



**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)**

**Hurricane Manufacturing, Corporation  
12040 Miramar Parkway  
Miramar, Florida 33025**

**SCOPE:**

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Division (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the High Velocity Hurricane Zone of the Florida Building Code.

**DESCRIPTION: "Omega / Hi-Rise " Aluminum Accordion Shutter**

**APPROVAL DOCUMENT:** Drawing No. 03-154, titled " Omega Accordion Shutter / Hi-Rise ", sheets 1 through 8 of 8, prepared by Tilteco, Inc., dated July 08, 2003, last revision #1 dated July 08, 2003, signed and sealed by Walter A. Tillit Jr., P.E. bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Division.

**MISSILE IMPACT RATING: Large and Small Missile Impact**

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and the following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **revises & renews** NOA # 00-0719.02 and consists of this page 1, evidence submitted page(s) as well as approval document mentioned above.

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



*Helmy A. Makar*  
11/13/03

**NOA No 03-0722.01  
Expiration Date: 09/25/2008  
Approval Date: 11/13/2003  
Page 1**

**Hurricane Manufacturing, Corporation**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #97-0513.02**

**A. DRAWINGS**

1. *Drawing No. 96-159, "The Jeff Robinson Shutter Co.", Sheets 1 through 8 of 8, dated 05/29/96, latest revision No. 1, dated 08/28/97, prepared by Tilteco, Inc., signed and sealed by Walter A. Tillit Jr., P.E.*

**B. TESTS**

1. *Test report on: 1.) Large Missile Impact Test, per PA 201-94  
2.) Cyclic Wind Pressure Test, per PA 203-94  
3.) Uniform Static Air Pressure Test Loading, per PA 202-94  
of extruded aluminum accordion shutter (96", 108", 120", 144" & 192" spans),  
prepared by Miami Testing Laboratory, Report No. MTL 16908, dated February 14,  
1997, signed and sealed by John M. Bridenstine, P.E.*
2. *Test report on: 1.) Large Missile Impact Test, per PA 201-94  
2.) Cyclic Wind Pressure Test, per PA 203-94  
3.) Uniform Static Air Pressure Test Loading, per PA 202-94  
of extruded aluminum accordion shutter (96", 108", 120", 144" & 192" spans),  
prepared by Miami Testing Laboratory, Report No. MTL 16910, dated February 18,  
1997, signed and sealed by John M. Bridenstine, P.E.*

**C. CALCULATIONS**

1. *Comparative Analysis and Anchor Analysis dated 03/09/97, prepared by Tilteco, Inc., signed and sealed by Walter A. Tillit Jr., P.E.*

**D. MATERIAL CERTIFICATIONS**

1. *Mill Certified Test Report issued by Caradon Indalex, with chemical composition for aluminum 6005-T5 Alloy and aluminum 6063-T6 alloy dated 01/03/97.*
2. *Mill Certified Test Report issued by Caradon Indalex, with chemical composition for aluminum 6005-T5 Alloy dated 01/10/97.*
3. *Tensile Test Report No. CAE 97010, prepared by Center For Applied Engineering, Inc., dated January 20, 1997, signed and sealed by John M. Bridenstine, P.E.*
4. *Tensile Test Report No. CAE 97019, prepared by Center For Applied Engineering, Inc., dated January 20, 1997, signed and sealed by John M. Bridenstine, P.E.*

**2. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #00-0719.02**

**A. DRAWINGS**

1. *None.*

**B. TESTS**

1. *None.*



Helmy A. Makar, P. E.  
Product Control Examiner  
NOA No 03-0722.01  
Expiration Date: 09/25/2008  
Approval Date: 11/13/2003

**Hurricane Manufacturing, Corporation**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**C. CALCULATIONS**

1. *None.*

**D. MATERIAL CERTIFICATIONS**

1. *None.*

**E. STATEMENTS**

1. *Letter by The Jeff Robinson Shutter Company, Inc., dated July 5, 2000, signed by Jeffry T. Robinson, indicating that the approval has not changed.*
2. *Letter by Tilteco Inc., signed and sealed by Walter A. Tillit, Jr., P.E., dated May 4, 2000, certifying that Tilteco, Inc. is still the engineer of record and he continues to be in the engineering business.*

**3. NEW EVIDENCE SUBMITTED**

**A. DRAWINGS:**

1. *Drawing No. 03-154, titled "Omega Accordion Shutter / Hi-Rise", sheets 1 through 8 of 8, prepared by Tilteco, Inc., dated July 08, 2003, last revision #1 dated July 08, 2003, signed and sealed by Walter A. Tillit Jr., P.E.*

**B. TESTS:**

1. *None.*

**C. CALCULATIONS:**

1. *None.*

**D. QUALITY ASSURANCE**

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

**E. MATERIAL CERTIFICATION:**

1. *None.*

**F. OTHERS**

1. *Letter from Tilteco, Inc., dated July 7, 2003, signed and sealed by Walter A. tillit Jr., P.E., certifying that drawing #03-154 prepared for Hurricane Manufacturing Corporation is engineering wise identical to the Jeff Robinson Shutter Co. drawing #96-159, except one wall mount header. The new extrusion has the same thickness and the anchor location has not changed.*
2. *Letter from Mr. Jeff Robinson requesting to change his company name from The Jeff Robinson Shutter Company to Hurricane Manufacturing Corporation.*



Helmy A. Makar, P. E.  
Product Control Examiner  
NOA No 03-0722.01  
Expiration Date: 09/25/2008  
Approval Date: 11/13/2003

**GENERAL NOTES:**

1. ACCORDION SHUTTER SHOWN ON THIS PRODUCT APPROVAL DOCUMENT HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2001 EDITION OF THE FLORIDA BUILDING CODE. DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1619 OF THE ABOVE MENTIONED CODE, FOR A BASIC WIND SPEED OF 146 m.p.h., AND IN ACCORDANCE W/ ASCE 7-98 STANDARD. ACCORDION SHUTTER'S ADEQUACY FOR IMPACT AND FATIGUE RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION 1806.1.4 OF THE ABOVE MENTIONED CODE AS PER PA-201, PA-202 AND PA-203.

2. STAINLESS STEEL SHEET METAL SCREWS USED AT LOUVER PIN SHALL BE # 14 x 3", 410-HT MINIMUM SERIES W/ 135.0 ksi YIELD POINT & 180 ksi TENSILE STRENGTH. SCREWS SHALL BE COATED WITH XYLAN 5000 SERIES FLUOROPOLYMER COATINGS AS MANUFACTURED BY WHITFORD Co, BOX 507, WEST CHESTER PA. 19381.

3. ALL ALUMINUM EXTRUSIONS SHALL BE ALUMINUM ASSOCIATION 6063-T6 ALLOY & TEMPER (UNLESS OTHERWISE NOTED).

4. ALL SCREWS TO BE STAINLESS STEEL 304 OR 316 AISI SERIES OR CORROSION RESISTANT COATED CARBON STEEL AS PER DIN 50018 W/ 50 ksi YIELD POINT AND 90 ksi TENSILE STRENGTH.

5. ALL ALUMINUM POP RIVETS TO BE 5052 ALUMINUM ALLOY WITH ALUMINUM MANDREL.

6. BOLTS TO BE ALUMINUM ASSOCIATION 2024-T4 ALLOY & TEMPER, ASTM A-307 GALVANIZED STEEL OR AISI 304 SERIES STAINLESS STEEL, WITH 35 ksi MINIMUM YIELD POINT.

7. ANCHORS TO WALL SHALL BE AS FOLLOWS: (UNLESS OTHERWISE NOTED)

(A) TO EXISTING POURED CONCRETE:

- 1/4" # TAPCON ANCHORS, MANUFACTURED BY I.T.W. BUILDEX OR ELCO TEXTRON.
- 1/4" # ZAMAC NAILIN ANCHORS, MANUFACTURED BY POWERS FASTENING, INC.
- 1/4" # x 7/8" CALK-IN ANCHORS MANUFACTURED BY POWERS FASTENING, INC.

NOTES:

A.1) MINIMUM EMBEDMENT OF TAPCON ANCHORS INTO CONCRETE IS 1 3/4". MINIMUM EMBEDMENT OF ZAMAC NAILIN IS 1 1/2"

A.2) 7/8" CALK-IN ANCHORS SHALL BE ENTIRELY EMBEDDED INTO THE POURED CONCRETE. NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED. 1/4" #-20 SCREWS USED SHALL BE 1 1/2" LONG MINIMUM SHOULD STUCCO EXIST.

A.3) IN CASE THAT PRECAST STONE, PRECAST CONCRETE PANELS, OR PAVERS BE FOUND DN THE EXISTING WALL OR FLOOR, ANCHORS SHALL BE LONG ENOUGH TO REACH THE MAIN STRUCTURE BEHIND SUCH PANELS. ANCHORAGE SHALL BE AS INDICATED ON NOTES A.1 & A.2 ABOVE.

(B) TO EXISTING CONCRETE BLOCK WALL:

- 1/4" # TAPCON ANCHORS MANUFACTURED BY I.T.W. BUILDEX OR ELCO TEXTRON.
- 1/4" # ZAMAC NAILIN ANCHORS MANUFACTURED BY POWERS FASTENING, INC.
- 1/4" # x 7/8" CALK-IN ANCHORS MANUFACTURED BY POWERS FASTENING, INC.

NOTES:

B.1) MINIMUM EMBEDMENT OF TAPCON ANCHORS, AND ZAMAC NAILIN ANCHORS INTO THE CONCRETE BLOCK UNIT SHALL BE 1 1/4".

B.2) 7/8" CALK-IN ANCHORS SHALL BE ENTIRELY EMBEDDED INTO THE CONCRETE BLOCK UNIT. NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED. 1/4" #-20 SCREWS USED SHALL BE 1 1/2" LONG MINIMUM SHOULD STUCCO EXIST AND 1" MINIMUM FOR WALLS WITH NO STUCCO.

B.3) IN CASE THAT PRECAST STONE OR PRECAST CONCRETE PANELS BE FOUND ON THE EXISTING WALL, ANCHORS SHALL BE LONG ENOUGH TO REACH THE MAIN STRUCTURE BEHIND SUCH PANELS. ANCHORAGE SHALL BE 1 1/4" MINIMUM FOR ANCHORS MENTIONED IN B.1.), & 7/8" FOR ANCHORS MENTIONED IN B.2.).

(C) ANCHORS SHALL BE INSTALLED FOLLOWING ALL OF THE RECOMMENDATIONS AND SPECIFICATIONS OF THE ANCHOR'S MANUFACTURER.

8. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SOUNDNESS OF THE STRUCTURE WHERE SHUTTER IS TO BE ATTACHED TO INSURE PROPER ANCHORAGE. THIS SHUTTER SHALL ONLY BE ATTACHED TO CONCRETE, BLOCK OR WOOD FRAME BUILDINGS.

9. THE INSTALLATION CONTRACTOR IS TO SEAL/CAULK ALL SHUTTER COMPONENT EDGES WHICH REMAIN IN CONTINUOUS CONTACT WITH THE BUILDING TO PREVENT WIND/RAIN INTRUSION. CAULK AND SEAL SHUTTER TRACKS ALL AROUND FULL LENGTH.

10. (a) THE PRODUCT APPROVAL DOCUMENT (P.A.D.) PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT; I.E. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.A.D.

(b) CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION INCLUDING LIFE SAFETY OF THIS PRODUCT BASED ON THIS PRODUCT APPROVAL PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT. CONSTRUCTION SAFETY AT SITE IS THE CONTRACTOR'S RESPONSIBILITY.

(c) THIS PRODUCT APPROVAL DOCUMENT WILL BE CONSIDERED INVALID IF MODIFIED.

(d) SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE PROFESSIONAL OF RECORD (P.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.A.D. PROFESSIONAL OF RECORD, ACTING AS DELEGATED ENGINEER TO THE P.A.D. ENGINEER, SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.

(e) THIS P.A.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER THAT PREPARED IT.

11. SHUTTER'S MANUFACTURER STAMP SHALL BE PLACED ON THE EXPOSED SURFACE OF THE FEMALE LOCK SLAT (COMPONENT ①).

ONE LABEL SHALL BE PLACED FOR EVERY OPENING. LABEL SHALL READ AS FOLLOWS: HURRICANE MANUFACTURING CORP.

MIRAMAR, FL 33025  
MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED.

**PRODUCT REVISED**  
as complying with the Florida Building Code  
Acceptance No 03-0722.01  
Expiration Date 09/25/2008  
By *Walter A. Tillit Jr.*  
Miami Dade Product Control Division

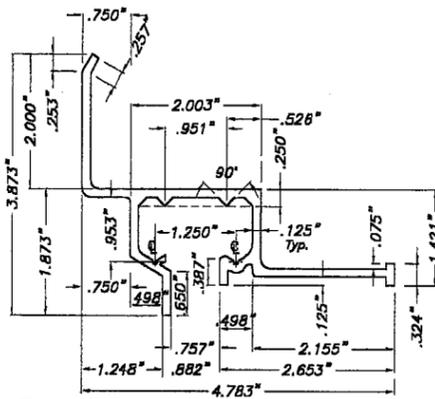
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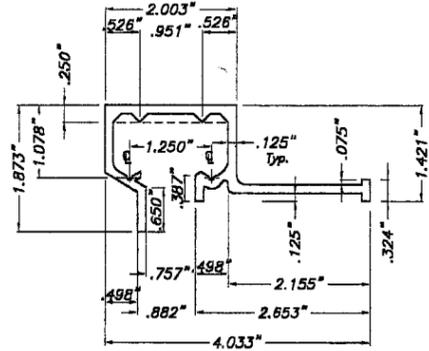
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MIRAMAR, FL 33025  
MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED.

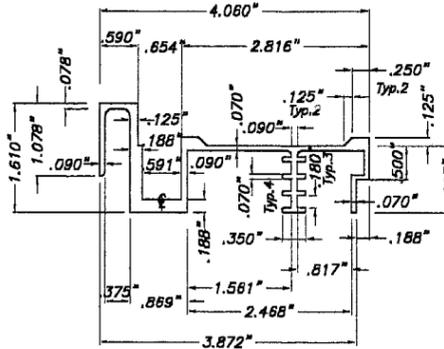
F.B.C.(H.V.H.Z)/MIAMI-DADE COUNTY



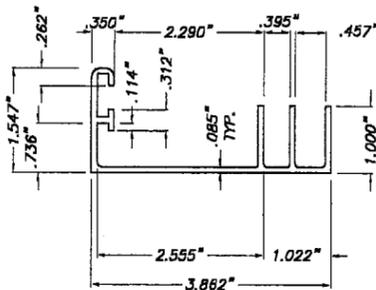
**(A) WALL HEADER (& INVERTED)**  
6063-T6 ALLOY  
SCALE: 3/8" = 1"



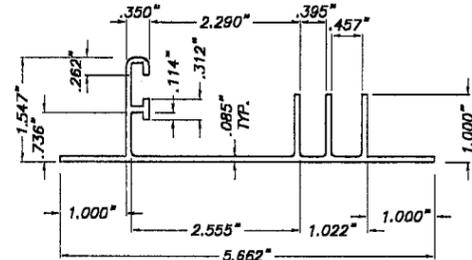
**(B) CEILING HEADER**  
SCALE: 3/8" = 1"



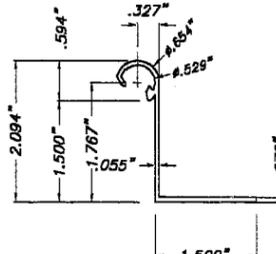
**(C) SILL**  
SCALE: 3/8" = 1"



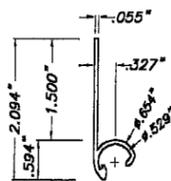
**(D) ADJUSTABLE SILL ADAPTOR**  
SCALE: 3/8" = 1"



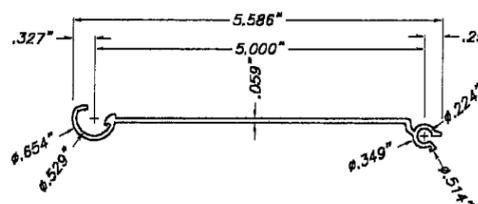
**(D1) ADJUSTABLE SILL ADAPTOR**  
SCALE: 3/8" = 1"



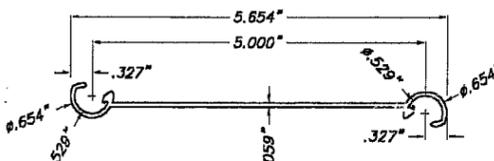
**(E) 90° STARTER**  
SCALE: 3/8" = 1"



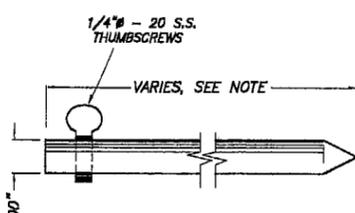
**(F) 180° STARTER**  
SCALE: 3/8" = 1"



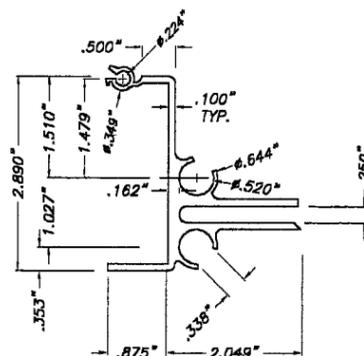
**(G) 5" LOUVER BLADE**  
6005-T5 ALLOY  
SCALE: 3/8" = 1"



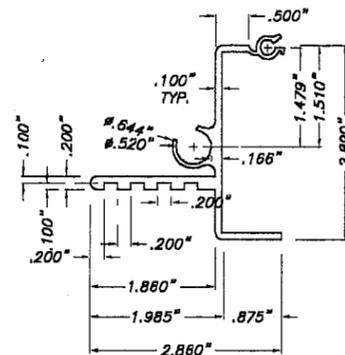
**(G1) FEMALE-FEMALE 5" LOUVER BLADE**  
6005-T5 ALLOY  
SCALE: 3/8" = 1"



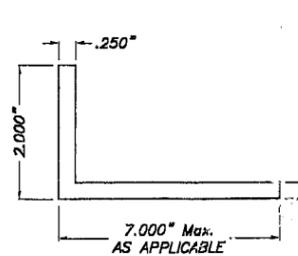
**(H) LOCKING PIN**  
SCALE: 3/8" = 1"



**(I) OMEGA FEMALE CENTERMATE**  
SCALE: 3/8" = 1"



**(J) OMEGA MALE CENTERMATE**  
SCALE: 3/8" = 1"



**(K) ALUMINUM ANGLE**  
SCALE: 3/8" = 1"

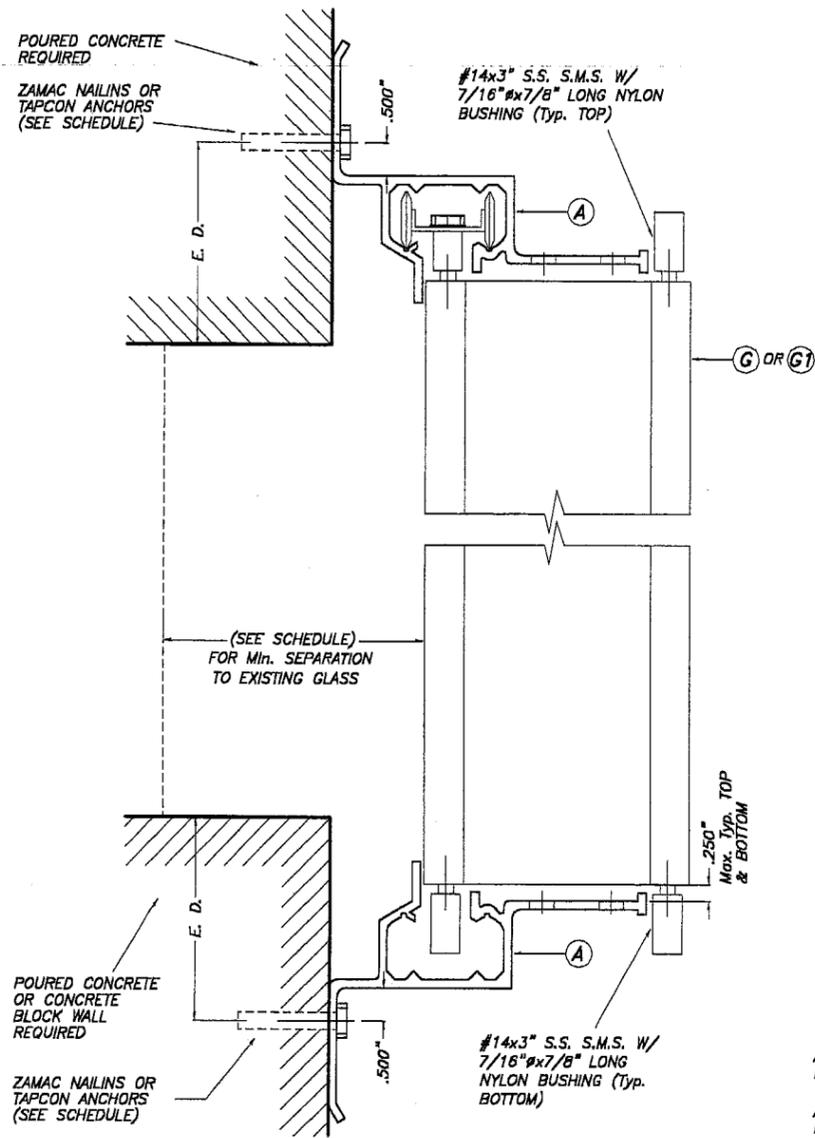
**NOTE:**  
TOTAL LENGTH OF TOP & BOTTOM PINS SHALL ADD A MINIMUM 2/3 OF SHUTTER'S BLADE LENGTH W/ MINIMUM INDIVIDUAL PINS LENGTH OF 12" FOR UP TO 9'-0" BLADE LENGTH & 24" FOR BLADE LENGTH GREATER THAN 9'-0".

**COMPONENTS**

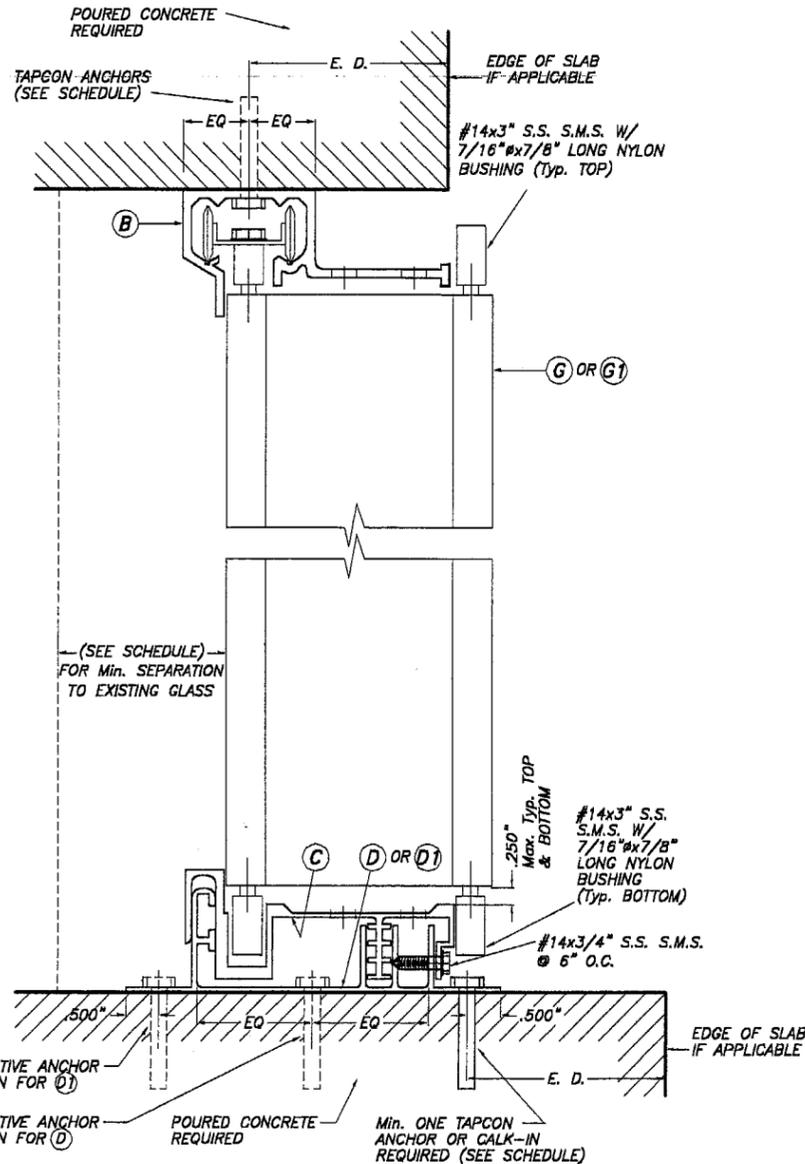
*Walter A. Tillit Jr.*  
JUL 08 2003

**TILECO inc.**  
TILLIT TESTING & ENGINEERING COMPANY  
6595 N.W. 38th St., Ste. 217, VIRGINIA GARDENS, FL 33168  
Phone: (305)871-1530 . Fax: (305)871-1531  
EB-0006719  
WALTER A. TILLIT Jr. P. E.  
FLORIDA Lic. # 44167

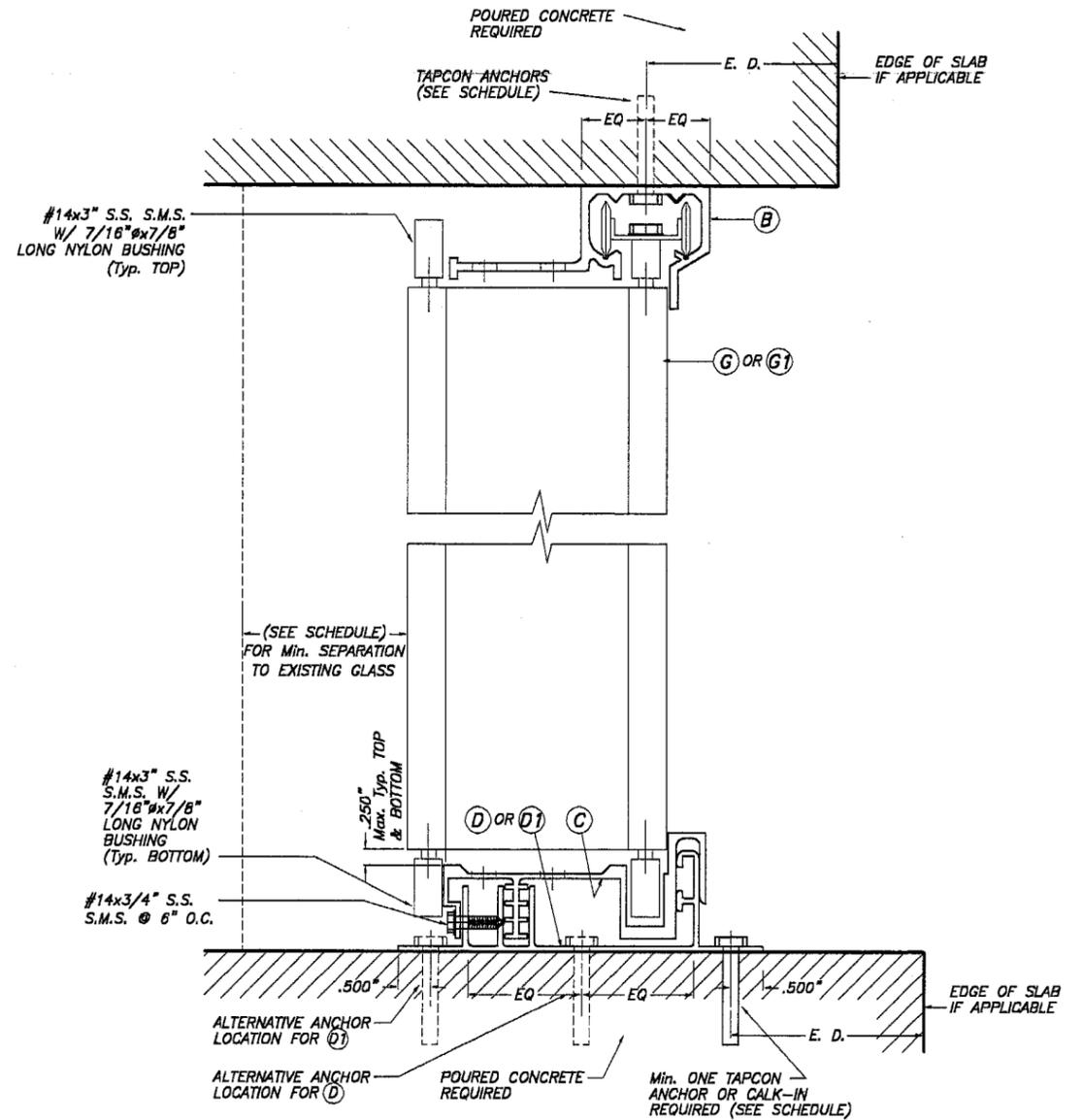
OMEGA ACCORDION SHUTTER / HI-RISE		AS SHOWN SCALE	
HURRICANE MANUFACTURING, CORP.		7/8/03 DATE	
12040 MIRAMAR PARKWAY MIRAMAR, FLORIDA 33025		03-154	
REV. NO	DESCRIPTION	DATE	REV. No
1	OLD 98-159	7/8/03	3
2	-	-	4
DRAWING No		SHEET 1 OF 8	



**WALL MOUNTING INSTALLATION**  
**- SECTION A** SCALE : 3/8" = 1"



**CEILING & FLOOR MOUNT. INSTALLATION**  
**- SECTION B. W/ REGULARLY ORIENTED TRACKS TOP & BOTTOM** SCALE : 3/8" = 1"



**CEILING & FLOOR MOUNT. INSTALLATION**  
**- SECTION B1. W/ REVERSED TRACKS TOP & BOTTOM** SCALE : 3/8" = 1"

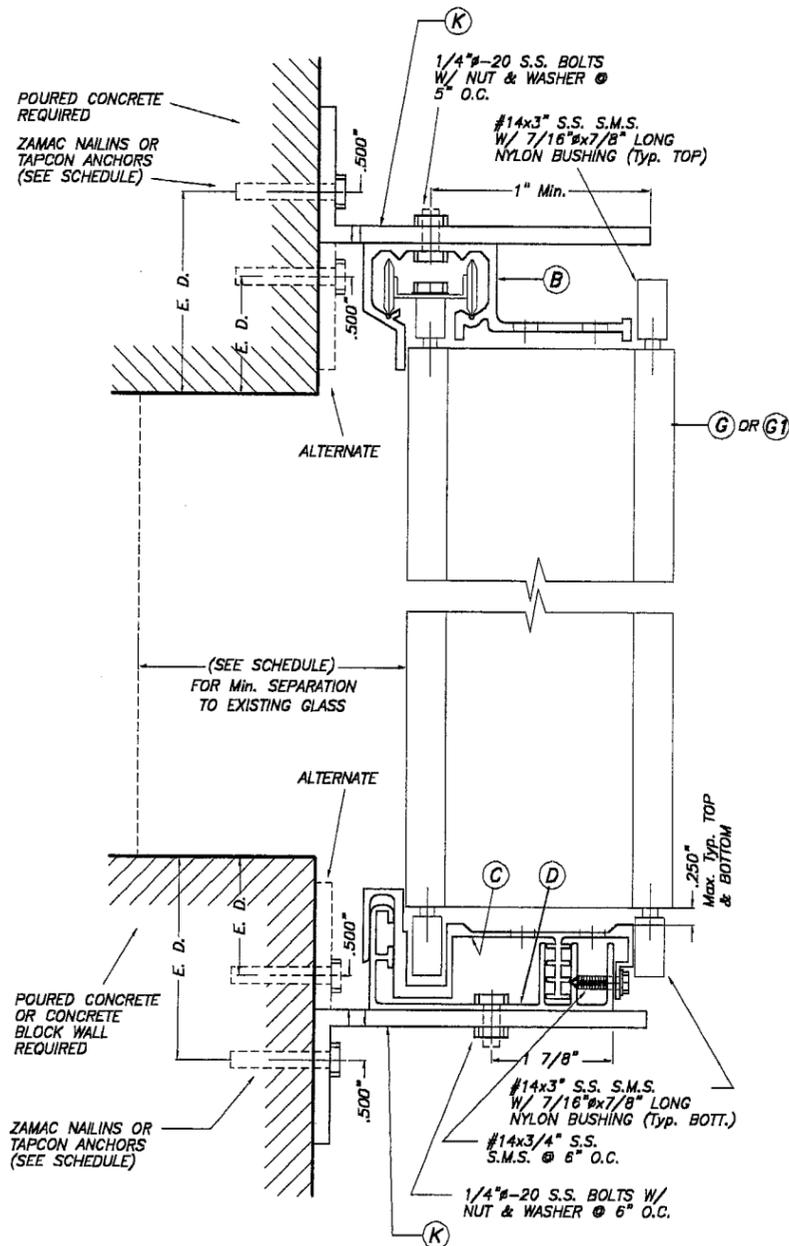
PRODUCT REVISED  
 as complying with the Florida  
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 Expiration Date 09/25/2008  
 By *Helmut H. Miller*  
 Miami Dade Product Control  
 Division

F.B.C.(H.V.H.Z)/MIAMI-DADE COUNTY

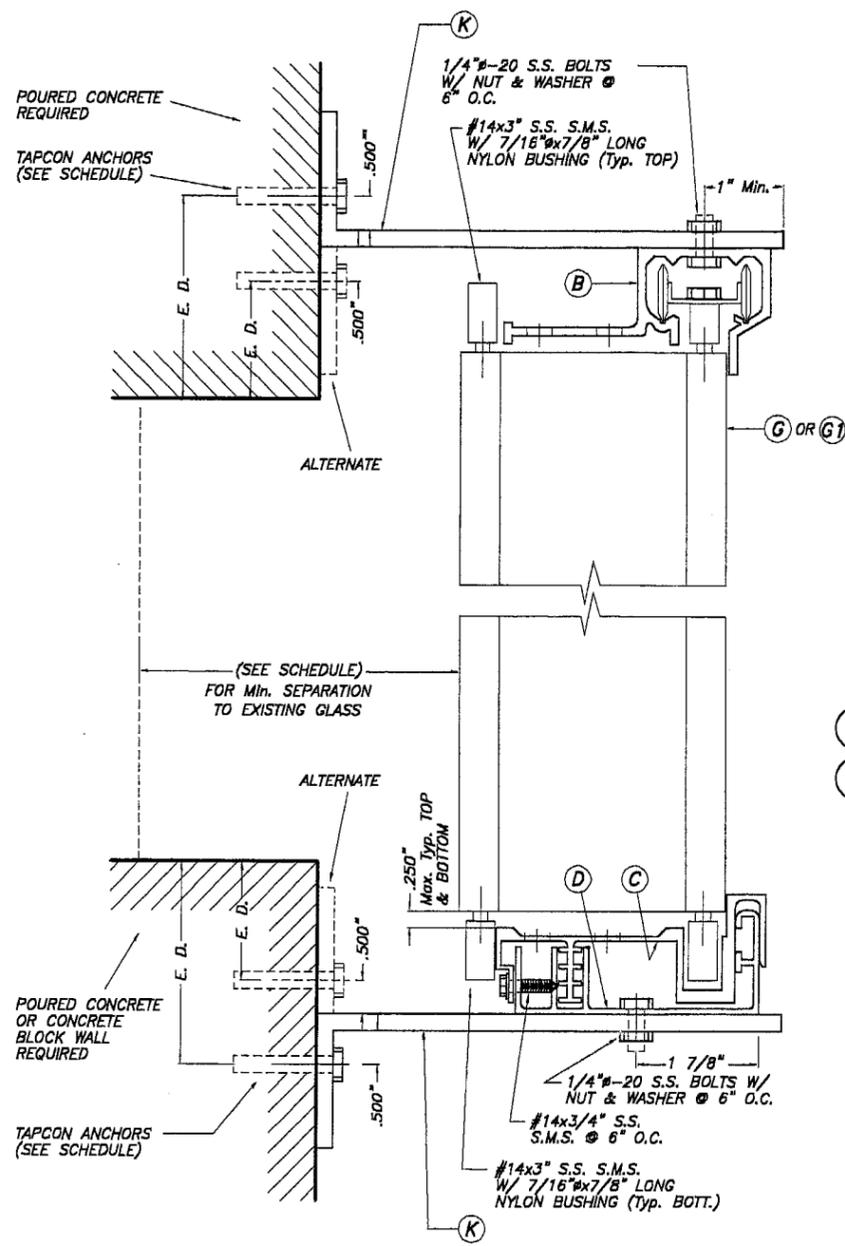
*David*  
 JUL 08 2003

**TILECO Inc.**  
 TILLIT TESTING & ENGINEERING COMPANY  
 8595 N.W. 36th St., Ste. 217, VIRGINIA GARDENS, FL 33166  
 Phone : (305)871-1530 . Fax : (305)871-1531  
 EB-0006719  
 WALTER A. TILLIT Jr. P. E.  
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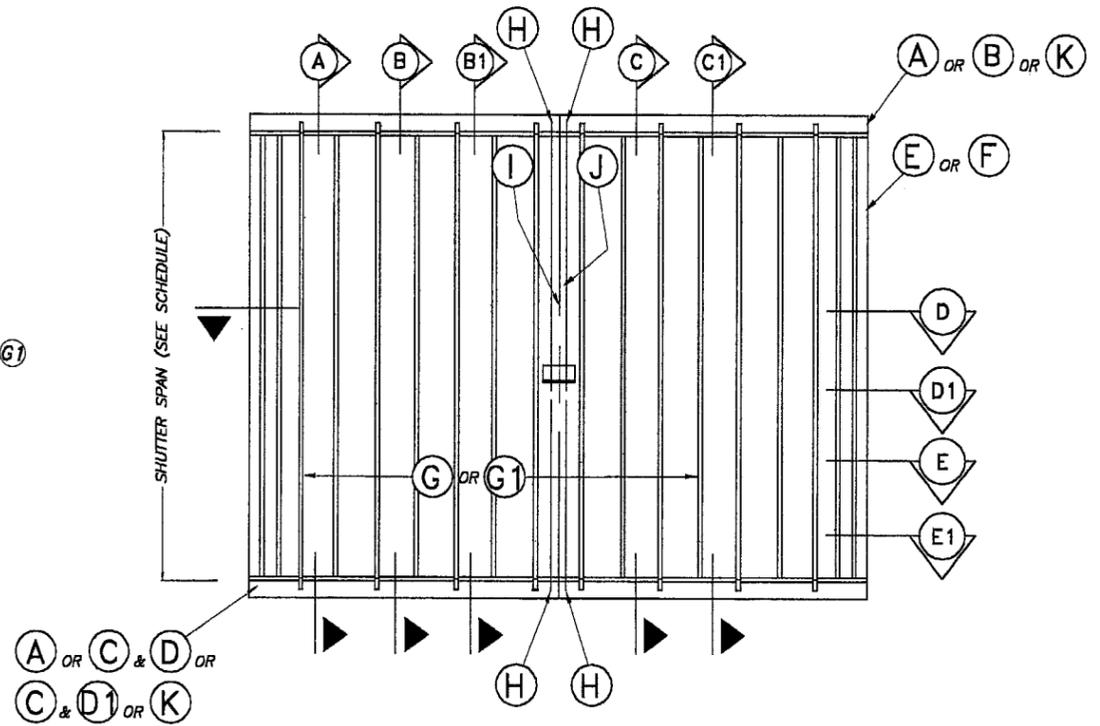
OMEGA ACCORDION SHUTTER / HI-RISE						AS SHOWN SCALE
HURRICANE MANUFACTURING, CORP.						7/8/03 DATE
12040 MIRAMAR PARKWAY MIRAMAR, FLORIDA 33025						03-154
REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE	DRAWING No
1	OLD 98-159	7/8/03	3	-	-	SHEET 2 OF 8
2	-	-	4	-	-	



**WALL MOUNTING INSTALLATION (OFFSET)**  
**- SECTION C, W/ REGULARLY ORIENTED**  
**TRACKS TOP & BOTTOM** SCALE : 3/8" = 1"



**WALL MOUNTING INSTALLATION (OFFSET)**  
**- SECTION C1, W/ REVERSED TRACKS**  
**TOP & BOTTOM** SCALE : 3/8" = 1"



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

PRODUCT REVISED  
 as complying with the Florida  
 Building Code  
 Acceptance No 03-0722.01  
 Expiration Date 09/25/2008  
 By *Heather A. Miller*  
 Miami Dade Product Control  
 Division

F.B.C.(H.V.H.Z)/MIAMI-DADE COUNTY

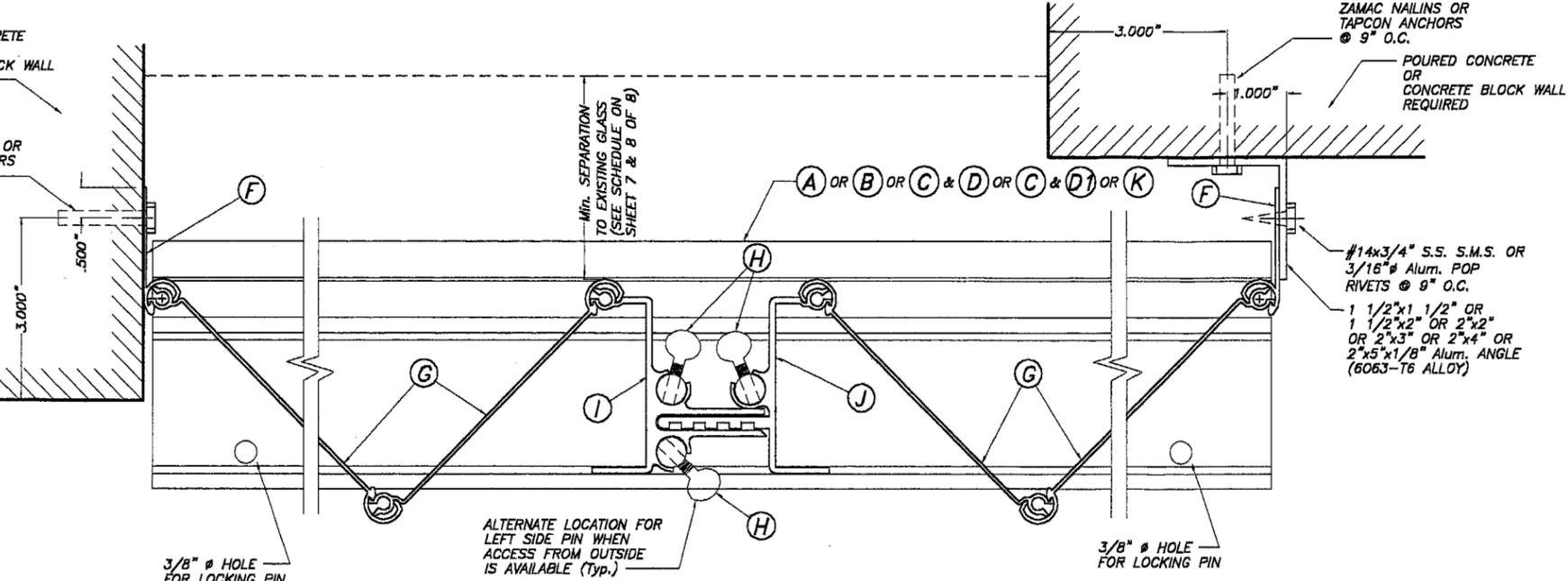
*[Signature]*  
 JUL 08 2003

**TILECO Inc.**  
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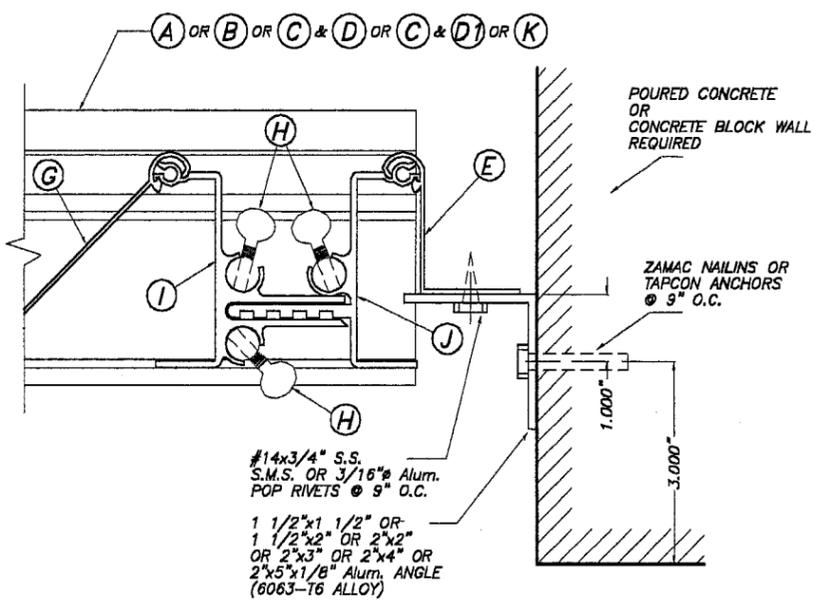
OMEGA ACCORDION SHUTTER / HI-RISE						AS SHOWN SCALE
HURRICANE MANUFACTURING, CORP.						7/8/03 DATE
12040 MIRAMAR PARKWAY MIRAMAR, FLORIDA 33025						03-154
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE	DRAWING No
1	OLD 98-159	7/8/03	3	-	-	SHEET 3 OF 8
2	-	-	4	-	-	

POURED CONCRETE OR CONCRETE BLOCK WALL REQUIRED

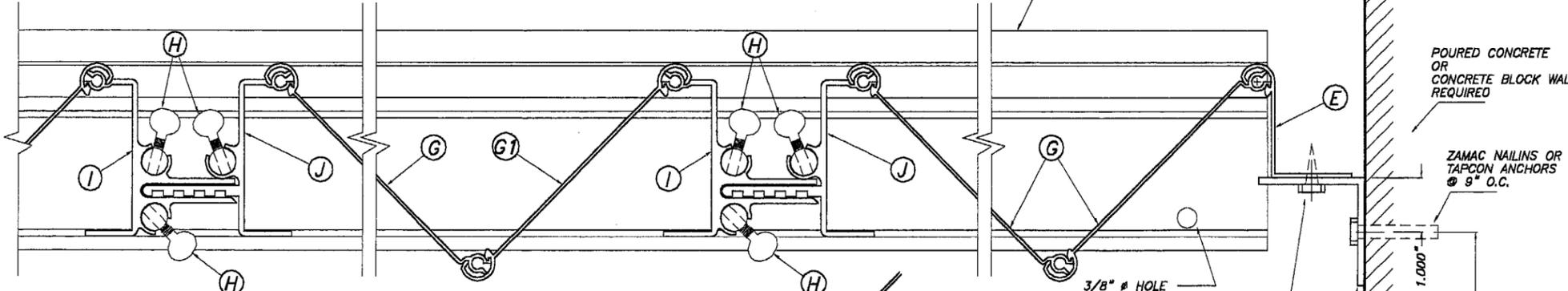
ZAMAC NAILS OR TAPCON ANCHORS @ 9" O.C.



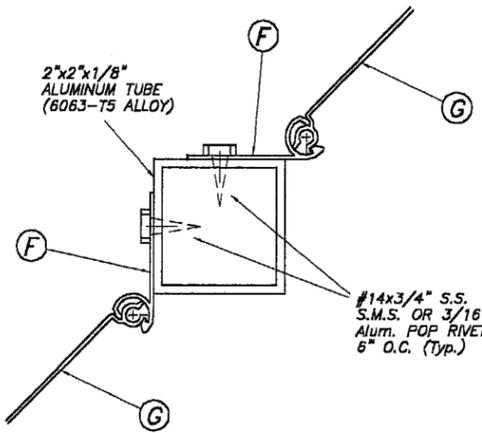
**SECTION D**  
SCALE : 3/8" = 1"



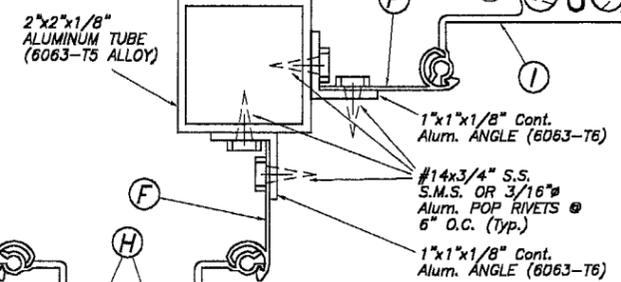
**ONE SIDED SECTION: END CONNECTION DETAIL**  
SCALE : 3/8" = 1"



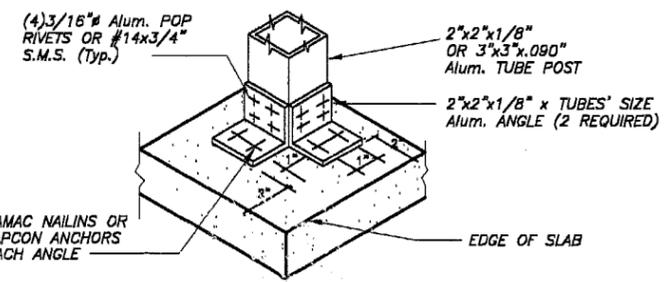
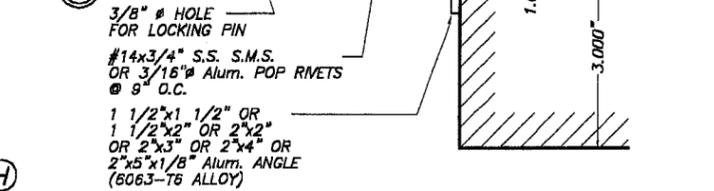
**SECTION D1 (& MULTIPLE SHUTTERS)**  
SCALE : 3/8" = 1"



**SECTION E**  
SCALE : 3/8" = 1"



**SECTION E1**  
SCALE : 3/8" = 1"



**ISOMETRIC (CORNER POST) & BOTTOM SLABS**  
(Typ. AT TOP & BOTTOM SLABS)

JUL 08 2003

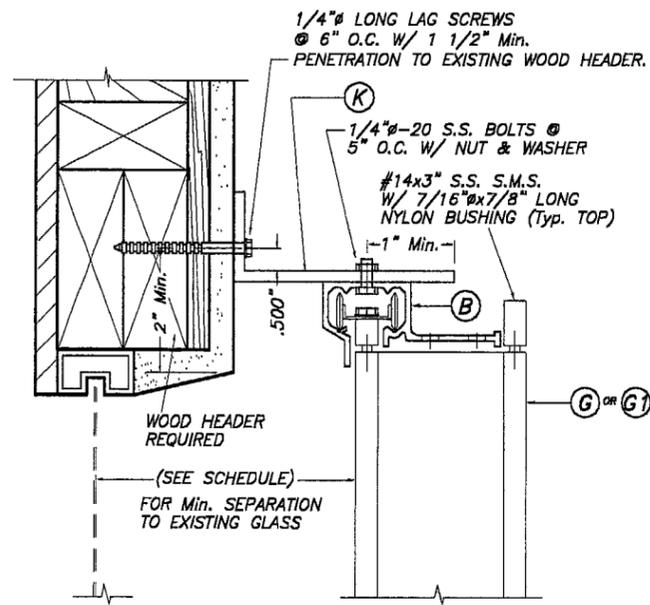
**NOTE :**  
SECTIONS E & E1 CAN BE COMBINED TO SUIT ANY INSTALLATION.

**PRODUCT REVISED**  
as complying with the Florida Building Code  
Acceptance No 03-0722.01  
Expiration Date 09/25/2008  
By *Helmut Miller*  
Miami Dade Product Control Division

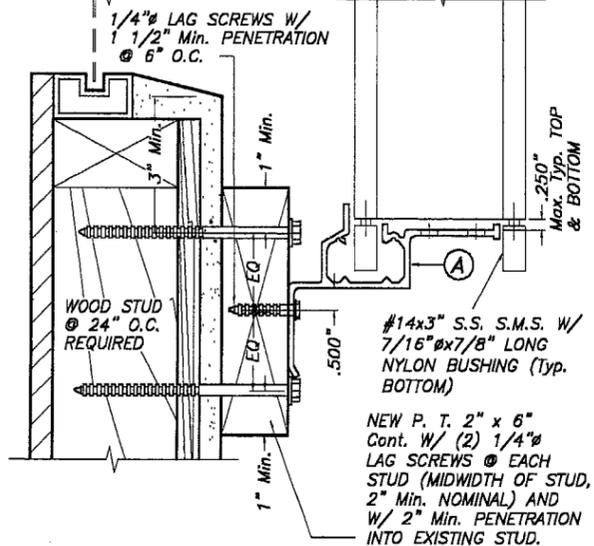
F.B.C.(H.V.H.Z)/MIAMI-DADE COUNTY

**TILECO Inc.**  
TILLIT TESTING & ENGINEERING COMPANY  
6285 N.W. 36th St., Ste. 217, VIRGINIA GARDENS, FL 33166  
Phone : (305)871-1530 . Fax : (305)871-1531  
EB-0006719  
WALTER A. TILLIT Jr. P. E.  
FLORIDA Lic. # 44167

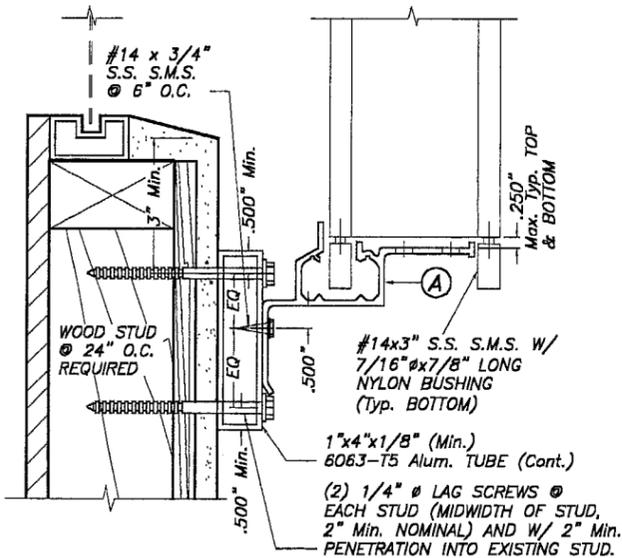
OMEGA ACCORDION SHUTTER / HI-RISE		AS SHOWN SCALE
<b>HURRICANE MANUFACTURING, CORP.</b>		7/8/03 DATE
12040 MIRAMAR PARKWAY MIRAMAR, FLORIDA 33025		03-154
REV. NO	DESCRIPTION	DATE
1	OLD 98-159	7/8/03
2		
REV. No	DESCRIPTION	DATE
3		
4		
DRAWING No		SHEET 4 OF 8



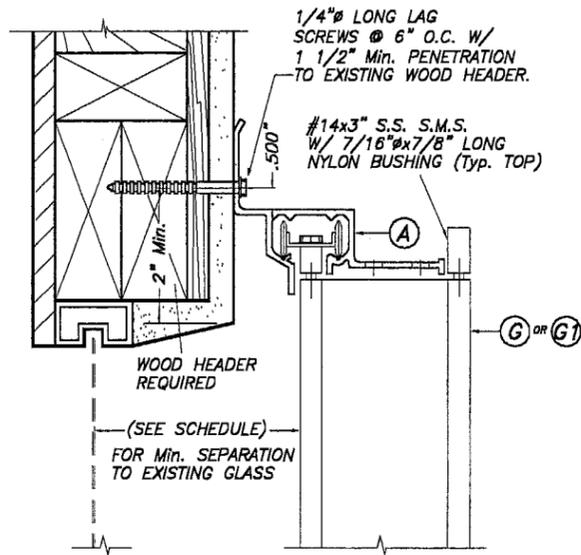
**ALTERNATIVE 1**



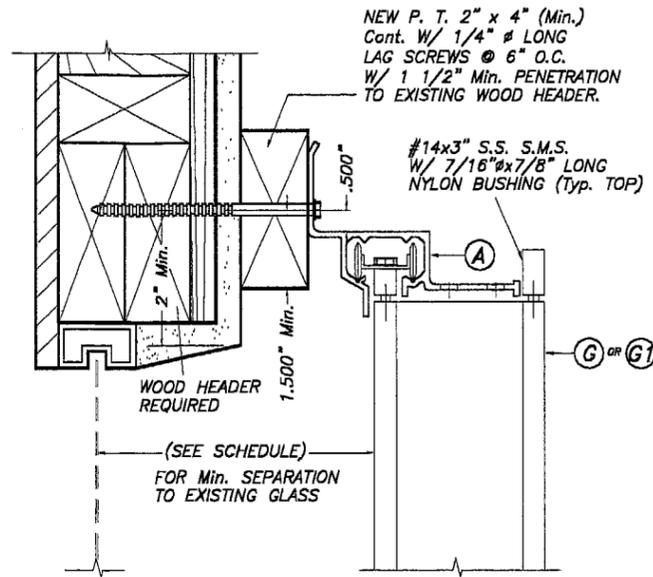
**ALTERNATIVE 2**



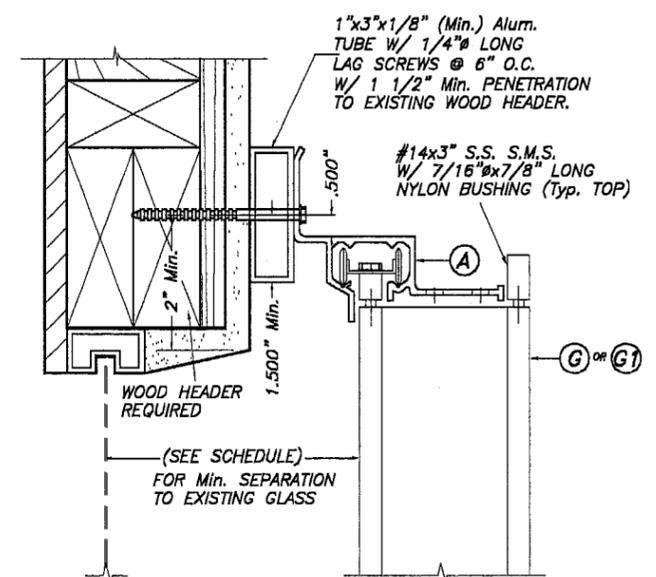
**ALTERNATIVE 3**



**ALTERNATIVE 4**



**ALTERNATIVE 5**



**WALL MOUNTING INSTALLATION  
SECTION A**

SCALE : 1/4" = 1"

**NOTE FOR COMBINATION OF SECTIONS:**  
WALL MOUNTING SECTIONS CAN BE COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.

**NOTES:**

1. INSTALLATIONS ARE ONLY VALID FOR BUILDINGS WITH 75 p.s.f. Max DESIGN LOADS AND 9'-0" Max. SHUTTER SPAN.
2. NEW 2" x 6" P. T. TO BE SOUTHERN PINE No. 2, SURFACED DRY WITH 19 % M. M. C. W/ SPECIFIC DENSITY OF 0.55.
3. FOR NEW WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN PINE No. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL.

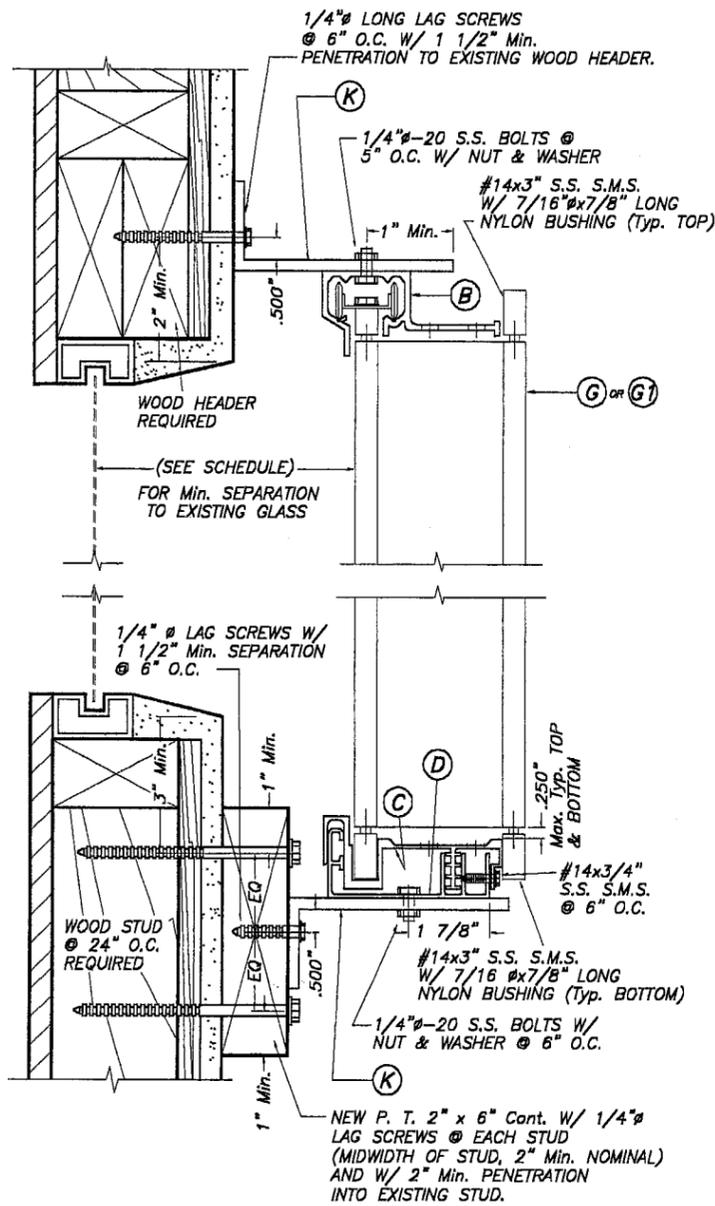
**INSTALLATION DETAILS ON EXISTING  
WOOD FRAME BUILDINGS**

**PRODUCT REVISED**  
as complying with the Florida  
Building Code  
Acceptance No **03-0722-01**  
Expiration Date **09/25/2008**  
By *Heather A. Miller*  
Miami Dade Product Control  
Division

F.B.C.(H.V.H.Z)/MIAMI-DADE COUNTY

 <b>TILECO INC.</b> TILLIT TESTING & ENGINEERING COMPANY 6098 N.W. 36th St., Ste. 217, VIRGINIA GARDENS, FL 33166 Phone : (305)871-1530 . Fax : (305)871-1531 EB-0006719 WALTER A. TILLIT Jr. P. E. FLORIDA Lic. # 44167		OMEGA ACCORDION SHUTTER / HI-RISE	AS SHOWN SCALE			
		HURRICANE MANUFACTURING, CORP.	7/8/03 DATE			
		12040 MIRAMAR PARKWAY MIRAMAR, FLORIDA 33025	03-154			
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE	DRAWING No
1	OLD 98-159	7/8/03	3	-	-	SHEET 5 OF 8
2	-	-	4	-	-	

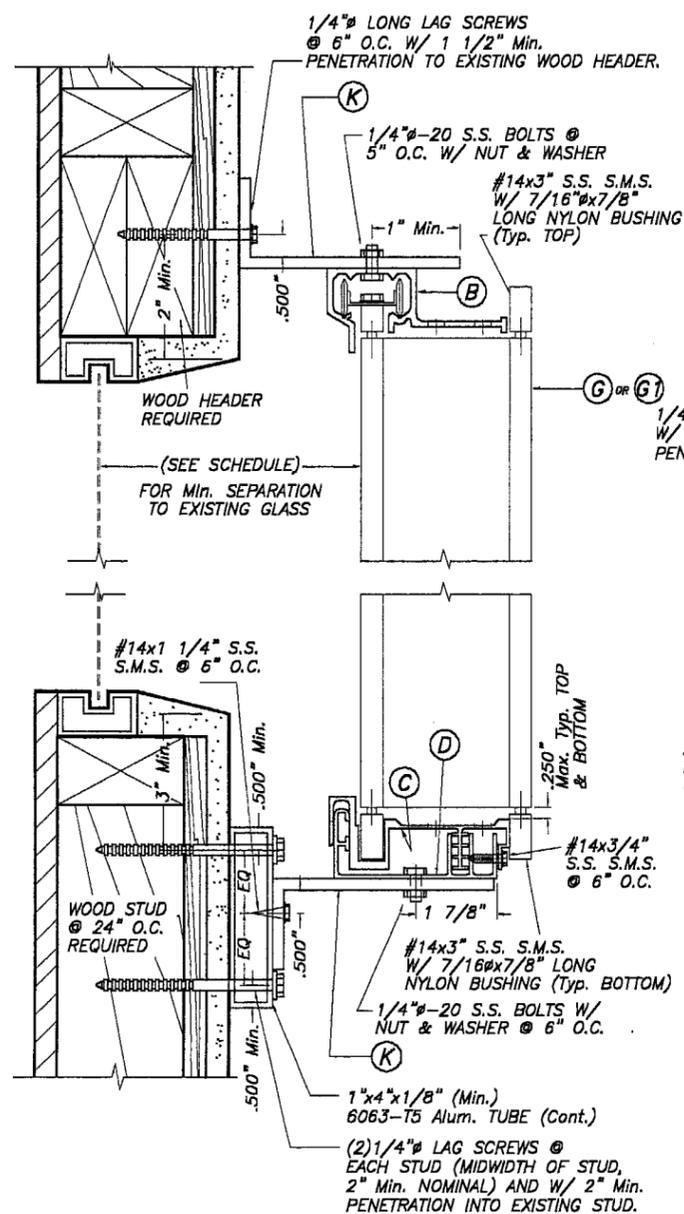
*[Signature]*  
JUL 08 2003



**ALTERNATIVE 6**

**WALL MOUNTING INSTALLATION SECTION A**

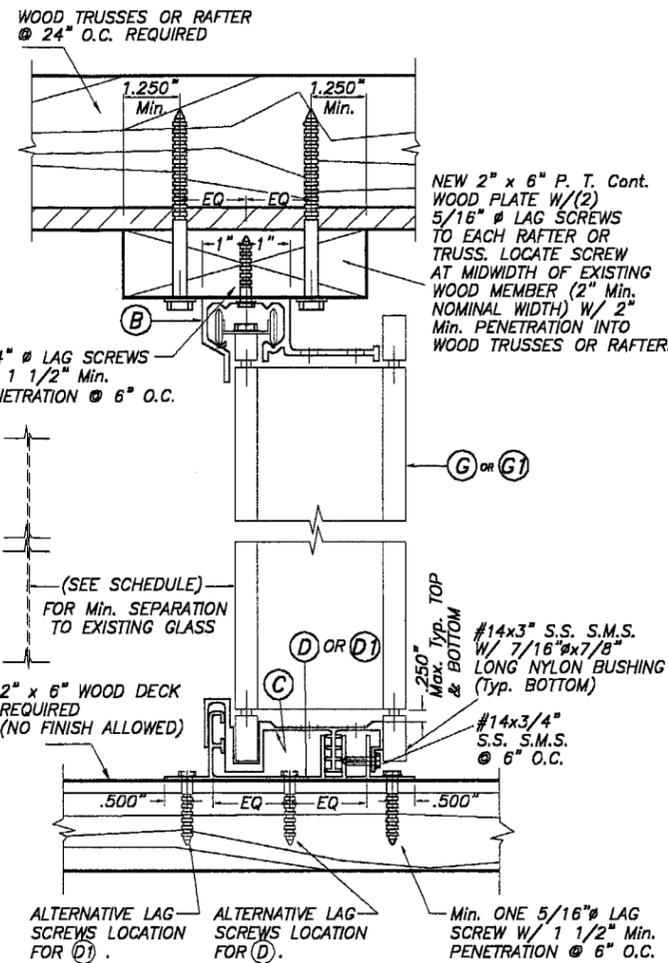
SCALE : 1/4" = 1"



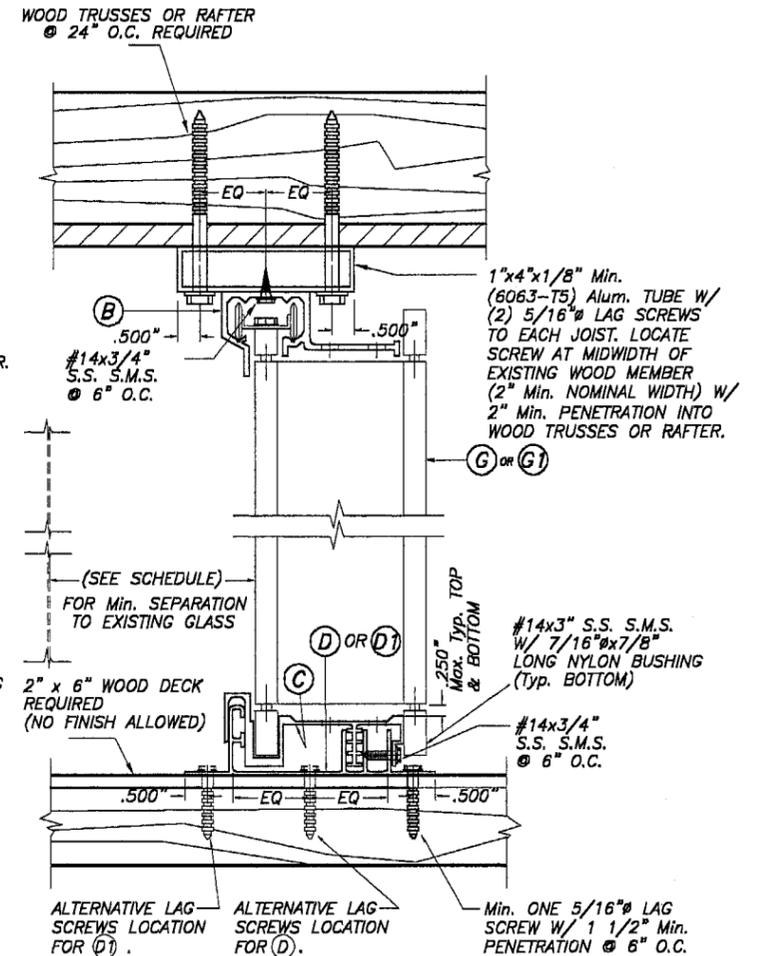
**ALTERNATIVE 7**

**NOTES:**

- INSTALLATIONS ARE ONLY VALID FOR BUILDINGS WITH 75 p.s.f. Max. DESIGN LOADS AND 9'-0" Max. SHUTTER SPAN.
- NEW 2" x 6" P. T. TO BE SOUTHERN PINE No. 2, SURFACED DRY WITH 19 % M. M. C. W/ SPECIFIC DENSITY OF 0.55.
- FOR NEW WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN PINE No. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL.



**ALTERNATIVE 1**



**ALTERNATIVE 2**

**CEILING & REMOVABLE FLOOR MOUNTING INSTALLATION**

**SECTION B**

SCALE : 1/4" = 1"

PRODUCT REVISED as complying with the Florida Building Code Acceptance No. 03-0722.01 Expiration Date 09/25/2008  
By *Walter A. Tillit Jr.* Miami Dade Product Control Division

F.B.C.(H.V.H.Z)/MIAMI-DADE COUNTY

NOTE FOR COMBINATION OF SECTIONS:  
WALL/CEILING/FLOOR MOUNTING SECTIONS CAN BE COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.

**INSTALLATION DETAILS ON EXISTING WOOD FRAME BUILDINGS**

JUL 08 2003

**TILECO INC.**  
TILLIT TESTING & ENGINEERING COMPANY  
6595 N.W. 36th St., Ste. 217, VIRGINIA GARDENS, FL 33186  
Phone : (305)871-1530 . Fax : (305)871-1531  
EB-0006719  
WALTER A. TILLIT Jr. P. E.  
FLORIDA Lic. # 44167

OMEGA ACCORDION SHUTTER / HI-RISE			AS SHOWN SCALE		
HURRICANE MANUFACTURING, CORP.			7/8/03 DATE		
12040 MIRAMAR PARKWAY MIRAMAR, FLORIDA 33025			03-154 DRAWING No		
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 96-159	7/8/03	3	-	-
2	-	-	4	-	-

SHEET 6 OF 8

**MAXIMUM DESIGN PRESSURE RATING "W" (p.s.f.) AND CORRESPONDING MAXIMUM SPAN "L" SCHEDULE.**

(VALID FOR SECTIONS A, B & C ON SHEET 2 & 3 OF 8).

NOTE: DESIGN PRESSURE RATING CORRESPONDS ONLY TO NEGATIVE PRESSURE (SUCTION) LOADS, IN ACCORDANCE WITH ASCE 7-98 CRITERIA FOR A GIVEN OPENING. IF NEGATIVE PRESSURE VALUES COMPLY WITH THE REQUIRED PRESSURE FOR THE OPENING, THE POSITIVE PRESSURE WILL AUTOMATICALLY QUALIFY AND NEED NOT TO BE CHECKED.

MAXIMUM DESIGN LOAD "W" (p.s.f.)	MAXIMUM PANEL SPAN "L" (ft.)	MINIMUM SEPARATION TO GLASS (in.)	
		*	**
35.0	16'-0"	3 1/16"	3"
40.0	16'-0"	3 1/16"	3"
45.0	15'-7"	3 1/16"	3"
47.8	15'-4"	3 1/16"	3"
49.0	15'-3"	3 1/16"	3"
50.5	15'-1"	3 1/16"	3"
52.0	15'-0"	3 1/16"	3"
52.4	15'-0"	3 1/16"	3"
55.0	14'-10"	3 1/16"	3"
55.2	14'-9"	3 1/16"	3"
55.6	14'-9"	3 1/16"	3"
57.2	14'-7"	3 1/16"	3"
58.6	14'-5"	3 1/16"	3"
58.8	14'-5"	3 1/16"	3"
59.5	14'-3"	3 1/16"	3"
59.7	14'-3"	3 1/16"	3"
61.5	14'-1"	3 1/16"	3"
61.8	14'-0"	3 1/16"	3"
61.9	14'-0"	3 1/16"	3"
63.7	13'-10"	3 1/16"	3"
66.9	13'-6"	3 1/16"	3"
67.0	13'-6"	3 1/16"	3"

MAXIMUM DESIGN LOAD "W" (p.s.f.)	MAXIMUM PANEL SPAN "L" (ft.)	MINIMUM SEPARATION TO GLASS (in.)	
		*	**
67.5	13'-5"	3 1/16"	3"
70.1	13'-2"	3 1/16"	3"
71.1	13'-1"	3 1/16"	3"
71.4	13'-1"	3 1/16"	3"
71.5	13'-0"	3 1/16"	3"
72.9	12'-11"	3 1/16"	3"
75.1	12'-9"	3 1/16"	3"
75.2	12'-9"	3 1/16"	3"
75.3	12'-8"	3 1/16"	3"
77.0	12'-7"	3 1/16"	3"
77.5	12'-6"	3 1/16"	3"
78.8	12'-5"	3 1/16"	3"
80.7	12'-3"	3 1/16"	3"
81.5	12'-3"	3 1/16"	3"
82.5	12'-2"	3 1/16"	3"
83.4	12'-1"	3 1/16"	3"
86.2	11'-10"	3 1/16"	3"
86.7	11'-10"	3 1/16"	3"
88.8	11'-10"	3 1/16"	3"
88.5	11'-9"	3 1/16"	3"
90.3	11'-7"	3 1/16"	3"
90.8	11'-7"	3 1/16"	3"

MAXIMUM DESIGN LOAD "W" (p.s.f.)	MAXIMUM PANEL SPAN "L" (ft.)	MINIMUM SEPARATION TO GLASS (in.)	
		*	**
91.4	10'-6"	3 1/16"	3"
92.7	11'-5"	3 1/16"	3"
93.8	11'-5"	3 1/16"	3"
94.8	11'-4"	3 1/16"	3"
96.6	11'-3"	3 1/16"	3"
96.8	11'-2"	3 1/16"	3"
97.7	11'-2"	3 1/16"	3"
100.5	11'-0"	3 1/16"	3"
101.5	10'-11"	3 1/16"	3"
103.7	10'-10"	3 1/16"	3"
106.5	10'-8"	3 1/16"	3"
108.8	10'-7"	3 1/16"	3"
110.6	10'-6"	3 1/16"	3"
111.0	10'-6"	3 1/16"	3"
114.1	10'-4"	3 1/16"	3"
116.5	10'-3"	3 1/16"	3"
116.9	10'-2"	3 1/16"	3"
117.6	10'-2"	3 1/16"	3"
119.7	10'-1"	3 1/16"	3"
120.0	10'-1"	3 1/16"	3"
121.2	10'-0"	2 7/16"	1 15/16"
122.5	10'-0"	2 7/16"	1 15/16"

MAXIMUM DESIGN LOAD "W" (p.s.f.)	MAXIMUM PANEL SPAN "L" (ft.)	MINIMUM SEPARATION TO GLASS (in.)	
		*	**
125.3	9'-10"	2 7/16"	1 15/16"
125.8	9'-10"	2 7/16"	1 15/16"
126.7	9'-10"	2 7/16"	1 15/16"
129.6	9'-8"	2 7/16"	1 15/16"
130.9	9'-8"	2 7/16"	1 15/16"
131.6	9'-7"	2 7/16"	1 15/16"
134.3	9'-6"	2 7/16"	1 15/16"
136.2	9'-5"	2 7/16"	1 15/16"
137.9	9'-5"	2 7/16"	1 15/16"
140.7	9'-4"	2 7/16"	1 15/16"
142.8	9'-3"	2 7/16"	1 15/16"
143.5	9'-2"	2 7/16"	1 15/16"
147.0	9'-1"	2 7/16"	1 15/16"
148.4	9'-1"	2 7/16"	1 15/16"
152.6	8'-10"	2 7/16"	1 3/4"
153.1	8'-10"	2 7/16"	1 3/4"
156.8	8'-7"	2 7/16"	1 3/4"
157.5	8'-7"	2 7/16"	1 3/4"
157.8	8'-7"	2 7/16"	1 3/4"
160.8	8'-5"	2 7/16"	1 3/4"
161.7	8'-4"	2 7/16"	1 3/4"
164.4	8'-3"	2 7/16"	1 3/4"

MAXIMUM DESIGN LOAD "W" (p.s.f.)	MAXIMUM PANEL SPAN "L" (ft.)	MINIMUM SEPARATION TO GLASS (in.)	
		*	**
165.2	8'-2"	2 7/16"	1 3/4"
168.1	8'-0"	2 7/16"	1 3/4"
168.7	8'-0"	2 7/16"	1 3/4"
170.0	7'-11"	2 7/16"	1 3/4"
175.6	7'-8"	2 7/16"	1 3/4"
176.6	7'-8"	2 7/16"	1 3/4"
180.3	7'-6"	2 7/16"	1 3/4"
188.0	7'-2"	2 7/16"	1 3/4"
195.2	6'-11"	2 7/16"	1 3/4"
197.2	6'-10"	2 7/16"	1 3/4"
199.1	6'-9"	2 7/16"	1 3/4"
204.7	6'-7"	2 7/16"	1 3/4"
211.3	6'-5"	2 7/16"	1 3/4"
216.9	6'-3"	2 7/16"	1 3/4"
221.6	6'-1"	2 7/16"	1 3/4"
226.3	6'-0"	2 7/16"	1 3/4"

**NOTES ON "p.s.f." VS SPAN SCHEDULE**

\* MINIMUM SEPARATION BETWEEN GLASS & SHUTTER FOR SHUTTERS INSTALLED WITHIN THE FIRST 30'-0" ELEVATION OF BUILDING MEASURED AT BOTTOM OF SHUTTER. SEE TABLE 1 FOR MINIMUM SEPARATION TO GLASS FOR SPANS SHORTER THAN THE MAXIMUM ALLOWED SHOWN ON SCHEDULE.

\*\* FOR SHUTTERS INSTALLED ABOVE 30'-0" ELEVATION OF BUILDING, MEASURED AT BOTTOM OF SHUTTER.

SEPARATION TO BE MEASURED AS INDICATED ON SECTION D, SHEET 4 OF 8.

**TABLE 1:**

SHUTTER SPAN "L" (ft.)	MINIMUM SEPARATION (in.)
LESS OR EQUAL THAN 10'-0"	2 7/16"
> 10'-0" TO 16'-0"	3 1/16"

**MAXIMUM DESIGN PRESSURE RATING "W" (p.s.f.) AND**

**CORRESPONDING MAXIMUM ANCHOR SPACING (in.) SCHEDULE. †**

(VALID FOR SECTIONS A, B & C ON SHEET 2 & 3 OF 8).

MAXIMUM DESIGN LOAD "W" (p.s.f.)	SECTION A ONLY			SECTION B			SECTION C											
	WALL MOUNTING INSTALLATION AT TOP & BOTTOM (TO CONCRETE)			FLOOR/CEILING MOUNTING INSTALLATION TOP & BOTTOM (TO CONCRETE)			WALL MOUNTING INSTALLATION AT TOP & BOTTOM (TO CONCRETE)			WALL MOUNTING INSTALLATION AT BOTTOM (TO MASONRY)								
	NOTE 1	NOTE 2	NOTE 3	NOTE 1	NOTE 2	NOTE 3	NOTE 1	NOTE 2	NOTE 3	NOTE 1	NOTE 2	NOTE 3						
FROM 35.0 TO 61.8	6"	6"	6"	6"	6"	6"	6"	6"	5 1/2"	6"	6"	6"	6"	6"	6"	6"	6"	6"
FROM 61.9 TO 75.3	6"	6"	5 1/2"	6"	6"	3 1/2"	6"	6"	5"	6"	6"	6"	6"	6"	6"	6"	6"	6"
FROM 75.4 TO 91.4	6"	6"	5 1/2"	6"	6"	3 1/2"	6"	6"	5"	6"	6"	6"	6"	6"	6"	6"	6"	6"
FROM 91.5 TO 120.0	6"	4 1/2"	2 1/2"	6"	3"	N/A	6"	5"	4"	6"	6"	6"	6"	6"	6"	5 1/2"	4 1/2"	4"
FROM 120.1 TO 168.1	6"	2 1/2"	2 1/2"	6"	N/A	N/A	6"	3 1/2"	3 1/2"	6"	6"	6"	6"	6"	6"	4"	4"	4"
FROM 168.2 TO 226.3	3"	N/A	N/A	N/A	N/A	N/A	4 1/2"	3 1/2"	N/A	6"	6"	N/A	5"	4"	N/A	N/A	N/A	N/A

**ANCHOR SPACING LEGEND**

- (1) Max. ANCHOR SPCG. VALID FOR SPANS OF 5'-0" OR LESS.
- (2) Max. ANCHOR SPCG. VALID FOR SPANS GREATER THAN 5'-0" TO 8'-6".
- (3) Max. ANCHOR SPCG. VALID FOR SPANS GREATER THAN 8'-6" TO Max. ALLOWED.

MAXIMUM ANCHOR SPACING LEGEND	
WALL MOUNTING	FLOOR/CEILING MOUNTING
ZAMAC NAILIN	TAPCON
TAPCON	CALK-IN

MIN. ANCHORS SPACING SCHEDULE	
ANCHORS TYPE	MIN. SPACING
TAPCONS	3.0"
CALK-IN	2.5"
3000 psi. (MIN.) CONCRETE	2.5"
ZAMAC NAILIN	2.5"

† MAXIMUM ANCHOR SPACINGS ARE VALID FOR 3 1/2" EDGE DISTANCE. FOR E. D. LESS THAN 3 1/2", REDUCE ANCHOR SPACING BY MULTIPLYING SPACING SHOWN ON SCHEDULE BY THE FOLLOWING FACTORS.  
(NOTE: Min. E. D. FOR CALK-IN ANCHORS IS 2 1/2"). FOR THIS OPERATION TO BE POSSIBLE, REDUCED SPACING OBTAINED USING FACTOR SHALL NOT BE LESS THAN MINIMUM SPACING INDICATED FOR EACH ANCHOR TYPE AT MIN. ANCHORS SPACING SCHEDULE.

ACTUAL E. D. = EDGE DISTANCE	FACTOR	
	TAPCON/ZAMAC NAILIN	CALK-IN
3"	.86	.75
2 1/2"	.71	.50
2"	.50"	-

† SEE SHEETS 5 & 6 OF 8 FOR ANCHORS TYPE SPACING FOR INSTALLATIONS INTO WOOD FRAME BLDGS. SEE ANCHORS LEGEND FOR ANCHORS TYPE FOR A GIVEN SPACING, LOAD & SHUTTER SPAN.

JUL 08 2003

**TILECO INC.**  
TILLIT TESTING & ENGINEERING COMPANY  
6595 N.W. 36th St., Ste. 217, VIRGINIA GARDENS, FL 33168  
Phone: (305)871-1530, Fax: (305)871-1531  
EB-0006719  
WALTER A. TILLIT Jr. P. E.  
FLORIDA Lic. # 44167

OMEGA ACCORDION SHUTTER / HI-RISE AS SHOWN SCALE  
**HURRICANE MANUFACTURING, CORP.** 7/8/03 DATE  
12040 MIRAMAR PARKWAY MIRAMAR, FLORIDA 33025 03-154 DRAWING No  
REV. NO. DESCRIPTION DATE REV. No. DESCRIPTION DATE  
1 OLD 98-159 7/8/03 3 - -  
2 - - 4 - -  
SHEET 7 OF 8

PRODUCT REVISED as complying with the Florida Building Code Acceptance No. 03-0722.01 Expiration Date 09/25/2008  
By *Heather H. Walker* Miami Dade Product Control Division

F.B.C.(H.V.H.Z)/MIAMI-DADE COUNTY

**MAXIMUM DESIGN PRESSURE RATING "W" (p.s.f.) AND CORRESPONDING MAXIMUM SPAN "L" SCHEDULE.**

(VALID FOR SECTIONS B1 & C1 ON SHEET 2 & 3 OF 8).

NOTE: DESIGN PRESSURE RATING CORRESPONDS ONLY TO NEGATIVE PRESSURE (SUCTION) LOADS, IN ACCORDANCE WITH ASCE 7-98 CRITERIA FOR A GIVEN OPENING. IF NEGATIVE PRESSURE VALUES COMPLY WITH THE REQUIRED PRESSURE FOR THE OPENING, THE POSITIVE PRESSURE WILL AUTOMATICALLY QUALIFY AND NEED NOT TO BE CHECKED.

MAXIMUM DESIGN LOAD "W" (p.s.f.)	MAXIMUM PANEL SPAN "L" (ft.)	MINIMUM SEPARATION TO GLASS (in.)	
		*	**
35.0	16'-0"	3 3/16"	3"
40.0	15'-7"	3 3/16"	3"
45.0	15'-2"	3 3/16"	3"
47.8	14'-11"	3 3/16"	3"
49.0	14'-0"	3 3/16"	3"
50.5	14'-9"	3 3/16"	3"
52.0	14'-7"	3 3/16"	3"
52.4	14'-7"	3 3/16"	3"
55.0	14'-5"	3 3/16"	3"
55.2	14'-5"	3 3/16"	3"
55.8	14'-5"	3 3/16"	3"
57.2	14'-3"	3 3/16"	3"
58.6	14'-2"	3 3/16"	3"
58.8	14'-2"	3 3/16"	3"
59.5	14'-2"	3 3/16"	3"
59.7	14'-2"	3 3/16"	3"
61.5	14'-0"	3 3/16"	3"
61.8	14'-0"	3 3/16"	3"
61.9	14'-0"	3 3/16"	3"
63.7	13'-11"	3 3/16"	3"
66.9	13'-9"	3 3/16"	3"
67.0	13'-9"	3 3/16"	3"

MAXIMUM DESIGN LOAD "W" (p.s.f.)	MAXIMUM PANEL SPAN "L" (ft.)	MINIMUM SEPARATION TO GLASS (in.)	
		*	**
67.5	13'-8"	3 3/16"	3"
70.1	13'-7"	3 3/16"	3"
71.1	13'-6"	3 3/16"	3"
71.4	13'-6"	3 3/16"	3"
71.5	13'-6"	3 3/16"	3"
72.9	13'-5"	3 3/16"	3"
75.1	13'-4"	3 3/16"	3"
75.2	13'-4"	3 3/16"	3"
75.3	13'-4"	3 3/16"	3"
77.0	13'-3"	3 3/16"	3"
77.5	13'-3"	3 3/16"	3"
78.8	13'-2"	3 3/16"	3"
80.7	13'-1"	3 3/16"	3"
81.5	13'-1"	3 3/16"	3"
82.5	13'-0"	3 3/16"	3"
83.4	13'-0"	3 3/16"	3"
86.2	12'-11"	3 3/16"	3"
86.7	12'-10"	3 3/16"	3"
86.8	12'-10"	3 3/16"	3"
88.5	12'-10"	3 3/16"	3"
90.3	12'-8"	3 3/16"	3"
90.8	12'-8"	3 3/16"	3"

MAXIMUM DESIGN LOAD "W" (p.s.f.)	MAXIMUM PANEL SPAN "L" (ft.)	MINIMUM SEPARATION TO GLASS (in.)	
		*	**
91.4	12'-8"	3 3/16"	3"
92.7	12'-7"	3 3/16"	3"
93.8	12'-6"	3 3/16"	3"
94.8	12'-5"	3 3/16"	3"
96.6	12'-3"	3 3/16"	3"
96.8	12'-3"	3 3/16"	3"
97.7	12'-3"	3 3/16"	3"
100.5	12'-1"	3 3/16"	3"
101.5	12'-0"	2 13/16"	2 13/16"
103.7	11'-10"	2 13/16"	2 13/16"
106.5	11'-8"	2 13/16"	2 13/16"
108.8	11'-7"	2 13/16"	2 13/16"
110.8	11'-6"	2 13/16"	2 13/16"
111.0	11'-6"	2 13/16"	2 13/16"
114.1	11'-4"	2 13/16"	2 13/16"
116.5	11'-2"	2 13/16"	2 13/16"
116.9	11'-2"	2 13/16"	2 13/16"
117.6	11'-2"	2 13/16"	2 13/16"
119.7	11'-0"	2 13/16"	2 13/16"
120.0	11'-0"	2 13/16"	2 13/16"
121.2	11'-0"	2 13/16"	2 13/16"
122.5	10'-11"	2 13/16"	2 13/16"

MAXIMUM DESIGN LOAD "W" (p.s.f.)	MAXIMUM PANEL SPAN "L" (ft.)	MINIMUM SEPARATION TO GLASS (in.)	
		*	**
125.3	10'-9"	2 13/16"	2 13/16"
125.8	10'-9"	2 13/16"	2 13/16"
126.7	10'-9"	2 13/16"	2 13/16"
129.6	10'-7"	2 13/16"	2 13/16"
130.9	10'-7"	2 13/16"	2 13/16"
131.6	10'-6"	2 13/16"	2 13/16"
134.3	10'-5"	2 13/16"	2 13/16"
136.2	10'-4"	2 13/16"	2 13/16"
137.9	10'-3"	2 13/16"	2 13/16"
140.7	10'-2"	2 13/16"	2 13/16"
142.8	10'-1"	2 13/16"	2 13/16"
143.5	10'-1"	2 13/16"	2 13/16"
147.0	10'-0"	2 3/4"	2 1/4"
148.4	9'-11"	2 3/4"	2 1/4"
152.6	9'-9"	2 3/4"	2 1/4"
153.1	9'-9"	2 3/4"	2 1/4"
156.8	9'-8"	2 3/4"	2 1/4"
157.5	9'-7"	2 3/4"	2 1/4"
157.8	9'-7"	2 3/4"	2 1/4"
160.8	9'-6"	2 3/4"	2 1/4"
161.7	9'-6"	2 3/4"	2 1/4"
164.4	9'-5"	2 3/4"	2 1/4"

MAXIMUM DESIGN LOAD "W" (p.s.f.)	MAXIMUM PANEL SPAN "L" (ft.)	MINIMUM SEPARATION TO GLASS (in.)	
		*	**
165.2	9'-5"	2 3/4"	2 1/4"
168.1	9'-4"	2 3/4"	2 1/4"
168.7	9'-4"	2 3/4"	2 1/4"
170.0	9'-3"	2 3/4"	2 1/4"
175.6	9'-1"	2 3/4"	2 1/4"
176.6	9'-1"	2 3/4"	2 1/4"
180.3	9'-0"	2 3/4"	2"
188.0	8'-7"	2 3/4"	2"
195.2	8'-4"	2 3/4"	2"
197.2	8'-3"	2 3/4"	2"
199.1	8'-2"	2 3/4"	2"
204.7	7'-11"	2 3/4"	2"
211.3	7'-8"	2 3/4"	2"
216.9	7'-6"	2 3/4"	2"
221.6	7'-4"	2 3/4"	2"
226.3	7'-2"	2 3/4"	2"

**MAXIMUM DESIGN PRESSURE RATING "W" (p.s.f.) AND CORRESPONDING MAXIMUM ANCHOR SPACING (in.) SCHEDULE. +**

(VALID FOR SECTIONS B1 & C1 ON SHEET 2 & 3 OF 8).

MAXIMUM DESIGN LOAD "W" (p.s.f.)	SECTION C1						SECTION B1		
	WALL MOUNTING INSTALLATION AT TOP & BOTTOM (TO CONCRETE)			WALL MOUNTING INSTALLATION AT BOTTOM (TO MASONRY)			FLOOR/CEILING MOUNTING INSTALLATION TOP & BOTTOM (TO CONCRETE)		
	NOTE 1	NOTE 2	NOTE 3	NOTE 1	NOTE 2	NOTE 3	NOTE 1	NOTE 2	NOTE 3
FROM 35.0 TO 61.8	6"	6"	6"	3"	3"	3"	6"	6"	5 1/2"
FROM 61.9 TO 75.3	6"	6"	6"	3"	3"	3"	6"	6"	5"
FROM 75.4 TO 91.4	6"	6"	6"	3"	3"	3"	6"	6"	4"
FROM 91.5 TO 120.0	6"	6"	6"	3"	3"	3"	6"	5"	3 1/2"
FROM 120.1 TO 168.1	3"	3"	3"	3"	3"	3"	6"	3 1/2"	3"
FROM 168.2 TO 226.3	3"	3"	3"	3"	3"	3"	4 1/2"	3"	3"

**ANCHOR SPACING LEGEND**

WALL MOUNTING	FLOOR/CEILING MOUNTING
TAPCON	TAPCON & CALK-IN

**MIN. ANCHORS SPACING SCHEDULE**

ANCHORS TYPE	MIN. SPACING
TAPCONS	3.0"
CALK-IN 3000 psi. (MIN.) CONCRETE	2.5"

+ MAXIMUM ANCHOR SPACINGS ARE VALID FOR 3 1/2" EDGE DISTANCE. FOR E. D. LESS THAN 3 1/2", REDUCE ANCHOR SPACING BY MULTIPLYING SPACING SHOWN ON SCHEDULE BY THE FOLLOWING FACTORS.  
(NOTE: Min. E. D. FOR CALK-IN ANCHORS IS 2 1/2"). FOR THIS OPERATION TO BE POSSIBLE, REDUCED SPACING OBTAINED USING FACTOR SHALL NOT BE LESS THAN MINIMUM SPACING INDICATED FOR EACH ANCHOR TYPE AT MIN. ANCHORS SPACING SCHEDULE.

ACTUAL E. D. = EDGE DISTANCE	FACTOR	
	TAPCON/ZAMAC NAILIN	CALK-IN
3"	.86	.75
2 1/2"	.71	.50
2"	.50"	.50

+ SEE SHEETS 5 & 6 OF 8 FOR ANCHORS TYPE SPACING FOR INSTALLATIONS INTO WOOD FRAME BLDGS. SEE ANCHORS LEGEND FOR ANCHORS TYPE FOR A GIVEN SPACING, LOAD & SHUTTER SPAN.

**NOTES ON "p.s.f." VS SPAN SCHEDULE**

\* MINIMUM SEPARATION BETWEEN GLASS & SHUTTER FOR SHUTTERS INSTALLED WITHIN THE FIRST 30'-0" ELEVATION OF BUILDING MEASURED AT BOTTOM OF SHUTTER. SEE TABLE 1 FOR MINIMUM SEPARATION TO GLASS FOR SPANS SHORTER THAN THE MAXIMUM ALLOWED SHOWN ON SCHEDULE.  
\*\* FOR SHUTTERS INSTALLED ABOVE 30'-0" ELEVATION OF BUILDING, MEASURED AT BOTTOM OF SHUTTER. SEPARATION "S" TO BE MEASURED AS INDICATED ON SECTION D, SHEET 4 OF 8.

**TABLE 1:**

SHUTTER SPAN "L" (ft.)	MINIMUM SEPARATION "S" (in.)
LESS OR EQUAL THAN 10'-0"	2 3/4"
> 10'-0" TO 12'-0"	2 13/16"
> 12'-0" TO 16'-0"	3 3/16"

PRODUCT REVISED as complying with the Florida Building Code Acceptance No 03-0722.01 Expiration Date 09/25/2009  
By *Helmut Weber*  
Miami Dade Product Control Division

F.B.C.(H.V.H.Z)/MIAMI-DADE COUNTY

(1) Max. ANCHOR SPCG. VALID FOR SPANS OF 5'-0" OR LESS.  
(2) Max. ANCHOR SPCG. VALID FOR SPANS GREATER THAN 5'-0" TO 8'-6".  
(3) Max. ANCHOR SPCG. VALID FOR SPANS GREATER THAN 8'-6" TO Max. ALLOWED.

*David*  
JUL 08 2003

**TILECO inc.**  
TILLIT TESTING & ENGINEERING COMPANY  
6596 N.W. 36th St., Ste. 217, VIRGINIA GARDENS, FL 33166  
Phone : (305)871-1530 . Fax : (305)871-1531  
EB-0006719  
WALTER A. TILLIT Jr. P. E.  
FLORIDA Lic. # 44167

OMEGA ACCORDION SHUTTER / HI-RISE AS SHOWN SCALE  
**HURRICANE MANUFACTURING, CORP.** 7/8/03 DATE  
12040 MIRAMAR PARKWAY MIRAMAR, FLORIDA 33025 03-154 DRAWING No  
SHEET 8 OF 8

REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 98-159	7/8/03	3	-	-
2	-	-	4	-	-