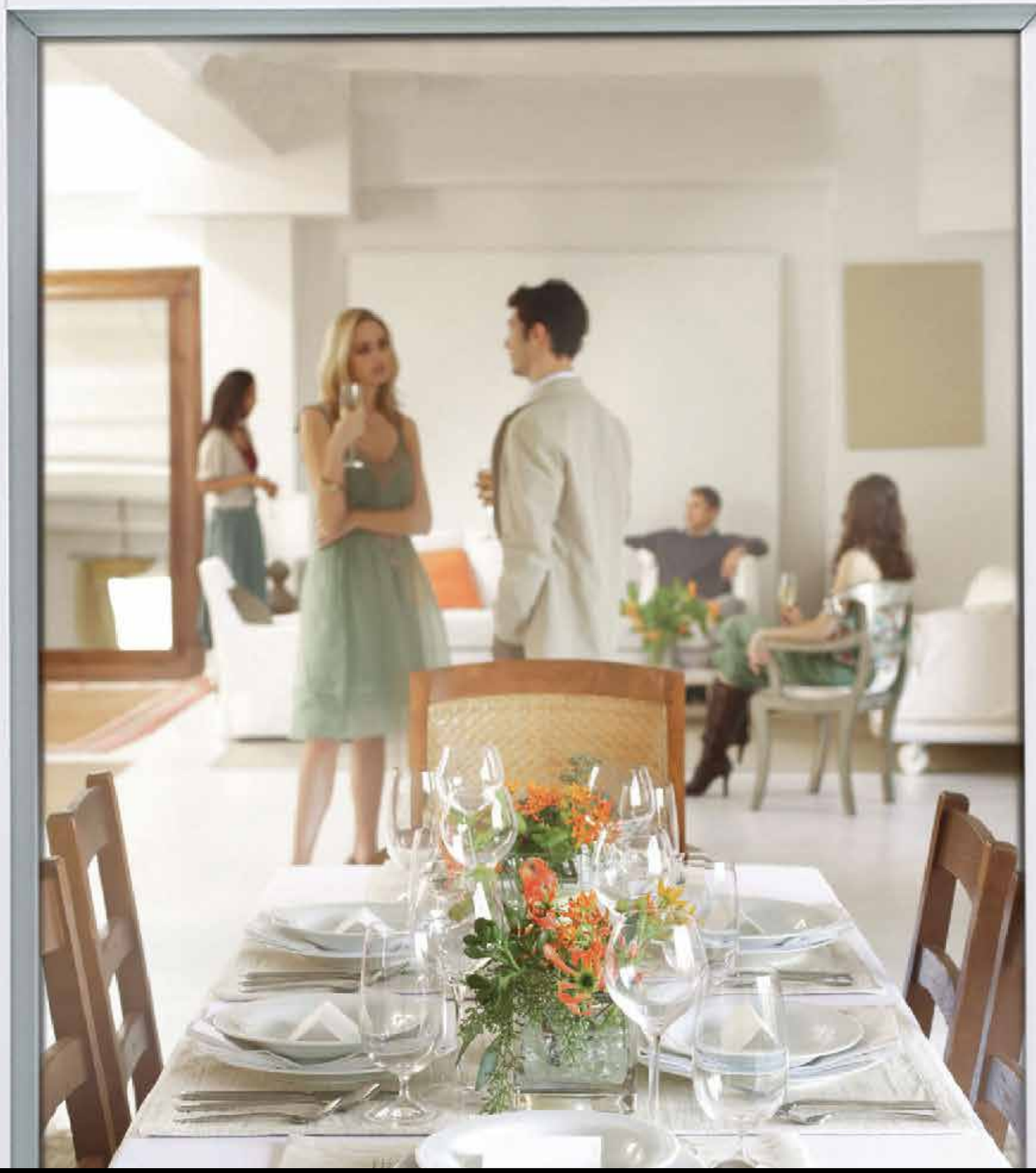
# Series 4000 - Casement Window Installation Manual

GLOBAL IMPACT PRODUCTS
MANUFACTURER WINDOWS & DOORS



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GLOBAL IMPACT PRODUCTS
MANUFACTURER WINDOWS & DOORS

## INSTALLATION NOTES:

1. ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION SHOWN.
2. THE NUMBER OF INSTALLATION ANCHORS DEPICTED IS THE MINIMUM NUMBER OF ANCHORS TO BE USED FOR PRODUCT INSTALLATION OF THE MAXIMUM SIZE LISTED.
3. INSTALL INDIVIDUAL INSTALLATION ANCHORS WITHIN A TOLERANCE OF ±1/2 INCH BASED ON QUANTITIES IN DP CHARTS NOT TO EXCEED THE DEPICTED LOCATION & SPACING IN THE ANCHOR LAYOUT DETAILS (I.E., WITHOUT CONSIDERATION OF TOLERANCES). TOLERANCES ARE NOT CUMULATIVE FROM ONE INSTALLATION ANCHOR TO THE NEXT
4. SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM(S). MAXIMUM ALLOWABLE SHIM STACK TO BE 1/4 INCH. SHIM WHERE SPACE OF 1/16 INCH OR GREATER OCCURS. SHIM(S) SHALL BE CONSTRUCTED OF HIGH DENSITY PLASTIC OR BETTER.
5. **THROUGH FRAME:** FOR INSTALLATION INTO WOOD FRAMING USE 1/4" DIAMETER ELCO ULTRACONS OF SUFFICIENT LENGTH TO ACHIEVE 1 1/2" MINIMUM EMBEDMENT INTO WOOD SUBSTRATE.
6. **THROUGH FRAME:** FOR INSTALLATION THROUGH 1X BUCK TO CONCRETE/MASONRY, OR DIRECTLY INTO CONCRETE/MASONRY, USE 1/4" DIAMETER ELCO ULTRACONS OF SUFFICIENT LENGTH TO ACHIEVE 1 1/4" MINIMUM EMBEDMENT.
7. **THROUGH FRAME:** FOR INSTALLATION INTO METAL STUD OR APPROVED MULLION USE #14 GR. 2 SELF TAPPING SCREWS OF SUFFICIENT LENGTH TO ACHIEVE A MINIMUM OF 3 THREADS PENETRATION BEYOND METAL FRAME SUBSTRATE.
8. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDE WALL FINISHES, INCLUDING BUT NOT LIMITED TO STUCCO, FOAM, BRICK VENEER, AND SIDING.
9. INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.
10. FOR HOLLOW BLOCK AND GROUT FILLED BLOCK, DO NOT INSTALL INSTALLATION ANCHORS INTO MORTAR JOINTS. EDGE DISTANCE IS MEASURED FROM FREE EDGE OF BLOCK OR EDGE OF MORTAR JOINT INTO FACE SHELL OF BLOCK.
11. INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BY THE ANCHOR MANUFACTURER.
12. INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIALS WITH THE FOLLOWING PROPERTIES:
    A. WOOD - MINIMUM SPECIFIC GRAVITY OF 0.55.
    B. CONCRETE -MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI.
    C. GROUT-FILLED CMU- UNIT STRENGTH CONFORMS TO ASTM C-90 WITH MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AND GROUT CONFORMS TO ASTM C 476, MINIMUM GROUT COMPRESSIVE STRENGTH OF 2000 PSI.
    D. HOLLOW BLOCK CMU - UNIT STRENGTH CONFORMS TO ASTM C-90 WITH MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI.
    E. STEEL - MINIMUM YIELD STRENGTH OF 36 KSI. MINIMUM 18 GA. WALL THICKNESS.
    F. ALUMINUM - MINIMUM ALLOY 6063-T5. MINIMUM WALL THICKNESS OF 1/8" (0.125").

## GENERAL NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE CURRENT FLORIDA BUILDING CODE (FBC), INCLUDING HVHZ AND HAS BEEN EVALUATED ACCORDING TO THE FOLLOWING:
    - TAS 201-94
    - TAS 202-94
    - TAS 203-94
2. ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE/MASONRY AND 2X FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
3. 1X AND 2X BUCKS (WHEN USED) SHALL BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO THE STRUCTURE. BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
4. THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT IN NON-HVHZ AREAS. IN HVHZ AREAS, ONE TIME PRODUCT APPROVAL TO BE OBTAINED FROM MIAMI-DADE RER OR AHJ.
5. APPROVED IMPACT PROTECTIVE SYSTEM **IS NOT REQUIRED** ON THIS PRODUCT IN AREAS REQUIRING IMPACT RESISTANCE.
6. WINDOW FRAME MATERIAL: ALUMINUM 6063-T5/T6
7. GLASS MEETS THE REQUIREMENTS OF ASTM E 1300 GLASS CHARTS. SEE GLAZING DETAILS SHEET 1.

## TABLE OF CONTENTS

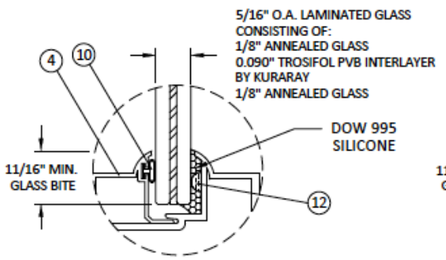


## DESIGN PRESSURE TABLE

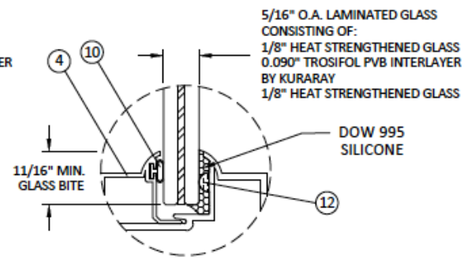
| GLASS SERIES | DESIGN PRESSURE |
|---|---|
| SERIES 4030 | +60/-65 |
| SERIES 4031 | +60/-75 |
| SERIES 4062 | +90/-95 |

SEE SHEET 2 FOR APPROVED SIZES AND ANCHOR INFORMATION

GLAZING NOTES:
1. GLASS TYPE AND THICKNESS SHALL COMPLY WITH ASTM E1300 REQUIREMENTS AS WELL AS APPLICABLE SAFETY GLAZING REQUIREMENTS PER THE FBC. THICKNESS, TEMPER, AND SAFETY GLAZING REQUIREMENTS SHALL BE REVIEWED ON A SITE SPECIFIC BASIS.
2. SETTING BLOCK DUROMETER HARDNESS OF 70-90 (SHORE A) AS REFERENCED IN FBC CHAPTER 24.
3. SETTING BLOCKS TO BE LOCATED AT 1/4 SPAN LENGTH FOR GLASS WIDER THAN 36" AS PER FBC CHAPTER 24.
4. D.L.O. AND DESIGN PRESSURES MAY NOT EXCEED MAX VALUES IN ELEVATIONS.




GLAZING DETAIL
SERIES 4030




GLAZING DETAIL
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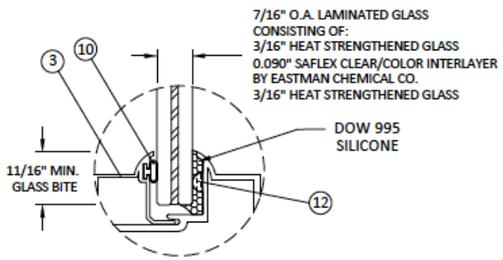
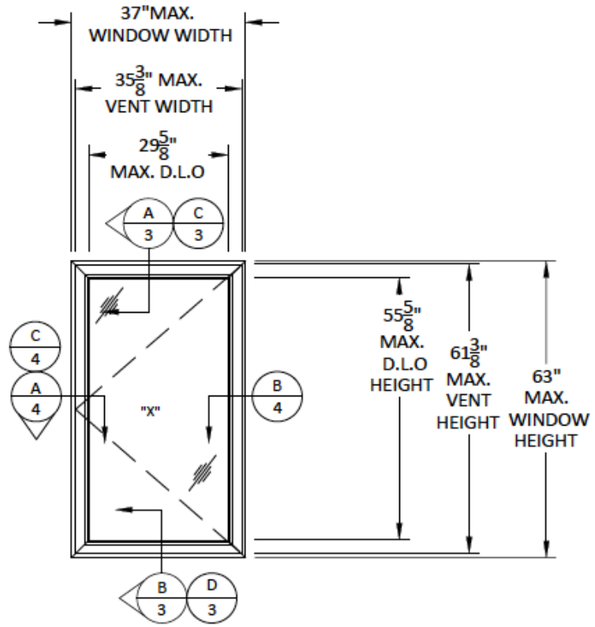
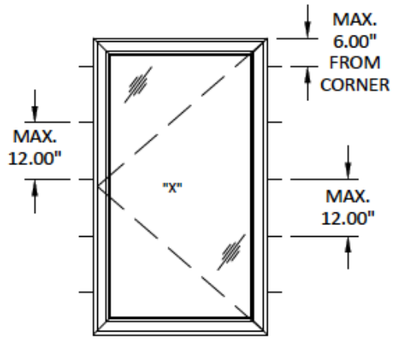



GLAZING DETAIL
SERIES 4062




**TYPICAL ELEVATION**
CASEMENT WINDOW




**ANCHOR LAYOUT**
CASEMENT WINDOW

| ANCHOR SCHEDULE | | | | |
|---|---|---|---|---|
| ANCHOR DESCRIPTION | SUBSTRATE REQUIREMENTS | MIN. EMBEDMENT | MIN. EDGE DISTANCE | NOTES |
| 1/4" Ø ULTRACON BY ELCO ($F_u$=155 *KSI* , $F_y$=177 *KSI* ) | CONCRETE AT HEAD, SILL OR JAMBS $F'_C$=3000 *PSI* MIN. C-90 HOLLOW/FILLED BLOCK AT JAMBS $F'_M$=2000 *PSI* MIN. | 1.25 | 2.25 | MAY BE USED THROUGH OPTIONAL 1X BUCKS, BY OTHERS |
| 1/4" Ø ULTRACON BY ELCO ($F_u$=155 *KSI* , $F_y$=177 *KSI* ) | MIN. S.G.= 0.55 WOOD | 1.5 | 1.0" | -- |
| #14 SMS OR SELF-TAPPING HWH SCREWS (GRADE 2) | STEEL: 18 GA. MIN., $F_y$=36 *KSI* MIN. ALUM.: 1/8" MIN., 6063-T5 MIN. | 3 THREADS PENETRATION PAST METAL STRUCTURE | 0.75" | STEEL IN CONTACT WITH ALUM. TO BE PLATED OR PAINTED |
| #12 SMS OR SELF-TAPPING HWH SCREWS (GRADE 5) | INTO MIAMI-DADE APPROVED MULLIONS( MIN. THK= 0.090")(NO SHIM SPACE) | | | |

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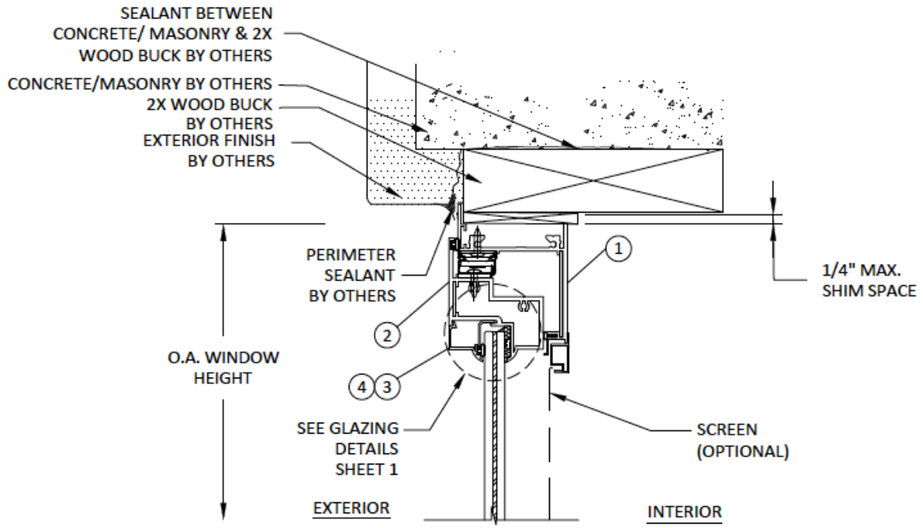
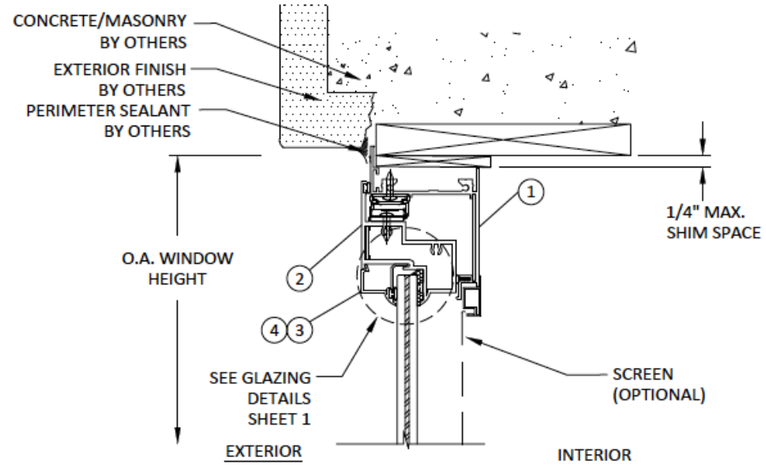
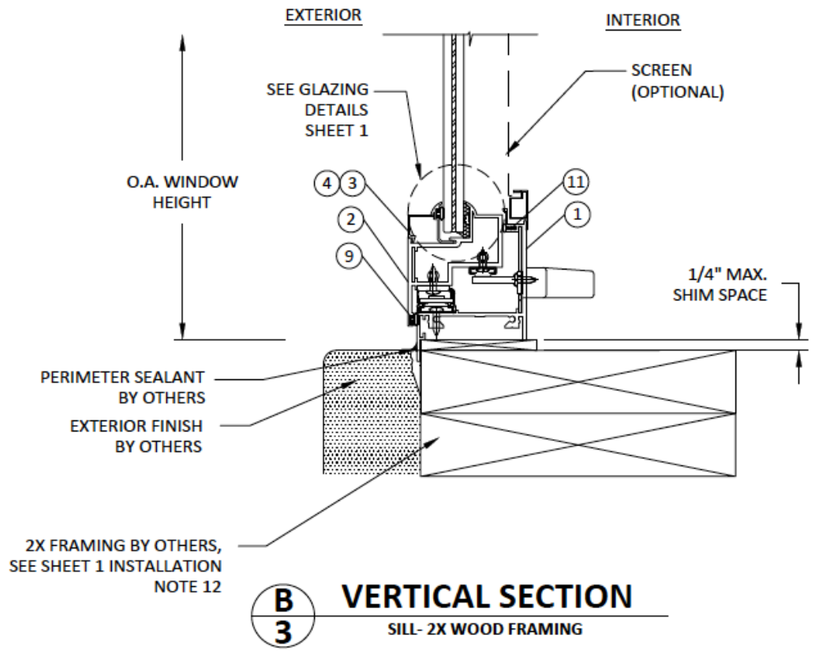


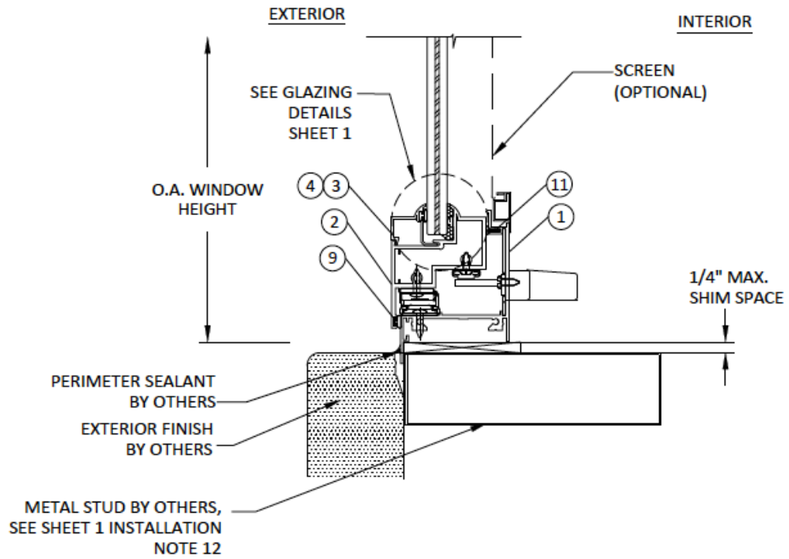

A3 VERTICAL SECTION
HEAD-2X WOOD BUCK



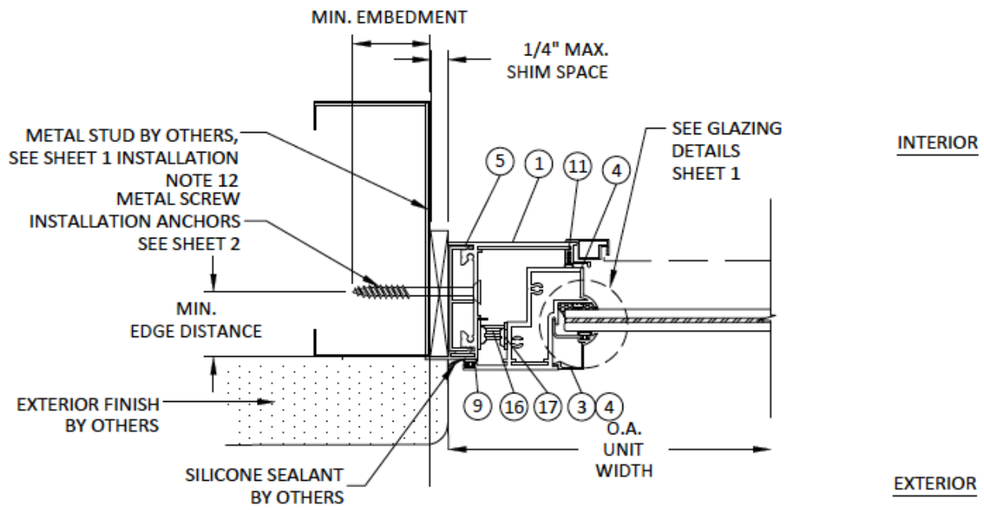

C3 VERTICAL SECTION
HEAD-CONCRETE/ MASONRY



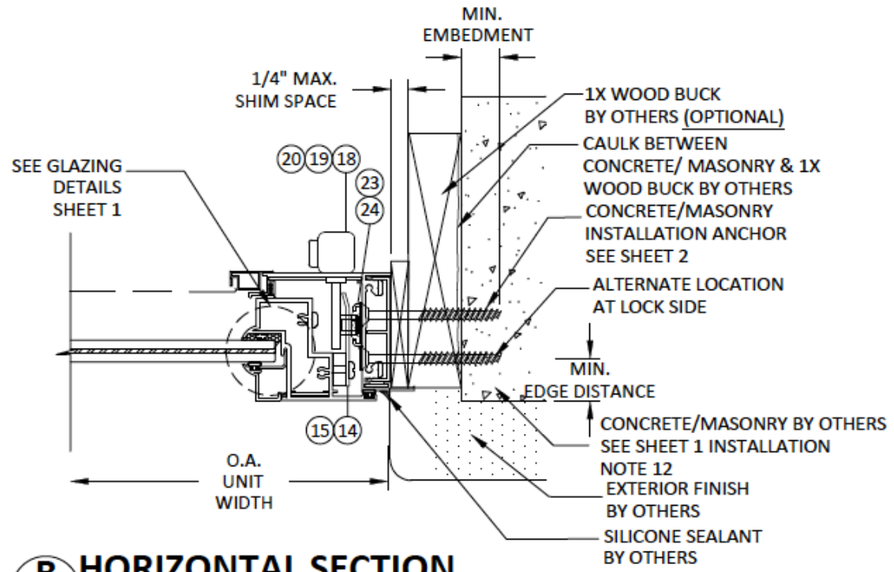

B3 VERTICAL SECTION
SILL- 2X WOOD FRAMING



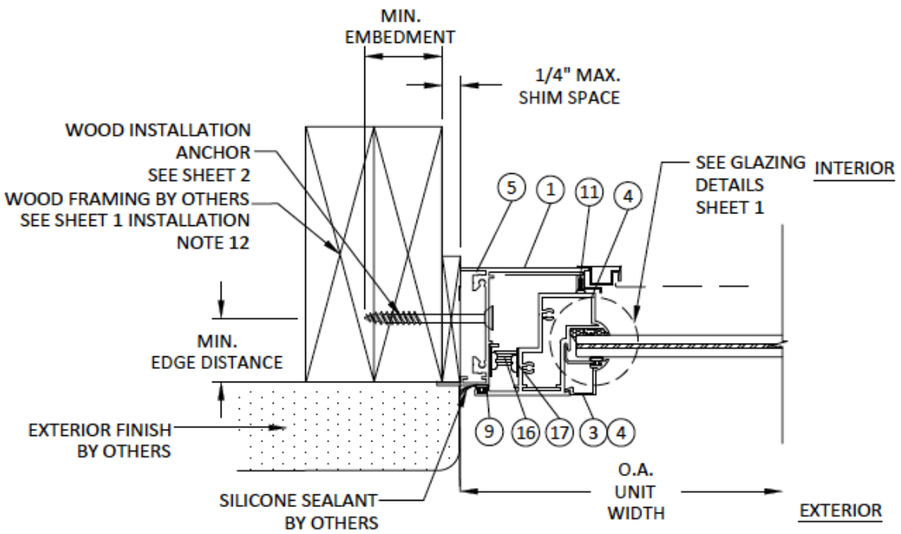

D3 VERTICAL SECTION
SILL - METAL SUSBTRATE



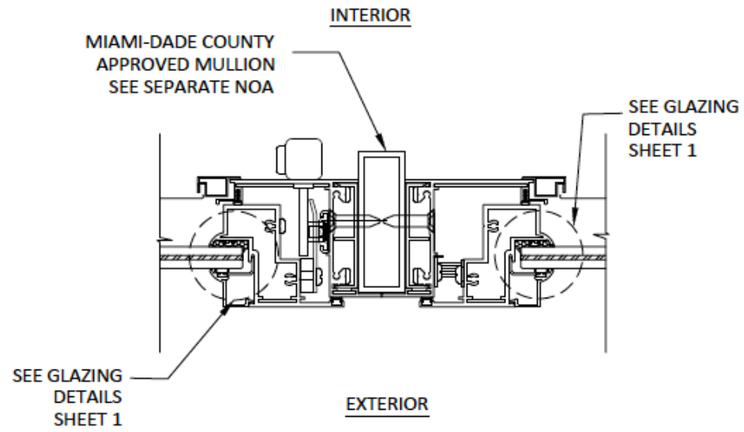

**A/4 HORIZONTAL SECTION**
JAMB-METAL STUD
THROUGH FRAME INSTALLATION




**B/4 HORIZONTAL SECTION**
JAMB-CONCRETE/ MASONRY
THROUGH FRAME INSTALLATION




**C/4 HORIZONTAL SECTION**
JAMB-WOOD FRAMING
THROUGH FRAME INSTALLATION

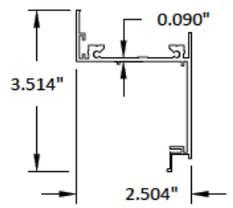


GLOBAL IMPACT PRODUCTS
MANUFACTURER WINDOWS & DOORS

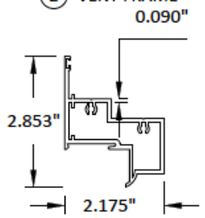
## BILL OF MATERIALS

| ITEM | PART NO. | DESCRIPTION | MATERIAL | MANUF./SUPPLIER/REMARKS |
|---|---|---|---|---|
| 1 | 021-048 | FRAME HEAD,SILL,JAMB | 6063-T5 | - |
| 2 | 022-035 | VENT TOP, BOT, VERTICAL | 6063-T5 | - |
| 3 | 021-040 | 7/16 GLAZING BEAD | 6063-T5 | - |
| 4 | 021-034 | 5/16 GLAZING BEAD | 6063-T5 | - |
| 5 | 021-49 | CANTILEVER PLATE 3" LG | 6063-T6 | AT ANCHOR LOCATION |
| 6 | 021-050-1 | FRAME CORNER KEY | 6063-T6 | - |
| 7 | 025-050-1 | SASH CORNER KEY | 6063-T6 | - |
| 8 | 021-011 | SILICONE | DOW 995 | DOW |
| 9 | 023-005 | FOAM FILLED BULB (32005) | - | AMESBURRY |
| 10 | 015-001 | GLAZING VINYL | - | MASTER TOOL |
| 11 | 023-004 | FOAM FILLED BULB (12032) | - | AMESBURRY |
| 12 | 015-006 | 1/8" DIA GLASS SPACER | ACRYLIC | FRANK LOW RUBBER |
| 13 | 008-014 | #8 X 1 PHPH SMS | ST/ST | CORNER ASSEMBLY |
| 14 | 40978 | KEEPER | ULTRA | ULTRA |
| 15 | # 8 X 1 PHSH SMS | KEEPER FASTENER | ST/ST | - |
| 16 | C0592 | SNUBBERS SET | ST/ST | ULTRA |
| 17 | # 8 X 1 PHSH SMS | SNUBBERS FASTENER | ST/ST | - |
| 18 | 31678 | HANDLE | - | ULTRA |
| 19 | # 10-32 MS SELF TAP | HANDLE FASTENER | ST/ST | - |
| 20 | 57750 | OFFSET | ST/ST | ULTRA |
| 21 | 15026R1 | CRANK HANDLE | - | ULTRA |
| 22 | 8300 | SLIDE BAR W/ GUIDE | 6063-T5 | PIN ADVANTAGE MFG |
| 23 | # 10-32 MS SELF TAP | SLIDE BAR FASTENER | ST/ST | - |

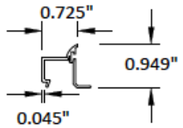
(1) FRAME



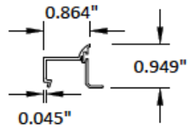

(2) VENT FRAME



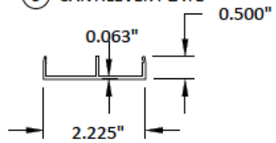

(3) 7/16" GLAZING BEAD



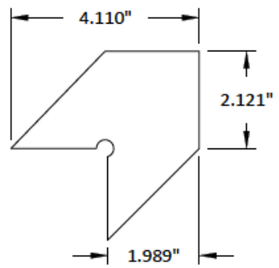

(4) 5/16" GLAZING BEAD



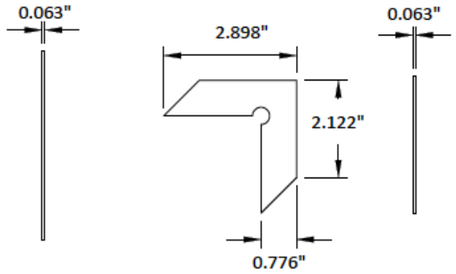

(5) CANTILEVER PLATE




(6) FRAME CORNER KEY




(7) SASH CORNER KEY




(17) SNUBBER