



BUILDING AND NEIGHBORHOOD COMPLIANCE DEPARTMENT (BNC)  
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY  
PRODUCT CONTROL SECTION  
11805 SW 26 Street, Room 208  
Miami, Florida 33175-2474  
T (786) 315-2590 F (786) 315-2599

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

**NOTICE OF ACCEPTANCE (NOA)**

**Oldcastle BuildingEnvelope™**

803 Airport Road  
Terrell, TX 75160

**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 Section 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 Section (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 Section 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 "FG-5000 Flush Glazed" Aluminum Window Wall System – L.M.I.**

**APPROVAL DOCUMENT:** Drawing No. 10-076, titled Series FG-5000 Flush Glazed Aluminum Window Wall System - Large & Small Missile Impact Laminated Glass", sheets 1 through 8, 8A, 9 through 22 of 22, dated 08/18/10 with revision 1 dated 08/18/10, prepared by Tilteco, Inc., 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 Section.

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

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

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

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

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

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official. This NOA revises NOA # 09-0721.03 and consists of this page 1 and evidence pages E-1, E-2 and E-3, as well as approval document mentioned above.

The submitted documentation was reviewed by **Manuel Perez, P.E.**



NOA No. 10-1214.15  
Expiration Date: November 18, 2014  
Approval Date: March 31, 2011  
Page 1

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. Manufacturer's die drawings and sections.
2. Drawing No **10-076**, Sheets 1 through 8, 8A, 9 through 22 of 22, titled Series FG-5000 Flush Glazed Aluminum Window Wall System Large & Small Missile Impact Laminated Glass”, dated 08/18/10 with revision 1 dated 08/18/10, prepared by Tilteco, Inc., signed and sealed by Walter A. Tillit, Jr., 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) Water Resistance Test, per FBC, TAS 202-94  
4) Large Missile Impact Test per FBC, TAS 201-94  
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
along with marked-up drawings and installation diagram of series FG-5000, wet glazed (Saflex by Solutia & Butacite by DuPont) storefront system, prepared by Architectural Testing, Inc., Test Report No. **ATI-A1052.01-801-18**, specimens #1, #2, #3 and #4, dated 08/16/10, signed and sealed by Joseph A. Reed, 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) Large Missile Impact Test per FBC, TAS 201-94  
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
along with marked-up drawings and installation diagram of Vistawall FG-5000 Vanceva – wet glazed (Vanceva by Solutia) storefront system, prepared by Architectural Testing, Inc., Test Report No. **ATI-89818.01-401-18**, specimen #1, dated 03/19/09, signed and sealed by Joseph A. Reed, P.E. 3  
***(Submitted under previous NOA #09-0721.03)***
3. 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) Large Missile Impact Test per FBC, TAS 201-94  
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
along with marked-up drawings and installation diagram of Vistawall FG-5000 Vanceva – wet glazed (SGP by DuPont) storefront system, prepared by Architectural Testing, Inc., Test Report No. **ATI-86111.01-401-18**, specimen #1, dated 02/09/09, signed and sealed by Joseph A. Reed, P.E.  
***(Submitted under previous NOA #09-0721.03)***

  
Manuel Perez, P.E.  
Product Control Examiner  
NOA No. 10-1214.15

Expiration Date: November 18, 2014  
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**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**B. TESTS (CONTINUED)**

4. 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) Large Missile Impact Test per FBC, TAS 201-94  
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
along with marked-up drawings and installation diagram of Vistawall FG-5000 and FG-5100 corner storefront system, prepared by Architectural Testing, Inc., Test Report No. **ATI-86107.01-401-18**, specimens: #1R (E9), #2 (E10), #3 (E11), dated 02/26/09, signed and sealed by Joseph A. Reed, P.E.  
*(Submitted under previous NOA #09-0721.03)*
5. 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) Large Missile Impact Test per FBC, TAS 201-94  
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
along with marked-up drawings and installation diagram of Vistawall FG-5000, wet glazed (Saflex by Solutia & Butacite by DuPont) storefront system, prepared by Architectural Testing, Inc., Test Report No. **ATI-74785.02-401-18**, specimens #1, #2, #3 and #4, dated 08/29/07, signed and sealed by Joseph A. Reed, P.E.  
*(Submitted under previous NOA #09-0721.03)*

**C. CALCULATIONS**

1. Anchor verification calculations and structural analysis, complying with FBC-2007, prepared by Tilteco, Inc., dated 7/16/09, signed and sealed by Walter A. Tillit, Jr., P.E.  
2. Glazing complies with ASTM E1300-04.

**D. QUALITY ASSURANCE**

1. Miami-Dade Building and Neighborhood Compliance Department (BNC).

  
Manuel Perez, P.E.  
Product Control Examiner

NOA No. 10-1214.15

Expiration Date: November 18, 2014

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**E. MATERIAL CERTIFICATIONS**

1. Notice of Acceptance No. **10-0413.04** issued to E.I. DuPont DeNemours & Co., Inc. for their "**DuPont Sentry Glass® Interlayer**" dated 05/26/10, expiring on 01/14/12.
2. Notice of Acceptance No. **10-0922.09** issued to E.I. DuPont DeNemours & Co., Inc. for their "**DuPont Butacite® PVB, Interlayer**" dated 12/24/10, expiring on 12/11/11.
3. Notice of Acceptance No. **06-0216.06** issued to Solutia Inc. for their "**Saflex III G Clear or colored interlayer**" dated 05/04/06, expiring on 05/21/11.
4. Notice of Acceptance No. **08-0520.08** issued to Solutia Inc. for their "**Vanceva Composites Glass Interlayer**" dated 7/17/08, expiring on 12/11/13.

**F. STATEMENTS**

1. Statement letter of conformance, dated November 18, 2010, signed and sealed by Walter A. Tillit, Jr., P.E.
2. Statement letter of no financial interest, dated November 17, 2010, signed and sealed by Walter A. Tillit, Jr., P.E.
3. Statement letter of name change issued by Oldcastle BuildingEnvelope, Inc., dated October 19, 2010, signed by Mrs. Jacqueline D. Butler, Corporate Paralegal/ Legal Assistant.
4. Asset transfer agreement dated April 20, 2010, signed by Mr. James Avanzini, Present.
5. Asset sale agreement dated June 29, 2007, signed by Mr. Adam j. Newman, Vice President, by Mr. Robert Johnson, Treasurer and by Mr. Daipayan (Deep) Bhattacharya, Vice President.
6. Laboratory compliance letter for Test Report No. **ATI-86107.01-410-18**, issued by Architectural Testing, Inc., dated 4/21/09, signed and sealed by Joseph A. Reed, P.E.
7. Laboratory compliance letter for Test Report No. **ATI-86111.01-401-18**, issued by Architectural Testing, Inc., dated 4/21/09, signed and sealed by Joseph A. Reed, P.E.
8. Laboratory compliance letter for Test Report No. **ATI-89818.01-410-18**, issued by Architectural Testing, Inc., dated 4/27/09, signed and sealed by Joseph A. Reed, P.E.
9. Letter with recommendations for end gap joint design product applications from Dow Corning Corporation dated October 11, 2010 signed by Kevin Dunphy, Application Sales Engineer.

**G. OTHERS**

1. Notice of Acceptance No. **09-0721.03**, issued to Oldcastle Glass Engineered Products for their Series "**FG-5000**" Flush Glazed Aluminum Window Wall System – L.M.I., approved on 11/18/09 and expiring on 11/18/14.



Manuel Perez, P.E.  
Product Control Examiner  
NOA No. 10-121415

Expiration Date: November 18, 2014  
Approval Date: March 31, 2011

# PRODUCT APPROVAL FOR SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM FOR USE IN HURRICANE ZONES REQUIRING LARGE & SMALL MISSILE IMPACT PROTECTION.

## GENERAL NOTES:

1. SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS, SHOWN ON THIS PRODUCT APPROVAL DOCUMENT (P.A.D.) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2007 EDITION OF THE FLORIDA BUILDING CODE. SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM MAY BE INSTALLED WITHIN HIGH VELOCITY HURRICANE ZONES. DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1620 OF THE ABOVE MENTIONED CODE. IN ORDER TO VERIFY THAT ANCHORS ON THIS P.A.D., AS TESTED, WERE NOT OVERSTRESSED, A 33% INCREASE IN ALLOWABLE STRESS FOR WIND LOADS WAS **NOT** USED IN THEIR ANALYSIS. FASTENERS SPACING TO WOOD HAS BEEN DETERMINED IN ACCORDANCE WITH N.D.S. 2005. THIS PRODUCT'S ADEQUACY FOR IMPACT AND CYCLIC RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION 1626 OF THE ABOVE MENTIONED CODE AS PER PROTOCOLS TAS-201, TAS-202, TAS-203, PER ARCHITECTURAL TESTING, INC. LABORATORY REPORTS # 74785.02-401-18, 89818.01-401-18, 86107.01-401-18, 86111.01-401-18, A1052.01-801-18 AND AS PER SUBMITTED STRUCTURAL CALCULATIONS, PERFORMED AS PER SECTION 1612 OF THE FLORIDA BUILDING CODE.
2. MAXIMUM DESIGN PRESSURE RATING FOR THIS WINDOW WALL SYSTEM SHALL BE AS SHOWN ON SHEETS 6, 7, 8, 8A, 13, 19 AND 20.
3. THIS PRODUCT WILL NOT REQUIRE A HURRICANE PROTECTION DEVICE.
4. THIS PRODUCT IS APPROVED FOR AIR/WATER INFILTRATION (SEE SCHEDULE ON SHEET 7).
5. SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS SHALL COMPLY WITH SECTIONS 2411.4.1 AND 2411.4.2 OF THE FLORIDA BUILDING CODE.
6. PROVIDE 1 3/8" MAX. LOAD BEARING SHIM (TYP.), WHEN ALLOWED BY THIS DRAWING.
7. WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE BUILDING STRUCTURE. WOOD BUCKS MUST BE SOUTHERN PINE, G = 0.55.
8. REMAINING COMPONENTS FOR THIS WINDOW WALL SYSTEM SHALL BE AS INDICATED ON BILL OF MATERIALS, SHEET 3 OF THIS DRAWING.
9. ALL ALUMINUM EXTRUSIONS IN CONTACT WITH STEEL, CONCRETE, GROUT FILLED CONCRETE BLOCK AND WOOD SHALL COMPLY WITH SECTIONS 2003.8.4.2, 2003.8.4.4, 2003.8.5 AND 2003.8.6 OF THE FLORIDA BUILDING CODE, RESPECTIVELY.
10. SHOP DRAWINGS PREPARED BASED ON THIS APPROVAL AND TAKING INTO ACCOUNT THE SPECIFIC JOB CONDITIONS, SHALL BE SUBMITTED TO THE BUILDING OFFICIAL AS PART OF THE PERMIT DOCUMENTS.
11. STRUCTURAL SUBSTRATES NOTED ON THIS DRAWING AS EXISTING STEEL BY OTHERS, POURED CONCRETE, GROUT FILLED CONCRETE BLOCK AND WOOD MUST WITHSTAND THE LOADS IMPOSED BY THIS PRODUCT.
12. (a) THIS 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 P.A.D., PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT. CONSTRUCTION SAFETY AT SITE IS THE CONTRACTOR'S RESPONSIBILITY.  
 (c) THIS P.A.D. WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.  
 (d) SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.A.D. ENGINEER OF RECORD, ACTING AS DELEGATED ENGINEER TO THE P.A.D. ENGINEER, SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.  
 (e) ORIGINAL P.A.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.
13. WINDOW WALL SYSTEM MANUFACTURER'S LABEL SHALL BE PLACED ON A READILY VISIBLE LOCATION. ONE LABEL SHALL BE PLACED FOR EVERY UNIT. LABEL SHALL READ AS FOLLOWS:

## INDEX:

- SHEET 1: GENERAL NOTES, INDEX AND INSTRUCTIONS.  
 SHEET 2: COMPONENTS.  
 SHEET 3: BILL OF MATERIALS.  
 SHEET 4: ISOMETRIC ELEVATION FOR FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM.  
 SHEET 5: TYPICAL GLAZING DETAILS & GLASS SCHEDULE.  
 SHEET 6: MAXIMUM DESIGN PRESSURE RATING SCHEDULE FOR A GIVEN GLASS TYPE AND GLASS PANEL DIMENSIONS.  
 SHEET 7: MAXIMUM DESIGN PRESSURE RATING FOR STANDARD AND CORNER MULLIONS.  
 SHEET 8: MAXIMUM PRESSURE RATING FOR MULLION CONNECTIONS W/ 4" MIN. E.D. EXCEPT AS NOTED.  
 SHEET 8A: MAXIMUM PRESSURE RATING FOR MULLION CONNECTIONS W/ 2 3/4" MIN. E.D., EXCEPT AS NOTED.  
 SHEET 9: SILL AND HEAD CONNECTIONS DETAILS FOR STANDARD MULLIONS AND JAMBS (PLAN VIEWS).  
 SHEET 10: SILL AND HEAD CONNECTION DETAILS FOR CORNER MULLIONS (PLAN VIEWS).  
 SHEET 11: HEAD CONNECTION DETAILS (SIDE VIEW).  
 SHEET 12: HEAD CONNECTION DETAILS (SIDE VIEW) (CONTINUED).  
 SHEET 13: HORIZONTAL CONNECTION DETAIL (SIDE VIEW), WINDOW WALL ELEVATION W/ HORIZONTAL, MAXIMUM DESIGN PRESSURE RATING FOR HORIZONTAL AND MAXIMUM DESIGN PRESSURE RATING FOR JAMBS W/O ANCHORAGE.  
 SHEET 14: SILL CONNECTION DETAILS (SIDE VIEWS).  
 SHEET 15: SILL CONNECTION DETAILS (SIDE VIEWS) (CONTINUED).  
 SHEET 16: SILL CONNECTION DETAILS (SIDE VIEWS) (CONTINUED).  
 SHEET 17: HORIZONTAL SECTIONS AT STANDARD AND CORNER MULLION.  
 SHEET 18: HORIZONTAL SECTIONS AT JAMBS.  
 SHEET 19: MAXIMUM DESIGN PRESSURE RATING FOR JAMBS FASTENED W/ 3/8"Ø FASTENERS.  
 SHEET 20: MAXIMUM DESIGN PRESSURE RATING FOR JAMBS FASTENED W/ 1/2"Ø FASTENERS.  
 SHEET 21: CORNER DETAIL AT JAMB.  
 SHEET 22: DOOR JAMB MULLION INSTALLATION ADJACENT TO WINDOW WALL.

## INSTRUCTIONS:

- STEP 1:** DETERMINE DESIGN WIND LOAD REQUIREMENTS BASED ON WIND VELOCITY, BUILDING HEIGHT, WIND ZONE, USING APPLICABLE ASCE 7-05 STANDARD.
- STEP 2:** GO TO SCHEDULE ON SHEET 6 TO DETERMINE MAXIMUM DESIGN PRESSURE RATING "W" (psf) OF DESIRED GLASS SIZE BASED ON GLASS PANEL DIMENSIONS.
- STEP 3:** DETERMINE MAXIMUM MULLION SPAN "L"(FT) FOR A GIVEN MULLION EFFECTIVE SPACING "b", ON SCHEDULE ON SHEET 7, AND SELECT ANCHOR OPTION W/ DESIGN PRESSURE RATING EQUAL OR GREATER THAN DESIGN LOAD SPECIFIED IN STEP 1 USING SCHEDULES ON SHEETS 8 AND 8A.
- STEP 4:** USE SCHEDULES ON SHEETS 19 AND 20, TO SELECT JAMB ANCHOR OPTION W/ ANCHORAGE OR SHEET 13 FOR W/O ANCHORAGE WITH DESIGN PRESSURE RATING EQUAL OR GREATER THAN DESIGN LOAD SPECIFIED IN STEP 1.
- STEP 5:** USE SCHEDULE ON SHEET 13, TO VERIFY MAXIMUM DESIGN PRESSURE RATING OF HORIZONTALS (IF USED), TO BE EQUAL OR GREATER THAN DESIGN LOAD SPECIFIED IN STEP 1.
- STEP 6:** THE LOWEST VALUE OF DESIGN PRESSURE RATING RESULTING FROM STEPS 2, 3, 4 AND 5 SHALL APPLY TO THE ENTIRE SYSTEM.

**Oldcastle BuildingEnvelope™**  
 TERRELL TX.  
 MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED.  
 SERIES "FG-5000 FLUSH GLAZED" ALUMINUM WINDOW WALL SYSTEM - L.M.I.

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

DRAWN BY: L.G./M.C.V.	08/18/10 DATE	10-076 DRAWING No	SHEET 1 OF 22
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SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS

**Oldcastle BuildingEnvelope™**  
 803 Airport Rd - Terrell, TX 75160  
 www.OldcastleBE.com - Phone 800-869-4667

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TILIT TESTING & ENGINEERING COMPANY  
 6325 N.W. 36th St. Ste. 305, VEROBEA GARDENS, FL 33166  
 Phone: (305)871-1330, Fax: (305)871-1531  
 e-mail: tilteco@aol.com

EB-0006719  
 WALTER A. TILLIT JR. P.E.  
 FLORIDA Lic. # 44167

P.E. SEAL/STAMP/DATE

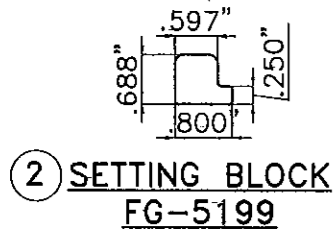
PRODUCT REVISED as complying with the Florida Building Code  
 Acceptance No **10-1214.15**  
 Expiration Date **Nov. 18, 2014**

By *Manuel Perez*  
 Miami/Dade Product Control

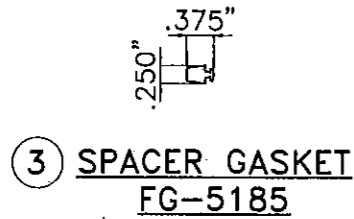
MIAMI-DADE COUNTY

# FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM COMPONENTS

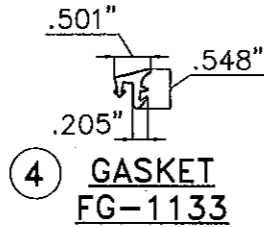
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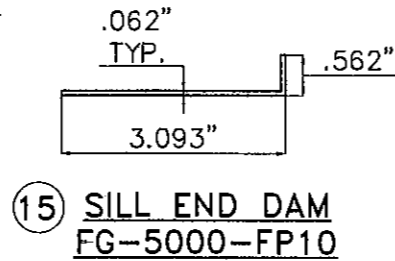
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FG-5199



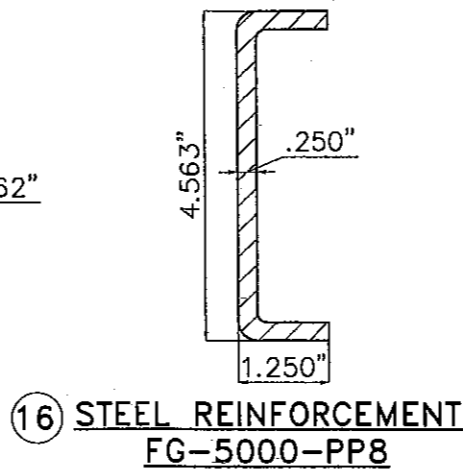
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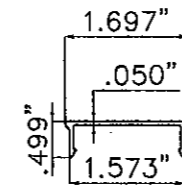
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FG-1133



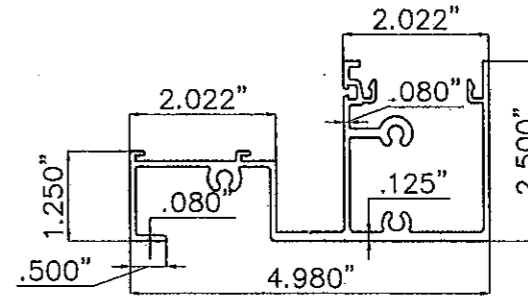
⑮ SILL END DAM  
FG-5000-FP10



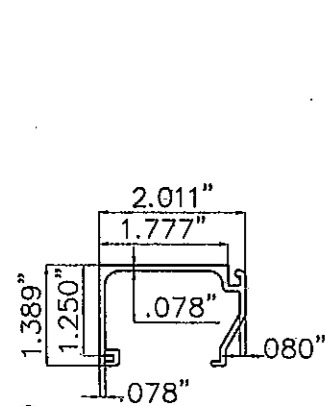
⑯ STEEL REINFORCEMENT  
FG-5000-PP8



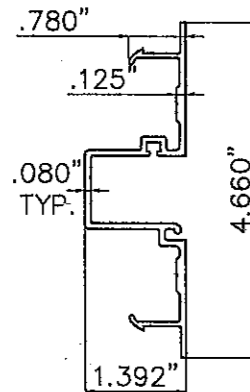
⑰ CHANNEL FILLER  
@ HEAD & SILL  
FG-5113



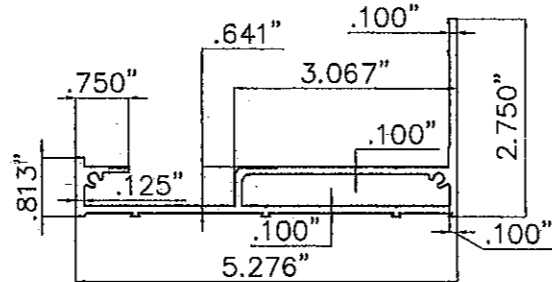
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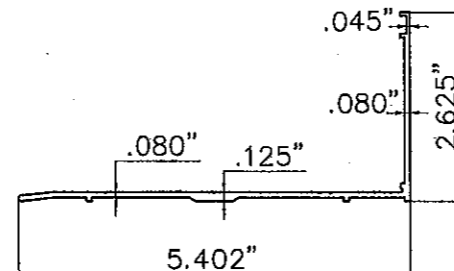
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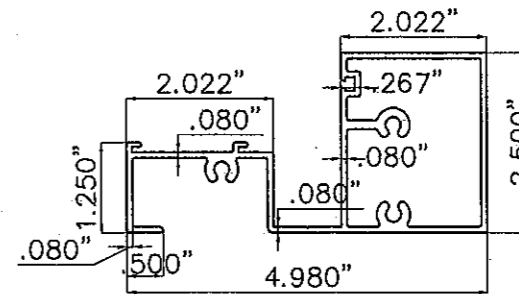
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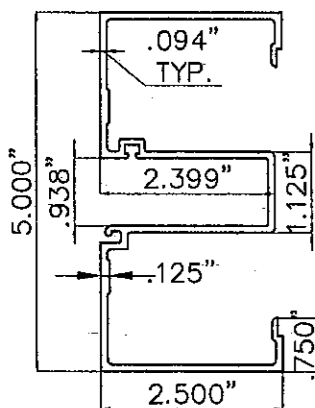
㉑ HIGH PERFORMANCE  
SILL PAN  
FG-5205



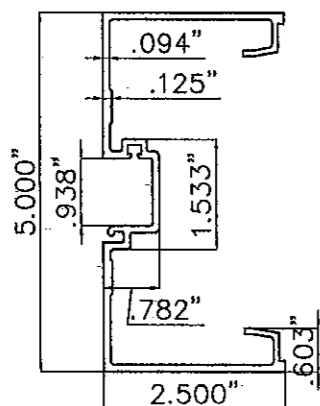
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FG-5180



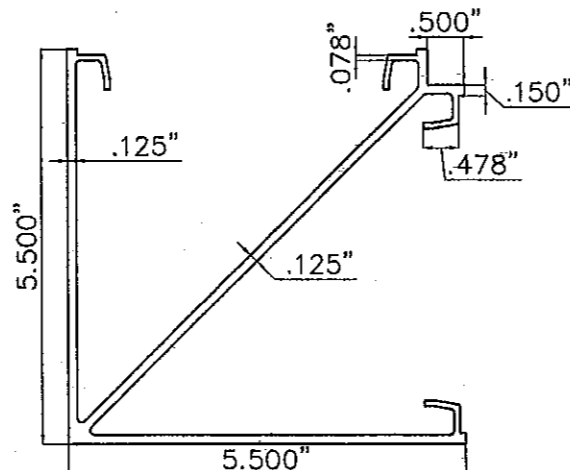
㉓ SILL / HEAD  
FG-5206



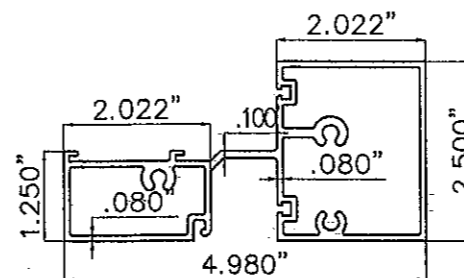
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FG-5201



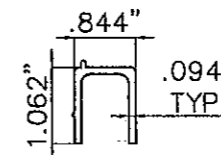
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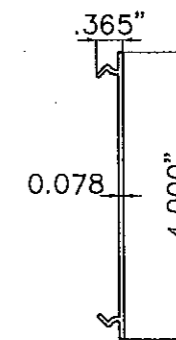
㉗ 90 DEGREE CORNER MULLION  
FG-5200



㉘ HORIZONTAL  
FG-5202



㉙ SETTING CHAIR  
FG-5192



㉚ VINYL FILLER  
FG-2188

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

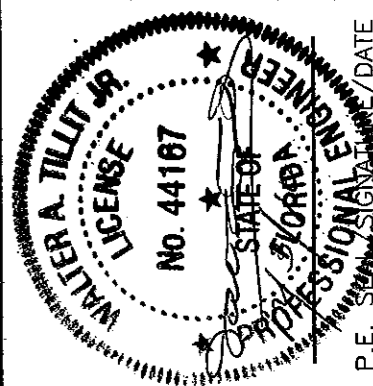
SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS

**oldcastle BuildingEnvelope™**  
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REV. NO.	DESCRIPTION	DATE	REV. NO.	DESCRIPTION	DATE
1	OLD DWG 03-074	08/18/10	3		
2			4		

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TILIT TESTING & ENGINEERING COMPANY  
8355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166  
Phone : (305)871-1530 Fax : (305)871-1531  
e-mail: tiliteco@aol.com  
EB-0006719  
WALTER A. TILIT, Jr., P.E.  
FLORIDA Lic. # 44167



PRODUCT REVISED as complying with the Florida Building Code Acceptance No 10-1214.15 Expiration Date Nov. 18, 2014  
By *Manuel Perez*  
Miami/Dade Product Control


MIAMI-DADE COUNTY


# BILL OF MATERIALS

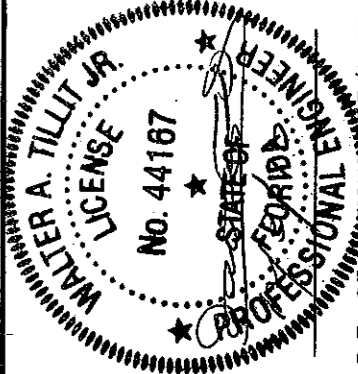
ITEM No.	PART NUMBER	DESCRIPTION	DIMENSIONS	MATERIAL	MANUFACTURER	NOTES
1.	FS-54	PHILLIPS FLAT HEAD MACHINE SCREW UC	#10-24 x 3/8"	STEEL	VARIES	ZINC COATED, PER ASTM B-633.
2.	FG-5199	SETTING BLOCK	.800" x .688" x 4.00"	EPDM	EPG	
3.	FG-5185	SPACER GASKET	.250" x .250"	EPDM	EPG	
4.	FG-1133	GASKET	.500" x .548"	EPDM	EPG	
7.	FS-8	SPLINE ASSEMBLY SCREW	#14 x 1" HHSTS FS-322	STEEL	VARIES	STALGARD COATED, BY ELCO
8.	ANCHOR	SILL ANCHOR SCREW	#14 x 3/4" HHVTEK		ITW/BUILDEX	ZINC COATED, PER ASTM B-633.
9.	ANCHOR	HEAD ANCHOR SCREW	#14 x 1 1/2" HHVTEK		ITW/BUILDEX	ZINC COATED, PER ASTM B-633.
11.	FASTENER	PPH SELF TAPPING SCREW	#10 x 2 1/2"	STEEL	VARIES	ZINC COATED, PER ASTM B-633.
12.	FASTENER	PPH STEEL ATTACHMENT SCREW	#10 x 1"	STEEL	VARIES	ZINC COATED, PER ASTM B-633.
13.	SM-5601	ISOCRYL TAPE	.125" x .500" VARIES	POLYISOBUTYLENE	SCHNEE-MOOREHEAD	
14.	FG5000-FP-5	WATER DIVERTER	.876" x .54147" x .040"	RIGID PVC	OBE	
15.	FG-5000-FP-10	SILL END DAM	3.500" x .562" x 0.062" x 5.000"	6063-T6 ALUMINUM	OBE	
16.	FG-5000-PP8	STEEL REINFORCEMENT	1.250" x 4.563" x .250"	ZINC PAINTED STEEL	VARIES	ASTM A-36
17.	FG-5113	CHANNEL FILLER @ HEAD & SILL	1.697" x .500" x .062"	6063-T5	OBE	
18.	FG-5204	HEAD / SILL	4.980" x 2.500" x .080"	6063-T6	OBE	
19.	FG-5190	GLASS STOP	2.010" x 1.392" x .078"	6063-T5	OBE	
20.	FG-5196	POCKET FILLER	4.660" x 1.392" x .080"	6063-T5	OBE	
21.	FG-5205	HIGH PERFORMANCE SILL PAN	5.276" x 2.750" x .100"	6063-T6	OBE	
22.	FG-5180	SILL PAN	5.402" x 2.625" x .080"	6063-T6	OBE	
23.	FG-5206	SILL / HEAD	4.980" x 2.500" x .080"	6063-T6	OBE	
24.	FG-5201	JAMB	5.000" x 2.500" x .094"	6063-T6	OBE	
25.	NOT USED					
26.	FG-5193	MULLION	5.000" x 2.500" x .094"	6063-T6	OBE	
27.	FG-5200	90 DEGREE CORNER MULLION	5.500" x 5.500" x .125"	6063-T6	OBE	
28.	FG-5202	HORIZONTAL	4.980" x 2.500" x .080"	6063-T6	OBE	
29.	995	STRUCTURAL SEALANT	-	SILICONE	DOW CORNING	# 995
30.	795	PERIMETER SEALANT	-	SILICONE	DOW CORNING	# 795
31.	FG-5192	SETTING CHAIR	.844" x 1.062" x .094"	6063-T5	OBE	
32.	FG-2122	ALUMINUM JAMB FILLER	4.000" x .365" x .078"	6063-T6	EPG	
34.	ANCHOR	PFH TEK SCREW	#10 x 2.000"	ZINC COATED STEEL	VARIES	ZINC COATED, PER ASTM B-633.

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

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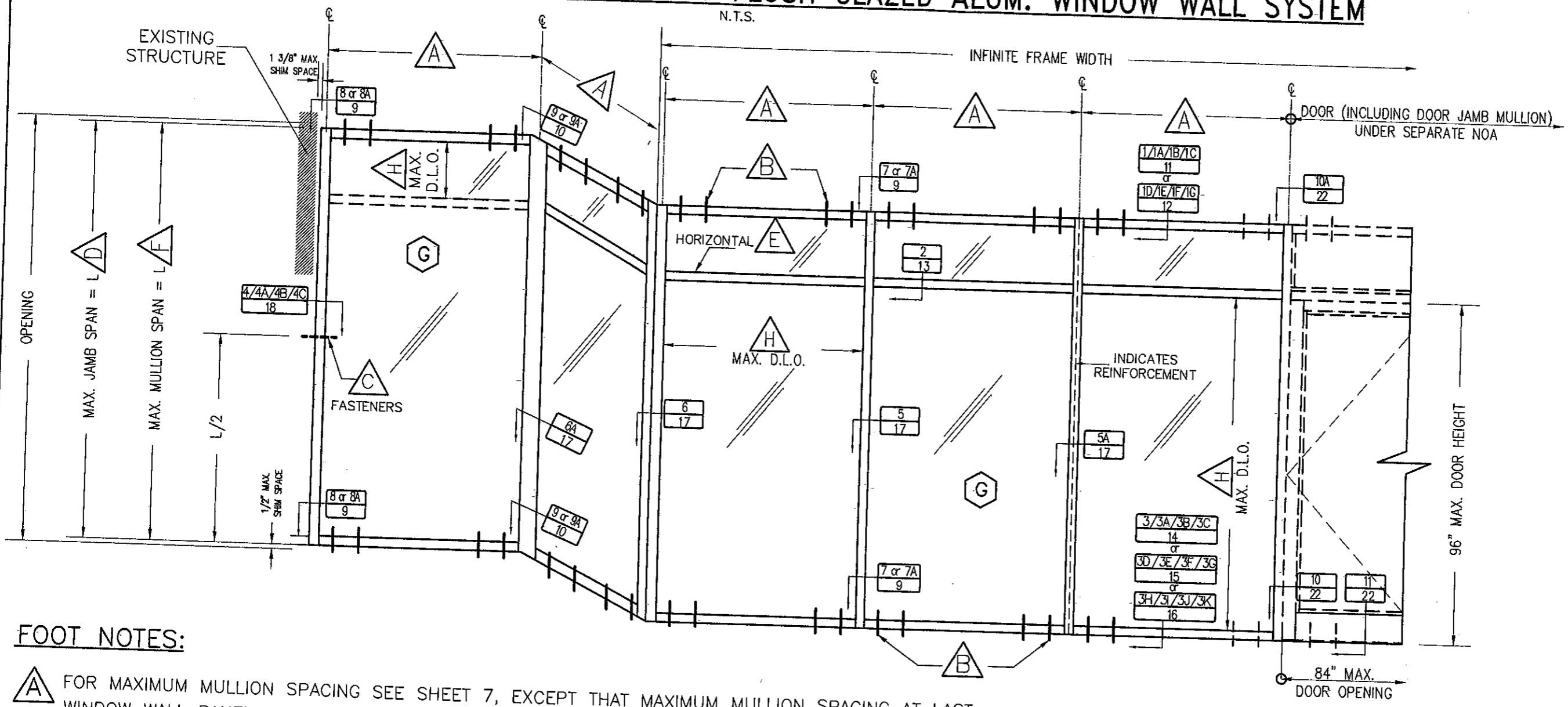
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 WALTER A. TILLIT JR.  
 LICENSE  
 No. 44167  
 PROFESSIONAL ENGINEER  
 STATE OF FLORIDA  
 P.E. SEAL SIGNATURE/DATE

PRODUCT REVISED as complying with the Florida Building Code  
 Acceptance No 10-1214.15  
 Expiration Date Nov. 18, 2014  
 By Marcos Perez  
 Miami Dade Product Control  
 MIAMI-DADE COUNTY

DRAWN BY: L.G.  
 DATE: 08/19/10  
 DRAWING No: 10-076  
 SHEET 3 OF 22

# ISOMETRIC ELEVATION FOR FG-5000 FLUSH GLAZED ALUM. WINDOW WALL SYSTEM



## FOOT NOTES:

- A** FOR MAXIMUM MULLION SPACING SEE SHEET 7, EXCEPT THAT MAXIMUM MULLION SPACING AT LAST WINDOW WALL PANEL INSTALLED ADJACENT TO DOOR (WHEN APPLICABLE) SHALL NOT EXCEED 5'-0".
- B** FOR HEAD AND SILL FASTENERS QUANTITY, TYPES AND SPECS SEE SHEETS 8 & 8A.
- C** SEE SHEETS 19 & 20 FOR MAXIMUM PRESSURE RATING FOR JAMB CONNECTED TO EXISTING STRUCTURE.
- D** SEE SHEET 13 FOR MAXIMUM PRESSURE RATING FOR JAMB NOT CONNECTED TO EXISTING STRUCTURE.
- E** USE OF HORIZONTALS (SEE SECTION 2/13) IS LIMITED BY SCHEDULE ON SHEET 13.
- F** FOR MAXIMUM MULLION SPAN SEE SHEET 7.
- G** FOR GLAZING DETAILS AND GLASS SCHEDULE SEE SHEET 5.
- H** FOR MAXIMUM D.L.O. AND PRESSURE RATING FOR GLASS, SEE SCHEDULE ON SHEET 6.

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

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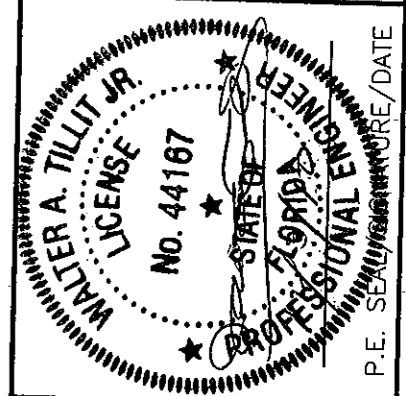
**TILTECO INC.**  
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2	08/18/10	4	

DRAWN BY: L.G./M.C.V.  
 DATE: 08/18/10  
 DRAWING NO: 10-076  
 SHEET 4 OF 22

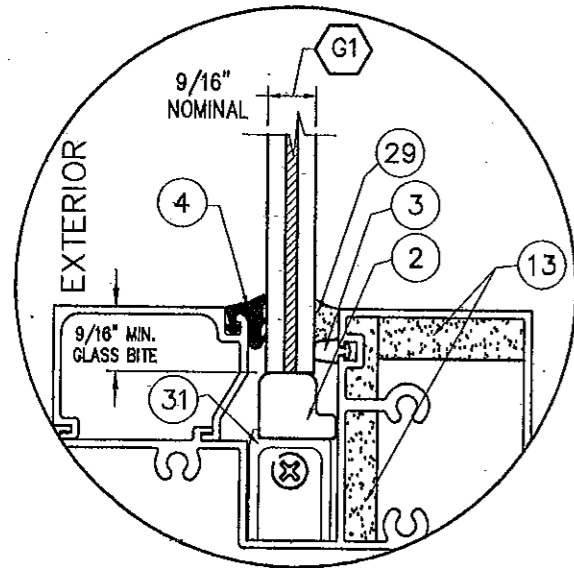


PRODUCT REVISION  
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 By *Manuel Perez*  
 Miami Dade Product Council

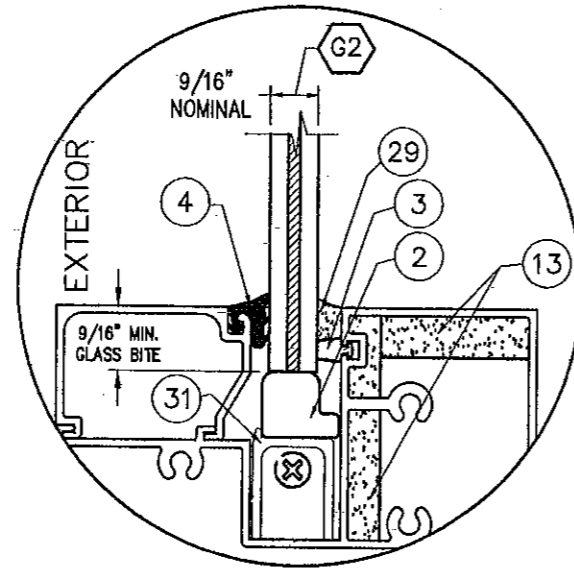
MIAMI-DADE COUNTY



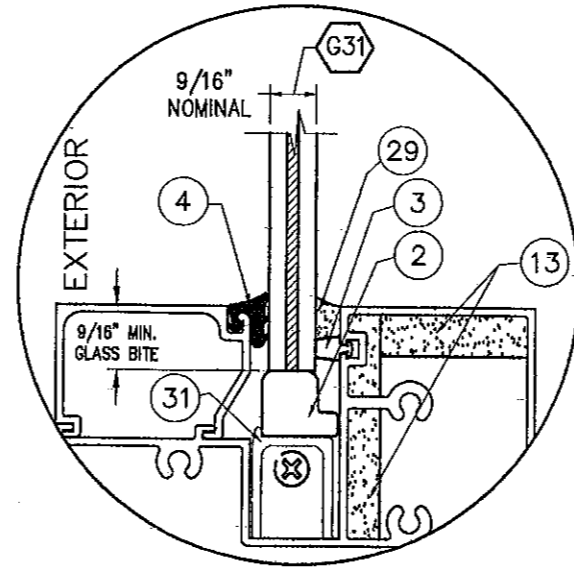
# TYPICAL GLAZING DETAILS



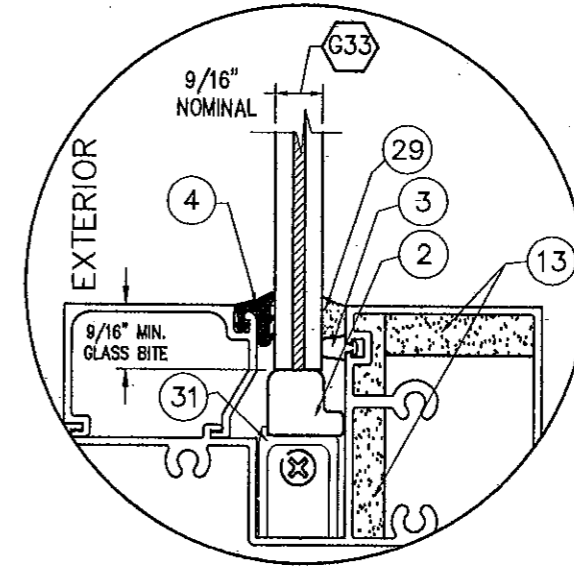
GLASS TYPE **G1**



GLASS TYPE **G2**



GLASS TYPE **G31**



GLASS TYPE **G33**

## GLASS SCHEDULE

GLASS LABEL	GLASS COMPOSITION	MANUFACTURER NAME	MAXIMUM D.L.O.	NOA'S #
<b>G1</b>	3/8" OVERALL THICKNESS LAMINATED GLASS CONSISTING OF TWO 1/4" HS GLASS, AND A 0.090" BUTACITE PVB INTERLAYER	DUPONT	SEE SCHEDULE ON SHEET 6	05-1208.02
<b>G2</b>	3/8" OVERALL THICKNESS LAMINATED GLASS CONSISTING OF TWO 1/4" HS GLASS, AND A 0.090" SENTRYGLAS PLUS INTERLAYER	DUPONT	SEE SCHEDULE ON SHEET 6	07-1116.04
<b>G31</b>	3/8" OVERALL THICKNESS LAMINATED GLASS CONSISTING OF TWO 1/4" HS GLASS, AND A 0.090" SAFLEX PVB INTERLAYER	SOLUTIA	SEE SCHEDULE ON SHEET 6	06-0216.06
<b>G33</b>	3/8" OVERALL THICKNESS LAMINATED GLASS CONSISTING OF TWO 1/4" HS GLASS, AND A 0.075" VANCEVA/STORMGLASS COMPOSITE INTERLAYER	SOLUTIA	SEE SCHEDULE ON SHEET 6	08-0520.08/ 08-1118.07

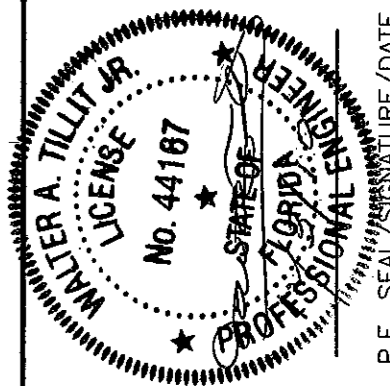
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Miami Dade Product Control

MIAMI-DADE COUNTY

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DRAWN BY: L.G.

08/18/10 DATE

10-076 DRAWING No

SHEET 5 OF 22

**MAXIMUM DESIGN PRESSURE RATING "W" (psf) SCHEDULE FOR A GIVEN GLASS TYPE  
AND GLASS PANEL DIMENSIONS "b" (in) x "a" (in) (SEE LEGEND)**

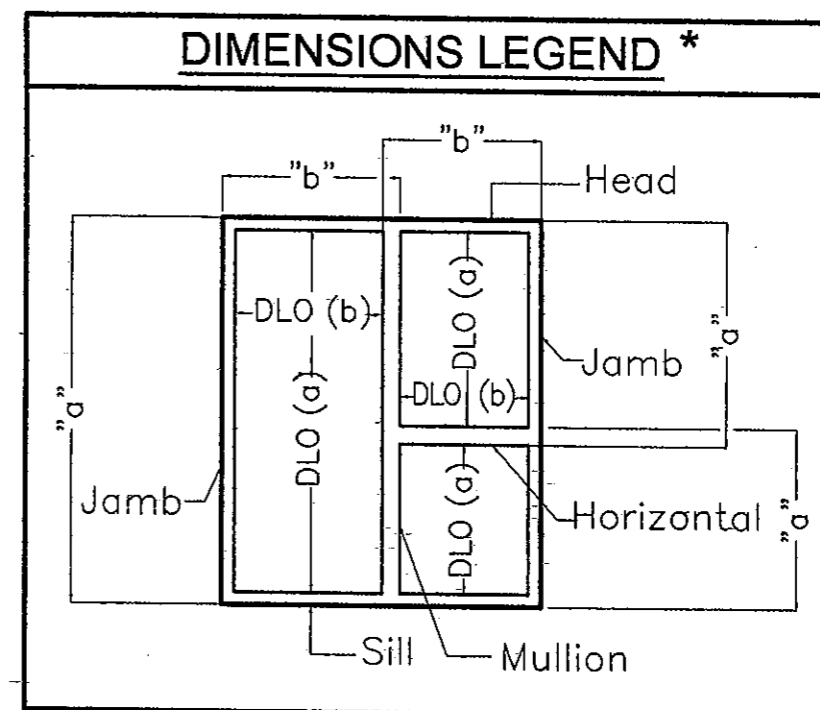
GLASS TYPE <b>G1</b> & <b>G31</b>		
DIMENSION "b" *	DIMENSION "a" *	MAXIMUM DESIGN PRESSURE RATING "W" (psf)
24"	from 24" to 115"	±65.0
30"	from 30" to 115"	±65.0
36"	from 36" to 115"	±65.0
41.75"	from 41.75" to 102.5"	±65.0
48"	from 48" to 89"	±56.5
54"	from 54" to 79"	±50.3
57.5"	from 57.5" to 74"	±47.0

GLASS TYPE <b>G2</b>		
DIMENSION "b" *	DIMENSION "a" *	MAXIMUM DESIGN PRESSURE RATING "W" (psf)
24"	from 24" to 115"	±90.0
30"	from 30" to 115"	±90.0
36"	from 36" to 115"	±90.0
42"	from 42" to 115"	±90.0
47.5"	from 47.5" to 115"	±90.0
54"	from 54" to 101"	±79.2
57.5"	from 57.5" to 95"	±74.3

GLASS TYPE <b>G33</b>		
DIMENSION "b" *	DIMENSION "a" *	MAXIMUM DESIGN PRESSURE RATING "W" (psf)
24"	from 24" to 115"	+70, -80
30"	from 30" to 115"	+70, -80
36"	from 36" to 115"	+70, -80
42"	from 42" to 115"	+70, -80
48"	from 48" to 115"	+70, -80
54"	from 54" to 102"	+70, -80
57.5"	from 57.5" to 96"	+70, -80

**\* DETERMINATION OF MAXIMUM DAY LIGHT OPENING (D.L.O.) AT EACH END OF GLASS GIVEN "b" & "a"**

SIDE	MAXIMUM DAY LIGHT OPENING	
	(D.L.O.) Formula at Vertical & Horizontal Mullions	(D.L.O.) Formula at Jamb, Head & Sill Frames
MAX. D.L.O. (b) (SHORT SIDE)	"b" - 5.00"	"b" - 5.00"
MAX. D.L.O. (a) (LONG SIDE)	"a" - 5.00"	"a" - 5.00"



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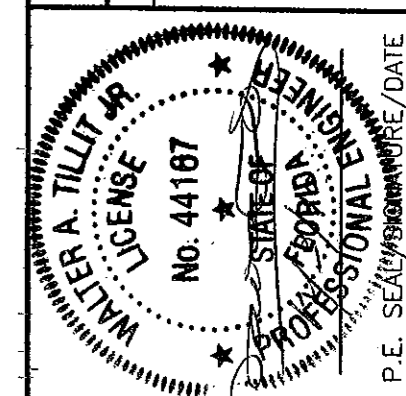
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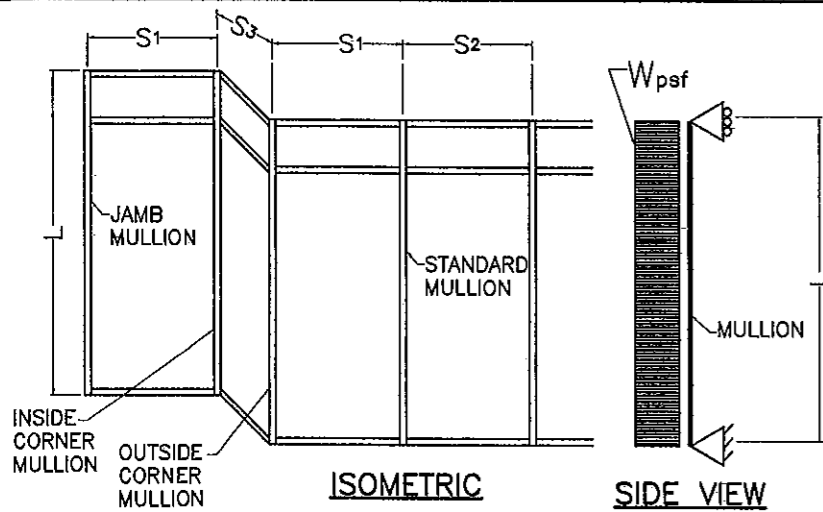
10-076 DRAWING No

SHEET 6 OF 22



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Miami Dade Product Control

MIAMI-DADE COUNTY



L = MULLION SPAN

EFFECTIVE SPACING  $b = \frac{S_1 + S_2}{2}$  (SEE SCHEDULE.)  
(FOR STANDARD MULLION)

EFFECTIVE SPACING  $b = \frac{S_1 + S_3}{2}$  (SEE SCHEDULE.)  
(FOR CORNER MULLION)

**CASE DEFINITIONS**

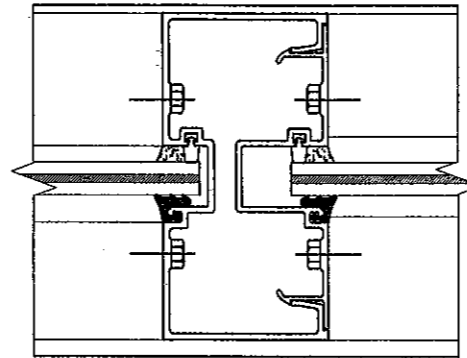
**CASE 1 :** UNREINFORCED STANDARD MULLION A (SEE DET. 5/17)

**CASE 2 :** REINFORCED STANDARD MULLION B FULL HEIGHT. (SEE DET. 5A/17)

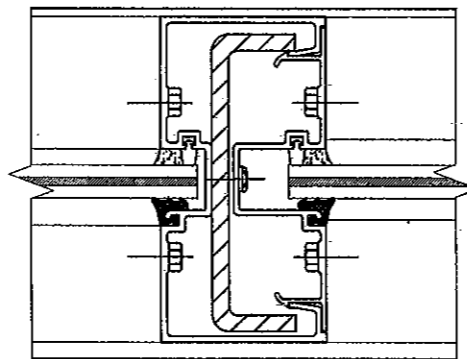
**CASE 3 :** CORNER MULLION C FULL HEIGHT. (SEE DET. 6/17 & 6A/17)  
(EITHER INSIDE OR OUTSIDE)

\* MAXIMUM DESIGN PRESSURE RATING FOR STANDARD & CORNER MULLION WILL AUTOMATICALLY QUALIFY DESIGN PRESSURE RATINGS FOR JAMBS W/ ANCHORAGE FOR ANY GIVEN MULLION SPACING. FOR MAX. JAMB SPAN W/O ANCHORAGE SEE SCHEDULE ON SHEET 13. JAMB ANCHORAGE (WHEN USED) SHALL BE PERFORMED AT MID HEIGHT OF JAMBS.

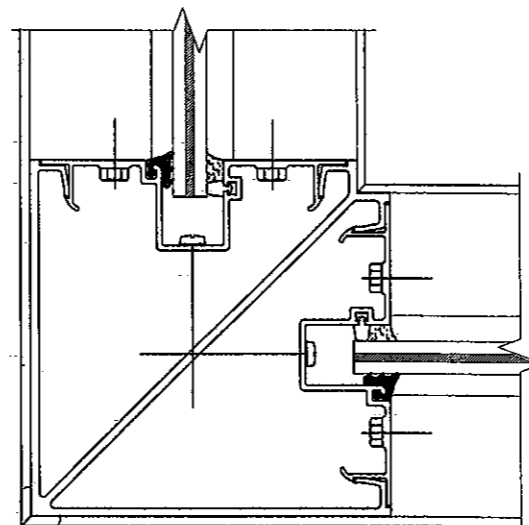
<b>A</b>	<b>CASE:1</b>	$lx = 5.580 \text{ in}^4$
	STANDARD MULLION (26) + (20)	$Sx = 2.227 \text{ in}^3$
AIR/WATER INFILTRATION IS 9.75 psf		IN TERMS OF ALUM.



<b>B</b>	<b>CASE:2</b>	$lx = 18.180 \text{ in}^4$
	STANDARD MULLION (26) + (20) W/ STEEL CHANNEL (16)	$Sx = 7.266 \text{ in}^3$
AIR/WATER INFILTRATION IS 15 psf		IN TERMS OF ALUM.



<b>C</b>	<b>CASE:3</b>	$lx = 17.141 \text{ in}^4$
	OUTSIDE/INSIDE CORNER MULLION (27) + (20)	$Sx = 4.336 \text{ in}^3$
AIR/WATER INFILTRATION IS 10.5 psf		IN TERMS OF ALUM.



**MAXIMUM DESIGN PRESSURE RATING FOR STANDARD & CORNER MULLIONS \***  
MAXIMUM MULLION SPAN "L"(FT) SCHEDULE FOR A GIVEN DESIGN PRESSURE RATING "W" AND A GIVEN MULLION EFFECTIVE SPACING "b"

MAXIMUM DESIGN PRESSURE RATING "W" (psf)	EFFECTIVE SPACING "b" (Ft-in)	CASE 1	CASE 2	CASE 3
		STANDARD UNREINFORCED MULLION A "L" (Ft-in)	STANDARD REINFORCED MULLION B "L" (Ft-in)	OUTSIDE/INSIDE CORNER MULLION C "L" (Ft-in)
60.0	3'-6"	9'-0"	10'-0"	10'-0"
	4'-0"	8'-10"	10'-0"	10'-0"
	4'-6"	8'-2"	10'-0"	10'-0"
	5'-0"	7'-4"	10'-0"	10'-0"
	5'-6"	6'-8"	10'-0"	10'-0"
	6'-0"	6'-1"	10'-0"	10'-0"
	6'-6"	5'-8"	9'-10"	10'-0"
	7'-0"	5'-3"	9'-10"	9'-8"
65.0	3'-6"	9'-0"	10'-0"	10'-0"
	4'-0"	8'-5"	10'-0"	10'-0"
	4'-6"	7'-6"	10'-0"	10'-0"
	5'-0"	6'-9"	10'-0"	10'-0"
	5'-6"	6'-2"	9'-10"	10'-0"
	6'-0"	5'-8"	9'-10"	9'-7"
	6'-6"	5'-2"	9'-10"	9'-7"
	7'-0"	4'-10"	8'-11"	8'-11"
70.0	3'-6"	9'-0"	10'-0"	10'-0"
	4'-0"	8'-11"	10'-0"	10'-0"
	4'-6"	8'-11"	10'-0"	10'-0"
	5'-0"	8'-11"	10'-0"	10'-0"
	5'-6"	8'-11"	9'-11"	10'-0"
	6'-0"	8'-11"	9'-11"	9'-8"
	6'-6"	8'-11"	8'-11"	8'-11"
	7'-0"	7'-7"	7'-7"	7'-3"
75.0	3'-6"	9'-0"	10'-0"	10'-0"
	4'-0"	8'-11"	10'-0"	10'-0"
	4'-6"	8'-11"	10'-0"	10'-0"
	5'-0"	8'-11"	10'-0"	10'-0"
	5'-6"	8'-11"	9'-11"	10'-0"
	6'-0"	8'-11"	9'-11"	9'-10"
	6'-6"	8'-11"	8'-11"	8'-11"
	7'-0"	7'-7"	7'-7"	7'-3"
76.0	3'-6"	9'-0"	10'-0"	10'-0"
	4'-0"	8'-11"	10'-0"	10'-0"
	4'-6"	8'-11"	10'-0"	10'-0"
	5'-0"	8'-11"	10'-0"	10'-0"
	5'-6"	8'-11"	9'-11"	10'-0"
	6'-0"	8'-11"	9'-11"	9'-11"
	6'-6"	8'-11"	8'-11"	8'-11"
	7'-0"	7'-7"	7'-7"	7'-3"
80.0	3'-6"	9'-0"	10'-0"	10'-0"
	4'-0"	8'-11"	10'-0"	10'-0"
	4'-6"	8'-11"	10'-0"	10'-0"
	5'-0"	8'-11"	9'-11"	10'-0"
	5'-6"	8'-11"	9'-11"	9'-11"
	6'-0"	8'-11"	8'-11"	8'-11"
	6'-6"	8'-11"	8'-11"	8'-11"
	7'-0"	7'-7"	7'-7"	7'-3"
85.0	3'-6"	9'-0"	10'-0"	10'-0"
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	5'-0"	8'-11"	9'-11"	9'-11"
	5'-6"	8'-11"	8'-11"	8'-11"
	6'-0"	8'-11"	8'-11"	8'-11"
	6'-6"	8'-11"	8'-11"	8'-11"
	7'-0"	7'-7"	7'-7"	7'-3"
90.0	3'-6"	9'-0"	10'-0"	10'-0"
	4'-0"	8'-11"	10'-0"	10'-0"
	4'-6"	8'-11"	9'-11"	10'-0"
	5'-0"	8'-11"	9'-11"	9'-11"
	5'-6"	8'-11"	8'-11"	8'-11"
	6'-0"	8'-11"	8'-11"	8'-11"
	6'-6"	8'-11"	8'-11"	8'-11"
	7'-0"	7'-7"	7'-7"	7'-3"

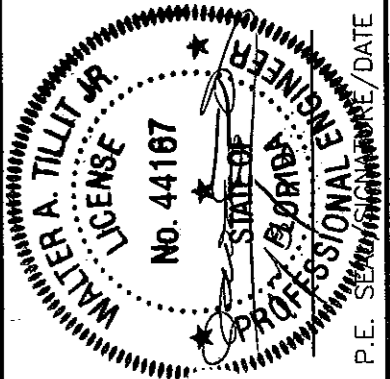
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**TILECO INC.**  
TILLIT TESTING & ENGINEERING COMPANY  
6355 N.W. 38th St., Ste. 305, VIRGINIA GARDENS, FL 33166  
Phone : (305)971-1530 Fax : (305)971-1531  
e-mail: tileco@aol.com

EB-0006719  
WALTER A. TILLIT, JR., P.E.  
FLORIDA Lic. # 44167



PRODUCT REVISED as complying with the Florida Building Code  
Acceptance No. 10-1214.15  
Expiration Date NOV. 18, 2014  
By *Maurice Perez*  
Miami Dade Product Control

MIAMI-DADE COUNTY

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FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS

DRAWN BY: L.G./M.C.V.

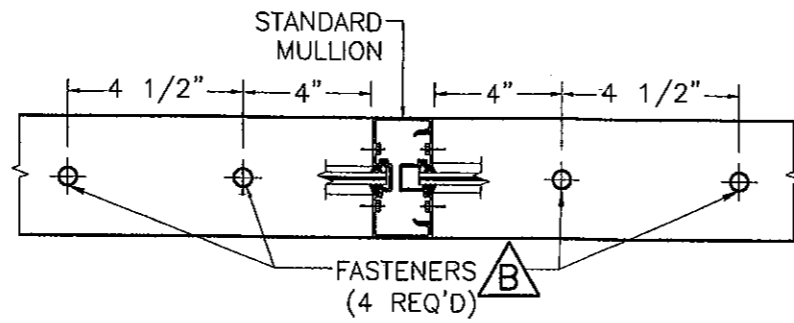
08/18/10 DATE

10-076 DRAWING No

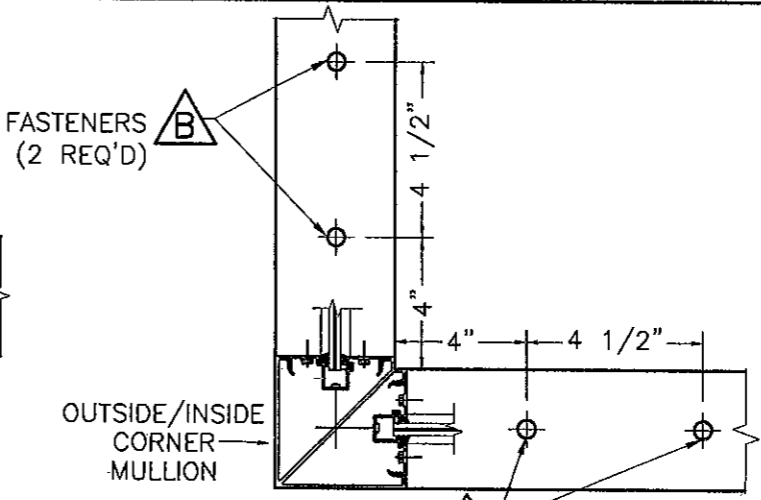
SHEET 7 OF 22

# MAXIMUM DESIGN PRESSURE RATING FOR MULLION CONNECTIONS B

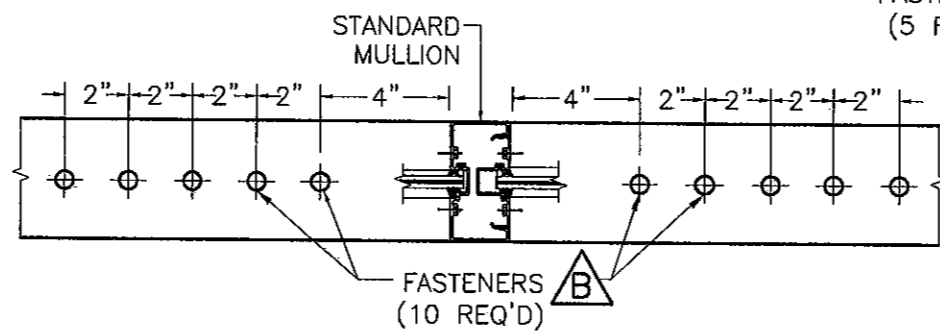
MAXIMUM MULLION SPAN	EFFECTIVE SPACING	MAXIMUM DESIGN PRESSURE RATING W (psf)					
		POURED CONCRETE (Min. f <sub>c</sub> = 3ksi) SUBSTRATE			1/4" Min. THK. ASTM A-36 STEEL SUBSTRATE	DOUBLE BUCK 3" Min. THK. (G=0.55) WOOD SUBSTRATE	DOUBLE BUCK 3" Min. THK. (G=0.55) WOOD SUBSTRATE
		FASTENERS TYPES			FASTENERS	FASTENERS	FASTENERS
"L" (Ft-in)	"b" (Ft-in)	A	B	C	D	E	E'
6'-2"	3'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	4'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	4'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	5'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	5'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	6'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	6'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	7'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	7'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	8'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	8'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	6'-6"	3'-6"	90.0	90.0	90.0	90.0	90.0
4'-0"		90.0	90.0	90.0	90.0	90.0	90.0
4'-6"		90.0	90.0	90.0	90.0	90.0	90.0
5'-0"		90.0	90.0	90.0	90.0	90.0	90.0
5'-6"		90.0	90.0	90.0	90.0	90.0	90.0
6'-0"		90.0	90.0	90.0	90.0	90.0	90.0
6'-6"		90.0	90.0	90.0	90.0	90.0	90.0
7'-0"		90.0	90.0	90.0	90.0	90.0	90.0
7'-6"		90.0	90.0	90.0	90.0	90.0	90.0
8'-0"		90.0	90.0	90.0	90.0	90.0	90.0
8'-6"		90.0	90.0	90.0	90.0	90.0	90.0
7'-0"		3'-6"	90.0	90.0	90.0	90.0	90.0
	4'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	4'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	5'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	5'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	6'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	6'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	7'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	7'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	8'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	8'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	7'-6"	3'-6"	90.0	90.0	90.0	90.0	90.0
4'-0"		90.0	90.0	90.0	90.0	90.0	90.0
4'-6"		90.0	90.0	90.0	90.0	90.0	90.0
5'-0"		90.0	90.0	90.0	90.0	90.0	90.0
5'-6"		90.0	90.0	90.0	90.0	90.0	90.0
6'-0"		90.0	90.0	90.0	90.0	90.0	90.0
6'-6"		90.0	90.0	90.0	90.0	90.0	90.0
7'-0"		90.0	90.0	90.0	90.0	90.0	90.0
7'-6"		90.0	90.0	90.0	90.0	90.0	90.0
8'-0"		90.0	90.0	90.0	90.0	90.0	90.0
8'-6"		90.0	90.0	90.0	90.0	90.0	90.0
8'-0"		3'-6"	90.0	90.0	90.0	90.0	90.0
	4'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	4'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	5'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	5'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	6'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	6'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	7'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	7'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	8'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	8'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	8'-6"	3'-6"	90.0	90.0	90.0	90.0	90.0
4'-0"		90.0	90.0	90.0	90.0	90.0	90.0
4'-6"		90.0	90.0	90.0	90.0	90.0	90.0
5'-0"		90.0	90.0	90.0	90.0	90.0	90.0
5'-6"		90.0	90.0	90.0	90.0	90.0	90.0
6'-0"		90.0	90.0	90.0	90.0	90.0	90.0
6'-6"		90.0	90.0	90.0	90.0	90.0	90.0
7'-0"		90.0	90.0	90.0	90.0	90.0	90.0
7'-6"		90.0	90.0	90.0	90.0	90.0	90.0
8'-0"		90.0	90.0	90.0	90.0	90.0	90.0
8'-6"		90.0	90.0	90.0	90.0	90.0	90.0
9'-0"		3'-6"	90.0	90.0	90.0	90.0	90.0
	4'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	4'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	5'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	5'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	6'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	6'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	7'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	7'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	8'-0"	90.0	90.0	90.0	90.0	90.0	90.0
	8'-6"	90.0	90.0	90.0	90.0	90.0	90.0
	10'-0"	3'-6"	90.0	90.0	90.0	90.0	90.0
4'-0"		90.0	90.0	90.0	90.0	90.0	90.0
4'-6"		90.0	90.0	90.0	90.0	90.0	90.0
5'-0"		90.0	90.0	90.0	90.0	90.0	90.0
5'-6"		90.0	90.0	90.0	90.0	90.0	90.0
6'-0"		90.0	90.0	90.0	90.0	90.0	90.0
6'-6"		90.0	90.0	90.0	90.0	90.0	90.0
7'-0"		90.0	90.0	90.0	90.0	90.0	90.0
7'-6"		90.0	90.0	90.0	90.0	90.0	90.0
8'-0"		90.0	90.0	90.0	90.0	90.0	90.0
8'-6"		90.0	90.0	90.0	90.0	90.0	90.0



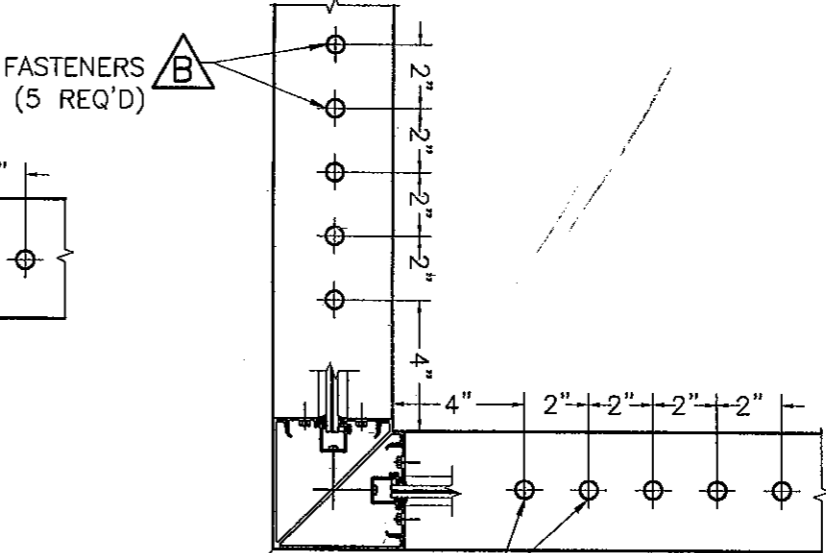
**SCHEMATIC CONCRETE & STEEL CONNECTION DETAIL \***  
(AT STANDARD MULLION)



**SCHEMATIC CONCRETE & STEEL CONNECTION DETAIL \***  
(AT OUTSIDE/INSIDE CORNER MULLION)



**SCHEMATIC WOOD CONNECTION DETAIL \***  
(AT STANDARD MULLION)



**SCHEMATIC WOOD CONNECTION DETAIL \***  
(AT OUTSIDE/INSIDE CORNER MULLION)

**B FASTENERS TYPES AND SUBSTRATES REQUIREMENTS W/ 4" MIN. E.D., BEYOND ANY FINISH MATERIAL (except as noted)**

- A - 3/8"Ø HILTI KWIK BOLT TZ ANCHOR W/ 2" Min. EMBEDMENT INTO 6" Min. THICK POURED CONCRETE (Min. f<sub>c</sub> = 3 ksi).
- B - 3/8"Ø POWER FASTENERS TAPPER ANCHOR W/ 1 3/4" Min. EMBEDMENT INTO POURED CONCRETE (Min. f<sub>c</sub> = 3 ksi) & 4 1/2" MIN. EDGE DISTANCE, BEYOND ANY FINISH MATERIAL.
- C - 3/8"Ø HILTI HUS-H SCREW ANCHOR W/ 2" Min. EMBEDMENT INTO POURED CONCRETE (Min. f<sub>c</sub> = 3 ksi) & 5" MIN. EDGE DISTANCE, BEYOND ANY FINISH MATERIAL.
- D - 3/8"Ø TYPE "F" BOLT OR 3/8"Ø -13 SAE GRADE 5 GALVANIZED STEEL HHB THRU BOLT W/ NUT & LOCK WASHER & 2" MIN. EDGE DISTANCE TO 1/4" Min. THK. ASTM A-36 STEEL.
- E - 3/8"Ø LAG SCREWS TO DOUBLE 2 x WOOD BUCK (G=0.55) W/ 3" Min. PENETRATION INTO WOOD & 1 1/2" MIN. EDGE DISTANCE, BEYOND ANY FINISH MATERIAL.
- E' - 1/2"Ø LAG SCREWS TO DOUBLE 2 x WOOD BUCK (G=0.55) W/ 3" Min. PENETRATION INTO WOOD & 2" MIN. EDGE DISTANCE, BEYOND ANY FINISH MATERIAL.

**\* SEE CONNECTION DETAILS ON SHEETS 9,10 & 22.**

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

DRAWN BY: L.G./M.C.V. DATE: 08/18/10

10-076 DRAWING NO

10/18/10 SHEET 8 OF 22

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TILLIT TESTING & ENGINEERING COMPANY  
6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166  
Phone: (305) 971-1530 Fax: (305) 971-1531  
e-mail: tiltco@aol.com

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WALTER A. TILLIT JR.  
LICENSE  
No. 44167  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

P.E. SEAL/SIGNATURE/DATE

PRODUCT REVISED as complying with the Florida Building Code

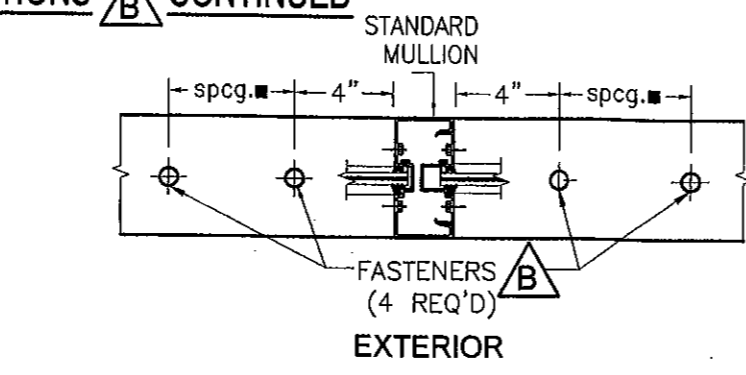
Acceptance No **10-1214-15**  
Expiration Date **NOV. 13, 2014**

By **Manuel Jera**  
Miami Dade Product Control

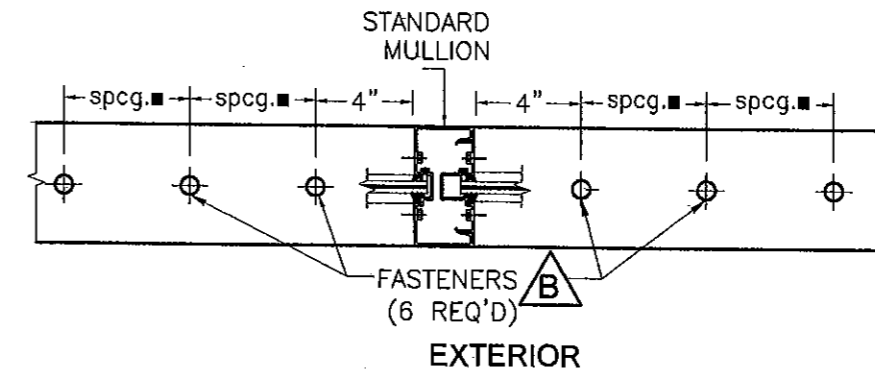
MIAMI-DADE COUNTY

MAXIMUM DESIGN PRESSURE RATING FOR MULLION CONNECTIONS  $\Delta$  CONTINUED

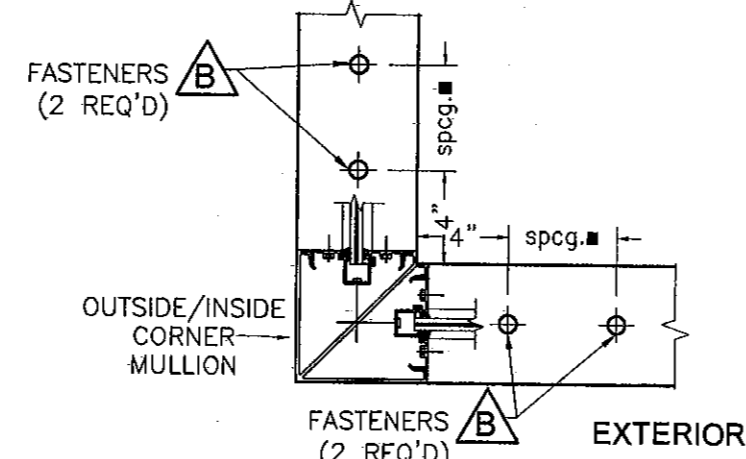
MAXIMUM MULLION SPAN "L" (Ft-in)	EFFECTIVE SPACING "b" (Ft-in)	MAXIMUM DESIGN PRESSURE RATING W (psf)						
		POURED CONCRETE (Min. f <sub>c</sub> = 3ksi) SUBSTRATE			GROUT FILLED CONCRETE BLOCK SUBSTRATE		12 GAGE (0.108" Min. THK.) Fy=33 ksi STEEL SUBSTRATE	
		F	G	H	G'	H'	I	
6'-2"	3'-6"	4 anchors	90.0	90.0	90.0	90.0	90.0	90.0
	4'-0"	4 anchors	90.0	90.0	90.0	90.0	90.0	90.0
	4'-6"	4 anchors	90.0	90.0	90.0	90.0	90.0	90.0
	5'-0"	4 anchors	90.0	90.0	90.0	87.6	90.0	90.0
	5'-6"	4 anchors	90.0	90.0	90.0	79.6	90.0	90.0
	6'-0"	4 anchors	90.0	90.0	90.0	73.0	90.0	90.0
	6'-6"	4 anchors	90.0	90.0	90.0	67.4	90.0	90.0
	7'-0"	4 anchors	90.0	83.8	90.0	62.5	90.0	90.0
6'-6"	3'-6"	6 anchors	90.0	90.0	90.0	90.0	90.0	90.0
	4'-0"	6 anchors	90.0	90.0	90.0	90.0	90.0	90.0
	4'-6"	6 anchors	90.0	90.0	90.0	90.0	90.0	90.0
	5'-0"	6 anchors	90.0	90.0	90.0	83.1	90.0	90.0
	5'-6"	6 anchors	90.0	90.0	90.0	75.5	90.0	90.0
	6'-0"	6 anchors	90.0	90.0	90.0	69.2	90.0	90.0
	6'-6"	6 anchors	90.0	85.7	90.0	63.9	90.0	90.0
	7'-0"	6 anchors	90.0	79.5	90.0	59.3	90.0	90.0
7'-0"	3'-6"	4 Bolts	90.0	90.0	90.0	90.0	90.0	90.0
	4'-0"	4 Bolts	90.0	90.0	90.0	90.0	90.0	90.0
	4'-6"	4 Bolts	90.0	90.0	90.0	90.0	90.0	90.0
	5'-0"	4 Bolts	90.0	90.0	90.0	85.7	90.0	90.0
	5'-6"	4 Bolts	90.0	90.0	90.0	77.1	90.0	90.0
	6'-0"	4 Bolts	90.0	90.0	90.0	70.1	90.0	90.0
	6'-6"	4 Bolts	90.0	88.2	90.0	64.3	90.0	90.0
	7'-0"	4 Bolts	90.0	79.5	90.0	59.3	90.0	90.0
7'-6"	3'-6"	4 Bolts	90.0	90.0	90.0	90.0	90.0	90.0
	4'-0"	4 Bolts	90.0	90.0	90.0	90.0	90.0	90.0
	4'-6"	4 Bolts	90.0	90.0	90.0	90.0	90.0	90.0
	5'-0"	4 Bolts	90.0	90.0	90.0	90.0	90.0	90.0
	5'-6"	4 Bolts	90.0	90.0	90.0	87.5	90.0	90.0
	6'-0"	4 Bolts	90.0	87.9	90.0	81.6	90.0	90.0
	6'-6"	4 Bolts	90.0	81.6	90.0	76.5	90.0	90.0
	7'-0"	4 Bolts	90.0	76.5	90.0	71.4	90.0	90.0
8'-0"	3'-6"	4 Bolts	90.0	90.0	90.0	90.0	90.0	90.0
	4'-0"	4 Bolts	90.0	90.0	90.0	90.0	90.0	90.0
	4'-6"	4 Bolts	90.0	90.0	90.0	90.0	90.0	90.0
	5'-0"	4 Bolts	90.0	90.0	90.0	90.0	90.0	90.0
	5'-6"	4 Bolts	90.0	90.0	90.0	89.3	90.0	90.0
	6'-0"	4 Bolts	90.0	82.3	90.0	82.4	90.0	90.0
	6'-6"	4 Bolts	90.0	76.5	90.0	76.5	90.0	90.0
	7'-0"	4 Bolts	90.0	71.4	90.0	67.0	90.0	90.0
8'-6"	3'-6"	4 Bolts	90.0	90.0	90.0	90.0	90.0	90.0
	4'-0"	4 Bolts	90.0	90.0	90.0	90.0	90.0	90.0
	4'-6"	4 Bolts	90.0	90.0	90.0	90.0	90.0	90.0
	5'-0"	4 Bolts	90.0	90.0	90.0	90.0	90.0	90.0
	5'-6"	4 Bolts	90.0	85.2	90.0	82.3	90.0	90.0
	6'-0"	4 Bolts	90.0	77.4	90.0	75.4	90.0	90.0
	6'-6"	4 Bolts	90.0	71.0	90.0	69.6	90.0	90.0
	7'-0"	4 Bolts	90.0	64.6	90.0	64.6	90.0	90.0
9'-0"	3'-6"	4 Bolts	90.0	90.0	90.0	90.0	90.0	90.0
	4'-0"	4 Bolts	90.0	90.0	90.0	90.0	90.0	90.0
	4'-6"	4 Bolts	90.0	90.0	90.0	90.0	90.0	90.0
	5'-0"	4 Bolts	90.0	90.0	90.0	90.0	90.0	90.0
	5'-6"	4 Bolts	90.0	86.6	90.0	82.4	90.0	90.0
	6'-0"	4 Bolts	90.0	79.4	90.0	75.4	90.0	90.0
	6'-6"	4 Bolts	90.0	73.3	90.0	69.6	90.0	90.0
	7'-0"	4 Bolts	90.0	68.0	90.0	64.6	90.0	90.0
9'-6"	3'-6"	6 anchors	90.0	90.0	90.0	90.0	90.0	90.0
	4'-0"	6 anchors	90.0	90.0	90.0	90.0	90.0	90.0
	4'-6"	6 anchors	90.0	90.0	90.0	90.0	90.0	90.0
	5'-0"	6 anchors	90.0	90.0	90.0	90.0	90.0	90.0
	5'-6"	6 anchors	90.0	90.0	90.0	89.4	90.0	90.0
	6'-0"	6 anchors	90.0	80.4	90.0	80.4	90.0	90.0
	6'-6"	6 anchors	90.0	74.2	90.0	74.2	90.0	90.0
	7'-0"	6 anchors	90.0	68.9	90.0	68.9	90.0	90.0
10'-0"	3'-6"	6 anchors	90.0	90.0	90.0	90.0	90.0	90.0
	4'-0"	6 anchors	90.0	90.0	90.0	90.0	90.0	90.0
	4'-6"	6 anchors	90.0	90.0	90.0	90.0	90.0	90.0
	5'-0"	6 anchors	90.0	90.0	90.0	90.0	90.0	90.0
	5'-6"	6 anchors	90.0	90.0	90.0	90.0	90.0	90.0
	6'-0"	6 anchors	90.0	90.0	90.0	90.0	90.0	90.0
	6'-6"	6 anchors	90.0	90.0	90.0	90.0	90.0	90.0
	7'-0"	6 anchors	90.0	90.0	90.0	90.0	90.0	90.0



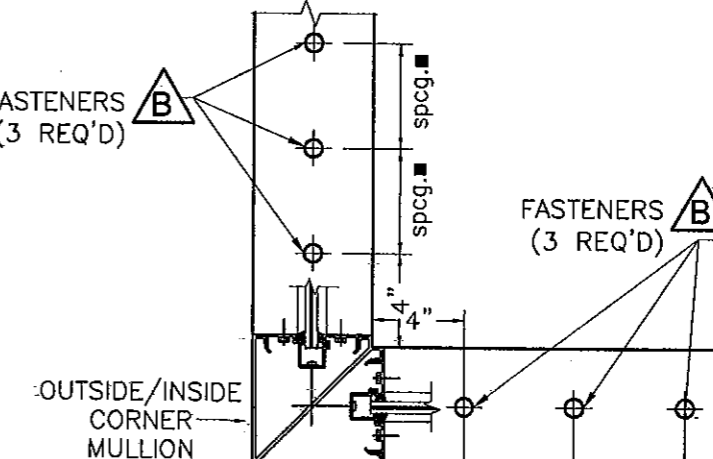
SCHEMATIC CONCRETE & 12 GAGE STEEL CONNECTION DETAIL \* (AT STANDARD MULLION)



SCHEMATIC GROUT-FILLED CONCRETE BLOCK CONNECTION DETAIL \* (AT STANDARD MULLION)



SCHEMATIC CONCRETE & 12 GAGE STEEL CONNECTION DETAIL \* (AT OUTSIDE/INSIDE CORNER MULLION)



SCHEMATIC GROUT-FILLED CONCRETE BLOCK CONNECTION DETAIL \* (AT OUTSIDE/INSIDE CORNER MULLION)

MIN. SPACING (spcg.) REQUIRED FOR DIFFERENT SUBSTRATES

- POURED CONCRETE: 4 1/2" MIN. O.C.
- GROUT FILLED C.B.: 8" MIN. O.C.
- STEEL: 4 1/2" MIN. O.C.

\* SEE CONNECTION DETAILS ON SHEETS 9, 10 & 22.

**B** FASTENERS TYPES AND SUBSTRATES REQUIREMENTS W/ 2 3/4" MIN. E.D., BEYOND ANY FINISH MATERIAL (except as noted)

- F - 3/8"Ø HILTI KWIK BOLT TZ ANCHOR W/ 2" Min. EMBEDMENT INTO 6" Min. THICK POURED CONCRETE (Min. f<sub>c</sub> = 3 ksi).
- G - 3/8"Ø POWER FASTENERS TAPPER ANCHOR W/ 1 3/4" Min. EMBEDMENT INTO POURED CONCRETE (Min. f<sub>c</sub> = 3 ksi).
- H - 3/8"Ø HILTI HUS-H SCREW ANCHOR W/ 2" Min. EMBEDMENT INTO POURED CONCRETE (Min. f<sub>c</sub> = 3 ksi).
- G' - 3/8"Ø POWER FASTENERS TAPPER ANCHOR W/ 1 3/4" Min. EMBEDMENT INTO GROUT FILLED CONCRETE BLOCK.
- H' - 3/8"Ø HILTI HUS-H SCREW ANCHOR W/ 2 3/4" Min. EMBEDMENT INTO GROUT FILLED CONCRETE BLOCK.
- I - 3/8"Ø TYPE "F" BOLT OR 3/8"Ø - 13 SAE GRADE 5 GALVANIZED STEEL HHB THRU-BOLT W/ NUT & LOCK WASHER & 2" MIN. EDGE DISTANCE TO 12 GAGE (0.108" MIN THK.) Fy=33-ksi STEEL.

DRAWN BY: L.G./M.C.V.  
DATE: 08/18/10  
DRAWING NO: 10-076  
SHEET 8A OF 22

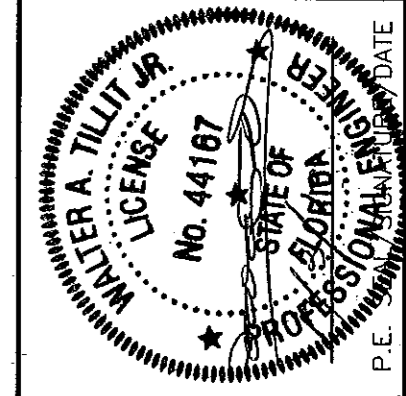
FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS

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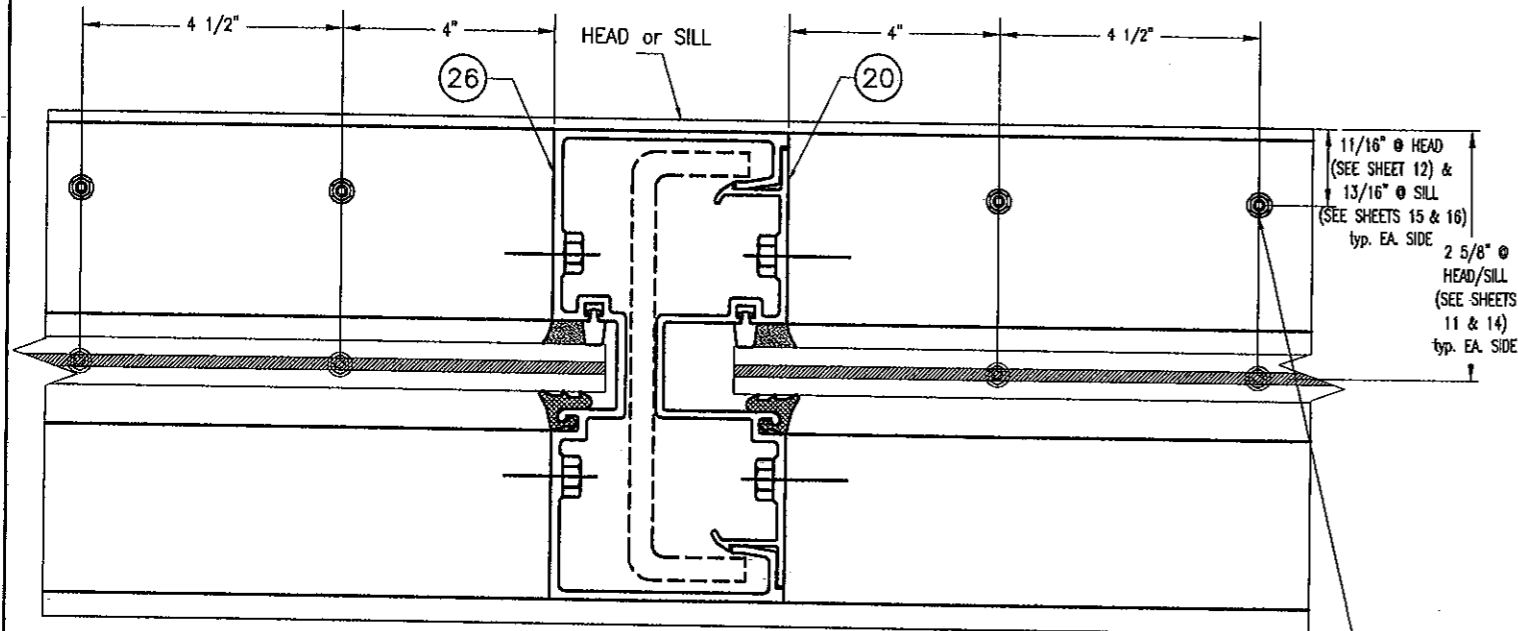
**TITTECO INC.**  
TILLIT TESTING & ENGINEERING COMPANY  
6355 N.W. 36th St., Suite 305, Virginia Gardens, FL 33166  
Phone: (305) 871-1530, Fax: (305) 871-1531  
e-mail: titteco@aol.com  
EB-0006719  
WALTER A. TILLIT JR., P.E.  
FLORIDA LIC. # 44167



PRODUCT REVISED as complying with the Florida Building Code  
Acceptance No 10-1214-15  
Expiration Date Nov. 12, 2014  
By *Maxwell Perez*  
Miami Made Product Control

MIAMI-DADE COUNTY

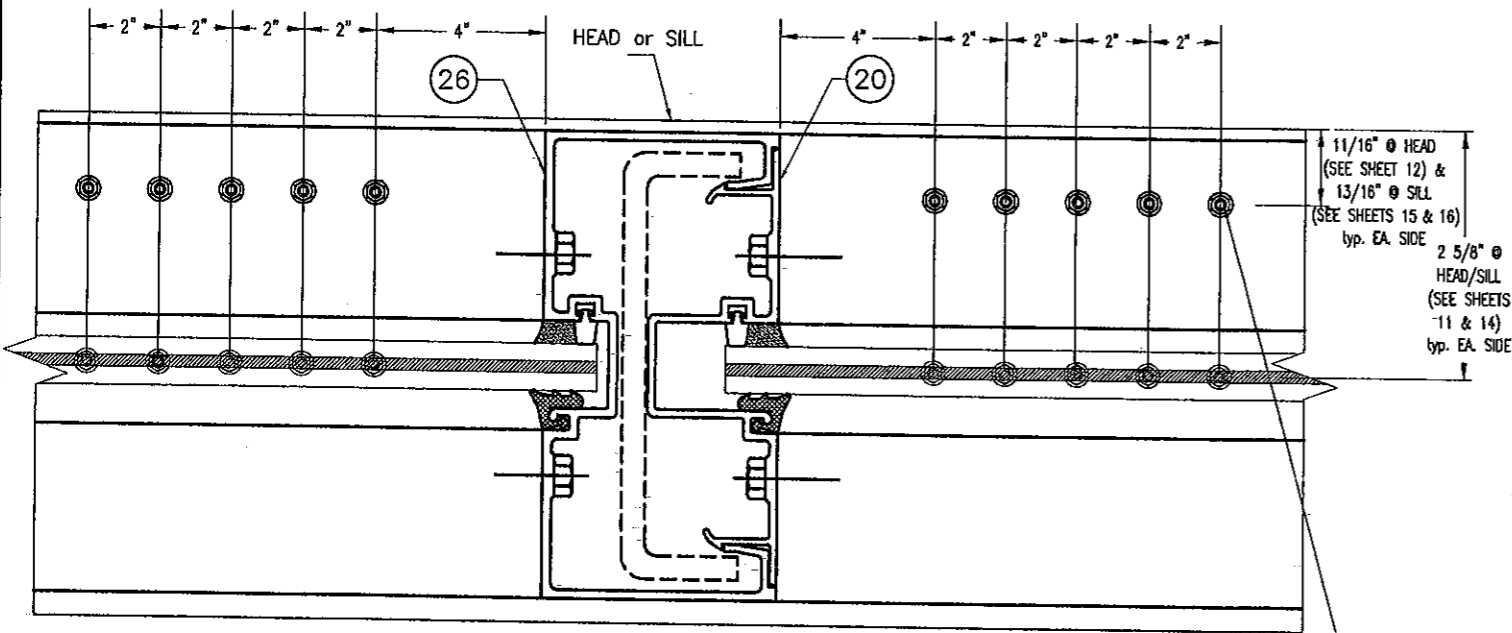
# SILL AND HEAD CONNECTION DETAILS FOR STANDARD MULLIONS AND JAMBS (PLAN VIEWS)



**7**  
CONNECTION AT STANDARD MULLION

(2) FASTENERS  
(SEE SCHEDULE ON SHEETS 8 & 8A) typ. EA. SIDE

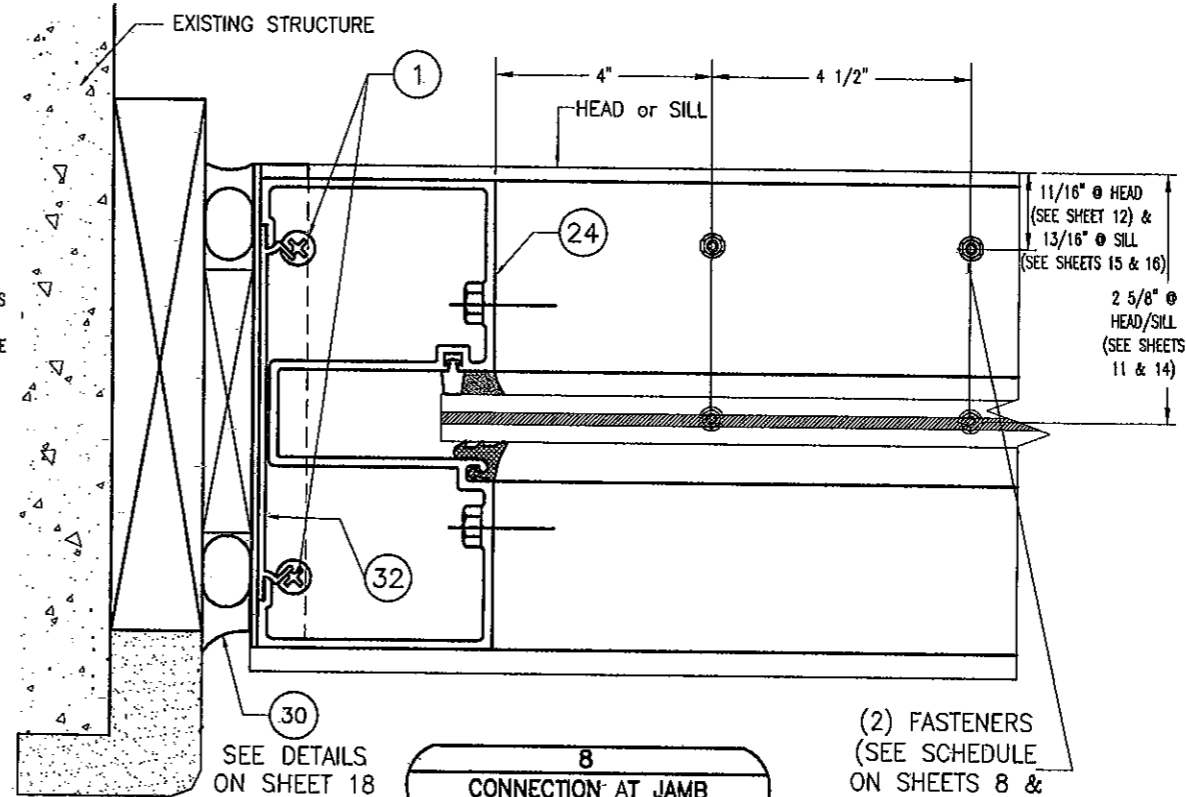
CONNECTION DETAIL APPLICABLE TO Poured CONCRETE OR STEEL



**7A**  
CONNECTION AT STANDARD MULLION

(2) FASTENERS  
(SEE SCHEDULE ON SHEETS 8 & 8A) typ. EA. SIDE

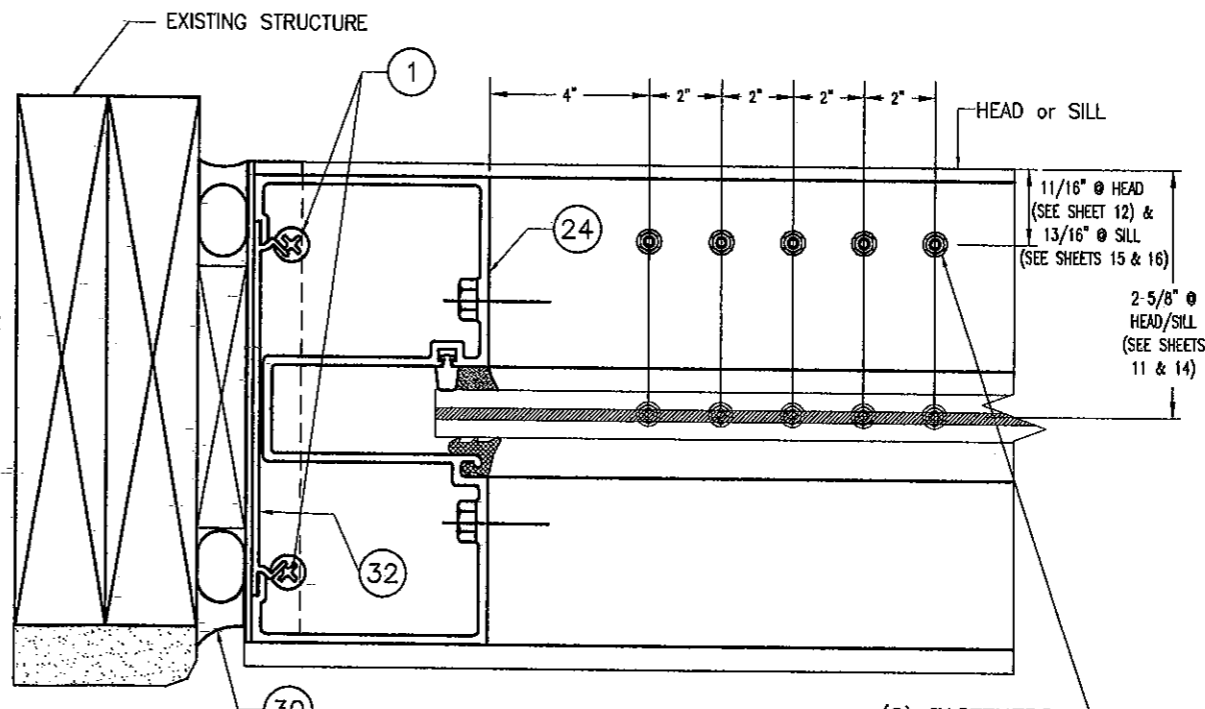
CONNECTION DETAIL APPLICABLE TO WOOD ONLY



**8**  
CONNECTION AT JAMB MULLION

(2) FASTENERS  
(SEE SCHEDULE ON SHEETS 8 & 8A) typ. EA. SIDE

CONNECTION DETAIL APPLICABLE TO Poured CONCRETE OR STEEL (SIMILAR)



**8A**  
CONNECTION AT JAMB MULLION

(2) FASTENERS  
(SEE SCHEDULE ON SHEET 8) typ. EA. SIDE

CONNECTION DETAIL APPLICABLE TO WOOD ONLY

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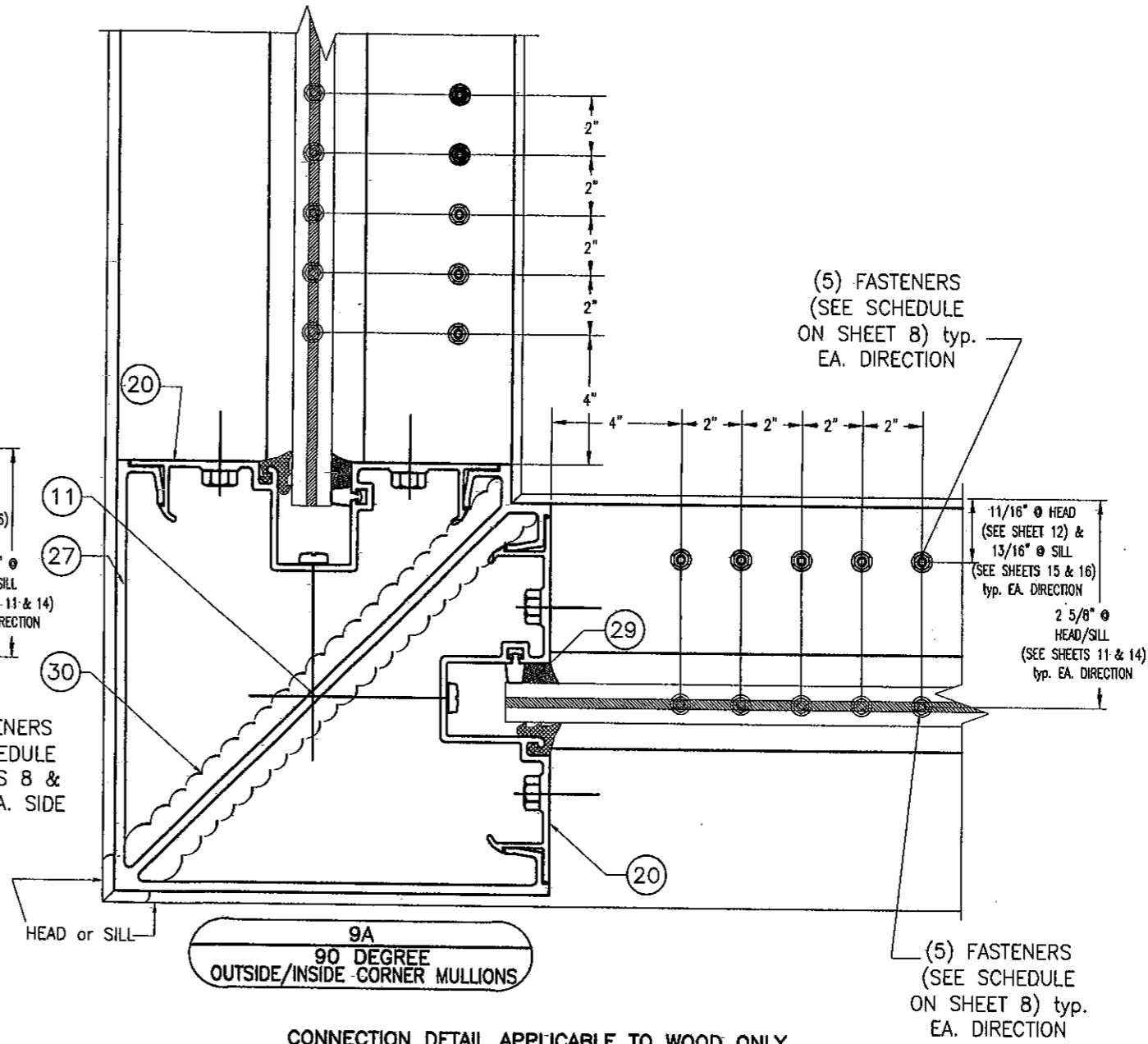
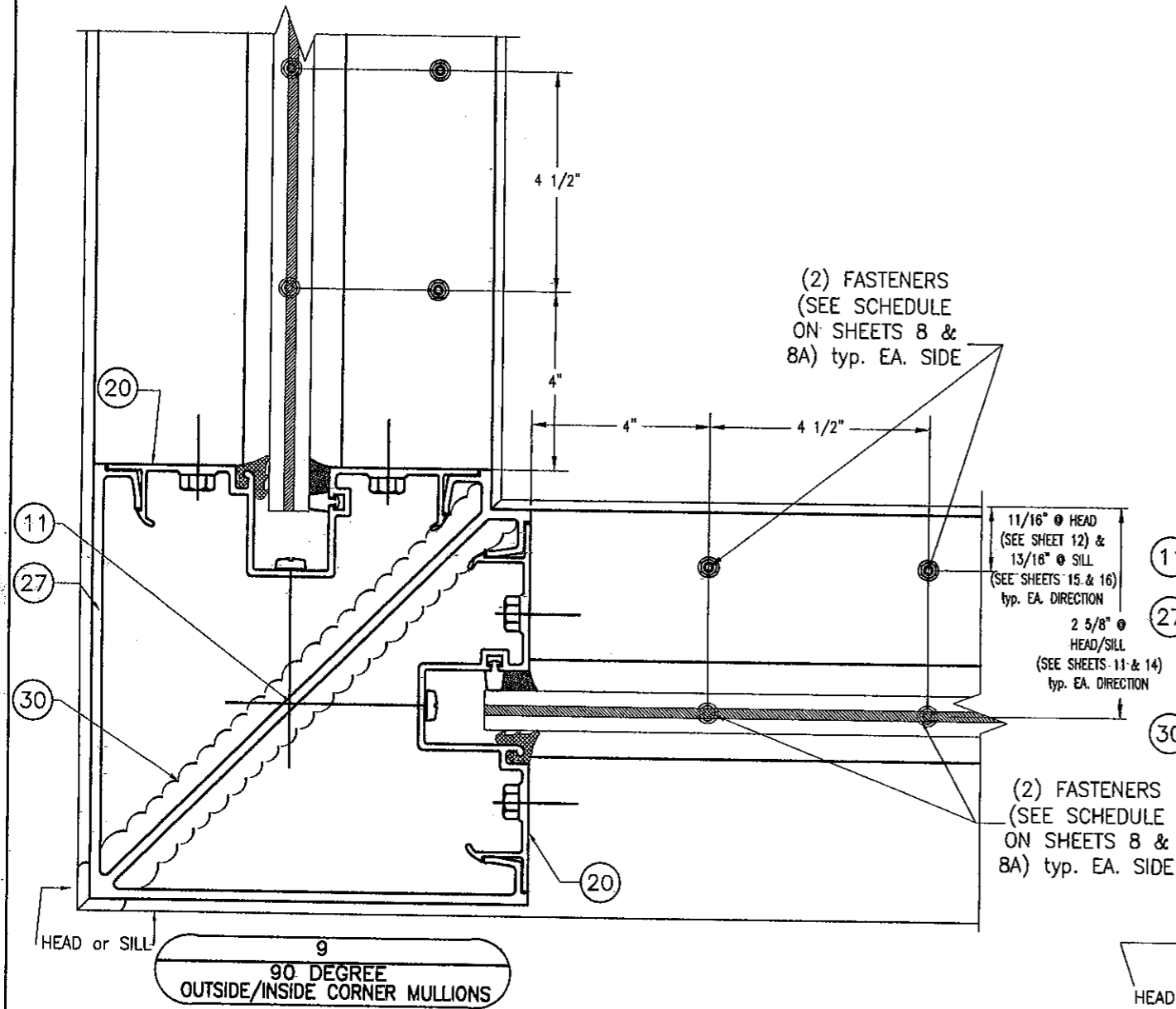
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DRAWING NO: 10-076 DRAWING NO: 10-076  
SHEET 9 OF 22

WALTER A. TILLIT JR. LICENSE NO. 44167 PROFESSIONAL ENGINEER STATE OF FLORIDA  
P.E. SIGNATURE/DATE

PRODUCT REVISED as complying with the Florida Building Code Acceptance No. 10-1214.15 Expiration Date 10/18/2014  
By: *Manuel Diaz* Miami Dade Product Control  
MIAMI-DADE COUNTY

# SILL AND HEAD CONNECTION DETAILS FOR CORNER MULLIONS (PLAN VIEWS)



CONNECTION DETAIL APPLICABLE TO POURED CONCRETE, GROUT FILLED CONCRETE BLOCK OR STEEL

CONNECTION DETAIL APPLICABLE TO WOOD ONLY

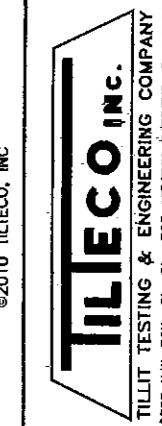
FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS

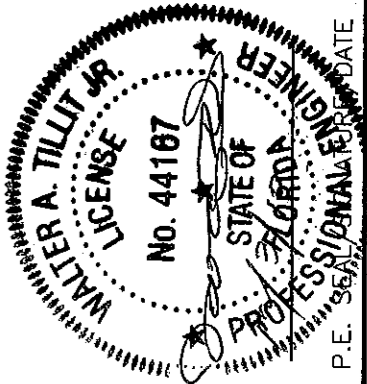


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www.OldcastleBE.com - Phone 800-869-4567

REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD DWG 09-074	08/18/10	3		
2			4		



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Phone: (305)871-1530 Fax: (305)871-1531  
e-mail: tileco@aol.com  
EB-0006719  
WALTER A. TILLIT JR. P.E.  
FLORIDA Lic. # 44167



PRODUCT REVISED as complying with the Florida Building Code  
Acceptance No 10-1214-15  
Expiration Date Nov. 13, 2014  
By *Warren Jones*  
Miami/Dade Product Control

MIAMI-DADE COUNTY

DRAWN BY: L.G./M.C.V.

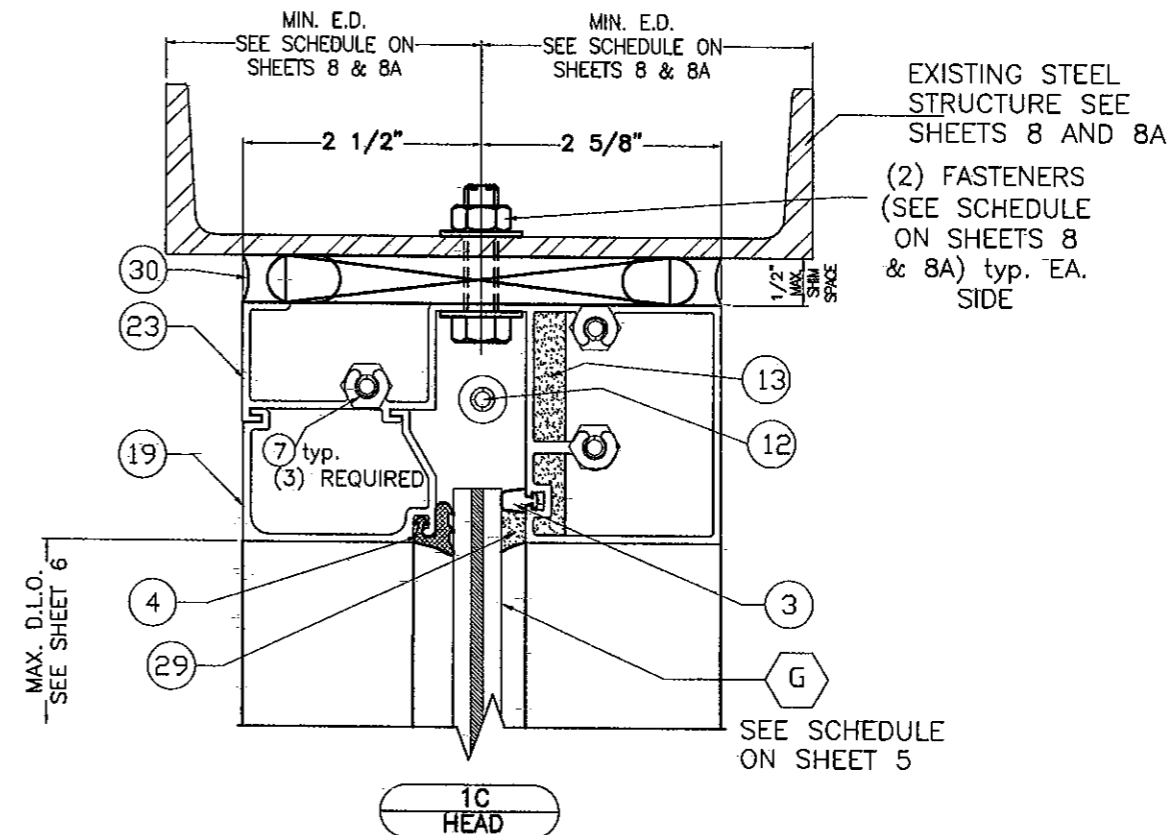
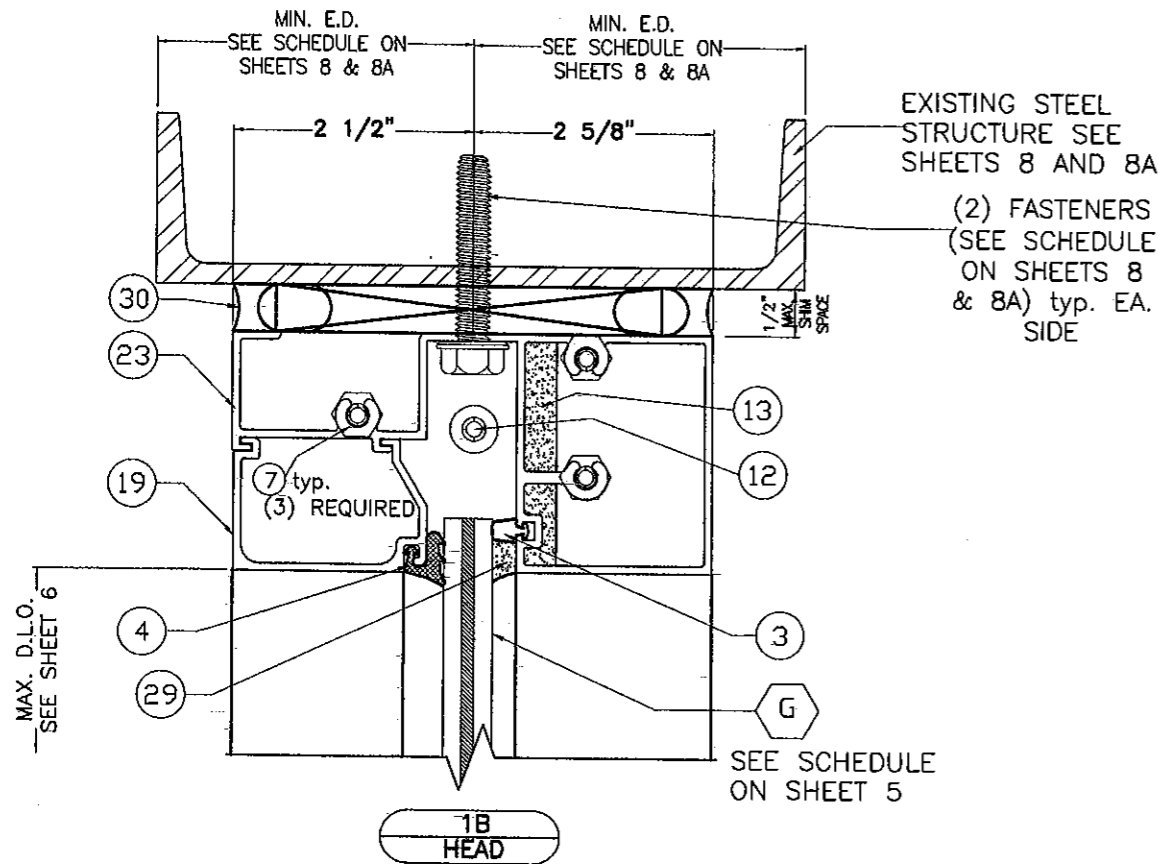
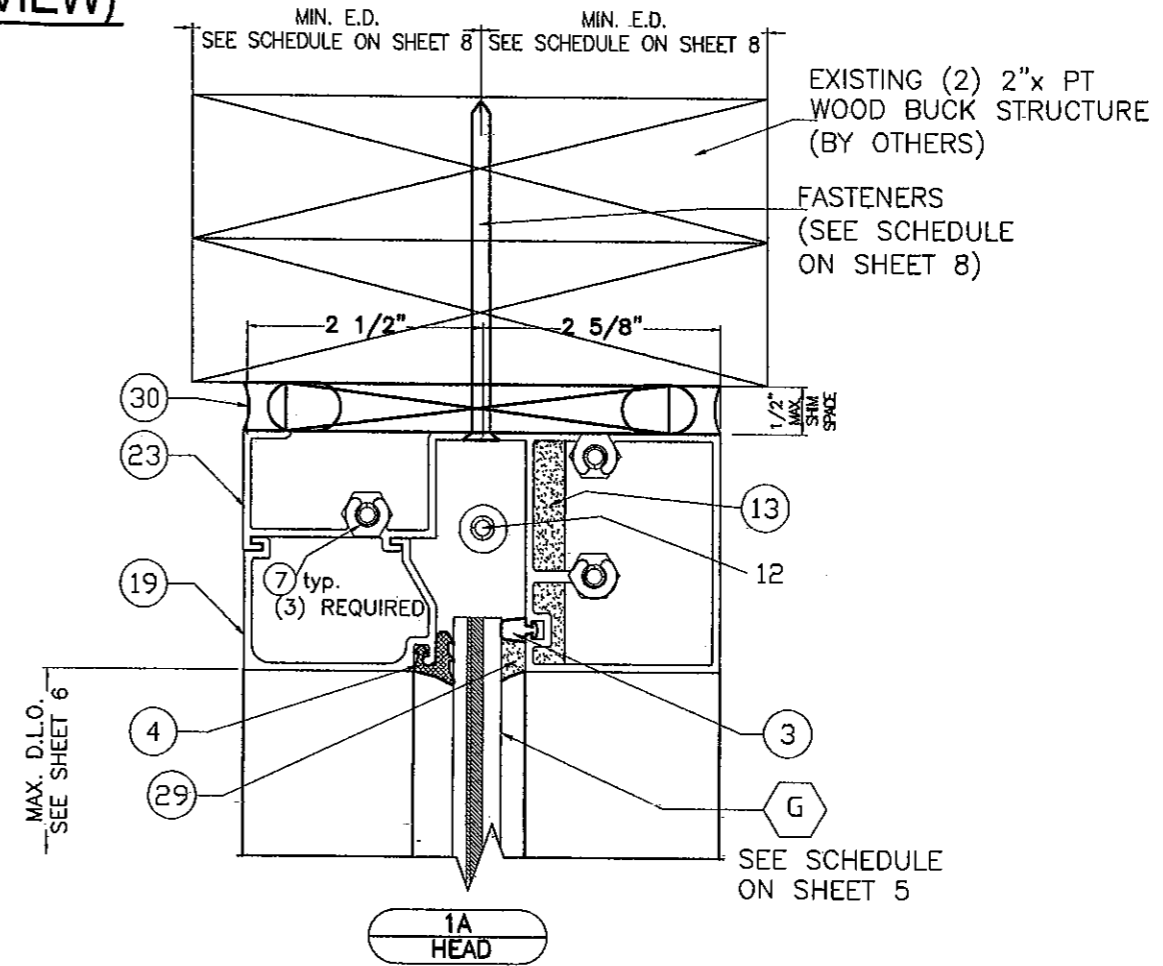
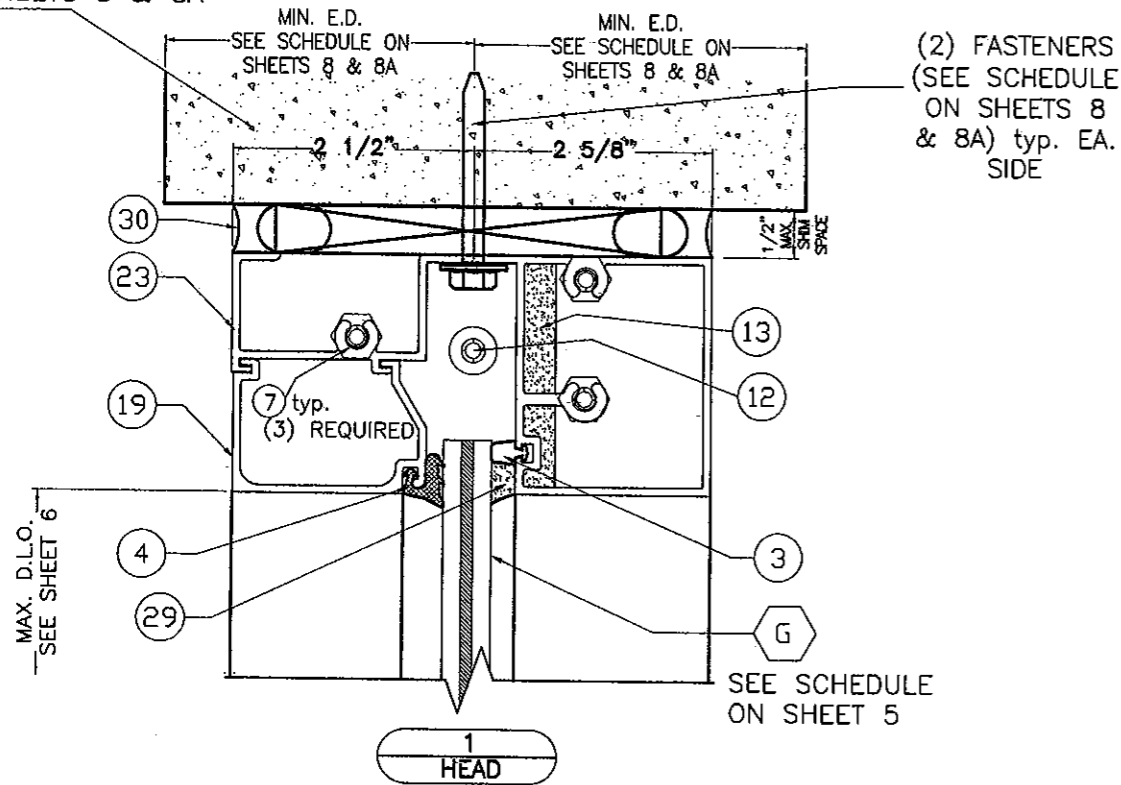
08/18/10 DATE

10-076 DRAWING No

SHEET 10 OF 22

# HEAD CONNECTION DETAILS (SIDE VIEW)

EXISTING POURED CONCRETE OR GROUT FILLED CONCRETE BLOCK STRUCTURE (BY OTHERS) SEE SHEETS 8 & 8A



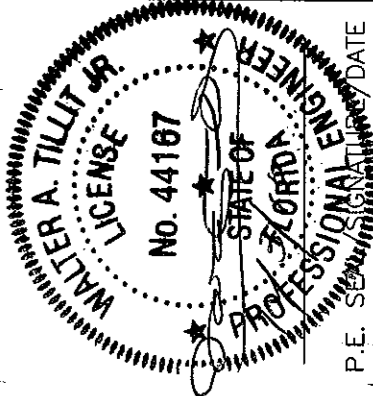
FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

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TILIT TESTING & ENGINEERING COMPANY  
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e-mail: tileco@aol.com

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Expiration Date Nov. 18, 2014  
By *Manuel Perez*  
Miami Dade Product Control

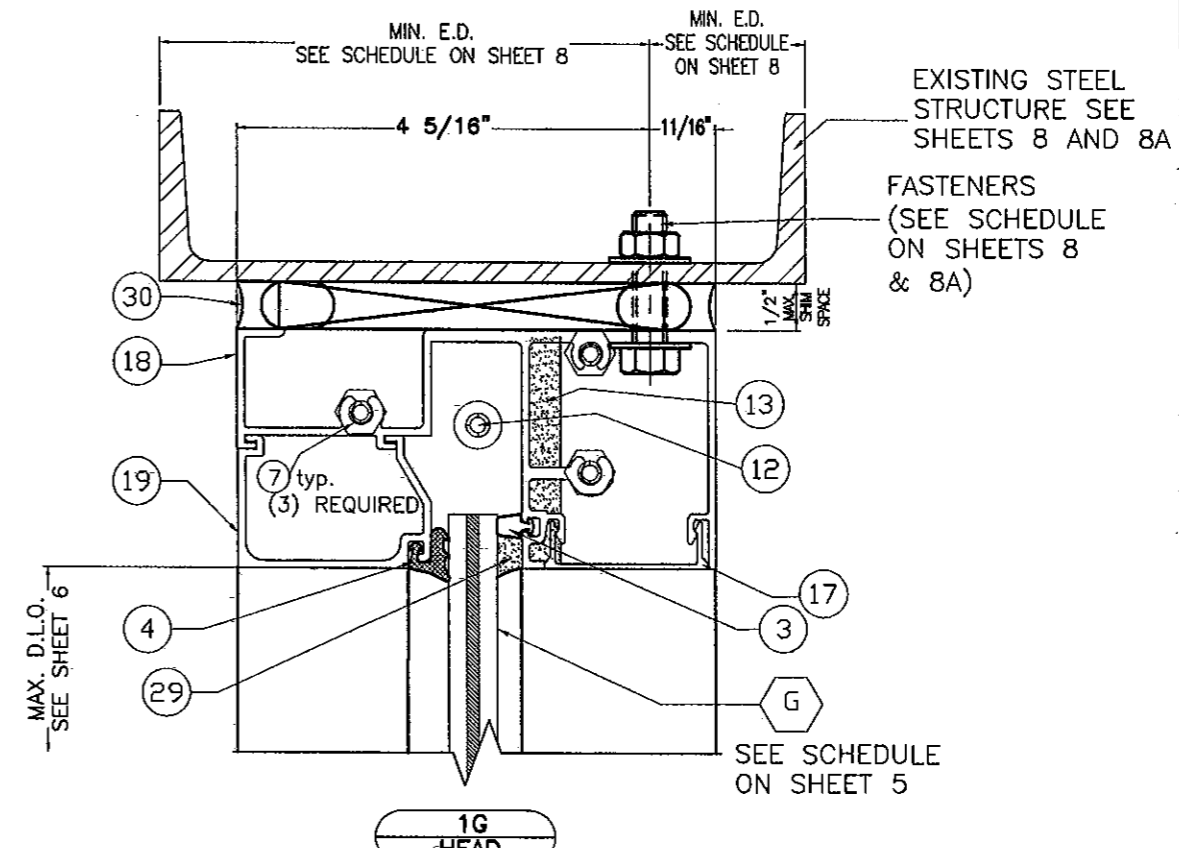
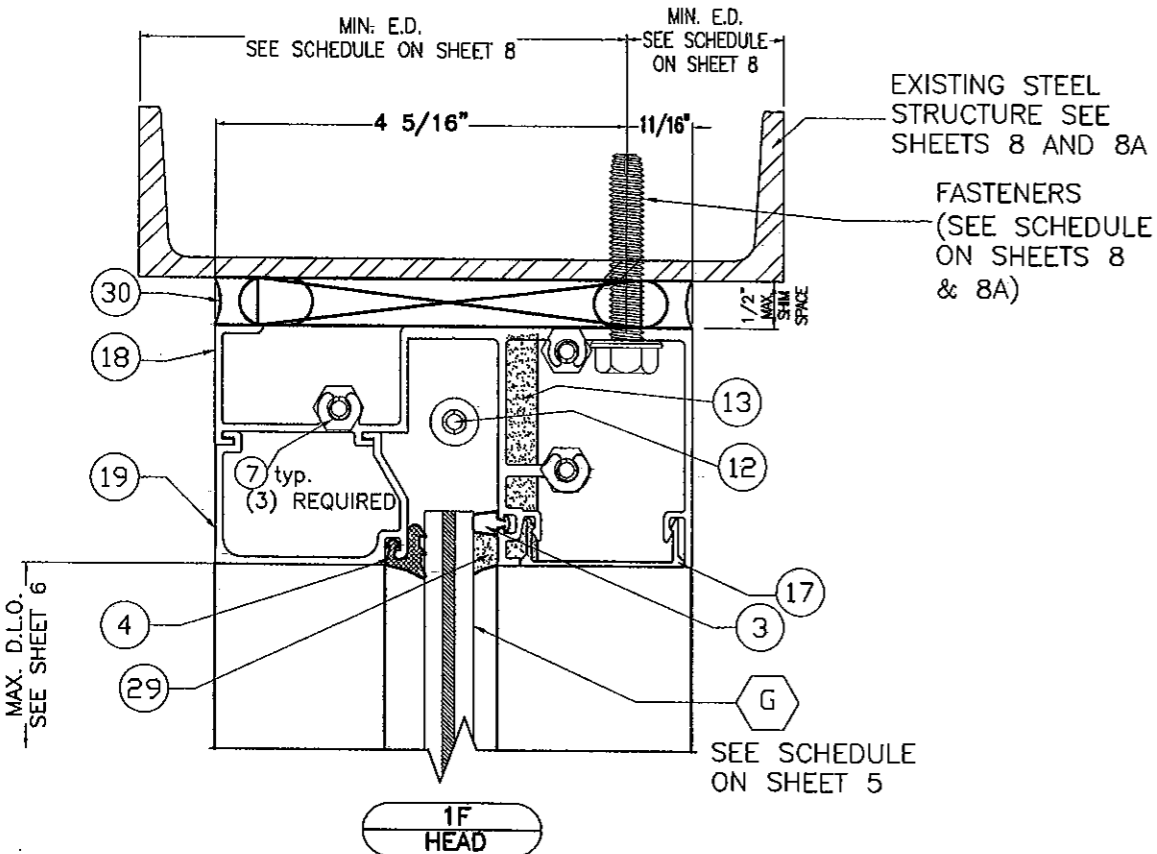
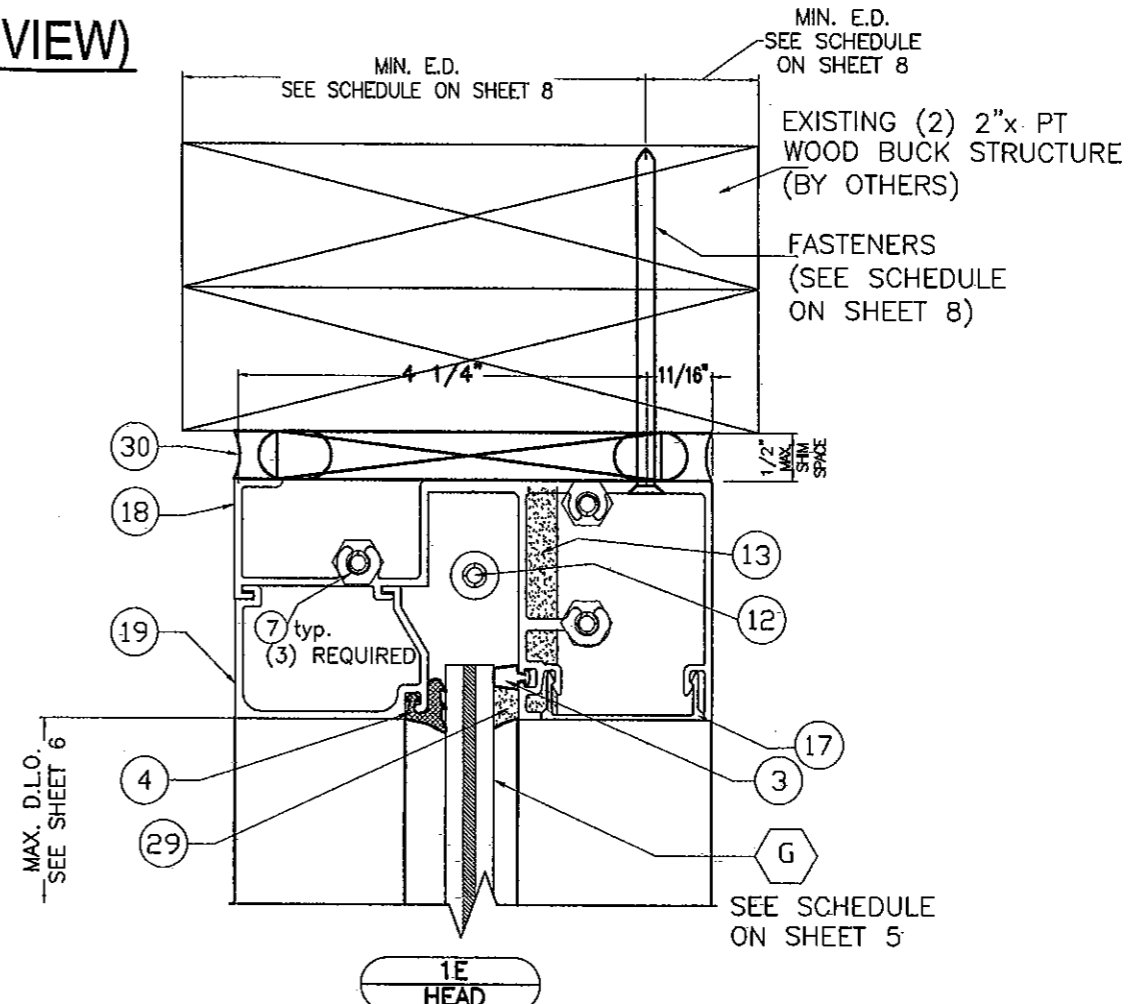
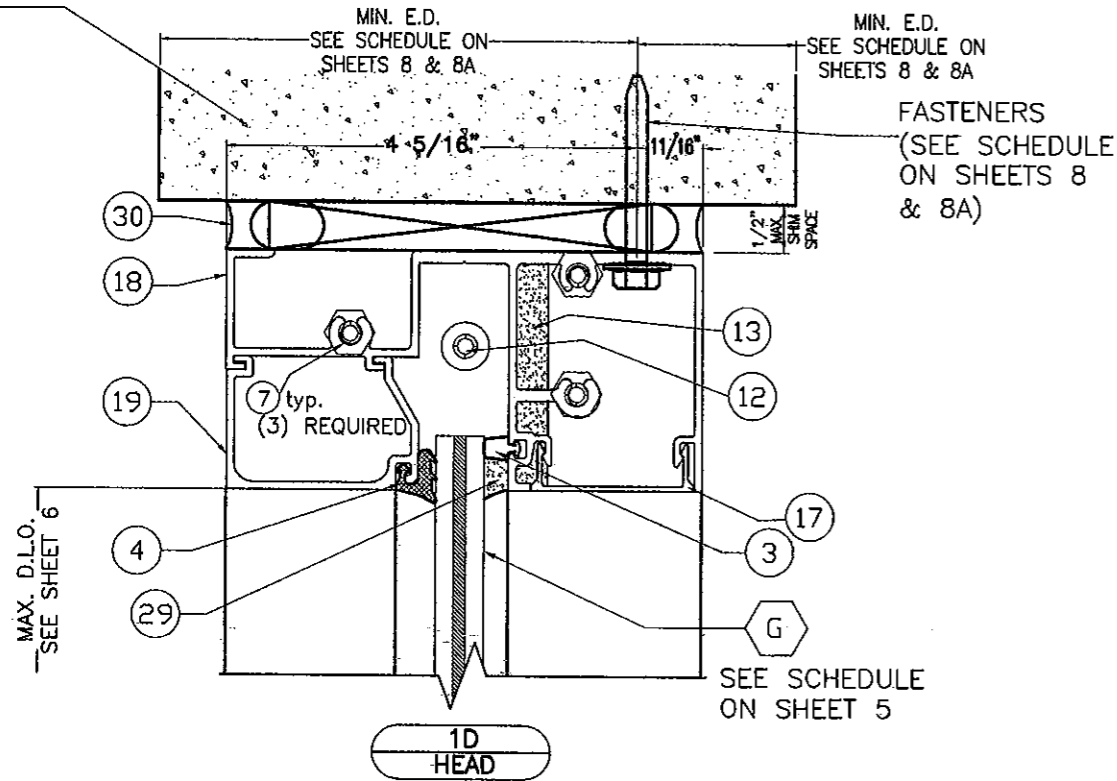
MIAMI-DADE COUNTY



# HEAD CONNECTION DETAILS (SIDE VIEW)

(Continued)

EXISTING POURED CONCRETE OR GROUT FILLED CONCRETE BLOCK STRUCTURE (BY OTHERS) SEE SHEETS 8 & 8A



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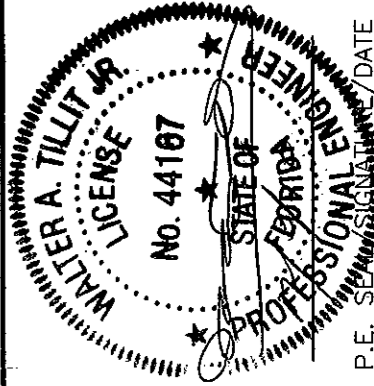
TILIT TESTING & ENGINEERING COMPANY  
 6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166  
 Phone : (305)871-1530 Fax : (305)871-1531  
 e-mail: tilteco@aol.com  
 EB-0006719  
 WALTER A. TILLIT, J.K. P.E.  
 FLORIDA Lic. # 44167

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1	OLD DWG. 09-074	08/18/10	3		
2			4		

DRAWN BY: L.G./M.C.V.  
 DATE: 08/18/10  
 10-076 DRAWING No  
 SHEET 12 OF 22



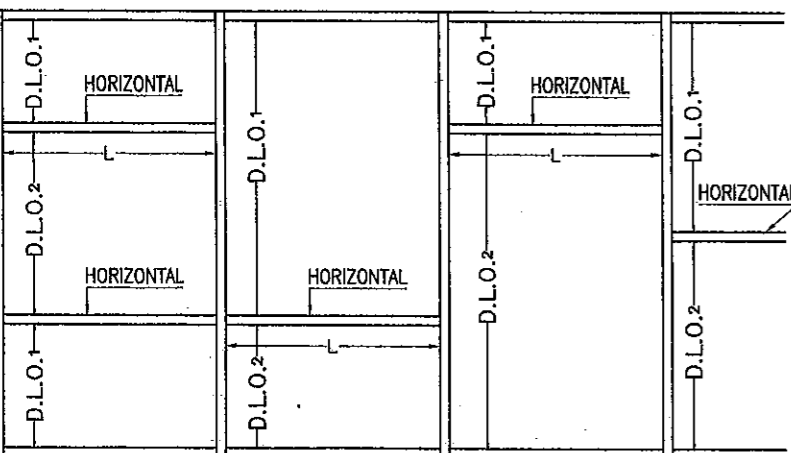
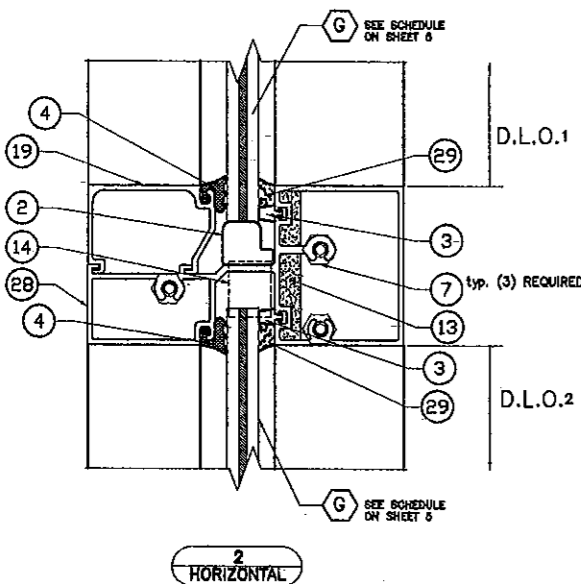
PRODUCT REVISED as complying with the Florida Building Code Acceptance No 10-1214-15 Expiration Date Nov 10, 2014

By *Manuel Jara*  
 Miami Dade Product Control

MIAMI-DADE COUNTY

**MAXIMUM DESIGN PRESSURE RATING FOR HORIZONTAL**  
**MAXIMUM HORIZONTAL SPAN "L" (ft) SCHEDULE**  
**FOR A GIVEN DESIGN PRESSURE RATING "W" (psf) AND**  
**A GIVEN HORIZONTAL EFFECTIVE DAY LIGHT OPENING "D.L.O." (ft-in)**

**HORIZONTAL CONNECTION DETAIL**  
**(SIDE VIEW)**



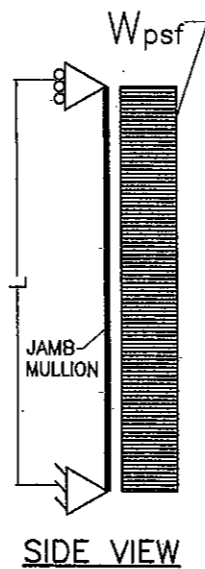
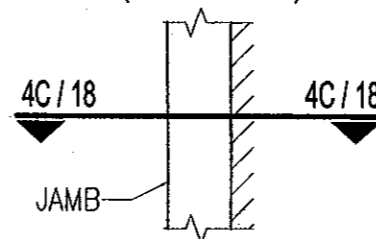
**WINDOW WALL ELEVATION W/ HORIZONTAL**

"L" = MAXIMUM HORIZONTAL SPAN

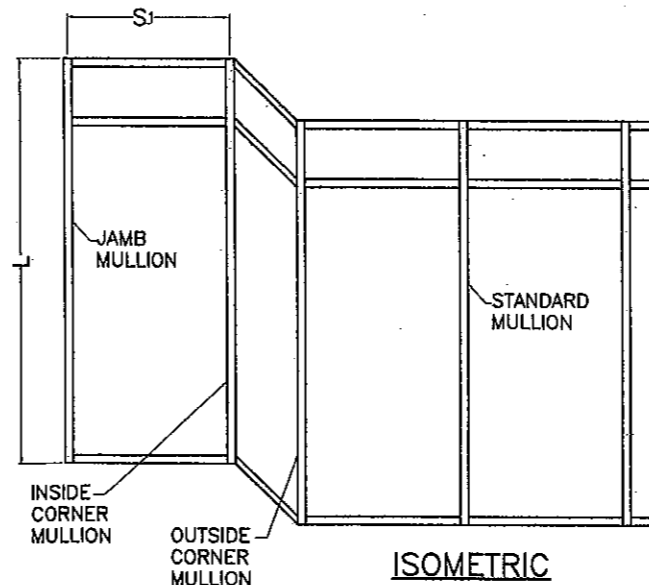
"D.L.O." = EFFECTIVE DAY LIGHT OPENING =  $\frac{D.L.O.1 + D.L.O.2}{2}$   
 FOR HORIZONTAL

MAXIMUM DESIGN PRESSURE RATING "W" (psf)	EFFECTIVE DAY LIGHT OPENING "DLO" (ft-in)	MAXIMUM HORIZONTAL SPAN "L" (ft)
± 60.0 OR LESS	2'-0"	8'-0"
	2'-6"	8'-0"
	3'-0"	8'-0"
	3'-6"	8'-0"
	4'-0"	7'-5"
± 65.0	2'-0"	8'-0"
	2'-6"	8'-0"
	3'-0"	8'-0"
	3'-6"	7'-10"
	4'-0"	6'-10"
± 70.0	2'-0"	8'-0"
	2'-6"	8'-0"
	3'-0"	8'-0"
	3'-6"	7'-3"
	4'-0"	6'-4"
± 75.0	2'-0"	8'-0"
	2'-6"	8'-0"
	3'-0"	7'-11"
	3'-6"	6'-9"
	4'-0"	5'-11"
± 80.0	2'-0"	8'-0"
	2'-6"	8'-0"
	3'-0"	7'-5"
	3'-6"	6'-4"
	4'-0"	5'-7"

**JAMB W/O ANCHORAGE**  
**(ELEVATION)**



**SIDE VIEW**



**ISOMETRIC**

L = JAMB SPAN

EFFECTIVE SPACING  
 (FOR FREESTANDING JAMB MULLION)

$b = \frac{S_1}{2}$  (SEE SCHEDULE)

AT JAMB MULLION GLASS PANEL

**MAXIMUM DESIGN PRESSURE RATING FOR JAMBS W/O ANCHORAGE**  
**MAXIMUM JAMB SPAN "L"(ft) SCHEDULE**  
**FOR A GIVEN DESIGN PRESSURE RATING "W" (psf)**  
**AND A GIVEN JAMB EFFECTIVE SPACING "b" (ft-in)**

MAXIMUM DESIGN PRESSURE RATING "W" (psf)	EFFECTIVE SPACING "b" (ft-in)	JAMB W/O CONNECTION SPAN LF (ft-in)
60.0	1'-0"	9'-0"
	1'-3"	9'-0"
	1'-6"	9'-0"
	1'-9"	9'-0"
	2'-0"	8'-0"
	2'-3"	8'-0"
	2'-6"	8'-0"
	2'-9"	8'-0"
	3'-0"	7'-4"
	3'-3"	7'-0"
65.0	1'-0"	9'-0"
	1'-3"	9'-0"
	1'-6"	9'-0"
	1'-9"	9'-0"
	2'-0"	8'-0"
	2'-3"	8'-0"
	2'-6"	8'-0"
	2'-9"	8'-0"
	3'-0"	7'-8"
	3'-3"	7'-4"
70.0	1'-0"	9'-0"
	1'-3"	9'-0"
	1'-6"	9'-0"
	1'-9"	9'-0"
	2'-0"	8'-0"
	2'-3"	8'-0"
	2'-6"	8'-0"
	2'-9"	8'-0"
	3'-0"	7'-11"
	3'-3"	7'-7"
75.0	1'-0"	9'-0"
	1'-3"	9'-0"
	1'-6"	9'-0"
	1'-9"	9'-0"
	2'-0"	8'-0"
	2'-3"	8'-0"
	2'-6"	8'-0"
	2'-9"	8'-0"
	3'-0"	7'-5"
	3'-3"	7'-1"
76.0	1'-0"	9'-0"
	1'-3"	9'-0"
	1'-6"	9'-0"
	1'-9"	9'-0"
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	2'-6"	8'-0"
	2'-9"	8'-0"
	3'-0"	7'-9"
	3'-3"	7'-5"
80.0	1'-0"	9'-0"
	1'-3"	8'-10"
	1'-6"	8'-4"
	1'-9"	7'-11"
	2'-0"	7'-6"
	2'-3"	7'-3"
	2'-6"	6'-11"
	2'-9"	6'-8"
	3'-0"	6'-5"
	3'-3"	6'-2"

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

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 TILLIT TESTING & ENGINEERING COMPANY  
 6355 N.W. 36th St., Ste. 305, VICTORIA GARDENS, FL 33166  
 Phone: (305)871-1530 Fax: (305)871-1531  
 e-mail: tileco@tillit.com  
 WALTER A. TILLIT JR., P.E.  
 FLORIDA Lic. # 44167

**WALTER A. TILLIT JR.**  
 LICENSE No. 44167  
 STATE OF FLORIDA  
 PROFESSIONAL ENGINEER  
 P.E. SEAN [Signature] / DATE

PRODUCT REVISED  
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 Building Code  
 Acceptance No 10-1214.15  
 Expiration Date Nov. 18, 2014  
 By *Manuel Perez*  
 Miami Dade Product Control

MIAMI-DADE COUNTY

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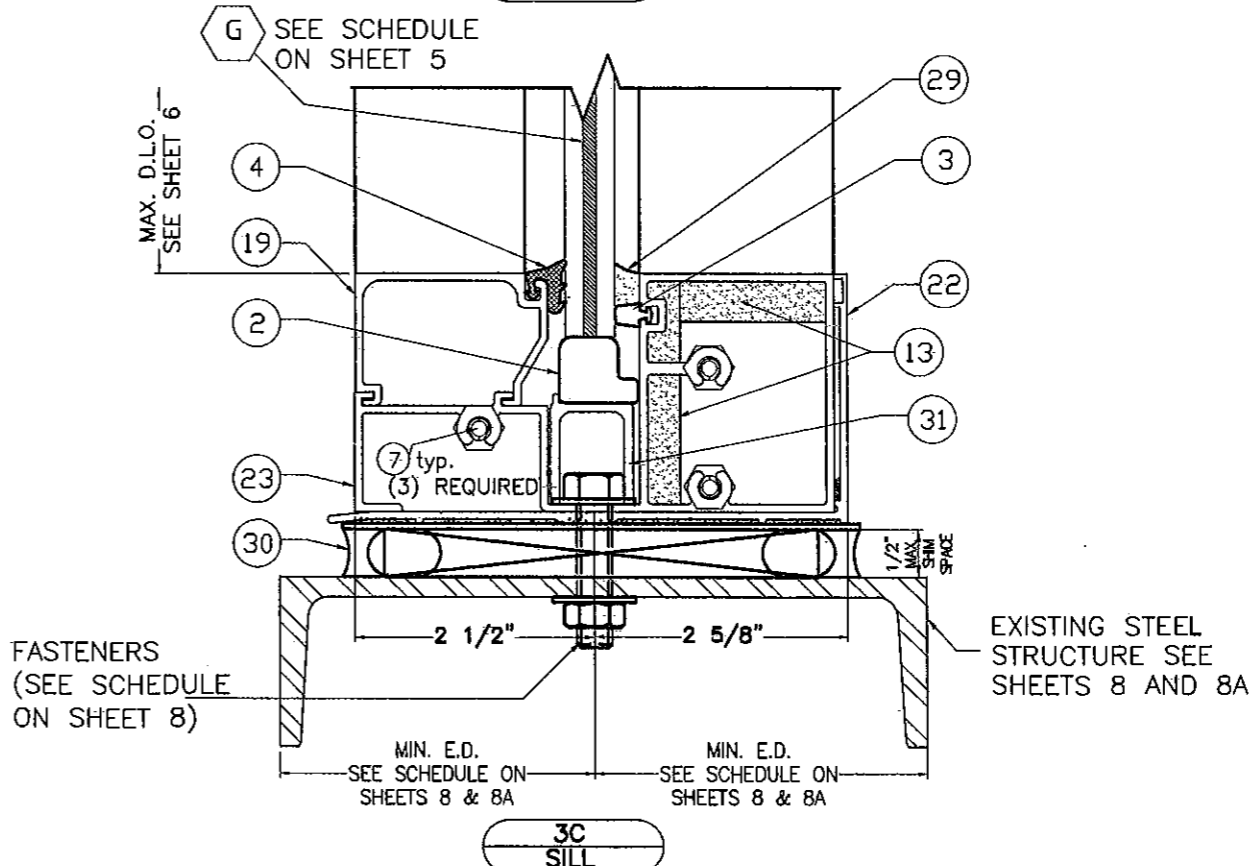
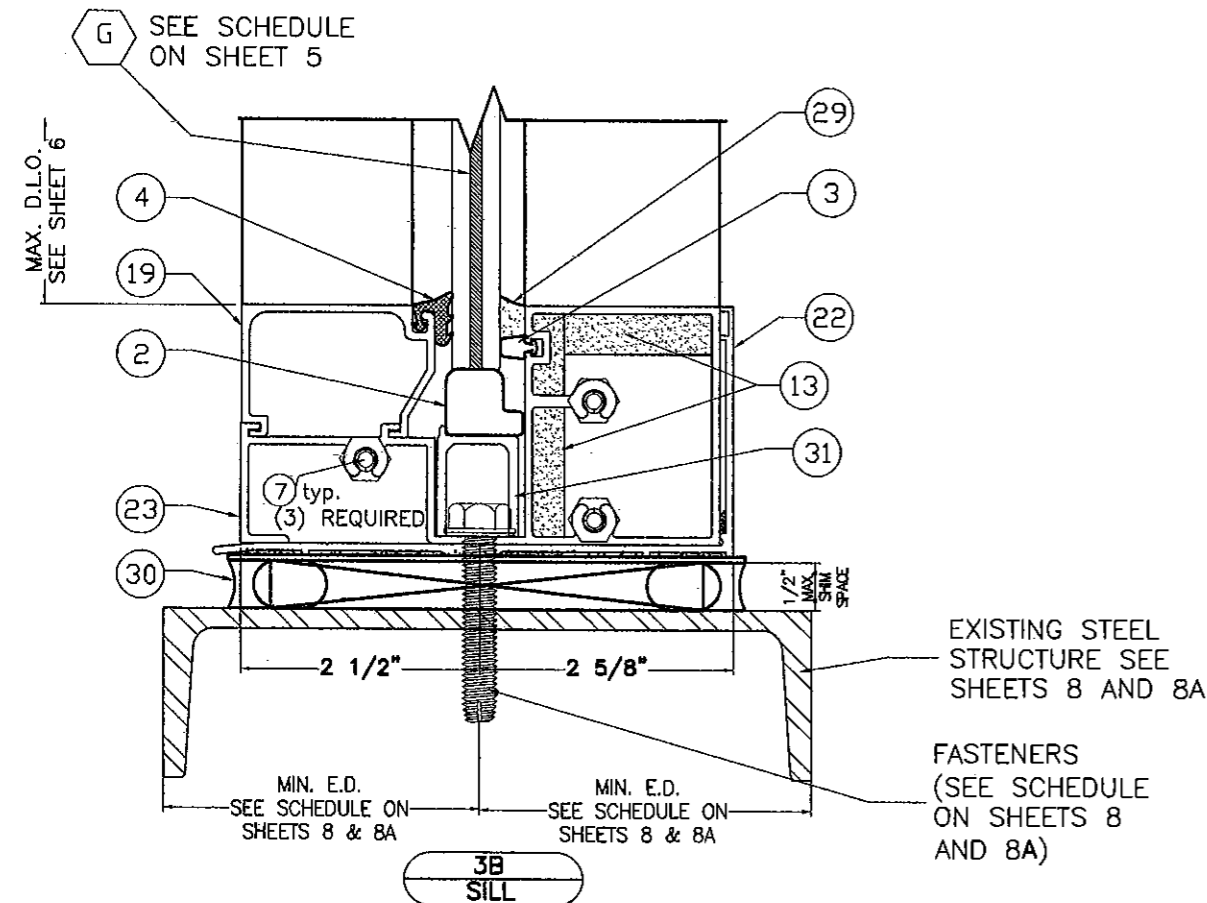
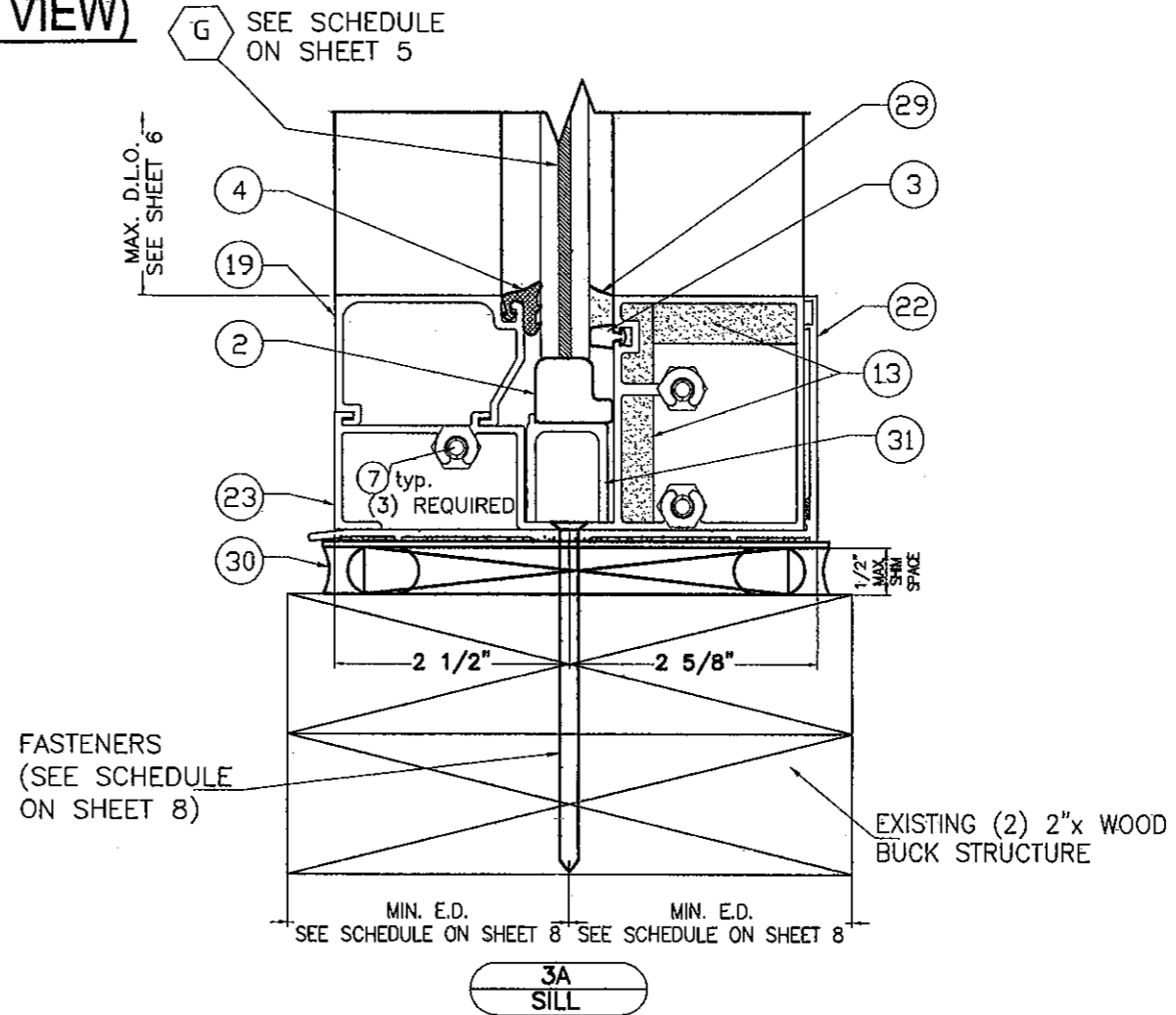
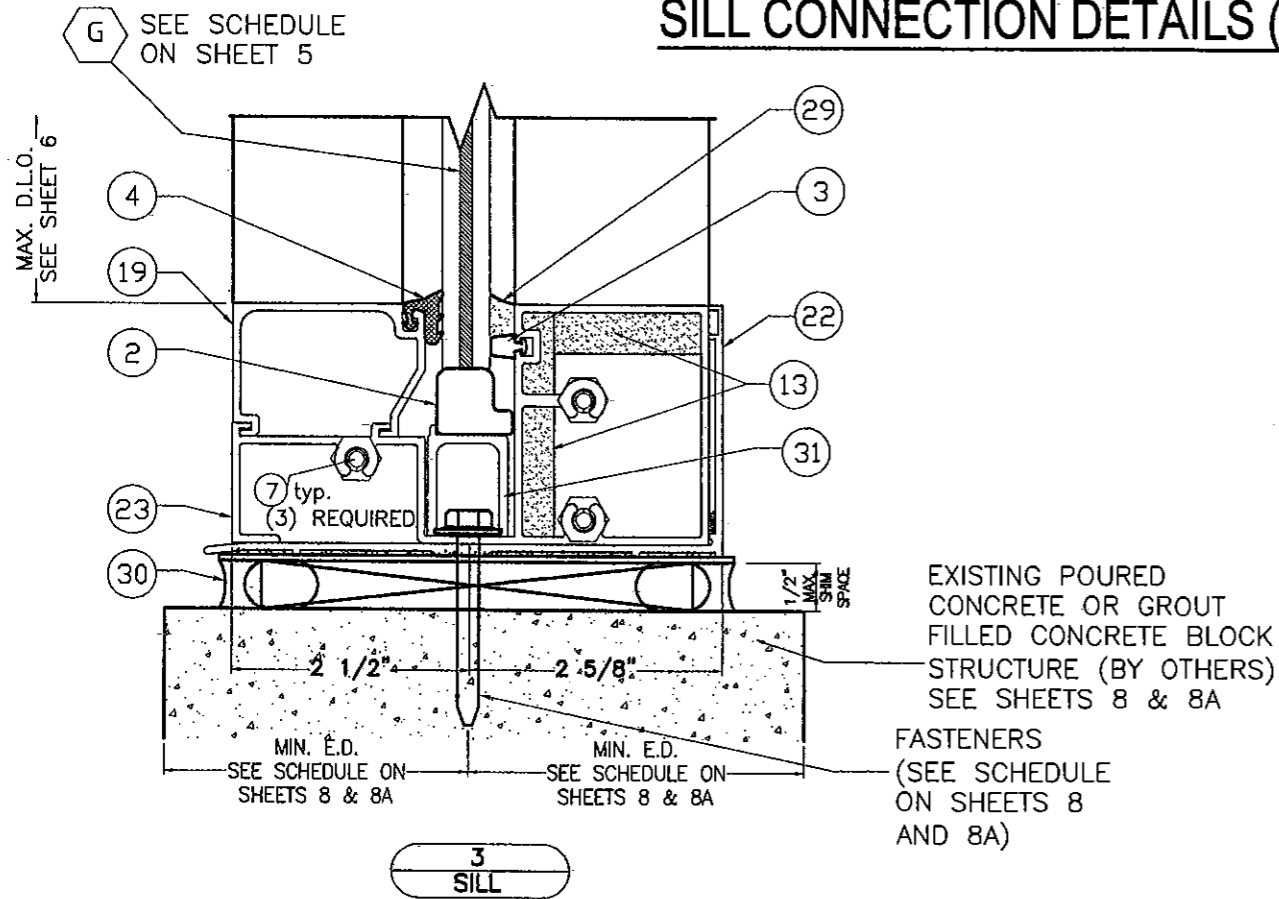
DRAWN BY: L.G.

08/18/10 DATE

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SHEET 13 OF 22

# SILL CONNECTION DETAILS (SIDE VIEW)



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 e-mail: tilteco@aol.com

EB-0008719  
 WALTER A. TILLIT Jr., P.E.  
 FLORIDA Lic. # 44167

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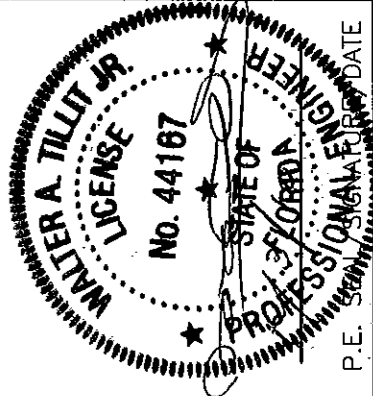
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DATE

10-076  
DRAWING No

SHEET 14 OF 22

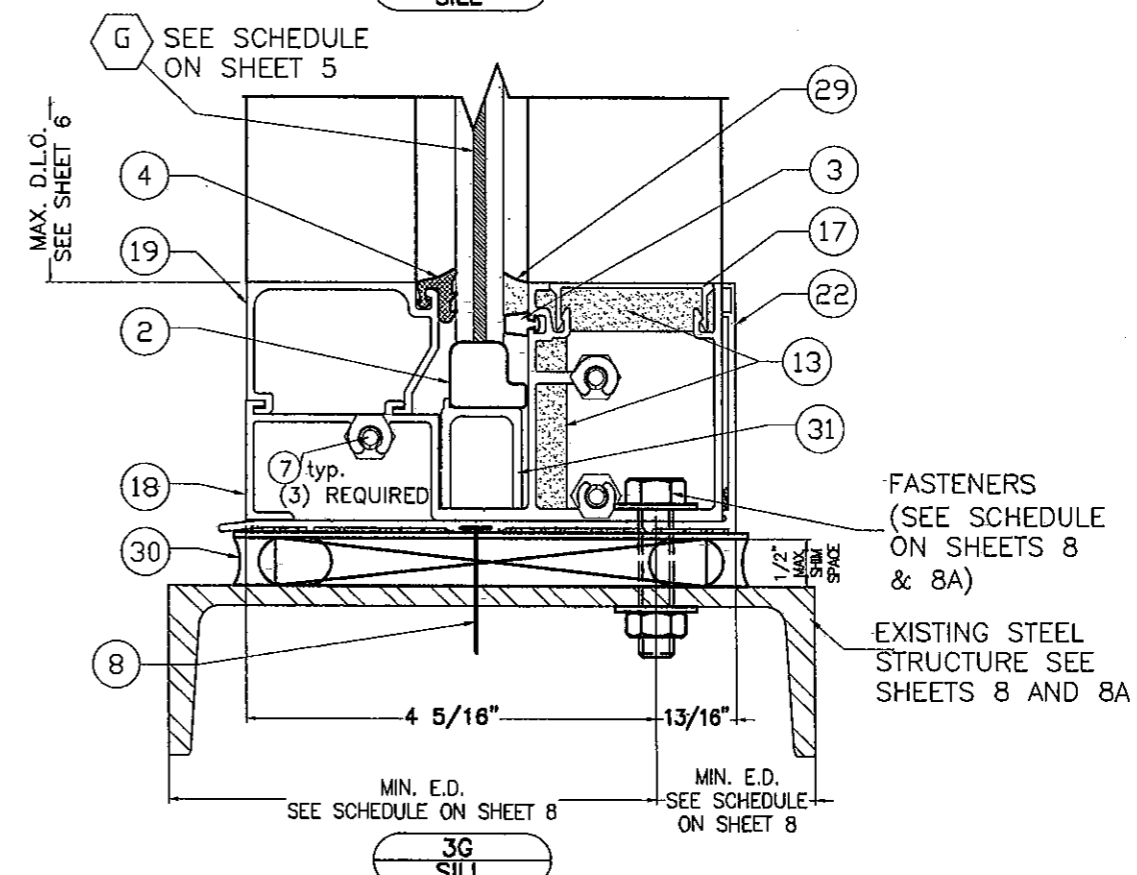
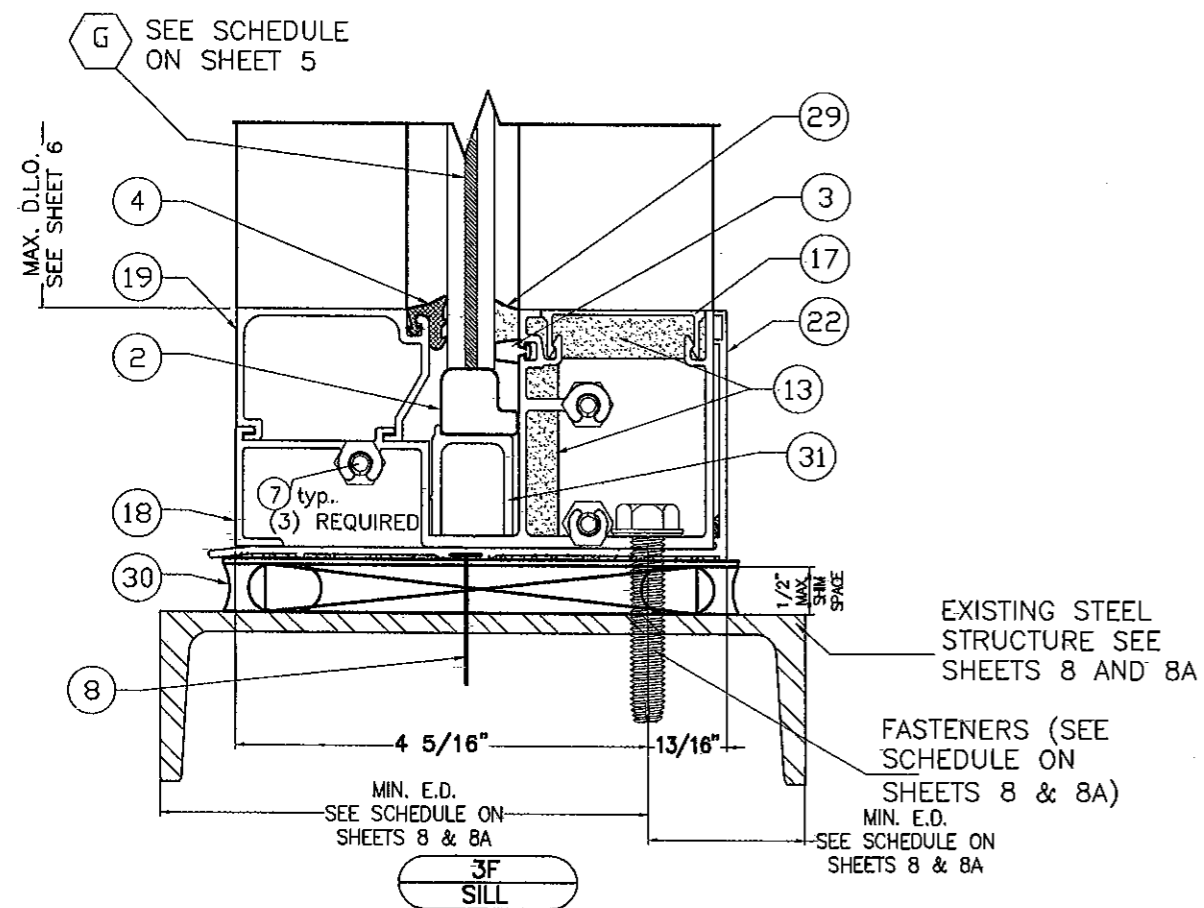
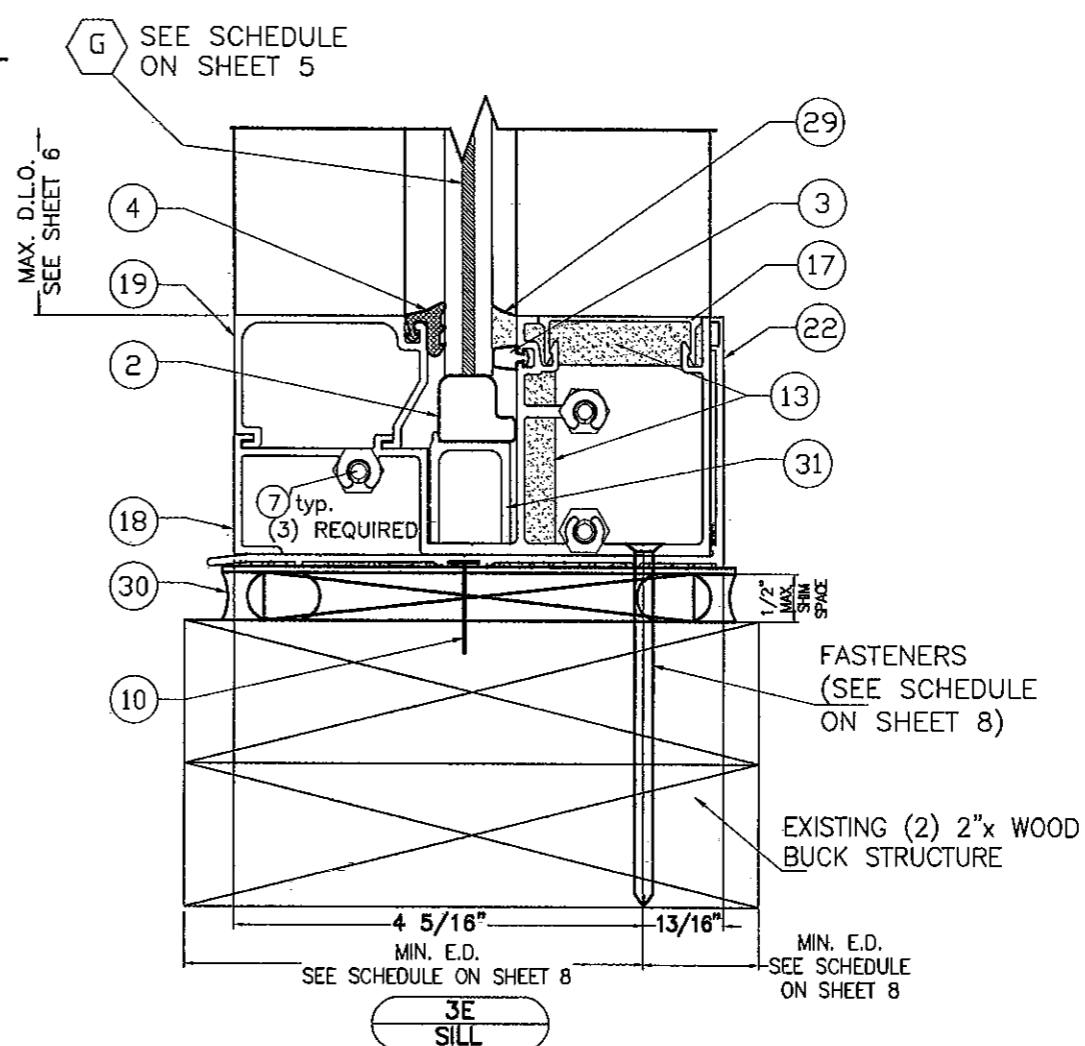
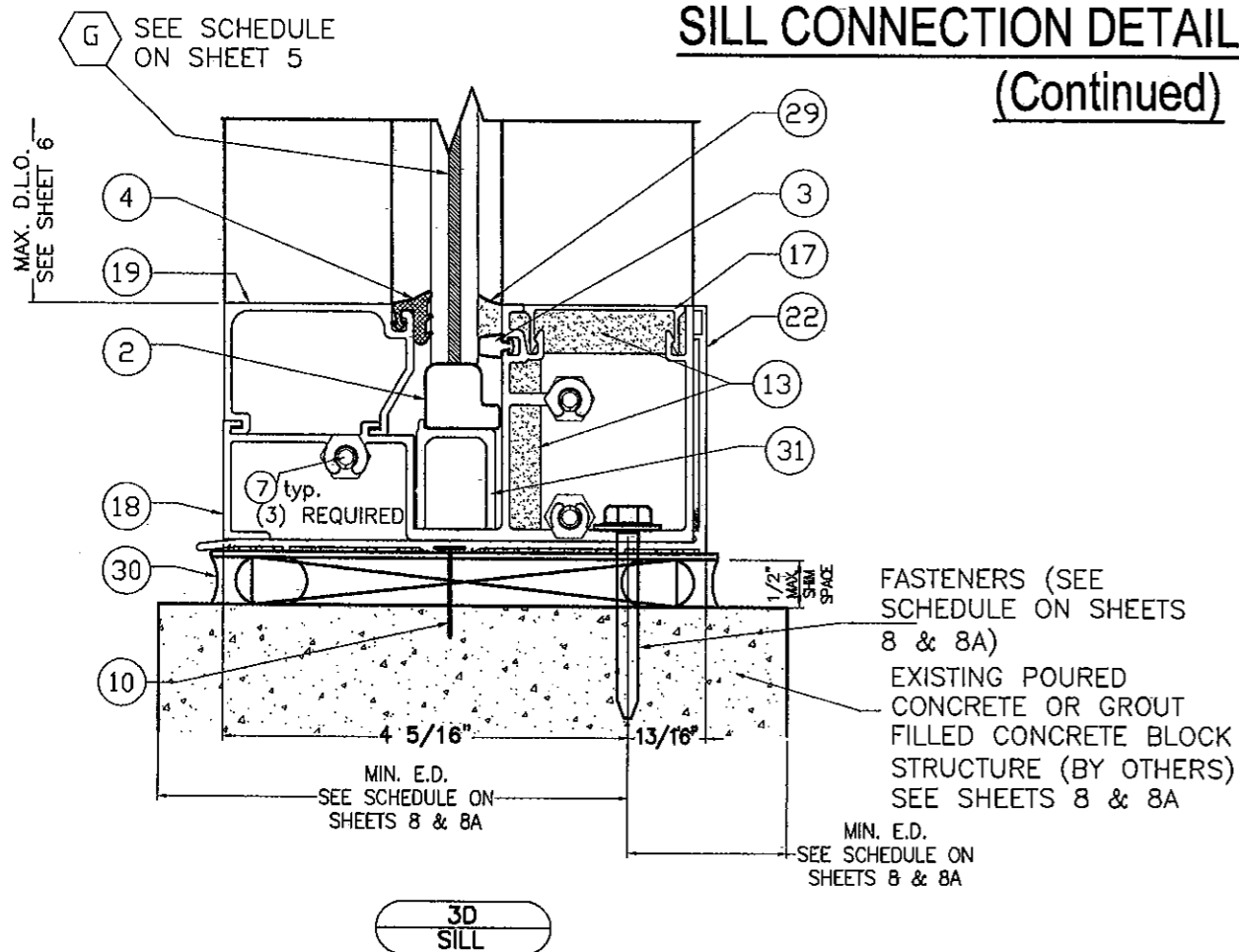


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 Acceptance No 10-1214-15  
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 Miami Dade Product Control

MIAMI-DADE COUNTY

# SILL CONNECTION DETAILS (SIDE VIEW)

(Continued)



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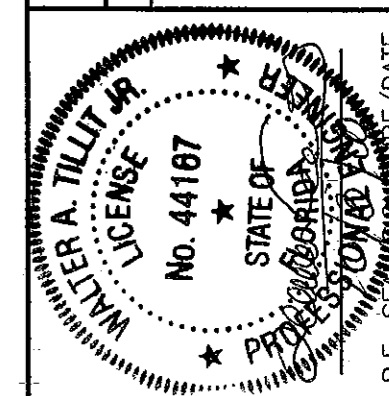
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SHEET 15 OF 22



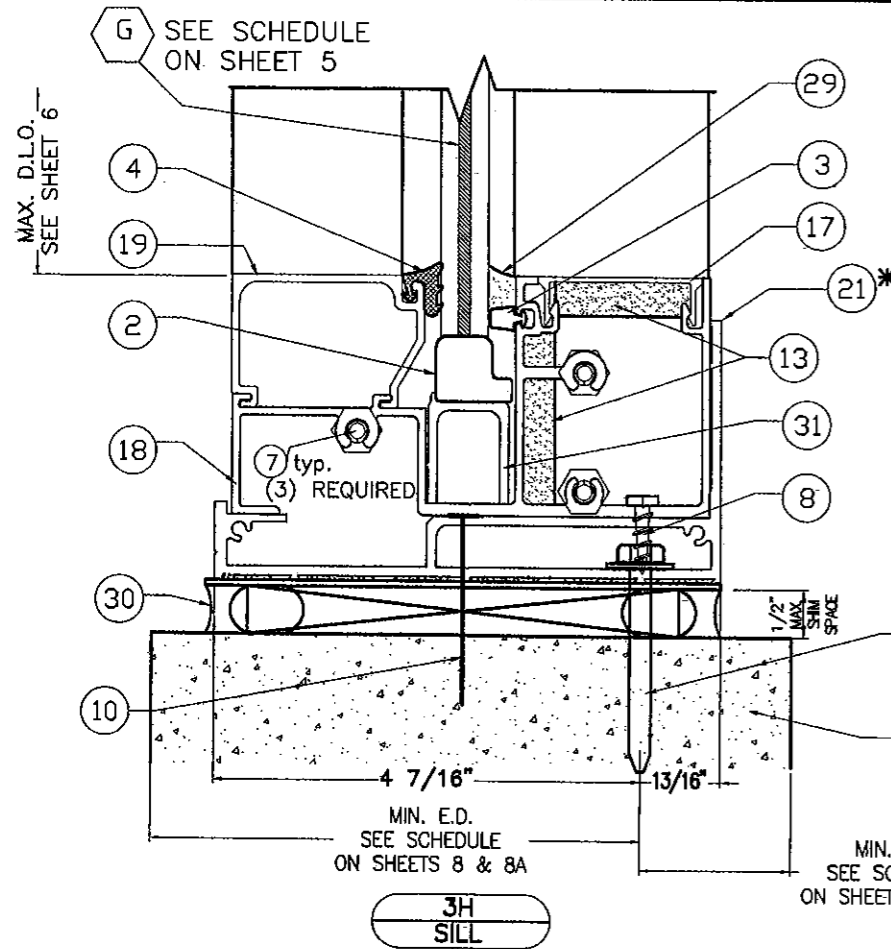
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 Expiration Date Nov. 18, 2014  
 By *Manuel Perez*  
 Miami Dade Product Control

MIAMI-DADE COUNTY

# SILL CONNECTION DETAILS

## (SIDE VIEW)

### (Continued)



FASTENERS (SEE SCHEDULE ON SHEETS 8 & 8A)

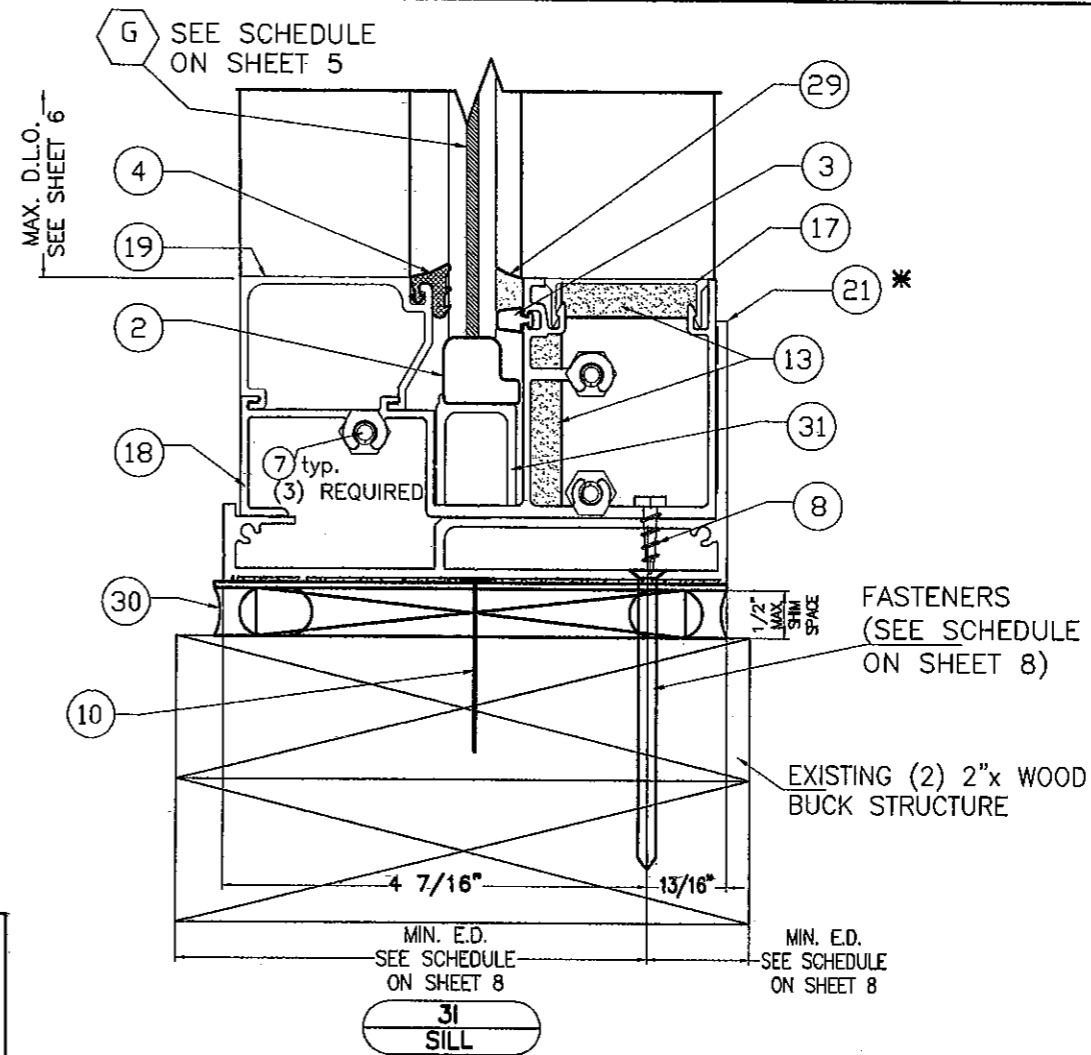
EXISTING POURED CONCRETE OR GROUT FILLED CONCRETE BLOCK STRUCTURE (BY OTHERS) SEE SHEETS 8 & 8A

MIN. E.D. SEE SCHEDULE ON SHEETS 8 & 8A

MIN. E.D. SEE SCHEDULE ON SHEETS 8 & 8A

**3H SILL**

**\* THIS SILL TYPE SHALL ONLY BE USED FOR DESIGN LOADS UP TO 65 psf & FOR MULLION HEIGHTS UP TO 108\"**



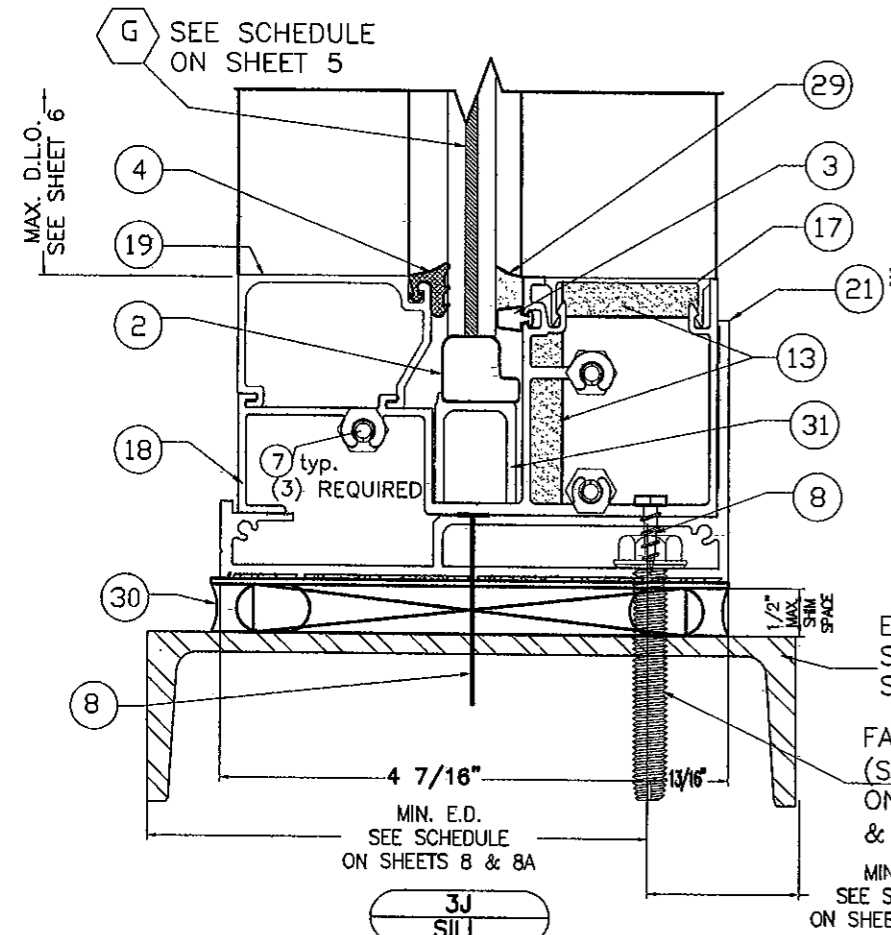
FASTENERS (SEE SCHEDULE ON SHEET 8)

EXISTING (2) 2" x WOOD BUCK STRUCTURE

MIN. E.D. SEE SCHEDULE ON SHEET 8

MIN. E.D. SEE SCHEDULE ON SHEET 8

**3I SILL**



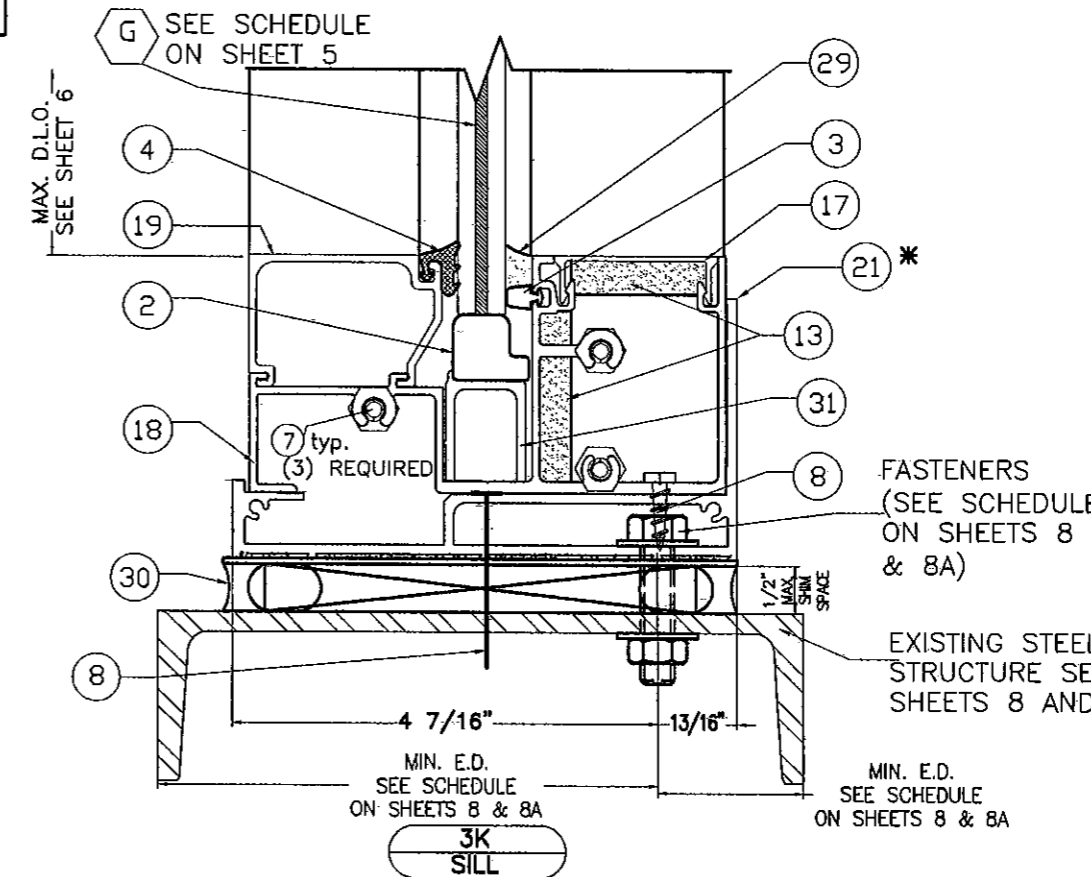
EXISTING STEEL STRUCTURE SEE SHEETS 8 AND 8A

FASTENERS (SEE SCHEDULE ON SHEETS 8 & 8A)

MIN. E.D. SEE SCHEDULE ON SHEETS 8 & 8A

MIN. E.D. SEE SCHEDULE ON SHEETS 8 & 8A

**3J SILL**



FASTENERS (SEE SCHEDULE ON SHEETS 8 & 8A)

EXISTING STEEL STRUCTURE SEE SHEETS 8 AND 8A

MIN. E.D. SEE SCHEDULE ON SHEETS 8 & 8A

MIN. E.D. SEE SCHEDULE ON SHEETS 8 & 8A

**3K SILL**

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

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TILLIT TESTING & ENGINEERING COMPANY  
6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166  
Phone: (305)871-1530 Fax: (305)871-1531  
e-mail: tiltco@aol.com

WALTER A. TILLIT Jr., P.E.  
FLORIDA Lic. # 44167

SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS

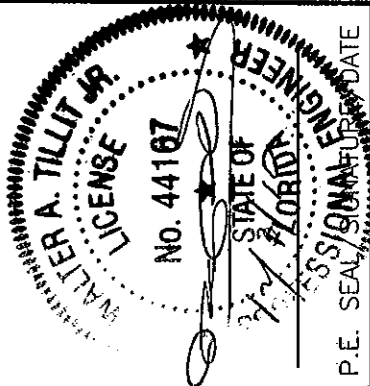
**Oldcastle BuildingEnvelope™**  
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www.OldcastleBE.com - Phone 800-869-4567

DRAWN BY:  
L.G./M.C.V.

08/18/10  
DATE

10-076  
DRAWING No

SHEET 16 OF 22

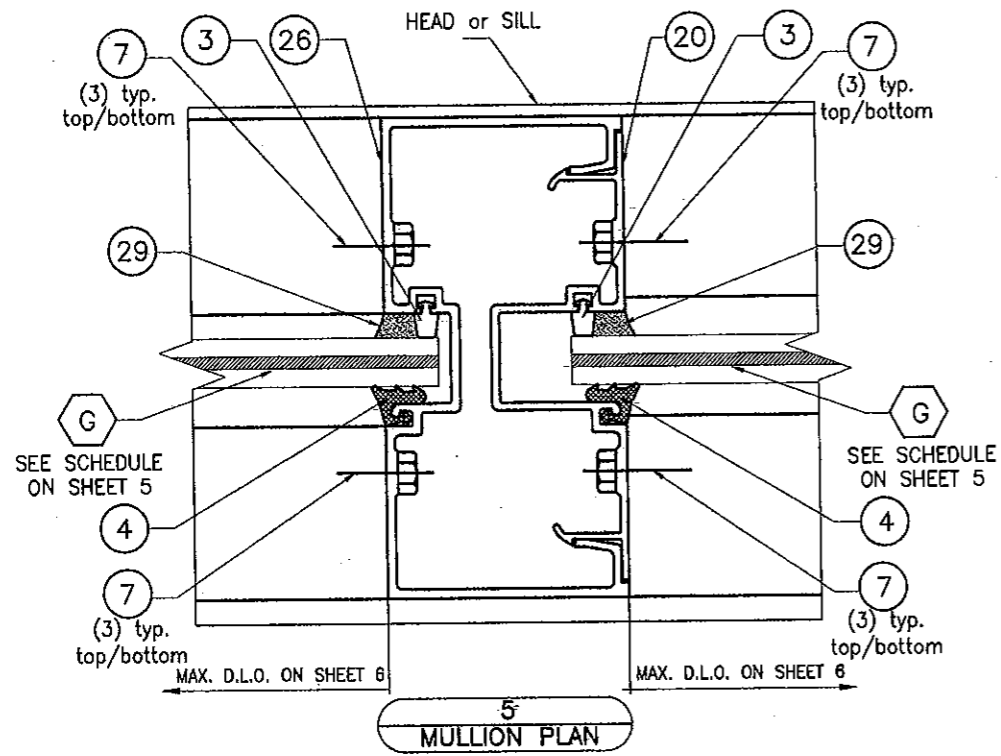


PRODUCT REVISED as complying with the Florida Building Code  
Acceptance No 10-124-15  
Expiration Date Nov. 18, 2014  
By *Manuel Perez*  
Miami Dade Product Control

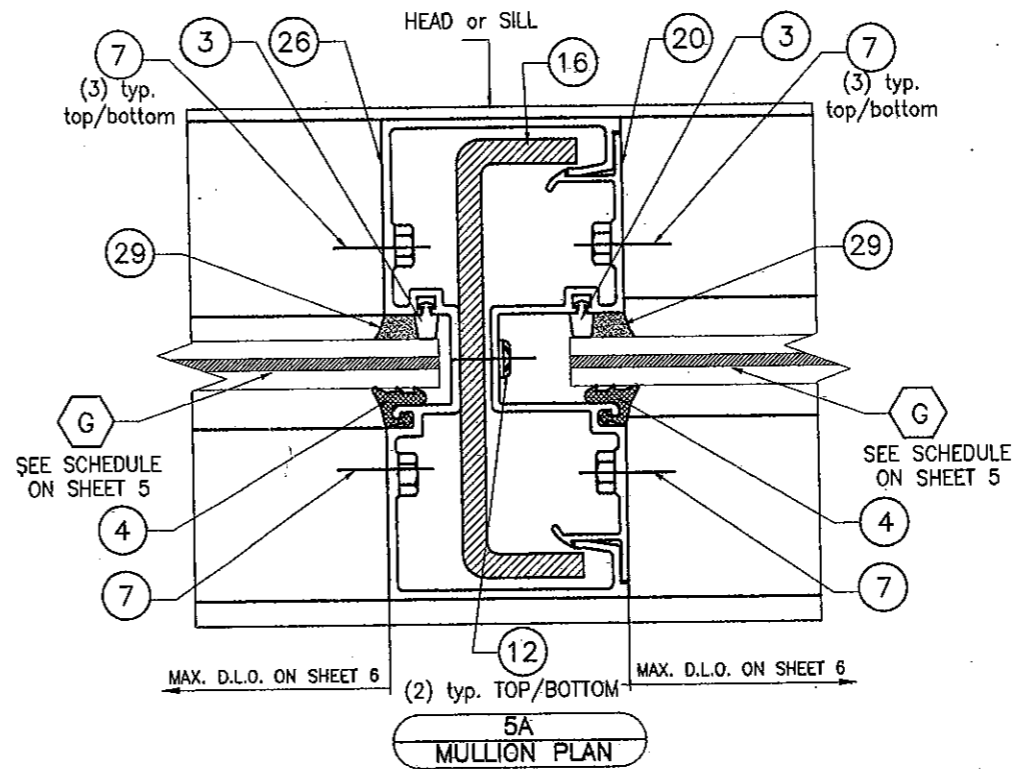
MIAMI - DADE COUNTY

# HORIZONTAL SECTIONS AT STANDARD AND CORNER MULLIONS

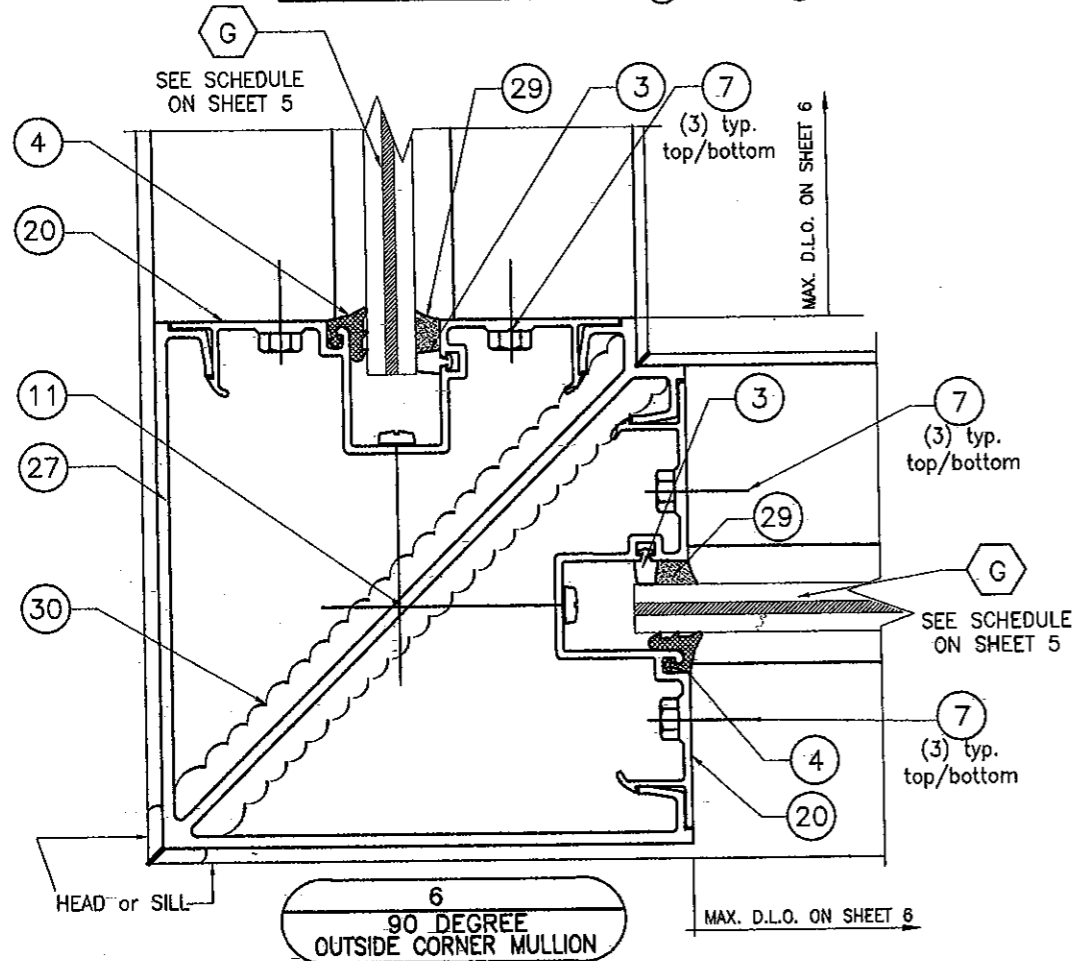
STANDARD MULLION 20 + 26



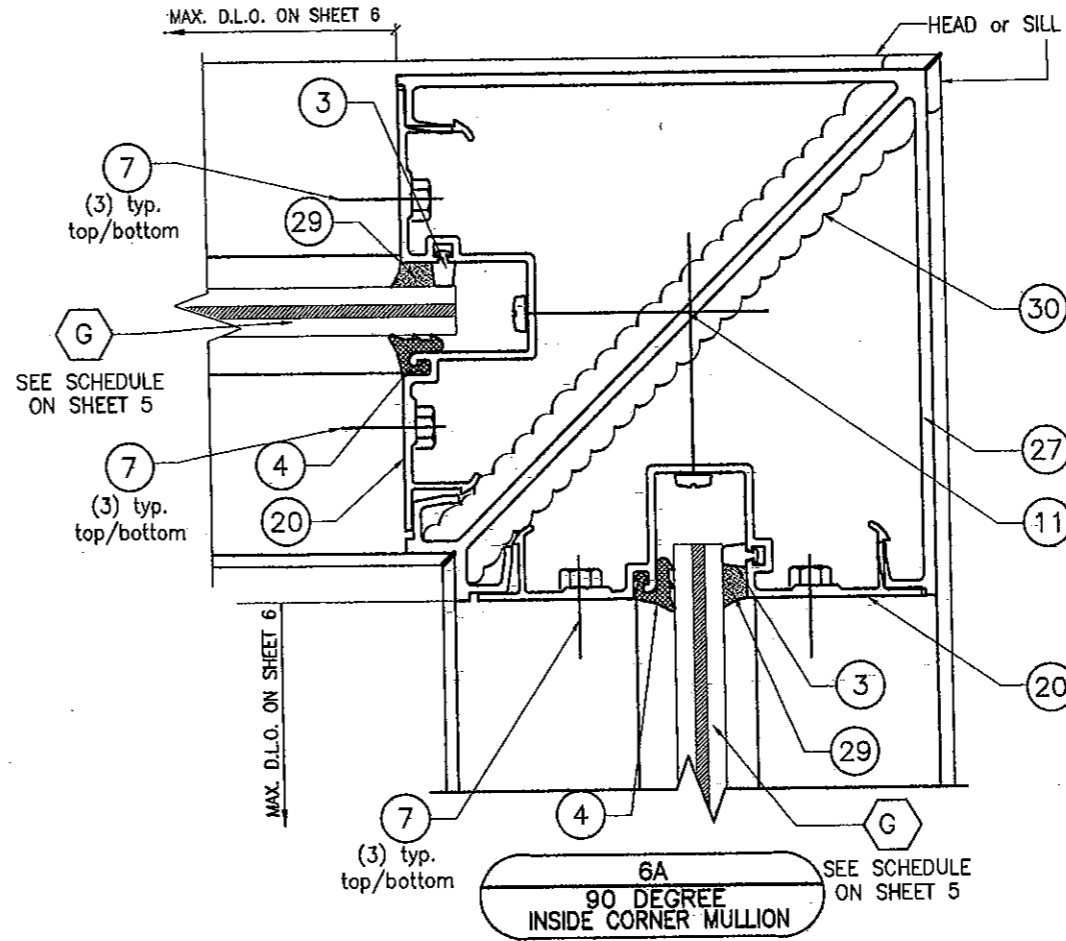
STANDARD MULLION 20 + 26 W/ STEEL CHANNEL 16



OUTSIDE CORNER MULLION 27 + (2) 20



INSIDE CORNER MULLION 27 + (2) 20



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SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS

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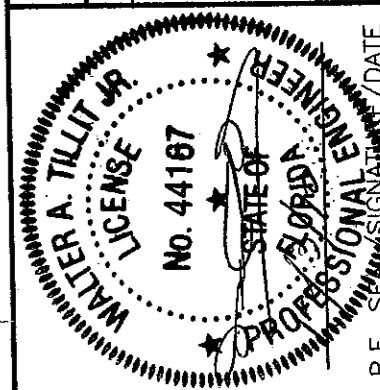
803 Airport Rd - Terrell, TX 75160  
www.OldcastleBE.com - Phone 800-869-4667

REV. No.	DESCRIPTION	DATE	REV. No.	DESCRIPTION	DATE
1	OLD DWG 09-074	09/18/10	3		
2			4		

**TILECO INC.**

TILLIT TESTING & ENGINEERING COMPANY  
6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166  
Phone: (305) 871-1530, Fax: (305) 871-1531  
e-mail: tileco@tillit.com

EB-0006719  
WALTER A. TILLIT JR., P.E.  
FLORIDA LIC. # 44167



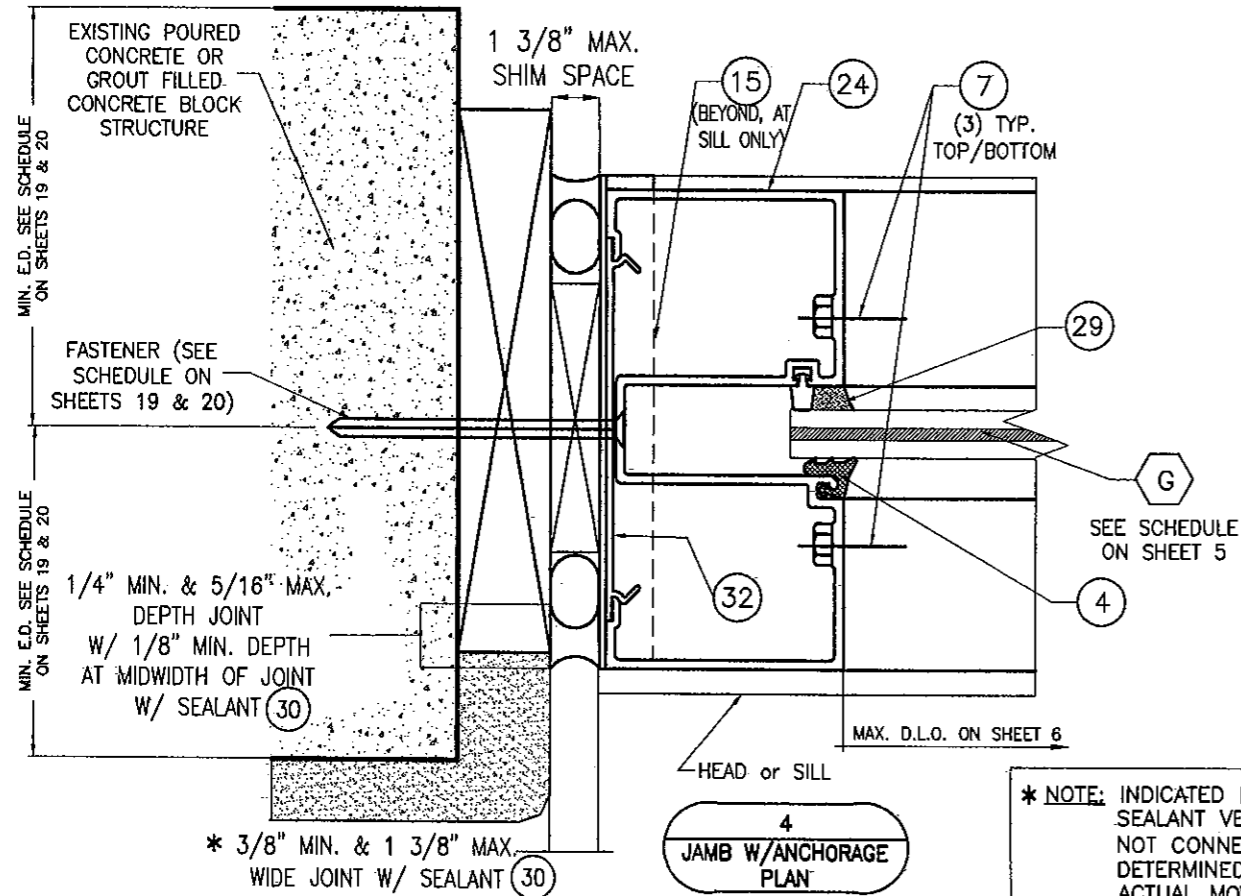
PRODUCT REVISED as complying with the Florida Building Code  
Acceptance No 10-1214.15  
Expiration Date Nov. 18, 2014  
By *Manuel Perez*  
Miami Made Product Control

MIAMI-DADE COUNTY

SHEET 17 OF 22

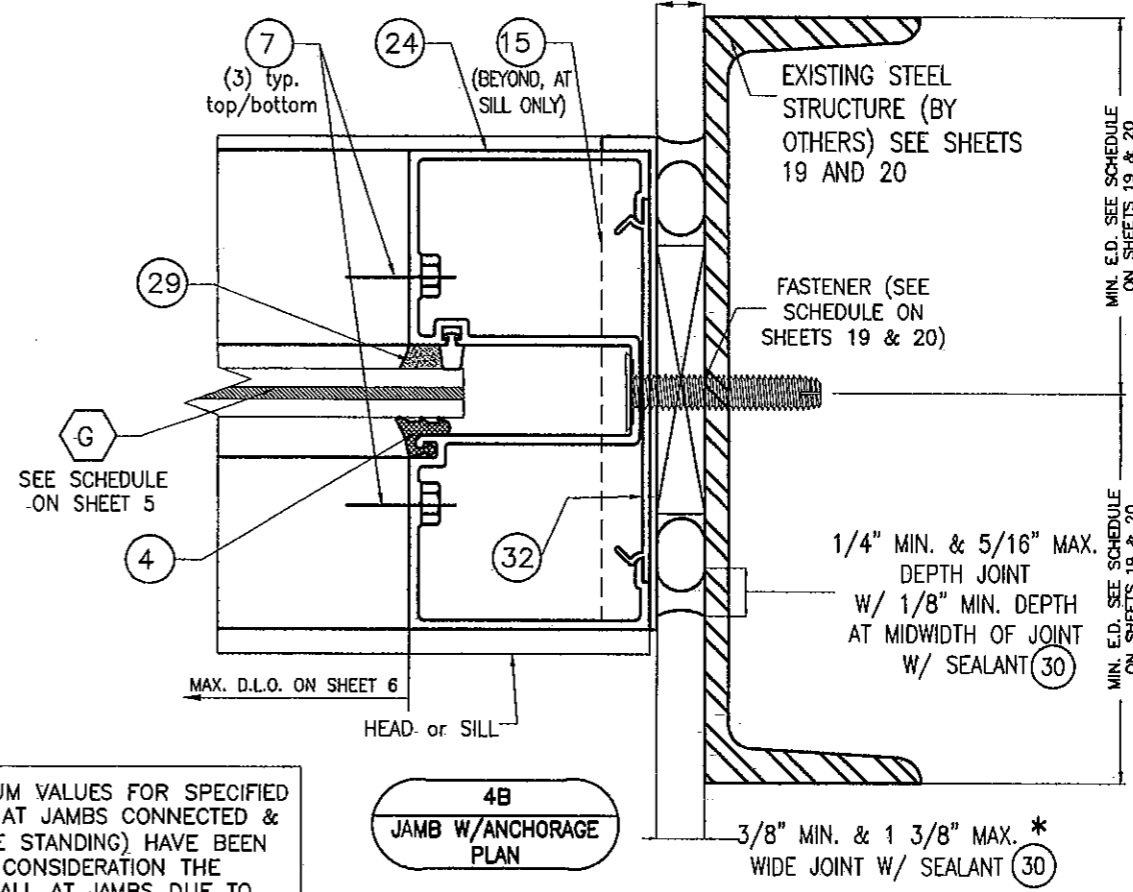
# HORIZONTAL SECTIONS AT JAMB

**TO POURED CONCRETE OR GROUT FILLED CONCRETE BLOCK STRUCTURE**



**4**  
JAMB W/ANCHORAGE PLAN

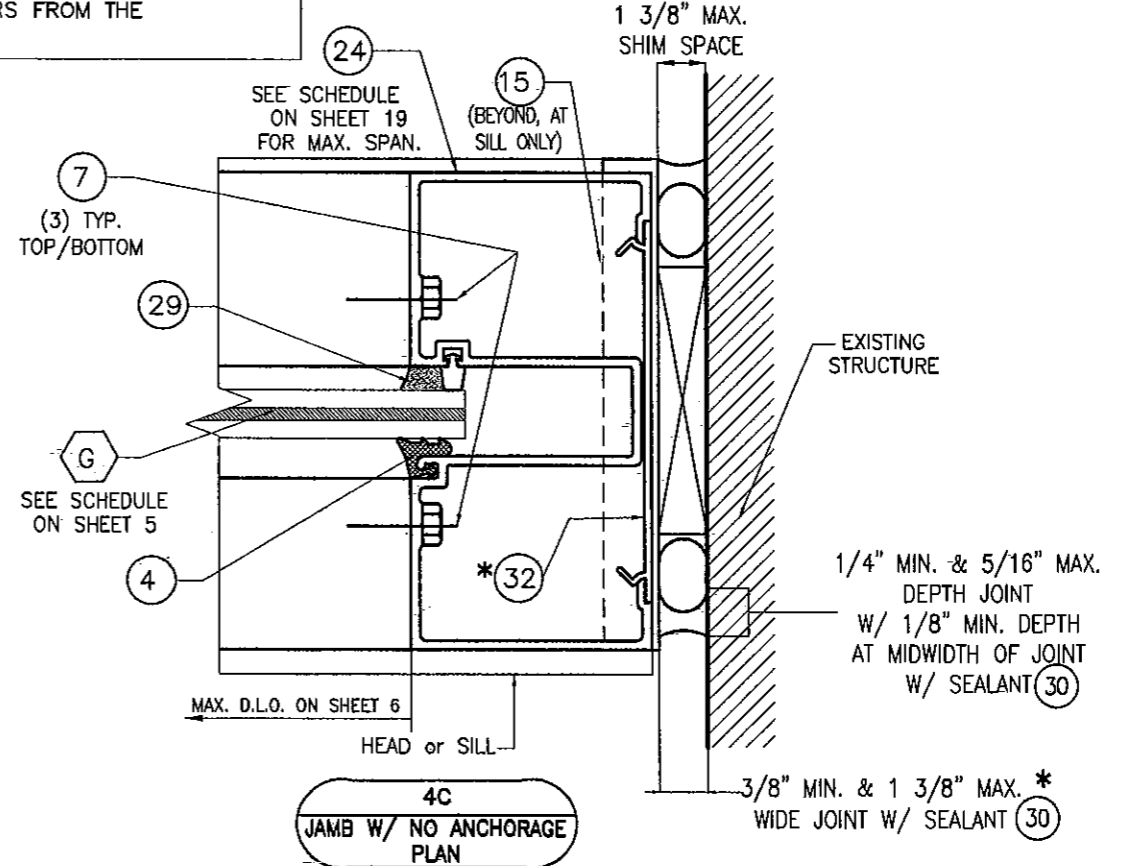
**TO STEEL STRUCTURE**



**4B**  
JAMB W/ANCHORAGE PLAN

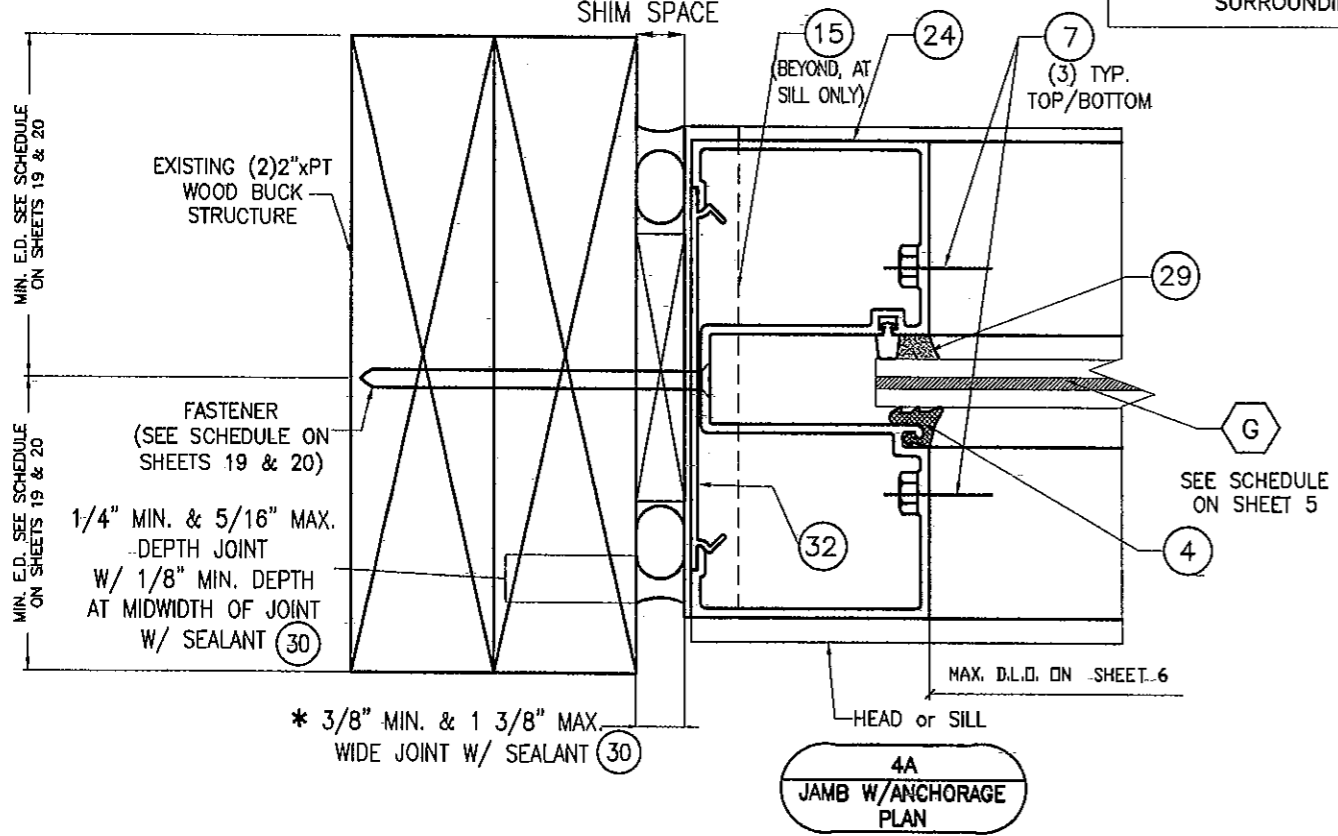
**\* NOTE:** INDICATED MAXIMUM AND MINIMUM VALUES FOR SPECIFIED SEALANT VERTICAL JOINT WIDTH AT JAMBS CONNECTED & NOT CONNECTED TO WALL (FREE STANDING) HAVE BEEN DETERMINED ONLY TAKING INTO CONSIDERATION THE ACTUAL MOVEMENT OF GLASS WALL AT JAMBS DUE TO THERMAL, WIND AND ITS OWN CONSTRUCTION TOLERANCE, AND NOT PERFORMANCE FACTORS FROM THE SURROUNDING STRUCTURE.

**TO EXISTING STRUCTURE**



**4C**  
JAMB W/ NO ANCHORAGE PLAN

**TO WOOD STRUCTURE**



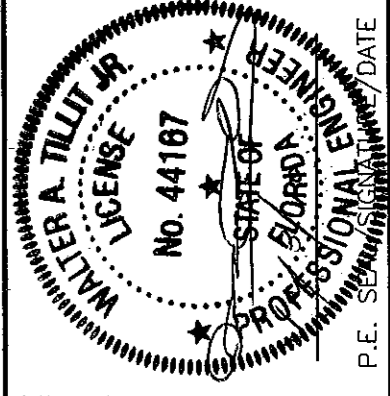
**4A**  
JAMB W/ANCHORAGE PLAN

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By *Manuel Perez*  
Miami Dade Product Control

DRAWN BY: L.G./M.C.V.  
DATE: 08/18/10  
DRAWING No: 10-076  
SHEET 18 OF 22

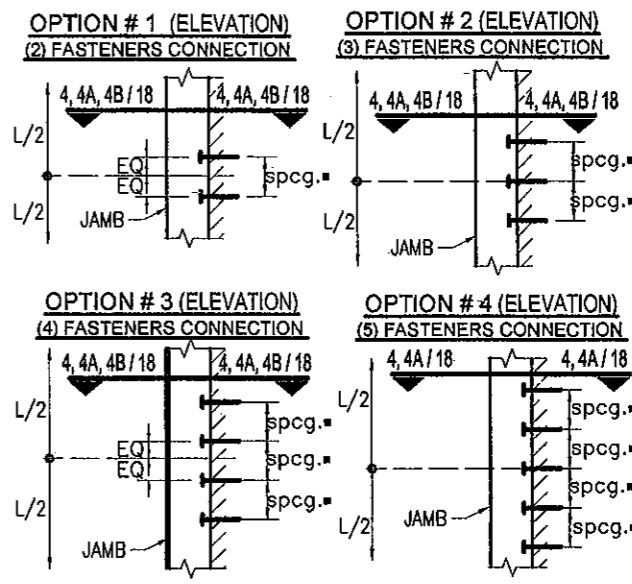
MIAMI-DADE COUNTY

MAXIMUM DESIGN PRESSURE RATING SCHEDULE FOR JAMBS FASTENED W/ 3/8"Ø FASTENERS  $\triangle$  \* SEE SHEET 13 FOR DEFINITION OF b

MAXIMUM MULLION SPAN "L" (Ft-In)	EFFECTIVE SPACING "b" (Ft-In)	OPTION #1 : (2) FASTENERS CONNECTION								OPTION #2 : (3) FASTENERS CONNECTION								OPTION #3 : (4) FASTENERS CONNECTION								OPTION #4 : (5) FASTENERS CONNECTION											
		POURED CONCRETE				GROUT FILLED C. BLOCK				POURED CONCRETE				GROUT FILLED C. BLOCK				POURED CONCRETE				GROUT FILLED C. BLOCK				POURED CONCRETE				GROUT FILLED C. BLOCK							
		J	K	L	M	N	O	P	Q	J	K	L	M	N	O	P	Q	J	K	L	M	N	O	P	Q	J	K	L	M	N	O	P	Q				
6'-2"	1'-0"	90.0	90.0	85.3	83.4	90.0	85.3	90.0	90.0	90.0	90.0	90.0	90.0	90.0	89.9	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0
	1'-3"	90.0	90.0	74.6	73.0	90.0	74.6	90.0	90.0	90.0	90.0	90.0	90.0	90.0	78.6	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0			
	1'-6"	82.3	90.0	66.3	64.9	82.3	66.3	90.0	90.0	90.0	90.0	90.0	90.0	90.0	69.9	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0			
	1'-9"	74.1	83.9	59.7	58.4	74.1	59.7	83.9	90.0	90.0	90.0	89.6	87.6	90.0	89.6	90.0	90.0	90.0	90.0	89.6	87.6	90.0	89.6	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0		
	2'-0"	67.4	76.3	54.3	53.1	67.4	54.3	76.3	90.0	90.0	90.0	81.4	79.6	90.0	81.4	90.0	90.0	90.0	90.0	81.4	79.6	90.0	81.4	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0		
	2'-3"	61.7	69.9	49.8	48.6	61.7	49.8	69.9	90.0	90.0	90.0	74.6	73.0	90.0	74.6	90.0	90.0	90.0	90.0	74.6	73.0	90.0	74.6	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0		

**MIN. SPACING (spcg.) REQUIRED FOR DIFFERENT SUBSTRATES**

- POURED CONCRETE: 4 1/2" MIN. O.C.
- GROUT FILLED C.B.: 8" MIN. O.C.
- STEEL: 4 1/2" MIN. O.C.
- WOOD: 2" MIN. O.C.



**FASTENERS TYPES AND SUBSTRATES REQUIREMENTS W/ 2 3/4" MIN. E.D., BEYOND ANY FINISH MATERIAL (except as noted)**

- J** - 3/8"Ø HILTI KWIK BOLT 3 ANCHOR W/ 2" Min. EMBEDMENT INTO 6" MIN. THICK POURED CONCRETE (Min. f<sub>c</sub> = 3 ksi).
- K** - 3/8"Ø POWER FASTENERS TAPPER ANCHOR W/ 1 3/4" Min. EMBEDMENT INTO POURED CONCRETE (Min. f<sub>c</sub> = 3 ksi).
- L** - 3/8"Ø HILTI HUS-H SCREW ANCHOR W/ 2" Min. EMBEDMENT INTO POURED CONCRETE (Min. f<sub>c</sub> = 3 ksi).
- M** - 3/8"Ø POWER FASTENERS TAPPER ANCHOR W/ 1 3/4" Min. EMBEDMENT INTO GROUT FILLED CONCRETE BLOCK.
- N** - 3/8"Ø HILTI KWIK BOLT 3 ANCHOR W/ 2 1/2" Min. EMBEDMENT INTO GROUT FILLED CONCRETE BLOCK.
- O** - 3/8"Ø HILTI HUS-H SCREW ANCHOR W/ 2 3/4" Min. EMBEDMENT INTO GROUT FILLED CONCRETE BLOCK.
- P** - 3/8"Ø TYPE "F" BOLT OR 3/8"Ø -13 SAE GRADE 5 GALVANIZED STEEL HHB THRU BOLT W/ NUT & LOCK WASHER & 1 3/4" MIN. EDGE DISTANCE TO 1/4" Min. THK. ASTM A-38 OR 12 GAGE (0.108" MIN. THK.) F<sub>y</sub>=33 ksi STEEL.
- Q** - 3/8"Ø LAG SCREWS TO DOUBLE 2 x WOOD BUCK (G=0.55) W/ 3" Min. PENETRATION INTO WOOD & 2" MIN. EDGE DISTANCE, BEYOND ANY FINISH MATERIAL.

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

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**TILECO INC.**  
TILLIT TESTING & ENGINEERING COMPANY  
6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166  
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DATE: 08/18/10  
DRAWING No: 10-076  
SHEET 19 OF 22

17/3/10  
P.E. SEAL/SIGNATURE/DATE  
MIAMI-DADE COUNTY

PRODUCT REVISED as complying with the Florida Building Code  
Acceptance No 10-1214.15  
Expiration Date NOV. 15, 2014  
By *Manuel...*  
Miami Dade Product Control



MAXIMUM DESIGN PRESSURE RATING SCHEDULE FOR JAMBS FASTENED W/ 1/2"Ø FASTENERS

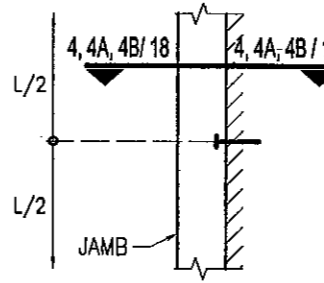
\* SEE SHEET 13 FOR DEFINITION OF b

MAXIMUM MILLION SPAN "L" (Ft-in)	EFFECTIVE SPACING "b" (Ft-in)	OPTION #1 : (1) FASTENER CONNECTION								OPTION #2 : (2) FASTENERS CONNECTION								OPTION #3 : (3) FASTENERS CONNECTION								OPTION #4 : (4) FASTENERS CONNECTION							
		POURED CONCRETE				GROUT FILLED C. BLOCK				POURED CONCRETE				GROUT FILLED C. BLOCK				POURED CONCRETE				GROUT FILLED C. BLOCK				POURED CONCRETE				GROUT FILLED C. BLOCK			
		R	S	T	U	V	W	R	S	T	U	V	W	R	S	T	U	V	W	R	S	T	U	V	W	R	S	T	U	V	W		
6'-2"	1'-0"	90.0	90.0	57.5	88.0	90.0	54.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0		
	1'-2"	90.0	90.0	50.3	77.0	90.0	47.3	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0			
	1'-4"	84.8	87.9	44.7	68.5	90.0	42.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0			
	1'-6"	77.1	71.9	40.2	61.6	90.0	37.8	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0		
	1'-8"	70.7	65.9	36.6	56.0	90.0	34.4	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0		
	2'-0"	65.3	60.8	33.5	51.4	90.0	31.5	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0		
	2'-2"	60.6	56.5	30.9	47.4	90.0	29.1	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0		
	2'-4"	56.6	52.7	28.7	44.0	90.0	27.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0		
	2'-6"	53.0	49.4	26.8	41.1	90.0	25.2	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0		
	2'-8"	51.7	48.2	25.1	38.5	90.0	23.6	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0		

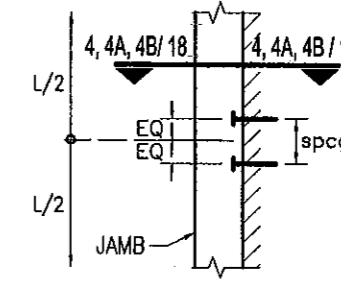
MIN. SPACING (spcg.) REQUIRED FOR DIFFERENT SUBSTRATES

- POURED CONCRETE: 4 1/2" MIN. O.C.
- GROUT FILLED C.B.: 8" MIN. O.C.
- STEEL: 4 1/2" MIN. O.C.
- WOOD: 2" MIN. O.C.

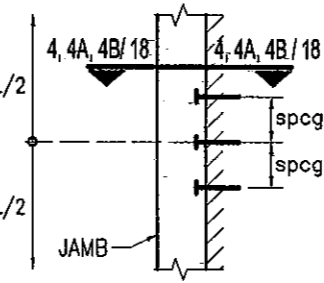
OPTION # 1 (ELEVATION) (1) FASTENER CONNECTION



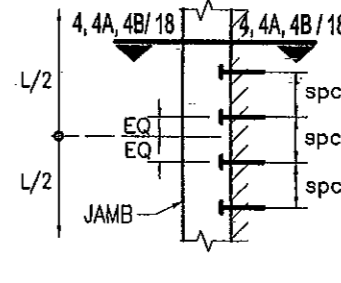
OPTION # 2 (ELEVATION) (2) FASTENERS CONNECTION



OPTION # 3 (ELEVATION) (3) FASTENERS CONNECTION



OPTION # 4 (ELEVATION) (4) FASTENERS CONNECTION



FASTENERS TYPES AND SUBSTRATES REQUIREMENTS W/ 2 3/4" MIN. E.D., BEYOND ANY FINISH MATERIAL (except as noted)

- R - 1/2"Ø HILTI KWIK BOLT 3 ANCHOR W/ 2" Min. EMBEDMENT INTO 6" Min. THICK POURED CONCRETE (Min. fc = 3 ksi).
- S - 1/2"Ø HILTI HUS-H SCREW ANCHOR W/ 3" Min. EMBEDMENT INTO POURED CONCRETE (Min. fc = 3 ksi).
- T - 1/2"Ø HILTI KWIK BOLT 3 ANCHOR W/ 2 1/2" Min. EMBEDMENT INTO GROUT FILLED CONCRETE BLOCK.
- U - 1/2"Ø HILTI HUS-H SCREW ANCHOR W/ 3" Min. EMBEDMENT INTO GROUT FILLED CONCRETE BLOCK.
- V - 1/2"Ø TYPE "F" BOLT OR 1/2"Ø -13 SAE GRADE 5 GALVANIZED STEEL HHB-THRU BOLT W/ NUT & LOCK WASHER & 2" MIN. EDGE DISTANCE TO 1/4" Min. THK. ASTM A-36 OR 12 GAGE (.0108" MIN. THK.) Fy=33 ksi STEEL.
- W - 1/2"Ø LAG SCREWS TO DOUBLE 2 x WOOD BUCK (G=0.55) W/ 3" Min. PENETRATION INTO WOOD & 2" MIN. EDGE DISTANCE, BEYOND ANY FINISH MATERIAL.

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FLORIDA REGISTERED PROFESSIONAL ENGINEER  
WALTER A. TILLIT JR.  
LICENSE No. 44167  
STATE OF FLORIDA

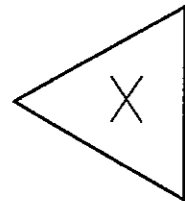
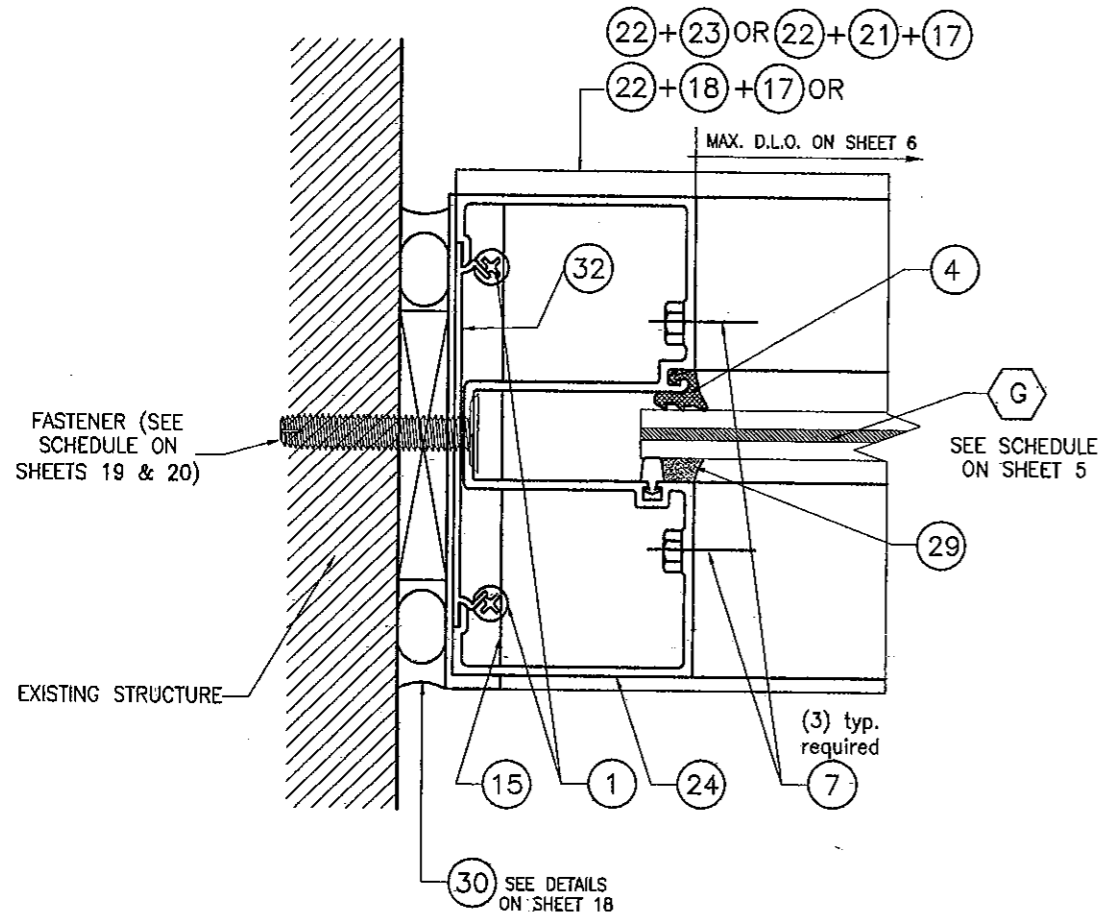
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By *Marcel Perez*  
Miami Dade Product Control

MIAMI-DADE COUNTY

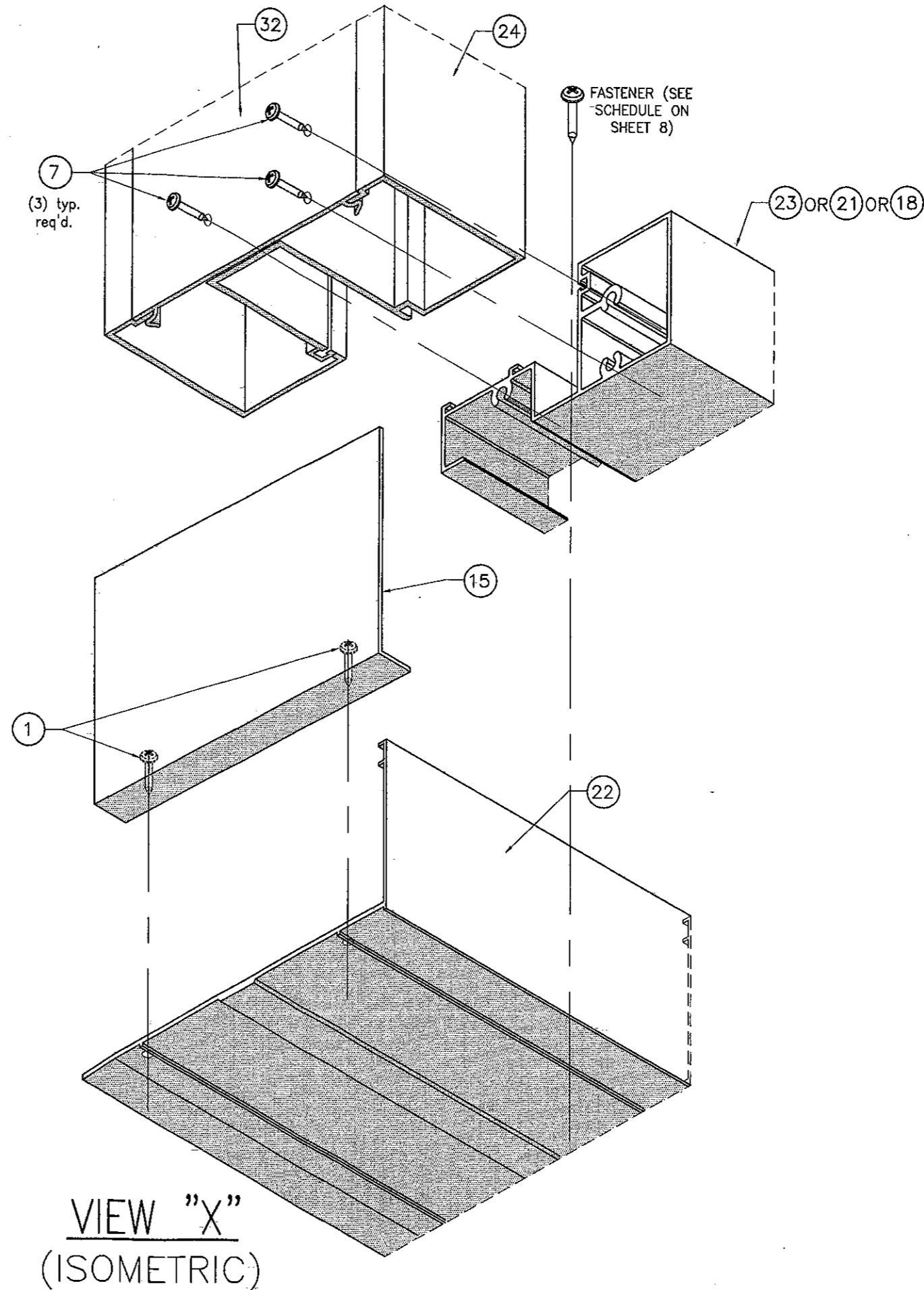
DRAWN BY: L.G./M.C.V.  
DATE: 08/18/10  
10-076 DRAWING No  
SHEET 20 OF 22

# CORNER DETAIL AT JAMB

EXTERIOR



4D  
JAMB PLAN



VIEW "X"  
(ISOMETRIC)

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

SERIES FG-5000 FLUSH GLAZED  
ALUMINUM WINDOW WALL SYSTEM  
LARGE & SMALL MISSILE IMPACT LAMINATED GLASS

**Oldcastle BuildingEnvelope™**  
803 Airport Rd - Terrell, TX 75160  
www.OldcastleBE.com - Phone 800-869-4567

REV. No.	DESCRIPTION	DATE	REV. No.	DESCRIPTION	DATE
1	OLD DWG 08-074	08/19/10	3		
2			4		

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**TILTECO INC.**  
TILLIT TESTING & ENGINEERING COMPANY  
6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166  
Phone: (305) 971-1530 Fax: (305) 971-1531  
e-mail: tilteco@tdi.com

EB-0006719  
WALTER A. TILLIT JR. P.E.  
FLORIDA Lic. # 44167

WALTER A. TILLIT JR.  
LICENSE  
No. 44167  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No 10-1214.15  
Expiration Date 10.15.2014

By *Manuel Perez*  
Miami Dade Product Control

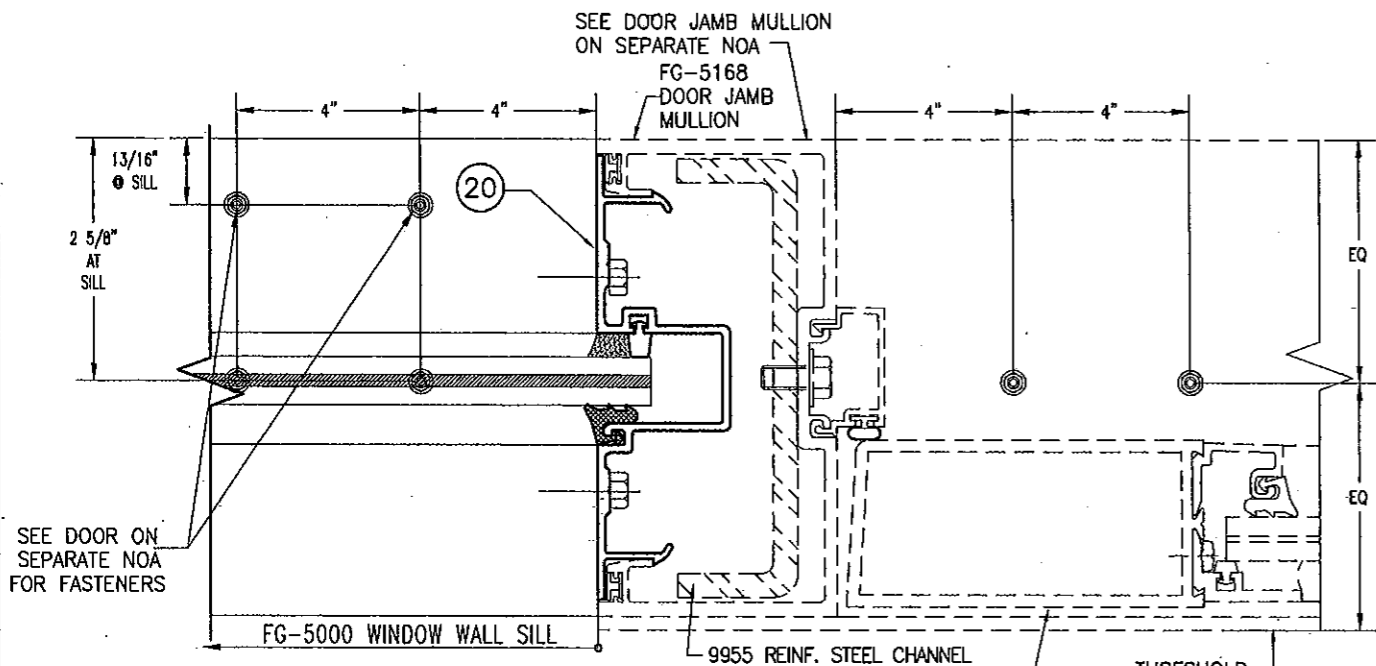
MIAMI-DADE COUNTY

DRAWN BY: L.G.  
DATE: 08/18/10  
DRAWING No: 10-076  
SHEET 21 OF 22

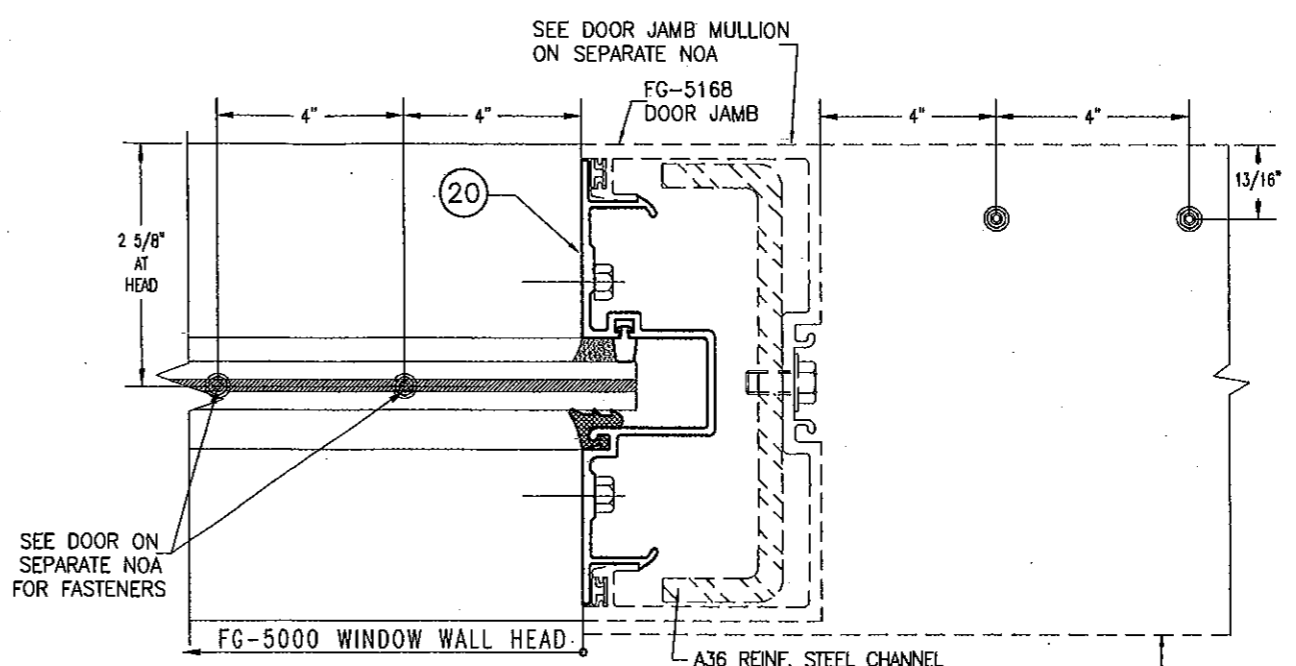
DATE: 08/19/10  
REV. No: 3  
DESCRIPTION: OLD DWG 08-074

P.E. SEAL SIGNATURE/DATE

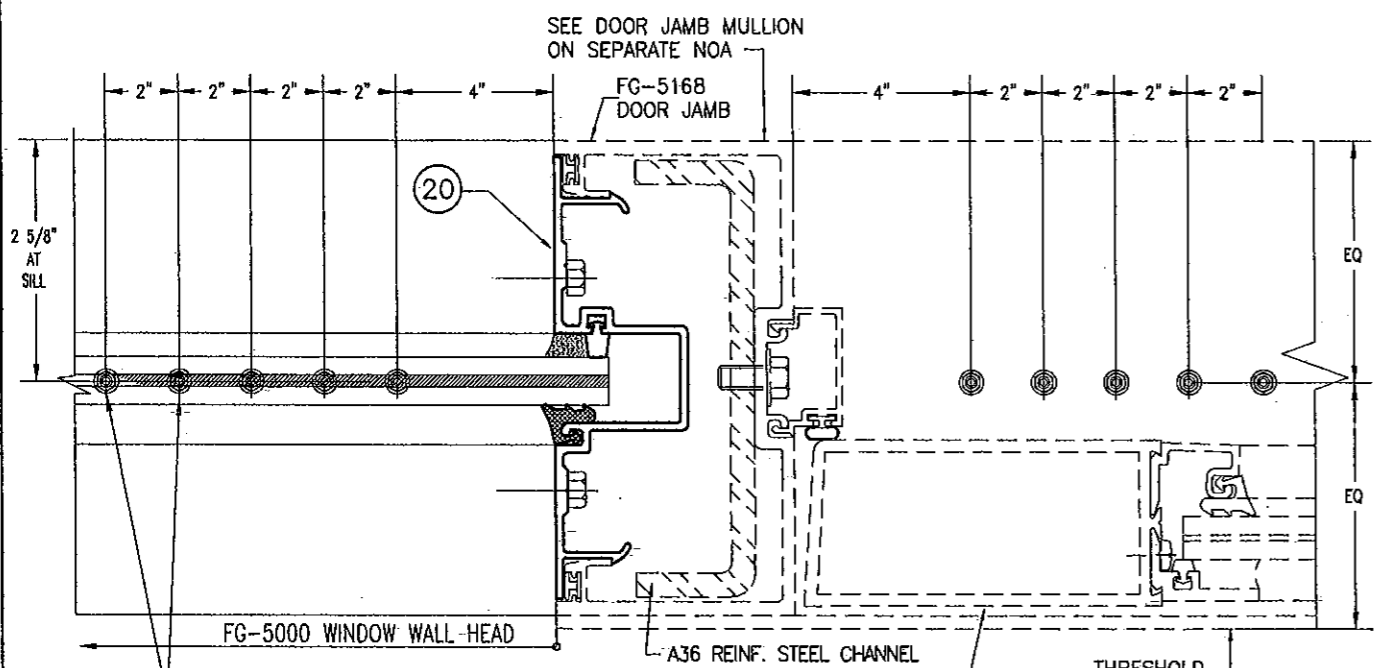
# DOOR JAMB MULLION INSTALLATION ADJACENT TO WINDOW WALL



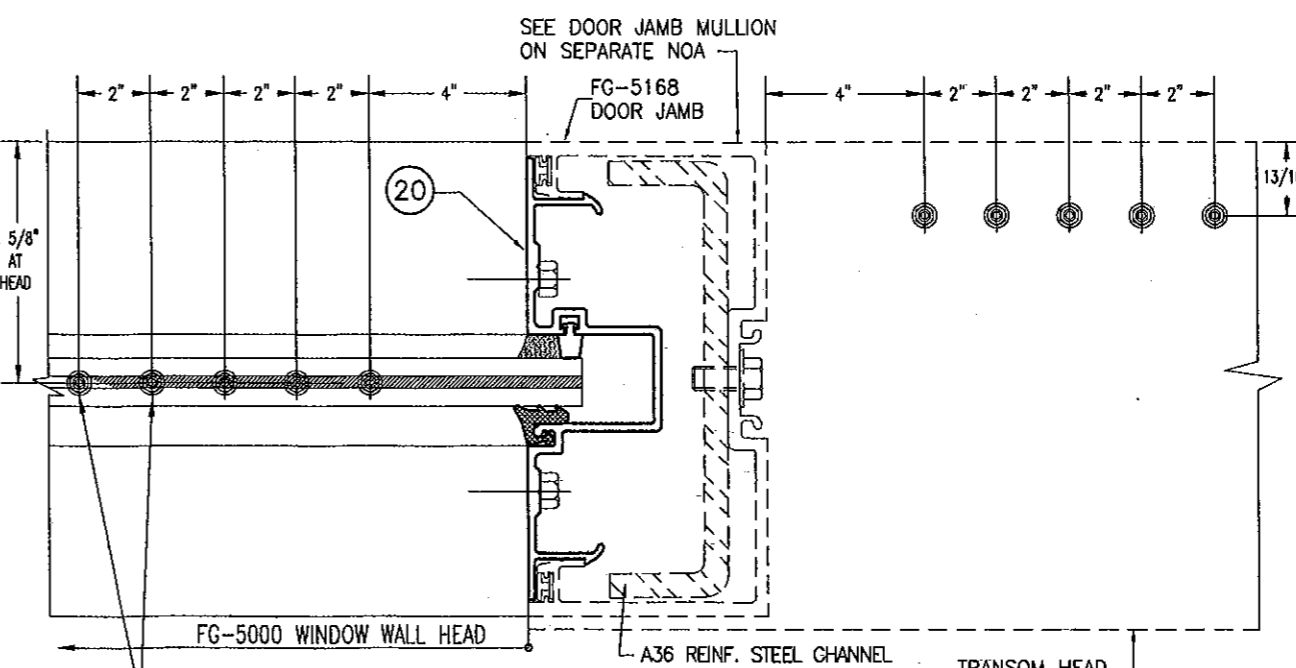
**10**  
DOOR JAMB MULLION/WINDOW WALL  
AT CONCRETE/STEEL SILL



**10A**  
DOOR JAMB MULLION/WINDOW WALL  
AT CONCRETE/STEEL HEAD



**10**  
DOOR JAMB MULLION/WINDOW WALL  
AT WOOD SILL



**10A**  
DOOR JAMB MULLION/WINDOW WALL  
AT WOOD HEAD

FLORIDA BUILDING CODE (High Velocity Hurricane Zone)

SERIES FG-5000 FLUSH GLAZED ALUMINUM WINDOW WALL SYSTEM LARGE & SMALL MISSILE IMPACT LAMINATED GLASS

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REV. No.	DESCRIPTION	DATE	REV. No.	DESCRIPTION	DATE
1	OLD DWG. 09-074	09/18/10	3		
2			4		

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DATE: 08/18/10  
10-076  
DRAWING NO  
SHEET 22 OF 22

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**TILTECO INC.**

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6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166  
Phone : (305)871-1530 • Fax : (305)871-1531  
e-mail: tilteco@ttil.com  
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FLORIDA Lic. # 44167

WALTER A. TILIT JR.  
LICENSE  
No. 44167  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

P.E. SEAL SIGNATURE/DATE

PRODUCT REVISED as complying with the Florida Building Code  
Acceptance No **10-1214-15**  
Expiration Date **NOV. 18, 2014**  
By *Maurice Jara*  
Miami Dade Product Control

MIAMI-DADE COUNTY