STATE	PROJECT	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924(9)	1	27

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

PLAN AND PROFILE
PROPOSED HIGHWAY PROJECT

RS-0924(9), (B-30022)

KLAWOCK TO HOLLIS

STAGE I

INDEX OF SHEETS	
1	TITLE SHEET
2	TYPICAL SECTION
3	SUMMARY TABLES
4	DETAIL SHEET
5	TRAFFIC CONTROL PLAN
6	STATE FURN. MATERIAL SOURCE
7	RECONSTRUCTION DETAIL
8-26	PLAN & PROFILE SHEETS
27	KLAWOCK STREET PAVING
	STANDARD DRAWINGS

THE FOLLOWING STANDARD DRAWINGS SHALL APPLY TO THIS PROJECT : A-1,C-00.00,C-10.01,C-11.01,D-01.00, D-04.01, D-05.01 , G-04.01S, G-04.01W, G-14.01S, G-14.01W, G-15.00, G-18.00, G-24.01S, G-24.01W, I-40.00, I-80.00, S-00.00, S-05.00, S-20.00, S-30.00, T-20.00, T-21.00, U-03.00

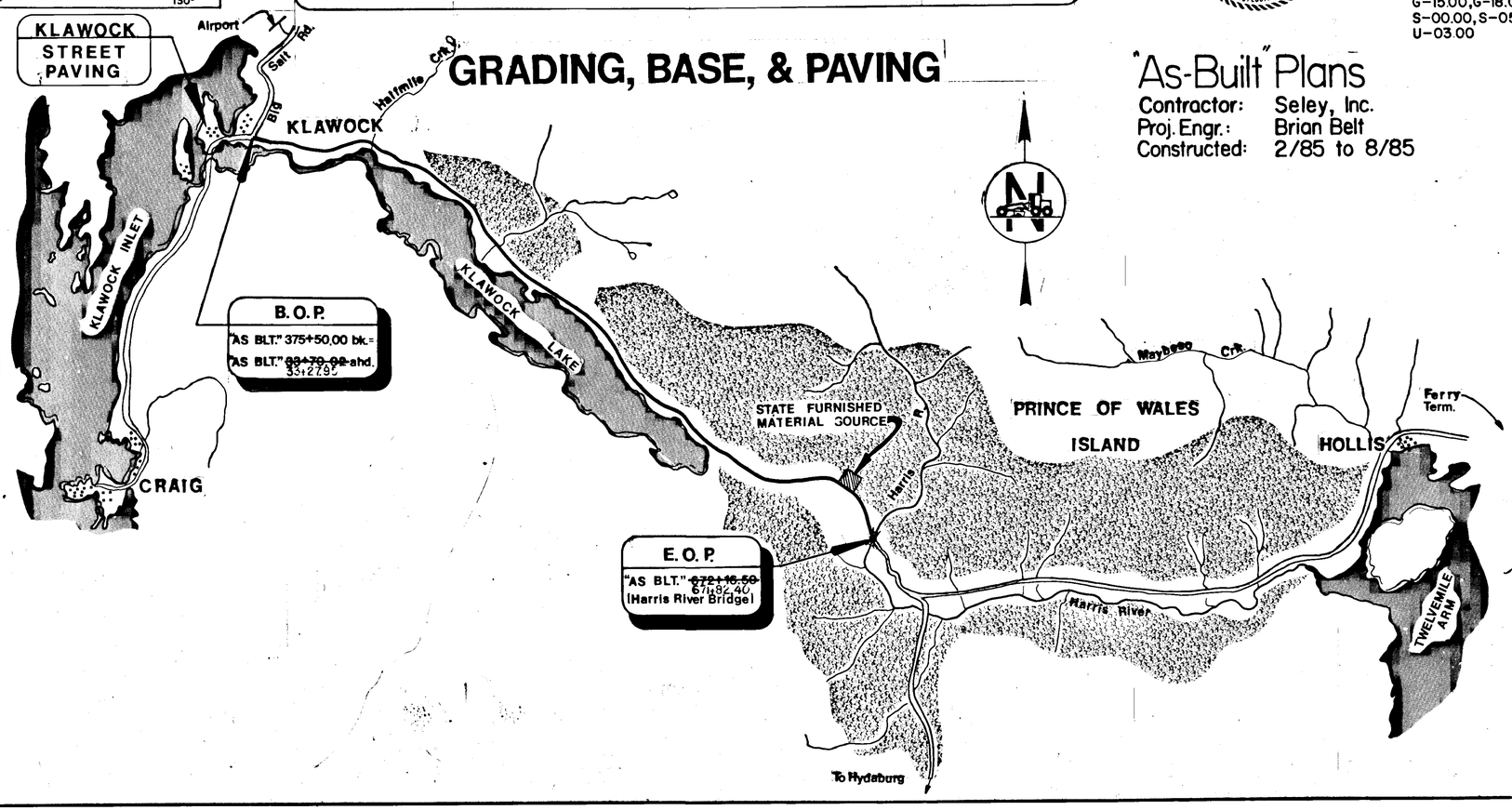
STATE OF ALASKA
BRIAN P. BELT
No. CE 4597
REGISTERED PROFESSIONAL ENGINEER

PROJECT SUMMARY

Width of Paving	28' & 34'
Length of Project	63,795.95', = 12.0826mi ~~63,901.67 = 12.1026mi.~~
Length of Paving	63,795.95, = 12.0826mi. ~~63,901.67 = 12.1026mi.~~
Length of Reconstruction	1,103.87 = 0.2091mi. ~~1,105.43 = 0.2094 mi~~

DESIGN DESIGNATION

	B.O.P. 113+00	113+00 E.O.P.
V	50mph	50mph
ADT (83)	526	246
ADT (04)	1395	652
Growth Rate	5.0%	5.0%
DHV (12%)	167	78
T	8%	8%
TL	7.0'	6.5



GRADING, BASE, & PAVING

"As-Built" Plans

Contractor: Seley, Inc.
Proj. Engr.: Brian Belt
Constructed: 2/85 to 8/85

STATE OF ALASKA
BRIAN P. BELT
No. CE 4597
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

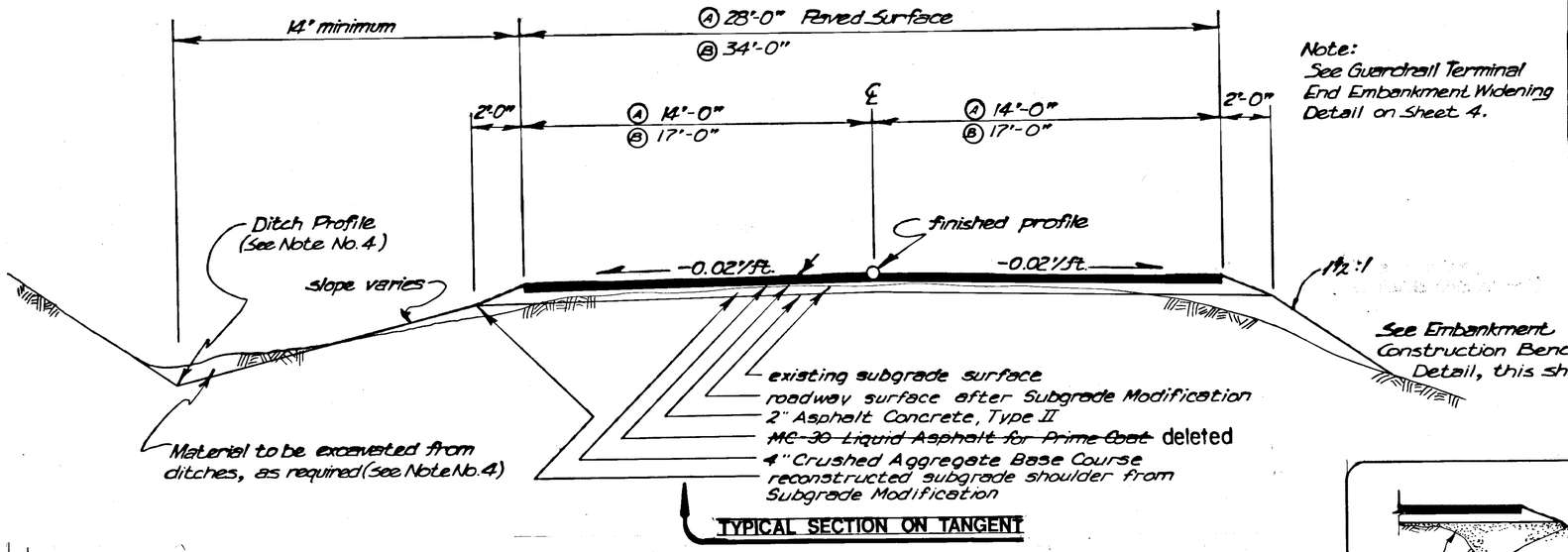
APPROVED
Wallace K. Williams Date 5/16/84
DESIGN CHIEF
SOUTHEAST REGION

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

APPROVED
[signature] Date 5-16-84
DIR. DESIGN & CONST.
SOUTHEAST REGION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924(9)	1984	2	27

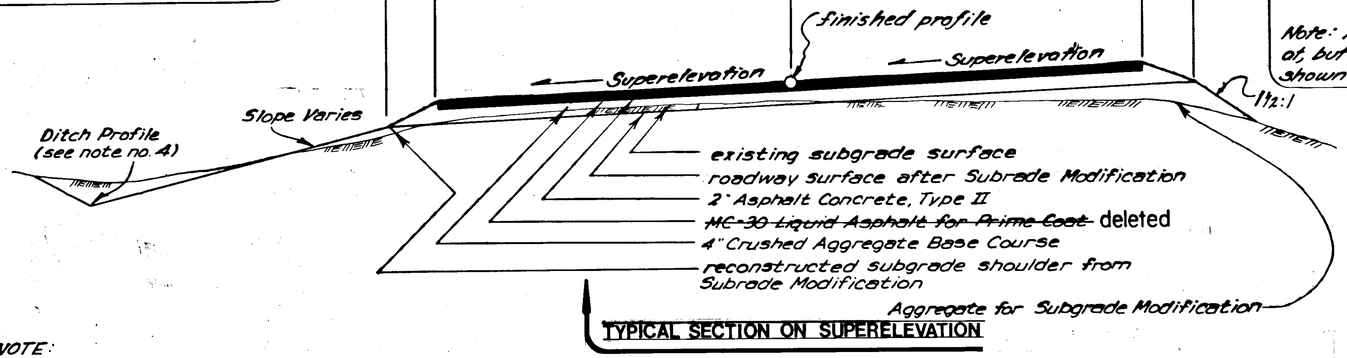
TYPICAL SECTIONS OF IMPROVEMENT



TYPICAL SECTION ON TANGENT

Note:
See Guardrail Terminal End Embankment Widening Detail on Sheet 4.

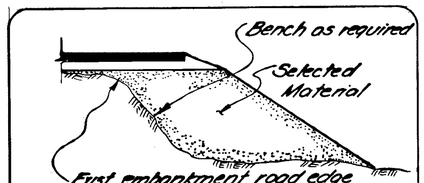
Ⓐ "As Blt." Sta. 114+00 to E.O.P.
Ⓑ B.O.P. to "As Blt." Sta. 113+00
100' transition length between Ⓐ & Ⓑ



TYPICAL SECTION ON SUPERELEVATION

NOTE:

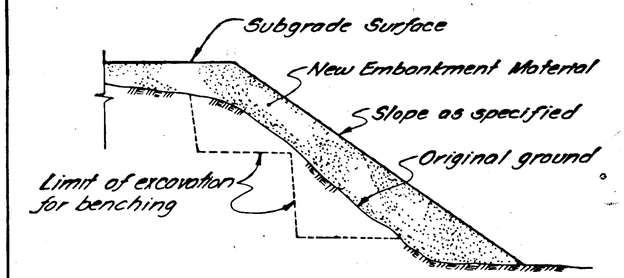
Typical Sections vary in area of reconstruction



EMBANKMENT WIDENING DETAIL

Note: Areas of anticipated widening are all, but not limited to the locations shown in the table of left.

EMBANKMENT WIDENING LOCATIONS			
FROM	TO	LT./RT.	WIDTH
33+00	37+00	Rt.	2'
64+00	67+00	Rt.	2'
280+00	286+00	Rt.	4'
310+00	314+00	Rt.	4'
319+00	326+00	Rt.	3'
340+00	363+00	Rt.	2'
420+00	424+00	Rt.	4'
425+00	435+00	Rt.	2'
556+00	560+00	Lt.	2'
other locations as required			



EMBANKMENT CONSTRUCTION BENCHING DETAIL

Benching Notes:

1. Sufficient bench width shall be provided to allow operation of placing and compacting equipment.
2. Bench face height is limited to 4 feet.
3. Material cut for benching purposes shall be utilized in new embankment construction unless deemed unsuitable by the Engineer.
4. Areas being benched shall be cleared of organic debris, as directed by the Engineer.
5. Bench floors shall be transversely level and to centerline profilegrade longitudinally.

PROJECT GENERAL NOTES

1. All stationing shown in this plan assembly (except as noted) is "As-Built" and originated from State project S-0924(3), entitled Klawock-Hollmile Creek and dated 1964, and State project S-0924(4), entitled Hollmile Creek to Harris River which is dated 1967. The State offers no guarantee as to the accuracy of the labeled elevations, stations, bearings, distances and curve data; these are provided as approximate values to the Contractor for his general information only. See Section 114 of the Special Provisions for further information.

2. Vertical alignment shall be designed by the Contractor and submitted to the Engineer for approval. Finished profile grade shall be designed to be a nominal six inches above the existing reshaped roadway subgrade embankment. Profile shown on accompanying sheets shall be followed as closely as possible and adjusted where required to fit existing conditions. All changes in longitudinal grade shall be accompanied by a vertical curve whose minimum length is determined by the equation:

$$Length_{(min)} = \frac{(\text{algebraic difference in grades, \%})(\text{design speed, mph})^2}{46.5}$$

3. Existing roadway embankment was constructed using design speeds of 40 MPH and 35 MPH, respectively. The new roadway shall be built to a design speed of 50 MPH and superelevation according to Case I on Standard Drawing I-80.00, e max. = 0.06"/ft.

4. Ditch offsets and fore-slopes may vary according to local conditions. The Contractor shall clean all debris and reshape the ditches on both sides of the road so they function as originally constructed. Reshaping and removing all deleterious material from the ditches is a part of Item 302(3). Processing for Subgrade Modification. The Contractor shall compute and stake, if necessary, and construct the ditch grade required to obtain adequate drainage. All associated engineering will be a part of Item 114(1).

5. Longitudinal cold pavement joints will not be allowed within the limits of the driving lane. All cold joints elsewhere shall be coated with ~~AC-5 Asphalt Cement~~ CSS-1 Emulsified Asphalt for Tack Coat whose payment shall be incidental to paving items.

6. All embankment constructed on original ground whose fall is steeper than 4 to 1 shall be keyed into the original ground by benching as detailed on this sheet. Required benching will be considered incidental to the item being placed and no special payment shall be made therefor.

7. Construction of approaches shall be as detailed on the Plans and on Standard Drawing I40.00; material and construction requirements shall be the same as on mainline.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924(9)	1984	3	27

SUMMARY TABLES

STANDARD SIGNING SCHEDULE

NO.	STATION	OFFSET LT.	OFFSET RT.	CODE	LEGEND	SIZE	AREA	FACING
S-1	35 ~~34+00~~	28		D1-2A	Thorne Bay 38 ➔ Klawock Airport 3 ➔	36 x 84	21.00	WB
S-2	36+00	28		R2-1	SPEED LIMIT 25	30 x 36	7.50	WB
~~S-3~~	~~37+00~~	~~28~~		~~D9-3~~	~~⛺~~	~~24 x 24~~	~~4.00~~	~~WB~~
~~S-4~~	~~37+00~~	~~28~~		~~D9-3~~	~~CAMPING~~	~~6 x 24~~	~~1.00~~	~~use post 3~~
~~S-5~~	~~37+00~~	~~28~~		~~D9-3~~	~~➔~~	~~6 x 24~~	~~1.00~~	~~use post 3~~
S-6	38+00	28		D1-1	Big Salt Road ➔	24 x 48	8.00	WB
S-7	40+00		28	D2-2	Hydaburg 36 Hollis 22	24 x 56	9.33	EB
S-8	deleted							
S-9	~~44~~+00 46	28		R2-5C	SPEED ZONE AHEAD	30 x 36	7.50	WB
S-10	~~42+45~~+00		28	R2-1	SPEED LIMIT 50	30 x 36	7.50	EB
S-11	56+70		28	M10-2	3	6 x 8	0.33	EB
S-12	56+70		28	M10-2	8	6 x 8	0.33	WB
S-13	106+30	30		R1-1	STOP	30 x 30	6.25	SB
S-14	~~109+50~~ 116+00		28	M10-2	9	6 x 8	0.33	EB
S-15	~~109+50~~ 116+00		28	M10-2	9	6 x 8	0.33	WB
S-16	111+00		28	W5-1	ROAD NARROWS	36 x 36	9.00	EB
S-17	113+50		30	R1-1	STOP	30 x 30	6.25	NB
S-18	~~162+30~~ 168+00		28	M10-2	10	6 x 8	0.33	EB
S-19	~~162+30~~ 168+00		28	M10-2	10	6 x 8	0.33	WB
S-20	215+10		28	M10-2	11	6 x 8	0.33	EB
S-21	215+10		28	M10-2	11	6 x 8	0.33	WB
S-22	267+90		28	M10-2	12	6 x 8	0.33	EB
S-23	267+90		28	M10-2	12	6 x 8	0.33	WB
S-24	~~320+70~~ 323+50		28	M10-2	13	6 x 8	0.33	EB
S-25	~~320+70~~ 323+50		28	M10-2	13	6 x 8	0.33	WB
S-26	373+50		28	M10-2	14	6 x 8	0.33	EB
S-27	373+50		28	M10-2	14	6 x 8	0.33	WB
S-28	407+00		28	W1-2L	↰	36 x 36	9.00	EB
S-29	407+00		28	W13-1	35 MPH	24 x 24	4.00	use post 28
S-30	~~420+00~~ 424+50	28		W1-2R	↱	36 x 36	9.00	WB
S-31	~~420+00~~ 424+50	28		W13-1	35 MPH	24 x 24	4.00	use post 30
S-32	~~425+30~~ 424+00		28	M10-2	15	6 x 8	0.33	EB
S-33	~~426+30~~ 424+00		28	M10-2	15	6 x 8	0.33	WB
S-34	469+00		28	W1-2L	↰	36 x 36	9.00	EB
S-35	469+00		28	W13-1	45 MPH	24 x 24	4.00	use post 34
S-36	479+10		28	M10-2	16	6 x 8	0.33	EB
S-37	479+10		28	M10-2	16	6 x 8	0.33	WB
S-38	~~480+00~~ 482+00	28		W1-2R	↱	36 x 36	9.00	WB
S-39	~~480+00~~ 482+00	28		W13-1	45 MPH	24 x 24	4.00	use post 38
S-40	531+90		28	M10-2	17	6 x 8	0.33	EB
S-41	531+90		28	M10-2	17	6 x 8	0.33	WB
S-42	~~547+00~~ 546+00		28	W1-2L	↰	36 x 36	9.00	EB
S-43	~~547+00~~ 546+00		28	W13-1	40 MPH	24 x 24	4.00	use post 42
S-44	~~558+00~~ 559+00	28		W1-2R	↱	36 x 36	9.00	WB
S-45	~~558+00~~ 559+00	28		W13-1	40 MPH	24 x 24	4.00	use post 44
S-46	~~584+70~~ 588+00		28	M10-2	18	6 x 8	0.33	EB
S-47	~~584+70~~ 588+00		28	M10-2	18	6 x 8	0.33	WB
S-48	595+00		28	W1-2L	↰	36 x 36	9.00	EB
S-49	595+00		28	W13-1	40 MPH	24 x 24	4.00	use post 48
S-50	613+00	28		W1-2L	↰	36 x 36	9.00	WB
S-51	613+00	28		W13-1	40 MPH	24 x 24	4.00	use post 50
S-52	~~614+00~~ 612+00		28	W1-5R	↱	36 x 36	9.00	EB
S-53	~~614+00~~ 612+00		28	W13-1	40 MPH	24 x 24	4.00	use post 52
S-54	630+50	28		W1-5R	↱	36 x 36	9.00	WB
S-55	630+50	28		W13-1	40 MPH	24 x 24	4.00	use post 54
S-56	~~637+50~~ 633+50		28	M10-2	19	6 x 8	0.33	EB
S-57	~~637+50~~ 633+50		28	M10-2	19	6 x 8	0.33	WB
S-58	639+00		28	W1-5R	↱	36 x 36	9.00	EB
S-59	639+00		28	W13-1	40 MPH	24 x 24	4.00	use post 58
S-60	640+00	28		W7-1	(hill symbol)	36 x 36	9.00	WB
S-61	640+00	28		W7-1	HILL	18 x 24	3.00	use post 60
S-62	668+00	28		W1-5R	↱	36 x 36	9.00	WB
S-63	668+00	28		W13-1	40 MPH	24 x 24	4.00	use post 62

DELETED

SIGNING NOTES: (Continued at Right)

1. Milepost signs at the same location share the same post.
2. All existing signs and posts shall be removed salvaged and delivered to the DOT/PF maintenance yard in Klawock. Payment for this item of work shall be considered incidental to item 615(1). Standard Signs and no separate payment will be made.
3. All signs posts shall be telescoping, perforated galvanized steel. The 2" size shall be used above ground and the 2 1/4" shall be used below ground. All post sleeves shall be embedded in a minimum of 3'. Refer to Standard Drawing S-30.00.

ESTIMATE OF QUANTITIES

ITEM NO.	ITEM	QUANTITIES	UNIT
110(1)	Mobilization	all required	lump sum
111(1)	Temporary Erosion and Pollution Control	all required	contingent sum
113(1)	Flagging	~~1,620~~ 2448.0	man-hours
114(7)	Engineering and Staking	all required	lump sum
115(1)	Traffic Maintenance	all required	lump sum
116(7)	Engineering Facilities	all required	lump sum
203(3)	Unclassified Excavation	~~12,400~~ 20273.8	cubic yards
~~203(10)~~	~~Selected Material~~ deleted by addendum	~~5,500~~	~~C.Y. vehicle measure~~
208(1)	Log-Drop Structure	~~5~~ 2	each
301(1)	Crushed Aggregate Base Course	~~55,000~~ 59223.9	ton
302(1)	Aggregate for Subgrade Modification	~~13,500~~ 31539.9	ton
302(3)	Processing for Subgrade Modification	~~628~~ 575.72	station
401(1)	Asphalt Concrete, Type II	~~27,000~~ 25980.1	ton
401(2)	Asphalt Cement, AC-5	~~1,674.0~~ 1611.24	ton
~~403(2)~~	~~MC-30 Liquid Asphalt for Prime Coat~~ deleted by C.O. 2	~~156.0~~	~~ton~~
602(2)	Structural Plate Pipe-Arch, 9'-6" x 6'-5", 10 gage	~~56~~ 56.4	linear feet
	deleted		
603(30)	Culvert Extension	~~24~~ 15	each
606(1)	Beam Type Guard Rail, Type I Post increased by C.O. 3	~~7,250~~ 13787.5	linear feet
606(5)	End Anchorage "	~~23~~ 45	each
606(8)	Guardrail Removal	all required	lump sum
615(1)	Standard Sign	~~264.25~~ 363.6	square feet
618(1)	Seeding	~~28~~ 18.89	1000 square feet
627(1)	Watering	~~200~~ 295.7	1000 gallons
628(11)	Adjustment of Valve Box	~~12~~ 11	each
670(1)	Painted Traffic Markings	all required	lump sum
	ESTABLISHED BY E.W.O.:		
203(5C)	BORROW, TYPE A (E.W.O. 1)	2511.1	C.Y.V.M.
207(4)	GEOTEXTILE FABRIC (E.W.O. 3)	all req'd	L.S.
401(10)	ANTI-STRIP (E.W.O. 5)	"	"
603(30)	CULVERT MODIFICATION (E.W.O. 3)	"	"
699(1)	DBE & WBE COMPENSATION (E.W.O. 6)	"	"

BASIS OF ESTIMATE

ITEM NO.	ESTIMATING FACTOR
203(3)	bank shot swell (rock) = 30%
208(1)	175 linear feet of cedar logs (35 foot lengths)
208(1)	40 cubic yards of aggregate
301(1)	1.95 tons per compacted cubic yard
302(1)	1.90 tons per compacted cubic yard
302(1)	14 tons per station
401(1)	114 lbs. per square yard per inch depth
401(2)	6.2% of 401(1)
403(2)	0.15 gal per square yard
403(2)	256 gal. per ton
603(30)	16 linear feet of 24" corrugated steel pipe
603(30)	72 linear feet of 24" corrugated aluminum pipe
603(30)	32 linear feet of 36" corrugated steel pipe
603(30)	8 linear feet of 36" corrugated aluminum pipe

LUMP SUM QUANTITIES

ITEM NO.	BASIS OF QUANTITIES
115(1)	(construction signs) 300 square feet
116(7)	three vehicles
	deleted
606(8)	2,660 linear feet
670(1)	32,000 square feet of yellow stripe
670(1)	43,000 square feet of white stripe
	- STANDARD SIGNS, CONTINUED -
S-64	56+00, Lt. R2-1, WB, Speed Limit 50
S-65	140+50, Rt. R2-1, EB, Speed Limit 50
S-66	150+00, Lt. R2-1, WB, Speed Limit 50
S-67	221+00, Rt. R2-1, EB, Speed Limit 50
S-68	231+20, Lt. R2-1, WB, Speed Limit 50
S-69	311+00 Rt. R2-1, EB, Speed Limit 50
S-70	320+00 Lt. R2-1, WB, Speed Limit 50
S-71	390+00 Rt. R2-1, EB, Speed Limit 50
S-72	410+00, Lt. R2-1, WB, Speed Limit 50
S-33a	430+00 Lt. R2-1, EB, Speed Limit 50
S-73	482+00 Rt. R2-1, EB, Speed Limit 50
S-74	495+00 Lt. R2-1, WB, Speed Limit 50
S-75	573+00 Rt. R2-1, EB, Speed Limit 50
S-76	588+00 Lt. R2-1, WB, Speed Limit 50
S-77	670+00 Lt. R2-1, WB, Speed Limit 50

APPROACH SUMMARY

STATION	LT.	RT.	WIDTH	RADIUS BACK	RADIUS AHEAD	DEPTH	DESCRIPTION
38+00	x		24'	50'	50'	100'	Boundary Road
63+00		x	20'	25'	25'	37'	River Access
72+40	x		14'	25'	25'	100'	Chlorination Plant Road
94+00		x	30'	25'	25'	42'	Steelhead Hole
101+00		x	400'	-	-	22'	Parking Area
106+30	x		30'	25'	25'	100'	Seleyville Road
106+50		x	30'	25'	25'	42'	River Access
113+00		x	20'	25'	10'	67'	Hatchery Residence
113+30		x	24'	10'	50'	100'	State Hatchery
120+50		x	350'	-	-	20'	Parking Area
144+00	x		16'	25'	25'	100'	Halfmile Creek Reservoir Road
228+00		x	24'	25'	25'	34'	Future Public Recreation
232+00		x	24'	25'	25'	34'	Future Public Recreation
235+00	x		24'	25'	25'	64'	Main Logging Haul Road
267+00	x		20'	25'	25'	34'	Sealaska Timber Corp. Shop
272+00		x	24'	25'	25'	34'	Main Logging Haul Road
~~414+00~~ 420+00		x	250'	~~(follow face of guardrail for pavement edge)~~			~~Scenic Viewpoint — eliminated~~
658+00		x	20'	25'	25'	34'	Harris River Sand Pit
BOP	x		24	35	35	500	Big Salt Road
421+00		x	16	25	25	25	State Boat Ramp Road

UTILITY LOCATIONS AND ADJUSTMENTS

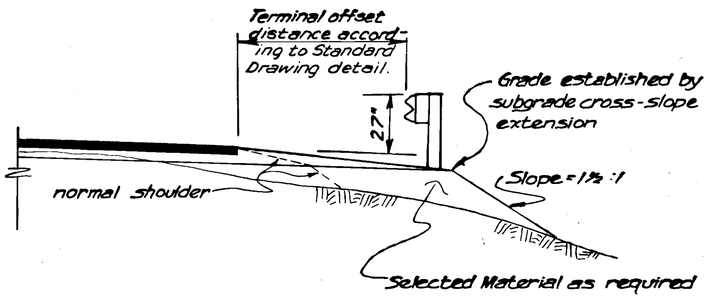
STATION	OFFSET LT.	OFFSET RT.	APPURTENANCE	TYPE OF WORK
35+00	40'		blow-off assembly	protect from damage
38+~~45~~15	~~617'~~		valve box	adjustment to pavement surface
38+50~~125~~	~~892'~~		valve box	adjustment
41+00	40'		pressure relief valve	protect
46+00	40'		blow-off assembly	protect
51+50	17'		pressure relief valve	protect
55+00	40'		blow-off assembly	protect
~~55+10~~ 51+28	17'		valve box	adjustment
64+00	20'		blow-off assembly	protect
71+~~40~~ 65	~~475'~~		valve box	adjustment (in approach)
71+43	28'		valve box	adjustment
71+50	28'		fire hydrant	protect
~~75+00~~ 95	17.5		pressure relief valve	protect
88+00	17'		valve box	adjustment
88+00	20'		blow-off assembly	protect
106+~~40~~ 90	17'		valve box	adjustment
106+~~43~~ 93	~~920'~~		valve box	adjustment
113+20		50'	fire hydrant	protect
113+~~37~~ 98	11	~~50'~~	valve box	adjustment
113+~~40~~ 98	~~14'~~	60	valve box	adjustment (in approach)
122+00	17'		valve box	protect
124+00	17'		pressure relief valve	protect
133+30	17'		valve box	protect
133+30	20'		blow-off assembly	protect
142+00	17'		pressure relief valve	protect
143+00	20'		blow-off assembly	protect
144+00	65'		valve box	adjustment
144+10	17'		valve box	adjustment
105+00	40'		blow-off assembly	protect
35+42	12		valve box	adjustment
65+50	14.5		valve box	adjustment

BY	DATE	CHANGE
BPB	2/86	"As-Built" changes / additions
TD	9/84	Changed quantities, items 203(3), 301(1) & 302(1)

REVISIONS

STATE OF ALASKA — 49TH — JOAN P. BELT — No. CE 4597 — REGISTERED PROFESSIONAL ENGINEER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924 (9)	1984	4	27



GUARDRAIL TERMINAL END EMBANKMENT DETAIL

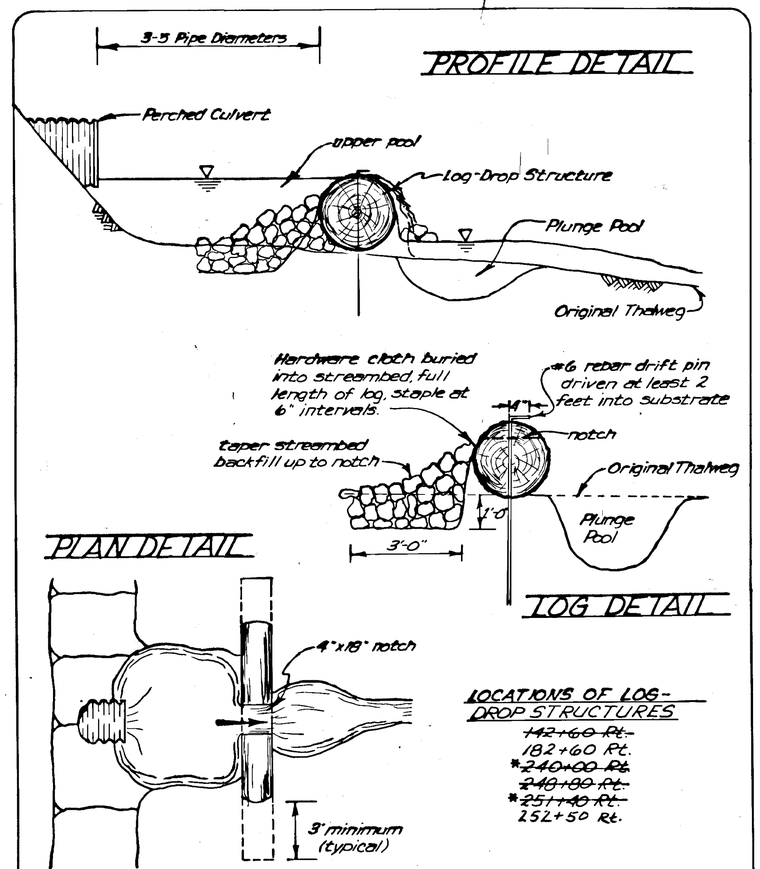
Guardrail Notes:

1. The Contractor should anticipate the possible presence of coarse rock subgrade embankment, as well as bedrock, within the limits of post driving.
2. Offset distances refer to face of main rail element. Terminal offset distances will be additional as according to the applicable standard drawing.
3. ~~Runs G-30 and G-31 attach to the existing Harris River Bridge.~~
4. Areas currently protected by existing guardrail runs which are designated for removal, shall have new replacing runs erected immediately for protection continuity.

GUARDRAIL SUMMARY

Sheet No.	Run No.	Type of Construction	Begin Station	Offset	End Station	Offset	Length	
11	G1R	Remove & Dispose	113+50	Rt.	115+60	Rt.	210'	
11	G2	Installation	113+50	see detail	116+12.5	see detail	~~325'~~	337.5
11	G3	Installation	113+~~40~~ 95	18' Lt.	~~115+77.5~~ 116+32.5	18' Lt.	~~237.5'~~	312.5
12	G4	Installation	~~153+50~~ 154+25	18' Lt.	~~155+75~~ 156+50	18' Lt.	225'	
15	G5	Installation	270+~~00~~ 75	16' Lt.	~~272+75~~ 273+50	16' Lt.	275'	
17	G6R	Remove & Dispose	411+00	Rt.	415+75	Rt.	475'	
17	G7	Installation	~~406+00.74~~ 50	16' Rt.	~~412+75.74~~ 420+25	16' Rt.	~~675'~~	1375
17	~~G8~~	~~Installation~~	~~412+75.74~~	~~see detail~~	~~415+44.32~~	see detail	~~300'~~	
17	~~G9~~	~~Installation~~	~~415+44.32~~	~~16' Rt.~~	~~418+94.32~~	~~16' Rt.~~	~~350'~~	
18	G10	Installation	438 ~~437+00~~	16' Rt.	440 ~~439+00~~	16' Rt.	200'	
18	G11	Installation	~~456+00~~ 50	14' Rt.	465+~~00~~ 50	14' Rt.	900'	
19	G12R	Remove & Dispose	470+00	Rt.	472+75	Rt.	275'	
19	G13	Installation	470 ~~469+00~~	16' Rt.	476 ~~474+25~~	16' Rt.	525'	
19	G14	Installation	488 ~~487+75~~	16' Rt.	498 ~~497+50~~	16' Rt.	975'	
22	G15R	Remove & Dispose	558+00	Lt.	560+75	Lt.	275'	
22	G16	Installation	556 ~~557+00~~	14' Lt.	570 ~~562+00~~ + 25	14' Lt.	~~500'~~	1437.5
22	G17R	Remove & Dispose	580+00	Lt.	581+50	Lt.	150'	
23	G18R	Remove & Dispose	603+00	Lt.	603+75	Lt.	75'	
7	G19	Installation	"D" ~~624+00~~ 623+00	18' Rt.	625 ~~Abut "D" 629+02.69~~ 098' Rt.		~~475'~~	600
24	G20R	Remove & Dispose	625+00	Rt.	626+00	Rt.	100'	
24	G21R	Remove & Dispose	625+00	Lt.	627+50	Lt.	250'	
25	G22R	Remove & Dispose	646+75	Lt.	650+25	Lt.	350'	
25	G23	Installation	646+75 00	14' Lt.	654 ~~655+00~~	14' Lt.	~~825'~~	800
25	G24R	Remove & Dispose	654+00	Lt.	655+25	Lt.	125'	
25	G25R	Remove & Dispose	660+00	Lt.	661+25	Lt.	125'	
26	G26	Installation	665+~~50~~ 00	14' Rt.	668 ~~669+00~~ +50	14' Rt.	350'	
26	G27R	Remove & Dispose	665+50	Rt.	667+00	Rt.	150'	
26	G28R	Remove & Dispose	671+66.50	Rt.	672+16.50	Rt.	50'	
26	G29R	Remove & Dispose	671+66.50	Lt.	672+16.50	Lt.	50'	
26	~~G30~~	~~Installation~~	~~671+60.25~~	~~14' Lt.~~	~~672+16.50~~	~~14' Lt.~~	~~56.25'~~	
26	~~G31~~	~~Installation~~	~~671+60.25~~	~~14' Rt.~~	~~672+16.50~~	~~14' Rt.~~	~~56.25'~~	
12	G 32	Installation	154+25	14' Rt.	156+25	14 Rt.	200'	
14	G 33	"	214+50	14' Rt.	222+50	14 Rt.	800'	
15	G 34	"	270+50	14' Rt.	273+00	14 Rt.	250'	
16	G 35	"	320+00	14' Rt.	325+50	14 Rt.	550	
16	G36	"	328+00	14' Rt.	353+00	14 Rt.	2500'	
19	G37	Installation	482+00	14' Rt.	~~Total Install~~ 485+00, 14 Rt.		~~7250.0'~~	300'
21	G38	"	527+00	14' Rt.	~~Total Remove~~ 529+00, 14 Rt.		~~2660.0~~	200
21	G39	"	527+75	14' Lt.	529+50	14 Lt.	175'	
7	G40	"	618+25	14' Rt.	621+50	14 Rt.	275'	
25	G41	"	656+00	14' Lt.	658+25	14 Lt.	225'	

LOG-DROP STRUCTURE DETAILS

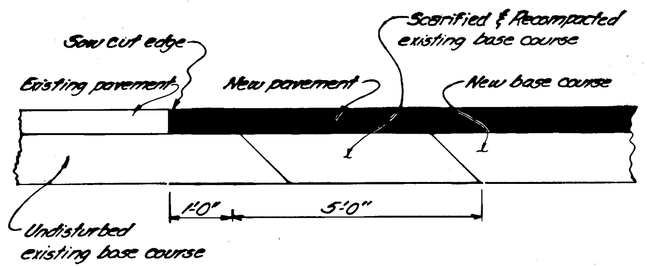


LOCATIONS OF LOG-DROP STRUCTURES

~~142+60 Rt.~~
182+60 Rt.
*~~240+00 Rt.~~
~~248+80 Rt.~~
*~~251+40 Rt.~~
252+50 Rt.

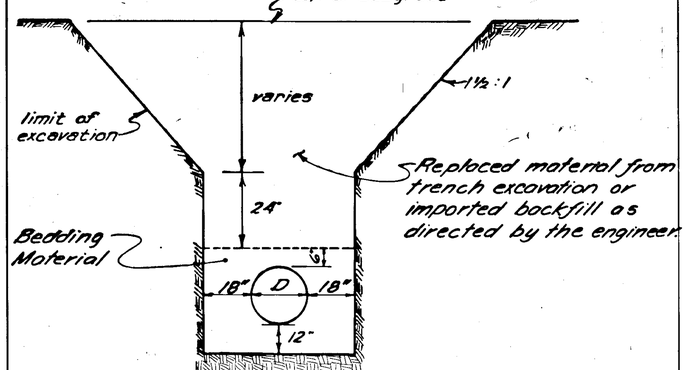
1. THE STRUCTURES SHALL BE BUILT AS SHOWN OR THE CONTRACTOR MAY CONSTRUCT HIS ALTERNATE DESIGN WHICH HAS PRIOR WRITTEN APPROVAL OF THE ENGINEER.
2. INSTREAM CONSTRUCTION ACTIVITY MUST BE PERFORMED DURING THE PERIOD BETWEEN JUNE 1 AND SEPTEMBER 1, IN ANY YEAR, **EXCEPT FOR LOCATIONS NOTED.**
3. LOGS SHALL BE PLACED SO AS TO HAVE A DAMMING EFFECT ON THE STREAM AND THUS FORMING A POOL WHOSE WATER LEVEL IS RAISED SLIGHTLY ABOVE THE INVERT ELEVATION OF THE CULVERT OUTLET AT NORMAL RUNOFF STREAM DISCHARGES.
4. A PLUNGE POOL SHALL BE CREATED DOWNSTREAM FROM AND ADJACENT TO THE NOTCHED PORTION OF THE LOG. THE VERTICAL DROP INTO THIS POOL MUST BE NO GREATER THAN ONE FOOT.
5. TO FACILITATE THE CREATION OF THE PLUNGE POOL, LARGE ROCKS SHALL BE REMOVED; IF BEDROCK IS ENCOUNTERED, THE CONTRACTOR SHALL JACKHAMMER OR DRILL A BASIN WHICH SERVES AS A PLUNGE POOL. THE SIZE OF THIS POOL VARIES BETWEEN LOCATIONS, DEPENDING ON FLOW RATES, AND WILL BE AS DIRECTED BY THE ENGINEER; DEPTH NO GREATER THAN 2 FEET AND LENGTH NO GREATER THAN ONE STREAM WIDTH.
6. THE LOGS SHALL BE ANCHORED A MINIMUM OF THREE FEET INTO THE STREAM BANK ON EACH SIDE OF THE STREAM. THE PORTIONS OF THE LOGS INSET INTO THE STREAM BANKS SHALL BE BACKFILLED WITH ROCK TO THE SURFACE OF THE ORIGINAL STREAM BANK WITH ROCK COMPACTED BY PHYSICAL MEANS.

* NOTE: INSTREAM CONSTRUCTION ACTIVITY MUST BE PERFORMED DURING THE PERIOD BETWEEN JUNE 1 AND AUGUST 1, IN ANY YEAR



PAVEMENT MATCH JOINT DETAIL

NOTE:
Coat old/new pavement joint face with liberal amount of CSS-1 Emulsified Asphalt



CONDUIT BEDDING & BACKFILL DETAIL

1. Imported backfill shall consist of Selected Material and payment for such will be restricted to the neat-line volume define by the section shown above times the average length.
2. Bedding material will be required to the limits shown above and its payment is incidental to the culvert pipe being installed.

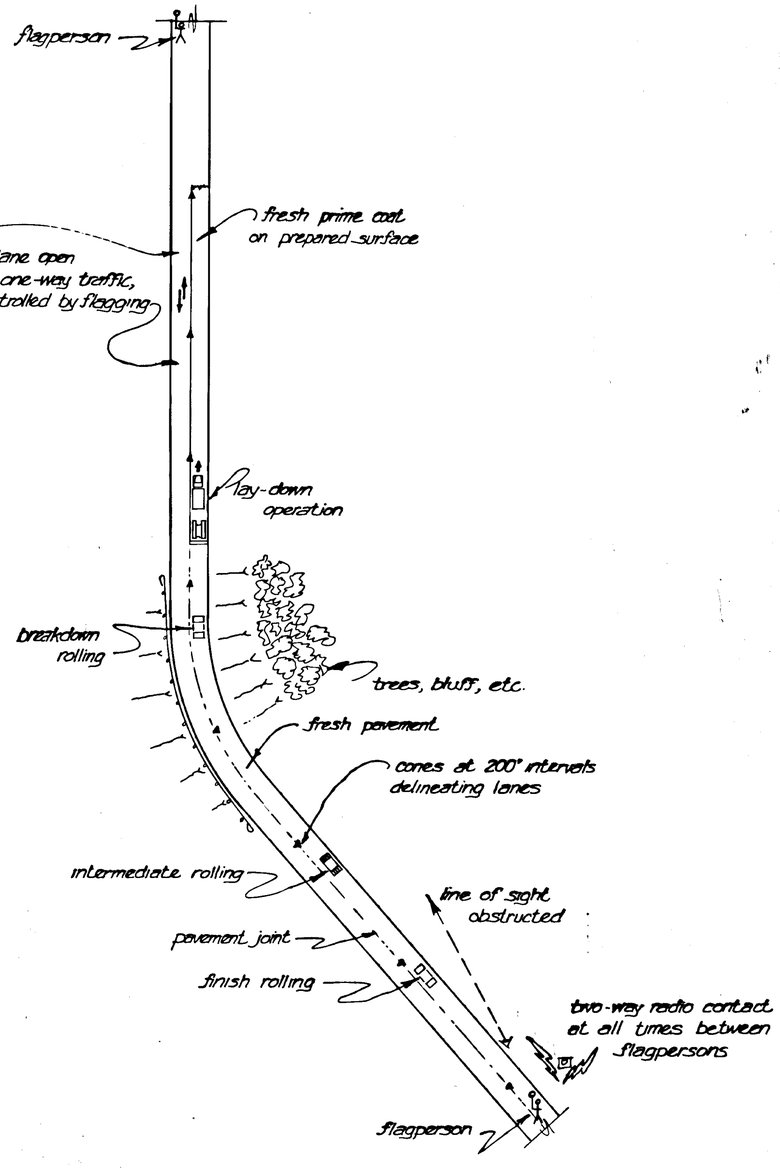
BY	DATE	CHANGE
BPB	2/86	"As Bil" changes / additions
pb	9/84	Revised guard rail height & added footnote for instream work

REVISIONS

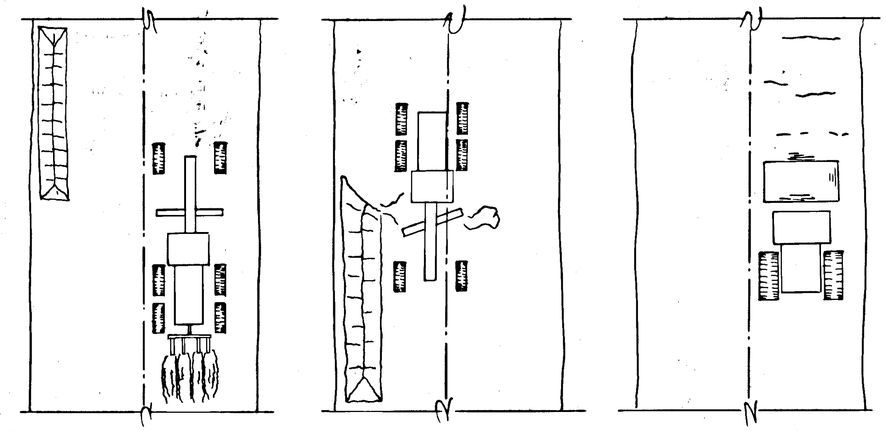
STATE OF ALASKA 49TH — BRIAN P. BELL No. CE 4597 — REGISTERED PROFESSIONAL ENGINEER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924(9)	1984	5	27

TRAFFIC CONTROL PLAN



TYPICAL SEQUENCE of PAVING OPERATION
DETAIL "C"

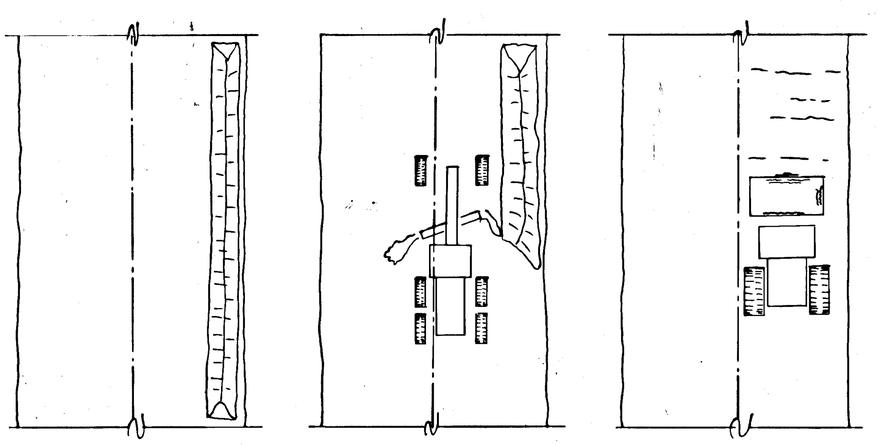


Step 1:
scarification of existing subgrade surface and shaping of windrow, deposition of additional material and construction of combined windrow. Traffic control: flagmen stop traffic and allow intermittent travel through section of construction while equipment waits for traffic.

Step 2:
road mixing and spreading of material as prescribed in sections with short-duration road closures (closures require coordination with the Engineer and adjacent property owners.).

Step 3:
compaction of mixed aggregates during closure, and behind road mixing operation. Opening to one-way traffic with flagging immediately upon producing adequate driving surface.

TYPICAL SUBGRADE MODIFICATION OPERATION
DETAIL "A"



Step 1:
deposition of crushed aggregate in windrow on shoulder (one-way traffic with flagging during dumping, two-way traffic with signs after shaping and compaction).

Step 2:
road mixing and spreading of material as prescribed in sections with short-duration road closures (closures require coordination with the Engineer and adjacent property owners.

Step 3:
compaction of mixed aggregates during closure, and behind road mixing operation. Opening to one-way traffic with flagging immediately upon producing adequate driving surface.

TYPICAL CONSTRUCTION OF BASE COURSE OPERATION
DETAIL "B"

TRAFFIC CONTROL PLAN NOTES:

1. A Traffic Control Plan (TCP) must be followed at all times during the life of the project, for each phase of construction. The TCP shown on this sheet is offered as a guide; the Contractor may modify this TCP or use an alternate TCP of his own design. The general intent of the TCP is that the Contractor follow procedures which result in a safe traversable facility for public vehicular and pedestrian traffic. The TCP shown is not meant to designate construction technique, equipment or sequence, but to address the central issue of traffic safety.

2. Road closures to accomodate certain phases of construction activity may be permitted depending on their nature and duration. The Contractor should be aware of the occurance of higher traffic volumes resulting from Alaska Marine Highway ferry arrivals and departures at Hollis. Closures will not be allowed after three hours before ferry departures.

3. Construction signing, flagging, detours and general traffic control features shall conform to the guidelines set forth in the "C" series Standard Drawings and the applicable portions of Section 107 and 115 of the Specifications.

4. To accomodate construction sequence, the Contractor will be allowed single lane road closures limited to one-half mile in length. At the daily completion of construction, the road must be reopened to two-way traffic with the road surface reasonably prepared to accomodate traffic.

5. All work proceeding adjacent to businesses or private property which will restrict access, shall be coordinated with the parties involved and the Engineer 24 hours in advance of the restriction.

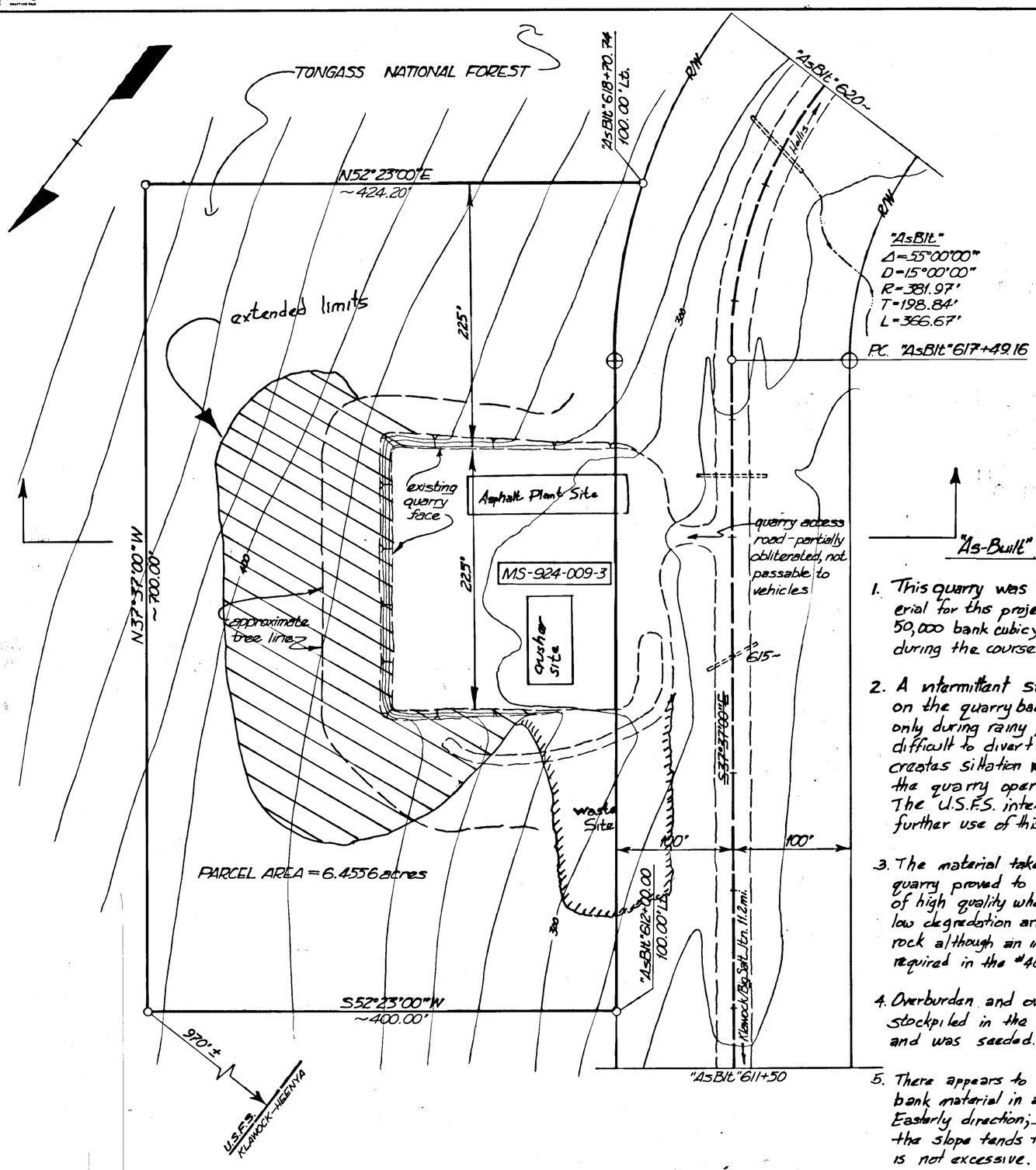
6. Windrows shall be constructed so drainage water does not pond out into the driving lanes. Gaps shall be provided at low spots intermittently to allow drain-off of accumulated rain water.

7. The Contractor is reminded of load restrictions imposed on the Klawock River Bridge, approximately 3,000 feet back from the BOP.

STATE OF ALASKA
49TH
BRIAN P. BELT
No. CE 4597
REGISTERED PROFESSIONAL ENGINEER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924(9)	1984	6	27

STATE FURNISHED MATERIALS SOURCE

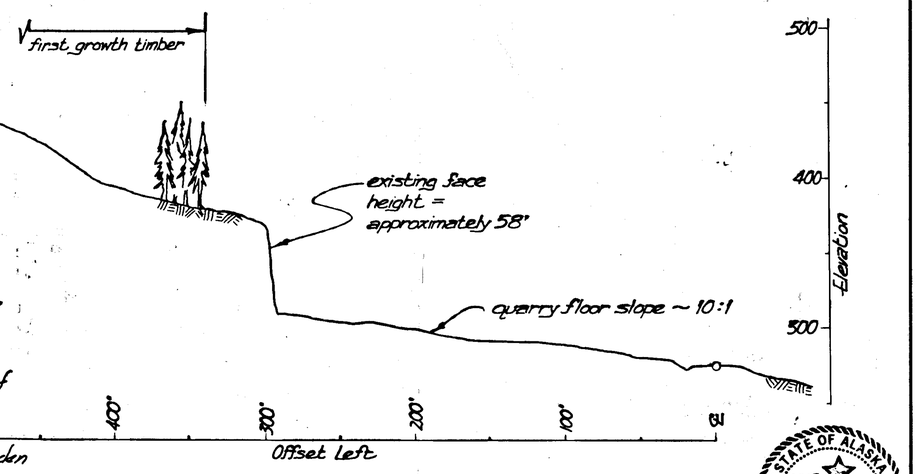


"As-Built" Construction Notes

1. This quarry was used to obtain material for this project; approximately 50,000 bank cubic yards were removed during the course of the job.
2. A intermittant stream exists mid-face on the quarry backwall which flows only during rainy periods. It would be difficult to divert this stream and it creates siltation when it goes through the quarry operation during construction. The U.S.F.S. intends to resist any further use of this quarry as a source.
3. The material taken from this quarry proved to be fairly uniform and of high quality when crushed; it exhibited low degredation and was good asphalt rock although an imported blend sand was required in the #40 & #80 sieve size range.
4. Overburden and oversize material was stockpiled in the NW corner of the quarry and was seeded.
5. There appears to be an unlimited supply of bank material in an Easterly direction; the slope tends to level off and overburden is not excessive.

QUARRY NOTES

1. The right to remove material from existing quarry MS-924-009-3, shown at left, has been obtained from the U. S. Forest Service. The Contractor has the option of using this source or acquiring material from another approved location of his chosing. The following stipulations apply to the use of this quarry and will be enforced; requirements of another quarry depend on the jurisdiction under which that quarry is governed.
2. The map at left is intended for informational purposes only. The Contractor is responsible for determining the correctness of all dimensions, contour lines and features which are depicted; the State makes no guarantee as to their accuracy or location.
3. A buffer berm with trees growing on top has been established between the highway and the quarry. This serves as a visual screen to the travelling public and shall be maintained and encouraged throughout and at the end of the project.
4. A mining plan shall be submitted for approval to the Engineer by the Contractor prior to commencement of quarry operation. The mining plan shall include: any subcontractors involved in the quarry, stripping schemes, locations of quarry excavations, drilling and shooting details, quantities, location of stockpiles, crusher and other equipment locations, benching orientation and dimensions and other information which pertains to operation of this quarry.
5. Clearing of trees shall be performed so that a 50-foot zone is maintained at all times between a working face and the edge of trees. At the completion of mining, this 50-foot zone shall exist; in-situ tree stumps may be left which are no higher than 4 feet above surrounding ground level.
6. Stripping shall be performed and disposed of so that it does not interfere with future quarry development. All merchantable trees cut shall be decked at an accessible location of the Contractor's choice for removal by others. Stumps, slash and other organic debris must be removed and adequately disposed of; other overburden may be stockpiled for future spreading over the depleted quarry.
7. At the completion of quarry operation, the floor shall be sloped to drain, no oversized material shall remain, all debris shall be disposed of and all equipment shall be removed; in general, the quarry shall be left in a neat and clean condition ready for another contractor or agency to resume quarry operation.
8. Quarry activity will be limited to the work associated with drilling and shooting of rock, crushing aggregate, mixing of asphalt concrete, and storing of materials for incorporation into the project. Activities such as personnel camp operations will not be allowed unless the Contractor makes an agreement with the Forest Service office located in Craig. A copy of such agreement must be provided to the Engineer before the camp is set up.



EXISTING QUARRY SECTION @ "AsBlt" Roadway Station 616+00

STATE OF ALASKA
BRIAN P. BELT
No. CE 4597
REGISTERED PROFESSIONAL ENGINEER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924(9)	1984	7	27

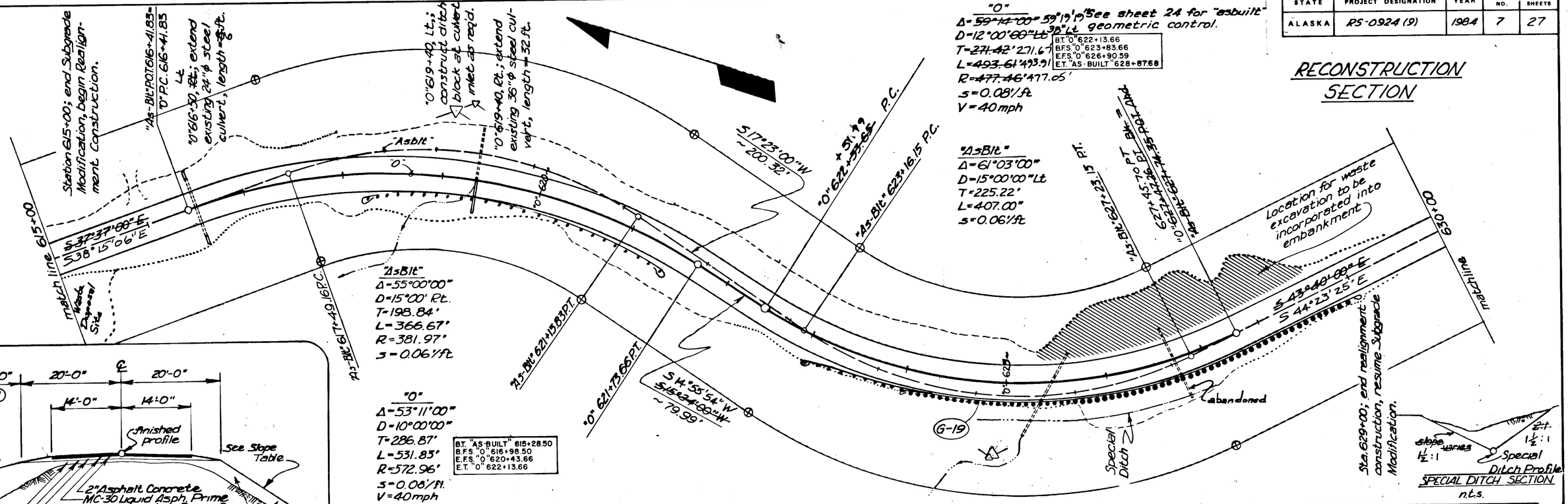


PLATE 1, PLAN-PROFILE

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924(9)	1984	8	27

"Asblt" Curve Data
Δ = 48°31'00"
D = 6°45' Rt.
T = 382.52'
L = 718.76'
S = 0.03'/ft.
R = 848.83'
V = 30 MPH
Hemlock Street
East Klawock
Alaska D.O.T./P.F. Maintenance Yard
Paving Limit ~500' Lt.
Klawock Airport
Thorne Bay
Big Salt Road
Crystal Dairy
Black Bear Store
Boundary Road
365
S79°41'02"E
370
375
35
40
S 79°38'40"E
S 79°08'30"E
45
50
52+00
Match Line
R/W
P.T. "Asblt" 364+06.16
Firewood Lodge
P.T. Δ = 0°02'22"
"Asblt" 33+70.02
P.T. Δ = 0°32'32" Rt.
Sta 33+70.02 (BOP); install brass cap monument and monument case. Style and brand will be as approved by the Engineer. Payment for this work will be considered incidental to other roadway items.
BEGIN PROJECT RS-0924(9)
"Asblt" 375+50.00 Bk. =
"Asblt" 33+70.02 Ahd.
B.O.P. 33+27.95
BEGIN PROJECT RS-0924(8)
"Asblt" 375+50.00 Bk. =
"Asblt" 33+70.02 Ahd.
Elev. = 32.50
+0.8253%
-0.0250%
+0.0000%
-0.1875%
+0.4545%
+0.2300%
+1.4531%
+2.2100%
V.P.I. 33+27.95 Elev. 30.68 No V.C.
V.P.I. 35+00.00 Elev. 32.10 No V.C.
V.P.I. 39+00.00 Elev. 32.00 No V.C.
VPI "Asblt" 42+50 Elev. 32.50 No V.C.
V.P.I. 43+00.00 Elev. 31.25 No V.C.
V.P.I. 46+30.00
VPI "Asblt" 46+50
Elev. 32.42 400' V.C.
Elev. 32.75 150' V.C.
V.P.I. 51+70.00
VPI "Asblt" 51+50
Elev. 44.47 400' V.C.
Elev. 43.30 490 V.C.
50
40
30
20
10
25+00
30+00
35+00
40+00
45+00
50+00
STATE OF ALASKA
49TH
BRIAN P. RILEY
No. CE 4597
REGISTERED PROFESSIONAL ENGINEER

BASIS OF HORIZONTAL CONTROL:

Alignment is established by the horizontal curve back from the BOP, whose P.T. is located at "AsBlt" Station 364+06.16. Ahead from the BOP, alignment is governed by existing 6" square concrete post Rights-of-Way monuments (see Section 114 of the Specifications for more details).

BASIS OF VERTICAL CONTROL:

Elevations at the BOP are based on control established at BM #C-15 whose elevation is 17.36 and whose location is left of "AsBlt" (back from BOP) 337+50 ±. It is described as a #20 nail in a 20" diameter spruce tree.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924(9)	1984	9	27

~~Δ = 8°30'~~
~~D = 2° Lt.~~
~~T = 212.9~~
~~L = 425.0'~~

Δ = 8° 28' 38"
D = 2° LT
T = 212.32
L = 423.86

~~Δ = 73° 09' 30"~~
~~D = 5° Lt.~~
~~T = 848.9'~~
~~L = 1461.2~~
Δ = 73° 03' 34"
D = 5° LT
T = 848.85
L = 1461.19

~~Δ = 44° 57'~~
~~D = 5° Rt.~~
~~T = 474.1'~~
~~L = 899.0'~~
Δ = 44° 53' 56"
D = 5° RT
T = 473.47
L = 897.98

Match Line 52+00
S 79° 38' 40" E
~~S 79° 08' 30" E~~
55'~
~~P.C. 54+18.20~~
~~54+18.20 P.C.~~
~~54+18.20 P.C.~~
~~55'~~
S 88° 01' 18" E
~~S 87° 30' 30" E~~
60'~
~~59+11.06 P.T.~~
~~59+11.06 P.T.~~
~~55'~~
~~55'~~
~~18° 00' 29"~~
~~18° 00' 29"~~
~~65'~~
~~65'~~
65'~
~~71+09.10 P.T.~~
~~71+07.63 P.T.~~
70'~
Chlorination Plant Road
KLAWOCK RIVER
75'~
S 43° 13' 22" E
~~S 42° 41' 30" E~~
80'~
~~16° 00' 00"~~
~~84+03.30 P.C.~~
~~84+03.30 P.C. Ahd.~~
84+44.91 P.C.
Match Line 82+00

V.P.I. 60+20.00
~~V.P.I. 60+00.00~~
~~Elev. 25.90 400' V.C.~~
ELEV. 25.90 S20 V.C.

V.P.I. 66+13.77
~~V.P.I. 66+00.00~~
~~Elev. 25.90 400' V.C.~~
ELEV. 25.90 400' V.C.

V.P.I. 73+60.00
~~V.P.I. 73+60.00~~
~~Elev. 50.98 400' V.C.~~
ELEV. 50.50 400' V.C.

V.P.I. 79+00.00
ELEV. 47.15 ½ V.C.

-2.0476 %
~~-2.0305 %~~
0.00 %
+0.3283 %
~~+2.2058 %~~
+2.2058 %
-0.6442 %
~~-0.6070 %~~
-0.4737 %

50
40
30
20
10

55+00
60+00
65+00
70+00
75+00
80+00

PLATE 1, PLAN-PROFILE

STATE OF ALASKA
49TH
BRIAN P. BEDT
No. CE 4597
REGISTERED PROFESSIONAL ENGINEER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924 (9)	1984	10	27

Match Line 82+00
Match Line 112+00
85
90
95
100
110
"O"
Δ = 14° 07' 55"
D = 3° LT
T = 236.73
L = 471.06
96+26.15 P.T.
102+59.95 P.C.
107+31.01 P.T.
111+20.46 P.C.
N 63° 43' 04" E
N 49° 35' 09" E
KLAWOCK
RIVER
V.P.I. 83+75.00
ELEV. 44.90 250' V.C.
-2.3023 %
V.P.I. 88+05.00
ELEV. 35.00 350' V.C.
+1.2881 %
V.P.I. 91+00.00
ELEV. 38.80 100' V.C.
+0.8961 %
V.P.I. 94+85.00
ELEV. 42.25 100' V.C.
+0.0361 %
V.P.I. 99+00.00
ELEV. 42.40 ... V.C.
+0.5000 %
V.P.I. 103+00.00
ELEV. 44.40 ... V.C.
+0.1905 %
V.P.I. 108+25.00
ELEV. 45.40 400' V.C.
+2.7736 %
50
40
30
20
10
85+00
90+00
95+00
100+00
105+00
110+00
STATE OF ALASKA
49TH
No CE 4597
REGISTERED PROFESSIONAL ENGINEER

KEUFFEL & ESSER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924(9)	1984	11	27

115+73.30 PT.

114+00, 16' Rt.

Begin G-2 at Sta. 113+50.00, 100' Rt.
End G-2 at Sta. 116+12.50, 20.25' Rt.
R=50', Δ=90°, total length of run = 325'
lap rail elements toward downhill

DETAIL "A"

install spade end

~~"C4"~~
~~Δ = 14°00'~~
~~D = 2° Lt.~~
~~T = 351.8'~~
~~L = 700.0'~~
Δ = 14° 50' 25"
D = 1° 45' LT
T = 426.39
L = 848.02

119+80.33 P.C.

127+28.35 P.T.

N 66° 13' 01" E
N 66°-50'-00"-E

Match Line 112+00

N 81° 05' 26 E
N 80°-50'-00"-E

G-3
G-2
G-1R
See Detail "A" for G-2 only

State Hatchery Site

~~"Oa"~~
~~Δ = 90°-35'~~
~~T = 261.1'~~
~~L = 509.7'~~
~~D = 6° Rt.~~
Δ = 31° 28' 17"
D = 5° 45'
T = 280.76
L = 547.83

116+67.79 P.T.

129+21.04 P.C.
130+53.20

~~"Oa"~~
~~Δ = 41°-30'-30"~~
~~D = 6° Rt.~~
~~T = 382.9'~~
~~L = 699.5'~~
Δ = 41° 40' 36"
D = 6° 05' RT
T = 358.60
L = 685.10

~~"Oa"~~ 134+06.13 P.T.

S 72° 06' 23" E
S 71°-30'-00"-E

Match Line 142+00

KLAWOCK LAKE

V.P.I. 113+65.00
~~Elev. 39.93, 400 Ke.~~
ELEV. 60.10, 330' V.C.

+3.8539%
+3.9200%

V.P.I. 118+00.00
ELEV. 77.25 No V.C.

+3.7767%

V.P.I. 123+15.00
~~Elev. 97.21, 800 Ke.~~
ELEV. 96.70 730' V.C.

-2.3438%
-2.4200%

V.P.I. 132+75.00
~~Elev. 72.91, 400 Ke.~~
ELEV. 74.20 400' V.C.

-0.3022%

V.P.I. 135+00.00
ELEV. 74.88 No V.C.

+0.4350%

V.P.I. 137+00.00
ELEV. 75.79 No V.C.

+0.3017%
+0.4750%

100 90 80 70 60 50 40

115+00 120+00 125+00 130+00 135+00 140+00

STATE OF ALASKA
BRIAN P BELT
No CE 4597
REGISTERED PROFESSIONAL ENGINEER

KEUFFEL & ESSER PLAN & PROFILE

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924(9)	1984	12	27

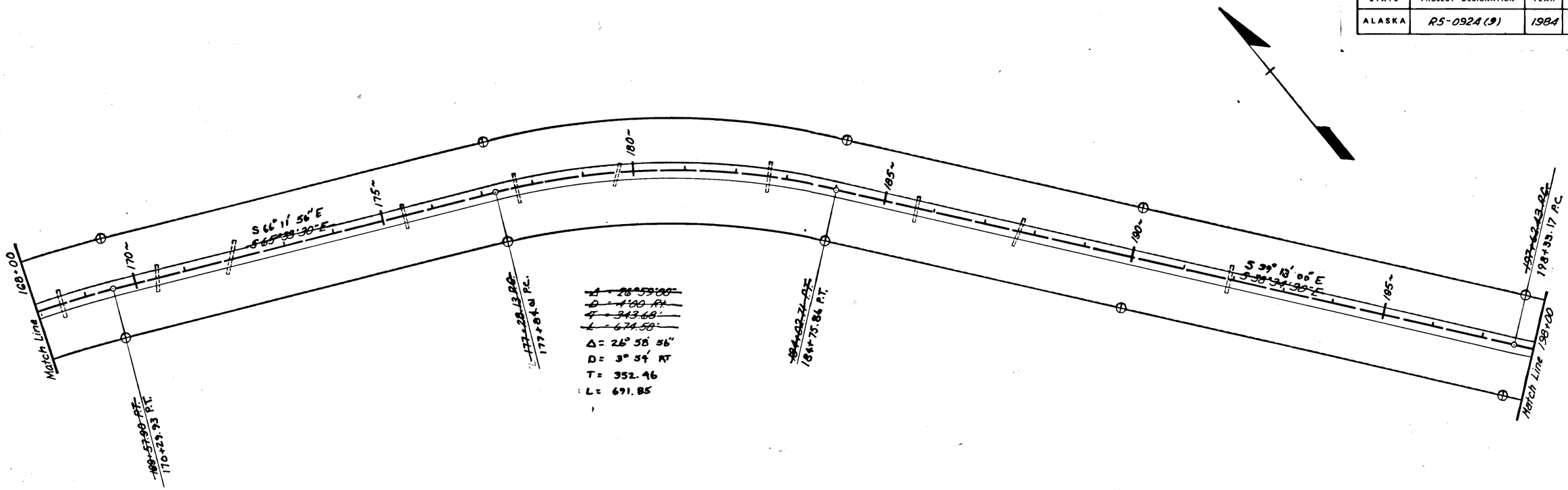
Match Line 142+00
Match Line 168+00
145~
150~
155~
160~
165~
S 71°33'30"E
S 72° 06' 23"E
S 61° 44' 26"E
S 60°58'30"E
S 77° 10' 17"E
S 76°45'30"E
G-4
Hour Mile Creek
Sta. 154+54; install 9'-6"x 6'-5" structural Plate Pipe Arch; length = 56', skew = 7°Rt. Ahd.
151+23.60 Bk.
151+16.58 Ahd.
Δ = 15°25'51"
D = 7° LT
T = 110.89
L = 220.44
159+13.51 P.C.
158+39.00 P.C.
Δ = 15°47'00"
D = 7°00' Lt.
T = 113.46'
L = 225.48'
160+65.47 P.T.
161+33.95 P.T.
Special Slope Protection:
Sta. 147+00 to 149+50; Rt. Place Select Material as directed to widen section 20'. Estimated quantity is 225 C.Y.
Δ = 10°21'57"
D = 7° RT
T = 74.24
L = 148.08
Δ = 10°35'00"
D = 6°00' Rt.
T = 88.45'
L = 176.39'
156+08.26 Bk
156+08.19 Ahd
Δ = 11°12'00"
D = 3°00' Rt.
T = 187.26'
L = 373.33'
Δ = 10°58'21"
D = 3° RT
T = 183.44
L = 365.75
164+64.18 P.C.
165+04.57 P.C.
+0.4750%
+0.1812%
+0.1935%
+0.3741%
+0.9703%
+0.1500%
+2.0672%
+2.6700%
-5.5400%
-5.54%
HP/Ahd. 142+50
Elev 77.66 No V.C.
V.P.I. 143+00.00
ElEV. 77.60 No V.C.
V.P.I. 146+97.00
ElEV. 78.32 No V.C.
V.P.I. 152+00.00
ElEV. 80.20 No V.C.
V.P.I. 154+00.00
ElEV. 81.70 350' V.C.
V.P.I. 156+25.00
ElEV. 86.34 No V.C.
V.P.I. 159+25.00
Elev. 94.35 600' V.C.
Existing profile grade
V.P.I. 165+75.00
ElEV. 58.34 600' V.C.
Vertical curve adjustments
Reconstruct as shown
100
90
80
70
60
145+00
150+00
151+23.60 and 79
155+00
160+00
165+00
STATE OF ALASKA
49TH
BRIAN P. BELL
No. CE 4597
REGISTERED PROFESSIONAL ENGINEER

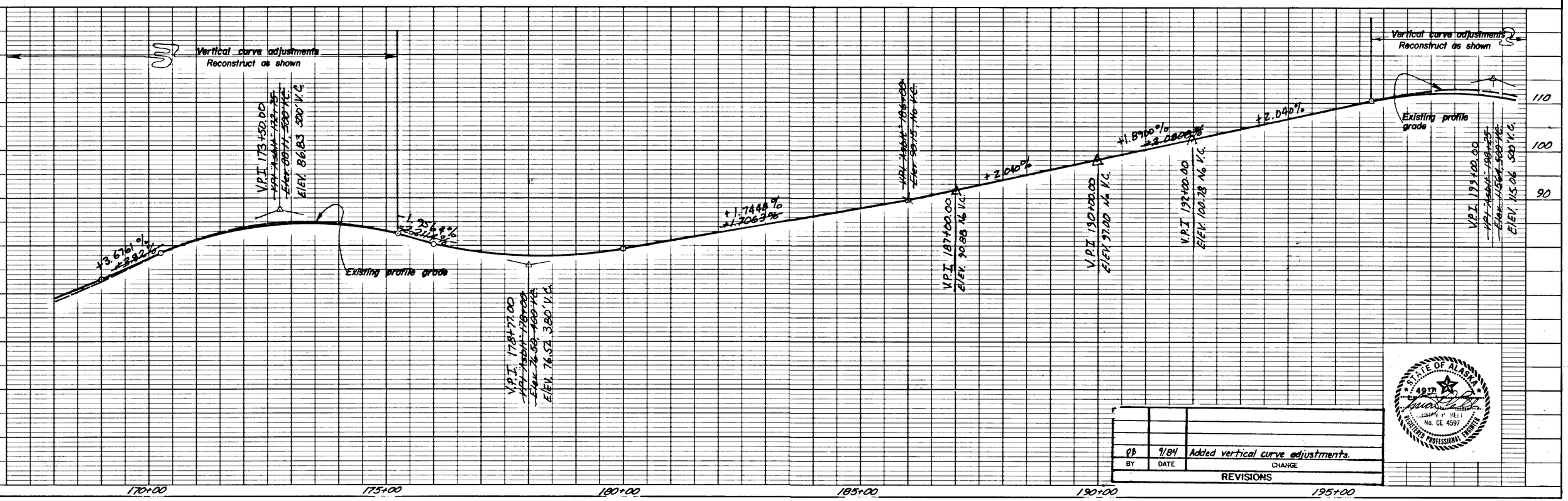
BY	DATE	CHANGE
BB	9/84	Added vertical curve adjustments.

REVISIONS

KEUFFEL & ESSER PLATE A PLAN PROFILE

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924(9)	1984	13	27





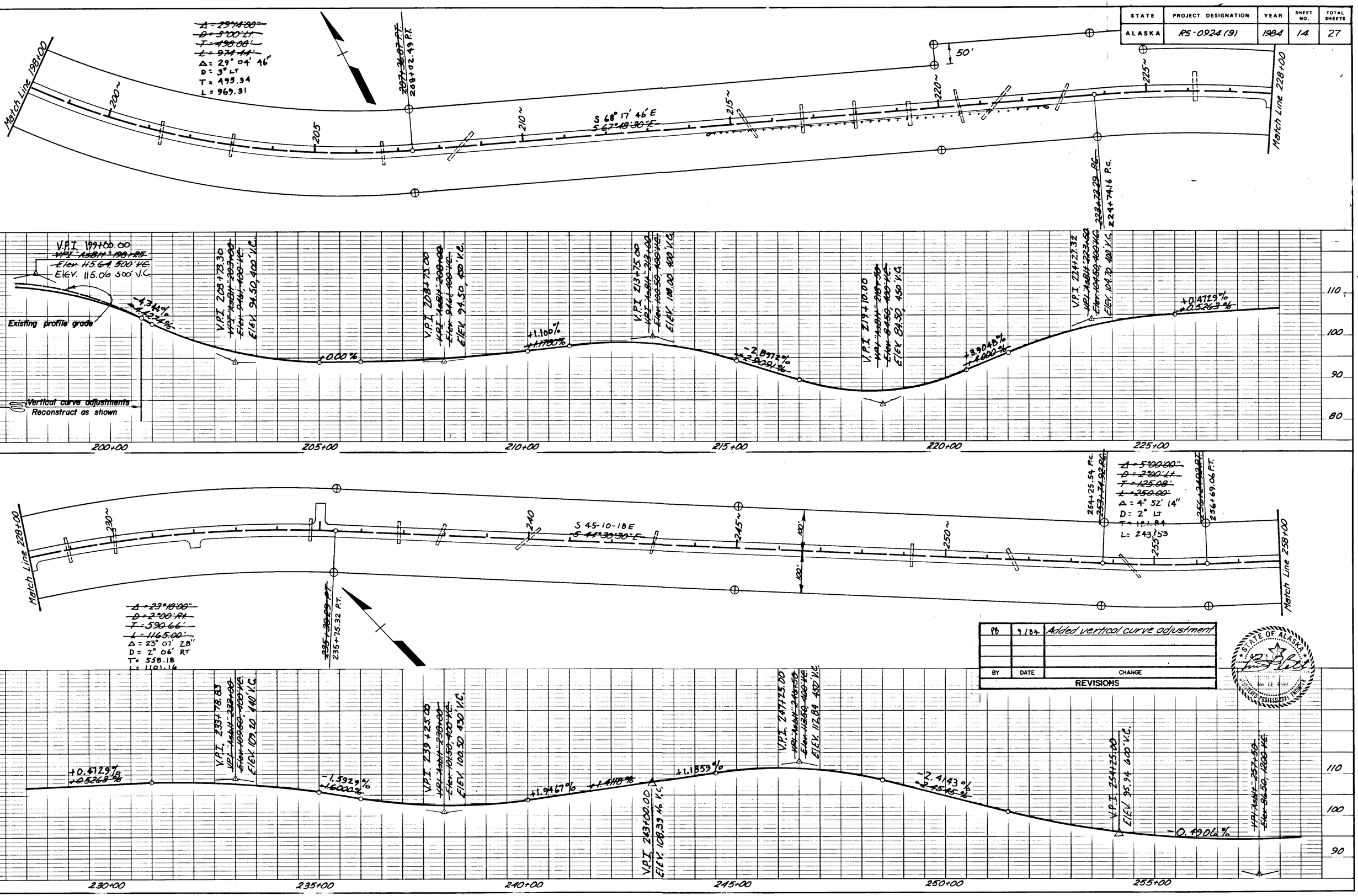
BY	DATE	CHANGE
QB	9/84	Added vertical curve adjustments.

REVISIONS

STATE OF ALASKA
No. CE 4597
REGISTERED PROFESSIONAL ENGINEER

KEWITT & EPPER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924(9)	1984	14	27



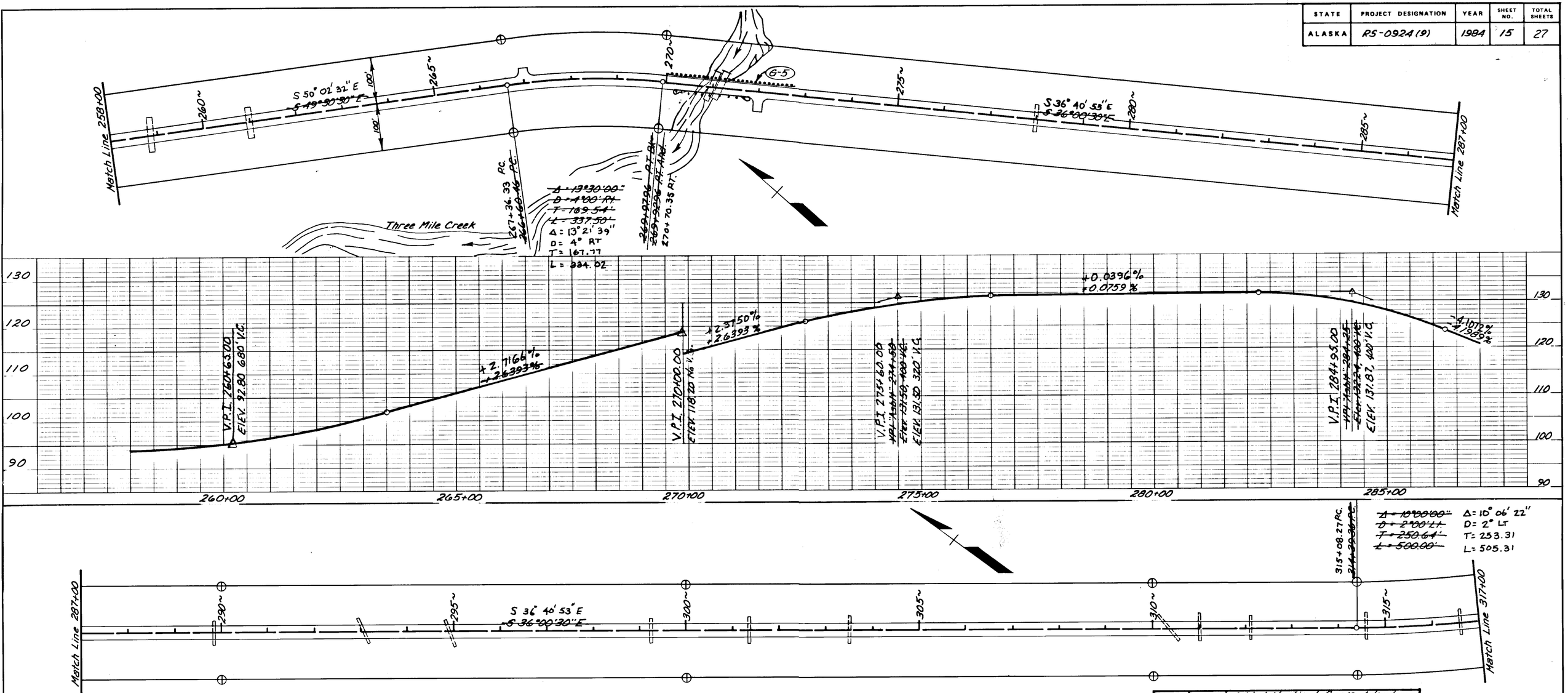
BY	DATE	CHANGE
PB	2/84	Added vertical curve adjustment

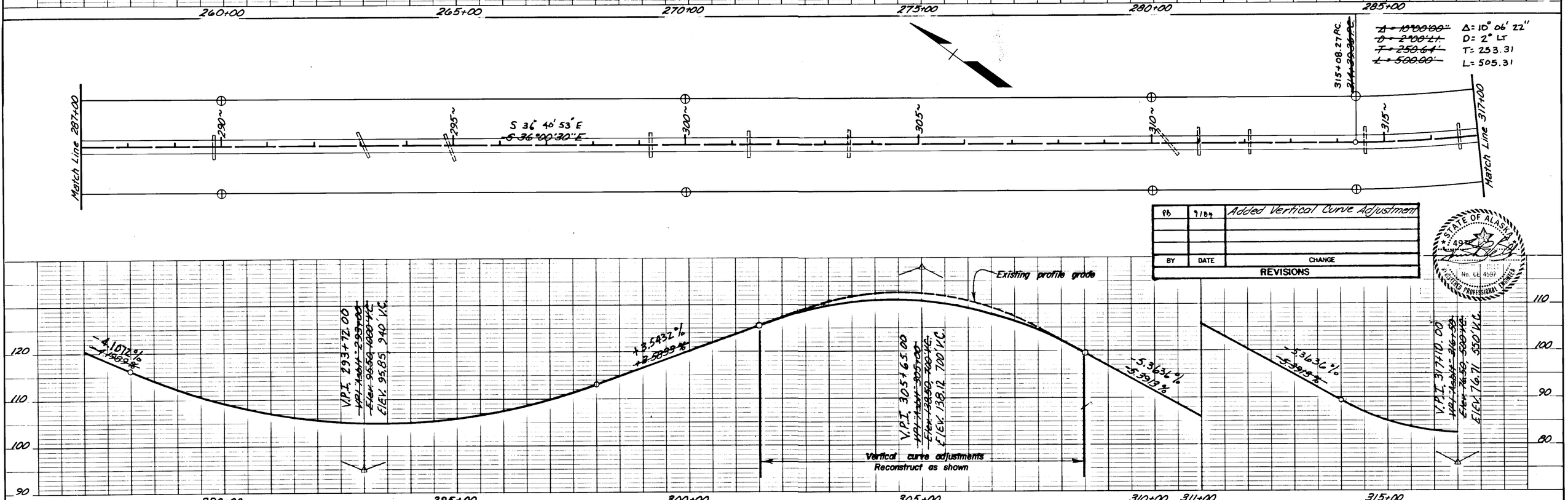
REVISIONS

STATE OF ALASKA
REGISTERED PROFESSIONAL ENGINEER
No. CE 4197

PLATE 2, FLAT PLAN-PROFILE

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924(9)	1984	15	27





BY	DATE	CHANGE
RB	9/84	Added Vertical Curve Adjustment

REVISIONS

STATE OF ALASKA
No. CE 4597
REGISTERED PROFESSIONAL ENGINEER

PLATE 2, FLAT PLAN-PROFILE

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924 (9)	1984	16	27

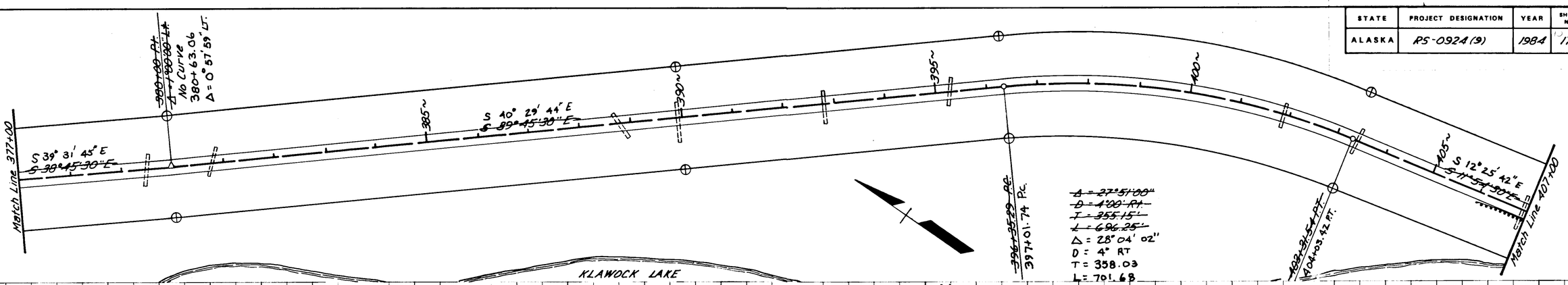
Match Line 317+00
Δ = 10°00'00"
D = 2°00' Lt
T = 250.64'
L = 500.00'
319+39.36 P.T.
320+13.57 P.T.
S 46° 47' 15" E
S 46°00'30" E
329+06.29 P.C.
Δ = 4°45'00"
D = 2°00' Lt
T = 118.82'
L = 237.50'
Δ: 4° 45' 14"
D: 2° LT
T: 118.92
L: 237.69
331+43.98 P.T.
S 51° 32' 29" E
S 50°45'30" E
Match Line 347+00
KLAWOCK LAKE
Vertical curve adjustments
Reconstruct as shown
Existing profile grade
End Grade Change
Back Grade +4.9280%
Vertical Equation
V.P.I. 322+00.00
ELEV. 99.65 No V.C.
+4.6816%
+4.9960% Ahd. Grade
+5.000%
V.P.I. 326+75.00
ELEV. 123.40 600' V.C.
-2.450%
V.P.I. 329+75.00
ELEV. 116.05 No V.C.
-2.200%
-2.3718%
V.P.I. 334+00.00
ELEV. 106.70 No V.C.
-2.7945%
V.P.I. 337+65.00
ELEV. 96.50 600' V.C.
-0.6457%
-0.8375%
V.P.I. 344+00.00
ELEV. 92.40 No V.C.
-0.9800%
S 51° 32' 29" E
S 50°45'30" E
S 39° 31' 45" E
S 38°45'30" E
Match Line 377+00
350+93.13 P.C.
Δ = 12°00'00"
D = 1°00' Rt
T = 602.21'
L = 1200.00'
Δ: 12° 00' 44"
D: 1° 03' RT
T: 574.12
L: 1144.02
362+37.35 P.T.
V.P.I. 349+00.00
ELEV. 87.50 350' V.C.
+0.6042%
+0.6000%
V.P.I. 363+40.00
ELEV. 96.20 200' V.C.
+2.00%
+2.5000%
V.P.I. 367+80.00
ELEV. 105.00 350' V.C.
-3.1159%
-3.2143%
V.P.I. 374+70.00
ELEV. 83.50 450' V.C.
+2.4829%
+2.5000%
STATE OF ALASKA
BRIAN P. BELT
No. CE 4597
REGISTERED PROFESSIONAL ENGINEER

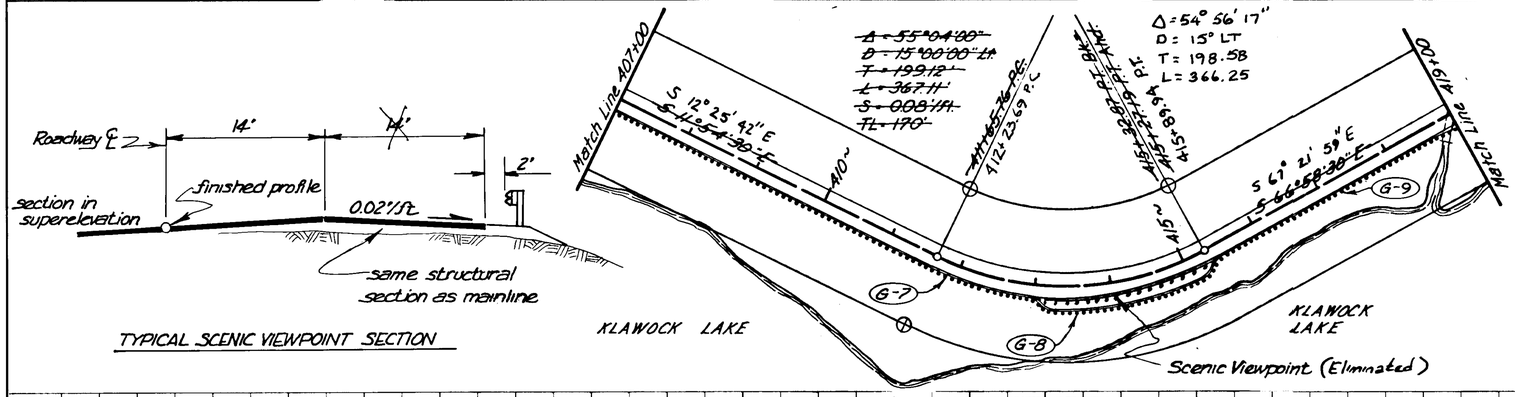
PB	9/84	Added vertical curve adjustment
BY	DATE	CHANGE

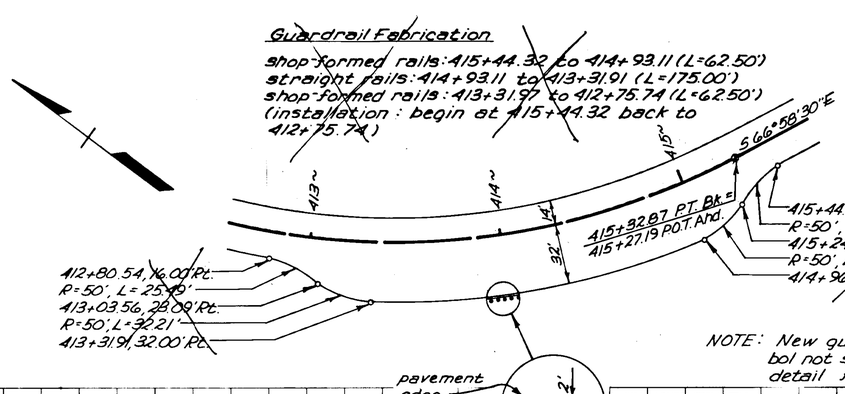
REVISIONS

PLATE 2, FLAT PLAN-PROFILE

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924(9)	1984	17	27







GUARDRAIL RUN G-8 DETAIL

BY	DATE	CHANGE
RB	9/84	Added 8% Super

REVISIONS

STATE OF ALASKA 49TH — P. Bicherowicz CE-5104 — REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA 49TH — BRIAN P. BELT No. CE 4597 — REGISTERED PROFESSIONAL ENGINEER

ADDENDUM 1 ATTACHMENT 1

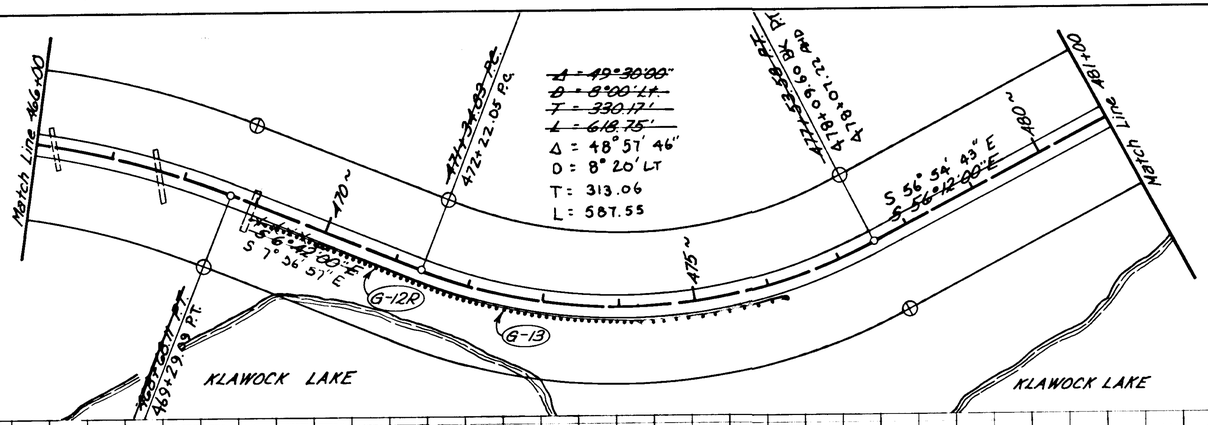
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924 (9)	1984	18	27

BY	DATE	CHANGE
PB	9/84	Added vertical curve adjustment

REVISIONS

PLATE 2. FLAT PLAN-PROFILE

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924(9)	1984	19	27



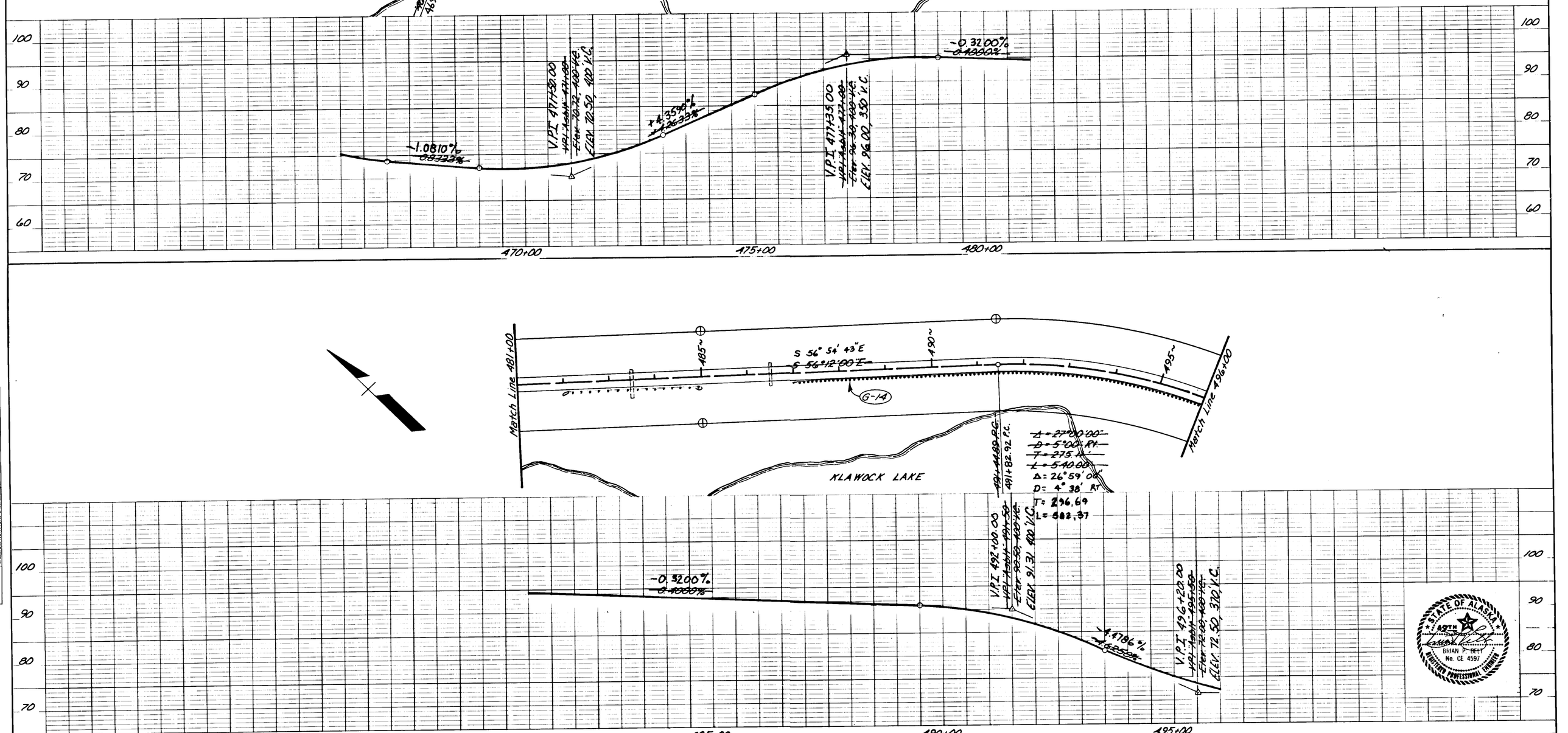
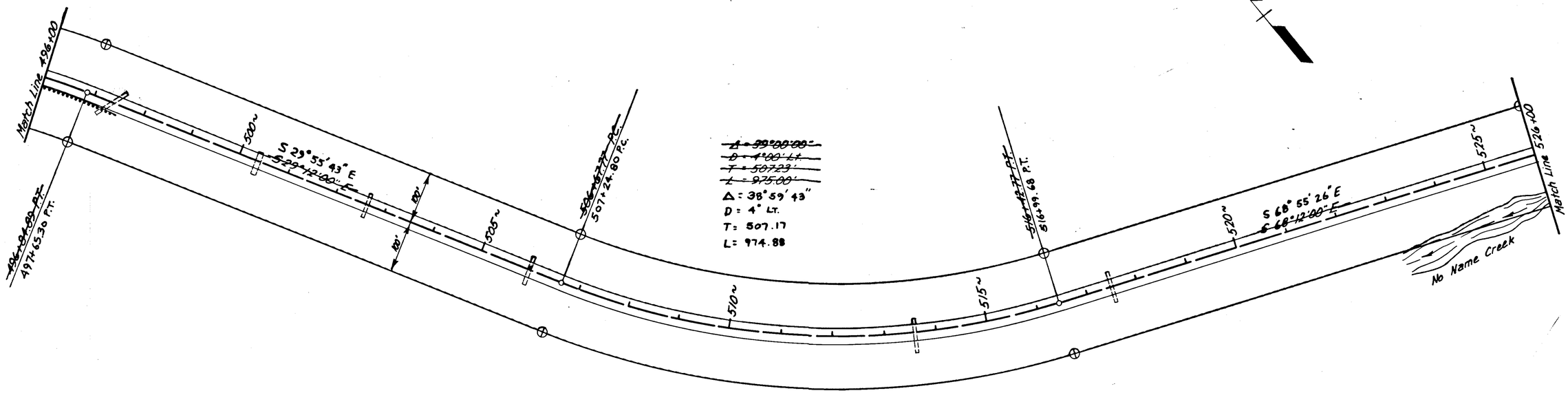
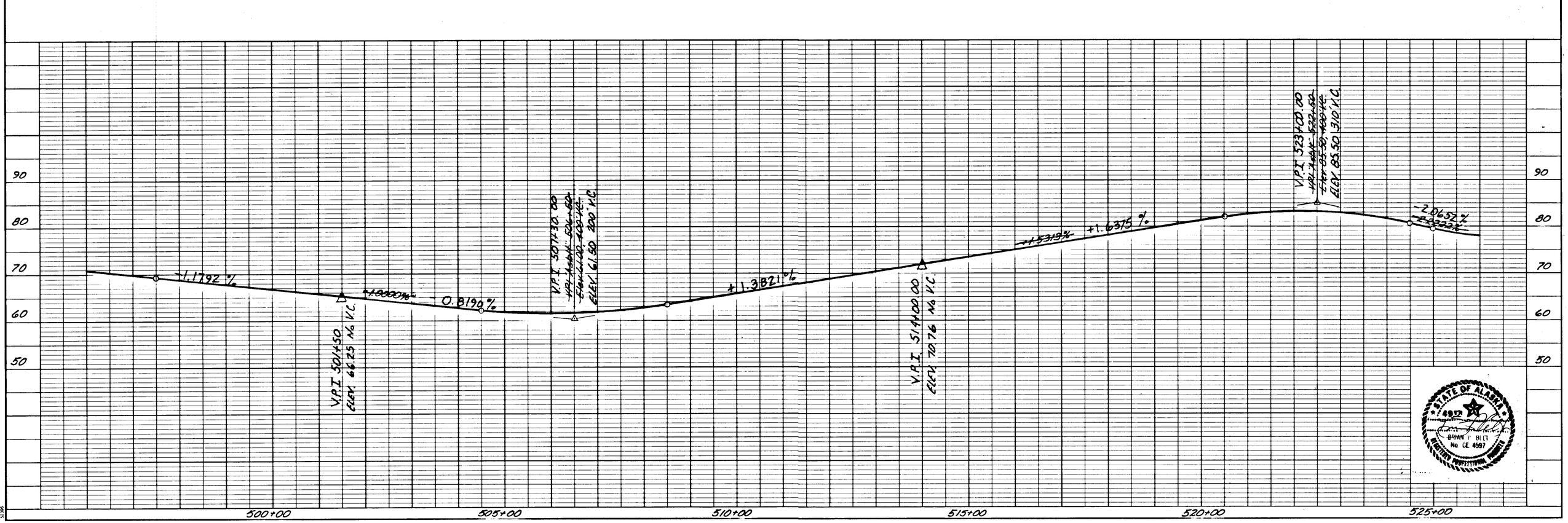


PLATE 2 FLAT PLAN-PROFILE

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924 (9)	1984	20	27

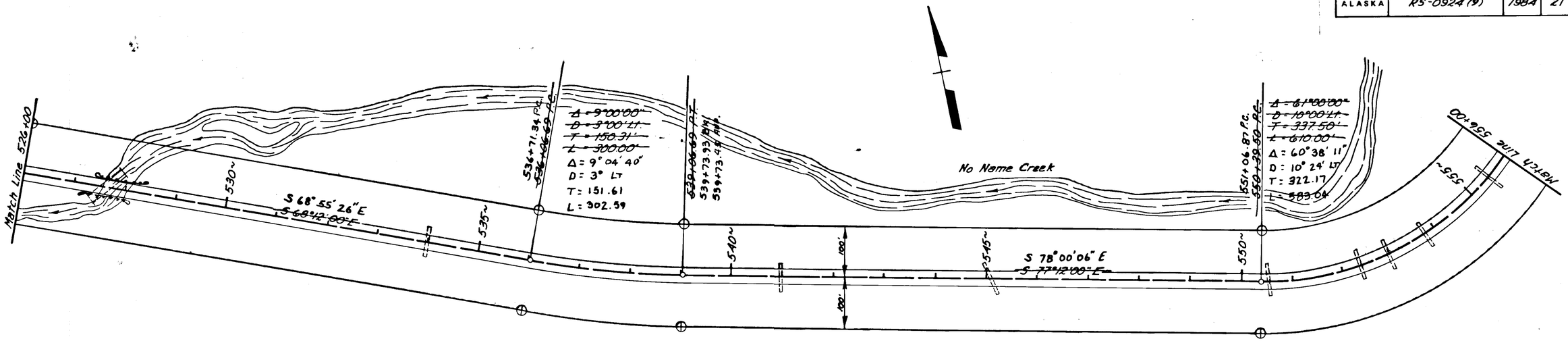


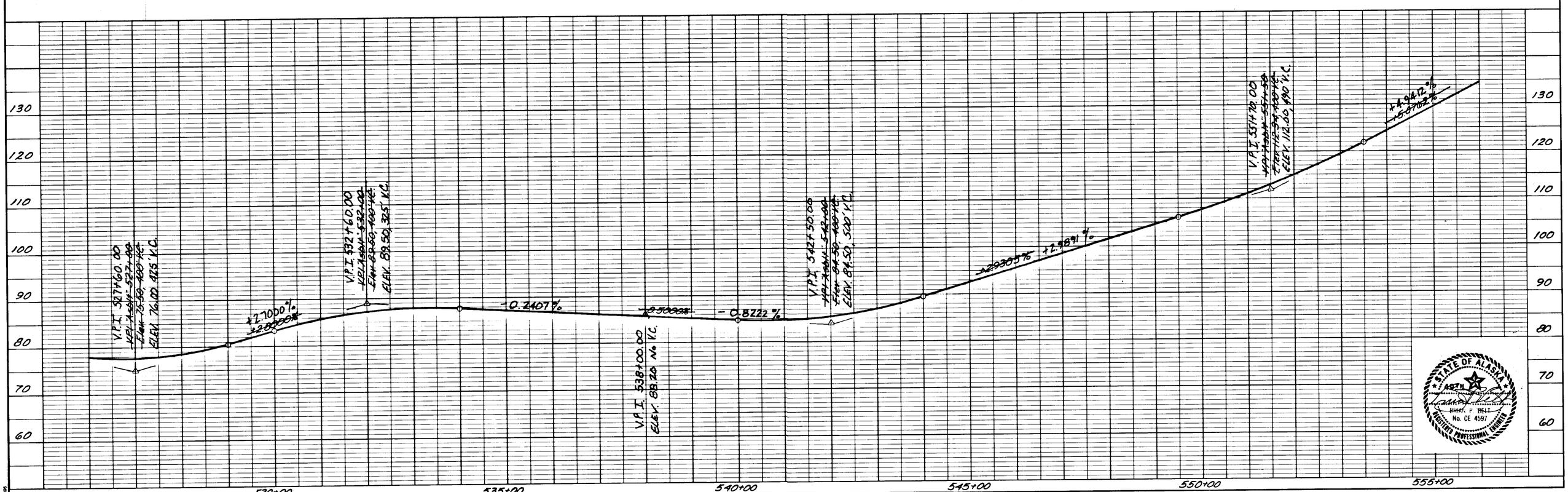


STATE OF ALASKA
BRIAN P. BILT
No. CE 4597
REGISTERED PROFESSIONAL ENGINEER

KEUFFEL & ESSER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924(9)	1984	21	27





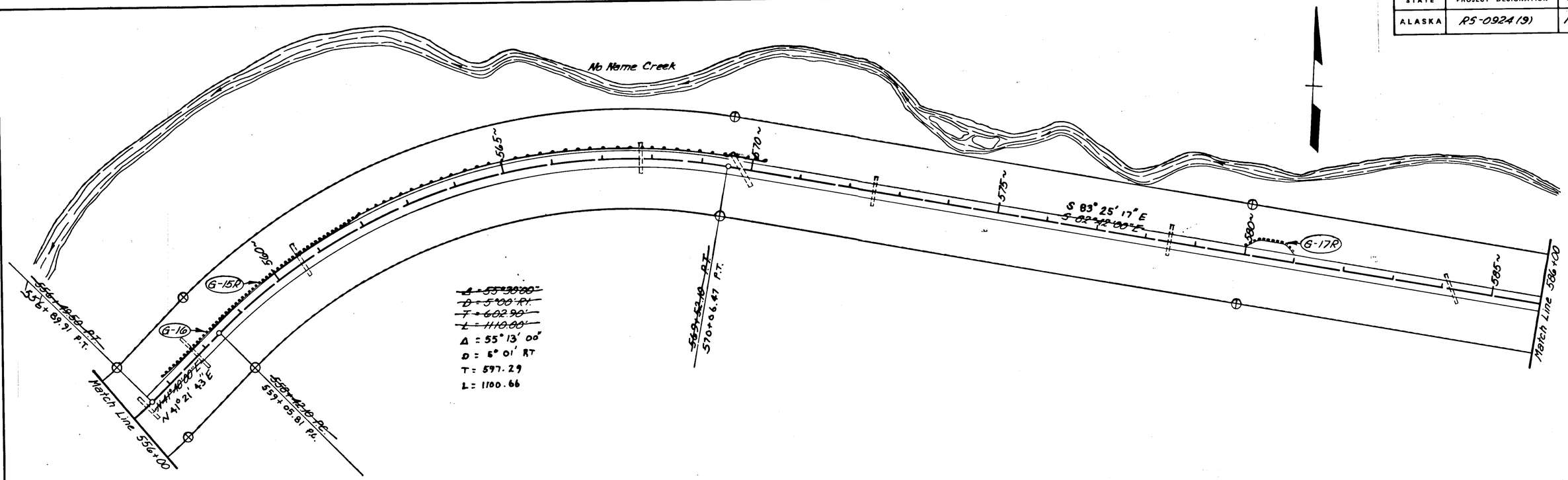
STATE OF ALASKA
ASTM
EMIL P. HELT
No. CE 4597
REGISTERED PROFESSIONAL ENGINEER

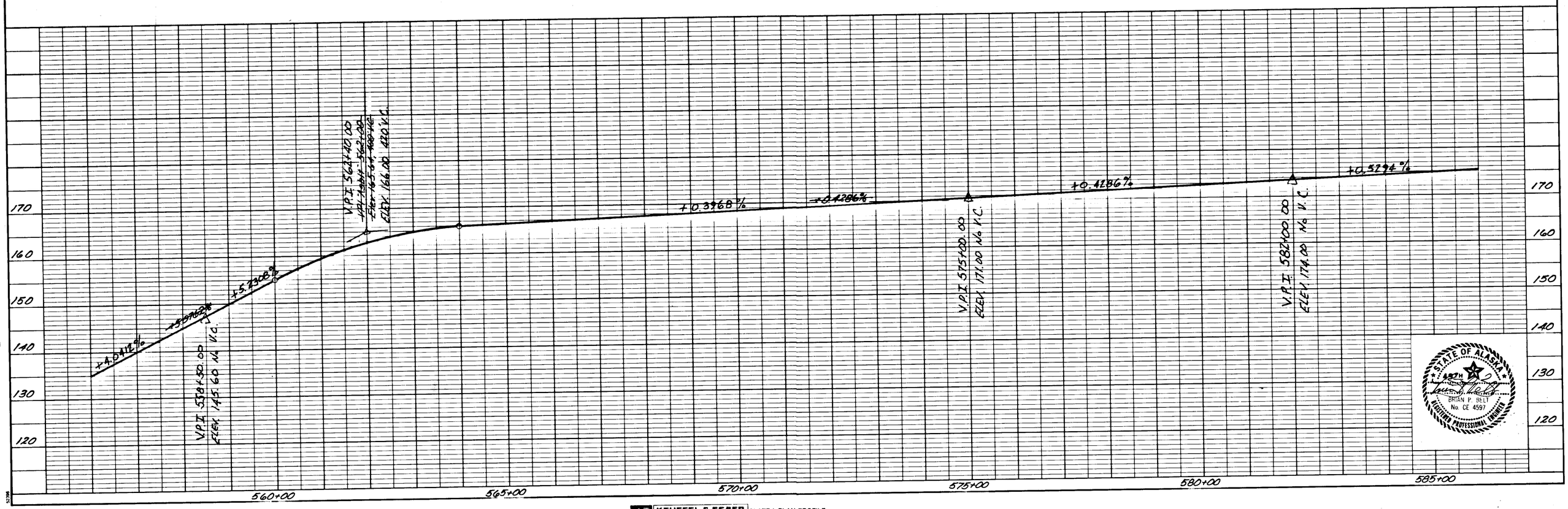
STRUCTURE NOTATIONS CHKD

KEUFFEL & ESSER PLATE & PLAN PROFILE

53396

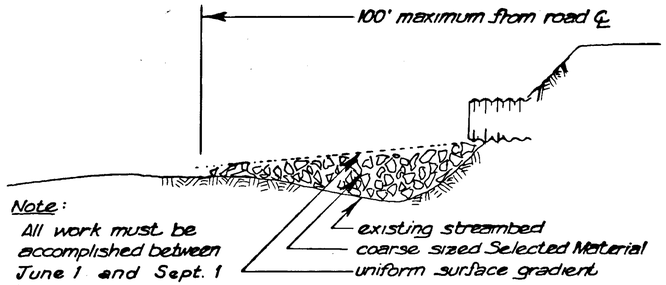
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924(9)	1984	22	27





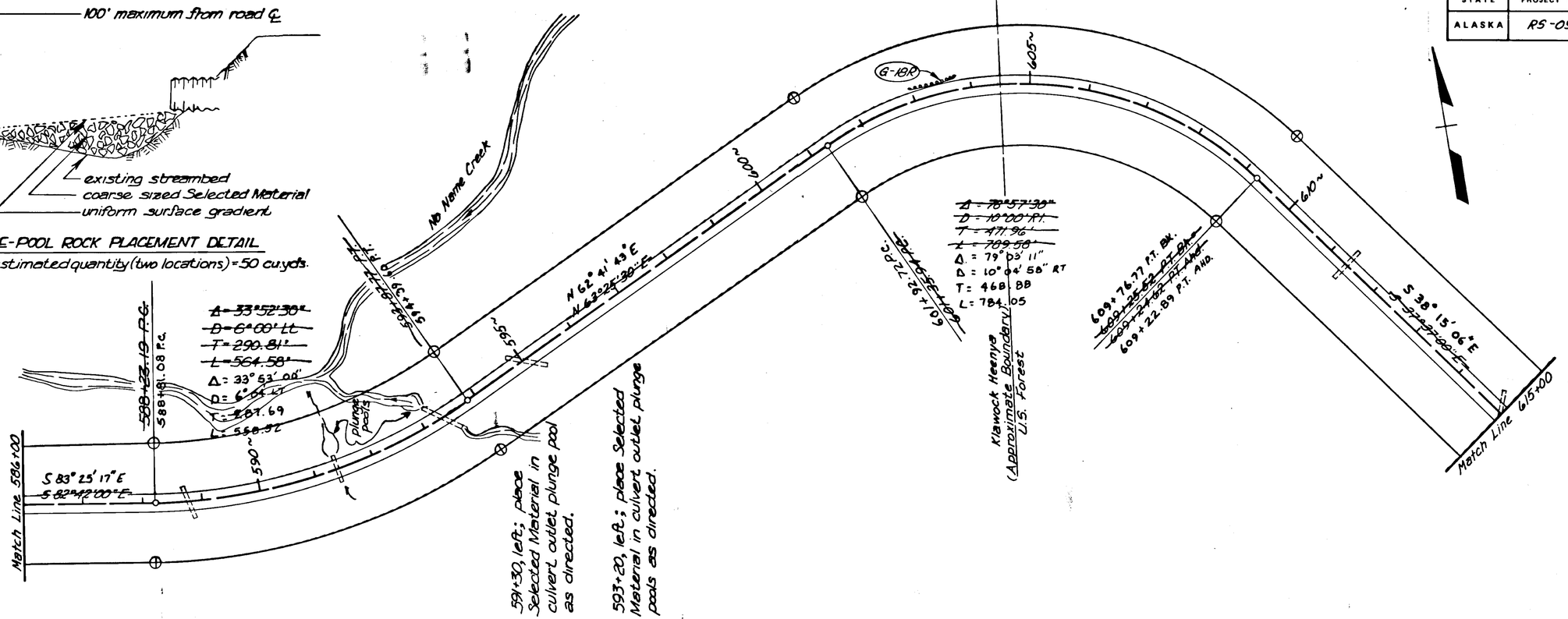
STATE OF ALASKA
BRIAN P. HILT
No. CE 4597
REGISTERED PROFESSIONAL ENGINEER

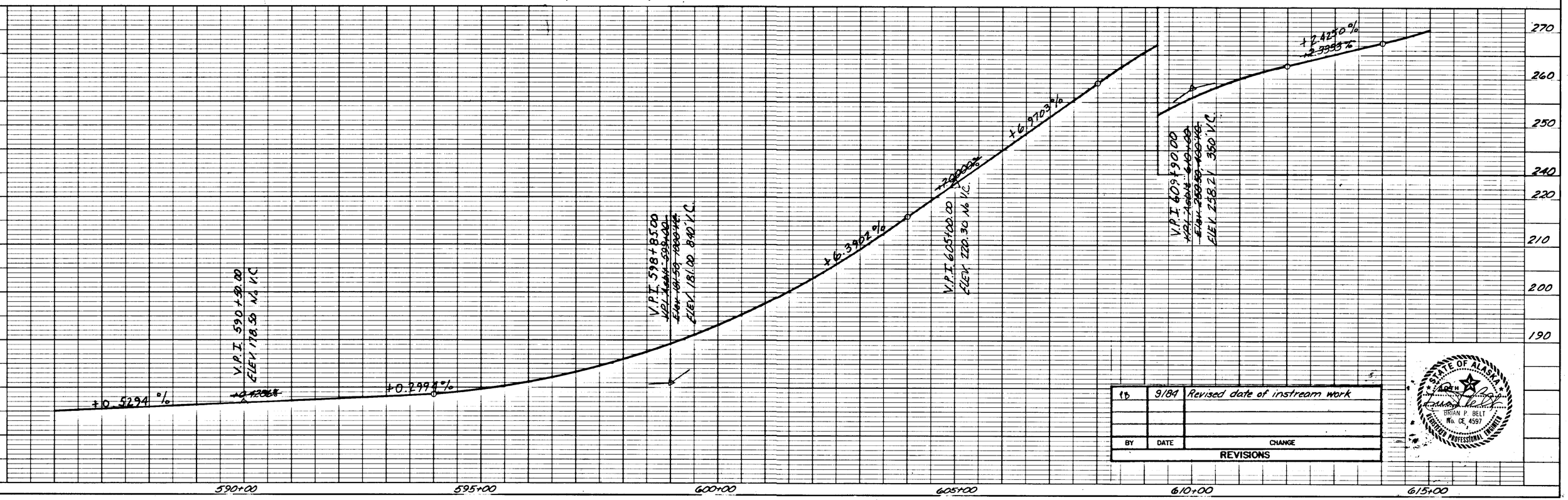
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924(9)	1984	23	27



Note:
All work must be accomplished between June 1 and Sept. 1 in any year.

PLUNGE-POOL ROCK PLACEMENT DETAIL
total estimated quantity (two locations) = 50 cu.yds.



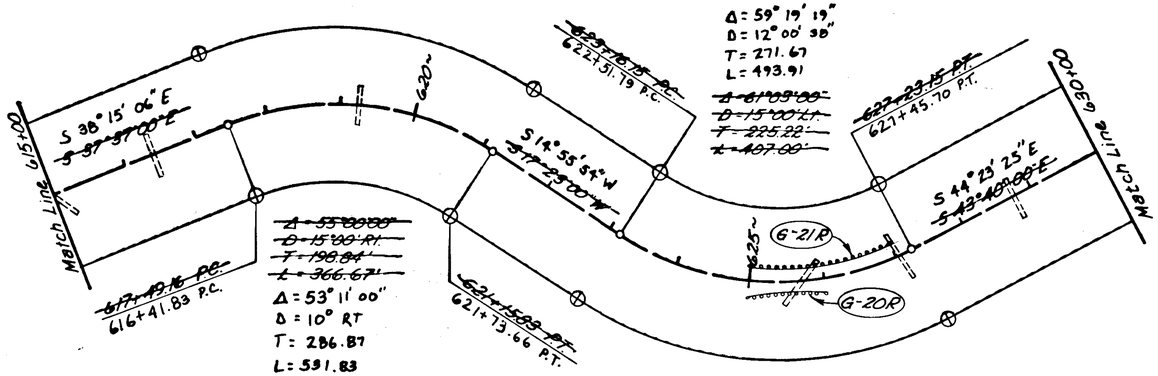


BY	DATE	CHANGE
1B	9/84	Revised date of instream work

REVISIONS

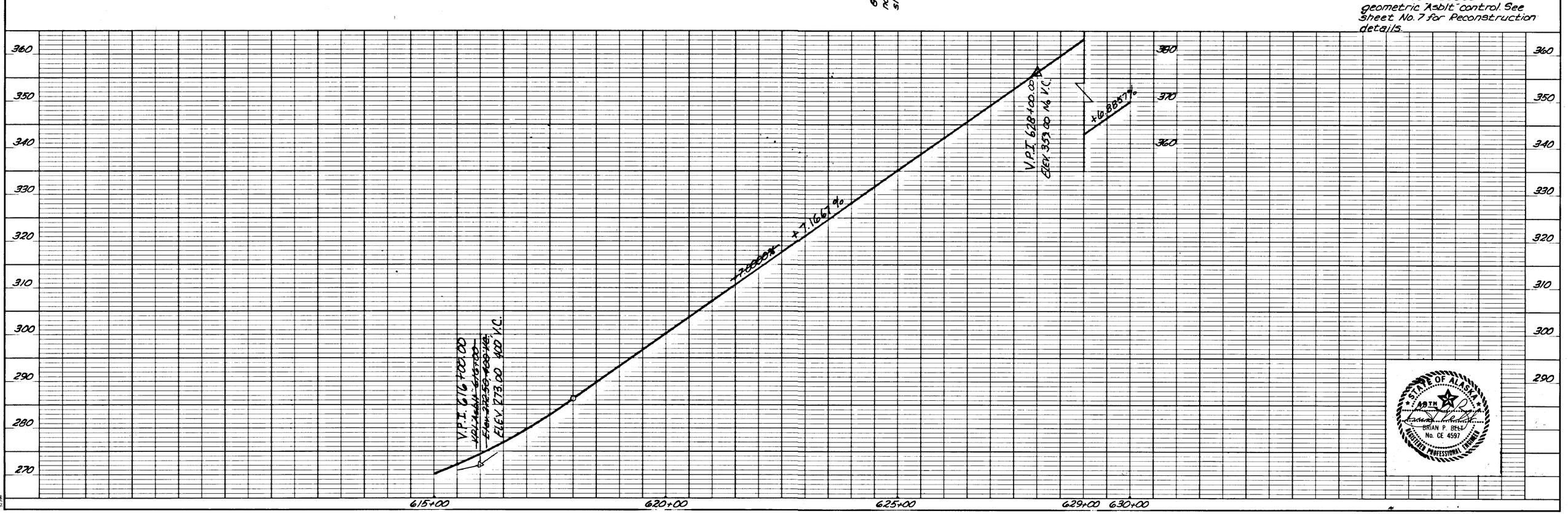
STATE OF ALASKA
BRIAN P. BELT
No. CE 4597
REGISTERED PROFESSIONAL ENGINEER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924(9)	1984	24	27



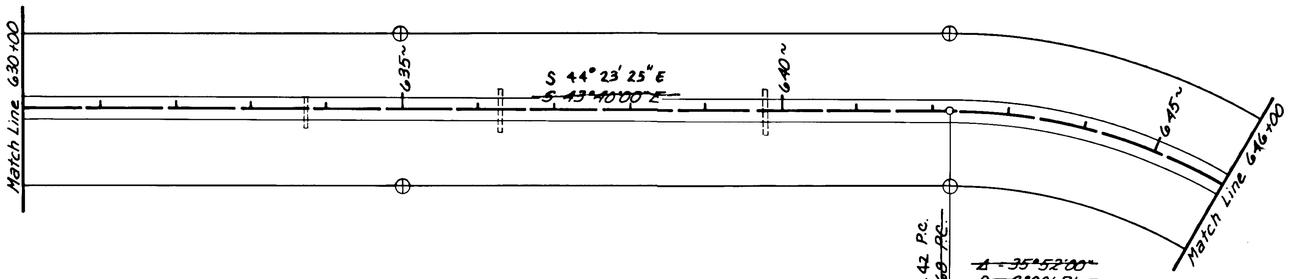
Guardrail run no. 19 not shown on this sheet for clarity.

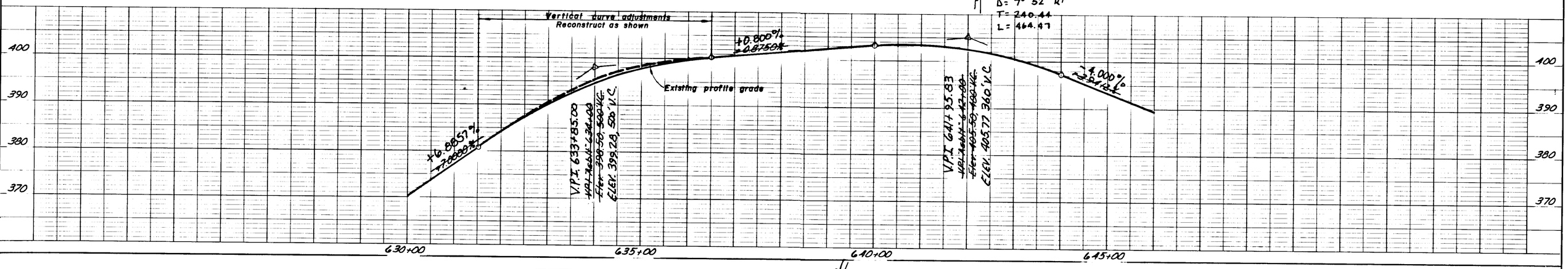
NOTE:
This sheet added for geometric "Asblt" control. See Sheet No. 7 for Reconstruction details.

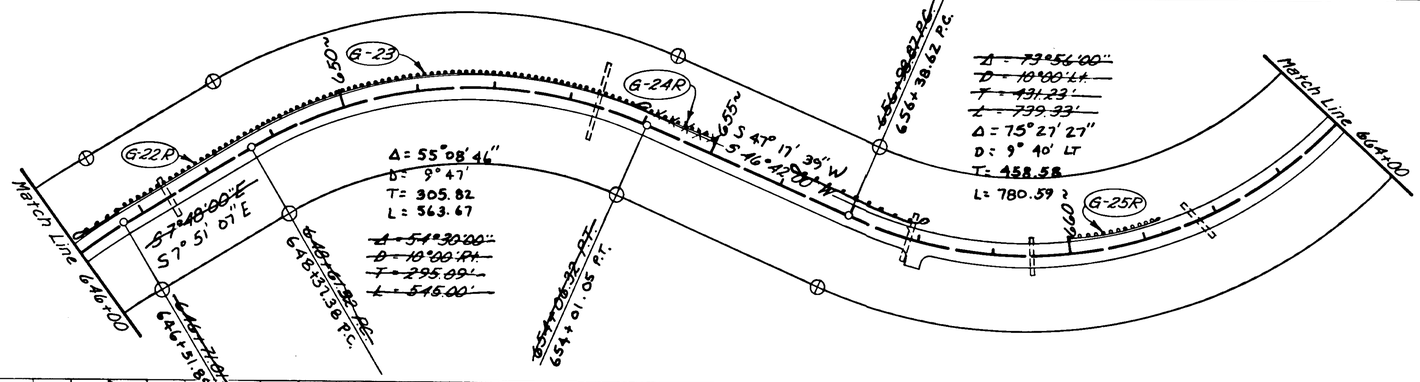


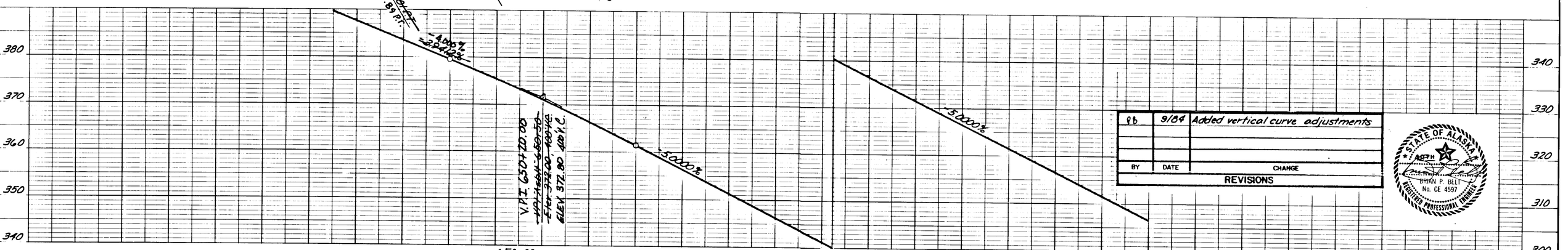
STATE OF ALASKA
DOT&PF
BRIAN P. BELT
No. CE 4597
REGISTERED PROFESSIONAL ENGINEER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924(9)	1984	25	27









BY	DATE	CHANGE
RB	9/84	Added vertical curve adjustments

REVISIONS

STATE OF ALASKA
BRIAN P. BELT
No. CE 4597
REGISTERED PROFESSIONAL ENGINEER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0924 (9)	1984	26	27

Match Line 664+00

664+19.21 P.T.

664+38.30 P.T.

665+28.64 P.C.

665+46.33 P.C.

~~Δ = 16°58'29"~~
~~D = 6°00' Lt.~~
~~T = 142.43'~~
~~L = 282.78'~~
Δ = 16° 40' 49"
D = 4° 45' Lt
T = 176.83
L = 351.16

668+79.11 P.T.

668+79.80 P.T.

Harris R.

HARRIS RIVER BRIDGE

~~676+13.12 P.C.~~

~~Δ = 7°00'00"~~
~~D = 3°00' Lt.~~
~~T = 116.81'~~
~~L = 233.33'~~

678+76.46 P.T.

665'

670'

675'

680'

685'

690'

694+00

~~S 27°14'00" E~~
S 28° 09' 48" E

~~S 44°50' 31" E~~
~~S 44°12'00" E~~

~~S 61°12'00" E~~

G-27R

G-26

G-28R

G-29R

G-30

G-31

existing gravel road

~~Δ = 41°58'00"~~
~~D = 6°00' Rt.~~
~~T = 366.21'~~
~~L = 699.45'~~

~~684+66.74 P.C.~~

693+66.21 P.T.

END PROJECT
RS-0924(8)
~~"Asblt" 672+16.50 Bk.~~
~~"Asblt" 672+16.50 Ahd.~~
E.O.P. 671+81.40

Note:
271+50 to E.O.P.; construct temporary pavement connection as shown on detail.

62.5'
temporary asphalt connection

grade as established by geometrics

match bridge grade

E.O.P.

Harris River Bridge concrete deck

ROADWAY/BRIDGE GRADE MATCH DETAIL
(N.T.S.)

330
320
310
300
290
280
270
260
250

-5.0000%

-5.2500%

-5.9000%

V.P.I. 666+00.00
ELEV. 293.80 96 V.C.

-4.5340%

V.P.I. 670+00.00
ELEV. 271.80 96 V.C.

671+82.40
Face Bridge Abutment
Elev. 264.53

"Asblt" End Bridge 672+97.58
Elev. 261.30

V.P.I. Asblt. 674+00
Elev. 254.50 500 V.C.

+5.0000%

V.P.I. Asblt. 684+00
Elev. 304.50 400 V.C.

+3.8100%

V.P.I. Asblt. 692+00
Elev. 335.00 400 V.C.

665+00
670+00
675+00
680+00
685+00
690+00
694+00

STATE OF ALASKA
49TH
BRIAN P. BELT
No. CE 4597
REGISTERED PROFESSIONAL ENGINEER