STATE	PROJECT	SHEET NO.	TOTAL SHEETS
ALASKA	FH-016-1(1)	1	14

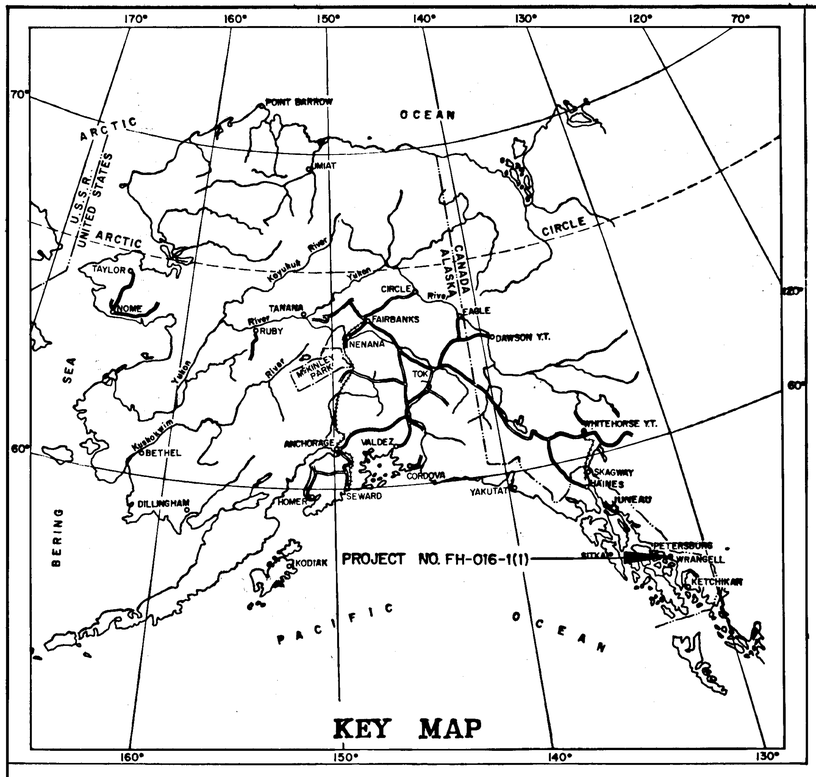
STATE OF ALASKA
DEPARTMENT OF HIGHWAYS

PLAN AND PROFILE
PROPOSED HIGHWAY PROJECT

FH-016-1(1)

WRANGELL SOUTH

GRADING & DRAINAGE

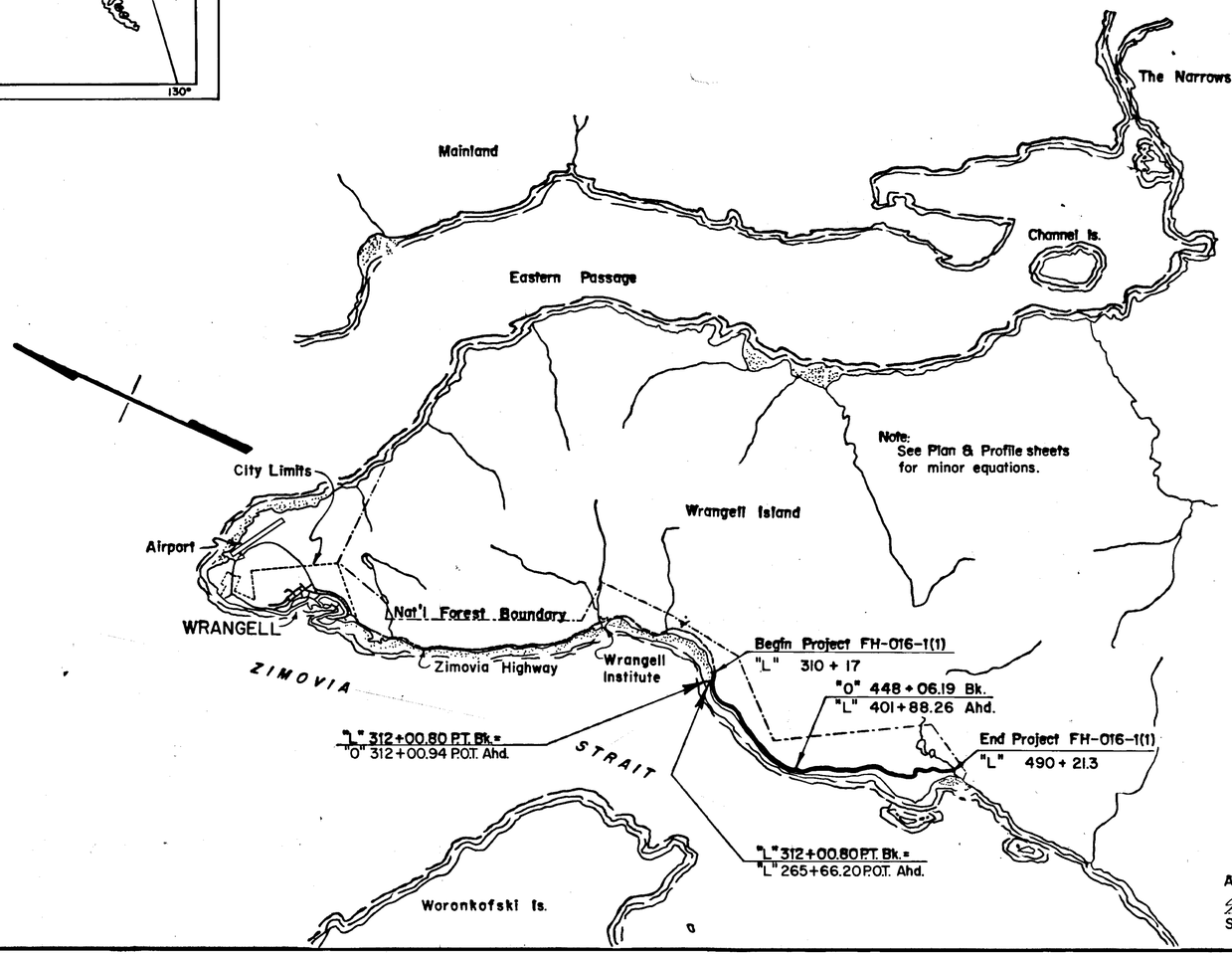


DESIGN DESIGNATION

ADT (1974)	=	210
ADT (1995)	=	660
DHV (20%)	=	130
D	=	35-65
T	=	5%

PROJECT SUMMARY

Width of Subgrade	=	24'	
Length of Grading	=	22,604.14' =	4.281 Mi.
Length of Project	=	22,604.14' =	4.281 Mi.



INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	TYPICAL SECTION
3	ESTIMATE OF QUANITIES
4 & 5	SUMMARY TABLES
6 - 14	PLAN & PROFILE SHEETS

The following Standard Drawings apply to this project: A-1, C-00.01 C-10.00, D-02.01, G-04.13, G-04.31, G-10.11, I-40.10, I-80.00 M-05.00, S-00.10, S-05.00, S-20.00, T-02.00.

AS BUILT PLANS

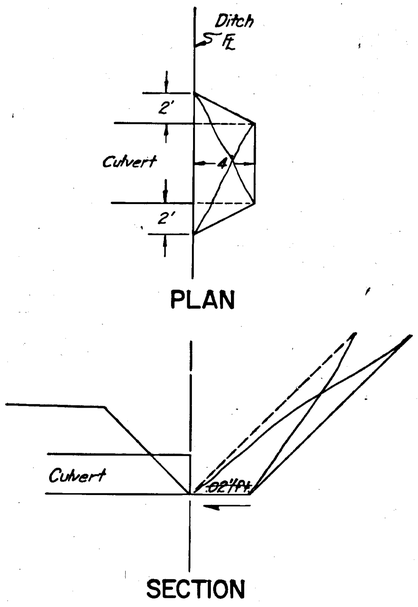
Contractor: Ritchie-Wayne J.V.
Project Engineer. P.R. Speer (HEA III)
Begin Work: July 22, 1975
Completion Work: August 7, 1976

STATE OF ALASKA
DEPARTMENT OF HIGHWAYS
APPROVED Warren T. Wild Date 4/30/75
SOUTHEASTERN DISTRICT ENGINEER

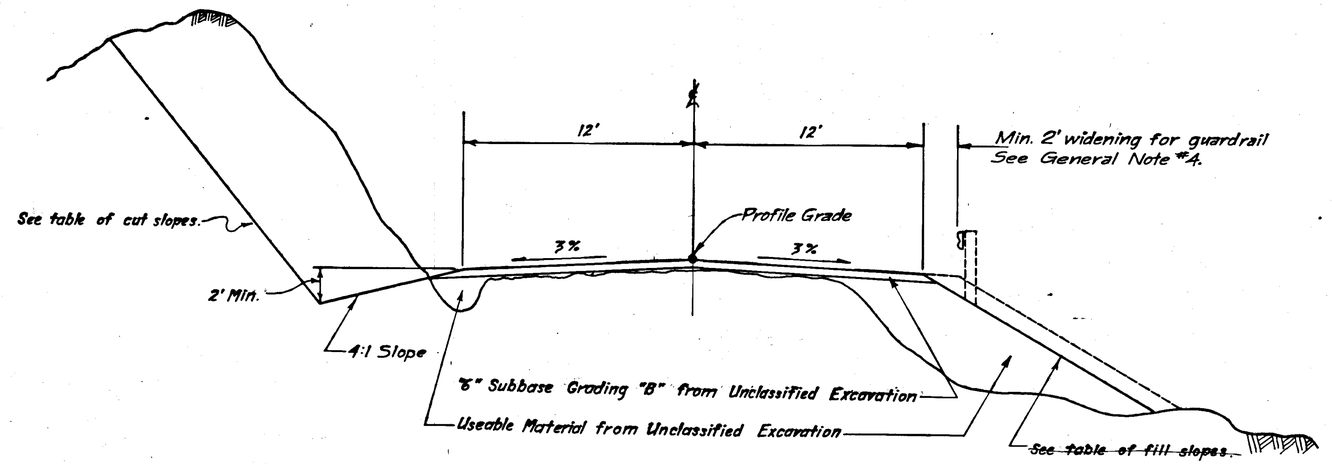
STATE OF ALASKA
DEPARTMENT OF HIGHWAYS
APPROVED [illegible] Date 5-1-75
for COMMISSIONER OF HIGHWAYS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FH-016-1(1)	1975	2	14

CULVERT INLET DETAIL



TYPICAL SECTION OF IMPROVEMENT



Sta. "L" 310 + 17 to Sta. "L" 490 + 21.3

TABLE of CUT SLOPES	
Material	Slope
Rock	0.25:1
Other	1:1

TABLE of FILL SLOPES	
Height of Fill	Slope
0' to 5'	3:1
5' to 10'	2.5:1
10' to 15'	2:1
15' & over	1.5:1

Note: Cut & Fill tables are a guide only, slopes may be varied to meet field conditions.

GENERAL NOTES

1. Grade and alignment shown on the plans are subject to minor revisions.
2. The clearing and grubbing limits shall be a neat line five feet (5) beyond the slope limits, or to the R.O.W. limits whichever is less.
3. Super elevation shall be revolved about the inside shoulder, or as staked by the engineer. See Standard Drawing I-80.00, Case II.
4. Where practicable the guardrail shall be installed along the existing shoulder or the new shoulder whichever is further to the right as staked by the Engineer.
5. The contractor shall be allowed to use steel or wood guardrail posts. See Standard Drawing G-04.13 and G04.31.
6. Existing utility poles that fall within the roadway prism shall be moved by others.
7. Approach radii shall be as staked by the engineer.
8. The design height of fill does not exceed the cover requirements for minimum gages of pipe conduit.
9. "O" 445+29 to E.O.P. Processing for subgrade modification, Item 302(3), will include shaping the roadway to the typical section as staked by the engineer.
10. "O" 445+29 to E.O.P. The heavy centerline shown on the plans is the control line. The existing road is to be improved. Pay Item 302(3) will be measured along the finished roadway centerline.

ESTIMATE OF QUANTITIES

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FH-016-1(1)	1975	3	14

ITEM No	ITEM	UNIT	SHEET NUMBERS 6	7	8	9	10	11	"O" 445+29 to "L" 490+21.3			TOTAL
1 /	Furnishing & Maintaining Engineering Facilities	Lump Sum										All Req'd
110(1)	Mobilization	Lump Sum										All Req'd
111(1)	Temporary Erosion & Polution Control	Cont. Sum										~~All Req'd~~ 0
112(1)	Training Program IAW, FHWA, Order-Interim 7-2(2)	Cont. Sum										All Req'd
113(1)	Flagging	Man Hr.										1234 ~~1,500~~
201(3A)	Clearing and Grubbing	Acre	~~2.2~~	2.2	3.0	2.1	1.7	0.4	4.6			17.2 ~~16.2~~
201(6)	Selective Tree Removal	Each										179 ~~150~~
202(4)	Removal and Disposal of Culverts	Lin. Ft.	~~185~~	~~543~~	~~478~~	~~401~~	~~612~~	~~146~~	~~1,410~~			3,441 ~~3,775~~
203(3)	Unclassified Excavation	Cu. Yd.	~~28,134~~	~~9,346~~	~~2,605~~	~~1,547~~	~~795~~	~~322~~	~~4,743~~			~~47,492~~
302(3)	Processing for Subgrade Modification	Mile							1.723			1.723
304(2)	Subase, Grading "B"	Cu. Yd.	~~1,048~~	~~1,524~~	~~1,446~~	~~1,224~~	~~1,249~~	~~391~~	~~4,323~~			11,258 ~~11,205~~
~~506(2)~~	~~Treated Timber~~ Deleted C.O.#4	M.B.M.					~~0.81~~					0 ~~0.81~~
603(22A)	6" Pipe Conduit	Lin. Ft.		~~82~~								242 ~~82~~
603(22E)	18" Pipe Conduit	Lin. Ft.		~~20~~			~~20~~	~~20~~	~~1,280~~			1258 ~~1,340~~
603(22G)	24" Pipe Conduit	Lin. Ft.	~~292~~	~~584~~	~~624~~	~~576~~	~~654~~	~~154~~	~~288~~			3168 ~~3,172~~
603(22H)	30" Pipe Conduit	Lin. Ft.		46								46
603(22I)	36" Pipe Conduit	Lin. Ft.					152					152
603(22K)	48" Pipe Conduit	Lin. Ft.							8			8
603(27)	72"x44" Pipe Arch E.W.O. #4			48								48
606(1)	Beam Type Guardrail, Type 2 Posts	Lin. Ft.	~~2,112.5~~	~~1,550.0~~	~~2,812.5~~	~~1,187.5~~			~~2,700~~			10,374.5 ~~10,362.5~~
615(1)	Standard Sign	Sq. Ft.							~~52.7~~	40.2		40.2 ~~52.7~~
618(1)	Seeding	M.S.F.	~~13.8~~	~~61.4~~	~~46.3~~	~~28.9~~	~~18.3~~	~~4.5~~	~~37.5~~			219.2 ~~210.7~~
618(2)	Water for Maintenance	M. Gal.	~~1.2~~	~~5.5~~	~~4.2~~	~~2.6~~	~~1.7~~	~~0.4~~	~~3.4~~			0 ~~19.0~~
627(1)	Watering	M. Gal.										20.6 ~~120~~
628(9)	Water Service Connections	Each		2								2
109(A)	E.W.O. #1 Repair Damaged Sewer Line	Lump Sum										All Req'd
109(B)	E.W.O. #2 Special Maintenance	Lump Sum										All Req'd.
109(C)	E.W.O. #4 Non-Participating Winter Maintenance	Lump Sum										All Req'd.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FH-016-1(1)	1975	4	14

CULVERT SUMMARY

Station	Removal and Disposal of Culverts	INSTALL 6" Pipe Conduit	18" Pipe Conduit	24" Pipe Conduit	30" Pipe Conduit	36" Pipe Conduit	Remarks
	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	
"L" 311+74	37			40			
"0" ~~313+35~~ 313+71				~~40~~ 46			
"0" ~~315+92~~ 315+82	~~38~~ 0			~~42~~ 46			
"0" ~~318+67~~ 318+72	31			46			
"0" 320+50	29			~~38~~ 42			
"0" ~~324+27~~ 324+26	25			~~40~~ 42			
"0" 327+90	33			46			
"0" ~~332+09~~ 332+07	27			~~40~~ 42			
"0" ~~333+28~~ 333+31	28			~~44~~ 46			
"0" ~~335+11~~ 335+09	29			~~42~~ 46			
"0" 336+33	~~48~~ 0			~~52~~ 0			Deleted
"0" ~~337+52~~ 337+44	~~36~~ 0			~~40~~ 48			
"0" 340+70				~~44~~ 0			Deleted
"0" 342+82	28						
"0" 344+68	33						
"0" ~~345+52~~ 345+49	33			~~40~~ 44			Construct Ditch Block
"0" 348+89	44			~~44~~ 0			Remove 5' X 5' Wood Culvert E.W.O. #4 72"x44"x48' Arch Pipe
"0" 349+41		38					Conduit for Water Service
~~"0" 349+04~~	~~20 0~~		~~20 0~~				~~Approach Culvert~~ No Culvert at this Approach.
"0" 350+95	26			~~36~~ 40			
"0" ~~352+35~~ 352+31	26			40			
"0" ~~353+26~~ 353+25	24			40			
"0" 353+99		44					Conduit for Water Service
"0" ~~354+73~~ 354+72	30				46		Construct Ditch Block
"0" 355+52	27						
~~"0" 356+05~~				~~38~~ 0			Deleted
"0" ~~357+82~~ 357+80	31			40			Needed New installation
"0" 359+58	29			~~40~~ 42			
"0" ~~360+43~~ 360+25	~~38~~ 0			~~42~~ 52			
"0" 361+77	~~35~~ 15			~~42~~ 44			Construct Ditch Block Unable to Locate Remaining 20' in field
"0" 362+92	28			~~42~~ 44			Construct Ditch Block
"0" ~~364+36~~ 364+25	27			~~40~~ 44			Construct Ditch Block
"0" ~~365+84~~ 365+88	27			42			Construct Ditch Block
"0" ~~366+64~~ 366+63	27			~~40~~ 44			Construct Ditch Block
"0" 369+66	~~29~~ 0			~~40~~ 0			~~Construct Ditch Block~~ Unable to Locate
"0" 369+89				44			
"0" 371+34	29						
"0" ~~372+20~~ 372+27				~~36~~ 48			
"0" ~~376+05~~ 376+51	29			42			
"0" ~~378+13~~ 378+17	27			~~40~~ 42			
"0" 379+57	30						
"0" 381+22				~~36~~ 52			
"0" 374+25				48			
"0" 381+89	32			~~36~~ 0			
"0" 383+72	32			~~36~~ 42			
"0" ~~384+69~~ 384+54	30			~~40~~ 42			
"0" ~~385+38~~ 385+37	28			~~38~~ 42			
"0" ~~387+23~~ 387+27	40			~~38~~ 46			
"0" 388+69 388+65	28			~~36~~ 42			

Station	Removal and Disposal of Culverts	INSTALL 18" Pipe Conduit	24" Pipe Conduit	36" Pipe Conduit	48" Pipe Conduit	Remarks
	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	
"0" ~~391+11~~ 391+10	26		40 42			
"0" ~~392+48~~ 392+47	28		42			
"0" ~~394+17~~ 394+11	~~28~~ 20		~~40~~ 42			Unable to locate remaining 8' in field.
"0" ~~396+54~~ 396+51	30		40			Needed New installation.
"0" 398+24			~~40~~ 0			Deleted
"0" 399+99 "0" 400+34	~~38~~ 30		40			Not on Plans & Located in field
"0" ~~401+11~~ 401+12	40		46			
"0" 403+81	30		~~42~~ 0			No New installation
"0" ~~405+30~~ 405+29	27		42			
"0" 406+48 406+49	26		40			
"0" 407+76	27		40			
"0" 402+95	~~36~~		42			Extg. Not on Plans & Located in field.
"0" 408+58	28		40			& New installation installed
"0" 410+40	28		42			
"0" ~~411+11~~ 411+12	29		40			
"0" 412+19	28		40			
"0" 412+87	26		42			
"0" ~~414+77~~ 414+75	27		40			
"0" 417+62	27		40			
"0" ~~418+52~~ 418+50	27		40			
"0" 419+74	30		~~44~~ 40			
"0" 421+37	31		~~48~~ 44			
"0" 423+77	44			52		
"0" ~~425+38~~ 425+39	27		40			
"0" ~~425+90~~ 425+78	20	~~28~~ 36				Approach Culvert
"0" ~~425+93~~ 425+91	28		~~42~~ 0			New installation Deleted
"0" ~~427+41~~ 427+39	28		40			
"0" ~~428+95~~ 428+96	25			40		
"0" ~~430+01~~ 430+11	28		40			
"0" 430+62	28		40			
"0" ~~431+84~~ 431+82	28		40			
"0" ~~433+07~~ 433+06	29		38			
"0" 434+75	48			60		
"0" ~~435+42~~ 435+44	35		~~48~~ 46			
"0" ~~436+07~~ 436+18	32		~~36~~ 42			
"0" ~~436+82~~ 436+92	33		44			
"0" 437+62	37		~~40~~ 0			
"0" 438+61			40			100' error in Location on plans
"0" ~~440+02~~ 440+13	34		40			
"0" ~~440+18~~ 440+37	20	~~28~~ 30				Approach Culvert
"0" ~~442+04~~ 442+03	51		56			Construct Ditch Block
"0" ~~444+31~~ 444+30	41		~~58~~ 50			Construct Ditch Block
"0" ~~446+12~~ "0" 446+17	42	42				Construct Ditch Block
"L" ~~403+48~~ 403+44	~~32~~ 15		40			Construct Ditch Block Remaining 6' of extg. important to excavate
"L" ~~406+48~~ 406+43	34		~~38~~ 42			Construct Ditch Block
"L" ~~413+18~~ 409+34	42	42				
"L" ~~414+30~~ 414+26	32	40				
"L" ~~415+58~~ 415+59	~~28~~ 15	~~38~~ 40				Remaining 13' of extg. impratical to excavate

Station	Removal and Disposal of Culverts	INSTALL 18" Pipe Conduit	24" Pipe Conduit	36" Pipe Conduit	48" Pipe Conduit	Remarks
	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.	
"L" ~~418+45~~ 418+42	~~30~~ 20	~~38~~ 44				Remaing 10' of Extg. Impractical to excavate
"L" ~~420+40~~ 420+38	28	~~36~~ 40				
"L" ~~424+25~~ 424+27	30	40				
"L" 425+12					8	Extend
"L" ~~427+85~~ 427+78	34	~~44~~ 40				
"L" ~~429+85~~ 429+87	45		46			
"L" ~~430+90~~ 430+89	40	40				
"L" ~~433+35~~ 433+33	28	40				
"L" ~~435+40~~ 435+39	~~28~~ 0		40			Unable to locate extg. in field.
"L" ~~437+30~~ 437+32	28	38				
"L" ~~440+19~~ 440+15	50	~~50~~ 46				
"L" 442+40	43	44				
"L" ~~443+65~~ 443+66	34		40			
"L" ~~446+03~~ 446+12	~~32~~ 0		40			Unable to locate extg. in field.
"L" ~~447+98~~ 447+94	34	42				
"L" ~~449+50~~ 449+44	30	~~38~~ 40				
"L" ~~452+15~~ 452+19	45	46				
"L" 456+80	~~37~~ 10	~~46~~ 0				Construct Ditch Block Deleted New Installation, unable to Locate remaining 2
"L" ~~458+25~~ "L" 458+21	47	48				Construct Ditch Block
"L" ~~459+38~~ "L" 459+26	43	44				Construct Ditch Block
"L" 460+33	~~44~~ 0	44				Construct Ditch Block Unable to locate extg. in field.
"L" 462+20	42	42				Construct Ditch Block
"L" ~~463+55~~ "L" 463+54	40	~~46~~ 44				Construct Ditch Block
"L" ~~465+15~~ "L" 465+10	40		44			Construct Ditch Block
"L" ~~467+10~~ "L" 462+16	~~49~~ 0	~~48~~ 0				Construct Ditch Block Deleted-Unable to Locate in Field
"L" ~~469+10~~ "L" 469+12	45	~~46~~ 44				Construct Ditch Block
"L" ~~471+93~~ "L" 471+94	44	~~44~~ 42				Construct Ditch Block
"L" ~~473+50~~ "L" 473+46	46	~~46~~ 44				Construct Ditch Block
"L" ~~477+52~~ "L" 477+55	42	42				Construct Ditch Block
"L" 480+18	49	~~50~~ 46				Construct Ditch Block
"L" ~~482+90~~ "L" 482+91	40	~~42~~ 46				Construct Ditch Block
"L" 488+45	40	~~40~~ 42				Construct Ditch Block
6" Additional Culverts						
"0" 423+90	40					
"0" 427+45	40					
"0" 438+68	40					
"0" 444+16	40					
E.W.O. #4						
"0" 348+89 Installed 72"x44"x48' Arch Pipe.						

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FH-016-((1)	1975	5	14

APPROACH SUMMARY

STATION	Left	Right	
"0" 349+~~04~~08	X		
"0" 349+62		X	
"0" 350+~~41~~45		X	
~~"0" 351+83~~		~~X~~	No Approach
"0" 351+30		X	
"0" 352+97		X	
"0" 401+~~24~~30		X	
"0" 403+~~34~~50		X	
"0" 425+~~98~~78	~~X~~	X	
~~"0" 434+20~~		~~X~~	No Approach
"0" 434+92		X	
"0" 436+45	X		
"0" 426+12		X	
"0" 439+~~30~~21		X	
"0" 440+35	X		
"0" 443+70		X	
~~"0" 443+19~~		~~X~~	No Approach
"L" 479+30	X	X	
"L" 482+20	X		
"L" 489+80	X		

SIGNING SCHEDULE

No.	STATION	Dist. from ℄ Lt.	Dist. from ℄ Rt.	Code Number	Legend	Sign Panel Thickness Size	Unframed	Framed	Sq. Ft.	Post No. of Post	Type	Size	Length	Embedment	Facing Traffic	Remarks
1	"L" 423+25.5		16	W1-2R	Curve Right	30" x 30"	0.063"		6.25	1	Tube	2"	8' 6"	4' 6"	SB	
2	"L" 432+25.1	16		W1-2L	Curve Left	30" x 30"	0.063"		6.25	1	Tube	2"	8' 6"	4' 6"	NB	
3	"L" 444+51.6		16	W1-5L	Winding Road	30" x 30"	0.063"		6.25	1	Tube	2"	8' 6"	4' 6"	SB	
4	"L" 479+20	~~20~~ 28		R 1-1	Stop	30" x 30"	0.063"		6.25	1	Tube	2"	8' 0"	4' 6"	WB	
5	~~"L" 479+50.75~~		~~20~~43	R 1-1	Stop	30" x 30"	0.063"		6.25	1	Tube	2"	8' 0"	4' 6"	EB	
6	~~"L" 480+21.3~~		~~16~~	~~W14-4~~	~~End Road 1000 ft.~~	~~30" x30"~~	~~0.063"~~		~~6.25~~	~~1~~	~~Tube~~	~~2"~~	~~8' 6"~~	~~4' 6"~~	~~SB~~	Deleted C.O.#5
7	"L" 480+30	20		R 1-2	Yield	30" x 30"	0.063"		2.70	1	Tube	2"	8' 0"	4' 6"	WB	
8	"L" 480+60	20		R5-1	Do Not Enter	30" x 30"	0.063"		6.25	1	Tube	2"	8' 0"	4' 6"	EB	
9	~~"L" 490+21.3~~			~~W14-3~~	~~End~~	~~30" x 30"~~	~~0.063"~~		~~6.25~~	~~1~~	~~Tube~~	~~2"~~	~~10' 0"~~	~~4' 6"~~	~~SB~~	~~With Type 1 object Marker~~ Deleted C.O.#5

GENERAL SIGNING NOTES:

1. Sign locations are approximate only and shall be located by the Engineer.
2. All sign posts shall be telescoping perforated, galvanized steel post, 12 ga.. The 2" size shall be used above ground, and the 2½" size shall be used below ground.

GUARDRAIL SUMMARY

From STATION	To STATION	Lt./Rt.	Remarks
"L" 310+17	"0" 339+17	Rt.	See General Note #4
"0" 353+~~25~~38	"0" 400+91.43	Rt.	See General Note #4
~~"L" 406+50~~	~~"L" 416+50~~	Rt.	"L" 405+75 "L" 409+50
~~"L" 433+50~~	~~"L" 437+50~~	Rt.	"L" 412+00 – "L" 416+75
~~"L" 445+50~~	~~"L" 452+50~~	Rt.	"L" 417+75 – "L" 421+00
~~"L" 457+50~~	~~"L" 459+50~~	Rt.	"L" 424+00 – "L" 426+50
~~"L" 471+50~~	~~"L" 473+50~~	Rt.	"L" 432+00 – "L" 437+75
~~"L" 487+50~~	~~"L" 489+50~~	Rt.	"L" 445+50 – "L" 452+50

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FH-016-1(1)	1975	6	14

PLATE 1 - PLAN - PROFILE O.P.R.&R.E. STANDARD

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FH-016-1(1)	1975	7	14

"L"
Δ = 14° 13'
D = 10° Lt.
T = 71.45'
L = 142.17'
R = 572.96'

"O"
Δ = 25° 54' 20"
D = 4° Lt.
T = 329.45'
L = 647.64'
R = 1432.39'

"L"
Δ = 11° 48'
D = 8°
T = 79.01'
L = 147.50'
R = 716.20'

"L"
Δ = 25° 36'
D = 12° Lt.
T = 108.48'
L = 213.33'
R = 477.47'

"O"
Δ = ~~25° 48' 04"~~ 25° 50' 00"
D = 7° Lt.
T = ~~187.41~~ 187.72
L = ~~368.87~~ 363.10
R = 818.51'

"O" 331+30.01 P.C.
"L" 286+20.21 P.C.
"L" 287+62.38 P.T.
"L" 289+15.02 P.C.
"L" 290+62.52 P.T.
"O" 337+77.65 P.T.
"O" 339+18.04 P.C.
"L" 294+04.71 P.C.
"L" 296+18.04 P.T.
"O" 342+17.09 P.C.
"L" 308+22.56 P.T.
"O" 354+32.94 P.T.
"O" 361+00
Match Line

"O"
S 29° 11' 04" W
~~170.64~~
170.39

"O"
S 3° 23' 0" W
~~877.51~~
875.80

"O"
S 33° 47' 36" W
~~755.51~~
756.06

"O"
Δ = ~~30° 24' 35"~~ 30° 28'
D = 6° Rt.
T = ~~259.54~~ 260.05
L = ~~506.83~~ 507.78
R = 954.93'

"L"
S 55° 0' W
~ 205.65'

"L"
S 40° 47' W)
~ 152.64'

"L"
S 28° 59' W
~ 342.19'

"L"
S 3° 23' W
~ 947.91'

"L"
S 33° 28' W
~ 812.97'

"L"
Δ = 30° 5'
D = 6° Rt.
T = 256.62'
L = 501.39'
R = 954.93'

"L" 286+91.66 P.T.
"O" 334+59.45 P.T.
"L" 289+89.03 P.T.
"L" 295+13.19 P.T.
~~"O" 341+35.75 P.C.~~
"O" 341+35.76 P.C.
"L" 305+65.95 P.C.
~~"O" 351+92.89 P.C.~~
"O" 351+92.89 P.C.
"L" 310+67.34 P.T.
~~"O" 357+00.67 P.T.~~
"O" 357+00.67 P.T.

R/W
R/W
Match Line
340
350
360
5
5

T.B.M. #3 Spike in top of stump
"L" 297+70, 40' Rt. Elev. 84.07
T.B.M. #3A Spike in 16" Spruce
"L" 297+70, 40' Rt. Elev. 81.20

T.B.M. #4 Spike in 20" Spruce
"L" 304+60, 40' Rt. Elev. 70.83
T.B.M. #4A Spike in 12" Spruce
"L" 304+75, 40' Rt. Elev. 67.92

Embankment = 1,092 Cu. Yd.
Unclassified Excavation = ~~9,346~~ Cu.Yd. (Includes ~~894~~ Cu.Yd. Waste)
Subbase Grading "B" = 1,524 Cu.Yd. from Unclassified Excavation

400' V.C.
Elev. 55.71
V.P.I. "O" 331+44.61
+3.562%
Profile Grade
950' V.C.
Elev. 98.29
V.P.I. "O" 343+40
-3.823%
400' V.C. Elev. 63.50
V.P.I. "O" 352+50.00
+3.968%
500' V.C.
Elev. 88.30
V.P.I. "O" 358+75.00
Existing Ground

90
80
70
60
50
40

331
35
340
45
350
55
360
361

PLATE 1 - PLAN - PROFILE O. P. R. & R. E. STANDARD
1968-9 ARPENCRAFT FILM - MADE AND PRINTED IN U. S. A.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FH-016-1(1)	1975	8	14

"O" Δ = 7°17'09" D = 2° Lt. T = 182.39' L = 364.29' R = 2864.79' S = 0.03'/ft.
"L" Δ = 6°58'00" D = 2°30' Lt. T = 139.51' L = 278.67' R = 2291.83'
"O" 364+56.73 P.C.
"L" 318+80.31 P.C.
"L" 321+58.98 P.T.
"O" 368+21.02 P.T.
"O" Δ = 8°14'06" D = 2°30' Lt. T = 164.98' L = 329.40' R = 2291.83'
"L" Δ = 8°34' D = 2°30' Lt. T = 171.65' L = 342.67' R = 2291.83'
"L" 327+07.12 P.C.
"O" 373+32.65 P.C.
"O" 376+62.05 P.T.
"L" 330+49.79 P.T.
"O" 378+12.65 P.I.
"L" 331+98.64 P.I.
"L" Δ = 5°12' D = 2°30' Lt T = 104.07' L = 208.0' R = 2291.83'
"L" 334+87.12 P.C.
"O" Δ = 4°26'13" D = 2°30' T = 88.78' L = 177.48' R = 2291.83' S = 0.03'/ft.
"O" 382+98.26 P.T.
"L" 336+95.12 P.T.

"O" 361+00
Match Line
"L" S 33°28' W ~812.97'
R/W
5
370
Slope Limits
"L" S 26°30' W ~548.12'
"L" S 17°56' W ~37.82'
"L" S 33°23' W ~178.80'
380
"L" S 28°11' E ~670.19'
"O" 389+00
Match Line

"O" S 33°47'36" W ~~755.51'~~ 756.06
"O" 366+38.12 P.I.
"L" 320+19.82 P.I.
Slope Limits
"O" S 26°30'27" W ~511.63'
"O" 374+97.63 P.I.
"L" 328+78.78 P.I.
"O" S 18°16'20" W ~37.19'
"O" 376+99.24 P.C.
"L" 330+87.61 P.C.
"L" Δ = 15°27' D = 7° Rt. T = 111.03' L = 220.71' R = 818.51'
"O" Δ = 14°39'49" D = 6°30' Rt. T = 113.42' L = 225.59' R = 881.47' S = 0.046'/ft.
"O" 379+24.83 P.T.
"L" 333+08.32 P.T.
"O" S 32°56'09" W ~~135.45'~~ 197.04
382+06.57 P.T.
"L" 335+91.19 P.I.
R/W
"O" S 28°29'56" W ~~907.13'~~ 706.65

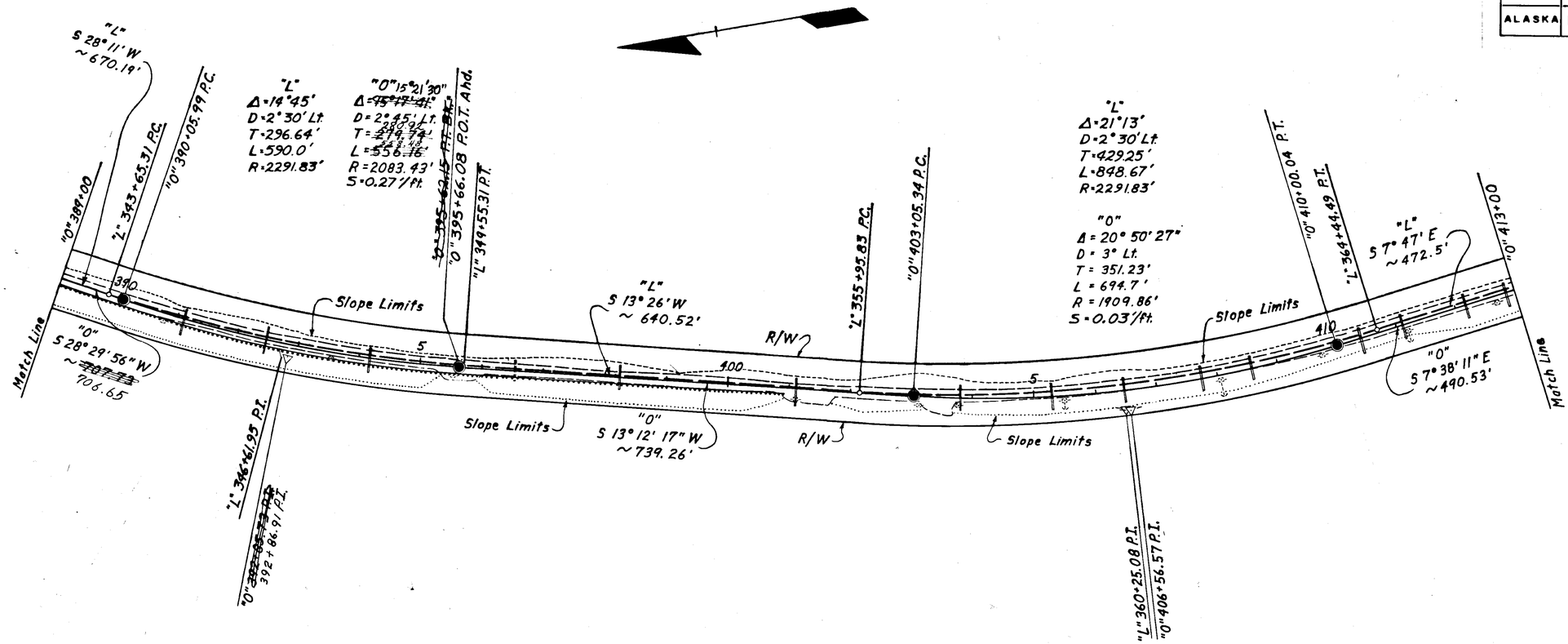
T.B.M. #5A Spike in 26" Hemlock "L" 317+18.52 Rt., Elev. 60.87
T.B.M. #5 Spike in 48" Spruce "L" 317+47, 38' Rt., Elev. 67.85
T.B.M. #6 Spike in 30" Spruce "L" 330+20.40 Rt., Elev. 30.07
T.B.M. #7 Painted sharp point on rock ledge "L" 339+90, 16' Lt. Elev. 34.15

~~Embankment = 5,176 Cu. Yd.~~
Unclassified Excavation = 2,603 ~~Cu. Yd. (Includes 1,446 Cu. Yd. Waste)~~
~~Subbase Grading "B" = 1,446 Cu. Yd. from Unclassified Excavation~~

90
80
70
60
50
40
30
20
10
-4.651%
300' V.C. Elev. 29.00
V.P.I. "O" 371+50.00
Profile Grade
+0.212%
Existing Ground
200' V.C. Elev. 32.50
V.P.I. "O" 388+00.00
361
65
370
75
380
85
389

PLATE 1 - PLAN - PROFILE O. P. R. & R. E. STANDARD
1888-B ASEPROOF FILM — MADE AND PRINTED IN U. S. A.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FH-016-1(1)	1975	9	14



K+E PLATE 1, PLAN-PROFILE
KEUFFEL & ESSER CO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FH-016-1(1)	1975	10	14

"L"
Δ = 15°27'
D = 8° Lt.
T = 97.15'
L = 193.13'
R = 716.19'

"O"
Δ = 15°48'36"
D = 5° Lt.
T = 159.11'
L = 316.20
R = 1145.92'
S = 0.04'/ft.

"L"
Δ = 16°23'
D = 8° Lt.
T = 103.10'
L = 204.79'
R = 716.20

"O"
Δ = 16°9'52"
D = 5° Lt.
T = 162.73'
L = 323.29'
R = 1145.92'
S = 0.04'/ft.

"L" 384+55.06 P.I.

~~"O" 430+98.38 P.C.~~
430+99.84 P.I.

"L"
S 19°54' E Bk =
S 19°30' E Ahd.

"L"
S 19° 54' E
~~~1126.25~~
1116.12

"O" 438+00

"O" 413+00

"L"
S 7° 47' E
~472.5'

"O" 414+90.58 P.C.

"L" 369+16.99 P.C.

"L" 371+10.12 P.T.

"O" 418+06.76 P.T.

"O" 421+83.62 P.C.

"L" 376+16.77 P.C.

"L" 378+21.56 P.T.

"O" 425+06.91 P.T.

"L"
S 23° 14' E
~506.65'

"L"
S 39° 37' E
~235.23'

R/W

Slope Limits

Match Line

"O"
S 7°38'11" E
~490.53'

Slope Limits

"O"
S 23° 26' 47" E
~376.86'

"O"
S 39°36'39" E
~~~230.25~~
230.79

R/W

Slope Limits

"O" 434+54.83 PT
~~"O" 434+54.83 PT~~

"L" 388+45.45 P.T.

"O"
S 19° 54' 26" E
~~~1135.39~~
1128.93

Match Line

"L" 370+14.14 P.I.

"O" 416+49.68 P.I.

~~"O" 422+18.50 Constant~~
Deleted Standard Stake

"O" 423+46.35 P.T.

"L" 377+19.86 P.I.

"L" 380+56.79 P.C.

~~"O" 427+37.70 P.C.~~
0 427+37.70 P.C.

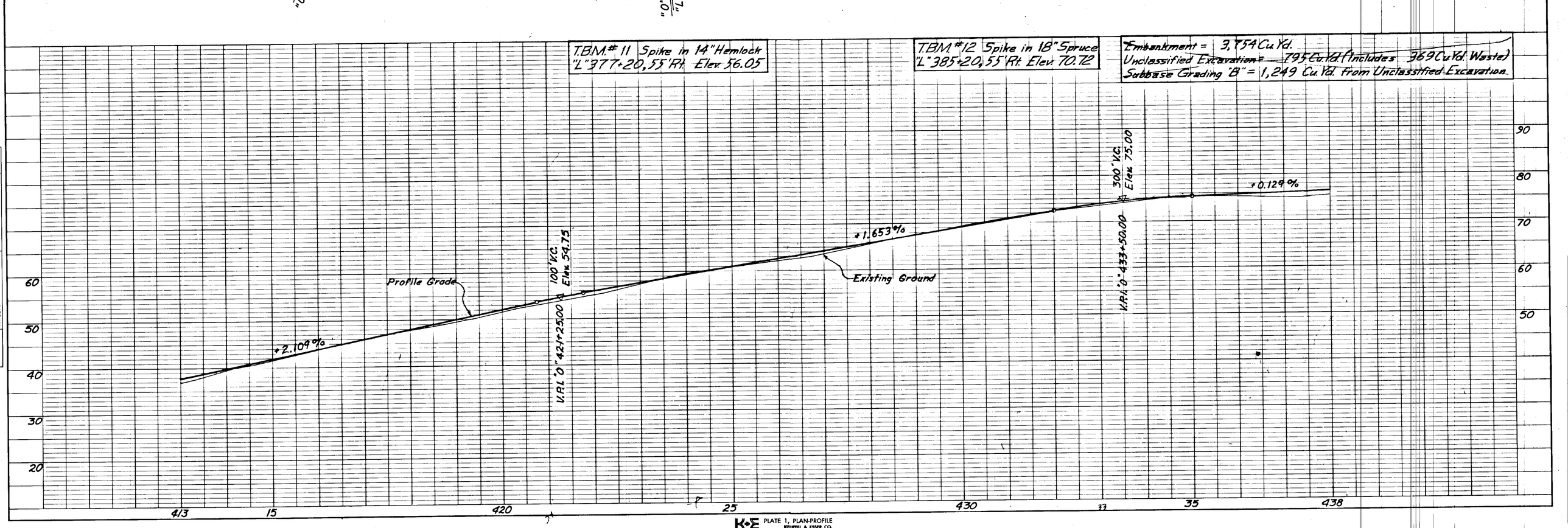
"L"
Δ = 19°43'
D = 2°30' Rt.
T = 398.27'
L = 788.66'
R = 2291.83'

"O" ~~19°43'15"~~
Δ = ~~19°42'13"~~
D = 2° 45' Rt.
T = ~~361.82'~~ 362.14
L = ~~716.50'~~ 717.12
R = 2083.48'
S = 0.026'/ft.

T.B.M. # 11 Spike in 14" Hemlock
"L" 377+20.55' Rt. Elev. 56.05

T.B.M. # 12 Spike in 18" Spruce
"L" 385+20.55' Rt. Elev. 70.72

Embankment = 3,754 Cu. Yd.
Unclassified Excavation = ~~795~~ Cu. Yd. (Includes 369 Cu. Yd. Waste)
Subbase Grading "B" = 1,249 Cu. Yd. from Unclassified Excavation



K&E PLATE 1, PLAN-PROFILE
KEUFFEL & ESSER CO.
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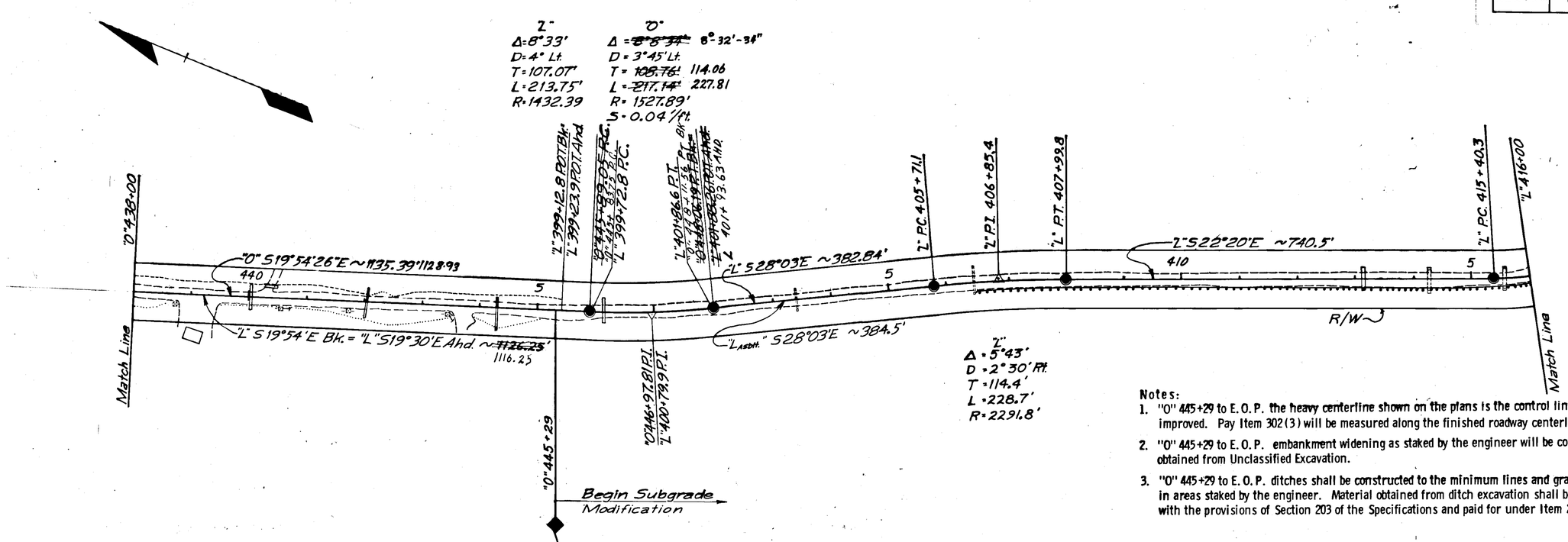
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FH-016-1(1)	1975	11	14



"L"
Δ = 8°33'
D = 4° Lt.
T = 107.07'
L = 213.75'
R = 1432.39

"O"
Δ = ~~8°8'34"~~ 8°32'-34"
D = 3°45' Lt.
T = ~~108.76'~~ 114.06
L = ~~217.14'~~ 227.81
R = 1527.89'
S = 0.04'/ft.

Notes:
1. "O" 445+29 to E.O.P. the heavy centerline shown on the plans is the control line. The existing roadway is to be improved. Pay Item 302(3) will be measured along the finished roadway centerline.
2. "O" 445+29 to E.O.P. embankment widening as staked by the engineer will be constructed of suitable material obtained from Unclassified Excavation.
3. "O" 445+29 to E.O.P. ditches shall be constructed to the minimum lines and grades shown on the typical section in areas staked by the engineer. Material obtained from ditch excavation shall be utilized or wasted in accordance with the provisions of Section 203 of the Specifications and paid for under Item 203(3).

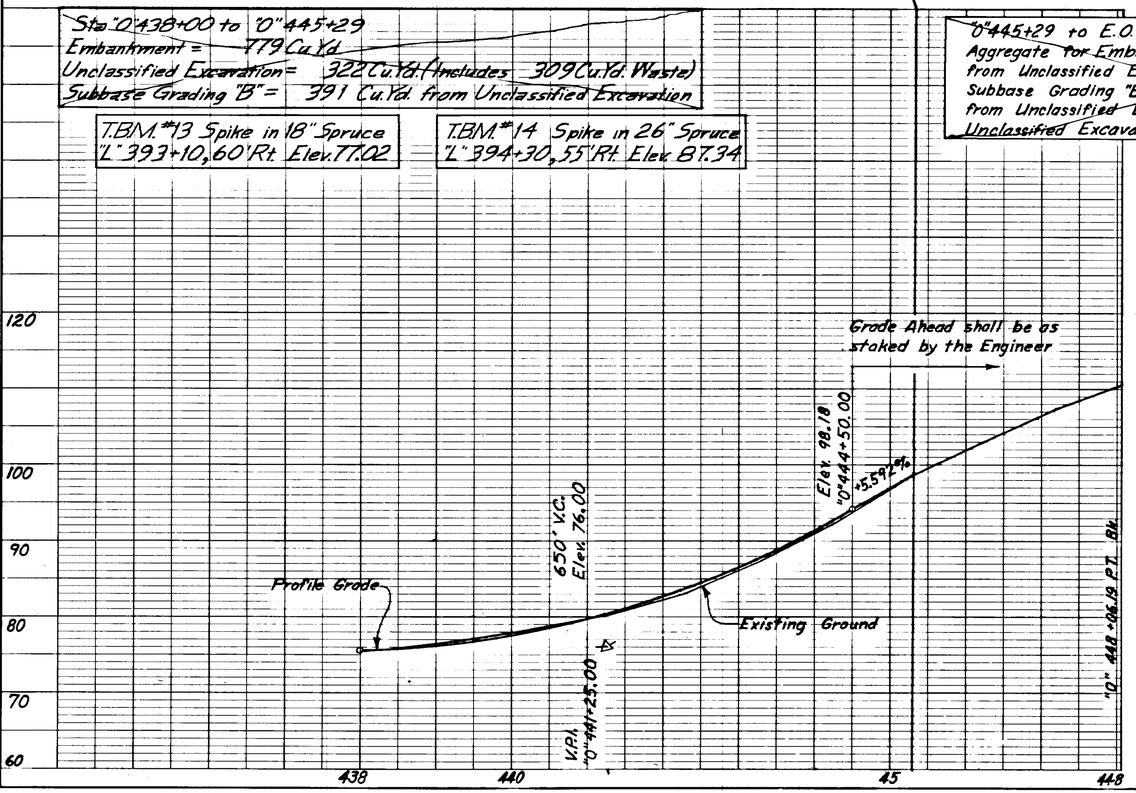
Sta. "O" 438+00 to "O" 445+29
Embankment = 779 Cu.Yd.
Unclassified Excavation = 322 Cu.Yd. (Includes 309 Cu.Yd. Waste)
Subbase Grading "B" = 391 Cu.Yd. from Unclassified Excavation

"O" 445+29 to E.O.P.
Aggregate for Embankment Widening = 2,064 C.Y. from Unclassified Excavation sht. #6 - #11,
Subbase Grading "B" = 4,323 C.Y. from Unclassified Excavation sht. #6 - #11.
Unclassified Excavation = 4,743 C.Y. (All waste)

T.B.M. #13 Spike in 18" Spruce
"L" 393+10, 60' Rt. Elev. 77.02

T.B.M. #14 Spike in 26" Spruce
"L" 394+30, 55' Rt. Elev. 87.34

T.B.M. #15 Spike in 10" Hemlock
"L" 408+15, 50' Rt. Elev. 128.19



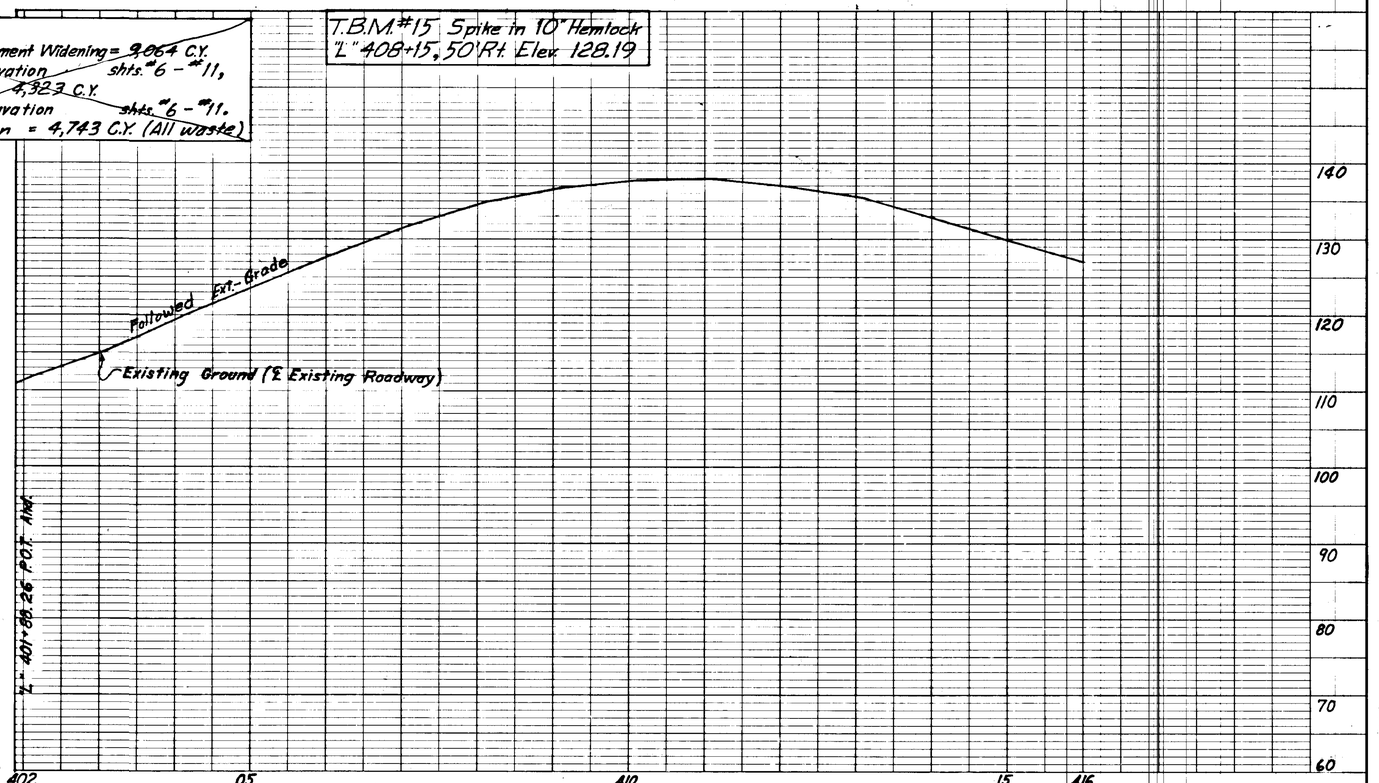
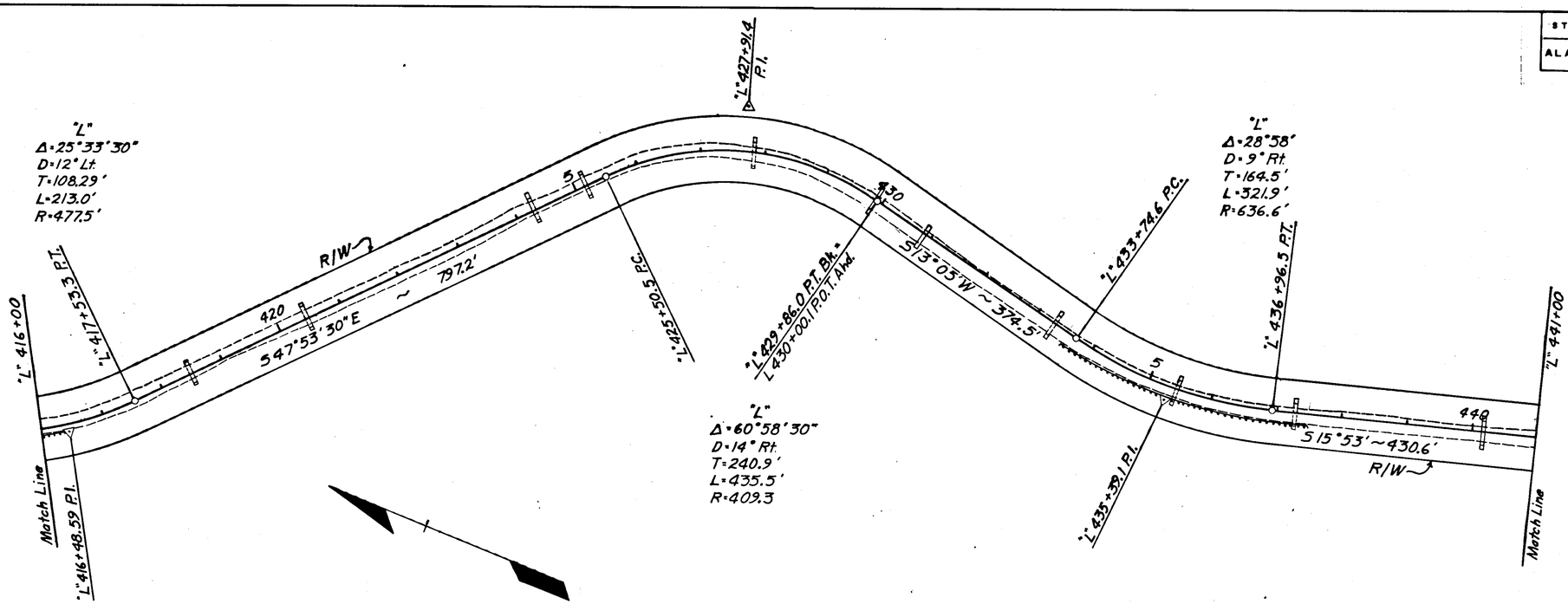
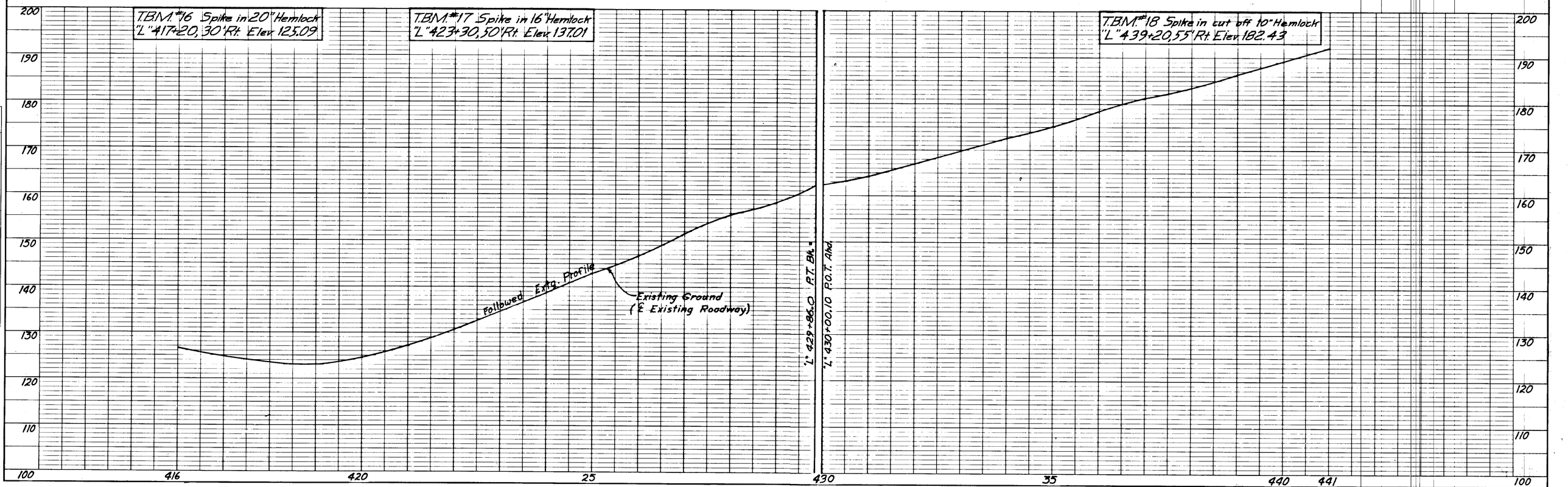


PLATE 1, PLAN-PROFILE

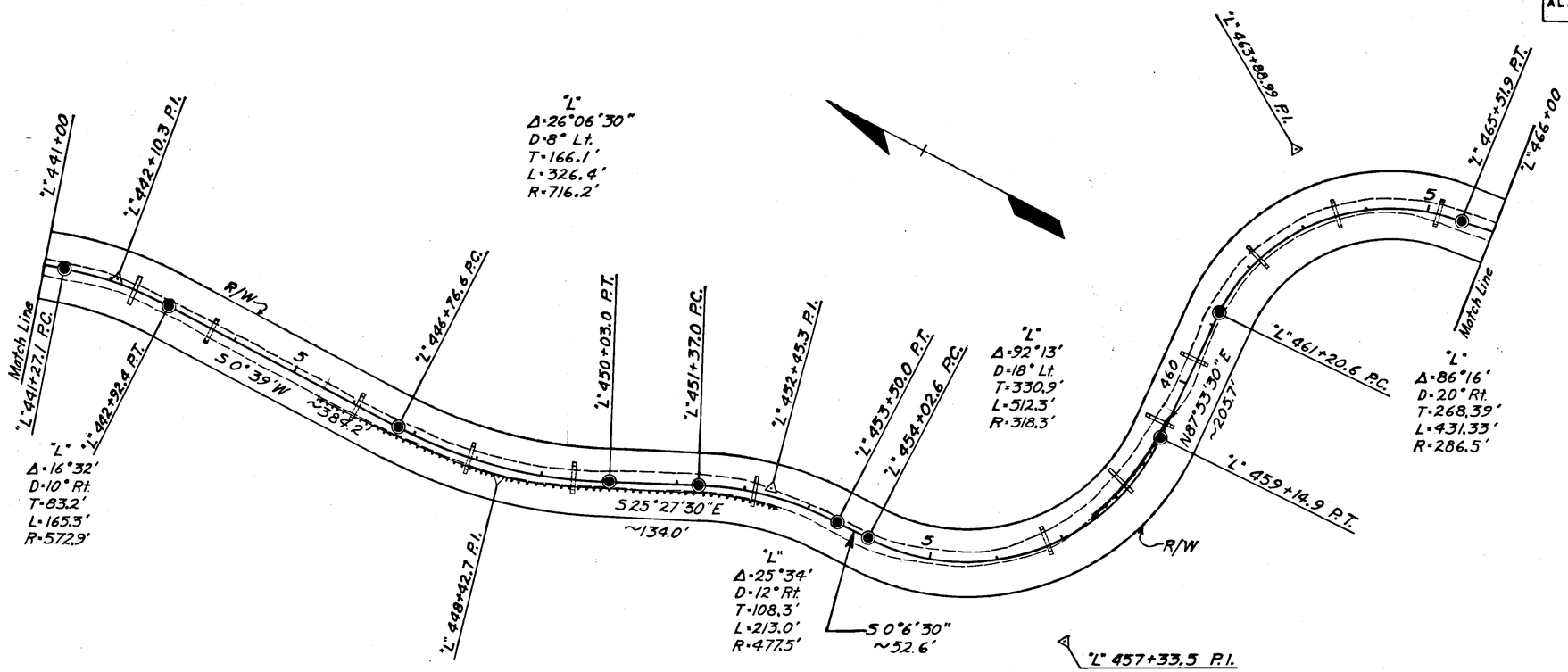
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FH-016-1(1)	1975	12	14





K+E PLATE 1, PLAN-PROFILE

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FH - 016-1 (1)	1975	13	14



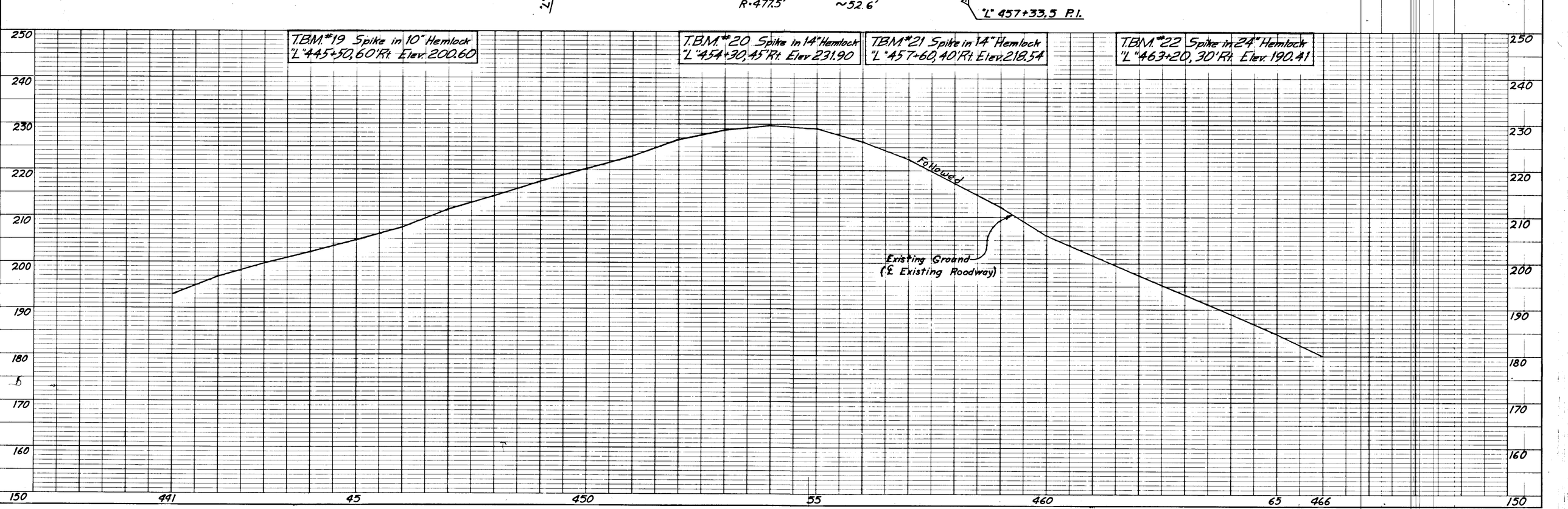


PLATE 1, PLAN-PROFILE

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	FH-016-1(1)	1975	14	14

"L" Δ=46°17' D=14° Lt. T=174.9' L=330.6' R=409.3'

"L" 479+44.2 P.I.

"L" Δ=96°41' D=14° Lt. T=460.0' L=690.6' R=409.5'

"L" 466+00

"L" 469+74.92 P.C.

"L" 473+05.53 P.T.

"L" 477+22.53 P.C.

"L" 481+08.63 P.T.

"L" 483+30.73 P.C.

"L" 490+21.33 P.T.

Match Line

R/W

S5°50'30"E ~ 423.0'

S52°07'30"E ~ 420.0'

S16°50'30"W ~ 222.1'

R/W

"L" 471+49.8 P.I.

"L" Δ=68°58' D=18° Rt. T=218.7' L=383.1' R=318.3'

"L" 487+90.8 P.I.

T.B.M. #23 Spike in 24" Spruce "L" 468+75, 40' Rt. Elev. 166.81

T.B.M. #24 Spike in 12" Hemlock "L" 473+60, 45' Lt. Elev. 146.91

T.B.M. #25 Spike in 16" Hemlock "L" 477+25, 60' Rt. Elev. 115.62

T.B.M. #26 Spike in 12" Hemlock "L" 484+85, 35' Lt. Elev. 78.26

T.B.M. #27 Spike in 18" Hemlock "L" 489+20, 40' Rt. Elev. 53.87

END OF PROJECT FH-016-1(1)
Sta. "L" 490+21.3

Existing Ground
(℄ Existing Roadway)

200 190 180 170 160 150 140 130 120 110 100

466 470 75 480 85 490

190 180 170 160 150 140 130 120 100 140 130 120 110 100 90 80 70 60 50

100 90 80 70 60 50

K+E PLATE 1, PLAN-PROFILE
KEUFFEL & ESSER CO.