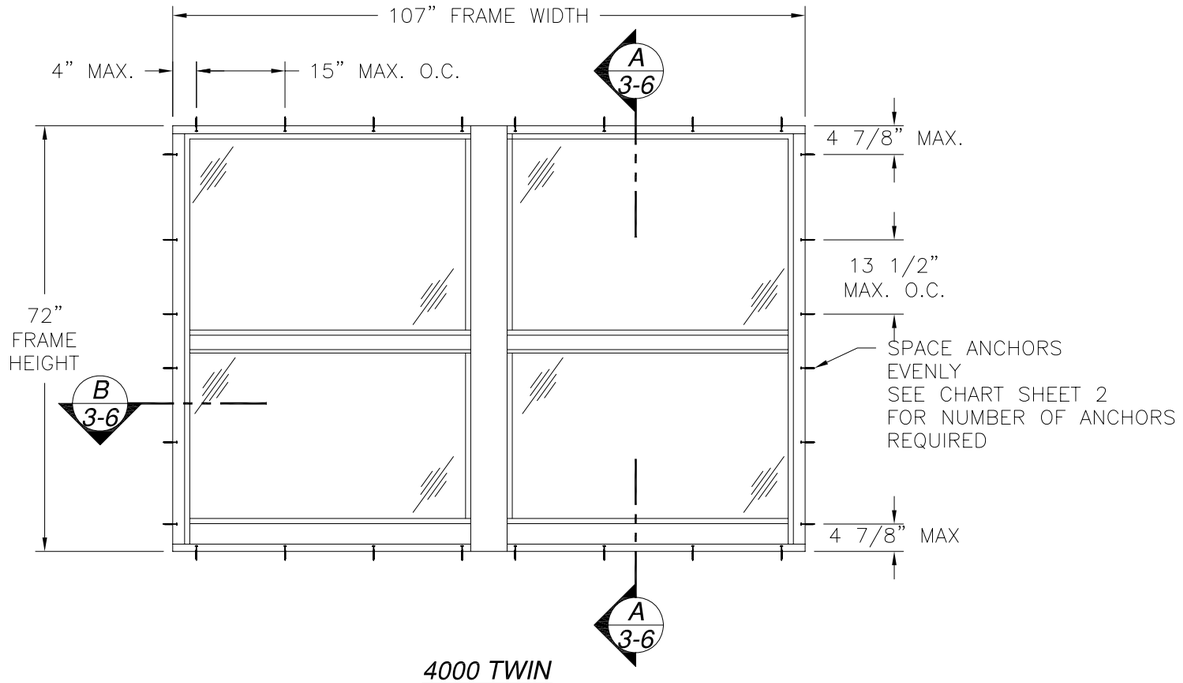

4000 TWIN
ALUMINUM SINGLE HUNG WINDOW
EXTERIOR VIEW

DESIGN PRESSURE RATING	IMPACT RATING
±120.0PSF	LARGE MISSILE IMPACT

MISSILE LEVEL D, WIND ZONE 4 (WITH GLASS A AND B)

DESIGN PRESSURE RATING	IMPACT RATING
±80.0PSF	LARGE MISSILE IMPACT

MISSILE LEVEL D, WIND ZONE 4 (WITH GLASS E)

DESIGN PRESSURE RATING	IMPACT RATING
±120.0PSF	SMALL MISSILE IMPACT

MISSILE LEVEL A, WIND ZONE 4 (WITH GLASS C AND D)

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

NOTES:

1) THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE 2006 IRC, 2006 IBC WITH STATE OF TEXAS MODIFICATIONS..
2) WOOD FRAMING AND MASONRY OPENING TO BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. FRAMING AND MASONRY OPENING 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) FRAME MATERIAL: ALUMINUM 6063–T6.
6) UNITS MUST BE GLAZED PER ASTM E1300–04 SEE SHEET 2 FOR GLAZING OPTIONS.
7) APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.
8) SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM. SHIM WHERE SPACE OF 1/16" OR GREATER OCCURS. MAXIMUM ALLOWABLE SHIM STACK TO BE 1/4".
9) FOR ANCHORING INTO MASONRY/CONCRETE USE 1/4" CONCRETE ANCHOR WITH SUFFICIENT LENGTH TO ACHIEVE A 1 1/4" MINIMUM EMBEDMENT INTO SUBSTRATE WITH 2 1/2'' MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
10) FOR ANCHORING INTO WOOD FRAMING OR 2X BUCK USE #14 WOOD SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/4" MINIMUM EMBEDMENT INTO SUBSTRATE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
11) FOR ANCHORING INTO METAL STRUCTURE USE #14 SMS OR SELF DRILLING SCREWS SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE 3 THREADS MINIMUM BEYOND STRUCTURE INTERIOR WALL. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
12) ALL FASTENERS TO BE CORROSION RESISTANT.
13) 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 3,192 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 1/8" THICK MINIMUM

SIGNED: 01/09/2012

TABLE OF CONTENTS	
SHEET NO.	DESCRIPTION
1 – 2	ELEVATION, ANCHORING AND NOTES
3 – 6	INSTALLATION DETAILS

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LARGE AND SMALL MISSILE IMPACT
EQUAL LEG AND FLANGE ELEVATION AND NOTES

DRAWN:	DWG NO.	REV
V.L.	08–01435	–

SCALE	DATE	SHEET
NTS	01/04/12	1 OF 6

STATE OF TEXAS
LUIS R. LOMAS
101889
LICENSED
PROFESSIONAL ENGINEER

Luis R. Lomas P.E.
TX No.: 101889

REVISIONS			
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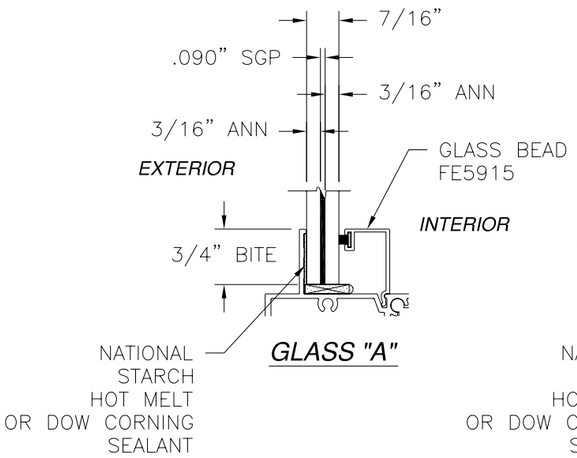
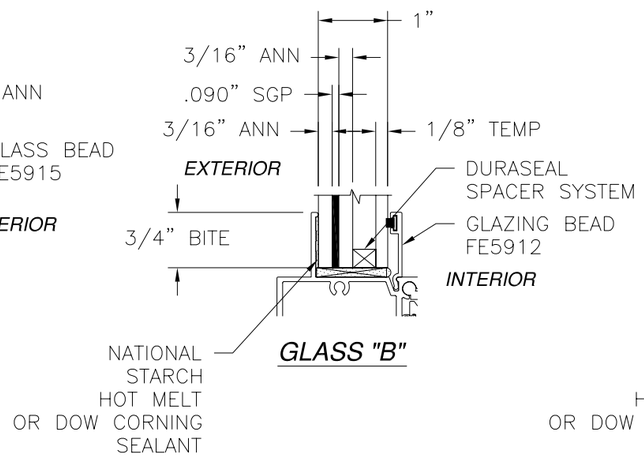


GLASS "A"



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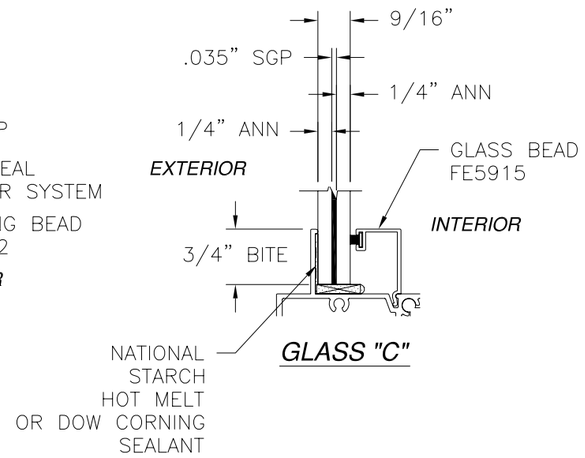

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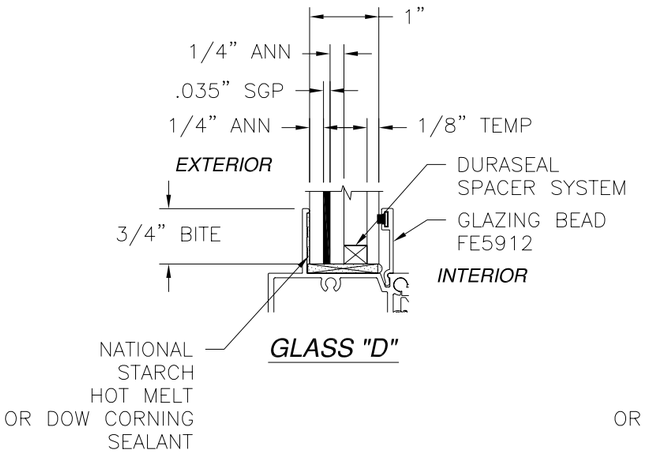

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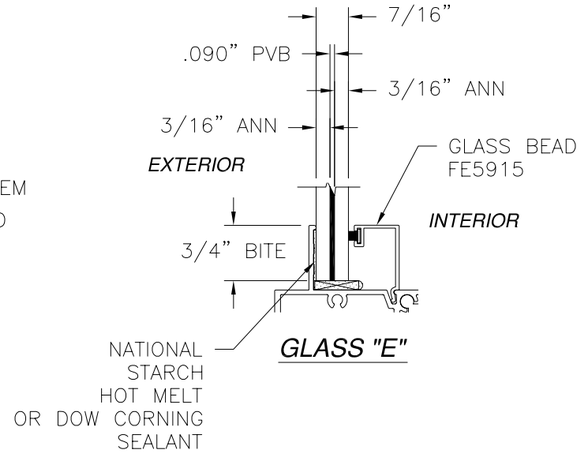

GLASS "E"

NUMBER OF ANCHOR LOCATIONS REQUIRED														
Frame Height (in)	Frame Width (in)													
	36.00		48.00		60.00		72.00		84.00		96.00		107.00	
	H & S	Jamb	H & S	Jamb	H & S	Jamb	H & S	Jamb	H & S	Jamb	H & S	Jamb	H & S	Jamb
24.00	3	3	4	3	5	3	6	3	7	3	7	3	8	3
30.00	3	3	4	3	5	3	6	3	7	3	7	3	8	3
36.00	3	3	4	3	5	3	6	3	7	3	7	3	8	3
42.00	3	4	4	4	5	4	6	4	7	4	7	4	8	4
48.00	3	4	4	4	5	4	6	4	7	4	7	4	8	4
54.00	3	5	4	5	5	5	6	5	7	5	8	5	9	5
60.00	3	5	4	5	5	5	6	5	7	5	8	5	10	5
66.00	3	6	4	6	5	6	6	6	8	6	9	6	10	6
72.00	3	6	4	6	6	6	7	6	8	6	10	6	11	6

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V.L.	08-01435	-
SCALE NTS	DATE 01/04/12	SHEET 2 OF 6

STATE OF TEXAS
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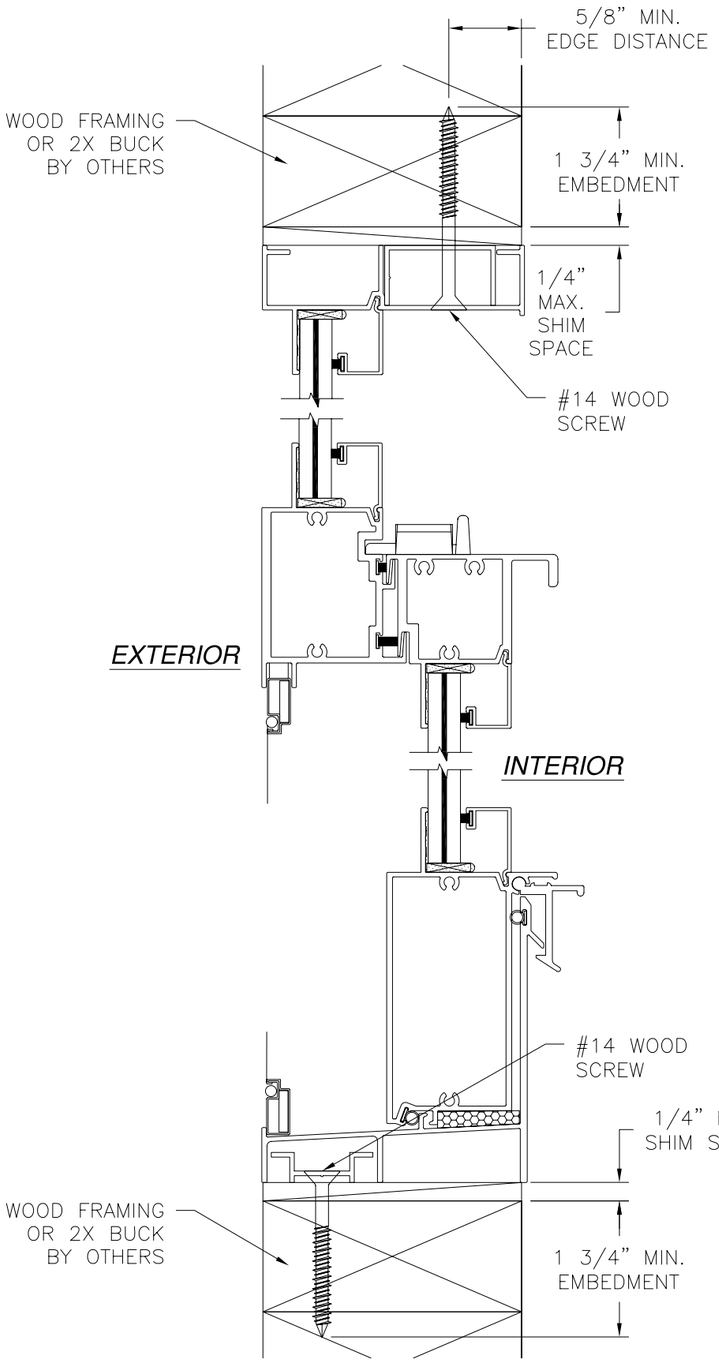
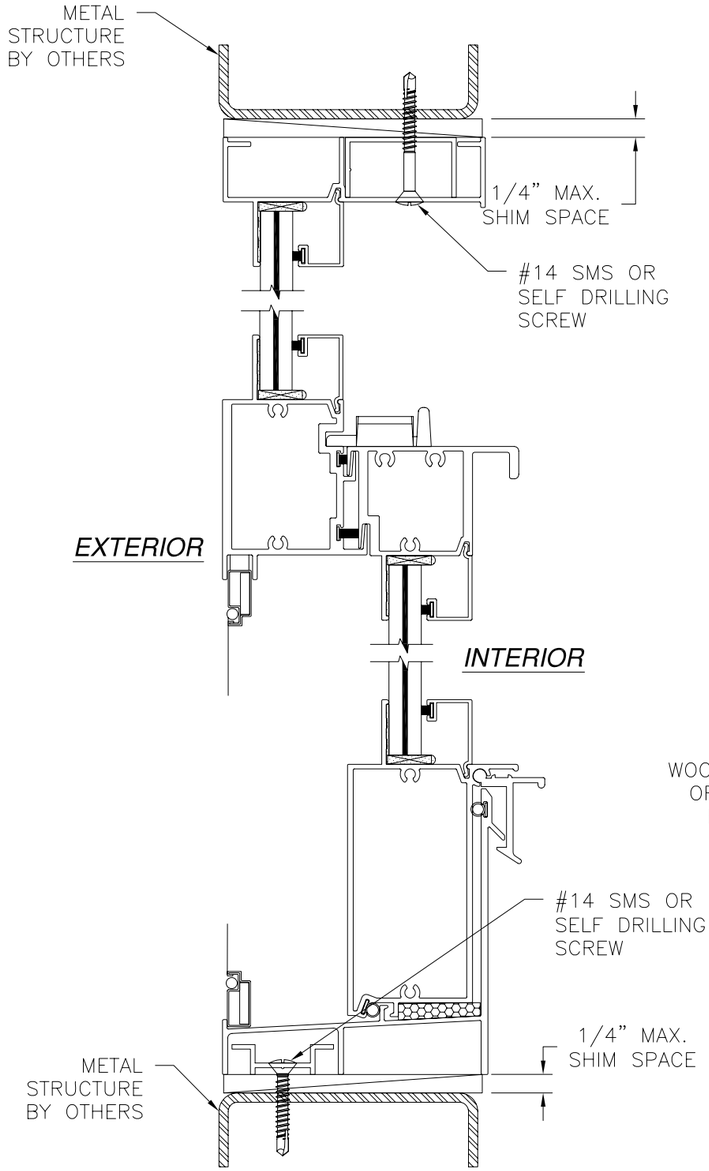
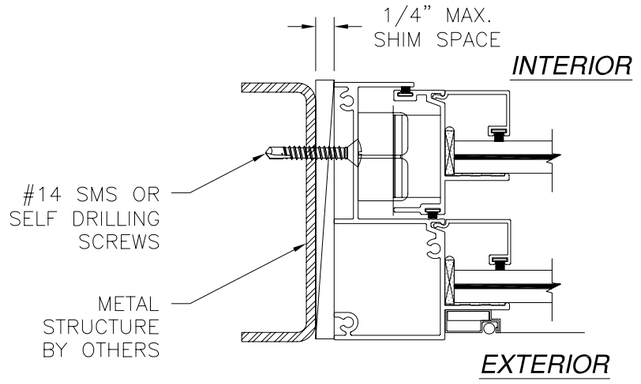


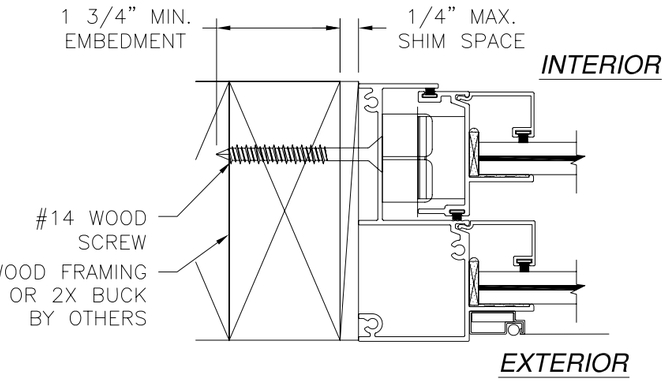
A/3 *VERTICAL CROSS SECTION*
WOOD FRAMING OR 2X BUCK INSTALLATION



A/3 *VERTICAL CROSS SECTION*
METAL STRUCTURE INSTALLATION



B/3 *JAMB INSTALLATION DETAIL*
METAL STRUCTURE INSTALLATION



B/3 *JAMB INSTALLATION DETAIL*
WOOD FRAMING OR 2X BUCK INSTALLATION

NOTE: - SEALANT AND BACKER ROD MATERIAL AND JOINT DESIGN BY OTHERS.
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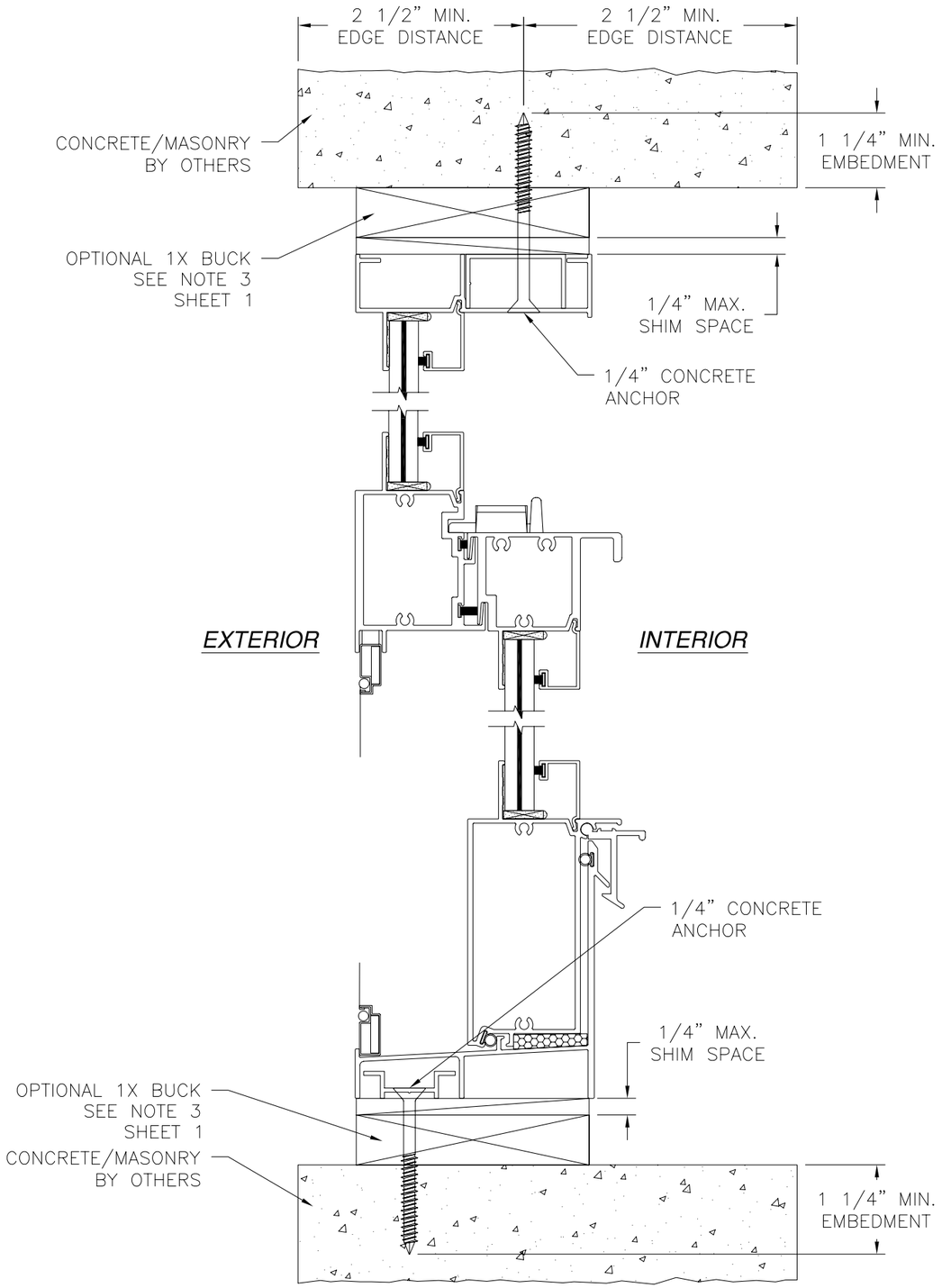

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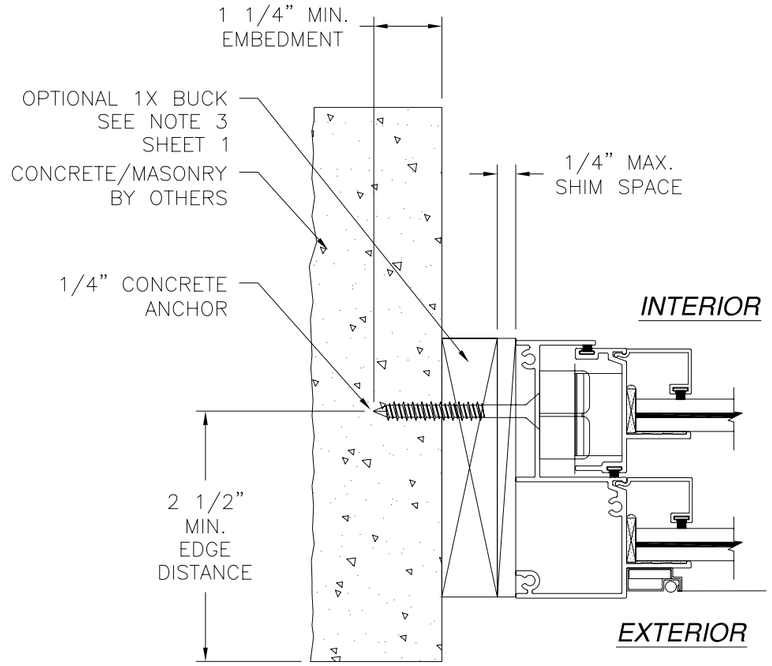
CONCRETE/MASONRY INSTALLATION



B/4 *JAMB INSTALLATION DETAIL*
CONCRETE/MASONRY INSTALLATION

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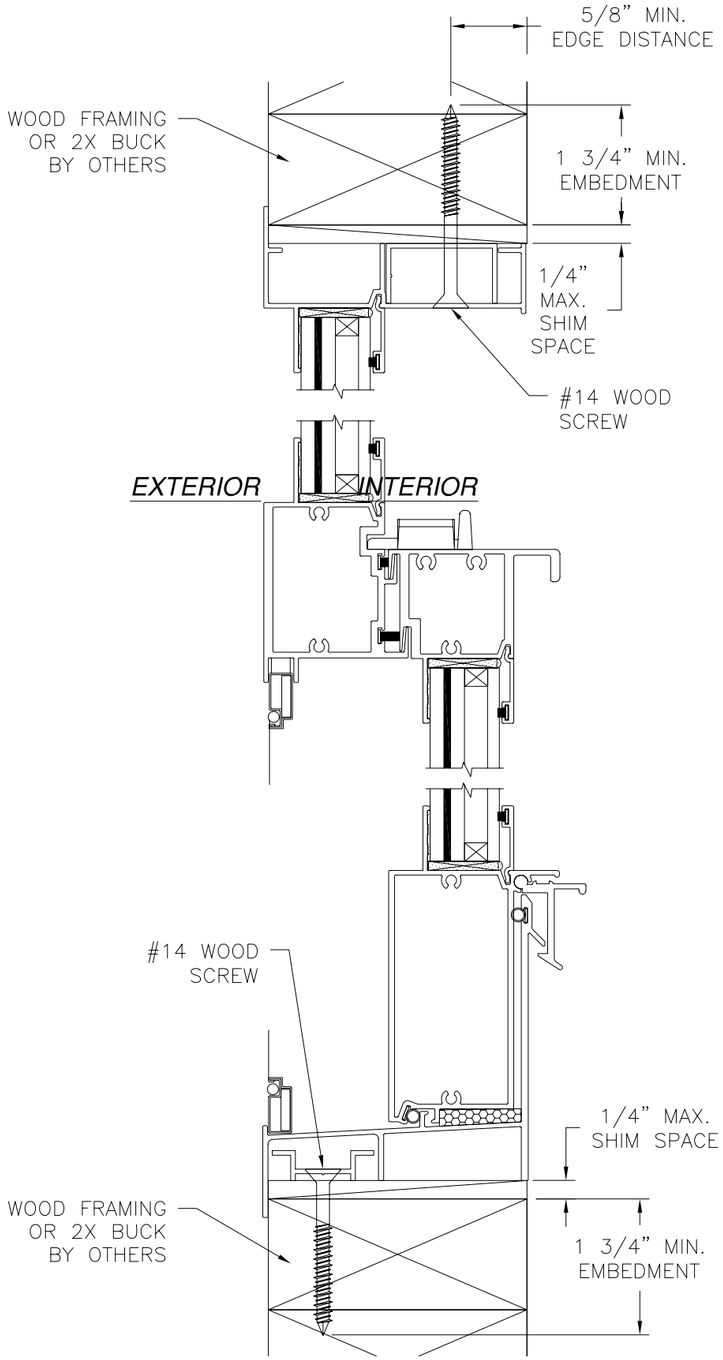
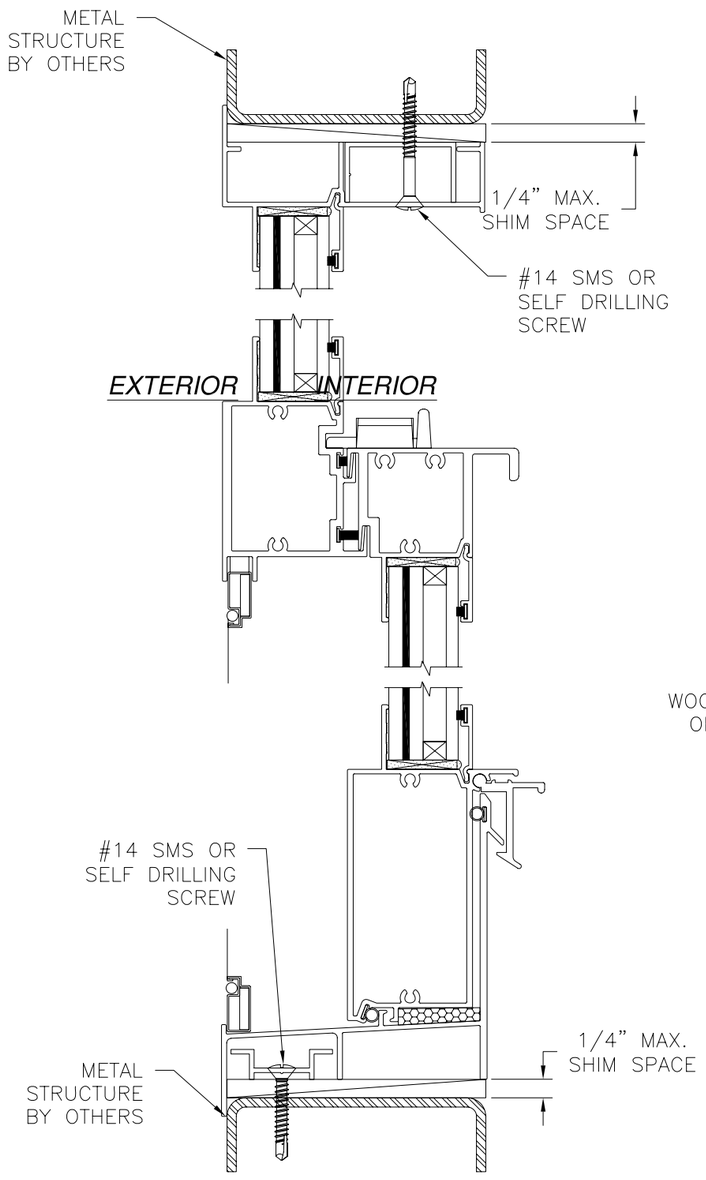
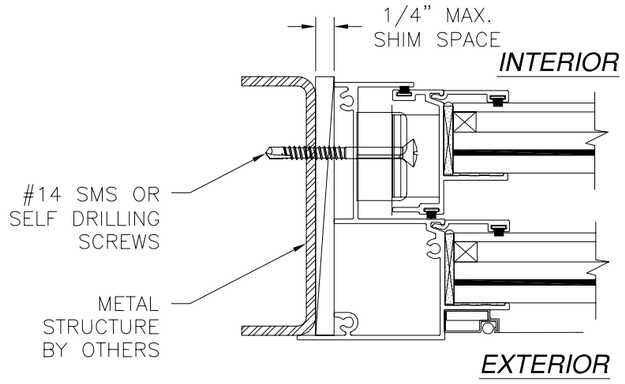


A/5 *VERTICAL CROSS SECTION*
WOOD FRAMING OR 2X BUCK INSTALLATION



A/5 *VERTICAL CROSS SECTION*
METAL STRUCTURE INSTALLATION



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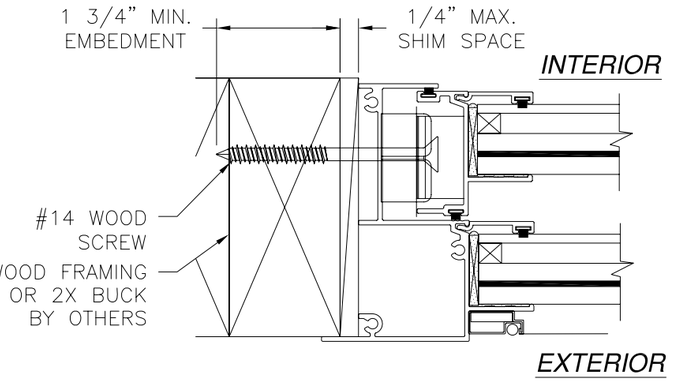
METAL STRUCTURE INSTALLATION



B/5 *JAMB INSTALLATION DETAIL*
WOOD FRAMING OR 2X BUCK INSTALLATION

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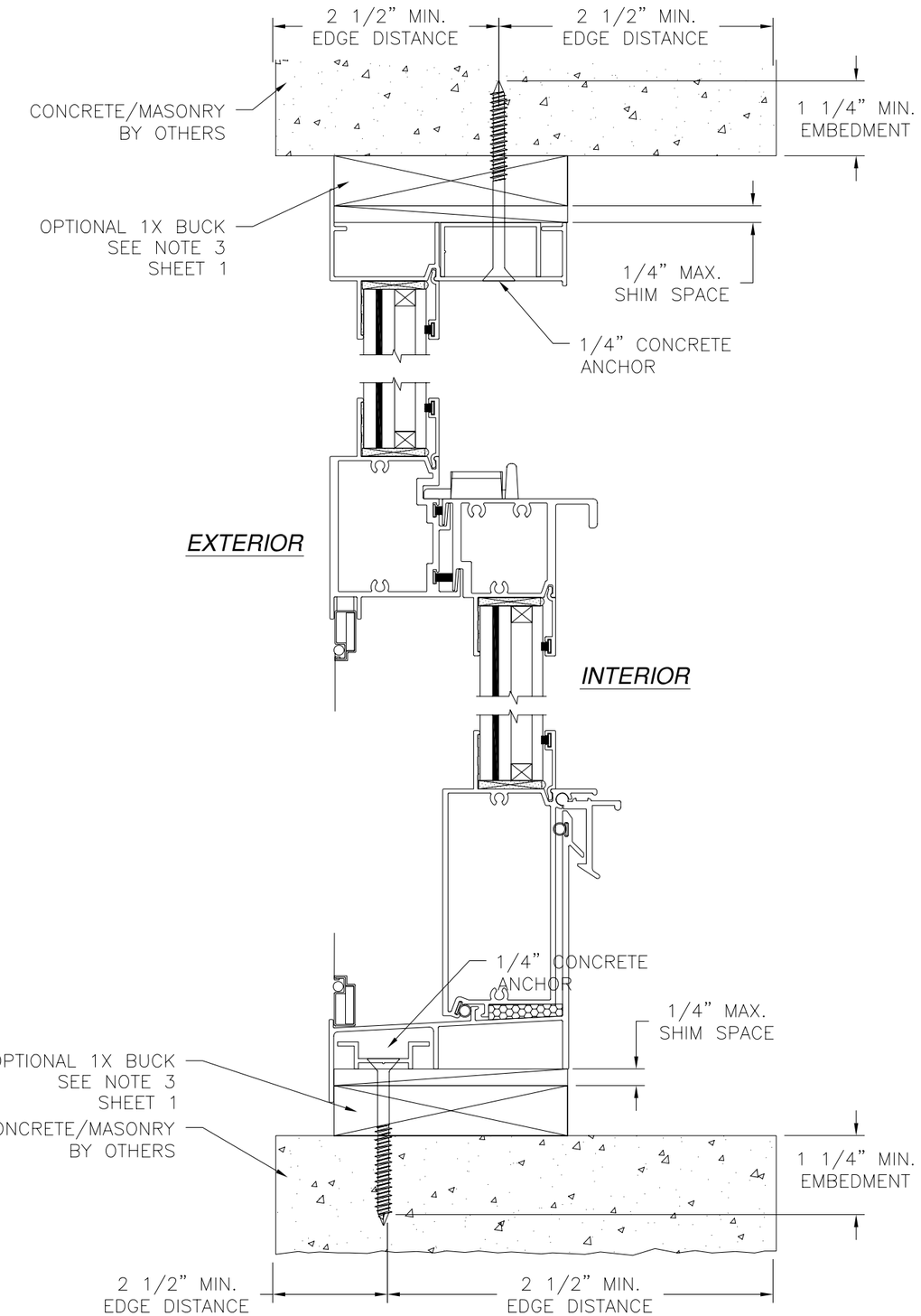

A/6 *VERTICAL CROSS SECTION*
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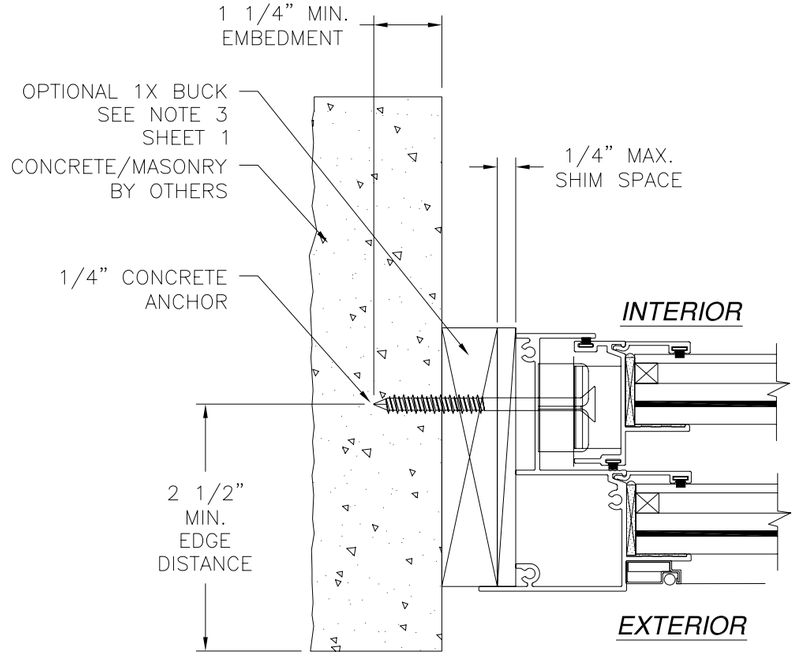

B/6 *JAMB INSTALLATION DETAIL*
CONCRETE/MASONRY INSTALLATION

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