

C:\Users\rickn\Engineering\Express\Production - Documents\Projects\20-26164 - E.A. Essential Facilities Accordion\WP\2020 FBC\20-26164.d - FL13757.3 - DWG.dwg
rickn
08/11/2020 - 10:15pm

E.A. ESSENTIAL FACILITIES ACCORDION

EXTREME DUTY ACCORDION FOR ESSENTIAL FACILITIES - ASTM 1996 LEVEL "E" 80 FPS LARGE MISSILE RATED

ASTM LEVEL E & ESSENTIAL FACILITIES

GENERAL NOTES:

1. THIS SYSTEM HAS BEEN TESTED AND EVALUATED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE SEVENTH EDITION (2020), THE INTERNATIONAL RESIDENTIAL CODE (IRC) AND THE INTERNATIONAL BUILDING CODE (IBC), FOR USE WITH MISSILE LEVEL "E" REQUIREMENTS AND INCLUDES ESSENTIAL FACILITIES AS DEFINED IN ASTM E1996 FOR USE OUTSIDE THE HIGH VELOCITY HURRICANE ZONE ONLY (NON-HVHZ). SEE PRODUCT EVALUATION REPORT FOR MORE INFORMATION.
2. POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED PER SEPARATE ENGINEERING IN ACCORDANCE WITH THE GOVERNING CODE. PRESSURE REQUIREMENTS AS DETERMINED IN ACCORDANCE WITH ASCE 7 AND OR CHAPTER 1609 OF THE FLORIDA BUILDING CODE SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY WITHIN THE LIMITATION STATE HEREIN.
3. TESTING WAS CONDUCTED IN ACCORDANCE WITH ASTM E1886/E1996/E330.
4. DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY A 1.5 SAFETY FACTOR.
5. NO INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THESE PRODUCTS. WIND LOAD DURATION FACTOR Cd = 1.6 WAS USED FOR WOOD ANCHOR DESIGN.
6. THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT.
7. USE OF THESE APPROVAL DOCUMENTS SHALL COMPLY WITH CHAPTER 61G15-23 OF THE FLORIDA ADMINISTRATIVE CODE.
8. THESE APPROVAL DOCUMENTS ARE SUITABLE TO BE APPLIED BY THE CONTRACTOR PROVIDED THE CONTRACTOR DOES NOT DEVIATE FROM THE CONDITIONS DETAILED HEREIN AND THE CONTRACTOR VERIFIES THAT THE EXISTING STRUCTURE DOES NOT DEVIATE IN EITHER FORM OR MATERIAL FROM THE STRUCTURAL SUBSTRATES DETAILED HEREIN.
9. WHEN THE SITE CONDITIONS DEVIATE FROM THESE APPROVAL DOCUMENTS, THE BUILDING OFFICIAL MAY REQUIRE THAT SITE SPECIFIC DOCUMENTS BE PREPARED, SIGNED, DATED AND SEALED BY A LICENSED ENGINEER OR REGISTERED ARCHITECT, WHICH DETAIL AND JUSTIFY THE DEVIATION, AS A CONDITION TO THE BUILDING OFFICIAL GRANTING HIS/HER APPROVAL.
10. EACH SHUTTER ASSEMBLY SHALL BE PERMANENTLY LABELED WITH THE FOLLOWING MINIMUM INFORMATION:

TOWN & COUNTRY INDUSTRIES
FORT LAUDERDALE, FL
MISSILE LEVEL E - ASTM E1886, E1996 & E330
FLORIDA PRODUCT APPROVAL NUMBER

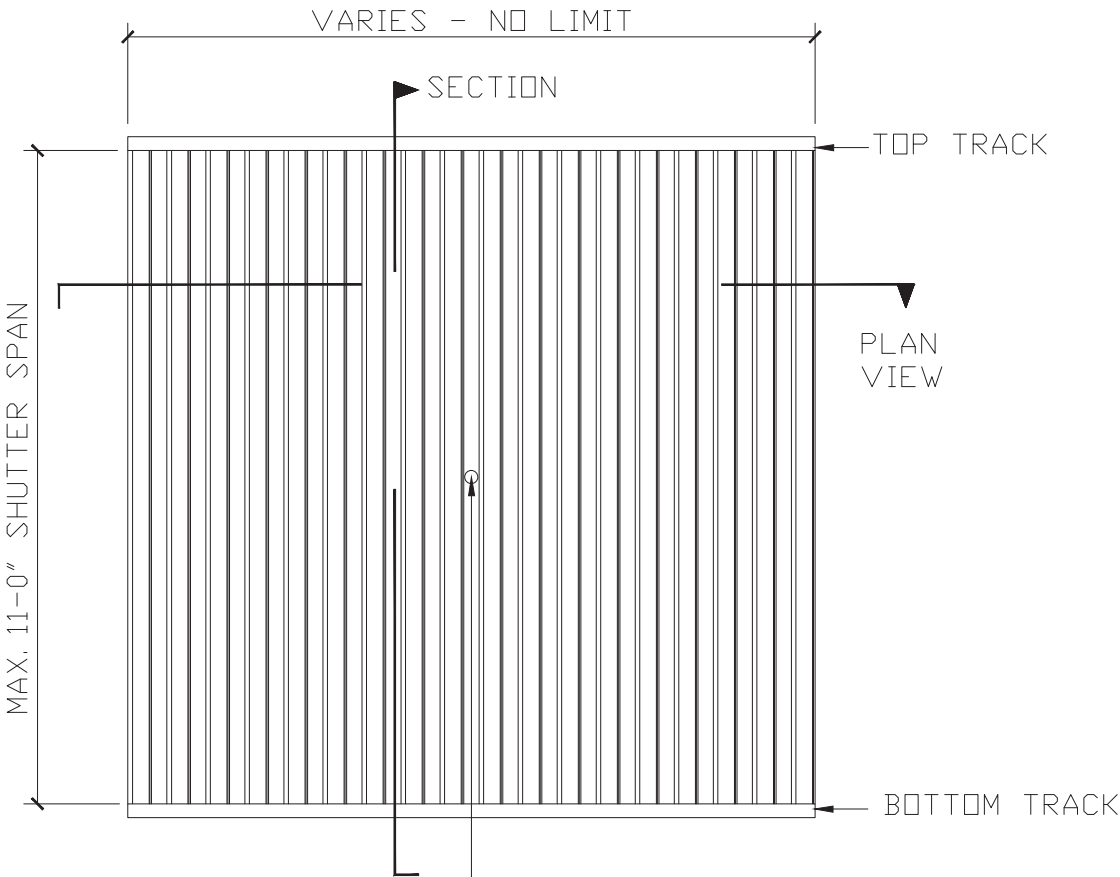
11. ALL EXTRUSIONS SHOWN SHALL BE 6063-T6 ALUMINUM ALLOY, U.O.N., WITH A MINIMUM Fy OF 25 K.S.I.
12. ALL BOLTS AND WASHERS (EXCLUDING INSTALLATION) SHALL BE STAINLESS STEEL WITH A MINIMUM TENSILE STRENGTH OF 60 K.S.I., U.O.N. POP RIVETS SHALL BE 1/4"Ø OR 3/16"Ø 5052 ALUM. ALLOY. INSTALLATION ANCHORS SHALL BE CADMIUM-PLATED OR OTHERWISE CORROSION-RESISTANT MATERIAL AND SHALL COMPLY WITH "SPECIFICATIONS FOR ALUMINUM STRUCTURES" BY THE ALUMINUM ASSOCIATION, INC., & ANY APPLICABLE FEDERAL, STATE, AND/OR LOCAL CODES.
13. ALL SHUTTERS SHALL HAVE A LOCKING MECHANISM CONSISTING OF A THUMBSCREW AT CENTER OR SIDE CLOSURE AS DETAILED HEREIN.
14. TOP AND BOTTOM DETAILS MAY BE INTERCHANGED AS FIELD CONDITIONS REQUIRE.
15. FLOOR TRACKS MAY BE REMOVABLE AT NON-STACKING LOCATIONS. USE REMOVABLE ANCHORS AS SPECIFIED HEREIN.
16. ALL DISSIMILAR MATERIALS SHALL BE PAINTED OR PLATED AS PRESCRIBED IN THE ABOVE-NOTED BUILDING CODE.



MAXIMUM ALLOWABLE DESIGN PRESSURE	MAXIMUM PANEL SPAN
+110 PSF / -128 PSF	11'-0"

DESIGN NOTES:

POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED BY OTHERS ON A JOB-SPECIFIC BASIS IN ACCORDANCE WITH THE GOVERNING CODE. SITE-SPECIFIC LOAD WIND LOAD REQUIREMENTS SHALL BE DETERMINED IN ACCORDANCE WITH ASCE 7 AND THE FLORIDA BUILDING CODE BY SEPARATE ENGINEERING. CERTIFICATION AND SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUE LISTED HEREIN FOR ANY ASSEMBLY WITHIN THE LIMITATIONS STATED HEREIN.



LOCKING MECHANISM, SEE
TYPICAL PLAN VIEWS

TYPICAL ACCORDION
SHUTTER ELEVATION
N.T.S.

VISIT [ECALC.IO/26164](https://ecalculator.com/26164)

FOR SITE SPECIFIC DEVIATIONS
& MORE INFORMATION ABOUT THIS DOCUMENT
OR SCAN THIS QR CODE

VISIT [ENGINEERINGEXPRESS.COM/STORE](https://engineeringexpress.com/store)
FOR ADDITIONAL PLANS, REPORTS & RESOURCES



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FL13757.3

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	CSL	TSB	8/20/12
2014 FBC	RWN	CSL	3/25/15
2017 FBC	RWN	FLB	8/04/17
2020 FBC	CB	RWN	6/23/20

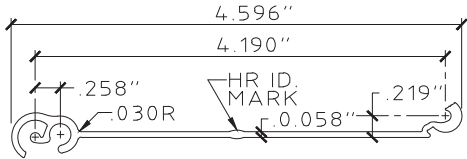
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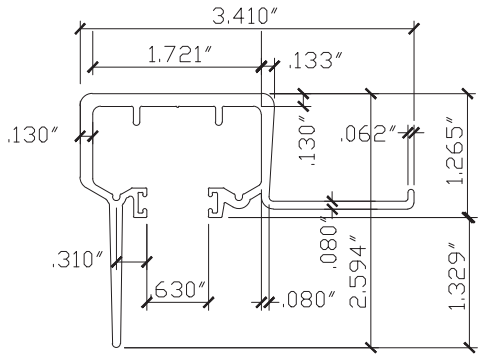
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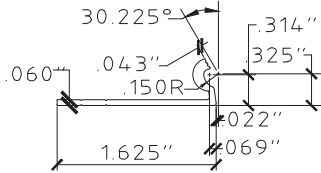
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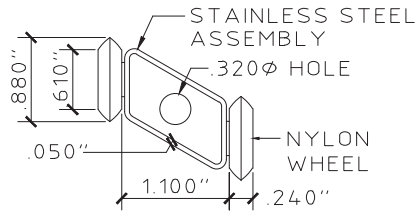
1 TYP. HR SLAT
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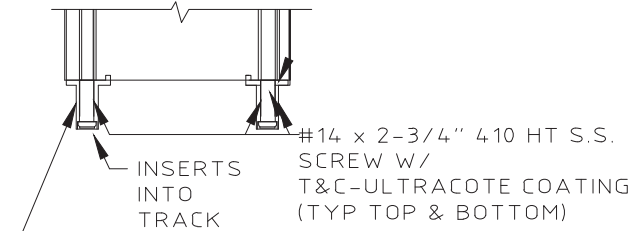
2 CEILING HEADER/SILL
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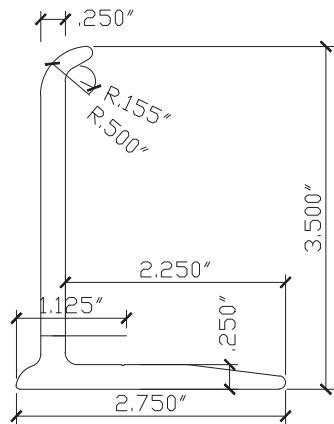
3 6.8 STARTER
SCALE: HALF SIZE



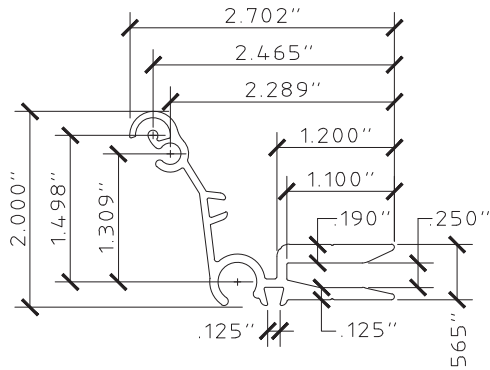
4 ROLLER ASSEMBLY
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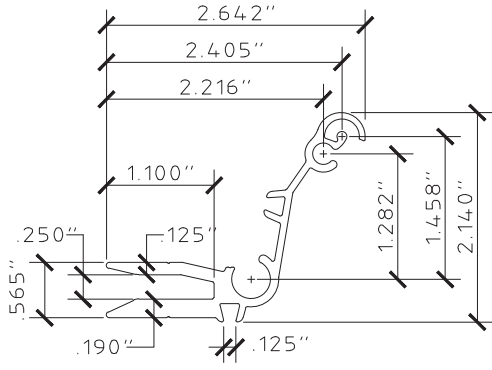
5 BUSHING ASSEMBLY DETAIL
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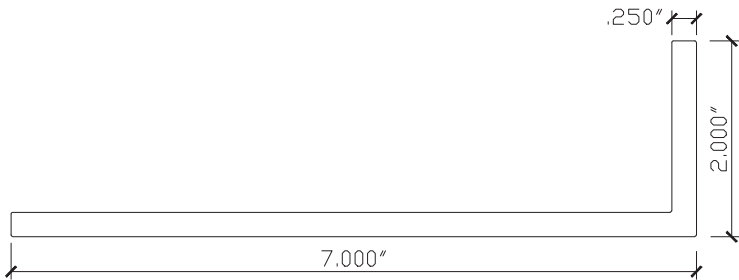
6 RAINGUARD
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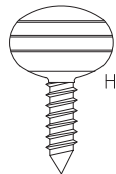
7 OUTSIDE CENTER MATE
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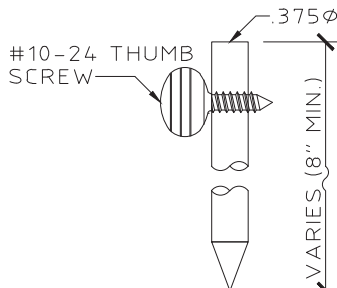
8 INSIDE CENTER MATE
SCALE: HALF SIZE



9 2X7 ANGLE
SCALE: HALF SIZE



11 THUMB SCREW
SCALE: FULL SIZE



12 SLIDE ROD
SCALE: HALF SIZE

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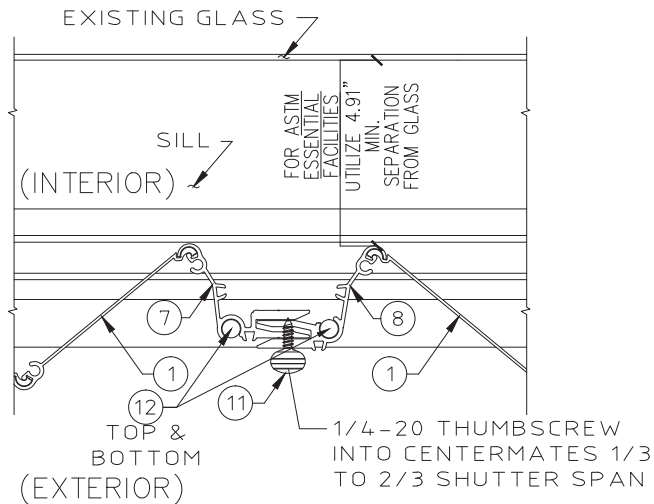
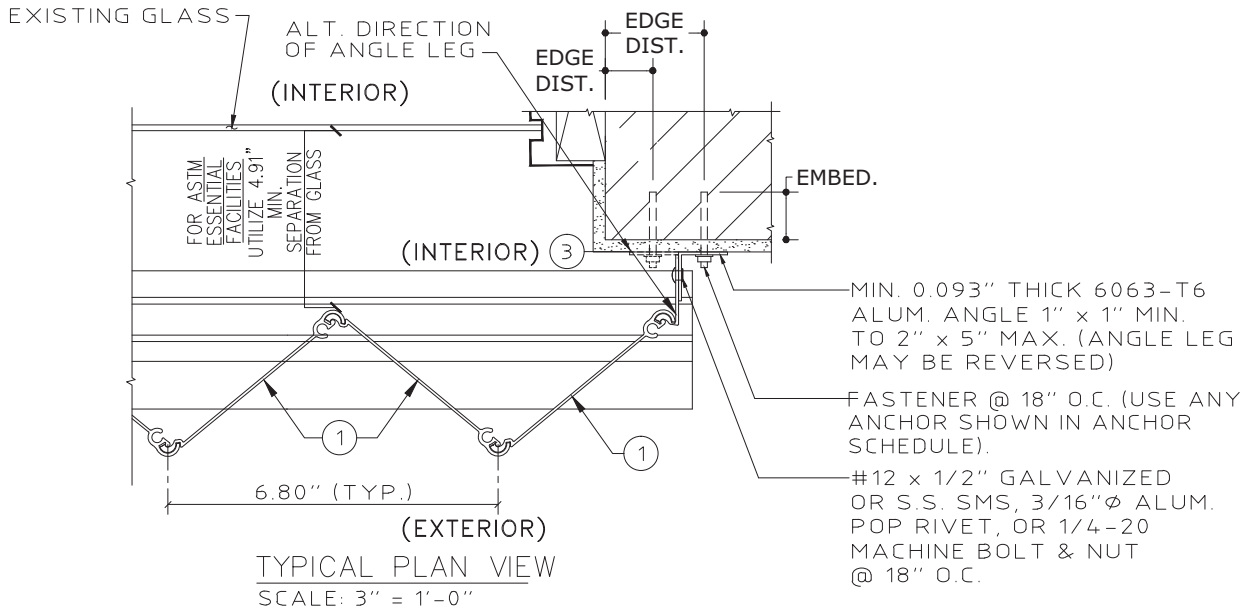
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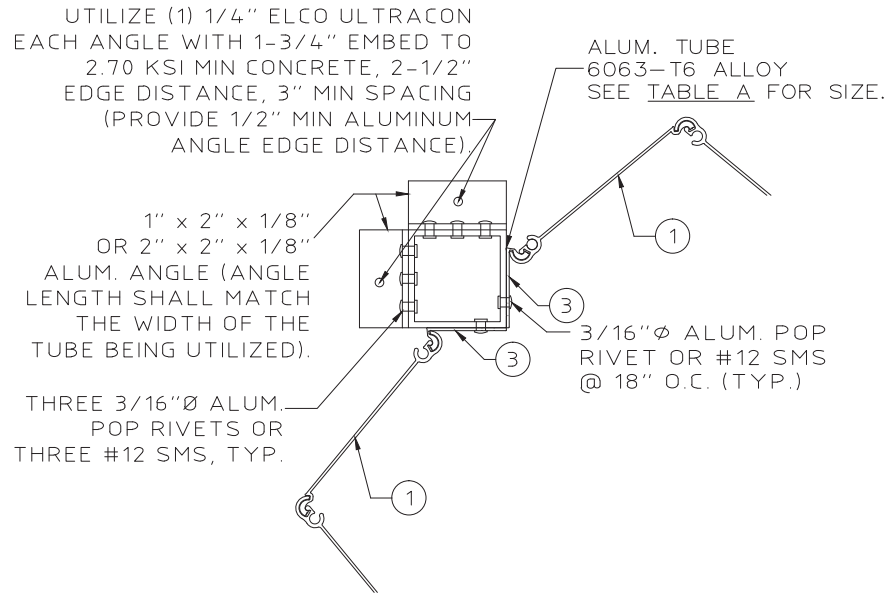
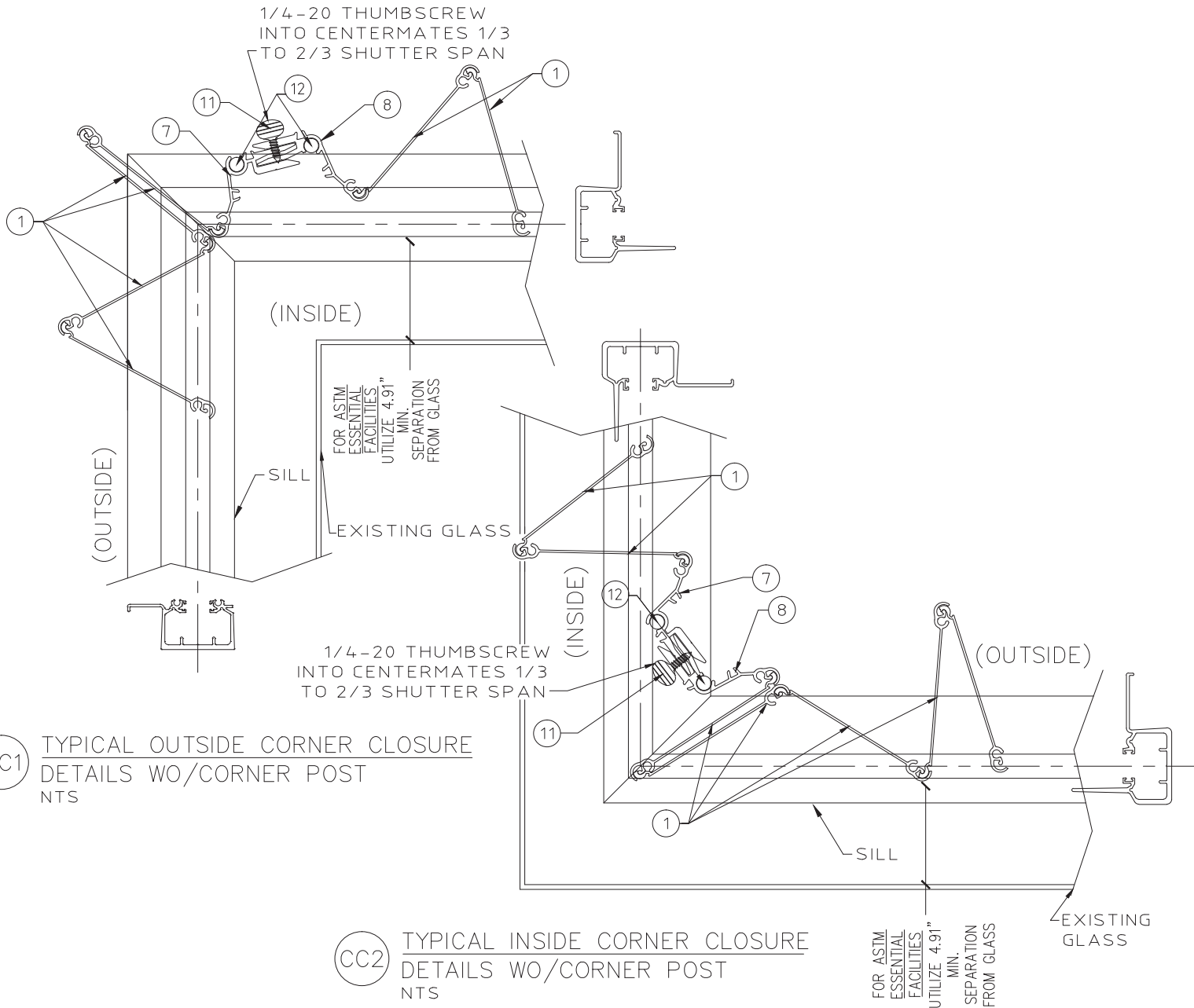
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MULTIPLE SHUTTER ASSEMBLY
SCALE: 3" = 1'-0"



CC3 TYPICAL CORNER CLOSURE DETAILS
NTS

TABLE A (CC3)			
PRESSURE VS ALLOWABLE LENGTH			
PSF	2"x2"x1/8" No B/O	3"x3"x1/8" No B/O	
62	130"	132"	
72	124"	132"	
82	119"	132"	
92	114"	132"	
102	110"	132"	
120	104"	132"	
128	101"	132"	

FRANK BENNARDO, PE
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01/07/2024

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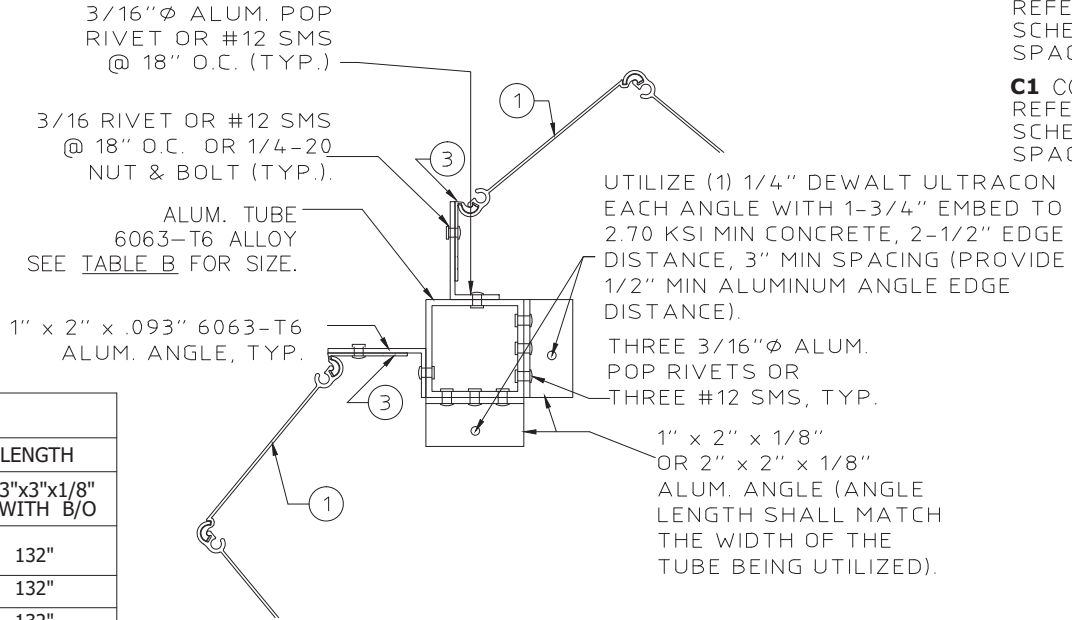
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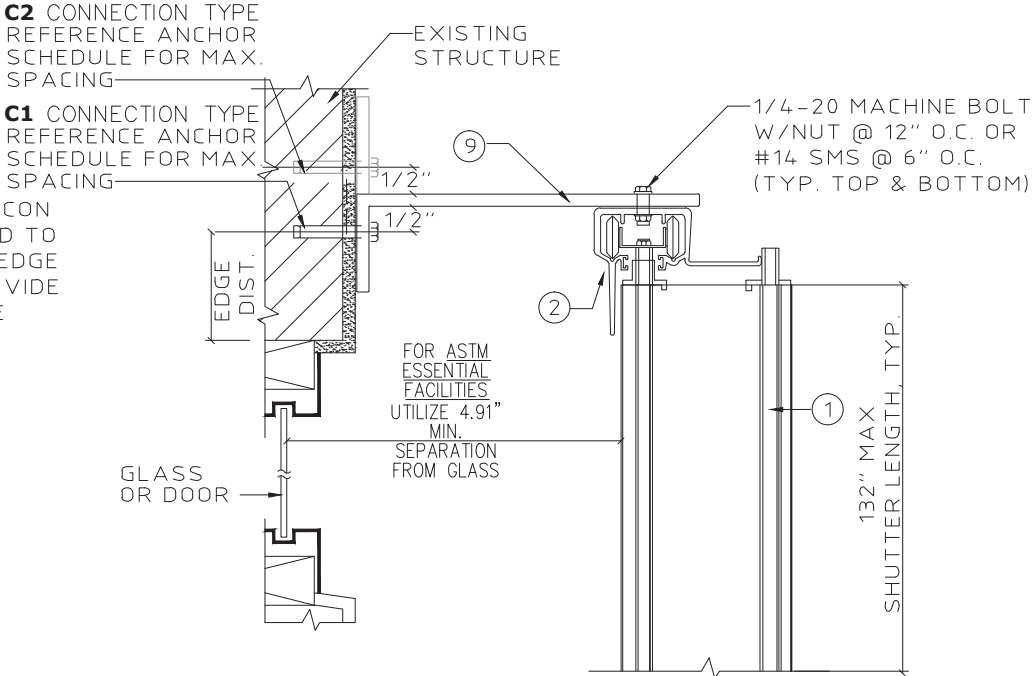
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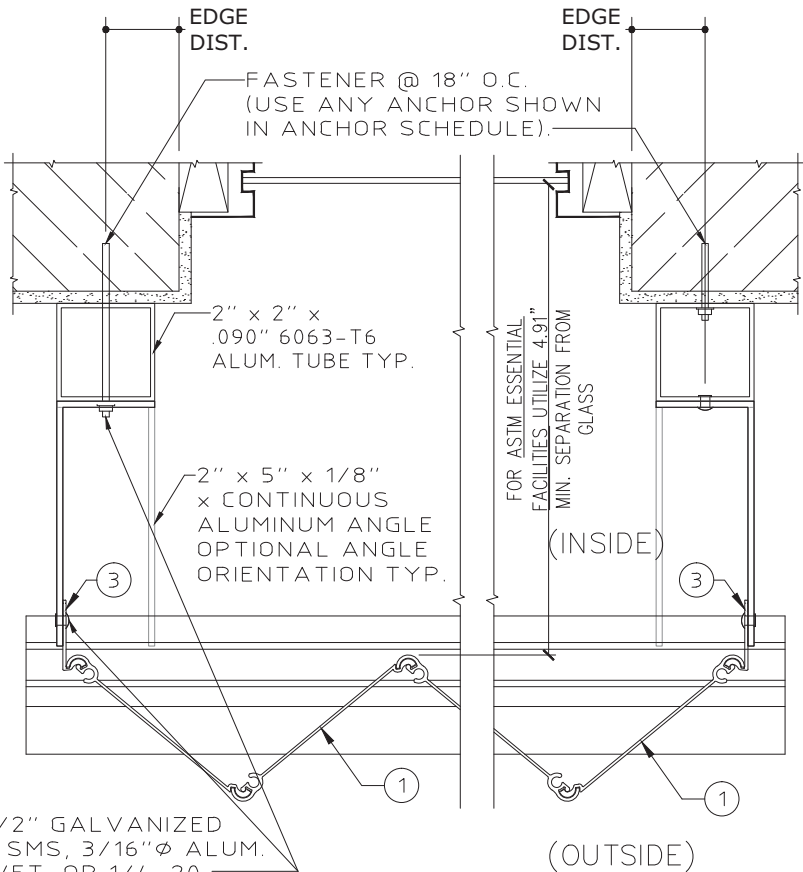
TABLE B (CC4)		
PRESSURE VS ALLOWABLE LENGTH		
PSF	2"x2"x1/8" WITH B/O	3"x3"x1/8" WITH B/O
62	113"	132"
72	107"	132"
82	101"	132"
92	95"	132"
102	90"	132"
120	83"	122"
128	79"	117"



CC4 TYPICAL CORNER CLOSURE DETAILS
NTS

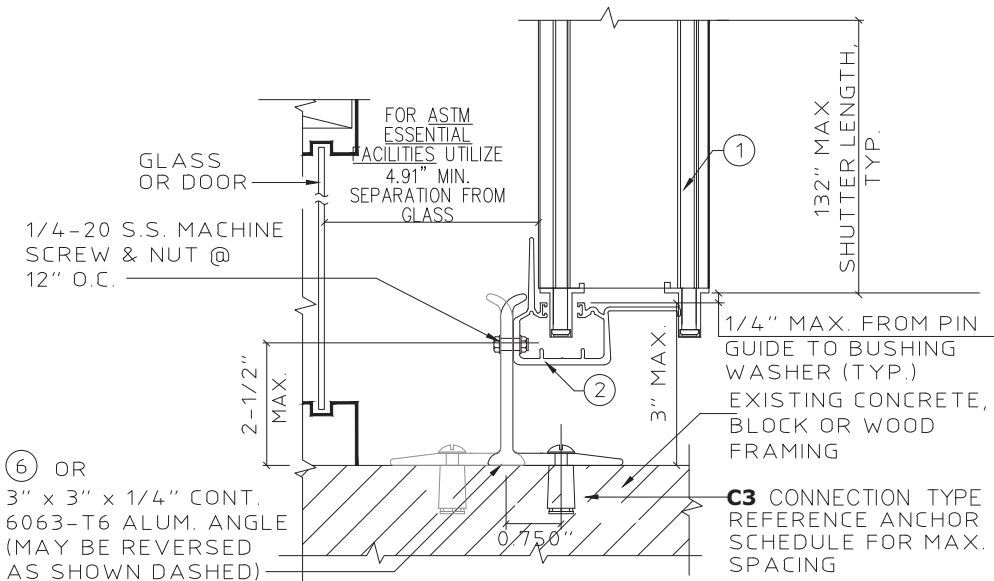


Cb ALTERNATE BUILD OUT MOUNT SECTION
SCALE : 3" = 1'- 0"

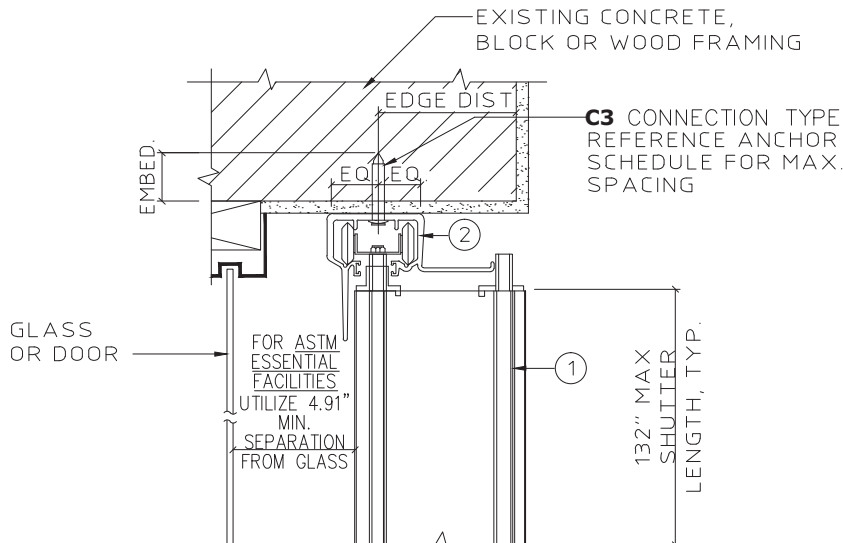


#12 x 1/2" GALVANIZED OR S.S. SMS, 3/16"Ø ALUM. POP RIVET, OR 1/4-20 MACHINE BOLT & NUT @ 18" O.C.

SIDE CLOSURE OPTIONS
SCALE: 3" = 1'-0"



D WALL MOUNT SECTION
SCALE : 3" = 1'- 0"



E CEILING / INSIDE MOUNT SECTION
SCALE : 3" = 1'- 0"

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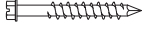
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08/11/2020 - 10:16pm

ANCHOR SCHEDULE: CONCRETE

HOST STRUCT.	ANCHOR	LOAD (psf)	2.5" MIN EDGE DISTANCE								
			Spans Up To 6'-0" CONN TYPE			Spans Up To 8'-8" CONN TYPE			Spans Up To 11'-0" CONN TYPE		
			C1	C2	C3	C1	C2	C3	C1	C2	C3
CONCRETE	1/4" ITW TAPCON WITH 1-3/4" EMBED (3192psi MIN CONC) 	48	16.0"	16.0"	16.0"	16.0"	16.0"	11.0"	16.0"	16.0"	8.0"
		62	16.0"	16.0"	12.5"	16.0"	16.0"	7.5"	16.0"	15.5"	5.5"
		72	16.0"	16.0"	10.0"	16.0"	16.0"	6.5"	13.0"	12.0"	4.5"
		90	16.0"	16.0"	7.5"	13.5"	12.5"	5.0"	10.0"	8.5"	3.5"
		128	13.5"	12.5"	5.0"	8.5"	7.0"	3.0"	6.5"	5.0"	
	1/4" DEWALT ULTRACON WITH 1-3/4" EMBED (2700psi MIN CONC) 	48	16.0"	16.0"	16.0"	16.0"	16.0"	10.5"	16.0"	16.0"	7.5"
		62	16.0"	16.0"	12.5"	16.0"	16.0"	7.5"	14.0"	13.5"	5.5"
		72	16.0"	16.0"	10.0"	16.0"	16.0"	6.0"	11.5"	10.5"	4.5"
		90	16.0"	16.0"	7.5"	11.5"	10.5"	4.5"	8.5"	7.5"	3.5"
		128	12.0"	11.0"	4.5"	7.5"	6.0"	3.0"	5.5"	4.5"	
	1/4" DEWALT CRETEFLEX SS4 W/ 2" EMBED (3350psi MIN CONC) 	48	16.0"	16.0"	16.0"	16.0"	16.0"	15.0"	16.0"	16.0"	11.0"
		62	16.0"	16.0"	16.0"	16.0"	16.0"	10.5"	16.0"	16.0"	7.5"
		72	16.0"	16.0"	14.5"	16.0"	16.0"	8.5"	11.5"	13.5"	6.5"
		90	16.0"	16.0"	10.5"	15.5"	14.0"	6.5"	11.5"	9.5"	5.0"
		128	15.5"	14.5"	6.5"	10.0"	8.0"	4.0"	7.5"	6.0"	3.0"
	1/4" ITW TAPCON WITH 1-3/4" EMBED (3192psi MIN CONC) 	LOAD (psf)	1" MIN EDGE DISTANCE								
		48	16.0"	16.0"	7.5"	16.0"	16.0"	4.5"	16.0"	16.0"	3.5"
		62	16.0"	16.0"	5.5"	16.0"	16.0"	3.5"	13.5"	13.0"	
		72	16.0"	16.0"	4.5"	15.5"	15.5"	3.0"	11.0"	10.0"	
		90	16.0"	16.0"	3.5"	11.5"	10.5"		8.5"	7.0"	
	1/4" DEWALT ULTRACON WITH 1-3/4" EMBED (2700psi MIN CONC) 	128	11.5"	10.5"		7.0"	6.0"		5.5"	4.5"	
		48	16.0"	16.0"	12.5"	16.0"	16.0"	7.5"	16.0"	16.0"	5.5"
		62	16.0"	16.0"	8.5"	16.0"	16.0"	5.5"	13.5"	13.0"	4.0"
		72	16.0"	16.0"	7.0"	15.0"	15.5"	4.5"	11.0"	10.0"	3.0"
		90	16.0"	16.0"	5.0"	11.0"	10.5"	3.5"	8.0"	7.0"	
	1/4" ALL-POINTS SOLID-SET ANCHOR W/ 7/8" EMBED & 1/4-20 SS MACHINE SCREW (3000psi MIN CONC) 	128	11.5"	10.5"	3.5"	7.0"	6.0"		5.5"	4.5"	
		LOAD (psf)	1-1/4" MIN EDGE DISTANCE								
		48	16.0"	16.0"	9.5"	16.0"	16.0"	5.5"	13.5"	14.5"	4.0"
		62	16.0"	16.0"	6.5"	13.5"	14.5"	4.0"	9.5"	9.0"	3.0"
		72	16.0"	16.0"	5.5"	10.5"	11.0"	3.5"	7.5"	7.0"	
	1/4" ALL-POINTS SOLID-SET ANCHOR W/ 7/8" EMBED & 1/4-20 SS MACHINE SCREW (3000psi MIN CONC) 	90	13.0"	14.5"	4.0"	8.0"	7.5"		6.0"	5.0"	
		128	8.0"	7.5"		5.0"	4.0"		4.0"	3.0"	
		LOAD (psf)	3" MIN EDGE DISTANCE								
		48	16.0"	16.0"	16.0"	16.0"	16.0"	13.0"	16.0"	16.0"	9.0"
		62	16.0"	16.0"	15.0"	16.0"	16.0"	9.0"	16.0"	15.5"	6.5"
	1/4" DEWALT SS DROP-IN W/ 1/4-20 SS BOLT AND 1" EMBED (3000psi MIN CONC) 	72	16.0"	16.0"	12.0"	16.0"	16.0"	7.5"	13.0"	12.0"	5.5"
		90	16.0"	16.0"	9.0"	13.5"	12.0"	5.5"	10.0"	8.5"	4.0"
		128	13.5"	12.5"	5.5"	8.5"	7.0"	3.5"	6.5"	5.0"	
		LOAD (psf)	2-5/8" MIN EDGE DISTANCE								
		48	16.0"	16.0"	16.0"	16.0"	16.0"	9.5"	15.5"	16.0"	6.5"
	3/8" DEWALT SS DROP-IN W/ 3/8-16 SS BOLT AND 1" EMBED (3000psi MIN CONC) 	62	16.0"	16.0"	11.0"	15.0"	16.0"	6.5"	10.5"	10.5"	4.5"
		72	16.0"	16.0"	9.0"	12.0"	12.5"	5.5"	9.0"	8.0"	4.0"
		90	15.0"	16.0"	6.5"	9.0"	8.0"	4.0"	6.5"	5.5"	3.0"
		128	9.0"	8.5"	4.0"	5.5"	4.5"		4.5"	3.5"	
		LOAD (psf)	3-1/2" MIN EDGE DISTANCE								
		48	16.0"	16.0"	16.0"	16.0"	16.0"	10.0"	16.0"	16.0"	7.0"
		62	16.0"	16.0"	12.0"	16.0"	16.0"	7.0"	11.5"	11.0"	5.0"
		72	16.0"	16.0"	9.5"	13.0"	13.0"	5.5"	9.0"	8.5"	4.0"
		90	16.0"	16.0"	7.0"	9.5"	8.5"	4.0"	7.0"	6.0"	3.0"
		128	9.5"	9.0"	4.5"	6.0"	5.0"		4.5"	3.5"	

ANCHOR NOTES:

- SPANS AND LOADS SHOWN HERE ARE FOR DETERMINING ANCHOR SPACING ONLY. ALLOWABLE STORM SHUTTER SPANS FOR SPECIFIC LOADS MUST BE LIMITED TO MAXIMUM ALLOWABLE SHUTTER SPAN ILLUSTRATED HEREIN (Pg 1).
- ENTER ANCHOR SCHEDULE BASED ON THE EXISTING STRUCTURE MATERIAL, ANCHOR TYPE AND EDGE DISTANCE. SELECT DESIGN LOAD GREATER THAN OR EQUAL TO NEGATIVE DESIGN LOAD ON SHUTTER AND SELECT SPAN GREATER THAN OR EQUAL TO SHUTTER SPAN.
- SEE MOUNTING SECTION DETAILS FOR IDENTIFICATION OF CONNECTION TYPE.
- EXISTING STRUCTURE MAY BE CONCRETE, GROUT FILLED OR HOLLOW CONCRETE BLOCK (ALL BLOCK SHALL CONFORM TO ASTM C-90), OR WOOD FRAMING. REFERENCE ANCHOR SCHEDULE FOR PROPER ANCHOR TYPE BASED ON TYPE OF EXISTING STRUCTURE AND APPROPRIATE CONNECTION TYPE. SEE CONNECTION DETAILS FOR IDENTIFICATION OF CONNECTION TYPE.
- ALL CONCRETE ANCHORS SHALL BE INSTALLED TO NON-CRACKED CONCRETE ONLY, AS DEFINED IN ACI 355.2.
- THE CONTRACTOR IS RESPONSIBLE TO ENSURE THE ANCHORS ARE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS. EMBEDMENT LENGTHS SHALL BE AS NOTED AND DO NOT INCLUDE STUCCO OR OTHER FINISHES.
- WHERE EXISTING STRUCTURE IS WOOD FRAMING, WOOD FRAMING CONDITIONS VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD FRAMING MEMBERS, NOT PLYWOOD. FASTENING TO PLYWOOD IS ACCEPTABLE ONLY FOR SIDE CLOSURE PIECES.
- WHERE LAG SCREWS FASTEN TO NARROW FACE OF STUD FRAMING, FASTENER SHALL BE LOCATED IN CENTER OF NOMINAL 2" x 4" (MIN.) WOOD STUD. 3/4" EDGE DISTANCE IS ACCEPTABLE FOR WOOD FRAMING. LAG SCREWS SHALL HAVE PHILLIPS PAN HEAD OR HEX HEAD.
- MACHINE SCREWS SHALL HAVE MINIMUM OF 1/2" ENGAGEMENT OF THREADS IN BASE ANCHOR AND MAY HAVE EITHER A PAN HEAD, TRUSS HEAD, OR WAFER HEAD (SIDEWALK BOLT), U.O.N.
-  DESIGNATES ANCHOR CONDITIONS WHICH ARE NOT ACCEPTABLE USE.
- * DESIGNATES ANCHORS WHICH ARE REMOVABLE BY REMOVING MACHINE SCREW, NUT OR WASHER WINGNUT.
- MINIMUM REQUIRED CONCRETE STRENGTHS ARE AS INDICATED IN ANCHOR SCHEDULE AND SHALL BE VERIFIED BY OTHER SEPARATELY.
- ALL MILLENIUM MILLFAST CONCRETE SCREWS SHALL HAVE T&C ULTRACOTE

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REMARKS	DRWN	CHKD	DATE
INIT ISSUE	CSL	TSB	8/20/12
2014 FBC	RWN	CSL	3/25/15
2017 FBC	RWN	FLB	8/04/17
2020 FBC	CB	RWN	6/23/20

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ANCHOR SCHEDULE: CONCRETE (CONT.)

HOST STRUCT.	ANCHOR	LOAD (psf)	2-3/16" MIN EDGE DISTANCE									3-1/8" MIN EDGE DISTANCE								
			Spans Up To 6'-0"			Spans Up To 8'-8"			Spans Up To 11'-0"			Spans Up To 6'-0"			Spans Up To 8'-8"			Spans Up To 11'-0"		
			CONN TYPE			CONN TYPE			CONN TYPE			CONN TYPE			CONN TYPE			CONN TYPE		
CONCRETE	5/16" ITW TAPCON XL WITH 1-3/4" EMBED (2899psi MIN CONC) 	48	16.0"	16.0"	16.0"	16.0"	16.0"	13.5"	16.0"	16.0"	9.5"	16.0"	16.0"	16.0"	16.0"	16.0"	14.0"	16.0"	16.0"	10.0"
		62	16.0"	16.0"	16.0"	16.0"	16.0"	9.5"	16.0"	16.0"	7.0"	16.0"	16.0"	16.0"	16.0"	16.0"	9.5"	16.0"	16.0"	7.0"
		72	16.0"	16.0"	13.0"	16.0"	16.0"	8.0"	13.5"	12.5"	6.0"	16.0"	16.0"	13.0"	16.0"	16.0"	8.0"	14.0"	13.0"	6.0"
		90	16.0"	16.0"	9.5"	13.5"	12.5"	6.0"	10.0"	8.5"	4.5"	16.0"	16.0"	9.5"	14.0"	13.0"	6.0"	10.5"	9.0"	4.5"
		128	14.0"	13.0"	6.0"	9.0"	7.5"	4.0"	6.5"	5.5"	3.0"	14.5"	13.5"	6.0"	9.0"	7.5"	4.0"	7.0"	5.5"	3.0"
	5/16" DEWALT ULTRACON WITH 1-3/4" EMBED (3500psi MIN CONC) 	48	16.0"	16.0"	16.0"	16.0"	16.0"	15.5"	16.0"	16.0"	11.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	12.0"
		62	16.0"	16.0"	16.0"	16.0"	16.0"	11.0"	16.0"	16.0"	8.0"	16.0"	16.0"	16.0"	16.0"	16.0"	12.0"	16.0"	16.0"	8.5"
		72	16.0"	16.0"	15.0"	16.0"	16.0"	9.0"	14.5"	13.0"	6.5"	16.0"	16.0"	16.0"	16.0"	16.0"	9.5"	16.0"	14.5"	7.0"
		90	16.0"	16.0"	11.0"	14.5"	13.5"	6.5"	11.0"	9.5"	5.0"	16.0"	16.0"	11.5"	16.0"	15.0"	7.5"	12.0"	10.0"	5.5"
		128	15.0"	14.0"	7.0"	9.5"	8.0"	4.5"	7.0"	5.5"	3.5"	16.0"	15.5"	7.5"	10.5"	8.5"	4.5"	8.0"	6.0"	3.5"
	1/4" DEWALT TAPPER+ W/ 1-3/4" EMBED (3000psi MIN CONC) 		1-1/2" MIN EDGE DISTANCE									3" MIN EDGE DISTANCE								
			C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3
		48	16.0"	16.0"	10.0"	16.0"	16.0"	6.0"	14.0"	15.0"	4.0"	16.0"	16.0"	16.0"	16.0"	16.0"	10.0"	16.0"	16.0"	7.5"
		62	16.0"	16.0"	7.0"	13.5"	14.5"	4.0"	9.5"	9.5"	3.0"	16.0"	16.0"	12.0"	16.0"	16.0"	7.0"	14.5"	14.0"	5.0"
		72	16.0"	16.0"	5.5"	11.0"	11.0"	3.5"	8.0"	7.0"		16.0"	16.0"	9.5"	16.0"	16.0"	6.0"	12.0"	11.0"	4.5"
		90	13.5"	14.5"	4.0"	8.0"	7.5"		6.0"	5.0"		16.0"	16.0"	7.0"	12.0"	11.0"	4.5"	9.0"	7.5"	3.5"
		128	8.0"	7.5"		5.0"	4.0"		4.0"	3.0"		12.5"	11.5"	4.5"	7.5"	6.5"	3.0"	6.0"	4.5"	

ANCHOR SCHEDULE: HOLLOW CONCRETE BLOCK

HOST STRUCT.	ANCHOR	LOAD (psf)	1" MIN EDGE DISTANCE									2-1/2" MIN EDGE DISTANCE								
			Spans Up To 6'-0"			Spans Up To 8'-8"			Spans Up To 11'-0"			Spans Up To 6'-0"			Spans Up To 8'-8"			Spans Up To 11'-0"		
			CONN TYPE			CONN TYPE			CONN TYPE			CONN TYPE			CONN TYPE			CONN TYPE		
HOLLOW CONCRETE BLOCK	1/4" ITW TAPCON WITH 1-1/4" EMBED 	48	7.5"	7.5"	3.0"	5.0"	5.0"		3.5"	4.0"		10.5"	10.5"	6.5"	7.0"	7.0"	3.5"	5.0"	5.5"	
		62	6.0"	6.0"		3.5"	4.0"					8.0"	8.0"	4.0"	5.0"	5.5"		3.5"	3.5"	
		72	5.0"	5.0"		3.0"	3.0"					7.0"	7.0"	3.0"	4.0"	4.0"		3.0"		
		90	3.5"	4.0"								5.0"	5.5"		3.0"					
		128										3.0"	3.0"							
	1/4" DEWALT ULTRACON WITH 1-1/4" EMBED 	48	11.5"	11.5"	6.5"	8.0"	8.0"	3.5"	5.5"	6.0"		11.5"	11.5"	6.0"	8.0"	8.0"	3.0"	5.5"	6.0"	
		62	9.0"	9.0"	4.0"	5.5"	6.0"		4.0"	4.0"		9.0"	9.0"	4.0"	5.5"	6.0"		4.0"	4.0"	
		72	7.5"	7.5"	3.0"	4.5"	4.5"		3.0"	3.0"		7.5"	7.5"	3.0"	4.5"	4.5"		3.0"	3.0"	
		90	5.5"	6.0"		3.0"	3.0"					5.5"	6.0"		3.0"	3.0"				
		128	3.5"	3.0"								3.5"	3.0"							
	1/4" MILLENIUM MILLFAST ANCHOR W/ 1-1/4" EMBED 	48	14.0"	14.0"	6.0"	9.5"	9.5"	3.5"	7.0"	7.5"		15.0"	15.0"	9.0"	10.5"	10.5"	5.0"	7.5"	8.0"	3.5"
		62	10.5"	10.5"	4.0"	6.5"	7.5"		4.5"	4.5"		11.5"	11.5"	5.5"	7.5"	8.0"	3.0"	5.0"	5.0"	
		72	9.0"	9.0"	3.0"	5.5"	5.5"		4.0"	3.5"		10.0"	10.0"	4.5"	6.0"	6.0"		4.5"	4.0"	
		90	6.5"	7.0"		4.0"	3.5"		3.0"			7.5"	8.0"	3.0"	4.5"	4.0"		3.0"		
		128	4.0"	3.5"								4.5"	4.0"							
	1/4" ALL-POINTS SOLID-SET ANCHOR W/ 7/8" EMBED & 1/4-20 SS MACHINE SCREW 		1-1/4" MIN EDGE DISTANCE									2" MIN EDGE DISTANCE								
			C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3
		48	13.5"	13.5"	5.5"	9.5"	9.5"	3.0"	7.0"	7.5"		16.0"	16.0"	9.5"	16.0"	16.0"	5.5"	12.0"	13.0"	4.0"
		62	10.5"	10.5"	4.0"	6.5"	7.0"		4.5"	4.5"		16.0"	16.0"	6.5"	11.5"	12.5"	4.0"	8.0"	8.0"	3.0"
		72	9.0"	9.0"	3.0"	5.5"	5.5"		4.0"	3.5"		15.5"	15.5"	5.0"	9.5"	9.5"	3.0"	6.5"	6.0"	
		90	6.5"	7.0"		4.0"	3.5"		3.0"			11.5"	12.5"	4.0"	7.0"	6.5"		5.0"	4.5"	
		128	4.0"	3.5"								7.0"	6.5"		4.5"	3.5"		3.0"		
	5/16" ITW TAPCON XL WITH 1-3/4" EMBED 		3" MIN EDGE DISTANCE									4" MIN EDGE DISTANCE								
			C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3
		48										16.0"	16.0"	11.5"	12.0"	12.0"	6.0"	8.5"	9.0"	4.0"
		62										13.0"	13.0"	7.5"	8.5"	9.0"	4.0"	6.0"	6.0"	
		72										11.5"	11.5"	5.5"	6.5"	7.0"		5.0"	4.5"	
		90										8.5"	9.0"	4.0"	5.0"	4.5"				
		128										5.0"	4.5"							
	5/16" DEWALT ULTRACON WITH 1-1/4" EMBED 		1-9/16" MIN EDGE DISTANCE									3-1/8" MIN EDGE DISTANCE								
			C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3	C1	C2	C3
		48	10.5"	10.5"	5.5"	7.5"	7.5"		5.5"	5.5"		16.0"	16.0"	10.5"	12.5"	12.5"	5.5"	9.5"	10.0"	
		62	8.0"	8.0"		5.0"	5.5"					14.5"	14.5"	6.5"	9.0"	10.0"		6.5"	6.0"	
		72	7.0"	7.0"								12.5"	12.5"	5.5"	7.5"	7.5"		5.0"	5.0"	
		90	5.0"	5.5"								9.0"	10.0"		5.5"	5.0"				
		128										5.5"	5.0"							

ANCHOR NOTES: SEE SHEET
5 FOR ANCHOR NOTES.

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REMARKS	DRWN	CHKD	DATE
INIT ISSUE	CSL	TSB	8/20/12
2014 FBC	RWN	CSL	3/25/15
2017 FBC	RWN	FLB	8/04/17
2020 FBC	CB	RWN	6/23/20

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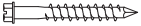
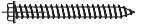
ANCHOR SCHEDULE: HOLLOW CONCRETE BLOCK (CONT.)

HOST STRUCT.	ANCHOR	LOAD (psf)	2" MIN EDGE DISTANCE								
			Spans Up To 6'-0"			Spans Up To 8'-8"			Spans Up To 11'-0"		
			CONN TYPE			CONN TYPE			CONN TYPE		
			C1	C2	C3	C1	C2	C3	C1	C2	C3
	1/4" DEWALT TAPPER+ W/ 1-1/4" EMBED 	48	15.5"	15.5"	6.5"	10.5"	10.5"	4.0"	8.0"	8.5"	
		62	12.0"	12.0"	4.5"	7.5"	8.0"		5.5"	5.0"	
		72	10.5"	10.5"		6.0"	6.0"		4.5"	4.0"	
		90	7.5"	8.0"		4.5"	4.0"				
		128	4.5"	4.0"							

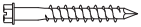
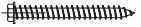
ANCHOR SCHEDULE: GROUT-FILLED CONCRETE BLOCK

HOST STRUCT.	ANCHOR	LOAD (psf)	4" MIN EDGE DISTANCE								
			Spans Up To 6'-0"			Spans Up To 8'-8"			Spans Up To 11'-0"		
			CONN TYPE			CONN TYPE			CONN TYPE		
			C1	C2	C3	C1	C2	C3	C1	C2	C3
GROUT-FILLED CONCRETE BLOCK	5/16" ITW TAPCON XL W/ 2-1/4" MIN. EMBED 	48	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	16.0"	11.5"
		62	16.0"	16.0"	16.0"	16.0"	16.0"	11.5"	16.0"	16.0"	8.5"
		72	16.0"	16.0"	15.5"	16.0"	16.0"	9.5"	16.0"	16.0"	7.0"
		90	16.0"	16.0"	11.5"	16.0"	16.0"	7.0"	13.5"	11.5"	5.5"
		128	16.0"	16.0"	7.5"	12.0"	10.0"	4.5"	9.0"	7.0"	
	5/16" DEWALT ULTRACON W/ 2-1/4" MIN. EMBED 	48	16.0"	16.0"	13.5"	16.0"	16.0"	7.5"	12.0"	13.0"	5.0"
		62	16.0"	16.0"	8.5"	12.0"	12.5"	5.0"	8.5"	8.0"	
		72	16.0"	16.0"	7.0"	9.5"	9.5"		7.0"	6.0"	
		90	11.5"	12.5"	5.0"	7.0"	6.5"		5.0"	4.5"	
		128	7.0"	6.5"		4.5"					

ANCHOR SCHEDULE: WOOD (G=0.55)

HOST STRUCT.	ANCHOR	LOAD (psf)	3/4" MIN EDGE DISTANCE								
			Spans Up To 6'-0"			Spans Up To 8'-8"			Spans Up To 11'-0"		
			CONN TYPE			CONN TYPE			CONN TYPE		
			C1	C2	C3	C1	C2	C3	C1	C2	C3
WOOD (G=0.55)	1/4" LAG SCREW WITH 1-3/4" MIN THREAD PENETRATION 	48	16.0"	16.0"	11.5"	16.0"	16.0"	7.0"	16.0"	16.0"	5.5"
		62	16.0"	16.0"	8.5"	16.0"	16.0"	5.5"	16.0"	16.0"	4.0"
		72	16.0"	16.0"	7.0"	16.0"	16.0"	4.5"	16.0"	16.0"	3.5"
		90	16.0"	16.0"	5.5"	16.0"	16.0"	3.5"	13.0"	11.5"	2.5"
		128	16.0"	16.0"	3.5"	11.5"	9.5"	2.5"	8.5"	7.0"	
	7/16" WOOD BUSHING WITH 1.13" MIN EMBED & 1/4-20 SS MACHINE SCREW 	48	16.0"	16.0"	9.5"	13.0"	13.0"	5.0"	9.5"	10.5"	3.5"
		62	14.5"	14.5"	6.0"	9.5"	10.0"	3.5"	6.5"	6.5"	2.5"
		72	12.5"	12.5"	5.0"	7.5"	7.5"	3.0"	5.5"	5.0"	2.0"
		90	9.5"	10.0"	3.5"	5.5"	5.0"	2.0"	4.0"	3.5"	
		128	5.5"	5.0"	2.0"	3.5"	3.0"		2.5"	2.0"	
	#14 SMS, #14 WOOD SCREW OR 1/4" POWERS TAPPER+ WITH 1-3/4" MIN THREAD PENETRATION 	48	16.0"	16.0"	13.0"	16.0"	16.0"	8.0"	16.0"	16.0"	6.0"
		62	16.0"	16.0"	9.5"	16.0"	16.0"	6.0"	16.0"	16.0"	4.5"
		72	16.0"	16.0"	7.5"	16.0"	16.0"	5.0"	14.0"	13.0"	3.5"
		90	16.0"	16.0"	6.0"	14.5"	13.0"	3.5"	10.5"	9.0"	3.0"
		128	14.5"	13.5"	4.0"	9.0"	7.5"	2.5"	7.0"	5.5"	2.0"

ANCHOR SCHEDULE: WOOD (G=0.42)

HOST STRUCT.	ANCHOR	LOAD (psf)	3/4" MIN EDGE DISTANCE								
			Spans Up To 6'-0"			Spans Up To 8'-8"			Spans Up To 11'-0"		
			CONN TYPE			CONN TYPE			CONN TYPE		
			C1	C2	C3	C1	C2	C3	C1	C2	C3
WOOD (G=0.42)	1/4" LAG SCREW WITH 1-3/4" MIN THREAD PENETRATION 	48	16.0"	16.0"	9.0"	16.0"	16.0"	5.5"	16.0"	16.0"	4.0"
		62	16.0"	16.0"	6.5"	16.0"	16.0"	4.0"	14.0"	14.0"	3.0"
		72	16.0"	16.0"	5.5"	16.0"	16.0"	3.5"	11.5"	10.5"	2.5"
		90	16.0"	16.0"	4.0"	12.0"	11.0"	2.5"	8.5"	7.5"	2.0"
		128	12.0"	11.0"	2.5"	7.5"	6.5"		5.5"	4.5"	
	#14 SMS, #14 WOOD SCREW OR 1/4" POWERS TAPPER+ WITH 1-3/4" MIN THREAD PENETRATION 	48	16.0"	16.0"	9.5"	16.0"	16.0"	5.5"	14.0"	15.0"	4.0"
		62	16.0"	16.0"	6.5"	14.0"	15.0"	4.0"	10.0"	9.5"	3.0"
		72	16.0"	16.0"	5.5"	11.0"	11.5"	3.5"	8.0"	7.5"	2.5"
		90	14.0"	15.0"	4.0"	8.0"	7.5"	2.5"	6.0"	5.0"	2.0"
		128	8.5"	8.0"	2.5"	5.0"	4.5"		4.0"	3.0"	

ANCHOR NOTES: SEE SHEET 5 FOR ANCHOR NOTES.

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