

GENERAL NOTES:

- THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE HIGH VELOCITY HURRICANE ZONE (HVHZ) AND NON-HIGH VELOCITY HURRICANE ZONE (NON-HVHZ) OF THE 6TH EDITION FLORIDA BUILDING CODE (2017).
- SYSTEM RATED FOR LARGE AND SMALL MISSILE IMPACT.
- STAINLESS STEEL SHEET METAL SCREWS USED AT LOUVER PIN SHALL BE # 14 x 3", 410-HT MINIMUM SERIES W/ 135.0 ksi YIELD STRENGTH & 180 ksi TENSILE STRENGTH. SCREWS SHALL BE COATED WITH XLAN 5000 SERIES FLUOROPOLYMER COATINGS AS MANUFACTURED BY WHITFORD Co, BOX 507. WEST CHESTER PA 19381.
- ALL ALUMINUM EXTRUSIONS SHALL BE 6063-T6 ALLOY WITH MINIMUM YIELD STRENGTH OF Fy=31.0 ksi.
- ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS. ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.
- ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.
- WOOD BUCKS BY OTHERS MUST BE SOUTHERN PINE, G = 0.55 AND MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.
- ALL ALUMINUM POP RIVETS TO BE 5052 ALUMINUM ALLOY WITH ALUMINUM MANDREL.
- BOLTS TO BE GALVANIZED OR STAINLESS STEEL WITH 36 ksi MINIMUM YIELD STRENGTH.
- SHUTTER'S COMPONENTS ARE PATENT PENDING.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SOUNDNESS OF THE STRUCTURE WHERE SHUTTER IS TO BE ATTACHED TO INSURE PROPER ANCHORAGE. THIS SHUTTER SHALL ONLY BE ATTACHED TO CONCRETE, BLOCK OR WOOD FRAME BUILDINGS.
- A PERMANENT SHUTTER MANUFACTURER'S LABEL SHALL BE PLACED ON THE EXPOSED SURFACE OF THE CENTER MATE. ONE LABEL SHALL BE PLACED FOR EVERY OPENING.
 LABEL SHALL READ AS FOLLOWS:
 "PERFORMANCE SYSTEM 2 ACCORDION SHUTTER"
 HURRICANE PROTECTION MANUFACTURERS ASSOCIATION
 OPA-LOCKA, FLORIDA
 MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED
 TEST REPORT TAS-201, 202 & 203.
- (a) THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) PREPARED BY THIS ENGINEER IS GENERIC.
 (b) CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION INCLUDING LIFE SAFETY OF THIS PRODUCT BASED ON THIS PRODUCT APPROVAL PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT. CONSTRUCTION SAFETY AT SITE IS THE CONTRACTOR'S RESPONSIBILITY.
 (c) THIS PRODUCT APPROVAL DOCUMENT WILL BE CONSIDERED INVALID IF MODIFIED.
 (d) SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS DELEGATED ENGINEER TO THE P.E.D. ENGINEER, SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.
 (e) THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER THAT PREPARED IT.
- ULTIMATE LOAD OBTAINED FROM ASCE 7-10, MULTIPLY BY 0.6 SHALL BE LESS THAN OR EQUAL TO MAX. DESIGN LOAD IN THIS DOCUMENT. THE DESIGN LOADS SHOWN IN THIS DOCUMENT ARE ALLOWABLE DESIGN LOADS.

TYPICAL ANCHORS: (SEE CHARTS FOR ANCHOR SPACING)

TYPE A. 1/4" DIA. ITW TAPCON BY ITW BUILDEX
 Fu = 120 KSI, Fy = 92 KSI
 INTO CONCRETE fc'=3000 PSI
 1-3/4" MIN. EMBED
 2-1/2" MIN. EDGE DISTANCE

TYPE A1. INTO CONCRETE BLOCK
 1-1/4" MIN. EMBED
 2-1/2" MIN. EDGE DISTANCE

TYPE B. 1/4"-20 CALK-IN BY 'POWERS' FASTENERS
 INTO CONCRETE fc'=3000 PSI
 7/8" MIN. EMBED
 3" MIN. EDGE DISTANCE

TYPE B1. INTO CONCRETE BLOCK
 7/8" MIN. EMBED
 3" MIN. EDGE DISTANCE

TYPE C. 1/4" CRETE-FLEX SS4 MASONRY ANCHOR BY "ELCO" CONSTRUCTION PRODUCTS
 Fu = 120 KSI, Fy = 92 KSI
 INTO CONCRETE fc'=3000 PSI
 1 3/4" MIN. EMBED
 2 1/2" MIN. EDGE DISTANCE

TYPE C1. INTO CONCRETE BLOCK
 1 1/4" MIN. EMBED
 2 1/2" MIN. EDGE DISTANCE

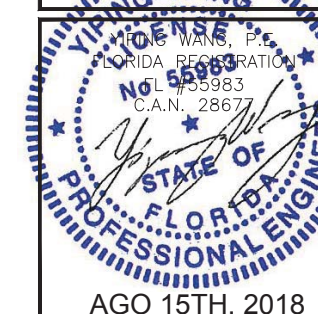
NOTES:

WHEN EDGE DISTANCE EQUAL OR GREATER THAN 2" AND LESS THAN MIN. EDGE DISTANCE SPECIFIED ABOVE THE ANCHOR SPACE IN ANCHOR CHARTS ON THE DRAWINGS MUST MULTIPLY BY FOLLOWING REDUCTION FACTOR:

- ANCHOR TYPE A, & A1: REDUCTION FACTOR = 0.77
- ANCHOR TYPE B & B1: REDUCTION FACTOR = 0.50
- ANCHOR TYPE C & C1: REDUCTION FACTOR = 0.77

PLEASE NOTE THIS INSTALLATION ARE ONLY VALID FOR THE RESULTING ANCHOR SPACE EQUAL OR GREATER THAN 3".

LIMITATIONS OF USE
 A- THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT; I.E. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.E.D.
 B- CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.
 C- THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.
 D- SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D.
 E- THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED

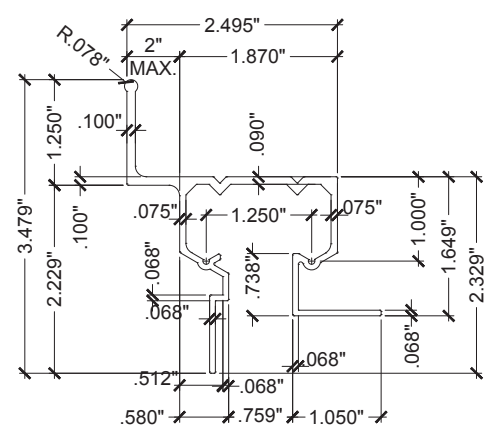


NO.	DATE	DESCRIPTION	REVISED BY
1.	8/15/2018	6th EDITION FEB. 2017	

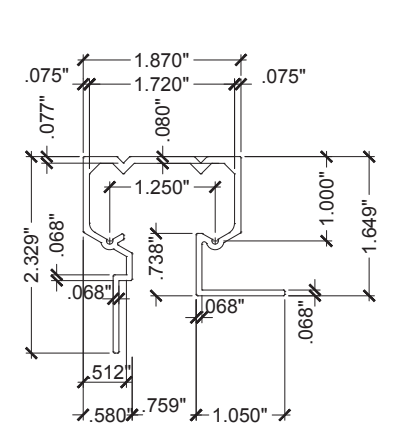
MCY ENGINEERING, INC.
 GLAZING CONSULTANTS
 8501 SW 124 AVE. STE. 205A P: 305.271.0117
 MIAMI, FL. 33183 F: 786.573.5063
 www.MCYEngineering.com MCY.Engineering@Att.net

PERFORMANCE SYSTEM 2 ALUMINUM ACCORDION SHUTTER
 HURRICANE PROTECTION MANUFACTURERS ASSOCIATION
 14475 NW 26TH AVE
 OPA-LOCKA, FL 33054
 Tel: (786) 245 - 6777 Fax: (305) 769 - 9117

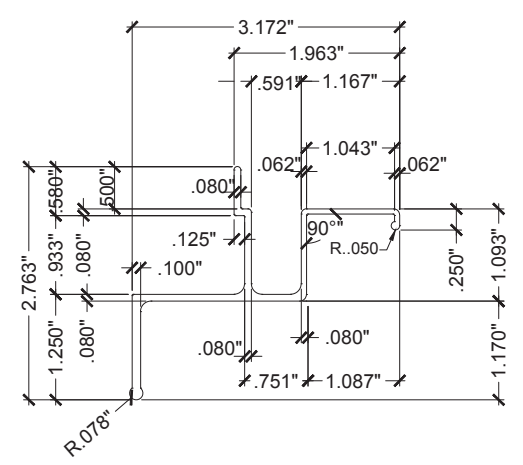
FLORIDA APPROVAL #20466	
DATE	9-28-18
SCALE	
DRAWN	Y.P
PROJECT	MCY 18-041
DRAWING NO. AD16-13	
1 OF 10	



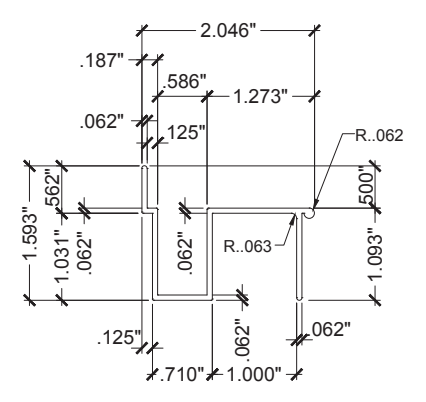
A WALL HEADER (& INVERTED)



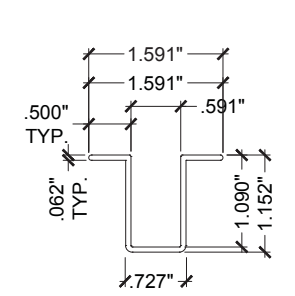
B CEILING HEADER



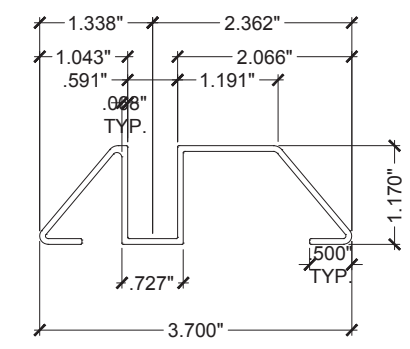
C WALL SILL



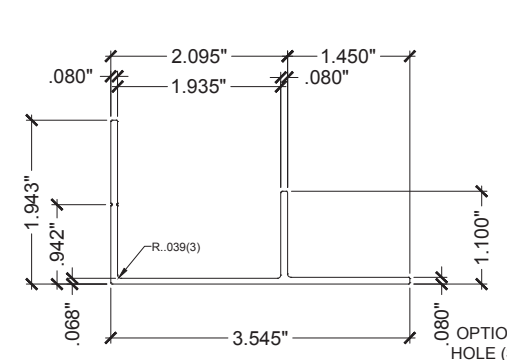
D FLOOR SILL
SCALE : 3/8" = 1"



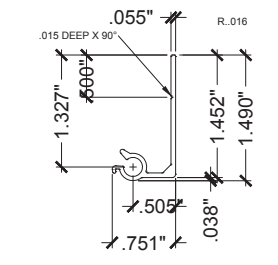
D1 FLOOR SILL
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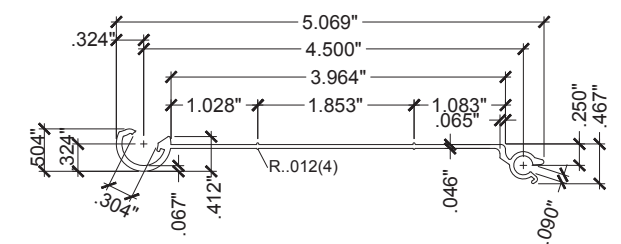
D2 THRESHOLD TRACK



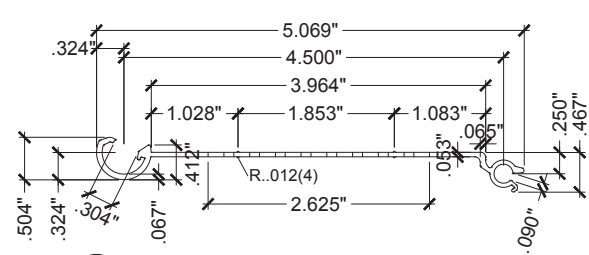
E ADJUSTABLE SILL ADAPTOR



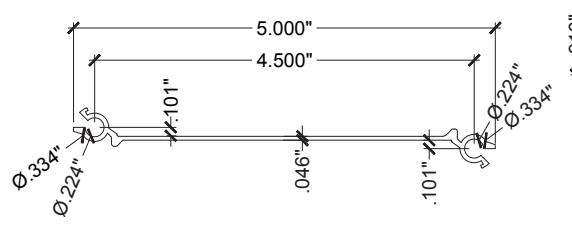
F1 180° MALE STARTER



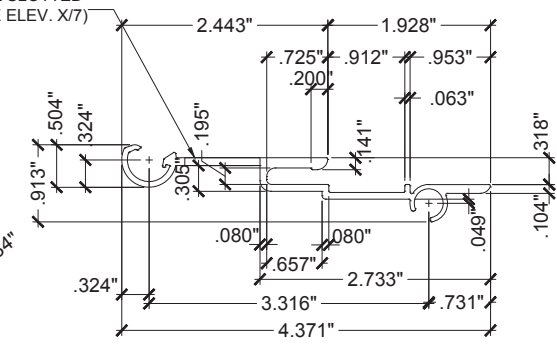
G MALE/FEMALE SOLID BLADE



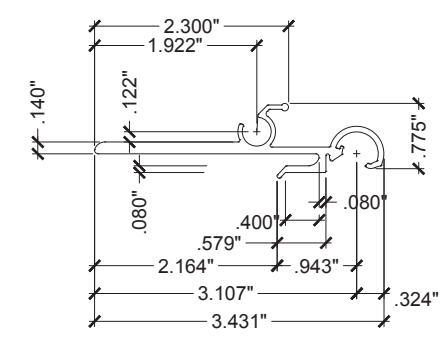
G' MALE/FEMALE PERFORATED BLADE



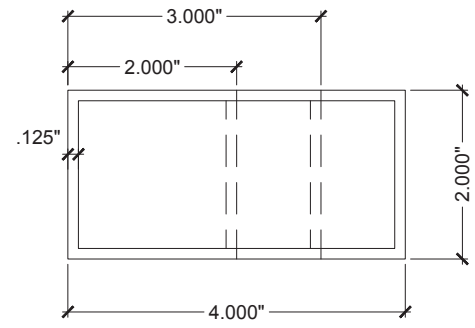
G1 MALE/MALE SOLID BLADE



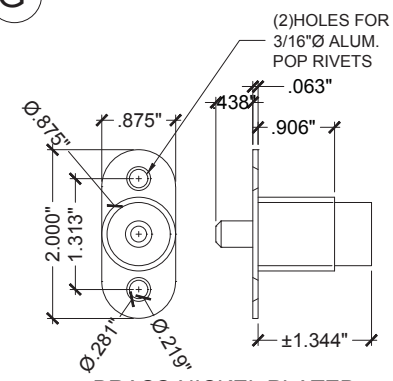
H FEMALE CENTERMATE BLADE
SCALE : 3/8" = 1"



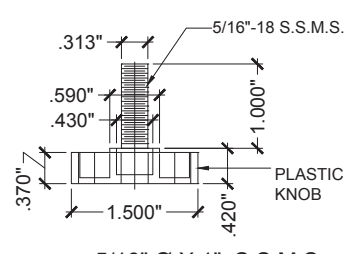
H1 MALE CENTERMATE BLADE
SCALE : 3/8" = 1"



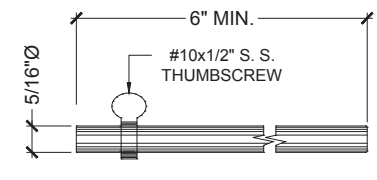
M ALUMINUM TUBES



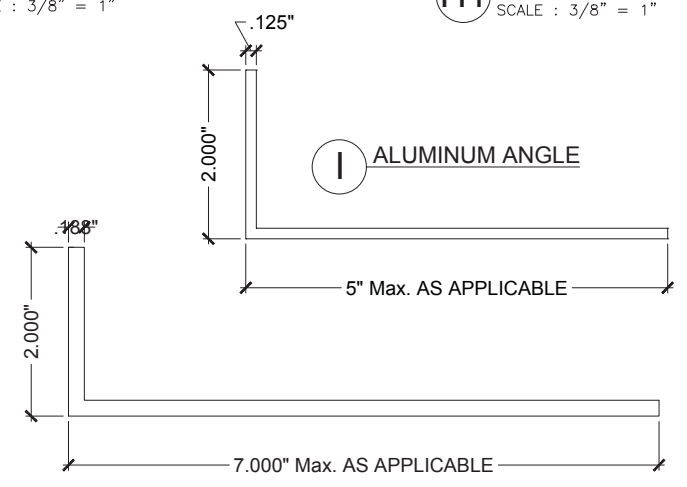
J BRASS NICKEL PLATED PUSH BUTTON LOCK



J1 5/16" Ø X 1" S.S.M.S W/ PLASTIC KNOB LOCK



K LOCKING PIN (OPTIONAL)
SCALE : 3/8" = 1"



L1 ALUMINUM ANGLE

COMPONENTS

NO.	DATE	DESCRIPTION
1.	8/15/2018	REV. EDITION P&E 2017

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GLAZING CONSULTANTS

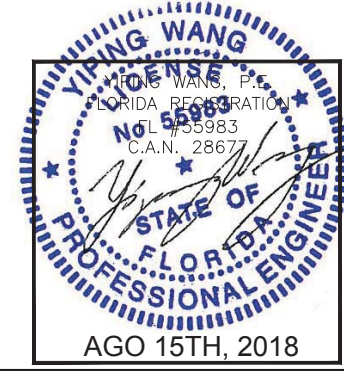
MCY

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www.MCYEngineering.com MCY.Engineering@Att.net

PERFORMANCE SYSTEM 2 ALUMINUM ACCORDION SHUTTER
HURRICANE PROTECTION MANUFACTURERS ASSOCIATION

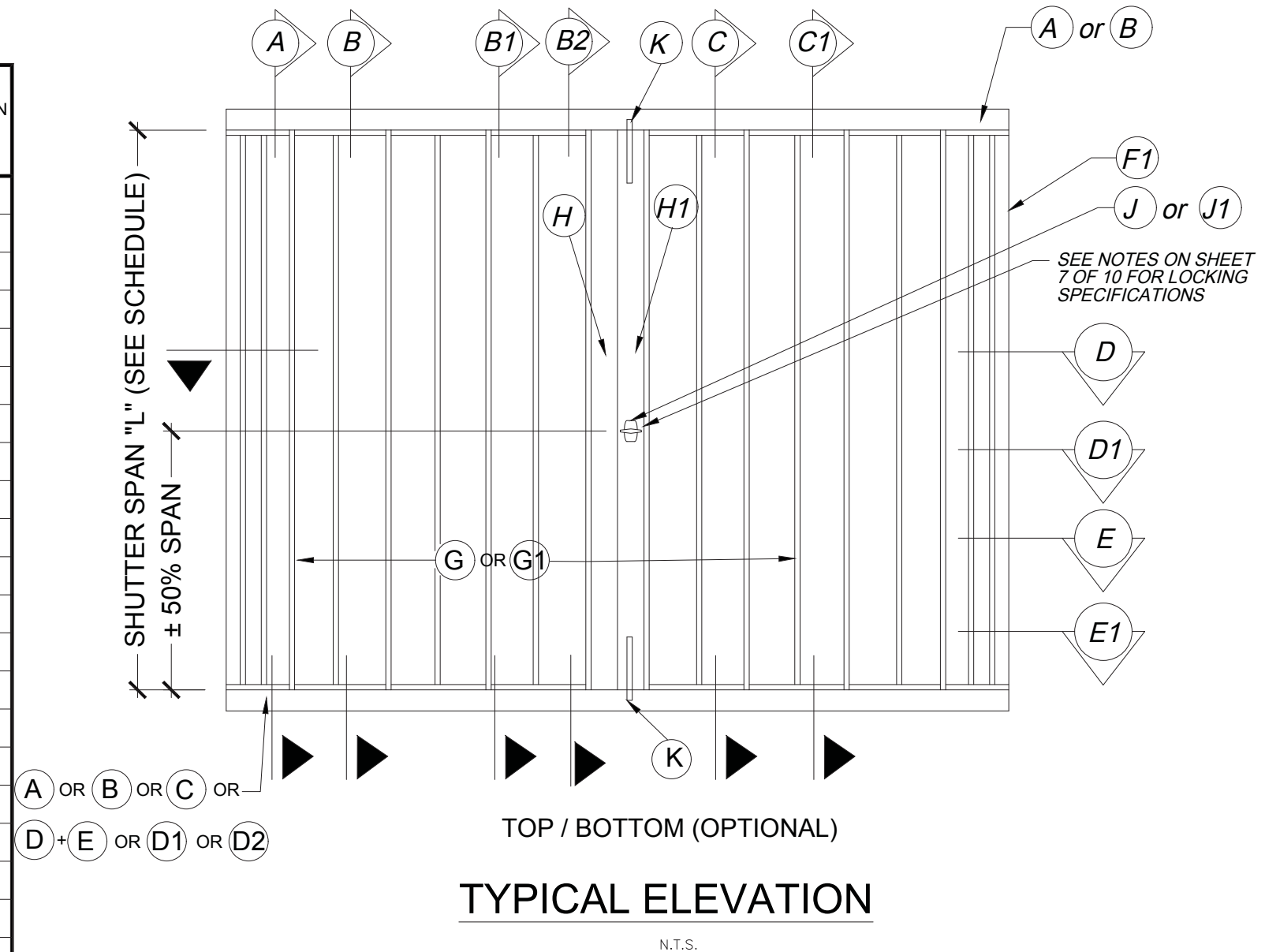
14475 NW 26TH AVE
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Tel: (786) 245 - 6777 Fax: (305) 769 - 9117

FLORIDA APPROVAL #20466
DATE 9-28-16
SCALE
DRAWN Y.P
PROJECT MCY 16-041
DRAWING NO. AD16-13
2 OF 10



MAXIMUM DESIGN PRESSURE RATING "Pd" (PSF)
AND CORRESPONDING MAXIMUM SPAN "L" SCHEDULE.

MAXIMUM DESIGN LOAD "Pd" (PSF)	MAXIMUM SHUTTER SPAN FOR ALL SECTIONS		HVHZ MINIMUM SEPARATION TO GLASS (in.) ALL SECTIONS	NON-HVHZ NO MIN. SEPARATION IS REQUIRED
	Max. PANEL LENGTH L+ (ft.)	Max. PANEL LENGTH L- (ft.)		
40	13'-2"	14'-1"	3.0	-
45	12'-9"	14'-1"	3.0	-
50	12'-5"	14'-1"	3.0	-
55	12'-2"	13'-5"	3.0	-
60	11'-11"	12'-10"	3.0	-
65	11'-8"	12'-4"	3.0	-
70	11'-5"	11'-11"	3.0	-
75	11'-3"	11'-6"	3.0	-
80	11'-1"	11'-2"	3.0	-
85	10'-10"	10'-10"	3.0	-
90	10'-6"	10'-6"	3.0	-
95	10'-3"	10'-3"	2.875	-
100	10'	10'	2.875	-
105	9'-9"	9'-9"	2.625	-
110	9'-6"	9'-6"	2.5	-
115	9'-4"	9'-4"	2.5	-
120	9'-1"	9'-1"	2.5	-
125	8'-10"	8'-10"	2.5	-
130	8'-6"	8'-6"	2.375	-
135	-	8'-2"	2.375	-
140	-	7'-11"	2.375	-
145	-	7'-7"	2.375	-
150	-	7'-4"	2.375	-
155	-	7'-2"	2.375	-
160	-	6'-11"	2.375	-
165	-	6'-8"	2.375	-
170	-	6'-6"	2.375	-
175	-	6'-4"	2.375	-
180	-	6'-2"	2.375	-
185	-	6'	2.375	-
190	-	5'-10"	2.375	-
195	-	5'-8"	2.375	-



INSTRUCTION:

STEP 1 DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON VELOCITY, BUILDING HEIGHT, WIND ZONE USING APPLICABLY ASCE 7 STANDARD.

STEP 2 CHECK SHUTTER CAPACITY FOR A GIVEN SHUTTER SPAN USING CHARTS ON SHEET 3. MAX. DESIGN LOAD FROM CHART HAS TO BE GREATER THAN DESIGN WIND LOAD FROM STEP 1.

STEP 3 USING CHARTS ON SHEET 4 THRU SHEET 10 SELECT ANCHOR TYPE AND SPACING BASED ON DESIGN LOAD AND SHUTTER SPAN FOR THE ANCHOR DETAIL USED.

YIPING WANG
PROFESSIONAL ENGINEER
FLORIDA
LICENSE NO. 55983
C.A.N. 28677

FLORIDA APPROVAL
#20466

DATE 9-28-16
SCALE
DRAWN Y.P.
PROJECT MCY 16-041

DRAWING NO.
AD16-13

3 OF 10

AGO 15TH, 2018

NO.	DATE	DESCRIPTION
1.	8/15/2016	REV. EDITION PER 2017

MCY ENGINEERING, INC.
GLAZING CONSULTANTS

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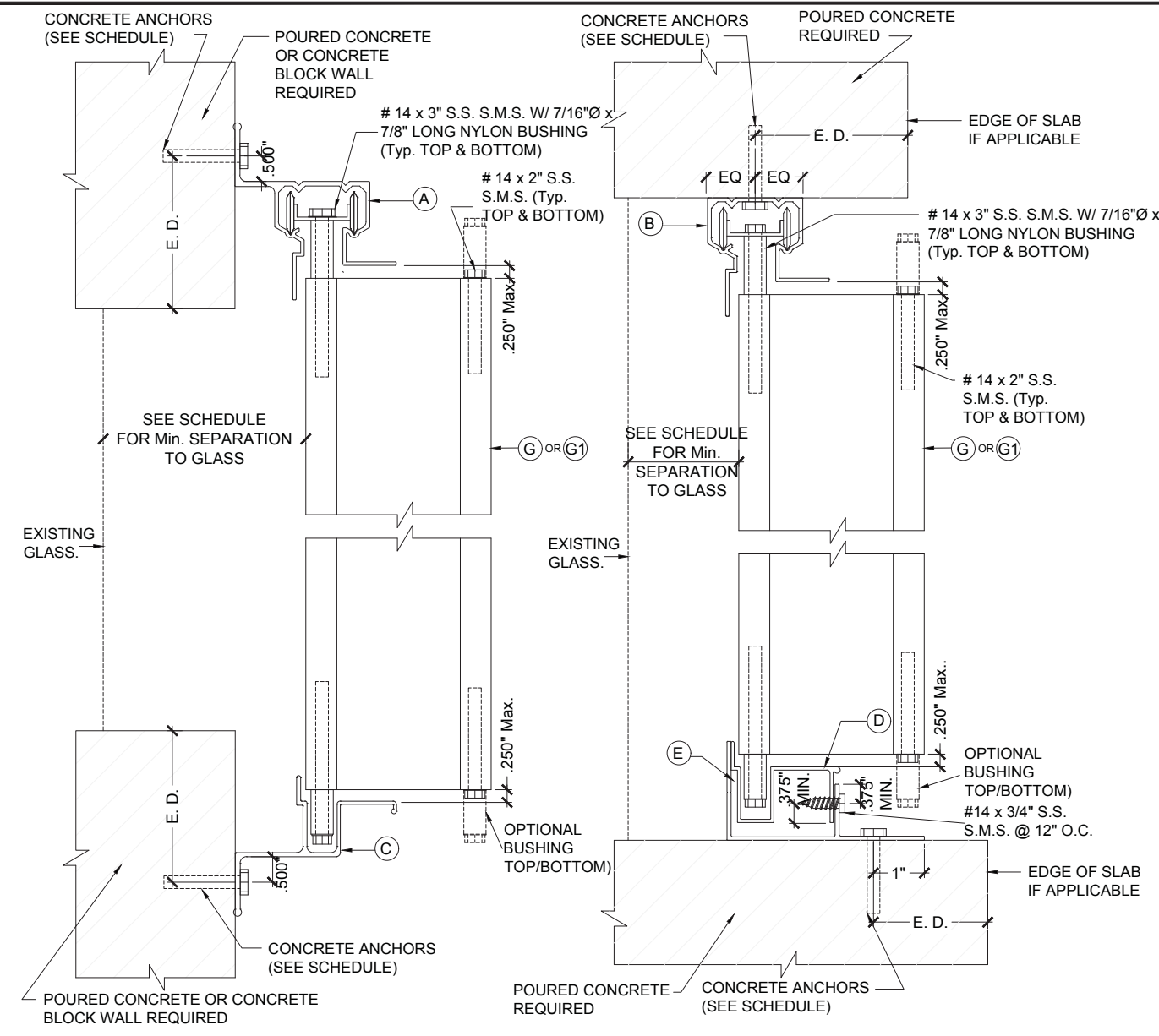
PERFORMANCE SYSTEM 2 ALUMINUM ACCORDION SHUTTER
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FLORIDA APPROVAL #20466
DATE 9-28-16
SCALE
DRAWN Y.P
PROJECT MCY 16-041
DRAWING NO. AD16-13
4 OF 10

MAXIMUM DESIGN PRESSURE RATING "Pd" (PSF) AND CORRESPONDING
 MAXIMUM ANCHOR SPACING (in.) SCHEDULE. +

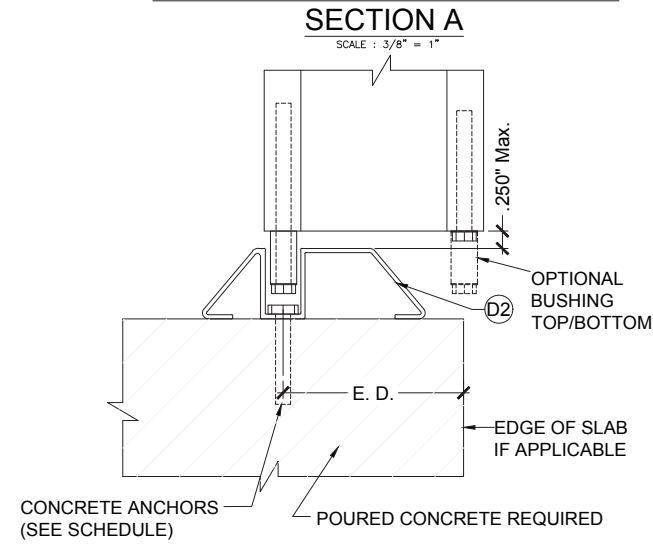
MAXIMUM DESIGN LOAD "Pd" (PSF)	SHUTTER SPAN (INCH)	SECTION A (TOP/BOTTOM)					SECTION B (TOP/BOTTOM) B1 (BOTTOM)		
		SUBSTRATE CONCRETE			SUBSTRATE BLOCK		SUBSTRATE CONCRETE		
		ANCHOR TYPE A	ANCHOR TYPE B	ANCHOR TYPE C	ANCHOR TYPE B1	ANCHOR TYPE C1	ANCHOR TYPE A	ANCHOR TYPE B	ANCHOR TYPE C
60	60"	9	9	9	4	4.6	6	6	6
	78	9	9	9	3	3.5	6	6	6
	96	8	7.5	8	-	-	6	6	6
	120"	6	6	6.5	-	-	6	6	6
	144"	5	5	5.5	-	-	6	6	6
65	60"	9	9	9	3.5	4.2	6	6	6
	78	9	8.5	9	-	3.2	6	6	6
	96	7	7	7.5	-	-	6	6	6
	120"	5.5	5.5	6	-	-	6	6	6
	148"	4.5	4.5	4.5	-	-	6	5.5	6
70	60"	9	9	9	3.5	3.9	6	6	6
	78	8	8	8.5	-	3	6	6	6
	96	6.5	6.5	7	-	-	6	6	6
	120"	5.5	5	5.5	-	-	6	6	6
	143"	4.5	4.5	4.5	-	-	5.5	5.5	6
80	60"	9	9	9	3	3.4	6	6	6
	78	7	7	7.5	-	-	6	6	6
	96	6	5.5	6	-	-	6	6	6
	120"	4.5	4.5	5	-	-	6	6	6
	134"	4	4	4.5	-	-	5.5	5	6
100	60"	7.5	7.5	8	-	-	6	6	6
	78	5.5	5.5	6	-	-	6	6	6
	96	4.5	4.5	5	-	-	6	6	6
	120"	3.5	3.5	4	-	-	5	4.5	6
195	60"	3.5	3.5	4	-	-	5	4.5	6
	66"	3.5	3	3.5	-	-	4.5	4	5.5

NOTE:
 FOR LIGHT DUTY SHUTTER ON SHEET 9, MAX. SPACING SHOULD BE LIMITED TO 6" O.C.

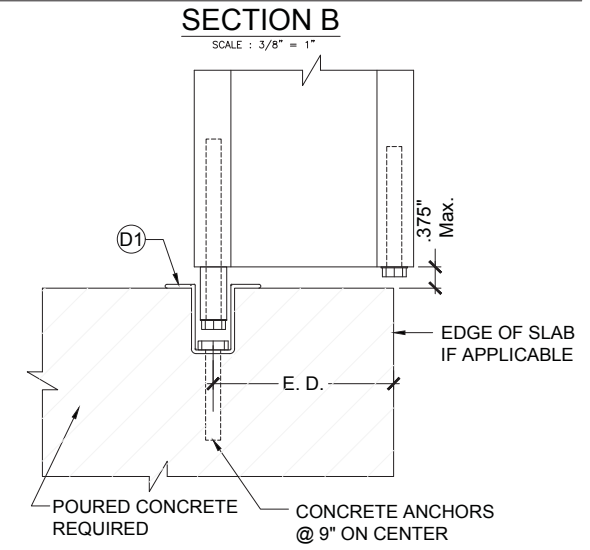


WALL MOUNTING INSTALLATION SECTION A

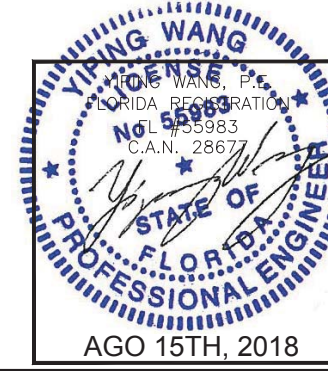
CEILING & FLOOR MOUNTING INSTALLATION SECTION B



FLOOR MOUNTING INSTALLATION SECTION B1



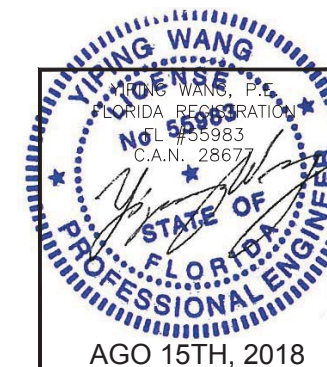
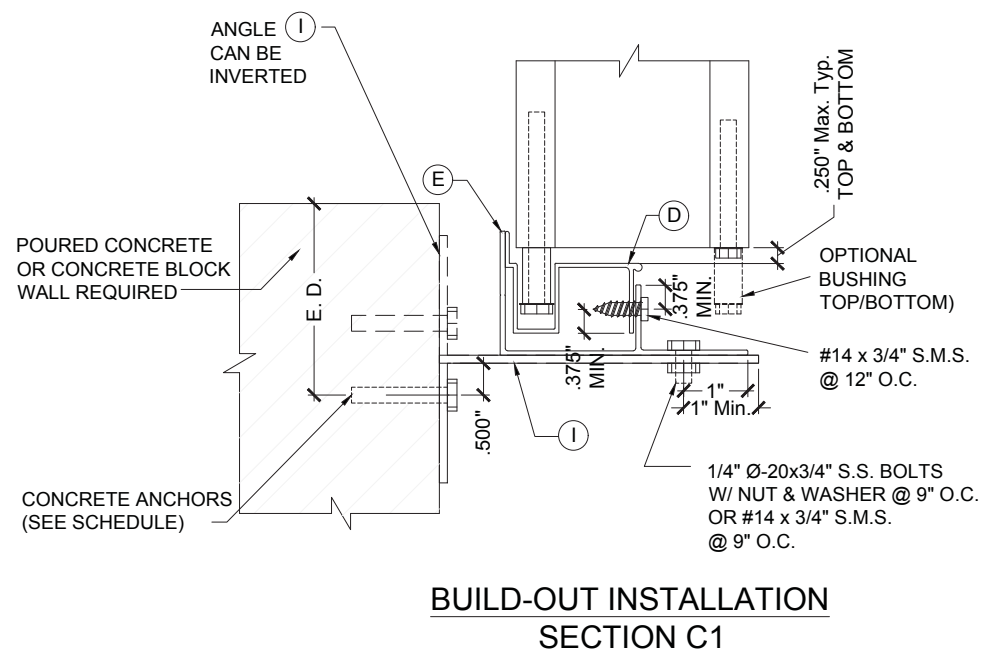
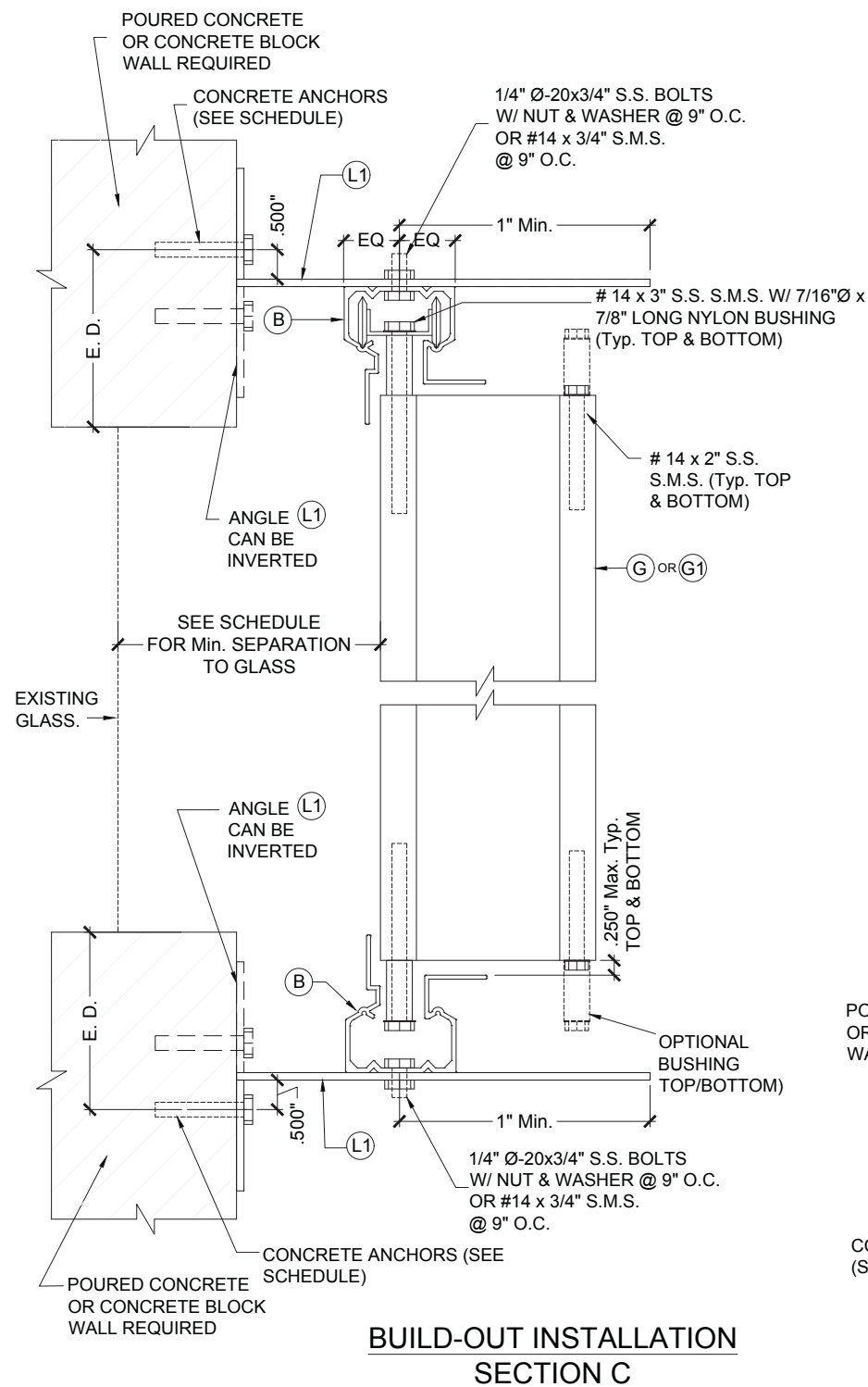
FLOOR MOUNTING INSTALLATION SECTION B2



AGO 15TH, 2018

MAXIMUM DESIGN PRESSURE RATING "Pd" (PSF) AND CORRESPONDING
MAXIMUM ANCHOR SPACING (in.) SCHEDULE. +

MAXIMUM DESIGN LOAD "Pd" (PSF)	SHUTTER SPAN (INCH)	SECTION C TOP/BOTTOM						SECTION C1 BOTTOM					
		SUBSTRATE CONCRETE			SUBSTRATE BLOCK			SUBSTRATE CONCRETE			SUBSTRATE BLOCK		
		ANCHOR TYPE A	ANCHOR TYPE B	ANCHOR TYPE C	ANCHOR TYPE A1	ANCHOR TYPE B1	ANCHOR TYPE C1	ANCHOR TYPE A	ANCHOR TYPE B	ANCHOR TYPE C	ANCHOR TYPE A1	ANCHOR TYPE B1	ANCHOR TYPE C1
60	60"	6	6	6	4	5.5	8.1	6	6	6	4	6	8.1
	78"	6	6	6	3	4.5	6.3	6	6	6	3	4.5	6.3
	96"	6	6	6	-	3.5	5.1	6	6	6	-	4	5.1
	120"	6	6	6	-	-	4.1	6	6	6	-	3	4.1
	144"	6	6	6	-	-	3.4	6	6	6	-	-	3.4
65	60"	6	6	6	3.7	5	7.5	6	6	6	3.7	5.5	7.5
	78"	6	6	6	-	4	5.8	6	6	6	-	4.5	5.8
	96"	6	6	6	-	3	4.7	6	6	6	-	3.5	4.7
	120"	6	6	6	-	-	3.8	6	6	6	-	-	3.8
	148"	6	6	6	-	-	3.1	6	6	6	-	-	3.1
70	60"	6	6	6	3.4	5	7	6	6	6	3.4	5.5	7
	78"	6	6	6	-	3.5	5.4	6	6	6	-	4	5.4
	96"	6	6	6	-	3	4.4	6	6	6	-	3	4.4
	120"	6	6	6	-	-	3.5	6	6	6	-	-	3.5
80	60"	6	6	6	-	4	6.1	6	6	6	-	4.5	6.1
	78"	6	6	6	-	3	4.7	6	6	6	-	3.5	4.7
	96"	6	6	6	-	-	3.8	6	6	6	-	3	3.8
	120"	6	6	6	-	-	3.1	6	6	6	-	-	3.1
100	60"	6	6	6	-	3.5	4.9	6	6	6	-	3.5	4.9
	78"	6	6	6	-	-	3.8	6	6	6	-	-	3.8
	96"	6	6	6	-	-	3.1	6	6	6	-	-	3.1
	120"	5	5	5.5	-	-	-	5	5.5	6	-	-	-
195	60"	5	5	5.5	-	-	-	5	5.5	6	-	-	-
	66"	4.5	4.5	5	-	-	-	5	5	5.5	-	-	-



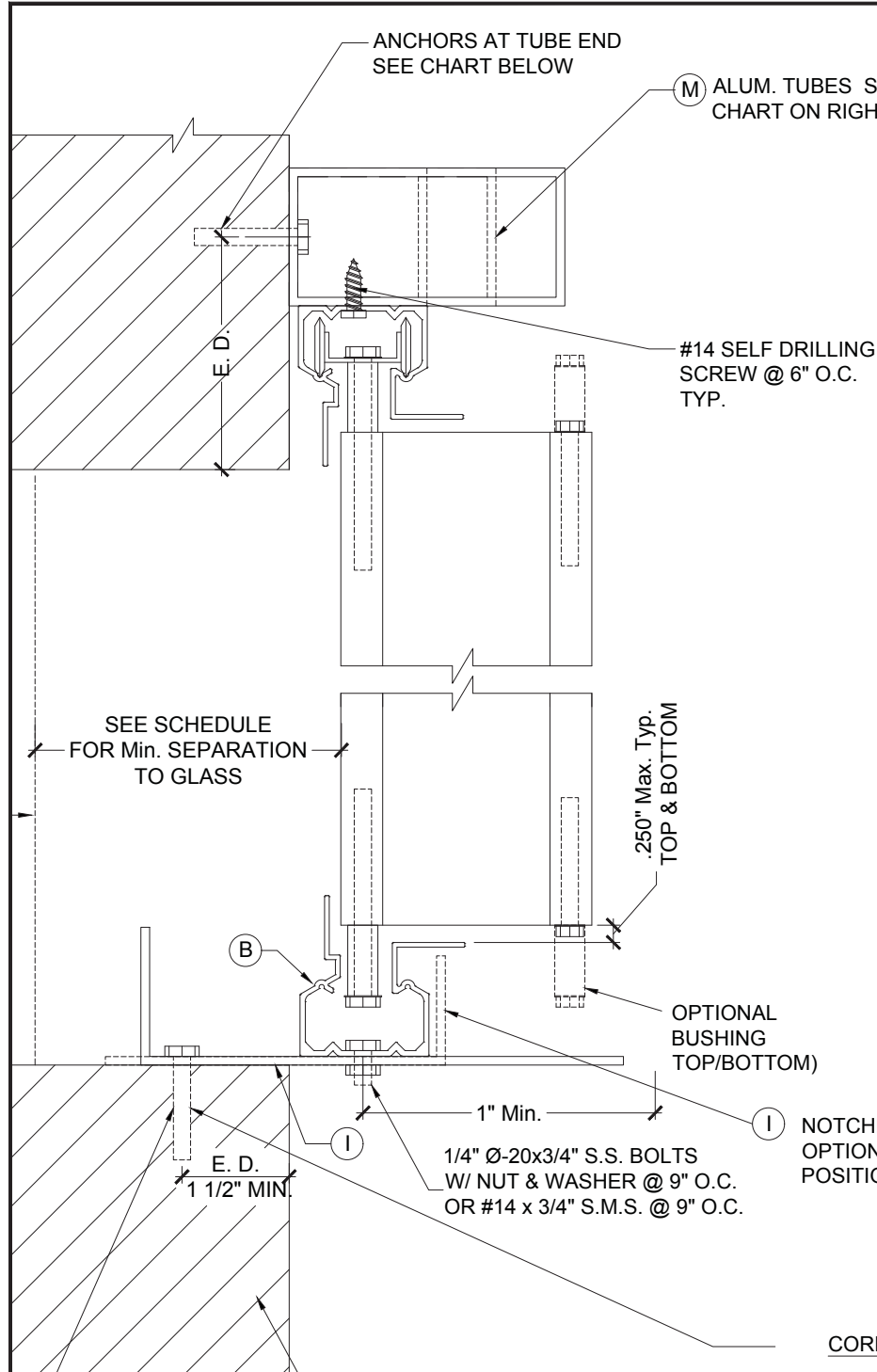
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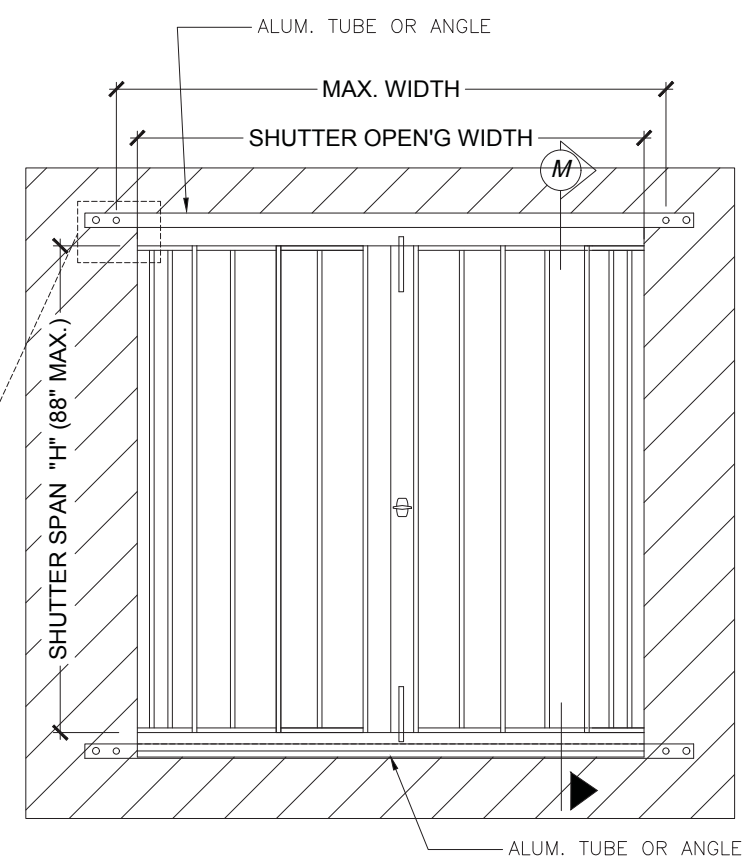
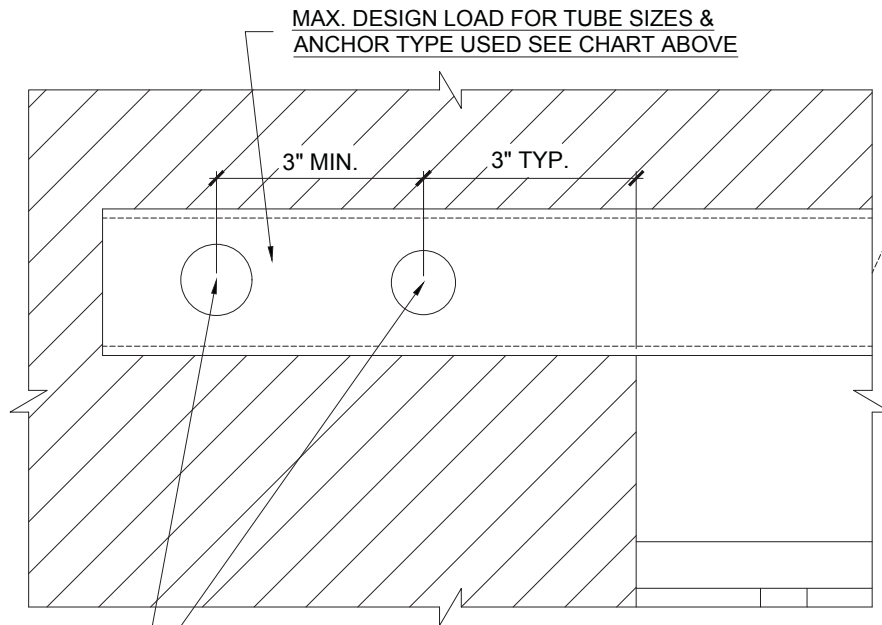
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DATE 9-28-16
SCALE
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PROJECT MCY 16-041
DRAWING NO. AD16-13
5 OF 10



ALUM. TUBE SIZE	OPEN'G WIDTH	MAX. HEIGHT	DESIGN LOAD (PSF)	
			ANCHOR TYPE "A"	ANCHOR TYPE "C"
2"x2"x1/8"	42"	88"	65	65
2"x3"x1/8"	60"	88"	65	65
	78"	88"	57.3	62
2"x4"x1/8"	78"	84"	60	65
	78"	77"	65	65



TOP / BOTTOM (OPTIONAL)

BUILD-OUT INSTALLATION SECTION M

MAXIMUM DESIGN PRESSURE RATING "Pd" (PSF) AND CORRESPONDING MAXIMUM ANCHOR SPACING (in.) SCHEDULE. +

MAXIMUM DESIGN LOAD "Pd" (PSF)	SHUTTER SPAN (INCH)	SECTION M BOTTOM	
		SUBSTRATE CONCRETE	
		ANCHOR SPACING (in.)	
		ANCHOR TYPE A	ANCHOR TYPE C
65	60"	8.5	9
	72"	7	7.5
	84"	6	6.5
	88"	5.5	6

YIPING WANG
 YIPING WANG, P.E.
 FLORIDA REGISTRATION NO. 95983
 C.A.N. 28677

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DRAWING NO. AD16-13

6 OF 10

AGO 15TH, 2018

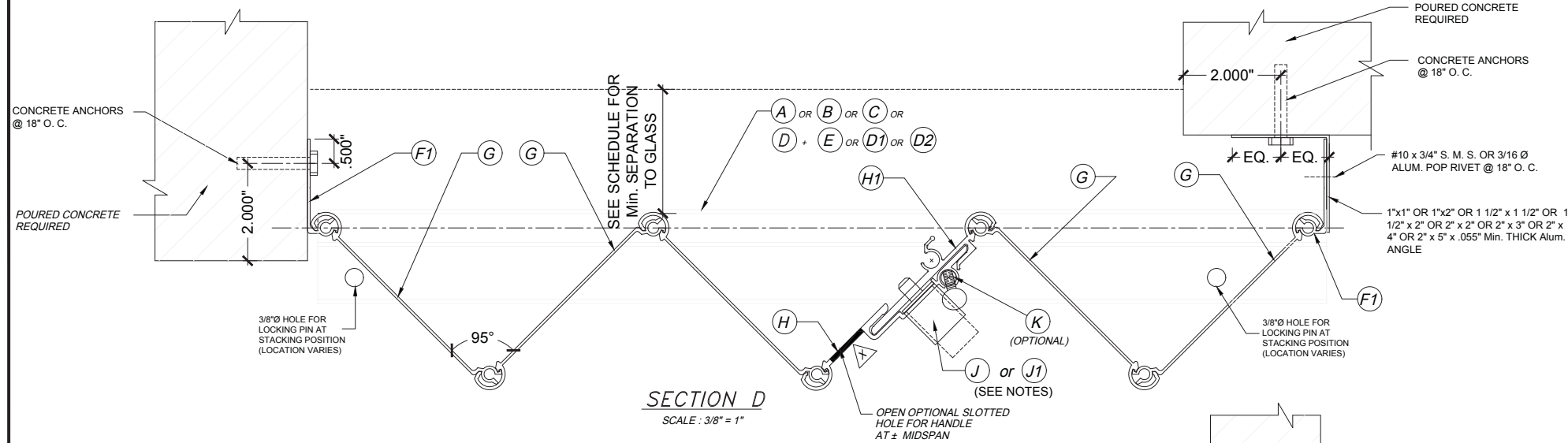
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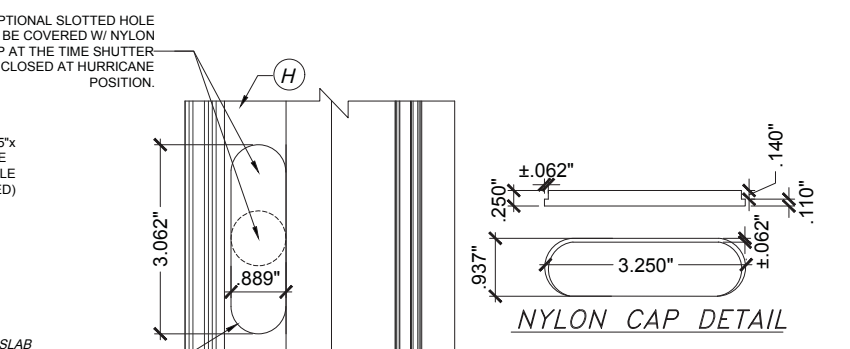
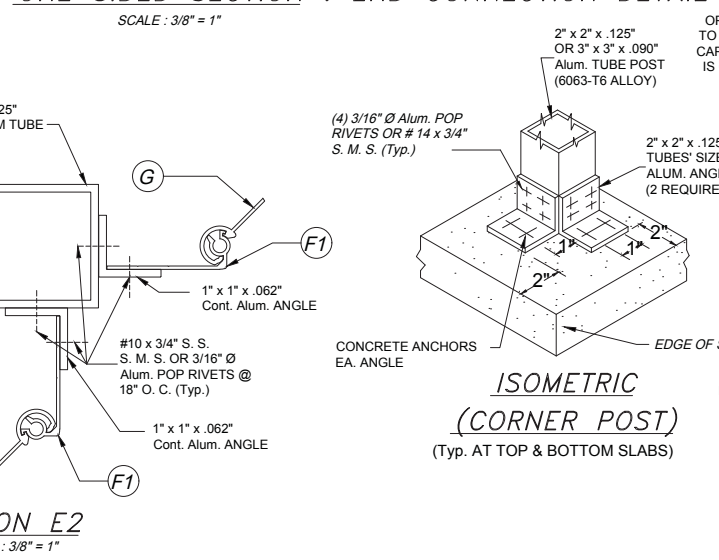
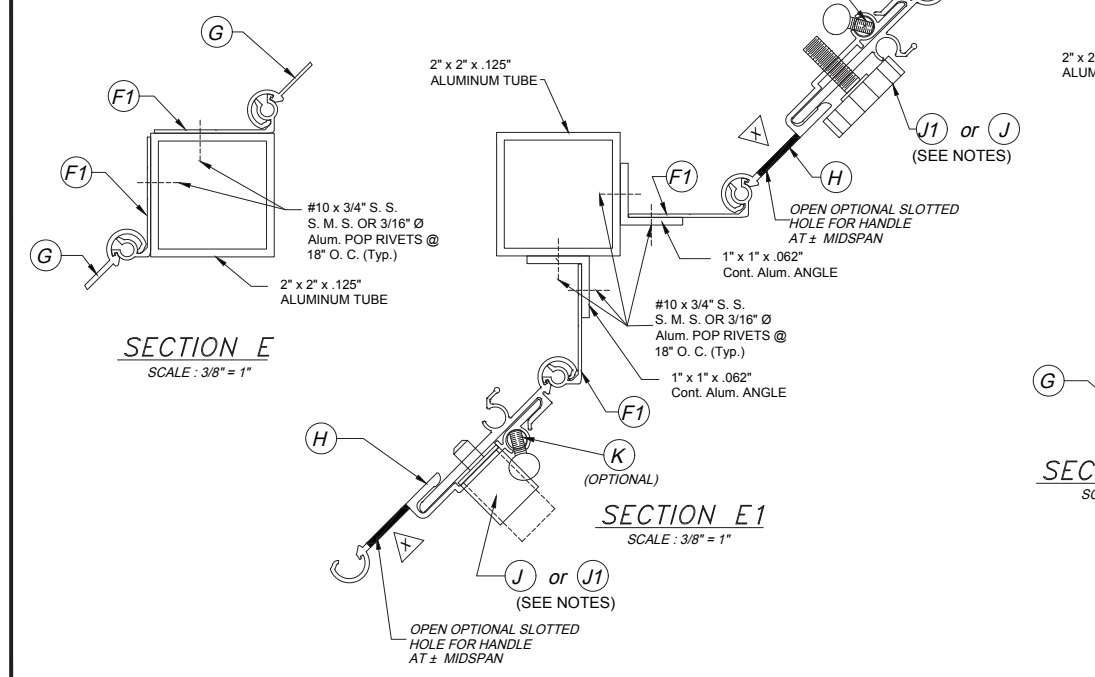
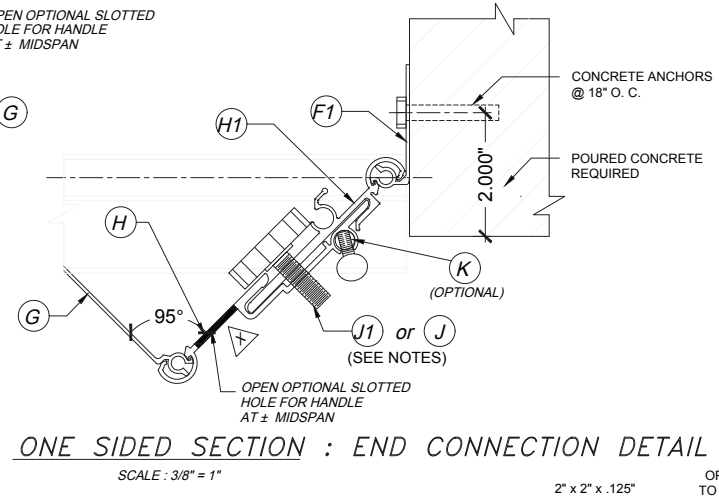
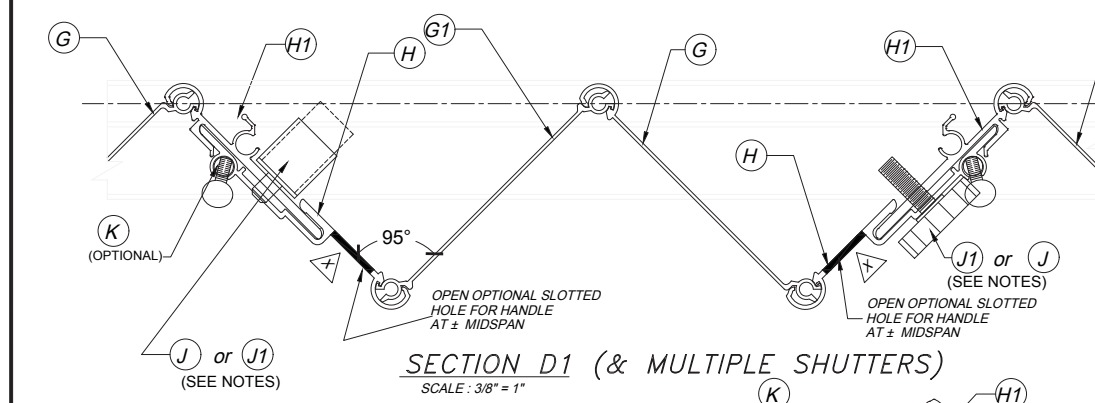


NOTES FOR LOCKING OF (H) & (H1)

1-PUSH BOTTOM LOCK (J) MAY BE USED FOR INSTALLATIONS SECURED FROM THE OUTSIDE OR INSIDE OF SHUTTER. WHEN INSTALLING (J) FROM THE OUTSIDE, A 7/8"Ø HOLE SHALL BE DRILLED AT (H) AND (J) MUST BE RIVETED FROM THE BACK OF (H) TO THE FRONT W/ (2)3/16"Ø ALUM. POP RIVETS. A 3/8"Ø HOLE MUST THEN BE DRILLED AT (H1) TO ALLOW FOR (J)'S PIN TO PASS THRU. WHEN INSTALLING (J) FROM THE INSIDE, (J) MUST BE RIVETED TO (H1) W/ (2)3/16"Ø ALUM. POP RIVETS. A 3/8"Ø HOLE MUST THEN BE DRILLED THRU (H) AND (H1) TO ALLOW FOR (J)'S PIN TO PASS THRU.

2-5/16"x1" LOCK (J1) MAY BE USED ALTERNATIVELY TO (J) LOCK FOR INSTALLATIONS SECURED FROM THE OUTSIDE OR INSIDE OF SHUTTER. IN THIS CASE, A 5/16"Ø HOLE SHALL BE DRILLED THRU (H) AND (H1). HOLE DRILLED TO (H1) SHALL BE TAPPED TO ACCEPT 18 THREADS PER INCH MACHINE SCREW.

NOTE:
END CONDITIONS SHOWN CAN BE INTERCHANGEABLE.



NO.	DATE	DESCRIPTION	REV.	EDITION	PG#
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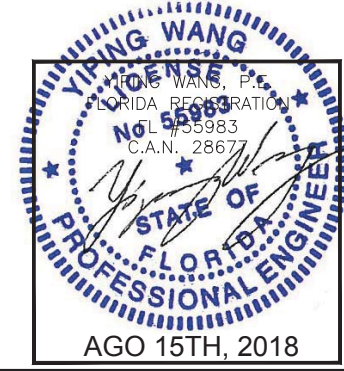
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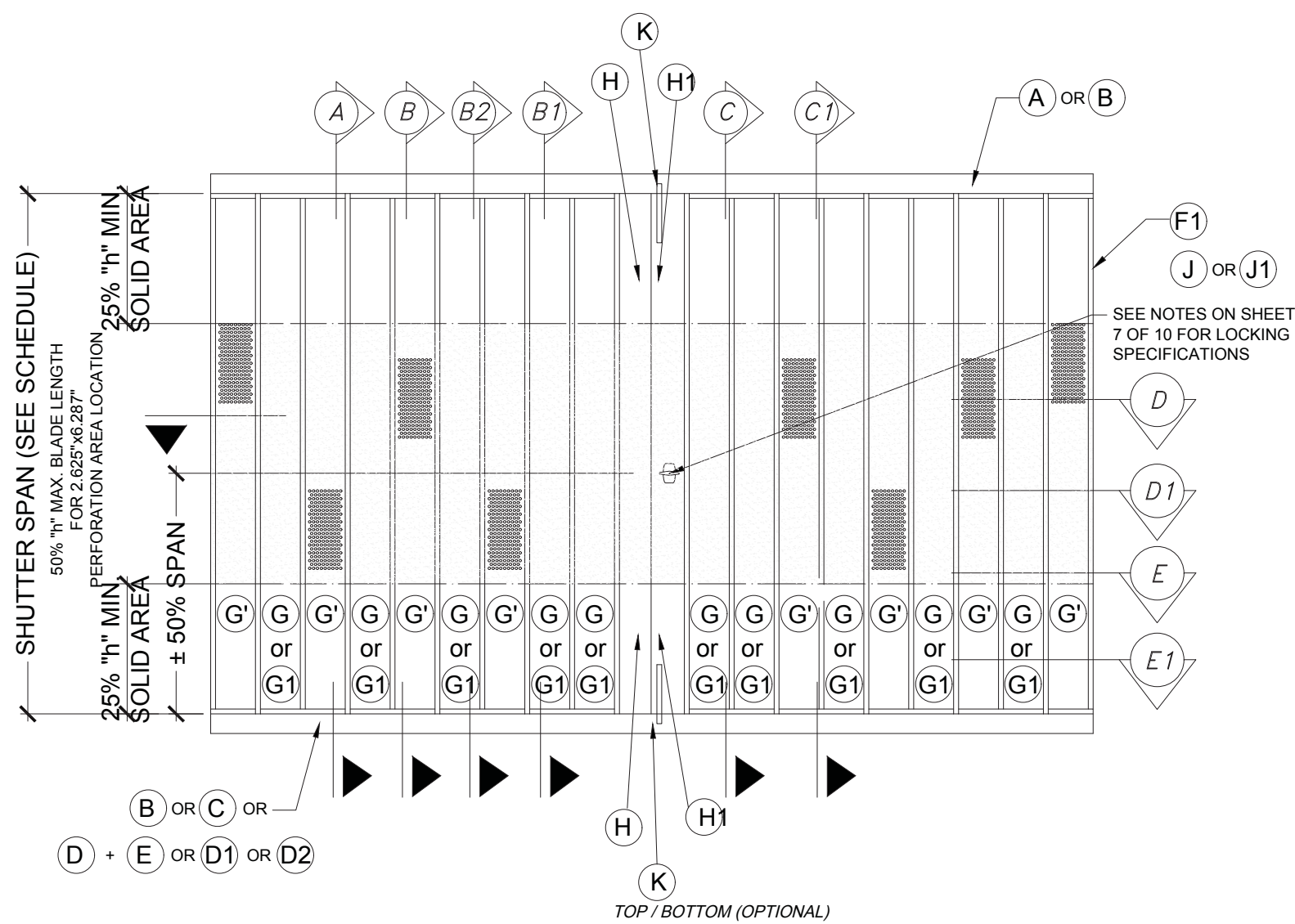
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PROJECT MCY 16-041	DRAWING NO. AD16-13
7 OF 10	



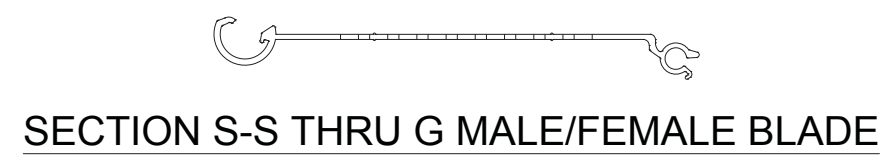


TYPICAL ELEVATION

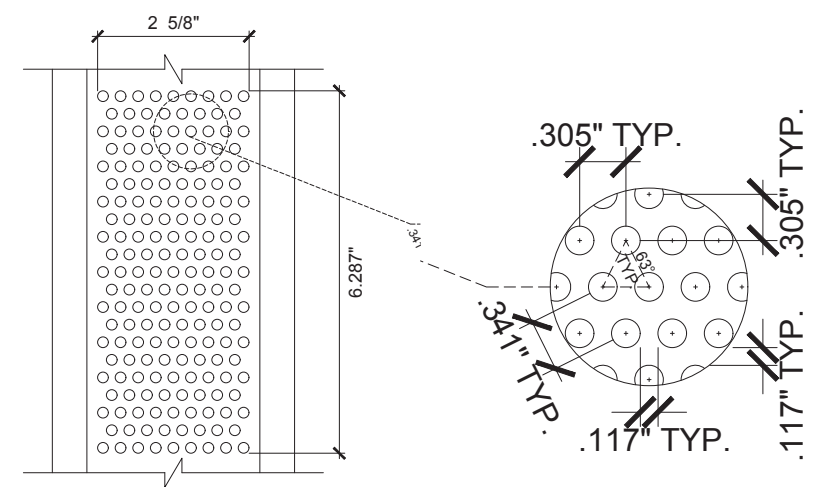


TYPICAL SHUTTER PLAN

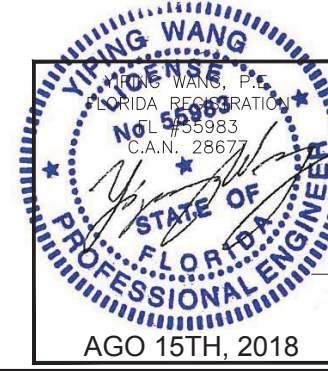
- GENERAL LIMITATIONS AND CONDITIONS OF USE FOR G OR G1 BLADE ACCORDIAN SHUTTER SYSTEM WORKING IN UNISON WITH G' BLADES.
1. MAXIMUM SHUTTER SPAN AND PRESSURE RATING, MAXIMUM ANCHOR SPACING AND MINIMUM SEPARATION TO GLASS FOR G' AND G1 WORKING IN UNISON WITH G AND G1 ARE AS PER SCHEDULES ON SHEET 3, 4, 5 & 9.
 2. MAXIMUM PERFORATION AREA AT G', G1 IS ± 2.625" x 6.28" AND MUST BE LOCATED WITHIN THE CENTRAL 50% OF THE BLADE SPAN.
PERFORATED BLADES G, G1 MUST BE SOLID AT THE TOP AND BOTTOM 25% OF BLADES SPAN.
 3. PERFORATED BLADES G', G1 SHALL BE INSTALLED AT EVERY OTHER BLADE (FREQUENCY).
 4. CENTERMATES H, H1 MUST ALWAYS BE ACCOMPANIED BY TWO SOLID BLADES G, G1 AT EITHER SIDE OF EACH CENTERMATE.
 5. STARTERS AND CENTERMATES MUST BE ALWAYS SOLID.
 6. STARTERS CONNECTION TO EXISTING BUILDING OR TO END/CORNER TUBES MUST BE AS PER DETAILS INDICATED ON SHEET 7.



SECTION S-S THRU G MALE/FEMALE BLADE



TYPICAL G' PERFORATED BLADE ELEVATION



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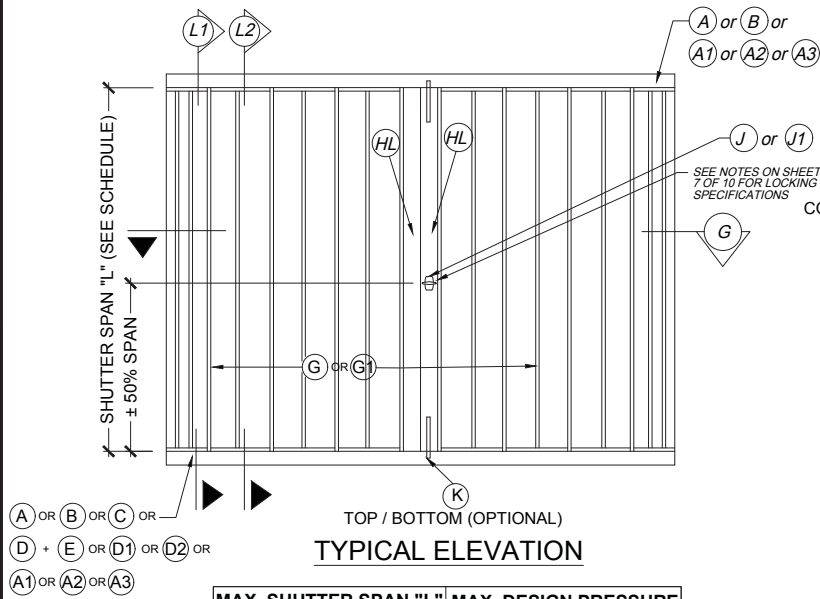
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PROJECT MCY 16-041	
DRAWING NO. AD16-13	
8 OF 10	

LIGHT DUTY SHUTTER WALL MOUNT, CEILING AND FLOOR INSTALLATIONS W/ A1, A2, A3 TRACKS, CENTERMATE HL & BLADES G, G1



MAX. SHUTTER SPAN "L"	MAX. DESIGN PRESSURE
60"	+/- 75 PSF
108"	+/- 70 PSF

CONCRETE ANCHORS @ 18" O.C.

POURED CONCRETE REQUIRED

NOTE:
END CONDITIONS SHOWN
CAN BE INTERCHANGEABLE.

CONCRETE ANCHORS (SEE SCHEDULE FOR SECTION A ON PAGE 4) MAX. SPACING LIMITED TO 6" O.C.

POURED CONCRETE OR CONCRETE BLOCK WALL REQUIRED

14 x 3" S.S. S.M.S. W/ 7/16" Ø x 7/8" LONG NYLON BUSHING (Typ. TOP & BOTTOM)

14 x 2" S.S. S.M.S. (Typ. TOP & BOTTOM)

POURED CONCRETE REQUIRED

EDGE OF SLAB IF APPLICABLE

14 x 3" S.S. S.M.S. W/ 7/16" Ø x 7/8" LONG NYLON BUSHING (Typ. TOP & BOTTOM)

14 x 2" S.S. S.M.S. (Typ. TOP & BOTTOM)

OPTIONAL BUSHING TOP/BOTTOM # 14 x 3/4" S.S. S.M.S. @ 12" O.C.

EDGE OF SLAB IF APPLICABLE

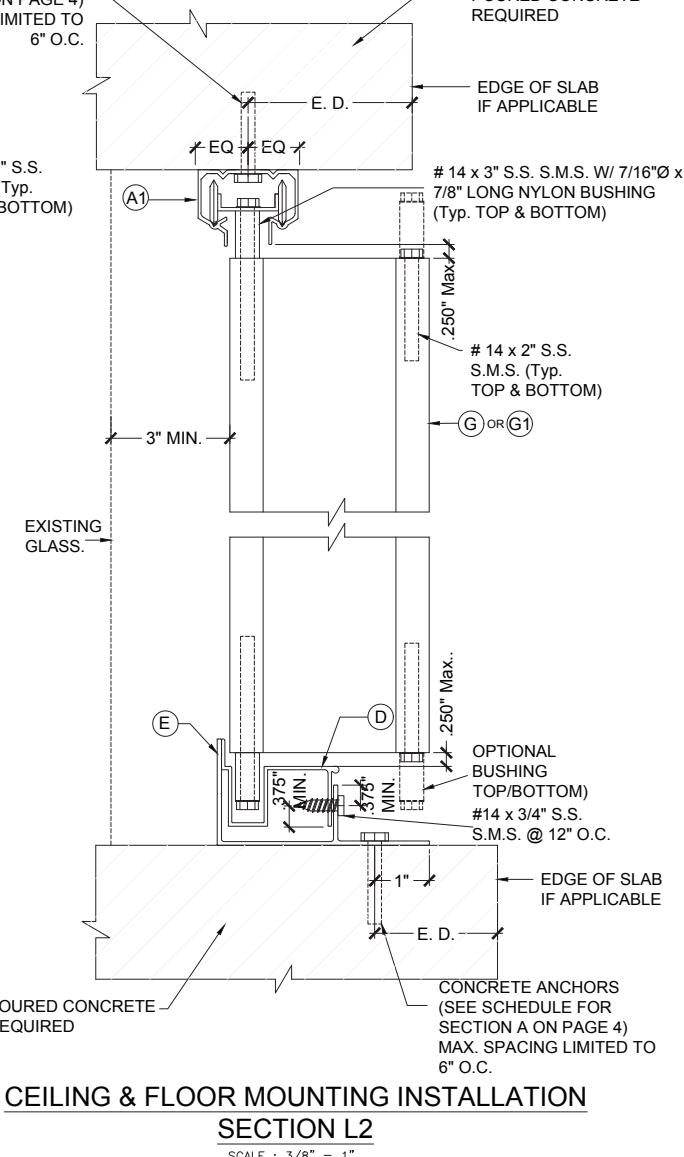
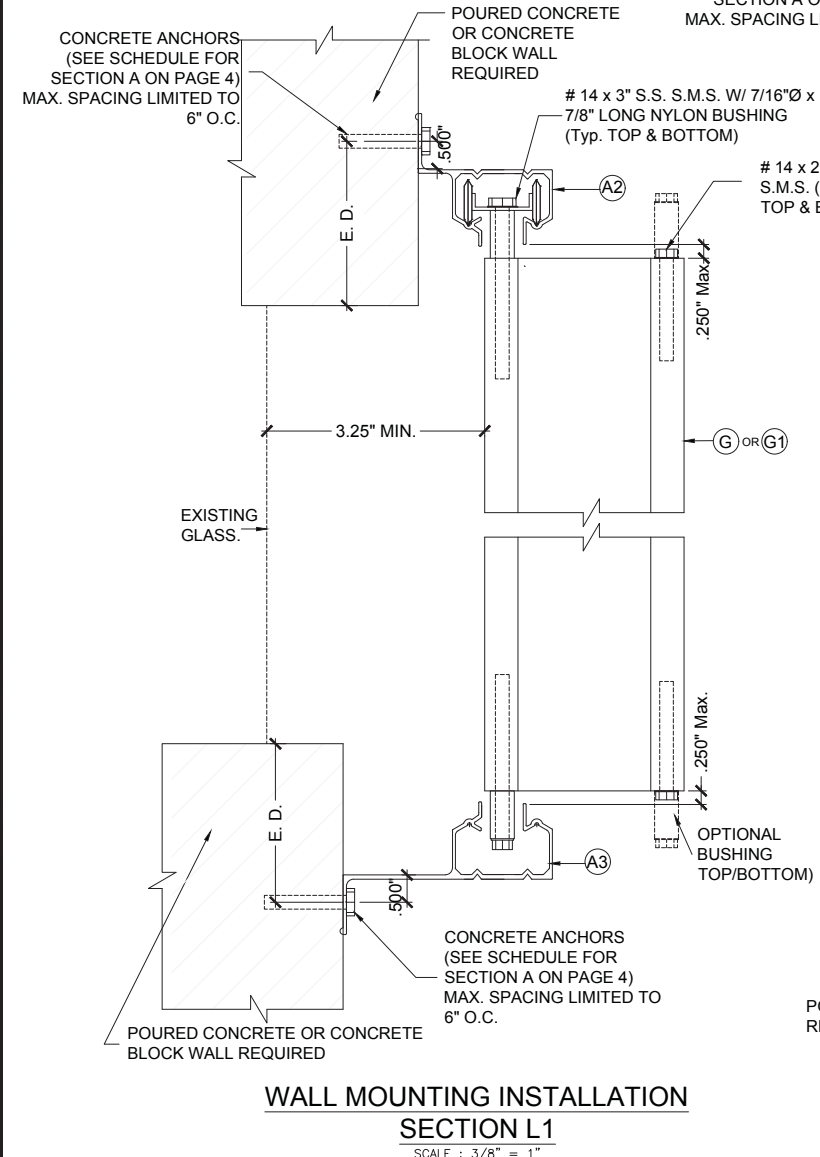
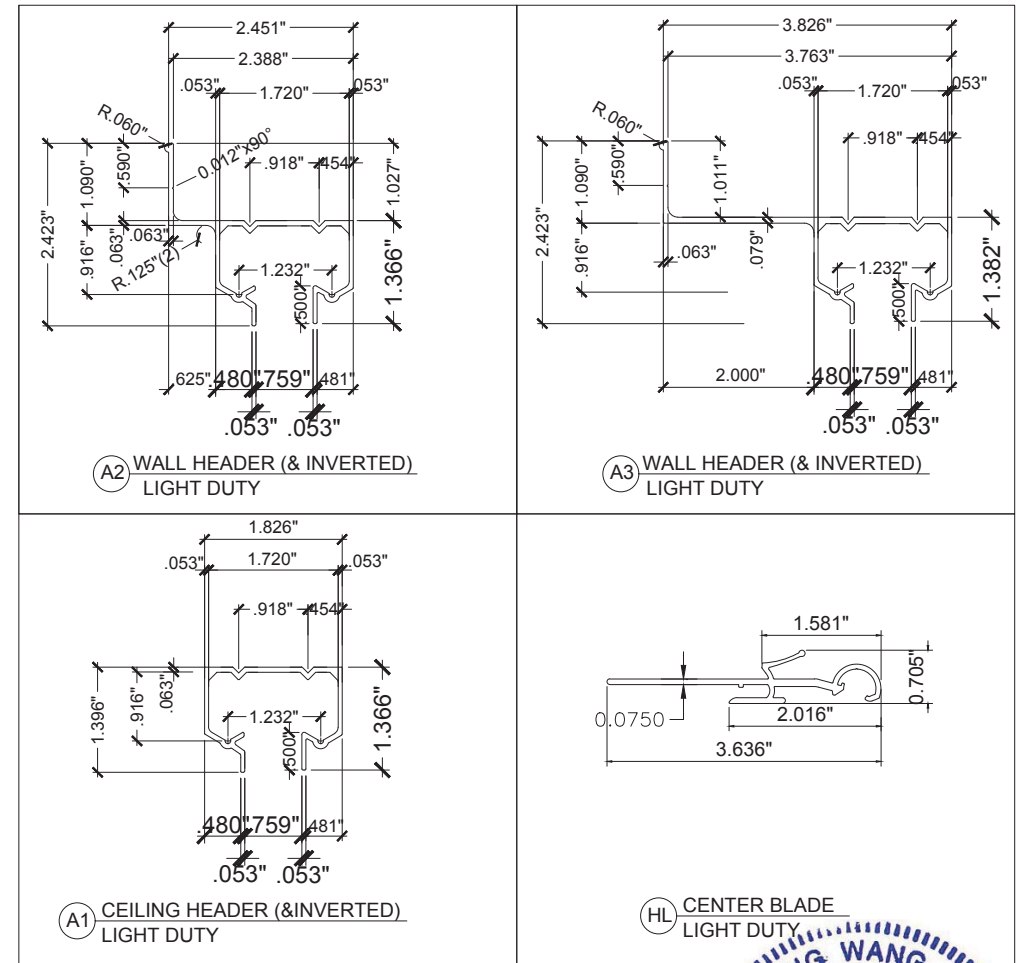
CONCRETE ANCHORS (SEE SCHEDULE FOR SECTION A ON PAGE 4) MAX. SPACING LIMITED TO 6" O.C.

POURED CONCRETE REQUIRED
CONCRETE ANCHORS @ 18" O.C.

10 x 3/4" S. M. S. OR 3/16 Ø ALUM. POP RIVET @ 18" O.C.

1"x1" OR 1"x2" OR 1 1/2" x 1 1/2" OR 1 1/2" x 2" OR 2" x 2" OR 2" x 3" OR 2" x 4" OR 2" x 5" x .055" MIN. THICK ALUM. ANGLE

SECTION G-G



NEW SHEET

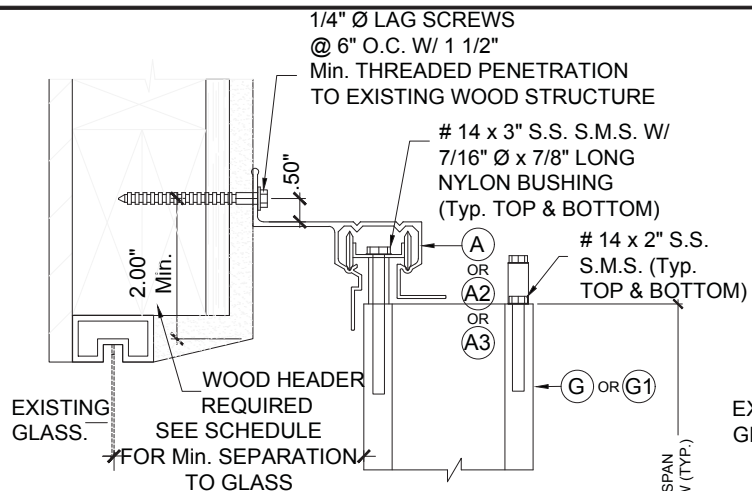
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PROFESSIONAL ENGINEER
FLORIDA
LICENSE NO. 95983
C.A.N. 28677
FLORIDA REGISTRATION NO. 95983
C.A.N. 28677
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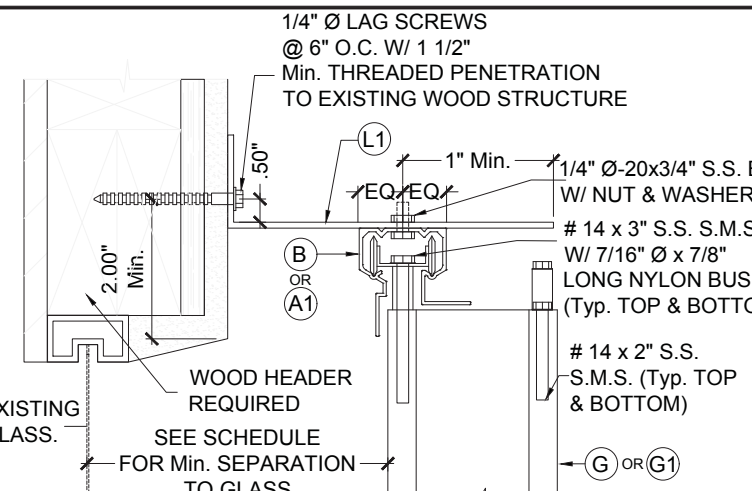
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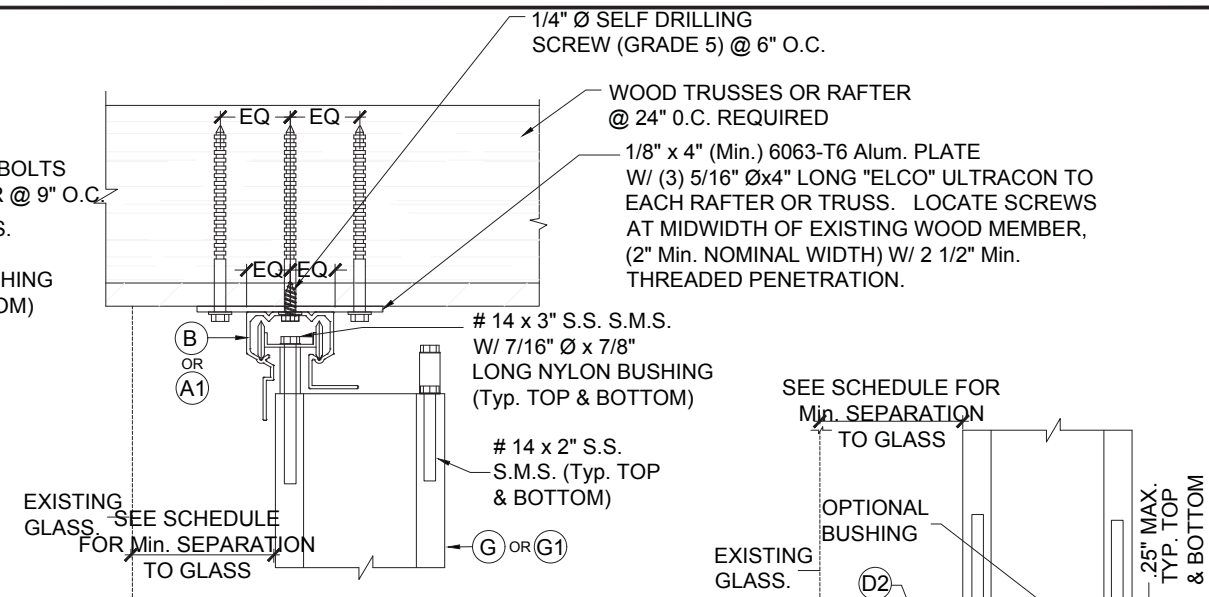
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PROJECT	MCY 16-041
DRAWING NO. AD16-13	
9 OF 10	



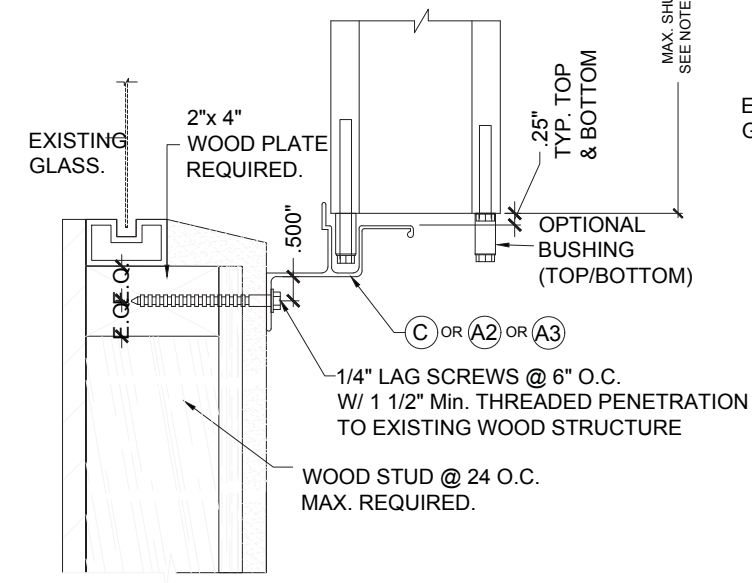
ALTERNATIVE 1



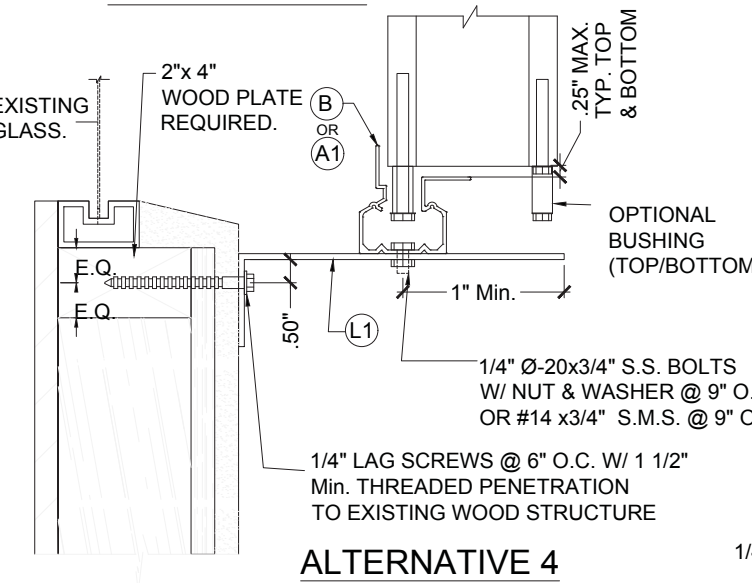
ALTERNATIVE 3



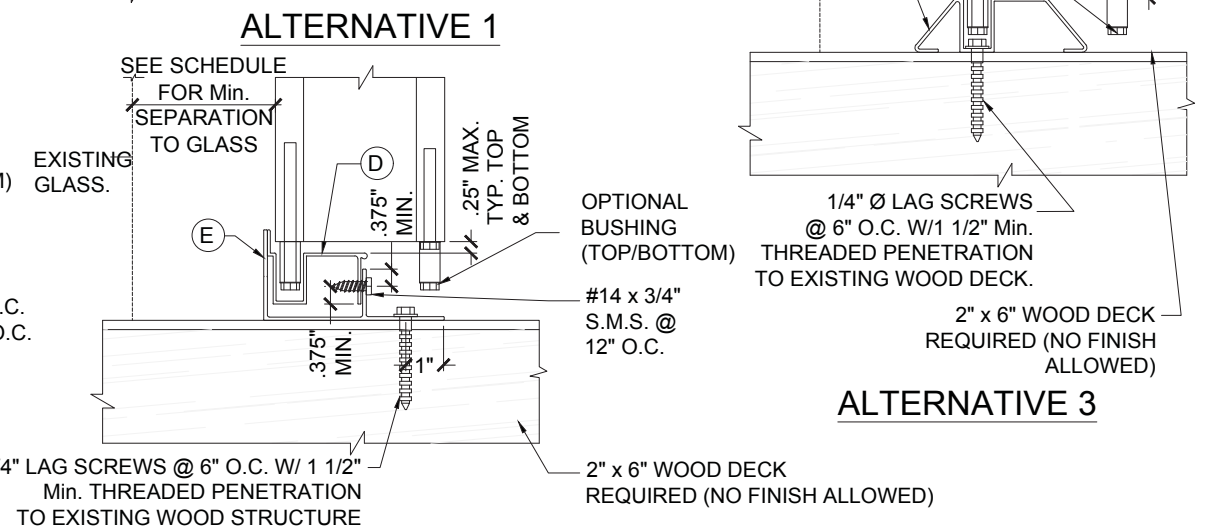
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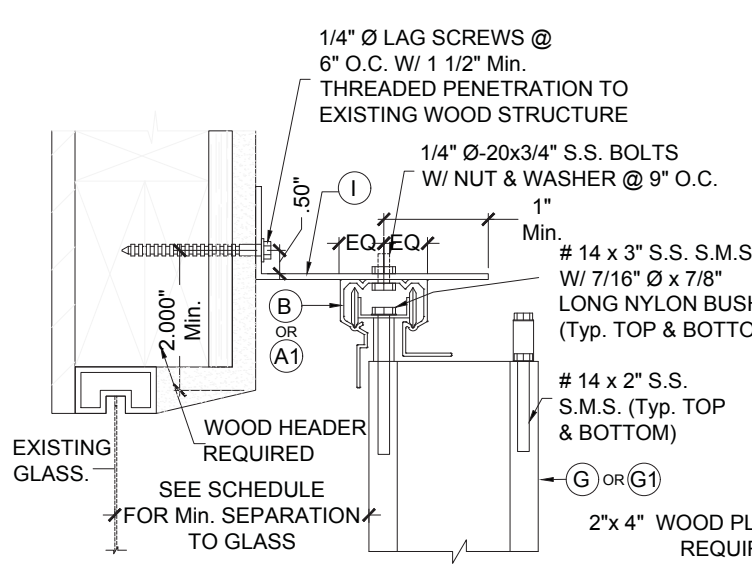
ALTERNATIVE 2



ALTERNATIVE 4



ALTERNATIVE 3



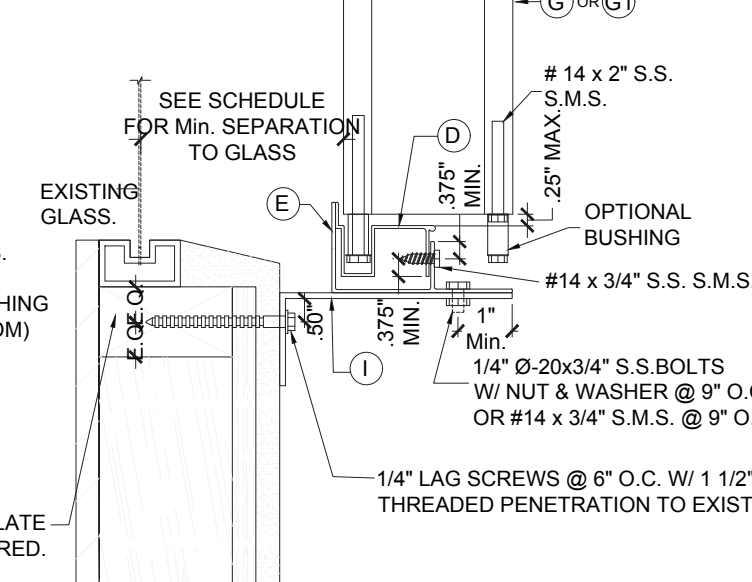
ALTERNATIVE 5

WALL MOUNTING INSTALLATION (OFFSET)

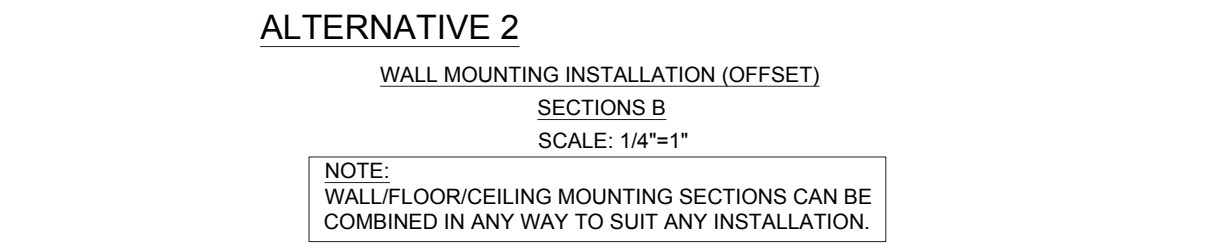
SECTIONS A

SCALE: 1/4"=1"

INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS



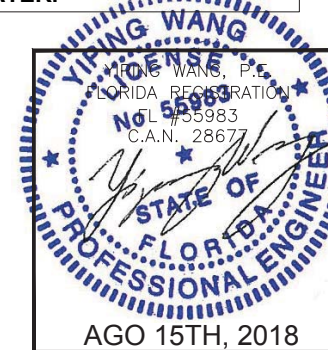
ALTERNATIVE 6



NOTES:

1. INSTALLATIONS ARE ONLY VALID FOR INSTALLATIONS WITH DESIGN WIND LOADS LESS THAN OR EQUAL TO 70 p.s.f. AND 9'-0" Max. SHUTTER SPAN.

2. FOR NEW WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN PINE No. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL/GREATER.



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10 OF 10	