

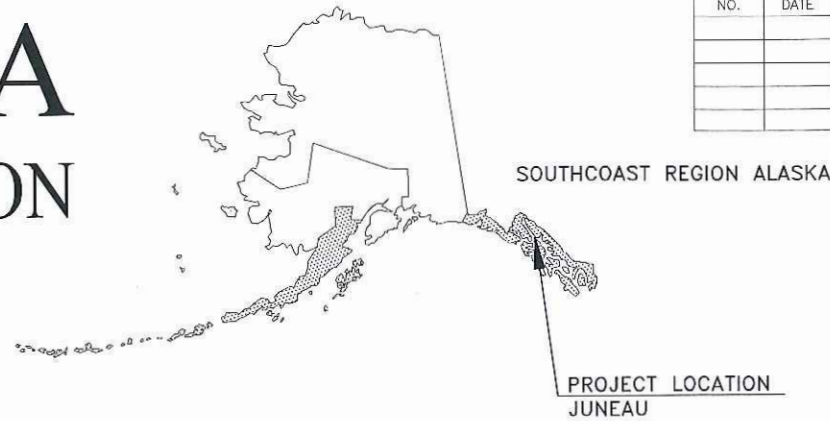
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 DATE 4/7/2023 13:47 LAYOUT A1  
 DESIGNED  
 CHECKED  
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# STATE OF ALASKA

## DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

### PROPOSED HIGHWAY PROJECT

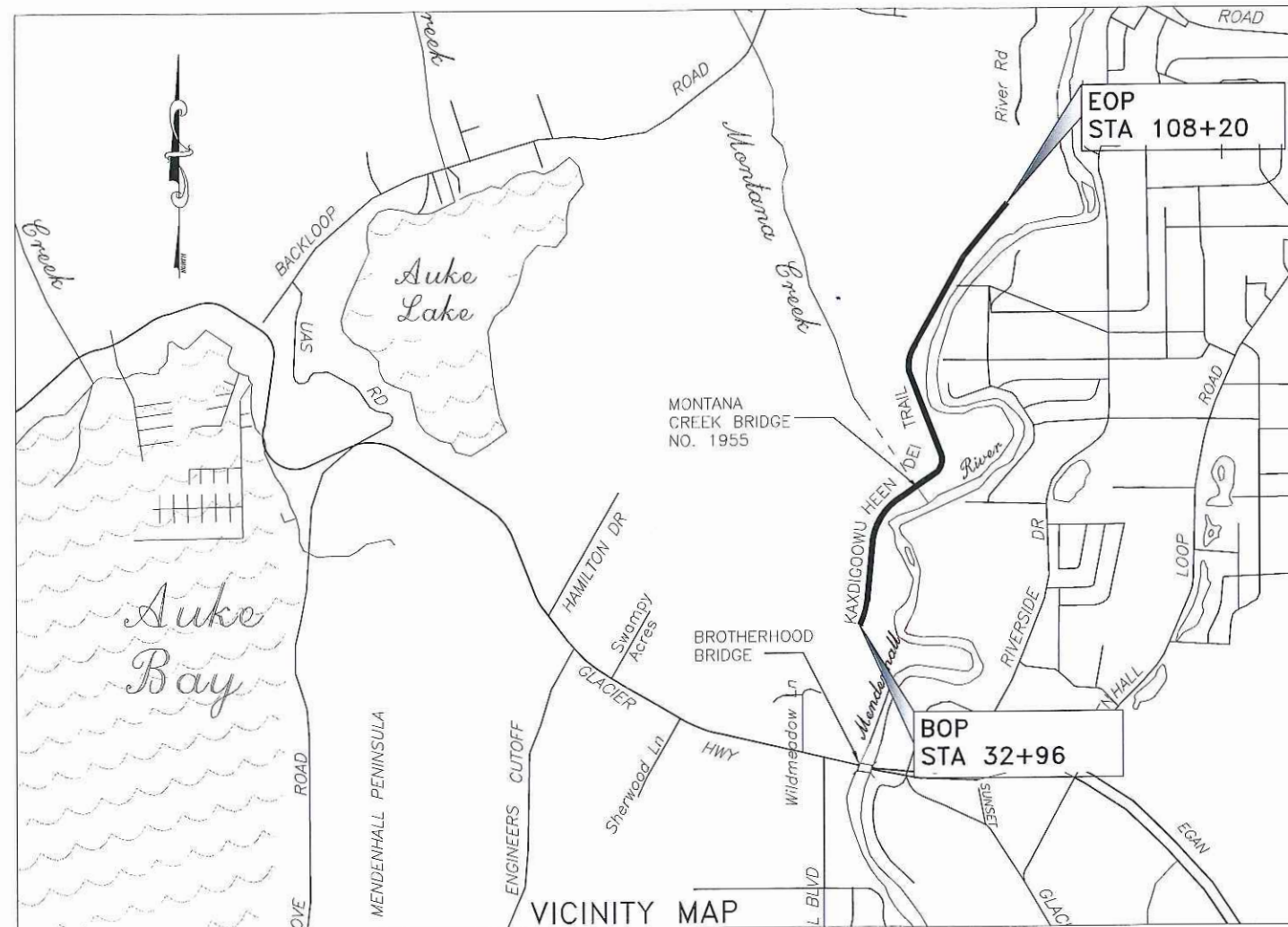
### JNU KAXDIGOOWU HEEN DEI IMP (BROTHERHOOD BRIDGE TRAIL IMP) PROJECT NO. TA18010/SFHWHY00259



NO.	DATE	REVISIONS	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	TA18010/SFHWHY00259	2023	A1	33
			CDS ROUTE: N/A		MILEPOINT: N/A		
			LATITUDE: 58°22'56"N		LONGITUDE: 134°35'59"W		

PROJECT SUMMARY	
WIDTH OF PAVEMENT	8' TO 10'
LENGTH OF PAVING	1.43 MILE
LENGTH OF PROJECT	1.43 MILE

**AS-BUILT PLANS**  
 Contractor: Coogan Construction Co.  
 Project Engineer: Steve Mielke  
 Begin Construction: April 15, 2024  
 Project Completion: October 31, 2024



The undersigned hereby certifies that this duplicated document is an exact and true copy of the original.

*Hollie Roselle*

November 30, 2023

USE THESE PLANS IN CONJUNCTION WITH THE STATE OF ALASKA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2020 EDITION AND THE PROJECT SPECIAL PROVISIONS.

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
 6860 GLACIER HIGHWAY, JUNEAU, AK 99801  
 (907) 465-1763

APPROVED: *[Signature]* 7/19/2023  
 REGIONAL PRECONSTRUCTION ENGINEER DATE  
 KIRK D. MILLER, P.E.

CONCUR: *[Signature]* 7/20/2023  
 REGIONAL DIRECTOR DATE  
 CHRISTOPHER B. GOINS, P.E.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Digitally signed by Steve Mielke  
 Date: 2024.12.18 11:37:04 -09'00' 12/18/2024

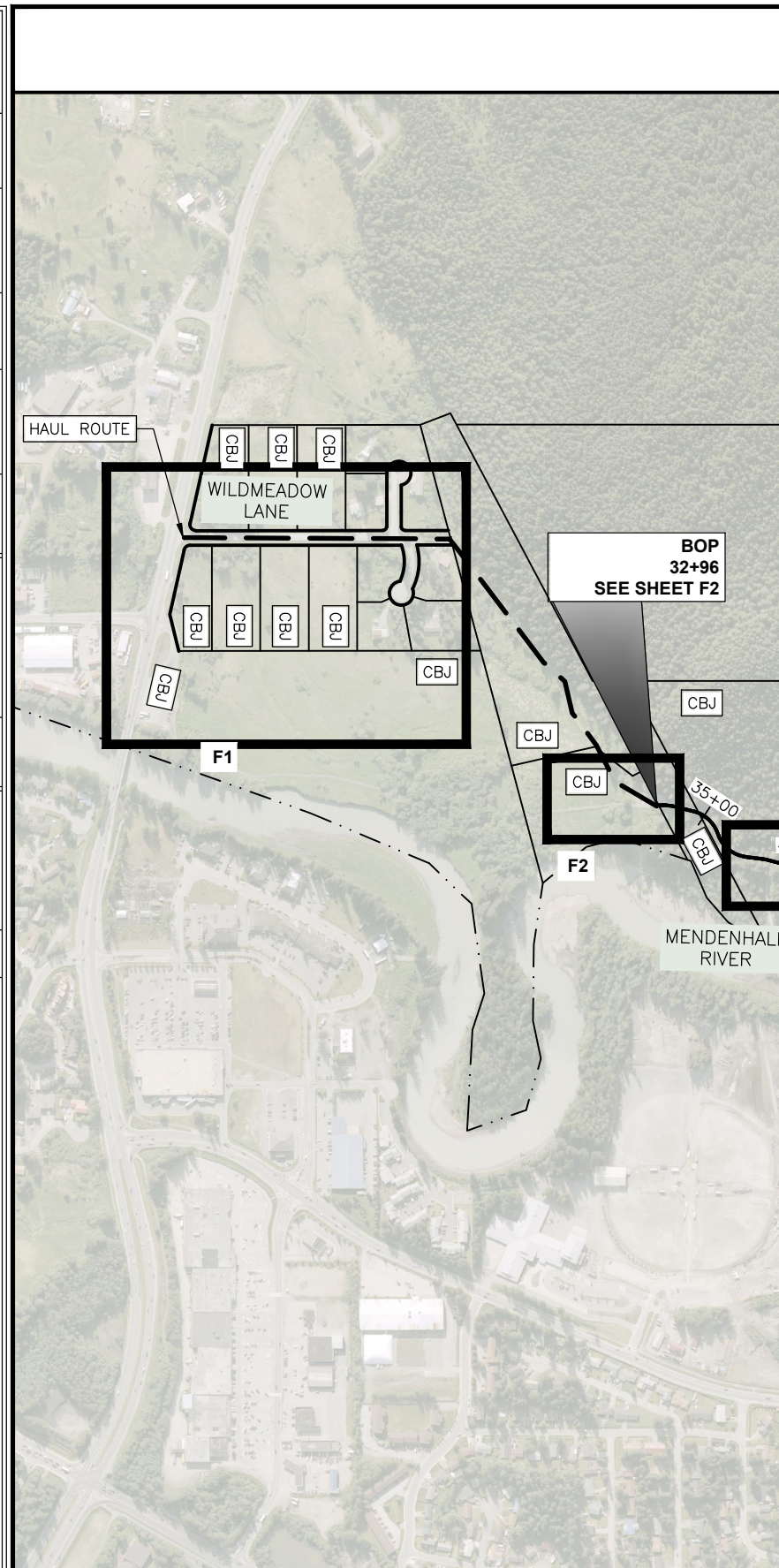
Signature Date

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	TA18010/SFHWHY00259	2023	A2	33

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
A1	TITLE SHEET
A2	LAYOUT
A3	LEGEND
A4-A6	SURVEY CONTROL
B1-B3	TYPICAL SECTIONS
C1	ESTIMATE OF QUANTITIES
F1-F6	PLAN & PROFILE
G1	GRADING POINTS
N1-N12	BRIDGE DETAILS
Q1-Q4	ESCP

**ABBREVIATIONS:**  
 ABUT = ABUTMENT  
 APE = AREA OF POTENTIAL EFFECT  
 BOP = BEGINNING OF PROJECT  
 CBJ = CITY AND BOROUGH OF JUNEAU  
 E = EAST  
 EOP = END OF PROJECT  
 EP = EDGE OF PAVEMENT  
 FT = FOOT  
 IMP = IMPROVEMENT  
 IN = INCH  
 JNU = JUNEAU  
 MAX = MAXIMUM  
 MIN = MINIMUM  
 MTE = MATCH TO EXISTING  
 N = NORTH  
 PT = POINT OF TANGENCY  
 PC = POINT OF CURVATURE  
 PI = POINT OF INTERSECTION  
 PT = POINT OF TANGENCY  
 RD = ROAD  
 S = SOUTH  
 STA = STATION  
 TYP = TYPICAL  
 VPI = VERTICAL POINT OF INTERSECTION  
 W = WEST

LEGEND & ABBREVIATIONS	
TRAIL	
HAUL ROUTE	
CONTRACTOR STAGING AREA	
BEGINNING OF PROJECT	BOP
END OF PROJECT	EOP



**GENERAL NOTES:**

1. CONTAIN ALL CONSTRUCTION WITHIN THE RIGHT-OF-WAY. DO NOT DISPOSE OF EXCESS MATERIAL WITHIN THE RIGHT-OF-WAY, UNLESS SPECIFICALLY CALLED FOR IN THE PLANS.
2. MAKE ALL PAVEMENT CUTS CLEAN, VERTICAL, AND TRUE TO THE REMOVAL LIMITS SHOWN ON THE PLANS.
3. RELEVANT CBJ PARCELS ARE SHOWN & LABELED.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Steve Mielke  
 Digitally signed by Steve Mielke  
 Date: 2024.12.18 11:37:04 -09'00'  
 Signature Date 12/18/2024



STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES  
 6860 GLACIER HIGHWAY, JUNEAU, AK 99801  
 (907) 465-1763

JNU KAXDIGOOWU HEEN DEI IMP  
 (BROTHERHOOD BRIDGE TRAIL IMP)

LAYOUT

FILE G:\nuu\SFHWHY00259\Planset\00259\_A2.dwg DATE 4/12/2023 14:03 LAYOUT A2 DESIGNED WMC CHECKED ##### DRAFTED WMC

FILE G:\nu\SFHW\0259\Plan\set\00259\_A3.dwg DATE 4/12/2023 14:07 LAYOUT A3 DESIGNED WMC CHECKED ###### DRAFTED WMC

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	TA18010/SFHWHY00259	2023	A3	33

	RECOVERED	SET
BLM MONUMENT		
GLO MONUMENT		
USC&GS MONUMENT		
PRIMARY MONUMENT		
CENTERLINE MONUMENT IN CASING		
PRIMARY R.O.W. MONUMENT		
BEARING OBJECT		
MISCELLANEOUS MONUMENT		
LINE OF SIGHT MONUMENT		
CONCRETE R.O.W. MONUMENT		
BENCHMARK		
REBAR AND CAP		
REBAR		
IRON PIPE		
PK NAIL		
SPIKE		
HUB AND TACK		
CONSTRUCTION CENTERLINE		
MICELLANEOUS CENTERLINE		
STATION EQUATION		
PROJECT RIGHT-OF-WAY LINE		
EXISTING RIGHT-OF-WAY LINE		
EXISTING PROPERTY LINE		
CONTROLLED ACCESS LINE		
EXISTING EASEMENT LINE		
PROPOSED EASEMENT LINE		
PROPOSED CUT SLOPE LIMIT		
PROPOSED FILL SLOPE LIMIT		
SECTION LINE		
1/4 SECTION LINE		
1/16 SECTION LINE		
TOWNSHIP & RANGE LINE		
MEANDER LINE		

	EXISTING	PROPOSED
SANITARY SEWER (FLOW DIRECTION →)		
FUEL LINE		
GAS LINE		
METER, VALVE, FIRE HYDRANT		
PROPOSED STORM DRAIN		
FIBER OPTIC LINE		
DIRECT BURIAL TELEPHONE CABLE		
DIRECT BURIAL ELECTRIC CABLE		
ELECTRIC LINE (OVERHEAD)		
POWER POLE LINE		
JOINT USE POWER & TELEPHONE		
TELEPHONE POLE LINE		
POLE ANCHOR		
STUB POLE (POWER OR TELEPHONE)		
TELEPHONE DUCT		
TELEPHONE PEDESTAL		
BURIED CABLE MARKER		
PIPELINE MARKER OR VALVE		
CATCH BASIN OR DROP INLET		
MANHOLE		
SANITARY SEWER CLEAN OUT		
RIPRAP		
SPECIAL DITCH CENTERLINE		
HIGH TIDE LINE		

	EXISTING	PROPOSED
ROADWAY/PAVEMENT EDGE		
FENCE		
CURB AND GUTTER		
DETECTABLE WARNINGS		
GUARDRAIL		
CULVERT PIPE		
SIGN		
MAILBOX		
RAILROAD TRACKS		
RAILROAD DEVICES		
TREE LINE		
WATER BOUNDARY		
ORDINARY HIGH WATER LINE		
FLOW CENTERLINE		
FLOW DIRECTION		
WETLANDS		
EXISTING BUILDINGS		
POST OR BOLLARD		
WELL OR MONITORING WELL		
SEPTIC PIPE		
FUEL TANK FILL PIPE/VENT		
SATELLITE DISH		
TEST HOLE		
CONIFER TREE		
DECIDUOUS TREE		
GRAVE		
THERMOSIPHON		
PARKING METER		
VEHICLE PLUG-IN		
DELINEATOR/GUIDE MARKER		

- H = HOUSE
- G = GARAGE
- M = MERCHANT/STORE
- B = BARN
- S = SHED
- P = PRIVY
- SS = SERVICE STATION
- W = WAREHOUSE

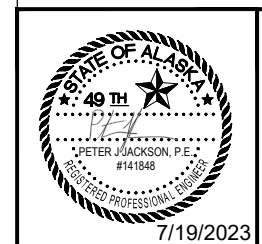
	EXISTING	PROPOSED
JUNCTION BOX, TYPE IA		
JUNCTION BOX, TYPE II		
JUNCTION BOX, TYPE III		
SIGNAL FACE, VEHICULAR		
SIGNAL FACE, BACKPLATE		
SIGNAL FACE, LEFT TURN, BACKPLATE		
SIGNAL FACE, PEDESTRIAN		
LOOP DETECTOR		
VIDEO DETECTOR		
RADAR DETECTOR		
OPTICOM DETECTOR		
PEDESTRIAN PUSH BUTTON		
SIGNAL POST W/O MAST ARM		
SIGNAL POLE W/MAST ARM		
SIGNAL CONTROLLER		
LOAD CENTER		
LUMINAIRE		
RIGID METAL CONDUIT		

**ABBREVIATIONS:**

WATER LINE EXISTING	
SANITARY SEWER LINE EXISTING	
STORM DRAIN LINE EXISTING	
STORM DRAIN LINE PROPOSED	

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Digitally signed by Steve Mielke  
 Date: 2024.12.18 11:37:04 -09'00' **12/18/2024**  
 Signature Date



STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES  
 6860 GLACIER HIGHWAY, JUNEAU, AK 99801  
 (907) 465-1763

**JNU KAXDIGOOWU HEEN DEI IMP (BROTHERHOOD BRIDGE TRAIL IMP)**

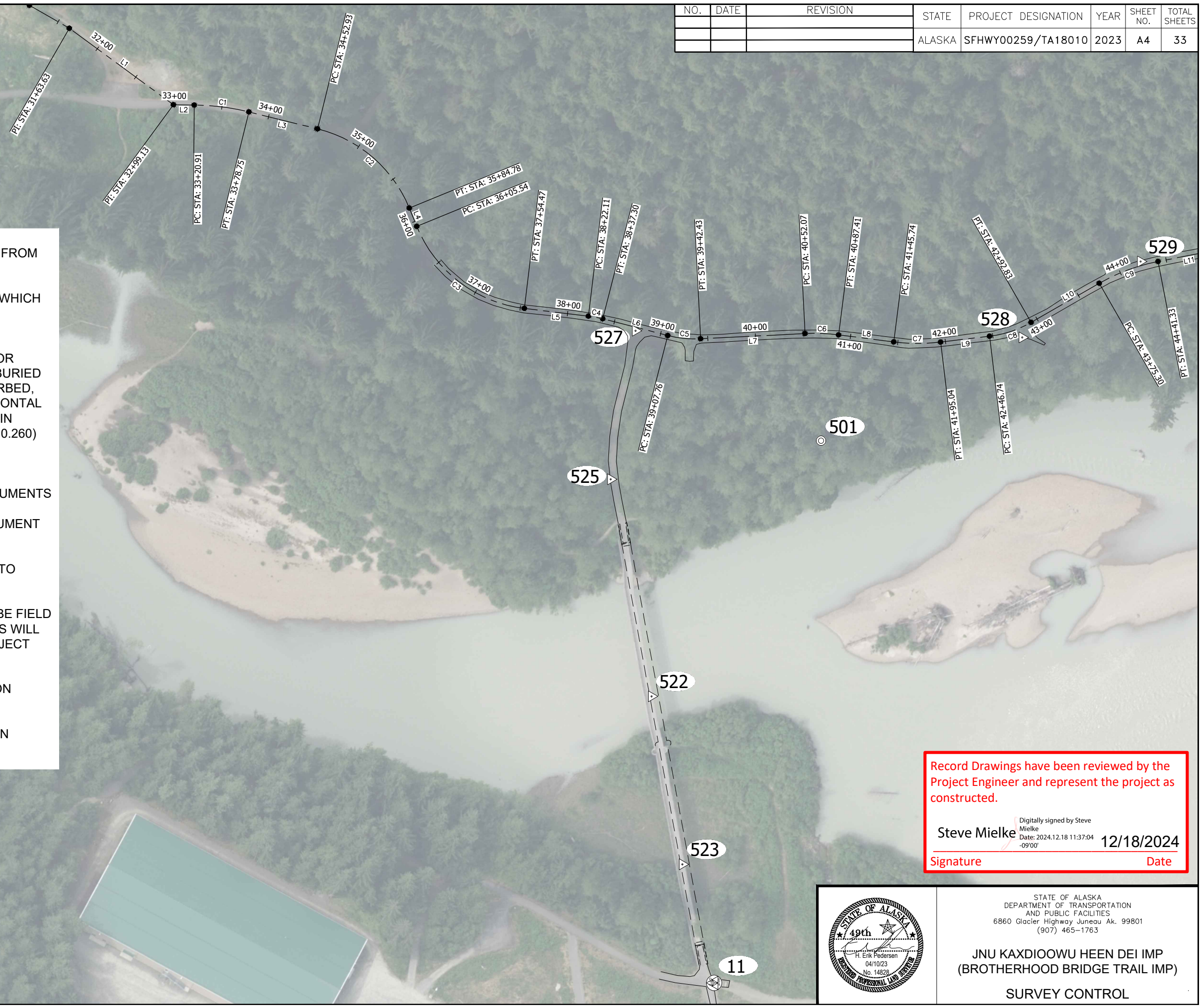
LEGEND

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWY00259/TA18010	2023	A4	33

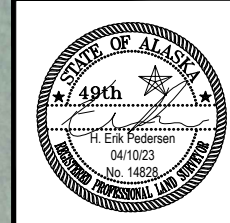
DESIGNED: J.PAPOI  
 CHECKED: E.PEDERSEN  
 DRAFTED: J.PAPOI  
 XREFS  
 SCALE  
 LAYOUT: A4  
 DATE: 4/10/2023 16:50  
 TIME: 16:50  
 DRAWING LOCATION: Q:\nuh\SFHWY00259\SV\SOURCE\DWGS\BASEMAP\KAX\_SCS\_100422.dwg

**MONUMENT NOTES:**

- IF ANY PAIR OF CONTROL POINTS DISAGREES FROM PUBLISHED VALUE BY MORE THAN 1:10,000 HORIZONTALLY OR VERTICALLY THEN A THIRD NETWORK POINT MUST BE TIED TO ASCERTAIN WHICH POINT IS IN ERROR OR HAS BEEN DISTURBED.
- WHETHER LISTED OR NOT, ALL PROPERTY MONUMENTS, PROPERTY MARKERS, CORNERS OR ACCESSORIES WHICH WILL BE DISTURBED OR BURIED SHALL BE REFERENCED PRIOR TO BEING DISTURBED, AND RE-ESTABLISHED IN THEIR ORIGINAL HORIZONTAL POSITION AND A RECORD OF MONUMENT FORM IN ACCORDANCE WITH (A.S.34.65.040) AND (A.S.19.10.260) SHALL BE SUBMITTED TO THE CONSTRUCTION ENGINEER FOR REVIEW PRIOR TO RECORDING.
- WHEN POSSIBLE ALL ORIGINAL PRIMARY MONUMENTS SHALL BE SAVED AND RESET IN THEIR ORIGINAL HORIZONTAL POSITION AND A RECORD OF MONUMENT FORM IN ACCORDANCE WITH (A.S.34.65.040) AND (A.S.19.10.260) SHALL BE SUBMITTED TO THE CONSTRUCTION ENGINEER FOR REVIEW PRIOR TO RECORDING.
- HORIZONTAL AND VERTICAL CONTROL MUST BE FIELD VERIFIED BY THE CONTRACTOR. DISCREPANCIES WILL BE REPORTED TO DOT&PF CONSTRUCTION PROJECT ENGINEER.
- ALIGNMENT WAS NOT DEVELOPED FROM AN ON GROUND FIELD SURVEY DONE AS PART OF THIS PROJECT. CONTRACTOR SHALL REPORT DISCREPANCIES TO THE DOT&PF CONSTRUCTION PROJECT ENGINEER.



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 Digitally signed by Steve Mielke  
 Date: 2024.12.18 11:37:04 -09'00' **12/18/2024**  
 Signature Date



STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 6860 Glacier Highway Juneau Ak. 99801  
 (907) 465-1763  
**JNU KAXDIOOWU HEEN DEI IMP  
 (BROTHERHOOD BRIDGE TRAIL IMP)**  
 SURVEY CONTROL

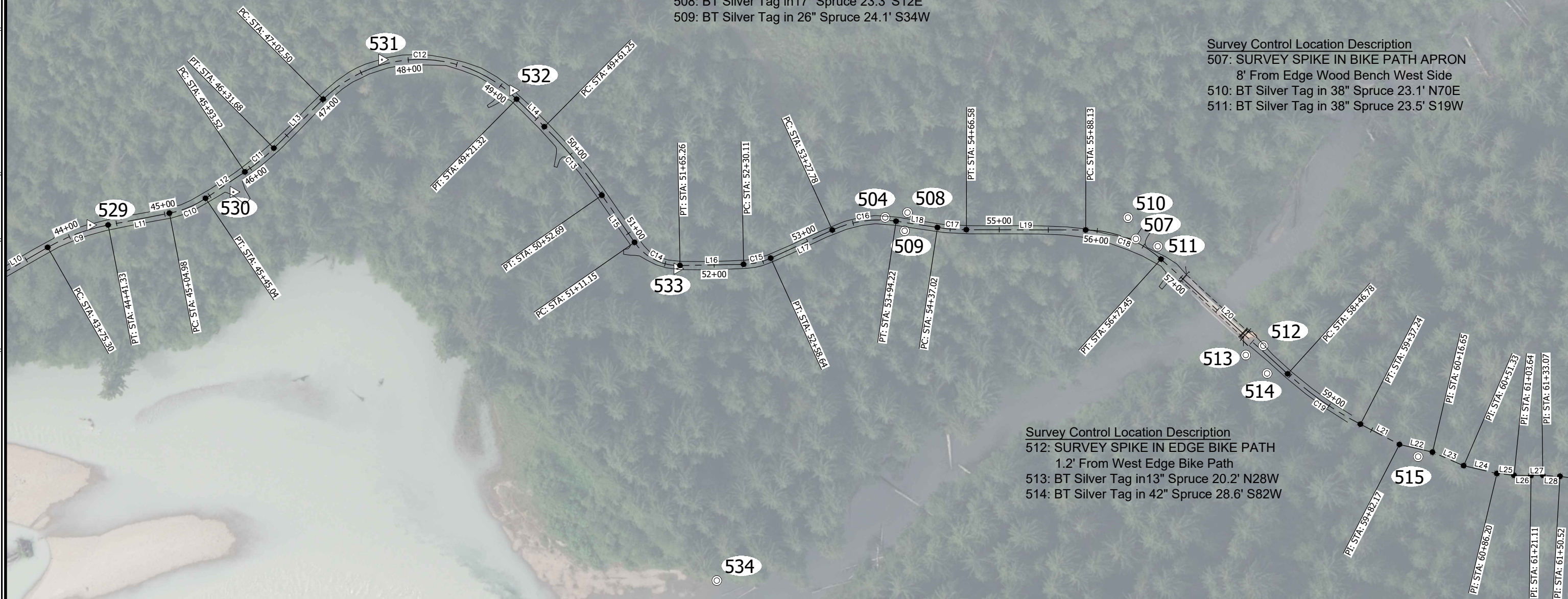
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWY00259/TA18010	2023	A5	33

**Survey Control Location Description**  
 504: SURVEY SPIKE IN EDGE BIKE PATH  
 1.2' From West Edge Bike Path  
 508: BT Silver Tag in 17" Spruce 23.3' S12E  
 509: BT Silver Tag in 26" Spruce 24.1' S34W

**Survey Control Location Description**  
 507: SURVEY SPIKE IN BIKE PATH APRON  
 8' From Edge Wood Bench West Side  
 510: BT Silver Tag in 38" Spruce 23.1' N70E  
 511: BT Silver Tag in 38" Spruce 23.5' S19W

**Survey Control Location Description**  
 512: SURVEY SPIKE IN EDGE BIKE PATH  
 1.2' From West Edge Bike Path  
 513: BT Silver Tag in 13" Spruce 20.2' N28W  
 514: BT Silver Tag in 42" Spruce 28.6' S82W

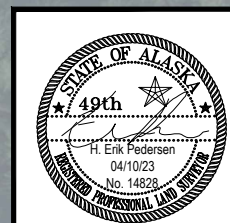
**Survey Control Location Description**  
 515: SURVEY SPIKE IN EDGE BIKE PATH  
 1.5' From South Edge Bike Path



DESIGNED: J.PAPOI  
 CHECKED: E.PEDERSEN  
 DRAFTED: J.PAPOI  
 XREFS  
 SCALE  
 LAYOUT: AS  
 DATE: 4/10/2023 16:50  
 TIME  
 DRAWING LOCATION: Q:\nuh\SFHWY00259\SV\SOURCE DWGS\BASEMAP\KAX\_SCS\_100422.dwg

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 Digitally signed by Steve Mielke  
 Date: 2024.12.18 11:37:04 -09'00'  
**Signature** **Date**

**HORIZONTAL AND VERTICAL CONTROL STATEMENT:**  
 COORDINATES LISTED ARE NAD83(2011) ALASKA STATE PLANE COORDINATE SYSTEM ZONE 1 U.S. FEET. ALL BEARINGS AND DISTANCES ARE GRID AND DERIVED FROM TIES TO THE NATIONAL SPATIAL REFERENCE SYSTEM. THE VERTICAL DATUM IS NAVD88 DERIVED FROM ELLIPSOIDAL HEIGHTS AND NATIONAL GEODETIC SURVEY GEOID MODEL 12B.



STATE OF ALASKA  
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 AND PUBLIC FACILITIES  
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**JNU KAXDIOOWU HEEN DEI IMP**  
**(BROTHERHOOD BRIDGE TRAIL IMP)**  
**SURVEY CONTROL**

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWY00259/TA18010	2023	A6	33

DESIGNED: J.PAPOI  
 CHECKED: E.PEDERSEN  
 DRAFTED: J.PAPOI  
 XREFS  
 SCALE  
 LAYOUT: A6  
 DATE TIME: 4/10/2023 16:50  
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KAX TRAIL DESIGN ALIGNMENT									
SEGMENT	STATION	NORTHING	EASTING	DISTANCE	BEARING	STATION	RADIUS	LENGTH	DELTA
L1	31+63.63	2390809.83	2506548.17	135.50	N36° 18' 42"E	32+99.13			
L2	32+99.13	2390919.02	2506628.41	21.79	N0° 34' 37"E	33+20.91			
C1	33+20.91	2390940.80	2506628.63			33+78.75	250.00	57.84	13°15'18"
L3	33+78.75	2390998.05	2506635.87	74.18	N13° 49' 55"E	34+52.93			
C2	34+52.93	2391070.09	2506653.61			35+84.78	140.00	131.85	53°57'34"
L4	35+84.78	2391166.23	2506736.63	20.75	N67° 47' 29"E	36+05.54			
C3	36+05.54	2391174.07	2506755.84			37+54.47	140.00	148.94	60°57'14"
L5	37+54.47	2391287.02	2506841.93	67.64	N6° 50' 15"E	38+22.11			
C4	38+22.11	2391354.18	2506849.98			38+37.30	115.00	15.18	7°33'54"
L6	38+37.30	2391369.09	2506852.78	70.46	N14° 24' 09"E	39+07.76			
C5	39+07.76	2391437.34	2506870.31			39+42.43	115.00	34.67	17°16'21"
L7	39+42.43	2391471.70	2506873.78	109.64	N2° 52' 12"W	40+52.07			
C6	40+52.07	2391581.21	2506868.29			40+87.41	200.00	35.34	10°07'28"
L8	40+87.41	2391616.48	2506869.64	58.33	N7° 15' 16"E	41+45.74			
C7	41+45.74	2391674.34	2506877.00			41+95.04	200.00	49.30	14°07'21"
L9	41+95.04	2391723.51	2506877.17	51.70	N6° 52' 05"W	42+46.74			
C8	42+46.74	2391774.84	2506870.98			42+92.83	115.00	46.09	22°57'48"
L10	42+92.83	2391818.29	2506856.57	82.47	N29° 49' 54"W	43+75.30			
C9	43+75.30	2391889.83	2506815.55			44+41.33	200.00	66.03	18°55'02"
L11	44+41.33	2391951.46	2506792.66	63.65	N10° 54' 51"W	45+04.98			
C10	45+04.98	2392013.96	2506780.61			45+45.04	100.00	40.05	22°56'59"
L12	45+45.04	2392050.74	2506765.46	48.48	N33° 51' 50"W	45+93.52			
C11	45+93.52	2392091.00	2506738.44			46+31.68	200.00	38.16	10°55'57"
L13	46+31.68	2392120.48	2506714.29	70.82	N44° 47' 47"W	47+02.50			

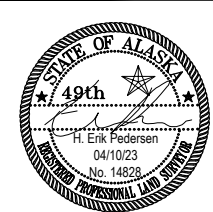
KAX TRAIL DESIGN ALIGNMENT									
SEGMENT	STATION	NORTHING	EASTING	DISTANCE	BEARING	STATION	RADIUS	LENGTH	DELTA
C12	47+02.50	2392170.73	2506664.39			49+21.32	140.00	218.82	89°33'11"
L14	49+21.32	2392367.95	2506664.32	39.93	N44° 45' 23"E	49+61.25			
C13	49+61.25	2392396.30	2506692.44			50+52.69	500.00	91.44	10°28'43"
L15	50+52.69	2392455.00	2506762.39	58.46	N55° 14' 07"E	51+11.15			
C14	51+11.15	2392488.34	2506810.41			51+65.26	55.00	54.11	56°22'06"
L16	51+65.26	2392534.61	2506834.04	64.85	N1° 08' 00"W	52+30.11			
C15	52+30.11	2392599.44	2506832.76			52+58.64	70.00	28.53	23°21'02"
L17	52+58.64	2392627.07	2506826.48	69.14	N24° 29' 02"W	53+27.78			
C16	53+27.78	2392689.99	2506797.83			53+94.22	115.00	66.44	33°06'13"
L18	53+94.22	2392754.89	2506788.78	42.80	N8° 37' 11"E	54+37.02			
C17	54+37.02	2392797.20	2506795.20			54+66.58	200.00	29.57	8°28'14"
L19	54+66.58	2392826.65	2506797.46	121.55	N0° 08' 57"E	55+88.13			
C18	55+88.13	2392948.20	2506797.77			56+72.45	115.00	84.31	42°00'22"
L20	56+72.45	2393025.09	2506827.52	174.34	N42° 09' 19"E	58+46.78			
C19	58+46.78	2393154.33	2506944.53			59+37.24	350.00	90.45	14°48'25"
L21	59+37.24	2393228.44	2506995.94	44.94	N27° 20' 53"E	59+82.17			
L22	59+82.17	2393268.35	2507016.58	34.48	N13° 08' 52"E	60+16.65			
L23	60+16.65	2393301.93	2507024.43	34.68	N23° 20' 56"E	60+51.33			
L24	60+51.33	2393333.77	2507038.17	34.86	N13° 21' 36"E	60+86.20			
L25	60+86.20	2393367.69	2507046.23	17.45	N5° 51' 36"E	61+03.64			
L26	61+03.64	2393385.05	2507048.01	17.47	N0° 51' 27"E	61+21.11			
L27	61+21.11	2393402.51	2507048.27	11.96	N0° 45' 31"W	61+33.07			
L28	61+33.07	2393414.47	2507048.11	17.45	N3° 19' 05"E	61+50.52			

Survey Control Table						
Point #	Northing	Easting	Elevation	Description	Station	Offset
11	2391485.88	2507549.13	36.09	GPS_PLASCAP	39+39.57	675.47R
501	2391598.03	2506980.60	29.72	2.5"ALCAP	40+77.62	112.30R
504	2392743.80	2506784.94	31.09	SURVSPIKE	53+82.93	2.71L
507	2392999.46	2506806.80	33.84	SURVSPIKE	56+39.90	2.85L
508	2392766.57	2506779.96	35.60	BT	54+04.45	10.48L
509	2392763.67	2506798.55	36.13	BT	54+04.37	8.34R
510	2392991.38	2506785.14	38.70	BT	56+25.59	19.83L
511	2393021.72	2506814.39	40.12	BT	56+61.86	7.99L
512	2393129.36	2506915.77	33.43	SURVSPIKE	58+08.97	4.56L
513	2393111.52	2506925.30	38.69	BT	58+02.15	14.48R
514	2393133.23	2506944.10	40.36	BT	58+30.86	13.84R
515	2393287.28	2507028.93	34.83	SURVSPIKE	60+03.41	7.72R

Survey Control Table						
Point #	Northing	Easting	Elevation	Description	Station	Offset
522	2391420.32	2507248.65	39.72	MAG	39+25.98	376.85R
523	2391452.65	2507424.80	38.34	MAG	39+34.37	551.01R
525	2391377.40	2507021.05	33.66	MAG	38+87.20	160.91R
527	2391403.50	2506865.31	32.66	MAG	38+73.74	3.57R
528	2391809.00	2506872.31	36.36	MAG	42+78.17	10.05R
529	2391933.11	2506792.71	43.68	MAG	44+23.66	4.22L
530	2392079.08	2506758.99	47.64	MAG	45+72.17	10.41R
531	2392230.63	2506623.91	45.42	MAG	47+74.12	5.09L
532	2392364.32	2506655.40	37.53	MAG	49+12.70	4.06L
533	2392531.86	2506837.30	29.87	MAG	51+62.61	3.28R
534	2392572.09	2507155.36	19.02	2.5"ALCAP	51+96.38	322.00R

**ALL SURVEY CONTROL MONUMENTS IN THESE TABLES ARE PROVIDED STRICTLY FOR SURVEY CONTROL. SHOULD ANY OF THEM BE DESTROYED DURING CONSTRUCTION THEY SHALL NOT BE REPLACED.**

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.  
 Digitally signed by Steve Mielke  
 Date: 2024.12.18 11:37:04 -09'00'  
**12/18/2024**  
 Signature Date

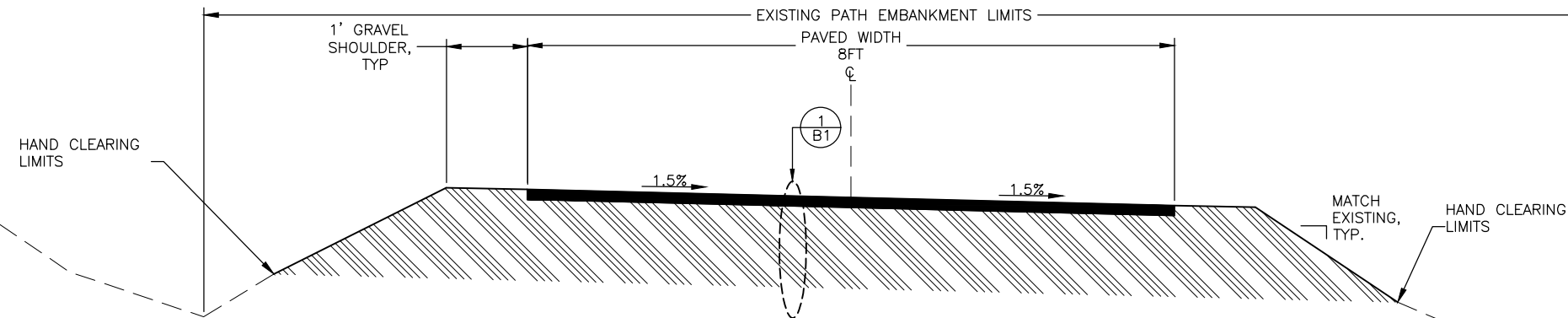


STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 6860 Glacier Highway Juneau Ak. 99801  
 (907) 465-1763  
**JNU KAXDIOOWU HEEN DEI IMP  
 (BROTHERHOOD BRIDGE TRAIL IMP)  
 SURVEY CONTROL**

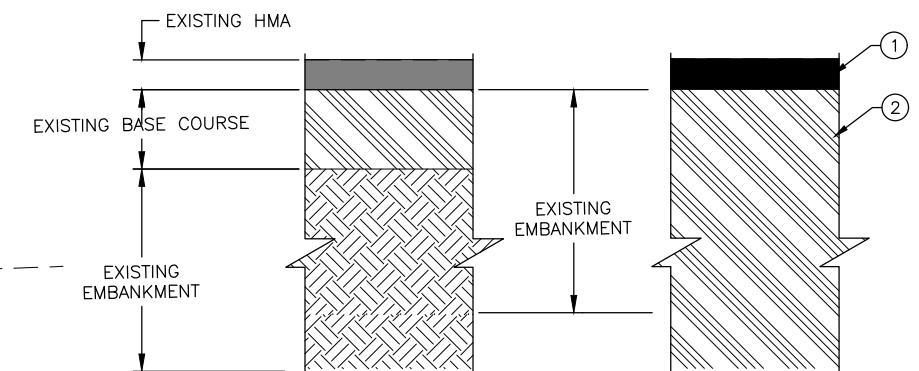
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWHY00259/TA18080	2023	B1	33

CHANGE ORDER NO. 1, ATTACHMENT NO. 1

ADDITIVE ALTERNATE #1



**NORTH TRAIL RECONDITIONING**  
 NOT TO SCALE  
 STA 58+39 TO ~~100+20~~ 105+20  
**SOUTH TRAIL RECONDITIONING**  
 STA 55+94 to 56+64



1  
B1 PAVEMENT STRUCTURAL SECTION NO. 1  
SCALE: NOT TO SCALE

NOTES:

- EXISTING SHOULDERS WILL BE UPGRADED WITH RECYCLED ASPHALT PAVEMENT (RAP) TO REESTABLISH 1' SHOULDER AND AS REQUIRED FOR EQUIPMENT LOADING.
- EXISTING AGGREGATE BASE COURSE WILL BE SUPPLEMENTED WITH RAP AS NECESSARY TO MAINTAIN EXISTING BASE COURSE GRADE.
- GRADE EXISTING BASE COURSE TO SMOOTH CONDITION WITH 1.5% CROSS SLOPE AND COMPACT PRIOR TO PAVING.
- THE 500' SECTION OF UNPAVED, DEGRADED NORTH ACCESS ROAD AT KAISER LIFT STATION WILL BE UPGRADED WITH RAP.

LEGEND	
①	1.5" HOT MIX ASPHALT, TYPE III; CLASS B,
②	EXISTING AGGREGATE BASE COURSE, GRADING D-1

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

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STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 JNU KAXDIGOOWU HEEN DEI IMP  
 (BROTHERHOOD BRIDGE TRAIL IMP)

TYPICAL SECTIONS

4/10/2024

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 DATE 3/21/2024 15:16 LAYOUT B1  
 DESIGNED BC  
 CHECKED  
 DRAFTED

FILE G:\nu\SFHW\00259\Planset\00259\_B1.dwg DATE 4/12/2023 14:10 LAYOUT B2 DESIGNED TE CHECKED WMC DRAFTED WMC

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFHWY00259/TA18080	2023	B2	33

**EXISTING TRAIL WIDTHS**

8' WIDTH  
 STA 32+96 TO 37+50  
 STA 46+50 TO 108+20

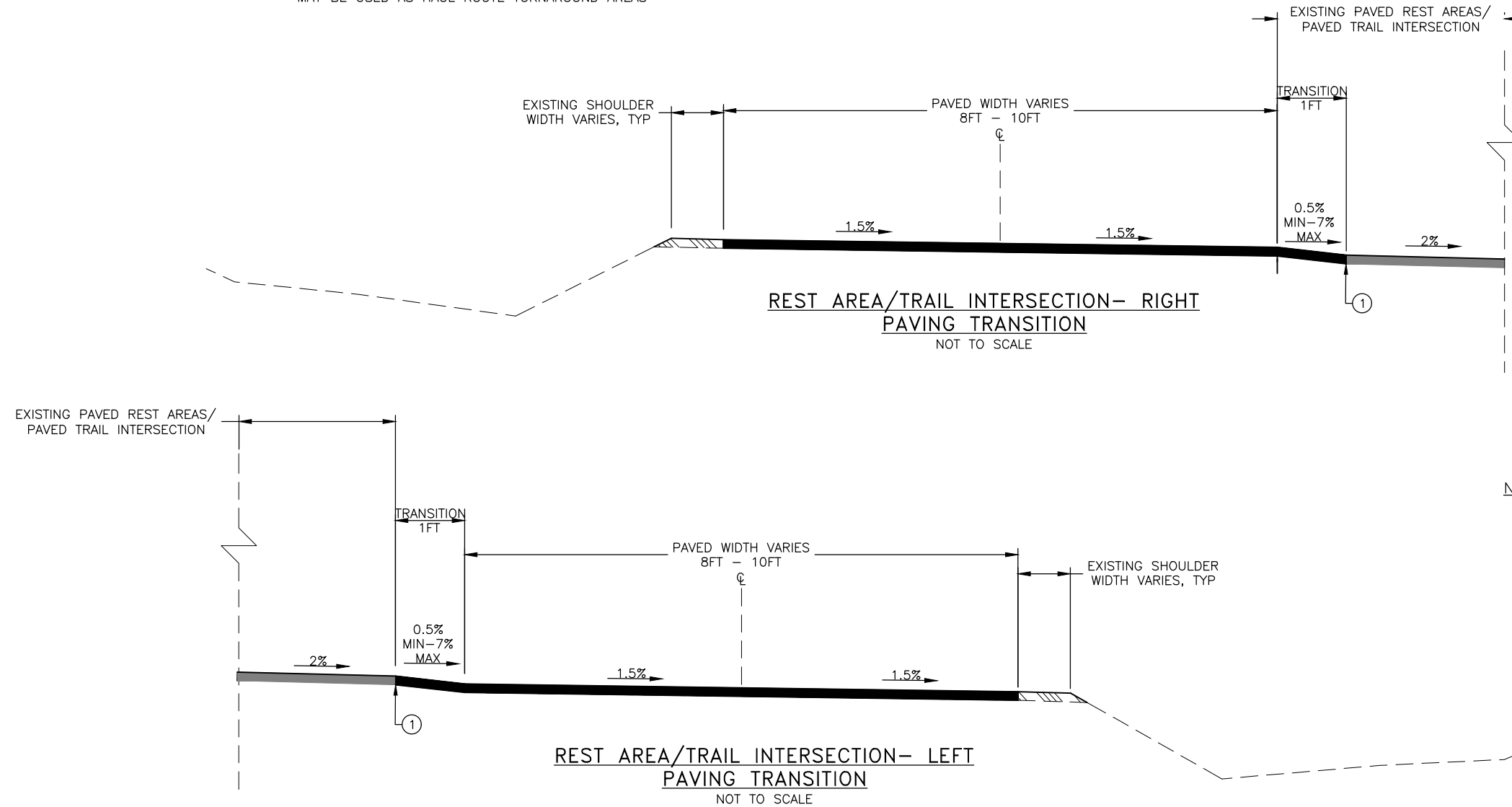
TRANSITIONS  
 STA 37+50 TO 37+60  
 STA 46+40 TO 46+50

10' WIDTH  
 STA 37+60 TO 46+40

**EXISTING REST AREA LOCATIONS\***

STA 9+50 RT  
 STA 25+81 LT  
 STA 34+63 RT  
 STA 41+02 RT  
 STA 51+57 LT  
 STA 58+39 LT  
 STA 67+50 LT  
 STA 76+00 RT  
 STA 85+51 LT  
 STA 93+61 LT  
 STA 101+80 RT

\*MAY BE USED AS HAUL ROUTE TURNAROUND AREAS



**NOTES:**

1. ENSURE THAT MINIMUM TRANSITION GRADE CAN BE MET BEFORE PAVING; ADDITIONAL BASE COURSE MAY BE NEEDED. IF MAXIMUM TRANSITION GRADE CANNOT BE MET, INCREASE TRANSITION WIDTH AS DIRECTED BY THE ENGINEER. AT INTERVALS OF 10 FT BEFORE AND 10 FT AFTER EXISTING PAVED REST AREAS/TRAIL INTERSECTIONS, GRADE AS DIRECTED BY THE ENGINEER.

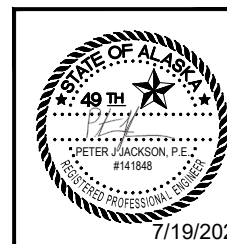
**LEGEND**

① JOINT ADHESIVE

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

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 Date: 2024.12.18 11:37:04 -09'00'

**Signature** **12/18/2024** **Date**

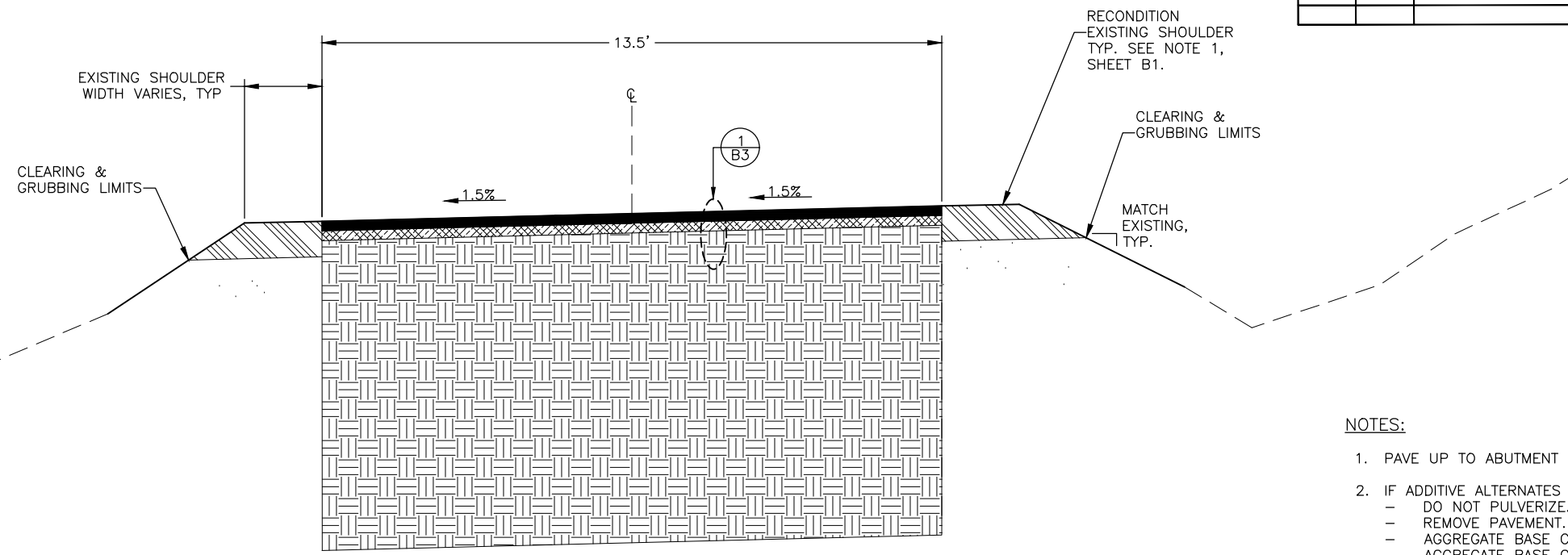


STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

JNU KAXDIGOOWU HEEN DEI IMP  
 (BROTHERHOOD BRIDGE TRAIL IMP)

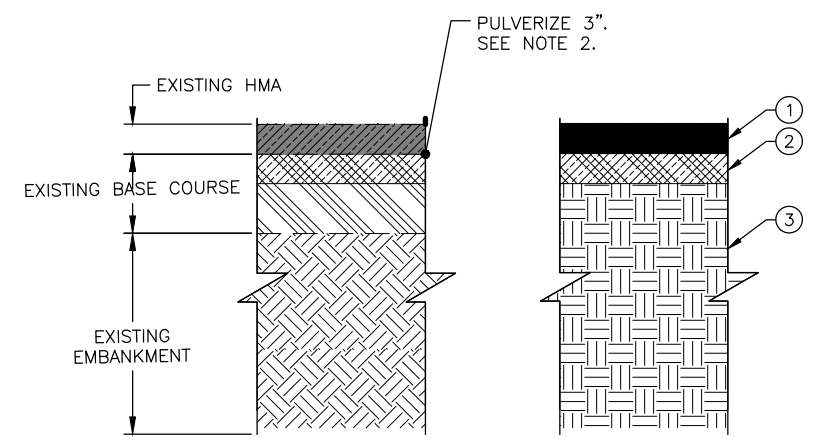
TYPICAL SECTIONS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	SFH00259/TA18080	2023	B3	33



**BRIDGE STRUCTURAL FILL MATCH**  
 NOT TO SCALE  
 STA 56+64 TO 56+84  
 STA 58+19 TO 58+39

- NOTES:**
- PAVE UP TO ABUTMENT WINGWALLS.
  - IF ADDITIVE ALTERNATES 1& 2 NOT USED:
    - DO NOT PULVERIZE.
    - REMOVE PAVEMENT.
    - AGGREGATE BASE COURSE, GRADING D-1 MAY BE USED INSTEAD OF CRUSHED AGGREGATE BASE COURSE.



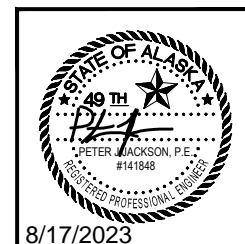
**1 PAVEMENT STRUCTURAL SECTION NO. 3**  
 B3 SCALE: NOT TO SCALE

LEGEND	
①	1.5" HOT MIX ASPHALT, TYPE III; CLASS B,
②	1.5" CRUSHED ASPHALT BASE COURSE
③	4' STRUCTURAL FILL

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

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Signature Date



STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

JNU KAXDIGOOWU HEEN DEI IMP  
 (BROTHERHOOD BRIDGE TRAIL IMP)

TYPICAL SECTIONS

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
1	9/8/23	ADDED/DELETED ITEMS.	ALASKA	TA18010/SFH00259	2023	C1	33
2	9/19/23	ADDED/DELETED ITEMS.					
3							

FILE G:\In\SFHW00259\Planset\00259\_C1.dwg DATE 9/19/2023 8:59 LAYOUT C1 DESIGNED WMC CHECKED STAFF DRAFTED WMC

ESTIMATE OF QUANTITIES			
ITEM NO	PAY ITEM	PAY UNIT	QUANTITY
201.0009.0000	CLEARING AND GRUBBING	LUMP SUM	ALL REQUIRED
<del>201.2001.0000</del>	<del>INVASIVE PLANT SPECIES CONTROL, REMOVAL, AND DISPOSAL</del>	<del>SQUARE YARD</del>	<del>40</del>
202.0023.0000	REMOVAL OF BRIDGE NO. 1955	LUMP SUM	ALL REQUIRED
<del>203.0003.0000</del>	<del>UNCLASSIFIED EXCAVATION</del>	<del>CUBIC YARD</del>	<del>800</del>
<del>205.0006.0000</del>	<del>STRUCTURAL FILL</del>	<del>CUBIC YARD</del>	<del>80</del>
<del>308.0001.0000</del>	<del>CRUSHED ASPHALT BASE COURSE</del>	<del>SQUARE YARD</del>	<del>60</del>
<del>401.0001.003B</del>	<del>HMA, TYPE III, CLASS B</del>	<del>TON</del>	<del>6</del>
<del>401.0004.5828</del>	<del>ASPHALT BINDER, GRADE PG 58-28</del>	<del>TON</del>	<del>1</del>
501.0001.0000	CLASS A CONCRETE	LUMP SUM	ALL REQUIRED
503.0001.0000	REINFORCING STEEL	LUMP SUM	ALL REQUIRED
<del>506.0006.0000</del>	<del>FURNISH STRUCTURAL STEEL PIPE PILES, 1'-6" DIA. X 1/2"</del>	<del>LINEAR FOOT</del>	<del>304</del>
<del>505.0006.0000</del>	<del>DRIVE STRUCTURAL STEEL PIPE PILES, 1'-6" DIA. X 1/2"</del>	<del>EACH</del>	<del>4</del>
<del>506.2004.0000</del>	<del>PREFABRICATED TIMBER BRIDGE 135' X 20'</del>	<del>EACH</del>	<del>1</del>
<del>611.0001.0000</del>	<del>RIPRAP, CLASS II</del>	<del>CUBIC YARD</del>	<del>1,000</del>
<del>631.0002.0001</del>	<del>GEOTEXTILE, EROSION CONTROL, CLASS 1</del>	<del>SQUARE YARD</del>	<del>1,000</del>
640.0001.0000	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED
641.0001.0000	EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQUIRED
641.0003.0000	TEMPORARY EROSION, SEDIMENT AND POLLUTON CONTROL	LUMP SUM	ALL REQUIRED
<del>641.0005.0000</del>	<del>TEMPORARY EROSION, SEDIMENT AND POLLUTON CONTROL BY DIRECTIVE</del>	<del>CONTINGENT SUM</del>	<del>ALL REQUIRED</del>
<del>641.0006.0000</del>	<del>WITHHOLDING</del>	<del>CONTINGENT SUM</del>	<del>ALL REQUIRED</del>
<del>641.0008.0000</del>	<del>SWPPP TRACK</del>	<del>CONTINGENT SUM</del>	<del>ALL REQUIRED</del>
642.0001.0000	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQUIRED
<del>642.0003.0000</del>	<del>THREE PERSON SURVEY</del>	<del>HOURLY</del>	<del>15</del>
643.0002.0000	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED
<del>643.0025.0000</del>	<del>TRAFFIC CONTROL</del>	<del>CONTINGENT SUM</del>	<del>ALL REQUIRED</del>
<del>644.0001.0000</del>	<del>FIELD OFFICE</del>	<del>LUMP SUM</del>	<del>ALL REQUIRED</del>
<del>644.2004.0000</del>	<del>ENGINEERING COMMUNICATIONS</del>	<del>CONTINGENT SUM</del>	<del>ALL REQUIRED</del>

Additive Alternate 2 "Not Awarded"

ADDITIVE ALTERNATE 2 - TRAIL RESURFACING			
ITEM NO	PAY ITEM	PAY UNIT	QUANTITY
201.0010.0000	HAND CLEARING	LUMP SUM	ALL REQUIRED
<del>303.2000.0000</del>	<del>LINEAR GRADING</del>	<del>STATION</del>	<del>57</del>
<del>308.0001.0000</del>	<del>CRUSHED ASPHALT BASE COURSE</del>	<del>SQUARE YARD</del>	<del>6,284</del>
<del>401.0001.003B</del>	<del>HMA, TYPE III, CLASS B</del>	<del>TON</del>	<del>555</del>
<del>401.0004.5828</del>	<del>ASPHALT BINDER, GRADE PG 58-28</del>	<del>TON</del>	<del>35</del>
<del>640.0001.0000</del>	<del>MOBILIZATION AND DEMOBILIZATION</del>	<del>LUMP SUM</del>	<del>ALL REQUIRED</del>
<del>641.0001.0000</del>	<del>EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION</del>	<del>LUMP SUM</del>	<del>ALL REQUIRED</del>
<del>641.0003.0000</del>	<del>TEMPORARY EROSION, SEDIMENT AND POLLUTON CONTROL</del>	<del>LUMP SUM</del>	<del>ALL REQUIRED</del>
<del>641.0005.0000</del>	<del>TEMPORARY EROSION, SEDIMENT AND POLLUTON CONTROL BY DIRECTIVE</del>	<del>CONTINGENT SUM</del>	<del>ALL REQUIRED</del>
<del>642.0001.0000</del>	<del>CONSTRUCTION SURVEYING</del>	<del>LUMP SUM</del>	<del>ALL REQUIRED</del>
<del>642.0003.0000</del>	<del>THREE PERSON SURVEY</del>	<del>HOURLY</del>	<del>5.0</del>
<del>643.0002.0000</del>	<del>TRAFFIC MAINTENANCE</del>	<del>LUMP SUM</del>	<del>ALL REQUIRED</del>

All pay items that remained were converted to "Lump Sum" by Change Order No. 1.  
See incert (next Page)

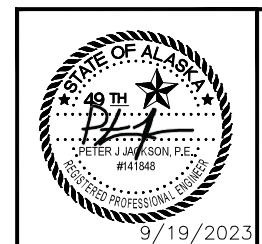
ADDITIVE ALTERNATE 1 - TRAIL RECONSTRUCTION			
ITEM NO	PAY ITEM	PAY UNIT	QUANTITY
201.0010.0000	HAND CLEARING	LUMP SUM	ALL REQUIRED
<del>202.0002.0000</del>	<del>REMOVAL OF PAVEMENT</del>	<del>SQUARE YARD</del>	<del>1,883</del>
<del>203.0003.0000</del>	<del>UNCLASSIFIED EXCAVATION</del>	<del>CUBIC YARD</del>	<del>628</del>
<del>203.0006.0000A</del>	<del>BORROW, TYPE A</del>	<del>TON</del>	<del>816</del>
<del>301.0001.00D1</del>	<del>AGGREGATE BASE COURSE, GRADING D-1</del>	<del>TON</del>	<del>408</del>
<del>401.0001.003B</del>	<del>HMA, TYPE III, CLASS B</del>	<del>TON</del>	<del>166</del>
<del>401.0004.5828</del>	<del>ASPHALT BINDER, GRADE PG 58-28</del>	<del>TON</del>	<del>10</del>
<del>630.0002.0001</del>	<del>GEOTEXTILE, STABILIZATION, CLASS 1</del>	<del>SQUARE YARD</del>	<del>1,883</del>
640.0001.0000	MOBILIZATION AND DEMOBILIZATION - North Trail	LUMP SUM	ALL REQUIRED
641.0001.0000	EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION - North Trail	LUMP SUM	ALL REQUIRED
641.0003.0000	TEMPORARY EROSION, SEDIMENT AND POLLUTON CONTROL - North Trail	LUMP SUM	ALL REQUIRED
<del>641.0005.0000</del>	<del>TEMPORARY EROSION, SEDIMENT AND POLLUTON CONTROL BY DIRECTIVE</del>	<del>CONTINGENT SUM</del>	<del>ALL REQUIRED</del>
642.0001.0000	CONSTRUCTION SURVEYING - North Trail	LUMP SUM	ALL REQUIRED
<del>642.0003.0000</del>	<del>THREE PERSON SURVEY</del>	<del>HOURLY</del>	<del>5.0</del>
643.0002.0000	TRAFFIC MAINTENANCE - North Trail	LUMP SUM	ALL REQUIRED
<del>643.0025.0000</del>	<del>TRAFFIC CONTROL</del>	<del>CONTINGENT SUM</del>	<del>ALL REQUIRED</del>

All pay items that remained were converted to "Lump Sum" by Change Order No. 1.  
See incert (next Page)

BASIS OF ESTIMATE		
ITEM NO.	ITEM	ESTIMATING FACTOR
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D-1	1.95 TONS/CY
401.0001.002A	HMA, TYPE II, CLASS A	117 LBS/SY/IN
401.0004.5828	ASPHALT BINDER, GRADE PG-58-28	6.0% OF ITEM 401(1)

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12/18/2024  
Signature Date



STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

JNU KAXDIGOOWU HEEN DEI IMP  
(BROTHERHOOD BRIDGE TRAIL IMP)

ESTIMATE OF QUANTITIES

ESTIMATE OF QUANTITIES			
BASIC BID			
ITEM NO.	PAY ITEM	ESTIMATING UNIT	ESTIMATED QUANTITY
202.0008.0000	Grubbing - Invasive Plant Species Control, Removal, And Disposal	Square Yard	49
303.0019.0000	Unclassified Excavation	Cubic Yard	800
205.0010.0000	Structural Fill	Cubic Yard	80
308.004.0000	Crushed Asphalt Base Course	Square Yard	60
401.0011.003B	HMA, Driveway, Type III; Class B – Basic Bid	TON	<del>6</del> 4.75
	Asphalt Binder, Grade PG 58-28	TON	± 0.24
506.0001.0000	Treated Timber – Prefabricated Bridge 105' x 20'	Lump Sum	All Required
611.0003.0002	Riprap, Class II	Cubic Yard	1,000
641.2002.0000	SWPPPTrack	Lump Sum	All Required
643.2019.0000	Traffic Control – Basic Bid	Lump Sum	All Required
699.2002.0000	Work Complete – Geotextile, Erosion Control, Class I	Square Yard	1,000
699.2002.0000	Work Complete – Furnish Structural Steel Pipe Piles, 1'-6" x 1/2"	Linear Foot	<del>304</del> 230
699.2002.0000	Work Complete – Drive Structural Steel Pipe Piles, 1'-6" x 1/2"	Each	4

ESTIMATE OF QUANTITIES			
ADDITIVE ALTERNATE 1 – NORTH TRAIL			
ITEM NO.	PAY ITEM	ESTIMATING UNIT	ESTIMATED QUANTITY
201.0010.0000	Hand Clearing – North Trail	Lump Sum	All Required
202.0014.0000	Removal of Pavement	Square Yard	4,428
303.0003.0000	Reconditioning – North Shoulders with RAP	Cubic Yard	225
303.0003.0000	Reconditioning – North Access Road with RAP	Cubic Yard	75
401.0011.003B	HMA, Type III; Class B	TON	<del>389</del> 404
	Asphalt Binder, Grade PG 58-28	TON	<del>24</del> 20
643.2019.0000	Traffic Control – North Trail	Lump Sum	All Required

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 Date: 2024.12.18 11:37:04 -09'00'  
**Steve Mielke** 12/18/2024  
 Signature Date

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	TA18010/SFHWHY00259	2023	F1	33



**HAUL ROUTE ENTRANCE AT WILDMEADOW LANE**

NOTE:

APPROXIMATE BOP AND EOP LOCATIONS PROVIDED, THE ENGINEER WILL ESTABLISH THE BOP AND EOP LOCATIONS IN THE FIELD.



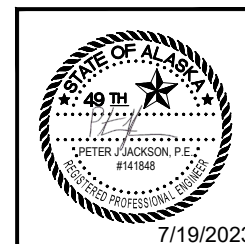
**HAUL ROUTE**  
WILDMEADOW LANE

LEGEND & ABBREVIATIONS	
HAUL ROUTE	
TRAIL	
EQUIPMENT STAGING AREA	
BEGINNING OF PROJECT	BOP
END OF PROJECT	EOP

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

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 Date: 2024.12.18 11:37:04 -09'00' **12/18/2024**

Signature Date



STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

**JNU KAXDIGOOWU HEEN DEI IMP (BROTHERHOOD BRIDGE TRAIL IMP)**

PLAN- STAGING AREA

FILE G:\nu\SFHW\00259\PlanSet\00259\_F1.dwg DATE 4/7/2023 14:02 LAYOUT F1 DESIGNED BC CHECKED --- DRAFTED BC

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	TA18010/SFHwy00259	2023	F2	33

**NOTE:**

APPROXIMATE BOP AND EOP LOCATIONS PROVIDED, THE ENGINEER WILL ESTABLISH THE BOP AND EOP LOCATIONS IN THE FIELD.



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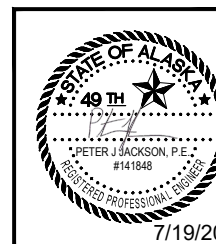
**BOP**  
STATION 32+96

LEGEND & ABBREVIATIONS	
HAUL ROUTE	
TRAIL	
EQUIPMENT STAGING AREA	
BEGINNING OF PROJECT	BOP
END OF PROJECT	EOP

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Date: 2024.12.18 11:37:04 -09'00' **12/18/2024**

Signature Date



STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

JNU KAXDIGOOWU HEEN DEI  
IMP (BROTHERHOOD BRIDGE  
TRAIL IMP)

PLAN- BOP

FILE G:\nu\SFHWY00259\PlanSet\00259\_F1.dwg DATE 4/7/2023 14:02 LAYOUT F2 DESIGNED BC CHECKED -- DRAFTED BC

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	TA18010/SFHWHY00259	2023	F3	33

FILE G:\Inu\SFHWHY00259\PlanSet\00259\_F1.dwg DATE 4/7/2023 14:02 LAYOUT F3 DESIGNED BC CHECKED -- DRAFTED BC



**BROTHERHOOD BRIDGE TRAIL & MENDENHALL BRIDGE INTERSECTION**  
STATION 38+70

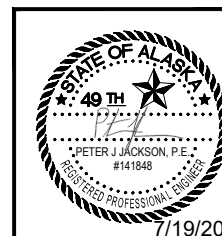


HAUL ROUTE	
TRAIL	
EQUIPMENT STAGING AREA	
BEGINNING OF PROJECT	BOP
END OF PROJECT	EOP

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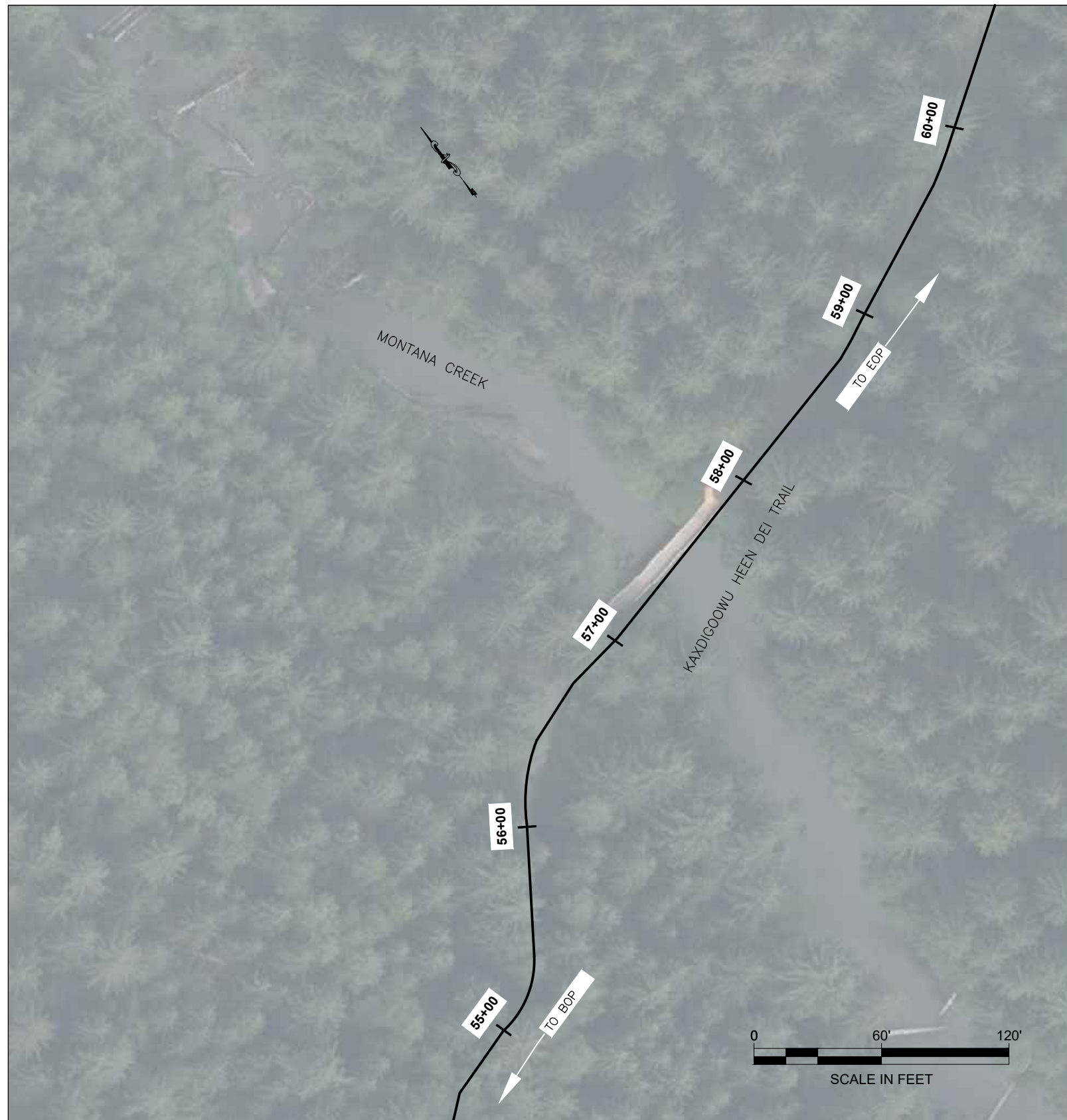
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

JNU KAXDIGOOWU HEEN DEI  
IMP (BROTHERHOOD BRIDGE  
TRAIL IMP)

PLAN -TRAIL INTERSECTION

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	TA18010/SFHWHY00259	2023	F4	33

FILE G:\Inu\SFHWHY00259\PlanSet\00259\_F1.dwg DATE 4/7/2023 14:02 LAYOUT F4 DESIGNED BC CHECKED --- DRAFTED BC



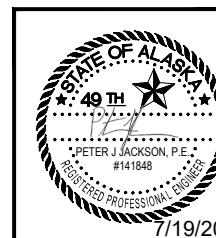
**MONTANA CREEK BRIDGE**  
STATION 57+00



LEGEND & ABBREVIATIONS	
HAUL ROUTE	
TRAIL	
EQUIPMENT STAGING AREA	
BEGINNING OF PROJECT	BOP
END OF PROJECT	EOP

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 Date: 2024.12.18 11:37:04 -09'00' **12/18/2024**  
 Signature Date

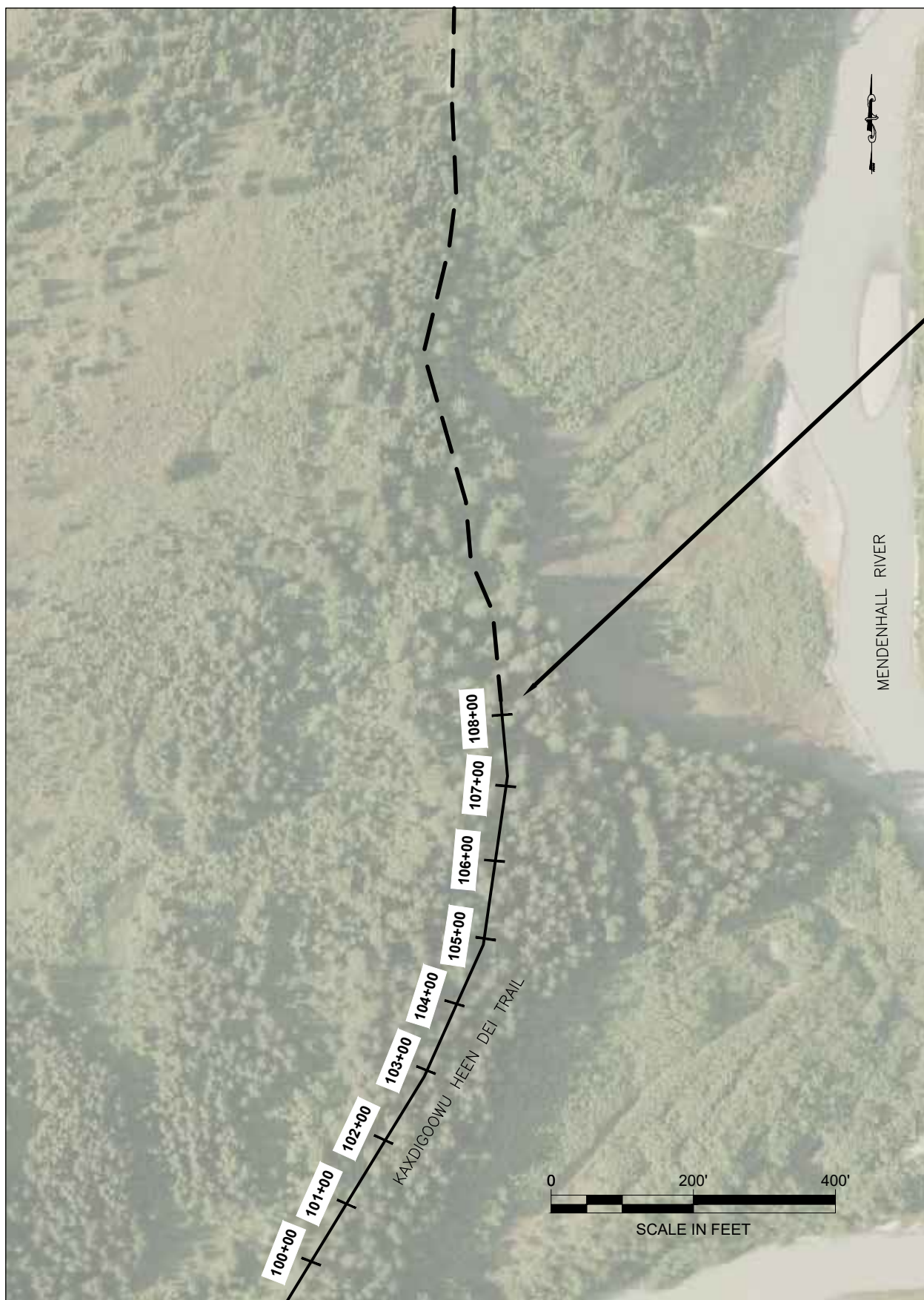


STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
**JNU KAXDIGOOWU HEEN DEI  
 IMP (BROTHERHOOD BRIDGE  
 TRAIL IMP)**

PLAN- MONTANA CREEK BRIDGE

FILE G:\nu\SFHW\0259\PlanSet\00259\_F1.dwg DATE 4/7/2023 14:02 LAYOUT F5 DESIGNED BC CHECKED --- DRAFTED BC

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	TA18010/SFHwy00259	2023	F5	33



EOP  
STATION 108+20

EOP



**NOTE:**

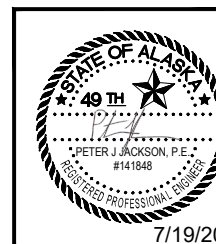
APPROXIMATE BOP AND EOP LOCATIONS PROVIDED, THE ENGINEER WILL ESTABLISH THE BOP AND EOP LOCATIONS IN THE FIELD.

**LEGEND & ABBREVIATIONS**

HAUL ROUTE	
TRAIL	
EQUIPMENT STAGING AREA	
BEGINNING OF PROJECT	BOP
END OF PROJECT	EOP

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Digitally signed by Steve Mielke  
Date: 2024.12.18 11:37:04 -09'00' **12/18/2024**  
Signature Date



STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
JNU KAXDIGOOWU HEEN DEI  
IMP (BROTHERHOOD BRIDGE  
TRAIL IMP)

PLAN- EOP

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	TA18010/SFHwy00259	2023	F6	33

FILE G:\Inu\SFHwy00259\PlanSet\00259\_F1.dwg DATE 4/7/2023 14:02 LAYOUT F6 DESIGNED BC CHECKED -- DRAFTED BC



**HAUL ROUTE & EQUIPMENT STAGING AREA**  
KAISER LIFT STATION

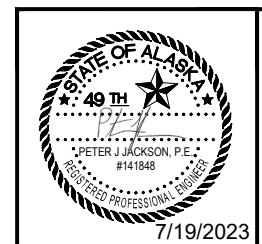


LEGEND & ABBREVIATIONS	
HAUL ROUTE	
TRAIL	
EQUIPMENT STAGING AREA	
END OF PROJECT	EOP

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Digitally signed by Steve Mielke  
Date: 2024.12.18 11:37:04 -09'00' **12/18/2024**

Signature Date



STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

JNU KAXDIGOOWU HEEN DEI IMP (BROTHERHOOD BRIDGE TRAIL IMP)

PLAN- EQUIPMENT STAGING AREA

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	TA18010/SFHWHY00259	2023	G1	33



NO.	STATION	OFFSET	ELEVATION	DESCRIPTION
1	55+40.76'	4.14' LT	MTE	EP
2	55+41.04'	4.13' RT	MTE	EP
3	55+66.75'	5.12' RT	32.89'	EP
4	55+67.18'	3.12' LT	32.94'	EP
5	55+69.49'	5.38' RT	32.85'	EP
6	55+69.99'	3.02' LT	32.93'	EP
7	55+88.08'	1.06' LT	33.17'	EP
8	55+87.45'	7.56' RT	33.09'	EP
9	55+13.11'	10.44' RT	33.55'	EP
10	56+13.20'	1.90' RT	33.85'	EP
11	56+37.19'	10.70' RT	33.70'	EP
12	56+36.09'	1.24' LT	33.88'	EP
13	56+54.10'	0.81' LT	33.95'	EP
14	56+84.14'	5.00' RT	34.00'	EP, BRIDGE
15	56+84.15'	5.00' LT	34.00'	EP, BRIDGE
16	58+19.26'	5.00' RT	34.00'	EP, BRIDGE
17	58+19.26'	5.00' LT	34.00'	EP, BRIDGE
18	58+49.20'	4.07' RT	33.75'	EP
19	58+49.48'	4.19' LT	33.93'	EP
20	58+74.00'	3.86' RT	MTE	EP
21	58+75.18'	4.43' LT	MTE	EP

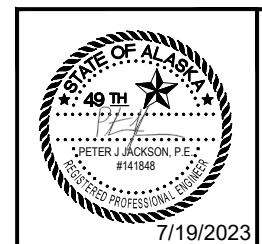
LAYOUT POINT DESCRIPTIONS:  
 EP = EDGE OF PAVEMENT  
 PC = POINT OF CURVATURE  
 PI = POINT OF INTERSECTION  
 PT = POINT OF TANGENCY  
 VPI = VERTICAL POINT OF INTERSECTION  
 MTE = MATCH TO EXISTING

FILE Q:\nu\SFHWY00259\Planset\00259\_G1.dwg  
 DATE 4/13/2023 9:05 LAYOUT G1  
 DESIGNED WMC  
 CHECKED ###  
 DRAFTED WMC

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Digitally signed by Steve Mielke  
 Date: 2024.12.18 11:37:04 -09'00' 12/18/2024

Signature Date

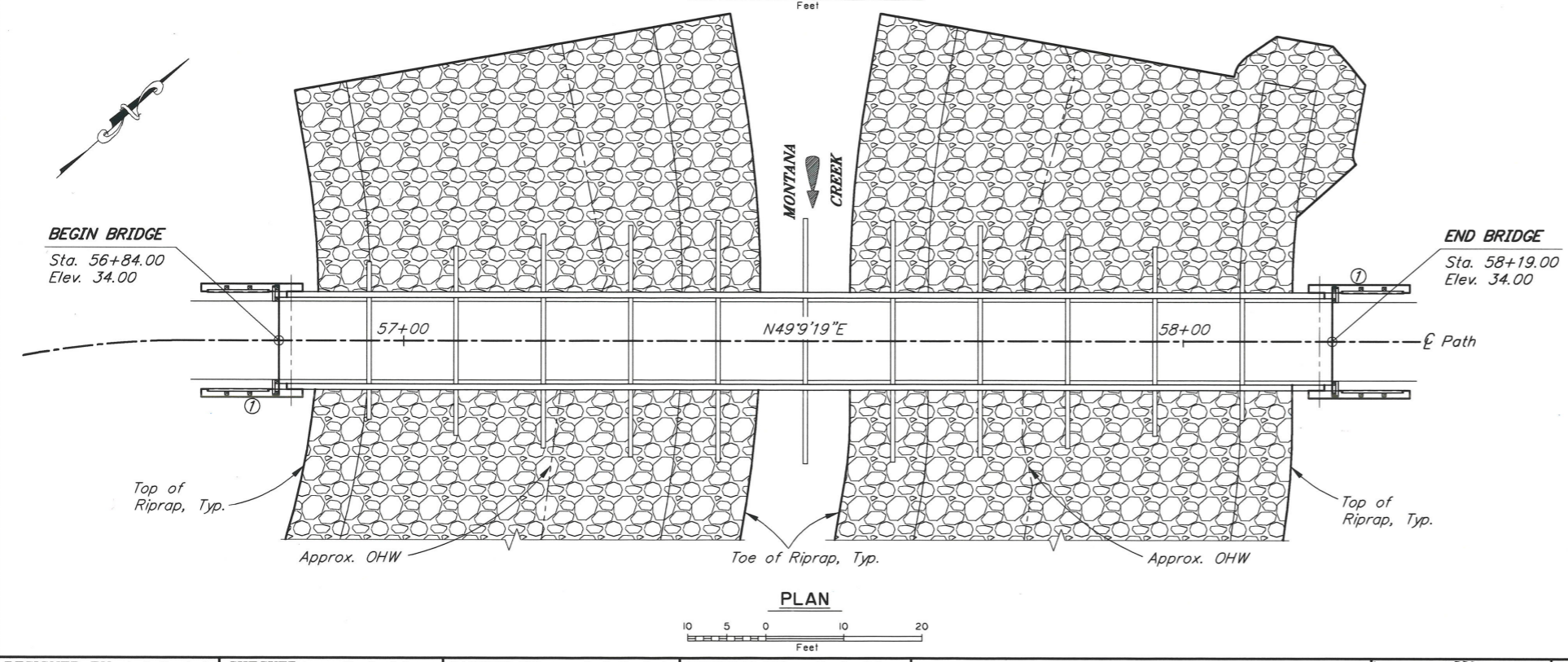
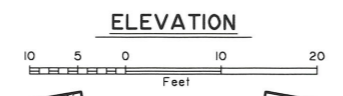
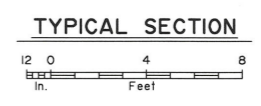
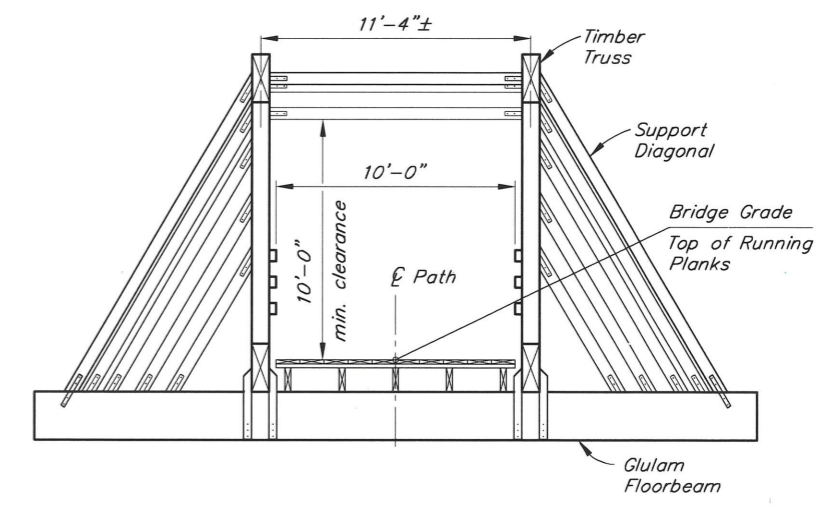
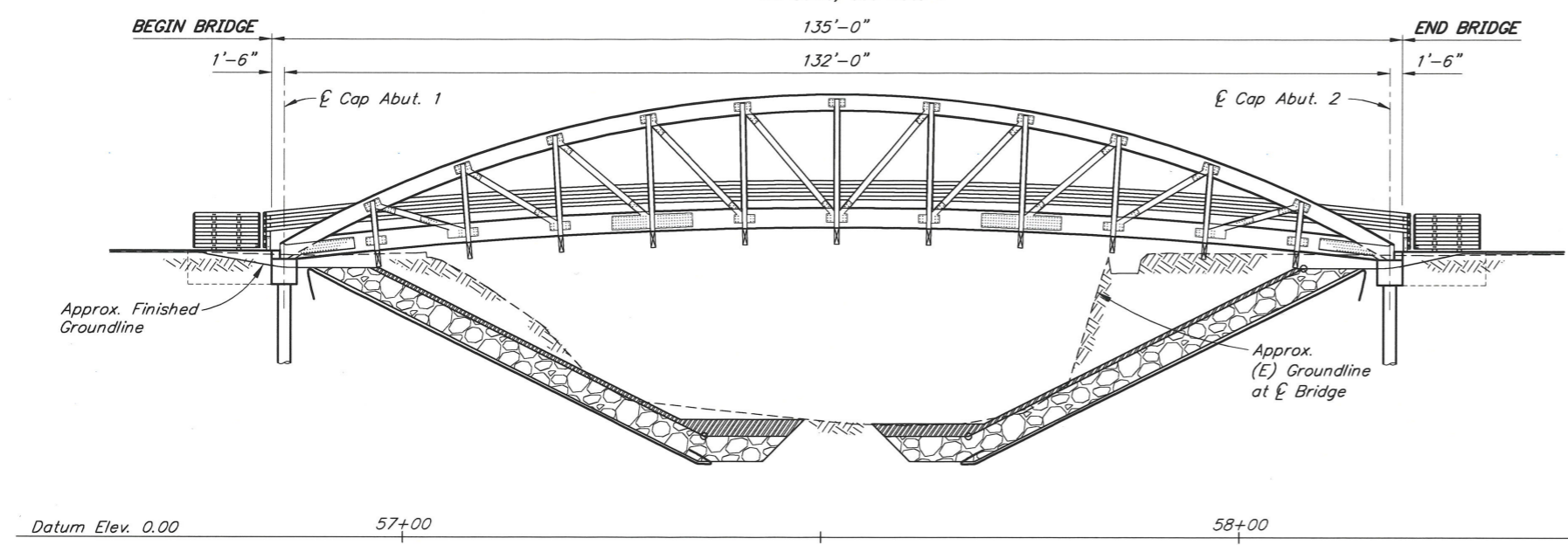
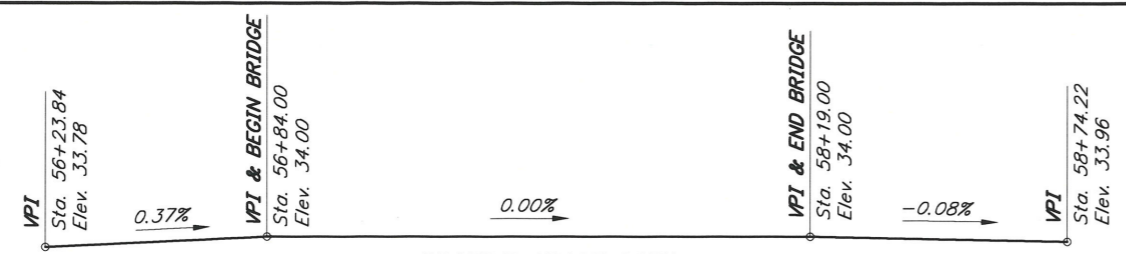


STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES  
 6860 GLACIER HIGHWAY, JUNEAU, AK 99801  
 (907) 465-1763

JNU KAXDIGOOWU HEEN DEI IMP  
 (BROTHERHOOD BRIDGE TRAIL IMP)

GRADING POINTS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWO0259/TA18010	2023	N1	N12



BRIDGE DRAWING INDEX	
TITLE	DWG. NO.
GENERAL LAYOUT	1
SITE PLAN	2
RIPRAP LAYOUT	3
ABUTMENTS	4
WINGWALLS	5
APPROACH RAILS	6
TEST HOLE & PENETROMETER LOCATION	7
TEST HOLE & PENETROMETER LEGEND	8
TEST HOLE & PENETROMETER LOGS	9-12

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Steve Mielke  
 Digitally signed by Steve Mielke  
 Date: 2024.12.18 11:37:04 -09'00'      12/18/2024

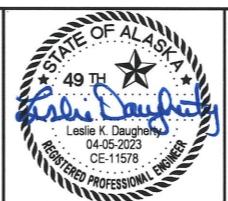
Signature      Date

- NOTES:**
- Provide camber in addition to grade shown. Minimum camber of 24 inches and maximum camber of 48 inches is required.
  - Approximate location of Bridge Number plate

R:\aoc\1955\1955-GENERAL LAYOUT Wed, Apr/05/23 03:54pm

DESIGNED BY: Leslie Daugherty	CHECKED: Douglas Gelineau	LAYOUT BY: Leslie Daugherty	CHECKED BY: Douglas Gelineau
DRAWN BY: Javier De Leon	CHECKED: Leslie Daugherty	SPECIFICATIONS BY: Leslie Daugherty	P S & E COMPARED: Douglas Gelineau
QUANTITIES BY: Leslie Daugherty	CHECKED: Douglas Gelineau	APPROVAL RECOMMENDED BY: Leslie Daugherty	

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 BRIDGE SECTION  
 3132 Channel Drive  
 Juneau, Alaska 99801  
 907-465-2975



**MONTANA CREEK PEDESTRIAN BRIDGE**  
 KAXDIGOOWU HEEN DEI (BROTHERHOOD BRIDGE) TRAIL  
**GENERAL LAYOUT**

BRIDGE NO. 1955  
 DWG. NO. 1

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWO0259/TA18010	2023	N2	N12

**GENERAL NOTES**

DESIGN:..... AASHTO LRFD Bridge Design Specifications, 2021 Edition, with latest interim specifications.  
AASHTO LRFD Guide Specifications for Design of Pedestrian Bridges, 2nd Edition with latest interim revisions.

LIVE LOAD:..... 90 psf pedestrian or H10 service vehicles whichever produces maximum effect.

DEAD LOAD:..... Includes 70 psf for snow loads.

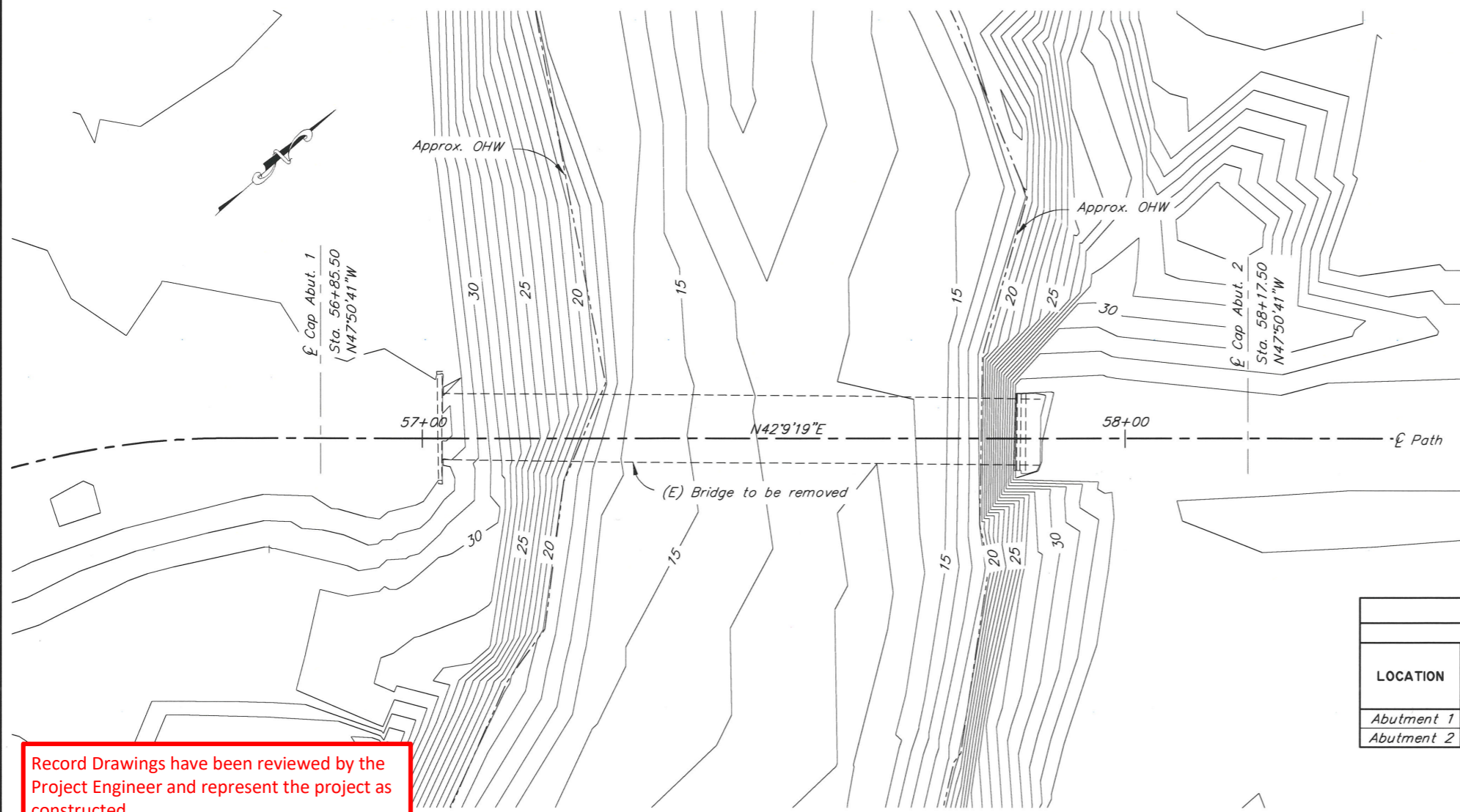
SEISMIC PARAMETERS:..... PGA = 0.17  
S<sub>s</sub> = 0.39  
S<sub>1</sub> = 0.21  
Site Class = C  
Liquefaction Potential = High  
AASHTO 7% probability of exceedance in 75 years.

REINFORCEMENT:..... ASTM A706, Grade 60, F<sub>y</sub> = 60,000 psi  
Space reinforcement evenly unless otherwise noted.

CONCRETE:..... Class A Concrete unless otherwise noted, f'c = 4,000 psi

STRUCTURAL STEEL:..... ASTM A709, Grade 36T3, F<sub>y</sub> = 36,000 psi  
Galvanize structural steel in accordance with AASHTO M111 unless noted otherwise.

STRUCTURAL STEEL PILING:..... API 5L X52 PSL2, F<sub>y</sub> = 52,000 psi.  
or ASTM A709 Grade, 50T3, F<sub>y</sub> = 50,000 psi.  
Closed tip reinforcing is required.

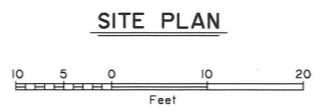


PILE DATA TABLE							
LOCATION	PILE TYPE	DRIVING CRITERIA			DESIGN DATA		
		MINIMUM PENETRATION ELEVATION (ft)	ESTIMATED PILE TIP ELEVATION (ft)	DRIVING RESISTANCE (K)	STRENGTH FACTORED LOAD (K)	NOMINAL RESISTANCE (K)	RESISTANCE FACTOR, φ
Abutment 1	1'-6"Øx½" Pipe	-15.2	-46.2	170	110	170	0.65
Abutment 2	1'-6"Øx½" Pipe	-15.2	-46.2	170	110	170	0.65

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Digitally signed by Steve Mielke  
Date: 2024.12.18 11:37:04 -09'00' **12/18/2024**

Signature \_\_\_\_\_ Date \_\_\_\_\_



**ABBREVIATIONS:**

- C = centerline
- P = plate
- & = and
- @ = at
- Ø = diameter
- ± = approximate
- Abut. = abutment
- Approx. = approximate
- b.f. = back/dirt face
- bot. = bottom
- Br. = bridge
- btwn. = between
- Brg. = bearings
- C.A. = center of gravity
- C.I.P. = cast in place
- CJP = complete joint penetration
- Clr. = clear, clearance
- CMP = corrugated metal pipe
- CY = cubic yard
- Dia. = diameter
- Dwg. = drawing
- E = expansion
- (E) = existing
- EA = each
- Elev. = elevation
- e.a. = each face
- e.w. = each way
- Ext. = exterior
- F = fixed
- f.f. = front/air face
- f'c = specified concrete compressive strength
- Ft. = feet
- Fy = yield stress
- Galv. = galvanize
- H.S. = high strength
- ID = internal diameter
- Int. = interior
- Jt. = joint
- K = kips
- ksf = 1000 pounds per square foot
- ksi = 1000 pounds per square inch
- LBS or lb = pounds
- LF = linear foot
- LS = lump sum
- LT. = left
- max. = maximum
- min. = minimum
- n.f. = near face
- No. = number
- a.c. = on center
- O.H.W. = ordinary high water
- pcf = pounds per cubic foot
- psf = pounds per square foot
- psi = pounds per square inch
- R = radius
- R.O.W. = right of way
- RT. = right
- spcs. = space, spaces
- Sta. = station
- SF = square feet
- SY = square yard
- Std. = standard
- Symm. = symmetric
- Typ. = typical
- UT = ultrasonic testing
- V.P.C. = point of vertical curve
- V.P.I. = point of vertical intersection
- V.P.T. = point of vertical tangent
- w/ = with

BRIDGE BASIS OF ESTIMATE						
ITEM NO.	ITEM	PAY UNIT	EST UNIT	SUBST.	SUPERST.	TOTAL
202.0023.0000	Removal of Bridge No. 1955	LS	LS	All Req'd	All Req'd	All Req'd
202.0003.0000	Unclassified Excavation	CY	CY	720	---	720
205.0006.0000	Structural Fill	CY	CY	80	---	80
501.0001.0000	Class A Concrete	LS	CY	20.7	---	20.7
503.0001.0000	Reinforcing Steel	LS	LBS	5,050	---	5,050
505.0005.0005	Furnish Structural Steel Piles, 1'-6" Dia. x ½"	LF	LF	304	---	304
505.0006.0006	Drive Structural Steel Piles, 1'-6" Dia. x ½"	EA	EA	4	---	4
506.2004.0000	Prefabricated Timber Bridge, 135' x 20'	LS	LS	---	All Req'd	All Req'd
507.0002.0000	Pedestrian Bridge Railing, Timber	LF	LF	---	42	42
611.0001.0000	Riprap, Class II	CY	CY	1,000	---	1,000
631.0002.0001	Geotextile, Erosion Control, Class 1	CY	CY	1,000	---	1,000

Item numbers are for reference only. Quantities shown are not necessarily the pay quantities nor the total quantity of the particular item.

R:\cod\1955\1955-SITE-PLAN Wed, Apr/05/23 03:54pm

DESIGNED BY: Leslie Daugherty <i>Leslie Daugherty</i>	CHECKED: Douglas Gelineau <i>Douglas Gelineau</i>	FOUNDATIONS REVIEWED BY: Dave Hemstreet <i>Dave Hemstreet</i>	STATE OF ALASKA <b>DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES</b> BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975		<b>MONTANA CREEK PEDESTRIAN BRIDGE</b> KAXDIGOOWU HEEN DEI (BROTHERHOOD BRIDGE) TRAIL <b>SITE PLAN</b>	
DRAWN BY: Javier De Leon <i>Javier De Leon</i>	CHECKED: Leslie Daugherty <i>Leslie Daugherty</i>					
QUANTITIES BY: Leslie Daugherty <i>Leslie Daugherty</i>	CHECKED: Douglas Gelineau <i>Douglas Gelineau</i>					

BRIDGE NO. 1955  
DWG. NO. 2



STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

# "AS-BUILT" PILE DRIVING RECORD

**FINAL**

FORMULA USED TO DETERMINE BEARING

P = PDA-BERT MINER

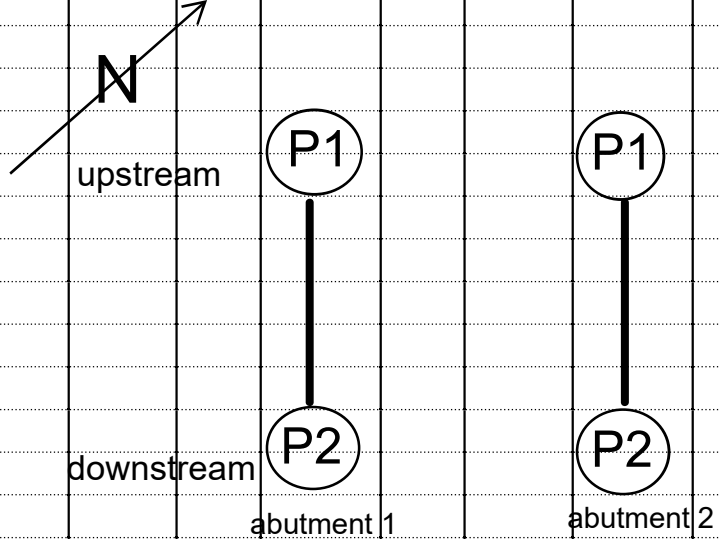
INSTRUMENTAL DRAWING SHOWING THE LOCATION OF THE PILES BY NUMBER SHALL BE DRAWN ON THE BACK OF THIS FORM OR ON AN ATTACHED SHEET

STRUCTURE NAME <b>Montana Creek Pedestrian Bridge</b>	CONTRACTOR <b>Coogan Construction Company</b>	PROJECT NAME <b>JNU Kaxdigoowu Heen Dei Imp (Brotherhood Bridge Trail Imp)</b>	BRIDGE NUMBER <b>No. 1955</b>
--	--	---	----------------------------------

PROJECT NO <b>SFHWHY00259 / TA18010</b>	DISTRICT <b>Southcoast</b>	TYPE OF BRIDGE <b>Prefabricated Timber Bridge 135' X 20'</b>
--	-------------------------------	---

TYPE OF HAMMER <b>D 19-42 open end diesel pile hammer</b>	MANUFACTURER <b>PILECO INC.</b>	WT OF RAM OR GRAVITY HAMMER <b>4,12.4 lbs.</b>	STROKE LENGTH MAX <b>10.5 ft.</b>	NO. BLOWS PER MIN <b>30-100 bpm</b>	MFG'S MAX. ENERGY RATING <b>42,410 ft lbf</b>
--	------------------------------------	---	--------------------------------------	--	--

DATE	ABUTMENT OR PIER NO	PILE NO	TYPE OF PILE (specify tip & butt, diameter of timber & concrete pile in inches)	LENGTH PLACED IN LEADS INCLUDING EXTENSIONS (FT)	CUTOFF LENGTH (FT)	NET LENGTH CUTOFF TO TIP (FT)	PENETRATION IN GROUND (FT)	PILE CUTOFF ELEV	OBSERVED GROUND ELEV	PILE TIP ELEV	DROP OF HAMMER (INCHES)	AVG PENETRATION LAST 5 BLOWS	COMPUTED BEARING (TONS)	REMARKS SPECIFY BATTER IF ANY. HOW DID PILE DRIVE; SPECIFY SPLICES, CORE STOPPERS, EXTENSION LENGTHS USED
61824	A1	P1	18" x 0.50" Spiral	78.00	11.95	66.05	66.05	29.83	29.83	-36.2	Test	Pile	190 kip	All piles equipped with Associated
61824	A1	P2	18" x 0.50" Spiral	78.00	7.35	70.65	70.65	29.83	29.83	-40.8		assume	190+ kip	Pipe & Fittings 18" Conical point
61724	A2	P1	18" x 0.50" Spiral	78.00	31.90	46.10	46.10	29.83	29.83	-16.3	Test	Pile	220 kip	Model CP99. Points were not
61724	A2	P2	18" x 0.50" Spiral	78.00	31.20	46.80	46.80	29.83	29.83	-17.0		assume	220+ kip	included in penetration calc's.
	A1	P1	Field Splice at	Elev. 2.95										Contractor furnished galvanized spiral piles at no additional cost. Coatings were not repaired at field splices.
	A1	P2	Field Splice at	Elev. -1.55										
	A2	2-1	Field Splice at	Elev. 22.70										
	A2	2-2	Field Splice at	Elev. 22.05										
	KEY		A1 abutment no 1 A2 abutment no 2 P1 upstream pile P2 downstream pile											
														All piles 13' concrete fill

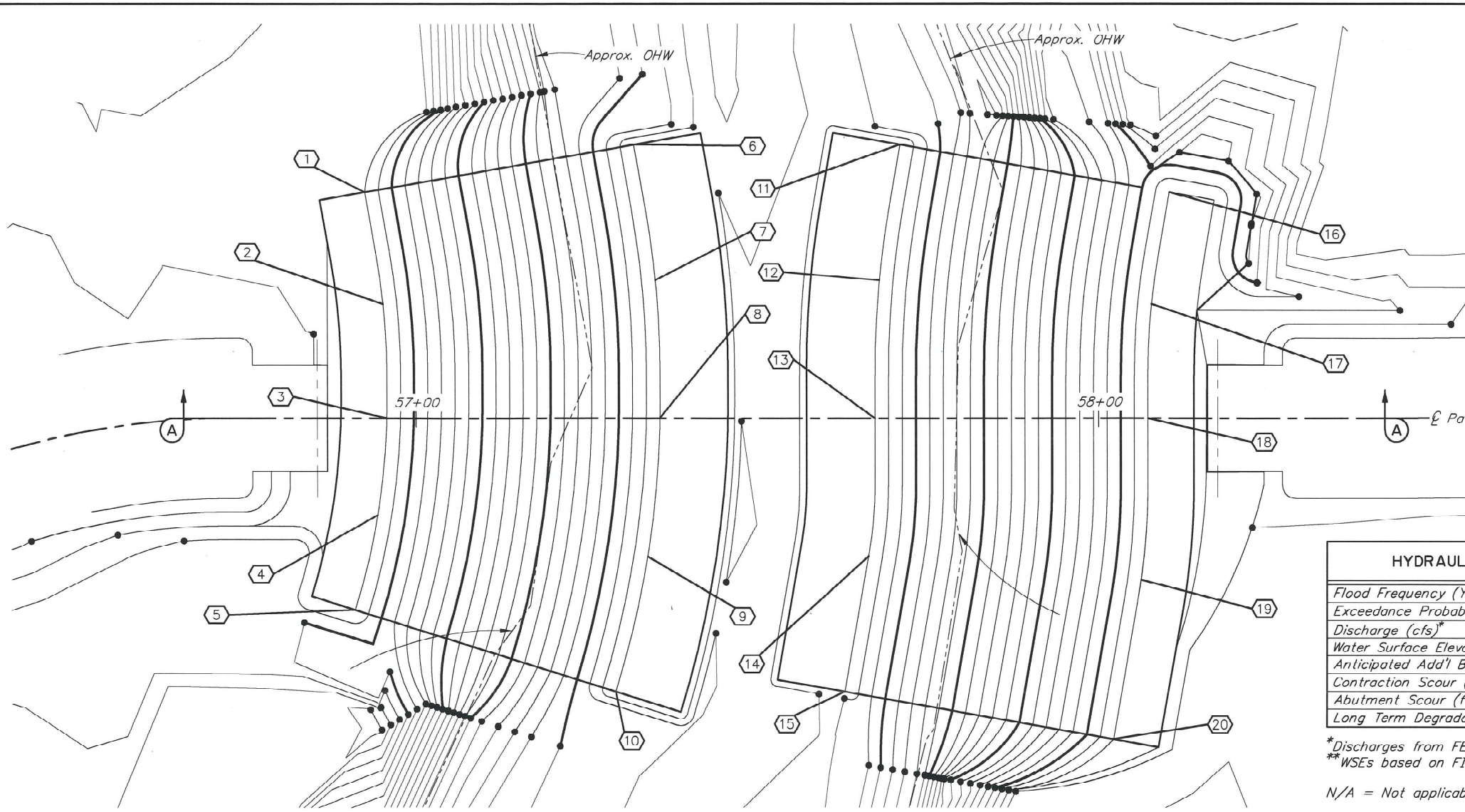


PREPARED BY NAME Steve Mielke <i>SM</i>	DATE 6/18/2024	CHECKED BY NAME Travis Watkins	DATE 12/19/24	TOTAL LENGTH FURNISHED 229.60 LF INSTL
---	-------------------	--------------------------------------	------------------	---



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWY00259/TA18010	2023	N3	N12

NO.	DATE	REVISION
3	9/13/2023	DELETED CALLOUT



**RIPRAP LAYOUT**  
 10 5 0 10 20  
 Feet

POINT	STATION	OFFSET	ELEVATION
1	56+92.6	33.1 Left	32.0
2	56+95.2	16.6 Left	32.0
3	56+95.7	0.0 Left	32.0
4	56+94.3	14.2 Right	32.0
5	56+91.0	28.1 Right	32.0
6	57+32.0	40.0 Left	12.0
7	57+35.0	20.1 Left	12.0
8	57+35.7	0.0 Left	12.0
9	57+33.9	20.2 Right	12.0
10	57+29.2	40.0 Right	12.0
11	57+71.0	40.0 Left	12.0
12	57+67.9	20.1 Left	12.0
13	57+67.2	0.0 Left	12.0
14	57+66.3	20.2 Right	12.0
15	57+62.8	40.0 Right	12.0
16	58+10.4	33.1 Left	32.0
17	58+07.7	16.6 Left	32.0
18	58+07.2	0.0 Left	32.0
19	58+06.2	23.7 Right	32.0
20	58+02.2	46.9 Right	32.0

	100	500
Flood Frequency (Yr.)	100	500
Exceedance Probability (%)	1	0.2
Discharge (cfs)*	3,500	4,900
Water Surface Elevation (ft)**	29.4	30.5
Anticipated Add'l Backwater (ft)	0	
Contraction Scour (ft)	2.8	3.1
Abutment Scour (ft)	N/A	N/A
Long Term Degradation (ft)	3	3

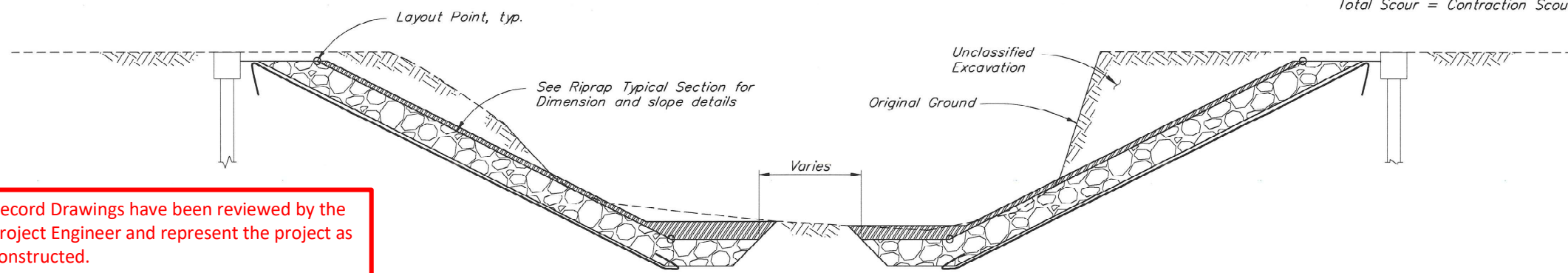
\*Discharges from FEMA City and Borough of Juneau Flood Information Study dated 9/18/2020  
 \*\*WSEs based on FIS flood profiles with Mendenhall River backwater.

N/A = Not applicable - Abutments protected with riprap countermeasures.

Drainage Area for this crossing: .....16.2 square miles

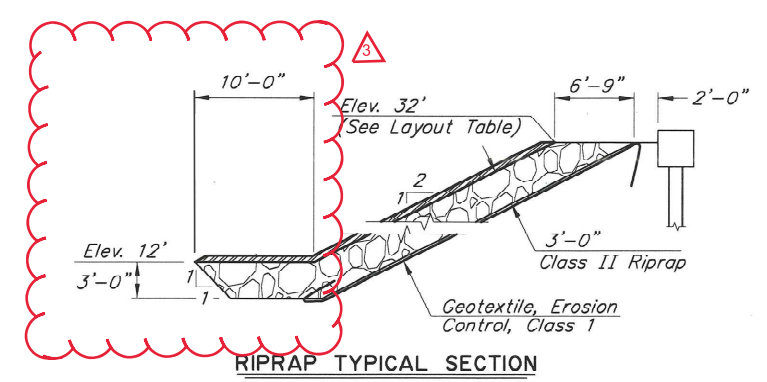
Hydraulic Capacity:.....13,300 cfs at low chord elevation 33ft in ice free/no Mendenhall River backwater condition which has an exceedance probability of less than 0.2%

Total Scour = Contraction Scour + Local (Pier/Abutment) Scour + Long Term Degradation



**SECTION A-A**

12 0 4 8 12  
 In. Feet



**RIPRAP TYPICAL SECTION**

12 0 4 8 12  
 In. Feet

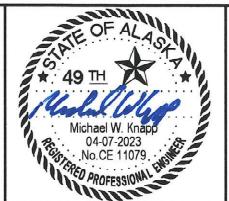
Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Steve Mielke  
 Digitally signed by Steve Mielke  
 Date: 2024.12.18 11:37:04 -09'00'  
 12/18/2024  
 Signature Date


R:\Lead\1955\955-RIP Fr. Apr/07/23 10:01am

DESIGNED BY: Michael Knapp	CHECKED: Luke Boles
DRAWN BY: Javier De Leon	CHECKED: Luke Boles
QUANTITIES BY: Michael Knapp	CHECKED: Luke Boles

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 BRIDGE SECTION  
 3132 Channel Drive  
 Juneau, Alaska 99801  
 907-465-2975

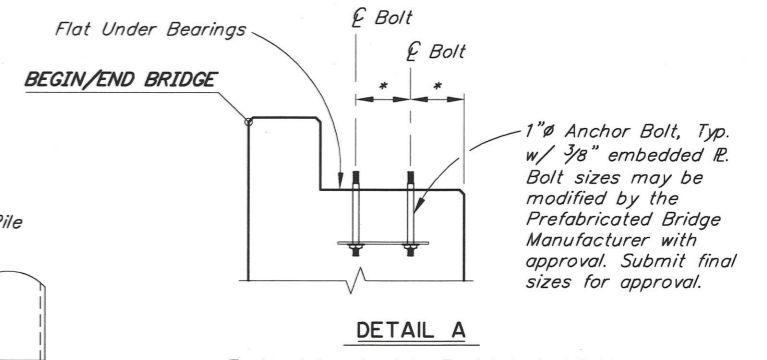
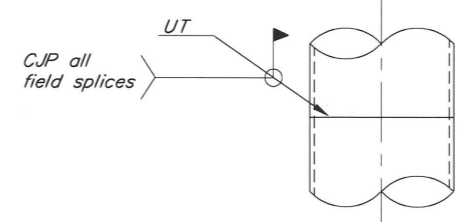
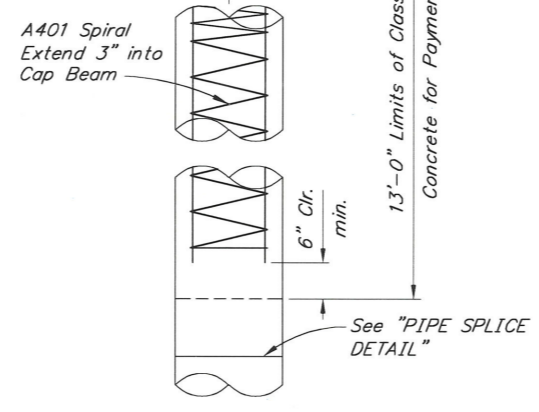
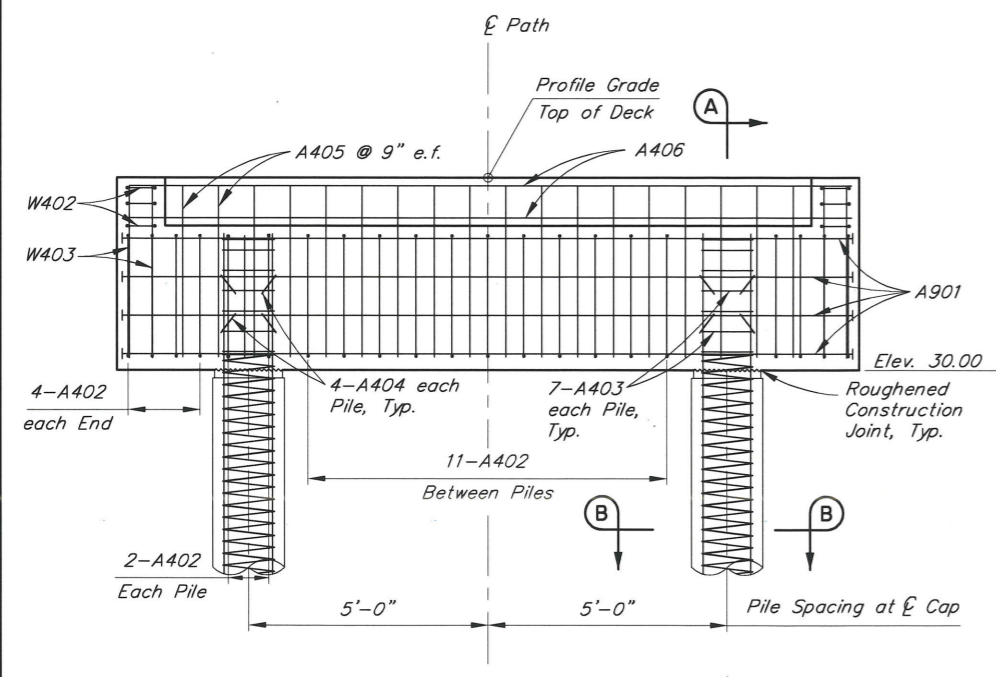
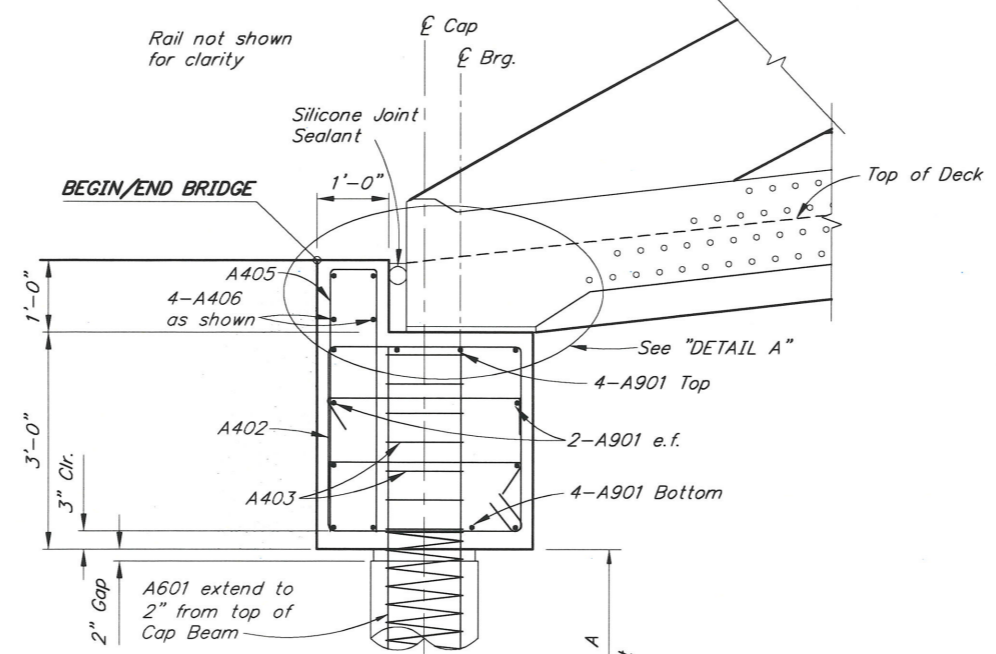
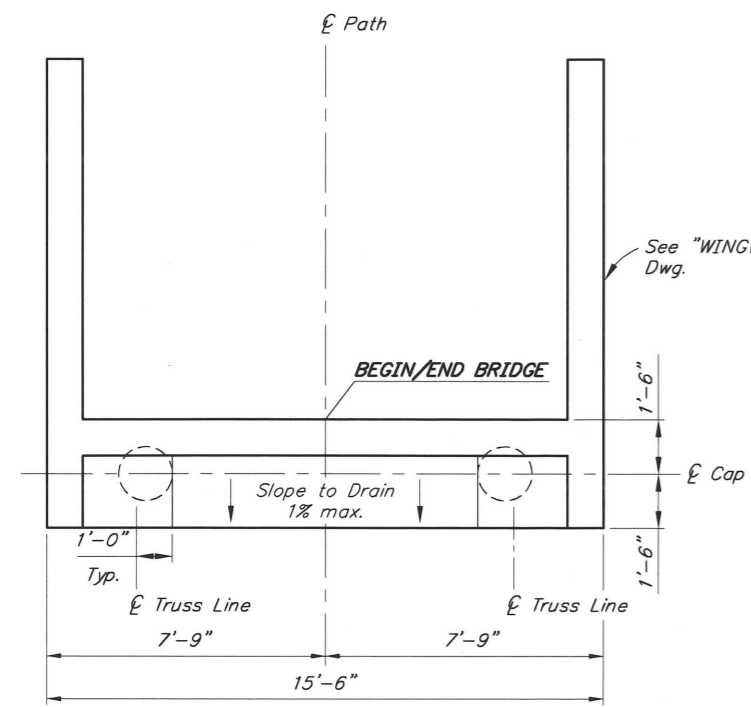
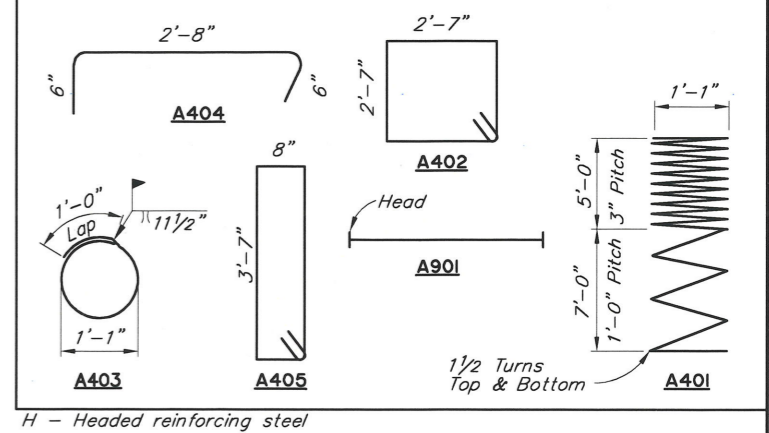


**MONTANA CREEK PEDESTRIAN BRIDGE**  
 KAXDIGOOWU HEEN DEI (BROTHERHOOD BRIDGE) TRAIL  
**RIPRAP LAYOUT**

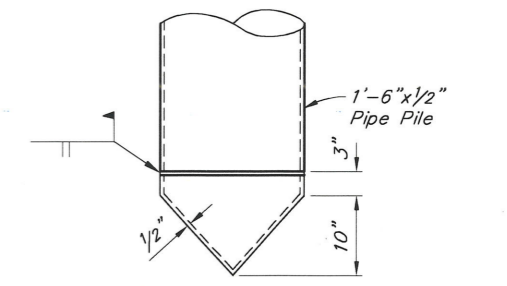
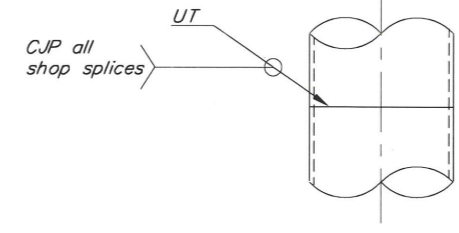
  
 BRIDGE NO. 1955  
 DWG. NO. 3

**REINFORCING STEEL - ONE ABUTMENT**

MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
A401		4	2	107'-2 1/2"	SPIRAL	
A402		4	23	11'-1"	STIRRUP	
A403		4	14	4'-5"	HOOP	
A404		4	8	3'-8"	BENT	
A405		4	22	9'-3"	STIRRUP	
A406		4	4	15'-2"	---	
A601		6	16	<del>15'-4"</del> 14'-6"	---	<p>10" removed from A601 Bars in field.</p>
A901	H	9	12	15'-2"	---	



\* To be determined by Prefabricated Bridge Manufacturer. Submit dimensions for approval.



Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Steve Mielke  
Digitally signed by Steve Mielke  
Date: 2024.12.18 11:37:04 -09'00'  
Signature Date 12/18/2024

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
BRIDGE SECTION  
3132 Channel Drive  
Juneau, Alaska 99801  
907-465-2975



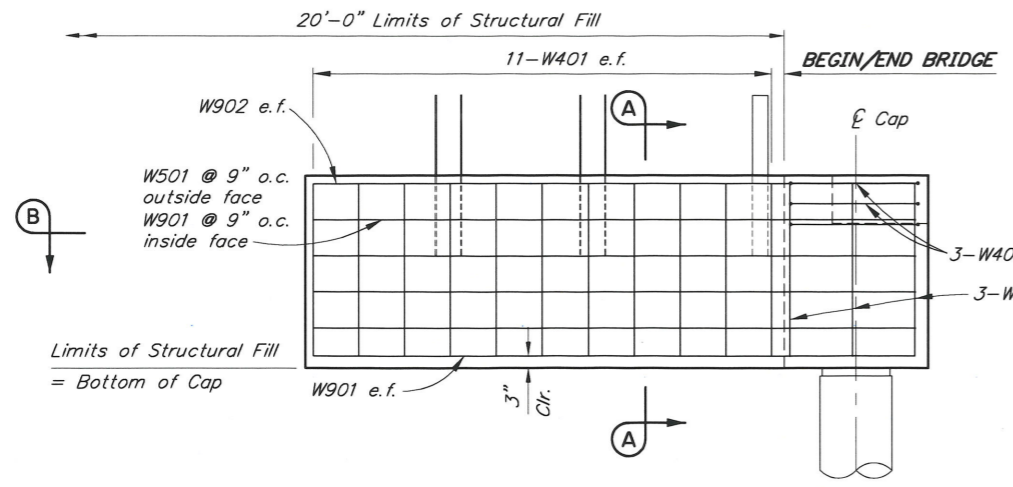
**MONTANA CREEK PEDESTRIAN BRIDGE**  
KAXDIGOOWU HEEN DEI (BROTHERHOOD BRIDGE) TRAIL  
**ABUTMENTS**

BRIDGE NO. 1955  
DWG. NO. 4

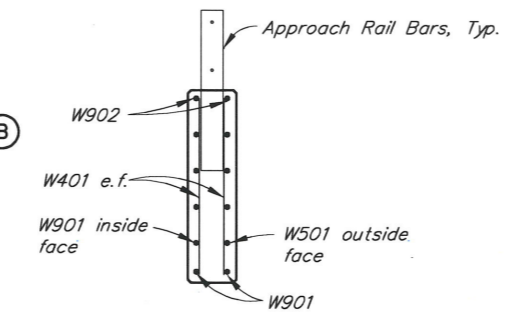
R:\cod\1955\1955-ABUT Wed, Apr/05/23 03:54pm

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWO0259/TA18010	2023	N5	N12

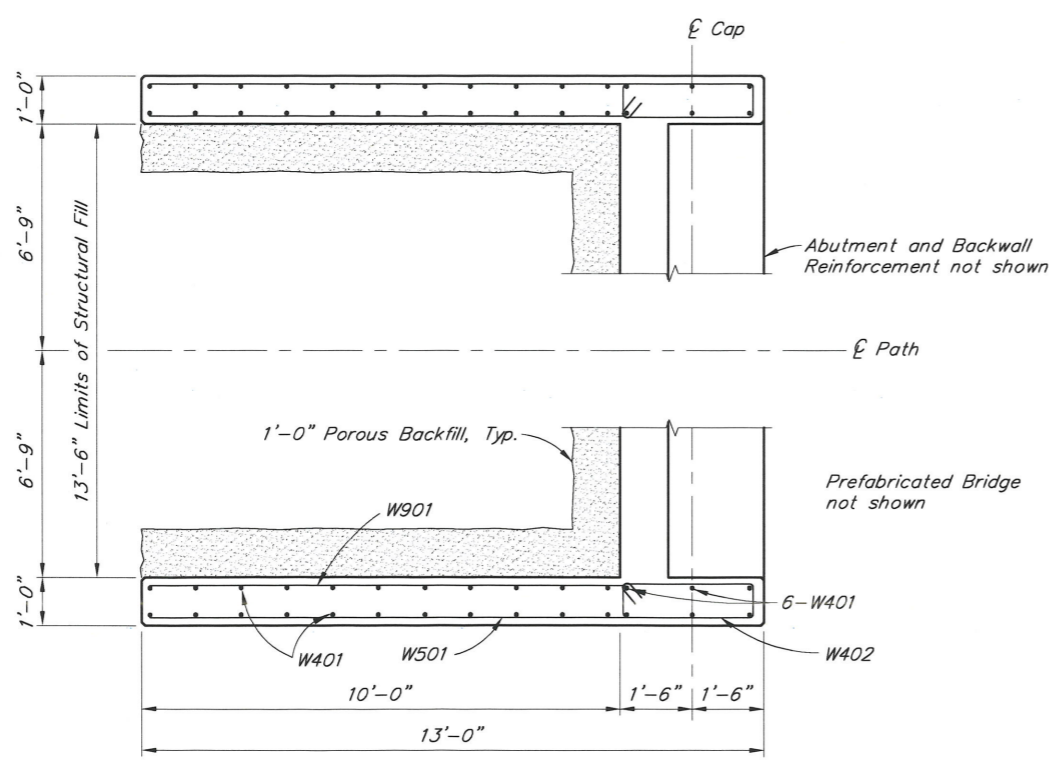
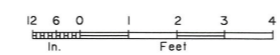
REINFORCING STEEL - ONE ABUTMENT						
MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
W401		4	56	3'-7"	---	
W402		4	6	7'-5"	STIRRUP	
W501		5	8	12'-8"	---	
W901		9	12	12'-8"	---	
W902		9	4	14'-8"	BENT	



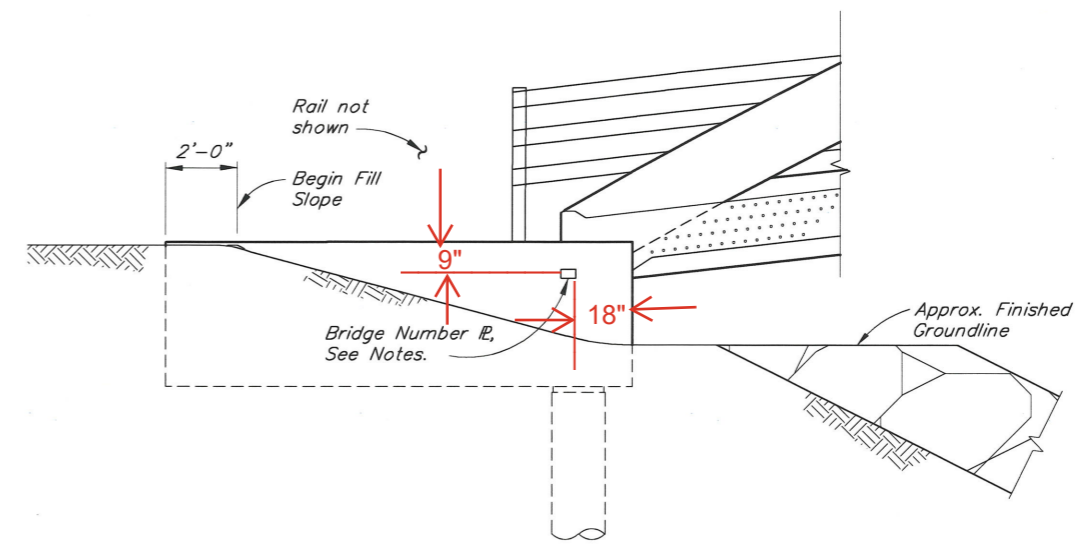
ELEVATION



SECTION A-A



SECTION B-B



FINISHED ELEVATION



Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Digitally signed by Steve Mielke  
Date: 2024.12.18 11:37:04 -09'00'

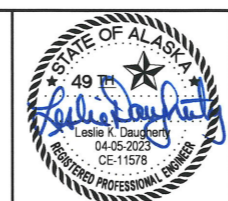
**Steve Mielke** 12/18/2024  
Signature Date

- NOTES:**
1. Locate bridge number plates on right-hand side of approaching traffic near each end as shown (2 total).
  2. Furnish bridge number plates. Use "Century" type style lettering. Epoxy bond rods into 3/8" holes in wingwall blockout. Use epoxy suitable for exterior application and compatible with materials to be bonded. Follow epoxy manufacturer's instructions. Mount plate such that face of plate is flush with the face of wingwall.
  3. See "BRONZE BRIDGE NO. PLATE DETAIL" on "APPROACH RAIL" Dwg.

R:\cod\1955\1955-WINGWALL Wed, Apr/05/23 03:54pm

DESIGNED BY: Leslie Daugherty	CHECKED: Douglas Gelineau
DRAWN BY: Javier De Leon	CHECKED: Leslie Daugherty
QUANTITIES BY: Leslie Daugherty	CHECKED: Douglas Gelineau

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
BRIDGE SECTION  
3132 Channel Drive  
Juneau, Alaska 99801  
907-465-2975

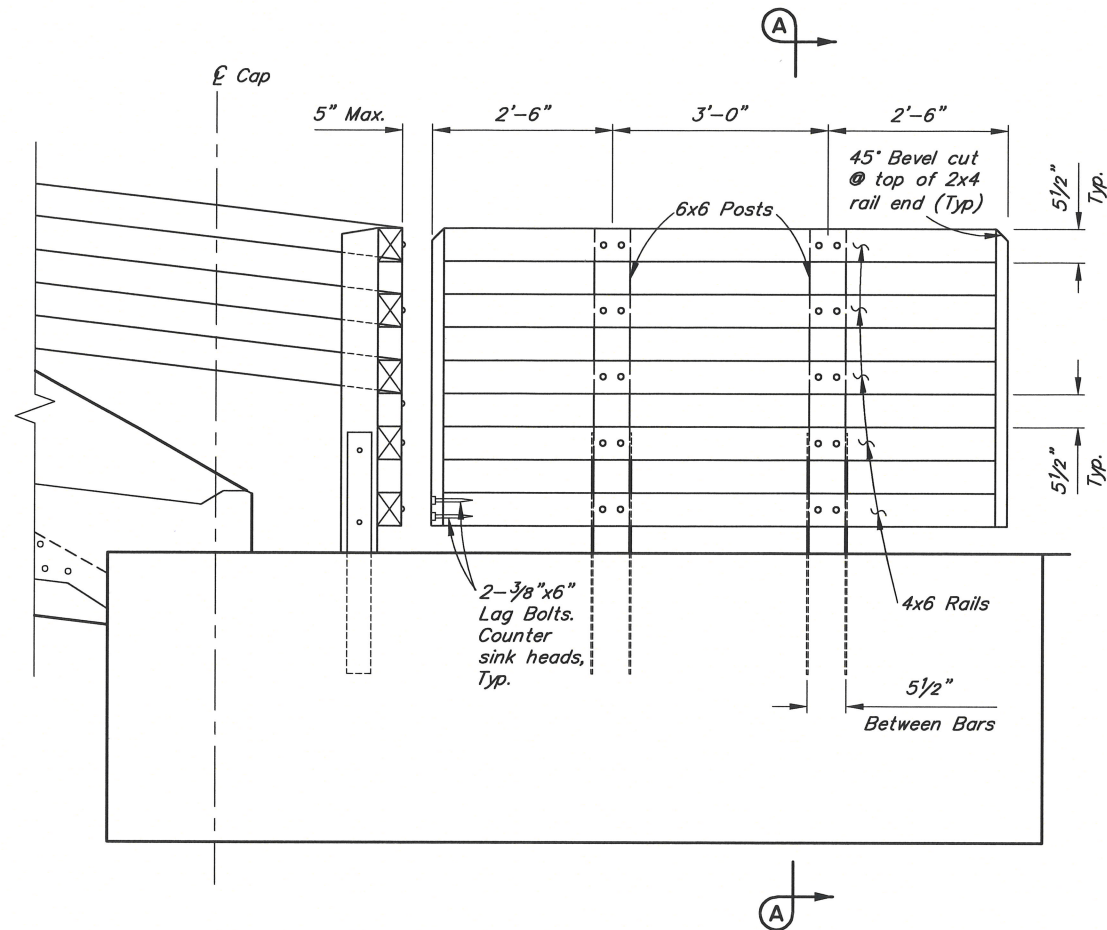


MONTANA CREEK PEDESTRIAN BRIDGE  
KAXDIGOOWU HEEN DEI (BROTHERHOOD BRIDGE) TRAIL  
WINGWALLS

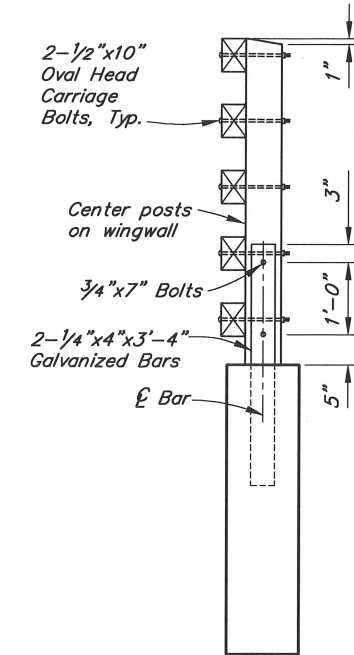
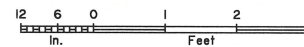
BRIDGE NO. 1955  
DWG. NO. 5

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWO0259/TA18010	2023	N6	N12

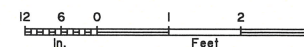
Change Order No. 1, Attachment No. 3



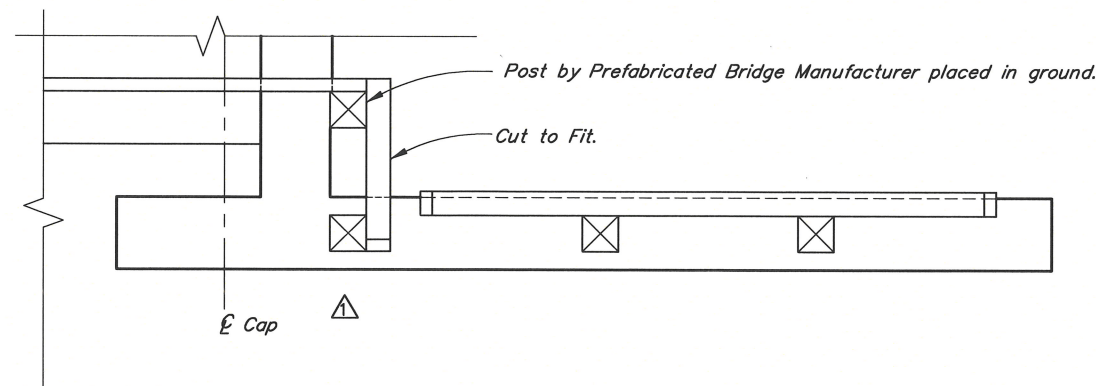
ELEVATION



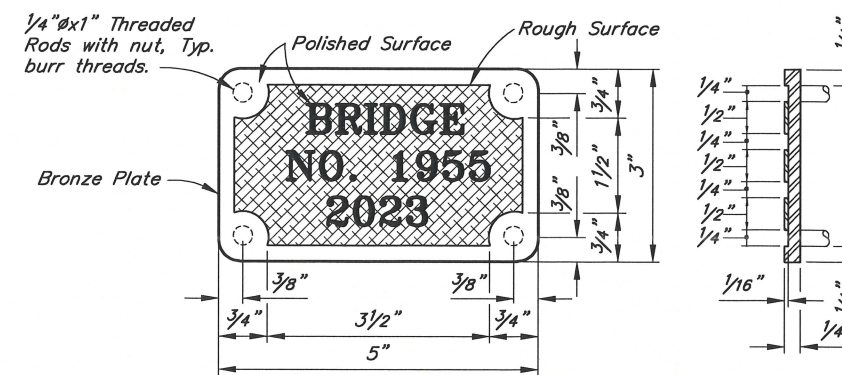
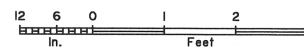
SECTION A-A



REVISIONS			
No.	Date	By	Description
1	3/5/24	LKD	Line Extensions



PLAN



BRONZE BRIDGE NO. PLATE

No Scale

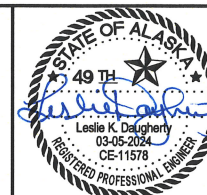
Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Digitally signed by Steve Mielke  
 Date: 2024.12.18 11:37:04 -09'00'  
 Signature Date 12/18/2024

R:\cadd\1955-RAIL Tue, Mar/05/24 11:58am

DESIGNED BY: Leslie Daugherty	CHECKED: Douglas Gelineau
DRAWN BY: Javier De Leon	CHECKED: Leslie Daugherty
QUANTITIES BY: Leslie Daugherty	CHECKED: Douglas Gelineau

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 BRIDGE SECTION  
 3132 Channel Drive  
 Juneau, Alaska 99801  
 907-465-2975





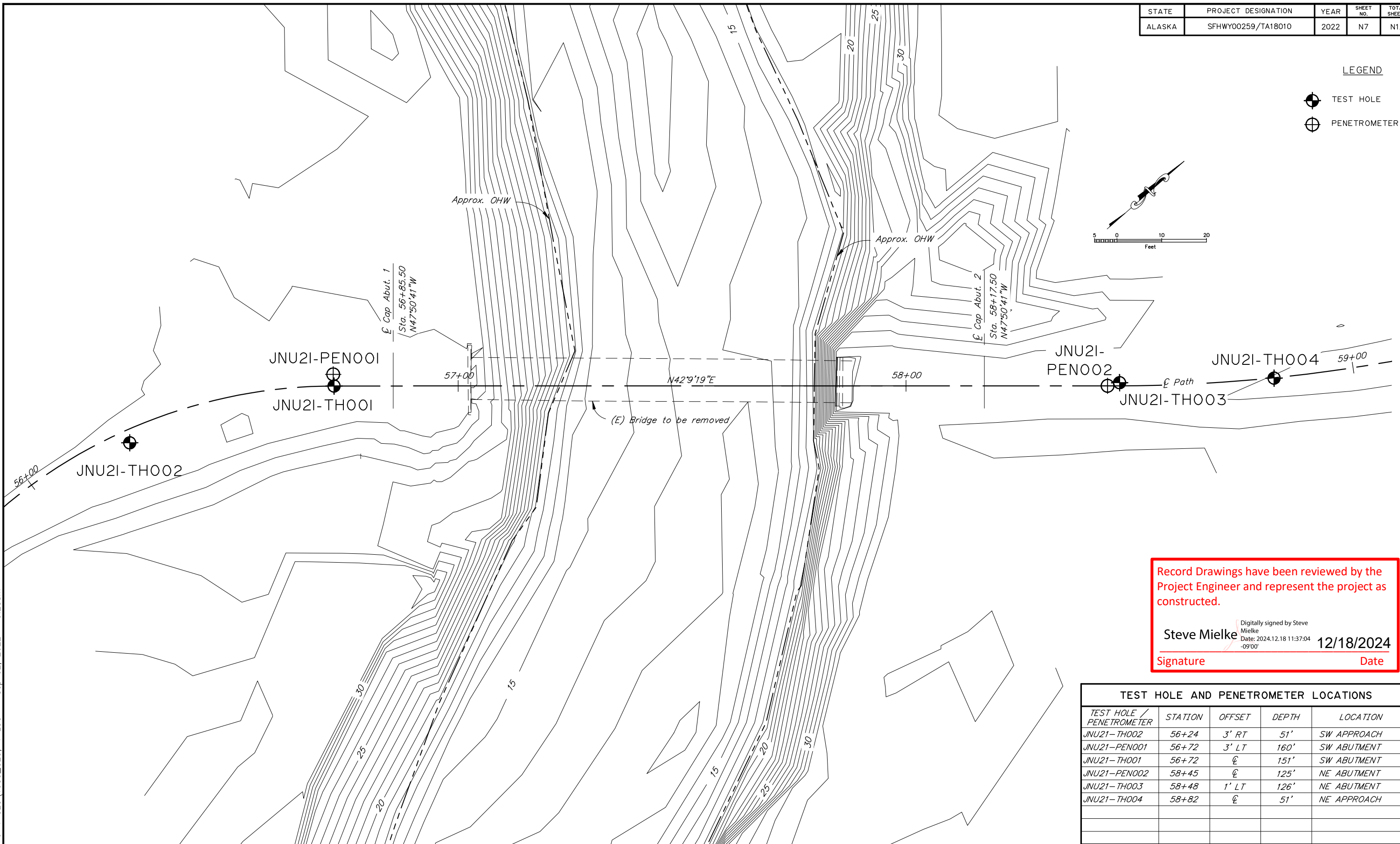
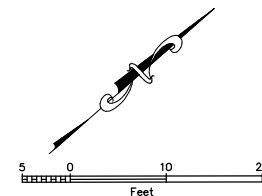
MONTANA CREEK PEDESTRIAN BRIDGE  
 KAXDIGOOWU HEEN DEI (BROTHERHOOD BRIDGE) TRAIL  
 APPROACH RAIL

BRIDGE NO. 1955  
 DWG. NO. 6

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHXY00259/TA18010	2022	N7	N12

LEGEND

-  TEST HOLE
-  PENETROMETER



Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Digitally signed by Steve Mielke  
 Date: 2024.12.18 11:37:04 -09'00' **12/18/2024**  
 Signature Date

TEST HOLE AND PENETROMETER LOCATIONS				
TEST HOLE / PENETROMETER	STATION	OFFSET	DEPTH	LOCATION
JNU21-TH002	56+24	3' RT	51'	SW APPROACH
JNU21-PEN001	56+72	3' LT	160'	SW ABUTMENT
JNU21-TH001	56+72	℄	151'	SW ABUTMENT
JNU21-PEN002	58+45	℄	125'	NE ABUTMENT
JNU21-TH003	58+48	1' LT	126'	NE ABUTMENT
JNU21-TH004	58+82	℄	51'	NE APPROACH

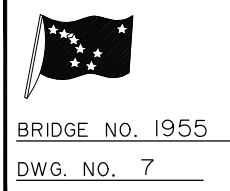
R:\cod\1955\DWG\22-9-1 GEO\1955\_GEO-1 LOC Sep 02, 2022 - 9:28am

DESIGNED BY: <i>D. Hemstreet</i>	CHECKED: <i>Engineer</i>
DRAWN BY: <i>R. Angell</i>	CHECKED: <i>D. Hemstreet</i>
QUANTITIES BY: <i>Engineer</i>	CHECKED: <i>Engineer</i>

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 STATEWIDE MATERIALS



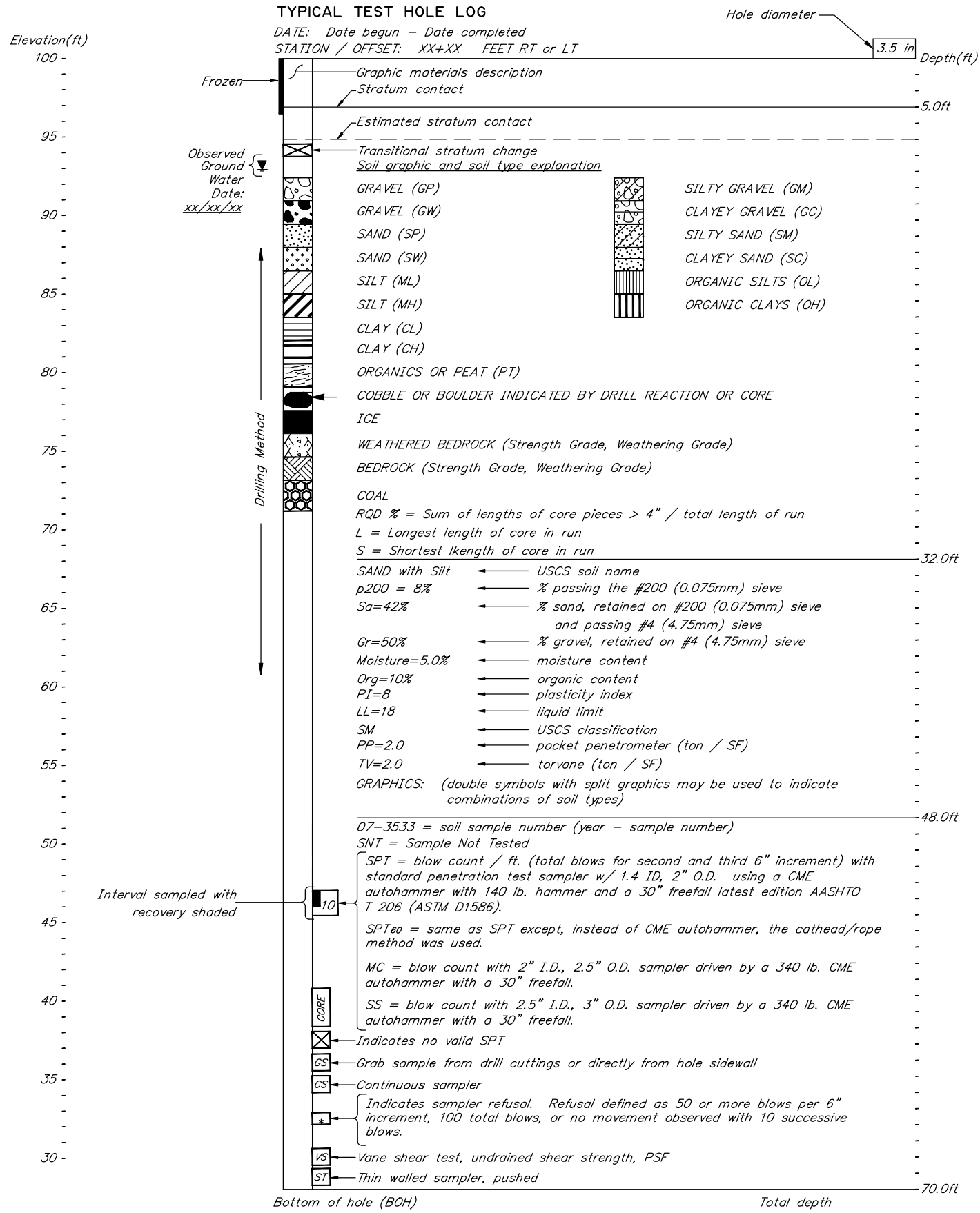
**MONTANA CREEK PEDESTRIAN BRIDGE**  
 KAXDEGOOWU HEEN DEI (BROTHERHOOD BRIDGE) TRAIL  
**TEST HOLE & PENETROMETER LOCATION**



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWO0259/TA18010	2022	N8	N12

**TYPICAL TEST HOLE LOG**

DATE: Date begun - Date completed  
 STATION / OFFSET: XX+XX FEET RT or LT



**NOTES:**

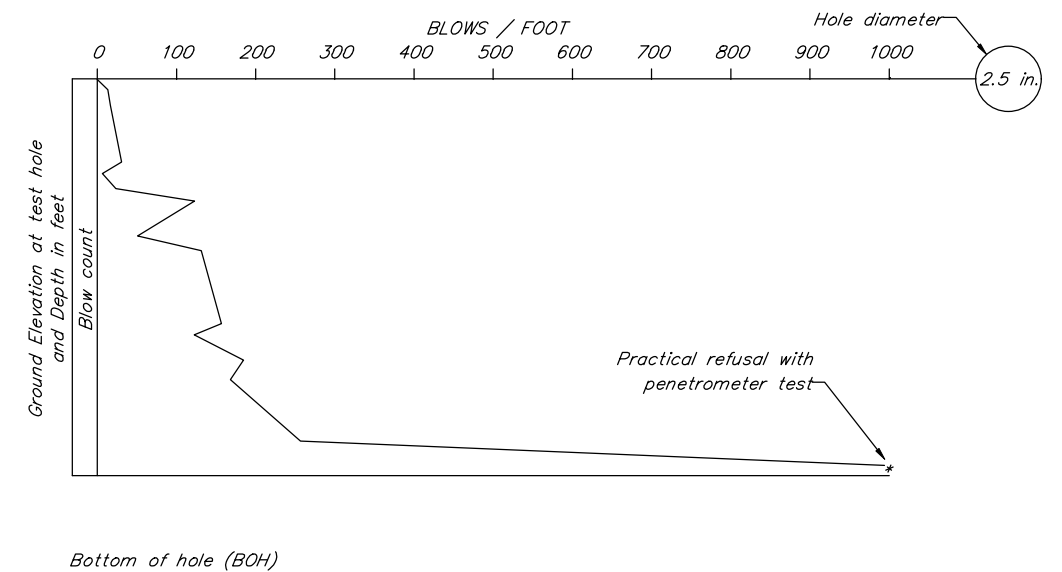
- The test hole logs depicted graphically in these drawings are distillations of the original field logs, based on post-field investigation review and analysis. These drafted logs include changes made to field descriptions based upon laboratory test data, review and analysis. Detailed field observations of rock and soil sampled during the drilling program are not reproduced in the drafted logs.
- Description of soils follows Alaska Geotechnical Procedures manual. Classification of soils follows Unified Soil Classification System (ASTM D2487).
- The test hole logs from these sheets are an integral part of the Foundation Geology Report. See Construction Contract Bid Documents - invitation to bid/notice to bidders. Important information about the test hole logs and the foundation investigation is contained in the report. The test hole logs are not severable from and cannot be completely and correctly interpreted without reference to the Foundation Geology Report.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Digitally signed by Steve Mielke  
 Date: 2024.12.18 11:37:04 -09'00'  
 12/18/2024  
 Signature Date

**TYPICAL PENETROMETER TEST LOG**

DATE: Date begun - Date completed  
 STATION / OFFSET: XX+XX / RT or LT (feet)



**NOTES:**

Penetrometer W/2.5" O.D., with a CME AUTOMATIC Hammer using a 340 lb. weight and a 30" freefall

R:\cod\1955\DWG\22-9-1 GEO\1955\_GEO\_-2 TYP Sep 02, 2022 - 9:28am

DESIGNED BY: D. Hemstreet	CHECKED: Engineer
DRAWN BY: R. Angell	CHECKED: D. Hemstreet
QUANTITIES BY: Engineer	CHECKED: Engineer

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 STATEWIDE MATERIALS



MONTANA CREEK PEDESTRIAN BRIDGE  
 KAXDEGOOWU HEEN DEI (BROTHERHOOD BRIDGE) TRAIL  
 TEST HOLE & PENETROMETER LEGEND

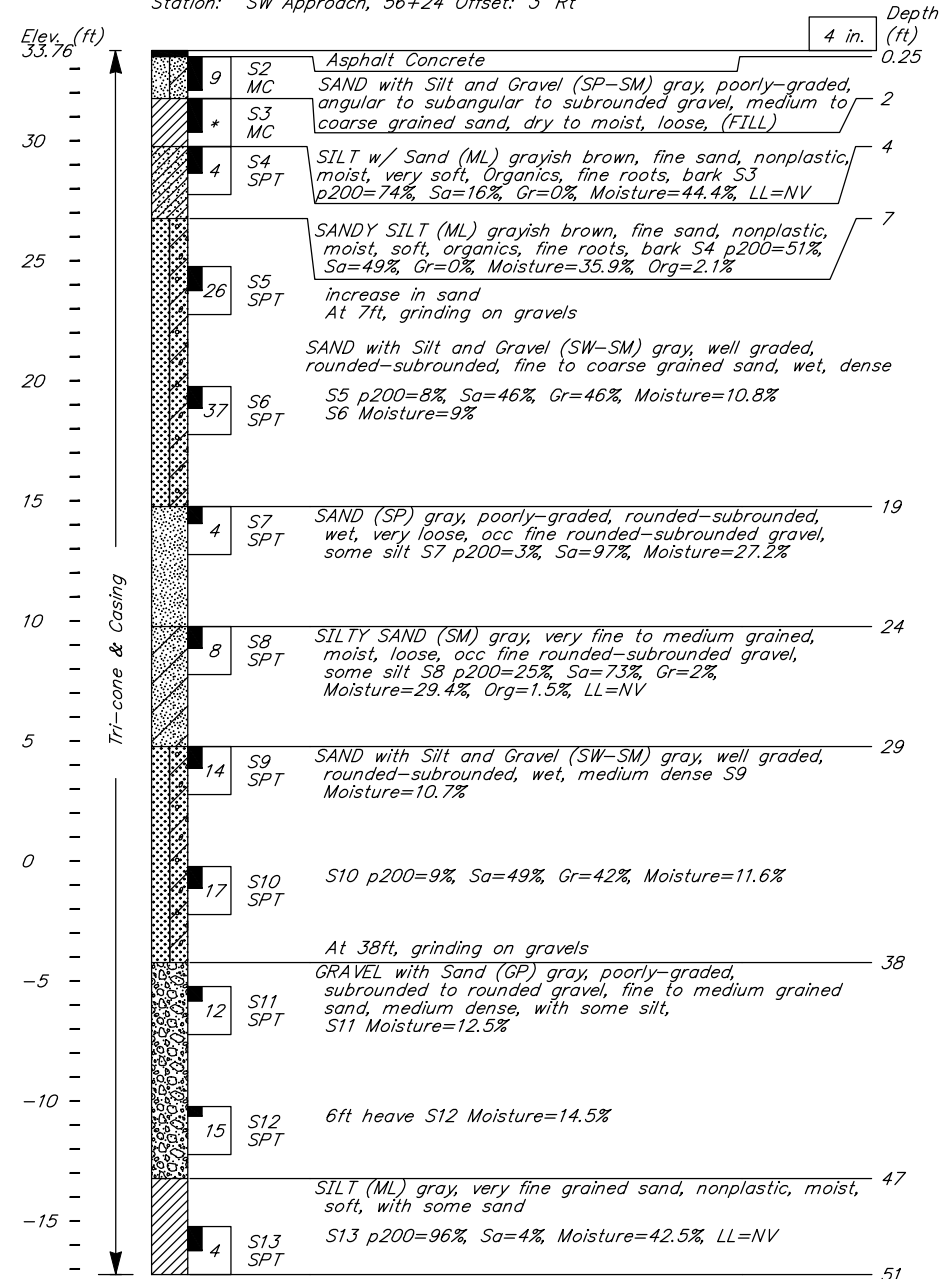


BRIDGE NO. 1955  
 DWG. NO. 8

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFH00259/TA18010	2022	N9	N12

**JNU2I-TH002**

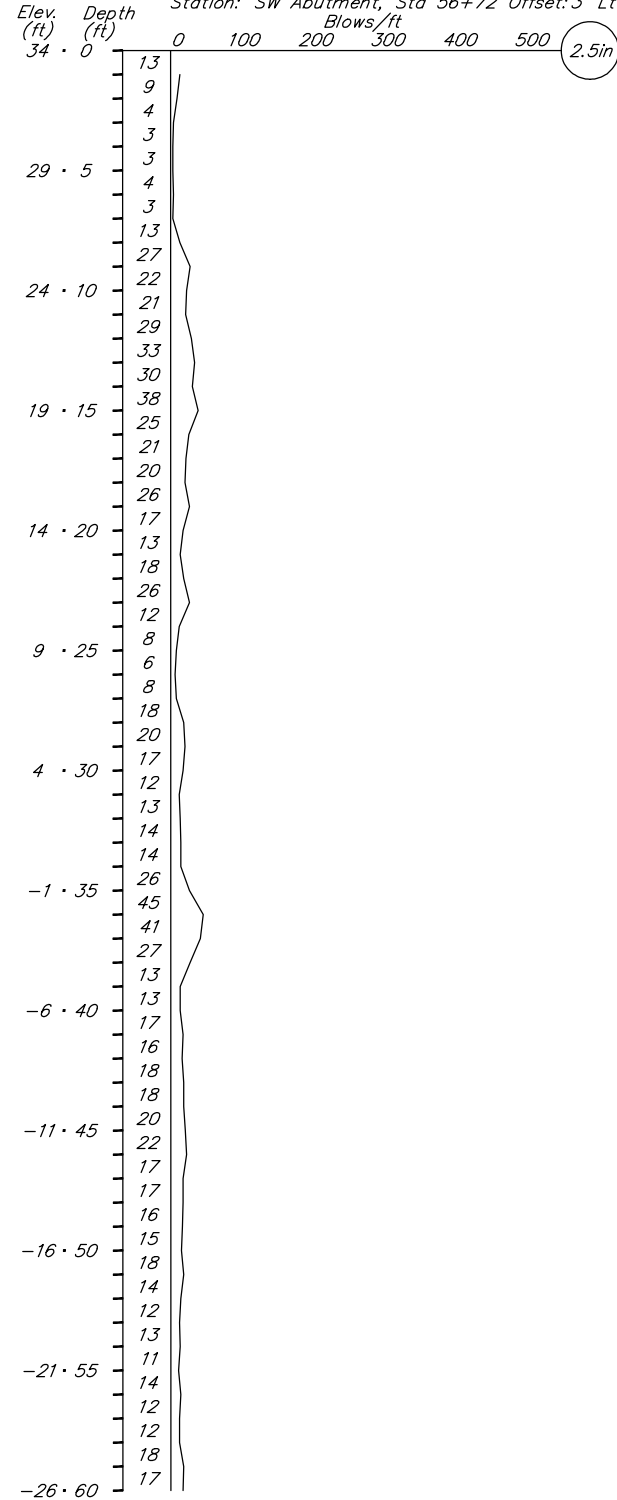
Date: 6/13/21 - 6/14/21  
Station: SW Approach, Sta 56+24 Offset: 3' Rt



BOH: 51 ft.  
Hammer: CME Auto Hammer 140 lb hammer  
Equipment: CME 45  
Drilling Method: Casing Size HW  
Geologist: M. Larsen  
Field Crew: D. Coke and T. Babin

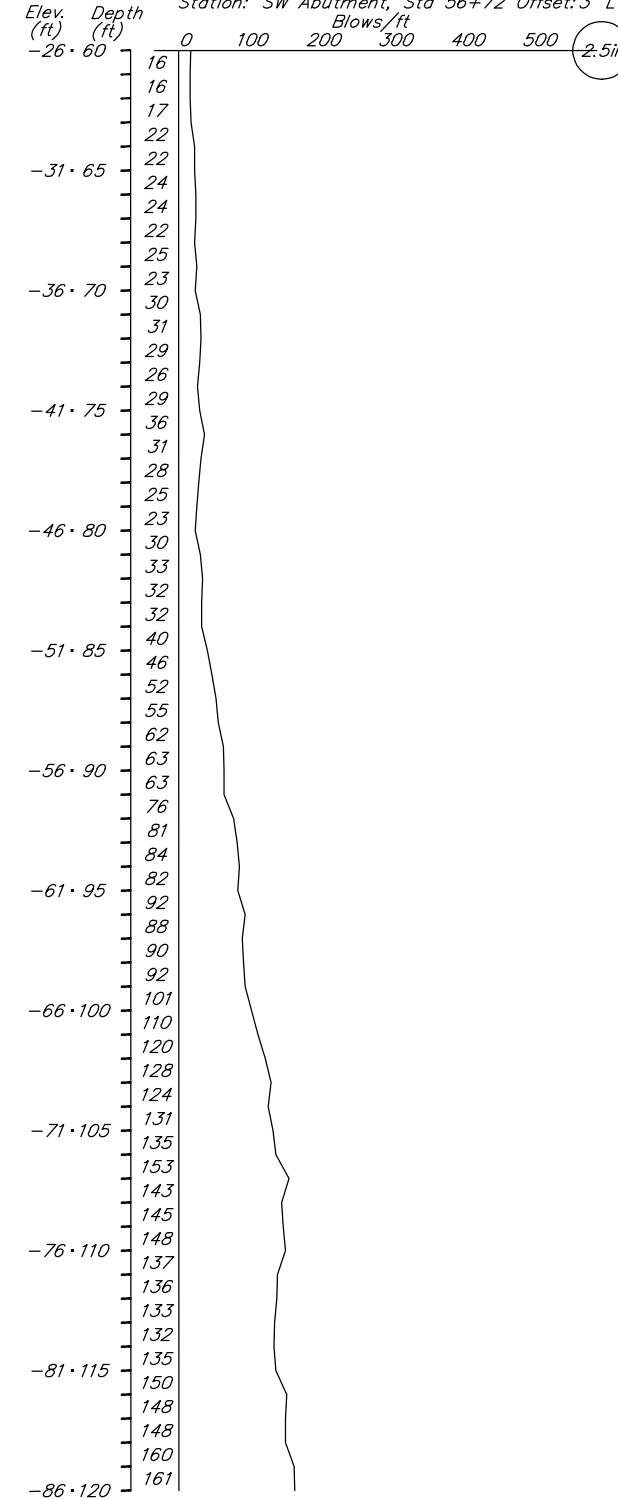
**JNU2I-PEN001**

Date: 6/7/21 - 6/7/21  
Station: SW Abutment, Sta 56+72 Offset: 3' Lt



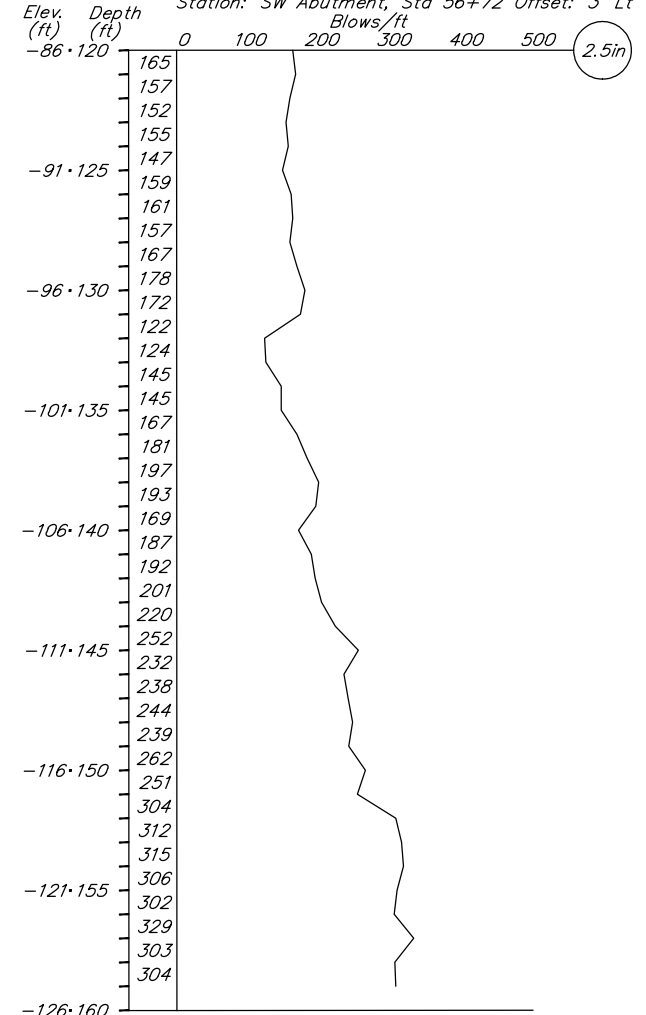
**JNU2I-PEN001 (cont.)**

Date: 6/7/21 - 6/7/21  
Station: SW Abutment, Sta 56+72 Offset: 3' Lt



**JNU2I-PEN001 (cont.)**

Date: 6/7/21 - 6/7/21  
Station: SW Abutment, Sta 56+72 Offset: 3' Lt



BOH: 160 ft.  
Hammer: CME Auto Hammer 340-lb  
Equipment: CME 45  
Geologist: M. Larsen  
Field Crew: D. Coke and T. Babin

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Digitally signed by Steve Mielke  
Date: 2024.12.18 11:37:04 -09'00'

Signature: Steve Mielke Date: 12/18/2024

R:\cadd\1955\DWG\22-9-1 GEO\1955\_GEO\_-3 TH002&PEN001 Sep 02, 2022 - 9:28am

DESIGNED BY: D. Hemstreet	CHECKED: Engineer
DRAWN BY: R. Angell	CHECKED: D. Hemstreet
QUANTITIES BY: Engineer	CHECKED: Engineer

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
STATEWIDE MATERIALS



**MONTANA CREEK PEDESTRIAN BRIDGE**  
KAXDEGOOWU HEEN DEI (BROTHERHOOD BRIDGE) TRAIL  
**TEST HOLE & PENETROMETER LOGS**

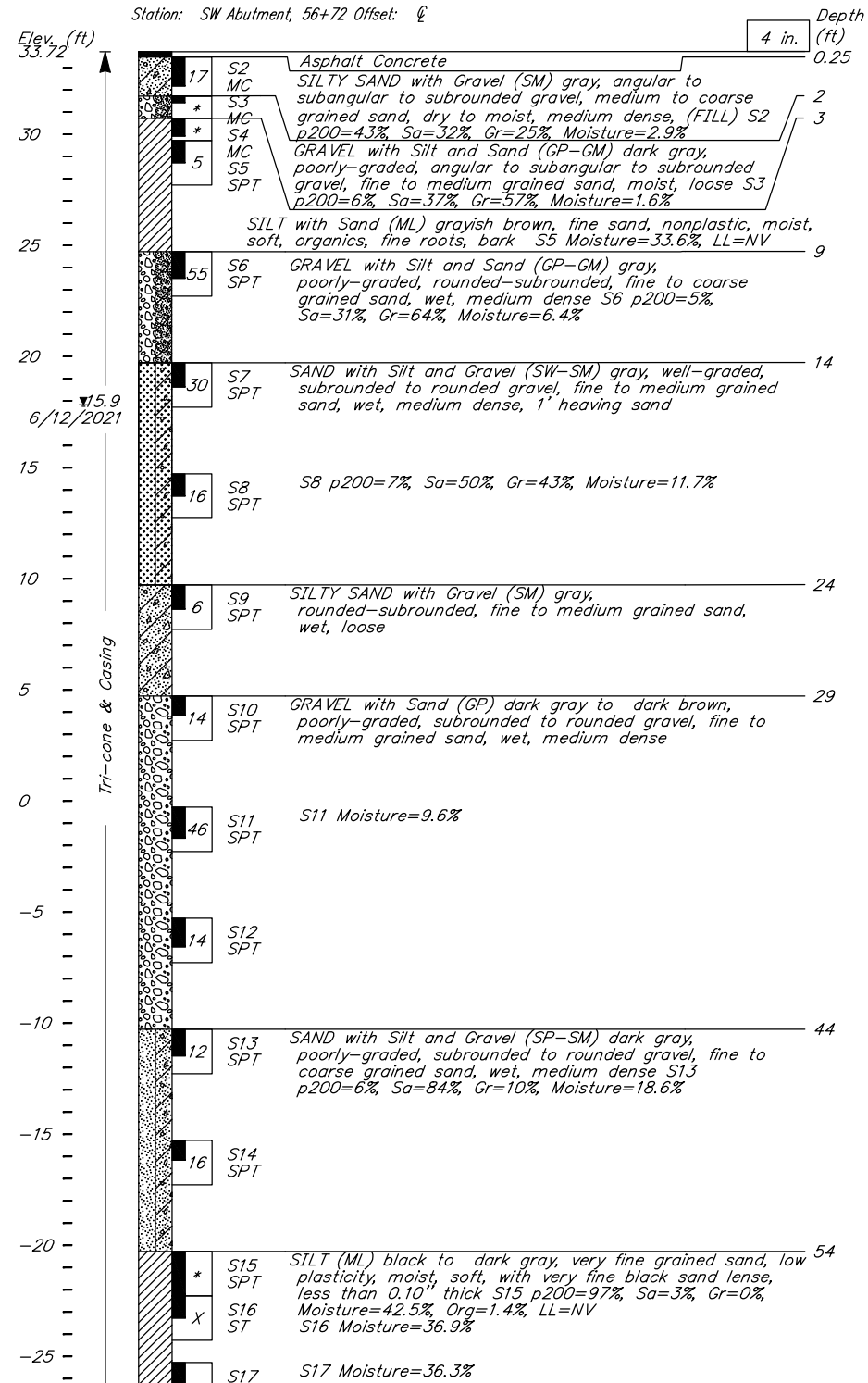
BRIDGE NO. 1955  
DWG. NO. 9

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFWY00259/TA18010	2022	N10	N12

**JNU21-THOOI**

Date: 6/9/18 - 6/12/21

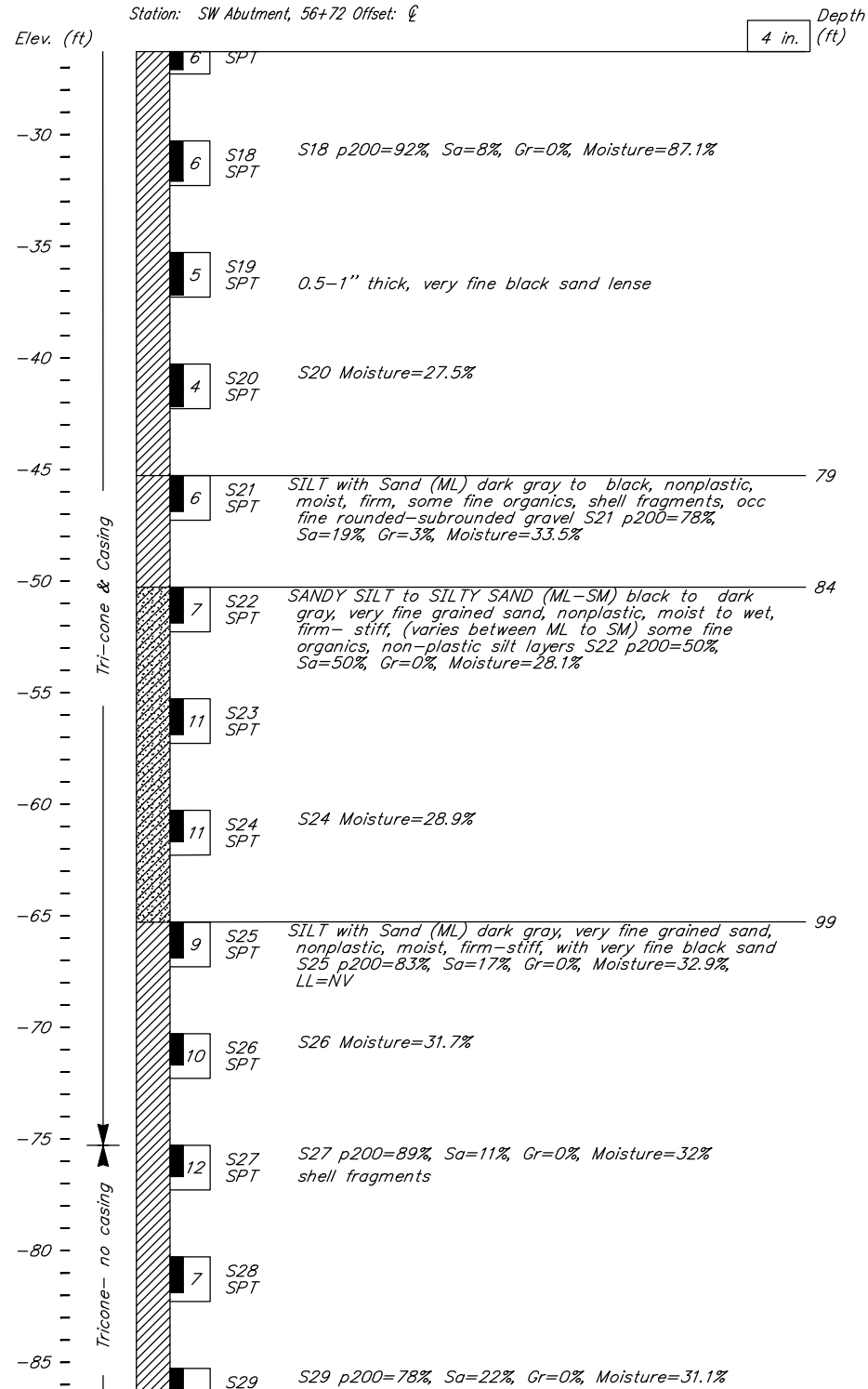
Station: SW Abutment, 56+72 Offset: ☉



**JNU21-THOOI (cont.)**

Date: 6/9/18 - 6/12/21

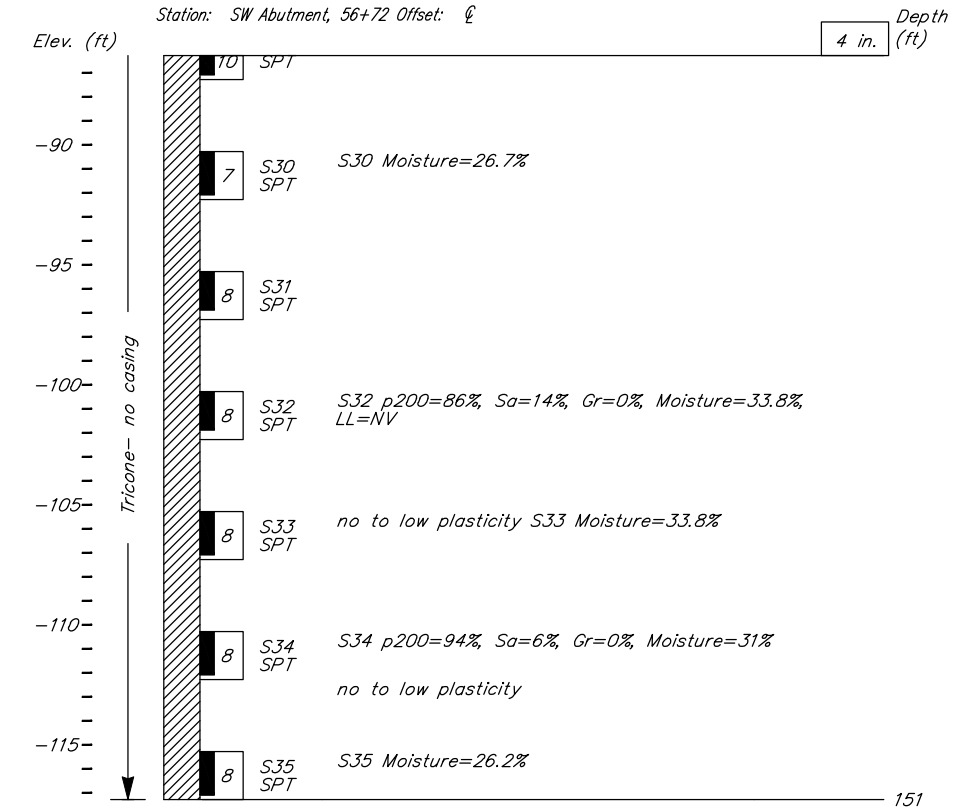
Station: SW Abutment, 56+72 Offset: ☉



**JNU21-THOOI (cont.)**

Date: 6/9/18 - 6/12/21

Station: SW Abutment, 56+72 Offset: ☉



BOH: 151 ft.  
 Hammer: CME Auto Hammer 140 lb hammer  
 Equipment: CME 45  
 Drilling Method: Casing Size HW  
 Geologist: M. Larsen  
 Field Crew: D. Coke and T. Babin

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Steve Mielke  
 Digitally signed by Steve Mielke  
 Date: 2024.12.18 11:37:04 -09'00'  
 Signature Date 12/18/2024

R:\cadd\1955\DWG\22-9-1 GEO\1955\_GEO\_4 TH001 Sep 02, 2022 - 9:28am

DESIGNED BY: D. Hemstreet	CHECKED: Engineer
DRAWN BY: R. Angell	CHECKED: D. Hemstreet
QUANTITIES BY: Engineer	CHECKED: Engineer

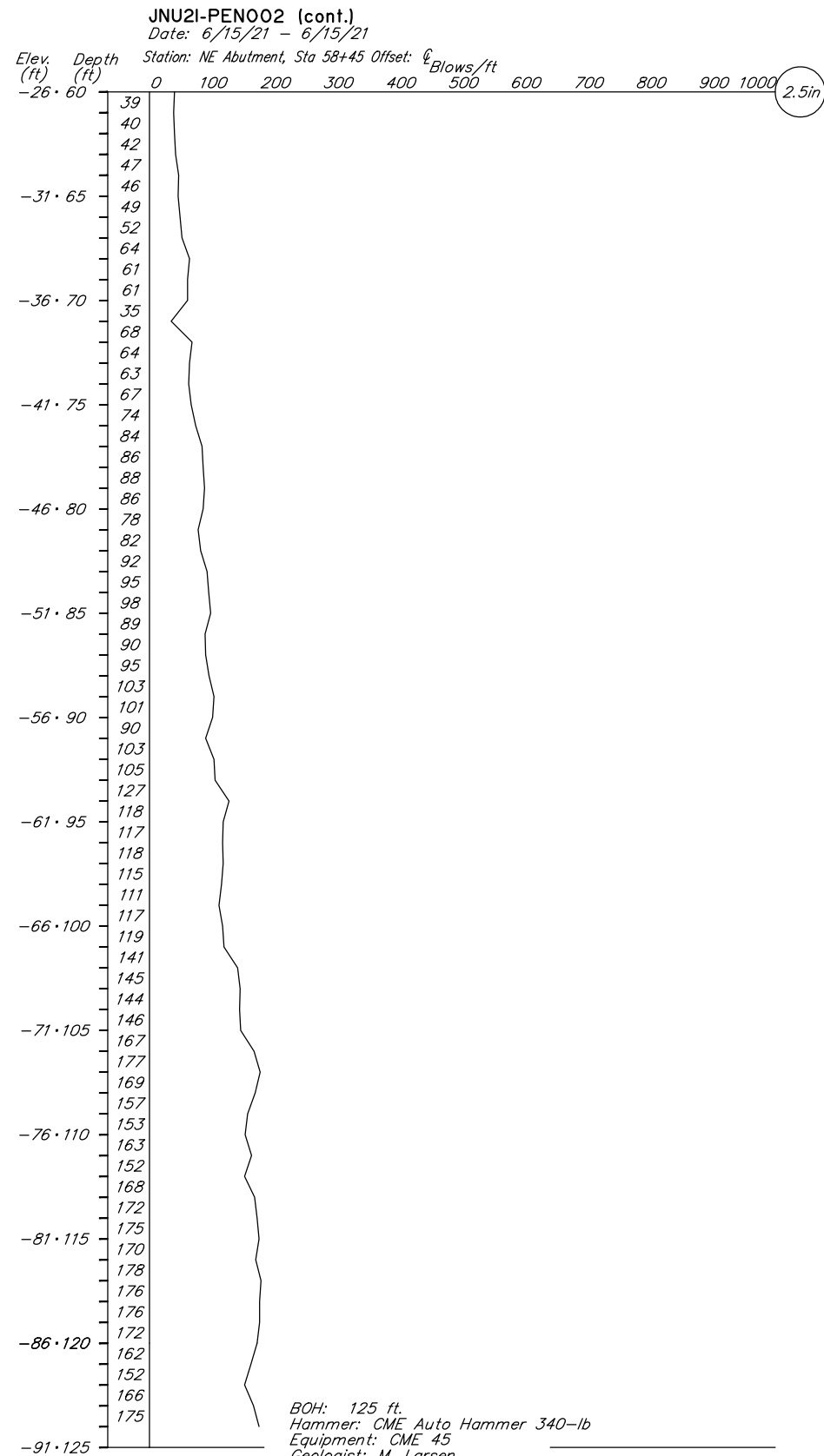
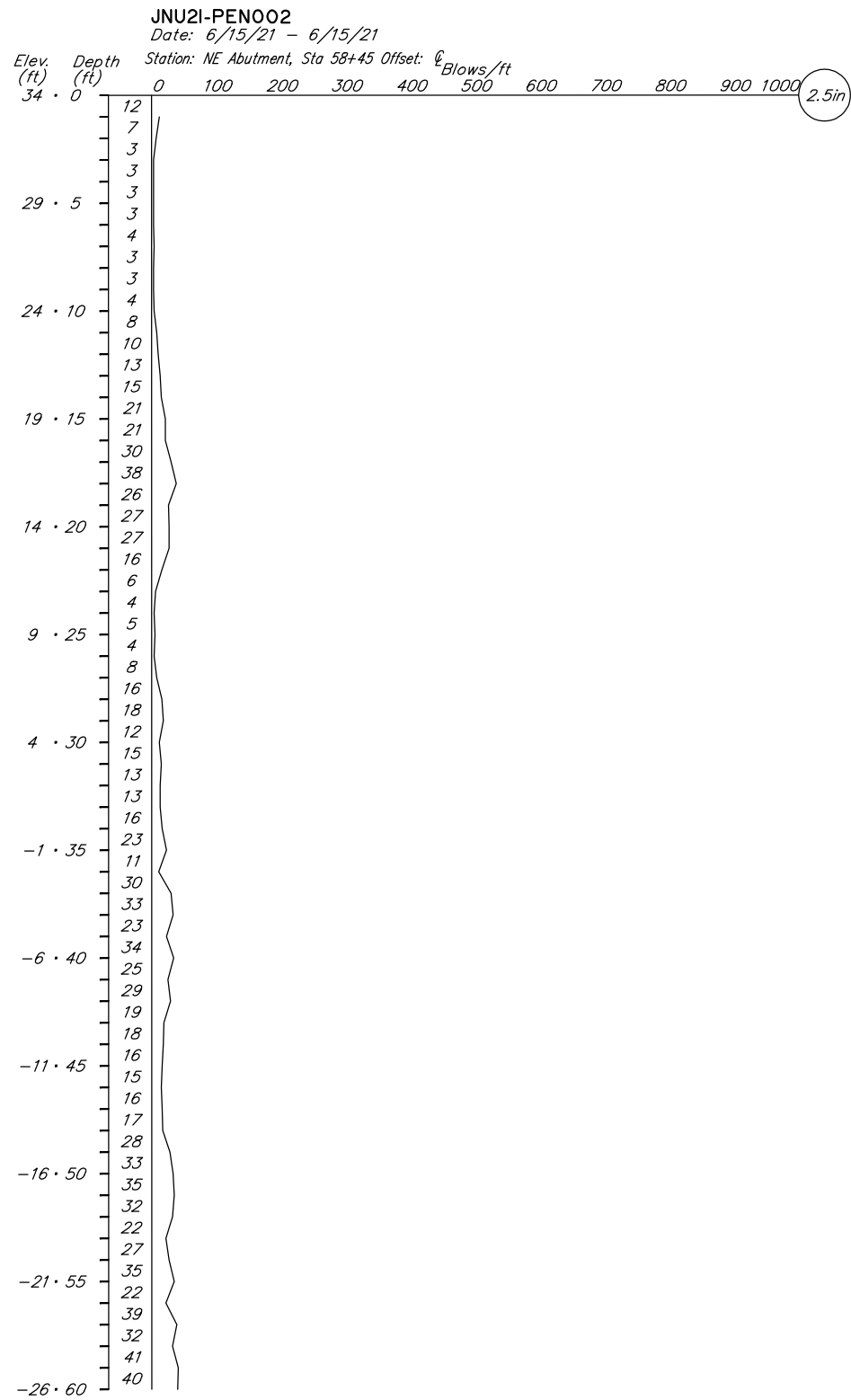
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 STATEWIDE MATERIALS



**MONTANA CREEK PEDESTRIAN BRIDGE**  
 KAXDEGOOWU HEEN DEI (BROTHERHOOD BRIDGE) TRAIL  
**TEST HOLE & PENETROMETER LOGS**

BRIDGE NO. 1955  
 DWG. NO. 10

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFHWO0259/TA18010	2022	N11	N12



BOH: 125 ft.  
Hammer: CME Auto Hammer 340-lb  
Equipment: CME 45  
Geologist: M. Larsen  
Field Crew: D. Coke and T. Babin

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Digitally signed by Steve Mielke  
Date: 2024.12.18 11:37:04 -09'00' **12/18/2024**

Signature \_\_\_\_\_ Date \_\_\_\_\_


R:\cadd\1955\DWG\22-9-1 GEO\1955\_GEO\_5\_PEN002 Sep 02, 2022 - 9:28am

DESIGNED BY: <i>D. Hemstreet</i>	CHECKED: <i>Engineer</i>
DRAWN BY: <i>R. Angell</i>	CHECKED: <i>D. Hemstreet</i>
QUANTITIES BY: <i>Engineer</i>	CHECKED: <i>Engineer</i>

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
STATEWIDE MATERIALS

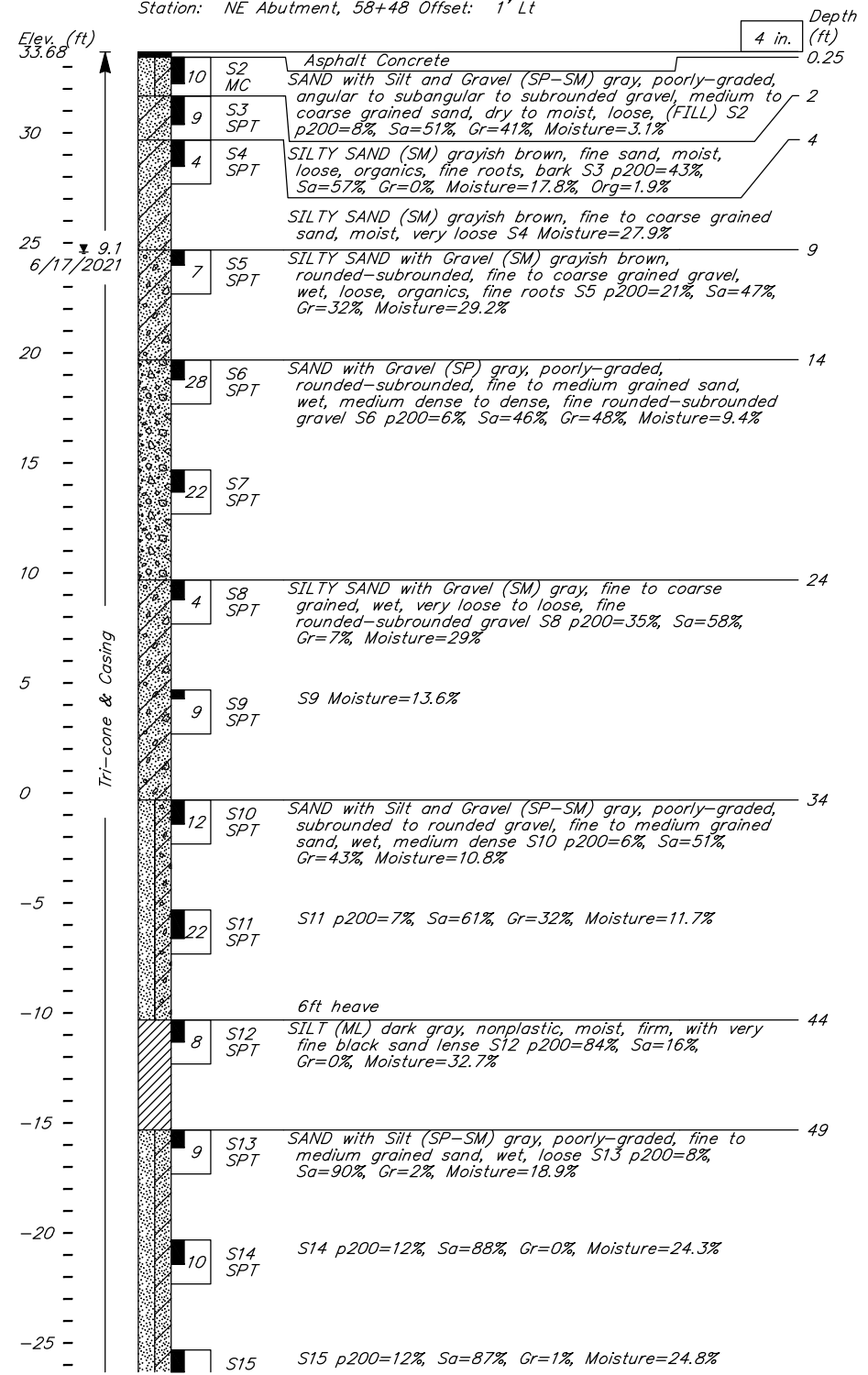


**MONTANA CREEK PEDESTRIAN BRIDGE**  
KAXDEGOOWU HEEN DEI (BROTHERHOOD BRIDGE) TRAIL  
**TEST HOLE & PENETROMETER LOGS**

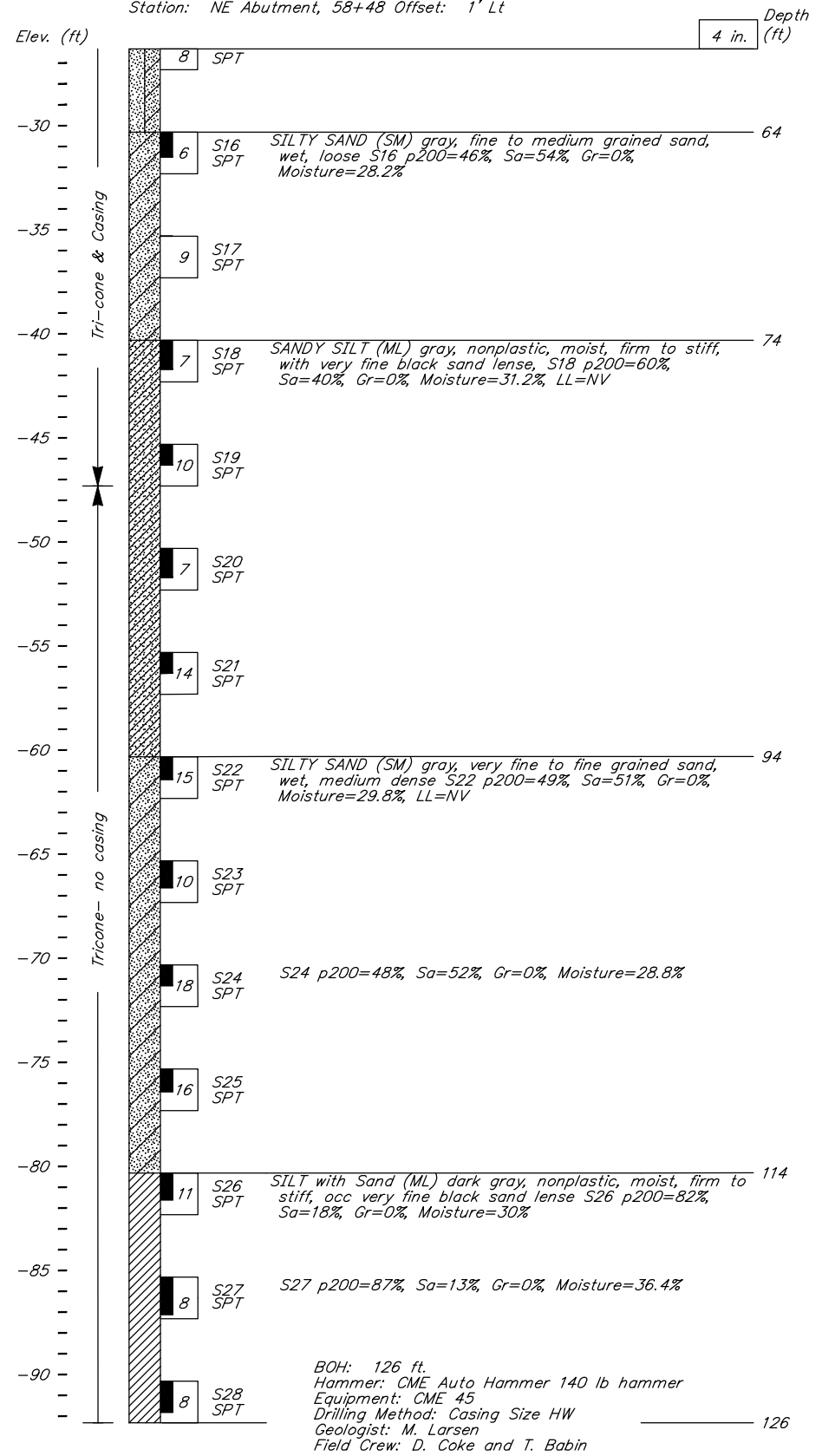
  
BRIDGE NO. 1955  
DWG. NO. II

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	SFH00259/TA18010	2022	N12	N12

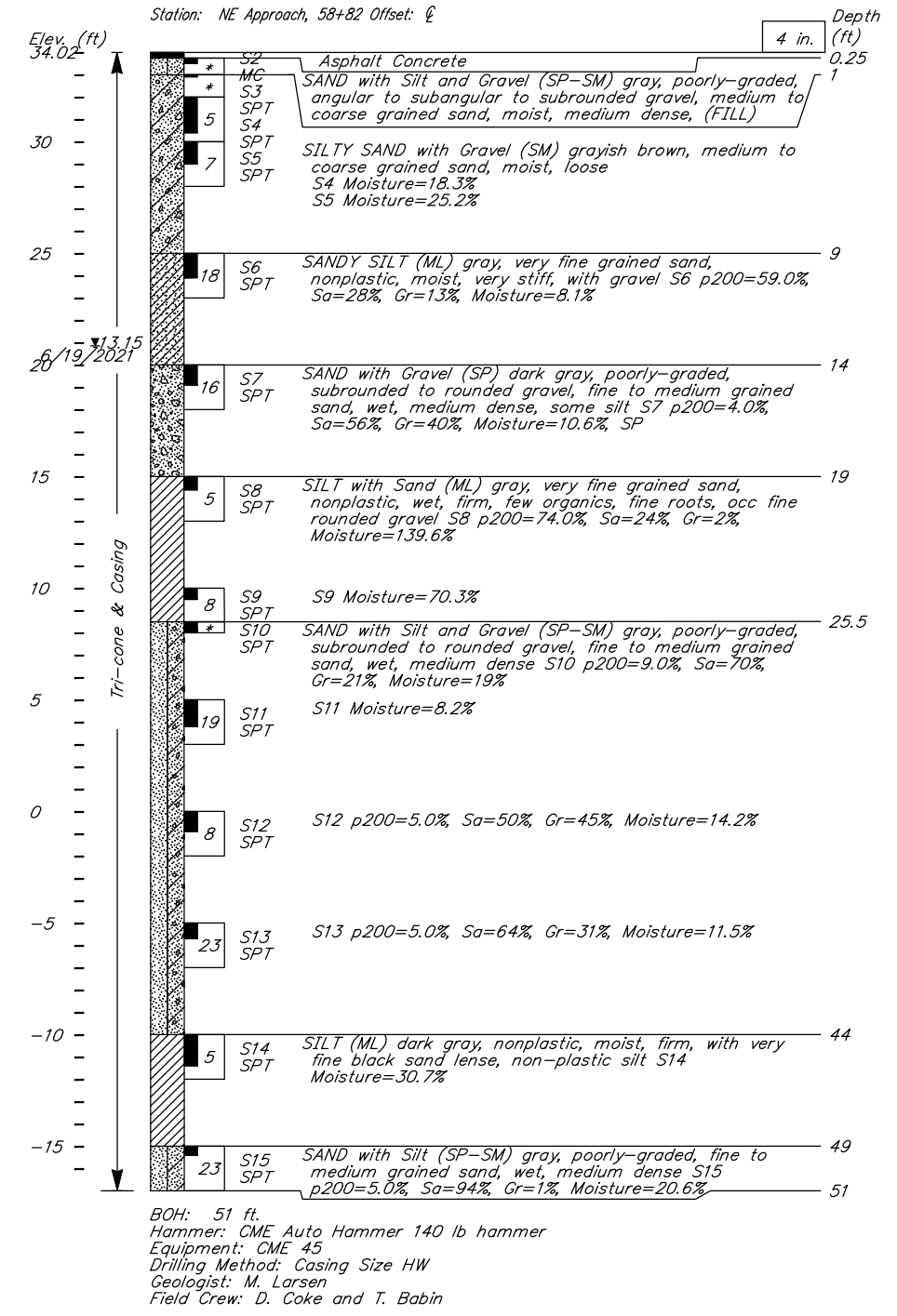
**JNU21-TH003**  
 Date: 6/16/21 - 6/17/21  
 Station: NE Abutment, 58+48 Offset: 1' Lt



**JNU21-TH003 (cont.)**  
 Date: 6/16/21 - 6/17/21  
 Station: NE Abutment, 58+48 Offset: 1' Lt



**JNU21-TH004**  
 Date: 6/18/21 - 6/19/21  
 Station: NE Approach, 58+82 Offset: R



BOH: 51 ft.  
 Hammer: CME Auto Hammer 140 lb hammer  
 Equipment: CME 45  
 Drilling Method: Casing Size HW  
 Geologist: M. Larsen  
 Field Crew: D. Coke and T. Babin

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Digitally signed by Steve Mielke  
 Date: 2024.12.18 11:37:04 -09'00'  
**12/18/2024**

Signature Date

R:\cadd\1955\DWG\22-9-1\_GEO\1955\_GEO\_-6\_TH003&TH004 Sep 02, 2022 - 9:28am

DESIGNED BY: D. Hemstreet	CHECKED: Engineer
DRAWN BY: R. Angell	CHECKED: D. Hemstreet
QUANTITIES BY: Engineer	CHECKED: Engineer

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 STATEWIDE MATERIALS

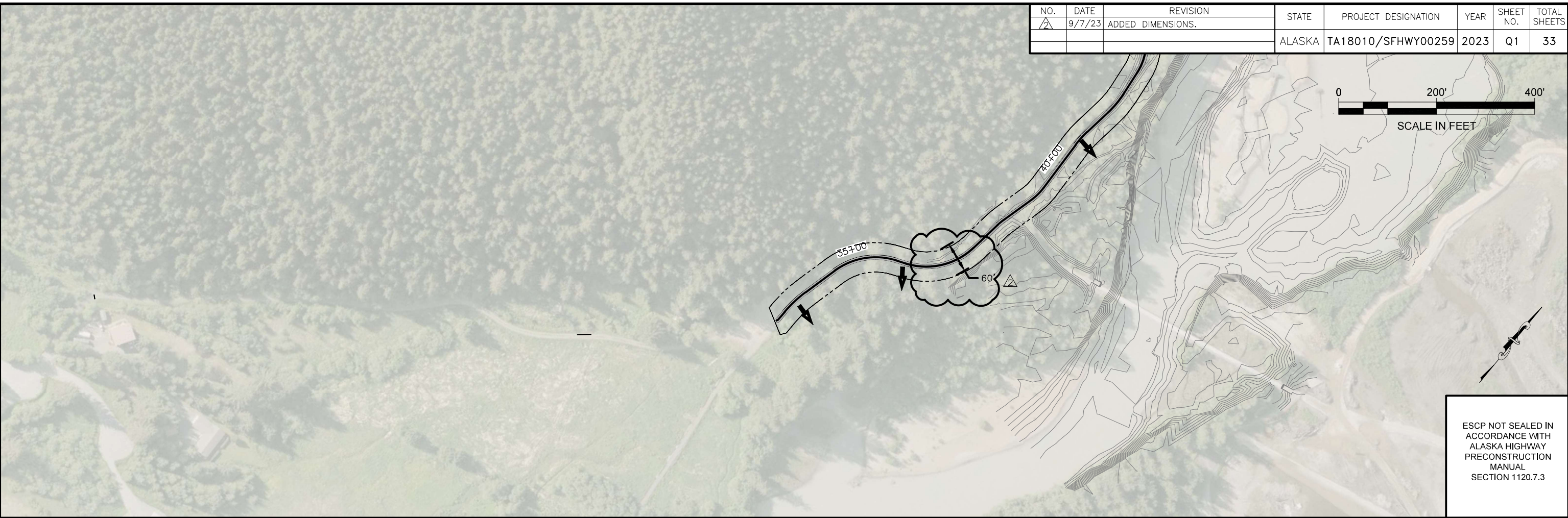


**MONTANA CREEK PEDESTRIAN BRIDGE**  
 KAXDEGOOWU HEEN DEI (BROTHERHOOD BRIDGE) TRAIL  
**TEST HOLE & PENETROMETER LOGS**

BRIDGE NO. 1955  
 DWG. NO. 12

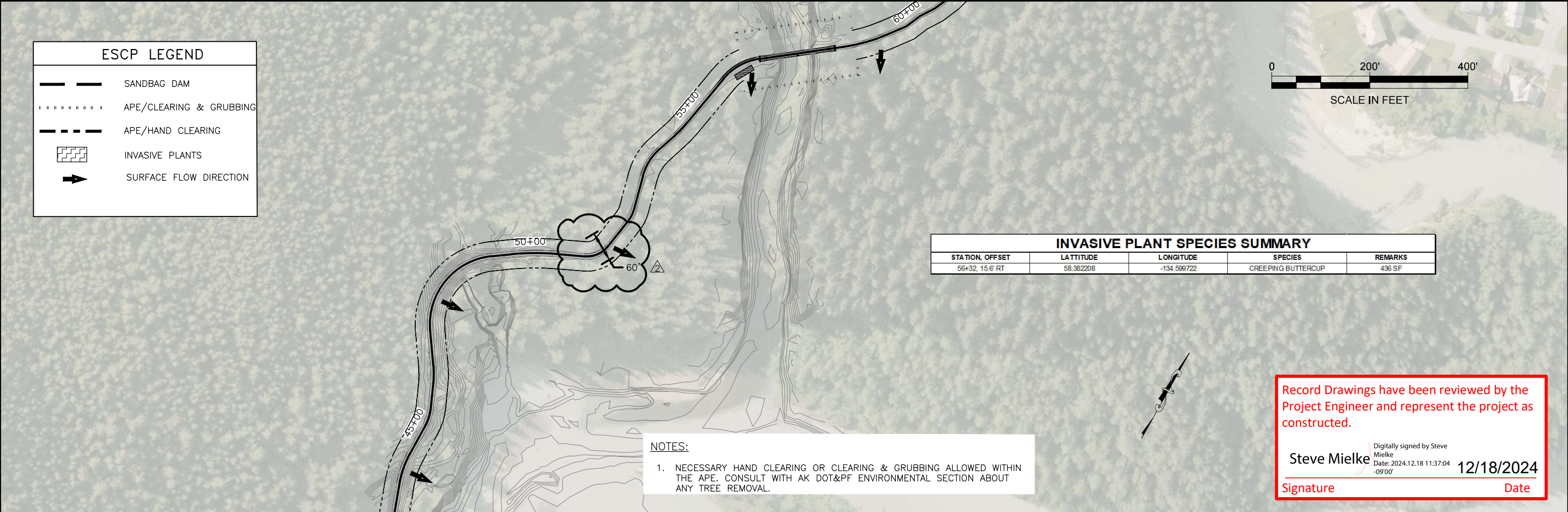
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 PHONE (907) 465-1763  
 DESIGNED WMC  
 CHECKED ##  
 DRAFTED WMC  
 CERTIFICATE OF AUTH #:



ESCP NOT SEALED IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL SECTION 1120.7.3

ESCP LEGEND	
	SANDBAG DAM
	APE/CLEARING & GRUBBING
	APE/HAND CLEARING
	INVASIVE PLANTS
	SURFACE FLOW DIRECTION



INVASIVE PLANT SPECIES SUMMARY				
STATION, OFFSET	LATITUDE	LONGITUDE	SPECIES	REMARKS
56+32, 15.6' RT	58.382208	-134.599722	CREeping BUTTERCUP	436 SF

**NOTES:**

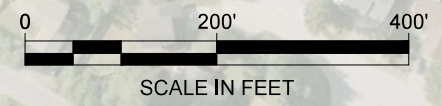
- NECESSARY HAND CLEARING OR CLEARING & GRUBBING ALLOWED WITHIN THE APE. CONSULT WITH AK DOT&PF ENVIRONMENTAL SECTION ABOUT ANY TREE REMOVAL.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

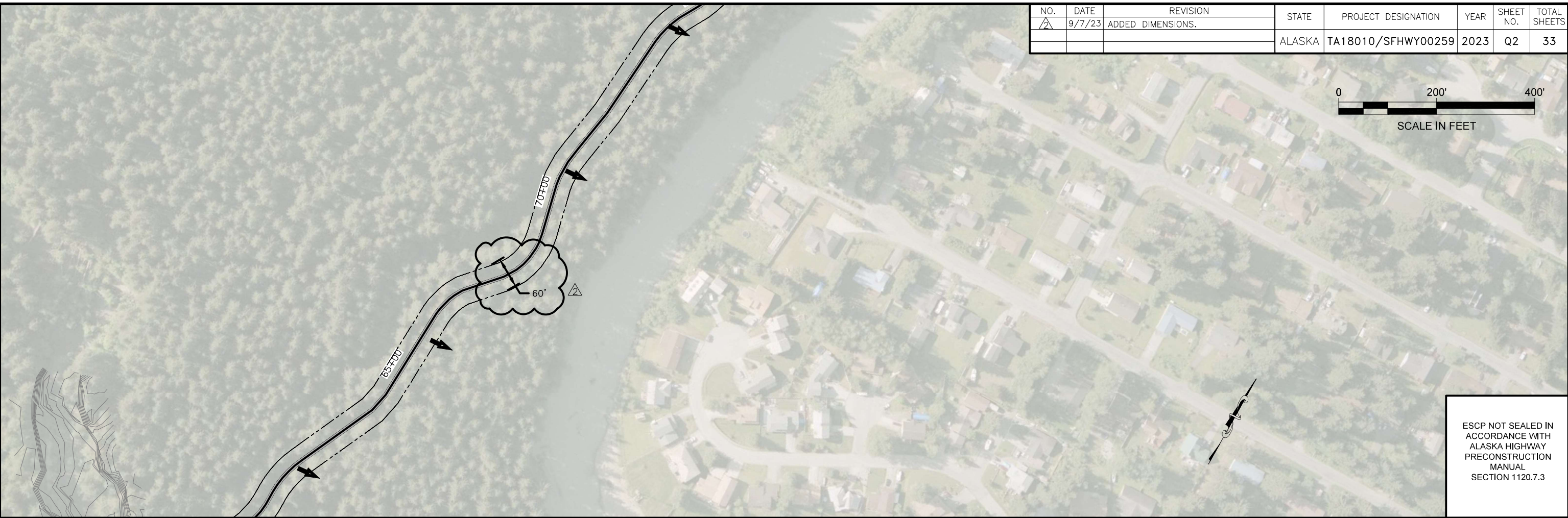
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**12/18/2024**

Signature Date

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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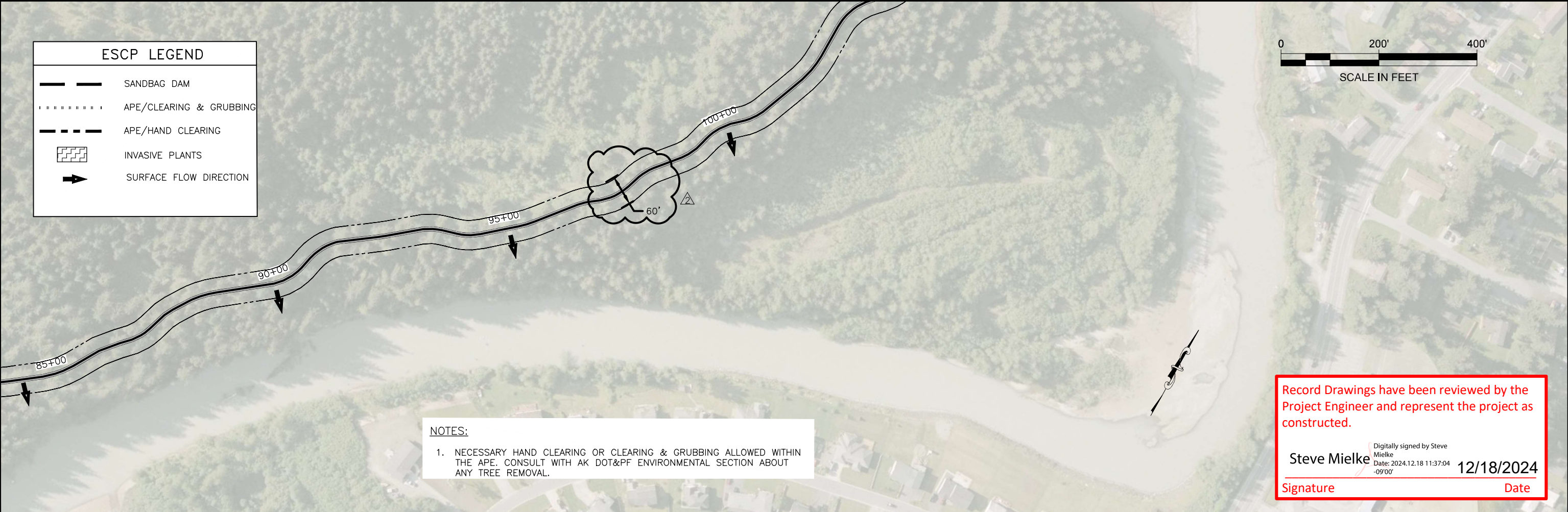


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 PHONE (907) 465-1763 DESIGNED WMC  
 CHECKED ## DRAFTED WMC  
 CERTIFICATE OF AUTH #:



ESCP NOT SEALED IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL SECTION 1120.7.3

ESCP LEGEND	
	SANDBAG DAM
	APE/CLEARING & GRUBBING
	APE/HAND CLEARING
	INVASIVE PLANTS
	SURFACE FLOW DIRECTION



**NOTES:**

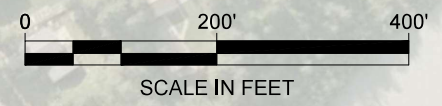
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Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

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 Date: 2024.12.18 11:37:04 -09'00'

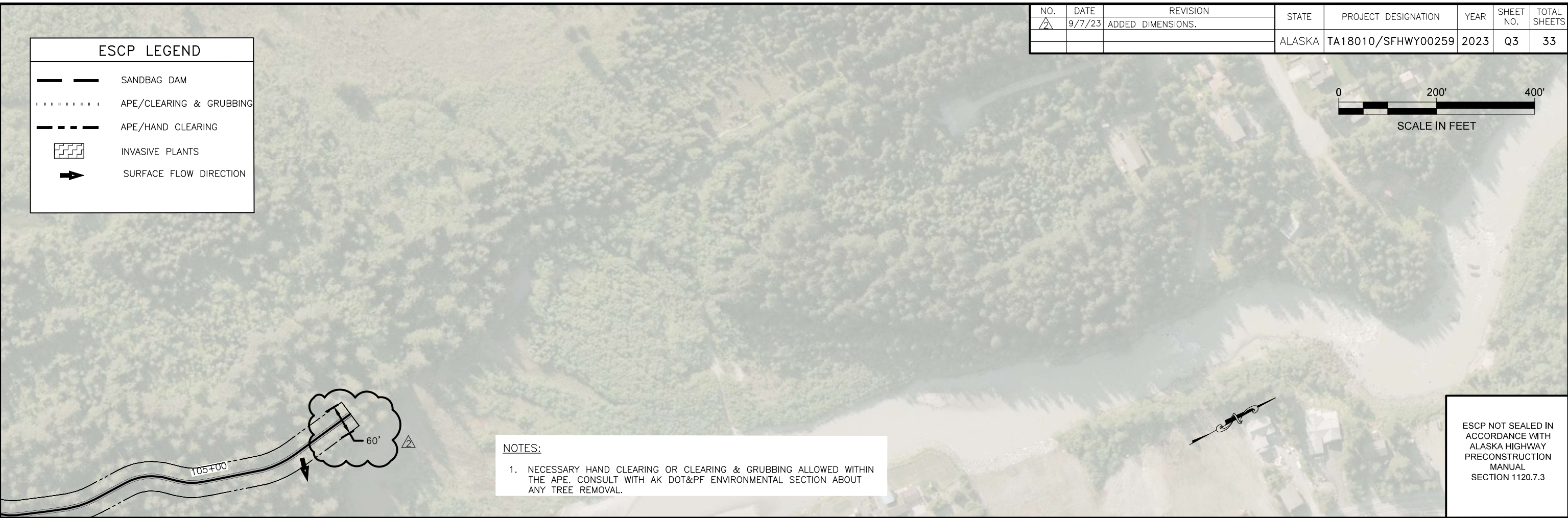
**Steve Mielke** 12/18/2024  
 Signature Date

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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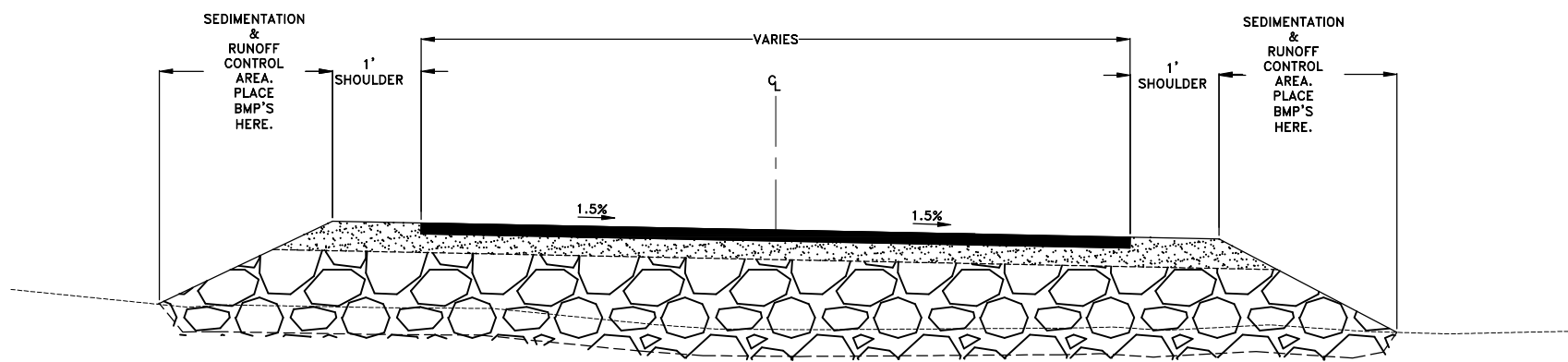
ESCP LEGEND	
	SANDBAG DAM
	APE/CLEARING & GRUBBING
	APE/HAND CLEARING
	INVASIVE PLANTS
	SURFACE FLOW DIRECTION

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 PHONE (907) 465-1763  
 DESIGNED WMC  
 CHECKED ##  
 DRAFTED WMC  
 CERTIFICATE OF AUTH #:  
 DATE 9/7/2023 11:25 LAYOUT 03



**NOTES:**  
 1. NECESSARY HAND CLEARING OR CLEARING & GRUBBING ALLOWED WITHIN THE APE. CONSULT WITH AK DOT&PF ENVIRONMENTAL SECTION ABOUT ANY TREE REMOVAL.

ESCP NOT SEALED IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL SECTION 1120.7.3



1  
Q3 TYPICAL TRAIL SECTION SEDIMENTATION & RUNOFF CONTROL  
SCALE: NOT TO SCALE

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

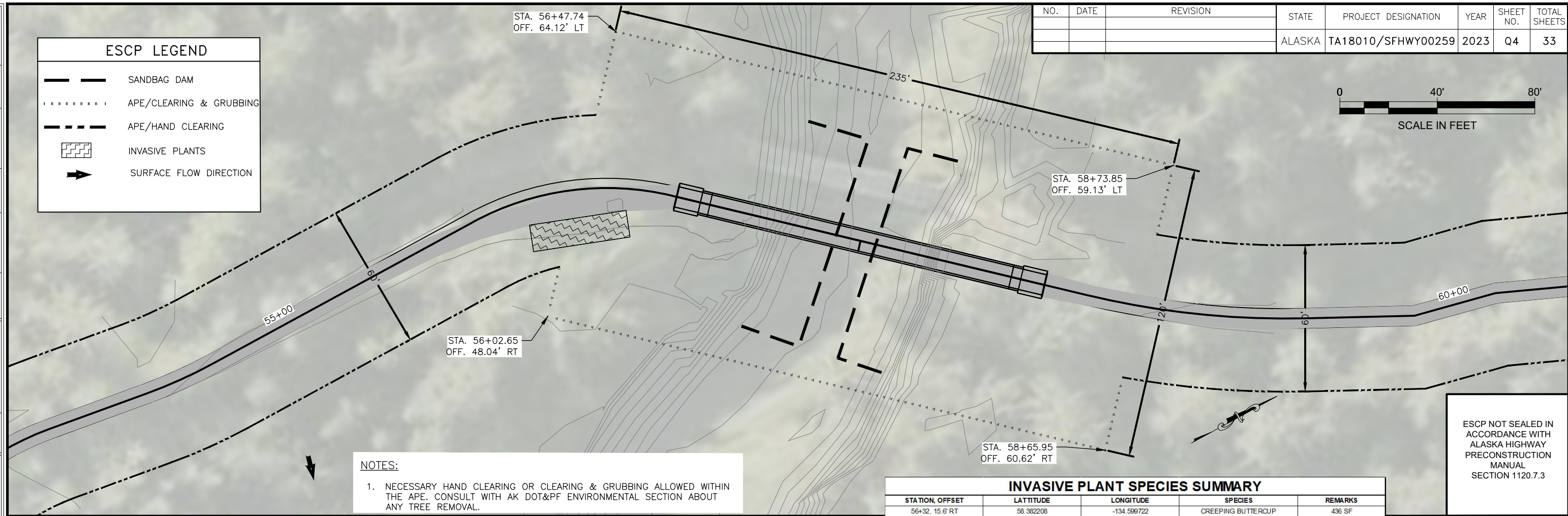
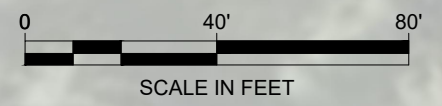
Steve Mielke  
 Digitally signed by Steve Mielke  
 Date: 2024.12.18 11:37:04 -09'00'  
 Signature Date 12/18/2024

FIRM STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
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 DATE 4/12/2023 7:35 LAYOUT 04  
 PHONE (907) 465-1763 DESIGNED WMC  
 CERTIFICATE OF AUTH # DRAFTED WMC  
 CHECKED #

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	TA18010/SFHWY00259	2023	Q4	33

**ESCP LEGEND**

- SANDBAG DAM
- APE/CLEARING & GRUBBING
- APE/HAND CLEARING
- INVASIVE PLANTS
- SURFACE FLOW DIRECTION



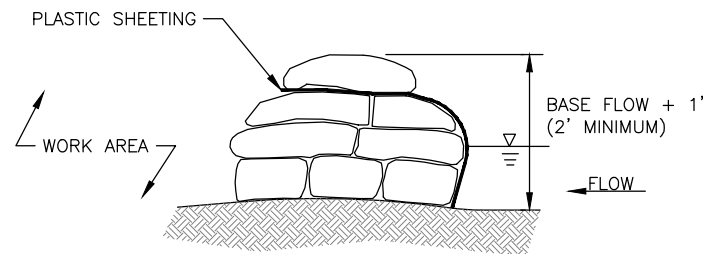
**NOTES:**

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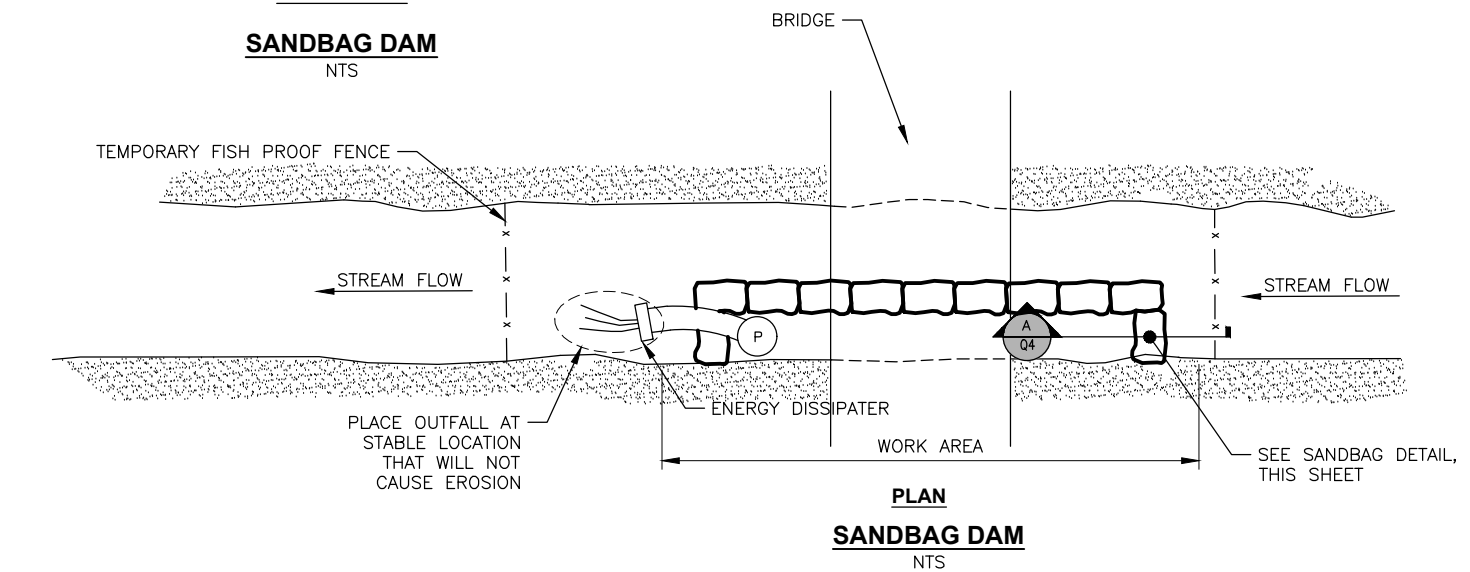
**INVASIVE PLANT SPECIES SUMMARY**

STATION, OFFSET	LATITUDE	LONGITUDE	SPECIES	REMARKS
56+32, 15.6' RT	58.382208	-134.599722	CREEPING BUTTERCUP	436 SF

ESCP NOT SEALED IN ACCORDANCE WITH ALASKA HIGHWAY PRECONSTRUCTION MANUAL SECTION 1120.7.3



**SECTION A-A**  
**SANDBAG DAM**  
NTS



**SANDBAG DAM & DEWATERING NOTES:**

- DAM MATERIAL:**  
SANDBAGS COVERED WITH PLASTIC SHEETING (30 MIL OR 2 OR MORE LAYERS OF 10 MIL), RIPRAP, STEEL PIPE PLATE, SHEETPILE, INFLATABLE BLADDERS, OR EQUIVALENT.
- PUMPSIZE:**  
SIZED FOR DESIGN FLOW IN CONTRACT, WITH INTAKE LINE, FITTINGS, AND NOZZLES. BACK UP PUMP REQUIRED.
- ENERGY DISSIPATER:**  
RIPRAP, SANDBAGS, T-BAR SPREADER, OR EQUIVALENT.
- FISH BARRIER:**  
FENCE OR SCREEN

**SPILL PREVENTION BMPS:**

- INSTALLATION:**
- COORDINATE WITH DEPARTMENT TO INSTALL FISH FENCE. SEE APPENDIX B FOR PERMIT REQUIREMENTS.
  - INSTALL A CONVEYANCE, SUMP (IF NEEDED), AND INTAKE HOSE.
  - INSTALL THE DAM.
  - PLACE THE PUMP IN AN AREA DESIGNED FOR ITS USE AND OPERATION WITH SPILL PREVENTION MEASURES.
  - INSTALL THE ENERGY DISSIPATER.

**INSPECTION:**

- WHEN PUMPING, MONITOR PUMPS, INTAKE AND DISCHARGE POINTS. ENSURE THAT PUMPS ARE ADEQUATELY SIZED.
- INSPECT DAM FOR OVERTOPPING, BYPASS, UNDERCUTTING, OR OTHER DEFECTS.
- INSPECT THE CONVEYANCE STRUCTURE FOR LEAKS, EROSION, OR OTHER DEFECTS.
- INSPECT DISCHARGE POINT FOR EROSION OR FAILURE OF THE ENERGY DISSIPATION MATERIAL.
- INSPECT THE EQUIPMENT AREA FOR PROPERLY STORED FUEL AND OTHER POTENTIALLY HAZARDOUS SUBSTANCES.

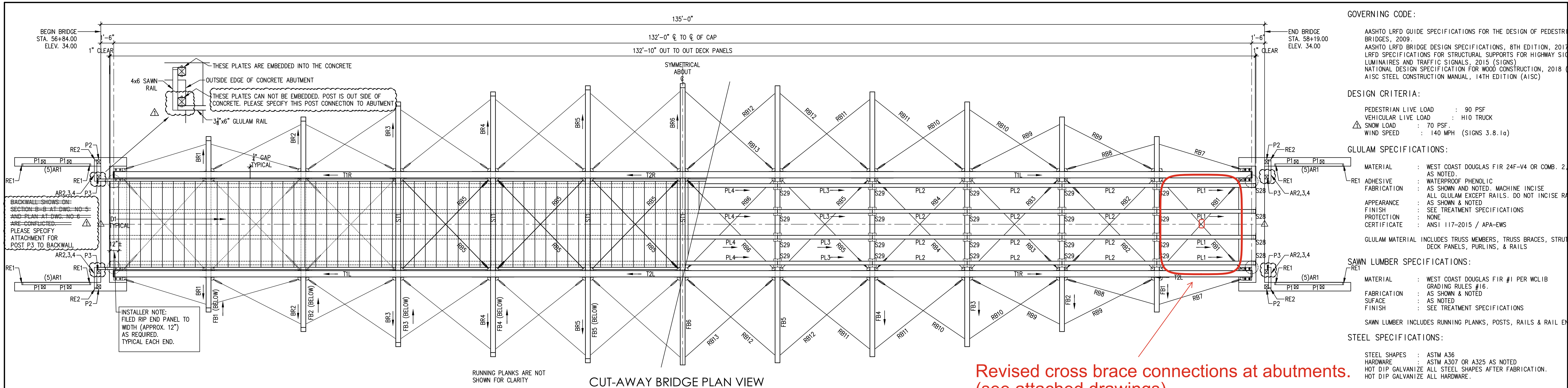
**MAINTENANCE:**

- REINFORCE OR RESTORE ANY PORTION OF THE DAM CONVEYANCE STRUCTURE, OR ENERGY DISSIPATER.

**REMOVAL:**

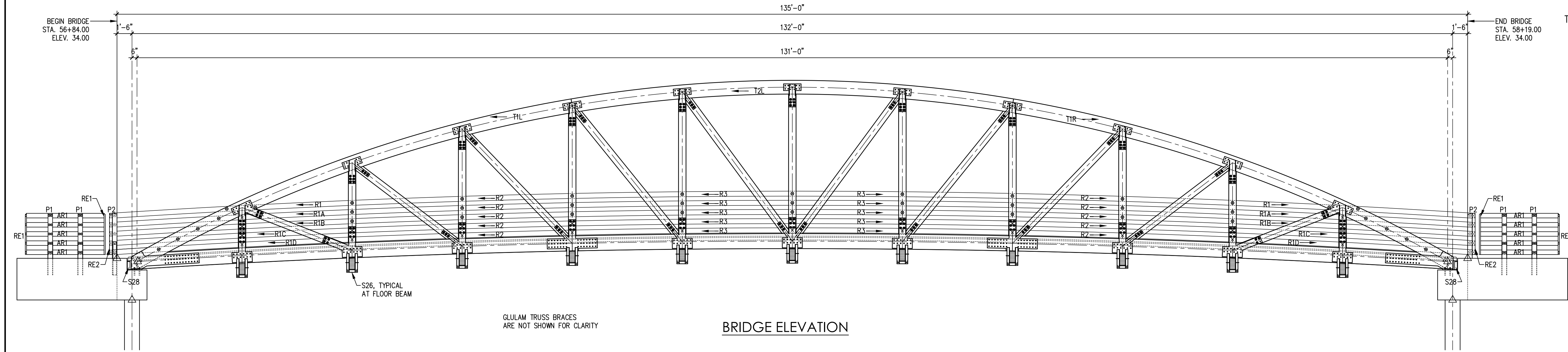
- ENSURE STREAM BANKS AND SUMP ARE STABLE BEFORE REMOVAL.
- REMOVE THE DOWNSTREAM DAM FIRST, THEN THE UPSTREAM DAM.
- REMOVE THE ENERGY DISSIPATER.
- REMOVE THE INTAKE HOSE
- REMOVE THE TEMPORARY CONVEYANCE STRUCTURE. BACKFILL OR REGRADE AND RESTORE TO ORIGINAL CONTOURS.
- REGRADE AND SEED OR PERMANENTLY STABILIZE ALL DISTURBED AREAS.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.  
  
 Digitally signed by Steve Mielke  
 Date: 2024.12.18 11:37:04 -09'00'  
**12/18/2024**  
 Signature Date

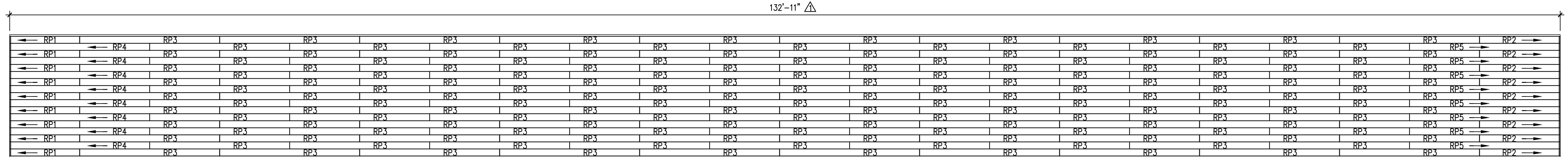


CUT-AWAY BRIDGE PLAN VIEW

Revised cross brace connections at abutments. (see attached drawings)



BRIDGE ELEVATION



RUNNING PLANK LAYOUT

"As-Fabricated" SHOP DRAWINGS

<p>4   TRUSS HEEL CONNECTION</p> <p>4   1" ANCHOR BOLT (BY OTHERS)</p> <p>4   1" CUT WASHER</p> <p>4   1" HEX NUT</p> <p>22   FLOOR BEAM TO TRUSS</p> <p>4   3/4" x 9" MACHINE BOLT</p> <p>4   3/4" CUT WASHER (Ø SLOTTED HOLE)</p> <p>4   1" HEX NUT</p> <p>4   STEEL WELD ASSEMBLY - MARK S26</p> <p>4   3/4" x 2" MACHINE BOLT (FULLY THREADED)</p> <p>14   STRUT TO TRUSS</p> <p>2   3/4" x 7" MACHINE BOLT</p>	<p>22   TRUSS BRACE TO FLOOR BEAM</p> <p>2   STEEL PLATE - MARK S27</p> <p>3   3/4" x 8-1/2" MACHINE BOLT NO BOLT @ INNER HOLE @ FLOOR BEAM</p> <p>22   TRUSS BRACE TO TRUSS</p> <p>2   3/4" x 8-1/2" MACHINE BOLT</p> <p>8   ROD BRACE RB1 &amp; RB2 CONNECTION @ FLOOR BEAM</p> <p>1   1" x 4" MACHINE BOLT (FULLY THREADED) A325</p> <p>4   ROD BRACE RB3 CONNECTION @ FLOOR BEAM</p> <p>1   3/4" x 3" MACHINE BOLT (FULLY THREADED) A325</p>	<p>12   ROD BRACE RB4, 5, &amp; 6 CONNECTION @ FLOOR BM</p> <p>1   5/8" x 2-1/2" MACHINE BOLT (FULLY THREADED) A325</p> <p>22   ROD BRACE RB7-RB13 @ FLOOR BEAM</p> <p>1   3/4" x 9" MACHINE BOLT @ INNER HOLE</p> <p>12   ROD BRACE RB5 CONNECTION @ STRUT</p> <p>1   5/8" x 2-1/2" MACHINE BOLT (FULLY THREADED) A325</p> <p>8   PURLIN TO BACKWALL</p> <p>1   STEEL WELD ASSEMBLY - MARK S28</p> <p>2   3/4" ANCHOR BOLT (BY OTHERS)</p> <p>2   3/4" CUT WASHER</p> <p>2   3/4" HEX NUT</p> <p>1   5/8" x 7" MACHINE BOLT</p>	<p>44   PURLIN TO FLOOR BEAM</p> <p>1   STEEL WELD ASSEMBLY - MARK S29</p> <p>2   5/8" x 6" LAG SCREWS</p> <p>2   5/8" x 7" MACHINE BOLT</p> <p>52   RAIL TO TRUSS @ STEEL CONNECTION</p> <p>1   UHMW BLOCK - SP1</p> <p>1   7/8" x 15" ECONOMY HEAD BOLT</p> <p>78   RAIL TO TRUSS</p> <p>1   UHMW BLOCK - SP2</p> <p>1   7/8" x 15" ECONOMY HEAD BOLT</p> <p>1   7/8" PLATE WASHER</p> <p>420   DECK TO PURLIN</p> <p>3   5/16" x 6" DECK SCREWS</p>	<p>1782   RUNNING PLANK TO DECK</p> <p>1   5/16" x 3" DECK SCREWS</p> <p>12   APPROACH POST (AP1 &amp; AP2) TO ABUTMENT</p> <p>2   3/4" x 7" MACHINE BOLT</p> <p>4   APPROACH POST (AP3) TO ABUTMENT</p> <p>SPECIFY</p>	<p>20   RAIL TO APPROACH POST P3</p> <p>1   7/8" x 10" ECONOMY HEAD BOLT</p> <p>1   7/8" PLATE WASHER</p> <p>8   AR2 TO AP2 &amp; 3</p> <p>1   1/2" x 7-1/2" LAG BOLT (Ø COUNTERSINK)</p> <p>1   1/2" x 10" ECONOMY HEAD BOLT</p> <p>1   1/2" PLATE WASHER</p> <p>72   APPROACH RAIL TO APPROACH POST</p> <p>2   1/2" x 10" ECONOMY HEAD BOLT</p> <p>2   1/2" PLATE WASHER</p> <p>60   RAIL END TO APPROACH RAIL</p> <p>2   3/8" x 6" LAG BOLT</p> <p>2   3/8" CUT WASHER</p>
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WARNING: Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to www.P65Warnings.ca.gov/wood

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

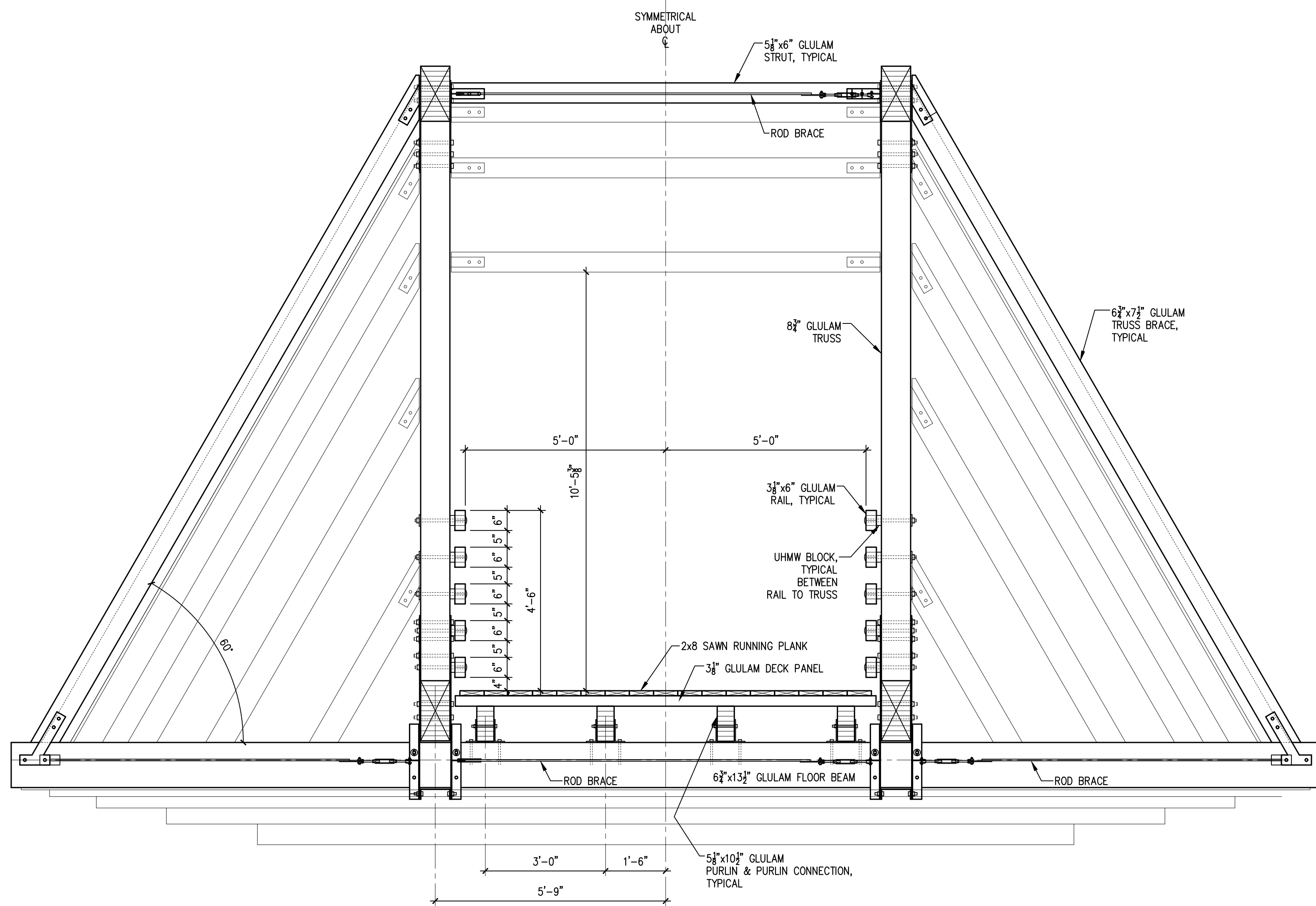
Steve Mielke  
12/18/2024  
Signature Date

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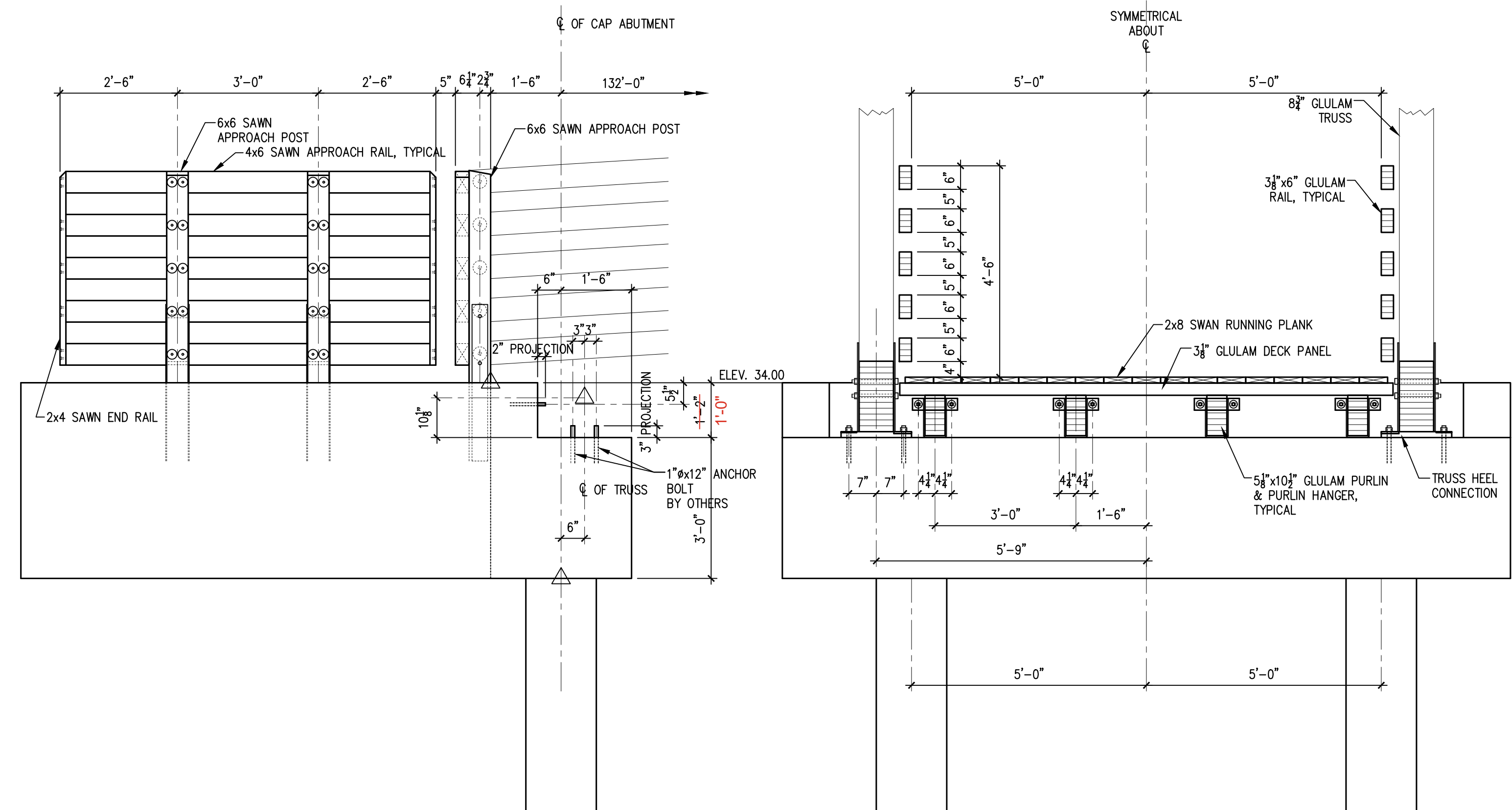
**WESTERN WOOD STRUCTURES**

**Western Wood Structures, Inc.**  
20675 SW 105th Ave  
P.O. Box 130  
Tualatin, Oregon 97062  
503-692-6900  
WWSI.com

PROJECT: BROTHERHOOD TRAIL IMP BRIDGE  
LOCATION: JUNEAU, ALASKA  
ARCHITECT: \_\_\_\_\_  
ENGINEER: \_\_\_\_\_  
CONTRACTOR: COOGAN CONSTRUCTION  
DRAWN BY: YK DATE: 2/13/24 JOB NO: 234055  
CHECKED BY: P.C.G. DATE: 4/5/24 PLOT DATE: 05/28/24  
DATE PRINTED: \_\_\_\_\_



BRIDGE SECTION @ MID SPAN



SECTION @ ABUTMENT & ANCHOR BOLT LOCATION

ABUTMENT FINAL DESIGN BY OTHERS

**FINAL PRINT**  
MATERIAL WILL BE MANUFACTURED AS DETAILED ON THESE DRAWINGS

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.  
Steve Mielke  
Digitally signed by Steve Mielke  
Date: 2024.12.18 11:37:04 -0800  
Signature Date

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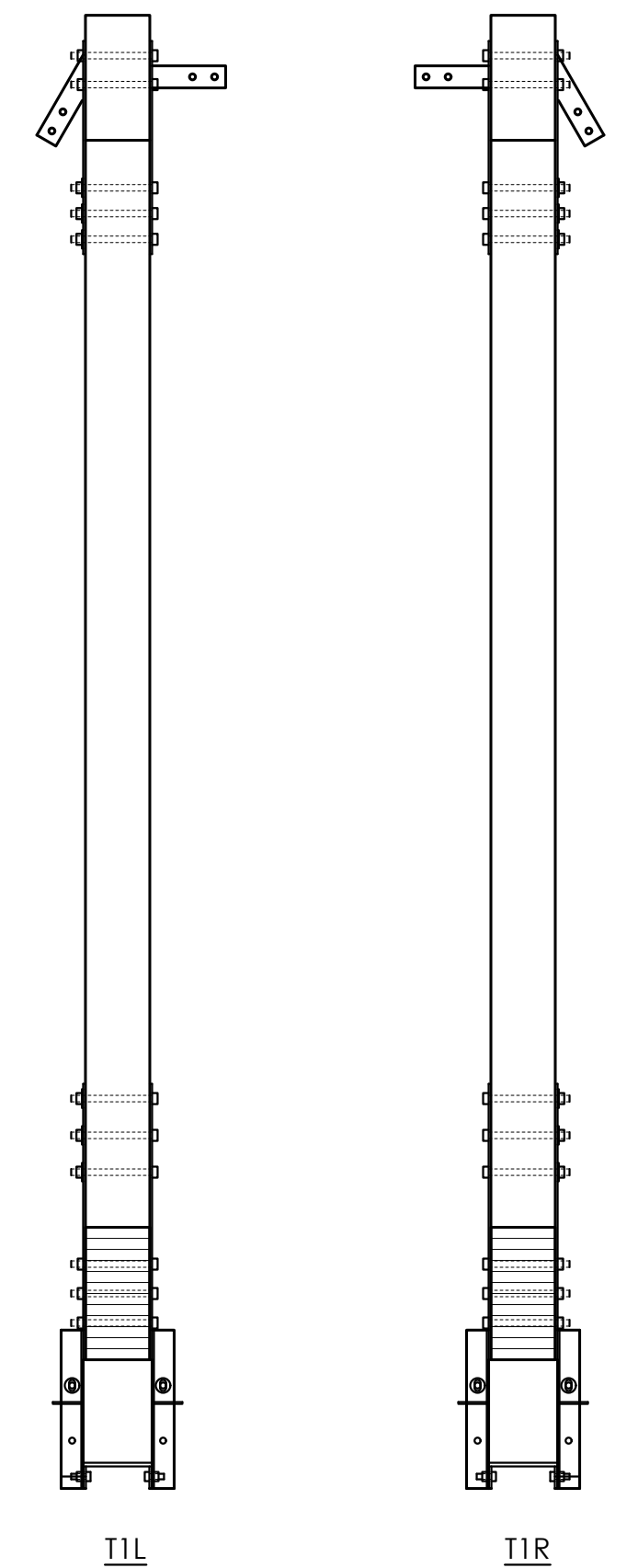
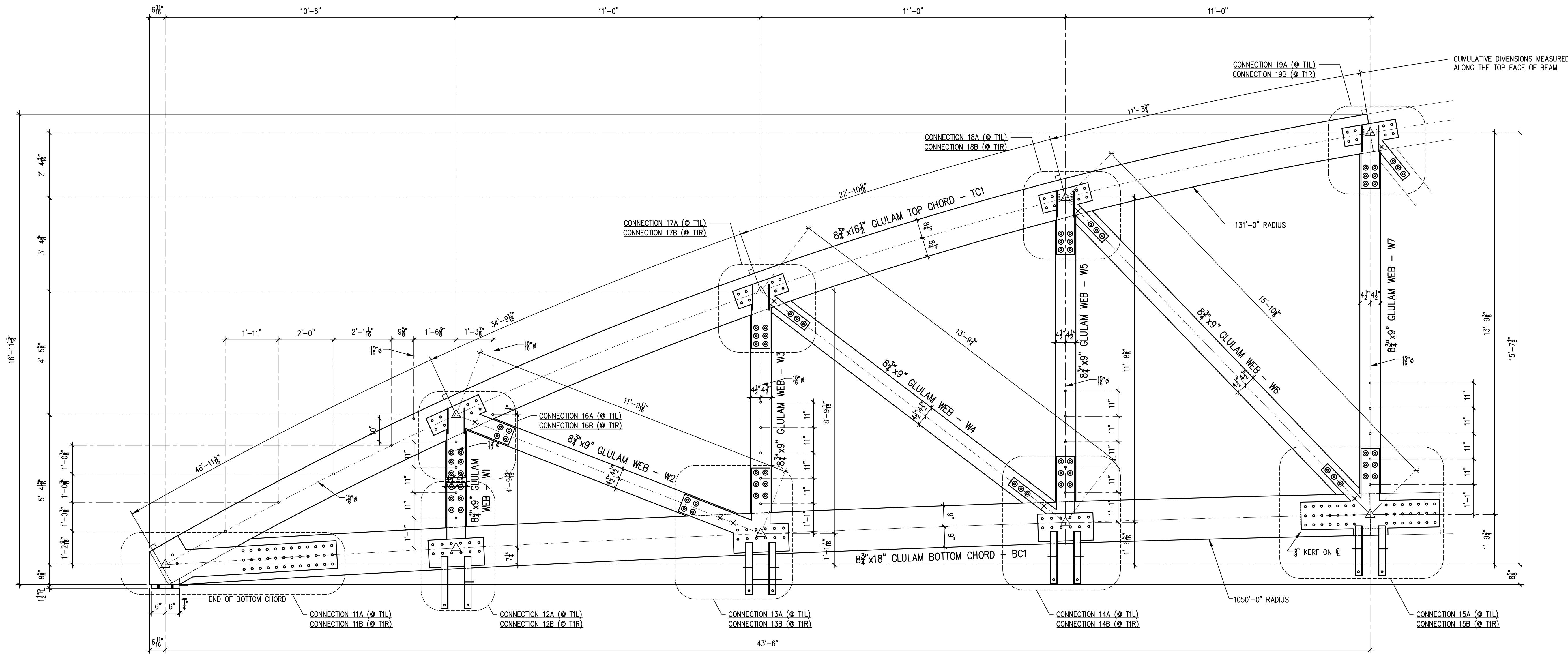
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NO.	DATE	REVISIONS	BY



**Western Wood Structures, Inc.**  
20675 SW 105th Ave  
P.O. Box 130  
Tualatin, Oregon 97062  
503-692-6900  
WWSI.com

PROJECT:	BROTHERHOOD TRAIL IMP BRIDGE	JOB NO.:	234055
LOCATION:	JUNEAU, ALASKA	DATE:	2/13/24
ARCHITECT:		DATE:	4/5/24
ENGINEER:		DATE:	04/05/24
CONTRACTOR:	COOGAN CONSTRUCTION	DATE:	
DRAWN BY:	YK	DATE:	2/13/24
CHECKED BY:	P.C.G.	DATE:	4/5/24
DATE PRINTED:		DATE:	04/05/24



**GLULAM TRUSS - MARK T1L & T1R**

MARK T1L (AS SHOWN) 2 REQUIRED  
 MARK T1R (OPP. HAND) 2 REQUIRED

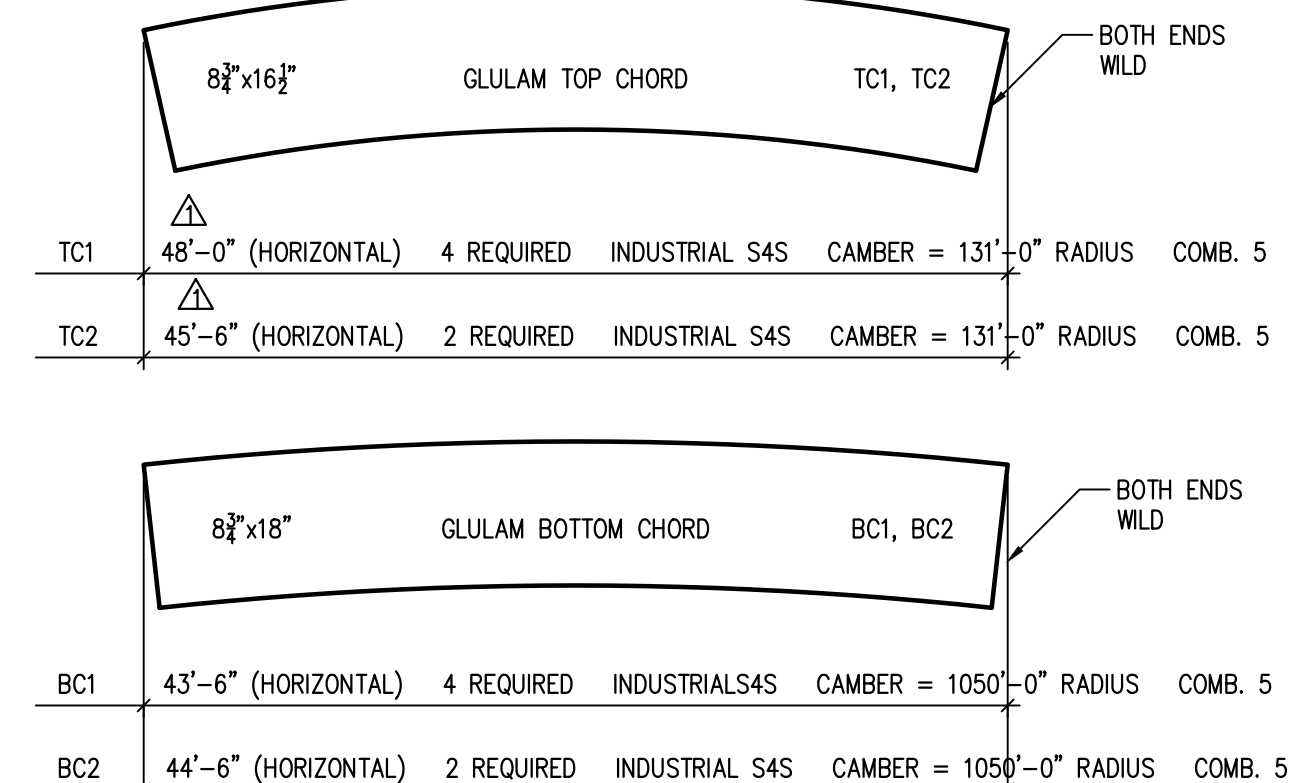
**SHOP NOTES:**

- SHOP FABRICATE USING STEEL AS TEMPLATE
- PROVIDE 1/8" GAP BETWEEN CHORDS & WEBS
- SHOP ASSEMBLE AND "KNOCK DOWN" FOR SHIPMENT
- HOLE MARKED 'X' ARE STITCH BOLTS. USE 1/2" HOLES IN WOOD FOR 3/8" MACHINE BOLT.
- MATCH MARK EACH TRUSS AND STAMP BRAND EACH WOOD TRUSS MEMBER

2	CONNECTION 11A (TIL)
1	STEEL WELD ASSEMBLY - MARK S1L
38	7/8" x 11" MACHINE BOLT
2	CONNECTION 11B (TIR)
1	STEEL WELD ASSEMBLY - MARK S1R
38	7/8" x 11" MACHINE BOLT
2	CONNECTION 12A (TIL)
1	STEEL WELD ASSEMBLY - MARK S2L (NEAR SIDE)
1	STEEL WELD ASSEMBLY - MARK S3R (FAR SIDE)
18	7/8" x 11" MACHINE BOLT
12	7/8" CUT WASHER (SLOTTED HOLE)
2	CONNECTION 12B (TIR)
1	STEEL WELD ASSEMBLY - MARK S3L (NEAR SIDE)
1	STEEL WELD ASSEMBLY - MARK S2R (FAR SIDE)
18	7/8" x 11" MACHINE BOLT
12	7/8" CUT WASHER (SLOTTED HOLE)
2	CONNECTION 13A (TIL)
1	STEEL WELD ASSEMBLY - MARK S4L (NEAR SIDE)
1	STEEL WELD ASSEMBLY - MARK S5R (FAR SIDE)
22	7/8" x 11" MACHINE BOLT
20	7/8" CUT WASHER (SLOTTED HOLE)
2	5/8" x 11" MACHINE BOLT
2	CONNECTION 13B (TIR)
1	STEEL WELD ASSEMBLY - MARK S5L (NEAR SIDE)
1	STEEL WELD ASSEMBLY - MARK S4R (FAR SIDE)
22	7/8" x 11" MACHINE BOLT
20	7/8" CUT WASHER (SLOTTED HOLE)
2	5/8" x 11" MACHINE BOLT

2	CONNECTION 14A (TIL)
1	STEEL WELD ASSEMBLY - MARK S6L (NEAR SIDE)
1	STEEL WELD ASSEMBLY - MARK S7R (FAR SIDE)
21	7/8" x 11" MACHINE BOLT
18	7/8" CUT WASHER (SLOTTED HOLE)
1	5/8" x 11" MACHINE BOLT
2	CONNECTION 14B (TIR)
1	STEEL WELD ASSEMBLY - MARK S7L (NEAR SIDE)
1	STEEL WELD ASSEMBLY - MARK S6R (FAR SIDE)
21	7/8" x 11" MACHINE BOLT
18	7/8" CUT WASHER (SLOTTED HOLE)
1	5/8" x 11" MACHINE BOLT
2	CONNECTION 15A (TIL SPLICE)
1	STEEL WELD ASSEMBLY - MARK S8L (NEAR SIDE)
1	STEEL WELD ASSEMBLY - MARK S9R (FAR SIDE)
1	STEEL PLATE - MARK S10
30	7/8" x 11" MACHINE BOLT
18	7/8" CUT WASHER (SLOTTED HOLE)
1	5/8" x 11" MACHINE BOLT
2	CONNECTION 15B (TIR SPLICE)
1	STEEL WELD ASSEMBLY - MARK S9L (NEAR SIDE)
1	STEEL WELD ASSEMBLY - MARK S8R (FAR SIDE)
1	STEEL PLATE - MARK S10
30	7/8" x 11" MACHINE BOLT
18	7/8" CUT WASHER (SLOTTED HOLE)
1	5/8" x 11" MACHINE BOLT
2	CONNECTION 16A (TIL)
1	STEEL WELD ASSEMBLY - MARK S14L (NEAR SIDE)
1	STEEL WELD ASSEMBLY - MARK S15 (FAR SIDE)
18	7/8" x 11" MACHINE BOLT
20	7/8" CUT WASHER (SLOTTED HOLE)
1	5/8" x 11" MACHINE BOLT
2	CONNECTION 16B (TIR)
1	STEEL WELD ASSEMBLY - MARK S15 (NEAR SIDE)
1	STEEL WELD ASSEMBLY - MARK S14R (FAR SIDE)
18	7/8" x 11" MACHINE BOLT
20	7/8" CUT WASHER (SLOTTED HOLE)
1	5/8" x 11" MACHINE BOLT

2	CONNECTION 17A (TIL)
1	STEEL WELD ASSEMBLY - MARK S16L (NEAR SIDE)
1	STEEL WELD ASSEMBLY - MARK S17 (FAR SIDE)
17	7/8" x 11" MACHINE BOLT
18	7/8" CUT WASHER (SLOTTED HOLE)
1	5/8" x 11" MACHINE BOLT
2	CONNECTION 17B (TIR)
1	STEEL WELD ASSEMBLY - MARK S17 (NEAR SIDE)
1	STEEL WELD ASSEMBLY - MARK S16R (FAR SIDE)
17	7/8" x 11" MACHINE BOLT
18	7/8" CUT WASHER (SLOTTED HOLE)
1	5/8" x 11" MACHINE BOLT
2	CONNECTION 18A (TIL)
1	STEEL WELD ASSEMBLY - MARK S18L (NEAR SIDE)
1	STEEL WELD ASSEMBLY - MARK S19R (FAR SIDE)
17	7/8" x 11" MACHINE BOLT
18	7/8" CUT WASHER (SLOTTED HOLE)
1	5/8" x 11" MACHINE BOLT
2	CONNECTION 18B (TIR)
1	STEEL WELD ASSEMBLY - MARK S19L (NEAR SIDE)
1	STEEL WELD ASSEMBLY - MARK S18R (FAR SIDE)
17	7/8" x 11" MACHINE BOLT
18	7/8" CUT WASHER (SLOTTED HOLE)
1	5/8" x 11" MACHINE BOLT
2	CONNECTION 19A (TIL SPLICE)
1	STEEL WELD ASSEMBLY - MARK S20L (NEAR SIDE)
1	STEEL WELD ASSEMBLY - MARK S21R (FAR SIDE)
10	7/8" x 11" MACHINE BOLT
12	7/8" CUT WASHER (SLOTTED HOLE)
2	CONNECTION 19B (TIR SPLICE)
1	STEEL WELD ASSEMBLY - MARK S21L (NEAR SIDE)
1	STEEL WELD ASSEMBLY - MARK S20R (FAR SIDE)
10	7/8" x 11" MACHINE BOLT
12	7/8" CUT WASHER (SLOTTED HOLE)



Member	Length	Quantity	Material	Camber	Notes
W1	4'-0"	4 REQUIRED	INDUSTRIAL S4S	NO CAMBER	COMB. 2
W2	10'-6"	4 REQUIRED	INDUSTRIAL S4S	NO CAMBER	COMB. 2
W3	8'-0"	4 REQUIRED	INDUSTRIAL S4S	NO CAMBER	COMB. 2
W4	13'-0"	4 REQUIRED	INDUSTRIAL S4S	NO CAMBER	COMB. 2
W5	11'-0"	4 REQUIRED	INDUSTRIAL S4S	NO CAMBER	COMB. 2
W6	15'-0"	4 REQUIRED	INDUSTRIAL S4S	NO CAMBER	COMB. 2
W7	13'-0"	4 REQUIRED	INDUSTRIAL S4S	NO CAMBER	COMB. 2
W8	17'-0"	4 REQUIRED	INDUSTRIAL S4S	NO CAMBER	COMB. 2
W9	14'-0"	4 REQUIRED	INDUSTRIAL S4S	NO CAMBER	COMB. 2
W10	17'-6"	4 REQUIRED	INDUSTRIAL S4S	NO CAMBER	COMB. 2
W11	14'-6"	4 REQUIRED	INDUSTRIAL S4S	NO CAMBER	COMB. 2

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.  
 Steve Mielke  
 Date: 12/18/2024  
 Signature \_\_\_\_\_ Date \_\_\_\_\_

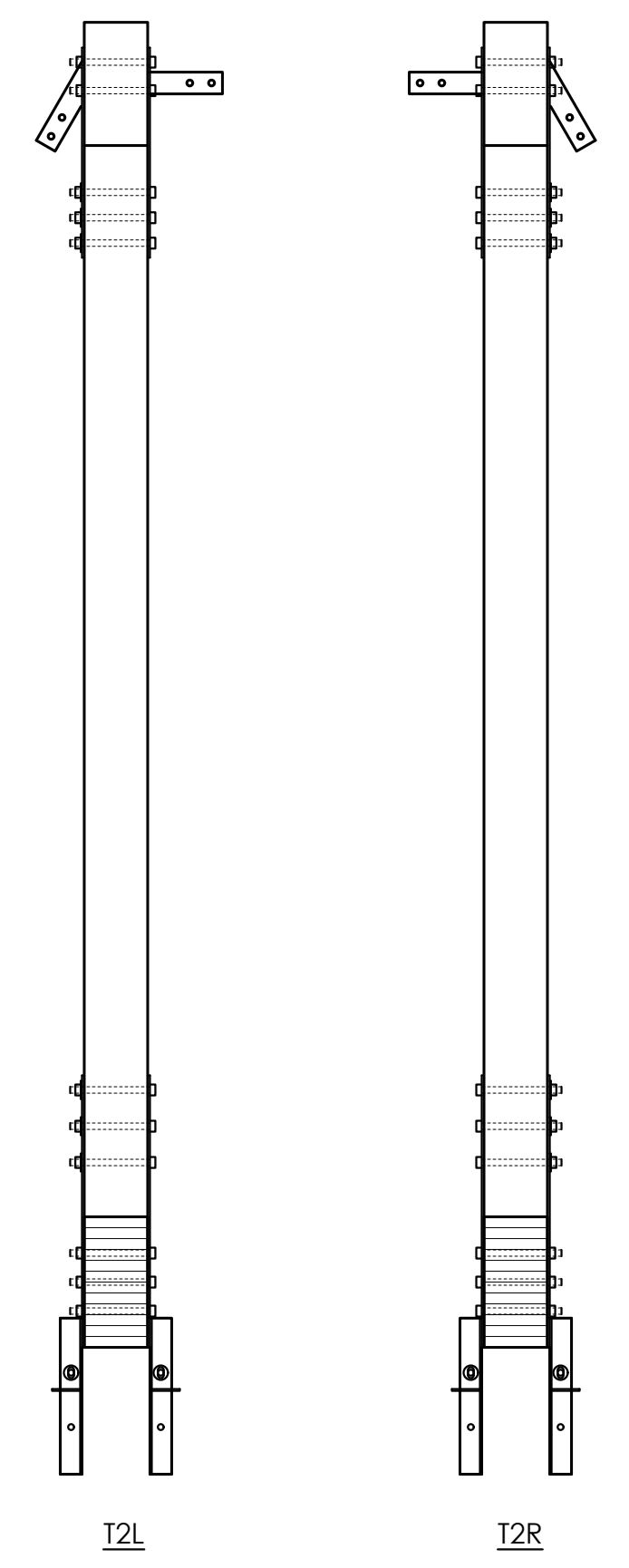
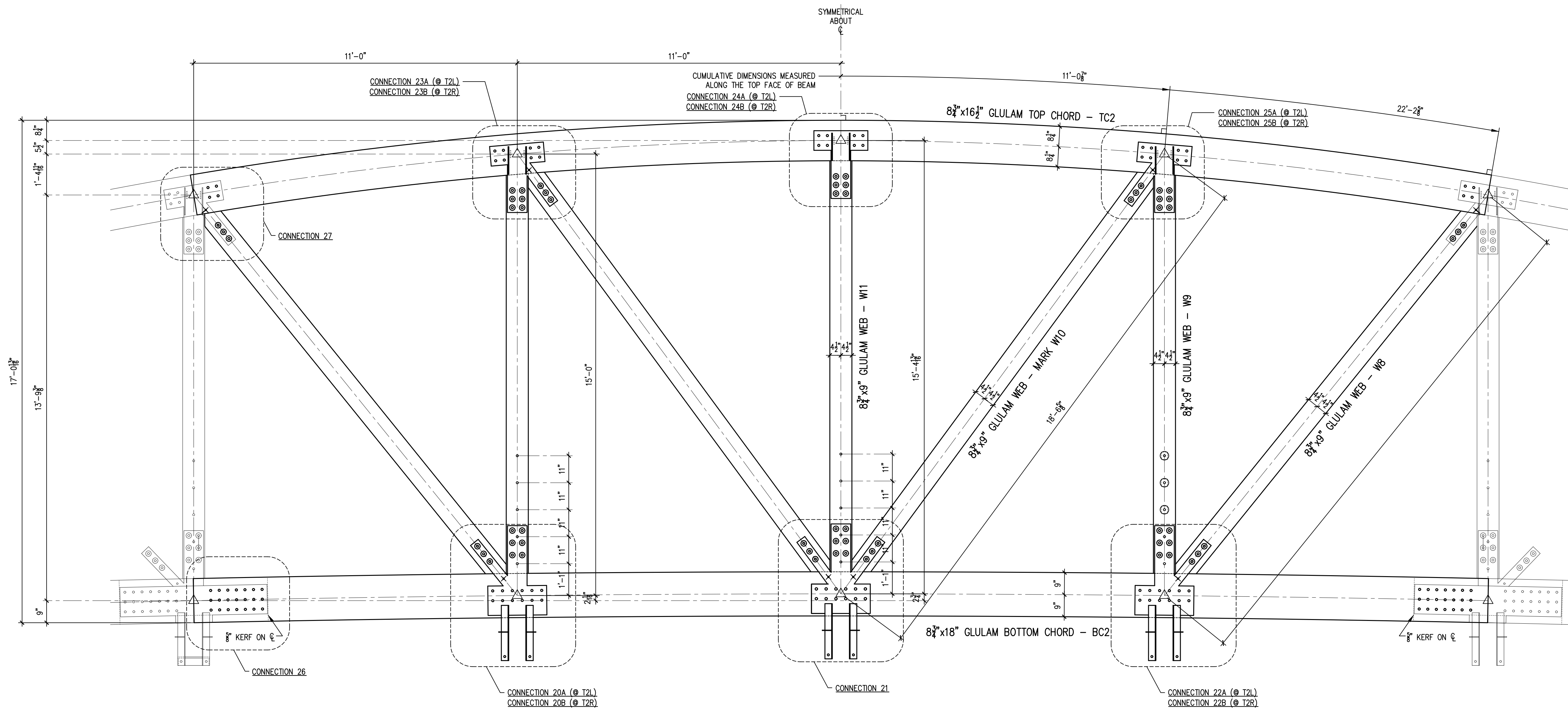
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	<b>Western Wood Structures, Inc.</b> 20675 SW 105th Ave P.O. Box 130 Tualatin, Oregon 97062 503-692-6900 WWSI.com	
	PROJECT: BROTHERHOOD TRAIL IMP BRIDGE LOCATION: JUNEAU, ALASKA ARCHITECT: _____ ENGINEER: _____ CONTRACTOR: COOGAN CONSTRUCTION DRAWN BY: YK DATE: 2/13/24 CHECKED BY: P.C.G. DATE: 4/5/24 DATE PRINTED: 04/05/24	JOB NO. 234055 PLOT DATE 04/05/24 SHEET 3 OF 13

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**GLULAM TRUSS - MARK T2L & T2R**

MARK T2L (AS SHOWN) 1 REQUIRED  
 MARK T2R (OPP. HAND) 1 REQUIRED

**SHOP NOTES:**

- SHOP FABRICATE USING STEEL AS TEMPLATE
- PROVIDE 1/8" GAP BETWEEN CHORDS & WEBS
- SHOP ASSEMBLE AND "KNOCK DOWN" FOR SHIPMENT
- HOLE MARKED X ARE STITCH BOLTS. USE 1/2" HOLES IN WOOD FOR 3/4" MACHINE BOLT.
- MATCH MARK EACH TRUSS AND STAMP BRAND EACH WOOD TRUSS MEMBER

1 CONNECTION 20A (T2L)	1 CONNECTION 23A (T2L)	4 CONNECTION 26 (REFER TO CONNECTION 15A/B)
1 STEEL WELD ASSEMBLY - MARK S11L (NEAR SIDE)	1 STEEL WELD ASSEMBLY - MARK S22L (NEAR SIDE)	1 USING S10 AS TEMPLATE
1 STEEL WELD ASSEMBLY - MARK S12R (FAR SIDE)	1 STEEL WELD ASSEMBLY - MARK S23R (FAR SIDE)	21 7/8" x 11" MACHINE BOLT
21 7/8" x 11" MACHINE BOLT	17 7/8" x 11" MACHINE BOLT	
18 7/8" CUT WASHER (SLOTTED HOLE)	18 7/8" CUT WASHER (SLOTTED HOLE)	
1 5/8" x 11" MACHINE BOLT	1 5/8" x 11" MACHINE BOLT	
1 CONNECTION 20B (T2R)	1 CONNECTION 23B (T2R)	4 CONNECTION 27 (REFER TO CONNECTION 19A/B)
1 STEEL WELD ASSEMBLY - MARK S12L (NEAR SIDE)	1 STEEL WELD ASSEMBLY - MARK S23L (NEAR SIDE)	1 USING S17L/S18L AS TEMPLATE
1 STEEL WELD ASSEMBLY - MARK S11R (FAR SIDE)	1 STEEL WELD ASSEMBLY - MARK S22R (FAR SIDE)	7 7/8" x 11" MACHINE BOLT
21 7/8" x 11" MACHINE BOLT	17 7/8" x 11" MACHINE BOLT	6 7/8" CUT WASHER (SLOTTED HOLE)
18 7/8" CUT WASHER (SLOTTED HOLE)	18 7/8" CUT WASHER (SLOTTED HOLE)	1 5/8" x 11" MACHINE BOLT
1 5/8" x 11" MACHINE BOLT	1 5/8" x 11" MACHINE BOLT	
2 CONNECTION 21	1 CONNECTION 24A (T2L)	
1 STEEL WELD ASSEMBLY - MARK S13 (NEAR SIDE)	1 STEEL WELD ASSEMBLY - MARK S24 (NEAR SIDE)	
1 STEEL WELD ASSEMBLY - MARK S13 (FAR SIDE)	1 STEEL WELD ASSEMBLY - MARK S25 (FAR SIDE)	
24 7/8" x 11" MACHINE BOLT	14 7/8" x 11" MACHINE BOLT	
24 7/8" CUT WASHER (SLOTTED HOLE)	12 7/8" CUT WASHER (SLOTTED HOLE)	
2 5/8" x 11" MACHINE BOLT		
1 CONNECTION 22A (T2L)	1 CONNECTION 24B (T2R)	
1 STEEL WELD ASSEMBLY - MARK S11R (NEAR SIDE)	1 STEEL WELD ASSEMBLY - MARK S25 (NEAR SIDE)	
1 STEEL WELD ASSEMBLY - MARK S12L (FAR SIDE)	1 STEEL WELD ASSEMBLY - MARK S24 (FAR SIDE)	
21 7/8" x 11" MACHINE BOLT	14 7/8" x 11" MACHINE BOLT	
18 7/8" CUT WASHER (SLOTTED HOLE)	12 7/8" CUT WASHER (SLOTTED HOLE)	
1 5/8" x 11" MACHINE BOLT		
1 CONNECTION 22B (T2R)	1 CONNECTION 25A (T2L)	
1 STEEL WELD ASSEMBLY - MARK S12R (NEAR SIDE)	1 STEEL WELD ASSEMBLY - MARK S22R (NEAR SIDE)	
1 STEEL WELD ASSEMBLY - MARK S11L (FAR SIDE)	1 STEEL WELD ASSEMBLY - MARK S23L (FAR SIDE)	
21 7/8" x 11" MACHINE BOLT	17 7/8" x 11" MACHINE BOLT	
18 7/8" CUT WASHER (SLOTTED HOLE)	18 7/8" CUT WASHER (SLOTTED HOLE)	
1 5/8" x 11" MACHINE BOLT	1 5/8" x 11" MACHINE BOLT	
1 CONNECTION 23B (T2R)		
1 STEEL WELD ASSEMBLY - MARK S23R (NEAR SIDE)		
1 STEEL WELD ASSEMBLY - MARK S22L (FAR SIDE)		
17 7/8" x 11" MACHINE BOLT		
18 7/8" CUT WASHER (SLOTTED HOLE)		
1 5/8" x 11" MACHINE BOLT		

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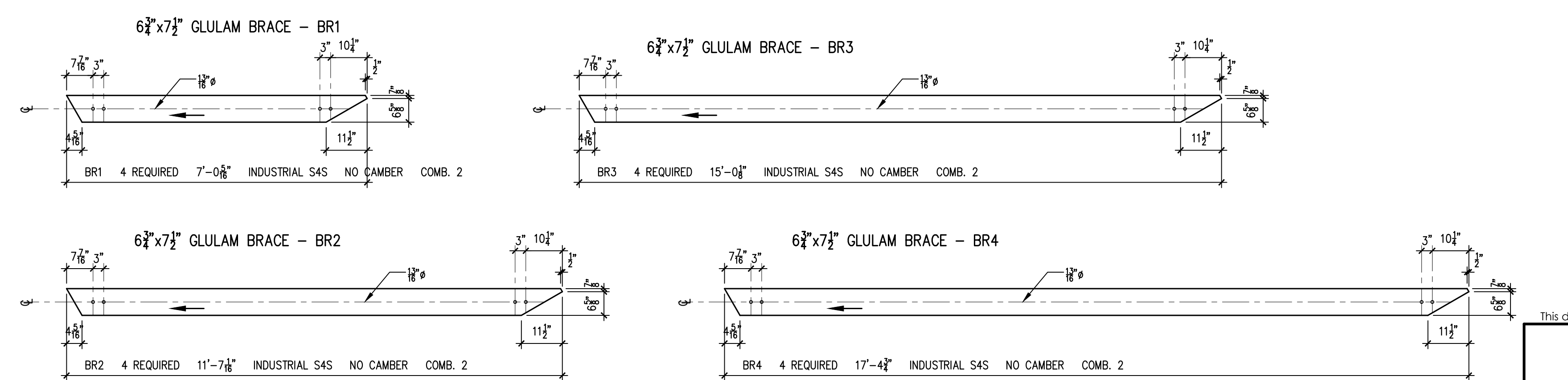
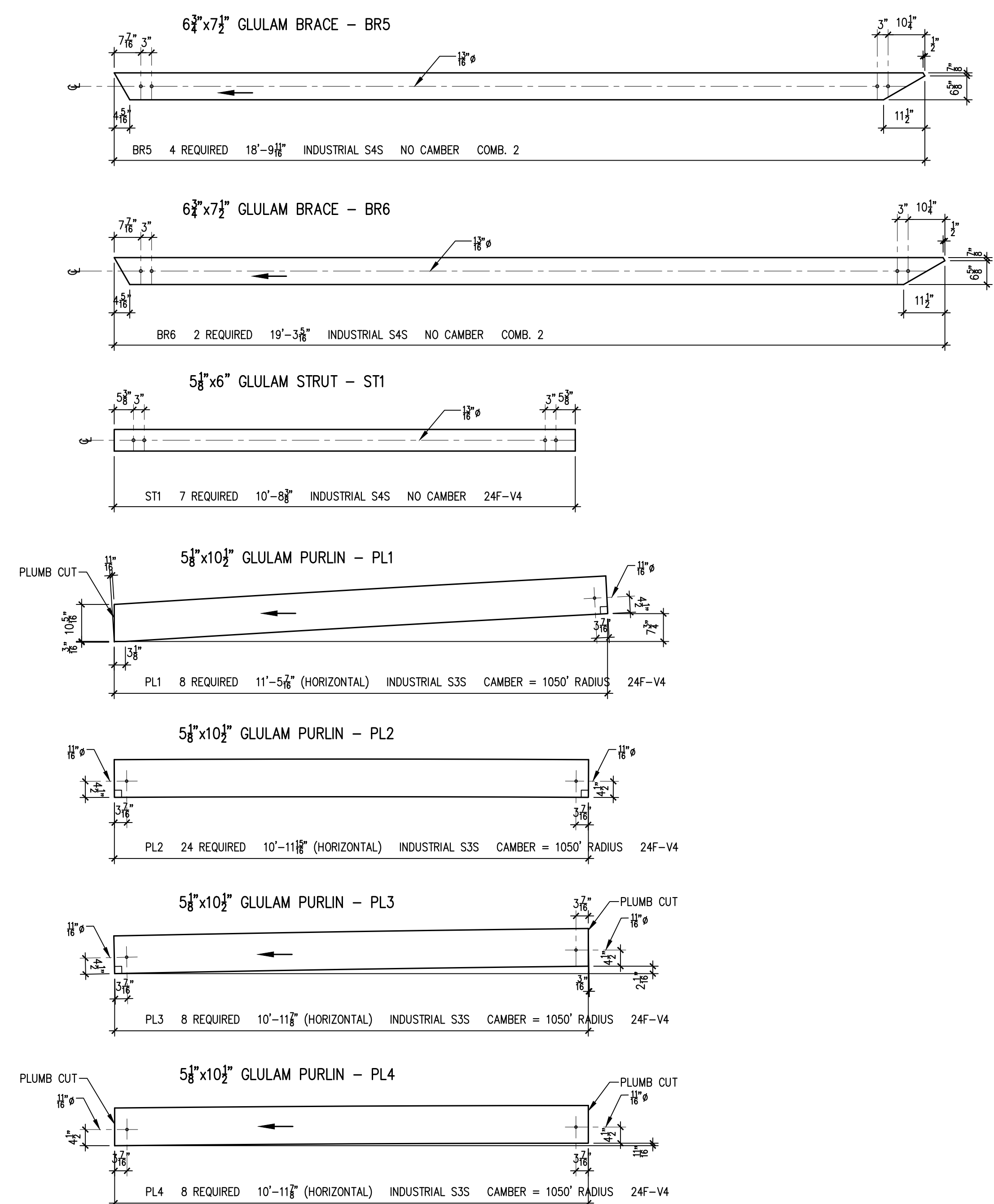
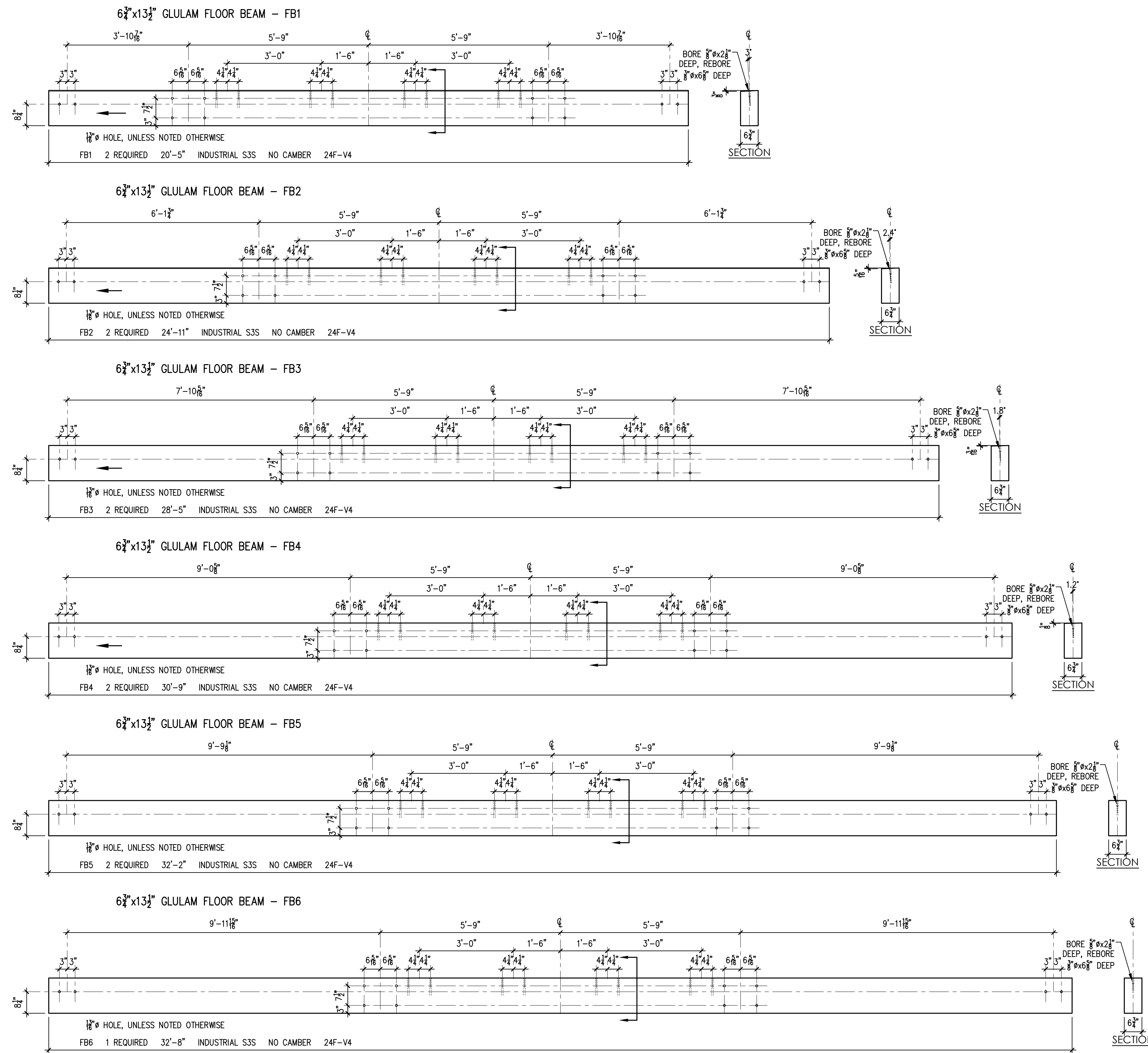
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Steve Mielke  
 Signature Date 12/18/2024

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	NO. DATE REVISIONS BY	
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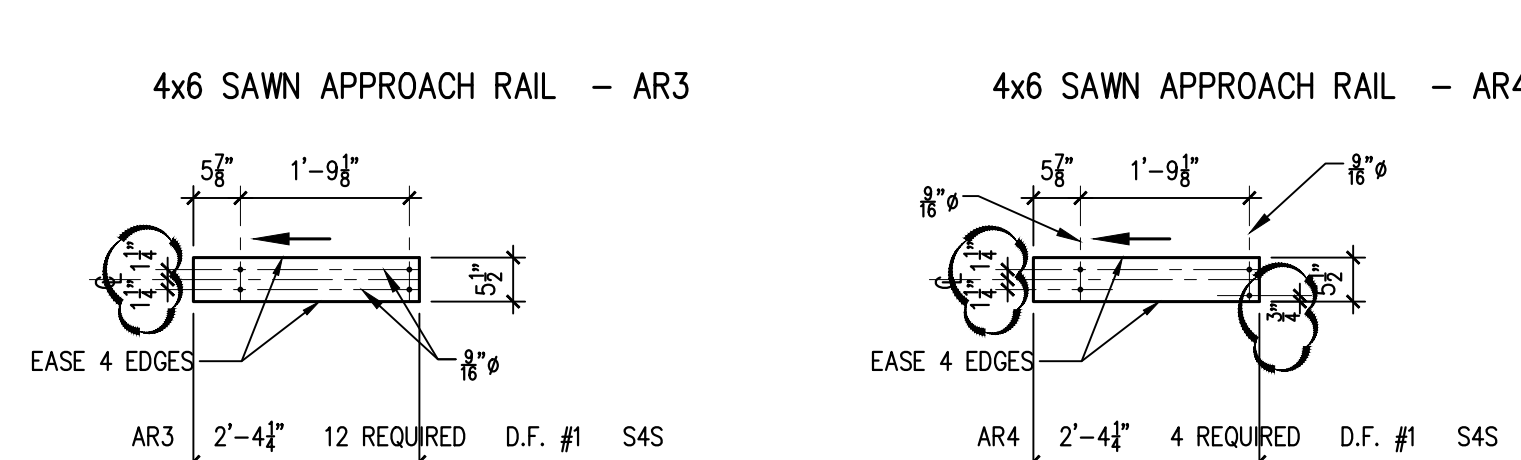
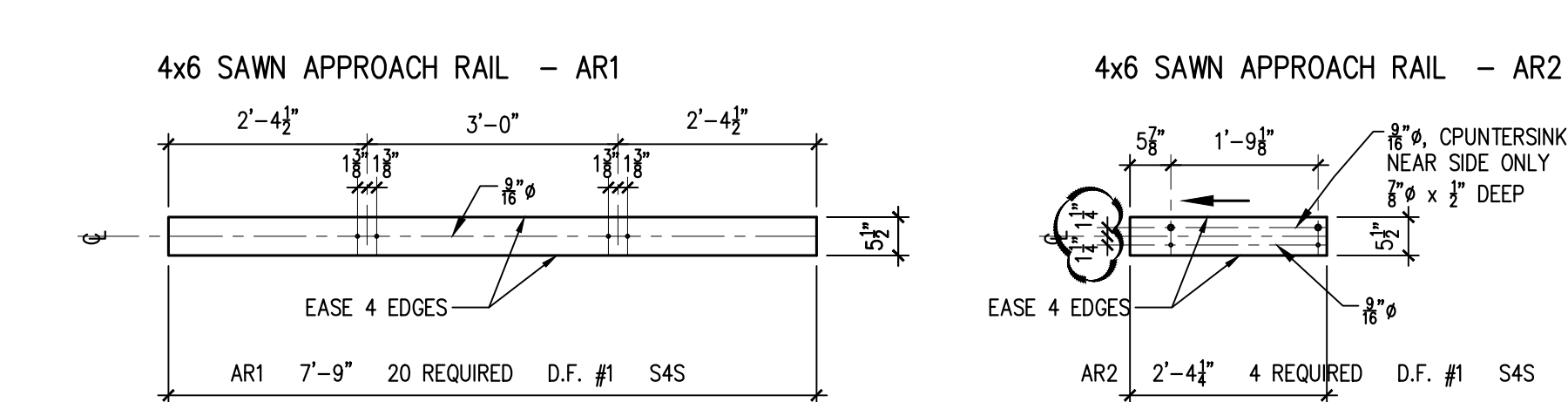
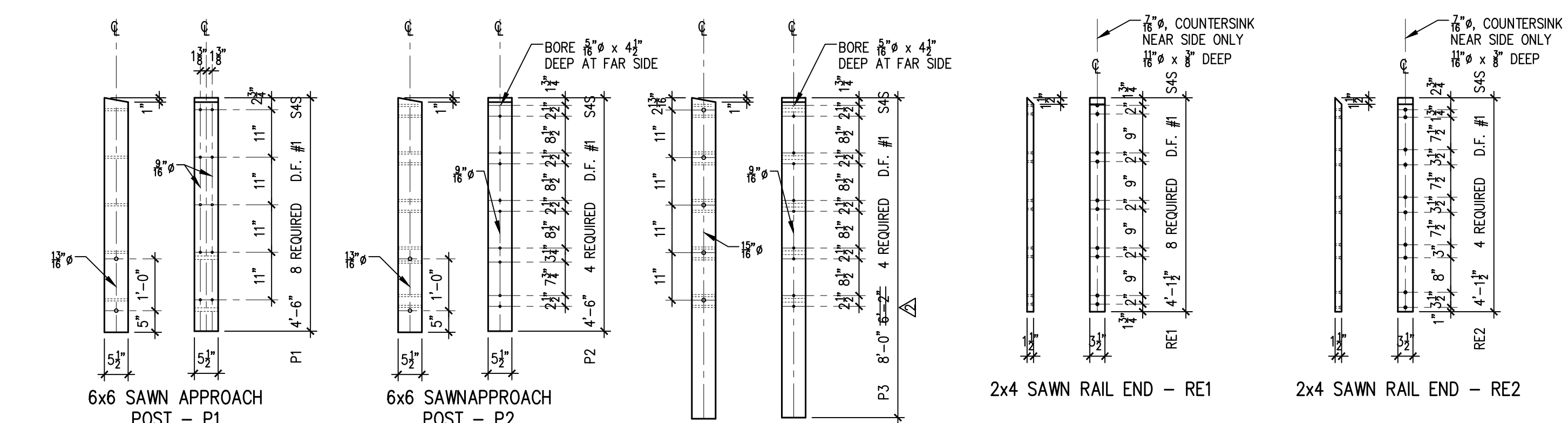
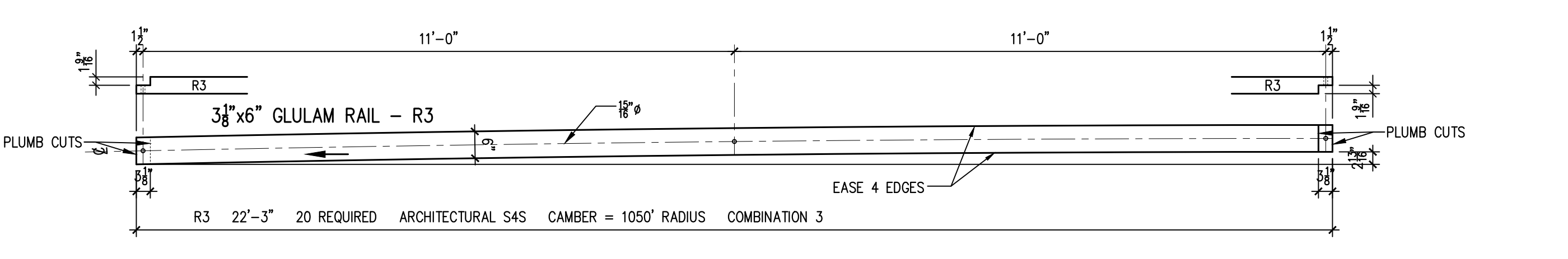
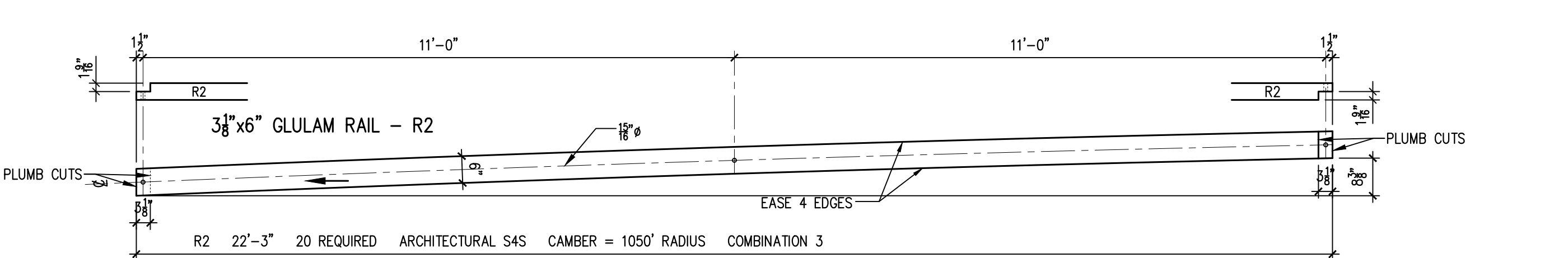
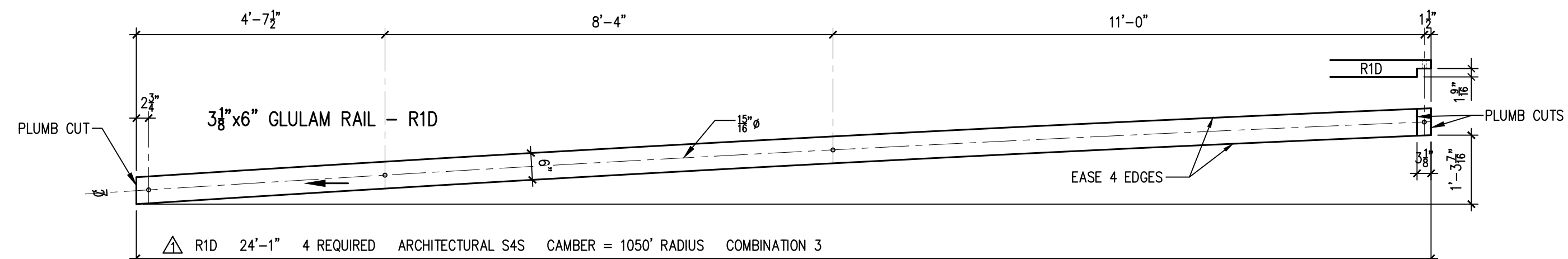
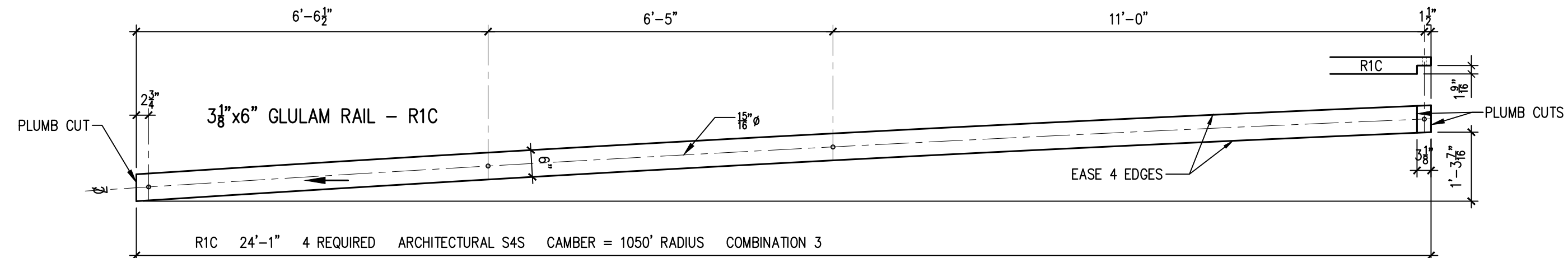
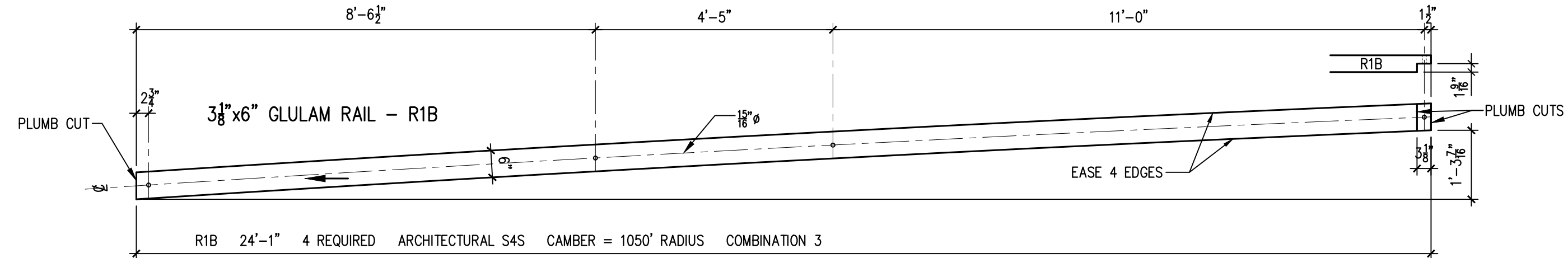
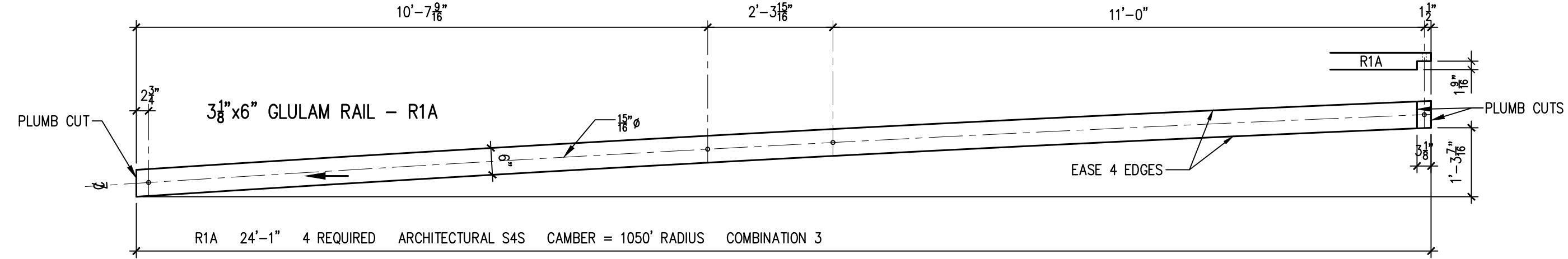
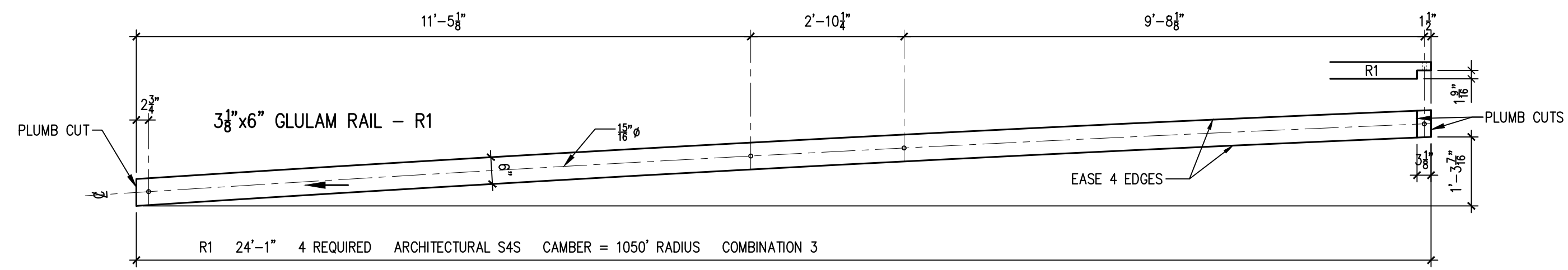
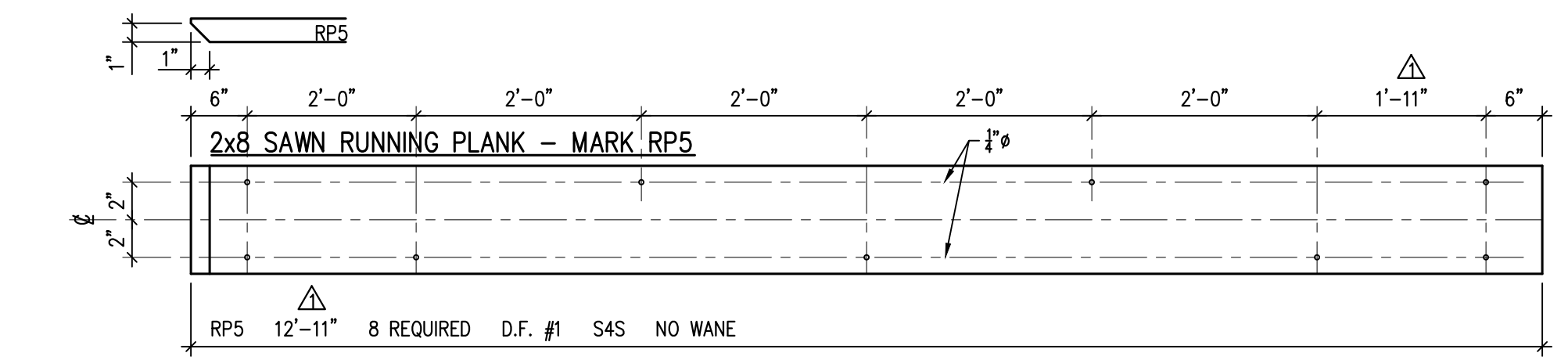
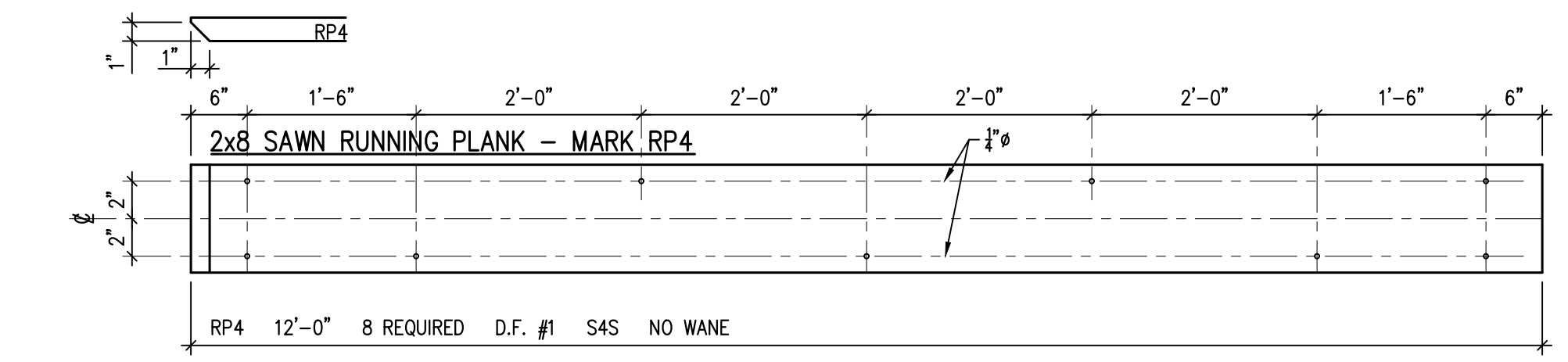
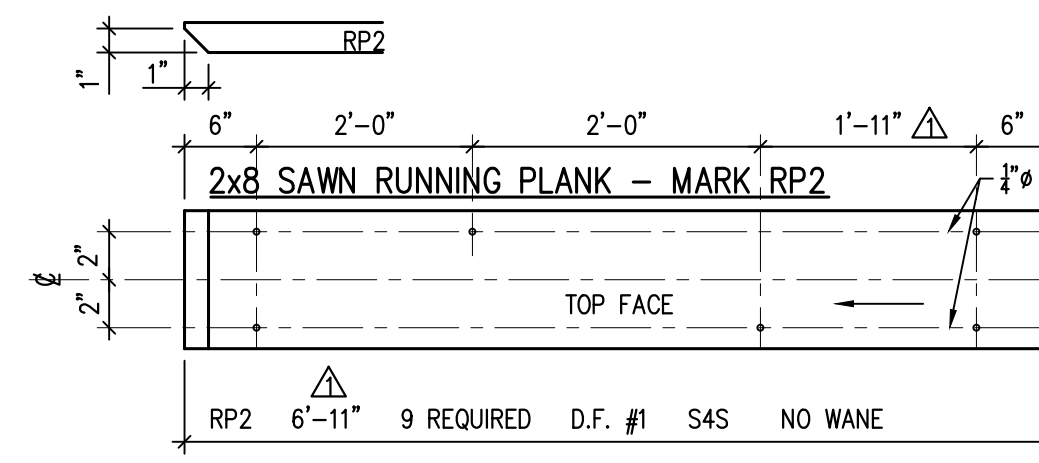
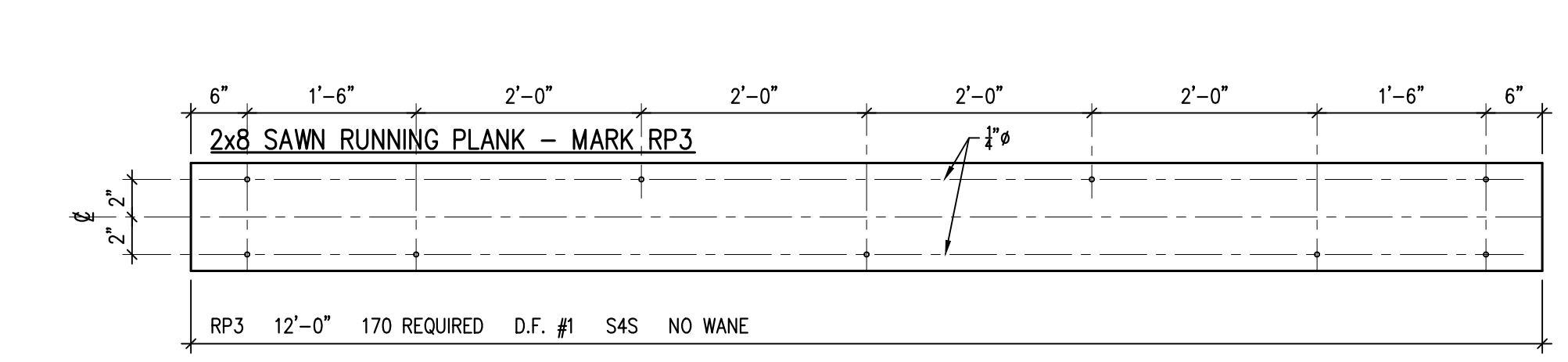
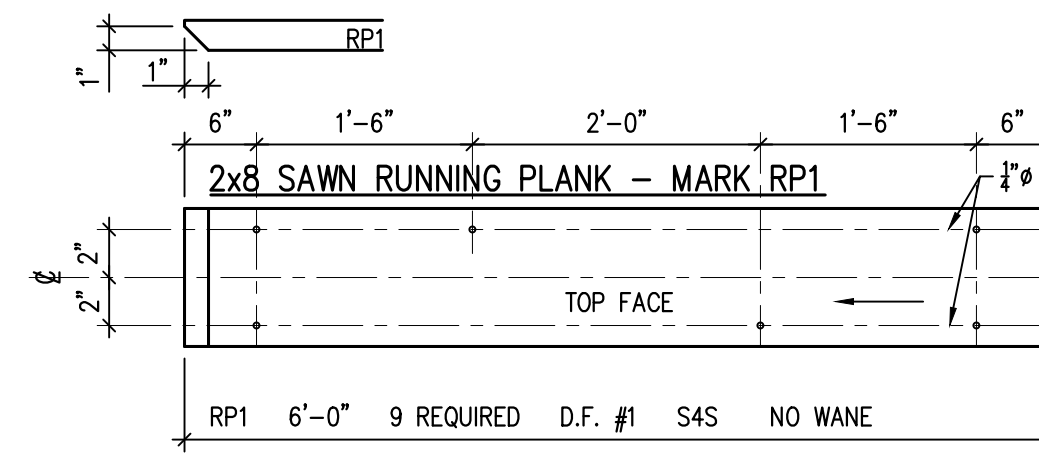
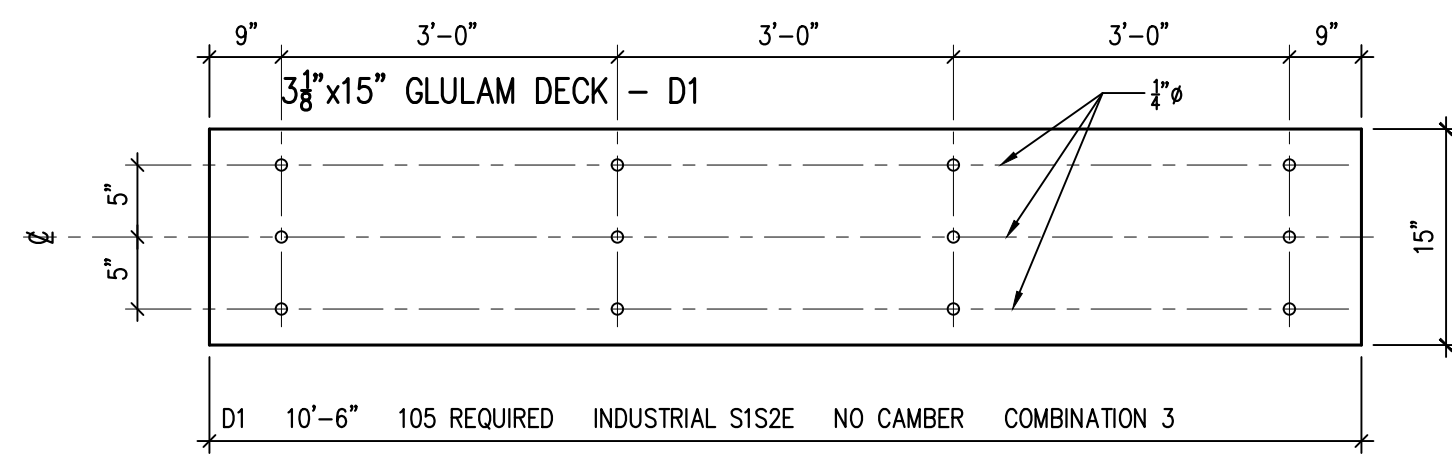
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Steve Mielke  
Signature  
12/18/2024  
Date

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		PROJECT: BROTHERHOOD TRAIL IMP BRIDGE LOCATION: JUNEAU, ALASKA ARCHITECT: ENGINEER: CONTRACTOR: COOGAN CONSTRUCTION DRAWN BY: YK DATE: 2/13/24 JOB NO: 234055 CHECKED BY: P.C.G. DATE: 4/5/24 PLOT DATE: 05/08/24 SH: 5 OF 13 DATE PRINTED:	

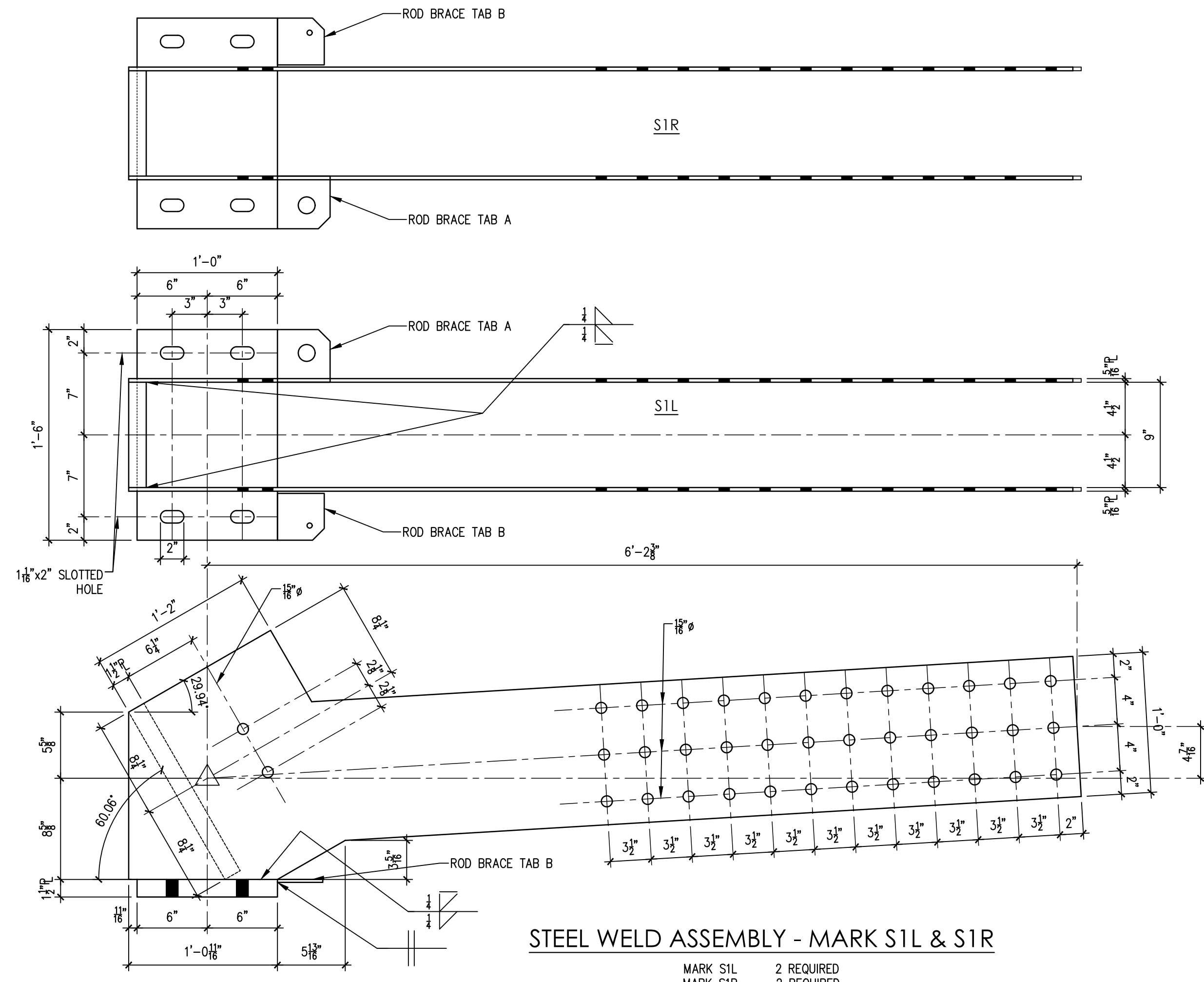


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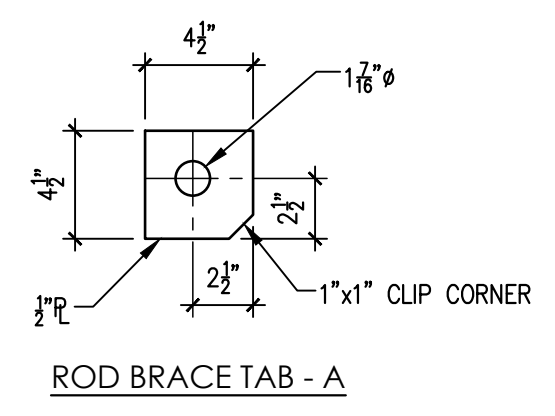
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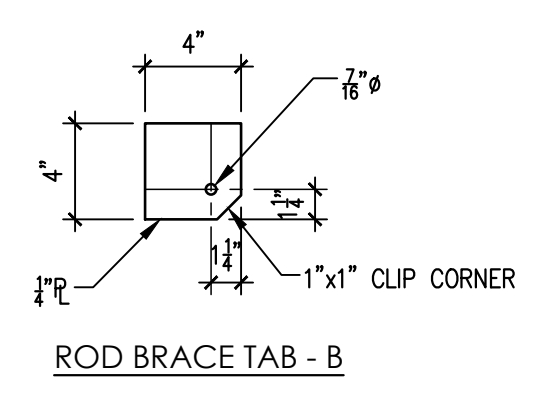


STEEL WELD ASSEMBLY - MARK S1L & S1R

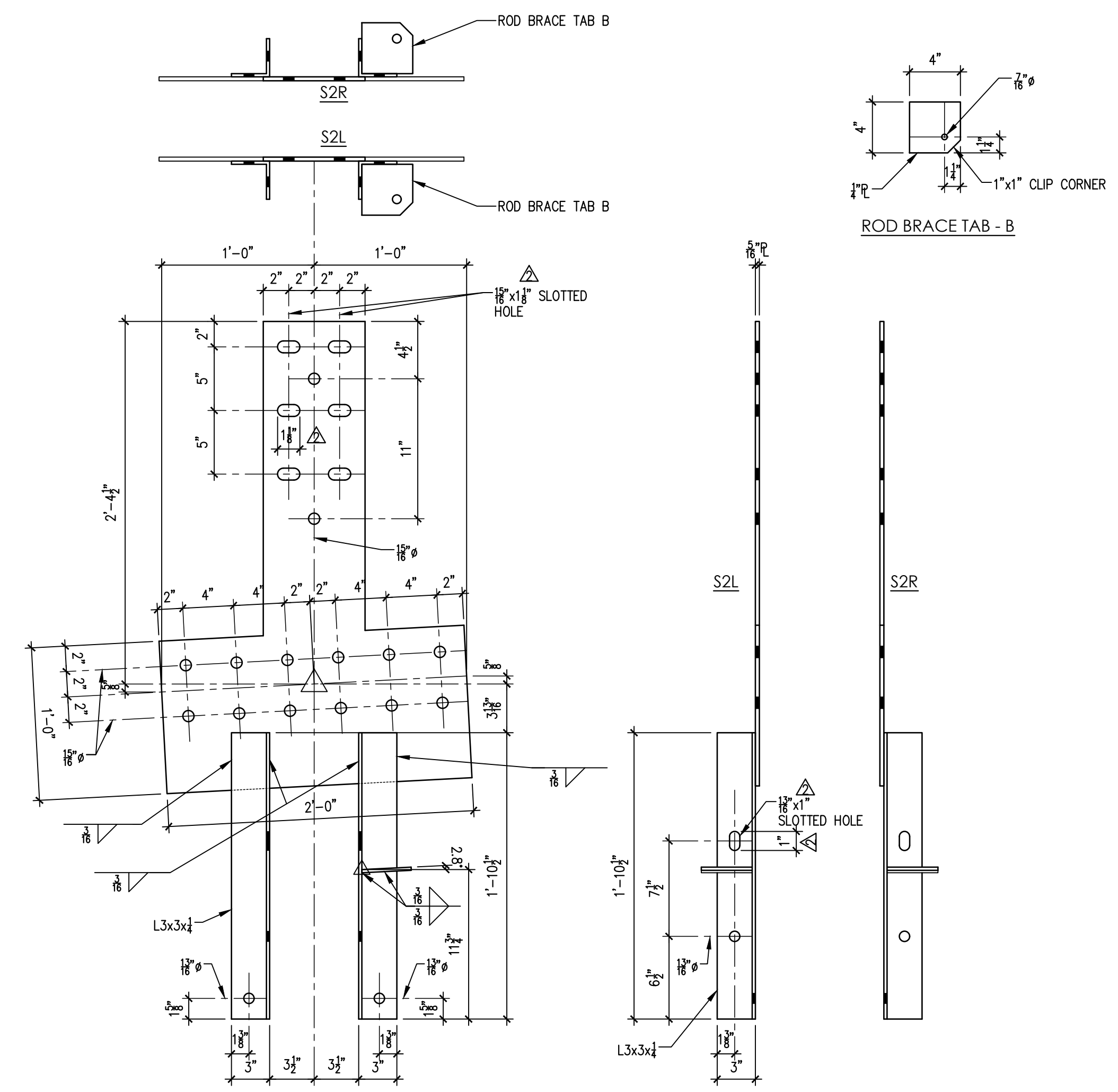
MARK S1L 2 REQUIRED  
MARK S1R 2 REQUIRED



ROD BRACE TAB - A

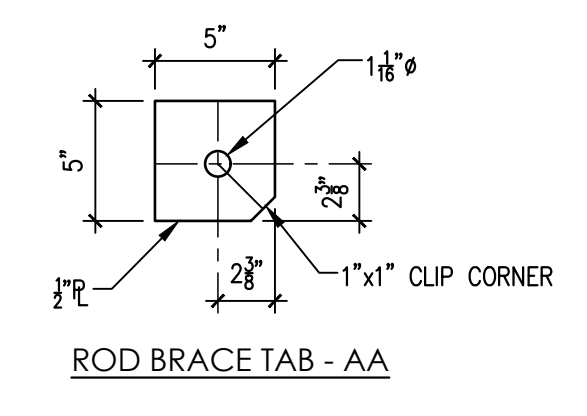


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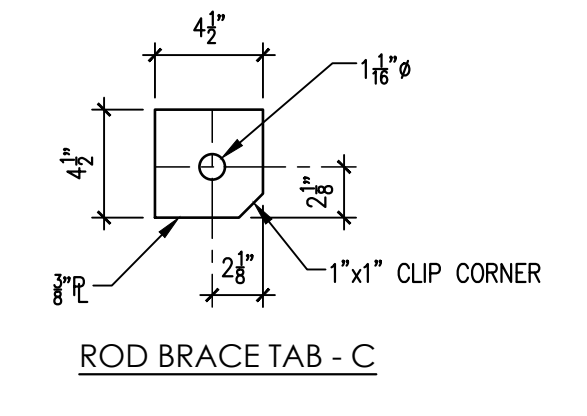


STEEL WELD ASSEMBLY - MARK S2L & S2R

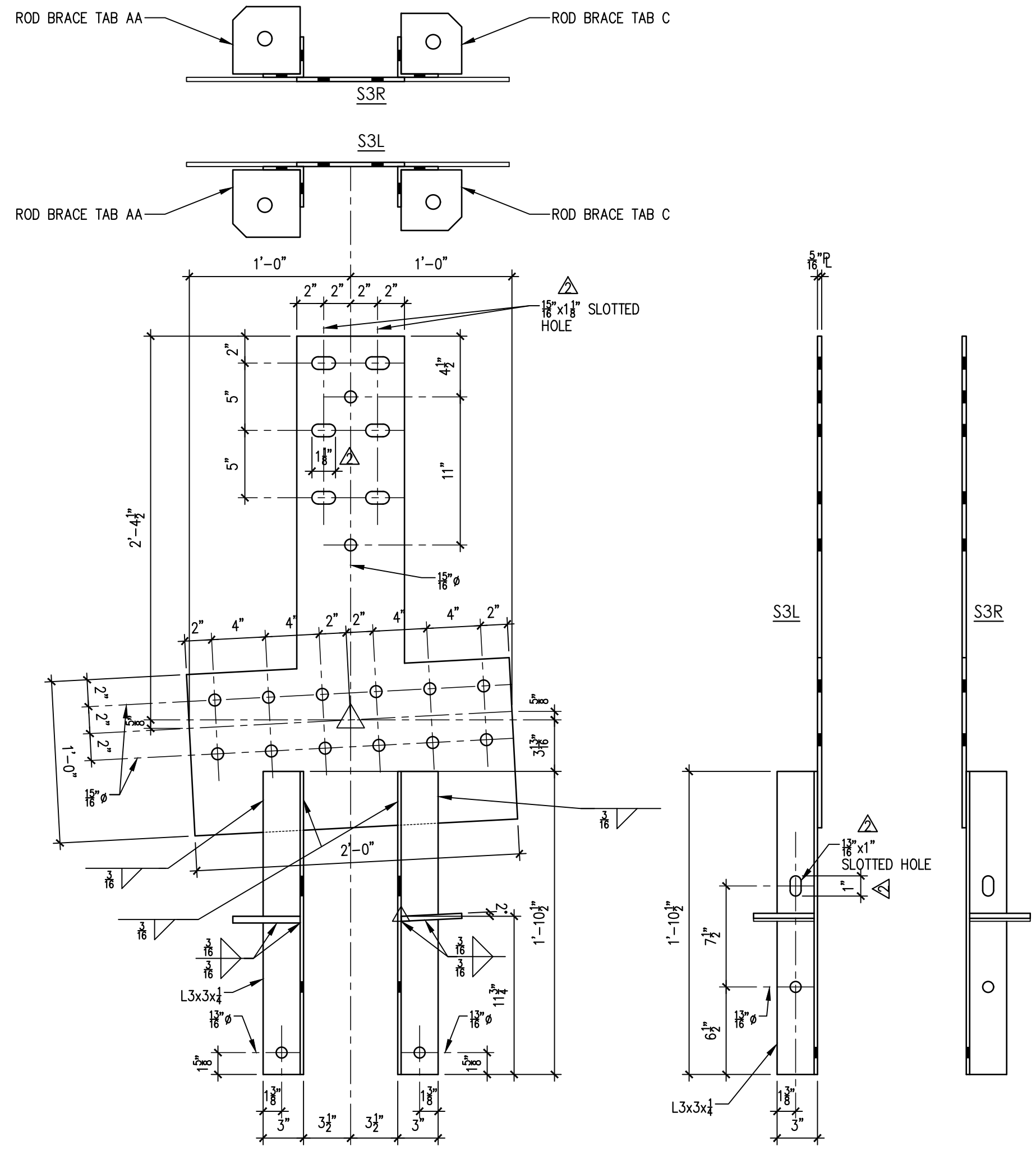
MARK S2L (AS SHOWN) 2 REQUIRED  
MARK S2R (OPP. HAND) 2 REQUIRED



ROD BRACE TAB - AA



ROD BRACE TAB - C



STEEL WELD ASSEMBLY - MARK S3L & S3R

MARK S3L (AS SHOWN) 2 REQUIRED  
MARK S3R (OPP. HAND) 2 REQUIRED

**ARCHITECT/ENGINEER/CONTRACTOR:**

THE WELDED STEEL ASSEMBLIES ON THIS PROJECT MAY REQUIRE SPECIAL INSPECTION AS REQUIRED BY THE BUILDING CODE. THE SPECIAL INSPECTOR SHALL BE EMPLOYED BY THE OWNER OR THE ARCHITECT/ENGINEER. PLEASE PROVIDE THE FOLLOWING INFORMATION:

STEEL ASSEMBLIES REQUIRE SPECIAL INSPECTION

NAME OF INSPECTION AGENCY: \_\_\_\_\_

CONTACT NAME: \_\_\_\_\_

PHONE NUMBER: \_\_\_\_\_

NOTES: \_\_\_\_\_

STEEL ASSEMBLIES DO NOT REQUIRE SPECIAL INSPECTION.

NOTES: \_\_\_\_\_

SIGNED: \_\_\_\_\_

FIRM: \_\_\_\_\_

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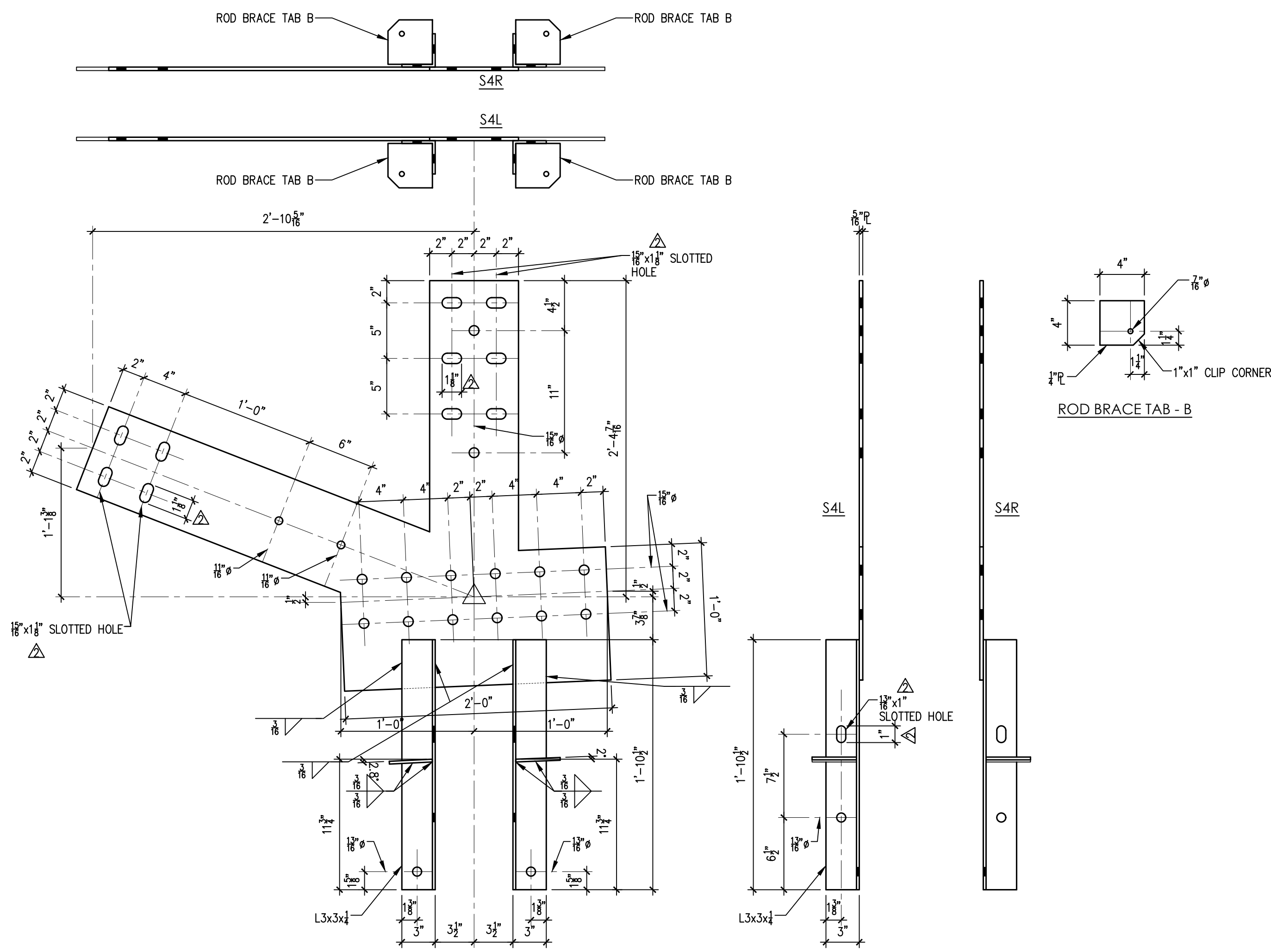
Steve Mielke  
Signature Date 12/18/2024

NO.	DATE	REVISIONS	BY
1	5/28/24	REVISION	JB



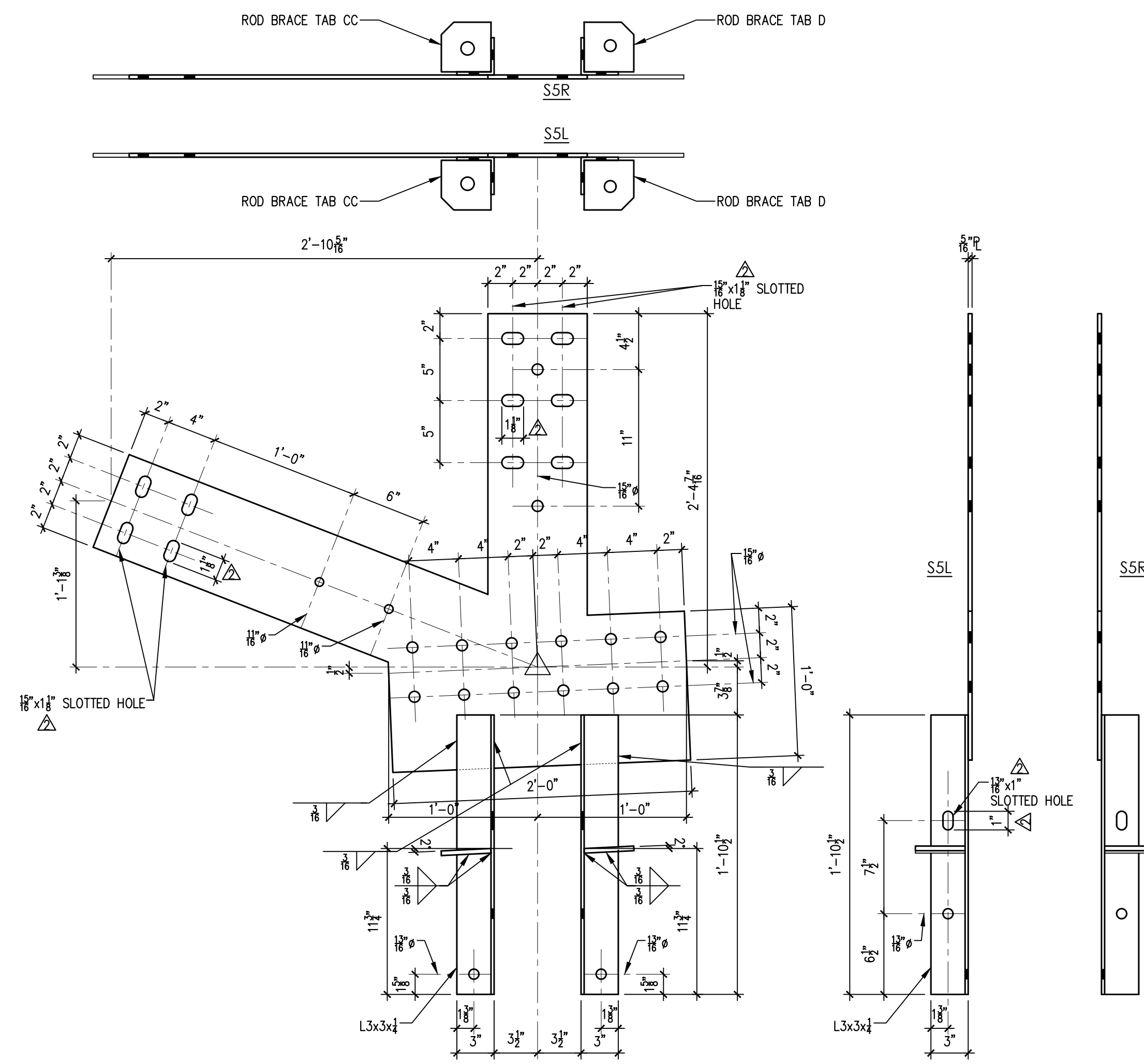
**Western Wood Structures, Inc.**  
20675 SW 105th Ave  
P.O. Box 130  
Tualatin, Oregon 97062  
503-692-6900  
WWSI.com

PROJECT:	BROTHERHOOD TRAIL IMP BRIDGE
LOCATION:	JUNEAU, ALASKA
ARCHITECT:	
ENGINEER:	
CONTRACTOR:	COOGAN CONSTRUCTION
DRAWN BY:	YK DATE 2/13/24
CHECKED BY:	P.C.G. DATE 4/5/24
DATE PRINTED:	05/28/24
JOB NO.:	234055
PLOT DATE:	05/28/24
SHEET:	7 OF 13



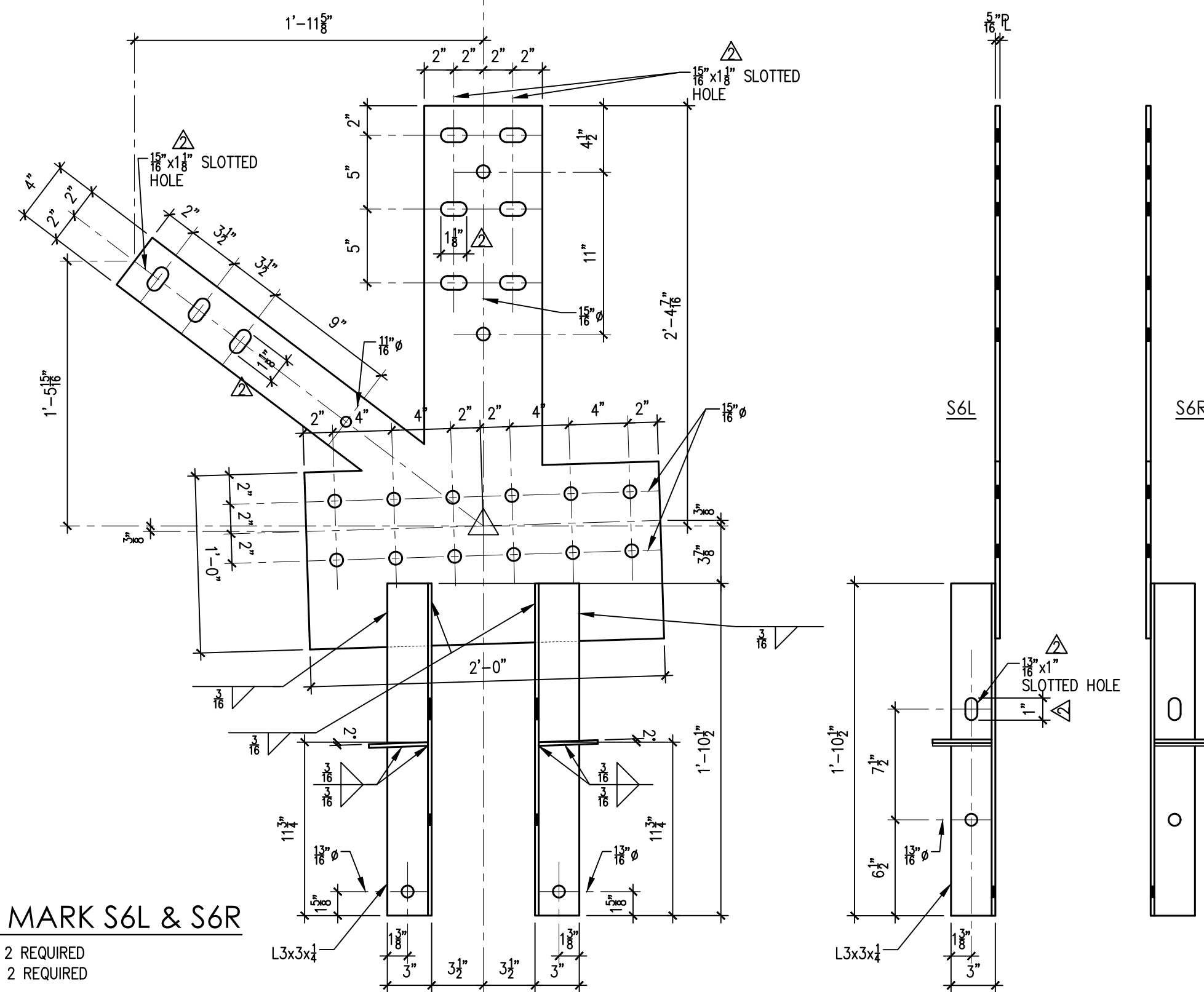
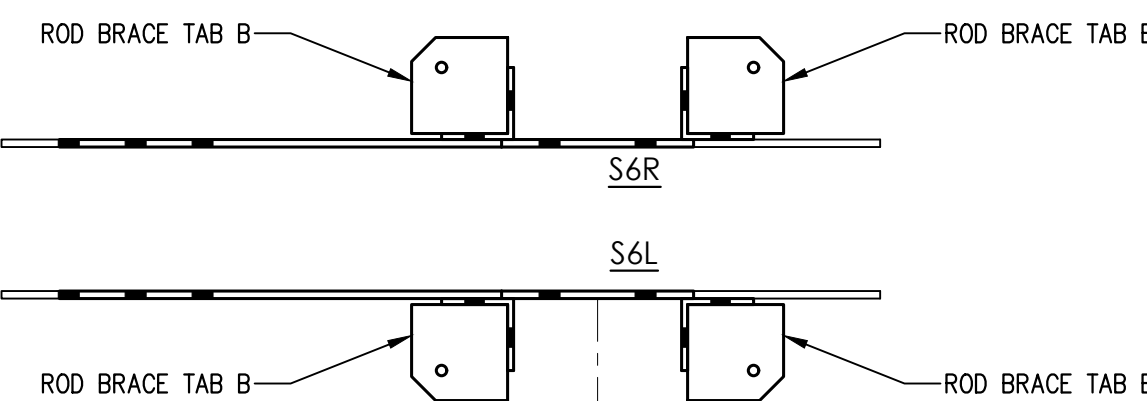
STEEL WELD ASSEMBLY - MARK S4L & S4R

MARK S4L (AS SHOWN) 2 REQUIRED  
 MARK S4R (OPP. HAND) 2 REQUIRED



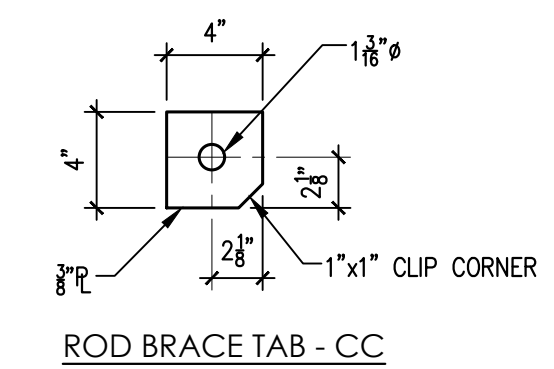
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 MARK SSR (OPP. HAND) 2 REQUIRED

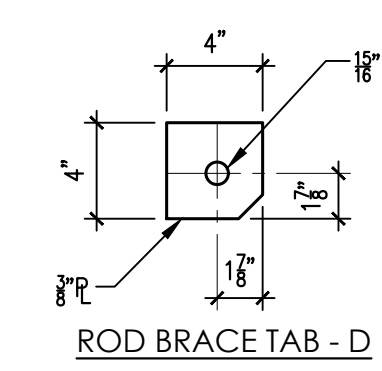


STEEL WELD ASSEMBLY - MARK S6L & S6R

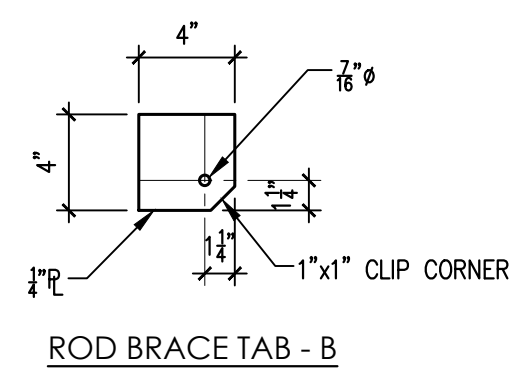
MARK S6L (AS SHOWN) 2 REQUIRED  
 MARK S6R (OPP. HAND) 2 REQUIRED



ROD BRACE TAB - CC



ROD BRACE TAB - D



ROD BRACE TAB - B

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 Signature Date

NO.	DATE	REVISIONS	BY



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 20675 SW 105th Ave  
 P.O. Box 130  
 Tualatin, Oregon 97062  
 503-692-6900  
 WWSI.com

PROJECT: BROTHERHOOD TRAIL IMP BRIDGE  
 LOCATION: JUNEAU, ALASKA

ARCHITECT: \_\_\_\_\_  
 ENGINEER: \_\_\_\_\_  
 CONTRACTOR: COOGAN CONSTRUCTION

DRAWN BY: YK DATE: 2/13/24 JOB NO: 234055  
 CHECKED BY: P.C.G. DATE: 4/5/24  
 DATE PRINTED: 04/05/24

8 OF 13

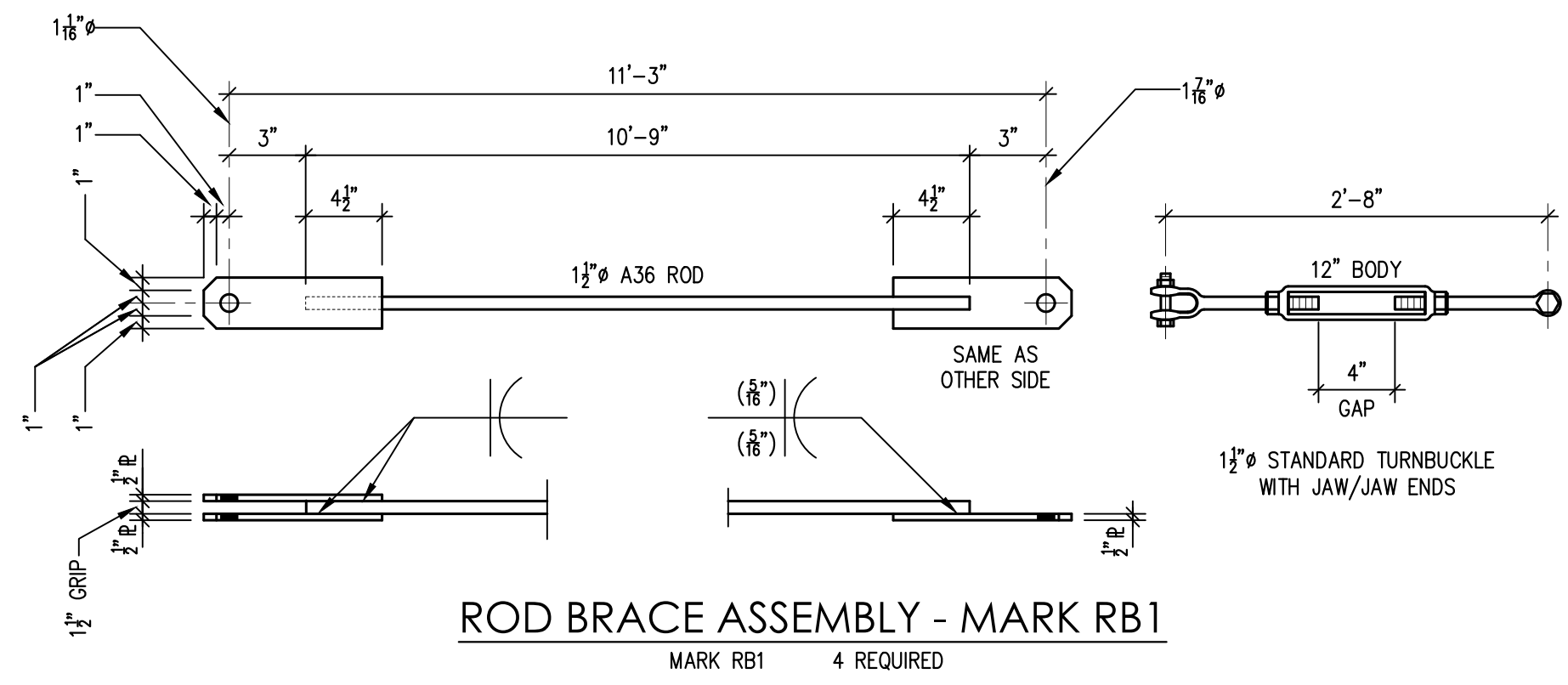
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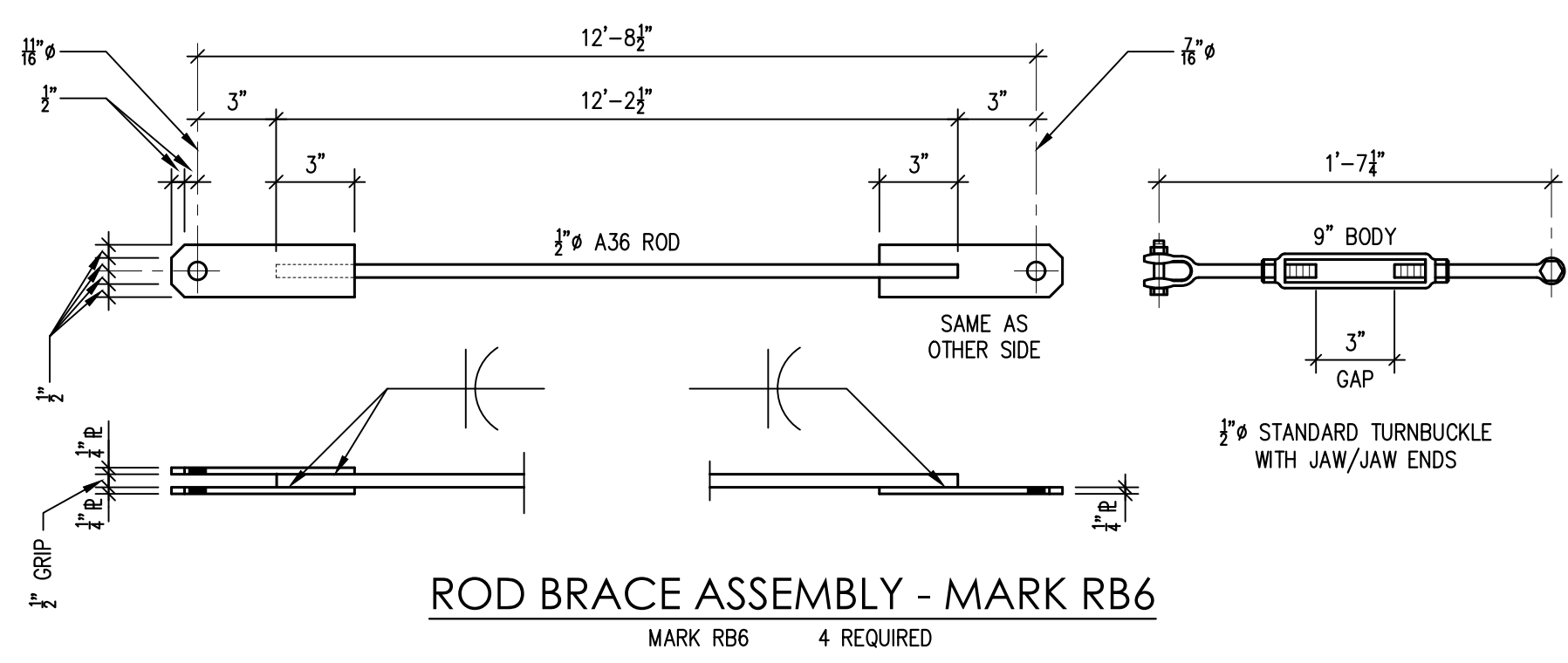




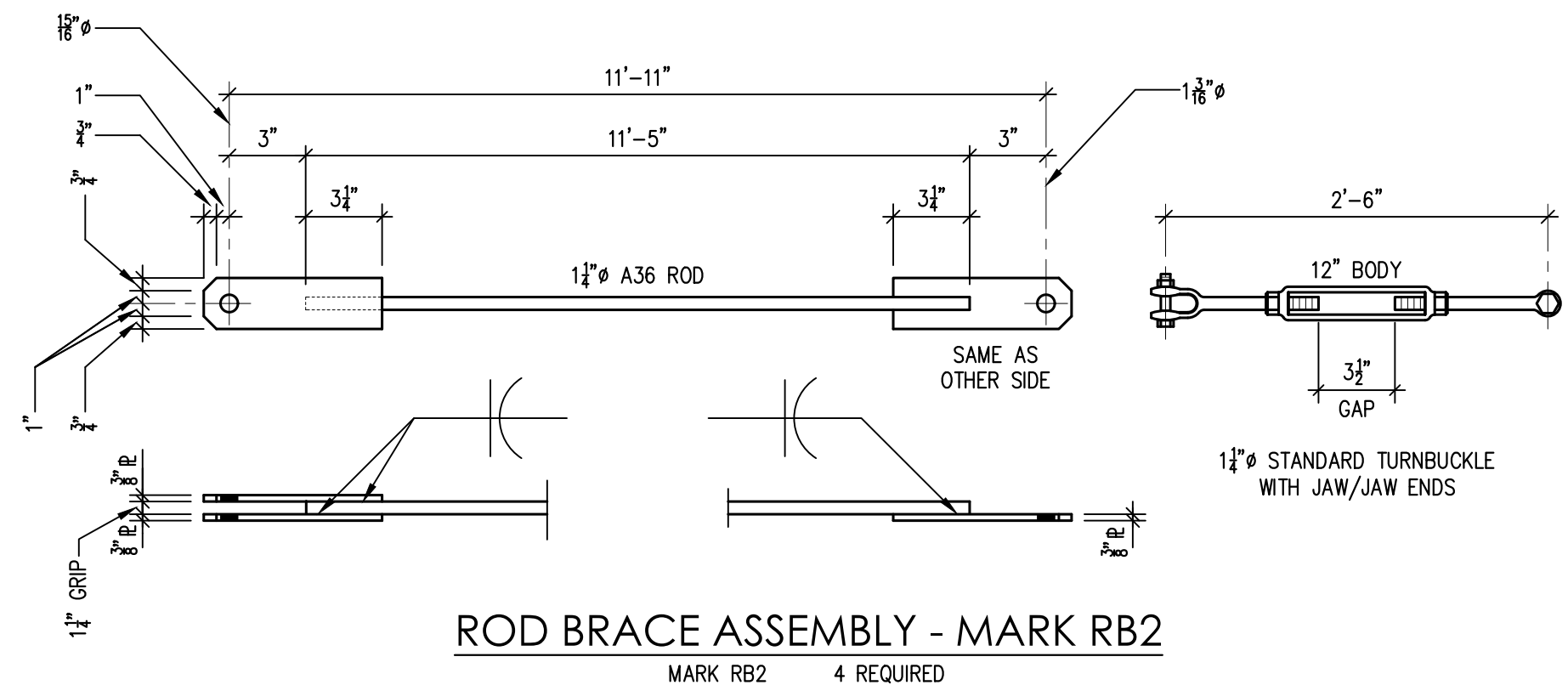




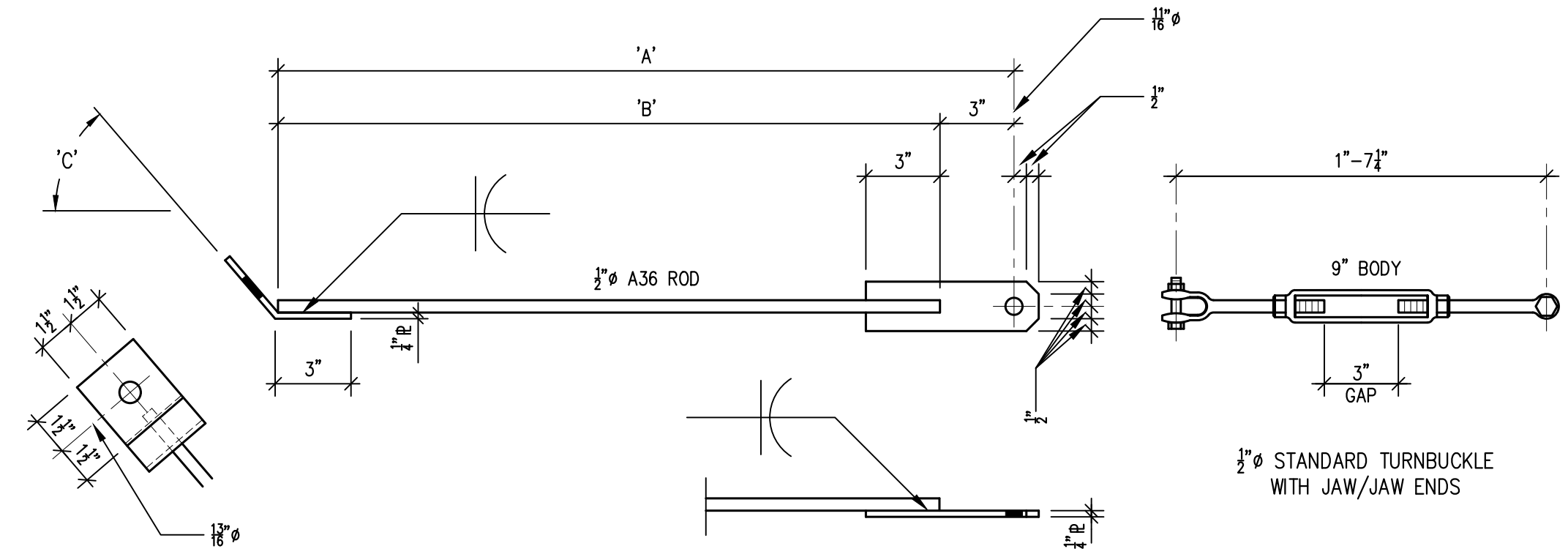
**ROD BRACE ASSEMBLY - MARK RB1**  
MARK RB1 4 REQUIRED



**ROD BRACE ASSEMBLY - MARK RB6**  
MARK RB6 4 REQUIRED

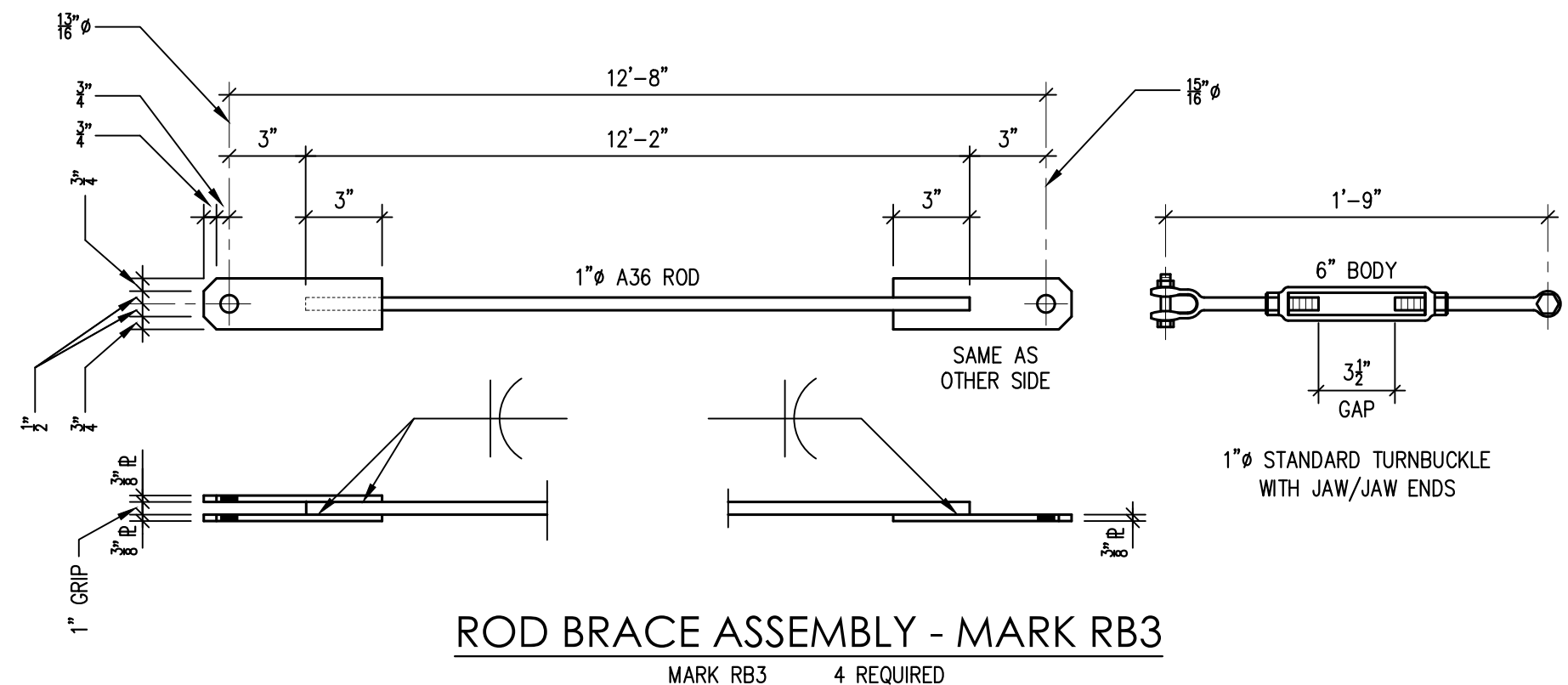


**ROD BRACE ASSEMBLY - MARK RB2**  
MARK RB2 4 REQUIRED

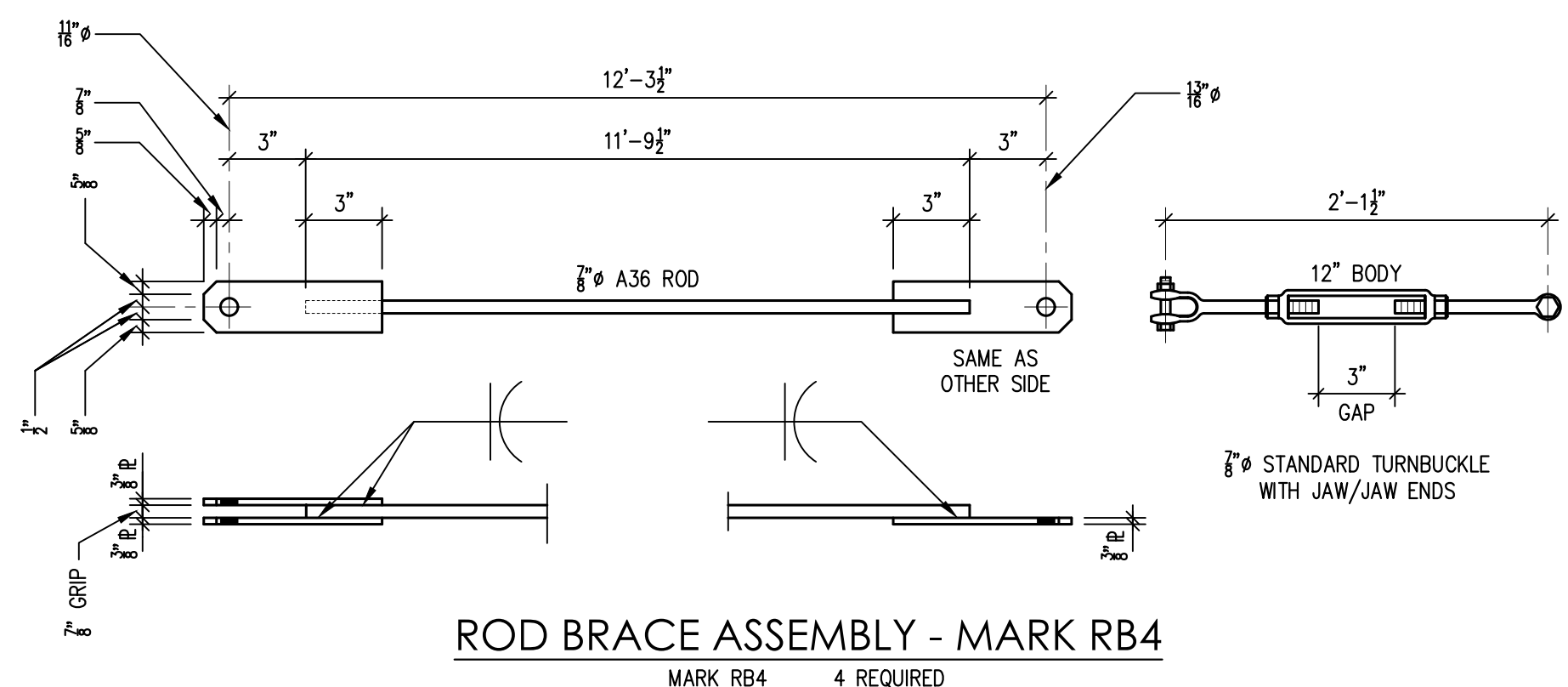


**ROD BRACE ASSEMBLY - MARK RB7 - RB13**

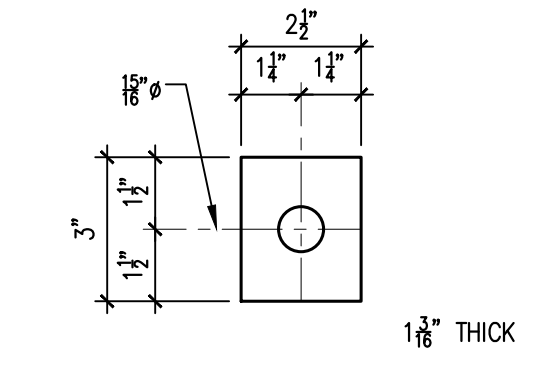
ROD BRACE SCHEDULE				
TYPE	QTY.	A	B	C
RB7	4	8'-3 1/2"	8'-0 1/4"	73.00'
RB8	4	8'-11 1/2"	8'-8 1/4"	74.08'
RB9	8	9'-9 1/2"	9'-6 1/4"	62.98'
RB10	8	10'-7 1/2"	10'-4 1/4"	55.84'
RB11	8	11'-4"	11'-1"	51.48'
RB12	8	11'-9 1/2"	11'-6 1/4"	49.11'
RB13	4	11'-11 1/2"	11'-8 1/4"	48.36'



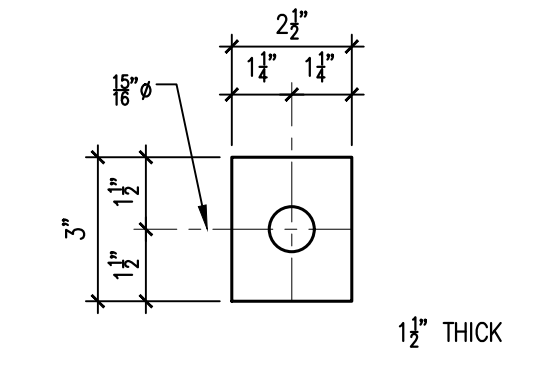
**ROD BRACE ASSEMBLY - MARK RB3**  
MARK RB3 4 REQUIRED



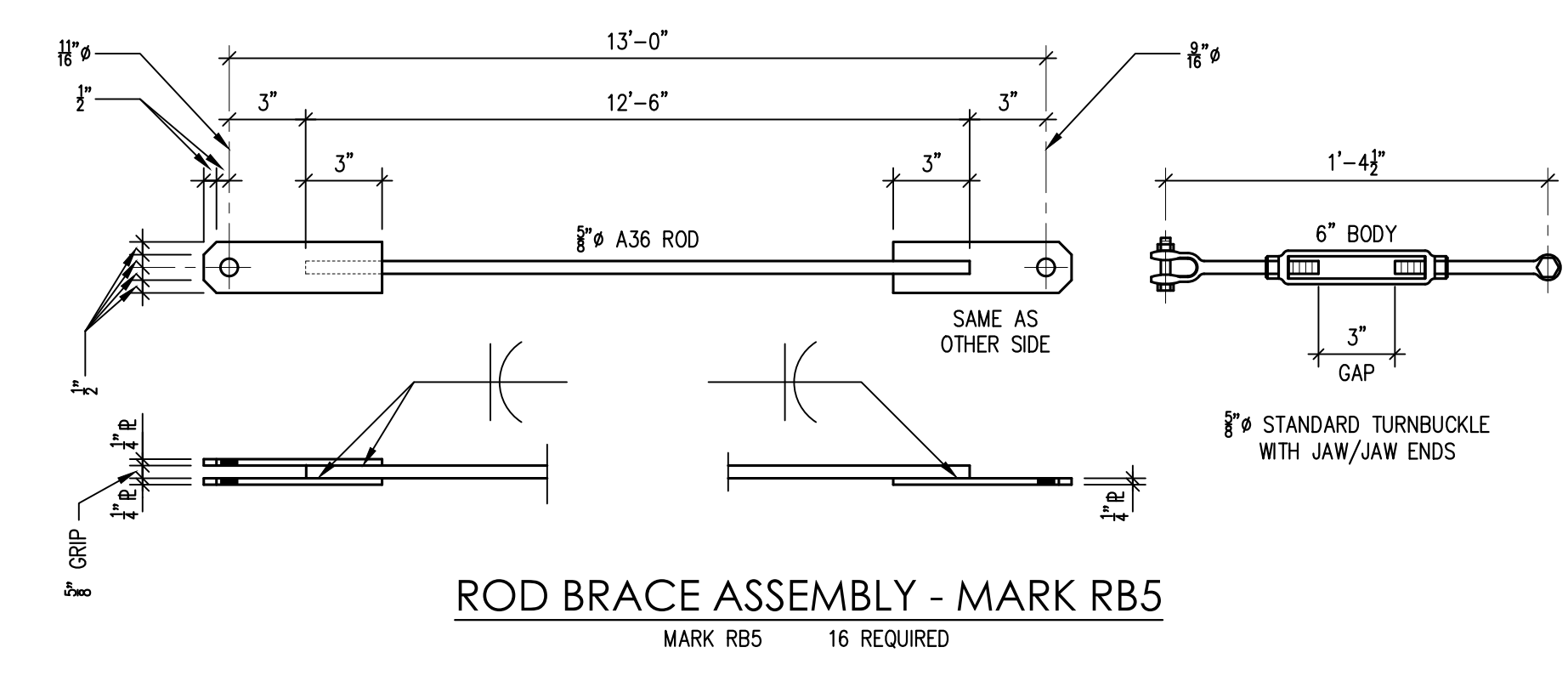
**ROD BRACE ASSEMBLY - MARK RB4**  
MARK RB4 4 REQUIRED



**UHMW BLOCK - MARK SP1**  
MARK SP1 52 REQUIRED



**UHMW BLOCK - MARK SP2**  
MARK SP2 78 REQUIRED



**ROD BRACE ASSEMBLY - MARK RB5**  
MARK RB5 16 REQUIRED

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.  
Digitally signed by Steve Mielke  
Date: 2024.12.18 11:37:04 -0800  
Signature Date 12/18/2024

WARNING: Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to www.P65Warnings.ca.gov/wood

This drawing is the property of Western Wood Structures, Inc. and has been prepared specifically for the job indicated. It shall not be reproduced or used on any other project without the written consent of Western Wood Structures, Inc.

PROJECT: BROTHERHOOD TRAIL IMP BRIDGE	
LOCATION: JUNEAU, ALASKA	
ARCHITECT:	
ENGINEER:	
CONTRACTOR: COOGAN CONSTRUCTION	
DRAWN BY: YK	DATE: 2/13/24
CHECKED BY:	DATE:
DATE PRINTED:	
JOB NO. 234055	
PLOT DATE 02/28/24	
SHEET 13 OF 13	

**Western Wood Structures, Inc.**  
20675 SW 105th Ave  
P.O. Box 130  
Tualatin, Oregon 97062  
503-692-6900  
WWSI.com

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**WESTERN WOOD**



**STRUCTURES, INC.**

PO Box 130 Tualatin, OR 97062 – Phone: 503-692-6900 – Fax: 503-692-6434

**Date:** 9/18/2024

**Subject:** Brotherhood Trail Bridge –Revision rod brace connection

To Whom it may concern,

It has come to our attention that there is an interference issue between the rod brace turnbuckle and the exterior purlins. WWS is providing two options for this fix that will include a lower profile connection.

Eliminate the turnbuckle as they are intended to provide flexibility into the system for installing the rod bracing to the required length. The turnbuckles are not required for the design of the lateral system. The turnbuckles will be replaced by a ½” thick steel plate. The current rod brace design utilizes ½” plates to connect to the rod brace tabs on the main structure appropriately the proposed solutions align with the current design.

Option 1 The new plate will be long enough to connect the rod brace tab to the tab at the bearing point using fully threaded machine bolts. See detail 1.

Option 2 The new plate will be a bit longer to weld the new plate to the existing rod brace then bolt to the tab at the bearing point using fully threaded machine bolts. See detail 2.

Please let me know if you have any questions.

Thanks,

Alicia Senn, P.E.

Western Wood Structures, Inc.

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Steve Mielke

Digitally signed by Steve  
Mielke  
Date: 2024.12.18 11:37:04  
-09'00'

12/18/2024

Signature

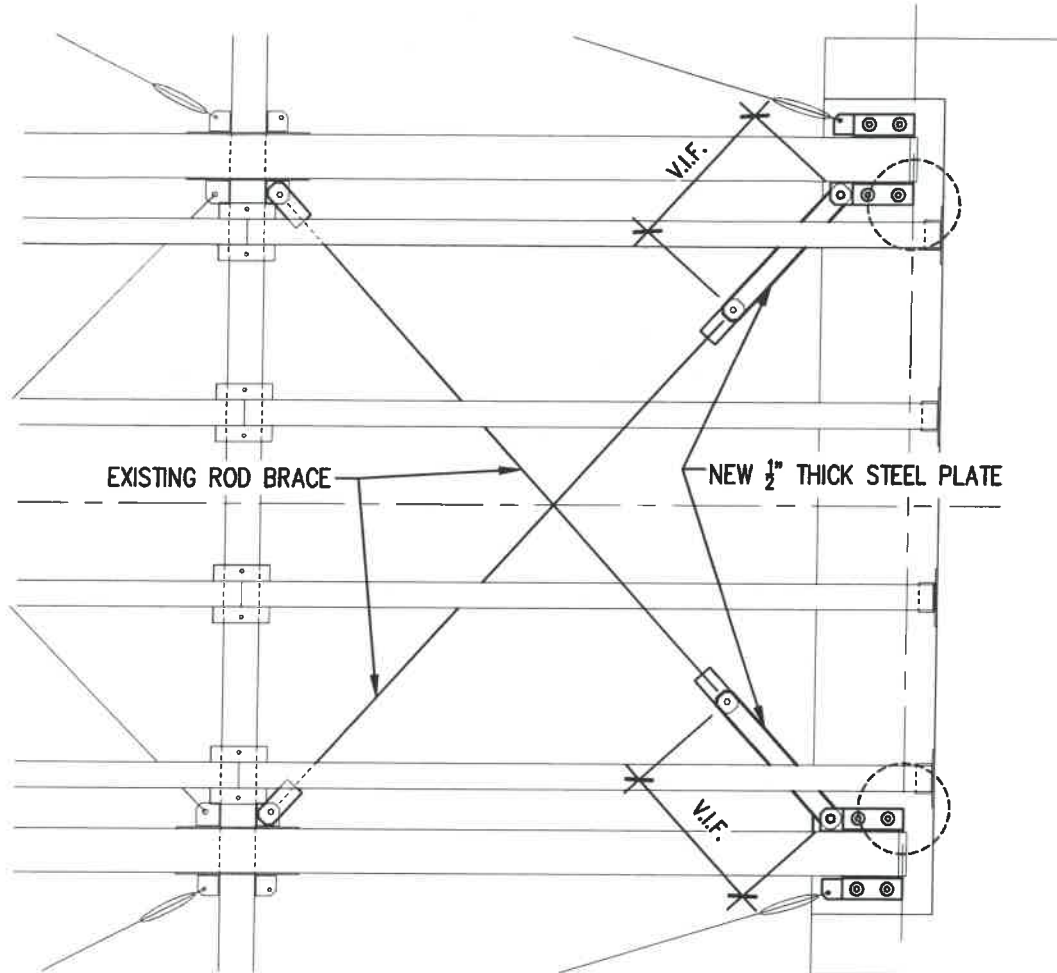
Date



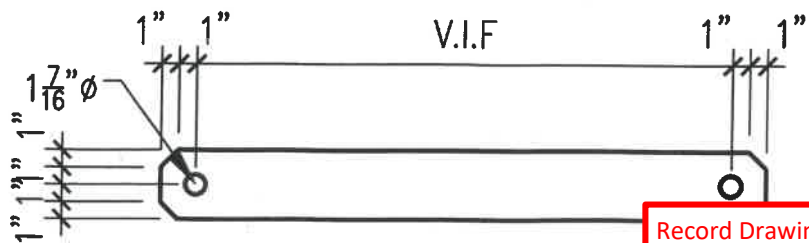
Western Wood Structures, Inc.  
 20675 SW 105th Ave  
 P.O. Box 130  
 Tualatin, Oregon 97062  
 503-692-6900  
 WWSI.com

PROJECT: BROTHERHOOD - ROD BRACE FIX  
 LOCATION: JUNEAU, ALASKA  
 ARCHITECT:  
 ENGINEER:  
 CONTRACTOR: COOGAN CONSTRUCTION

JOB NO. 234055  
 DRAWN BY: AS  
 CHECKED BY:  
 DATE PRINTED:



PLAN VIEW AT ABUTMENT



1/2" STEEL PLATE  
 4 REQUIRED

- 4 NEW 1/2" PLATE TO ROD BRACE TAB
- 1 1/2" STEEL PLATE
- 2 1"ØX4" FULLY THREADED MACHINE BOLT (A325)

Record Drawings have been reviewed by the Project Engineer and represent the project as constructed.

Digitally signed by Steve Mielke  
 Date: 2024.12.18 11:37:04 -09'00'  
 Steve Mielke  
 Signature Date 12/18/2024



Western Wood Structures, Inc.

20675 SW 105th Ave  
P.O. Box 130  
Tualatin, Oregon 97062  
503-692-6900  
WWSI.com

PROJECT: BROTHERHOOD - ROD BRACE FIX

LOCATION: JUNEAU, ALASKA

ARCHITECT:

ENGINEER:

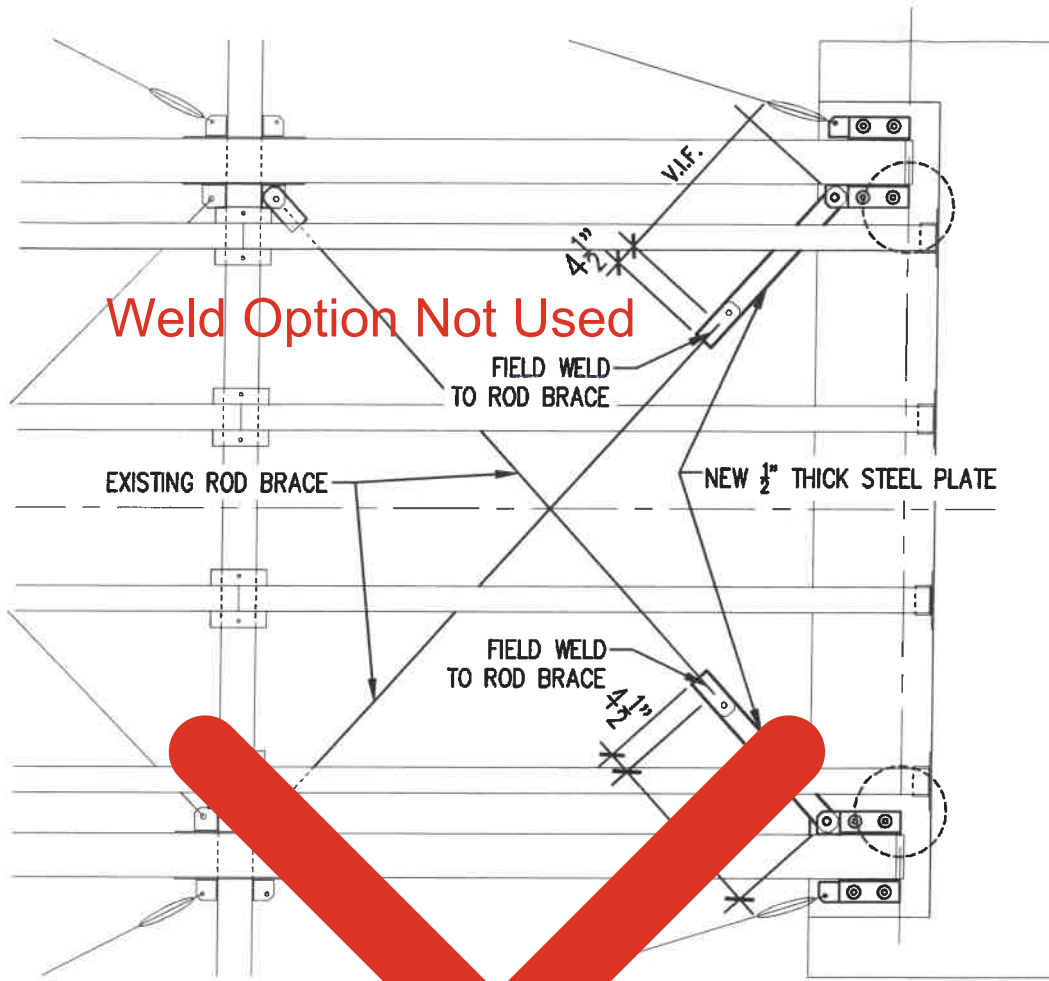
CONTRACTOR: COOGAN CONSTRUCTION

JOB NO. 234055

DRAWN BY: AS

CHECKED BY:

DATE PRINTED:



Weld Option Not Used

PLAN VIEW ASSEMBLY



1/2" STEEL PLATE

4 REQUIRED

- 4 NEW 1/2" PLATE TO ROD BRACE TAB
- 1 1/2" STEEL PLATE
- 1 1"ØX4" FULLY THREADED MACHINE BOLT (A325)  
WELD TO ROD BRACE

SHT. 1 OF 1  
PLOT DATE 09/18/24

Note: Concrete abutments including backwalls were constructed per pansheet N4. But finished elevation of prefabricated bridge deck was 3.5-inches higher than planned. For smooth transition between bridge deck and paved path, treated timbers were attached to top wingwalls and backwalls to provide vertical edge to contain asphalt pavement.



\* Fastener locations are approximate.  
Final location and layout determined in the field by the Engineer

