



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)  
BOARD AND CODE ADMINISTRATION DIVISION

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

**NOTICE OF ACCEPTANCE (NOA)**

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

**Tischler und Sohn (USA) Ltd.**  
**Six Suburban Avenue**  
**Stamford, CT 06901**

**SCOPE:**

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section 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. RER 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 Single & Double Hung Wood Fixed Window – L.M.I.**

**APPROVAL DOCUMENT:** Drawing No. **1829**, Series titled “Double Hung Fixed Impact Window”, sheets 01 through 09 of 09, dated 07/02/12 with the latest revision dated 06/04/13, prepared by W. W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E., bearing the Miami-Dade County Product Control Section Approval stamp with the Notice of Acceptance number and Approval 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 following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

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

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

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

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

This NOA consists of this page 1 and evidence page E-1, as well as approval document mentioned above.

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



*J. Gascon*  
*6/6/13*

NOA No. 13-0304.09  
Expiration Date: June 13, 2018  
Approval Date: June 13, 2013  
Page 1

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**A. DRAWINGS**

1. Manufacturer's die drawings and sections.
2. Drawing No. **1829**, Series titled "Double Hung Fixed Impact Window", sheets 01 through 09 of 09, dated 07/02/12 with the latest revision dated 05/04/13, prepared by W. W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E.

**B. TESTS**

1. Test reports on:
  - 1) Air Infiltration Test, per FBC, TAS 202-94
  - 2) Uniform 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
  - 6) Forced Entry Test, per FBC 2411.3.2.1, and TAS 202-94

along with marked-up drawings and installation diagram of a wood hung window, prepared by Architectural Testing, Inc., Test Report No. **ATI-C262.01-109-18**, dated 11/20/12, signed and sealed by Michael D. Stremmel, P. E.

**C. CALCULATIONS**

1. Anchor calculations and structural analysis, complying with **FBC-2010**, dated 09/27/12, prepared by W. W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E.
2. **Glazing complies with ASTM E1300-04**

**D. QUALITY ASSURANCE**

1. Miami-Dade Department of Regulatory and Economic Resources (RER).

**E. MATERIAL CERTIFICATIONS**

1. Notice of Acceptance No. **12-1231.08** issued to **Eastman Chemical Company (MA)** for their "**Saflex CP – Saflex and Saflex HP Composite Glass Interlayers with PET Core**" dated 03/28/13, expiring on 12/11/18.

**F. STATEMENTS**

1. Statement letter of conformance with ANSI/ AAMA/ NWWDA 101/ I.S.2-97 and complying with **FBC-2010**, dated 10/09/12, issued by W. W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E.
2. Statement letter of no financial interest and independence, dated 10/09/12, issued by W. W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E.
3. Laboratory compliance letter for Test Report No. **ATI-C262.01-109-18**, issued by Architectural Testing, Inc., dated 11/20/12, signed and sealed by Michael Stremmel, P.E.

**G. OTHERS**

1. None.



Jaime D. Gascon, P. E.  
Product Control Section Supervisor  
NOA No. 13-0304.09  
Expiration Date: June 13, 2018  
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**GENERAL NOTES:**

1. THESE WINDOW SYSTEMS HAVE BEEN TESTED, ANALYZED & APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN PRESSURE TABLE(S)".
2. OPENINGS, BUCKING & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE.
3. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & SHALL NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS. SPECIFIED ANCHOR EMBED TO BASE MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.
4. THE DETAILS & SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS TESTED & PROPOSED FOR WATER, AIR, IMPACT, CYCLIC & UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH THE FLORIDA BUILDING CODE PROTOCOLS TAS-201, 202 & 203 FOR LARGE MISSILE IMPACT WINDOWS.
5. THESE WINDOW SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH AND MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).
6. IMPACT SHUTTERS ARE NOT REQUIRED WITH THESE WINDOWS.
7. ALL ANCHORS SECURING WINDOW FRAME TO PRESSURE TREATED BUCKS OR WOOD FRAMING SHALL BE CAPABLE OF RESISTING CORROSION CAUSED BY THE PRESSURE TREATING CHEMICALS IN THE WOOD.
8. DETERMINE THE POSITIVE & NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, A DIRECTIONALITY FACTOR OF  $K_d = 0.85$  MAY BE APPLIED PER THE ASCE-7 STANDARD.
9. NO INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE CERTIFICATION OF THIS PRODUCT. WIND LOAD DURATION FACTOR  $C_d = 1.6$  WAS USED FOR WOOD SCREW ANALYSIS ONLY.
10. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF FLORIDA BUILDING CODE CHAPTER 20.
11. ALL WOOD MEMBERS OF WINDOWS THAT MAY POSSIBLY COME INTO CONTACT WITH MASONRY OR CONCRETE SUBSTRATES, ARE SUBJECT TO MOISTURE &/OR ARE SUBJECT TO THE OUTSIDE ENVIRONMENT SHALL BE OF AN APPROVED DURABLE SPECIES OR BE TREATED IN AN APPROVED METHOD WITH AN APPROVED PRESERVATIVE PER FBC SECTION 2326.

THESE DRAWINGS ARE APPLICABLE ONLY TO THE PRODUCT SPECIFIED. THEY MAY NOT BE USED FOR THE ASSEMBLY AND/OR INSTALLATION OF ANY OTHER PRODUCT NOR MAY THEY BE USED FOR RATIONAL AND/OR LOCAL APPROVAL OF ANY PRODUCT NOT PRODUCED BY THE MANUFACTURER STATED ON THESE DRAWINGS.

DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1-24	DATE: 07/02/12
NO.	REVISION DESCRIPTION
BY	DATE

**FRAME ANCHOR REQUIREMENTS TABLE**

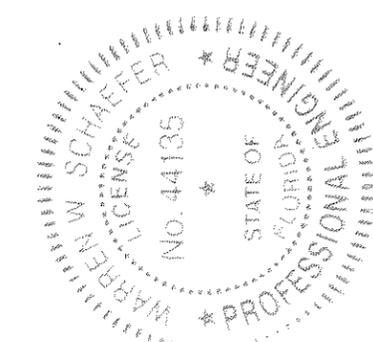
OPENING TYPE (SUBSTRATE)	FRAME/CLIP/BACKET TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.
<b>FRAME SCREWS</b>			
MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 14 SMS/WOOD SCREW OR 1/4" BTI SCREW	1 1/4"	3/4"
MIN. 16 GA. 33 KSI METAL STUD	1/4" GR. 5 SELF TAP/DRILLING SCREW	FULL	1/2"
MIN. 1/8" THK A36 STEEL	1/4" GR. 5 SELF TAP/DRILLING SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	1/4" GR. 5 SELF TAP/DRILLING SCREW	FULL	1/2"
(3) C-90 CMU	(1) 1/4" CONCRETE SCREW	1 1/4"	2"
2500 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 3/4"	2"
<b>INSTALLATION CLIP SCREWS</b>			
(2) MIN. 2X_ WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 12 SMS OR WOOD SCREW	1 3/8"	3/4"
MIN. 16 GA. 33 KSI METAL STUD	NO. 12 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK A36 STEEL	NO. 12 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	NO. 12 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
(3) C-90 CMU	(1) 1/4" CONCRETE SCREW	1 1/4"	2"
2500 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 3/4"	2"
<b>BTI BRACKET SCREWS</b>			
(2) MIN. 2X_ WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 8 SMS OR WOOD SCREW	1 3/8"	3/4"
MIN. 18 GA. 33 KSI METAL STUD	NO. 8 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK A36 STEEL	NO. 8 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	NO. 8 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
<b>ANGLE CLIP SCREWS</b>			
MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 8 SMS OR WOOD SCREW	1 5/16"	1/2"
MIN. 1/8" THK A36 STEEL	NO. 8 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	NO. 8 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
(1) CONCRETE SCREWS SHALL BE ELCO ULTRACONS (C.S.), ELCO CRETE-FLEX (S.S.), ITW RAMSET/RED HEAD TAPCONS, (C.S. OR S.S.) OR HILTI KWIK-CON II (C.S OR S.S.). (2) 2X_ BUCKS SHALL BE OF A MINIMUM DEPTH REQUIRED TO MEET ANCHOR EDGE DISTANCE REQUIREMENTS (3) CMU IS NOT APPLICABLE AT HEAD OR SILL.			

**ALLOWABLE DESIGN PRESSURE**  
**(ALL WINDOW CONDITIONS)**  
 +/-70 PSF

**CORNER CONSTRUCTION:**

FRAME CORNERS/MULLION ENDS: SQUARE CUT, BUTTED AND JOINED WITH THREE(3) NO. 10 X 2" WOOD SCREWS THROUGH THE HORIZONTAL MEMBERS INTO THE VERTICAL MEMBERS & GLUED WITH OTTOSEAL M360 WOOD GLUE OR EQUIVALENT.  
 MULLION ENDS: SQUARE CUT, BUTTED AND JOINED WITH TWO(2) NO. 10 X 2" WOOD SCREWS THROUGH THE HORIZONTAL MEMBERS INTO THE VERTICAL MEMBERS & GLUED WITH OTTOSEAL M360 WOOD GLUE OR EQUIVALENT.  
 SASH CORNERS: SQUARE CUT, BUTTED AND JOINED WITH FOUR(4) 5/16" X 1 1/2" WOOD DOWELS & GLUED WITH PONAL SUPER 3 WOOD GLUE OR EQUIVALENT.

Approved as complying with the Florida Building Code  
 Date: 06/13/2013  
 NOA# 13-0304.09  
 Miami Dade Product Control  
 By: *[Signature]*



DRAWING TITLE: DOUBLE HUNG FIXED IMPACT WINDOW  
 MANUFACTURER: TISCHLER UND SOHN (USA) LTD.  
 SIX SUBURBAN AVENUE  
 STAMFORD, CONNECTICUT 203-674-0600  
 CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)  
 7480 150TH COURT NORTH  
 PALM BEACH GARDENS, FL 33418  
 PHONE: 561-744-3424

CERTIFICATION: JUN 04 2013  
 WARREN W. SCHAEFER, P.E.  
 P.E. NO. 44135  
 DRAWING NO. 1829  
 SHEET NO. 1 OF 9

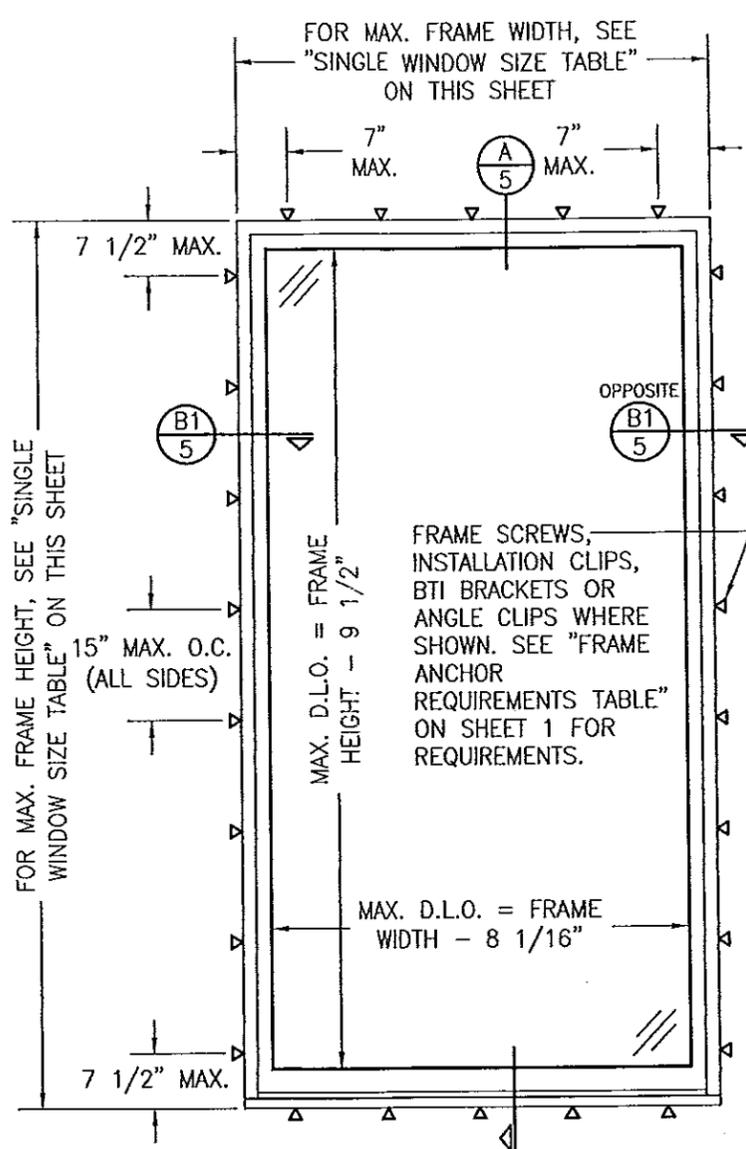
**SINGLE WINDOW SIZE TABLE**

CONCEALED BALANCE WINDOWS				WEIGHT & CHAIN WINDOWS			
GLASS OPTIONS 1 OR 2		GLASS OPTION 3		GLASS OPTIONS 1 OR 2		GLASS OPTION 3	
MAXIMUM FRAME HEIGHT (IN.)	MAXIMUM FRAME WIDTH (IN.)	MAXIMUM FRAME HEIGHT (IN.)	MAXIMUM FRAME WIDTH (IN.)	MAXIMUM FRAME HEIGHT (IN.)	MAXIMUM FRAME WIDTH (IN.)	MAXIMUM FRAME HEIGHT (IN.)	MAXIMUM FRAME WIDTH (IN.)
144	31	144	55	144	38	144	62
132	33	132	59	132	40	132	66
120	36	120	65	120	43	120	72 9/16
108	39			108	46		
96	43			96	50		
90	46			90	53		
84	49			84	56		
78	53			78	60		
72	57			72	64		
66	62			66	70		
64	65			63	72 9/16		

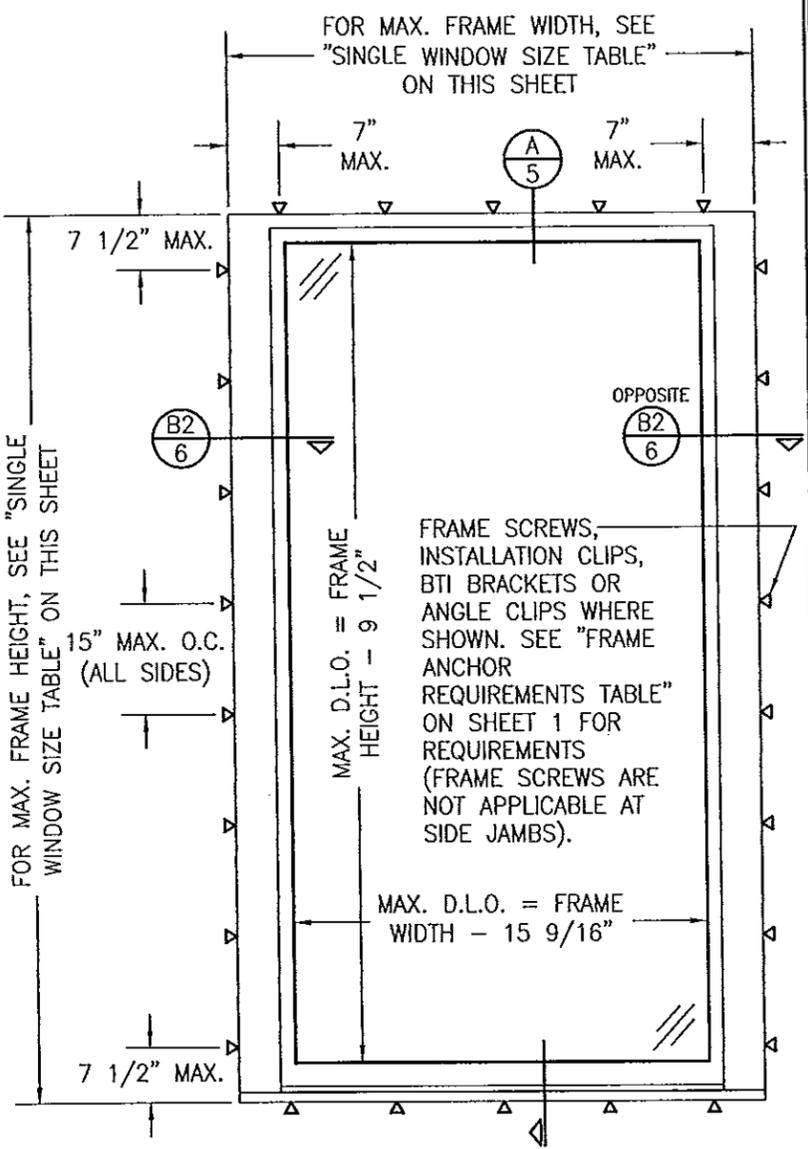
1. DIMENSIONS SHOWN ARE +/- 1/2".
2. SEE GLAZING DETAILS FOR GLASS OPTIONS.

THESE DRAWINGS ARE APPLICABLE ONLY TO THE PRODUCT SPECIFIED. THEY MAY NOT BE USED FOR THE ASSEMBLY AND/OR INSTALLATION OF ANY OTHER PRODUCT NOR MAY THEY BE USED FOR RATIONAL AND/OR LOCAL APPROVAL OF ANY PRODUCT NOT PRODUCED BY THE MANUFACTURER STATED ON THESE DRAWINGS.

DRAWN BY: W.R.M.  
 CHECKED BY: W.W.S.  
 PLOT: 1=24  
 DATE: 07/02/12



**EXTERIOR ELEVATION:  
 SINGLE WINDOW WITH CONCEALED  
 BALANCE WINDOW FRAME MEMBERS**  
 SCALE: 1/2" = 1'-0"



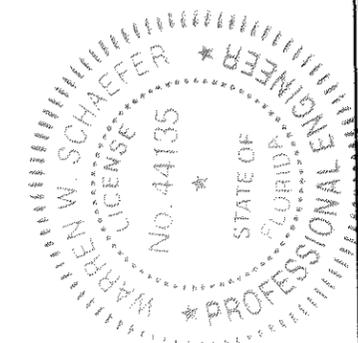
**EXTERIOR ELEVATION:  
 SINGLE WINDOW WITH WEIGHT &  
 CHAIN WINDOW FRAME MEMBERS**  
 SCALE: 1/2" = 1'-0"

NO.	REVISION DESCRIPTION	DATE	BY

**DOUBLE HUNG FIXED IMPACT WINDOW**  
 MANUFACTURER:  
**TISCHLER UND SOHN (USA) LTD.**  
 SIX SUBURBAN AVENUE  
 STAMFORD, CONNECTICUT  
 203-674-0600

CONSULTANTS  
**W. W. SCHAEFER ENGINEERING  
 & CONSULTING, P.A. (CA 6809)**  
 7480 150TH COURT NORTH  
 PALM BEACH GARDENS, FL 33418  
 PHONE: 561-744-3424

Approved as complying with the  
 Florida Building Code  
 Date: 06/13/2013  
 NOAH# 13-0304.09  
 Miami Dade Product Control  
 By: [Signature]

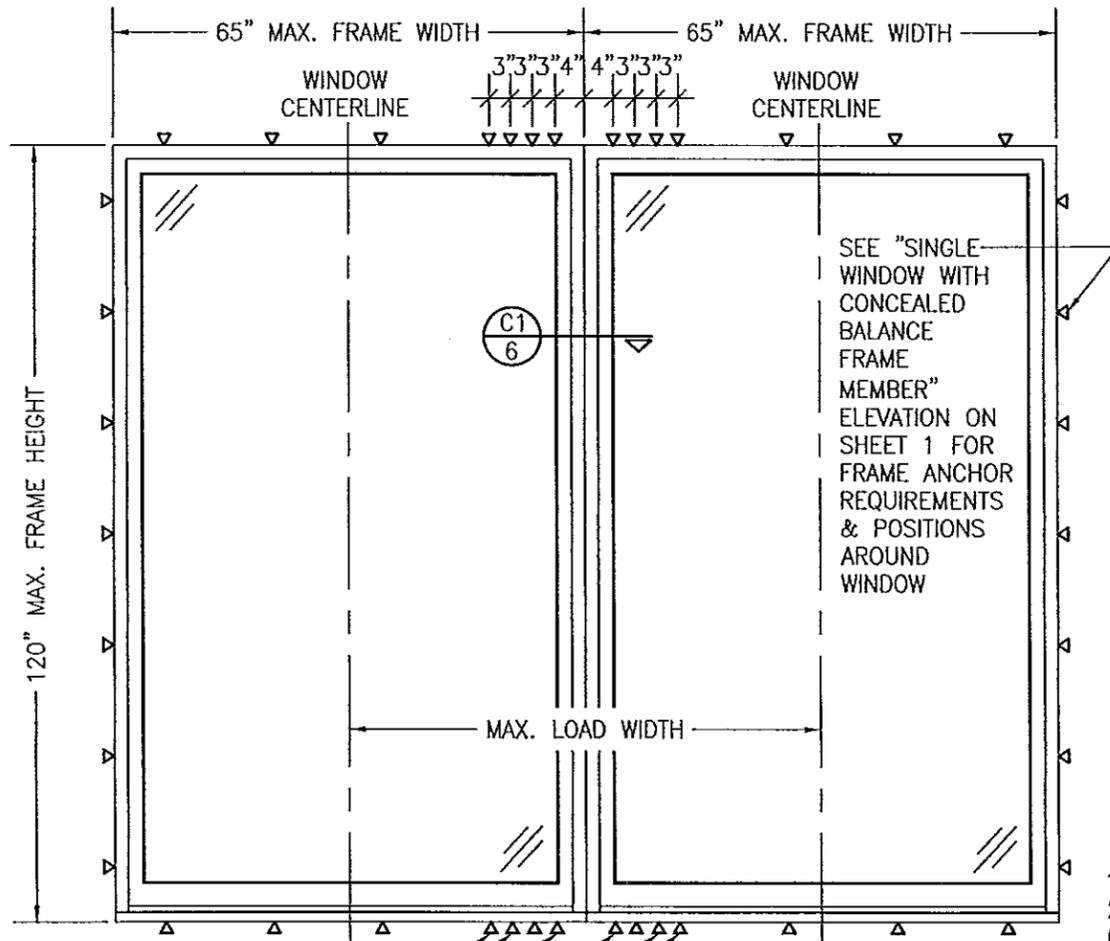


CERTIFICATION  
**JUN 04 2013**  
 WARREN W. SCHAEFER, P.E.  
 P.E. NO. 44135

DRAWING NO. **1829**  
 SHEET NO. **2** OF **9**

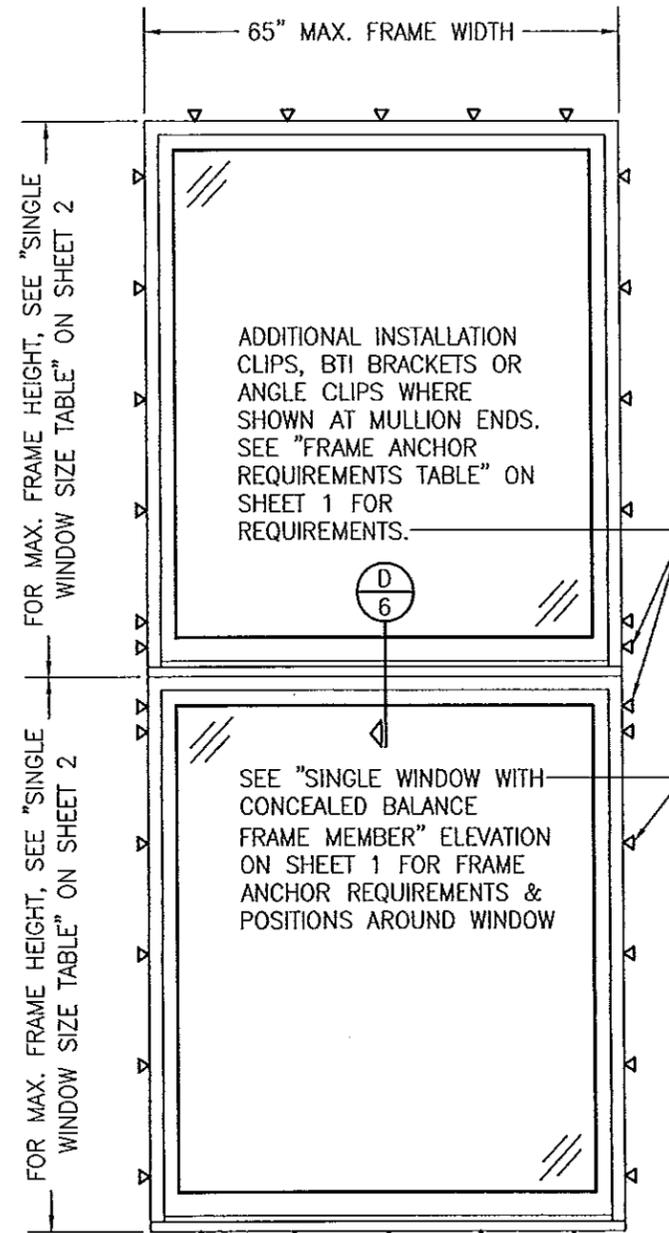
**VERTICAL MULLION END ANCHOR QUANTITIES  
(CONCEALED BALANCE FRAME MEMBER WINDOWS)**

MAX. WINDOW FRAME HEIGHT (IN.)	MAX. LOAD WIDTH (IN.)	INSTALLATION METHOD & ANCHOR QUANTITIES			
		FRAME SCREWS	INSTALLATION CLIPS	ANGLE CLIPS	BTI BRACKETS
120	65	8	6	6	4
	54	6	6	4	4
	48	6	4	4	4
	37	4	4	4	4
108	65	8	6	6	4
	60	6	6	4	4
	48	6	4	4	4
96	65	6	4	4	4
	48	4	4	4	4
84	65	6	4	4	4
	54	4	4	4	4
72	65	6	4	4	4
	63	4	4	4	4
70	65	4	4	4	4



**EXTERIOR ELEVATION:  
SIDE-BY-SIDE FIXED WINDOWS  
WITH CONCEALED BALANCE WINDOW  
FRAME MEMBERS**  
SCALE: 1/2" = 1'-0"

ADDITIONAL FRAME SHEAR SCREWS, INSTALLATION CLIPS, BTI BRACKETS OR ANGLE CLIPS WHERE SHOWN AT MULLION ENDS. SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON SHEET 1 FOR REQUIREMENTS.  
NOTE: ANCHOR QUANTITY AT MULLION ENDS MAY VARY WITH UNIT SIZE. SEE "ANCHOR QUANTITY" TABLE ON THIS SHEET FOR QUANTITY OF ANCHORS REQUIRED.

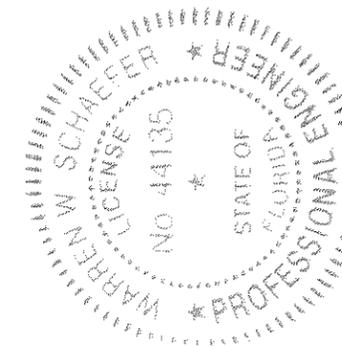


**EXTERIOR ELEVATION:  
VERTICALLY STACKED FIXED WINDOWS  
WITH CONCEALED BALANCE WINDOW  
FRAME MEMBERS**  
SCALE: 1/2" = 1'-0"

**MULTIPLE UNIT NOTES:**

- FOR ALL DETAIL NOT SHOWN, SEE SINGLE WINDOW ELEVATIONS.
- THERE IS NO LIMIT ON THE NUMBER OF WINDOWS THAT MAY BE COMBINED IN ONE DIRECTION INTO ONE OPENING PROVIDING THE OPENING IS DESIGNED TO SUPPORT ALL LOADS TRANSFERRED FROM THE WINDOWS & THEIR MULLIONS.

Approved as complying with the Florida Building Code  
Date 06/13/2013  
NOA# 13-0304.09  
Miami-Dade Product Control  
By *[Signature]*



DRAWN BY: W.R.U.	CHECKED BY: W.W.S.
PLOT: 1-24	DATE: 07/02/12
DATE	BY
REVISION DESCRIPTION	NO.

**DOUBLE HUNG FIXED IMPACT WINDOW**  
MANUFACTURER  
**TISCHLER UND SOHN (USA) LTD.**  
SIX SUBURBAN AVENUE  
STAMFORD, CONNECTICUT  
203-674-0600

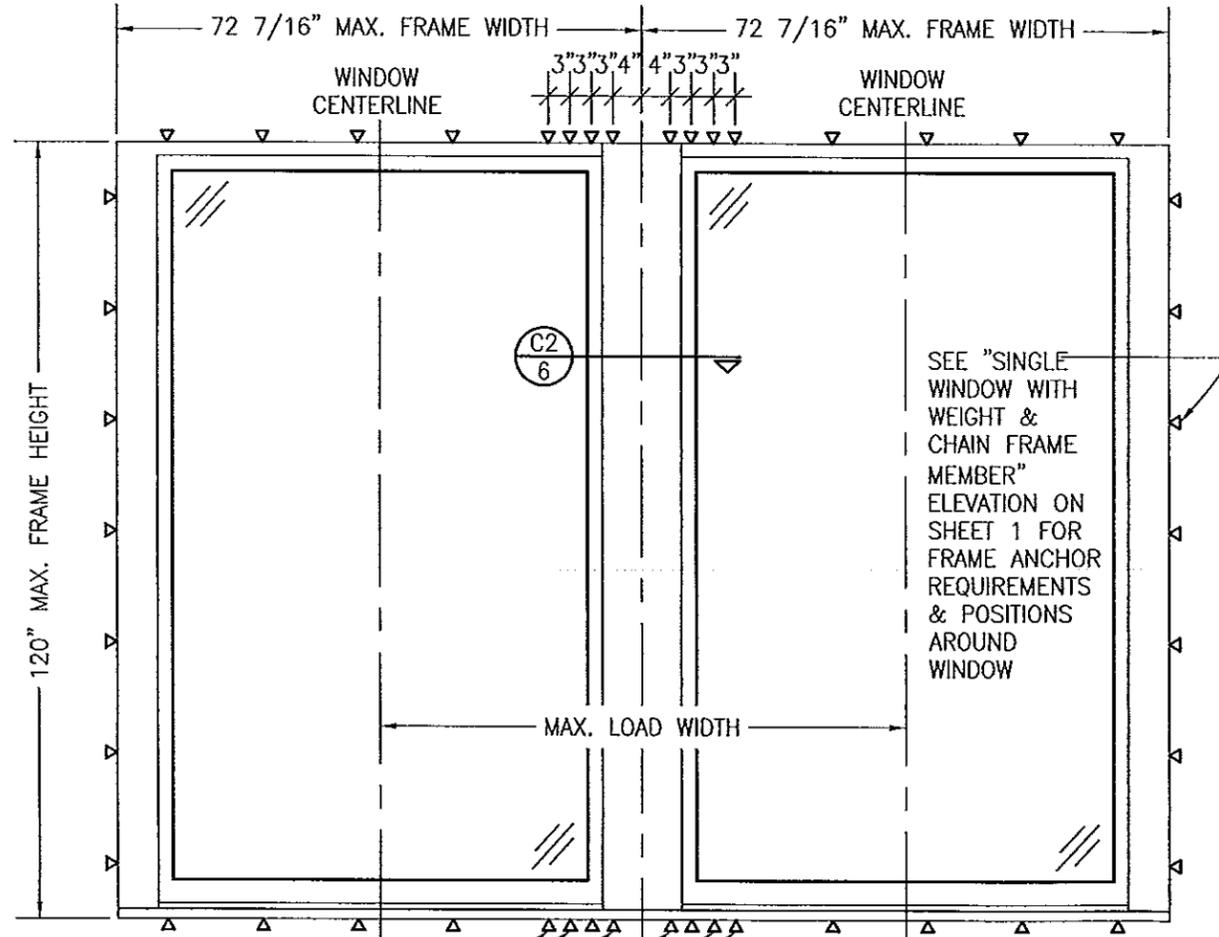
CONSULTANTS  
**W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)**  
7480 150TH COURT NORTH, 33418  
PALM BEACH GARDENS, FL 33418  
PHONE: 561-744-3424

CERTIFICATION  
**JUN 04 2013**  
WARREN W. SCHAEFER, P.E.  
P.E. NO. 44135

DRAWING NO. <b>1829</b>	REV.
SHEET NO. <b>3</b>	OF <b>9</b>

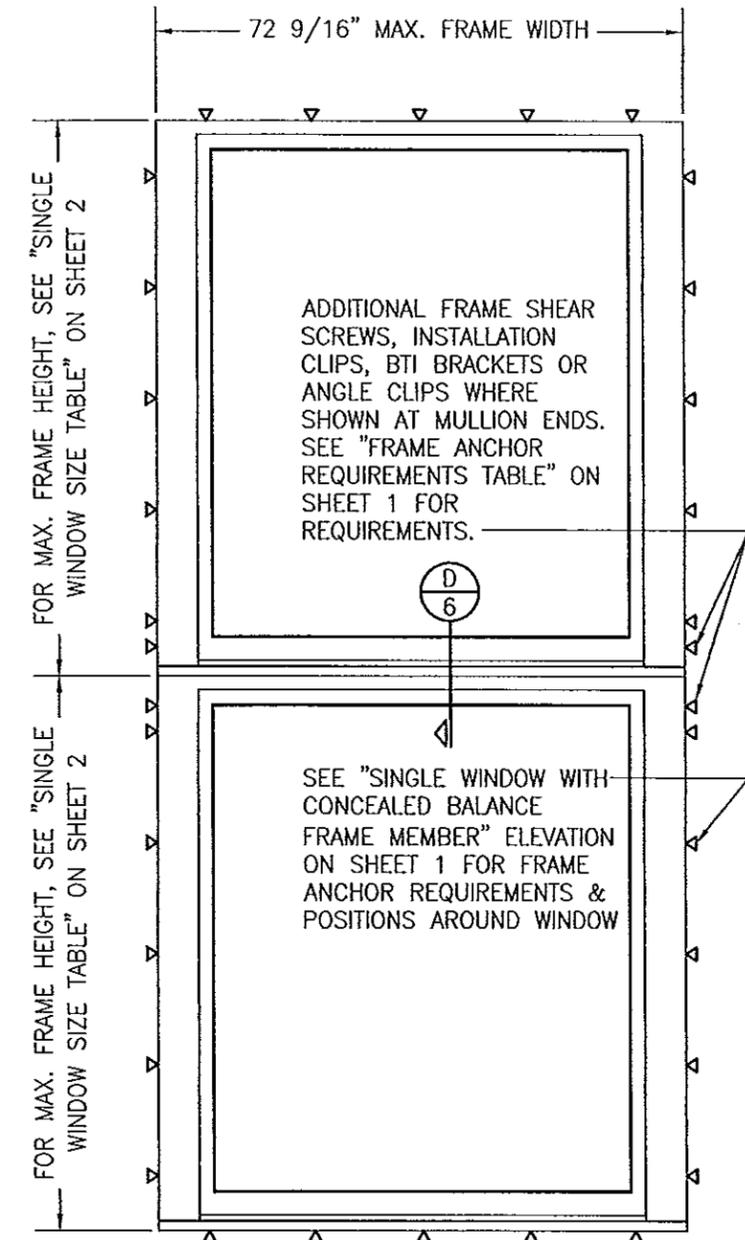
**VERTICAL MULLION END ANCHOR QUANTITIES  
(WEIGHT & CHAIN FRAME MEMBER WINDOWS)**

MAX. WINDOW FRAME HEIGHT (IN.)	MAX. LOAD WIDTH (IN.)	INSTALLATION METHOD & ANCHOR QUANTITIES			
		FRAME SCREWS	INSTALLATION CLIPS	ANGLE CLIPS	BTI BRACKETS
120	72 1/2	8	6	6	4
	60	6	6	6	4
	48	6	4	4	4
	39	4	4	4	4
108	72 1/2	8	6	6	4
	60	6	4	4	4
	44	4	4	4	4
96	72 1/2	6	6	6	4
	66	6	4	4	4
	60	6	4	4	4
	49	4	4	4	4
84	72 1/2	6	4	4	4
	56	4	4	4	4
72	72 1/2	6	4	4	4
	66	4	4	4	4
66	72 1/2	4	4	4	4



**EXTERIOR ELEVATION;  
SIDE-BY-SIDE FIXED WINDOWS  
WITH WEIGHT & CHAIN WINDOW  
FRAME MEMBERS**  
SCALE: 1/2" = 1'-0"

ADDITIONAL FRAME SHEAR SCREWS, INSTALLATION CLIPS, BTI BRACKETS OR ANGLE CLIPS WHERE SHOWN AT MULLION ENDS. SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON SHEET 1 FOR REQUIREMENTS.  
NOTE: ANCHOR QUANTITY AT MULLION ENDS MAY VARY WITH UNIT SIZE. SEE "ANCHOR QUANTITY" TABLE ON THIS SHEET FOR QUANTITY OF ANCHORS REQUIRED.



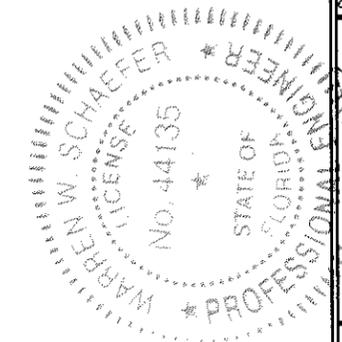
**EXTERIOR ELEVATION;  
VERTICALLY STACKED FIXED WINDOWS  
WITH WEIGHT & CHAIN WINDOW FRAME  
MEMBERS**  
SCALE: 1/2" = 1'-0"

FOR MAX. FRAME HEIGHT, SEE "SINGLE WINDOW SIZE TABLE" ON SHEET 2

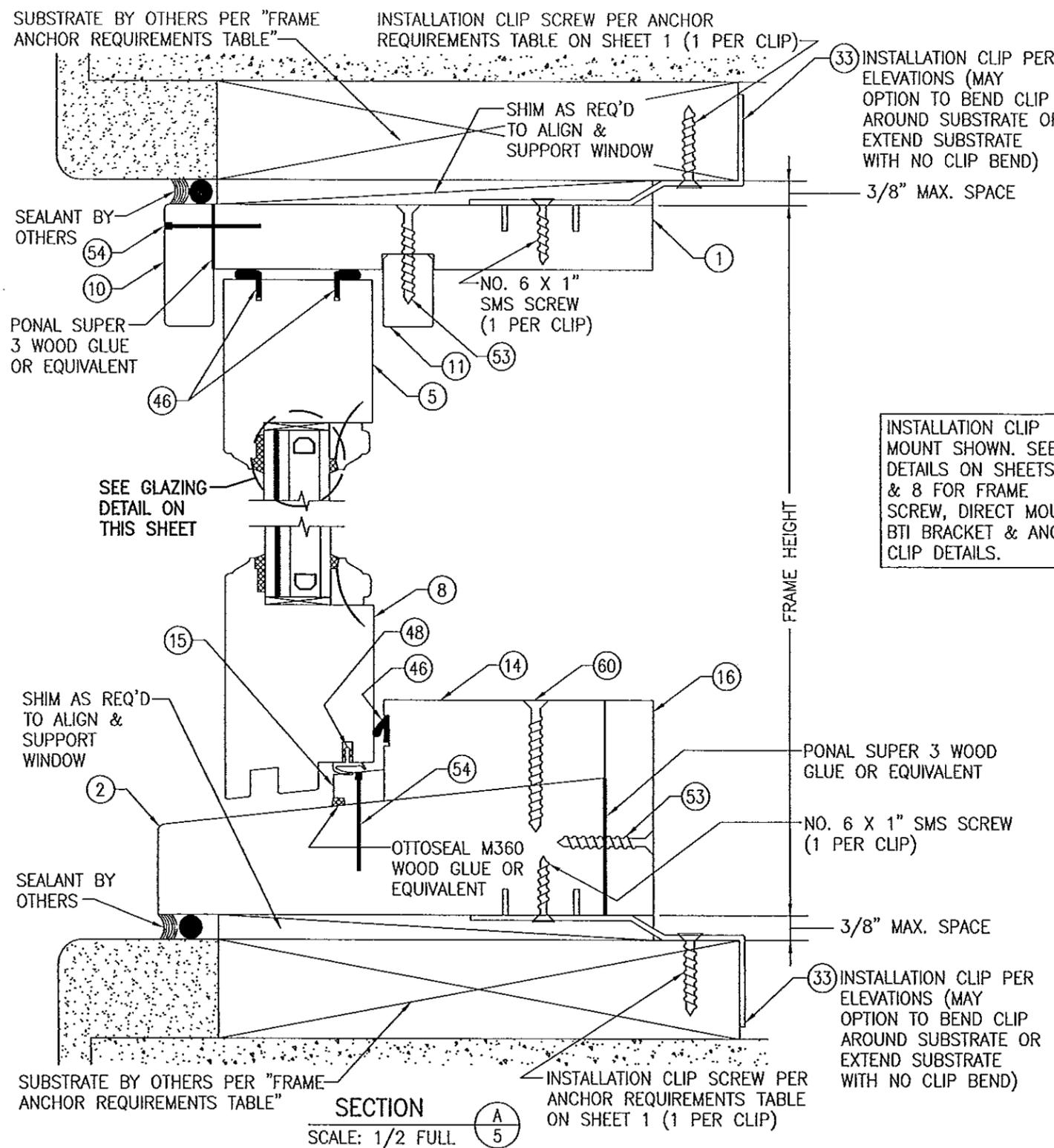
**MULTIPLE UNIT NOTES:**

1. FOR ALL DETAIL NOT SHOWN, SEE SINGLE WINDOW ELEVATIONS.
2. THERE IS NO LIMIT ON THE NUMBER OF WINDOWS THAT MAY BE COMBINED IN ONE DIRECTION INTO ONE OPENING PROVIDING THE OPENING IS DESIGNED TO SUPPORT ALL LOADS TRANSFERRED FROM THE WINDOWS & THEIR MULLIONS.

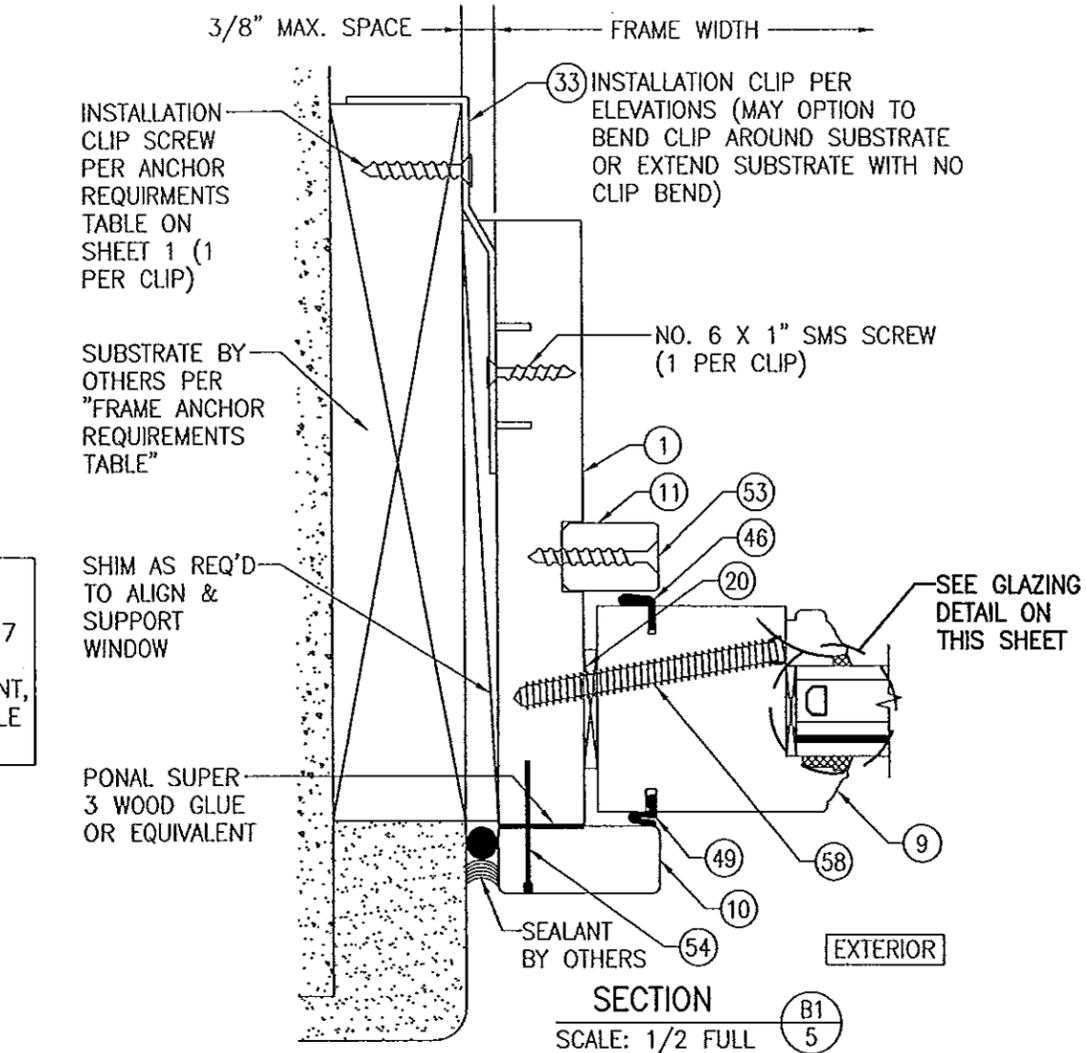
Approved as complying with the Florida Building Code  
Date 06/13/2013  
NOAH 13-0304.09  
Miami-Dade Product Control  
By [Signature]



DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1-24		DATE: 07/02/12	
DATE	BY	REVISION DESCRIPTION	NO.
<b>DOUBLE HUNG FIXED IMPACT WINDOW</b>			
CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A. (CA 6809)</b> 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424		MANUFACTURER <b>TISCHLER UND SOHN (USA) LTD.</b> SIX SUBURBAN AVENUE STAMFORD, CONNECTICUT 203-674-0600	
<b>CERTIFICATION</b>			
JUN 04 2013 WARREN W. SCHAEFER, P.E. P.E. NO. 44135			
DRAWING NO. <b>1829</b>		REV.	
SHEET NO. <b>4 OF 9</b>			

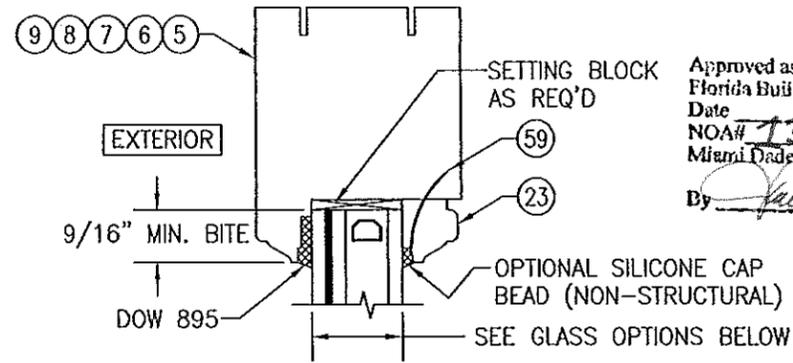


SECTION A  
SCALE: 1/2 FULL



SECTION B1  
SCALE: 1/2 FULL

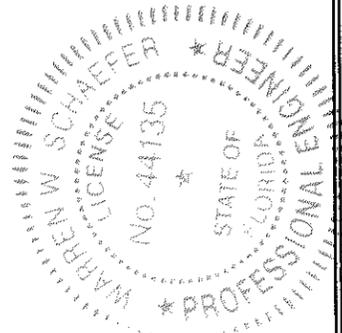
INSTALLATION CLIP MOUNT SHOWN. SEE DETAILS ON SHEETS 7 & 8 FOR FRAME SCREW, DIRECT MOUNT, BTI BRACKET & ANGLE CLIP DETAILS.



TYPICAL GLAZING DETAIL

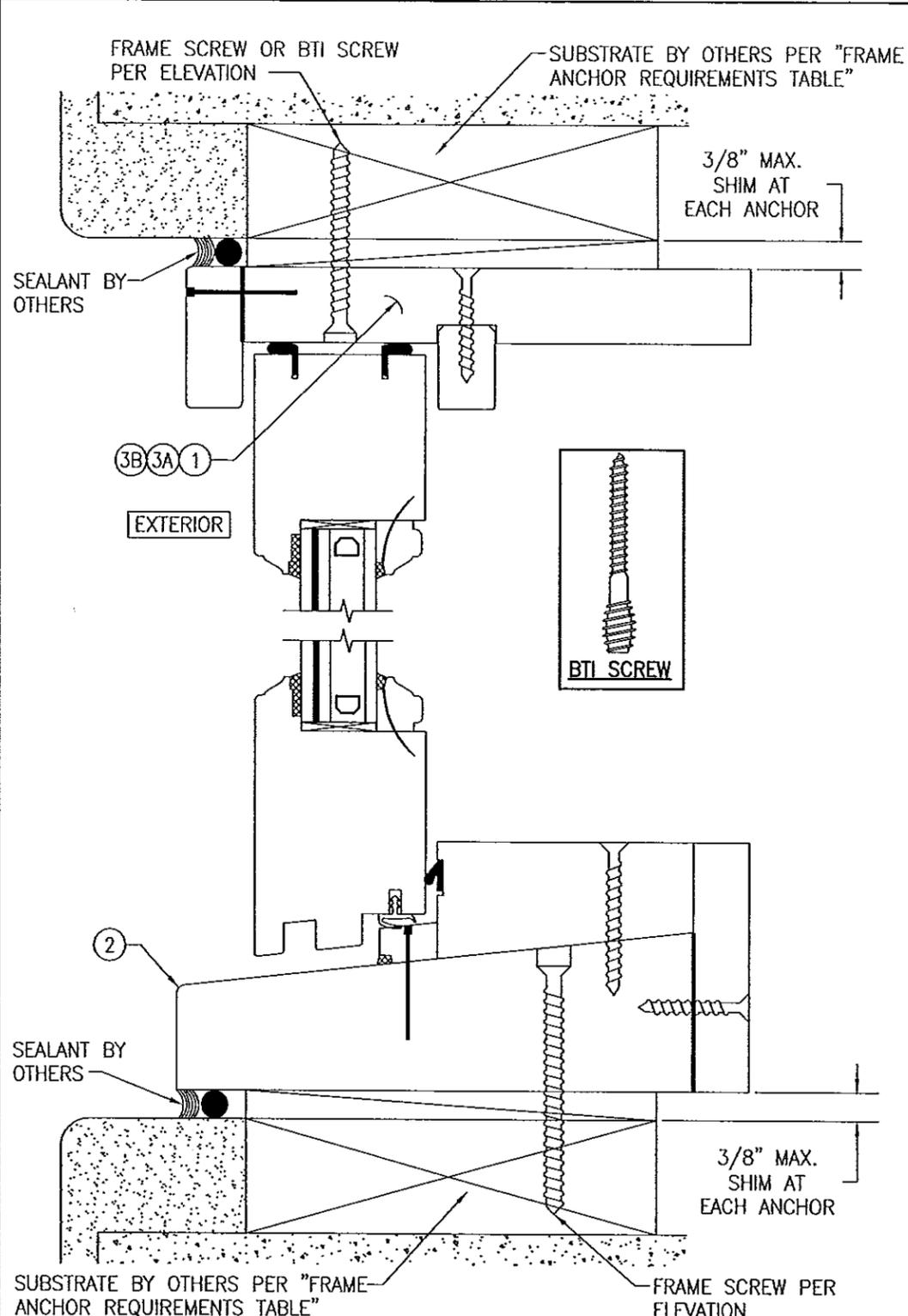
- GLASS OPTION 1: 1 1/8" LAMINATED I.G. (3/16" AN./0.075" EASTMAN CHEM. CO. SAFLEX CP/3/16" AN. EXTERIOR; 1/2" AIR SPACE/3/16" AN. INTERIOR)
- GLASS OPTION 2: 1 1/8" LAMINATED I.G. (3/16" AN./0.075" EASTMAN CHEM. CO. SAFLEX CP/3/16" AN. EXTERIOR; 1/2" AIR SPACE/3/16" TEMP. INTERIOR)
- GLASS OPTION 3: 1 1/8" LAMINATED I.G. (3/16" HT. ST./0.075" EASTMAN CHEM. CO. SAFLEX CP/3/16" HT. ST. EXTERIOR; 1/2" AIR SPACE/3/16" TEMP. INTERIOR)

Approved as complying with the Florida Building Code  
Date 06/18/2013  
NOA# 13-0304.09  
Miami Dade Product Control  
By [Signature]

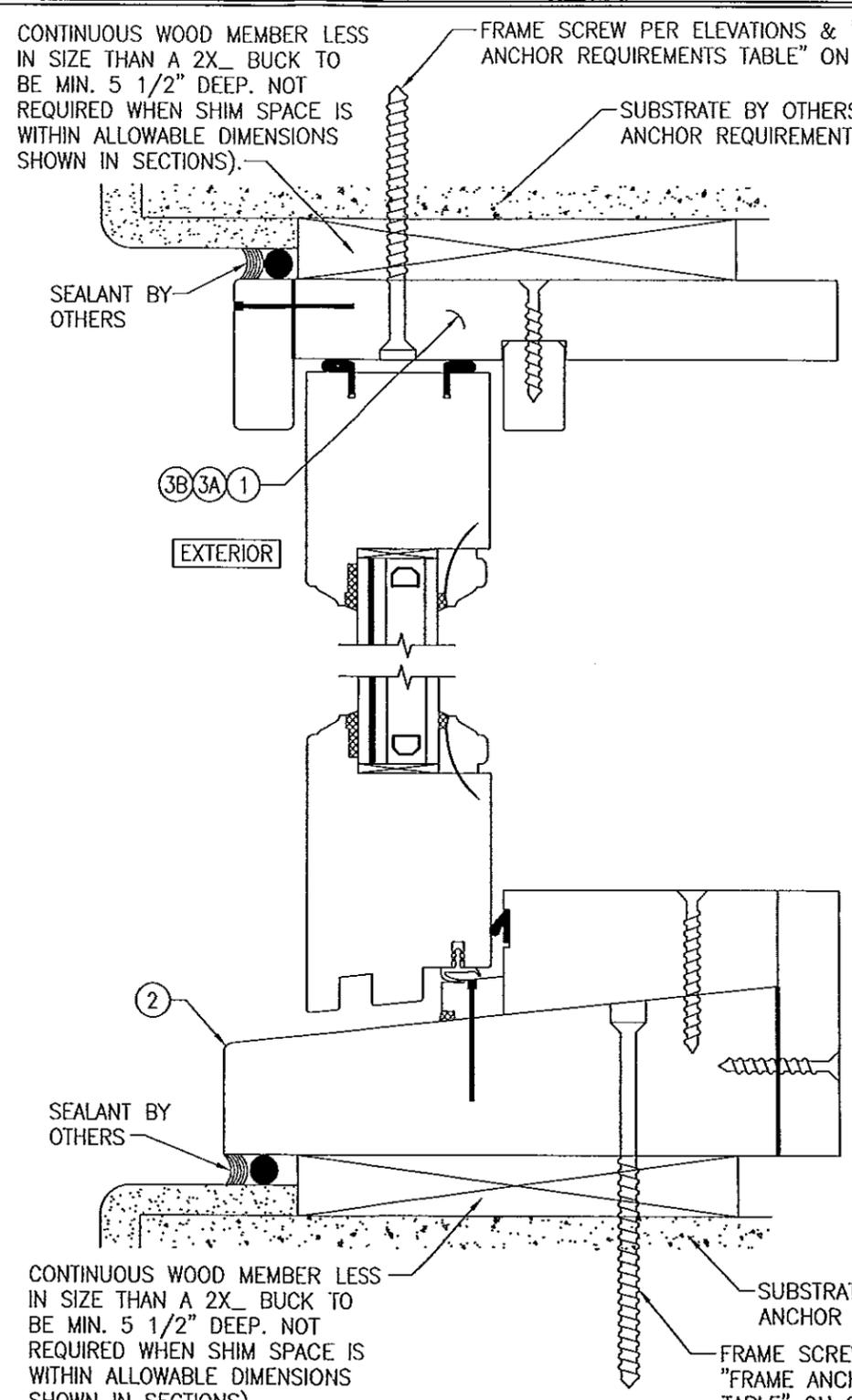


DRAWN BY: W.R.U.		CHECKED BY: W.W.S.	
PLOT: 1=2		DATE: 07/02/12	
NO.	REVISION DESCRIPTION	BY	DATE
DRAWING TITLE: DOUBLE HUNG FIXED IMPACT WINDOW			
MANUFACTURER: TISCHLER UND SOHN (USA) LTD. SIX SUBURBAN AVENUE STAMFORD, CONNECTICUT 203-674-0600			
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424			
DRAWING NO. 1829 SHEET NO. 5 OF 9			



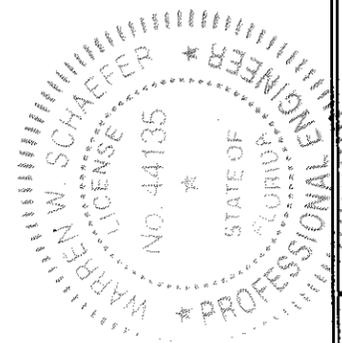


**OPTIONAL FRAME SCREW INSTALLATION DETAIL**  
 (FRAME SCREW IS NOT APPLICABLE AT JAMBS WITH WEIGHT & CHAIN FRAME MEMBER JAMBS; CONCEALED FRAME MEMBER JAMBS ARE INSTALLED THE SAME AS THE HEAD DETAIL SHOWN)  
 (FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)  
 (FRAME SCREW SHOWN. BTI SCREW ALSO APPLIES)

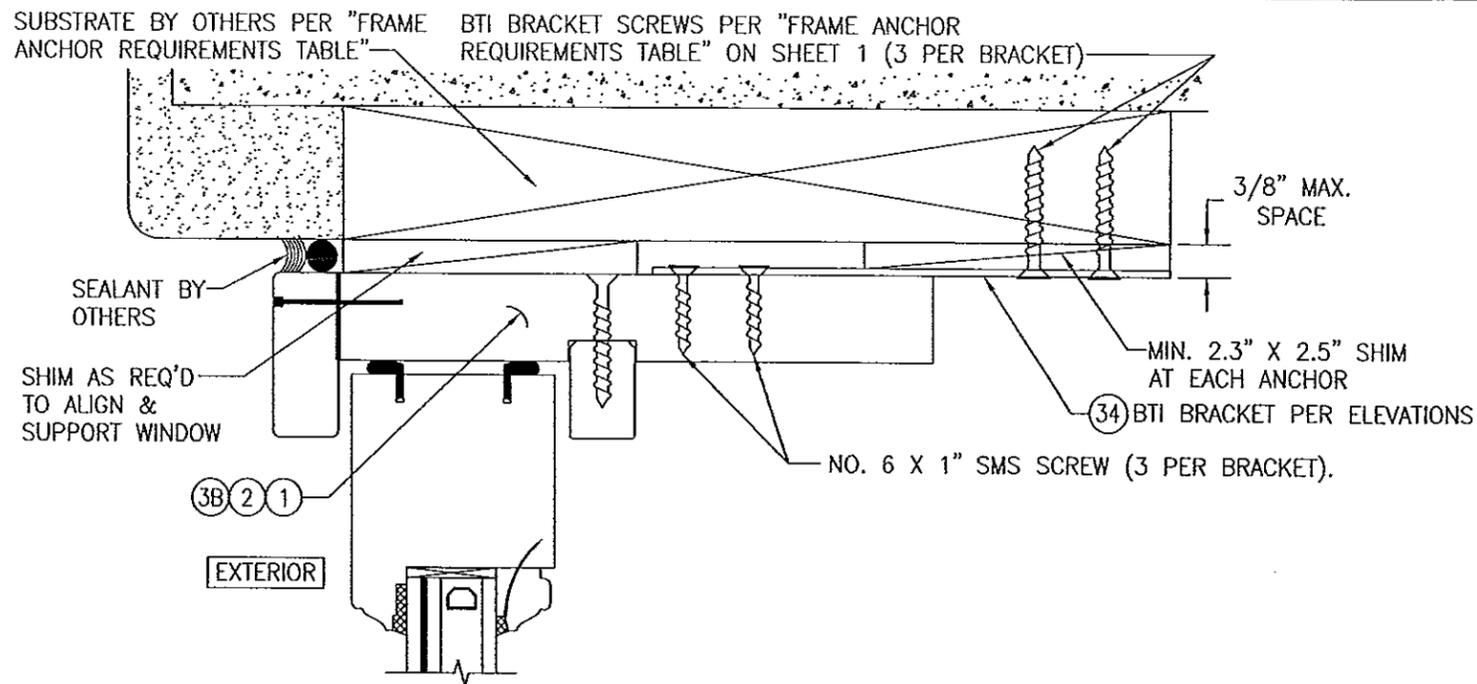


**OPTIONAL DIRECT MOUNT DETAIL TO SUBSTRATE WITH SPACER**  
 (FRAME SCREW IS NOT APPLICABLE AT JAMBS WITH WEIGHT & CHAIN FRAME MEMBER JAMBS; CONCEALED FRAME MEMBER JAMBS ARE INSTALLED THE SAME AS THE HEAD DETAIL SHOWN)  
 (FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)  
 (FRAME SCREW SHOWN. BTI SCREW ALSO APPLIES)

Approved as complying with the Florida Building Code  
 Date: 06/13/2013  
 NOA# 13-0364.09  
 Miami-Dade Product Control  
 By: *[Signature]*

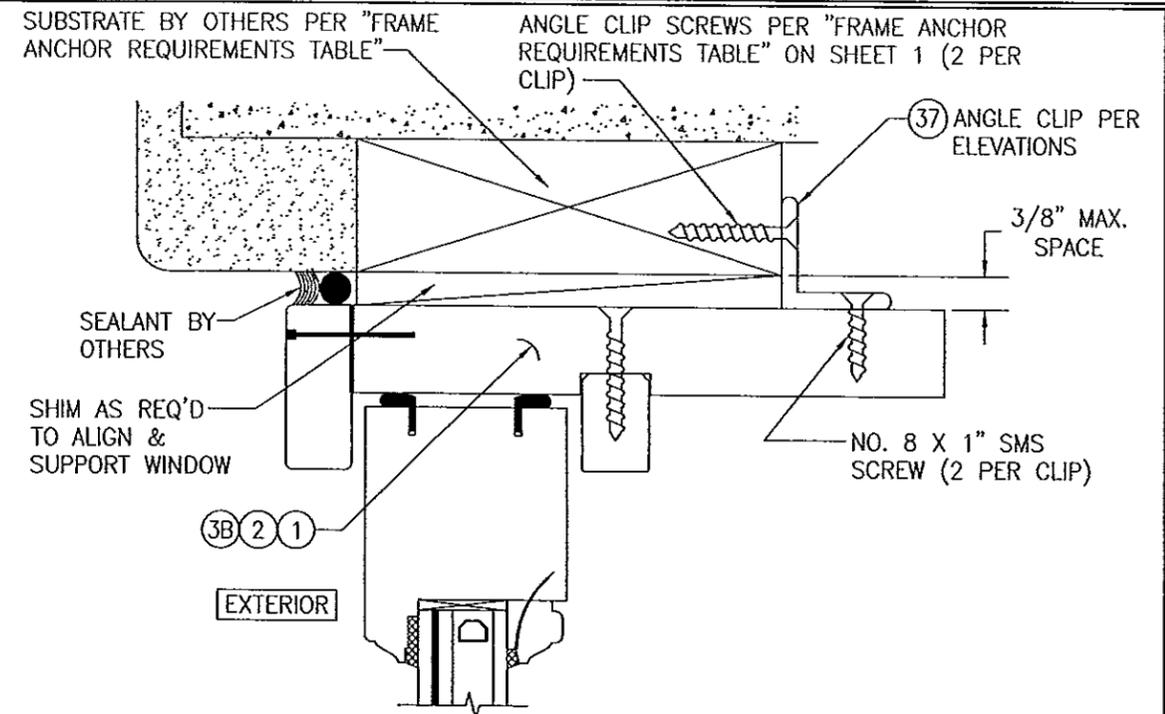


DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1-2		DATE: 07/02/12	
NO.	REVISION DESCRIPTION	BY	DATE
DRAWING TITLE: <b>DOUBLE HUNG FIXED IMPACT WINDOW</b>			
MANUFACTURER: <b>TISCHLER UND SOHN (USA) LTD.</b>			
CONSULTANTS: <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A. (CA 6809)</b>			
7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-5424			
CERTIFICATION: <b>JUN 04 2013</b>			
WARREN W. SCHAEFER, P.E. P.E. NO. 44135			
DRAWING NO. 1829		REV.	
SHEET NO. 7		OF 9	

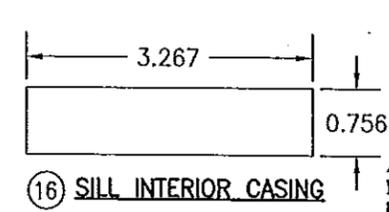
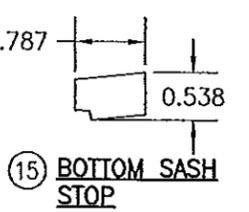
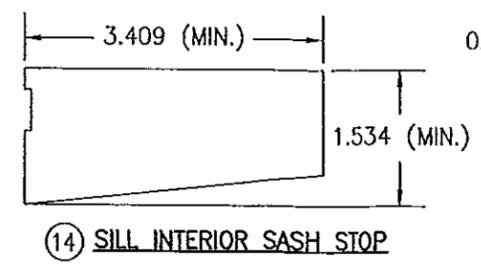
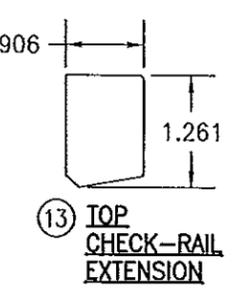
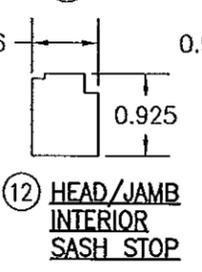
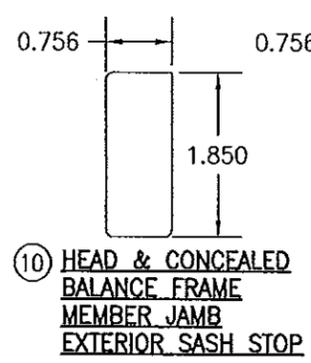
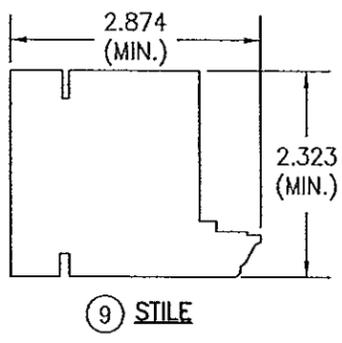
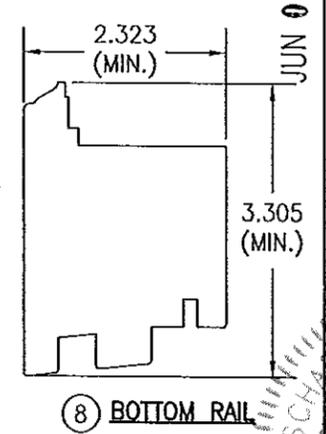
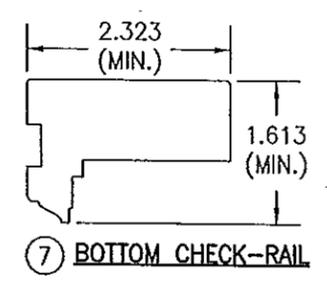
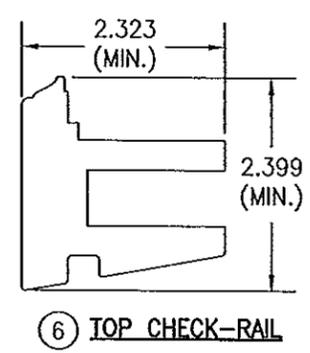
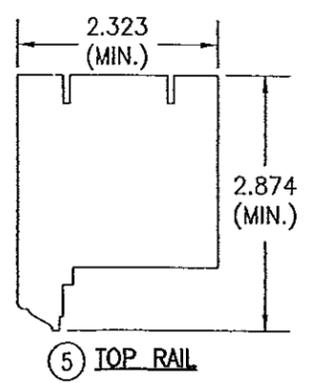
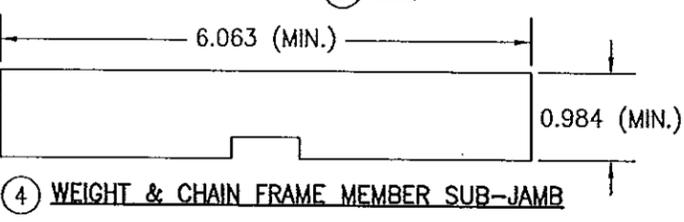
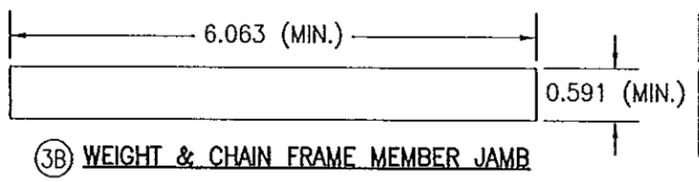
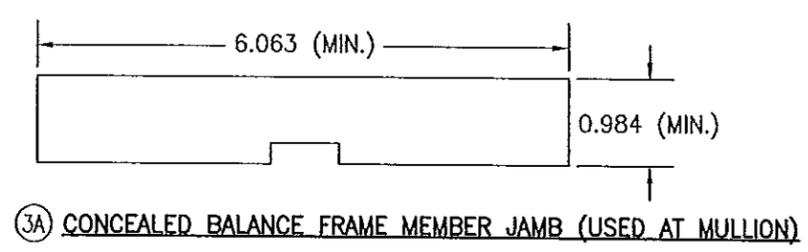
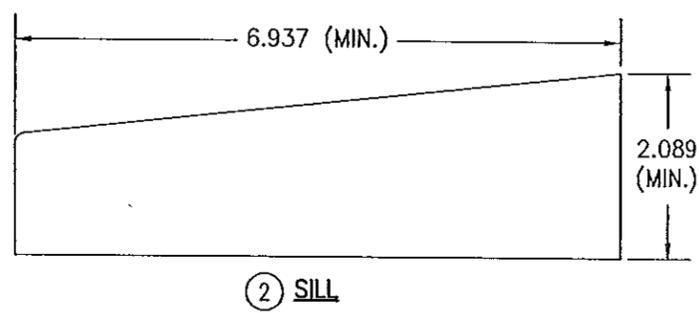
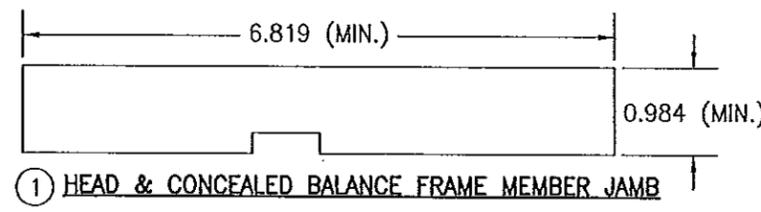


**OPTIONAL BTI BRACKET INSTALLATION DETAIL**  
 (HEAD SECTION SHOWN, SILL & SIDES ARE INSTALLED THE SAME)  
 (FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)

SEE PART #34 BTI BRACKET  
 DETAIL ON SHEET 9 FOR SCREW  
 LOCATIONS THROUGH BRACKET



**OPTIONAL ANGLE CLIP INSTALLATION DETAIL**  
 (HEAD SECTION SHOWN, SILL & SIDES ARE INSTALLED THE SAME)  
 (FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)

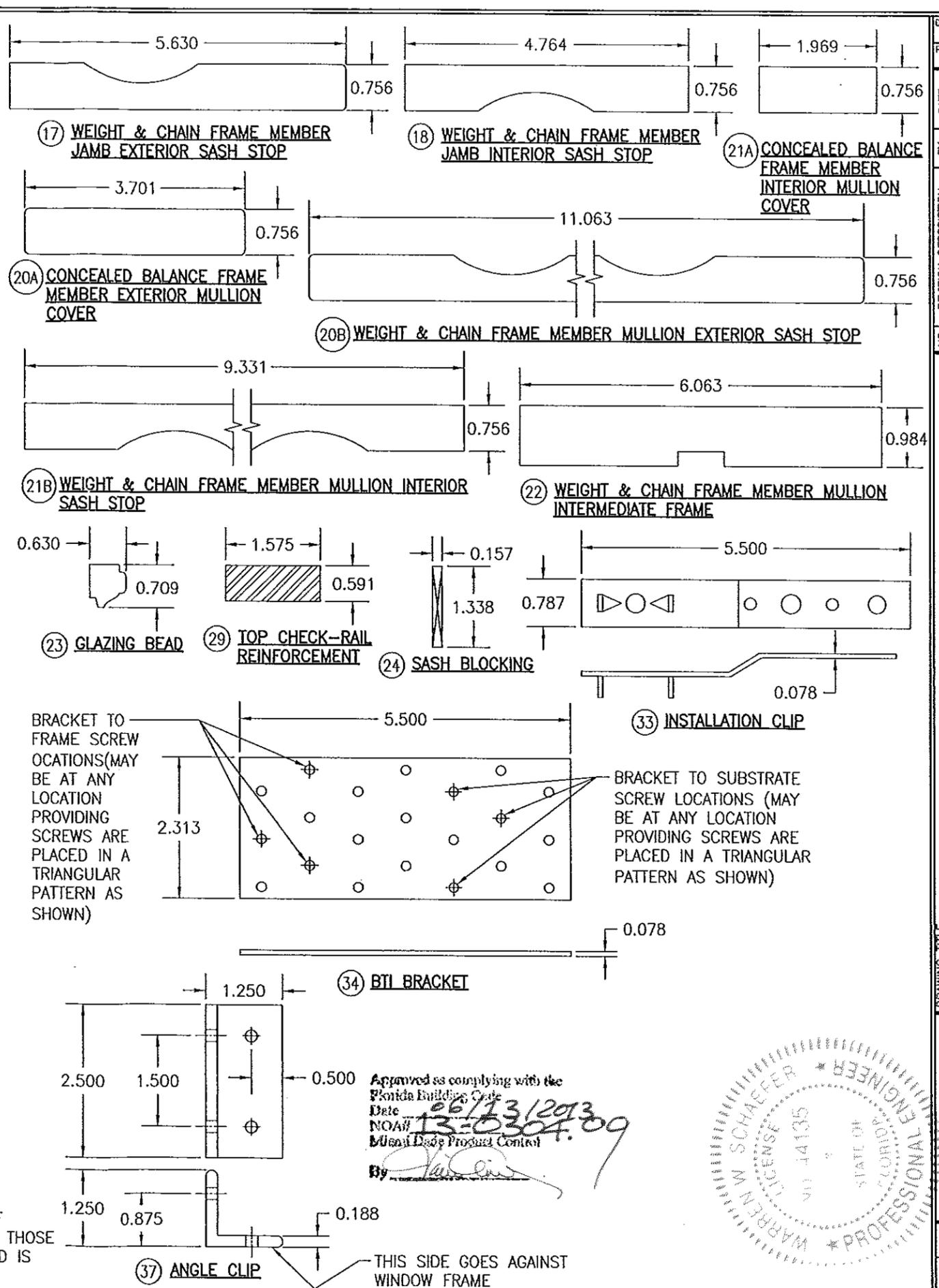


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 Florida Building Code  
 Date 06/13/2013  
 NOAH 13-0304.09  
 Miami Dade Product Control  
 By [Signature]

DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1=2	DATE: 07/02/12
NO.	REVISION DESCRIPTION
DATE	BY
DRAWING TITLE DOUBLE HUNG FIXED IMPACT WINDOW	
MANUFACTURER TISCHLER UND SOHN (USA) LTD. SIX SUBURBAN AVENUE STAMFORD, CONNECTICUT 203-674-0600	
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424	
DRAWING NO. 1829	
SHEET NO. 8 OF 9	

ITEM #	ITEM DESCRIPTION	MANUFACTURER/NOTES
PARTS		
1	HEAD & CONCEALED BALANCE FRAME MEMBER JAMB	WOOD
2	SILL	WOOD
3A	CONCEALED BALANCE FRAME MEMBER JAMB (USED AT MULLION)	WOOD
3B	WEIGHT & CHAIN FRAME MEMBER JAMB	WOOD
4	WEIGHT & CHAIN FRAME MEMBER SUB-JAMB	WOOD
5	TOP RAIL	WOOD
6	TOP CHECK-RAIL	WOOD
7	BOTTOM CHECK-RAIL	WOOD
8	BOTTOM RAIL	WOOD
9	STILE	WOOD
10	HEAD & CONCEALED BALANCE FRAME MEMBER JAMB EXTERIOR SASH STOP	WOOD
11	PARTING STOP	WOOD
12	HEAD/JAMB INTERIOR SASH STOP	WOOD
13	TOP CHECK-RAIL EXTENSION	WOOD
14	SILL INTERIOR SASH STOP	WOOD
15	BOTTOM SASH STOP	WOOD
16	SILL INTERIOR CASING	WOOD
17	WEIGHT & CHAIN FRAME MEMBER JAMB EXTERIOR SASH STOP	WOOD
18	WEIGHT & CHAIN FRAME MEMBER JAMB INTERIOR SASH STOP	WOOD
20A	CONCEALED BALANCE FRAME MEMBER EXTERIOR MULLION COVER	WOOD
20B	WEIGHT & CHAIN FRAME MEMBER JAMB EXTERIOR MULLION COVER	WOOD
21A	CONCEALED BALANCE FRAME MEMBER INTERIOR MULLION COVER	WOOD
21B	WEIGHT & CHAIN FRAME MEMBER JAMB EXTERIOR MULLION COVER	WOOD
22	WEIGHT & CHAIN FRAME MEMBER MULLION INTERMEDIATE FRAME	WOOD
23	GLAZING BEAD	WOOD
24	SASH BLOCKING	WOOD
29	TOP CHECK-RAIL REINFORCEMENT	34 KSI STAINLESS STEEL OR A36 STEEL
33	INSTALLATION CLIP	GALVANIZED 54 KSI STEEL
34	BTI BRACKET	GALVANIZED 54 KSI STEEL
37	ANGLE CLIP	6061-T6 ALUMINUM
SEALS & SEALANTS		
46	WEATHERSTRIP	SCHLEGEL QWS-250
47	WEATHERSTRIP	SCHLEGEL QFS-375
48	SILL WEATHERSTRIP	DEVENTER S6961
49	WEATHERSTRIP	SCHLEGEL QL-3055
FASTENERS		
53	NO. 8 X 1 1/2" SMS OR WOOD SCREW	WITHIN 2" FROM CORNERS & 12" MAX. O.C.
54	18 GA. X 1 1/2" S.S. BRAD NAIL	WITHIN 2" FROM CORNERS & 12" MAX. O.C.
56	NO. 10 X 2" SMS OR WOOD SCREW	WITHIN 2" FROM ENDS & ONE AT MID-SPAN
58	NO. 14 X 3 1/8" BAUTEC WOOD SCREW	WITHIN 4" FROM CORNERS & 12" MAX. O.C.
59	18 GA. X 1 1/2" S.S. CURVED NAIL	WITHIN 4" FROM CORNERS & 12" MAX. O.C.

NOTE: WOOD USED IN TESTING WAS SIPO MAHOGANY WITH A SPECIFIC GRAVITY OF G = 0.62 AND A MODULUS OF ELASTICITY OF E = 1,600,000 PSI. OTHER WOOD SPECIES APPLICABLE FOR USE WITH THIS PRODUCT ARE THOSE WITH A SPECIFIC GRAVITY OF 0.62 AND MODULUS OF ELASTICITY OF 1,600,000 PSI OR GREATER. ALL WOOD IS MINIMUM GRADE 2 MILLED BY TISCHLER UND SOHN TO SELECT.



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REVISION DESCRIPTION	
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DRAWING TITLE <b>DOUBLE HUNG FIXED IMPACT WINDOW</b>	
MANUFACTURER <b>TISCHLER UND SOHN (USA) LTD.</b> SIX SUBURBAN AVENUE STAMFORD, CONNECTICUT 203-674-0600	
CONSULTANTS <b>W. W. SCHAEFER ENGINEERING &amp; CONSULTING, P.A. (CA 6809)</b> 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424	
CERTIFICATION <b>JUN 04 2013</b> WARREN W. SCHAEFER, P.E. P.E. NO. 44135	
DRAWING NO. <b>1829</b>	REV.
SHEET NO. <b>9</b>	OF <b>9</b>