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GENERAL NOTES:

1. THIS GLAZED RAILING SHOWN IN THIS PRODUCT APPROVAL DOCUMENT (REPORT) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2020 (7th EDITION) OF THE FLORIDA BUILDING CODE. DESIGN WIND LOADS FOR RAILING SYSTEM ON A GIVEN JOB SHALL BE DETERMINED AS PER SECTIONS 1620 & 1609 OF THE ABOVE MENTIONED CODE.

IN ORDER TO VERIFY THE ABOVE CONDITION, ULTIMATE DESIGN WIND LOADS DETERMINED PER ASCE 7-16 SHALL BE FIRST REDUCED TO A.S.D. DESIGN PRESSURE RATINGS INDICATED ON SHEET S16.

GLAZED RAILING CAPACITY TO SUSTAIN SAFEGUARD LOADS HAS BEEN VERIFIED PER THE CODES AND STANDARDS STATED HEREIN.

2. GLASS CAPACITY FOR IMPACT (SAFETY GLAZING) AS WELL AS ASSEMBLY CAPACITY FOR WIND LOADS UNDER MAXIMUM A.S.D. PRESSURE RATINGS INDICATED ON SHEET 10 HAVE BEEN VERIFIED THRU TESTING PERFORMED AT FENESTRATION TESTING LABORATORY, REPORTS #8754, #8800, AS PER SECTIONS 1618 (ANSI Z97) AND 1616 OF THE 2014 (5TH EDITION) OF THE FLORIDA BUILDING CODE, AND AS PER TAS 202 PROTOCOL (STRUCTURALLY ONLY, WITH A SAFETY FACTOR OF 2.0) RESPECTIVELY FOR THE PURPOSE OF DETERMINING THE PERFORMANCE OF THE PRODUCT, THIS STANDARD IS EQUIVALENT TO THE ADOPTED STANDARDS IN THE ABOVE REFERENCED BUILDING CODES.

3. ALL ALUMINUM EXTRUSIONS TO BE INDICATED ON THIS DRAWING. THE DIMENSIONS OF ALL EXTRUSIONS TO BE AS SHOWN ON THIS DRAWING.

4. ALL SCREWS TO BE AISI 410 SERIES STAINLESS STEEL WITH 92 ksi MINIMUM YIELD STRENGTH, AND SHALL COMPLY WITH CODES AND STANDARDS STATED HEREIN.

5. TEMPERED GLASS TO COMPLY WITH CODES AND STANDARDS STATED HEREIN.

6. POST EMBEDMENT INTO EXISTING CONCRETE SLABS SHALL BE PERFORMED WITH HOLE SIZE SHOWN ON THIS DRAWING. INSTALLATION INTO EXISTING PRE-STRESSED OR POST TENSIONED SLABS SHALL BE CAREFULLY PERFORMED SO THAT THE EXISTING REBAR OR CABLES ARE NOT DAMAGED. PRESET HOLES ON CONCRETE ARE ALSO ALLOWED AS LONG AS THEY ARE PERFORMED WITH SIZES AS REQUIRED ON THIS DRAWING. ALL HOLES TO BE GROUTED WITH NON SHRINK GROUT COMPONENT 24 AS PER BILL OF MATERIALS ON SHEET 3.

7. SEE REMAINING SPECS FOR GLAZED RAILING COMPONENTS ON BILL OF MATERIALS ON SHEET 3.

8. ALUMINUM MEMBERS IN CONTACT WITH CONCRETE SHALL BE PROTECTED WITH ALKALI-RESISTANT COATING SUCH AS HEAVY BODIED BITUMINOUS PAINT OR WATER-WHITE METHACRYLATE LACQUER ACCORDINGLY TO COMPLY WITH CODES AND STANDARDS STATED HEREIN.

9. ALL WELDING TO CONFORM TO THE AMERICAN WELDING SOCIETY AWS D1.2 AND WITH CODES AND STANDARDS STATED HEREIN.

10. THIS REPORT IS A GENERIC STRUCTURAL DRAWING AND DOES NOT CONSTITUTE AT ALL A SHOP DRAWING FOR THE THE DIRECT MANUFACTURE OF THIS RAILING. RAILING CONTRACTOR IS RESPONSIBLE FOR MEETING OR EXCEEDING ALL APPLICABLE RAILING REQUIREMENTS AS WELL AS F.B.C., N.F.P.A. AND ADA MANUALS IN APPLYING THESE GENERIC DRAWINGS TO ACTUAL CONDITIONS PARTICULAR TO THIS PROJECT.

11. IT SHALL BE THE RESPONSIBILITY OF THE PERMIT HOLDER TO VERIFY THAT THE EXISTING STRUCTURE CAN SUSTAIN THE SUPERIMPOSED LOADS.

12. THIS REPORT PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, I.E. WHERE THE SITE CONDITIONS DEViate FROM THIS REPORT

13. CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION INCLUDING LIFE SAFETY OF THIS PRODUCT, BASED ON THIS REPORT PROVIDED HE/SHE DOES NOT DEVIATE FROM CONDITIONS DETAILED ON THIS DOCUMENT. CONSTRUCTION SAFETY AT SITE IS THE CONTRACTORS RESPONSIBILITY.

14. THIS REPORT WILL BE CONSIDERED IF ALTERED BY ANY MEANS.

15. 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 THIS REPORT ENGINEER OF RECORD ACTING AS A DELEGATED ENGINEER TO THIS REPORT ENGINEER SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWING FOR REVIEW.

16. ORIGINAL REPORT SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

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INDEX OF SHEETS 2 1/2" POST GLASS RAILING SYSTEM, MECHANICALLY FASTENED AT BOTTOM

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SHEET #2: COMPONENTS
SHEET #3: BILL OF MATERIAL
SHEET #4: GLAZING DETAILS
SHEET #5: TYPICAL RAILING ELEVATIONS
SHEET #6: VERTICAL SECTIONS
SHEET #7: PLANS
SHEET #8: HORIZONTAL SECTIONS
SHEET #9: OPTIONAL PLANS
SHEET #10: OPTIONAL PLANS
SHEET #11: BOTTOM RAIL CONNECTION AT CORNER POST (OFFSET GLASS)
SHEET #12: BOTTOM RAIL CONNECTION AT INT./END POST (OFFSET GLASS)
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SHEET #14: BOTTOM RAIL CONNECTION AT INT. END POST (CENT. GLASS)
SHEET #15: INTERMEDIATE RAIL CONNECTION AT POST (CENT. GLASS)
SHEET #16: MAX. A.S.D. DESIGN PRESSURE RATING

MAXIMUM RATED ASD DESIGN PRESSURE

+160 / - 160 PSF

FOR DETAILED APPROVED PRESSURE RATINGS, REFER TO THE INFORMATION IN THE MAX. ASD DESIGN PRESSURE RATING SCHEDULE ON PAGE S16.

VISIT ECALC.IO/37039

FOR HELPFUL RESOURCES, SITE SPECIFIC JOB ORDERING & MORE INFORMATION ABOUT THIS PRODUCT & RELATED SERVICES



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2-1/2" POST GLASS RAIL SYSTEM
MECHANICALLY FASTENED AT BOTTOM

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	JEM	FLB	04/05/16
FBC 2020 UPDATE	TAE	AJP	02/16/21

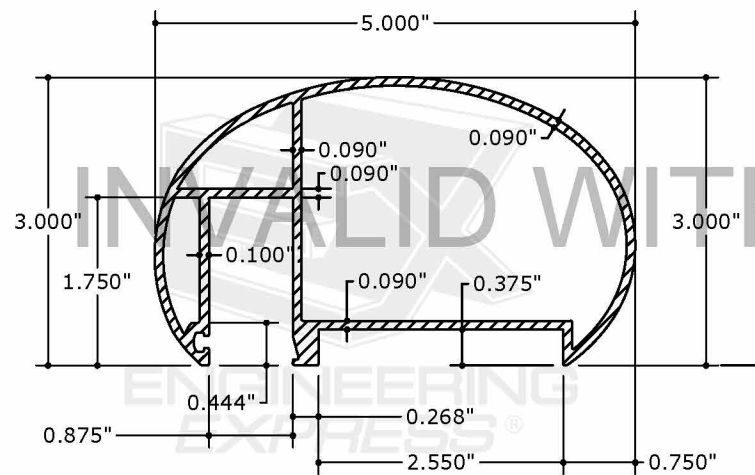
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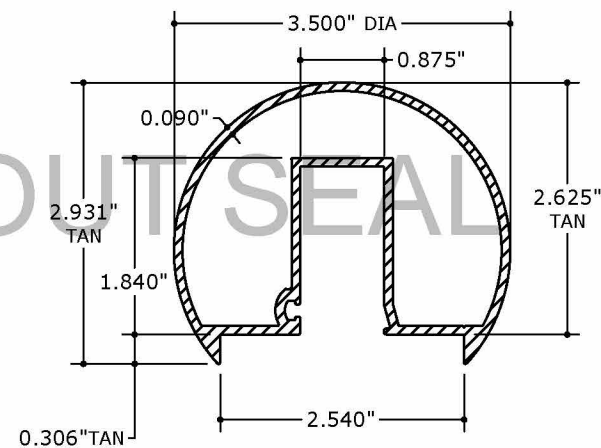
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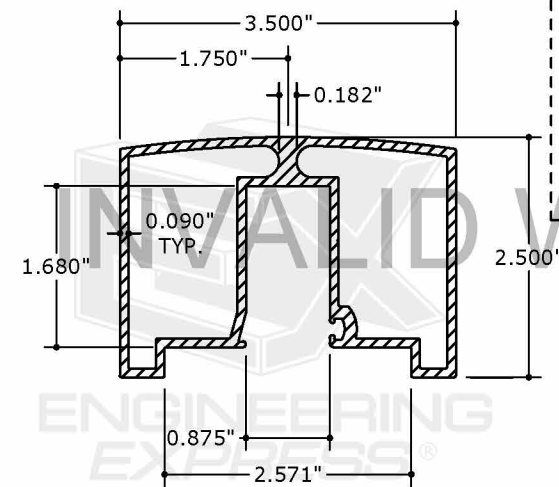
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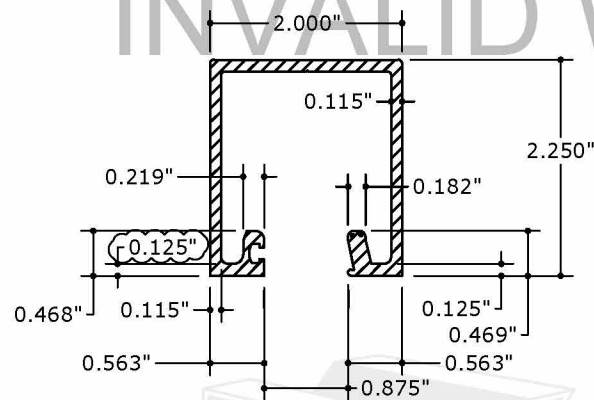
① OFFSET TOP RAIL/
2 1/2" POST
6083-T6 ALLOY
28-63-760
K-FH08961



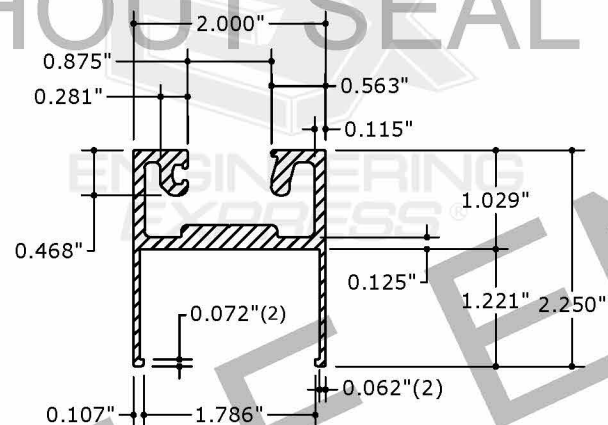
③ CENTERLINE 3.5" TOP CAP/
2 1/2" POST
6083-T6 ALLOY
28-63-700
K-FH08956



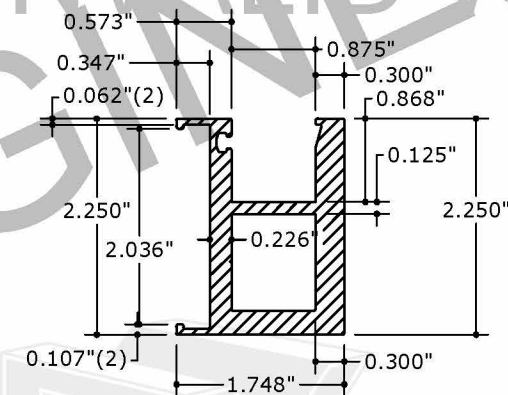
④ ALTERNATE CENTERLINE 3.5"
TOP CAP/ 2 1/2" POST
6083-T6 ALLOY
28-63-710
K-FH08958



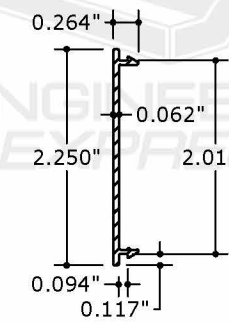
6 **WELDED CENTERLINE
INTERMEDIATE RAIL**
6083-T6 ALLOY
28-63-720
K-FS08960



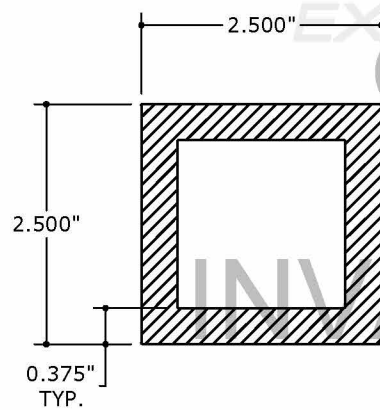
7 CENTERLINE BOTTOM RAIL
6063-T6 ALLOY FOR 44" MAX. RAILING
28-63-715
K-FS08959



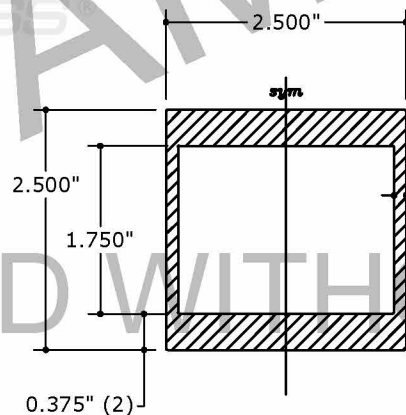
8 FASTENED OFFSET
BOTTOM RAIL
6063-T6 ALLOY
28-63-725
K-FH08962



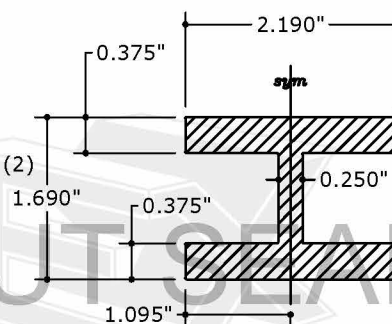
⑨ COVER PLATE FOR 8
6063-T6 ALLOY
28-63-755
K-FS08970



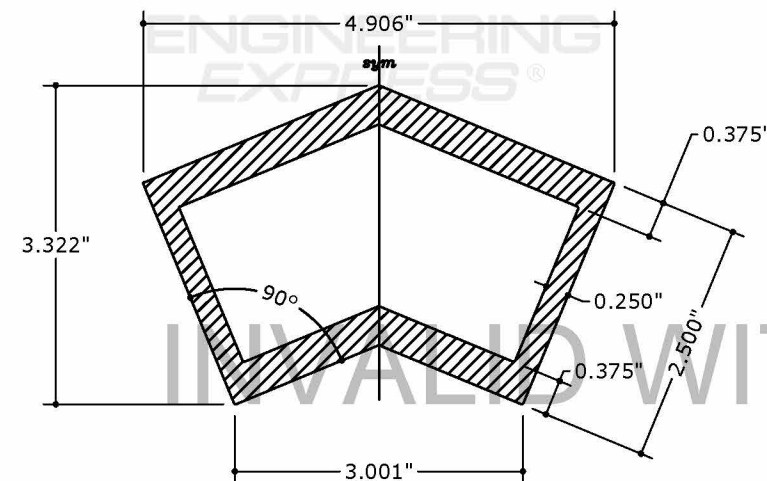
10 2 1/2" CORNER POST
6005-T5 ALLOY
28-60-730
K-FH08963



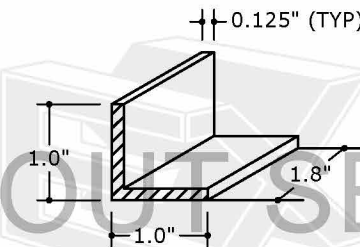
⑪ 2 1/2" BASIC
INTERIOR END POST
6005-T5 ALLOY
28-60-735
K-FH08964



14 2 1/2" POST 11
INSERT
6005-T5 ALLOY
28-60-740
K-FS08967



16 135° 2 1/2" INTERIOR
CORNER POST
6005-T5 ALLOY
28-60-770
K-FH09660



25 1"X1"X1/8"X1.8" LONG
ALUMINUM ANGLE
11-60-225
K-FS00492

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**2-1/2" POST GLASS RAIL SYSTEM
MECHANICALLY FASTENED AT BOTTOM**

REMARKS	DATE	CHKD	DRWN	DATE
INITIAL ISSUE	04/05/16	FLB	JEM	
FBC 2010 UPDATE	02/16/21	AJP	TAE	

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BILL OF MATERIALS: 2 1/2" POST GLASS RAILING SYSTEM, MECHANICALLY FASTENED AT BOTTOM

COMPONENT #	DESCRIPTION	MATERIAL	NOTES
1	OFFSET TOP RAIL / 2 1/2" POST	6063-T6 ALLOY	WELDED TO POST
3	CENTERLINE 3.5" TOP CAP/ 2 1/2" POST	6063-T6 ALLOY	WELDED TO POST
4	ALTERNATE CENTERLINE 3.5" TOP CAP/ 2 1/2" POST	6063-T6 ALLOY	WELDED TO POST
6	WELDED CENTERLINE INTERMEDIATE RAIL	6063-T6 ALLOY	USE AT 130psf. MAX.
7	CENTERLINE BOTTOM RAIL	6063-T6 ALLOY	
8	MECHANICALLY FASTENED OFFSET BOTTOM RAIL	6063-T6 ALLOY	
9	COVER PLATE FOR (8)	6063-T6 ALLOY	
10	2 1/2" CORNER POST	6063-T6 ALLOY	
11	2 1/2" INTERIOR/END POST	6063-T6 ALLOY	
14	2 1/2" POST 11 INSERT	6063-T6 ALLOY	
16	135' 2 1/2" INTERIOR/CORNER POST	6063-T6 ALLOY	(7),(8) ONLY MECHANICALLY CONNECTED TO POST
18	7/16" NOMINAL LAMINTATED GLASS: 3/16" TEMPERED GLASS + 0.035" SENTRY GLASS LAMINATE BY DUPONT + 3/16" TEMPERED GLASS	LAMINATED GLASS	SEE SCHEDULE ON SHEET 16 FOR LIMITATIONS
19	9/16" NOMINAL LAMINATED GLASS: 1/4" TEMPERED GLASS + 0.035" SENTRY GLASS LAMINATE BY DUPONT + 1/4" TEMPERED GLASS	LAMINATED GLASS	SEE SCHEDULE ON SHEET 16 FOR LIMITATIONS
20	W514/ INTERIOR GLAZING GASKET BY REED RUBBER PRODUCTS	TPV	USE AT GLASS (18) & GLASS (19)
21	B140/ EXTERIOR GLAZING GASKET BY REED RUBBER PRODUCTS	TPV	USE AT GLASS (18)
22	B090/ EXTERIOR GLAZING GASKET BY REED RUBBER PRODUCTS	TPV	USE AT GLASS (19)
23	SETTING BLOCK FOR (7), 1/8"x1"x4", DUROMETER 80 MIN.	NEOPRENE	BN02164, LOCATED @ 1/4" POINTS
23a	SETTING BLOCK FOR (8), 1/4"x7/8"x4", DUROMETER 80 MIN.	NEOPRENE	BN04164, LOCATED @ 1/4" POINTS, CUT 1/8" FROM 1" WIDE
24	QUICKCRETE NON SHRINK PRECISION GROUT, MODEL# 1585-00, MANUFACTURED BY QUICKCRETE	PORTLAND CEMENT	f'c= 9000 psi AT 3 hrs; 9500 psi AT 7 DAYS & 12500 psi AT 28 DAYS
25	1" x 1" x 1/8" 1 13/16" LONG ALUMINUM BRACKET ANGLE FOR (7)	6063-T6 ALLOY	

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2-1/2" POST GLASS RAIL SYSTEM
MECHANICALLY FASTENED AT BOTTOM

REMARKS	DRWN	CHKD	DATE
INITIALS	JEM	FLB	04/05/16
FBC 2020 UPDATE	TAE	AJP	02/16/21

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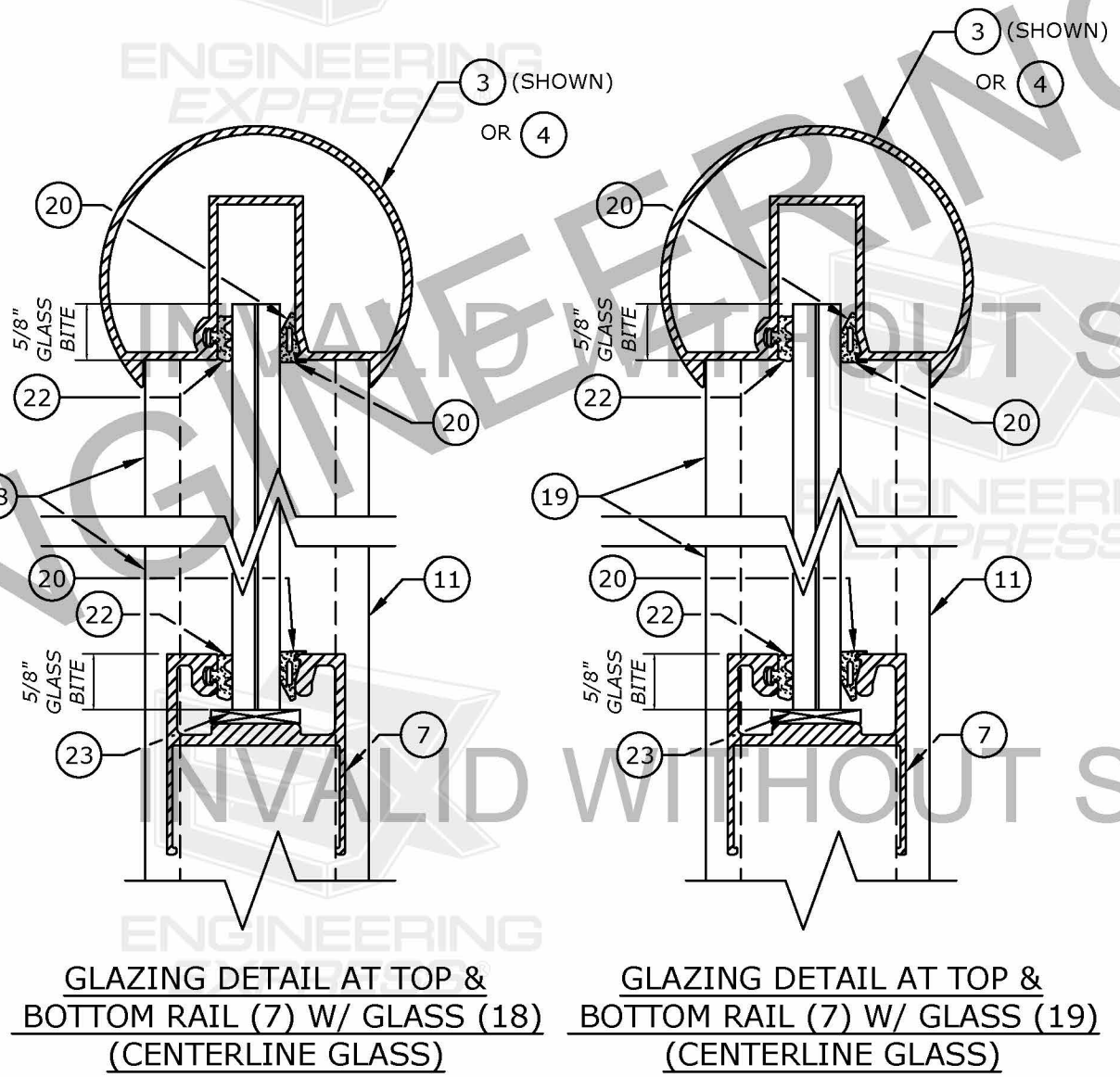
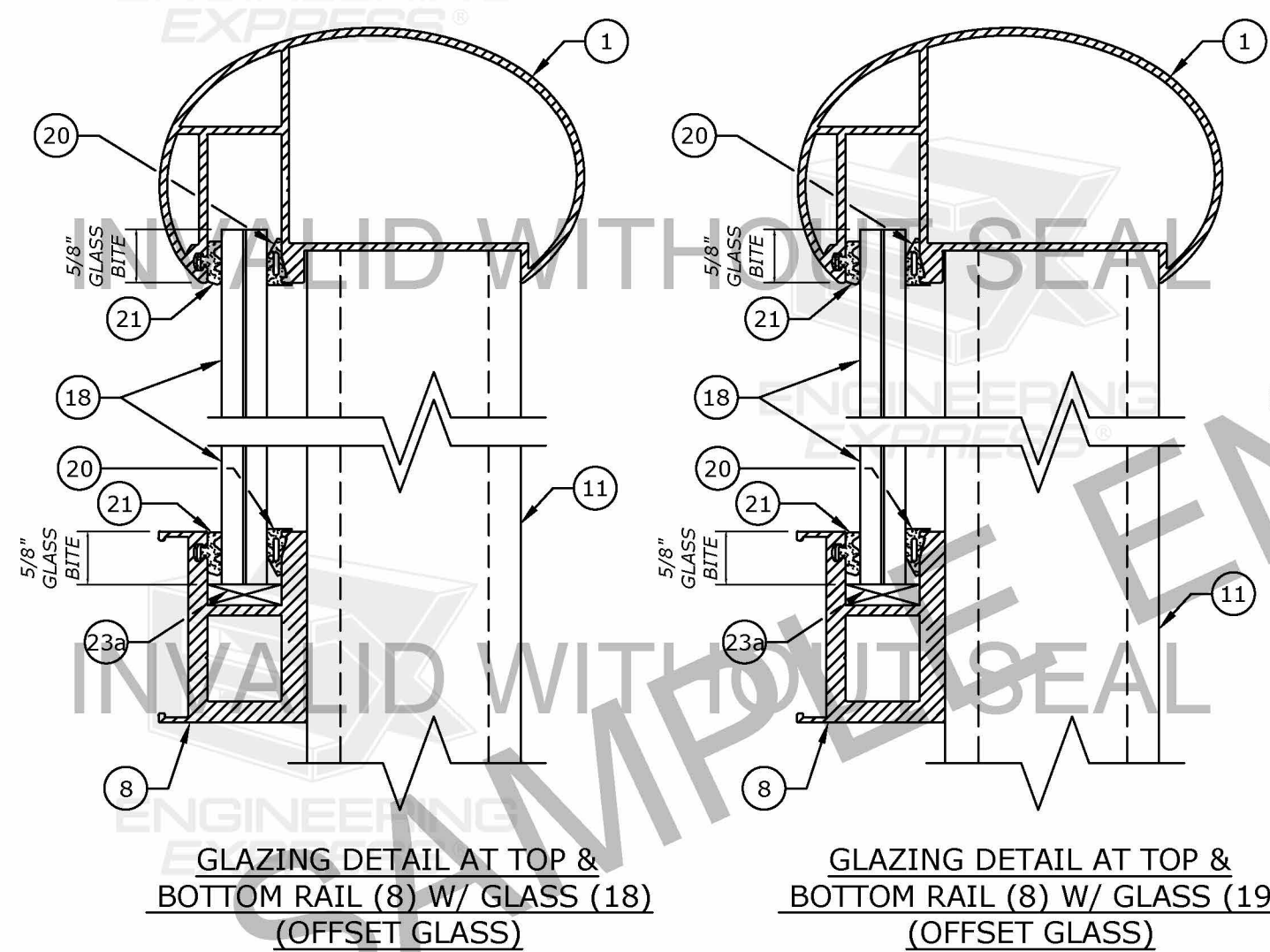
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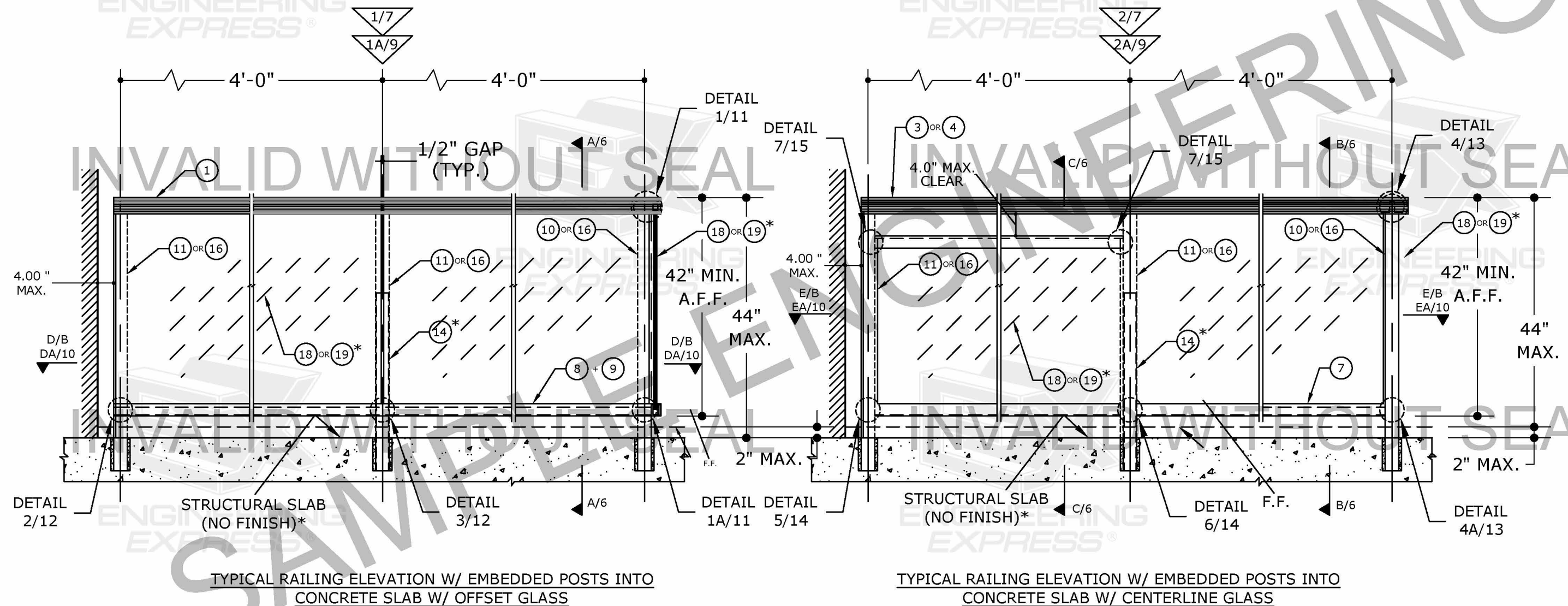
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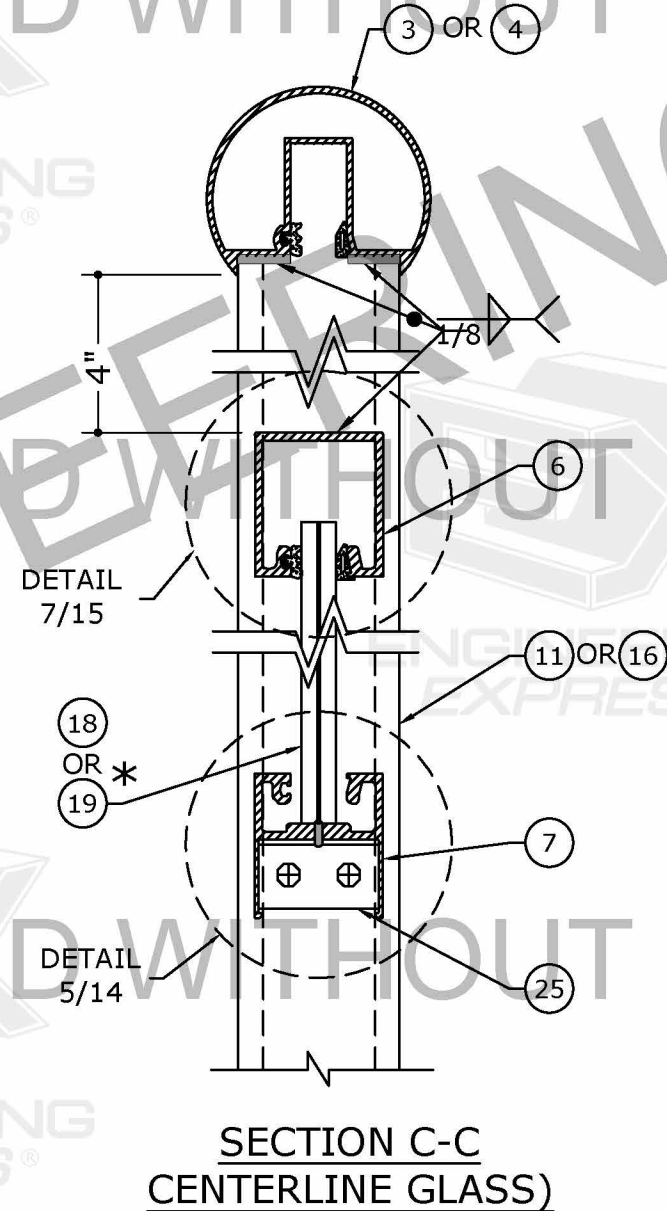
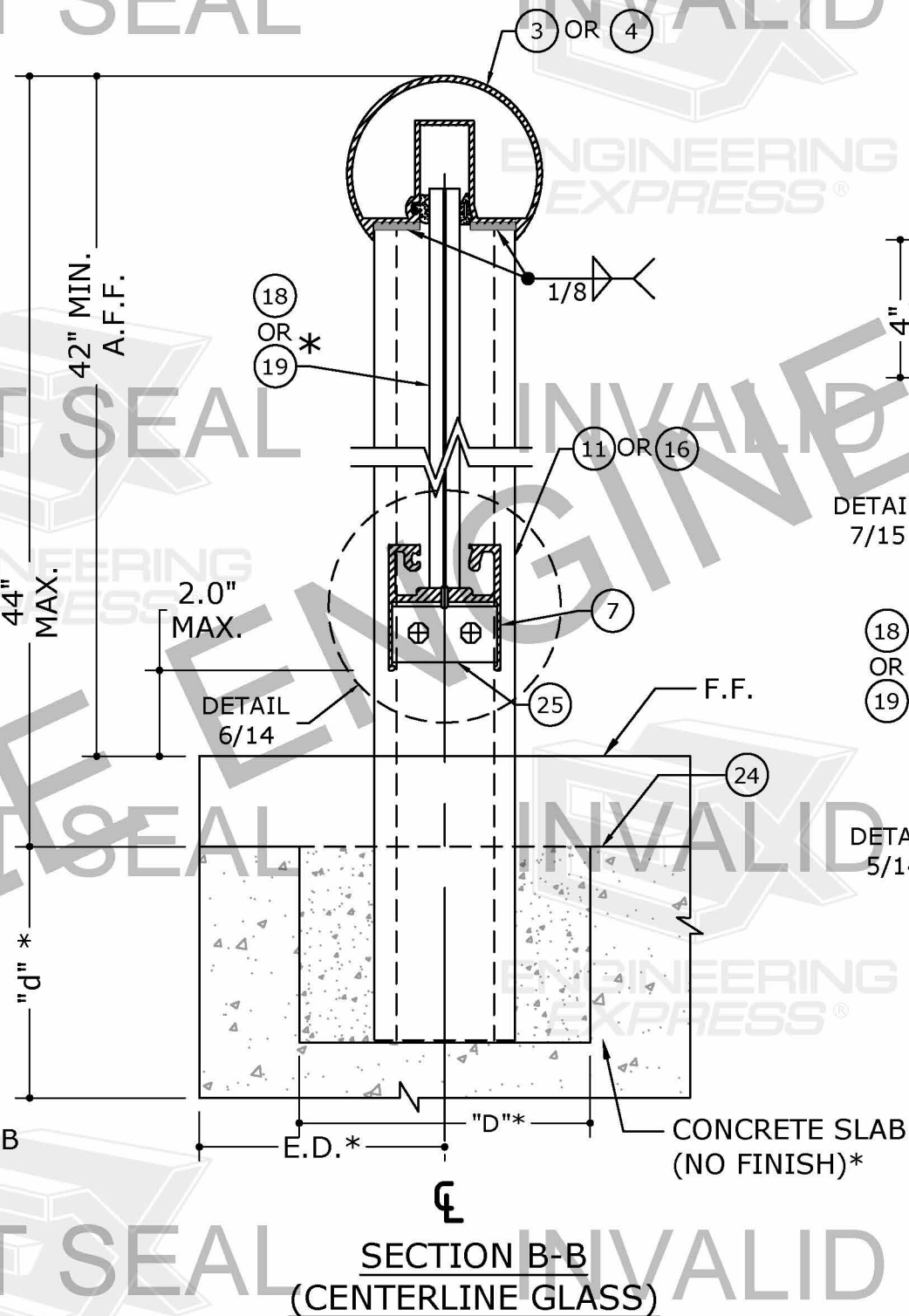
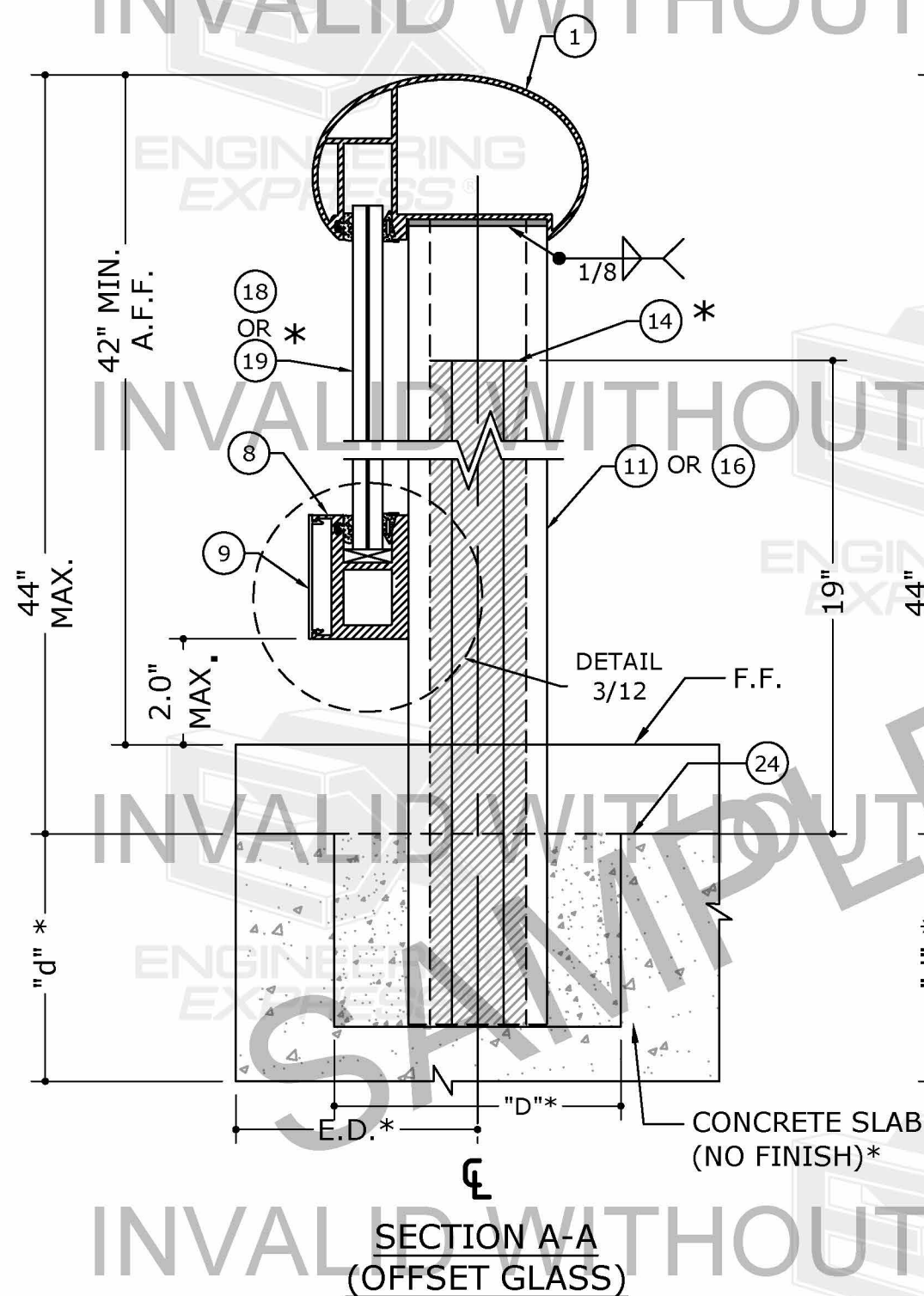
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* SEE SCHEDULE ON SHEET 16.

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2-1/2" POST GLASS RAIL SYSTEM
MECHANICALLY FASTENED AT BOTTOM

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FBC 2020 UPDATE	TAE	AJP	02/16/21

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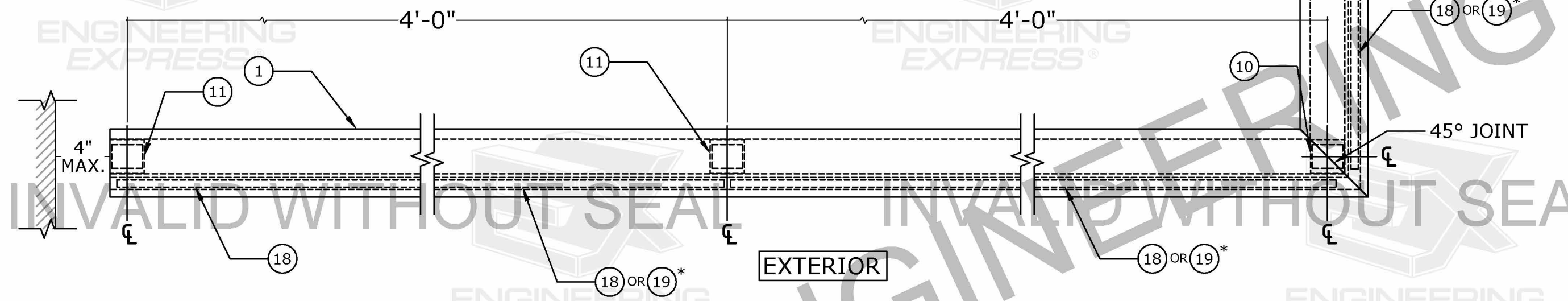
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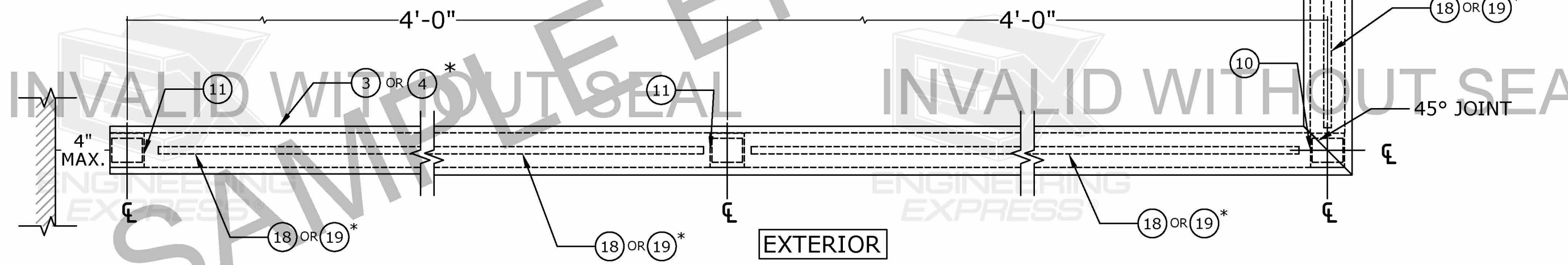
S7 OF 16

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PLAN 1



PLAN 2 : TYPICAL RAILING W/ EMBEDDED POSTS INTO
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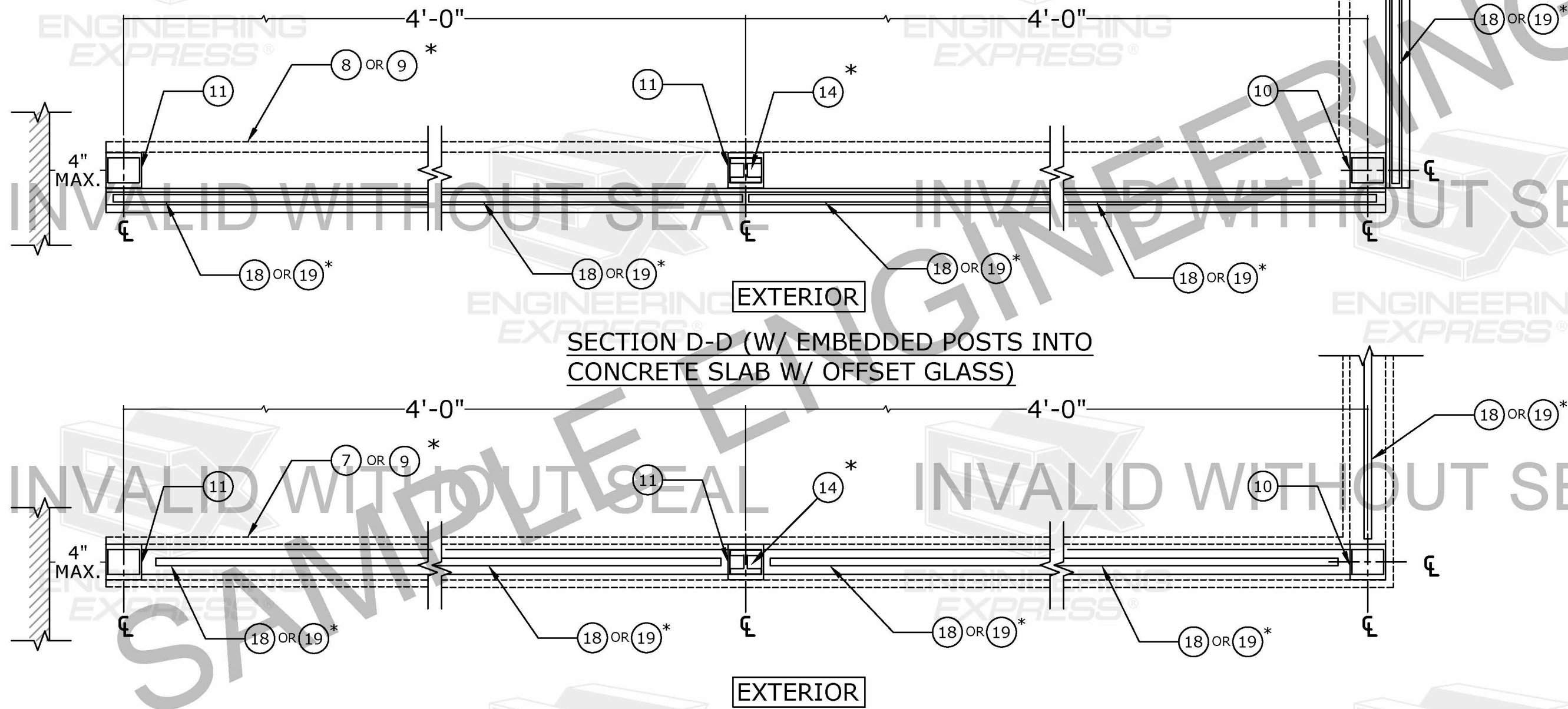
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SECTION D-D (W/ EMBEDDED POSTS INTO
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SECTION E-E (W/ EMBEDDED POSTS INTO
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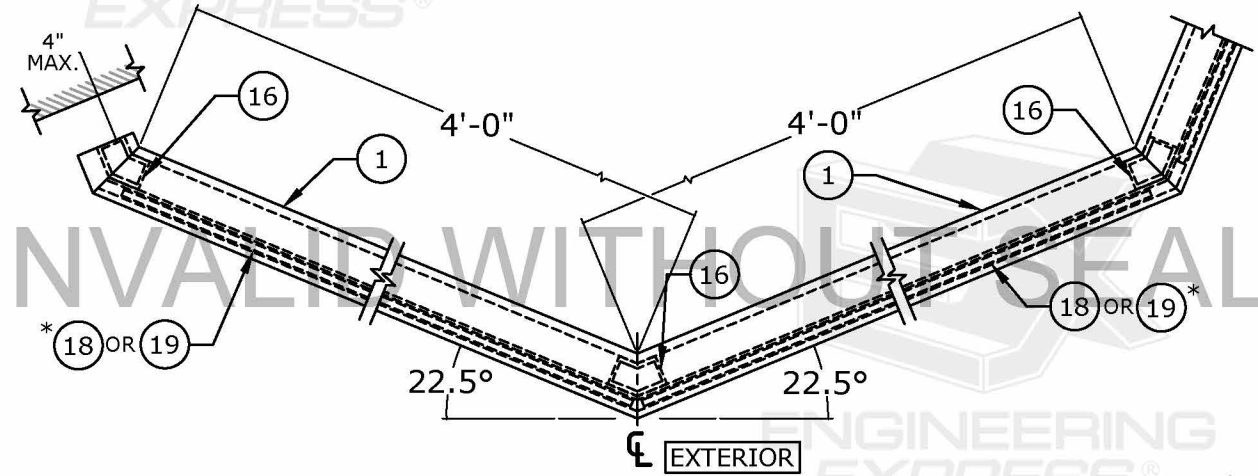
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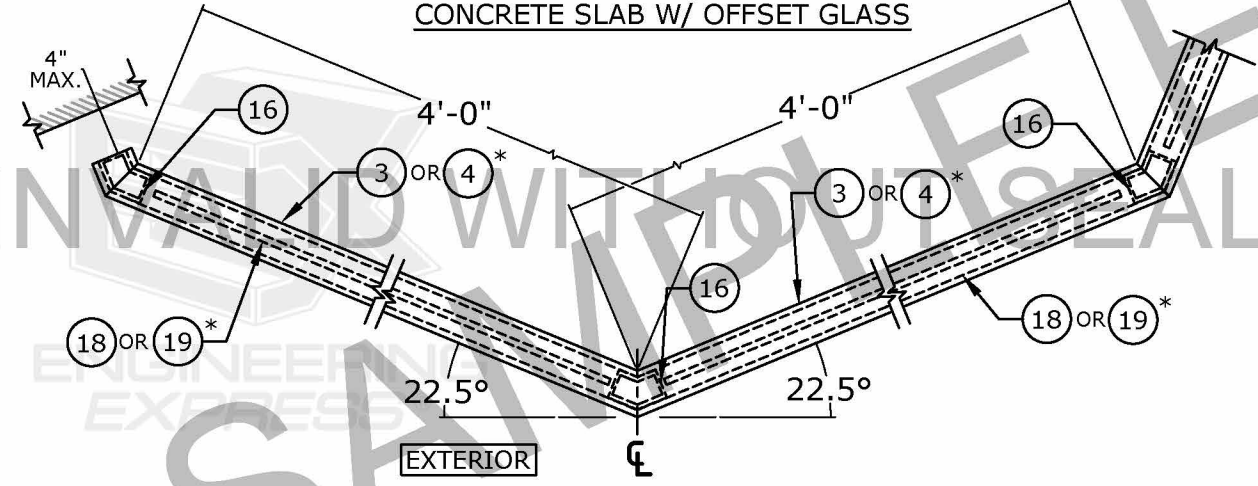
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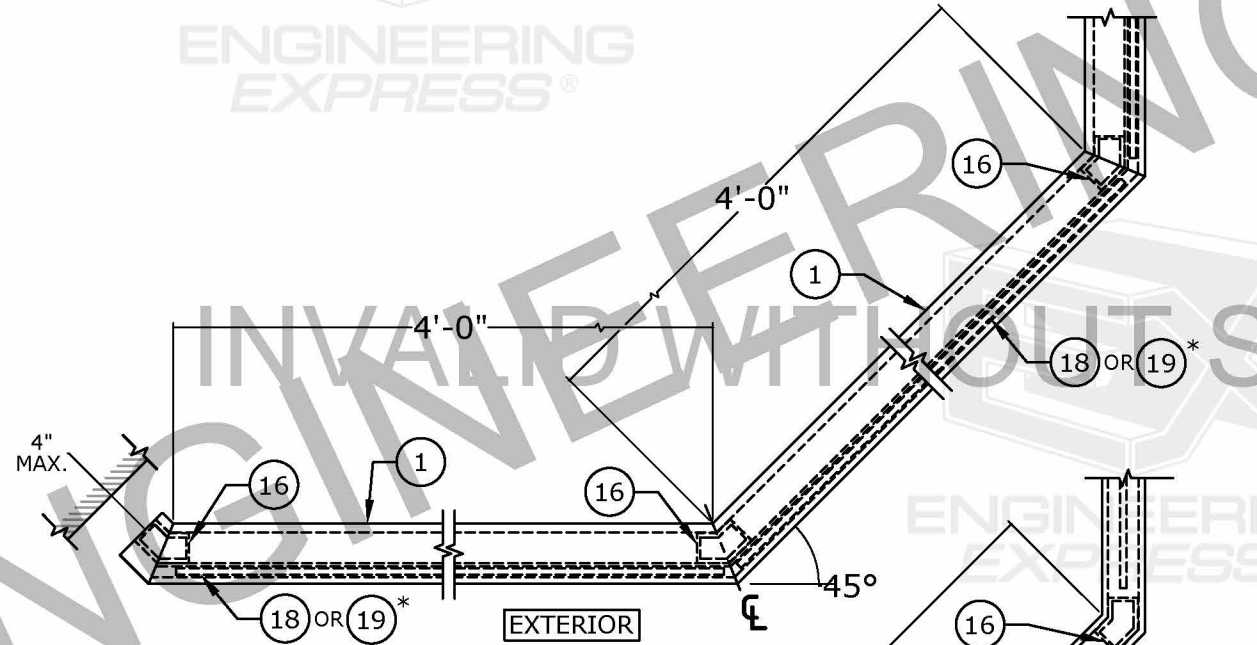
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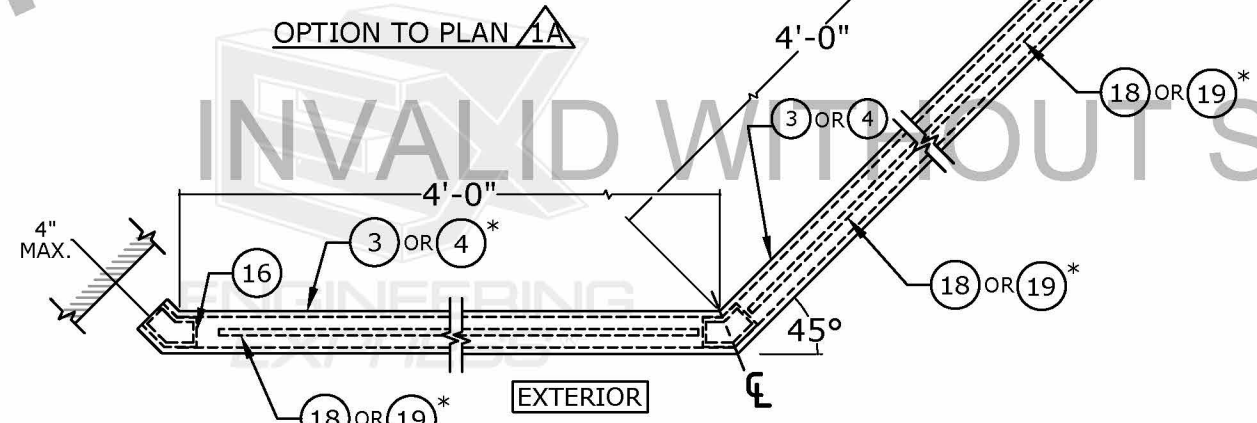
PLAN 1A :TYPICAL RAILING W/ EMBEDDED POSTS INTO
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PLAN 2A :TYPICAL RAILING W/ EMBEDDED POSTS INTO
CONCRETE SLAB W/ CENTERLINE GLASS



OPTION TO PLAN 1A



OPTION TO PLAN 2A

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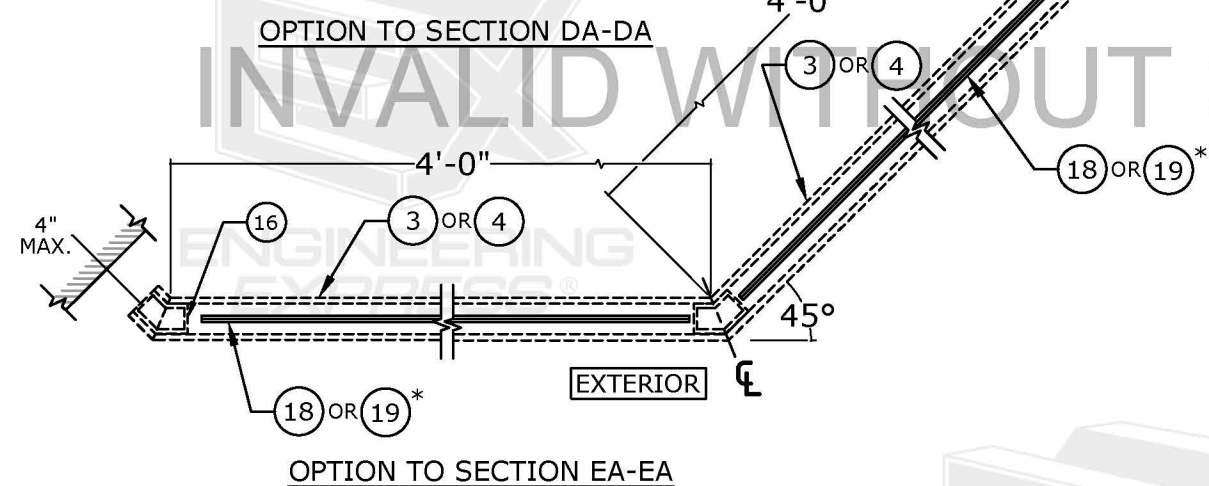
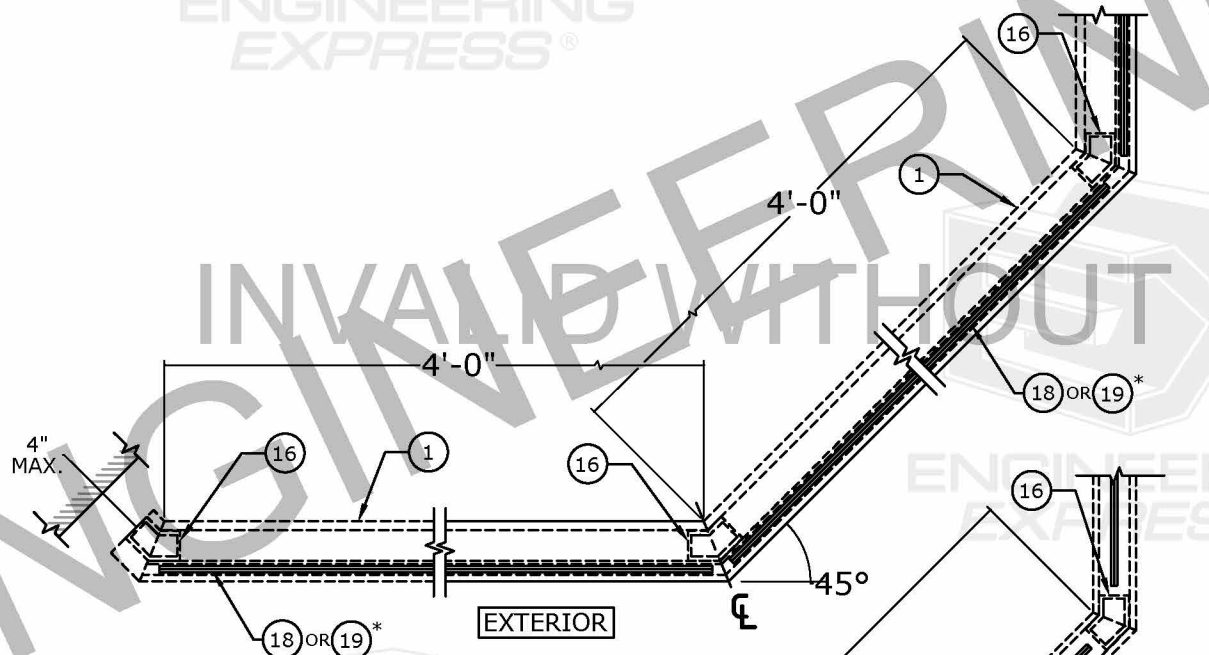
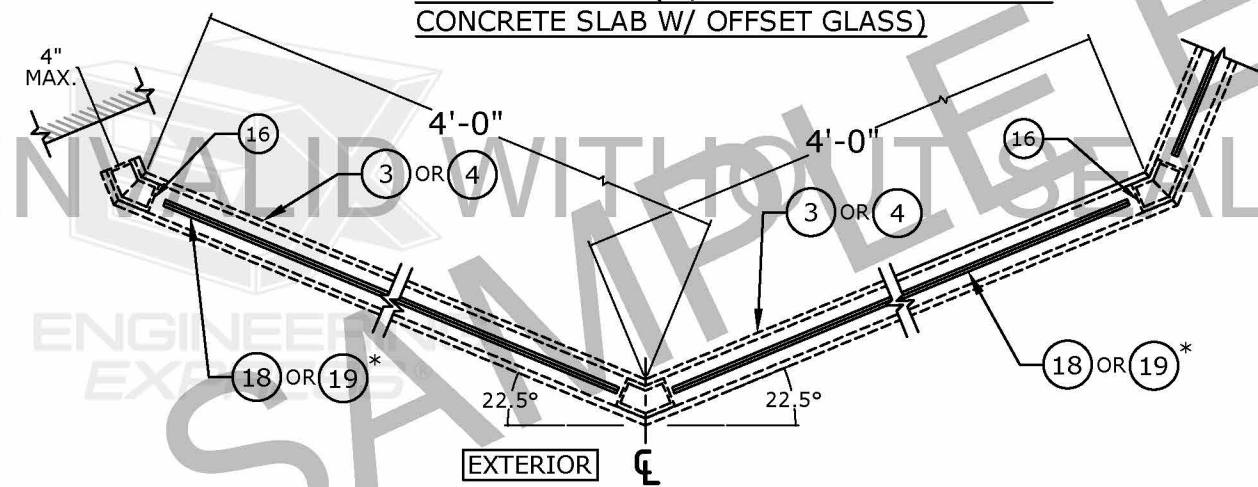
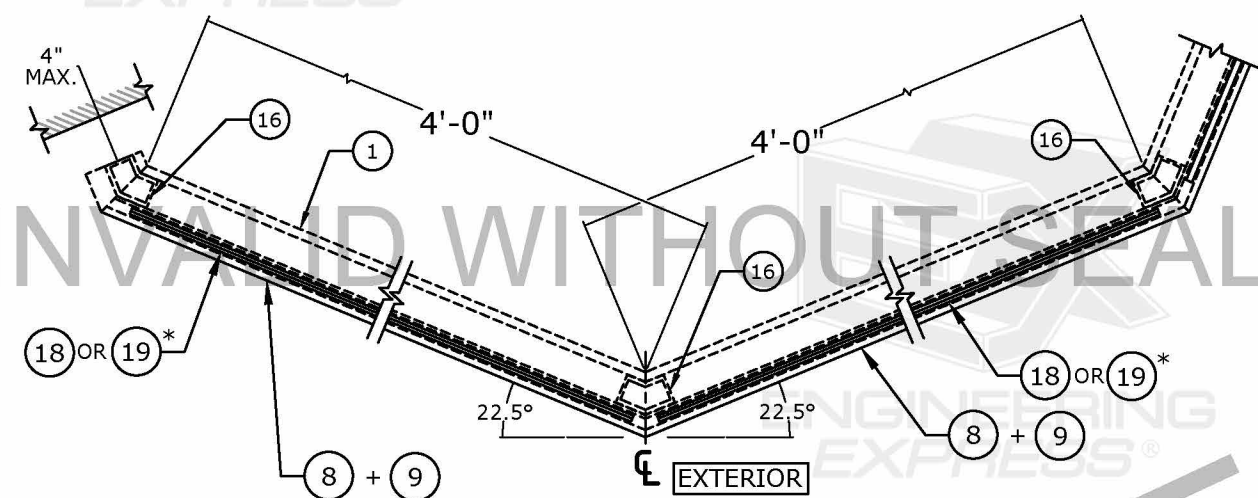
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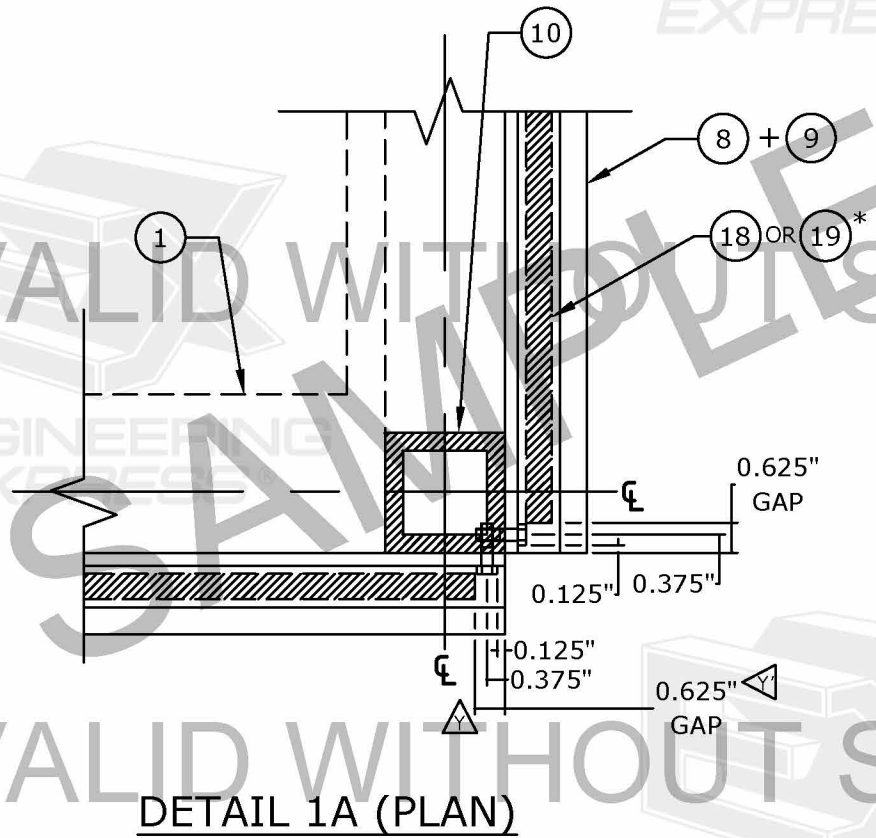
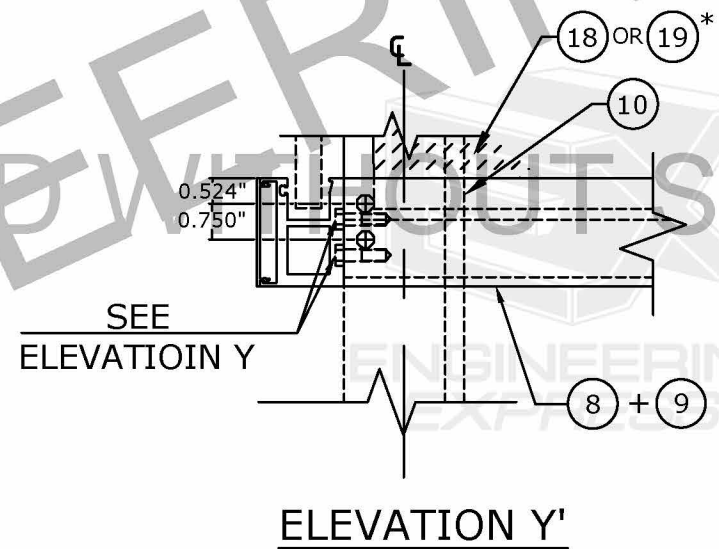
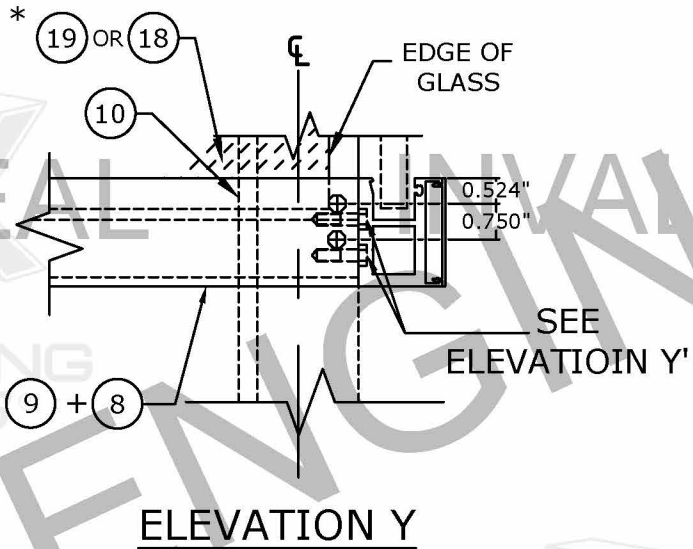
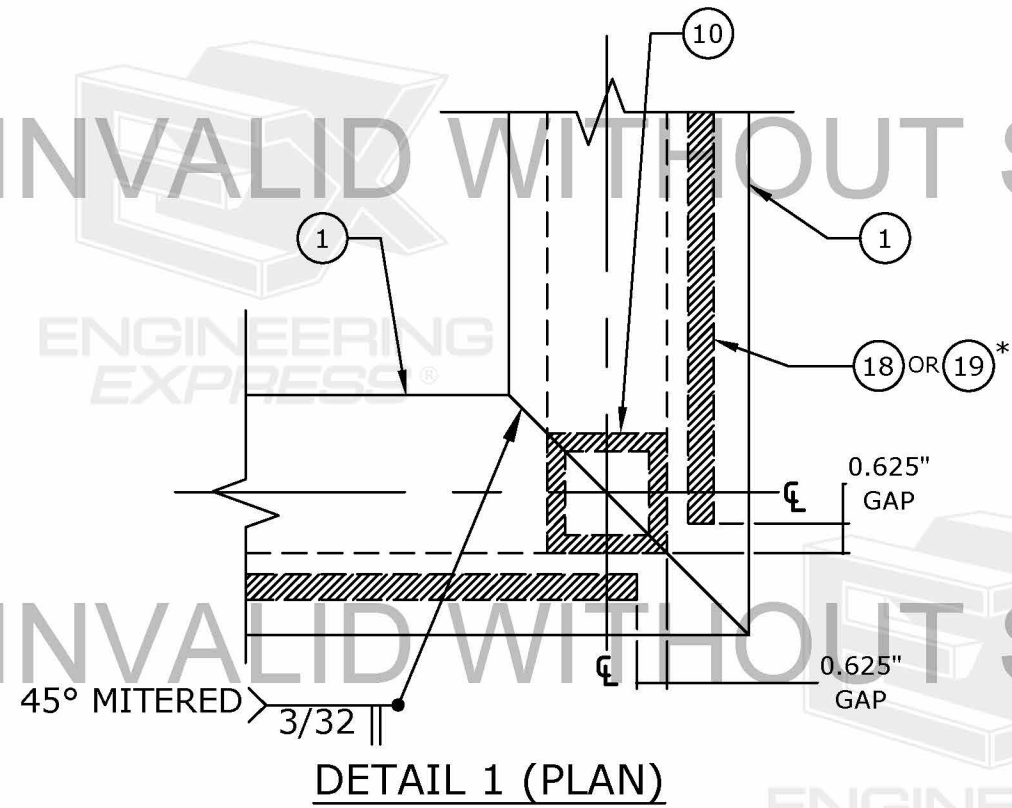
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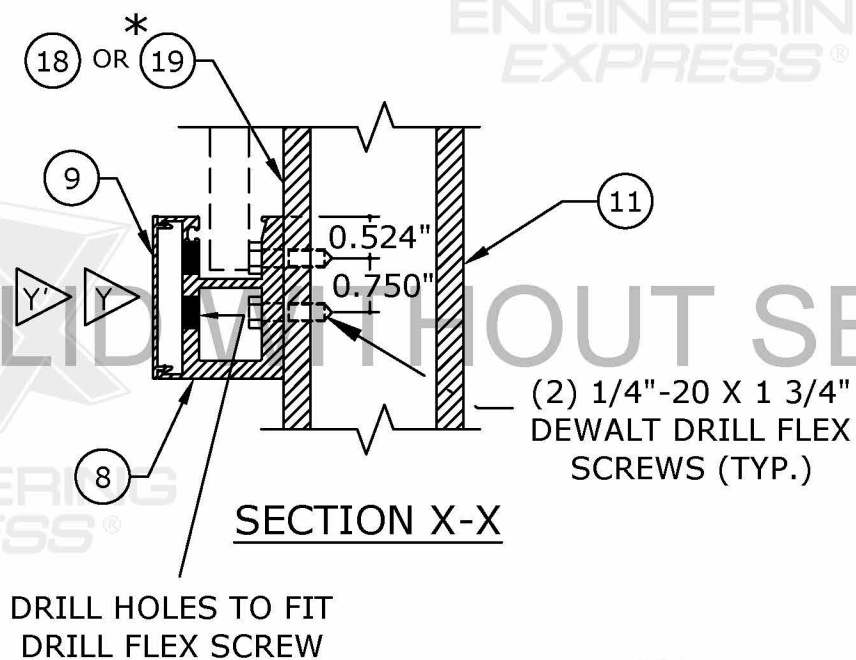
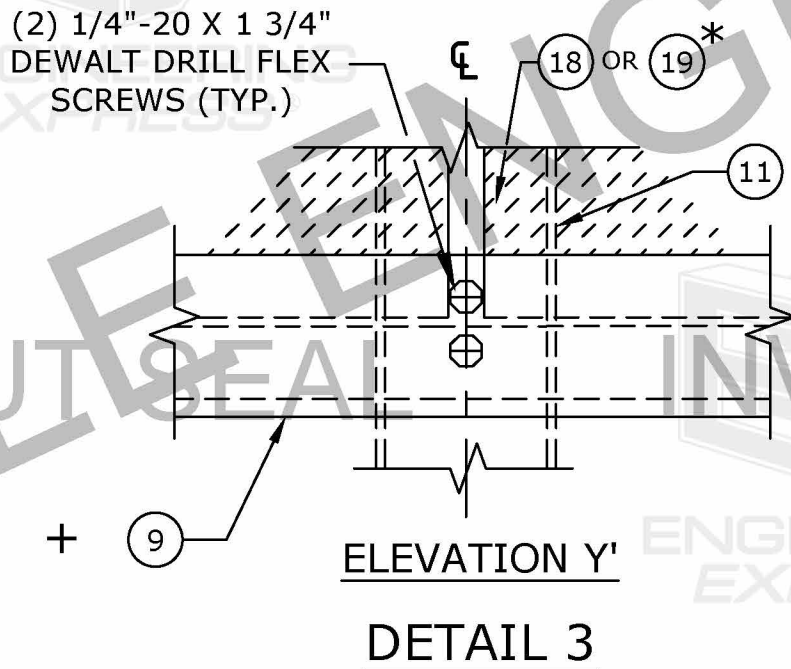
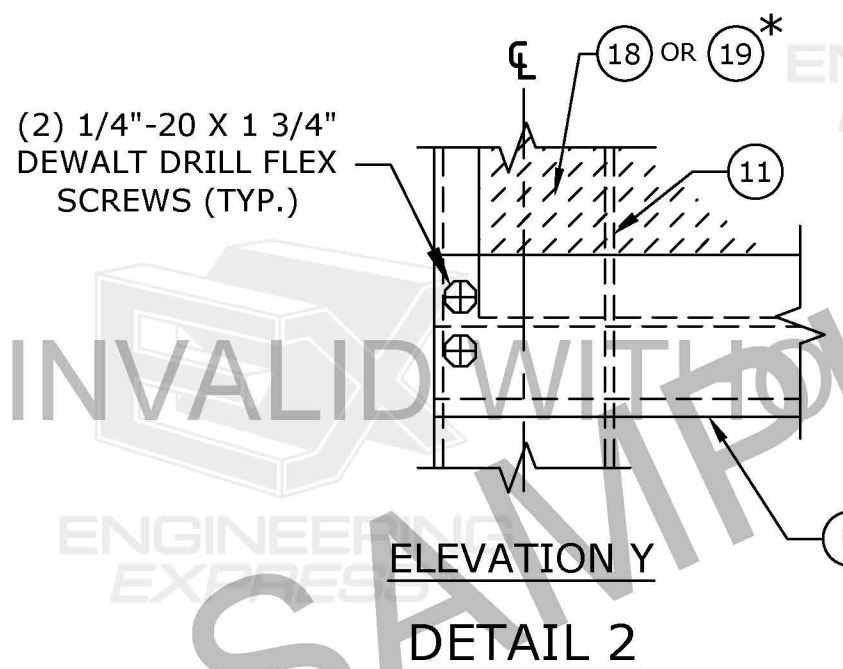
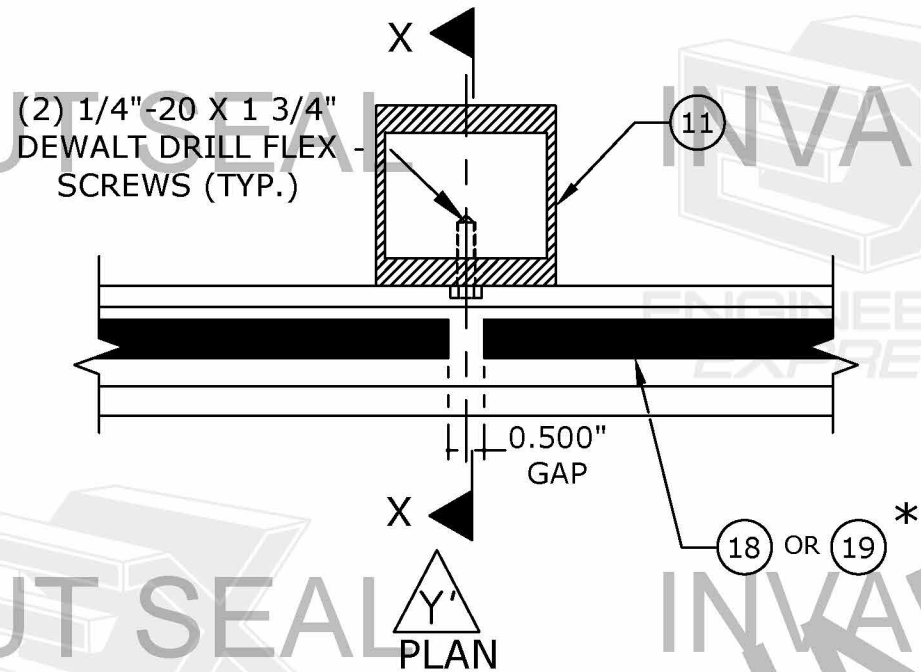
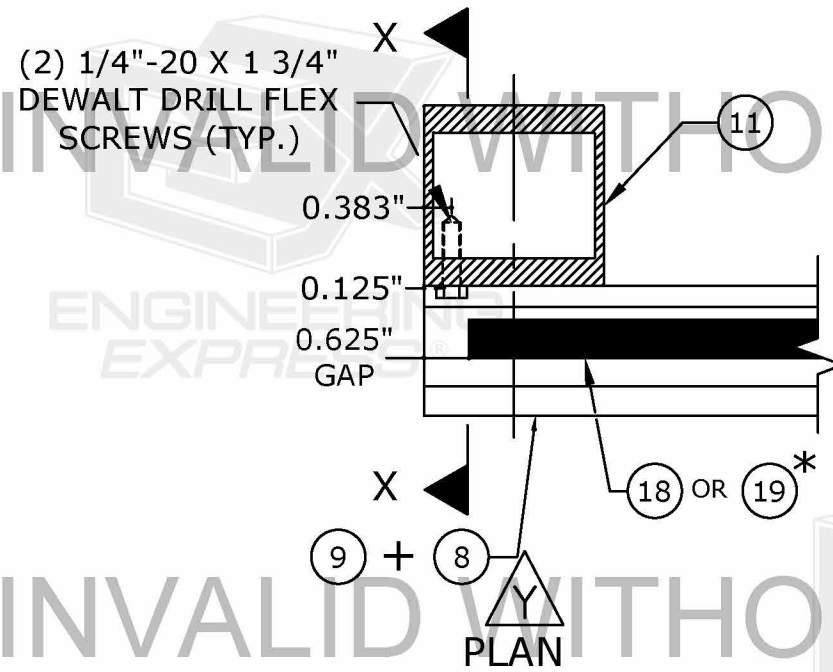
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BOTTOM RAIL CONNECTION AT INT./END POST (OFFSET GLASS)

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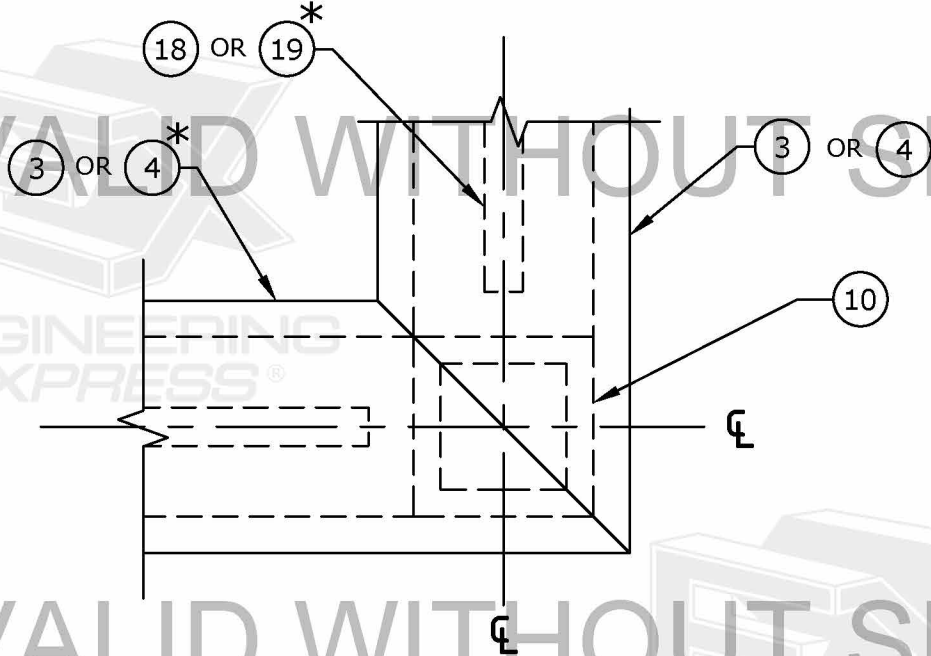
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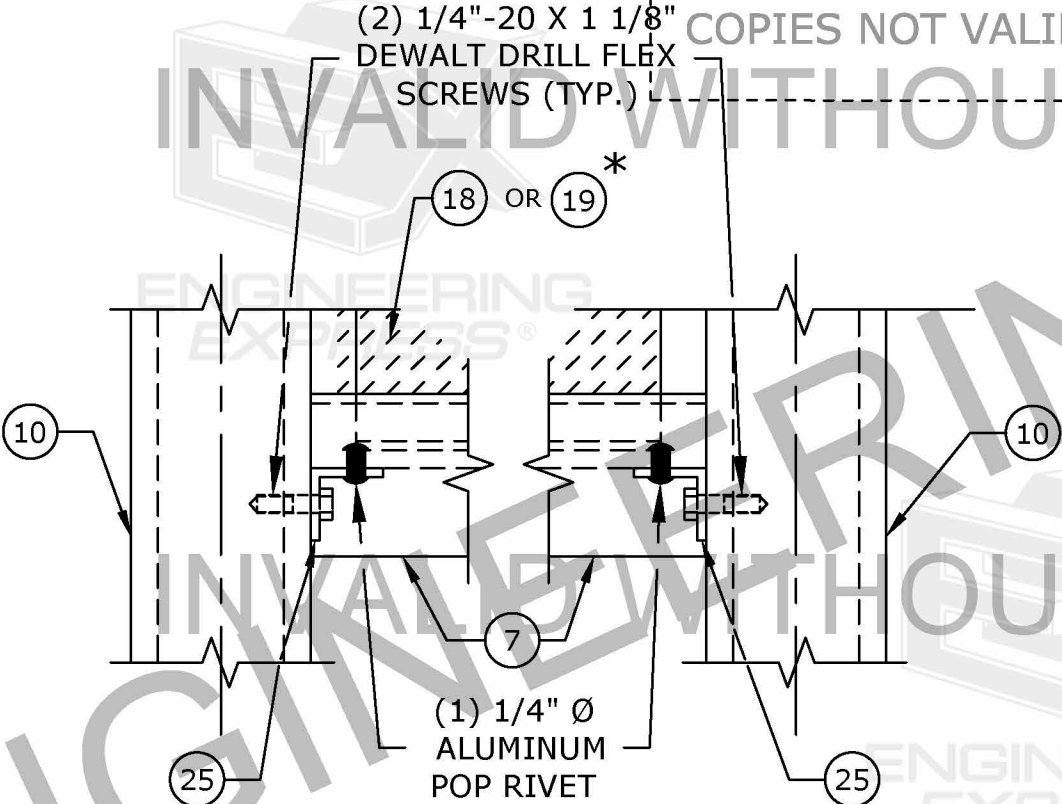
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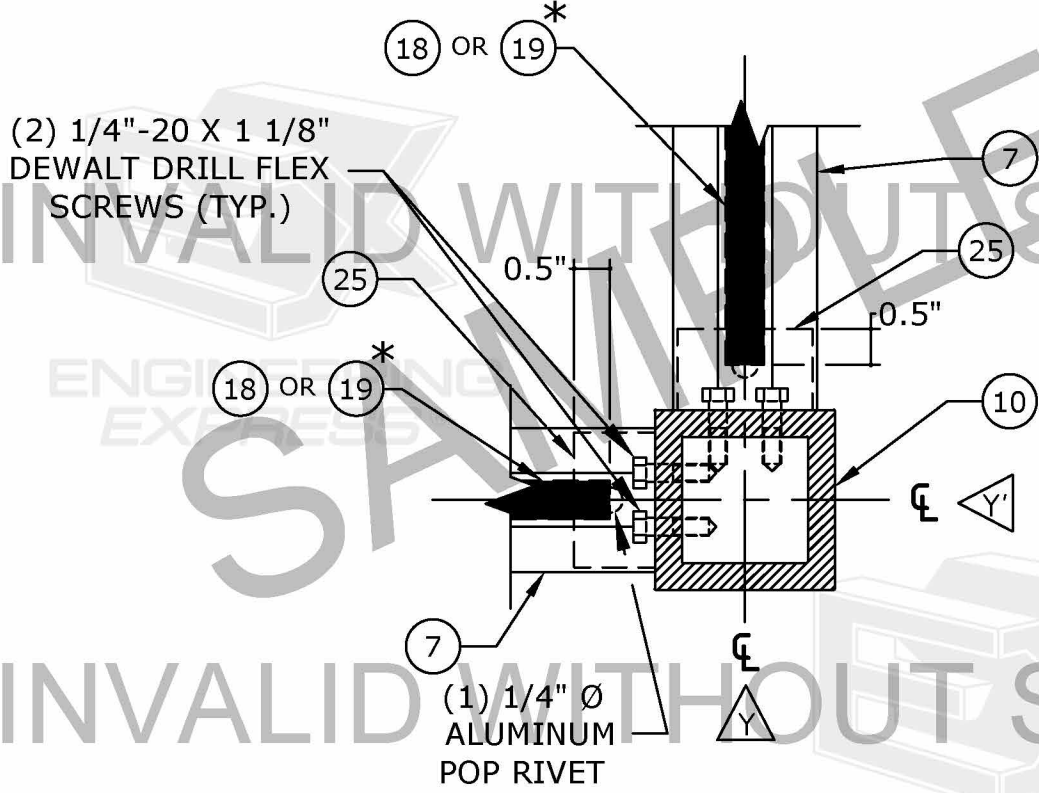
DETAIL 4 (PLAN)



ELEVATION Y

ELEVATION Y'

BOTTOM RAIL CONNECTION AT CORNER POST
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DETAIL 4A (PLAN)

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**2-1/2" POST GLASS RAIL SYSTEM
MECHANICALLY FASTENED AT BOTTOM**

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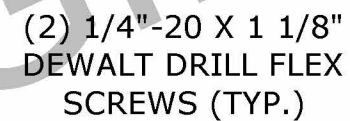
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SECTION X-X

BOTTOM RAIL CONNECTION AT INT./END POST
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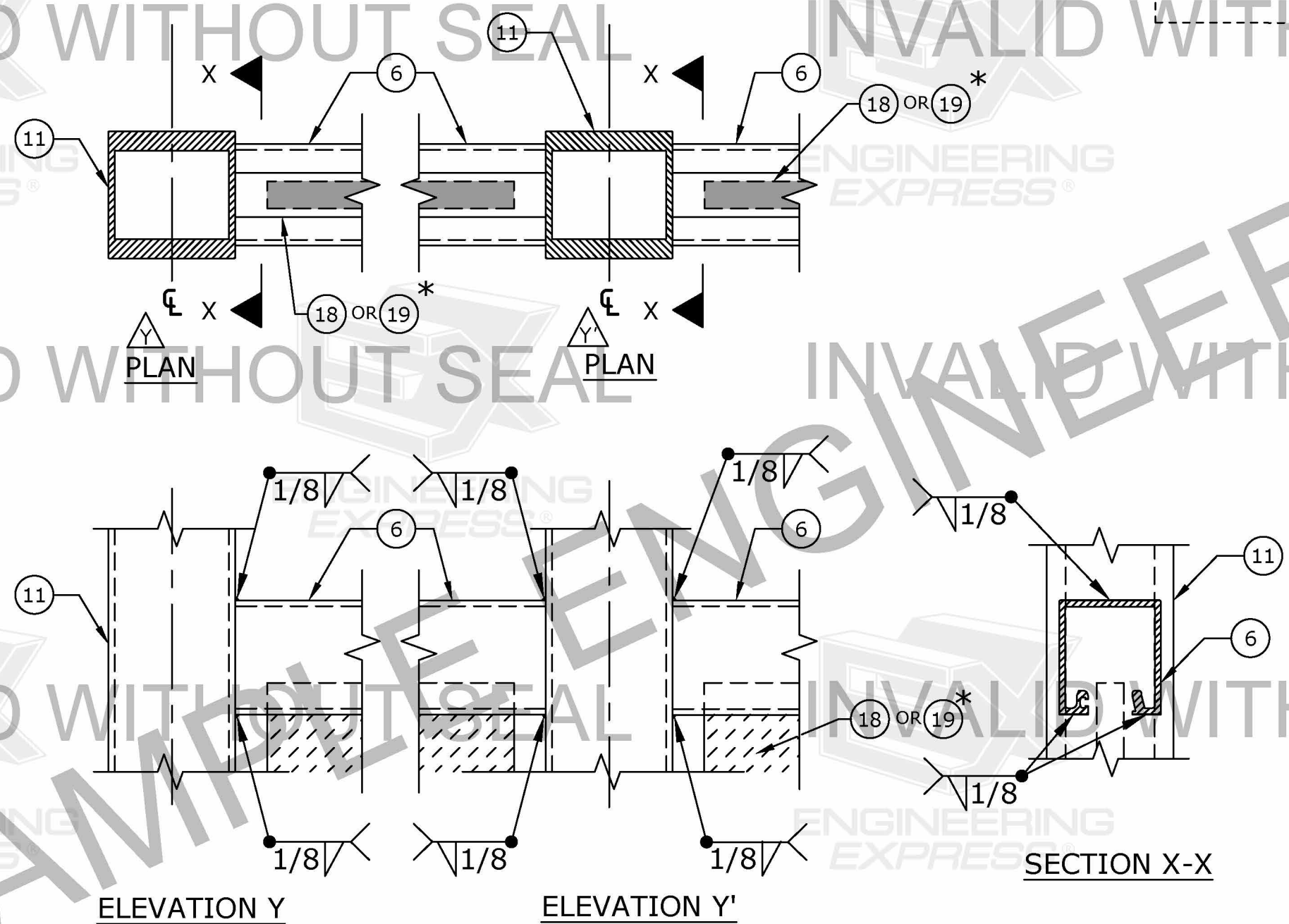
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DETAIL 7
INTERMEDIATE RAIL CONNECTION
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MAX. ASD DESIGN PRESSURE RATING	REQ'D INTERIOR & END POST	REQ'D HOLE FOR POST AT CONCRETE		REQ'D GLASS	MAX. POST SPACING	E.D.
		f'c=3 Ksi	f'c=6 Ksi			
+ 80,-80 psf OR LESS	A, A1*	D=5"Ø d=5"	D=5"Ø d=4"	18	48"	5"
	A, A1*	D=5"Ø d=4 3/4"	D=5"Ø d=4"	18	42"	5"
	A, A1*	D=5"Ø d=4 1/4"	D=5"Ø d=4"	18	36"	5"
+ 81,-81 psf TO + 120, -120 psf	A, A1*	D=5"Ø d=5 3/4"	D=6"Ø d=5"	18	48"	6"
	A, A1*	D=5"Ø d=5 1/4"	D=6"Ø d=5"	18	42"	6"
	A, A1*	D=5"Ø d=5"	D=6"Ø d=5"	18	36"	6"
+ 121,-121 psf TO + 140, -140 psf	B, A1*	D=5"Ø d=6 1/4"	D=6"Ø d=4 1/4"	18 ^Δ , 19	48"	6"
	B, A1*	D=5"Ø d=5 3/4"	D=6"Ø d=4"	18 ^Δ , 19	42"	6"
	B, A1*	D=5"Ø d=5 1/4"	D=6"Ø d=4"	18 ^Δ , 19	36"	6"
+ 141,-141 psf TO + 160, -160 psf	B, A1*	D=5"Ø d=6 3/4"	D=6"Ø d=4 1/2"	19	48"	6"
	B, A1*	D=5"Ø d=6 1/4"	D=6"Ø d=4 1/4"	19	42"	6"
	B, A1*	D=5"Ø d=5 3/4"	D=5"Ø d=5 3/4"	19	36"	6"

* USE D=7" POST A1 FOR REQ'D HOLE AT POST

** (C) CORNER POST IS ALLOWED FOR ALL 2 1/2" POST SYSTEM

Δ USE GLASS 18 ONLY UP TO 130 psf ASD DESIGN PRESSURE RATING
USE GLASS 19 FOR ASD DESIGN PRESSURE RATING FOR 131 TO 140 psf

11 2 1/2" BASIC
INTERIOR END POST
6005-T5 ALLOY
28-60-735
K-FH08964

POST A

10 2 1/2" CORNER POST
6005-T5 ALLOY
28-60-730
K-FH08963

POST C**

11 2 1/2" BASIC
INTERIOR END POST
6005-T5 ALLOY
28-60-735
K-FH08964

⑩ 2 1/2" CORNER POST
6005-T5 ALLOY
28-60-730
K-FH08963

POST B

16 135° 2 1/2" INTERIOR
CORNER POST
6005-T5 ALLOY
28-60-770
K-FH09660

POST A1

05/10/2021 - 9:27am thayer C:\Users\thayer\appdata\local\temp\AcPublish_21160\21-37039 2.5in GRS_mech fast.dwg