

PROJECT LOCATION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

PROPOSED HIGHWAY PROJECT

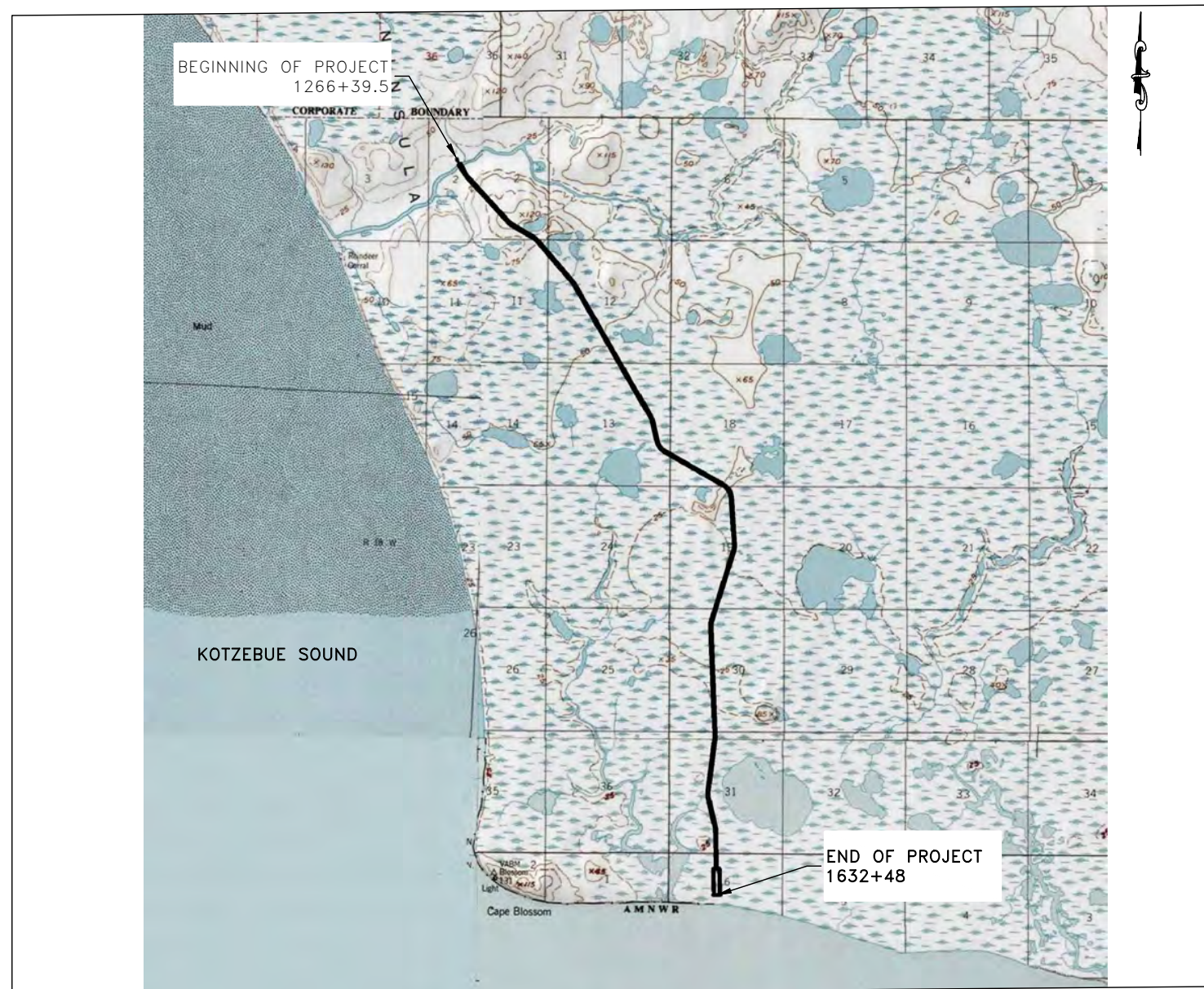
0002204/Z768840000

KOTZEBUE TO CAPE BLOSSOM ROAD – STAGE II

NEW CONSTRUCTION

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002204/Z768840000	2022	A1	52
			CDS ROUTE:	N/A	MILEPOINT:	N/A TO N/A	

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
A1	TITLE SHEET
A2	LEGEND & SHEET LAYOUT INDEX
B1	TYPICAL SECTIONS
C1	ESTIMATE OF QUANTITIES & GENERAL NOTES
D1	TURNOUT AND APPROACH DETAILS AND SUMMARIES
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Q1	EROSION AND SEDIMENT CONTROL PLAN
T1	TRAFFIC CONTROL PLAN



Final PS&E
December 14, 2022
Northern Region

DESIGN DESIGNATIONS	
ADT (2012)	0
ADT (2035)	100
DESIGN SPEED (V)	45 MPH

PROJECT SUMMARY	
WIDTH OF PAVEMENT	24 FT (TYP)
LENGTH OF PROJECT	6.9 MILES

JONATHAN HUTCHINSON P.E., PROJECT MANAGER
SCOTT MAYBRIER, DESIGNER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

APPROVED BY:
Sarah E. Schlocher DATE 12/2/2022
Sarah E. Schlocher, P.E.
Preconstruction Engineer, Northern Region

ACCEPTED FOR CONSTRUCTION:
Joseph P. Kemp DATE 12/2/2022
Joseph P. Kemp, P.E.
Acting Regional Director, Northern Region

PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
 H:\Projects\Communities\Kotzebue\76894_Kotz_to_Cape_Blossom_Stage_II\04_P&E\04_Plans\1_Plat\76894_A-HWYS Legend Fri, Nov/25/22 02:17pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002204/Z768840000	2022	A2	A2

	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		
MISCELLANEOUS CENTERLINE		
STATION EQUATION	$\begin{matrix} "L"48+97.23 \text{ POT BK=} \\ "O"48+97.23 \text{ PC AHD} \end{matrix}$	
PROJECT RIGHT-OF-WAY LINE		
EXISTING RIGHT-OF-WAY LINE		
EXISTING PROPERTY LINE		
CONTROLLED ACCESS LINE		
UTILITY EASEMENT LINE		
TEMPORARY EASEMENT LINE (TCP OR TCE)		
ACCESS OR SECTION LINE EASEMENT		
PROPOSED CUT SLOPE LIMIT		
PROPOSED FILL SLOPE LIMIT		
SECTION LINE		
1/4 SECTION LINE		
1/16 SECTION LINE		
TOWNSHIP & RANGE LINE	$\begin{matrix} T. 2 \text{ N.} \\ T. 1 \text{ N.} \end{matrix}$	$\begin{matrix} T. 2 \text{ E.} \\ T. 1 \text{ E.} \end{matrix}$

	EXISTING	PROPOSED
SANITARY SEWER (FLOW DIRECTION →)	---SS---	→→→SS→
FUEL LINE	---O---	→→→O→
GAS LINE	---G---	→→→G→
WATER LINE	---W---	→→→W→
METER, VALVE, FIRE HYDRANT		
EXISTING STORM DRAIN (FLOW DIRECTION →)	---SD---	
PROPOSED STORM DRAIN		
FIBER OPTIC LINE	---FO---	
DIRECT BURIAL TELEPHONE CABLE	---T---	---T---
DIRECT BURIAL ELECTRIC CABLE	---E---	---E---
ELECTRIC LINE (OVERHEAD)	---E---	---E---
POWER POLE LINE		
JOINT USE POWER & TELEPHONE		
TELEPHONE POLE LINE		
POLE ANCHOR		
STUB POLE (POWER OR TELEPHONE)		
TELEPHONE DUCT	===T===	===T===
TELEPHONE PEDESTAL		
BURIED CABLE MARKER		
PIPELINE MARKER OR VALVE		
CATCH BASIN OR DROP INLET		
MANHOLE		
SANITARY SEWER CLEAN OUT		

	EXISTING	PROPOSED
ROADWAY/PAVEMENT EDGE	-----	=====
FENCE	-X-X-X-X-X-	-X-X-X-X-X-
CURB AND GUTTER		
DETECTABLE WARNINGS		
GUARDRAIL
CULVERT PIPE		
SIGN		
MAILBOX		
RAILROAD TRACKS		
RAILROAD DEVICES		
CROSS-BUCK		
FLASHING LIGHT		
CANTILEVER		
SWITCH		
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		

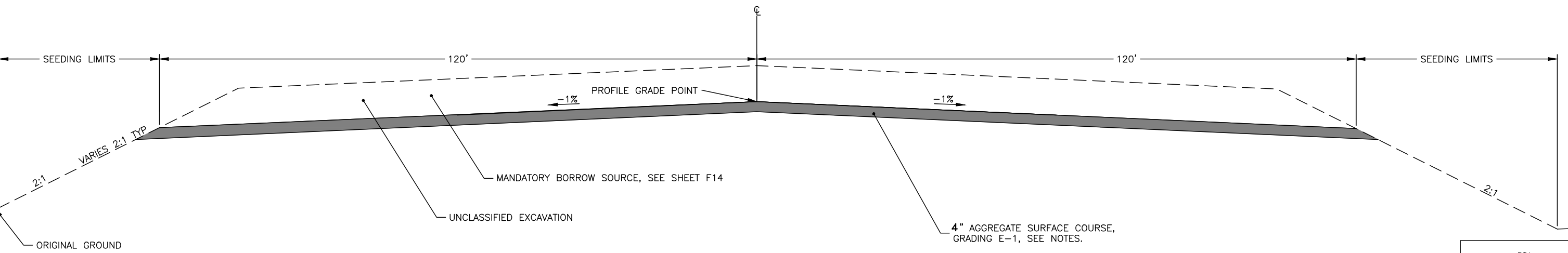
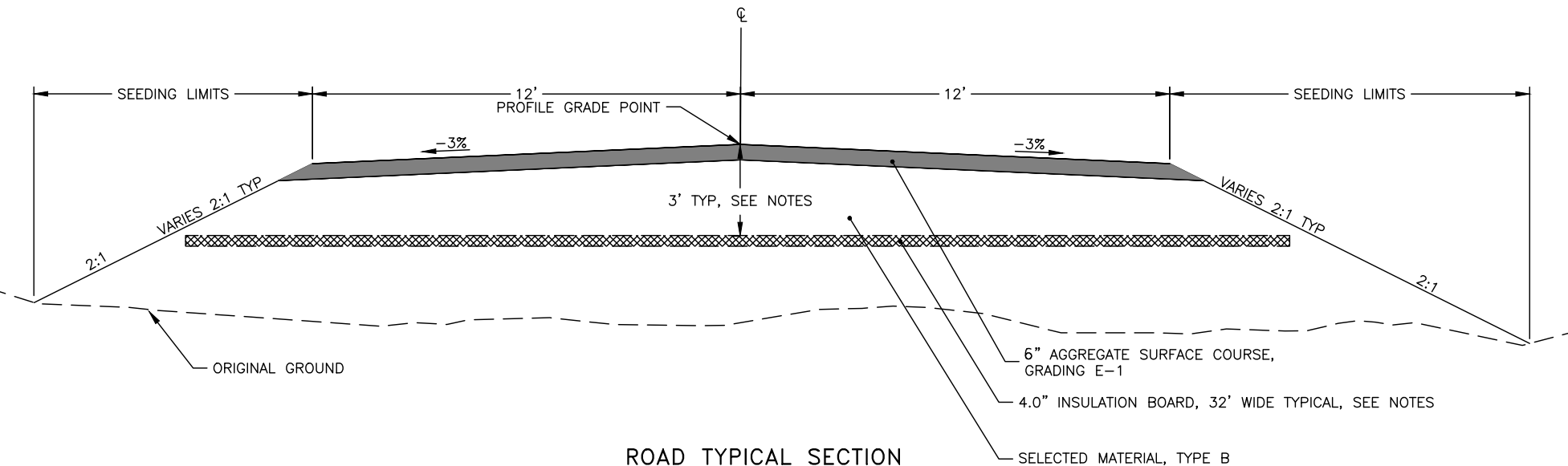
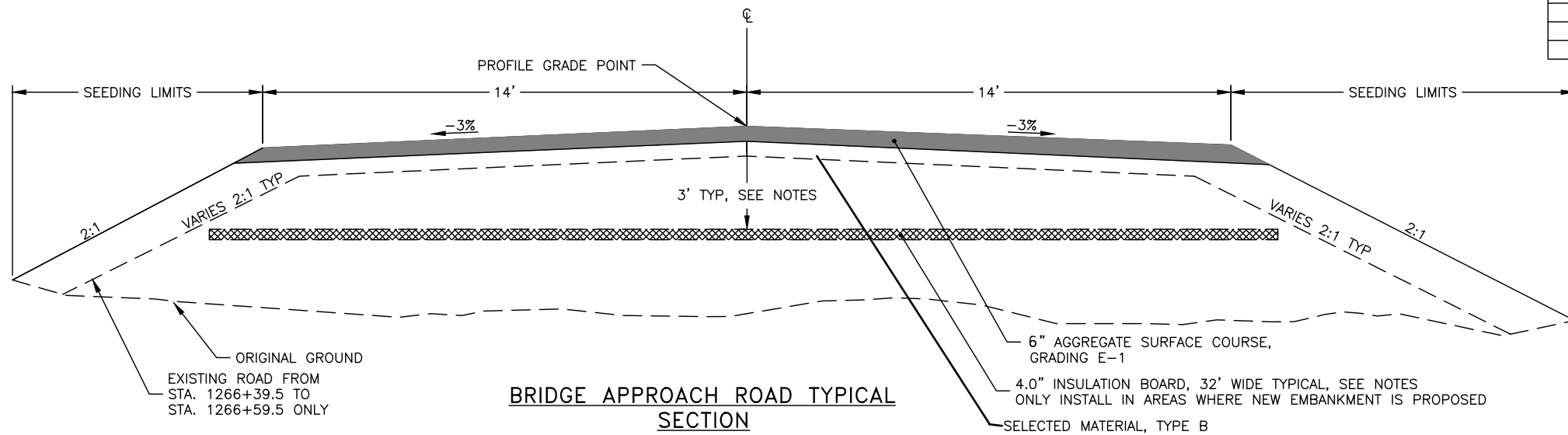
	EXISTING	PROPOSED
JUNCTION BOX, TYPE IA		
JUNCTION BOX, TYPE II		
JUNCTION BOX, TYPE III		
SIGNAL FACE, VEHICULAR		
SIGNAL FACE, BACKPLATE		
SIGNAL FACE, LEFT TURN, BACKPLATE		
SIGNAL FACE, PEDESTRIAN		
LOOP DETECTOR		
VIDEO DETECTOR		
RADAR DETECTOR		
OPTICOM DETECTOR		
PEDESTRIAN PUSH BUTTON		
SIGNAL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

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

LEGEND & SHEET LAYOUT INDEX



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002204/Z768840000	2022	B1	B1



NOTES:

1. USE ROAD TYPICAL SECTIONS AT THE LOCATIONS SPECIFIED EXCEPT FOR TURNOUTS AS SHOWN ON SHEET D1.
2. AVOID DISTURBING NATURAL VEGETATIVE MAT UNLESS APPROVED BY THE ENGINEER.
3. TRANSITION BETWEEN TYPICALS AS DIRECTED.
4. CONSTRUCT LOWER PORTION OF EMBANKMENT, ALL INSULATION BOARD, AND 12" EMBANKMENT COVER OVER INSULATION, ENTIRELY IN FROZEN CONDITIONS AND WITHIN ONE WINTER SEASON. REMAINDER OF EMBANKMENT AND SURFACING MUST BE FINISHED IN UN-FROZEN CONDITIONS. SEE SPECIFICATIONS SECTION 203.
5. AGGREGATE SURFACE COURSE, GRADING E-1 INCLUDES MANDATORY AND CONTRACTOR FURNISHED MATERIALS
6. INSTALL INSULATION BOARD AT LOCATIONS SHOWN IN THE INSULATION BOARD SUMMARY TABLE, AND AS DIRECTED.
7. INSTALL INSULATION BOARD 3' (TYP) BELOW PROFILE GRADE POINT. WHERE REQUIRED, ADJUST INSULATION DEPTH SUCH THAT INSULATION IS NOT LESS THAN 1.5' BELOW FINISHED GRADE AND 1' ABOVE ORIGINAL GROUND. ADJUST INSULATION WIDTH WHEN NECESSARY IN 2' INCREMENTS TO MAINTAIN MINIMUM EMBANKMENT COVER OF 12".
8. INSTALL INSULATION BOARD IN TURNOUTS, PER NOTE 7.
9. INSTALL INSULATION BOARD INTO APPROACHES TO AN OFFSET FROM ROADWAY CENTERLINE OF 24', PER NOTE 7.
10. INSTALL 6 INCHES OF INSULATION BOARD UNDER ALL CULVERTS. SEE DETAIL ON SHEET E2.

PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
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TYPICAL SECTIONS

PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
H:\Projects\Communities\Kotzebue\Kotzebue\76884_Kotz_to_Cape_Blossom_Stage_II\04_P&E\04_Plans\1_Plot\76884_C-C1_Tue, Nov/29/22 02:21pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002204/Z768840000	2022	C1	C1

ESTIMATE OF QUANTITIES			
ITEM NO.	PAY ITEM	PAY UNIT	QUANTITY
203.0003.0000	UNCLASSIFIED EXCAVATION	CY	35,000
203.0006.0000	BORROW	TON	477,597
205.0006.0000	STRUCTURAL FILL	CY	584
301.0003.00E1	AGGREGATE SURFACE COURSE, GRADING E-1	TON	13,600
301.0003.00E1	AGGREGATE SURFACE COURSE, GRADING E-1 MANDATORY	TON	27,400
501.0001.0000	CLASS A CONCRETE	LS	ALL REQUIRED
501.0007.0000	PRECAST CONCRETE MEMBER, DECK PANEL	EACH	58
503.0001.0000	REINFORCING STEEL	LS	ALL REQUIRED
503.0002.0000	EPOXY-COATED REINFORCING STEEL	LS	ALL REQUIRED
504.0001.0000	STRUCTURAL STEEL	LS	ALL REQUIRED
505.0005.0000	FURNISH STRUCTURAL STEEL PIPE PILE, 2'-0" DIA. X 1/2" PIPE	LF	768
505.0005.0000	FURNISH STRUCTURAL STEEL PIPE PILE, 3'-0" DIA. X 3/4" PIPE	LF	800
505.0006.0000	DRIVE STRUCTURAL STEEL PIPE PILES, 2'-0" DIA. X 1/2" PIPE	EACH	8
505.0006.0000	DRIVE STRUCTURAL STEEL PIPE PILES, 3'-0" DIA. X 3/4" PIPE	EACH	8
507.0001.0002	STEEL BRIDGE RAILING, 2-TUBE	LF	552
603.0021.0024	CORRUGATED POLYETHYLENE PIPE 24 INCH	LF	2,306
606.0016.0000	TRANSITION RAIL	EACH	4
611.0001.0002	RIPRAP CLASS II	CY	1,000
611.0001.0002	RIPRAP CLASS II, MANDATORY	CY	2,900
613.0002.0000	CULVERT MARKER POST	EACH	82
618.0000.0000	SEEDING	LB	800
621.2009.0000	VEGETATIVE MAT SALVAGE AND REPLANTING	LS	ALL REQUIRED
624.0001.0000	CALCIUM CHLORIDE	TON	68
631.0002.0001	GEOTEXTILE, EROSION CONTROL, CLASS I	SY	4,160
635.0001.0000	INSULATION BOARD	MBM	5,200
640.0001.0000	MOBILIZATION AND DEMOBILIZATION	LS	ALL REQUIRED
640.0004.0000	WORKER MEALS AND LODGING, OR PER DIEM	LS	ALL REQUIRED
641.0001.0000	ESCP ADMIN	LS	ALL REQUIRED
641.0003.0000	TEMP ESCP CONTROL	LS	ALL REQUIRED
641.0004.0000	TEMP ESCP ADDITIVES	CS	ALL REQUIRED
641.0006.0000	WITHHOLDING	CS	ALL REQUIRED
641.0007.0000	SWPPP MANAGER	LS	ALL REQUIRED
642.0001.0000	CONSTRUCTION SURVEYING	LS	ALL REQUIRED
642.0013.0000	THREE PERSON SURVEY PARTY	CS	
643.0002.0000	TRAFFIC MAINTENANCE	LS	ALL REQUIRED
643.0025.0000	TRAFFIC CONTROL	CS	ALL REQUIRED
644.0001.0000	FIELD OFFICE	LS	ALL REQUIRED
644.0002.0000	FIELD LABORATORY	LS	ALL REQUIRED
644.0006.0000	VEHICLE	EACH	1
644.2002.0000	FIELD COMMUNICATIONS	CS	ALL REQUIRED
644.2007.0000	VEHICLE (LT/SUV)	EACH	2
644.2009.0000	VEHICLE (SNOWMACHINE)	EACH	2
644.2010.0000	NUCLEAR TESTING EQUIPMENT STORAGE SHED	LS	ALL REQUIRED
645.0001.0000	TRAINING PROGRAM, 8 TRAINEES/APPRENTICES	LH	4,000
646.0001.0000	CPM SCHEDULING	LS	ALL REQUIRED

GENERAL NOTES:

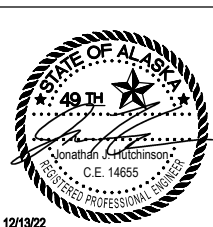
1. REFERENCE RECORD OF SURVEY CONTROL DRAWING, KOTZEBUE TO CAPE BLOSSOM ROAD, ENVIRONMENTAL DOCUMENTATION, DATED 11/13/13 FOR HORIZONTAL AND VERTICAL CONTROL.
2. TOPOGRAPHIC DATA IS BASED ON THE LIDAR SURVEY COLLECTED FROM 8/20/13 THROUGH 9/10/13. EXISTING CONDITIONS MAY VARY SLIGHTLY FROM TOPOGRAPHIC DATA ON THESE PLANS.
3. WETLAND AND UPLAND LOCATIONS ARE NOT SPECIFIED IN THESE PLANS. COORDINATION OF WORK WITHIN USACE AND ALL OTHER PERMITS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

TABLE OF ESTIMATING FACTORS			
ITEM NO.	PAY ITEM	FACTOR	SPECIFICATONS ITEM NO.
203.0006.000A	BORROW, TYPE B	1.80 TONS/CY	203(6)
301.0003.00E1	AGGREGATE SURFACE COURSE, GRADING E-1	2.0 TONS/CY	

ABBREVIATIONS:

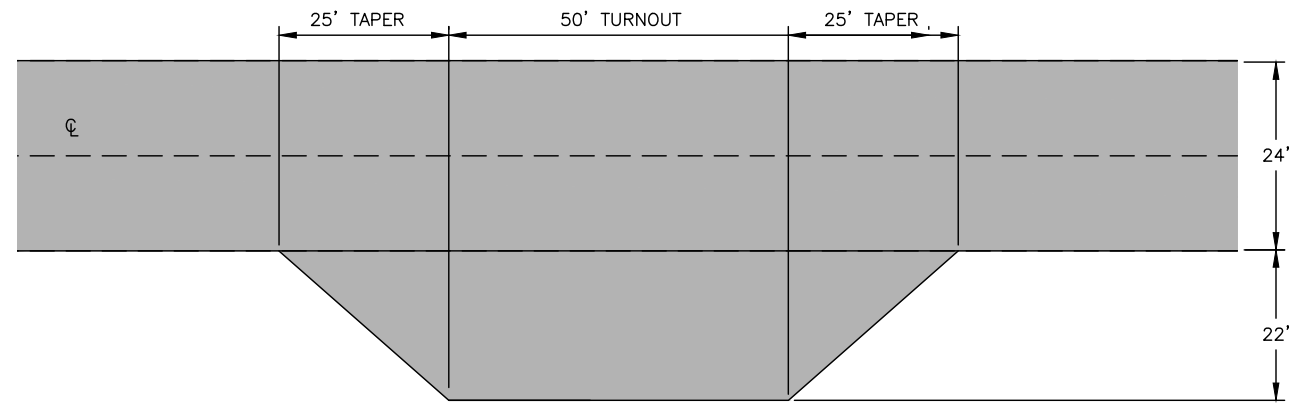
APPROX	APPROXIMATELY	PST	PERFORATED STEEL TUBE
Q	CENTERLINE	PT	POINT OF TANGENCY
CY	CUBIC YARD	PVI	POINT OF VERTICAL INTERSECTION
CS	CONTINGENT SUM	R	RADIUS
E	EAST, EASTING	R.C.L	RIGHT OF CENTERLINE
ELE, ELEV	ELEVATION	RT	RIGHT
FT.	FOOT, FEET	S	SOUTH
H	HORIZONTAL	SY	SQUARE YARD
IE	INVERT ELEVATION	SQ. FT.	SQUARE FOOT
IN, "	INCH, INCHES	STA	STATION
L	LENGTH OF CURVE	T	TANGENT
L.C.L	LEFT OF CENTERLINE	TCE	TEMPORARY CONSTRUCTION EASEMENT
LS	LUMP SUM	TS	TUBE STEEL
LH	LABOR HOUR	TYP	TYPICAL
LT	LEFT	V	VERTICAL
LVC	LENGTH OF VERTICAL CURVE	VPC	VERTICAL POINT OF CURVATURE
MAX	MAXIMUM	VPI	VERTICAL POINT OF INTERSECTION
MBM	MEGA BOARD MEASURE	VPT	VERTICAL POINT OF TANGENCY
MIN	MINIMUM	W	WEST
N	NORTH, NORTHING	Ø	DIAMETER
NO.	NUMBER		
NTS	NOT TO SCALE		
O.C.	ON CENTER		
PC	POINT OF CURVATURE		
POT	POINT ON TANGENT		

ESTIMATE OF QUANTITIES & GENERAL NOTES



12/13/22

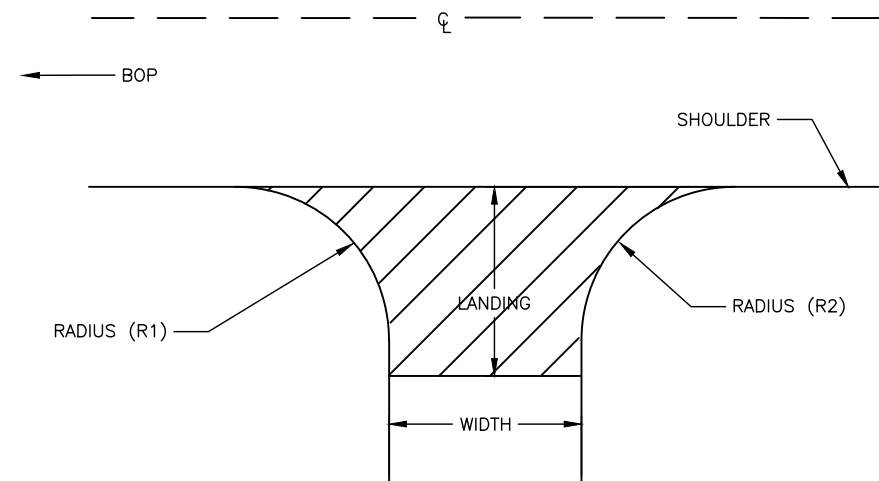
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002204/ Z768840000	2022	D1	D1



DETAIL: TURNOUT PLAN VIEW
NTS

TURNOUT SUMMARY			
TURNOUT	BEGINNING STA	END STA	RT/LT
T-1	1317+00	1318+00	LT
T-2	1343+00	1344+00	RT
T-3	1360+44	1361+44	RT
T-4	1409+00	1410+00	RT
T-5	1482+11	1483+11	LT
T-6	1513+00	1514+00	RT
T-7	1541+00	1542+00	LT
T-8	1569+00	1570+00	RT
T-9	1592+00	1593+00	LT
T-10	1615+00	1616+00	RT

APPROACH SUMMARY						
APPROACH	STATION	LT/RT	RADIUS (FEET)	WIDTH (FEET)	LANDING (FEET)	REMARKS
A-1	1271+05	RT	6/6	12	30	WINTER TRAIL ACCESS
A-2	1271+19	LT	6/6	12	30	WINTER TRAIL ACCESS
A-3	1359+32	LT	6/6	12	30	WINTER TRAIL ACCESS
...	1360+89	RT	6/6	12	30	WINTER TRAIL ACCESS
A-5	1409+50	RT	6/6	12	30	WINTER TRAIL ACCESS
A-6	1409+79	LT	6/6	12	30	WINTER TRAIL ACCESS
...	1498+34	RT	6/6	12	30	WINTER TRAIL ACCESS
...	1498+45	LT	6/6	12	30	WINTER TRAIL ACCESS

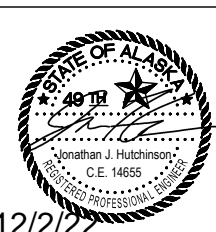


DETAIL: APPROACH
N.T.S.

NOTES:

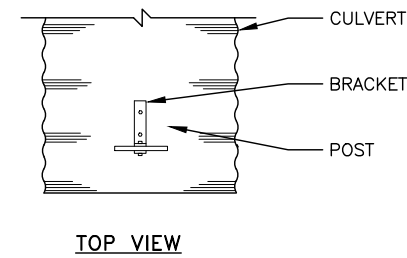
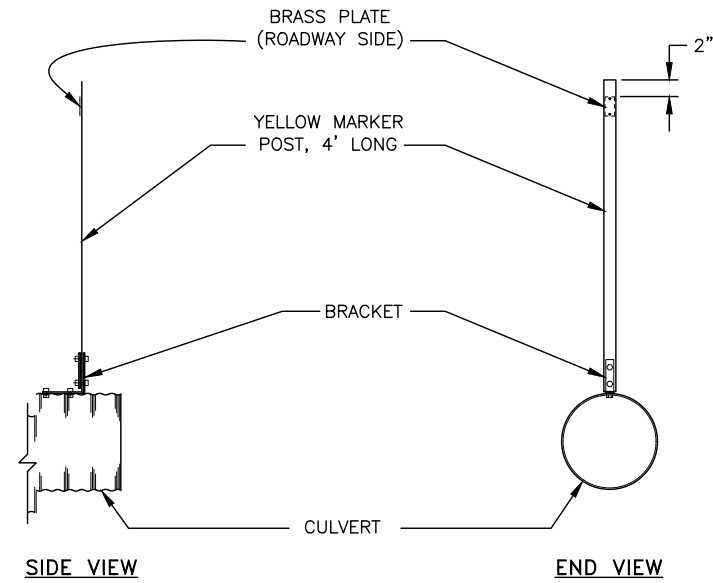
1. CONSTRUCT TURNOUTS WITH SELECTED MATERIAL, TYPE B, 6 INCHES OF SURFACING, 3 PERCENT CROSS SLOPE, AND 2:1 SIDESLOPES. STATIONS IN THE TURNOUT SUMMARY TABLE REFERENCE BEGINNING OF TAPER THROUGH END OF TAPER.
2. CONSTRUCT APPROACHES WITH SELECTED MATERIAL, TYPE B, 4 INCHES OF SURFACING, 3 PERCENT CROSS SLOPE, AND 2:1 SIDESLOPES OUT TO LANDING LENGTH SHOWN IN THE APPROACH SUMMARY TABLE.
3. SMOOTHLY TRANSITION FROM END OF APPROACH LANDING TO MATCH EXISTING OVER A LENGTH OF 20 FEET, WITH SELECTED MATERIAL, TYPE B. MODIFY TRANSITION LENGTH AS NECESSARY TO NOT EXCEED A 6 PERCENT GRADE.
4. APPROACH DIMENSIONS IN THE APPROACH SUMMARY TABLE ARE APPROXIMATE. MODIFY AND FIELD FIT APPROACHES AS DIRECTED.
5. ALL WORK REQUIRED TO CONSTRUCT APPROACHES AND TURNOUTS ARE SUBSIDIARY TO THE CONTRACT ITEMS FOR THE MATERIAL(S) USED.

TURNOUT AND APPROACH
DETAILS AND SUMMARIES

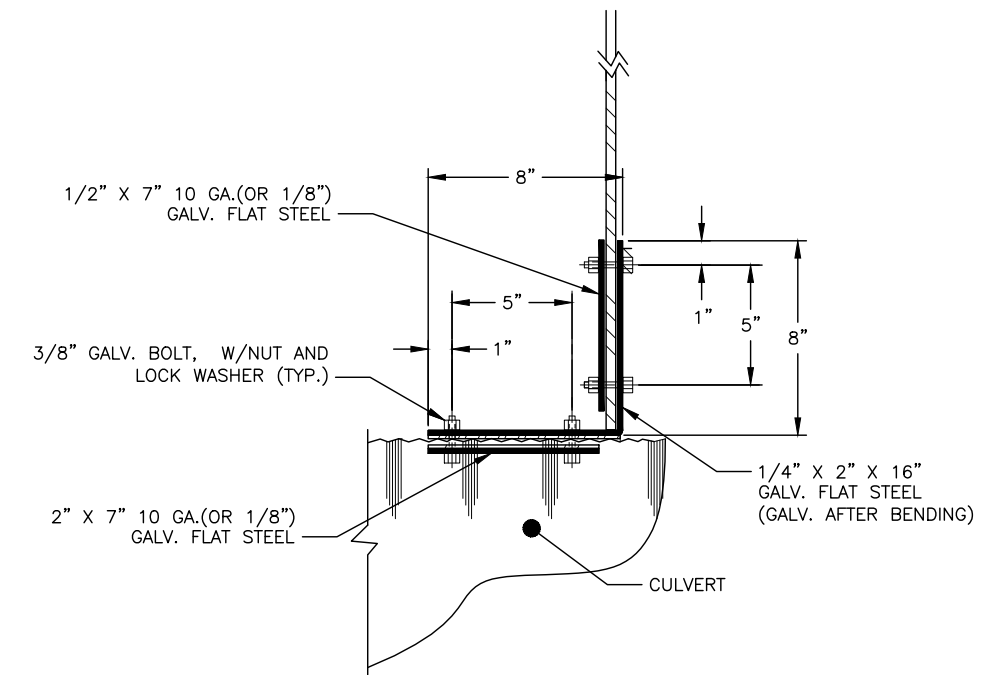


12/2/22

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002204/Z768840000	2022	E1	E2



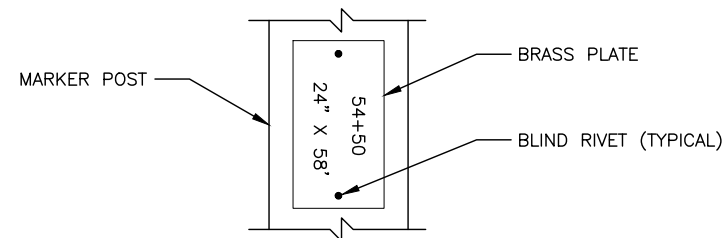
CULVERT MARKER POST DETAIL



BRACKET DETAIL

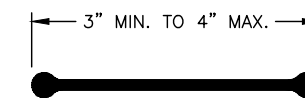
CULVERT NOTES:

1. STATIONING AND SKEW FOR CULVERTS ARE APPROXIMATE. STAKE CULVERTS TO FIT FIELD CONDITIONS AND AS DIRECTED BY THE ENGINEER.
2. MINIMIZE DISTURBANCE TO THE VEGETATIVE MAT UNLESS APPROVED BY THE ENGINEER, AROUND CULVERT ENDS, TO ENSURE PROPER DRAINAGE. THIS WORK IS SUBSIDIARY TO 603 SERIES PAY ITEMS.
3. MODIFY EMBANKMENT THICKNESS AND WIDTH AS NECESSARY TO MAINTAIN MINIMUM COVER OF 2 FEET OVER LENGTH OF PIPE.
4. DE-WATERING FOR CULVERT INSTALLATION WILL NOT BE MEASURED FOR PAYMENT AND IS SUBSIDIARY TO 603 SERIES PAY ITEMS.
5. CONSTRUCT CULVERTS PER DETAILS ON SHEET E2.



STAMP STATION AND PIPE SIZE, USING 3/8" HIGH MINIMUM LETTERS INTO A 2"x4"x 0.064" THICK BRASS PLATE. FASTEN PLATE TO THE SIDE FACING THE ROADWAY WITH TWO 1/8" BRASS BLIND RIVETS.

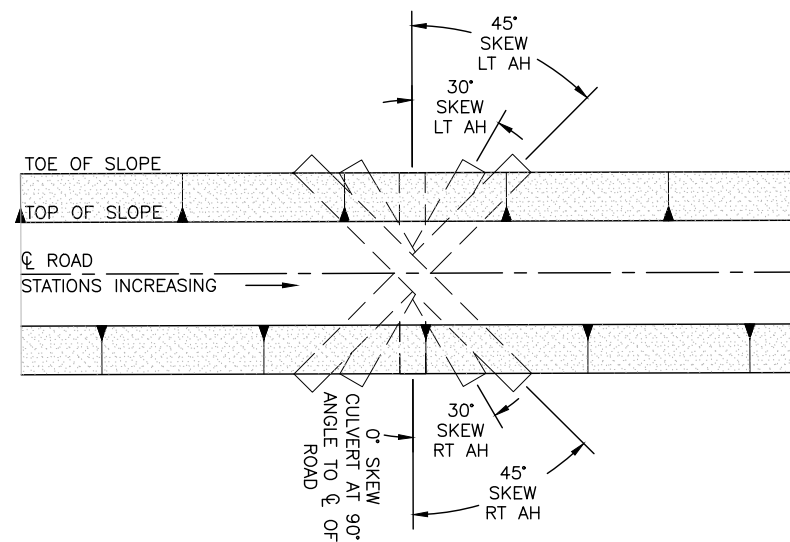
BRASS PLATE DETAIL



**POST DETAIL
CROSS-SECTION VIEW**

CULVERT MARKER POSTS NOTES:

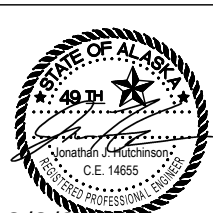
1. DRILL ALL BOLT HOLES. COAT HOLES WITH ZINC RICH PAINT. FLAME CUTTING SHALL NOT BE PERMITTED.
2. GASKET MATERIAL SHALL BE PLACED BETWEEN DISSIMILAR METALS. GASKET MATERIAL SHALL BE APPROVED PRIOR TO INSTALLATION.



CULVERT SKEW SCHEMATIC

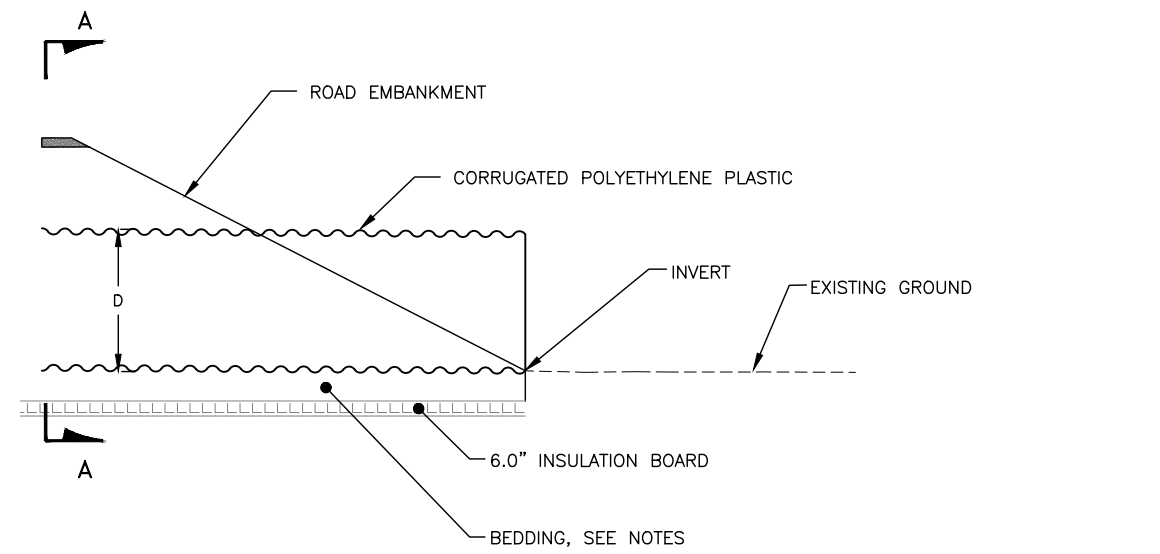
CULVERT MARKER POST DETAILS

**CULVERT DETAILS &
SUMMARY 1 OF 2**

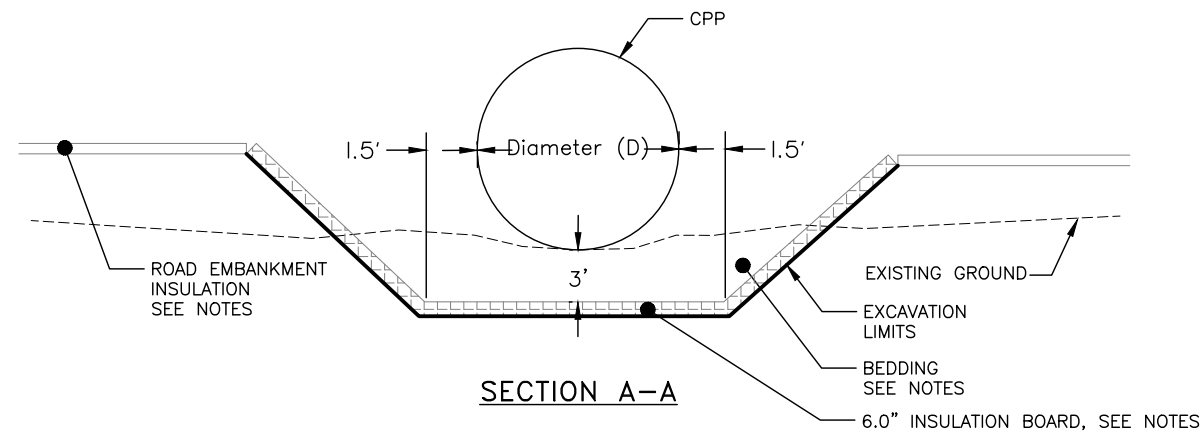


12/2/22

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002204/Z768840000	2022	E2	E2



CULVERT DETAIL



SECTION A-A

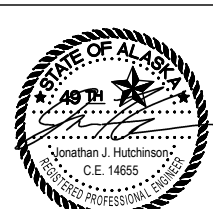
CULVERT NOTES:

1. CONSTRUCT BEDDING WITH SELECTED MATERIAL, TYPE B. SEE SPEC SECTION 204.
2. EXTEND INSULATION BOARD TO CULVERT ENDS. FIELD FIT INSULATION BOARD AROUND CULVERTS AS APPROVED.
3. TIE 6.0" CULVERT INSULATION BOARD INTO 4" ROAD EMBANKMENT INSULATION BOARD AT A SLOPE NOT STEEPER THAN 3:1, AS APPROVED.
4. CONSTRUCT CULVERTS, INCLUDING INSULATION BOARD, BEDDING AND BACKFILL, ENTIRELY IN FROZEN CONDITIONS.
5. STATIONING AND SKEW FOR CULVERTS ARE APPROXIMATE. STAKE CULVERTS TO FIT FIELD CONDITIONS AND AS DIRECTED BY THE ENGINEER.
6. MINIMIZE DISTURBANCE TO THE VEGETATIVE MAT UNLESS APPROVED BY THE ENGINEER, AROUND CULVERT ENDS, TO ENSURE PROPER DRAINAGE. THIS WORK IS SUBSIDIARY TO 603 SERIES PAY ITEMS.
7. MODIFY EMBANKMENT THICKNESS AND WIDTH AS NECESSARY TO MAINTAIN MINIMUM COVER OF 2 FEET OVER LENGTH OF PIPE.
8. DE-WATERING FOR CULVERT INSTALLATION WILL NOT BE MEASURED FOR PAYMENT AND IS SUBSIDIARY TO 603 SERIES PAY ITEMS.
10. ALL CULVERTS SHALL HAVE A MINIMUM CAMBER OF 1% OF THE LENGTH OF THE PIPE, UNLESS THE PROJECT ENGINEER DIRECTS OTHERWISE.

CULVERT SUMMARY

PIPE NO.	PROJECT STATION	24" CORRUGATED POLYETHYLENE PIPE, NEW PIPE LENGTH (LF)	SKEW	CULVERT MARKER POST (EA)
P-1	1299+77	38	4 Deg LT AH	2
P-2	1308+66	57	21 Deg RT AH	2
P-3	1311+16	61	30 Deg LT AH	2
P-4	1320+57	55	13 Deg RT AH	2
P-5	1324+14	57	35 Deg RT AH	2
P-6	1325+93	61	4 Deg RT AH	2
P-7	1332+88	58	1 Deg RT AH	2
P-8	1337+46	52	2 Deg RT AH	2
P-9	1338+92	45	0	2
P-10	1339+45	46	1 Deg RT AH	2
P-11	1341+41	48	2 Deg LT AH	2
P-12	1361+19	62	38 Deg RT AH	2
P-13	1366+02	49	13.62 Deg LT AH	2
P-14	1373+44	58	39 Deg LT AH	2
P-15	1380+29	49	16 Deg RT AH	2
P-16	1396+33	57	17 Deg RT AH	2
P-17	1402+11	61	34 Deg RT AH	2
P-18	1407+37	76	43 Deg RT AH	2
P-19	1416+91	52	0	2
P-20	1437+02	46	0	2
P-21	1457+24	86	32 Deg RT AH	2
P-22	1462+60	47	0	2
P-23	1470+97	47	0	2
P-24	1472+31	122	64 Deg RT AH	2
P-25	1480+33	55	4 Deg LT AH	2
P-26	1491+75	50	3 Deg LT AH	2
P-27	1508+57	50	12 Deg RT AH	2
P-28	1524+64	55	35 Deg RT AH	2
P-29	1525+90	46	1 Deg LT AH	2
P-30	1527+24	46	0	2
P-31	1531+80	53	20 Deg LT AH	2
P-32	1538+98	58	27 Deg RT AH	2
P-33	1540+94	51	9 Deg LT AH	2
P-34	1552+92	48	4 Deg LT AH	2
P-35	1557+34	43	0	2
P-36	1566+05	47	0	2
P-37	1579+57	88	53 Deg RT AH	2
P-38	1586+09	54	0	2
P-39*	1599+52	71	0	2
P-40	1602+15	50	15 Deg RT AH	2
P-41	1615+06	51	6 Deg RT AH	2
	TOTAL	2306		

CULVERT DETAILS & SUMMARY 2 OF 2

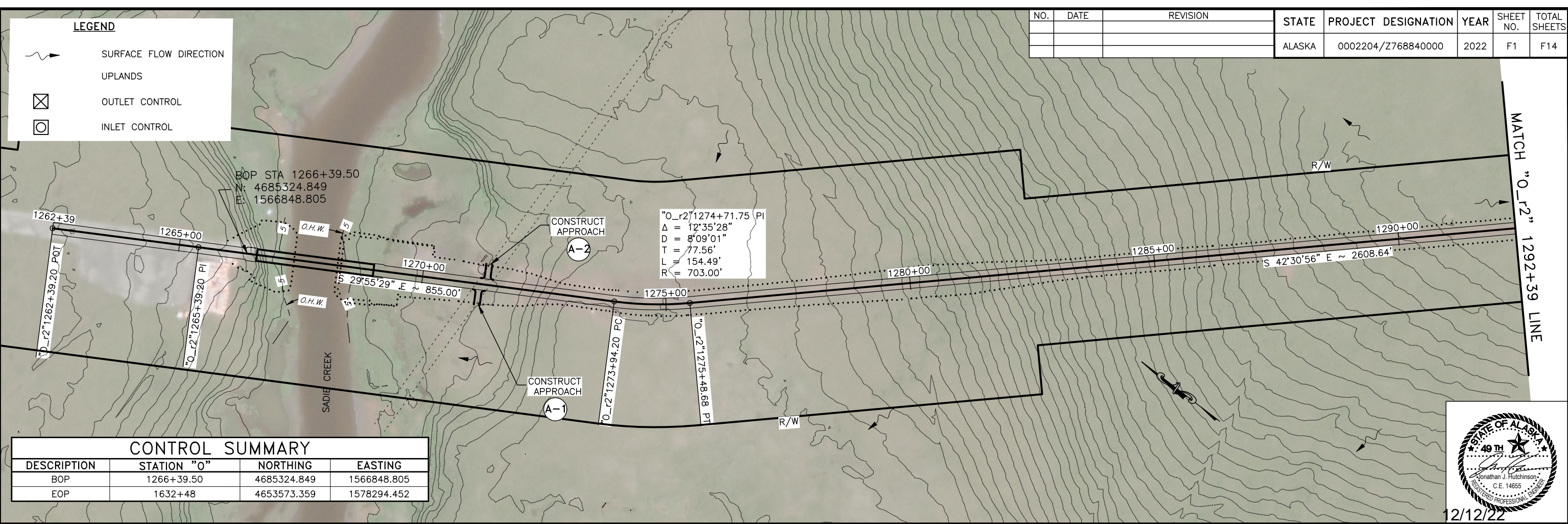


12/2/22

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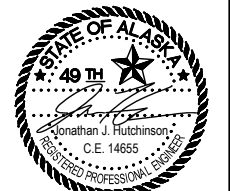
LEGEND

- SURFACE FLOW DIRECTION
- UPLANDS
- OUTLET CONTROL
- INLET CONTROL

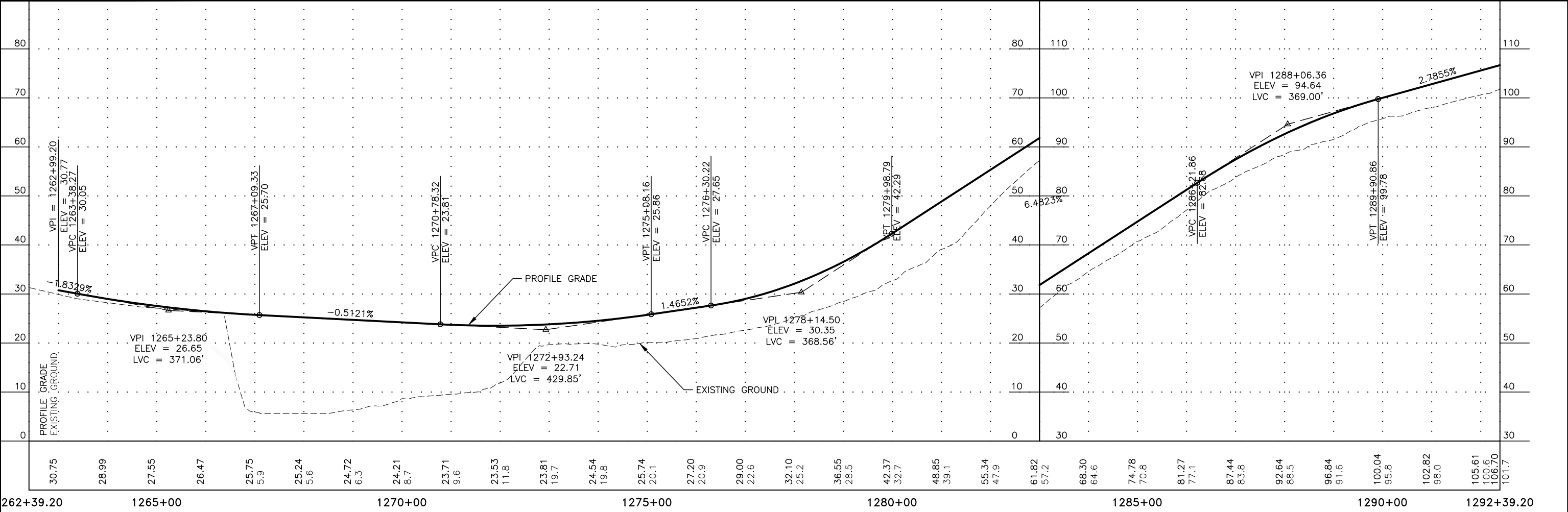


CONTROL SUMMARY

DESCRIPTION	STATION "O"	NORTHING	EASTING
BOP	1266+39.50	4685324.849	1566848.805
EOP	1632+48	4653573.359	1578294.452

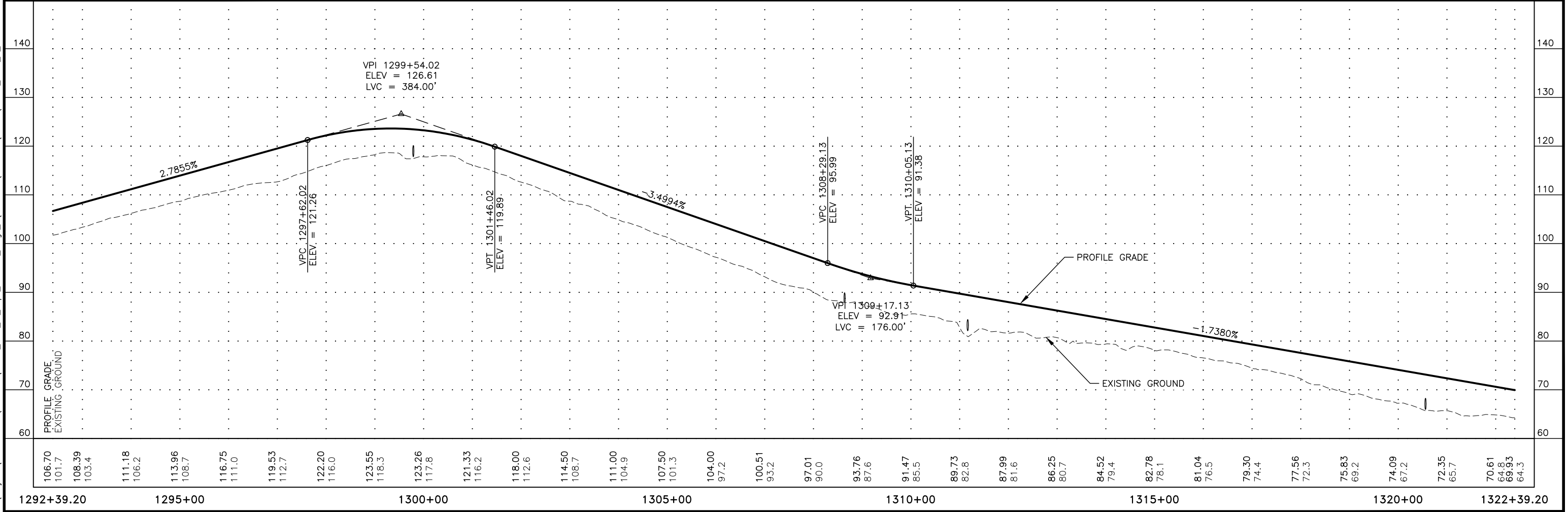
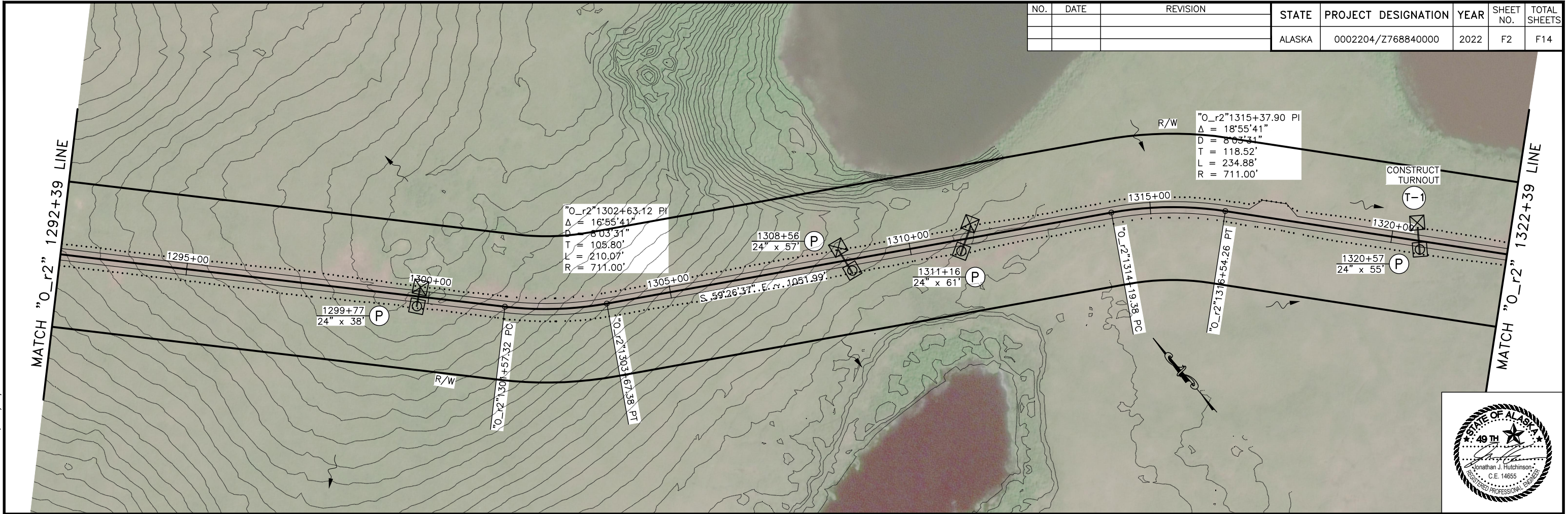


12/12/22



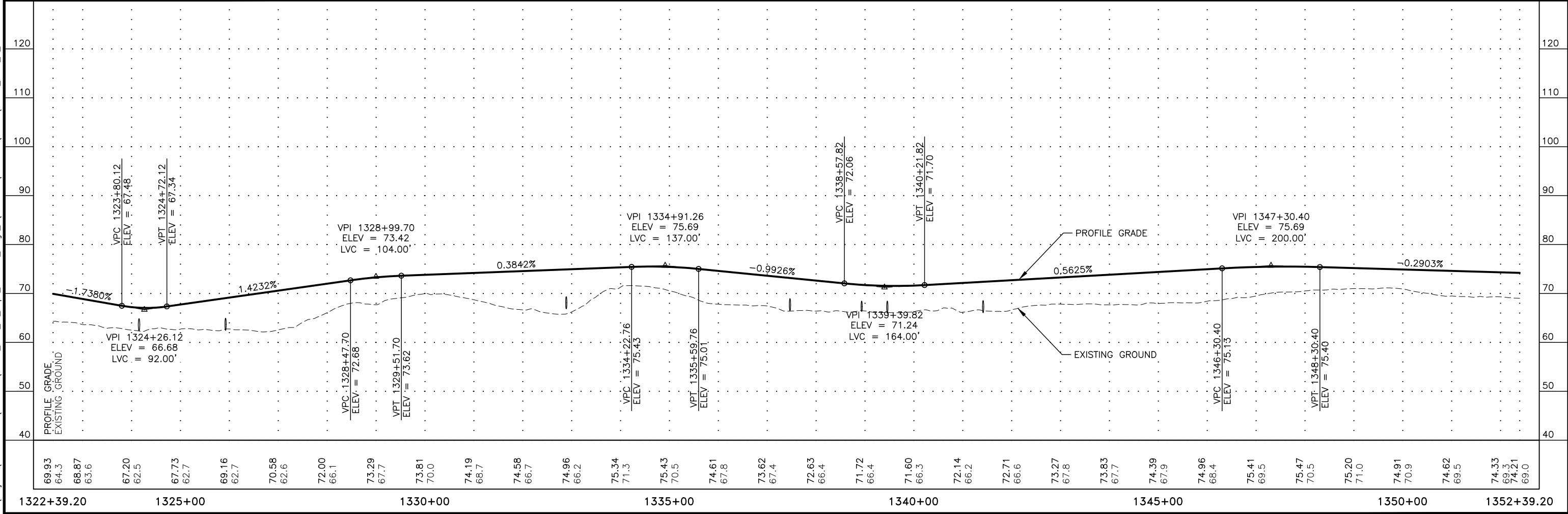
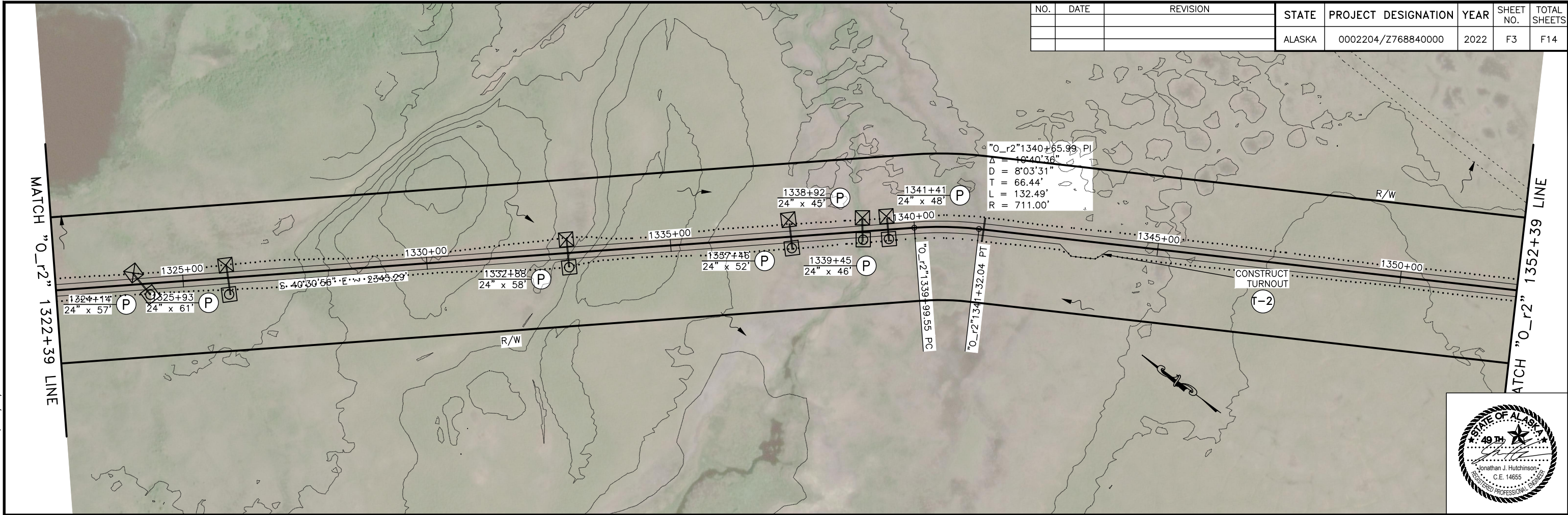
PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
 H:\Projects\Communities\Kotzebue\Kotzebue_Stage_II\04_P&E\04_Plans\1_Plot\76884_Pand_P_r1-1262+39.20-1292+39.20 Mon, Dec/12/22 10:51am

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002204/Z768840000	2022	F2	F14



PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
 H:\Projects\Communities\Kotzebue\76884_Kotz_to_Cape_Blossom_Stage_II\04_P&E\04_Plans\1_Plot\76884_Pand_P_r1-1292+39.20-1322+39.20 Mon, Dec/12/22 10:52am

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002204/Z768840000	2022	F3	F14

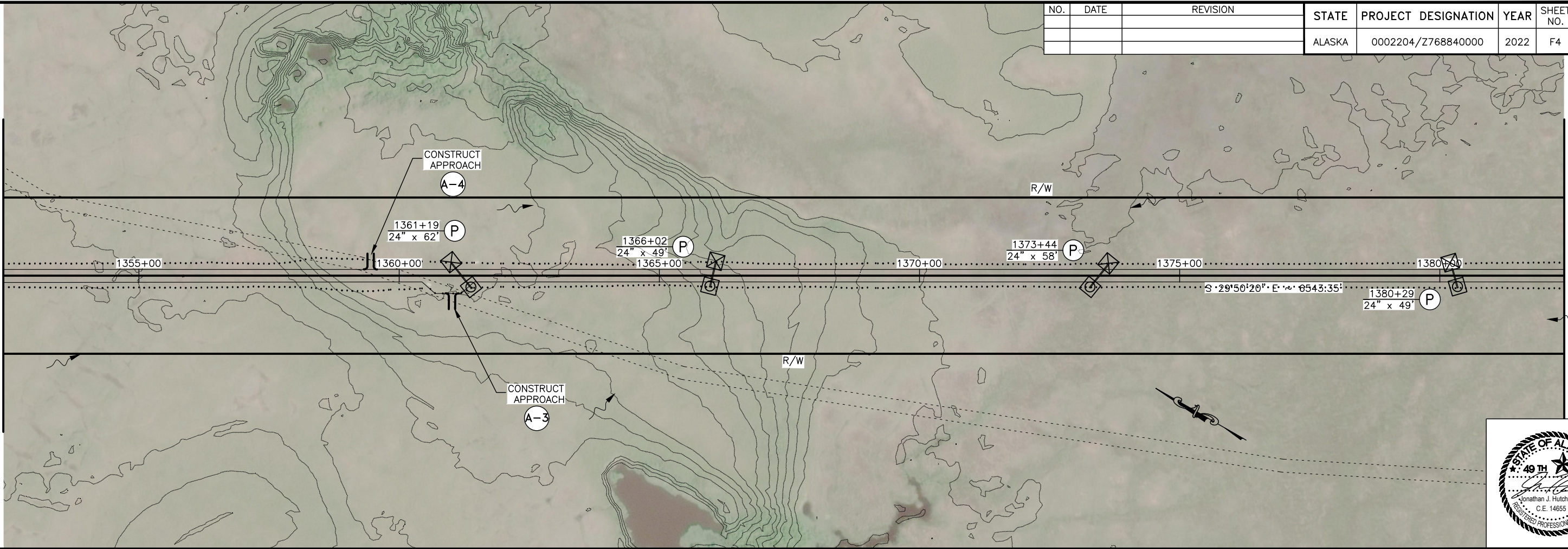


PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
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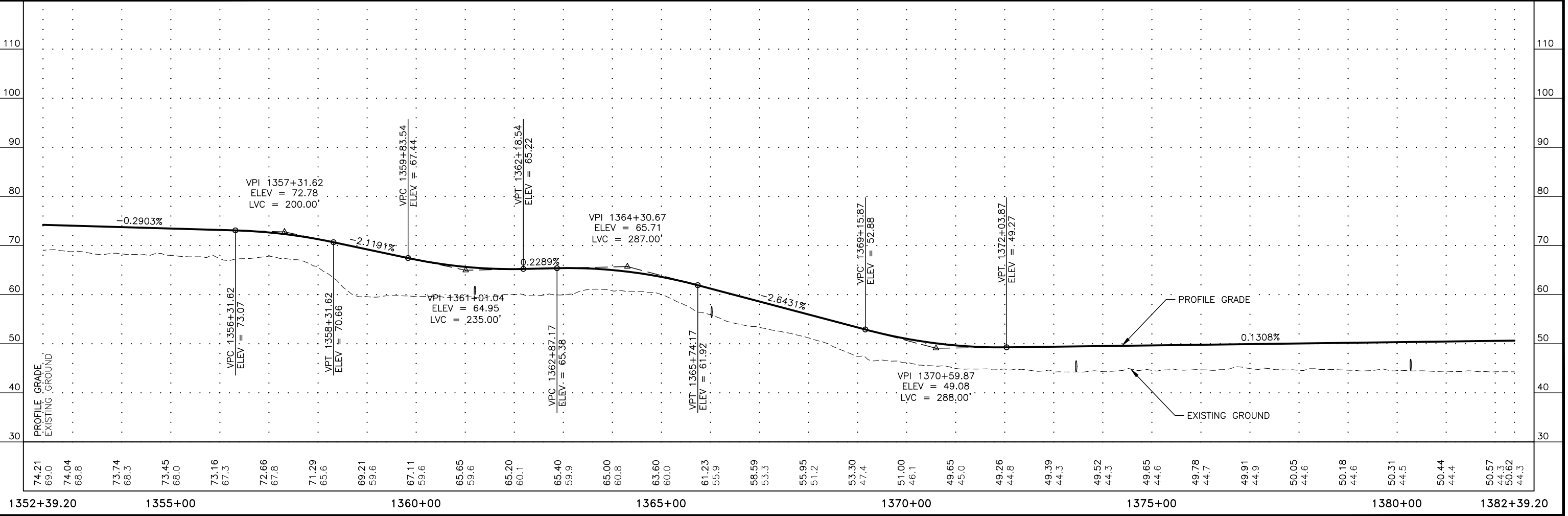
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002204/Z768840000	2022	F4	F14

MATCH "O_r2" 1352+39 LINE

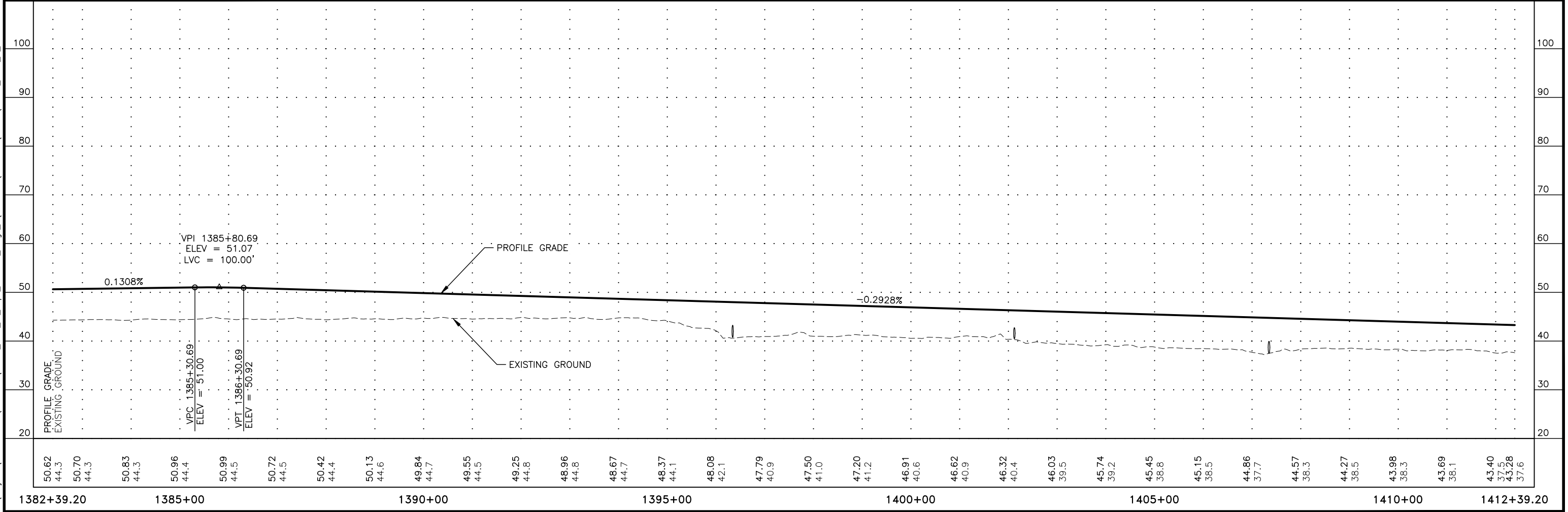
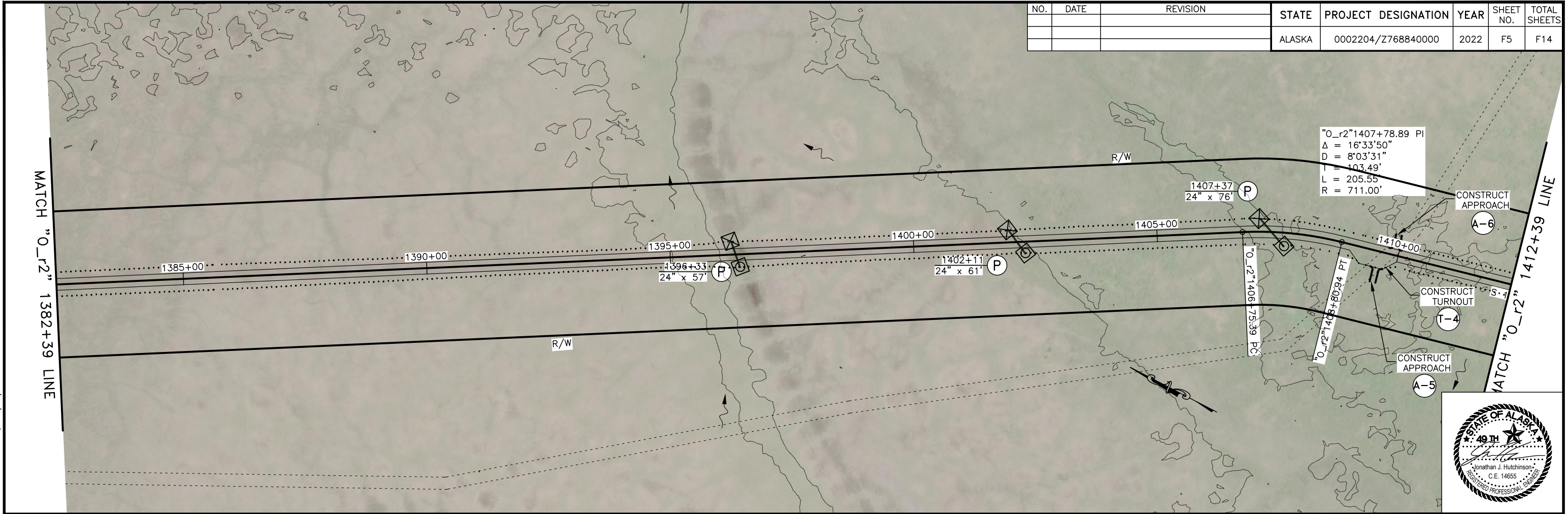
MATCH "O_r2" 1382+39 LINE



PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
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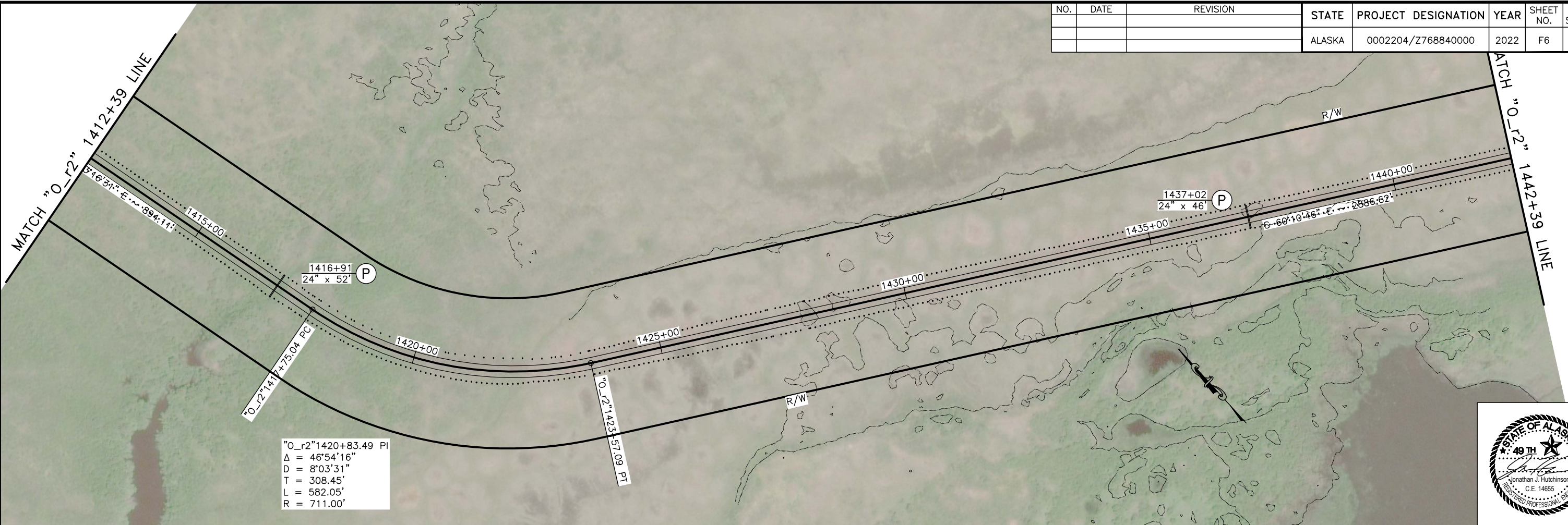


NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002204/Z768840000	2022	F5	F14



PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002204/Z768840000	2022	F6	F14



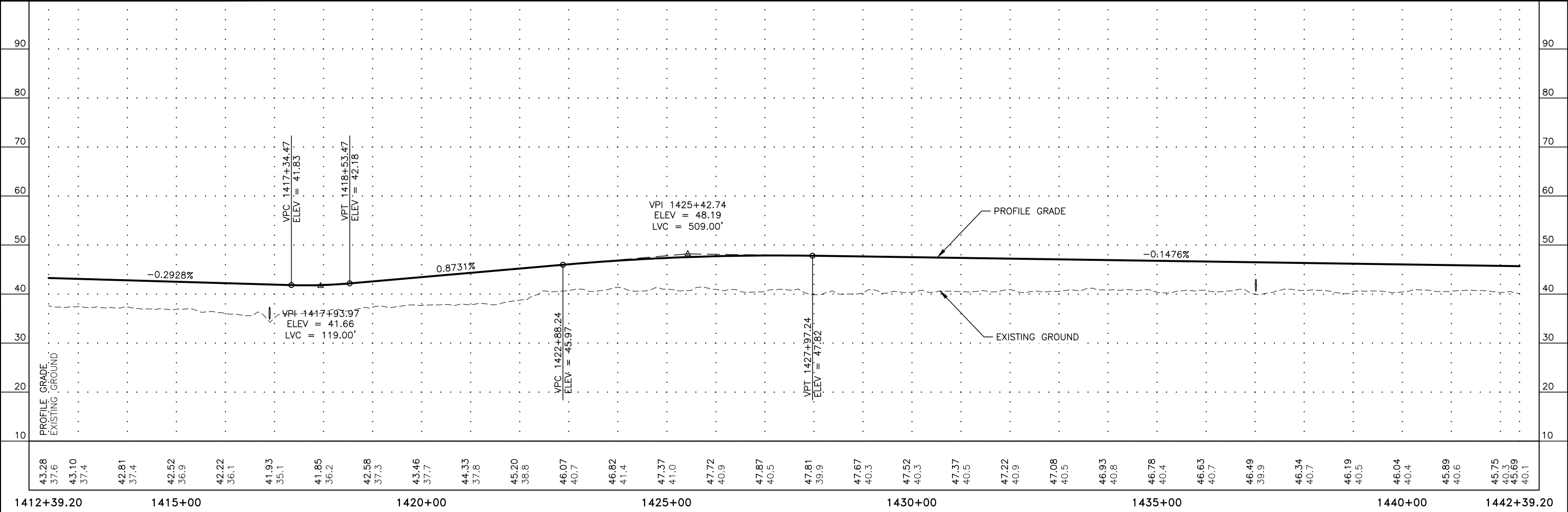
"O_r2"1420+83.49 PI
 $\Delta = 46^{\circ}54'16''$
 $D = 8^{\circ}03'31''$
 $T = 308.45'$
 $L = 582.05'$
 $R = 711.00'$

VPC 1417+34.47
 ELEV = 41.83
 VPI 1417+93.97
 ELEV = 41.66
 LVC = 119.00'
 VPI 1418+53.47
 ELEV = 42.18

VPI 1425+42.74
 ELEV = 48.19
 LVC = 509.00'

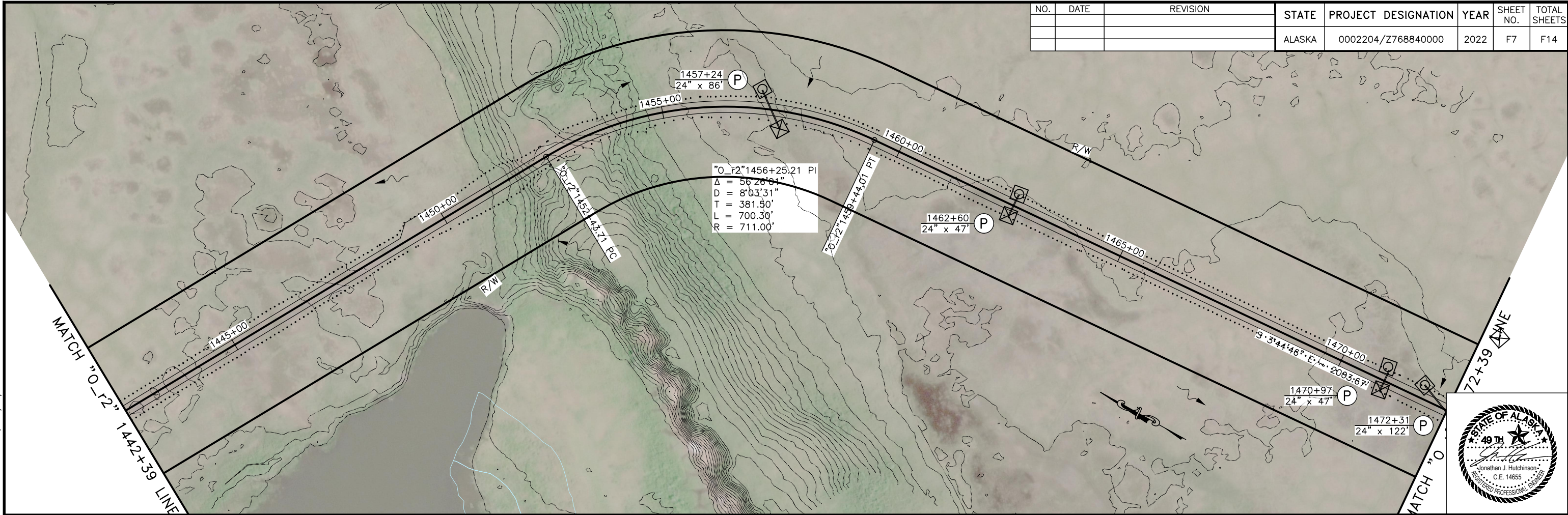
VPC 1422+88.24
 ELEV = 45.97

VPT 1427+97.24
 ELEV = 47.82

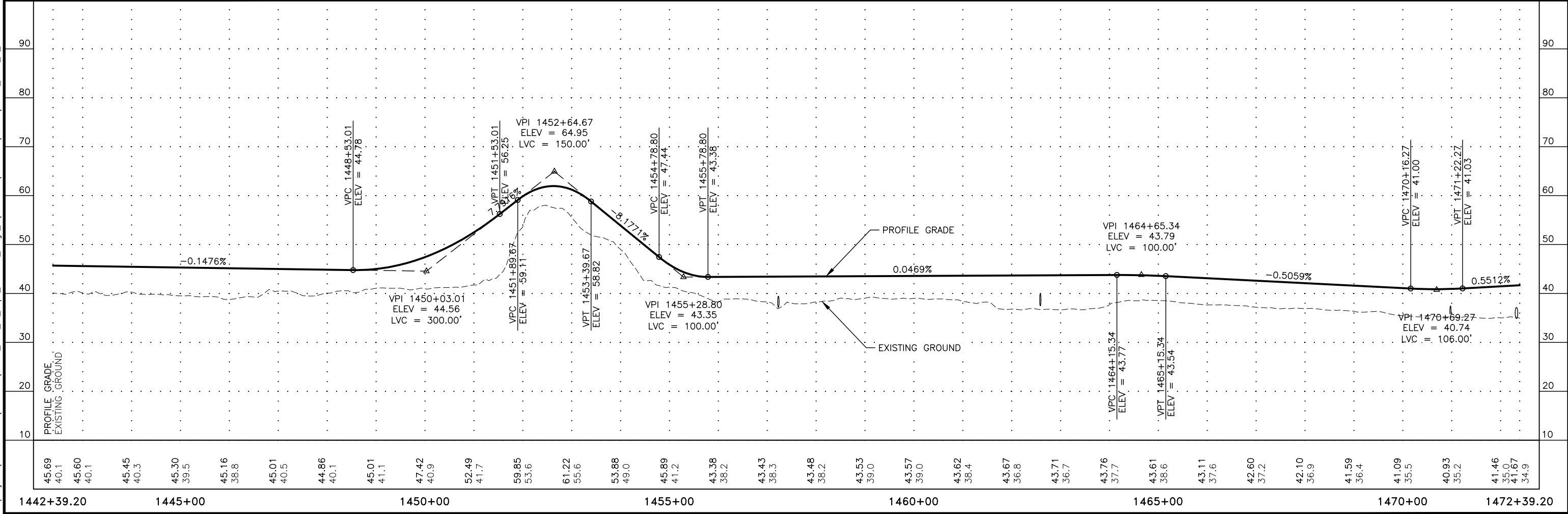


PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
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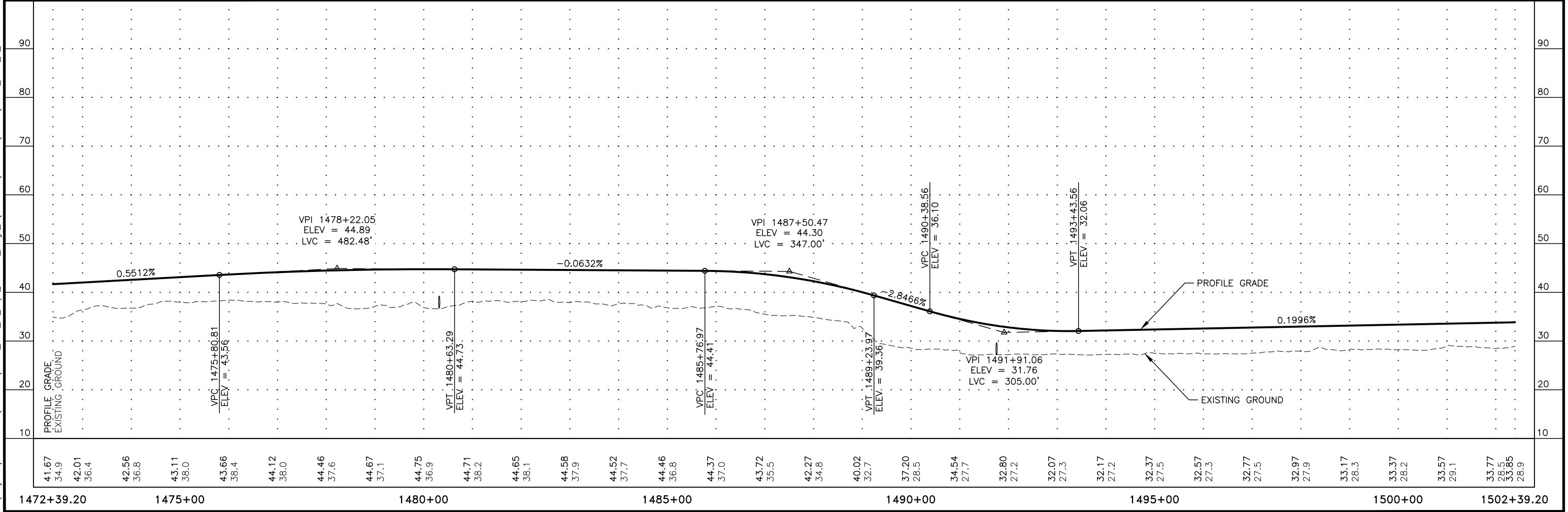
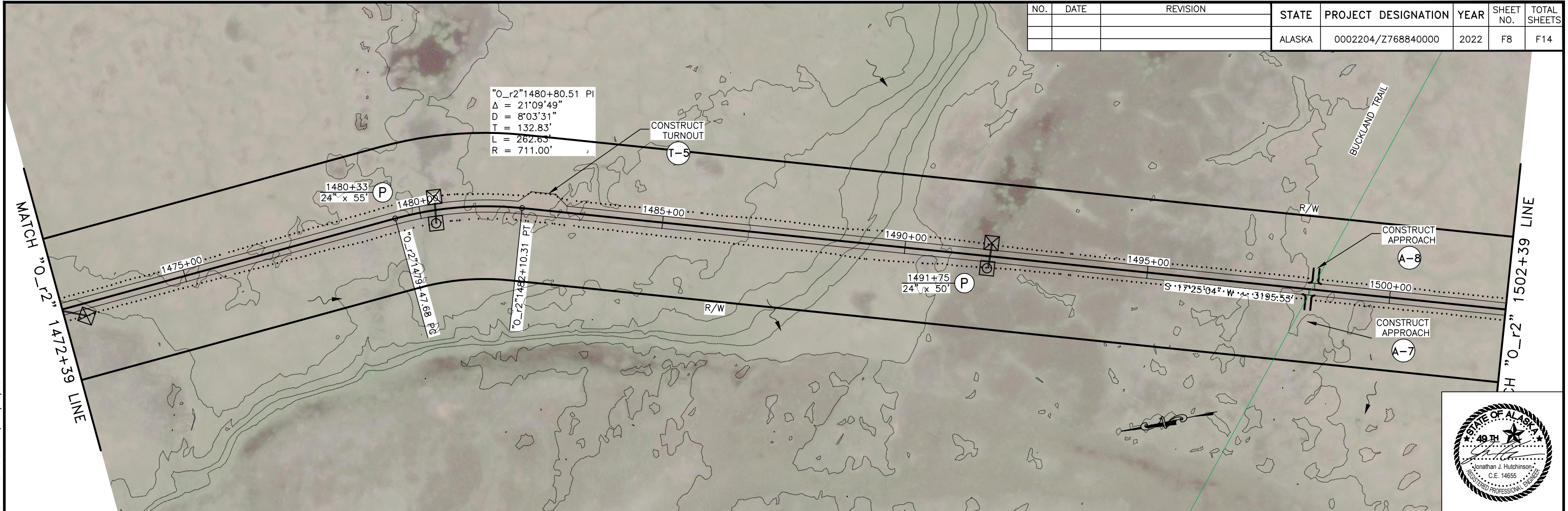
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002204/Z768840000	2022	F7	F14



PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
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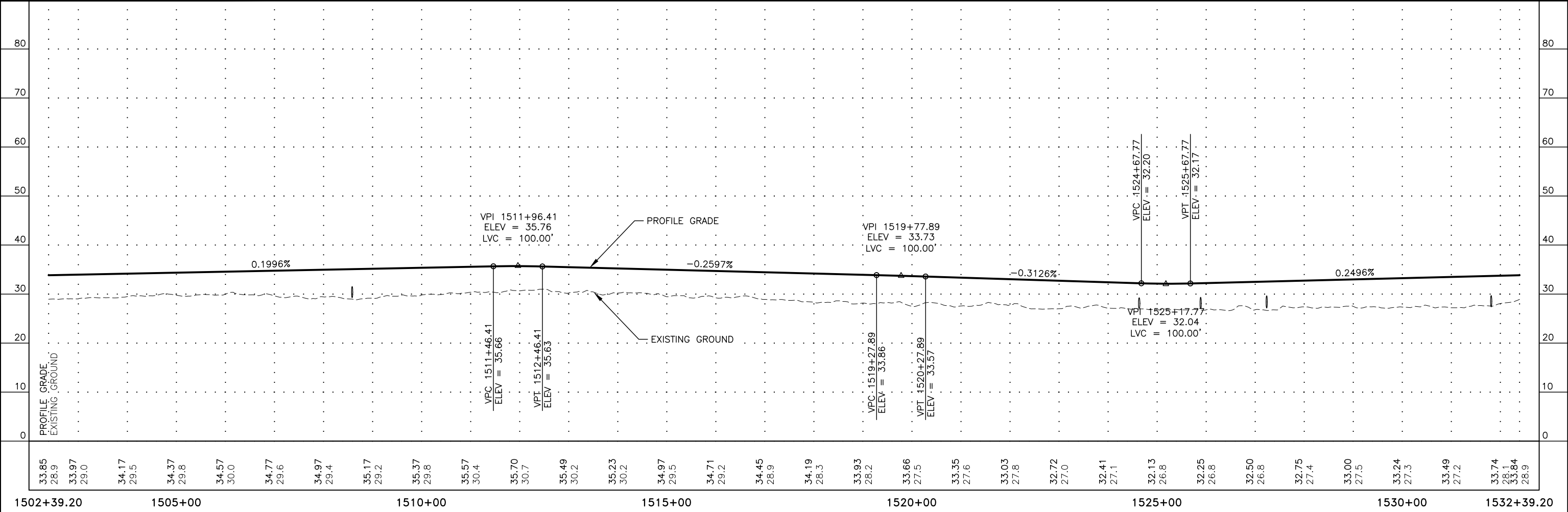
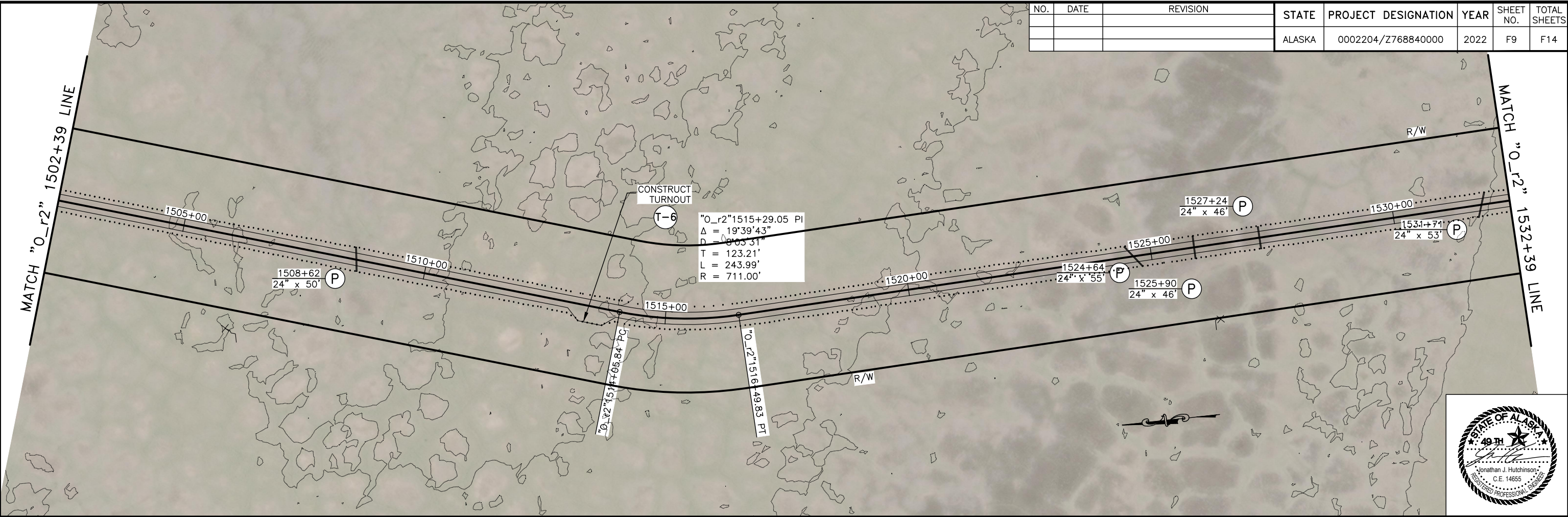


NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002204/Z768840000	2022	F8	F14



PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
 H:\Projects\Communities\Kotzebue\Kotzebue_Stage_II\04 PS&E\04 Plans\1 Plot\76884_Pand_P_1-1472+39.20-1502+39.20 Mon, Dec/12/22 10:54am

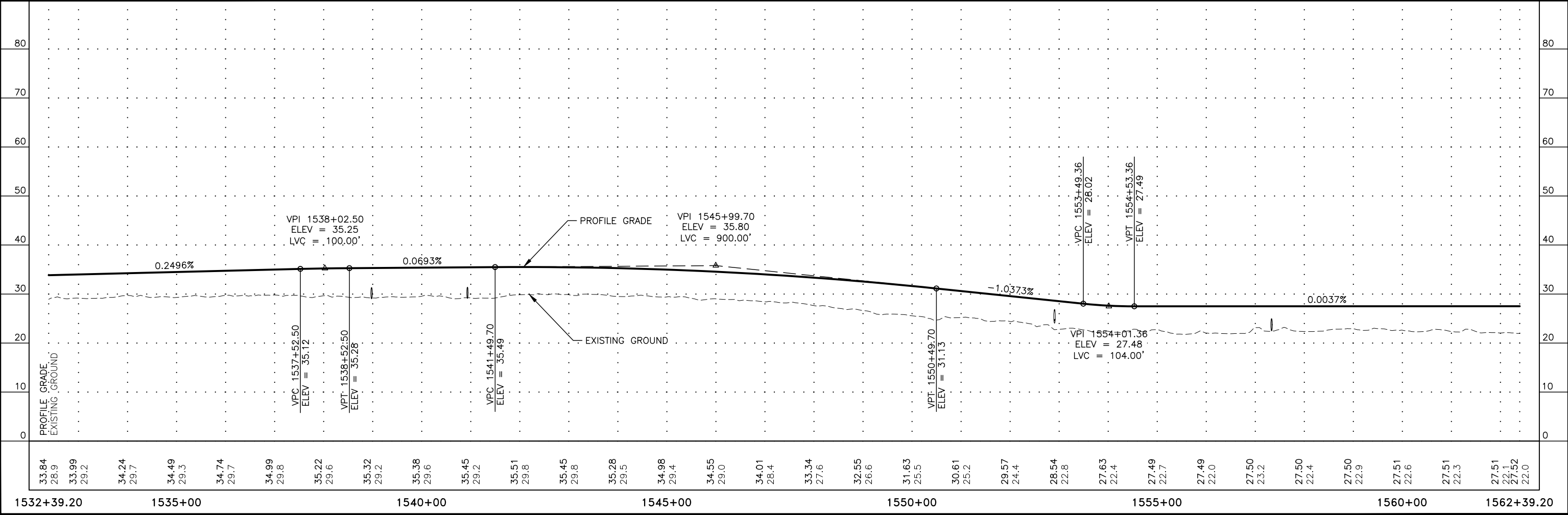
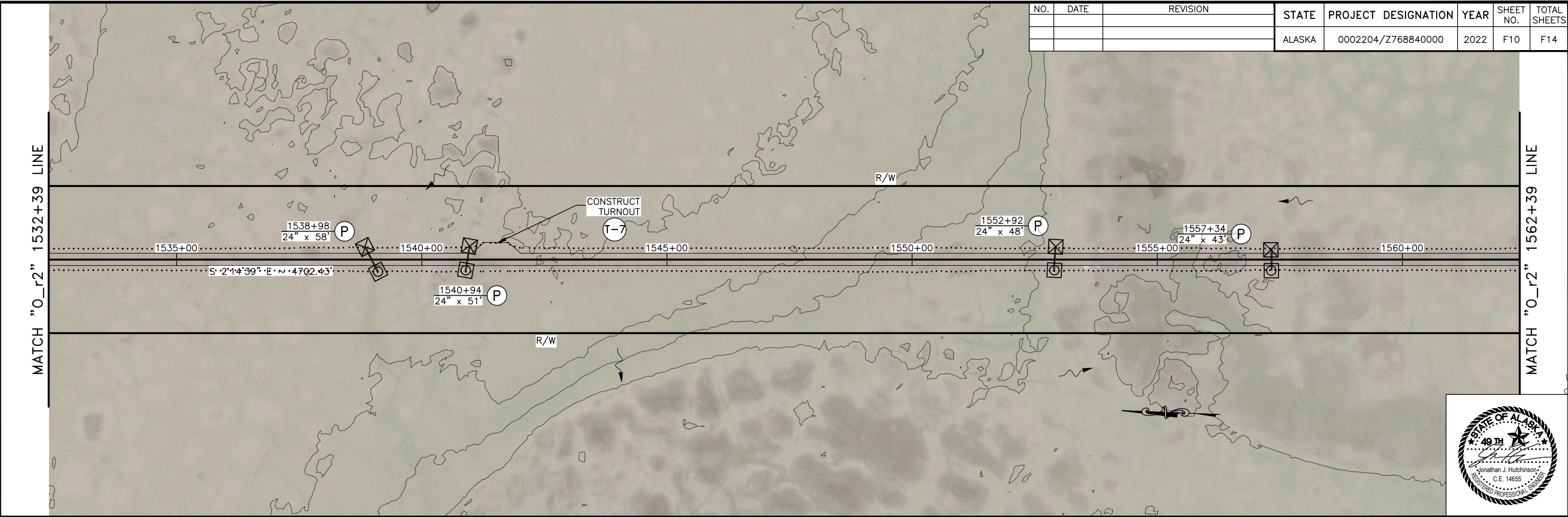
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002204/Z768840000	2022	F9	F14



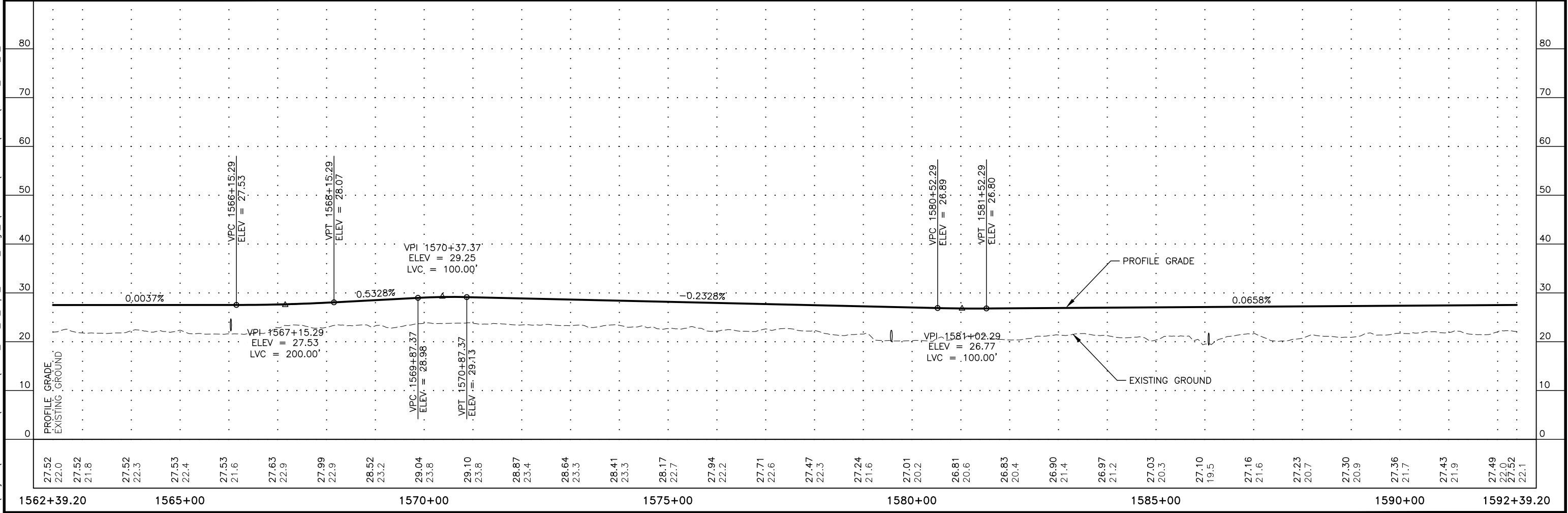
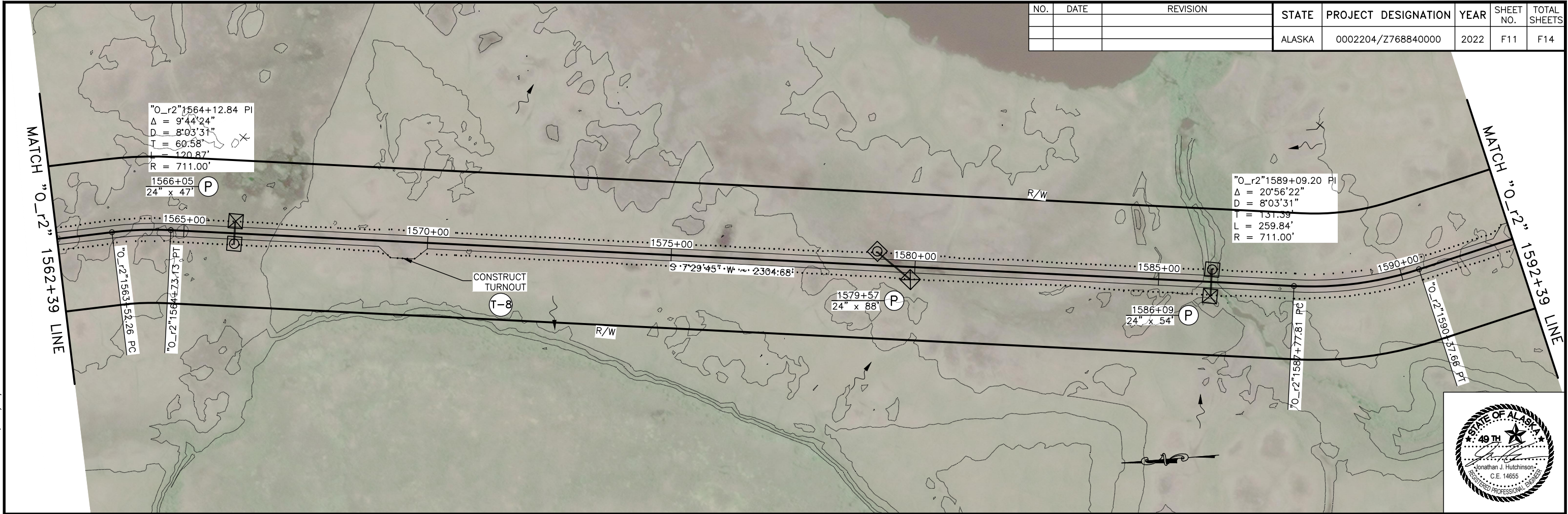
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PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002204/Z768840000	2022	F10	F14

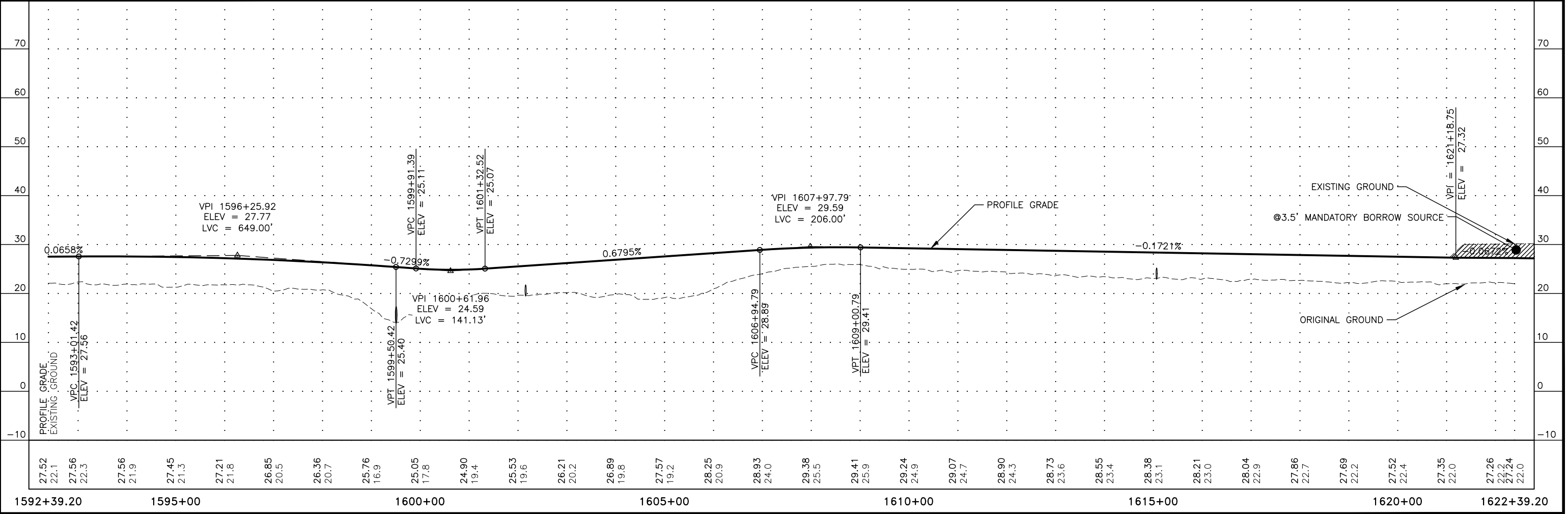
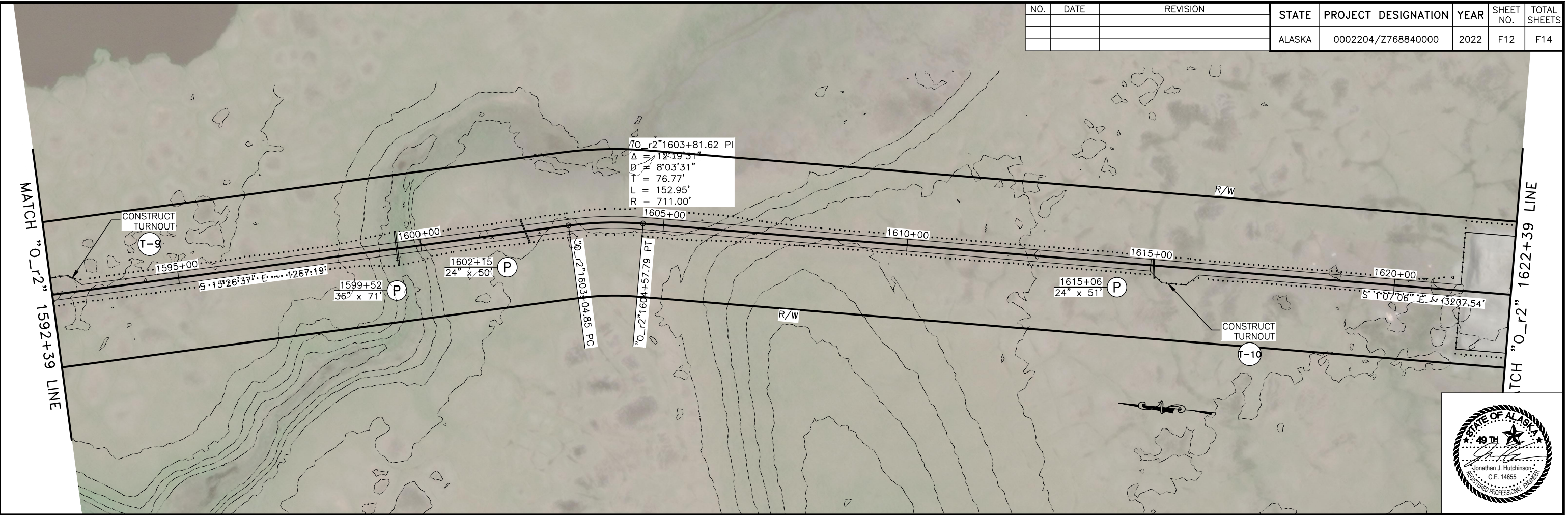


NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002204/Z768840000	2022	F11	F14



PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
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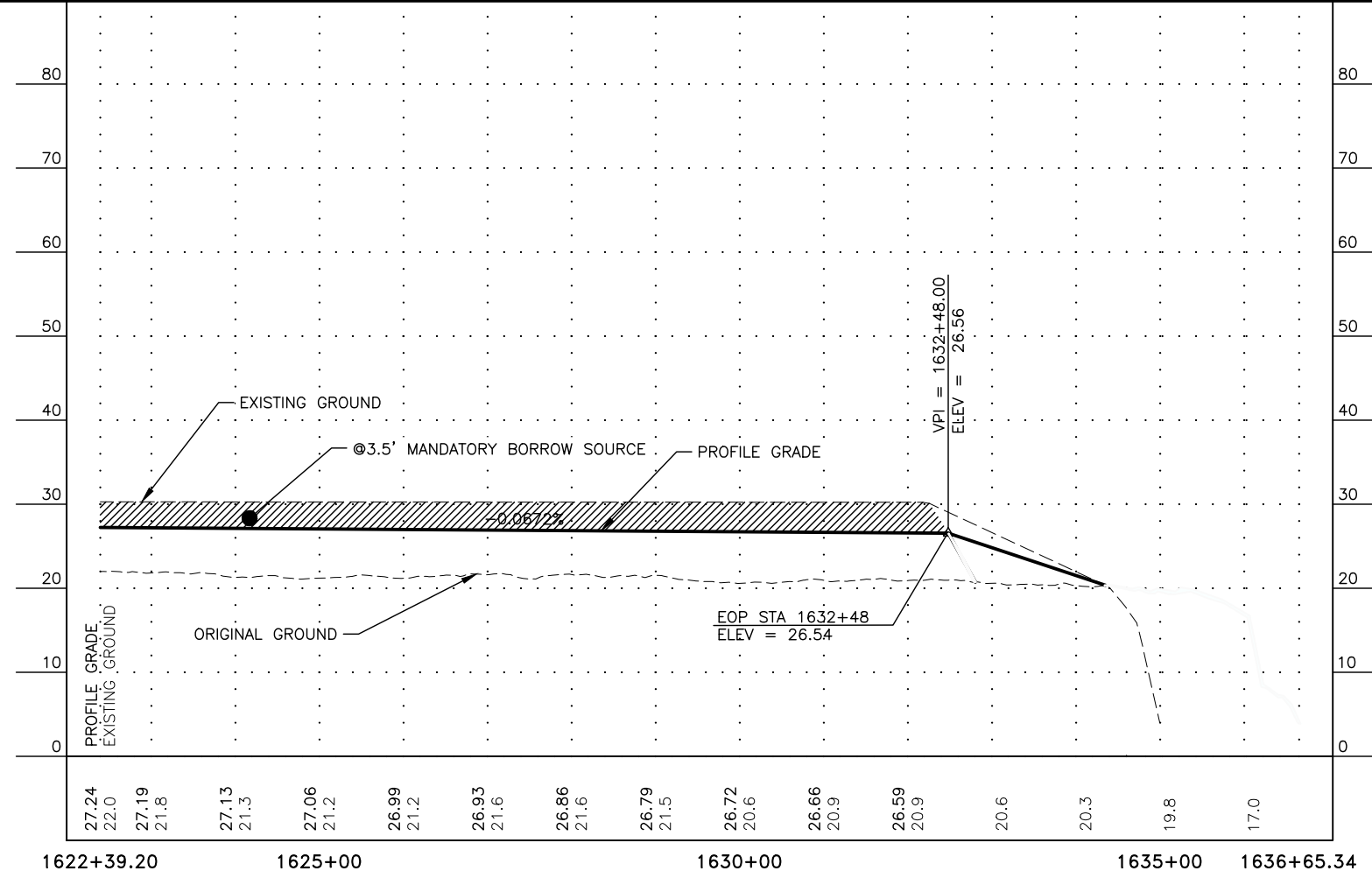
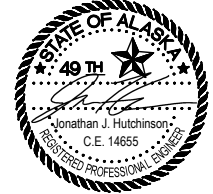
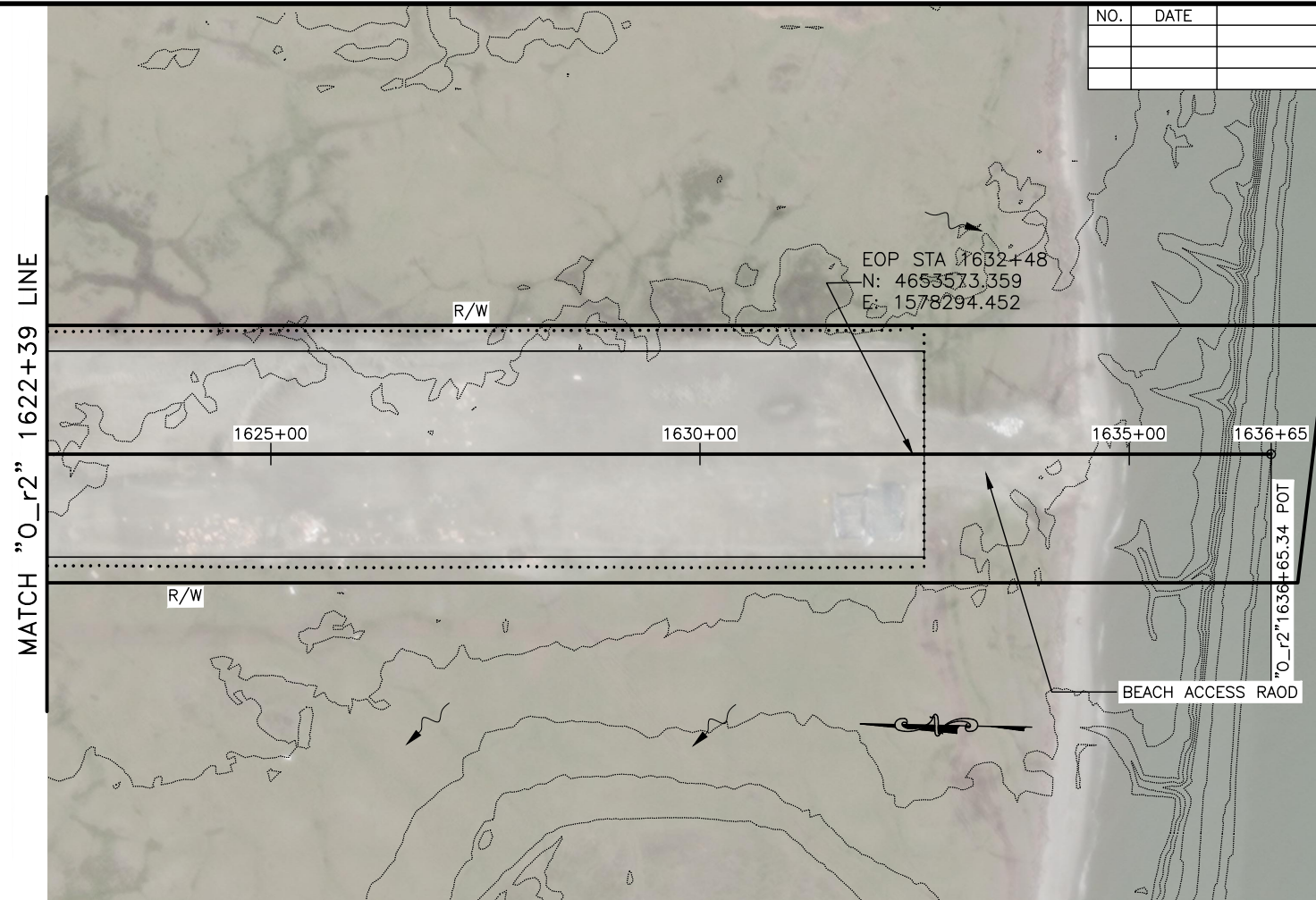
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002204/Z768840000	2022	F12	F14



PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
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PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002204/Z768840000	2022	F13	F14



NOTES:


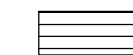
1. REMOVE THE THE TOP 3.5' ON AVERAGE OF THE 240' WIDE TERMINUS PAD PER THE TYPICAL SECTION ON SHEET B1. THIS IS A MANDATORY MATERIAL SOURCE PERT SHEET F14.
2. REHABILITATE BEACH ACCESS ROAD FROM THE SOUTHERN END OF THE TERMINUS PAD, DOWN TO THE ORDINARY HIGH WATER LIMITS OF THE KOTZEBUE SOUND, AS DIRECTED BY THE ENGINEER.
3. SEED ALL EMBANKMENT SIDE SLOPES.

PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
 H:\Projects\Communities\Kotzebue\76884_Kotz_to_Cape_Blossom_Stage_II\04_P&E\04_Plans\1_Plot\76884_MS-F14_1_Mon_Nov_28_22_11:51am

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002204/Z768840000	2022	F14	F14



LEGEND:

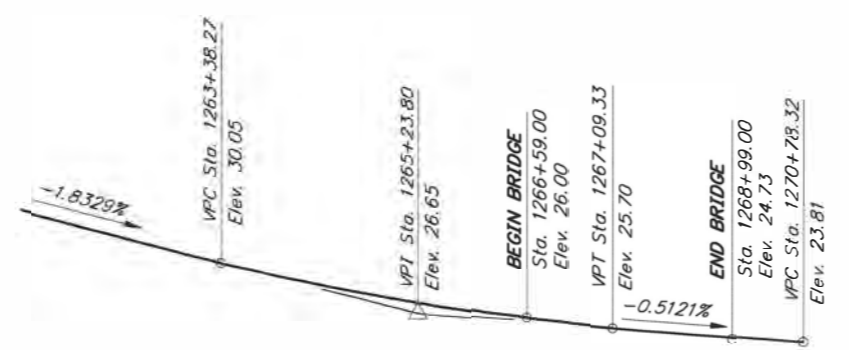
-  NATIVE ALLOTMENTS
-  MILITARY

NOTES:

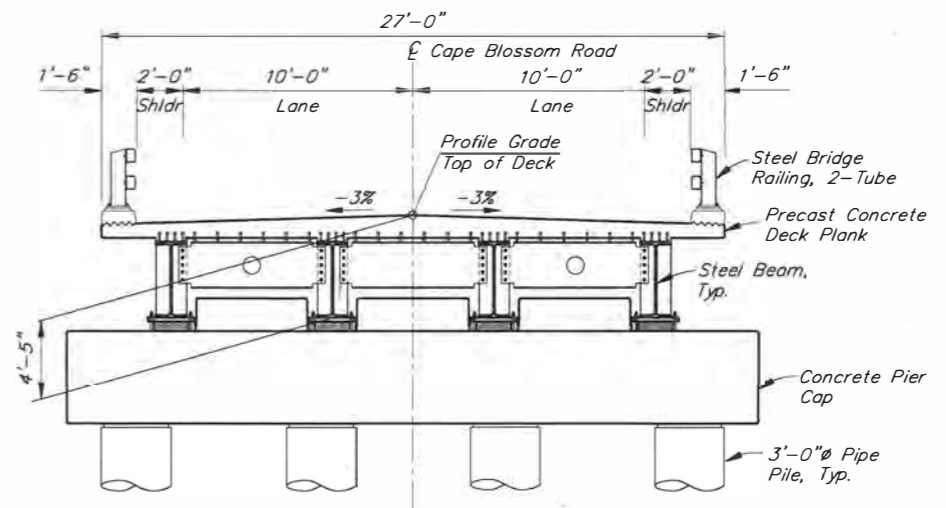
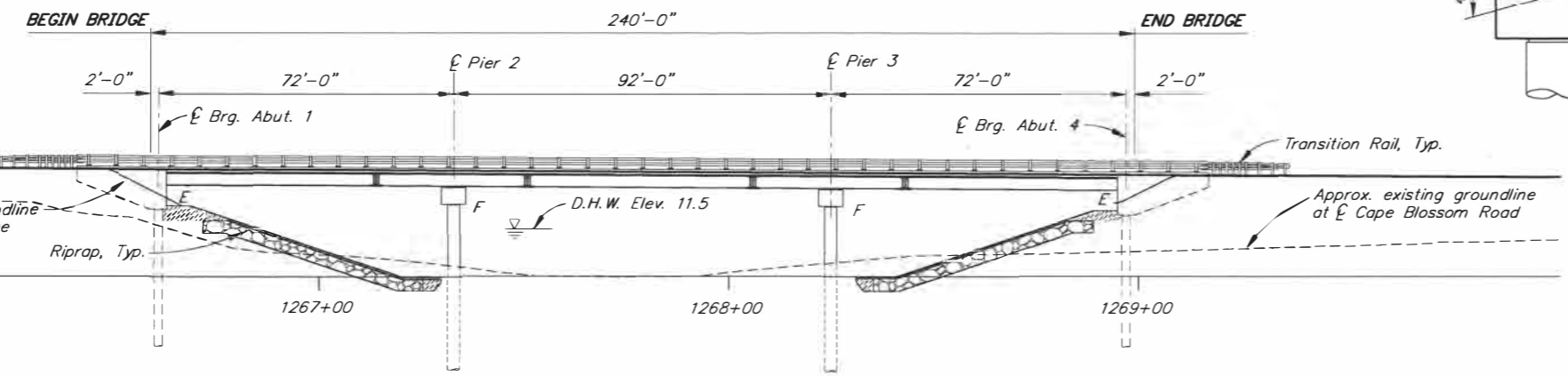
1. SEE SUPPLEMENTAL INFORMATION AND SPECIFICATION SECTION 106 FOR MANDATORY SOURCES FOR BORROW AND AGGREGATE SURFACE COURSE. MANDATORY SOURCES ARE SHOWN ON THIS SHEET.
2. ALL OTHER MATERIALS, EXCLUDING MANDATORY SOURCES, ARE CONTRACTOR-FURNISHED. CONTRACTOR FURNISHED MATERIALS ARE ANTICIPATED TO BE IMPORTED BY BARGE.
3. ALL HAUL ROUTES, BARGE LANDINGS, STAGING AREAS, AND ASSOCIATED PERMITS ARE CONTRACTOR FURNISHED.
4. FEATURE AND LAND STATUS LOCATIONS DISPLAYED ON THIS SHEET ARE APPROXIMATE ONLY. THE BACKGROUND IMAGE ON THIS SHEET WAS TAKEN JULY 12, 2022. THE INSET IMAGES WERE TAKEN ON SEPTEMBER 8, 2022.

MATERIAL SITES

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/Z768840000	2022	N1	N29



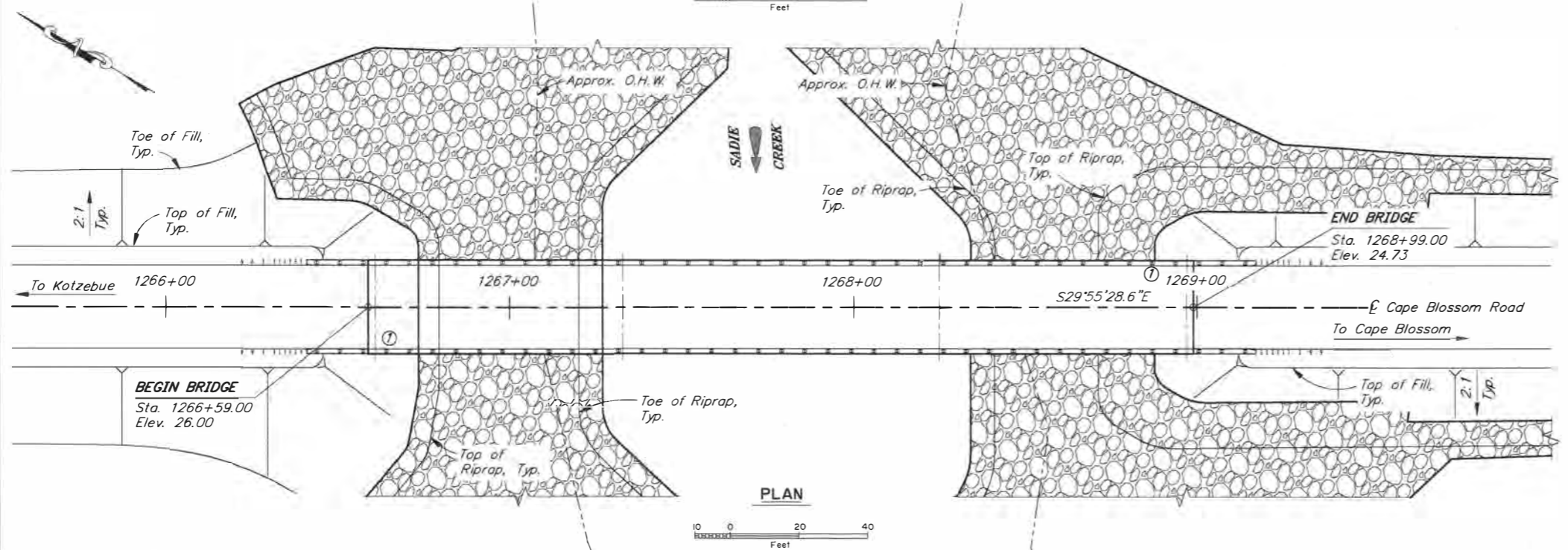
PROFILE GRADE DATA
No Scale



TYPICAL SECTION
12 0 4 8
In. Feet

BRIDGE DRAWING INDEX	
TITLE	DWG. NO.
GENERAL LAYOUT	1
SITE PLAN	2
RIPRAP LAYOUT	3
RIPRAP DETAILS	4
ABUTMENT 1	5
ABUTMENT 4	6
ABUTMENT DETAILS	7
WINGWALLS	8
PIERS	9
PIER DETAILS	10
FRAMING PLAN AND TYPICAL SECTION	11
STEEL BEAMS	12
SPLICE DETAILS	13
CAMBER DIAGRAM - I	14
CAMBER DIAGRAM - II	15
DECK PLAN	16
EXTERIOR DECK PANELS	17
INTERIOR DECK PANELS	18
STEEL BRIDGE RAILING, 2-TUBE	19
TEST HOLES LOGS AND LOCATIONS	20-

ELEVATION
10 0 20 40
Feet



PLAN
10 0 20 40
Feet

① Approximate location of Bridge Number Plate.

DESIGNED BY: Hannah Bailey <i>Hannah Bailey</i>	CHECKED: Jesse Escamilla III <i>Jesse Escamilla III</i>	LAYOUT BY: Hannah Bailey <i>Hannah Bailey</i>	CHECKED BY: Jesse Escamilla III <i>Jesse Escamilla III</i>
DRAWN BY: Sam Sallie <i>Sam Sallie</i>	CHECKED: Hannah Bailey <i>Hannah Bailey</i>	SPECIFICATIONS BY: Hannah Bailey <i>Hannah Bailey</i>	P S & E COMPARED: Jesse Escamilla III <i>Jesse Escamilla III</i>
QUANTITIES BY: Hannah Bailey <i>Hannah Bailey</i>	CHECKED: Jesse Escamilla III <i>Jesse Escamilla III</i>	APPROVAL RECOMMENDED BY: Leslie Dougherty <i>Leslie Dougherty</i>	

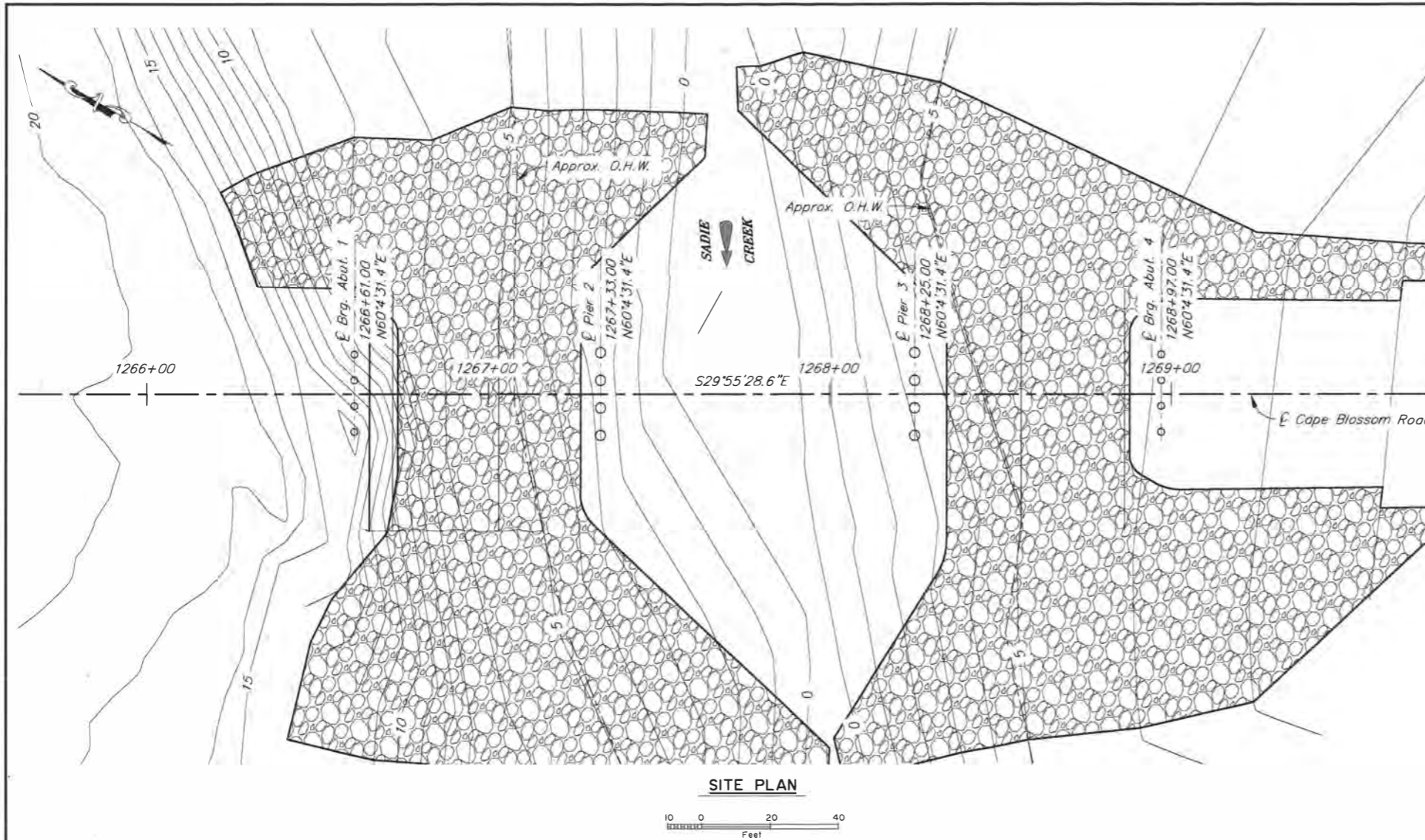
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975



SADIE CREEK BRIDGE
CAPE BLOSSOM ROAD
GENERAL LAYOUT


BRIDGE NO. 1596
DWG. NO. 1

R:\cadd\1596\1596-1 Frt. Nov/18/22 02:47pm



GENERAL NOTES

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/Z768B40000	2022	N2	N29

- DESIGN:..... AASHTO LRFD Bridge Design Specifications, 2022 Edition, with latest interim specifications.
 Seismic design per AASHTO Guide Specifications for LRFD Seismic Bridge Design, 2011 with latest interim revisions.
- LIVE LOAD:..... HL-93.
- DEAD LOAD:..... Includes 50 psf for all wearing surfaces.
- SEISMIC PARAMETERS:.....
 PGA = 0.11
 S_s = 0.24
 S₁ = 0.08
 Site Class = E
 Liquefaction Potential = Low
 AASHTO 7% probability of exceedance in 75 years.
- REINFORCEMENT:..... ASTM A706, Grade 60, F_y = 60,000 psi.
 ASTM A970 Headed bars, Class HA.
 Space reinforcement evenly unless otherwise noted.
- CONCRETE:..... Class A Concrete unless otherwise noted, f'_c = 4,000 psi.
 Provide rubbed finish on all exposed vertical surfaces.
 Mandatory construction joints in concrete shall be constructed in accordance with standard specifications.
- STRUCTURAL STEEL:..... ASTM A709, Grade 50T3, F_y = 50,000 psi.
 Galvanize structural steel in accordance with AASHTO M111 unless noted otherwise.
- STRUCTURAL STEEL PILING:..... API 5L X52 PSL2, F_y = 52,000 psi or
 ASTM A709, GR50T3, F_y = 50,000 psi.
 Pile Tip reinforcing is required.
- HIGH STRENGTH BOLTS:..... ASTM F3125 Grade A325, F_u = 120,000 psi.
 Exclude threads from shear plane. Do not use punched holes.
- SHEAR STUD CONNECTORS:..... ASTM A108, F_u = 60,000 psi.

LOCATION	PILE TYPE	DRIVING CRITERIA		DESIGN DATA	
		PILE TIP ELEVATION (ft)	STRENGTH FACTORED LOAD (K)	NOMINAL RESISTANCE (K)	RESISTANCE FACTOR, φ
Abutment 1	2'-0"Ø x 1/2" Pipe	-79	250	764	0.4
Pier 2	3'-0"Ø x 3/4" Pipe	-82	520	1,290	0.4
Pier 3	3'-0"Ø x 3/4" Pipe	-83	520	1,290	0.4
Abutment 4	2'-0"Ø x 1/2" Pipe	-82	250	776	0.4

Difficult driving conditions are expected. Methods to thaw soils may be necessary to drive piles to required elevations.

ITEM NO.	ITEM	PAY UNIT	ESTIMATING UNIT	SUBST.	SUPERST.	TOTAL QUANTITY
205.0006.0000	Structural Fill	CY	CY	584	---	584
501.0001.0000	Class A Concrete	LS	CY	258.6	28.7	287.3
501.0007.0000	Precast Concrete Member, Deck Panel	EA	EA	---	58	58
503.0001.0000	Reinforcing Steel	LS	LBS	56,580	---	56,580
503.0002.0000	Epoxy-Coated Reinforcing Steel	LS	LBS	---	1,910	1,910
504.0001.0000	Structural Steel	LS	LBS	170	229,590	229,760
505.0005.0000	Furnish Structural Steel Pipe Piles, 2'-0" Dia. x 1/2" Pipe	LF	LF	768	---	768
505.0005.0000	Furnish Structural Steel Pipe Piles, 3'-0" Dia. x 3/4" Pipe	LF	LF	800	---	800
505.0006.0000	Drive Structural Steel Pipe Piles, 2'-0" Dia. x 1/2" Pipe	EA	EA	8	---	8
505.0006.0000	Drive Structural Steel Pipe Piles, 3'-0" Dia. x 3/4" Pipe	EA	EA	8	---	8
507.0001.0002	Steel Bridge Railing, 2-Tube	LF	LF	---	552	552
606.0016.0000	Transition Rail	EA	EA	---	4	4
611.0001.0002	Riprap, Class II	CY	-CY	---	---	---
631.0002.0001	Geotextile, Erosion Control, Class 1	SY	SY	---	---	---

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

ABBREVIATIONS:

- ℄ = centerline
- ℄ = plate
- & = and
- @ = at
- Ø = diameter
- ± = approximate
- Abut. = abutment
- Approx. = approximate
- b.f. = back/dirt face
- bot. = bottom
- Br. = bridge
- btwn. = between
- Brg. = bearings
- C.G. = center of gravity
- C.I.P. = cast in place
- C.J.P. = complete joint penetration
- Clr. = clear, clearance
- CY = cubic yard
- Dia. = diameter
- Dwg. = drawing
- E = expansion
- (E) = existing
- EA = each
- Elev. = elevation
- e.f. = 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
- Hwy. = highway
- 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
- o.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
- Rd. = road
- 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

DESIGNED BY: Hannah Bailey <i>Hannah Bailey</i>	CHECKED: Jesse Escamilla III <i>Jesse Escamilla III</i>	FOUNDATIONS REVIEWED BY: Dove Hemstreet <i>Dove Hemstreet</i>
DRAWN BY: Sam Sallie <i>Sam Sallie</i>	CHECKED: Hannah Bailey <i>Hannah Bailey</i>	
QUANTITIES BY: Hannah Bailey <i>Hannah Bailey</i>	CHECKED: Jesse Escamilla III <i>Jesse Escamilla III</i>	

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

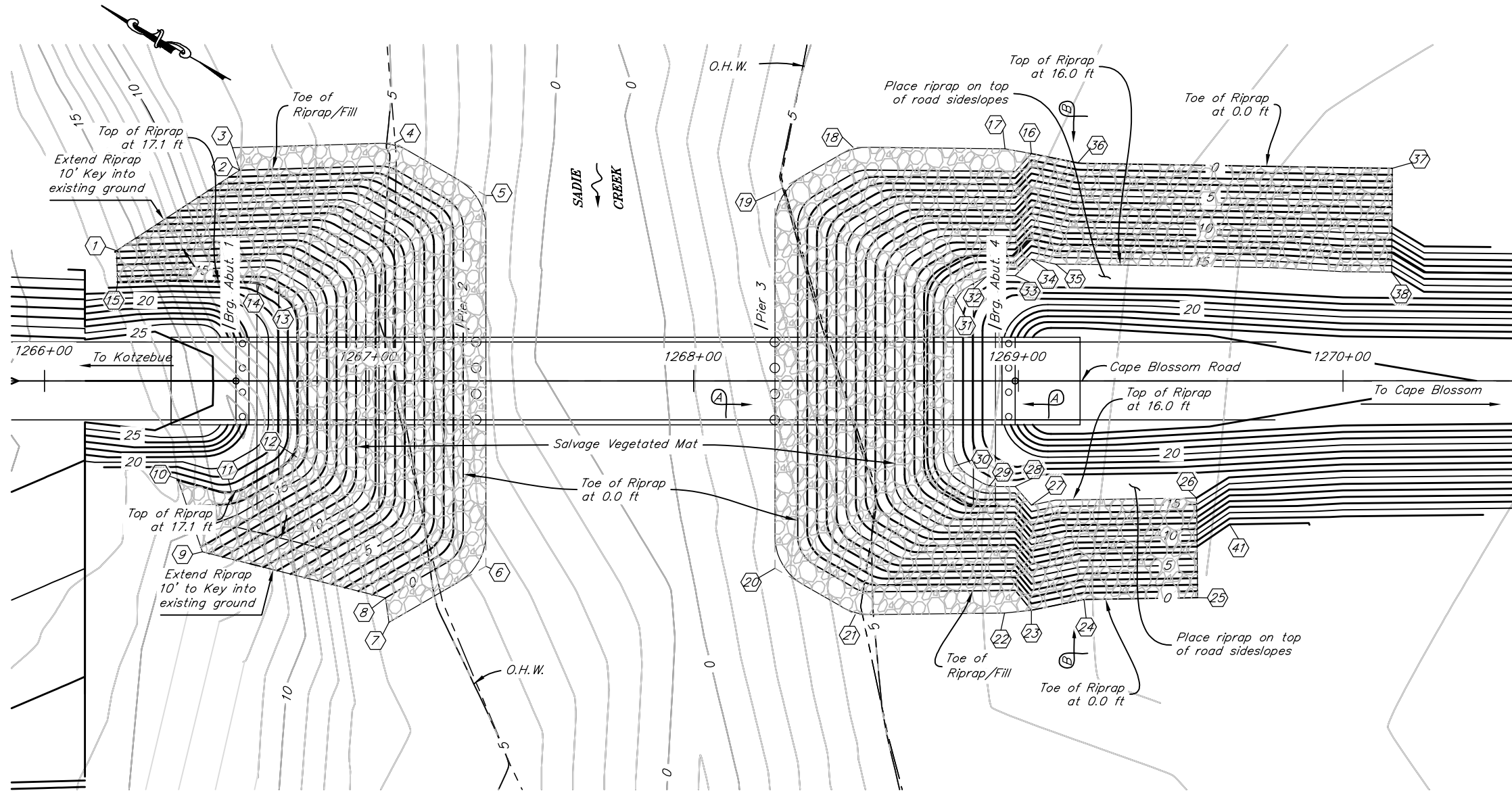


SADIE CREEK BRIDGE
 CAPE BLOSSOM ROAD
SITE PLAN

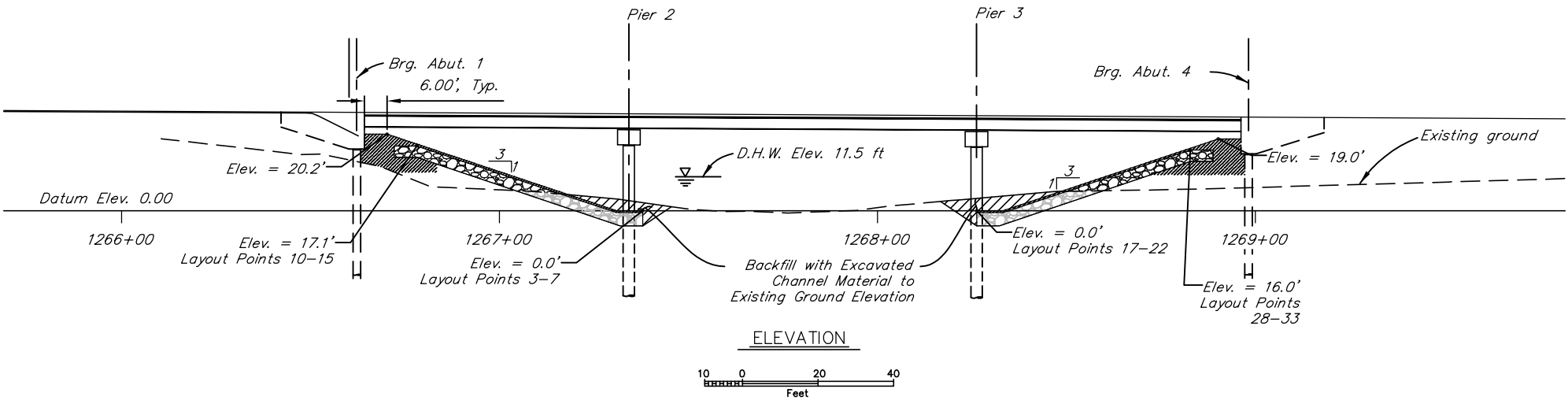


BRIDGE NO. 1596
 DWG. NO. 2

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RIPRAP LAYOUT
 10 0 20 40
 Feet



ELEVATION
 10 0 20 40
 Feet

Hydraulic & Hydrologic Summary, Bridge No. 1596

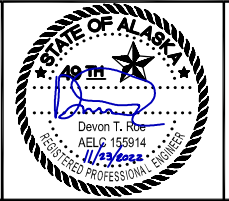
Flood Frequency (yr.)	50	100	500
Exceedance Probability (%)	2	1	0.2
Discharge (CFS)	699	827	1,150
Velocity (ft/s)	1.41	1.50	1.72
Water Surface Elevation (ft)	11.5	11.6	12.1
Anticipated Add'l Backwater (ft)	1.52	1.38	1.30
Abutment Scour (ft)	3.7	4.7	5.7
Contraction Scour (ft)	0.0	0.0	0.0
Natural Channel Scour (ft)	1.1	1.3	1.5
Pier Scour (ft)	8.0	8.5	8.6
Total Scour at Abutment (ft)	4.8	6.0	7.2
Total Scour at Piers (ft)	9.1	9.8	10.1

- Notes:
- All elevations based on NAVD88.
 - Design high water elevations were to the 50-year recurrence interval.
 - Section views are 1H:1V.
 - Riprap layout points are in a table on Sheet N4.
 - Salvage vegetated mat within proposed riprap when in fill. Place vegetated mat on top of installed riprap. Use excavated material on top of riprap when in cut.
 - Avoid causing damaging bridge piers when placing riprap and geotextile.


File Path: F:\MWD07128262 - Kotzebue Cape Blossom EA\08-CHDD\DWG\Sadie Creek Rip Rap.dwg -- Date: Dec 12, 2022 3:31pm -- Devan.Roe

DESIGNED BY:	Devon Roe	CHECKED:	Derek Christianson
DRAWN BY:	Devon Roe	CHECKED:	Derek Christianson
QUANTITIES BY:	Devon Roe	CHECKED:	Derek Christianson

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



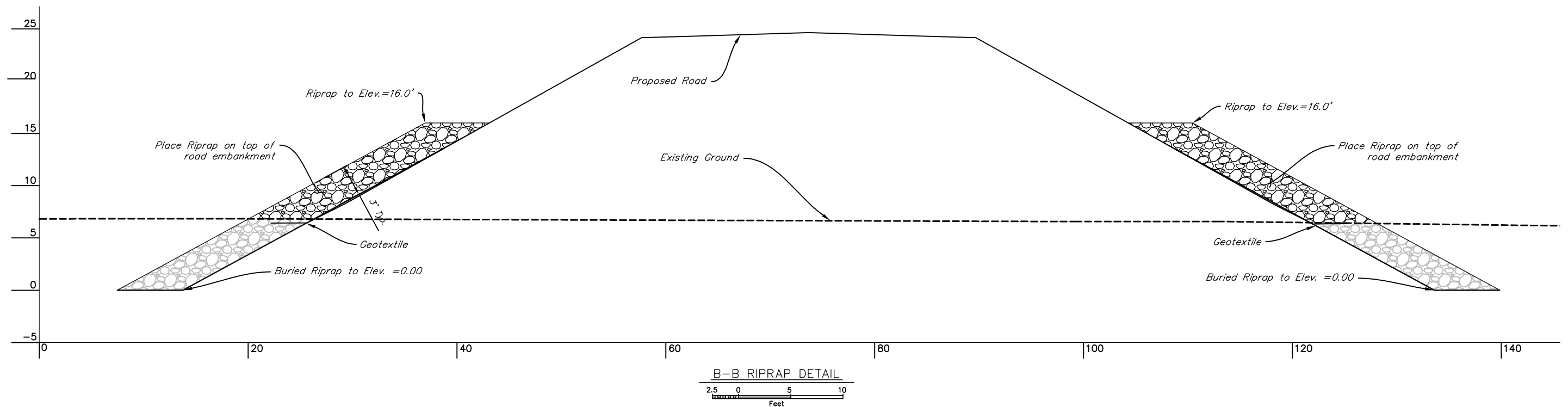
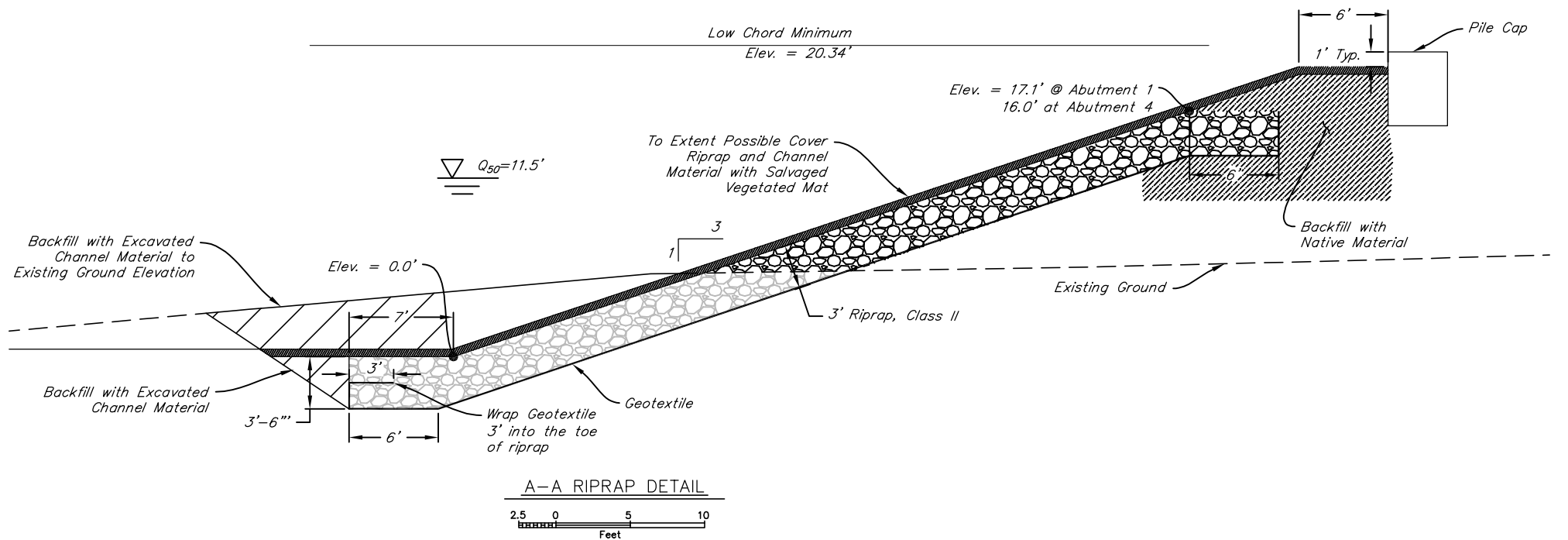
SADIE CREEK BRIDGE
 CAPE BLOSSOM ROAD
 RIPRAP LAYOUT


 BRIDGE NO. 1596
 DWG. NO. 3

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/Z768840000	2022	N4	N29

Point	Station	Offset	Elev.
1	1266+22.21	40.1 - Left	11.9'
2	1266+60.10	64.9 - Left	0.0'
3	1266+57.92	71.9 - Left	0.0'
4	1267+07.88	73.3 - Left	0.0'
5	1267+36.00	57.1 - Left	0.0'
6	1267+36.00	57.1 - Right	0.0'
7	1267+06.09	74.4 - Right	0.0'
8	1267+05.05	66.9 - Right	0.0'
9	1266+48.67	52.7 - Right	13.2'
10	1266+41.03	30.2 - Right	17.1'
11	1266+57.81	34.9 - Right	17.1'
12	1266+77.70	23.4 - Right	17.1'
13	126+77.70	23.4 - Left	17.1'
14	1266+66.18	30.0 - Left	17.1'
15	1266+22.50	30.2 - Left	17.1'
16	1269+04.00	70.0 - Left	0.0'
17	1268+95.92	71.5 - Left	0.0'
18	1268+49.07	72.0 - Left	0.0'
19	1268+25.03	58.1 - Left	0.0'
20	1268+25.03	57.7 - Right	0.0'
21	1268+49.77	72.0 - Right	0.0'

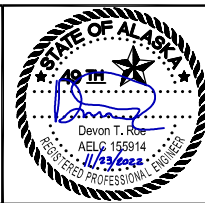
Point	Station	Offset	Elev.
22	1268+95.73	71.5 - Right	0.0'
23	1269+04.04	70.7 - Right	0.0'
24	1269+20.20	67.3 - Right	0.0'
25	1269+55.23	66.8 - Right	0.0'
26	1269+54.91	36.1 - Right	16.0'
27	1269+04.00	38.2 - Right	16.0'
28	1269+99.00	32.5 - Right	16.0'
29	1268+90.83	32.6 - Right	16.0'
30	1268+79.99	26.3 - Right	16.0'
31	1268+79.99	26.4 - Left	16.0'
32	1268+90.63	32.6 - Left	16.0'
33	1268+99.00	32.5 - Left	16.0'
34	1269+04.00	37.5 - Left	16.0'
35	1269+11.46	36.0 - Left	16.0'
36	1269+18.31	67.1 - Left	0.0'
37	1270+15.19	65.5 - Left	0.0'
38	1270+15.00	33.5 - Left	16.0'
39	1270+24.93	27.4 - Left	16.0'
40	1270+25.04	41.4 - Left	9.0'
41	1269+65.06	44.2 - Right	8.0'
42	1269+64.91	29.7 - Right	16.0'



File Path: F:\AKDOT\126262 - Kotzebue Cape Blossom EA\08-CHDD\DWG\Sadie Creek Rip Rip.dwg -- Date: Dec 12, 2022 3:13pm -- Devan.Roe

DESIGNED BY:	Devon Roe	CHECKED:	Derek Christianson
DRAWN BY:	Devon Roe	CHECKED:	Derek Christianson
QUANTITIES BY:	Devon Roe	CHECKED:	Derek Christianson

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



SADIE CREEK BRIDGE
CAPE BLOSSOM ROAD
RIPRAP DETAIL

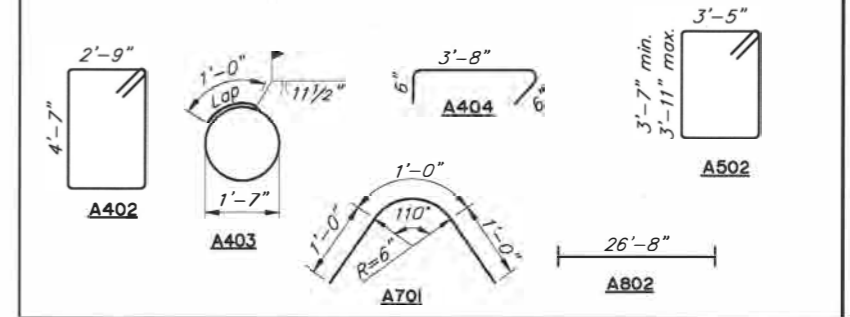


BRIDGE NO. 1596
DWG. NO. 4

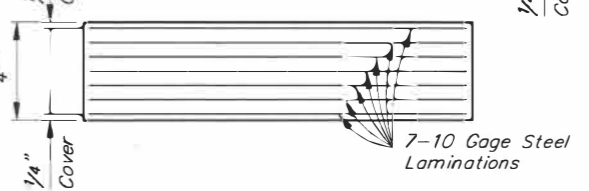
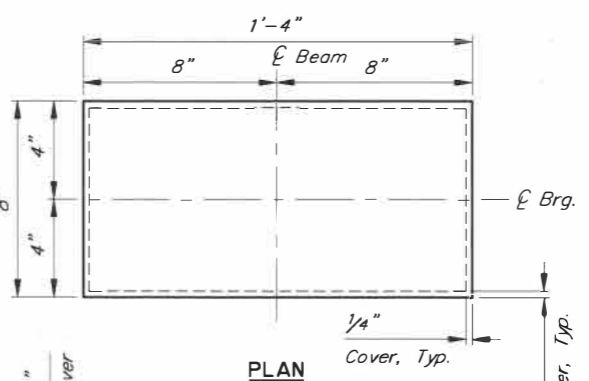
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/2768840000	2022	N5	N29

REINFORCING STEEL - ABUTMENT 1

MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
A401	S	4	4	350'-2"	SPIRAL	
A402		4	80	15'-5"	STIRRUP	
A403		4	28	6'-0"	HOOP	
A404		4	40	4'-8"	BENT	
A501		5	10	26'-8"	---	
A502	E	5	26	VARIES	STIRRUP	
A601	E	6	6	23'-6"	---	
A602	E	6	7	26'-8"	---	
A701	E	7	8	3'-0"	BENT	
A801	S	8	32	54'-6"	---	
A802	H	8	14	26'-8"	HEADED	

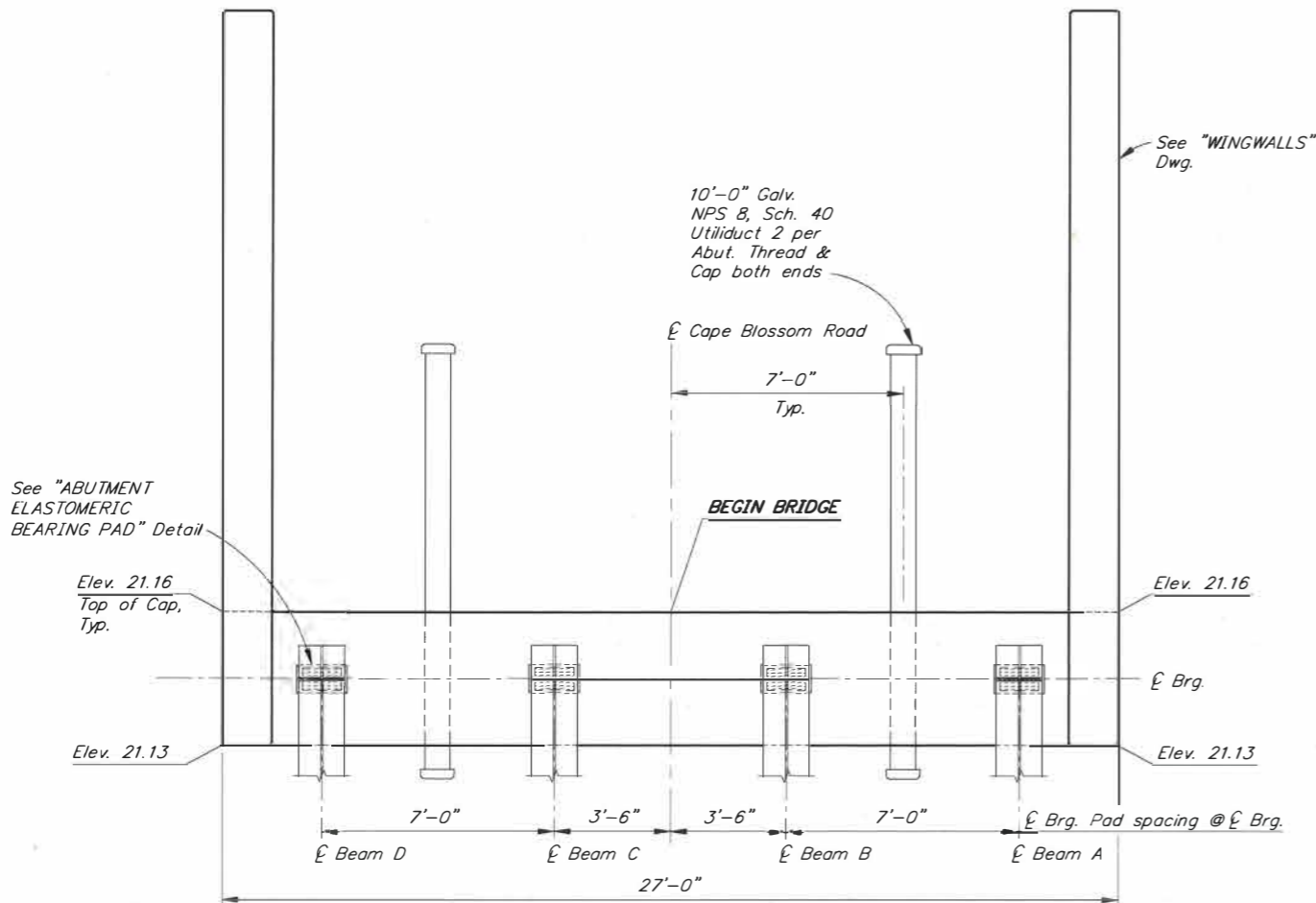


E - Epoxy-Coated
H - Headed reinforcing steel
S - Length does not include splices

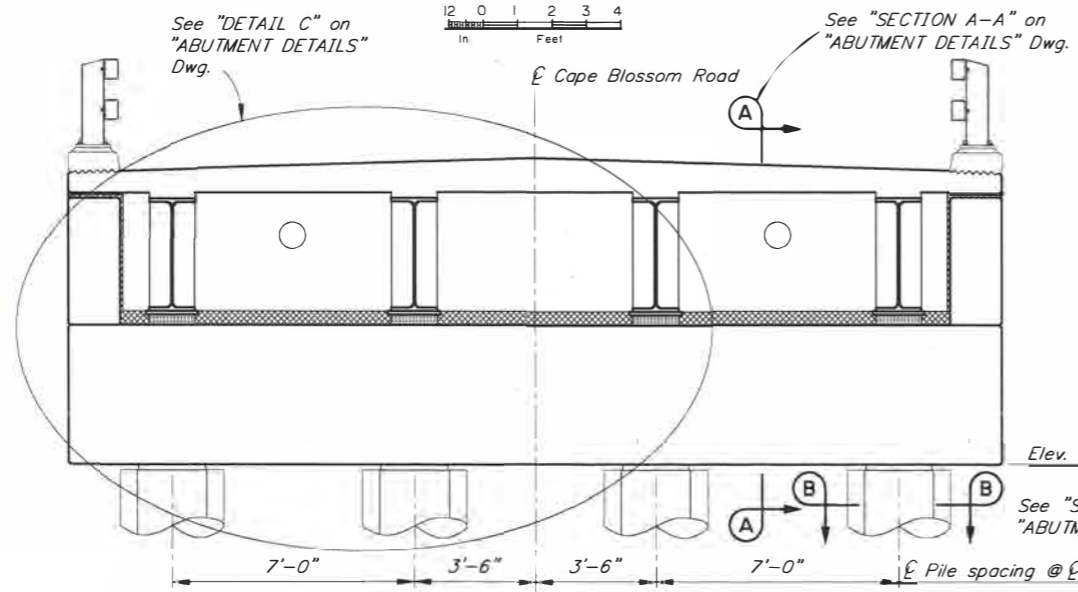
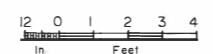


**ELEVATION
ABUTMENT ELASTOMERIC BEARING PAD**

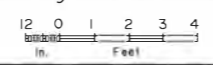
Grade 5
Shear Modulus = 115 ksi
Dead Load = 40 k
Live Load = 60 k



PLAN



**ELEVATION
(Looking back on station)**



R:\cadd\1596\1-5-FR-Nov18/22 02:47pm

DESIGNED BY: Hannah Bailey	CHECKED: Jesse Escamilla III
<i>Hannah Bailey</i>	<i>Jesse Escamilla III</i>
DRAWN BY: Sam Sallie	CHECKED: Hannah Bailey
<i>Sam Sallie</i>	<i>Hannah Bailey</i>
QUANTITIES BY: Hannah Bailey	CHECKED: Jesse Escamilla III
<i>Hannah Bailey</i>	<i>Jesse Escamilla III</i>

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SADIE CREEK BRIDGE
CAPE BLOSSOM ROAD
ABUTMENT 1

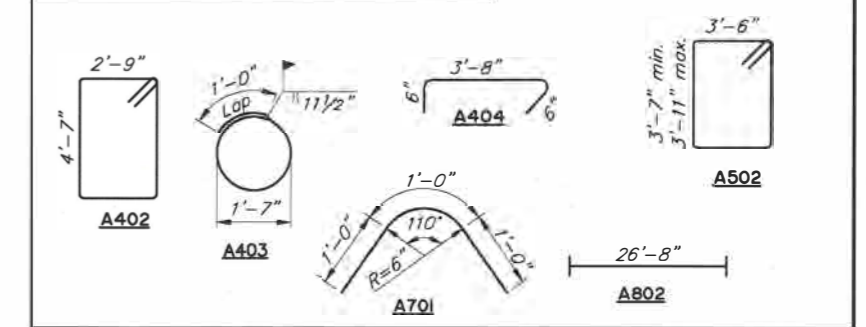


BRIDGE NO. 1596
DWG. NO. 5

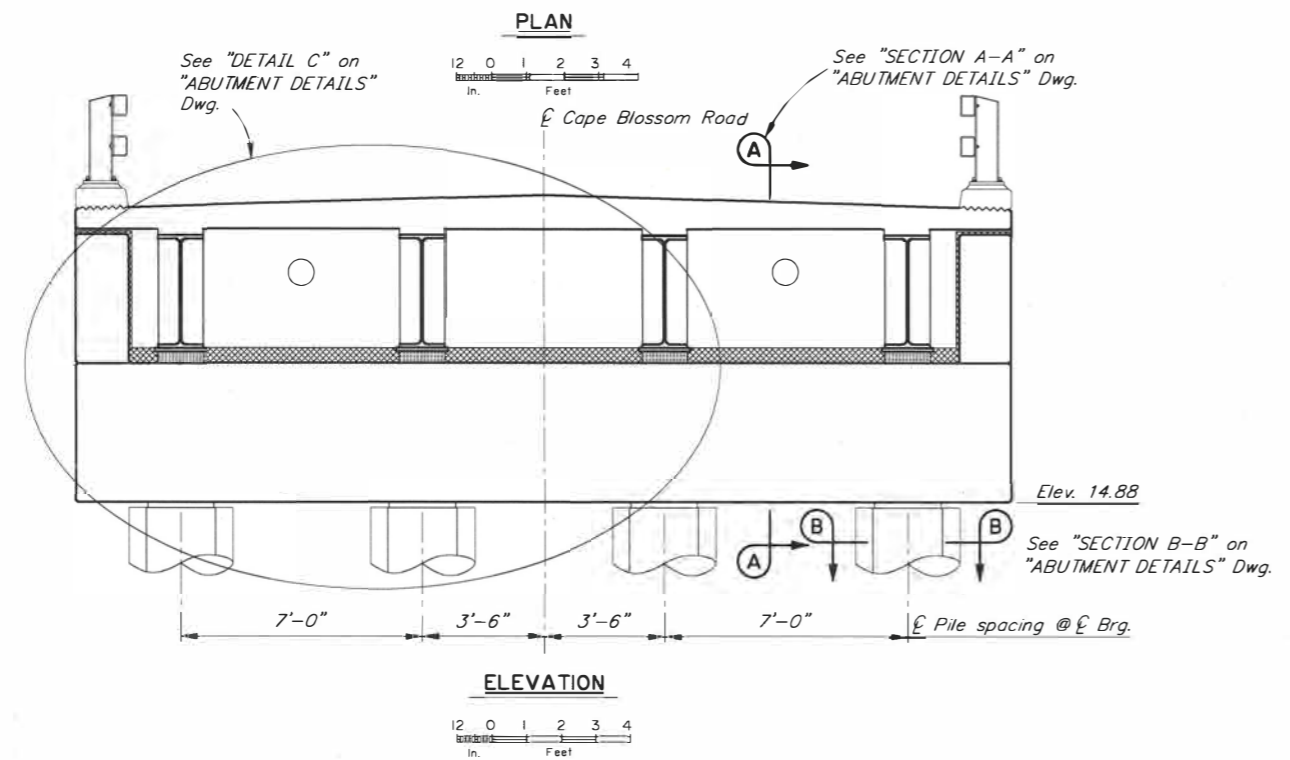
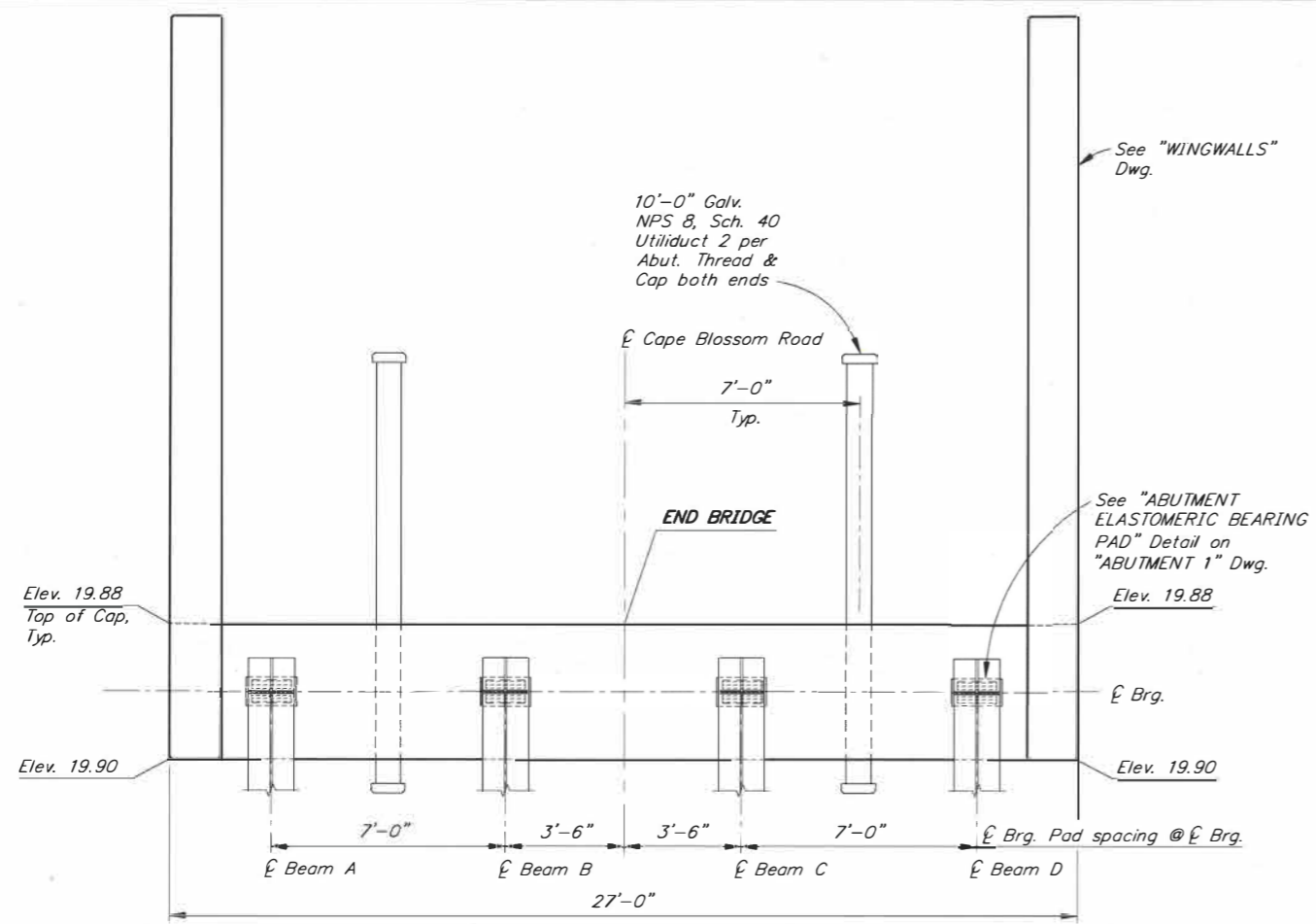
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/Z768840000	2022	N6	N29

REINFORCING STEEL - ABUTMENT 4

MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
A401	S	4	4	350'-2"	SPIRAL	
A402		4	80	15'-5"	STIRRUP	
A403		4	28	6'-0"	HOOP	
A404		4	40	4'-8"	BENT	
A501		5	10	26'-8"	---	
A502	E	5	26	VARIES	STIRRUP	
A601	E	6	6	23'-6"	---	
A602	E	6	7	26'-8"	---	
A701	E	7	8	3'-0"	BENT	
A801	S	8	32	54'-6"	---	
A802	H	8	14	26'-8"	HEADED	



E - Epoxy-Coated
H - Headed reinforcing steel
S - Length does not include splices



R:\ccc\1596\1596-1-6-Fri-New\18/22 02-47pm

DESIGNED BY: Hannah Bailey	CHECKED: Jesse Escamilla III
<i>Hannah Bailey</i>	<i>Jesse Escamilla III</i>
DRAWN BY: Sam Sallie	CHECKED: Hannah Bailey
<i>Sam Sallie</i>	<i>Hannah Bailey</i>
QUANTITIES BY: Hannah Bailey	CHECKED: Jesse Escamilla III
<i>Hannah Bailey</i>	<i>Jesse Escamilla III</i>

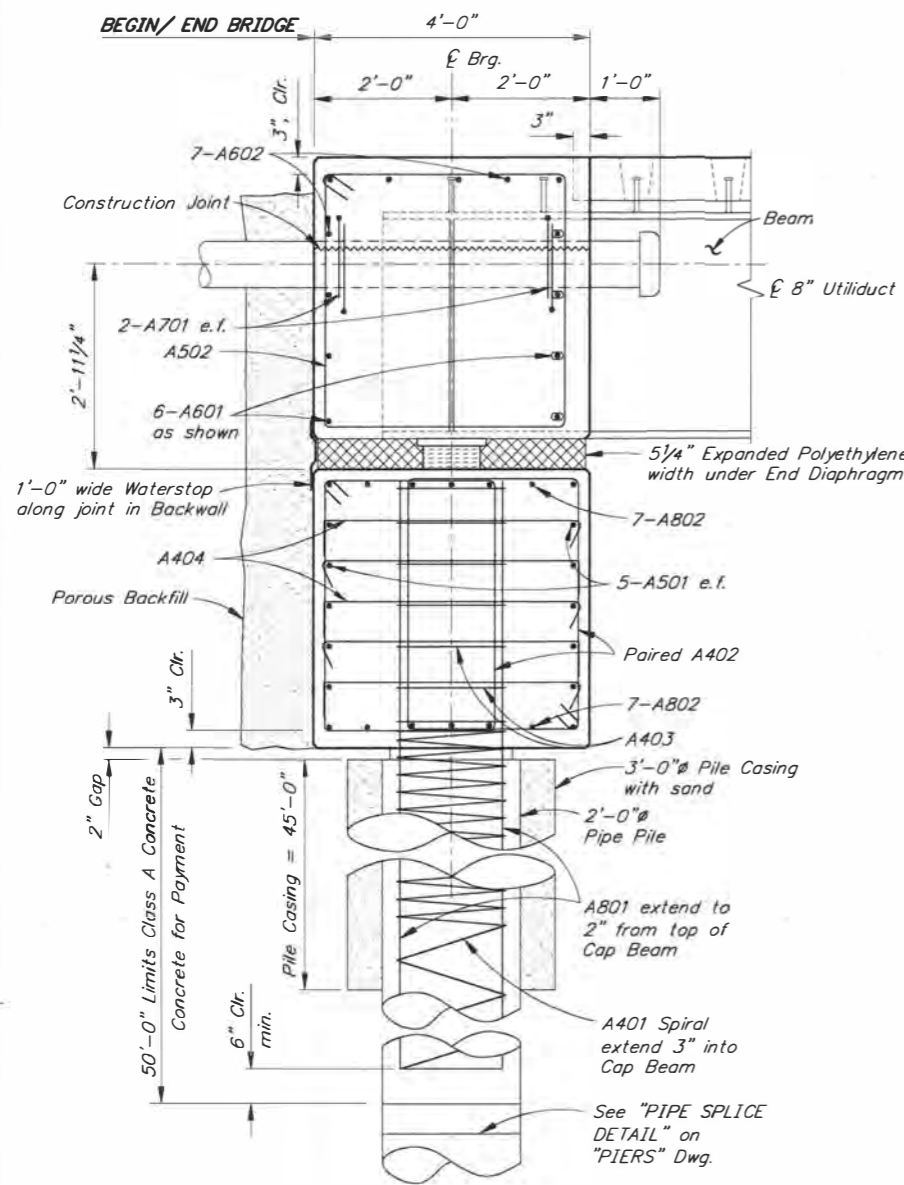
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975



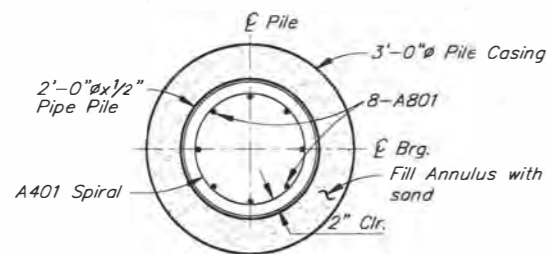
SADIE CREEK BRIDGE
CAPE BLOSSOM ROAD
ABUTMENT 4

BRIDGE NO. 1596
DWG. NO. 6

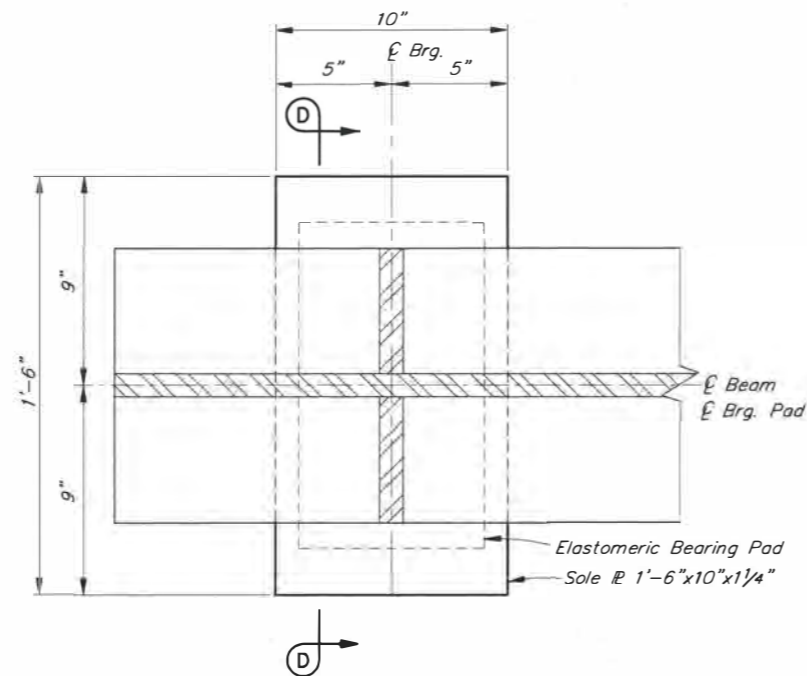
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/Z768B40000	2022	N7	N29



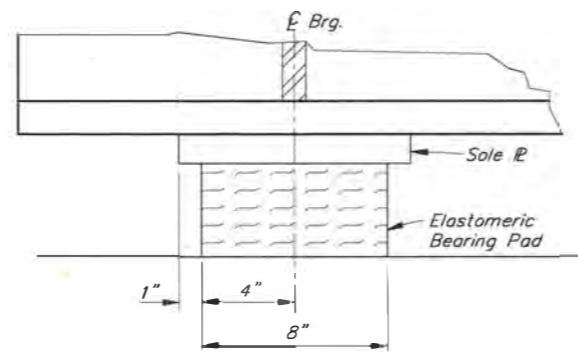
SECTION A-A



SECTION B-B

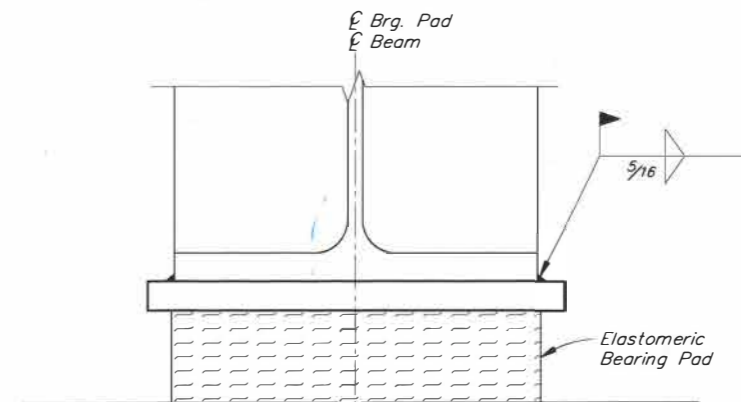


PLAN

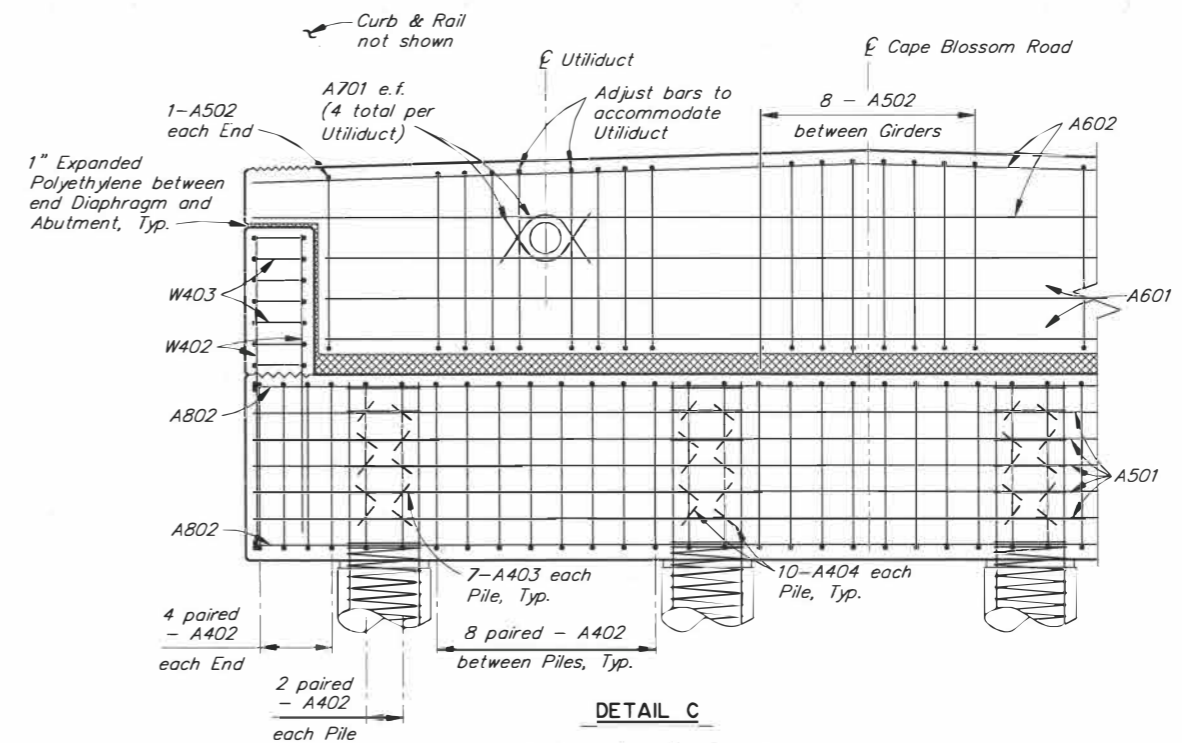


ELEVATION

ABUTMENT BEARING DETAILS



SECTION D-D



DETAIL C



R:\cad\1596\1-7 Fri, Nov/18/22 02:47 pm

DESIGNED BY: Hannah Bailey	CHECKED: Jesse Escamilla III
<i>Hannah Bailey</i>	<i>Jesse Escamilla III</i>
DRAWN BY: Sam Sallie	CHECKED: Hannah Bailey
<i>Sam Sallie</i>	<i>Hannah Bailey</i>
QUANTITIES BY: Hannah Bailey	CHECKED: Jesse Escamilla III
<i>Hannah Bailey</i>	<i>Jesse Escamilla III</i>

STATE OF ALASKA
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AND PUBLIC FACILITIES
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907-465-2975



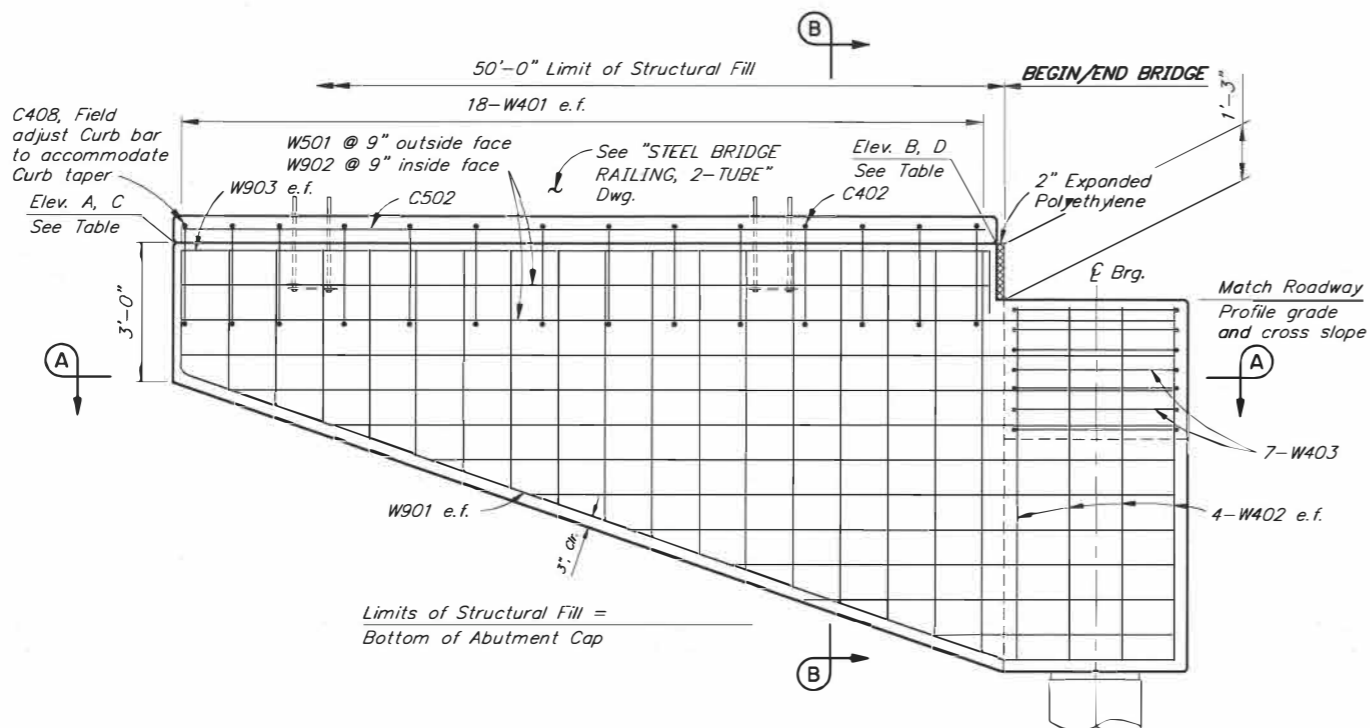
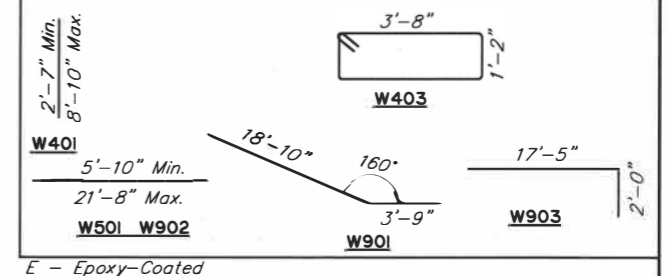
SADIE CREEK BRIDGE
CAPE BLOSSOM ROAD
ABUTMENT DETAILS


BRIDGE NO. 1596
DWG. NO. 7

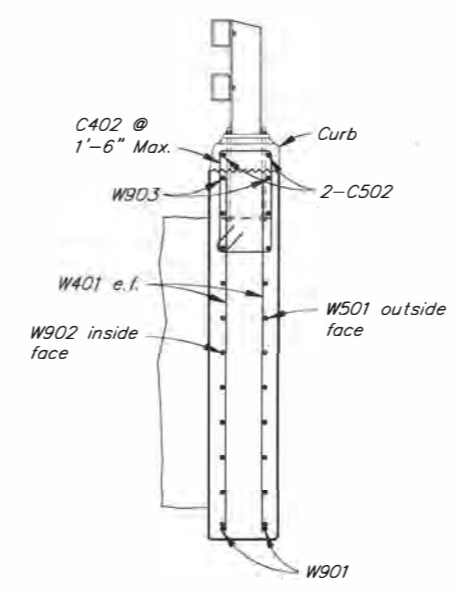
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/2768840000	2022	NB	N29

REINFORCING STEEL - ONE ABUTMENT

MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
W401		4	72	VARIABLES	---	
W402		4	16	7'-9"	---	
W403		4	14	10'-5"	STIRRUP	
W501		5	22	VARIABLES	---	
W901		9	4	22'-7"	BENT	
W902		9	22	VARIABLES	---	
W903		9	4	19'-5"	BENT	
C402	E	4	28	7'-3"	STIRRUP	
C502	E	5	4	17'-6"	---	



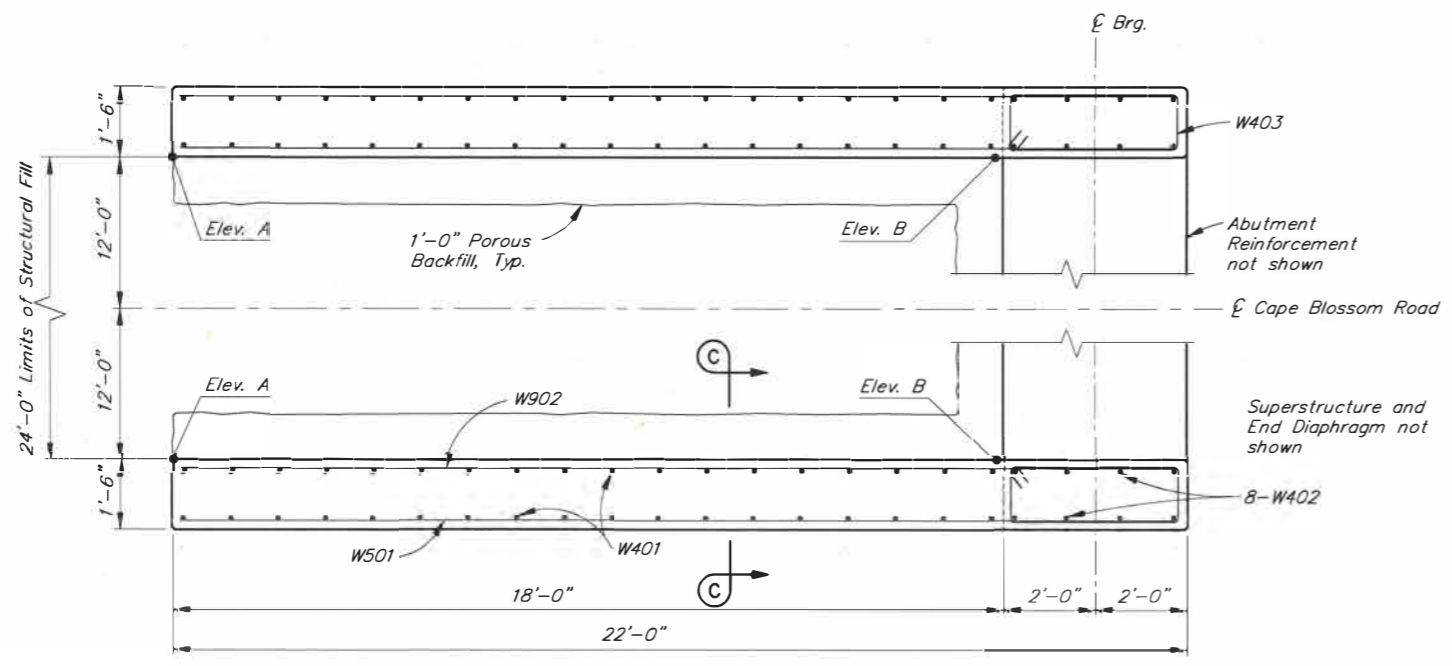
ELEVATION
 12 6 0 1 2 3 4
 In. Feet



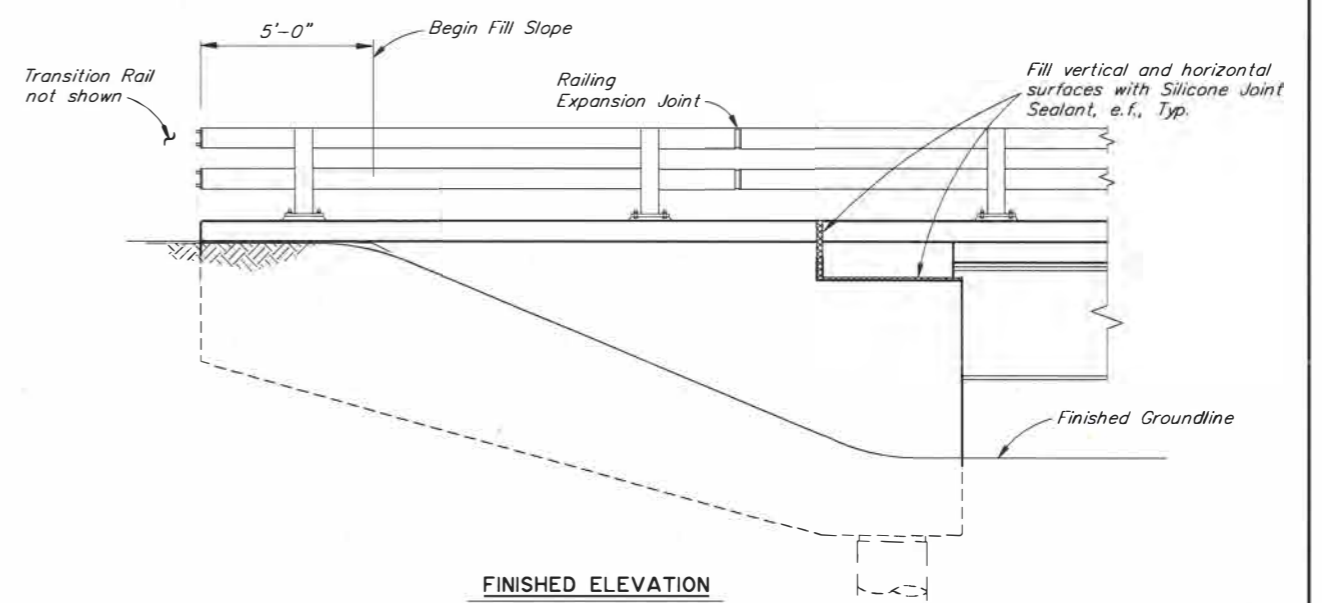
SECTION B-B
 12 6 0 1 2 3 4
 In. Feet

TOP OF WINGWALL ELEVATION TABLE (FT)

LOCATION	A	B
ABUTMENT 1	25.77	25.64
ABUTMENT 4	24.28	24.37



SECTION A-A
 12 6 0 1 2 3 4
 In. Feet



FINISHED ELEVATION
 12 6 0 1 2 3 4
 In. Feet

P:\cadd\1596\1596-1-B-F.dwg, Nov/18/22, 02:47pm

DESIGNED BY: Hannah Bailey	CHECKED: Jesse Escamilla III
<i>Hannah Bailey</i>	<i>Jesse Escamilla III</i>
DRAWN BY: Sam Sallie	CHECKED: Hannah Bailey
<i>Sam Sallie</i>	<i>Hannah Bailey</i>
QUANTITIES BY: Hannah Bailey	CHECKED: Jesse Escamilla III
<i>Hannah Bailey</i>	<i>Jesse Escamilla III</i>

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 Juneau, Alaska 99801
 907-465-2975



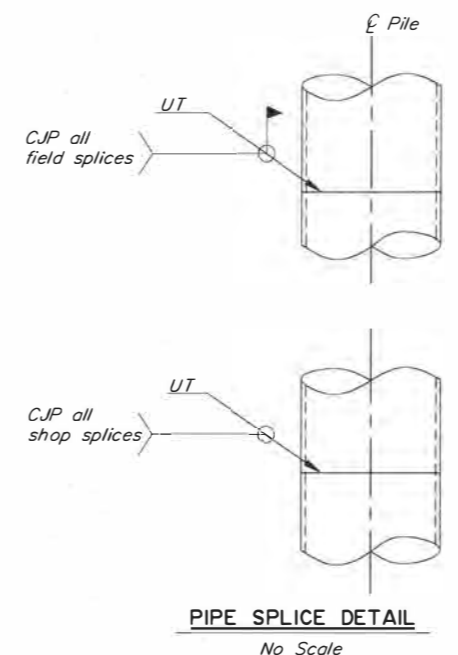
SADIE CREEK BRIDGE
 CAPE BLOSSOM ROAD
 WINGWALLS


 BRIDGE NO. 1596
 DWG. NO. 8

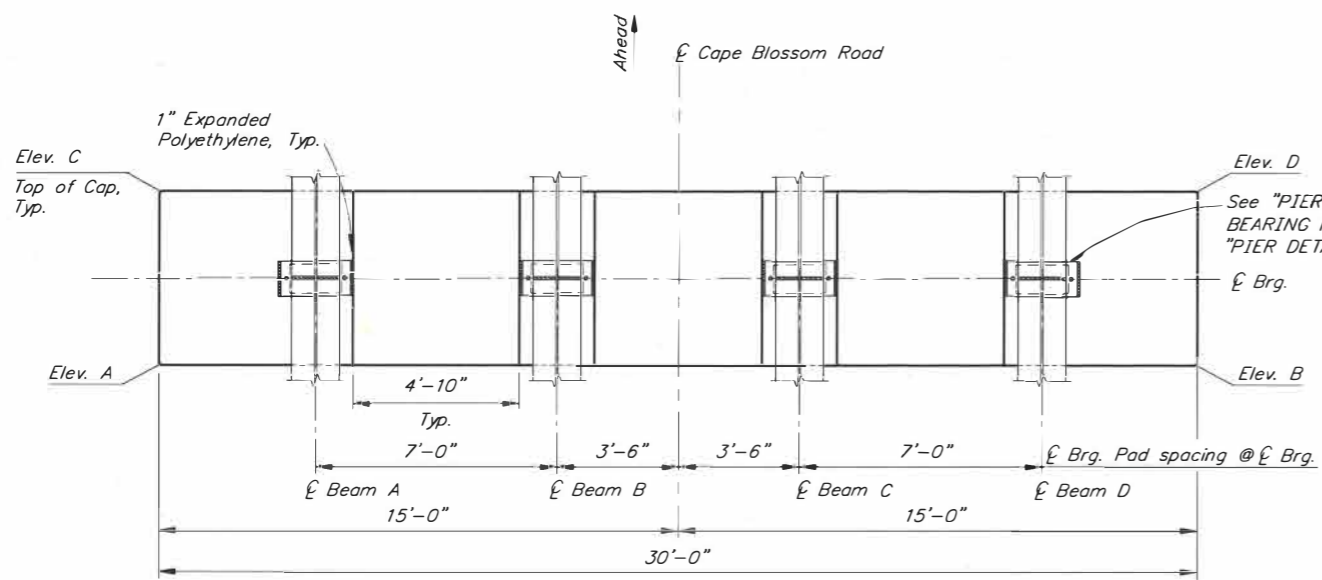
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/Z768840000	2022	N9	N29

REINFORCING STEEL - ONE PIER

MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
P401		4	40	5'-8"	BENT	
P402		4	30	13'-11"	STIRRUP	
P403		4	24	4'-6"	---	
P501	S	5	4	563'-0"	SPIRAL	
P502		5	20	8'-7"	HOOP	
P601		6	147	12'-4"	STIRRUP	
P801		8	10	26'-8"	---	
P901	S	9	48	53'-3"	---	
P1101	H	11	20	26'-8"	---	

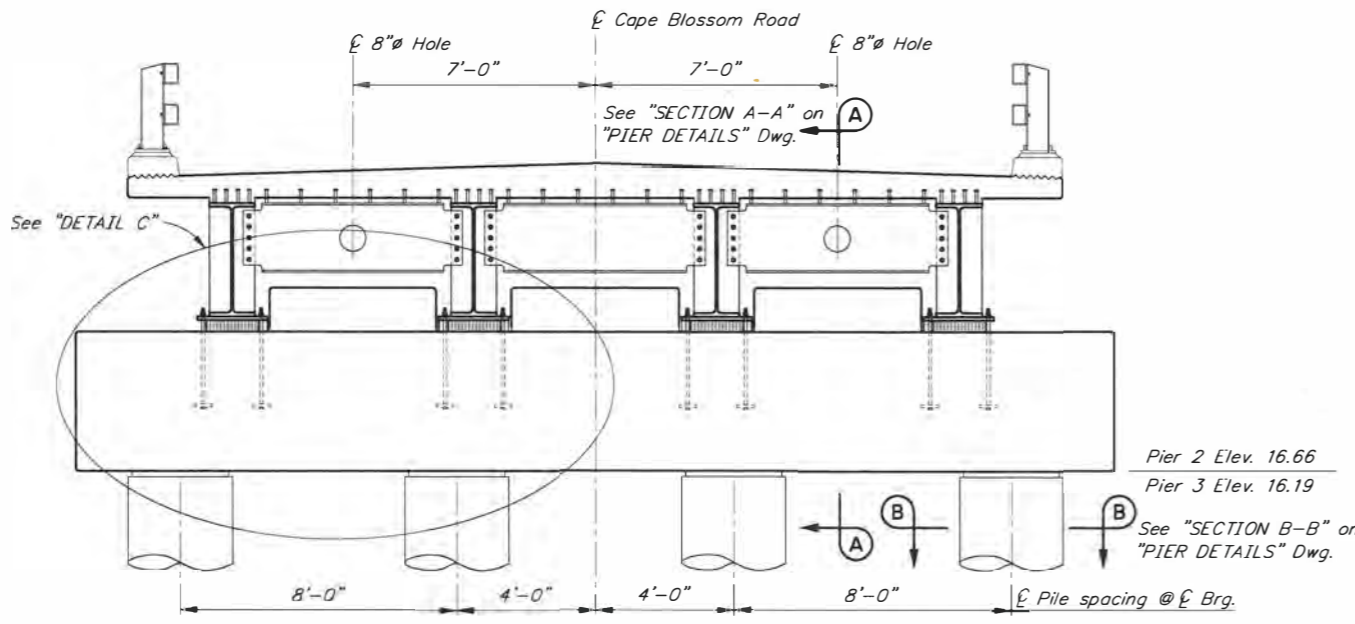


E - Epoxy-Coated
H - Headed reinforcing steel
M - Field adjust to match crown
S - Length does not include splices

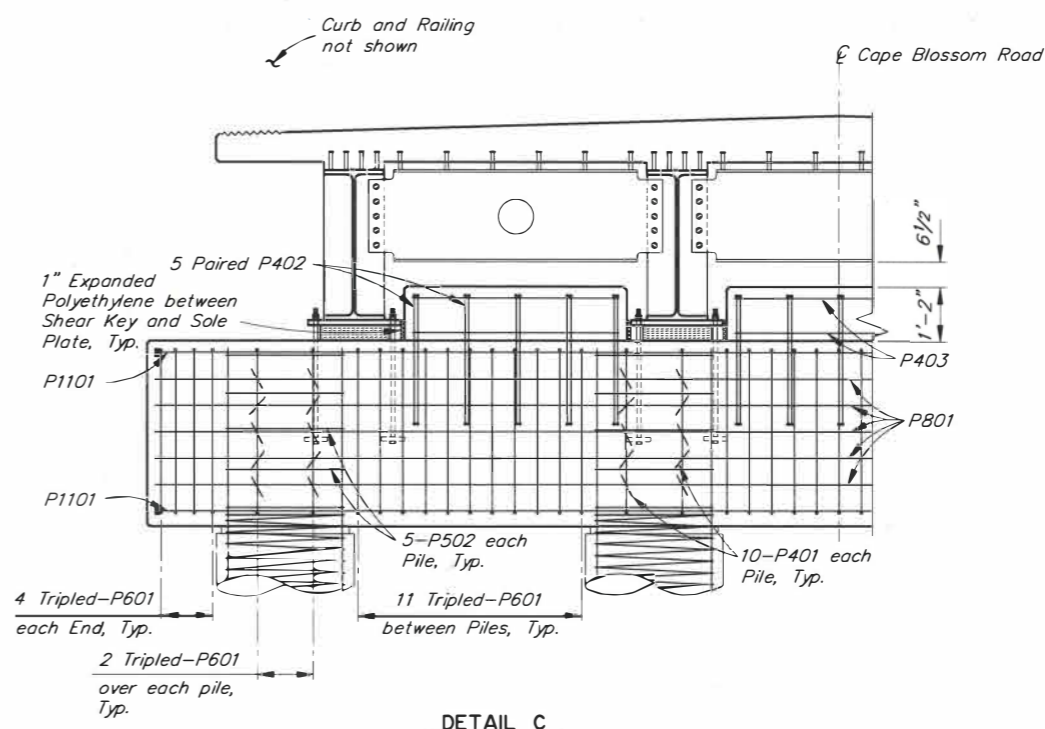


PLAN
12 0 1 2 3 4
In. Feet

LOCATION	A UPSTREAM	B DOWNSTREAM	C UPSTREAM	D DOWNSTREAM
PIER 2	20.69	20.69	20.66	20.66
PIER 3	20.22	20.22	20.19	20.19



ELEVATION
12 0 1 2 3 4
In. Feet



DETAIL C
12 6 0 1 2 3 4
In. Feet

R:\cadd\1596\1596-1-9 Fr. Nov/18/22 02:47pm

DESIGNED BY: Hannah Bailey	CHECKED: Jesse Escamilla III
<i>Hannah Bailey</i>	<i>Jesse Escamilla III</i>
DRAWN BY: Sam Salte	CHECKED: Hannah Bailey
<i>Sam Salte</i>	<i>Hannah Bailey</i>
QUANTITIES BY: Hannah Bailey	CHECKED: Jesse Escamilla III
<i>Hannah Bailey</i>	<i>Jesse Escamilla III</i>

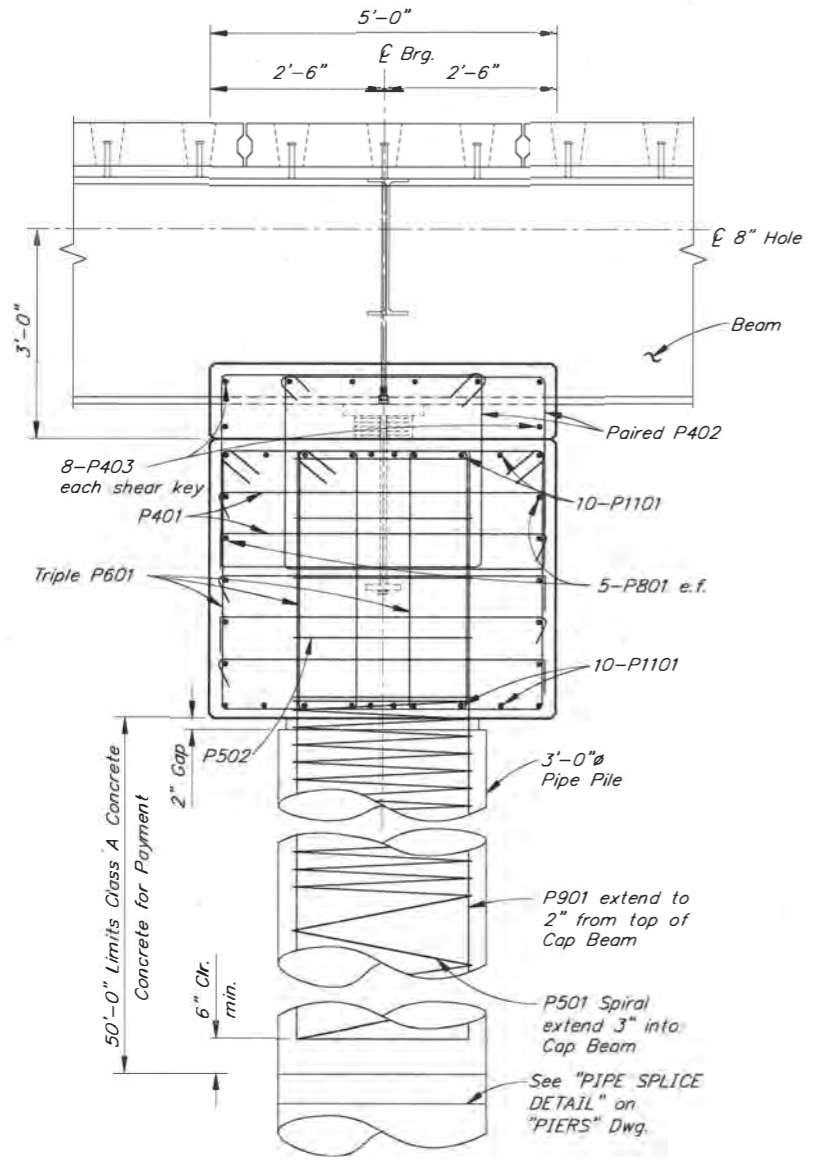
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975



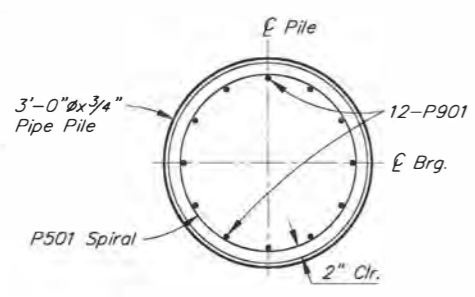
SADIE CREEK BRIDGE
CAPE BLOSSOM ROAD
PIERS


BRIDGE NO. 1596
DWG. NO. 9

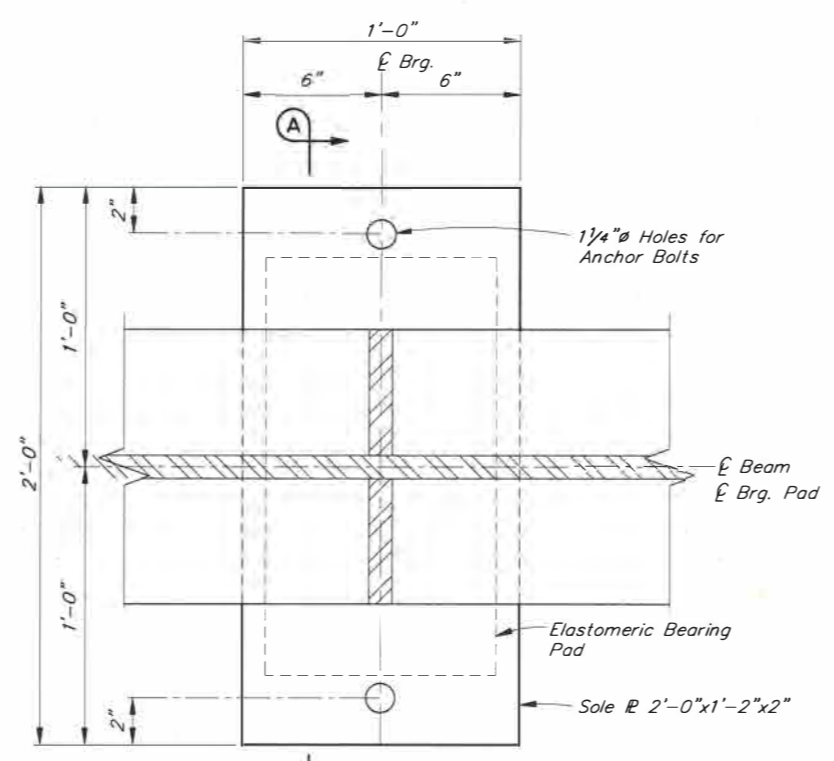
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/Z7 68 840000	2022	N10	N29



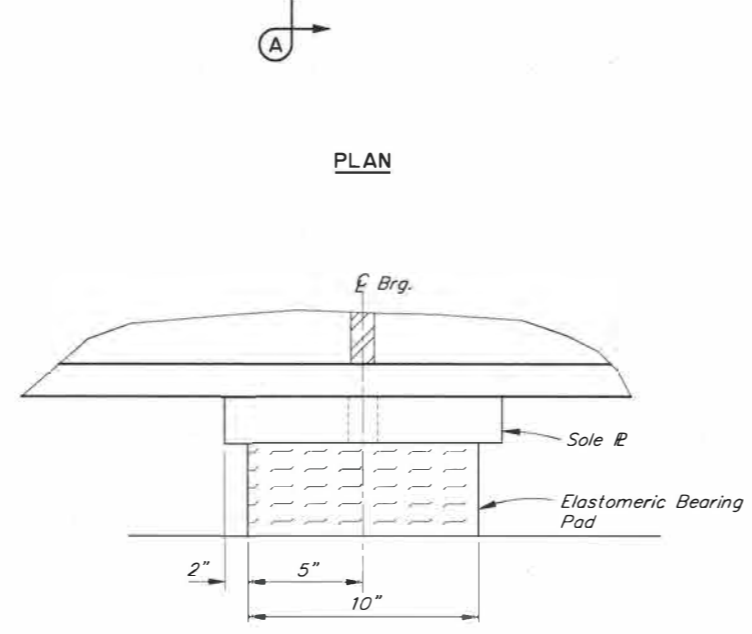
SECTION A-A
12 6 0 1 2 3
In. Feet



SECTION B-B
12 6 0 1 2 3
In. Feet



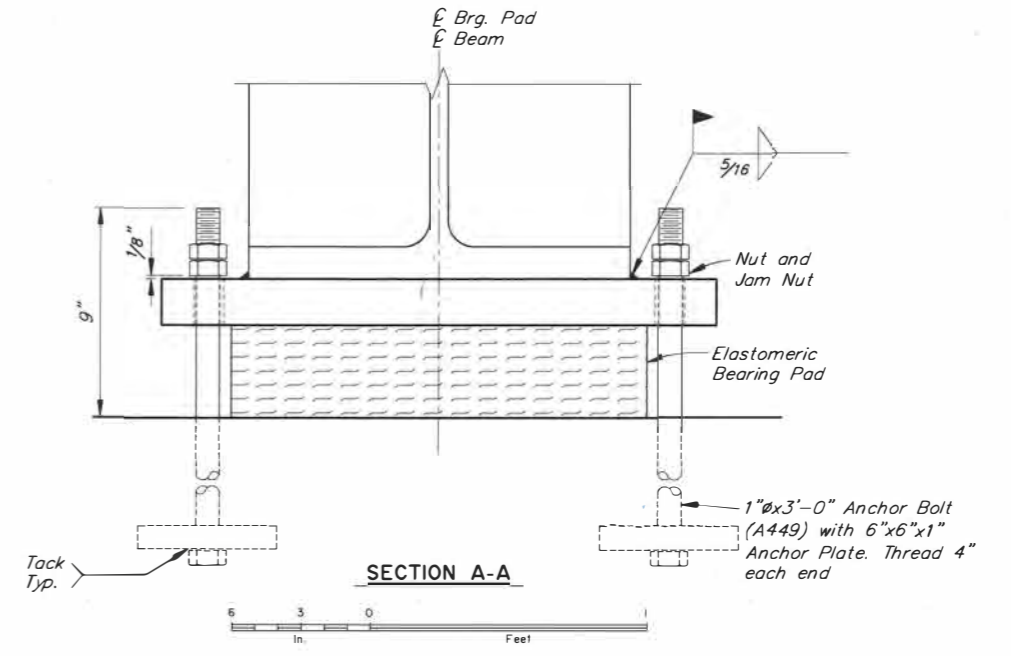
PLAN



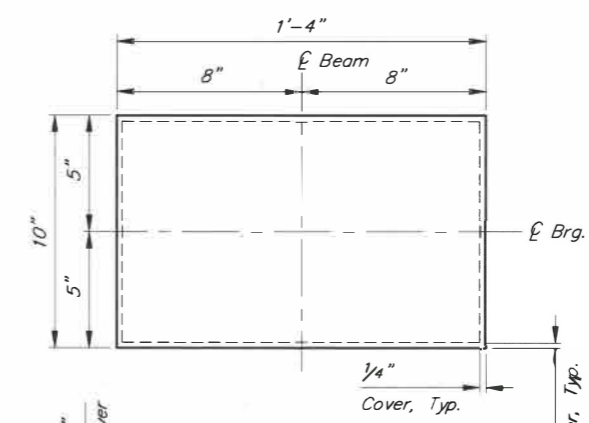
ELEVATION

PIER BEARING DETAILS

6 3 0 1
In. Feet



SECTION A-A



PLAN

ELEVATION
PIER ELASTOMERIC BEARING PAD

Grade 5
Shear Modulus = 115 ksi
Dead Load = 138 k
Live Load = 99 k

12 6 0 1
In. Feet

R:\oad\1596\1596-1-10_Fin_Nov/18/22_02:47pm

DESIGNED BY: Hannah Bailey	CHECKED: Jesse Escamilla III
<i>Hannah Bailey</i>	<i>Jesse Escamilla III</i>
DRAWN BY: Sam Solie	CHECKED: Hannah Bailey
<i>Sam Solie</i>	<i>Hannah Bailey</i>
QUANTITIES BY: Hannah Bailey	CHECKED: Jesse Escamilla III
<i>Hannah Bailey</i>	<i>Jesse Escamilla III</i>

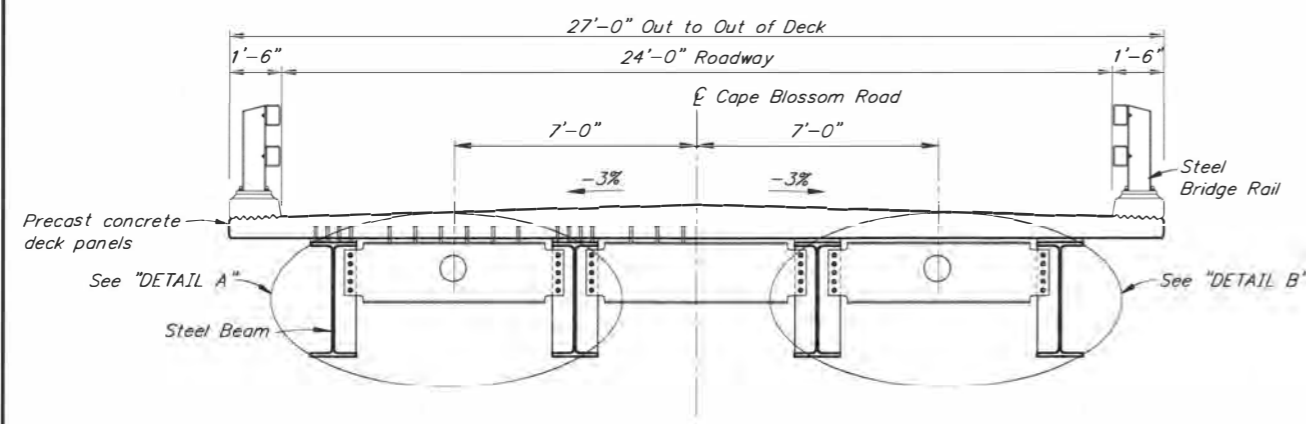
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975



SADIE CREEK BRIDGE
CAPE BLOSSOM ROAD
PIER DETAILS

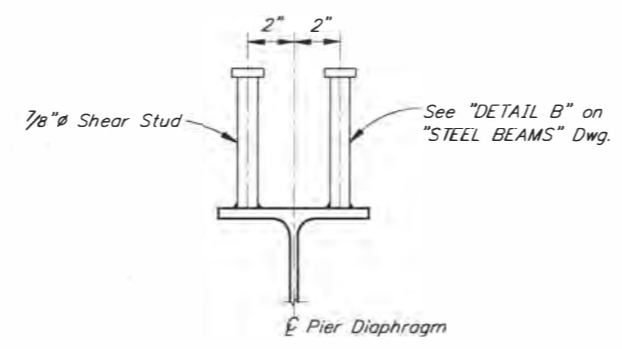
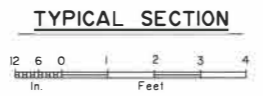

BRIDGE NO. 1596
DWG. NO. 10

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/Z768B40000	2022	N11	N29

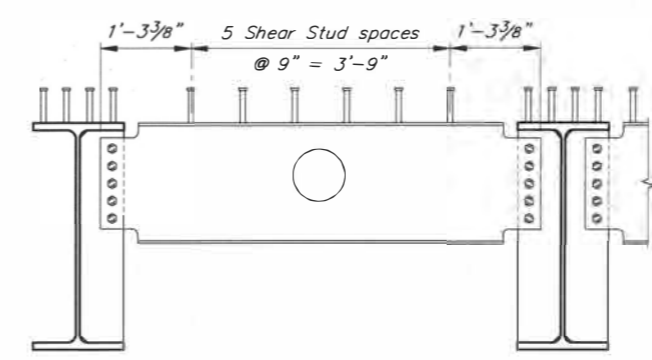


AT PIERS

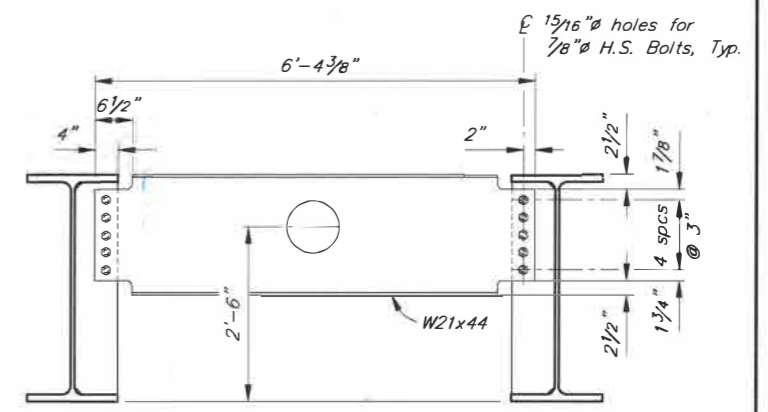
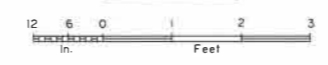
AT MIDSPAN



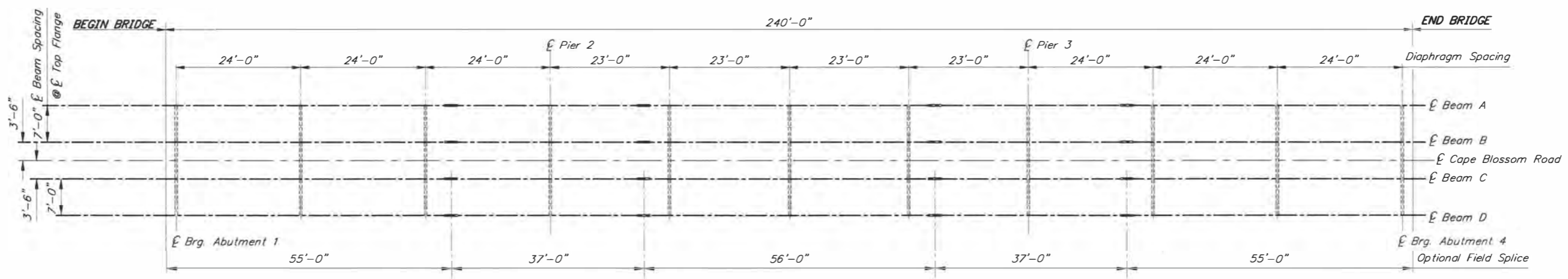
DIAPHRAGM SHEAR CONNECTOR DETAIL



DETAIL A



DETAIL B



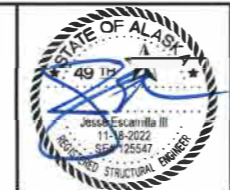
FRAMING PLAN



R:\cad\1596\1596-1-11 Frm. New/18/22 02:47pm

DESIGNED BY: Hannah Bailey	CHECKED: Jesse Escamilla III
<i>Hannah Bailey</i>	<i>Jesse Escamilla III</i>
DRAWN BY: Sam Sallis	CHECKED: Hannah Bailey
<i>Sam Sallis</i>	<i>Hannah Bailey</i>
QUANTITIES BY: Hannah Bailey	CHECKED: Jesse Escamilla III
<i>Hannah Bailey</i>	<i>Jesse Escamilla III</i>

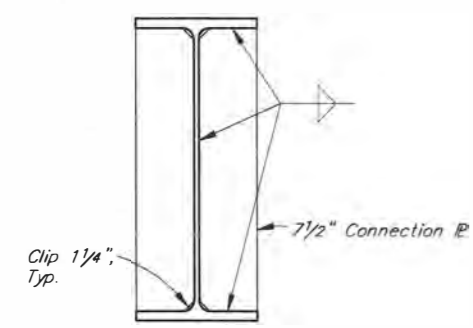
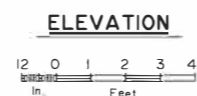
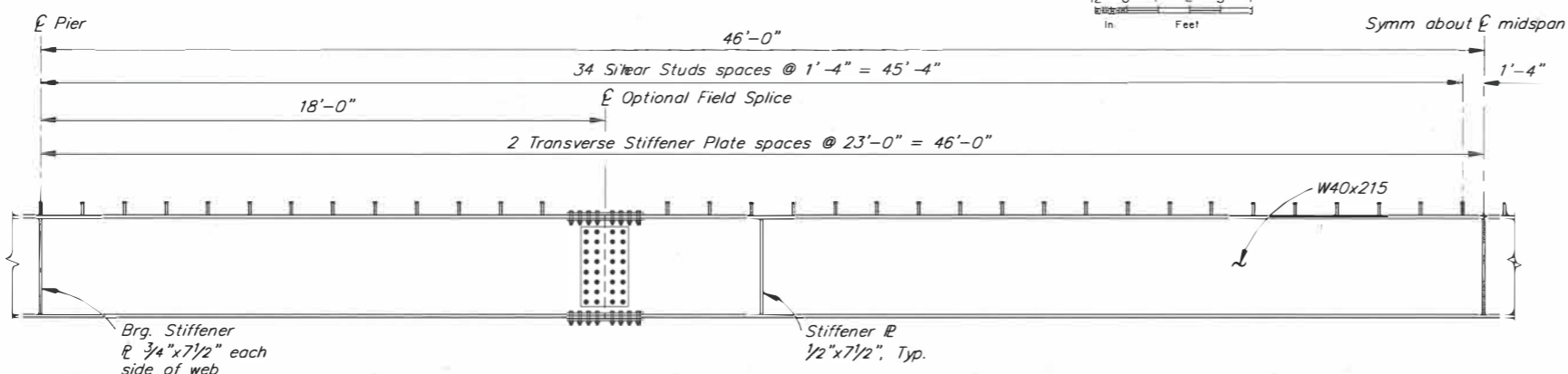
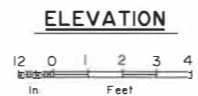
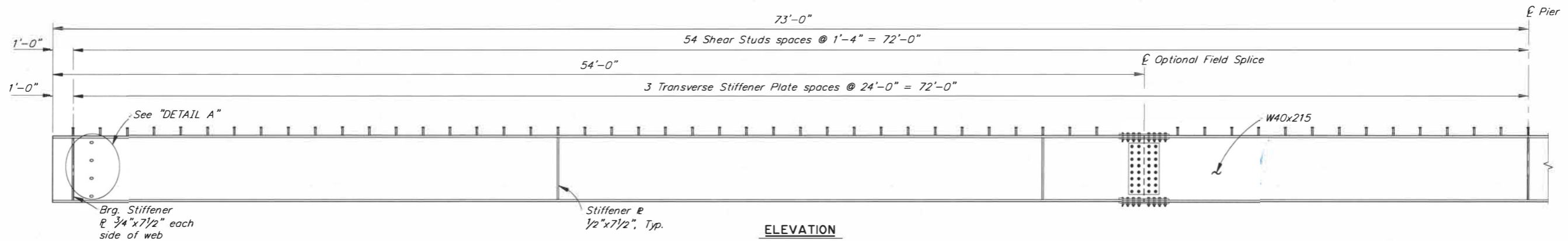
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975



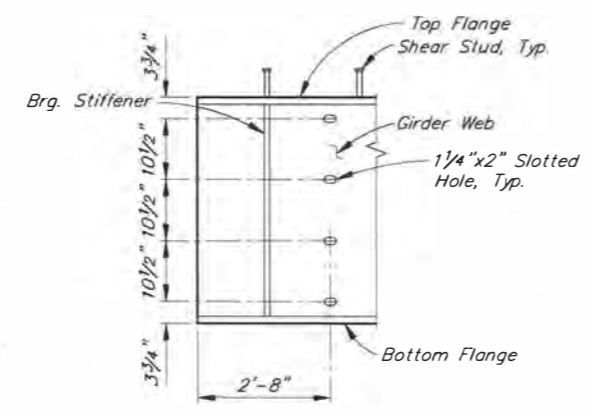
SADIE CREEK BRIDGE
CAPE BLOSSOM ROAD
FRAMING PLAN AND TYPICAL SECTION


BRIDGE NO. 1596
DWG. NO. 11

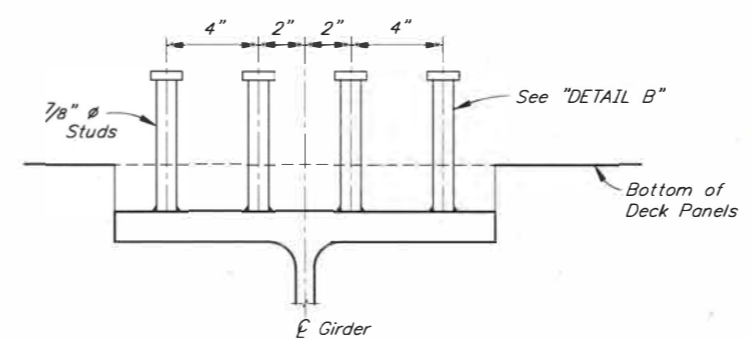
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/Z768840000	2022	N12	N29



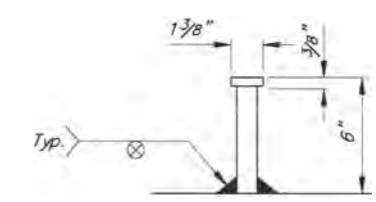
DIAPHRAGM CONNECTION PLATE



DETAIL A



SHEAR CONNECTOR DETAIL



DETAIL B

No Scale

R:\cadd\1596\1596-1-12 Fr. Nov/18/22 02:47pm

DESIGNED BY: Hannah Bailey <i>Hannah Bailey</i>	CHECKED: Jesse Escamilla III <i>Jesse Escamilla III</i>
DRAWN BY: Sam Sallie <i>Sam Sallie</i>	CHECKED: Hannah Bailey <i>Hannah Bailey</i>
QUANTITIES BY: Hannah Bailey <i>Hannah Bailey</i>	CHECKED: Jesse Escamilla III <i>Jesse Escamilla III</i>

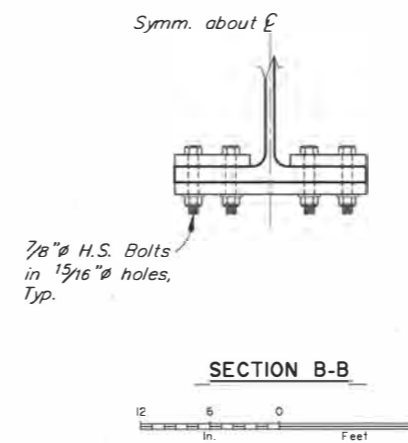
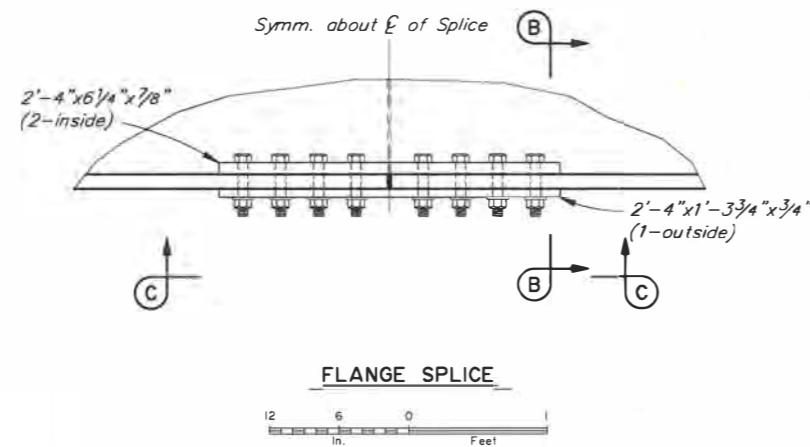
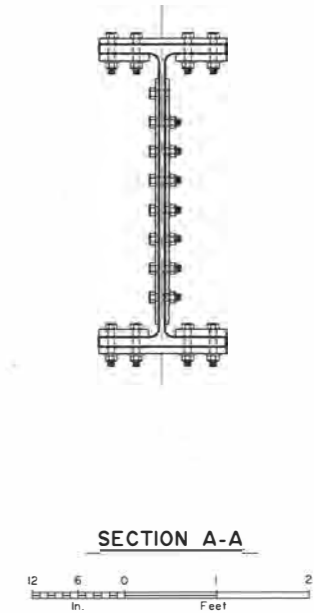
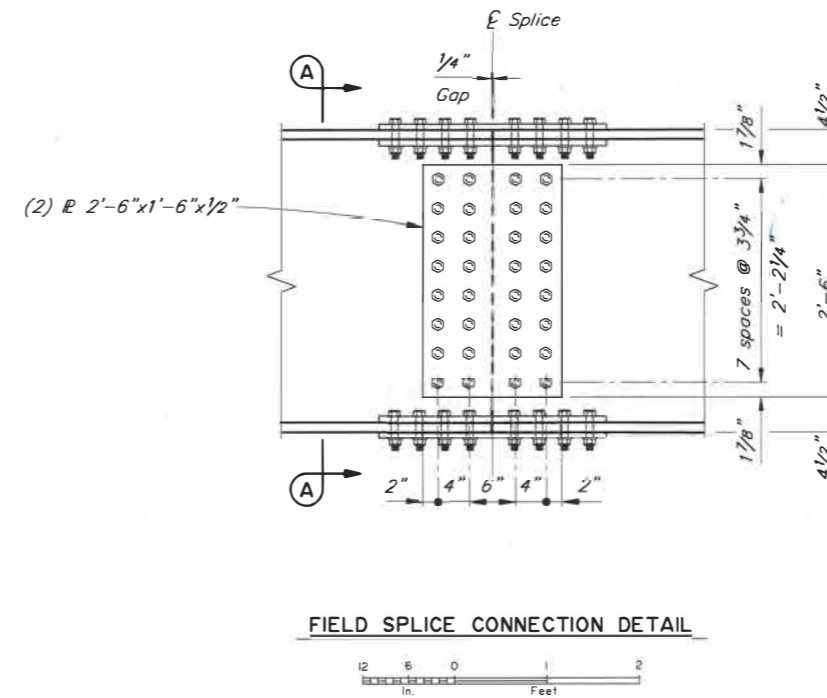
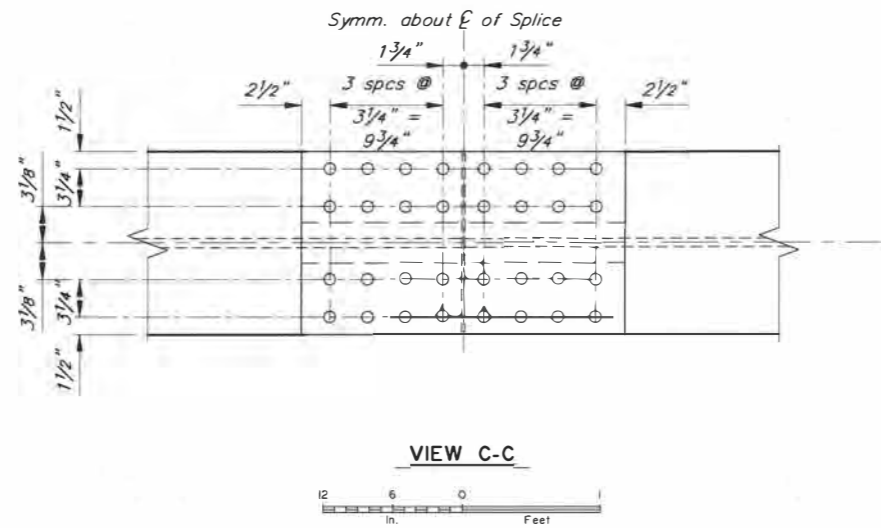
STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
 BRIDGE SECTION
 3132 Channel Drive
 Juneau, Alaska 99801
 907-465-2975





SADIE CREEK BRIDGE
 CAPE BLOSSOM ROAD
STEEL BEAMS


 BRIDGE NO. 1596
 DWG. NO. 12

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/Z768B40000	2022	N13	N29

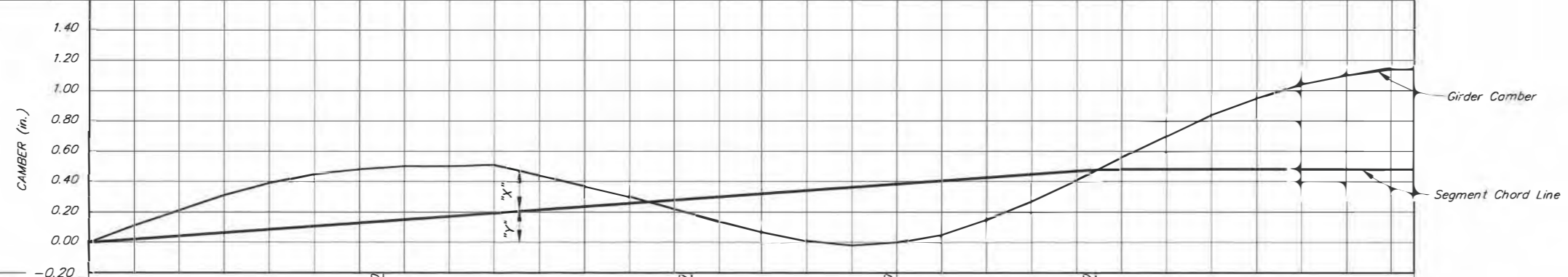


R:\oad\1596\1596-1-13 Fri, Nov/18/22 02:48pm

DESIGNED BY: Hannah Bailey <i>Hannah Bailey</i>	CHECKED: Jesse Escamilla III <i>Jesse Escamilla III</i>	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION 3132 Channel Drive Juneau, Alaska 99801 907-465-2975		SADIE CREEK BRIDGE CAPE BLOSSOM ROAD SPLICE DETAILS	 BRIDGE NO. 1596 DWG. NO. 13
DRAWN BY: Sam Sallie Jr. <i>Sam Sallie Jr.</i>	CHECKED: Hannah Bailey <i>Hannah Bailey</i>				
QUANTITIES BY: Hannah Bailey <i>Hannah Bailey</i>	CHECKED: Jesse Escamilla III <i>Jesse Escamilla III</i>				

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/Z768B40000	2022	N14	N29

Distance from ξ Brg. Abut. 1 (ft.)	0.0	4.0	8.0	12.0	16.0	20.0	24.0	28.0	32.0	36.0	40.0	44.0	48.0	52.0	56.0	60.0	64.0	68.0	72.0	76.0	80.0	84.0	88.0	92.0	96.0	100.0	104.0	108.0	112.0	116.0	118.0	
Girder + Diaphragm Deflection (in.)	0.00	0.02	0.05	0.07	0.08	0.11	0.11	0.11	0.11	0.11	0.10	0.09	0.07	0.05	0.04	0.02	0.01	0.00	0.00	0.00	0.01	0.02	0.04	0.06	0.09	0.11	0.13	0.15	0.16	0.17	0.18	0.18
Deck Deflection (in.)	0.00	0.09	0.18	0.25	0.32	0.37	0.40	0.42	0.42	0.40	0.37	0.32	0.27	0.21	0.14	0.04	0.00	0.00	0.01	0.00	0.00	0.08	0.23	0.48	0.70	0.95	1.10	1.14	1.14	1.14	1.14	1.14
Rail + Utilities Deflection (in.)	0.00	0.01	0.02	0.03	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.03	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.03	0.04	0.04	0.05	0.06	0.07	0.08	0.08	0.08	0.08
Future Asphalt Overlay (in.)	0.00	0.03	0.06	0.09	0.11	0.13	0.14	0.15	0.15	0.14	0.13	0.11	0.09	0.07	0.05	0.03	0.01	0.00	0.00	0.00	0.03	0.05	0.08	0.11	0.14	0.17	0.19	0.21	0.22	0.23	0.23	0.23
Roadway Camber (in.)	0.00	-0.05	-0.10	-0.13	-0.16	-0.19	-0.21	-0.22	-0.22	-0.22	-0.21	-0.19	-0.17	-0.14	-0.11	-0.08	-0.06	-0.03	-0.03	-0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Deflection (in.)	0.00	0.11	0.21	0.31	0.39	0.45	0.50	0.51	0.51	0.48	0.44	0.37	0.30	0.22	0.14	0.07	0.01	0.00	0.00	0.00	0.05	0.15	0.41	0.56	0.70	0.95	1.04	1.10	1.14	1.14	1.14	1.14
"y" Segment Chord (in.)	0.00	0.02	0.03	0.05	0.06	0.08	0.09	0.11	0.12	0.14	0.15	0.17	0.18	0.20	0.22	0.26	0.29	0.32	0.35	0.35	0.38	0.41	0.48	0.56	0.62	0.65	0.65	0.65	0.65	0.65	0.65	0.65
"x" Segment Camber (in.)	1.60	0.09	0.18	0.26	0.33	0.38	0.40	0.41	0.39	0.35	0.28	0.21	0.12	0.02	-0.08	-0.19	-0.28	-0.33	-0.35	-0.35	-0.33	-0.26	-0.17	-0.06	0.07	0.22	0.35	0.47	0.56	0.62	0.65	0.65



Distance from ξ Brg. Abut. 1 (ft.)	0.00	26.50	53.00	72.00	90.00	118.0
Girder + Diaphragm Deflection (in.)	0.00	0.11	0.05	0.00	0.08	0.18
Deck Deflection (in.)	0.00	0.41	0.19	0.00	0.28	0.65
Rail + Utilities Deflection (in.)	0.00	0.05	0.03	0.00	0.04	0.09
Future Asphalt Overlay (in.)	0.00	0.15	0.07	0.00	0.10	0.23
Roadway Camber (in.)	0.00	-0.21	-0.13	0.00	0.00	0.00
Total Deflection (in.)	0.00	0.51	0.20	0.00	0.48	1.14
"y" Segment Chord (in.)	0.00	0.10	0.20	0.35	0.48	0.48
"x" Segment Camber (in.)	0.00	0.41	0.00	-0.35	0.00	0.65



CAMBER DIAGRAM - I
No Scale

DESIGNED BY: Hannah Bailey	CHECKED: Jesse Escamilla III
DRAWN BY: Sam Sallie	CHECKED: Hannah Bailey
QUANTITIES BY: Hannah Bailey	CHECKED: Jesse Escamilla III

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



SADIE CREEK BRIDGE
CAPE BLOSSOM ROAD
CAMBER DIAGRAM - I

BRIDGE NO. 1596
DWG. NO. 14

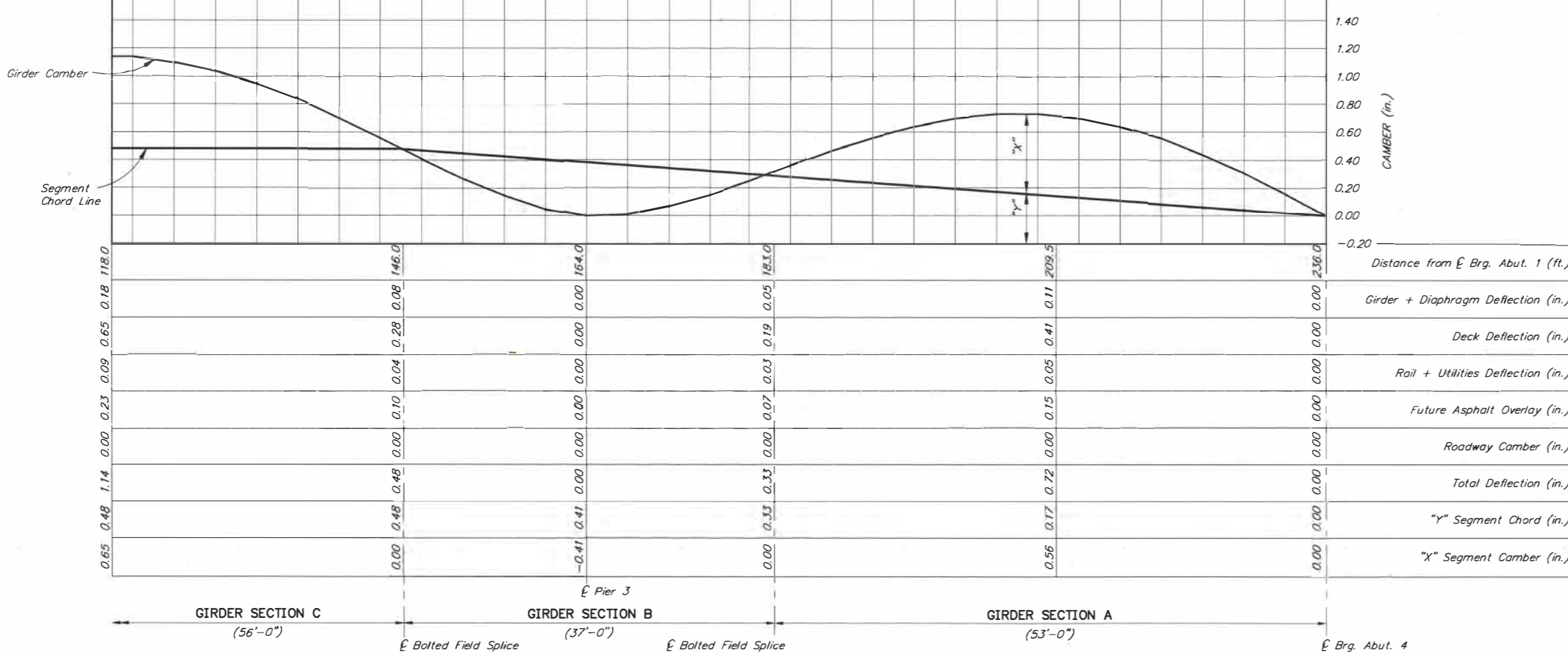
- Camber Notes:**
1. Segment Chord line is a straight line through the top of the web connecting the ξ of bearing and ξ field splices.
 2. Minimum camber (sum of x+y) is provided. Maximum additional camber may vary up to 1/2" at the mid-span of any span. Additional camber shall vary parabolically in each span.

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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/Z768840000	2022	N15	N29

- Camber Notes:**
1. Segment Chord line is a straight line through the top of the web connecting the \bar{E} of bearing and \bar{E} field splices.
 2. Minimum camber (sum of x+y) is provided. Maximum additional camber may vary up to $\frac{1}{2}$ " at the mid-span of any span. Additional camber shall vary parabolically in each span.

0.65	0.48	1.14	0.00	0.23	0.09	0.65	0.18	118.0	Distance from \bar{E} Brg. Abut. 1 (ft.)
0.65	0.48	1.14	0.00	0.23	0.08	0.65	0.18	120.0	Girder + Diaphragm Deflection (in.)
0.62	0.48	1.10	0.00	0.22	0.08	0.63	0.17	124.0	Deck Deflection (in.)
0.56	0.48	1.04	0.00	0.21	0.08	0.59	0.16	128.0	Rail + Utilities Deflection (in.)
0.47	0.48	0.95	0.00	0.19	0.07	0.54	0.15	132.0	Future Asphalt Overlay (in.)
0.35	0.48	0.84	0.00	0.17	0.06	0.48	0.13	136.0	Roadway Camber (in.)
0.22	0.48	0.70	0.00	0.14	0.05	0.40	0.11	140.0	Total Deflection (in.)
0.07	0.48	0.56	0.00	0.11	0.04	0.32	0.09	144.0	"y" Segment Chord (in.)
-0.07	0.48	0.41	0.00	0.08	0.03	0.23	0.06	148.0	"x" Segment Camber (in.)
-0.19	0.46	0.27	0.00	0.05	0.02	0.15	0.04	152.0	
-0.30	0.44	0.15	0.00	0.03	0.01	0.08	0.02	156.0	
-0.38	0.43	0.05	0.00	0.01	0.00	0.03	0.01	160.0	
-0.41	0.41	0.00	0.00	0.00	0.00	0.00	0.00	164.0	
-0.38	0.39	0.01	0.00	0.00	0.00	0.01	0.00	168.0	
-0.31	0.38	0.07	0.00	0.01	0.00	0.04	0.01	172.0	
-0.21	0.36	0.15	0.00	0.03	0.01	0.09	0.02	176.0	
-0.09	0.35	0.25	0.00	0.05	0.02	0.14	0.04	180.0	
0.03	0.33	0.36	0.00	0.07	0.03	0.21	0.05	184.0	
0.17	0.30	0.47	0.00	0.09	0.04	0.27	0.07	188.0	
0.29	0.28	0.56	0.00	0.11	0.04	0.32	0.09	192.0	
0.39	0.25	0.64	0.00	0.13	0.05	0.37	0.10	196.0	
0.47	0.23	0.70	0.00	0.14	0.05	0.40	0.11	200.0	
0.53	0.20	0.73	0.00	0.15	0.05	0.42	0.11	204.0	
0.55	0.18	0.73	0.00	0.15	0.05	0.42	0.11	208.0	
0.55	0.15	0.70	0.00	0.14	0.05	0.40	0.11	212.0	
0.52	0.13	0.64	0.00	0.13	0.05	0.37	0.10	216.0	
0.45	0.10	0.56	0.00	0.11	0.04	0.32	0.08	220.0	
0.37	0.08	0.44	0.00	0.09	0.03	0.25	0.07	224.0	
0.26	0.05	0.31	0.00	0.06	0.02	0.18	0.05	228.0	
0.13	0.03	0.16	0.00	0.03	0.01	0.09	0.02	232.0	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	236.0	



CAMBER DIAGRAM - II
No Scale

DESIGNED BY: Hannah Bailey <i>Hannah Bailey</i>	CHECKED: Jesse Escamilla III <i>Jesse Escamilla III</i>
DRAWN BY: Sam Sallie <i>Sam Sallie</i>	CHECKED: Hannah Bailey <i>Hannah Bailey</i>
QUANTITIES BY: Hannah Bailey <i>Hannah Bailey</i>	CHECKED: Jesse Escamilla III <i>Jesse Escamilla III</i>

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

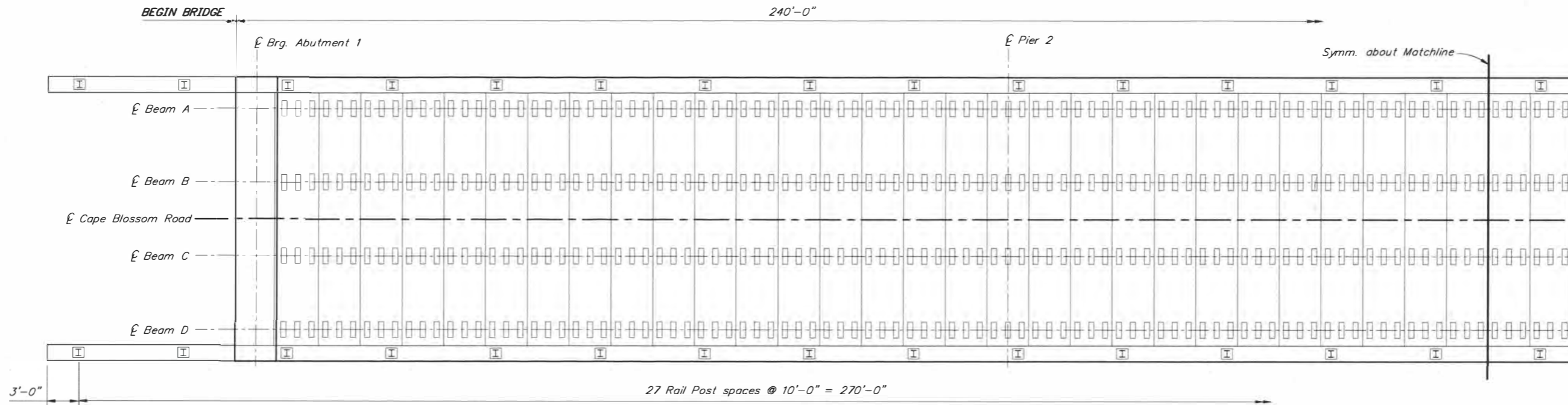


SADIE CREEK BRIDGE
CAPE BLOSSOM ROAD
CAMBER DIAGRAM - II


BRIDGE NO. 1596
DWG. NO. 15

R:\cda\1596\1596-15 Fri, Nov/18/22 02:48pm

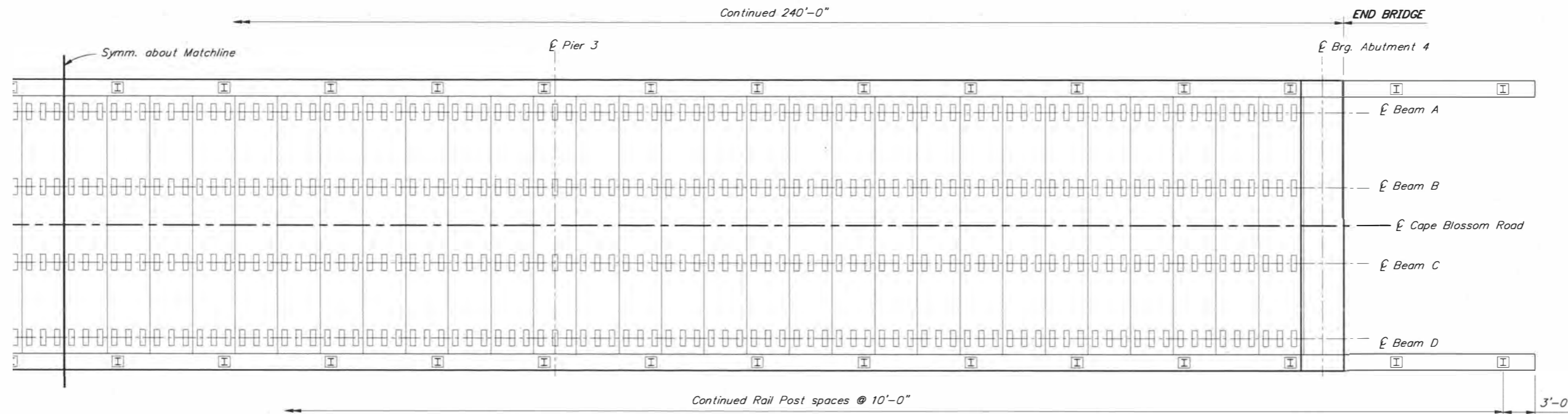
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/Z768840000	2022	N16	N29



HALF PLAN - DECK LAYOUT 1



Continued 240'-0"



HALF PLAN - DECK LAYOUT 2



R:\cadd\1596\1596-1-16 Fr, Nov/18/22 02:48pm

DESIGNED BY: Hannah Bailey <i>Hannah Bailey</i>	CHECKED: Jesse Escamilla III <i>Jesse Escamilla III</i>
DRAWN BY: Sam Sallie <i>Sam Sallie</i>	CHECKED: Hannah Bailey <i>Hannah Bailey</i>
QUANTITIES BY: Hannah Bailey <i>Hannah Bailey</i>	CHECKED: Jesse Escamilla III <i>Jesse Escamilla III</i>

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



SADIE CREEK BRIDGE
CAPE BLOSSOM ROAD
DECK PLAN

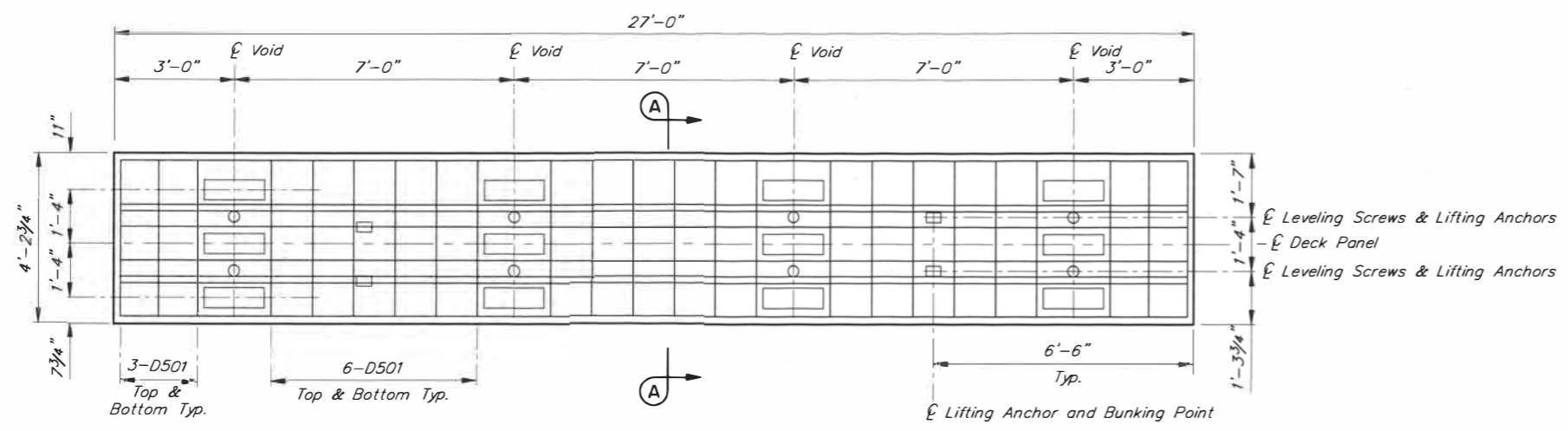


BRIDGE NO. 1596
DWG. NO. 16

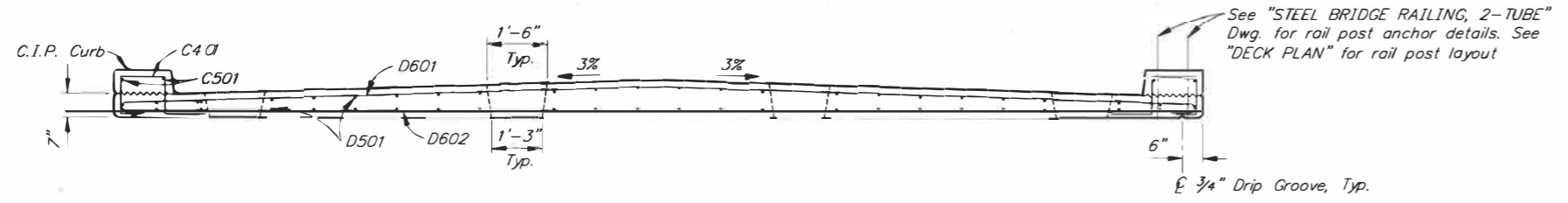
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/2768840000	2022	N17	N29

REINFORCING STEEL - ONE EXTERIOR PANEL						
MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
D501	C	5	48	4'-0"	---	
D601	C,M	6	8	28'-0"	BENT	
D602	C	6	8	26'-8"	---	
C401	E	4	8	4'-5"	BENT	
C501	E,S	5	4	239'-2"	---	

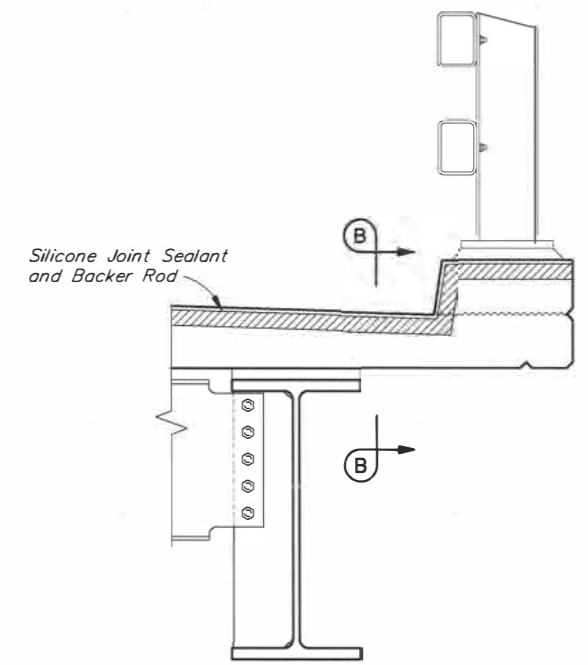
M - Match crown in panels
C - Corrosion-resistant reinforcing steel



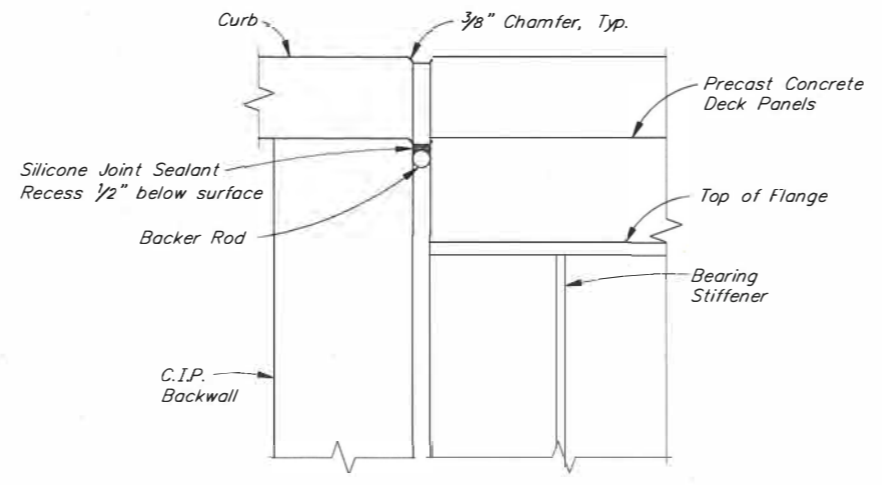
DECK PANEL - PLAN



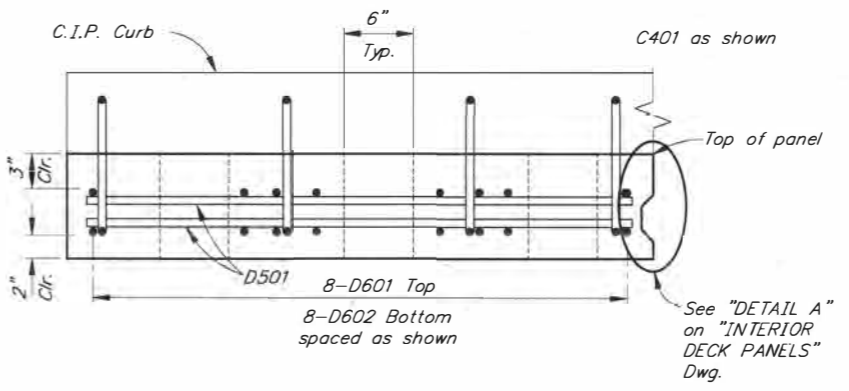
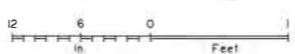
DECK PANEL - ELEVATION



EXPANSION JOINT



SECTION B-B



SECTION A-A



DESIGNED BY: Hannah Bailey	CHECKED: Jesse Escamilla III
<i>Hannah Bailey</i>	<i>Jesse Escamilla III</i>
DRAWN BY: Sam Sallie	CHECKED: Hannah Bailey
<i>Sam Sallie</i>	<i>Hannah Bailey</i>
QUANTITIES BY: Hannah Bailey	CHECKED: Jesse Escamilla III
<i>Hannah Bailey</i>	<i>Jesse Escamilla III</i>

STATE OF ALASKA
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BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975



SADIE CREEK BRIDGE
CAPE BLOSSOM ROAD
ABUTMENT DECK PANELS

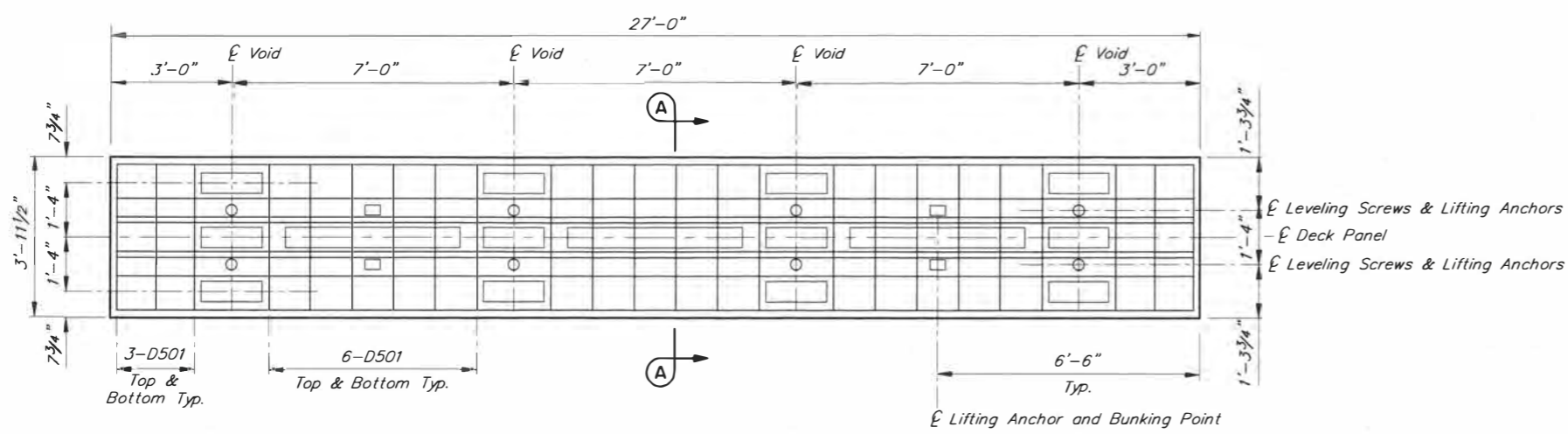
BRIDGE NO. 1596
DWG. NO. 17

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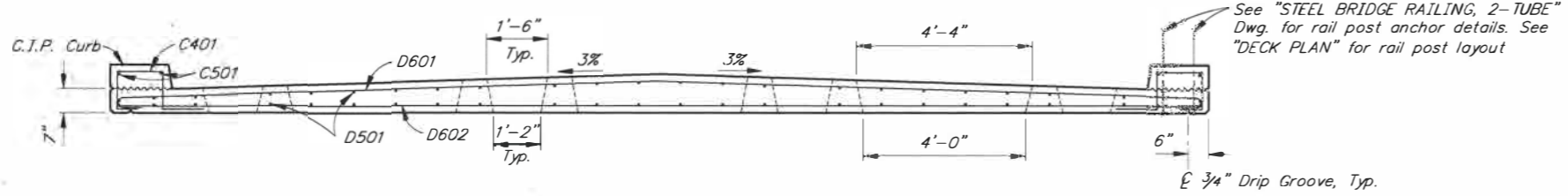
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/2768840000	2022	N18	N29

REINFORCING STEEL - ONE EXTERIOR PANEL						
MARK	NOTE	SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
D501	C	5	48	3'-9"	---	
D601	C,M	6	8	28'-0"	BENT	
D602	C	6	8	26'-8"	---	
C401	C	4	8	4'-5"	BENT	

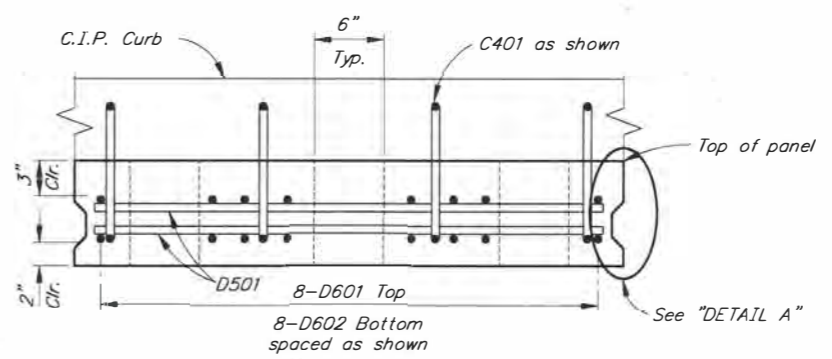
M - Match crown in panels
C - Corrosion-resistant reinforcing steel



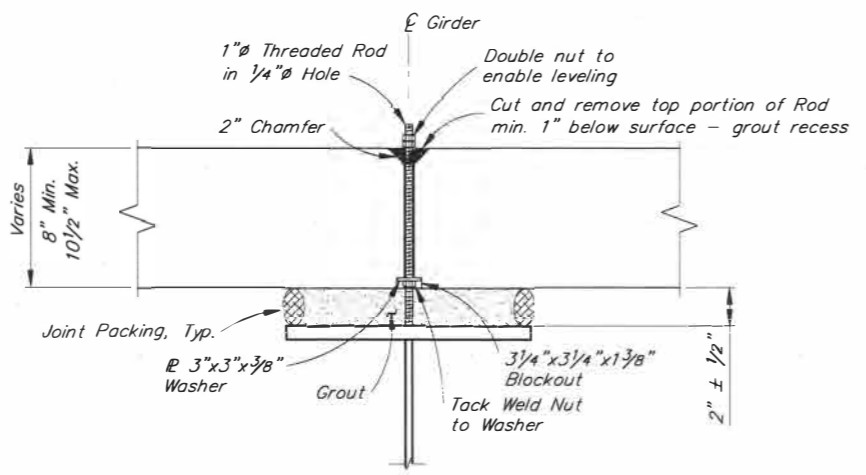
DECK PANEL - PLAN



DECK PANEL - ELEVATION

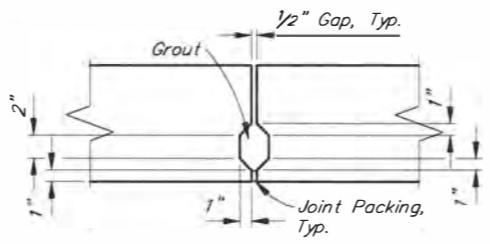


SECTION A-A



LEVELING SCREW DETAIL

No Scale



DETAIL A

No Scale

NOTES:

1. Provide heavy broom finish transversely on deck panels and all grouted surfaces.
2. Include 4'-4" voids only in two panels.
3. Turn D601 bars to maintain clear cover.
4. All leveling rods must be in contact with the girders prior to grouting or applying loads.

P:\code\1596\1596-1-18 Fk Nov/18/22 02:48pm

DESIGNED BY: Hannah Bailey	CHECKED: Jesse Escamilla III
<i>Hannah Bailey</i>	<i>Jesse Escamilla III</i>
DRAWN BY: Sam Sallie	CHECKED: Hannah Bailey
<i>Sam Sallie</i>	<i>Hannah Bailey</i>
QUANTITIES BY: Hannah Bailey	CHECKED: Jesse Escamilla III
<i>Hannah Bailey</i>	<i>Jesse Escamilla III</i>

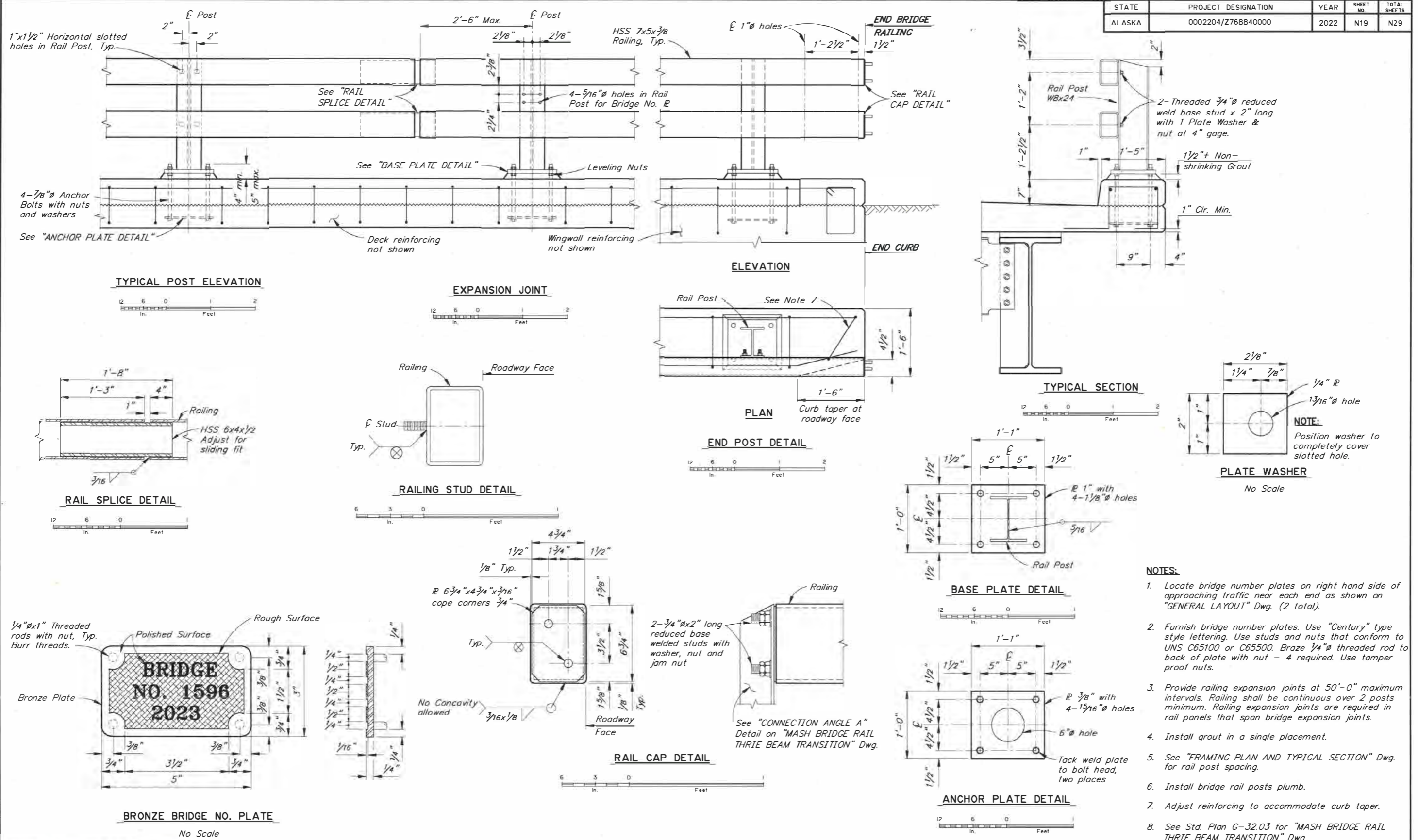
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
BRIDGE SECTION
3132 Channel Drive
Juneau, Alaska 99801
907-465-2975



SADIE CREEK BRIDGE
CAPE BLOSSOM ROAD
INTERIOR DECK PANELS


BRIDGE NO. 1596
DWG. NO. 18

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/Z768B40000	2022	N19	N29



- NOTES:**
1. Locate bridge number plates on right hand side of approaching traffic near each end as shown on "GENERAL LAYOUT" Dwg. (2 total).
 2. Furnish bridge number plates. Use "Century" type style lettering. Use studs and nuts that conform to UNS C65100 or C65500. Braze 1/4" threaded rod to back of plate with nut - 4 required. Use tamper proof nuts.
 3. Provide railing expansion joints at 50'-0" maximum intervals. Railing shall be continuous over 2 posts minimum. Railing expansion joints are required in rail panels that span bridge expansion joints.
 4. Install grout in a single placement.
 5. See "FRAMING PLAN AND TYPICAL SECTION" Dwg. for rail post spacing.
 6. Install bridge rail posts plumb.
 7. Adjust reinforcing to accommodate curb taper.
 8. See Std. Plan G-32.03 for "MASH BRIDGE RAIL THRIE BEAM TRANSITION" Dwg.

DESIGNED BY: Hannah Bailey	CHECKED: Jesse Escamilla III
<i>Hannah Bailey</i>	<i>Jesse Escamilla III</i>
DRAWN BY: Sam Spillie	CHECKED: Hannah Bailey
<i>Sam Spillie</i>	<i>Hannah Bailey</i>
QUANTITIES BY: Hannah Bailey	CHECKED: Jesse Escamilla III
<i>Hannah Bailey</i>	<i>Jesse Escamilla III</i>

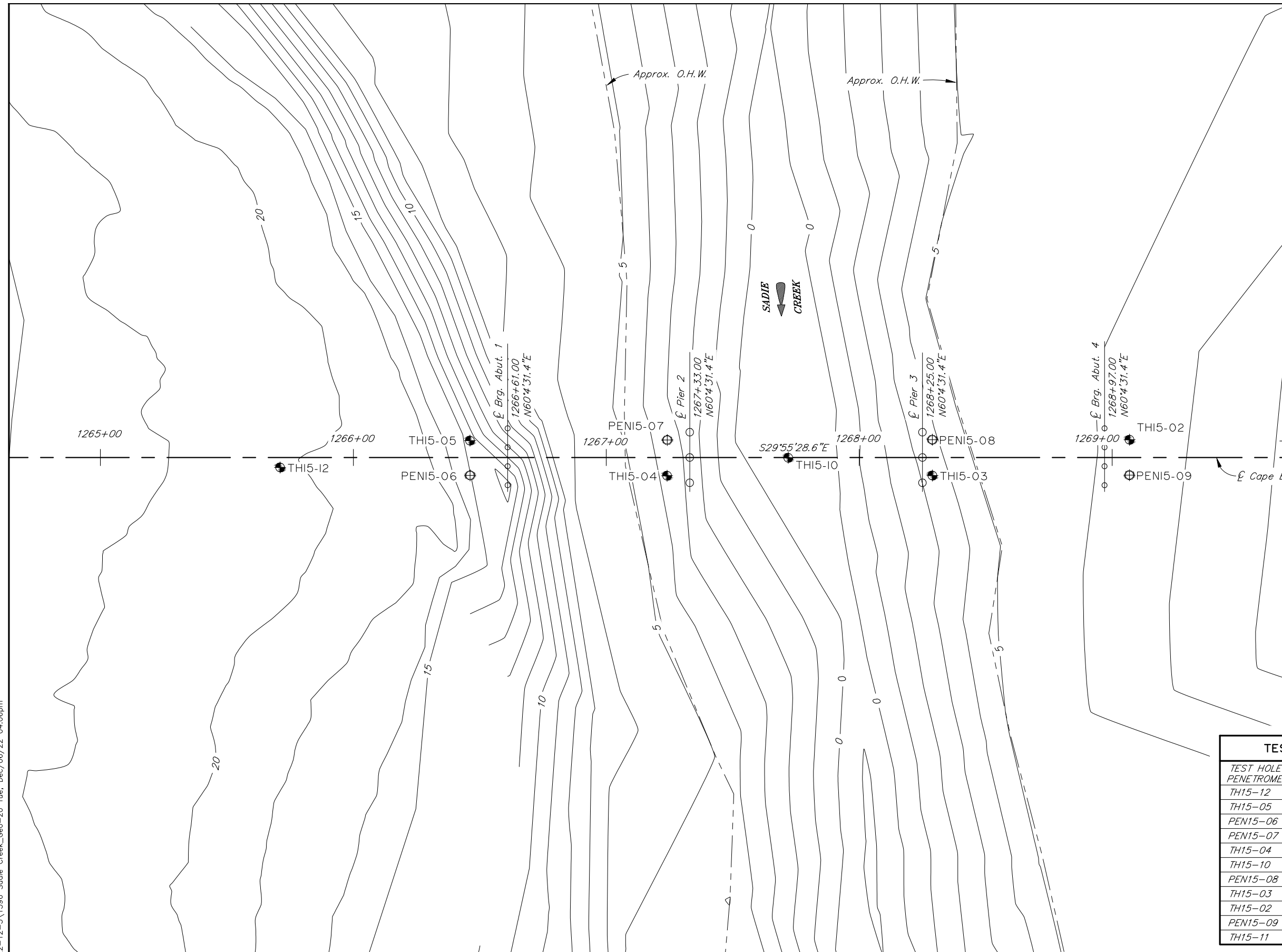
STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
 BRIDGE SECTION
 3132 Channel Drive
 Juneau, Alaska 99801
 907-465-2975



SADIE CREEK BRIDGE
 CAPE BLOSSOM ROAD
 STEEL BRIDGE RAILING, 2-TUBE

	BRIDGE NO. 1596
	DWG. NO. 19

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/Z768840000	2022	N20	N29



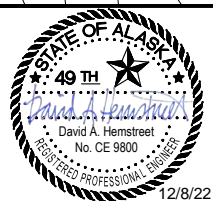
LEGEND

- TH-I TEST HOLE
- ⊕ PEN-I PENETROMETER

TEST HOLE AND PENETROMETER LOCATIONS				
TEST HOLE / PENETROMETER	STATION	OFFSET	DEPTH	LOCATION
TH15-12	1265+71	4' Rt	31.5'	APPROACH 1
TH15-05	1266+46	7' Lt	111.2'	ABUTMENT 1
PEN15-06	1266+46	7' Rt	77'	ABUTMENT 1
PEN15-07	1267+24	7' Lt	60'	PIER 2
TH15-04	1267+24	7' Rt	101.5'	PIER 2
TH15-10	1267+72	℄	66.5'	Mid Bridge
PEN15-08	1268+29	7' Lt	72'	PIER 3
TH15-03	1268+29	7' Rt	101.5'	PIER 3
TH15-02	1269+07	7' Lt	101.5'	ABUTMENT 4
PEN15-09	1269+07	7' Rt	73'	ABUTMENT 4
TH15-11	1269+82	℄	30.5'	APPROACH 2

DESIGNED BY:	D. Hemstreet	CHECKED:	Engineer
DRAWN BY:	J. Nicolazzo	CHECKED:	Engineer
QUANTITIES BY:	Engineer	CHECKED:	Engineer

STATE OF ALASKA
**DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES**
STATEWIDE MATERIALS

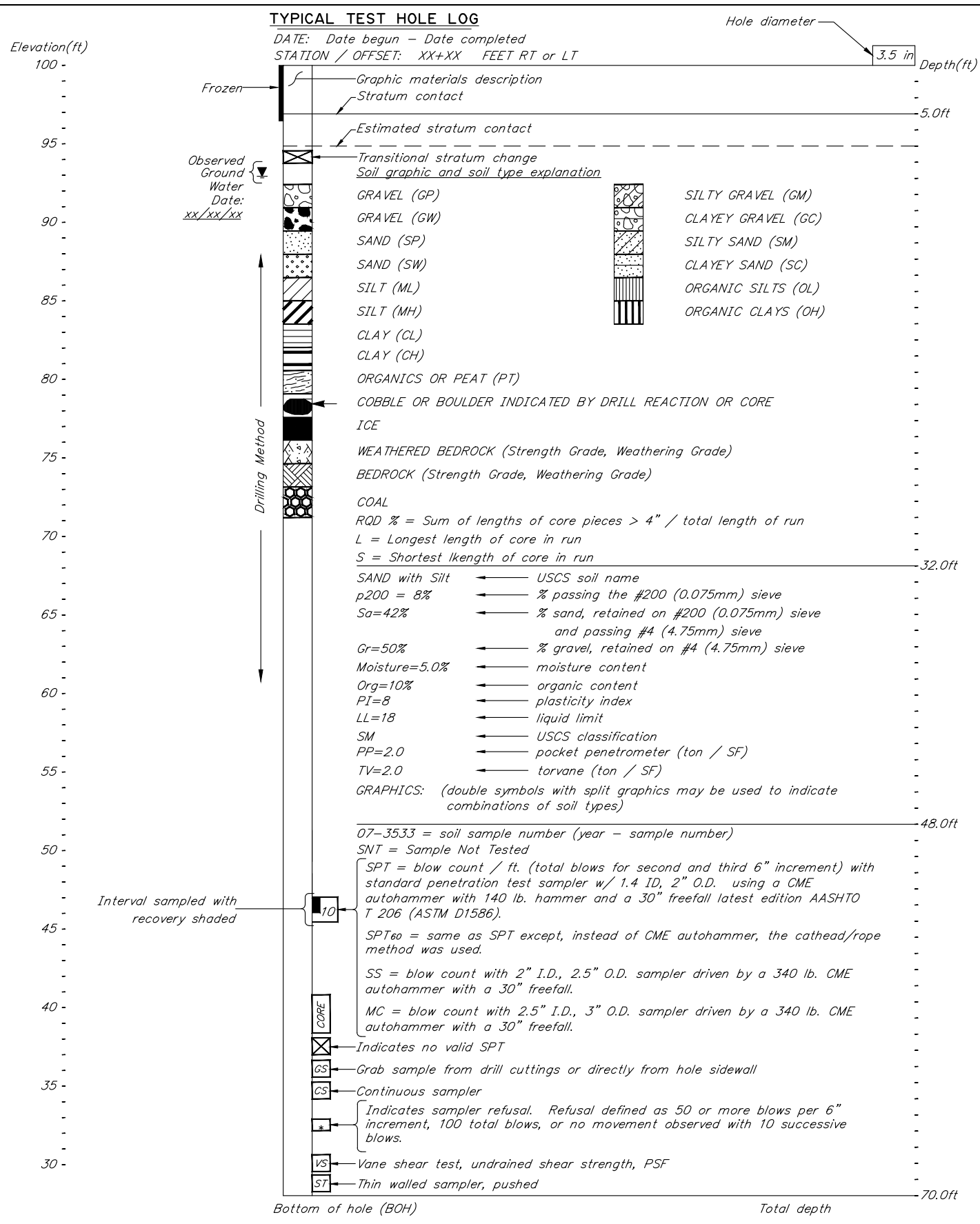


SADIE CREEK BRIDGE
CAPE BLOSSOM ROAD
TEST HOLE & PENETROMETER LOCATION



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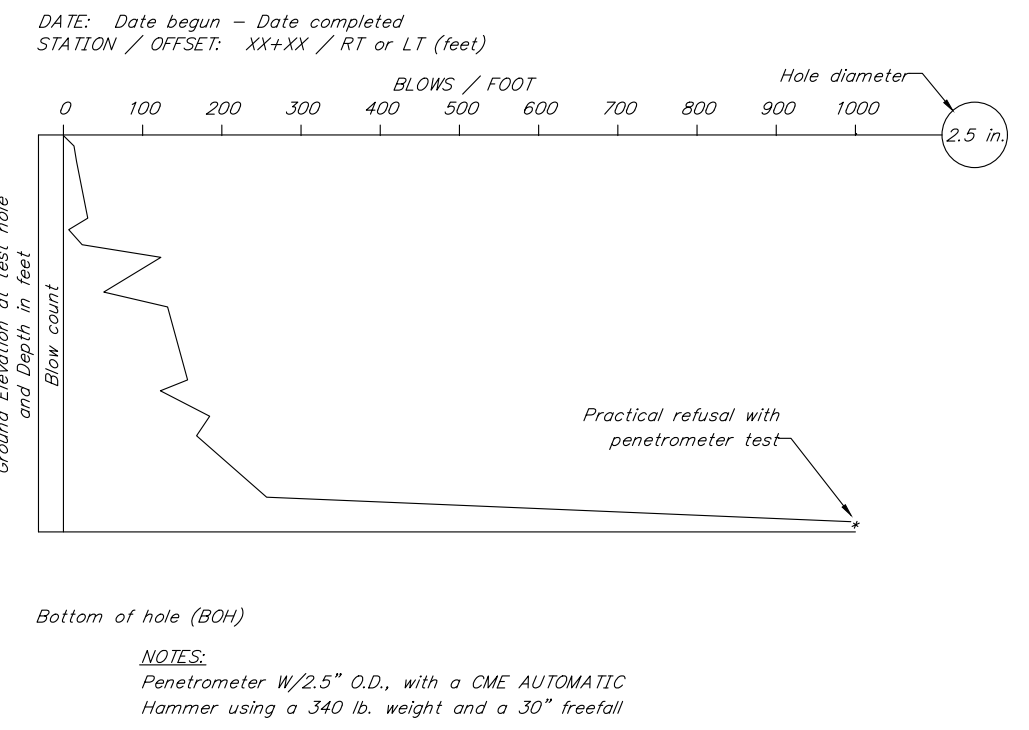
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204 / Z768840000	2022	N21	N29



NOTES:

- 1) 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.
- 2) Description of soils follows Alaska Geotechnical Procedures manual. Classification of soils follows Unified Soil Classification System (ASTM D2487).
- 3) 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.

TYPICAL PENETROMETER TEST LOG



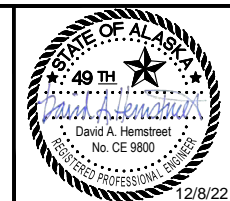
NOTES:

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

R:\cod\1596\DWGS\GEO 22-12-5\1596 Sadie Creek_Geo-21 Tue, Dec/06/22 04:06pm

DESIGNED BY: D. Hemstreet	CHECKED: Engineer
DRAWN BY: J. Nicolazzo	CHECKED: Engineer
QUANTITIES BY: Engineer	CHECKED: Engineer

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
STATEWIDE MATERIALS



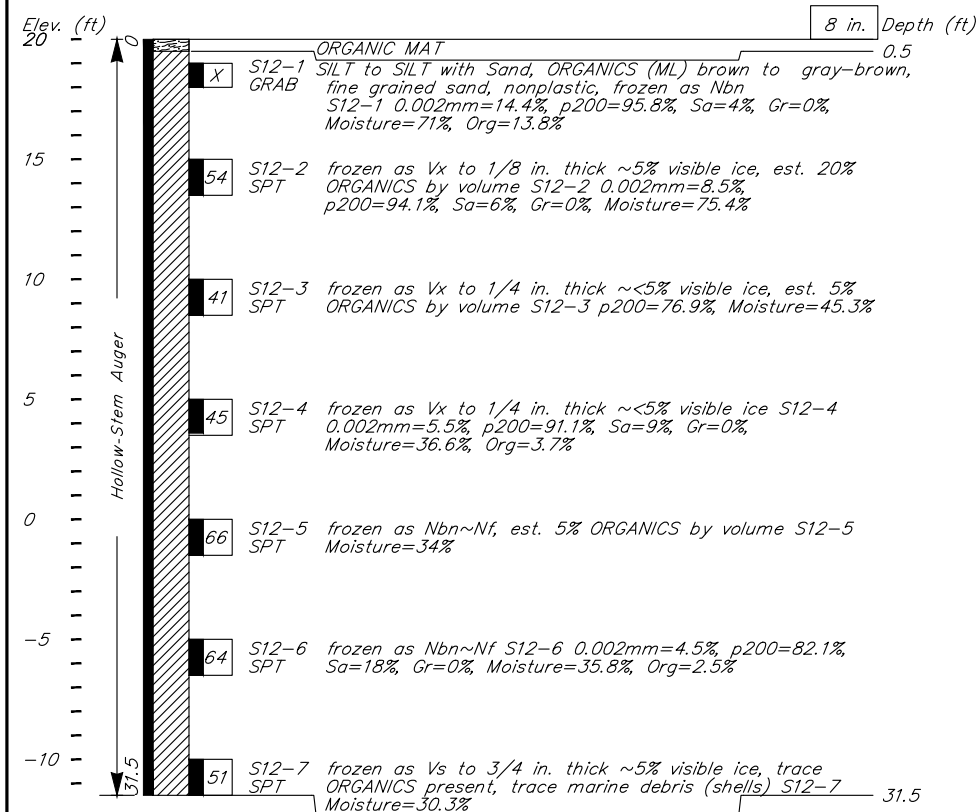
SADIE CREEK BRIDGE
CAPE BLOSSOM ROAD
TEST HOLE & PENETROMETER LEGEND



BRIDGE NO. 1596
DWG. NO. 21

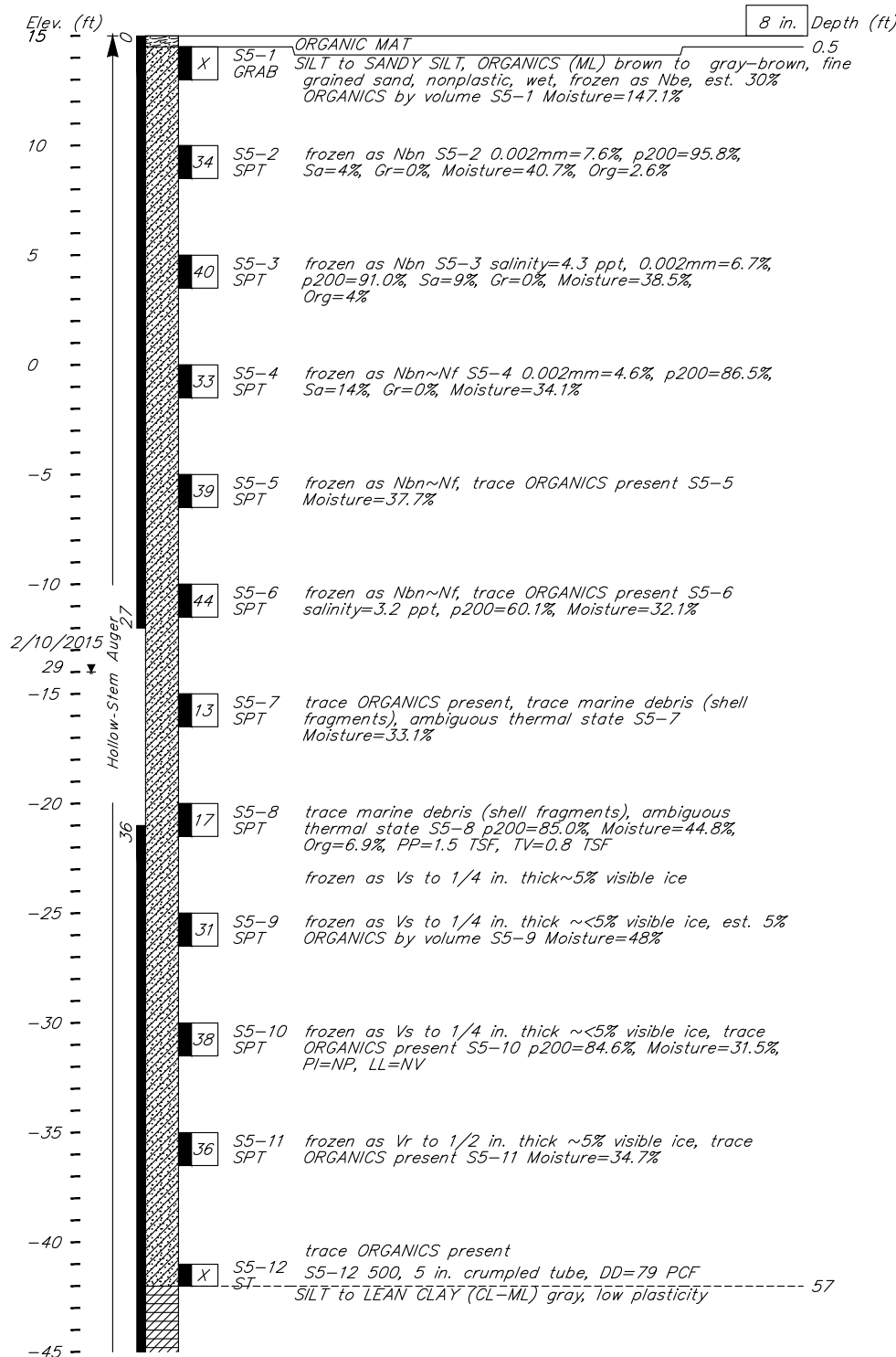
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/ Z768840000	2022	N22	N29

THI5-12
Date: 2/17/15
Station: 1265+71 Offset: 4' RT

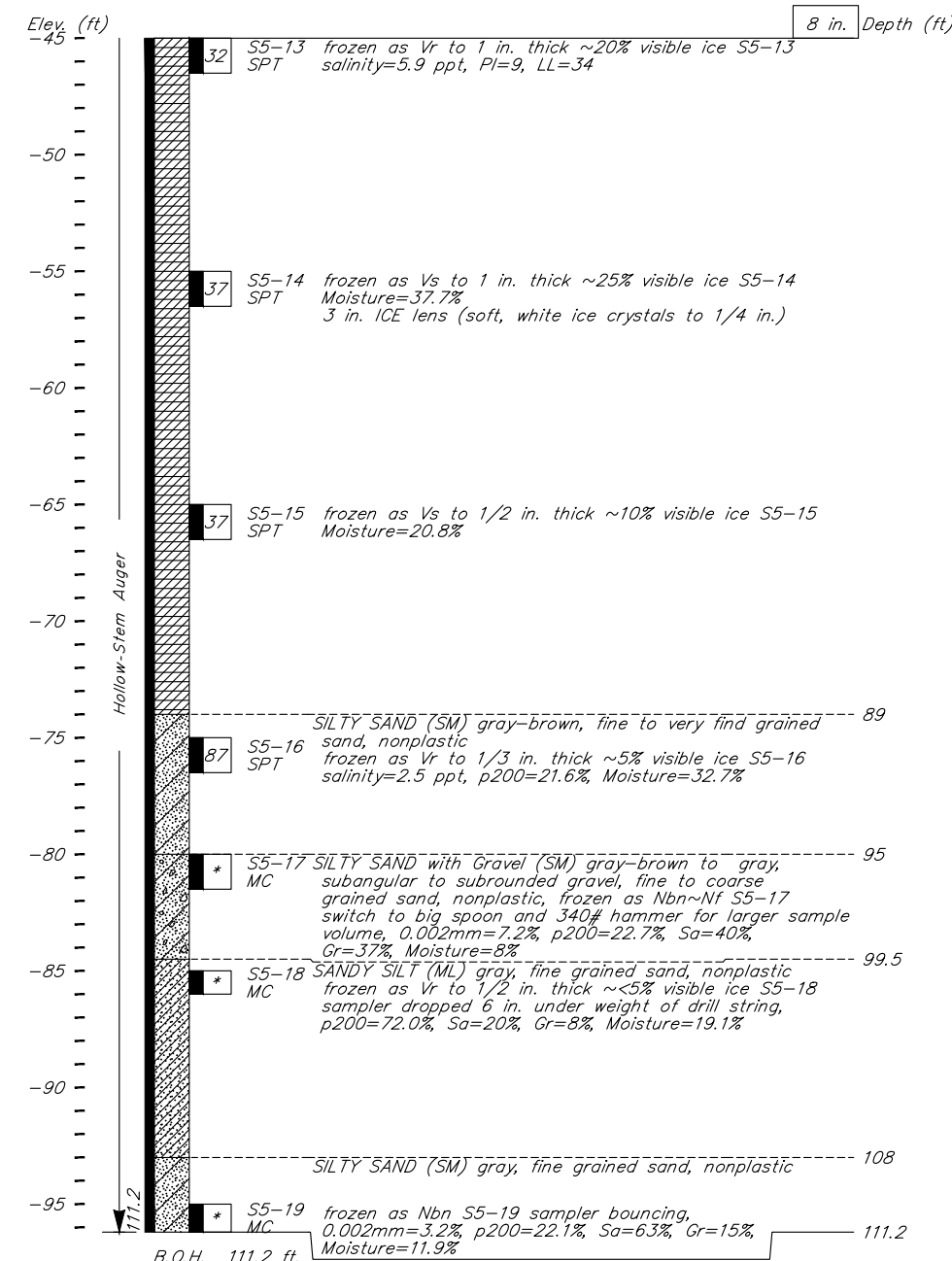


B.O.H. 31.5 ft.
Notes: Coordinates are WGS 84 and were obtained using a handheld GPS unit
Hammer: CME Auto Hammer 140 lb hammer
Equipment: CME 850 Track-Mounted
Drilling Method: 3.25" ID x 8" OD Hollow Auger
Geologist: Brian Mullen, PE
Field Crew: Discovery Drilling, Inc
Latitude: 66.81758 Longitude: -162.51077

THI5-05
Date: 2/10/15 - 2/11/15
Station: 1266+46 Offset: 7' LT



THI5-05 (cont.)
Date: 2/10/15 - 2/11/15
Station: 1266+46 Offset: 7' LT



B.O.H. 111.2 ft.
Notes: Coordinates are WGS 84 and were obtained using a handheld GPS unit
1" sealed PVC casing installed, YSI 44034 equivalent thermistors
Hammer: CME Auto Hammer both 140 and 340 lb hammer
Equipment: CME 850 Track-Mounted
Drilling Method: 3.25" ID x 8" OD Hollow Auger
Geologist: Brian Mullen, PE
Field Crew: Discovery Drilling, Inc
Latitude: 66.81742 Longitude: -162.51046

DESIGNED BY:	D. Hemstreet	CHECKED:	Engineer
DRAWN BY:	J. Nicolazzo	CHECKED:	Engineer
QUANTITIES BY:	Engineer	CHECKED:	Engineer

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
STATEWIDE MATERIALS



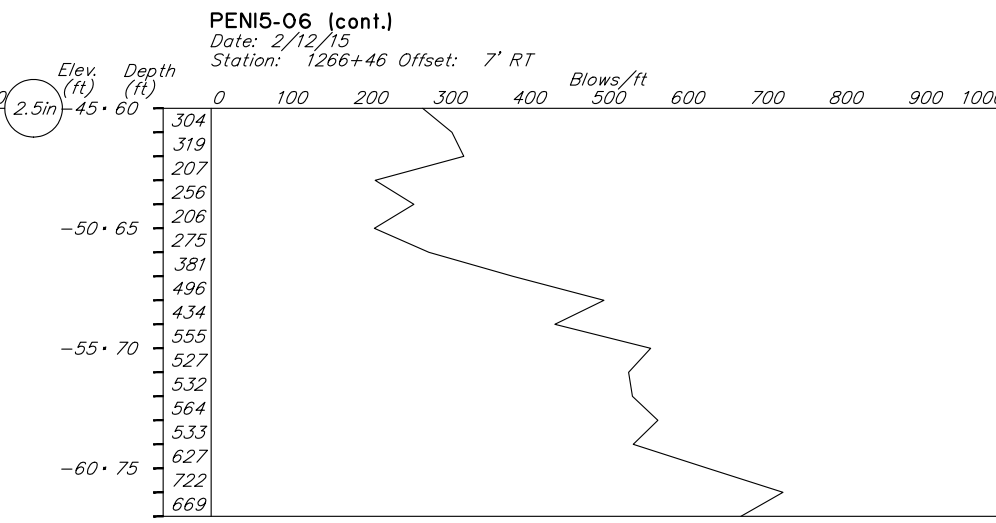
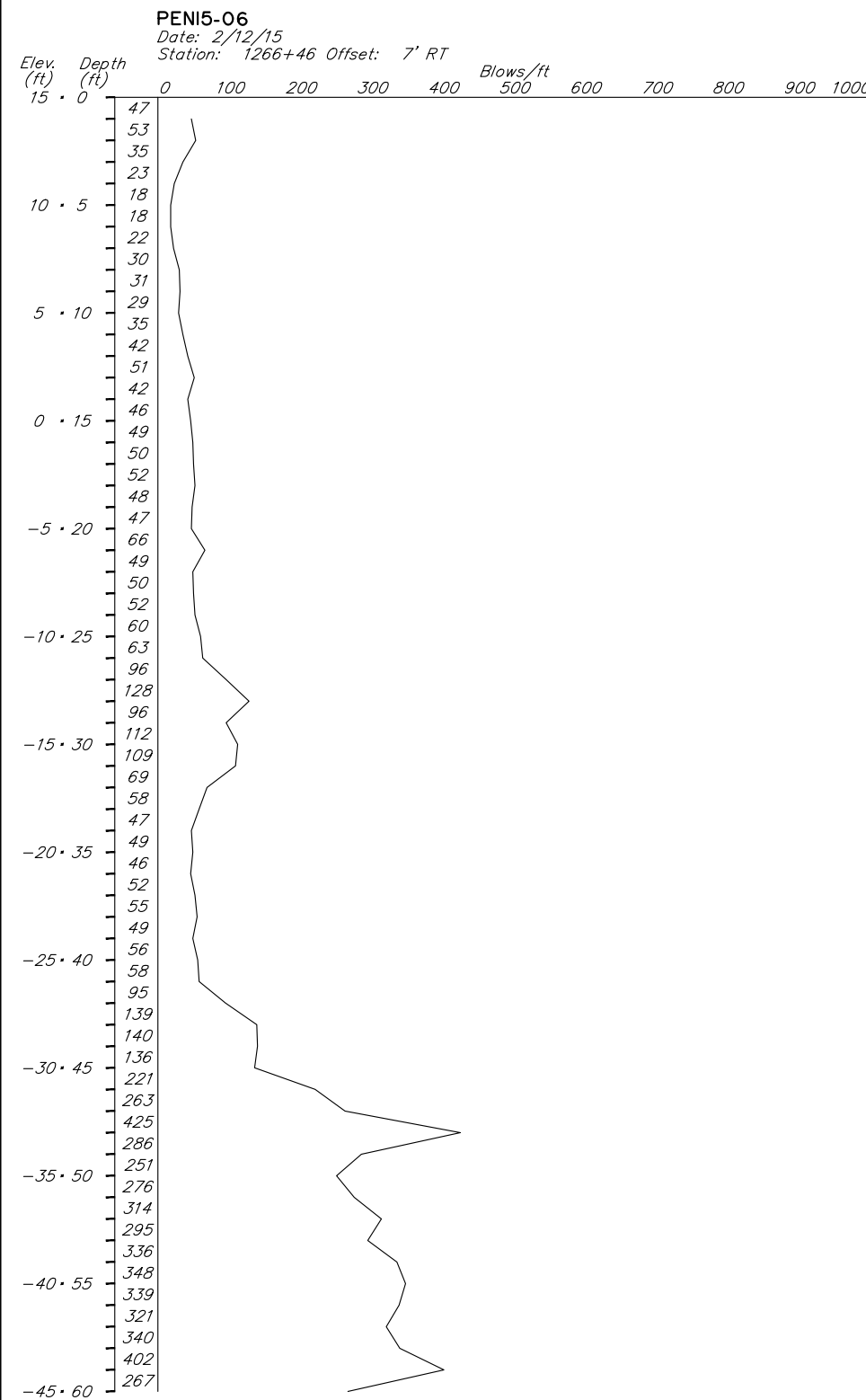
SADIE CREEK BRIDGE
CAPE BLOSSOM ROAD
TEST HOLE & PENETROMETER LOGS



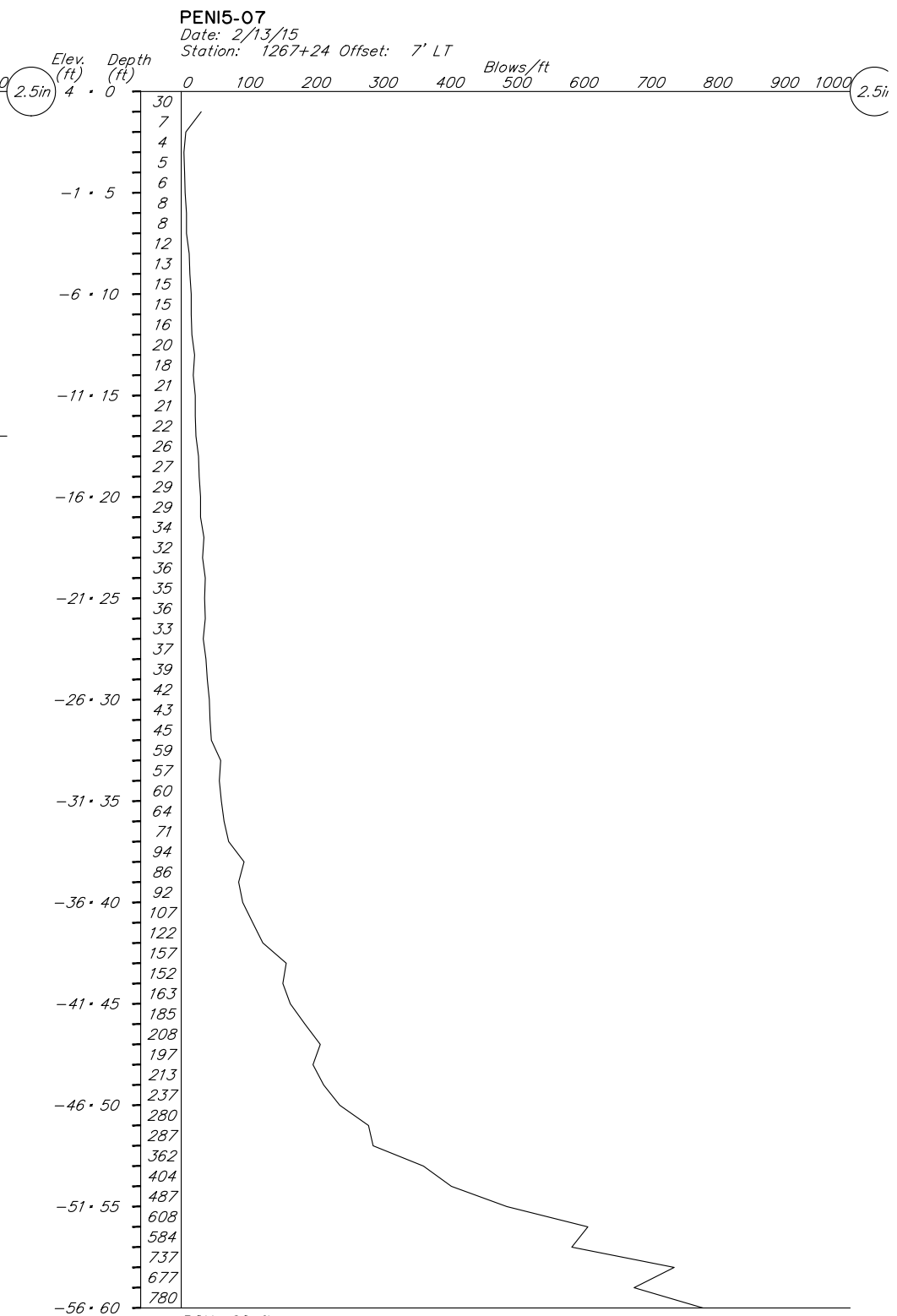
BRIDGE NO. 1596
DWG. NO. 22

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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/ Z768840000	2022	N23	N29



BOH: 77 ft
Notes: Coordinates are WGS 84 and were obtained using a handheld GPS unit
Hammer: CME Auto Hammer 340 lb hammer
Equipment: CME 850 Track-Mounted
Drilling Method: 2.25" OD Drill Rod
Geologist: Brian Mullen, PE
Latitude: 66.8174 Longitude: -162.51055

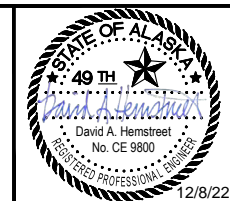


BOH: 60 ft
Notes: Coordinates are WGS 84 and were obtained using a handheld GPS unit
Hammer: CME Auto Hammer 340 lb hammer
Equipment: CME 850 Track-Mounted
Drilling Method: 2.25" OD Drill Rod
Geologist: Brian Mullen, PE
Latitude: 66.81723 Longitude: -162.51019

R:\cod\1596\DWGS\GEO 22-12-5\1596 Sadie Creek_Geo-23 Tue, Dec/06/22 04:06pm

DESIGNED BY: D. Hemstreet	CHECKED: Engineer
DRAWN BY: J. Nicolazzo	CHECKED: Engineer
QUANTITIES BY: Engineer	CHECKED: Engineer

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
STATEWIDE MATERIALS



SADIE CREEK BRIDGE
CAPE BLOSSOM ROAD
TEST HOLE & PENETROMETER LOGS



BRIDGE NO. 1596
DWG. NO. 23

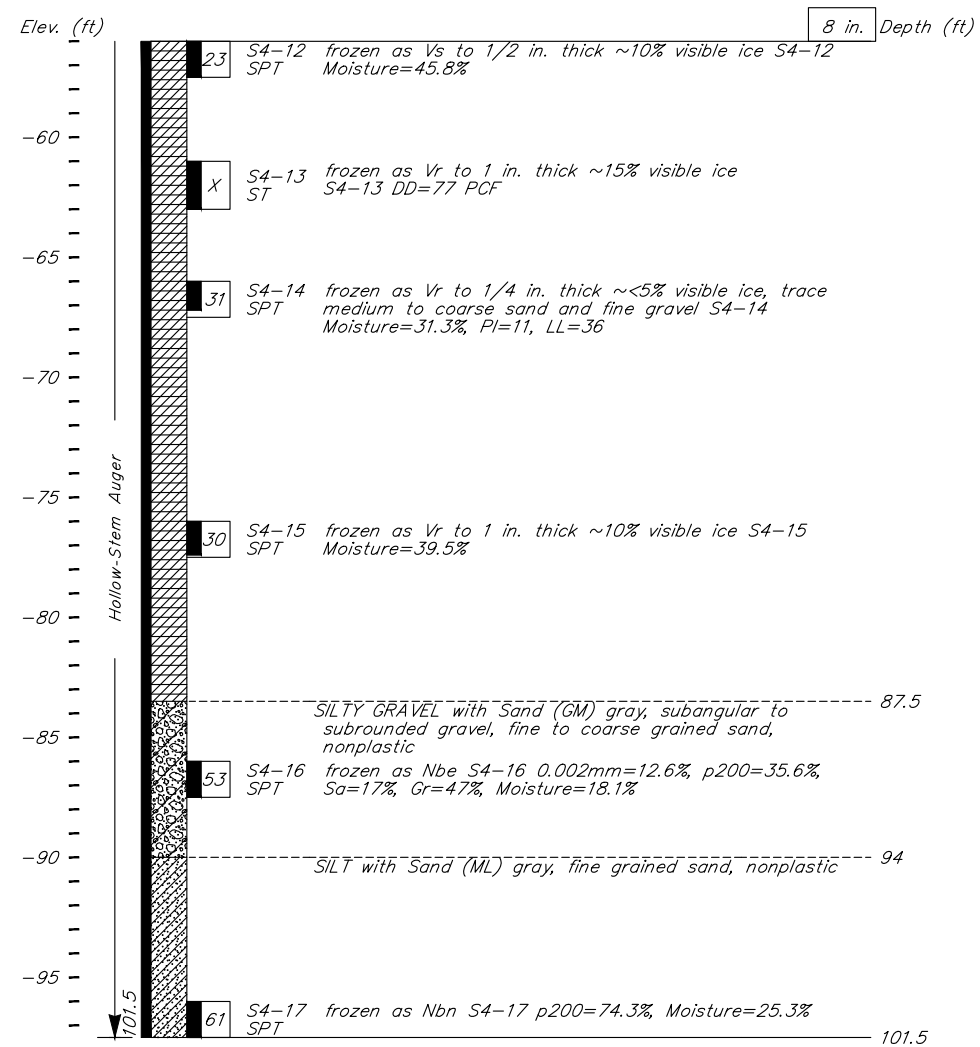
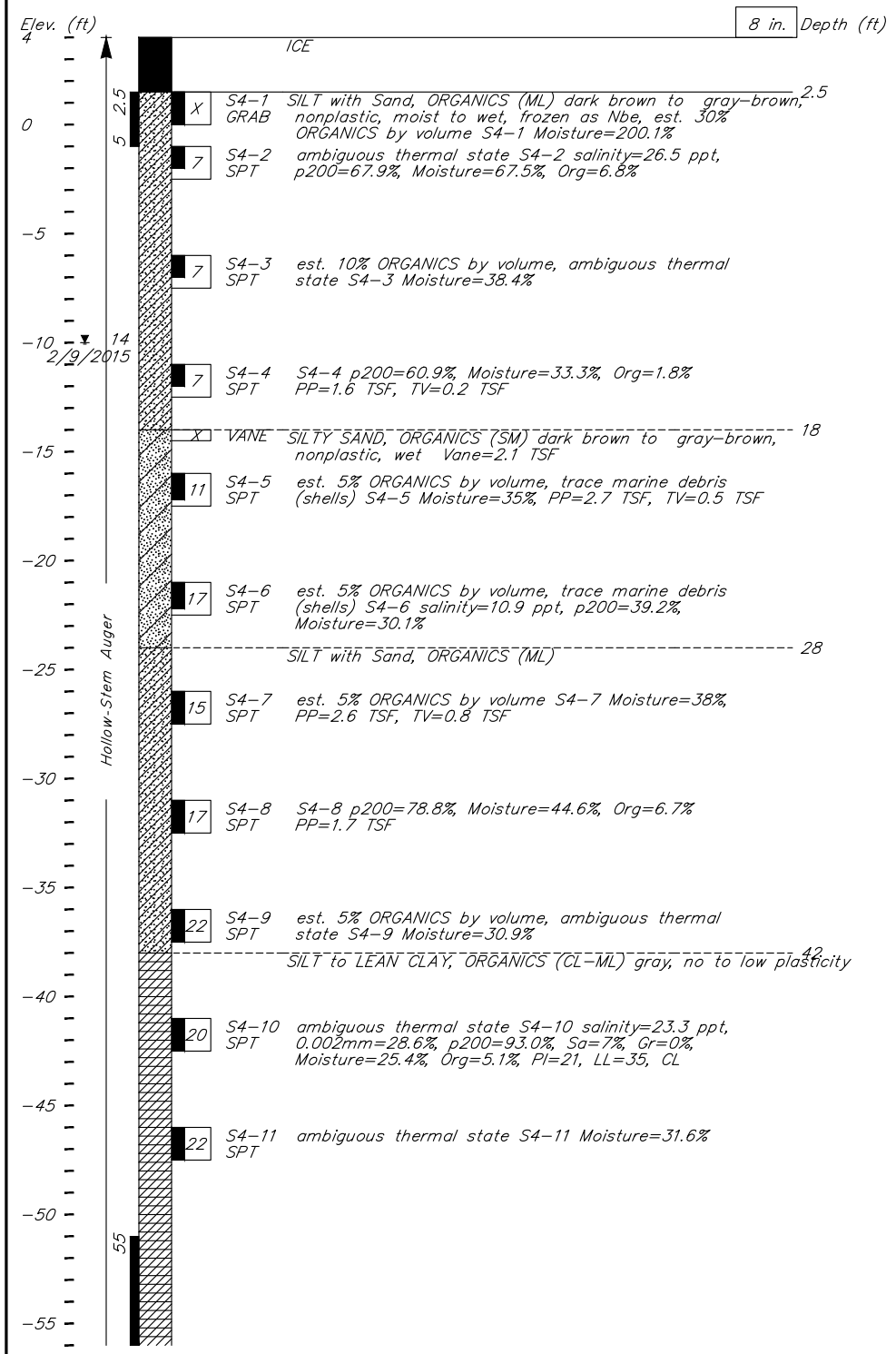
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/ Z768840000	2022	N24	N29

THI5-04

Date: 2/9/15 - 2/10/15
Station: 1267+24 Offset: 7' RT

THI5-04 (cont.)

Date: 2/9/15 - 2/10/15
Station: 1267+24 Offset: 7' RT

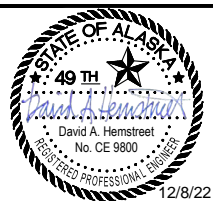


B.O.H. 101.5 ft.
Notes: Coordinates are WGS 84 and were obtained using a handheld GPS unit
1" sealed PVC casing installed, YSI 44034 equivalent thermistors
Hammer: CME Auto Hammer 140 lb hammer
Equipment: CME 850 Track-Mounted
Drilling Method: 3.25" ID x 8" OD Hollow Auger
Geologist: Brian Mullen, PE
Field Crew: Discovery Drilling, Inc
Latitude: 66.81721 Longitude: -162.51027

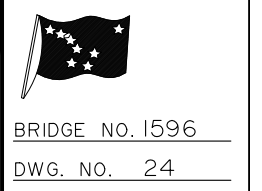
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DESIGNED BY: D. Hemstreet	CHECKED: Engineer
DRAWN BY: J. Nicolazzo	CHECKED: Engineer
QUANTITIES BY: Engineer	CHECKED: Engineer

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
STATEWIDE MATERIALS



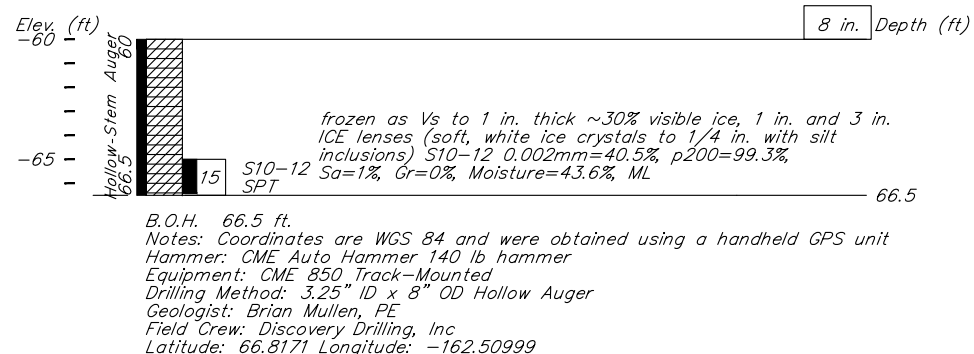
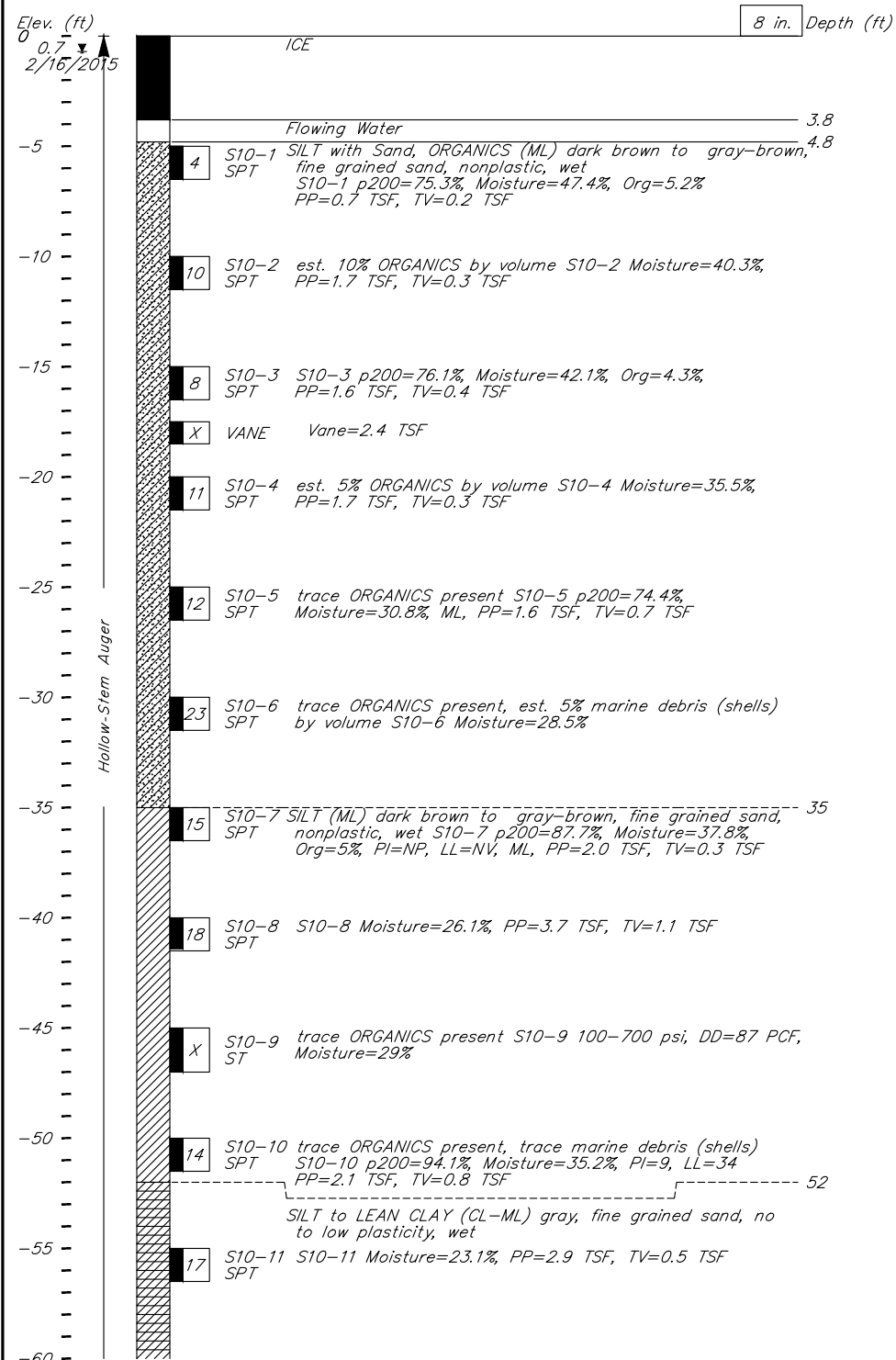
SADIE CREEK BRIDGE
CAPE BLOSSOM ROAD
TEST HOLE & PENETROMETER LOGS



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/ Z768840000	2022	N25	N29

THI5-10
Date: 2/16/15
Station: 1267+72 Offset: CL

THI5-10 (cont.)
Date: 2/16/15
Station: 1268+29 Offset: CL



R:\cod\1596\DWGS\GEO 22-12-5\1596 Sadie Creek_Geo-25 Tue, Dec/06/22 04:06pm

DESIGNED BY: D. Hemstreet	CHECKED: Engineer
DRAWN BY: J. Nicolazzo	CHECKED: Engineer
QUANTITIES BY: Engineer	CHECKED: Engineer

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
STATEWIDE MATERIALS



SADIE CREEK BRIDGE
CAPE BLOSSOM ROAD
TEST HOLE & PENETROMETER LOGS

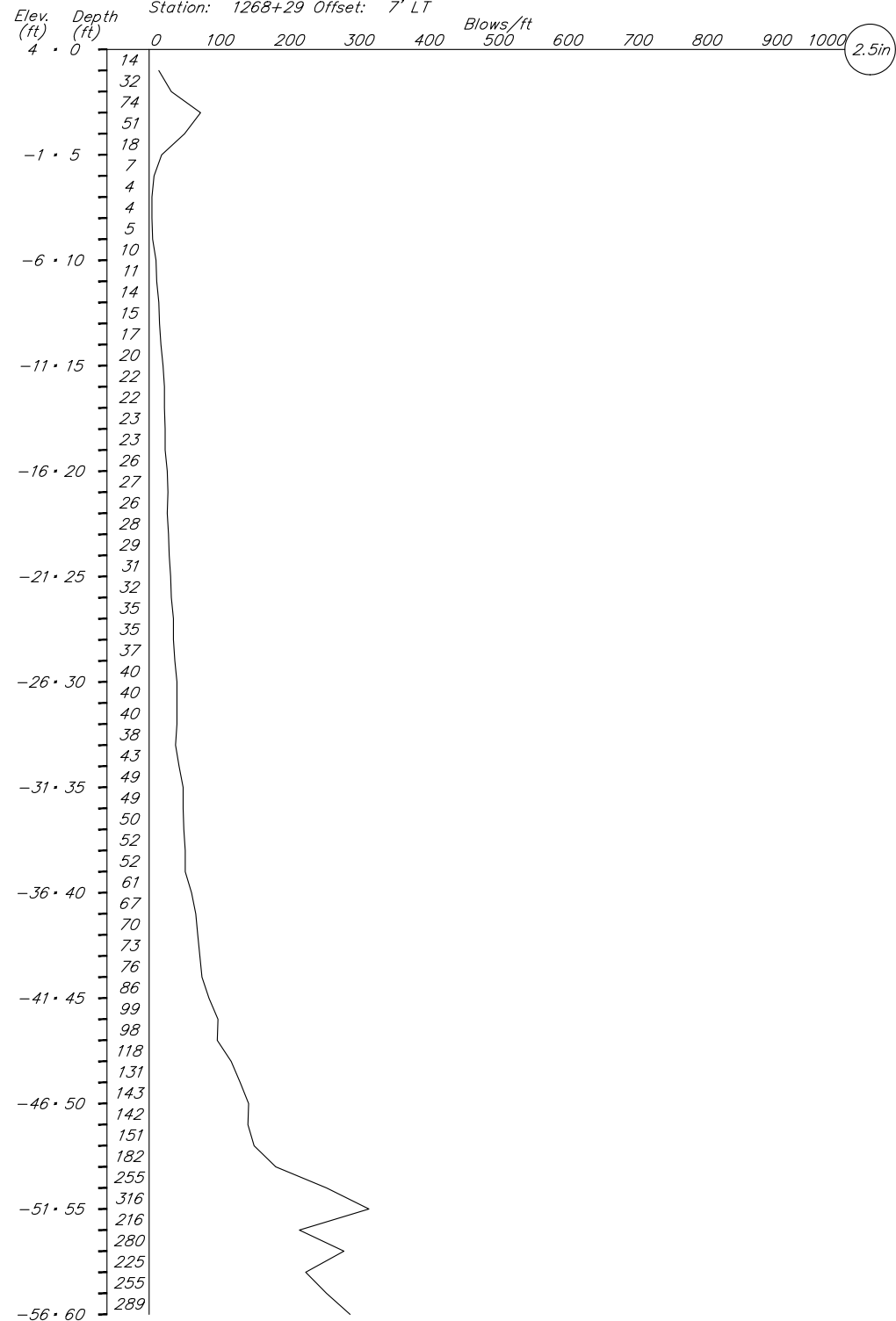


BRIDGE NO. 1596
DWG. NO. 25

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/ Z768840000	2022	N26	N29

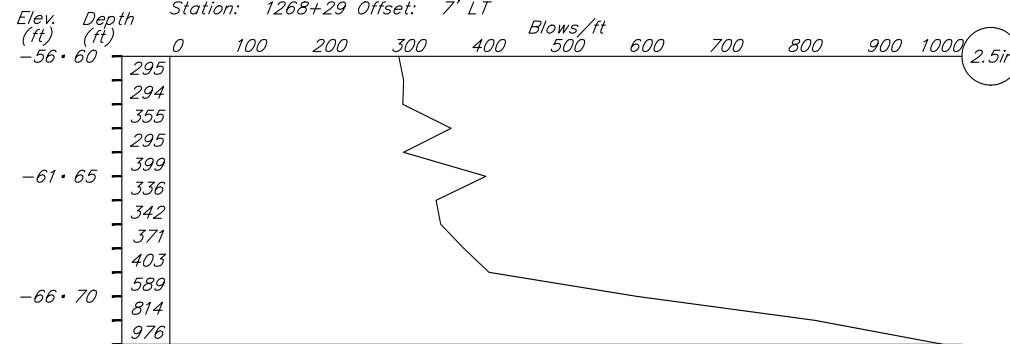
PEN15-08

Date: 2/14/15
Station: 1268+29 Offset: 7' LT



PEN15-08 (cont.)

Date: 2/14/15
Station: 1268+29 Offset: 7' LT



BOH: 72 ft
Notes: Coordinates are WGS 84 and were obtained using a handheld GPS unit
Hammer: CME Auto Hammer 340 lb hammer
Equipment: CME 850 Track-Mounted
Drilling Method: 2.25" OD Drill Rod
Geologist: Brian Mullen, PE
Latitude: 66.81699 Longitude: -162.50982

R:\cod\1596\DWGS\GEO 22-12-5\1596 Sadie Creek_Geo-26 Tue, Dec/06/22 04:07pm

DESIGNED BY: D. Hemstreet	CHECKED: Engineer
DRAWN BY: J. Nicolazzo	CHECKED: Engineer
QUANTITIES BY: Engineer	CHECKED: Engineer

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
STATEWIDE MATERIALS



SADIE CREEK BRIDGE
CAPE BLOSSOM ROAD
TEST HOLE & PENETROMETER LOGS

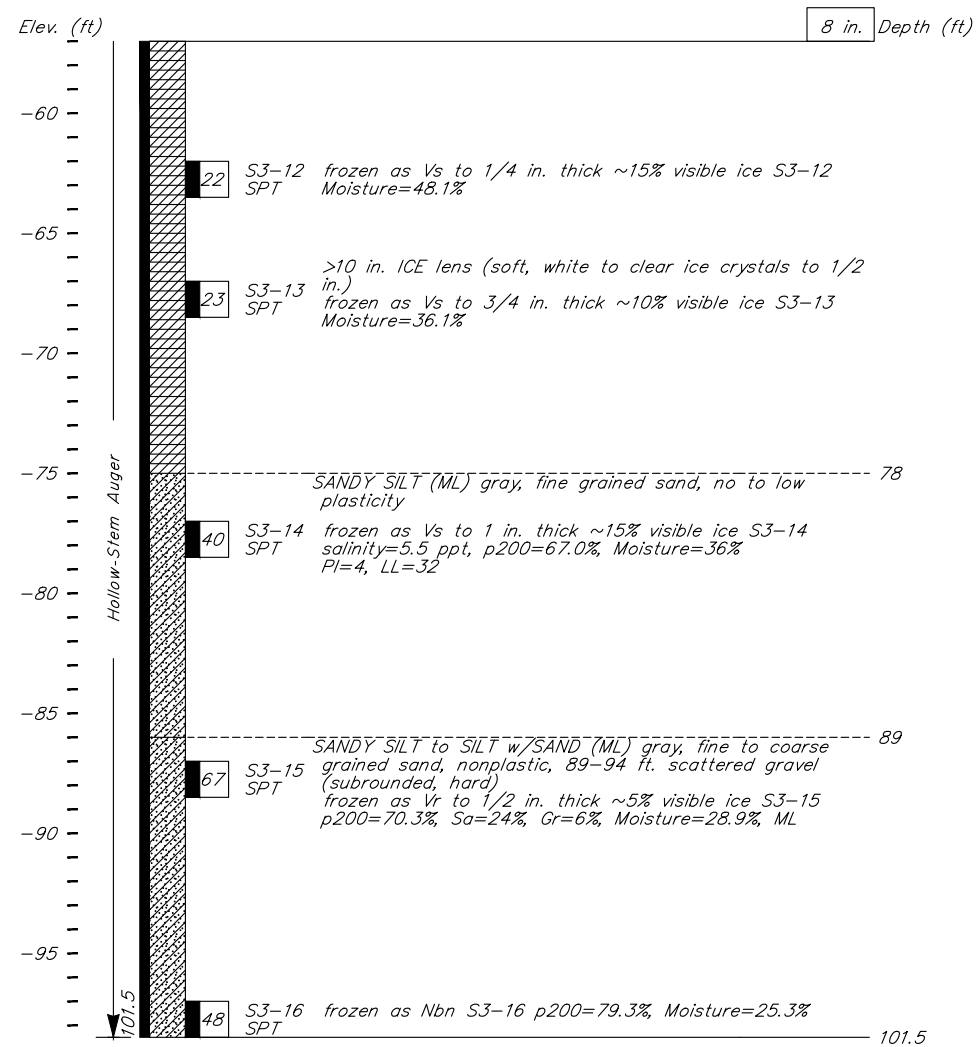
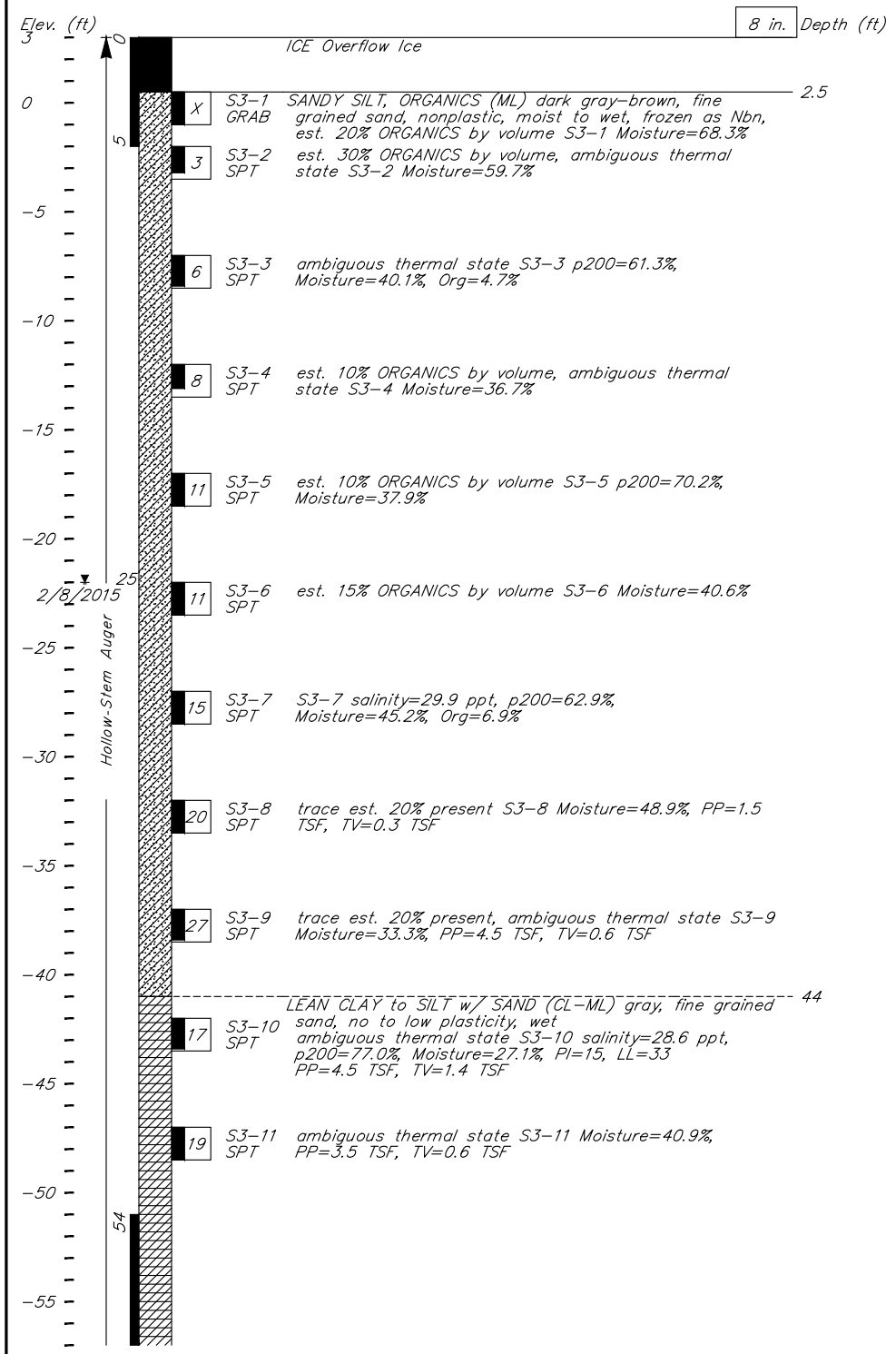


BRIDGE NO. 1596
DWG. NO. 26

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/ Z768840000	2022	N27	N29

THI5-03
Date: 2/8/15 - 2/9/15
Station: 1268+29 Offset: 7' RT

THI5-03 (cont.)
Date: 2/8/15 - 2/9/15
Station: 1268+29 Offset: 7' RT

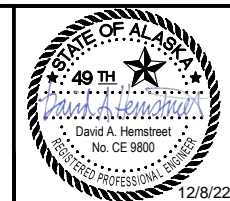


B.O.H. 101.5 ft.
Notes: Coordinates are WGS 84 and were obtained using a handheld GPS unit
1" sealed PVC casing installed, YSI 44034 equivalent thermistors
Hammer: CME Auto Hammer 140 lb hammer
Equipment: CME 850 Track-Mounted
Drilling Method: 3.25" ID x 8" OD Hollow Auger
Geologist: Brian Mullen, PE
Field Crew: Discovery Drilling, Inc
Latitude: 66.81697 Longitude: -162.5099

R:\cod\1596\DWGS\GEO 22-12-5\1596 Sadie Creek_Geo-27 Tue, Dec/06/22 04:07pm

DESIGNED BY: D. Hemstreet	CHECKED: Engineer
DRAWN BY: J. Nicolazzo	CHECKED: Engineer
QUANTITIES BY: Engineer	CHECKED: Engineer

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
STATEWIDE MATERIALS



SADIE CREEK BRIDGE
CAPE BLOSSOM ROAD
TEST HOLE & PENETROMETER LOGS

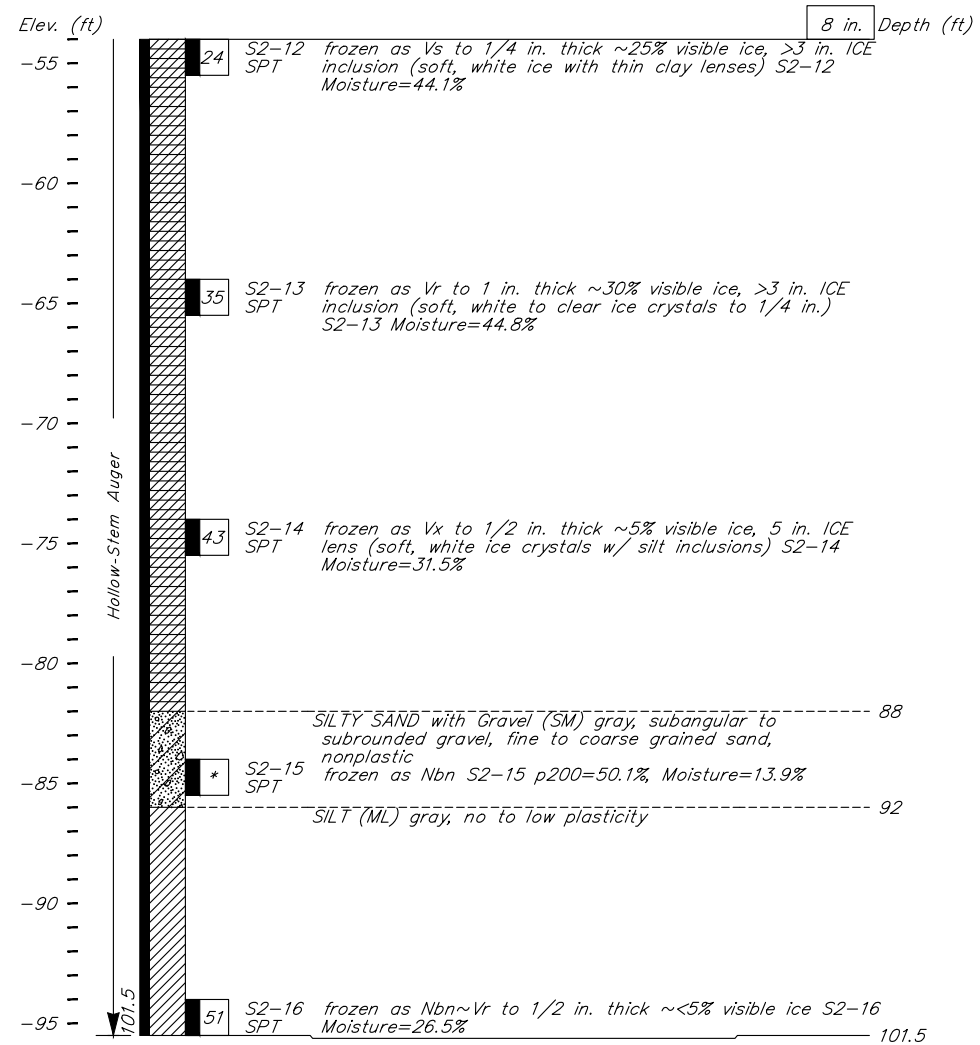
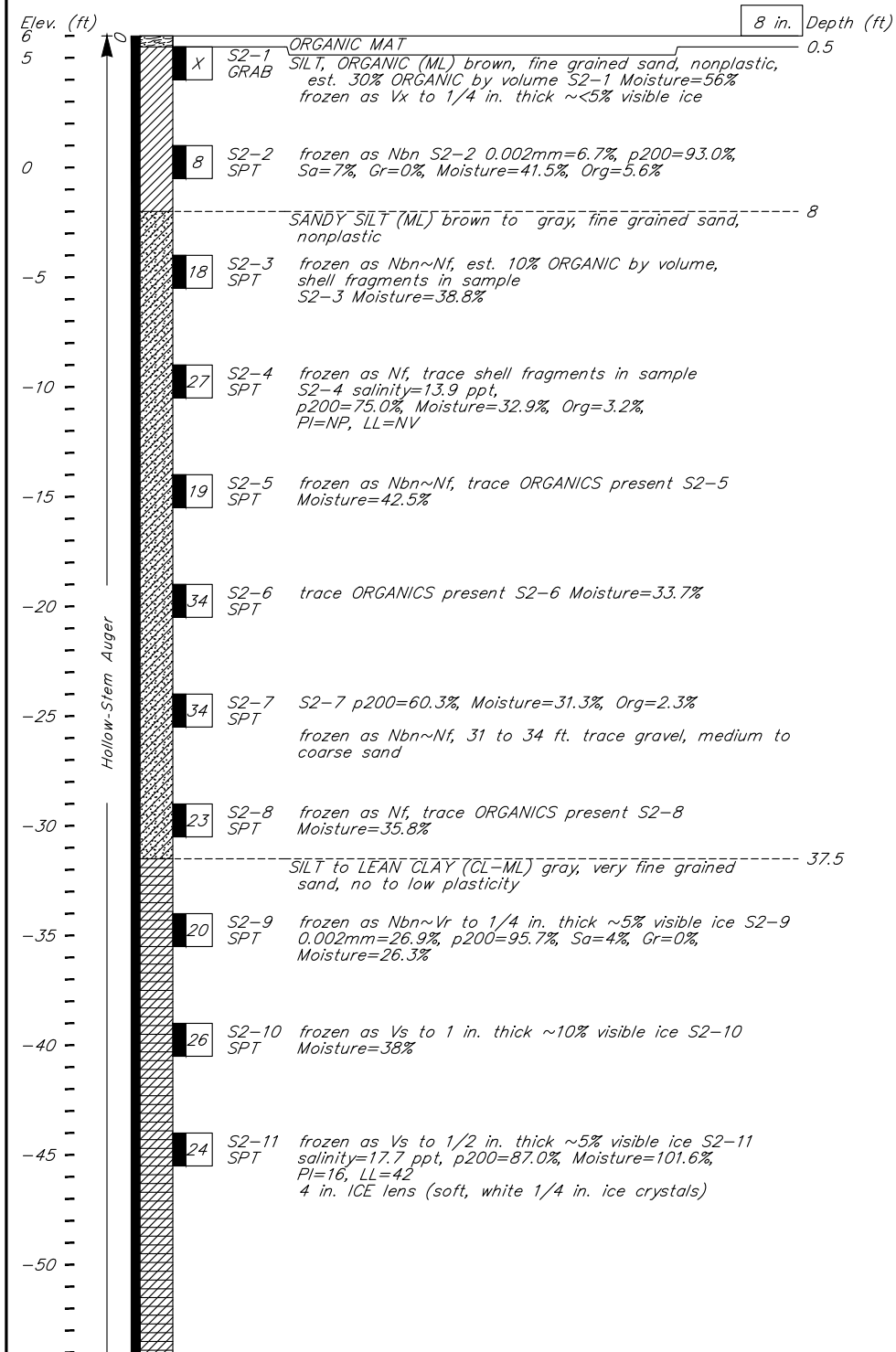


BRIDGE NO. 1596
DWG. NO. 27

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/ Z768840000	2022	N28	N29

THI5-02
Date: 2/7/15 - 2/8/15
Station: 1269+07 Offset: 7' LT

THI5-02 (cont.)
Date: 2/7/15 - 2/8/15
Station: 1269+07 Offset: 7' LT



B.O.H. 101.5 ft.
Notes: Coordinates are WGS 84 and were obtained using a handheld GPS unit
1" sealed PVC casing installed, YSI 44034 equivalent thermistors
Hammer: CME Auto Hammer 140 lb hammer
Equipment: CME 850 Track-Mounted
Drilling Method: 3.25" ID x 8" OD Hollow Auger
Geologist: Brian Mullen, PE
Field Crew: Discovery Drilling, Inc
Latitude: 66.8168 Longitude: -162.50955

DESIGNED BY:	D. Hemstreet	CHECKED:	Engineer
DRAWN BY:	J. Nicolazzo	CHECKED:	Engineer
QUANTITIES BY:	Engineer	CHECKED:	Engineer

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
STATEWIDE MATERIALS

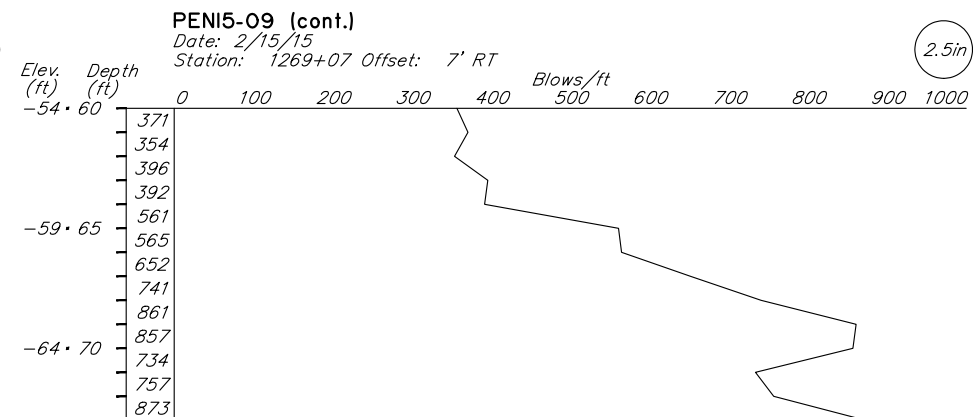
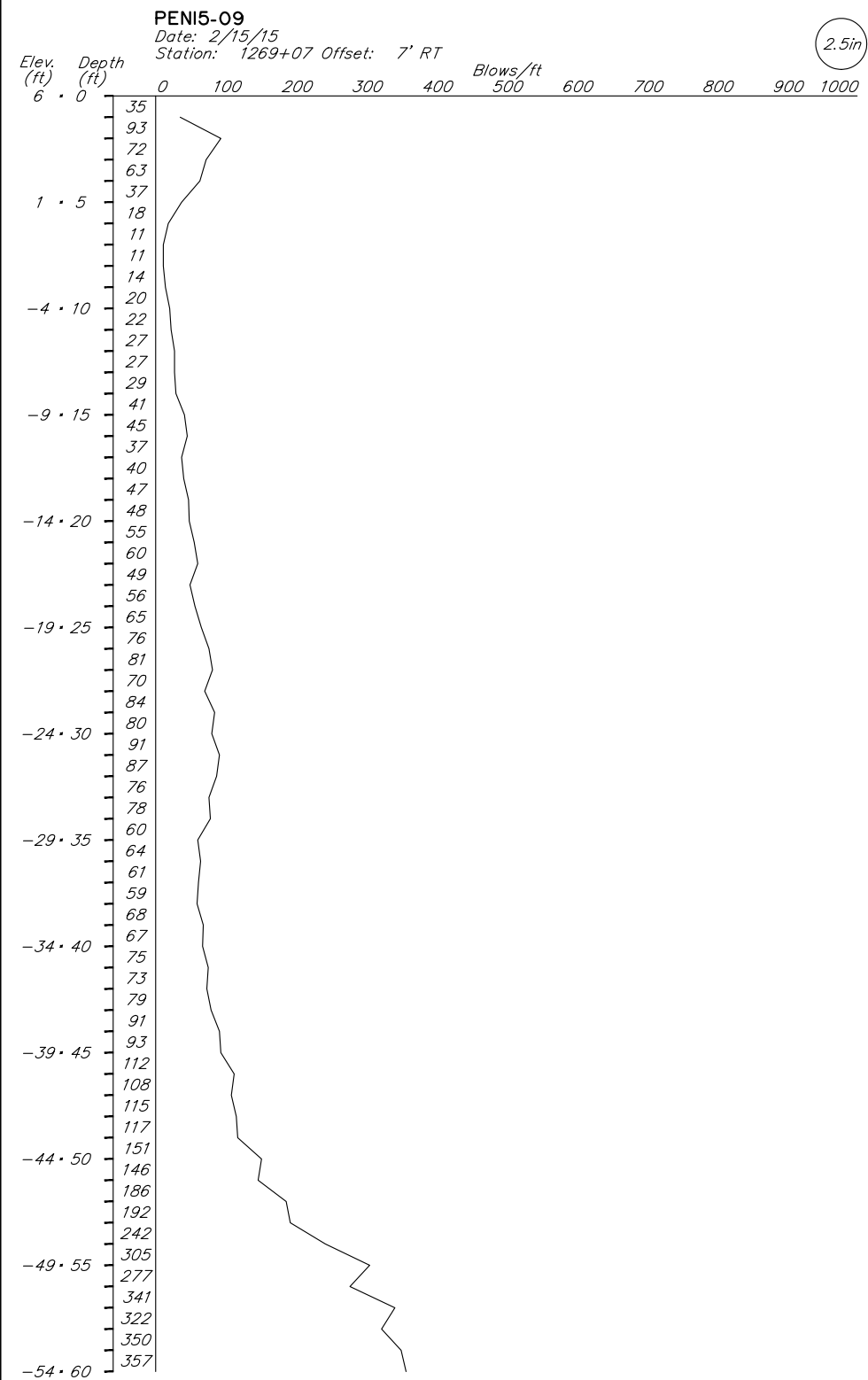


SADIE CREEK BRIDGE
CAPE BLOSSOM ROAD
TEST HOLE & PENETROMETER LOGS

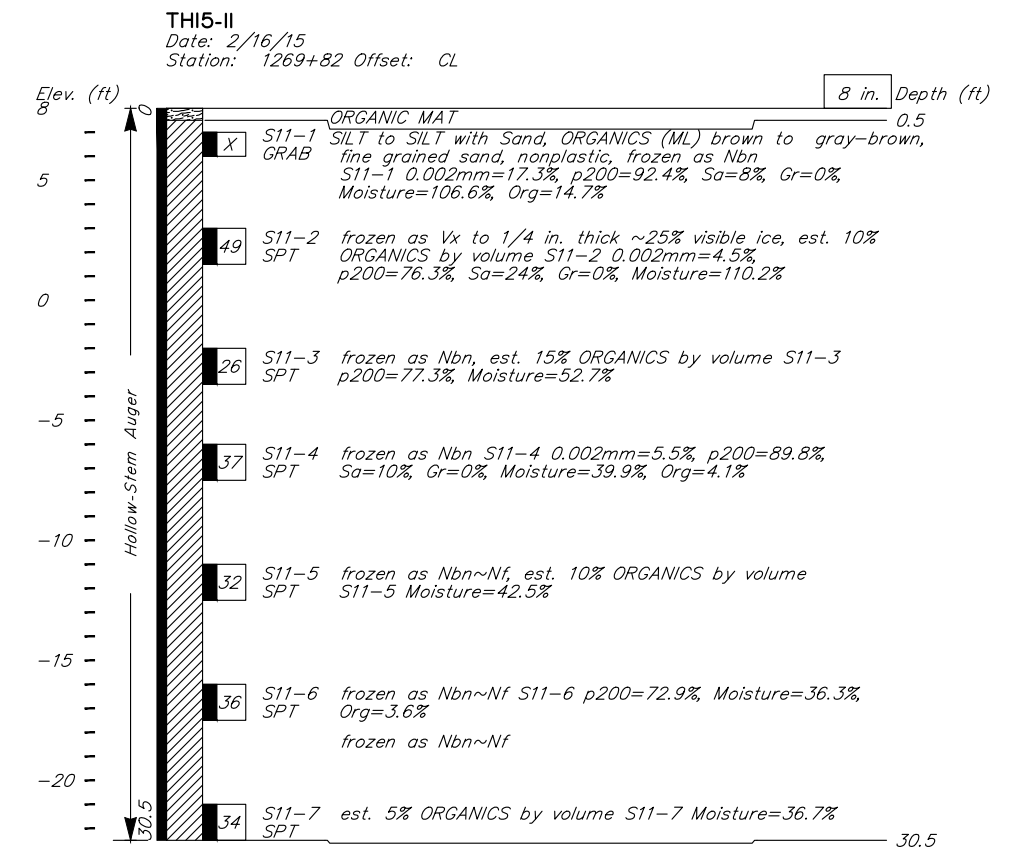
BRIDGE NO. 1596
DWG. NO. 28

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STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0002204/ Z768840000	2022	N29	N29



BOH: 73 ft
Notes: Coordinates are WGS 84 and were obtained using a handheld GPS unit
Hammer: CME Auto Hammer 340 lb hammer
Equipment: CME 850 Track-Mounted
Drilling Method: 2.25" OD Drill Rod
Geologist: Brian Mullen, PE
Latitude: 66.81678 Longitude: -162.50963



B.O.H. 30.5 ft.
Notes: Coordinates are WGS 84 and were obtained using a handheld GPS unit
Hammer: CME Auto Hammer 140 lb hammer
Equipment: CME 850 Track-Mounted
Drilling Method: 3.25" ID x 8" OD Hollow Auger
Geologist: Brian Mullen, PE
Field Crew: Discovery Drilling, Inc
Latitude: 66.81662 Longitude: -162.50933

R:\cod\1596\DWGS\GEO 22-12-5\1596 Sadie Creek_Geo-29 Tue, Dec/06/22 04:07pm

DESIGNED BY: D. Hemstreet	CHECKED: Engineer
DRAWN BY: J. Nicolazzo	CHECKED: Engineer
QUANTITIES BY: Engineer	CHECKED: Engineer

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
STATEWIDE MATERIALS



SADIE CREEK BRIDGE
CAPE BLOSSOM ROAD
TEST HOLE & PENETROMETER LOGS



BRIDGE NO. 1596
DWG. NO. 29

PLANS DEVELOPED BY: STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES, NORTHERN REGION, 2301 PEGER ROAD, FAIRBANKS, AK 99709 (907)451-2200
 H:\Projects\Communities\Kotzebue\Kotzebue\76884_Kotz_to_Cape_Blossom_Stage_1\04_P&E\04_Plans\1_Plat\76884_Q-01_Fri_Nov/25/22_02:24pm

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002204/Z768840000	2022	Q1	Q1

ESCP NOTES:

1. CONTROLS
 - A. TEMPORARY EROSION AND SEDIMENT CONTROLS
 - I. SEDIMENT CONTROLS AT CULVERT INLETS AND OUTLETS.
 - II. SEDIMENT CONTROLS INSTALLED AT THE TOE OF SLOPE WHERE SELECTED MATERIAL, TYPE B OR C IS PLACED.
 - III. WHERE LESS THAN 25 FEET OF VEGETATIVE BUFFER EXISTS, INSTALL FIBER ROLLS, SILT FENCE, GRAVEL BERM, OR FUNCTIONALLY EQUIVALENT PERIMETER PROTECTION APPROVED BY THE ENGINEER. PERIMETER PROTECTION WILL BE PROVIDED FOR ALL SLOPES NOT HAVING ESTABLISHED PERMANENT STABILIZATION.
 - IV. WETLANDS ADJACENT TO DISTURBED GROUND MUST BE PROTECTED.
 - V. ALL IN-WATER WORK SHALL BE ISOLATED FROM FLOWING WATER.
 - VI. ALL CONCRETE WASHOUTS WILL BE DISPOSED OF IN A LINED CONTAINMENT AREA DESIGNATED IN THE CONTRACTORS SWPPP.
 - VII. ALL IN WATER WORK MUST BE ISOLATED FROM FLOWING WATER. ISOLATION METHODS INCLUDE: SILT CURTAINS, COFFERDAMS, OTHER METHODS APPROVED BY THE ENGINEER

- B. STABILIZATION
 - I. SEASONAL SUSPENSION OF WORK.
 1. THE CONTRACTOR SHALL STABILIZE ERODIBLE SLOPES PRIOR TO SEASONAL SUSPENSION OF WORK. SLOPE STABILIZATION SHALL BE MAINTAINED THROUGHOUT SPRING THAW UNTIL EARTH DISTURBING ACTIVITIES ARE RESUMED.
 2. PROVIDE PERIMETER PROTECTION AT THE TOE CONSISTING OF ONE OF THE FOLLOWING CONTROLS: 25-FOOT VEGETATIVE BUFFER BEYOND TEMPORARY WORK AREA, GRAVEL OR SNOW BERM, FIBER ROLL, OR SILT FENCE. PERIMETER PROTECTION WILL BE PROVIDED FOR ALL SLOPES NOT HAVING ESTABLISHED PLANT GROWTH.
 3. ALL WORK DONE AFTER SEEDING CUT-OFF DATES AND ALL AREAS WHERE SEED IS NOT ESTABLISHED ON DATE OF SEASONAL SUSPENSION OF WORK SHALL BE MULCHED AND TACKIFIED FOR SEASONAL SHUTDOWN.
 4. ALL DRAINAGE PIPE INLETS WILL BE PROTECTED BY ENCIRCLING THE INLET WITH LOW PROFILE FIBER ROLLS, COMPOST ROLLS, SYNTHETIC BARRIERS, OR EQUIVALENT.
 - II. PERMANENT
 1. SIDESLOPE SEEDING WITH 70% ESTABLISHED GROWTH AND MAINTAINING EXISTING VEGETATION WILL BE THE PRIMARY PERMANENT STABILIZATION.
 2. DISTURBED GROUND WILL BE STABILIZED BY PERMANENT SEEDING, MULCHING, AND THE APPLICATION OF TACKIFIERS.

2. ADDITIONAL NOTES
 - A. VEGETATIVE BUFFER SHALL SERVE AS THE PRIMARY PERIMETER CONTROL AT SLOPE TOES. ALTERNATIVE PERIMETER CONTROL MEASURES WILL BE REQUIRED IN AREAS WHERE A 25' VEGETATIVE BUFFER IS NOT AVAILABLE.
 - B. PERIMETER CONTROL SHALL BE INSTALLED PRIOR TO ANY EARTH DISTURBING ACTIVITIES IN THE AREA OF WORK.
 - C. THE CONTRACTOR WILL PROVIDE EROSION AND SEDIMENT CONTROL (ESC) MEASURES IN ACCORDANCE WITH THEIR SWPPP. DOT&PF'S PROJECT ENGINEER MAY REQUIRE ADDITIONAL ESC MEASURES AS FIELD CONDITIONS DICTATE.

TEMPORARY WORK AREA NOTES:

1. AN 18-FOOT TEMPORARY WORK AREA IS PERMITTED ALONG THE ROAD CORRIDOR BEYOND THE DESIGN TOE-OF-SLOPE FOR EQUIPMENT ACCESS AND SNOW REMOVAL. FOR CULVERTS THIS TEMPORARY WORK AREA IS 25' BEYOND THE CULVERT ENDS. SEE PERMIT CONDITIONS.
2. CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO AVOID DAMAGING AND PLACING ANY FILL MATERIAL WITHIN THE TEMPORARY WORK AREA, INCLUDING RESIDUAL IMPACTS AND FILL ASSOCIATED WITH SNOW REMOVAL EFFORTS.
3. BEFORE STARTING CONSTRUCTION, THE CONTRACTOR SHALL MARK THE BOUNDARIES OF PERMIT AREAS AS DESCRIBED IN SPEC SECTION 642.
4. EQUIPMENT SHALL NOT BE OPERATED OR PARKED BEYOND THE BOUNDARY.
5. CONSTRUCTION MATERIALS AND SUPPLIES MAY NOT BE STORED OR STAGED BEYOND THIS BOUNDARY.
6. NO TEMPORARY OR PERMANENT FILL SHALL BE PLACED BEYOND THIS BOUNDARY.

PROJECT SITE-SPECIFIC CONDITIONS

1. DRAINAGE FROM THE ROADWAY IS TO THE SOUTH AND WEST TOWARD THE KOTZEBUE SOUND. SURFACE WATER OVERLAYS THE LOWLAND TUNDRA IN THE SUMMER. THE AREA PAST THE EXISTING TOE IS WETLANDS.
2. TYPE OF VEGETATION: CONTAINS BUT IS NOT LIMITED TO GRASS, SEDGES, AND DWARF WILLOWS.

PROJECT AREAS

TOTAL PROJECT AREA: 263 ACRES (ROW EXTENTS)
 TOTAL DISTURBED: 39.2 ACRES
 USACE (WETLANDS & WATERS OF THE U.S.): 39.2 ACRES

PERCENTAGE IMPERVIOUS AREA BEFORE CONSTRUCTION: 0%
 RUNOFF COEFFICIENT BEFORE CONSTRUCTION: ~0.16
 PERCENTAGE IMPERVIOUS AREA AFTER CONSTRUCTION: 50%
 RUNOFF COEFFICIENT AFTER CONSTRUCTION: ~0.355

3. ESSENTIAL FISH HABITAT IS PRESENT WITHIN PROJECT ROW LIMITS AT SADIE CREEK. FISH SPECIES INCLUDE: STICKLEBACKS, PIKE, AND WHITE FISH.
4. IMPAIRED WATERS: NONE
5. BASED ON USFWS AND ADFG DATA: POLAR BEAR, STELLER EIDER AND SPECTACLED EIDERS ENDANGERED SPECIES ZONE 7
6. NO HISTORIC PROPERTIES IN THE PROJECT AREAS.

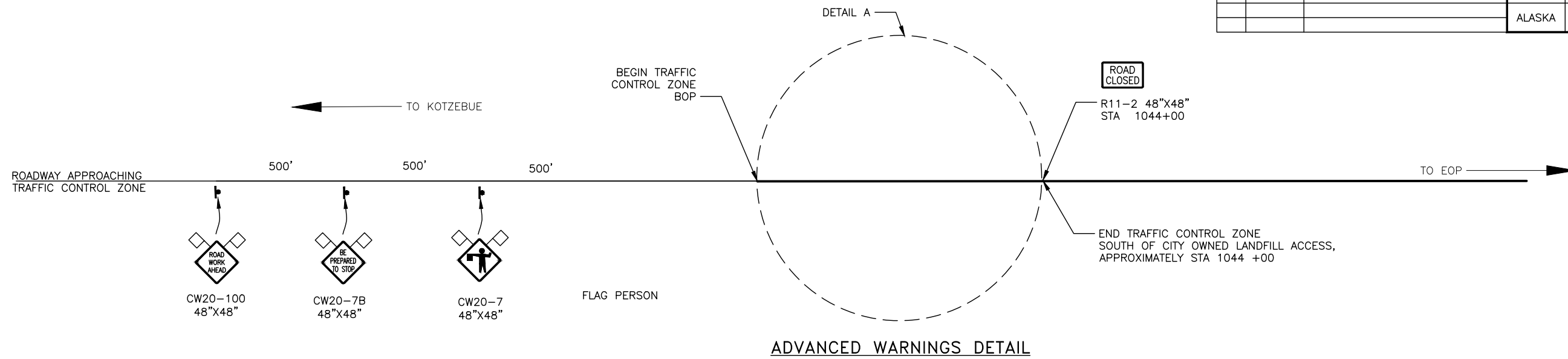
RUN-OFF COEFFICIENTS

TYPE OF SURFACE	RUNOFF COEFFICIENT (C)
PAVED	0.7-0.9
GRAVEL ROADWAY OR SHOULDERS	0.4-0.6
CUT, FILL SLOPES	0.5-0.7
GRASSED AREAS	0.1-0.7
WOODS	0.1-0.3

NOTE:
 FROM HYDRAULIC CIRCULAR #12, "DRAINAGE OF HIGHWAY PAVEMENTS", MARCH 1984, PAGE 12. FOR FLAT SLOPES AND/OR PERMEABLE SOILS, USE LOWER VALUE. FOR STEEP SLOPES AND/OR IMPERMEABLE SOILS, USE HIGHER VALUES.

EROSION SEDIMENT
 CONTROL PLAN NOTES

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0002204/Z768840000	2022	T1	T1



NOTES:

1. THE CONTRACTOR SHALL PREPARE FORMAL TRAFFIC CONTROL PLANS BASED ON THE GENERAL TRAFFIC CONTROL SCHEME SHOWN ON THIS SHEET AS COORDINATED WITH ACTUAL FIELD CONDITIONS. CONTRACTOR SHALL SUBMIT FOR ENGINEER APPROVAL PER 643-1.03.
2. ADVANCED WARNINGS MUST BE UTILIZED ALONG HILLSIDE DRIVE AS WELL AS THE ROAD HEADING SOUTH FROM THE AIRPORT.
3. SPEED LIMIT REDUCTIONS MUST BE IN ACCORDANCE WITH ADOT&PF POLICY AND PROCEDURE NUMBER 05.05.20.
4. CONTRACTOR MUST MAINTAIN PUBLIC ACCESS TO THE CITY LANDFILL AT ALL TIMES. CONTRACTOR MAY CLOSE THE ROAD TO PUBLIC ACCESS BEYOND THE CITY LANDFILL, EXCEPT PER NOTES 5 AND 6.
5. CONTRACTOR MUST PROVIDE ACCESS FOR UNITED STATES DEPARTMENT OF THE AIR FORCE (USAF) PERSONNEL TO USAF LANDS WITHIN THE PROJECT AREA.
6. CONTRACTOR MUST PROVIDE ACCESS FOR KOTZEBUE ELECTRIC ASSOCIATION (KEA), GCI, KOTZ RADIO, AND ASSOCIATED PERSONNEL AS NEEDED, WITHIN AND THROUGH THE PROJECT AREA.
7. CONTRACTOR MUST MAINTAIN TEMPORARY ACCESS TO ALL EXISTING APPROACHES IN THE PROJECT AREA UNTIL FINAL APPROACH GRADE IS CONSTRUCTED, AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL PLAN