



303 S. PINE STREET
 SPRING HOPE, NC 27882
 PH: (800) 849-4997 FX: (252) 478-4998

JHRG, LLC.

STORM-A-REST

HURRICANE SHUTTER

(NON-HVHZ)

GENERAL NOTES:

- THE PRODUCT SHOWN HEREIN IS APPROVED AS A LARGE MISSILE IMPACT PROTECTIVE SYSTEM IN ACCORDANCE WITH THE 2007 & 2010 FLORIDA BUILDING CODE EXCLUDING THE HIGH VELOCITY HURRICANE ZONE (HVHZ). TESTING PROTOCOLS WERE IN ACCORDANCE WITH ASTM E330-02, ASTM E1886-05, AND ASTM E1996-05.
- NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS PRODUCT. WINDLOAD DURATION FACTOR Cd=1.6 HAS BEEN USED FOR WOOD ANCHOR DESIGN.
- POSITIVE AND NEGATIVE DESIGN PRESSURES TO BE USED WITH THESE DRAWINGS SHALL BE DETERMINED BY OTHERS FOR SPECIFIC JOBS IN ACCORDANCE WITH THE GOVERNING CODE.
- THE SHUTTER SYSTEM DETAILED HERE IN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. IF SITE CONDITIONS DEVIATE FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS TO BE USED IN CONJUNCTION WITH THIS DOCUMENT.
- STORMPANELS SHALL BE STORM-A-REST (SINGLE LAYER) FABRIC. EACH GROMMET ROW IS REINFORCED WITH ONE (1) 6061 T6511 ALUMINUM FLAT 1/8" X 1" X AS REQUIRED FOR THE ENTIRE WIDTH OF THE PANEL.
- PANELS SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF ONE LABEL PER PANEL AS FOLLOWS:
 JHRG, LLC
 FLORIDA STATE PRODUCT APPROVAL
- PANELS MAY BE MOUNTED HORIZONTALLY WHERE APPLICABLE (i.e. WITH LINE OF ANCHORAGE IN VERTICAL DIRECTION).
- ALL BOLTS & WASHERS SHALL BE ZINC COATED, GALVANIZED OR STAINLESS STEEL WITH A MINIMUM TENSILE STRENGTH OF 60 KSI.
- TOP AND BOTTOM DETAILS SHOWN ON THIS DRAWING MAY BE INTERCHANGED AS FIELD CONDITIONS DICTATE.
- ALL ACCEPTANCE CRITERIA HAVE BEEN MET FOR THIS SHUTTER AS A NON-POROUS SYSTEM, AS DEFINED IN ASTM E 1996. IN KEEPING WITH THIS STANDARD, NO MINIMUM SEPARATION FROM GLAZING IS REQUIRED, AND BREAKING OF THIS GLAZING DOES NOT COMPROMISE THE BUILDING ENVELOPE.
- ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE/MASONRY AND 2X FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
- SEE THE DESIGN PRESSURE RATING ON THIS SHEET.

INSTALLATION NOTES:

- ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION SHOWN.
- THE NUMBER OF INSTALLATION ANCHORS DEPICTED IS THE MINIMUM NUMBER OF ANCHORS TO BE USED FOR PRODUCT INSTALLATION.
- MINIMUM EDGE DISTANCE AND EMBEDMENT EXCLUDE WALL FINISHES (INCLUDING BUT NOT LIMITED TO STUCCO, FOAM, BRICK VENEER, AND SIDING).
- INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.
- FOR HOLLOW BLOCK AND GROUT FILLED BLOCK, DO NOT INSTALL INSTALLATION ANCHORS INTO MORTAR JOINTS. EDGE DISTANCE IS MEASURED FROM FREE EDGE OF BLOCK OR EDGE OF MORTAR JOINT INTO FACE SHELL OF BLOCK.
- 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 BY THE ANCHOR MANUFACTURER.
- STORM-A-REST FABRIC MATERIAL SPECS:**

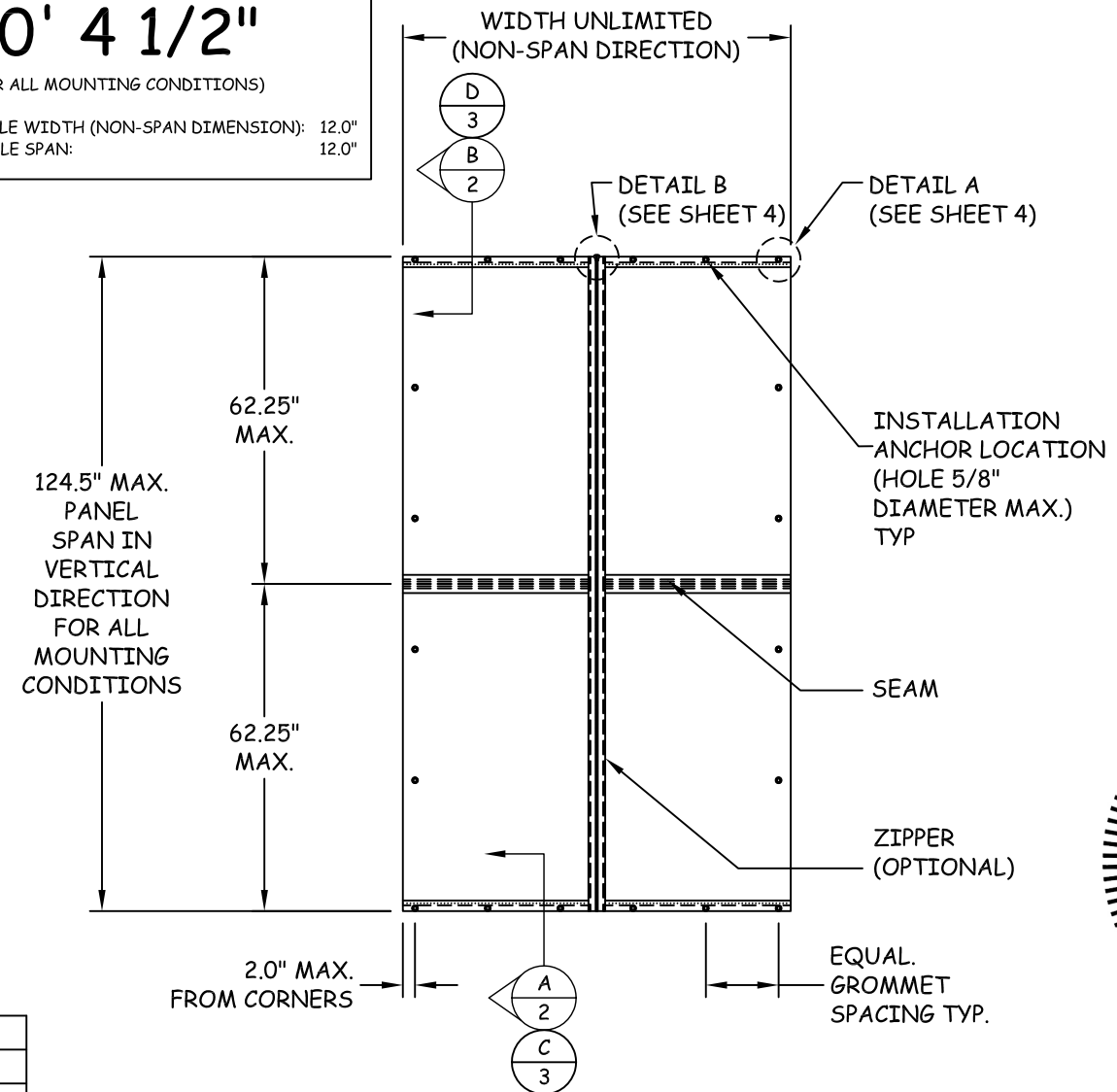
STORM-A-REST 503W/E/PEH WOVEN FABRIC WITH EVA AND POLYETHYLENE FILM COATING ON BOTH SIDES, UV RESISTANT

WEIGHT: 11.5 OZ/SQARE YARD +/- 1 OZ.
 TENSILE: 1079 PSI
 TONGUE TEAR OUT: NOT LESS THAN 260 X 250 LBS
 ABRASION: 63000 CYCLES
 COLD CRACK: -40°F

SPAN NOTES:

- ALLOWABLE DESIGN PRESSURES SHALL NOT BE EXCEEDED.
- PANEL SPANS LONGER THAN MAXIMUM NOTED ARE NOT ALLOWED.
- PANEL SPANS LESS THAN MINIMUM NOTED ARE NOT ALLOWED.
- PANELS MAY BE MOUNTED VERTICALLY OR HORIZONTALLY.

MAXIMUM ALLOWABLE SPAN
10' 4 1/2"
 (FOR ALL MOUNTING CONDITIONS)
 MIN. ALLOWABLE WIDTH (NON-SPAN DIMENSION): 12.0"
 MIN. ALLOWABLE SPAN: 12.0"



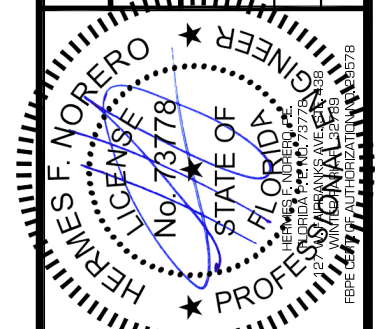
**ELEVATION
 EXTERIOR VIEW**

DESIGN PRESSURE RATING	
DESIGN PRESSURE	MISSILE IMPACT RATING
+/-78.0 PSF	SMALL AND LARGE MISSILE IMPACT RATED

TABLE OF CONTENTS		
SHEET	REV.	SHEET DESCRIPTION
1	B	ELEVATION, ANCHOR LAYOUT & GENERAL NOTES
2	B	VERTICAL SECTIONS
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4	B	COMPONENTS AND BILL OF MATERIALS

TITLE: STORM-A-REST (NON-HVHZ) ELEVATION, ANCHOR LAYOUT & GENERAL NOTES
 PREPARED BY: BUILDING DROPS 127 W. FAIRBANKS AVE., STE. 438 WINTER PARK, FL 32789 PH: (407) 644-6957 FX: (407) 644-2366

REVISIONS	DESCRIPTION	NO.	BY	DATE
			KH	02.22.10
	UPDATED TABLE OF CONTENTS	A	MS	02.23.12
	2010 FBC CODE CHANGE	B		



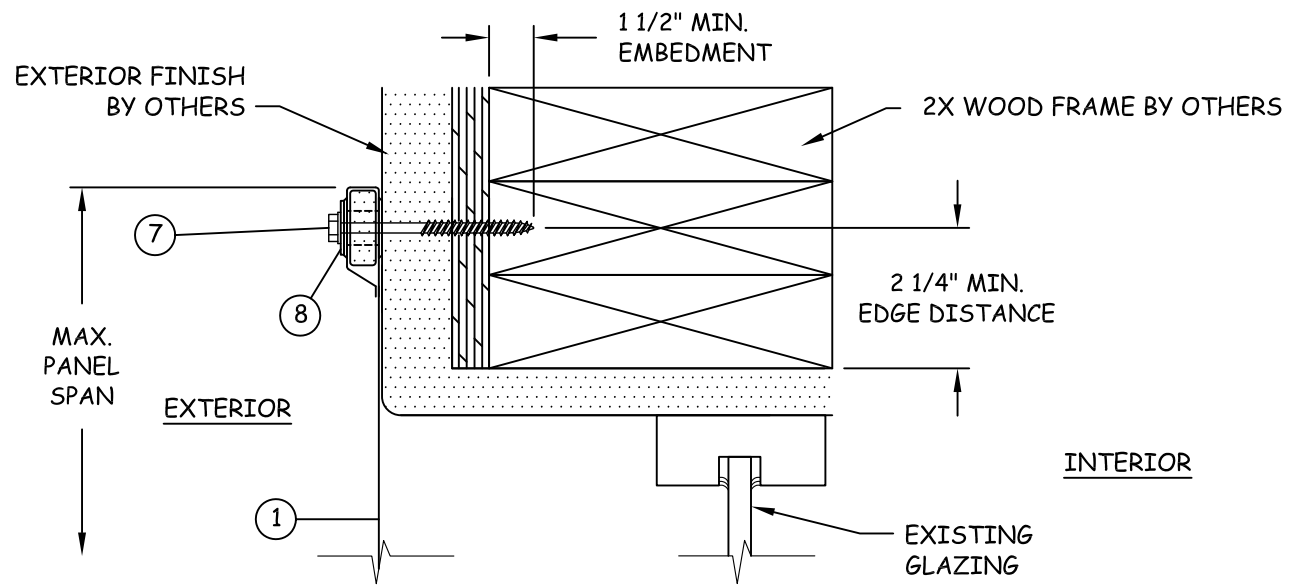
DATE: 04.22.09
 DWN BY: JLR
 CHK BY: HN
 SCALE: NTS
 DWG #: **JHRG05**
 SHEET: **1 OF 4**

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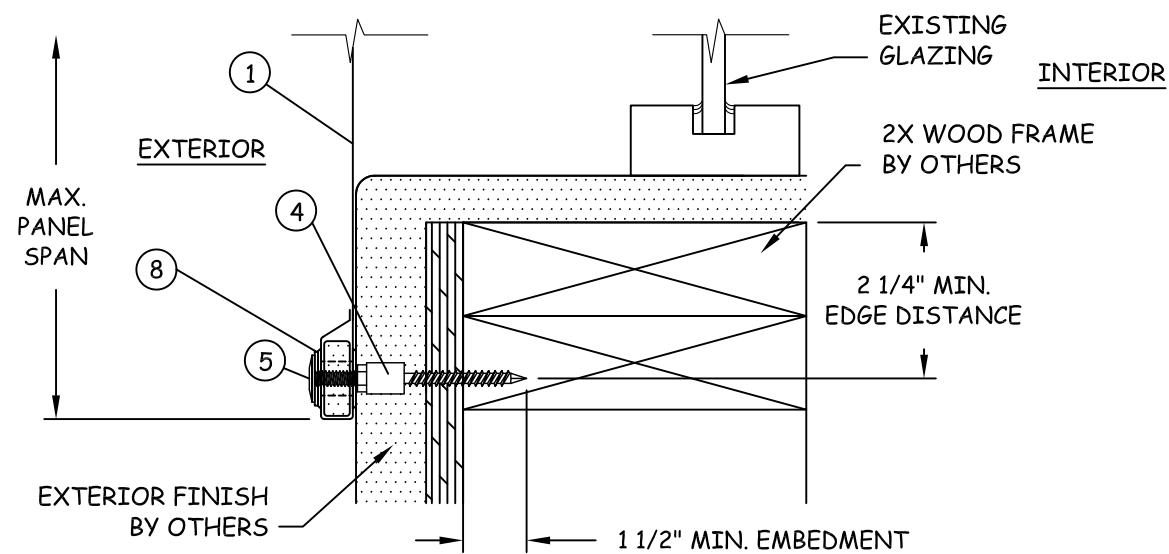
Offset Recommendations Based On Positive Load

Design Pressure (PSF)	Deflections (in.)		
	Spans up to 4'-0"	Spans up to 6'-0"	Spans up to 10'-0"
20	4	8	10
25	4	8	10
30	4	9	10
35	4	9	12
40	4	10	12
45	4	10	13
50	4	10	13
55	4	10	14
60	4	10	14
65	4	10	14
70	4	10	14
78	4	10	14

*SHUTTER/GLASS SEPARATION SHALL BE MEASURED AT MID-SPAN OF FABRIC



B
2
VERTICAL SECTION
HEAD - 2X WOOD SUBSTRATE
1/4" ITW BUILDEX TAPCON SG



A
2
VERTICAL SECTION
SILL - 2X WOOD SUBSTRATE
1/4" ITW BUILDEX SAMMYS SSC

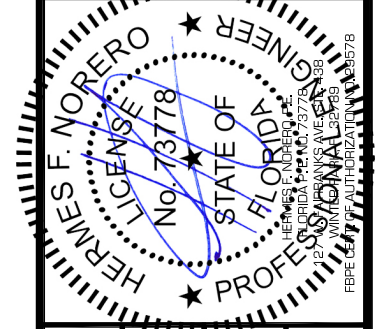
		Anchor Schedule					
		Anchor Spacing SYP Timber (S.G.=0.53)			Anchor Spacing 3000 PSI Concrete		
Anchor	Design Pressure (PSF)	2 1/4" Edge Distance			2 1/2" Edge Distance		
		Spans up to 4'-0"	Spans up to 6'-0"	Spans up to 9'-0"	Spans up to 4'-0"	Spans up to 6'-0"	Spans up to 10'-0"
ITW Buildex Sammy Hurricane Shuter Screw SSW w/ 1 3/4" Tapcon(w/ 1/4" - 20 x 3/4" Combo Side Walk Bolt SS)	20	12	12	12	12	12	12
	25	12	12	12	12	12	12
	30	12	12	12	12	12	12
	35	12	12	12	12	12	12
	40	12	12	12	12	12	12
	45	12	12	12	12	12	12
	50	12	12	12	12	12	12
	55	12	12	11	12	12	12
	60	12	12	10	12	12	12
	65	12	12	9	12	12	11
70	12	12	8	12	12	10	
78	12	12	7	12	12	9	
ITW Buildex 1/4 x 2 1/4" Tapcon SG w/ Ultrashield	20	12	12	12	12	12	12
	25	12	12	12	12	12	12
	30	12	12	12	12	12	12
	35	12	12	12	12	12	12
	40	12	12	12	12	12	12
	45	12	12	12	12	12	12
	50	12	12	12	12	12	12
	55	12	12	12	12	12	12
	60	12	12	12	12	12	12
	65	12	12	12	12	12	12
70	12	12	11	12	12	12	
78	12	12	10	12	12	12	



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VERTICAL SECTIONS
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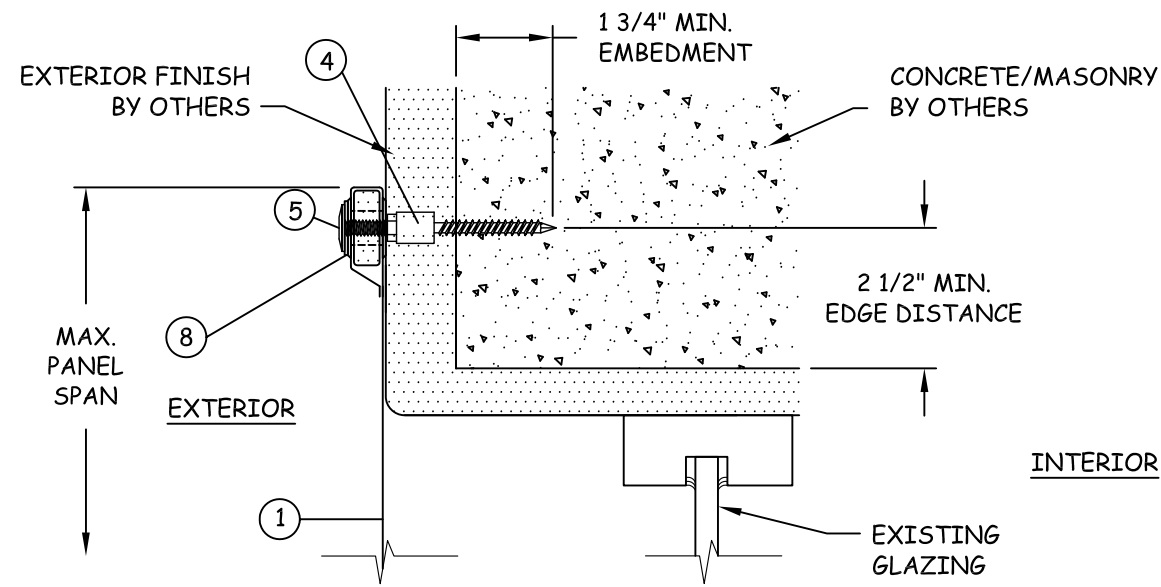
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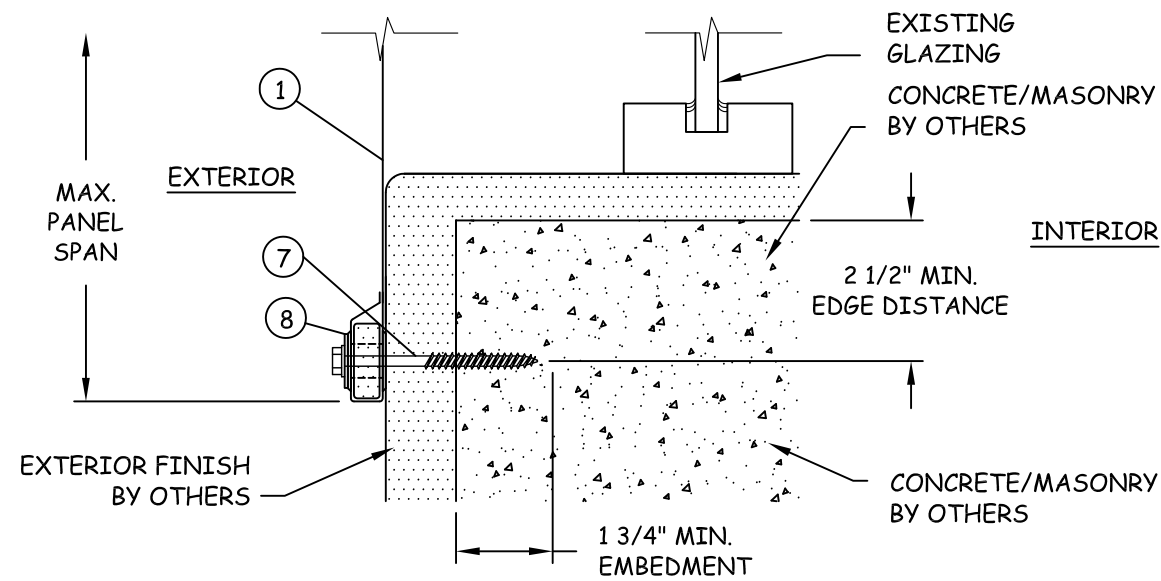
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SHEET: 2 OF 4

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D
3 **VERTICAL SECTION**
HEAD - MASONRY/CONCRETE SUBSTRATE
1/4" ITW BUILDEX SAMMYS SSC



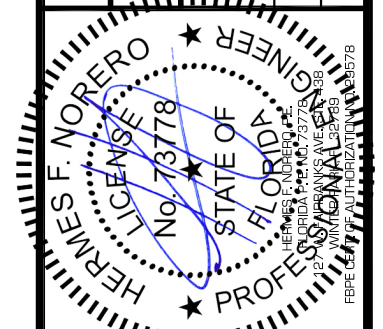
C
3 **VERTICAL SECTION**
SILL - MASONRY/CONCRETE SUBSTRATE
1/4" ITW BUILDEX TAPCON SG



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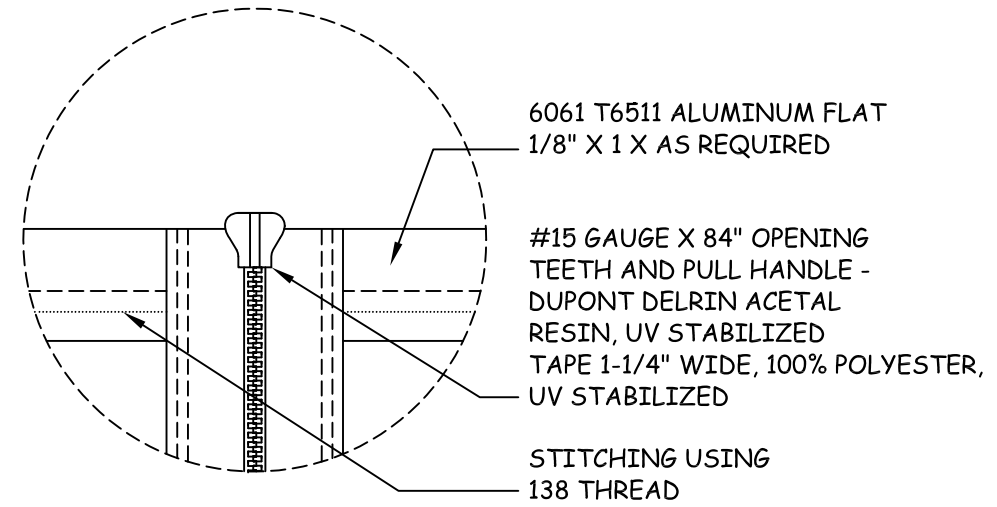
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JHRG05
SHEET: **3 OF 4**

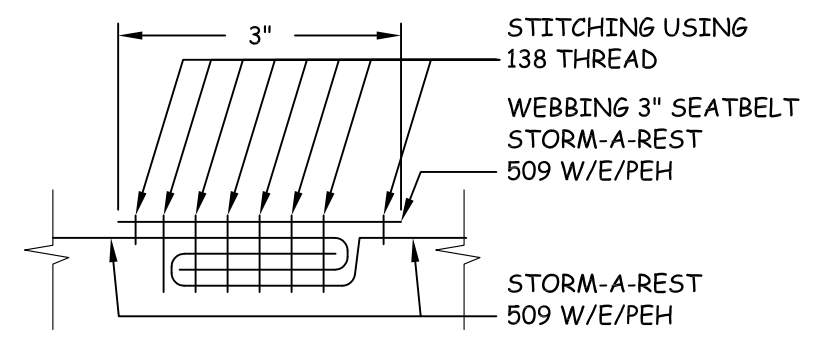


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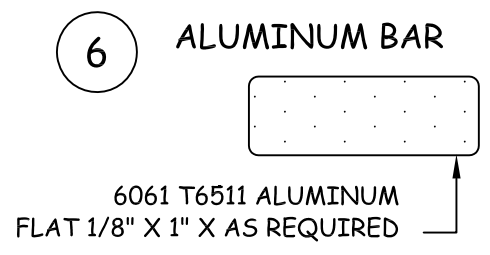
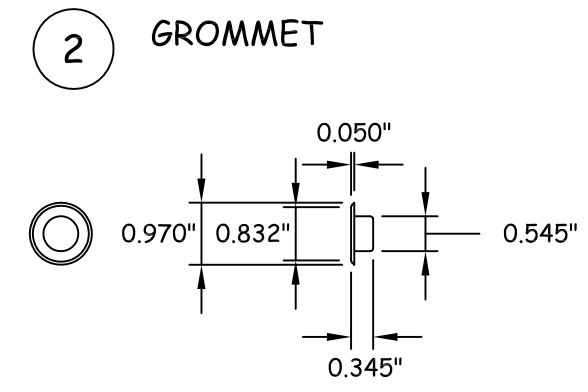
ITEM #	DESCRIPTION	MATERIAL	MANUFACTURER
1	STORM-A-REST 503 W/E/PEH	POLYETHYLENE	JHRG, LLC
2	GROMMET	305 S. STEEL	
3	ZIPPER AND SLIDER	RESIN	LENZIP
4	1/4" ITW BUILDEX SAMMYS SSC	STEEL	
5	1/4-20 X 3/4" SIDEWALK BOLT	S. STEEL	
6	6061 T6511 ALUMINUM FLAT 1/8" X 1"	ALUMINUM	
7	1/4" ITW BUILDEX TAPCON SG	STEEL	
8	1/4" FLAT WASHER	S. STEEL	



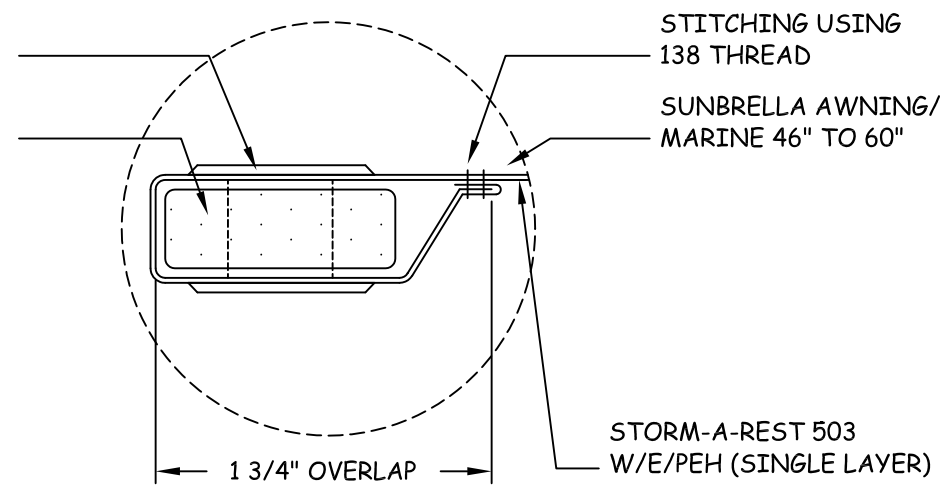
DETAIL B
 LENZIP ZIPPER



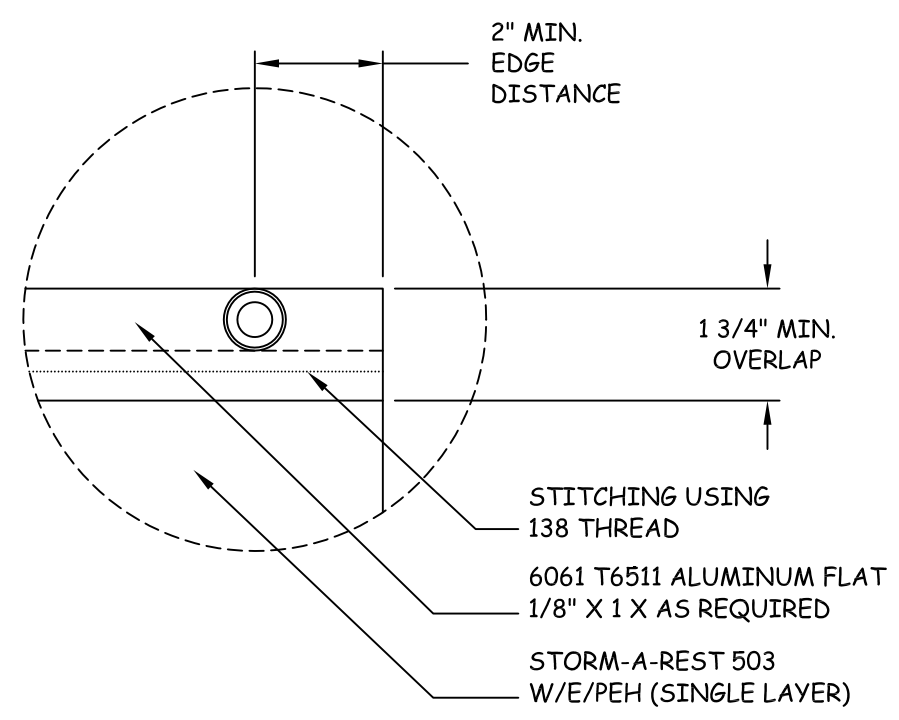
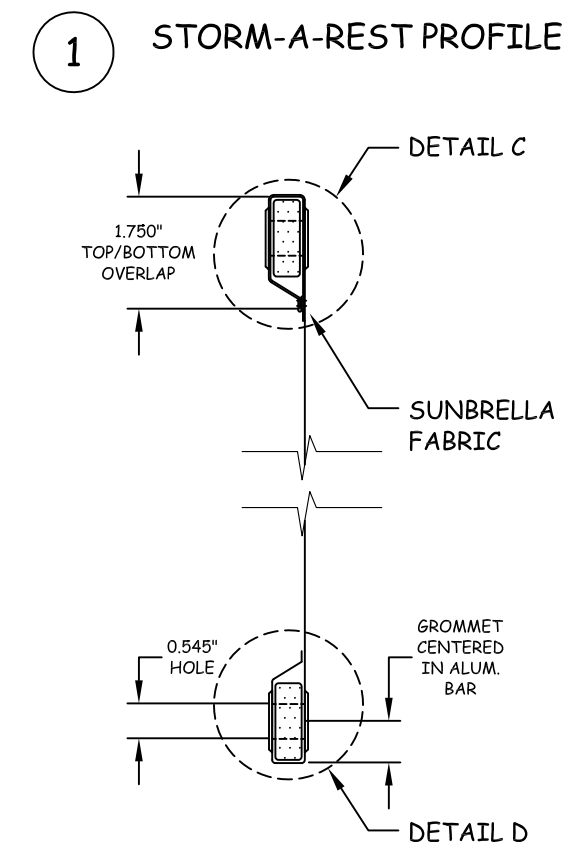
DETAIL E
 SEAM USED TO JOIN PANELS



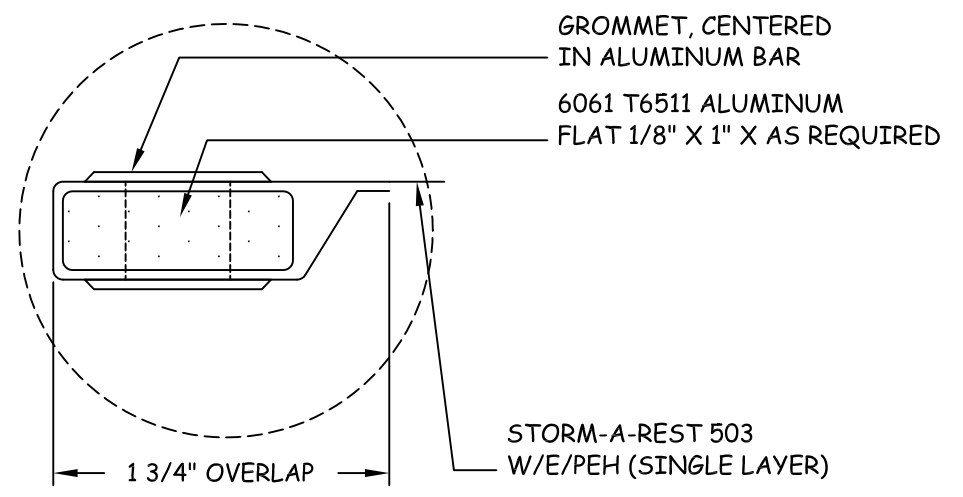
GROMMET, CENTERED
 IN ALUMINUM BAR
 6061 T6511 ALUMINUM
 FLAT 1/8" X 1" X AS REQUIRED



DETAIL C
 MOUNTING BRACKET DETAIL
 WITH SUNBRELLA FABRIC



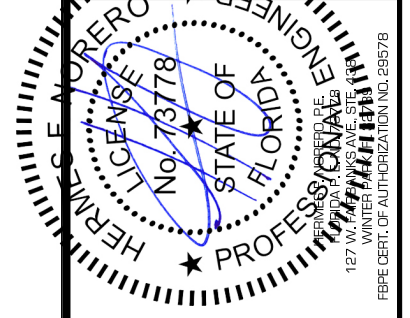
DETAIL A
 PANEL CORNER



DETAIL D
 MOUNTING BRACKET DETAIL

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 COMPONENTS AND BILL OF MATERIALS
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