

|                                           |                        |
|-------------------------------------------|------------------------|
| IMPACT RATING                             | DESIGN PRESSURE RATING |
| LARGE & SMALL MISSILE<br>IMPACT RESISTANT | +65.0/-70.0 PSF        |

1) THIS PRODUCT HAS BEEN DESIGNED & TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE, INCLUDING THE HIGH VELOCITY HURRICANE ZONE (HVHZ).

3) MATERIALS USED FOR ANCHOR EVALUATIONS WERE SOUTHERN PINE, ASTM C90 CONCRETE MASONRY UNITS AND CONCRETE WITH MIN. KSI PER ANCHOR TYPE.

5) ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO. USE ANCHORS OF SUFFICIENT LENGTH TO ACHIEVE EMBEDMENT. INSTALLATION ANCHORS SHOULD BE SEALED. OVERALL SEALING/FLASHING STRATEGY FOR WATER RESISTANCE OF INSTALLATION SHALL BE DONE BY OTHERS AND IS BEYOND THE SCOPE OF THESE INSTRUCTIONS.

7) DESIGN PRESSURES:

B. POSITIVE DESIGN LOADS BASED ON WATER TEST PRESSURE, STRUCTURAL/ CYCLE TEST PRESSURE, FRAME ANALYSIS AND GLASS PER ASTM E1300.

8) THE ANCHORAGE METHODS SHOWN HAVE BEEN DESIGNED AND SECURED TO RESIST THE WINDLOADS CORRESPONDING TO THE REQUIRED DESIGN PRESSURE. THE 33-1/3% STRESS INCREASE HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT. THE 1.6 LOAD DURATION FACTOR WAS USED FOR THE EVALUATION OF ANCHORS INTO WOOD. ANCHORS THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE FOR CORROSION RESISTANCE.

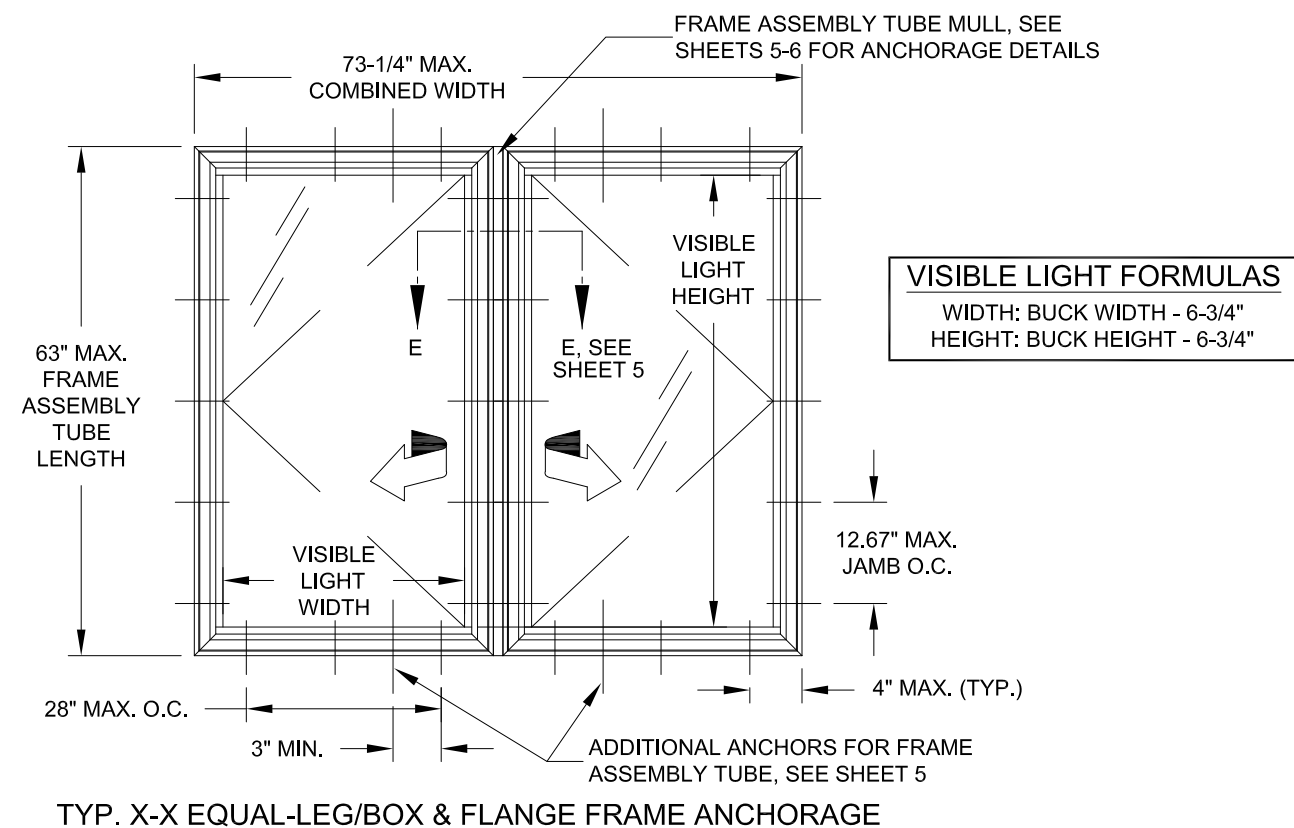
9) METAL SUBSTRATE TO MEET MIN. STRENGTH AND THICKNESS REQUIREMENTS PER CURRENT FLORIDA BUILDING CODE AND TO BE REVIEWED BY THE AUTHORITY HAVING JURISDICTION.

10) REFERENCES: TEST REPORTS FTL-8139, 8174, 19-9037; ELCO ULTRACON NOA; ELCO CRETEFLEX NOA; ELCO AGGRE-GATOR NOA; VISION WINDOW AND DOOR PROFILES, LTD WHITE & BRONZE/LIGHTER SHADES OF CAP COATED PVC EXTRUSION NOA'S; NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, ANSI/AF&PA NDS & ALUMINUM DESIGN MANUAL

11) PVB INTERLAYER MANUFACTURED BY KURARAY AMERICA, INC.

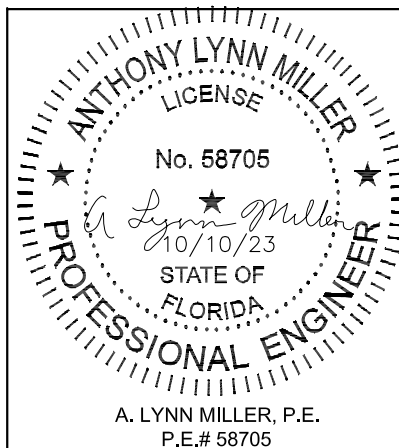
12) APPLICABLE EGRESS REQUIREMENTS TO BE REVIEWED BY BUILDING OFFICIAL.

13) FRAME FLANGES OR INTEGRAL FINS MAY BE TRIMMED IN-FIELD TO CREATE AN EQUAL-LEG FRAME.



|                                             |     |
|---------------------------------------------|-----|
| GENERAL NOTES & ELEVATIONS.....             | 1   |
| FRAME, GLASS & ANCHOR OPTIONS.....          | 2   |
| INSTALLATION, FLANGE & EQUAL LEG.....       | 3   |
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|         |                                     |     |       |        |         |             |            |   |
|---------|-------------------------------------|-----|-------|--------|---------|-------------|------------|---|
| Series  | VINYL CASEMENT WINDOW (LMI)         |     |       |        |         | Date        | 06/04/19   |   |
|         | GLASS/ANCHORS/FRAME OPTIONS         |     |       |        |         | Drawn By    | J ROSOWSKI |   |
|         | UPDATED TITLE BLOCK - JR - 10/10/23 |     |       |        |         |             |            |   |
|         |                                     |     |       |        |         |             |            |   |
| CA-5540 | Scale                               | NTS | Sheet | 1 OF 9 | DWG No. | CA5540 LAMI | Rev. No.   | B |

TABLE 1: ALLOWABLE GLASS TYPES

| Glass Type | Description                                | Table # | Sheet # |
|------------|--------------------------------------------|---------|---------|
| 1          | 7/16" Lami (3/16" A - .090" PVB - 3/16" A) | 4       | 7       |
| 2          | 7/16" Lami (3/16" H - .090" PVB - 3/16" H) | 4       | 7       |

"A" = ANNEALED  
"H" = HEAT STRENGTHENED  
"PVB" = .090" TROSIFOL® PVB  
BY KURARAY AMERICA, INC.

TABLE 2: ANCHORS INSTALLED THROUGH FRAME

| Group | Anchor                                 | Substrate                    | Min. Edge Distance | Min. Embedment*  |
|-------|----------------------------------------|------------------------------|--------------------|------------------|
| A     | #10 SMS (steel, 18-8 S.S. or 410 S.S.) | P.T. Southern Pine (SG=0.55) | 7/16"              | 1-3/8"           |
|       |                                        | Steel, A36*                  | 3/8"               | 0.050"           |
|       |                                        | Steel Stud, A653 Gr. 33*     | 3/8"               | 0.0451" (18 Ga.) |
|       |                                        | Aluminum, 6063-T5*           | 3/8"               | 0.050"           |
|       | 3/16" steel Ultracon+                  | P.T. Southern Pine (SG=0.55) | 7/16"              | 1-3/8"           |
| B     | #12 SMS (steel, 18-8 S.S. or 410 S.S.) | Concrete (min. 3 ksi)        | 1"                 | 1-3/8"           |
|       |                                        | UngROUTED CMU, (ASTM C-90)   | 1"                 | 1-1/4"           |
|       |                                        | P.T. Southern Pine (SG=0.55) | 9/16"              | 1-3/8"           |
|       |                                        | Steel, A36*                  | 3/8"               | 0.050"           |
|       | 1/4" steel Ultracon+                   | Steel Stud, A653 Gr. 33*     | 3/8"               | 0.0451" (18 Ga.) |
|       |                                        | Aluminum, 6063-T5*           | 3/8"               | 0.063"           |
|       |                                        | P.T. Southern Pine (SG=0.55) | 1"                 | 1-3/8"           |
| C     | 1/4" steel Ultracon+                   | Concrete (min. 3 ksi)        | 1-3/16"            | 1-3/4"           |
|       |                                        | UngROUTED CMU, (ASTM C-90)   | 1"                 | 1-1/4"           |
|       | 1/4" steel Creteflex                   | Concrete (min. 3.35 ksi)     | 1"                 | 1-3/4"           |
| D     | 1/4" steel Ultracon+                   | Concrete (min. 3 ksi)        | 2-1/2"             | 1-3/4"           |
|       |                                        | UngROUTED CMU, (ASTM C-90)   | 2-1/2"             | 1-1/4"           |
|       | 1/4" steel Creteflex                   | Concrete (min. 3.35 ksi)     | 2-1/2"             | 1-3/4"           |
|       |                                        | UngROUTED CMU, (ASTM C-90)   | 2-1/2"             | 1-1/4"           |
|       | 1/4" steel Aggre-Gator                 | Concrete (min. 3.275 ksi)    | 1-1/2"             | 1-3/8"           |
|       |                                        | Grouted CMU, (ASTM C-90)     | 2"                 | 2"               |

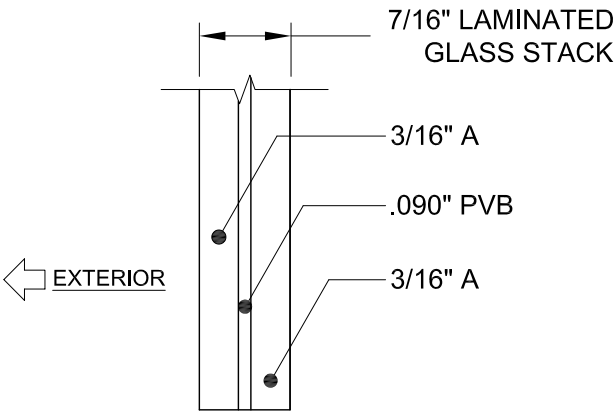
\* MIN. OF 3 THREADS BEYOND THE METAL SUBSTRATE.  
"UNGROUTED CMU" VALUES MAY BE USED FOR GROUTED CMU APPLICATIONS.  
ALL HEAD TYPES APPLICABLE.

TABLE 3: ANCHORS INSTALLED THROUGH INTEGRAL FIN

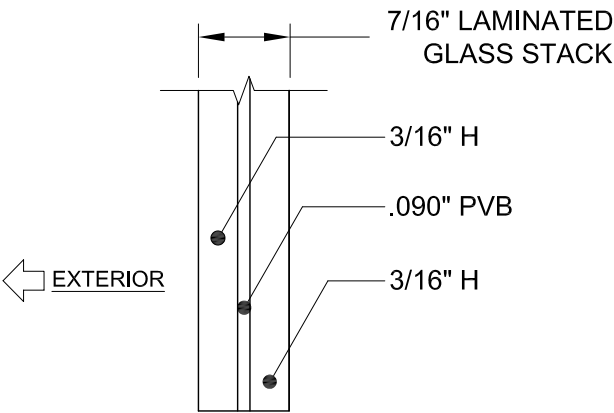
| Group | Anchor                                           | Substrate                   | Min. Edge Distance | Min. Embedment*  |
|-------|--------------------------------------------------|-----------------------------|--------------------|------------------|
| F     | 2-1/2" Ring-shank Roofing Nail                   | P.T. Southern Pine (SG=.55) | 3/8"               | 2-7/16"          |
|       |                                                  | P.T. Southern Pine (SG=.55) | 1/2"               | 1-3/8"           |
|       |                                                  | Aluminum, 6063-T5*          | 3/8"               | 0.050"           |
|       |                                                  | Steel Stud, Gr. 33*         | 3/8"               | 0.0451" (18 Ga.) |
|       | #10 Trusshead SMS (steel, 18-8 S.S. or 410 S.S.) | Steel, A36*                 | 3/8"               | 0.050"           |
|       |                                                  | P.T. Southern Pine (SG=.55) | 9/16"              | 1-3/8"           |
|       |                                                  | Aluminum, 6063-T5*          | 3/8"               | 0.063"           |
|       |                                                  | Steel Stud, Gr. 33*         | 3/8"               | 0.050"           |
|       | #12 SMS (steel, 18-8 S.S. or 410 S.S.)           | Steel, A36*                 | 3/8"               | 0.050"           |
|       |                                                  | P.T. Southern Pine (SG=.55) | 9/16"              | 1-3/8"           |
|       |                                                  | Aluminum, 6063-T5*          | 3/8"               | 0.063"           |
|       |                                                  | Steel Stud, Gr. 33*         | 3/8"               | 0.050"           |

\* MIN. OF 3 THREADS BEYOND THE METAL SUBSTRATE. ALL HEAD TYPES APPLICABLE.

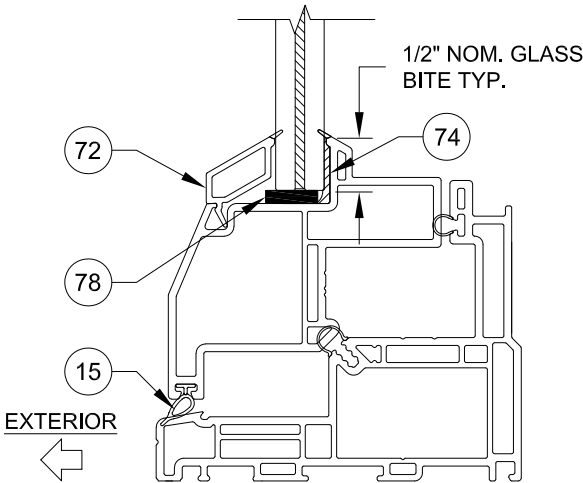
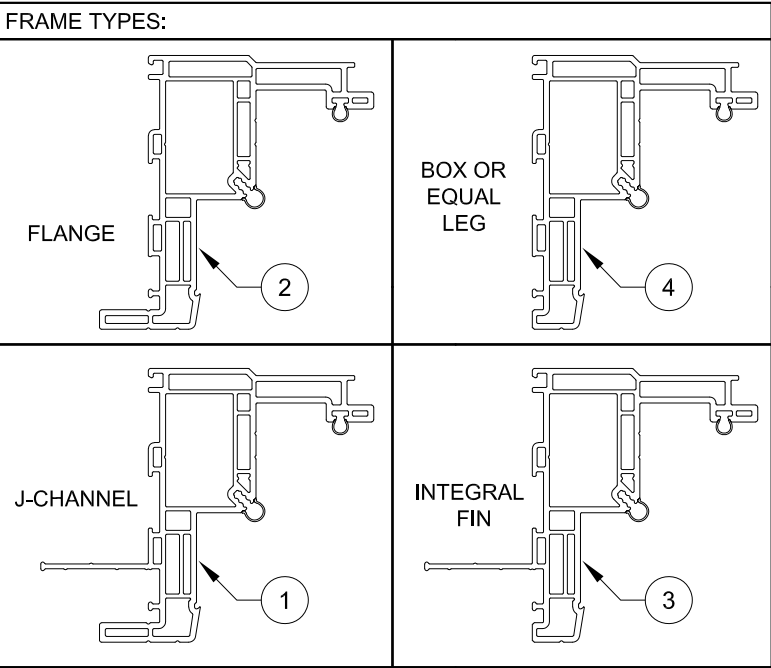
NOTE:  
USE ONLY SUBSTRATE-APPROPRIATE ANCHORS LISTED ON TABLES 2 & 3, THIS SHEET. FOLLOW EMBEDMENT AND EDGE DISTANCE LIMITS. ANY INSTALLATION OPTION SHOWN MAY BE USED ON ANY SIDE OF THE WINDOW.



GLASS TYPE 1



GLASS TYPE 2



TYP. GLAZING DETAIL

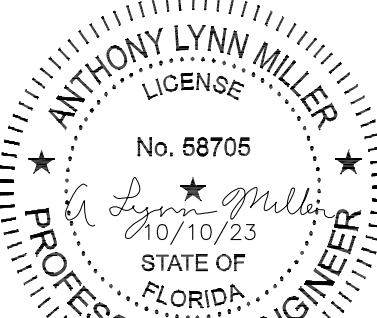


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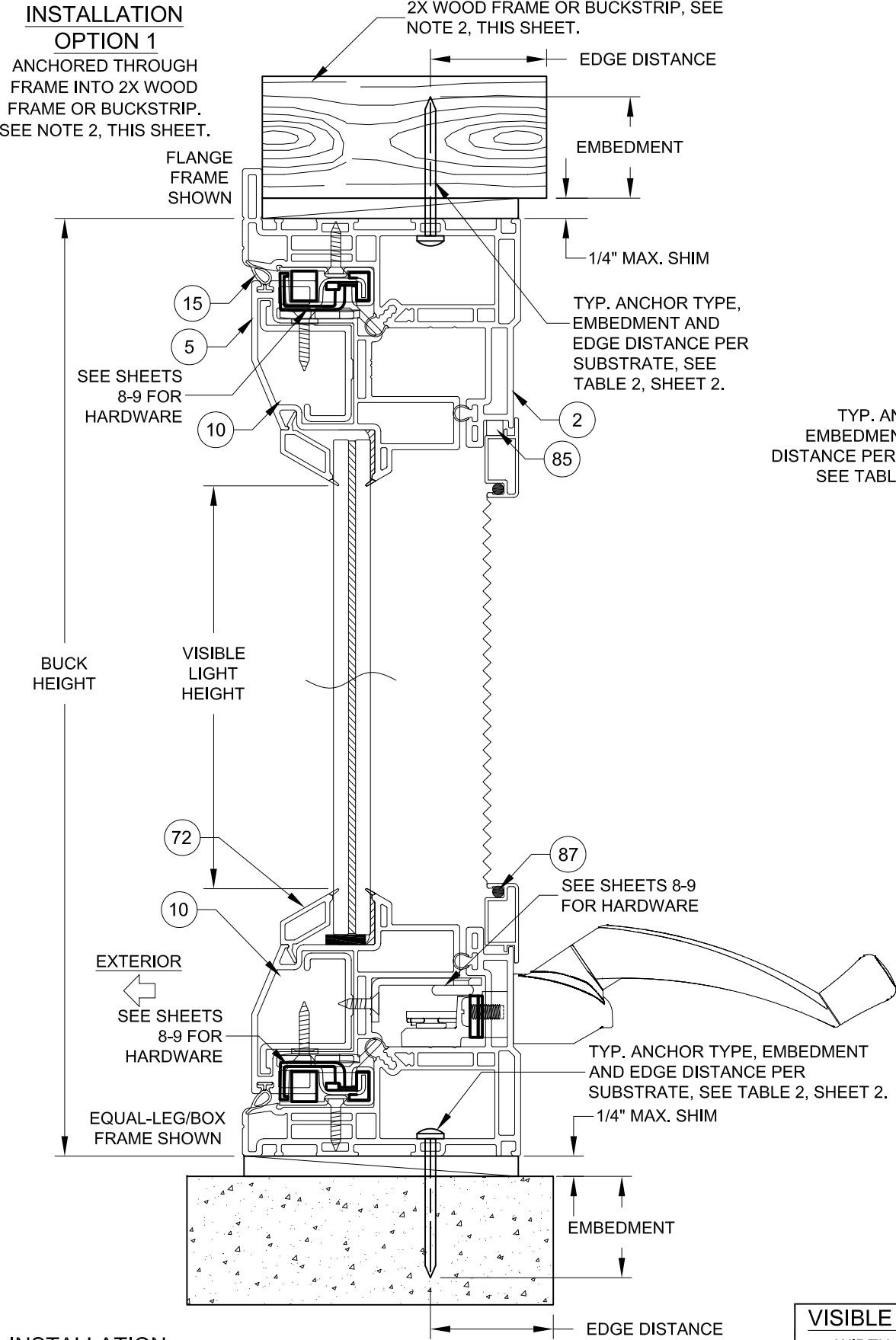
|                 |                             |       |     |  |       |        |          |            |             |          |   |
|-----------------|-----------------------------|-------|-----|--|-------|--------|----------|------------|-------------|----------|---|
| Series<br>Rev B | VINYL CASEMENT WINDOW (LMI) |       |     |  |       |        | Date     | 06/04/19   |             |          |   |
|                 | GLASS/ANCHORS/FRAME OPTIONS |       |     |  |       |        | Drawn By | J ROSOWSKI |             |          |   |
|                 |                             |       |     |  |       |        |          |            |             |          |   |
|                 |                             |       |     |  |       |        |          |            |             |          |   |
| CA-5540         |                             | Scale | NTS |  | Sheet | 2 OF 9 |          | DWG No.    | CA5540 LAMI | Rev. No. | B |

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P.E.# 58705

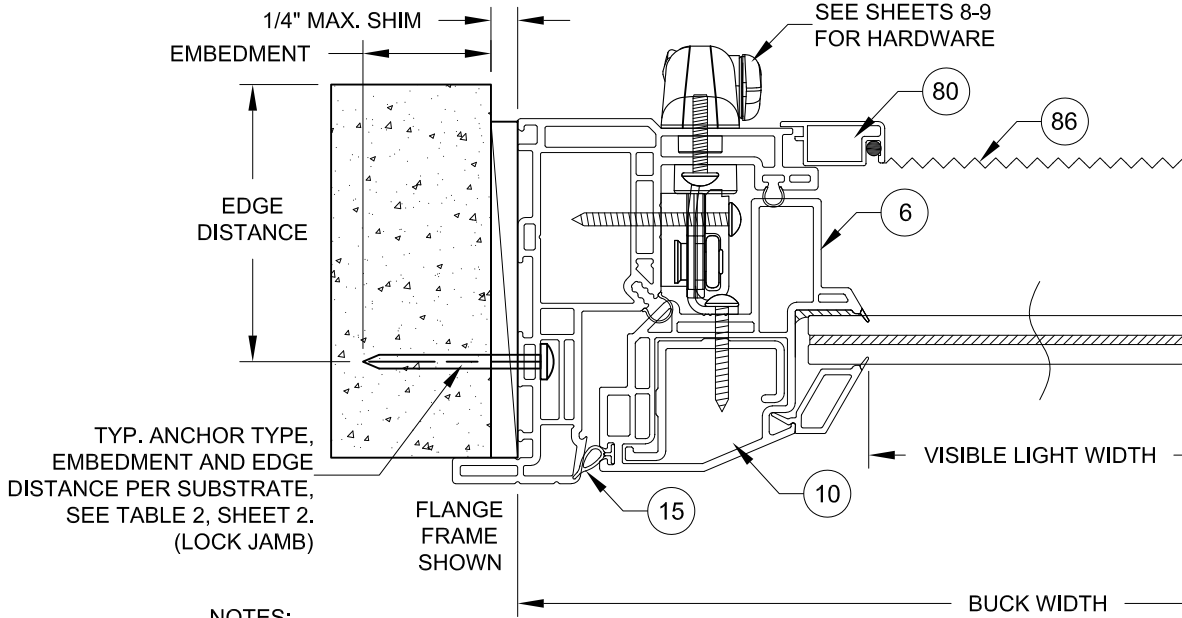
INSTALLATION  
OPTION 1  
ANCHORED THROUGH  
FRAME INTO 2X WOOD  
FRAME OR BUCKSTRIP.  
SEE NOTE 2, THIS SHEET.



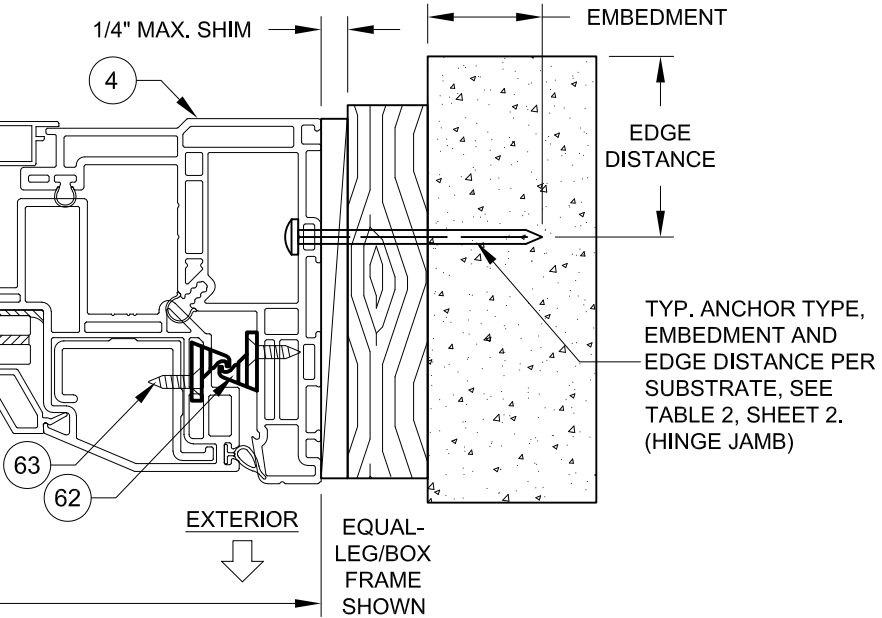
INSTALLATION  
OPTION 2  
ANCHORED THROUGH  
FRAME DIRECTLY INTO  
CONCRETE/CMU.

VERTICAL SECTION B-B  
SHOWN WITH HEAVY-DUTY SASH,  
HINGE & REINFORCEMENT

INSTALLATION OPTION 2  
ANCHORED THROUGH FRAME  
DIRECTLY INTO CONCRETE/CMU.



INSTALLATION OPTION 3  
ANCHORED THROUGH FRAME AND 1X  
BUCKSTRIP INTO CONCRETE/CMU.  
SEE NOTE 2, THIS SHEET.

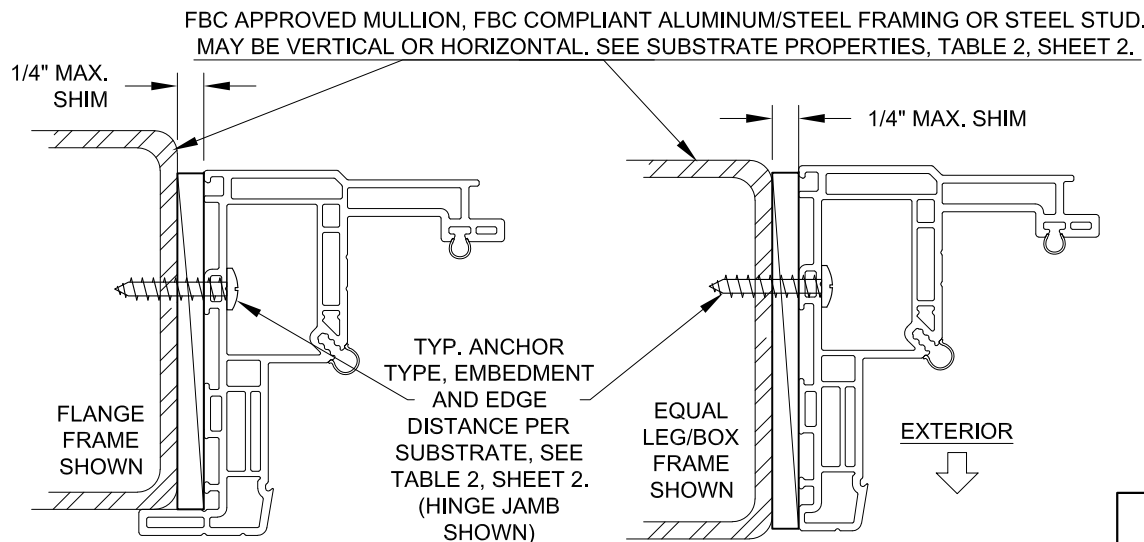


NOTES:

- 1) USE ONLY SUBSTRATE-APPROPRIATE ANCHORS LISTED ON TABLE 2, SHEET 2. FOLLOW EMBEDMENT AND EDGE DISTANCE LIMITS. ANY INSTALLATION OPTION SHOWN MAY BE USED ON ANY SIDE OF THE WINDOW.
- 2) MASONRY ANCHORS MAY BE USED INTO WOOD AS PER TABLE 2, SHEET 2. ALL WOOD BUCKS LESS THAN 1-1/2" THICK ARE TO BE CONSIDERED 1X INSTALLATIONS. 1X WOOD BUCKS ARE OPTIONAL IF UNIT IS INSTALLED DIRECTLY TO SUBSTRATE. WOOD BUCKS DEPICTED AS 2X ARE 1-1/2" THICK OR GREATER. 1X AND 2X BUCKS (WHEN USED) SHALL BE DESIGNED AND SECURED TO PROPERLY TRANSFER LOADS TO THE STRUCTURE. WOOD BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD.
- 3) VISIBLE LIGHT WIDTH OR HEIGHT (ALSO REFERRED TO AS DAYLIGHT OPENING) IS MEASURED FROM BEADING TO BEADING.

HORIZONTAL SECTION A-A

SHOWN WITH HEAVY-DUTY SASH,  
HINGE & REINFORCEMENT



INSTALLATION  
OPTION 4  
ANCHORED THROUGH  
FRAME INTO METAL

INSTALLATION  
OPTION 4  
ANCHORED THROUGH  
FRAME INTO METAL

VISIBLE LIGHT FORMULAS  
WIDTH: BUCK WIDTH - 6-3/4"  
HEIGHT: BUCK HEIGHT - 6-3/4"

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|--------|-----------------------------|-------------------------------|-----|-------|--------|----------|-------------|------------|---|
| Title  | VINYL CASEMENT WINDOW (LMI) |                               |     |       |        |          | Date        | 06/04/19   |   |
|        | Desc.                       | FLANGE & EQUAL-LEG/BOX FRAMES |     |       |        | Drawn By |             | J ROSOWSKI |   |
| Rev A  |                             |                               |     |       |        |          |             |            |   |
| Rev B  |                             |                               |     |       |        |          |             |            |   |
| Series | CA-5540                     | Scale                         | NTS | Sheet | 3 OF 9 | DWG No.  | CA5540 LAMI | Rev. No.   | B |

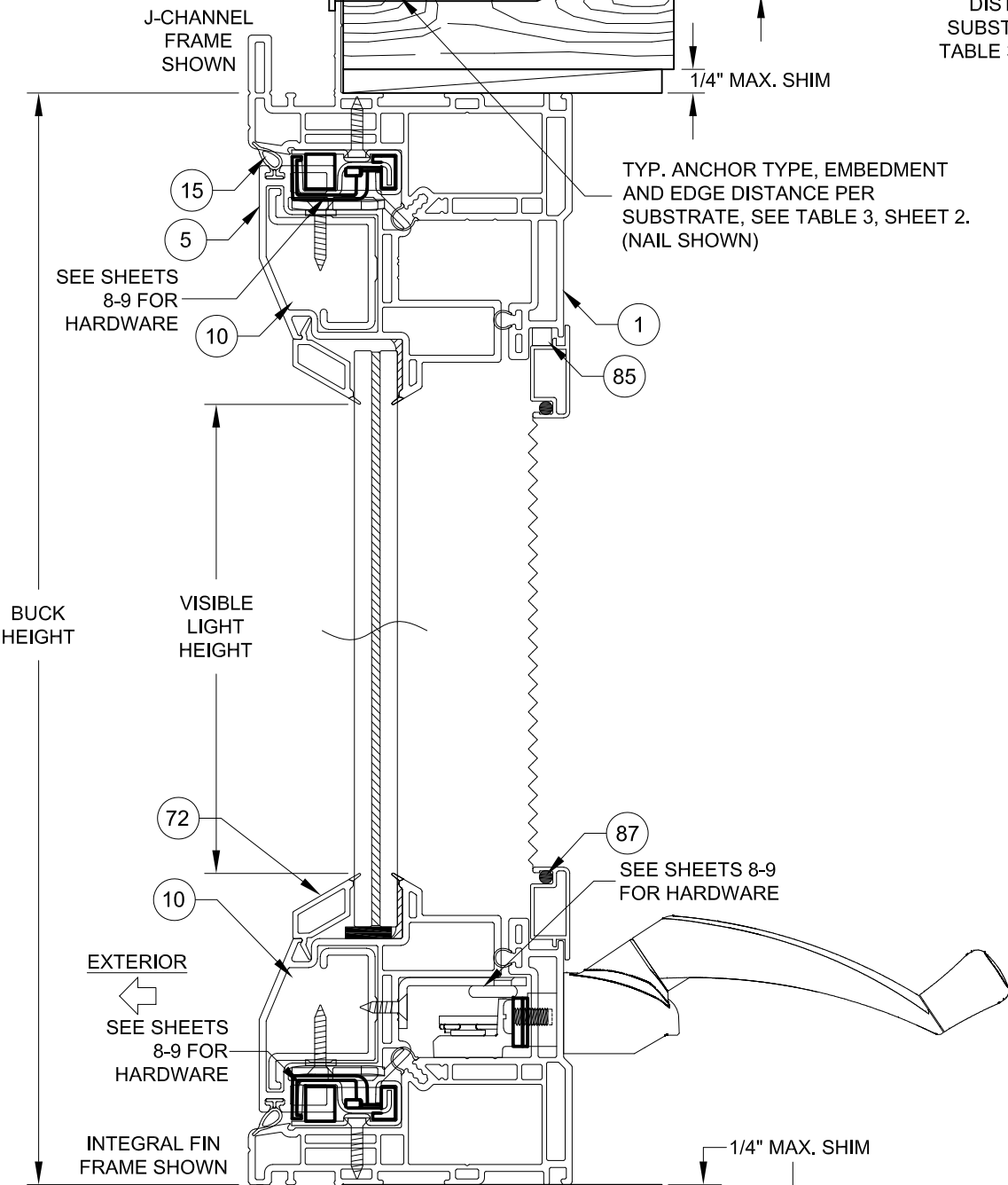
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INSTALLATION OPTION 5

ANCHORED THROUGH  
INTEGRAL FIN INTO 2X WOOD  
FRAME OR BUCKSTRIP. SEE  
NOTE 2, THIS SHEET.



INSTALLATION  
OPTION 5

ANCHORED THROUGH  
INTEGRAL FIN INTO 2X  
WOOD FRAME OR  
BUCKSTRIP. SEE NOTE 2,  
THIS SHEET.

VERTICAL SECTION D-D

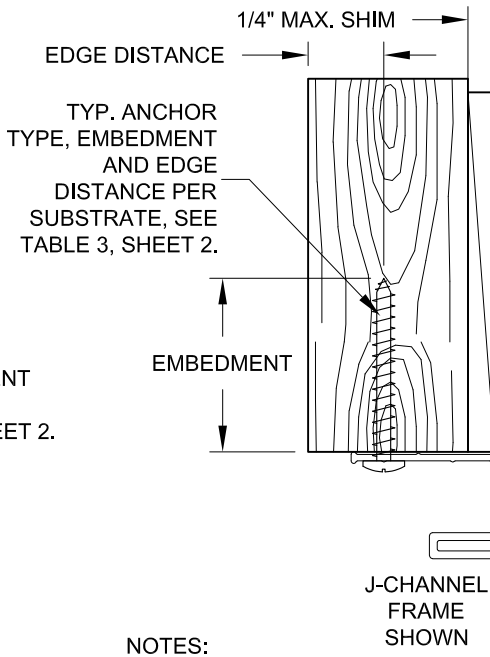
SHOWN WITH HEAVY-DUTY SASH,  
HINGE & REINFORCEMENT

TYP. ANCHOR TYPE, EMBEDMENT  
AND EDGE DISTANCE PER  
SUBSTRATE, SEE TABLE 3, SHEET 2.  
(SCREW SHOWN)

**VISIBLE LIGHT FORMULAS**  
WIDTH: BUCK WIDTH - 6-3/4"  
HEIGHT: BUCK HEIGHT - 6-3/4"

INSTALLATION OPTION 6

ANCHORED THROUGH FRAME INTO  
2X WOOD FRAME OR BUCKSTRIP.  
SEE NOTE 2, THIS SHEET.

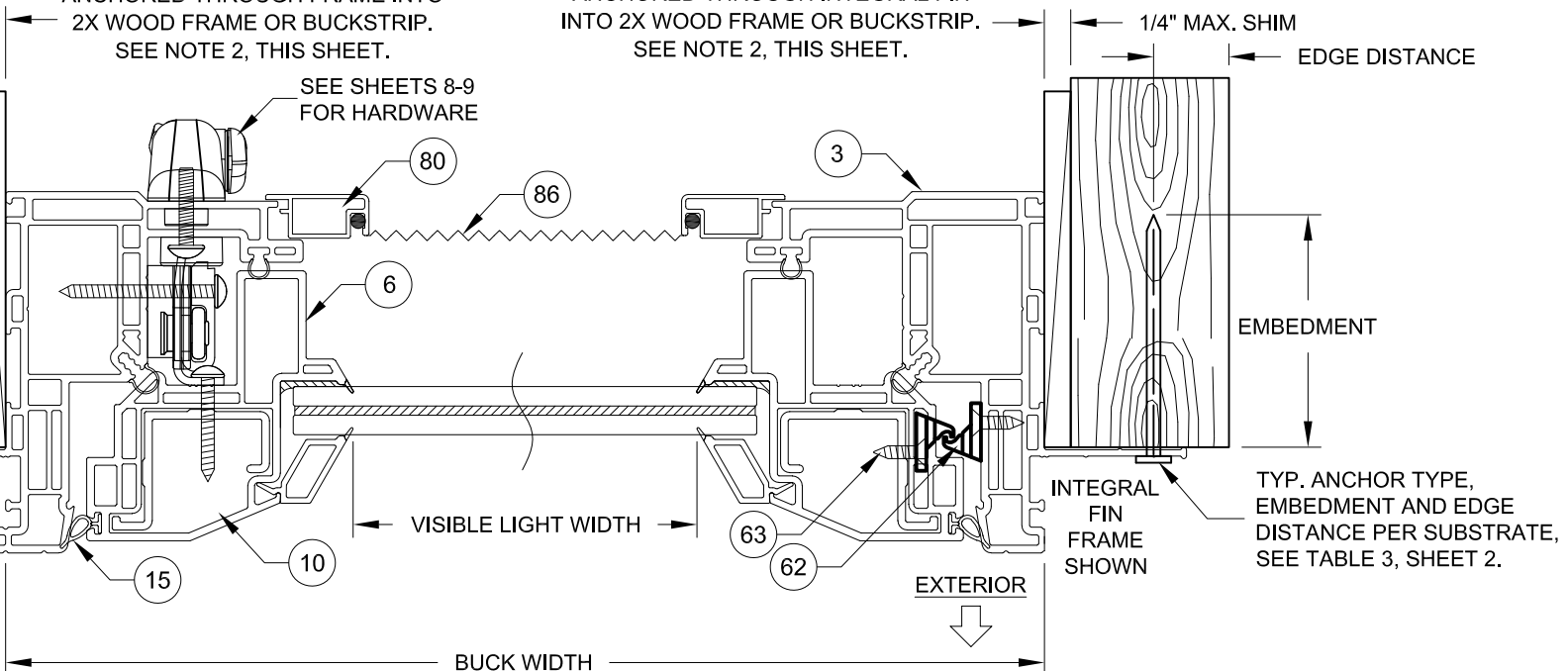


NOTES:

- 1) USE ONLY  
SUBSTRATE-APPROPRIATE  
ANCHORS LISTED ON TABLES 2 &  
3, SHEET 2. FOLLOW EMBEDMENT  
AND EDGE DISTANCE LIMITS. ANY  
INSTALLATION OPTION SHOWN  
MAY BE USED ON ANY SIDE OF  
THE WINDOW.
- 2) MASONRY ANCHORS MAY BE  
USED INTO WOOD AS PER TABLE 2,  
SHEET 2. ALL WOOD BUCKS LESS  
THAN 1-1/2" THICK ARE TO BE  
CONSIDERED 1X INSTALLATIONS.  
1X WOOD BUCKS ARE OPTIONAL IF  
UNIT IS INSTALLED DIRECTLY TO  
SUBSTRATE. WOOD BUCKS  
DEPICTED AS 2X ARE 1-1/2" THICK  
OR GREATER. 1X AND 2X BUCKS  
(WHEN USED) SHALL BE DESIGNED  
AND SECURED TO PROPERLY  
TRANSFER LOADS TO THE  
STRUCTURE. WOOD BUCK DESIGN  
AND INSTALLATION IS THE  
RESPONSIBILITY OF THE  
ENGINEER OR ARCHITECT OF  
RECORD.
- 3) VISIBLE LIGHT WIDTH OR  
HEIGHT (ALSO REFERRED TO AS  
DAYLIGHT OPENING) IS MEASURED  
FROM BEADING TO BEADING.

INSTALLATION OPTION 5

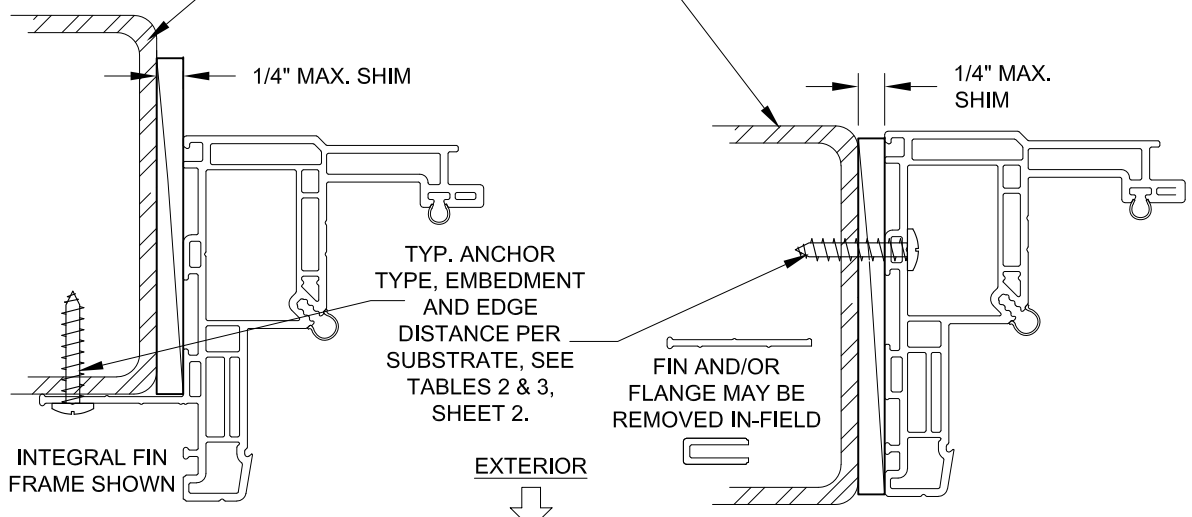
ANCHORED THROUGH INTEGRAL FIN  
INTO 2X WOOD FRAME OR BUCKSTRIP.  
SEE NOTE 2, THIS SHEET.



HORIZONTAL SECTION C-C

SHOWN WITH HEAVY-DUTY SASH,  
HINGE & REINFORCEMENT

FBC COMPLIANT ALUMINUM/STEEL FRAMING OR STEEL STUD. MAY BE VERTICAL OR  
HORIZONTAL. SEE SUBSTRATE PROPERTIES, TABLES 2 & 3, SHEET 2.



INSTALLATION  
OPTION 7

ANCHORED THROUGH  
FRAME INTO METAL

INSTALLATION  
OPTION 8

ANCHORED THROUGH  
FRAME INTO METAL



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| Title  | VINYL CASEMENT WINDOW (LMI) |                                 |     |       |        |          | Date        | 06/04/19   |   |
|        | Desc.                       | J-CHANNEL & INTEGRAL FIN FRAMES |     |       |        | Drawn By |             | J ROSOWSKI |   |
| Rev A  |                             |                                 |     |       |        |          |             |            |   |
| Rev B  |                             |                                 |     |       |        |          |             |            |   |
| Series | CA-5540                     | Scale                           | NTS | Sheet | 4 OF 9 | DWG No.  | CA5540 LAMI | Rev. No.   | B |

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ILLUSTRATION OF CASEMENT-TO-CASEMENT (X-X)  
(EQUAL LEG/BOX FRAME WITH IDENTICAL PRODUCTS COMBINED)

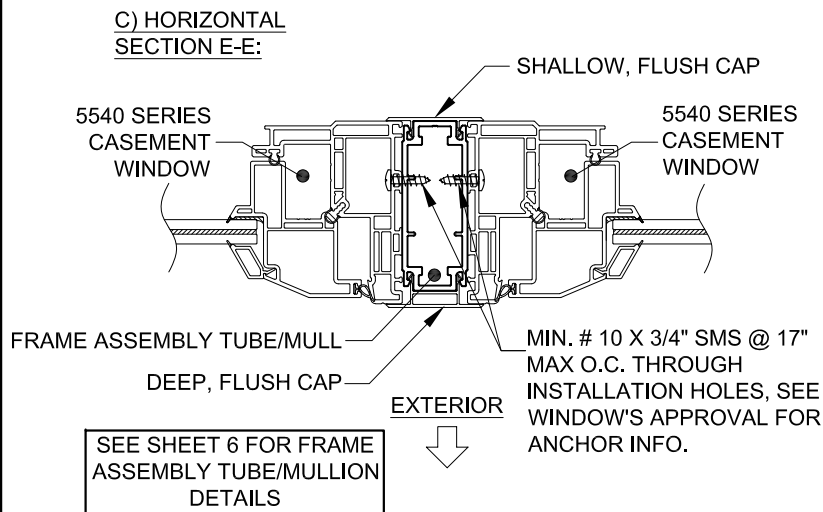
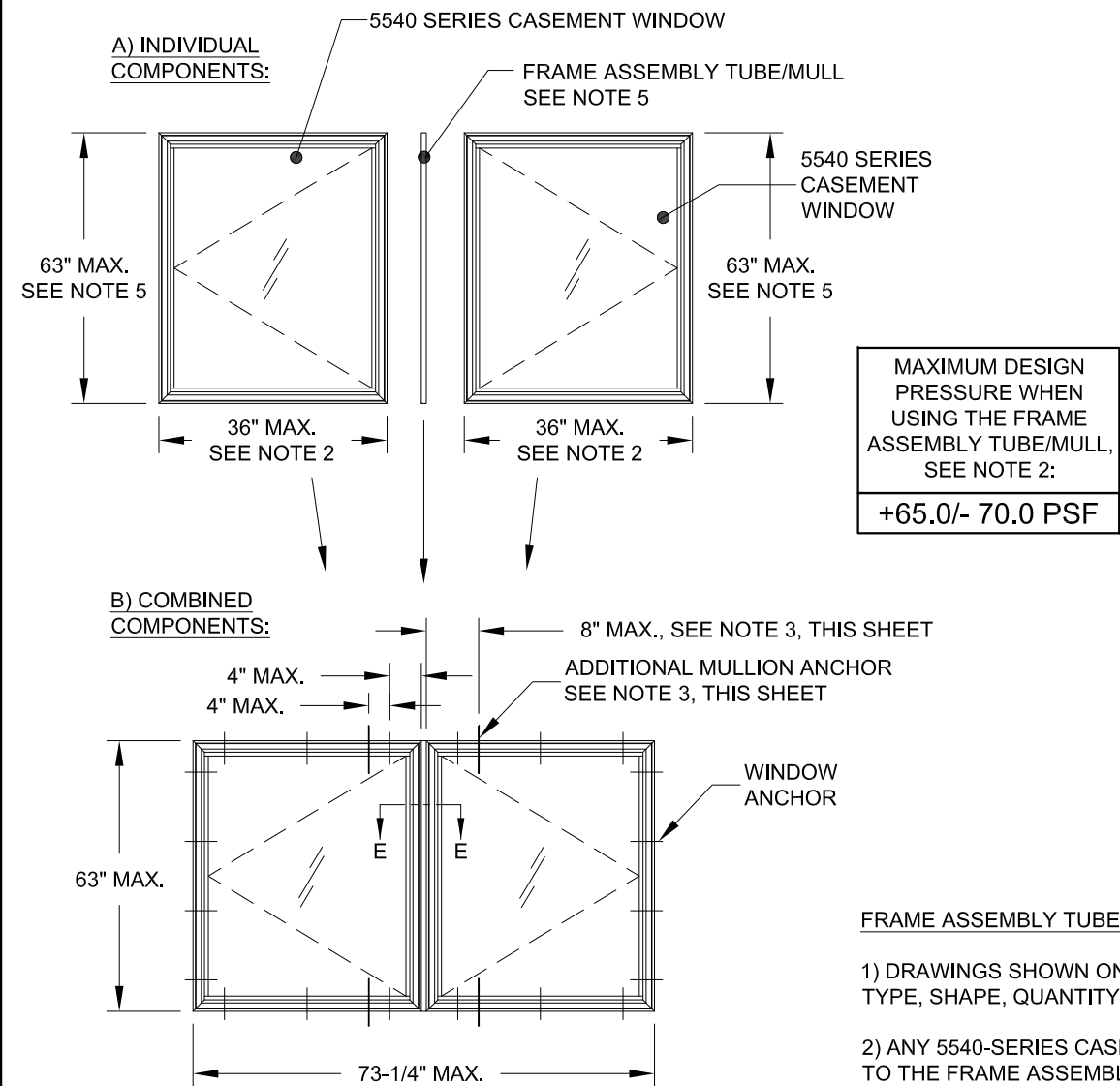
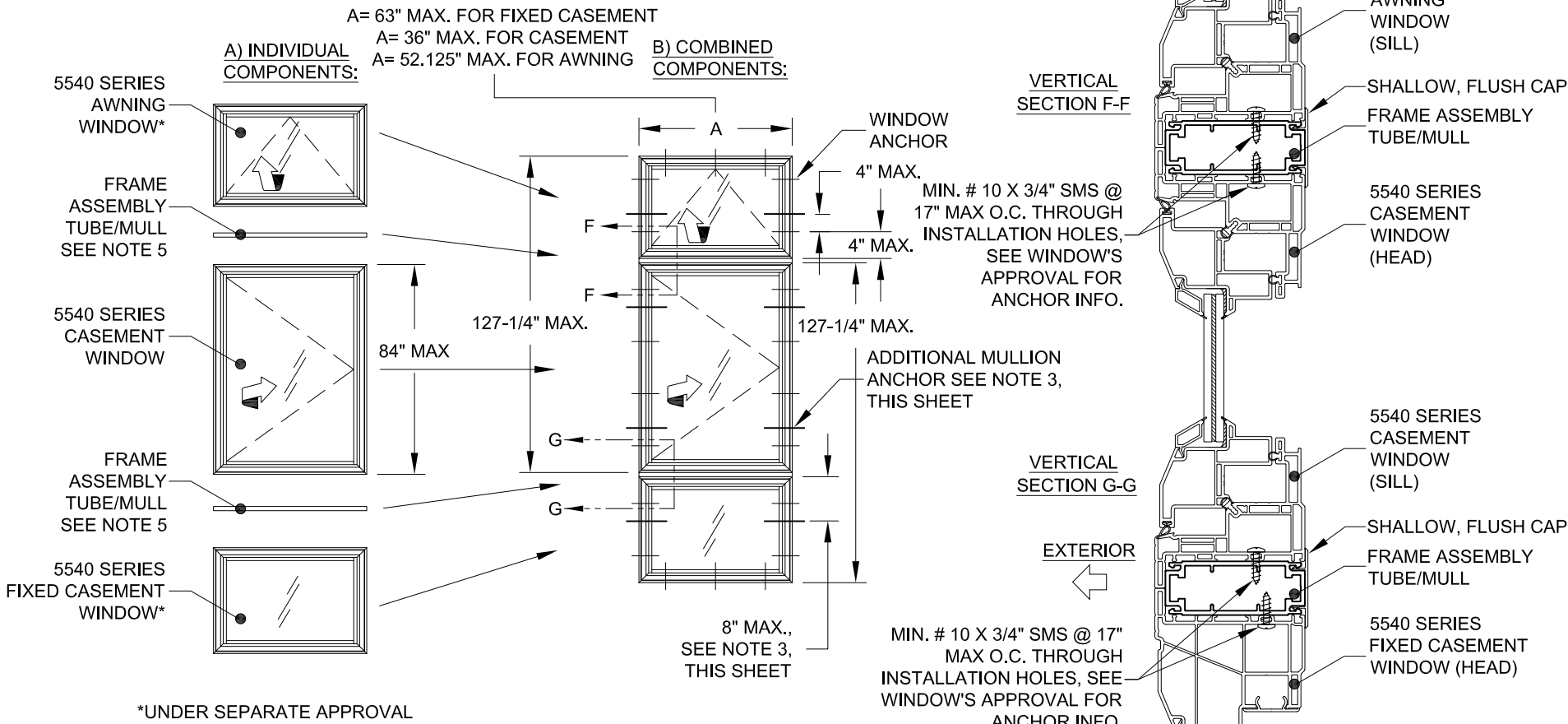


ILLUSTRATION OF AWNING-TO-CASEMENT-TO-FIXED CASEMENT (X/X/O)  
(FLANGE FRAME WITH DIFFERENT 5540 SERIES PRODUCTS COMBINED)



FRAME ASSEMBLY TUBE/MULL NOTES, ALSO SEE NEXT SHEET:

- 1) DRAWINGS SHOWN ON THIS SHEET ARE EXAMPLE CONFIGURATIONS FOR ALL FRAME TYPES. ADDITIONAL CONFIGURATIONS BASED ON WINDOW SIZE, TYPE, SHAPE, QUANTITY AND FRAME ASSEMBLY TUBE ORIENTATION ARE PERMISSIBLE FOLLOWING THE GUIDELINES OF THIS SHEET.
- 2) ANY 5540-SERIES CASEMENT, FIXED CASEMENT (UNDER SEPARATE APPROVAL) OR AWNING WINDOW (UNDER SEPARATE APPROVAL) MAY BE ATTACHED TO THE FRAME ASSEMBLY TUBE/MULL, IN ANY COMBINATION TO THE SPAN AND WIDTH LIMIT SHOWN. FOR ALL WINDOWS IN THE ASSEMBLY, USE EACH WINDOW'S INDIVIDUAL APPROVAL FOR ANCHORAGE, SIZE AND DESIGN PRESSURE LIMITATIONS. THE LOWEST DESIGN PRESSURE OF THE WINDOWS OR FRAME ASSEMBLY TUBE/MULL APPLIES TO THE ENTIRE ASSEMBLY.
- 3) FOR ALL COMBINATION UNITS, ADDITIONAL INSTALLATION ANCHORS ARE REQUIRED TO BE INSTALLED THROUGH THE WINDOW FRAMES, AS SHOWN ON THIS SHEET, ON EACH SIDE OF THE FRAME ASSEMBLY TUBE/MULL WHEN USING FLANGE OR EQUAL-LEG/BOX FRAMES. FOR FIN OR J-CHANNEL FRAMES ADDITIONAL ANCHORS AND END CAPS ARE REQUIRED AS SHOWN ON SHEET 6.
- 4) FOR FLANGE OR EQUAL-LEG/BOX FRAMES, THE FRAME ASSEMBLY TUBE TO BE FASTENED TO WINDOW, AS SHOWN IN DETAILS, WITH MIN. #10 X 3/4" SHEET METAL SCREWS. USE THE SAME SPACING AND QUANTITY AS THE WINDOW INSTALLATION ANCHORS GIVEN IN THAT PRODUCT'S APPROVAL, UP TO 17" MAX. O.C., ADD ADDITIONAL ANCHORS AS NEEDED. THE FRAME ASSEMBLY TUBE IS NOT REQUIRED TO BE CLIPPED TO THE SUBSTRATE. ALL EXTERIOR JOINTS TO BE SEALED BY INSTALLER.
- 5) THE FRAME ASSEMBLY TUBE/MULL MAY NOT EXCEED 63" IN LENGTH OR BE USED IN TEE OR CROSS CONFIGURATIONS. TWO ADJACENT WINDOWS MAY NOT EXCEED A TOTAL OF 127-1/4" IN WIDTH OR HEIGHT, FROM WINDOW BUCK TO WINDOW BUCK, INCLUDING THE FRAME ASSEMBLY TUBE/MULL WIDTH.
- 6) SHEET 5 & 6 REFER TO UNCLIPPED MULLION ASSEMBLIES. FOR CLIPPED MULLION ASSEMBLIES SEE TUBE MULLION UNDER SEPARATE APPROVAL.



|        |                               |       |     |       |        |         |             |            |          |  |
|--------|-------------------------------|-------|-----|-------|--------|---------|-------------|------------|----------|--|
| Title  | VINYL CASEMENT WINDOW (LMI)   |       |     |       |        |         |             | Date       | 06/04/19 |  |
| Desc.  | FRAME ASSEMBLY TUBE DETAILS A |       |     |       |        |         | Drawn By    | J ROSOWSKI |          |  |
| Rev A  |                               |       |     |       |        |         |             |            |          |  |
| Rev B  |                               |       |     |       |        |         |             |            |          |  |
| Series | CA-5540                       | Scale | NTS | Sheet | 5 OF 9 | DWG No. | CA5540 LAMI | Rev. No.   | B        |  |

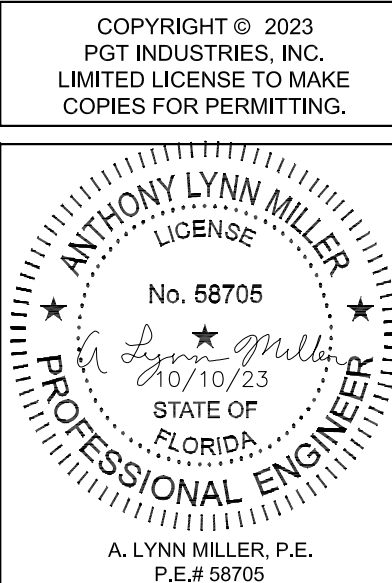
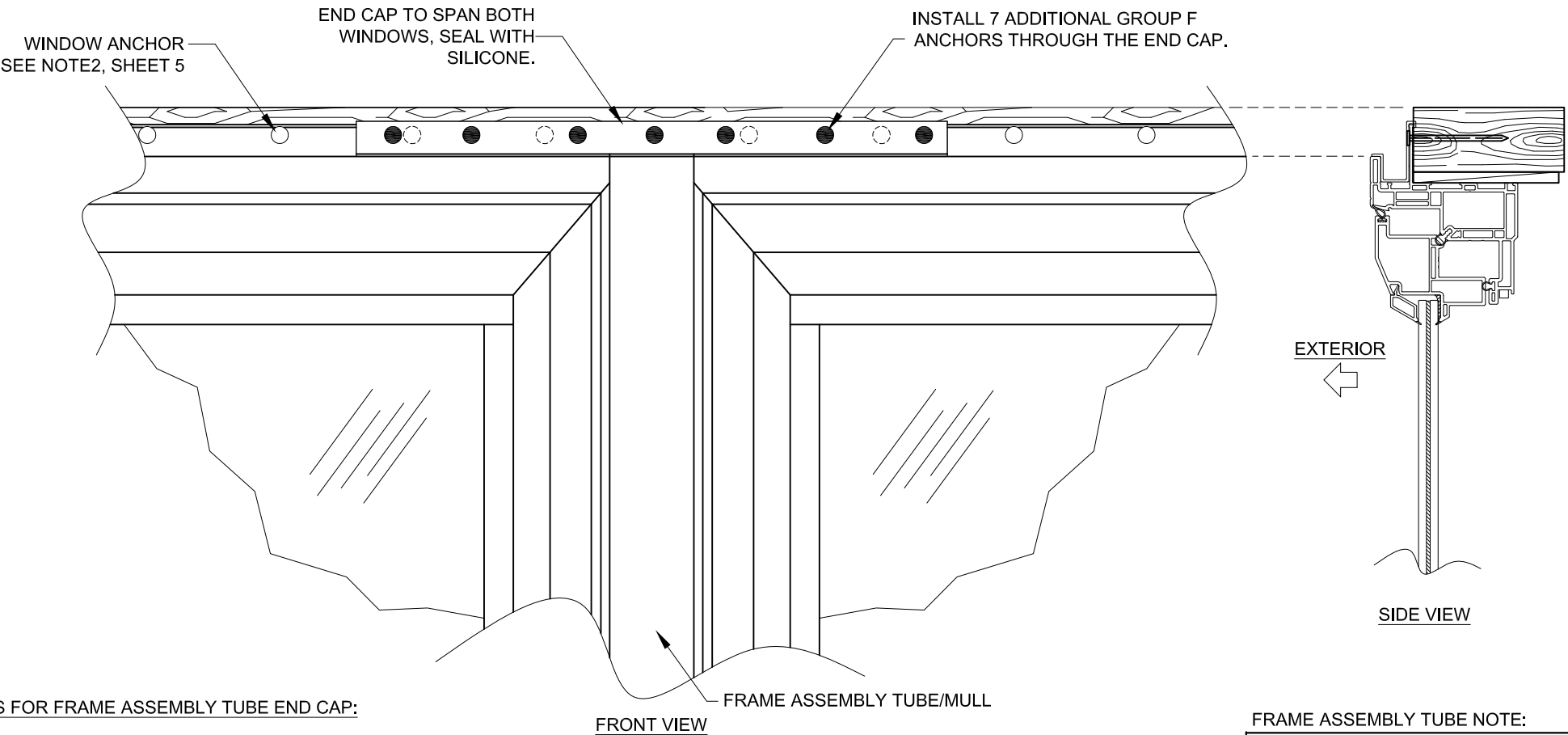
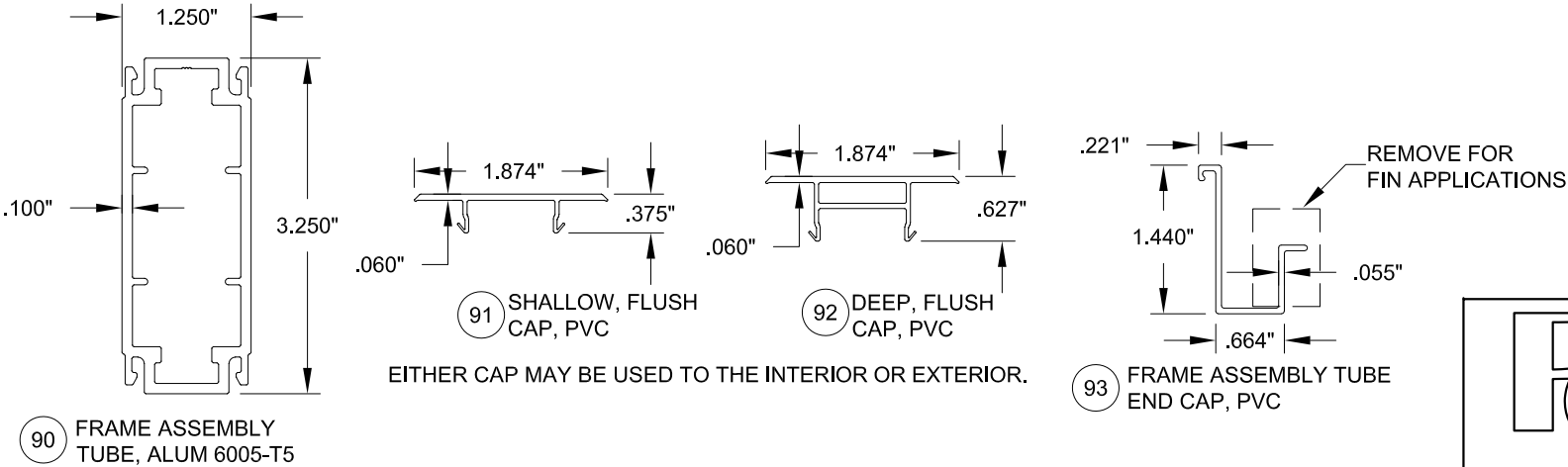


ILLUSTRATION OF END CAP USE WITH FIN AND J-CCHANNEL FRAMES



NOTES FOR FRAME ASSEMBLY TUBE END CAP:

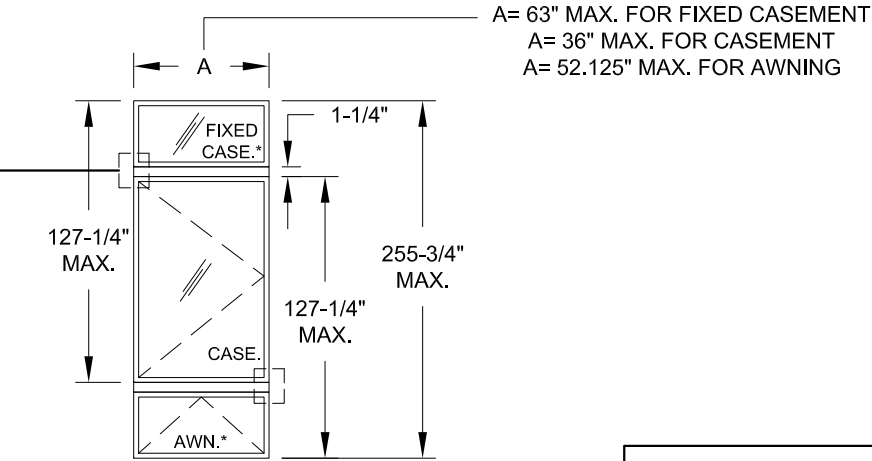
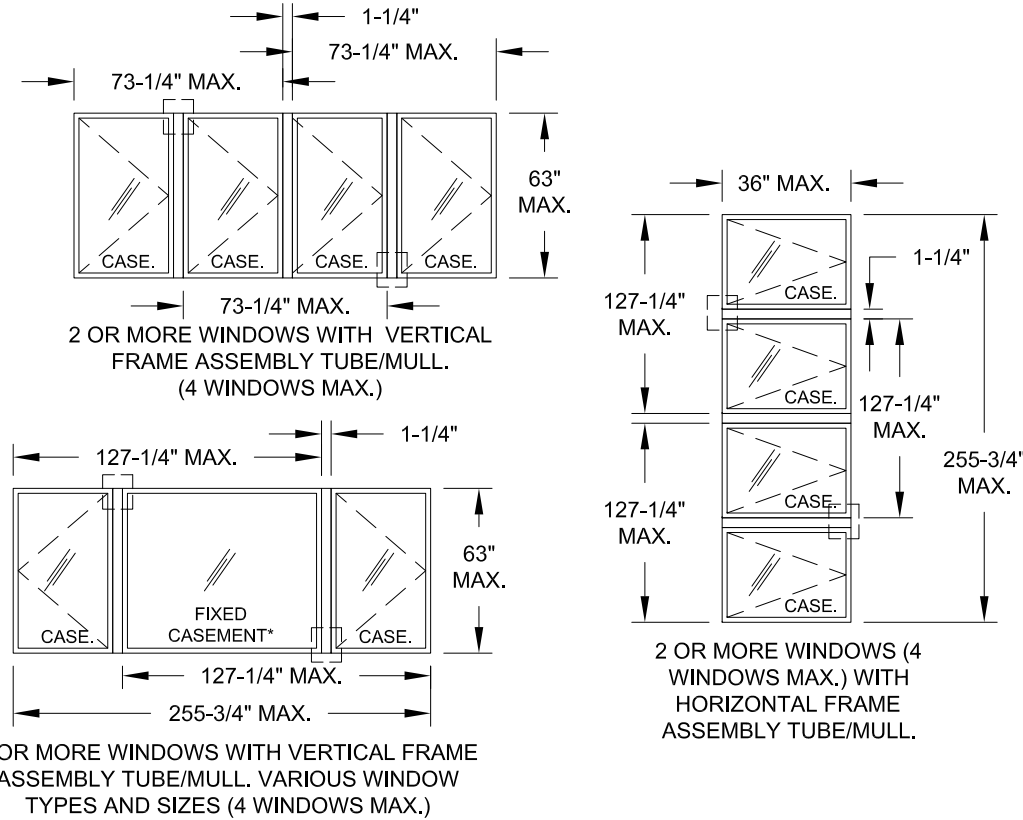
- 1) APPLIES TO FIN OR J-CHANNEL FRAMES.
- 2) REQUIRED AT HEADER/SILL OR JAMBS TO SEAL THE END OF THE FRAME ASSEMBLY TUBE.
- 3) ALL WINDOW TYPES AND FRAME ASSEMBLY TUBE ORIENTATIONS APPLICABLE, SEE SHEET 5.
- 4) END CAP MAY REQUIRE IN-FIELD TRIMMING. STANDARD LENGTH IS 14".



FRAME ASSEMBLY TUBE NOTE:

REFER TO SHEET 5 FOR THROUGH-FRAME ANCHORAGE AND THIS SHEET FOR NAIL FIN ANCHORAGE DETAILS TYP. AT ALL FRAME ASSEMBLY TUBE ENDS BOTH HORIZONTAL AND VERTICAL

EXAMPLE CONFIGURATIONS WHEN USING THE FRAME ASSEMBLY TUBE/MULL. FOR TEES, CROSSES OR ASSEMBLIES WITH MORE THAN 4 UNITS USE CLIPPED, TUBE MULLION UNDER SEPARATE APPROVAL.



2 OR MORE WINDOWS (4 WINDOWS MAX.) WITH HORIZONTAL FRAME ASSEMBLY TUBE/MULL. VARIOUS WINDOW TYPES AND SIZES.

\*UNDER SEPARATE APPROVAL

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|                 |                               |          |          |            |
|-----------------|-------------------------------|----------|----------|------------|
| Series<br>Rev B | Title                         |          | Date     |            |
|                 | VINYL CASEMENT WINDOW (LMI)   |          | 06/04/19 |            |
|                 | FRAME ASSEMBLY TUBE DETAILS B |          | Drawn By | J ROSOWSKI |
|                 | CA-5540                       |          | Scale    | NTS        |
| Sheet           |                               | 6 OF 9   |          | DWG No.    |
| CA5540 LAMI     |                               | Rev. No. |          | B          |

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P.E.# 58705

TABLE 4:

| Window Design Pressure, (+/- psf) |         |                 |         |         |         |         |         |         |         |         |         |                                                                              |         |         |                                                                        | Standard<br>Sash, Hinge &<br>Reinforcement | Use this table<br>for Glass<br>Type: | 1 & 2   |
|-----------------------------------|---------|-----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------------------------------------------------------------------------------|---------|---------|------------------------------------------------------------------------|--------------------------------------------|--------------------------------------|---------|
| 7/16" A/A PVB                     |         |                 |         |         |         |         |         |         |         |         |         |                                                                              |         |         |                                                                        |                                            |                                      |         |
| 7/16" H/H PVB                     |         |                 |         |         |         |         |         |         |         |         |         |                                                                              |         |         |                                                                        |                                            |                                      |         |
| Window<br>Dimensions              |         | Buck Width (in) |         |         |         |         |         |         |         |         |         |                                                                              |         |         |                                                                        |                                            |                                      |         |
|                                   |         | 24              | 26      | 28      | 30.683  | 31.052  | 31.431  | 31.819  | 32.217  | 32.625  | 33.043  | 33.472                                                                       | 33.912  | 34.365  | 34.829                                                                 | 35.306                                     | 35.797                               | 36      |
| Buck Height (in)                  | 48      | +65/-70         | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70                                                                      | +65/-70 | +65/-70 | +65/-70                                                                | +65/-70                                    | +65/-70                              | +65/-70 |
|                                   | 60      | +65/-70         | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70                                                                      | +65/-70 | +65/-70 | +65/-70                                                                | +65/-70                                    | +65/-70                              | +65/-70 |
|                                   | 66      | +65/-70         | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70                                                                      | +65/-70 | +65/-70 | +65/-70                                                                | +65/-70                                    | +65/-70                              | +65/-70 |
|                                   | 70      | +65/-70         | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70                                                                      | +65/-70 | +65/-70 | +65/-70                                                                | +65/-70                                    | +65/-70                              | +65/-70 |
|                                   | 71.593  | +65/-70         | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70                                                                      | +65/-70 | +65/-70 | +65/-70                                                                | +65/-70                                    | +65/-70                              | +65/-70 |
|                                   | 72      | +65/-70         | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70                                                                      | +65/-70 | +65/-70 | +65/-70                                                                | +65/-70                                    | +65/-70                              |         |
|                                   | 73      | +65/-70         | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70                                                                      | +65/-70 | +65/-70 | +65/-70                                                                | +65/-70                                    |                                      |         |
|                                   | 74      | +65/-70         | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70                                                                      | +65/-70 | +65/-70 | +65/-70                                                                |                                            |                                      |         |
|                                   | 75      | +65/-70         | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70                                                                      | +65/-70 | +65/-70 |                                                                        |                                            |                                      |         |
|                                   | 76      | +65/-70         | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70                                                                      | +65/-70 |         |                                                                        |                                            |                                      |         |
|                                   | 77      | +65/-70         | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70                                                                      |         |         |                                                                        |                                            |                                      |         |
|                                   | 78      | +65/-70         | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | MAX. JAMB O.C. SPACING IF<br>ANCHORING THROUGH THE FRAME PER<br>SHEETS 3 & 4 |         |         | MAX. O.C. SPACING IF ANCHORING<br>THROUGH THE INTEGRAL FIN PER SHEET 4 |                                            |                                      |         |
|                                   | 79      | +65/-70         | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 |         | APPLIES TO B, C OR D ANCHORS<br>(SEE TABLE 2)                                |         |         | APPLIES TO F ANCHORS<br>(SEE TABLE 3)                                  |                                            |                                      |         |
|                                   | 80      | +65/-70         | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 |         |         |                                                                              |         |         |                                                                        |                                            |                                      |         |
|                                   | 81      | +65/-70         | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 |         |         |         | 12.67"                                                                       |         |         | 4"                                                                     |                                            |                                      |         |
|                                   | 82      | +65/-70         | +65/-70 | +65/-70 | +65/-70 | +65/-70 | +65/-70 |         |         |         |         |                                                                              |         |         |                                                                        |                                            |                                      |         |
| 83                                | +65/-70 | +65/-70         | +65/-70 | +65/-70 | +65/-70 |         |         |         |         |         |         |                                                                              |         |         |                                                                        |                                            |                                      |         |
| 84                                | +65/-70 | +65/-70         | +65/-70 | +65/-70 |         |         |         |         |         |         |         |                                                                              |         |         |                                                                        |                                            |                                      |         |

NOTES:

- 1) BUCK DIMENSIONS SHOWN.
- 2) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION.

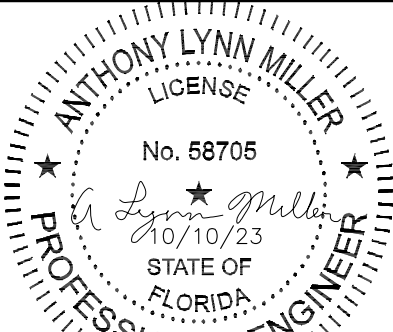


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|                 |       |       |       |                             |       |          |            |        |
|-----------------|-------|-------|-------|-----------------------------|-------|----------|------------|--------|
| Series<br>Rev B | Rev A | Desc. | Title | VINYL CASEMENT WINDOW (LMI) |       | Date     | 06/04/19   |        |
|                 |       |       |       | DESIGN PRESSURES            |       | Drawn By | J ROSOWSKI |        |
|                 |       |       |       |                             |       |          |            |        |
|                 |       |       |       | CA-5540                     | Scale | NTS      | Sheet      | 7 OF 9 |

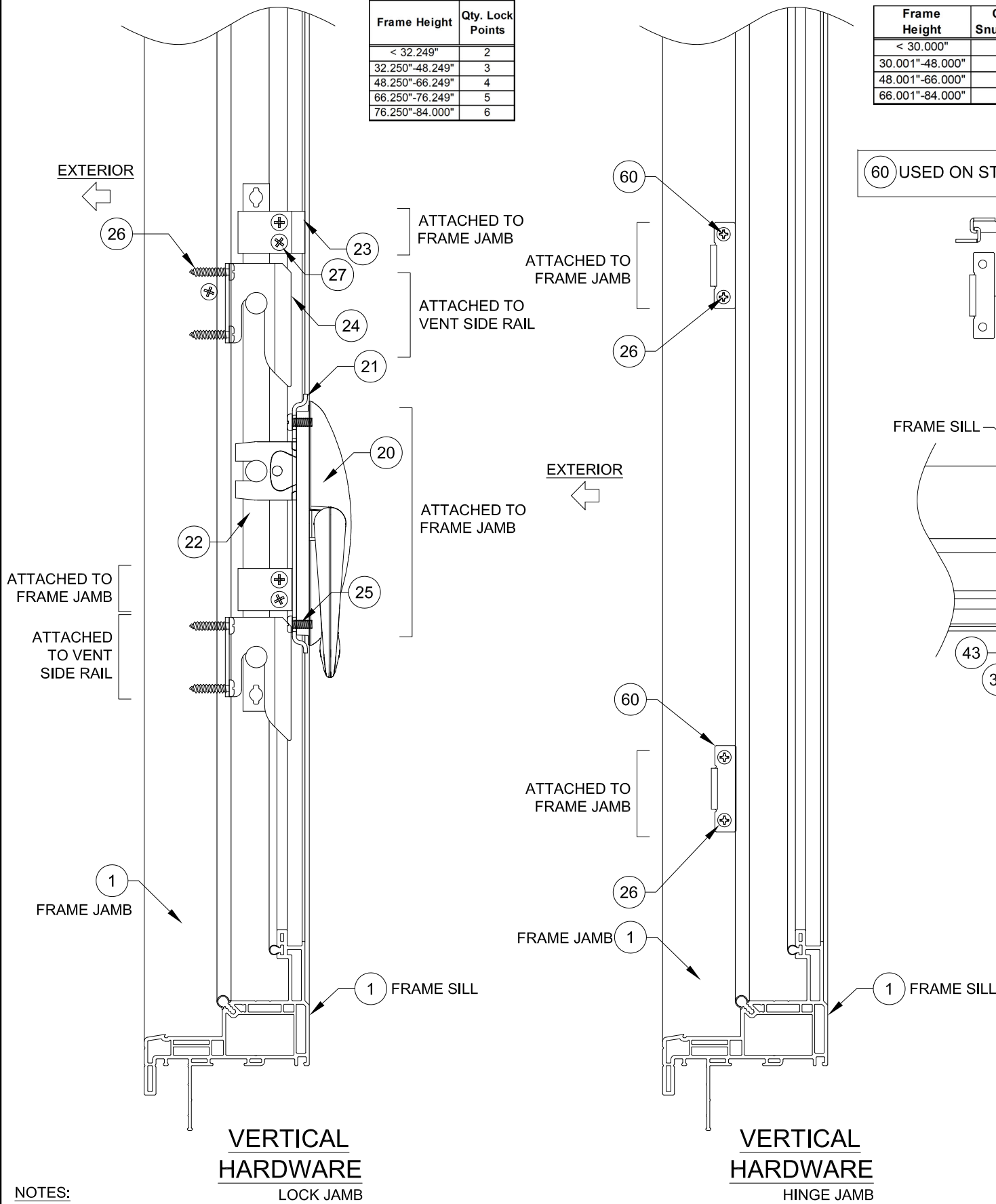
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| Frame Height    | Qty. Lock Points |
|-----------------|------------------|
| < 32.249"       | 2                |
| 32.250"-48.249" | 3                |
| 48.250"-66.249" | 4                |
| 66.250"-76.249" | 5                |
| 76.250"-84.000" | 6                |

| Frame Height    | Qty. Snubbers |
|-----------------|---------------|
| < 30.000"       | 2             |
| 30.001"-48.000" | 3             |
| 48.001"-66.000" | 4             |
| 66.001"-84.000" | 5             |



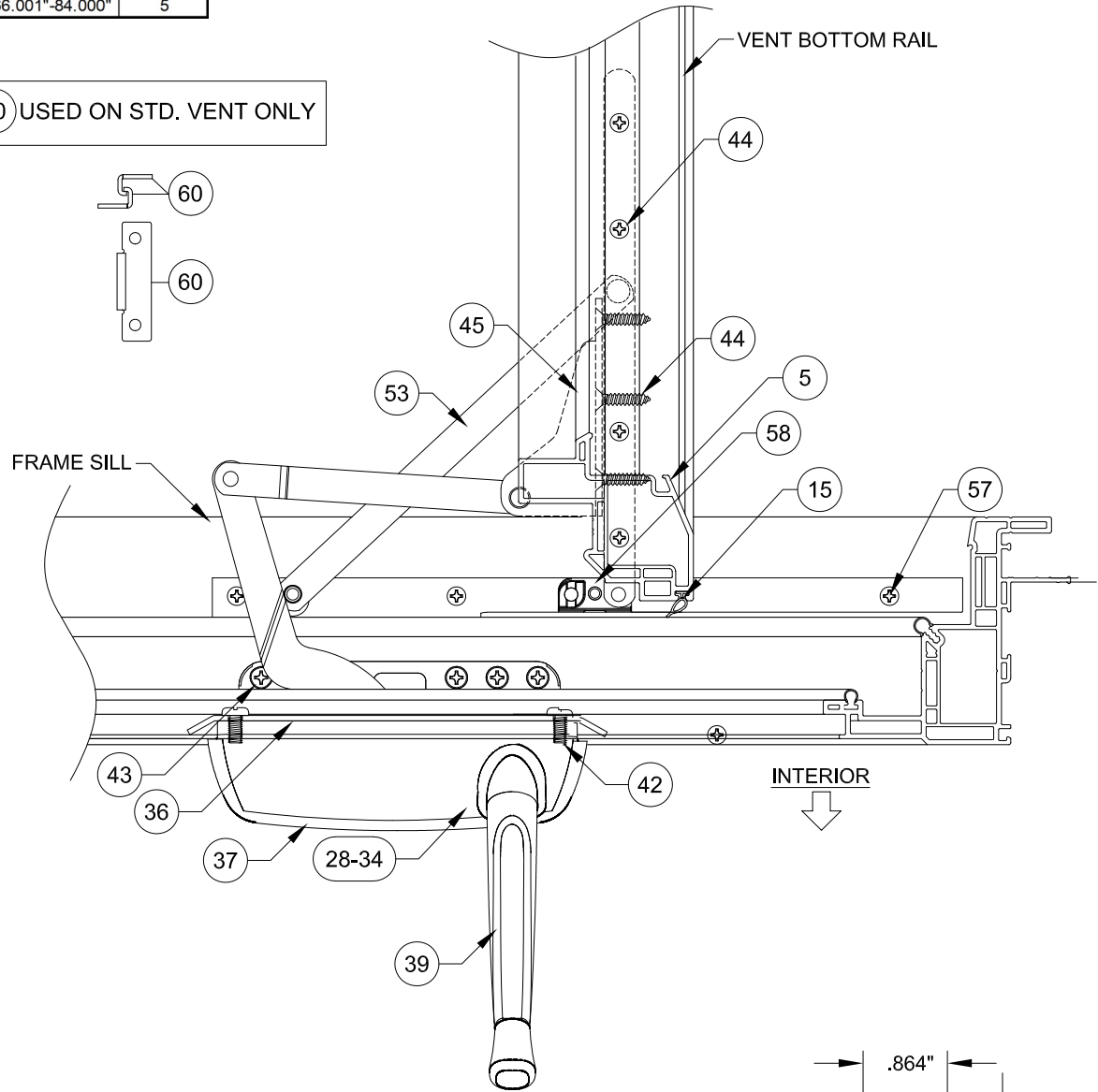
NOTES:

- 1) SOME PARTS/OPTIONS NOT SHOWN FOR CLARITY.  
2) INTEGRAL FIN FRAME SHOWN, PART #1. OTHER FRAME TYPES APPLY.

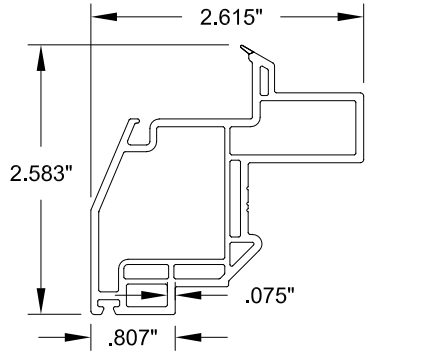
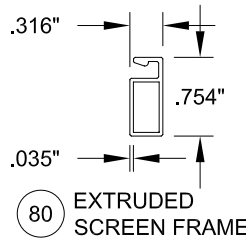
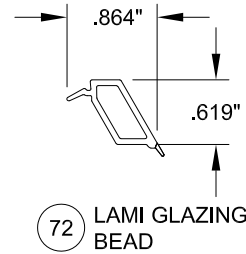
VERTICAL  
HARDWARE  
LOCK JAMB

VERTICAL  
HARDWARE  
HINGE JAMB

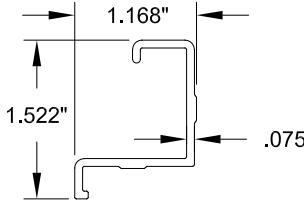
60 USED ON STD. VENT ONLY



HORIZONTAL HARDWARE SECTION



5 STANDARD VENT RAIL



10 STANDARD VENT REINFORCEMENT

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|--------|-----------------------------|--|-------|-----|--|----------|--------|------------|---------|-------------|--|----------|---|
| Title  | VINYL CASEMENT WINDOW (LMI) |  |       |     |  |          | Date   | 06/04/19   |         |             |  |          |   |
|        | HARDWARE                    |  |       |     |  | Drawn By |        | J ROSOWSKI |         |             |  |          |   |
| Rev A  |                             |  |       |     |  |          |        |            |         |             |  |          |   |
| Rev B  |                             |  |       |     |  |          |        |            |         |             |  |          |   |
| Series | CA-5540                     |  | Scale | NTS |  | Sheet    | 8 OF 9 |            | DWG No. | CA5540 LAMI |  | Rev. No. | B |
|        |                             |  |       |     |  |          |        |            |         |             |  |          |   |

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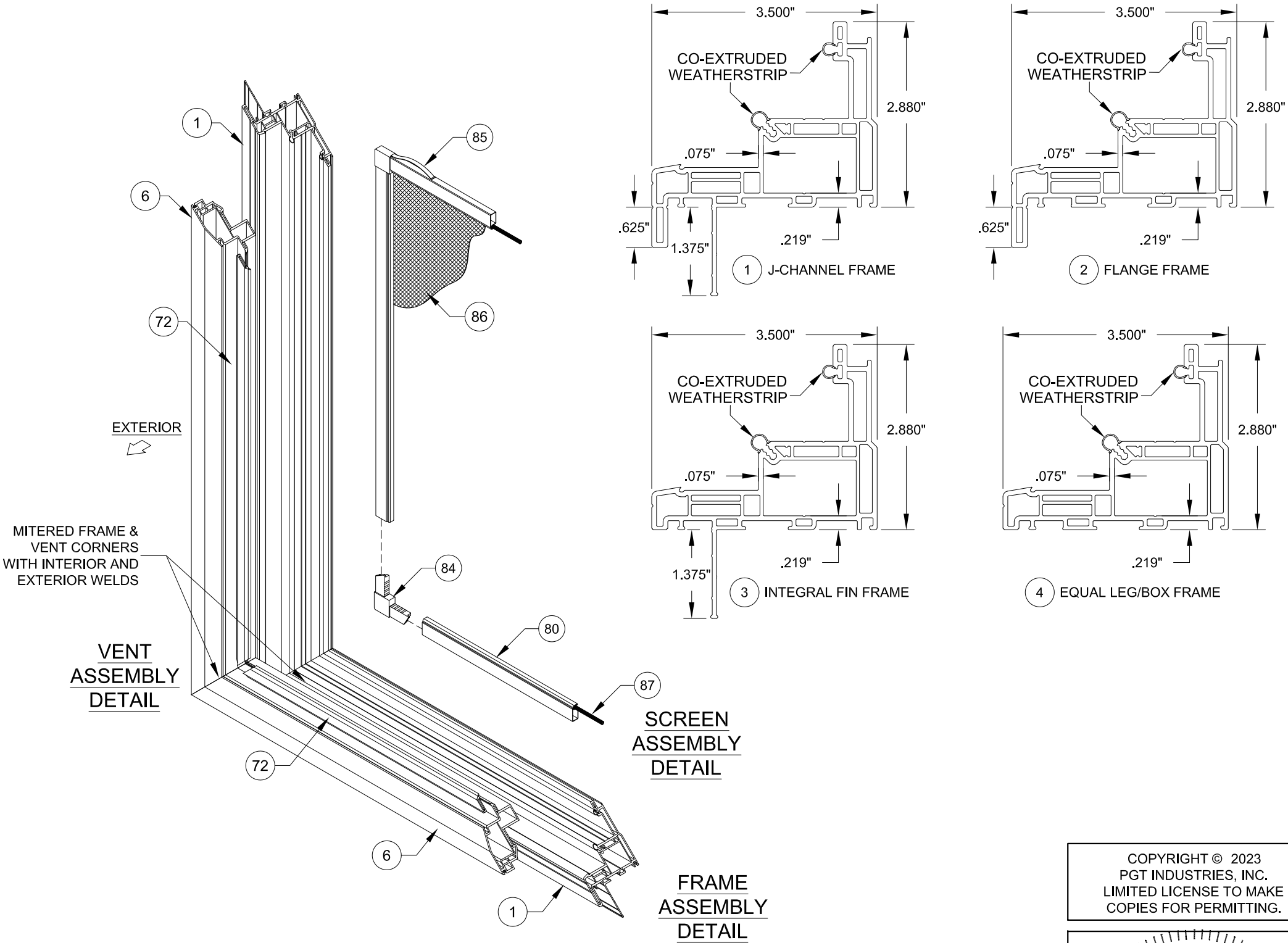
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P.E.# 58705

TABLE 5:

| #  | Part #           | Description                                    | Material      |
|----|------------------|------------------------------------------------|---------------|
| 1  | 620125           | J-channel Frame                                | PVC           |
| 2  | 620126           | Flange Frame                                   | PVC           |
| 3  | 620127           | Integral Fin Frame                             | PVC           |
| 4  | 620128           | Equal Leg/Box Frame                            | PVC           |
| 5  | 620130           | Standard Vent Rail                             | PVC           |
| 10 | 620163           | Standard Vent Reinforcement (Full Length)      | Alum. 6005-T5 |
| 15 | 6TP247           | Weatherstrip, 65 +/-1 duro.                    | Flex PVC      |
| 20 | 7024             | Multi-Point Lock                               | C Steel       |
| 21 | 7011             | Multi-Point Lock Flat Support Plate            | C Steel       |
| 22 | varies with size | Tie Bar                                        | C Steel       |
| 23 | 20222            | Tie Bar Guide                                  | C Steel       |
| 24 | 7014             | Multi-Lock Keeper                              | C Steel       |
| 25 | 71024X0562PPFX   | #10-24 x 9/16" Phl. PH Machine Screw           | SS            |
| 26 | 78X34PPTX410     | #8 x 3/4" Phl. PH Tek                          | SS            |
| 27 | 78X112PSAX       | #8 x 1-1/2" Phl. FH Tek                        | SS            |
| 28 | 20249/50         | Dyad Operator (narrow vent < or = to 24"), L/R | C Steel       |
| 29 | 20249X/50X       | Dyad Operator (narrow vent < or = to 24"), L/R | SS            |
| 30 | 20251/52         | Dual Arm Operator (wide vent >24"), L/R        | C Steel       |
| 31 | 20251X/52X       | Dual Arm Operator (wide vent >24"), L/R        | SS            |
| 32 | 7033             | Dual Arm Operator Track                        | SS            |
| 36 | 7031             | Operator Backing Plate                         | C Steel       |
| 37 | 20253            | Operator Cover                                 |               |
| 38 | 7030             | Operator Gasket White                          | Neoprene      |
| 39 |                  | Standard Handle                                | C Steel       |
| 40 | 7018             | Folding Handle                                 | C Steel       |
| 41 | 7019             | T-Handle (Thumbturn)                           | C Steel       |
| 42 | 78X12PPMSX       | #8-32 x 1/2" Phl. PH Machine Screw             | SS            |
| 43 | 78S34PFAX        | #8 x 3/4" Phl. FH                              | SS            |
| 44 | 78X1PSDX         | #8 x 1" Phl. FH Tek                            | SS            |
| 45 | 7MC7032LH/RH     | Stud Bracket, L/R                              | C Steel       |
| 46 | 7MC7032LHX/RHX   | Stud Bracket,L/R                               | SS            |
| 49 | 73337LH/RH       | Egress Hinge, L/R                              | C Steel       |
| 50 | 73337LHX/RHX     | Egress Hinge, L/R                              | SS            |
| 51 | 73338LH/RH       | Washable Hinge, L/R                            | C Steel       |
| 52 | 73338LHX/RHX     | Washable Hinge, L/R                            | SS            |
| 57 | 78X34FPAX        | #8 x 3/4" Phl. FH w/ #7 Head                   | SS            |
| 58 | 731877           | Operator Slide                                 | Plastic       |
| 60 | 73346            | Snubber                                        | C Steel       |
| 63 | 78X12PPSMSX      | #8 x 1/2" Phl. PH                              | SS            |
| 64 | 20187            | Anchor Hole Plug                               | PVC           |
| 72 | 620332           | Lami Glazing Bead                              | PVC           |
| 74 |                  | Backbedding, GE 7700 or Dow 791, 983           | Silicone      |
| 78 |                  | Setting Block (1/8" x 1/2" x 4")               | EPDM          |
| 80 | 67006            | Extruded Screen Frame                          |               |
| 84 | 47040            | Screen Corner Key                              |               |
| 85 | 7CASPM           | Tension Spring                                 |               |
| 86 | 61816C34         | Screen Cloth                                   |               |
| 87 | 61635/24         | .140" Screen Spline (Machine/Hand Rolled)      |               |
| 90 | 620160A          | Frame Assembly Tube                            | Alum. 6005-T5 |
| 91 | 620177           | Shallow, Flush Cap                             | PVC           |
| 92 | 620178           | Deep, Flush Cap                                | PVC           |
| 93 | 620132           | Frame Assembly Tube End Cap                    | PVC           |

NOTES:

- 1) SOME PARTS/OPTIONS NOT SHOWN ON DRAWING FOR CLARITY.
- 2) J-CHANNEL FRAME SHOWN, PART #1. OTHER FRAME TYPES, PARTS #2 - 4, APPLY.
- 3) ITEMS # 6-9, 11-14, 16-19, 33-35, 47-48, 53-56, 59, 61-62, 65-71, 73, 75-77, 79, 81-83, 88, 89 & 94-99 ARE NOT USED AND ARE NOT PART OF THIS APPROVAL.
- 4) ENERGI PVC TO BE LABELED FOR AAMA EXTRUDER CODE.



|         |                             |     |  |       |        |          |            |             |          |   |
|---------|-----------------------------|-----|--|-------|--------|----------|------------|-------------|----------|---|
| Series  | VINYL CASEMENT WINDOW (LMI) |     |  |       |        |          | Date       | 06/04/19    |          |   |
|         | BOM & ASSEMBLY              |     |  |       |        | Drawn By | J ROSOWSKI |             |          |   |
|         | Rev A                       |     |  |       |        |          |            |             |          |   |
|         | Rev B                       |     |  |       |        |          |            |             |          |   |
| CA-5540 | Scale                       | NTS |  | Sheet | 9 OF 9 |          | DWG No.    | CA5540 LAMI | Rev. No. | B |

