

ALASKA RAILROAD CORPORATION

CAPITAL PROJECTS

P.O. BOX 107500, ANCHORAGE, ALASKA 99510-7500

FABRICATION AND SUPPLY OF 2~79' DECK PLATE GIRDER SPANS AND 1~30' ROLLED BEAM SPAN FOR BRIDGE 114.3

90% PLAN SET
FEBRUARY 07, 2025

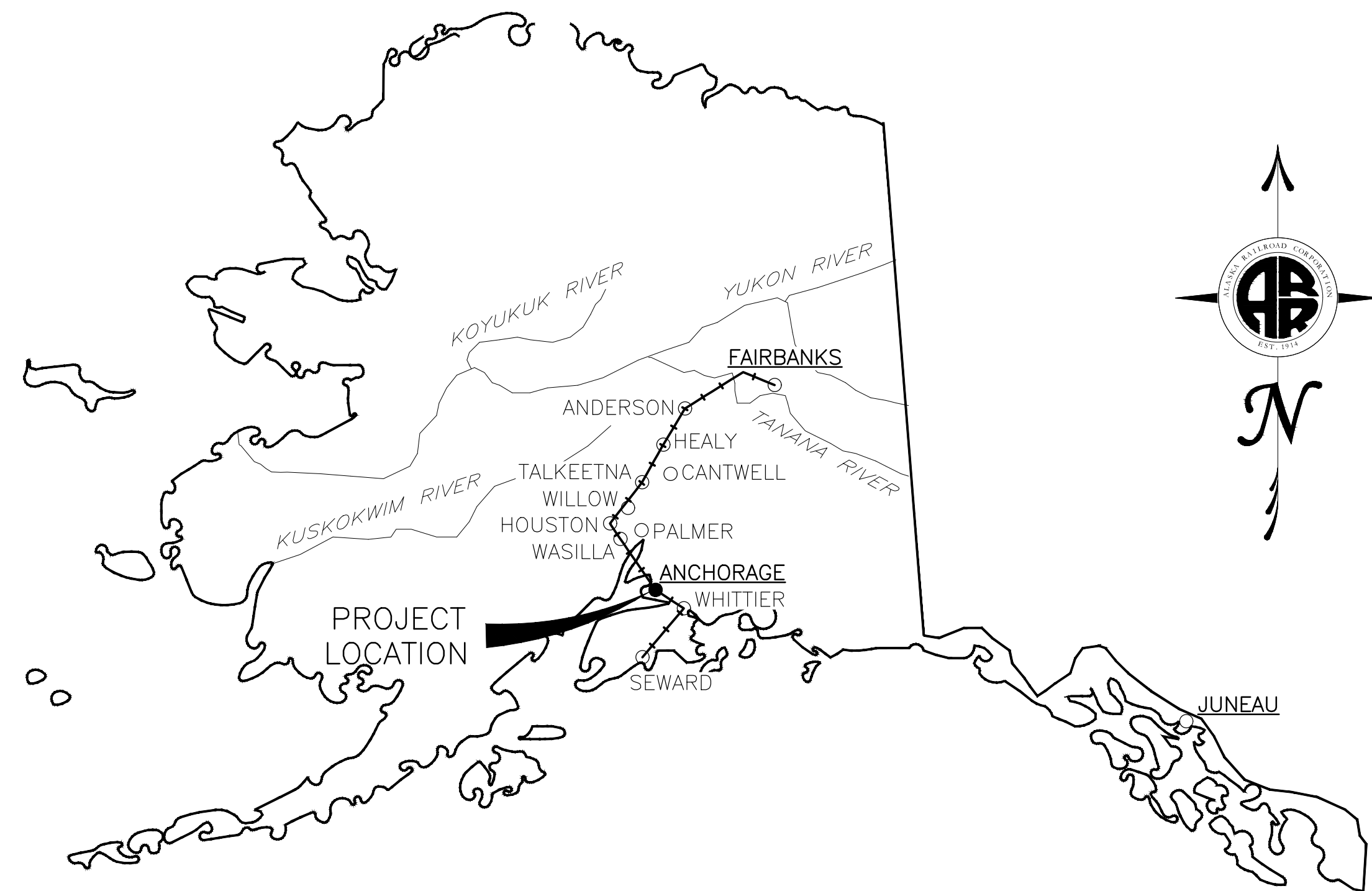
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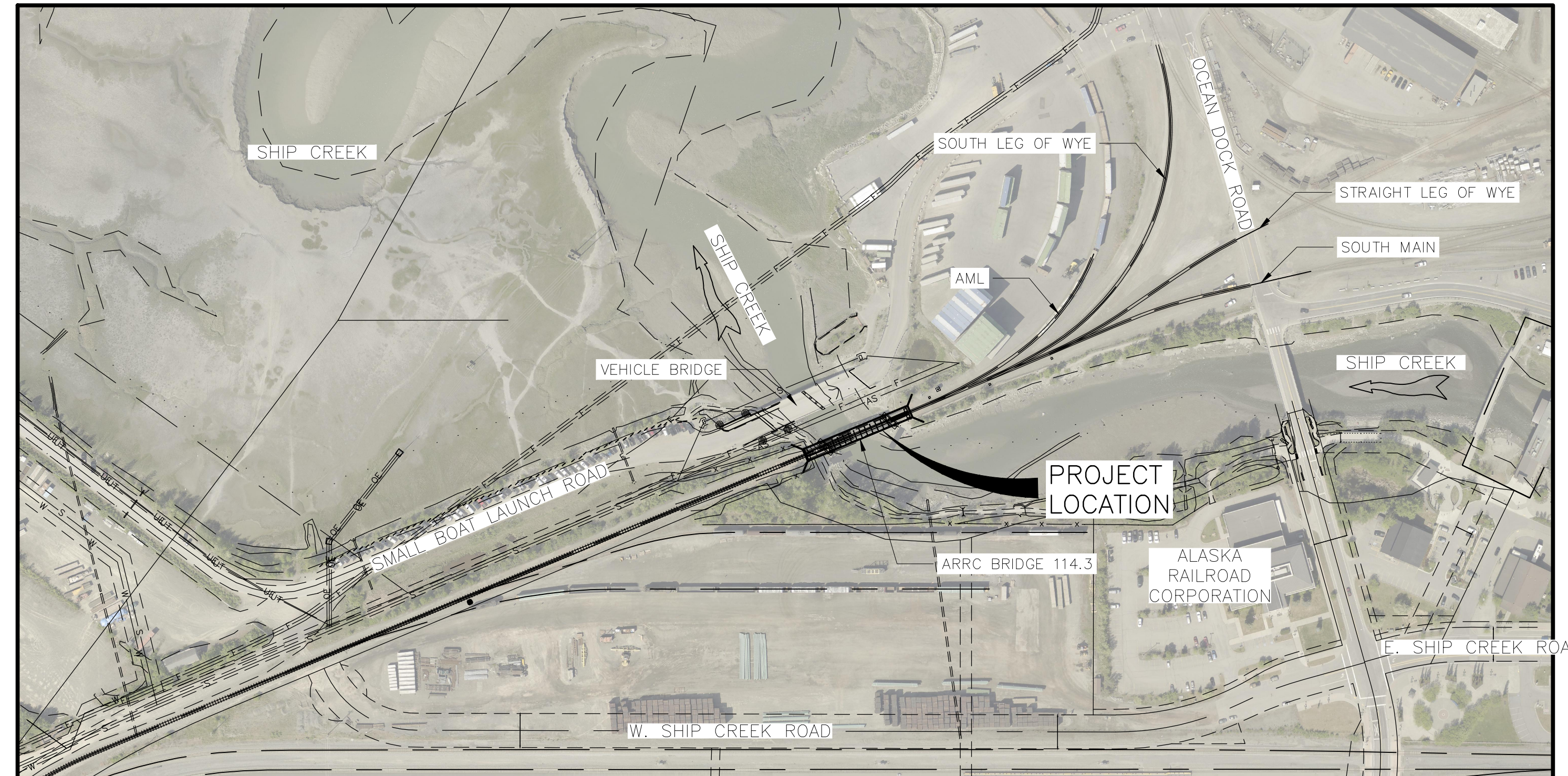
HDR ENGINEERING, INC.
 582 E. 36TH AVE., SUITE 500
 ANCHORAGE, AK 99503-4169
 (907) 644-2000
 LICENSE #: AECC569

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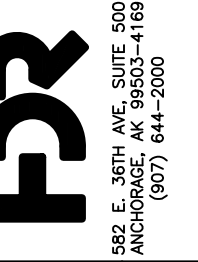
VICINITY MAP
 N.T.S.



SITE MAP
 N.T.S.

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CAPITAL PROJECTS
 P.O. BOX 107500
 ANCHORAGE, ALASKA 99510-7500



PROJECT: FABRICATION AND SUPPLY OF 2~79' DECK PLATE GIRDER SPANS AND 1~30' ROLLED BEAM SPAN FOR BRIDGE 114.3
 SHEET TITLE: COVER SHEET

AFE NO. 11228
 YEAR 2025
 SHEET 01 of 22

DRAWING LOCATION: C:\PWORKING\WEST01\14079759\BR_11.4.3_SHIP_CREEK_02.DWG
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DESIGN NOTES:

- ALL NEW COMPONENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2024 AREMA MANUAL FOR RAILWAY ENGINEERING, CHAPTER 9 – SEISMIC DESIGN FOR RAILWAY STRUCTURES, AND CHAPTER 15 – STEEL STRUCTURES.
- DESIGN LOADS ARE IN ACCORDANCE WITH AREMA MANUAL FOR RAILWAY ENGINEERING AND THE FOLLOWING:

BALLAST DEPTH (FROM T/TIE):	30" MAXIMUM, 15" MINIMUM
LIVE LOAD:	COOPER E80 OR ALTERNATIVE LIVE LOAD
IMPACT PERCENT:	DIESEL IMPACT = 0.9*(40-3*L ² /1600)*(%)
LIVE LOAD ECCENTRICITY:	6"± FROM C _E BRIDGE AND TRACK
CENTRIFUGAL FORCE:	NONE
TRACK SPEED:	60 MPH (PASSENGER & FREIGHT)
- THE FOLLOWING TABLE REPRESENTS THE RATING SUMMARY OF THE PRIMARY LOAD CARRYING ELEMENTS OF THE SPANS IN TERMS OF COOPER'S EQUIVALENT LOAD:

SPAN	CONTROLLING DESIGN LOAD	NORMAL STRESS RATING	MAXIMUM STRESS RATING	MAXIMUM STRESS RATING (N-1 GIRDERS)
79'-0" DPG	E-80	E-98.5	E-164.8	E-80.8
30'-0" SBM	ALT LL (E-95)	E-126.6	E-225.4	E-128.5

STRUCTURAL STEEL NOTES:

- FABRICATION AND WORKMANSHIP SHALL CONFORM TO CURRENT AREMA MANUAL FOR RAILWAY ENGINEERING, CHAPTER 15, STEEL STRUCTURES AND PROJECT SPECIFICATIONS.
- ALL STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING MATERIAL SPECIFICATIONS EXCEPT AS NOTED:

PLATE GIRDERS, BEARING STIFFENERS, PLATE GIRDER DIAPHRAGMS, & ROLLED BEAMS	ASTM A709 GR 50W T2
DECK PLATES	ASTM A709 GR 50 T2
ALL OTHER STRUCTURAL STEEL	ASTM A709 GR 50W
- ALL STRUCTURAL BOLTS SHALL BE HIGH-STRENGTH (H.S.) STRUCTURAL BOLTS CONFORMING TO ASTM F3125, GRADE A325, TYPE 3 WITH HEAVY HEX NUTS (ASTM A563, GRADE DH3) AND ROUND, FLAT, HARDENED WASHERS (ASTM F436, TYPE 3) UNDER THE TURNED ELEMENT.
- UNLESS NOTED OTHERWISE, FAYING SURFACES SHALL MEET CLASS B SURFACE CONNECTION REQUIREMENTS (SLIP CRITICAL). HIGH STRENGTH BOLTS SHALL BE INSTALLED WITH THE 'TURN OF THE NUT METHOD.'
- BOLTS SHALL BE INSTALLED SO THAT THE BOLT HEADS ARE ON THE OUTSIDE (EXPOSED) SURFACE OF THE MEMBER UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
- PERMANENTLY PIECE MARK EACH SHOP FABRICATED COMPONENT WITH A LOW STRESS STAMP.
- WELDING SHALL BE IN ACCORDANCE WITH AWS D1.5 BRIDGE WELDING CODE AND THE PROJECT SPECIFICATIONS. WELD MATERIAL SHALL MATCH THE BASE METAL IN STRENGTH AND FINISHED APPEARANCE.
- NONDESTRUCTIVE TESTING OF WELDS SHALL BE IN ACCORDANCE WITH AREMA CHAPTER 15, SECTION 3.5, THE CURRENT AWS D1.5, AND THE PROJECT SPECIFICATIONS.
- FABRICATOR SHALL DEVELOP LIFTING DETAILS AND SUBMIT TO OWNER FOR APPROVAL.
- STEEL FABRICATION SHALL NOT BEGIN UNTIL SHOP DRAWINGS & WELD PROCEDURES HAVE BEEN APPROVED BY THE OWNER.
- GIRDERS SHALL BE FULLY SHOP ASSEMBLED AND MATCH MARKED PRIOR TO SHIPMENT. MATCH MARKING SHALL BE BY ETCHING, SCORING, OR OTHER MECHANICAL MEANS.

WATERPROOFING NOTES:

- WATERPROOFING SHALL BE APPLIED TO STEEL BRIDGE DECKS IN THE FIELD BY BRIDGE CONSTRUCTION CONTRACTOR AFTER SPANS HAVE BEEN FULLY ASSEMBLED PRIOR TO PLACEMENT OF BALLAST OR TRACK MATERIALS WHEN SPECIFIED IN THE BRIDGE CONSTRUCTION PLANS. APPLY WATERPROOFING TO BRIDGE DECK IN ACCORDANCE WITH THE PLANS AND PROJECT SPECIFICATIONS.
- WATERPROOFING SHALL BE BRIDGE DECK MEMBRANE WITH INTEGRATED BALLAST MAT AS MANUFACTURED BY BRIDGE PRESERVATION LLC, OR APPROVED EQUIVALENT.
- INTEGRATED BALLAST MAT SHALL BE MINIMUM ¼" THICK.

BEARING NOTES:

- FABRICATION AND WORKMANSHIP SHALL CONFORM TO CURRENT AREMA MANUAL FOR RAILWAY ENGINEERING, CHAPTER 15, STEEL STRUCTURES AND PROJECT SPECIFICATIONS.
- ALL STRUCTURAL STEEL BEARING COMPONENTS SHALL CONFORM TO ASTM A709 GR 50W.
- ANCHOR RODS SHALL BE ALL THREADED ROD AND MEET THE REQUIREMENTS OF ASTM F1554, GR 105. EACH ANCHOR ROD SHALL BE SUPPLIED WITH ONE WASHER (ASTM F436, TYPE 1) AND TWO HEAVY HEX NUTS (ASTM A563, DH, CLASS 2B). ANCHOR ROD, WASHER AND NUTS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM F2329.
- LAMINATED ELASTOMERIC BEARING PADS SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.

MISCELLANEOUS STEEL NOTES:

- COVER PLATES, WALKWAY BRACKETS, DRAIN PIPES AND STEEL HANDRAIL PANELS SHALL BE FABRICATED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- WALKWAY GRATING SHALL BE PACIFIC GRATING 38W4 BAR GRATING WITH 2¼" x ¼" SERRATED BARS AT 2¾" C-C SPACING WITH 4" C-C CROSS BARS OR APPROVED EQUIVALENT.
- STEEL HANDRAIL PANELS AND WALKWAY GRATING SHALL BE GALVANIZED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
- ALL ELEMENTS SHALL BE FREE OF FINS, ABRASIONS, ROUGH OR SHARP EDGES AND OTHER SURFACE DEFECTS.
- HANDRAIL PANELS ON WALKWAY SHALL BE ERECTED PLUMB AND IN-LINE.
- MISCELLANEOUS STRUCTURAL STEEL ELEMENTS SUCH AS ANGLES, PLATES, ETC. SHALL BE ASTM A709 GR50W UNLESS NOTED OTHERWISE.
- DRAIN PIPES SHALL BE ASTM A53 GR B.

TABLE OF ESTIMATED LIFTING WEIGHTS	
ITEM DESCRIPTION	WEIGHT EA. (LBS)
79' DPG – 3 GIRDER SHOP ASSEMBLY**	155,425
79' DPG – 2 GIRDER SHOP ASSEMBLY**	104,730
30' SBM – 3 BEAM SHOP ASSEMBLY**	30,550
30' SBM – 2 BEAM SHOP ASSEMBLY**	21,230
INTERMEDIATE DIAPHRAGM MK ID1	84
INTERMEDIATE DIAPHRAGM MK ID2	128
END DIAPHRAGM MK ED1	41
END DIAPHRAGM MK ED2	187
FIELD CLOSURE DECK PLATE MK DP5 & DP7	705
FIELD CLOSURE DECK PLATE MK DP6	637
FIELD CLOSURE DECK PLATE MK DP14 & DP19	874
FIELD CLOSURE DECK PLATE MK DP15-DP18	1,063
COVER PLATE MK CP1	150
COVER PLATE MK CP2	145
WALKWAY BRACKET MK WB1	68
BAR GRATING PANEL – 29'-0"	1,044
BAR GRATING PANEL – 20'-11"	753
BAR GRATING PANEL – 15'-1"	543
BAR GRATING PANEL – 15'-0"	540
HANDRAIL PANEL MK HP1L/R	516
HANDRAIL PANEL MK HP2L/R	305
HANDRAIL PANEL MK HP3L/R	326
HANDRAIL PANEL MK HP4L/R	306
HANDRAIL PANEL MK HP5L/R	328
BALLAST CATCHMENT PAN	270

** SHOP ASSEMBLED GIRDER AND BEAM UNITS ARE TO BE FULLY SHOP ASSEMBLED AND LOADED FOR SHIPPING AS SINGLE UNITS. ASSEMBLIES INCLUDE THE FOLLOWING ITEMS: GIRDERS, BEAMS, STIFFENERS, DIAPHRAGM CONNECTORS, INTERMEDIATE DIAPHRAGMS, END DIAPHRAGMS, DECK SUPPORT BRACKETS, DECK PLATES, DRAIN PIPES, CURB BEAMS AND 5% INCREASE FOR FASTENERS. SEE SECUREMENT PLANS FOR ADDITIONAL SHIPPING CONFIGURATIONS AND REQUIREMENTS.

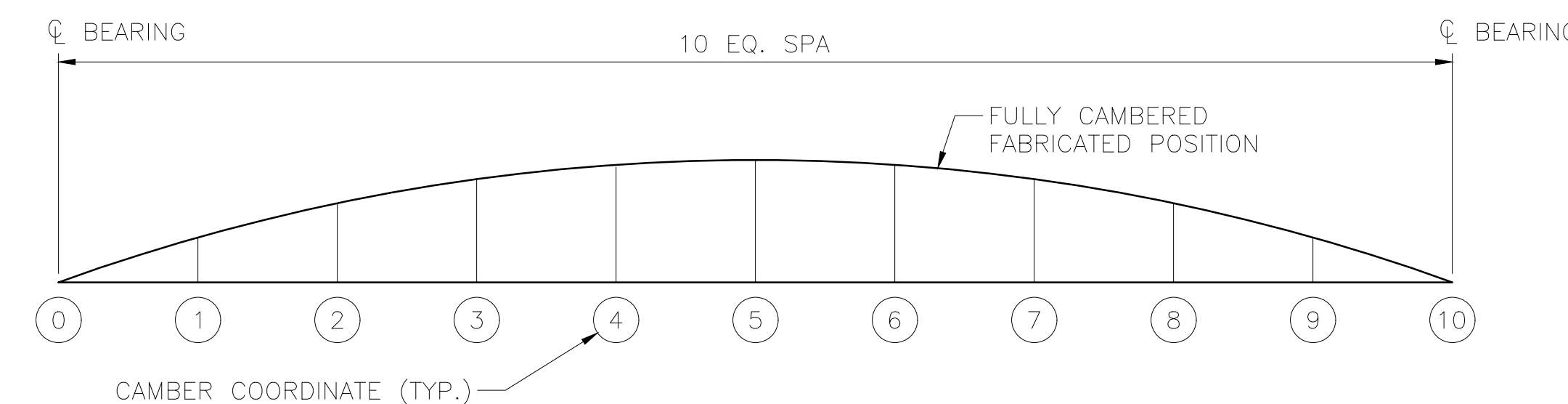
BID SCHEDULE			
BID ITEM	ITEM DESCRIPTION	PAY UNIT	TOTAL QUANTITY
1.1	79' DECK PLATE GIRDER (DPG) SPAN (2 SPANS)	LS	1
1.2	30' ROLLED STEEL BEAM (SBM) SPAN (1 SPAN)	LS	1
2.1	ELASTOMERIC BEARING PADS, LOT (FOR 79' DPG SPAN – SET OF 10)	LOT	2
2.2	ELASTOMERIC BEARING PADS, LOT (FOR 30' SBM SPAN – SET OF 10)	LOT	1

SUMMARY OF ESTIMATED STRUCTURAL STEEL QUANTITIES			
ITEM DESCRIPTION	UNIT	QTY	WEIGHT (LBS)
79' DECK PLATE GIRDER SPAN (ASSEMBLED)*	EA	2	278,500
30' ROLLED STEEL BEAM SPAN (ASSEMBLED)*	EA	1	61,200
TOTAL STRUCTURAL STEEL SPANS	EA	3	618,200

* INCLUDES ALL COMPONENTS NECESSARY TO ASSEMBLE THE STRUCTURAL STEEL SPAN INCLUDING BUT NOT LIMITED TO: GIRDERS, DIAPHRAGMS, STIFFENERS, CONNECTORS, DECK PLATES, CURBS, COVER PLATES, SUPPORT BRACKETS, WALKWAY GRATING, HANDRAILING, DRAINAGE COMPONENTS, SOLE PLATES, ANCHOR RODS, AND 5% INCREASE FOR FASTENERS (TEMPORARY AND PERMANENT) AS SHOWN ON THESE PLANS.

ABBREVIATIONS

AREMA	AMERICAN RAILWAY ENGINEERING AND MAINTENANCE OF WAY ASSOCIATION
ARRC	ALASKA RAILROAD CORPORATION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
C-C	CENTER-TO-CENTER
C _E	CENTERLINE
DPG	DECK PLATE GIRDER
EMBED.	EMBEDDED
GR	GRADE
H.S.	HIGH STRENGTH
MAX	MAXIMUM
MIN	MINIMUM
MK	MARK
O-O	OUT-TO-OUT
PROJ.	PROJECTION
REQ'D	REQUIRED
SAW	SUBMERGED ARC WELDING
SBM	STEEL BEAM
STD.	STANDARD
T/TIE	TOP OF TIE
TYP.	TYPICAL



GIRDER DEFLECTION & CAMBER DATA											
CAMBER COORDINATES	0	1	2	3	4	5	6	7	8	9	10
DEFLECTION/CAMBER	0"	5/16"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	9/8"	5/4"	0"

CAMBER DIAGRAM FOR 79' DPG SPAN

SCALE: NTS

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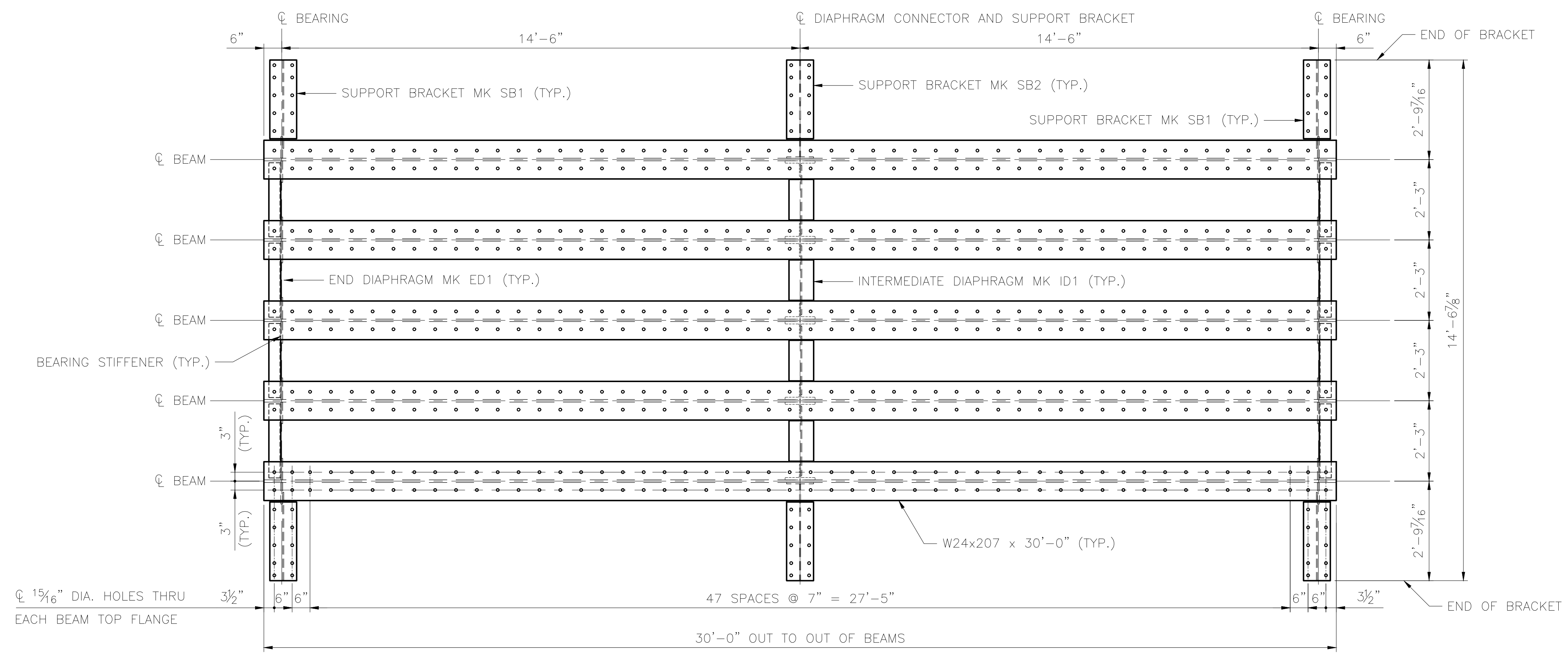
HDR ENGINEERING, INC.
582 E. 36TH AVE, SUITE 500
ANCHORAGE, AK 99503-4169
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HDR
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ANCHORAGE, AK 99503-4169
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 PROJECT: FABRICATION AND SUPPLY OF 2~79' DECK PLATE GIRDER SPANS AND 1~30' ROLLED BEAM SPAN FOR BRIDGE 114.3
 SHEET TITLE: STRUCTURAL STEEL NOTES

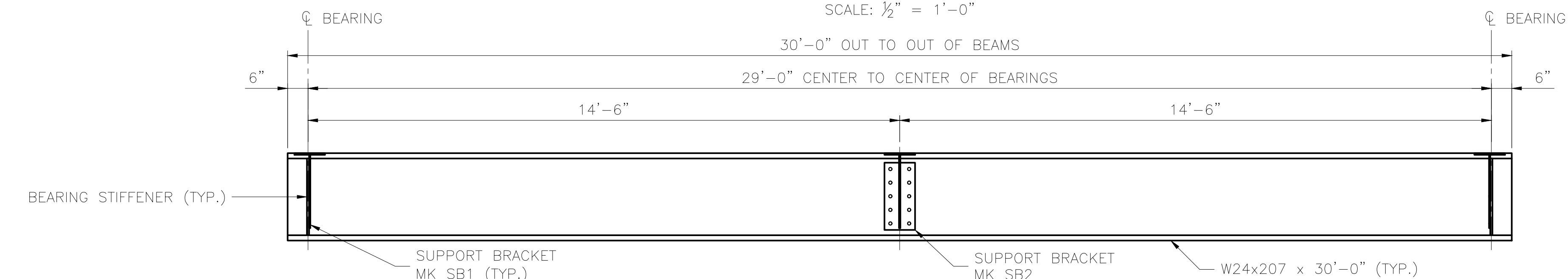
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YEAR	2025
SHEET	02 OF 22

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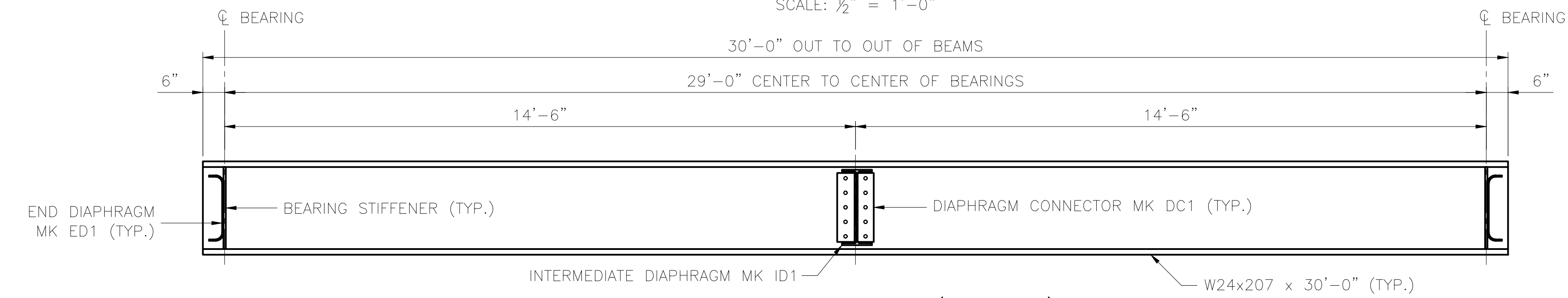
FRAMING PLAN (SPAN 1)

SCALE: 1/2" = 1'-0"



EXTERIOR ELEVATION (SPAN 1)

SCALE: 1/2" = 1'-0"



INTERIOR ELEVATION (SPAN 1)

SCALE: 1/2" = 1'-0"

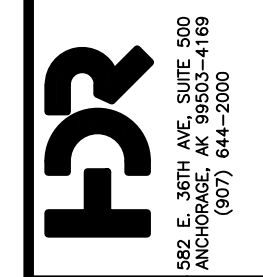
STRESS TABLE

SPAN LENGTH (L)	BEAM SECTION	SHEAR				FLEXURE						DEFLECTION				
		DEAD LOAD (K)	LIVE LOAD (K)	IMPACT (K)	TOTAL (K)	WEB AREA (Aw)		DEAD LOAD (K-FT)	LIVE LOAD (K-FT)	IMPACT (K-FT)	TOTAL (K-FT)	SECTION MODULUS (Sx)		ALLOWABLE (IN)	MOMENT OF INERTIA (Ix)	
						REQ'D (IN ²)	PROVIDED (IN ²)					REQ'D (IN ³)	PROVIDED (NET) (IN ³)		REQ'D (IN ⁴)	PROVIDED (IN ⁴)
29'-0"	W24X207	19	69	35	123	7.0	22.4	141	440	224	805	351	467	0.54	6694	6820

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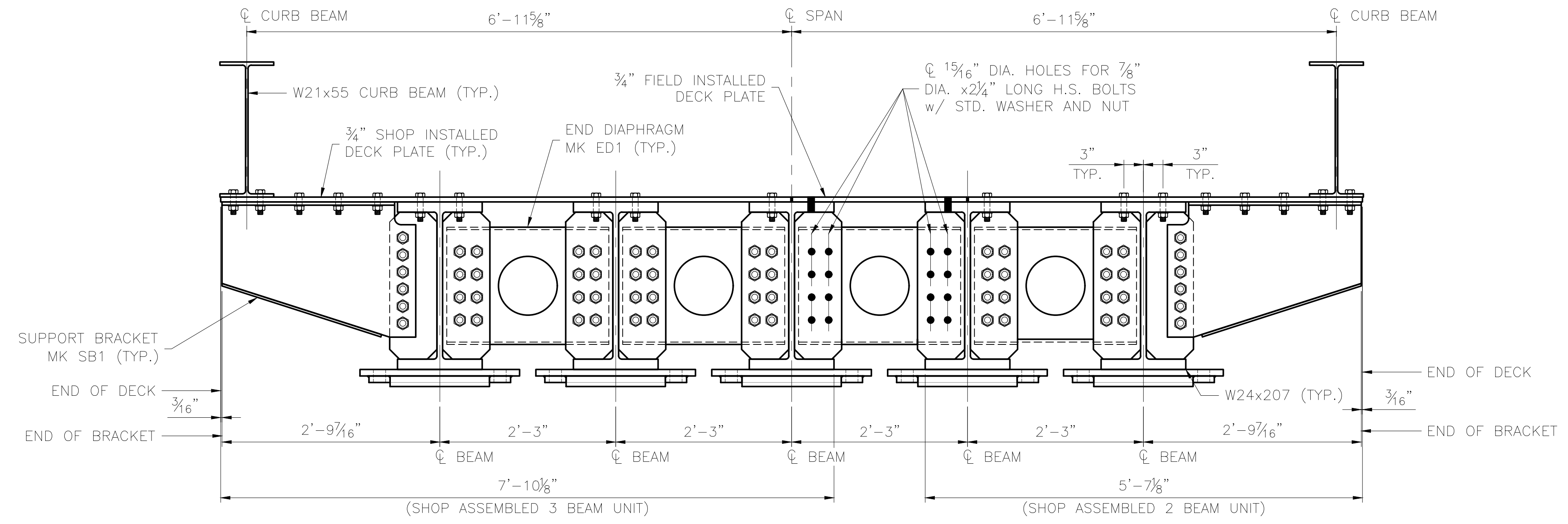
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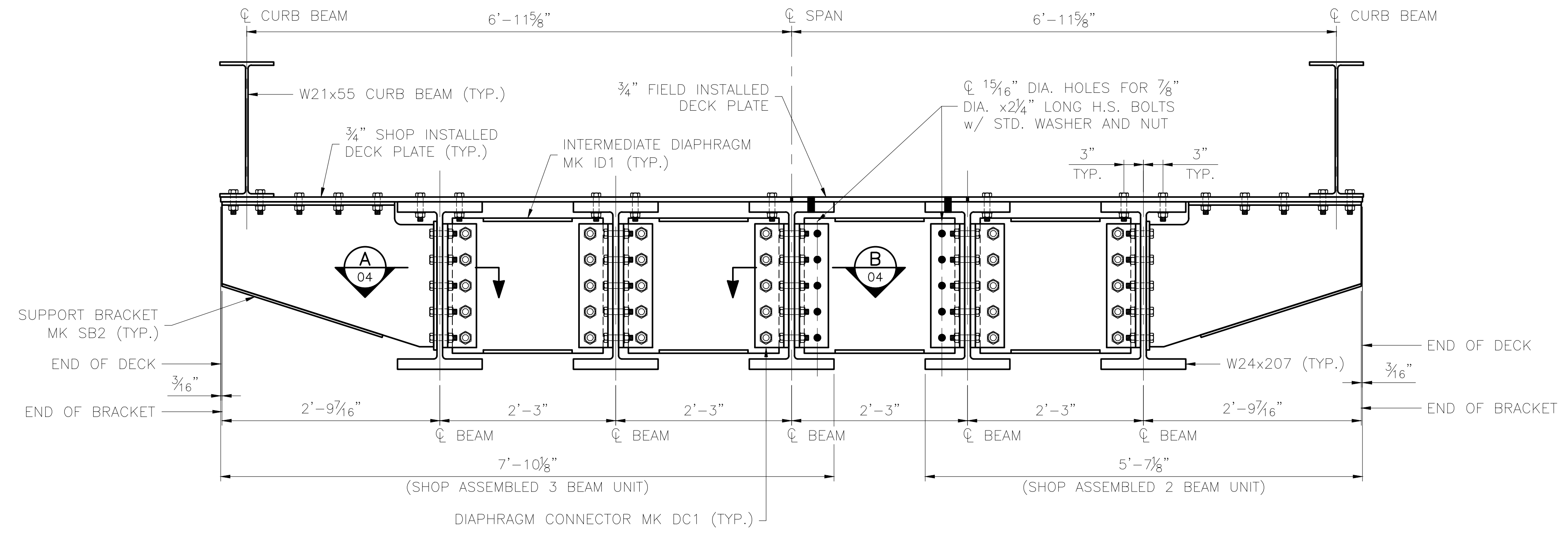
PROJECT: FABRICATION AND SUPPLY OF 2~79' DECK PLATE GIRDER SPANS AND 1~30' ROLLED BEAM SPAN FOR BRIDGE 114.3
 SHEET TITLE: 30'-0" BEAM SPAN - FRAMING PLAN

AFE NO. 11228
 YEAR 2025
 SHEET 03 of 22

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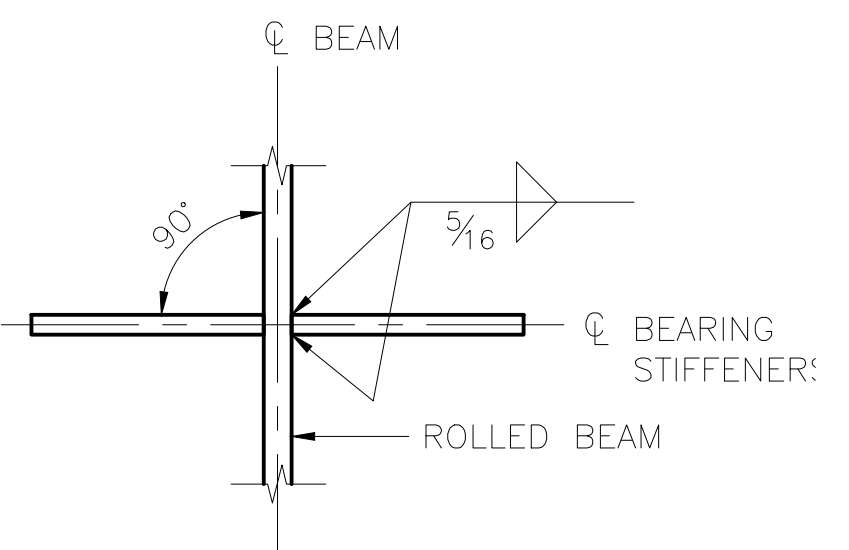


TYPICAL SECTION AT END DIAPHRAGM
SCALE: 1" = 1'-0"

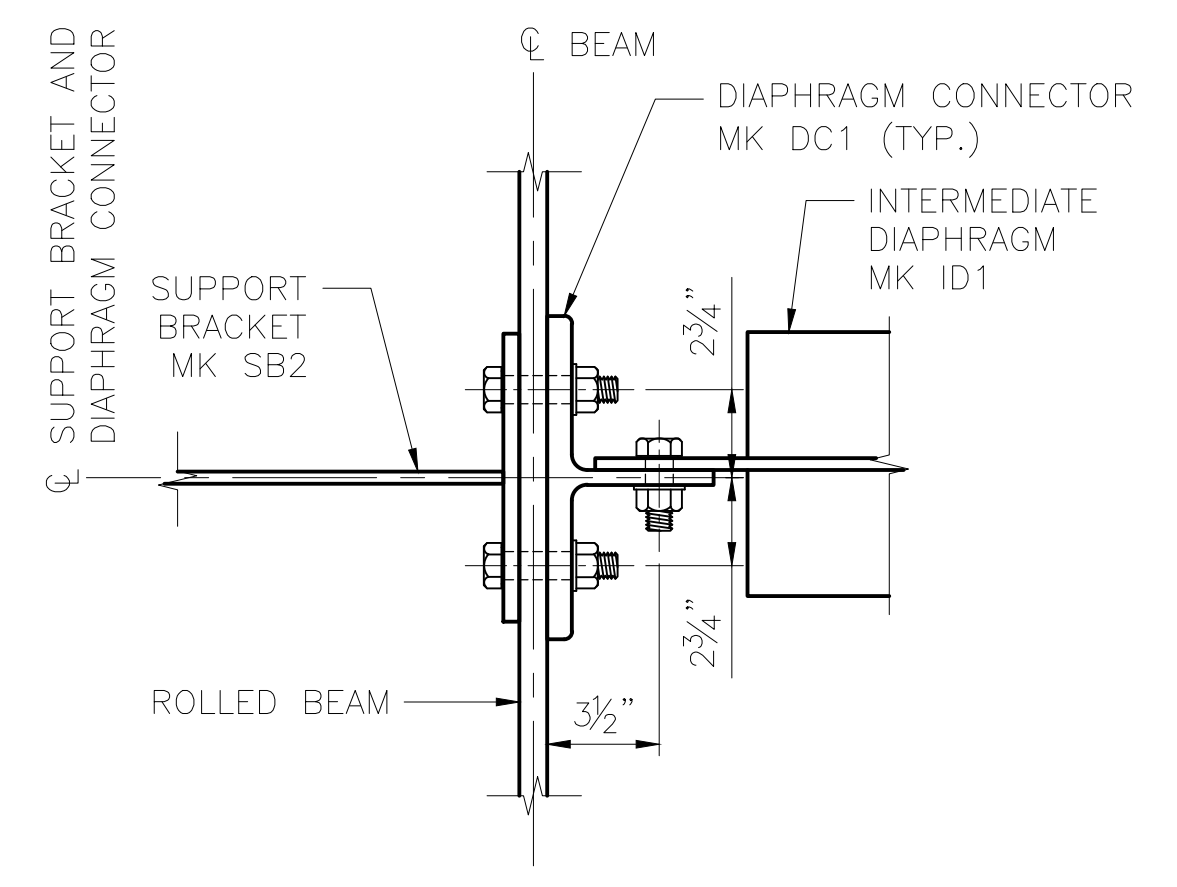


TYPICAL SECTION AT INTERMEDIATE DIAPHRAGM
SCALE: 1" = 1'-0"

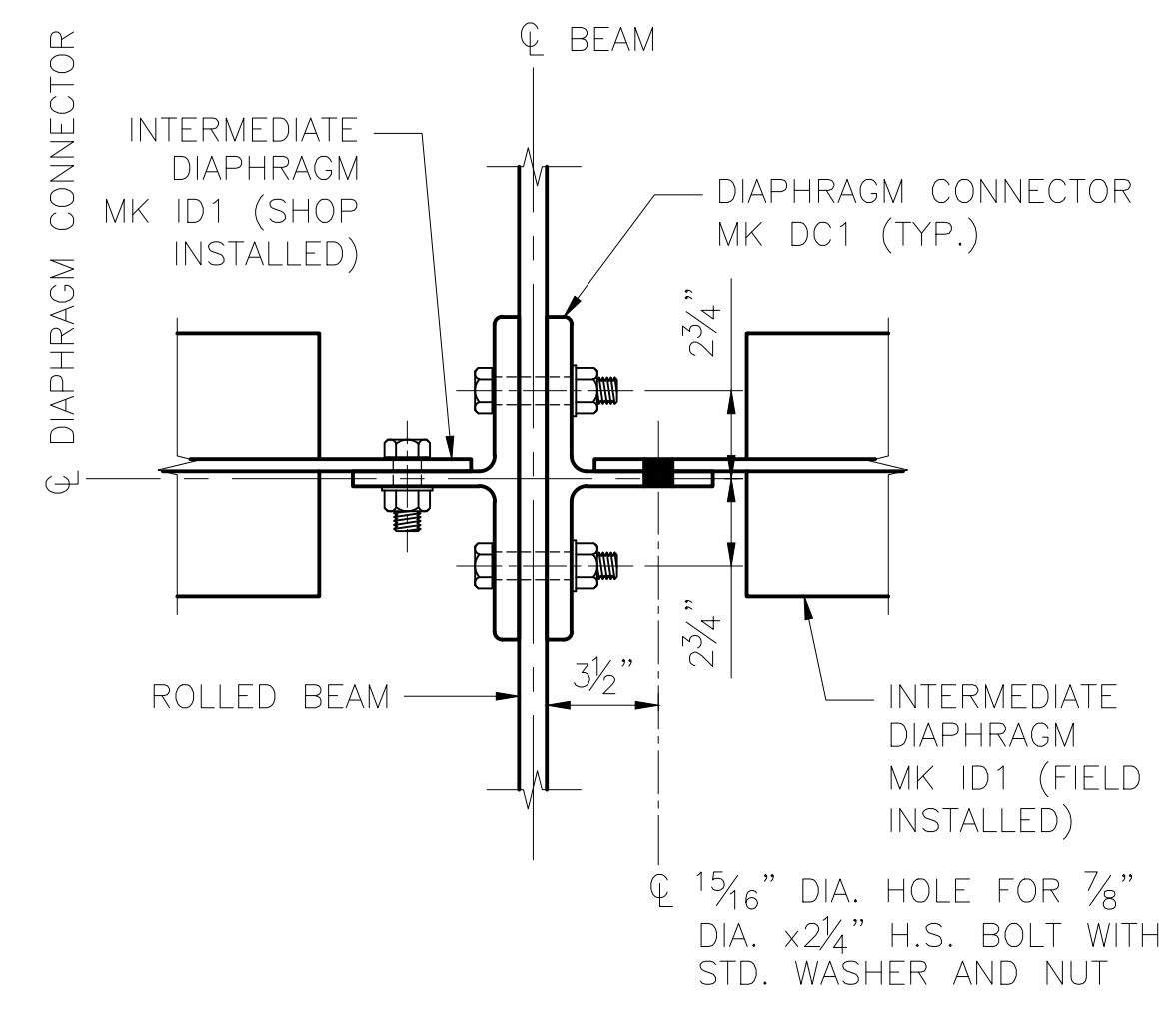
- NOTES:**
1. FOR DIAPHRAGM, DIAPHRAGM CONNECTOR AND BRACKET DETAILS SEE SHEET 5.
 2. FOR DECK PLATE DETAILS SEE SHEETS 11, 12 AND 13.
 3. FOR CURB BEAM DETAILS SEE SHEET 16.



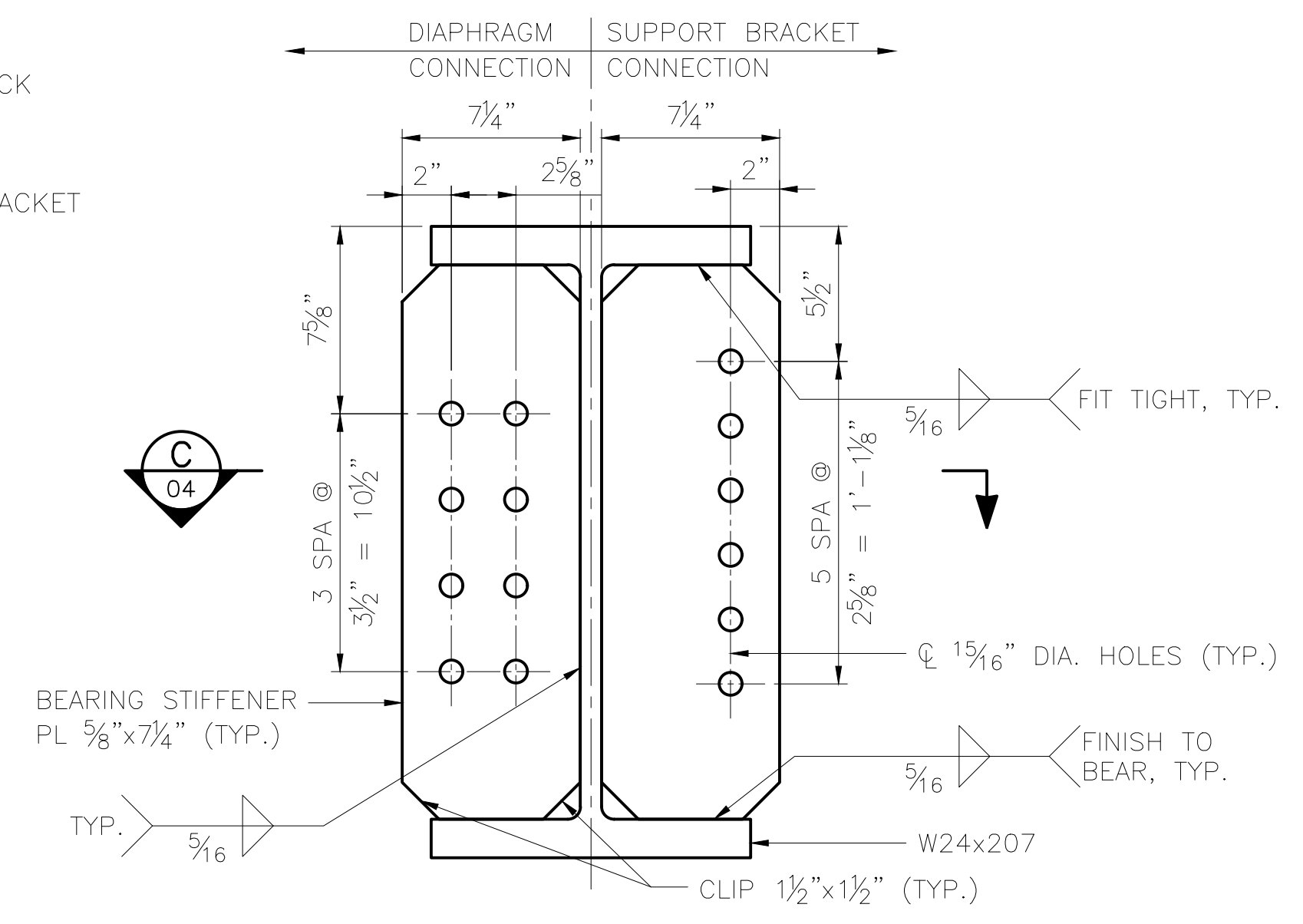
SECTION C
SCALE: 2" = 1'-0"



SECTION A
SCALE: 2" = 1'-0"



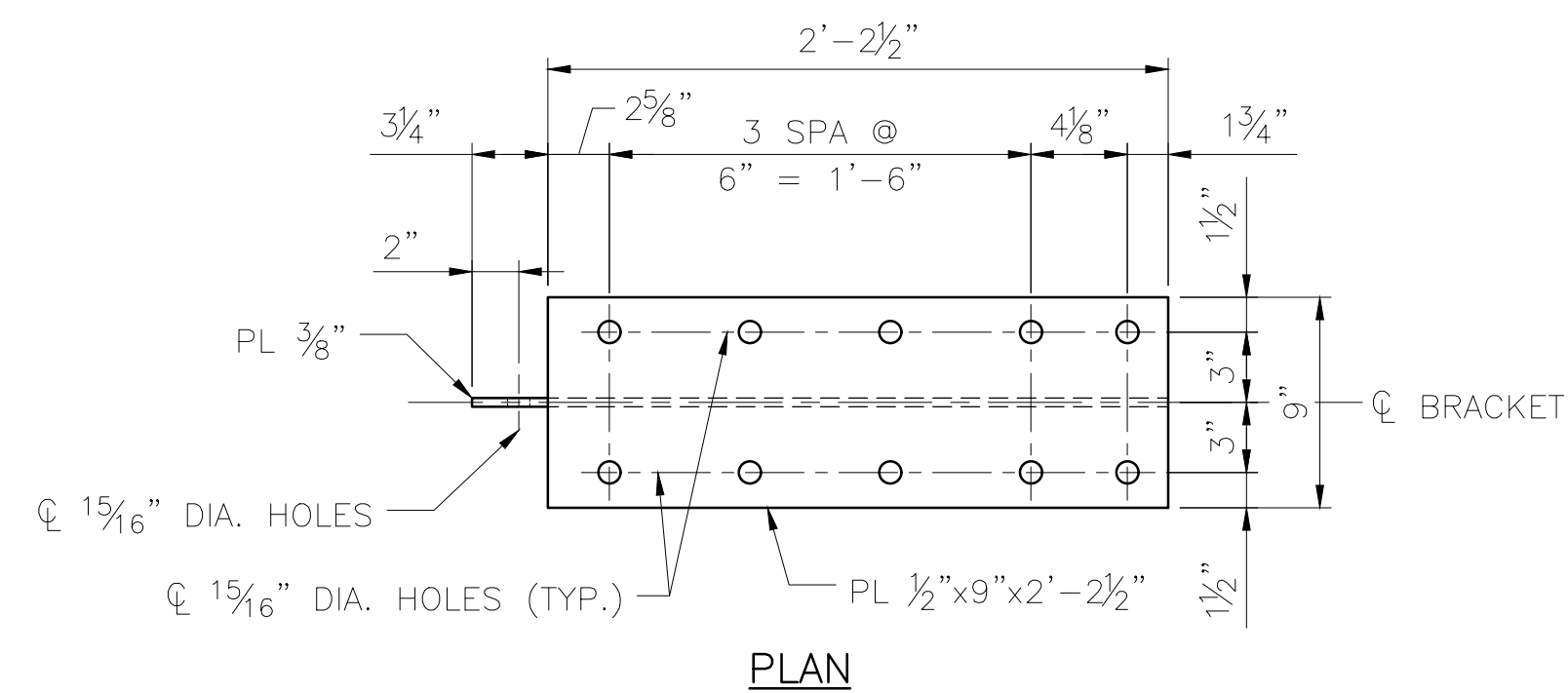
SECTION B
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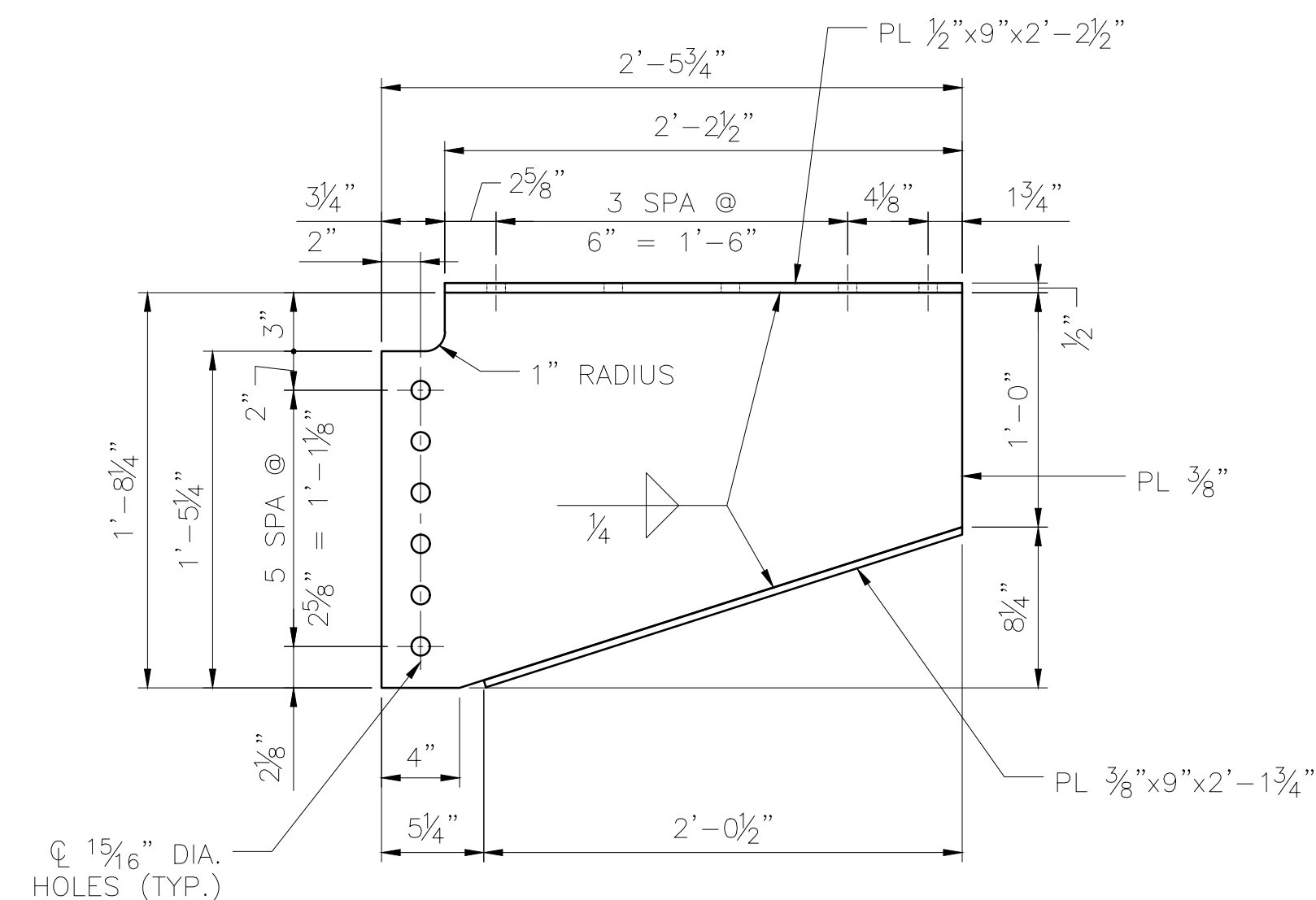
BEARING STIFFENER INSTALLATION DETAIL
SCALE: 2" = 1'-0"

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CAPITAL PROJECTS	P.O. BOX 107500 ANCHORAGE, ALASKA 99510-7500
PROJECT:	FABRICATION AND SUPPLY OF 2~79' DECK PLATE GIRDER SPANS AND 1~30' ROLLED BEAM SPAN FOR BRIDGE 114.3
SHEET TITLE:	30' - 0" BEAM SPAN - STEEL DETAILS (1 OF 2)
AFE NO.	11228
YEAR	2025
SHEET	04 OF 22

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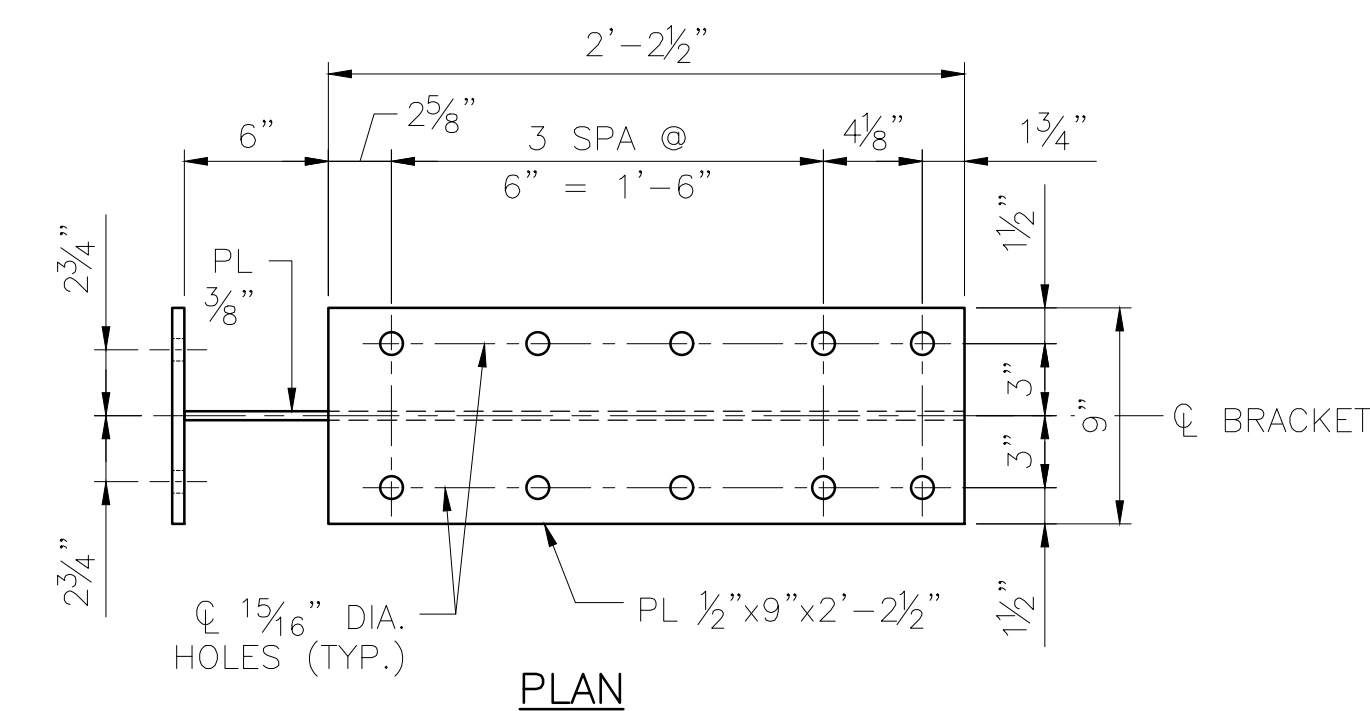


PLAN

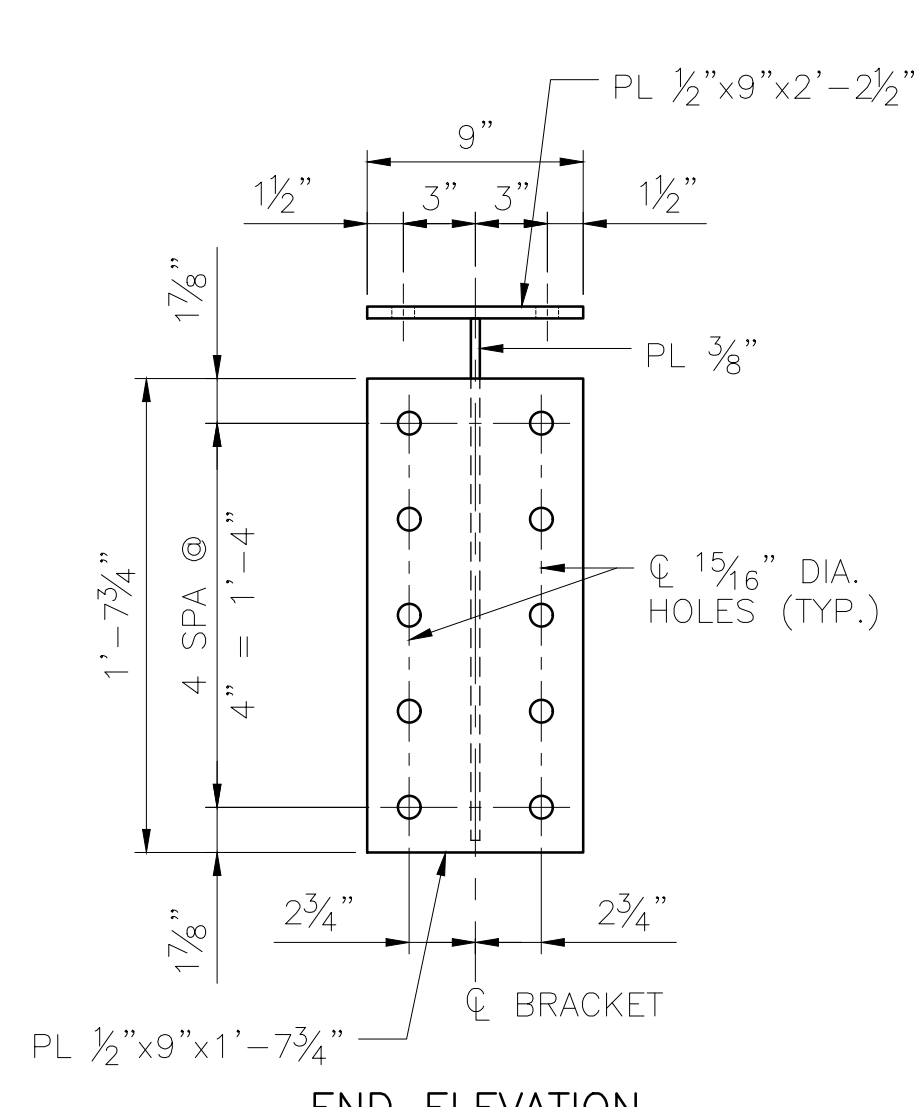


SUPPORT BRACKET MK SB1

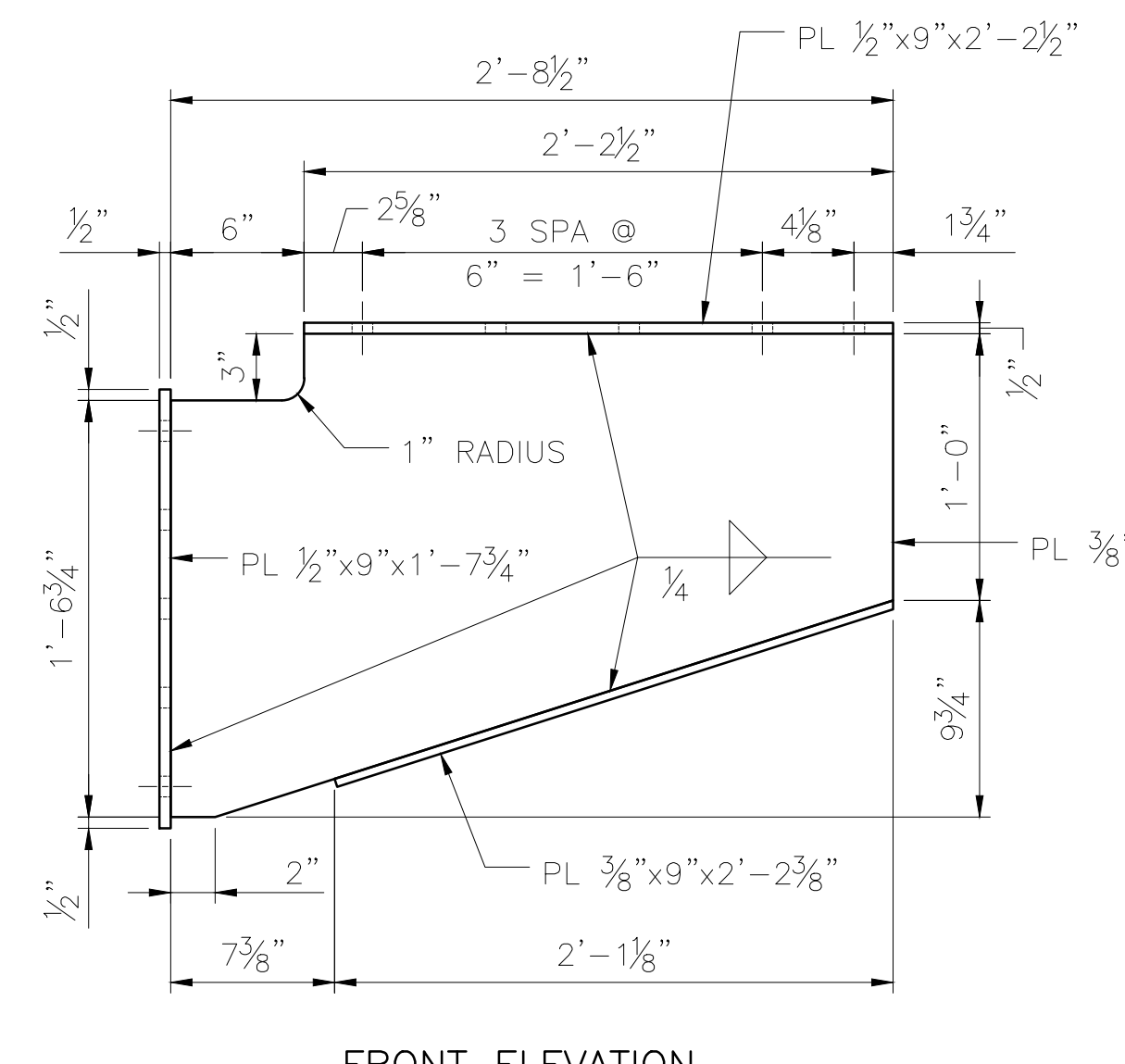
SCALE: 1/2" = 1'-0"
 4 ~ REQUIRED
 ESTIMATED WEIGHT = 110 LBS



PLAN



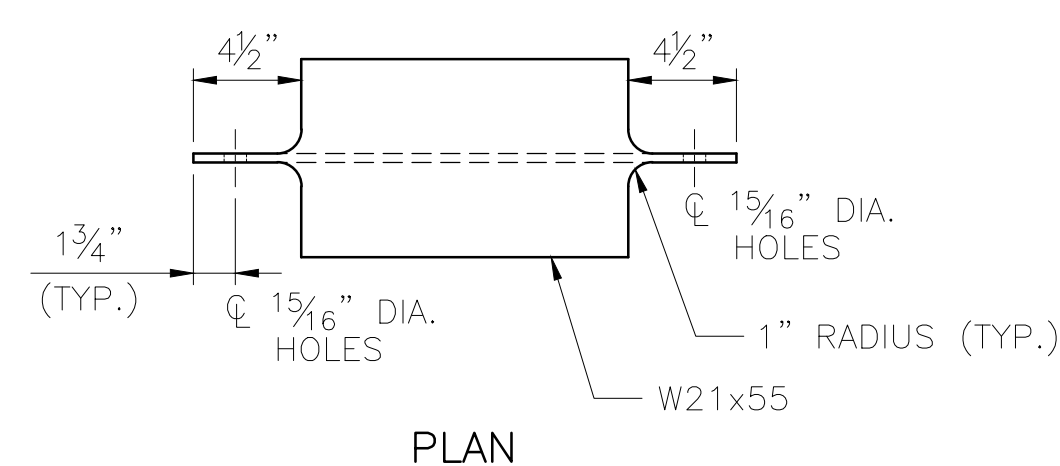
END ELEVATION



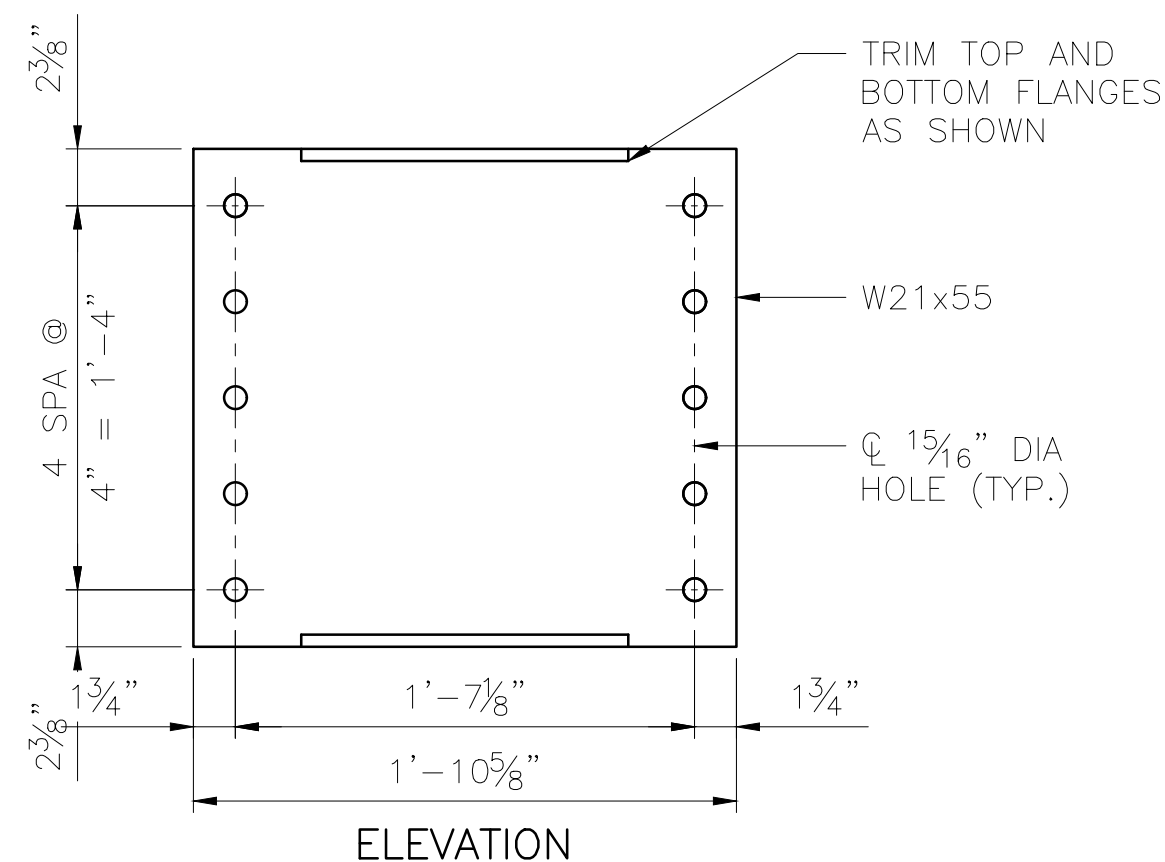
FRONT ELEVATION

SUPPORT BRACKET MK SB2

SCALE: 1/2" = 1'-0"
 2 ~ REQUIRED
 ESTIMATED WEIGHT = 142 LBS



PLAN

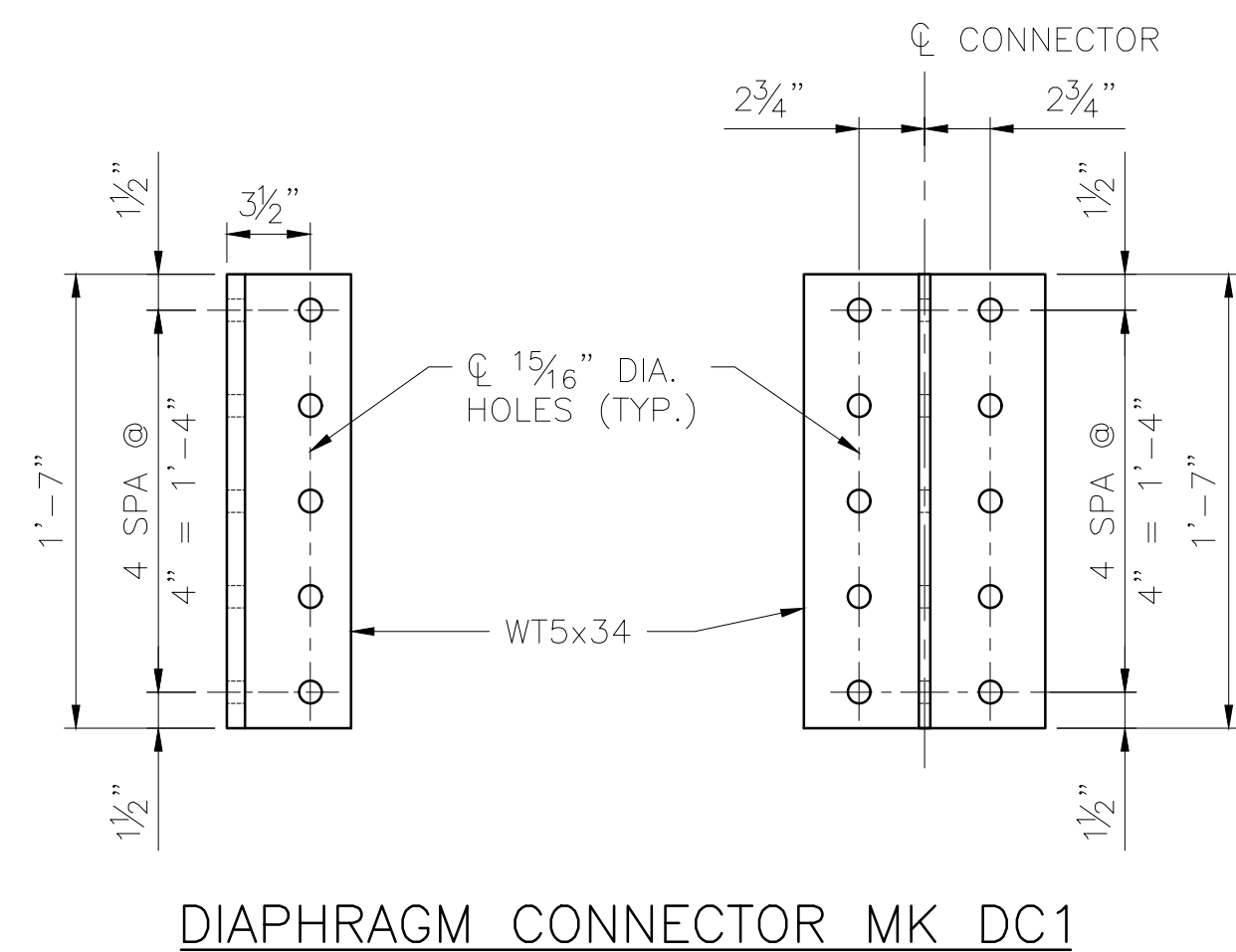


ELEVATION

INTERMEDIATE DIAPHRAGM MK ID1

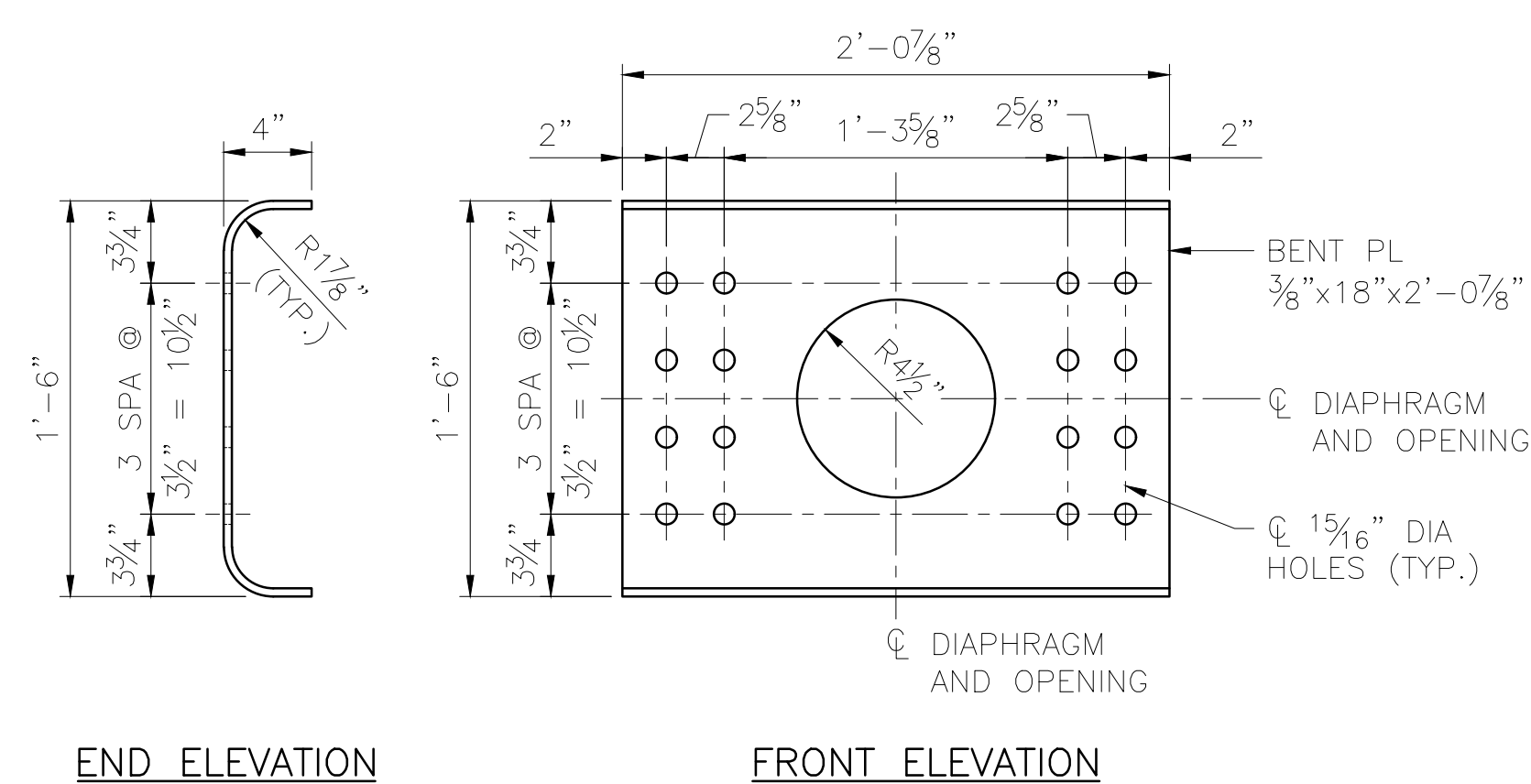
SCALE: 1/2" = 1'-0"
 4 ~ REQUIRED
 ESTIMATED WEIGHT = 84 LBS

OPTION: FABRICATOR MAY SUBMIT A REQUEST TO FABRICATE INTERMEDIATE DIAPHRAGM MK ID1 WITH WELDED PLATES IN LIEU OF COPING FLANGES OF W-SECTION IF THE CHANGE PROVIDES A NET SAVINGS TO THE PROJECT.



DIAPHRAGM CONNECTOR MK DC1

SCALE: 1/2" = 1'-0"
 8 ~ REQUIRED
 ESTIMATED WEIGHT = 54 LBS



END ELEVATION

FRONT ELEVATION

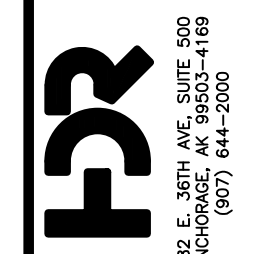
END DIAPHRAGM MK ED1

SCALE: 1/2" = 1'-0"
 8 ~ REQUIRED
 ESTIMATED WEIGHT = 41 LBS

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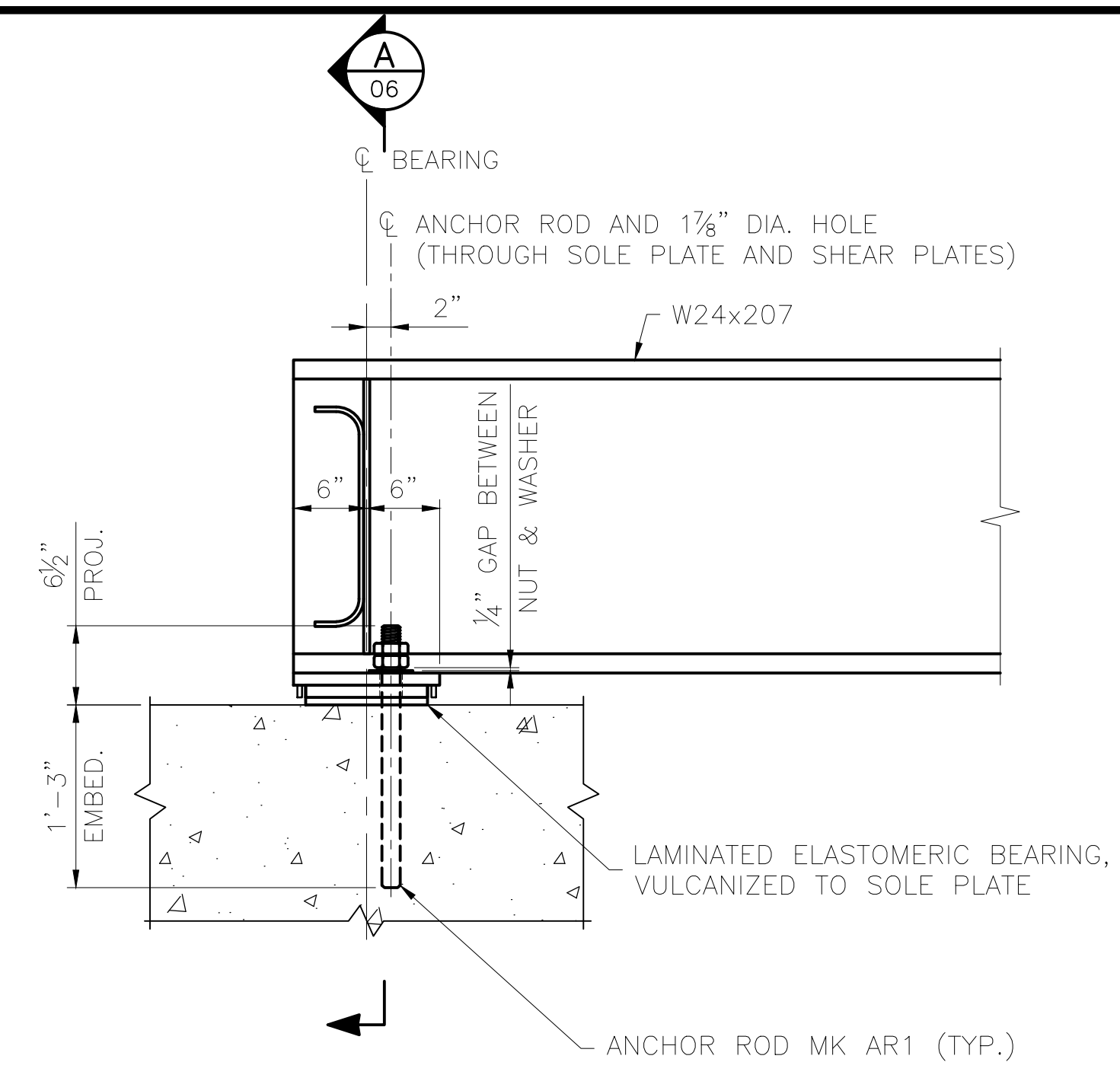
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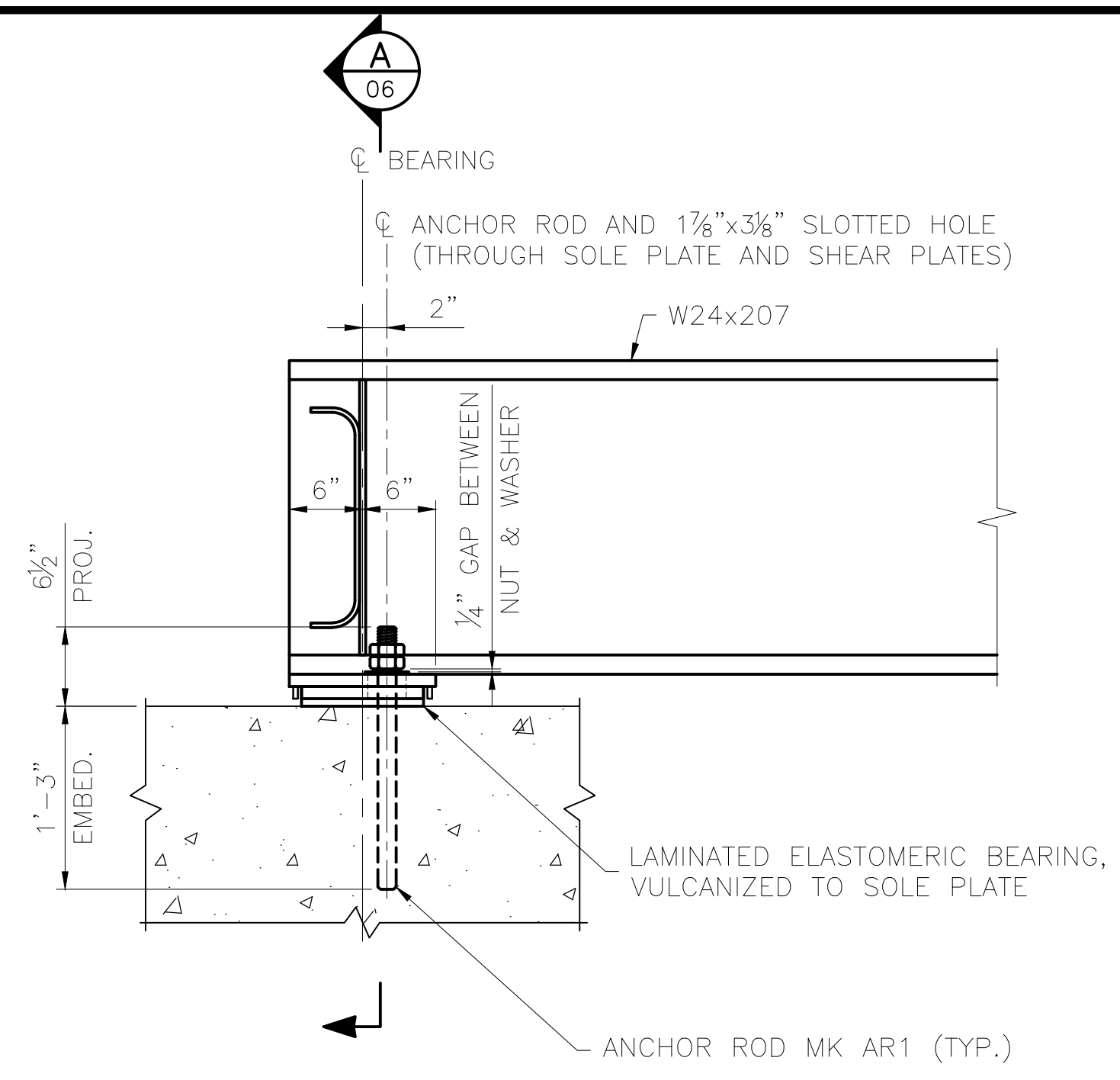
ALASKA RAILROAD
 CAPITAL PROJECTS
 P.O. BOX 107500
 ANCHORAGE, ALASKA 99510-7500
 PROJECT: FABRICATION AND SUPPLY OF 2~79' DECK PLATE GIRDER SPANS AND 1~30' ROLLED BEAM SPAN FOR BRIDGE 114.3
 SHEET TITLE: 30'-0" BEAM SPAN - STEEL DETAILS (2 OF 2)

AFE NO.	11228
YEAR	2025
SHEET	05 OF 22

DRAWING LOCATION: C:\PWORKING\WEST01\14079759\BR_114.3_SHIP_CREEK_06.DWG
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 SCALE: AS NOTED
 PUBLISHED: CTB
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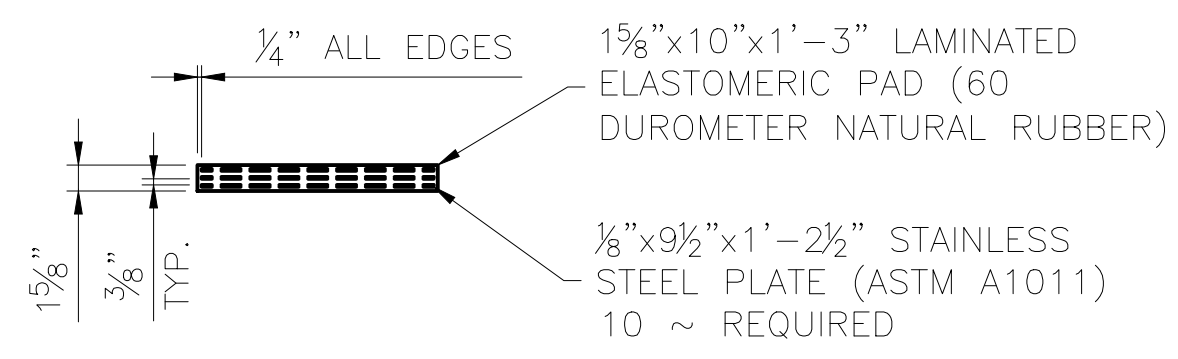
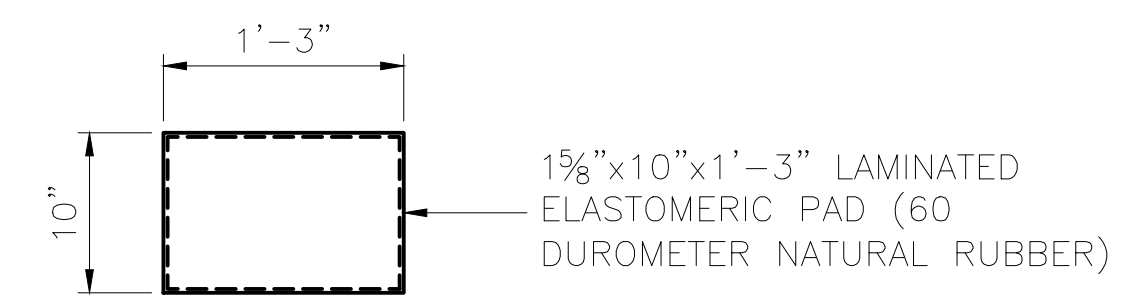


FIXED BEARING ELEVATION

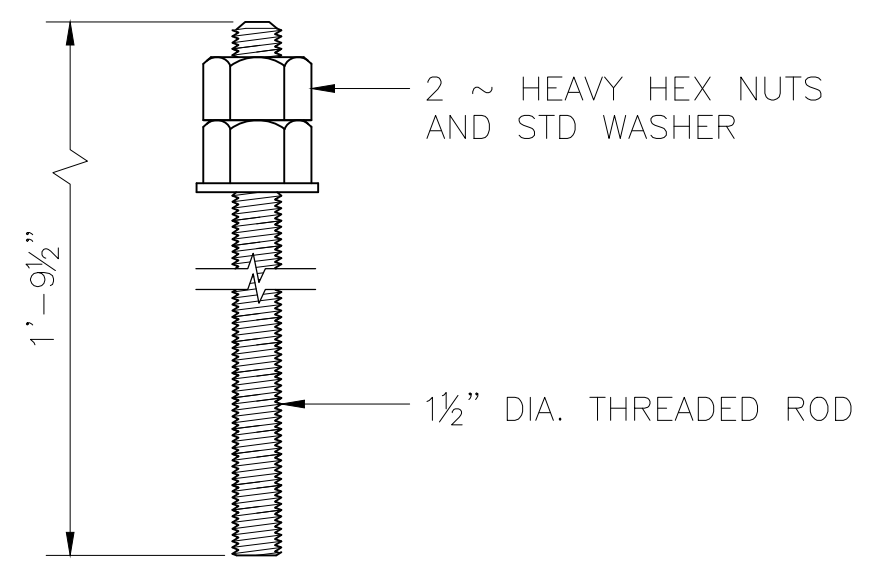


EXPANSION BEARING ELEVATION

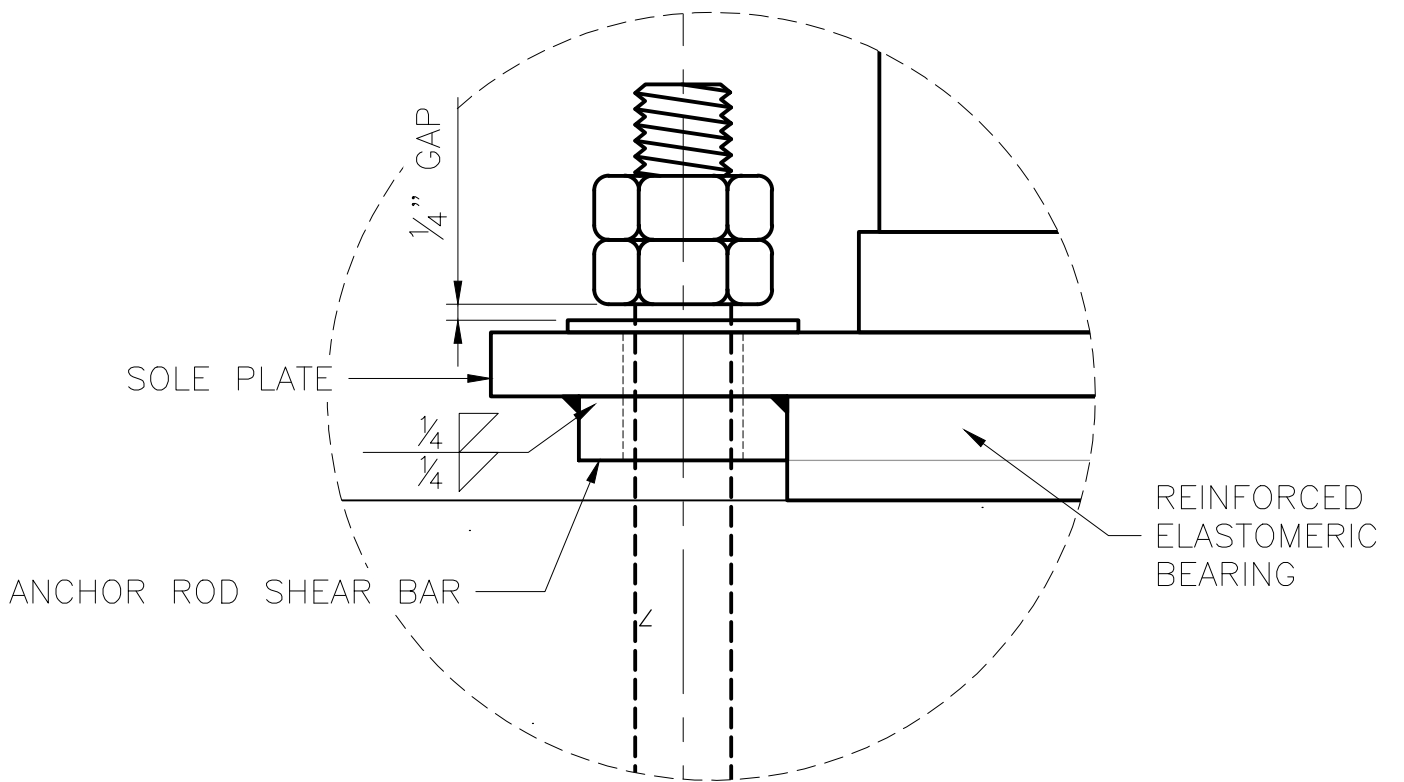
SPAN 1 BEARING DETAIL
SCALE: 1" = 1'-0"



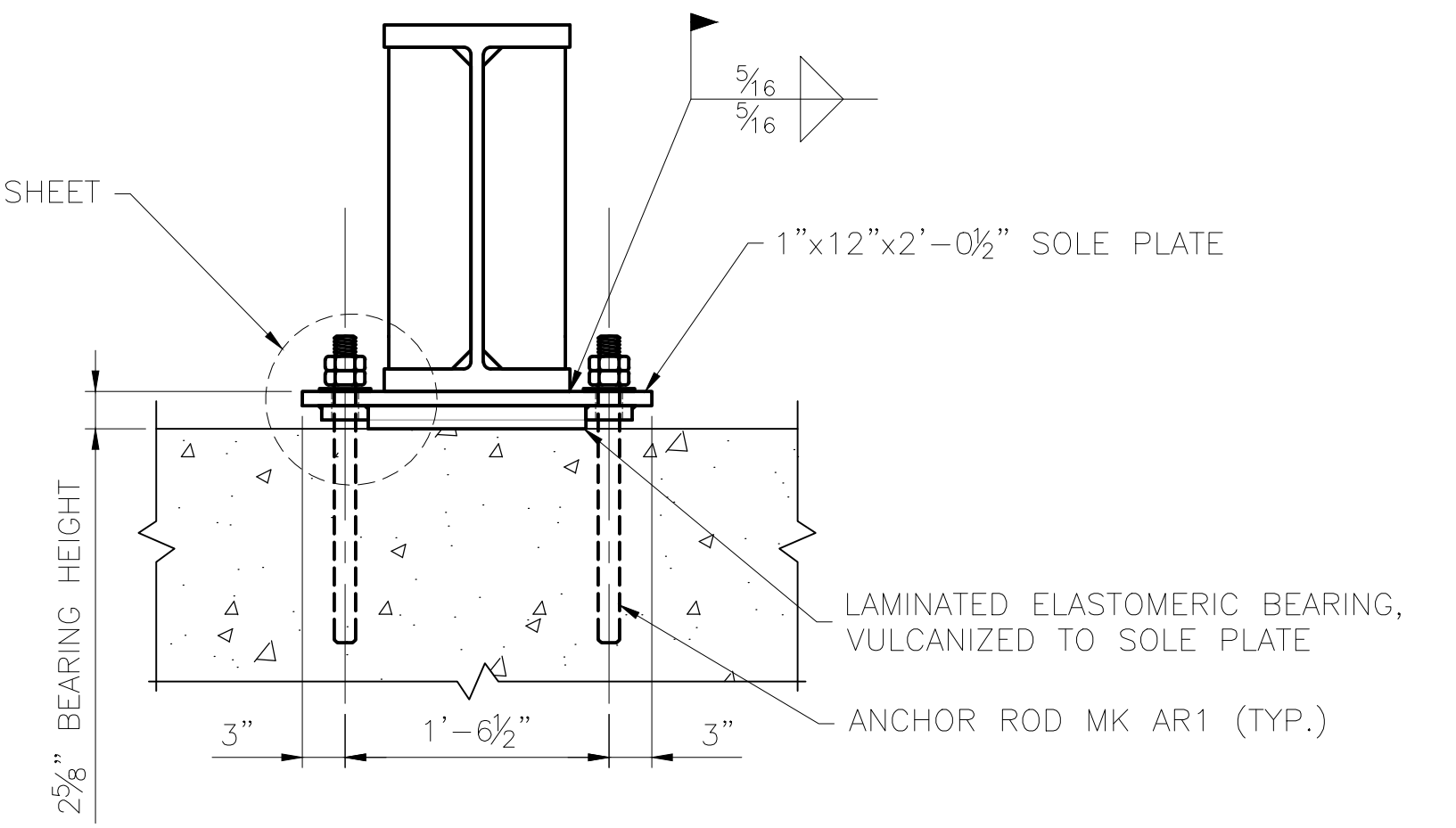
LAMINATED ELASTOMERIC PAD DETAIL
SCALE: 1" = 1'-0"



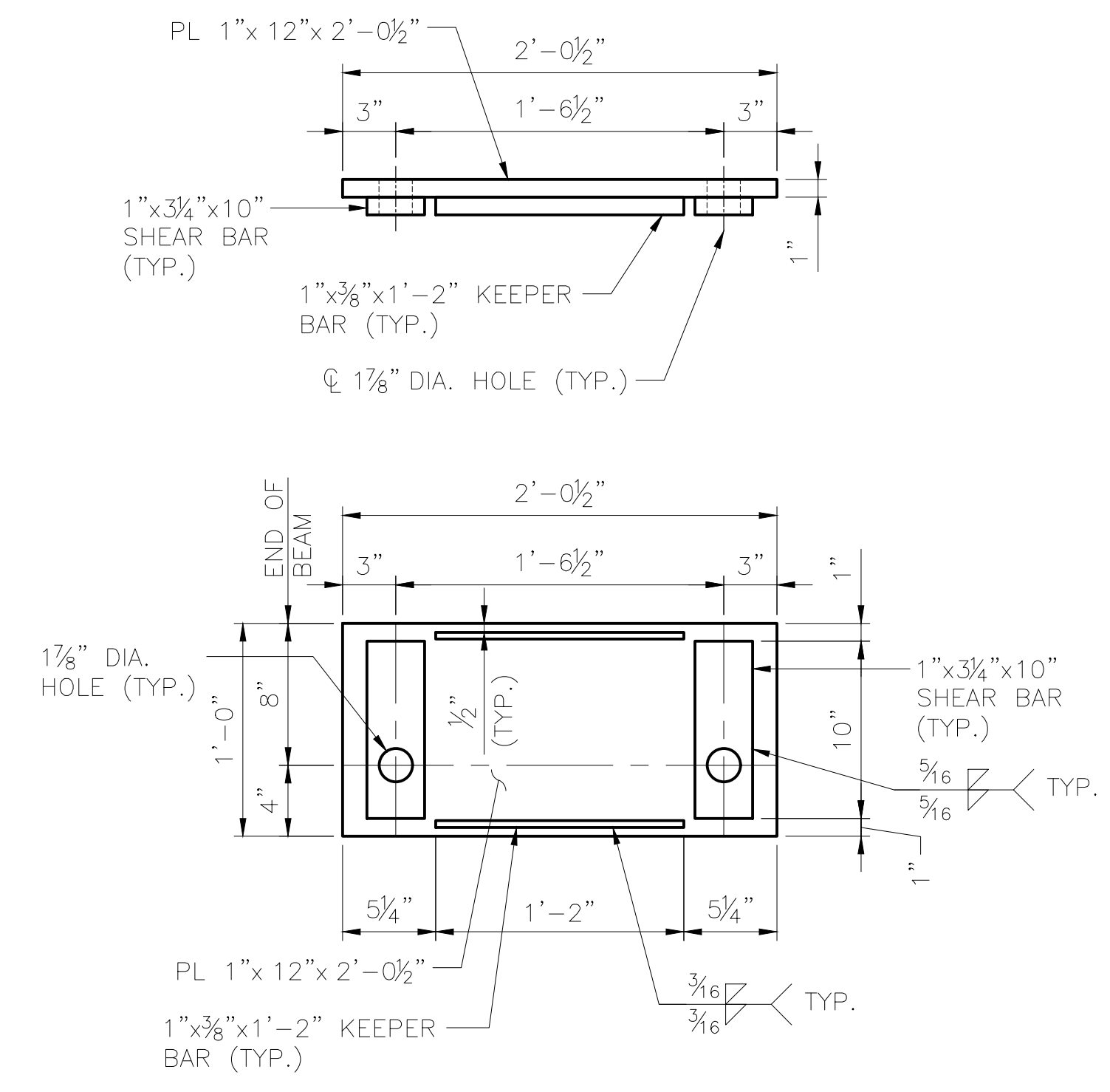
ANCHOR ROD MK AR1
SCALE: 1 1/2" = 1'-0"
20 ~ REQUIRED
ASTM F1554, GR. 105
GALVANIZED ASSEMBLY



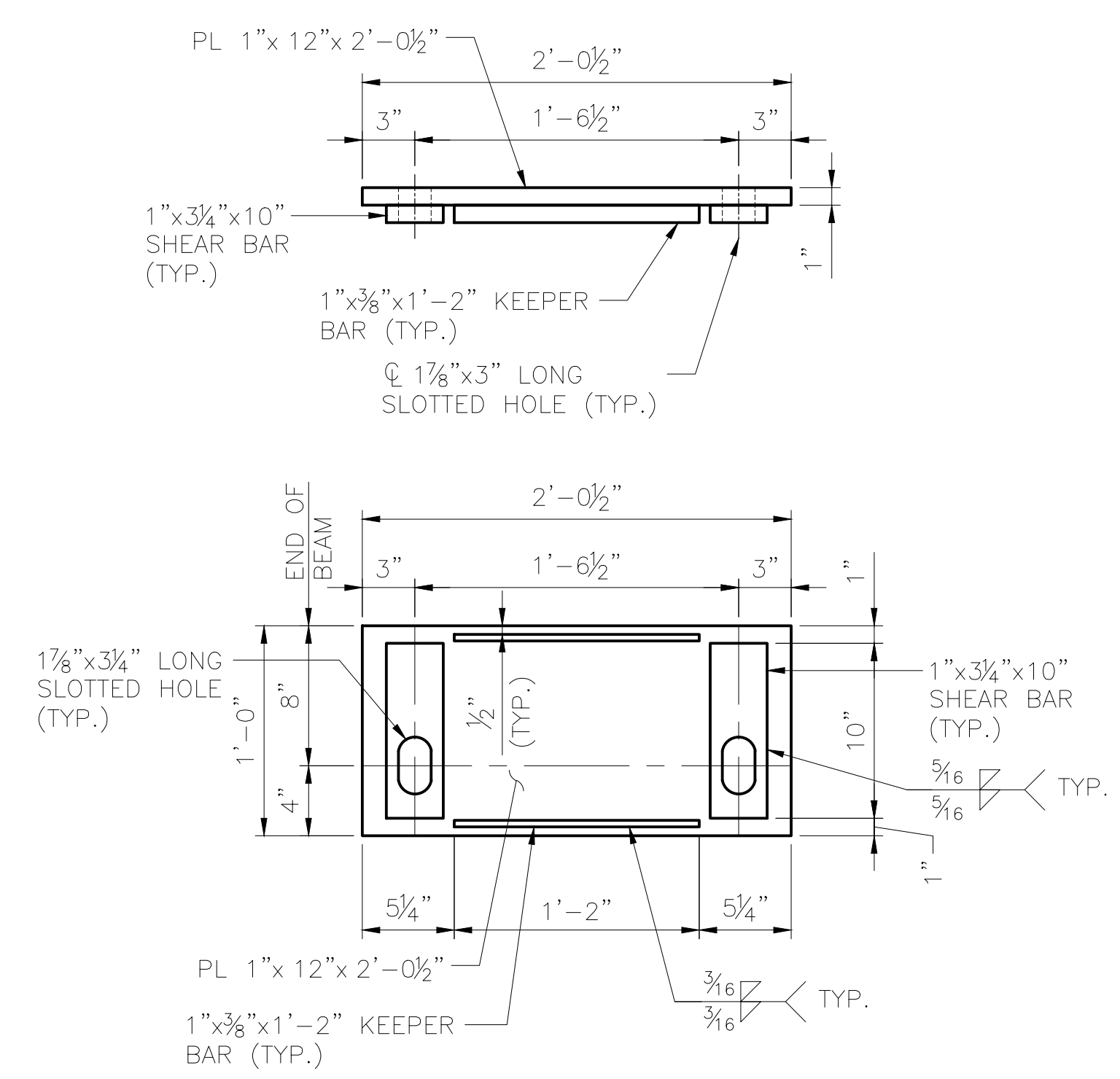
ANCHOR ROD SHEAR PLATE DETAIL
SCALE: 4" = 1'-0"



SECTION A-A
SCALE: 1" = 1'-0"



SOLE PLATE MK SP1 (FIXED)
SCALE: 1 1/2" = 1'-0"

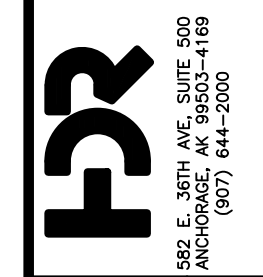


SOLE PLATE MK SP2 (EXPANSION)
SCALE: 1 1/2" = 1'-0"

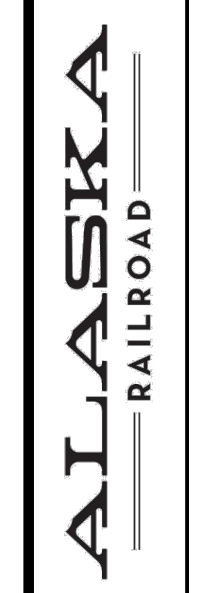
DESIGNED BY:	ML
CHECKED BY:	KK
DRAFTED BY:	MEM

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CONSTRUCTION**

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582 E. 36TH AVE, SUITE 500
ANCHORAGE, AK 99503-4169
(907) 644-2000
LICENSE #: AECC569



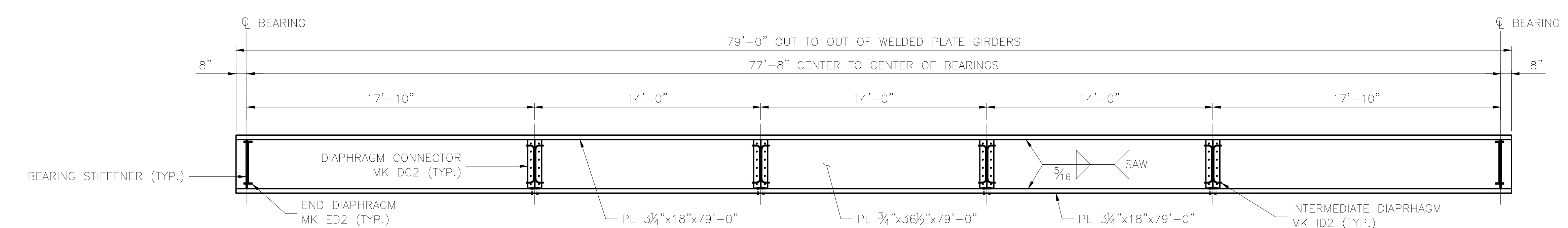
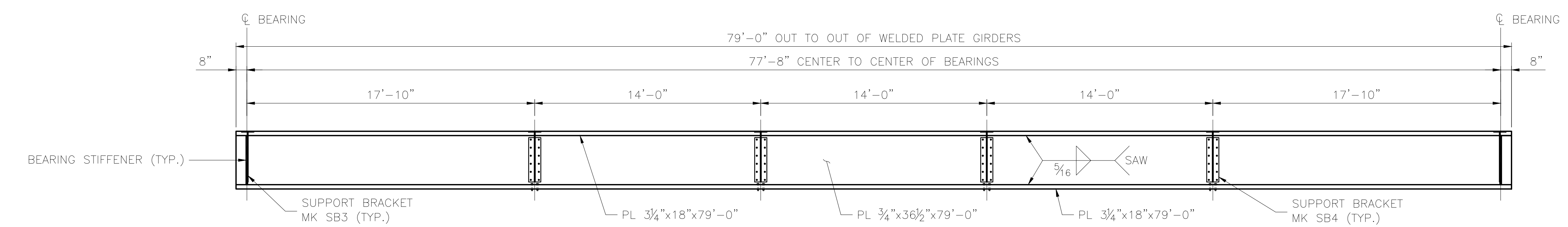
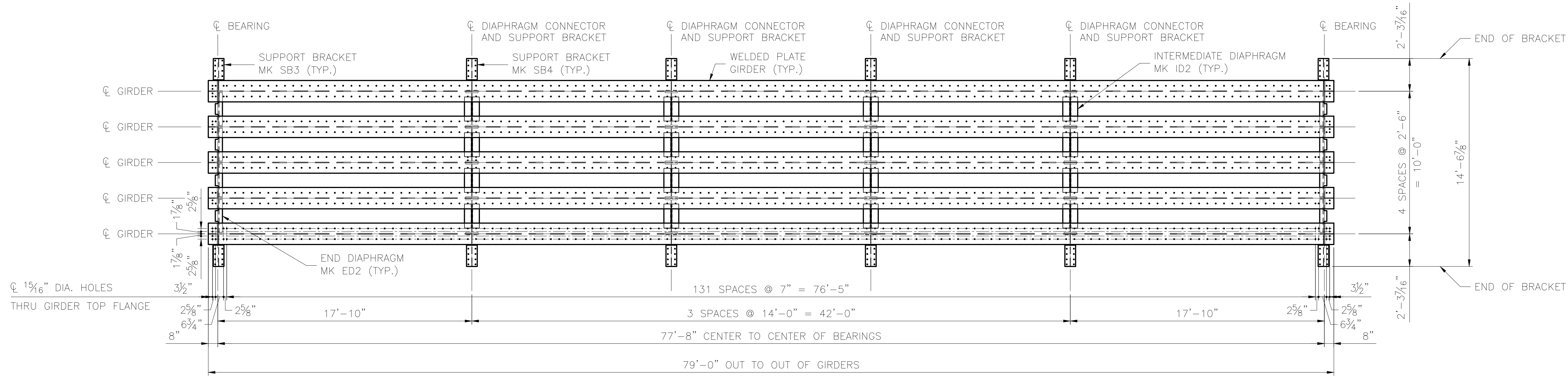
CAPITAL PROJECTS
P.O. BOX 107500
ANCHORAGE, ALASKA 99510-7500



PROJECT: FABRICATION AND SUPPLY OF 2~79' DECK PLATE GIRDER SPANS AND 1~30' ROLLED BEAM SPAN FOR BRIDGE 114.3
SHEET TITLE: 30'-0" BEAM SPAN - BEARING DETAILS

AFE NO.	11228
YEAR	2025
SHEET	06 OF 22

DRAWING LOCATION: C:\PWORKING\WEST01\14079759\BR_114.3_SHIP_CREEK_07.DWG
 DATE: 2/10/2025 10:27 AM
 TIME: 10:27 AM
 SCALE: AS NOTED
 PUBLISHED: CTB
 ARRC_CTIB_2023.CTIB



NOTE:
1. FOR CAMBER DIAGRAM SEE SHEET 02.

		STRESS TABLE															
SPAN LENGTH (L)	GIRDER SECTION	SHEAR				FLEXURE						DEFLECTION					
		DEAD LOAD (K)	LIVE LOAD (K)	IMPACT (K)	TOTAL (K)	WEB AREA (Aw)		DEAD LOAD (K-FT)	LIVE LOAD (K-FT)	IMPACT (K-FT)	TOTAL (K-FT)	SECTION MODULUS (Sx)		ALLOWABLE (IN)	MOMENT OF INERTIA (Ix)		
						REQ'D (IN ²)	PROVIDED (IN ²)					REQ'D (IN ³)	PROVIDED (NET) (IN ³)		*REQ'D (IN ⁴)	PROVIDED (IN ⁴)	
77'-8"	TOP FLANGE: 3/4"x18" BOTTOM FLANGE: 3/4"x18" WEB PLATE: 3/4"x36 1/2"	64	115	47	226	12.9	27.4	1246	1968	803	4017	1753	2034	1.46	55282	49359	

* THE PROVIDED MOMENT OF INERTIA FOR DEFLECTION DOES NOT MEET THE REQUIRED MOMENT OF INERTIA FOR L/640 ALLOWABLE DEFLECTION BASED ON 20 MPH TRACK SPEED AND TRACK CENTERED OVER THE SPAN. THE PROVIDED SECTION RESULT IN AN ADDITIONAL DEFLECTION BEYOND ALLOWABLE OF LESS THAN 3/16" FOR AN EXTERIOR GIRDER WHICH HAS BEEN DEEMED ACCEPTABLE FOR THIS LOCATION BY ARRC.

DESIGNED BY: ML
CHECKED BY: KK
DRAFTED BY: MEM

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582 E. 35TH AVE, SUITE 500
ANCHORAGE, AK 99503-4169
(907) 644-2000
LICENSE #: AECC569

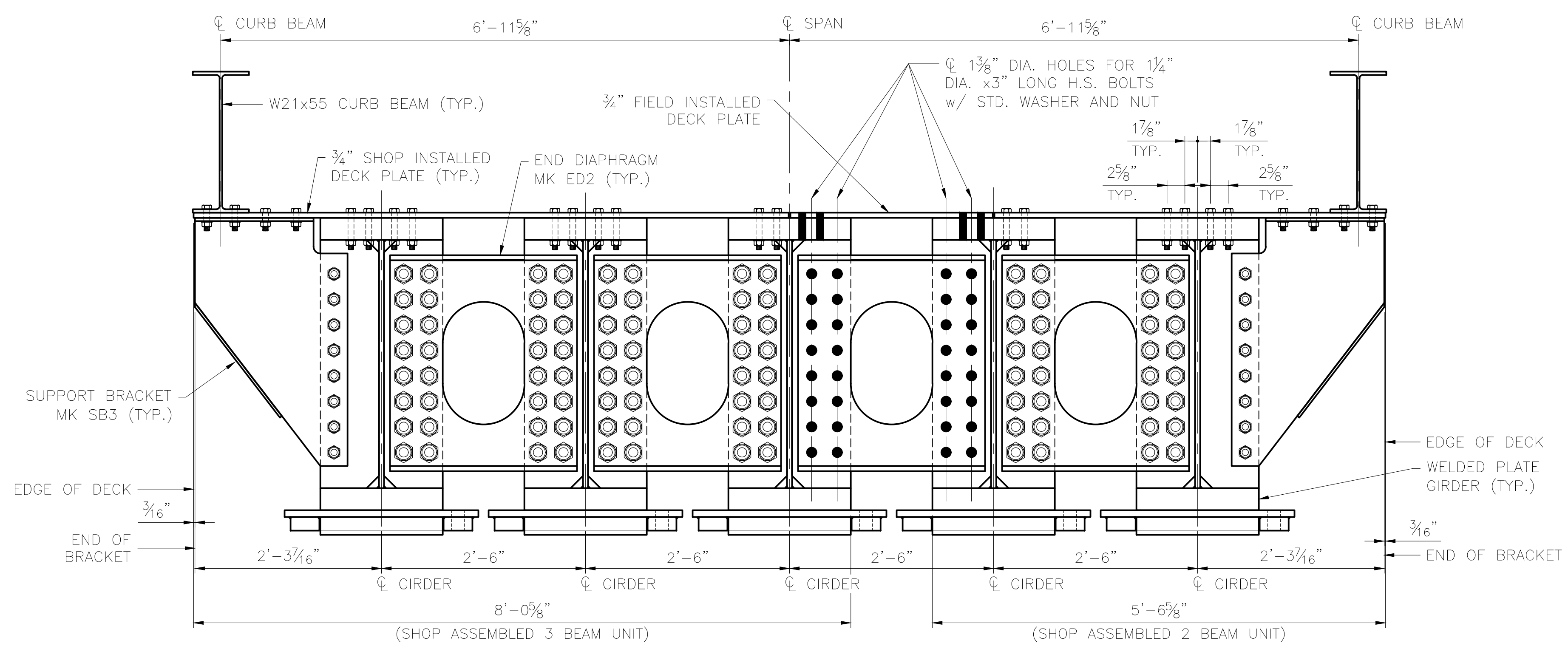
HDR
582 E. 35TH AVE, SUITE 500
ANCHORAGE, AK 99503-4169
(907) 644-2000

ALASKA RAILROAD
CAPITAL PROJECTS
P.O. BOX 107500
ANCHORAGE, ALASKA 99510-7500

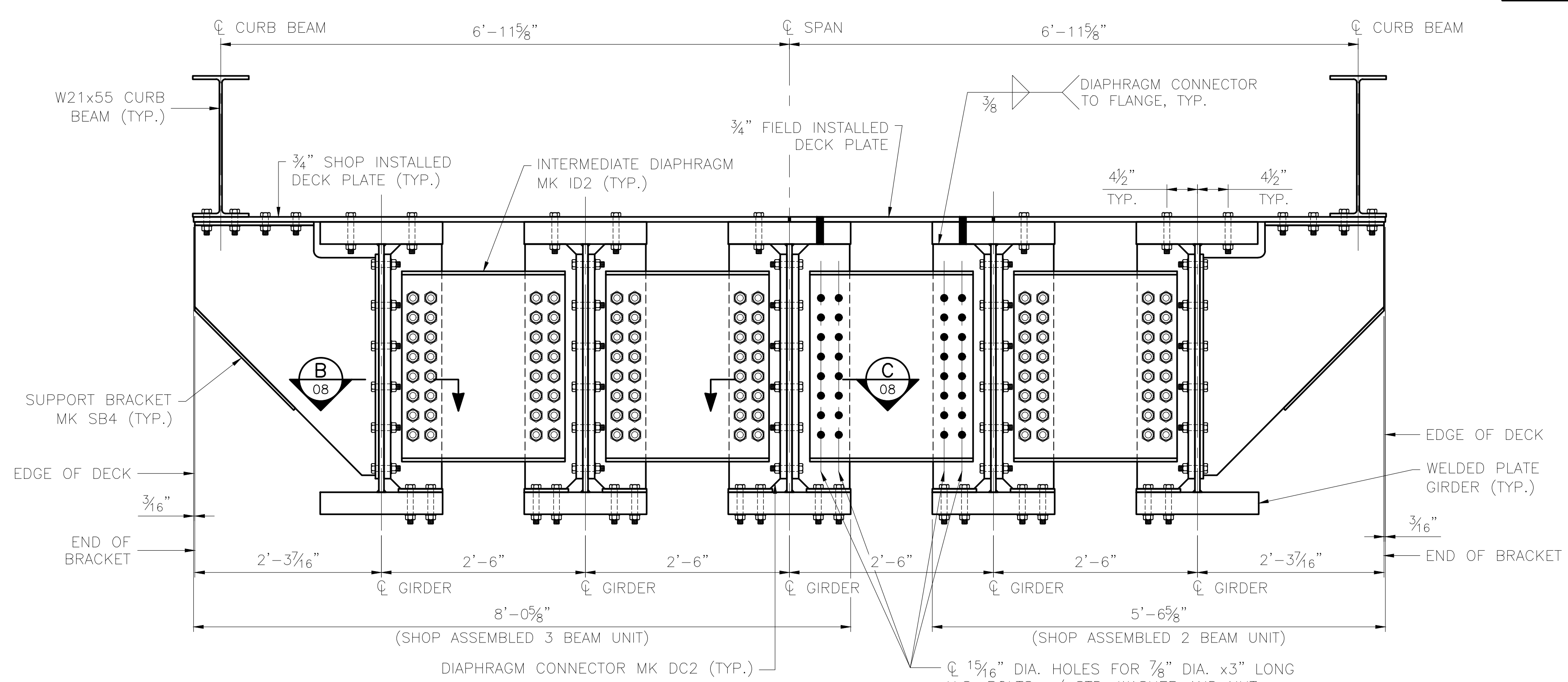
PROJECT: FABRICATION AND SUPPLY OF 2~79' DECK PLATE GIRDER SPANS AND 1~30' ROLLED BEAM SPAN FOR BRIDGE 114.3
SHEET TITLE: 79'-0" GIRDER SPAN - FRAMING PLAN

AFE NO. 11228
YEAR 2025
SHEET 07 OF 22

DRAWING LOCATION: C:\PWORKING\WEST01\4079759\BR_114.3_SHIP_CREEK_08.DWG
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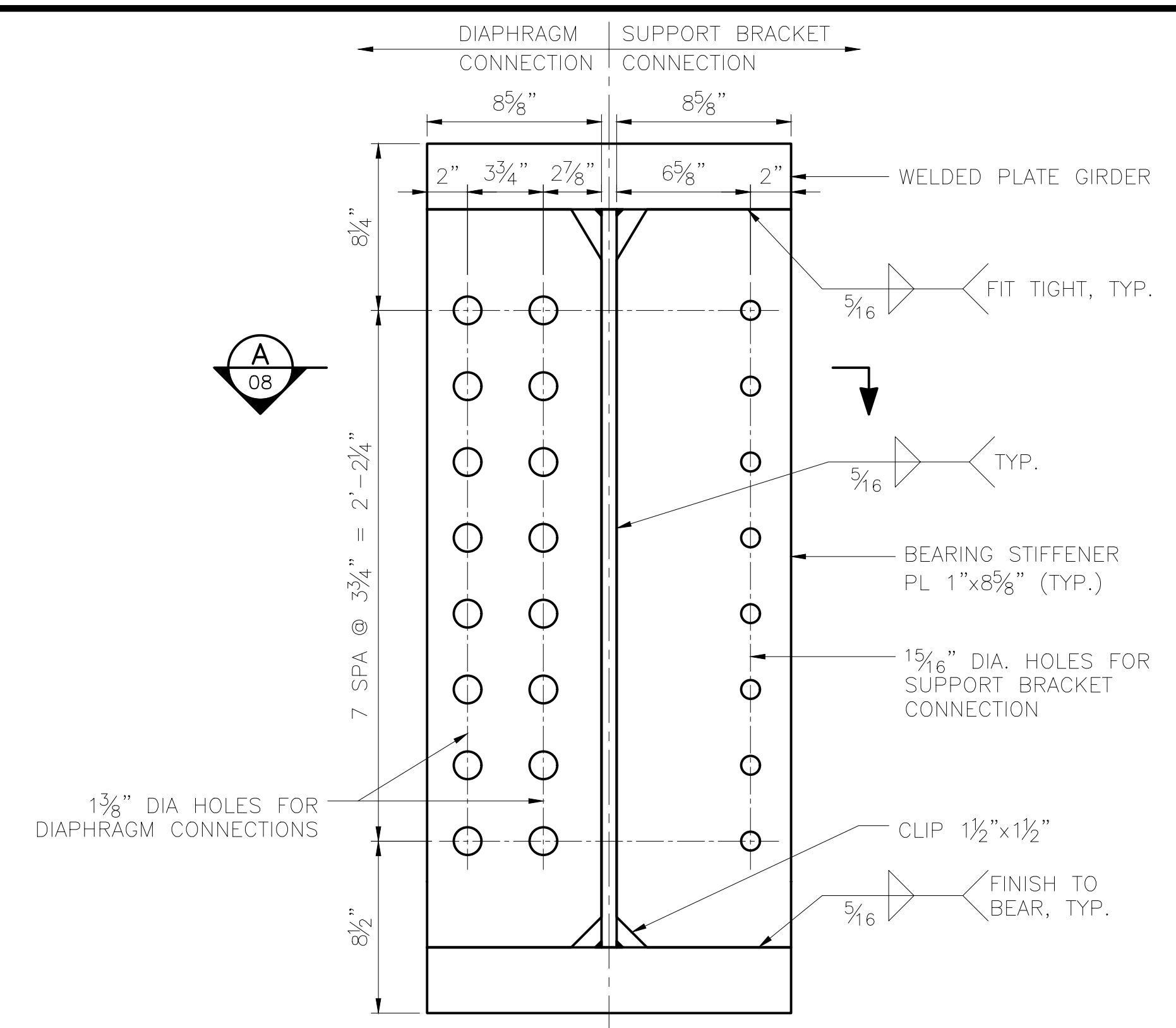


TYPICAL SECTION AT END DIAPHRAGM
SCALE: 1" = 1'-0"

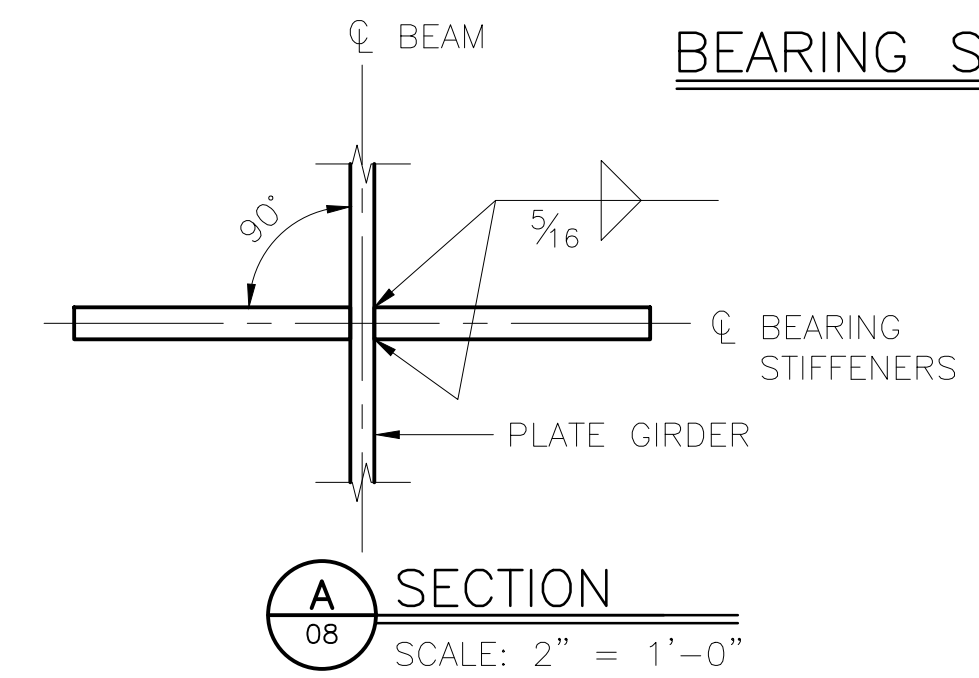


TYPICAL SECTION AT INTERMEDIATE DIAPHRAGM
SCALE: 1" = 1'-0"

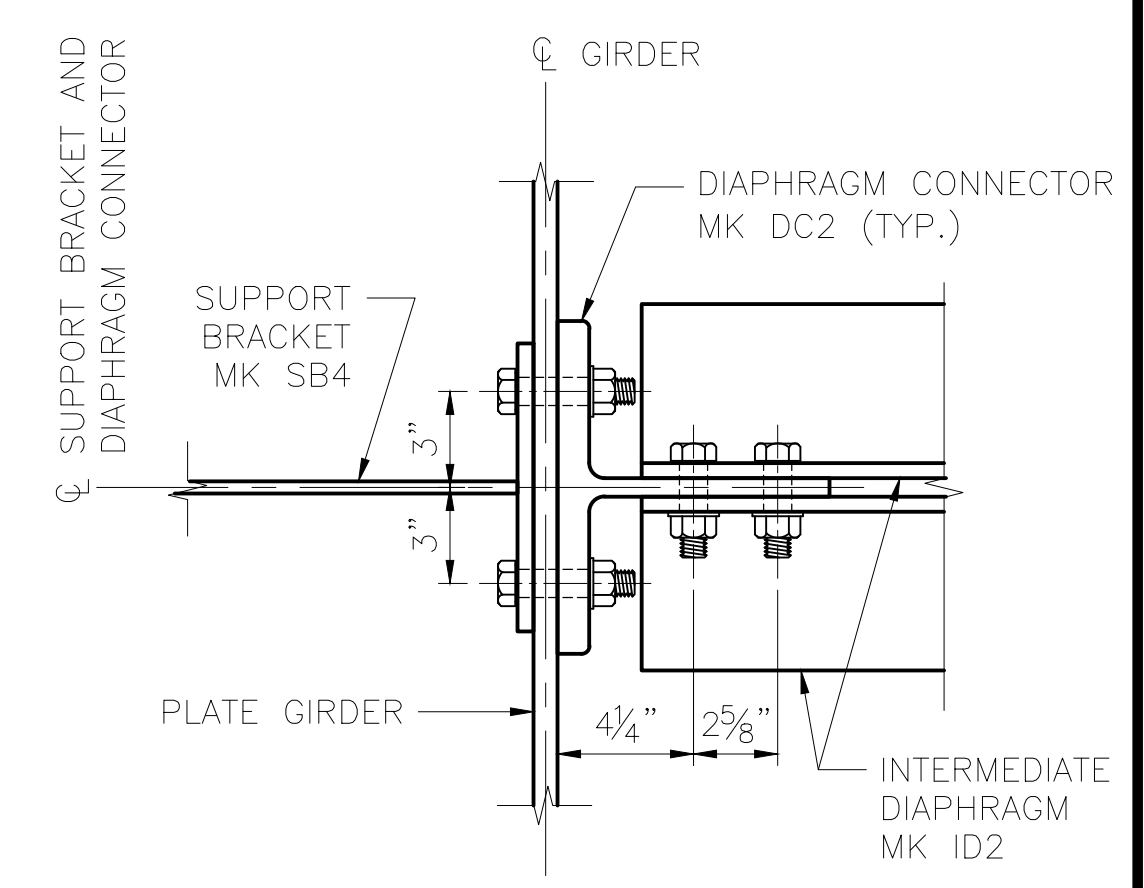
- NOTES:**
- FOR DIAPHRAGM, DIAPHRAGM CONNECTOR AND BRACKET DETAILS SEE SHEET 09.
 - FOR DECK PLATE DETAILS SEE SHEETS 11, 13, 14 AND 15.
 - FOR CURB BEAM DETAILS SEE SHEET 16.



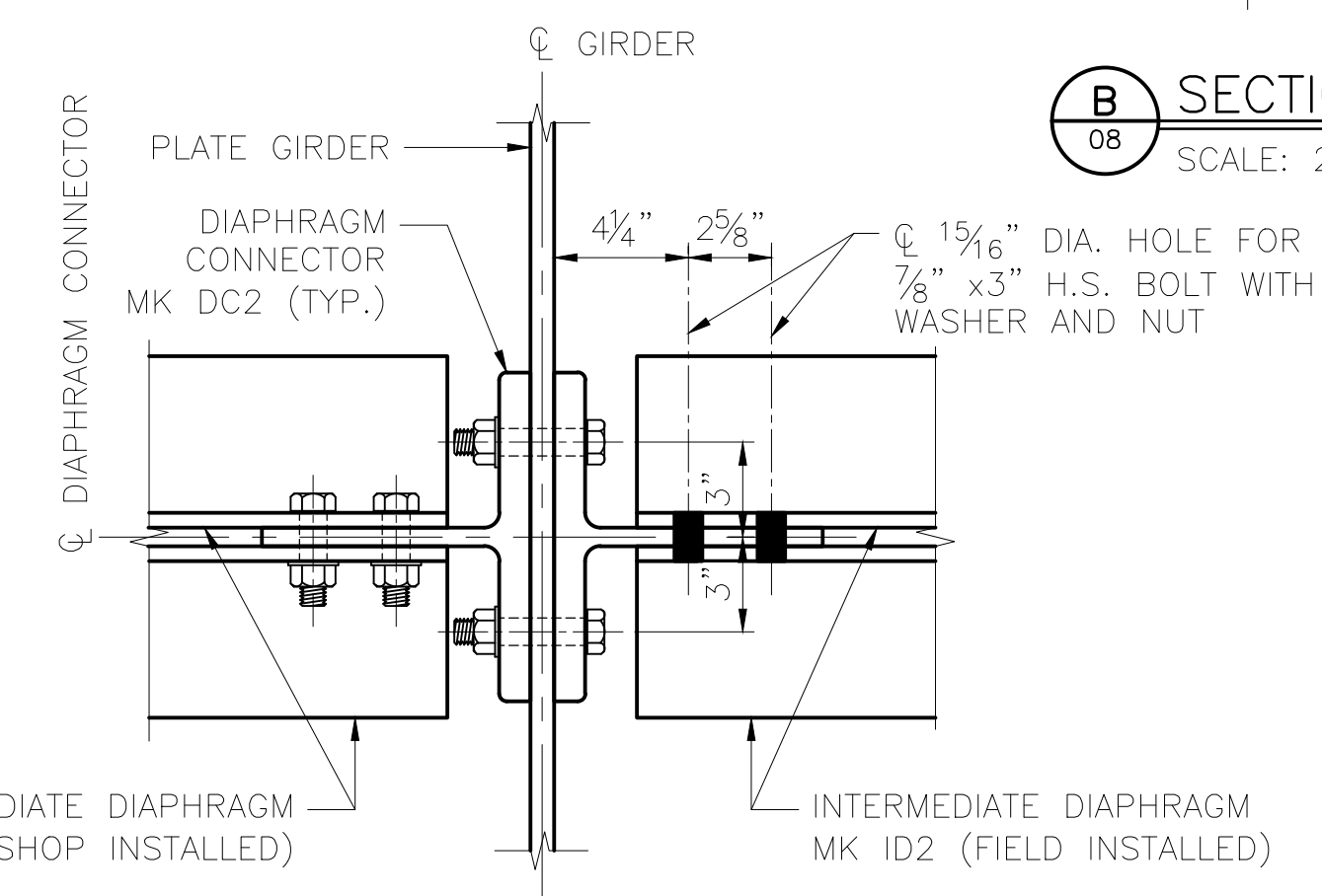
BEARING STIFFENER INSTALLATION DETAIL
SCALE: 2" = 1'-0"



SECTION A
SCALE: 2" = 1'-0"



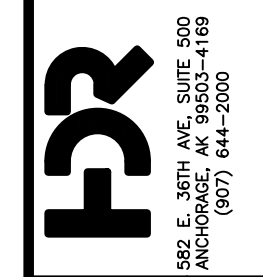
SECTION B
SCALE: 2" = 1'-0"



SECTION C
SCALE: 2" = 1'-0"

DESIGNED BY:	ML
CHECKED BY:	KK
DRAFTED BY:	MEM

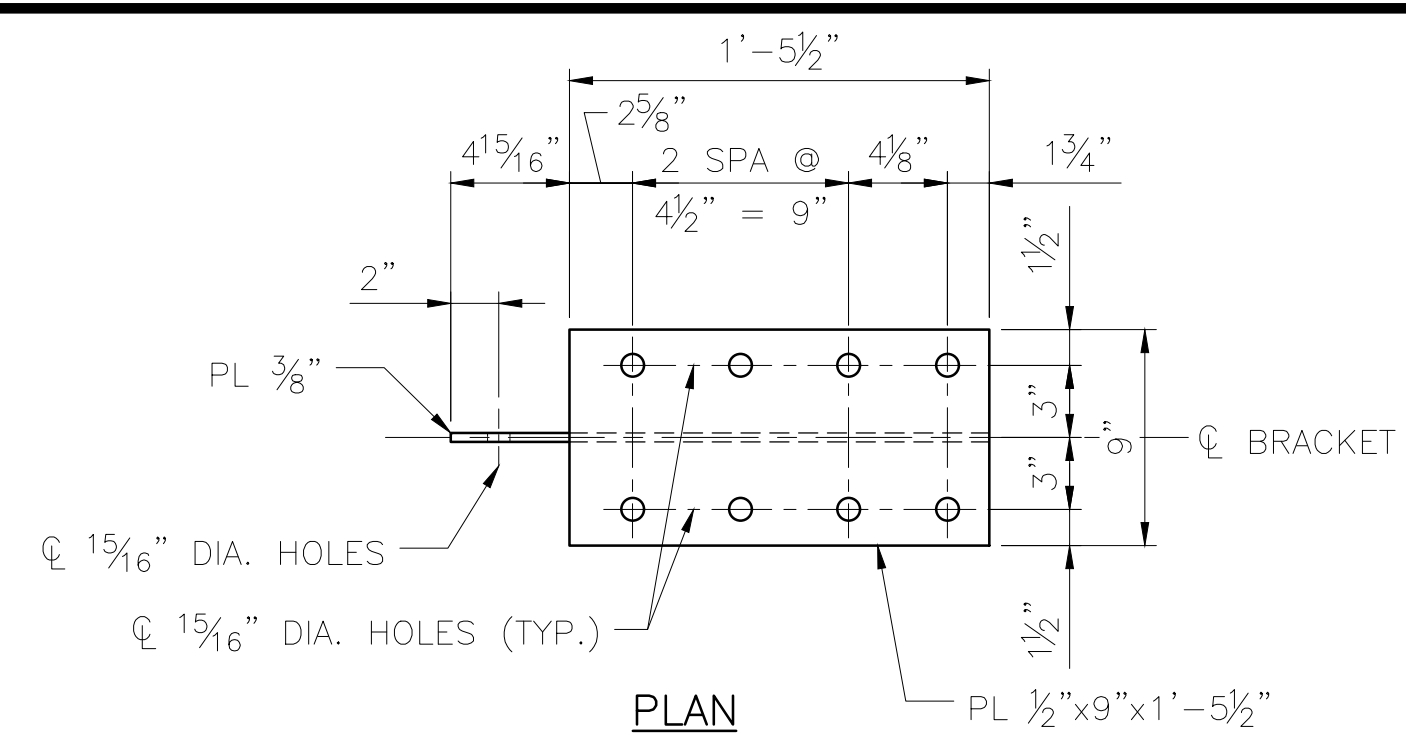
**90% SUBMITTAL
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 582 E. 36TH AVE, SUITE 500
 ANCHORAGE, AK 99503-4169
 (907) 644-2000
 LICENSE #: AECC569



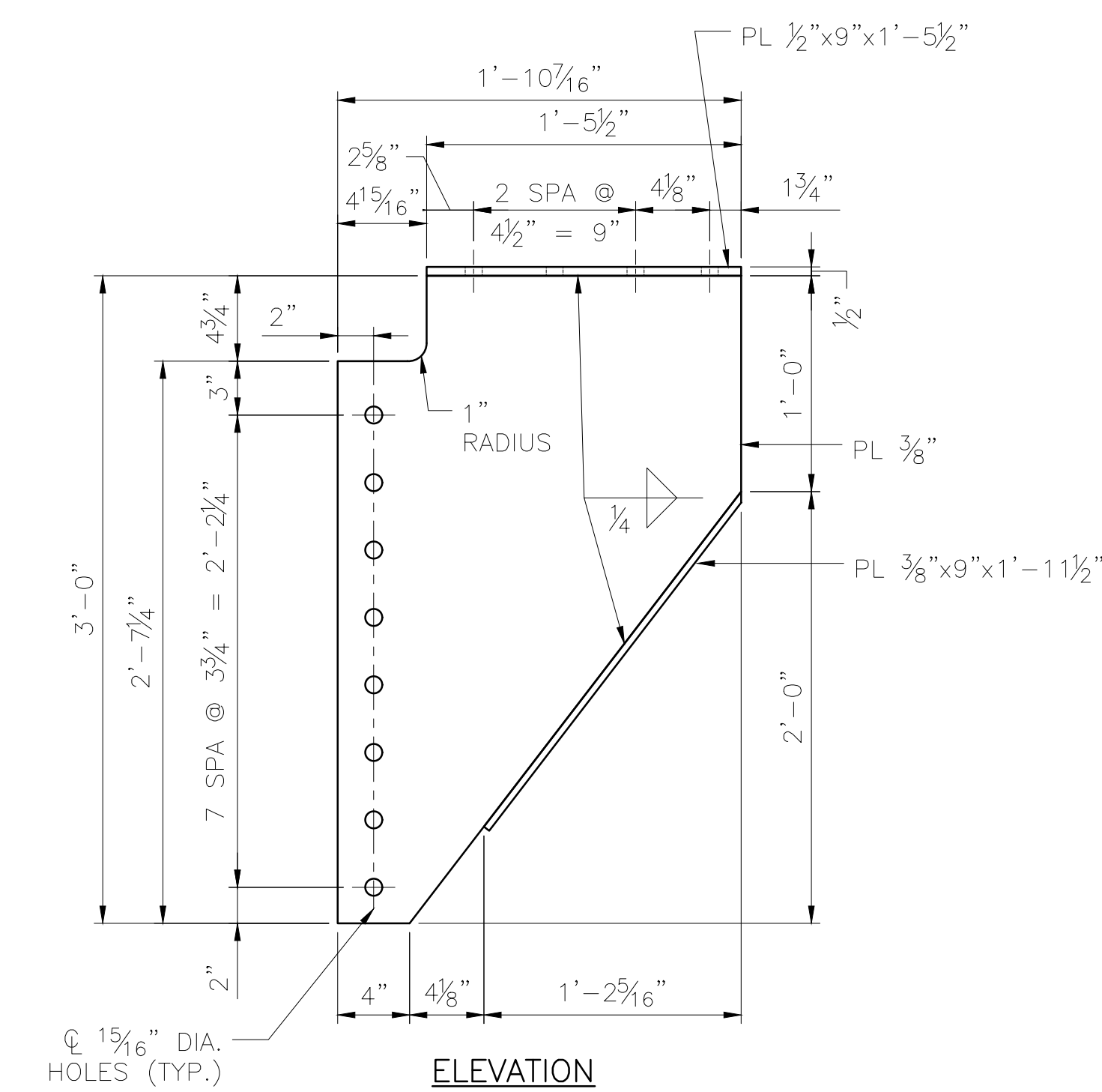
CAPITAL PROJECTS
 P.O. BOX 107500
 ANCHORAGE, ALASKA 99510-7500

ALASKA RAILROAD
 PROJECT: FABRICATION AND SUPPLY OF 2~79' DECK PLATE GIRDER SPANS AND 1~30' ROLLED BEAM SPAN FOR BRIDGE 114.3
 SHEET TITLE: 79'-0" GIRDER SPAN - STEEL DETAILS (1 OF 2)

AFE NO.	11228
YEAR	2025
SHEET	08 OF 22



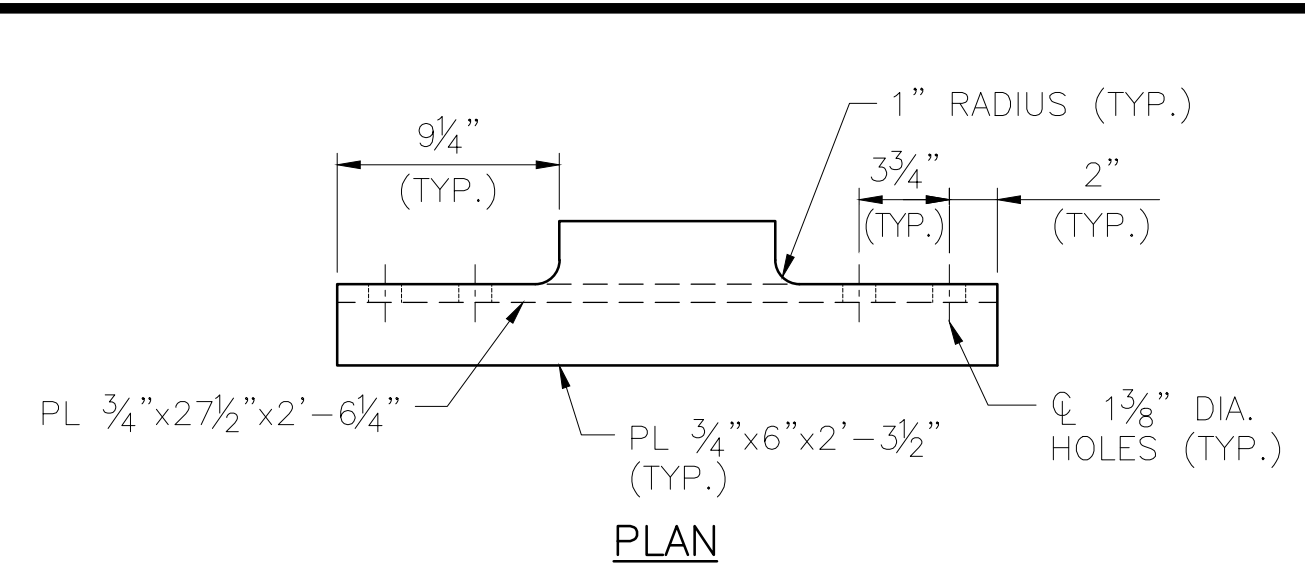
PLAN



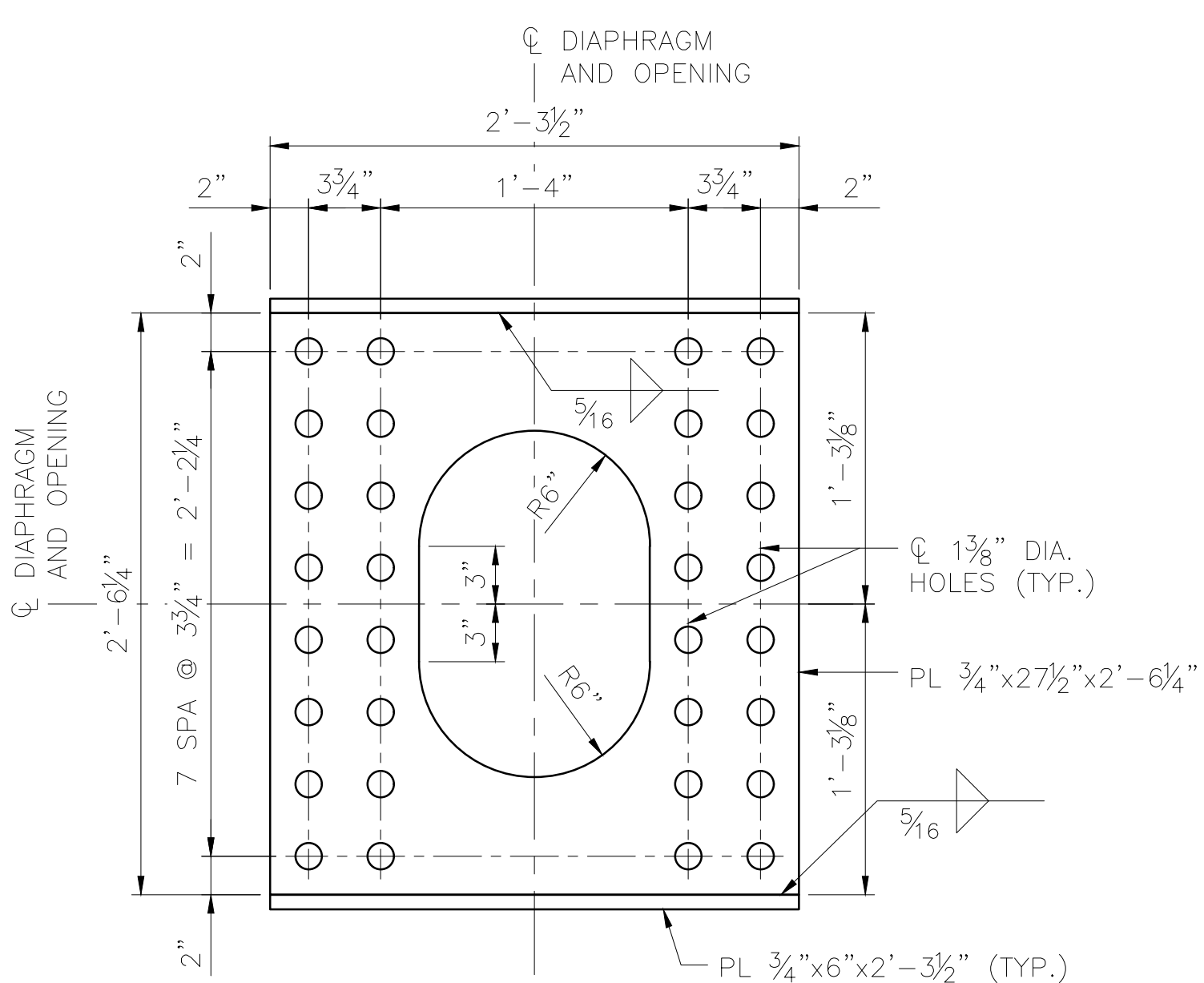
ELEVATION

SUPPORT BRACKET MK SB3

SCALE: 1/2" = 1'-0"
 8 ~ REQUIRED
 ESTIMATED WEIGHT = 106 LBS



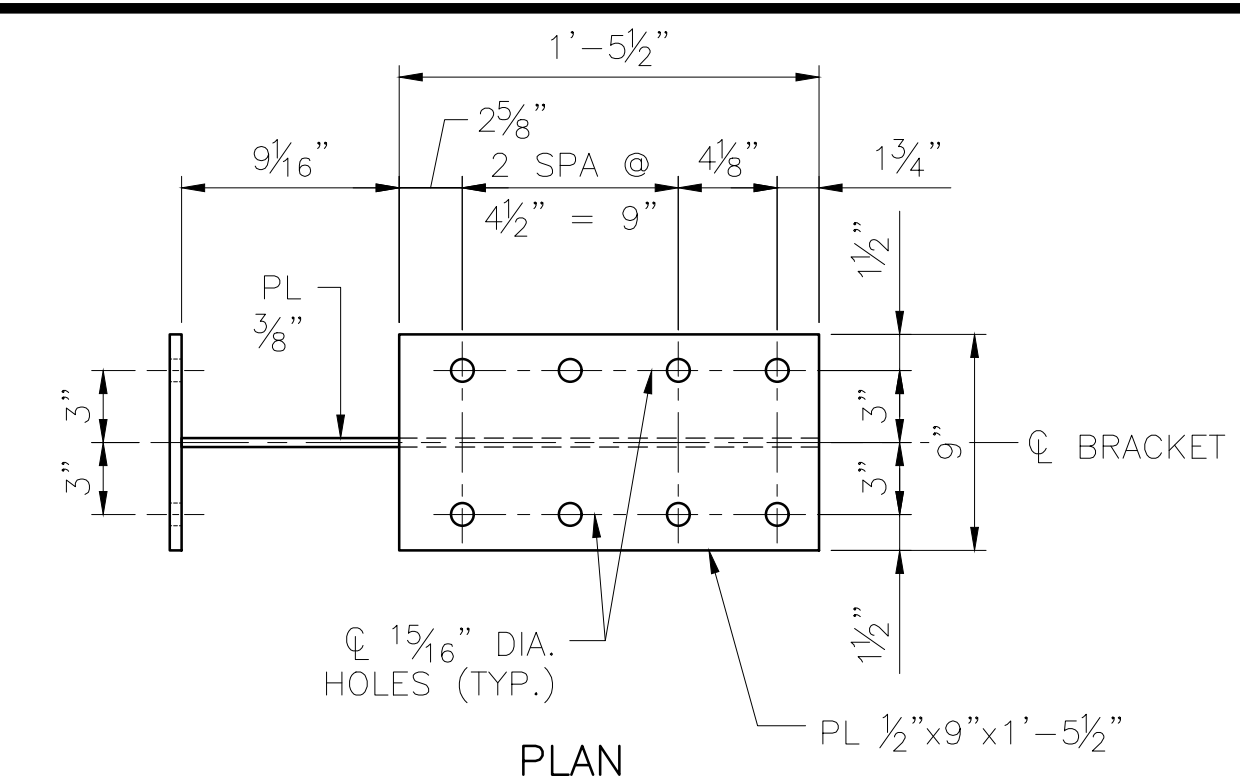
PLAN



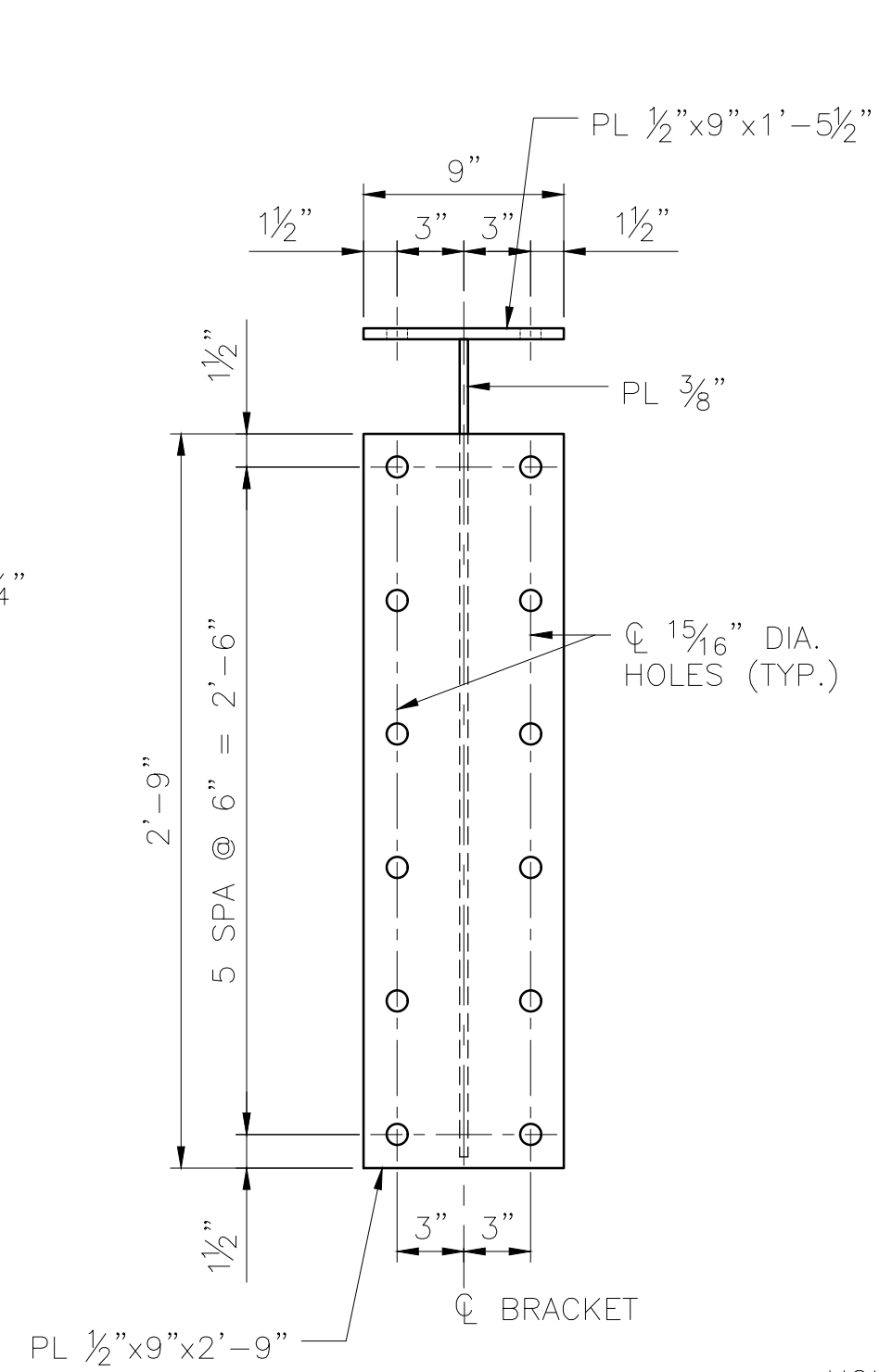
ELEVATION

END DIAPHRAGM MK ED2

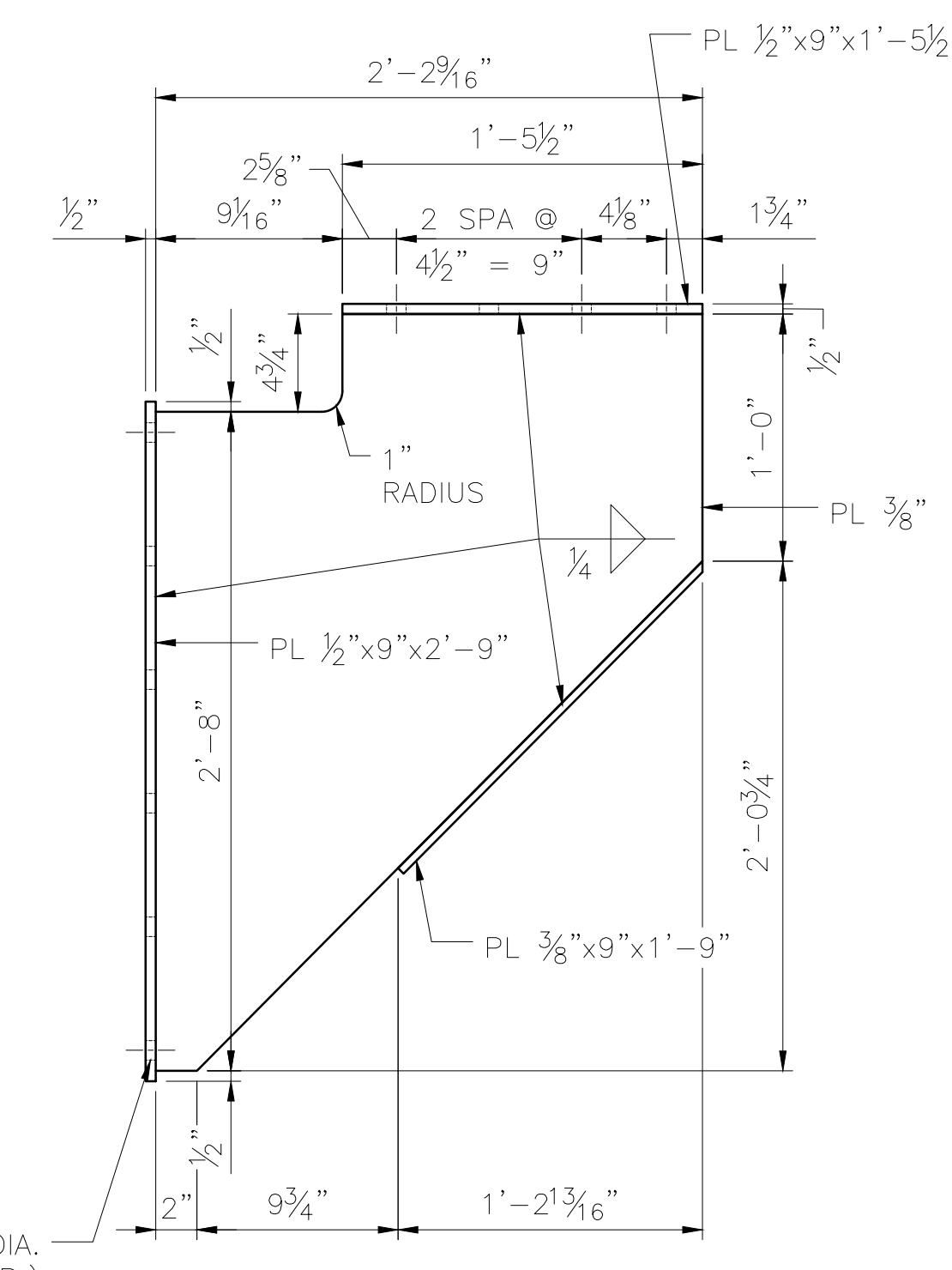
SCALE: 1/2" = 1'-0"
 16 ~ REQUIRED
 ESTIMATED WEIGHT = 187 LBS



PLAN



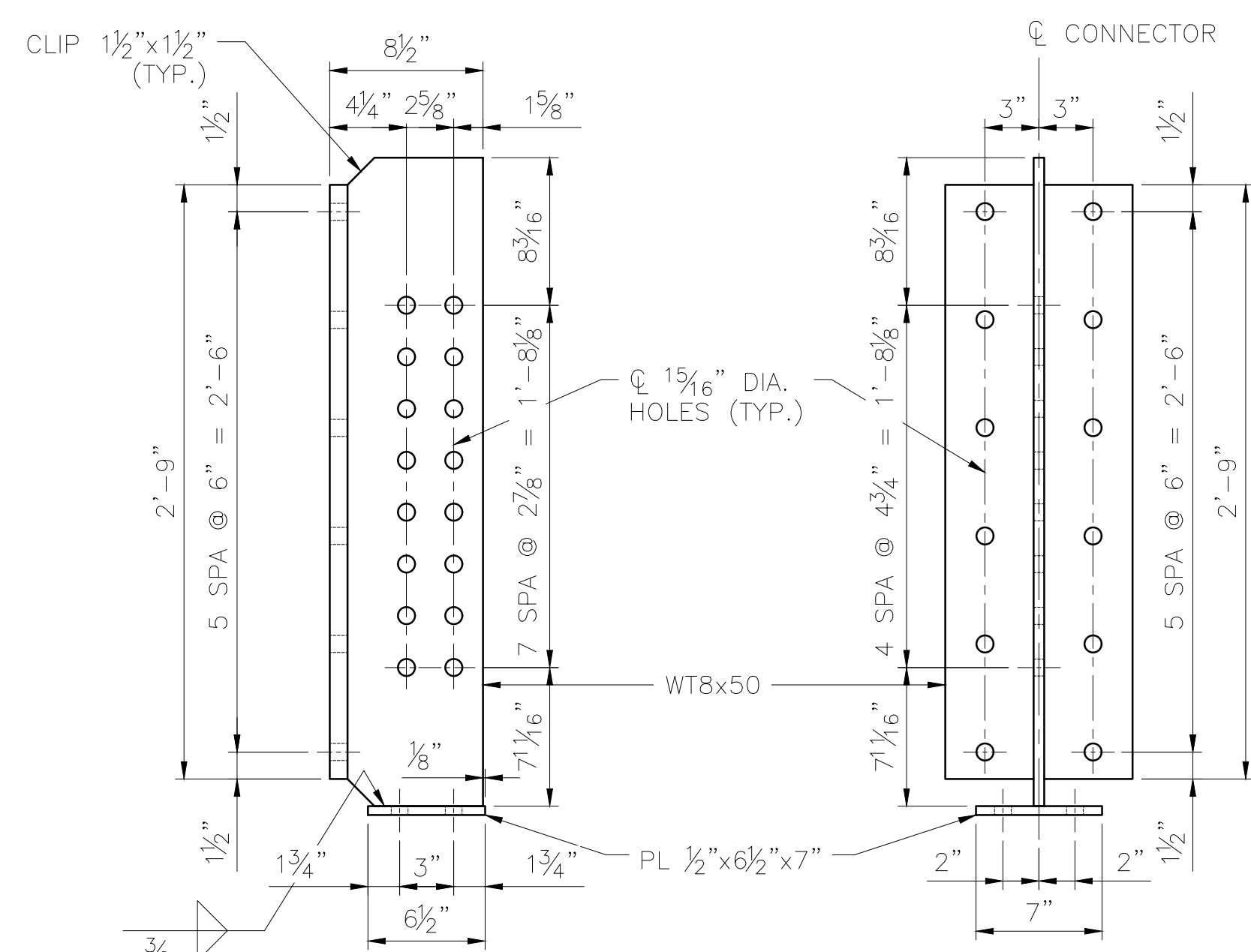
END ELEVATION



FRONT ELEVATION

SUPPORT BRACKET MK SB4

SCALE: 1/2" = 1'-0"
 16 ~ REQUIRED
 ESTIMATED WEIGHT = 151 LBS



DIAPHRAGM CONNECTOR MK DC2

SCALE: 1/2" = 1'-0"
 64 ~ REQUIRED
 ESTIMATED WEIGHT = 156 LBS

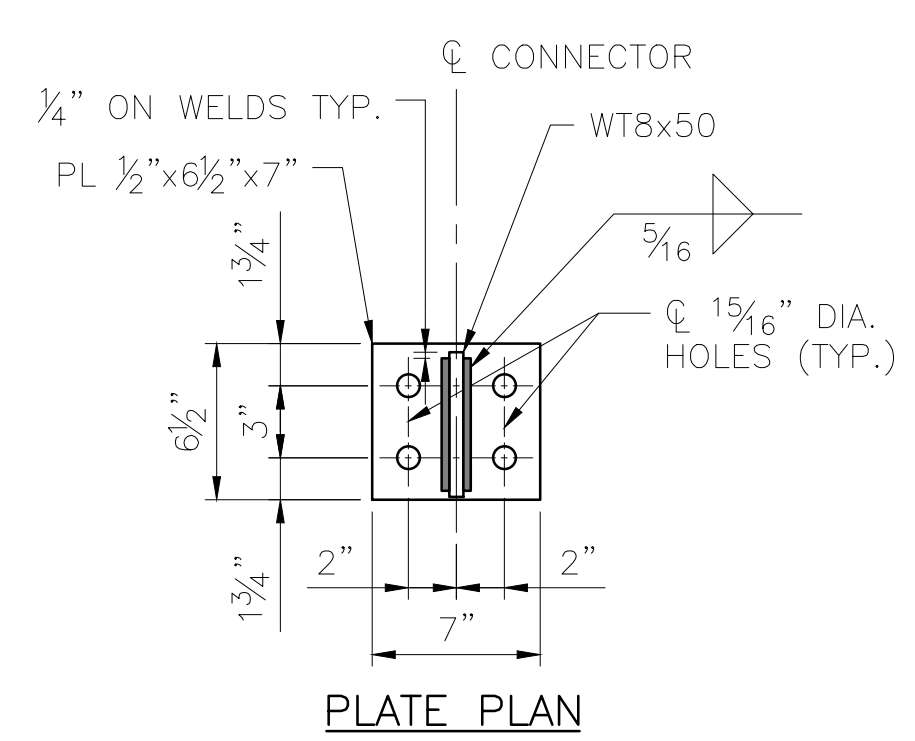
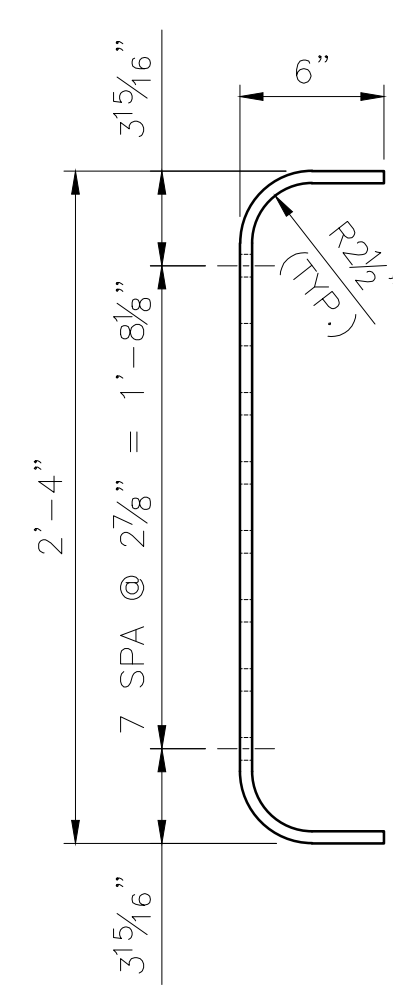
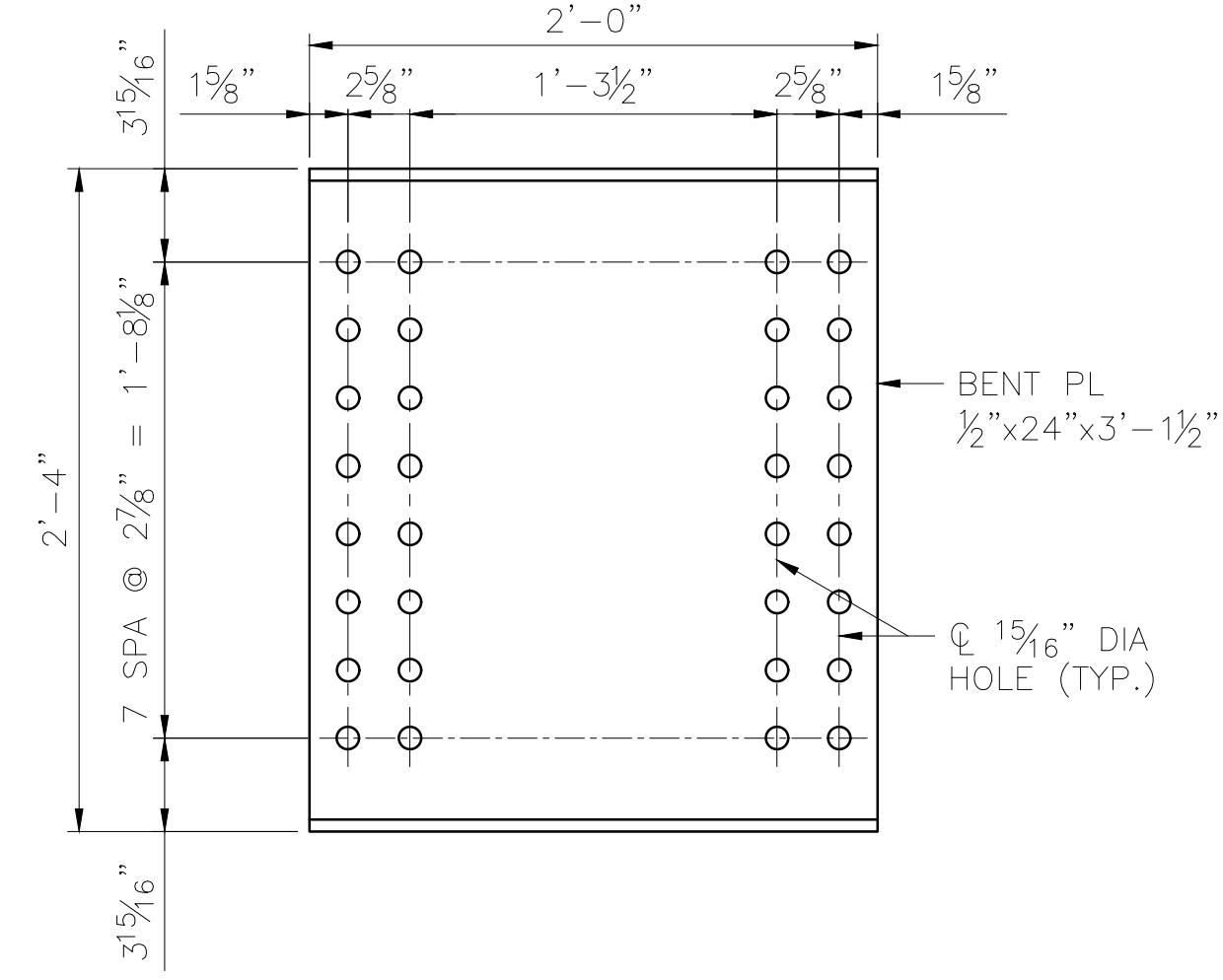


PLATE PLAN



END ELEVATION



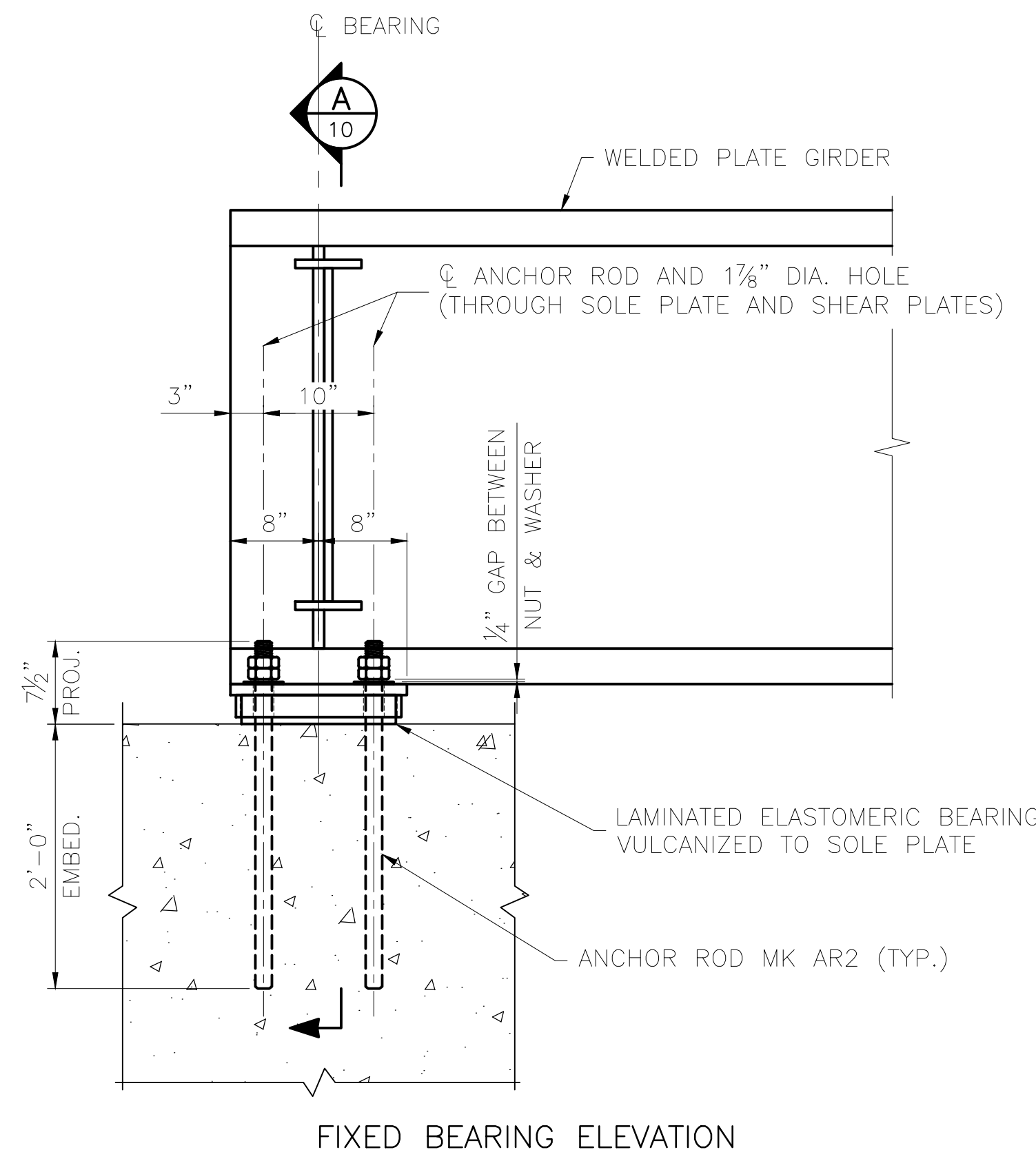
FRONT ELEVATION

INTERMEDIATE DIAPHRAGM MK ID2

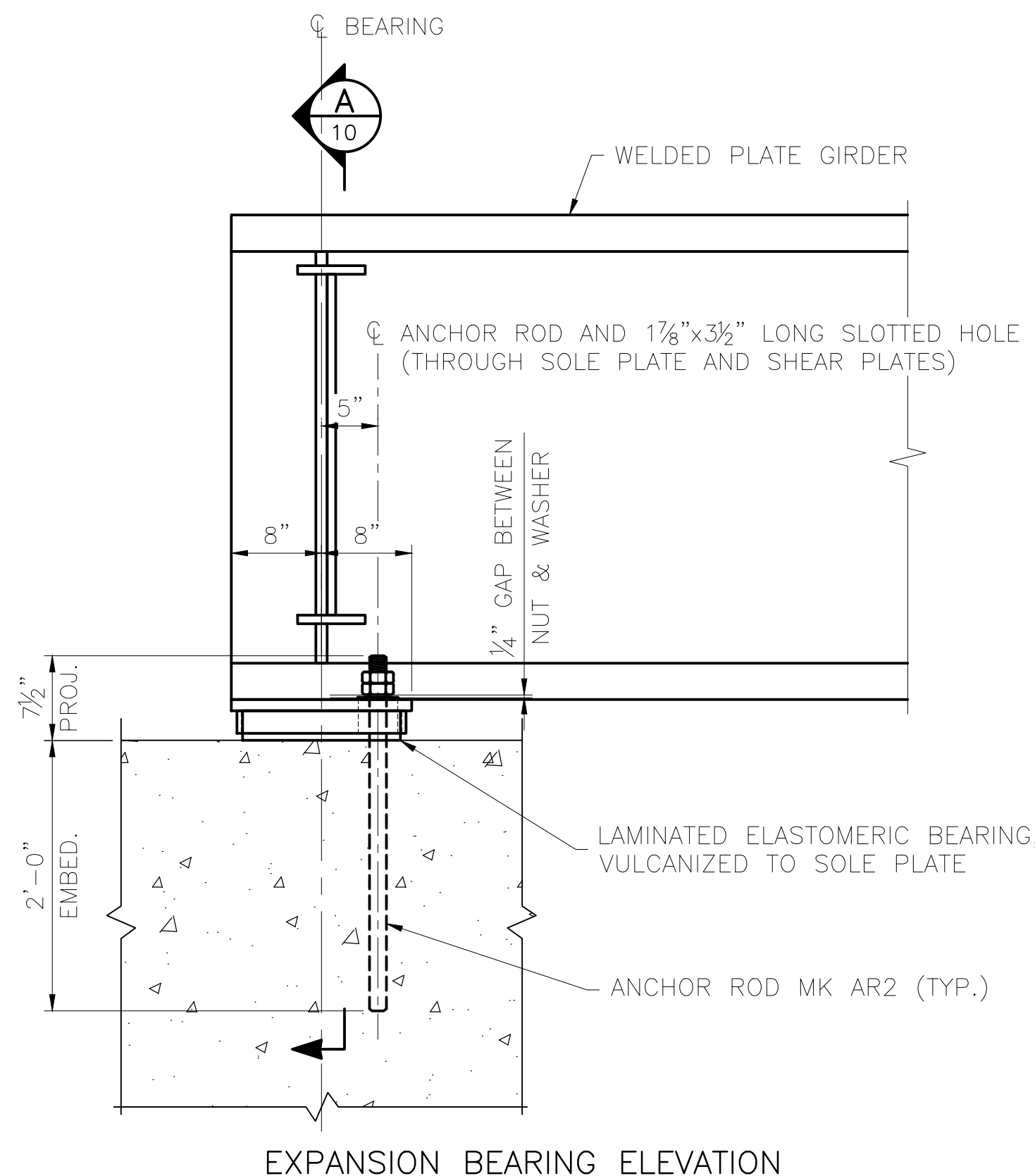
SCALE: 1/2" = 1'-0"
 64 ~ REQUIRED
 ESTIMATED WEIGHT = 128 LBS

DESIGNED BY:	ML
CHECKED BY:	KK
DRAFTED BY:	MEM
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HDR ENGINEERING, INC. 582 E. 36TH AVE., SUITE 500 ANCHORAGE, AK 99503-4169 (907) 644-2000 LICENSE #: AECC569	
HR	
300 E. 30TH AVE. SUITE 500 ANCHORAGE, AK 99503-4169 (907) 644-2000	
CAPITAL PROJECTS	P.O. BOX 107500 ANCHORAGE, ALASKA 99510-7500
PROJECT:	FABRICATION AND SUPPLY OF 2~79' DECK PLATE GIRDER SPANS AND 1~30' ROLLED BEAM SPAN FOR BRIDGE 114.3
SHEET TITLE:	79'-0" GIRDER SPAN - STEEL DETAILS (2 OF 2)
AFE NO.	11228
YEAR	2025
SHEET	09 OF 22

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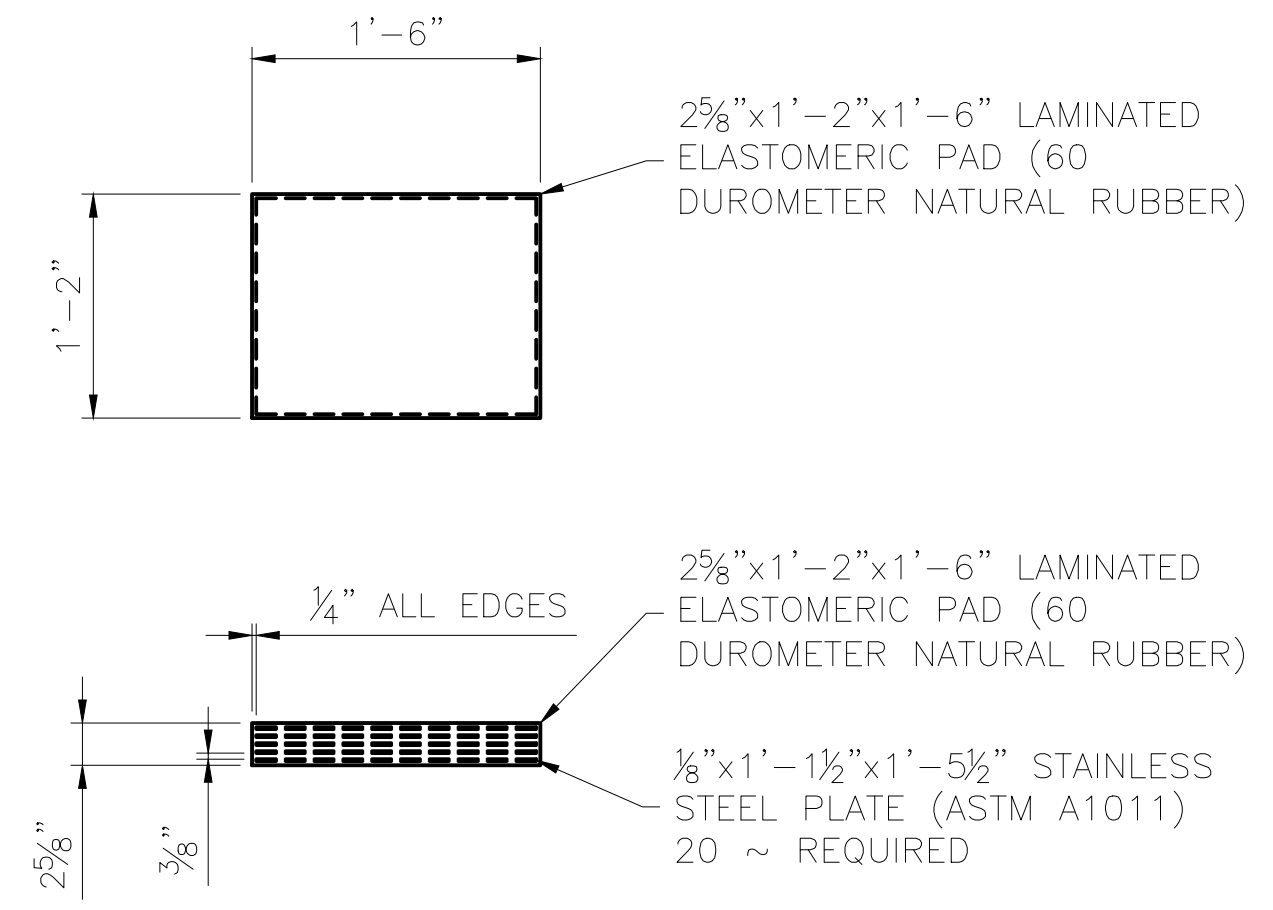


FIXED BEARING ELEVATION

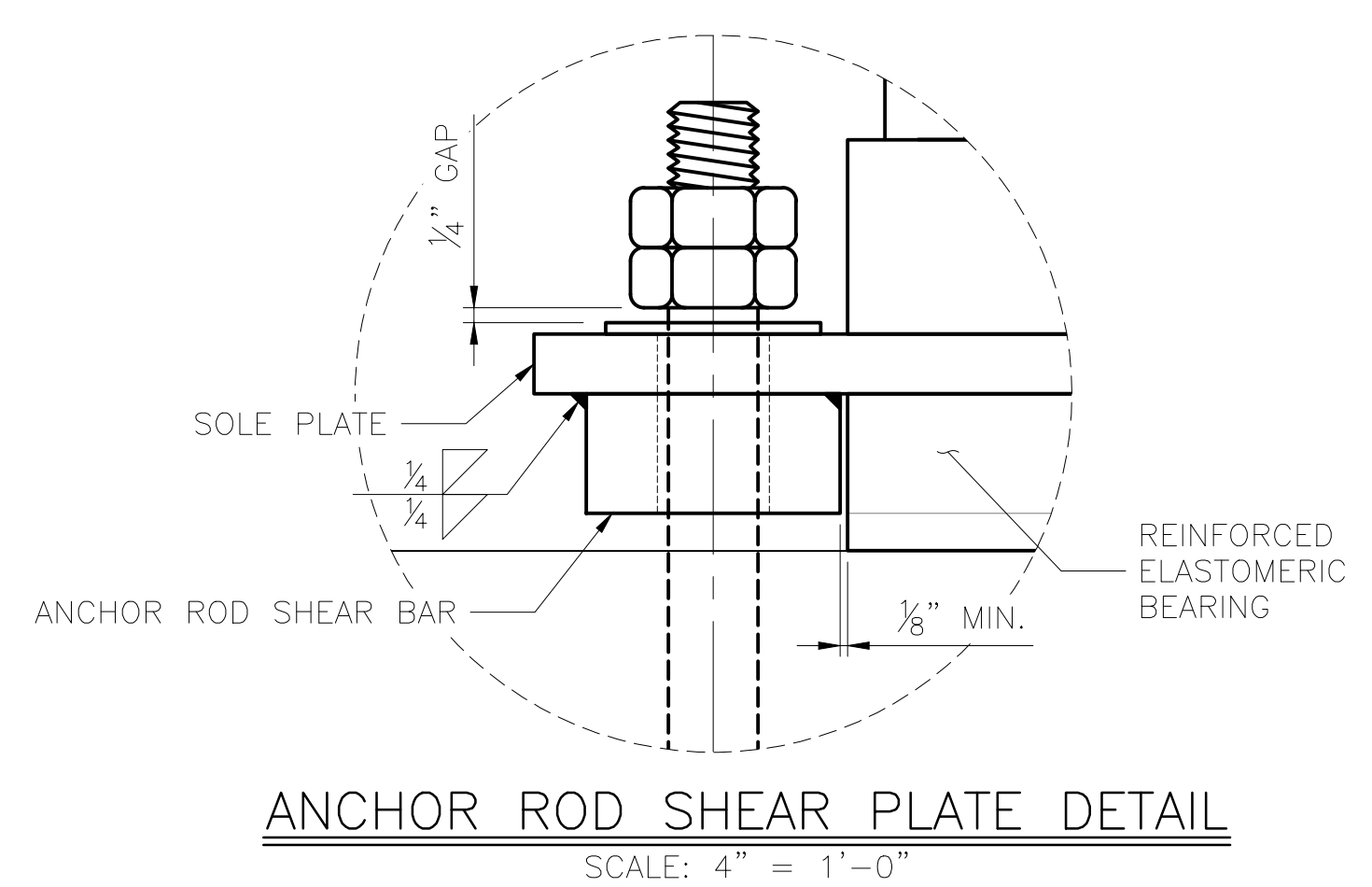


EXPANSION BEARING ELEVATION

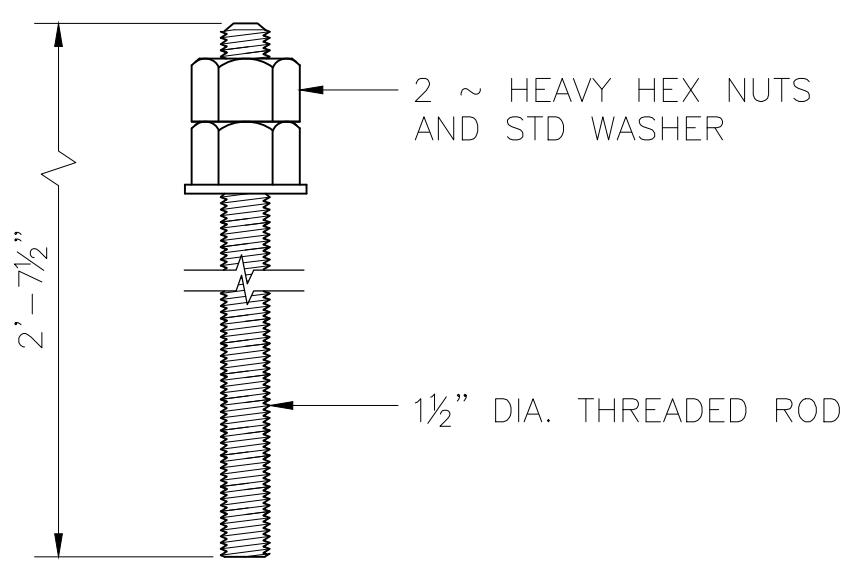
SPAN 2 & 3 BEARING DETAIL
SCALE: 1" = 1'-0"



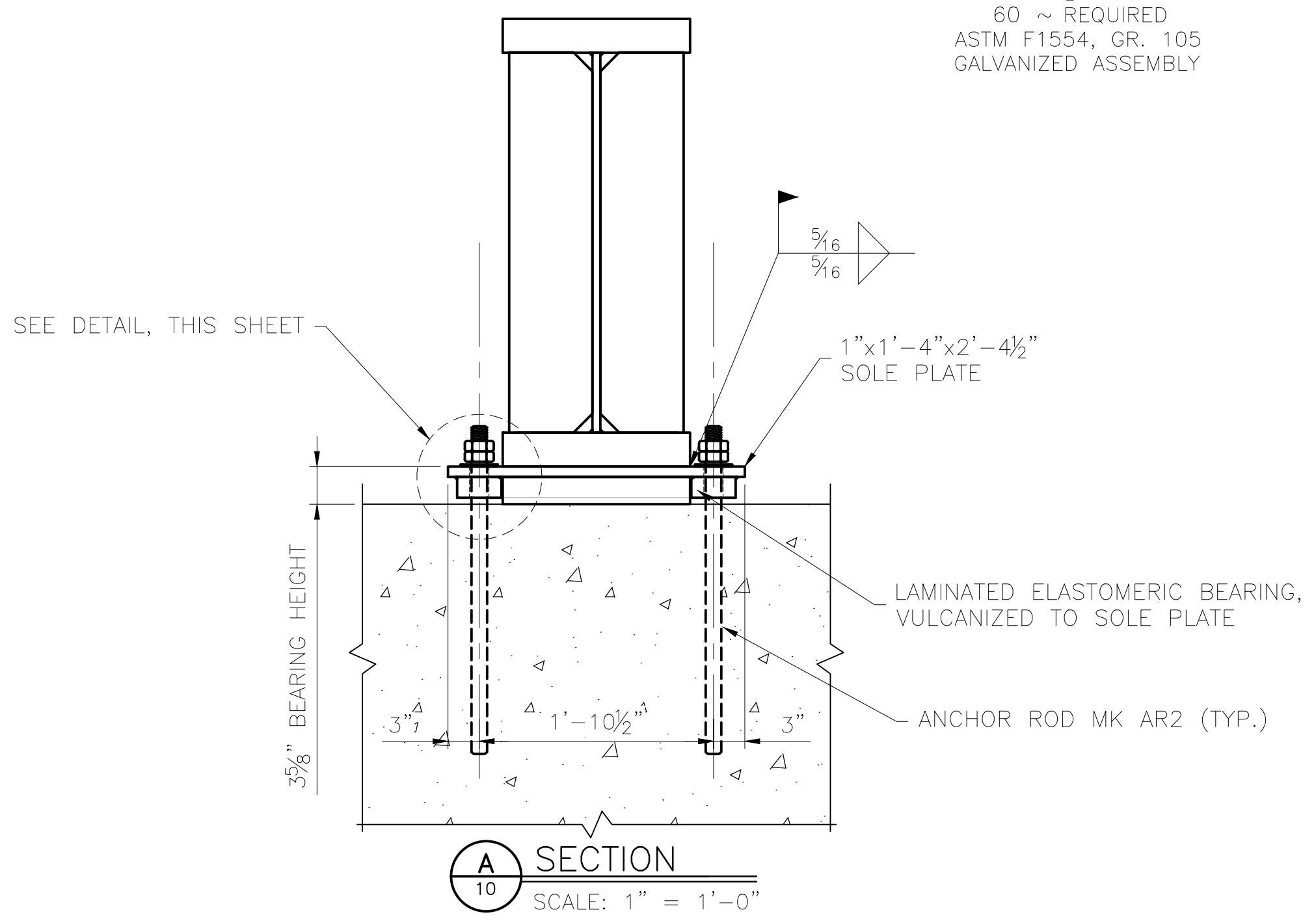
LAMINATED ELASTOMERIC PAD DETAIL
SCALE: 1" = 1'-0"



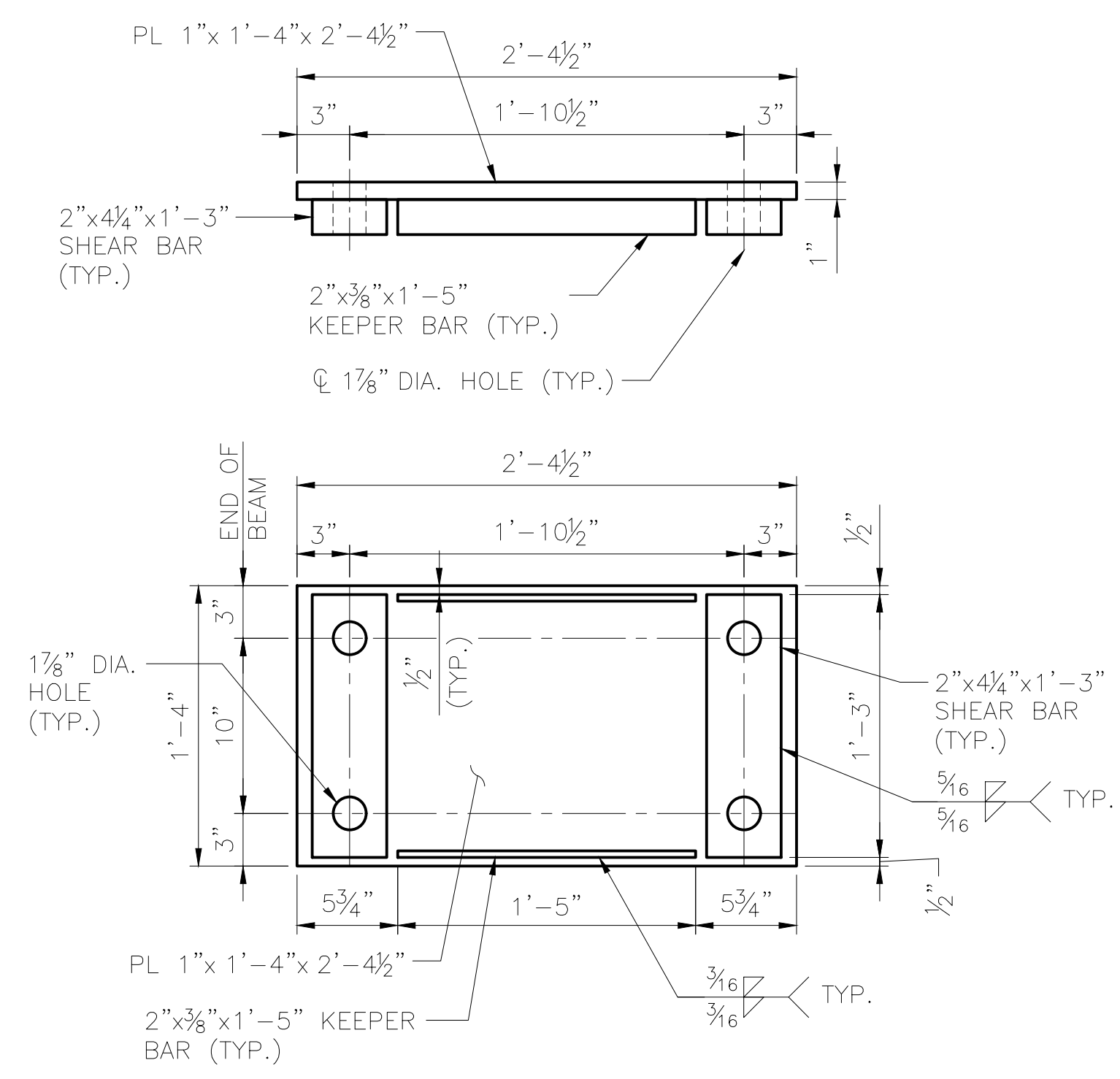
ANCHOR ROD SHEAR PLATE DETAIL
SCALE: 4" = 1'-0"



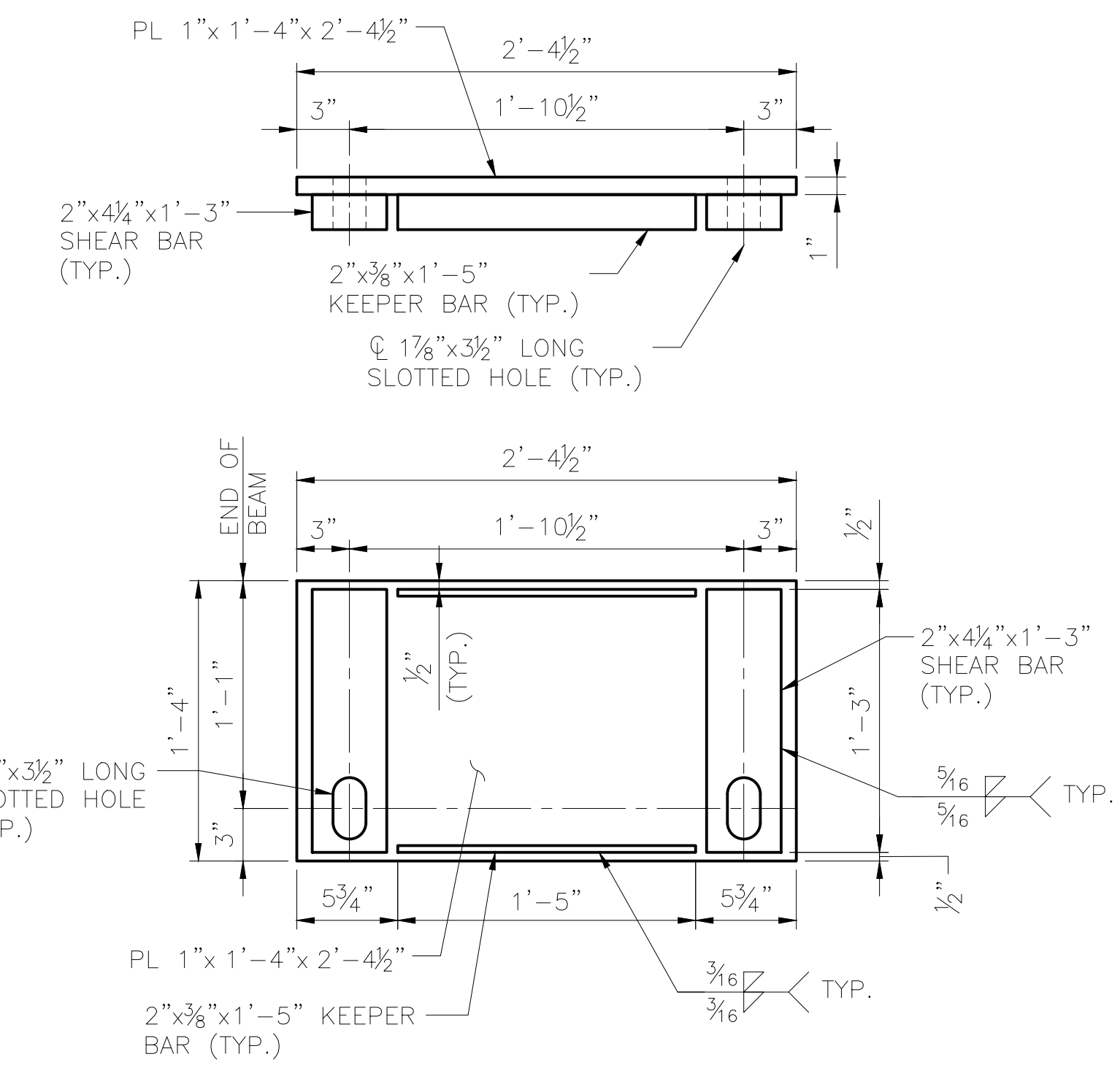
ANCHOR ROD MK AR2
SCALE: 1 1/2" = 1'-0"
60 ~ REQUIRED
ASTM F1554, GR. 105
GALVANIZED ASSEMBLY



SECTION
SCALE: 1" = 1'-0"



SOLE PLATE MK SP3 (FIXED)
SCALE: 1 1/2" = 1'-0"

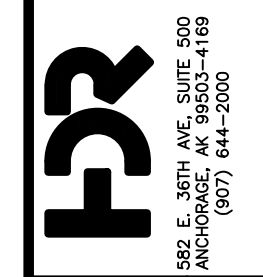


SOLE PLATE MK SP4 (EXPANSION)
SCALE: 1 1/2" = 1'-0"

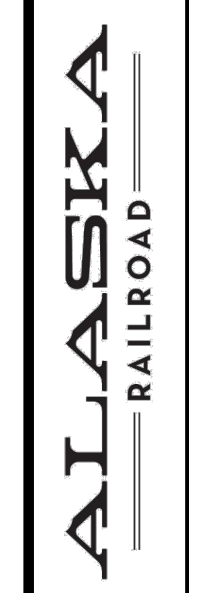
DESIGNED BY:	ML
CHECKED BY:	KK
DRAFTED BY:	MEM

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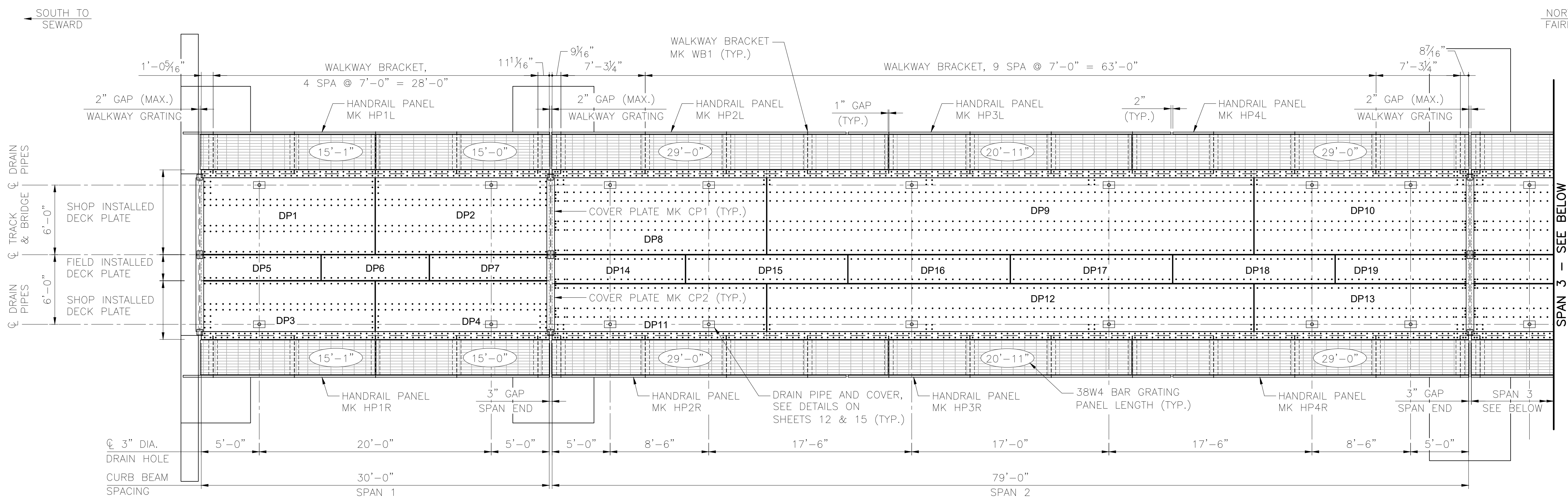
CAPITAL PROJECTS
P.O. BOX 107500
ANCHORAGE, ALASKA 99510-7500



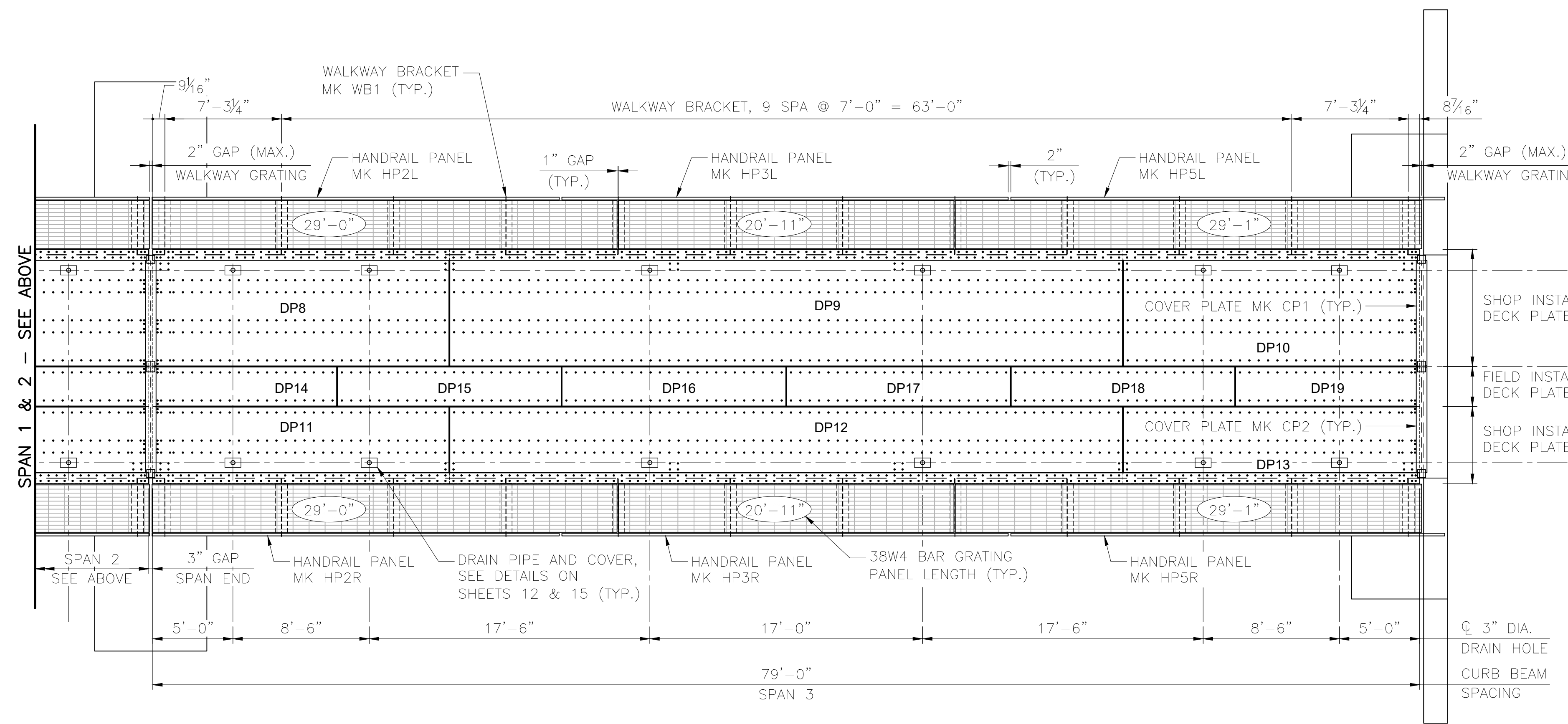
PROJECT: FABRICATION AND SUPPLY OF 2~79' DECK PLATE GIRDER SPANS AND 1~30' ROLLED BEAM SPAN FOR BRIDGE 114.3
SHEET TITLE: 79' - 0" GIRDER SPAN - BEARING DETAILS

AFE NO.	11228
YEAR	2025
SHEET	10 OF 22

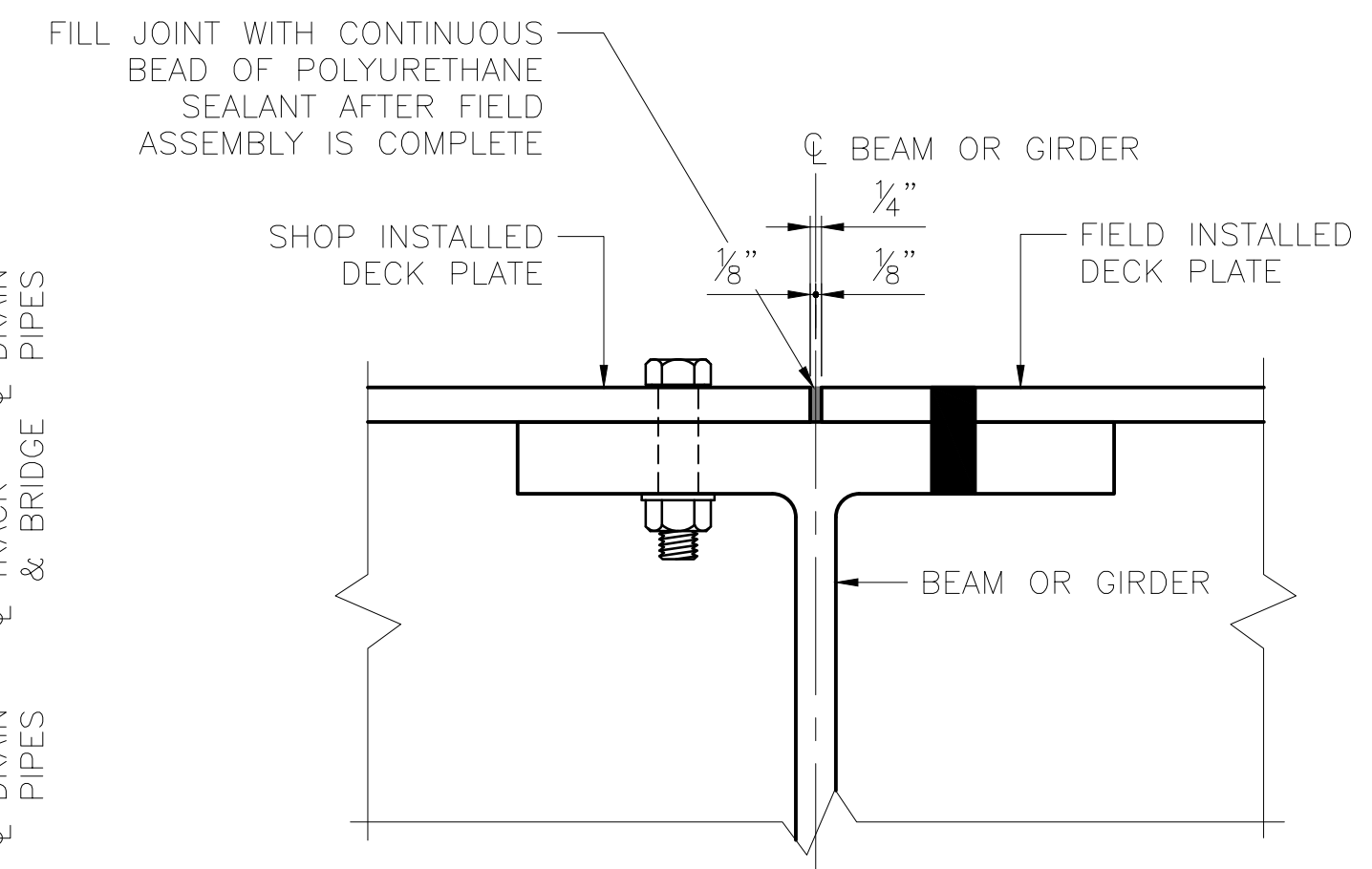
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 DATE: 2/10/2025 10:28 AM
 SCALE: AS NOTED
 PUBLISHED CTB: ARRC_CTb_2023.CTB



DECK PLAN
SCALE: 1" = 5'



DECK PLAN
SCALE: 1" = 5'



DECK PLATE DETAIL
SCALE: 3" = 1'-0"

NOTES:

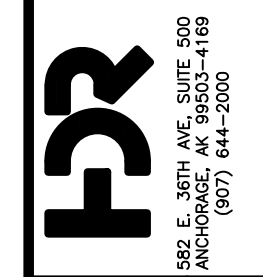
1. WALKWAY GRATING SHALL BE CAPABLE OF SUPPORTING 85 PSF UNIFORM LIVE LOAD PRESSURE AND SHALL HAVE A DEFLECTION AT MIDSPAN NOT GREATER THAN L/160 UNDER A 250 LB CONCENTRATED LOAD FOR THE MAXIMUM SPAN LENGTH NOTED.
2. WALKWAY GRATING SHALL HAVE A MAXIMUM OPENING SIZE OF 2"x4" AND HAVE A SERRATED SURFACE TEXTURE.



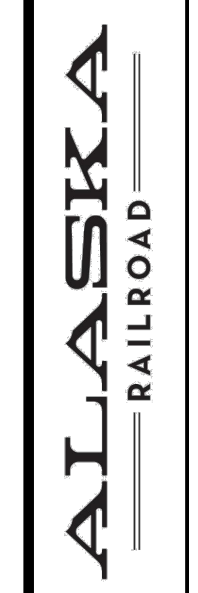
DESIGNED BY:	ML
CHECKED BY:	KK
DRAFTED BY:	MEM

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582 E. 36TH AVE., SUITE 500
ANCHORAGE, AK 99503-4169
(907) 644-2000
LICENSE #: AECC569



CAPITAL PROJECTS
P.O. BOX 107500
ANCHORAGE, ALASKA 99510-7500

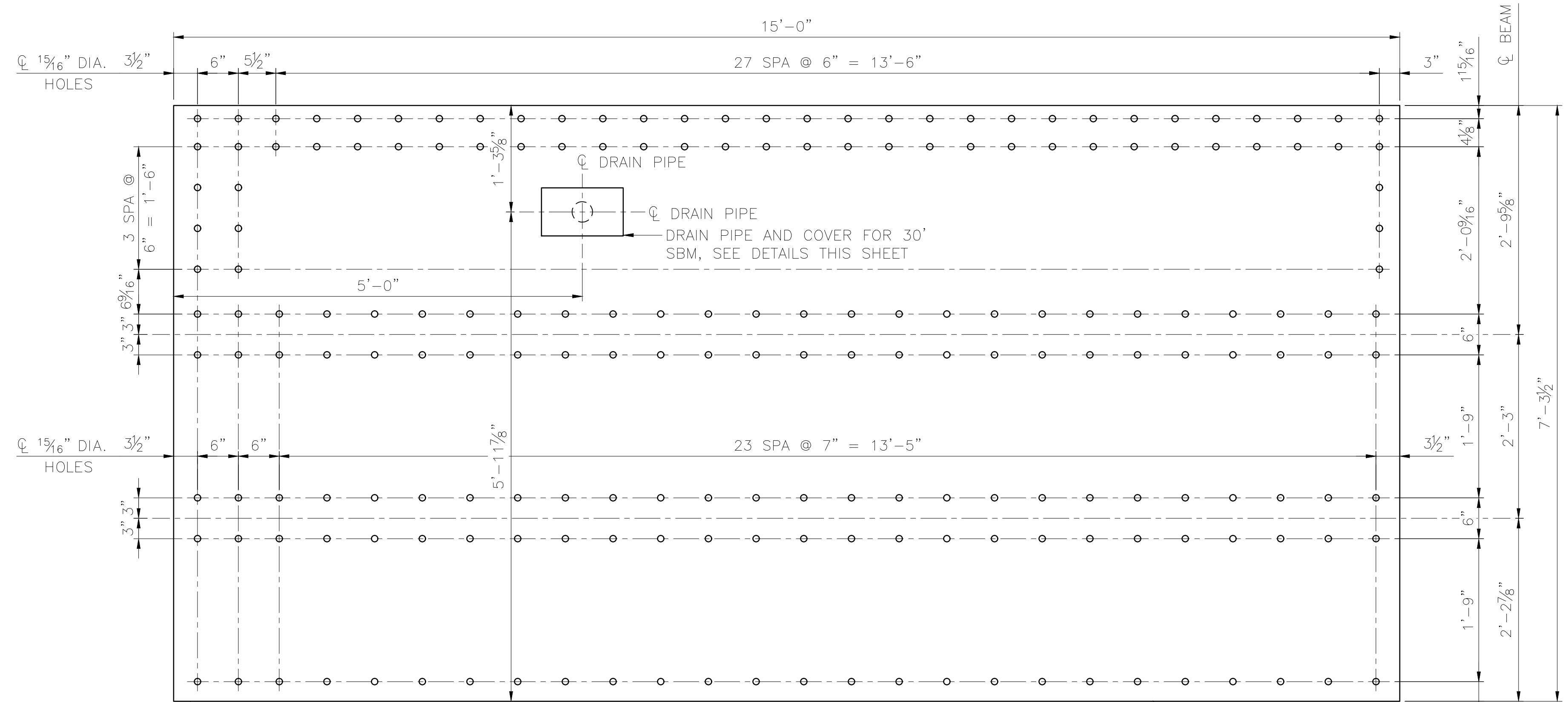


PROJECT: FABRICATION AND SUPPLY OF 2~79' DECK PLATE GIRDER SPANS AND 1~30' ROLLED BEAM SPAN FOR BRIDGE 114.3

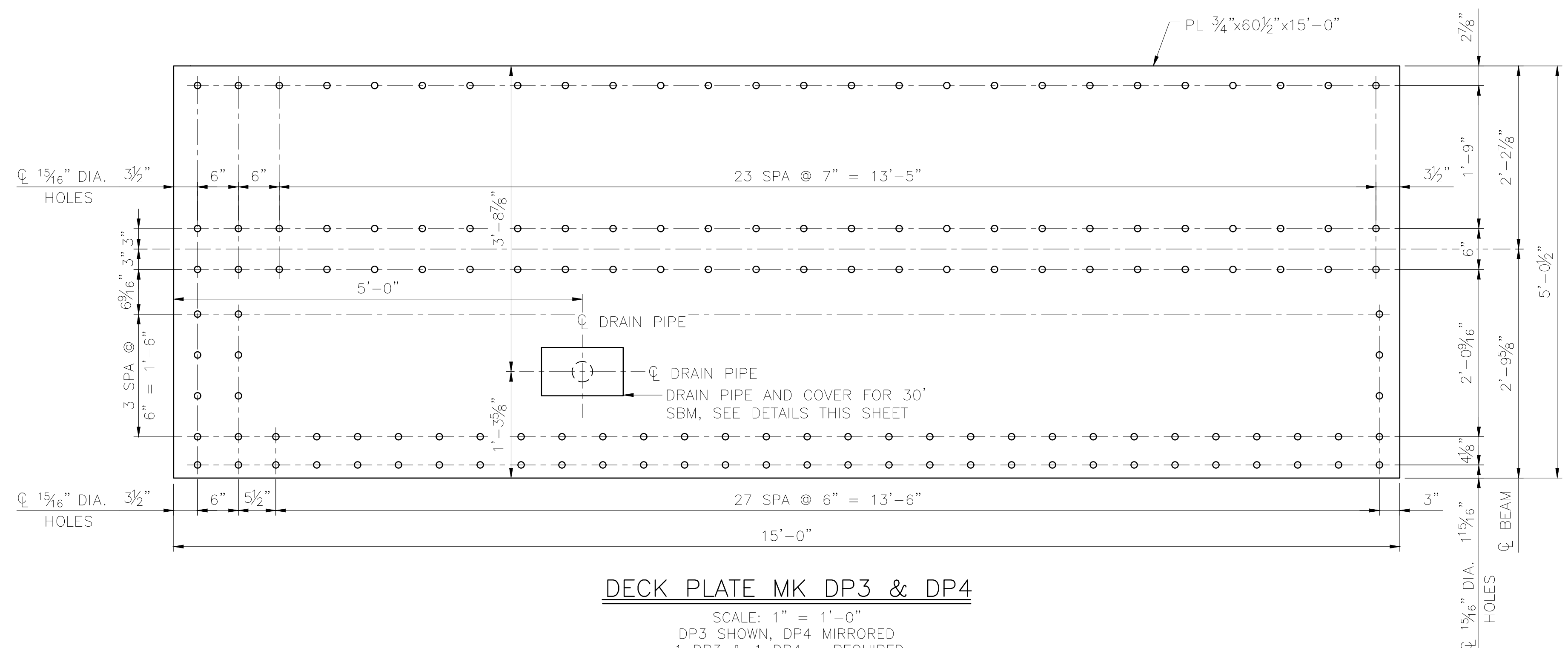
SHEET TITLE: WALKWAY AND DECK PLAN

AFE NO.	11228
YEAR	2025
SHEET	11 OF 22

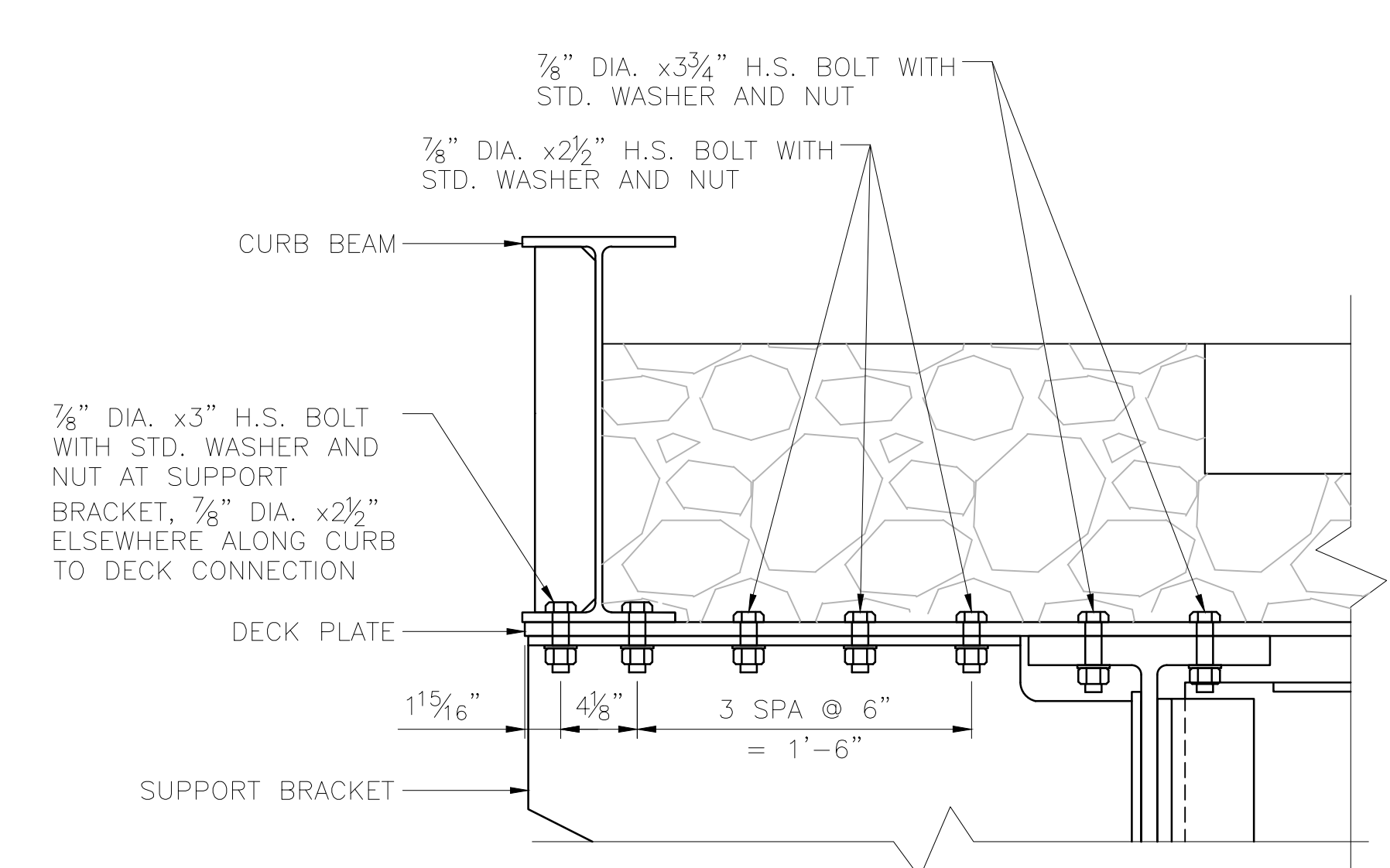
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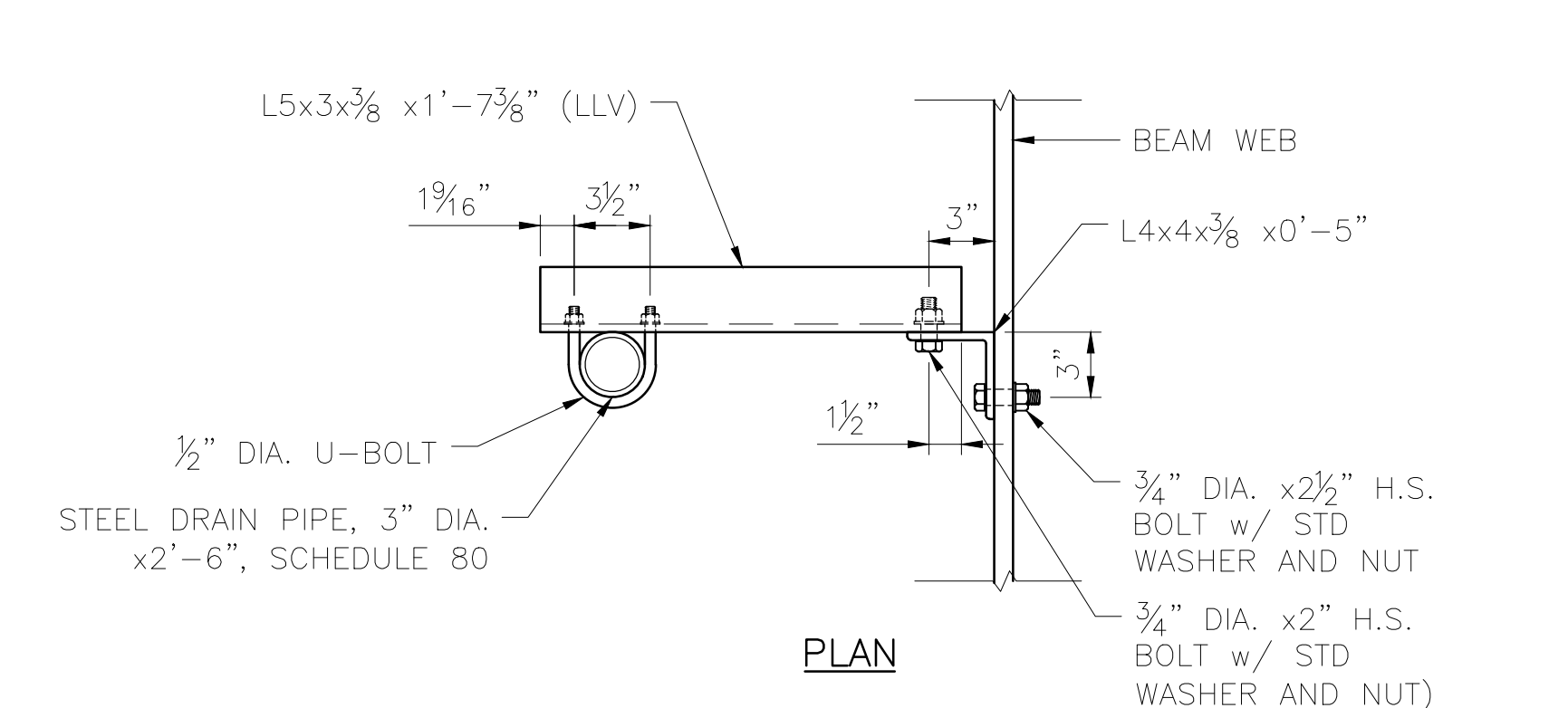
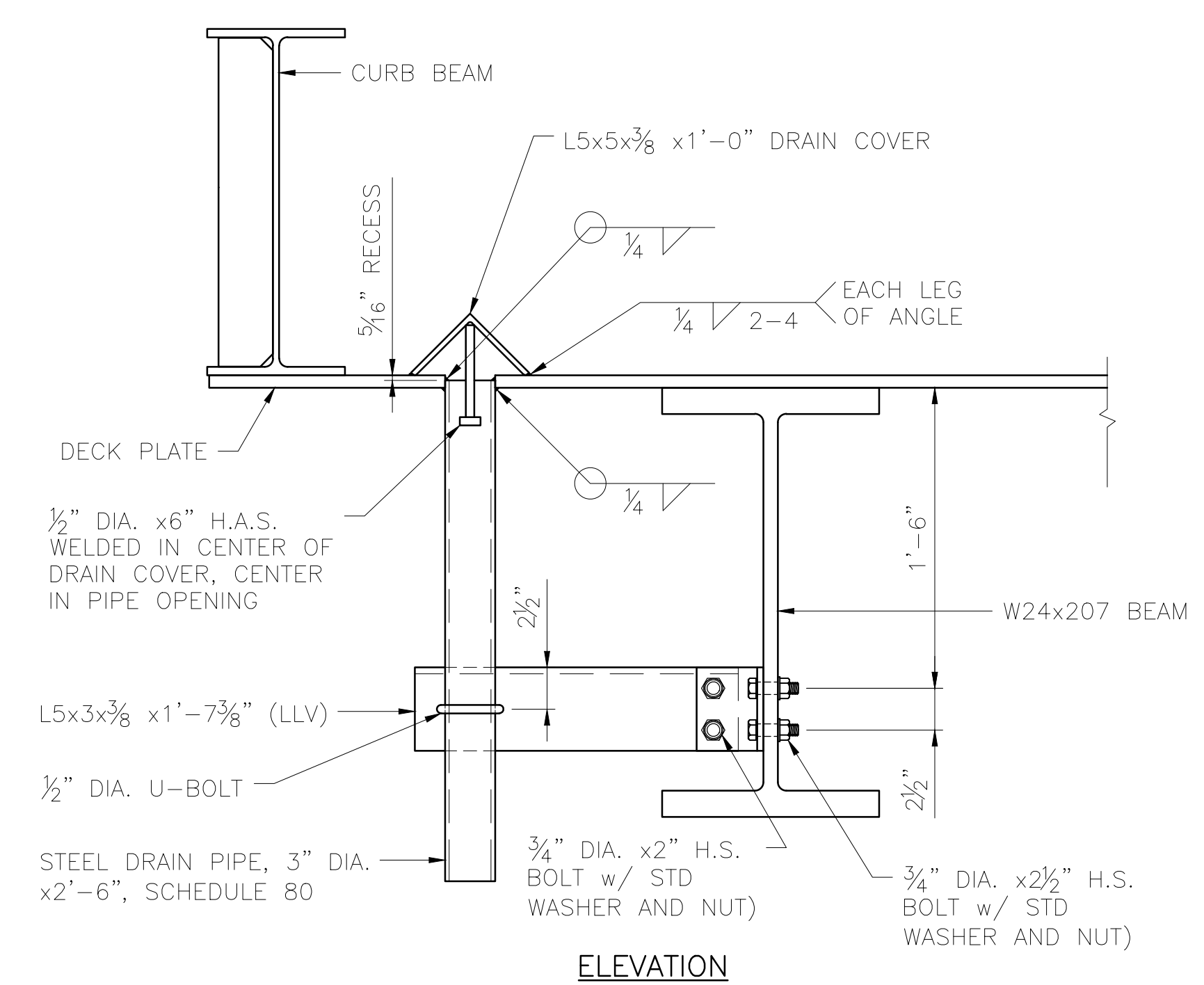
DECK PLATE MK DP1 & DP2
 SCALE: 1" = 1'-0"
 DP1 SHOWN, DP2 MIRRORED
 1 DP1 & 1 DP2 ~ REQUIRED
 ESTIMATED LIFTING WEIGHT: 3,350 LBS



DECK PLATE MK DP3 & DP4
 SCALE: 1" = 1'-0"
 DP3 SHOWN, DP4 MIRRORED
 1 DP3 & 1 DP4 ~ REQUIRED
 ESTIMATED LIFTING WEIGHT: 2,316 LBS



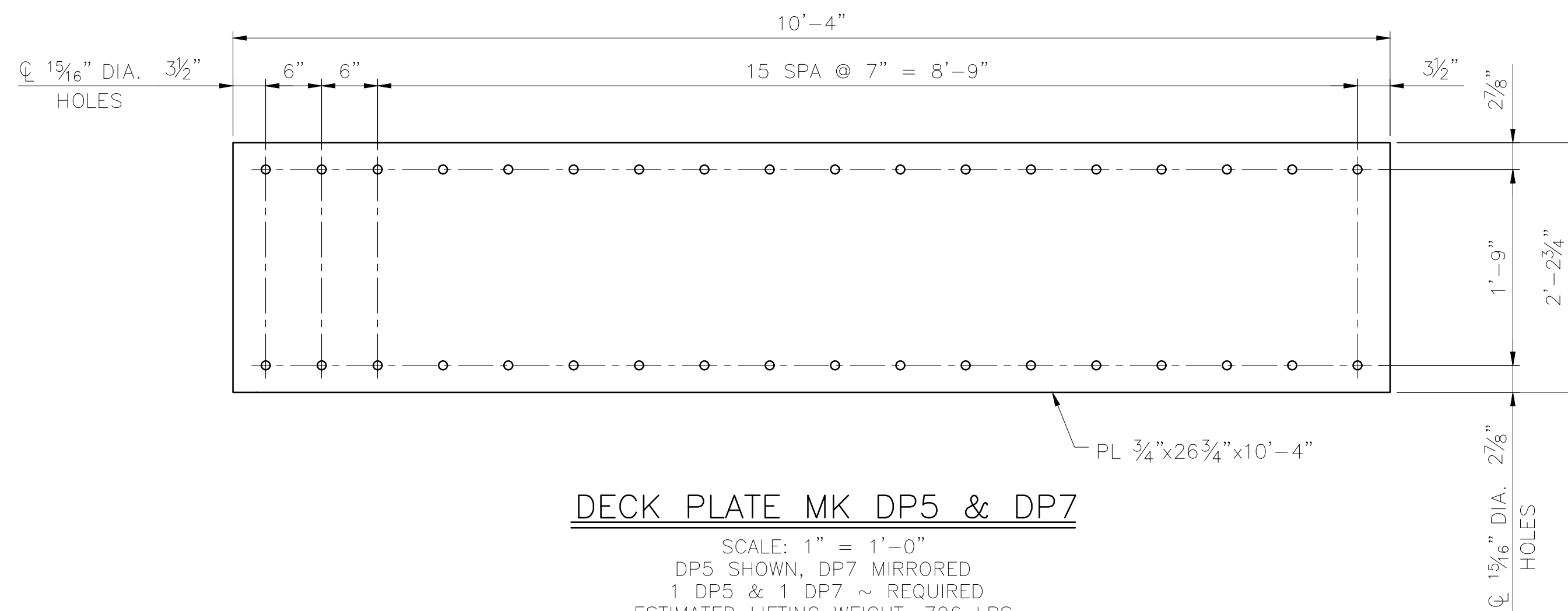
CURB TO DECK DETAIL 30' SBM SPAN
 SCALE: 1/2" = 1'-0"



DECK DRAIN DETAILS - 30' SBM SPAN
 SCALE: 1/2" = 1'-0"

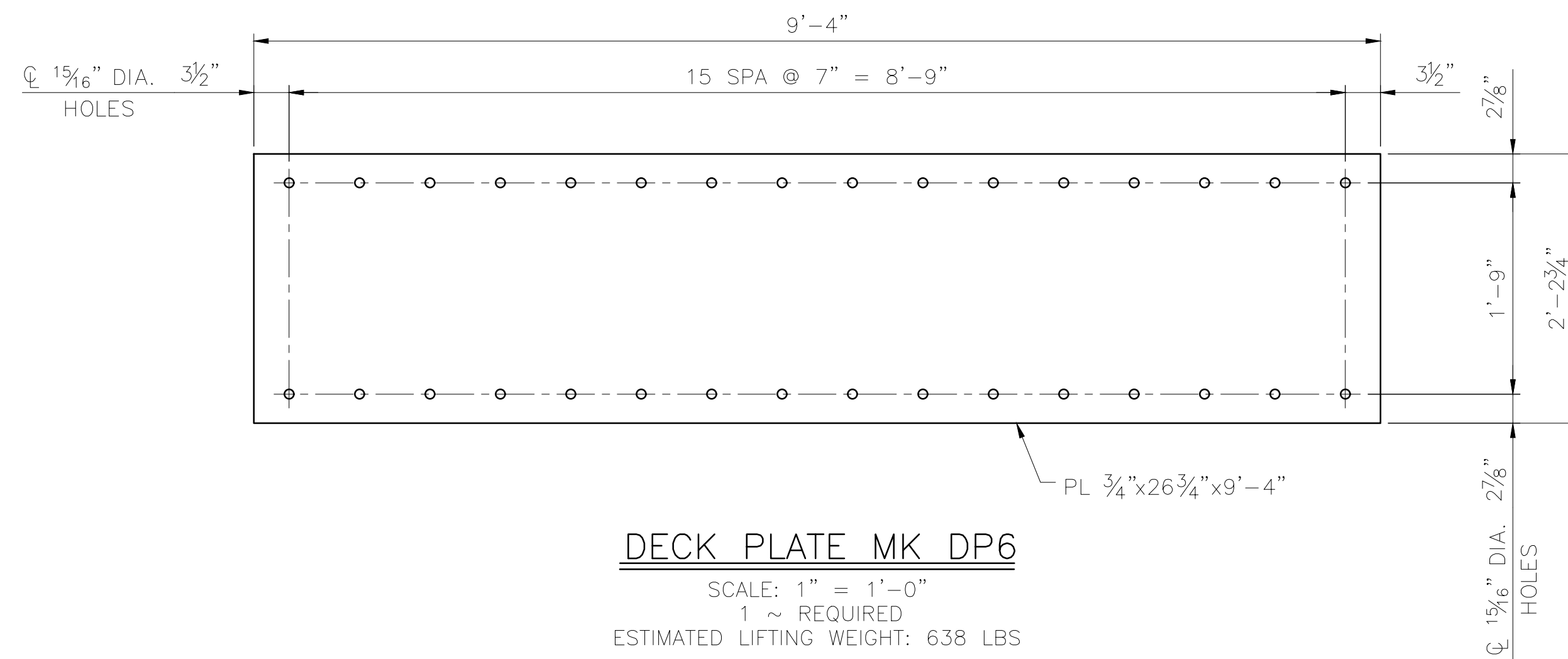
DESIGNED BY:	ML
CHECKED BY:	KK
DRAFTED BY:	MEM
90% SUBMITTAL NOT FOR CONSTRUCTION	
HDR ENGINEERING, INC. 582 E. 36TH AVE., SUITE 500 ANCHORAGE, AK 99503-4169 (907) 644-2000 LICENSE #: AECC569	
HDR	
582 E. 36TH AVE., SUITE 500 ANCHORAGE, AK 99503-4169 (907) 644-2000	
CAPITAL PROJECTS	STEEL DECK DETAILS (1 OF 4)
P.O. BOX 107500 ANCHORAGE, ALASKA 99510-7500	FABRICATION AND SUPPLY OF 2~79' DECK PLATE GIRDER SPANS AND 1~30' ROLLED BEAM SPAN FOR BRIDGE 114.3
ALASKA RAILROAD	PROJECT:
ALASKA RAILROAD FABRICATION AND SUPPLY OF 2~79' DECK PLATE GIRDER SPANS AND 1~30' ROLLED BEAM SPAN FOR BRIDGE 114.3	SHEET TITLE:
AFE NO.	11228
YEAR	2025
SHEET	12 OF 22

DRAWING LOCATION: C:\PWORKING\WEST01\4079759\BR_114.3_SHIP_CREEK_13.DWG
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 SCALE: AS NOTED
 PUBLISHED CTB: ARRC_CTB_2023.CTB



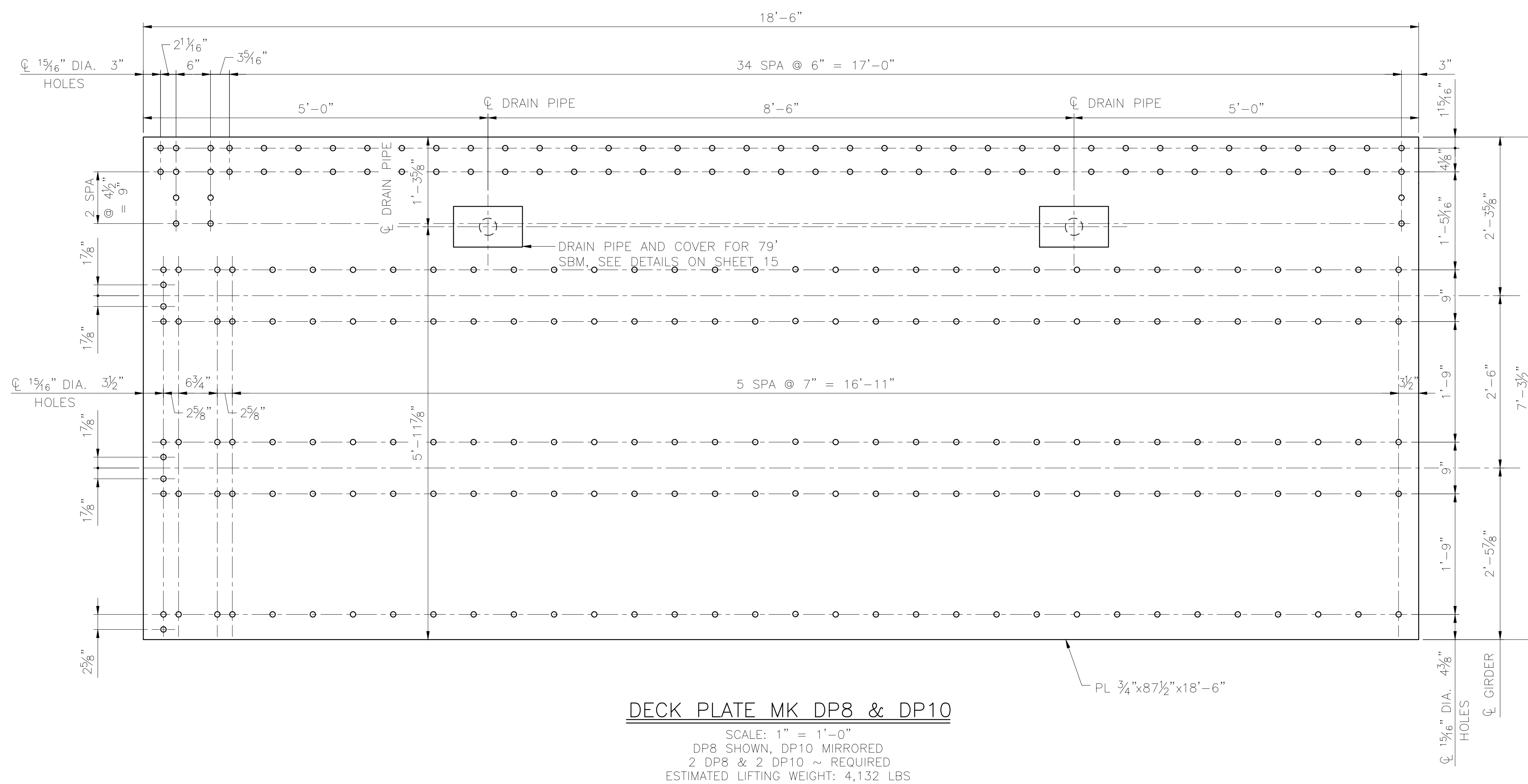
DECK PLATE MK DP5 & DP7

SCALE: 1" = 1'-0"
 DP5 SHOWN, DP7 MIRRORED
 1 DP5 & 1 DP7 ~ REQUIRED
 ESTIMATED LIFTING WEIGHT: 706 LBS



DECK PLATE MK DP6

SCALE: 1" = 1'-0"
 1 ~ REQUIRED
 ESTIMATED LIFTING WEIGHT: 638 LBS



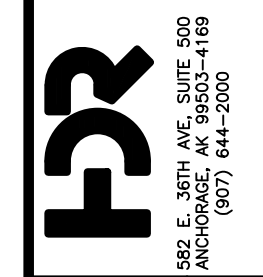
DECK PLATE MK DP8 & DP10

SCALE: 1" = 1'-0"
 DP8 SHOWN, DP10 MIRRORED
 2 DP8 & 2 DP10 ~ REQUIRED
 ESTIMATED LIFTING WEIGHT: 4,132 LBS

DESIGNED BY:	ML
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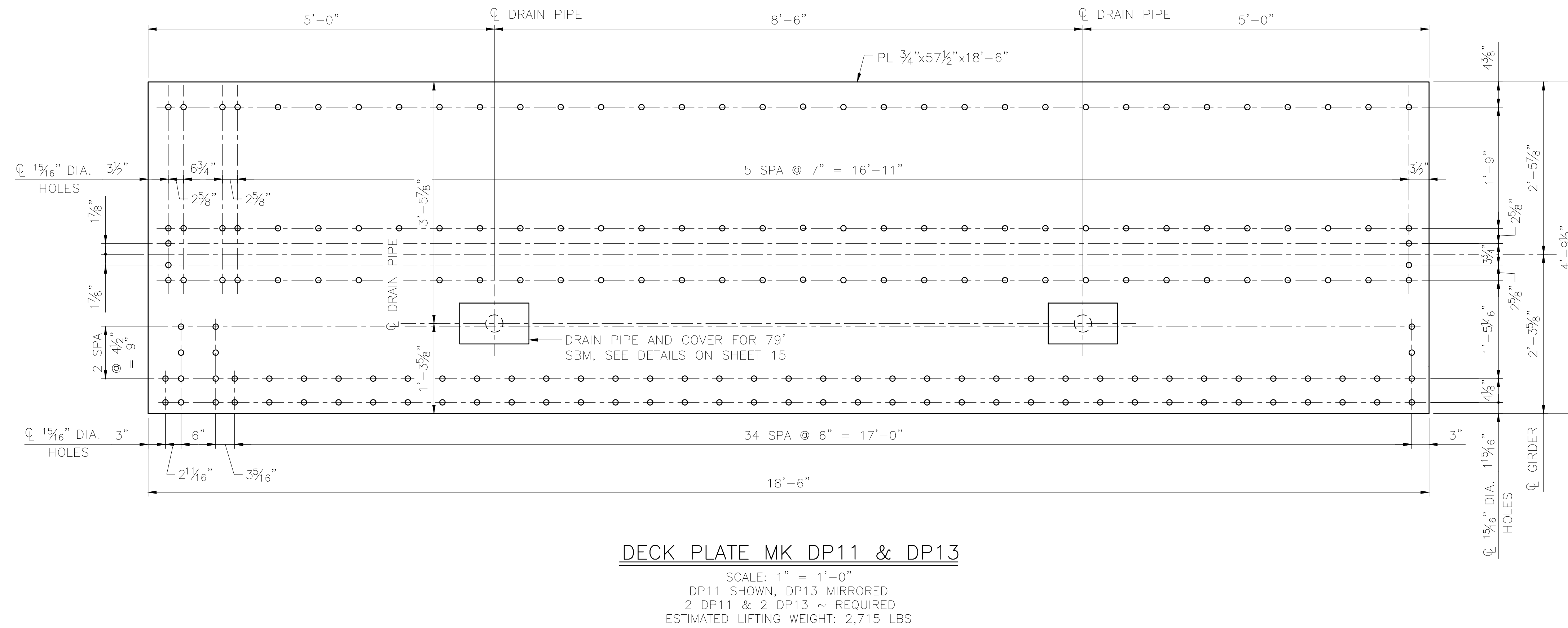
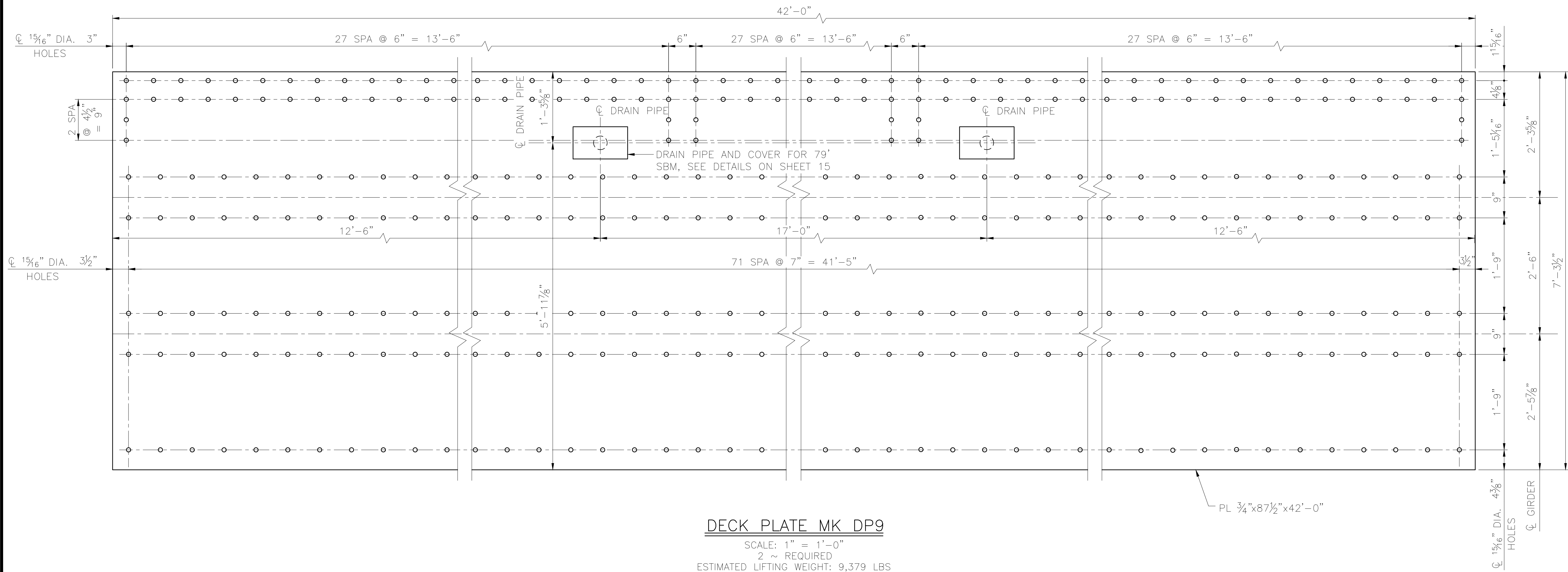


ALASKA RAILROAD
 CAPITAL PROJECTS
 P.O. BOX 107500
 ANCHORAGE, ALASKA 99510-7500

PROJECT: FABRICATION AND SUPPLY OF 2~79' DECK PLATE GIRDER SPANS AND 1~30' ROLLED BEAM SPAN FOR BRIDGE 114.3
 SHEET TITLE: STEEL DECK DETAILS (2 OF 4)

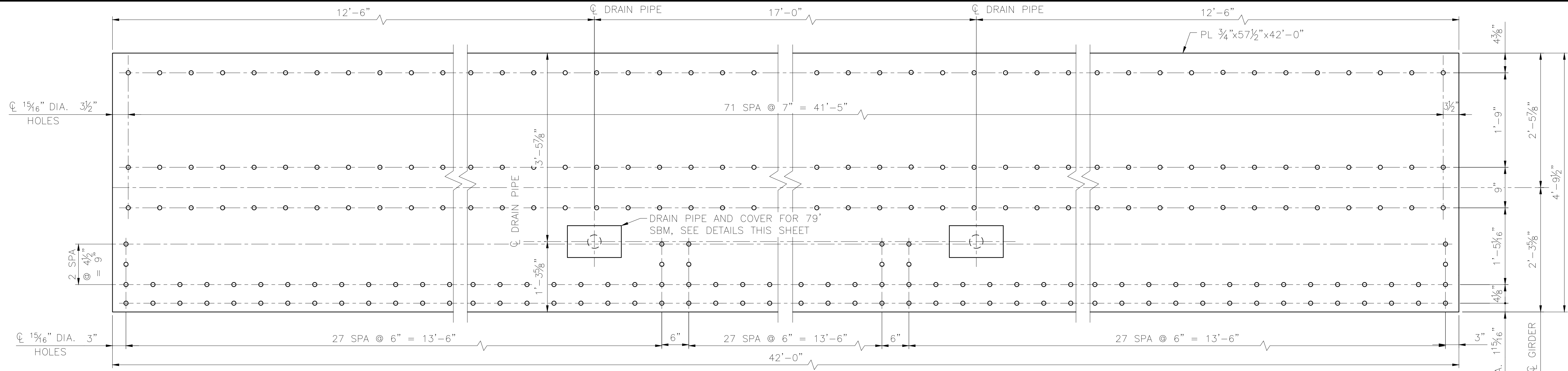
AFE NO.	11228
YEAR	2025
SHEET	13 OF 22

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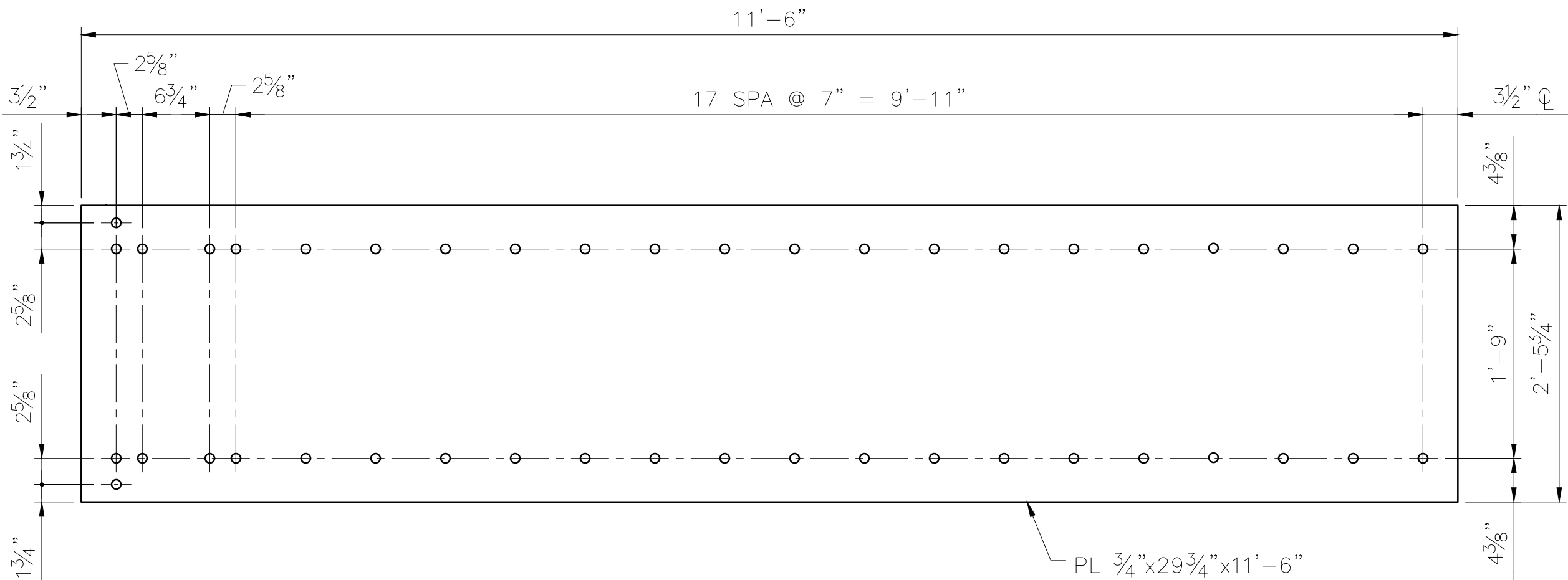


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CHECKED BY:	KK
DRAFTED BY:	MEM
90% SUBMITTAL NOT FOR CONSTRUCTION	
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HDR	
482 E. 36TH AVE., SUITE 500 ANCHORAGE, AK 99503-4169 (907) 644-2000	
CAPITAL PROJECTS	P.O. BOX 107500 ANCHORAGE, ALASKA 99510-7500
ALASKA RAILROAD	PROJECT: FABRICATION AND SUPPLY OF 2~79' DECK PLATE GIRDER SPANS AND 1~30' ROLLED BEAM SPAN FOR BRIDGE 114.3
	SHEET TITLE: STEEL DECK DETAILS (3 OF 4)
AFE NO.	11228
YEAR	2025
SHEET	14 OF 22

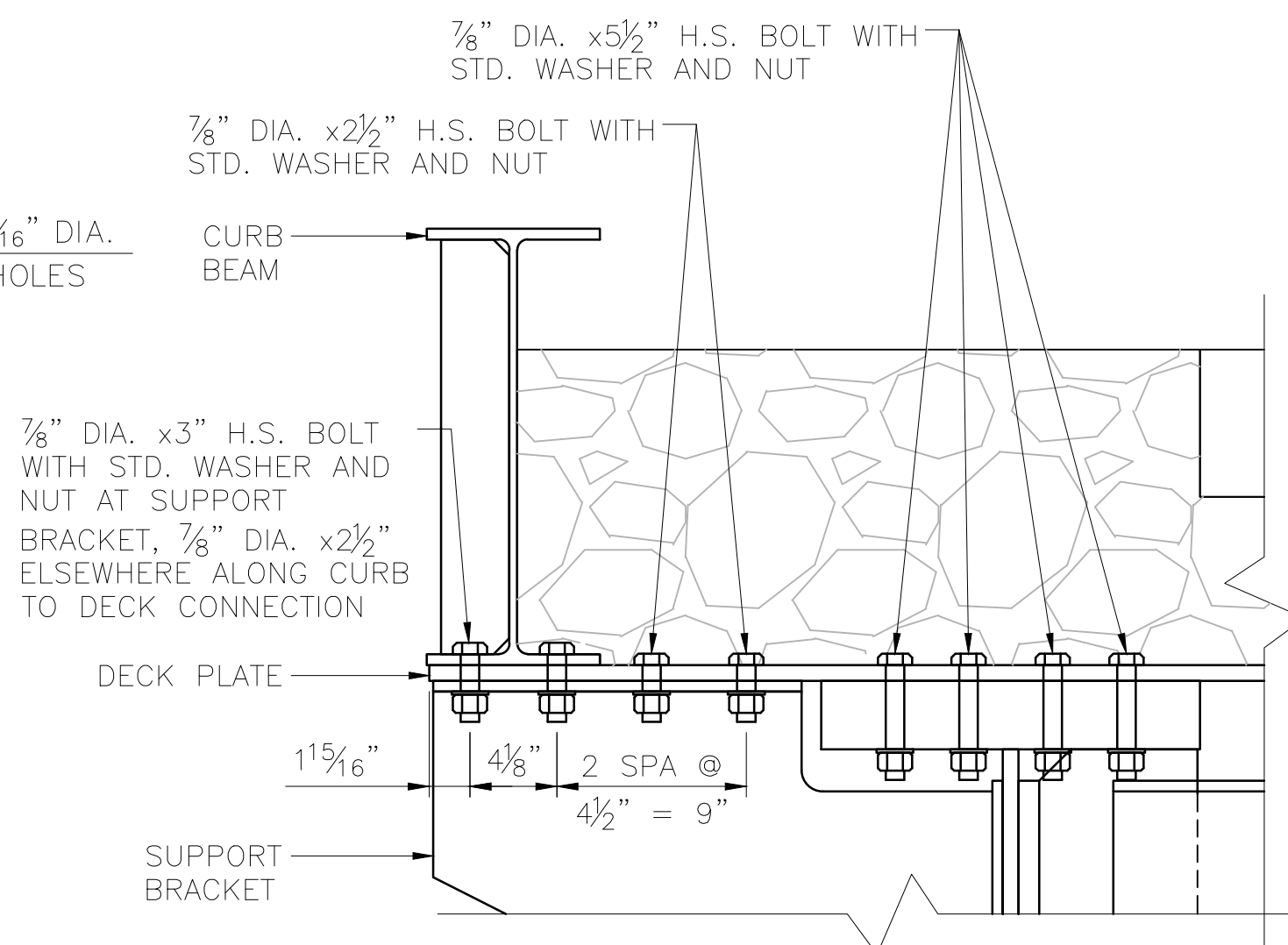
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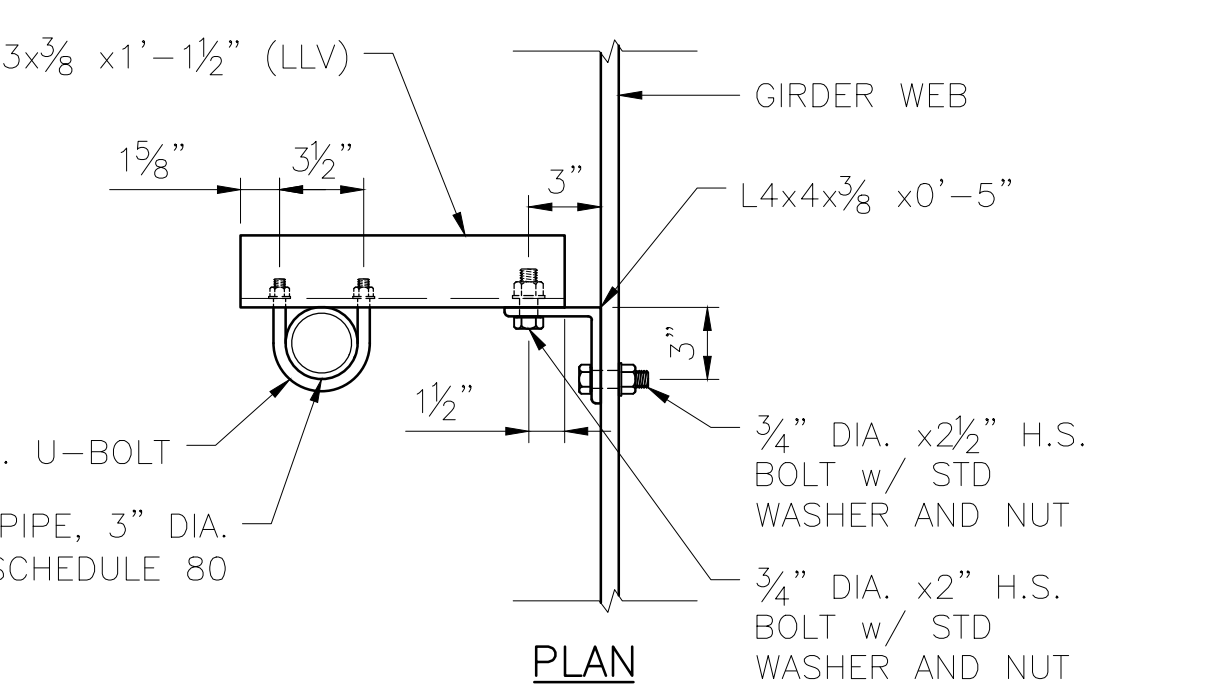
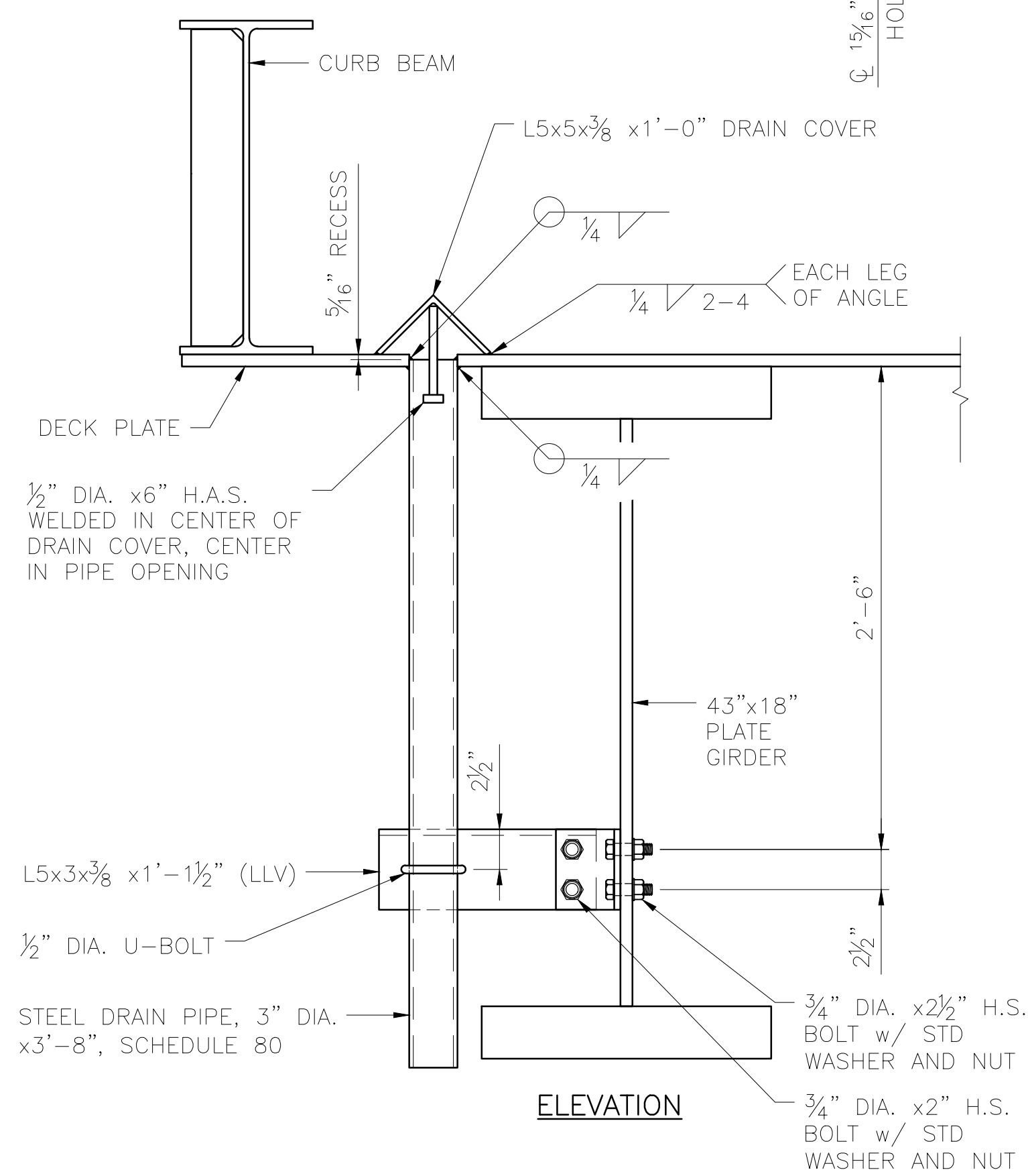
DECK PLATE MK DP12
 SCALE: 1" = 1'-0"
 2 ~ REQUIRED
 ESTIMATED LIFTING WEIGHT: 6,164 LBS



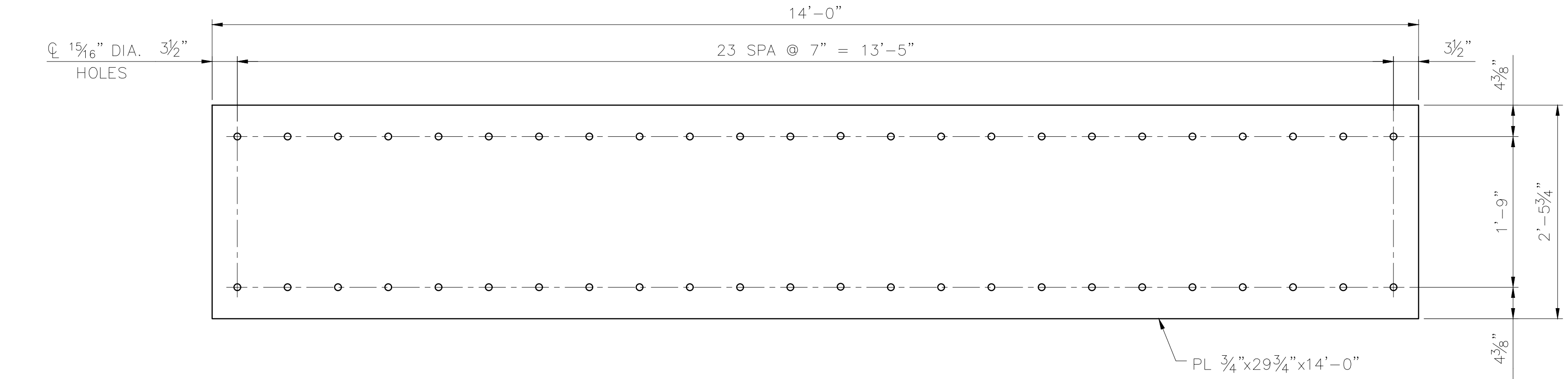
DECK PLATE MK DP14 & DP19
 SCALE: 1" = 1'-0"
 DP14 SHOWN, DP19 MIRRORED
 2 DP14 & 2 DP19 ~ REQUIRED
 ESTIMATED LIFTING WEIGHT: 874 LBS



CURB TO DECK DETAIL 79' DPG SPAN
 SCALE: 1 1/2" = 1'-0"



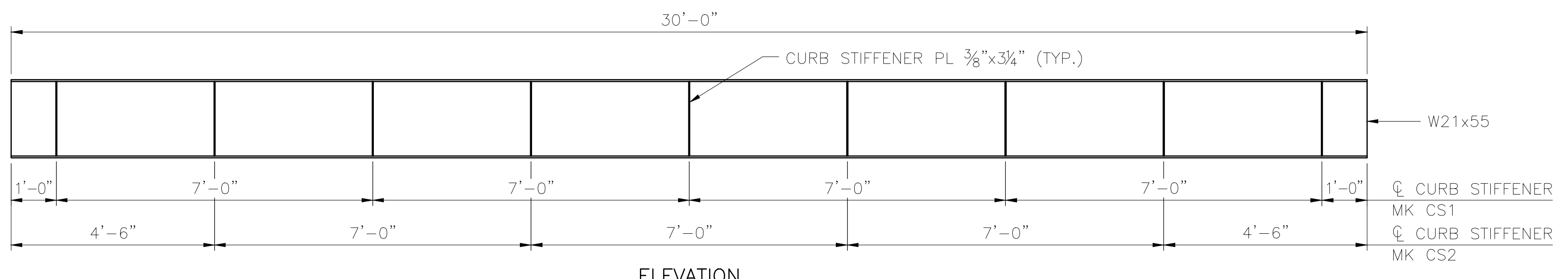
DECK DRAIN DETAILS - 79' DPG SPAN
 SCALE: 1 1/2" = 1'-0"



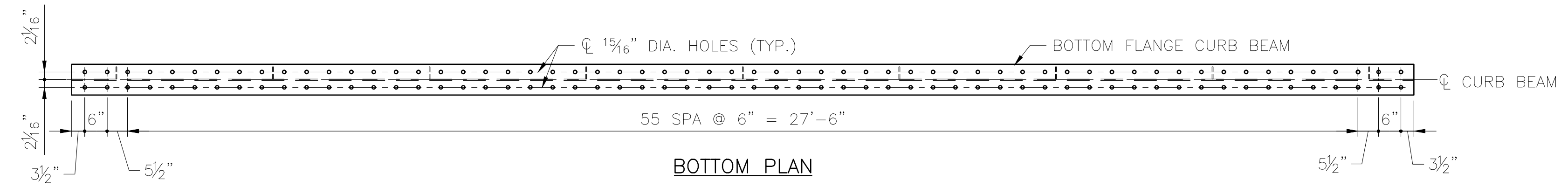
DECK PLATE MK DP15, DP16, DP17 & DP18
 SCALE: 1" = 1'-0"
 2 DP15, 2 DP16, 2 DP17 & 2 DP18 ~ REQUIRED
 ESTIMATED LIFTING WEIGHT: 1,063 LBS

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90% SUBMITTAL NOT FOR CONSTRUCTION	
HDR ENGINEERING, INC. 582 E. 36TH AVE., SUITE 500 ANCHORAGE, AK 99503-4169 (907) 644-2000 LICENSE #: AECC569	
ALASKA RAILROAD	
CAPITAL PROJECTS P.O. BOX 107500 ANCHORAGE, ALASKA 99510-7500	
PROJECT: FABRICATION AND SUPPLY OF 2~79' DECK PLATE GIRDER SPANS AND 1~30' ROLLED BEAM SPAN FOR BRIDGE 114.3	
SHEET TITLE: STEEL DECK DETAILS (4 OF 4)	
A/E NO.	11228
YEAR	2025
SHEET	15 OF 22

DRAWING LOCATION: C:\PWORKING\WEST01\4079759\BR_114.3_SHIP_CREEK_16.DWG
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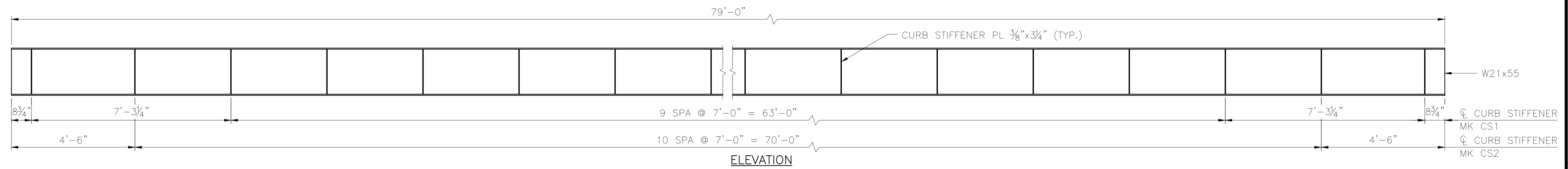
ELEVATION



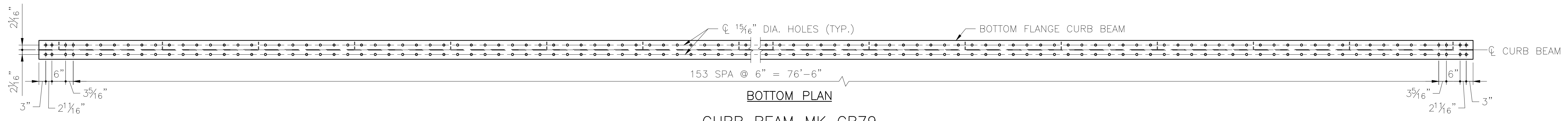
BOTTOM PLAN

CURB BEAM MK_CB30

SCALE: 1/2" = 1'-0"
 2 ~ REQUIRED
 ESTIMATED WEIGHT = 1,712 LBS



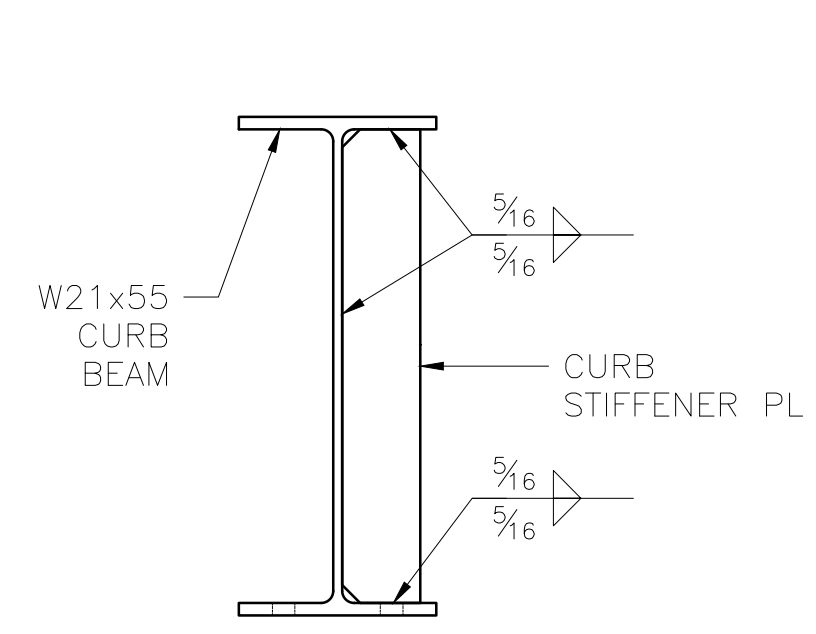
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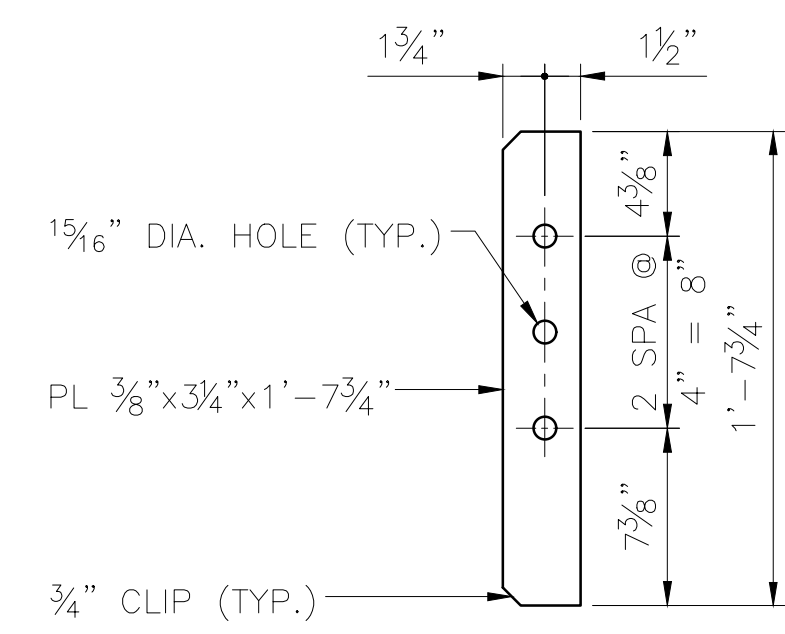
BOTTOM PLAN

CURB BEAM MK_CB79

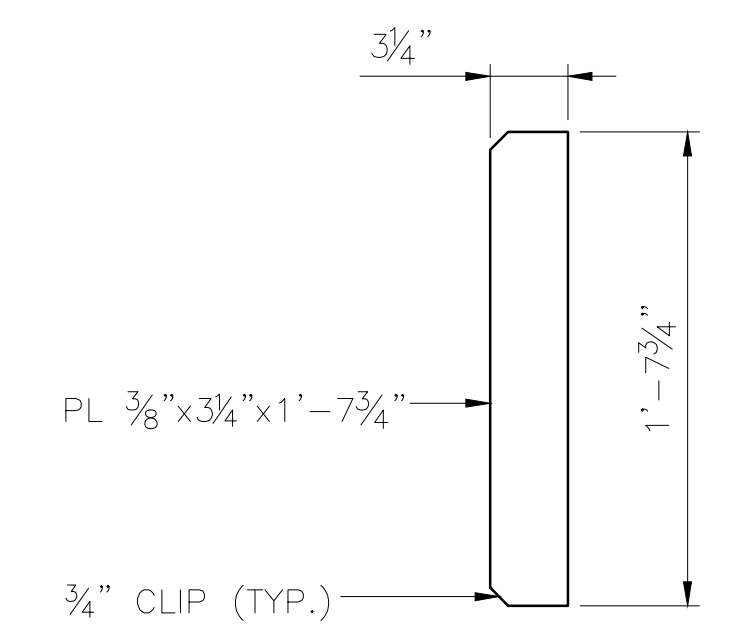
SCALE: 1/2" = 1'-0"
 4 ~ REQUIRED
 ESTIMATED WEIGHT = 4,502 LBS



W21x55 END VIEW
 SCALE: 1/2" = 1'-0"



CURB STIFFENER MK_CS1
 SCALE: 1/2" = 1'-0"

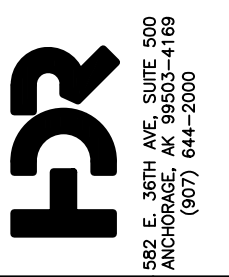


CURB STIFFENER MK_CS2
 SCALE: 1/2" = 1'-0"

DESIGNED BY:	ML
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DRAFTED BY:	MEM

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HDR ENGINEERING, INC.
 582 E. 35TH AVE, SUITE 500
 ANCHORAGE, AK 99503-4169
 (907) 644-2000
 LICENSE #: AECC569



MR. E. 30TH AVE, SUITE 500
 ANCHORAGE, AK 99503-4169
 (907) 644-2000

CAPITAL PROJECTS
 P.O. BOX 107500
 ANCHORAGE, ALASKA 99510-7500

ALASKA RAILROAD
 PROJECT: FABRICATION AND SUPPLY OF 2~79' DECK PLATE GIRDER
 SPANS AND 1~30' ROLLED BEAM SPAN FOR BRIDGE 114.3

AFE NO.	11228
YEAR	2025
SHEET	16 OF 22

CURB BEAM DETAILS

DRAWING LOCATION: C:\PWORKING\WEST01\14079759\BR_114.3_SHIP_CREEK_17.DWG
 DATE: 2/10/2025 10:29 AM
 SCALE: AS NOTED
 PUBLISHED CTB: ARRC_CTB_2023.CTB

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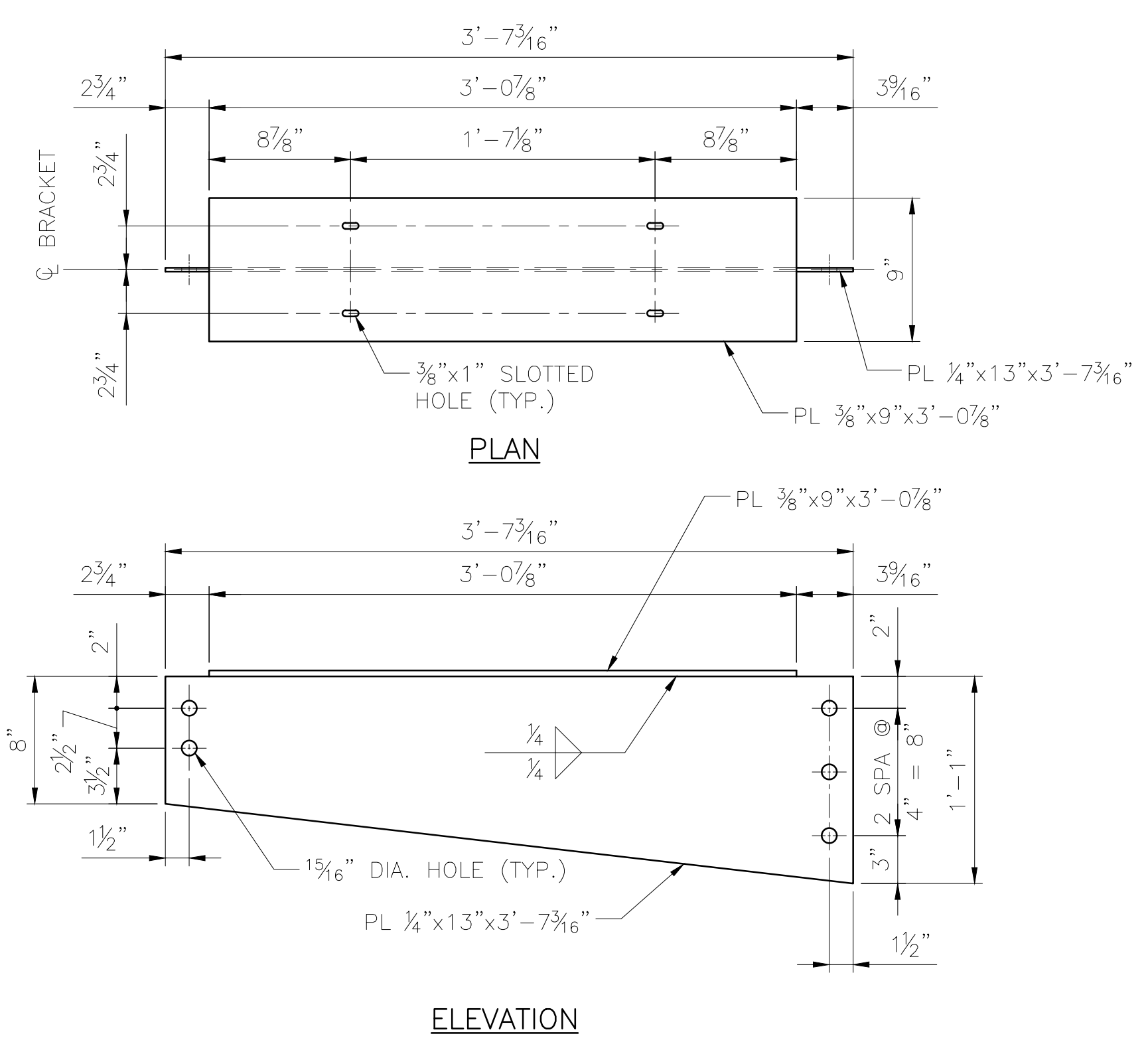
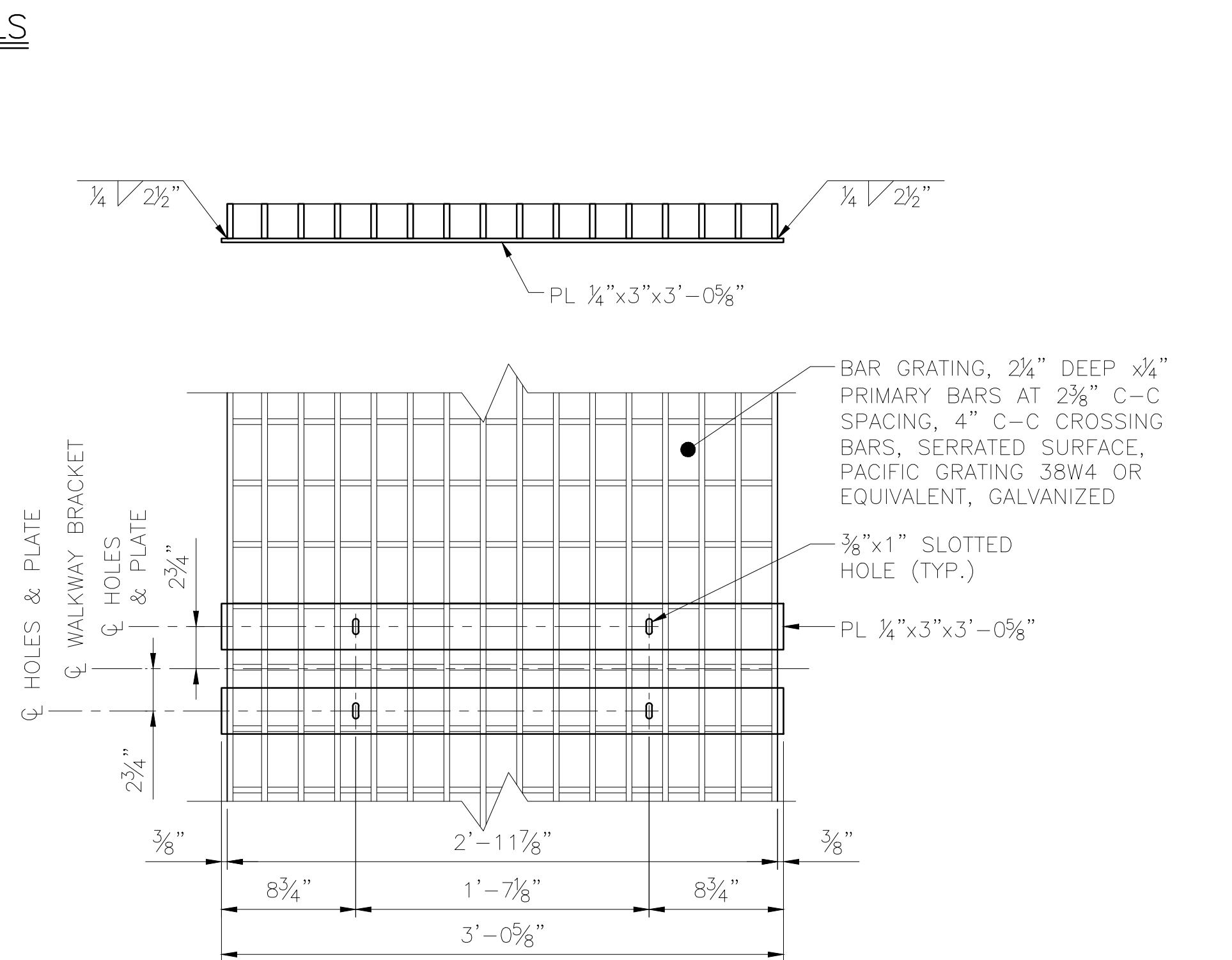
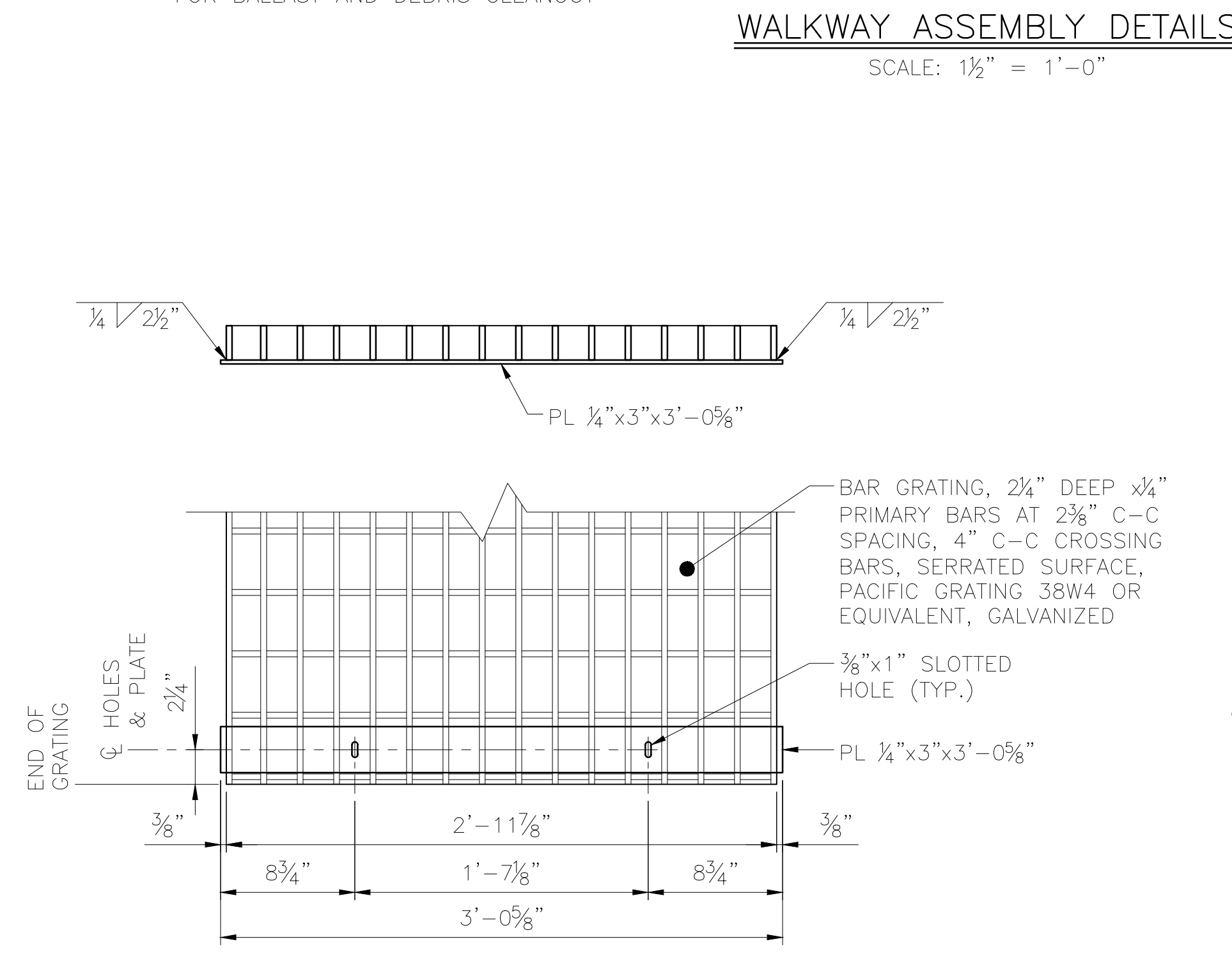
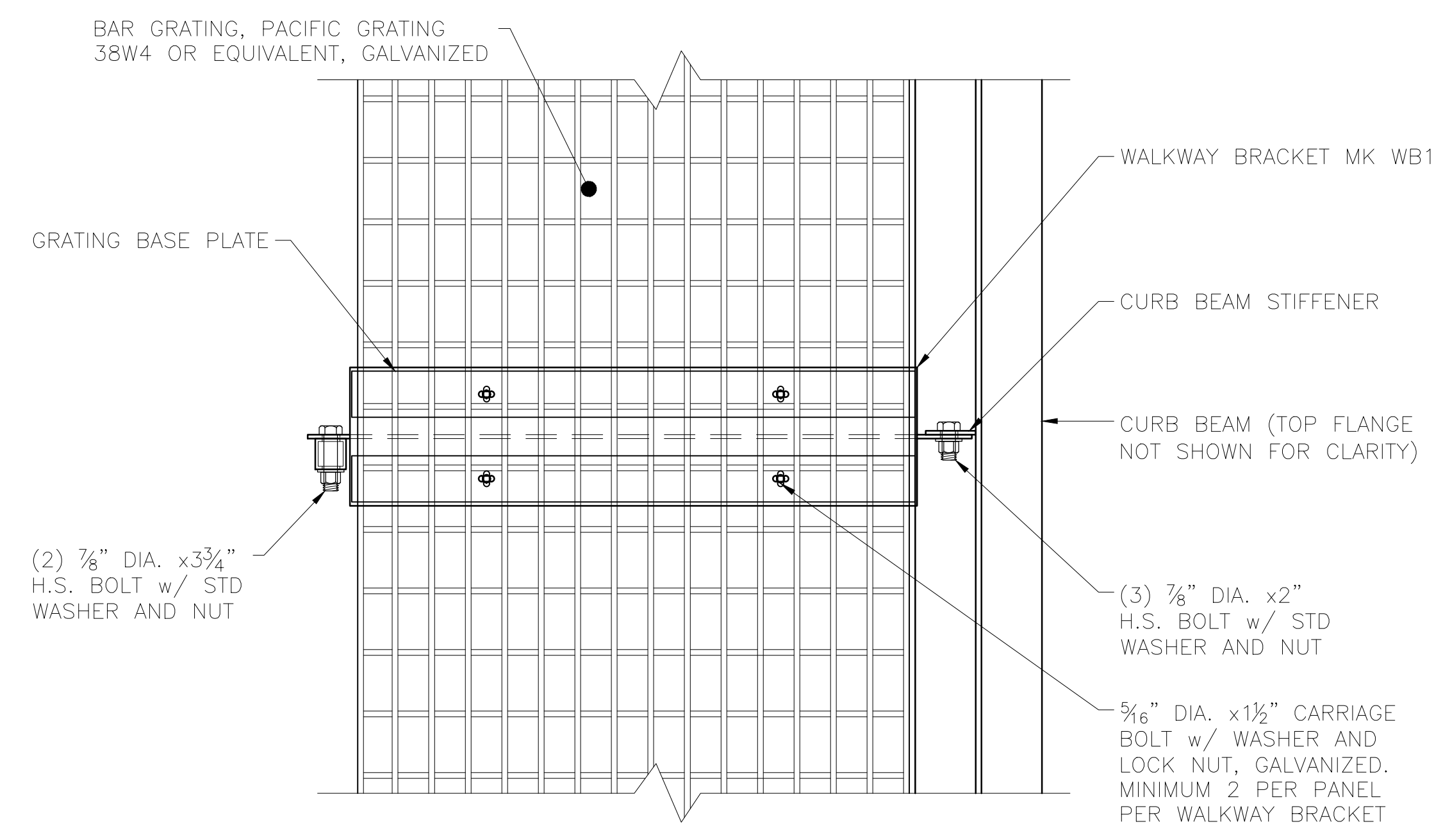
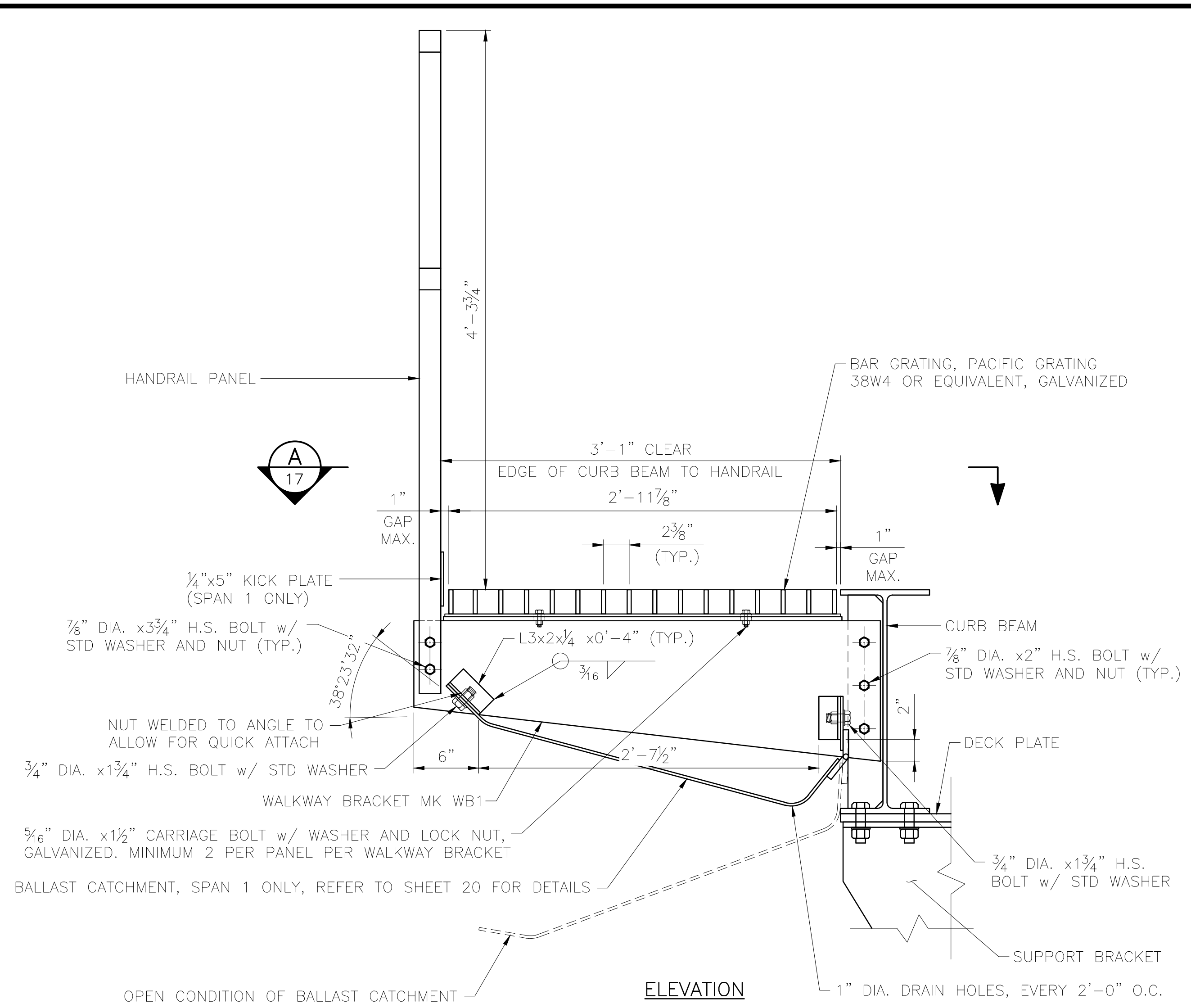
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 (907) 644-2000

CAPITAL PROJECTS
 P.O. BOX 107500
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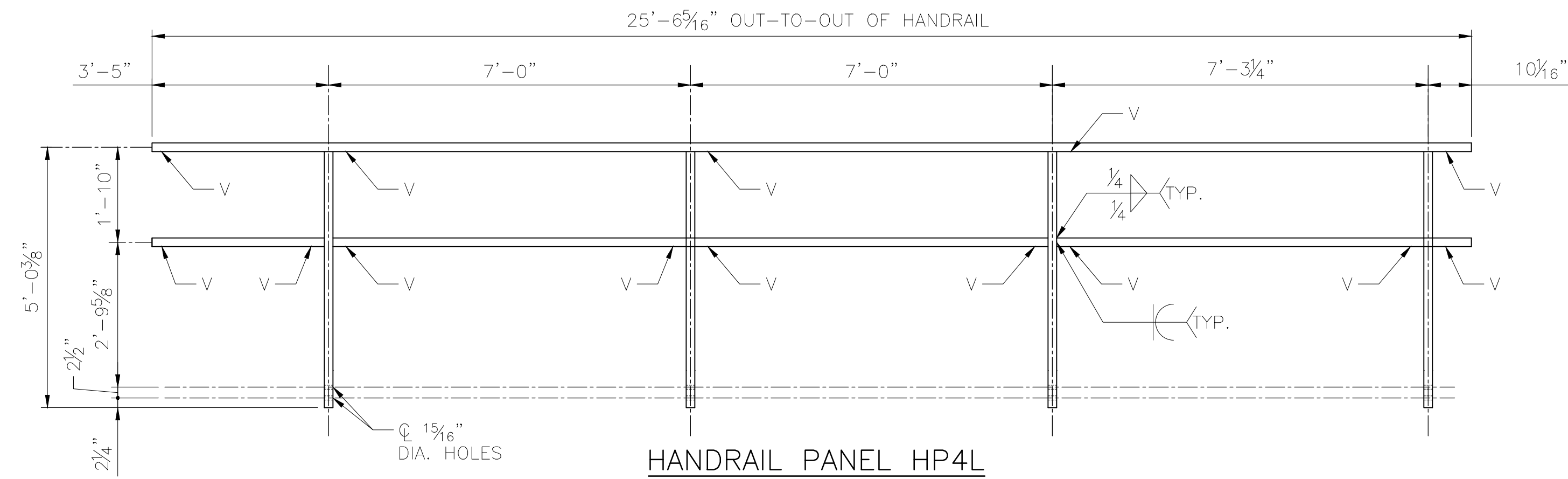
ALASKA
 RAILROAD

PROJECT: FABRICATION AND SUPPLY OF 2~79' DECK PLATE GIRDER SPANS AND 1~30' ROLLED BEAM SPAN FOR BRIDGE 114.3
 SHEET TITLE: WALKWAY DETAILS

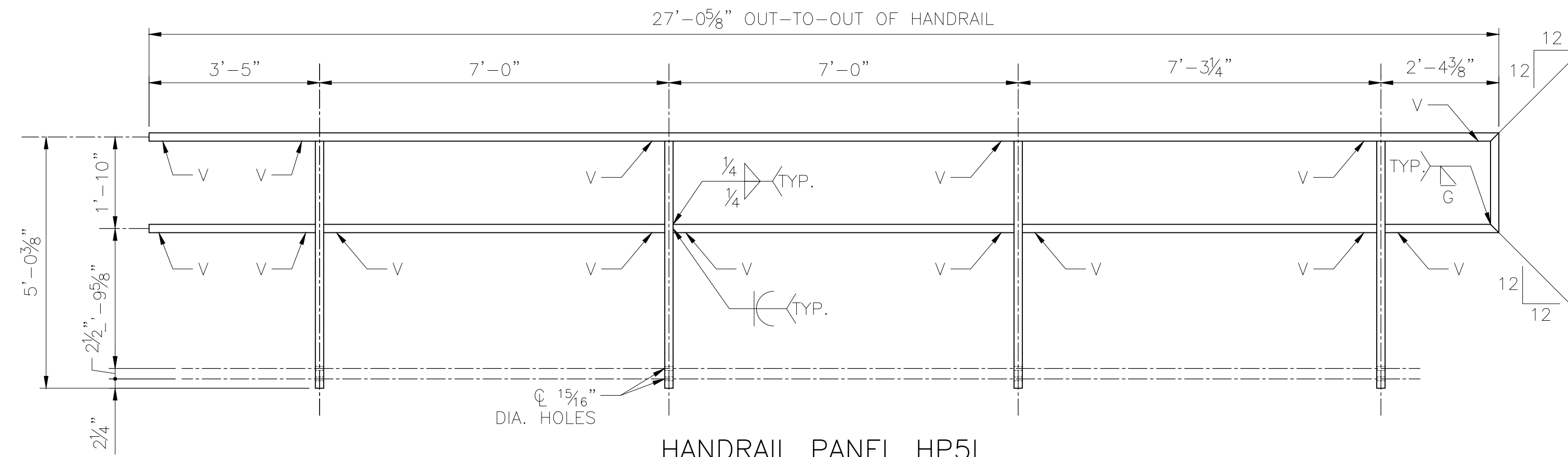
AFE NO.	11228
YEAR	2025
SHEET	17 OF 22



WALKWAY BRACKET MK WB1
 SCALE: 1/2" = 1'-0"
 58 ~ REQUIRED
 ESTIMATED WEIGHT = 68 LBS



HANDRAIL PANEL HP4L
 SCALE: 1/2" = 1'-0"
 HANDRAIL PANEL HP4R OPPOSITE HAND
 1 HP4L & 1 HP4R ~ REQUIRED
 ESTIMATED WEIGHT = 306 LBS



HANDRAIL PANEL HP5L
 SCALE: 1/2" = 1'-0"
 HANDRAIL PANEL HP5R OPPOSITE HAND
 1 HP5L & 1 HP5R ~ REQUIRED
 ESTIMATED WEIGHT = 328 LBS

NOTES:

- HANDRAIL PANELS ARE TO BE FABRICATED FROM HSS2x2x3/16", ASTM A500, GRADE B.
- GALVANIZE HANDRAIL PANELS AFTER FABRICATION.
- V = 3/8" DIA. DRILLED VENT HOLE 1" FROM JOINT.
- REFER TO SHEET 18 FOR END CAP AND HANDRAIL SIDE VIEW DETAILS.

DESIGNED BY:	ML
CHECKED BY:	KK
DRAFTED BY:	MEM

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HDR ENGINEERING, INC.
 582 E. 36TH AVE, SUITE 500
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 (907) 644-2000
 LICENSE #: AECC569



ALASKA RAILROAD
 CAPITAL PROJECTS
 P.O. BOX 107500
 ANCHORAGE, ALASKA 99510-7500

PROJECT: FABRICATION AND SUPPLY OF 2~79' DECK PLATE GIRDER SPANS AND 1~30' ROLLED BEAM SPAN FOR BRIDGE 114.3
 SHEET TITLE: HANDRAIL DETAILS (2 OF 2)

AFE NO.	11228
YEAR	2025
SHEET	19 OF 22

DRAWING LOCATION: C:\PWORKING\WEST01\4079759\BR_114.3_SHIP_CREEK_20.DWG
 DATE: 2/10/2025 3:19 PM
 SCALE: AS NOTED
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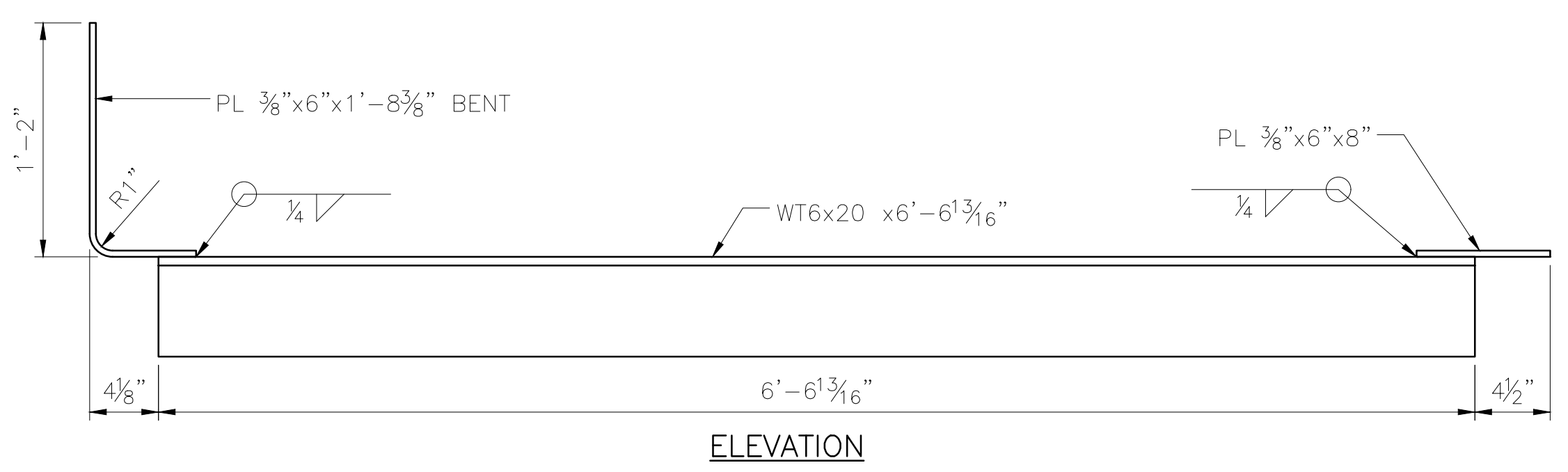
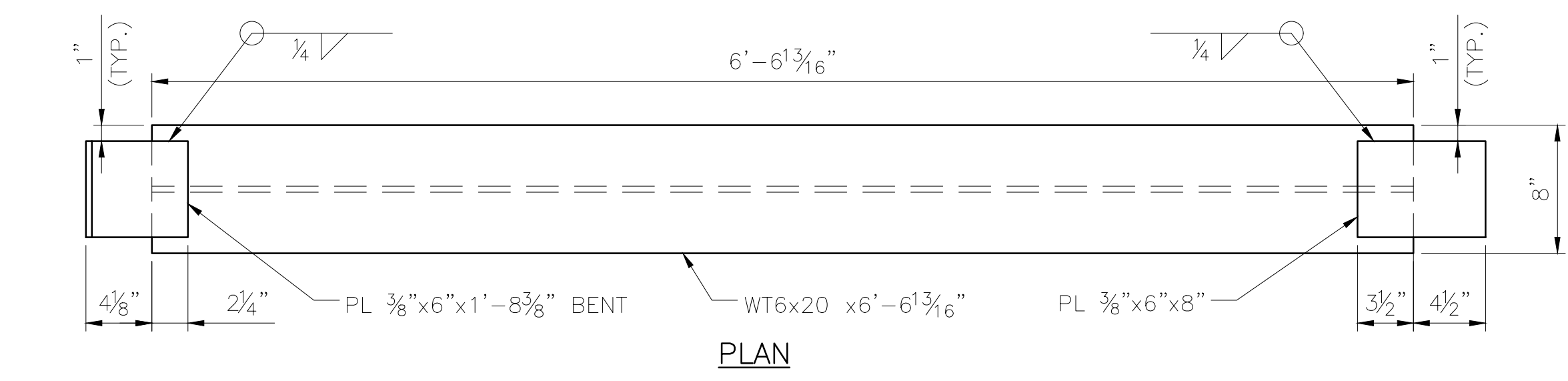
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582 E. 36TH AVE, SUITE 500
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CAPITAL PROJECTS
 P.O. BOX 107500
 ANCHORAGE, ALASKA 99510-7500

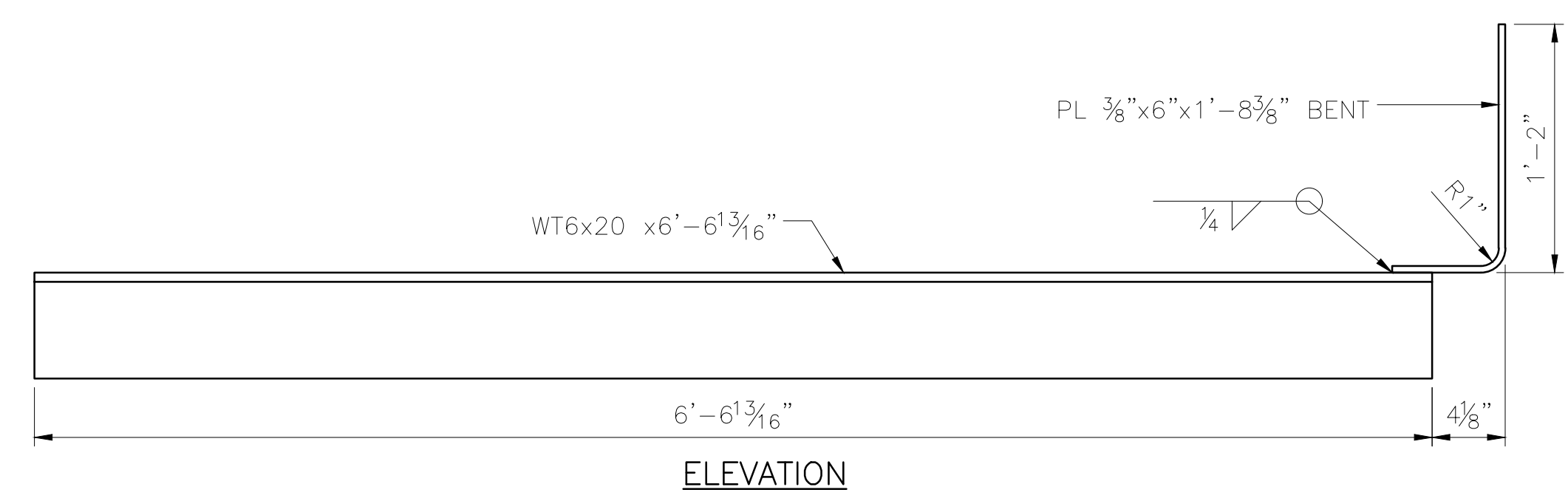
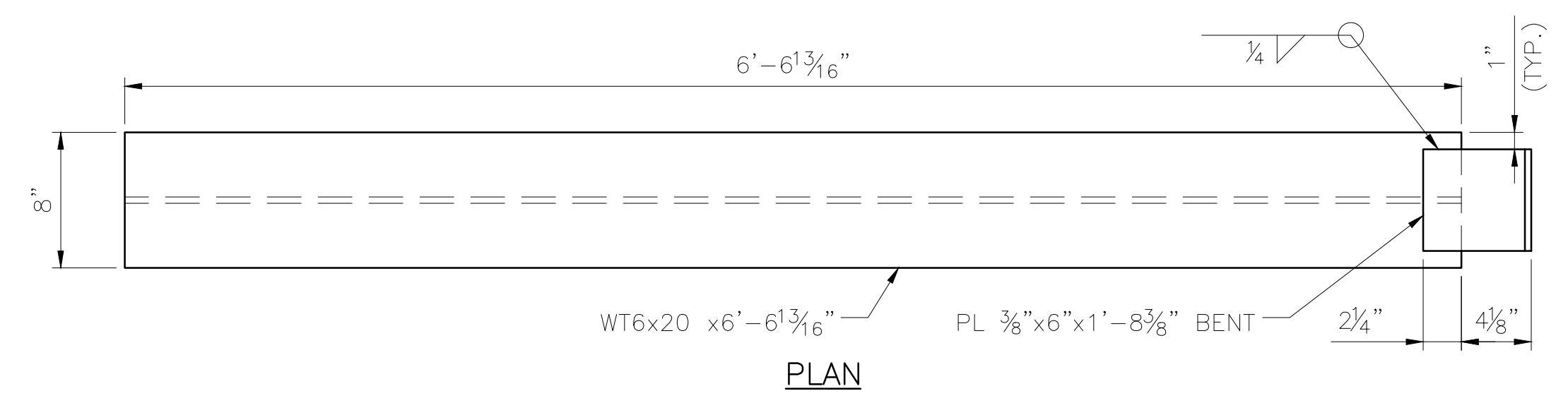
ALASKA RAILROAD

PROJECT: FABRICATION AND SUPPLY OF 2~79' DECK PLATE GIRDER SPANS AND 1~30' ROLLED BEAM SPAN FOR BRIDGE 114.3
 SHEET TITLE: MISCELLANEOUS DETAILS

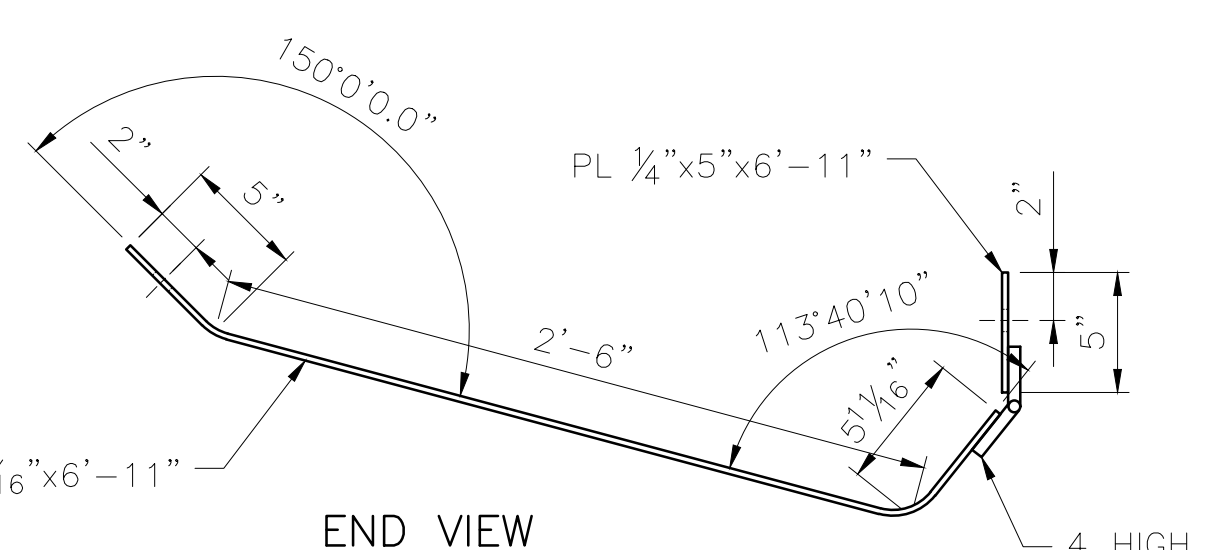
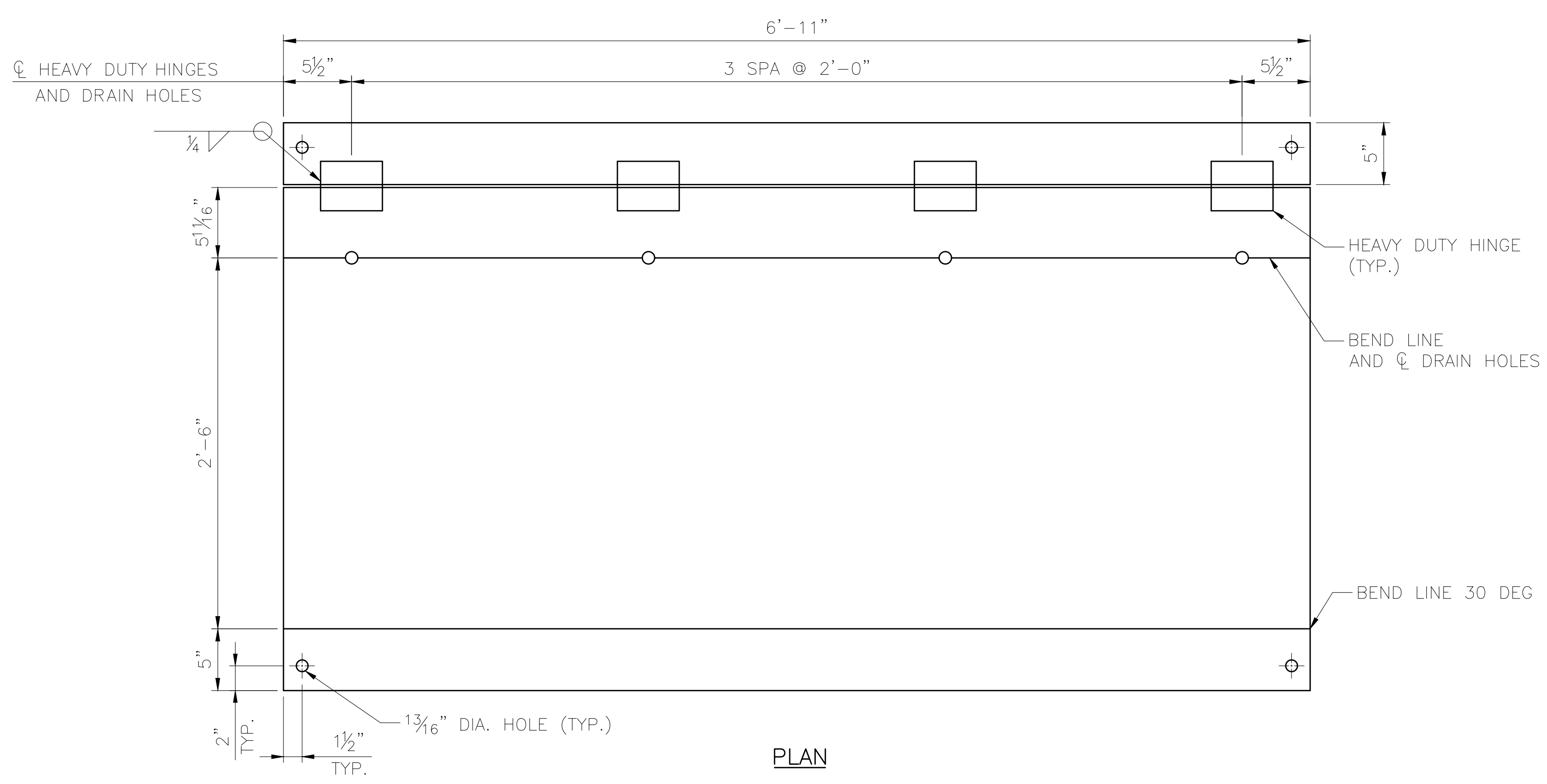
AFE NO. 11228
 YEAR 2025
 SHEET 20 OF 22



COVER PLATE MK CP1
 SCALE: 1 1/2" = 1'-0"
 4 ~ REQUIRED
 ESTIMATED WEIGHT = 150 LBS

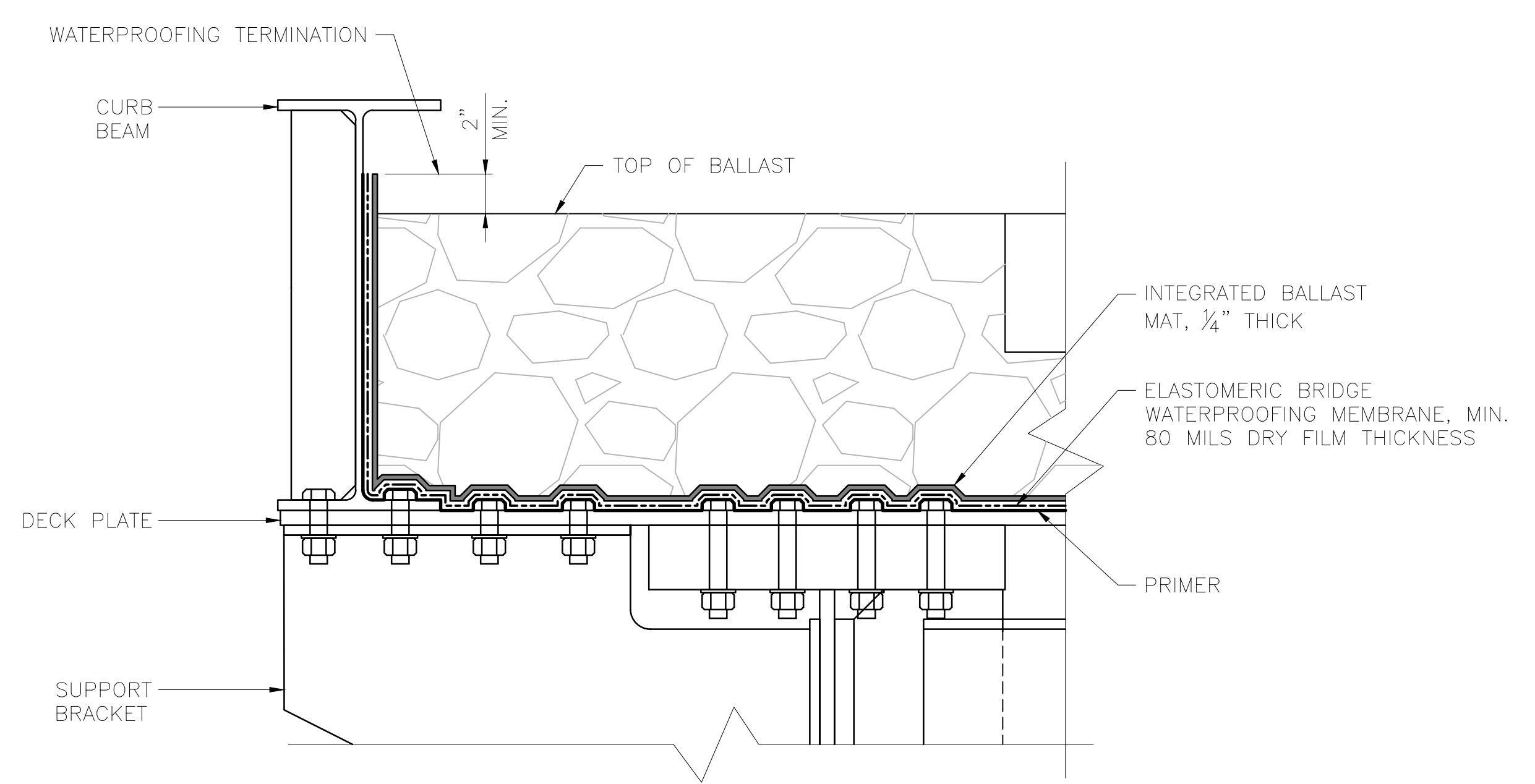


COVER PLATE MK CP2
 SCALE: 1 1/2" = 1'-0"
 4 ~ REQUIRED
 ESTIMATED WEIGHT = 145 LBS



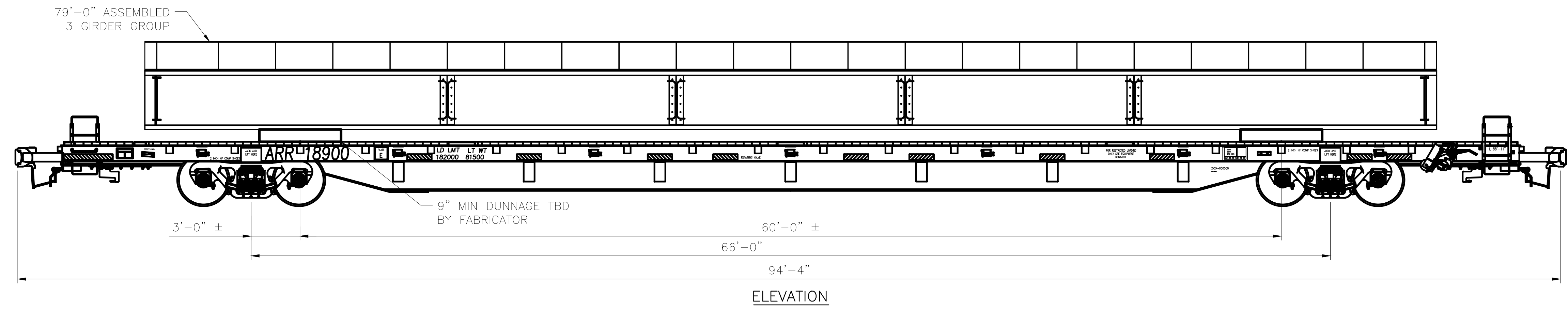
BALLAST CATCHMENT PAN
 SCALE: 1 1/2" = 1'-0"
 8 ~ REQUIRED
 ESTIMATED WEIGHT = 270 LBS

NOTES:
 1. HINGES TO BE CORROSION RESISTANT STEEL OR GALVANIZED AND HAVE A MINIMUM LOAD CAPACITY OF 500 LBS EACH.

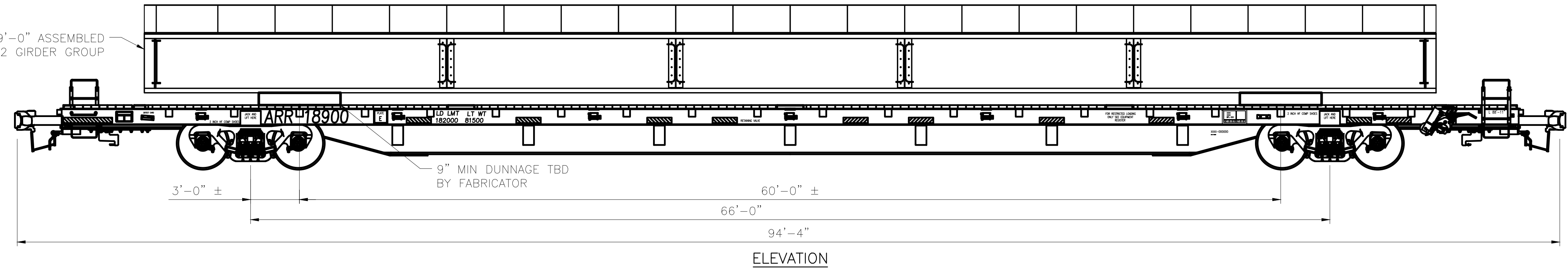
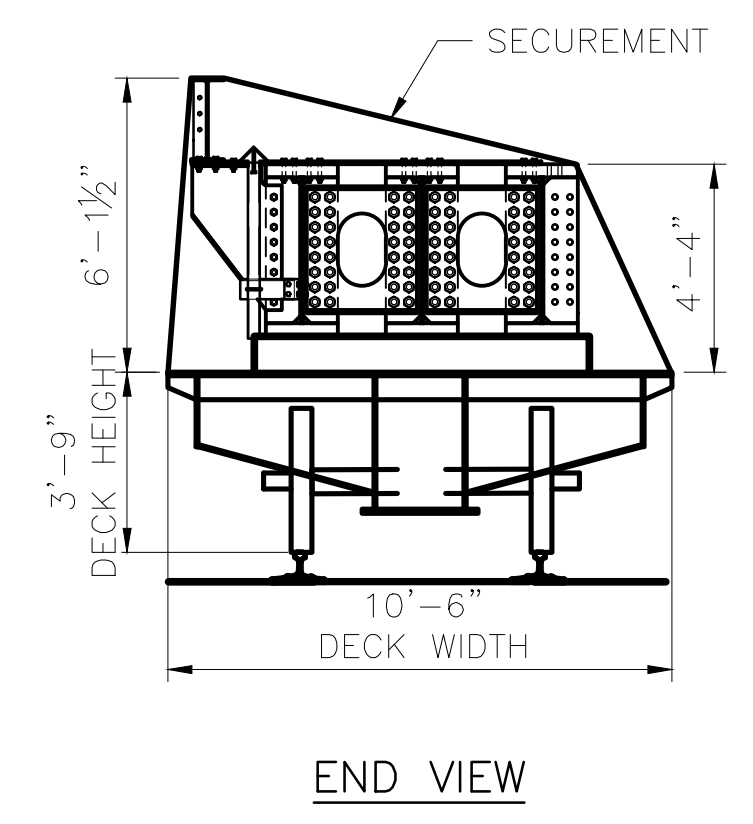


WATERPROOFING DETAIL
 SCALE: 2" = 1'-0"
 WATERPROOFING TO BE APPLIED IN FIELD BY BRIDGE CONSTRUCTION CONTRACTOR WHEN SPECIFIED. WORK NOT INCLUDED WITH SHOP FABRICATION.

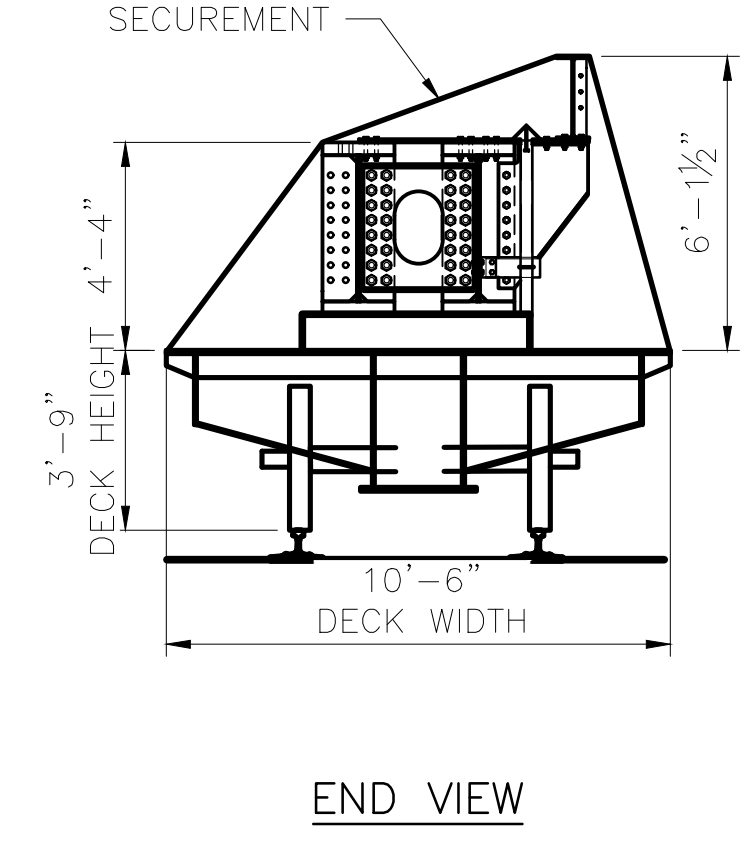
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 TIME: 10:29 AM
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 PUBLISHED CTB: ARRC_CTB_2023.CTB



79'-0 ASSEMBLED 3 GIRDER GROUP ON 89' FLAT CAR
 SCALE: 1" = 4'-0"
 2 ~ REQUIRED
 ESTIMATED PAYLOAD WEIGHT = 156,000 LBS



79'-0 ASSEMBLED 2 GIRDER GROUP ON 89' FLAT CAR
 SCALE: 1" = 4'-0"
 2 ~ REQUIRED
 ESTIMATED PAYLOAD WEIGHT = 105,000 LBS



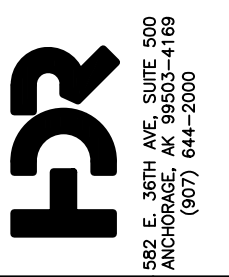
SECUREMENT AND SHIPPING NOTES:

- FABRICATOR TO COORDINATE SHIPPING VIA AML RAIL BARGE WITH ARRC IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. SHIPPING SHALL BE F.O.B. TO PCC LOGISTICS, 3629 DUWAMISH AVENUE SOUTH, SEATTLE, WA 98134.
- ARRC WILL PROVIDE 1189XX-89' FLAT CARS AND ONE 40' SHIPPING CONTAINER TO THEIR SEATTLE, WA TERMINAL. FABRICATOR TO COORDINATE MOVEMENT OF FLAT CARS TO AND FROM FABRICATION FACILITY OR LOADING OF MATERIAL AT TERMINAL. A TOTAL OF SIX RAIL CARS ARE EXPECTED TO BE NEEDED TO SHIP THE MATERIAL AS SHOWN IN THE PLANS. COORDINATE WITH ARRC IF ADDITIONAL RAIL CARS ARE NEEDED.
- SECURE LOADS TO ARRC PROVIDED RAIL CARS AND SHIPPING CONTAINER IN A MANNER THAT WILL NOT DAMAGE OR DEFORM THE MEMBERS. SECUREMENT DETAILS SHOWN ON THESE PLANS ARE RECOMMENDATIONS ONLY, FABRICATOR TO PROVIDE FINAL PROPOSED CONFIGURATION AND DUNNAGE SUPPORT DETAILS FOR REVIEW BY ARRC PRIOR TO LOADING AND SHIPPING MATERIAL. DUNNAGE MAY BE COMPOSED OF TIMBER OR STEEL OR COMBINATION THEREOF TO SUPPORT MATERIALS.
- UNBALANCED LOADS ARE LIMITED TO 20,000 LBS DIFFERENCE BETWEEN TRUCKS WITH NO TRUCK EXCEEDING ONE HALF THE GROSS WEIGHT LIMIT.
- WEIGHTS FOR 189XX RAIL CARS:
 - ESTIMATED LT WEIGHT: 81,500 LBS.
 - ESTIMATED CAPACITY: 181,500 LBS.
 - GROSS WEIGHT LIMIT: 263,000 LBS.

DESIGNED BY: ML
 CHECKED BY: KK
 DRAFTED BY: MEM

**90% SUBMITTAL
 NOT FOR
 CONSTRUCTION**

HDR ENGINEERING, INC.
 582 E. 36TH AVE, SUITE 500
 ANCHORAGE, AK 99503-4169
 (907) 644-2000
 LICENSE #: AECC569



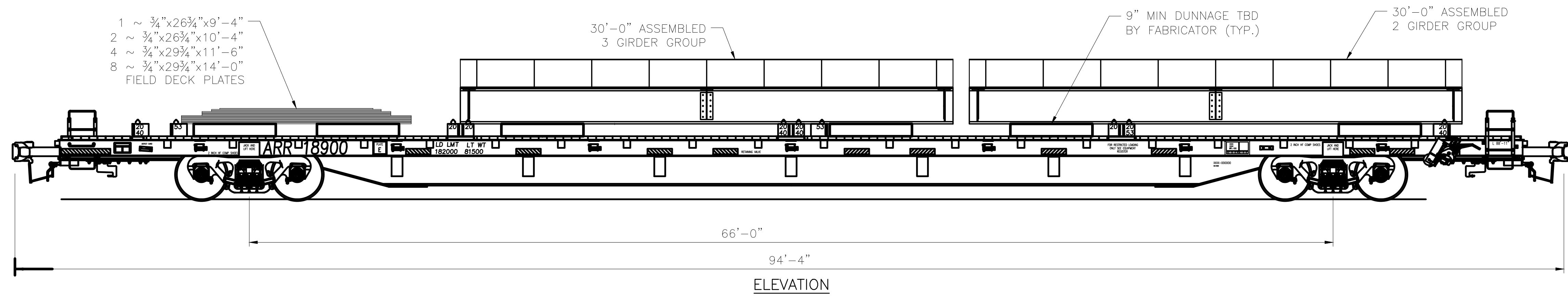
582 E. 36TH AVE, SUITE 500
 ANCHORAGE, AK 99503-4169
 (907) 644-2000

ALASKA RAILROAD
 CAPITAL PROJECTS
 P.O. BOX 107500
 ANCHORAGE, ALASKA 99510-7500

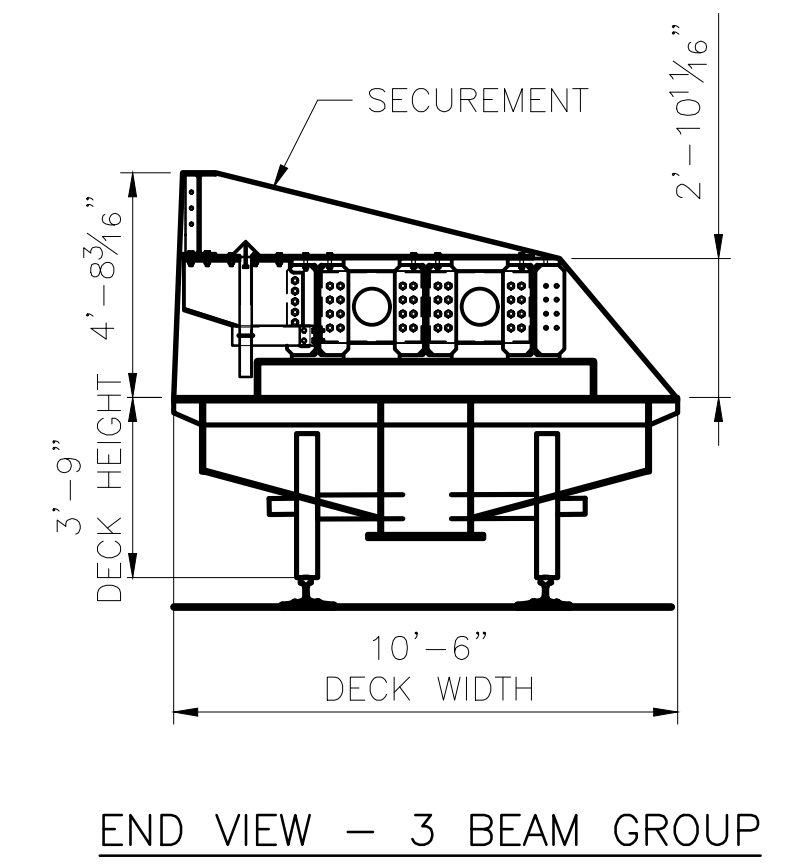
PROJECT: FABRICATION AND SUPPLY OF 2~79' DECK PLATE GIRDER SPANS AND 1~30' ROLLED BEAM SPAN FOR BRIDGE 114.3
 SHEET TITLE: SHIPPING AND SECUREMENT REQUIREMENTS (1 OF 2)

AFE NO. 11228
 YEAR 2025
 SHEET 21 OF 22

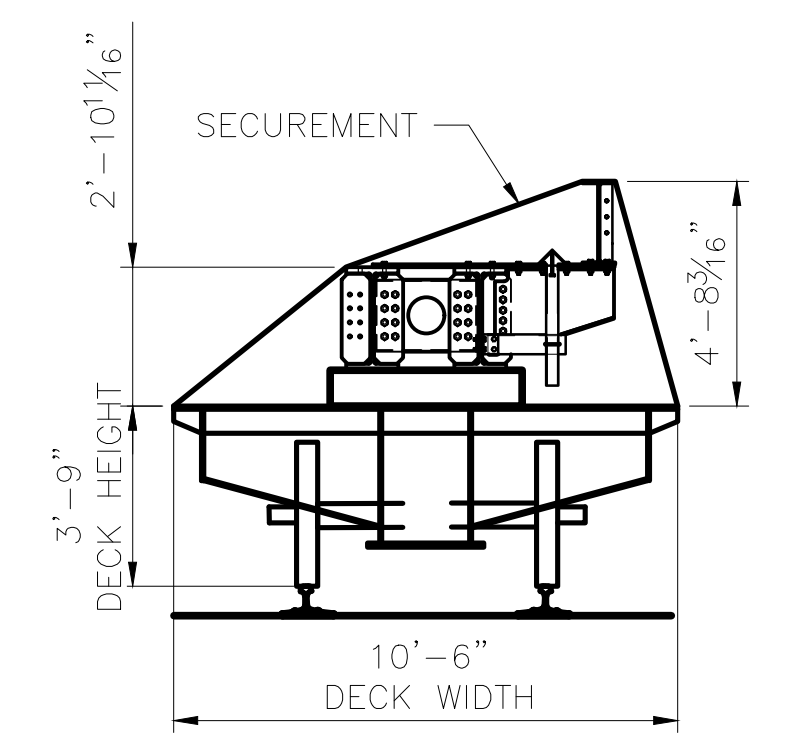
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 SCALE: AS NOTED
 PUBLISHED CTB: ARRC_CTB_2023.CTB



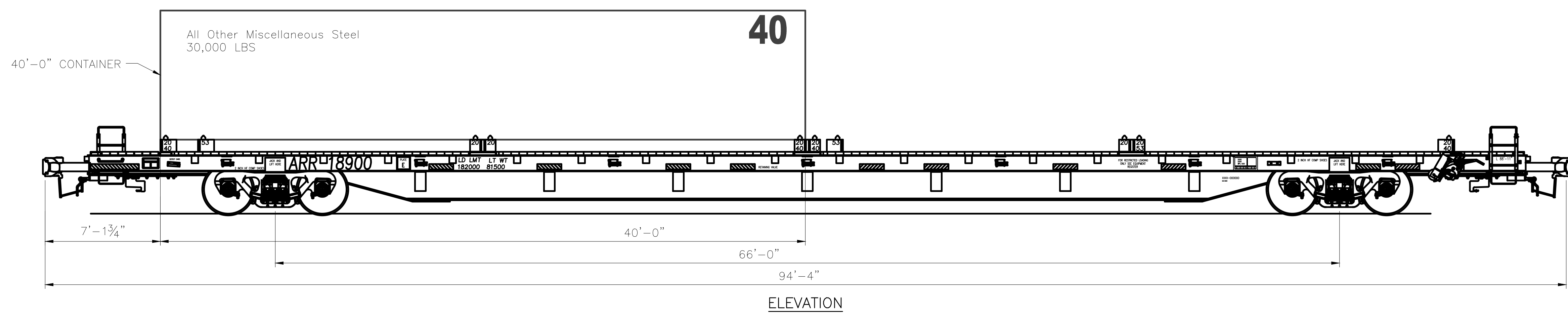
30'-0 ASSEMBLED GIRDER GROUPS AND FIELD DECK PLATES ON 89' FLAT CAR
 SCALE: 1" = 4'-0"
 1 ~ REQUIRED
 ESTIMATED PAYLOAD WEIGHT = 60,000 LBS



END VIEW - 3 BEAM GROUP



END VIEW - 2 BEAM GROUP



MISCELLANEOUS STEEL CONTAINER ON 89' FLAT CAR
 SCALE: 1" = 4'-0"
 1 ~ REQUIRED
 ESTIMATED PAYLOAD WEIGHT = 30,000 LBS

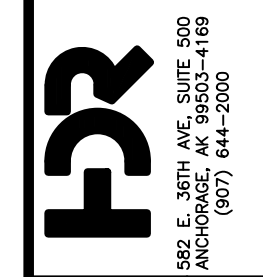
NOTES:

1. REFER TO SHEET 21 FOR SECUREMENT AND SHIPPING NOTES.

DESIGNED BY:	ML
CHECKED BY:	KK
DRAFTED BY:	MEM

**90% SUBMITTAL
 NOT FOR
 CONSTRUCTION**

HDR ENGINEERING, INC.
 582 E. 36TH AVE., SUITE 500
 ANCHORAGE, AK 99503-4169
 (907) 644-2000
 LICENSE #: AECC569



CAPITAL PROJECTS
 P.O. BOX 107500
 ANCHORAGE, ALASKA 99510-7500



PROJECT: FABRICATION AND SUPPLY OF 2~79' DECK PLATE GIRDER SPANS AND 1~30' ROLLED BEAM SPAN FOR BRIDGE 114.3
 SHEET TITLE: SHIPPING AND SECUREMENT REQUIREMENTS (2 OF 2)

AFE NO.	11228
YEAR	2025
SHEET	22 OF 22