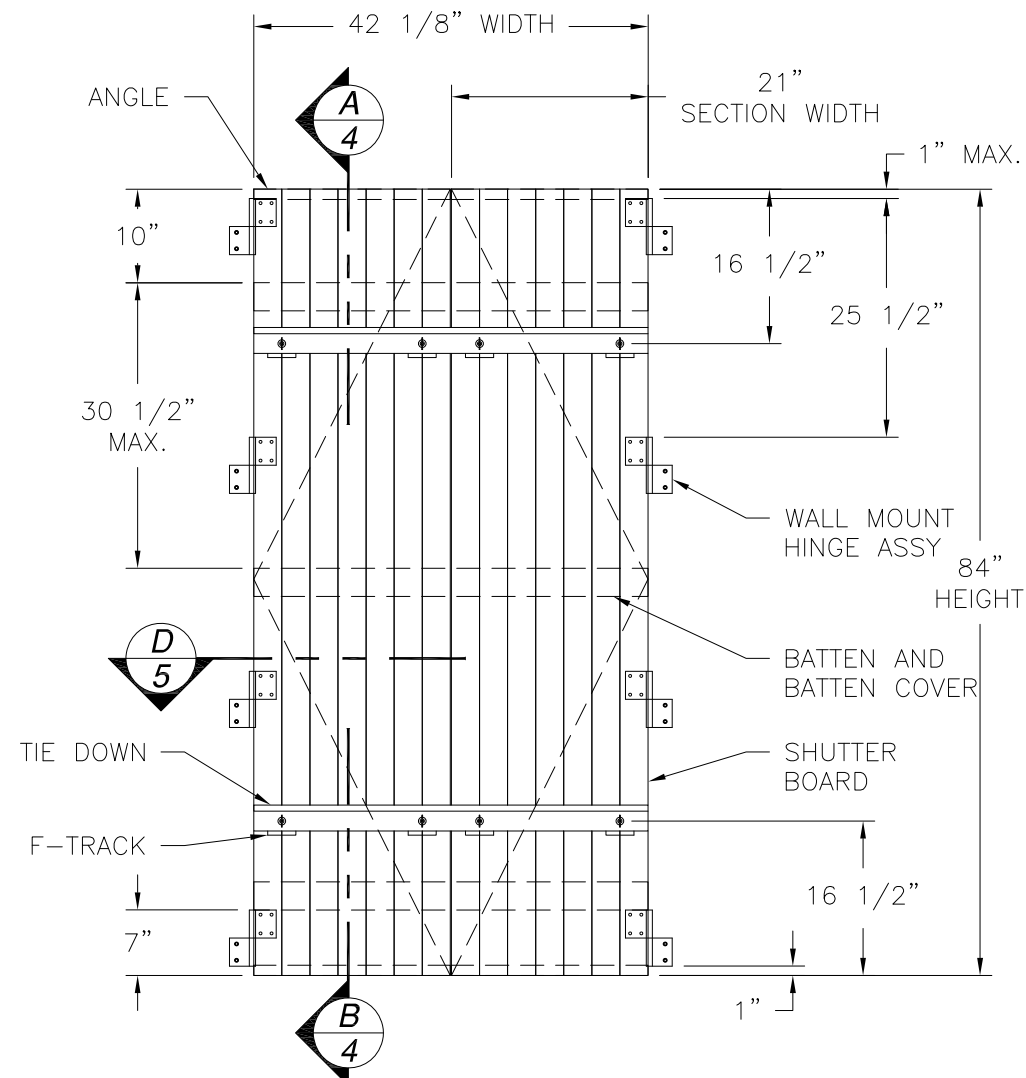


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REV	DESCRIPTION	DATE	APPROVED
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STANDARD BOARD AND BATTEN SHUTTER
EXTERIOR VIEW

DESIGN PRESSURE RATING	IMPACT RATING
±60PSF	LARGE AND SMALL MISSILE IMPACT

MISSILE LEVEL D, WIND ZONE 4

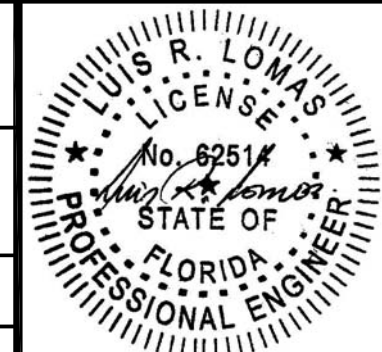
NOTES:

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. 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.
4. SHUTTER BOARD MATERIAL: ALUMINUM 6063-T6.
5. APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.
6. FOR ANCHORING INTO MASONRY USE 1/4" ITW TAPCONS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 1/4" MINIMUM EMBEDMENT INTO SUBSTRATE WITH 2 5/16" MINIMUM EDGE DISTANCE AND 1 3/4" MINIMUM SEPARATION. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
7. FOR ANCHORING INTO WOOD FRAMING OR 2X BUCK OR THROUGH BRICK VEENER INTO WOOD FRAMING OR 2X BUCK USE #10 WOOD SCREW WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/8" MINIMUM EMBEDMENT INTO SUBSTRATE. LOCATE ANCHORS AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
8. ALL FASTENERS TO BE CORROSION RESISTANT.
9. 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:
 - 9.1. WOOD - MINIMUM SPECIFIC GRAVITY OF G=0.42
 - 9.2. CONCRETE - MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI. C.
 - 9.3. MASONRY - STRENGTH CONFORMANCE TO ASTM C-90, GRADE N, TYPE 1 (OR GREATER).
10. SHUTTERS MAY BE CONSTRUCTED WITH 3", 4" OR 5" BOARDS.

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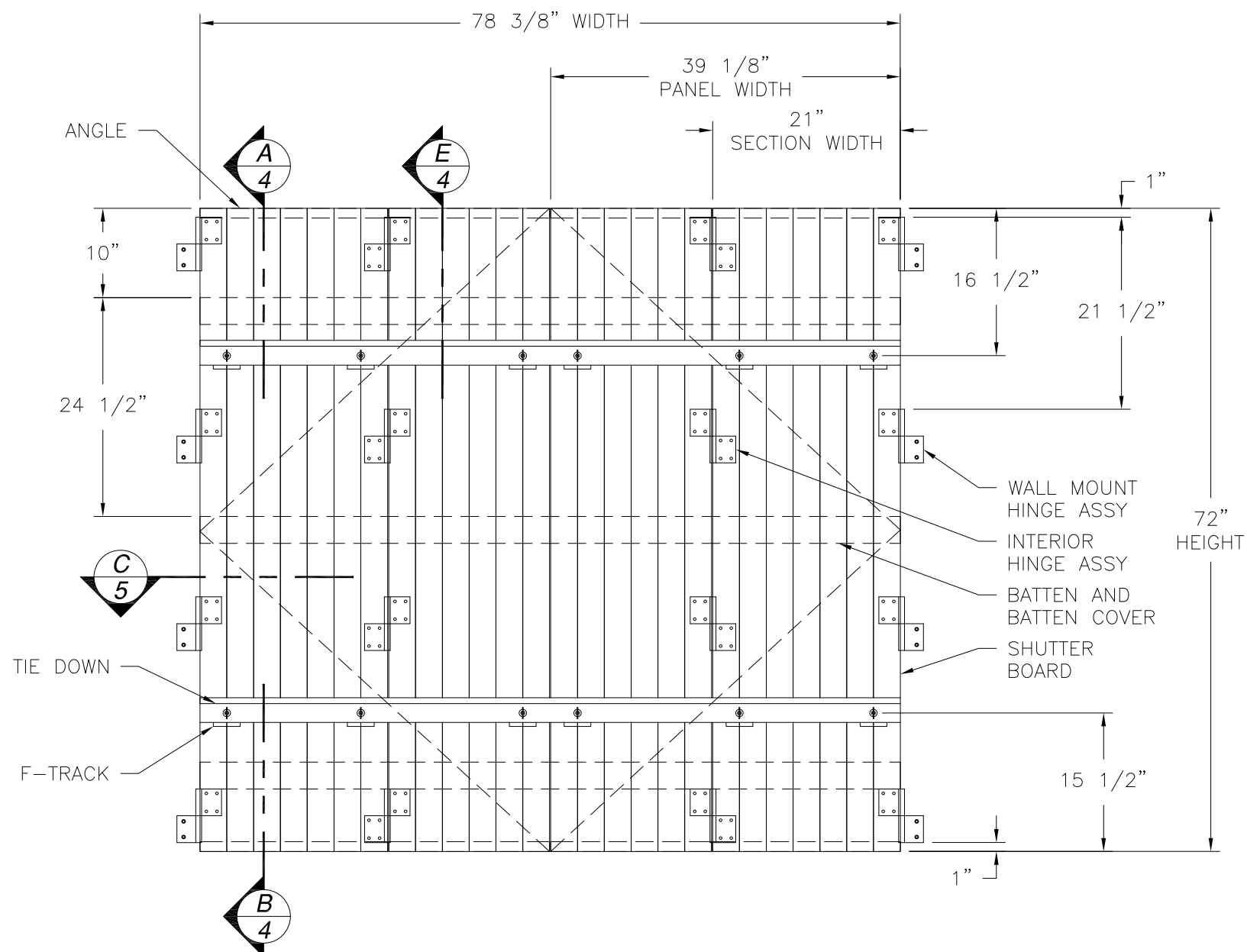
TABLE OF CONTENTS	
SHEET NO.	DESCRIPTION
1	ELEVATIONS, ANCHORING AND NOTES
2	BI-FOLD ELEVATION
3	BILL OF MATERIALS AND COMPONENTS
4 - 5	CROSS SECTIONS
6 - 7	INSTALLATION DETAILS

LAS ENTERPRISES 2413 L & A ROAD METAIRIE, LA 70001		
BOARD AND BATTEN SHUTTER STANDARD AND BI-FOLD STANDARD ELEVATION AND NOTES		
DRAWN: V.L.	DWG NO. 08-01232	REV C
SCALE NTS	DATE 04/06/11	SHEET 1 OF 7
L. ROBERTO LOMAS P.E. 208 7th Ave, INDIALANTIC, FL 32903 434-688-0609 rllomas@rlomaspe.com		



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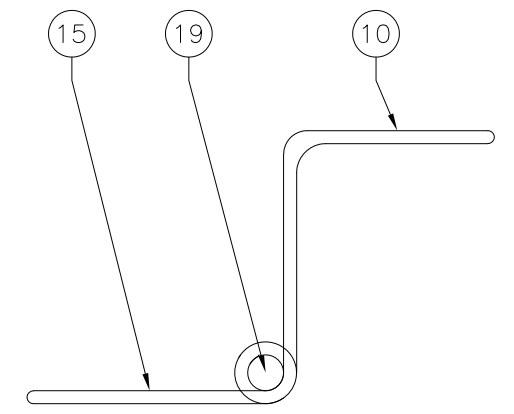
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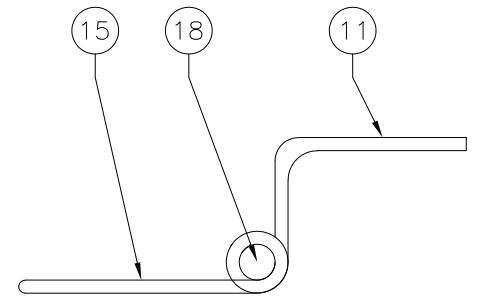
BI-FOLD BOARD AND BATTEN SHUTTER
EXTERIOR VIEW

DESIGN PRESSURE RATING	IMPACT RATING
±45PSF	LARGE AND SMALL MISSILE IMPACT

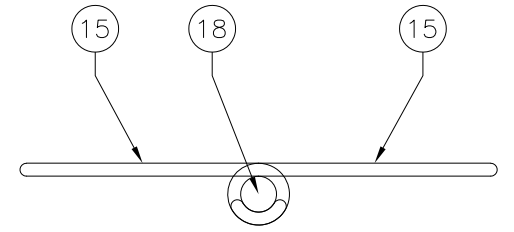
MISSILE LEVEL D, WIND ZONE 4



DOUBLE WALL HINGE ASSY



STANDARD WALL HINGE



STANDARD FLAT HINGE ASSY
BI-FOLD INTERIOR HINGE ASSY

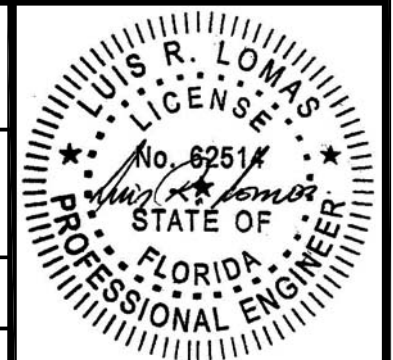
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LAS ENTERPRISES
2413 L & A ROAD
METAIRIE, LA 70001

BOARD AND BATTEN SHUTTER
STANDARD AND BI-FOLD
BI-FOLD ELEVATION

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SCALE NTS	DATE 04/06/11	SHEET 2 OF 7

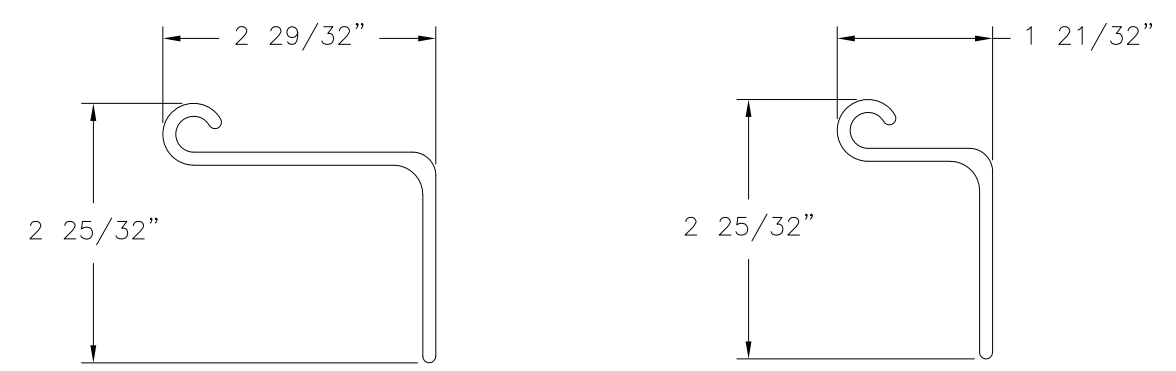
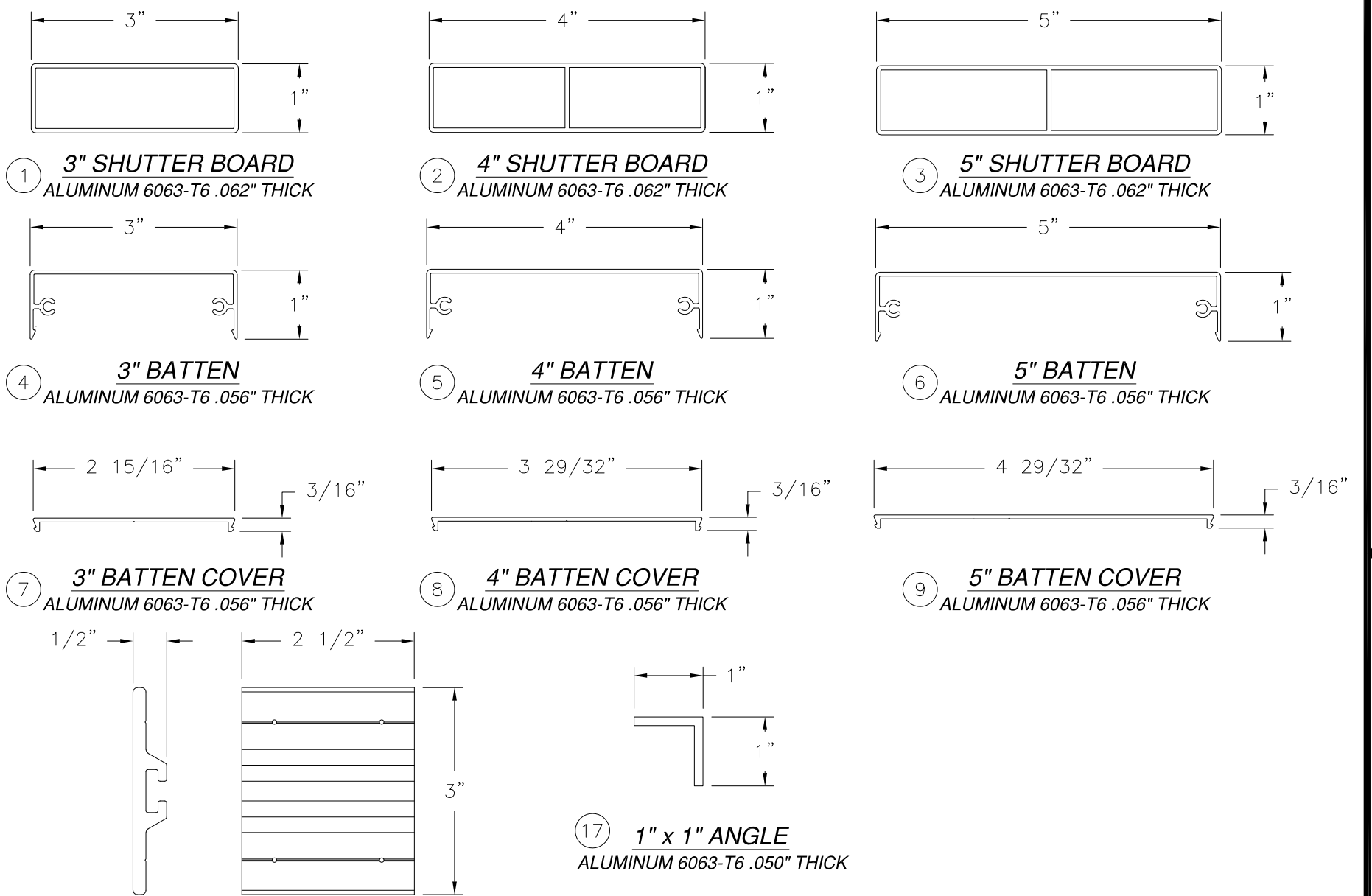
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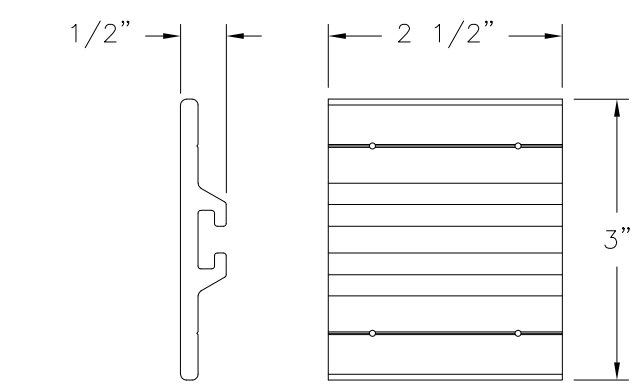
PARTS LIST				
NO.	PART NUMBER	DESCRIPTION	MANUFACTURER	MATERIAL
1	11312	3" SHUTTER BOARD	LAS ENTERPRISES	ALUMINUM 6063-T6
2	11313	4" SHUTTER BOARD	LAS ENTERPRISES	ALUMINUM 6063-T6
3	11314	5" SHUTTER BOARD	LAS ENTERPRISES	ALUMINUM 6063-T6
4	11762A	3" BATTEN	LAS ENTERPRISES	ALUMINUM 6063-T6
5	11764A	4" BATTEN	LAS ENTERPRISES	ALUMINUM 6063-T6
6		5" BATTEN	LAS ENTERPRISES	ALUMINUM 6063-T6
7	11763	3" BATTEN COVER	LAS ENTERPRISES	ALUMINUM 6063-T6
8	11765	4" BATTEN COVER	LAS ENTERPRISES	ALUMINUM 6063-T6
9		5" BATTEN COVER	LAS ENTERPRISES	ALUMINUM 6063-T6
10	11403	DOUBLE WALL HINGE	LAS ENTERPRISES	ALUMINUM 6063-T6
11	11404	STANDARD WALL HINGE	LAS ENTERPRISES	ALUMINUM 6063-T6
12	11405	BI-FOLD INTERIOR HINGE	LAS ENTERPRISES	ALUMINUM 6063-T6
13	11403	BI-FOLD SHUTTER TIE DOWN	LAS ENTERPRISES	ALUMINUM 6063-T6
14	11404	STANDARD SHUTTER TIE DOWN	LAS ENTERPRISES	ALUMINUM 6063-T6
15	11405	STANDARD FLAT HINGE	LAS ENTERPRISES	ALUMINUM 6063-T6
16	12115	F-TRACK	LAS ENTERPRISES	ALUMINUM 6063-T6
17	11813A	ANGLE	LAS ENTERPRISES	ALUMINUM 6063-T6
18		3/8" ROD	ALENCO	ALUMINUM 6063-T6
19		3/8" x 6" ROD	LAS ENTERPRISES	STAINLESS STEEL
20		BULLIT	GENESIS TEK, LLC	DELRIN POM
21		BULLIT CLIP	GENESIS TEK, LLC	DELRIN POM

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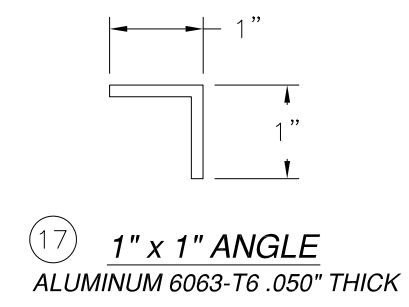


10 13 **DOUBLE WALL HINGE**
BI-FOLD SHUTTER TIE DOWN
ALUMINUM 6063-T6 .139" THICK

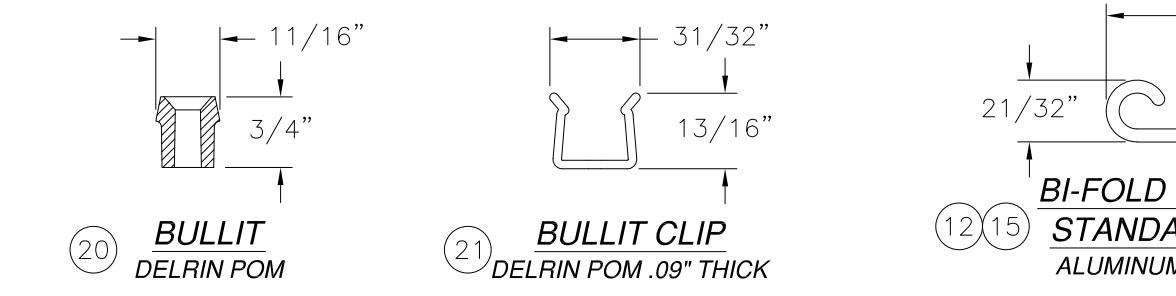
11 14 **STANDARD WALL HINGE**
STANDARD SHUTTER TIE DOWN
ALUMINUM 6063-T6 .139" THICK



16 **F-TRACK**
ALUMINUM 6063-T6 .188" THICK

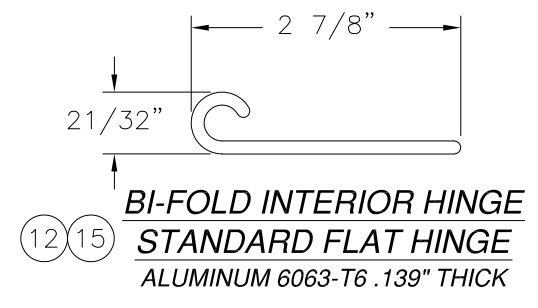


17 **1" x 1" ANGLE**
ALUMINUM 6063-T6 .050" THICK



20 **BULLIT**
DELRIN POM

21 **BULLIT CLIP**
DELRIN POM .09" THICK



12 15 **BI-FOLD INTERIOR HINGE**
STANDARD FLAT HINGE
ALUMINUM 6063-T6 .139" THICK

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LAS ENTERPRISES
2413 L & A ROAD
METAIRIE, LA 70001

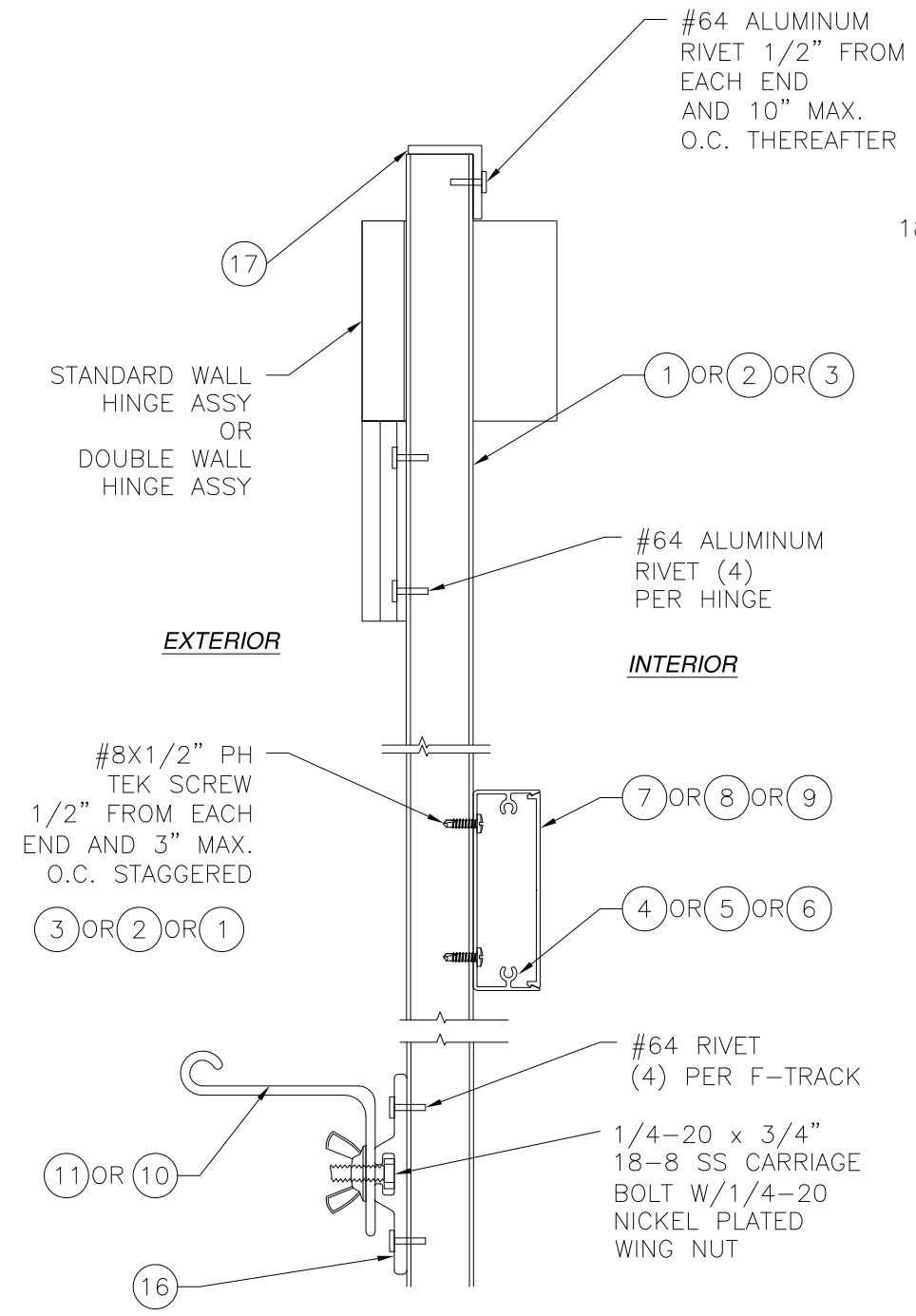
BOARD AND BATTEN SHUTTER
STANDARD AND BI-FOLD
B.O.M. AND COMPONENTS

DRAWN: V.L.	DWG NO. 08-01232	REV C
SCALE NTS	DATE 04/06/11	SHEET 3 OF 7

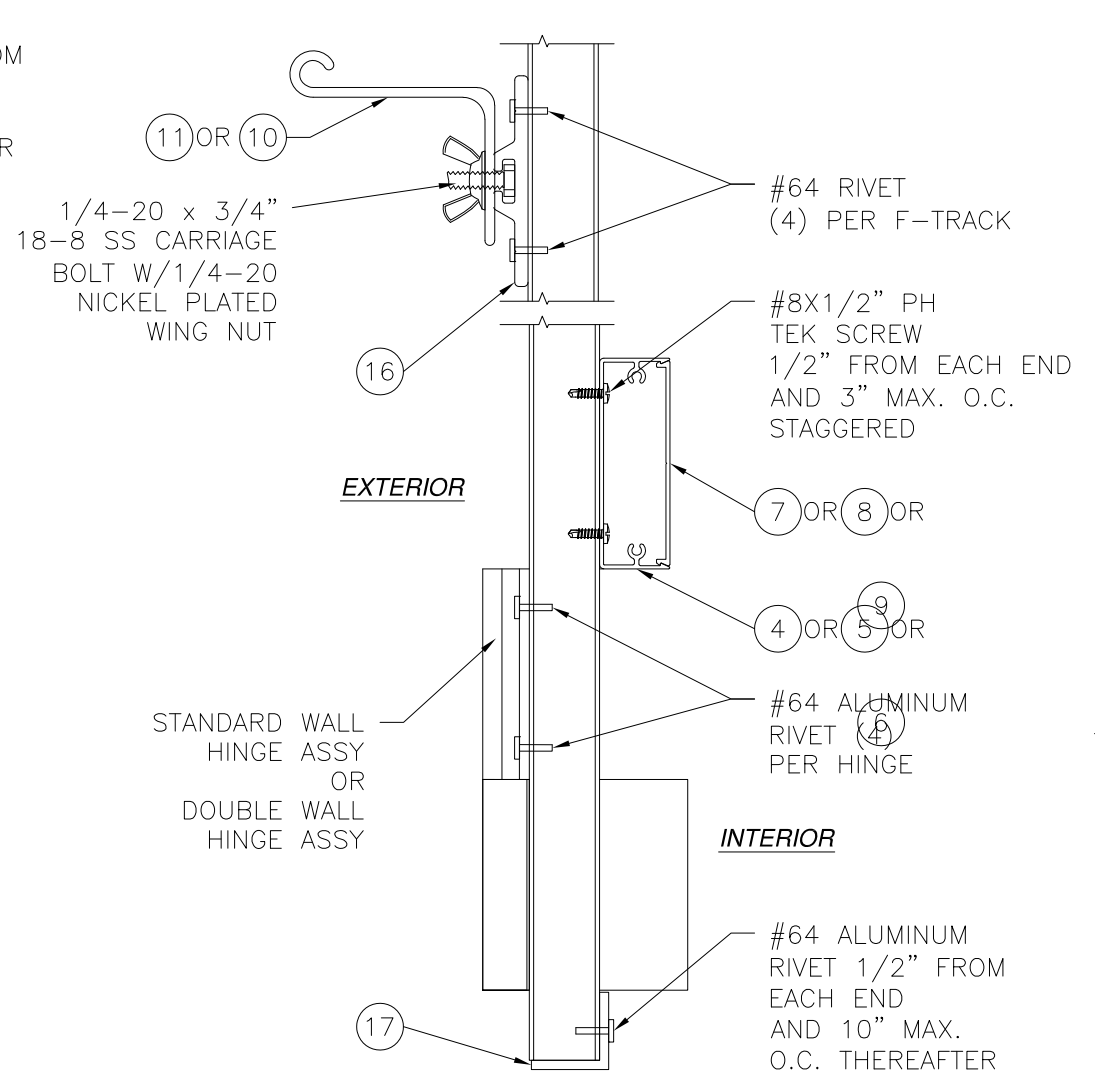
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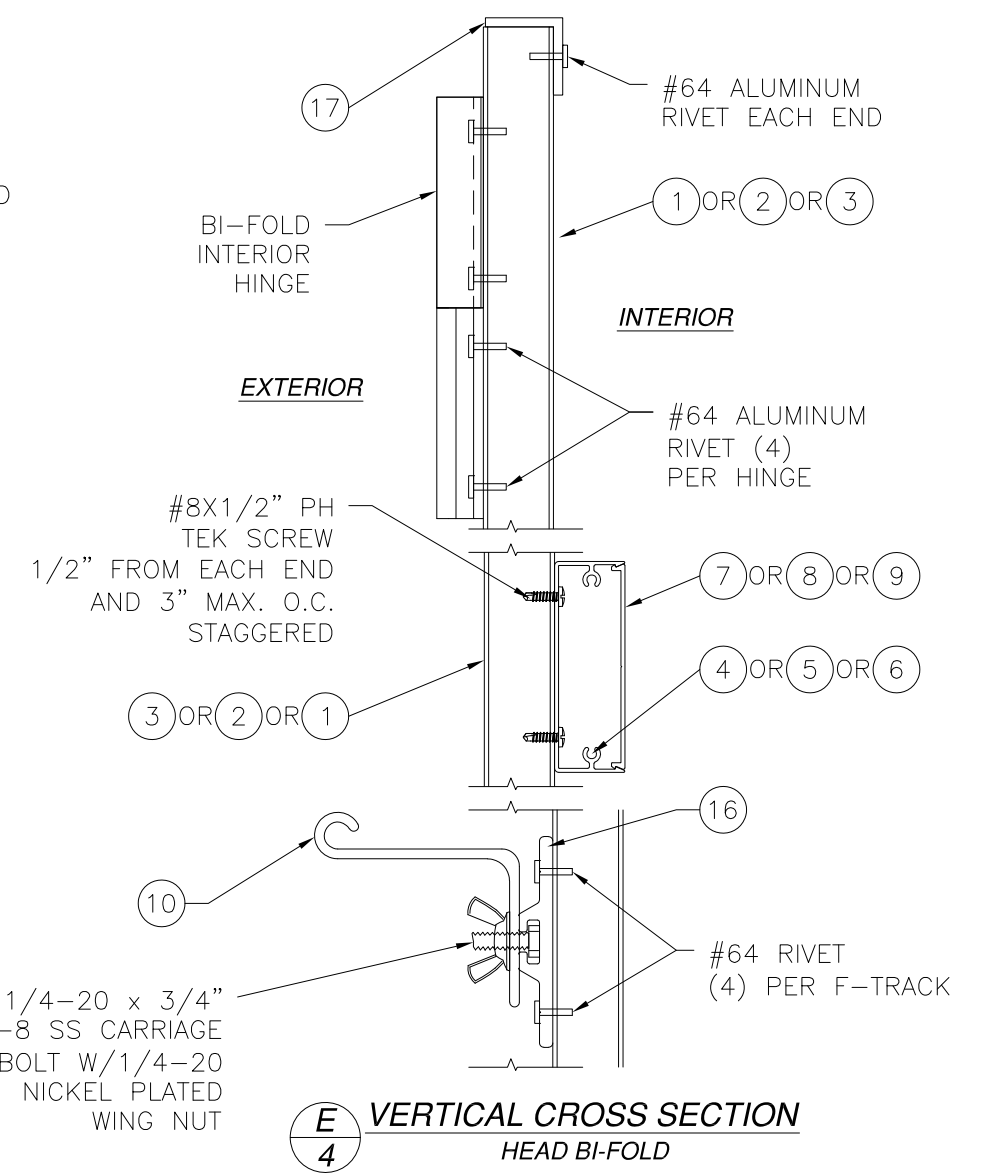
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A
4 **VERTICAL CROSS SECTION**
HEAD BI-FOLD AND STANDARD



A
4 **VERTICAL CROSS SECTION**
SILL BI-FOLD AND STANDARD



E
4 **VERTICAL CROSS SECTION**
HEAD BI-FOLD

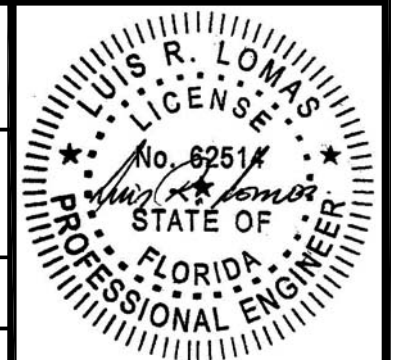
LAS ENTERPRISES
2413 L & A ROAD
METAIRIE, LA 70001

BOARD AND BATTEN SHUTTER
STANDARD AND BI-FOLD
VERTICAL CROSS SECTIONS

DRAWN: V.L.	DWG NO. 08-01232	REV C
SCALE NTS	DATE 04/06/11	SHEET 4 OF 7

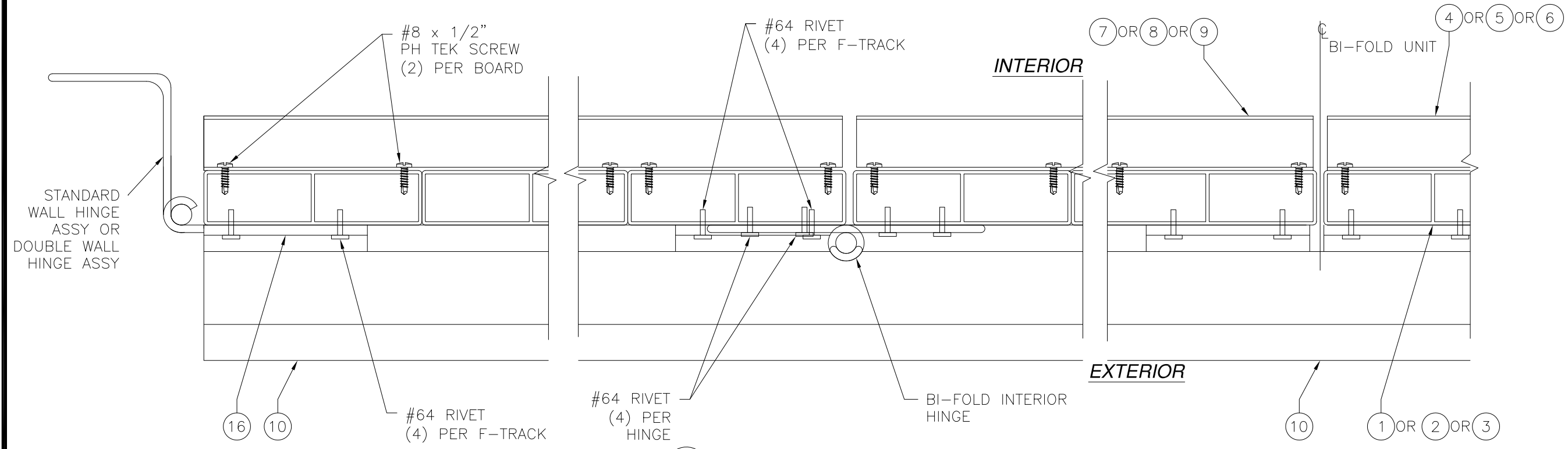
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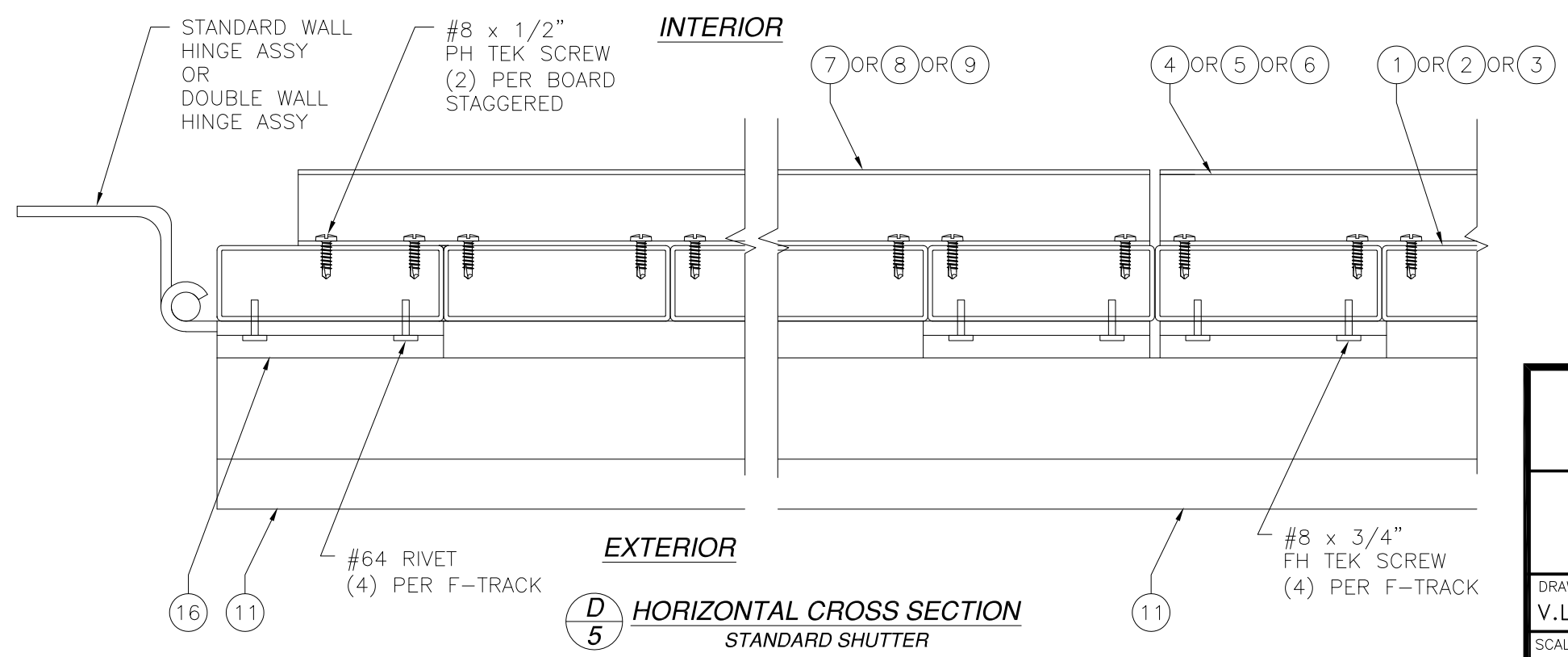


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C
5 **HORIZONTAL CROSS SECTION**
BI-FOLD SHUTTER



D
5 **HORIZONTAL CROSS SECTION**
STANDARD SHUTTER

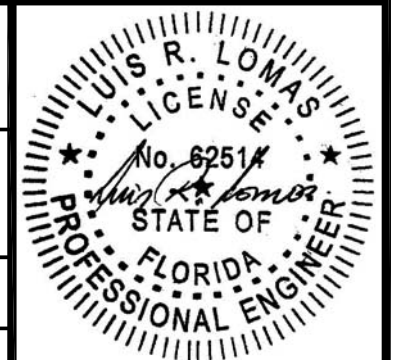
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LAS ENTERPRISES
2413 L & A ROAD
METAIRIE, LA 70001

BOARD AND BATTEN SHUTTER
STANDARD AND BI-FOLD
HORIZONTAL CROSS SECTIONS

DRAWN: V.L.	DWG NO. 08-01232	REV C
SCALE NTS	DATE 04/06/11	SHEET 5 OF 7

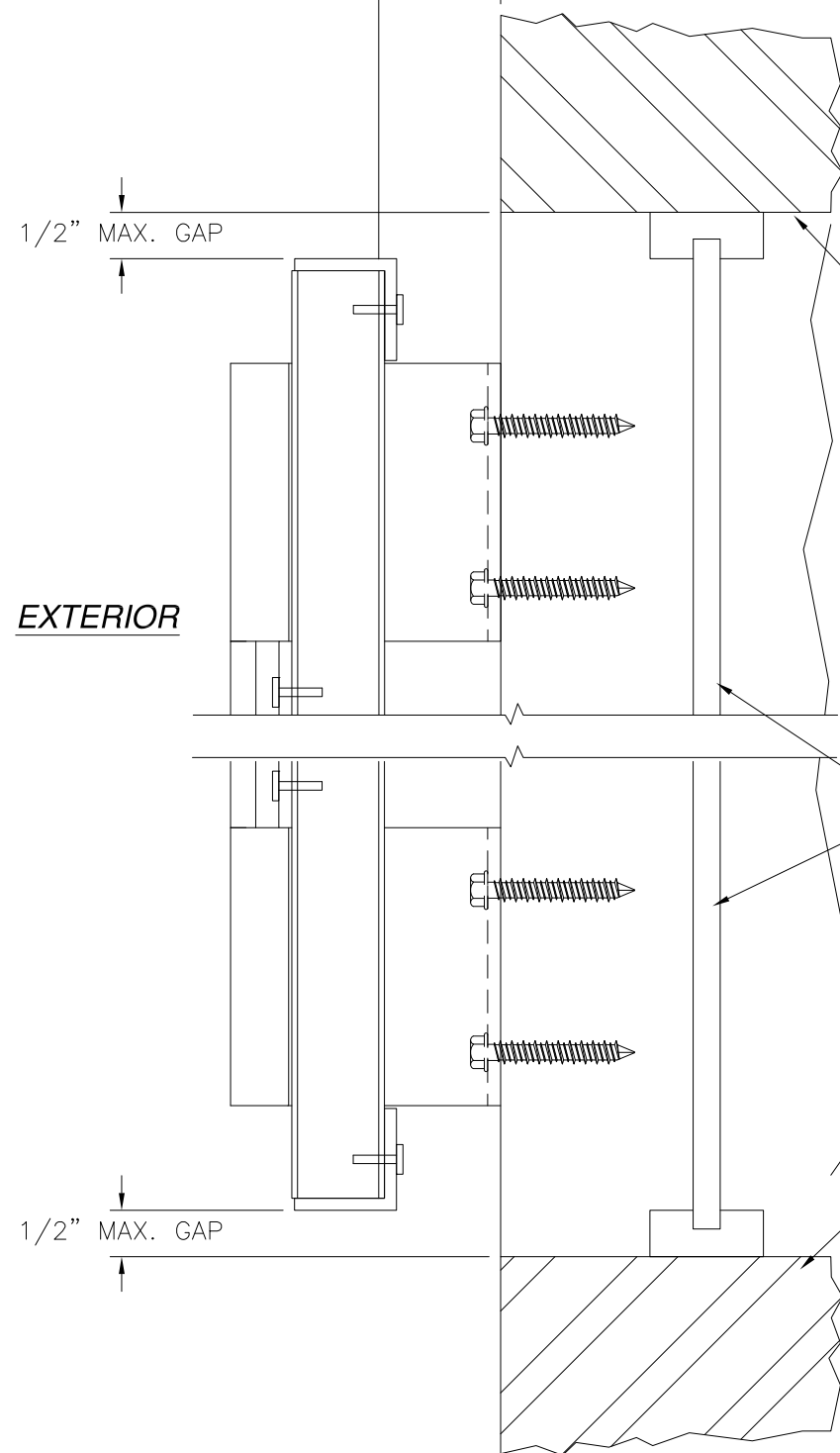
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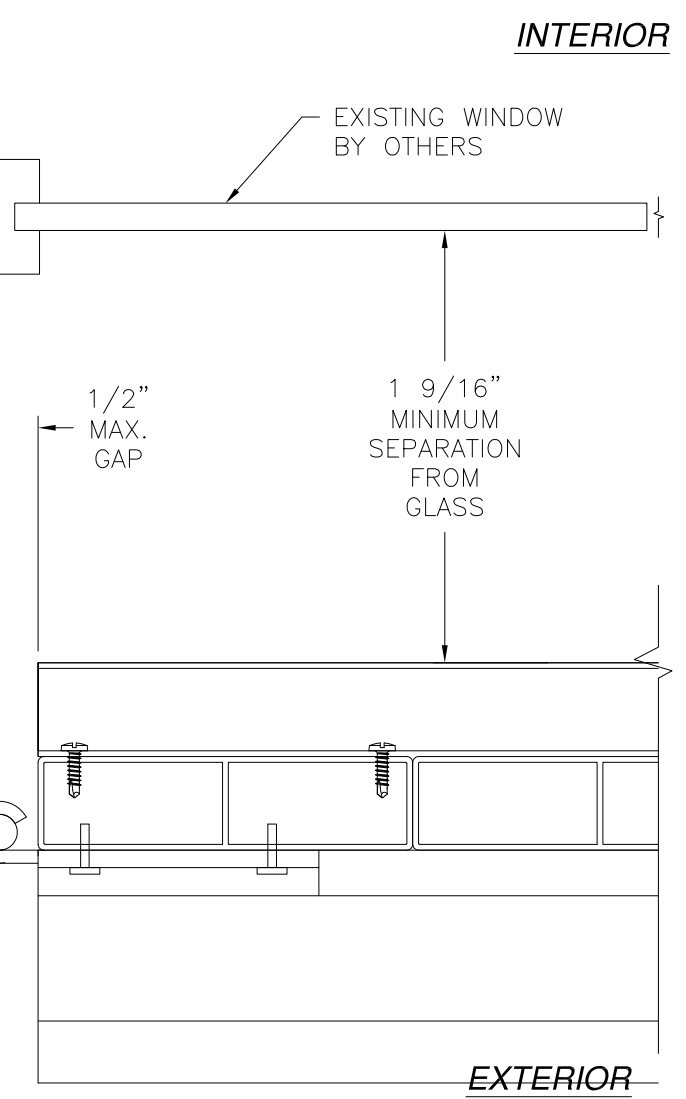
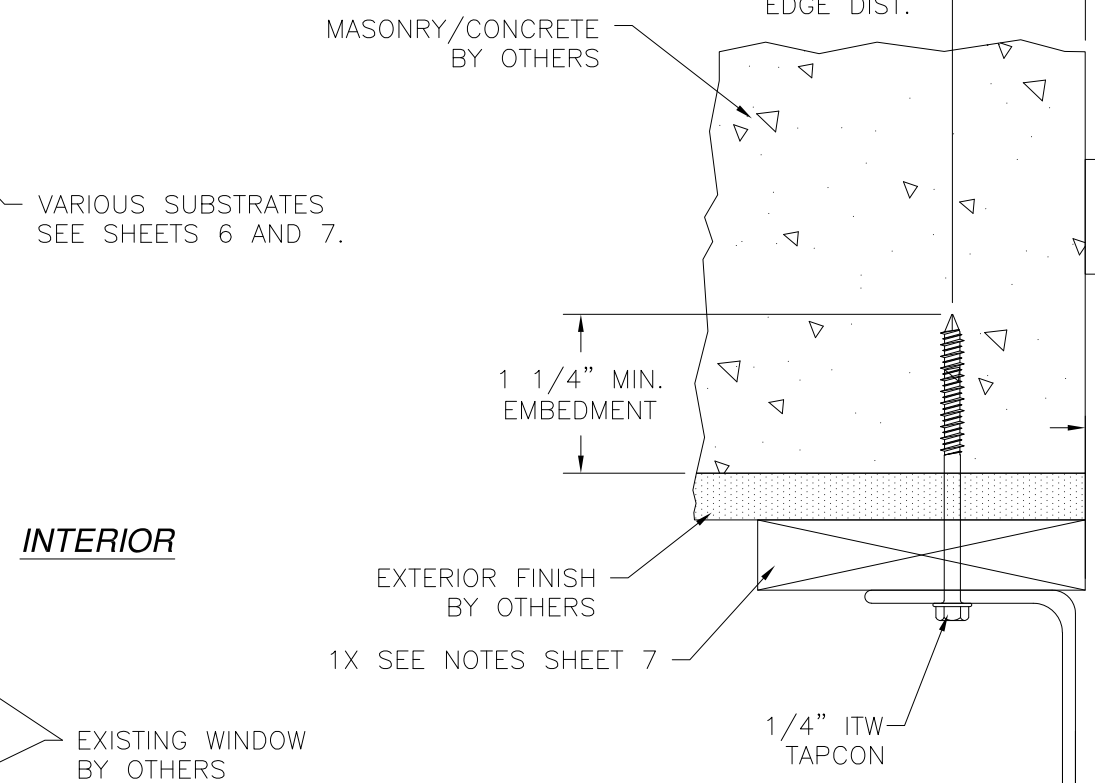
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1 5/16" FOR BI-FOLD SHUTTER, STANDARD SHUTTER IS FLUSH



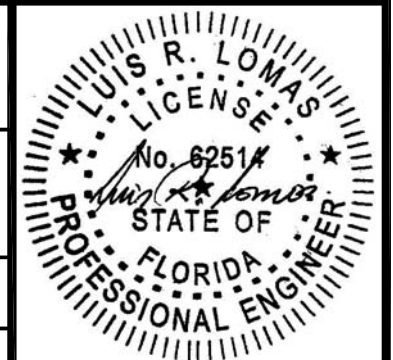
VERTICAL CROSS SECTION
BI-FOLD SHUTTER SHOWN,
STANDARD SHUTTER SIMILAR



HORIZONTAL CROSS SECTION
MASONRY/CONCRETE INSTALLATION

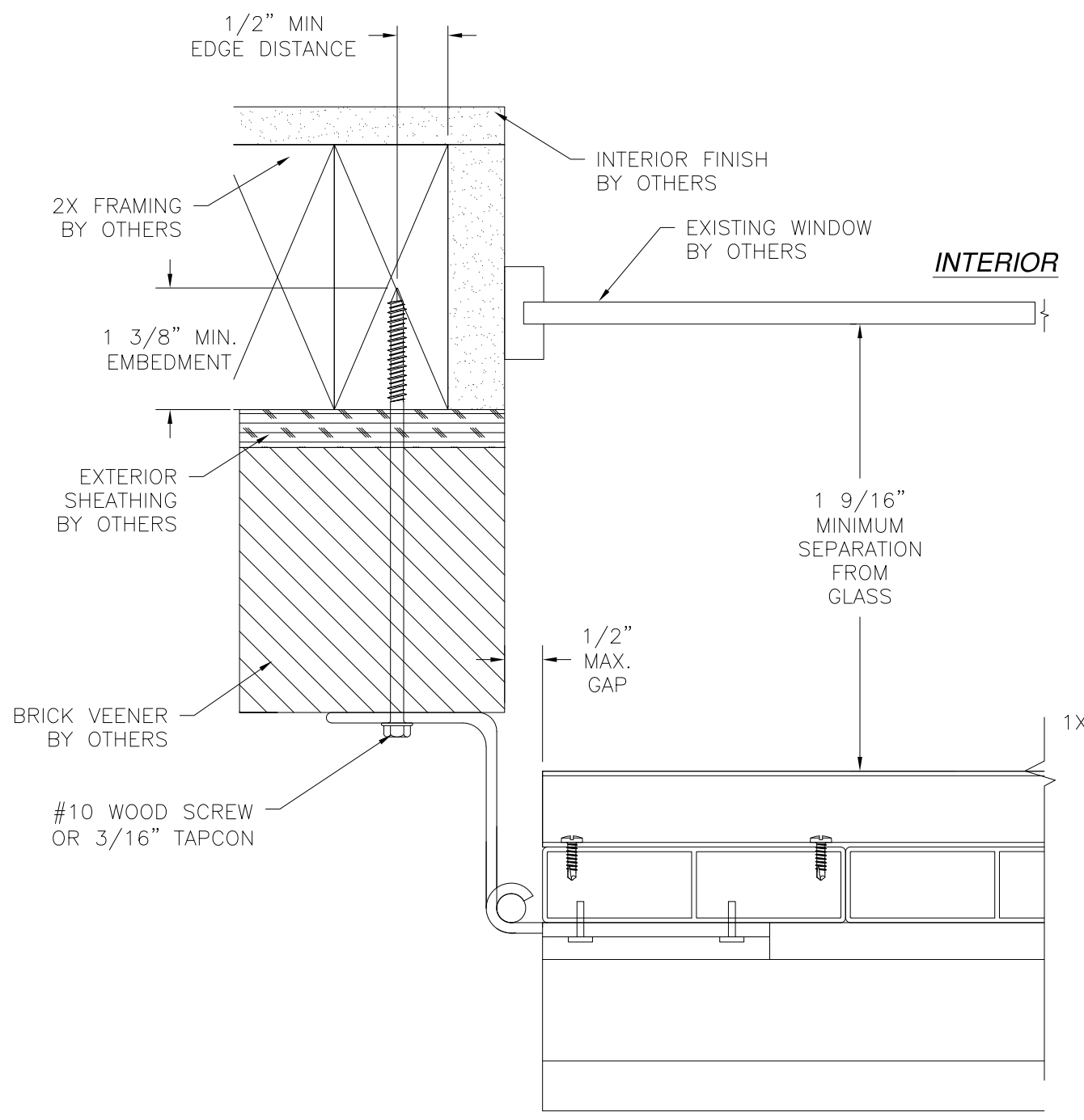
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BOARD AND BATTEN SHUTTER STANDARD AND BI-FOLD INSTALLATION DETAILS		
DRAWN: V.L.	DWG NO. 08-01232	REV C
SCALE NTS	DATE 04/06/11	SHEET 6 OF 7
L. ROBERTO LOMAS P.E. 208 7th Ave, INDIALANTIC, FL 32903 434-688-0609 rllomas@rlomaspe.com		

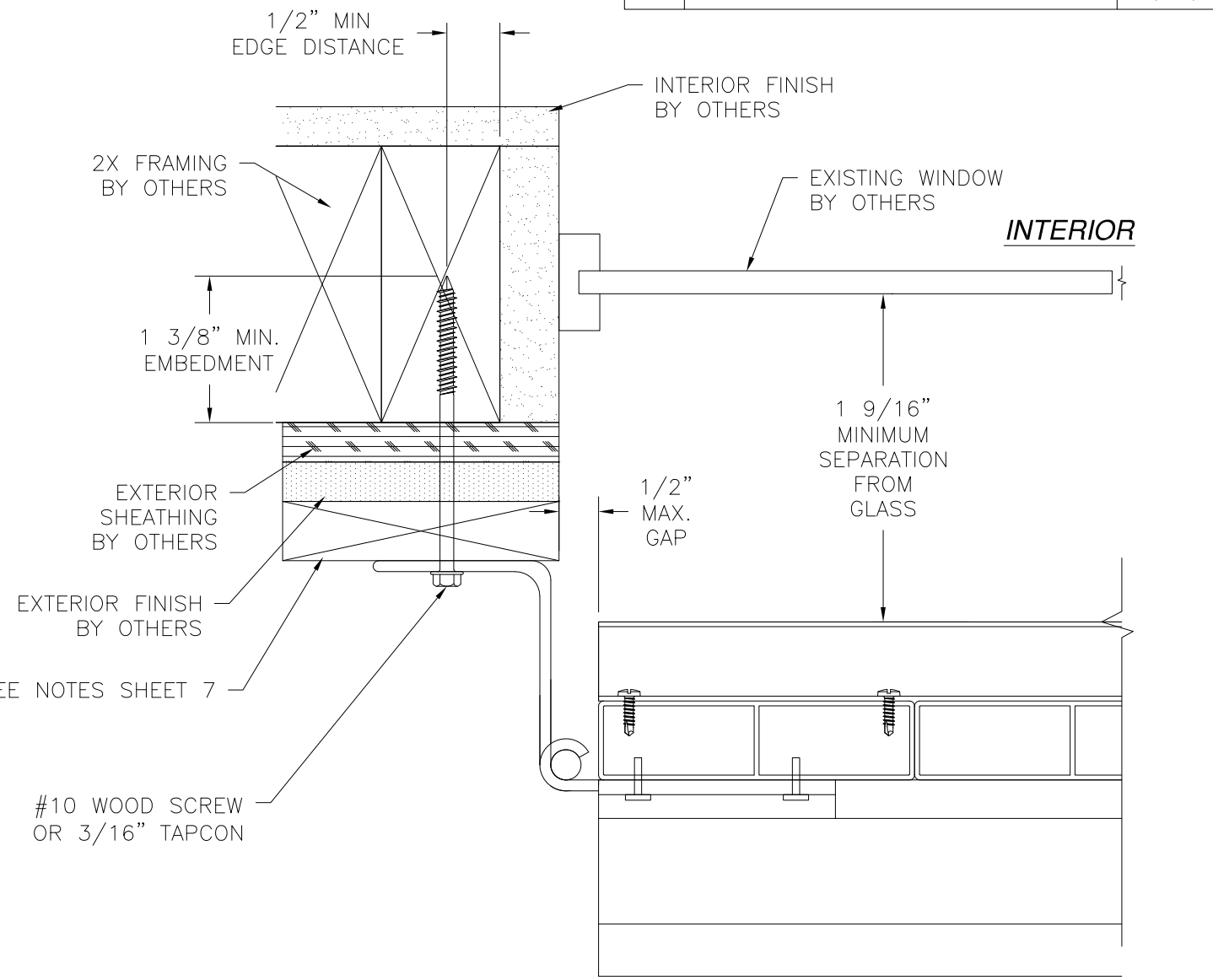


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HORIZONTAL CROSS SECTION
BRICK VEENER INSTALLATION



HORIZONTAL CROSS SECTION
2X FRAMING INSTALLATION

1X INSTALLATION NOTES NOTES:

- 1) 1X BUCK TO BE INSTALLED WHEN EXTERIOR FINISH IS NOT ABLE TO WITHSTAND LOAD FROM SHUTTER.
- 2) ANCHOR 1X BUCK TO 2X FRAMING USING #10 WOOD SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/8" MINIMUM EMBEDMENT. LOCATE ANCHORS 4" FROM EACH CORNER AND 16" MAXIMUM O.C. THEREAFTER.
- 3) ANCHOR 1X BUCK TO MASONRY USING 3/16" TAPCONS WITH SUFFICIENT LENGTH TO ACHIEVE A 1 1/4" MINIMUM EMBEDMENT. LOCATE ANCHORS 4" FROM EACH CORNER AND 16" MAXIMUM O.C. THEREAFTER.

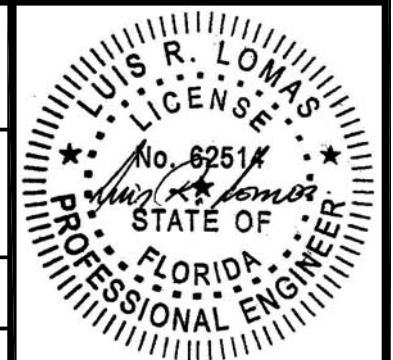
LAS ENTERPRISES
2413 L & A ROAD
METAIRIE, LA 70001

BOARD AND BATTEN SHUTTER
STANDARD AND BI-FOLD
INSTALLATION DETAILS

DRAWN: V.L.	DWG NO. 08-01232	REV C
SCALE NTS	DATE 04/06/11	SHEET 7 OF 7

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SIGNED: 10/26/2023



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