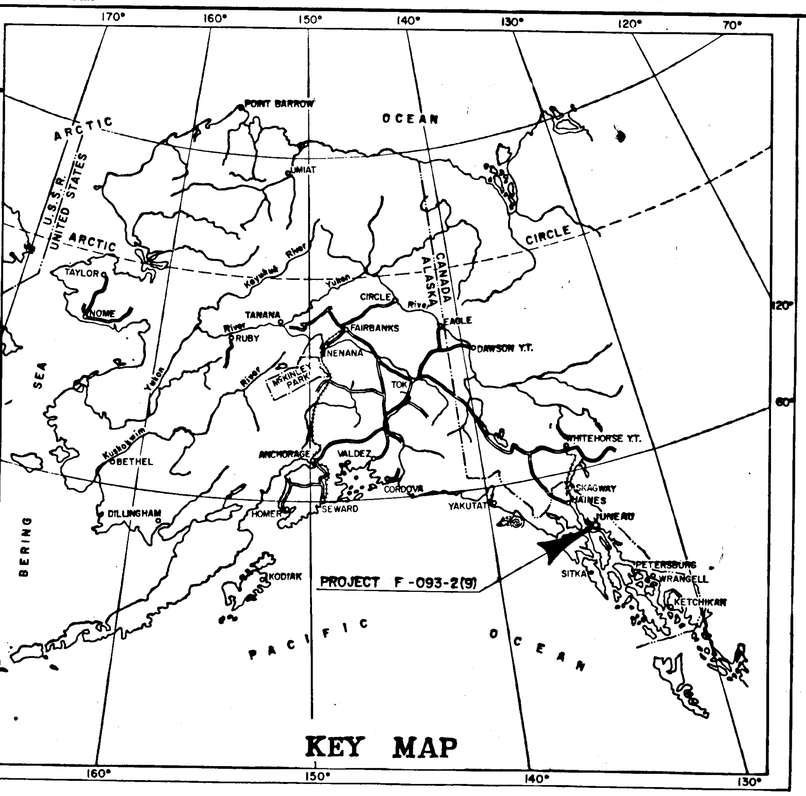


KEY MAP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

PLAN AND PROFILE
PROPOSED HIGHWAY PROJECT
F-093-2(9)
EGAN EXPRESSWAY
INTERSECTION IMPROVEMENTS
GRADING, PAVING, DRAINAGE, ILLUMINATION, SIGNALIZATION, BRIDGE, & PEDESTRIAN ACCESS

STATE	PROJECT	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1	31

SHT. NO.	INDEX OF SHEETS
1	TITLE SHEET
2,3	TYPICAL SECTIONS
4	ESTIMATE OF QUANTITIES, MISC. SUMMARIES, & MISC. DETAILS
5-11	PLAN SHEETS
12-17	SIGNING, STRIPING, & ILLUMINATION
18-21	SIGNALIZATION
22	TRAFFIC CONTROL PLAN *
23-24	PEDESTRIAN ACCESS
25-29	BRIDGE PLANS
30-31	BORING LOG

(Sheet 11 missing) 3/11/82

The following standard drawings shall apply to this project : A-1, C-00.04, C-10.04, C-11.04, D-01.00, D-04.00, D-05.00, F-01.21, G-04.15, G-14.08, G-45.00, I-80.00, L-23.03, L-30.01, M-16.03, S-00.11, S-05.00, S-30.12, T-20.03, T-21.03, T-22.00, T-30.00, T-31.01, T-32.01, T-33.03, T-34.03, T-52.01

DESIGN DESIGNATION

SALMON CREEK INTER.		
ADT 1980	=	2,492
ADT 2000	=	4,959
DHV 15%	=	744
D.	=	60-40
T.	=	4%
T.I.	=	7.5

VANDERBILT HILL INTER.		
ADT 1980	=	4,100
ADT 2000	=	8,813
DHV 15%	=	1,322
D.	=	60-40
T.	=	3%
T.I.	=	7.5

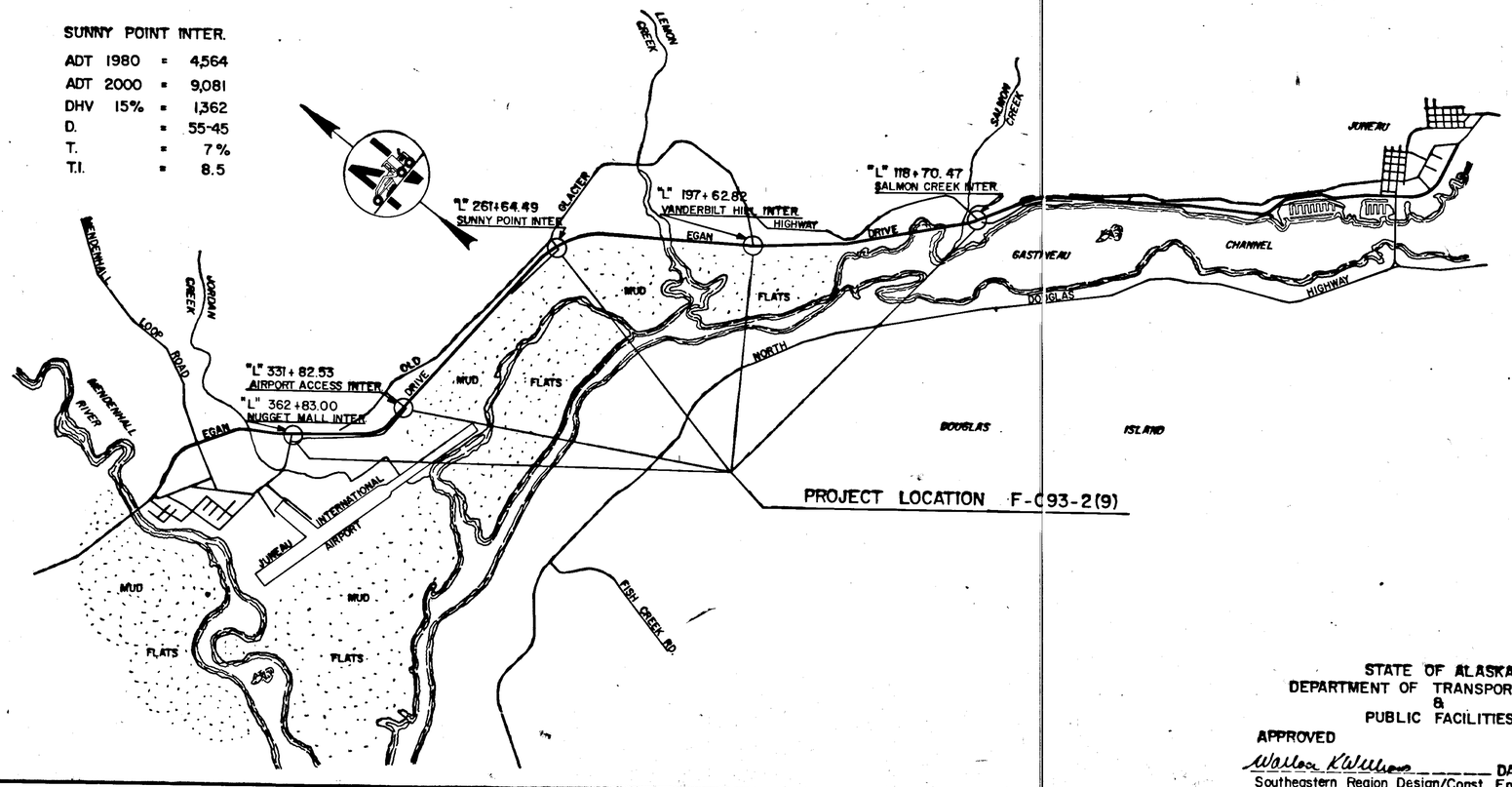
SUNNY POINT INTER.		
ADT 1980	=	4,564
ADT 2000	=	9,081
DHV 15%	=	1,362
D.	=	55-45
T.	=	7 %
T.I.	=	8.5

AIRPORT ACCESS INTER.		
ADT 1980	=	3,581
ADT 2000	=	7,697
DHV 15%	=	1,155
D.	=	40-60
T.	=	4 %
T.I.	=	8.0

NUGGET MALL INTER.		
ADT 1980	=	4,644
ADT 2000	=	9,241
DHV 15%	=	1,386
D.	=	45-55
T.	=	4%
T.I.	=	8.0

PROJECT SUMMARY

WIDTH OF PAVING = Varies
LENGTH OF GRADING = 11,400' = 2.159 mi.
LENGTH OF PAVING = 11,400' = 2.159 mi.
LENGTH OF PROJECT = 11,400' = 2.159 mi.



"As Built"

Project Engineer: Phil Speer
Contractor: Red Samm Construction Co.
Begin Work: June 1, 1982
Completion: July 25, 1983

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

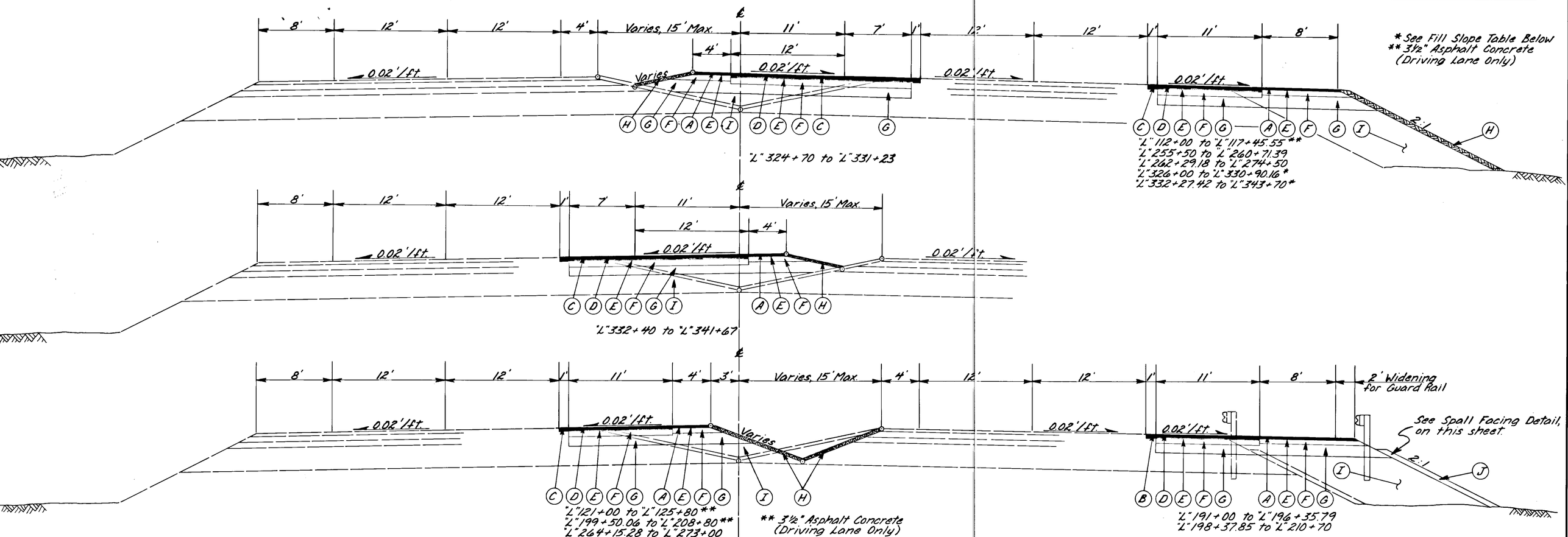
APPROVED Walter K Williams DATE 12-21-81
Southeastern Region Design/Const. Engineer

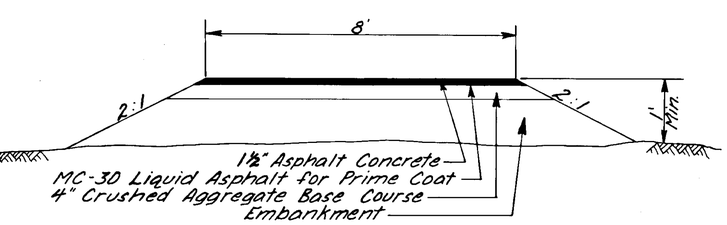
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

APPROVED Charles D Matlock DATE 12-21-81
Director, Highway Design/Construction

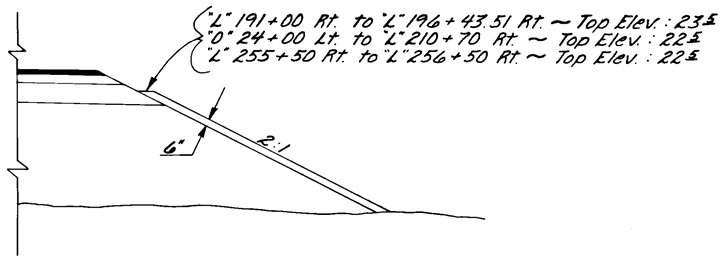
TYPICAL SECTIONS OF IMPROVEMENT

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	2	31





BIKEPATH TYPICAL SECTION



SPALL FACING DETAIL

LABELING INDEX	
(A)	1½" Asphalt Concrete (Type I)
(B)	3½" Asphalt Concrete (Type I)
(C)	4" Asphalt Concrete (Type I)
(D)	CSS-1 Asphalt for Tack Coat
(E)	MC-30 Liquid Asphalt for Prime Coat
(F)	6" Crushed Aggregate Base Course
(G)	10" Minimum, Subbase Grading "E"
(H)	4" Topsoil & Hydro-Seeding
(I)	Useable Excavation and/or Borrow
(J)	6" Spall Facing dwl need
( )	

FILL SLOPE TABLE

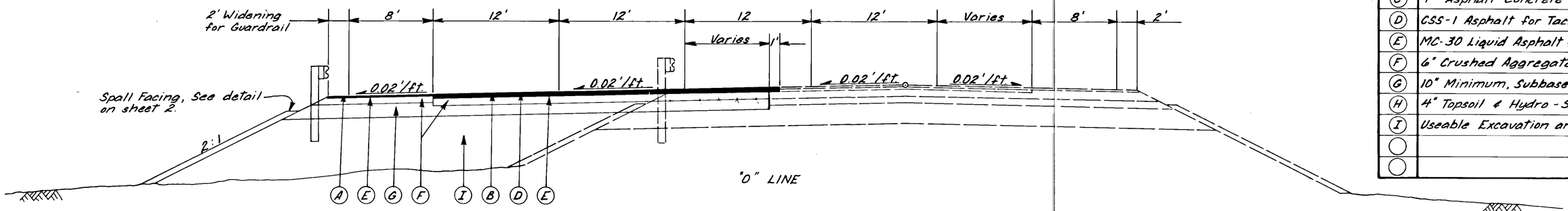
STATION TO STATION	OFFSET	SLOPE
"L" 317+00 to "L" 325+00	Lt.	4:1
"L" 325+00 to "L" 330+90.16	Rt.	4:1
"L" 332+27.42 to "L" 343+70	Rt.	4:1
"L" 359+25 to "L" 362+47.71	Lt.	3:1
"L" 363+86.12 to "L" 369+25	Lt.	3:1

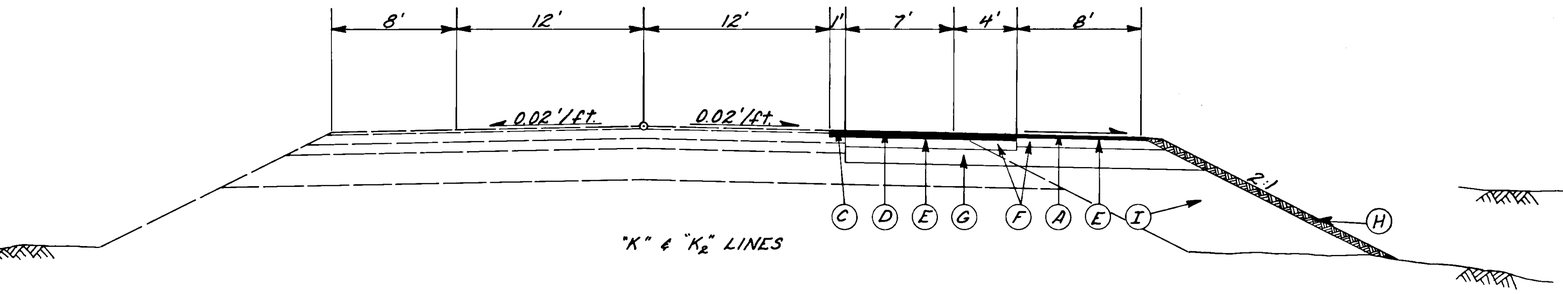
STATE OF ALASKA 49TH
Gary P. McCallon #CE 3771
REGISTERED PROFESSIONAL ENGINEER

TYPICAL SECTIONS
APPROACH ROADS

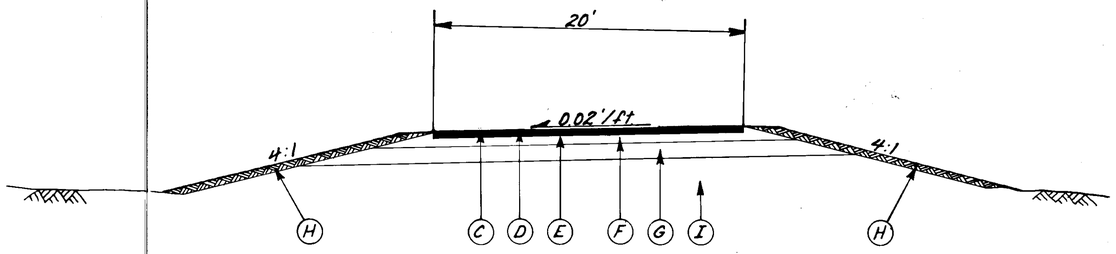
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	3	31

LABELING INDEX	
(A)	1½" Asphalt Concrete (Type I)
(B)	3½" Asphalt Concrete (Type I)
(C)	4" Asphalt Concrete (Type I)
(D)	CSS-1 Asphalt for Tack Coat
(E)	MC-30 Liquid Asphalt for Prime Coat
(F)	6" Crushed Aggregate Base Course
(G)	10" Minimum, Subbase Grading "E"
(H)	4" Topsoil & Hydro-Seeding
(I)	Useable Excavation and/or Borrow

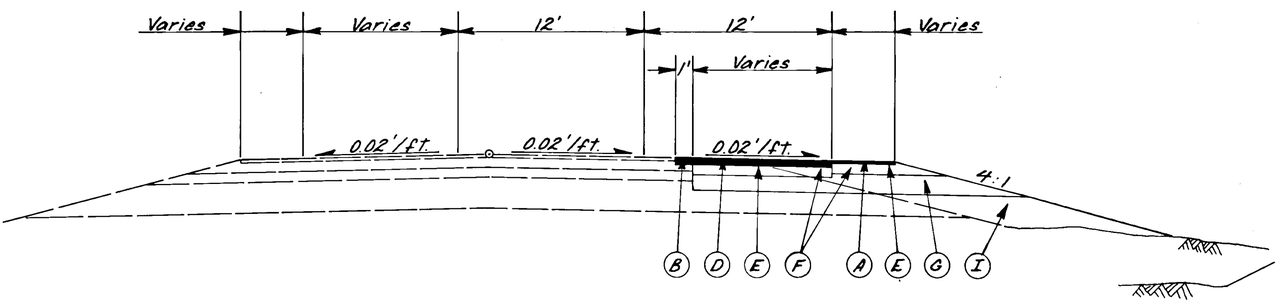




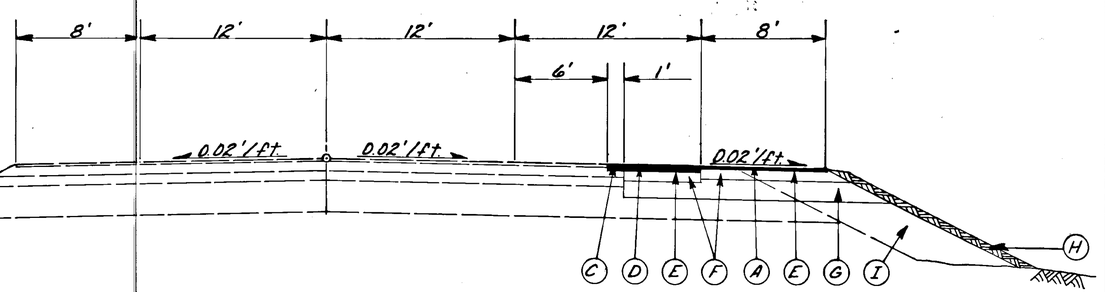
"K" & "K₂" LINES



"K₁" LINE



"G.H." LINE



"F" LINE

STATE OF ALASKA
49TH
Gary P. McCallon
#CE 3771
REGISTERED PROFESSIONAL ENGINEER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	4	31

ESTIMATE OF QUANTITIES

ITEM NO.	ITEM	UNIT	PAGE TOTALS 5	6	7	8	9	10	11	TOTAL	
109(1)	Petroleum Escalation	C.S.								All Req'd.	
110(1)	Mobilization	L.S.								All Req'd	
111(1)	Temporary Erosion & Pollution Control	C.S.								All Req'd.	
114(1)	Construction Surveying by the Contractor	L.S.								All Req'd.	
115(1)	Traffic Maintenance	L.S.								All Req'd.	
116(1)	Furnishing & Maintaining Field Office	L.S.								All Req'd.	
116(2)	Furnishing & Maintaining Field Laboratory	L.S.								All Req'd.	
202(11)	Removal of Portions of Bridge No. 1188	L.S.								All Req'd.	
203(3)	Unclassified Excavation	C.Y.	550 ~~793~~	1,842 ~~1,842~~	870 ~~870~~	1,951 ~~1,951~~	3,218 ~~3,218~~		1,918 ~~1,918~~	~~10,584~~	9808
203(5B)	Borrow, Type "A"	Ton	1,240 ~~1,240~~	9,074 ~~9,074~~	7,949 ~~7,949~~	1,049 ~~1,049~~	5,069 ~~5,069~~		2,235	~~24,381~~	39286
301(1)	Crushed Aggregate Base Course	Ton	679 ~~679~~	2,381 ~~2,381~~	1,038 ~~1,038~~	1,839 ~~1,839~~	3,661 ~~3,661~~		1,696 ~~1,696~~	~~11,294~~	13901
304(1)	Subbase, Grading "E"	Ton	1,211 ~~1,211~~	3,249 ~~3,249~~	2,289 ~~2,289~~	3,197 ~~3,197~~	7,033 ~~7,033~~	E.W.O. #2	3,121 ~~3,121~~	~~20,100~~	
401(1)	Asphalt Concrete, Type 1	Ton	368 ~~368~~	973 ~~973~~	817 ~~817~~	1,073 ~~1,073~~	2,290 ~~2,290~~		995 ~~995~~	~~6,516~~	6363
401(2)	AC-5 Asphalt Cement	Ton	22 ~~22~~	58 ~~58~~	49 ~~49~~	64 ~~64~~	138 ~~138~~		60 ~~60~~	~~391~~	414.1
402(1)	CSS-1 Asphalt for Tack Coat	Ton	.06 ~~.06~~	.11 ~~.11~~	.14 ~~.14~~	.19 ~~.19~~	.35 ~~.35~~		.14 ~~.14~~	~~.99~~	2.7
403(2)	MC-30 Liquid Asphalt for Prime Coat	Ton	2.3 ~~2.3~~	6.2 ~~6.2~~	4.8 ~~4.8~~	6.0 ~~6.0~~	11.9 ~~11.9~~		5.6 ~~5.6~~	~~36.8~~	27.5
501(1)	Class "A" Concrete	L.S.								All Req'd.	
501(2)	Class "A-A" Concrete	L.S.								All Req'd.	
502(1)	Prestressed Concrete Struct. Members(59'-2" I-Girders)	Ea.								6	
503(1)	Reinforcing Steel	L.S.								All Req'd.	
505(7)	Cast-In-Place Concrete Pile-Furnished	L.F.						See E.W.O. #1		~~480~~	447
505(8)	Cast-In-Place Concrete Pile - Driven	Ea.								9	
509(1)	Deck Protection	L.S.								All Req'd.	
513(1)	Spall Facing	Ton		1,479	646	4		See C.O. # 6		2,129	
555(1)	Contractor Designed Pedestrian Access Path	L.S.								All Req'd.	
602(2)	Structural Plate Pipe Arch, 0.175" Thick, 13'-1" x 8'-5"	L.F.		24						24	
603(9-11)	36" Asb. Bonded, Bit. Coated, Corr. Steel Pipe	L.F.	6		52		56			114	
603(9-13)	60" Asb. Bonded, Bit. Coated, Corr. Steel Pipe	L.F.		18						18	
603(10-6)	43"x27" Asb. Bonded, Bit. Coated, Corr. Steel Pipe Arch	L.F.					34			34	
603(10-9)	65"x40" Asb. Bonded, Bit. Coated, Corr. Steel Pipe Arch	L.F.					10			10	
603(10-10)	72"x44" Asb. Bonded, Bit. Coated, Corr. Steel Pipe Arch	L.F.				8				8	
603(22-5)	18" Pipe	L.F.	560 ~~420~~				13 ~~10~~		6 ~~12~~	~~442~~	581 (C.O.#4)
603(22-7)	24" Pipe	L.F.				12	12		6	~~24~~	30
603(22-11)	48" Pipe	L.F.				5 ~~12~~				~~12~~	5
604(5C)	24" Pipe Conduit Inlet	Ea.	1	1		2	2		2	8	
604(5D)	36" Pipe Conduit Inlet	Ea.	1							1	
606(4)	Removal & Reconstruction of Guardrail	L.F.		1,961 ~~1,961~~	835 ~~935~~	50	See C.O. #3			~~2,946~~	2975
606(5)	Removal & Disposal of Guardrail	L.F.	550 ~~398~~							~~398~~	550
607(4)	Reconstructed Fence	L.F.	75							~~115~~	105
615(1)	Standard Signs	S.F.				30 ~~40~~				~~496.7~~	573
618(1)	Seeding	L.S.					See C.O. #1 and #7			All Req'd.	
660(1)	Traffic Signal System, Complete	L.S.								All Req'd.	
660(3)	Highway Lighting System, Complete	L.S.								All Req'd.	
670(1)	Painted Traffic Markings	L.S.								All Req'd.	
670(6)	Thermoplastic Pavement Markings	L.S.								All Req'd.	

See E.W.O. and C.O. Files for other items created (All Lump Sum)

BASIS OF ESTIMATE

ITEM NO.	ITEM	ESTIMATING FACTOR
203(5B)	Borrow, Type "A"	1.80 Tons/C.Y.
301(1)	Crushed Aggregate Base Course	1.90 Tons/C.Y.
304(1)	Subbase, Grading "E"	1.80 Tons/C.Y.
401(1)	Asphalt Concrete, Type 1	114.4 Lbs./Sq. Yd./1in Depth
401(2)	AC-5 Asphalt Cement	6.0% of Item 401(1)
402(1)	CSS-1 Asphalt for Tack Coat	*0.10 Gal/Sq. Yd. - 253 Gal./Ton
403(2)	MC-30 Liquid Asphalt for Prime Coat	0.25 Gal/Sq. Yd. - 256 Gal/Ton @60°
513(1)	Spall Facing	1.82 Tons/C.Y.
618(1)	Seeding	Approx. 157 M.S.F.

*Diluted Mixture

REMOVE & RECONSTRUCT GUARDRAIL

STATION TO STATION		EXIST. OFFSET	PROP. OFFSET	REMARKS
"L" 191+00	"L" 196+50 (196+89)	RT.	RT.	
"O" 12+00	"O" 21+35 (21+75)	LT.	LT.	
"O" 12+00	"L" 210+70	RT.	RT.	
"L" 255+50	"L" 256+00	RT.	RT.	

RECONSTRUCTED FENCE SUMMARY

STATION TO STATION		EXIST. OFFSET	PROP. OFFSET	REMARKS
"L" 118+38	"G.H." 135+30	RT.	RT.	
"L" 263+60	"L" 263+90	RT.	RT.	

REMOVAL & DISPOSAL OF GUARDRAIL

FROM STATION	OFFSET	TO STATION	OFFSET
"L" 120+88	Rt.	"L" 121+84	Rt.
"L" 120+88	Rt.	"L" 122+00	LT.
"L" 123+25	LT.	"L" 124+85	LT.
"L" 121+84	Rt.	"L" 122+00	LT.

ESTIMATED PEDESTRIAN ACCESS PATH QUANTITIES

Borrow	3816 Tons *
Crushed Agg. Base Course	547 Tons
Asphalt Concrete, Type 1	241 Tons
AC-5 Asphalt Cement	14.5 Tons
MC-30 Liquid Asph. for Prime Coat	2.7 Tons
Chain Link Fence, 48" high	4468 L.F.
36" Pipe	16 L.F.
18" Pipe	32 L.F.
Structure (Clear Span)	75 L.F.

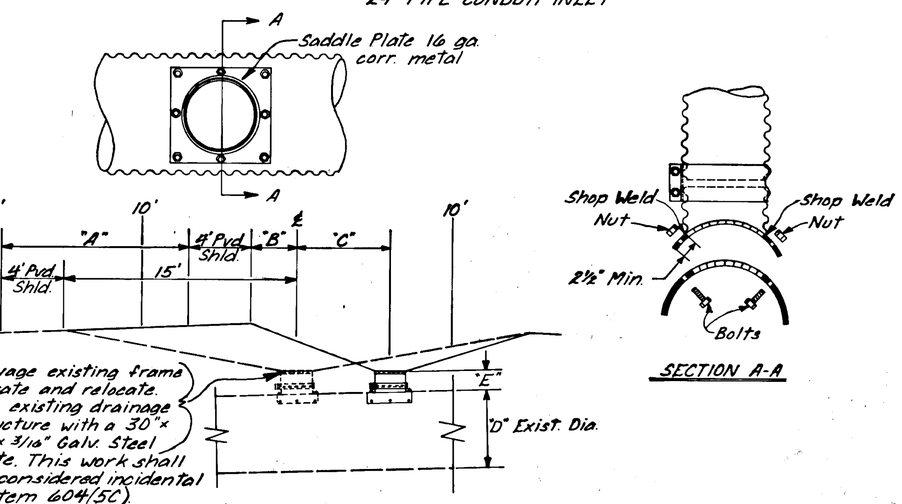
*Quantity dependent on Contractor Design.

GENERAL NOTES

1. Grades & alignment as shown on these plans are subject to minor revisions.
2. Culvert lengths & locations are approximate only & are subject to minor revisions.
3. Instream activity in Vanderbilt Creek at approx. sta. "L" 199+55 & the creek at approx. sta. "L" 263+67 shall be limited to the period between June 15TH & August 30TH.
4. Removal & reinstallation of existing culvert end-sections shall not be paid for directly but shall be considered incidental to other items of work.
5. Existing culvert mitered ends shall be cut off a minimum of 2' from the end of the culvert (measured along the top) & removed in a neat & workmanlike manner. The barrel extension shall then be attached to the existing culvert & the mitered end reinstalled to complete the extension. This additional work of removing & reinstalling the mitered ends shall not be paid for directly but shall be considered incidental to other items of work.
6. Instream activity in Salmon Creek shall be limited to the period between May 15TH & July 15TH and in Jordan Creek between June 1ST & Sept. 15TH.
7. It shall be the contractors responsibility to begin only that amount of work which can be completed by the end of the shift. There shall be no drop-off at the edge of existing pavement during non-working hours.

STATE OF ALASKA 49TH STATE Gary P. McCallon #CE 3771 REGISTERED PROFESSIONAL ENGINEER

MEDIAN DRAINAGE SADDLE CONNECTION DETAIL 24" PIPE CONDUIT INLET



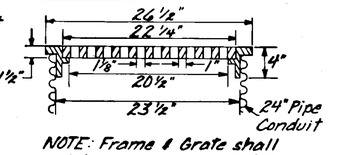
SECTION A-A

MEDIAN DRAINAGE

STATION	"A"	"B"	"C" LT.	"C" RT.	"D"	"E"	REMARKS
"L" 203+00	12'	3'		8.6'	60"	7.2'	
"L" 255+71	11.4'	3.6'	5.7'		48"	1.4'	
"L" 268+57	12'	3'		5.6'	48"	2.8'	
"L" 328+12.5	20'	-5'	10.5'		36"	1.8'4	
"L" 336+98.5	20'	-5'		10.5'	18"	1.8'	*
"L" 353+69	12'	3'	6.5		24"	1.8'	*
"L" 359+19	12'	3'	6'		18"	0.5'	*

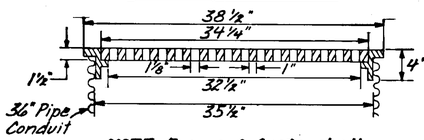
* NOTE: Salvage & relocate existing C.M.P. inlets. Payment shall be made under Item 604(5C) 24" Pipe Conduit Inlet.

24" GRATE DETAIL



NOTE: Frame & Grate shall weigh a minimum of 160 lbs.

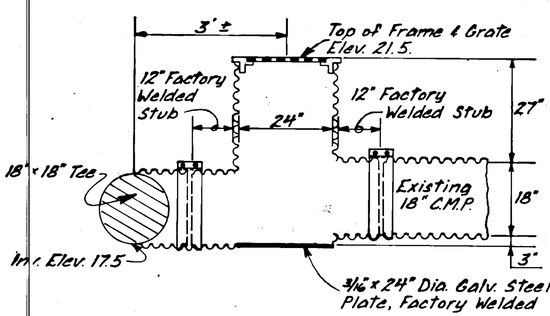
36" GRATE DETAIL



NOTE: Frame & Grate shall weigh a minimum of 280 lbs.

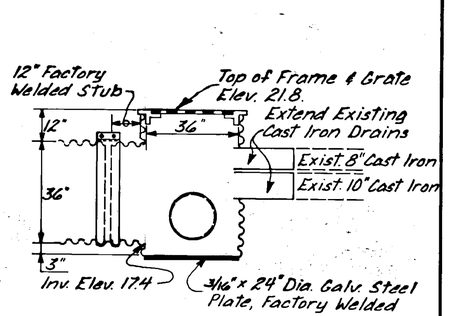
24" PIPE CONDUIT INLET

"L" 116+51.5



36" PIPE CONDUIT INLET

"L" 117+81.2



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	5	31

SALMON CREEK INTERSECTION

VERTICAL CONTROL: Tidal bench mark 15 set in a concrete block on the S.E. corner of a foundation 17.5' N.E. of the National Guard Building. Elev. 24.75 M.L.L.W.

HORIZONTAL CONTROL: Triangulation net based on the U.S.G.S. Monuments "Salmon" & "Creek" with state plane coordinates;

SALMON: N.2,371,754.406 - E.2,529,435.315
CREEK: N.2,373,678.922 - E.2,531,058.937

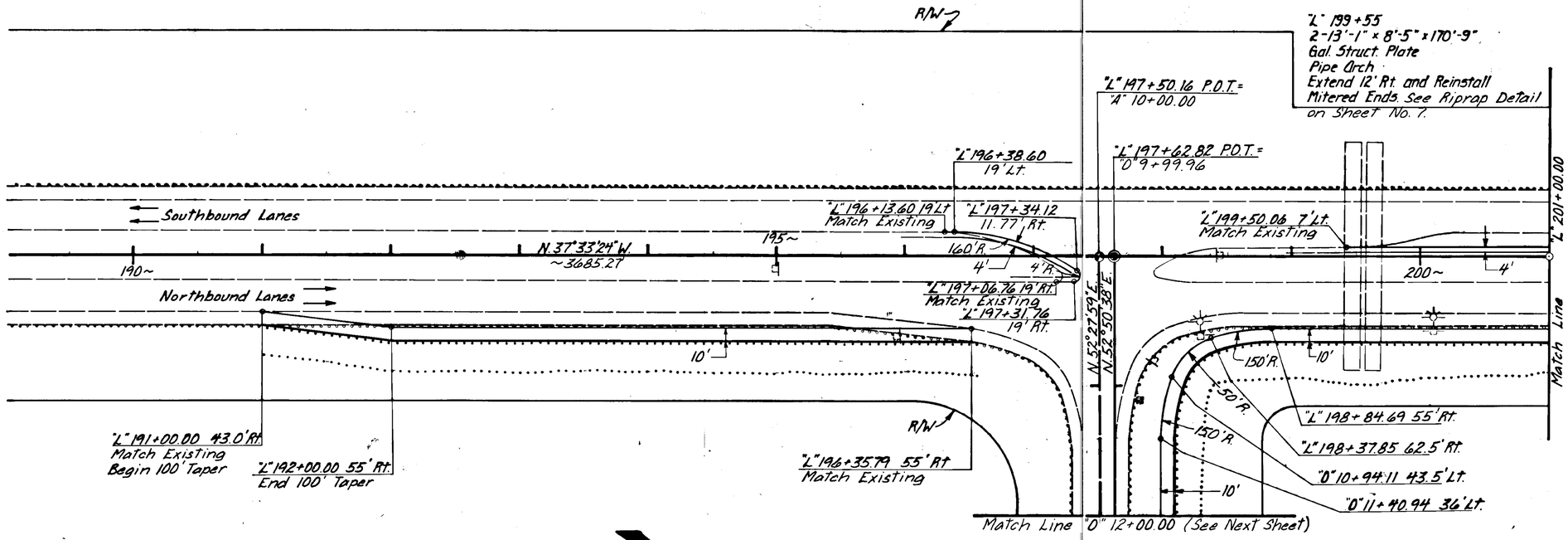
A scale factor of 0.9999323 was used to convert grid distances to ground distances.

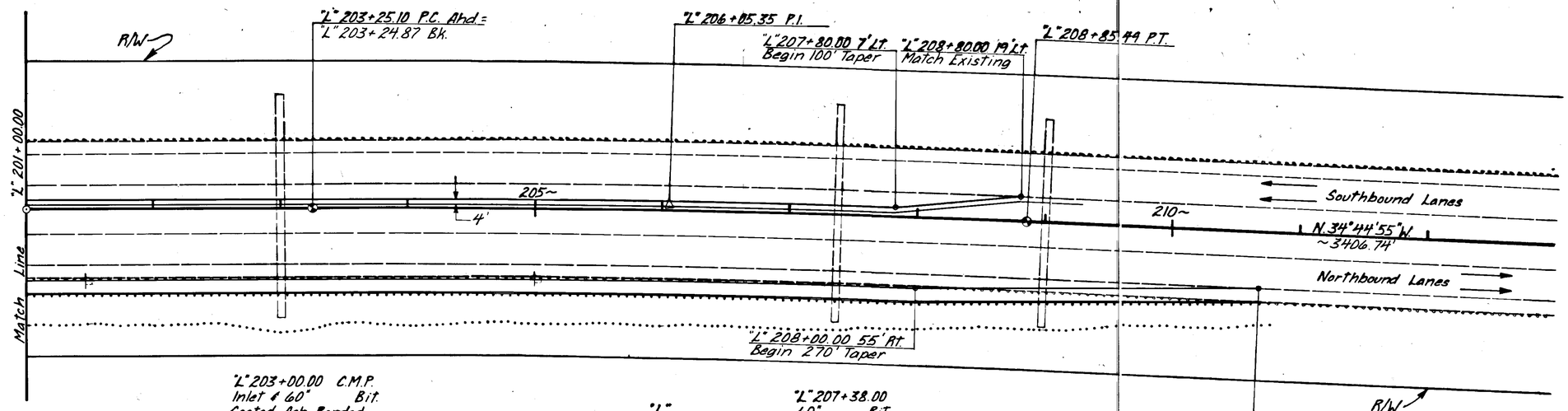
EARTHWORK EQUATION: Borrow = Embankment - Unclassified Excavation.

"L" 117+75
Existing 36" × 168' Bit. Coated, Asb. Bonded, Galv., Corr., Steel Pipe Skewed 10° Rt. Connect to 36" C.M.P. Inlet. 6' extension added
Sta "L" 122+00 Right
18" Pipe Relocation. E.W.O. #5
Elevation Lowered on existing Pipe and 6' extension added, in Order to Install new Portion of Bridge Abutment.
Ebb
Flood
Creek
Salmon
R/W
E.W.O. #14
"L" 18+70.47 P.O.C. = "G.H." 134+00.08
"G.H." 133+99.90 Ahd. = "G.H." 134+06.10 Bk.
"L" 121+00.00 7' Lt. Match Existing
"L" 124+80.00 7' Lt. Begin 100' Taper
"L" 125+80.00 19' Lt. Match Existing
"L" 117+42.62 19' Lt. Match Existing
"L" 117+13.52 P.C. Ahd. = "L" 117+14.29 Bk.
"L" 118+38.22 1.75' Rt.
"L" 119+16.61 9.66' Rt.
"L" 119+72.34 7' Lt.
"L" 120+08.34 7' Lt. Match Existing
"L" 119+71.48 19' Rt. Match Existing
"L" 119+35.43 19' Rt.
"L" 118+35.88 19' Rt. Match Exist.
"L" 119+17.85 16.89' Rt.
Southbound Lanes
N.57°57'04"W. ~1,057.38'
Northbound Lanes
C.O.4
Concrete Walk
"L" 117+45.55 P.C. 55' Rt.
"L" 112+00.00 43' Rt. Match Existing
"L" 113+00.00 55' Rt. End 100' Taper
Sta 113+61.5 to "L" Sta 117+81.5 Install 558 LF 18" C.M.P. See change order No. 4
"L" Sta. 116+51.5 78.5' Rt. Install 24" CMP Inlet Connect Existing 18" CMP
"L" 117+81.5 80' Rt. Install 36" C.M.P. Inlet. Connect 8 & 10 Iron Pipe
50 Pr. & 100 Pr. Cables Buried within 12" of Surface.
2-4" PVC Buried 36" (by Others)
"G.H." 135+57.56 23.64' Rt. P.T. Begin Taper
New Pole Location
Existing pole to be relocated by others
EWO #11 Bike Path Extension
HOSPITAL
"G.H." 135+40.82
Old Glacier Highway
"G.H." 138+00.00 End Taper Match Exist.
"L"
Δ = 11°17'20.4"
D = 1°00'02" Rt.
T = 565.97'
L = 1,128.28'
R = 5,726.43'
Ex = 793 cu. yds.
Borrow = 1,240 Tons
Proposed Widening
Inlet Detail Sheet 4
Existing Ditch
NOTE: Utility work by others shall be completed by May 15, 1982.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	6	31

VANDERBILT HILL INTERSECTION





"L" 203+00.00 C.M.P.
Inlet # 60" Bit.
Coated, Asb. Bonded,
Galv. Corr. Steel Pipe
Extend 8' Rt. and
Reinstall Mitered End
See Riprap Detail
on Sheet No. 7.

"L"	
Δ	= 2° 48' 29.2"
D	= 0° 30' 04" Rt.
T	= 280.25'
L	= 560.39'
R	= 11,434.01'

"L" 207+38.00
60" Bit.
Coated, Asb.
Bonded, Galv.
Corr. Steel Pipe
Extend 10' Rt.
and Reinstall
Mitered End. See
Riprap Detail
on Sheet No. 7.

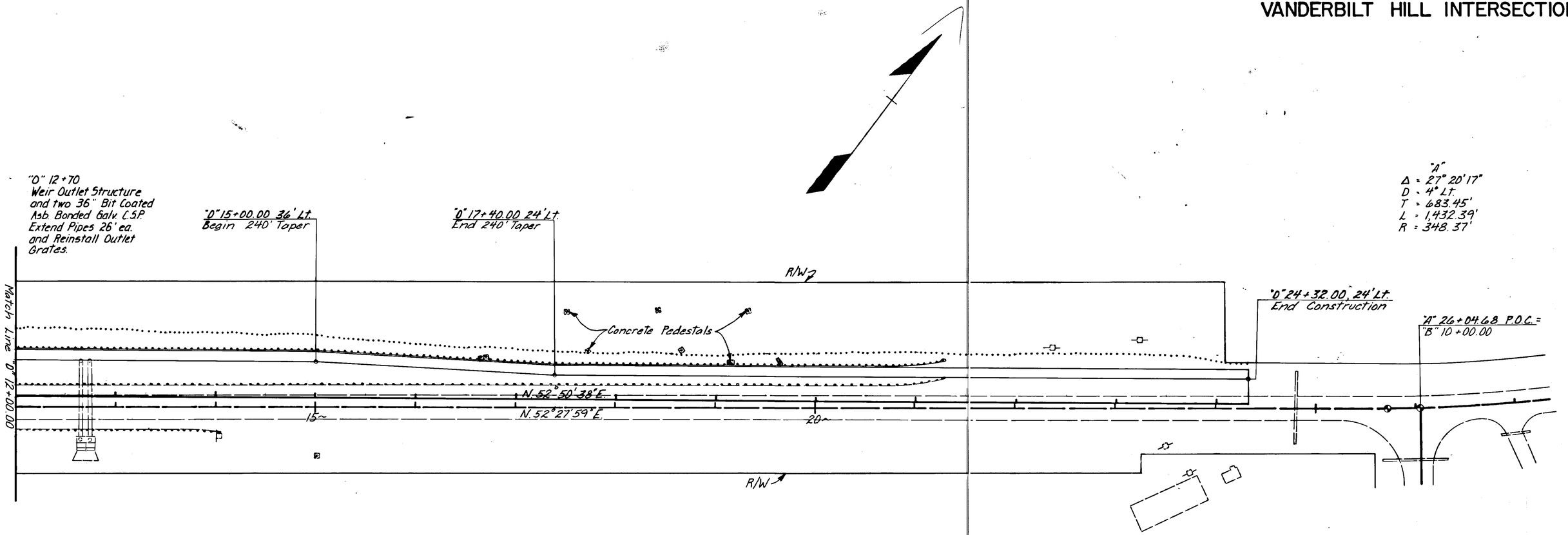
Ex = 1842 cu. yds.

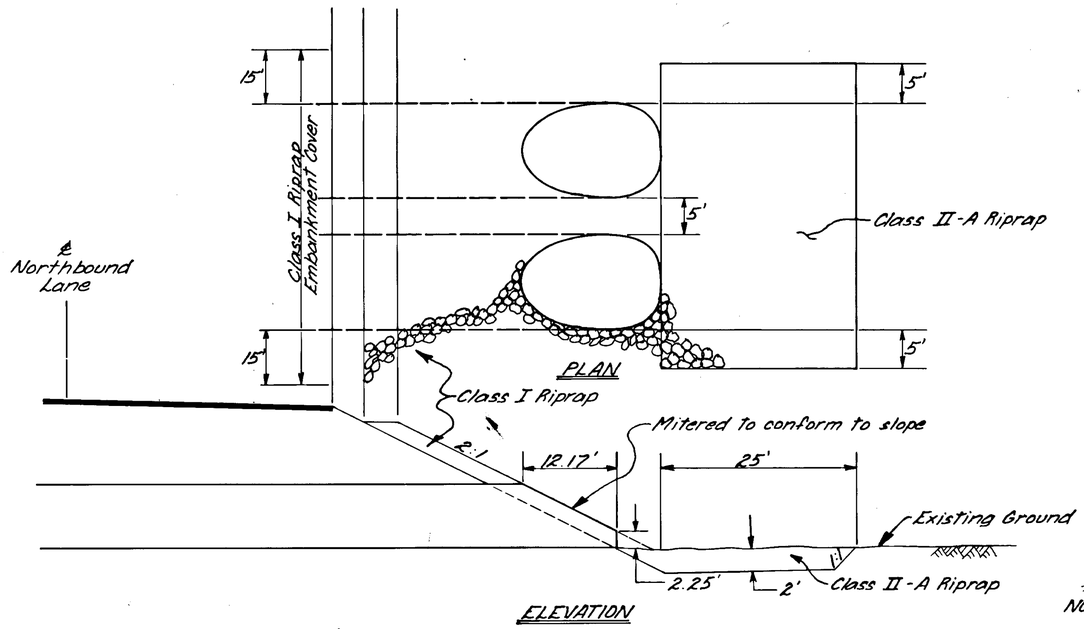
Borrow = 9,074 Tons

STATE OF ALASKA
49TH
Gary R. McCallon
#CE 3771
REGISTERED PROFESSIONAL ENGINEER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	7	31

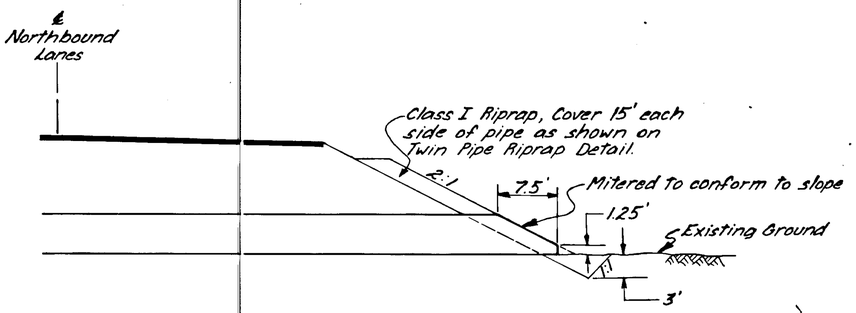
VANDERBILT HILL INTERSECTION





TWIN PIPE RIPRAP DETAIL

NOTE: Riprap and the installation thereof shall not be measured for pay but shall be considered incidental to other items of work & no separate payment shall be made therefore.



SINGLE PIPE RIPRAP DETAIL

Ex = 870 cu. yds.

Borrow = 7,949 Tons

STATE OF ALASKA 49TH
Gary P. McCallon
#CE 3771
REGISTERED PROFESSIONAL ENGINEER

SUNNY POINT INTERSECTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	8	31

"L"
Δ = 55°31'56"
D = 2° Lt.
T = 1508.27'
L = 2776.61'
R = 2864.80'

"F"
Δ = 98°00'00"
D = 81°57'04"
T = 80.53'
L = 119.73'
R = 70'

"F" 12+35.25 P.T.
"F" 14+27.59 P.C.
N 66°36'22" W
"F" 11+15.52 P.C.
"L" 261+64.49 P.O.C. = "F" 10+00.00
S 15°23'37" W
"F" 15+00.00 Match Line
"L" 265+00.00 Match Line
"L" 264+15.28 7' Lt. Match Existing
"L" 259+56.84 7' Rt. Match Existing
"L" 260+71.39 55' Rt. Match Existing
"L" 255+75.00 7' Rt. End 100' Taper
"L" 254+75.00 19' Rt. Match Existing
"L" 255+50.00 43' Rt. Match Existing
"L" 256+50.00 55' Rt. End 100' Taper
"L" 262+74.98 55' Rt.
"L" 262+29.18 63.05' Rt.
"F" 9+03.06 31.5' Rt.
"F" 8+56.22 24' Rt.
"F" 8+62 24" Pipe Conduit Extend 12' Rt.
"G.H." 315+21.69 11' Lt. End Construction
S 89°09'20" E
"F" 7+53.39 = "G.H." 314+08.80
"L" 263+67 72"x44" Bit. Coated Asb. Bonded Galv. Corr. Steel Pipe Arch. Extend 8' Rt. and Reinstall End Section.
Southbound Lanes
Northbound Lanes
GLACIER HIGHWAY
R/W
250~
255~
260~
270~
20~
4'
8'
150' R.
50' R.

"F"
Δ = 23°39'27"
D = 3°55'10" Lt.
T = 306.16'
L = 603.59'
R = 1461.83'

"L"
Δ = 55°31'56"
D = 2° Lt.
T = 1508.27'
L = 2776.61'
R = 2864.80'

"L" 268+56 CMP Inlet and 48"x160' Pipe Conduit, Skewed 20° Rt. Ahead Extend 12' Rt. and Reinstall End Section.
"F" 20+31.18 P.T.
"L" 270+68.84 P.T. "F" Line 98' Lt.
"L" 272+00.00 7' Lt. Begin 100' Taper
"L" 273+00.00 19' Lt. Match Existing
Match Line "L" 265+00.00
Match Line "F" 15+00.00
S 89°44'10" W ~6369.10'
S 89°43'09" W
"L" 271+80.00 55' Rt. Begin 270' Taper
"L" 274+50.00 43' Rt. Match Existing
268+50 Rt. to 273+75' Rt. Spall Facing. - C.O. #6
Ex = 1,951 cu. yds.
Borrow = 1,049 Tons

STATE OF ALASKA
REGISTERED PROFESSIONAL ENGINEER
Gary B. McGahan
#CE 3771

AIRPORT ACCESS INTERSECTION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	9	31

"K1"
Δ = 17°23'13.3"
D = 5°30' Lt.
T = 159.2882'
L = 316.1278'
R = 1,041.7415'

"L" 324+65 C.M.P. Inlet & 36" Bit. Coated, Asb. Bonded, Galv., Corr., Steel Pipe Extend 10' Lt. and Reinstall End Section

"K1" 4+34.81 P.C. 51.10' Lt. of "L" 325+04.84 P.O.T.

"L" 317+00.00 43' Lt. Match Existing

R/W

Southbound Lanes

Northbound Lanes

S.89°44'10"W.

320~

325~

5~

"L" 324+70.00 19' Rt. Match Existing

"L" 326+36.67 10' Lt. End Taper

"L" 326+00.00 43' Rt. Match Existing

"L" 327+00.00 55' Rt. End 100' Taper

"K" 7+95
Install 36" x 46' Asb. Bonded Bit. Coated Corr. Steel Pipe with End Sections.

"K1" 7+50.94 P.T.

"K1"
Δ = 31°00'00"
D = 11°30' Rt.
T = 138.1697'
L = 269.5652'
R = 498.2224'

"K1" 12+43.31 6' Lt. of "K" 12+43.31

"K1" 12+41.48 P.T.

"K2" 12+30.16 P.T.

"K" 11+27.11 P.C.

"K1" 9+71.92 P.C.

S 71°12'12"W.

10~

"K"
Δ = 92°28'02"
D = 81°51'04"
T = 73.08'
L = 112.97'
R = 70.00'

52.99' R.

"K" 12+42.12 24' Rt.

"K" 11+22.18 18' Rt.

"K2" 11+17.19 P.C.

"K2" 11+17.19 P.O.T.

52.99' R.

Match Line "K" 13+00.00

"L" 332+73.66 55' Lt.

"L" 331+82.53 P.O.T. = "K" 10+00.00 P.O.T.

"L" 331+23.00 10' Lt. Match Existing

330~

4'

"L" 330+90.16 55' Rt. Match Existing

8'

"L" 332+40.00 10' Rt. Match Existing

"L" 332+76.48 55' Rt.

150' R.

"L" 332+27.42 43.25' Lt.

"K" 9+18.16 32.25' Rt.

50' R.

R/W

"K" 8+69.10 24' Rt.

"K" 8+35.38 24' Rt. End Taper

Match Line "L" 333+20.00

S.09°44'10"W.

"L" 328+10 C.M.P. Inlet & 65" x 40" Bit. Coated Asb. Bonded, Galv., Corr., Steel Pipe Arch Extend 10' Rt. and Reinstall End Section.

"K" 8+60 24" Pipe Conduit Extend 12' Rt.

"K" 7+50.00 12' Rt. Match Existing

"K" 15+11.57 End Construction

"K2" 14+00.00 12' Rt. of "K" 14+11.57 Begin 100' Taper of & shld.

"K2" 14+00.00 24' Rt.

"K2" 15+00.72 = "K" 15+11.57 Match Existing

N.77°47'48"W.

~590.36'

15~

8'

"K" 18+33.67 P.C. = "L" 338+48.51 P.O.C. 103' Rt.

20~

"L" 337+30.00 55' Lt.

"L" 338+30.00 43' Lt. Match Existing

"L" 340+07.84 10' Rt. Begin Taper

"L" 341+67.00 19' Lt. Match Existing

340~

25~

Southbound Lanes

Northbound Lanes

"L" 341+00.00 55' Rt. Begin 270' Taper

"L" 343+70.00 43' Rt. Match Existing

"L" 334+32.53 P.C.

335~

"L" 336+15 Two 43" x 27" Bit. Coated, Asb. Bonded, Galv, Corr., Steel Pipe Arches Extend 12' Lt. and 5' Rt. and Reinstall End Sections.

"L" 337+00 C.M.P. Inlet and 18" Pipe Conduit Extend 10' Rt. Shorten 6' Lt. & reinstall inlet.

"L"
Δ = 48°13'13"
D = 3° Rt.
T = 854.73'
L = 1,607.34'
R = 1,909.85'

Ex = 3218 cu. yds.

Borrow = 5,069 Tons

STATE OF ALASKA
49TH
Gary P. McCallon
#CE 3771
REGISTERED PROFESSIONAL ENGINEER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	10	31

AIRPORT ACCESS INTERSECTION

"K1"
Δ = 17°23'13.3"
D = 5°30'
T = 159.2882'
L = 316.1278'
R = 1,041.7415'

"L" 317+00.00 43'Lt
Match Existing

"K1" 4+34.81 P.C. 51.10'Lt of "L" 325+04.84 P.O.T.

"K1" 7+50.94 P.T.

S. 71°12'12"W.

"K1"
Δ = 31°00'00"
D = 11°30'
T = 138.1697'
L = 269.5652'
R = 498.224'

"K1" 9+71.92 P.C.

"K1" 12+43.31 6'Lt of "K" 12+43.31 P.T.

"K1" 12+41.48 P.T.

"K" 12+43.31 P.T.

"K2" 12+30.16 P.T.

"K" 11+27.11 P.C.
"K2" 11+17.19 P.C. =
"K" 11+17.19 P.O.T.

"K2"
Δ = 92°28'02"
D = 81°51'04"
T = 73.08'
L = 112.97'
R = 70.00'

S. 89°44'10"W.

"L" 331+82.53 P.O.T. =
"K" 10+00.00 P.O.T.

S. 89°44'10"W.

"K1" 7+00.00 300'V.C.
V.P.I. Elev. 21.89

"K1" 10+80.00 200'V.C.
V.P.I. Elev. 24%

Right edge of Acceleration Lane Asphalt matches Left edge of Expressway Asphalt.

-0.650%

Finished Profile

+0.754%

0.00%

Existing Ground

"L" 325+00.00 =
"K" 4+29.97

317~ 318~ 319~ 320~ 322~ 323~ 324~ 5~ 6~ 7~ 8~ 9~ 10~ 11~ 12~ 13~

25 20 15

STATE OF ALASKA
49TH
Gary P. McCalton
#CE 3771
REGISTERED PROFESSIONAL ENGINEER

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

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	11	31

NUGGET MALL INTERSECTION

"L" 360+12.76 B.K. =
"L" 351+17.74 P.O.T. Ahd.

Old Glacier Highway

R/W

"L" 359+25.00 43' Lt.
Match Existing

"L" 352+99.98
End 270' Taper

Southbound Lanes

360~

355~

N. 42° 33' 15" W.

360~

"L" 358+75.00 19' Rt.
Match Existing

"L" 359+75.00 7' Rt.
End 100' Taper

4'

Northbound Lanes

"L" 360+11.74 7' Rt.
Match Existing

Match Line "L" 360+89.86 P.C.

"L" 353+69 Existing Drop Inlet & 24" x 72" Pipe Conduit Extend 6' Lt. & Reinstall Drop Inlet.

"L" 359+19 Existing Drop Inlet & 18" x 72" Pipe Conduit Extend 6' Lt. & Reinstall Drop Inlet.

Nugget Mall Access

S 67° 44' 00" W

"C" 1+27.39 20' Lt.
Match Existing

"C" 0+78.33
28.25' Lt.

"L" 362+47.71
62.63' Lt.

150' R.

"L" 362+00.92
55' Lt.

"L" 360+89.86 P.C.

Match Line

"L"
Δ = 8° 25' 15"
D = 2° 00' Rt.
T = 210.90'
L = 421.04'
R = 2,864.79'

"L" 362+83.00 P.O.C. =
"C" 0+00.00

"L" 365+10.90 P.T.

"L" 363+86.12 55' Lt.
Match Existing

"L" 368+25.00 55' Lt.
Begin 100' Taper

"L" 369+25.00 43' Lt.
Match Existing

365~

N. 34° 08' 00" W.
~1,087.00'

370~

Jordan Creek

Southbound Lanes

Northbound Lanes

Ex = 1910 cu. yds. (466 cu. yds. Excess) to Sheet 9.

STATE OF ALASKA
49TH
Gary P. McCallen
#CE 3771
REGISTERED PROFESSIONAL ENGINEER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	12	31

SALMON CREEK INTERSECTION SIGNING, STRIPING, & ILLUMINATION

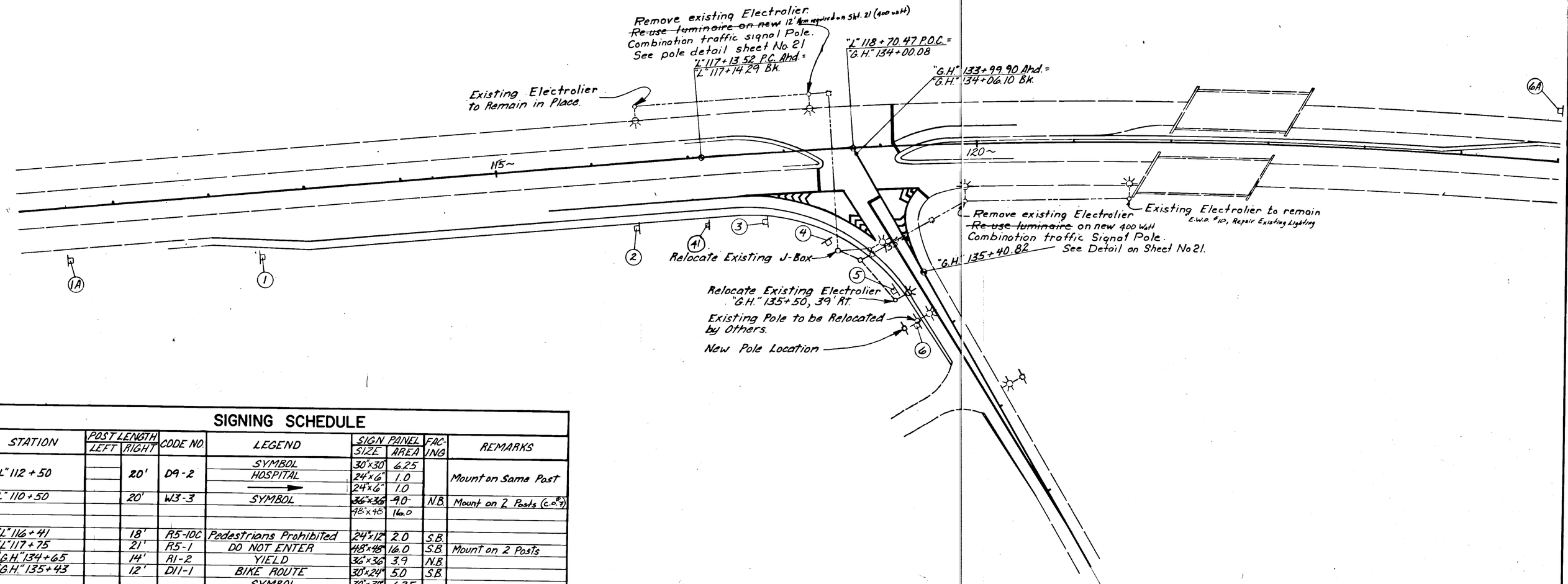
ADDENDUM 1, ATTACHMENT 1

SIGNING NOTES

1. Sign locations & post lengths are approximate only & are subject to minor revisions.
2. All sign posts shall be telescoping, perforated, & galvanized steel posts; the 2" size shall be used above ground & the 2¼" size shall be used below ground for the sleeve.
3. All posts shall be installed with the sleeve type embedment in accordance with Standard Drawing S-30.12, except that the 2¼" size shall be used for the entire embedment depth.
4. All signs shall be unframed except signs no. 7, 13, 15 and 25.
5. All signs shall be .063" thick.
6. All existing signs shall be removed by the contractor & shall be returned to the State of Alaska, D.O.T. & P.F. Main-tenance Yard, as directed by the engineer. This work shall be considered incidental to other items of work & no sep-arate payment shall be made therefore.

ILLUMINATION NOTES

1. All interconnecting conductors shall be #6 AWG.
2. Conduit & cable routing as shown on the plans are sche-matic only & may be modified in the field as necessary to complete the illumination system. Any modifications shall be approved by the engineer.
3. All junction boxes shall be Type I as per Standard Drawing L-23.03.
4. All new wiring shall be in conduit.
5. Unused poles shall be delivered to D.O.T./P.F. at 7 mile Glacier Hwy.



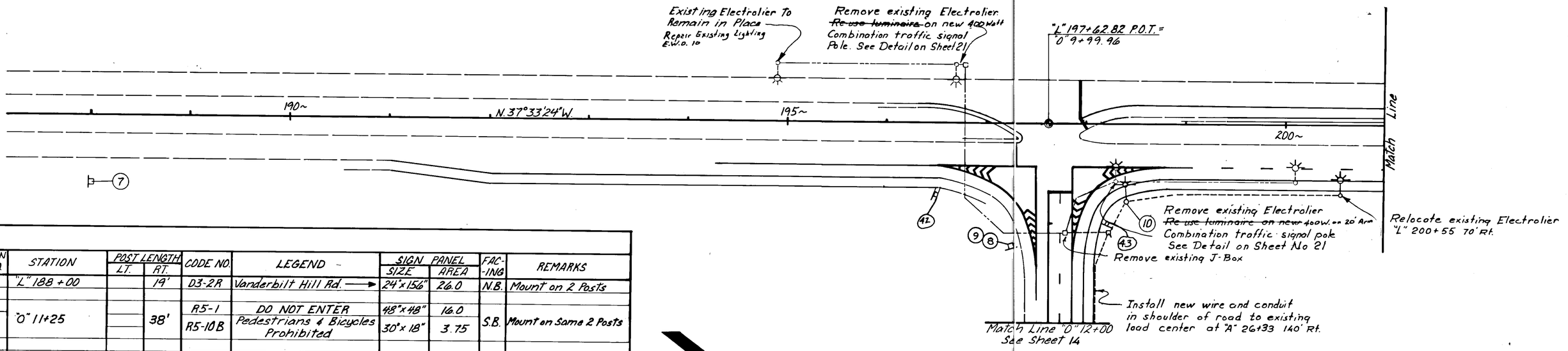
SIGNING SCHEDULE

SIGN NO.	STATION	POST LENGTH LEFT	POST LENGTH RIGHT	CODE NO.	LEGEND	SIGN PANEL SIZE	SIGN PANEL AREA	FACING	REMARKS
1	"L" 112+50		20'	D9-2	SYMBOL HOSPITAL →	30"x30" 24"x6" 24"x6"	6.25 1.0 1.0		Mount on Same Post
1A	"L" 110+50		20'	W3-3	SYMBOL	~~36"x36"~~ 48"x48"	~~9.0~~ 16.0	N.B.	Mount on 2 Posts (c.o.#7)
2	"L" 116+41		18'	R5-10C	Pedestrians Prohibited	24"x12"	2.0	S.B.	
3	"L" 117+75		21'	R5-1	DO NOT ENTER	~~48"x48"~~	16.0	S.B.	Mount on 2 Posts
4	"G.H." 134+65		14'	R1-2	YIELD	~~36"x36"~~	9.0	N.B.	
5	"G.H." 135+43		12'	D11-1	BIKE ROUTE	~~30"x24"~~	5.0	S.B.	
6	"G.H." 135+86		15'	D9-2	SYMBOL HOSPITAL →	30"x30" 24"x6" ~~24"x6"~~	6.25 1.0 1.0	E.B.	Mount on Same Post
6A	"L" 126+00	20'		W3-3	SYMBOL	~~36"x36"~~ 48"x48"	~~9.0~~ 16.0	S.B.	Mount on 2 Posts (c.o.#7)
41	"L" 117+10		21'	R3-11-30	Rt. turn Permitted w.o. stopping	24"x30"	5.0	N.B.	(c.o.#8)

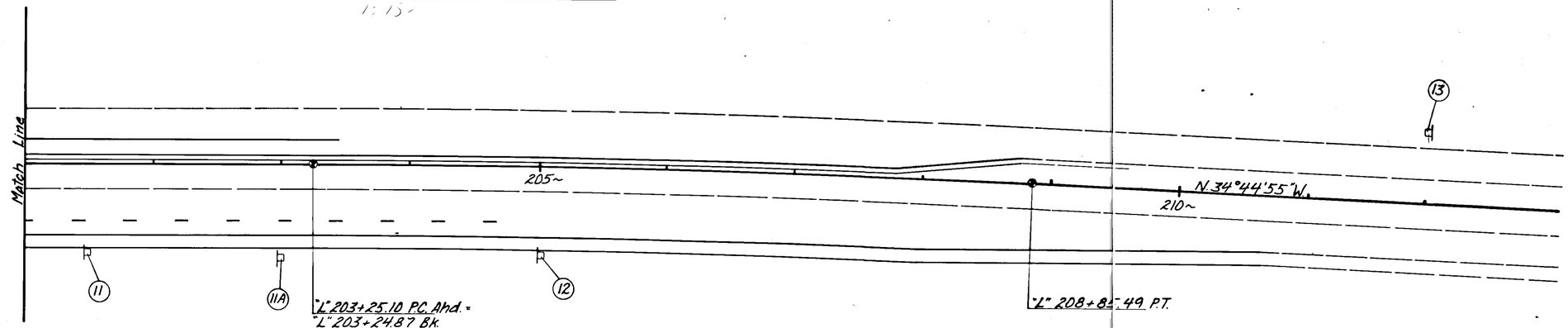
STATE OF ALASKA
49TH
Gary P. McCallon
Gary P. McCallon
#CE 3771
REGISTERED PROFESSIONAL ENGINEER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	13	31

VANDERBILT HILL INTERSECTION SIGNING, STRIPING, & ILLUMINATION



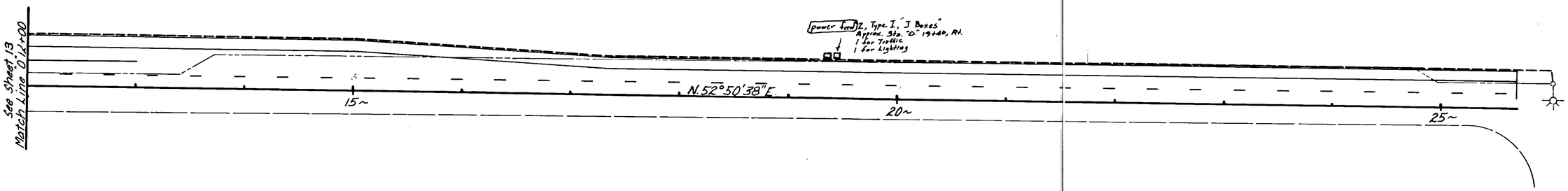
SIGN NO.	STATION	POST LENGTH LT.	POST LENGTH RT.	CODE NO.	LEGEND	SIGN PANEL SIZE	SIGN PANEL AREA	FAC-ING	REMARKS
7	"L" 188+00		19'	D3-2R	Vanderbilt Hill Rd. →	24"x156"	26.0	N.B.	Mount on 2 Posts
8	"0" 11+25		38'	R5-1	DO NOT ENTER	48"x48"	16.0	S.B.	Mount on Same 2 Posts
9				R5-10B	Pedestrians & Bicycles Prohibited	30"x18"	3.75		
10	"L" 198+75			R5-10B	Pedestrians & Bicycles Prohibited	30"x18"	3.75	N.B.	Mount on Luminaire Std.
11	"L" 201+49		17'	R2-1	Speed Limit 55	36"x48"	12.0	N.B.	
12	"L" 205+03		16'	R8-4	Emergency Parking Only	30"x24"	5.0	N.B.	
13	"L" 212+00	16'		D3-2L	← Vanderbilt Hill Rd.	24"x156"	26.0	S.B.	Mount on 2 Posts
11A	"L" 203+00		17'	W4-1	↑	30"x30"	6.25	N.B.	
42	"L" 196+80		21'	R-3-11-30	Rt. Turn Permitted without Stopping	24"x30"	5.0	N.B.	C.O.#8
43	"L" 198+70		30'	R-3-11-30	Rt. Turn Permitted with out Stopping	24"x30"	5.0	N.B.	C.O.#8



STATE OF ALASKA 49TH
Gary P. McCallon
Gary P. McCallon
#CE 3771
REGISTERED PROFESSIONAL ENGINEER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	14	31

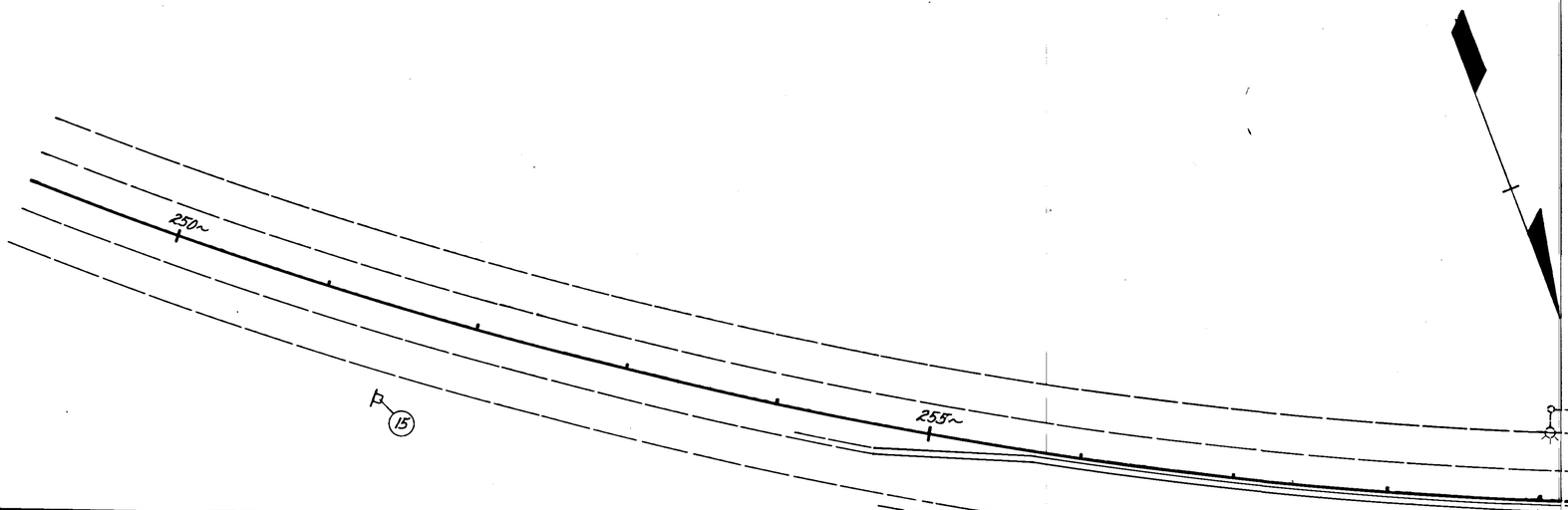
VANDERBILT HILL INTERSECTION
SIGNING, STRIPING, & ILLUMINATION

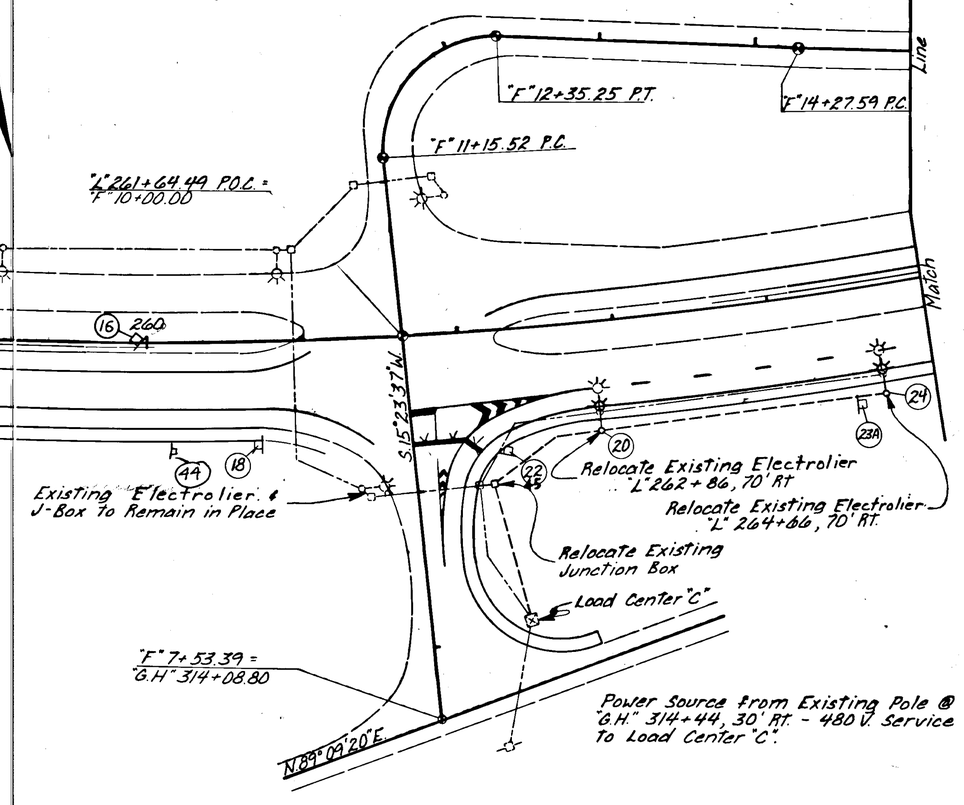


STATE OF ALASKA
49TH
Gary P. McCallon
#CE 3771
REGISTERED PROFESSIONAL ENGINEER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	15	31

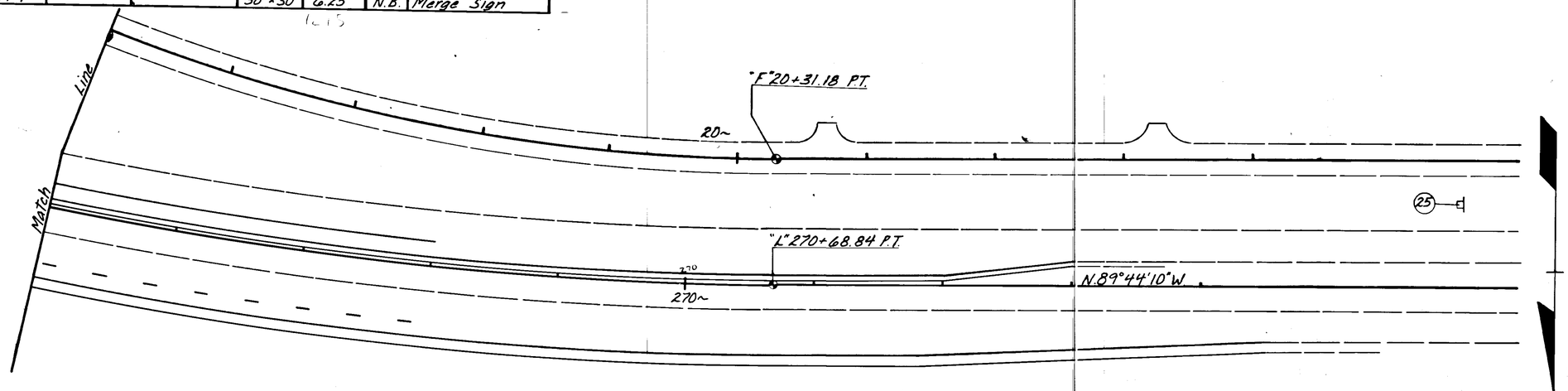
SUNNY POINT INTERSECTION SIGNING, STRIPING, & ILLUMINATION





SIGNING SCHEDULE

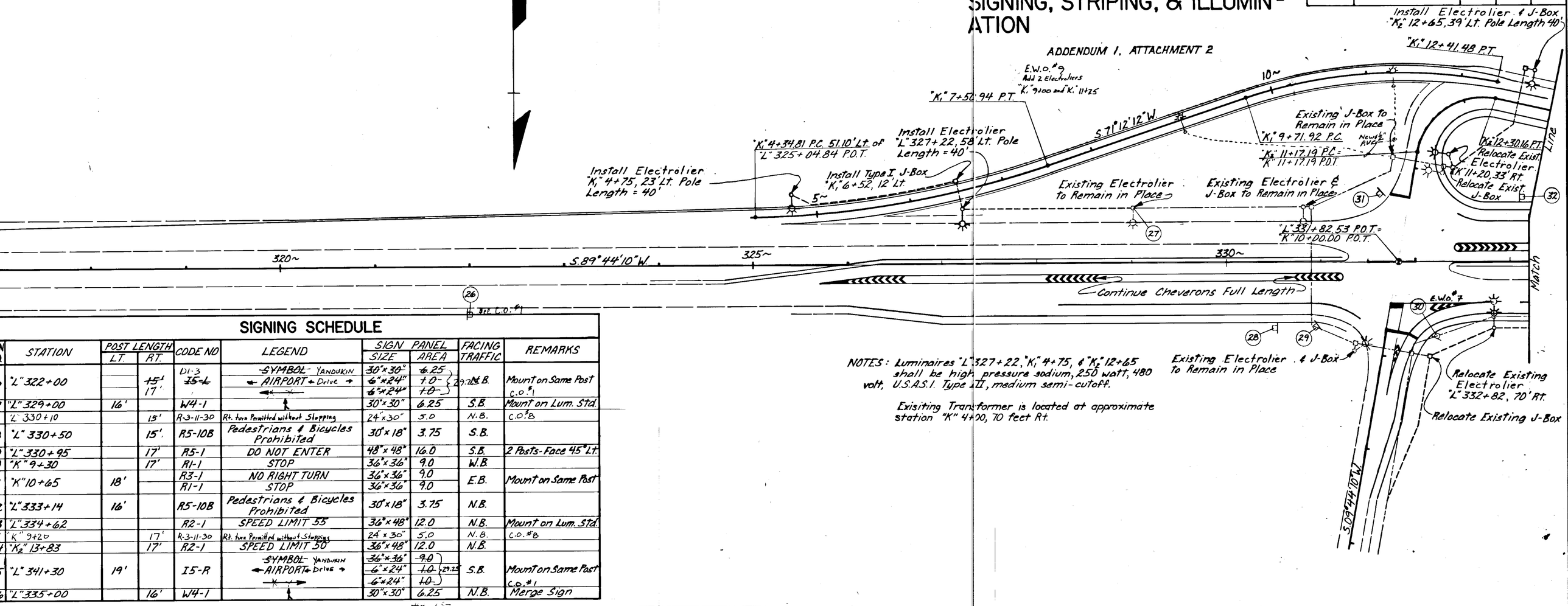
STATION	POLE LENGTH LT.	POLE LENGTH RT.	CODE NO.	LEGEND	SIGN PANEL SIZE	SIGN PANEL AREA	FAC-ING	REMARKS
"L" 251+50		18'	D1-2	← Sunny Dr.-Glacier Hwy. →	42"x114"	33.25	N.B.	Mount on 2 Posts
"L" 259+95		16'	R5-1	DO NOT ENTER	48"x48"	16.0	S.B.	" " "
"L" 260+30		18'	R3-11-30	Rt. Turn Permitted with out Stopping	24"x30"	5.0	N.B.	c.o. #8
"L" 260+70		18'	R5-1	DO NOT ENTER	48"x48"	16.0	S.B.	" " " "
"L" 262+86			R5-10B	Pedestrians & Bicycles Prohibited	30"x18"	3.75	N.B.	Mount on Luminaire Std.
"F" 9+00		20'	R-3-11-30	Rt. turn Permitted with out Stopping	24"x30"	5.0	N.B.	c.o. #8
"F" 9+20		20'	R1-1	STOP	36"x36"	9.0	W.B.	
"L" 264+66			R2-1	SPEED LIMIT 55	36"x48"	12.0	S.B.	Mount on Lum. Std.
"L" 276+00	16'		D1-2	← Sunny Dr.-Glacier Hwy. →	42"x114"	33.25	S.B.	Mount on 2 Posts
"L" 264+50		19'	W4-1		30"x30"	6.25	N.B.	Merge Sign



AIRPORT ACCESS INTERSECTION SIGNING, STRIPING, & ILLUMINATION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	16	31

ADDENDUM 1, ATTACHMENT 2

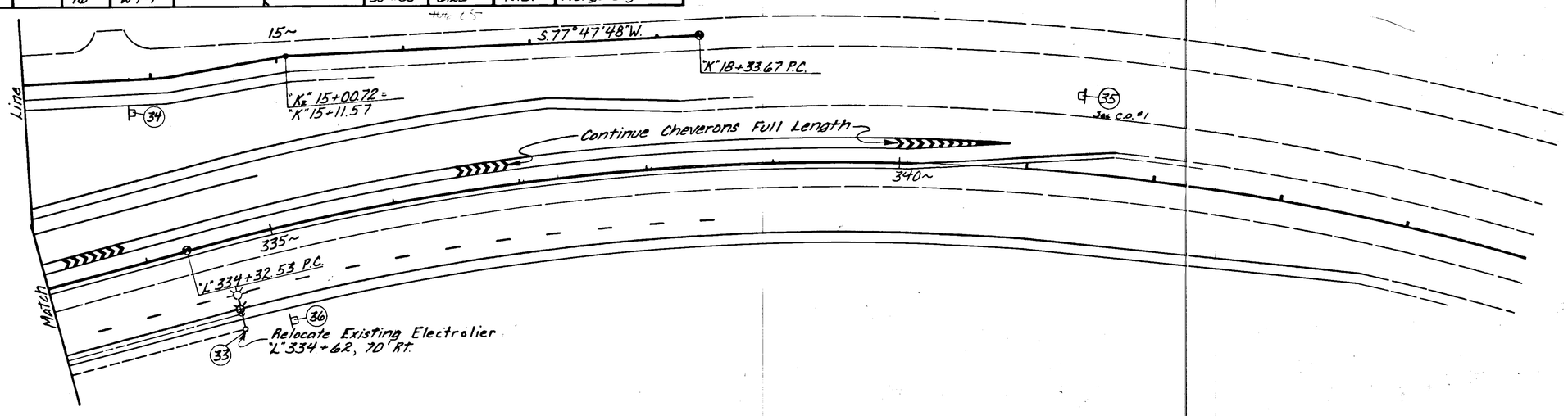


NOTES: Luminaires "L" 327+22, "K1" 4+75, & "K2" 12+65 shall be high pressure sodium, 250 watt, 480 volt, U.S.A.S.I. Type III, medium semi-cutoff.

Exisiting Transformer is located at approximate station "K" 4+00, 70 feet Rt.

SIGNING SCHEDULE

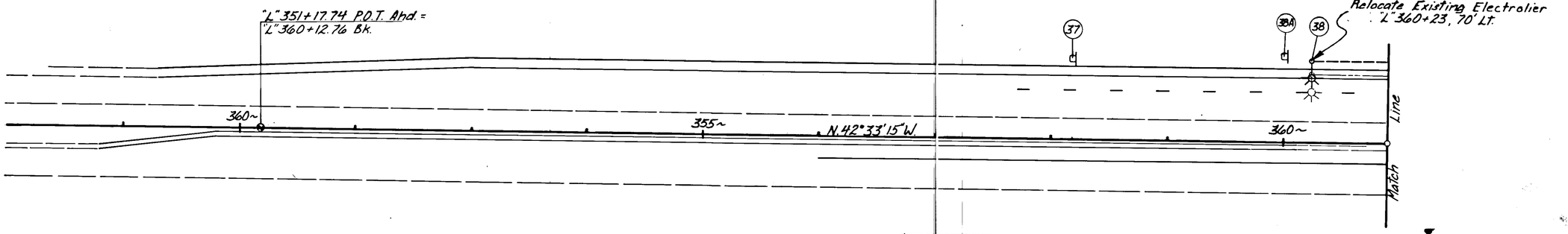
	STATION	POST LENGTH LT.	POST LENGTH RT.	CODE NO	LEGEND	SIGN SIZE	PANEL AREA	FACING TRAFFIC	REMARKS
	"L" 322+00		~~15'~~ 17'	D1-3 ~~I5-L~~	~~SYMBOL~~ YANDUKIN ← AIRPORT → Drive ←	30"x30" 6"x24" 6"x24"	6.25 1.0 1.0 (2.25)	S.B.	Mount on Same Post C.O.#1
	"L" 329+00	16'		W4-1		30"x30"	6.25	S.B.	Mount on Lum. Std.
	"L" 330+10		15'	R-3-11-30	Rt. turn Permitted without Stopping	24"x30"	5.0	N.B.	C.O.#8
	"L" 330+50		15'	R5-10B	Pedestrians & Bicycles Prohibited	30"x18"	3.75	S.B.	
	"L" 330+95		17'	R5-1	DO NOT ENTER	48"x48"	16.0	S.B.	2 Posts-Face 45° Lt.
	"K" 9+30		17'	R1-1	STOP	36"x36"	9.0	W.B.	
	"K" 10+65	18'		R3-1	NO RIGHT TURN	36"x36"	9.0	E.B.	Mount on Same Post
				R1-1	STOP	36"x36"	9.0		
	"L" 333+14	16'		R5-10B	Pedestrians & Bicycles Prohibited	30"x18"	3.75	N.B.	
	"L" 334+62			R2-1	SPEED LIMIT 55	36"x48"	12.0	N.B.	Mount on Lum. Std.
	"K" 9+20		17'	R-3-11-30	Rt. turn Permitted without Stopping	24"x30"	5.0	N.B.	C.O.#8
	"K2" 13+83		17'	R2-1	SPEED LIMIT 50	36"x48"	12.0	N.B.	
	"L" 341+30	19'		I5-R	~~SYMBOL~~ YANDUKIN ← AIRPORT → Drive ←	~~36"x36"~~ ~~6"x24"~~ ~~6"x24"~~ 30"x30"	~~9.0~~ ~~1.0~~ (2.25) ~~1.0~~ 6.25	S.B. N.B.	Mount on Same Post C.O.#1 Merge Sign
	"L" 335+00		16'	W4-1					



STATE OF ALASKA
49TH
Gary P. McCallon
Gary P. McCallon
#CE 3771
REGISTERED PROFESSIONAL ENGINEER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	17	31

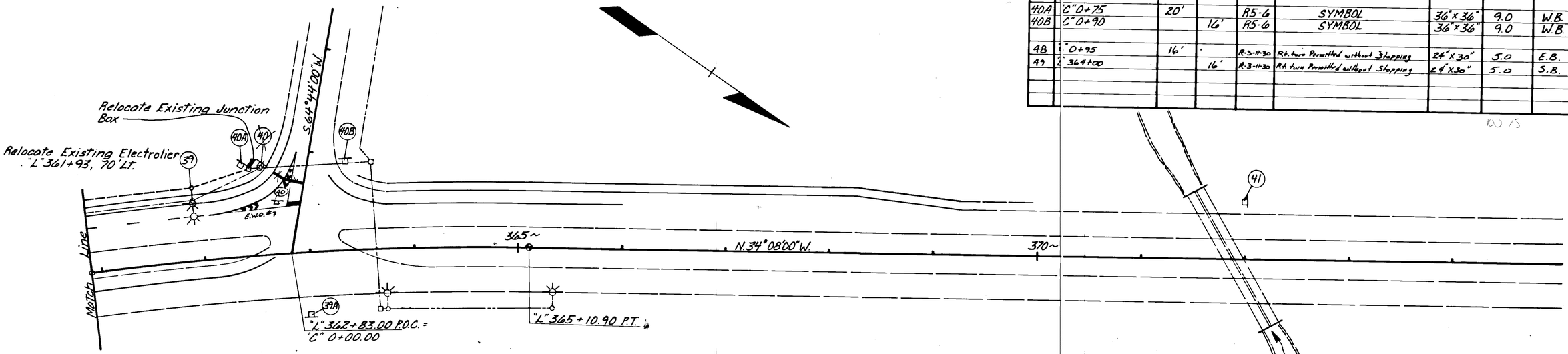
NUGGET MALL INTERSECTION SIGNING, STRIPING, & ILLUMINATION



SIGNING SCHEDULE

SIGN NO.	STATION	POST LENGTH LT.	POST LENGTH RT.	CODE NO.	LEGEND	SIGN PANEL SIZE	SIGN PANEL AREA	FACING TRAFFIC	REMARKS
37	"L" 358+18	18'			Keep Our State Clean Please Don't Litter	36"×72"	18.0	S.B.	Mount on 2 Posts
38	"L" 360+23			R2-1	SPEED LIMIT 55	36"×48"	12.0	S.B	Mount On Luminaire
39	"L" 361+93			R5-5	Pedestrians & Bicycles Prohibited	30"×18"	3.75	S.B	Mount On Lumin--aire Pole
39A	"L" 363+00		15'	R5-6	SYMBOL	36"×36"	9.0	E.B.	
40	"C" 0+75.50	48'-11		R1-1	STOP	36"×36"	9.0	E.B.	
41	"L" 372+00	16''			STate Troopers Commercial Area	18"×78" 30"×72"	9.75 15.0	S.B.	Mount on Same 2 Posts
38A	"L" 360+00	18'		W4-1		30"×30"	6.25	S.B.	Merge Sign
40A	"C" 0+75	20'		R5-6	SYMBOL	36"×36"	9.0	W.B.	10' Lt of Sign #40
40B	"C" 0+90		16'	R5-6	SYMBOL	36"×36"	9.0	W.B.	
48	"C" 0+95	16'		R-3-11-30	Rt. turn Permitted without Stopping	24"×30"	5.0	E.B.	C.O. #8
49	"L" 364+00		16'	R-3-11-30	Rt. turn Permitted without Stopping	24"×30"	5.0	S.B.	C.O. #8

100 15



STATE OF ALASKA 49TH
Gary P. McCallon
#CE 3771
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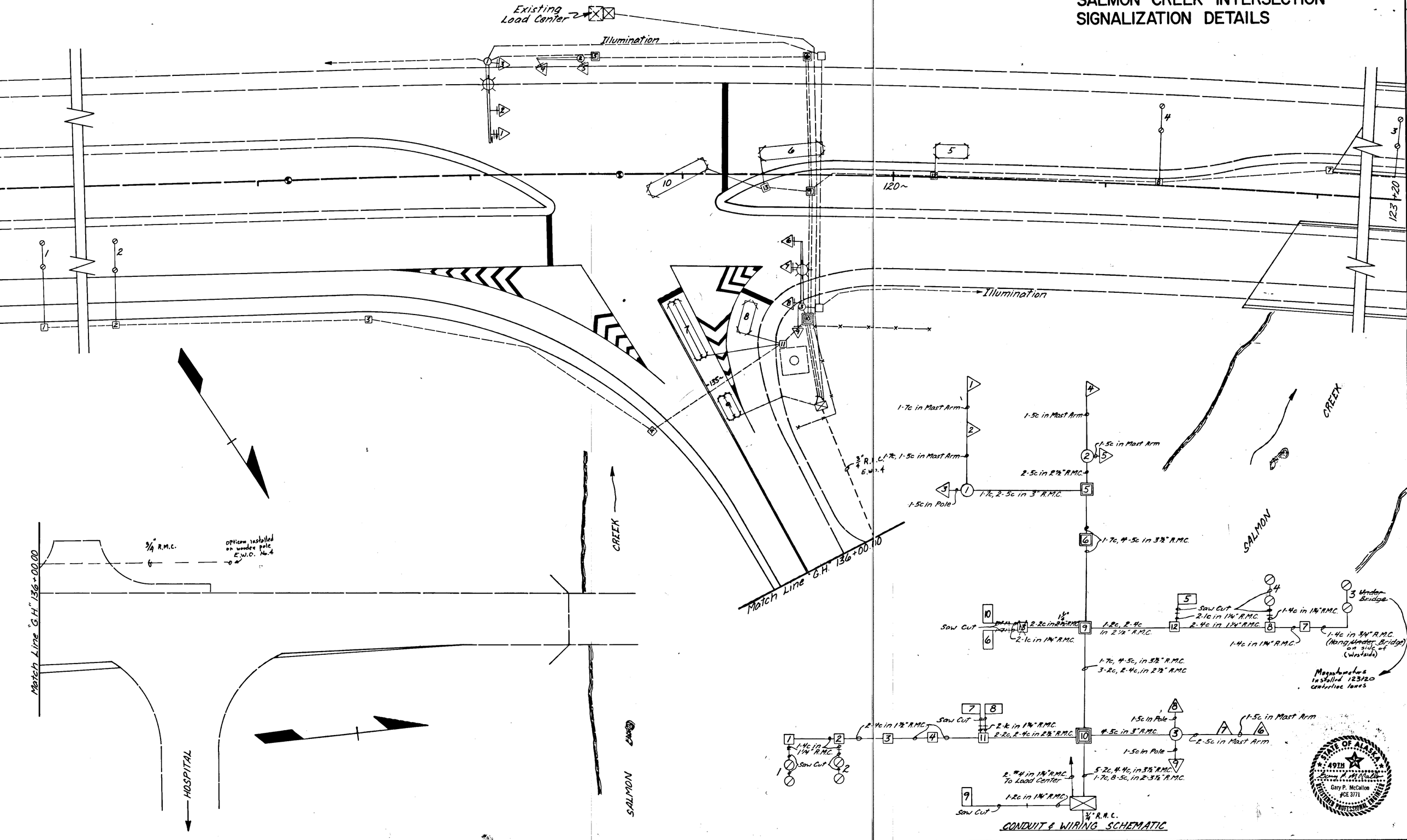
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	18	31

SALMON CREEK INTERSECTION SIGNALIZATION DETAILS



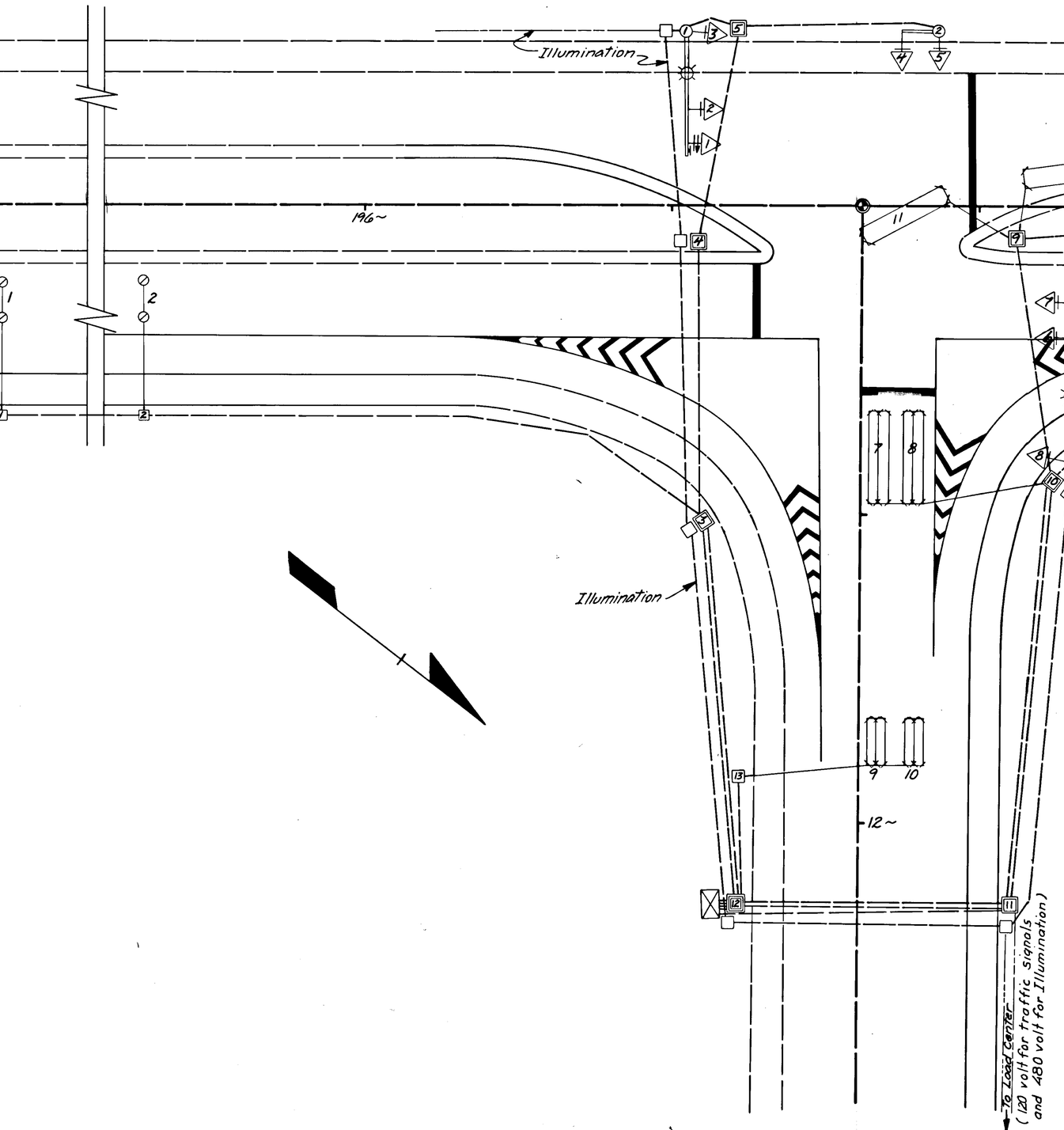
CONDUIT & WIRING SCHEMATIC

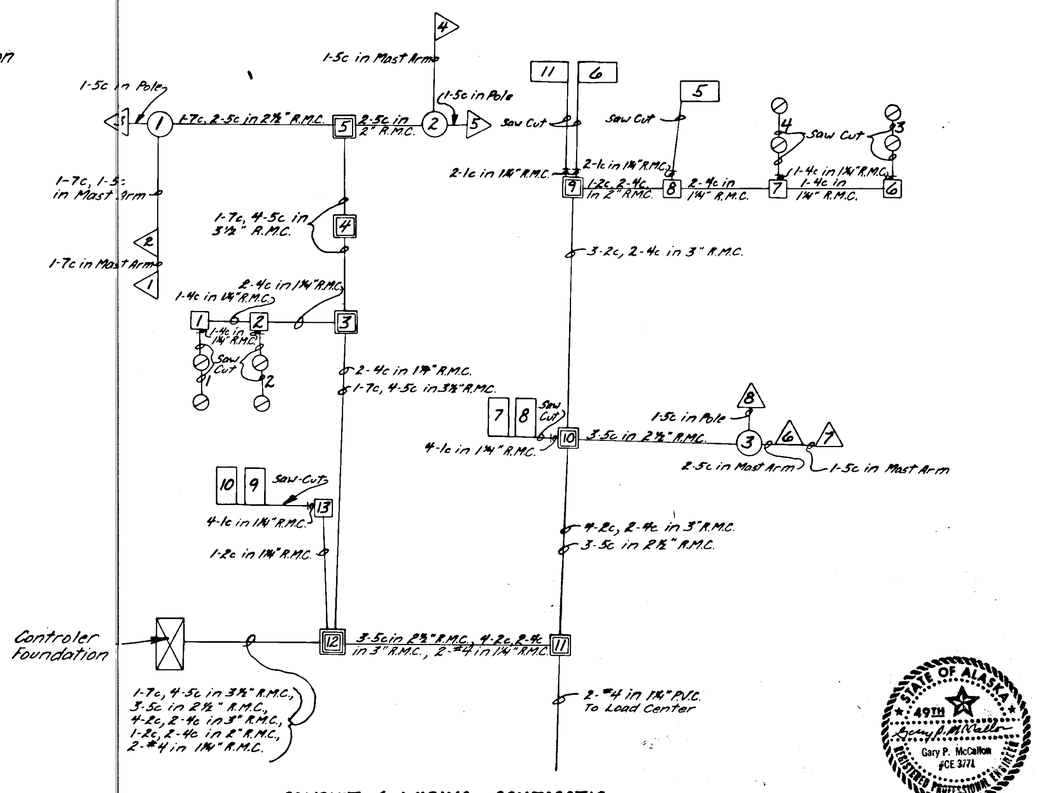
STATE OF ALASKA
49TH
Gary P. McCallon
#CE 3771
REGISTERED PROFESSIONAL ENGINEER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	19	31

VANDERBILT HILL INTERSECTION SIGNALIZATION DETAILS

ADDENDUM I, ATTACHMENT 3





CONDUIT & WIRING SCHEMATIC

STATE OF ALASKA
49TH
Gary P. McCallum
#CE 3771
REGISTERED PROFESSIONAL ENGINEER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	20	31

SIGNALIZATION TABLES

SALMON CREEK INTER.
Signal Head Schedule

Signal Head	Post	Lens Size	Indications	Type Mounting St. Drawing T 30.00	Phase	Height	Remarks
1	1	12"	R-Y-G-LG-Y*	PLUMBIZER	2-3	16'6"-19'	*See Note on Pole Detail
2	1	12"	R-Y-G	PLUMBIZER	2	16'6"-19'	
3	1	12"	R-Y-G	S-1	2	10'	
4	2	12"	R-Y-G	PLUMBIZER	4	16'6"-19'	
5	2	12"	R-Y-G	S-1	4	10'	
6	3	12"	R-Y-G	PLUMBIZER	1	16'6"-19'	
7	3	12"	R-Y-G	PLUMBIZER	1	16'6"-19'	
8	3	12"	R-Y-G	S-2	1	10'	
9	3	12"	R-Y-G	S-2	4	10'	

VANDERBILT HILL INTER.
Signal Head Schedule

1	1	12"	R-Y-G-LG-Y*	PLUMBIZER	1-3	16'6"-19'	*See Note on Pole Detail
2	1	12"	R-Y-G	PLUMBIZER	2	16'6"-19'	
3	1	12"	R-Y-G	S-1	2	10'	
4	2	12"	R-Y-G	PLUMBIZER	4	16'6"-19'	
5	2	12"	R-Y-G	S-1	4	10'	
6	3	12"	R-Y-G	PLUMBIZER	3	16'6"-19'	
7	3	12"	R-Y-G	PLUMBIZER	2	16'6"-19'	
8	3	12"	R-Y-G	S-1	2	10'	

SALMON CREEK INTER.
Detector Schedule

NO.	Offset	Station	Type	Phase	Size	Remarks
1	26'-38'R	"L" 114+85	Magnetometer Probe	1		
2	26'-38'R	"L" 116+35	Magnetometer Probe	1		
3	26'-36'R	"L" 123+20	Magnetometer Probe	2		
4	37'-25'L	"L" 121+20	Magnetometer Probe	2		
5	12' L	"L" 120+20	Loop	Traffic Counter	6'x15'	3 Turns-Regular
6	11' L	"L" 119+51	Loop	3	6'x30'	2 Turns-Regular-Skew 6°-Shall Operate Only During ϕ1 Green
7	3' L	"GH" 134+70	Loop	4	6'x30'	Quadrapole
8	27' R	"GH" 134+65	Loop	Traffic Counter	6'x15'	Regular
9	3' L	"GH" 135+14	Loop	Traffic Counter	6'x15'	Quadrapole
10	2' R	"L" 118+98	Loop	3	6'x30'	2 Turns-Regular-Skew 27°-Shall Operate Only During ϕ3 Green

VANDERBILT HILL INTER.
Detector Schedule

NO.	Offset	Station	Type	Phase	Size	Remarks
1	24'-36'R	"L" 193+30	Magnetometer Probes	1		Factory wired in Series
2	24'-36'R	"L" 195+30	Magnetometer Probes	1		"
3	36'-24'L	"L" 202+00	Magnetometer Probes	2		"
4	36'-24'L	"L" 202+00	Magnetometer Probes	2		"
5	11' L	"L" 199+19	Loop	Traffic Counter	6'x15'	3 Turns Regular
6	10' L	"L" 19+30	Loop	3	6'x30'	2 Turns-Regular-Skew 8°-Shall Operate Only During ϕ1 Green
7	6' L	"O" 10+82	Loop	4	6'x30'	Quadrapole
8	18' L	"O" 10+82	Loop	4	6'x30'	Quadrapole
9	6' L	"O" 11+75	Loop	Traffic Counter	6'x15'	Quadrapole
10	18' L	"O" 11+75	Loop	Traffic Counter	6'x15'	Quadrapole
11	3' R	"L" 197+76	Loop	3	6'x30'	2 Turns-Regular-Skew 28°-Shall Operate Only During ϕ3 Green

SALMON CREEK INTER.
Pole & Base Schedule

NO.	Station	Offset	Mast Arm Type	Mast Arm K	Mast Arm M	Mast Arm N	Footing Type
1	"L" 117+97	55' L	Regular	41'	12'	25'	Optional 3'x9'
2	"L" 118+52	53' L	Regular	20'		20'	Optional 3'x9'
3	"L" 119+51	64' R	Regular	30'	12'	18'	Optional 3'x9'
-	"GH" 135+35	45' L	Cabinet Base				Type P-1 Cabinet

VANDERBILT HILL INTER.
Pole & Base Schedule

1	"L" 197+05	56' L	Regular	41'	12'	25'	Optional 3'x9'
2	"L" 197+86	56' L	Regular	12'			Optional 5'x9'
3	"L" 198+30	83' R	Regular	50'	12'	38'	Spread Footing
	"O" 12+26	47' R	Cabinet Base				Type P-1 Cabinet

SALMON CREEK INTER.
Junction Box Schedule

NO.	Station	Offset	Type
1	"L" 114+35	65' R	I
2	"L" 116+35	65' R	I
3	"L" 117+50	65' R	I
4	"GH" 135+05	40' R	I
5	"L" 118+60	54' L	II
6	"L" 119+60	53' L	II
7	"L" 122+02	10' L	I
8	"L" 121+20	2' L	I
9	"L" 119+60	7' R	II
10	"L" 119+60	68' R	III
11	"GH" 135+00	40' R	I
12	"L" 120+20	0'	I
~~13~~	~~"L" 119+38~~	~~7' R~~	~~I~~

VANDERBILT HILL INTER.
Junction Box Schedule

1	"L"	193+30	67' R	I
2	"L"	195+30	67' R	I
3	"L"	197+10	102' R	II
4	"L"	197+10	8' R	II
5	"L"	197+23	56' L	II
6	"L"	202+00	2' R	I
7	"L"	200+00	2' R	I
8	"L"	199+10	2' R	I
9	"L"	198+12	10' R	II
10	"O"	10+89	63' L	II
11	"O"	12+27	49' L	II
12	"O"	12+26	38' R	III
13	"O"	11+85	37' L	I

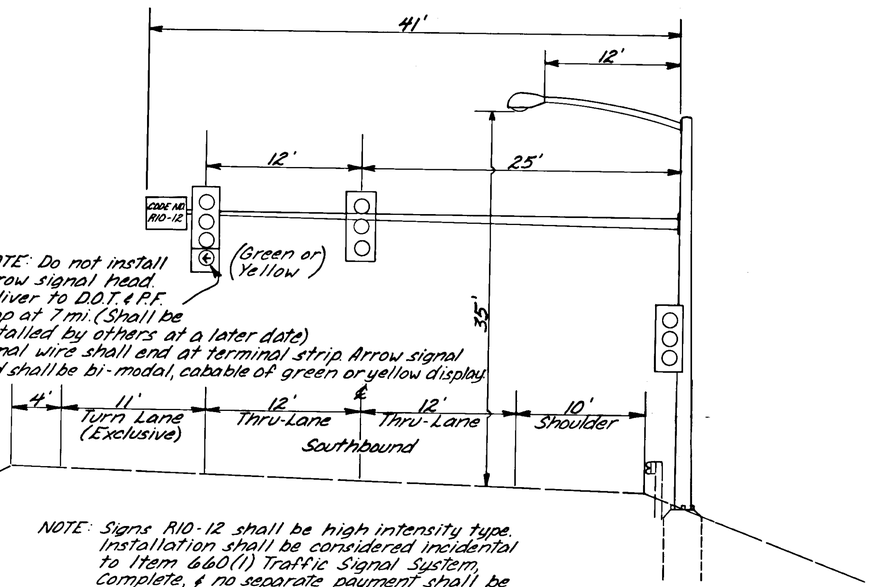
LIGHT EMITTER EMERGENCY VEHICLE PREEMPTOR TABLE

INTERSECTION	DIRECTIONS PREEMPTED (B.=BOUND)			
Mendenhall Loop Rd. & Egan Drive	Egan Dr. W.B. & Left Turn	Egan Dr. E.B. & Left Turn	Loop Rd. N.B.	Loop Rd. S.B.
Vanderbilt Hill Rd. & Egan Drive	Egan Dr. N.W.B	Egan Dr. S.E.B. & Left Turn	Vanderbilt Hill Rd. S.W.B.	
Salmon Creek (Glacier Hwy.) & Egan Drive	Egan Dr. N.W.B.	Egan Dr. S.E.B. & Left Turn	Glacier Hwy. S.B.	See E.W.O. 8
Main Street & Egan Drive	Egan Dr. W.B.	Egan Dr. E.B. & Left Turn	Main St. S.B.	See E.W.O. 8

STATE OF ALASKA
49TH
Gary P. McCallon
REGISTERED PROFESSIONAL ENGINEER
Gary P. McCallon
#CE 3771

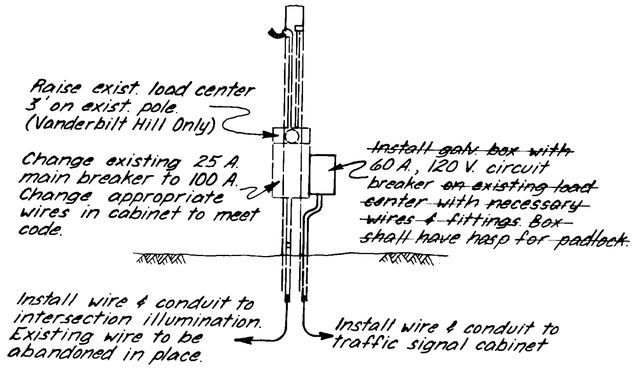
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	21	31

VANDERBILT HILL & SALMON CREEK INTERSECTIONS
EGAN EXPRESSWAY SOUTHBOUND
SIGNAL INSTALLATION DETAIL
POLE NOS. 1 & 1



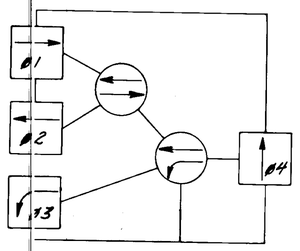
NOTE: Signs R10-12 shall be high intensity type. Installation shall be considered incidental to Item 660(1) Traffic Signal System, Complete, & no separate payment shall be made therefore.

LOAD CENTER DETAIL
BOTH SIGNALS



Load Center Locations
Salmon Creek Inter. = "L" 118+60, 75' Lt.
Vanderbilt Hill Inter. = "A" 26+33, 140' Rt.

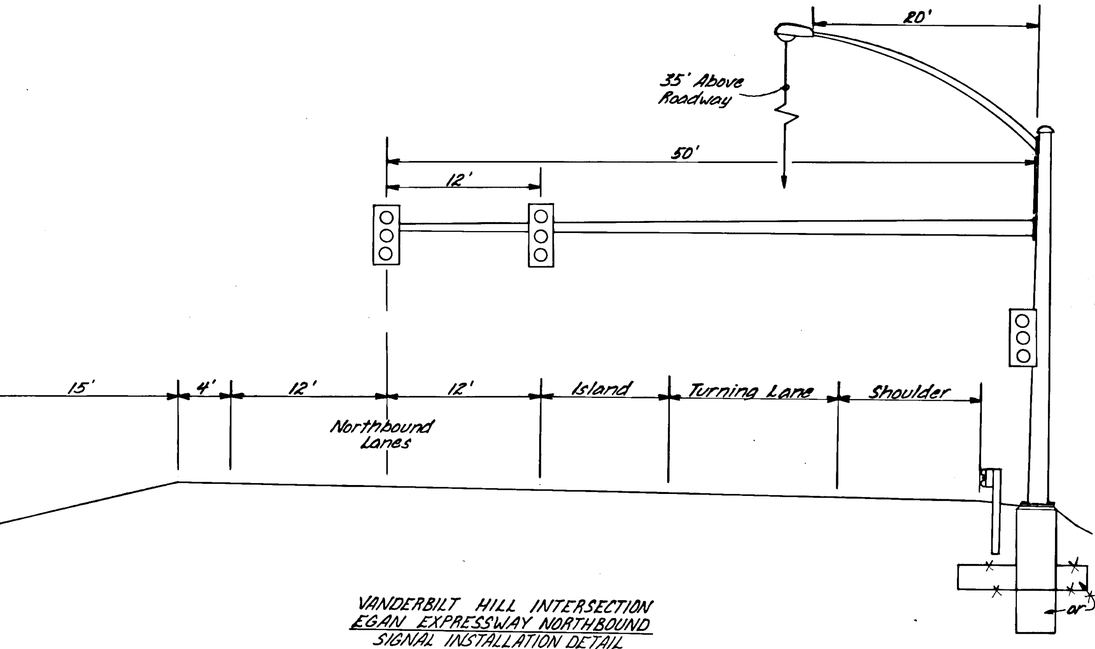
PHASE DIAGRAM
BOTH SIGNALS



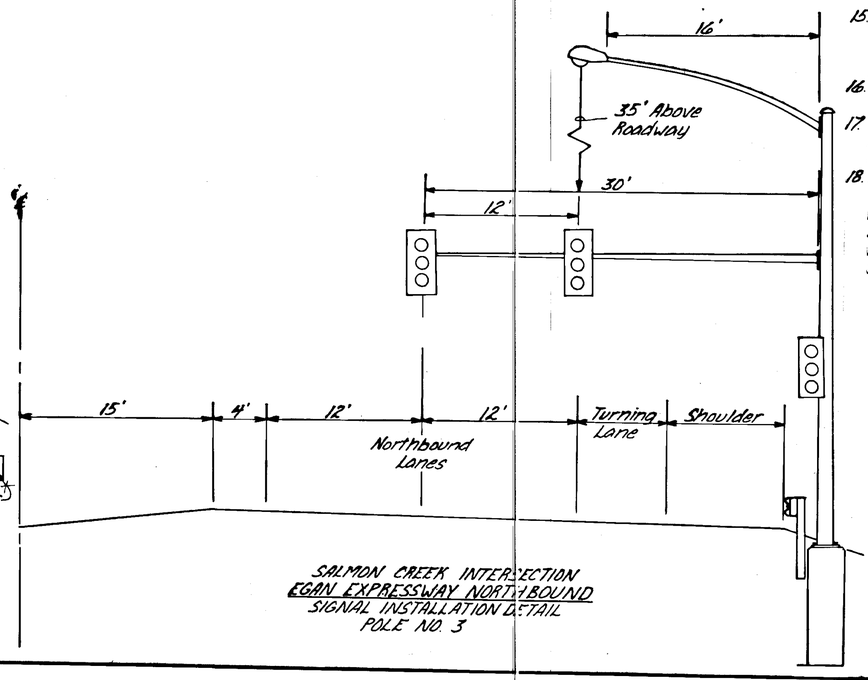
NOTES: 1. Ø3 & Ø4 shall be traffic actuated.
2. Ø1 & Ø2 shall have modified density.
3. Ø3 yellow clearance shall not be displayed when followed by Ø2 Red. It shall be displayed when Ø2 Green continues & Ø3 terminates.

VANDERBILT HILL & SALMON CREEK INTERSECTIONS
GENERAL SIGNALIZATION NOTES

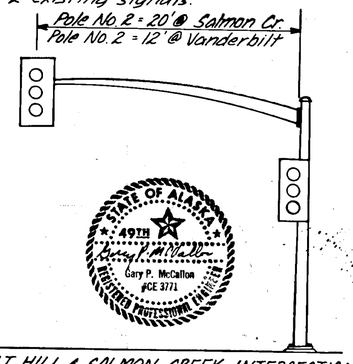
1. All conduit shall be drilled & jacked under all existing pavement to remain in place.
2. Each signal head shall have its own "home run" cable.
3. All conduit shall be sloped to drain.
4. Minimum conduit elevation shall be 21.0' (Extreme High Tide).
5. Controller shall have 8 Ø capability, be fully actuated with volume density, be operator push-button programable, & have L.E.D. function and timing indicators. (Honeywell H.M.P.-290 or equal)
6. Design wind load for Signal Poles & Mast Arms shall be 100 M.P.H.
7. All conduit shall be Rigid Metal Conduit of a size as shown on the plans.
8. The cabinet shall have "Manual Phase Selector Controls" as described in Section 660-3.05 of the Standard Specifications.
9. Flash shall be yellow to Egan Drive North & South bound movements. All other signals shall flash red, except arrows, which shall be black.
10. All traffic signal equipment, including, but not limited to, Controller, Cabinet, Signal Heads, Detectors, & Amplifiers shall conform to N.E.M.A. Standards Publication No. T.S.I.-1976 "Traffic Control Systems". Poles & Mast Arms shall be designed to A.A.S.H.T.O. Specifications.
11. Loop amplifiers shall have 2 detection channels, with one thumb wheel switch per channel to select pulse or presence & sensitivity, a frequency switch to allow oscillator frequency selection, reset circuit breaker, & be self tuning. Output to be relay with fail in call position. (Canoga Controls Corp. Proximitor P402/2T or equal). Ø3 amps. shall have call delay feature.
12. Probe detector amplifiers shall be Canoga Controls Corp. Proximitor P-202-RC or equal.
13. Probes under Salmon Creek Bridge shall be placed in non-ferrous protective containers. Exact placement of probes shall be selected by use of a Magnetic Field Analyzer.
14. Arrow signals in heads 1 & 1 shall be installed at a later date. They shall be stockpiled at the D.O.T. & P.F. Shop at 6½ mile Glacier Highway until needed.
15. Signal shall have the capability of operating as a two phase Ø1 & Ø2 as one Ø and Ø4 as the other, as well as being able to be switched to lagging left turn when needed, on Ø3.
16. All locations are approx. only & are subject to minor revisions by the project engineer.
17. Controlers shall have coordination capability. It shall be by wireless time-of-day & have 4 cycle lengths with 3 offsets & splits per cycle.
18. Both signals shall be equipped with a light emitting emergency vehicle preemptor as specified in the supplimental specifications. In addition, 2 emergency vehicle pre-emptor systems shall be installed on existing signals as shown in the table on sht. 20. As-Built drawings will be available to the contractor for the 2 existing signals.



VANDERBILT HILL INTERSECTION
EGAN EXPRESSWAY NORTHBOUND
SIGNAL INSTALLATION DETAIL
POLE NO. 3



SALMON CREEK INTERSECTION
EGAN EXPRESSWAY NORTHBOUND
SIGNAL INSTALLATION DETAIL
POLE NO. 3

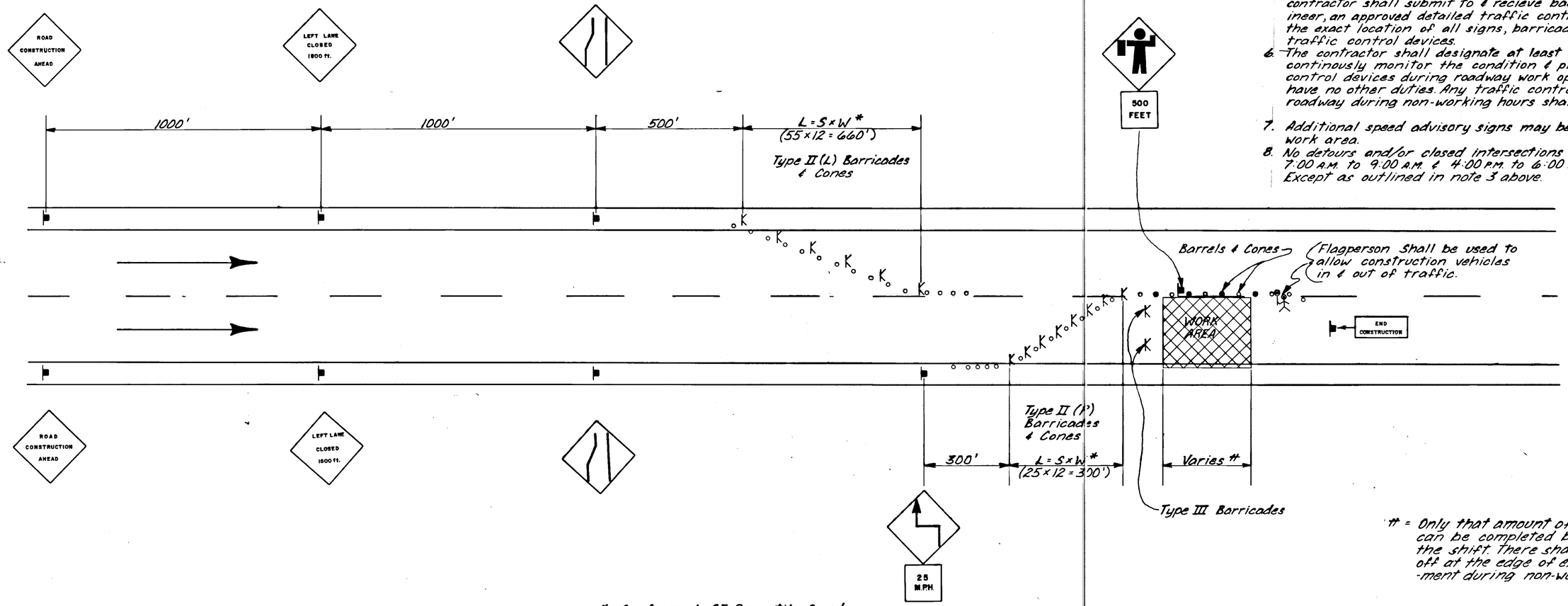


VANDERBILT HILL & SALMON CREEK INTERSECTIONS
SIGNAL INSTALLATION DETAIL
POLE NOS. 2 & 2

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	22	31

TRAFFIC CONTROL PLAN

1. At the Salmon Creek Bridge, provide portable concrete barriers along the edges of deck after bridge railing is removed. Barriers shall be continuous over bridge & extend 50' beyond each end of bridge. Each 50' end shall be tapered back from the traveled way in a parabolic shape with 4' min. offset. Payment for the portable conc. barriers shall be incidental to Item 115(1) Traffic Maintenance.
2. 2-lane traffic shall be maintained from 7:00 A.M. to 9:00 A.M. Southbound & 4:00 P.M. to 6:00 P.M. Northbound on Egan Drive, Monday through Friday.
3. 1-lane through traffic shall be maintained at all times, both Northbound & Southbound on Egan Drive.
4. During & for 3 calendar days following the casting of the Salmon Creek Bridge deck, all vehicles in excess of 5 tons G.V.W. not required for the casting work shall be detoured around the bridge along the Old Glacier Highway. This detouring of traffic shall be in accordance with and paid for under Section 115 of the specifications.
5. Prior to all work on roadways & prior to all closures & detours, the contractor shall submit to & recieve back from the project engineer, an approved detailed traffic control plan. The plan shall show the exact location of all signs, barricades, cones, flagpeople, & other traffic control devices.
6. The contractor shall designate at least one employee to maintain & continously monitor the condition & placement of all traffic control devices during roadway work operations. This employee shall have no other duties. Any traffic control devices in place on the roadway during non-working hours shall also be maintained.
7. Additional speed advisory signs may be required adjacent to the work area.
8. No detours and/or closed intersections shall be allowed from 7:00 A.M. to 9:00 A.M. & 4:00 P.M. to 6:00 P.M. Monday through Friday. Except as outlined in note 3 above.



* S = Approach 85 Percentile Speed
L = Length
W = Offset Width

†† = Only that amount of work which can be completed by the end of the shift. There shall be no drop-off at the edge of existing pavement during non-working hours.

TYPICAL LANE CLOSED PLAN

STATE OF ALASKA
49TH
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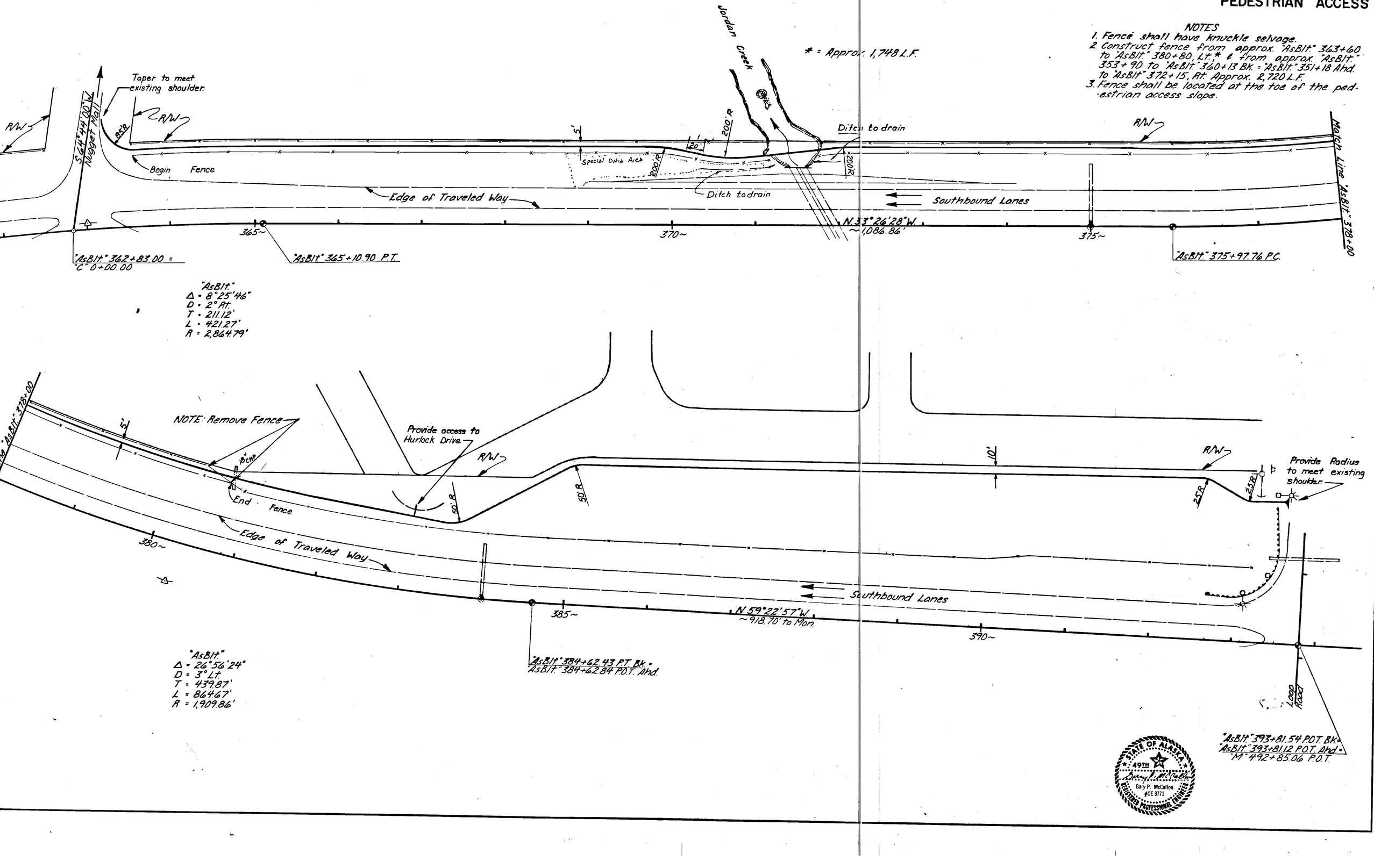
REGISTERED PROFESSIONAL ENGINEER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	23	31

PEDESTRIAN ACCESS

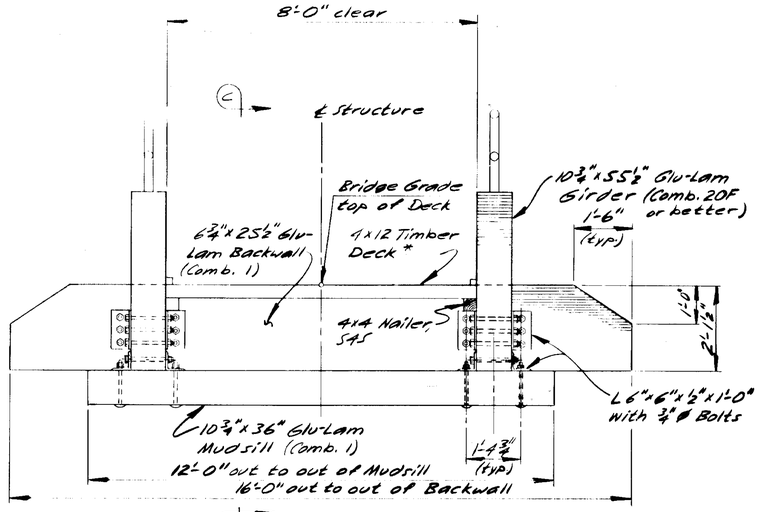
NOTES
1. Fence shall have knuckle selvage.
2. Construct fence from approx. "AsBlt" 363+60 to "AsBlt" 380+80, Lt.* ℄ from approx. "AsBlt" 353+90 to "AsBlt" 360+13 BK. = "AsBlt" 351+18 Ahd. to "AsBlt" 372+15, At. Approx. 2,720 L.F.
3. Fence shall be located at the toe of the pedestrian access slope.

* = Approx. 1,748 L.F.



STATE OF ALASKA
49TH
Gary P. McCallon
Gary P. McCallon
#CE 3771
REGISTERED PROFESSIONAL ENGINEER

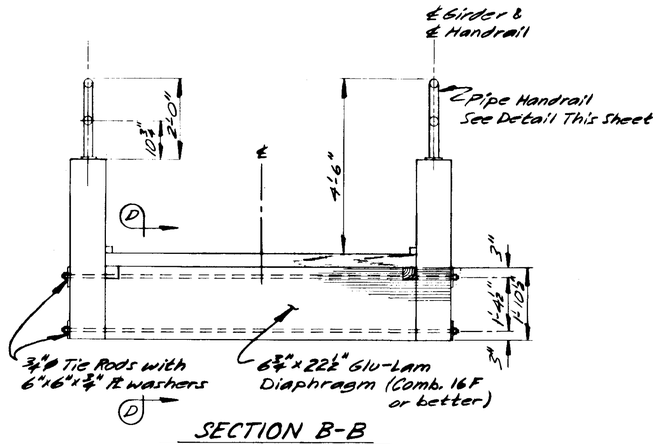
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	24	31



SECTION A-A

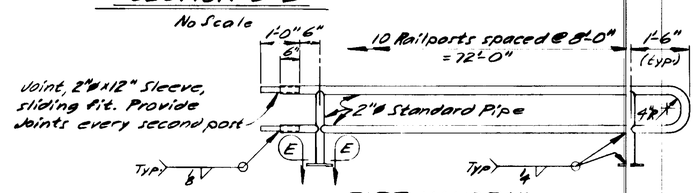
No Scale

* S1S2E place rough side up.
Coat Deck w/ 2 layers CSS-1 and sand (See Special Provisions)



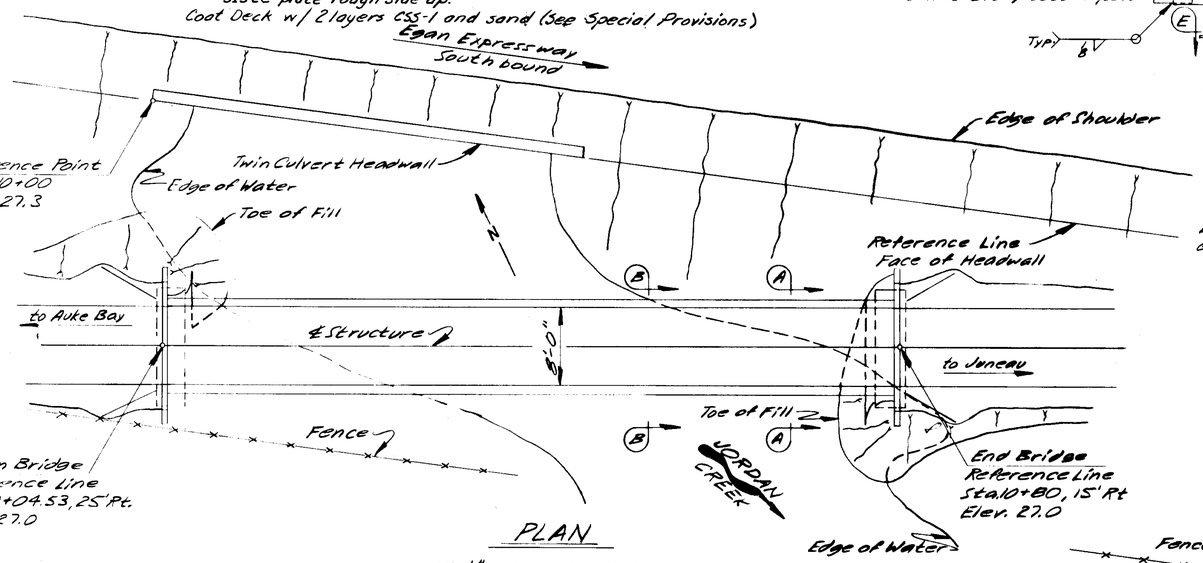
SECTION B-B

No Scale

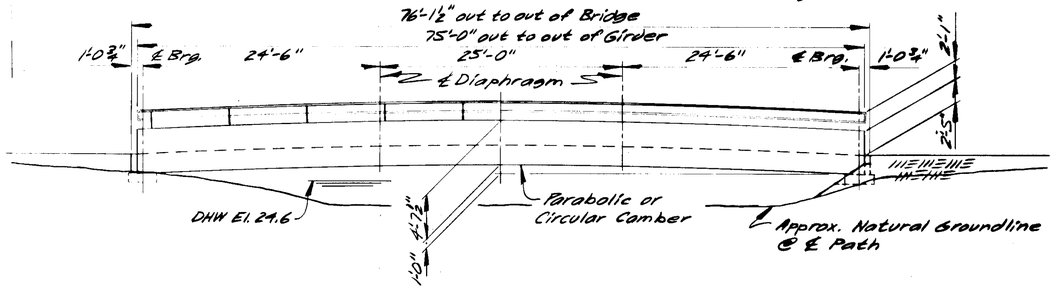


PIPE HANDRAIL

No Scale

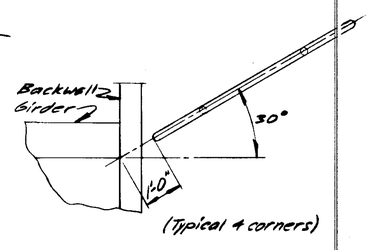


PLAN



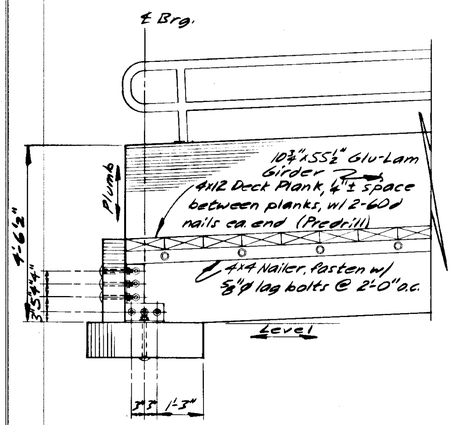
ELEVATION

0 2 4 6 8 10 12 14 16 Ft.



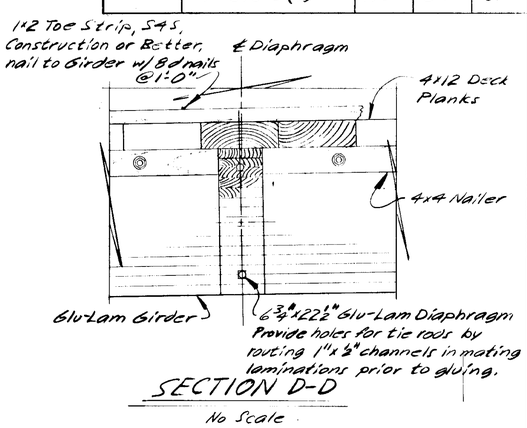
(Typical 4 corners)

PLAN



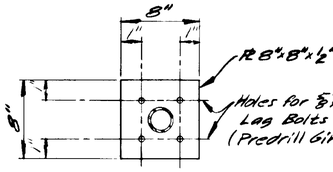
SECTION C-C

No Scale



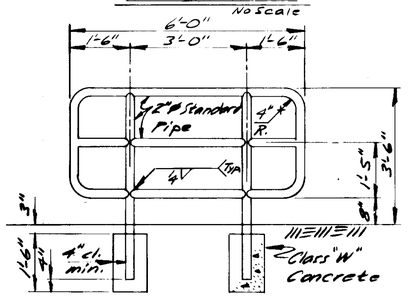
SECTION D-D

No Scale



SECTION E-E

No Scale



ELEVATION

APPROACH RAIL

No Scale

Notes:
1. Provide ½"ø drain holes in railposts and all low points in horizontal rail elements.
2. State furnished bridge number plate to be located on right side of approaching traffic at each end of bridge. Fasten plate to end of girder with 4-⅝"ø lag bolts.

HYDROLOGIC AND HYDRAULIC SUMMARY			
Drainage Area		1 sq. mile	
Exceedance Probability		2%	1%
Design Discharge		291 cfs	327 cfs
Design Highwater		24.4	24.6

ESTIMATED QUANTITIES				
Item	Unit	Substr.	Superstr.	Total
Treated Timber	MBM	1.9	14.1	16.0
Pedestrian Rail	LF	———	150	150
Approach Rail	LF	———	24	24

STATE OF ALASKA 49TH — Dean G. Griggs CE-4462 — REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA 49TH — L. A. Carlson CE 1401 — REGISTERED PROFESSIONAL ENGINEER — 12/21/81

STATE OF ALASKA 49TH — John T. Scott, II CE 4755 — REGISTERED PROFESSIONAL ENGINEER — 12/19/81

GENERAL NOTES

Specifications:
Design: AASHTO Standard Specifications for Highway Bridges, 1977 Edition, with the latest interim specifications.
Construction: State of Alaska Standard Specifications for Highway Construction, 1981, the Standard Modifications and the Special Provisions.
Live Loads: 25% of H20-44 or 85 psf
Future Paving Allowance: 25 psf for all paving

Unit Stresses:
Structural Steel: Fs = 20,000 psi.
Treated Timber: Glu-Lam Mudsills, Wet Use, Fb = 1120 psi, Fv = 127 psi, Fc⊥ = 257 psi.
Glu-Lam Backwalls, Wet use, Fb = 1120 psi, Fv = 127 psi.
Glu-Lam Girders and Diaphragms, Wet use, Fb = 1600 psi, Fv = 127 psi. Any other timber, wet use, Fb = 1200 psi.

Structural Steel & Hardware:
All structural steel shall be A36. All hardware shall be A307, unless otherwise noted. All steel and hardware shall be galvanized after fabrication. All threaded fasteners bearing on timber shall have washers or economy heads.

Timber:
All glued-laminated timber shall be fabricated of Douglas Fir or Western Larch using wet use adhesives. Glu-lam timber shall be of the stress grade combination designated in the details on this sheet. Sawn timber shall be No. 1 Hem Fir or better. All timber shall be pressure treated after fabrication using penta in heavy oil for pieces in ground contact and penta in light oil for all other. All timber treated with penta in light oil shall be stained "dark oak". (See Special Provisions)

Foundation Pressure:
Mudsills, 1.50 ksf max.

JORDAN CREEK

BIKE PATH BRIDGE

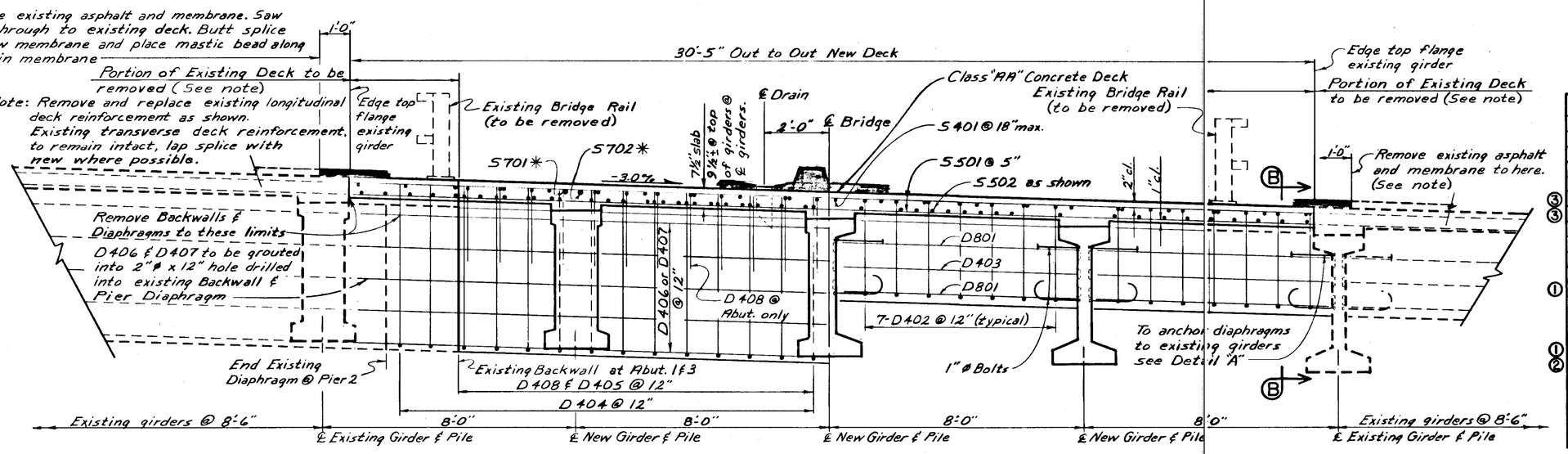
State of Alaska
DEPARTMENT OF TRANSPORTATION and PUBLIC FACILITIES
Juneau, Alaska

Date _____
Approved _____

BRIDGE NO. 1587
DWNG. NO. 4626

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	29	31

Note: Remove existing asphalt and membrane. Saw Cut through to existing deck. Butt splice to new membrane and place mastic bead along joint in membrane



Note: Roughen mating vertical surfaces on existing backwalls and diaphragms to expose aggregate.

* Center S701 & S702 over Pier 2 between each S401.

TYPICAL SECTION

Inches 12 6 0 1 2 3 4 5 Feet

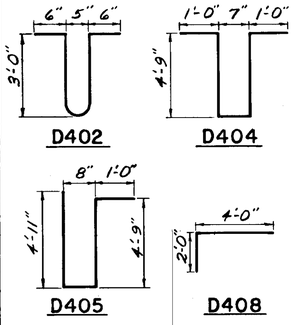
AT INTERMEDIATE DIAPHAGMS

Note: See Dwg. No. 4602 for Membrane, Hot Asphalt Paving and Curb.

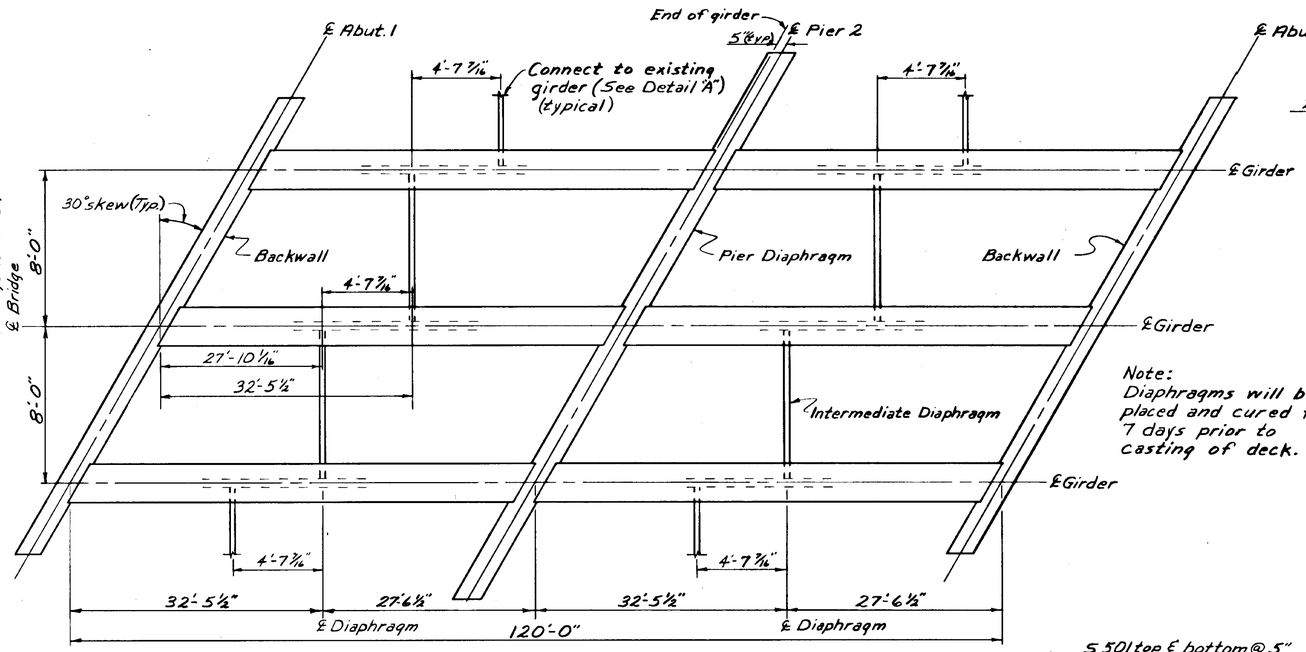
REINFORCING SCHEDULE

	Mark	Size	No.	Length	Type
	D402	4	56	7'-4"	Bent
	D403	4	16	7'-4"	—
	D404	4	28	12'-1"	Bent
	D405	4	48	11'-4"	Bent
③	D406	4	20	30'-9"	—
③	D407	4	10	36'-3"	—
	D408	4	48	6'-0"	Bent
	D801	8	16	7'-4"	—
①	S401	4	21	124'-9"	—
	S501	5	496	30'-0"	—
①②	S502	5	38	124'-9"	—
②	S503	5	148	17'-0"	—
	S504	5	4	34'-9"	—
	S701	7	20	10'-0"	—
	S702	7	20	20'-0"	—

Bending Diagrams



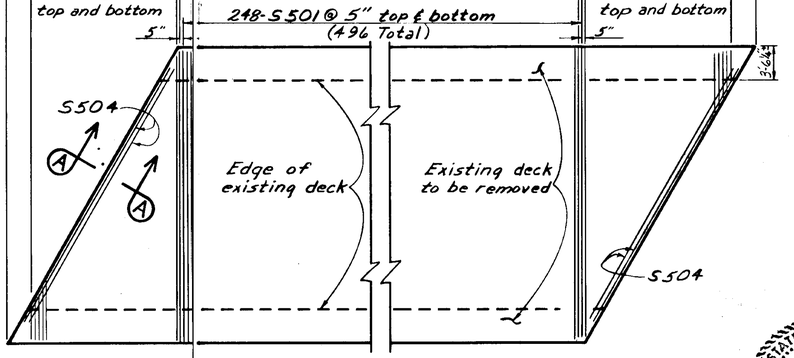
① Length shown includes an allowance for three lap splices of 1'-3" each.
② Length varies, average shown.
③ Length shown includes an allowance for one 1'-3" lap splice.



Note: Diaphragms will be placed and cured for 7 days prior to casting of deck.

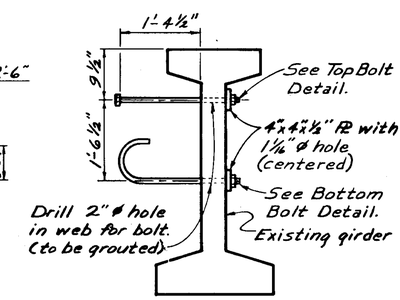
TYPICAL FRAMING PLAN

No Scale

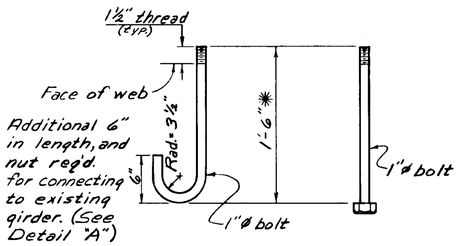


SLAB TRANSVERSE REINFORCING PLAN

Note: Lap new transverse reinforcing with existing transverse reinforcing where possible.

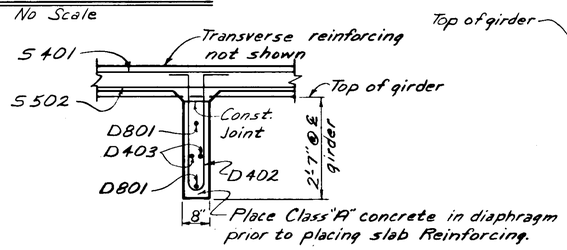


DETAIL "A"

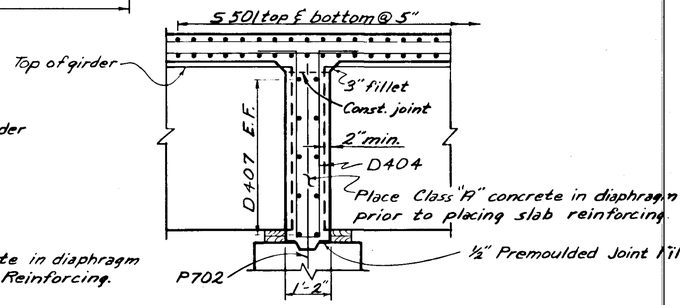


BOTTOM BOLT TOP BOLT

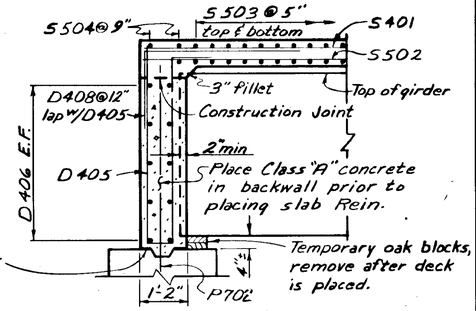
No Scale



SECTION B-B



SECTION A-A AT PIER 2



SECTION A-A AT ABUTMENT 1&3

SALMON CREEK BRIDGE WIDENING

ROUTE NO. F-95

SUPERSTRUCTURE

State of Alaska
DEPARTMENT OF TRANSPORTATION and PUBLIC FACILITIES
Juneau, Alaska

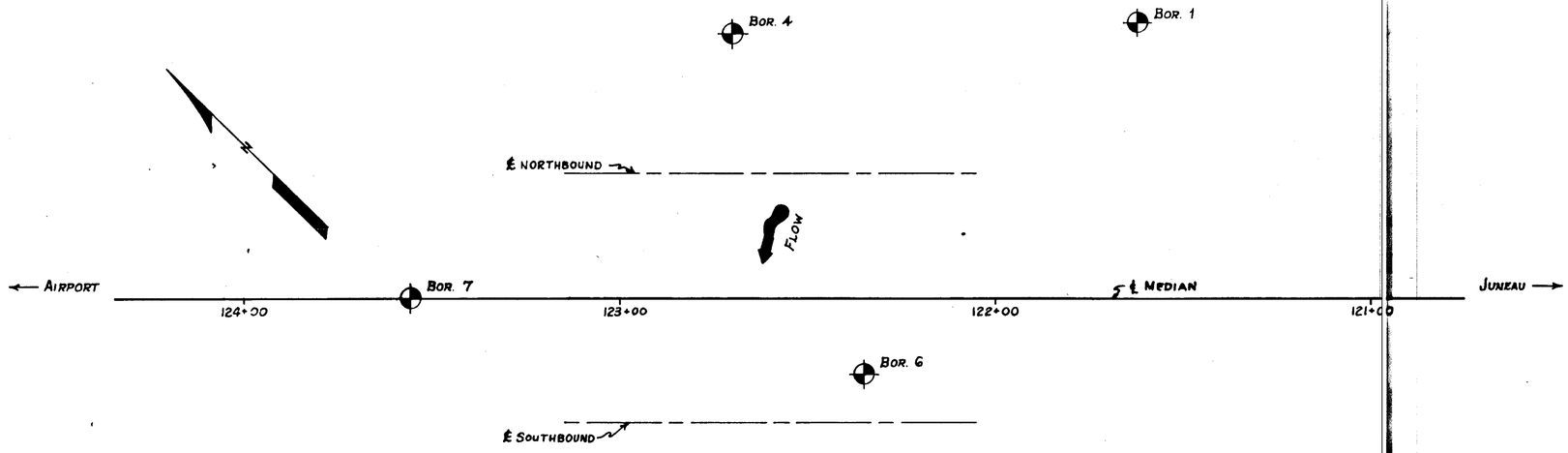
Date

Approved

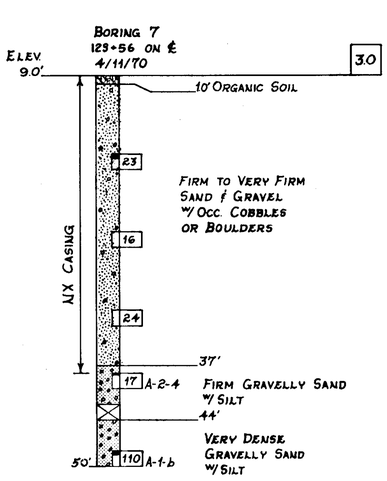
BRIDGE NO. 1188

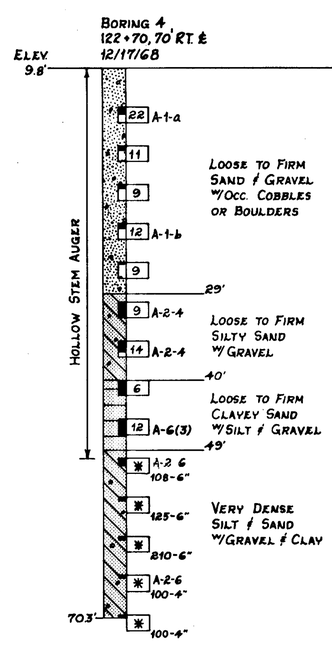
DWNG. NO. 4605

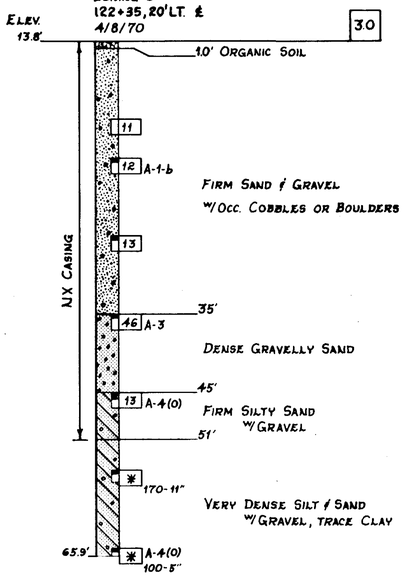
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	30	31

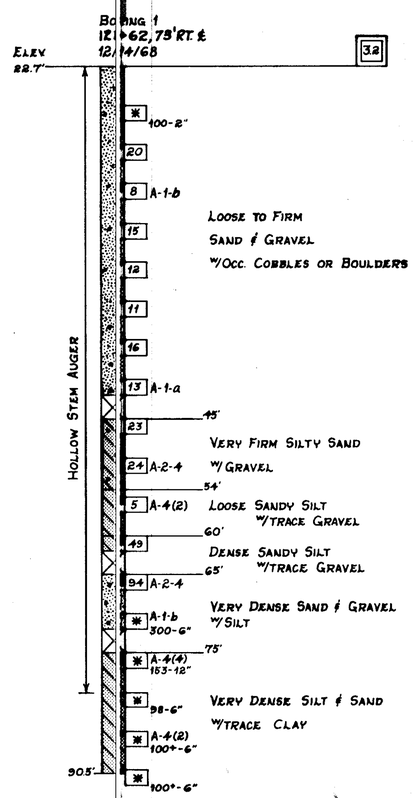


NOTE: SCALE 1"=20'









NOTE:
100-6"
*...DENOTES REFUSAL W/STANDARD SAMPLER, 100: INDICATES BLOW COUNT, 6"..INDICATES PENETRATION.

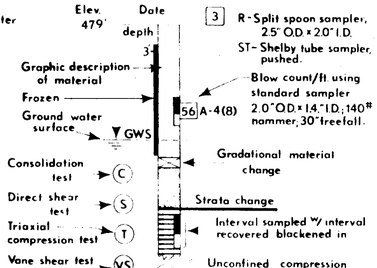
MATERIAL SYMBOLS

- Organics, Organic Silt
- Cobbles and Boulders
- Sandy Gravel
- Gravelly Sand
- Gravel
- Sand
- Clay
- Silt
- Clayey Silt
- Sandy Silt
- Gravelly Silt
- Silty Clay
- Silty Sand
- Silty Gravel

BORING SYMBOLS

- Plan of any boring
- Flush penetrometer
- Bull nose penetrometer
- Rotary boring
- Auger boring
- Diamond core boring
- Test pit
- Probe

ROTARY BORING



3 R-Split spoon sampler, 2.5" O.D. x 2.0" I.D.
ST- Shelby tube sampler, pushed.
Blow count/ft. using standard sampler 2.0" O.D. x 1.4" I.D.; 140# hammer, 30" free fall.

PENETROMETER TEST

Number
Location
Date
Elev 479
depth
25
5
Graphic representation of driving rate
18
100
200
Blows Foot W
Penetrometer #Hammer, 30" drop

RELATIVE DENSITY AND CONSISTENCY CLASSIFICATION

According to Standard Penetration Test

GRANULAR			COHESIVE	
Blows/ft.	Rel. Density	Blows/ft.	Consistency
0 4	very loose	0 1	very soft
5 10	loose	2 4	soft
11 20	firm	5 8	firm
21 30	very firm	9 15	stiff
31 50	dense	15 30	very stiff
Over 50	very dense	Over 30	hard

SALMON CREEK BRIDGE

Route No. F-95

LOG OF TEST BORINGS

State of Alaska

DEPARTMENT OF HIGHWAYS

Juneau, Alaska

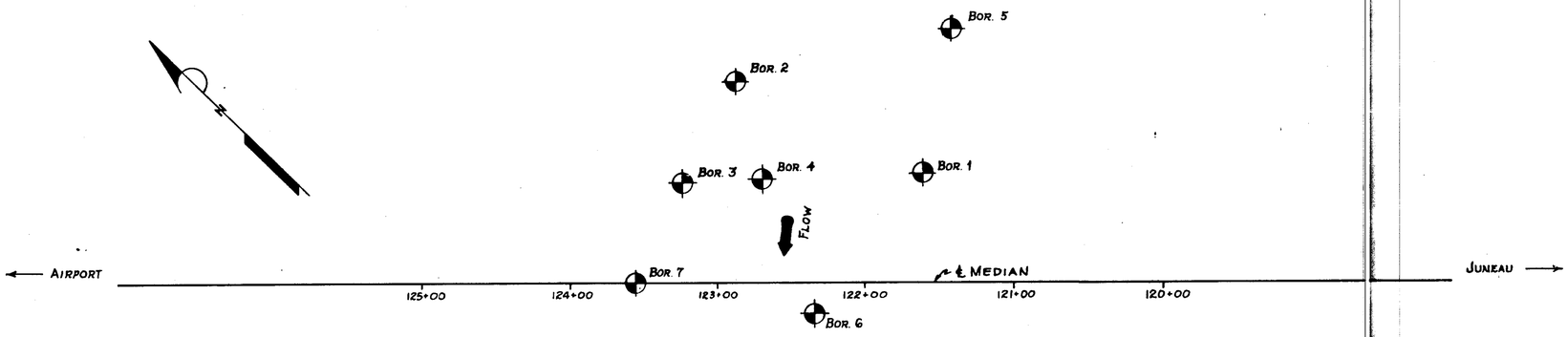
Date 5/15/70

Approved

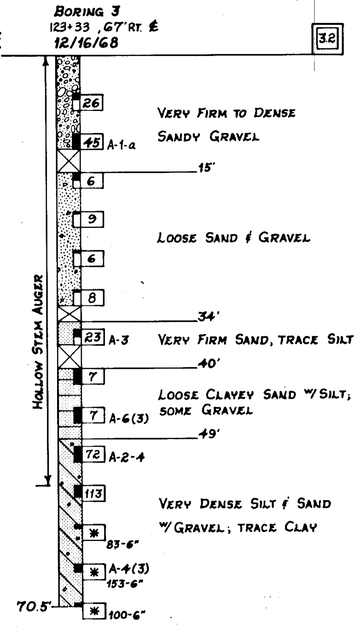
Bridge no 1188

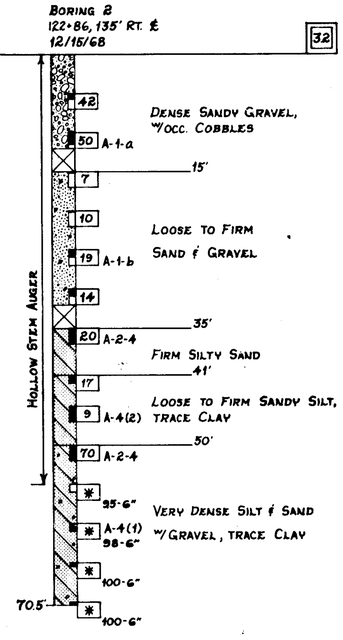
Drawing no 4606

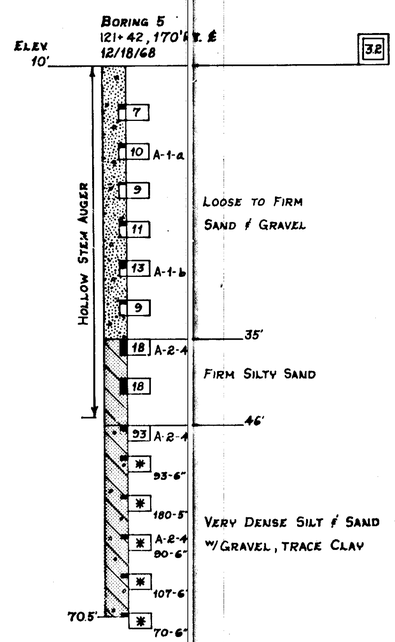
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-2(9)	1981	31	31



SCALE: 1"=50'







MATERIAL SYMBOLS

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- Plan of any boring
- Flush penetrometer
- Bull nose penetrometer
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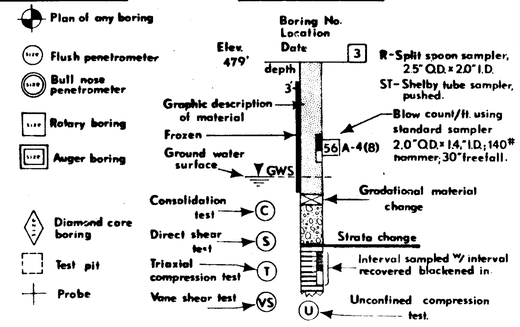
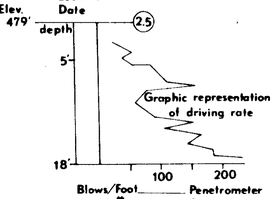
ROTARY BORING



PENETROMETER TEST



RELATIVE DENSITY AND CONSISTENCY CLASSIFICATION

According to Standard Penetration Test

GRANULAR		COHESIVE	
Blows/ft.	Rel. Density	Blows/ft.	Consistency
0 - 4	very loose	0 - 1	very soft
5 - 10	loose	2 - 4	soft
11 - 20	firm	5 - 8	firm
21 - 30	very firm	9 15	stiff
31 - 50	dense	15 - 30	very stiff
Over 50	very dense	Over 30	hard

NOTE:
* 100-6"
*···DENOTES REFUSAL W/STANDARD SAMPLER, 100·INDICATES BLOW COUNT, 6"··INDICATES PENETRATION.

SALMON CREEK BRIDGE
Route No. F-95

LOG OF TEST BORINGS

State of Alaska
DEPARTMENT OF HIGHWAYS
Juneau, Alaska

Date 5/20/70
Approved [signature]

Bridge no. 1188
Drawing no. 4607