

NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE FLORIDA BUILDING CODE.
2. WOOD FRAMING TO BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. FRAMING IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
3. 1X BUCK OVER MASONRY/CONCRETE IS OPTIONAL. WHERE 1X BUCK IS NOT USED DISSIMILAR MATERIALS MUST BE SEPARATED WITH APPROVED COATING OR MEMBRANE. SELECTION OF COATING OR MEMBRANE IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
4. ALLOWABLE STRESS INCREASE OF 1/3 WAS NOT USED IN THE DESIGN OF THE PRODUCT SHOWN HEREIN. WIND LOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
5. APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS UP TO WIND ZONE 3.
6. DESIGN PRESSURE AND INSTALLATION DETAILS SHOWN IN THIS DOCUMENT APPLY ONLY TO MULLION. WINDOWS MUST BE APPROVED UNDER SEPARATE APPROVAL.
7. SINGLE WINDOWS TO BE MULLED ARE NOT LIMITED TO THOSE SHOWN IN THIS DRAWING. WINDOWS MUST BE MANUFACTURED BY WINDOW MART.
8. DESIGN PRESSURE OF MULLED UNIT SHALL BE CONTROLLED BY THE LESSER DESIGN PRESSURE OF THE MULLION OR THE INDIVIDUAL WINDOW OR DOOR UNIT.
9. UNITS MAY BE MULLED TOGETHER INDEFINITELY AS LONG AS SINGLE UNIT WIDTH AND HEIGHT ARE NOT EXCEEDED AND MULLION IS ANCHORED AS SHOWN HEREIN.
10. MULLION VERTICAL INSTALLATION IS SHOWN, MULLION MAY BE USED IN HORIZONTAL APPLICATIONS AS LONG AS DIMENSIONS INDICATED HEREIN ARE NOT EXCEEDED AND MULLION IS ANCHORED ACCORDING TO THIS DOCUMENT.

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED PER NEW REQUIREMENTS	10/04/16	R.L.

ANCHORING NOTES:

1. FOR ANCHORING INTO WOOD FRAMING OR 2X BUCK USE #10 WOOD SCREW WITH SUFFICIENT LENGTH TO ACHIEVE A 1 1/4" MINIMUM EMBEDMENT. LOCATE ANCHORS AS SHOWN IN INSTALLATION DETAILS SHEET 3.
2. FOR ANCHORING INTO CONCRETE USE 3/16" TAPCON WITH SUFFICIENT LENGTH TO ACHIEVE A 1 1/4" MINIMUM EMBEDMENT WITH 2 1/2" MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN IN INSTALLATION DETAILS SHEET 4.
3. FOR ANCHORING INTO METAL STRUCTURE USE #10 SMS OR SELF DRILLING SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE 3 THREADS MINIMUM BEYOND STRUCTURE INTERIOR WALL. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
4. FOR ATTACHING REINFORCEMENTS TO WINDOW UNITS USE #6 SELF DRILLING SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE A MINIMUM EMBEDMENT OF THREE THREADS PAST THE WINDOW FRAME WALL. LOCATE SCREWS IN ACCORDANCE WITH WINDOW ANCHORING SCHEDULE AS SHOWN IN WINDOW SEPARATE APPROVAL.
5. ALL FASTENERS TO BE CORROSION RESISTANT.
6. 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 BELOW:
 - A. WOOD – MINIMUM SPECIFIC GRAVITY OF G=0.42
 - B. CONCRETE – MINIMUM COMPRESSIVE STRENGTH OF 3,200 PSI.
 - C. MASONRY – STRENGTH CONFORMANCE TO ASTM C-90, GRADE N, TYPE 1 (OR GREATER).
 - D. METAL STRUCTURE: STEEL 18GA, 33KSI OR ALUMINUM 6063-T5 .048 THICK MINIMUM

TABLE OF CONTENTS	
SHEET NO.	DESCRIPTION
1	ELEVATIONS, NOTES AND DESIGN PRESSURE CHART
2	BILL OF MATERIALS AND COMPONENTS
3	ASSEMBLED VIEW AND INSTALLATION DETAIL
4 – 5	INSTALLATION DETAILS

WINDOW MART
5760 ALBERT PIKE
ROYAL, AR 71968

VERTICAL MULLION – IMPACT
(2) 1/4" X 3/4" ALUMINUM REINFORCEMENTS
NOTES

DRAWN:
V.L.

DWG NO.
08-02223

REV
A

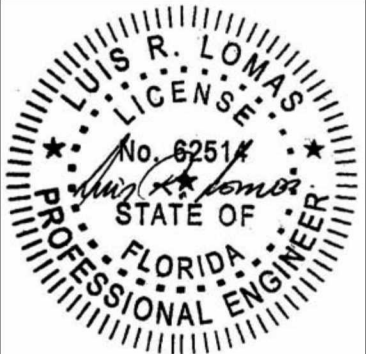
SCALE
NTS

DATE
09/23/13

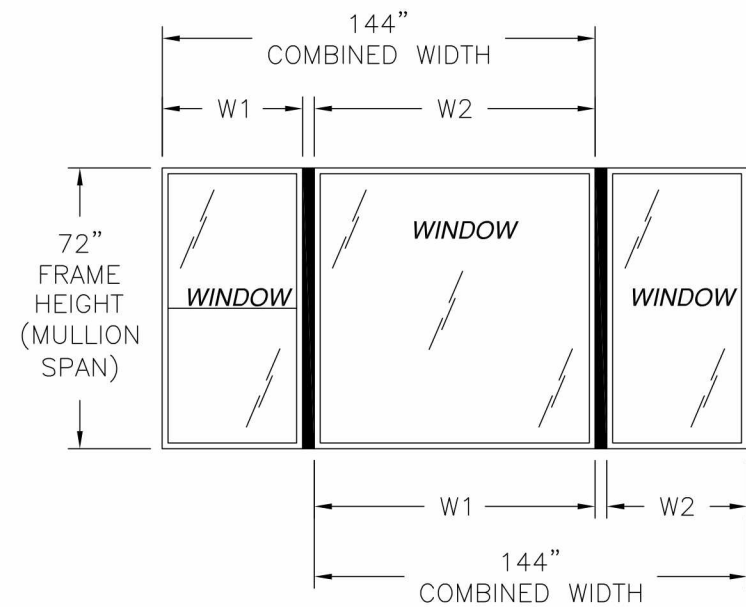
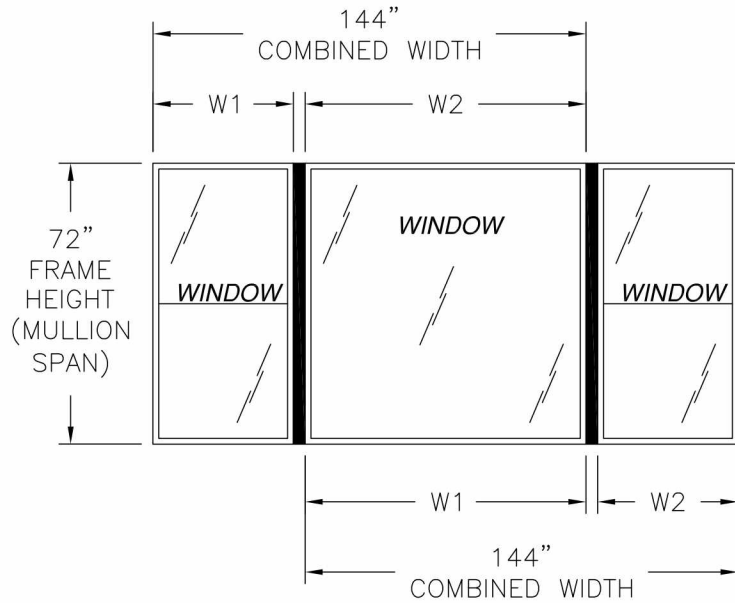
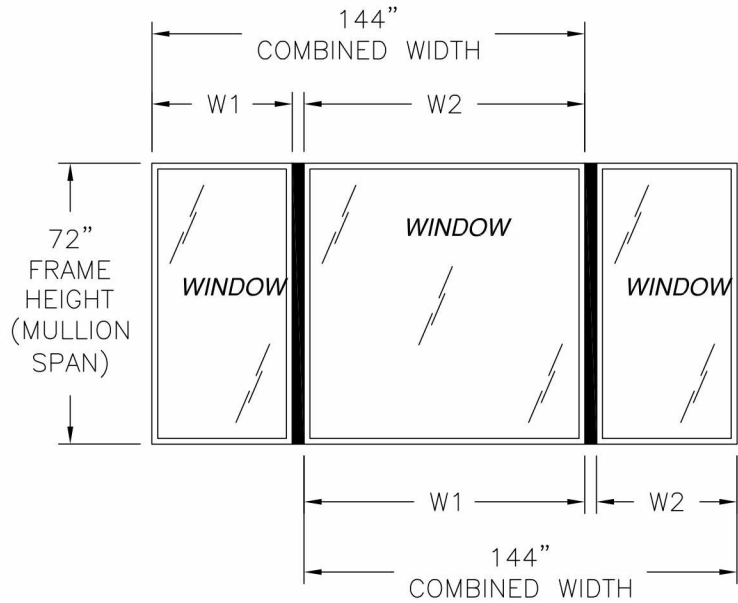
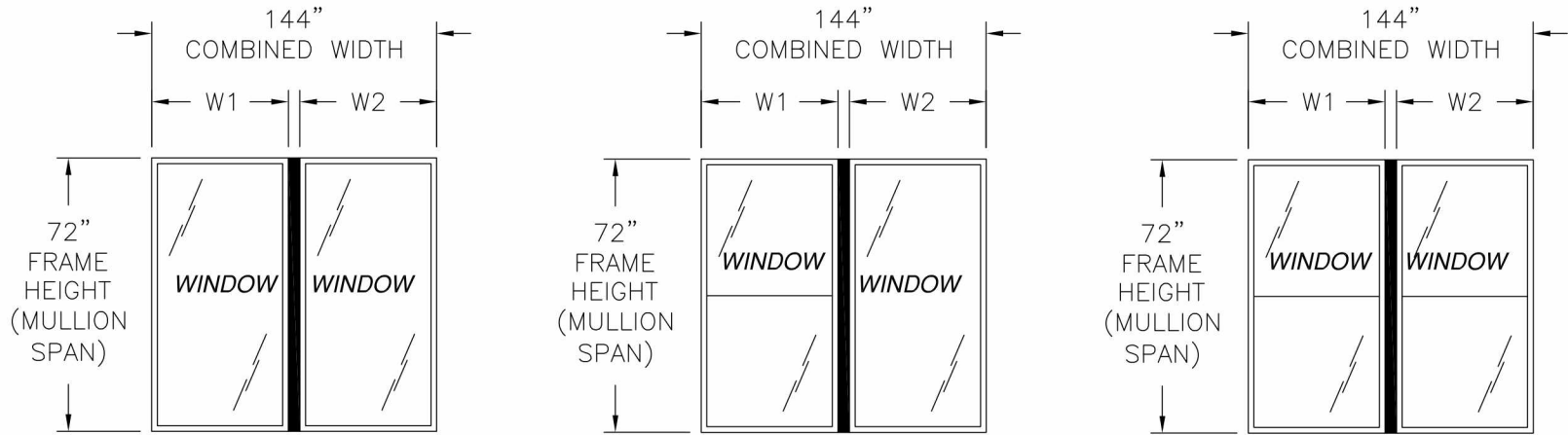
SHEET
1 OF 6

L. ROBERTO LOMAS P.E.
1432 WOODFORD RD LEWISVILLE, NC 27023
434-688-0609 rllomas@rlomaspe.com

SIGNED: 10/04/2016



Luis R. Lomas P.E.
FL No.: 62514



APPROVED CONFIGURATIONS
SEE CHART #1 FOR RATINGS

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED PER NEW REQUIREMENTS	10/04/16	R.L.

CHART #1

Design pressure rating (psf)								
Mullion span (in)	Tributary width (in)							
	30.00	36.00	42.00	48.00	54.00	60.00	66.00	72.00
24.00	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
30.00	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
36.00	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
42.00	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
48.00	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
54.00	75.0	75.0	73.2	69.8	68.7	68.7	68.7	68.7
60.00	63.9	55.8	50.7	47.4	45.6	45.1	45.1	45.1
66.00	47.2	40.8	36.7	33.9	32.1	31.1	30.8	30.8
72.00	35.8	30.8	27.5	25.1	23.6	22.5	21.9	21.7

LARGE AND SMALL MISSILE IMPACT, WIND ZONE 3

DESIGN PRESSURE TABLE INSTRUCTIONS:

1. DEFINE REQUIRED DESIGN LOAD PER FLORIDA BUILDING CODE CHAPTER 16.
2. DETERMINE TRIBUTARY WIDTH AND MULLION SPAN BASED ON PRODUCT TO BE INSTALLED. SEE FORMULA FOR TRIBUTARY WIDTH.
3. LOCATE MULLION SPAN (UNIT HEIGHT) AND TRIBUTARY WIDTH. AT THE INTERSECTION OF ROW AND COLUMN CONTAINING THE MULLION SPAN AND TRIBUTARY WIDTH RESPECTIVELY IS THE MULLION RATING FOR PRODUCT IN STEP 2. MULLION RATING MUST BE EQUAL OR GREATER THAN REQUIRED DESIGN PRESSURE OBTAINED IN STEP 1.

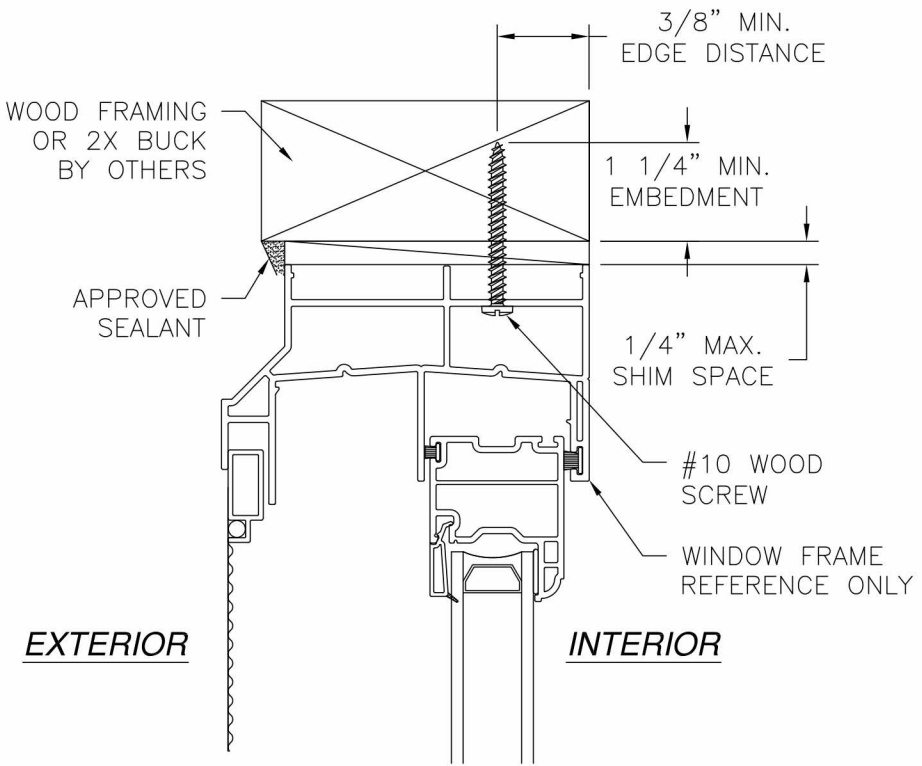
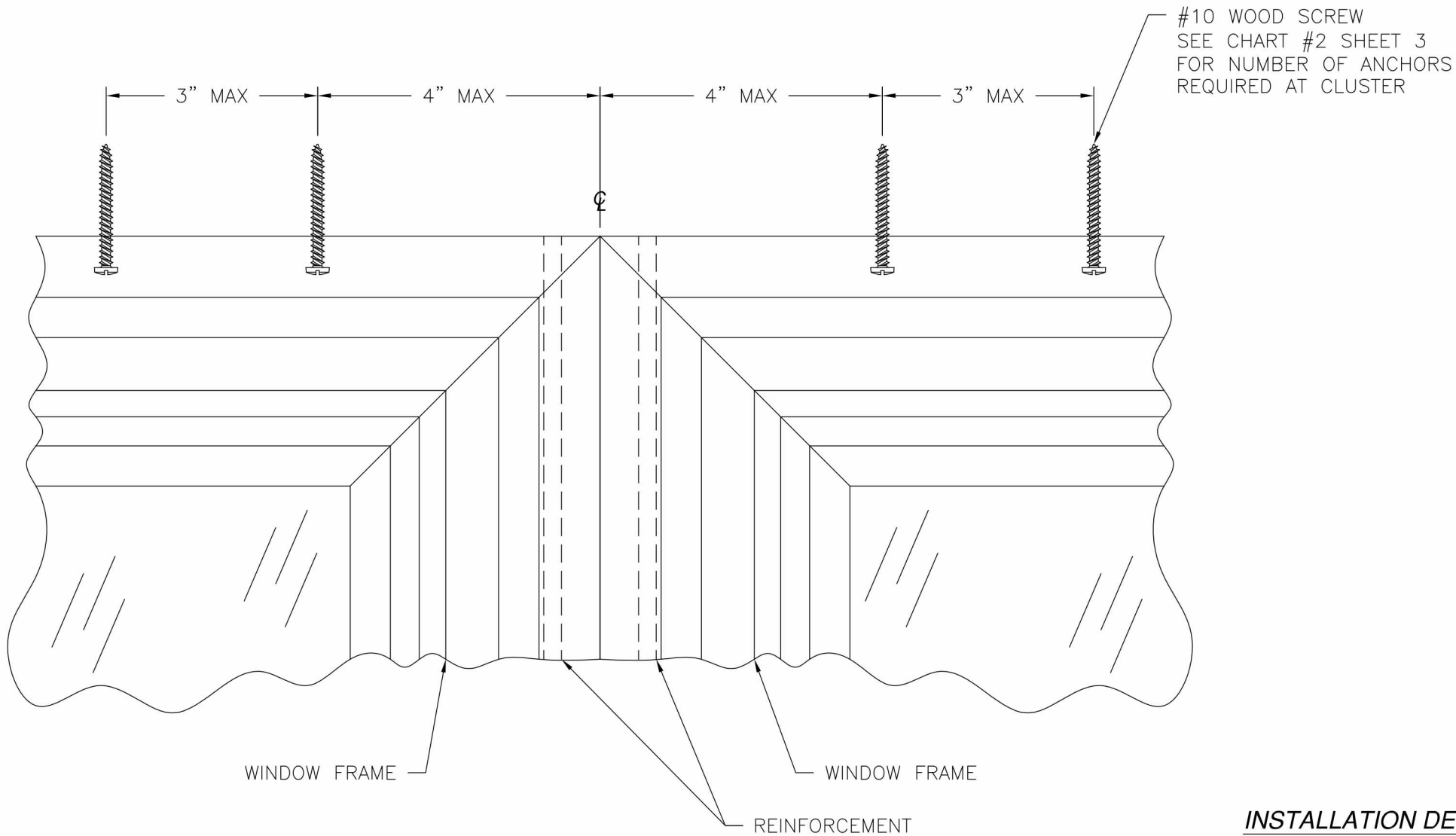
$$\text{TRIBUTARY WIDTH} = \frac{W1 + W2}{2}$$

SIGNED: 10/04/2016

WINDOW MART 5760 ALBERT PIKE ROYAL, AR 71968		
VERTICAL MULLION – IMPACT (2) 1/4" X 3/4" ALUMINUM REINFORCEMENTS CONFIGURATIONS AND CHART		
DRAWN: V.L.	DWG NO. 08-02223	REV A
SCALE NTS	DATE 09/23/13	SHEET 2 OF 6
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

Luis R. Lomas P.E.
FL No.: 62514

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED PER NEW REQUIREMENTS	10/04/16	R.L.



INSTALLATION DETAIL
WOOD FRAMING OR 2X BUCK

CHART #2

Number of anchors required at cluster								
Mullion span (in)	Tributary width (in)							
	30.00	36.00	42.00	48.00	54.00	60.00	66.00	72.00
24.00	2	2	2	2	2	2	2	2
30.00	2	2	2	2	2	2	2	2
36.00	2	4	4	4	4	4	4	4
42.00	4	4	4	4	4	4	4	4
48.00	4	4	4	4	4	4	4	4
54.00	4	6	6	6	6	6	6	6
60.00	4	4	4	4	4	4	4	4
66.00	4	4	4	4	4	4	4	4
72.00	4	4	4	4	4	4	4	4

WINDOW MART

5760 ALBERT PIKE
ROYAL, AR 71968

VERTICAL MULLION – IMPACT

(2) 1/4" X 3/4" ALUMINUM REINFORCEMENTS

INSTALLATION DETAILS

DRAWN: V.L.

DWG NO. 08-02223

REV A

SCALE NTS

DATE 09/23/13

SHEET 3 OF 6

L. ROBERTO LOMAS P.E.

1432 WOODFORD RD LEWISVILLE, NC 27023

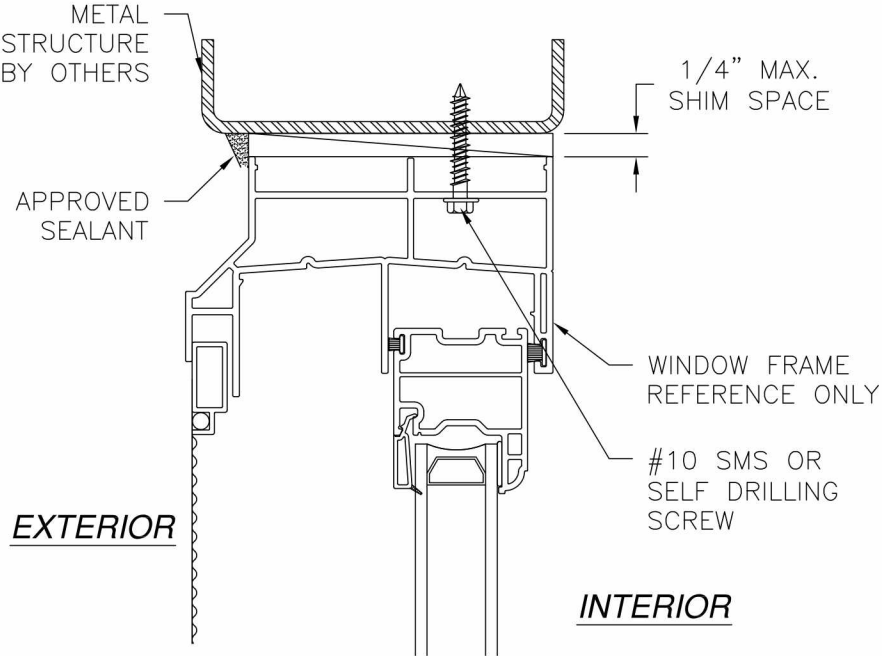
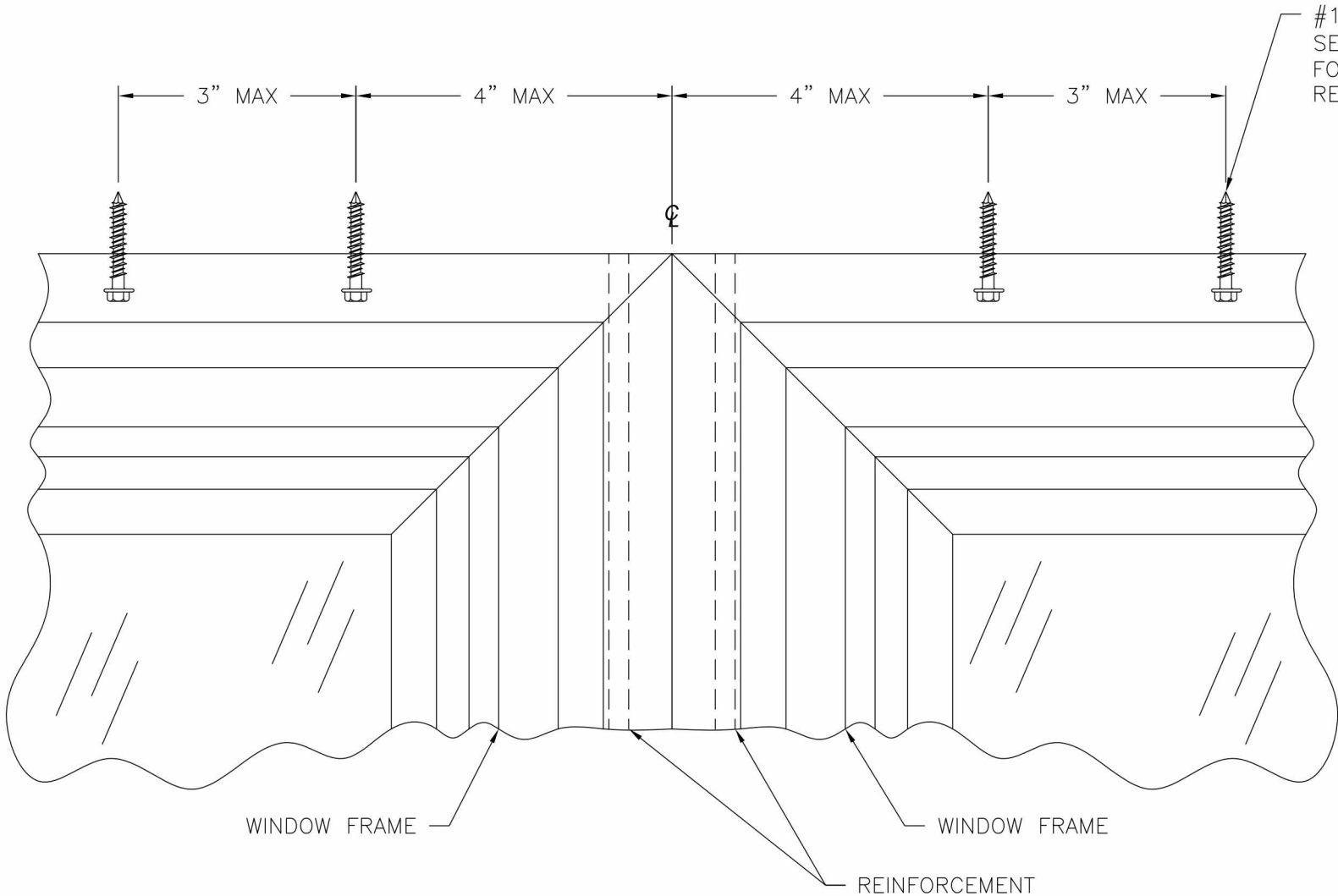
434-688-0609 rllomas@lrlomaspe.com

SIGNED: 10/04/2016



Luis R. Lomas P.E.
FL No.: 62514

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED PER NEW REQUIREMENTS	10/04/16	R.L.



INSTALLATION DETAIL
METAL STRUCTURE

SIGNED: 10/04/2016

WINDOW MART

5760 ALBERT PIKE

ROYAL, AR 71968

VERTICAL MULLION – IMPACT

(2) 1/4" X 3/4" ALUMINUM REINFORCEMENTS

INSTALLATION DETAILS

DRAWN: V.L.

DWG NO. 08-02223

REV A

SCALE NTS

DATE 09/23/13

SHEET 4 OF 6

L. ROBERTO LOMAS P.E.

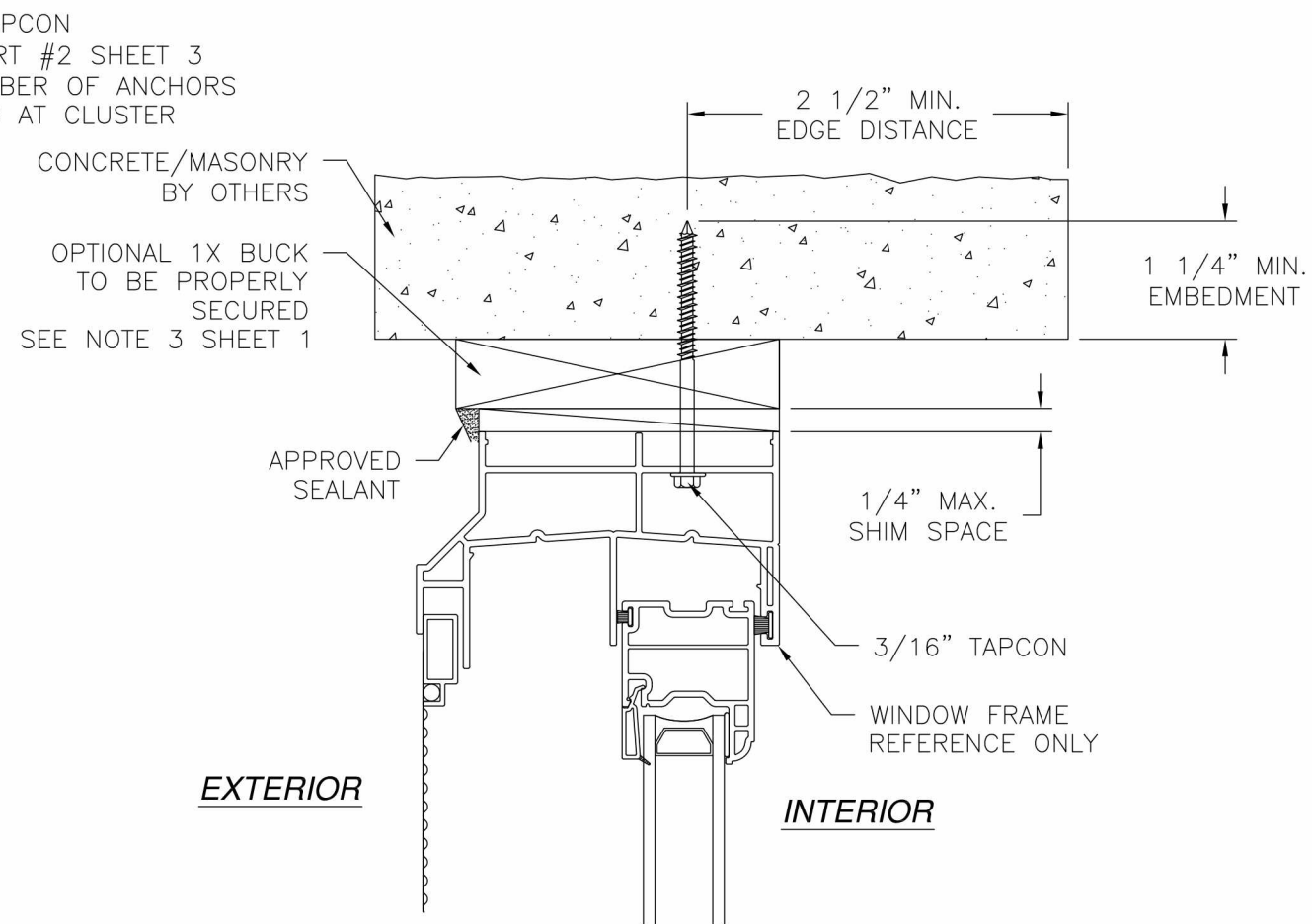
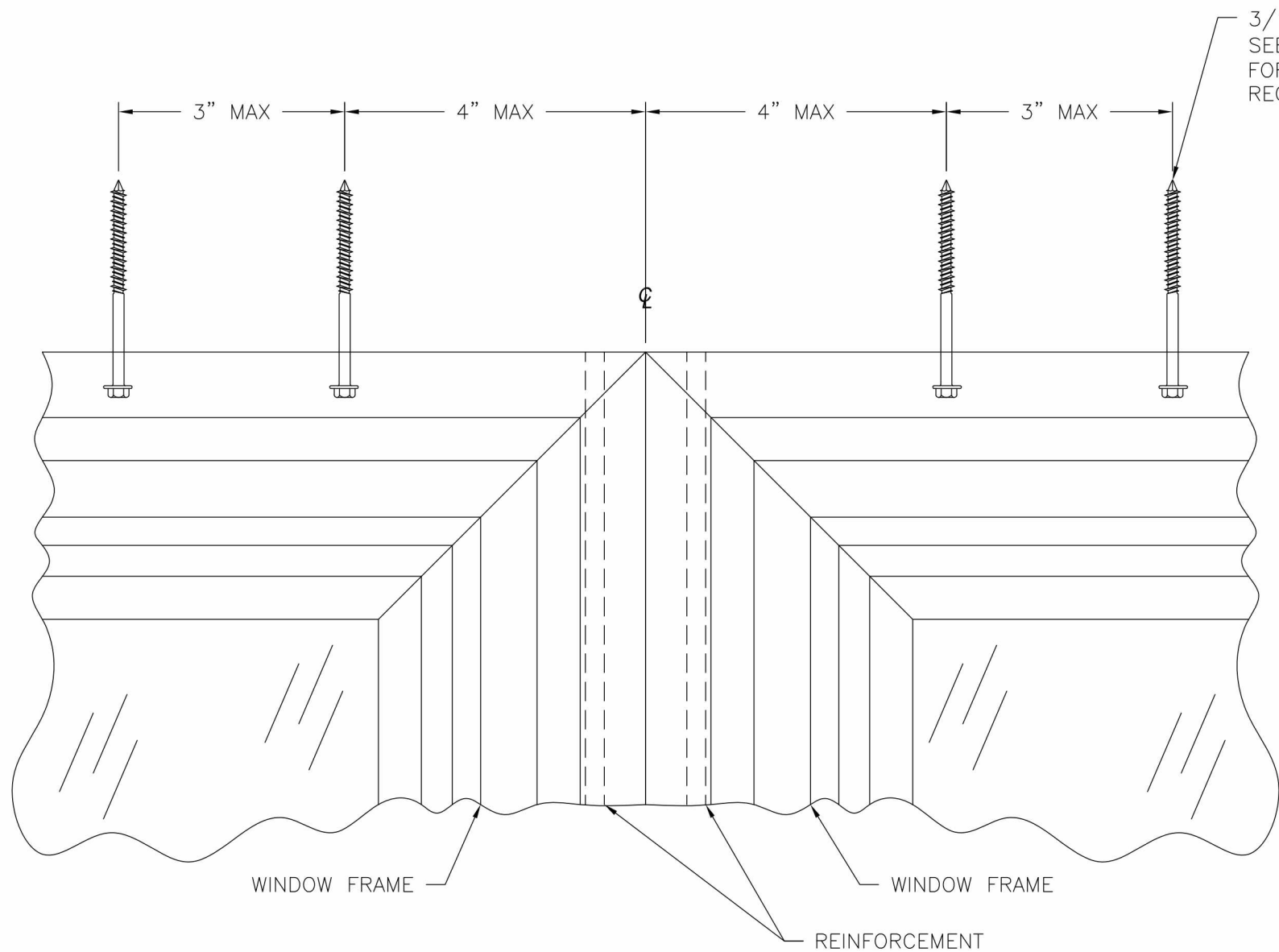
1432 WOODFORD RD LEWISVILLE, NC 27023

434-688-0609 rllomas@lrlomaspe.com



Luis R. Lomas P.E.
FL No.: 62514

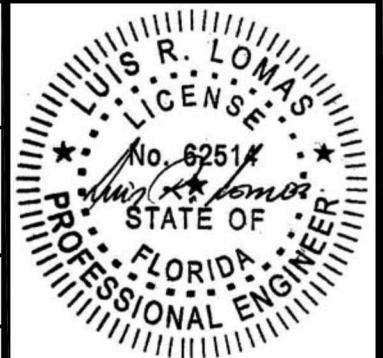
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED PER NEW REQUIREMENTS	10/04/16	R.L.



INSTALLATION DETAIL
CONCRETE/MASONRY

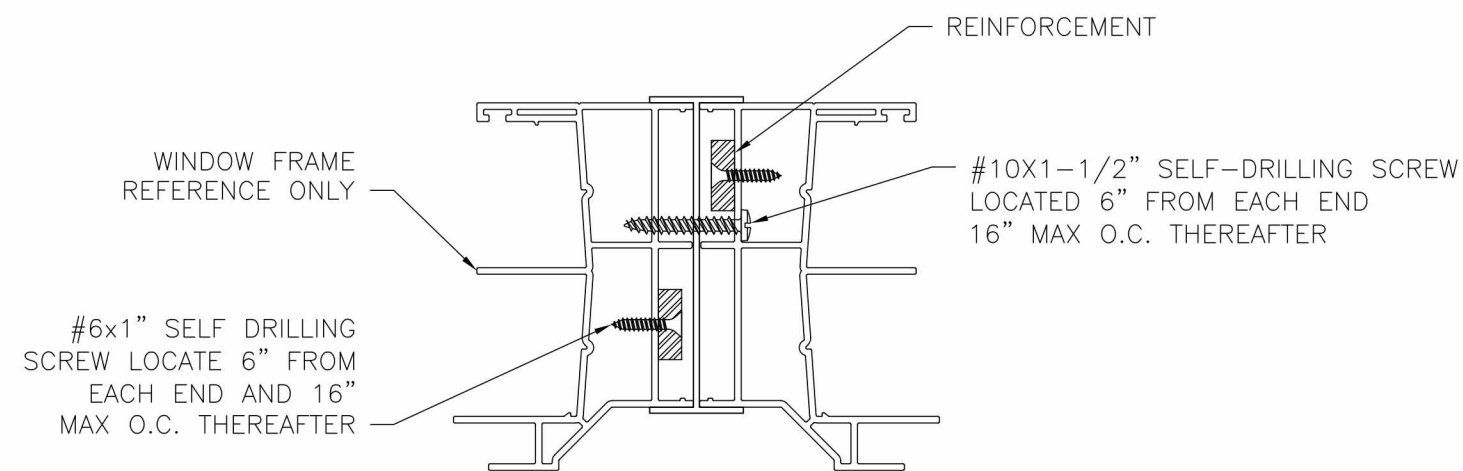
SIGNED: 10/04/2016

WINDOW MART 5760 ALBERT PIKE ROYAL, AR 71968		
VERTICAL MULLION – IMPACT (2) 1/4" X 3/4" ALUMINUM REINFORCEMENTS INSTALLATION DETAILS		
DRAWN: V.L.	DWG NO. 08-02223	REV A
SCALE NTS	DATE 09/23/13	SHEET 5 OF 6
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

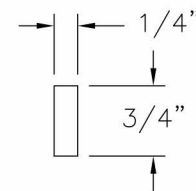


Luis R. Lomas P.E.
FL No.: 62514

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED PER NEW REQUIREMENTS	10/04/16	R.L.



WINDOW FRAME TO
REINFORCEMENT INSTALLATION



REINFORCEMENT
ALUMINUM 6105-T5

SIGNED: 10/04/2016

WINDOW MART 5760 ALBERT PIKE ROYAL, AR 71968		
VERTICAL MULLION – IMPACT (2) 1/4" X 3/4" ALUMINUM REINFORCEMENTS INSTALLATION DETAILS		
DRAWN: V.L.	DWG NO. 08-02223	REV A
SCALE NTS	DATE 09/23/13	SHEET 6 OF 6
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

Luis R. Lomas P.E.
FL No.: 62514