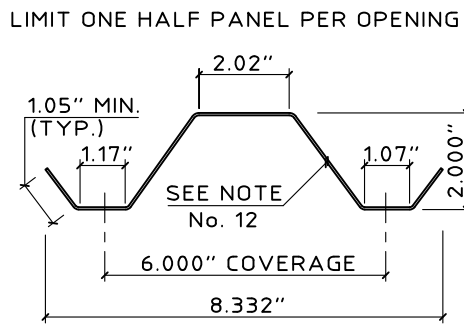
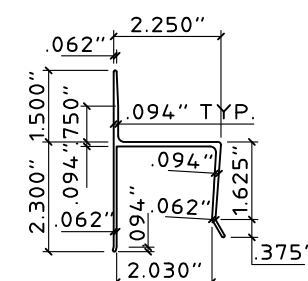


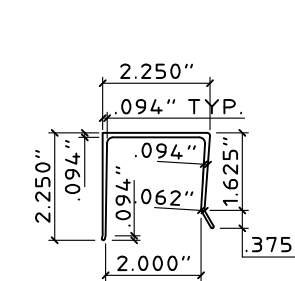
1 STORM PANEL
SCALE : 3" = 1'-0"



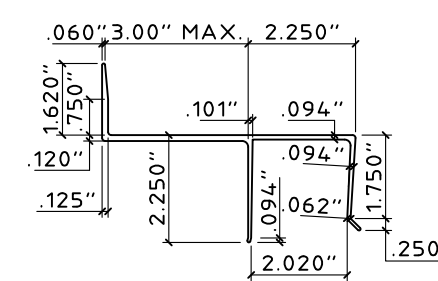
1a HALF STORM PANEL
SCALE : 3" = 1'-0"



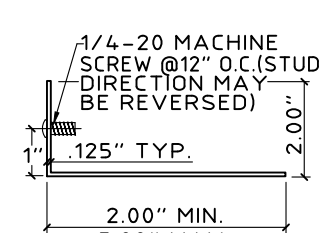
2 "h" HEADER
SCALE : 3" = 1'-0"



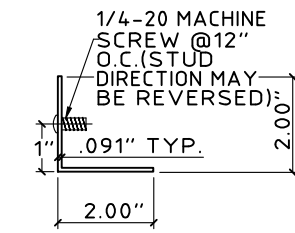
3 "U" HEADER
SCALE : 3" = 1'-0"



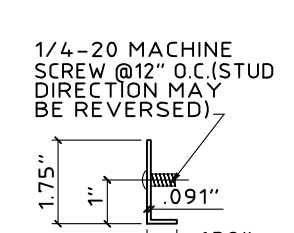
3a BUILD-OUT "U" HEADER
SCALE : 3" = 1'-0"



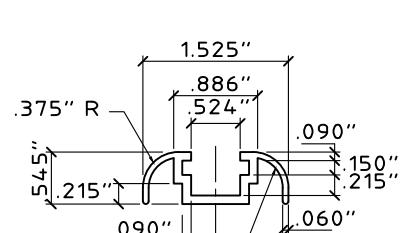
4 STUD ANGLE
SCALE : 3" = 1'-0"



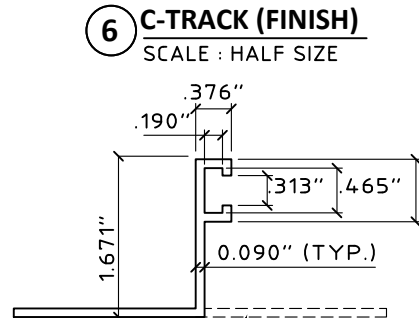
4a STUD ANGLE
SCALE : 3" = 1'-0"



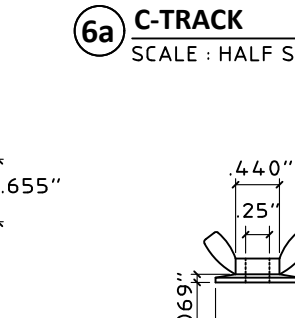
4b STUD ANGLE
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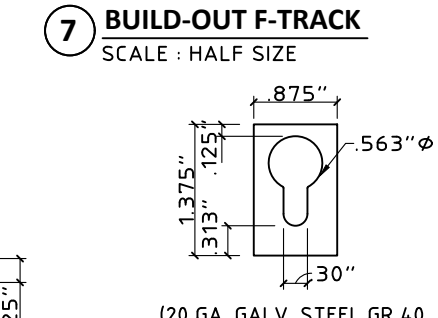
5 ANGLE
SCALE : 3" = 1'-0"



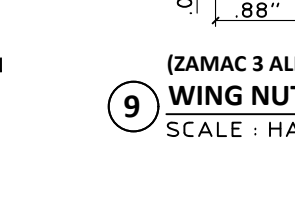
6 C-TRACK (FINISH)
SCALE : HALF SIZE



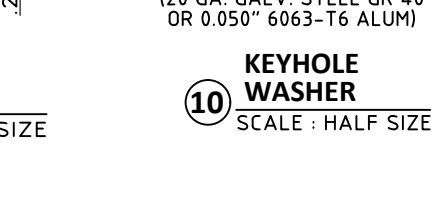
6a C-TRACK
SCALE : HALF SIZE



7 BUILD-OUT F-TRACK
SCALE : HALF SIZE



9 WING NUT
SCALE : HALF SIZE

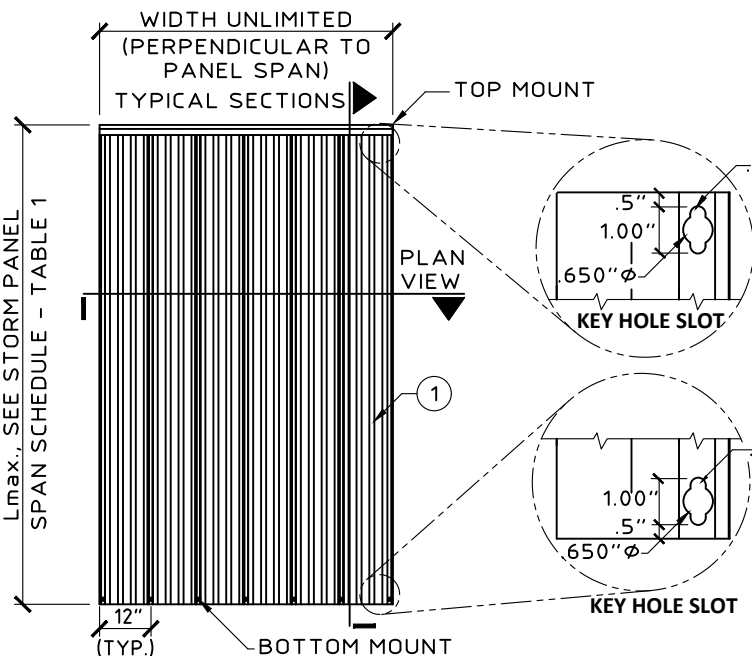


10 KEYHOLE WASHER
SCALE : HALF SIZE

- GENERAL NOTES:**
- THESE PRODUCT EVALUATION DOCUMENTS REPRESENT A SHUTTER SYSTEM ANALYZED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE FOR USE WITHIN AND OUTSIDE OF THE HIGH VELOCITY HURRICANE ZONE (HVHZ). REFERENCE KC EVALUATION REPORT NO. 150107, REV 1 FOR APPLICABLE CODE EDITIONS.
 - PRODUCT PERFORMANCE TESTING WAS CONDUCTED IN ACCORDANCE WITH TAS 201, TAS 202, & TAS 203 AND THE SYSTEM IS LARGE MISSILE IMPACT RESISTANT.
 - DETERMINE THE POSITIVE AND NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH ASCE 7-10 ALLOWABLE STRESS DESIGN. CALCULATED WIND LOADS SHALL BE MULTIPLIED BY THE LOAD FACTOR 0.6 BEFORE REFERENCING THESE DOCUMENTS.
 - FOR WIND LOAD CALCULATION IN ACCORDANCE WITH ASCE 7-10, A DIRECTIONALITY FACTOR OF KD=0.85 MAY BE USED.
 - NO ALLOWABLE STRESS INCREASE IS UTILIZED IN THE DESIGN OF THIS SYSTEM; HOWEVER, A WIND LOAD DURATION FACTOR OF CD = 1.33 IS USED FOR SCREWS DESIGNED PER NDS.
 - THESE EVALUATION DOCUMENTS ARE GENERIC AND DO NOT INCLUDE INFORMATION PREPARED FOR APPLICATION OF THIS SYSTEM TO A SPECIFIC SITE.
 - THESE EVALUATION DOCUMENTS ARE THE INSTALLATION INSTRUCTIONS PORTION OF A PRODUCT EVALUATION AND SHALL ONLY BE USED WITH THE CORRESPONDING PRODUCT EVALUATION REPORT. USE OF THESE APPROVAL DOCUMENTS SHALL COMPLY WITH CHAPTER 61G15-23 OF THE FLORIDA ADMINISTRATIVE CODE.
 - THESE EVALUATION 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.
 - ANY MODIFICATIONS OR ADDITIONS TO THESE EVALUATION DOCUMENTS WILL VOID THE EVALUATION DOCUMENTS.
 - WHEN SITE CONDITIONS DEVIATE FROM THE EVALUATION DOCUMENTS, THE BUILDING OFFICIAL MAY REQUIRE THAT SITE SPECIFIC DOCUMENTS JUSTIFYING THE DEVIATION BE PREPARED, SIGNED, DATED AND SEALED BY A LICENSED ENGINEER OR REGISTERED ARCHITECT.
 - EACH PANEL OF THE ASSEMBLY SHALL BE PERMANENTLY LABELED AT A SPACING NO GREATER THAN 36" ON THE EXTERIOR FACE WITH THE FOLLOWING MINIMUM INFORMATION:

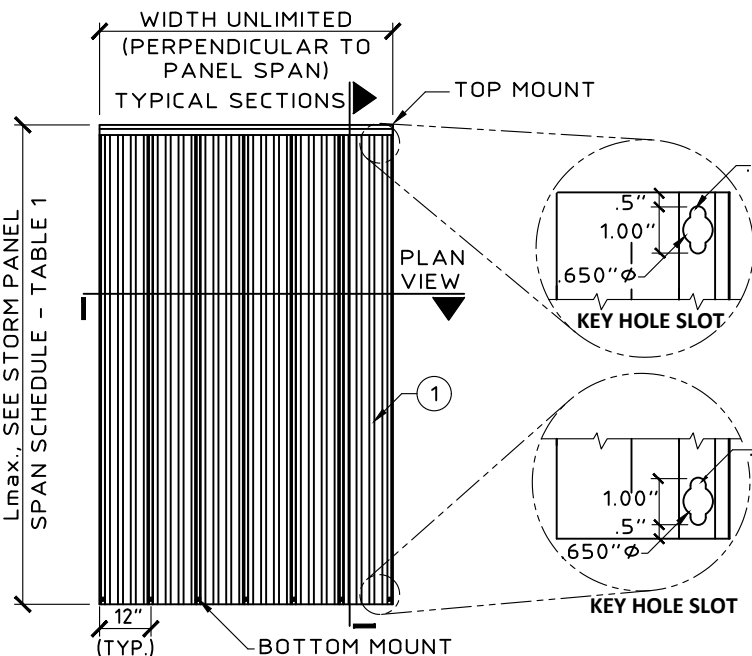
TOWN & COUNTRY IND.
FORT LAUDERDALE, FL
TAS 201, 202, & 203
9 LB LARGE MISSILE
FBC APPROVAL NUMBER

- ALUMINUM STORM PANELS SHALL BE 3004-H34 OR 5052-H34 ALUMINUM ALLOY WITH MINIMUM THICKNESS AS SPECIFIED IN THE APPLICABLE SPAN TABLES.
- ALL EXTRUSION SHOWN SHALL BE 6063-T6 ALUMINUM ALLOY, U.O.N.
- ALL BOLTS, STUDS, AND WASHERS, EXCLUDING INSTALLATION FASTENERS, SHALL BE STAINLESS STEEL WITH A MINIMUM TENSILE STRENGTH OF 60 KSI, U.O.N.
- TOP AND BOTTOM DETAILS MAY BE INTERCHANGED AS FIELD CONDITIONS REQUIRE. PANELS MAY BE MOUNTED HORIZONTALLY WHERE APPLICABLE. H & U HEADERS MAY NOT BE USED FOR HORIZONTAL MOUNTING CONDITIONS.
- TRACKS MAY BE REMOVABLE PROVIDED REMOVABLE ANCHORS ARE USED.
- IF PANEL OVERLAPS OPENING BY 1.5 TIMES THE GAP BETWEEN THE WALL AND PANEL, NO SIDE CLOSURES ARE REQUIRED.
- PROVIDE SEALANT AROUND PERIMETER OF COMPONENTS IN CONTACT WITH STRUCTURE TO PREVENT WATER INTRUSION BEHIND COMPONENTS.

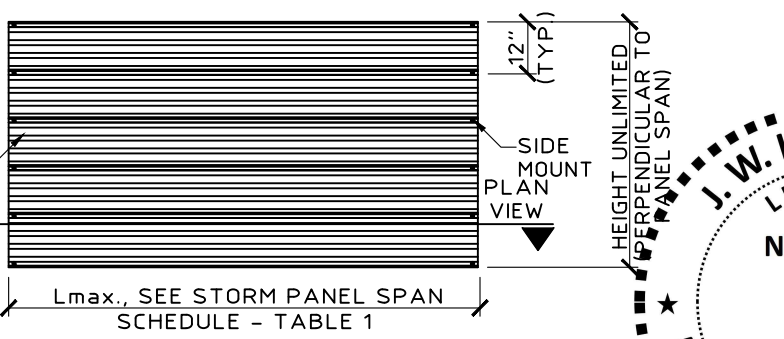


8 "F" TRACK
SCALE : HALF SIZE

8a "F" ANGLE - TRACK
SCALE : HALF SIZE



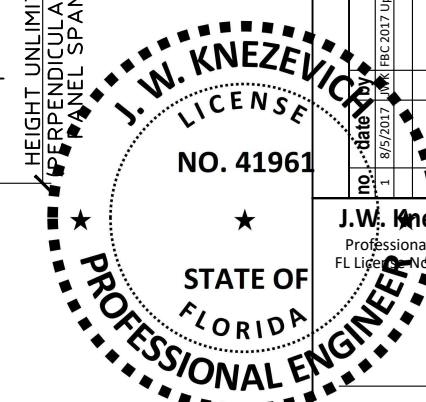
TYPICAL VERTICAL ELEVATION
SCALE : 1/4" = 1' - 0"



TYPICAL HORIZONTAL ELEVATION
SCALE : 1/4" = 1' - 0"

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no.	date	description
1	8/5/2017	17K FBC 2017 Update

J.W. Knezevich
Professional Engineer
FL License No. PE 41961

Scale: AS NOTED
Drawn by: ARV
Date: 04/10/2015
Drawing No. **KC15-0107**
sheet 1 of 8

TABLE 1: PANEL SPAN SCHEDULES					
0.050 ALUMINUM PANELS			0.0615 ALUMINUM PANELS		
POSITIVE OR NEGATIVE ASD WINDLOAD 'W' (PSF)	L max. FOR POSITIVE ASD WINDLOAD	L max. FOR NEGATIVE ASD WINDLOAD	POSITIVE OR NEGATIVE ASD WINDLOAD 'W' (PSF)	L max. FOR POSITIVE ASD WINDLOAD	L max. FOR NEGATIVE ASD WINDLOAD
23	144"	144"	27.5	144"	144"
25	141"	144"	30	143"	144"
30	135"	144"	35	138"	144"
35	130"	144"	40	133"	144"
40	126"	143"	45	129"	144"
45	122"	135"	50	126"	139"
50	119"	128"	55	123"	132"
55	116"	122"	60	120"	127"
60	111"	117"	65	118"	122"
65	107"	112"	70	116"	117"
70	103"	108"	75	113"	113"
75	96"	104"	80	109"	109"
80	90"	99"	85	106"	106"
85	84"	93"	90	102"	102"
90	80"	88"	95	96"	96"
95	75"	83"	100	91"	91"
100	72"	79"	110	83"	83"
110	65"	72"	120	76"	76"
120	60"	66"	130	N.A.	70"
130	N.A.	61"	140	N.A.	65"
140	N.A.	56"	150	N.A.	61"
150	N.A.	52"			

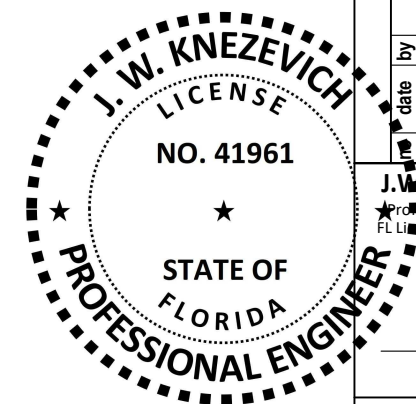
TABLE 2: MINIMUM SEPARATION FROM GLASS SCHEDULES							
0.050 ALUMINUM PANELS			0.0615 ALUMINUM PANELS				
POSITIVE ASD WINDLOAD 'W' (PSF)	SHUTTER SPAN 'L'	MINIMUM SEPARATION FROM GLASS		POSITIVE ASD WINDLOAD 'W' (PSF)	SHUTTER SPAN 'L'	MINIMUM SEPARATION FROM GLASS	
		INSTALLATIONS ≤ 30' ABOVE GRADE	INSTALLATIONS > 30' ABOVE GRADE			INSTALLATIONS ≤ 30' ABOVE GRADE	INSTALLATIONS > 30' ABOVE GRADE
30	72"	3"	1-3/8"	27.5	72"	3"	1-1/2"
	104"	3"	2"		104"	3"	1-7/8"
	135"	5"	3-1/4"		144"	4-1/8"	3-1/8"
40	72"	3"	1-1/2"	40	72"	3"	1-1/2"
	104"	3"	2-1/8"		104"	3"	2"
	126"	5"	3-1/4"		133"	4-1/8"	3-1/4"
50	72"	3"	1-1/2"	50	72"	3"	1-1/2"
	104"	3"	2-3/8"		104"	3"	2-1/4"
	119"	5"	3-1/4"		126"	4-1/8"	3-1/4"
60	72"	3"	1-5/8"	60	72"	3"	1-5/8"
	104"	3"	2-5/8"		104"	3"	2-3/8"
	111"	5"	3"		120"	4-1/8"	3-1/4"
70	72"	3"	1-5/8"	70	72"	3"	1-5/8"
	103"	3"	2-3/4"		104"	3"	2-5/8"
80	72"	3"	1-5/8"	80	116"	4-1/8"	3-1/4"
	90"	3"	2-1/4"		72"	3"	1-5/8"
90	60"	3"	1-1/2"	90	104"	3"	2-3/4"
	80"	3"	2"		109"	4-1/8"	3-1/8"
100	60"	3"	1-1/2"	100	60"	3"	1-1/2"
	72"	3"	1-3/4"		102"	3"	2-7/8"
110	48"	3"	1-3/8"	110	60"	3"	1-1/2"
	65"	3"	1-5/8"		91"	3"	2-3/8"
120	48"	3"	1-3/8"	110	48"	3"	1-3/8"
	60"	3"	1-1/2"		83"	3"	2-1/8"
				120	48"	3"	1-3/8"
					76"	3"	2"

TABLE 1 & 2 NOTES:

- SEE SECTIONS FOR SHUTTER SPAN DEFINITION.
- FOR TABLE 1, DETERMINE BOTH THE POSITIVE AND NEGATIVE ASD WIND LOAD. CHECK THE MAX SPAN FOR EACH AND USE THE LESSER OF THE TWO VALUES.
- FOR DESIGN LOADS BETWEEN TABULATED VALUES, USE NEXT HIGHER LOAD TO DETERMINE ALLOWABLE SPAN.
- FOR TABLE 2, ENTER AT A POSITIVE LOAD ≥ PROJECT POSITIVE LOAD AND SPAN ≥ PROJECT SPAN TO DETERMINE MINIMUM SHUTTER SEPARATION FROM GLASS.

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0.050 & .0615 ALUMINUM STORM PANEL

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Wholesale Aluminum and Building Products

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Revisions description

no.	date	by	description
1	8/5/2017	JWK	FBC 2017 Update

J. W. Knezevich
Professional Engineer
FL License No.: PE 41961

Scale: AS NOTED

Drawn by: ARV

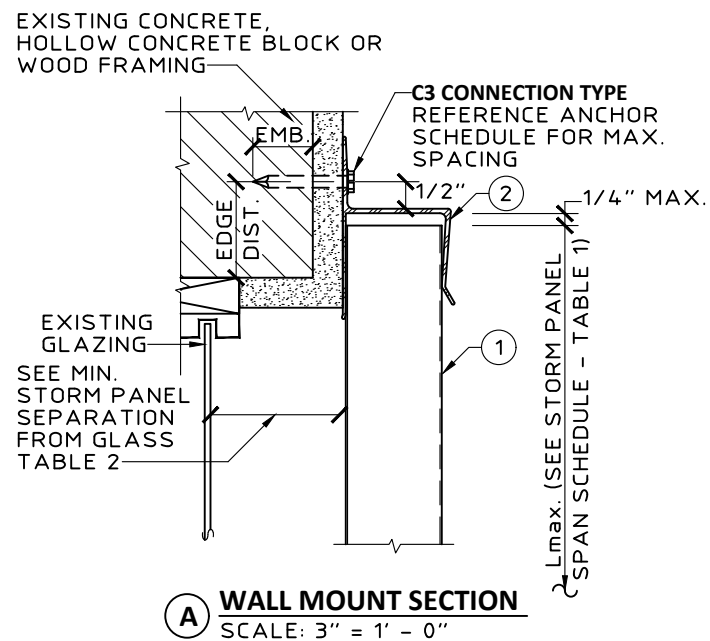
Date: 04/10/2015

Drawing No.

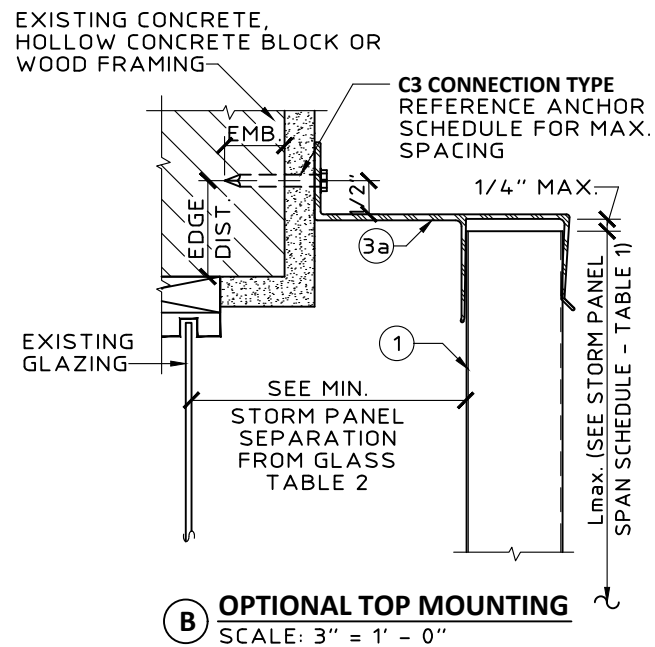
KC15-0107

sheet 2 of 8

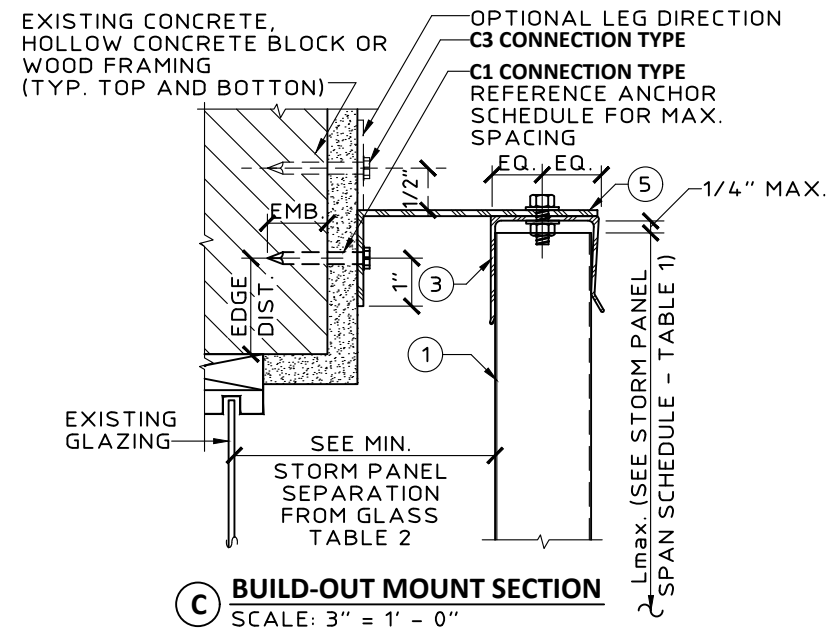
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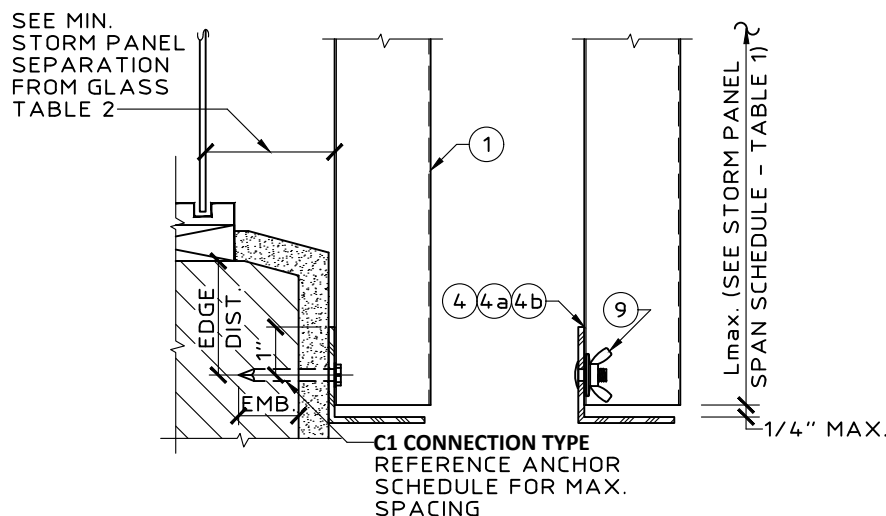
A WALL MOUNT SECTION
SCALE: 3" = 1' - 0"



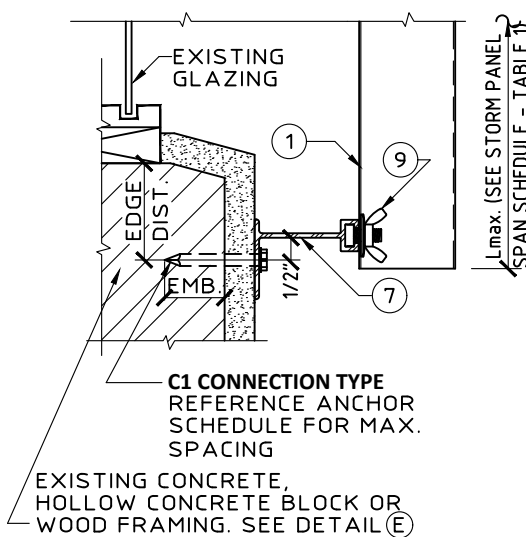
B OPTIONAL TOP MOUNTING
SCALE: 3" = 1' - 0"



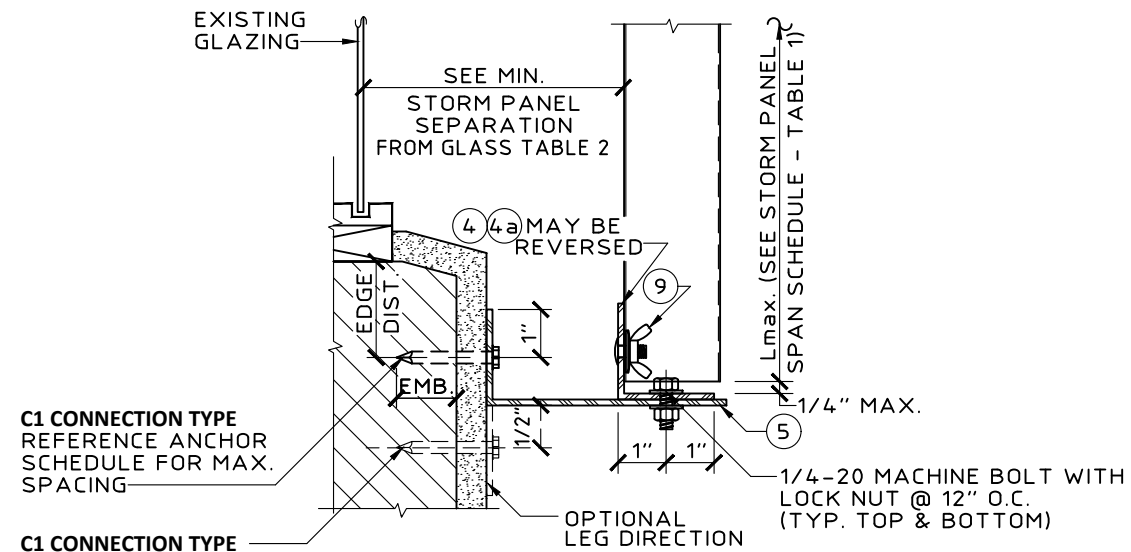
C BUILD-OUT MOUNT SECTION
SCALE: 3" = 1' - 0"



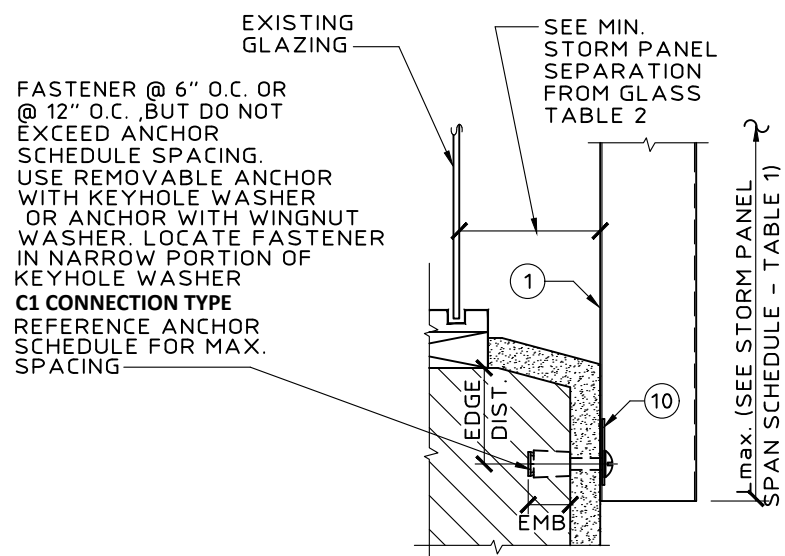
D WALL MOUNT SECTION
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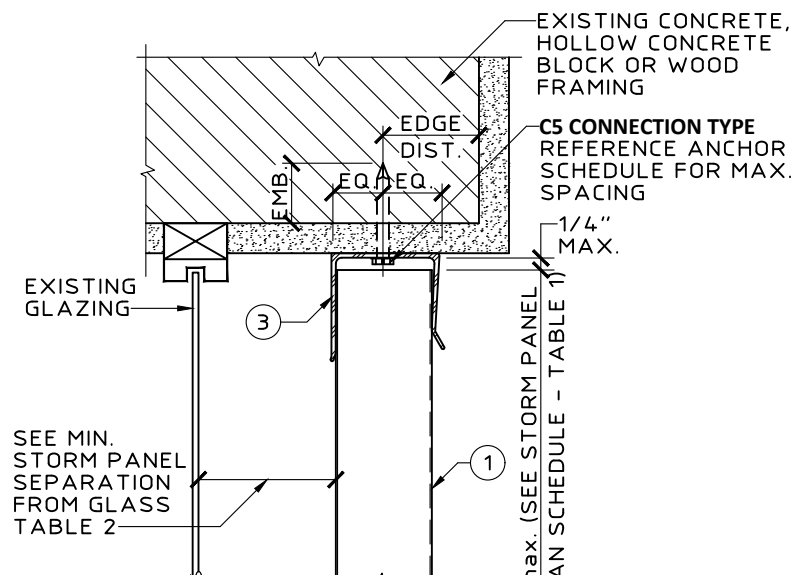
E BUILD OUT SECTION
SCALE: 3" = 1' - 0"



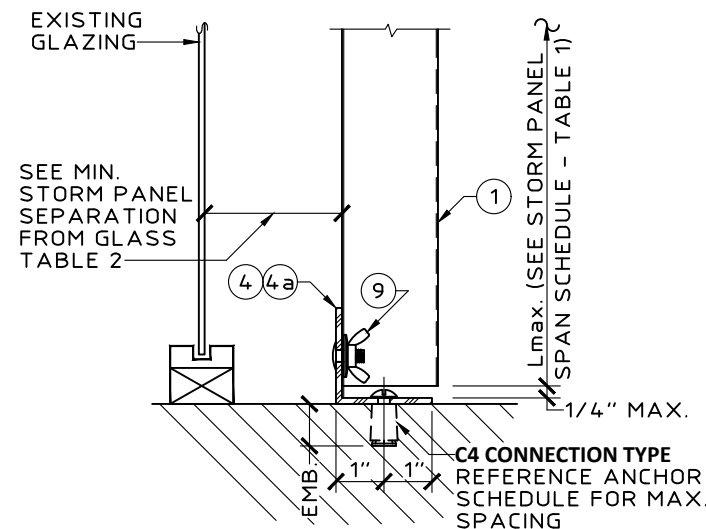
F BUILD-OUT MOUNT SECTION
SCALE: 3" = 1' - 0"



G DIRECT MOUNT SECTION
SCALE: 3" = 1' - 0"

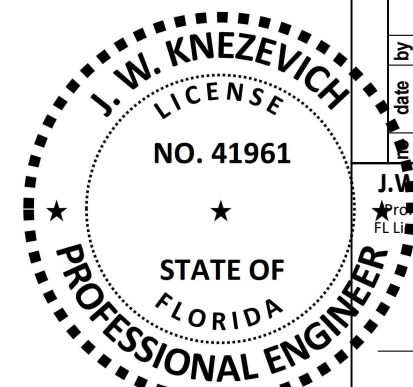


H CEILING MOUNT SECTION
SCALE: 3" = 1' - 0"



I FLOOR MOUNT SECTION
SCALE: 3" = 1' - 0"

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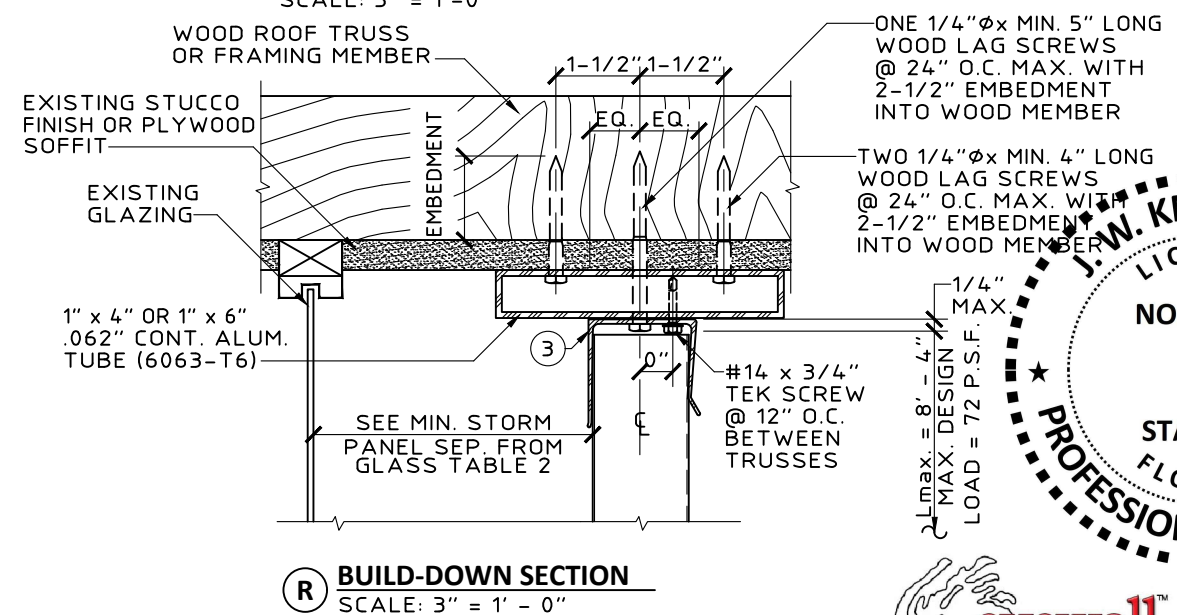
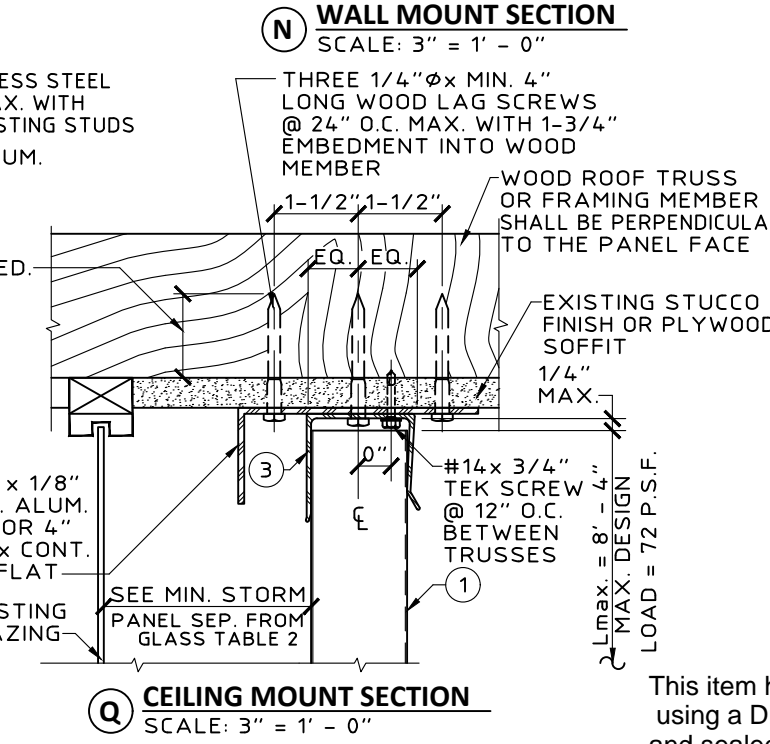
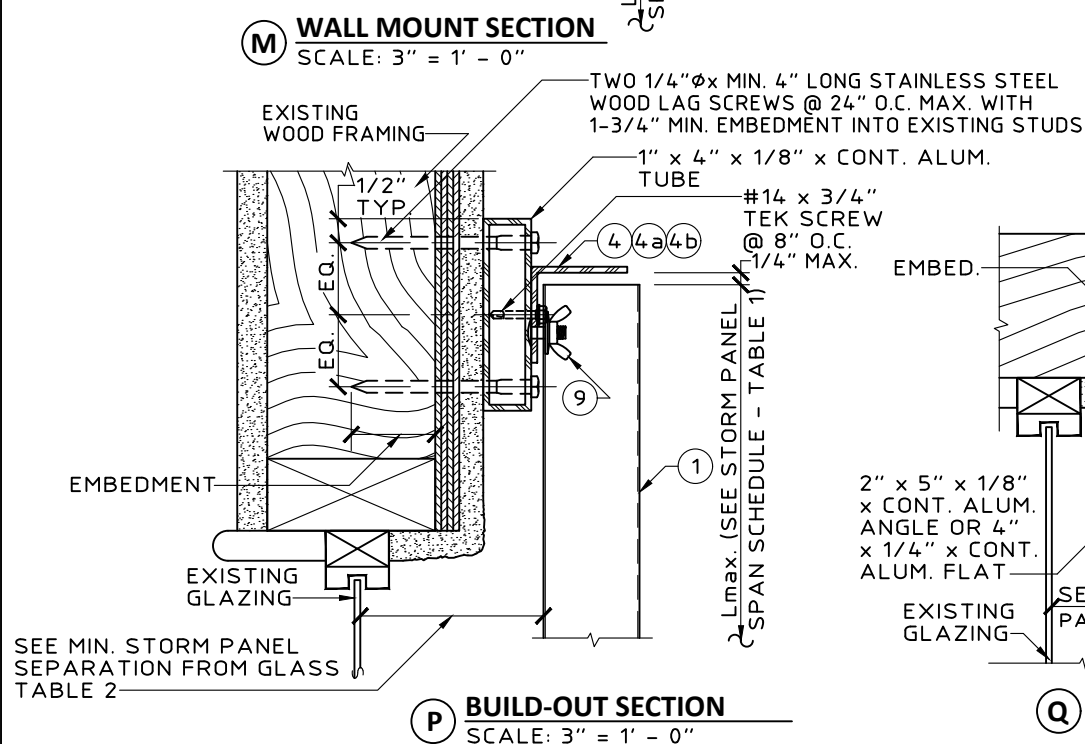
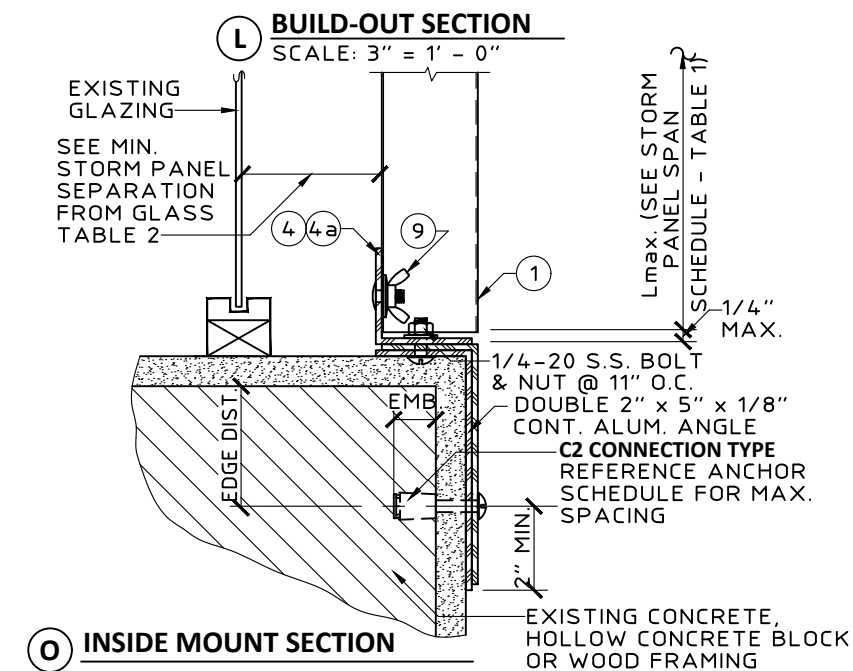
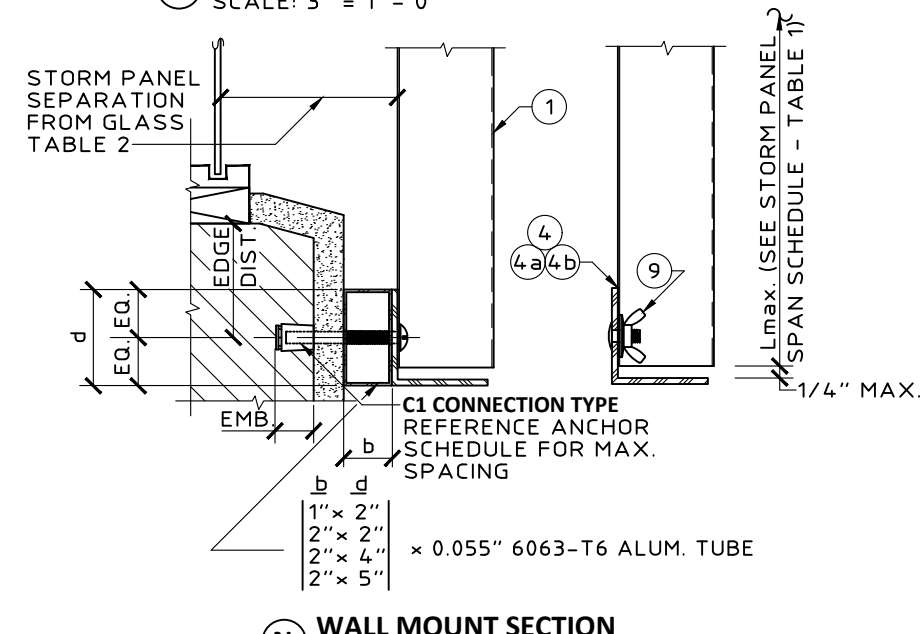
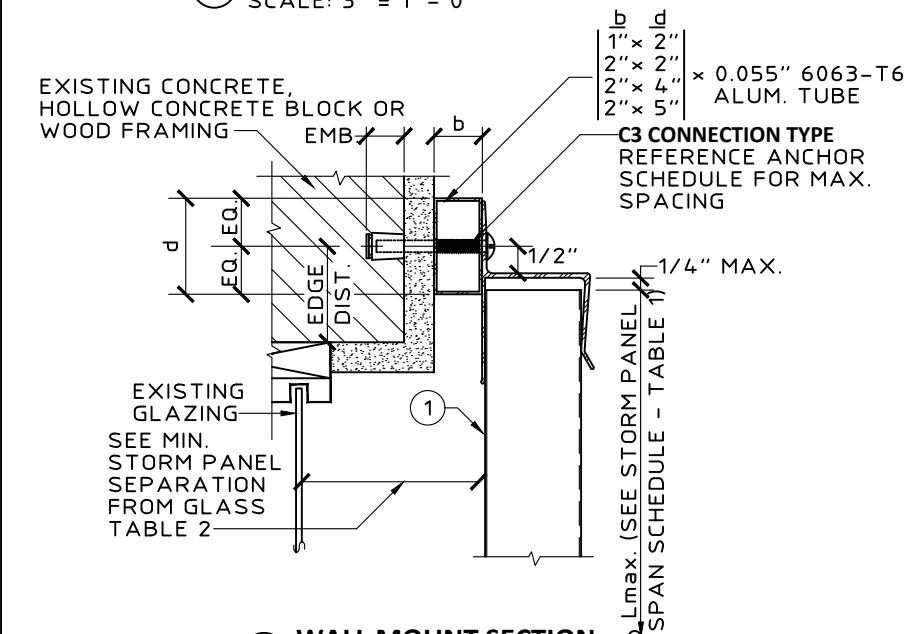
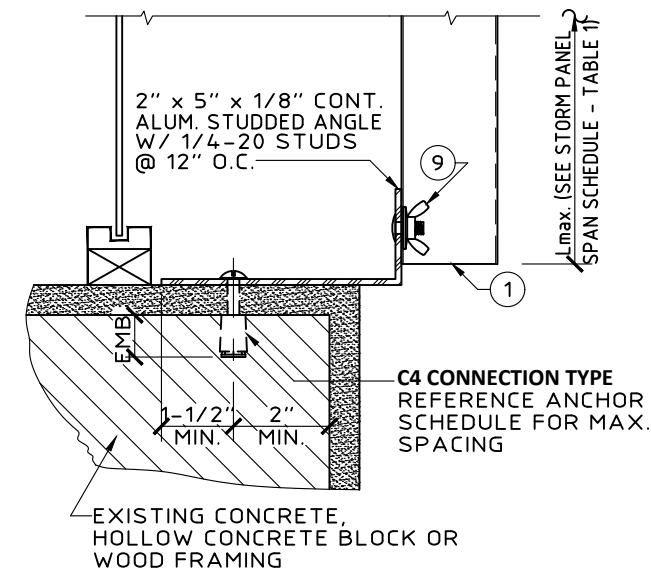
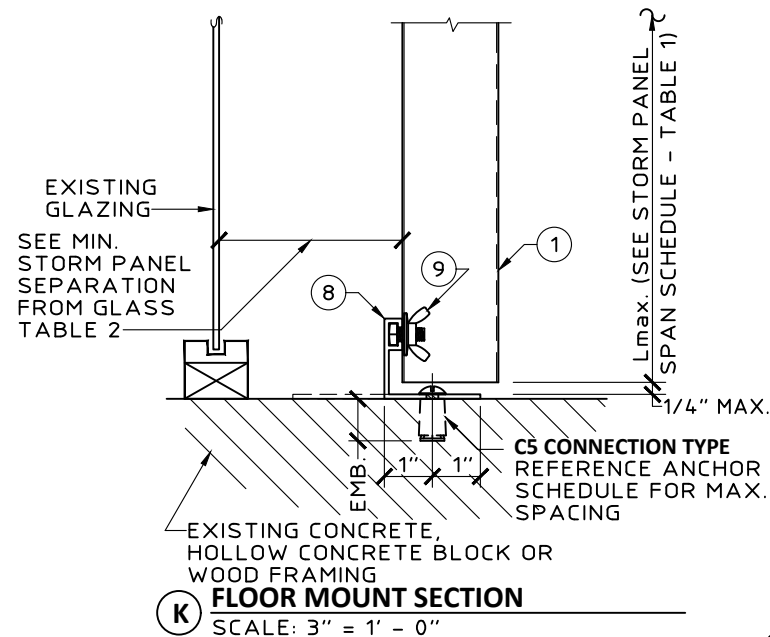
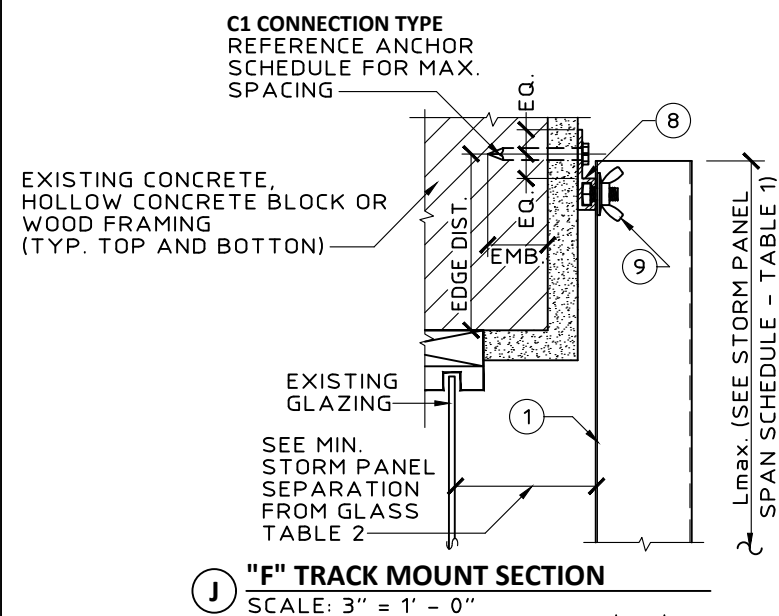
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Revisions	description
1	8/5/2017 JWK/FBC 2017 Update

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FL License No.: PE 41961

Scale: AS NOTED
Drawn by: ARV
Date: 04/10/2015
Drawing No. **KC15-0107**
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Revisions

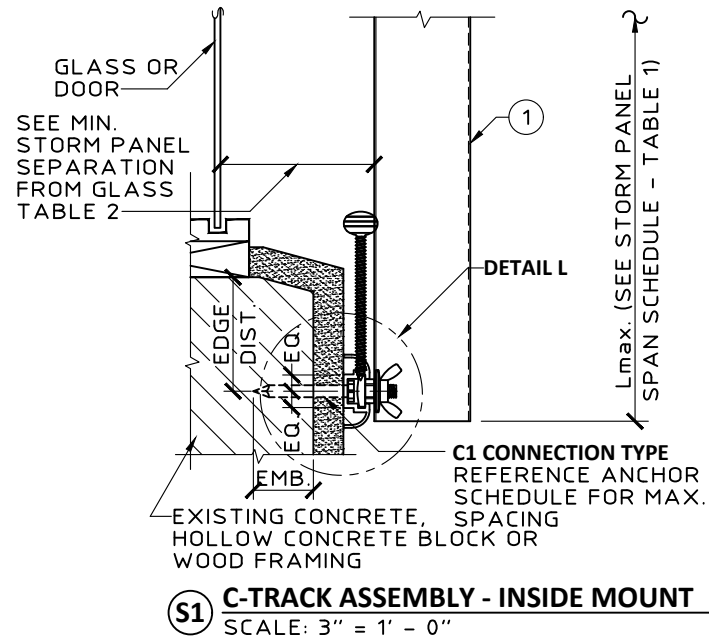
Revisions	description

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 J.W. Knezevich
 Professional Engineer
 License No.: PE 41564
 STATE OF FLORIDA
PROFESSIONAL ENGINEER

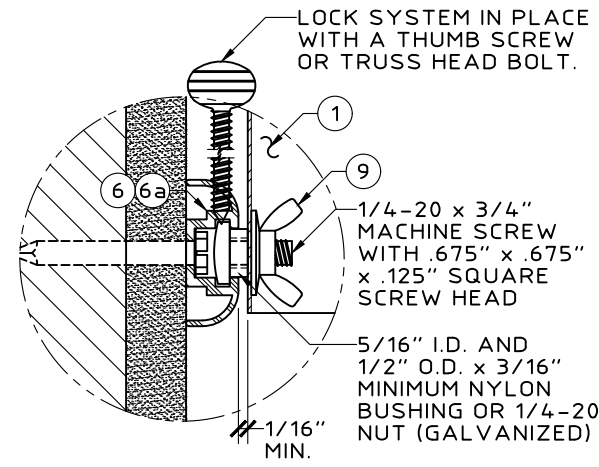
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 sheet 4 of 8

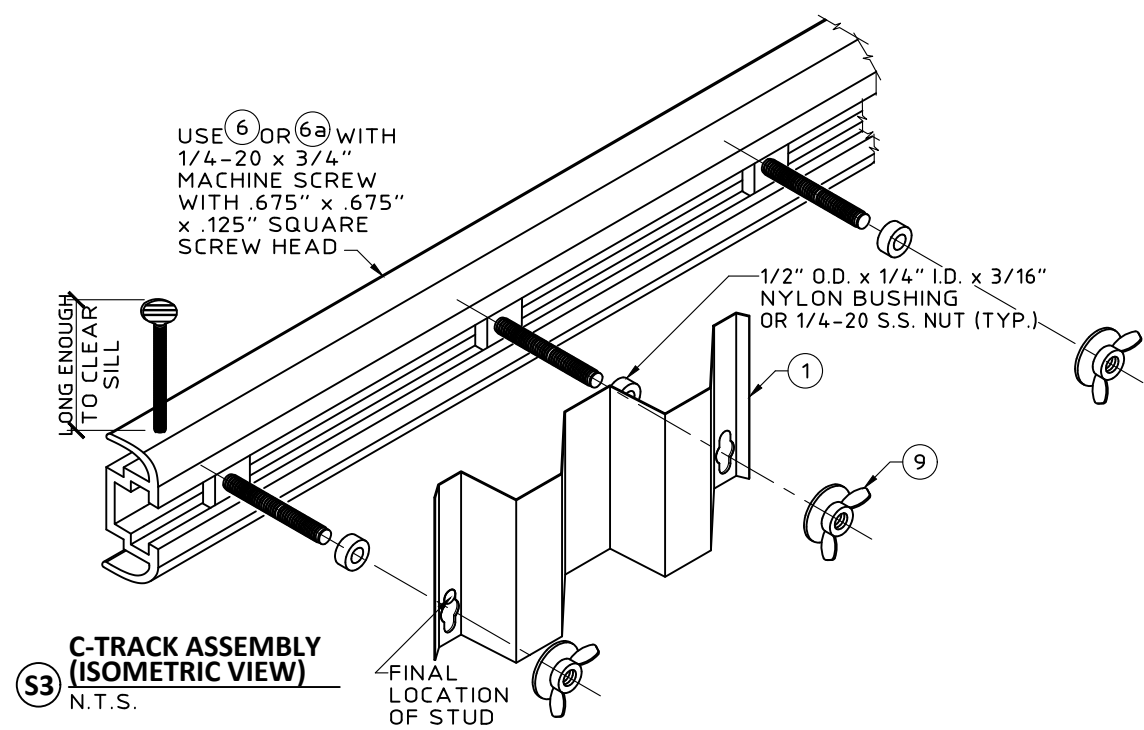


S1 C-TRACK ASSEMBLY - INSIDE MOUNT
SCALE: 3" = 1' - 0"

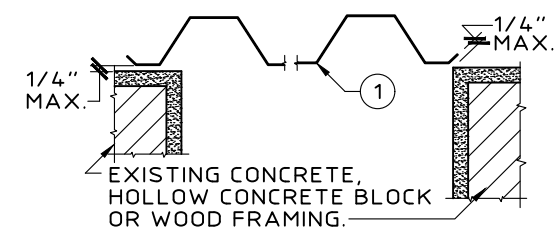


S2 C-TRACK BLOW UP
SCALE: HALF SIZE

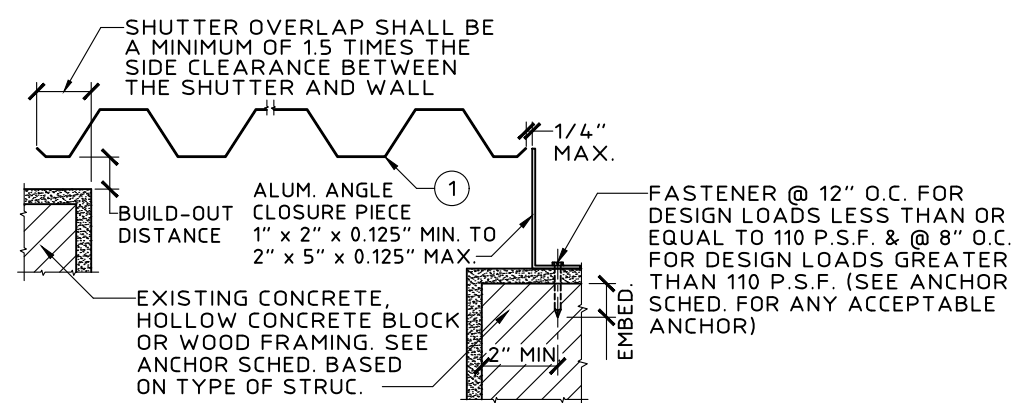
NOTE: USE OF DETAIL SHALL BE IN CONJUNCTION WITH AN "h" HEADER OR "U" HEADER TOP MOUNT



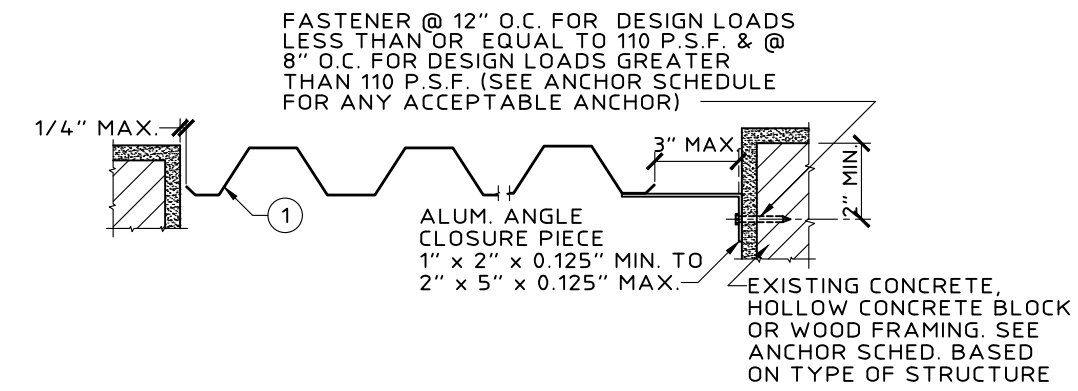
S3 C-TRACK ASSEMBLY (ISOMETRIC VIEW)
N.T.S.



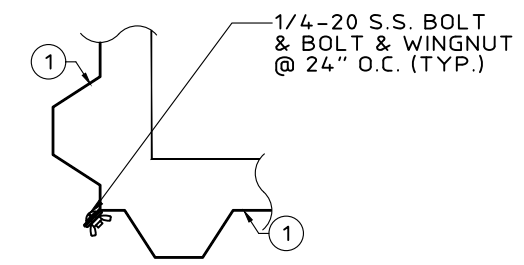
T1 WALL MOUNT CLOSURE DETAIL
SCALE: 1-1/2" = 1'-0"



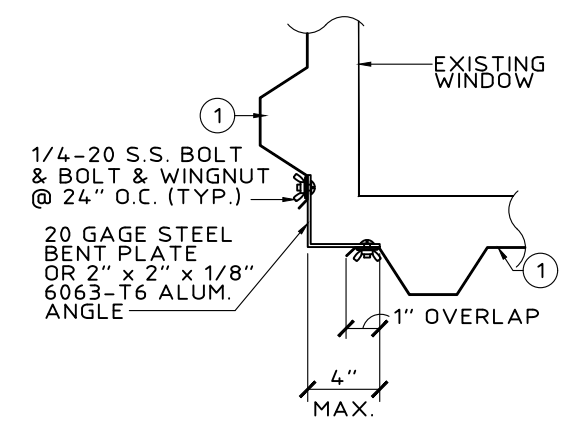
T2 BUILD-OUT MOUNT CLOSURE DETAIL
SCALE: 1-1/2" = 1'-0"



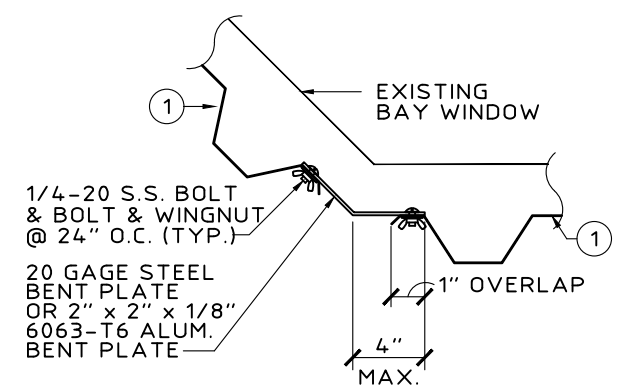
T3 TRAP MOUNT CLOSURE DETAIL
SCALE: 1-1/2" = 1'-0"



U1 CORNER CLOSURE DETAIL
SCALE: 1-1/2" = 1'-0"



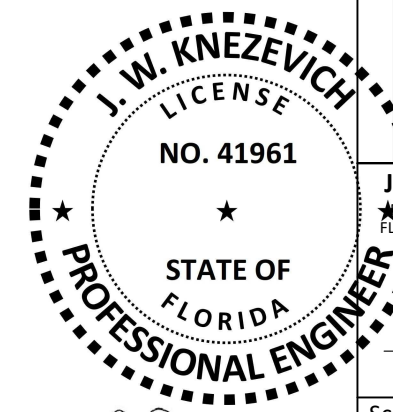
U2 CORNER CLOSURE DETAIL
SCALE: 1-1/2" = 1'-0"



U3 CORNER CLOSURE DETAIL
SCALE: 1-1/2" = 1'-0"

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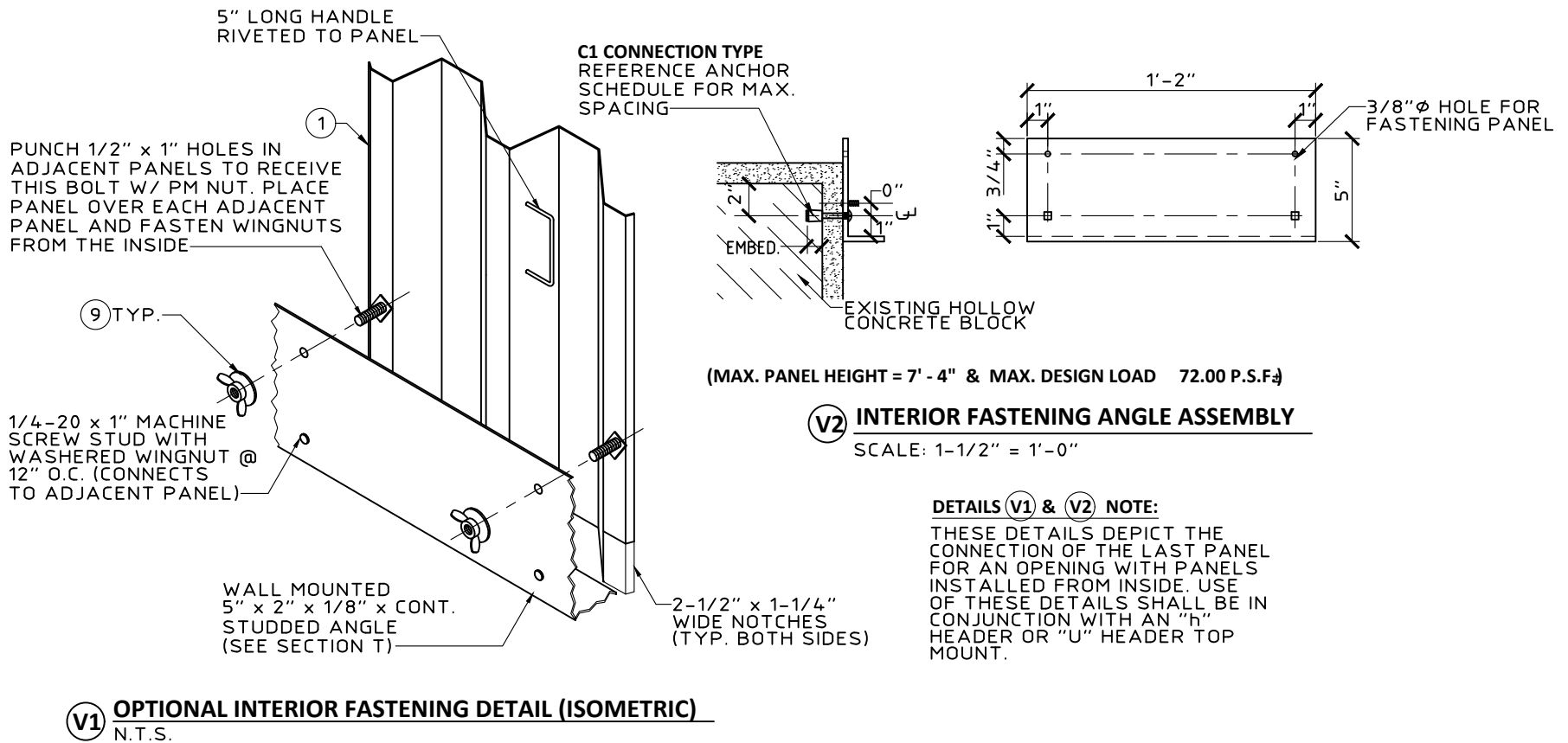
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Revisions	description
1	8/5/2017 JWK/FBC 2017 Update

J. W. Knezevich
Professional Engineer
FL License No.: PE 41961

Scale: AS NOTED
Drawn by: ARV
Date: 04/10/2015
Drawing No. **KC15-0107**
sheet 5 of 8

		ANCHOR SCHEDULE															
		FASTENER MAXIMUM SPACING (INCHES) REQUIRED FOR VARIOUS DESIGN LOADS AND SPANS															
EXIST. STRUC.	ANCHOR TYPE	MAX LOAD (PSF) SEE NOTE 1	SPANS UP TO 5'-0" (SEE NOTE 1)					SPANS UP TO 9'-0" (SEE NOTE 1)					SPANS UP TO 12'-0" (SEE NOTE 1)				
			CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)				
WOOD	* 1/4" Ø LAG SCREW OR HANGER BOLT MIN 1.75" PENETRATION IN WOOD WITH G = 0.55	W	0.75" Edge Distance														
		48.0	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5
		62.0	16	16	13	8	7	16	11	7	4	4	16	8	5	3	3
		76.0	16	16	10	7	6	16	9	6	4	3	16	8	5	3	3
	90.0	16	14	9	6	5	16	8	5	3	3	16	8	5	3	3	
	120.0	16	10	6	4	3	16	8	5	3	3	16	8	5	3	3	
	* 1/4" Ø LAG SCREW OR HANGER BOLT MIN 1.75" PENETRATION IN WOOD WITH G = 0.42	W	0.75" Edge Distance														
		48.0	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5
		62.0	16	13	8	7	5	15	7	4	4	3	11	5	3	3	
		76.0	16	11	7	5	4	12	6	3	3		11	5	3		
	90.0	16	9	6	5	4	11	5	3			11	5	3			
	120.0	14	7	4	3	3	11	5	3			11	5	3			
* 7/16" Ø BRASS WOOD BUSHING W/ 7/8" EMBED IN WOOD WITH G = 0.55	W	0.75" Edge Distance															
	48.0	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	
	62.0	16	8	5			9	4				7	3				
	76.0	13	6	4			7	3				5					
90.0	10	5	3			6					5						
120.0	9	4				5					5						
1/4" Ø ELCO PANELMATE PRO OR FEMALE ID W/ STALGARD FINISH OR STAINLESS STEEL W/ 1-7/8" EMBED IN WOOD WITH G = 0.55	W	0.75" Edge Distance															
	48.0	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	
	62.0	16	16	15	16	14	16	13	8	10	7	16	10	6	7	5	
	76.0	16	16	12	15	11	16	11	7	8	6	16	9	6	7	5	
90.0	16	16	10	12	9	16	9	6	7	5	16	9	6	7	5		
120.0	16	12	8	9	7	16	9	6	7	5	16	9	6	7	5		
#14 WOOD SCREW OR #14-10 SMS W/ 1.5" EMBED IN WOOD WITH G = 0.55	W	0.75" Edge Distance															
	48.0	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	
	62.0	16	16	12	12	9	16	11	7	7	5	16	8	5	5	4	
	76.0	16	15	9	9	7	16	8	5	5	4	13	6	4	4	3	
90.0	16	12	8	7	6	14	7	4	4	3	13	6	4	3	3		
120.0	16	10	6	6	5	13	6	4	3	3	13	6	4	3	3		
#14 WOOD SCREW OR #14-10 SMS W/ 1.5" EMBED IN WOOD WITH G = 0.42	W	0.75" Edge Distance															
	48.0	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	
	62.0	16	11	7	9	6	13	6	4	5	3	10	4	3	3		
	76.0	16	8	5	7	5	10	4	3	4	3	7	3		3		
90.0	15	7	4	6	4	8	4		3		7	3					
120.0	12	6	3	5	3	7	3				7	3					



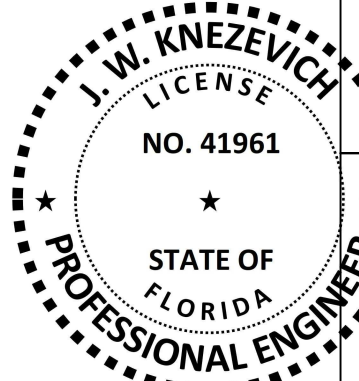
(V1) OPTIONAL INTERIOR FASTENING DETAIL (ISOMETRIC)
N.T.S.

		ANCHOR SCHEDULE															
		FASTENER MAXIMUM SPACING (INCHES) REQUIRED FOR VARIOUS DESIGN LOADS AND SPANS															
EXIST. STRUC.	ANCHOR TYPE	MAX LOAD (PSF) SEE NOTE 1	SPANS UP TO 5'-0" (SEE NOTE 1)					SPANS UP TO 9'-0" (SEE NOTE 1)					SPANS UP TO 12'-0" (SEE NOTE 1)				
			CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)				
GROUTED MASONRY	#12 STAINLESS STEEL SMS W/ 2" EYEWALL ARMOR INSERT W/ 2" SCREW EMBED IN GROUT BLOCK	W	2" Edge Distance														
		48.0	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5
		62.0	16	16	11	16	11	16	10	6	9	6	15	7	4	6	4
		76.0	16	14	9	12	9	16	7	5	7	5	12	5	3	5	3
	90.0	16	11	7	10	7	13	6	4	5	4	11	5	3	5	3	
	120.0	16	9	6	8	6	11	5	3	5	3	11	5	3	5	3	
	5/16" Ø ELCO ULTRACON W/ 2.25" EMBED IN GROUTED BLOCK	W	2.5" Edge Distance														
		48.0	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5
		62.0	16	13	9	16	13	16	7	5	13	7	12	5	3	10	5
		76.0	16	10	6	16	10	12	6	3	10	5	9	4		7	4
	90.0	16	8	5	15	8	10	4	3	8	4	9	4		7	4	
	120.0	15	7	4	12	7	9	4		7	4	9	4		7	4	

ANCHOR NOTES:
SEE SHEET 8 FOR ANCHOR NOTES.

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Revisions	date	by	description
1	8/5/2017	JWK	FBC 2017 Update

J. W. Knezevich
Professional Engineer
FL License No.: PE 41961

Scale: AS NOTED
Drawn by: ARV
Date: 04/10/2015
Drawing No. **KC15-0107**
sheet 6 of 8

í l ð — T h / > y d W K E
 SS OR CLIMASEAL
 COATING W/ 1.75" EMBED
 IN 3 KSI CONCRETE

í l ð — T > K h > d Z K E
 W/ 1.75" EMBED
 IN 2.8 KSI CONCRETE

í l ð — ALLPOINTS
 SOLID-SET ANCHOR &
 1/4-20 STAINLESS STEEL
 BOLT W/ 7/8" EMBED
 IN 3 KSI CONCRETE

í l ð — MILLFAST ANCHOR
 CONCRETE SCREW BY
 MILLENNIUM FASTENERS
 W/ 1.75" EMBED
 IN 3.3 KSI CONCRETE

*

1/4" >ELCO PANELMATE PRO OR
 FEMALE ID W/ STALGARD FINISH
 W/ 1.75" EMBED
 IN 3.35 KSI CONCRETE

#12 STAINLESS STEEL SMS
 W/ EYEWALL ARMOR INSERT
 W/ 2" SCREW EMBED
 IN 2 KSI CONCRETE

#12 STAINLESS STEEL SMS
 W/ 2.75" EYEWALL ARMOR
 INSERT W/ 2.5" SCREW
 EMBED IN 2 KSI CONCRETE

1/4" >POWERS TAPPER
 W/ PERMASEAL COATING
 W/ 1.75" EMBED
 IN 3 KSI CONCRETE

í l ð — T W K t Z ^ d W W Z
 W/ PERMASEAL COATING
 W/ 1.75" EMBED
 IN 3 KSI CONCRETE

ANCHOR NOTES:
 SEE SHEET 8 FOR ANCHOR NOTES.

.050 & .0615 ALUMINUM STORM PANEL

Town & Country
 Wholesale Aluminum and Building Products
 # & KXKUKQP GH # % 5 WRRN
 9 GUV / E0CD 4QCF (QTV .CWF
 RJQPG HCZ A

Revisions

no	date	by	description
1	8/5/2017	JWK	FBC 2017 Update

J.W. Knezevich
 Professional Engineer
 FL License No.: PE 41961

Scale: AS NOTED

Drawn by: ARV

Date: 04/10/2015

Drawing No.
KC15-0107

sheet 7 of 8

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 website: www.knezevich.com
 TFCNG } % Ç E J P Z \$ z i i i 6 < v | A] Z } v • µ o s

		ANCHOR SCHEDULE																																
		FASTENER MAXIMUM SPACING (INCHES) REQUIRED FOR VARIOUS DESIGN LOADS AND SPANS																																
EXIST. STRUC.	ANCHOR TYPE	MAX LOAD (PSF) SEE NOTE 1	SPANS UP TO 5'-0" (SEE NOTE 1)					SPANS UP TO 9'-0" (SEE NOTE 1)					SPANS UP TO 12'-0" (SEE NOTE 1)					SPANS UP TO 5'-0" (SEE NOTE 1)					SPANS UP TO 9'-0" (SEE NOTE 1)					SPANS UP TO 12'-0" (SEE NOTE 1)						
			CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)						
			C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2
HOLLOW BLOCK	1/4" Ø BUILD EX TAPCON SS OR CLIMASEAL COATING W/ 1.0" EMBED IN HOLLOW BLOCK	W	2" Edge Distance										4" Edge Distance																					
			48.0	8		11	5	4			6				4				10	4		14	6	5			7		4			5		
			62.0	6		8	4				4								7			11	5	4			6				4			
			76.0	5		7						4							6			9	4				5				4			
			90.0	4		6													5			7					4				4			
	120.0			4													4			5					4				4					
	1/4" Ø ELCO ULTRACON W/ 1.25" EMBED IN HOLLOW BLOCK	W	1" Edge Distance										2.5" Edge Distance																					
			48.0	14	6		12	7	7			6						14	6		16	9	7			11				8				
			62.0	10		9	6	6										10			16	7	6			8				6				
			76.0	8		7												8			13					7				6				
			90.0	7		6												7			11					6				6				
	120.0																		8			6				6			6					
* 1/4" Ø ALL POINTS SOLID-SET ANCHOR & 1/4-20 STAINLESS STEEL BOLT W/ 7/8" EMBED IN HOLLOW BLOCK	W	1.25" Edge Distance										3" Edge Distance																						
		48.0	16	7	5	9	6	9	4		5	3	6	3		3	16	15	9	16	13	16	8	5	12	7	13	6	4	9	5			
		62.0	12	6	3	7	4	7	4		4					3	16	11	7	16	10	13	6	4	9	5	10	4	3	7	4			
		76.0	10	5	3	5	3	5			3					5	16	9	6	14	8	11	5	3	7	4	9	4	3	7	4			
		90.0	8	4		4	3	5								5	16	8	5	11	7	9	4	3	7	4	9	4	3	7	4			
120.0	6	3		3					5						12	6	3	8	5	9	4	3	7	4	9	4	3	7	4					
1/4" Ø MILLFAST ANCHOR CONCRETE SCREW BY MILLENNIUM FASTENERS W/ 1.25" EMBED IN HOLLOW BLOCK	W	1" Edge Distance										2.5" Edge Distance																						
		48.0	16	8	5	11	8	9	4		4	7				16	8	5	16	11	10	4		12	6	7		9	4					
		62.0	13	6	4	9	6	7				5				14	6	4	16	8	7			9	4	5		6						
		76.0	10	5		7	5	5				5				11	5		13	7	6			7	4	5		6						
		90.0	8	4		6	4	5				5				9	4		11	6	5			6	5		6							
120.0	6			4					5					7			8	4	5			6	5		6									

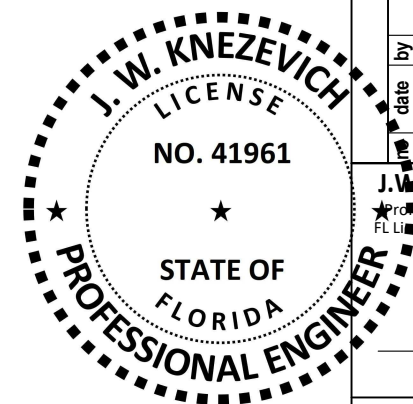
ANCHOR NOTES:

- SPANS AND LOADS SHOWN HERE ARE FOR DETERMINING ANCHOR SPACING ONLY. ALLOWABLE SHUTTER SPANS FOR SPECIFIC LOADS MUST BE LIMITED TO THOSE SHOWN IN TABLE 1 ON SHEET 2.
- AN EFFECTIVE WIND AREA OF 10 SQ. FT. SHALL BE USED FOR DETERMINING WIND LOADS FOR ANCHORS.
- 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, ASTM C-90 HOLLOW CONCRETE BLOCK, GROUTED MASONRY, OR WOOD FRAMING. REFERENCE ANCHOR SCHEDULE FOR PROPER ANCHOR TYPE BASED ON TYPE OF EXISTING STRUCTURE.
- ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
- MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES WALL FINISH OR STUCCO.
- WHERE EXISTING STRUCTURE IS POST-TENSIONED CONCRETE, CONTRACTOR SHALL LOCATE CABLES PRIOR TO ANCHORING AND COORDINATE ANCHORAGE SUCH THAT CABLES ARE NOT DAMAGED.
- 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 AND WOOD 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. WOOD STUD SHALL HAVE A MIN DENSITY AS NOTED IN ANCHOR SCHEDULE. 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 THAT ARE NOT ACCEPTABLE USES.
- * DESIGNATES ANCHORS THAT ARE REMOVABLE BY REMOVING MACHINE SCREW, NUT OR WASHERED WINGNUT.
- ALL CONCRETE ANCHORS SHALL BE INSTALLED IN UNCRACKED CONCRETE ONLY WITH A MINIMUM CONCRETE STRENGTH AS NOTED IN ANCHOR SCHEDULE.
- WHEN ANCHORING TO CONCRETE BLOCK, SDS AND IMPACT DRILLS SHALL NOT BE USED TO DRILL INTO BLOCK OR TO INSTALL CONCRETE SCREWS.

		ANCHOR SCHEDULE																																
		FASTENER MAXIMUM SPACING (INCHES) REQUIRED FOR VARIOUS DESIGN LOADS AND SPANS																																
EXIST. STRUC.	ANCHOR TYPE	MAX LOAD (PSF) SEE NOTE 1	SPANS UP TO 5'-0" (SEE NOTE 1)					SPANS UP TO 9'-0" (SEE NOTE 1)					SPANS UP TO 12'-0" (SEE NOTE 1)					SPANS UP TO 5'-0" (SEE NOTE 1)					SPANS UP TO 9'-0" (SEE NOTE 1)					SPANS UP TO 12'-0" (SEE NOTE 1)						
			CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)					CONNECTION TYPE (SEE NOTE 3)						
			C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2	C3	C4	C5	C1	C2
HOLLOW BLOCK	* 1/4" Ø ELCO PANELMATE PRO OR FEMALE ID WITH STALGARD FINISH W/ 1.25" EMBED IN HOLLOW BLOCK	W	2.5" Edge Distance										2.5" Edge Distance																					
			48.0	16	10	6	14	8	11	5			7	4			6			7	4				6				4					
			62.0	16	7	5	11	6	9	4			6								6					6				4				
			76.0	13	6	4	9	5	7				5								5					6				4				
			90.0	11	5		7	4	6				4								4					6				4				
	120.0	8	4		5		6				4								4					6				4						
	#12 STAINLESS STEEL SMS W/ 2" EYEWALL ARMOR INSERT W/ 1.25" SCREW EMBED IN HOLLOW BLOCK	W	2" Edge Distance										2" Edge Distance																					
			48.0	16	11	7	14	9	12	6	3	8	5	9	4		6	3																
			62.0	16	8	5	11	7	9	4	3	6	3	7	3		4																	
			76.0	14	6	4	9	5	8	3		5	3	7	3		4																	
			90.0	12	5	3	7	4	7	3		4		7	3		4																	
	120.0	9	4		5	3	7	3		4		7	3		4																			
1/4" Ø POWERS TAPPER W/ PERMA-SEAL COATING W/ 1.25" EMBED IN HOLLOW BLOCK	W	3" Edge Distance										3" Edge Distance																						
		48.0	11	5		15	7	6			8	4	4			6																		
		62.0	8	4		11	5	4			6				4																			
		76.0	7		9	4	4				5				4																			
		90.0	6		8	4					4				4																			
120.0	4		6						4				4																					

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.050 & .0615 ALUMINUM STORM PANEL

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FL License No.: PE 41961

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Drawn by: ARV
Date: 04/10/2015
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sheet 8 of 8

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