

## GENERAL NOTES:

- THESE INSTALLATION INSTRUCTIONS ARE PART OF A PRODUCT APPROVAL EVALUATION AND SHALL ONLY BE USED IN CONJUNCTION WITH THE EVALUATION REPORT SUBMITTED FOR THE SAME PRODUCT APPROVAL.
- THIS SYSTEM HAS BEEN TESTED AND EVALUATED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE SEVENTH EDITION (2020), FOR USE OUTSIDE THE HIGH VELOCITY HURRICANE ZONE, AND THE INTERNATIONAL BUILDING CODE (IBC) AND INTERNATIONAL RESIDENTIAL CODE (IRC). THIS SYSTEM MEETS MISSILE LEVEL "D" AND INCLUDES WIND WIND ZONE 4 AS DEFINED IN ASTM E1996. SEE EVALUATION REPORT FOR MORE INFORMATION.
- 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 SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN.
- TESTING WAS CONDUCTED IN ACCORDANCE WITH TAS 201/202/203 AND ASTM E1886/E1996/E330.
- THIS SYSTEM HAS BEEN DESIGNED WITH NO SEPARATION FROM GLAZING REQUIRED FOR WIND ZONES 1-3, IN ACCORDANCE WITH ASTM E1996. IT IS ACCEPTABLE BY CODE UNLESS OPTIONAL CRITERIA IS INDEPENDENTLY ADOPTED BY THE AUTHORITY HAVING JURISDICTION.
- DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY A 1.5 SAFETY FACTOR.
- 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.
- DETERMINE THE POSITIVE AND NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH ASCE 7, A DIRECTIONALITY FACTOR OF Kd = 0.85 SHALL BE USED.
- THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE.
- PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS.
- ANCHORS SHALL BE INSTALLED PER MANUFACTURER RECOMMENDATIONS. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES.
- USE OF THESE APPROVAL DOCUMENTS SHALL COMPLY WITH CHAPTER 61G15 OF THE FLORIDA ADMINISTRATIVE CODE.
- 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.
- ANY MODIFICATIONS OR ADDITIONS TO THESE APPROVAL DOCUMENTS WILL VOID THE APPROVAL DOCUMENTS.
- EACH SHUTTER ASSEMBLY SHALL BE PERMANENTLY LABELED WITH THE FOLLOWING MINIMUM INFORMATION:

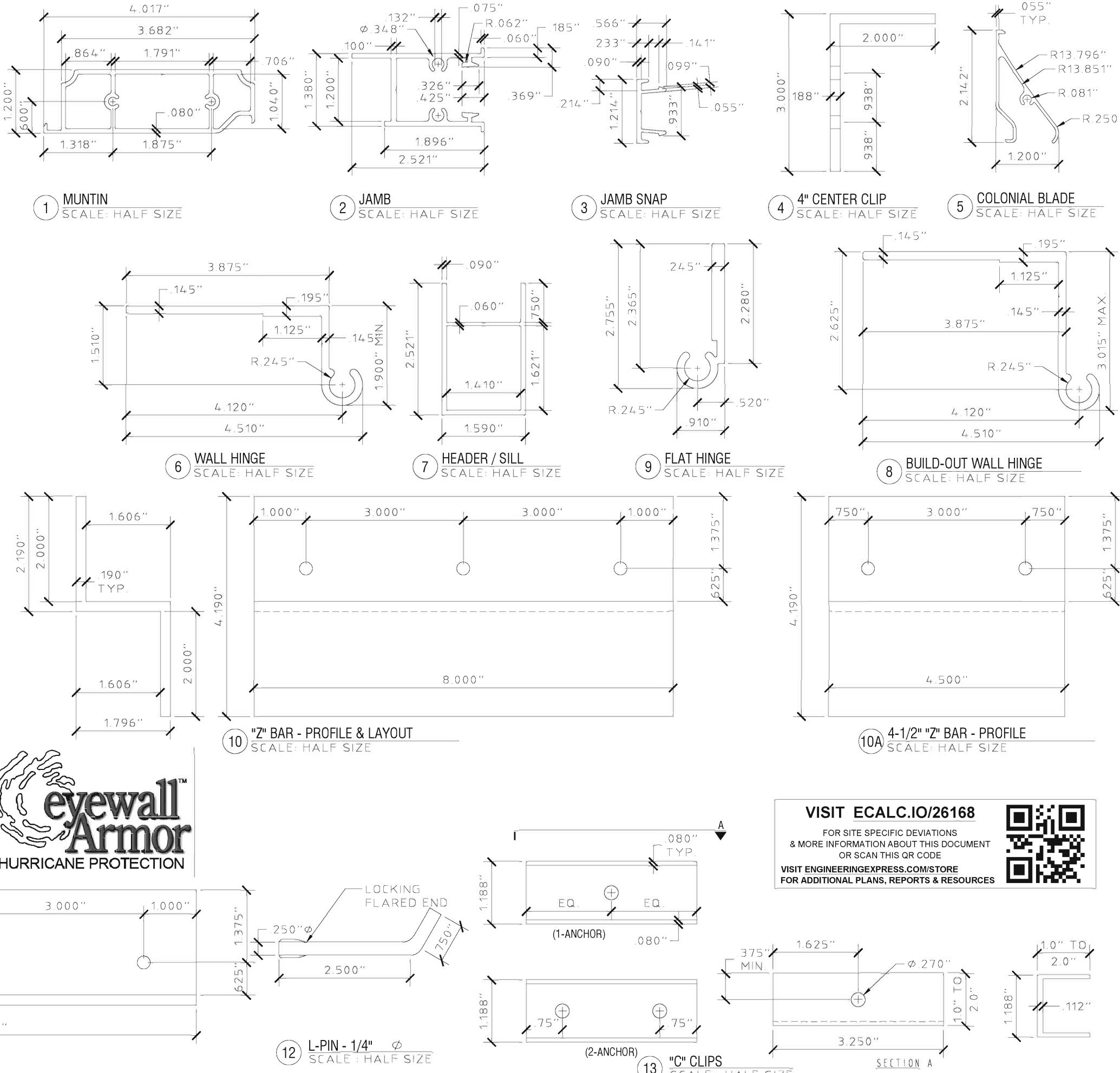
TOWN & COUNTRY INDUSTRIES  
FORT LAUDERDALE, FL  
9 LB MISSILE LEVEL D - ASTM E1886, E1996 & E330  
TAS 201, 202 & 203  
FLORIDA PRODUCT APPROVAL NUMBER

- ALL EXTRUSIONS SHOWN SHALL BE 6063-T6 ALUMINUM ALLOY, U.O.N., WITH A MINIMUM Fy OF 25 K.S.I.
- 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.
- MAXIMUM ALLOWABLE DESIGN PRESSURE IN CLOSED POSITION PROVIDING WIND LOAD & IMPACT RESISTANCE = **+57.2/-66.2** PSF FOR ALL SHUTTER SYSTEM CONFIGURATIONS SHOWN HEREIN.
- MAXIMUM ALLOWABLE DESIGN PRESSURE IN OPEN POSITION = +/- 28 PSF.
- THIS SHUTTER SYSTEM SHALL NOT BE INSTALLED IN ESSENTIAL FACILITIES AS DEFINED IN ASTM E1996.
- SHUTTER ASSEMBLY MUST BE CLOSED AND SECURED AND SHALL NOT BE LEFT IN THE OPEN POSITION IN THE EVENT OF A WIND STORM EVENT.
- ALL STEEL IN CONTACT WITH ALUMINUM SHALL BE PAINTED OR PLATED.



## COLONIAL SHUTTER

PATENT #8126298



VISIT ECALC.IO/26168

FOR SITE SPECIFIC DEVIATIONS  
& MORE INFORMATION ABOUT THIS DOCUMENT  
OR SCAN THIS QR CODEVISIT ENGINEERINGEXPRESS.COM/STORE  
FOR ADDITIONAL PLANS, REPORTS & RESOURCES

REMARKS	DRWN CHKD	DATE
INIT ISSUE	KL	12/20/12
2014 FBC	FLB	
REV ADD 4" BLADE	RVN	4/16/15
2017 FBC	FLB	9/28/16
2020 FBC	RVN	8/07/17
	CB	6/24/20

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REMARKS	DRWN CHKD	DATE
INT ISSUE	KL	12/20/12
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REV ADD 4" BLADE	RWN	TSB 9/28/16
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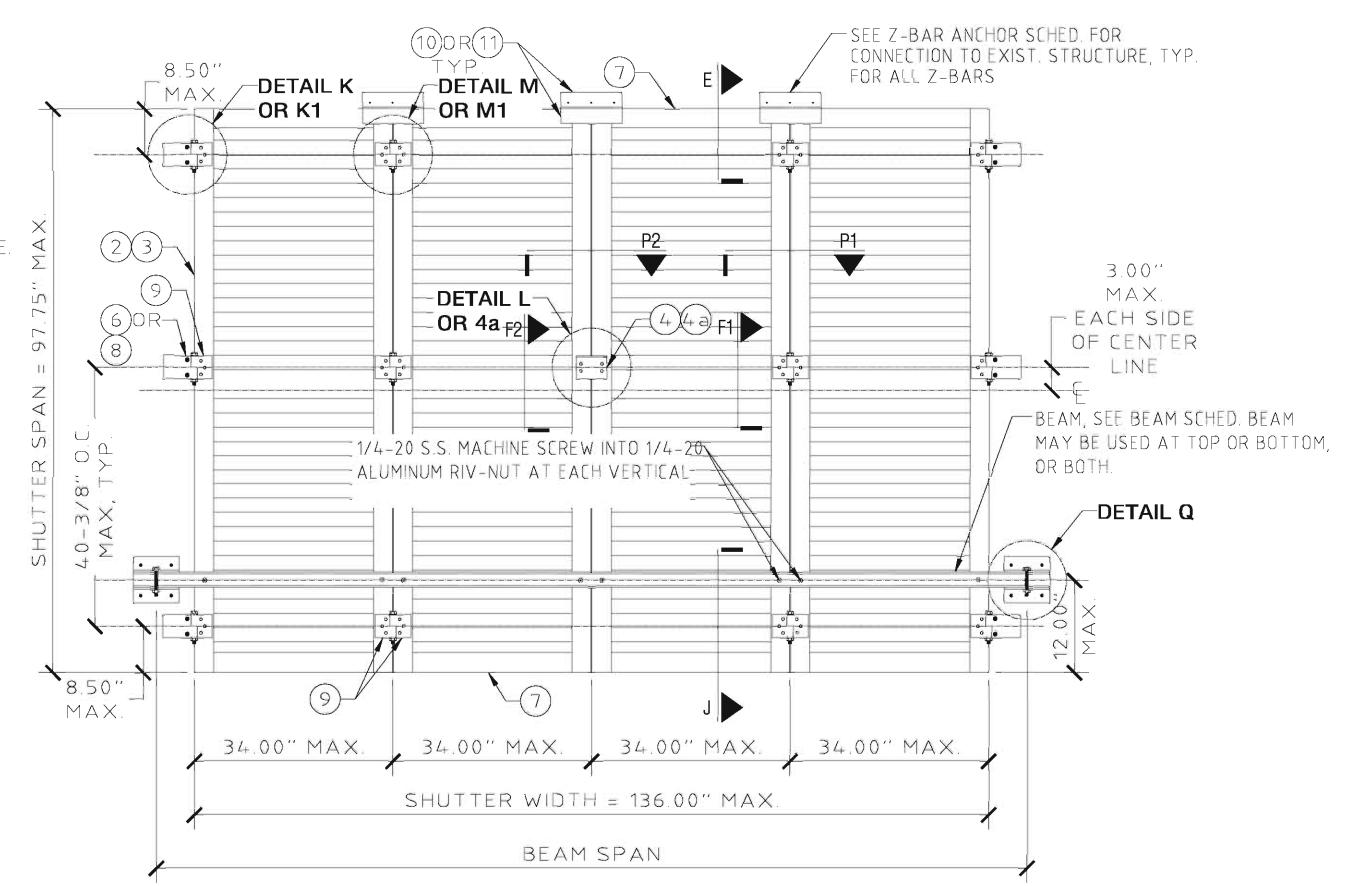
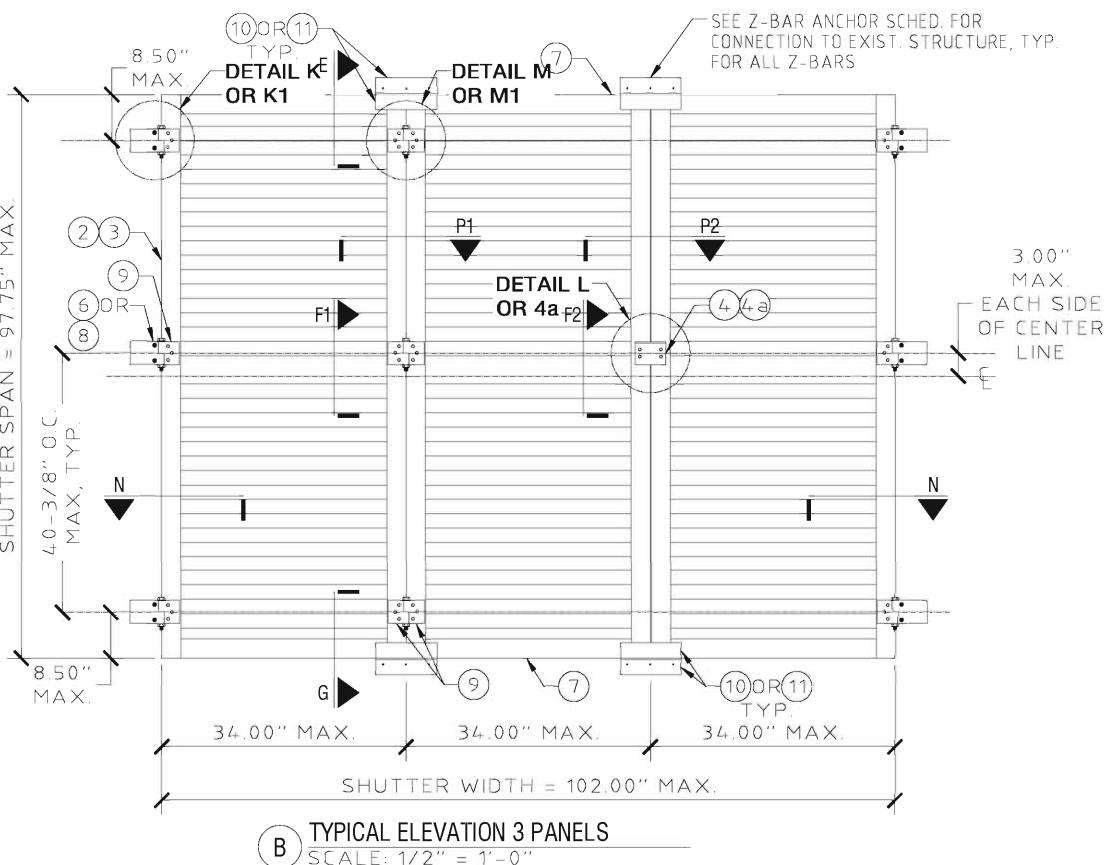
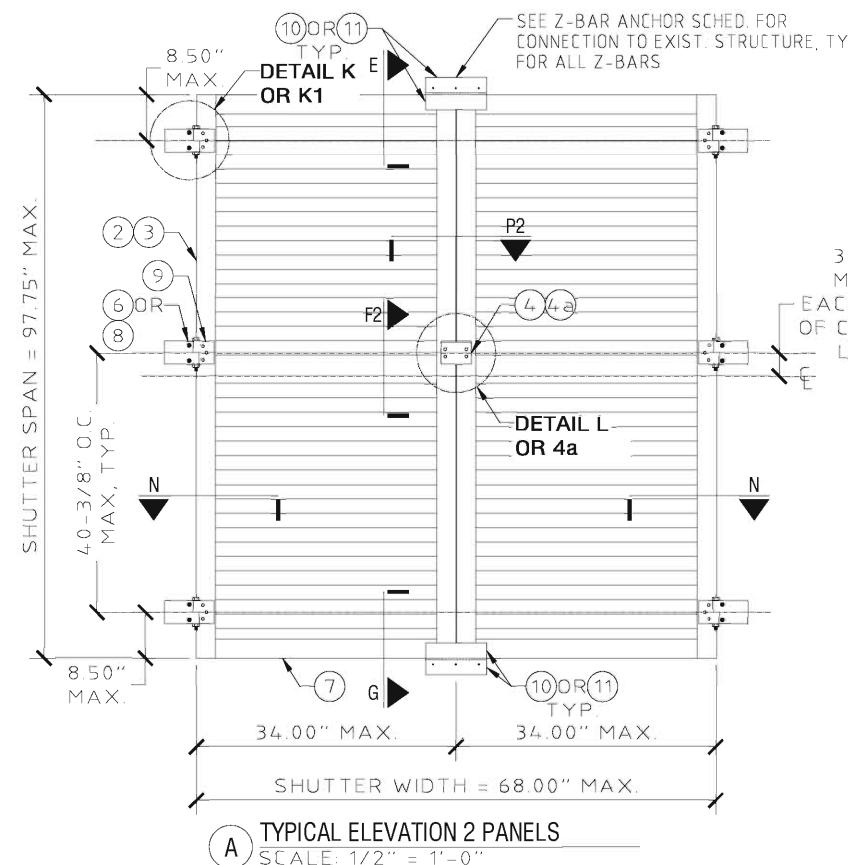
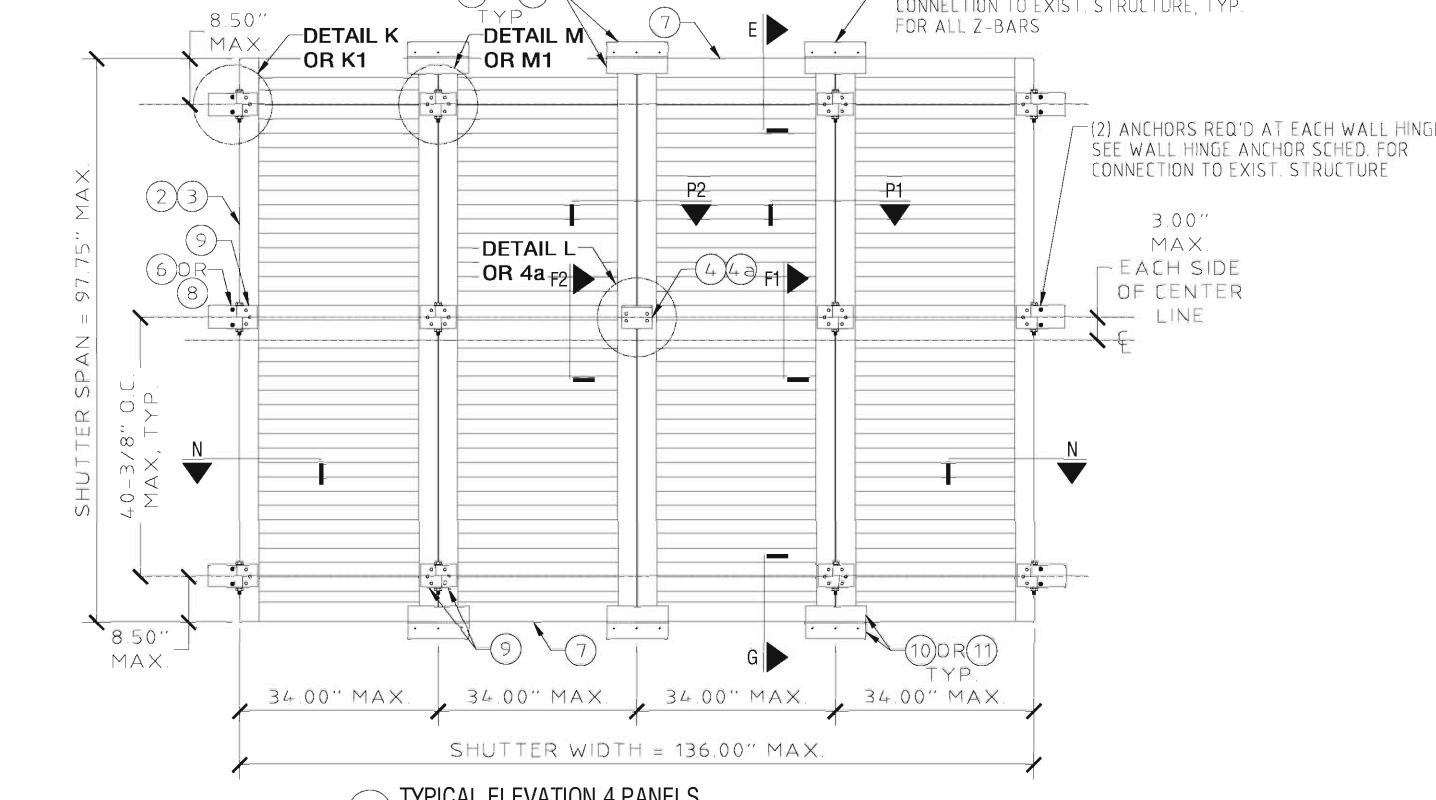
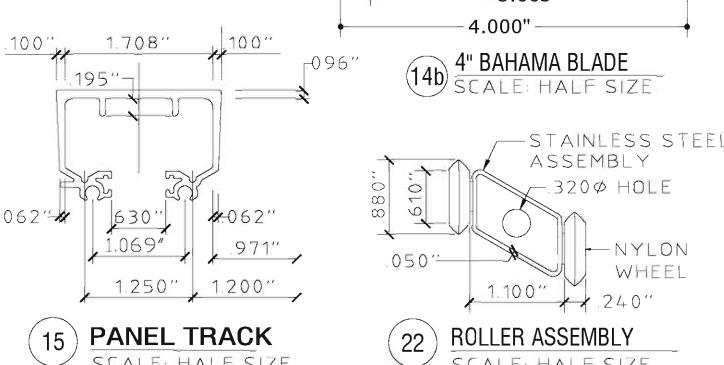
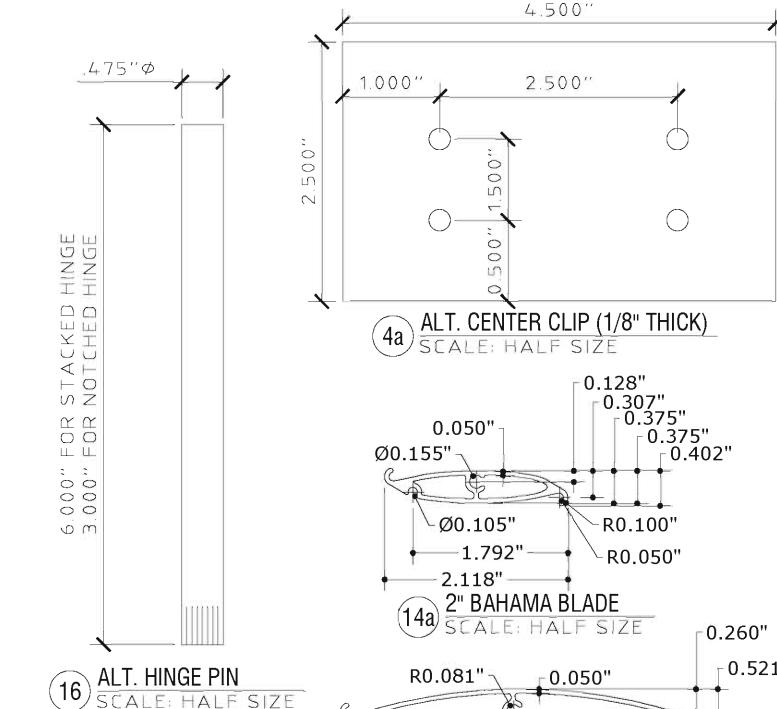
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OF 9

2

## COLONIAL SHUTTER



D TYPICAL ELEVATION WITH BEAM (2, 3, OR 4 PANELS)  
SCALE: 1/2" = 1'-0"



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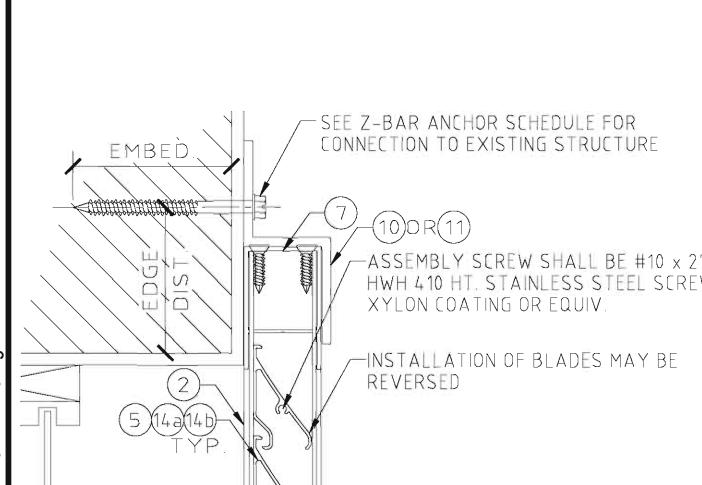
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REMARKS	DRWN	CHKD	DATE
INT ISSUE	KL	FLB	12/20/12
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REV ADD 4" BLADE	RVN	FLB	9/28/16
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2020 FBC	CB	RWN	6/24/20

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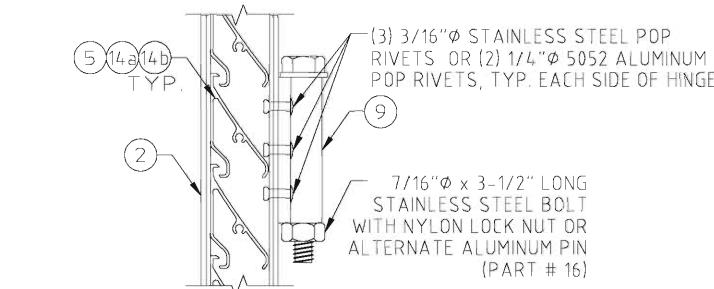
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OF 9

3



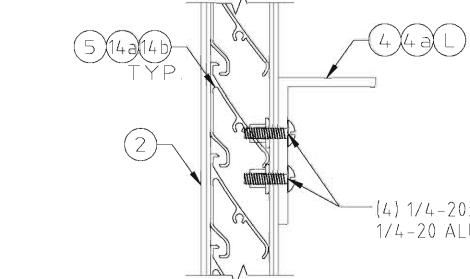
E1 TYPICAL TOP WALL MOUNT

SCALE: 3" = 1'-0"



E2 ALTERNATE TOP WALL MOUNT

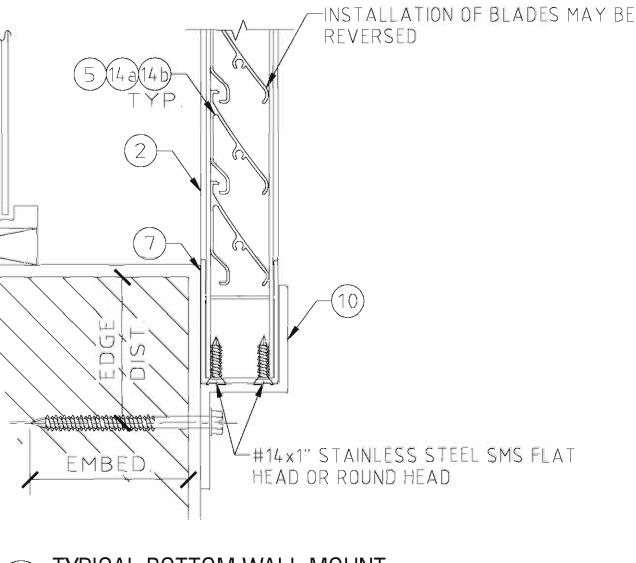
SCALE: 3" = 1'-0"



NOTE: BLADES MAY BE COLONIAL BLADES OR ARTICULATING BLADES. COLONIAL BLADES SHOWN ON THIS PAGE. SEE SHEET 4 FOR TYPICAL ARTICULATING BLADE DETAIL.

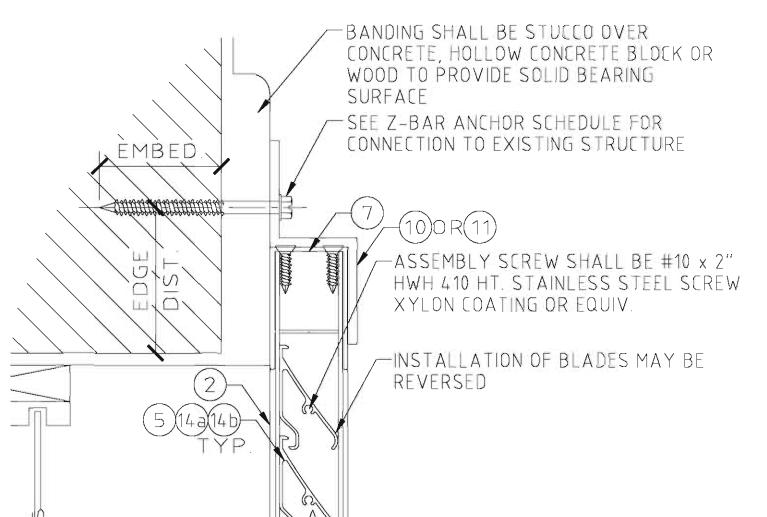
F1 TYPICAL PANEL HINGE CONNECTION

SCALE: 3" = 1'-0"



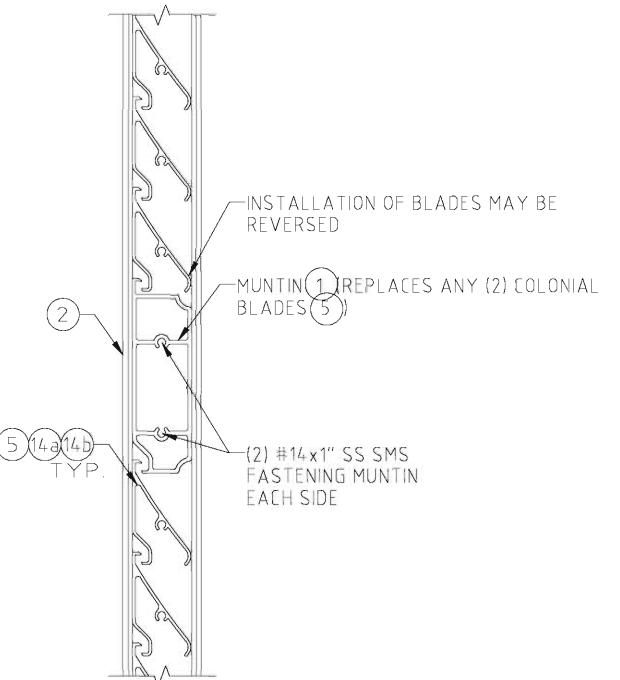
G1 TYPICAL BOTTOM WALL MOUNT

SCALE: 3" = 1'-0"



E2 ALTERNATE TOP WALL MOUNT

SCALE: 3" = 1'-0"



INSTALLATION OF BLADES MAY BE REVERSED

1/4-20 S.S. MACHINE SCREW INTO 1/4-20 ALUMINUM RIV-NUT AT EACH VERTICAL

BEAM, SEE BEAM SCHED

(3) 3/16"Ø STAINLESS STEEL POP RIVETS OR (2) 1/4"Ø 5052 ALUMINUM POP RIVETS, TYP. EACH SIDE OF HINGE

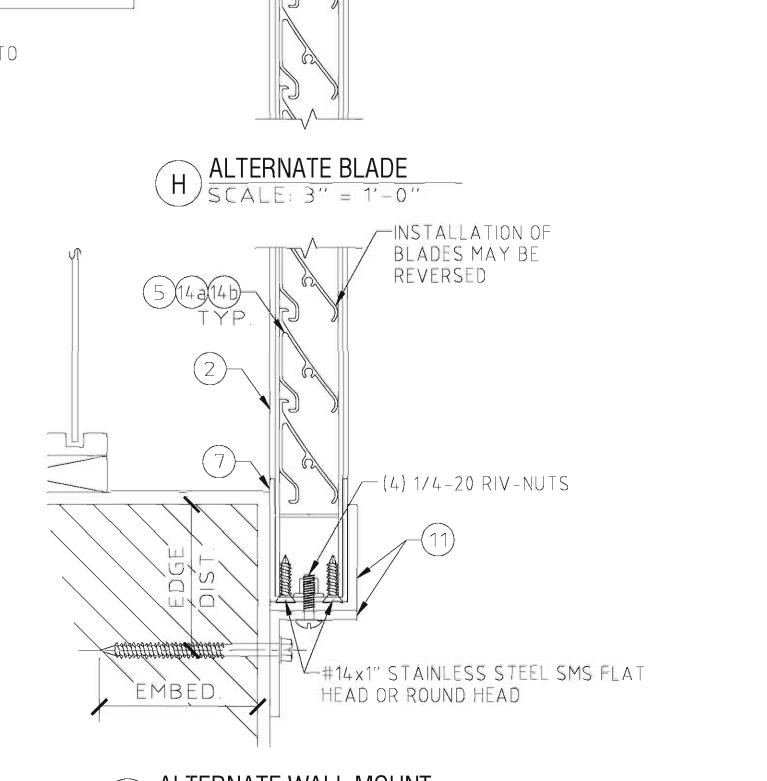
7/16"Ø x 3-1/2" LONG STAINLESS STEEL BOLT WITH NYLON LOCK NUT OR ALTERNATE ALUMINUM PIN (PART # 16)

.25" MAX.

12' 0" MAX

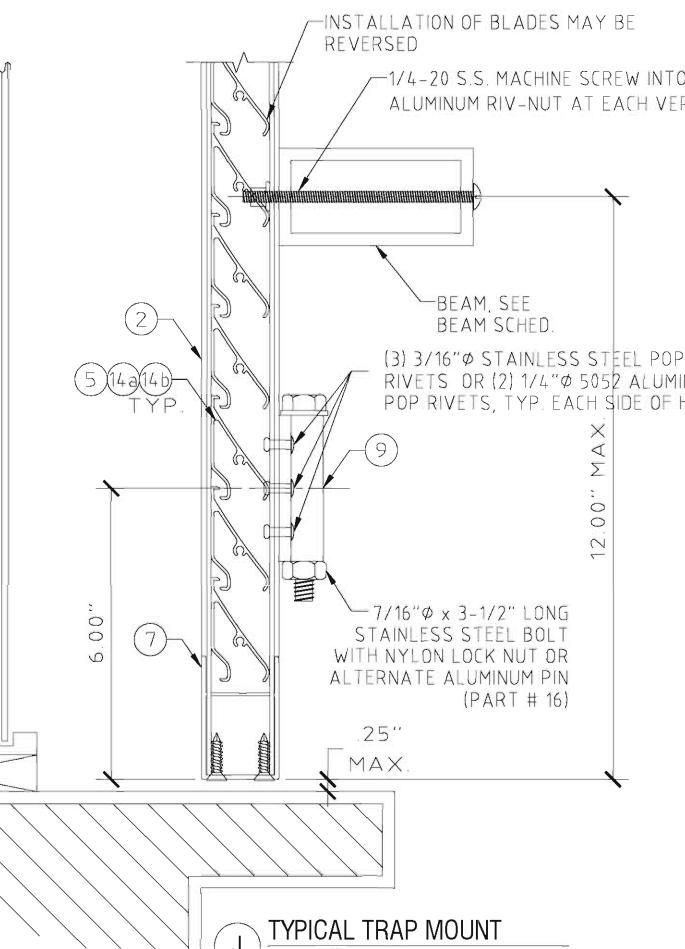
J TYPICAL TRAP MOUNT

SCALE: 3" = 1'-0"

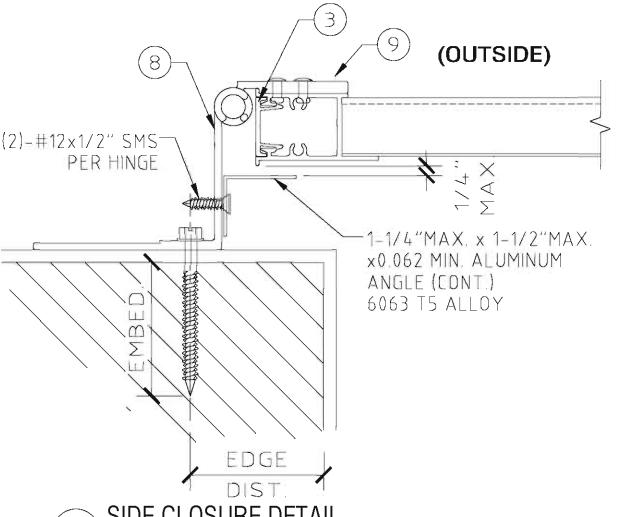


G2 ALTERNATE WALL MOUNT

SCALE: 3" = 1'-0"

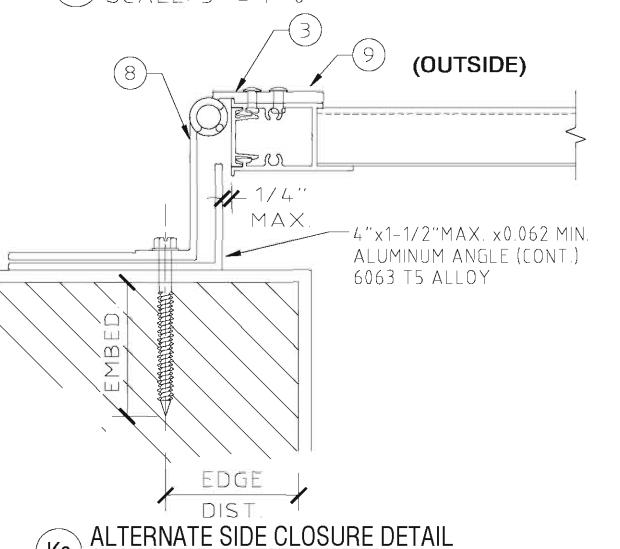


KD N.T.S. SLIDING PANEL SIDE CLOSURE DETAIL



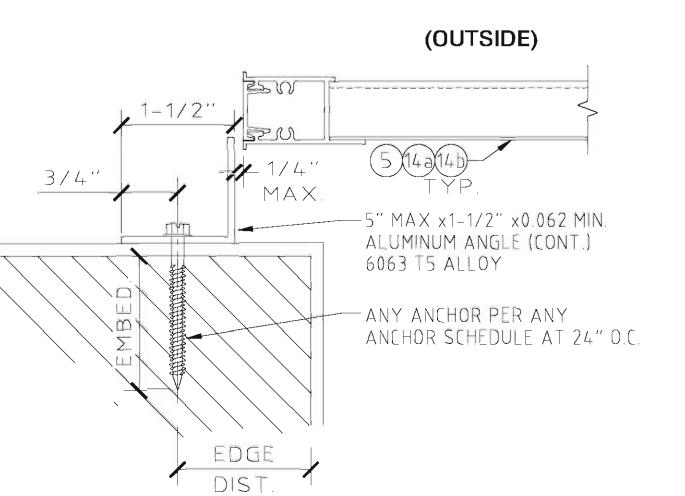
K SIDE CLOSURE DETAIL

SCALE: 3" = 1'-0"



Ka ALTERNATE SIDE CLOSURE DETAIL

SCALE: 3" = 1'-0"



(OUTSIDE)

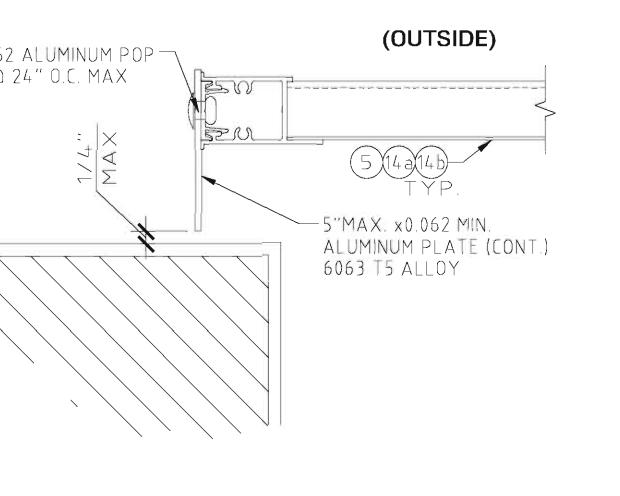
1-1/2" MAX

1/4" MAX

5" MAX x 1-1/2" x 0.062 MIN ALUMINUM ANGLE (CONT.) 6063 T5 ALLOY

ANY ANCHOR PER ANY ANCHOR SCHEDULE AT 24" O.C.

EDGE DIST.



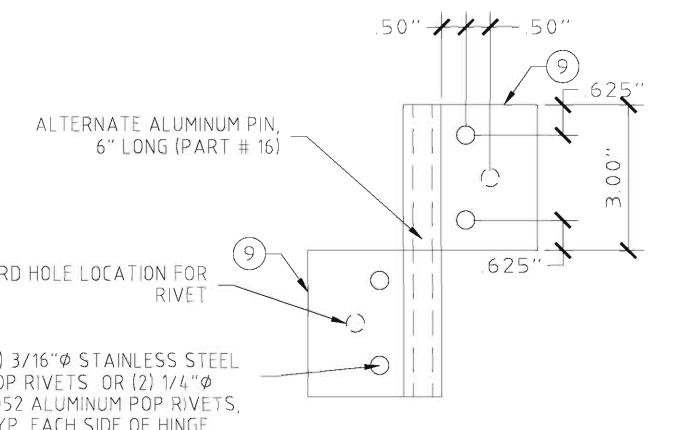
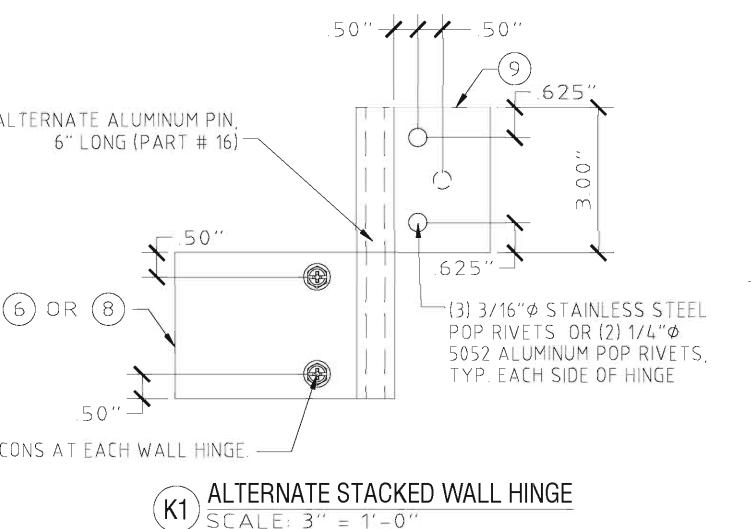
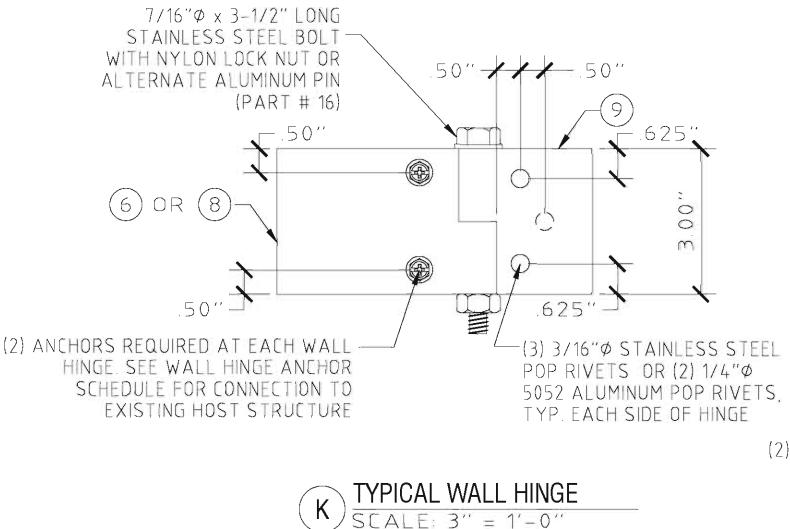
KC N.T.S. SLIDING PANEL SIDE ALTERNATE CLOSURE DETAIL



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## WALL HINGE ANCHOR SCHEDULE:

### TO 3192 PSI MIN. CONCRETE:

- 1/4" ITW SS TAPCON W/ 1<sup>3</sup>/<sub>4</sub>" MIN. EMBEDMENT AND 2-1/2" MIN. EDGE DISTANCE.
- 5/16" ITW TAPCON XL W/ 1-3/4" MIN. EMBEDMENT AND 2-1/2" MIN. EDGE DISTANCE.

### TO GROUT-FILLED CONCRETE BLOCK:

- 1/4" DEWALT ULTRACON W/ 2-1/4" MIN. EMBEDMENT AND 2-1/2" MIN. EDGE DISTANCE.
- 5/16" ITW TAPCON XL W/ 1-3/4" MIN. EMBEDMENT AND 4" MIN. EDGE DISTANCE.

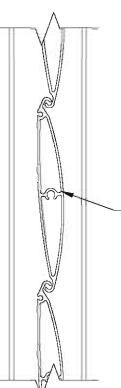
### TO G=0.42 MIN. WOOD HOST STRUCTURE:

- 1/4" LAG SCREWS WITH 1-1/2" MIN. THREAD PENETRATION AND 3/4" MIN. EDGE DISTANCE.
- #14 WOOD SCREW OR SMS W/ 1-1/2" MIN. THREAD PENETRATION AND 3/4" MIN. EDGE DISTANCE.



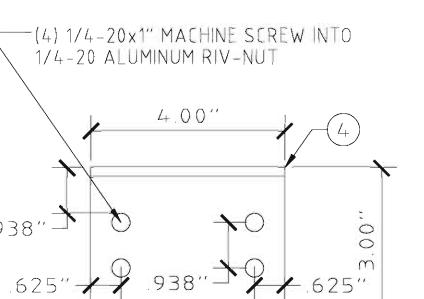
#10 x 2" HWH 410 HT.  
STAINLESS STEEL SCREW  
XYLON COATING OR  
EQUIV. WITH 1/2" NYLON  
END CAP & SPACER, TYP.

BH1 TYPICAL 2" ARTICULATING LOUVER ATTACHMENT  
SCALE: N.T.S.

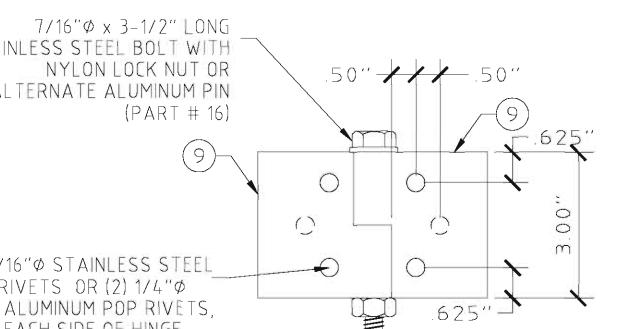


#10 x 2" HWH 410 HT.  
STAINLESS STEEL SCREW  
XYLON COATING OR  
EQUIV. WITH 1/2" NYLON  
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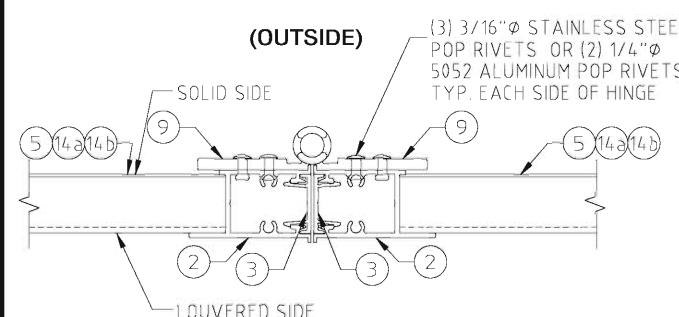
BH2 TYPICAL 4" ARTICULATING LOUVER ATTACHMENT  
SCALE: N.T.S.



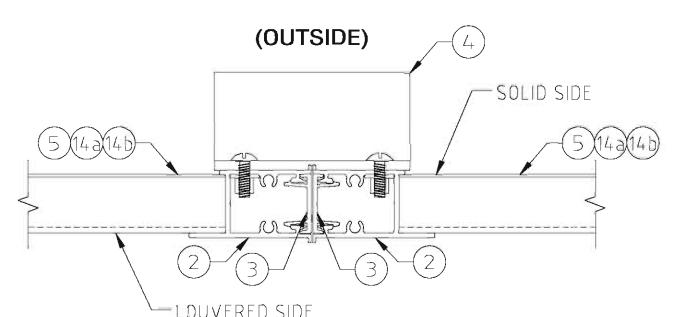
L TYPICAL CENTER CLIP  
SCALE: 3" = 1'-0"



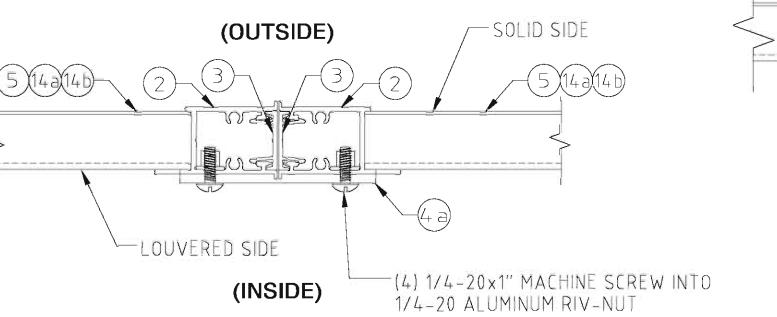
M TYPICAL PANEL HINGE  
SCALE: 3" = 1'-0"



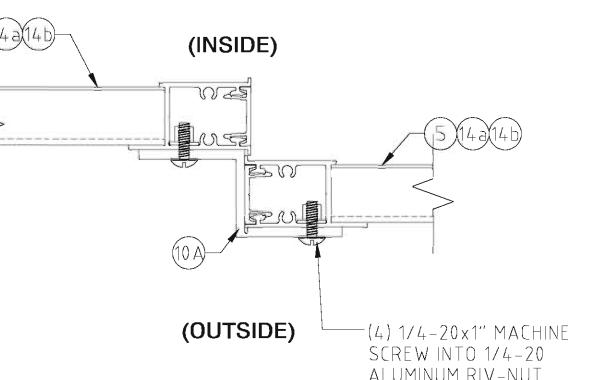
P1 TYPICAL PANEL HINGE CONNECTION  
SCALE: 3" = 1'-0"



P2 TYPICAL CENTER CLIP CONNECTION  
SCALE: 3" = 1'-0"



P2 ALTERNATE CENTER CLIP CONNECTION  
SCALE: 3" = 1'-0"



L1 SLIDING PANEL OFFSET CLIP  
N.T.S.

REMARKS	DRWN CHKD	DATE
INT ISSUE	KL FLB	12/20/12
2014 FBC	RVN TSB	4/16/15
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2020 FBC	CB RWN	6/24/20

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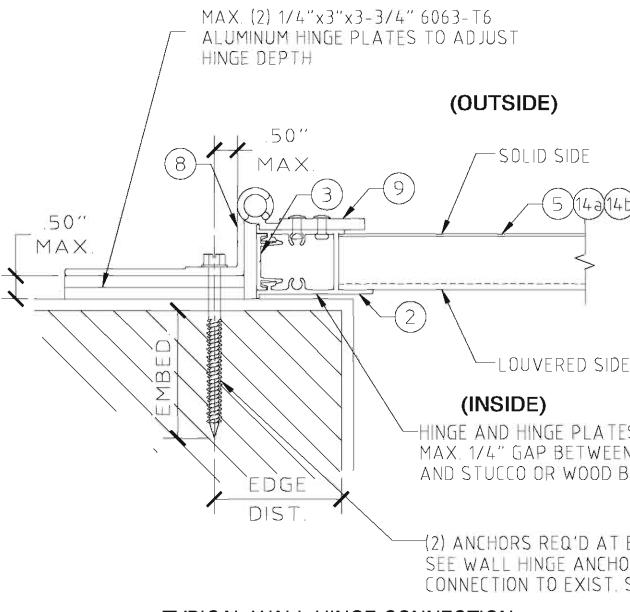
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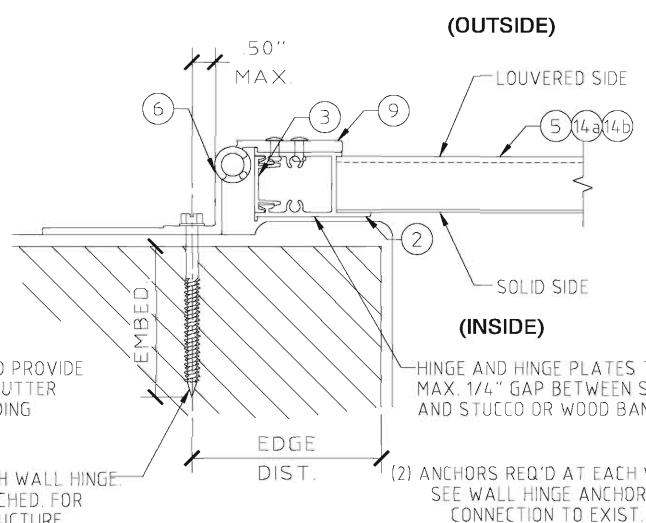
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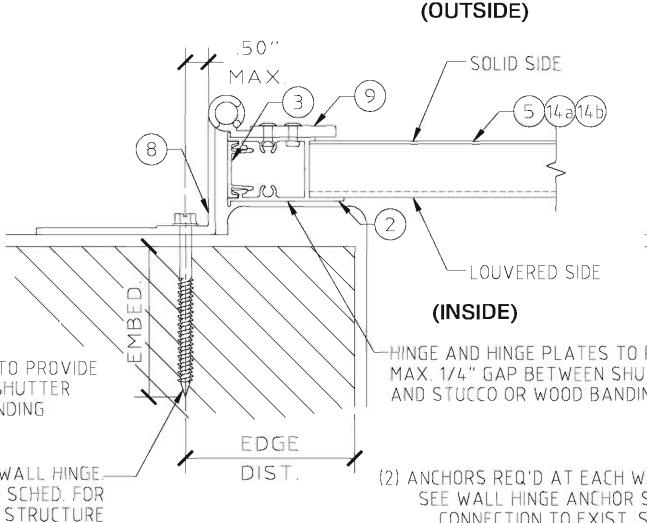
N1 TYPICAL WALL HINGE CONNECTION

SCALE: 3" = 1'-0"



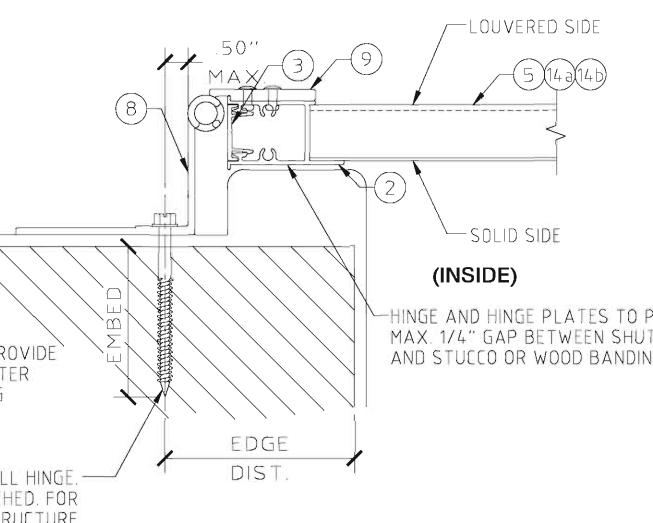
N2 ALTERNATE WALL HINGE CONNECTION

SCALE: 3" = 1'-0"



N3 ALTERNATE WALL HINGE CONNECTION

SCALE: 3" = 1'-0"



N4 ALTERNATE WALL HINGE CONNECTION

SCALE: 3" = 1'-0"

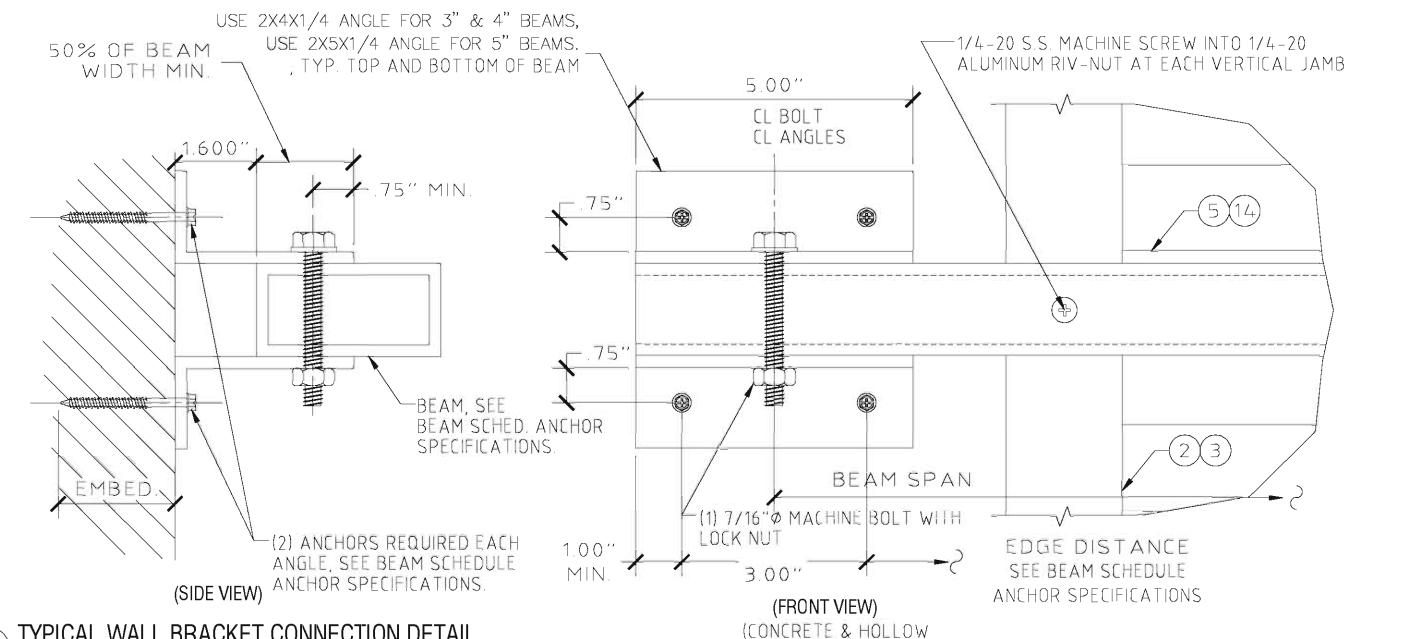
## BEAM SCHEDULE

BEAM SIZE	SHUTTER SPAN	BEAM SPAN	WALL BRACKET ANCHOR TYPES		
			CONCRETE (3323 PSI MIN)	HOLLOW CONCRETE BLOCK	WOOD (G=0.42 MIN.)
2"x3"x1/8" (6063-T6)	8'-1.75"	6'-0"	A, B, C	A, B, C	B, C
	6'-8"	6'-8"	A, B, C	A, B, C	B, C
	5'-10"	7'-0"	A, B, C	A, B, C	B, C
2"x4"x1/8" (6063-T6)	8'-1.75"	7'-5"	A, B, C	A, C	B, C
	6'-8"	8'-1"	A, B, C	A, C	B, C
	5'-10"	8'-6"	A, B, C	A, B, C	B, C
2"x5"x1/8" (6063-T6)	8'-1.75"	8'-8"	A, B, C	A, C	B, C
	6'-8"	9'-5"	A, B, C	A, C	B, C
	5'-10"	9'-11"	A, B, C	A, C	B, C
2"x4"x1/4" (6061-T6)	8'-1.75"	11'-3"	A, B, C	C	B, C
	6'-8"	12'-2"	A, B, C	C	B, C
	5'-10"	12'-6"	A, B, C	A, C	B, C

## ANCHOR TYPES FOR USE WITH BEAM

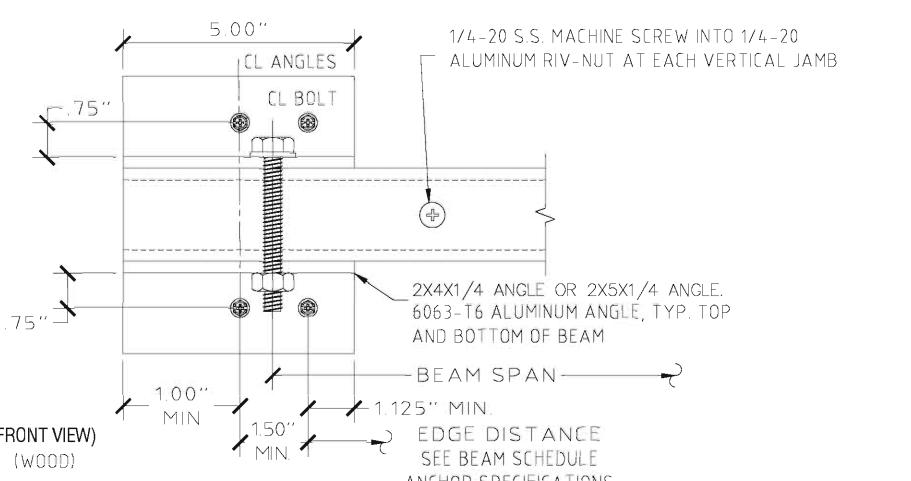
## SCHEDULE, (4) ANCHORS PER BEAM END

- A. 1/4" ALL POINTS SOLID-SET ANCHORS  
FOR CONCRETE: 7/8" MIN. EMBEDMENT, 3" MIN. EDGE DISTANCE, AND 3" MIN. SPACING.  
FOR HOLLOW CONCRETE BLOCK: 7/8" MIN. EMBEDMENT, 3" MIN. EDGE DISTANCE, AND 3" MIN. SPACING.
- B. 1/4" EYEWALL ARMOR MALE BOLT OR DEWALT MALE/FEMALE PANELMATE  
FOR CONCRETE: 2" MIN. EMBEDMENT, 3" MIN. EDGE DISTANCE, AND 3" MIN. SPACING.  
FOR HOLLOW CONCRETE BLOCK: 1-1/4" MIN. EMBEDMENT, 3" MIN. EDGE DISTANCE, AND 3" MIN. SPACING.  
FOR WOOD: 1-7/8" MIN. EMBEDMENT, 3/4" MIN. EDGE DISTANCE, 1.5" MIN. SPACING.
- C. 1/4" ITW TAPCON SG  
FOR CONCRETE: 1-3/4" MIN. EMBEDMENT, 2-1/2" MIN. EDGE DISTANCE, 3" MIN. SPACING.  
FOR HOLLOW CONCRETE BLOCK: 1-1/4" MIN. EMBEDMENT, 2-1/2" MIN. EDGE DISTANCE, 3" MIN. SPACING.  
FOR WOOD: 1-1/2" MIN. EMBEDMENT, 3/4" MIN. EDGE DISTANCE, 1.5" MIN. SPACING.



Q TYPICAL WALL BRACKET CONNECTION DETAIL

SCALE: 3" = 1'-0"



REMARKS	DRWN CHKD	DATE
INT ISSUE	KL FLB	12/20/12
2014 FBC	RVN TSB	4/16/15
REV ADD 4" BLADE	RVN FLB	9/28/16
2017 FBC	RVN FLB	8/07/17
2020 FBC	CB RWN	6/24/20

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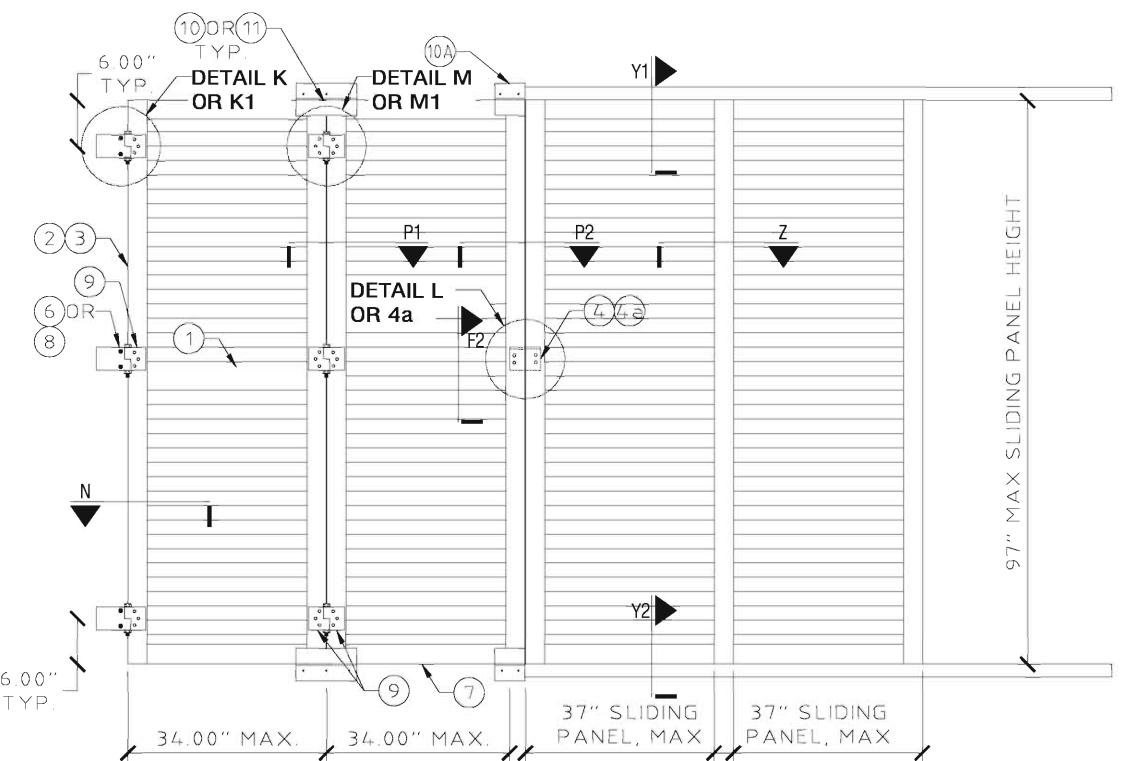
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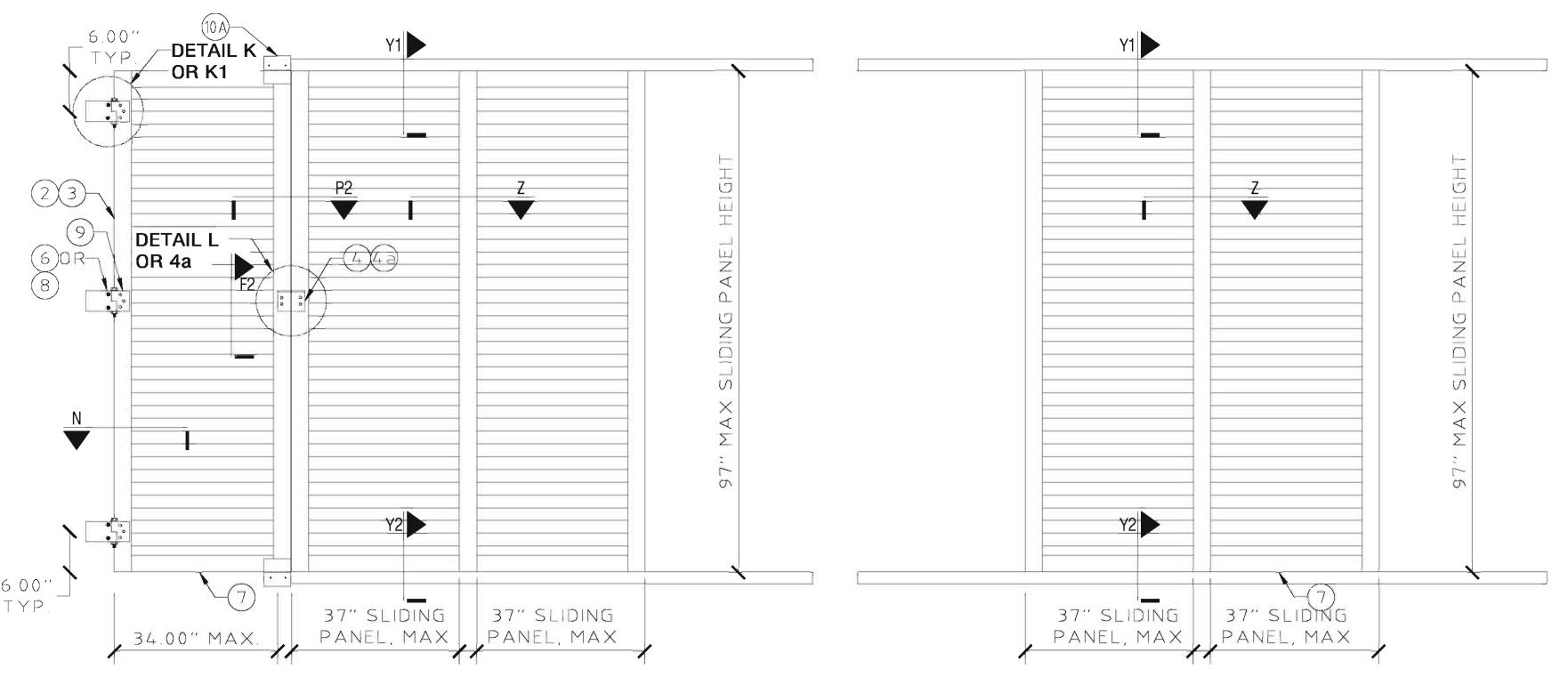
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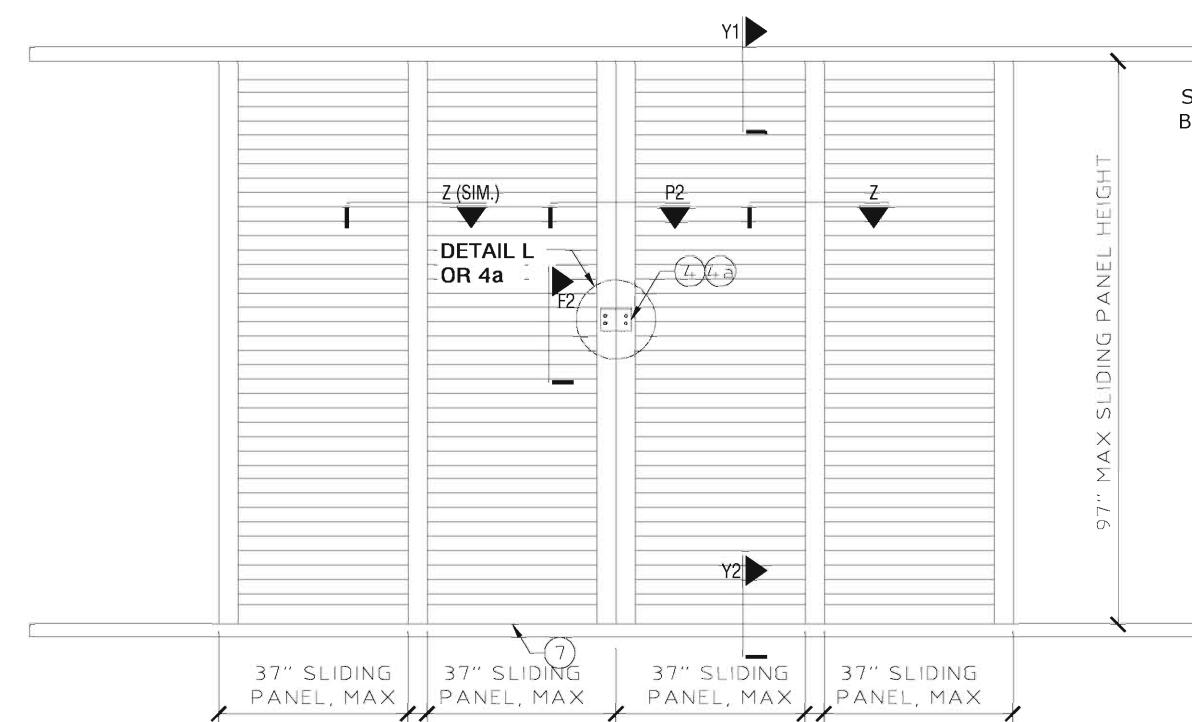


X1 ELEVATION: 2 HINGED AND 2 SLIDING PANELS  
SCALE: N.T.S.

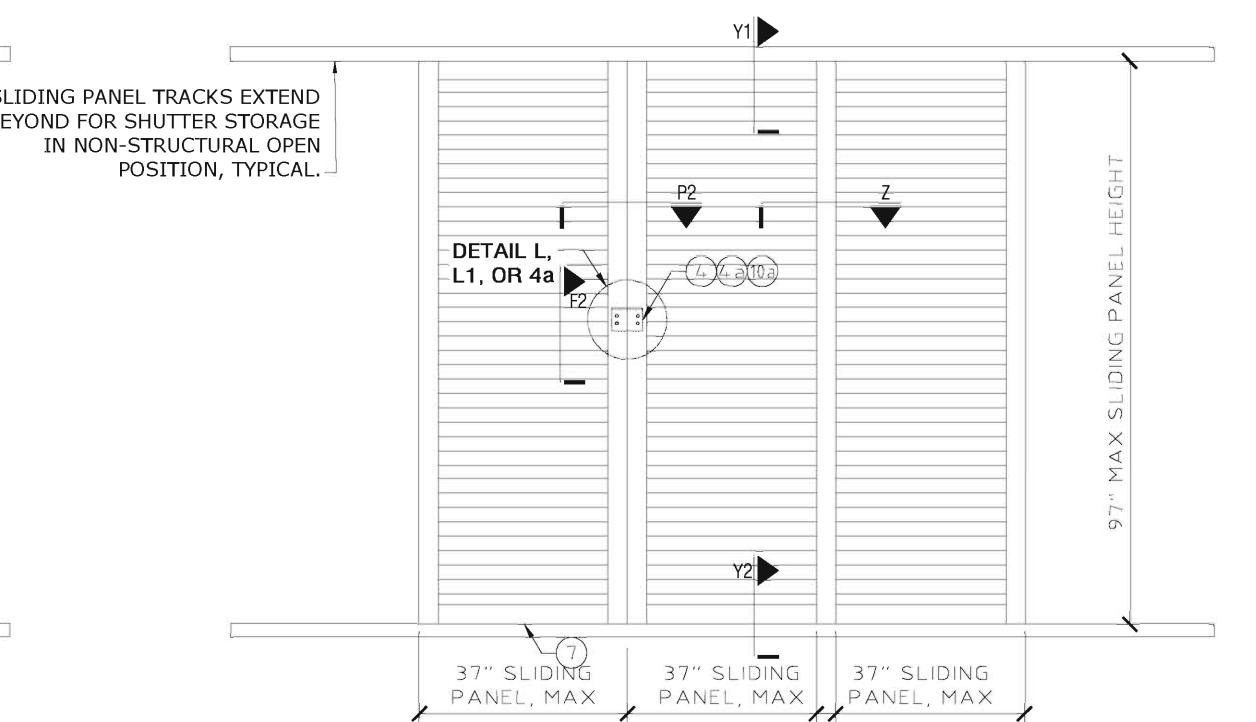


X2 ELEVATION: 1 HINGED AND 2 SLIDING PANELS  
SCALE: N.T.S.

X5 ELEVATION: 2 SLIDING PANELS  
SCALE: N.T.S.



X3 ELEVATION: 4 SLIDING PANELS  
SCALE: N.T.S.



X4 ELEVATION: 3 SLIDING PANELS  
SCALE: N.T.S.

NOTE: SLIDING PANEL  
CONSTRUCTION SAME AS  
HINGED PANELS.



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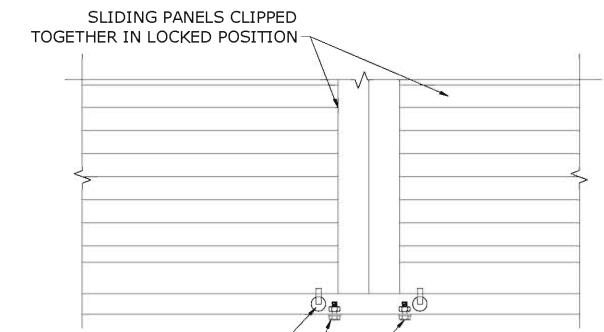
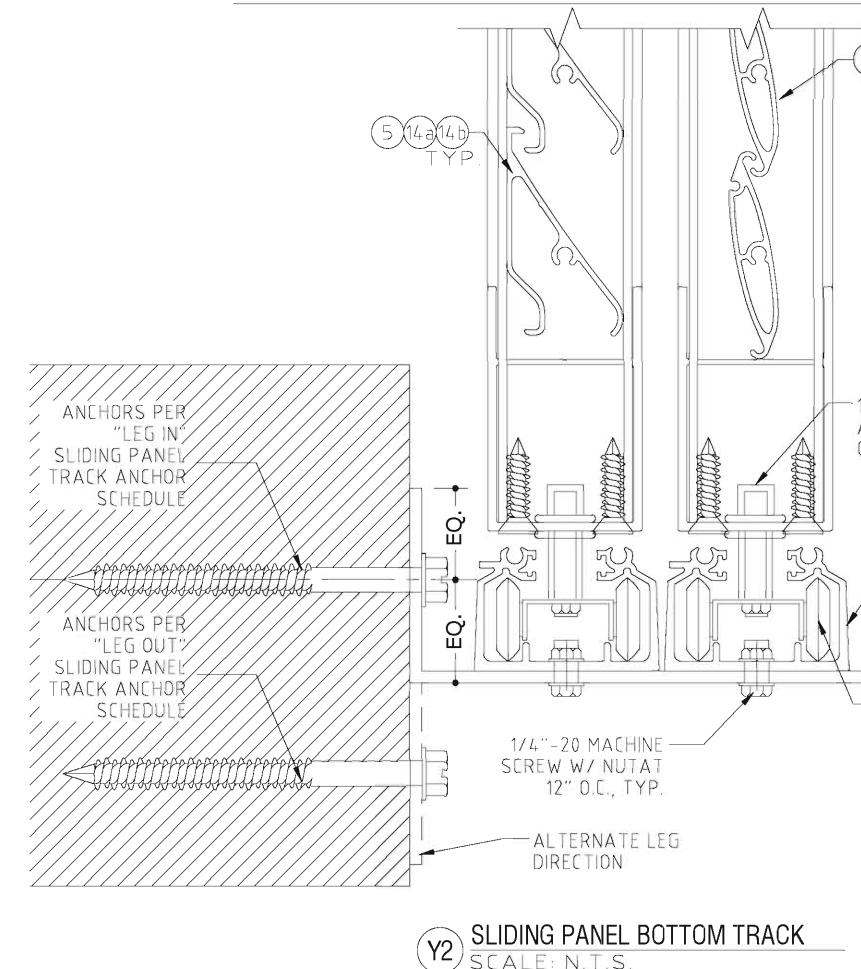
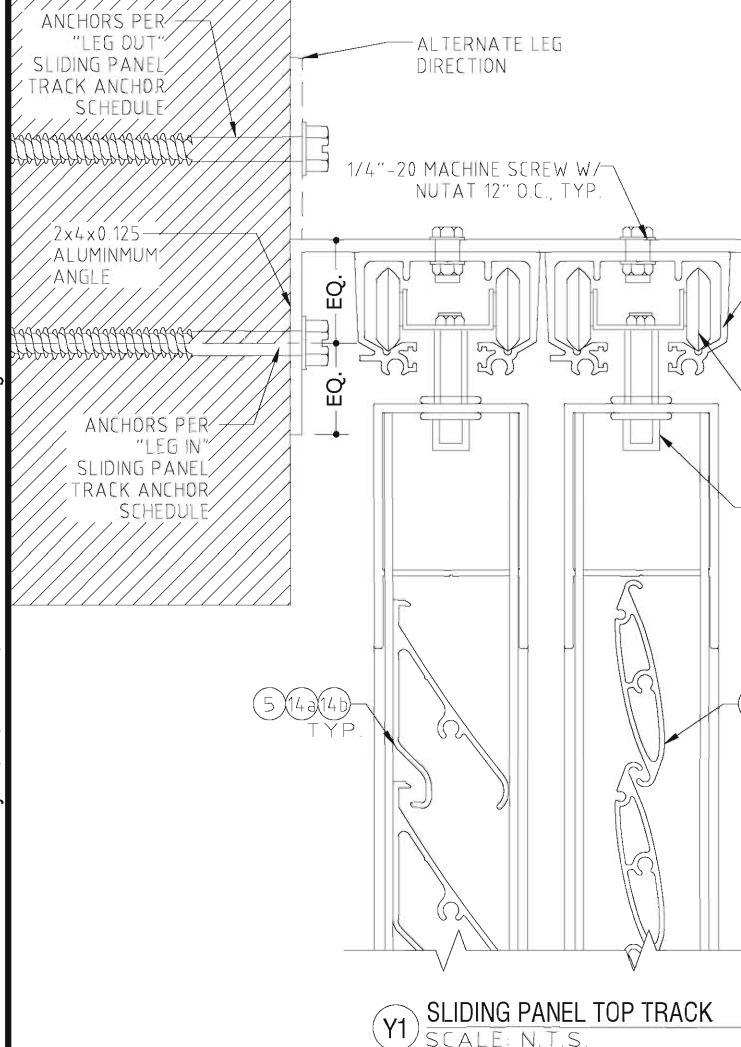
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REMARKS  
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REV ADD 4" BLADE 2017 FBC  
2020 FBC

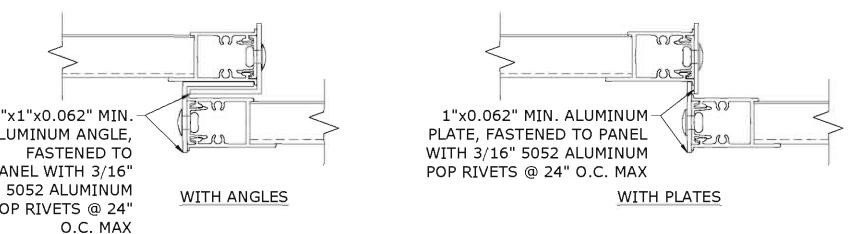
DRWN CHKD DATE  
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RVN TSB 4/16/15  
RVN FLB 9/28/16  
RVN FLB 8/07/17  
CB RVN 6/24/20

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WHEEL CARRIAGE, TYP.  
AT SLIDING PANEL LOCKING EDGE,  
PROVIDE 1/4-20 BOLT AND NUT IN FRONT  
OF WHEEL CARRIAGE. BOLT SHALL GO  
THROUGH ANGLE AND TRACK TO HOLD  
PANELS STATIONARY IN CLOSED POSITION.

77 WHEEL CARRIAGE STOPS FOR SLIDING PANELS  
SCALE: N.T.S.



7 SLIDING PANEL INTERLOCK  
SCALE: N.T.S.

### "LEG IN" SLIDING PANEL TRACK ANCHOR SCHEDULE:

HOST STRUCTURE	ANCHOR	SLIDING PANEL VERTICAL SPAN					
		36"	48"	60"	72"	84"	97"
CONCRETE (3192 PSI MIN.)	1/4" ITW SS TAPCONS W/ 1-3/4" MIN. EMBEDMENT AND 2-1/2" MIN. EDGE DISTANCE	16" O.C.	16" O.C.	16" O.C.	16" O.C.	16" O.C.	16" O.C.
	1/4" DEWALT ULTRACON W/ 1-3/4" MIN. EMBEDMENT AND 2-1/2" MIN. EDGE DISTANCE	16" O.C.	16" O.C.	16" O.C.	16" O.C.	16" O.C.	16" O.C.
CONCRETE (3500 PSI MIN.)	1/4" MILLENIUM MILLFAST W/ 1-3/4" MIN. EMBEDMENT AND 2-1/2" MIN. EDGE DISTANCE	16" O.C.	16" O.C.	16" O.C.	16" O.C.	16" O.C.	16" O.C.
HOLLOW CONCRETE BLOCK	1/4" MILLENIUM MILLFAST W/ 1-1/4" MIN. EMBEDMENT AND 2-1/2" MIN. EDGE DISTANCE	16" O.C.	13" O.C.	11" O.C.	9" O.C.	8" O.C.	7" O.C.
	1/4" ITW SS TAPCONS W/ 1-1/4" MIN. EMBEDMENT AND 2-1/2" MIN. EDGE DISTANCE	15" O.C.	12" O.C.	9" O.C.	8" O.C.	7" O.C.	6" O.C.
	1/4" DEWALT ULTRACON W/ 1-1/4" MIN. EMBEDMENT AND 2-1/2" MIN. EDGE DISTANCE	16" O.C.	13" O.C.	10" O.C.	8" O.C.	7" O.C.	6" O.C.
	5/16" ITW TAPCON XL W/ 1-3/4" MIN. EMBEDMENT AND 4" MIN. EDGE DISTANCE	16" O.C.	16" O.C.	15" O.C.	13" O.C.	11" O.C.	9" O.C.
	5/16" DEWALT ULTRACON W/ 1-1/4" MIN. EMBEDMENT AND 3-1/8" MIN. EDGE DISTANCE	16" O.C.	16" O.C.	16" O.C.	14" O.C.	12" O.C.	10" O.C.
WOOD (G=0.42 MIN.)	1/4" LAG SCREW W/ 1-1/2" MIN. EMBEDMENT AND 3/4" MIN. EDGE DISTANCE	16" O.C.	16" O.C.	16" O.C.	16" O.C.	16" O.C.	16" O.C.
	#14 SMS OR WOOD SCREW W/ 1-1/2" MIN. EMBEDMENT AND 3/4" MIN. EDGE DISTANCE	16" O.C.	16" O.C.	16" O.C.	16" O.C.	15" O.C.	13" O.C.

NOTES: TABLE PROVIDES MAXIMUM ANCHOR SPACING FOR INDICATED ANCHOR TYPES AND SLIDING PANEL VERTICAL SPANS FOR "LEG IN" CONDITION. ANCHORS SHALL BE LOCATED 2" MAX FROM TRACK ENDS.

\*ALL MILLENIUM MILLFAST SCREWS SHALL HAVE T&C ULTRACOTE

### "LEG OUT" SLIDING PANEL TRACK ANCHOR SCHEDULE:

HOST STRUCTURE	ANCHOR	SLIDING PANEL VERTICAL SPAN					
		36"	48"	60"	72"	84"	97"
CONCRETE (3192 PSI MIN.)	1/4" ITW SS TAPCONS W/ 1-3/4" MIN. EMBEDMENT AND 2-1/2" MIN. EDGE DISTANCE	16" O.C.	13" O.C.	10" O.C.	9" O.C.	7" O.C.	6" O.C.
	1/4" DEWALT ULTRACON W/ 1-3/4" MIN. EMBEDMENT AND 2-1/2" MIN. EDGE DISTANCE	16" O.C.	16" O.C.	13" O.C.	11" O.C.	9" O.C.	8" O.C.
CONCRETE (3500 PSI MIN.)	1/4" MILLENIUM MILLFAST W/ 1-3/4" MIN. EMBEDMENT AND 2-1/2" MIN. EDGE DISTANCE	16" O.C.	13" O.C.	10" O.C.	9" O.C.	7" O.C.	6" O.C.
HOLLOW CONCRETE BLOCK	1/4" MILLENIUM MILLFAST W/ 1-1/4" MIN. EMBEDMENT AND 2-1/2" MIN. EDGE DISTANCE	7" O.C.	5" O.C.	4" O.C.			
	1/4" ITW SS TAPCONS W/ 1-1/4" MIN. EMBEDMENT AND 2-1/2" MIN. EDGE DISTANCE	6" O.C.	4" O.C.	4" O.C.	3" O.C.	3" O.C.	
	1/4" DEWALT ULTRACON W/ 1-1/4" MIN. EMBEDMENT AND 2-1/2" MIN. EDGE DISTANCE	6" O.C.	5" O.C.	4" O.C.	3" O.C.	3" O.C.	
	5/16" ITW TAPCON XL W/ 1-3/4" MIN. EMBEDMENT AND 4" MIN. EDGE DISTANCE	10" O.C.	7" O.C.	6" O.C.	5" O.C.	4" O.C.	4" O.C.
	5/16" DEWALT ULTRACON W/ 1-1/4" MIN. EMBEDMENT AND 3-1/8" MIN. EDGE DISTANCE	10" O.C.	8" O.C.	6" O.C.			
WOOD (G=0.42 MIN.)	1/4" LAG SCREW W/ 1-1/2" MIN. EMBEDMENT AND 3/4" MIN. EDGE DISTANCE	16" O.C.	14" O.C.	11" O.C.	10" O.C.	8" O.C.	7" O.C.
	#14 SMS OR WOOD SCREW W/ 1-1/2" MIN. EMBEDMENT AND 3/4" MIN. EDGE DISTANCE	13" O.C.	10" O.C.	8" O.C.	7" O.C.	6" O.C.	5" O.C.

NOTES: TABLE PROVIDES MAXIMUM ANCHOR SPACING FOR INDICATED ANCHOR TYPES AND SLIDING PANEL VERTICAL SPANS FOR ALTERNATE "LEG OUT" CONDITION. ANCHORS SHALL BE LOCATED 2" MAX FROM TRACK ENDS.

\*ALL MILLENIUM MILLFAST SCREWS SHALL HAVE T&C ULTRACOTE



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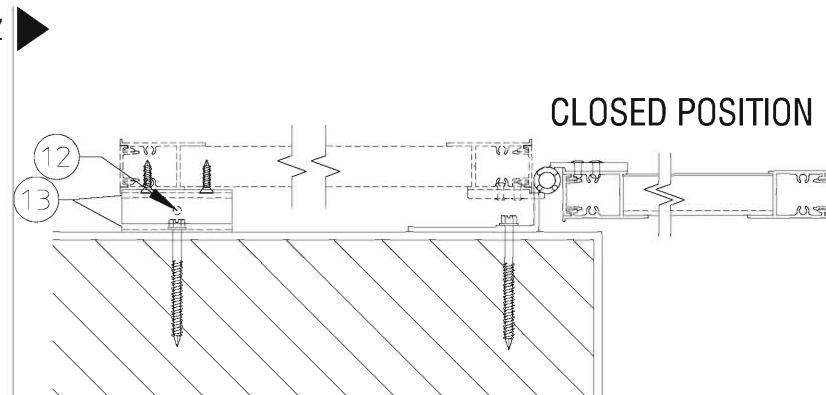
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REMARKS	DRWN	CHKD	DATE
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REV ADD 4" BLADE	RVN	FLB	9/28/16
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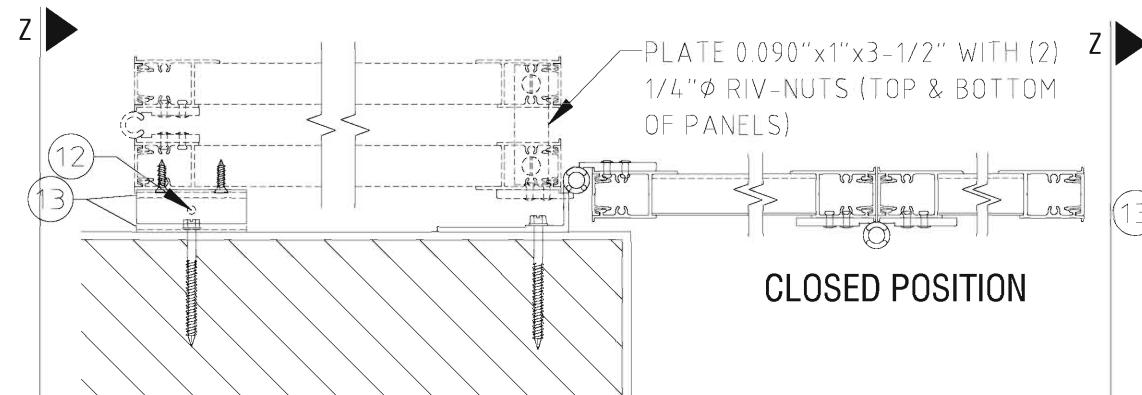
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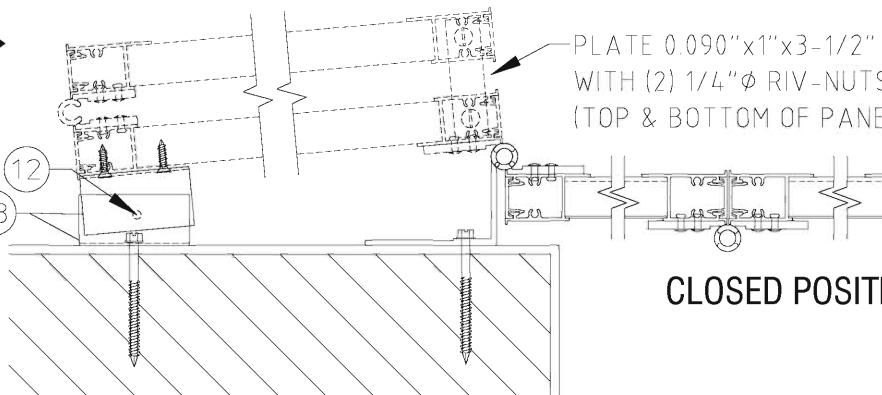
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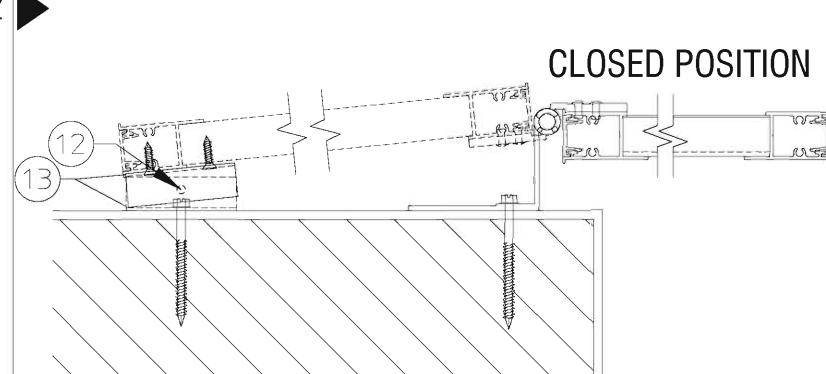
**PLAN VIEW 1**  
SCALE: 1-1/2" = 1'-0"



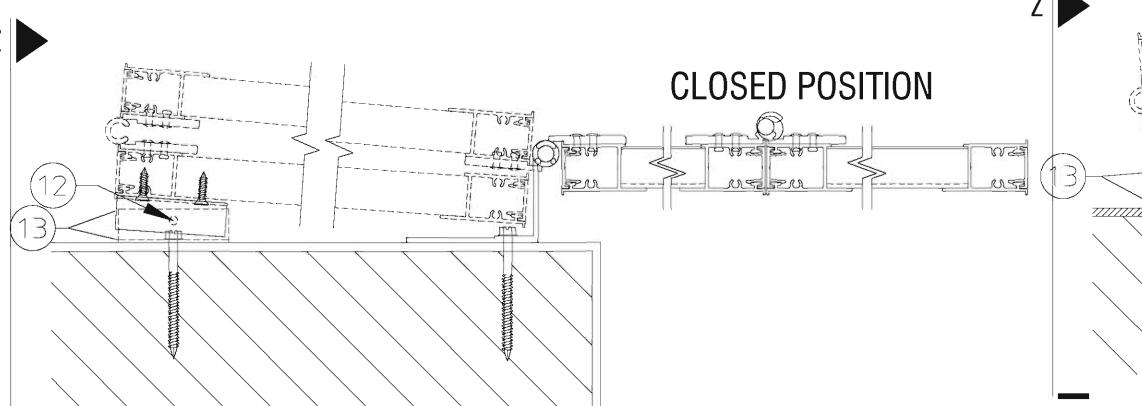
**PLAN VIEW 2**  
SCALE: 1-1/2" = 1'-0"



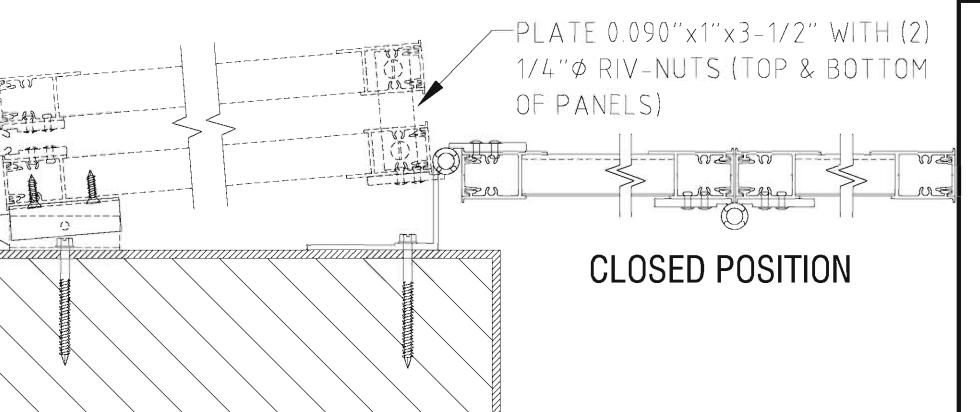
**PLAN VIEW 3**  
SCALE: 1-1/2" = 1'-0"



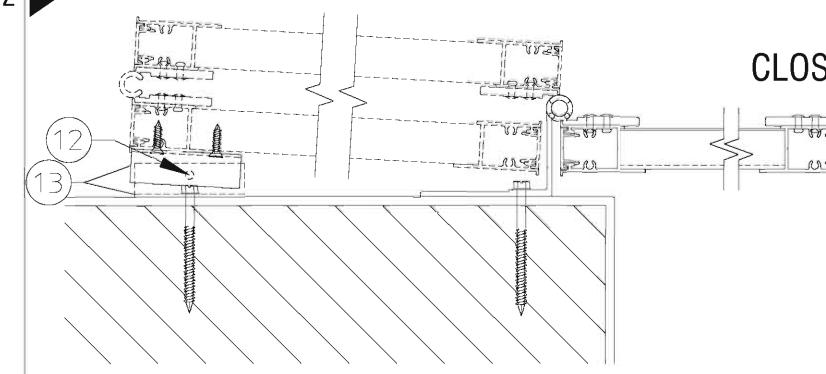
**PLAN VIEW 4**  
SCALE: 1-1/2" = 1'-0"



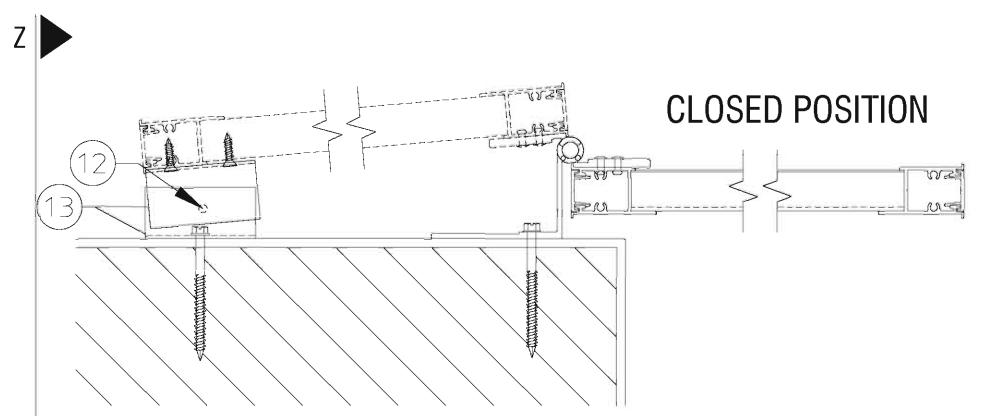
**PLAN VIEW 5**  
SCALE: 1-1/2" = 1'-0"



**PLAN VIEW 8**  
SCALE: 1-1/2" = 1'-0"



**PLAN VIEW 7**  
SCALE: 1-1/2" = 1'-0"



**PLAN VIEW 6**  
SCALE: 1-1/2" = 1'-0"