



**BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION**

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

NOTICE OF ACCEPTANCE (NOA)

**KML Windows, Inc.
23 Buchanan Court
London, Ontario, Canada N5Z 4P9**

SCOPE:

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

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

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

DESCRIPTION: Aluminum Clad Wood Operable Casement Window-N.I.

APPROVAL DOCUMENT: Drawing No.1227B, titled "Aluminum Clad Wood Operable Casement Window Non-Impact Windows", sheets 1 through 10 of 10, prepared by W.W. Schaefer Engineering & Consulting, P.A., dated 5/13/03, signed and sealed by Warren Schaefer, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Division.

MISSILE IMPACT RATING: None

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

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

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

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

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

This NOA revises NOA # 00-1030.05 and, consists of this page 1 as well as approval document mentioned above. The submitted documentation was reviewed by **Theodore Berman, P.E.**



**NOA No 03-0625.09
Expiration Date: September 27, 2004
Approval Date: October 16, 2003
Page 1**

KML Windows, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No. **1227B**, titled "Aluminum Clad Wood Operable Casement Window Non-Impact Windows", sheets 1 through 10 of 10, prepared by W.W. Schaefer Engineering & Consulting, P.A., dated 5/13/03, signed and sealed by Warren Schaefer, P.E.

B. TESTS

Submitted under NOA# 00-1030.05

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 202-94along with installation diagram of aluminum clad wood operable casement windows of different shapes, prepared by Intertek Testing Services NA Inc., Test Report No. **J99022770-231-01**, dated October 9, 2000, signed and sealed by Douglas Keith Tucker, 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 202-94along with installation diagram of aluminum clad wood operable casement windows of different shapes, prepared by Intertek Testing Services NA Inc., Test Report No. **J99022770-231-02**, dated October 10, 2000, signed and sealed by Douglas Keith Tucker, P.E

C. CALCULATIONS

1. Anchor Calculations, and ASTM-E1300-98 Analysis dated 5/22/03, prepared by W.W. Schaefer Engineering & Consulting, P.A., signed and sealed by Warren Schaefer, P.E.
Submitted under NOA# 00-1030.05
2. Anchor Calculations, prepared by W. W. Schaefer Engineering & Consulting, P.A., dated 9/25/00, signed and sealed by Warren W. Schaefer, PE.



Theodore Berman, P.E.
Deputy Director, Product Control Division

NOA No 03-0625.09

Expiration Date: September 27, 2004

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KML Windows, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

D. MATERIAL CERTIFICATIONS

Submitted under NOA# 00-1030.05

1. Notice of Acceptance No. **00-0524.06** issued to Nebula Glass International Inc. for "Glasslam Safety-Plus Laminated Glass" dated 9/21/00, expiring on 9/9/03.
2. Notice of Acceptance No. **02-0828.16** issued to E.I. DuPont DeNemours for "Dupont Butacite ® PVB" dated 11/21/02, expiring on 12/11/05.

E. QUALITY ASSURANCE

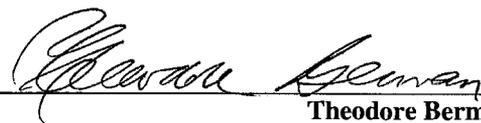
1. Miami-Dade County Building Code Compliance Office

F. STATEMENTS

1. None

F. OTHER

1. Notice of Acceptance No. **00-1030.05**, issued to KML Window, Inc., Aluminum Clad Wood Operable Casement Window, approved on 9/27/01 and expiring on 9/27/04.

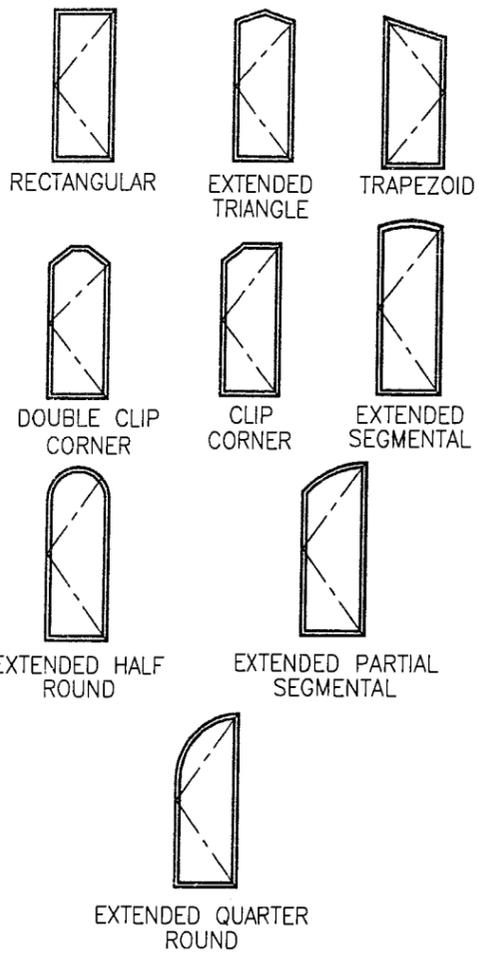


**Theodore Berman, P.E.
Deputy Director, Product Control Division**

NOA No 03-0625.09

Expiration Date: September 27, 2004

Approval Date: October 16, 2003



SHAPES CONSIDERED AS PART OF THIS APPROVAL

GENERAL NOTES

1. THESE WINDOW SYSTEMS HAVE BEEN TESTED, ANALYZED AND APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN LOADS" TABLES.
2. BUCKING, OPENINGS & BUCKING FASTENERS MUST BE DESIGNED & INSTALLED TO WITHSTAND WIND LOADS AS DETERMINED FOR EA. APPLICATION.
3. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & MAY NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS.
4. THE DETAILS & SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS PROPOSED FOR WATER, AIR & UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH FLORIDA BUILDING CODE PROTOCOLS TAS 202 FOR NON-IMPACT WINDOWS.
5. ALL JAMB TO BUCKING SHEAR FASTENERS MUST PENETRATE BUCK A MINIMUM OF 1 1/4". IF PENETRATION IS LESS THAN 1 1/4" THEN SCREW LENGTH SHALL INCREASE AS REQUIRED.
6. THESE WINDOW SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC).
7. THIS PRODUCT HAS BEEN TESTED IN ACCORDANCE WITH FLORIDA BUILDING CODE PROTOCOLS TAS-202.
8. FOR ALL NON-IMPACT WINDOWS, FLORIDA BUILDING CODE APPROVED SHUTTERS ARE REQUIRED.

NOTE: NUMBER OF LATCH POINTS & BUTT HINGES MAY VARY WITH UNIT HEIGHT PROVIDING END DISTANCES & SPACINGS DO NOT EXCEED THE MAXIMUMS SHOWN IN THESE ELEVATIONS.

NOTE: FOR COMBINATION OF UNITS. SEE SHEET 3 & MULLION DRAWING NO. 1003E UNDER SEPERATE APPROVAL

ALLOWABLE DESIGN LOADS
SEE "LOAD TABLE" ON SHEET 9

| WINDOW HEIGHT | NUMBER OF LATCH POINTS REQ'D | NUMBER OF HINGES REQ'D |
|---------------|------------------------------|------------------------|
| 36" | 2 | 2 |
| 42" | 3 | 2 |
| 48" | 3 | 2 |
| 54" | 3 | 3 |
| 60" | 4 | 3 |
| 66" | 4 | 3 |
| 73" | 5 | 3 |
| 78" | 5 | 3 |
| 84" | 5 | 3 |

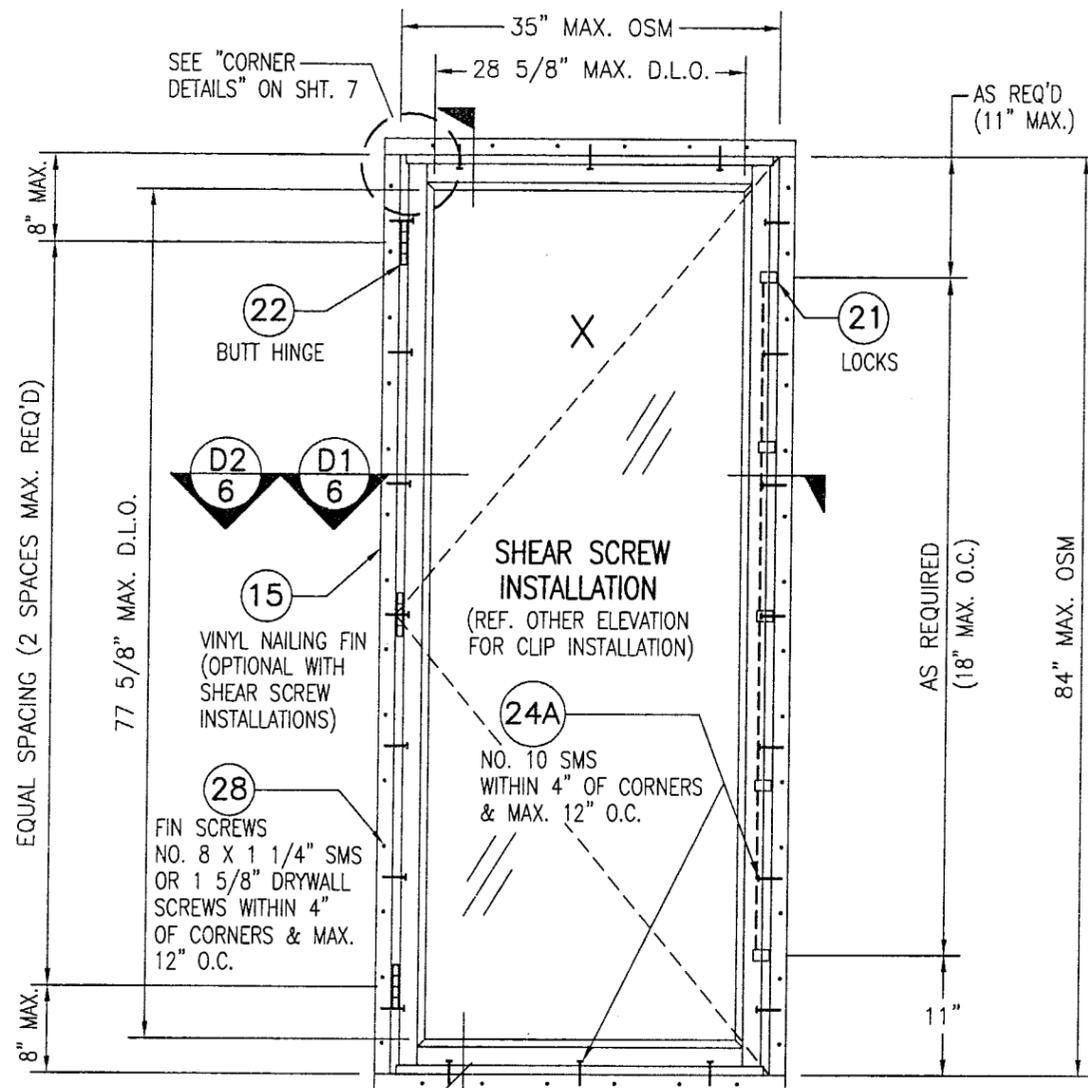
1. IF THE WINDOW HEIGHT FALLS BETWEEN HEIGHTS IN THIS TABLE, THE TALLER TABLE HEIGHT SHALL BE USED.
2. THE MINIMUM NUMBER OF LATCH POINTS OR HINGES USED MAY NOT BE LESS THAN 2 FOR WINDOWS SHORTER THAN 36".

JAMB FASTENER MIN. EMBEDMENT INTO OPENING OR BUCK

NO. 10 SMS SCREWS INTO BUCK = 1 3/8"
1/4" TAPCON INTO CONCRETE/BLOCK = 1 1/4"

JAMB FASTENER MINIMUM EDGE DISTANCE AT OPENING OR BUCK

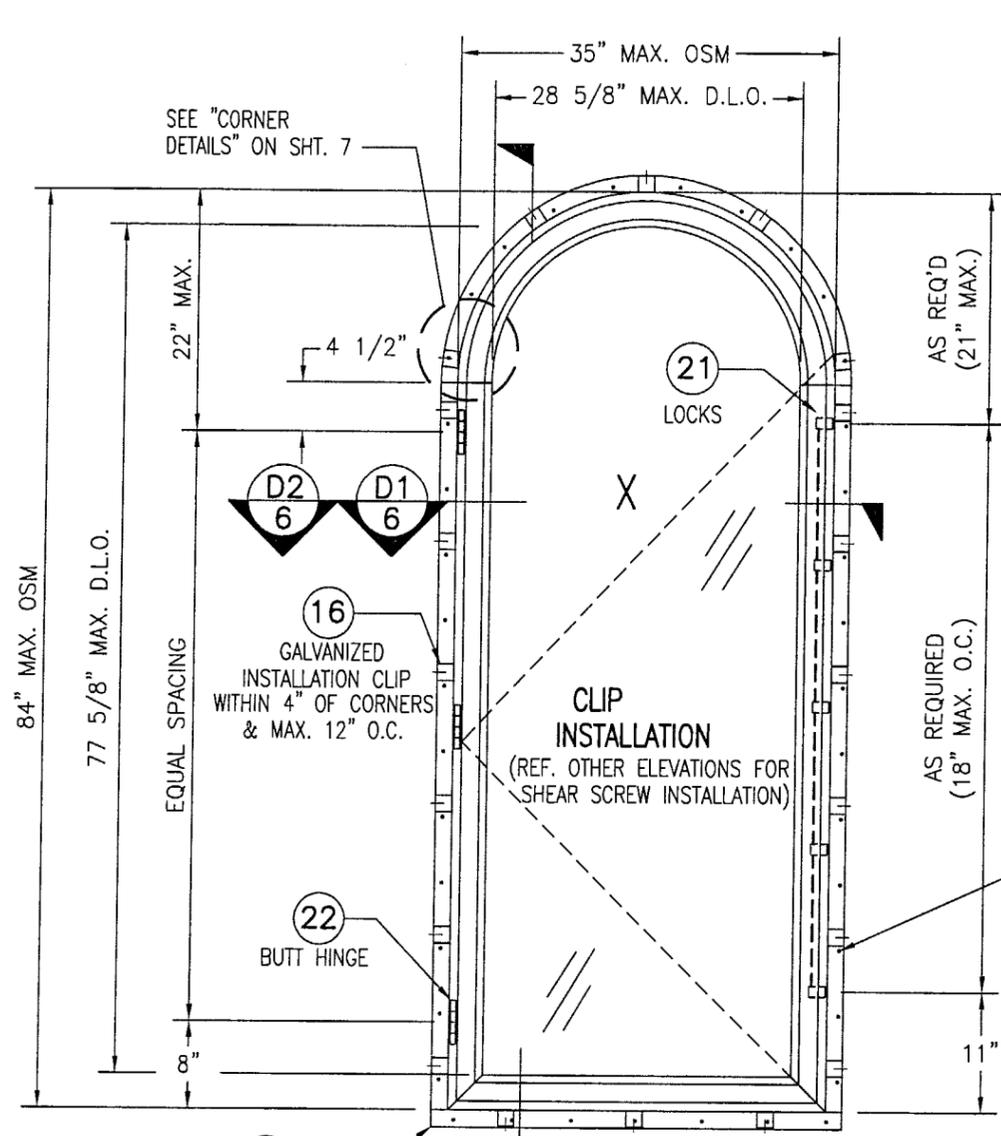
WOOD BUCK = 1"
CONCRETE/BLOCK = 2"



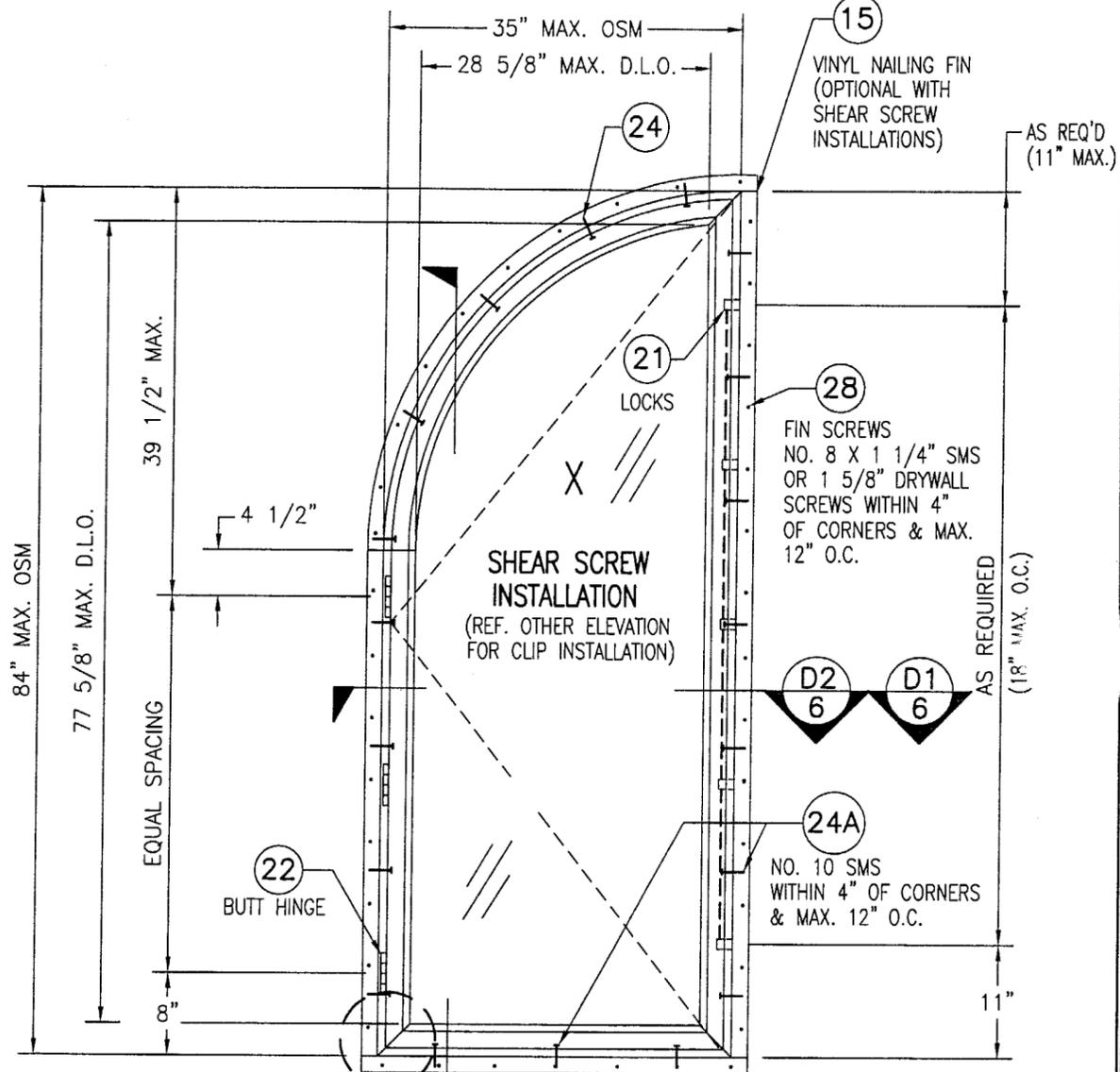
EXTERIOR ELEVATION
RECTANGULAR CASEMENT
SCALE: 3/4"=1'-0"

| | |
|---|-----------------------|
| DRAWN BY: K.P.S. | CHECKED BY: W.W.S. |
| PLOT: 1=16 | DATE: 05/13/03 |
| DATE | |
| BY | |
| REVISION DESCRIPTION | |
| NO. | |
| DRAWING TITLE ALUMINUM CLAD WOOD OPERABLE CASEMENT NON-IMPACT WINDOWS | |
| MANUFACTURER KML WINDOWS, INC. 23 BUCHANAN COURT LONDON, ONTARIO, CANADA N5Z4P9 (519) 681-7012 | |
| CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 8895 N. MILITARY TRAIL, SUITE C-204 PALM BEACH GARDENS, FL 33410 PHONE: 561-775-4902 FAX: 561-775-4903 | |
| CERTIFICATION JUN 18 2003 By <i>Warren W. Schaefer</i> P.E. Miami Dade Product Control Division | |
| DRAWING NO. 1227B | REV. |
| SHEET NO. 1 OF 10 | |

PRODUCT REVISED as complying with the Florida Building Code
Acceptance No **03-0625.09**
Expiration Date **09/23/04**
By *Warren W. Schaefer* P.E.
Miami Dade Product Control Division



**EXTERIOR ELEVATION
HALF ROUND CASEMENT**
SCALE: 3/4"=1'-0"



**EXTERIOR ELEVATION
QUARTER ROUND CASEMENT**
SCALE: 3/4"=1'-0"

NOTE: FOR COMBINATION OF UNITS. SEE SHEET 3 & MULLION DRAWING NO. 1003E UNDER SEPERATE APPROVAL

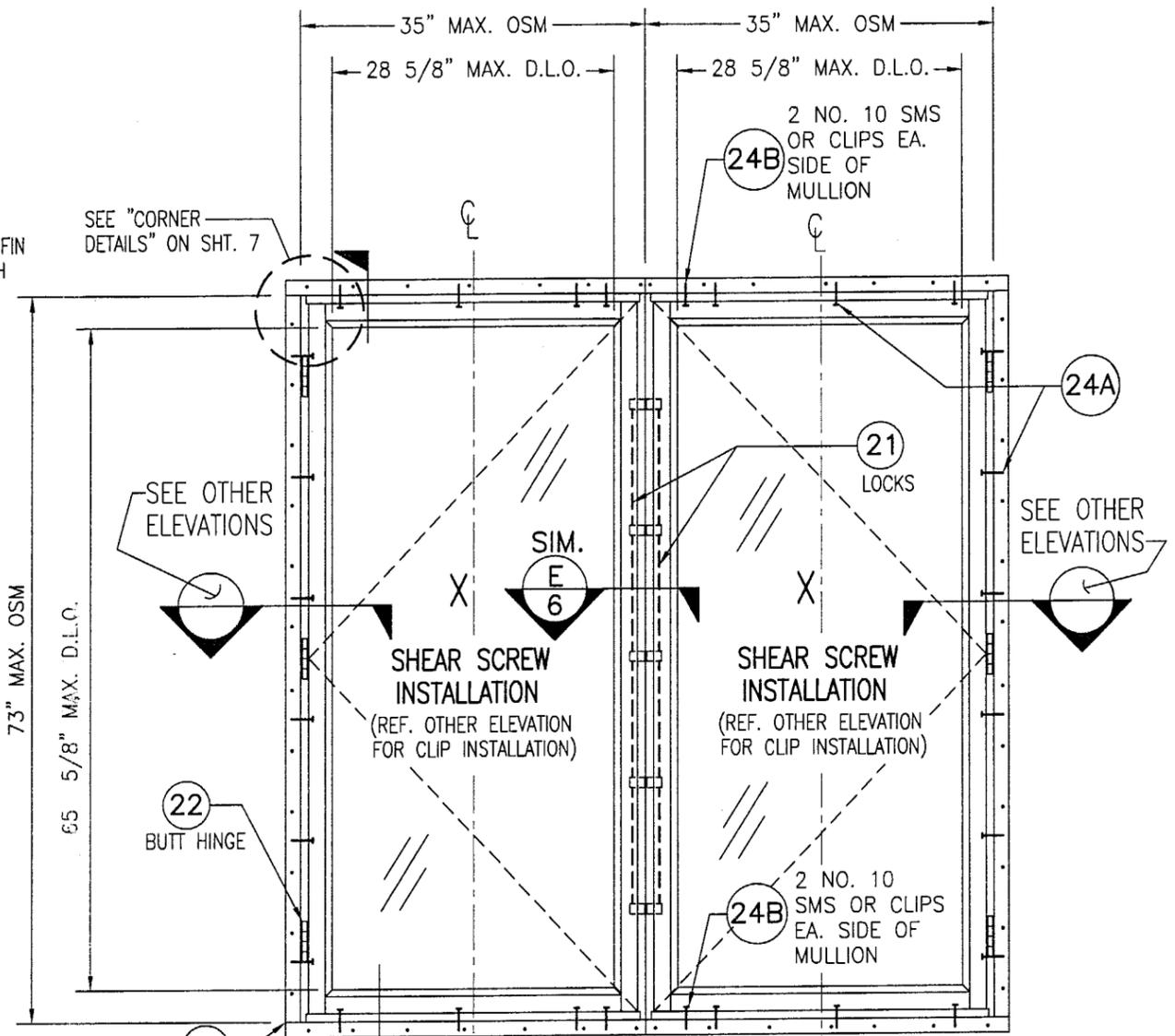
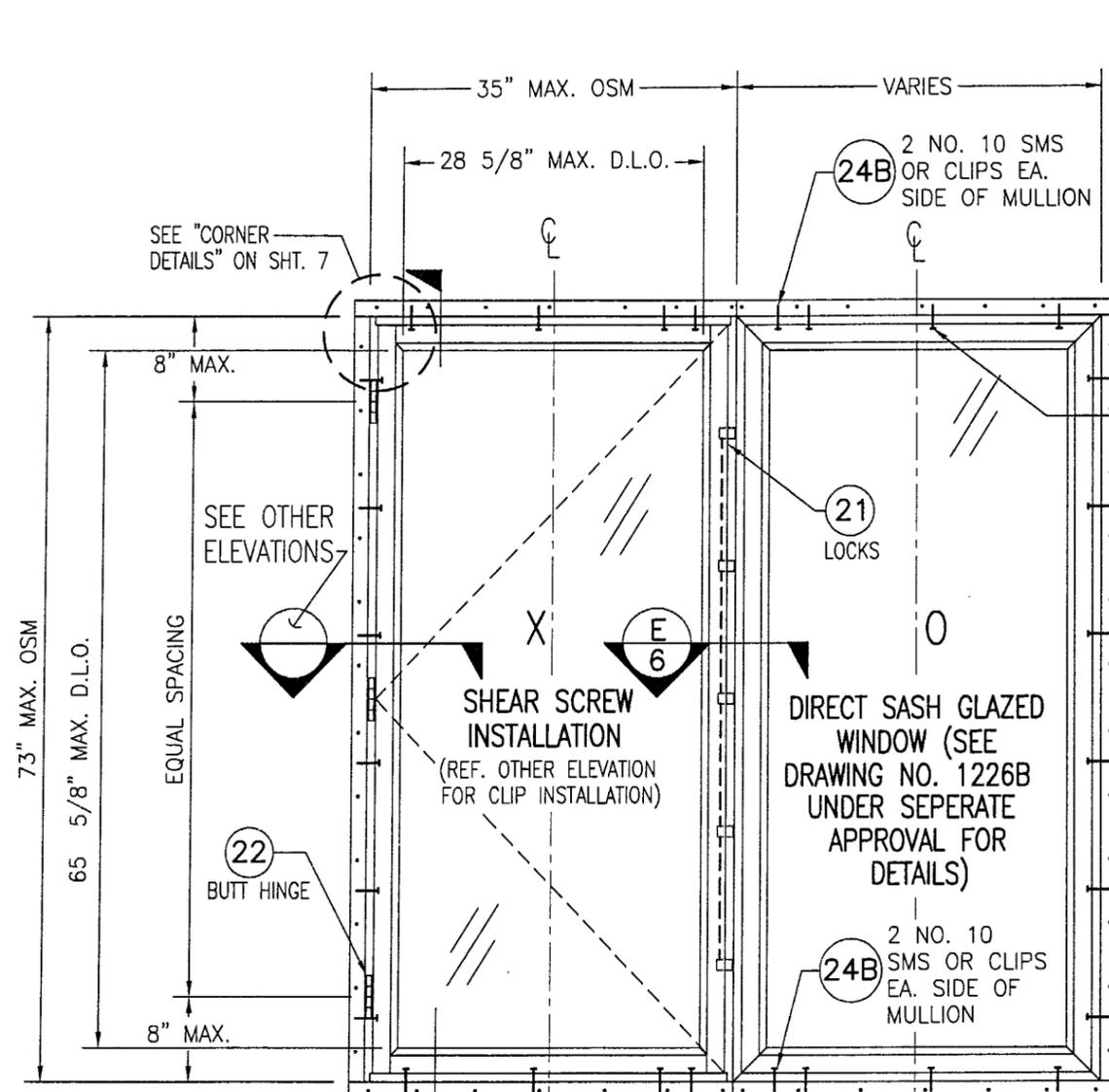
NOTE: NUMBER OF LATCH POINTS & BUTT HINGES MAY VARY WITH UNIT HEIGHT PROVIDING END DISTANCES & SPACINGS DO NOT EXCEED THE MAXIMUMS SHOWN IN THESE ELEVATIONS.

FOR JAMB FASTENER EMBED & EDGE DISTANCE REQUIREMENTS, SEE SHEET 1

ALLOWABLE DESIGN LOADS
SEE "LOAD TABLE" ON SHEET 9

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 03-0625.09
Expiration Date 09/23/04
By *Warren W. Schaefer*
Miami Dade Product Control
Division

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| DRAWN BY: K.P.S. | CHECKED BY: W.W.S. |
| PLOT: 1=16 | DATE: 05/13/03 |
| DATE | BY |
| REVISION DESCRIPTION | NO. |
| ALUMINUM CLAD WOOD OPERABLE CASEMENT NO. 1003E | |
| PACT WINDOWS | |
| MANUFACTURER KML WINDOWS, INC. 23 BUCHANAN COURT LONDON, ONTARIO, CANADA N5Z4P9 (519) 681-7012 | |
| CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 8895 N. MILITARY TRAIL, SUITE C-204 PALM BEACH GARDENS, FL 33410 PHONE: 561-775-4902 FAX: 561-775-4903 | |
| DRAWING TITLE | |
| CERTIFICATION JUN 18 2003 WARREN W. SCHAEFER, P.E. P.E. NO. 44135 | |
| DRAWING NO. 1227B | REV. |
| SHEET NO. 2 OF 10 | |



EXTERIOR ELEVATION
MULTIPLE OPERABLE/FIXATED CASEMENT
 (UP TO 4 WINDOWS MAY BE COMBINED IN ONE OPENING)
 SCALE: 3/4"=1'-0"
 (FOR WINDOW DETAILS & DIMENSIONS NOT SHOWN, SEE OTHER ELEVATIONS)

EXTERIOR ELEVATION
MULTIPLE OPERABLE CASEMENT
 (UP TO 4 WINDOWS MAY BE COMBINED IN ONE OPENING)
 SCALE: 3/4"=1'-0"
 (FOR WINDOW DETAILS & DIMENSIONS NOT SHOWN, SEE OTHER ELEVATIONS)

FOR JAMB FASTENER EMBED & EDGE DISTANCE REQUIREMENTS, SEE SHEET 1

ALLOWABLE DESIGN LOADS (MULLED UNITS ONLY)
 ALLOWABLE DESIGN LOAD ON MULLED UNITS SHALL BE THE LESSER OF +65/-70 PSF OR AS CONTROLLED BY THE INDIVIDUAL WINDOW (SEE LOAD TABLE ON SHEET 9 FOR ALLOWABLE WINDOW LOADS).

NOTE: NUMBER OF LATCH POINTS & BUTT HINGES MAY VARY WITH UNIT HEIGHT PROVIDING END DISTANCES & SPACINGS DO NOT EXCEED THE MAXIMUMS SHOWN IN THESE ELEVATIONS.

NOTE: FOR COMBINATION OF UNITS. SEE MULLION DRAWING NO. 1003E UNDER SEPERATE APPROVAL

PRODUCT REVISED
 as complying with the Florida Building Code
 Acceptance No. 03-0625.09
 Expiration Date 09/23/09
 By *Cleodra Deiman*
 Miami Dade Product Control Division

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| DRAWN BY: | K.P.S. | CHECKED BY: | W.W.S. |
| PLOT: | 1=16 | DATE: | 05/13/03 |
| NO. | | REVISION DESCRIPTION | |
| DATE | | | |
| BY | | | |

DRAWING TITLE
 ALUMINUM CLAD WOOD OPERABLE CASEMENT NON-IMPACT WINDOWS

CONSULTANTS
 W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.
 8895 N. MILITARY TRAIL, SUITE C-204
 PALM BEACH GARDENS, FL 33410
 PHONE: 561-775-4902 FAX: 561-775-4903

MANUFACTURER
 KML WINDOWS, INC.
 23 BUCHANAN COURT
 LONDON, ONTARIO, CANADA N5Z4P9
 (519) 681-7012

CERTIFICATION
 JUN 18 2003

WARREN W. SCHAEFER, P.E.
 P.E. NO. 44135

DRAWING NO.
 1227B

REV.
 SHEET NO.
 3 OF 10

| | | | |
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| DRAWN BY: | K.P.S. | CHECKED BY: | W.W.S. |
| PLOT: | 1=2 | DATE: | 05/13/03 |
| NO. | | REVISION DESCRIPTION | |
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DRAWING TITLE
ALUMINUM CLAD WOOD OPERABLE CASEMENT NON-IMPACT WINDOWS

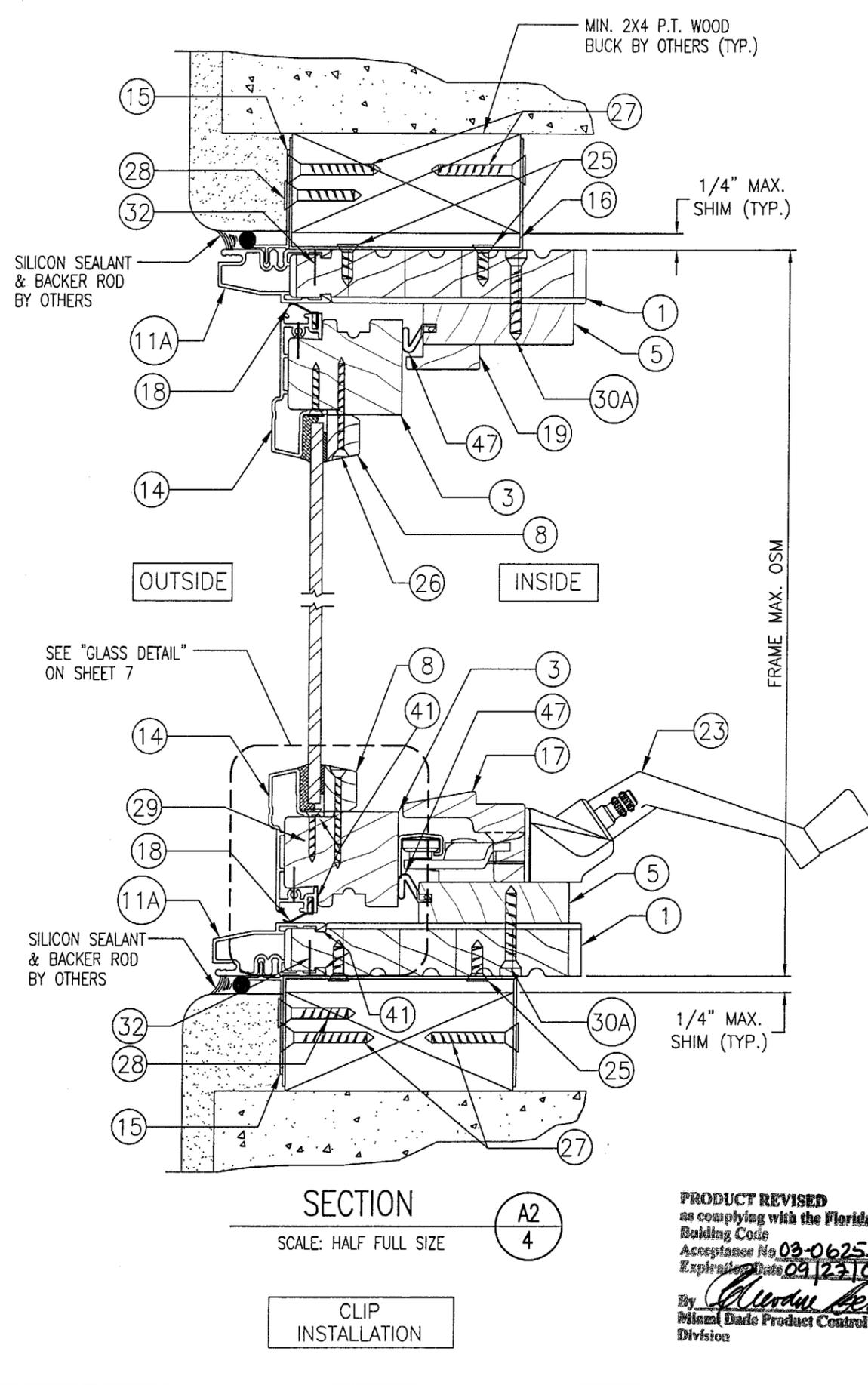
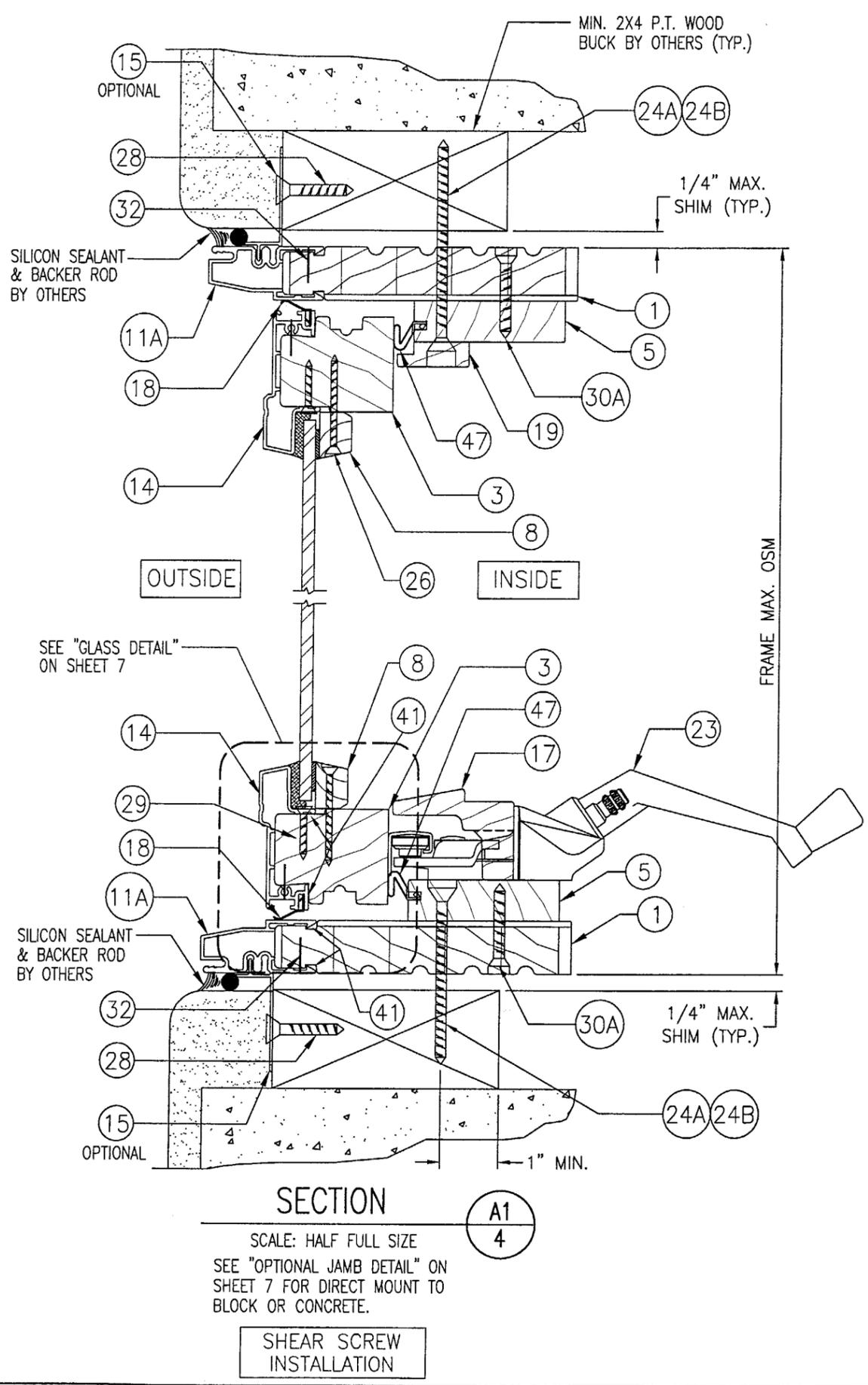
CONSULTANTS
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A.
 8895 N. MILITARY TRAIL, SUITE C-204
 PALM BEACH GARDENS, FL 33410
 PHONE: 561-775-4902 FAX: 561-775-4903

MANUFACTURER
KML WINDOWS, INC.
 23 BUCHANAN COURT
 LONDON, ONTARIO, CANADA N5Z4P9
 (519) 681-7012

CERTIFICATION
JUN 18 2003

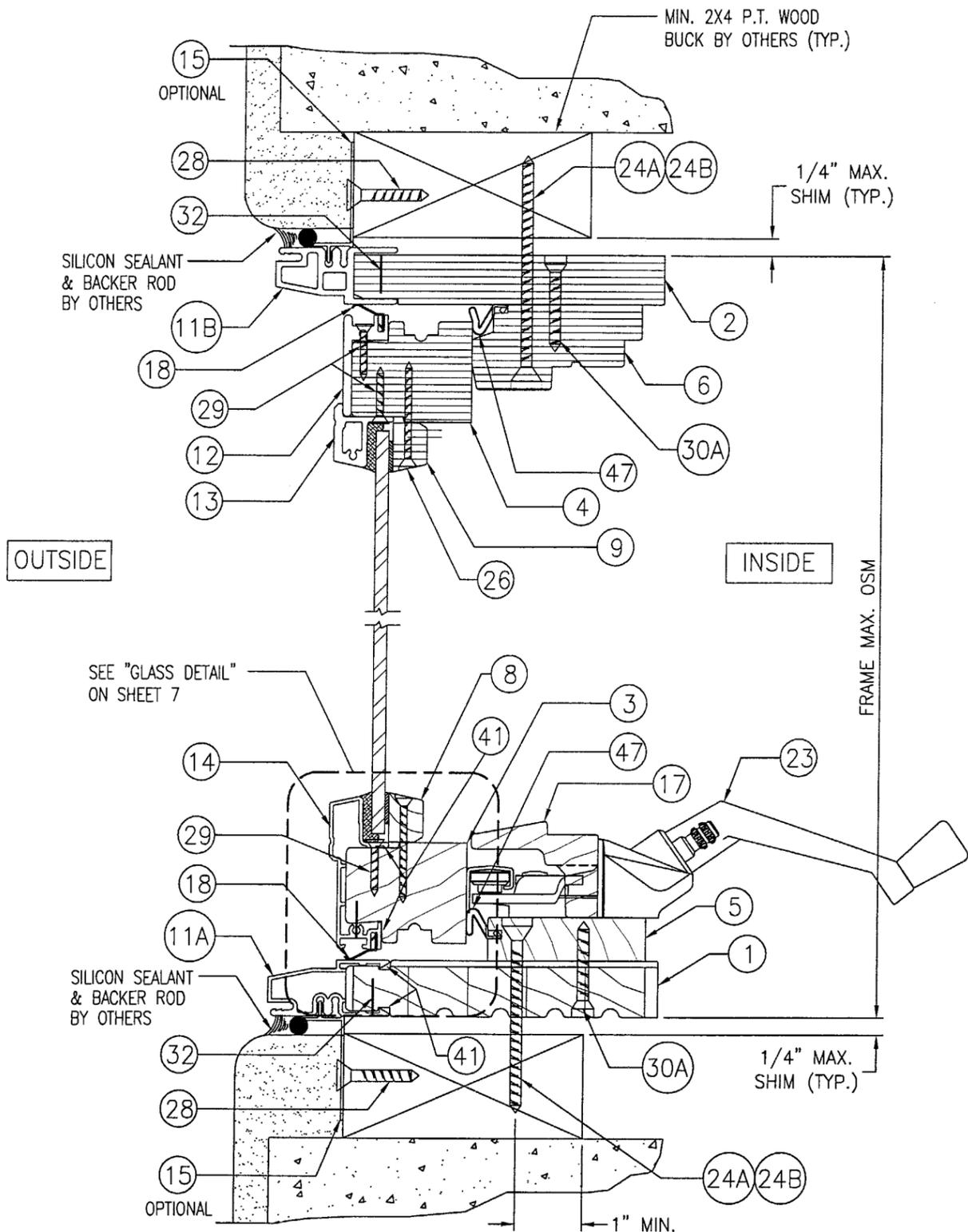
By *Warren W. Schaefer*
 Warren W. Schaefer, P.E.
 P.E. NO. 44135

DRAWING NO. 1227B
 SHEET NO. 4 OF 10

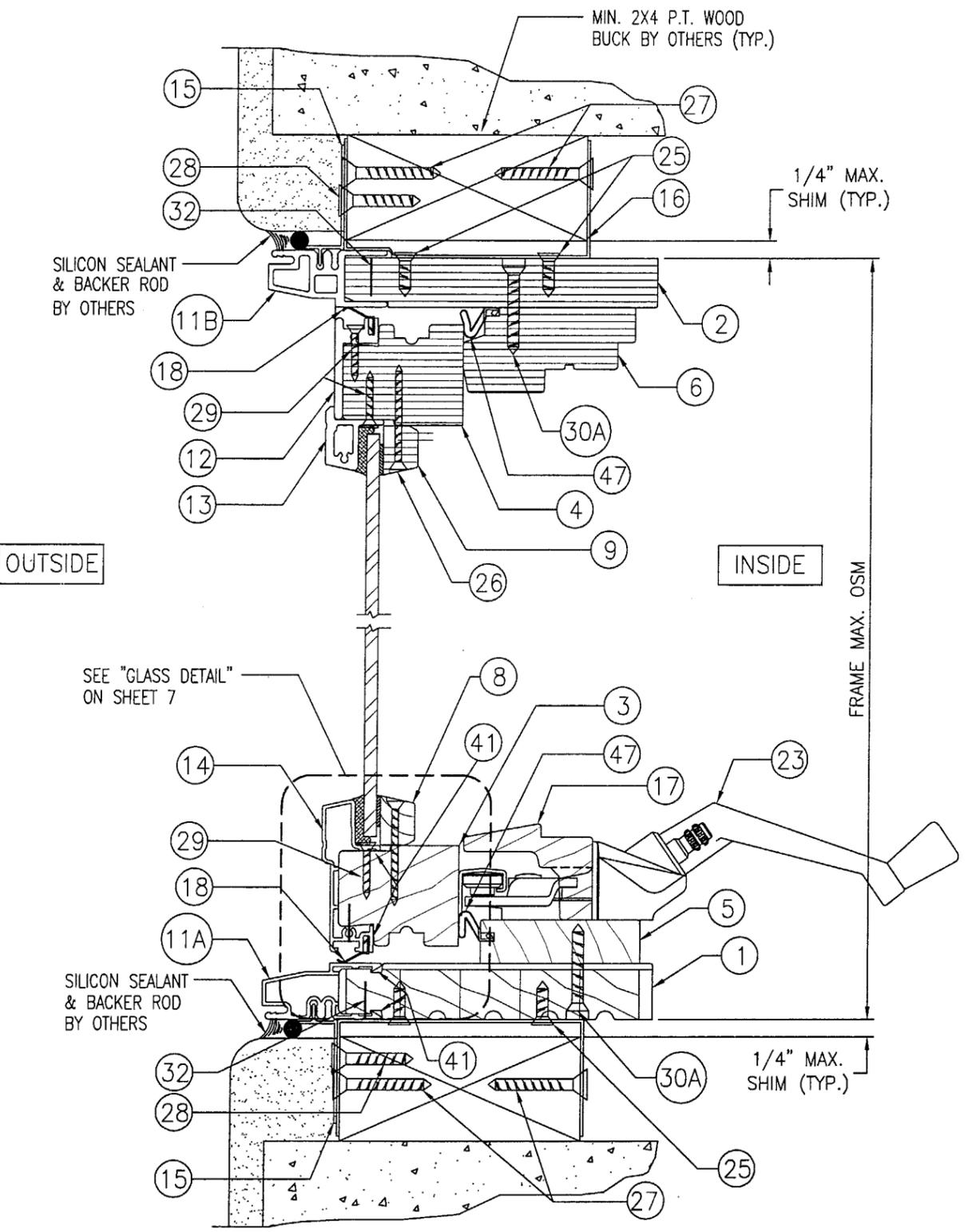


PRODUCT REVISED
 as complying with the Florida
 Building Code
 Acceptance No. 03-0625.09
 Expiration Date 09/23/04

By *Warren W. Schaefer*
 Miami Dade Product Control
 Division



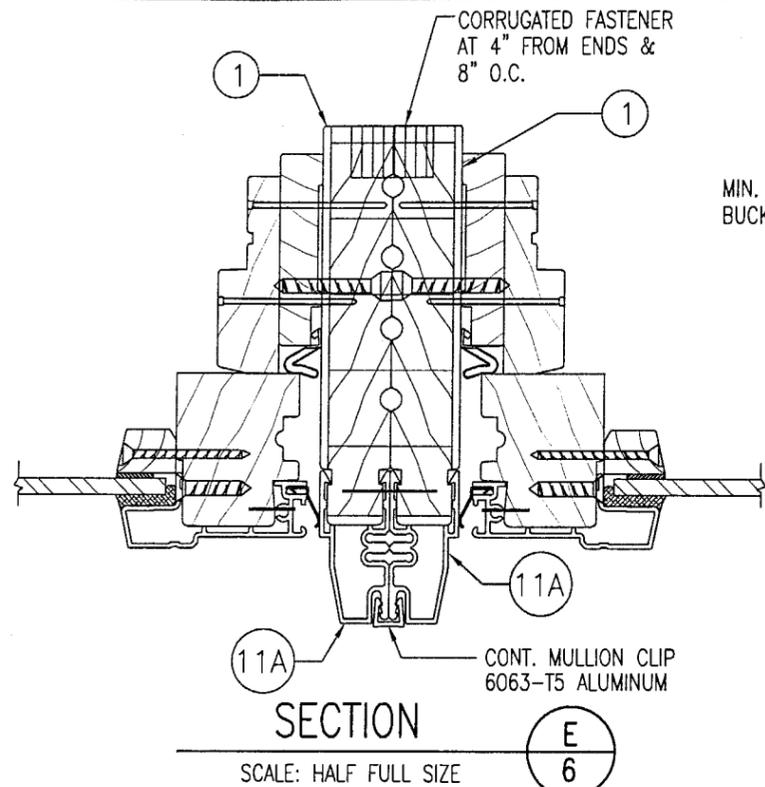
SECTION B1
 SCALE: HALF FULL SIZE
 SEE "OPTIONAL JAMB DETAIL" ON SHEET 7 FOR DIRECT MOUNT TO BLOCK OR CONCRETE.
 SHEAR SCREW INSTALLATION



SECTION B2
 SCALE: HALF FULL SIZE
 CLIP INSTALLATION

PRODUCT REVISED
 as complying with the Florida
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 Acceptance No. 03-0625.09
 Expiration Date 09/23/04
 By: *Warren W. Schaefer*
 Miami Dade Product Control
 Division

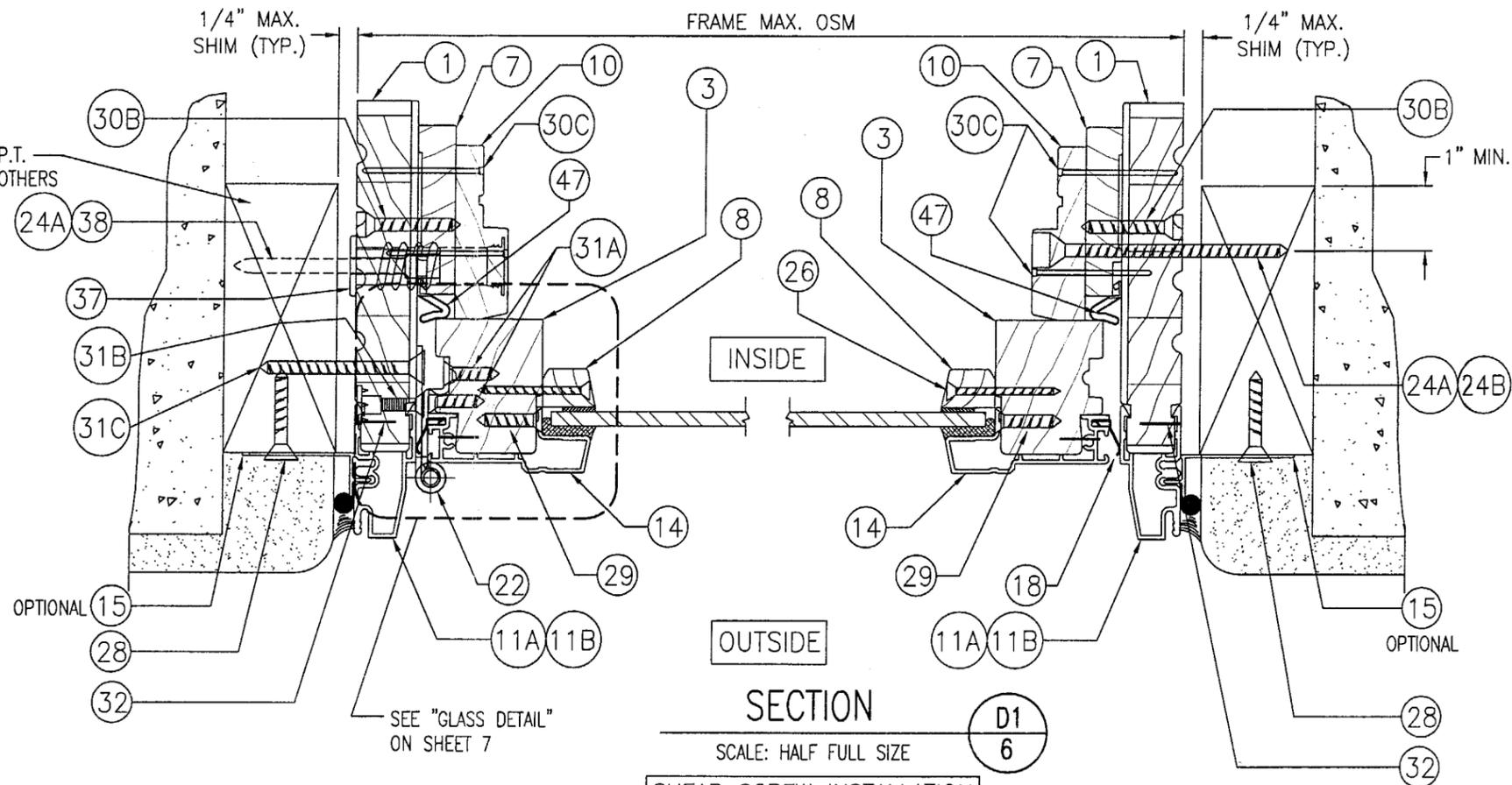
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| DRAWN BY: K.P.S. | | CHECKED BY: W.W.S. | |
| PLOT: 1=2 | | DATE: 05/13/03 | |
| NO. | REVISION DESCRIPTION | BY | DATE |
| | | | |
| DRAWING TITLE ALUMINUM CLAD WOOD OPERABLE CASEMENT NON-IMPACT WINDOWS | | | |
| CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 8895 N. MILITARY TRAIL, SUITE C-204 PALM BEACH GARDENS, FL 33410 PHONE: 561-775-4902 FAX: 561-775-4903 | | MANUFACTURER KML WINDOWS, INC. 23 BUCHANAN COURT LONDON, ONTARIO, CANADA N5Z4P9 (519) 681-7012 | |
| CERTIFICATION JUN 8 2003 | WARREN W. SCHAEFER, P.E. P.E. NO. 44135 | | |
| DRAWING NO. 1227B | REV. | | |
| SHEET NO. 5 of 10 | | | |



SCALE: HALF FULL SIZE

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6

(FOR DETAIL & INFORMATION NOT SHOWN REFERENCE OTHER SECTIONS)

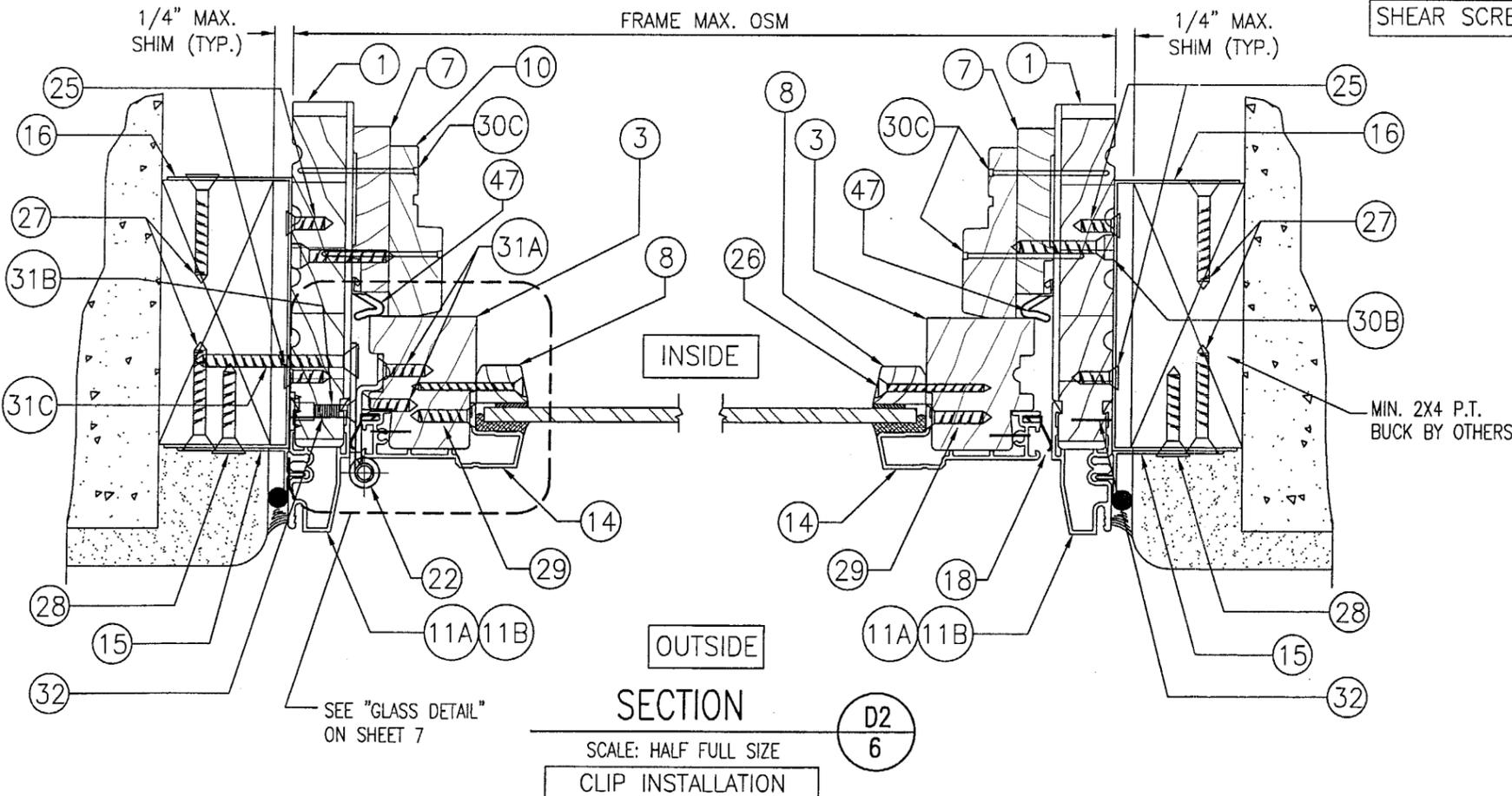


SECTION

D1
6

SCALE: HALF FULL SIZE

SHEAR SCREW INSTALLATION



SECTION

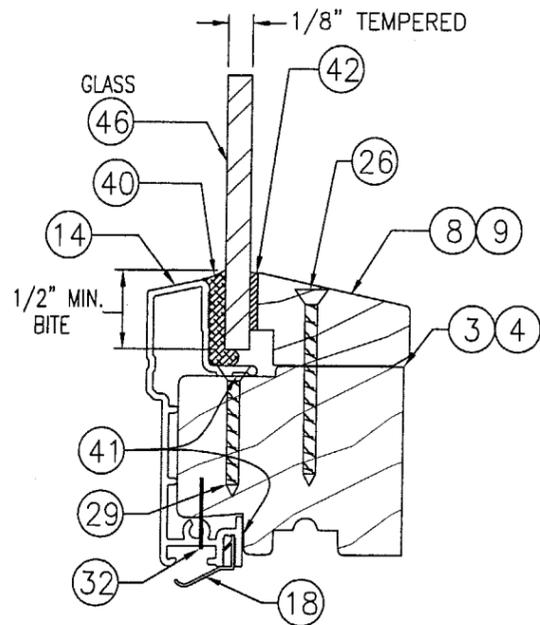
D2
6

SCALE: HALF FULL SIZE

CLIP INSTALLATION

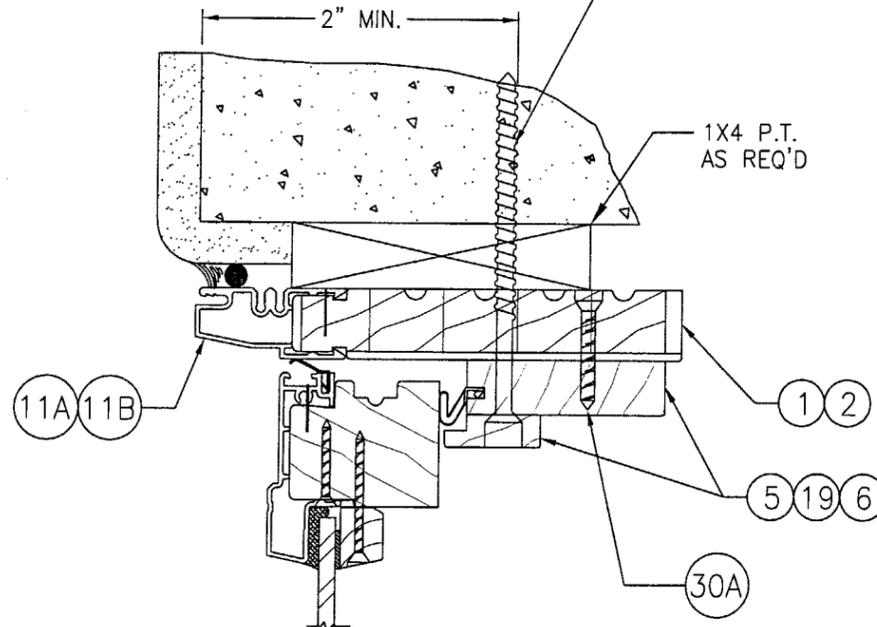
PRODUCT REVISED
 as complying with the Florida
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 Acceptance No. 03-0625-09
 Expiration Date 09/23/09
 By: *Warren W. Schaefer*
 Miami Dade Product Control
 Division

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| DRAWN BY: K.P.S. | | CHECKED BY: W.W.S. | |
| PLOT: 1=2 | | DATE: 05/13/03 | |
| DATE | BY | REVISION DESCRIPTION | NO. |
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| DRAWING TITLE ALUMINUM CLAD WOOD OPERABLE CASEMENT NON-IMPACT WINDOWS | | | |
| CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 8895 N. MILITARY TRAIL, SUITE C-204 PALM BEACH GARDENS, FL 33410 PHONE: 561-775-4902 FAX: 561-775-4903 | | MANUFACTURER KML WINDOWS, INC. 23 BUCHANAN COURT LONDON, ONTARIO, CANADA N5Z4P9 (519) 681-7012 | |
| CERTIFICATION JUN 18 2003 | By: <i>Warren W. Schaefer</i> P.E. NO. 44135 | | |
| DRAWING NO. 1227B | REV. | | |
| SHEET NO. 6 | OF 10 | | |

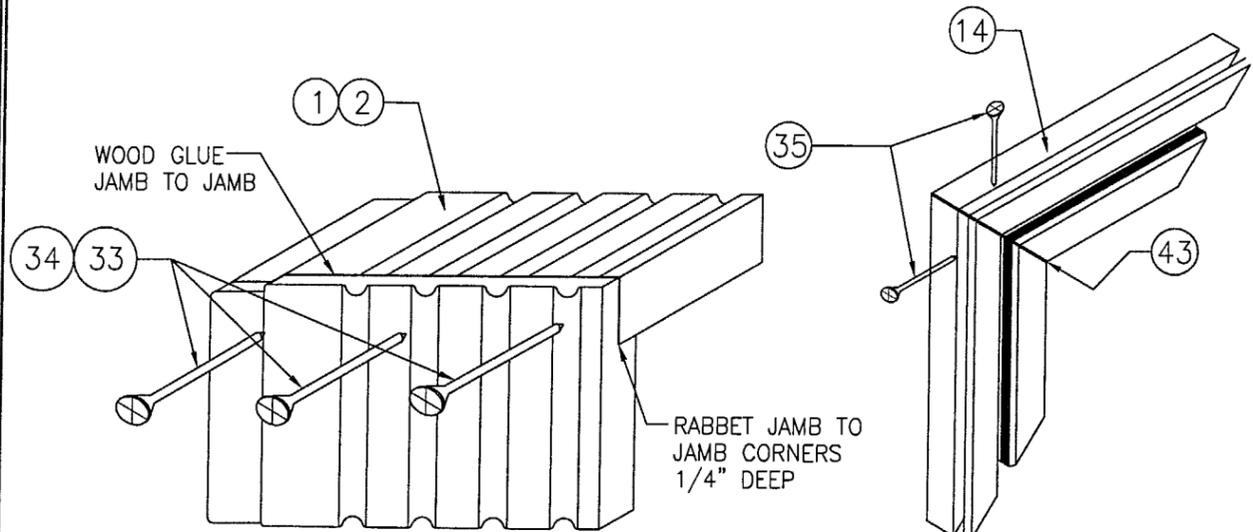


TYPICAL GLASS & GLAZING DETAIL
 SCALE: 3/4 FULL SIZE
 1/8" TEMPERED GLASS

1/4" TAPCON 4" FROM CORNERS AND MAX. 12" O.C.
 TAPCON LENGTH AS REQUIRED FOR MIN. 1 1/4"
 CONCRETE OR BLOCK EMBED



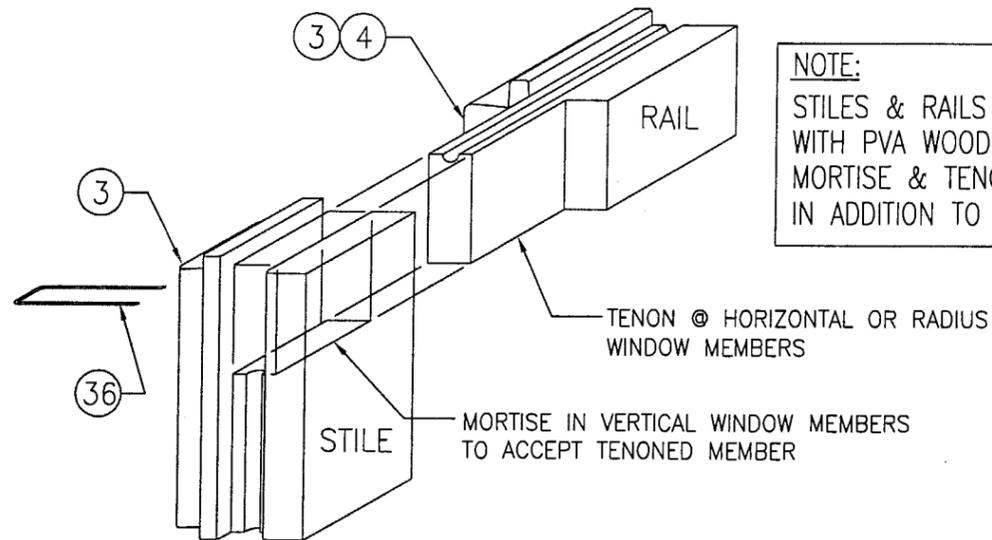
OPTIONAL JAMB DETAIL FOR DIRECT MOUNT TO CONCRETE OR BLOCK
 (TYP. ALL UNITS)
 SCALE: 1/2 FULL SIZE



JAMB TO JAMB DETAIL
 SCALE: N.T.S.

CLAD TO CLAD DETAIL
 SCALE: N.T.S.

JAMB CORNER DETAILS



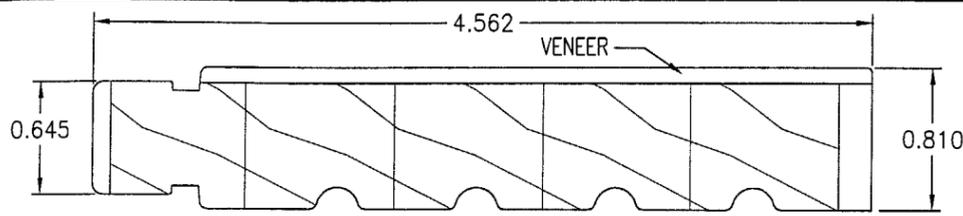
SASH STILE TO RAIL CORNER DETAIL
 SCALE: N.T.S.

NOTE: CLAD CORNER IS MITERED & FASTENED WITH 1 NO. 6 X 1" SMS (26) INTO SPLINE & GASKETED WITH (31) (SIMILAR TO JAMB CLAD CORNERS)

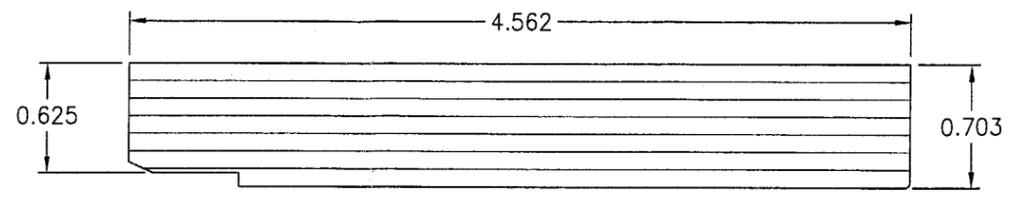
NOTE:
 STILES & RAILS SECURED WITH PVA WOOD GLUE @ MORTISE & TENON JOINTS IN ADDITION TO BRAD NAILS

PRODUCT REVISED
 as complying with the Florida Building Code
 Acceptance No. 03-0625.09
 Expiration Date 09/27/04
 By: *Clayton Bereman*
 Miami Dade Product Control Division

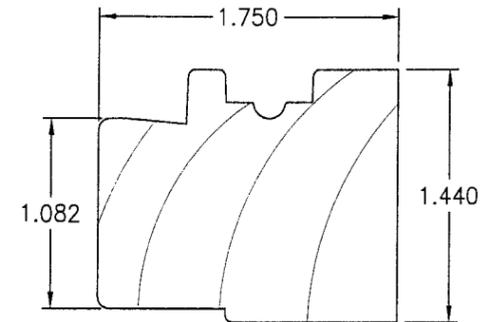
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|--|----------------------|---|------|
| DRAWN BY: K.P.S. | | CHECKED BY: W.W.S. | |
| PLOT: 1=2 | | DATE: 05/13/03 | |
| NO. | REVISION DESCRIPTION | BY | DATE |
| | | | |
| DRAWING TITLE: ALUMINUM CLAD WOOD OPERABLE CASEMENT NON-IMPACT WINDOWS | | | |
| CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. | | MANUFACTURER: KML WINDOWS, INC. | |
| 8885 N. MILITARY TRAIL, SUITE C-204 PALM BEACH GARDENS, FL 33410 PHONE: 561-775-4902 FAX: 561-775-4903 | | 23 BUCHANAN COURT LONDON, ONTARIO, CANADA N5Z4P9 (519) 681-7012 | |
| CERTIFICATION: JUN 18 2003 | | By: <i>Warren W. Schaefer</i> P.E. NO. 44135 | |
| DRAWING NO. 1227B | | REV. | |
| SHEET NO. 7 OF 10 | | | |



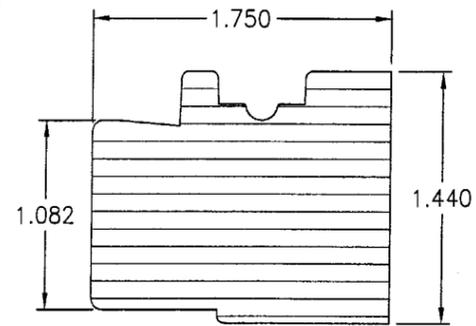
① **LINEAL WOOD FRAME JAMB**
PONDEROSA PINE LAMINATED IN 5 BLOCKS



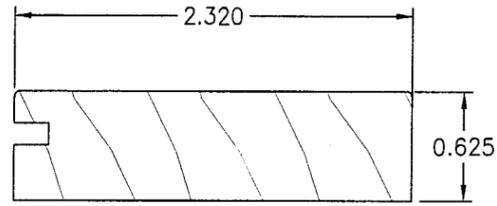
② **RADIAL WOOD FRAME JAMB**
(LAMINATED VENEER)



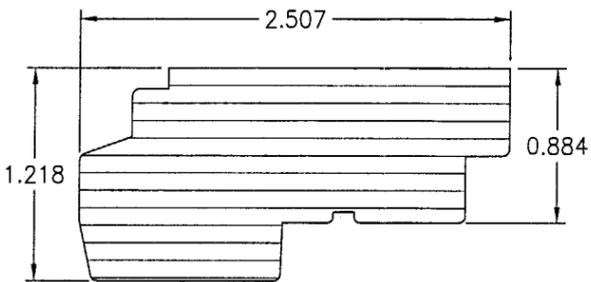
③ **LINEAL SASH**



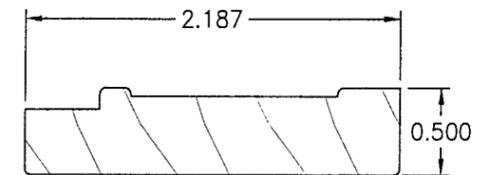
④ **RADIAL SASH**
(LAMINATED VENEER)



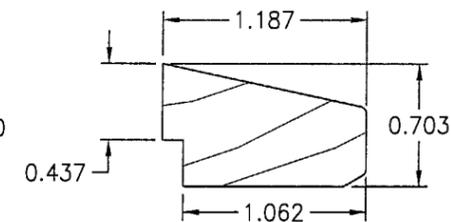
⑤ **WEATHERSEAL ADAPTER**



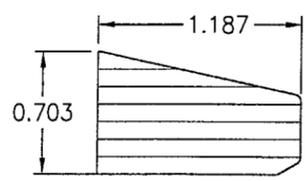
⑥ **RADIAL SASH STOP**
(LAMINATED VENEER)



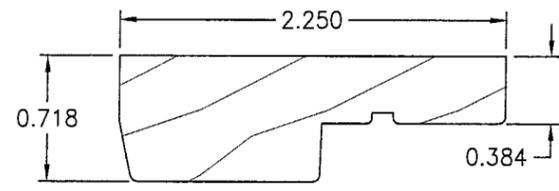
⑦ **LINEAL SASH STOP & W.S.A.**



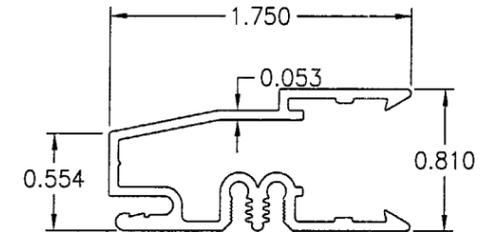
⑧ **LINEAL WOOD GLAZING STOP**



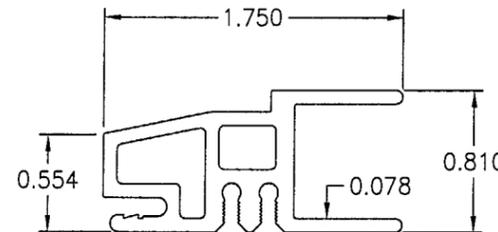
⑨ **RADIAL WOOD GLAZING STOP**
(LAMINATED VENEER)



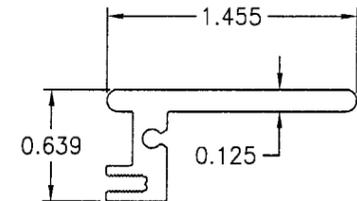
⑩ **LINEAL SASH STOP COVER**



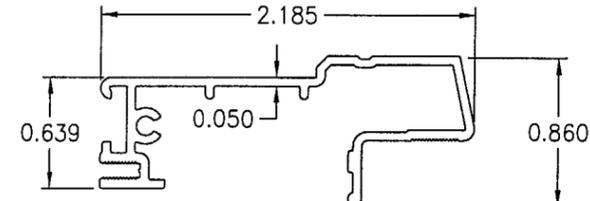
⑪A **LINEAL JAMB CLADDING**
(6063-T5 ALUMINUM)



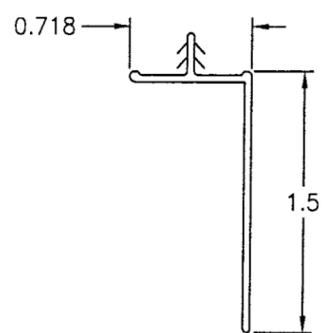
⑪B **RADIAL FRAME CLADDING**
(6063-T5 ALUMINUM)



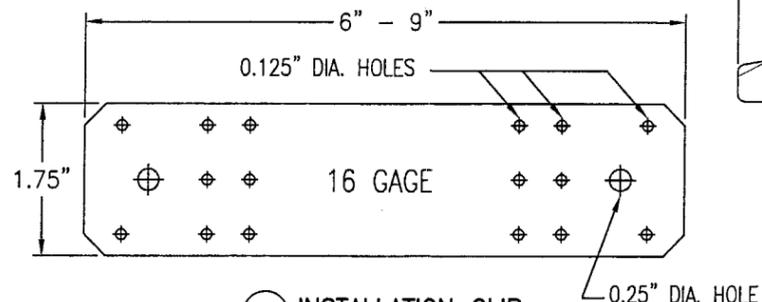
⑫ **RADIAL SASH CLADDING**
(6063-T5 ALUMINUM)



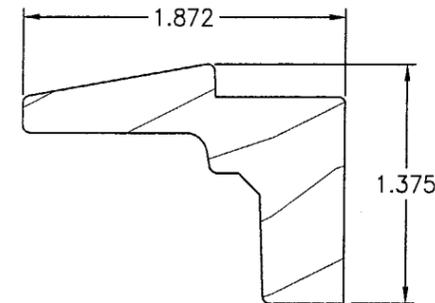
⑭ **LINEAL SASH CLADDING**
(6063-T5 ALUMINUM)



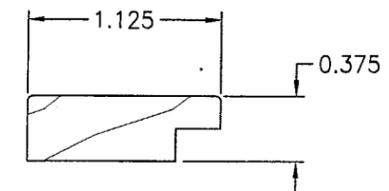
⑮ **NAILING FIN**
(VINYL)



⑯ **INSTALLATION CLIP**
(GALVANIZED STEEL)
Fy = 33 ksi MIN.



⑰ **OPERATOR COVER**



⑱ **LINEAL SCREEN STOP**

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 03-0625-09
Expiration Date 09/27/04
By: *Warren W. Schaeffer*
Miami Dade Product Control
Division

| | | | |
|--|----------------------|--|------|
| DRAWN BY: K.P.S. | | CHECKED BY: W.W.S. | |
| PLOT: 1=1 | | DATE: 05/13/03 | |
| NO. | REVISION DESCRIPTION | BY | DATE |
| | | | |
| DRAWING TITLE ALUMINUM CLAD WOOD OPERABLE CASEMENT NON-IMPACT WINDOWS | | | |
| CONSULTANTS W. SCHAEFFER ENGINEERING & CONSULTING, P.A. 8895 N. MILITARY TRAIL, SUITE C-204 PALM BEACH GARDENS, FL 33410 PHONE: 561-775-4902 FAX: 561-775-4903 | | MANUFACTURER KML WINDOWS, INC. 23 BUCHANAN COURT LONDON, ONTARIO, CANADA N5Z4P9 (519) 681-7012 | |
| CERTIFICATION JUN 18 2003 WARREN W. SCHAEFFER, P.E. P.E. NO. 44133 | | | |
| DRAWING NO. 1227B | | REV. | |
| SHEET NO. 8 | | OF 10 | |

| DESIGN LOAD CAPACITY (PSF) FOR NON-IMPACT WINDOWS | | | | | | | |
|--|--------|-------------|------|--------|------|---------------------|---------------------------|
| WINDOW SIZE (OSM) | | RECTANGULAR | | SHAPED | | NUMBER OF HINGES | NUMBER OF LATCH POINTS |
| WIDTH | HEIGHT | POS | NEG | POS | NEG | | |
| 20" | 24" | 65.0 | 99.1 | 65.0 | 87.5 | 2 | 2 |
| 24" | | 65.0 | 82.6 | 65.0 | 72.9 | 2 | 2 |
| 28" | | 65.0 | 70.8 | 62.5 | 62.5 | 2 | 2 |
| 32" | | 61.9 | 61.9 | 54.7 | 54.7 | 2 | 2 |
| 35" | | 56.6 | 56.6 | 50.0 | 50.0 | 2 | 2 |
| 20" | 30" | 65.0 | 99.1 | 65.0 | 87.5 | 2 | 2 |
| 24" | | 65.0 | 82.6 | 65.0 | 72.9 | 2 | 2 |
| 28" | | 65.0 | 70.8 | 62.5 | 62.5 | 2 | 2 |
| 32" | | 61.9 | 61.9 | 54.7 | 54.7 | 2 | 2 |
| 35" | | 56.6 | 56.6 | 50.0 | 50.0 | 2 | 2 |
| 20" | 36" | 65.0 | 99.1 | 65.0 | 87.5 | 2 | 2 |
| 24" | | 65.0 | 82.6 | 65.0 | 72.9 | 2 | 2 |
| 28" | | 65.0 | 70.8 | 62.5 | 62.5 | 2 | 2 |
| 32" | | 61.9 | 61.9 | 54.7 | 54.7 | 2 | 2 |
| 35" | | 56.6 | 56.6 | 50.0 | 50.0 | 2 | 2 |
| 20" | 42" | 65.0 | 99.1 | 65.0 | 87.5 | 2 | 3 |
| 24" | | 65.0 | 82.6 | 65.0 | 72.9 | 2 | 3 |
| 28" | | 65.0 | 70.8 | 62.5 | 62.5 | 2 | 3 |
| 32" | | 61.9 | 61.9 | 54.7 | 54.7 | 2 | 3 |
| 35" | | 56.6 | 56.6 | 50.0 | 50.0 | 2 | 3 |
| 20" | 48" | 65.0 | 99.1 | 65.0 | 87.5 | 2 | 3 |
| 24" | | 65.0 | 82.6 | 65.0 | 72.9 | 2 | 3 |
| 28" | | 65.0 | 70.8 | 62.5 | 62.5 | 2 | 3 |
| 32" | | 61.9 | 61.9 | 54.7 | 54.7 | 2 | 3 |
| 35" | | 56.6 | 56.6 | 50.0 | 50.0 | 2 | 3 |
| 20" | 54" | 65.0 | 96.2 | 65.0 | 85.0 | 3 | 3 |
| 24" | | 65.0 | 82.6 | 65.0 | 72.9 | 3 | 3 |
| 28" | | 65.0 | 70.8 | 62.5 | 62.5 | 3 | 3 |
| 32" | | 61.9 | 61.9 | 54.7 | 54.7 | 3 | 3 |
| 35" | | 56.6 | 56.6 | 50.0 | 50.0 | 3 | 3 |
| 20" | 60" | 65.0 | 94.1 | 65.0 | 83.1 | 3 | 4 |
| 24" | | 65.0 | 81.7 | 65.0 | 72.1 | 3 | 4 |
| 28" | | 65.0 | 70.8 | 62.5 | 62.5 | 3 | 4 |
| 32" | | 61.9 | 61.9 | 54.7 | 54.7 | 3 | 4 |
| 35" | | 56.6 | 56.6 | 50.0 | 50.0 | 3 | 4 |

| DESIGN LOAD CAPACITY (PSF) FOR NON-IMPACT WINDOWS | | | | | | | |
|--|--------|-------------|------|--------|------|---------------------|---------------------------|
| WINDOW SIZE (OSM) | | RECTANGULAR | | SHAPED | | NUMBER OF HINGES | NUMBER OF LATCH POINTS |
| WIDTH | HEIGHT | POS | NEG | POS | NEG | | |
| 20" | 66" | 65.0 | 92.4 | 65.0 | 81.6 | 3 | 4 |
| 24" | | 65.0 | 79.9 | 65.0 | 70.5 | 3 | 4 |
| 28" | | 65.0 | 70.8 | 62.5 | 62.5 | 3 | 4 |
| 32" | | 61.9 | 61.9 | 54.7 | 54.7 | 3 | 4 |
| 35" | | 56.6 | 56.6 | 50.0 | 50.0 | 3 | 4 |
| 20" | 72" | 65.0 | 91.0 | 65.0 | 80.4 | 3 | 5 |
| 24" | | 65.0 | 78.4 | 65.0 | 69.2 | 3 | 5 |
| 28" | | 65.0 | 69.5 | 61.4 | 61.4 | 3 | 5 |
| 32" | | 61.9 | 61.9 | 54.7 | 54.7 | 3 | 5 |
| 35" | | 56.6 | 56.6 | 50.0 | 50.0 | 3 | 5 |
| 20" | 78" | 65.0 | 89.9 | 65.0 | 79.4 | 3 | 5 |
| 24" | | 65.0 | 77.2 | 65.0 | 68.2 | 3 | 5 |
| 28" | | 65.0 | 68.2 | 60.3 | 60.3 | 3 | 5 |
| 32" | | 61.7 | 61.7 | 54.5 | 54.5 | 3 | 5 |
| 35" | | 56.6 | 56.6 | 50.0 | 50.0 | 3 | 5 |
| 20" | 84" | 65.0 | 89.0 | 65.0 | 78.6 | 3 | 5 |
| 24" | | 65.0 | 76.2 | 65.0 | 67.3 | 3 | 5 |
| 28" | | 65.0 | 67.2 | 59.3 | 59.3 | 3 | 5 |
| 32" | | 60.6 | 60.6 | 53.5 | 53.5 | 3 | 5 |
| 35" | | 56.6 | 56.6 | 50.0 | 50.0 | 3 | 5 |

NOTES:

1. THE LOADS IN THESE TABLES ARE AS DETERMINED BY TESTING & COMPARATIVE ANALYSIS WITH THE CONTROLLING FACTOR BEING THE WORSE CASE OF: GLASS SIZE & AREA, UNIT AREA, NUMBER OF HINGES, NUMBER OF LOCKING POINTS, NUMBER OF SNUBBERS, OR FASTENER CAPABILITIES.
2. THE LOADS IN THESE TABLES MAY NOT BE INTERPOLATED.
3. FOR MULLED UNITS AND THERE ALLOWABLE LOADS, REFER TO SHEET 3 OF THIS DRAWING AND/OR MULLION DRAWING 1003E. NO INCREASE IN LOAD FOR JAMB TO JAMB UNREINFORCED MULLED UNITS IS ALLOWED OVER THAT SPECIFIED ON SHEET 3. IF WINDOW SIZE REQUIREMENTS & LOAD REQUIREMENTS DO NOT MEET THOSE SPECIFIED ON SHEET 3, A REINFORCED MULLION MUST BE USED IN ACCORDANCE WITH DRAWING 1003E.

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 03-0625-09
Expiration Date 09/23/04
By: *Warren W. Schaefer*
Miami Dade Product Control
Division

| | |
|---|--|
| DRAWN BY: K.P.S. | CHECKED BY: W.W.S. |
| PLOT: 1=1 | DATE: 05/13/03 |
| DATE | |
| BY | |
| REVISION DESCRIPTION | |
| NO. | |
| DRAWING TITLE ALUMINUM CLAD WOOD OPERABLE CASEMENT NON-IMPACT WINDOWS | |
| CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 8895 N. MILITARY TRAIL, SUITE C-204 PALM BEACH GARDENS, FL 33410 PHONE: 561-775-4902 FAX: 561-775-4903 | MANUFACTURER KML WINDOWS, INC. 23 BUCHANAN COURT LONDON, ONTARIO, CANADA N5Z4P9 (519) 681-7012 |
| CERTIFICATION JUN 18 2003 <i>Warren W. Schaefer</i> WARREN W. SCHAEFER, P.E. P.E. NO. 44135 | DRAWING NO. 1227B REV. SHEET NO. 9 OF 10 |

MATERIAL LIST

| PART NO. | REF. NO. | DESCRIPTION | NOTES |
|-------------------------------|------------------|---|--|
| PARTS & EXTRUSIONS | | | |
| 1 | PF1010 | LINEAL JAMB | SEE NOTE 1 THIS SHEET. |
| 2 | PF1231 | RADIAL JAMB | LAMINATED VENEER |
| 3 | PF1007 | LINEAL SASH | SEE NOTE 1 THIS SHEET. |
| 4 | PF1015 | RADIAL SASH | LAMINATED VENEER |
| 5 | PF1024 | WEATHERSEAL ADAPTER | SEE NOTE 1 THIS SHEET. |
| 6 | PF1005 | RADIAL SASH STOP | LAMINATED VENEER |
| 7 | PF1351 | LINEAL SASH STOP W.S.A. | SEE NOTE 1 THIS SHEET. |
| 8 | PF1008 | LINEAL GLAZING STOP | SEE NOTE 1 |
| 9 | PF1008 | RADIAL GLAZING STOP | LAMINATED VENEER |
| 10 | PF1485 | LINEAL SASH STOP\COVER | SEE NOTE 1 THIS SHEET. |
| 11A | PF1001 | LINEAL JAMB CLADDING | ALUMINUM 6063-T5 |
| 11B | PF1002 | RADIAL JAMB CLADDING | ALUMINUM 6063-T5 |
| 12 | PF1018 | RADIAL SASH CLADDING | ALUMINUM 6063-T5 |
| 13 | PF1017 | RADIAL GLASS STOP | ALUMINUM 6063-T5 |
| 14 | PF1074 | LINEAL SASH CLADDING | ALUMINUM 6063-T5 |
| 15 | PF1214 OR PF1326 | VINYL NAILING FINIS | OPTIONAL WITH SHEAR SCREW INSTALLATION |
| 16 | SK1031 | GALV. 16 GA. STEEL INSTALLATION CLIP (F _y = 33 KSI MIN.) | GALVANIZED STEEL, INC. MAX. 4" FROM CORNERS & 12" O.C. |
| 17 | PF1009 | OPERATOR COVER | SEE NOTE 1 THIS SHEET. |
| 18 | PF1026 | 0.415" X 0.489" RAINSKIRT | SCHLEGEL: EXTRUDED FLEXIBLE COPOLYMER |
| 19 | PF1012 | LINEAL SCREEN STOP | SEE NOTE 1 THIS SHEET. |
| 20 | - | OPEN | |
| 21 | - | CONCEALED MULTI-POINT LOCK | MIRAGE 16 SERIES MULTI-POINT SYSTEM |
| 22 | SK1002 | KML S.S. BUTT HINGE | FOR USE WITH ALL WINDOW SHAPES |
| 23 | - | SINGLE ARM OPERATOR | TRUTH HARDWARE ENTRYGUARD OR EQUAL |
| FASTENERS | | | |
| 24A | - | #10 SMS JAMB SHEAR SCREW | WITHIN 4" FROM CORNERS & MAX. 12" O.C. |
| 24B | - | #10 SMS JAMB SHEAR SCREW | 1 ADDITIONAL EA. SIDE OF MULLION ENDS |
| 25 | - | #8 x 5/8" PAN HEAD SMS SCREW | 2 PER CLIP INTO JAMB |
| 26 | - | #6 x 1 5/8" SMS SCREW | WITHIN 3" FROM CORNERS & MAX. 8" O.C. |
| 27 | - | #8 x 1 1/4" SMS SCREW | 2 PER CLIP INTO BUCK (1 EA. SIDE OF BUCK) |
| 28 | - | S.S. #8 x 1 1/4" SMS SCREW OR 1 5/8" DRYWALL SCREWS | WITHIN 4" FROM ENDS & MAX. 10 1/2" O.C. WITH FIN |
| 29 | - | #6 x 3/4" SMS SCREW | WITHIN 3" FROM CORNERS & 8" O.C. |

MATERIAL LIST

| PART NO. | REF. NO. | DESCRIPTION | NOTES |
|-----------------|----------|---|--|
| 30A | - | #8 x 1 1/4" SMS SCREW | 4" FROM CORNERS & 8" O.C. (AT RADIAL SASH STOPS) |
| 30B | - | #8 x 1" SMS SCREW | 4" FROM CORNERS & 8" O.C. (AT LINEAL SASH STOPS) |
| 30C | - | F-14 X 1 5/8" BRAD NAILS | 2 @ 4" FROM CORNERS & 8" O.C. @ SIDES |
| 31A | - | #8 x 1" SMS SCREW | 5 PER HINGE LEAF INTO SASH (S/S OR BRASS) |
| 31B | - | 10-24 FH MACH SCREW W/T-NUT | 2 PER HINGE LEAF INTO JAMB (S/S OR BRASS) |
| 31C | - | #10 x 3" SMS SCREW | 2 PER HINGE LEAF INTO BUCK (S/S OR BRASS) |
| 32 | - | 3/8" LONG STAPLE | WITHIN 3" FROM CORNERS & MAX. 8" O.C |
| 33 | - | #8 x 2" SMS SCREW | 3 @ EACH RECTANGULAR JAMB CORNER |
| 34 | - | #8 x 1 1/2" SMS SCREW | 3 @ EACH RADIUS JAMB CORNER |
| 35 | - | #6 x 3/4" SMS SCREW | 2 @ EACH CLAD CORNER INTO CLAD SPLINES |
| 36 | - | 16 GA. x 1 1/2" LONG STAPLE | 1 @ EXTERIOR SIDE OF SASH STILE & RAIL MORTISE & TENON CONNECTION |
| 37 | - | JAMB JACK III | TRUTH HARDWARE NO. 21150: @ HINGE JAMB 1 WITH EA. JAMB JACK SCREW |
| 38 | - | JAMB JACK III SCREW | TRUTH HARDWARE NO. 21171: @ HINGE JAMB 3.15" LONG; 1 PER WINDOW @ SHAPED UNITS |
| SEALANTS | | | |
| 40 | - | DOW 995 SILICONE | FOR 1/2" GLAZING BITE |
| 41 | - | STRUCTURAL SILICONE ADHESIVE | DOW 1199 CONTINUOUS CLADDING TO JAMB |
| OTHER | | | |
| 42 | - | NORTON NORGLAZE .0625" X .437" GLAZING TAPE | POLYOLEFIN FOAM W/ ACRYLIC ADHESIVE |
| 43 | - | TREMCO 440 BUTYL TAPE GASKET | TRIM OFF AT EDGES (TYP. AT JAMB & SASH CLAD CORNERS) |
| 46 | - | 1/8" THICK TEMPERED GLASS | |
| 47 | PF1013 | FRAME WEATHERSEAL | MONSANTO "SANTOPRENE": FOAMED ELASTOMERIC |

1 ALL WOOD USED WITH TESTED UNITS IS MINIMUM GRADE 2 PONDEROSA PINE (JAMBS ARE 5-BLOCK LAMINATED STAGE BLOCK). ALTERNATE WOOD SPECIES ACCEPTABLE WITH THIS PRODUCT ARE THE FOLLOWING MINIMUM GRADE 2 WOODS: (JAMBS MUST BE 5-BLOCK LAMINATED):

1. MAHOGANY
2. OAK
3. CHERRY
4. CYPRUS
5. DOUGLAS FIR
6. MAPLE
7. TEAK

PRODUCT REVISED
 as complying with the Florida Building Code
 Acceptance No. 03-0625.09
 Expiration Date 09/23/04
Warren W. Schaefer
 Warren W. Schaefer, P.E.
 Miami Dade Product Control Division

| | |
|---|---|
| DRAWN BY: K.P.S. | CHECKED BY: W.W.S. |
| PLOT: 1=1 | DATE: 05/13/03 |
| DATE | BY |
| REVISION DESCRIPTION | NO. |
| DRAWING TITLE ALUMINUM CLAD WOOD OPERABLE CASEMENT NON-IMPACT WINDOWS | |
| MANUFACTURER KML WINDOWS, INC. 23 BUCHANAN COURT LONDON, ONTARIO, CANADA N5Z4P9 (519) 681-7012 | |
| CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. 8895 N. MILITARY TRAIL, SUITE C-204 PALM BEACH GARDENS, FL 33410 PHONE: 561-775-4802 FAX: 561-775-4903 | |
| CERTIFICATION JUN 18 2003 <i>Warren W. Schaefer</i> WARREN W. SCHAEFER, P.E. P.E. NO. 44135 | DRAWING NO. 1227B SHEET NO. 10 OF 10 |