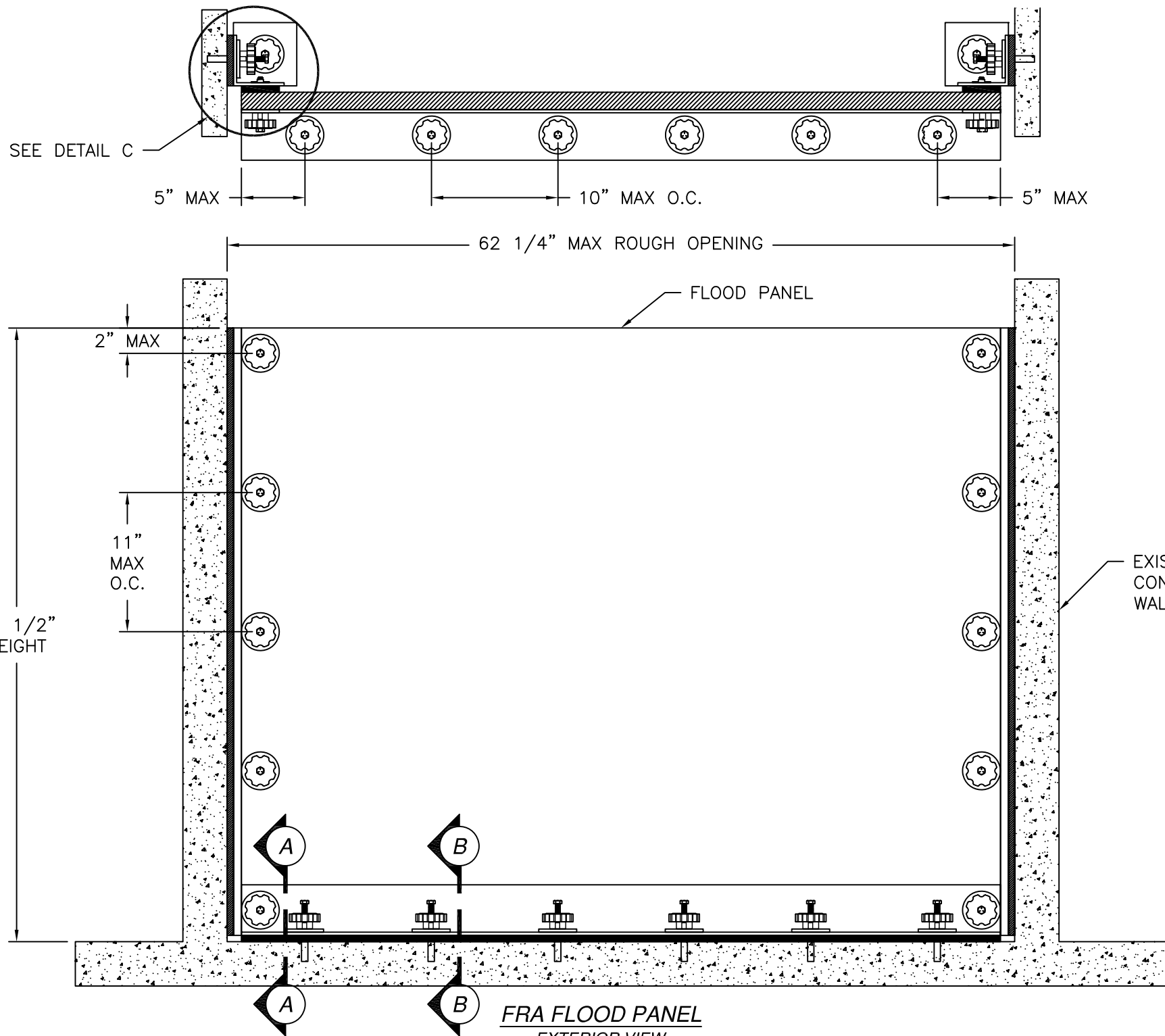




FRA FLOOD PANEL
EXTERIOR VIEW
INSIDE INSTALLATION

DESIGN PRESSURE RATING	IMPACT RATING
±100.0PSF	LARGE MISSILE IMPACT

MISSILE LEVEL D, WIND ZONE 4 AND HVHZ
FOR ADDITIONAL SIZES SEE CHART #1 SHEET 2

TABLE OF CONTENTS	
SHEET NO.	DESCRIPTION
1 AND 2	ELEVATIONS, NOTES AND CHART
3 AND 4	INSTALLATION DETAILS
5	COMPONENTS AND BOM

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

- NOTES:
1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE FLORIDA BUILDING CODE INCLUDING THE HVHZ.
 2. 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. APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.
 4. FLOOD PANELS ARE DESIGNED TO CONTROL SHORT TERM HYDROSTATIC, HYDRODYNAMIC AND DEBRIS IMPACT UP TO THE WATER HEIGHT SHOWN IN THIS DRAWING.
 5. FLOOD PANEL COMPLIES WITH THE REQUIREMENTS OF FEMA TECHNICAL BULLETIN 3 AND ASCE 24.
 6. MAXIMUM HYDROSTATIC WATER LOAD 64PCF OF MOVING WATERS AT 5FT/S.
 7. FOR ANCHORING INTO MASONRY/CONCRETE 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.a. CONCRETE: MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI.
 - 9.b. MASONRY: HOLLOW/GROUT FILLED BLOCK PER ASTM C90 WITH Fm=2,000PSI MINIMUM.
 10. OTHER PANEL SIZES AND ANCHOR SYSTEMS THAT ARE NOT SHOWN IN THIS DOCUMENT REQUIRE THE EVALUATION OF A LICENSED PROFESSIONAL.

SIGNED: 07/16/2026

FLOOD RISK AMERICA
720 LUCERNE AVENUE
LAKE WORTH, FL 33460

FRA FLOOD
PANEL
ELEVATION AND NOTES

DRAWN:
R.L.

DWG NO.
08-03848

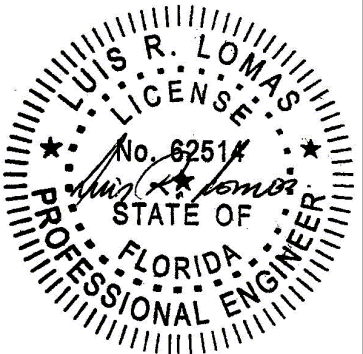
REV
-

SCALE
NTS

DATE
09/27/2022

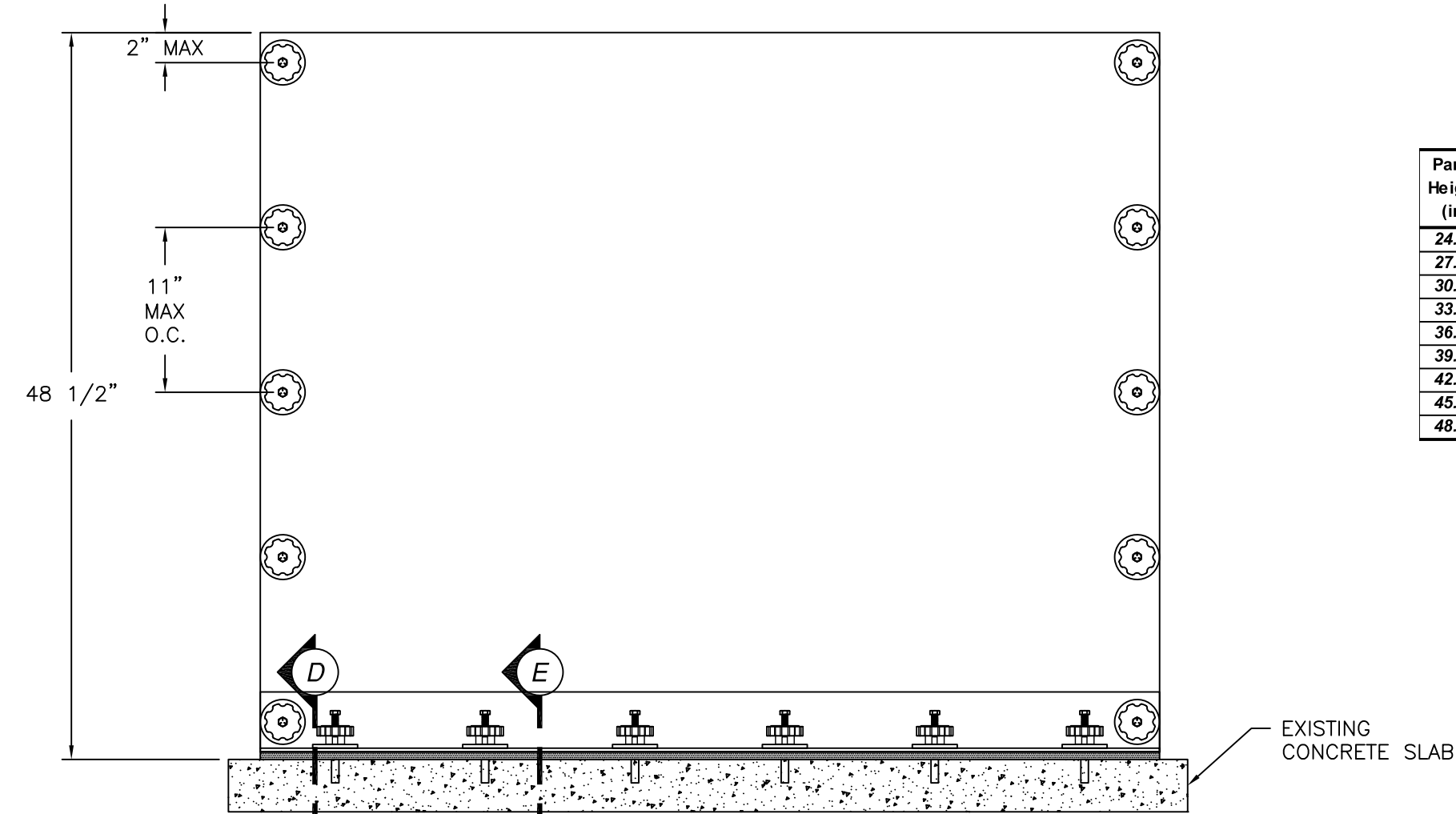
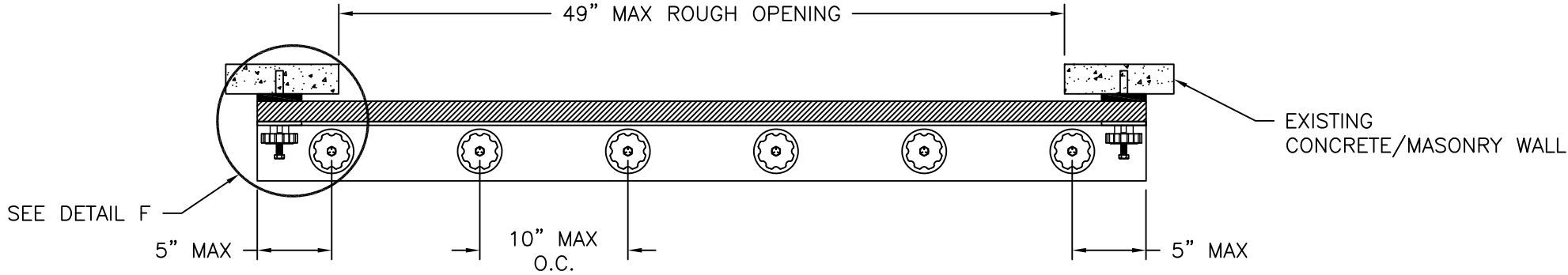
SHEET
1 OF 5

L. ROBERTO LOMAS P.E.
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Luis R. Lomas P.E.
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REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



DESIGN PRESSURE RATING	IMPACT RATING
$\pm 100.0 \text{ PSF}$	LARGE MISSILE IMPACT

MISSILE LEVEL D, WIND ZONE 4 AND HVHZ
FOR ADDITIONAL SIZES SEE CHART#1 SHEET 2

CHART #1

Design pressure chart (psf)

Panel Height (in)	Panel width (in)													
	24.00	30.00	36.25	42.00	48.00	54.00	60.00	66.00	72.00	78.00	84.00	90.00	96.00	100.00
24.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
27.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
30.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
33.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
36.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
39.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
42.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
45.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
48.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Design pressures are positive and negative

SIGNED: 07/16/2026

FLOOD RISK AMERICA
720 LUCERNE AVENUE
LAKE WORTH, FL 33460

FRA FLOOD
PANEL
ELEVATION AND CHART

DRAWN:
R.L.

DWG NO.
08-03848

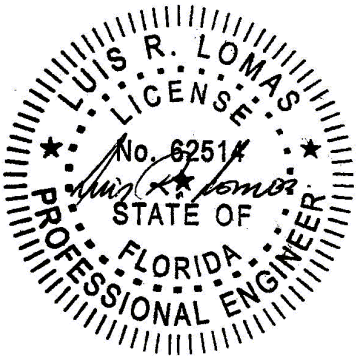
REV
-

SCALE
NTS

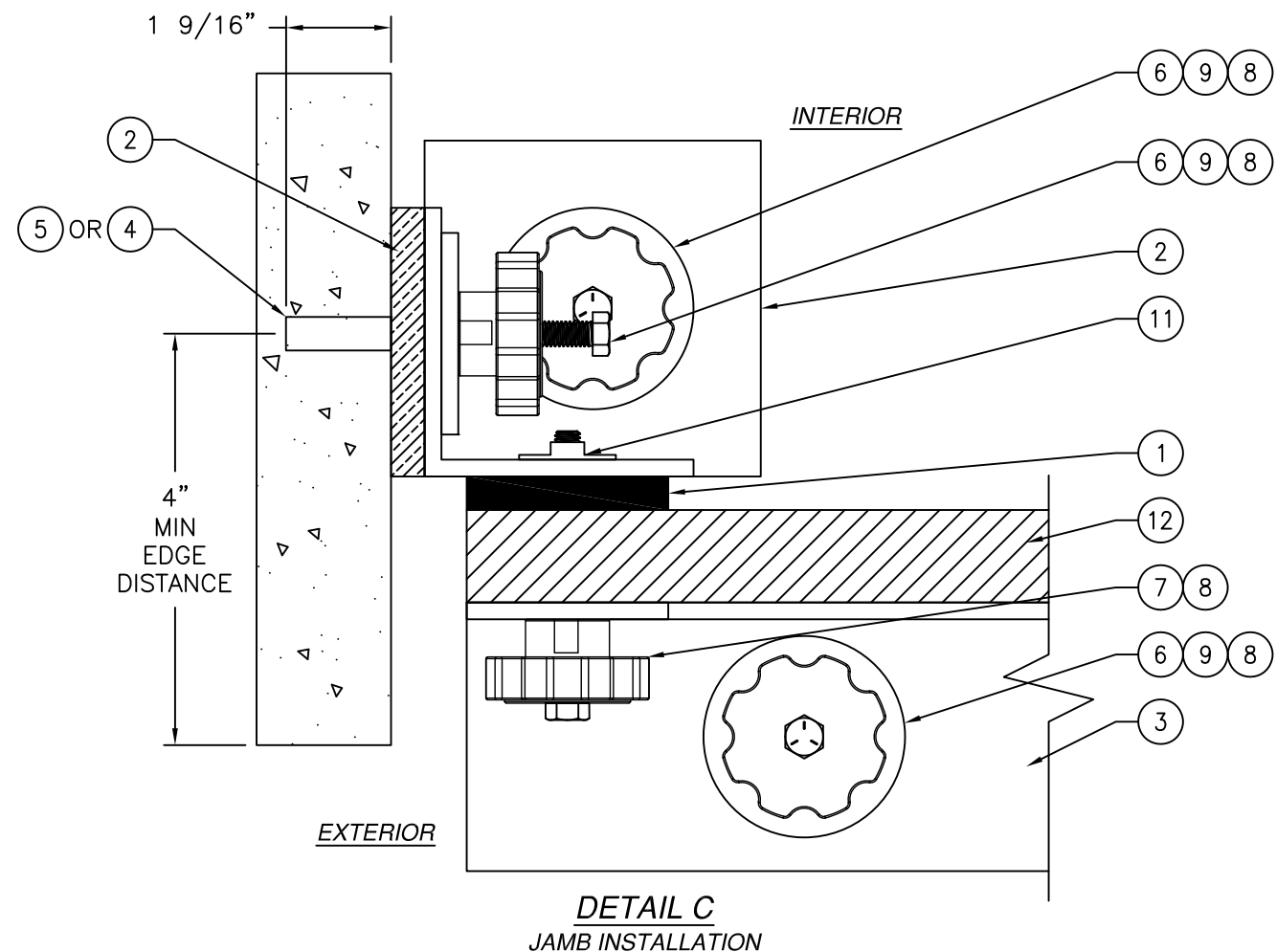
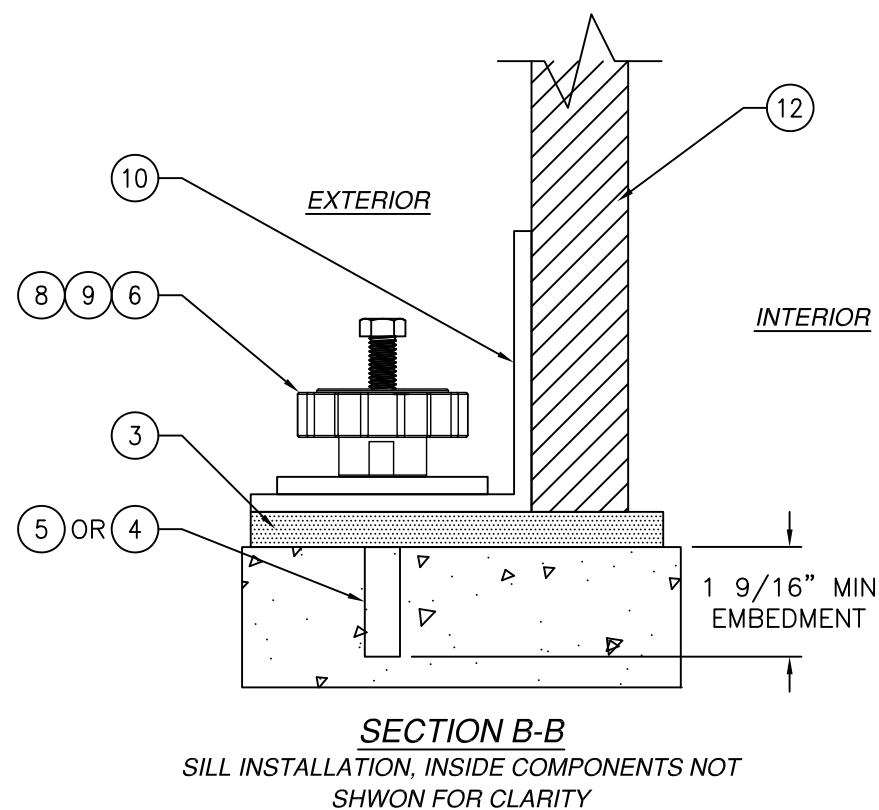
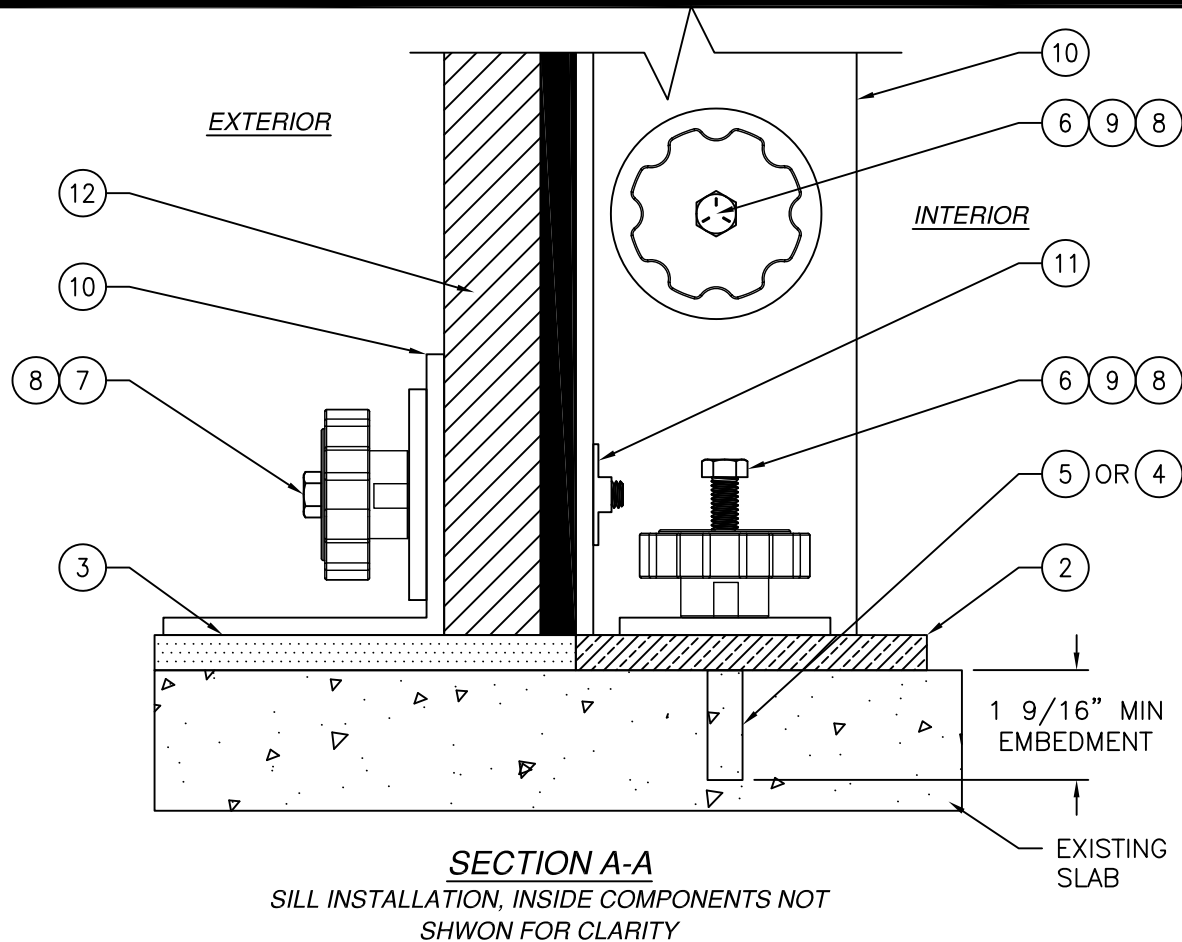
DATE
09/27/2022

SHEET
2 OF 5

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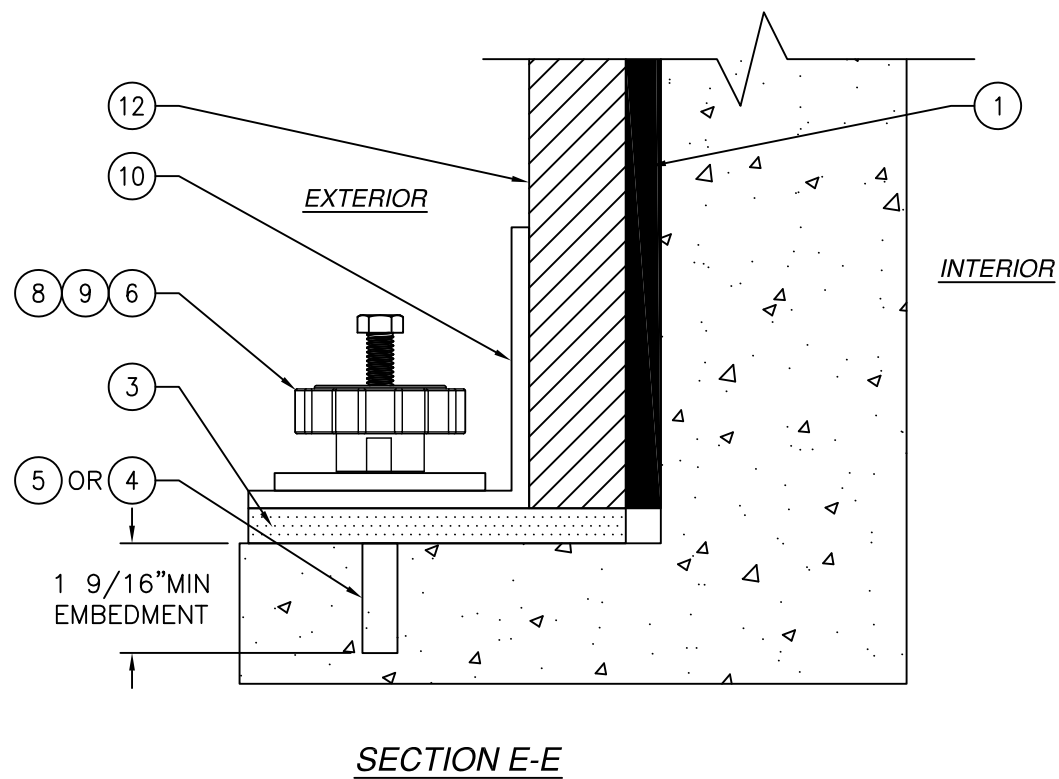
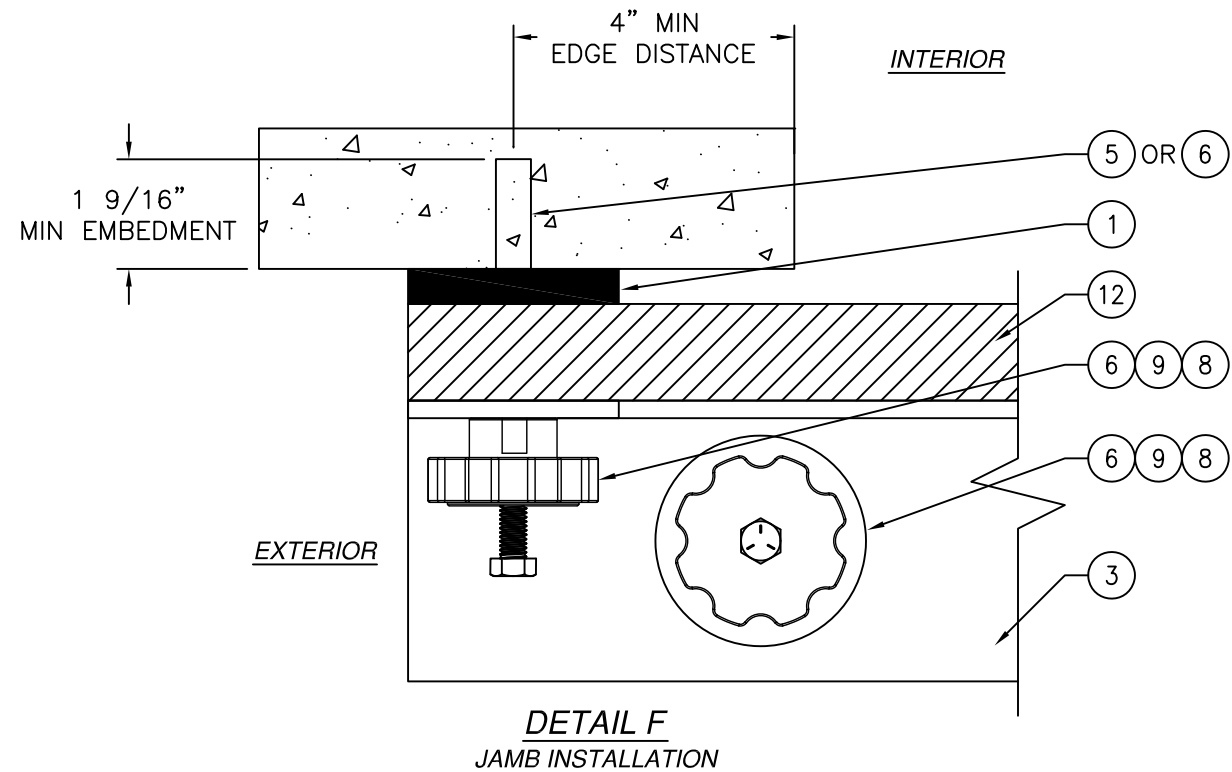
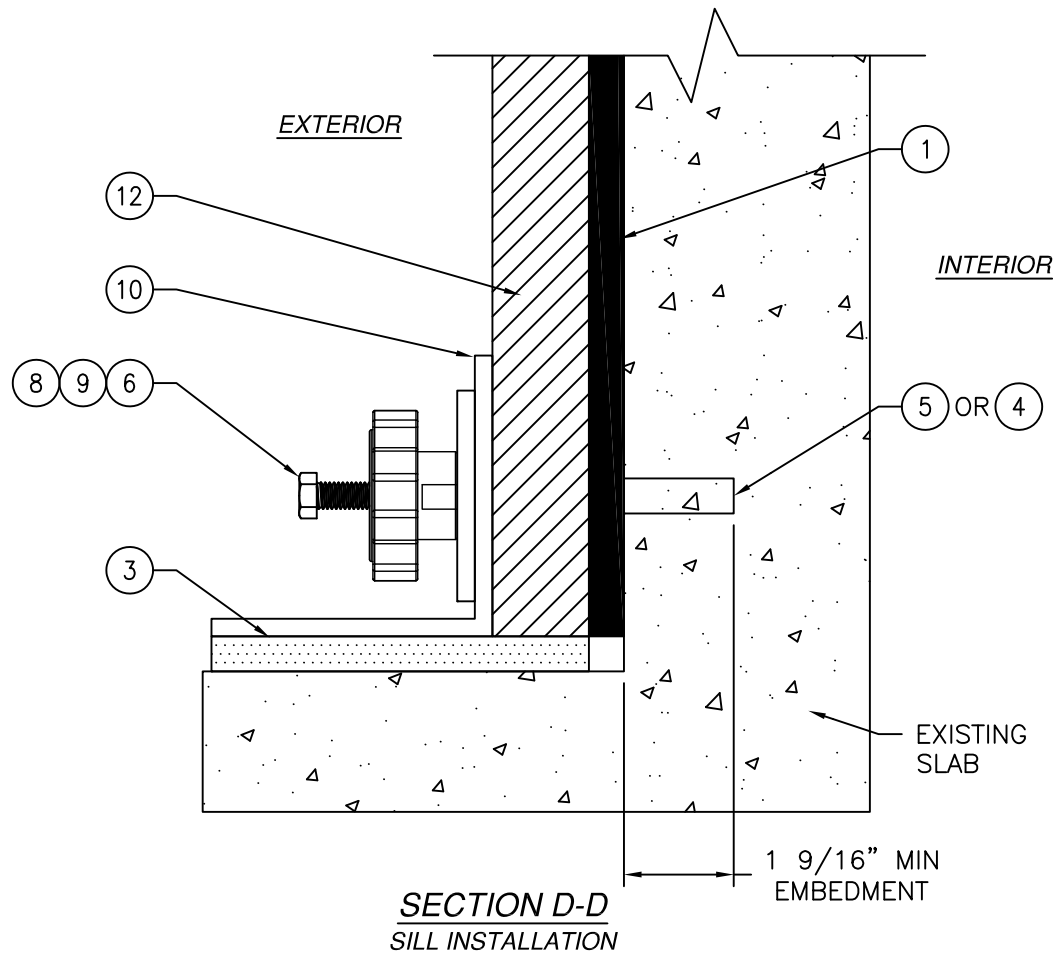
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

FLOOD RISK AMERICA 720 LUCERNE AVENUE LAKE WORTH, FL 33460		
FRA FLOOD PANEL INSTALLATION DETAILS		
DRAWN: R.L.	DWG NO. 08-03848	REV -
SCALE NTS	DATE 09/27/2022	SHEET 3 OF 5
L. ROBERTO LOMAS P.E. 400 S. PALM AVE, INDIALANTIC, FL 32903 434-688-0609 rllomas@lrlomaspe.com		

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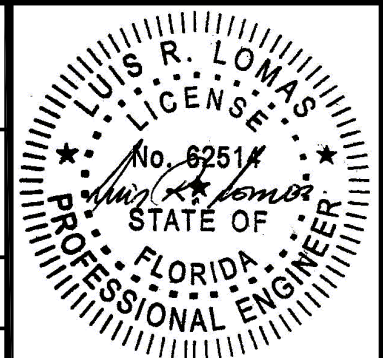
Luis R. Lomas P.E.
FL No.: 62514

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



SIGNED: 07/16/2026

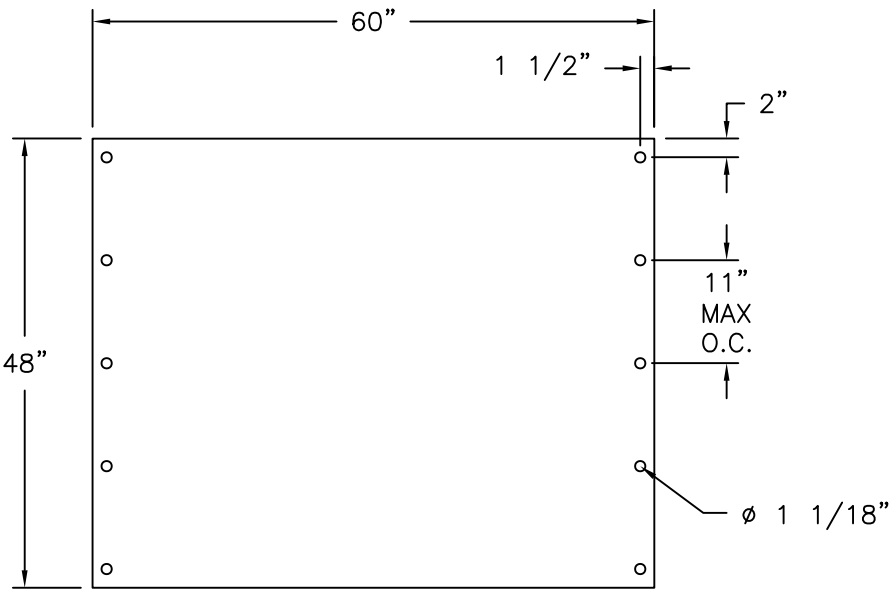
FLOOD RISK AMERICA 720 LUCERNE AVENUE LAKE WORTH, FL 33460		
FRA FLOOD PANEL INSTALLATION DETAILS		
DRAWN: R.L.	DWG NO. 08-03848	REV -
SCALE NTS	DATE 09/27/2022	SHEET 4 OF 5
L. ROBERTO LOMAS P.E. 400 S. PALM AVE, INDIALANTIC, FL 32903 434-688-0609 rllomas@lrlomaspe.com		



Luis R. Lomas P.E.
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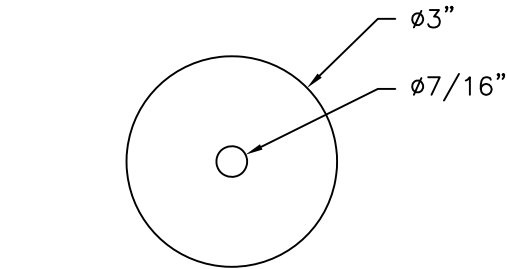
BILL OF MATERIALS	
ITEM NO.:	DESCRIPTION
1	1/2" X 3" CNN GASKET
2	1/2" X 5" CNN GASKET
3	1/2" X 6" CNN GASKET
4	3/8" X 1 1/4" SNAKE ANCHOR
5	3/8" X 1 9/16" SS DROP ANCHOR
6	2 1/2" FLUTED KNOB
7	2 1/2" FLUTED KNOB WITH 3/8" X 4" SS BOLT
8	3" GALVANIZED DOCK WASHER
9	3/8" X 4" GRADE A307 ZINC COATED CARBON STEEL TAP BOLT
10	4" X 4" X 1/4" FIBERGLASS MOUNTING ANGLE
11	SS BACK NUT WELDED TO MOUNTING ANGLE
12	PANEL

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

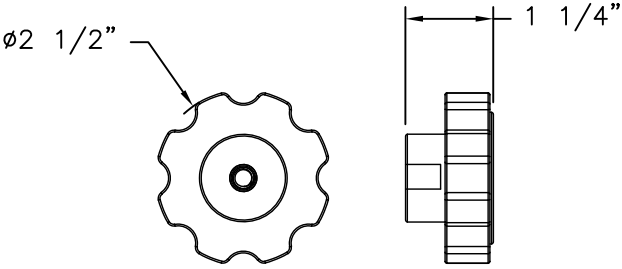


⑩ MOUNTING ANGLE
FIBERGLASS 4" X 4" X 1/4" THICK

⑫ FLOOD PANEL
FIBERGLASS 1 3/8" THICK



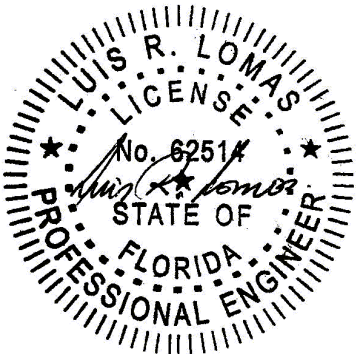
⑧ DOCK WASHER
GALVANIZED STEEL 1/4" THICK



⑥ FLUTED KNOB

FLOOD RISK AMERICA 720 LUCERNE AVENUE LAKE WORTH, FL 33460		
FRA FLOOD PANEL COMPONENTS & BOM		
DRAWN: R.L.	DWG NO. 08-03848	REV -
SCALE NTS	DATE 09/27/2022	SHEET 5 OF 5
L. ROBERTO LOMAS P.E. 400 S. PALM AVE, INDIALANTIC, FL 32903 434-688-0609 rllomas@lrlomaspe.com		

SIGNED: 07/16/2026



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