

4" PVC MULL BAR - NON-IMPACT

SHOWN w/DIFFERENT OPTIONS

GENERAL NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE FLORIDA BUILDING CODE (FBC), CURRENT EDITION.
2. CONFIGURATIONS (SEE SHEET 2): VERTICAL OR HORIZONTAL.
3. SEE MULLION CHARTS FOR MAX. DESIGN PRESSURES AND LENGTH. (REFER TO SHEETS 2-3)
4. ANCHORAGE: THE 33 1/3% STRESS INCREASE HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT. SEE SHEETS 9-10 FOR ANCHOR DETAILS. WINDLOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
5. NOT APPROVED FOR IMPACT RESISTANCE. IMPACT PROTECTIVE SYSTEM IS REQUIRED IN WIND BORNE DEBRIS REGION.
6. DESIGN PRESSURE OF MULLED UNITS SHALL BE CONTROLLED BY THE LESSER DESIGN PRESSURE OF THE MULLION OR THE INDIVIDUAL WINDOW UNITS.
7. DESIGN PRESSURES AND INSTALLATION DETAILS SHOWN IN THIS DOCUMENT APPLY ONLY TO THE MULLION. WINDOWS MUST BE APPROVED UNDER SEPARATE APPROVAL.
8. RESPONSIBILITY OF SELECTING FENESTRATION PRODUCTS TO MEET ANY APPLICABLE LOCAL LAWS, BUILDING CODES, ORDINANCES OR OTHER SAFETY REQUIREMENTS RESTS SOLELY WITH THE ARCHITECT, ENGINEER OF RECORD, BUILDING OWNER OR CONTRACTOR.
9. SINGLE UNITS TO BE MULLED ARE NOT LIMITED TO THOSE SHOWN IN THIS DRAWING. SINGLE UNITS TO BE MULLED TOGETHER MUST BE MANUFACTURED BY CUSTOM WINDOW SYSTEMS, INC. AND MUST BE MADE OUT OF VINYL PVC OR EXTRUDED ALUMINUM.
10. VERTICAL MULLED UNITS MAY BE MULLED INDEFINITELY AS LONG AS THE SINGLE UNIT WIDTH AND HEIGHT ARE NOT EXCEEDED, AND MULLIONS ARE ANCHORED AS SHOWN HERE IN.
11. HORIZONTAL MULLION SHALL EXTEND THE ENTIRE WIDTH OF THE MULLED UNIT. VERTICAL MULLION IS USED TO MULL SIDE BY SIDE UNITS TOGETHER.

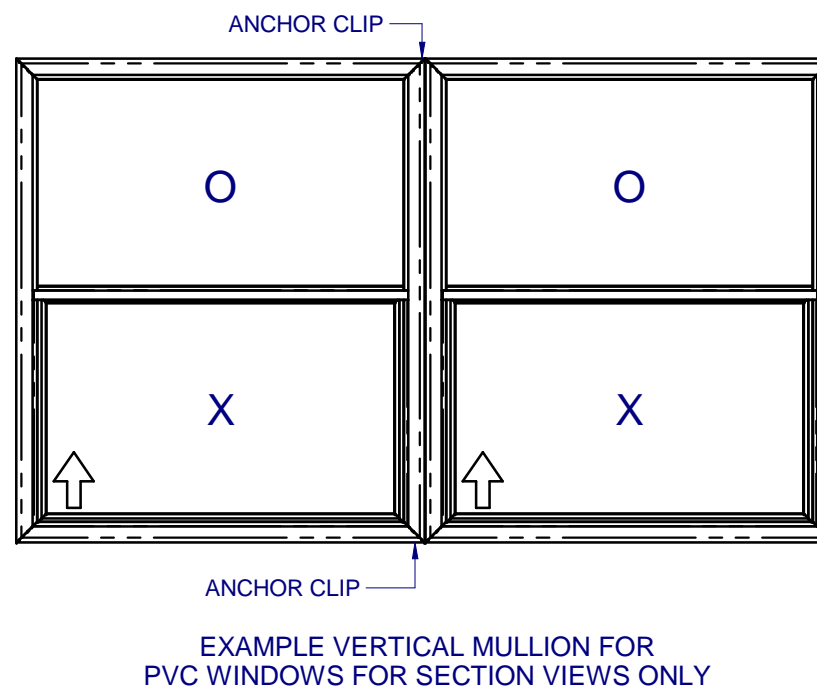
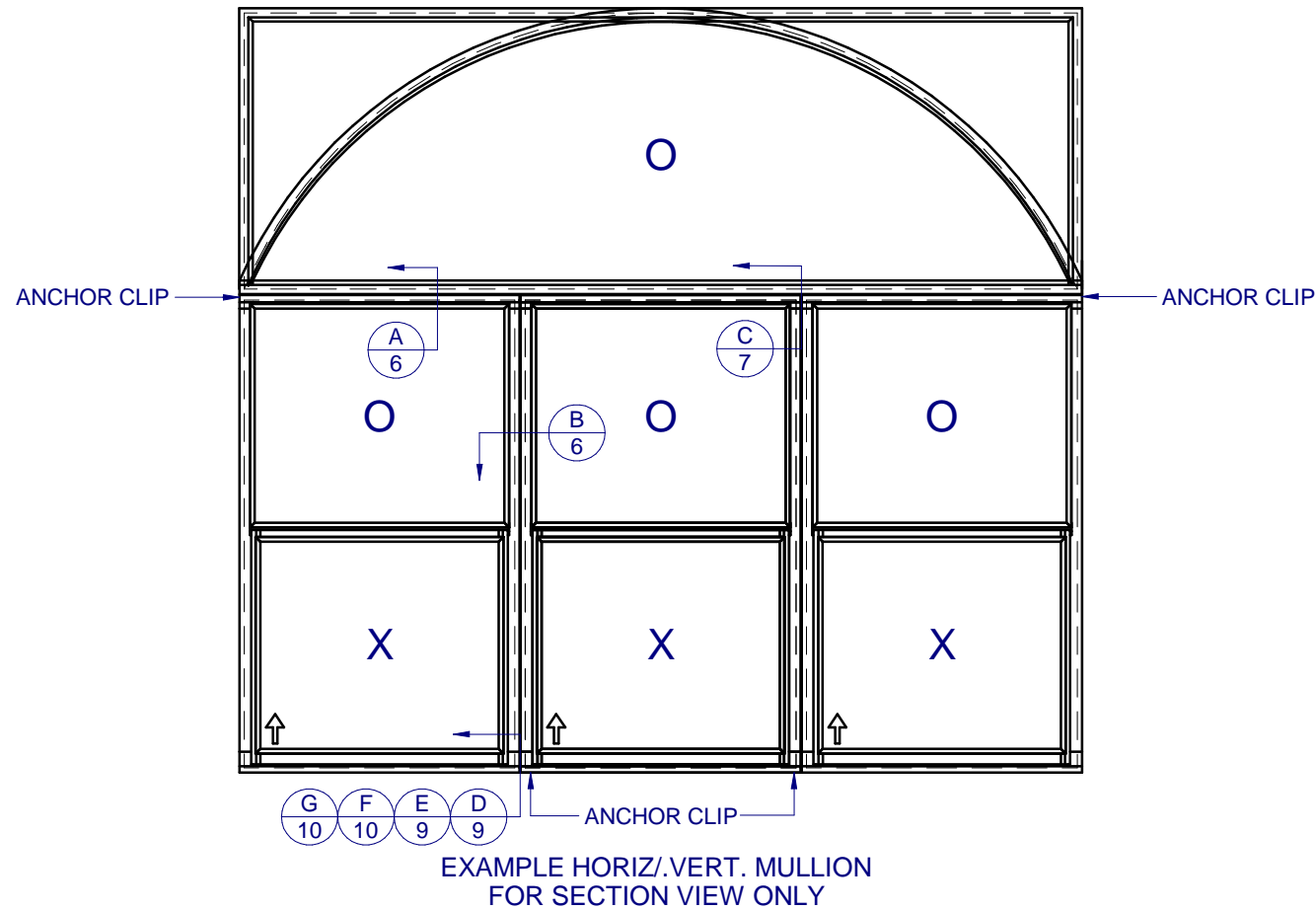


TABLE OF CONTENTS

| | |
|------------------------------------|------|
| GENERAL NOTES & ELEVATIONS..... | 1 |
| DP CHARTS..... | 2-3 |
| BOM & EXTRUSIONS..... | 4 |
| EXTRUSIONS..... | 5 |
| SECTION VIEWS..... | 6-7 |
| CONFIGURATIONS & ANCHOR NOTES..... | 8 |
| INSTALLATION DETAILS..... | 9-10 |



1900 SW 44TH AVE.
OCALA, FLORIDA 34474
WWW.CWS.CC

4" PVC MULL BAR NON-IMPACT

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CUSTOM WINDOW SYSTEMS, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CUSTOM WINDOW SYSTEMS, INC IS PROHIBITED.

FLORIDA APPROVAL NO.:

5777



9/14/2023

LUCAS A. TURNER, P.E.
FL PE # 58201
Turner Engineering & Consulting, Inc.
2428 Old Natchez Trc Trl
Camden, TN 38320
PH. 941-380-1574

SHEET DESCRIPTION:

GENERAL NOTES AND ELEVATIONS

| | |
|-----------|----------|
| DRAWN BY: | DATE: |
| MCS | 9/8/2023 |
| DWG #: | REV.: |
| CWS-431 | E |
| SCALE: | SHEET |
| 1:25 | 1 OF 10 |

DESIGN PRESSURE CHART (PSF) FOR NON-IMPACT ALUMINUM 4" MULLION H-1759, HORIZONTAL OR VERTICAL, WITH 1522 or 1767 CLIPS USING FOUR (4) #10 SCREWS IN WOOD or METAL, 3/16" ITW TAPCONS or DEWALT ULTRACON+ INTO SOLID CONCRETE WITH WASHERS PER CLIP. HOLLOW OR GROUT-FILLED BLOCK REQUIRES FOUR (4) 1/4" DEWALT ULTRACON+ WITH THE 1767 CLIP.

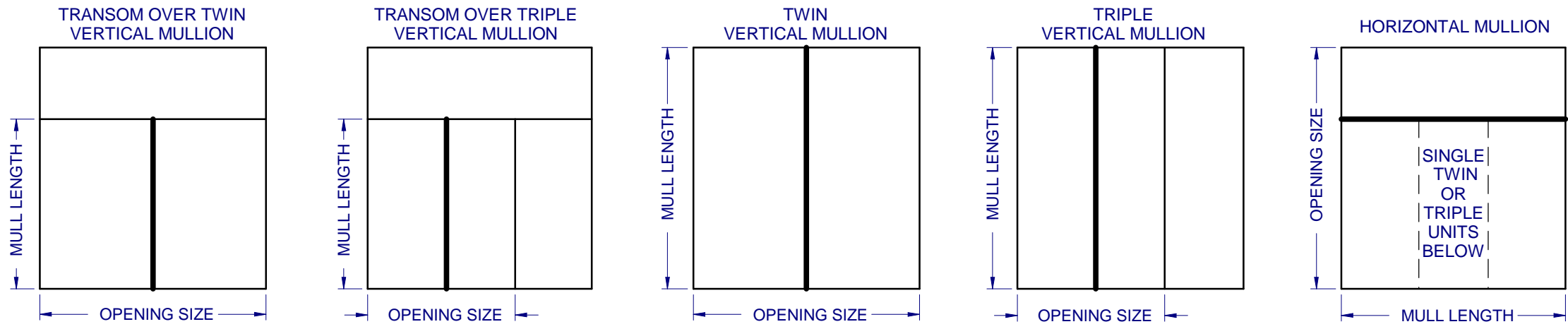
| | OPENING WIDTH (in.) | | | | | | | | | | | | | | | |
|---------|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|-----|-----|-----|-----|
| | 39 | 45 | 51 | 57 | 63 | 69 | 75 | 81 | 87 | 93 | 99 | 106 3/8 | 114 | 120 | 132 | 144 |
| 37 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 118 | 110 | 103 | 98 | 90 | 83 |
| 42 3/4 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 114 | 107 | 101 | 95 | 89 | 85 | 77 |
| 48 3/4 | 120 | 120 | 120 | 120 | 120 | 120 | 113 | 106 | 99 | 93 | 88 | 82 | 77 | 74 | 67 | 62 |
| 53 1/8 | 120 | 120 | 120 | 120 | 120 | 111 | 103 | 96 | 90 | 85 | 80 | 75 | 70 | 67 | 61 | 57 |
| 57 | 120 | 120 | 120 | 120 | 111 | 103 | 95 | 89 | 84 | 79 | 74 | 70 | 65 | 62 | 57 | 53 |
| 63 | 120 | 120 | 119 | 108 | 99 | 92 | 85 | 80 | 75 | 71 | 67 | 62 | 59 | 56 | 51 | 47 |
| 66 3/4 | 120 | 120 | 111 | 101 | 93 | 86 | 80 | 75 | 70 | 66 | 63 | 59 | 55 | 53 | 48 | 44 |
| 72 | 120 | 112 | 101 | 93 | 85 | 79 | 73 | 69 | 65 | 61 | 58 | 54 | 51 | 48 | 44 | 41 |
| 76 | 119 | 105 | 95 | 87 | 80 | 74 | 69 | 65 | 61 | 57 | 54 | 51 | 48 | 46 | 42 | 39 |
| 80 | 112 | 99 | 89 | 82 | 75 | 70 | 65 | 61 | 57 | 54 | 51 | 48 | 45 | 43 | 40 | 37 |
| 84 | 106 | 94 | 84 | 77 | 71 | 66 | 62 | 58 | 54 | 51 | 48 | 45 | 43 | 41 | 37 | 35 |
| 90 | 98 | 86 | 78 | 71 | 65 | 61 | 57 | 53 | 50 | 47 | 45 | 42 | 40 | 38 | 35 | 32 |
| 96 | 91 | 80 | 72 | 66 | 61 | 56 | 53 | 49 | 46 | 44 | 42 | 39 | 37 | 35 | 32 | 30 |
| 102 | 85 | 75 | 67 | 61 | 56 | 52 | 49 | 46 | 43 | 41 | 39 | 37 | 34 | 33 | 30 | 28 |
| 106 3/8 | 81 | 72 | 64 | 58 | 54 | 50 | 47 | 44 | 41 | 39 | 37 | 35 | 33 | 31 | 29 | 27 |
| 114 | 75 | 66 | 59 | 54 | 50 | 46 | 43 | 40 | 38 | 36 | 34 | 32 | 30 | 29 | 27 | 25 |
| 120 | 71 | 63 | 56 | 51 | 46 | 42 | 39 | 37 | 34 | 32 | 31 | 29 | 27 | 25 | 23 | 21 |
| 126 | 63 | 55 | 49 | 44 | 40 | 36 | 34 | 31 | 29 | 28 | 26 | 25 | 23 | 22 | 20 | 18 |
| 132 | 55 | 48 | 42 | 38 | 34 | 32 | 29 | 27 | 26 | 24 | 23 | 21 | 20 | 19 | 17 | 16 |
| 138 | 48 | 42 | 37 | 33 | 30 | 28 | 26 | 24 | 22 | 21 | 20 | 19 | 17 | 17 | 15 | - |
| 144 | 42 | 37 | 32 | 29 | 26 | 24 | 22 | 21 | 20 | 18 | 17 | 16 | 15 | - | - | - |
| 150 | 37 | 32 | 29 | 26 | 23 | 21 | 20 | 18 | 17 | 16 | 15 | - | - | - | - | - |
| 156 | 33 | 29 | 25 | 23 | 21 | 19 | 18 | 16 | 15 | - | - | - | - | - | - | - |
| 160 | 31 | 27 | 24 | 21 | 19 | 18 | 16 | 15 | - | - | - | - | - | - | - | - |

DP CHART IS FOR:
 NON-IMPACT 4" MULLION 1759, HORIZONTAL OR VERTICAL, USING EITHER (PER END):

- 1522 or 1767 CLIPS
- (4) #10 SCREWS INTO WOOD or METAL
- (4) 3/16" ITW TAPCONS or DEWALT ULTRACON+ INTO SOLID CONCRETE or WOOD

1767 CLIPS

- (4) 1/4" DEWALT ULTRACON+ INTO HOLLOW or GROUT-FILLED BLOCK



4" PVC MULL BAR NON-IMPACT

PROPRIETARY AND CONFIDENTIAL
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CUSTOM WINDOW SYSTEMS, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CUSTOM WINDOW SYSTEMS, INC IS PROHIBITED.

FLORIDA APPROVAL NO.:
 5777



9/14/2023
 LUCAS A. TURNER, P.E.
 FL PE # 58201
 Turner Engineering & Consulting, Inc.
 2428 Old Natchez Trc Trl
 Camden, TN 38320
 PH. 941-380-1574

SHEET DESCRIPTION:
 DP CHARTS
 1522 or 1767 CLIP
 4 ANCHORS

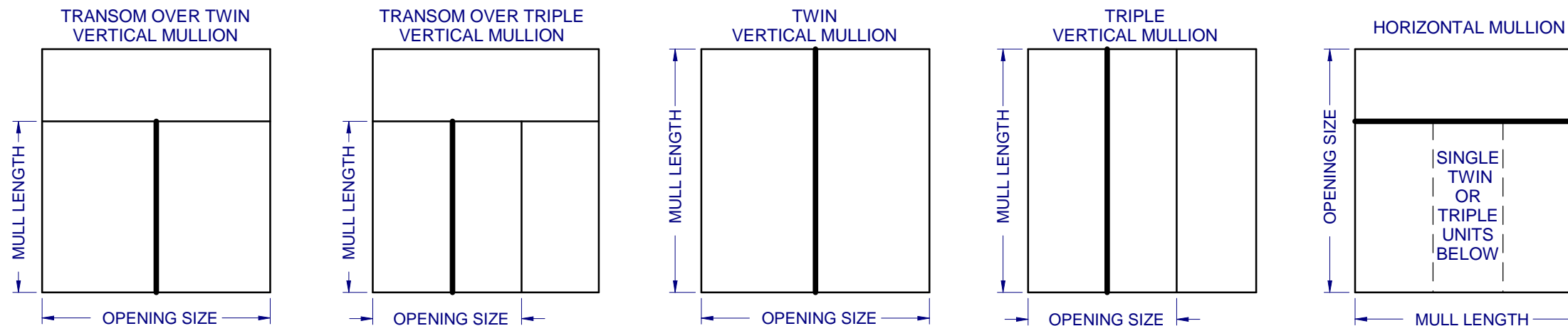
| | |
|-------------------|-------------------|
| DRAWN BY: MCS | DATE: 9/8/2023 |
| DWG #: CWS-431 | REV.: E |
| SCALE: 1:1 | SHEET 2 OF 10 |

DESIGN PRESSURE CHART (PSF) FOR NON-IMPACT ALUMINUM 4" MULLION H-1759, HORIZONTAL OR VERTICAL, WITH 1767 CLIPS USING SIX (6) #10 SCREWS INTO WOOD or METAL, 3/16" ITW TAPCONS or DEWALT ULTRACON+ INTO SOLID CONCRETE or 1/4" DEWALT ULTRACON+ INTO HOLLOW OR GROUT-FILLED BLOCK WITH WASHERS PER EACH END OF MULLION

| | OPENING WIDTH (in.) | | | | | | | | | | | | | | | | |
|-------------------|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|-----|-----|-----|-----|-----|
| | 39 | 45 | 51 | 57 | 63 | 69 | 75 | 81 | 87 | 93 | 99 | 106 3/8 | 114 | 120 | 132 | 144 | |
| MULL LENGTH (in.) | 37 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 |
| | 42 3/4 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 115 | 106 |
| | 48 3/4 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 115 | 110 | 100 | 92 |
| | 53 1/8 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 119 | 112 | 105 | 100 | 91 | 84 |
| | 57 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 117 | 111 | 104 | 97 | 93 | 85 |
| | 63 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 119 | 111 | 105 | 99 | 93 | 87 | 83 | 76 | 70 |
| | 66 3/4 | 120 | 120 | 120 | 120 | 120 | 120 | 119 | 111 | 104 | 98 | 93 | 87 | 82 | 78 | 72 | 66 |
| | 72 | 120 | 120 | 120 | 120 | 120 | 117 | 109 | 102 | 96 | 91 | 86 | 80 | 75 | 72 | 66 | 61 |
| | 76 | 120 | 120 | 120 | 120 | 119 | 110 | 103 | 96 | 90 | 85 | 81 | 76 | 71 | 68 | 62 | 58 |
| | 80 | 120 | 120 | 120 | 120 | 112 | 104 | 97 | 91 | 85 | 80 | 76 | 71 | 67 | 64 | 59 | 54 |
| | 84 | 120 | 120 | 120 | 115 | 106 | 98 | 92 | 86 | 81 | 76 | 72 | 68 | 64 | 61 | 56 | 52 |
| | 90 | 120 | 120 | 116 | 106 | 98 | 91 | 84 | 79 | 75 | 70 | 67 | 63 | 59 | 56 | 52 | 48 |
| | 96 | 120 | 120 | 107 | 98 | 90 | 84 | 78 | 73 | 68 | 64 | 60 | 56 | 52 | 50 | 45 | 42 |
| | 102 | 120 | 104 | 92 | 83 | 76 | 70 | 65 | 61 | 57 | 53 | 50 | 47 | 44 | 41 | 38 | 35 |
| | 106 3/8 | 105 | 92 | 81 | 73 | 67 | 61 | 57 | 53 | 50 | 47 | 44 | 41 | 38 | 37 | 33 | 31 |
| | 114 | 85 | 74 | 66 | 59 | 54 | 50 | 46 | 43 | 40 | 38 | 36 | 33 | 31 | 30 | 27 | 25 |
| | 120 | 73 | 64 | 56 | 51 | 46 | 42 | 39 | 37 | 34 | 32 | 31 | 29 | 27 | 25 | 23 | 21 |
| | 126 | 63 | 55 | 49 | 44 | 40 | 36 | 34 | 31 | 29 | 28 | 26 | 25 | 23 | 22 | 20 | 18 |
| | 132 | 55 | 48 | 42 | 38 | 34 | 32 | 29 | 27 | 26 | 24 | 23 | 21 | 20 | 19 | 17 | 16 |
| 138 | 48 | 42 | 37 | 33 | 30 | 28 | 26 | 24 | 22 | 21 | 20 | 19 | 17 | 17 | 15 | - | |
| 144 | 42 | 37 | 32 | 29 | 26 | 24 | 22 | 21 | 20 | 18 | 17 | 16 | 15 | - | - | - | |
| 150 | 37 | 32 | 29 | 26 | 23 | 21 | 20 | 18 | 17 | 16 | 15 | - | - | - | - | - | |
| 156 | 33 | 29 | 25 | 23 | 21 | 19 | 18 | 16 | 15 | - | - | - | - | - | - | - | |
| 160 | 31 | 27 | 24 | 21 | 19 | 18 | 16 | 15 | - | - | - | - | - | - | - | - | |

DP CHART IS FOR:
NON-IMPACT 4" MULLION 1759, HORIZONTAL OR VERTICAL, USING EITHER (PER END):

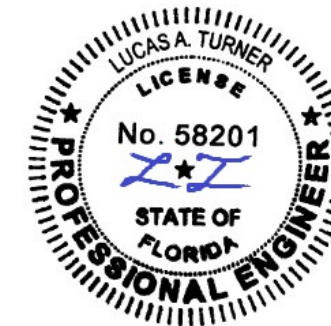
- 1767 CLIPS
- (6) #10 SCREWS INTO WOOD or METAL
- (6) 3/16" ITW TAPCONS or DEWALT ULTRACON+ INTO SOLID CONCRETE or WOOD
- (6) 1/4" DEWALT ULTRACON+ INTO HOLLOW or GROUT-FILLED BLOCK



**4" PVC
MULL BAR
NON-IMPACT**

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CUSTOM WINDOW SYSTEMS, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CUSTOM WINDOW SYSTEMS, INC IS PROHIBITED.

FLORIDA APPROVAL NO.:
5777



9/14/2023

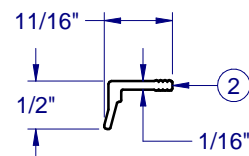
LUCAS A. TURNER, P.E.
FL PE # 58201
Turner Engineering & Consulting, Inc.
2428 Old Natchez Trc Trl
Camden, TN 38320
PH. 941-380-1574

SHEET DESCRIPTION:
DP CHARTS
1767 CLIP
6 ANCHORS

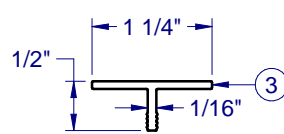
| | |
|-------------------|-------------------|
| DRAWN BY: MCS | DATE: 9/8/2023 |
| DWG #: CWS-431 | REV.: E |
| SCALE: 1:1 | SHEET 3 OF 10 |

| ITEM | PART # | DESCRIPTION |
|------|-------------|--|
| 1 | H-1759 | MULL, 1 3/8" x 4", FLAT, PVC |
| 2 | S-1895 | DRIP ADAPTER |
| 3 | S-1896 | FLANGE ADAPTER |
| 4 | S-6018 | MULL COVER, FIN/BOX, EXTERIOR |
| 5 | F-1522-014 | RETRO FIT MULL ANCHOR CLIP, FLANGE/BOX |
| 6 | F-1522-027 | RETRO FIT MULL ANCHOR CLIP, FIN |
| 7 | F-1767-002 | L-ANGLE 4" MULL CLIP, FLANGE/BOX |
| 8 | F-1767-005L | L-ANGLE 4" MULL CLIP, FIN, LEFT |
| 9 | F-1767-005R | L-ANGLE 4" MULL CLIP, FIN, RIGHT |
| 10 | F-1767-007L | L-ANGLE 4" MULL CLIP, RETRO FLANGE/BOX, LEFT |
| 11 | F-1767-007R | L-ANGLE 4" MULL CLIP, RETRO FLANGE/BOX, RIGHT |
| 12 | | #10 x 1 1/2", PANHEAD PHILIPS ZINC |
| 13 | | #10 FLAT WASHER |
| 14 | | CAULK |
| 15 | | #10 OR #12 HEX WASHER HEAD TEK SCREW *(see note below) |
| 16 | P-5118 | 4" HORIZ. MULLION CLIP, PVC, INTERSECTING |
| 18 | | #10 HEX WASHER HEAD TEK SCREW |

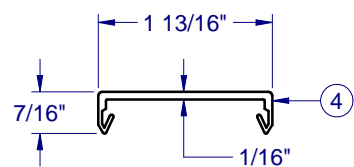
* USE WOOD SCREW SIZE (#10 OR #12), SPECIFIED IN WINDOW UNIT APPROVAL DOCUMENT



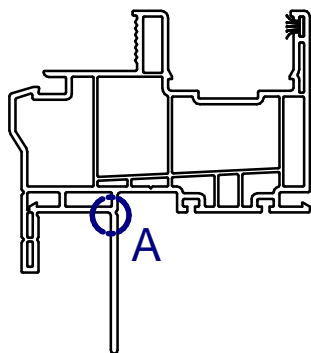
DRIP ADAPTER S-1895



FLANGE ADAPTER S-1896

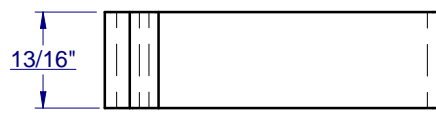


PVC MULL COVER-6018

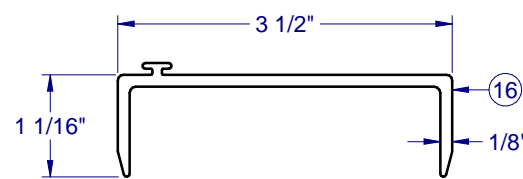


TYP. FIN FRAME

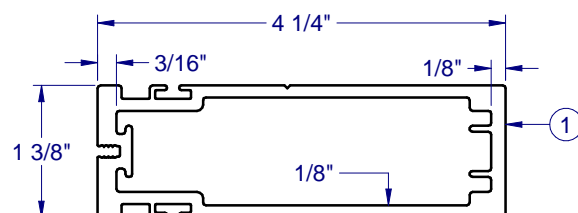
NOTE: ALL EXTRUSIONS ARE ALUMINUM 6063-T6 UNLESS OTHERWISE NOTED.



TOP VIEW

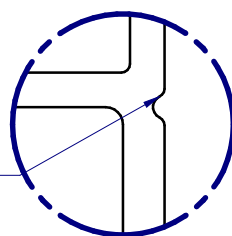


4" HORIZ. MULLION CLIP P-5118



4" MULLBAR H-1759

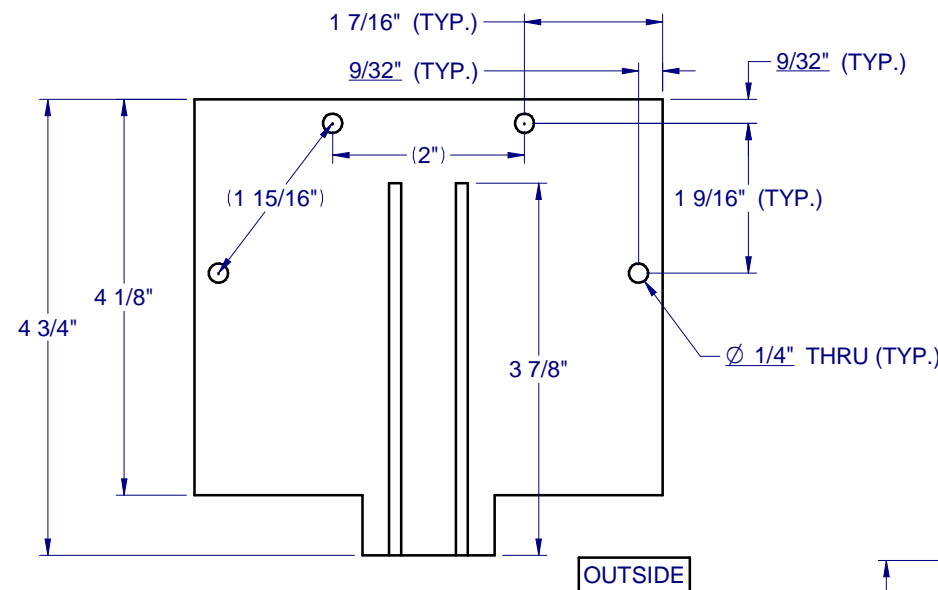
SCORE, BEND AND BREAK TO REMOVE FIN FOR FRAME ATTACHMENT TO MULL BAR



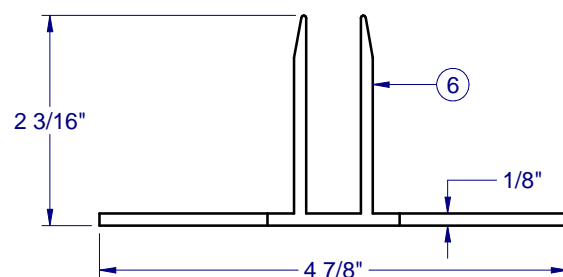
DETAIL A

3:1

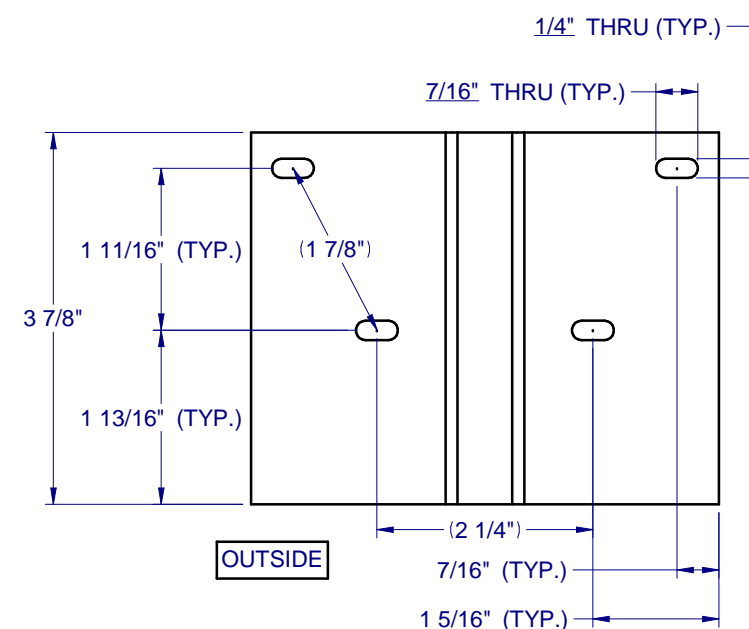
| FRAME TYPE | OPENING | "T" MULLBAR CLIP (F-1522-XXX) | "L" MULLBAR CLIP (F-1767-XXX) |
|------------|---------|-------------------------------|-------------------------------|
| FLANGE | NEW | NOT RECOMMENDED | F-1767-002 |
| | RETRO | F-1522-014 | F-1767-007(L&R) or F-1767-002 |
| FIN | NEW | F-1522-027 | F-1767-005(L&R) |
| | RETRO | F-1522-027 | F-1767-005(L&R) |
| BOX | NEW | NOT RECOMMENDED | F-1767-002 |
| | RETRO | F-1522-014 | F-1767-007(L&R) or F-1767-002 |



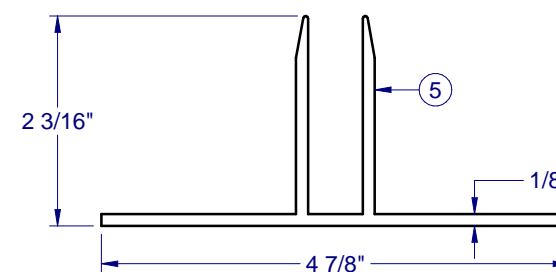
RETRO CLIP (4") F-1522-027



RETRO CLIP (4") F-1522-014



OUTSIDE



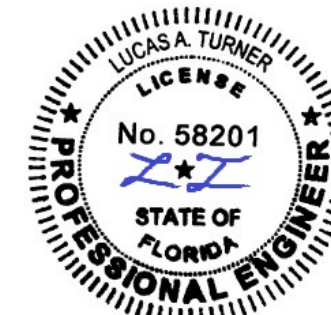
RETRO CLIP (4") F-1522-014



4" PVC MULL BAR NON-IMPACT

PROPRIETARY AND CONFIDENTIAL
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CUSTOM WINDOW SYSTEMS, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CUSTOM WINDOW SYSTEMS, INC IS PROHIBITED.

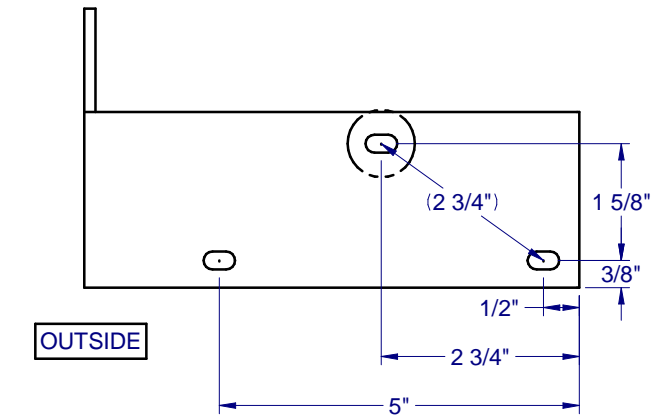
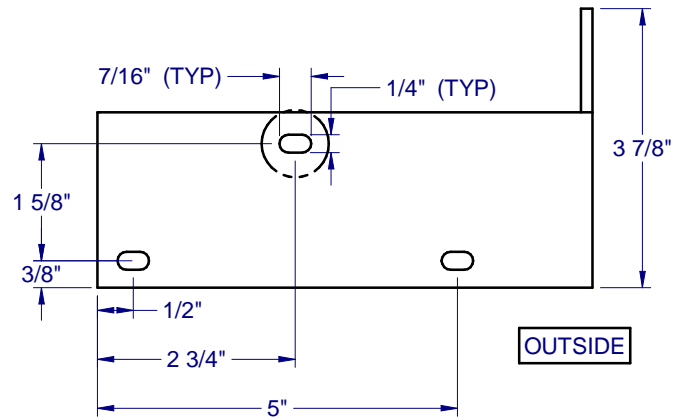
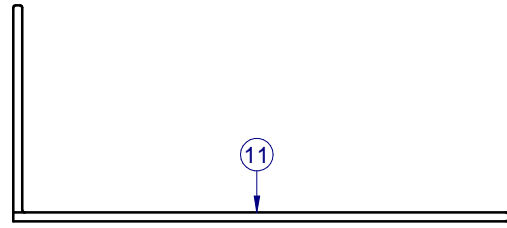
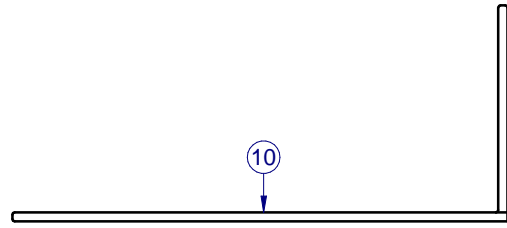
FLORIDA APPROVAL NO.: 5777



9/14/2023
 LUCAS A. TURNER, P.E.
 FL PE # 58201
 Turner Engineering & Consulting, Inc.
 2428 Old Natchez Trc Trl
 Camden, TN 38320
 PH. 941-380-1574

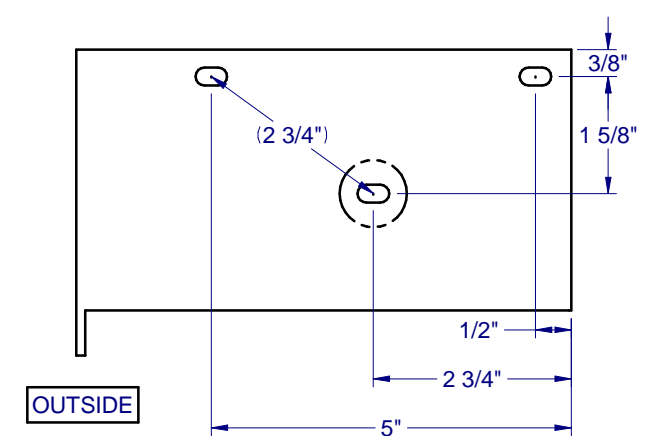
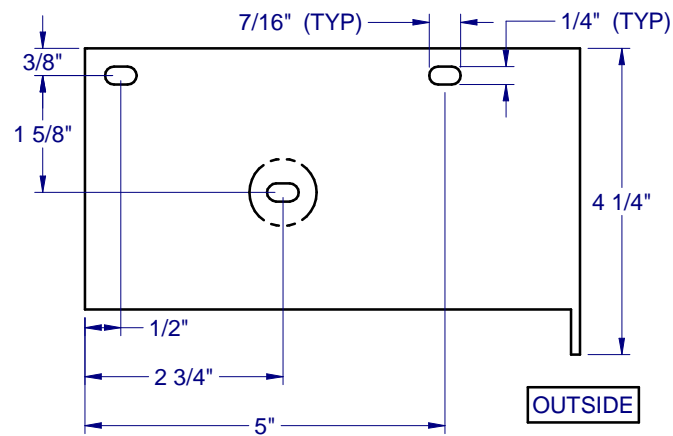
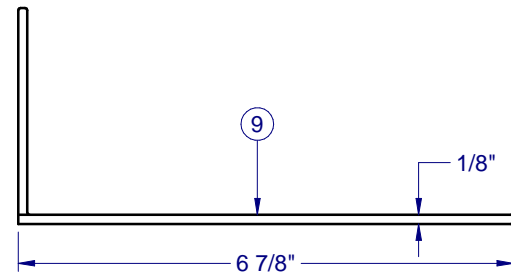
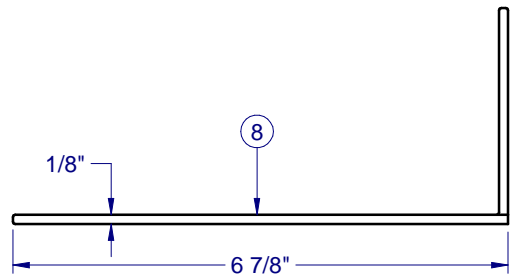
SHEET DESCRIPTION:
BOM AND EXTRUSIONS

| | |
|-------------------|-------------------|
| DRAWN BY: MCS | DATE: 9/8/2023 |
| DWG #: CWS-431 | REV.: E |
| SCALE: 1:2 | SHEET 4 OF 10 |



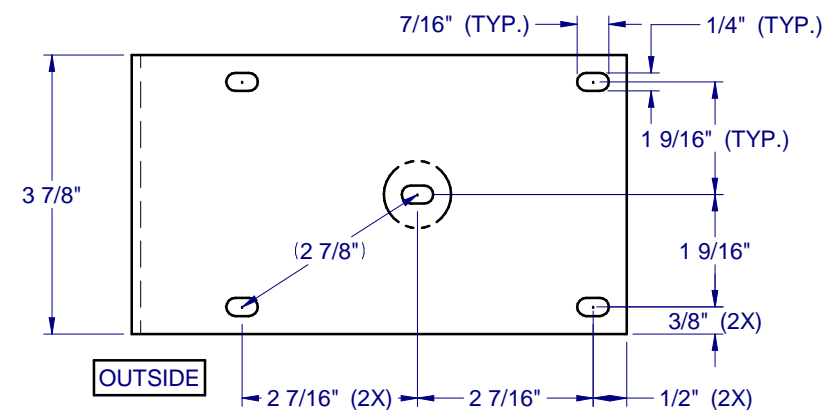
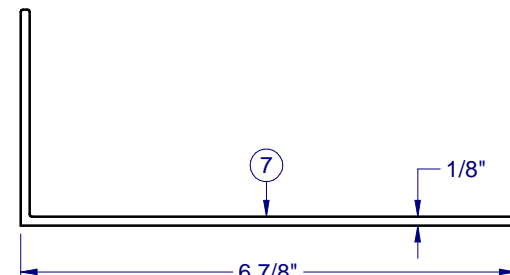
"L" ANGLE 4" MULL CLIP, RETRO FLG (LEFT) F-1767-007L

"L" ANGLE 4" MULL CLIP, RETRO FLG (RIGHT) F-1767-007R



"L" ANGLE 4" MULL CLIP, FIN (LEFT) F-1767-005L
(WOOD CONSTRUCTION ONLY)

"L" ANGLE 4" MULL CLIP, FIN (RIGHT) F-1767-005R
(WOOD CONSTRUCTION ONLY)



"L" ANGLE 4" MULL CLIP, STANDARD - F-1767-002

| FRAME TYPE | OPENING | "T" MULLBAR CLIP (F-1522-XXX) | "L" MULLBAR CLIP (F-1767-XXX) |
|------------|---------|-------------------------------|-------------------------------|
| FLANGE | NEW | NOT RECOMMENDED | F-1767-002 |
| | RETRO | F-1522-014 | F-1767-007(L&R) or F-1767-002 |
| FIN | NEW | F-1522-027 | F-1767-005(L&R) |
| | RETRO | F-1522-027 | F-1767-005(L&R) |
| BOX | NEW | NOT RECOMMENDED | F-1767-002 |
| | RETRO | F-1522-014 | F-1767-007(L&R) or F-1767-002 |

NOTE: IF USING CLIPS WHICH REQ. FOUR (4) ANCHORS PER END (REFER TO SHEET 2), THE MIDDLE HOLE (CIRCLED) MUST BE USED WITH ANY OTHER HOLE AS REQ'D PER EDGE DISTANCE.



4" PVC MULL BAR NON-IMPACT

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CUSTOM WINDOW SYSTEMS, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CUSTOM WINDOW SYSTEMS, INC IS PROHIBITED.

FLORIDA APPROVAL NO.:
5777



9/14/2023

LUCAS A. TURNER, P.E.
FL PE # 58201
Turner Engineering & Consulting, Inc.
2428 Old Natchez Trc Trl
Camden, TN 38320
PH. 941-380-1574

SHEET DESCRIPTION:

EXTRUSIONS

| | |
|-----------|----------|
| DRAWN BY: | DATE: |
| MCS | 9/8/2023 |
| DWG #: | REV.: |
| CWS-431 | E |
| SCALE: | SHEET |
| 1:2 | 5 OF 10 |



1900 SW 44TH AVE.
OCALA, FLORIDA 34474
WWW.CWS.CC

**4" PVC
MULL BAR
NON-IMPACT**

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN
THIS DRAWING IS THE SOLE
PROPERTY OF CUSTOM WINDOW
SYSTEMS, INC. ANY
REPRODUCTION IN PART OR AS A
WHOLE WITHOUT THE WRITTEN
PERMISSION OF CUSTOM WINDOW
SYSTEMS, INC IS PROHIBITED.

FLORIDA APPROVAL NO.:

5777



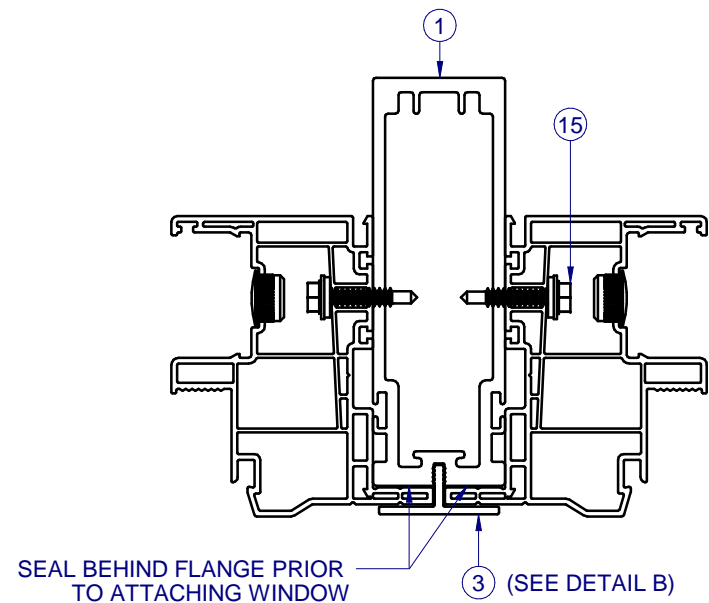
9/14/2023

LUCAS A. TURNER, P.E.
FL PE # 58201
Turner Engineering &
Consulting, Inc.
2428 Old Natchez Trc Trl
Camden, TN 38320
PH. 941-380-1574

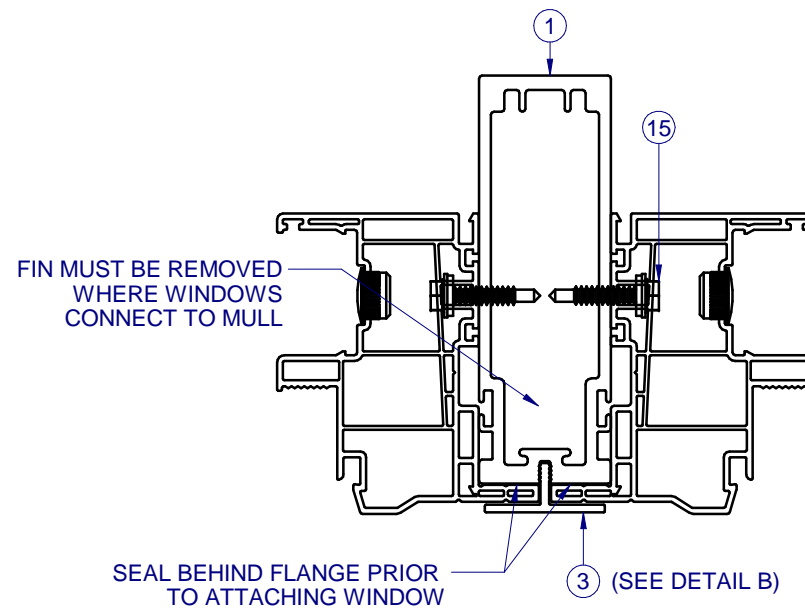
SHEET DESCRIPTION:

**SECTION VIEWS
MULLS**

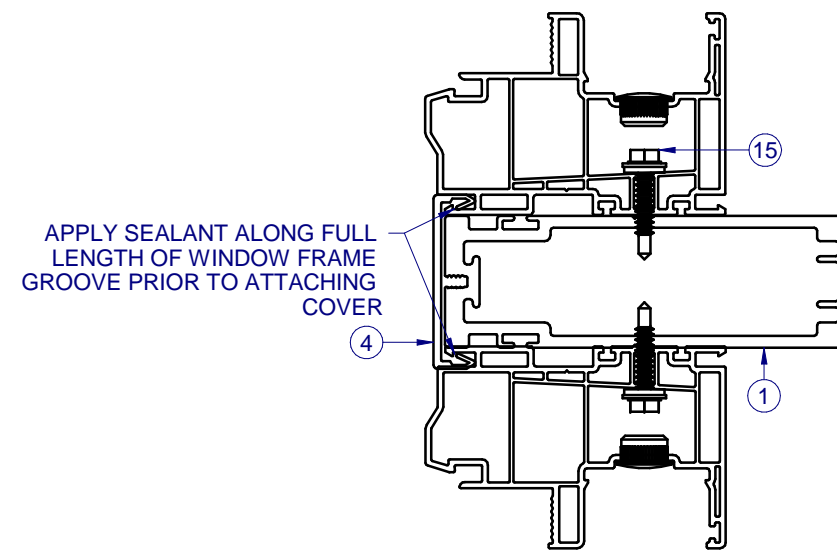
| | |
|-----------|----------|
| DRAWN BY: | DATE: |
| MCS | 9/8/2023 |
| DWG #: | REV.: |
| CWS-431 | E |
| SCALE: | SHEET |
| 1:2 | 6 OF 10 |



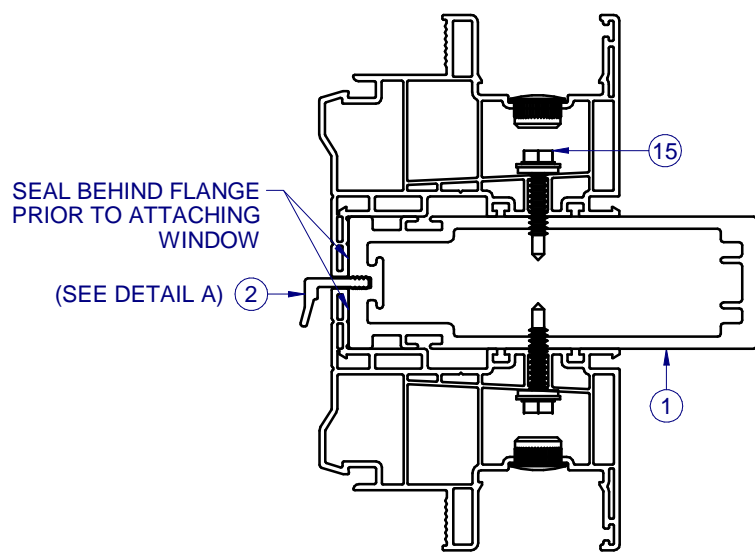
A
6 HORIZONTAL MULL BAR SECTION
FLANGE FRAME WINDOW



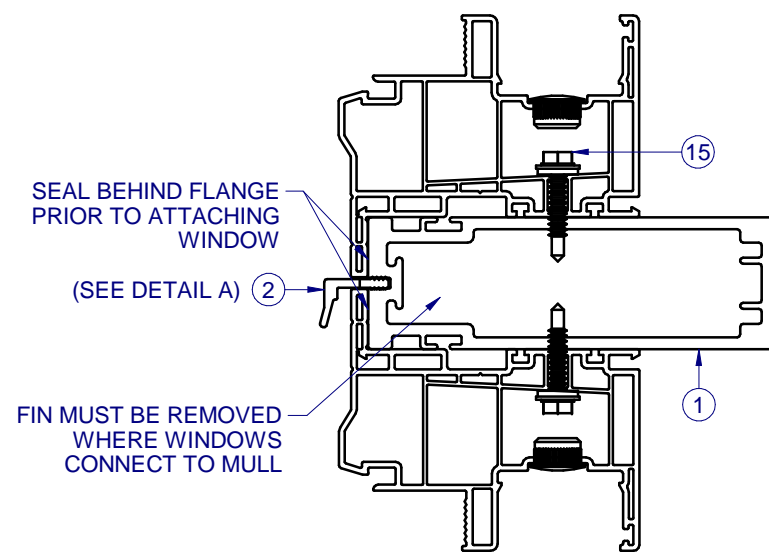
A
6 HORIZONTAL MULL BAR SECTION
FIN FRAME WINDOW



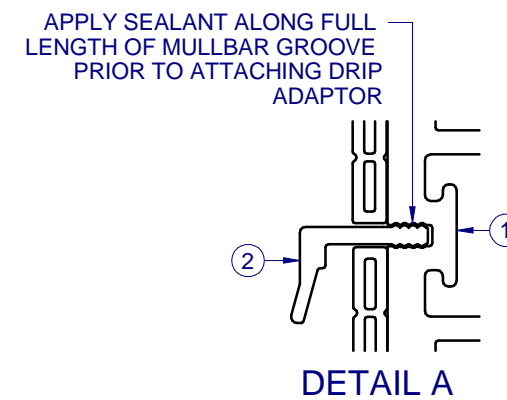
A
6 VERTICAL/HORIZONTAL MULL BAR SECTION
BOX FRAME WINDOW



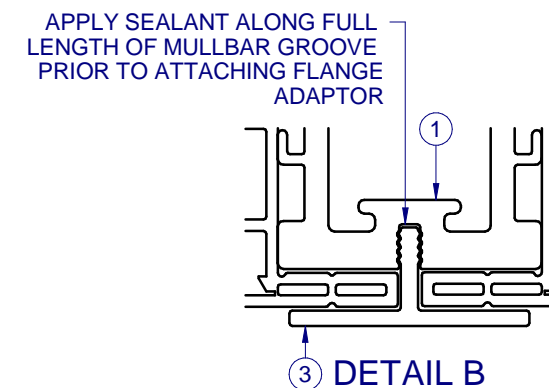
B
6 VERTICAL MULL BAR SECTION
FLANGE FRAME WINDOW



B
6 VERTICAL MULL BAR SECTION
FIN FRAME WINDOW



DETAIL A



DETAIL B



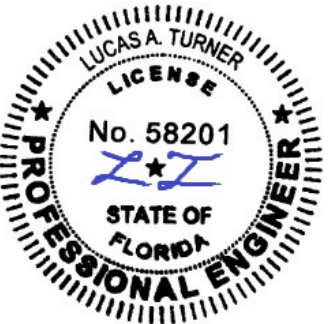
1900 SW 44TH AVE.
OCALA, FLORIDA 34474
WWW.CWS.CC

**4" PVC
MULL BAR
NON-IMPACT**

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN
THIS DRAWING IS THE SOLE
PROPERTY OF CUSTOM WINDOW
SYSTEMS, INC. ANY
REPRODUCTION IN PART OR AS A
WHOLE WITHOUT THE WRITTEN
PERMISSION OF CUSTOM WINDOW
SYSTEMS, INC IS PROHIBITED.

FLORIDA APPROVAL NO.:

5777



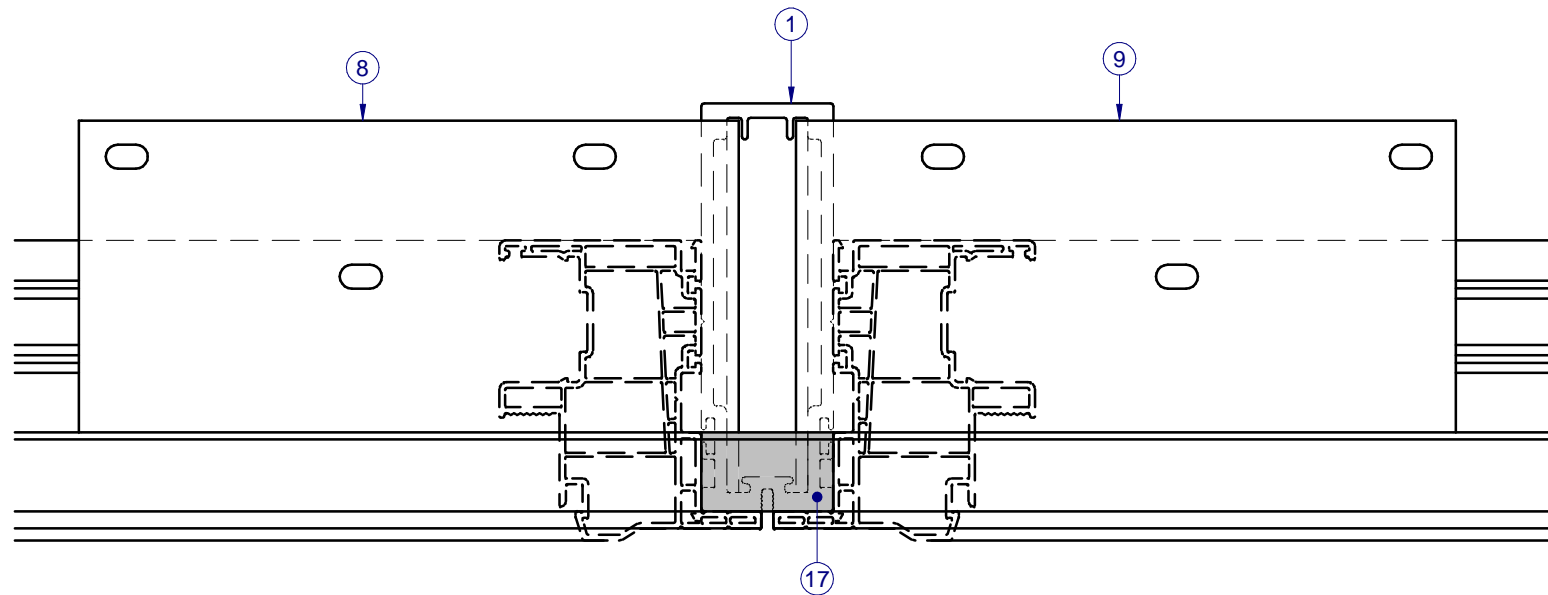
9/14/2023

LUCAS A. TURNER, P.E.
FL PE # 58201
Turner Engineering &
Consulting, Inc.
2428 Old Natchez Trc Trl
Camden, TN 38320
PH. 941-380-1574

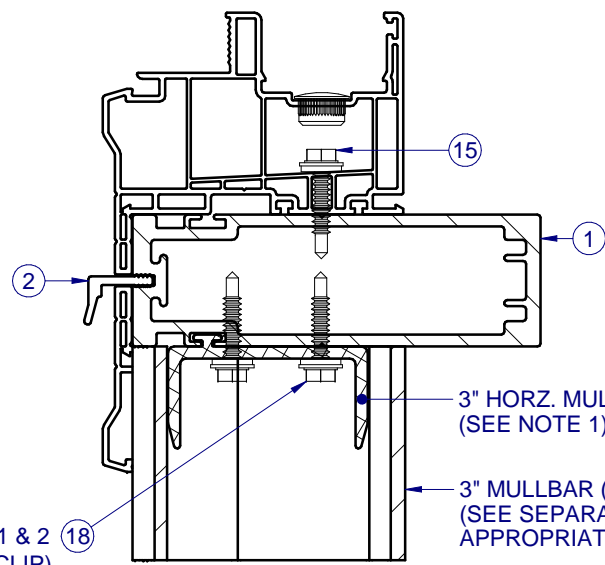
SHEET DESCRIPTION:

**SECTION VIEWS
MULL INTERSECTIONS**

| | |
|-----------|----------|
| DRAWN BY: | DATE: |
| MCS | 9/8/2023 |
| DWG #: | REV.: |
| CWS-431 | E |
| SCALE: | SHEET |
| 1:2 | 7 OF 10 |



TOP VIEW
FIN FRAME

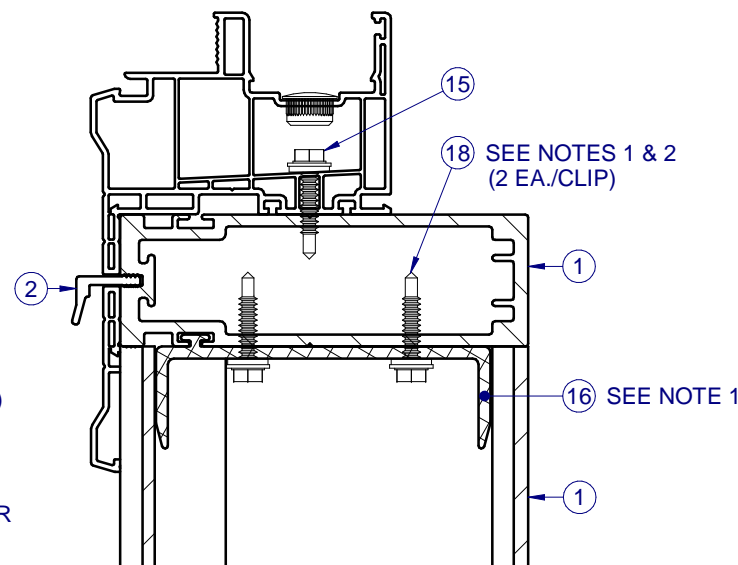


SEE NOTES 1 & 2
(2 EA./CLIP)

3" HORZ. MULLION CLIP (P-5117)
(SEE NOTE 1)

3" MULLBAR (H-1758)
(SEE SEPARATE APPROVAL FOR
APPROPRIATE DP CHARTS)

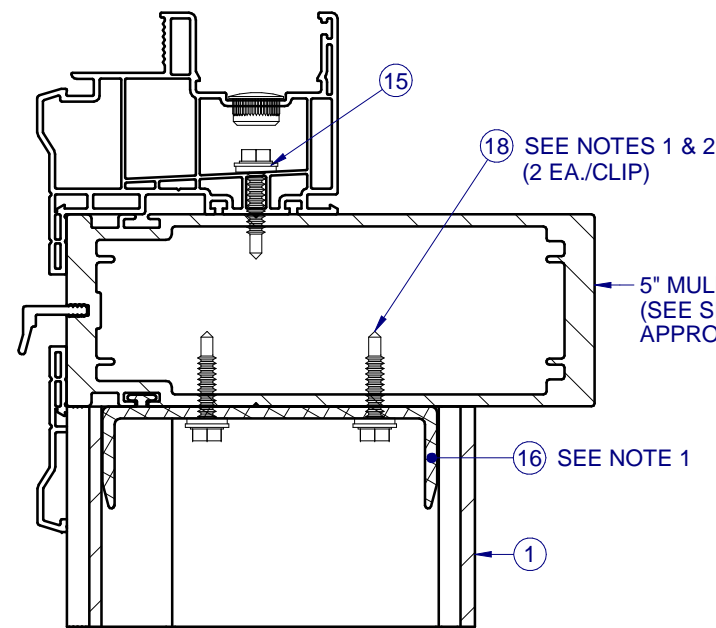
C
7 4" HORIZ. TO 3" VERT. MULLBAR SECTION
FLANGE FRAME WINDOW



SEE NOTES 1 & 2
(2 EA./CLIP)

SEE NOTE 1

C
7 4" HORIZ. TO 4" VERT. MULLBAR SECTION
FLANGE FRAME WINDOW



SEE NOTES 1 & 2
(2 EA./CLIP)

5" MULLBAR (H-1760)
(SEE SEPARATE APPROVAL FOR
APPROPRIATE DP CHARTS)

SEE NOTE 1

C
7 5" HORIZ. TO 4" VERT. MULLBAR SECTION
FLANGE FRAME WINDOW

NOTES:

1. SLIDE CLIP INTO LOCATION AND SECURE WITH ITEM 18 (QTY 2), AS SHOWN ABOVE.
2. PRE-DRILLED HOLES (THRU H/V CLIPS 5117 OR 5118), BY THE INSTALLER, MAY BE LOCATED AS NEEDED WHILE MAINTAINING A MINIMUM CLIP EDGE DISTANCE OF 9/32" AND A MINIMUM CENTER TO CENTER SPACING OF 1/2".
3. THE ABOVE SECTIONS APPLY TO ALL MULLBAR-TO-MULLBAR CONNECTIONS, REGARDLESS OF ORIENTATION (i.e., HORIZONTAL OR VERTICAL). THE FULL LENGTH MULL MUST BE THE SAME DEPTH, OR GREATER, THAN THE INTERSECTING MULL.



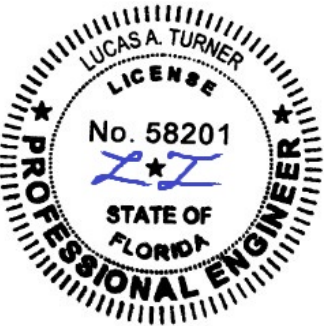
1900 SW 44TH AVE.
OCALA, FLORIDA 34474
WWW.CWS.CC

**4" PVC
MULL BAR
NON-IMPACT**

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN
THIS DRAWING IS THE SOLE
PROPERTY OF CUSTOM WINDOW
SYSTEMS, INC. ANY
REPRODUCTION IN PART OR AS A
WHOLE WITHOUT THE WRITTEN
PERMISSION OF CUSTOM WINDOW
SYSTEMS, INC IS PROHIBITED.

FLORIDA APPROVAL NO.:

5777



9/14/2023

LUCAS A. TURNER, P.E.
FL PE # 58201
Turner Engineering &
Consulting, Inc.
2428 Old Natchez Trc Trl
Camden, TN 38320
PH. 941-380-1574

SHEET DESCRIPTION:

**CONFIGURATIONS AND
ANCHORAGE NOTES**

DRAWN BY:

MCS

DATE:

9/8/2023

DWG #:

CWS-431

REV.:

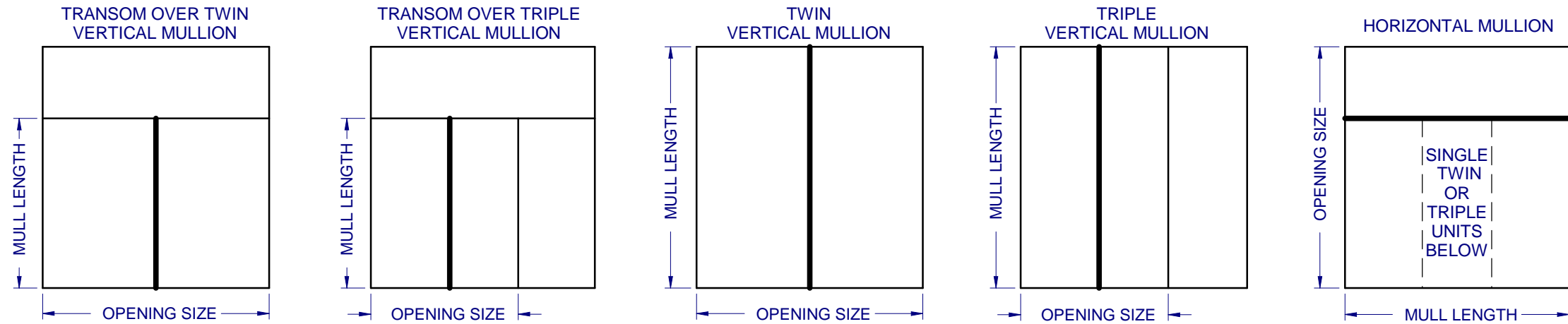
E

SCALE:

1:1

SHEET

8 OF 10



NOTES:

1. AT MULLION LOCATION, ATTACH WINDOW UNIT(S) TO MULLBAR THRU FRAME AS SPECIFIED IN WINDOW UNIT APPROVAL DOCUMENTS. IF ALUMINUM ATTACHMENT IS NOT SPECIFIED IN THE WINDOW UNIT APPROVAL DOCUMENTS, FOLLOW THE ANCHOR SPACING AS INDICATED IN THE WINDOW APPROVAL FOR ATTACHMENT TO WOOD SUBSTRATE, USING A HEX WASHER HEAD TEK SCREW OF THE SAME SIZE (#10 OR #12) AS THE WOOD SCREW INDICATED IN THE WINDOW APPROVAL. TEK SCREWS SHALL BE LONG ENOUGH TO ENSURE THREE (3) THREADS OF PENETRATION BEYOND THE INSIDE WALL OF MULLBAR.
2. MULL CLIP INSTALLATION ANCHOR TYPE, SIZE, SPACING AND EMBEDMENT SHALL BE AS SPECIFIED IN THESE DRAWINGS, SEE TABLE 1, SHEET 9.
3. ALL MULL CLIP INSTALLATION ANCHORS MUST BE MADE OF OR PROTECTED WITH A CORROSION RESISTANT MATERIAL OR COATING. DISSIMILAR METALS OR MATERIALS IN CONTACT WITH PRESSURE TREATED WOOD MUST BE PROTECTED TO PREVENT REACTION.
4. INSTALLATION ANCHORS SHALL BE IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM SPECIFIED IN TABLE 1, SHEET 9.
5. ANCHOR EMBEDMENT TO SUBSTRATE SHALL BE BEYOND WALL DRESSING OR STUCCO. FOR CONCRETE/CMU OPENINGS, EMBEDMENT SHALL BE BEYOND WOOD BUCKS, IF USED, INTO SUBSTRATE - 1X BUCKS ARE OPTIONAL.
6. A MINIMUM CENTER-TO-CENTER SPACING SHALL BE MAINTAINED AS INDICATED BY THE PRE-DRILLED HOLES AS SHOWN IN THE CLIP LAYOUTS ON SHEETS 4-5.
7. WOOD OR MASONRY OPENINGS, BUCKS AND BUCK FASTENERS SHALL BE PROPERLY DESIGNED BY THE ARCHITECT OR ENGINEER OF RECORD AND INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE. SUBSTRATES SHALL MEET THE MINIMUM STRENGTH REQUIREMENTS AS SHOWN IN TABLE1, SHEET 9. CONCRETE AND MASONRY SUBSTRATES MAY NOT BE CRACKED.
8. SEALING AND FLASHING STRATEGIES FOR OVERALL WATER RESISTANCE OF INSTALLATION SHALL BE DONE BY OTHERS FOLLOWING THE CURRENT VERSION OF THE REFERENCE DOCUMENTS:
FMA/AAMA 100(FIN WINDOWS), FMA/AAMA 200(FLANGE WINDOWS), FMA/WDMA 250(BOX WINDOWS), FMA/AAMA/WDMA 300(EXTERIOR DOORS)



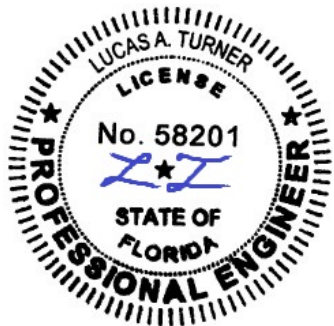
1900 SW 44TH AVE.
OCALA, FLORIDA 34474
WWW.CWS.CC

4" PVC MULL BAR NON-IMPACT

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CUSTOM WINDOW SYSTEMS, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CUSTOM WINDOW SYSTEMS, INC IS PROHIBITED.

FLORIDA APPROVAL NO.:

5777



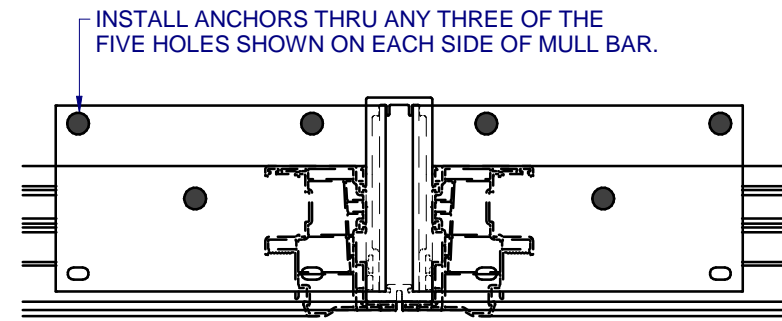
9/14/2023

LUCAS A. TURNER, P.E.
FL PE # 58201
Turner Engineering & Consulting, Inc.
2428 Old Natchez Trc Trl
Camden, TN 38320
PH. 941-380-1574

SHEET DESCRIPTION:

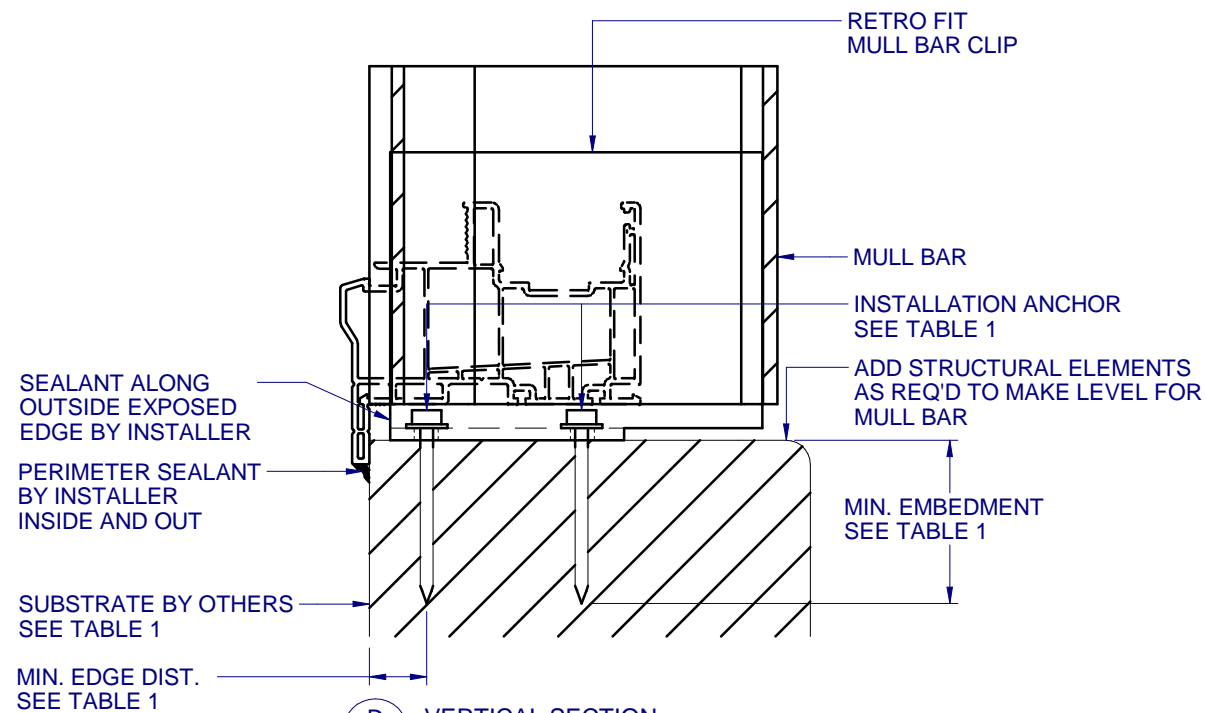
INSTALLATION DETAILS FLANGE

| | |
|-----------|----------|
| DRAWN BY: | DATE: |
| MCS | 9/8/2023 |
| DWG #: | REV.: |
| CWS-431 | E |
| SCALE: | SHEET |
| 1:2 | 9 OF 10 |

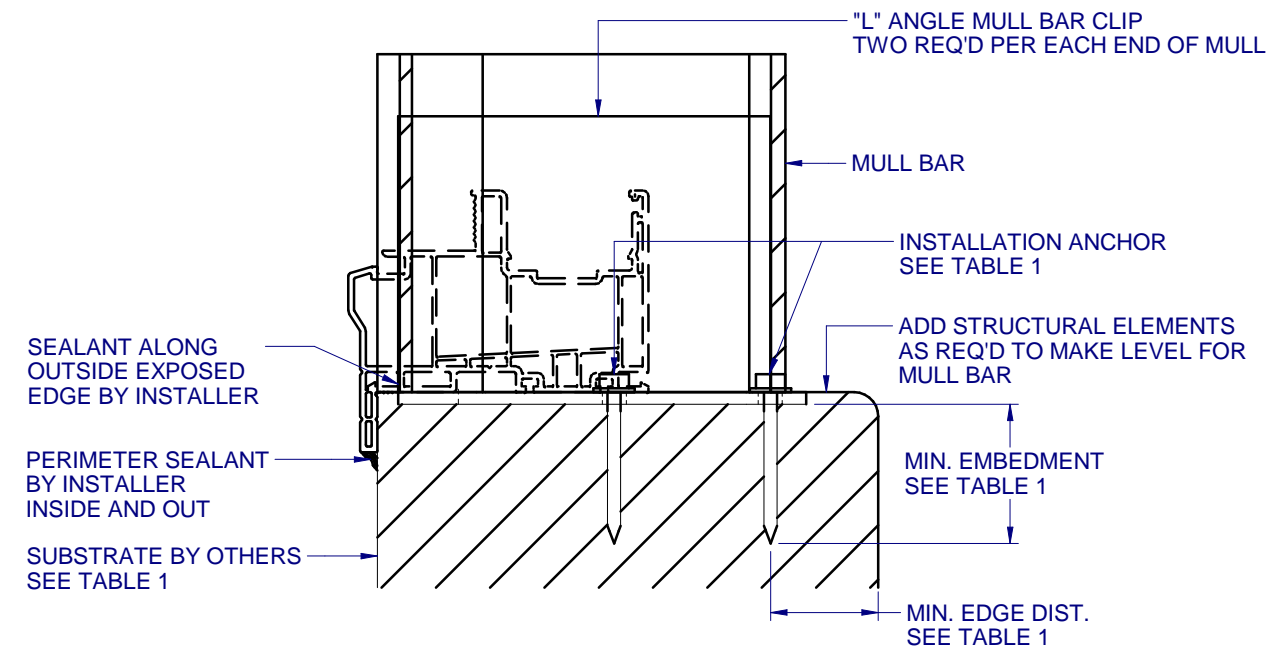


TOP VIEW

MULL CLIP 1767-002 ANCHOR REQUIREMENT



D VERTICAL SECTION
9 TYPICAL FLANGE (RETRO FIT) ANCHORAGE
HEAD AND JAMBS SIMILAR FOR FLANGE INSTALLATION



E VERTICAL SECTION
9 TYPICAL FLANGE (RETRO FIT) ANCHORAGE
HEAD AND JAMBS SIMILAR FOR FLANGE INSTALLATION

NOTES:

1. BOX FRAME MULL INSTALLATION SIMILAR TO FLANGE FRAME.
2. SILL STOOL MUST BE FLUSH AGAINST INSIDE OF MULLED WINDOWS AFTER INSTALLATION.
3. RECESS RETRO MULLION CLIP 3/8" MAX. FOR CLEARANCE OF WINDOW UNIT AS NEEDED.
4. FOUR (4) ANCHORS REQUIRED PER "T" MULL CLIP, SEE SHEET 2. TWO (2) or THREE (3) ANCHORS REQUIRED PER "L" MULL CLIP, SEE SHEETS 2-3.
5. SEAT MULLION TIGHT TO MULL CLIP.
6. FOR ANCHORAGE DETAILS FOR THE WINDOW, REFER TO THE WINDOW SPECIFIC INSTALLATION DETAILS.

TABLE 1: APPROVED MULL CLIP INSTALLATION FASTENERS

| SUBSTRATE TYPE | ANCHOR TYPE | MIN. EMBEDMENT | MIN. EDGE DIST. |
|--|---|----------------------------|-----------------|
| CONCRETE (2.0 KSI MIN.) | 3/16" ITW TAPCON | 1" | 3" |
| CONCRETE (3.05 KSI MIN.) | 3/16" DEWALT ULTRACON+ | 1-3/4" | 1" |
| HOLLOW or GROUT-FILLED CMU (ASTM C-90) | 1/4" DEWALT ULTRACON+ | 1-1/4" | 2-1/2" |
| 2X MIN. SOUTHERN PINE (G=0.55) | 3/16" ITW TAPCON OR DEWALT ULTRACON+ | 1-3/8" | 7/8" |
| 2X MIN. SOUTHERN PINE (G=0.55) | #10 WOOD SCREW | 1-3/8" | 7/8" |
| 16 GAUGE (0.060") MIN. STEEL STUD (33 KSI YIELD MIN) | #10-16 HILTI KWIK-FLEX OR ITW TEKS SELF-DRILLING SCREW | FULL THREAD THRU 0.060" | 7/16" |
| 1/8" ALUM. (6063-T5 MIN.) OR 1/8" STEEL (33 KSI MIN.) | #10 GRADE 5 SELF-TAPPING / DRILLING SCREW | FULL THREAD THRU 0.125" | 7/16" |



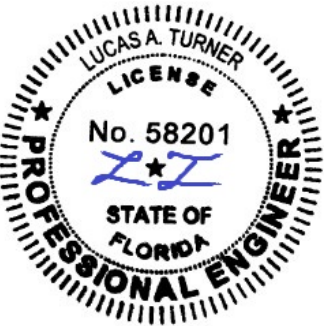
1900 SW 44TH AVE.
OCALA, FLORIDA 34474
WWW.CWS.CC

**4" PVC
MULL BAR
NON-IMPACT**

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN
THIS DRAWING IS THE SOLE
PROPERTY OF CUSTOM WINDOW
SYSTEMS, INC. ANY
REPRODUCTION IN PART OR AS A
WHOLE WITHOUT THE WRITTEN
PERMISSION OF CUSTOM WINDOW
SYSTEMS, INC IS PROHIBITED.

FLORIDA APPROVAL NO.:

5777



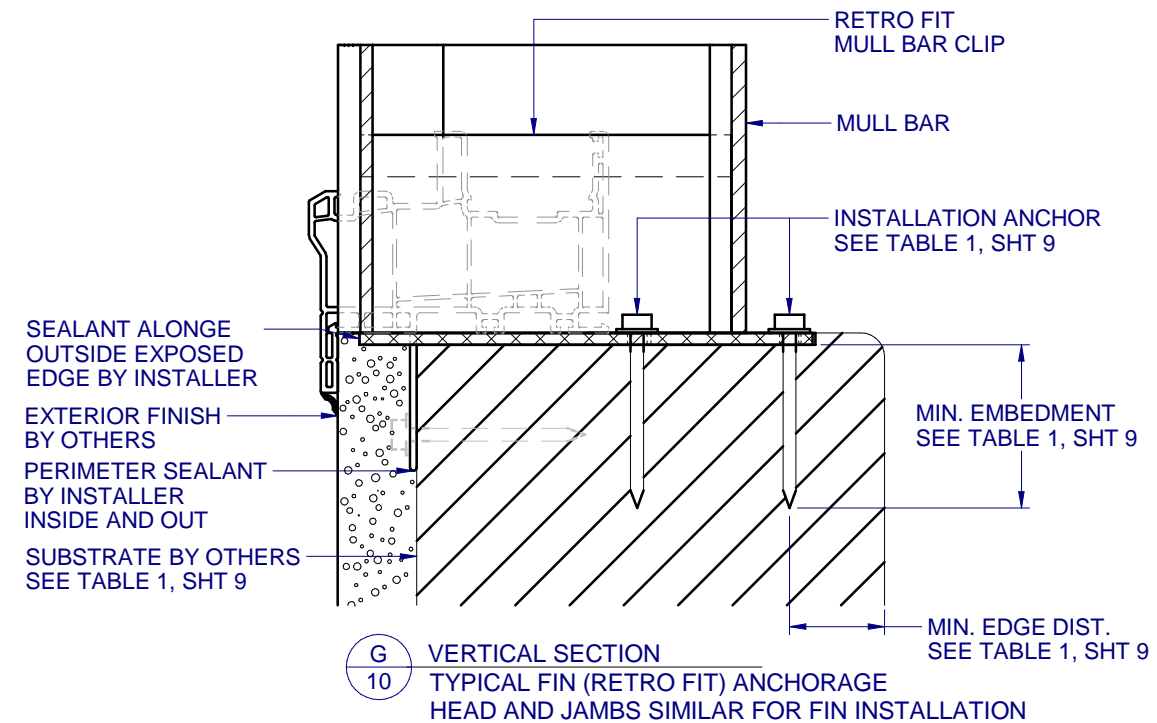
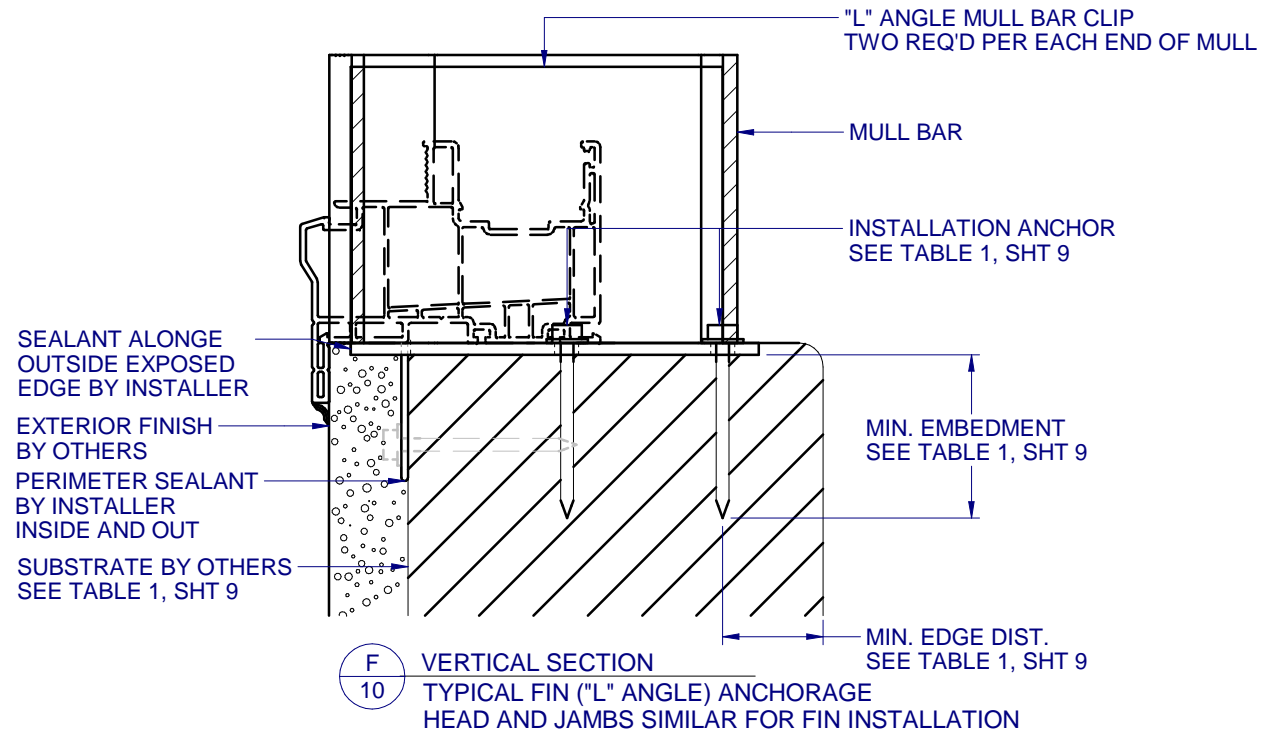
9/14/2023

LUCAS A. TURNER, P.E.
FL PE # 58201
Turner Engineering &
Consulting, Inc.
2428 Old Natchez Trc Trl
Camden, TN 38320
PH. 941-380-1574

SHEET DESCRIPTION:

**INSTALLATION DETAILS
FIN**

| | |
|-----------|----------|
| DRAWN BY: | DATE: |
| MCS | 9/8/2023 |
| DWG #: | REV.: |
| CWS-431 | E |
| SCALE: | SHEET |
| 1:2 | 10 OF 10 |



NOTES:

1. SILL STOOL MUST BE FLUSH AGAINST INSIDE OF MULLED WINDOWS AFTER INSTALLATION.
2. RECESS RETRO MULLION CLIP 3/8" MAX. FOR CLEARANCE OF WINDOW UNIT AS NEEDED.
3. FOUR (4) ANCHORS REQUIRED PER "T" MULL CLIP, SEE SHEET 2. TWO (2) or THREE (3) ANCHORS REQUIRED PER "L" MULL CLIP, SEE SHEETS 2-3.
4. SEAT MULLION TIGHT TO MULL CLIP.
5. FOR ANCHORAGE DETAILS FOR THE WINDOW, REFER TO THE WINDOW SPECIFIC INSTALLATION DETAILS.