

NOTES:

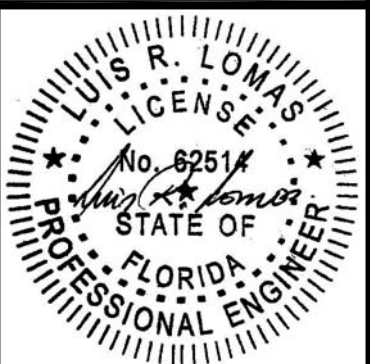
1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE FLORIDA BUILDING CODE.
2. WOOD FRAMING AND MASONRY OPENING TO BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. FRAMING AND MASONRY OPENING IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER 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: EXTRUDED ALUMINUM 6063-T5.
6. UNITS MUST BE GLAZED PER ASTM E1300-04/09 WITH SAFETY GLASS.
7. APPROVED IMPACT PROTECTIVE SYSTEM IS 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. DOOR ASSEMBLIES INSTALLED WHERE OVERHANG RATIO IS EQUAL OR GREATER THAN 1.0 DO NOT REQUIRE WATER INFILTRATION RESISTANCE.
OVERHANG RATIO = OVERHANG LENGTH/OVERHANG HEIGHT
10. FOR ANCHORING INTO WOOD FRAMING OR 2X BUCK USE #10 WOOD SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/8" MINIMUM EMBEDMENT INTO SUBSTRATE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
11. FOR ANCHORING INTO MASONRY/CONCRETE USE 3/16" TAPCONS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 1/4" MINIMUM EMBEDMENT INTO SUBSTRATE WITH 1" MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
12. 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.
13. ALL FASTENERS TO BE CORROSION RESISTANT.
14. 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 .048" THICK MINIMUM
15. APPROVED CONFIGURATIONS: OXO

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	ADDED CHARTS	03/05/12	R.L.
B	REVISED NAME	10/15/13	R.L.
C	ADDED FLANGE AND FIN INSTALLATIONS	12/06/13	R.L.
D	REVISED INSTALLATION DETAILS	08/03/15	R.L.
E	REVISED INSTALLATION DETAILS	06/22/17	R.L.

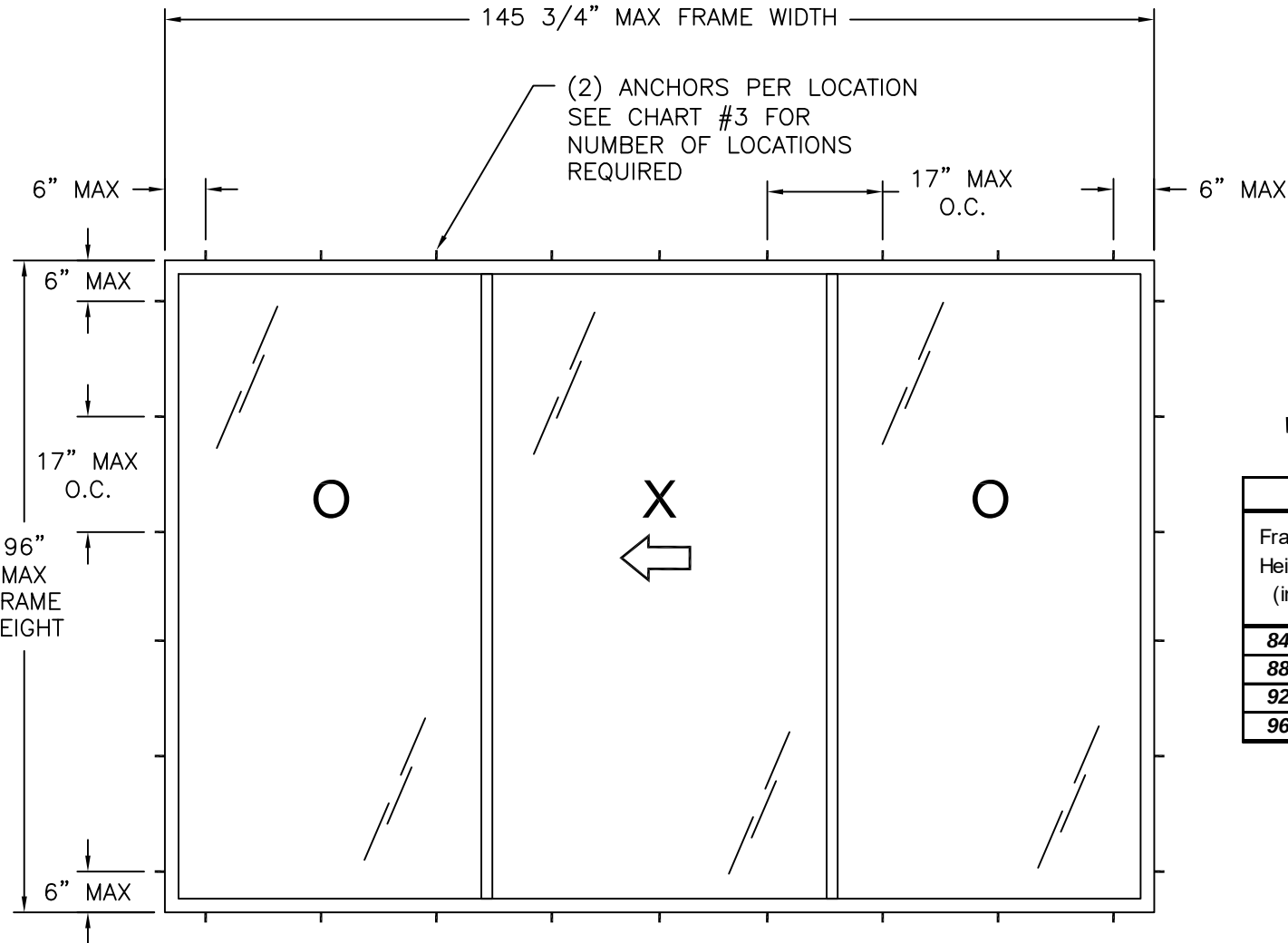
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1	NOTES
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MI WINDOWS AND DOORS LLC 650 WEST MARKET STREET GRATZ, PA 17030		
SERIES 420 SGD 145 3/4" X 96" REINFORCED NOTES		
DRAWN: F.A.	DWG NO. 08-00501	REV E
SCALE NTS	DATE 02/23/09	SHEET 1 OF 10
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

SIGNED: 06/22/2017



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



SERIES 420 SGD
EXTERIOR VIEW

DESIGN PRESSURE RATING	IMPACT RATING
±40.0PSF	NONE

SEE CHARTS #1 AND #2 FOR OTHER UNITS RATINGS

- NOTES:
1. MAXIMUM PANEL SIZE: 48 1/2" x 95"
 2. MAXIMUM D.L.O.: 44 5/8" x 90 5/8"

HARDWARE SCHEDULE	
A.	(1) FLAT MOUNTED HANDLE SET (99-04-145) AT 38 3/4" FROM PANEL BOTTOM
B.	(1) METALLIC TANDEM ROLLERS (99-17-195) AT EACH END OF PANEL BOTTOM RAILS
C.	(3) EXTRUDED ALUMINUM RETAINER (4221) AT FIXED PANEL JAMB 7 1/4" FROM EACH END AND MIDSPAN
D.	(1) EXTRUDED ALUMINUM ADAPTOR (4216) AT EXTERIOR SIDE OF ASTRAGAL
E.	ALUMINUM 6063-T6 REINFORCEMENT (668) AT ALL PANEL INTERLOCKS
F.	ALUMINUM 6063-T5 (4237) INTERLOCK ADAPTOR AT EXTERIOR FACE OF OPERABLE PANEL INTERLOCK
G.	STEEL C-CHANNEL REINFORCEMENT (9917520) INSERTED IN ASTRAGAL ADAPTOR

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E	REVISED INSTALLATION DETAILS	06/22/17	R.L.

CHART #1
WHERE WATER INFILTRATION RESISTANCE IS REQUIRED.
SEE NOTE 9 SHEET 1

Design pressure chart (psf)								
Frame Height (in)	Single Panel and Total Frame Width (in)							
	30.0		36.0		42.0		48.6	
	90.00		108.00		126.00		145.75	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
84.0	40.0	60.0	40.0	58.7	40.0	52.7	40.0	48.0
88.0	40.0	60.0	40.0	55.3	40.0	49.5	40.0	45.0
92.0	40.0	60.0	40.0	52.3	40.0	46.7	40.0	42.4
96.0	40.0	57.3	40.0	49.6	40.0	44.2	40.0	40.0

CHART #2
WHERE WATER INFILTRATION RESISTANCE IS NOT REQUIRED.
SEE NOTE 9 SHEET 1

Design pressure chart (psf)								
Frame Height (in)	Single Panel and Total Frame Width (in)							
	30.0		36.0		42.0		48.6	
	90.00		108.00		126.00		145.75	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
84.0	60.0	60.0	58.7	58.7	52.7	52.7	48.0	48.0
88.0	60.0	60.0	55.3	55.3	49.5	49.5	45.0	45.0
92.0	60.0	60.0	52.3	52.3	46.7	46.7	42.4	42.4
96.0	57.3	57.3	49.6	49.6	44.2	44.2	40.0	40.0

CHART #3

Number of anchor locations required								
Frame Height (in)	Single Panel and Total Frame Width (in)							
	30.0		36.0		42.0		48.6	
	90.0		108.0		126.0		145.8	
	H&S	Jamb	H&S	Jamb	H&S	Jamb	H&S	Jamb
84.0	6	6	8	6	8	6	9	6
88.0	7	6	7	6	8	6	9	6
92.0	7	6	7	6	8	6	9	6
96.0	7	6	7	6	8	6	9	6

SIGNED: 06/22/2017

MI WINDOWS AND DOORS LLC
650 WEST MARKET STREET
GRATZ, PA 17030

SERIES 420 SGD
145 3/4" X 96" REINFORCED
ELEVATION

DRAWN:
F.A.

DWG NO.
08-00501

REV
E

SCALE
NTS

DATE
02/23/09

SHEET
2 OF 10

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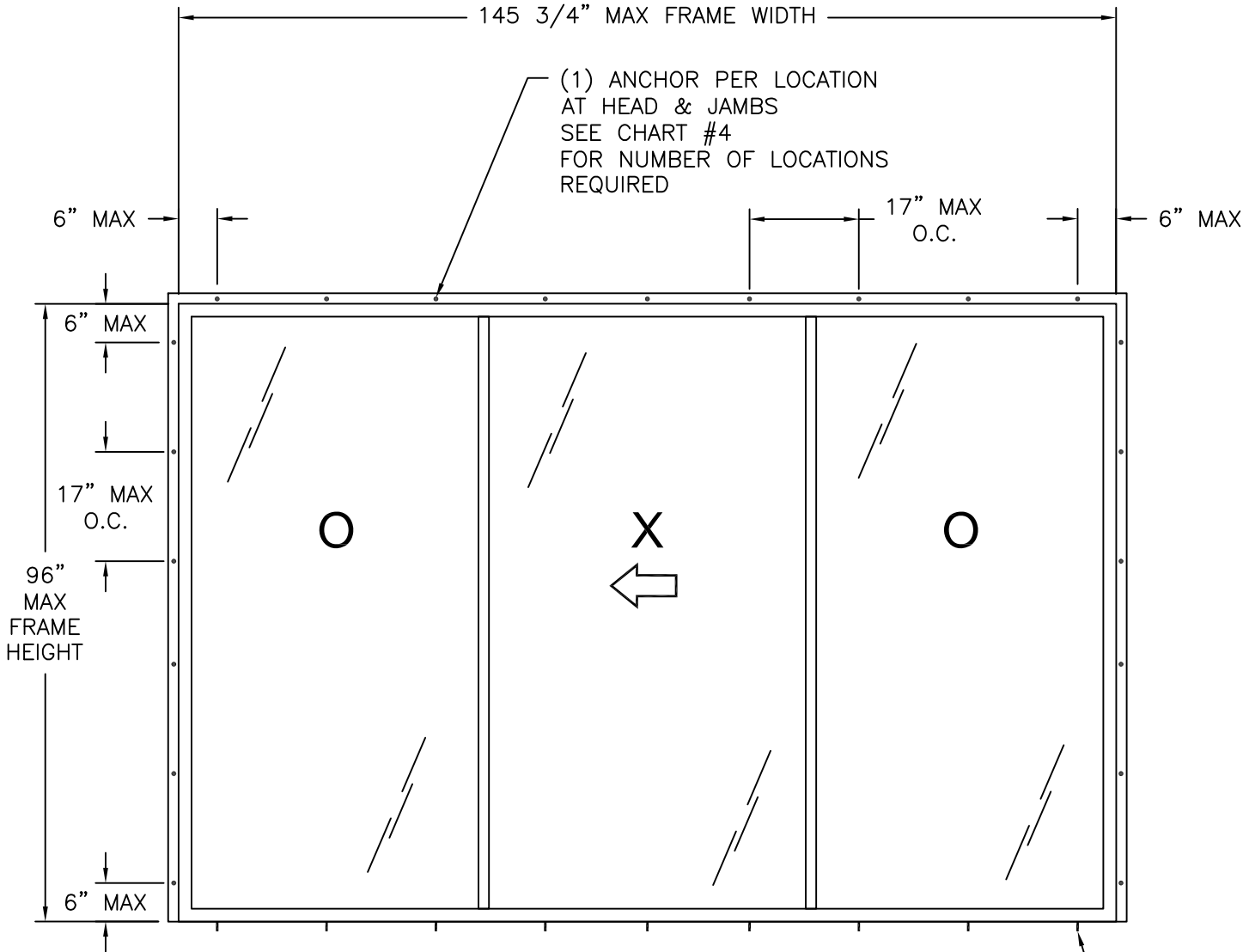
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NOTES:
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2. MAXIMUM D.L.O.: 44 5/8" x 90 5/8"

CHART #4

Number of anchor locations required								
Frame Height (in)	Single Panel and Total Unit Width (in)							
	30.0		36.0		42.0		48.6	
	90.0		108.0		126.0		145.8	
	H&S	Jamb	H&S	Jamb	H&S	Jamb	H&S	Jamb
84.0	7	6	9	6	9	6	10	6
88.0	8	6	9	6	9	6	10	6
92.0	8	6	8	6	9	6	9	6
96.0	8	6	8	6	9	6	9	6



SERIES 420 SGD
EXTERIOR VIEW

DESIGN PRESSURE RATING	IMPACT RATING
±40.0PSF	NONE

SEE CHARTS #1 AND #2 FOR OTHER UNITS RATINGS

(2) ANCHORS PER LOCATION
AT SILL
SEE CHART #4
FOR NUMBER OF LOCATIONS
REQUIRED

HARDWARE SCHEDULE	
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650 WEST MARKET STREET
GRATZ, PA 17030

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145 3/4" X 96" REINFORCED
ELEVATION

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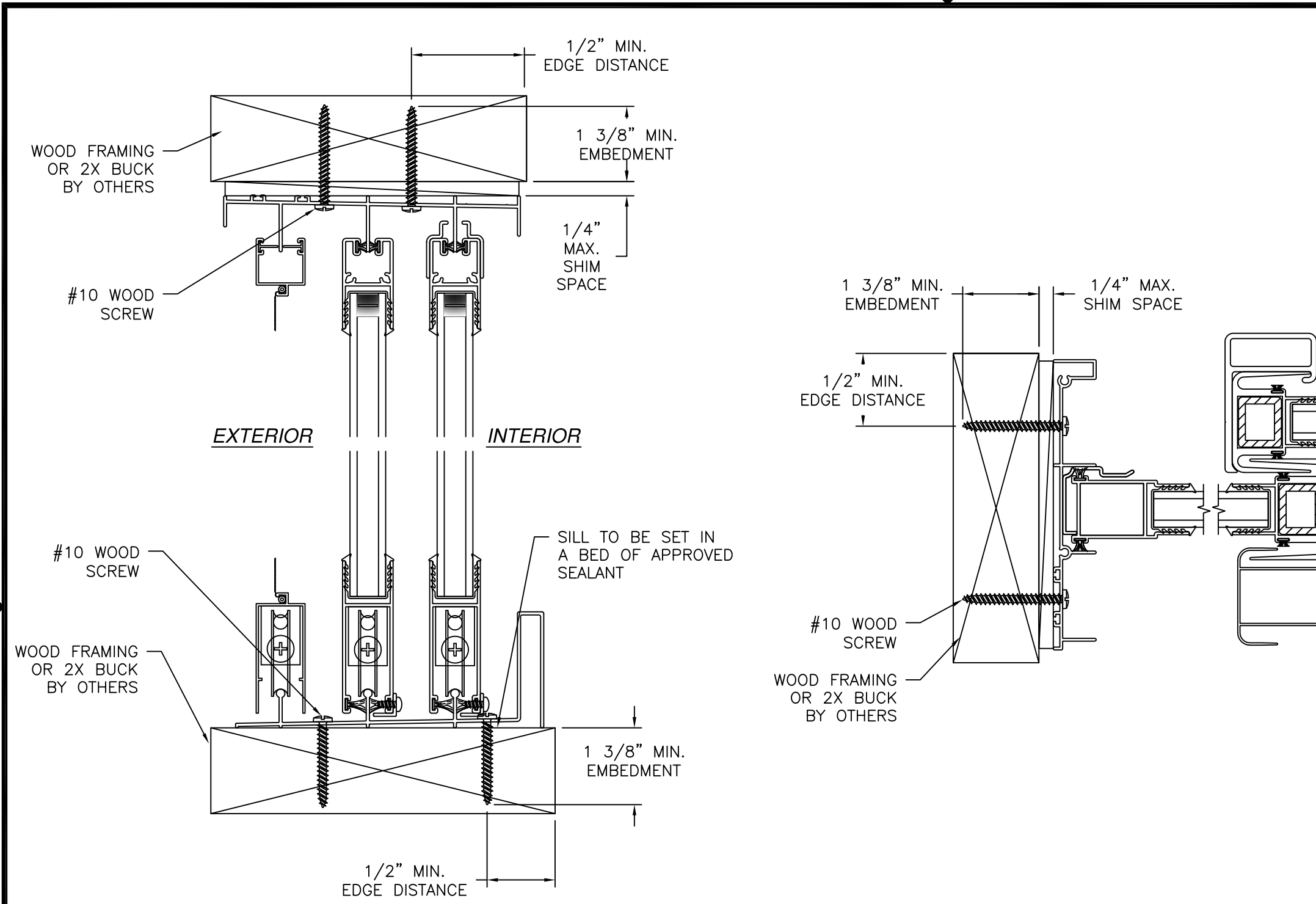
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DATE 02/23/09

SHEET 3 OF 10

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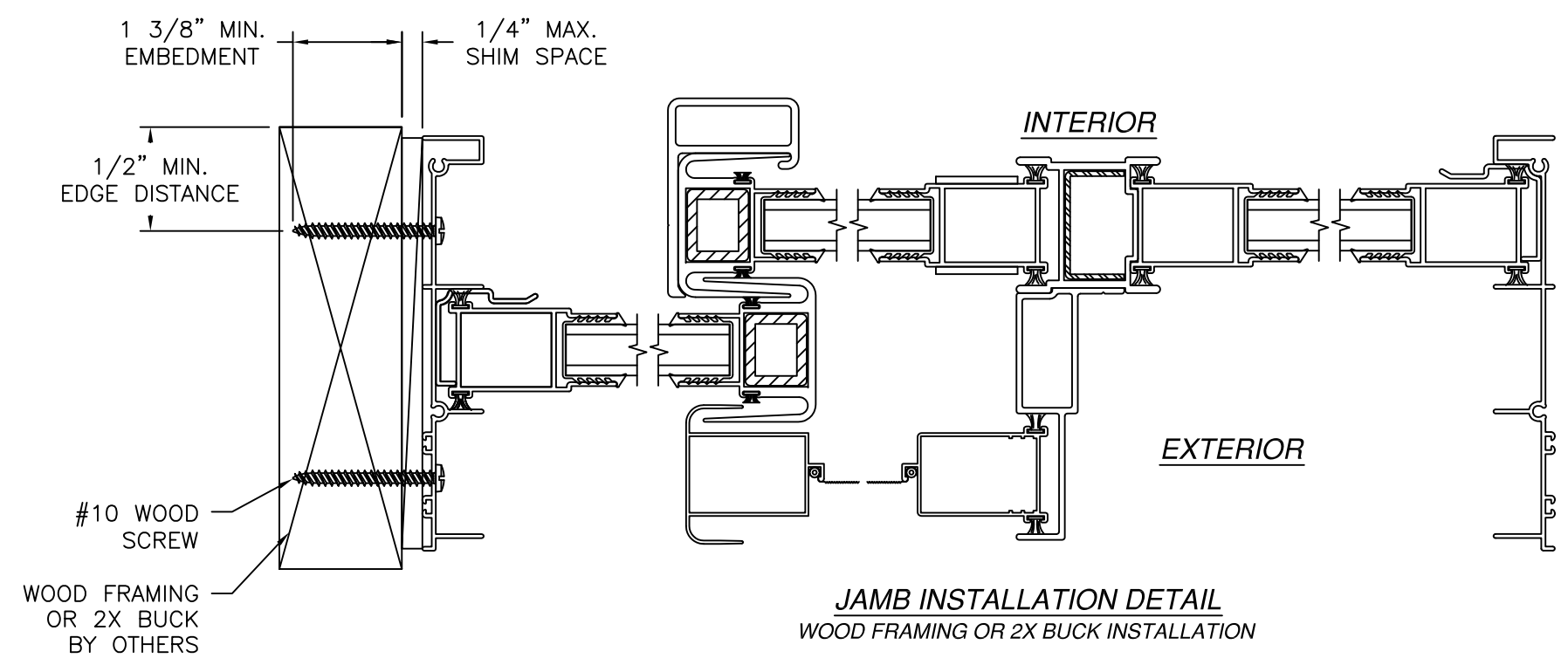
Luis R. Lomas P.E.
FL No.: 62514



VERTICAL CROSS SECTION
WOOD FRAMING OR 2X BUCK INSTALLATION

NOTES:
1. INTERIOR AND EXTERIOR FINISHES, BY OTHERS, NOT SHOWN FOR CLARITY.
2. PERIMETER AND JOINT SEALANT BY OTHERS TO BE DESIGNED IN ACCORDANCE WITH ASTM E2112

REVISIONS			
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JAMB INSTALLATION DETAIL
WOOD FRAMING OR 2X BUCK INSTALLATION

MI WINDOWS AND DOORS LLC
650 WEST MARKET STREET
GRATZ, PA 17030

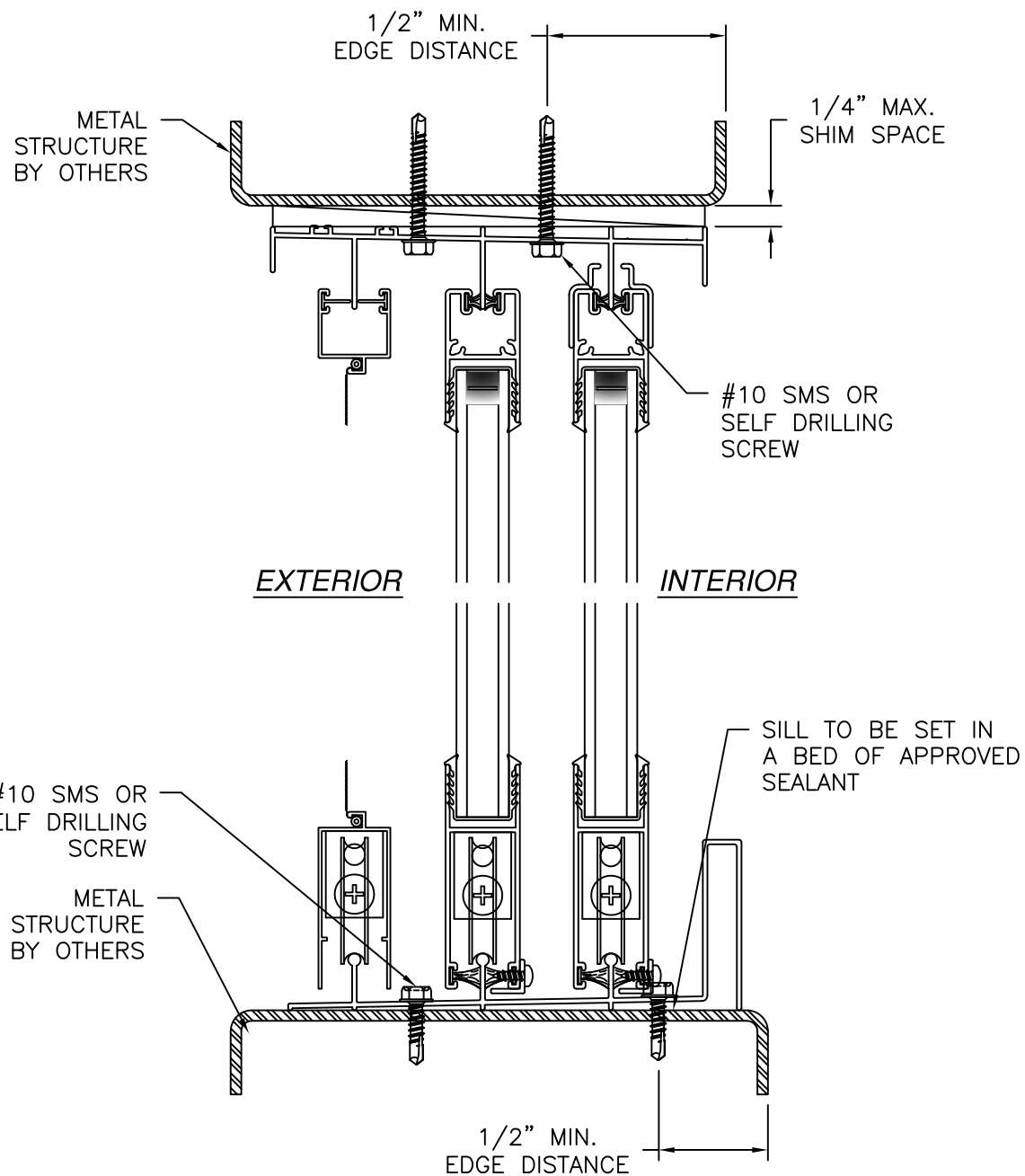
SERIES 420 SGD
145 3/4" X 96" REINFORCED
FRAME INSTALLATION DETAILS

DRAWN: F.A. DWG NO. 08-00501 REV E
SCALE NTS DATE 02/23/09 SHEET 4 OF 10

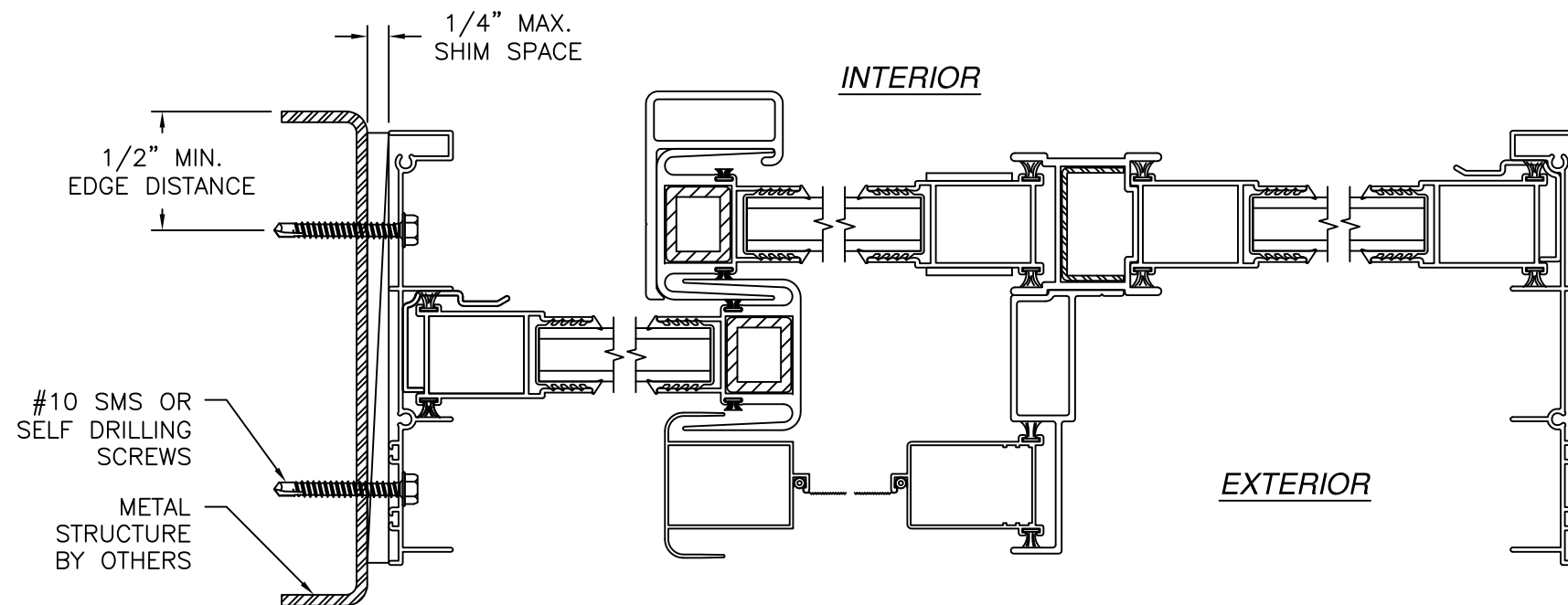
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VERTICAL CROSS SECTION
METAL STRUCTURE INSTALLATION



JAMB INSTALLATION DETAIL
METAL STRUCTURE INSTALLATION

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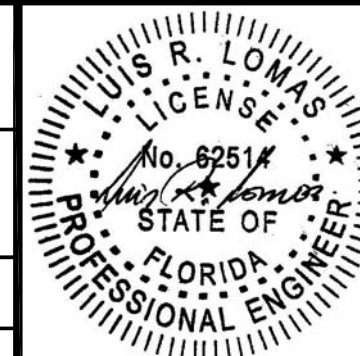
MI WINDOWS AND DOORS LLC
650 WEST MARKET STREET
GRATZ, PA 17030

SERIES 420 SGD
145 3/4" X 96" REINFORCED
FRAME INSTALLATION DETAILS

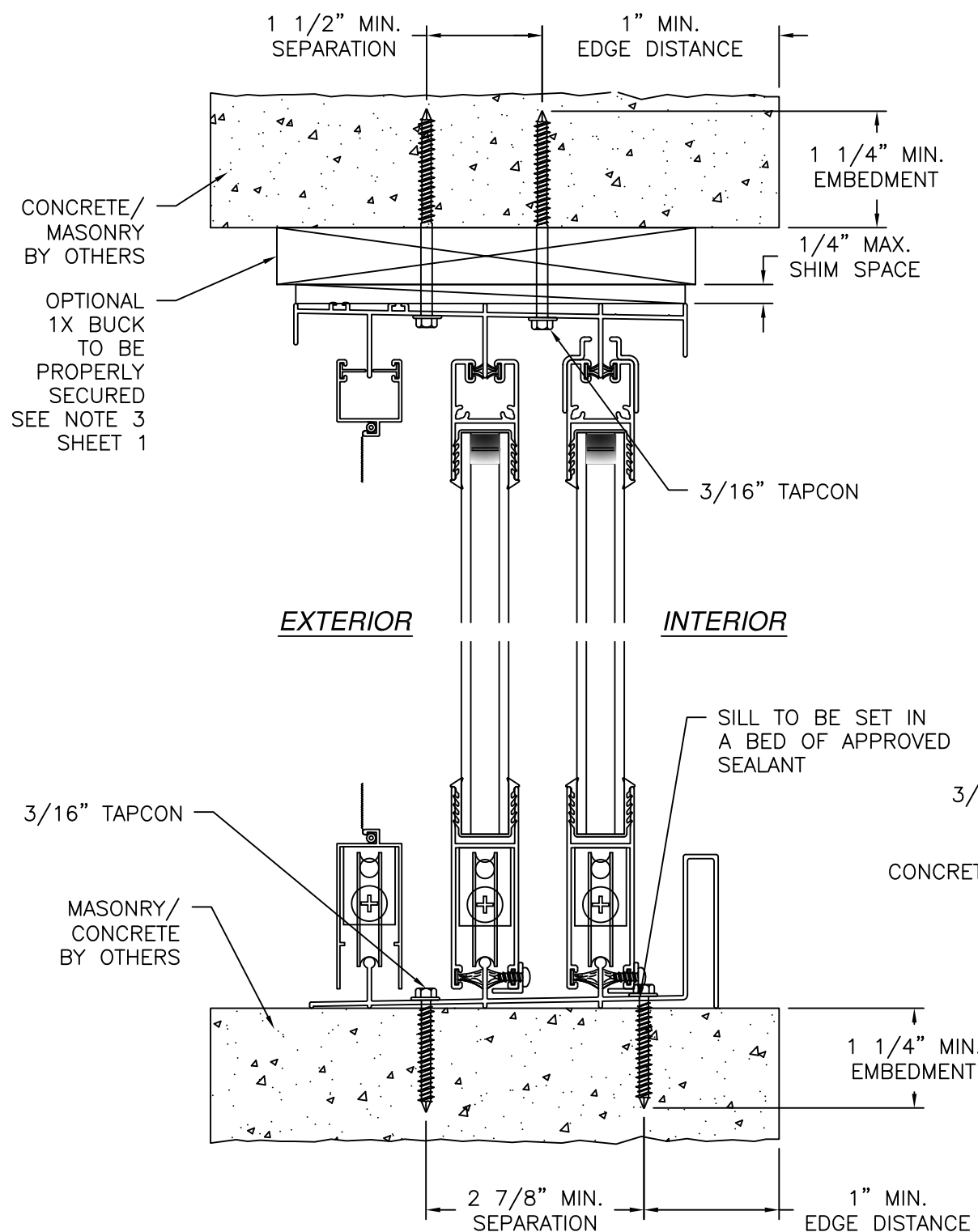
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SHEET 5 OF 10

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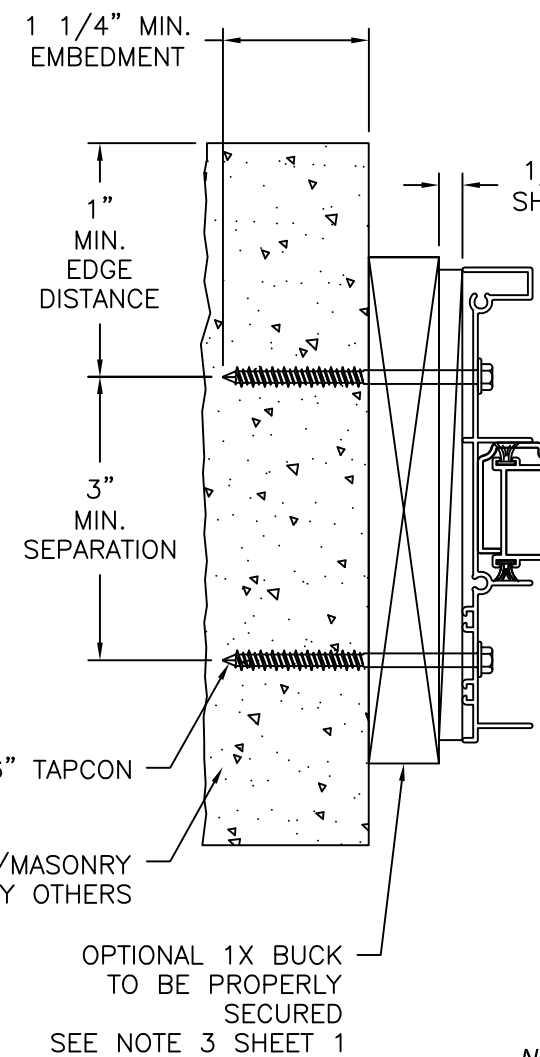
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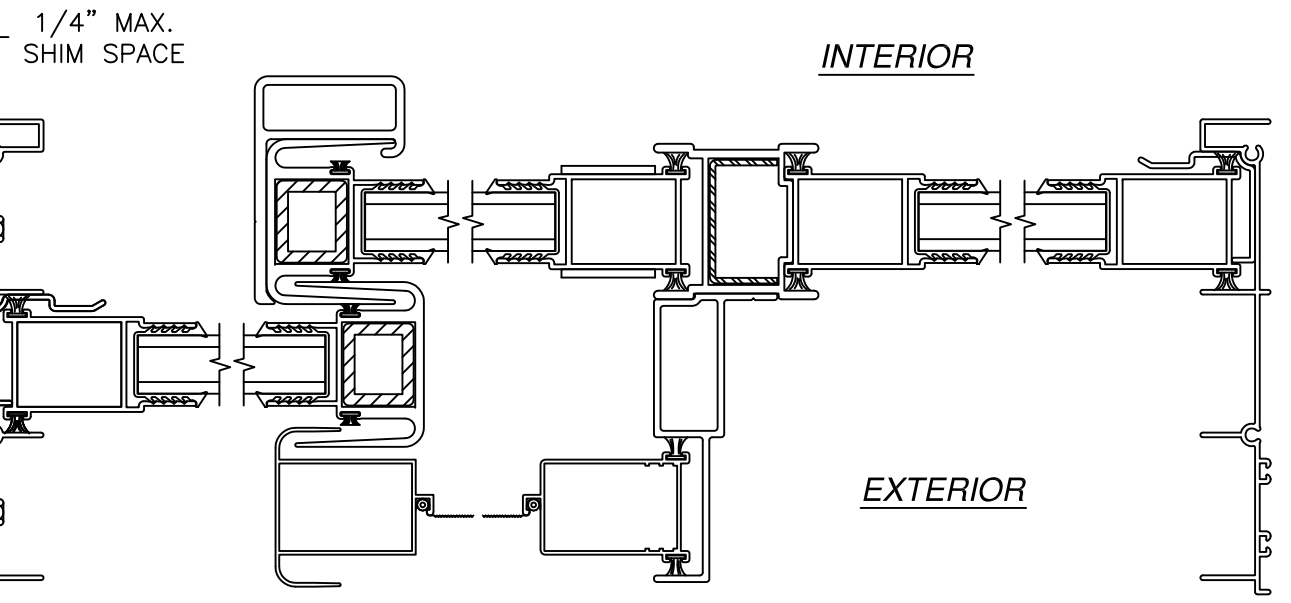
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VERTICAL CROSS SECTION
CONCRETE/MASONRY INSTALLATION



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JAMB INSTALLATION DETAIL
CONCRETE/MASONRY INSTALLATION

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MI WINDOWS AND DOORS LLC
 650 WEST MARKET STREET
 GRATZ, PA 17030

SERIES 420 SGD
 145 3/4" X 96" REINFORCED
 FRAME INSTALLATION DETAILS

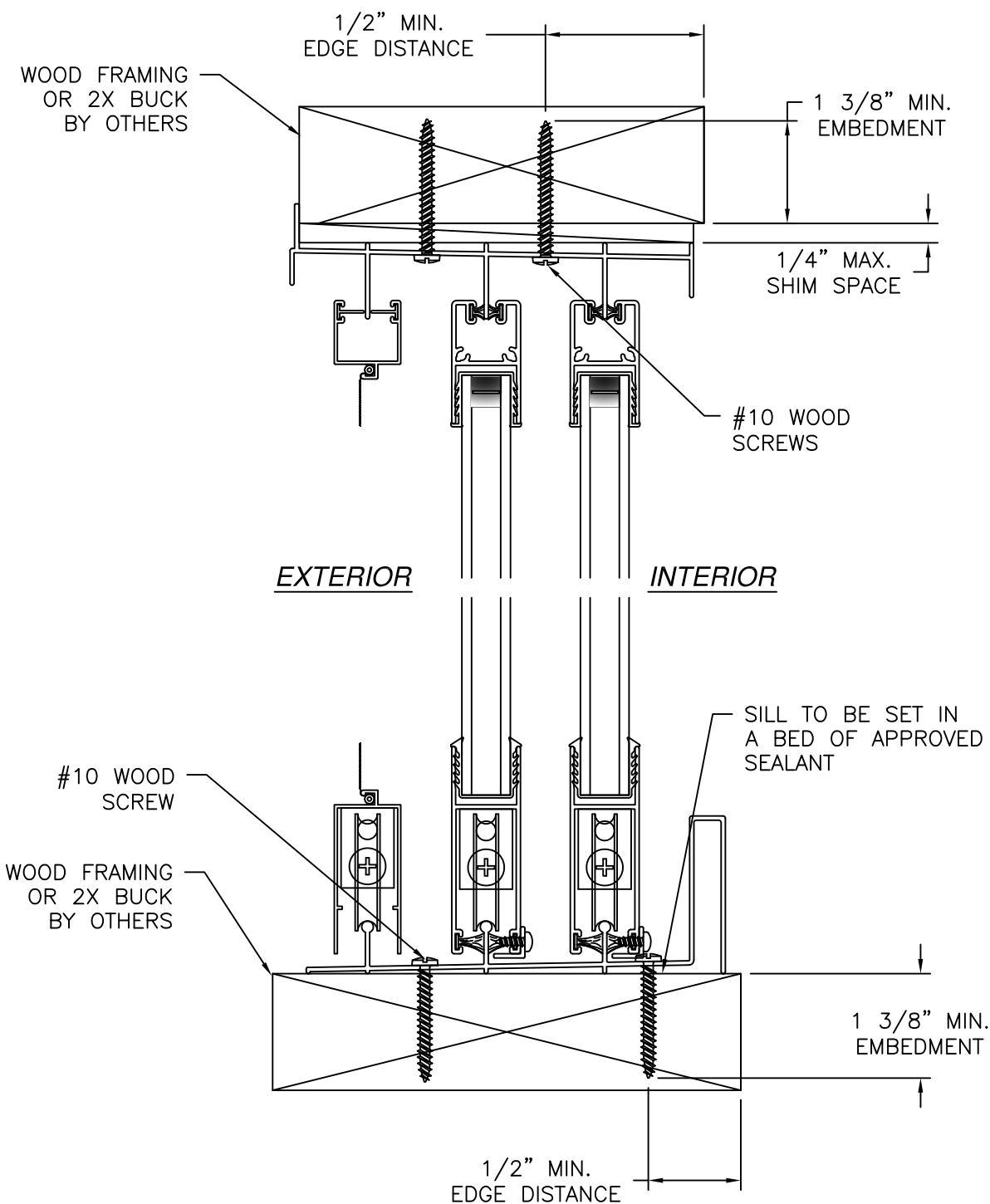
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 SCALE NTS

DWG NO. 08-00501
 DATE 02/23/09

REV E
 SHEET 6 OF 10

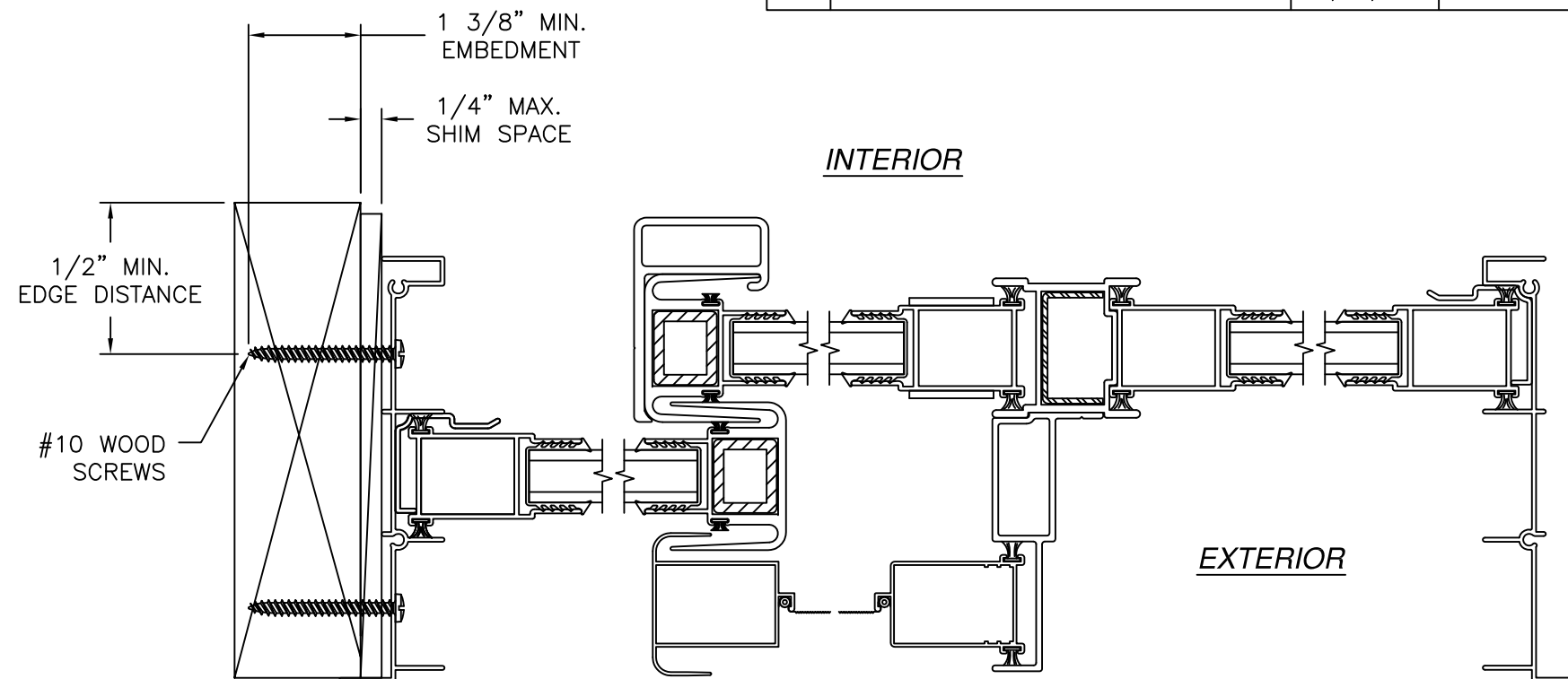
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VERTICAL CROSS SECTION
WOOD FRAMING OR 2X BUCK INSTALLATION

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JAMB INSTALLATION DETAIL
WOOD FRAMING OR 2X BUCK INSTALLATION

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650 WEST MARKET STREET
GRATZ, PA 17030

SERIES 420 SGD
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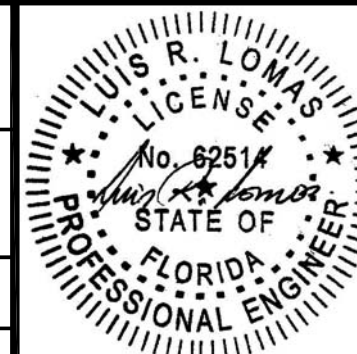
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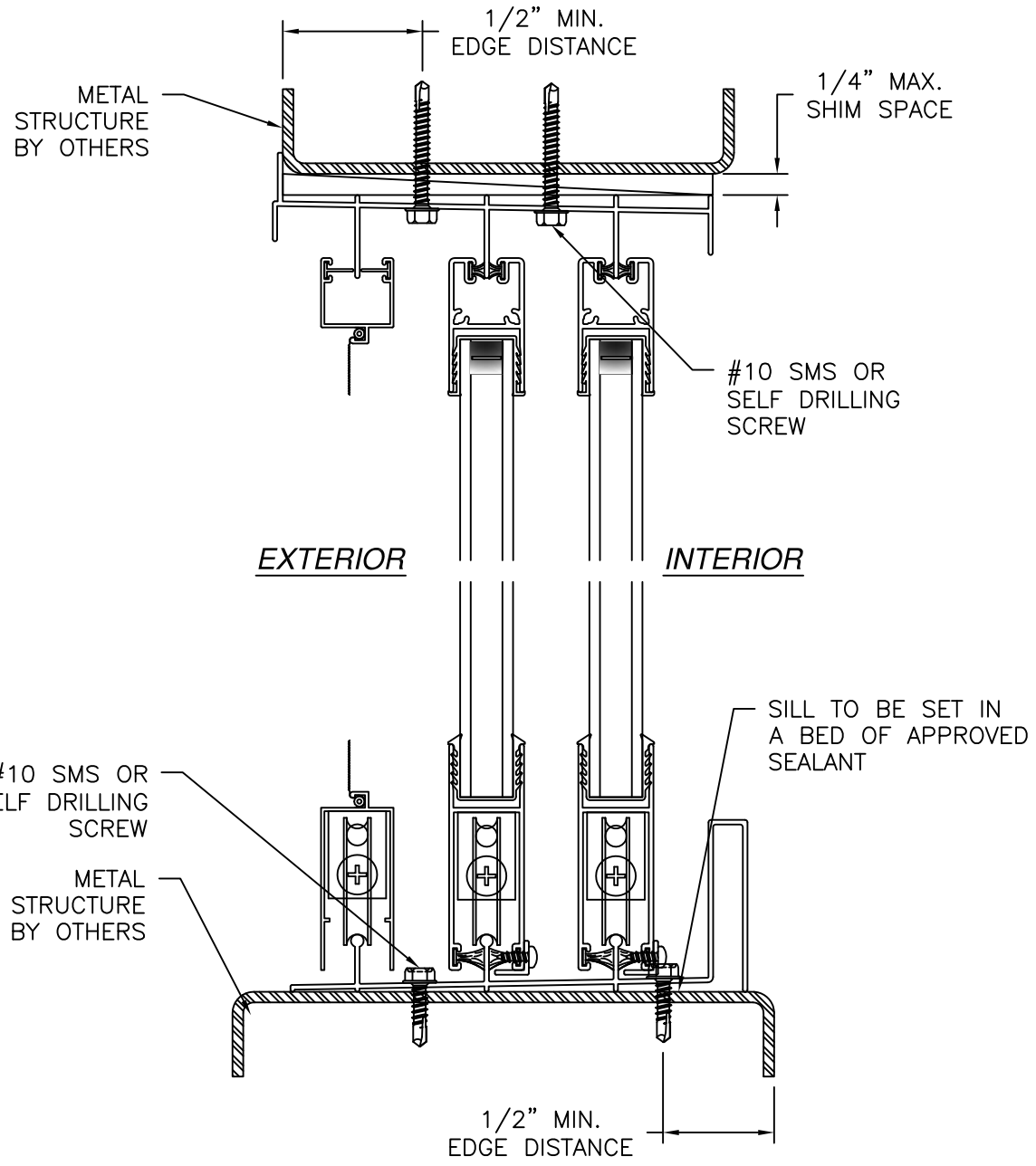
SHEET
7 OF 10

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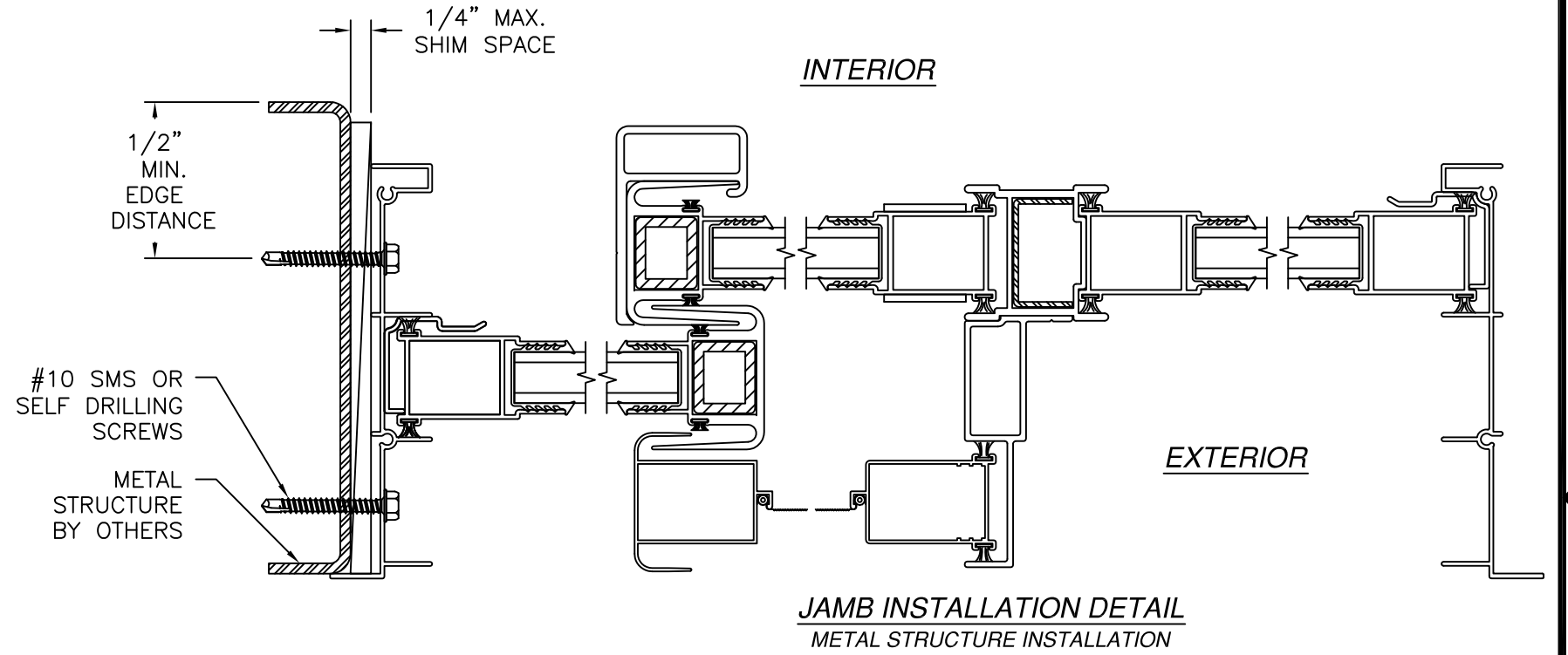
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VERTICAL CROSS SECTION
METAL STRUCTURE INSTALLATION



JAMB INSTALLATION DETAIL
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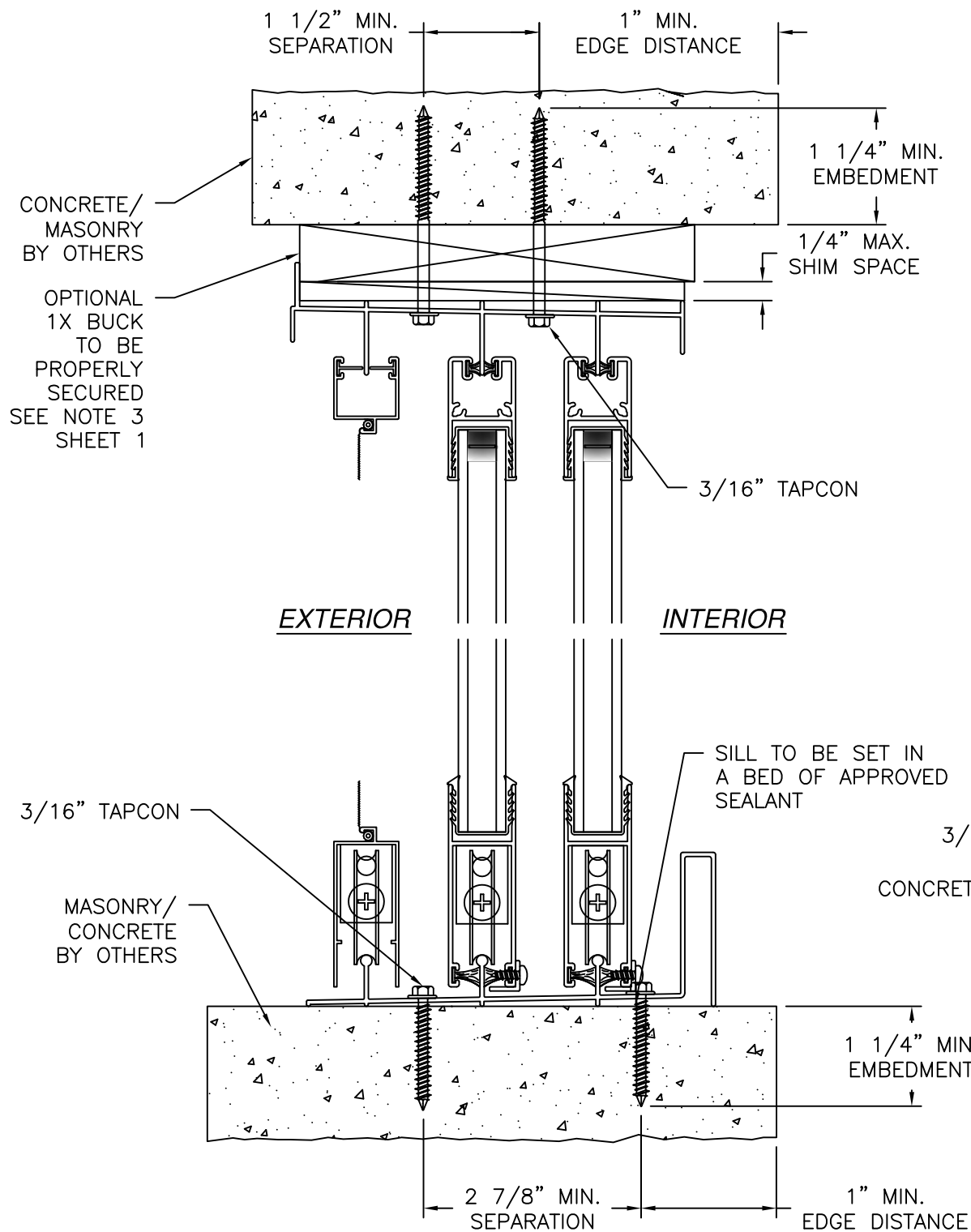
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FLANGE INSTALLATION DETAILS

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SCALE NTS	DATE 02/23/09	SHEET 8 OF 10

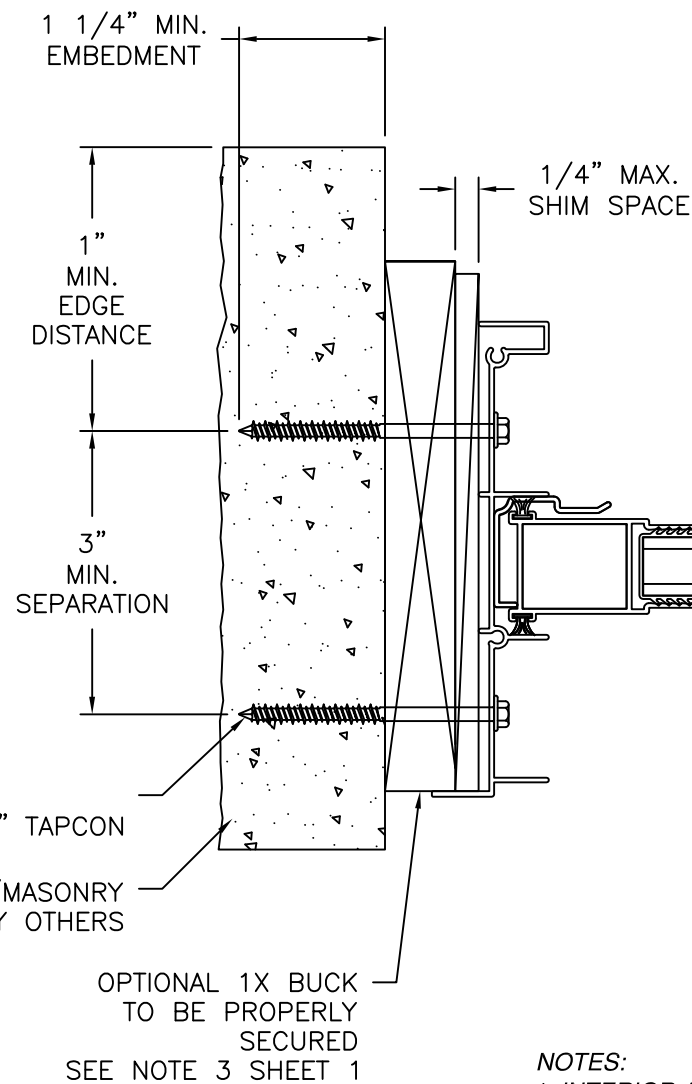
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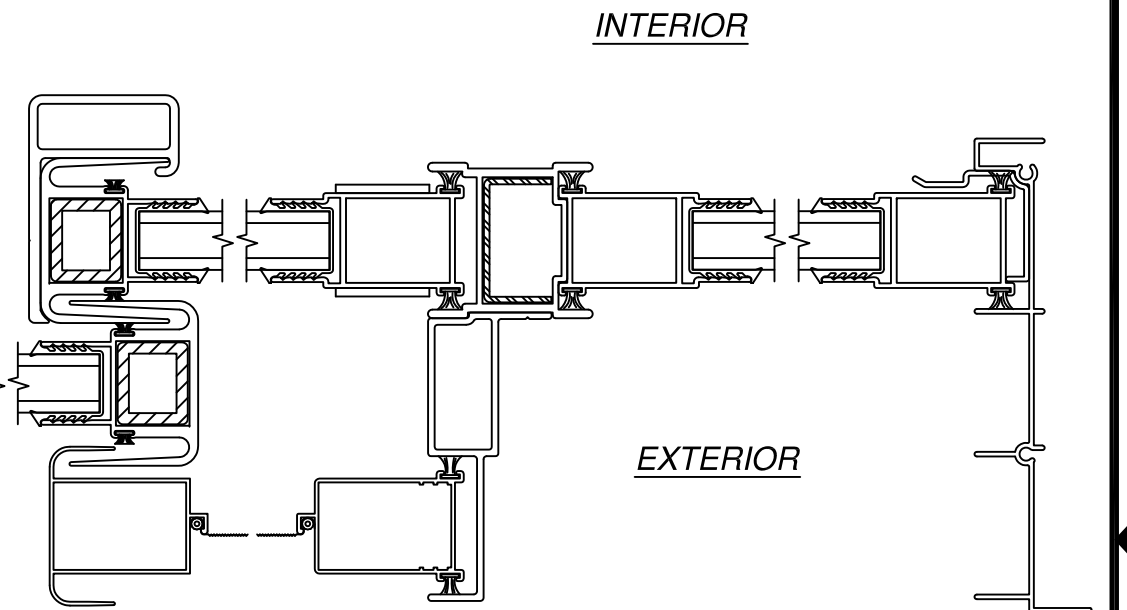
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VERTICAL CROSS SECTION
CONCRETE/MASONRY INSTALLATION



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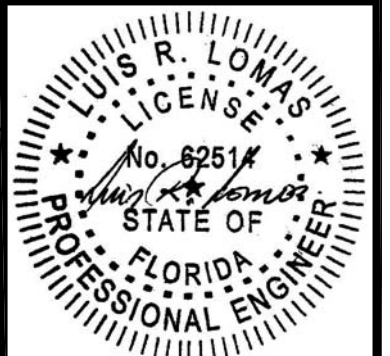


JAMB INSTALLATION DETAIL
CONCRETE/MASONRY INSTALLATION

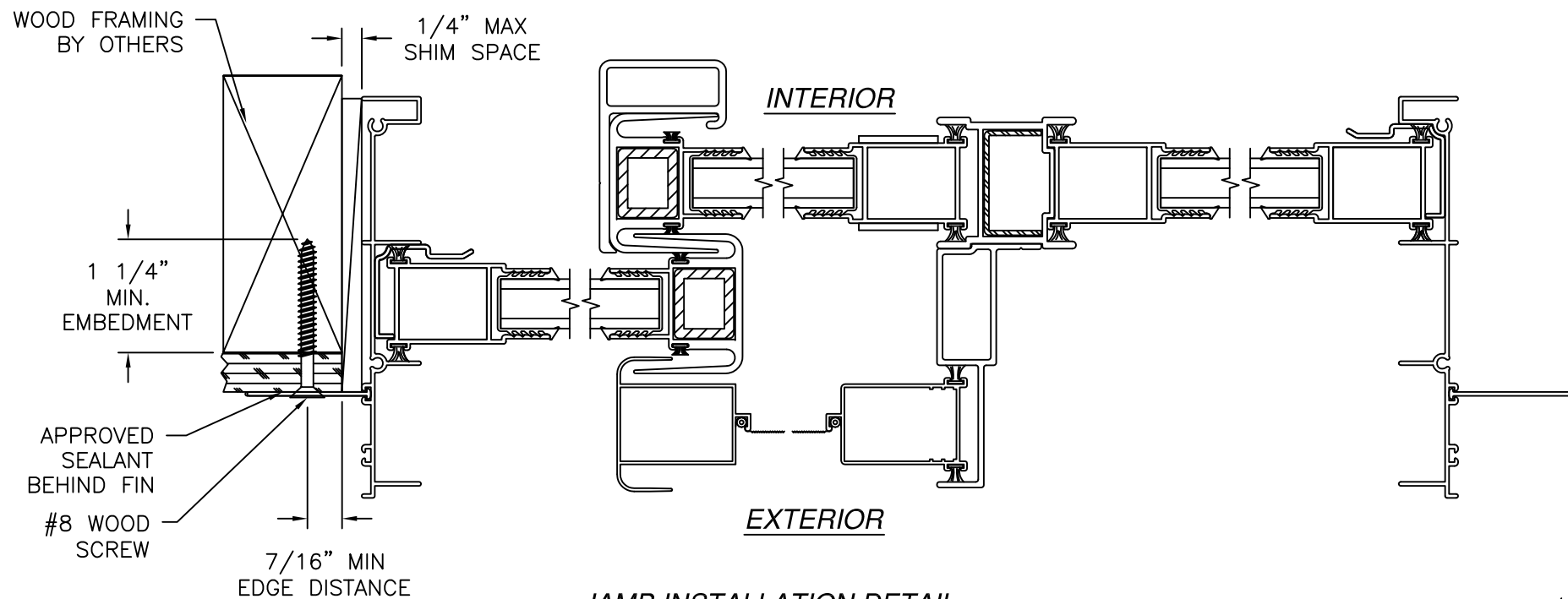
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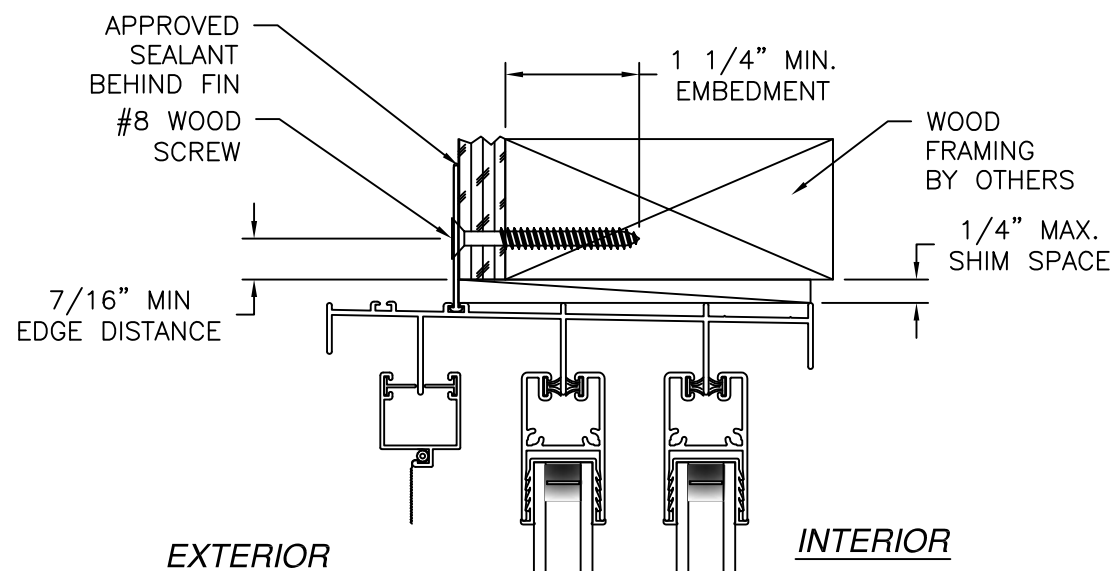
MI WINDOWS AND DOORS LLC 650 WEST MARKET STREET GRATZ, PA 17030		
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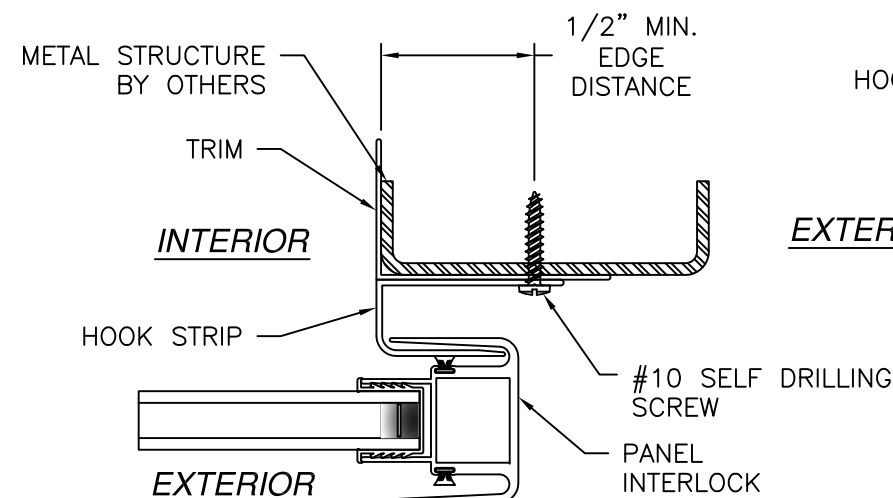


JAMB INSTALLATION DETAIL
WOOD FRAMING OR 2X BUCK INSTALLATION

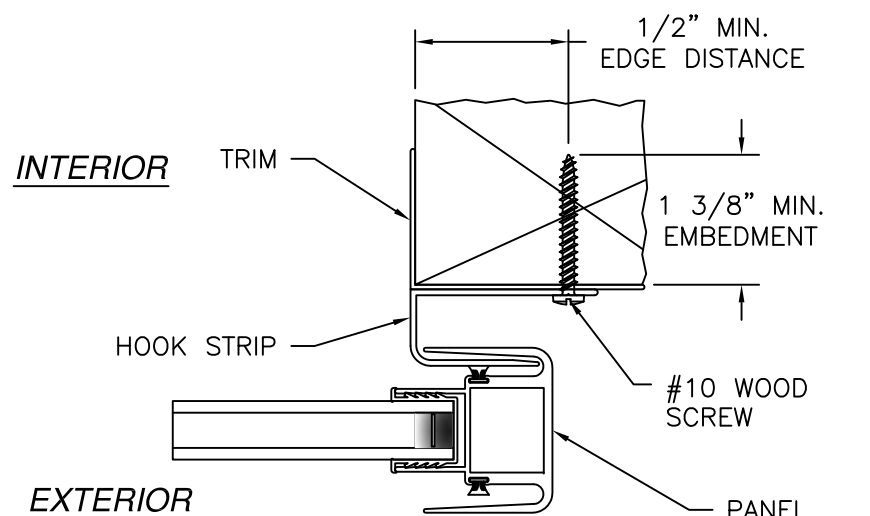


VERTICAL CROSS SECTION
WOOD FRAMING OR 2X BUCK INSTALLATION
FOR SILL INSTALLATION SEE SHEETS 4-9.

NOTES:
1. INTERIOR AND EXTERIOR FINISHES, BY OTHERS,
NOT SHOWN FOR CLARITY.
2. PERIMETER AND JOINT SEALANT BY OTHERS TO BE
DESIGNED IN ACCORDANCE WITH ASTM E2112

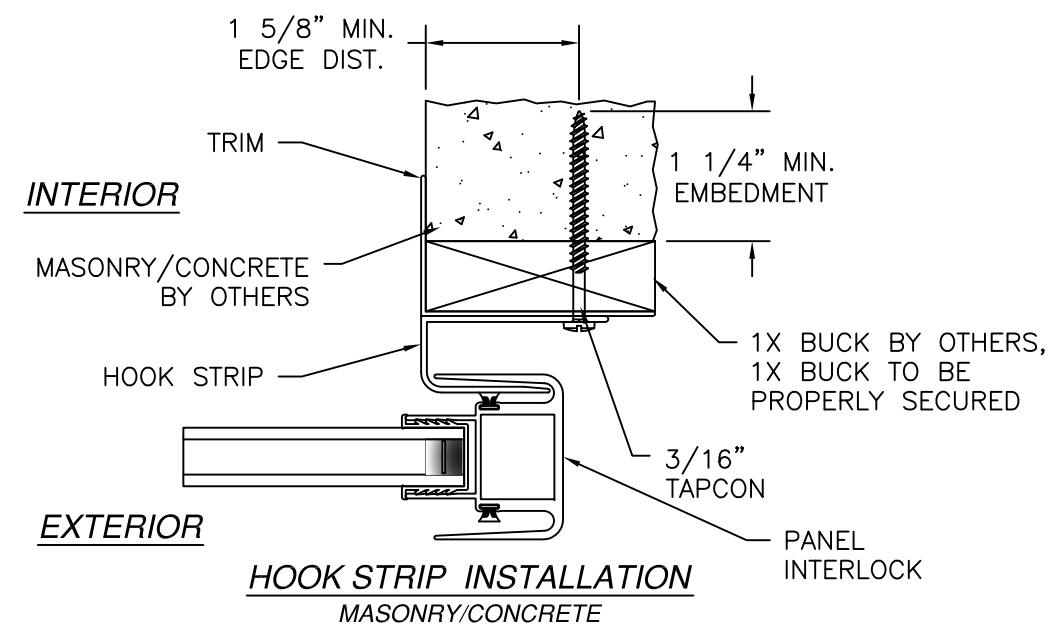


HOOK STRIP INSTALLATION
METAL STRUCTURE



HOOK STRIP INSTALLATION
2X BUCK/WOOD FRAMING

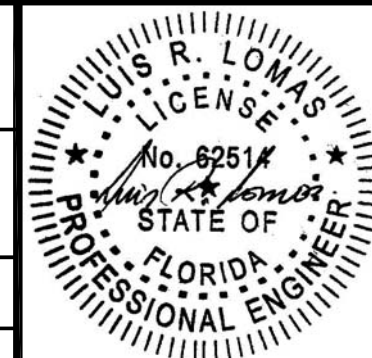
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	ADDED CHARTS	03/05/12	R.L.
B	REVISED NAME	10/15/13	R.L.
C	ADDED FLANGE AND FIN INSTALLATIONS	12/06/13	R.L.
D	REVISED INSTALLATION DETAILS	08/03/15	R.L.
E	REVISED INSTALLATION DETAILS	06/22/17	R.L.



HOOK STRIP INSTALLATION
MASONRY/CONCRETE

MI WINDOWS AND DOORS LLC 650 WEST MARKET STREET GRATZ, PA 17030		
SERIES 420 SGD 145 3/4" X 96" REINFORCED FIN AND HOOK INSTALLATION DETAILS		
DRAWN: F.A.	DWG NO. 08-00501	REV E
SCALE NTS	DATE 02/23/09	SHEET 10 OF 10
L. ROBERTO LOMAS P.E. 1432 WOODFORD RD LEWISVILLE, NC 27023 434-688-0609 rllomas@lrlomaspe.com		

SIGNED: 06/22/2017



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