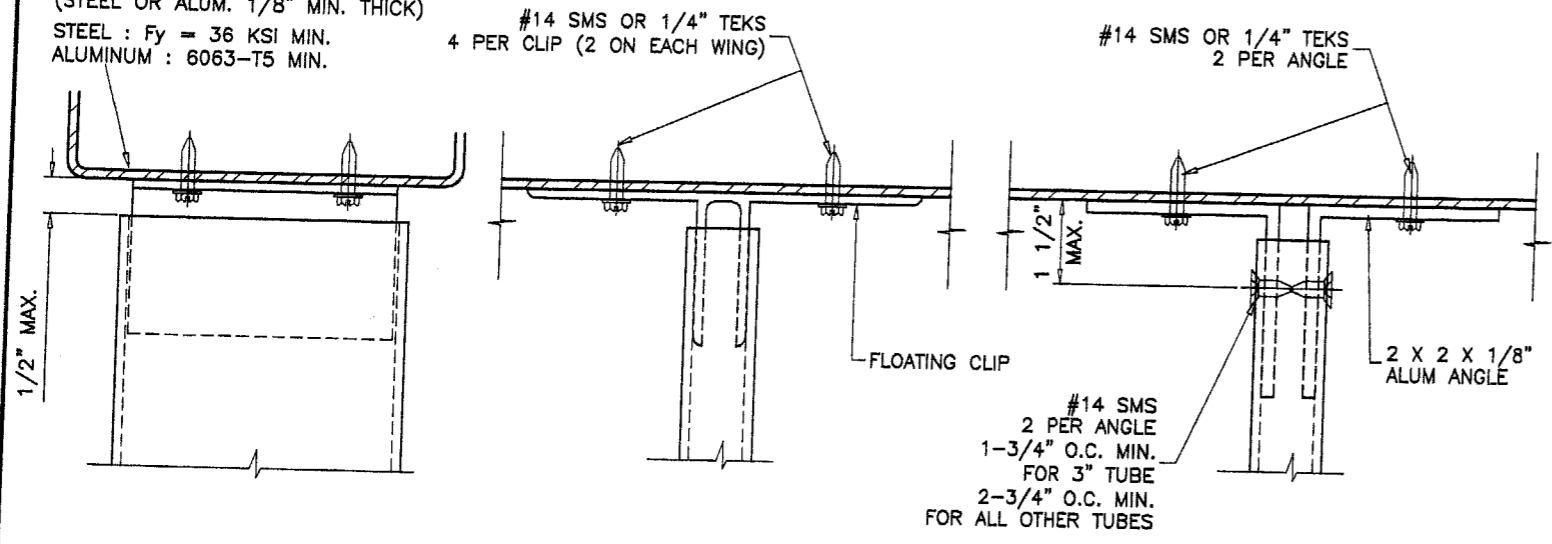
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**M04-05**

sheet 6 of 7

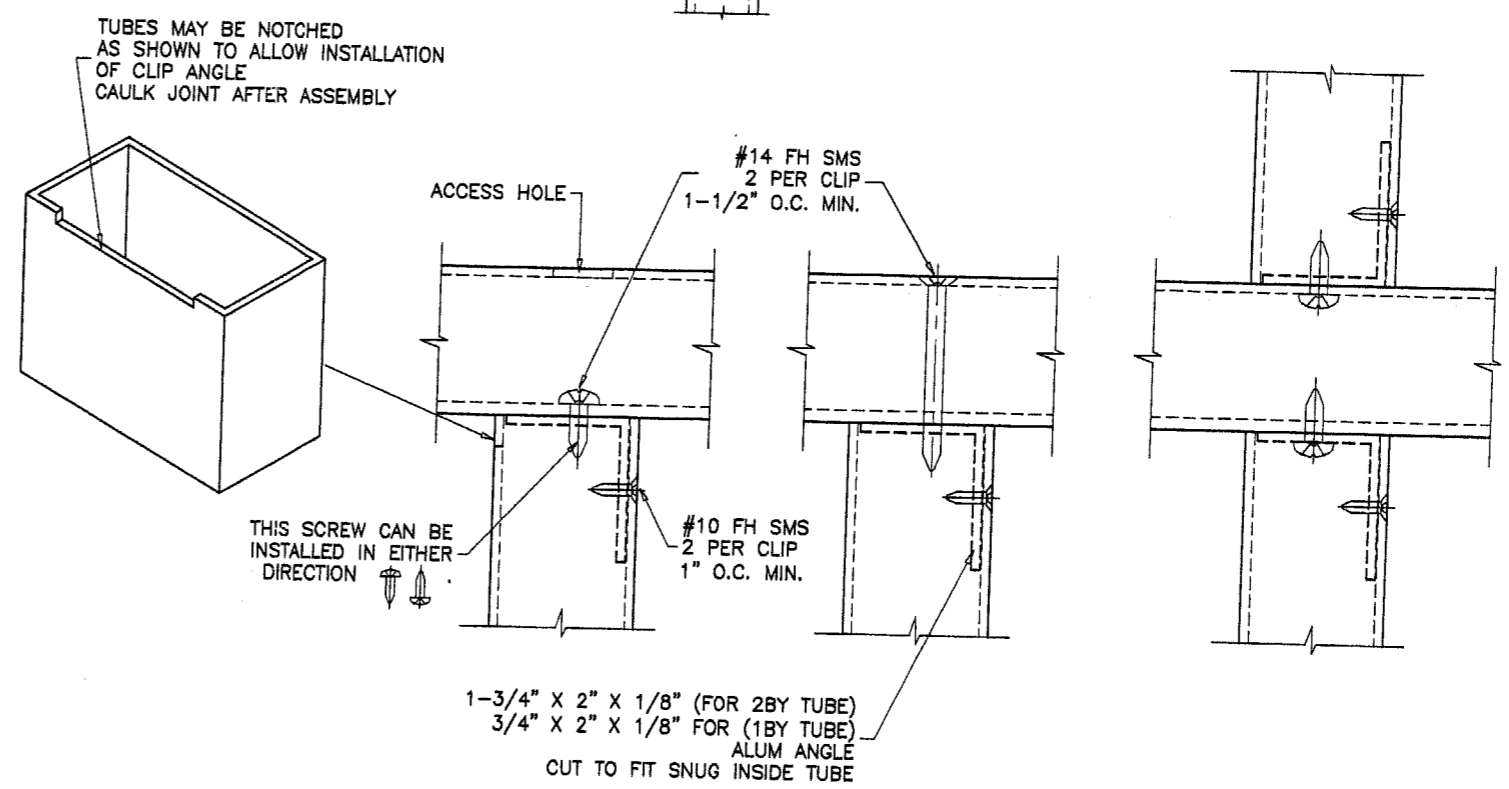
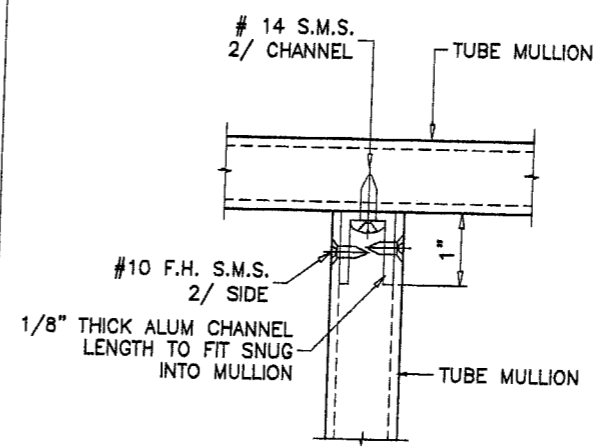


MULLION M04-05RC

METAL STRUCTURES  
(STEEL OR ALUM. 1/8" MIN. THICK)  
STEEL : Fy = 36 KSI MIN.  
ALUMINUM : 6063-T5 MIN.



ANCHORS TYPE 'B4'



ANCHOR DETAIL #1

METAL TO METAL CONNECTION  
USE CHARTS FOR ANCHOR TYPE 'B4' TO VERIFY CAPACITY OF CONNECTION  
SEE SHEET 4 OF 7 FOR ANCHOR CHARTS

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NOA# 04-0608.05  
Miami-Dade Product Control  
Division  
By [Signature]

Engr: DR. HUMAYOUN FAROOQ  
STRUCTURES  
FLA. PE # 16557  
C.A.N. 3538  
[Signature]  
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**af**  
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MULLION\M04-05RC

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sheet 7 of 7