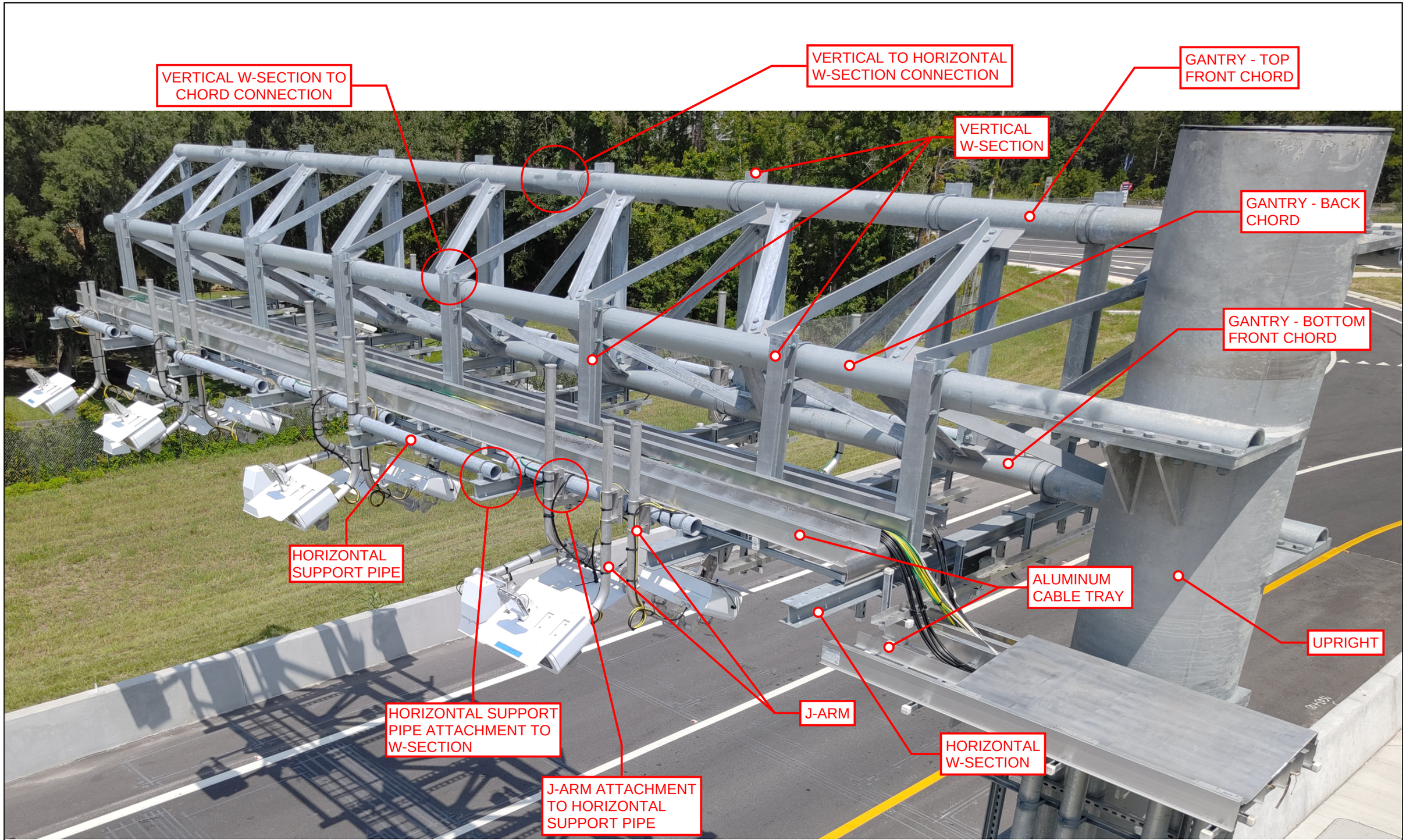


Exhibit 284-1
Non-Accessible
Gantry Elements
Date: 1/1/2027

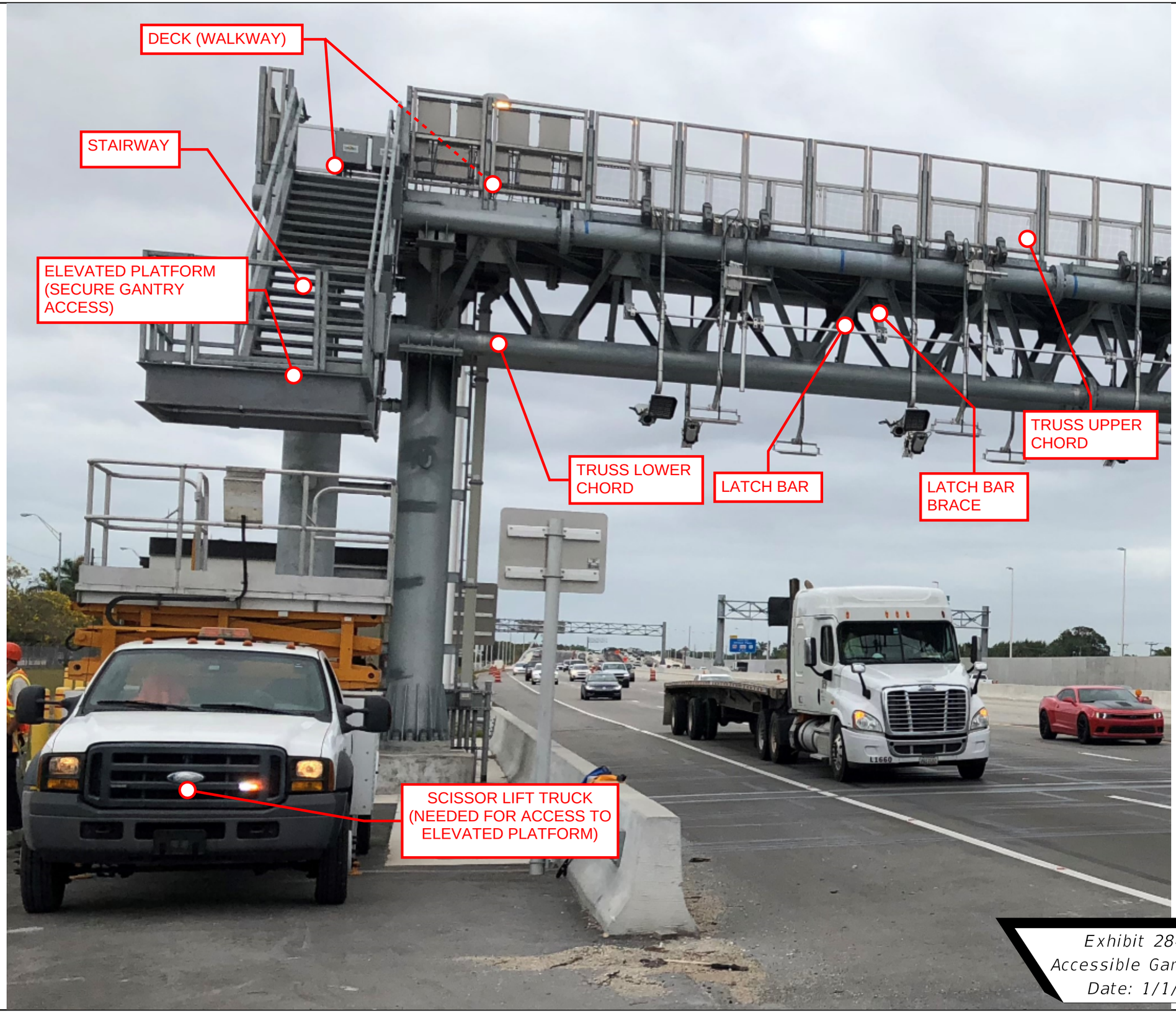


Exhibit 284-2
Accessible Gantry Elements
Date: 1/1/2027

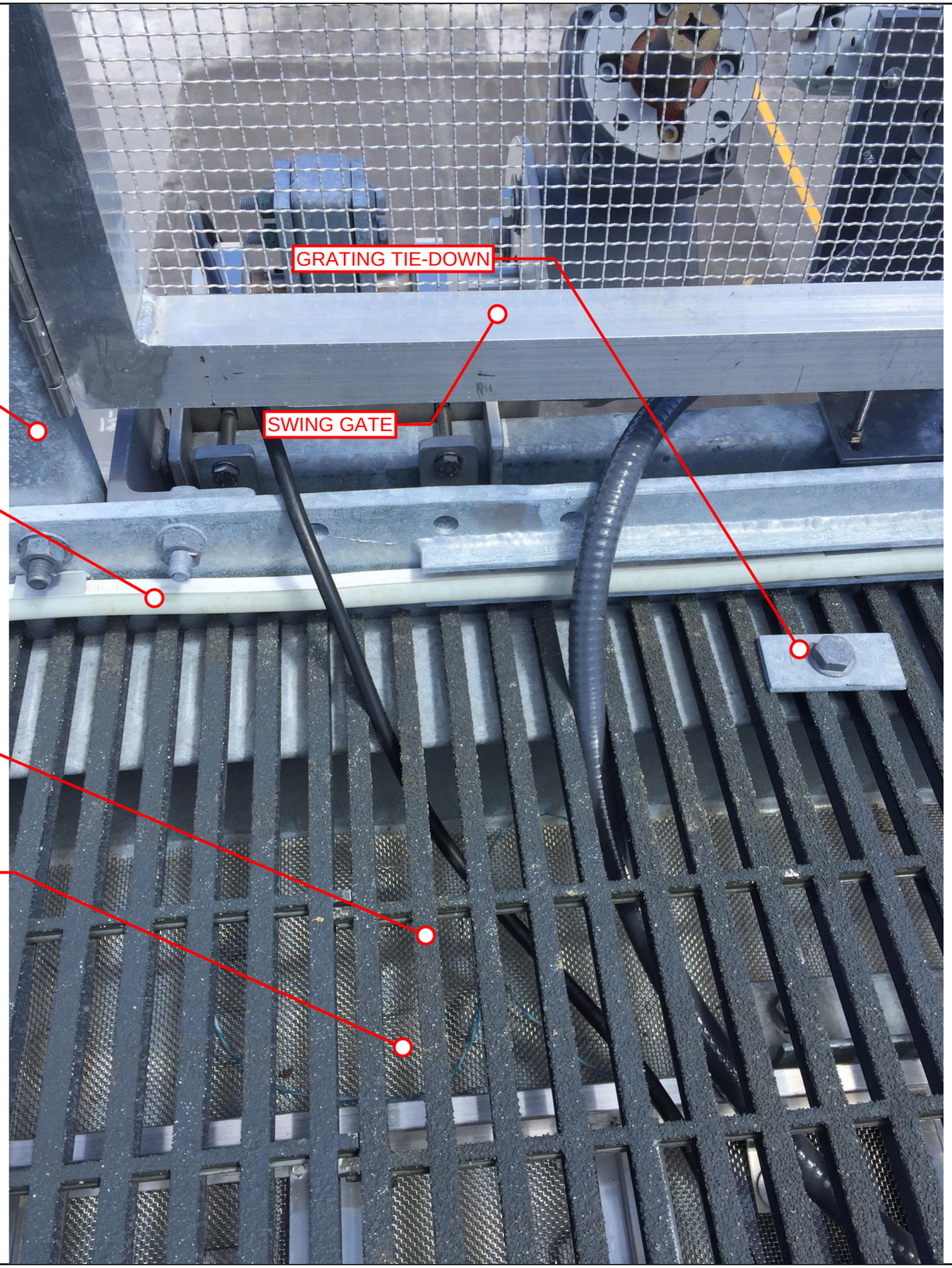


Exhibit 284-3
Accessible Gantry Swing Gate and Grating
Date: 1/1/2027

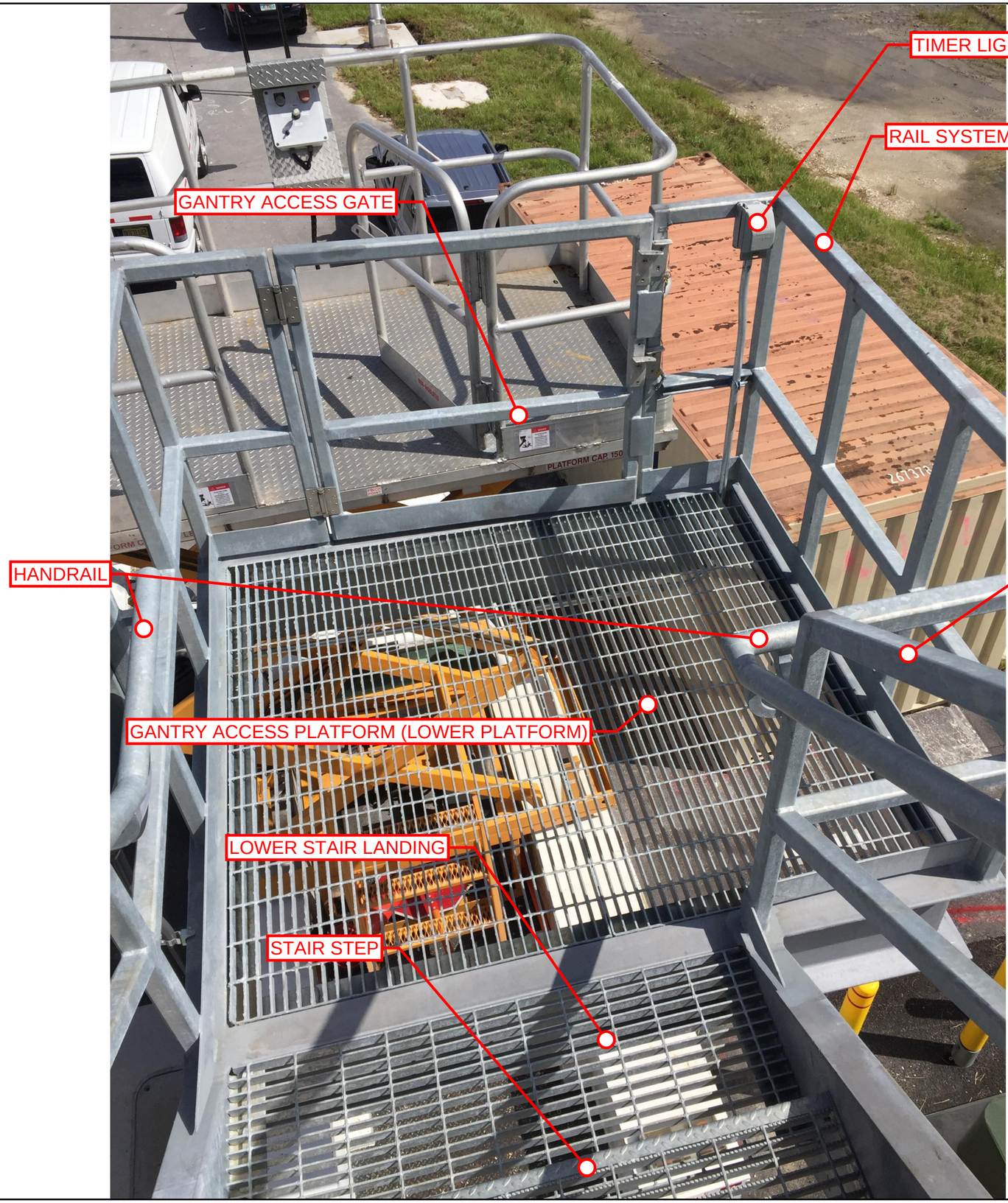


Exhibit 284-4
Accessible Gantry Stair Platform Landing
Date: 1/1/2027

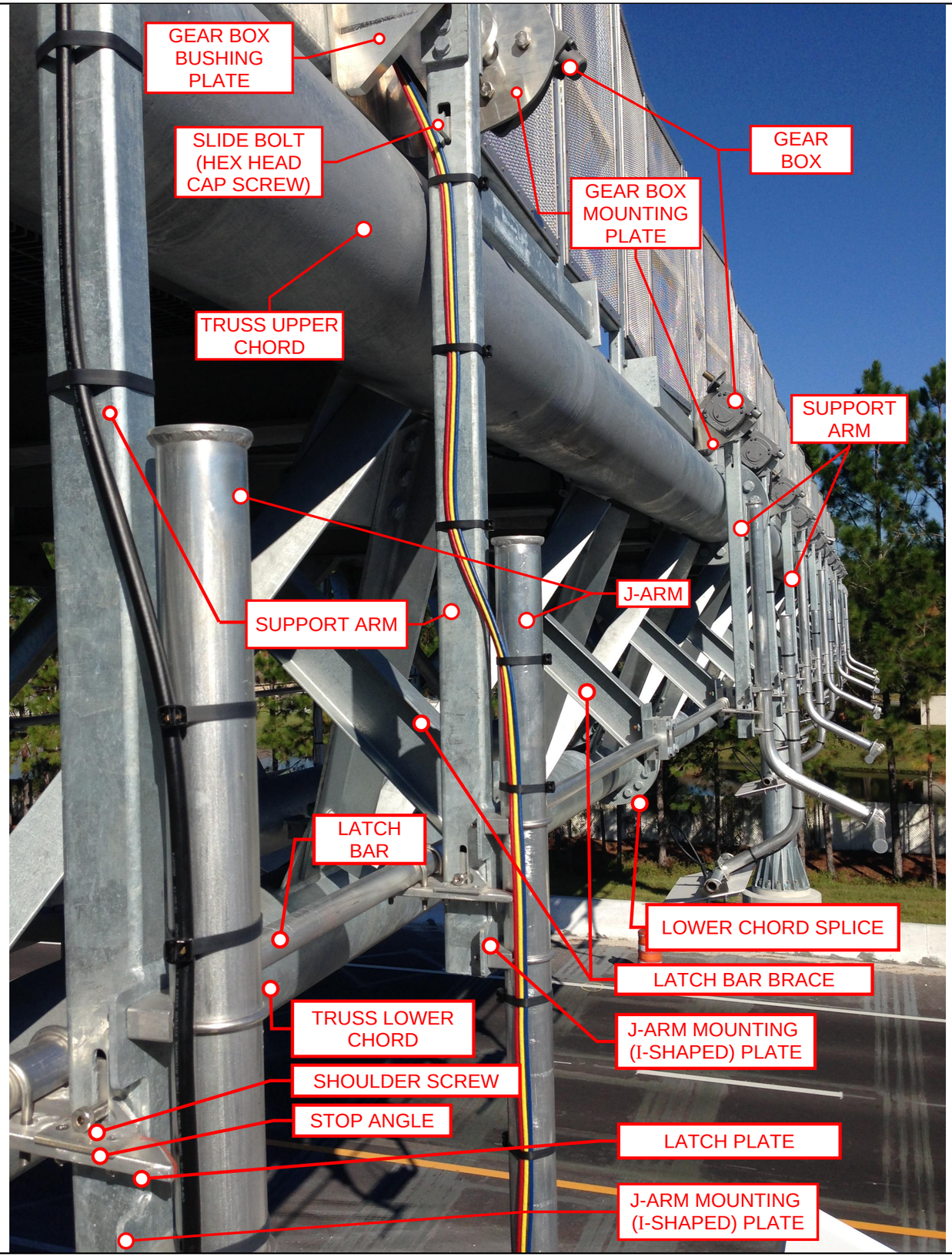


Exhibit 284-5
Accessible Gantry J-Arm Retraction Assembly
Date: 1/1/2027

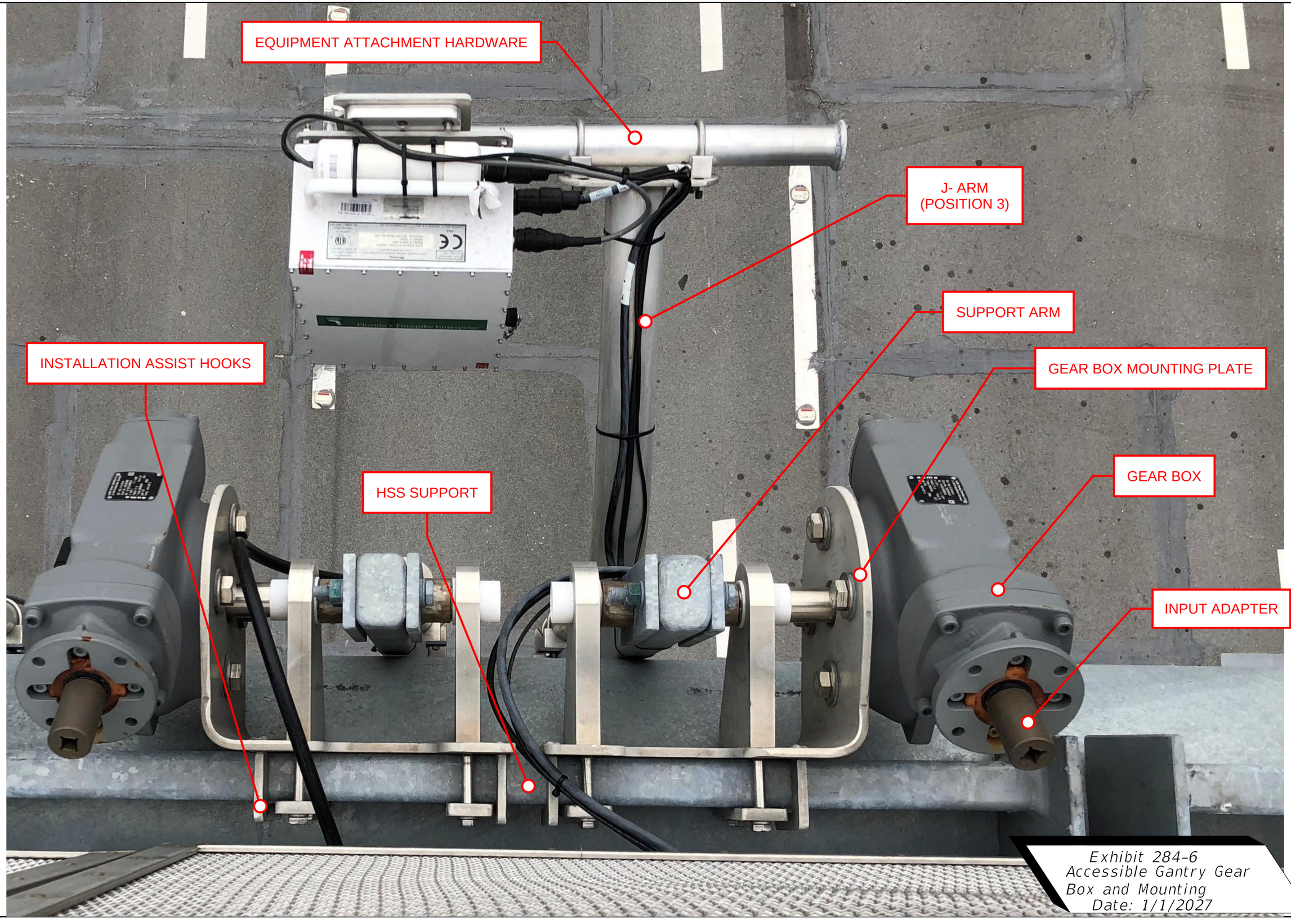


Exhibit 284-6
Accessible Gantry Gear Box and Mounting
Date: 1/1/2027

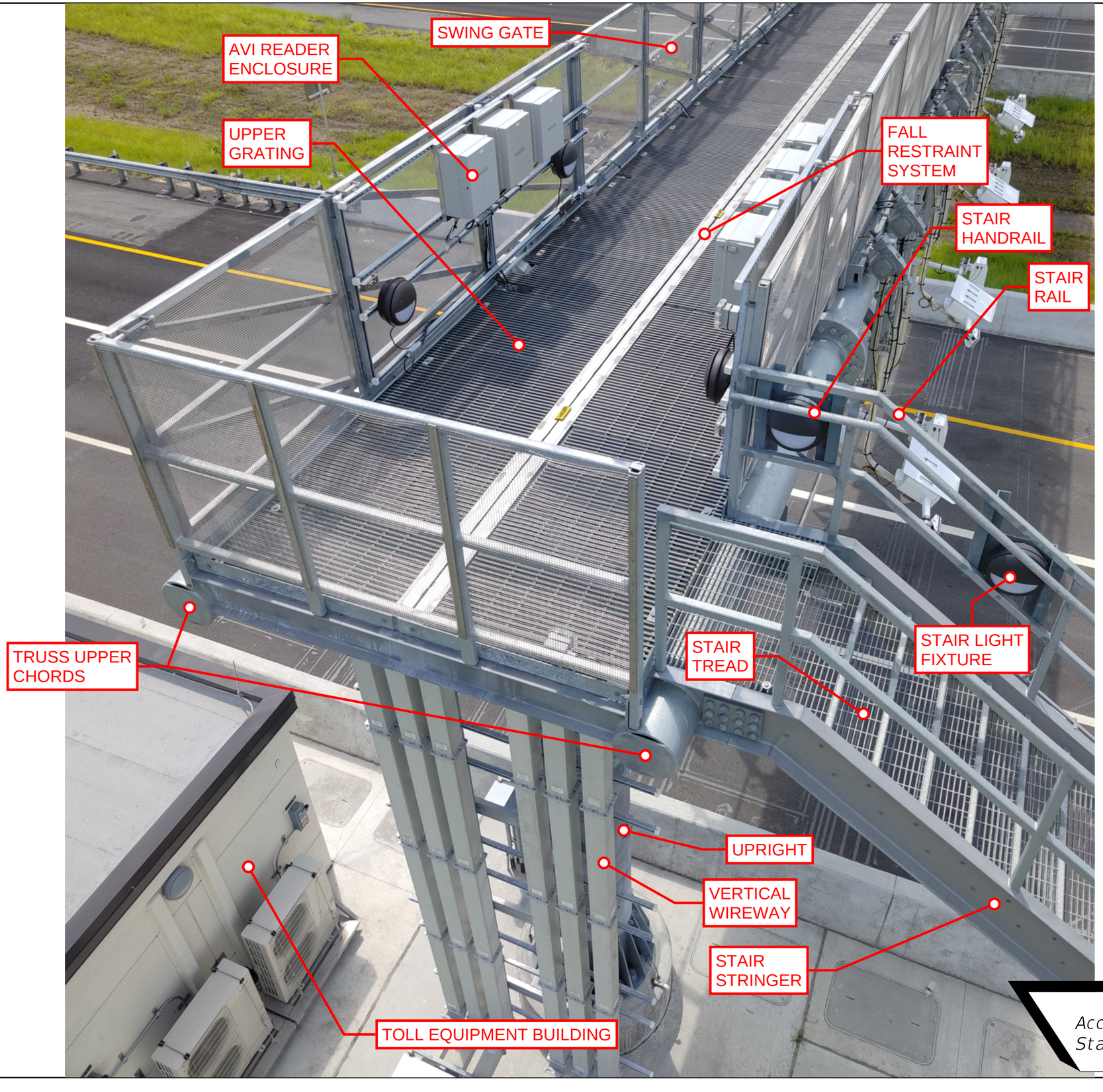


Exhibit 284-7
Accessible Gantry Access Stair Structure
Date: 1/1/2027

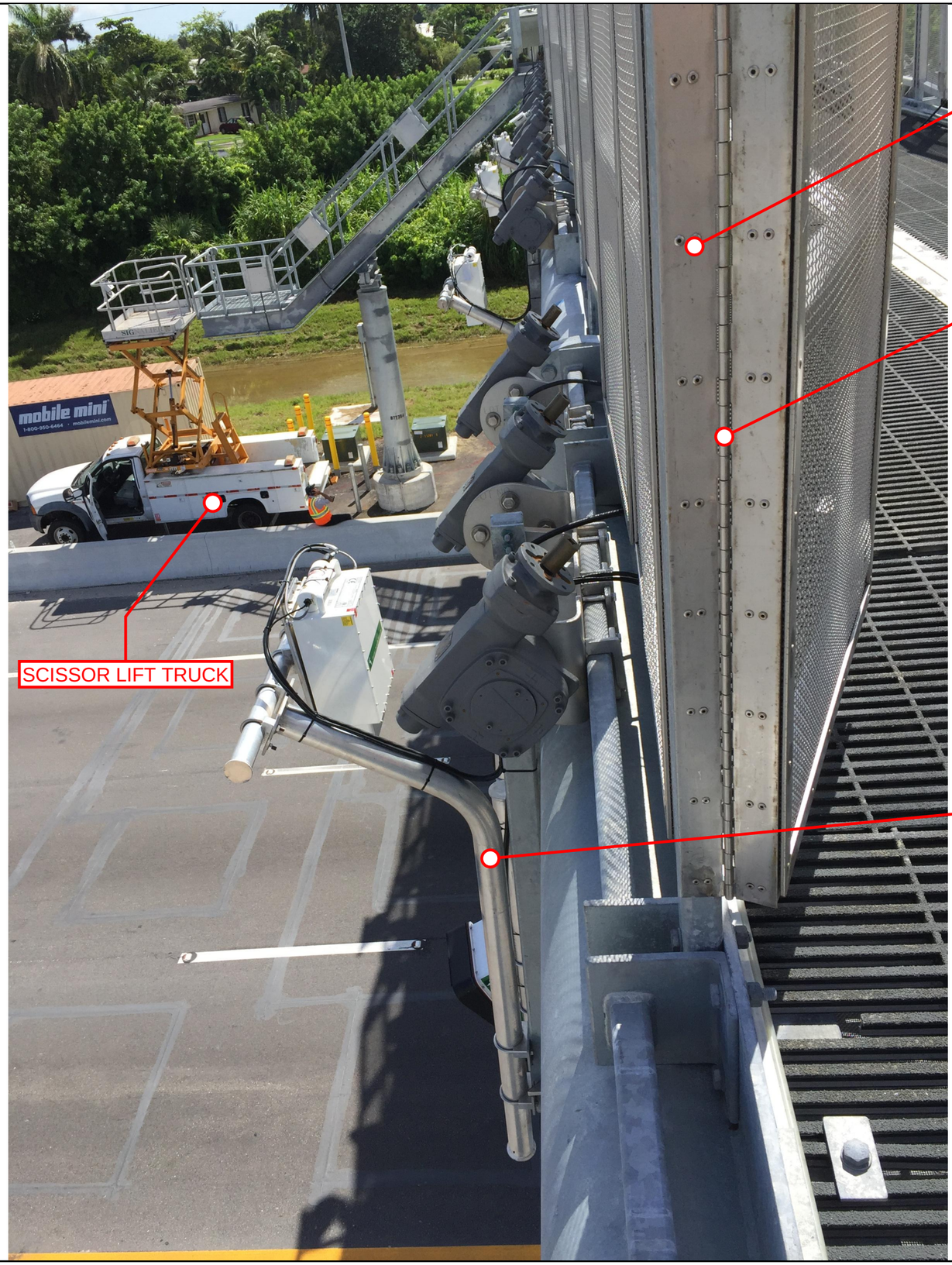
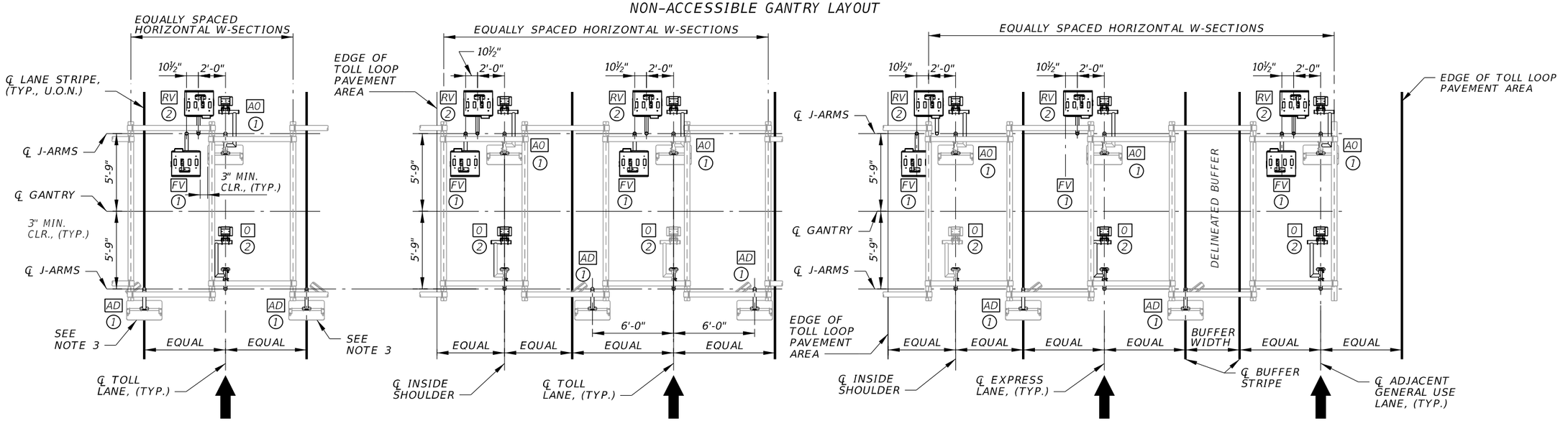


Exhibit 284-8
Accessible Gantry
Swing Gate Post
Date: 1/1/2027

TRANSCORE GANTRY TOLL EQUIPMENT LAYOUT

NON-ACCESSIBLE GANTRY LAYOUT



TYPICAL TOLL LANE / SHOULDER (TRANSCORE)

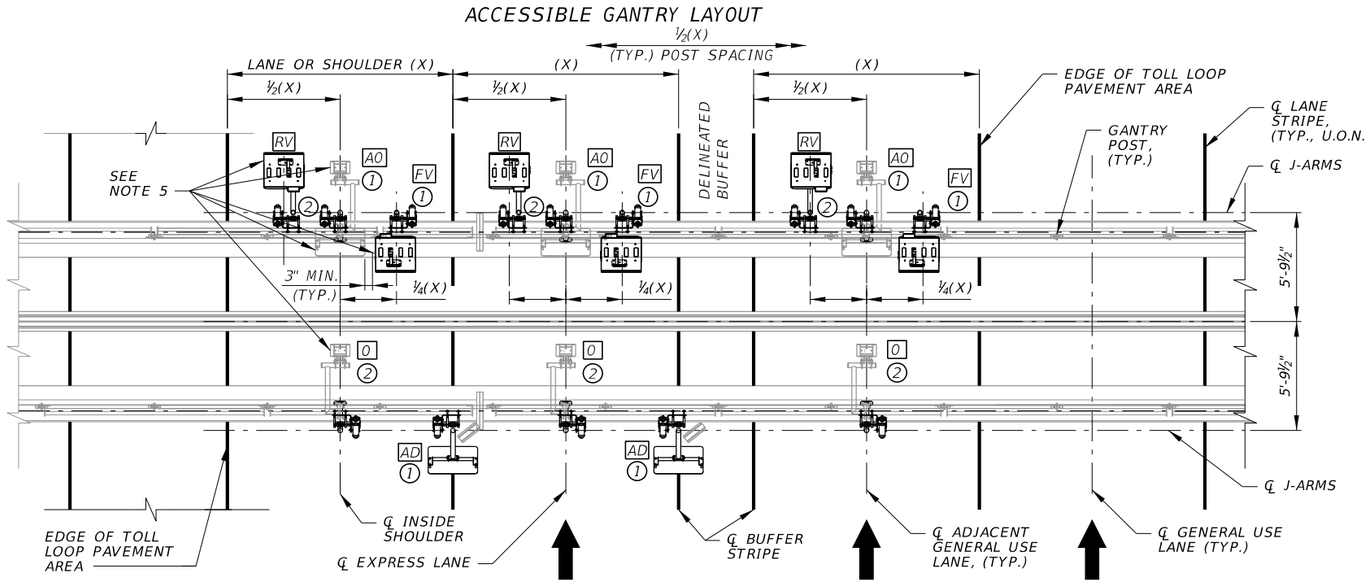
TYPICAL SINGLE LANE RAMP AND SHOULDER (TRANSCORE)

TYPICAL EXPRESS LANE, SHOULDER, BUFFER AND GUL (TRANSCORE)

NOTES:

1. TOLL EQUIPMENT LOCATION IS BASED ON THE CENTER OF THE EQUIPPED LANE / SHOULDER.
2. J-ARM LOCATION IS BASED ON THE MOUNTING REQUIREMENTS OF THE TOLL EQUIPMENT.
3. ANTENNAS AND DVAS ARE NOT REQUIRED OVER THE EDGE OF THE TOLL LOOP PAVEMENT AREA.
4. TOLL EQUIPMENT CAN BE MIRRORED ABOUT THE CENTER ON THE LANE.
5. THE ANTENNAS, OPUS, AND VCARS J-ARM CONNECTION POINTS MAY BE SHIFTED HORIZONTALLY WITHIN THE LIMITS OF THE MOUNTING HARDWARE TO MITIGATE CONFLICT WITH STRUCTURAL ELEMENTS. SEE FDM EXHIBITS 284-42 AND 284-43.
6. TOLL EQUIPMENT IS NOT REQUIRED FOR SHOULDER WIDTHS LESS THAN 6 FEET.

ACCESSIBLE GANTRY LAYOUT



TYPICAL EXPRESS LANE, SHOULDER, BUFFER AND GUL (TRANSCORE)

TRANSCORE LEGEND:

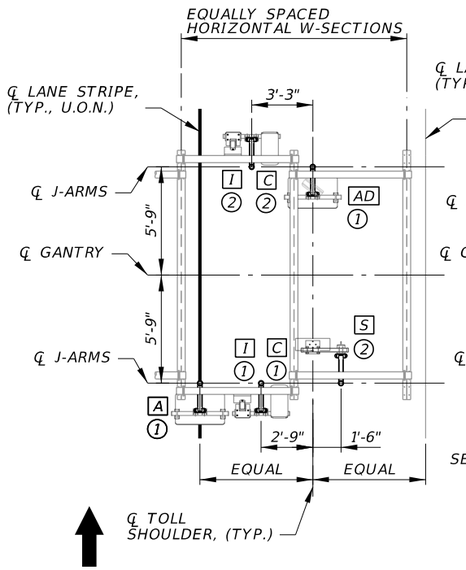
- A ANTENNA
- AD ANTENNA / DVAS
- AO ANTENNA / OPUS
- 0 OPUS
- FV FRONT VCAR
- RV REAR VCAR
- (#) J-ARM POSITION TYPE

NOT TO SCALE

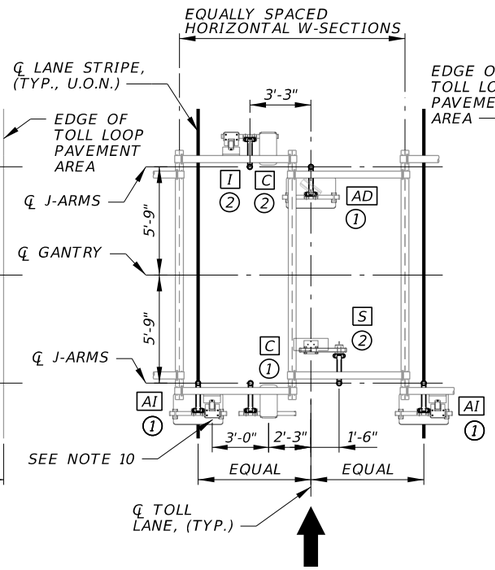
EXHIBIT 284-9
01/01/2027

CONDUENT GANTRY TOLL EQUIPMENT LAYOUT

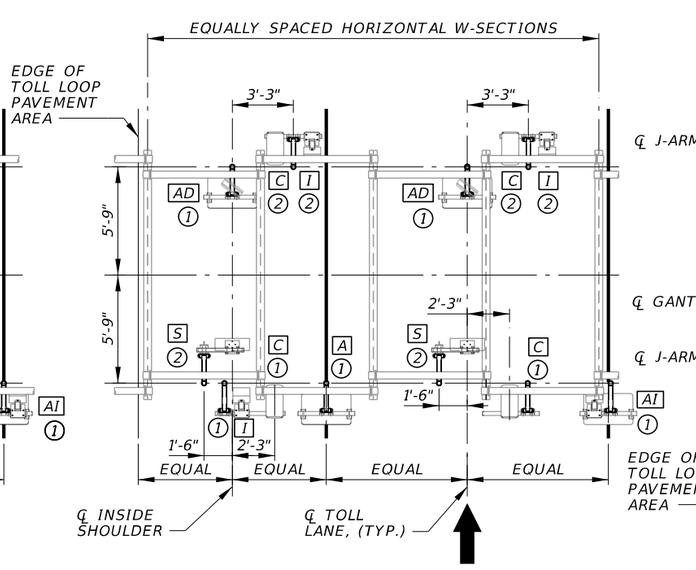
NON-ACCESSIBLE GANTRY LAYOUTS



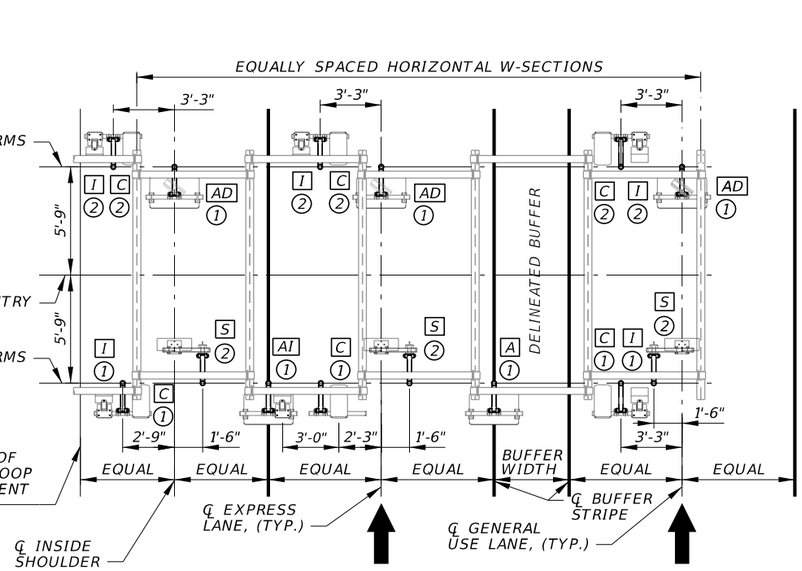
TYPICAL TOLL SHOULDER (CONDUENT)



TYPICAL TOLL LANE (CONDUENT)

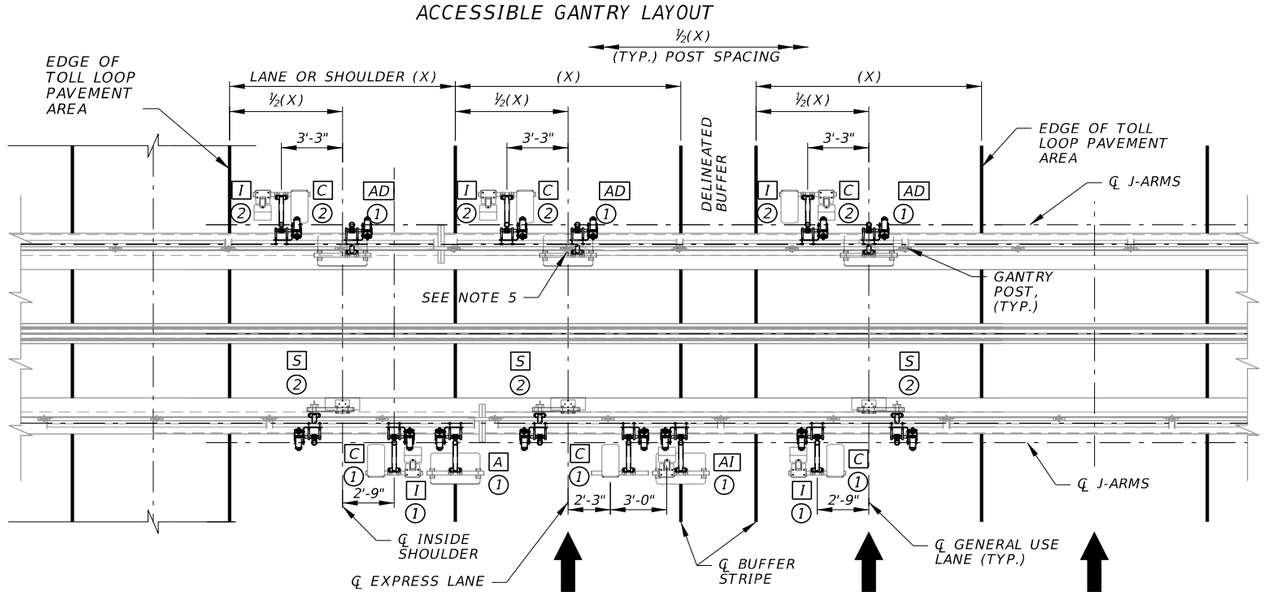


TYPICAL SINGLE LANE RAMP AND SHOULDER (CONDUENT)



TYPICAL EXPRESS LANE, SHOULDER, BUFFER AND GUL (CONDUENT)

ACCESSIBLE GANTRY LAYOUT



TYPICAL EXPRESS LANE, SHOULDER, BUFFER AND GUL (CONDUENT)

CONDUENT LEGEND

- A — ANTENNA
- C — CAMERA
- I — ILLUMINATOR
- S — SICK LASER
- AD — ANTENNA/DVAS
- AI — ANTENNA/ILLUMINATOR
- (#) — J-ARM POSITION TYPE

NOTES:

1. TOLL EQUIPMENT LOCATION IS BASED ON THE CENTER OF THE EQUIPPED LANE / SHOULDER.
2. J-ARM LOCATION IS BASED ON THE MOUNTING REQUIREMENTS OF THE TOLL EQUIPMENT.
3. ANTENNAS ARE NOT REQUIRED OVER EDGE OF PAVEMENT SHOULDER.
4. TOLL EQUIPMENT CAN BE MIRRORED ABOUT THE CENTER OF THE LANE.
5. THE EQUIPMENT J-ARM CONNECTION POINT MAY BE SHIFTED HORIZONTALLY WITHIN THE LIMITS OF THE MOUNTING HARDWARE TO MITIGATE CONFLICT WITH STRUCTURAL ELEMENTS. SEE FDM EXHIBIT 284-3.
6. FOR THE ACCESSIBLE GANTRY, THE J-ARM FOR THE REAR ANTENNA MUST BE SHIFTED 8" FROM THE CENTER IN ORDER FOR THIS ASSEMBLY TO CLEAR THE REAR CAMERA EQUIPMENT DURING RETRACTION.
7. TOLL EQUIPMENT IS NOT REQUIRED FOR SHOULDER WIDTHS LESS THAN 6 FEET.
8. "AD" ARE NOT REQUIRED AT SINGLE LANE RAMP SHOULDERS OR EDGE OF SHOULDER PAVEMENT
9. ONE DVAS REQUIRED FOR EACH EXPRESS AND ADJACENT GENERAL USE LANE.
10. PROVIDE A MINIMUM OF 3'-0" SEPARATION BETWEEN ℄ OF VES CAMERA AND ℄ OF ILLUMINATOR. REQUIREMENT APPLIES TO TOLLED LANES ONLY.
11. ON THE APPROACH SIDE OF THE GANTRY, INSTALL A/I OVER TRAVEL LANES AND C/I OVER SHOULDERS.

NOT TO SCALE

EXHIBIT 284-10
01/01/2027

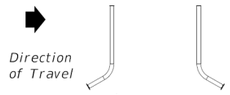
TOLL EQUIPMENT LOADS

TRANSCORE SYSTEMS - TOLL EQUIPMENT ARM POSITIONS, WIND LOAD AREAS AND WEIGHTS

J-Arm Mounting Gantry Location	Clearance from Bottom of J-arm to Final Riding Surface of Pavement	J-Arm Mounting Position Type (See Below)	Equipment / Device	Longitudinal Area to be Used for Wind Load (sq. in.) (Does not include the coefficient of drag) (Direction of Travel)	Transverse Area to be Used for Wind Load (sq. in.) (Does not include the coefficient of drag) (Perpendicular to Direction of Travel)
Approach	18'-6"	2	OPUS	250	234
Departure	18'-6"	1	Front VCAR	681	217
Departure	18'-6"	2	Rear VCAR	681	217
Approach	18'-6"	1	ANTENNA/DVAS	630+68 = 698	74+68 = 142
Departure	18'-6"	1	ANTENNA/OPUS	630 + 250 = 880	74 + 234 = 308
Approach/Departure	19'-6"	1/2	Illuminator (Toll Zone)	368	266
			AVI Enclosure	335	198

Toll Equipment J-Arm Mounting Positions

Position Type 1 Position Type 2



Weight of Equipment and Attachment Hardware	
VCAR	55 lbs
OPUS	20 lbs
Antenna	31 lbs
Illuminator	80 lbs
DVAS	20 lbs
AVI Enclosure	32 lbs

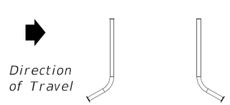
Note: Refer to SM, V3 ***19.1*** for minimum design dead loads.

CONDUENT SYSTEMS - TOLL EQUIPMENT ARM POSITIONS, WIND LOAD AREAS AND WEIGHTS

J-Arm Mounting Gantry Location	Clearance from Bottom of J-arm to Final Riding Surface of Pavement	J-Arm Mounting Position Type (See Below)	Equipment / Device	Longitudinal Area to be Used for Wind Load (sq. in.) (Does not include the coefficient of drag) (Direction of Travel)	Transverse Area to be Used for Wind Load (sq. in.) (Does not include the coefficient of drag) (Perpendicular to Direction of Travel)
Approach	18'-6"	1	CAMERA/ILLUMINATOR	356	175
Approach	18'-6"	2	SICK w/ Shroud	457	128
Approach	18'-6"	2	ANTENNA/ILLUMINATOR	774	133
Approach	18'-6"	1	ANTENNA	630	74
Departure	18'-6"	2	CAMERA/ILLUMINATOR	356	175
Departure	18'-6"	1	ANTENNA/DVAS	630+68=698	74+68=142
			AVI ENCLOSURE	335	198
			AVI CABINET	1260	672

Toll Equipment J-Arm Mounting Positions

Position Type 1 Position Type 2

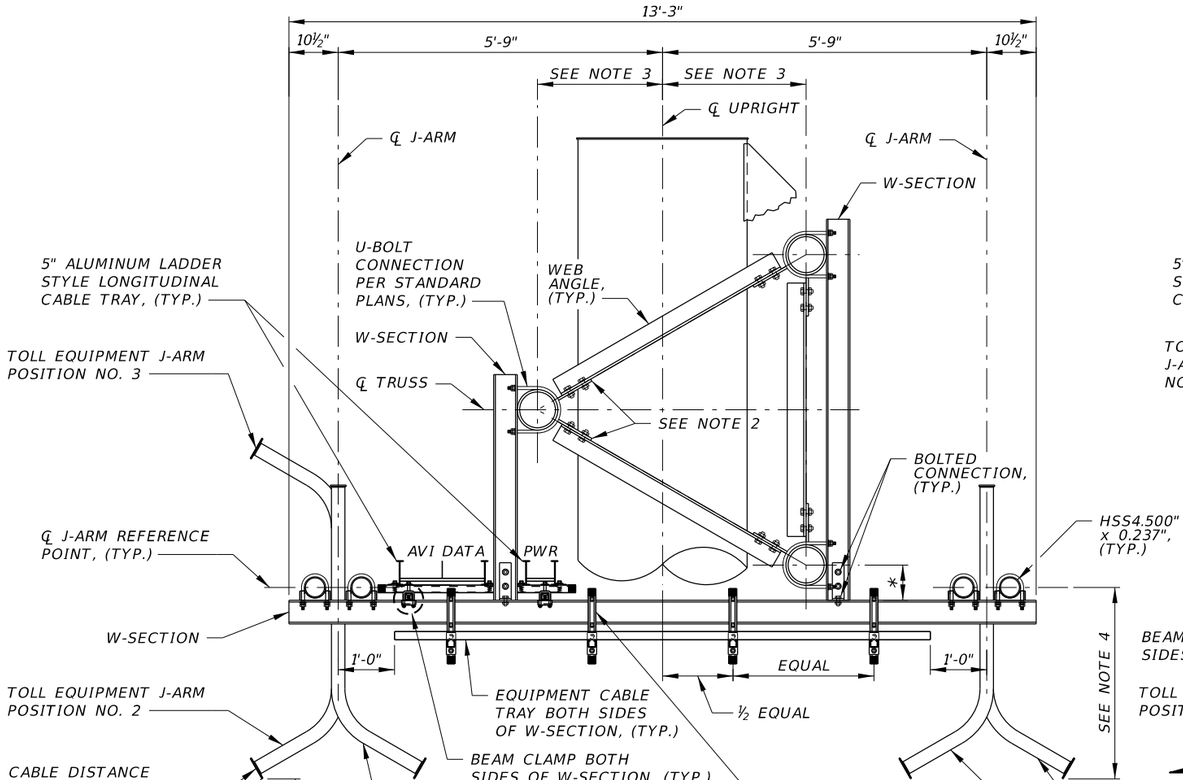


Weight of Equipment and Attachment Hardware	
Camera	14 lbs
Illuminator	12 lbs
Antenna	31 lbs
SICK w/ Shroud	30 lbs
DVAS	20 lbs
AVI Enclosure	32 lbs
AVI Cabinet	120 lbs

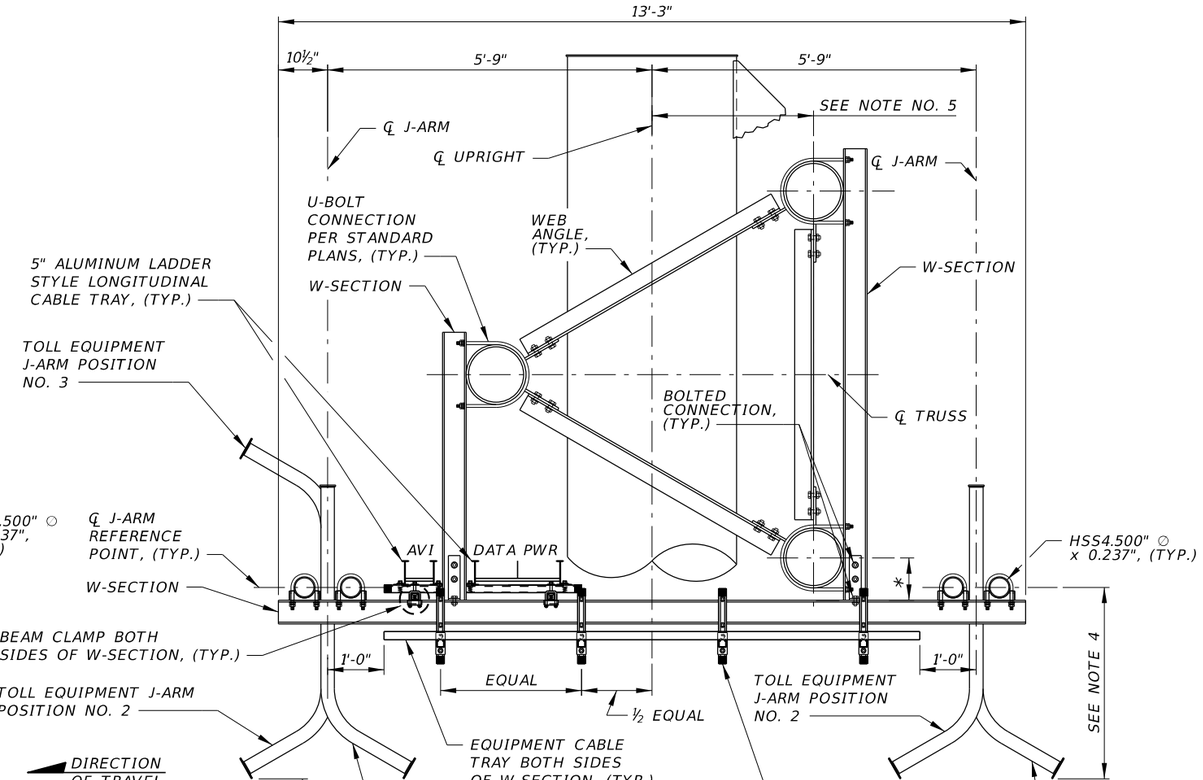
Note: Refer to SM, V3 ***19.1*** for minimum design dead loads.

EXHIBIT 284-11
01/01/2027

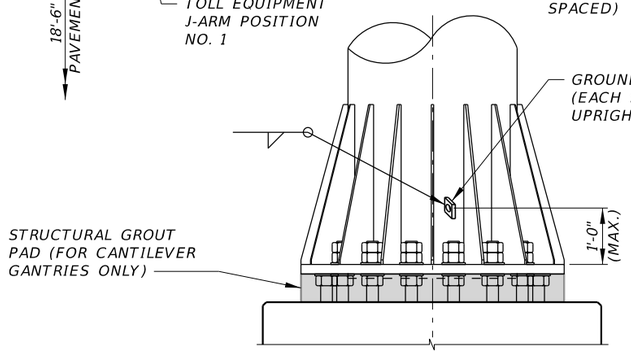
NON-ACCESSIBLE GANTRY TYPICAL SECTION



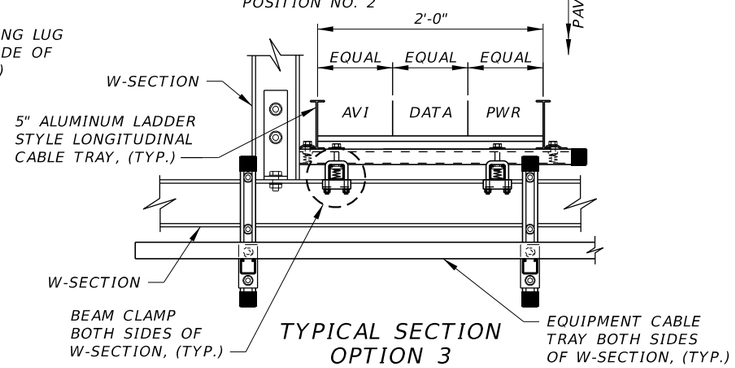
TYPICAL SECTION OPTION 1



TYPICAL SECTION OPTION 2



UPRIGHT FOUNDATION TYPICAL SECTION



TYPICAL SECTION OPTION 3

NOTES:

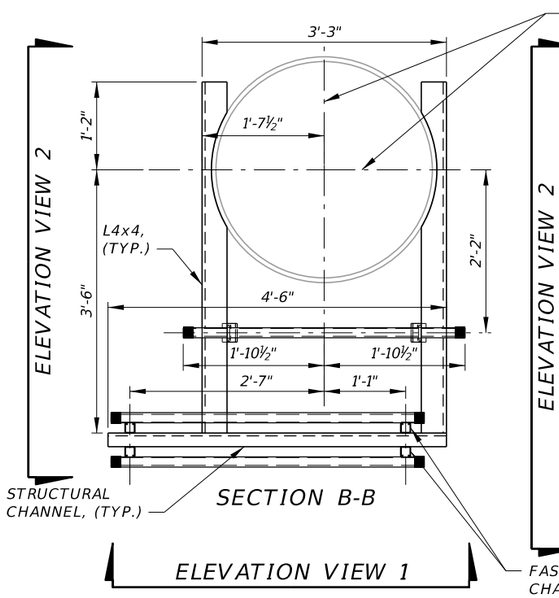
1. SEE "TABLE OF STRUCTURE VARIABLES" FOR ADDITIONAL INFORMATION.
2. FOR CANTILEVER GANTRIES, ADJUST LOCATION OF GUSSET PLATE ON THE MIDDLE CHORD CLOSEST TO THE UPRIGHT TO AVOID CONFLICT BETWEEN UPRIGHT AND WEB ANGLE.
3. FOR CANTILEVER GANTRIES, OFFSET TRUSS TO ENSURE NO CONFLICTS BETWEEN UPRIGHT AND WEB ANGLE.
4. THE DISTANCE FROM THE BOTTOM OF THE J-ARM CONNECTION PLATE TO THE CENTERLINE OF THE HORIZONTAL SUPPORT PIPES (HSS 4.500) WHEN THE J-ARM IS LOCATED IN THE NOMINAL POSITION IS 3'-4⅜".
5. DIMENSION PER STANDARD PLANS 0700-041.
6. REFER TO FDM 261 FOR ADDITIONAL REQUIREMENTS.

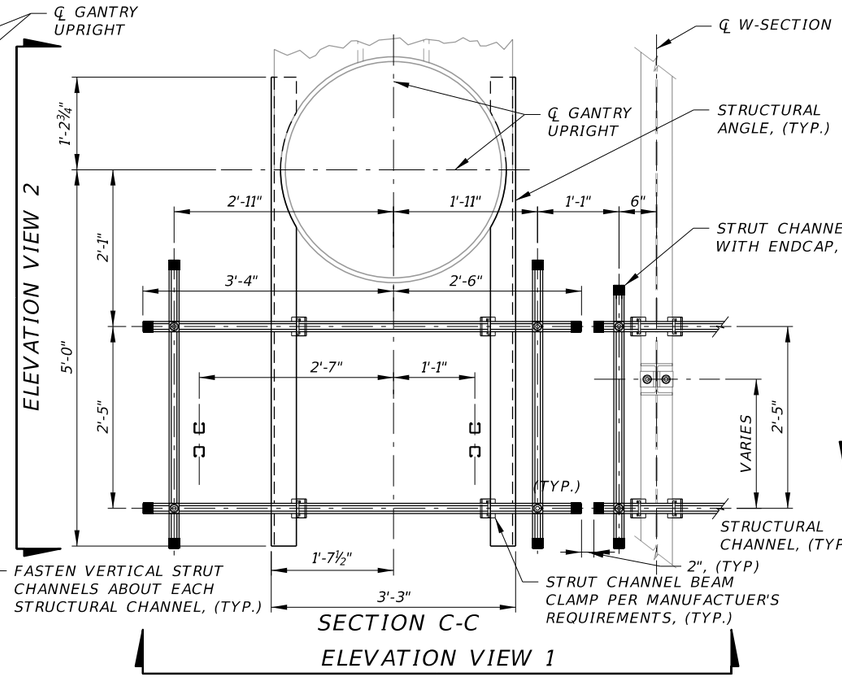
∗ = 6" MINIMUM, 1'-0" MAXIMUM.

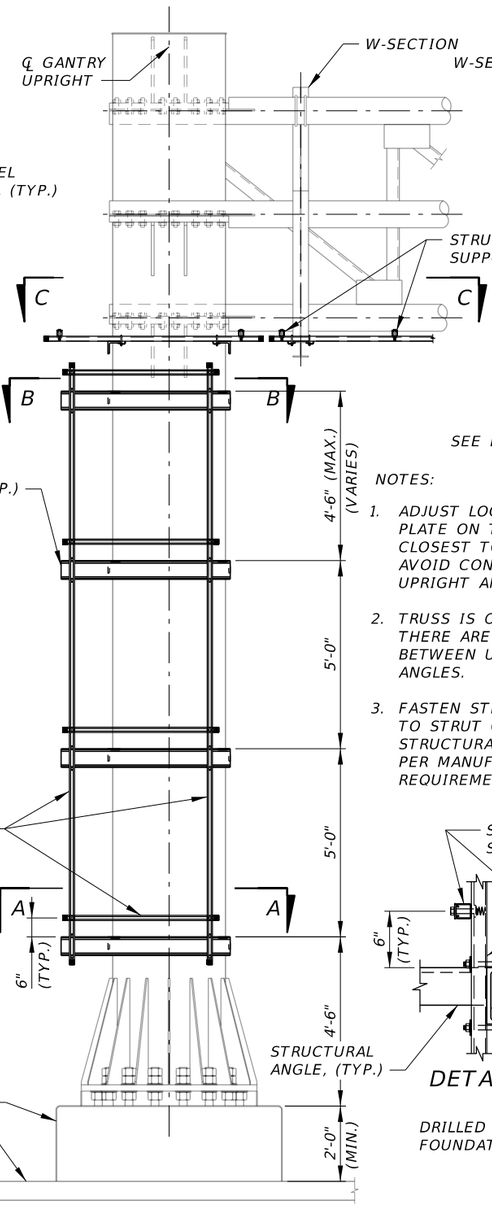
NOT TO SCALE

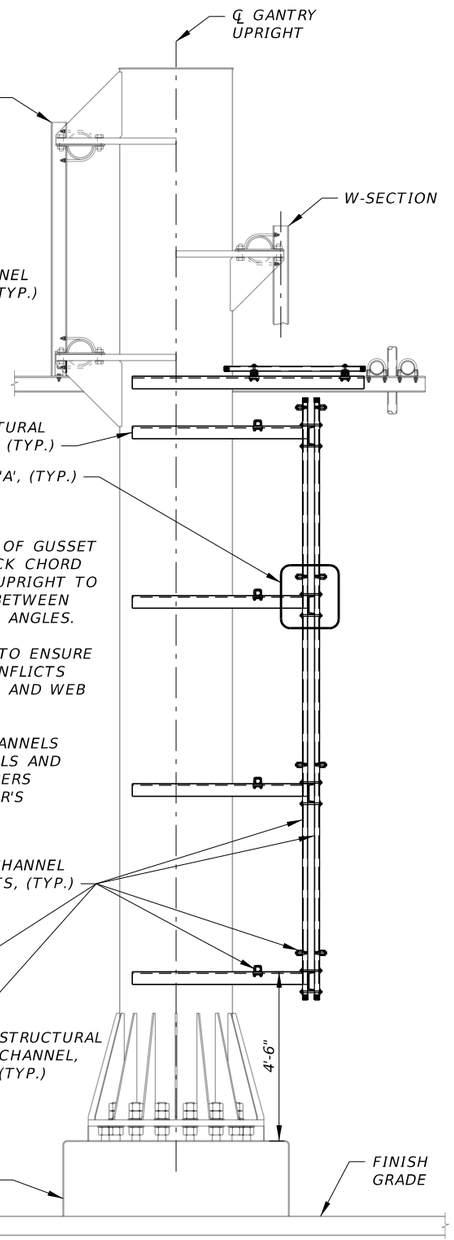
EXHIBIT 284-12
01/01/2027

CANTILEVER PLAN AND UPRIGHT STRUCTURAL DETAILS FOR CONDUIT SUPPORT



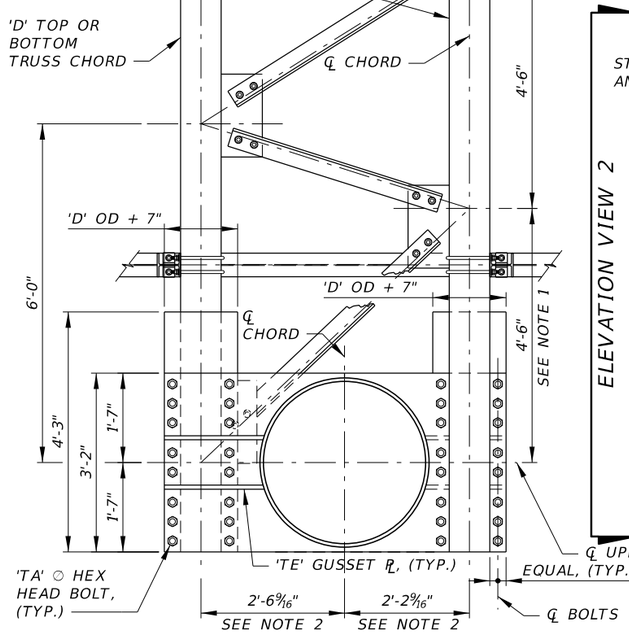




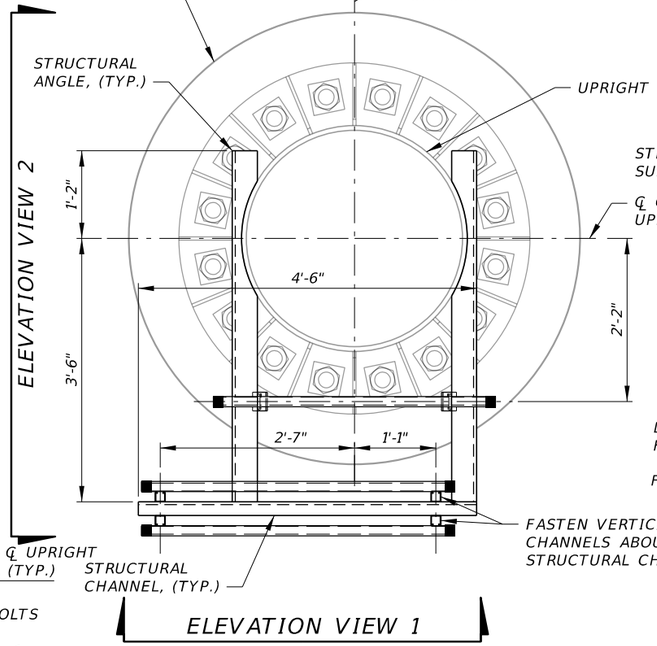


NOTES:

1. ADJUST LOCATION OF GUSSET PLATE ON THE BACK CHORD CLOSEST TO THE UPRIGHT TO AVOID CONFLICT BETWEEN UPRIGHT AND WEB ANGLES.
2. TRUSS IS OFFSET TO ENSURE THERE ARE NO CONFLICTS BETWEEN UPRIGHT AND WEB ANGLES.
3. FASTEN STRUT CHANNELS TO STRUT CHANNELS AND STRUCTURAL MEMBERS PER MANUFACTURER'S REQUIREMENTS.



WEB ANGLE CONNECTION - PLAN VIEW 1



SECTION A-A

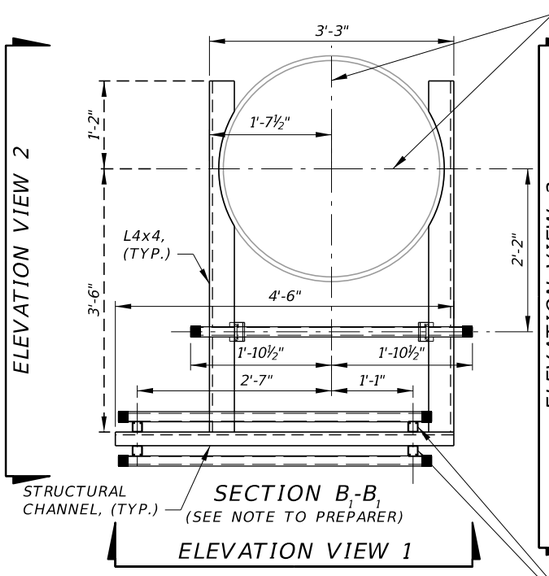
GANTRY UPRIGHT - ELEVATION VIEW 1

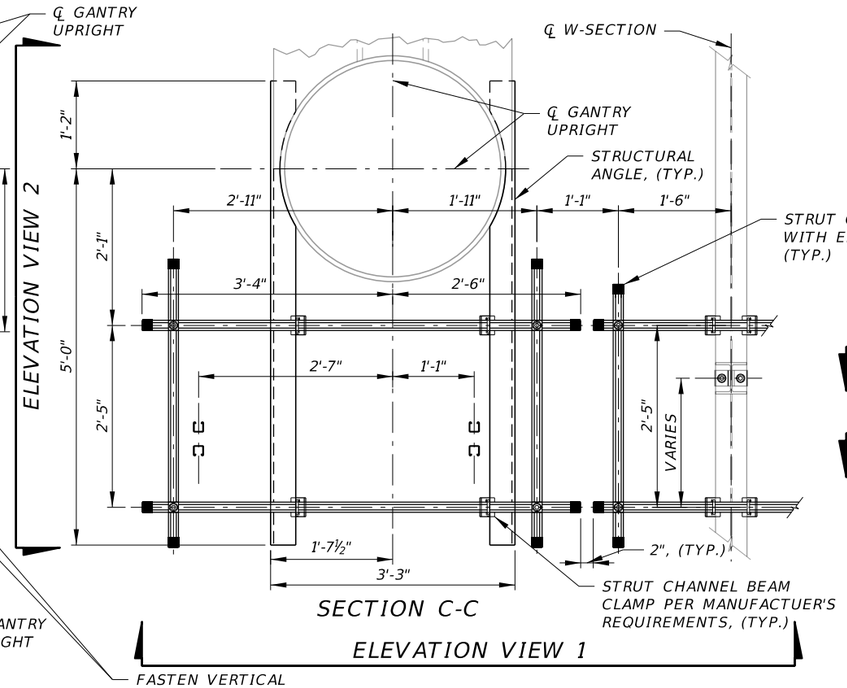
GANTRY UPRIGHT - ELEVATION VIEW 2

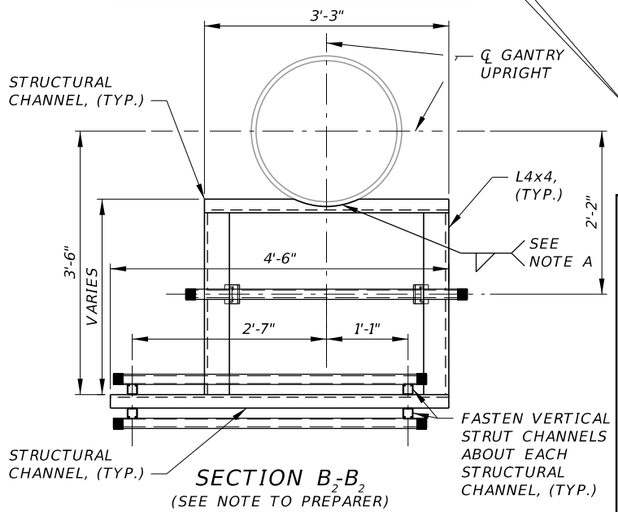
NOT TO SCALE

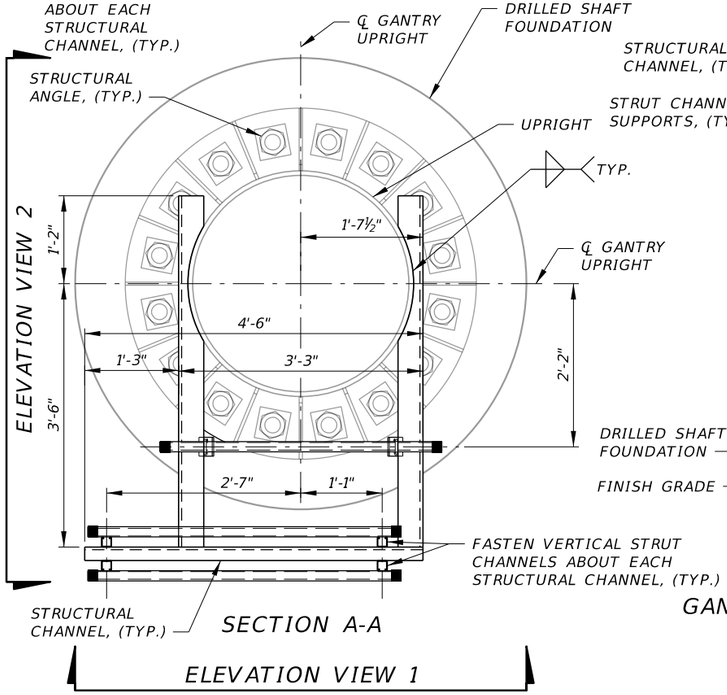
EXHIBIT 284-13
01/01/2027

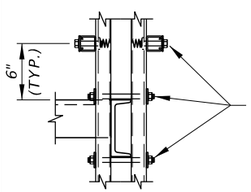
SPAN UPRIGHT STRUCTURAL DETAILS FOR CONDUIT SUPPORT





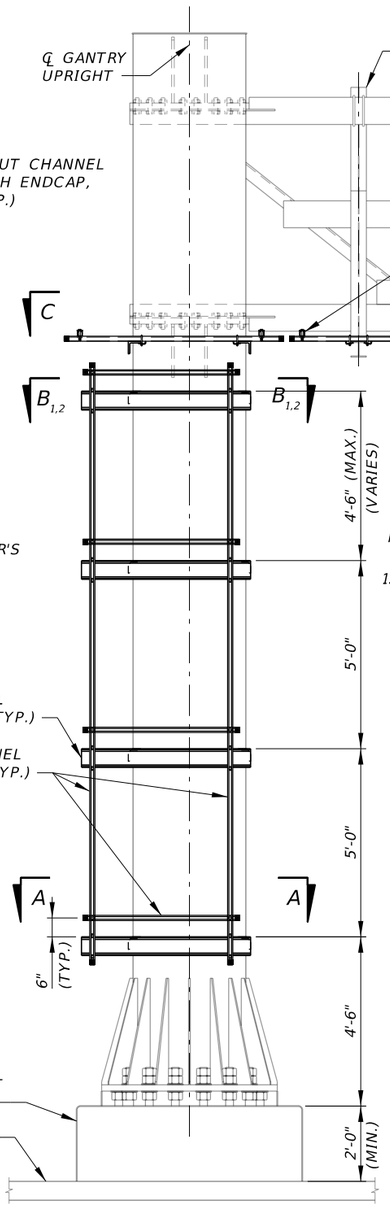




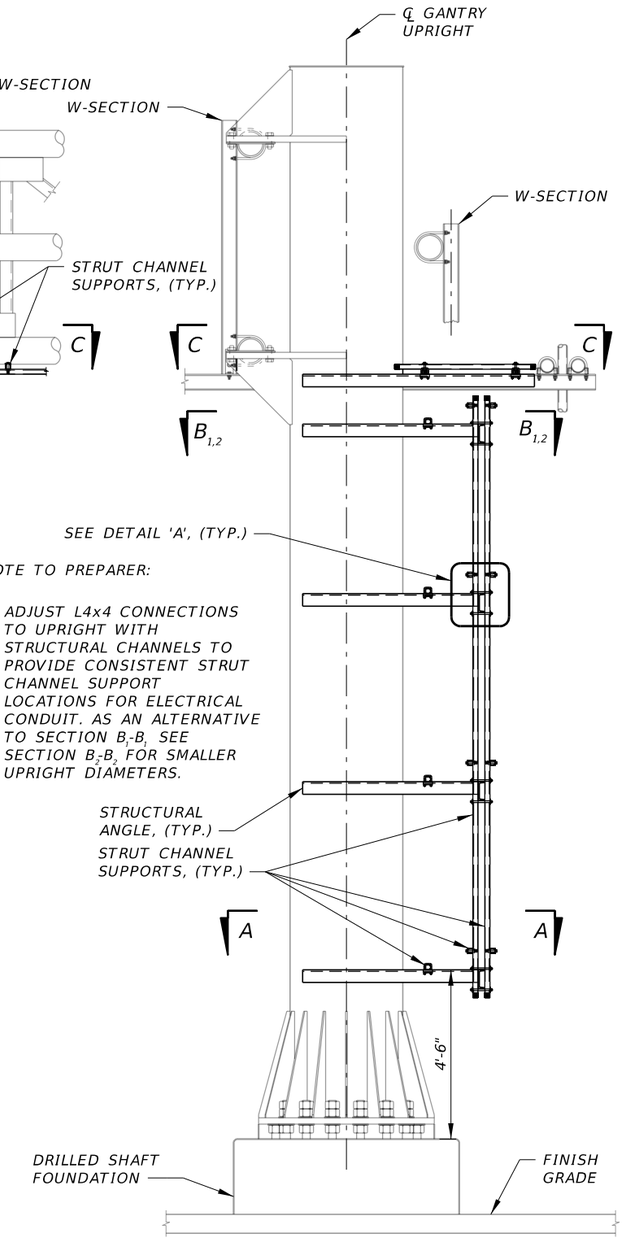


NOTE A:

WELD TOP AND BOTTOM FLANGES OF STRUCTURAL CHANNEL TO FACE OF UPRIGHT.



GANTRY UPRIGHT ELEVATION VIEW 1



GANTRY UPRIGHT ELEVATION VIEW 2

NOTE TO PREPARER:

1. ADJUST L4x4 CONNECTIONS TO UPRIGHT WITH STRUCTURAL CHANNELS TO PROVIDE CONSISTENT STRUT CHANNEL SUPPORT LOCATIONS FOR ELECTRICAL CONDUIT. AS AN ALTERNATIVE TO SECTION B_1-B_1, SEE SECTION B_2-B_2 FOR SMALLER UPRIGHT DIAMETERS.

NOT TO SCALE

EXHIBIT 284-14
01/01/2027

TABLE OF STRUCTURE VARIABLES

CANTILEVER GANTRY STRUCTURES DATA TABLE

GANTRY	STATION	DIMENSIONS				PANELS	MEMBER SIZES			BACKRAKE
		A *	B		C	N	D (CHORD)	E (WEB)	F (UPRIGHT)	G
		ft	ft	in	in	#	O. D. x Wall Thk. (in)	Angle (in)	O. D. x Wall Thk. (in)	in
48'-0"	##+##.##	24.000	6	0	66	8	8.625 x 0.500	4 x 4 x 0.500	36.000 x 0.750	#
42'-0"	##+##.##	24.000	6	0	66	7	8.625 x 0.500	4 x 4 x 0.500	36.000 x 0.750	#
36'-0"	##+##.##	24.000	6	0	66	6	6.625 x 0.500	4 x 4 x 0.500	36.000 x 0.750	#
30'-0"	##+##.##	24.000	6	0	66	5	6.625 x 0.500	4 x 4 x 0.500	36.000 x 0.750	#

* 24'-0" is a maximum value.

CANTILEVER GANTRY STRUCTURES DATA TABLE (CONTINUED)

GANTRY	GUSSET PLATES																TRUSS CONNECTION									ALTERNATE SPLICE					
	GA	GB	GC		GD		GE		GF		GG		GH		GJ	GK	TA	TB	TC	TD	TE	TF	TG	TH	TJ	PA	PB	PC	PD	PE	PF
	in	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	in	in	#	#	in	in	in	in	in	in	in	in	in	in	#
48'-0"	½	1	1	5⅝	0	8⅛	1	2½	0	7⅝	1	5⅝	0	8⅛	0	11	⅜	1¼	16	16	2	⅞	¾	½	½	½	1⅜	2	⅜	⅜	1	9
42'-0"	½	1	1	5⅝	0	8⅛	1	2½	0	7⅝	1	5⅝	0	8⅛	0	11	⅜	1¼	16	16	2	⅞	¾	½	½	½	1⅜	2	⅜	⅜	1	9
36'-0"	½	⅞	1	3¼	0	7½	1	0⅜	0	7¼	1	3¼	0	7½	0	9⅜	5⁄16	1¼	16	16	1¼	9⁄16	5⁄16	5⁄16	5⁄16	5⁄16	NA	NA	NA	NA	NA	NA
30'-0"	½	⅞	1	3¼	0	7½	1	0⅜	0	7¼	1	3¼	0	7½	0	9⅜	5⁄16	1¼	16	16	1¼	9⁄16	5⁄16	5⁄16	5⁄16	5⁄16	NA	NA	NA	NA	NA	NA

CANTILEVER GANTRY STRUCTURES DATA TABLE (CONTINUED)

GANTRY	BASE CONNECTION										ANCHOR		FOOTING - DRILLED SHAFT									
	BA	BB	BC	BD	BE		BF	BG	BH	BJ	BK		FA		FB		FC	FD	FE		FF	FG
	in	#	in	in	ft	in	in	in	in	in	ft	in	ft	in	ft	in	# / Size	#	in	#		
48'-0"	2¾	16	2	⅞	3	2	5⁄16	5⁄16	5⁄16	5⁄16	#	#	#	#	#	#	#	#	#	#		
42'-0"	2¾	16	2	⅞	3	2	5⁄16	5⁄16	5⁄16	5⁄16	#	#	#	#	#	#	#	#	#	#		
36'-0"	2¼	16	2	⅝	2	7	¼	¼	¼	¼	#	#	#	#	#	#	#	#	#	#		
30'-0"	2¼	16	2	⅝	2	7	¼	¼	¼	¼	#	#	#	#	#	#	#	#	#	#		

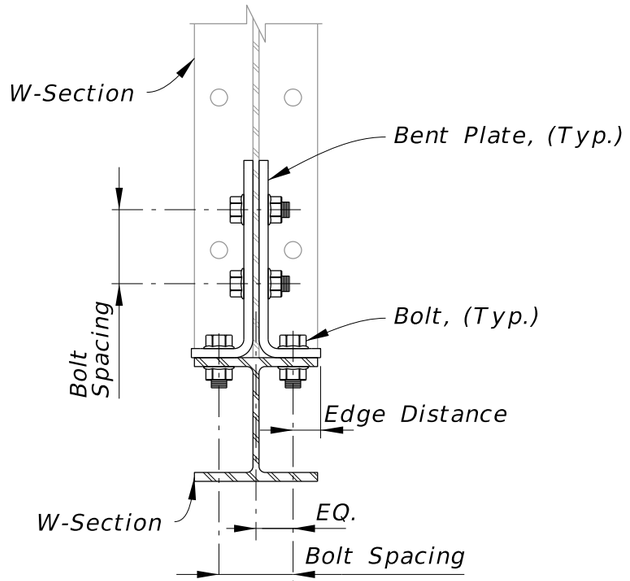
NOTES:

1. The variables in this Exhibit referenced the 2026 -27 Standard Plans 700-040, except for the variables for the splice, which is based on the "Alternate Splice" shown on 2026-27 Standard Plans 700-041.
2. Design Wind Speed = ### mph.
3. # = Site Specific Value.

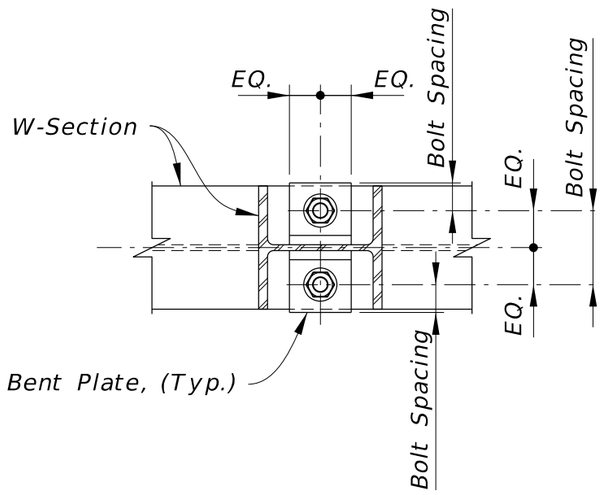
NOT TO SCALE

EXHIBIT 284-15
01/01/2027

NON-ACCESSIBLE GANTRY BENT PLATE DETAIL



SECTION

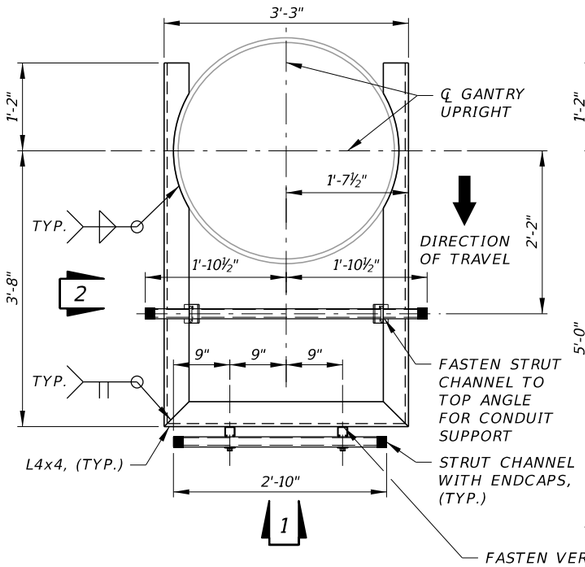


PLAN

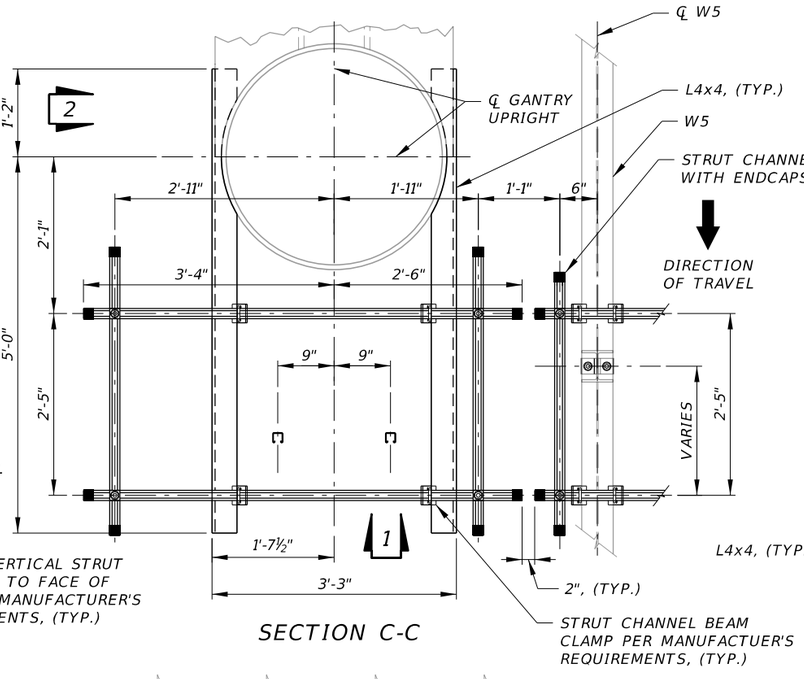
NOT TO SCALE

EXHIBIT 284-16
01/01/2027

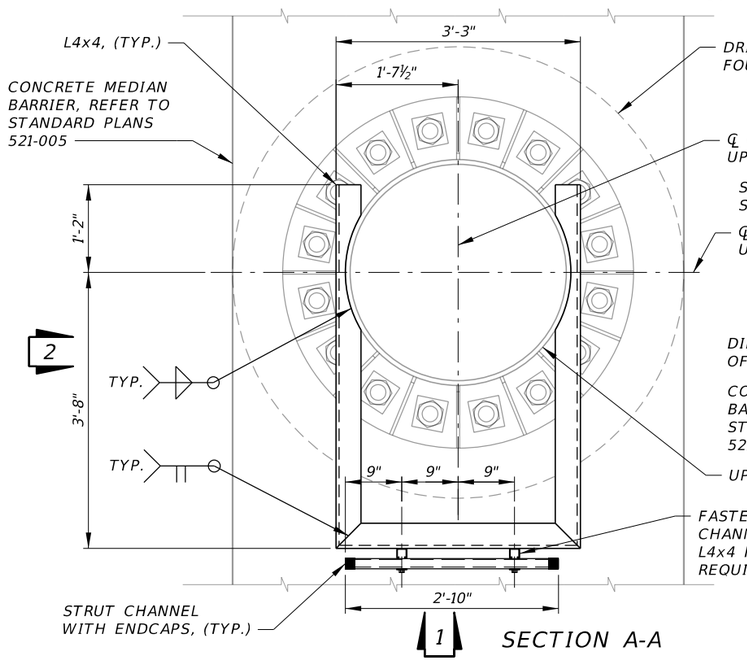
CANTILEVER MEDIAN UPRIGHT STRUCTURAL DETAILS FOR CONDUIT SUPPORT



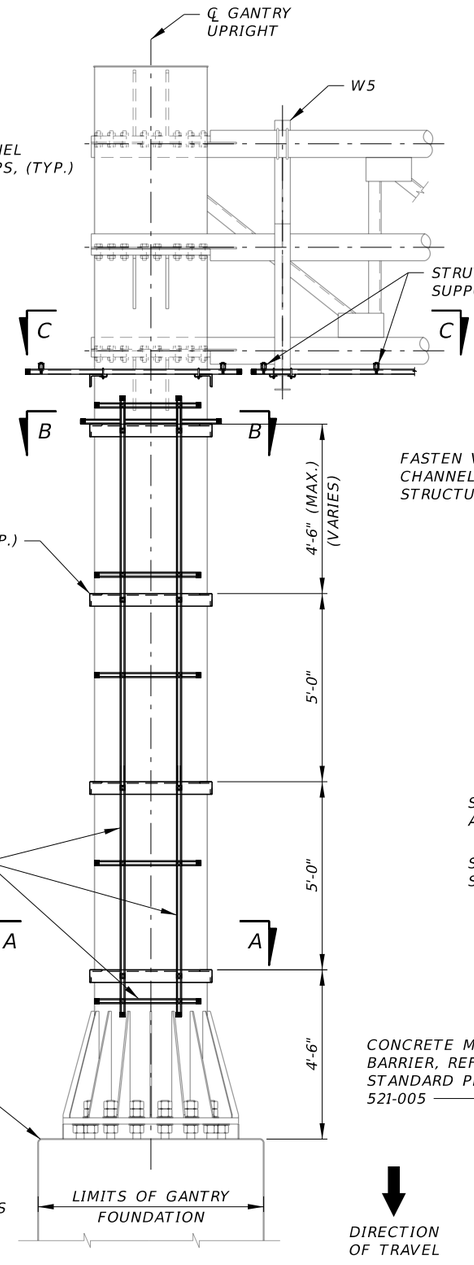
SECTION B-B



SECTION C-C

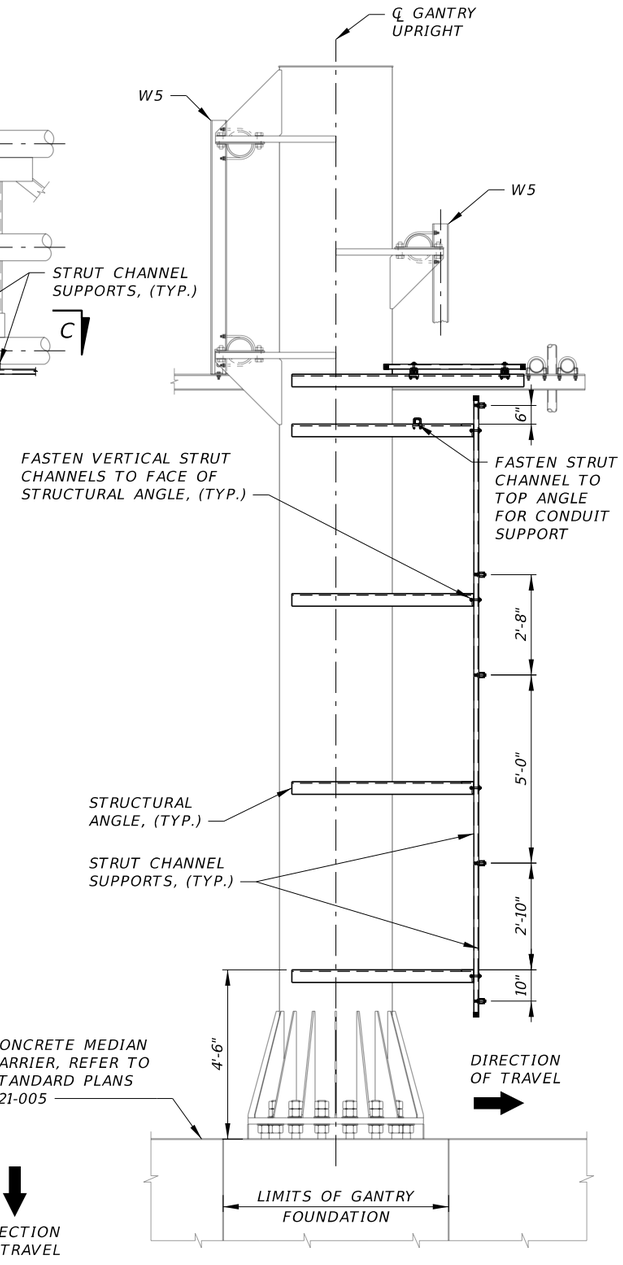


SECTION A-A



1 GANTRY UPRIGHT - VIEW

DIRECTION OF TRAVEL

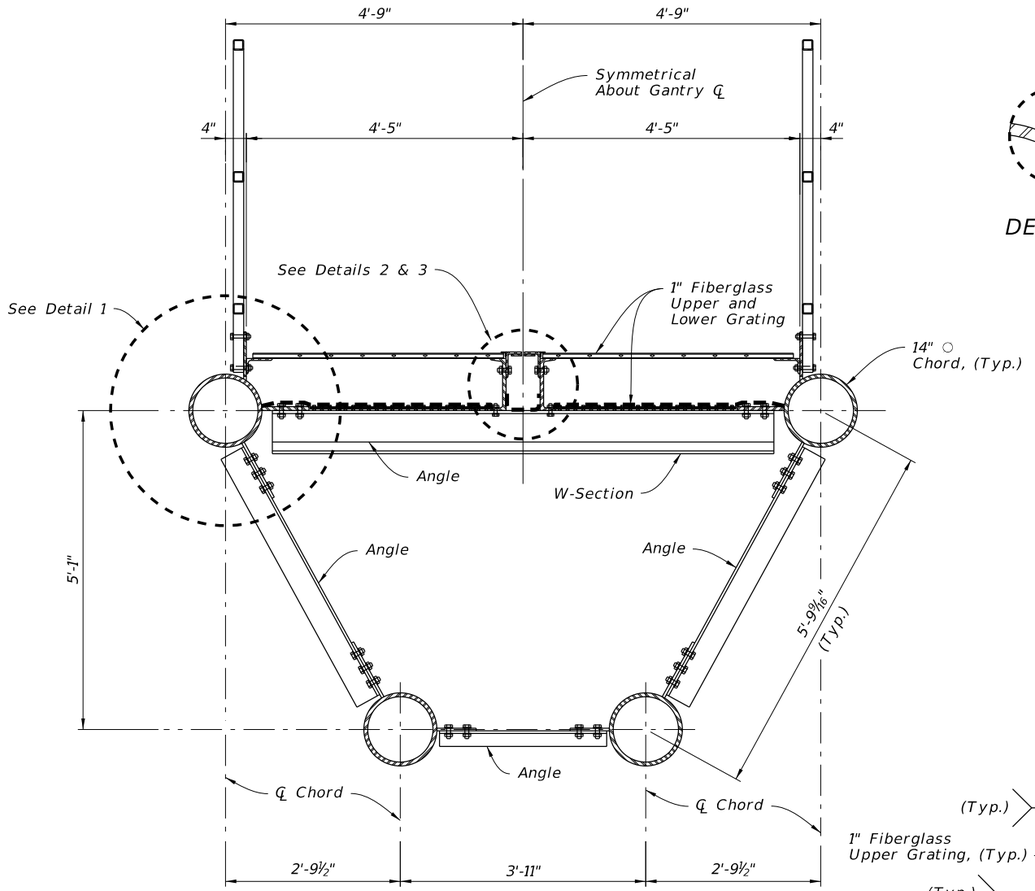


2 GANTRY UPRIGHT - VIEW

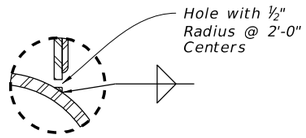
NOT TO SCALE

EXHIBIT 284-17
01/01/2027

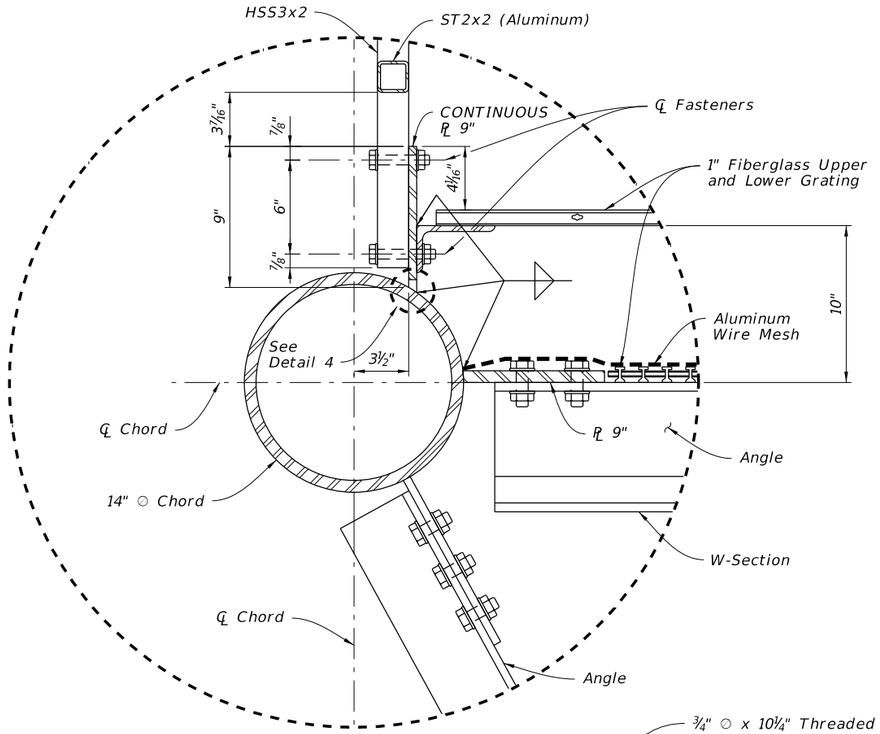
ACCESSIBLE GANTRY TYPICAL SECTION



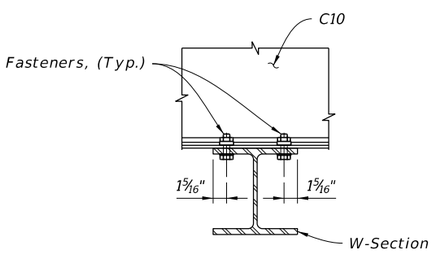
TYPICAL SECTION



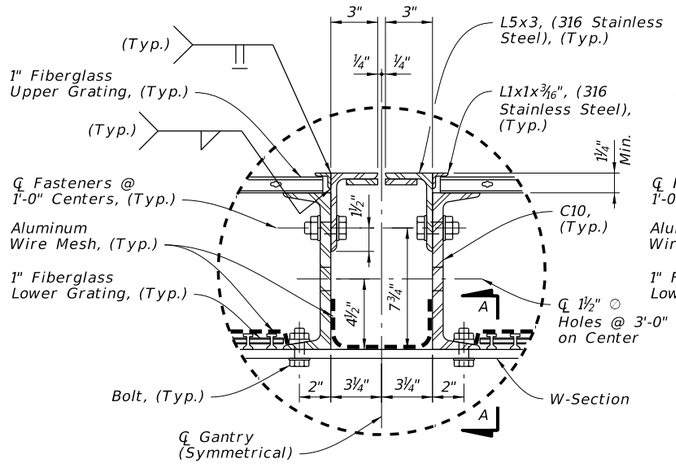
DETAIL 4



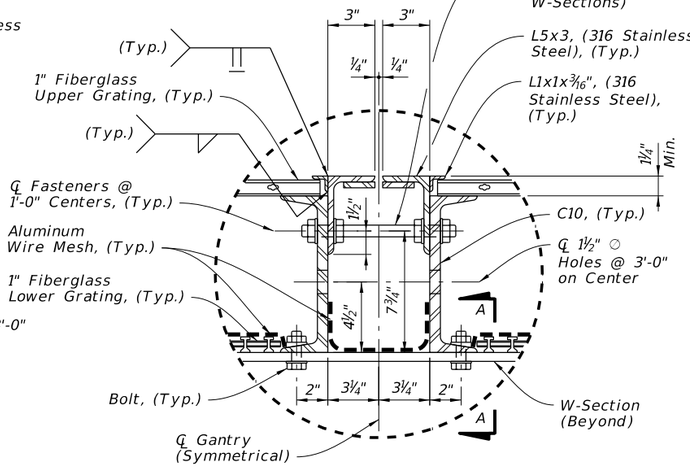
DETAIL 1



SECTION A-A



DETAIL 2

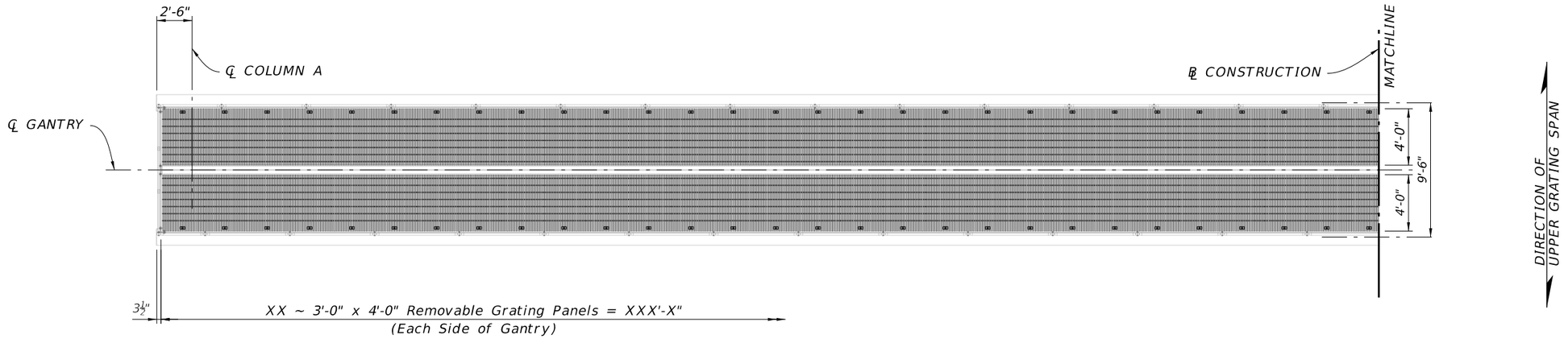


DETAIL 3

NOT TO SCALE

EXHIBIT 284-18
01/01/2027

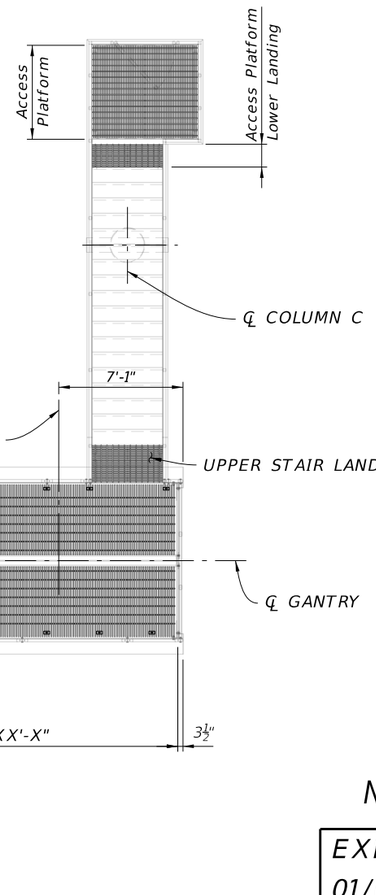
ACCESSIBLE GANTRY DECK AND ACCESS STAIRWAY



UPPER GRATING PLAN

NOTES:

1. LOWER GRATING SHALL BE CONTINUOUS AND WITHOUT OPENINGS OTHER THAN THOSE REQUIRED FOR WIREWAY OR CONDUIT PENETRATIONS.
2. DIRECTION OF LOWER GRATING SPAN IS PERPENDICULAR TO THE UPPER GRATING.

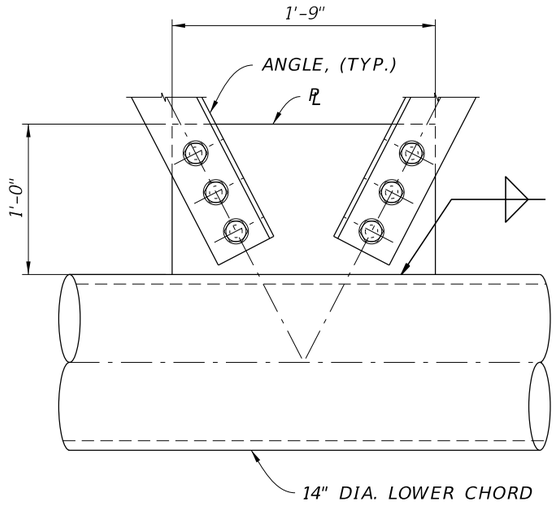


UPPER GRATING PLAN

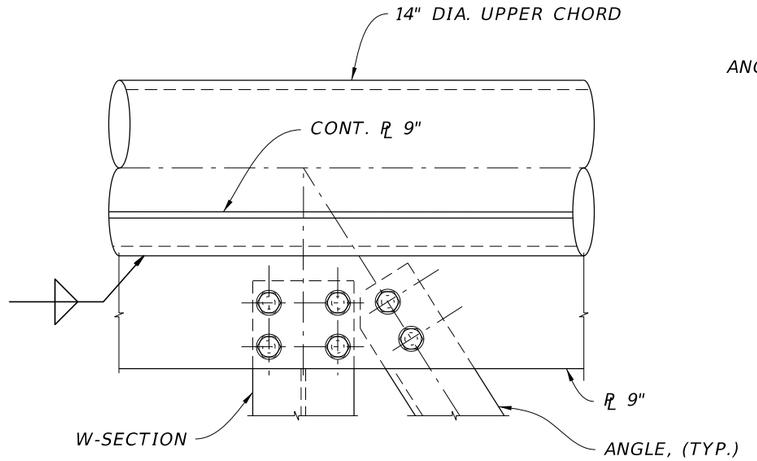
NOT TO SCALE

EXHIBIT 284-19
01/01/2027

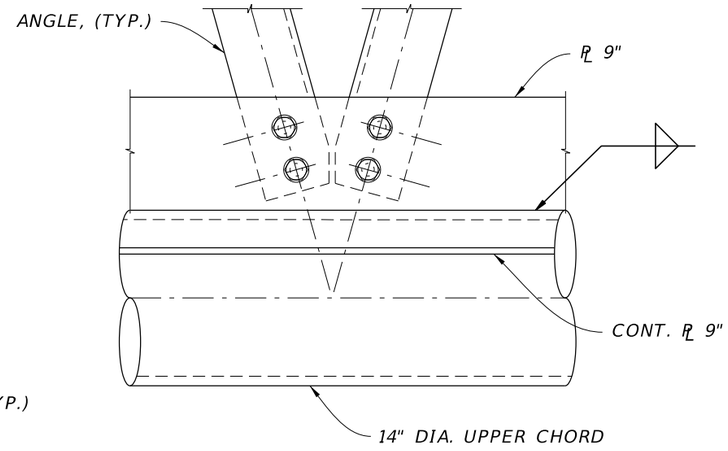
TRUSS CONNECTION DETAILS (1 OF 2)



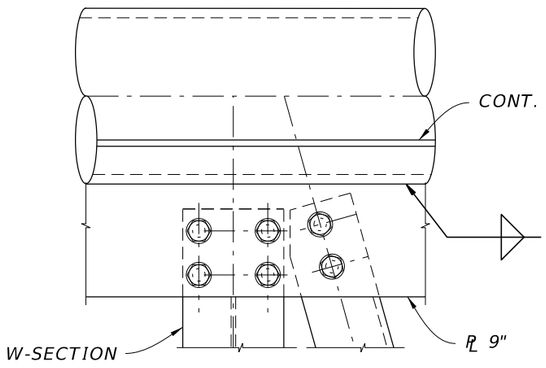
ELEVATION - DETAIL 1



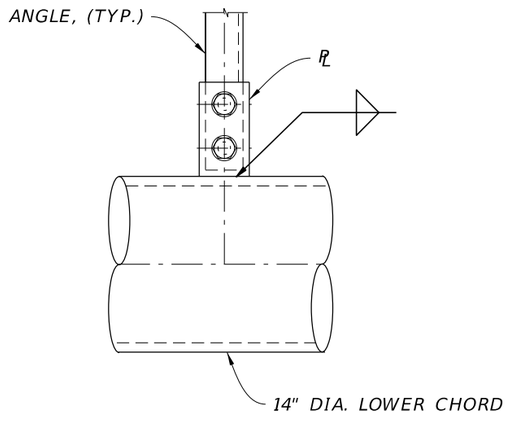
PLAN - DETAIL 2



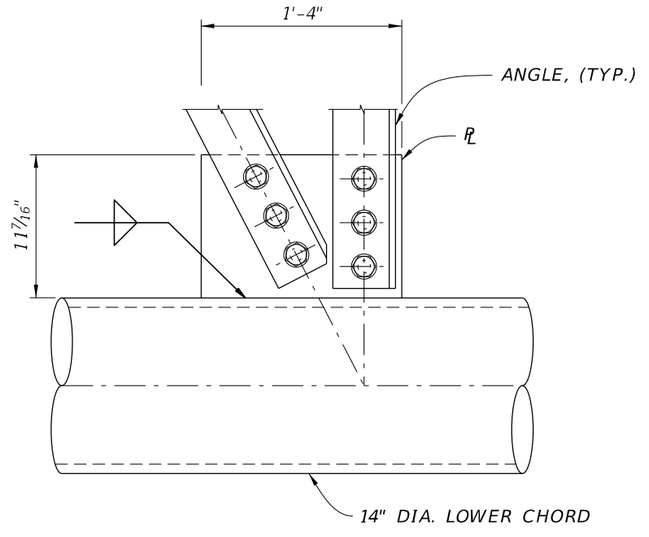
PLAN - DETAIL 3



PLAN - DETAIL 4



ELEVATION - DETAIL 5

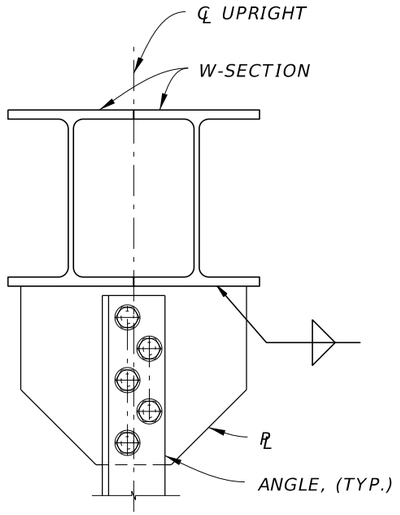


ELEVATION - DETAIL 6

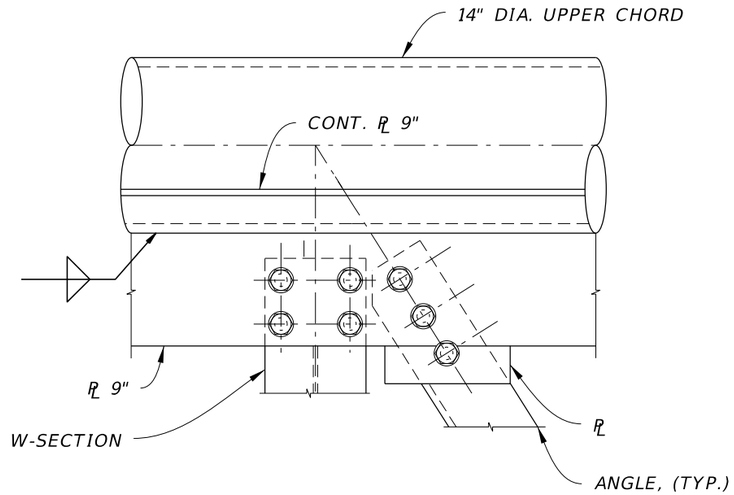
NOT TO SCALE

EXHIBIT 284-20
01/01/2027

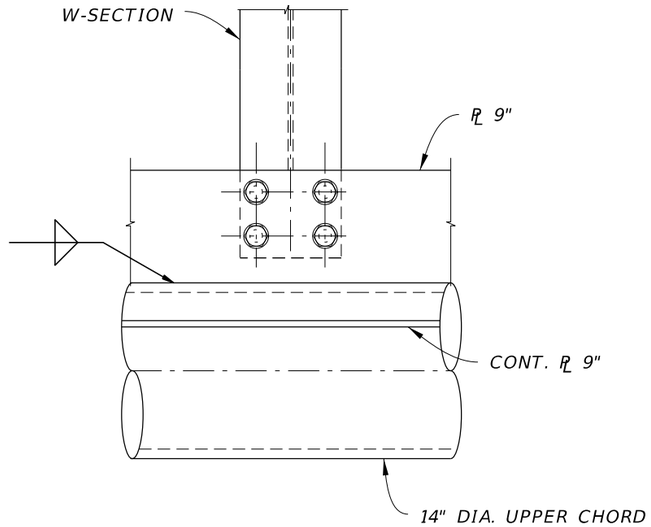
TRUSS CONNECTION DETAILS (2 OF 2)



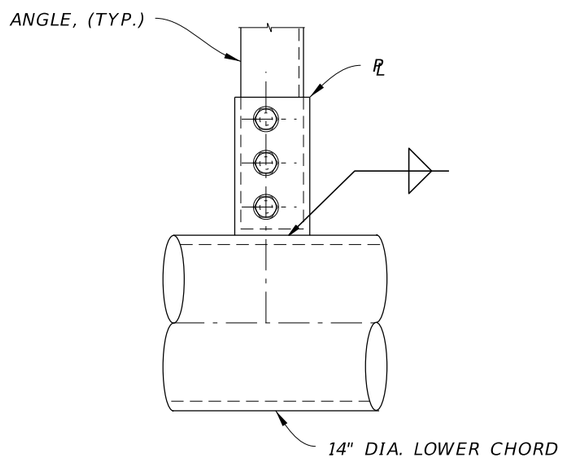
ELEVATION - DETAIL 7



PLAN - DETAIL 8



PLAN - DETAIL 9

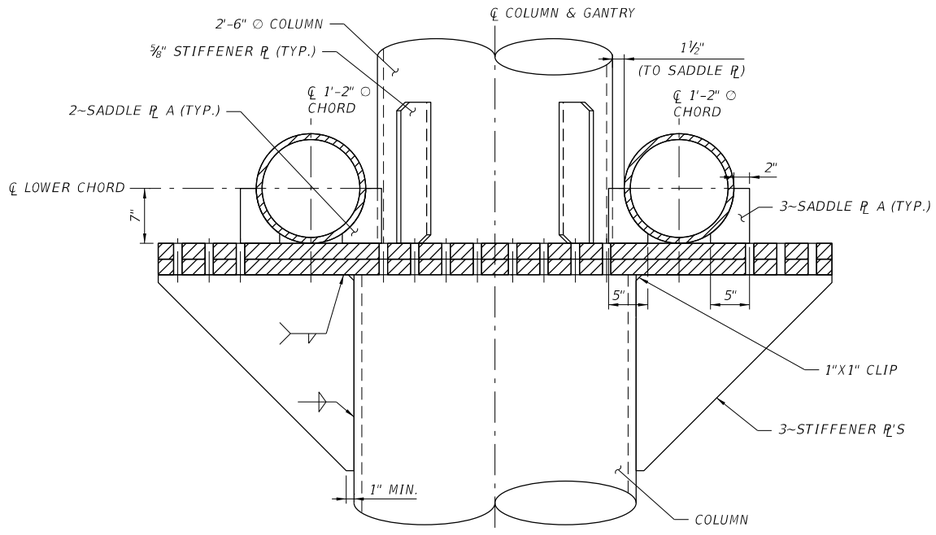


ELEVATION - DETAIL 10

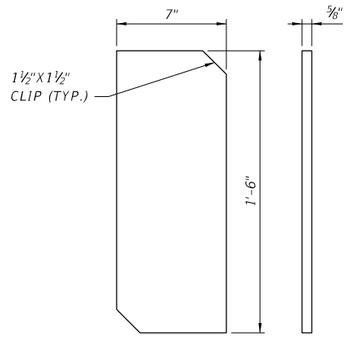
NOT TO SCALE

EXHIBIT 284-21
01/01/2027

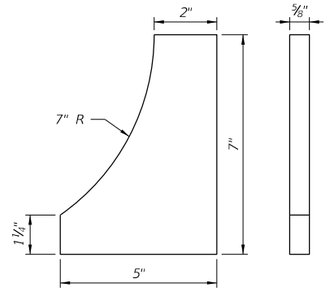
LOWER CHORD CONNECTION



SECTION A-A



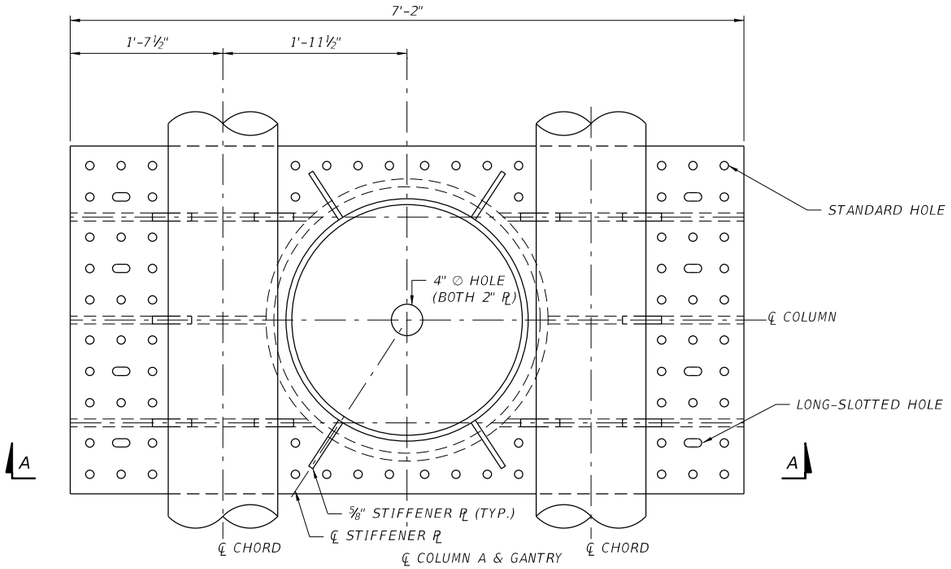
⅝" STIFFENER PL DETAIL



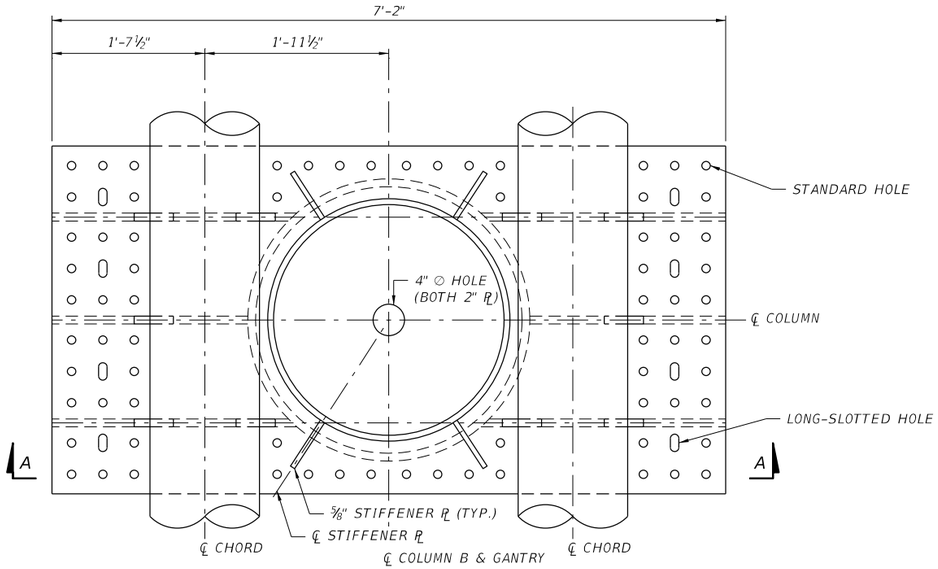
SADDLE PL A DETAIL

NOTES:

1. ENSURE MINIMUM QUANTITY OF BOLTS ARE UTILIZED PER STANDARD SPECIFICATION 460-7.7 DURING GANTRY INSTALLATION PRIOR TO CRANE RELEASE.
2. CONNECTION IS SYMMETRICAL ABOUT ℄ OF GANTRY.
3. THIS DETAIL IS NOT APPLICABLE AT MEDIAN UPRIGHTS. A PROJECT-SPECIFIC DESIGN IS REQUIRED.



PLAN- COLUMN A

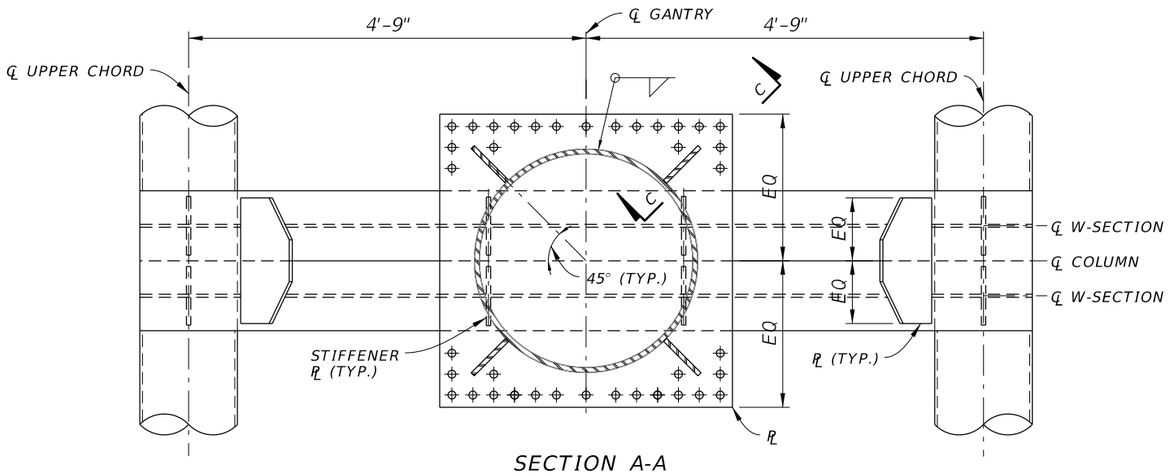


PLAN- COLUMN B

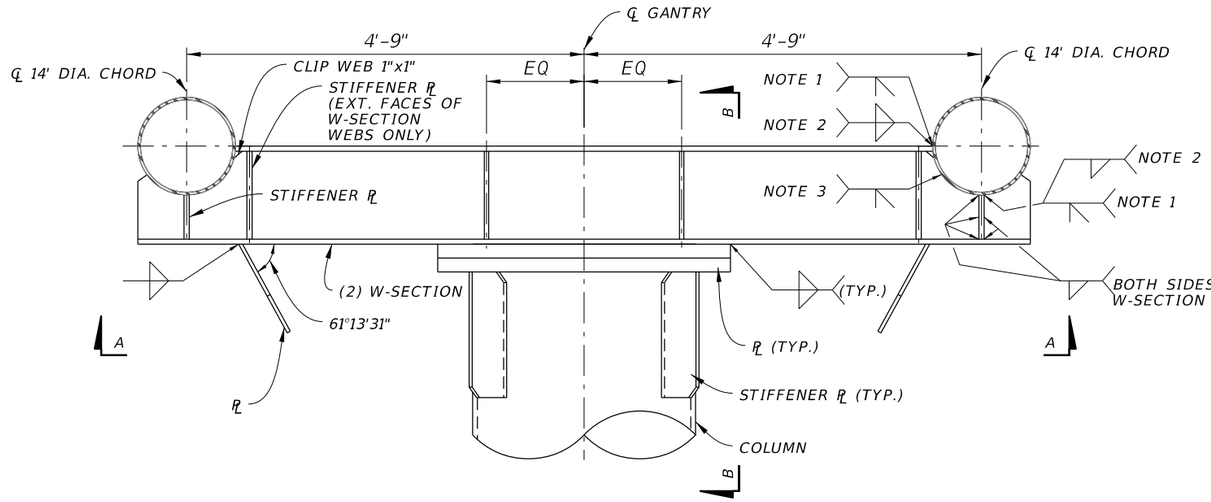
NOT TO SCALE

EXHIBIT 284-22
01/01/2027

UPPER CHORD CONNECTION



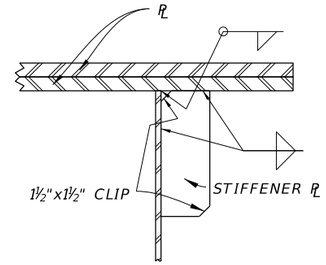
SECTION A-A



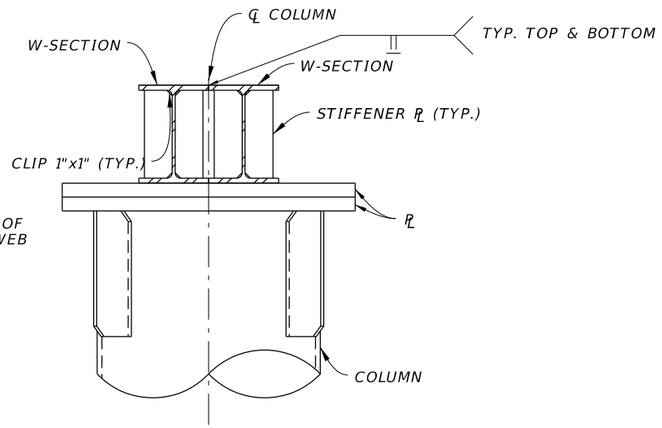
ELEVATION
COLUMN TO UPPER CHORD CONNECTION

NOTES:

1. PROVIDE PARTIAL PENETRATION GROOVE WELD IN BETWEEN THE WEBS OF THE W-SECTION.
2. PROVIDE FILLET WELDS ON THE FLANGES OUTSIDE OF THE WEBS OF THE W-SECTION.
3. PROVIDE PARTIAL PENETRATION GROOVE WELD OUTSIDE THE WEBS OF THE W-SECTION.
4. THIS DETAIL IS NOT APPLICABLE AT MEDIAN UPRIGHTS. A PROJECT-SPECIFIC DETAIL IS REQUIRED.



SECTION C-C

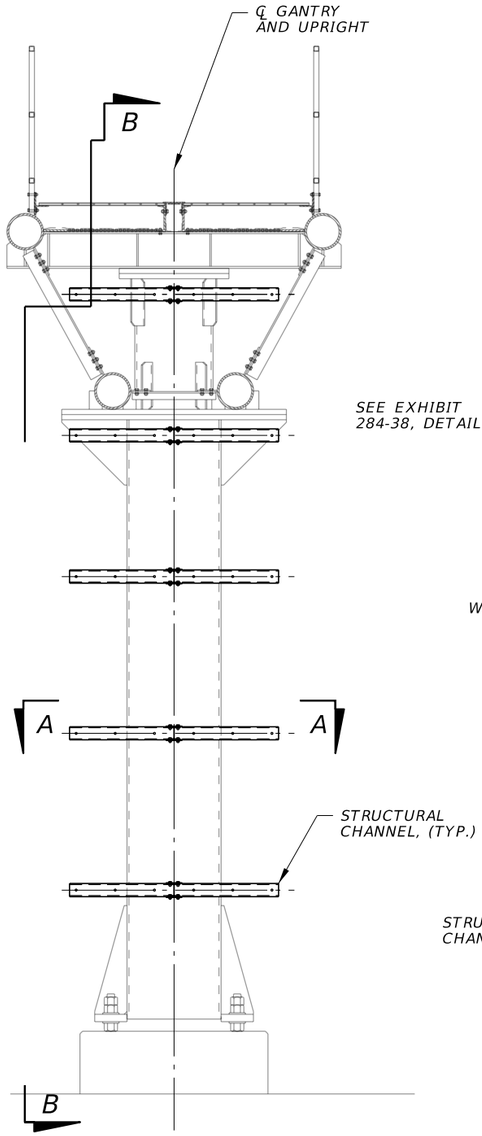


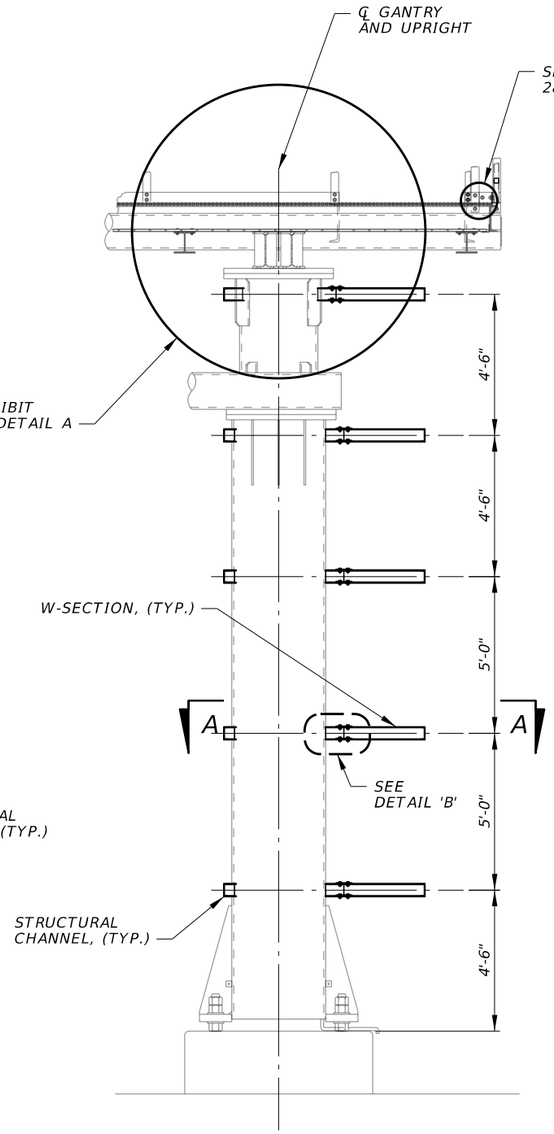
SECTION B-B

NOT TO SCALE

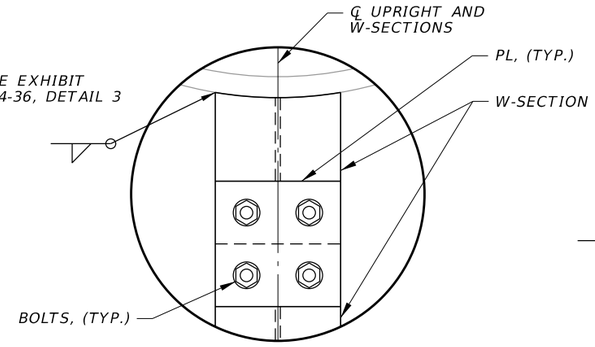
EXHIBIT 284-23
01/01/2027

UPRIGHT STRUCTURAL DETAILS FOR WIREWAY SUPPORT

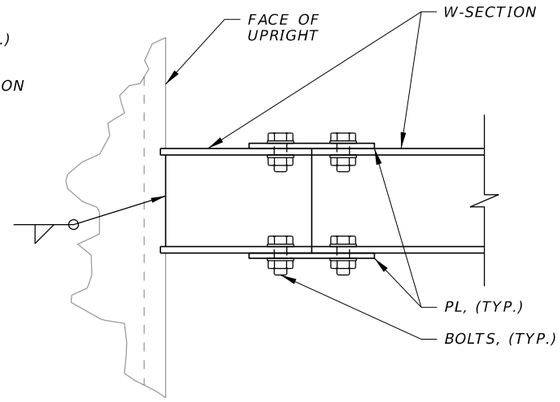




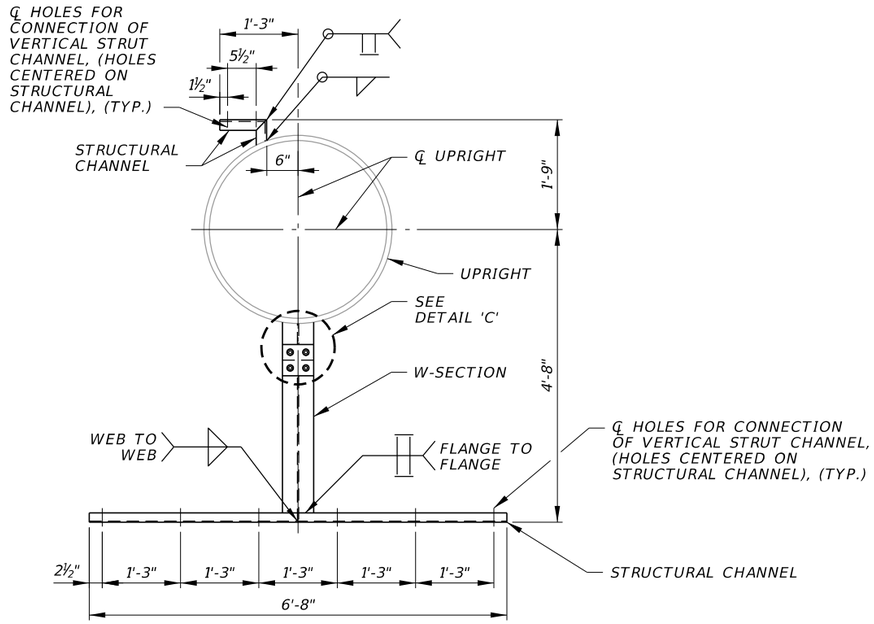
DETAIL 1: VERTICAL WIREWAY END ELEVATION DETAIL 2: VERTICAL WIREWAY SECTION B-B



DETAIL 'C'



UPRIGHT DETAIL 'B'

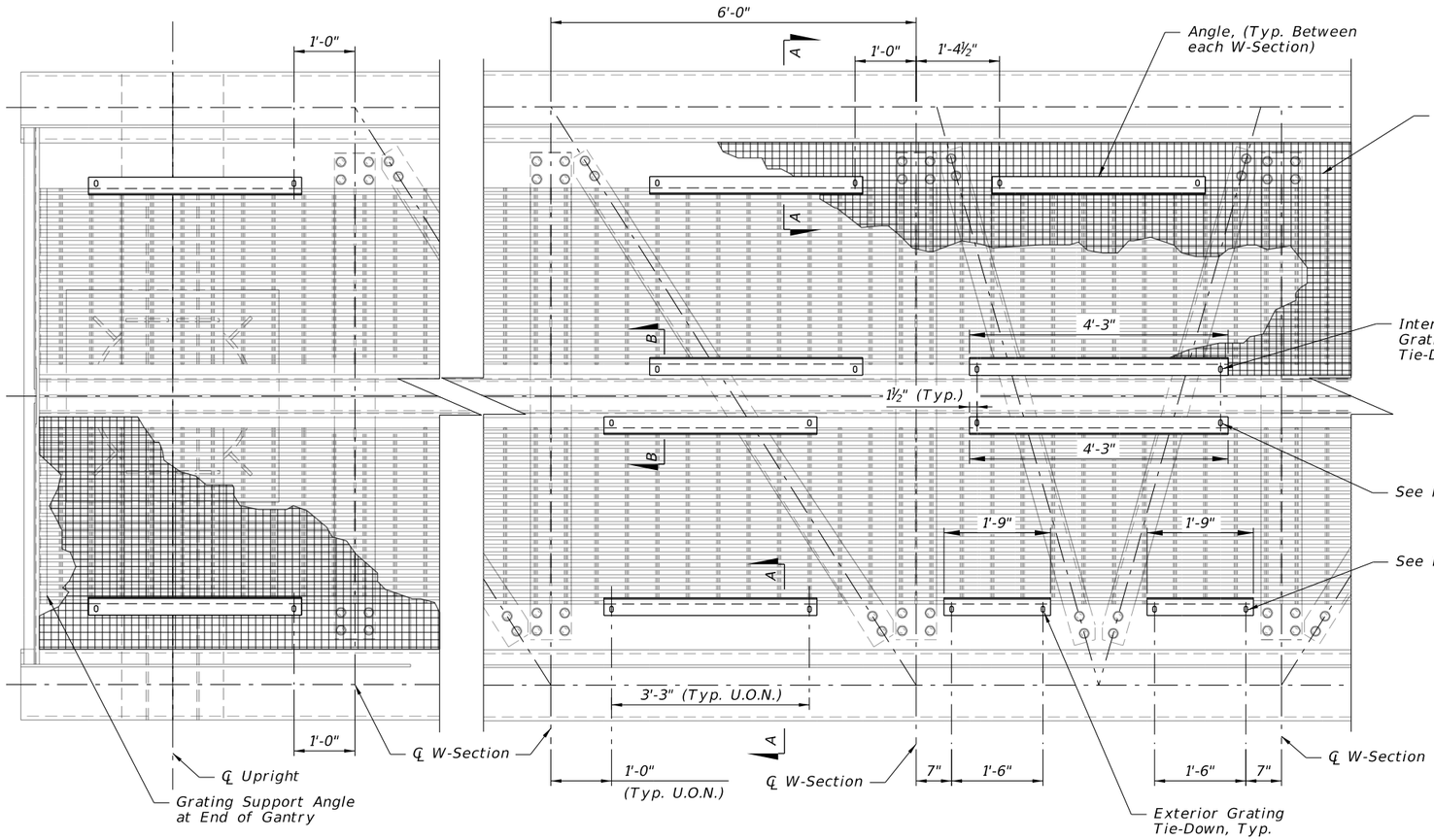


SECTION A-A

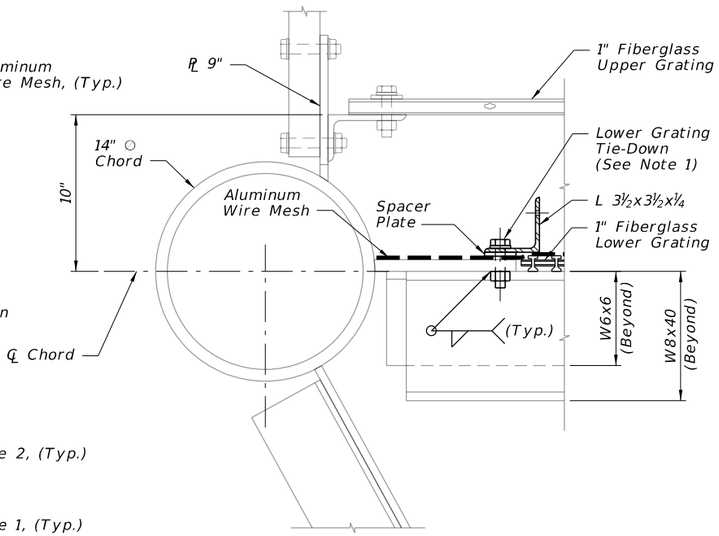
NOT TO SCALE

EXHIBIT 284-24
01/01/2027

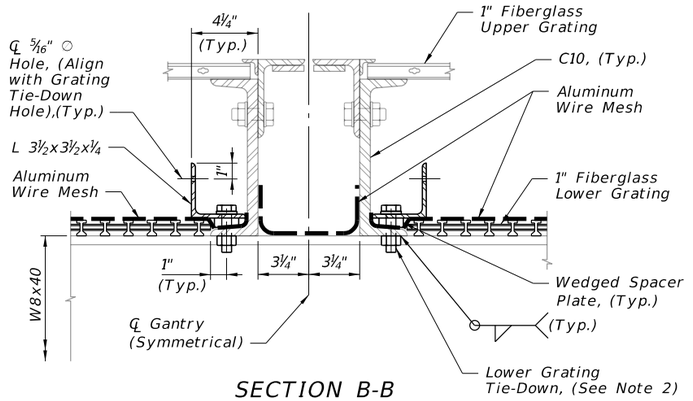
LOWER GRATING DETAIL



TYPICAL LOWER GRATING PLAN
(RAILING AND TOLL EQUIPMENT NOT SHOWN)



SECTION A-A



SECTION B-B

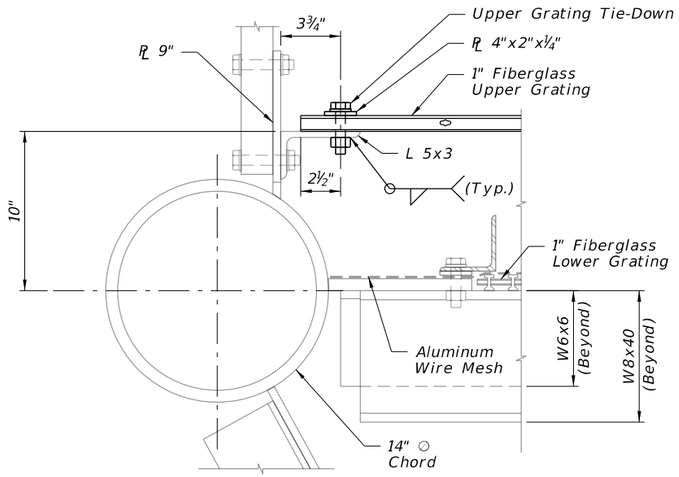
NOTES:

1. BOLT WITH WASHERS, NUT AND 1½"x1½" SPACER PLATE. PROVIDE SLOTTED HOLES IN L3½x 3½ AND HOLES IN 9" PLATE AND SPACER PLATE. THE SLOTTED HOLE IN THE ANGLE SHALL BE PERPENDICULAR TO THE LENGTH OF THE ANGLE. NUT SHALL BE SHOP WELDED TO THE BOTTOM OF 9" PLATE.
2. BOLT WITH WASHERS, NUT AND 1½"x1½" WEDGED SPACER PLATE. PROVIDE HOLES IN L3½x 3½, C10 AND WEDGED SPACER PLATE. NUT SHALL BE SHOP WELDED TO THE BOTTOM OF C10.
3. PROVIDE 1/32" THICK NEOPRENE PAD BETWEEN ANGLE AND ALUMINUM CABLE TRAY.
4. PROVIDE SHOP FABRICATED NOTCHES IN LOWER GRATING TO CLEAR BOLTS AT MEMBER CONNECTIONS.

NOT TO SCALE

EXHIBIT 284-25
01/01/2027

UPPER GRATING DETAIL

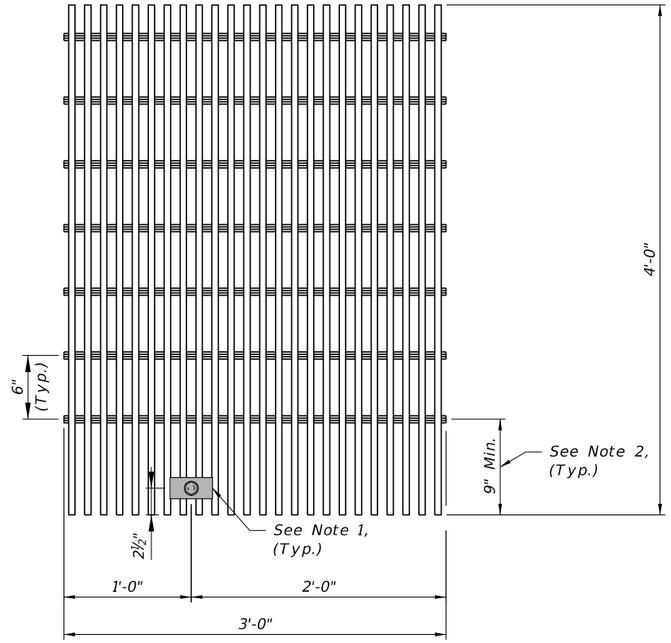


SECTION A-A

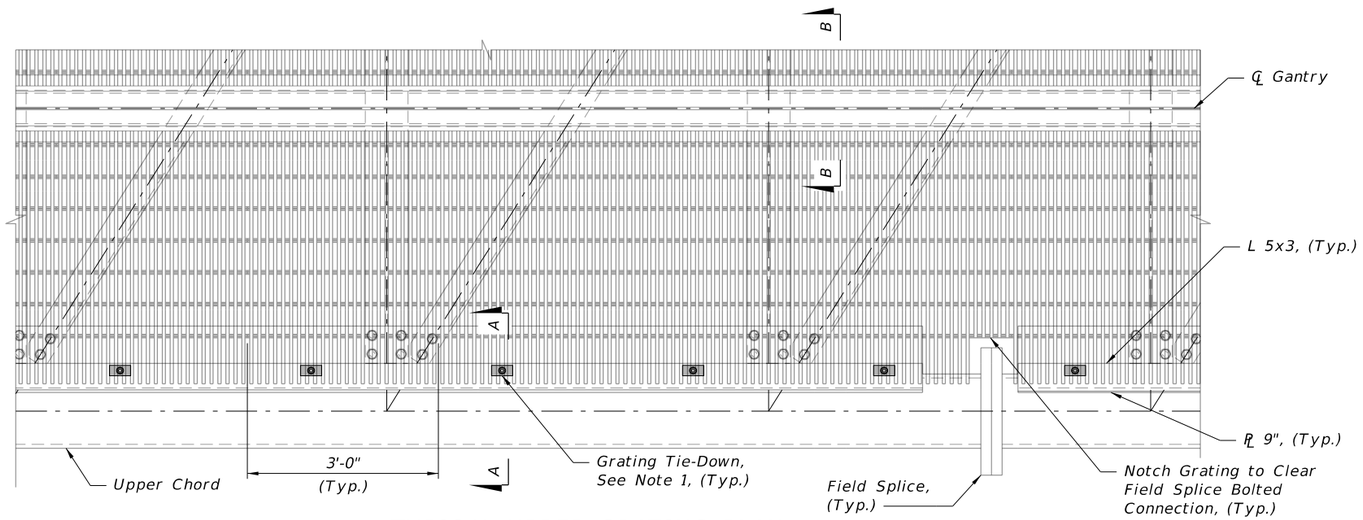
NOTES:

1. 2"x4" PLATE WITH BOLT WITH WASHERS AND NUT. PROVIDE HOLES IN L5x3 FOR UPPER GRATING. NUT MUST BE SHOP WELDED TO BOTTOM OF L5x3.

2. SHOP FABRICATE EACH GRATING PANEL SUCH THAT NO BARS OR PHYSICAL BARRIERS CONFLICT WITH ANY CABLE ROUTING BETWEEN THE CABLE TRAYS AND THE GANTRY MOUNTED EQUIPMENT. EACH GRATING PANEL MUST BE ABLE TO BE REMOVED WITHOUT DAMAGING OR DISCONNECTING ANY INSTALLED CABLES ON THE GANTRY.

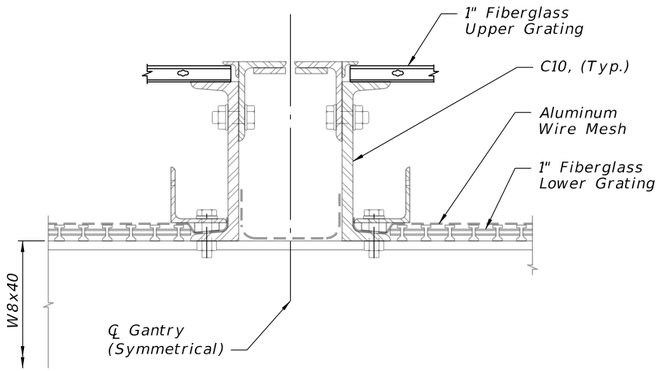


TYPICAL UPPER GRATING PANEL



TYPICAL UPPER GRATING PLAN

(ONLY ONE SIDE SHOWN, OTHER SIDE TYPICAL)

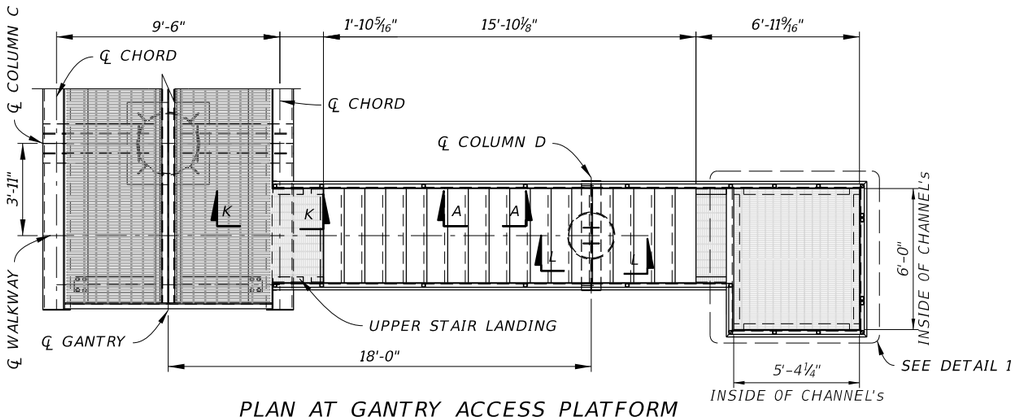


SECTION B-B

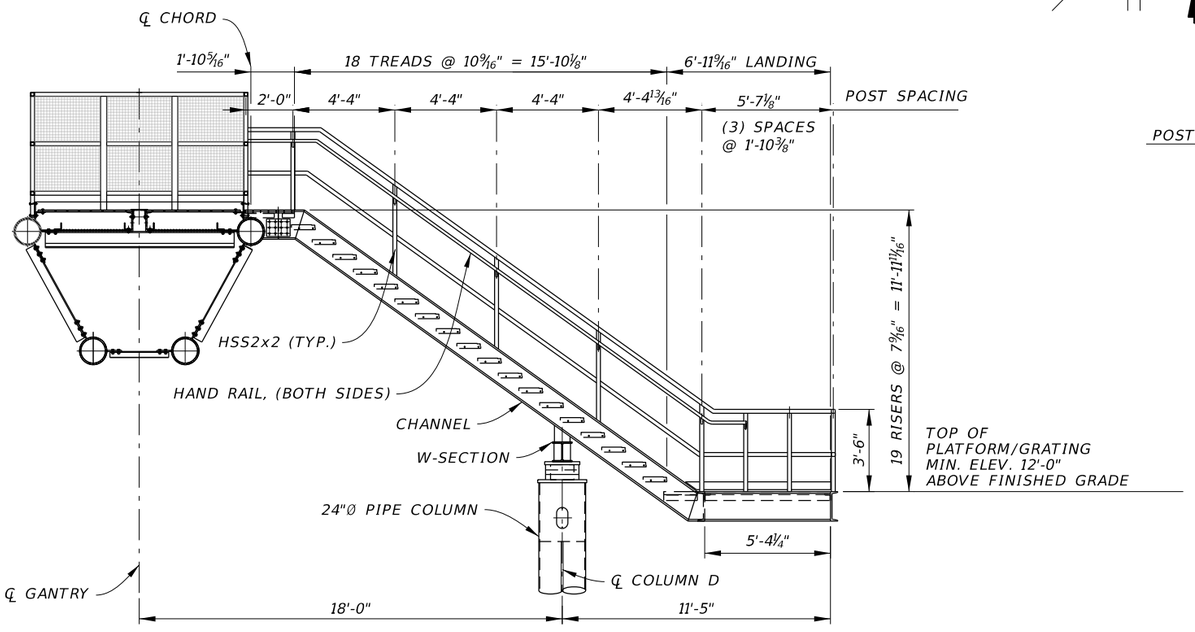
NOT TO SCALE

EXHIBIT 284-26
01/01/2027

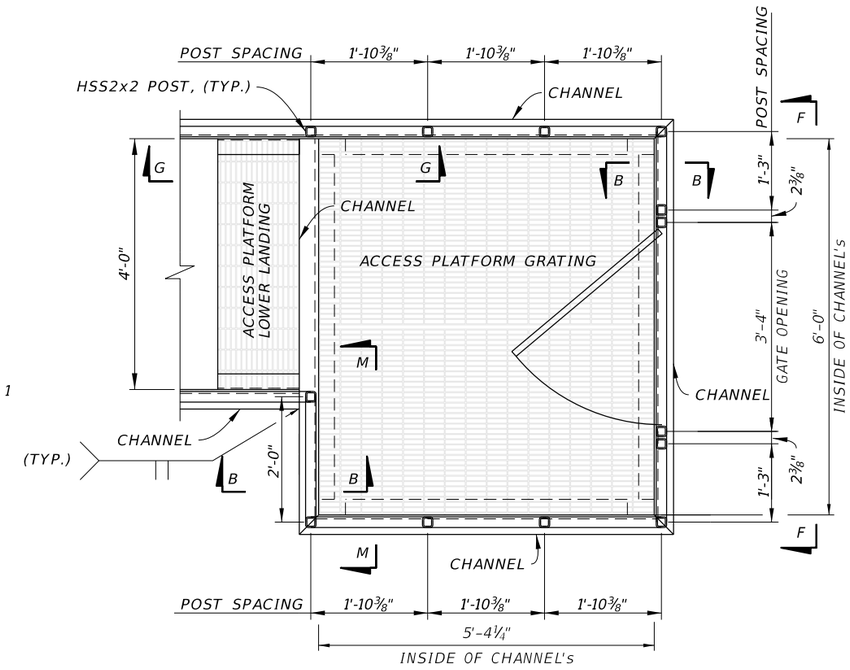
STAIR AND PLATFORMS



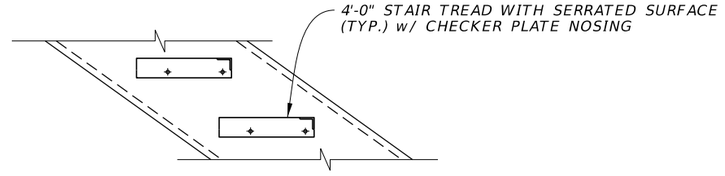
PLAN AT GANTRY ACCESS PLATFORM



END ELEVATION



DETAIL 1
(Framing Plan Access Platform)

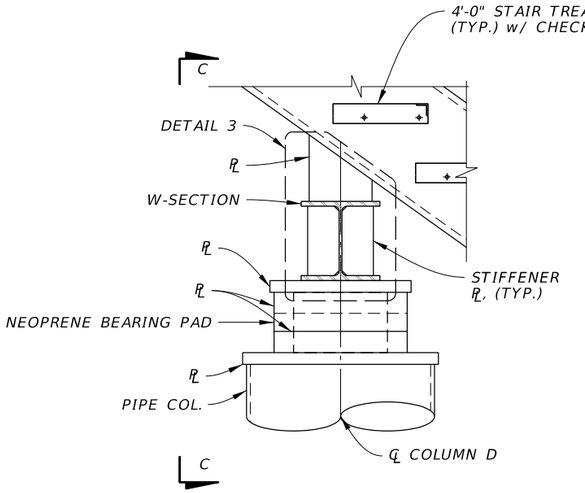


SECTION A-A
(Typical Tread Detail)

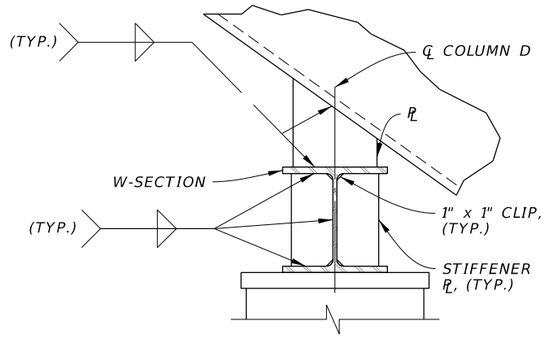
NOT TO SCALE

EXHIBIT 284-27
01/01/2027

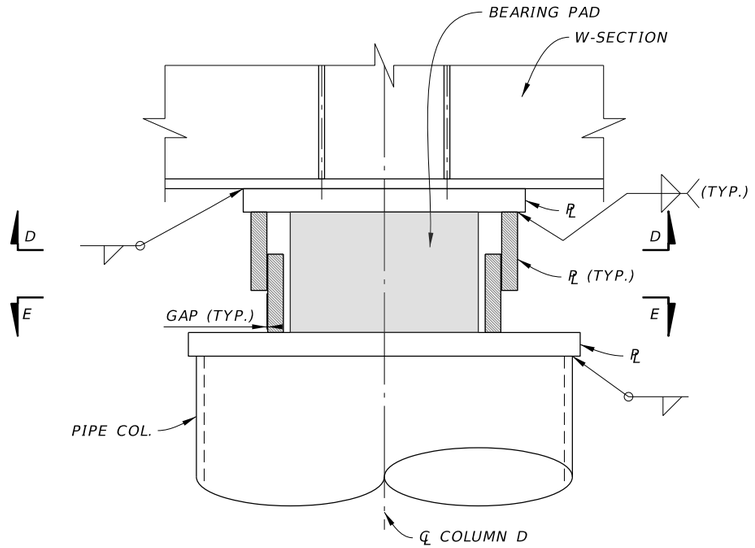
STAIR COLUMN DETAILS



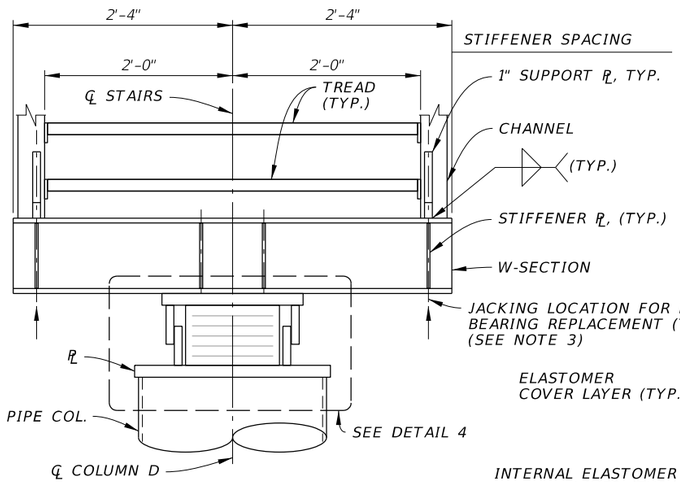
SECTION L-L



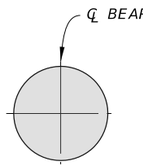
DETAIL 3



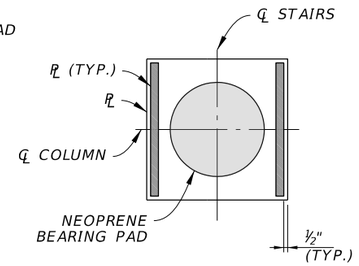
DETAIL 4



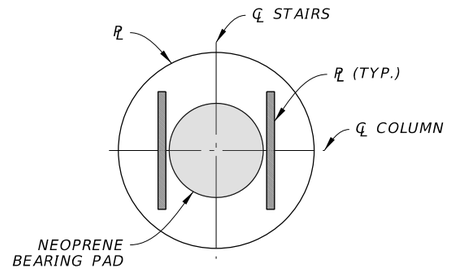
SECTION C-C



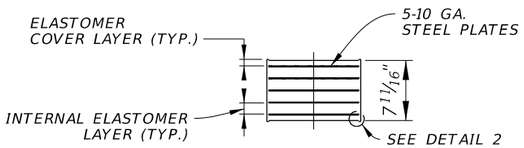
PLAN



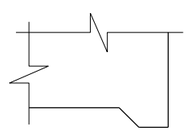
SECTION D-D



SECTION E-E



ELEVATION - BEARING PAD



DETAIL 2

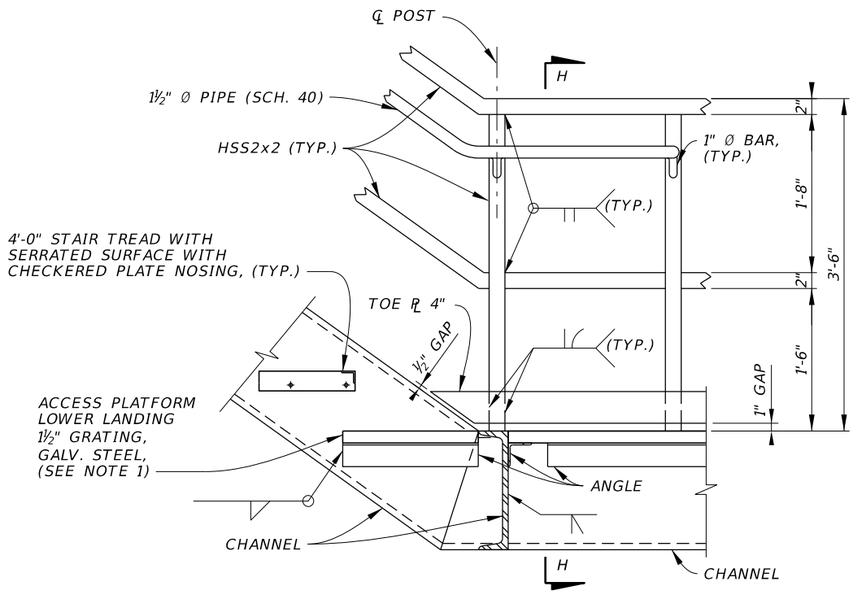
NOTES:

1. NEOPRENE BEARING PAD MUST HAVE A SHEAR MODULUS (G) OF 110 PSI.
2. STEEL PLATES IN BEARING PADS MUST CONFORM TO ASTM A1011 GRADE 36, TYPE 1.
3. FOR FUTURE BEARING REPLACEMENT, PLACE JACKS AT LOCATIONS SHOWN. MINIMUM SERVICE JACKING LOADS ARE 1.2 KIP.

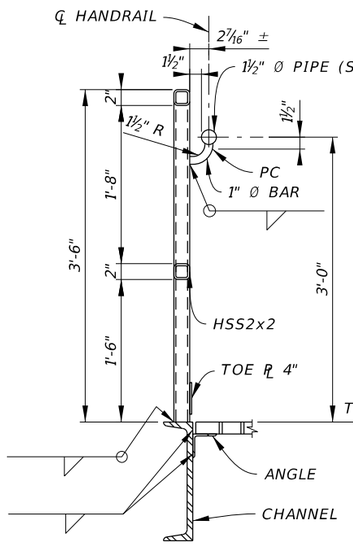
NOT TO SCALE

EXHIBIT 284-28
01/01/2027

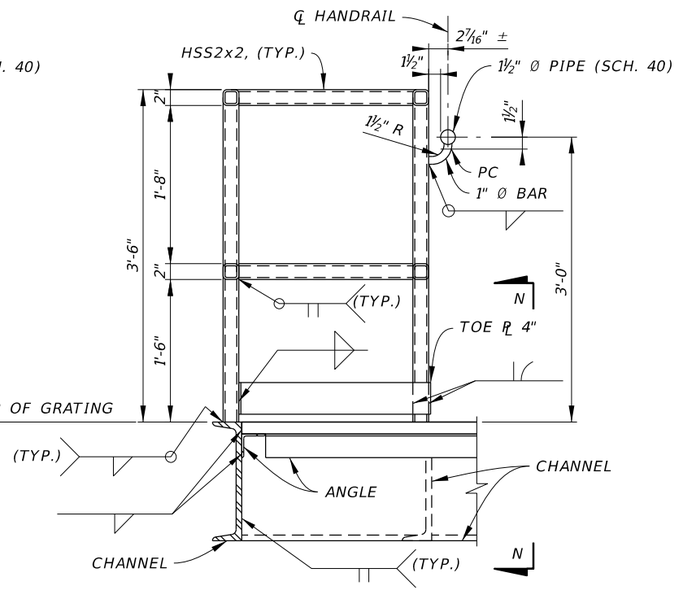
PLATFORM DETAILS



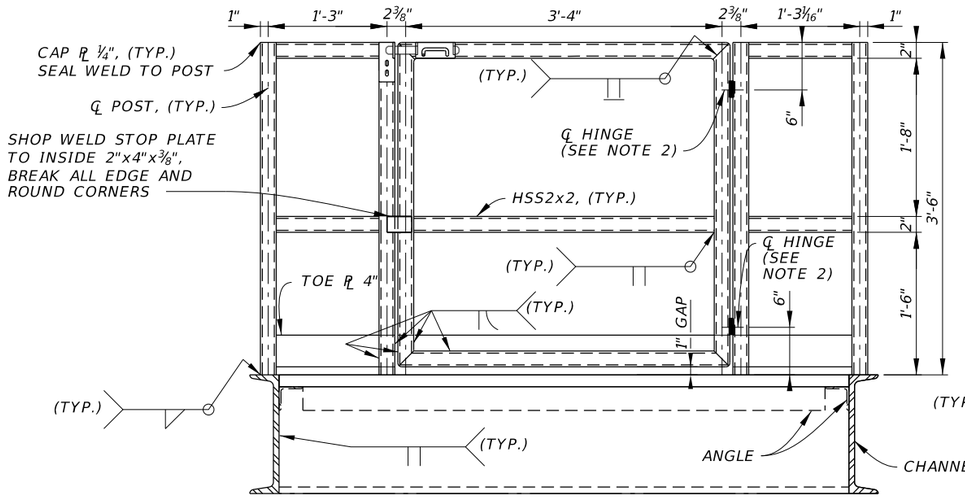
SECTION G-G



SECTION H-H



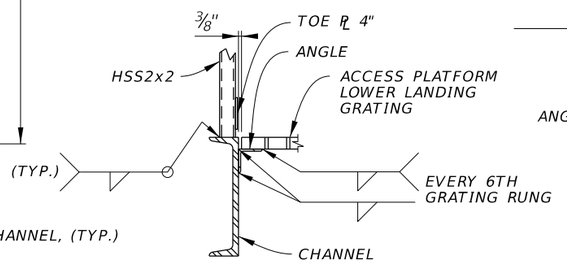
SECTION M-M



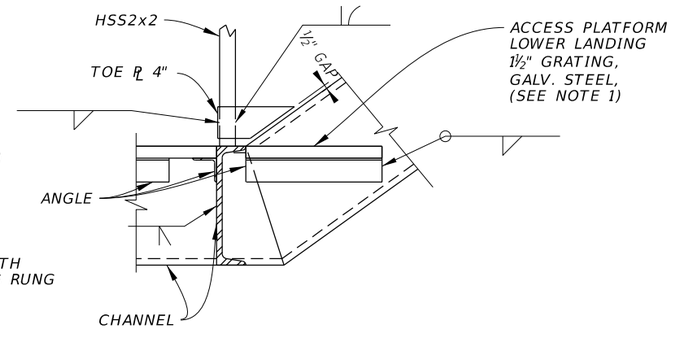
SECTION F-F

NOTES:

1. WELD GRATING RUNGS TO ANGLE AT A MINIMUM OF THREE LOCATIONS ON EACH SIDE.
2. HINGE MUST BE SELF-CLOSING STAINLESS STEEL HINGE, FASTEN WITH STAINLESS STEEL SCREWS, PROVIDE NEOPRENE PAD BETWEEN HINGE AND BOTH HSS2x2 ALONG HEIGHT OF HINGE.



SECTION B-B

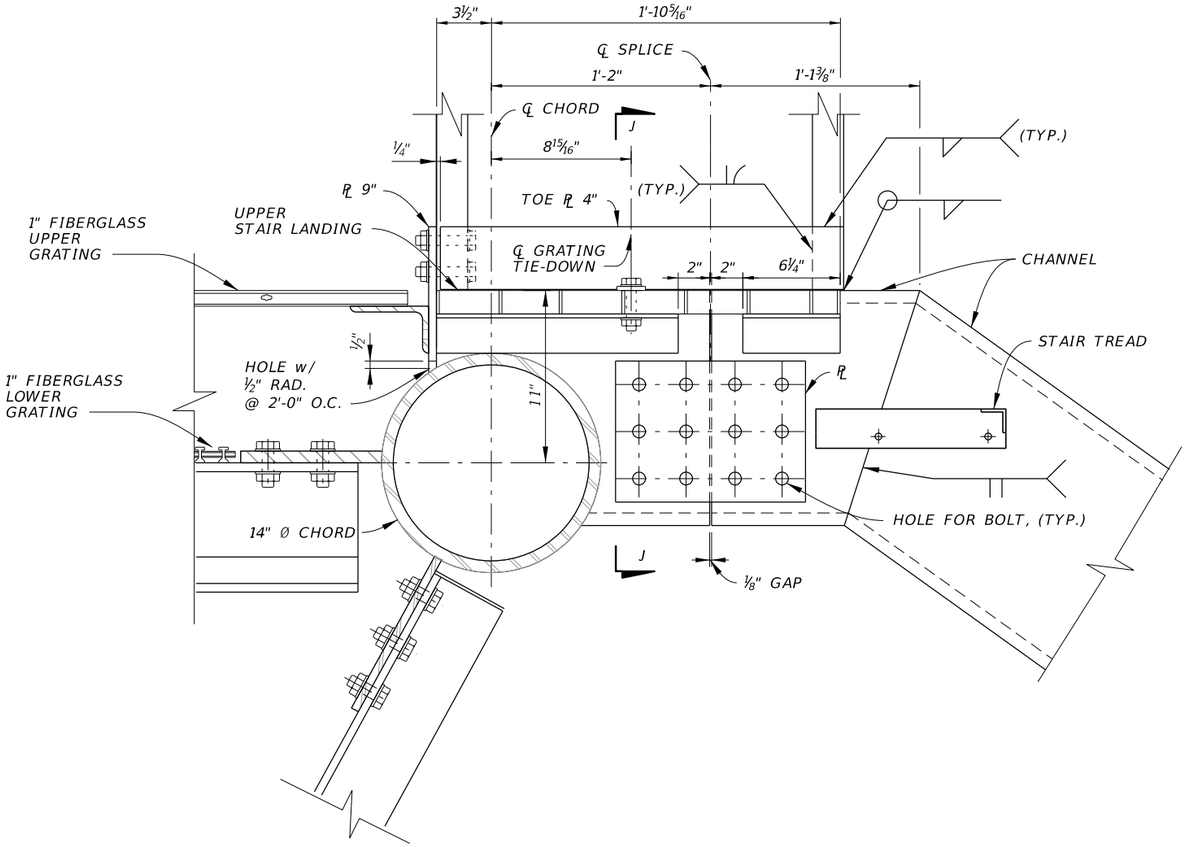


SECTION N-N

NOT TO SCALE

EXHIBIT 284-29
01/01/2027

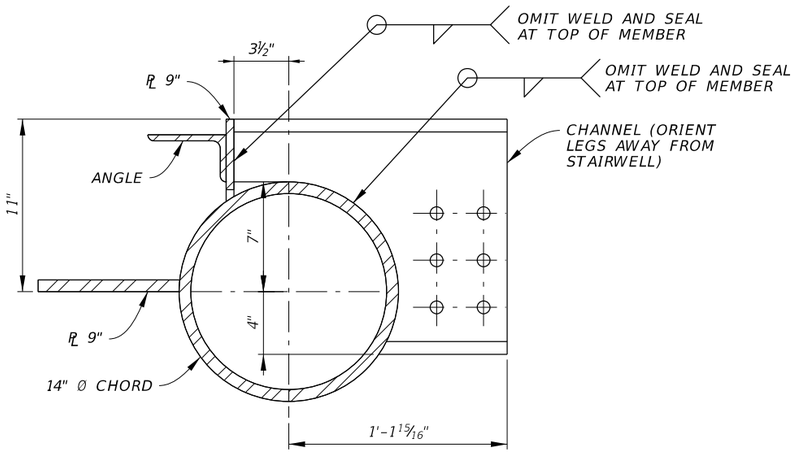
UPPER STAIR LANDING DETAIL



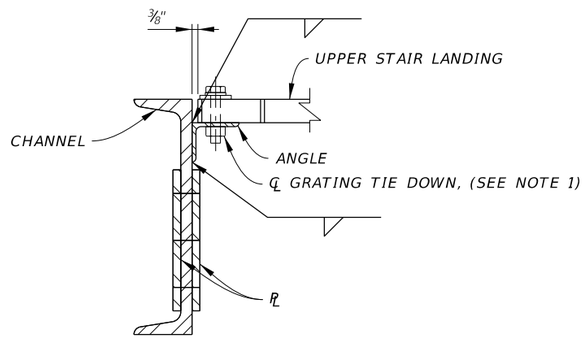
SECTION K-K
(Stairway Support/Connection)

NOTE:

1. 2"x4" PLATE WITH BOLT WITH WASHER AND NUT. PROVIDE HOLES IN ANGLE FOR GRATING. NUT MUST BE SHOP WELDED TO BOTTOM OF ANGLE.



14" Ø CHORD TO CHANNEL CONNECTION DETAIL

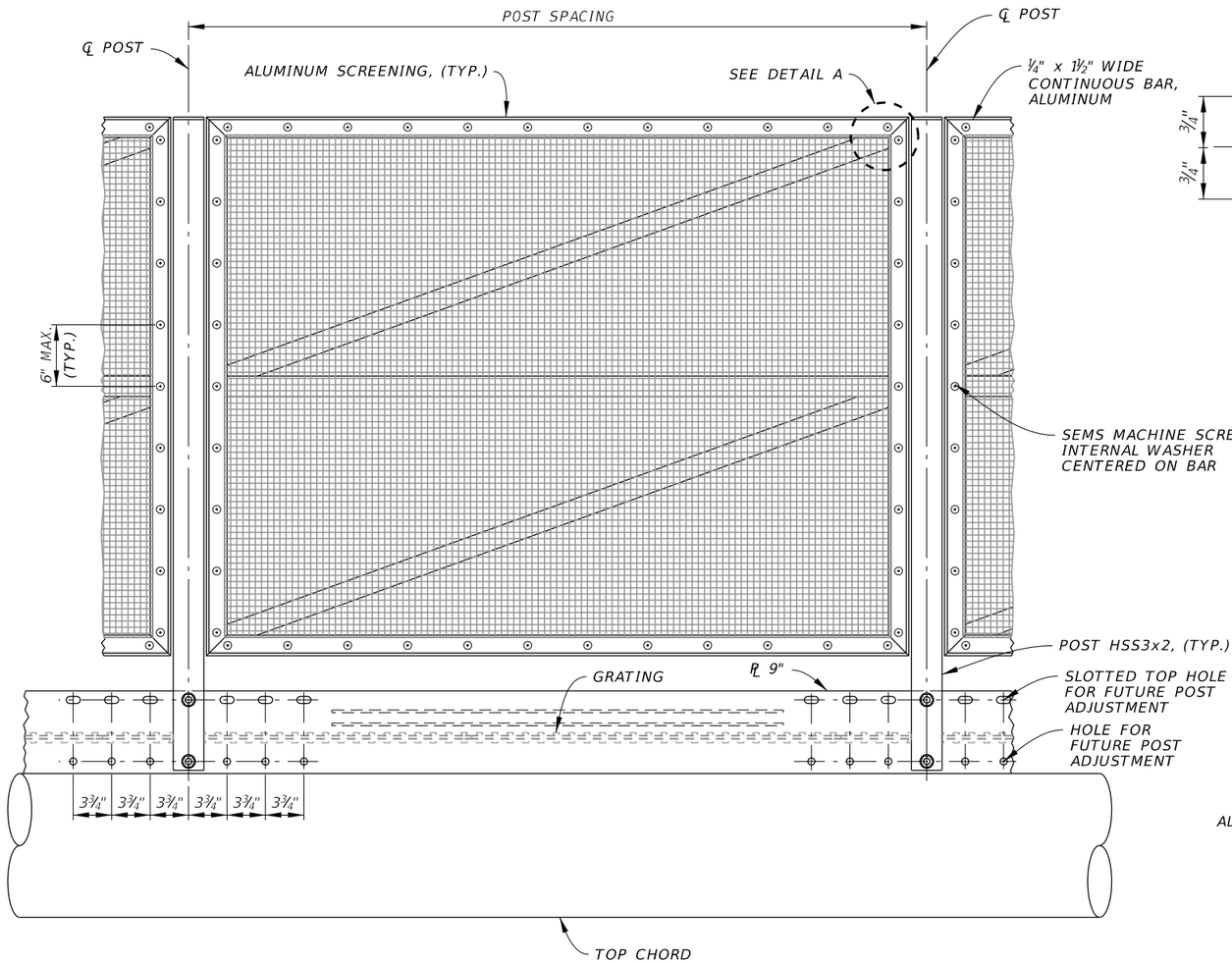


SECTION J-J

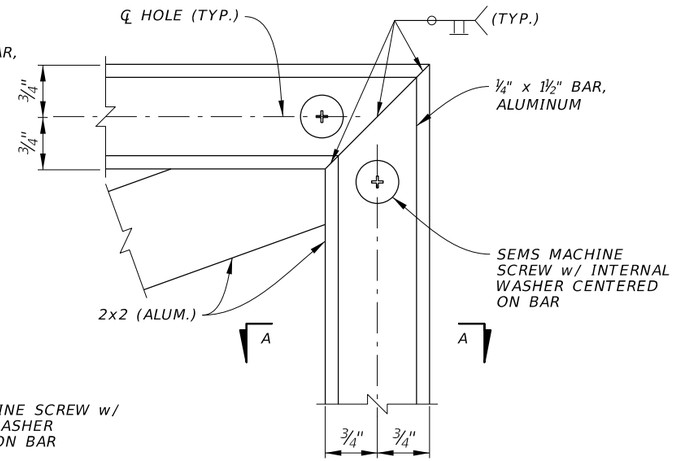
NOT TO SCALE

EXHIBIT 284-30
01/01/2027

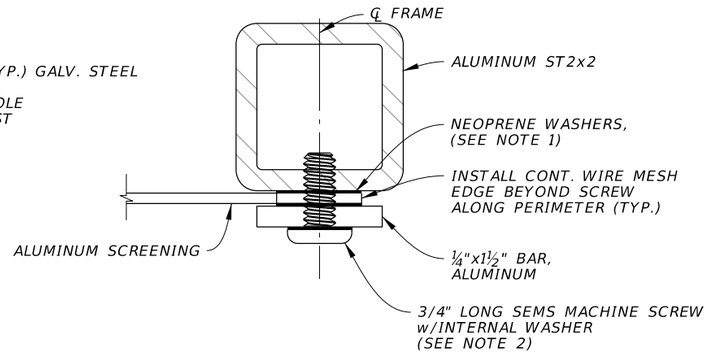
SWING GATE (1 OF 2)



TYPICAL ELEVATION - OUTSIDE OF GANTRY
(Panel Types A, B, And C Shown, Others Similar)



DETAIL A
(Aluminum Screening Not Shown)



SECTION A-A

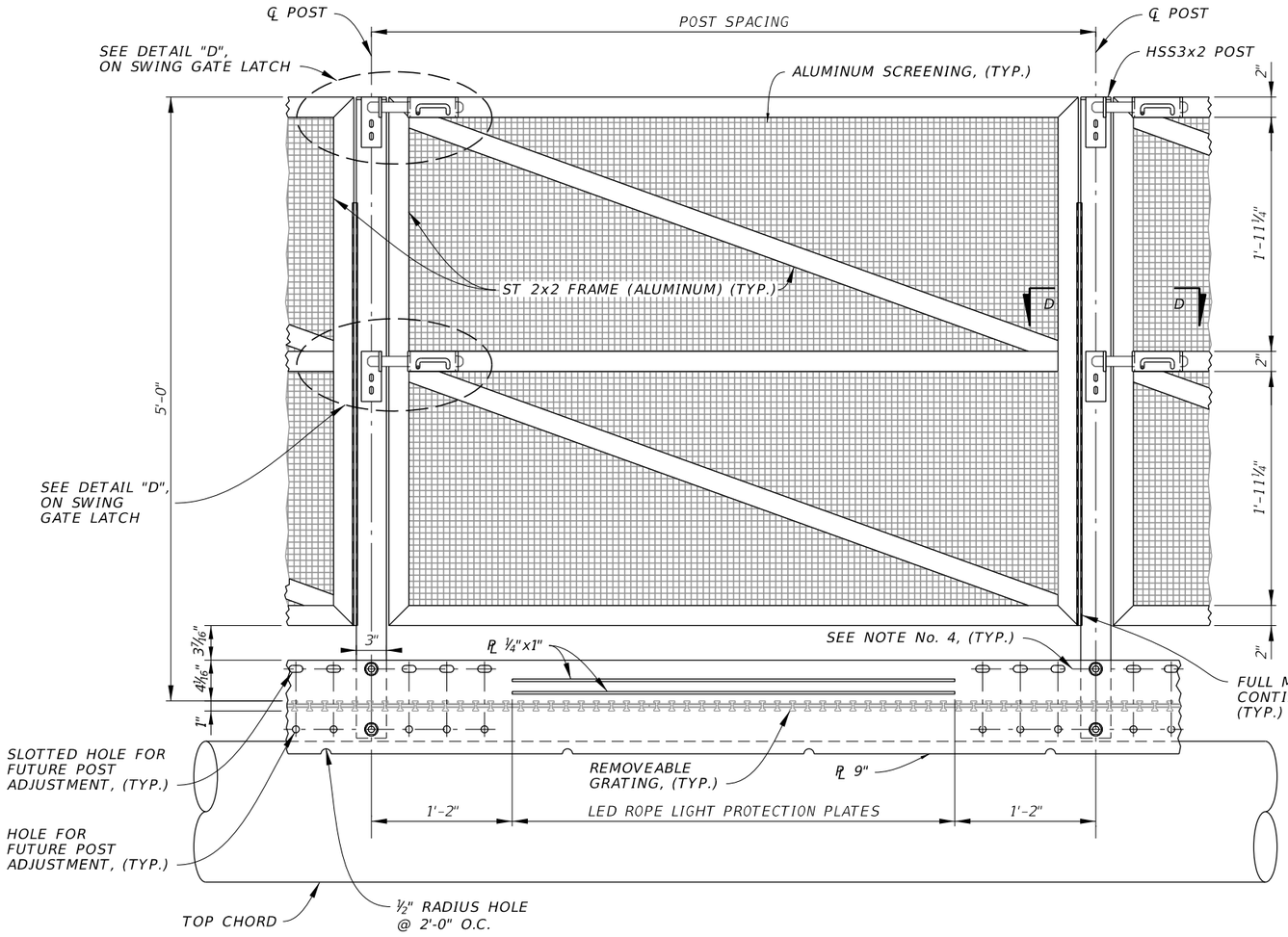
NOTES:

1. PROVIDE 1/32" x ¾" Ø NEOPRENE WASHER BETWEEN BOTH FACES OF THE ALUMINUM SCREENING AT EACH FASTENER LOCATION.
2. PROVIDE ANTI-SEIZE LUBRICANTS FOR ALL FASTENERS REQUIRED FOR SCREEN PANEL ASSEMBLY.

NOT TO SCALE

EXHIBIT 284-31
01/01/2027

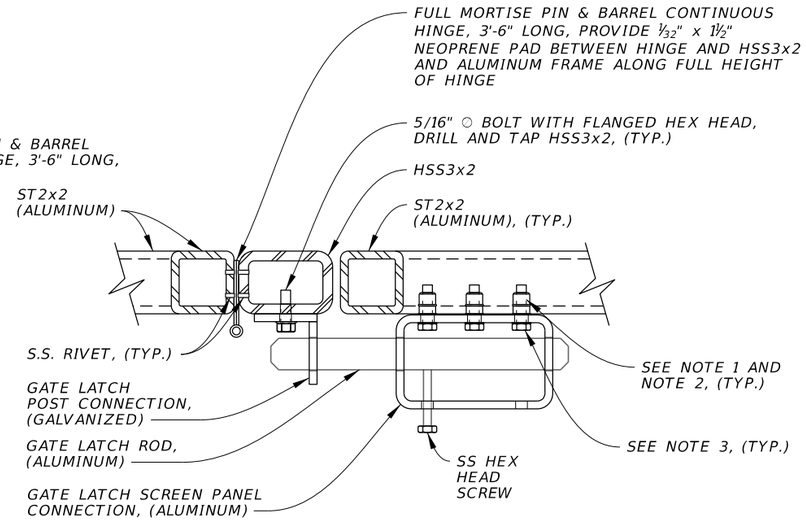
SWING GATE (2 OF 2)



TYPICAL ELEVATION - INSIDE OF GANTRY

NOTES:

1. PROVIDE ANTI-SEIZE LUBRICANTS FOR ALL FASTENERS REQUIRED FOR SCREEN PANEL LATCH ASSEMBLY.
2. PROVIDE ALUMINUM RIVET NUT 3/8" - 16 OF SUFFICIENT LENGTH TO FASTEN THE LATCH ASSEMBLY TO THE ST2x2, (TYP. OF 3).
3. PROVIDE 1"L X 3/8" - 16 STAINLESS STEEL HEX HEAD SCREW, (TYP. OF 3).
4. USE THE SLOTTED HOLES TO ADJUST THE SWING GATE LATCH POST CONNECTIONS AS NEEDED TO ACCOUNT FOR FINAL GANTRY CAMBER ONCE THE GANTRY IS SELF-SUPPORTING THE FULL WEIGHT OF THE STRUCTURE.

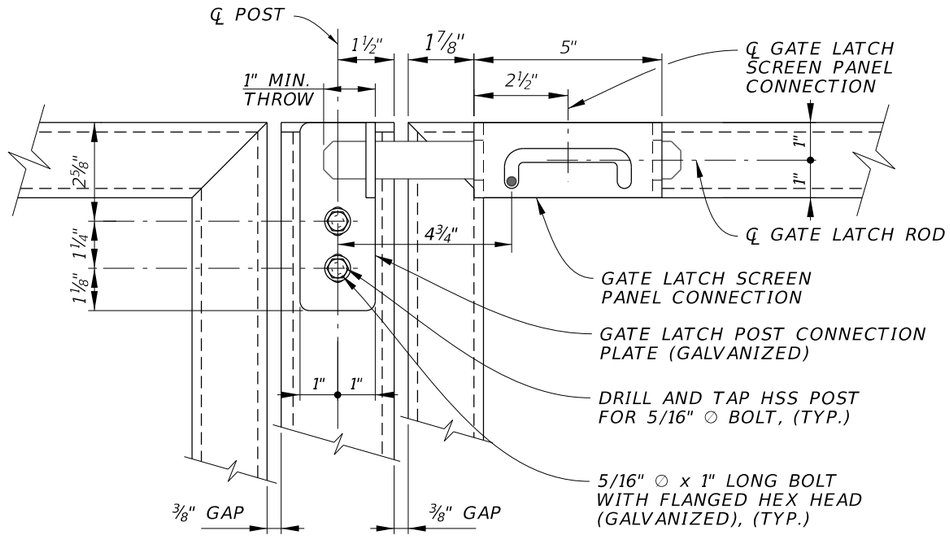


SECTION D-D

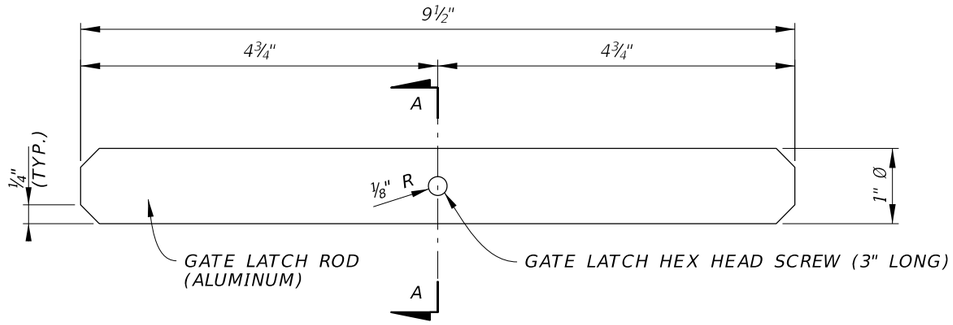
NOT TO SCALE

EXHIBIT 284-32
01/01/2027

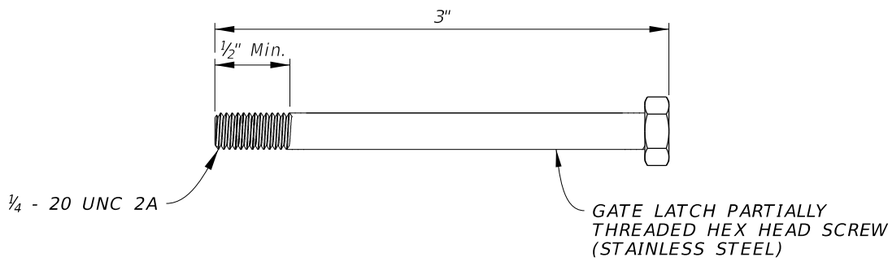
SWING GATE LATCH (1 OF 2)



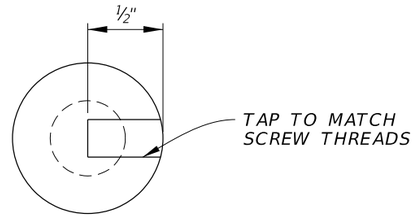
DETAIL D



GATE LATCH ROD DETAIL



GATE LATCH HEX HEAD SCREW DETAIL



SECTION A-A

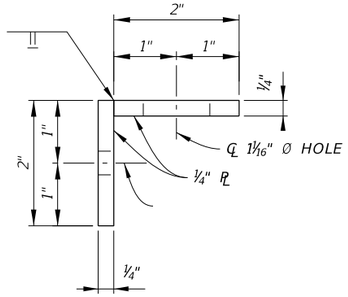
NOTE:

1. USE THE SLOTTED HOLES TO ADJUST THE SWING GATE LATCH POST CONNECTIONS AS NEEDED TO ACCOUNT FOR FINAL GANTRY CAMBER ONCE THE GANTRY IS SELF-SUPPORTING THE FULL WEIGHT OF THE STRUCTURE.

NOT TO SCALE

EXHIBIT 284-33
01/01/2027

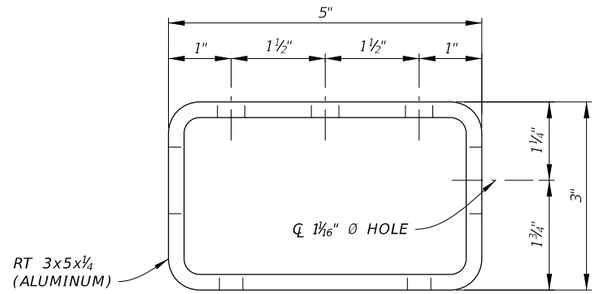
SWING GATE LATCH (2 OF 2)



PLAN

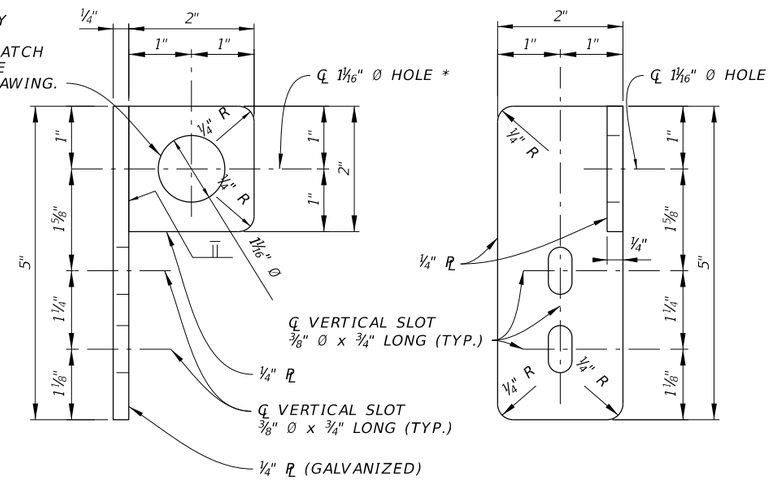
NOTES:

1. BREAK ALL EDGES.
2. GATE LATCH POST CONNECTION PLATES TO BE GALVANIZED.



PLAN

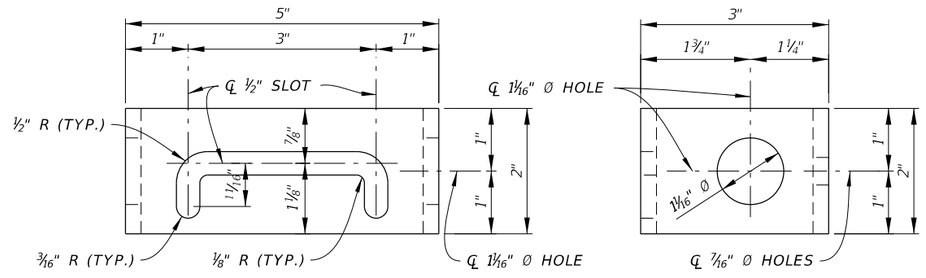
PROVIDE A PLASTIC TORSION BUSHING FOR A 1" BAR. TRIM DEPTH AS NECESSARY SUCH THAT BUSHING DOES NOT EXCEED LATCH ROD THROW. INCLUDE DETAILS IN SHOP DRAWING.



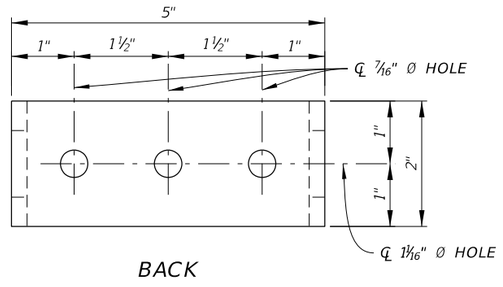
FRONT SIDE

GATE LATCH DETAILS - POST CONNECTION

** Adjust Diameter Of Hole To Fit Rod With A Snug Fit*



FRONT SIDE



BACK

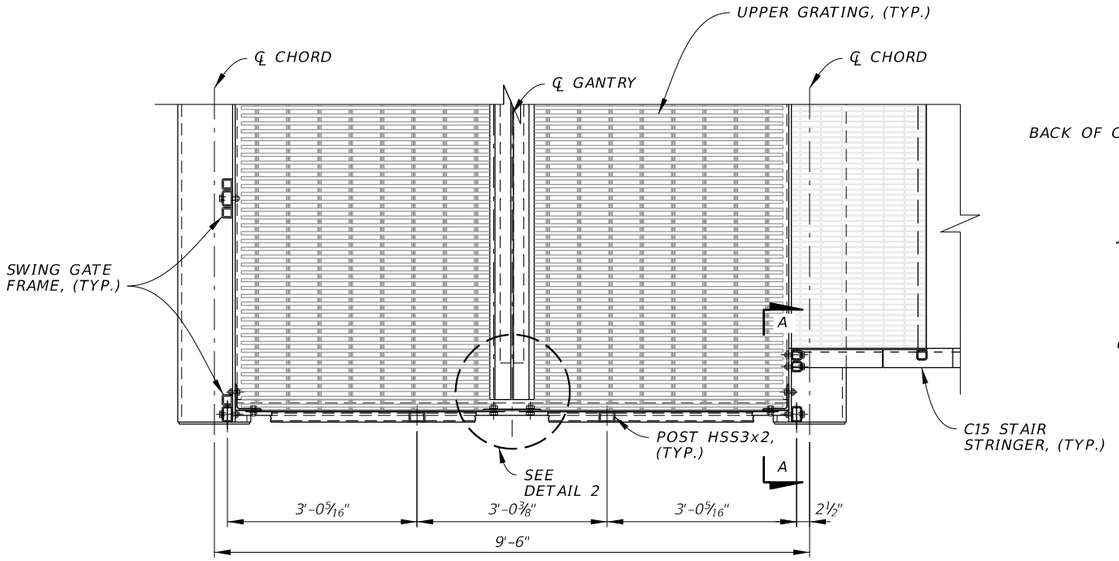
GATE LATCH DETAILS - SCREEN PANEL CONNECTION

(Screen Panel Beyond Not Shown For Clarity)

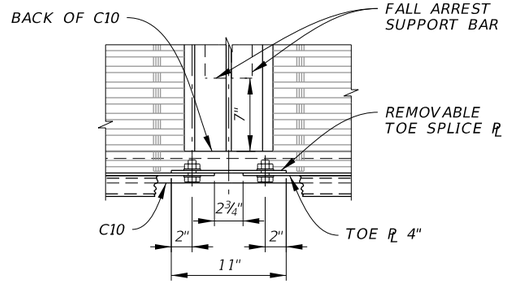
NOT TO SCALE

EXHIBIT 284-34
01/01/2027

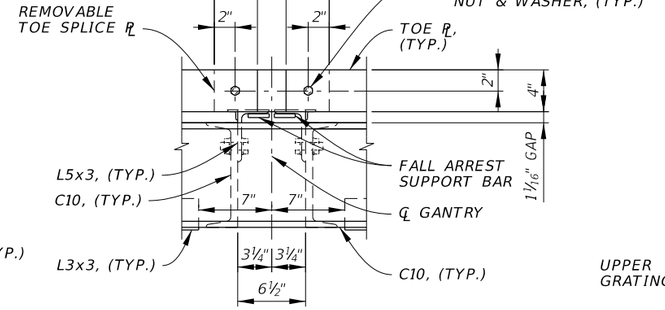
UPPER PLATFORM END PANELS



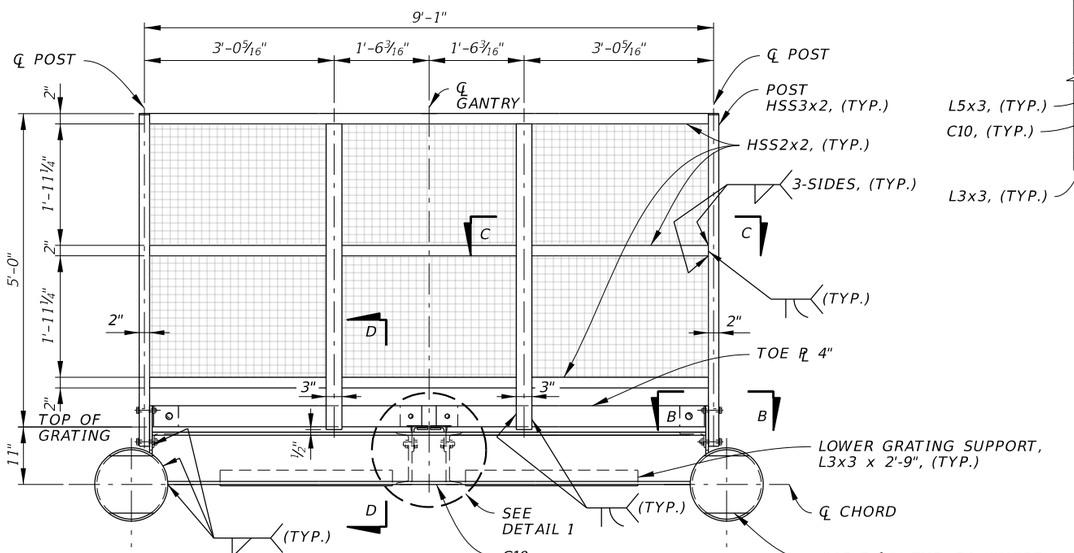
PLAN



DETAIL 2

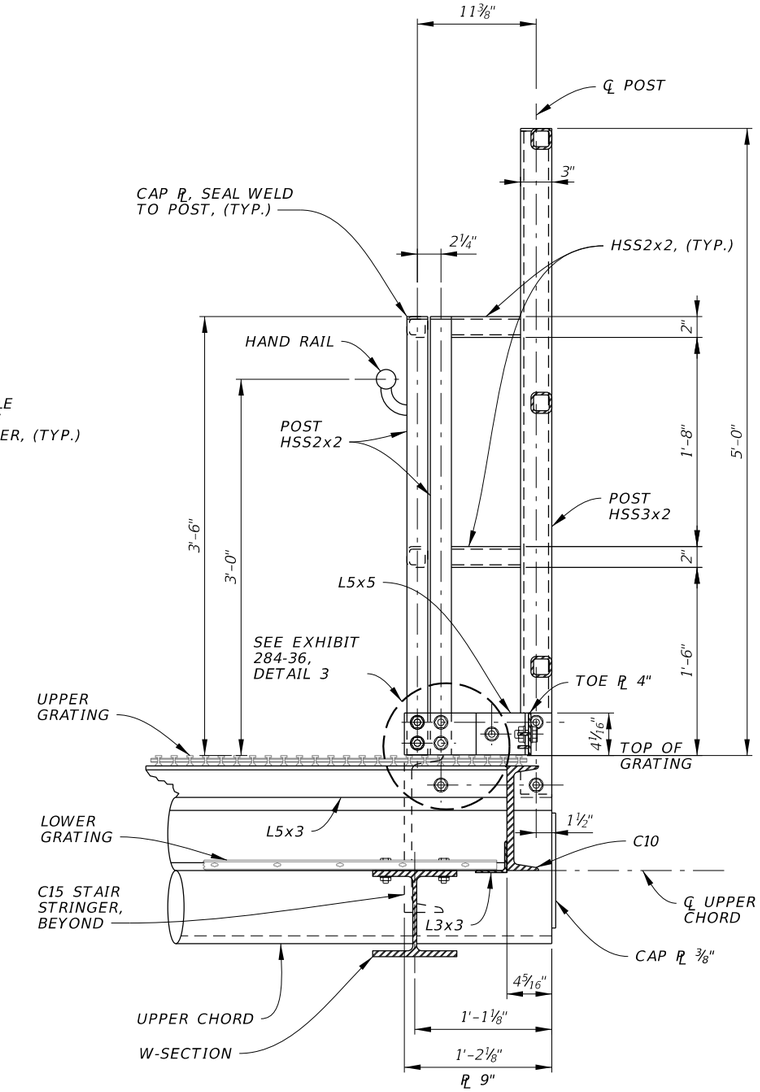


DETAIL 1



END ELEVATION

(Typical Both Ends Of Gantry)
(Grating And Grating Connection Not Showing For Clarity)
(For Sections B-B, C-C, And D-D, See Exhibit 284-36)

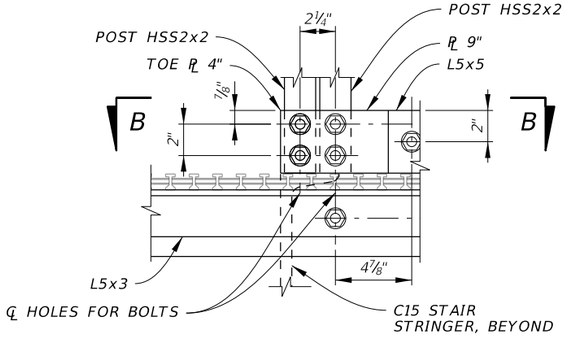


SECTION A-A

NOT TO SCALE

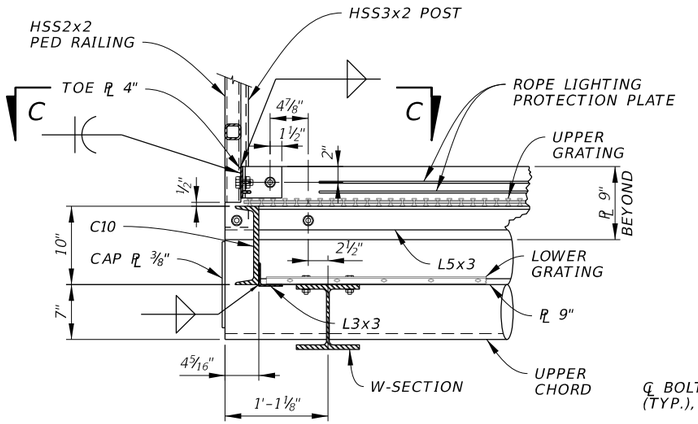
EXHIBIT 284-35
01/01/2027

UPPER PLATFORM PANELS

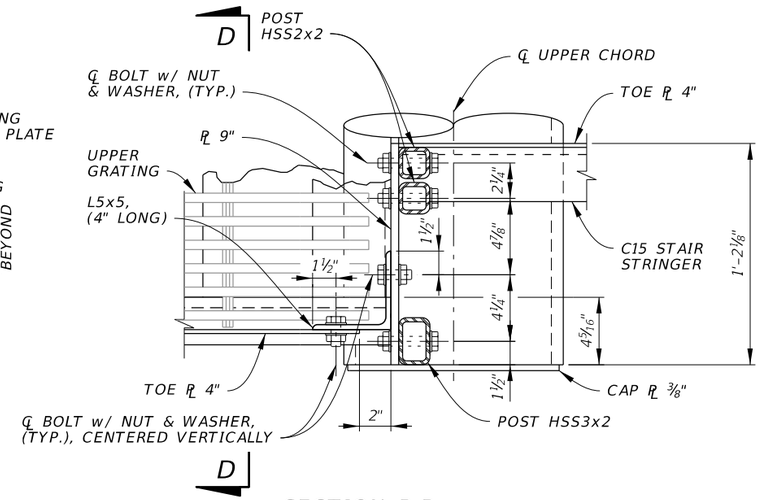


DETAIL 3

(SEE EXHIBIT 284-24, SECTION B-B)



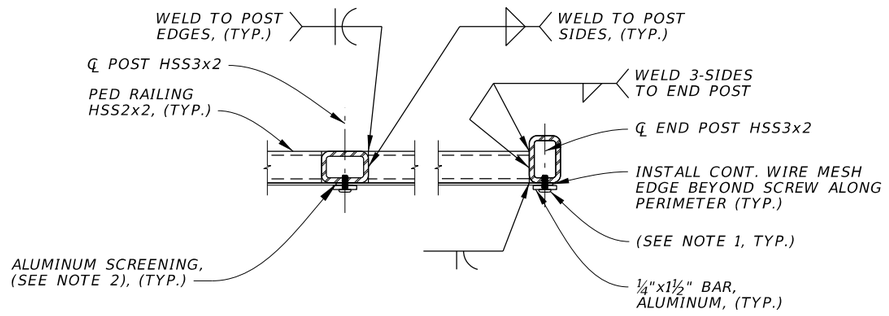
SECTION D-D



SECTION B-B

NOTES:

1. SEMS SCREW w/ INTERNAL WASHER, ¾" LONG, AT 6" MAX. SPACING.
2. PROVIDE 1/32" x ¾" Ø NEOPRENE WASHER BETWEEN ALUMINUM SCREENING AND STAINLESS STEEL BAR, AND ½" x ¾" Ø NEOPRENE WASHER BETWEEN ALUMINUM SCREENING AND HSS POST.

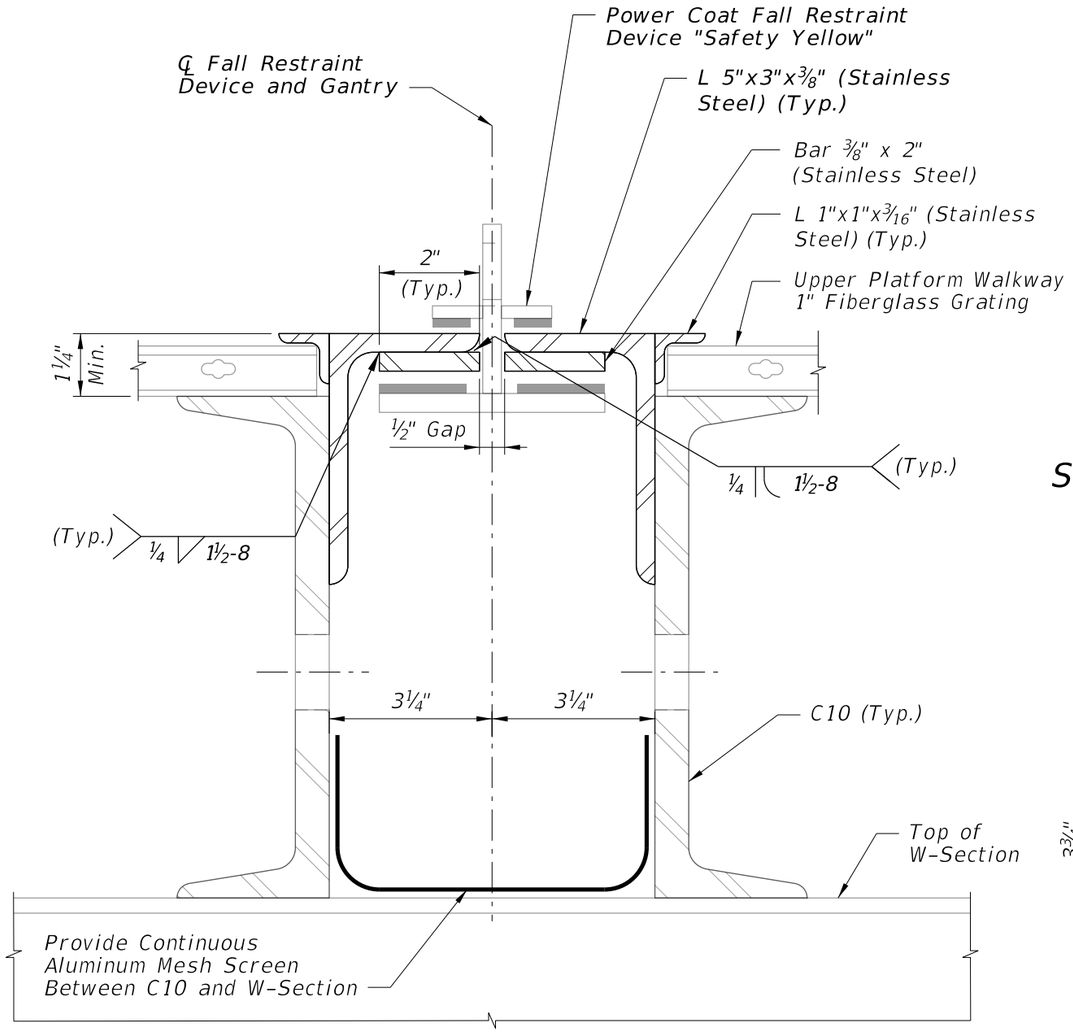


SECTION C-C

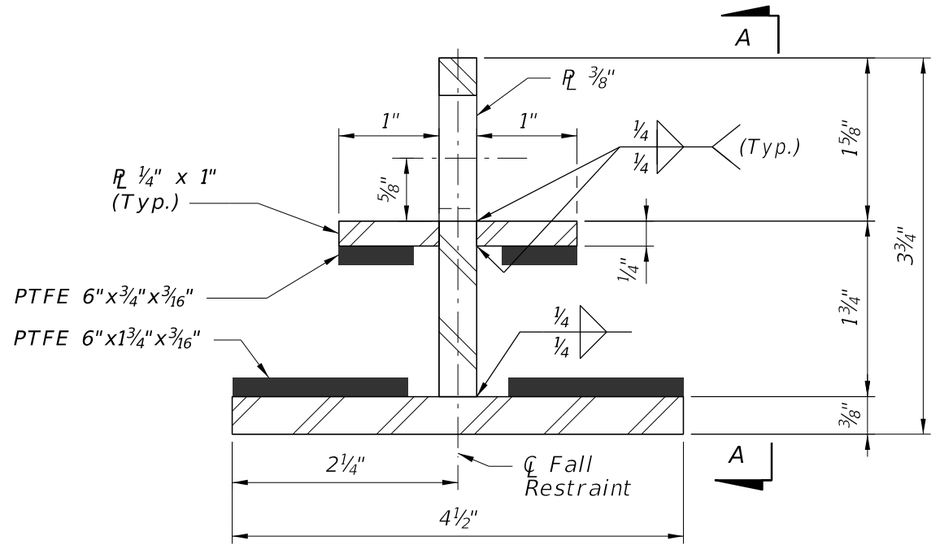
NOT TO SCALE

EXHIBIT 284-36
01/01/2027

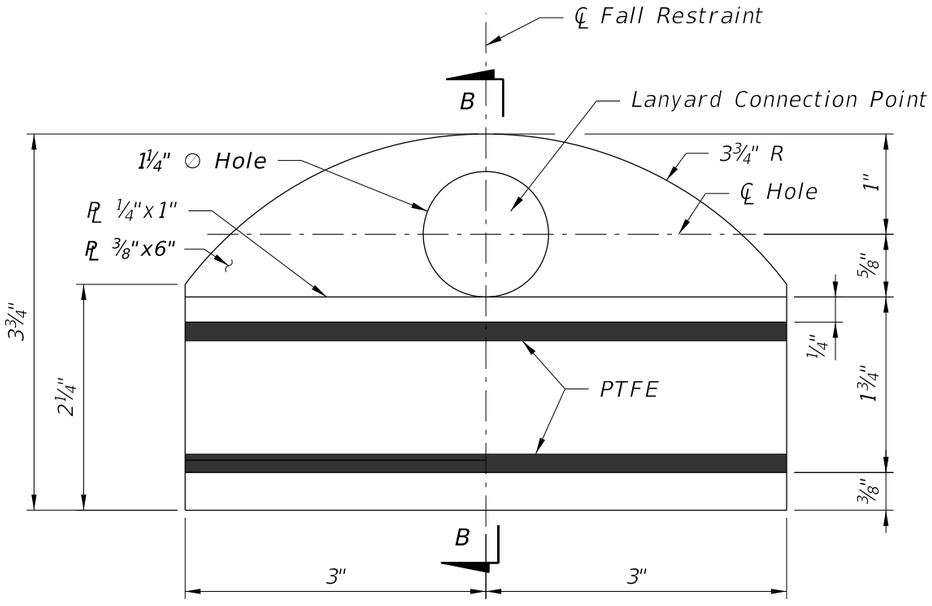
FALL RESTRAINT SYSTEM DETAILS



SECTION THROUGH FALL RESTRAINT ASSEMBLY ON GANTRY



SECTION B-B - THROUGH FALL RESTRAINT DEVICE

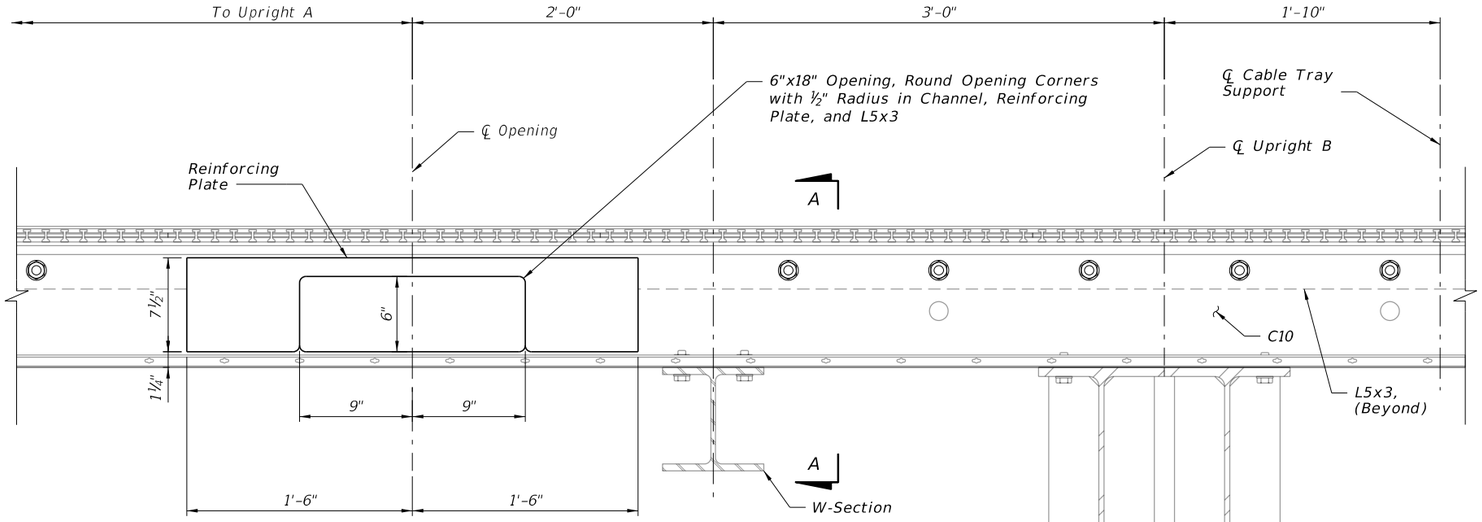


SECTION A-A

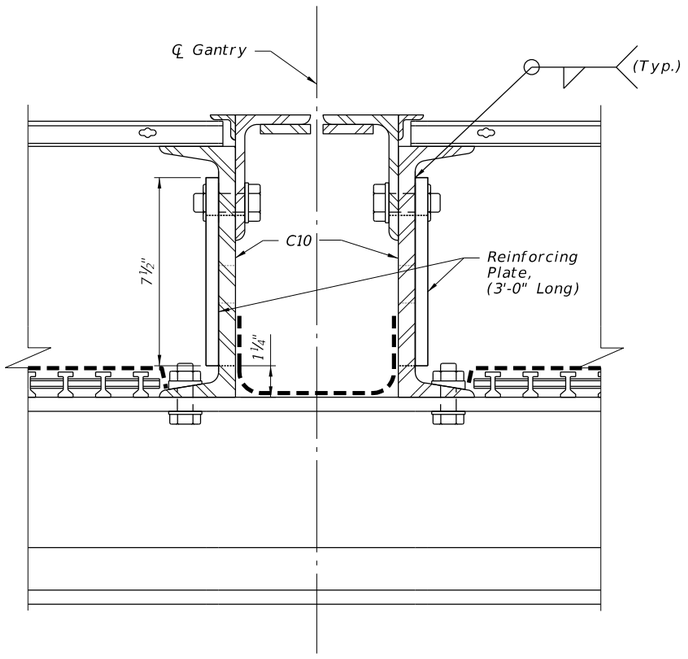
NOT TO SCALE

EXHIBIT 284-37
01/01/2027

REINFORCED OPENING IN CHANNELS FOR CABLE TRAY PASS THRU



DETAIL A

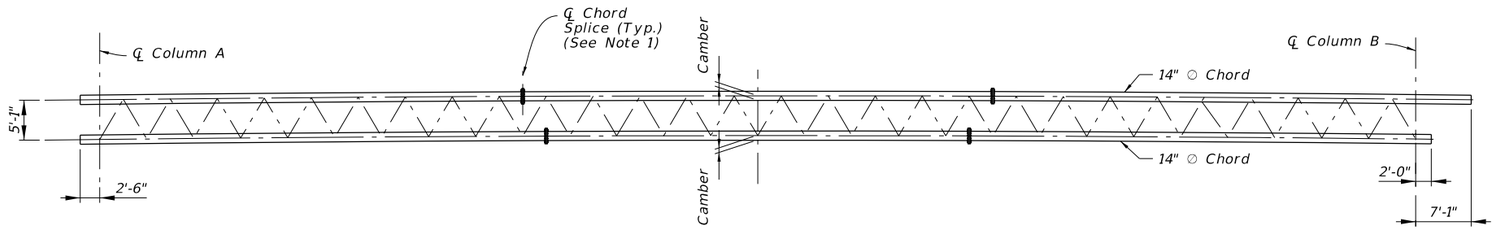


SECTION A-A

NOT TO SCALE

EXHIBIT 284-38
01/01/2027

CAMBER AND SPLICE DETAILS

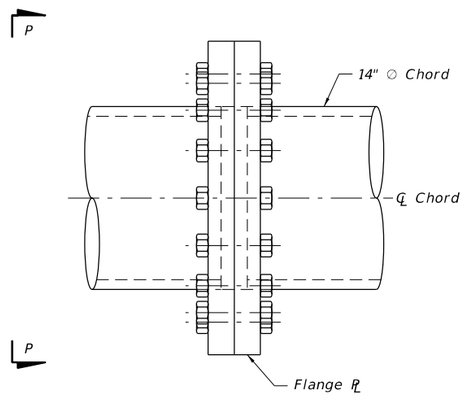


CAMBER DIAGRAM

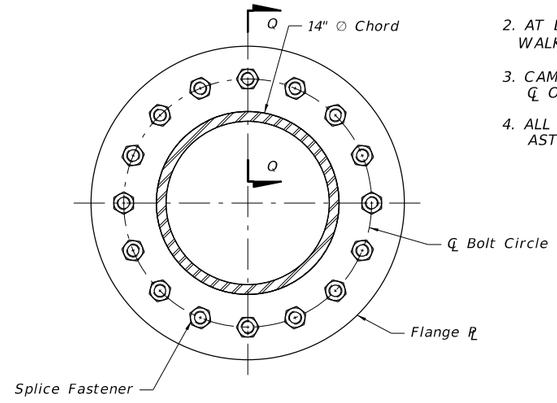
(See Camber Dimension Detail)

NOTES:

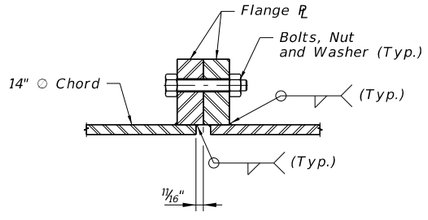
1. A MINIMUM OF TWO CHORD SPLICES IS REQUIRED. LOCATE SPLICES A MINIMUM OF 6 TRUSS PANEL LENGTHS APART. NO WELDED SHOP SPLICES ARE PERMITTED. CHORD SPLICE LOCATIONS MUST BE SHOWN IN THE SHOP DRAWINGS.
2. AT LOCATION OF SPLICE, DISCONTINUE CHANNELS AND WALKWAY SUPPORT MEMBERS BY LEAVING A GAP OF ½".
3. CAMBER DIMENSION IS MEASURED TO THE HORIZONTAL ℄ OF THE CHORDS.
4. ALL STEEL PLATES MUST BE IN ACCORDANCE WITH ASTM A709, GRADE 50.



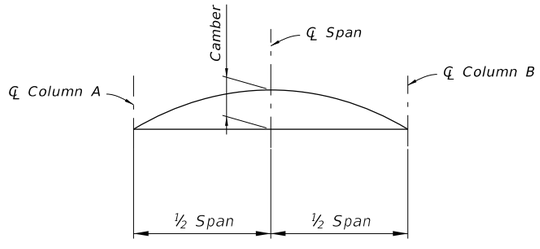
ELEVATION
SPLICE CONNECTION



SECTION P-P



SECTION Q-Q

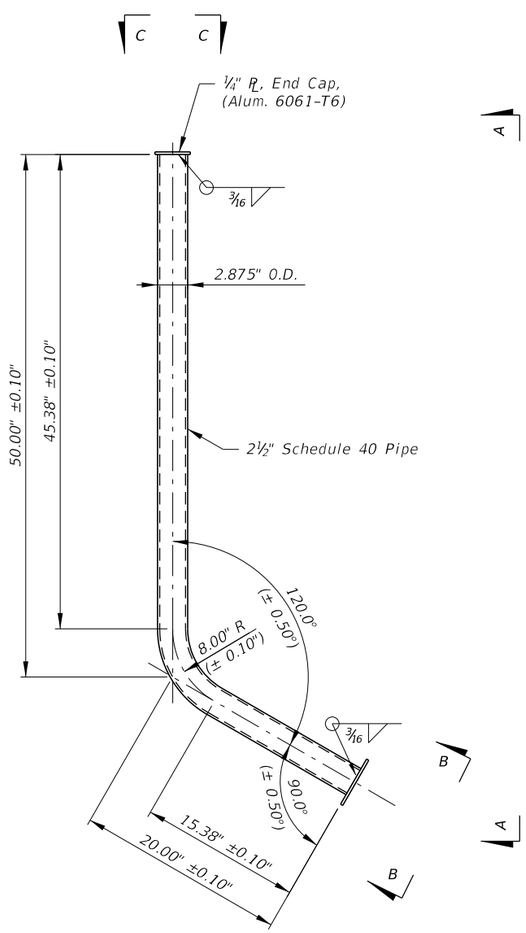


CAMBER DIMENSION DETAIL

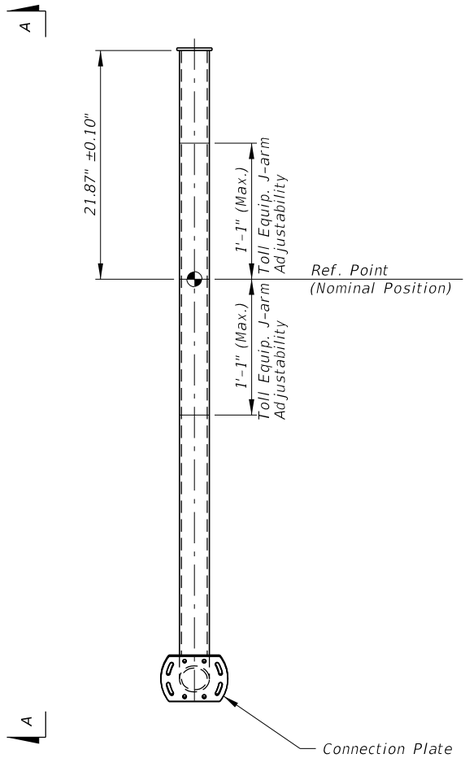
NOT TO SCALE

EXHIBIT 284-39
01/01/2027

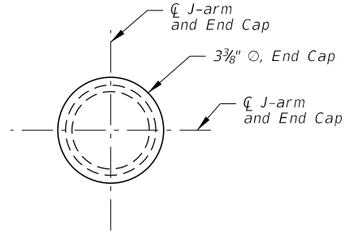
J-ARM DETAIL



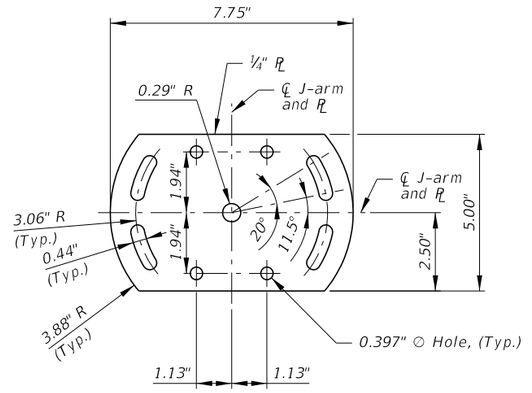
TOLL EQUIPMENT J-ARM
(Alum. 6061-T6)



SECTION A-A



END CAP - SECTION C-C
(Alum. 6061-T6)

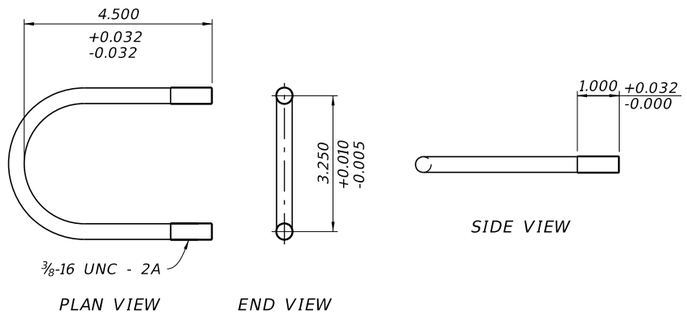


CONNECTION PLATE - SECTION B-B
(Alum. 6061-T6)

NOT TO SCALE

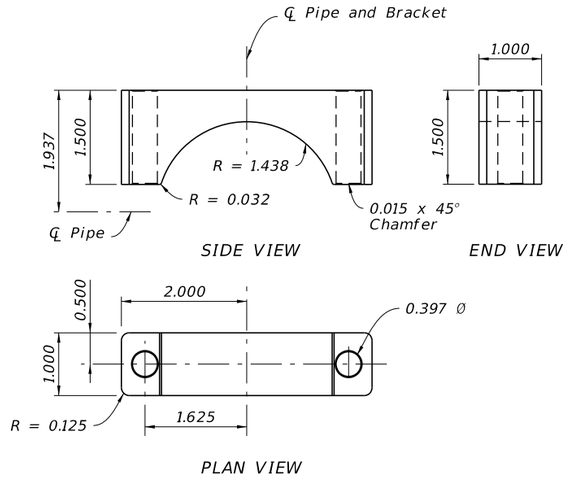
EXHIBIT 284-40
01/01/2027

J-ARM ATTACHMENT HARDWARE



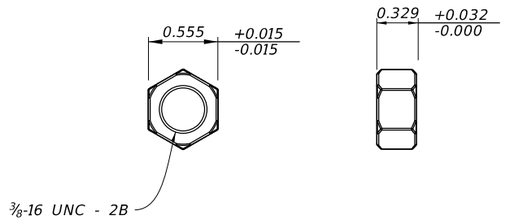
J-ARM PIPE TO J-ARM PLATE U-BOLT DETAIL

(2 Per J-Arm)



J-ARM PIPE SADDLE DETAIL

(2 Per J-Arm) (Alum. 6061-T6)

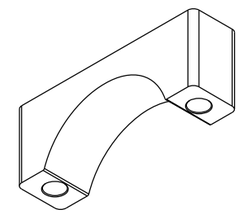


NUTS

NOTE: Nuts to be 316 Stainless Steel. (2 per leg, 4 Per U-Bolt)

NOTES:

1. BREAK ALL EDGES. CLEAN AND DEGREASE PART.
2. ALL DIMENSIONS ARE IN INCHES, UNLESS NOTED OTHERWISE.
3. U-BOLTS MUST BE 316 STAINLESS STEEL AND THREADS TO BE COATED WITH A SUITABLE ANTI-GALL COMPOUND.
4. FURNISH THREE (3) SPARE SETS OF J-ARM ATTACHMENT HARDWARE (U-BOLTS, PIPE SADDLES, MOUNTING PARTS, WASHERS, DOUBLE NUTS, ETC.)

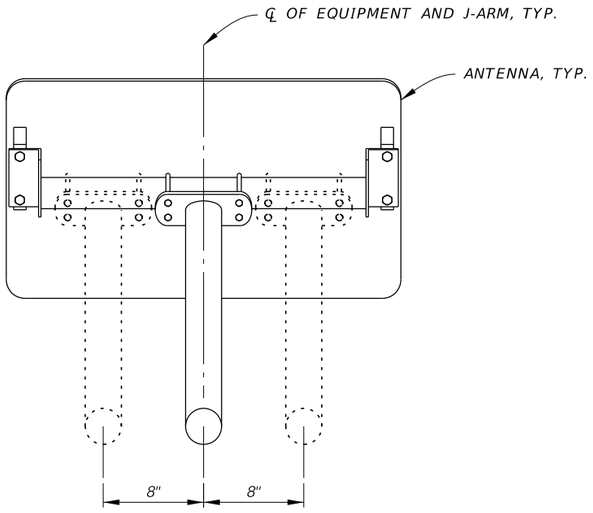


SADDLE ISOMETRIC VIEW

NOT TO SCALE

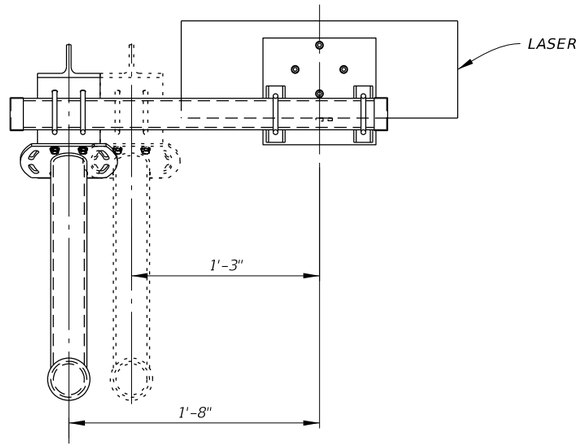
EXHIBIT 284-41
01/01/2027

TOLL EQUIPMENT ADJUSTABILITY (1 OF 2)



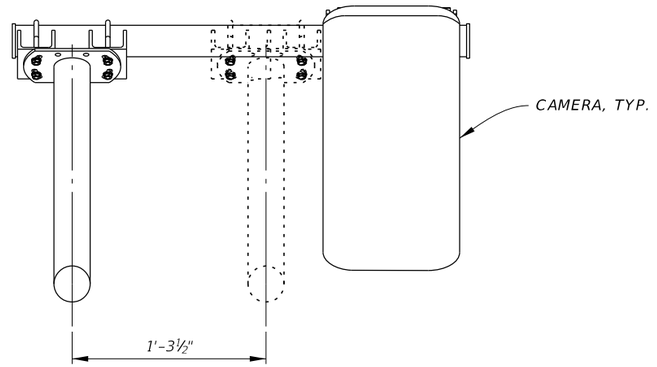
ANTENNA LIMITS OF ADJUSTABILITY
FROM CENTERED J-ARM

PLAN

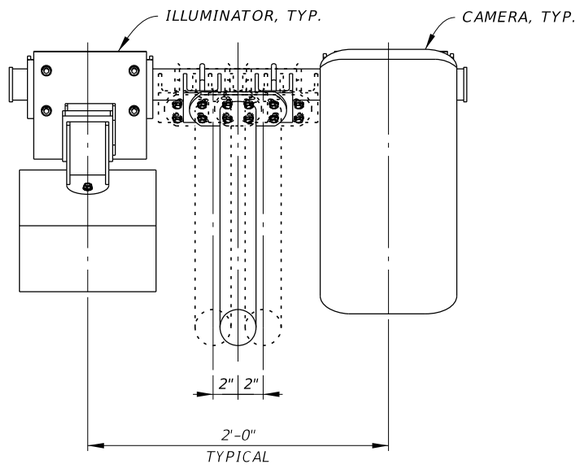


LASER LIMITS OF ADJUSTABILITY AND CAN
BE MIRRORED ABOUT THE ℄ OF THE J-ARM

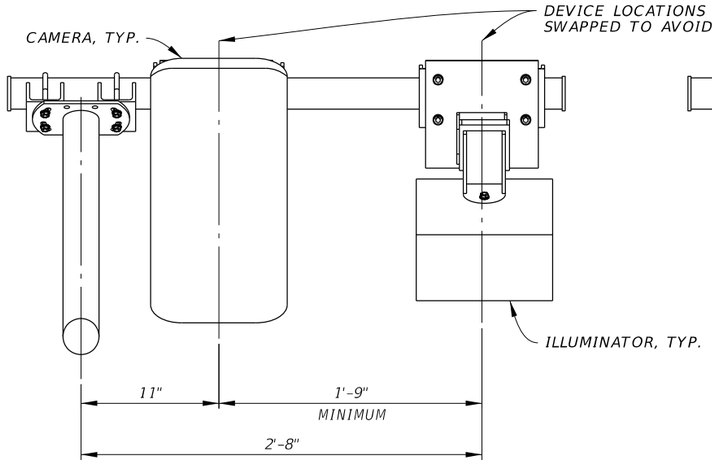
PLAN



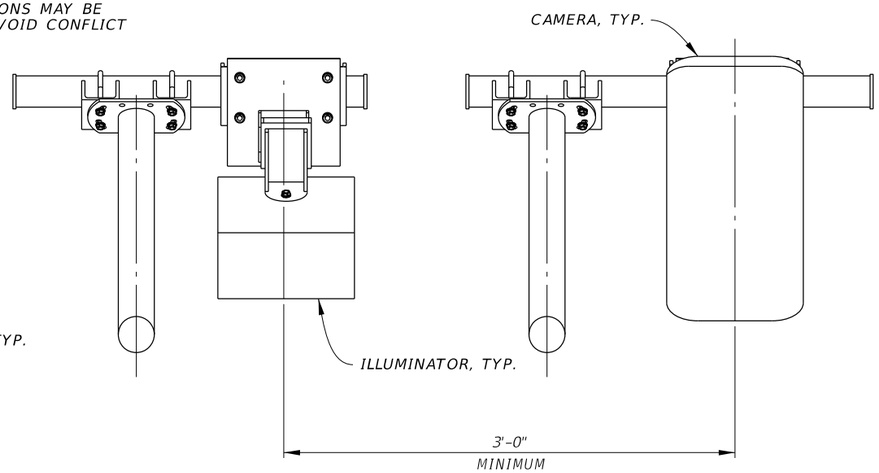
PLAN



FRONT AND SHOULDER CAMERAS - PLAN



ALTERNATIVE FRONT AND SHOULDER CAMERAS – PLAN

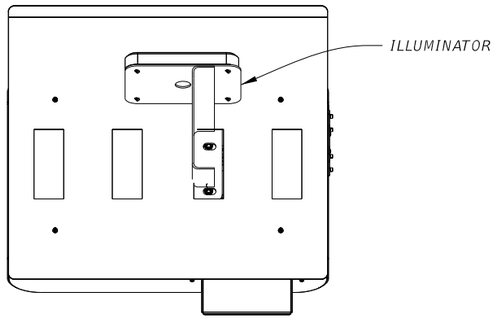


REAR TRAVEL LANE CAMERA – PLAN

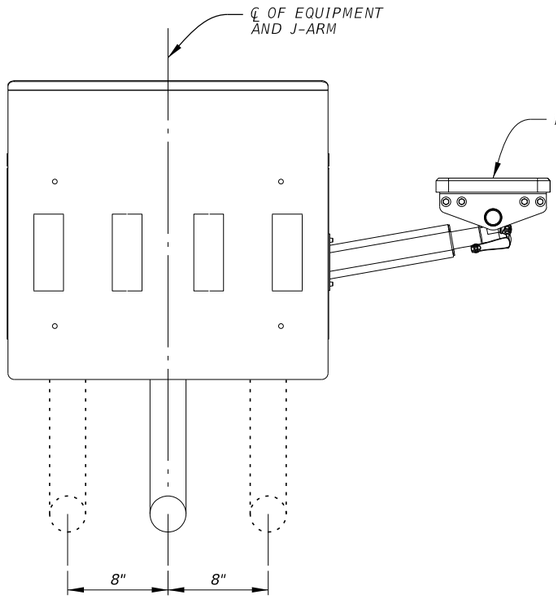
NOT TO SCALE

EXHIBIT 284-42
01/01/2027

TOLL EQUIPMENT ADJUSTABILITY (2 OF 2)

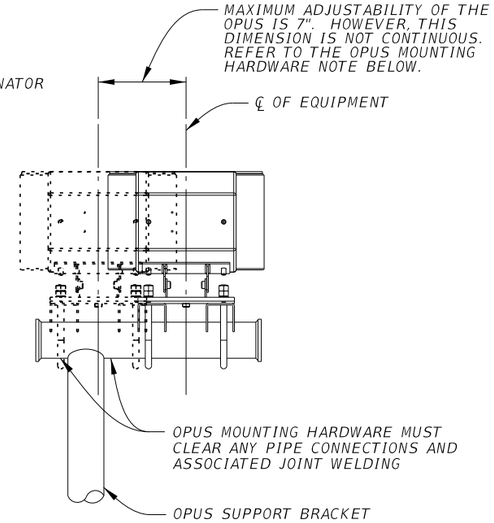


PLAN - ALTERNATIVE ILLUMINATOR CONFIGURATION



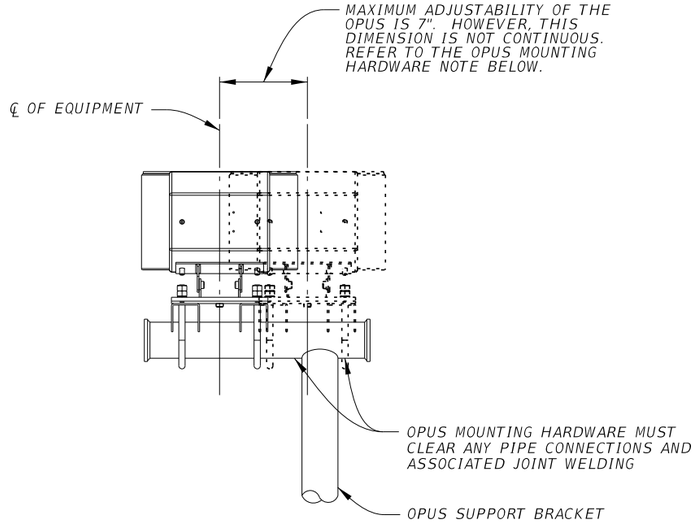
VCARS II LIMITS OF ADJUSTABILITY FROM CENTERED J-ARM

PLAN



FRONT OPUS LIMITS OF ADJUSTABILITY

PLAN



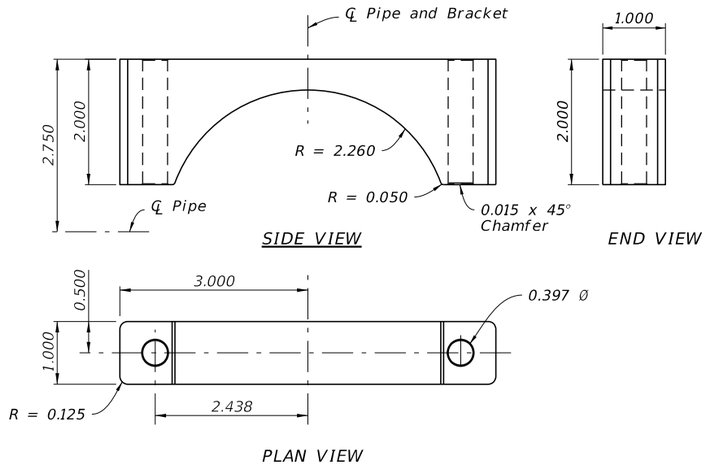
REAR OPUS LIMITS OF ADJUSTABILITY

PLAN

NOT TO SCALE

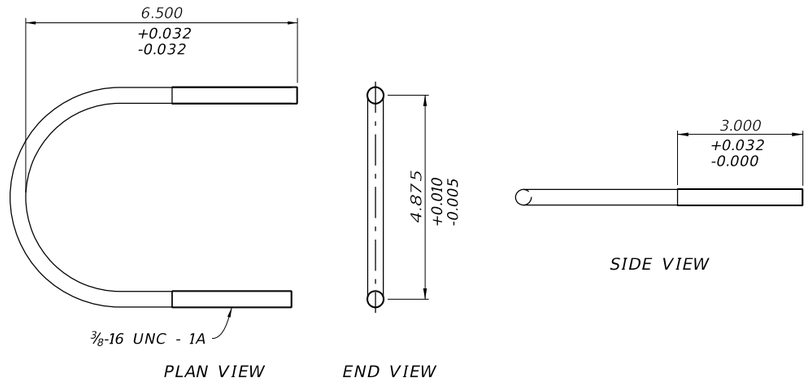
EXHIBIT 284-43
01/01/2027

HORIZONTAL SUPPORT PIPE ATTACHMENT HARDWARE (1 OF 3)



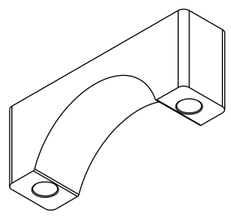
HSS4.500 PIPE TO J-ARM PLATE SADDLE DETAIL

(2 Per J-Arm) (ASTM A307 Grade A Steel Galvanized)



HSS4.500 PIPE TO J-ARM PLATE U-BOLT DETAIL

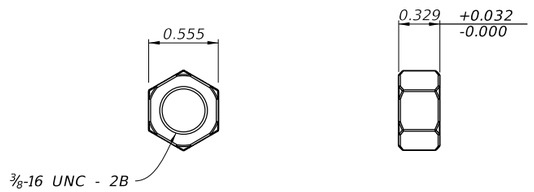
NOTE: (2 Per J-Arm) (U-Bolts to be 316 Stainless Steel)



SADDLE ISOMETRIC VIEW

NOTES:

1. BREAK ALL EDGES. CLEAN AND DEGREASE PART.
2. ALL DIMENSIONS ARE IN INCHES, UNLESS NOTED OTHERWISE.



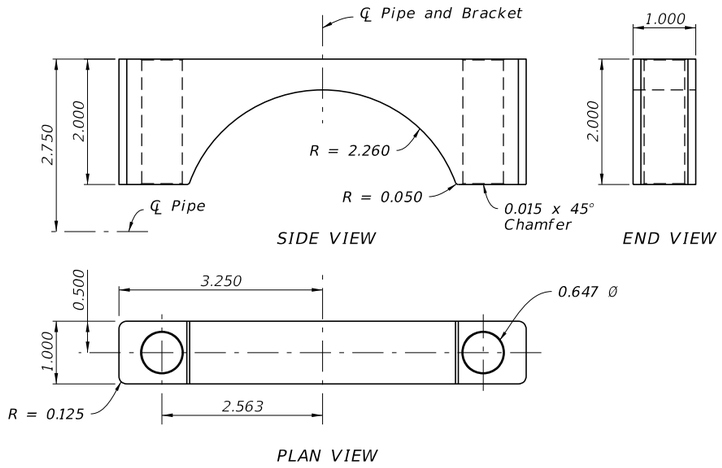
NUTS

NOTE: Stainless Steel Nuts to be 316 Stainless Steel. (2 Per Leg, 4 per U-Bolt)

NOT TO SCALE

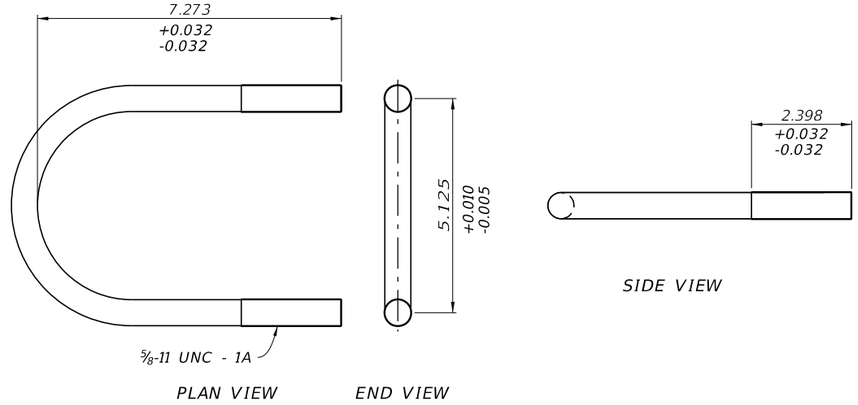
EXHIBIT 284-44
01/01/2027

HORIZONTAL SUPPORT PIPE ATTACHMENT HARDWARE (2 OF 3)



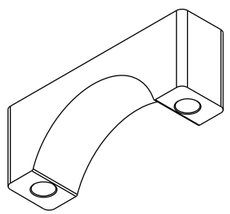
HSS4.500 PIPE TO W-SECTION SADDLE DETAIL

(2 Per Mounting Pipe) (ASTM A307 Grade A Steel Galvanized)



HSS4.500 PIPE TO W-SECTION U-BOLT DETAIL

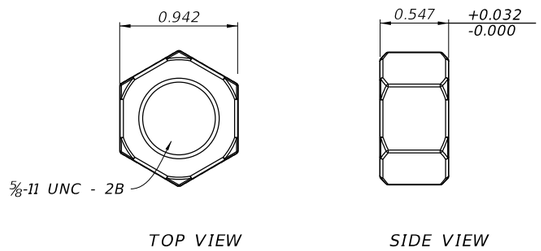
NOTE: (2 Per Mounting Pipe) (U-Bolts to be galvanized ASTM A449 Grade A Steel.)



SADDLE ISOMETRIC VIEW

NOTES:

1. BREAK ALL EDGES. CLEAN AND DEGREASE PART.
2. ALL DIMENSIONS ARE IN INCHES, UNLESS NOTED OTHERWISE.



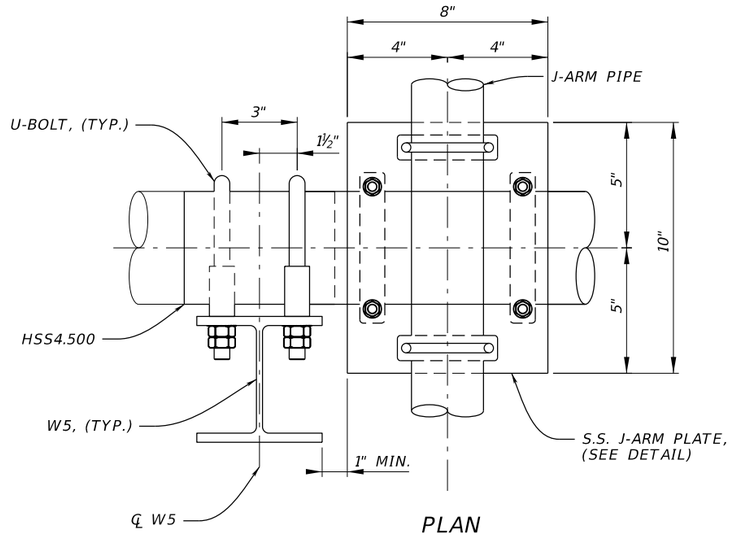
NUTS

NOTE: Nuts to be ASTM A563 (2 Per Leg, 4 per U-Bolt)

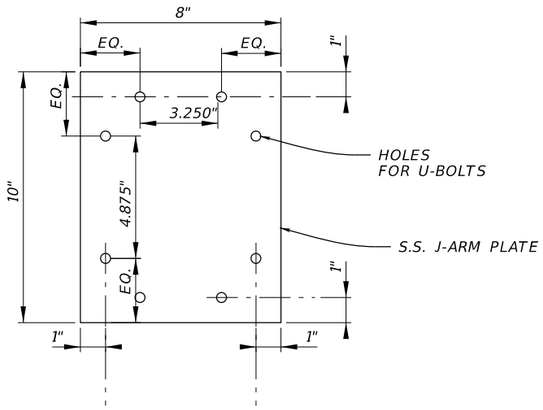
NOT TO SCALE

EXHIBIT 284-45
01/01/2027

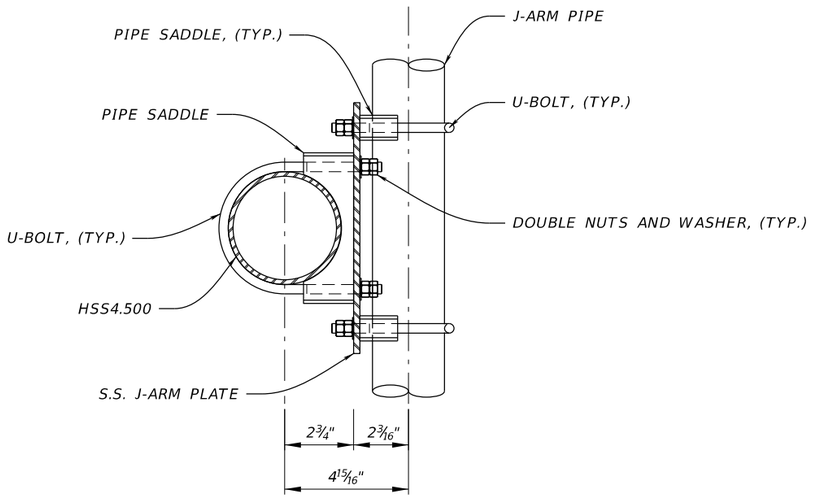
HORIZONTAL SUPPORT PIPE ATTACHMENT HARDWARE (3 OF 3)



PLAN



DETAIL

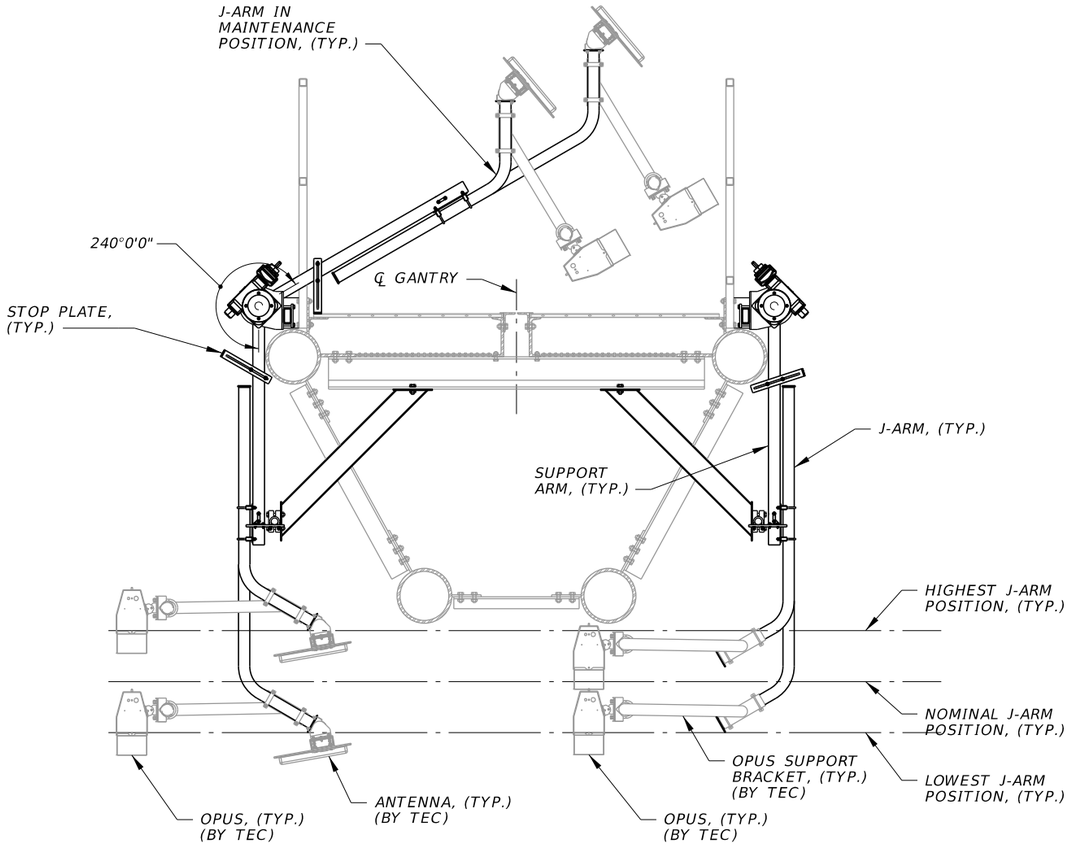


ELEVATION

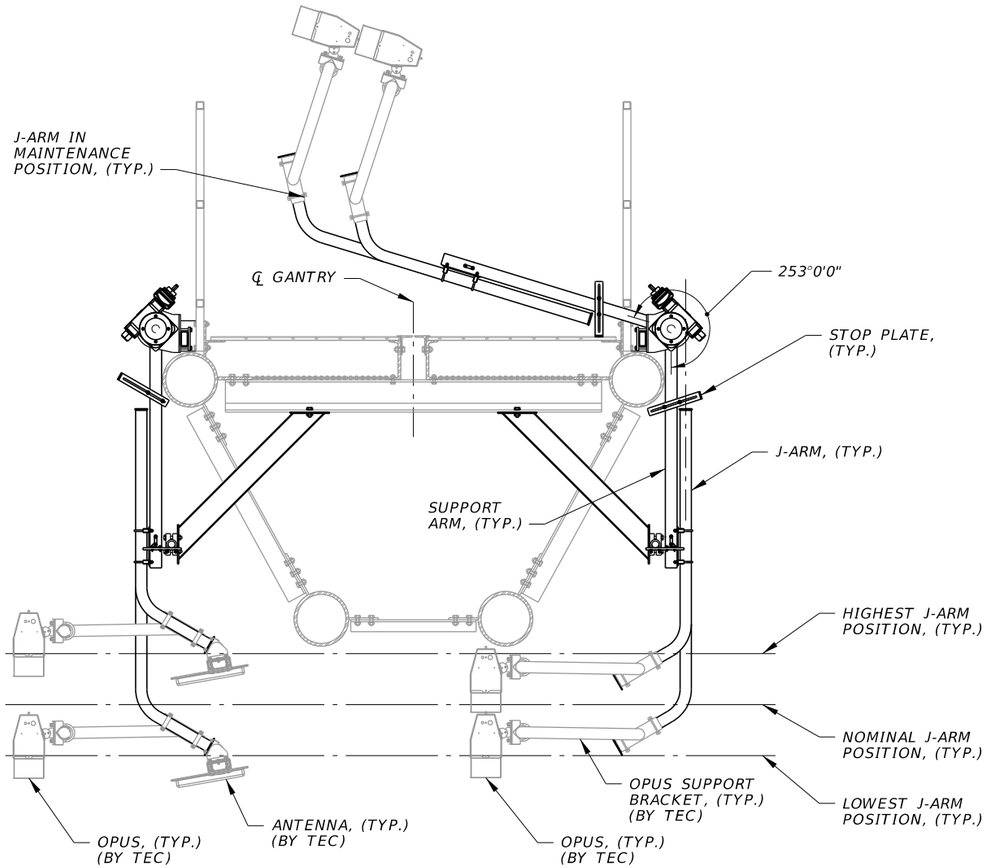
NOT TO SCALE

EXHIBIT 284-46
01/01/2027

EQUIPMENT RETRACTION ASSEMBLY ROTATION (1 OF 4)



SECTION AT ℄ LANE/SHOULDER
(TRANSCORE)

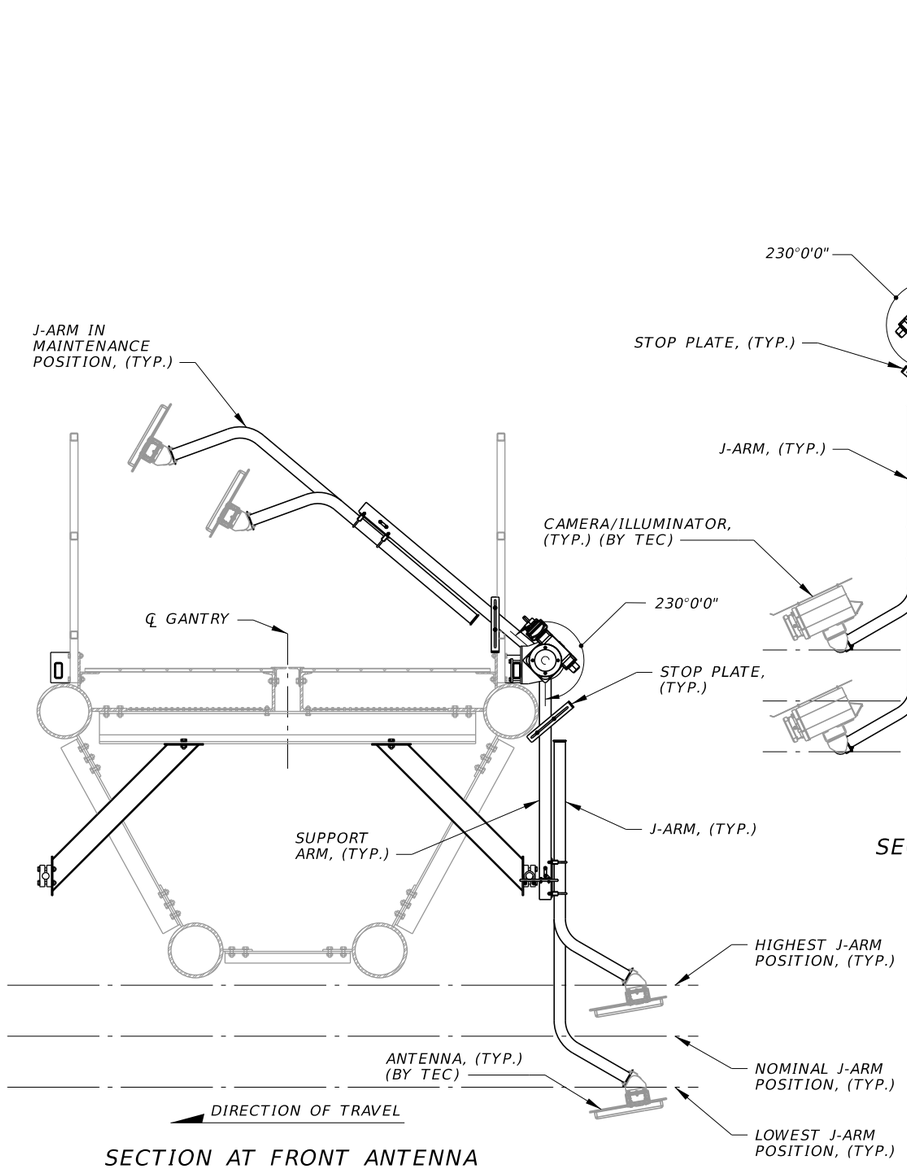


SECTION AT ℄ LANE/SHOULDER
(TRANSCORE)

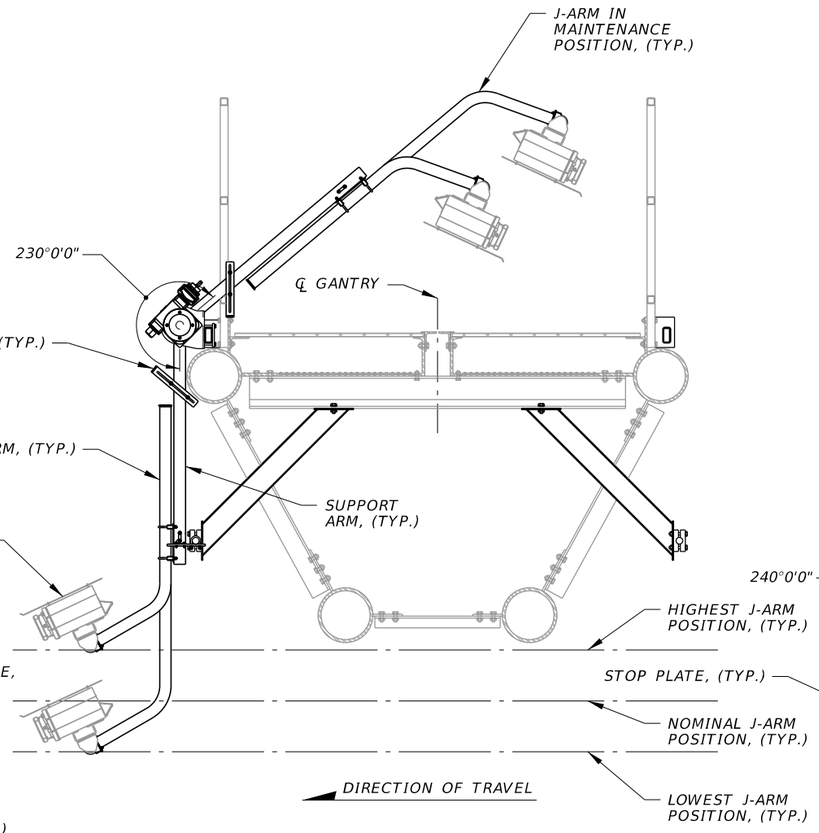
NOT TO SCALE

EXHIBIT 284-47
01/01/2027

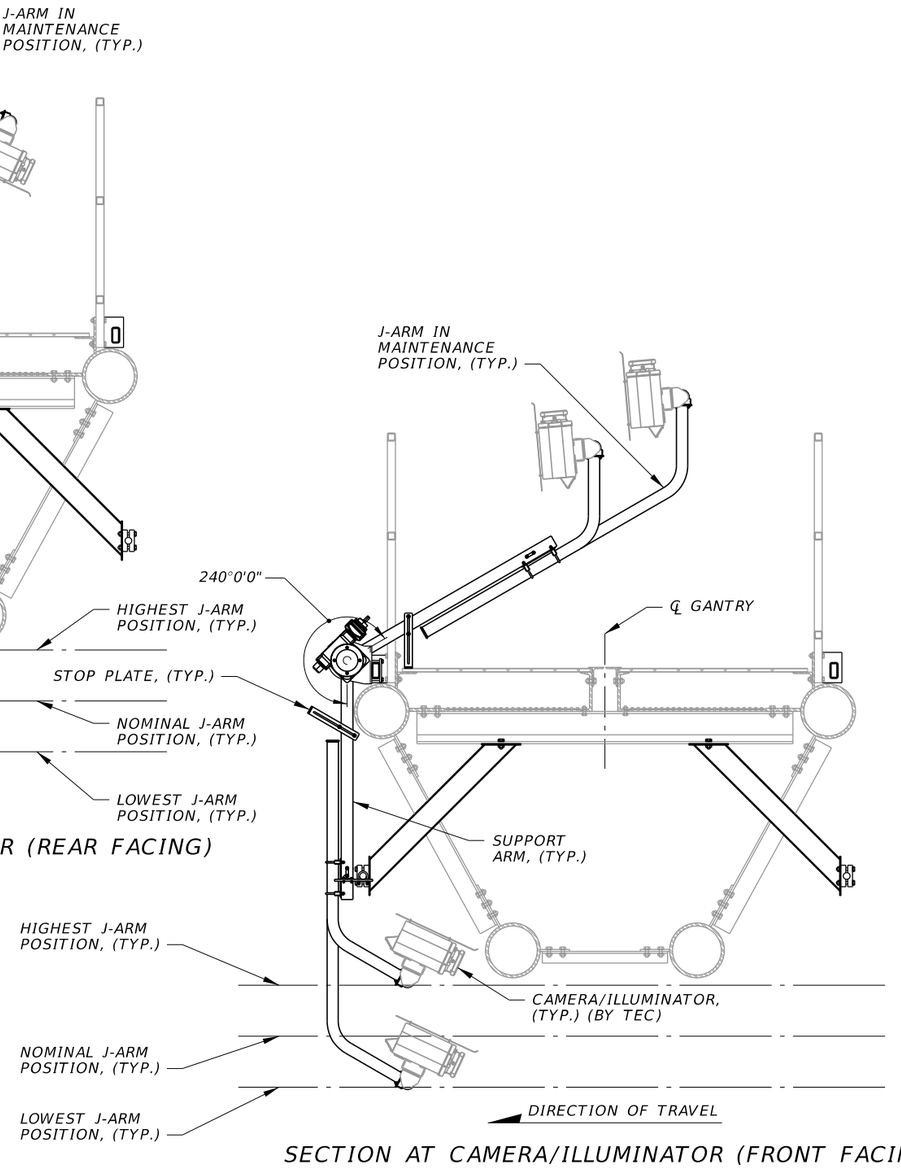
EQUIPMENT RETRACTION ASSEMBLY ROTATION (2 OF 4)



SECTION AT FRONT ANTENNA (TRANSCORE)



SECTION AT CAMERA/ILLUMINATOR (REAR FACING) (TRANSCORE)

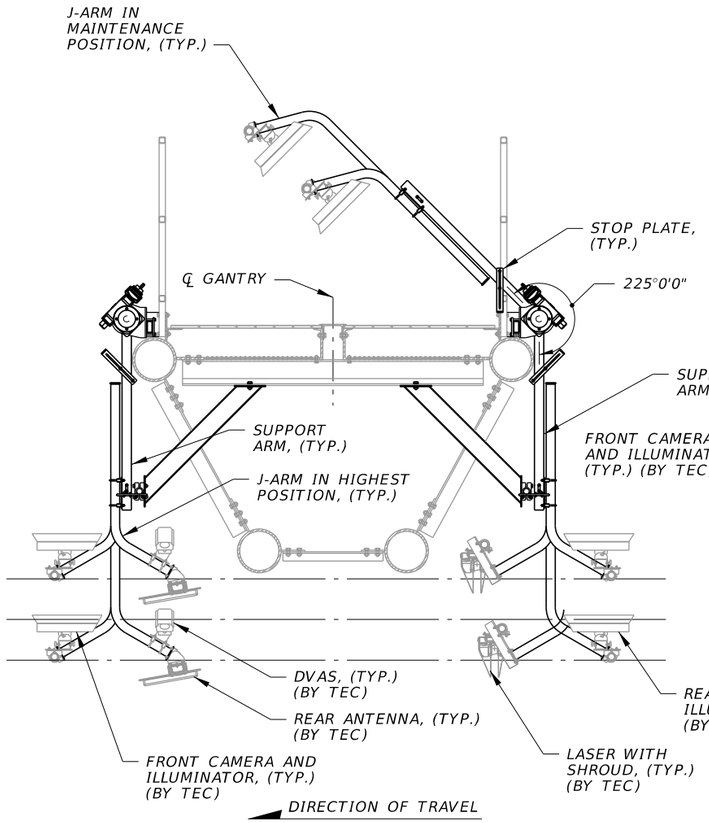


SECTION AT CAMERA/ILLUMINATOR (FRONT FACING) (TRANSCORE)

NOT TO SCALE

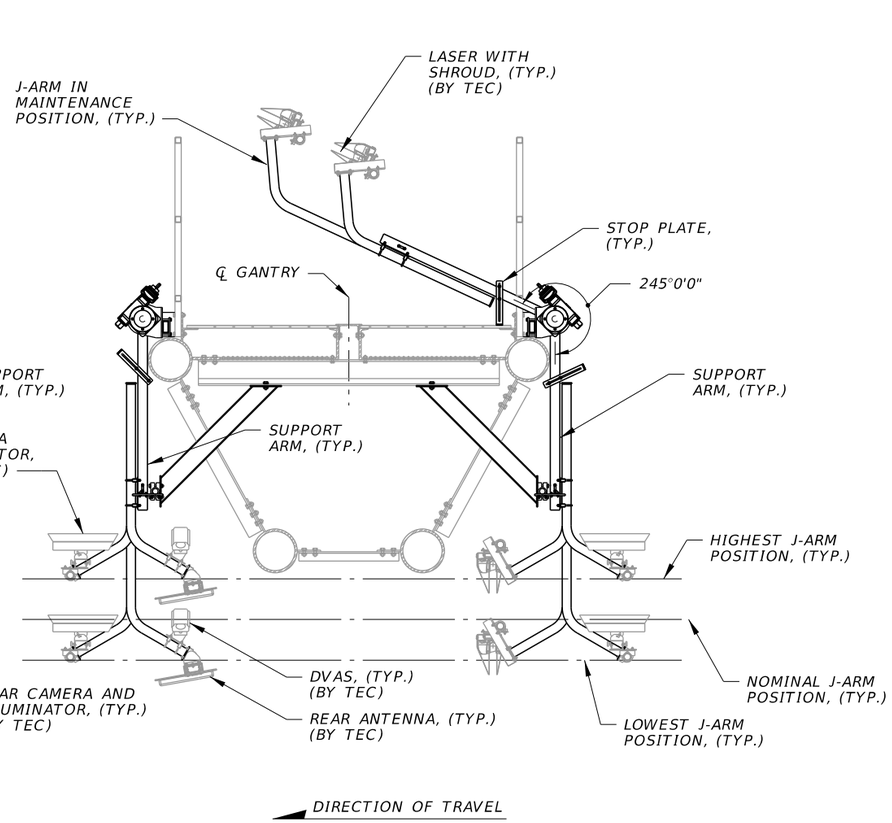
EXHIBIT 284-48
01/01/2027

EQUIPMENT RETRACTION ASSEMBLY ROTATION (3 OF 4)



SECTION AT ℄ LANE/SHOULDER
(Conduent)

(Toll Equipment Shown In The Operational And Maintenance Positions)



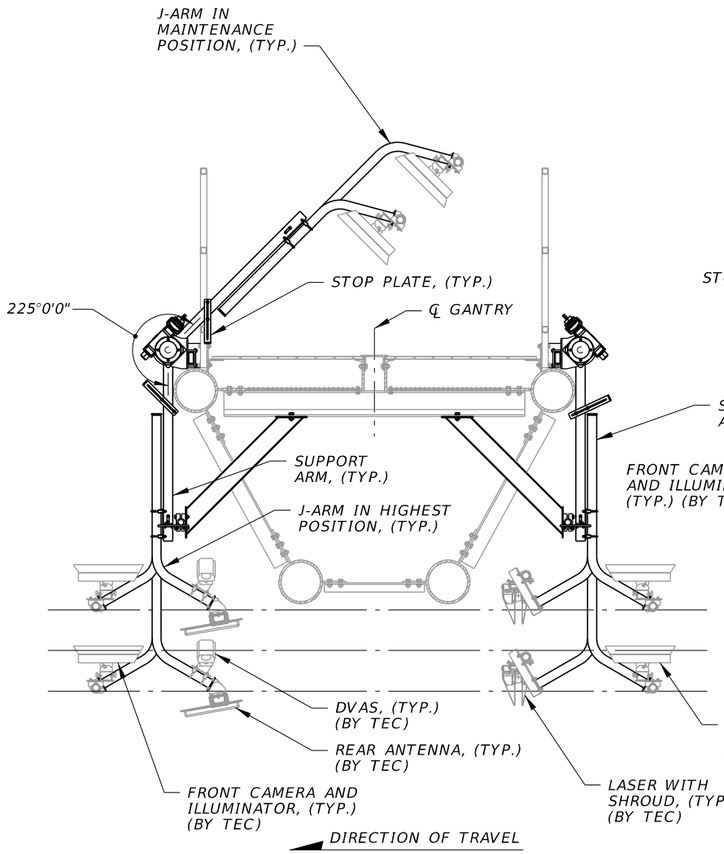
SECTION AT ℄ LANE/SHOULDER
(Conduent)

(Toll Equipment Shown In The Operational And Maintenance Positions)

NOT TO SCALE

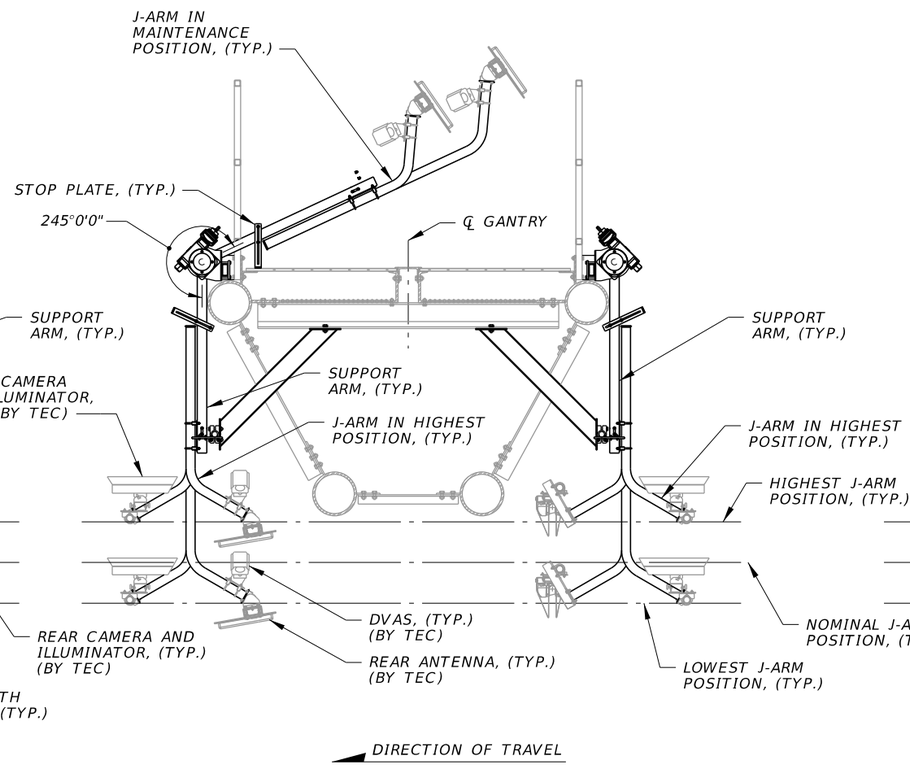
EXHIBIT 284-49
01/01/2027

EQUIPMENT RETRACTION ASSEMBLY ROTATION (4 OF 4)



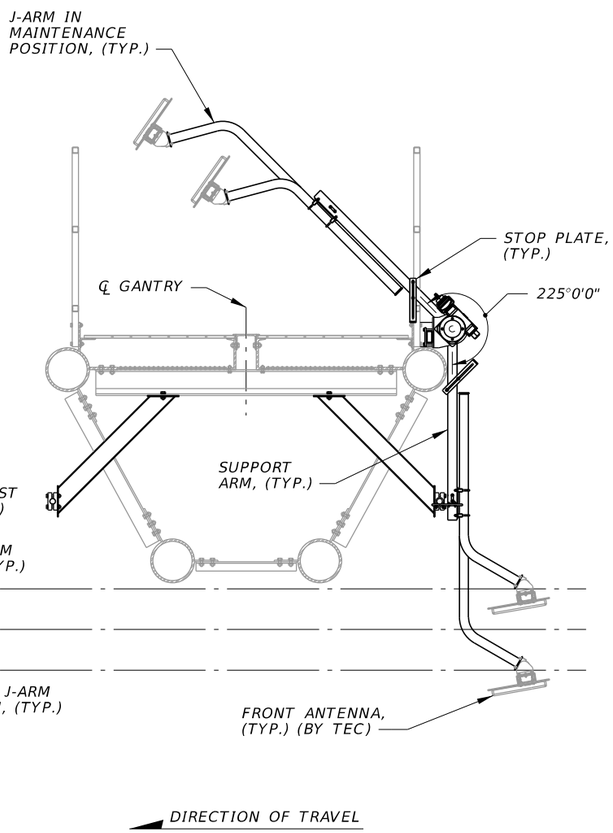
SECTION AT ℄ LANE/SHOULDER
(Conduent)

(Toll Equipment Shown In The Operational And Maintenance Positions)



SECTION AT ℄ LANE/SHOULDER
(Conduent)

(Toll Equipment Shown In The Operational And Maintenance Positions)



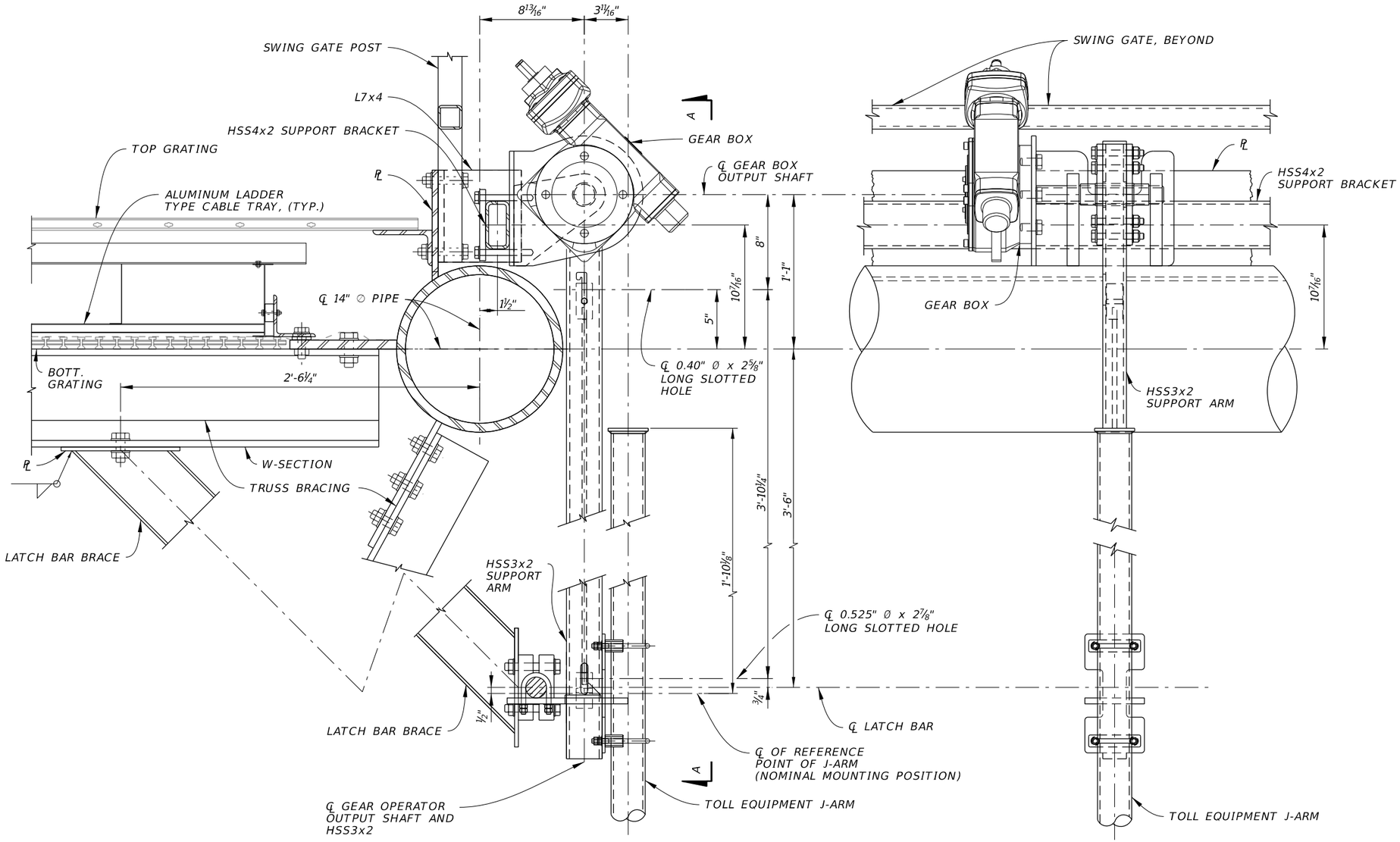
SECTION AT FRONT ANTENNA
(Conduent)

(Toll Equipment Shown In The Operational And Maintenance Positions)

NOT TO SCALE

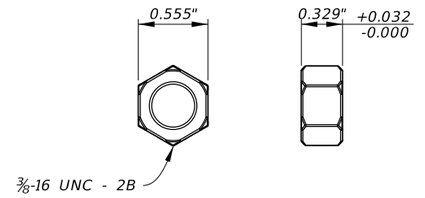
EXHIBIT 284-50
01/01/2027

EQUIPMENT RETRACTION ASSEMBLY SUPPORT ARM (1 OF 2)



SECTION AT SUPPORT ARM

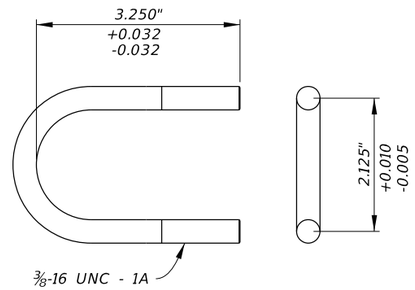
SECTION A-A



TOP VIEW SIDE VIEW

NUTS

Note: Nuts To Be 316 Stainless Steel
(2 Per Leg, 4 Per U-Bolt)



PLAN VIEW END VIEW

SIDE VIEW

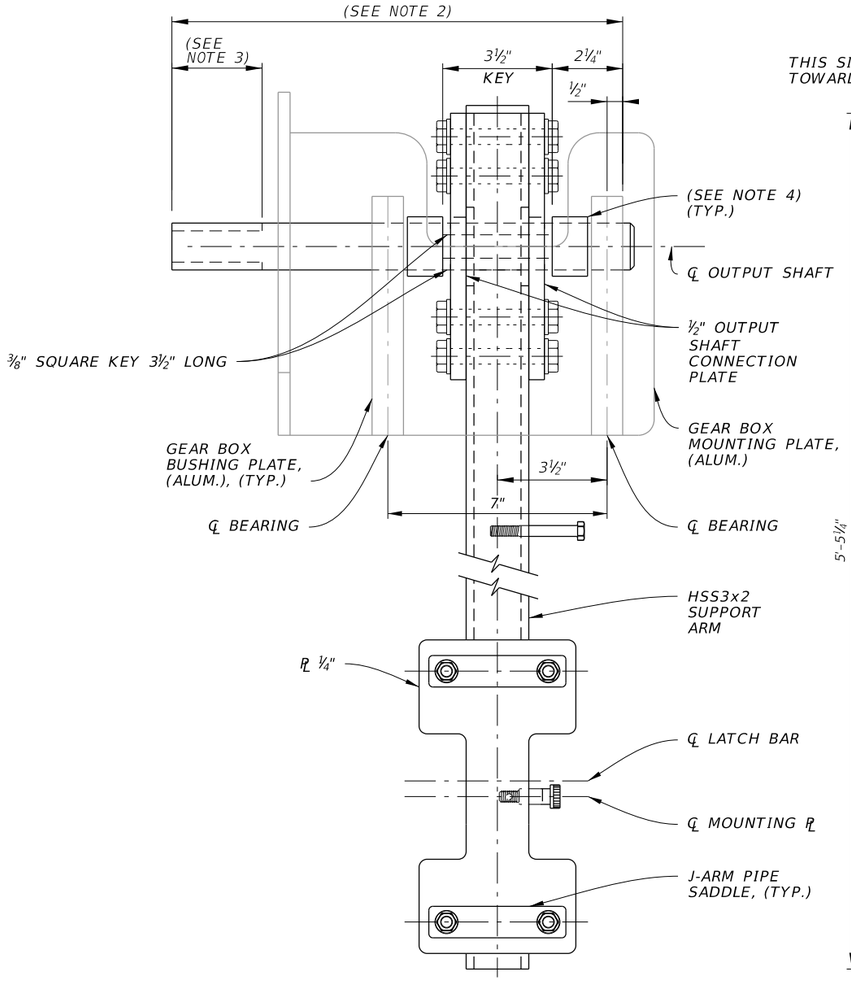
LATCH PLATE TO LATCH BAR U-BOLT DETAIL

Note: U-Bolts To Be 316 Stainless Steel

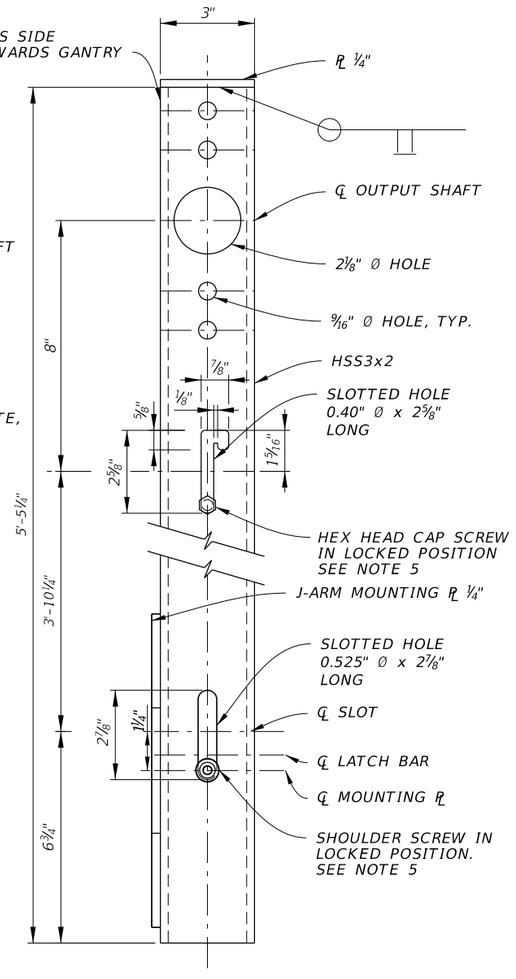
NOT TO SCALE

EXHIBIT 284-51
01/01/2027

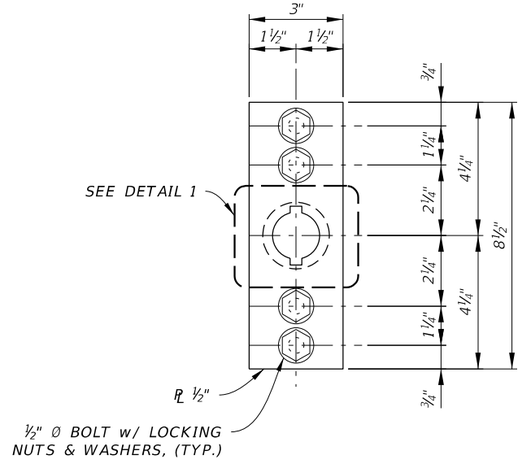
EQUIPMENT RETRACTION ASSEMBLY SUPPORT ARM (2 OF 2)



SUPPORT ARM ELEVATION



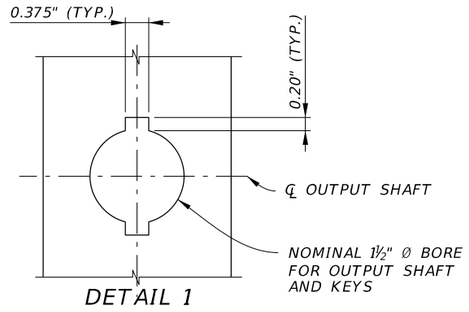
SUPPORT ARM - SIDE VIEW



OUTPUT SHAFT CONNECTION PLATE

NOTES:

1. PLATES ARE GALVANIZED STEEL, UNLESS NOTED OTHERWISE.
2. PROVIDE BRASS KEY FOR EACH KEYWAY.
3. LENGTH OF INSIDE GEAR OPERATOR KEY MUST ALLOW INSERTION OF GEAR OPERATOR OUTPUT SHAFT BUSHING.
4. PROVIDE 1½" SCH. 40 S.S. CENTERING COLLARS OF EQUAL LENGTH ON BOTH SIDES. SIZE COLLAR LENGTH SUCH THAT A ⅛" MAX. GAP IS ALLOWED BETWEEN BEARING FACES. SECURE OUTPUT SHAFT BETWEEN BUSHING PLATES WITH S.S. RETAINING CLIPS.
5. LOCATE SLIDE BOLT HEX HEAD SCREW AND SHOULDER SCREW ON SIDE OPPOSITE GEAR BOX.

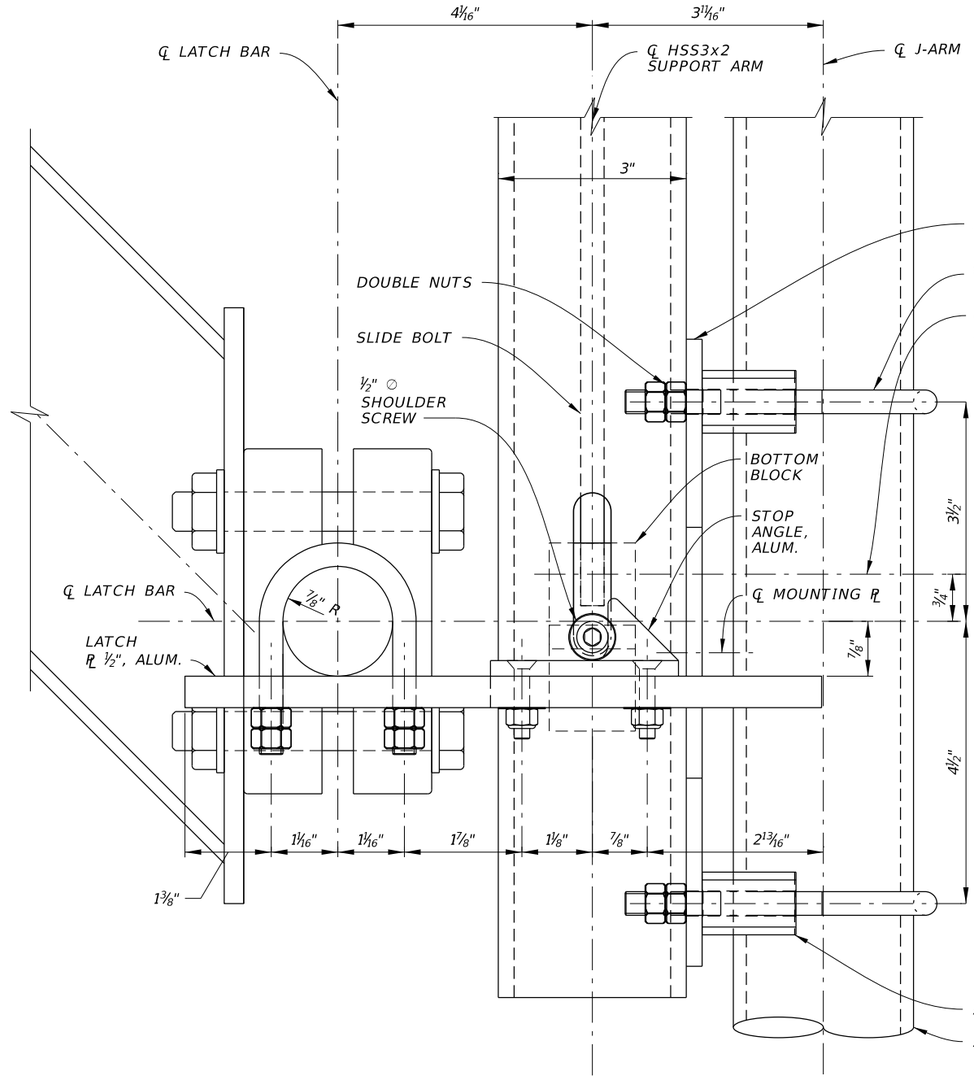


DETAIL 1

NOT TO SCALE

EXHIBIT 284-52
01/01/2027

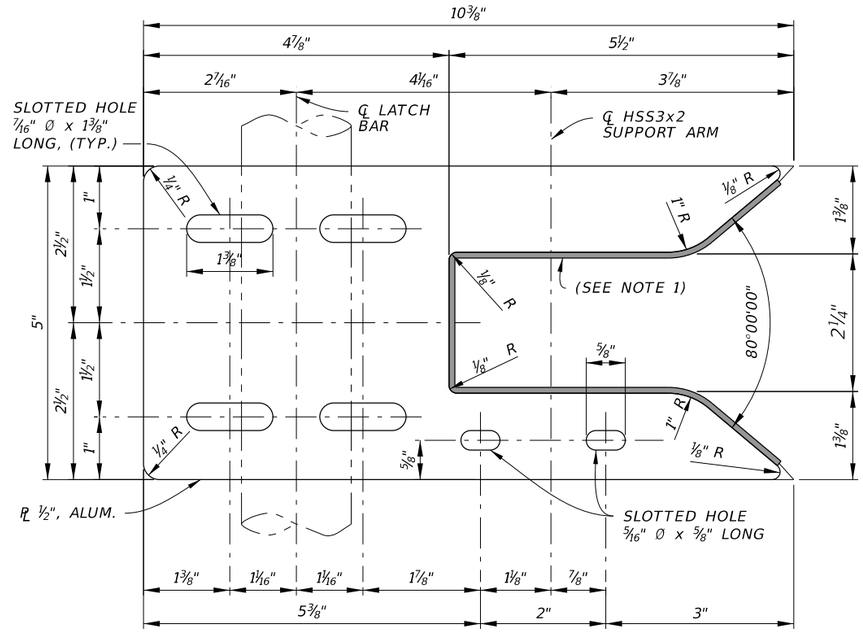
EQUIPMENT RETRACTION ASSEMBLY DETAILS (1 OF 2)



SUPPORT ARM LATCH DETAIL

NOTES:

1. SILICONE RUBBER ADHESIVE, 3⁄32" THICK x ½" WIDE ALONG EDGE OF THE LATCH PLATE.
2. PROVIDE FIELD ADJUSTMENT NOTES TO SECURE LATCH WITH PLUMB SUPPORT ARMS.

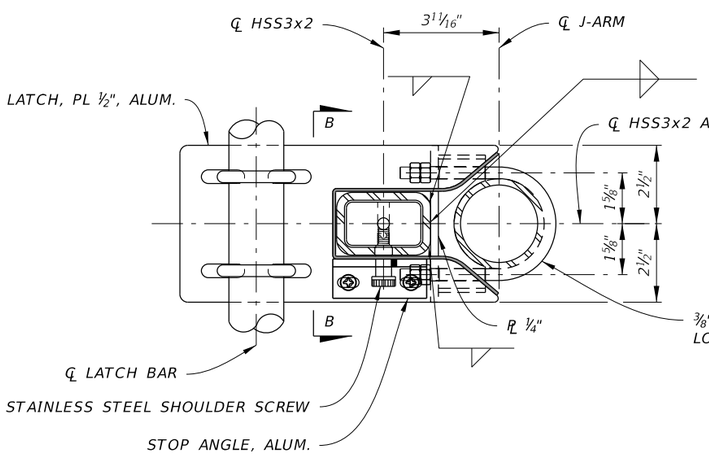


LATCH PLATE DETAIL - PLAN

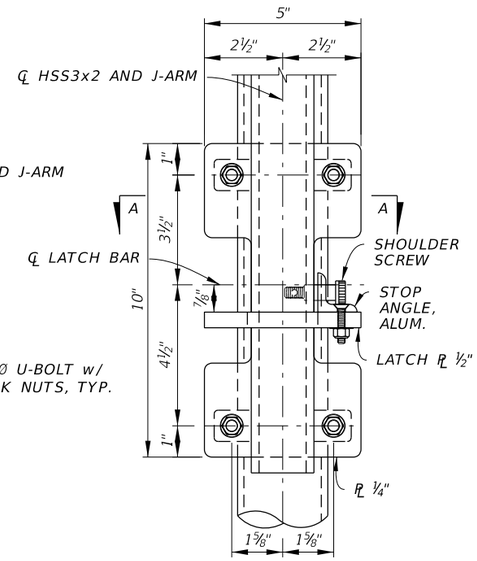
NOT TO SCALE

EXHIBIT 284-53
01/01/2027

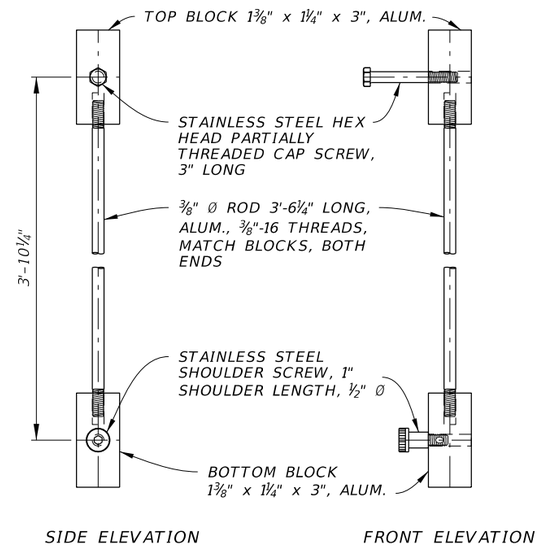
EQUIPMENT RETRACTION ASSEMBLY DETAILS (2 OF 2)



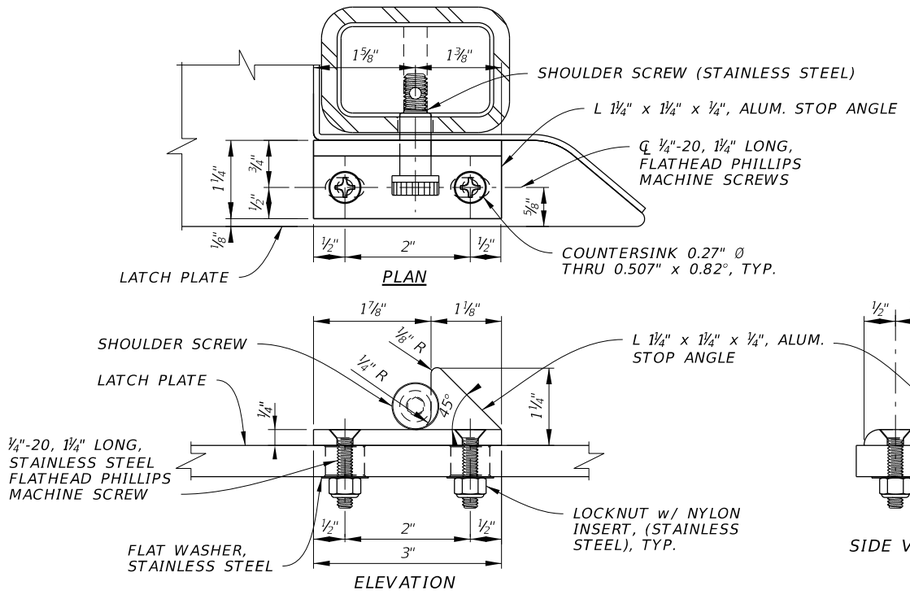
SUPPORT ARM LATCH DETAIL
SECTION A-A



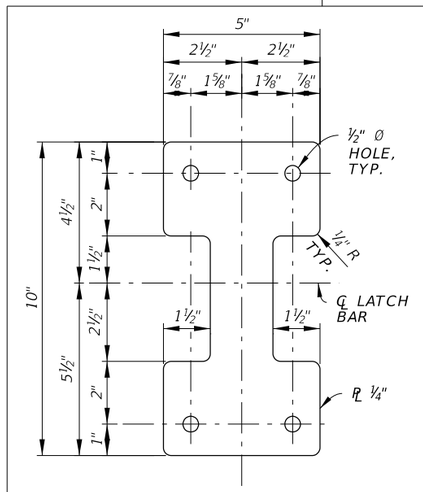
SUPPORT ARM LATCH DETAIL
SECTION B-B



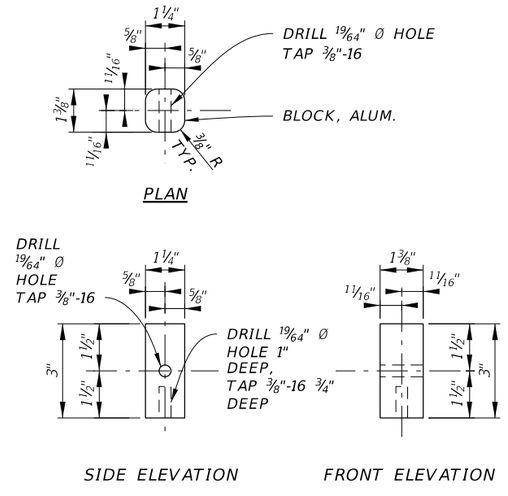
SLIDE BOLT ASSEMBLY



STOP ANGLE DETAILS



J-ARM MOUNTING PLATE

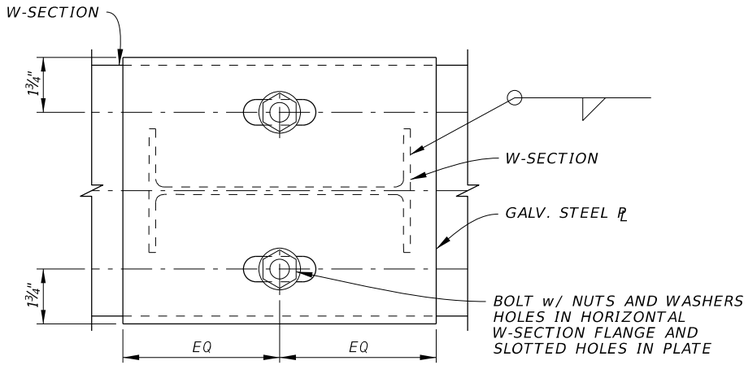


SLIDE BOLT ASSEMBLY DETAILS

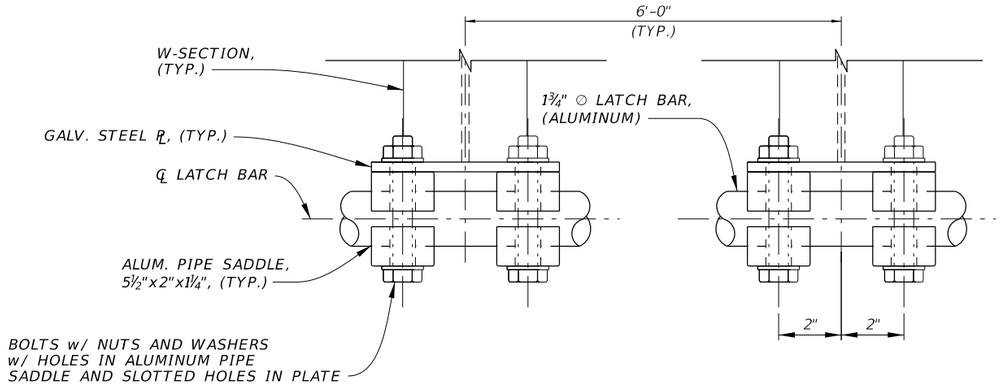
NOT TO SCALE

EXHIBIT 284-54
01/01/2027

LATCH BAR ASSEMBLY



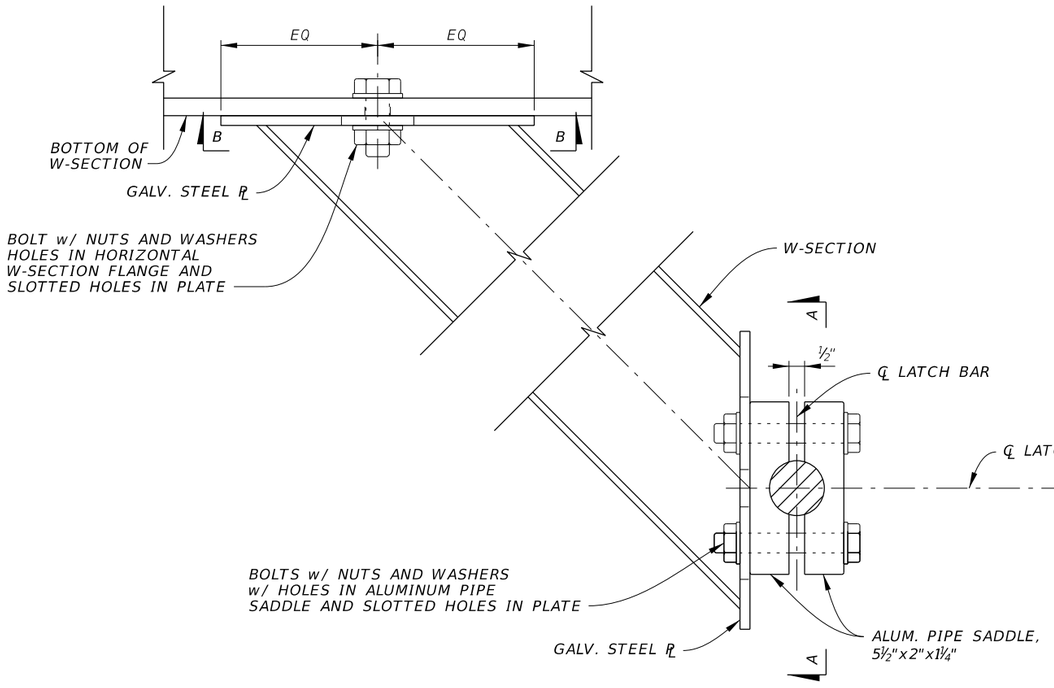
SECTION B-B



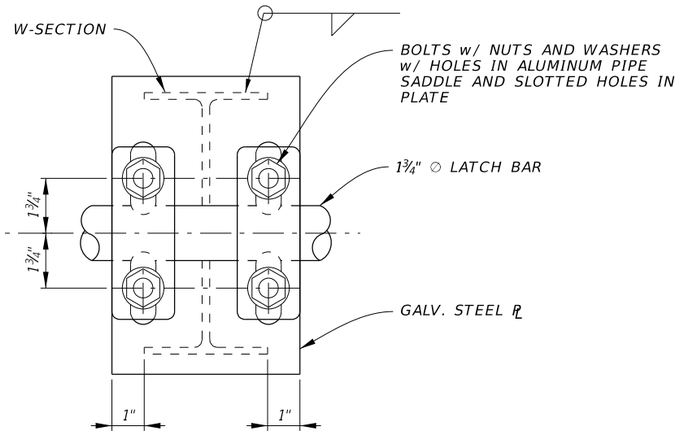
LATCH BAR PLAN - TYPICAL

NOTES:

1. PROVIDE FIELD ADJUSTMENT NOTES TO SECURE LATCH WITH PLUMB SUPPORT ARMS.
2. SHOP ALIGN LATCH BAR TO ALLOW ALL J-ARMS TO BE MOUNTED PLUMB.
3. KEEP THE LATCH BAR HORIZONTALLY MOUNTED BY USING THE SLOTTED HOLES TO VERTICALLY ADJUST THE LATCH BAR PIPE SADDLE BOLTS FOR THE FINAL INSTALLED GANTRY CAMBER ONCE THE GANTRY IS SELF-SUPPORTING THE FULL WEIGHT OF THE STRUCTURE.



LATCH BAR SECTION - TYPICAL



SECTION A-A

NOT TO SCALE

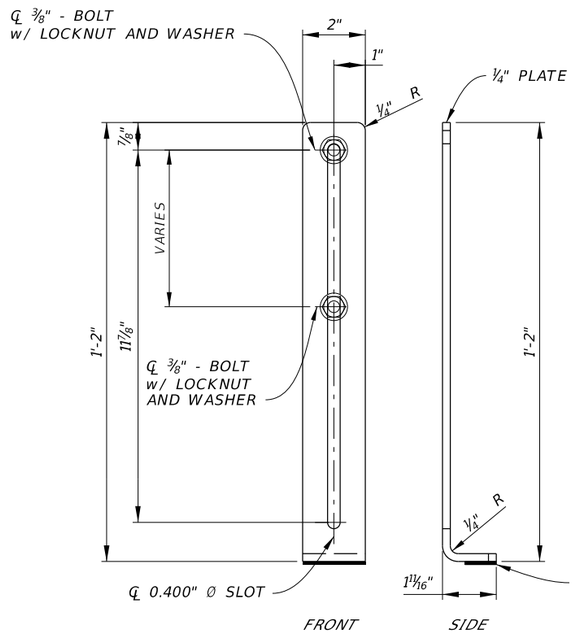
EXHIBIT 284-55
01/01/2027

STOP PLATE TYPES AND DETAILS

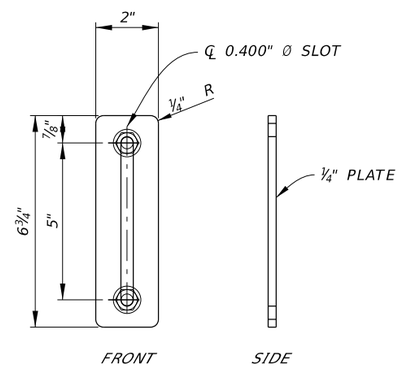
TABLE OF SUPPORT ARM QUANTITIES		
VENDOR	PHASE	TYP. SUPPORT ARM
TRANSCORE/ INFINITY	INTERIM	XX + 1 SPARE
	INTERIM 2	XX + 1 SPARE
	ULTIMATE	XX + 1 SPARE
CONDUENT	INTERIM	XX + 1 SPARE
	INTERIM 2	XX + 1 SPARE
	ULTIMATE	XX + 1 SPARE

NOTES:

1. DURING INSTALLATION, ORIENT THE EXPOSED BOLT THREADS AWAY FROM THE GEAR OPERATOR.
2. PROVIDE (1) ONE CAPTURE PLATE, (2) TWO ⅜" BOLTS WITH LOCKNUTS AND WASHERS FOR EACH STOP PLATE.



STOP PLATE



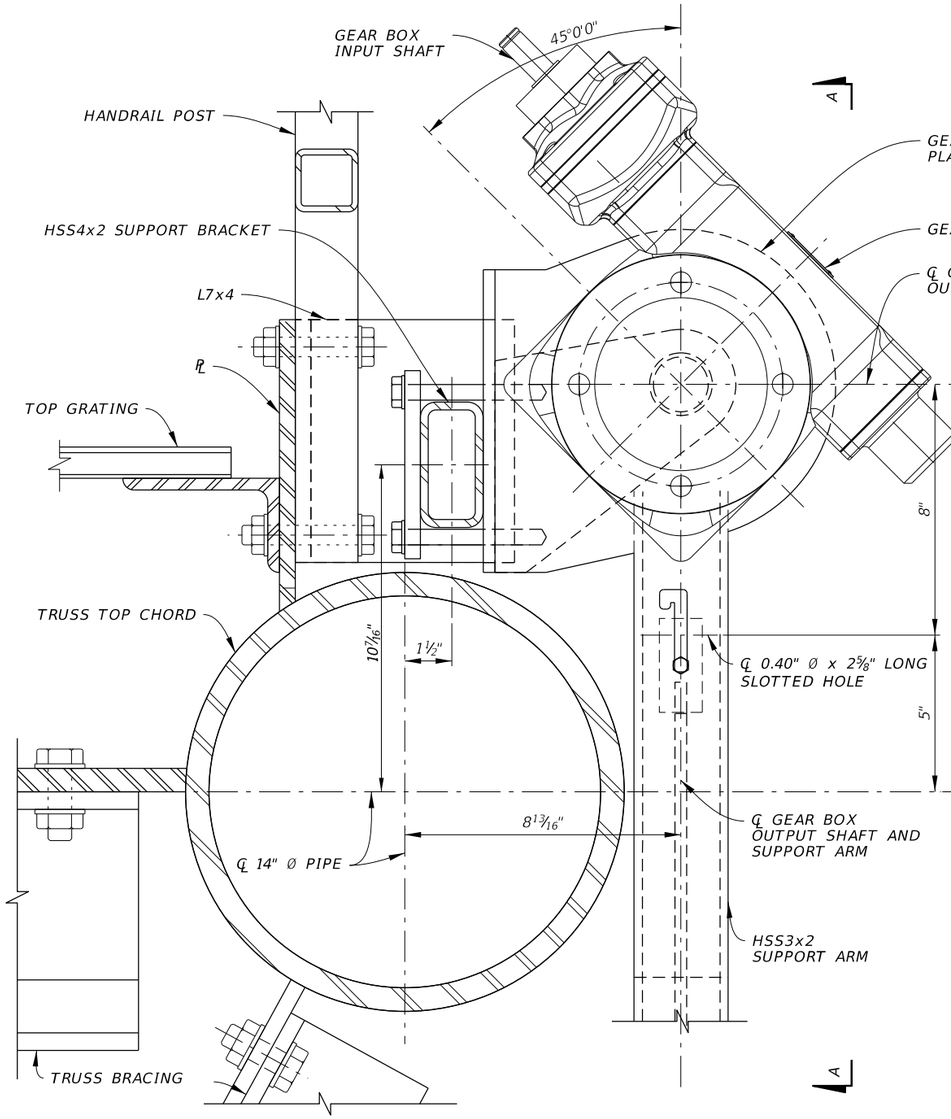
CAPTURE PLATE

UPPER SUPPORT ARM - STOP PLATE ASSEMBLY

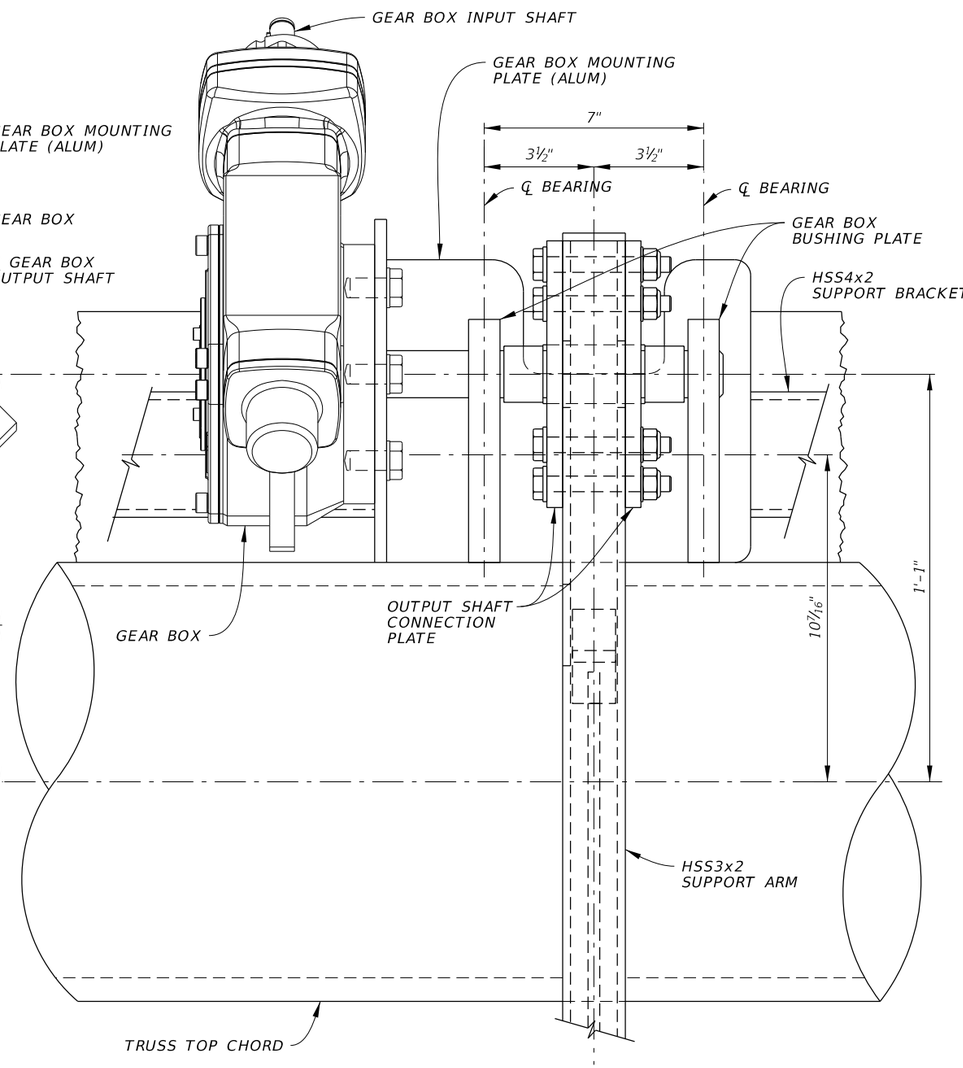
NOT TO SCALE

EXHIBIT 284-56
01/01/2027

GEAR BOX DETAILS (1 OF 3)



GEAR BOX SECTION - TYPICAL

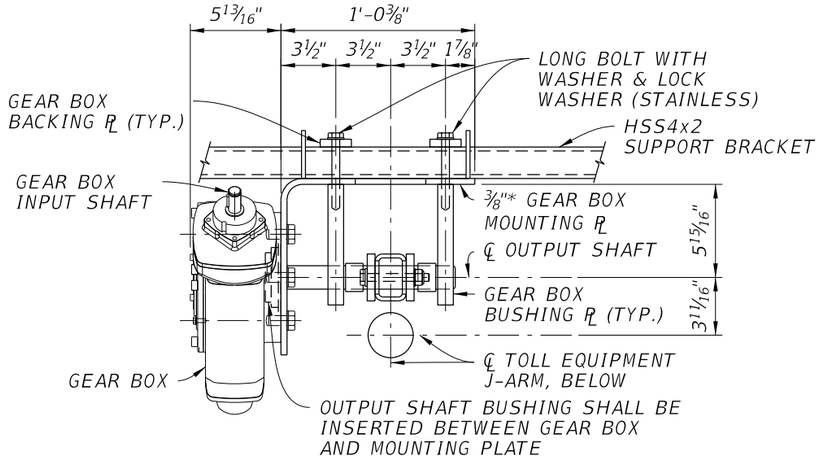


SECTION A-A

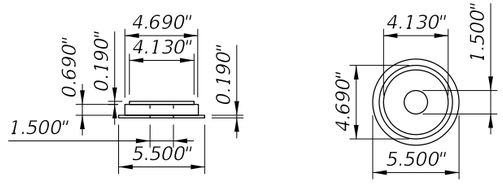
NOT TO SCALE

EXHIBIT 284-57
01/01/2027

GEAR BOX DETAILS (2 OF 3)

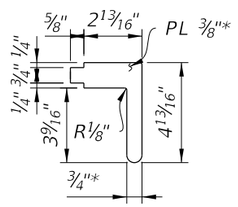


PLAN



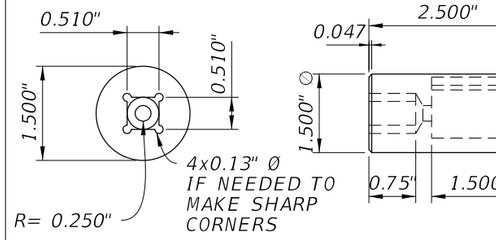
GEAR BOX OUTPUT SHAFT BUSHING

(Gear Box Output Shaft Bushing Shall Be HDPE)



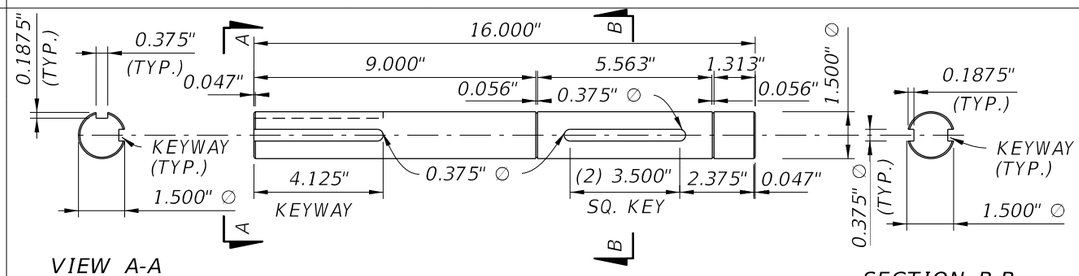
INSTALLATION ASSIST HOOKS

((2) Per Unit)



GEAR BOX INPUT ADAPTER

(Gear Box Input Adapter Shall Be Brass)

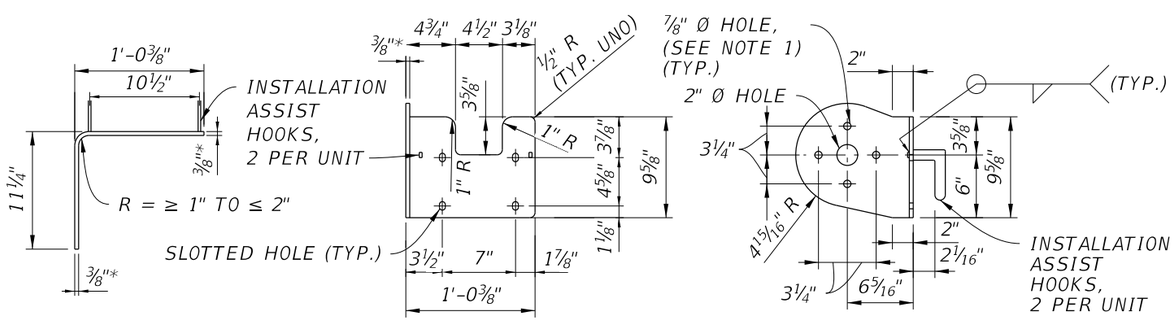


VIEW A-A

SECTION B-B

GEAR BOX OUTPUT SHAFT

(Gear Box Output Shaft Shall Be 304 Stainless Steel)



PLAN

(Mirror About Vertical For Mounting To Opposite Hand)

ELEVATION

(Mirror About Vertical For Mounting To Opposite Hand)

SECTION

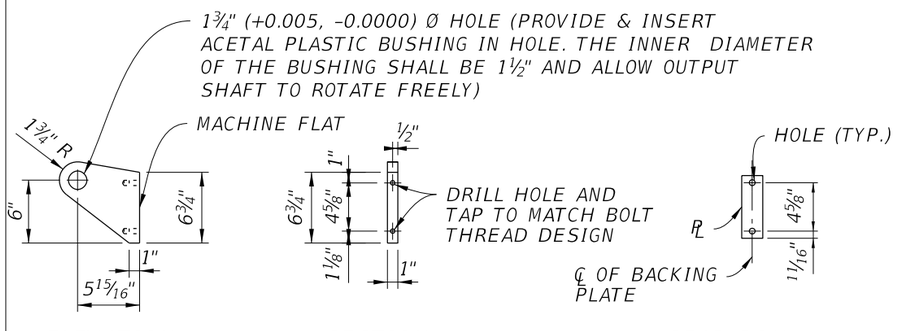
NOTE:

* INDICATES MIN. DIMENSION.

1. PROVIDE (1) SPARE LR GEARBOX AND (1) SPARE RL GEARBOX PER GANTRY.

GEAR BOX MOUNTING PLATE

(RL Orientation Shown, LR Orientation Similar But Opposite Hand)
(Gear Box Mounting Plates Shall Be 6061-T6 Aluminum)



ELEVATION

SECTION

GEAR BOX BACKING PLATE

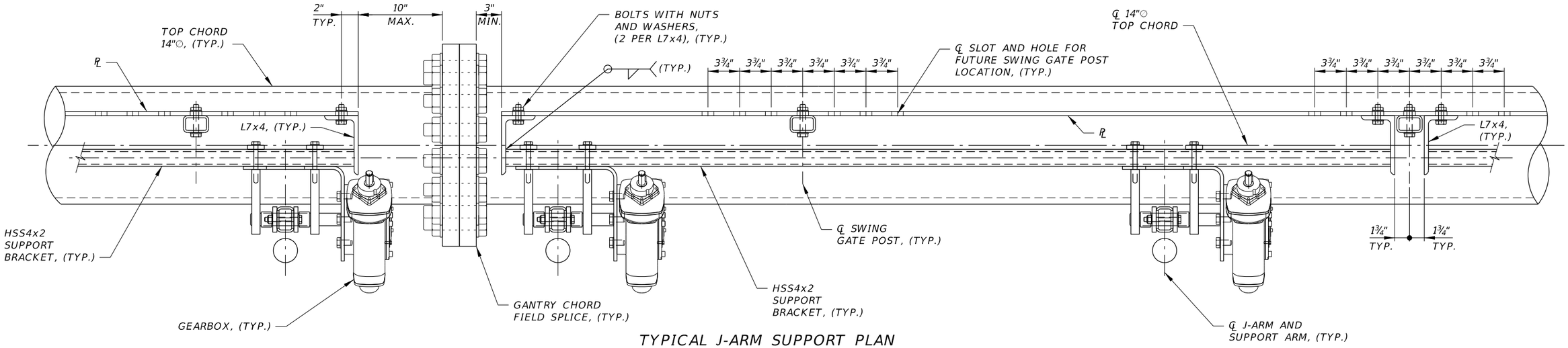
GEAR BOX BUSHING PLATE

(Gear Box Bushing Plates Shall Be 6061-T6 Aluminum)

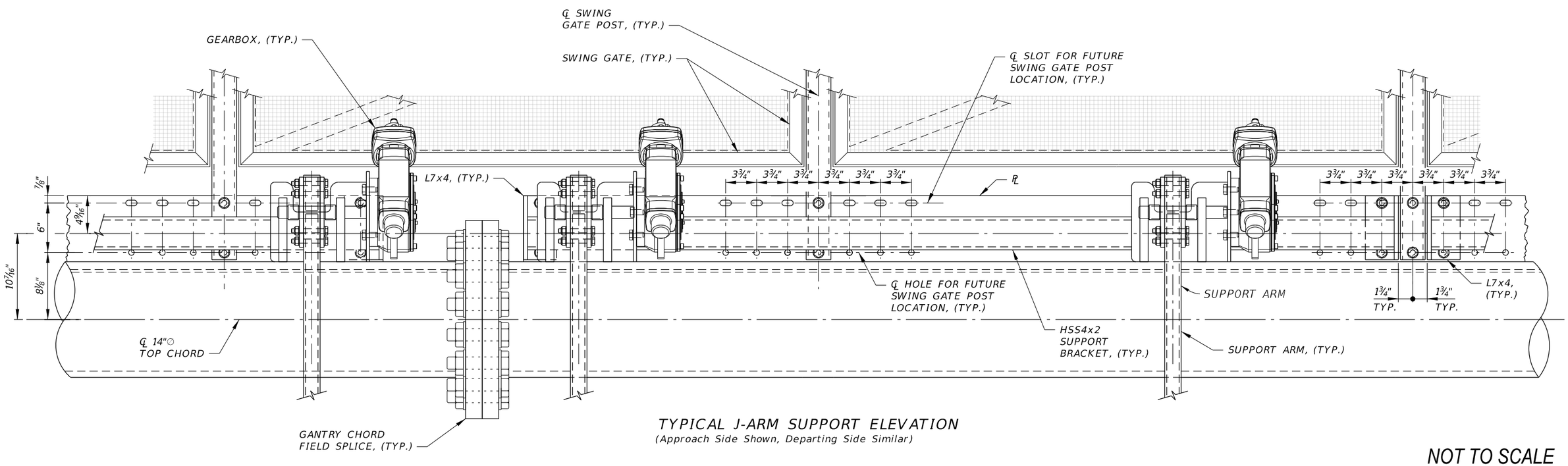
NOT TO SCALE

EXHIBIT 284-58
01/01/2027

GEAR BOX DETAILS (3 OF 3)



TYPICAL J-ARM SUPPORT PLAN
(Approach Side Shown, Departing Side Similar)

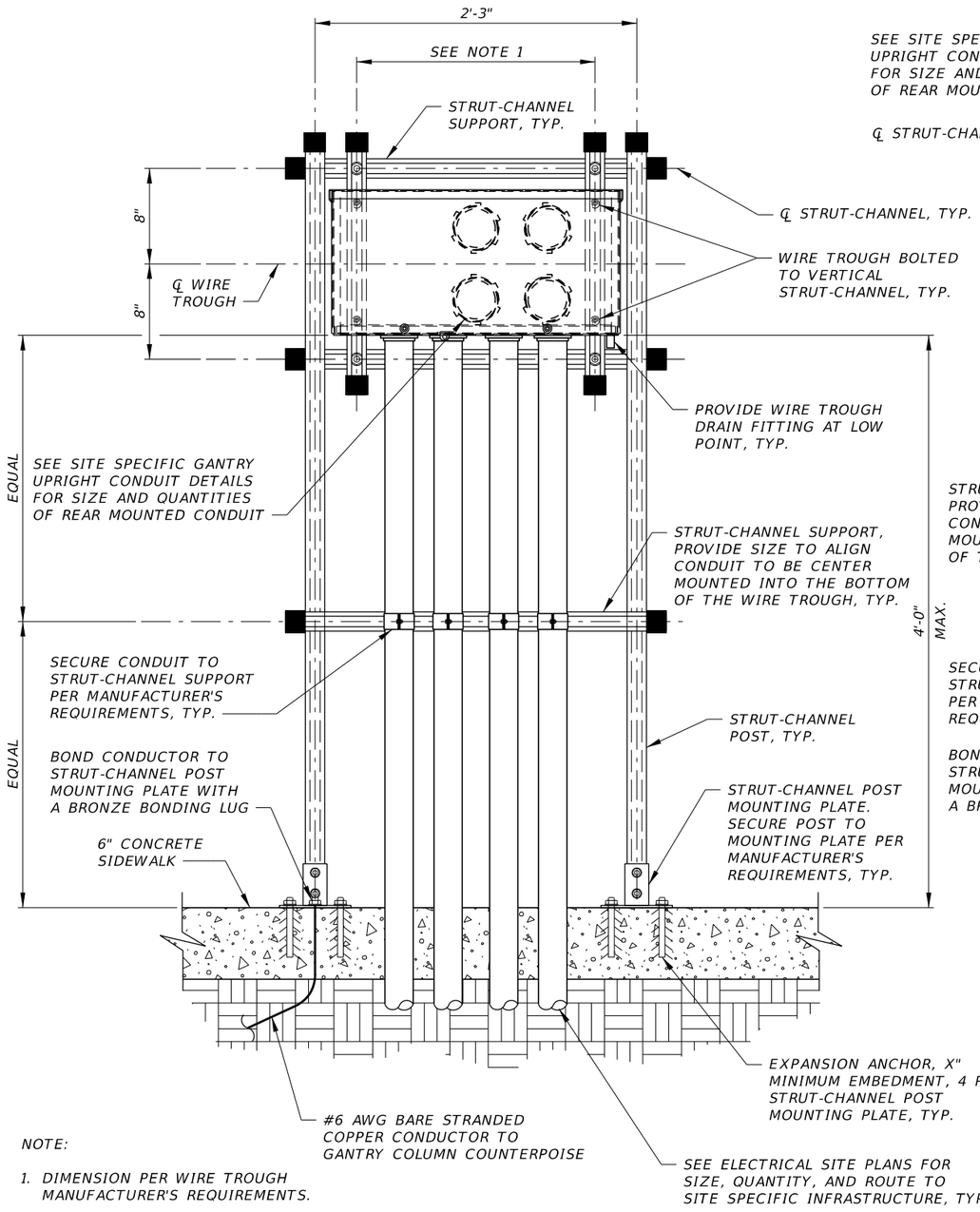


TYPICAL J-ARM SUPPORT ELEVATION
(Approach Side Shown, Departing Side Similar)

NOT TO SCALE

EXHIBIT 284-59
01/01/2027

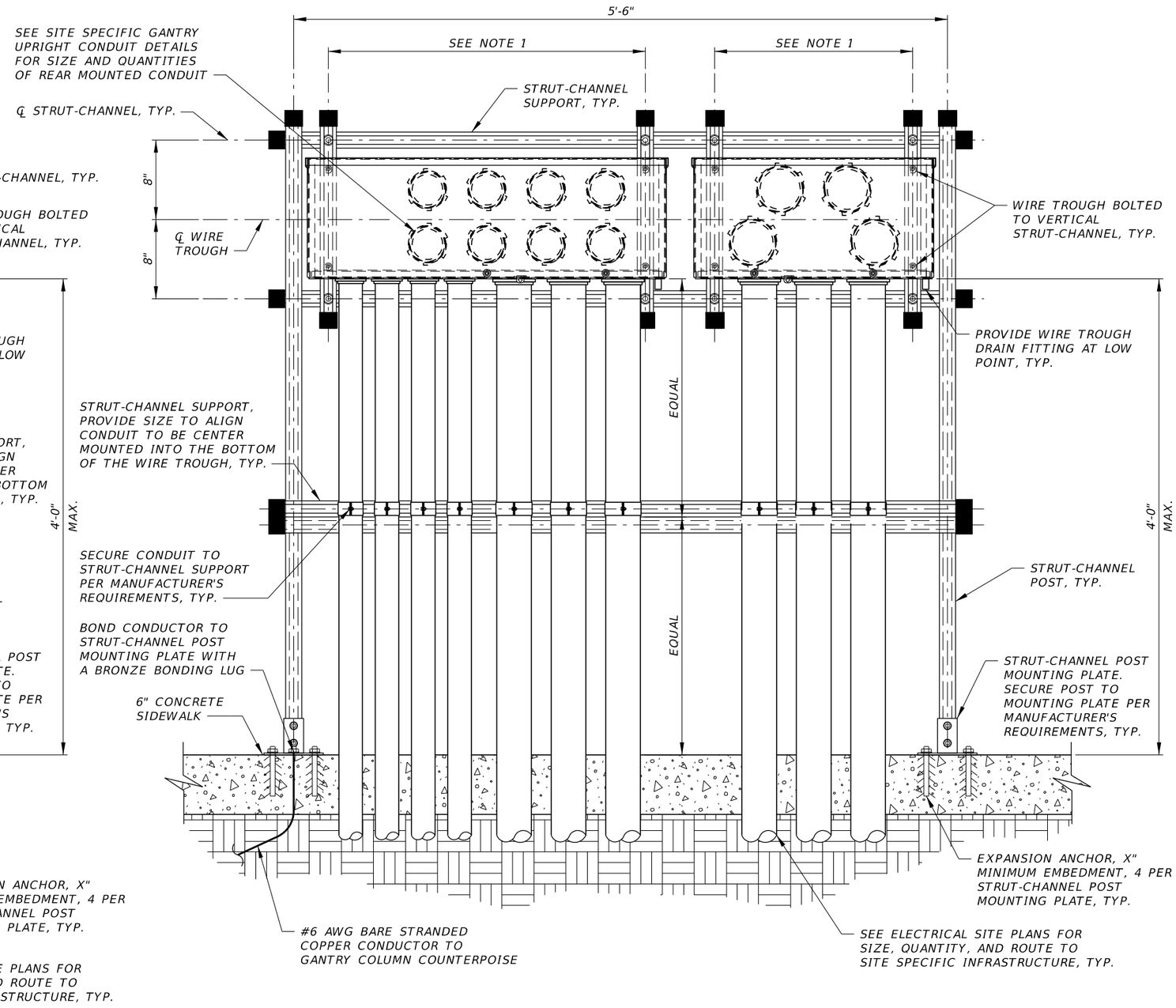
WIRE TROUGH



NOTE:

1. DIMENSION PER WIRE TROUGH MANUFACTURER'S REQUIREMENTS.

WIRE TROUGH ELEVATION

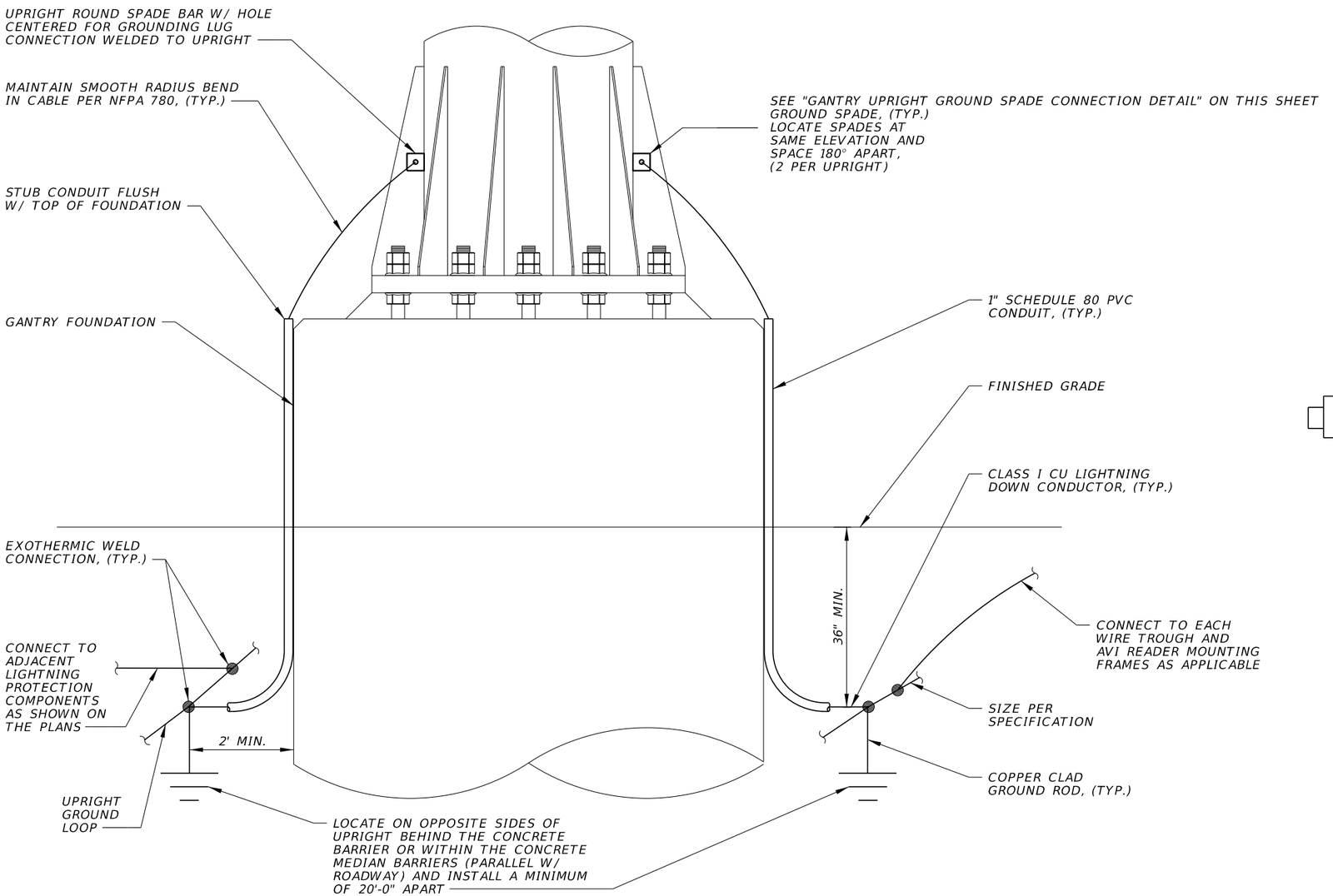


WIRE TROUGH ELEVATION - DUAL MOVEMENT RTC DETACHED TOLL SITE

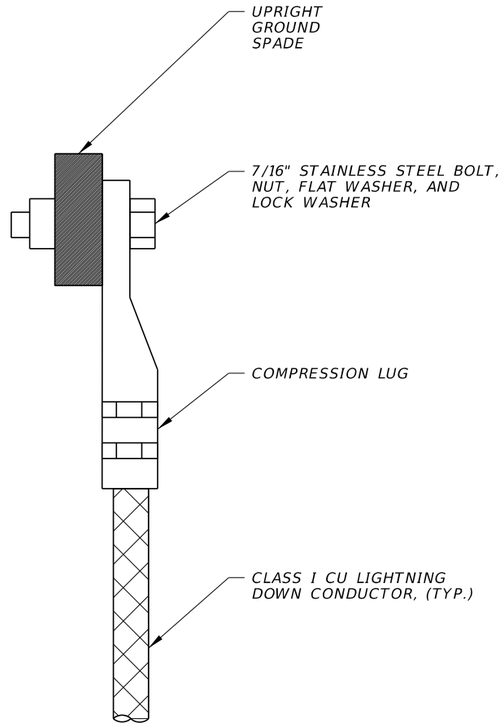
NOT TO SCALE

EXHIBIT 284-60
01/01/2027

GANTRY UPRIGHT LIGHTNING PROTECTION DETAIL



TYPICAL GANTRY UPRIGHT LIGHTNING PROTECTION DETAIL

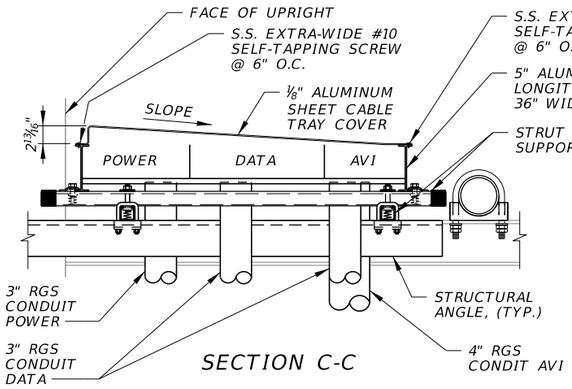


GANTRY UPRIGHT GROUND SPADE CONNECTION DETAIL

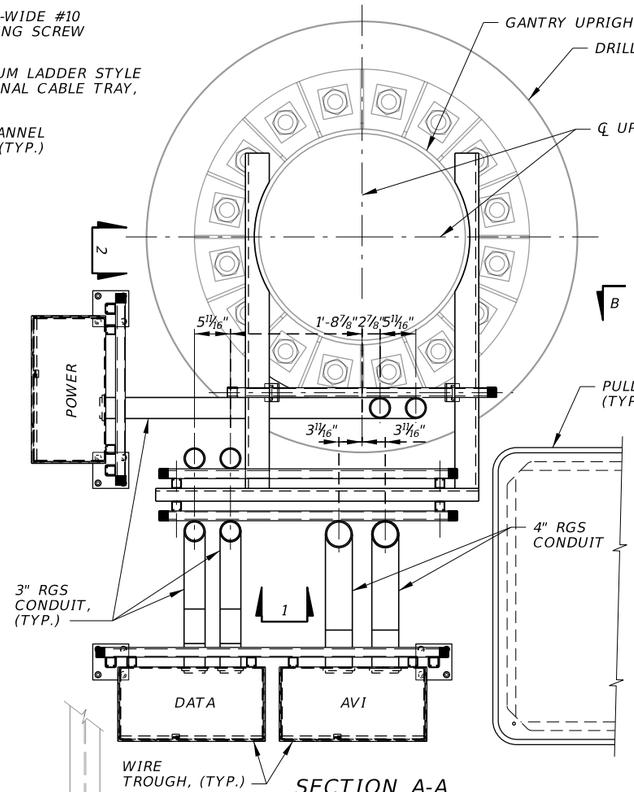
NOT TO SCALE

EXHIBIT 284-61
01/01/2027

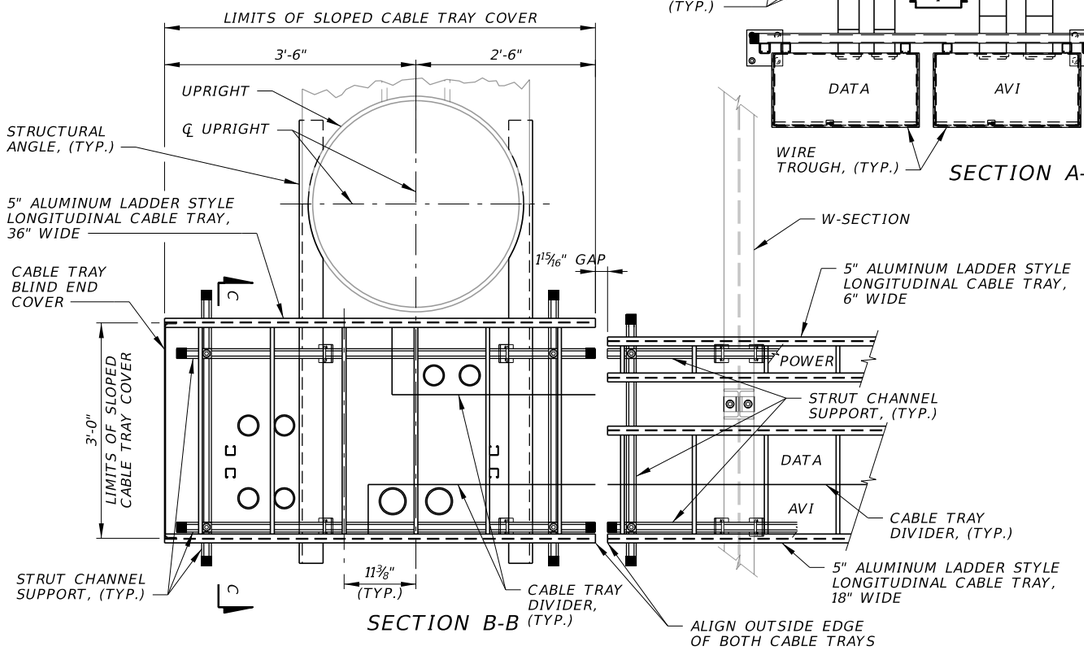
SPAN UPRIGHT CONDUIT LAYOUT



SECTION C-C



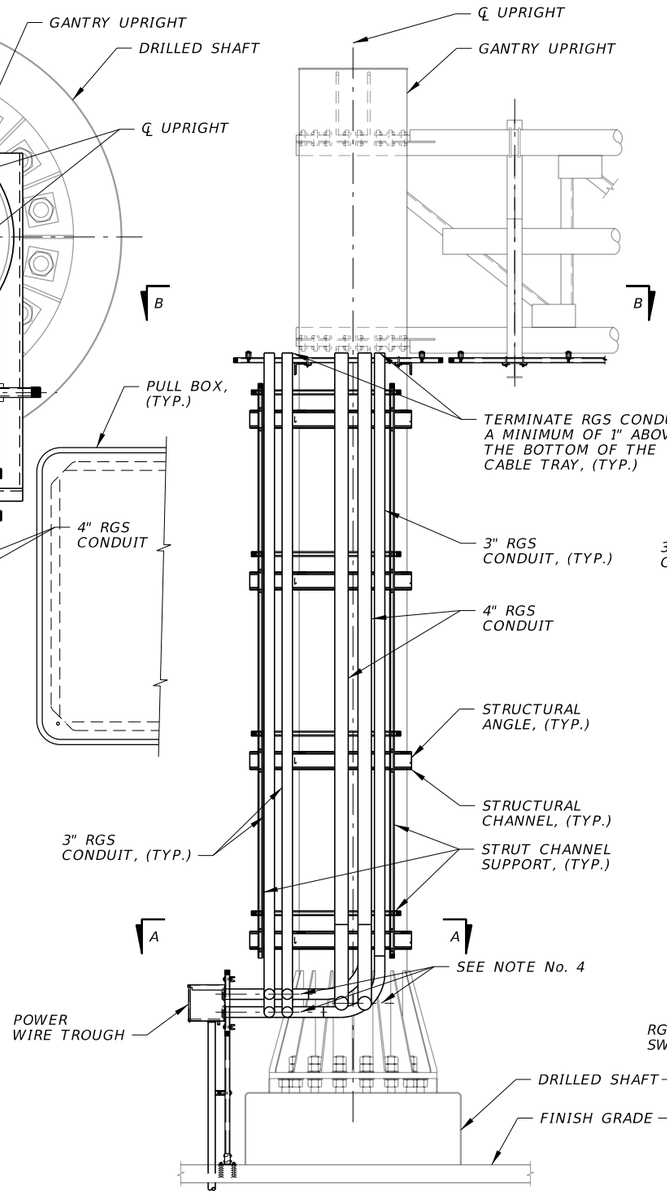
SECTION A-A



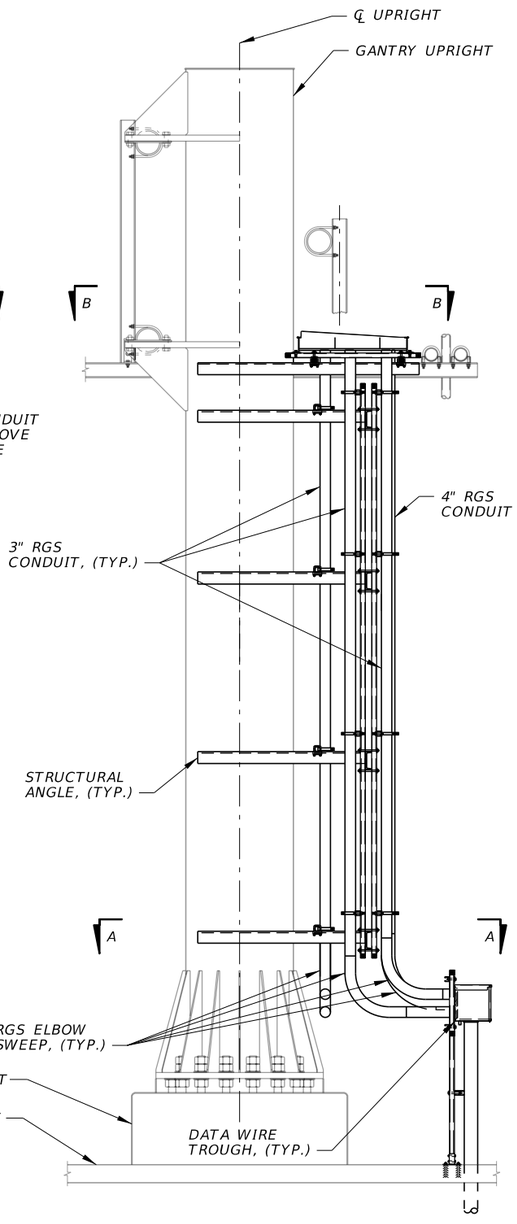
SECTION B-B

NOTES TO PREPARER:

1. VERTICAL CONDUITS MUST NOT TERMINATE INTO THE TOP OF THE WIRE TROUGHS.
2. EXCHANGE POWER AND AVI WIRE TROUGHS, CONDUITS, AND CABLE TRAY LOCATIONS FOR TEB SITES WITH AVI READER GROUND-MOUNTED FRAMES.
3. SEE SITE SPECIFIC LAYOUTS FOR LOCATION OF WIRE TROUGHS AND GROUND-MOUNTED AVI AND POWER DISTRIBUTION FRAMES.
4. ALIGN RGS CONDUIT SWEEPS WITH GROUND-MOUNTED WIRE TROUGHS.



GANTRY UPRIGHT - VIEW 1

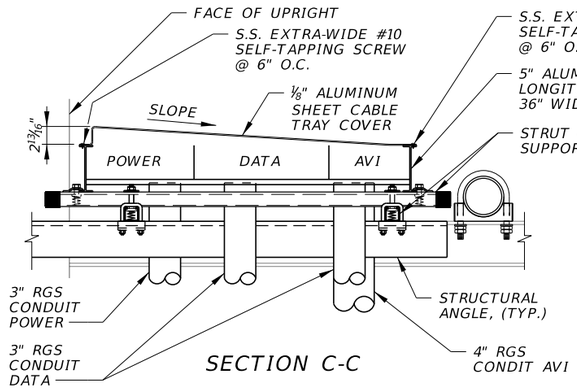


GANTRY UPRIGHT - VIEW 2

NOT TO SCALE

EXHIBIT 284-62
01/01/2027

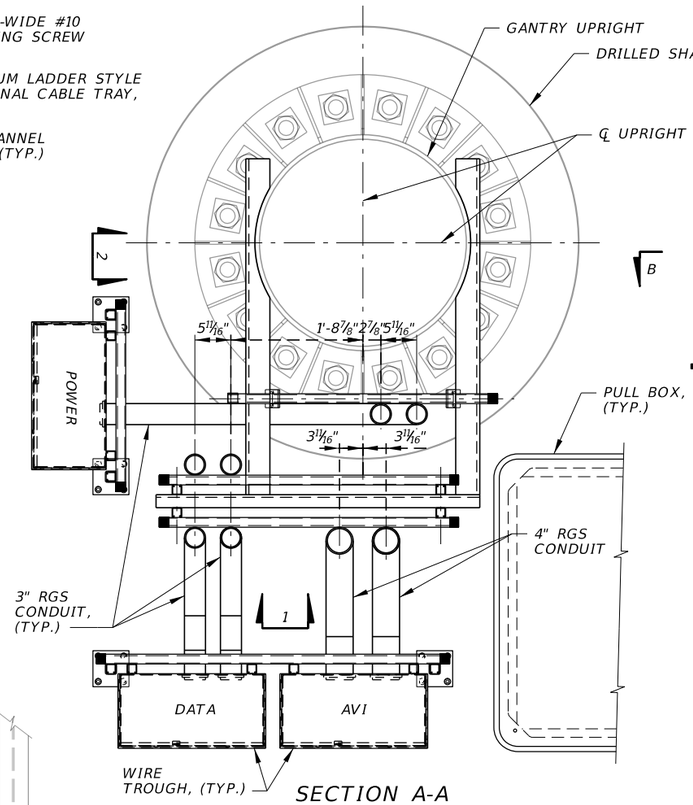
CANTILEVER UPRIGHT CONDUIT LAYOUT



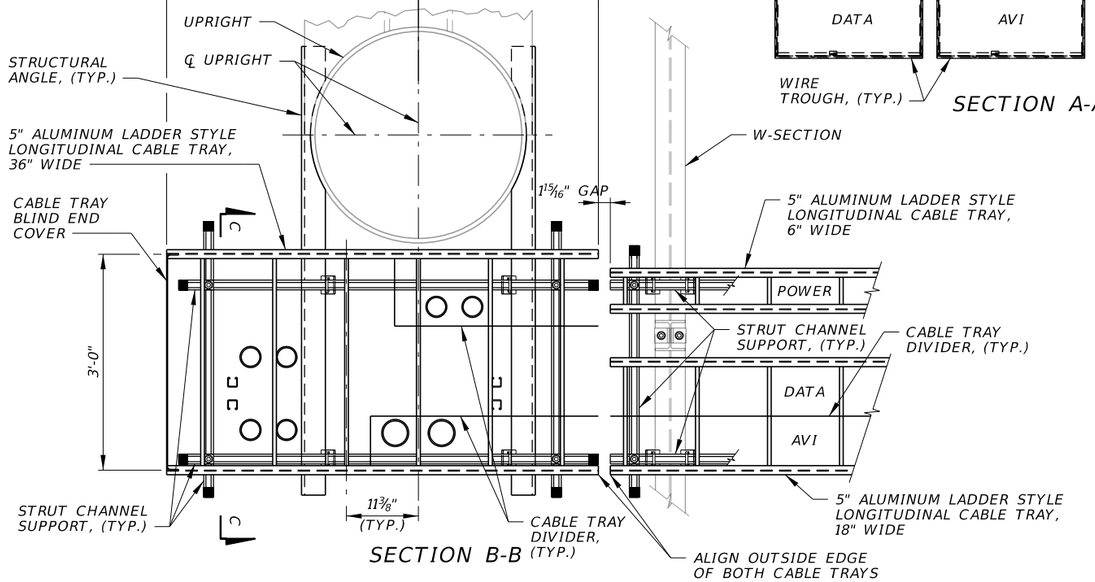
SECTION C-C

NOTES TO PREPARER:

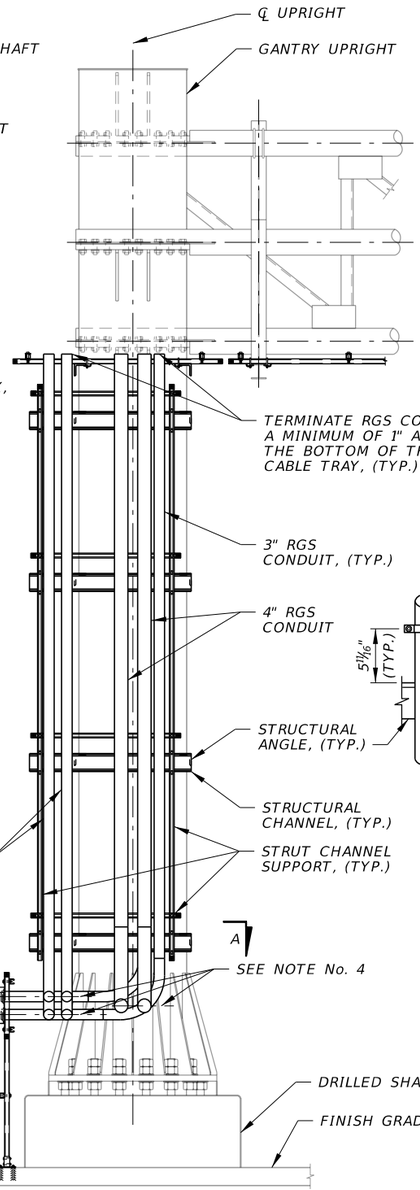
1. VERTICAL CONDUITS MUST NOT TERMINATE INTO THE TOP OF THE WIRE TROUGHS.
2. EXCHANGE POWER AND AVI WIRE TROUGHS, CONDUITS, AND CABLE TRAY LOCATIONS FOR TEB SITES WITH AVI READER GROUND-MOUNTED FRAMES.
3. SEE SITE SPECIFIC LAYOUTS FOR LOCATION OF WIRE TROUGHS AND GROUND-MOUNTED AVI AND POWER DISTRIBUTION FRAMES.
4. ALIGN RGS CONDUIT SWEEPS WITH GROUND-MOUNTED WIRE TROUGHS.



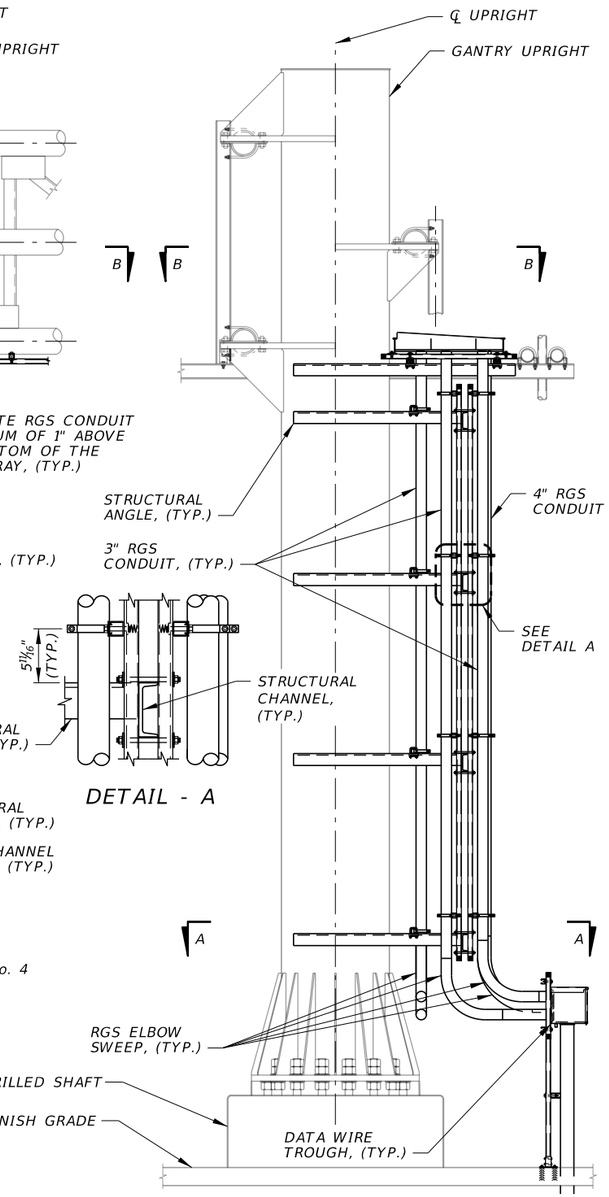
SECTION A-A



SECTION B-B



GANTRY UPRIGHT - VIEW 1



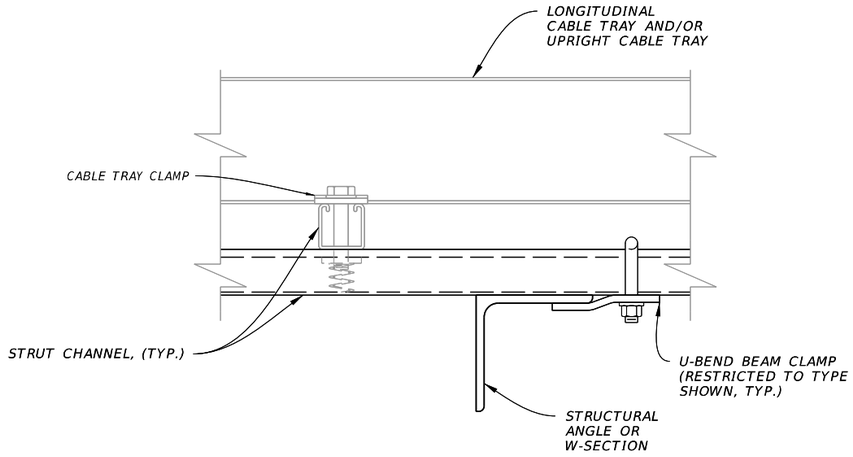
DETAIL - A

GANTRY UPRIGHT - VIEW 2

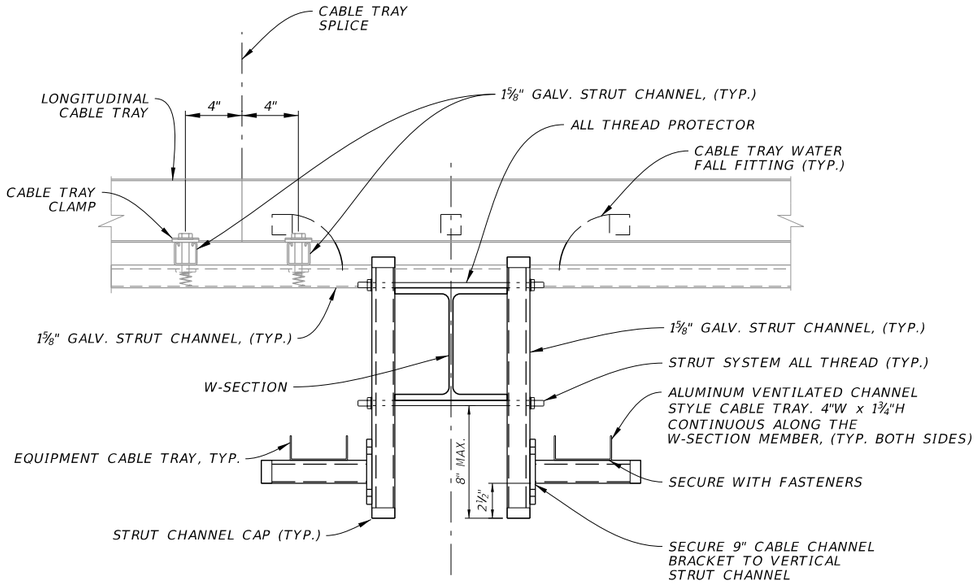
NOT TO SCALE

EXHIBIT 284-63
01/01/2027

TOLL EQUIPMENT CABLE TRAY



DETAIL AT UPRIGHT

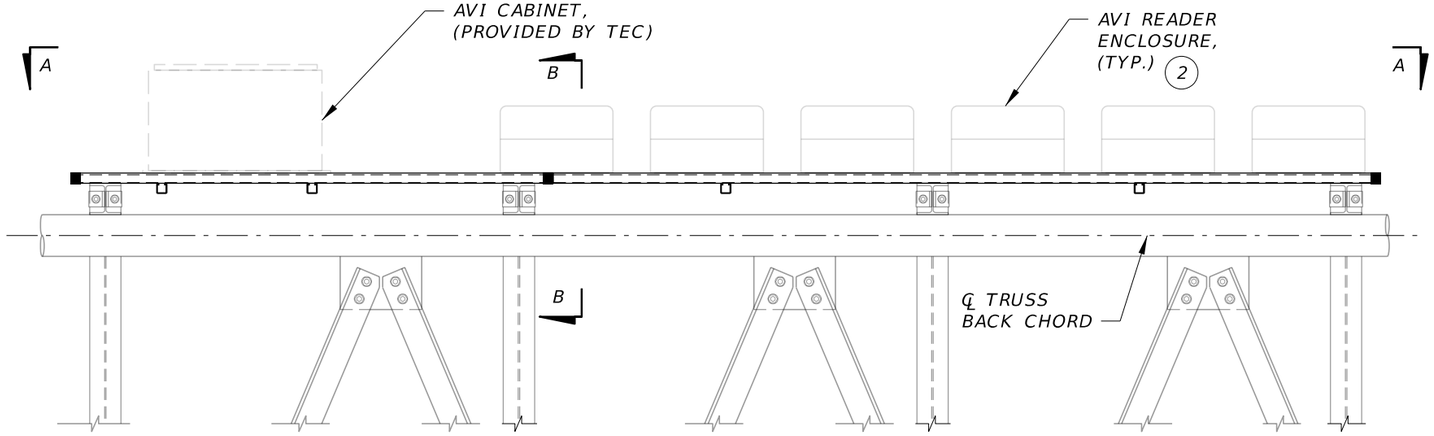


DETAIL AT W-SECTION

NOT TO SCALE

EXHIBIT 284-64
01/01/2027

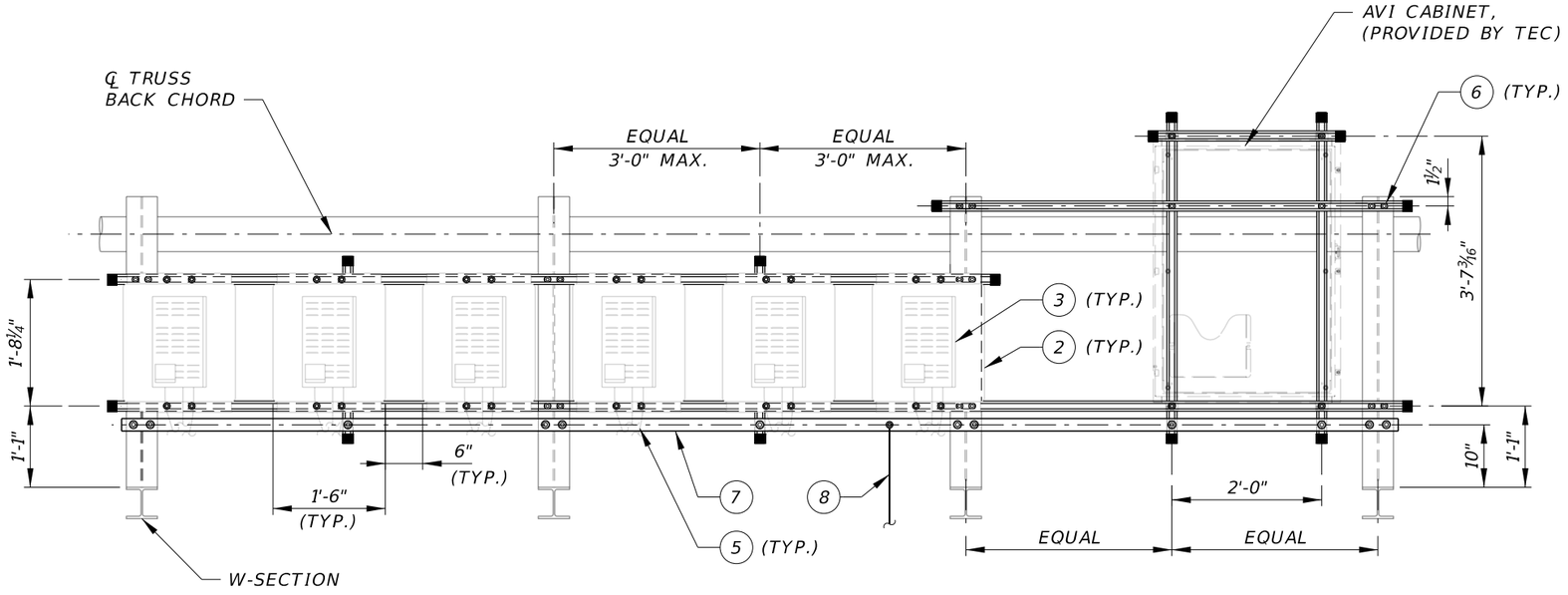
AVI READER NON-ACCESSIBLE GANTRY MOUNTING DETAIL



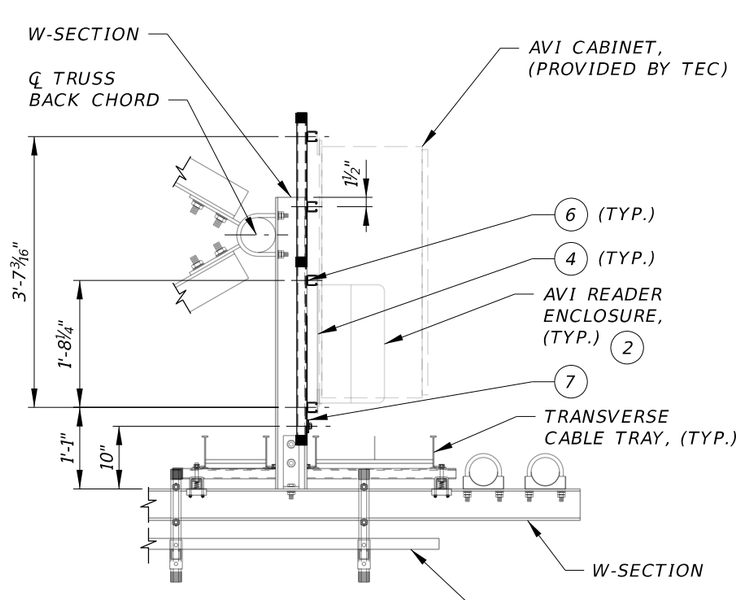
AVI READER MOUNTING PLAN

NOTES:

1. ONE AVI READER IS REQUIRED FOR EACH TOLL EQUIPMENT ANTENNA. EACH GANTRY MOUNTED AVI READER MUST HAVE AN AVI READER ENCLOSURE WITH ASSOCIATED MOUNTING HARDWARE.
2. AVI READER ENCLOSURE, (PROVIDED AND INSTALLED BY TEC)
3. AVI READER, (PROVIDED BY TURNPIKE TOLL SYSTEMS)
4. AVI READER ENCLOSURE MOUNTING PLATE, (PROVIDED AND INSTALLED BY TEC)
5. AVI READER CABLES, (PROVIDED AND INSTALLED BY TEC)
6. FASTEN STRUT CHANNEL TO SUPPORTS WITH MANUFACTURER'S APPROVED HARDWARE.
7. FASTEN 1/4" THICK, 2" HIGH COPPER GROUND BUS BAR BELOW AVI READERS AND DIRECTLY TO W-SECTION. PROVIDE LENGTH AS REQUIRED AND SUPPORTED A MAXIMUM OF EVERY 36 INCHES.
8. PROVIDE (1) #X GROUNDING CONDUCTOR AND CONNECT TO THE EQUIPMENT GROUNDING CONDUCTOR WITHIN THE POWER WIREWAY.



SECTION A-A

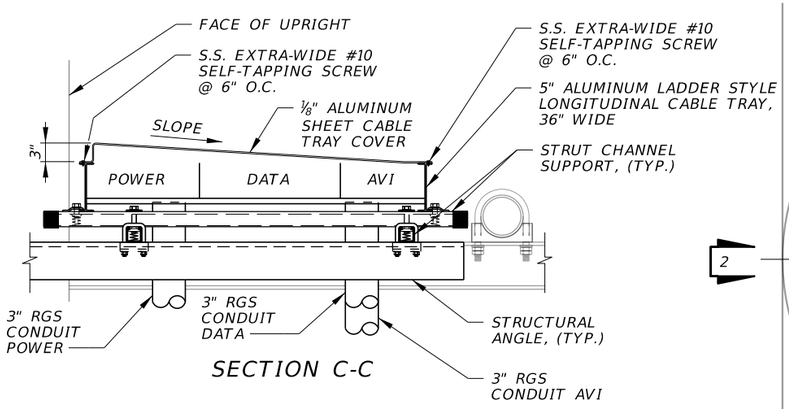


SECTION B-B

NOT TO SCALE

EXHIBIT 284-65
01/01/2027

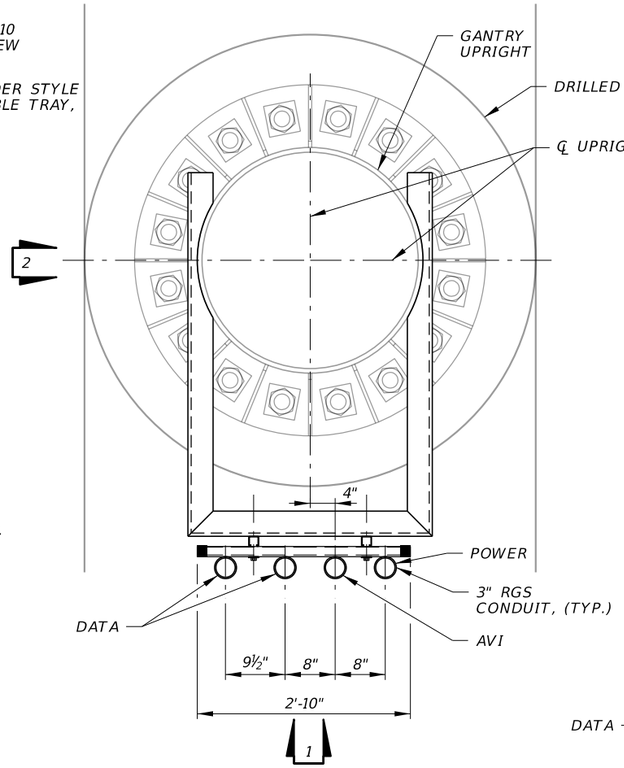
CANTILEVER GANTRY UPRIGHT CONDUIT LAYOUT



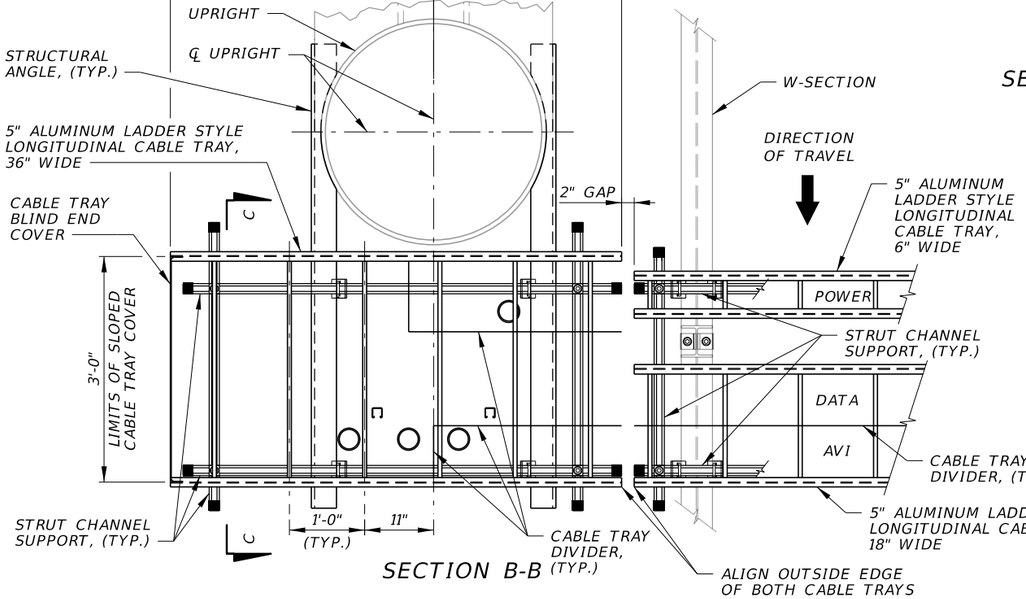
SECTION C-C

NOTES:

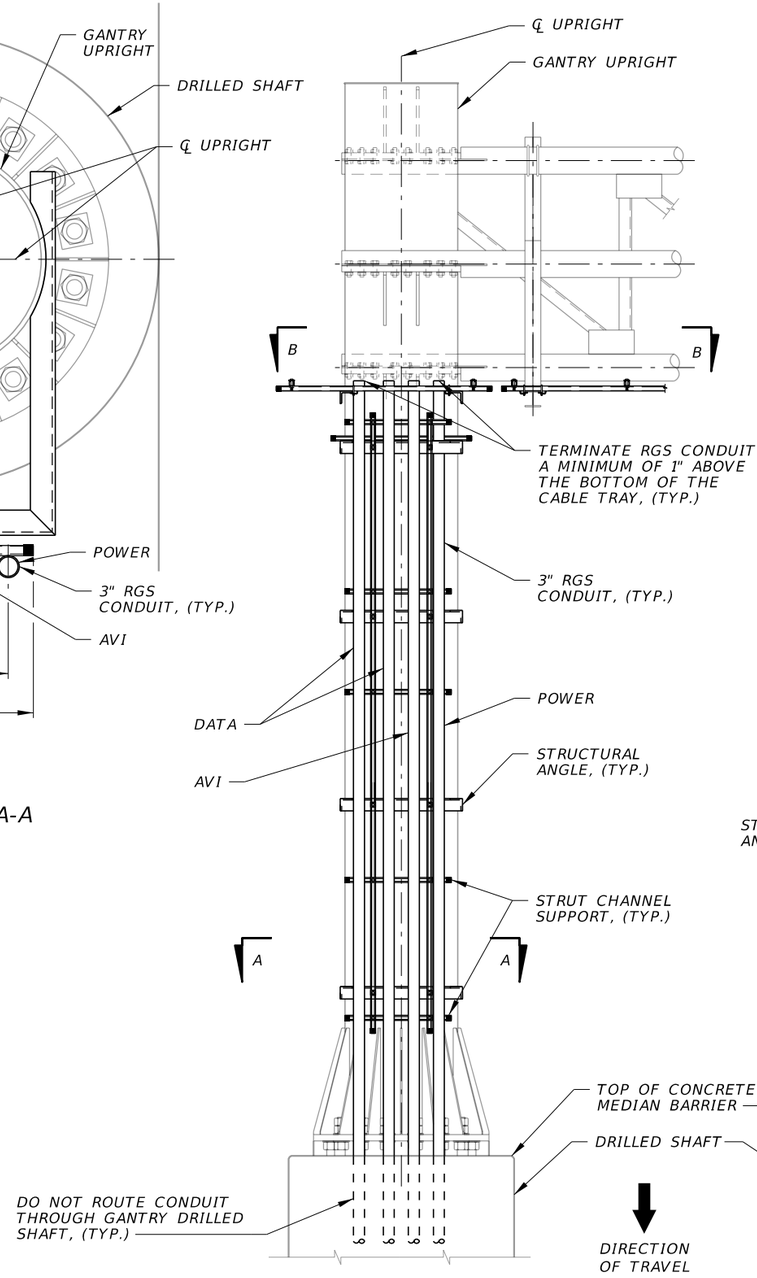
1. STRUT CHANNEL AND MOUNTING HARDWARE SHALL BE DEBURRED AND FILED SMOOTH TO REMOVE ROUGH EDGES PRIOR TO INSTALLATION.
2. PROVIDE PLASTIC END CAPS FOR STRUT CHANNEL SUPPORTS. STRUT CHANNEL AND END CAPS SHALL BE PROVIDED BY THE SAME MANUFACTURER.
3. PROVIDE REQUIRED FITTINGS, BUSHINGS, MOUNTING HARDWARE, AND ACCESSORIES TO PROVIDE A COMPLETE RACEWAY SYSTEM.
4. STRUT CHANNEL LENGTHS EQUAL TO OR LESS THAN 20 FEET SHALL BE CONTINUOUS AND WITHOUT SPLICES.



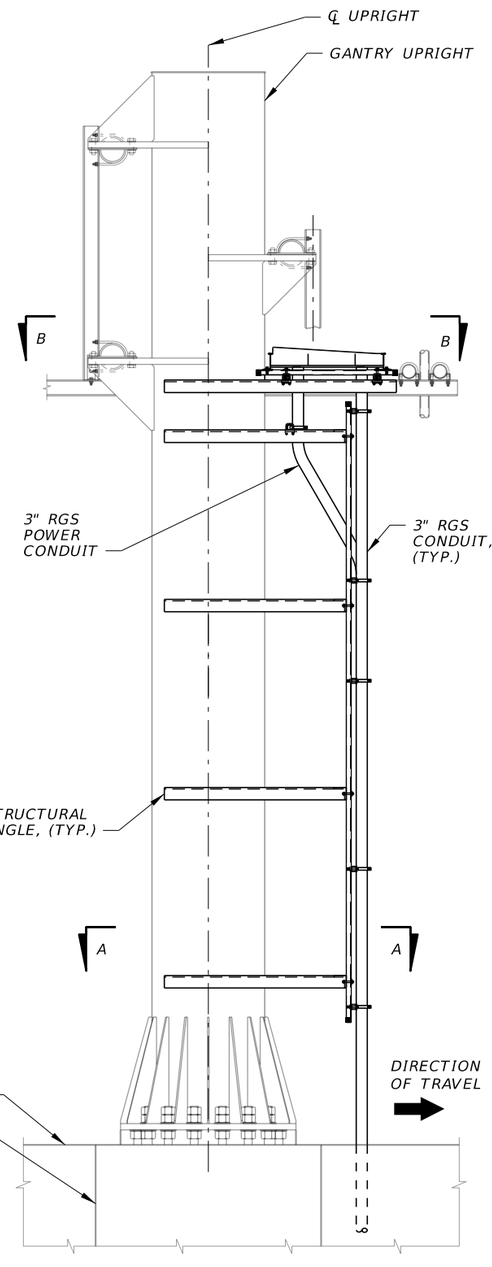
SECTION A-A



SECTION B-B



GANTRY UPRIGHT - VIEW 1

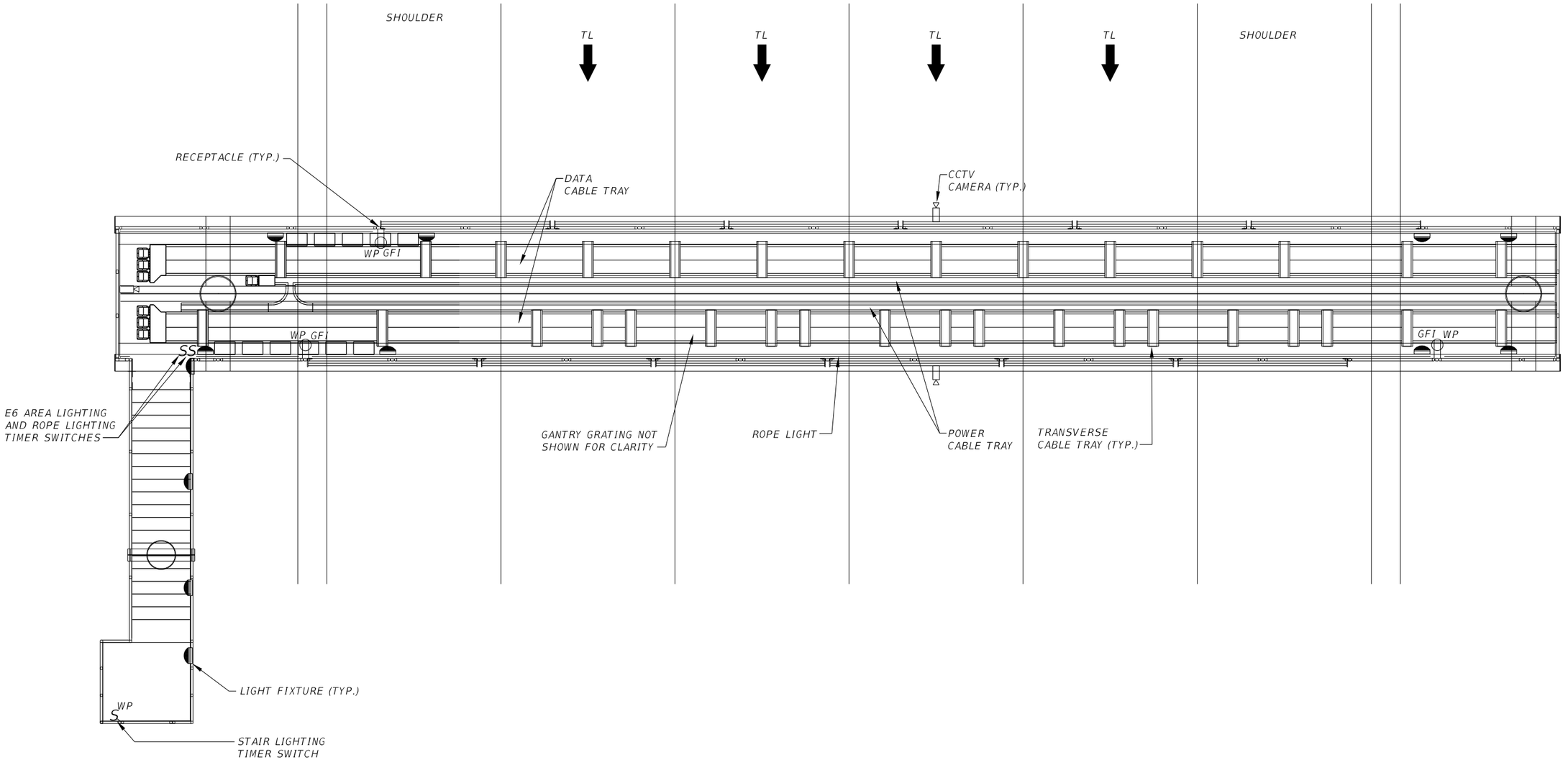


GANTRY UPRIGHT - VIEW 2

NOT TO SCALE

EXHIBIT 284-66
01/01/2027

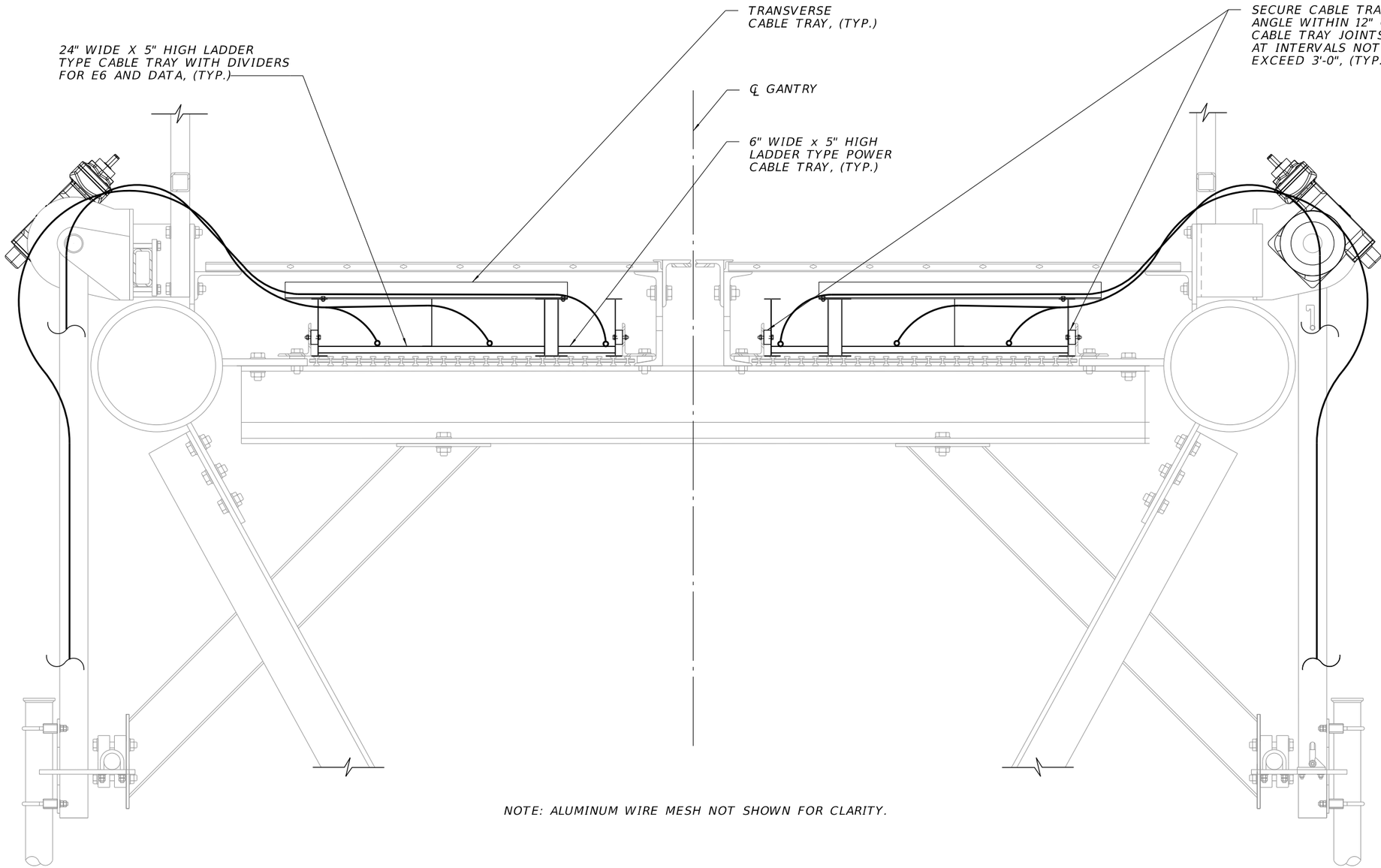
ACCESSIBLE GANTRY ELECTRICAL PLAN



NOT TO SCALE

EXHIBIT 284-67
01/01/2027

ACCESSIBLE GANTRY CABLE TRAY LAYOUT

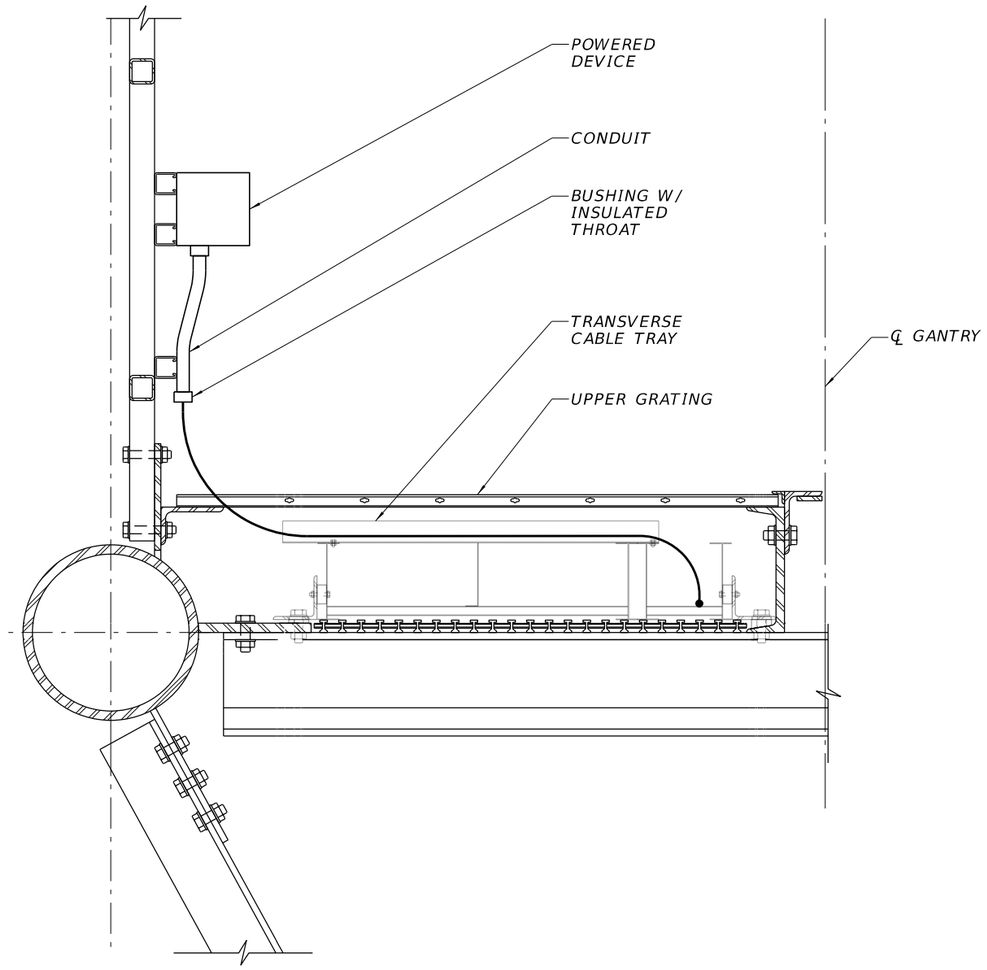


NOTE: ALUMINUM WIRE MESH NOT SHOWN FOR CLARITY.

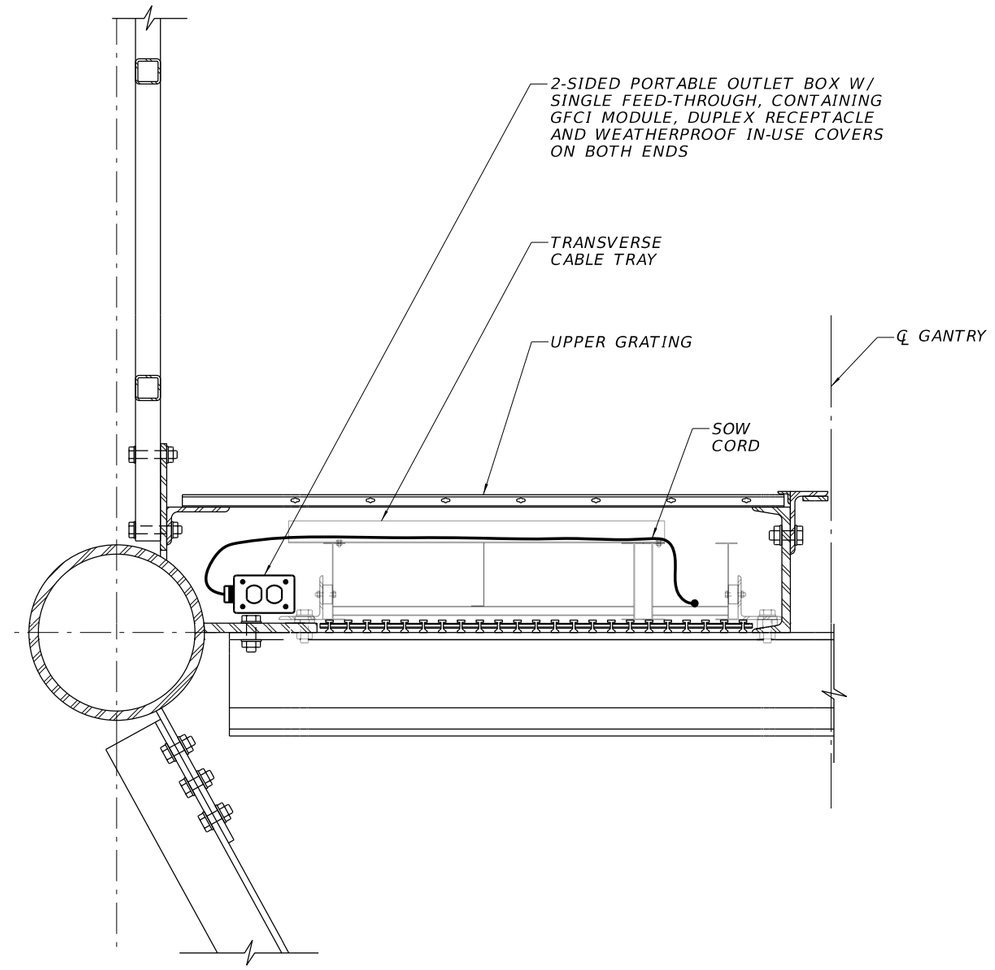
NOT TO SCALE

EXHIBIT 284-68
01/01/2027

ACCESSIBLE GANTRY TRANSVERSE CABLE TRAY



AREAS WITH FIXED SWING GATES



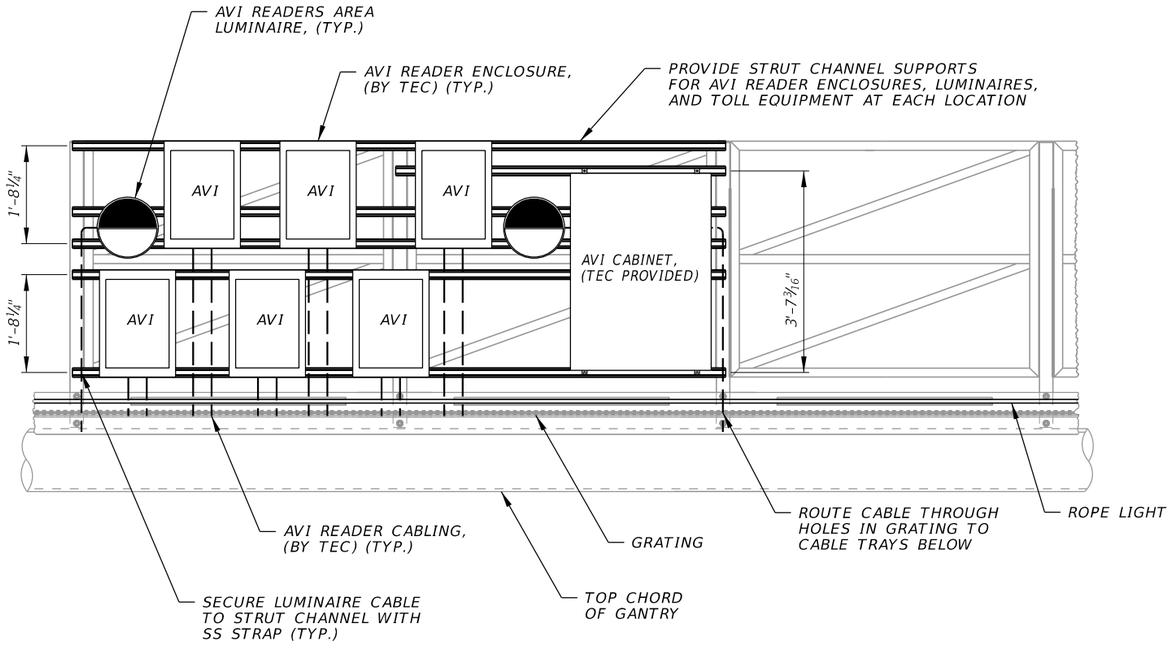
AREAS WITH NON-FIXED SWING GATES

NOTE: ALUMINUM WIRE MESH NOT SHOWN FOR CLARITY.

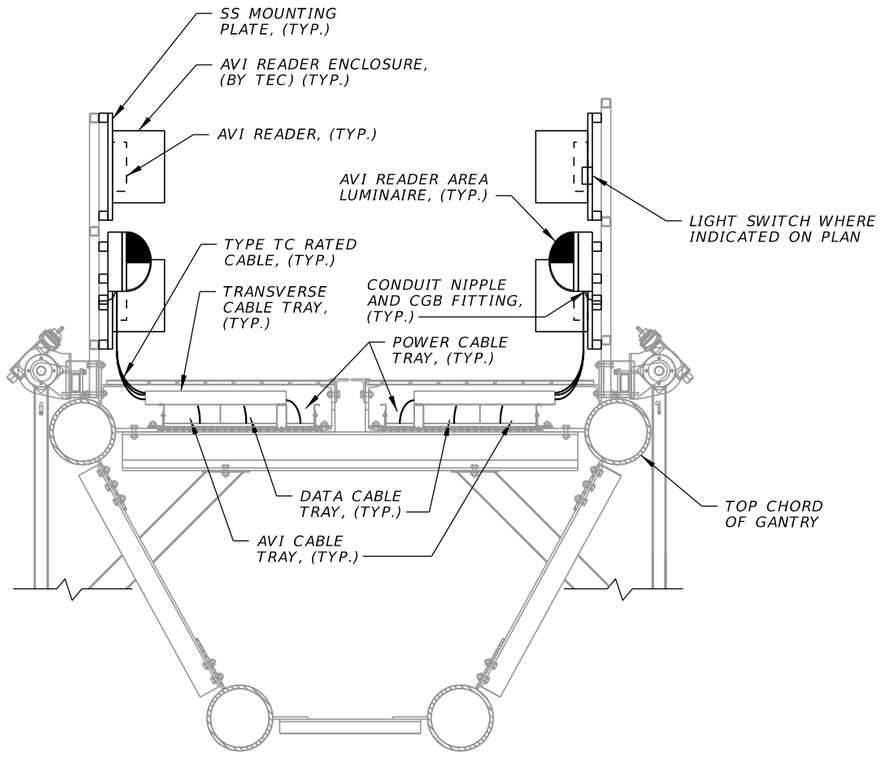
NOT TO SCALE

EXHIBIT 284-69
01/01/2027

ACCESSIBLE GANTRY AVI READER ENCLOSURE LAYOUT



TYPICAL AVI READER MOUNTING ELEVATION

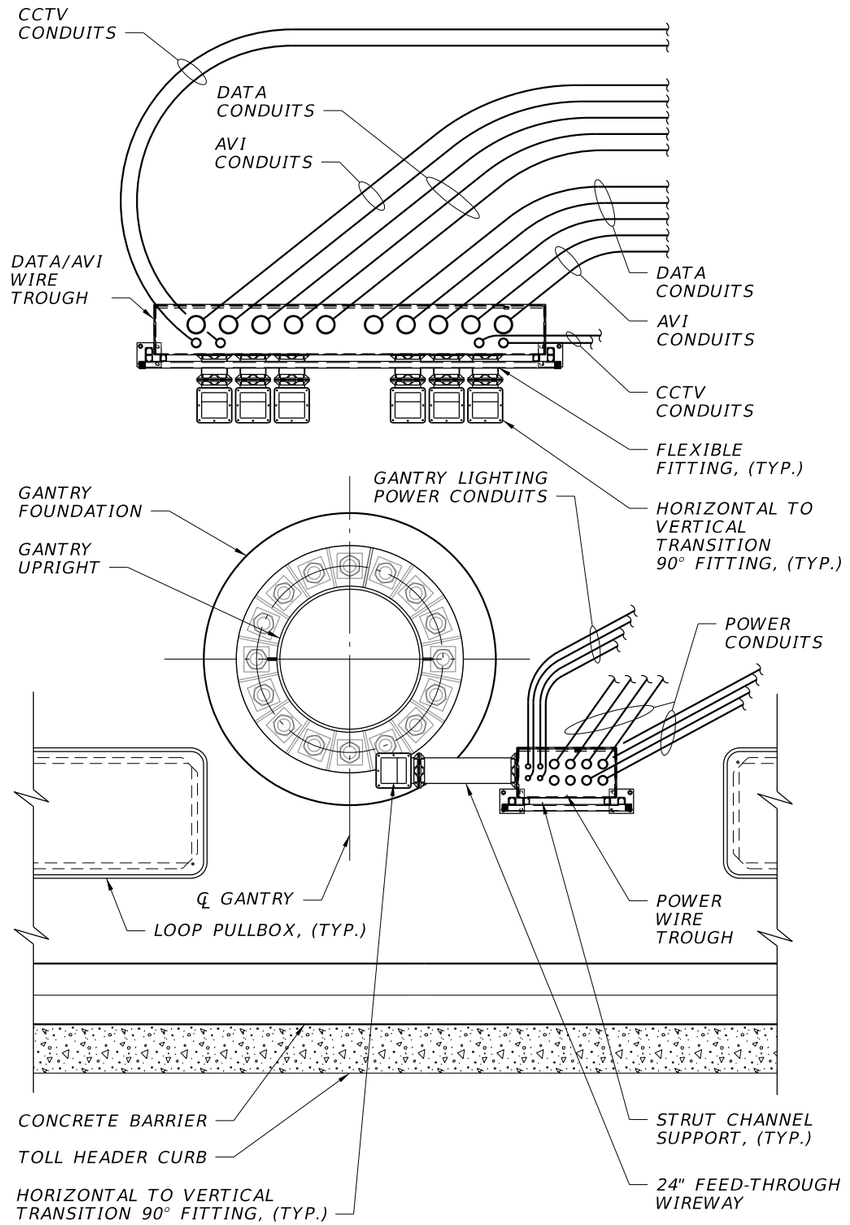


TYPICAL AVI READER MOUNTING SECTION

NOT TO SCALE

EXHIBIT 284-70
01/01/2027

ACCESSIBLE GANTRY TYPICAL WIRE TROUGH LAYOUT

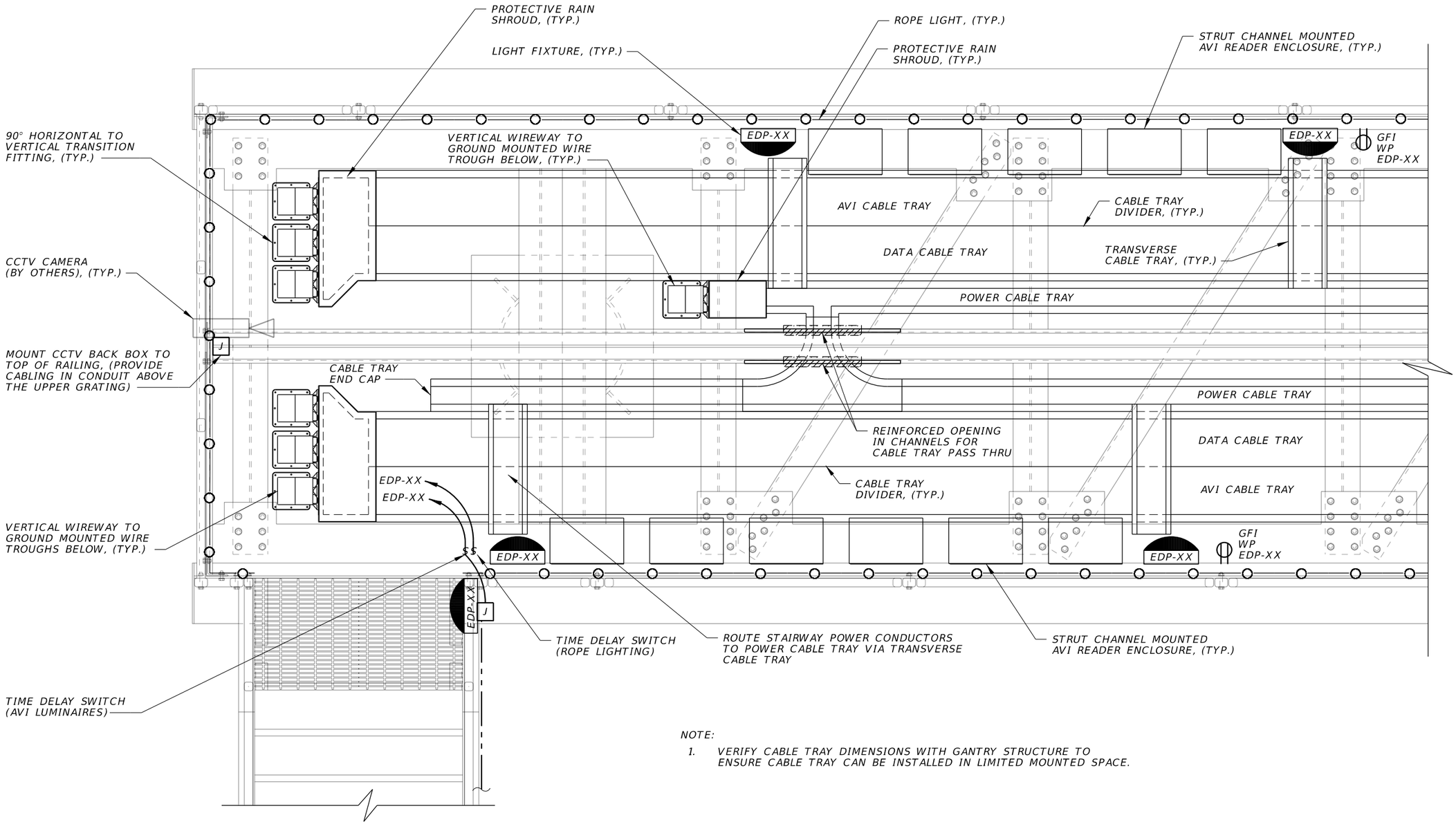


AT GROUND LEVEL

NOT TO SCALE

EXHIBIT 284-71
01/01/2027

ACCESSIBLE GANTRY TYPICAL ELECTRICAL LAYOUT



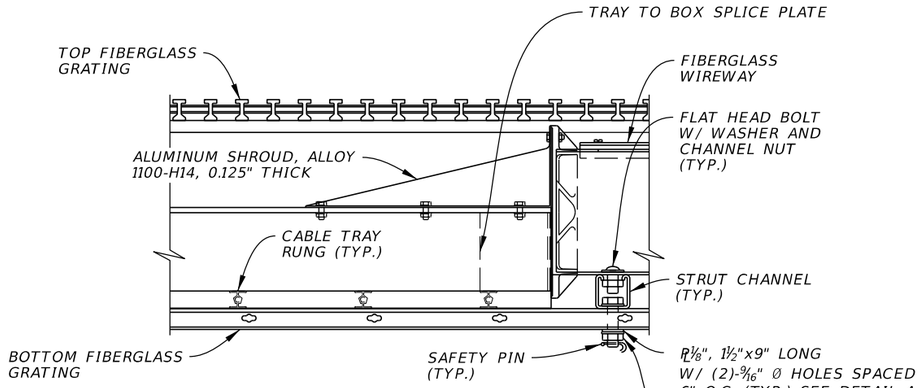
NOTE:

1. VERIFY CABLE TRAY DIMENSIONS WITH GANTRY STRUCTURE TO ENSURE CABLE TRAY CAN BE INSTALLED IN LIMITED MOUNTED SPACE.

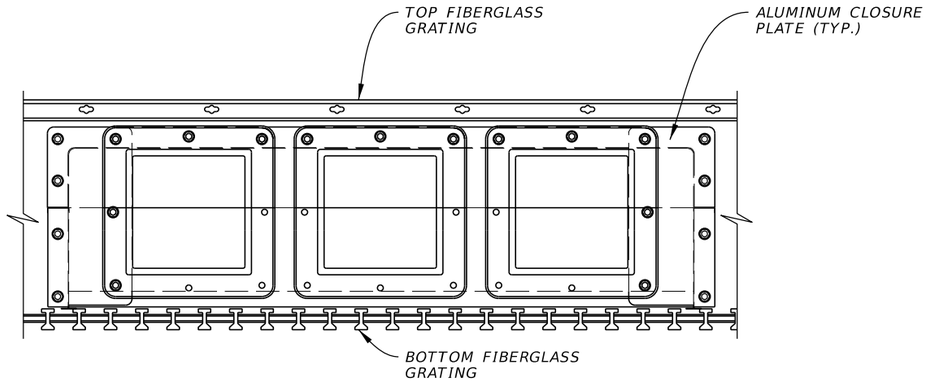
NOT TO SCALE

EXHIBIT 284-72
01/01/2027

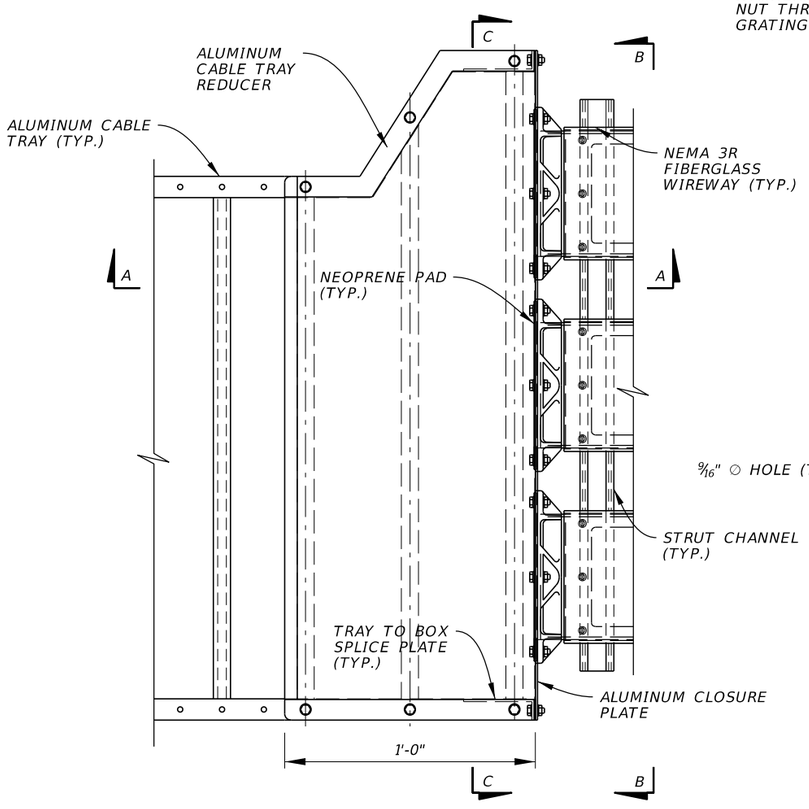
ACCESSIBLE GANTRY TYPICAL WIREWAY TO CABLE TRAY DETAIL



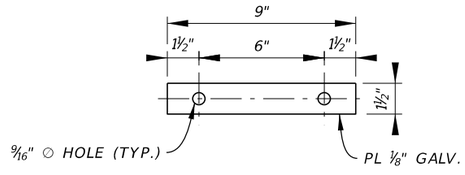
SECTION A-A



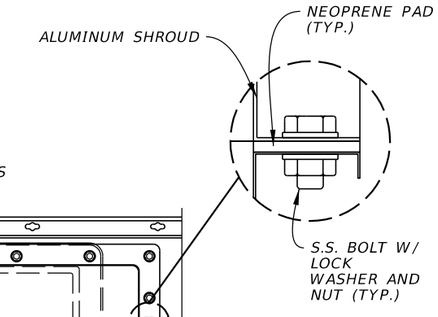
SECTION B-B

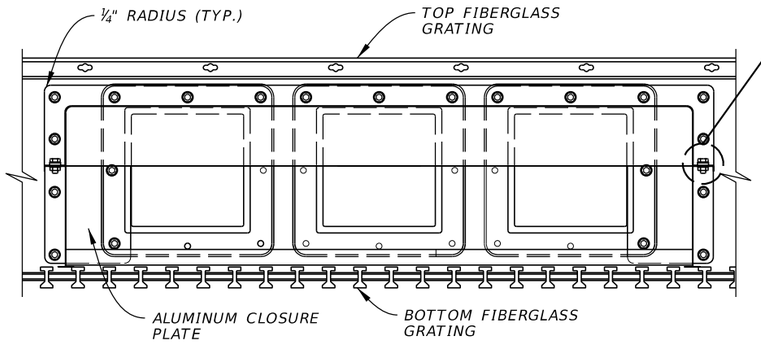


PLAN



DETAIL A





SECTION C-C

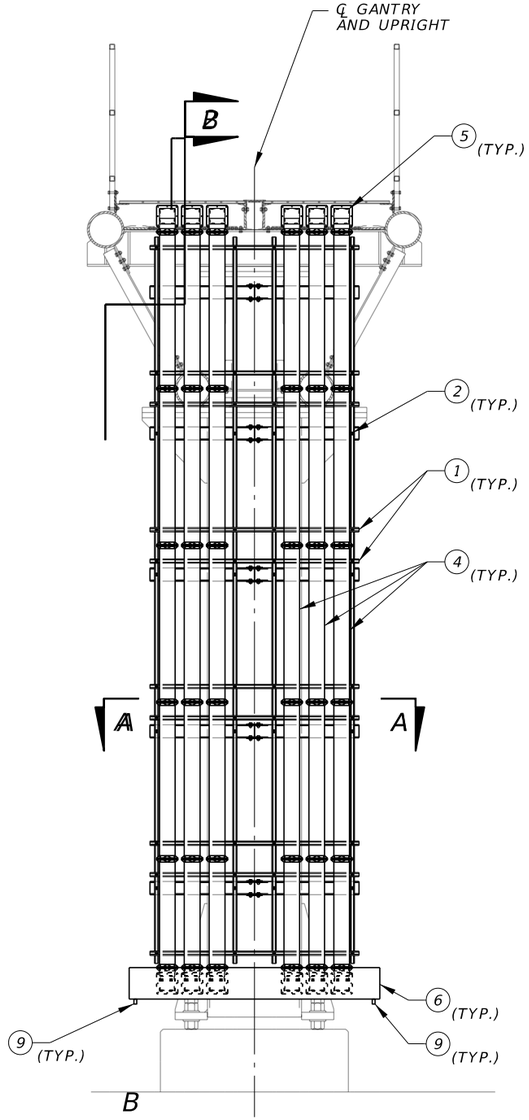
NOTE:

1. ROUND ALL CORNERS OF ALUMINUM SHROUD WITH MINIMUM ¼" RADII.

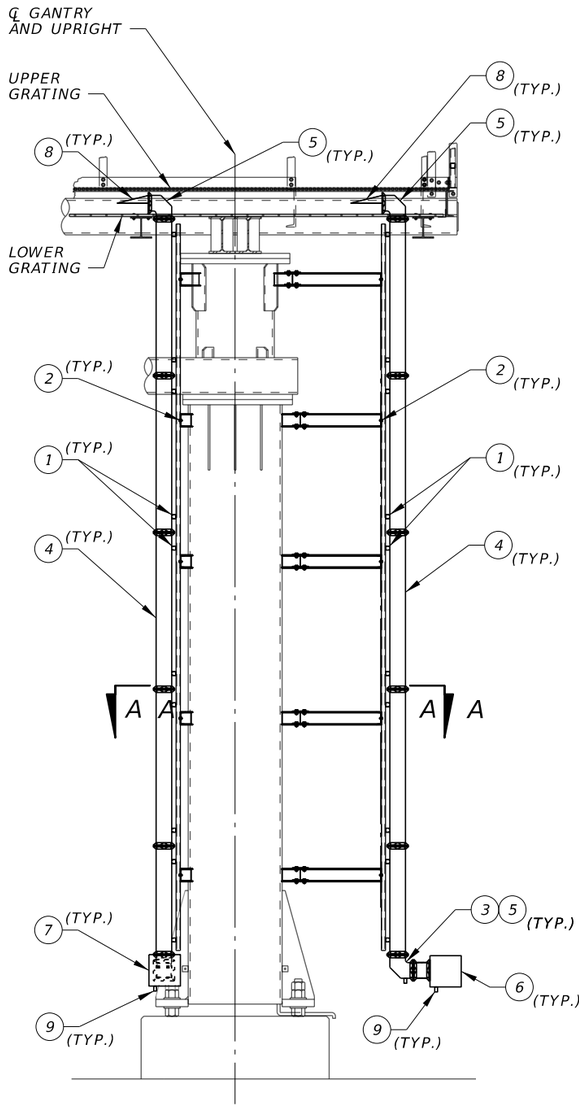
NOT TO SCALE

EXHIBIT 284-73
01/01/2027

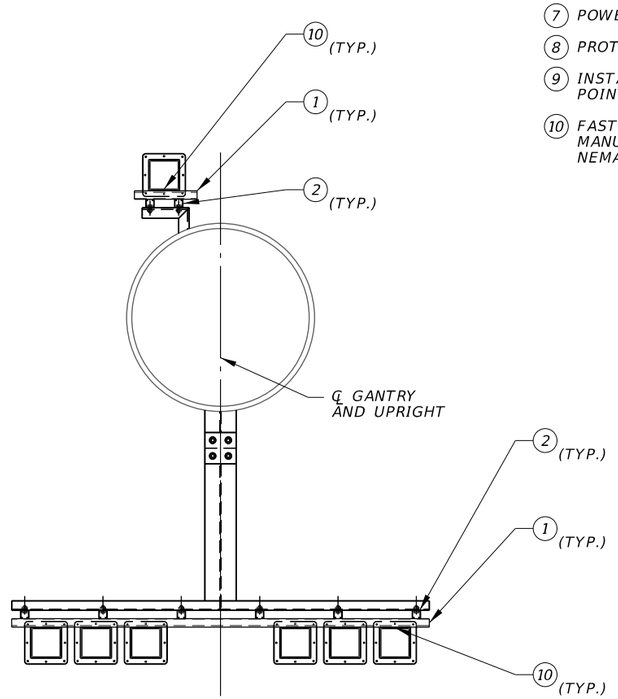
ACCESSIBLE GANTRY UPRIGHT ELECTRICAL WIREWAY DETAILS



VERTICAL WIREWAY END ELEVATION 1



VERTICAL WIREWAY SECTION 2



SECTION A-A

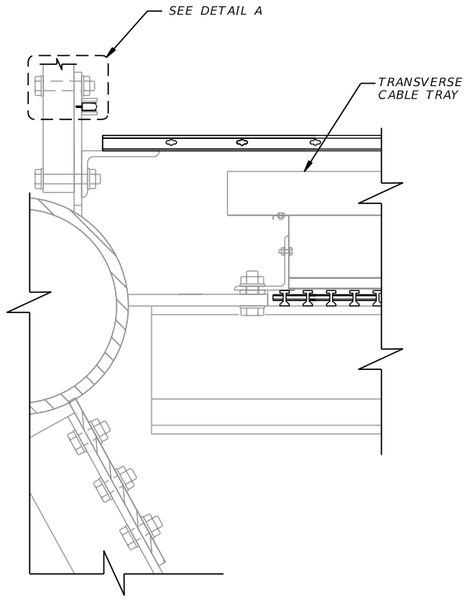
NOTES:

1. HORIZONTAL STRUT CHANNEL SUPPORT FOR VERTICAL WIREWAY SUPPORT.
2. VERTICAL STRUT CHANNEL SUPPORT CONNECTION TO STRUCTURAL CHANNEL.
3. WIREWAYS MUST NOT TERMINATE INTO THE TOP OF THE WIRE TROUGH. INSTALL A DRAIN FITTING AT THE BOTTOM OF EACH ELBOW.
4. FIBERGLASS WIREWAY.
5. ELBOWS MUST MAINTAIN NEMA 3R RATING.
6. DATA/E6 WIRE TROUGH.
7. POWER WIRE TROUGH.
8. PROTECTIVE RAIN SHROUD.
9. INSTALL DRAIN FITTING AT WIRE TROUGH LOW POINT.
10. FASTEN WIREWAYS TO STRUT CHANNEL PER THE MANUFACTURER'S SPECIFICATIONS FOR THE NEMA 3R RATING.

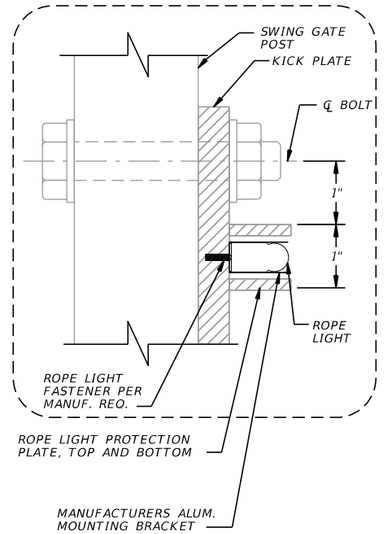
NOT TO SCALE

EXHIBIT 284-74
01/01/2027

ACCESSIBLE GANTRY ROPE LIGHT MOUNTING DETAILS



SECTION

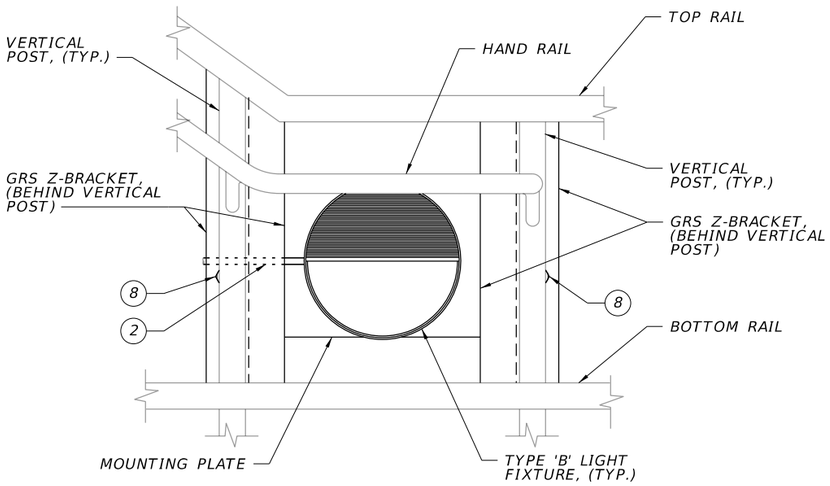


DETAIL A

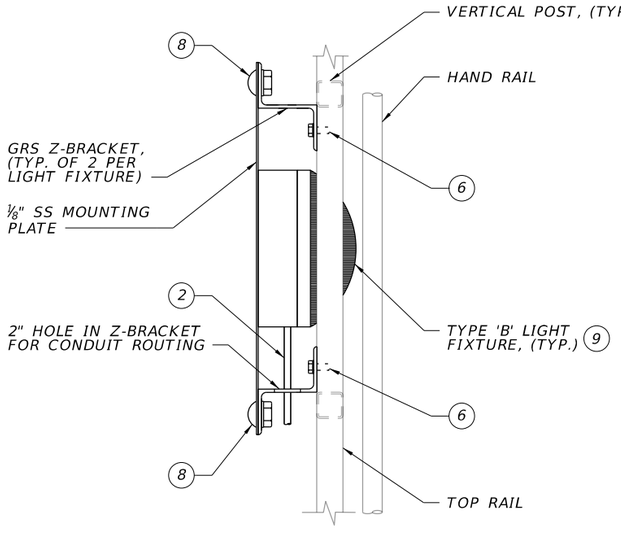
NOT TO SCALE

EXHIBIT 284-75
01/01/2027

ACCESSIBLE GANTRY STAIR AND PLATFORM LIGHTING



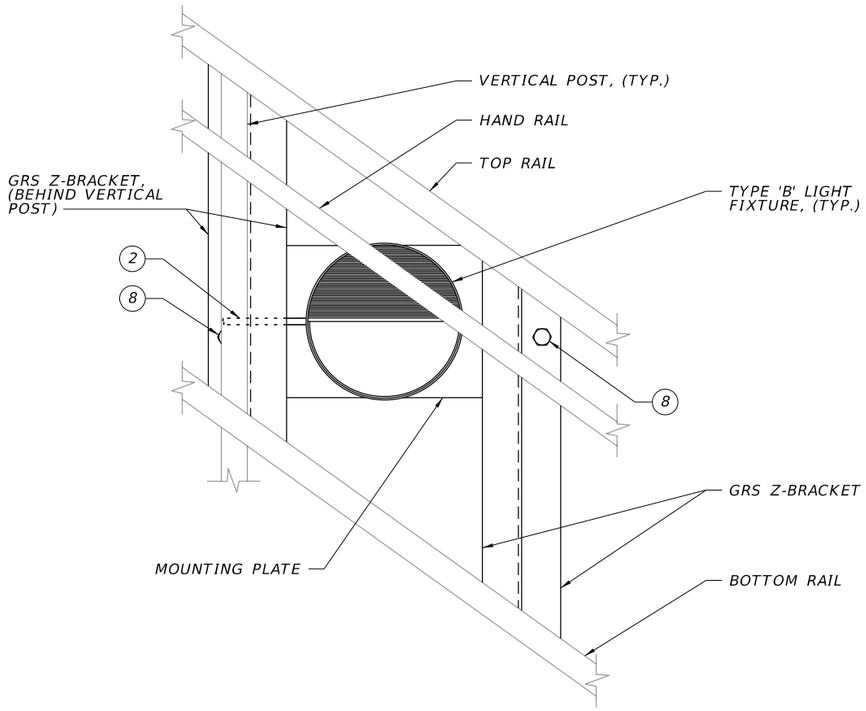
STAIRWAY PLATFORM LIGHT FIXTURE MOUNTING DETAIL 1



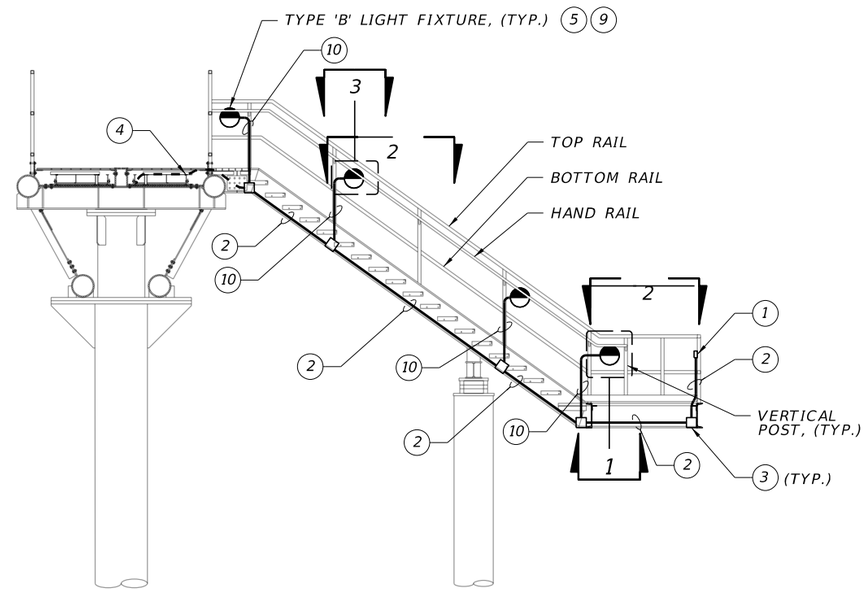
STAIRWAY LIGHTING DETAIL 2 (TOP VIEW)

NOTES:

1. LIGHT (ON TIMER) SWITCH FOR STAIRWAY LTG.
2. CONDUIT AND CONDUCTOR DESIGN BY EOR.
3. 4" SQUARE WEATHER PROOF JB.
4. ROUTE CONDUCTORS TO POWER CABLE TRAY.
5. STAIRWAY LIGHTING MUST BE LOCATED ON THE ROADWAY SIDE OF THE GANTRY AND FACE AWAY FROM THE ROADWAY.
6. HEX HEAD BOLT. PROVIDE A MINIMUM OF (4) PER FIXTURE.
7. GRS Z-BRACKET.
8. HEX HEAD BOLT, FLAT WASHERS & SELF LOCKING NUTS.
9. TYPE 'B' LIGHT FIXTURE WITH SURFACE ADAPTER (JB).
10. CONDUIT AND CONDUCTOR DESIGN BY EOR.



STAIRWAY LIGHT FIXTURE MOUNTING DETAIL 3

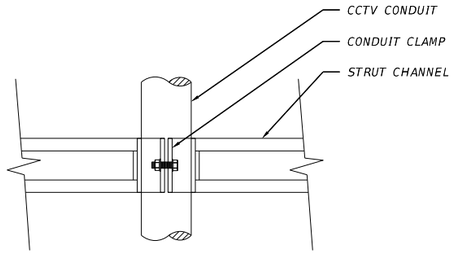


STAIRWAY LIGHT FIXTURE MOUNTING DETAIL 4

NOT TO SCALE

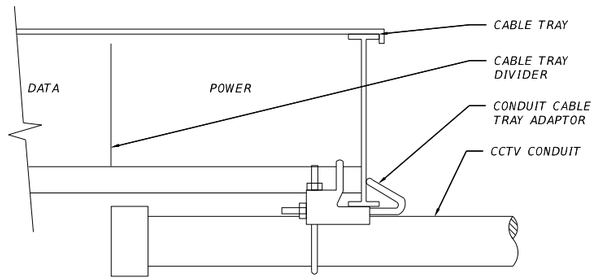
EXHIBIT 284-76
01/01/2027

CCTV CAMERA GANTRY BACKBOX MOUNTING DETAILS

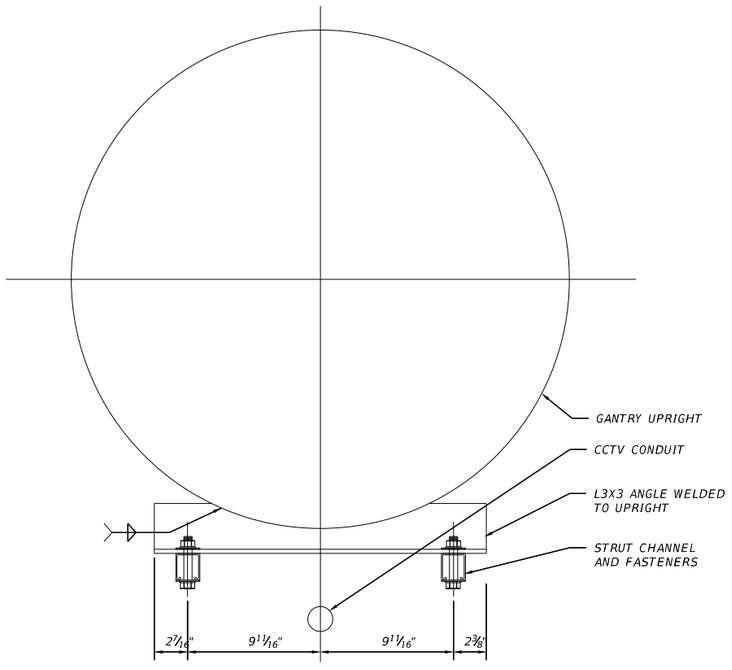


DETAIL B

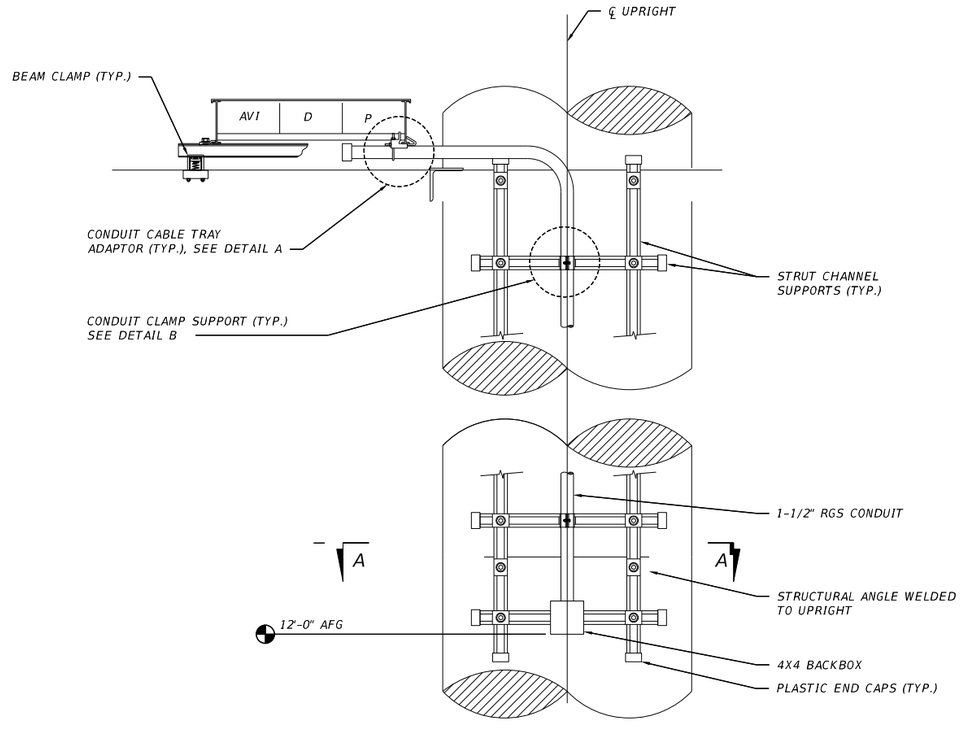
NOTE:
1. CONDITION OCCURS ON THE SIDE OF THE UPRIGHT FACING THE TRAVEL WAY.



DETAIL A



SECTION A-A



ELEVATION

NOT TO SCALE

EXHIBIT 284-77
01/01/2027