

STATE OF ALASKA DEPARTMENT OF HIGHWAYS

PROPOSED HIGHWAY PROJECTS, HAINES HAINES HIGHWAY M.P. 2-5 RF-095-10(7) U.S. CUSTOMS to HAINES FERRY TERMINAL RF-095-10(8) MUD BAY ROAD RS-0987(1) MAIN ST. SPUR RS-0990(2) UNION ST. OS-3(004) *AS-BUILT PLANS*

CONTRACTOR: ALASKA INTERNATIONAL CONSTRUCTION, INC.
PROJECT ENGINEER: STEVE N. HIROTSU
BEGIN CONSTRUCTION: *JUNE 21, 1976*
END CONSTRUCTION: *NOVEMBER 17, 1976*

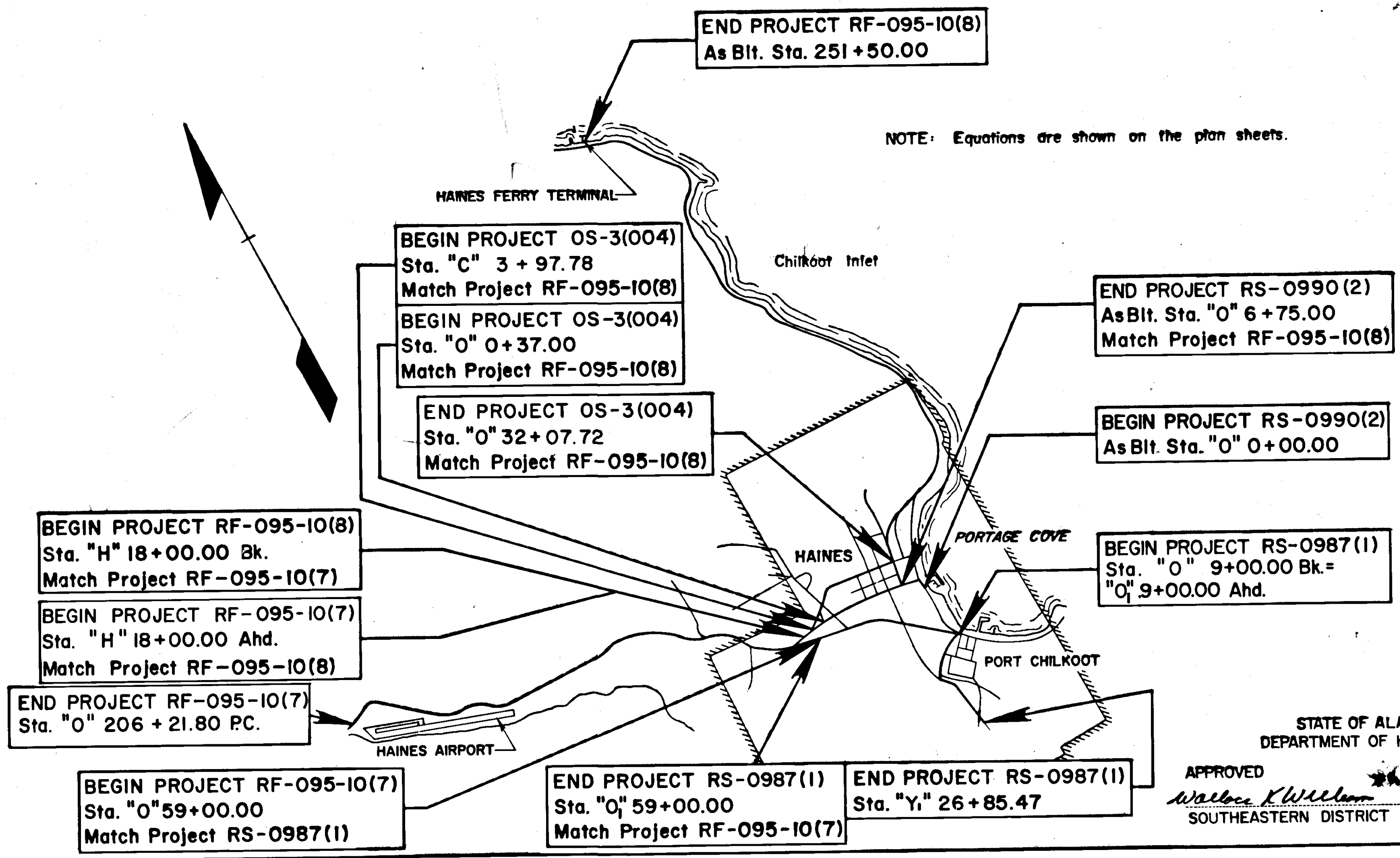
STATE	PROJECT	SHEET NO.	TOTAL SHEETS
ALASKA	RF-095-10(7), RF-095-10(8), RS-0987(1), RS-0990(2), OS-3(004)	1	33

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	ESTIMATE OF QUANTITIES
3-15	RF-095-10(7); TYPICAL SECTIONS, SUMMARY TABLES, PLAN & PROFILE SHEETS
16-18	RF-095-10(8); TYPICAL SECTIONS, SUMMARY TABLES, PLAN SHEETS
19-27	RS-0987(1); TYPICAL SECTIONS, SUMMARY TABLES, PLAN & PROFILE SHEETS
28	RS-0990(2); TYPICAL SECTIONS, & PLAN SHEET
29-33	OS-3(004); TYPICAL SECTIONS, SUMMARY TABLES, PLAN SHEETS

The following standard drawings shall apply to these projects:
A-1, C-00.01, C-10.00, C-11.01, D-02.02, D-06.01
D-24.12, D-26.01, E-09.00, G-04.13, G-04.31, G-10.11,
I-40.10, I-80.00, M-13.01, M-16.03, S-05.00, S-30.11

DESIGN DESIGNATIONS

<p>OS-3(004)</p> <p>ADT(1974) = 335 ADT(1995) = 900 DHV (15%) = 135 D = 40-60 T = 7% V = 25 MPH</p> <p>RS-0987(1)</p> <p>ADT(1974) = 245 ADT(1995) = 650 DHV (16%) = 105 D = 40-60 T = 4% V = 30 MPH & 40 MPH</p> <p>RS-0990(2)</p> <p>ADT(1974) = 1535 ADT(1995) = 2300 DHV (13%) = 300 D = 40-60 T = 4% V = 20 MPH</p>	<p>RF-095-10(7)</p> <p>ADT(1975) = 605 ADT(1995) = 1600 DHV(12%) = 190 D = 40-60 T = 7% V = 50 MPH</p> <p>RF-095-10(8)</p> <p>ADT(1974) = 1310 ADT(1995) = 2700 DHV (15%) = 405 D = 40-60 T = 7% V = 25 MPH & 45 MPH</p>
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<p>RF-095-10(7) PROJECT SUMMARY</p> <p>WIDTH OF PAVEMENT = 36' LENGTH OF PROJECT = $\frac{15,104.76}{2,899} = 2.899$ Mi.</p> <p>RF-095-10(8) PROJECT SUMMARY</p> <p>WIDTH OF PAVEMENT = 36', 41', 40', & 28' LENGTH OF PROJECT = $\frac{26,174.78}{4,947} = 4.947$ Mi.</p> <p>RS-0987(1) PROJECT SUMMARY</p> <p>WIDTH OF SUBGRADE = 28' WIDTH OF PAVEMENT = 24' 28' = 1.454 LENGTH OF GRADING = $\frac{7,673.48}{1,453} = 1.453$ Mi. LENGTH OF PROJECT = $\frac{7,674.08}{1,454}$</p> <p>RS-0990(2) PROJECT SUMMARY</p> <p>WIDTH OF PAVEMENT = 26.5' & 41' LENGTH OF PROJECT = $\frac{744.18}{0.149} = 0.149$ Mi.</p> <p>OS-3(004) PROJECT SUMMARY</p> <p>WIDTH OF SUBGRADE = 28' WIDTH OF PAVEMENT = 28' 22.79' LENGTH OF GRADING = $\frac{3,685.92}{0.698} = 0.698$ Mi. LENGTH OF PROJECT = $\frac{3,682.79}{0.698}$</p>	<p>NOTE: Equations are shown on the plan sheets.</p>
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STATE OF ALASKA
DEPARTMENT OF HIGHWAYS

APPROVED *Wallace K. Williams* Date *12/1/76*
SOUTHEASTERN DISTRICT ENGINEER

STATE OF ALASKA
DEPARTMENT OF HIGHWAYS

APPROVED *[Signature]* Date *12/1/76*
COMMISSIONER OF HIGHWAYS

ESTIMATE OF QUANTITIES

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RF-095-10(7), RF-095-10(8), RS-0987(1), RS-0990(2), OS-3(004)	1976	2	3

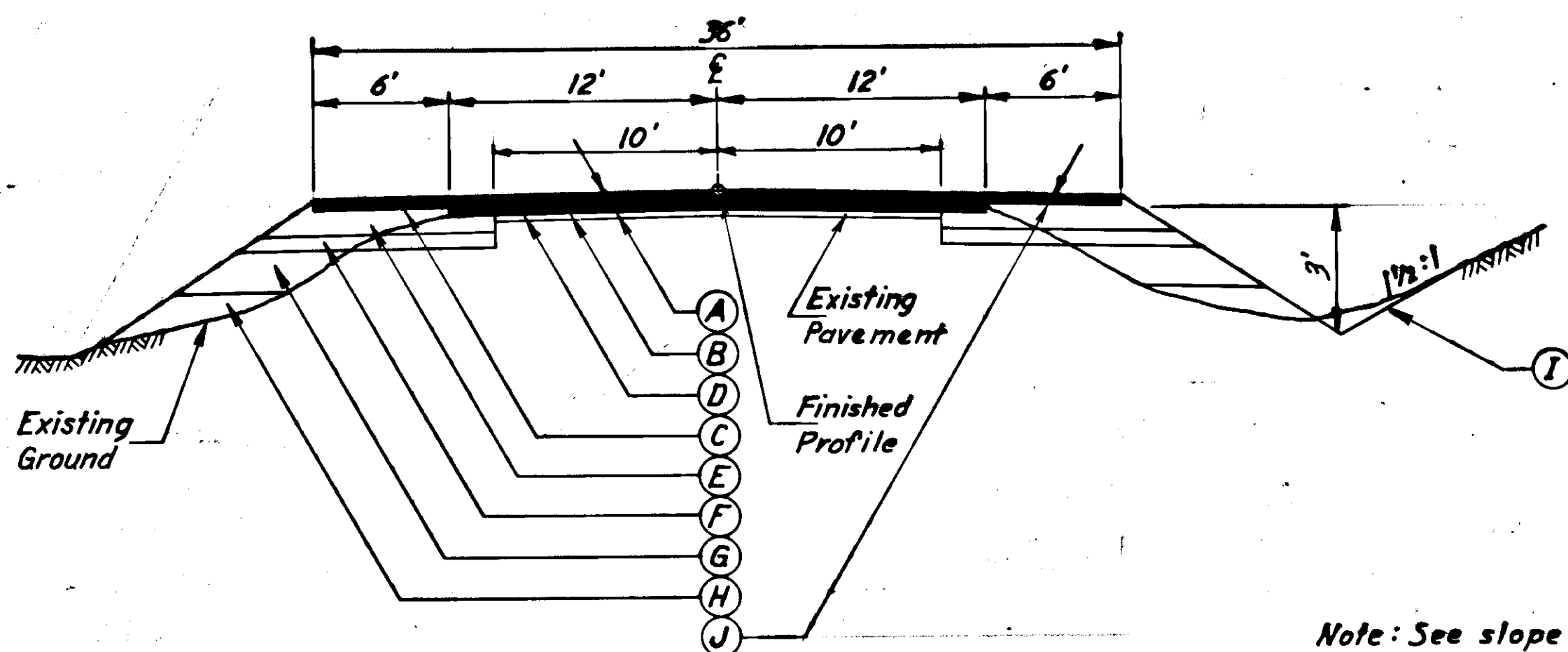
ITEM NO	ITEM	UNIT	PROJECT NUMBERS					GRAND TOTAL
			RF-095-10(7)	RF-095-10(8)	RS-0987(1)	RS-0990(2)	OS-3(004)	
1	Furnishing and Maintaining Engineering Facilities	L. S.	All Required	All Required	All Required	All Required	All Required	All Required
110(1)	Mobilization	L. S.	All Required	All Required	All Required	All Required	All Required	All Required
111(1)	Temporary Erosion & Pollution Control	C. S.	All Required	All Required	All Required		All Required	All Required
112(1)	Training Program IAW, FHWA Order Interim 7-2(2)	C. S.	All Required	All Required			All Required	All Required
113(1)	Flagging	M. H.	3,300	3,086	2,400	240	1,800	10,826
114(1)	Construction Engineering by the Contractor	L. S.	All Required	All Required	All Required	All Required	All Required	All Required
201(3B)	Clearing and Grubbing	L. S.	All Required		All Required		All Required	All Required
201(7)	Ditch Cleaning	L. F.		19,650				19,650
202(2)	Removal of Pavement	S.Y.	10,208		11,111			21,319
202(4)	Removal & Disposal of Culvert Pipe	L.F.	1,602	179	841		355	2,977
202(8)	Removal of Curb and Gutter	L.F.		68		108		176
203(3)	Unclassified Excavation	C. Y.	13,966	811	18,089	13	6,158	39,037
203(5B)	Borrow	Ton	31,072				6,419	37,491
301(1)	Crushed Aggregate Base Course Grading "C"	Ton	13,451	1,862	10,263	5	4,471	30,052
304(1)	Subbase, Grading "A"	Ton	14,518	1,635	3,284	24	3,504	22,965
401(1)	Hot Asphalt Pavement - Class 1	Ton	9,235	12,545	3,296	428	1,906	27,410
401(2)	AR-20 Asphalt Cement	Ton	646.5	878.2	230.7	29.9	133.4	1,918.7
402(2)	CSS-1 Cationic Emulsified Asphalt for Tack Coat	Ton	18.1	30.8		2.6		51.5
403(1)	MC-30 Liquid Asphalt for Prime Coat	Ton	38.0	10.3	28.7	0.1	11.1	88.2
603(22E)	18" Pipe Conduit	L.F.	228		822			1,050
603(22G)	24" Pipe Conduit	L.F.	1,928	194	582		134	2,838
603(22I)	36" Pipe Conduit	L.F.	124		80		124	328
603(22N)	66" Pipe Conduit	L.F.	76					76
603(28)	End Section for 66" Pipe Conduit	Ea.	1					1
604(4)	Adjust Existing Manholes	Ea.		15	10	4	5	34
604(5)	Inlets	Ea.		1				1
604(7)	Adjust Cleanout	Ea.		3			2	5
606(1)	Beam Type Guardrail, Type 1 Post	L.F.					400	400
611(1)	Riprap, Class 1	C. Y.	45				292	337
614(1)	Survey Monuments	Ea.	33	53	22		9	117
614(2)	Monument Cases	Ea.	33	53	22		9	117
614(3)	Adjust Existing Monuments and Cases	Ea.		7				8
618(1)	Seeding, Class 1	M. S.F.	60		109	1	19	188
618(2)	Water for Maintenance	M. Gal.	15		27		11	53
627(1)	Water	M. Gal.	343		174		84	601
628(11)	Adjustment of Valve Box	Ea.		18	4	2	4	28

HAINES HIGHWAY M.P. 2-5

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RF-095-10(7)	1976	3	33

GENERAL NOTES

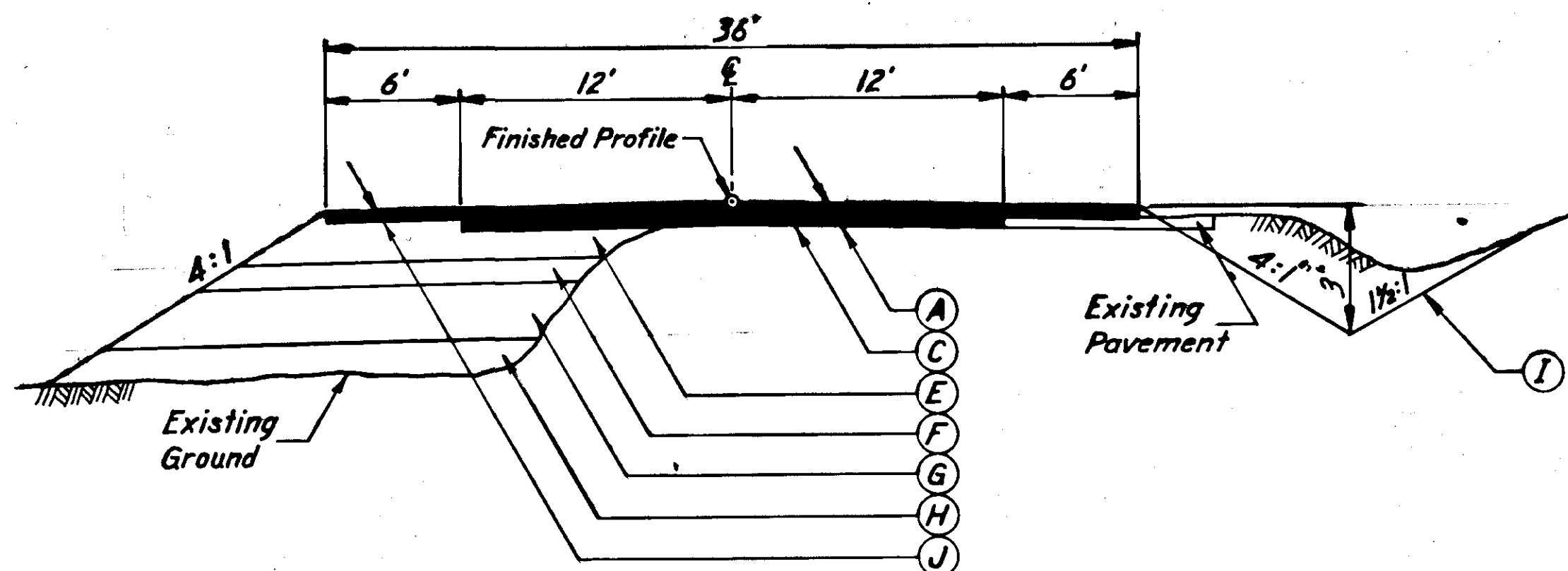
1. Stationing with "O" and "H" designation refers to the alignment as staked in the field. Stationing with "O_i" and "H_i" designation refers to the office alignment.
2. Grades and alignment shown on these plans are subject to minor revisions.
3. Culvert lengths and locations are approximate only, and are subject to minor revisions.
4. Finished roadway crown shall be 0.02'/ft., or as directed by the engineer.
5. Removal and relocation of existing signs, as directed by the engineer, shall be incidental to Item 203(3), with the exception of the existing signs at "H"18+00 Lt. and "H"18+61 Lt., which shall be removed by others.
6. Clearing and grubbing limits shall be 10' beyond slope limits in cut areas and 5' beyond slope limits in fill areas, or to the R.O.W., whichever is less.
7. The location of the buried cable and pipeline as shown on the plans is approximate only.
8. Utility poles within construction limits shall be moved by others.
9. It shall be the Contractor's sole responsibility to locate the R.C.A. buried communications line and the U.S. Army Corps of Engineers' buried pipeline, adjacent to the Haines Cutoff Highway, prior to any work required which may result in damage to the above utilities.
10. Tack coat shall be applied between: i) existing pavement and leveling course, ii) leveling course and hot asphalt pavement.



TYPICAL RESURFACING SECTION

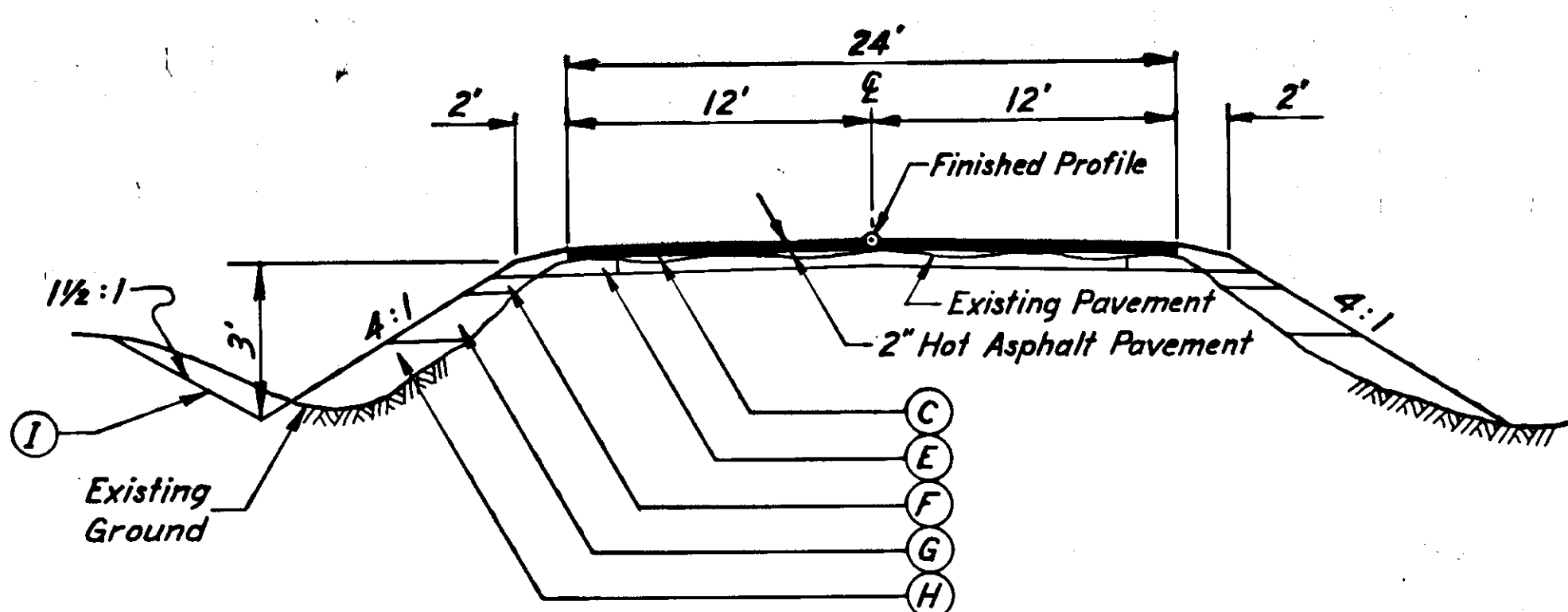
"H" 18+00.00 to "H" 18+86.54
 "O" 61+15.84 to "O" 72+63.39
 "O" 86+76.73 to "O" 147+86.49
 "O" 168+28.73 to "O" 195+01.08
 "O" 203+51.01 to "O" 206+21.80

Note: See slope table for exceptions to typical sections.



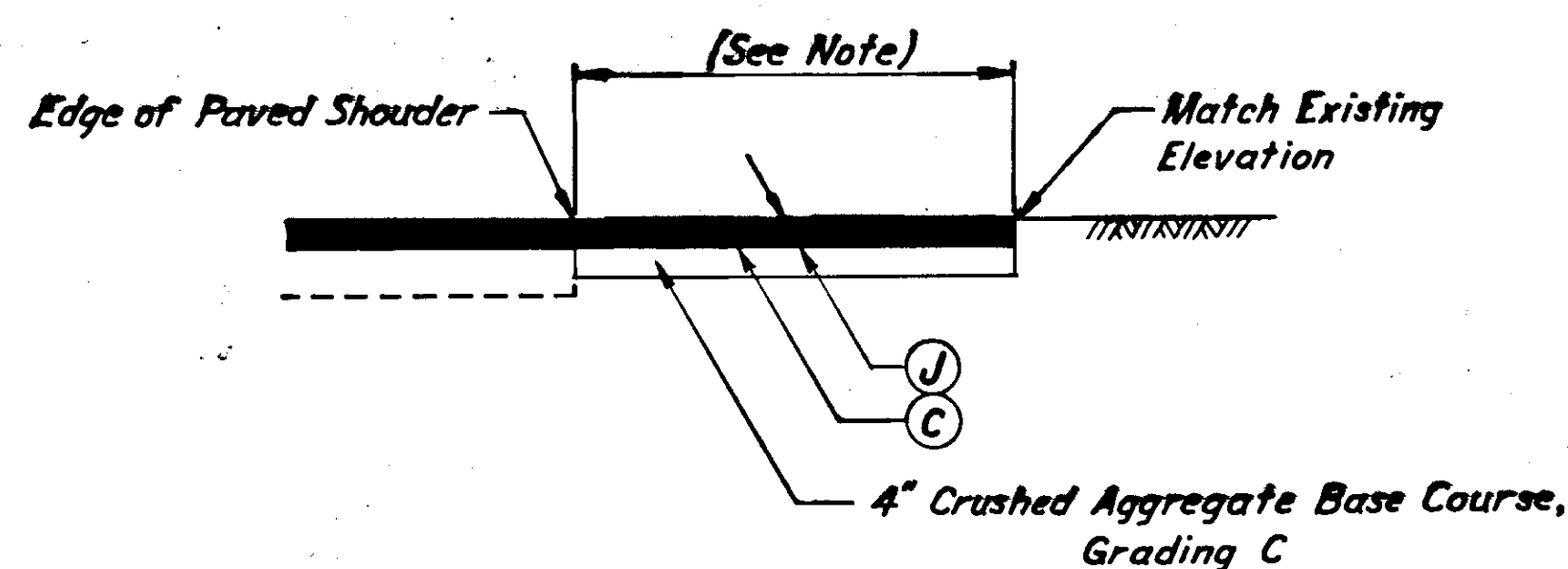
TYPICAL RECONSTRUCTION SECTION

"H_i" 18+86.54 to "H_i" 22+02.79
 "O_i" 72+63.39 to "O_i" 86+68.52
 "O_i" 147+86.49 to "O_i" 168+30.27
 "O_i" 195+01.08 to "O_i" 203+29.67



TYPICAL SECTION

"O" 59+00.00 to "O" 61+15.84



Note: Unless shown otherwise on the plans, the dimension and radii shall conform to Standard Drawing I-40.10.

APPROACH AND INTERSECTION SURFACING DETAIL

LABELING INDEX

- (A) 3" Hot Asphalt Pavement - Class I (2-1 1/2" Lifts)
- (B) Leveling Course (as directed by the Engineer)
- (C) MC-30 Liquid Asphalt for Prime Coat
- (D) CSS-1 Cationic Emulsified Asphalt for Tack Coat
- (E) 6" Crushed Aggregate Base Course, Grading C
- (F) 6" Subbase, Grading A
- (G) 18" Minimum Borrow for Unclassified Excavation Meeting requirements of Sub-Section 703-2.07
- (H) Useable Unclassified Excavation and/or Borrow
- (I) Seeding
- (J) 1 1/2" Hot Asphalt Pavement - Class I

BASIS OF ESTIMATE

ITEM	ESTIMATING FACTOR
203(5B)	1.80 Tons per Cu. Yd.
301(1)	1.96 Tons per Cu. Yd.
304(1)	1.87 Tons per Cu. Yd.
401(1)	112 lbs. per Sq. Yd. Inch Depth
401(2)	7.0 % of Item 401(1)
402(2)	0.10 Gals. per Sq. Yd. - 253 Gals. per Ton
403(1)	0.25 Gals. per Sq. Yd. - 256 Gals. per Ton

SUMMARY TABLES

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RF-095-10(7)	1976	4	33

HAINES HIGHWAY M.P. 2-5

CULVERTS

Station	Size	Length	Inlet El.	Outlet El.	Remarks
"0" 61+15	24"	36'	22.01	21.83	Approach Lt.
"0" 65+13	24"	28'	20.00	19.90	Approach Lt. Deleted
"0" 69+10	24"	50'	19.00	18.00	Approach Lt. Deleted
"0" 70+37	24"	54'	17.00	16.00	Approach Rt. Deleted
"0" 70+82.82	66"	76'	14.30/14.7	13.50/14.4	See Note
"0" 71+63	36"	36'	19.50	19.10	Approach Lt. Deleted
"0" 79+23.25	18"	26'	21.00/21.2	20.50/20.3	Approach Rt.
"0" 81+80.82	24"	78'	18.10/18.5	17.30/17.1	Skewed 10 Rt. Ahd.
"0" 83+37	24"	72'	18.10/19.5	17.30/17.5	
"0" 87+38.37	24"	74'	20.70/19.3	18.30/18.6	
"0" 90+06.06	24"	64'	18.00/18.4	15.00/14.3	
"0" 94+51	24"	70'	17.00	14.40/15.0	
"0" 96+85.90	18"	20'	19.20	18.80	Approach Rt.
"0" 97+26.30	24"	64'	18.70/18.2	18.50/16.5	
"0" 100+87	24"	72'	18.00/19.5	16.00/15.7	
"0" 102+00.24	18"	30'	19.40/19.6	19.00/19.6	Approach Rt.
"0" 104+35.36	24"	70'	18.50/19.0	17.90/18.0	
"0" 106+32	18"	36'	20.90/21.1	20.70/20.8	Approach Rt.
"0" 110+13	24"	78'	18.50/19.0	16.90/17.0	
"0" 116+99	24"	54'	19.30/19.6	17.60/17.8	
"0" 118+82.79	24"	64'	17.50/18.5	16.00/17.0	
"0" 121+36	24"	66'	14.00/16.2	13.40/15.9	
"0" 121+78	18"	28'	17.90/18.0	17.60/17.3	Approach Rt.
"0" 125+16	24"	100'	16.00	15.00	Deleted
"0" 127+47	24"	70'	13.30/16.1	11.30/13.2	
"0" 140+00	24"	62'	18.00	17.30/17.8	
"0" 144+23.23	24"	80'	14.00/15.8	11.00/13.0	
"0" 144+68.69	18"	26'	18.20/17.9	18.27/17.8	Approach Rt.
"0" 147+78.83	36"	70'	15.00	14.10	
"0" 148+65	36"	30'	18.35	18.34	Approach Rt. Deleted
"0" 152+65.64	24"	90'	13.60/16.3	11.30/11.6	
"0" 156+85.45	24"	74'	16.40/17.1	14.40/15.1	
"0" 159+90	24"	66'	17.50	14.80/15.0	
"0" 166+00	24"	90'	17.30/17.4	12.00/12.3	
"0" 168+73.63	24"	94'	16.00	11.60	
"0" 174+34.25	24"	74'	18.50	15.20/17.2	
"0" 180+64.60	24"	84'	15.80	14.00	
"0" 192+73.71	24"	70'	17.80	16.80	
"0" 205+41.45	24"	88'	18.00	16.60	

NOTE: End Section on inlet only.

MONUMENTS & CASES

Station	Location	Point
"H" 18+86.54	Q	P.C.
"0" 61+15.84		P.C.
"0" 69+38.88		P.T.
"0" 72+63.39		P.C.
"0" 77+40.23		P.T.
"0" 81+11.70		P.T.
"0" 82+61.23		P.C.
"0" 86+65.52	0.87/45.94	P.T.
"0" 87+77.16	0.88/92.24	P.C.
"0" 95+46.59	0.92/46.05	P.T.
"0" 97+88.84	0.97/48.30	P.C.
"0" 101+51.02		P.T.
"0" 104+30.79		P.C.
"0" 107+64.92		P.T.
"0" 111+25.74		P.C.
"0" 119+02.92		P.T.
"0" 122+50.22		P.C.
"0" 126+04.01	Q	P.T.
"0" 147+86.49		P.C.
"0" 152+13.49		P.T.
"0" 155+34.90		P.C.
"0" 160+91.80		P.T.
"0" 162+50.83		P.C.
"0" 168+30.27		P.T.
"0" 171+34.23		P.C.
"0" 177+02.57	0.176/36.99	P.T.
"0" 185+71.53	0.185/44.82	P.C.
"0" 187+11.27	0.187/62.35	P.T.
"0" 189+14.54	Deleted	P.C.
"0" 191+69.13		P.T.
"0" 195+01.08		P.C.
"0" 203+29.67	Q	P.T.
"0" 206+21.80		E.O.P.

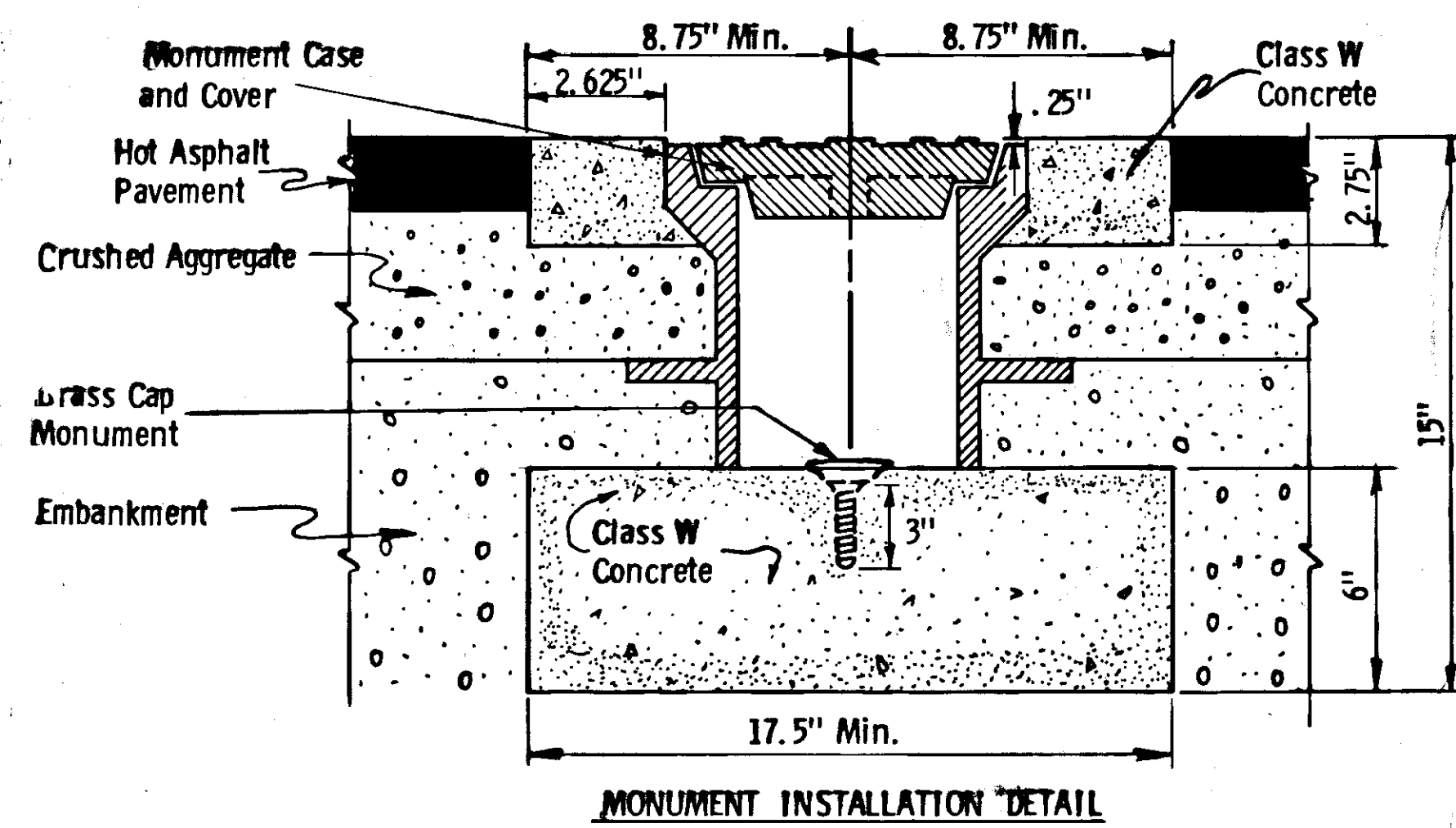
APPROACHES

Station	Lt./Rt.	Width	Type
"0" 61+15	Lt.	20'	Service
"0" 65+13	Lt.	14'	Residential
"0" 69+10	Lt.	26'	Service
"0" 70+37	Rt.	30'	Service
"0" 71+63	Lt.	30'	Service
"0" 73+75	Lt.	60'	Public
"0" 79+23.25	Rt.	14'	Residential
"0" 87+24	Rt.	14'	Residential
"0" 87+58	Rt.	16'	Public
"0" 96+85	Rt.	14'	Residential
"0" 102+00.24	Rt.	14'	Residential
"0" 106+32	Rt.	15'	Residential
"0" 121+78	Rt.	17'	Residential
"0" 125+16	Lt.	30'	Service
"0" 144+68.69	Rt.	14'	Residential
"0" 148+65.149+10	Rt.	20'	Residential
"0" 185+80	Lt.	26'	Service

SUPERELEVATION TABLE

BEGIN TRANSITION	BEGIN FULL SUPER	END FULL SUPER	END TRANSITION	RATE %	DIR.
"H" 18+00.00	"H" 19+36.54			4.4%	Rt.
"0" 60+15.84	"0" 61+65.84	"0" 68+88.88	"0" 70+38.88	4.4%	Rt.
"0" 71+63.39	"0" 73+13.39	"0" 75+90.23	"0" 77+40.23	6%	Rt.
"0" 77+40.33	"0" 78+90.33	"0" 80+61.70	"0" 81+86.47	6%	Lt.
"0" 81+86.47	"0" 83+11.24	"0" 86+18.52	"0" 87+26.73	6%	Lt.
"0" 87+27.16	"0" 88+27.16	"0" 94+96.59	"0" 96+46.59	5.75%	Rt.
"0" 96+88.84	"0" 98+38.84	"0" 101+01.02	"0" 102+51.02	5.9%	Lt.
"0" 103+30.79	"0" 104+80.79	"0" 107+14.92	"0" 108+64.92	4.4%	Lt.
"0" 110+25.74	"0" 111+75.74	"0" 118+52.92	"0" 120+02.92	5.1%	Lt.
"0" 121+50.22	"0" 123+00.22	"0" 125+54.01	"0" 127+04.01	5.1%	Rt.
"0" 154+34.90	"0" 155+84.90	"0" 160+41.80	"0" 161+71.31	6%	Rt.
"0" 161+71.32	"0" 163+00.83	"0" 167+81.80	"0" 169+30.26	6%	Lt.
"0" 170+34.23	"0" 171+84.23	"0" 176+52.58	"0" 178+02.58	5.9%	Rt.
"0" 184+71.54	"0" 186+21.54	"0" 186+61.27	"0" 188+11.27	5.6%	Rt.
"0" 188+14.55	"0" 189+64.55	"0" 191+19.13	"0" 192+69.13	2.8%	Lt.
"0" 194+01.08	"0" 195+51.08	"0" 202+79.67	"0" 204+51.01	6%	Lt.

NOTE: Rotate superlevation about Q.



- NOTES: 1. This detail shall be used in conjunction with Standard Drawings M-13.01 and M-16.03.
2. Class W Concrete shall be incidental to Item 614(1), Survey Monuments.

"0" & "O" SLOPE TABLE

LT.	STATION	RT.	LT.	STATION	RT.
4:1	"0" 59+00	4:1	3:1	"0" 156+50	4:1
				"0" 156+75	3:1
				"0" 157+00	2:1
4:1	"0" 63+00			"0" 158+00	2:1
	"0" 87+00	4:1		"0" 158+25	3:1
	"0" 87+50	3:1		"0" 158+50	4:1
	"0" 88+00	2:1	3:1	"0" 159+00	
			2:1	"0" 160+00	
4:1	"0" 97+00	2:1		"0" 161+00	
	"0" 97+50	3:1	2:1	"0" 162+00	
	"0" 98+00	4:1	3:1		
4:1	"0" 113+00	4:1	3:1	"0" 164+50	
	"0" 113+25	3:1	4:1	"0" 165+00	
	"0" 113+50	2:1		"0" 171+00	4:1
				"0" 171+25	3:1
	"0" 117+00	2:1		"0" 171+50	2:1
	"0" 117+25	3:1			
	"0" 117+50	4:1		"0" 177+00	2:1
4:1	"0" 124+00			"0" 177+50	3:1
3:1	"0" 124+50			"0" 178+00	4:1
2:1	"0" 125+00				
				"0" 184+00	4:1
2:1	"0" 127+00			"0" 184+50	3:1
3:1	"0" 127+50			"0" 185+00	2:1
4:1	"0" 128+00				
				"0" 189+00	2:1
	"0" 134+00	4:1		"0" 189+50	3:1
	"0" 134+50	3:1		"0" 190+00	4:1
	"0" 135+00	2:1			
			4:1	"0" 198+00	
	"0" 139+00	2:1	3:1	"0" 198+25	
	"0" 139+50	3:1	2:1	"0" 198+50	
	"0" 140+00	4:1			
			2:1	"0" 200+34	
	"0" 145+00	4:1	3:1	"0" 200+59	
	"0" 145+50	3:1	4:1	"0" 200+82	
	"0" 146+00	2:1			
4:1	"0" 148+00		4:1	"0" 206+21.80	4:1
3:1	"0" 149+00				
	"0" 151+00	2:1			
	"0" 151+50	3:1			
	"0" 152+00	4:1			

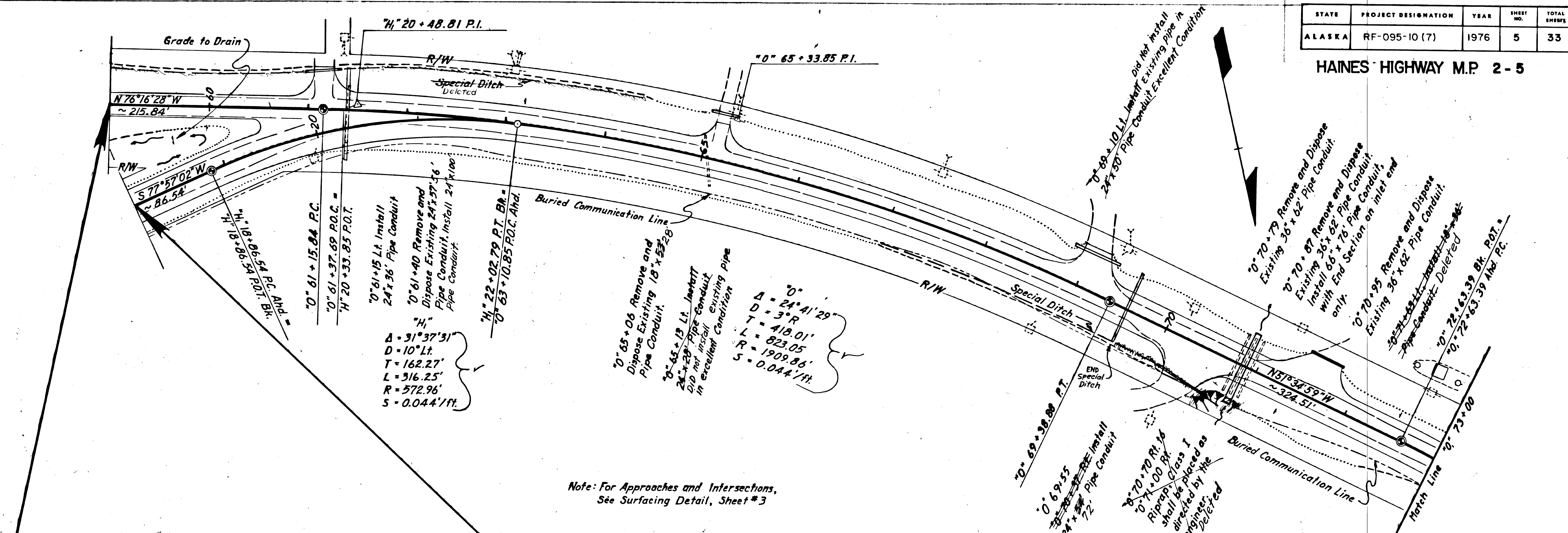
NOTE: Sta. "0" 62+00 to "0" 64+50, backslope is 2:1 Lt.
Sta. "0" 176+00 to "0" 176+50, backslope is 1:1 Lt.

CULVERT PIPE REMOVAL

Station	Length	Station	Length
"0" 61+40	57' 36"	"0" 110+13	46'
"0" 65+06	53' 28"	"0" 116+99	40'
"0" 70+79	62'	"0" 118+82	46'
"0" 70+87	62'	"0" 119+84	36'
"0" 70+95	62'	"0" 121+36	50'
"0" 81+80	50'	"0" 127+47	48'
		"0" 127+78	28'
		"0" 127+78	28'
"0" 83+37	46'	"0" 144+22	67'
"0" 86+58	46'	"0" 147+78	87'
"0" 87+38	57' 11"	"0" 152+65	76'
"0" 90+07	47' 46"	"0" 156+48	56'
"0" 94+51	48' 62"	"0" 161+67	47'
"0" 97+26	44' 88"	"0" 168+71	65'
"0" 100+87	46'	"0" 174+34	66'
"0" 104+35	48'	"0" 180+64	49'
"0" 105+22 Cannot Locate	38'	"0" 192+75	44'
"0" 106+32	34'	"0" 205+41	50'

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RF-095-10 (7)	1976	5	33

HAINES HIGHWAY M.P. 2-5



Note: For Approaches and Intersections, See Surfacing Detail, Sheet #3

BEGIN PROJECT RF-095-10(7)

Sta. "O" 59+00.00 Ahd. Match Project RS-0987(I)
Sta. "O₁" 59+00.00 Bk.

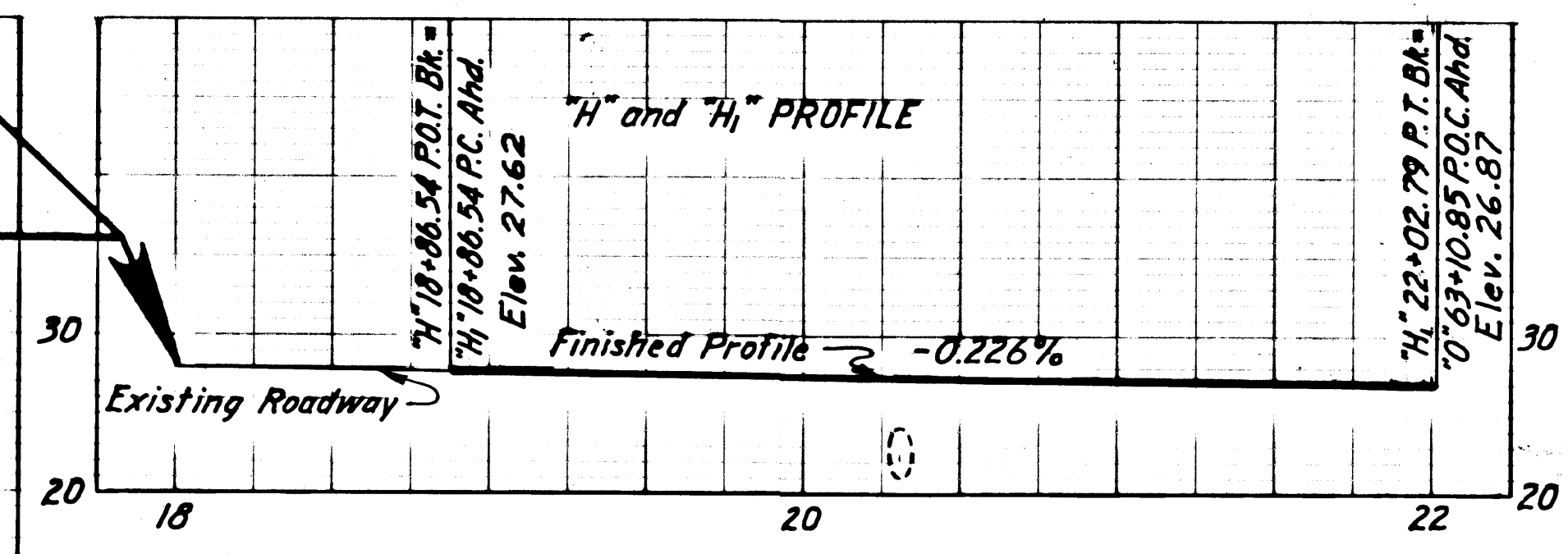
Sta. "H" 18+00.00 Ahd. Match Project RF-095-10(8)
Sta. "H" 18+00.00 Bk.

Horizontal Control: Based on a bearing of N61°06'10"W from U.S.C. & G.S. "Mill" to U.S.C. & G.S. "Yind" with State Plane Coordinates:

Mill : N 2,707,632.43 E 2,346,447.75
Yind : N 2,713,937.85 E 2,335,024.21

A scale factor of 0.99995591 was used to convert grid distances to ground distances.

Vertical Control: Based on U.S.C. & G.S. Bench Mark stamped "B141", with an elevation of 15.81', Mean Sea Level. Located Approximately 240 ft. ± left of Sta. "O" 73+75 adjacent to Sawmill Road.

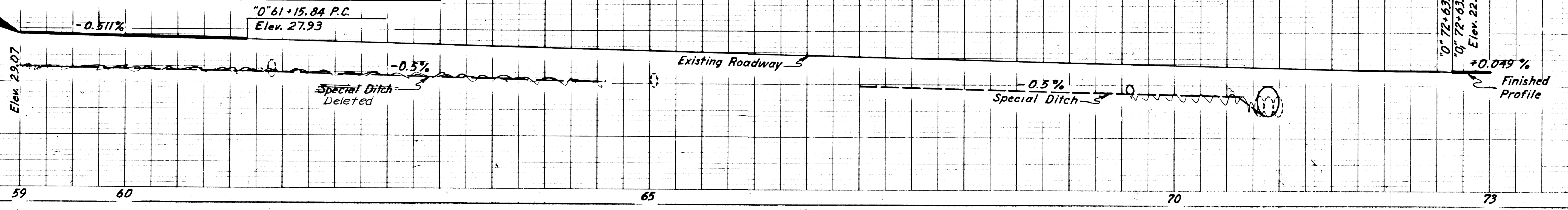


Embankment : 2551 cu. yds. (Includes 511 cu. yds. Selected Material)
Unclassified Excavation : 987 cu. yds. (Includes 535 cu. yds. waste)
Borrow : 2099 cu. yds.
Riprap : 12 cu. yds.

Earthwork Equation:
Embankment = Excavation - Waste x Grading Factor + Borrow

* Borrow for Unclassified Excavation Meeting requirements of Sub-Section 703-2.07

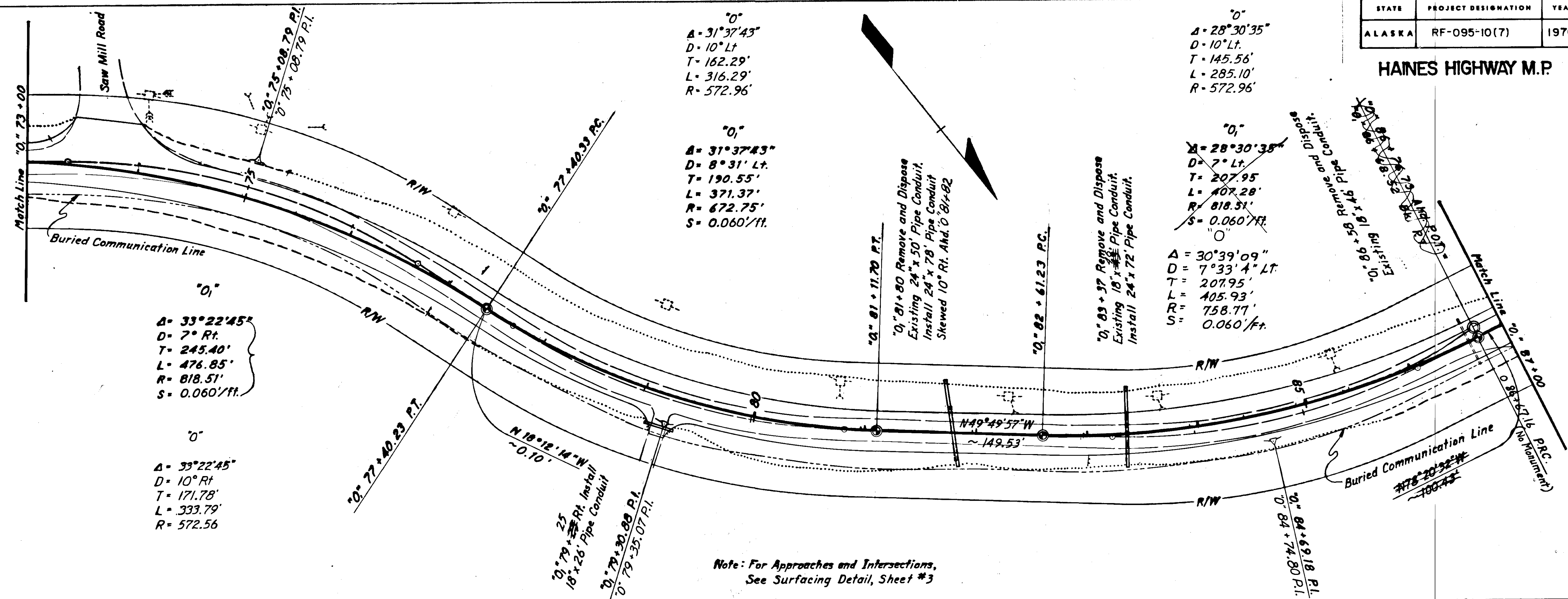
From		To	
Sta.	Offset & Elev.	Sta.	Offset & Elev.
"O" 59+00	36.0' Lt. 23.0	"O" 64+50	46.0' Lt. 20.3
"O" 67+00	35.0' Rt. 19.6	"O" 70+80	36.0' Rt. 18.8



"O" 72+63.39 Bk. P.O.T. =
"O" 72+63.39 Ahd. P.C.
Elev. 22.64

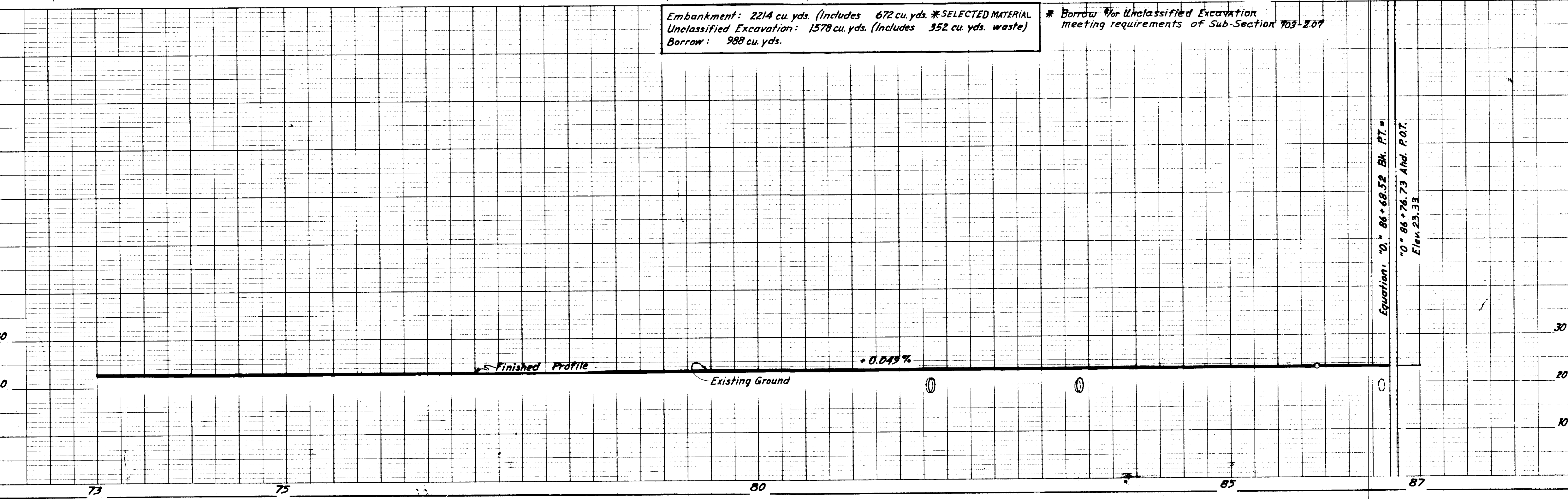
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RF-095-10(7)	1976	6	33

HAINES HIGHWAY M.P. 2-5



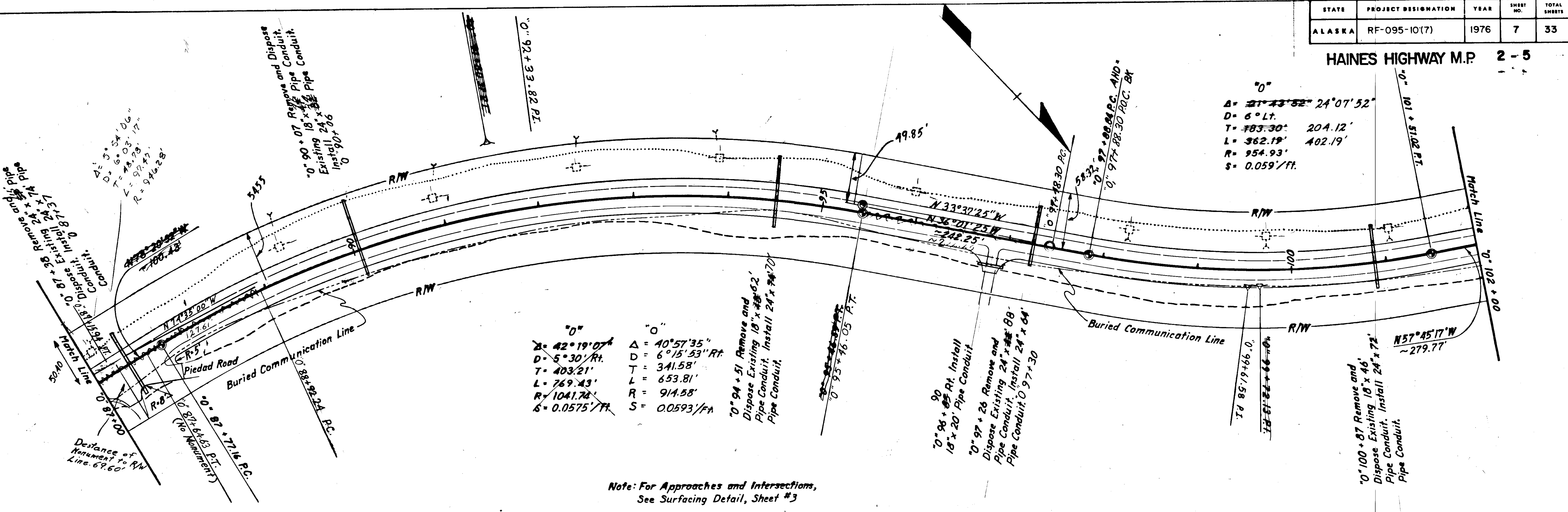
Note: For Approaches and Intersections, See Surfacing Detail, Sheet #3

Embankment: 2214 cu. yds. (Includes 672 cu. yds. *SELECTED MATERIAL
 Unclassified Excavation: 1578 cu. yds. (Includes 352 cu. yds. waste)
 Borrow: 988 cu. yds. * Borrow for Unclassified Excavation meeting requirements of Sub-Section 703-2.07



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RF-095-10(7)	1976	7	33

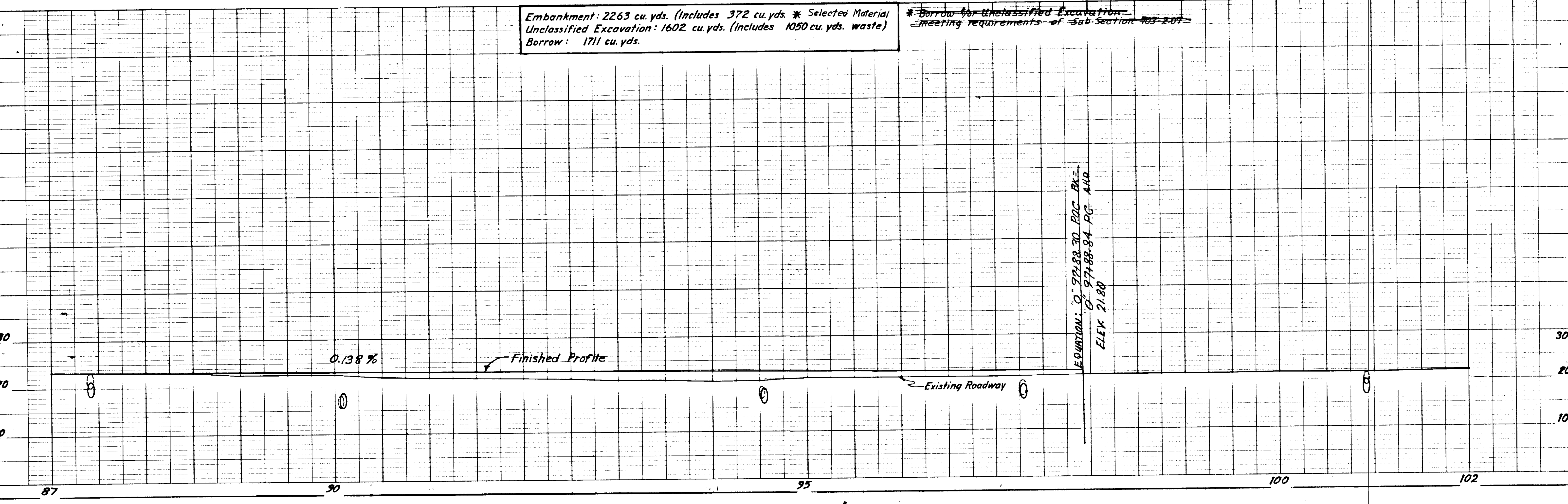
HAINES HIGHWAY M.P. 2 - 5



Note: For Approaches and Intersections, See Surfacing Detail, Sheet #3

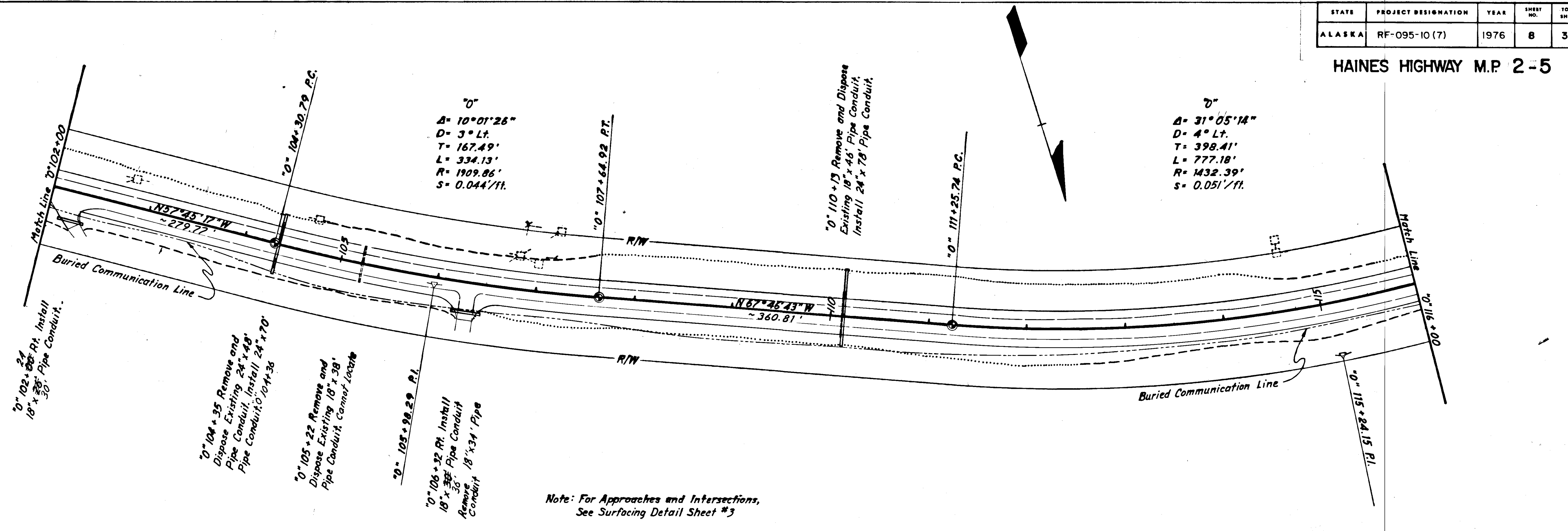
Embankment: 2263 cu. yds. (Includes 372 cu. yds. * Selected Material)
 Unclassified Excavation: 1602 cu. yds. (Includes 1050 cu. yds. waste)
 Borrow: 1711 cu. yds.

* Borrow for Unclassified Excavation meeting requirements of Sub-Section 403-2.01



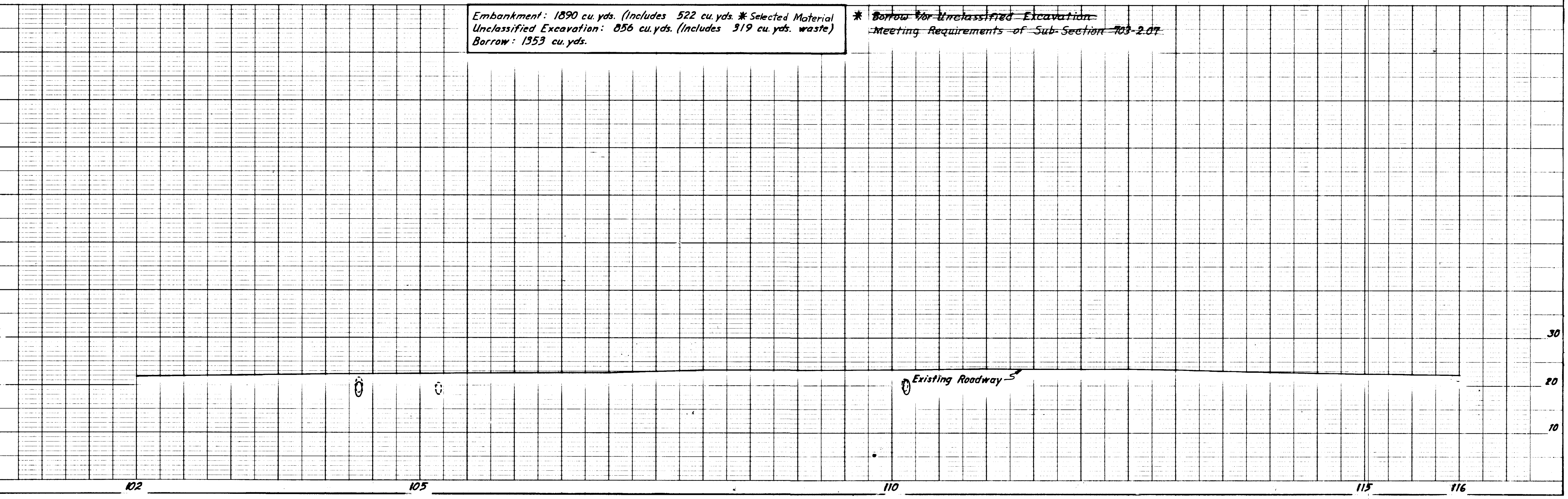
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RF-095-10 (7)	1976	8	33

HAINES HIGHWAY M.P. 2-5



Embankment: 1890 cu. yds. (Includes 522 cu. yds. * Selected Material
 Unclassified Excavation: 856 cu. yds. (Includes 319 cu. yds. waste)
 Borrow: 1353 cu. yds.

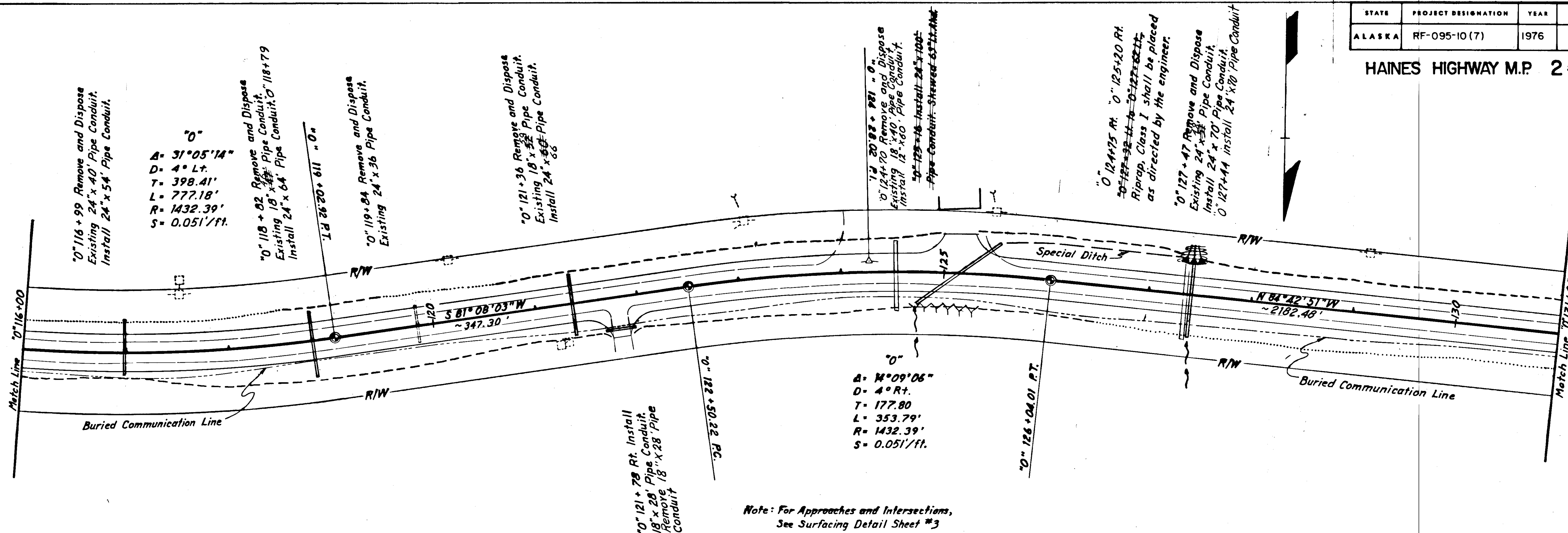
* Borrow for Unclassified Excavation Meeting Requirements of Sub-Section 703-2.07



102 105 110 115 116

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RF-095-10 (7)	1976	9	33

HAINES HIGHWAY M.P. 2-5



0°
 A= 31°05'14"
 D= 4° Lt.
 T= 398.41'
 L= 777.18'
 R= 1432.39'
 S= 0.051'/ft.

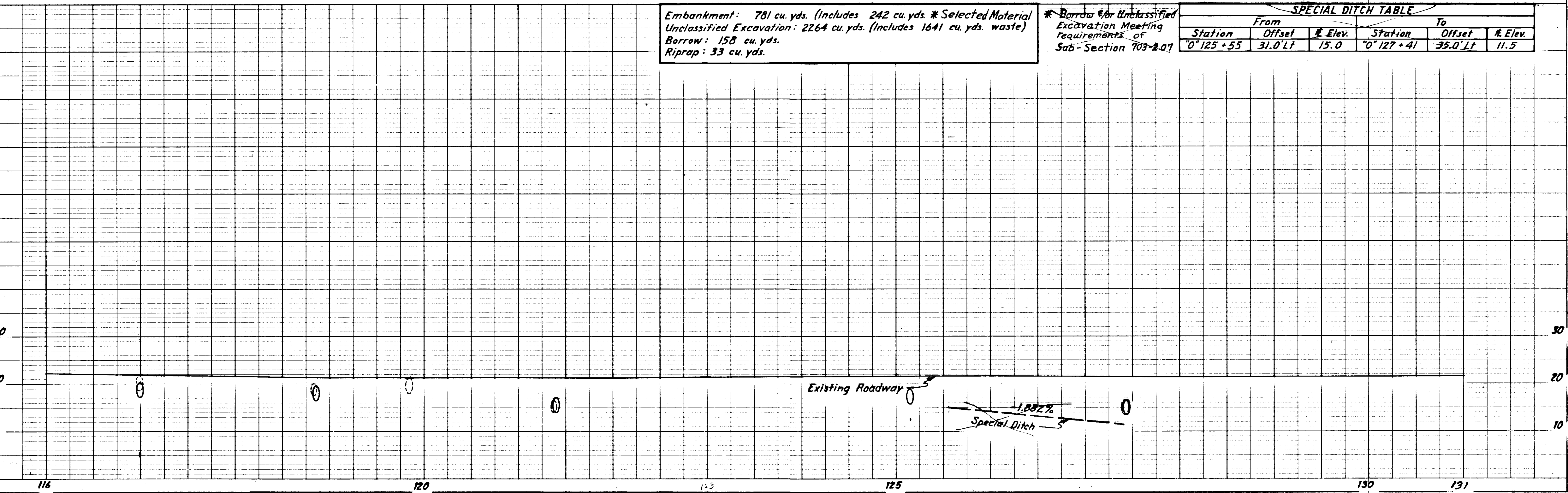
0°
 A= 14°09'06"
 D= 4° Rt.
 T= 177.80'
 L= 353.79'
 R= 1432.39'
 S= 0.051'/ft.

Note: For Approaches and Intersections,
 See Surfacing Detail Sheet #3

Embankment: 781 cu. yds. (Includes 242 cu. yds. * Selected Material
 Unclassified Excavation: 2264 cu. yds. (Includes 1641 cu. yds. waste)
 Borrow: 158 cu. yds.
 Riprap: 33 cu. yds.

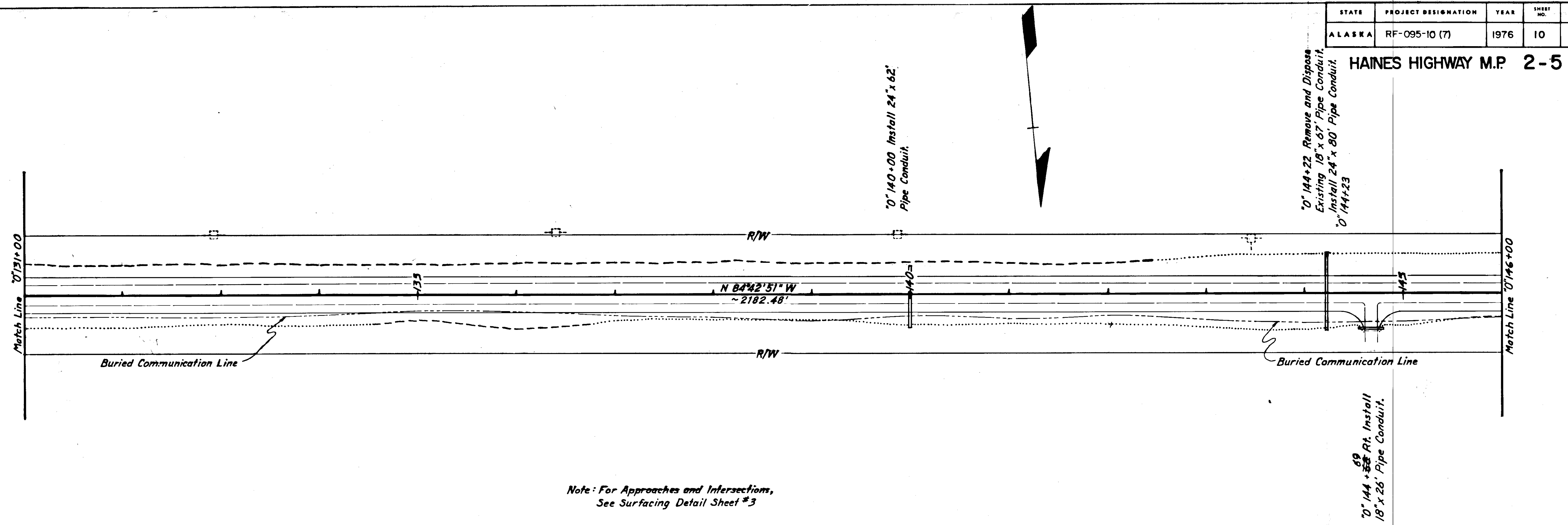
* Borrow for Unclassified
 Excavation Meeting
 requirements of
 Sub-Section 703-2.07

From			To		
Station	Offset	Elev.	Station	Offset	Elev.
0°125+55	31.0' Lt	15.0	0°127+41	35.0' Lt	11.5



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RF-095-10 (7)	1976	10	33

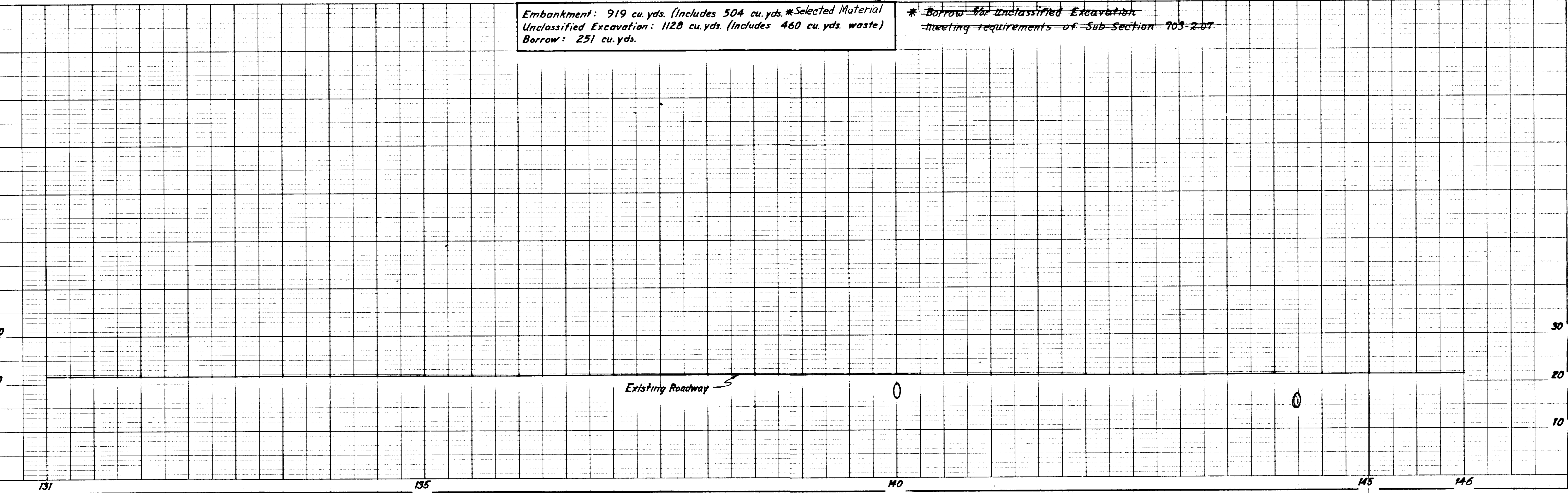
HAINES HIGHWAY M.P. 2-5



Note: For Approaches and Intersections,
See Surfacing Detail Sheet #3

Embankment: 919 cu. yds. (Includes 504 cu. yds. *Selected Material
Unclassified Excavation: 1128 cu. yds. (Includes 460 cu. yds. waste)
Borrow: 251 cu. yds.

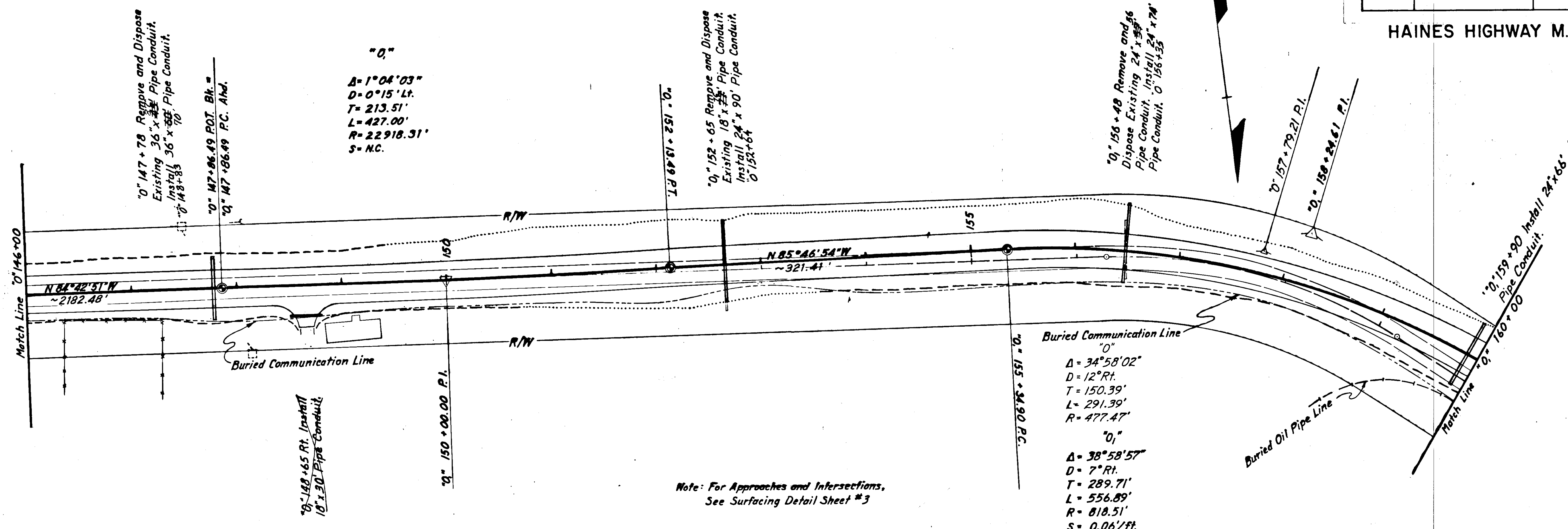
* Borrow for Unclassified Excavation
meeting requirements of Sub-Section 703-2.07



131 135 140 145 146

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RF-095-10 (7)	1976	11	33

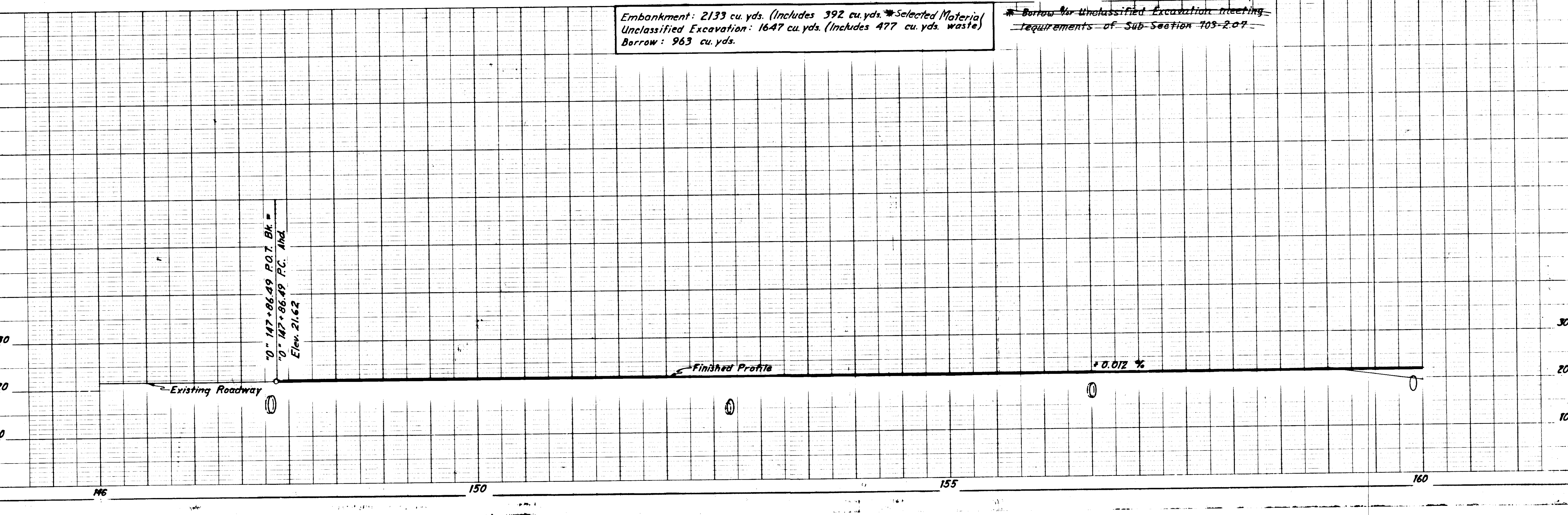
HAINES HIGHWAY M.P. 2-5



Note: For Approaches and Intersections, See Surfacing Detail Sheet #3

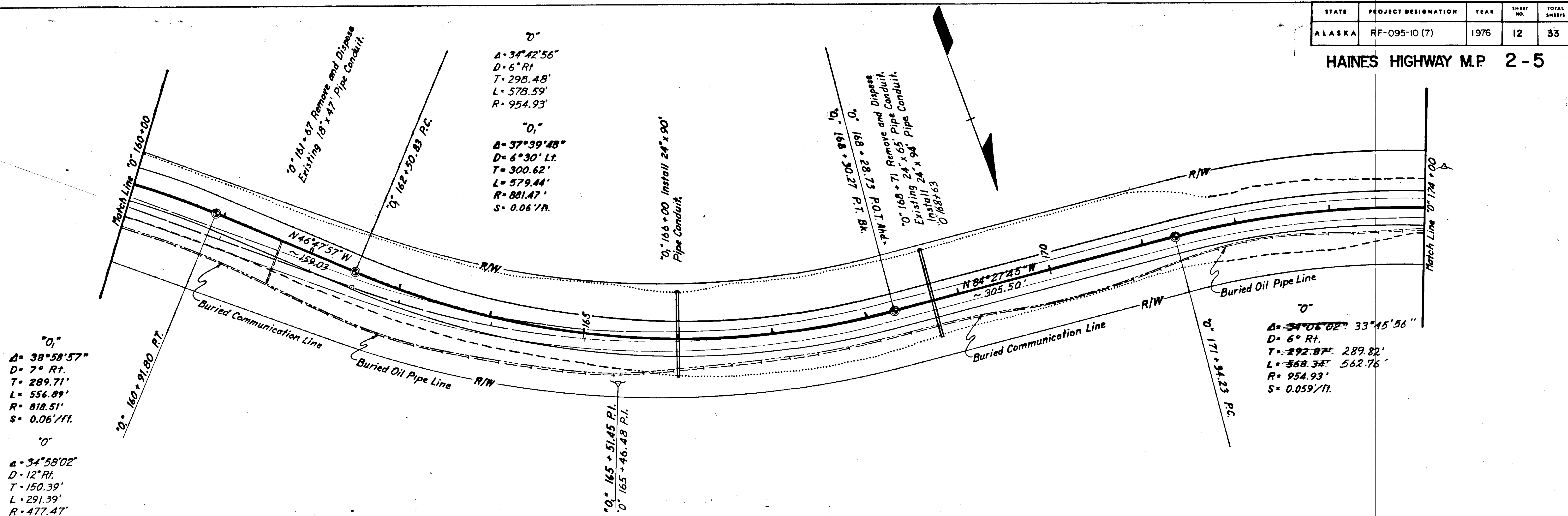
Embankment: 2133 cu. yds. (Includes 392 cu. yds. Selected Material)
 Unclassified Excavation: 1647 cu. yds. (Includes 477 cu. yds. waste)
 Borrow: 963 cu. yds.

~~Borrow for Unclassified Excavation meeting requirements of Sub-Section 703-2.07~~



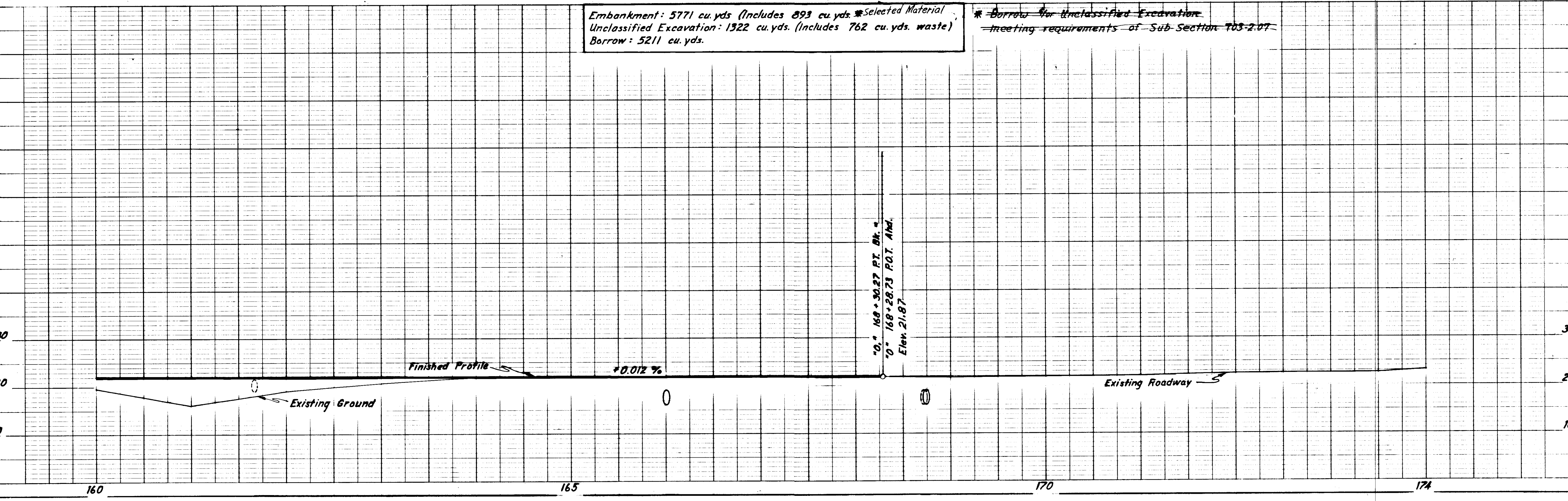
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RF-095-10 (7)	1976	12	33

HAINES HIGHWAY M.P. 2-5



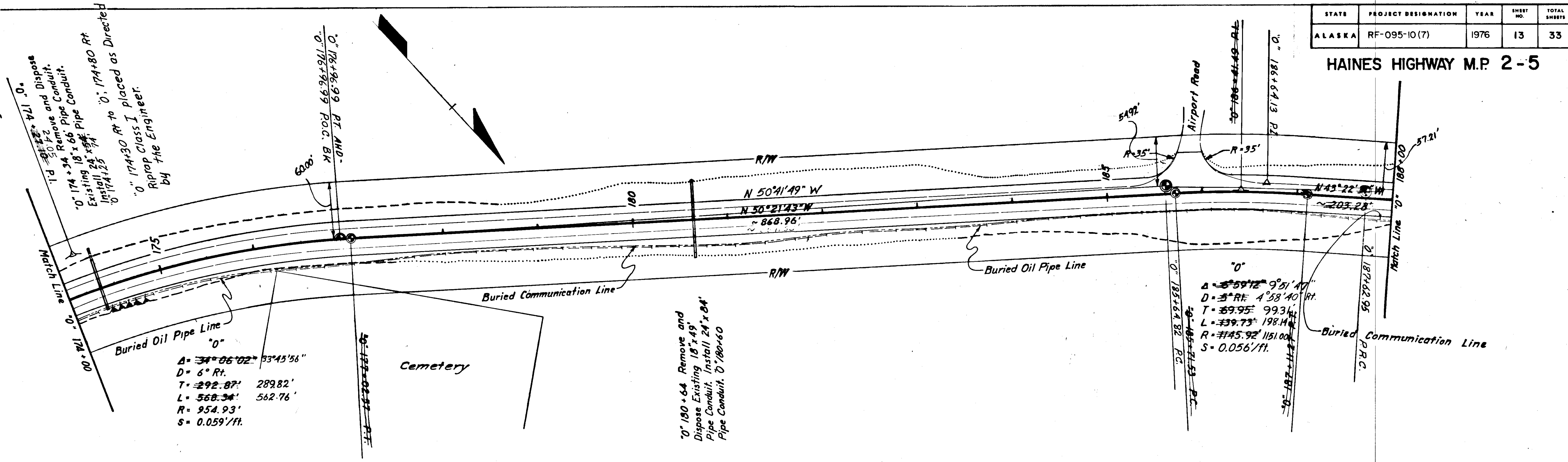
Embankment: 5771 cu. yds. (Includes 893 cu. yds. Selected Material)
 Unclassified Excavation: 1322 cu. yds. (Includes 762 cu. yds. waste)
 Borrow: 5211 cu. yds.

* Borrow for Unclassified Excavation meeting requirements of Sub-Section 703-2.07



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RF-095-10(7)	1976	13	33

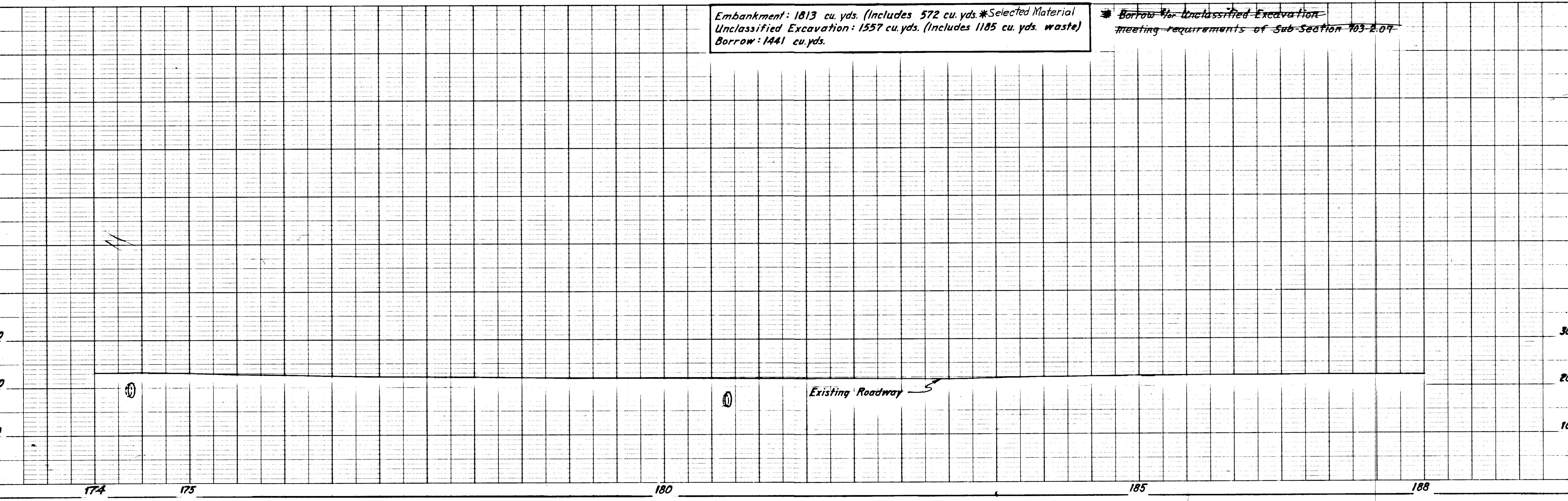
HAINES HIGHWAY M.P. 2-5



Note: For Approaches and Intersections,
See Surfacing Detail Sheet #3

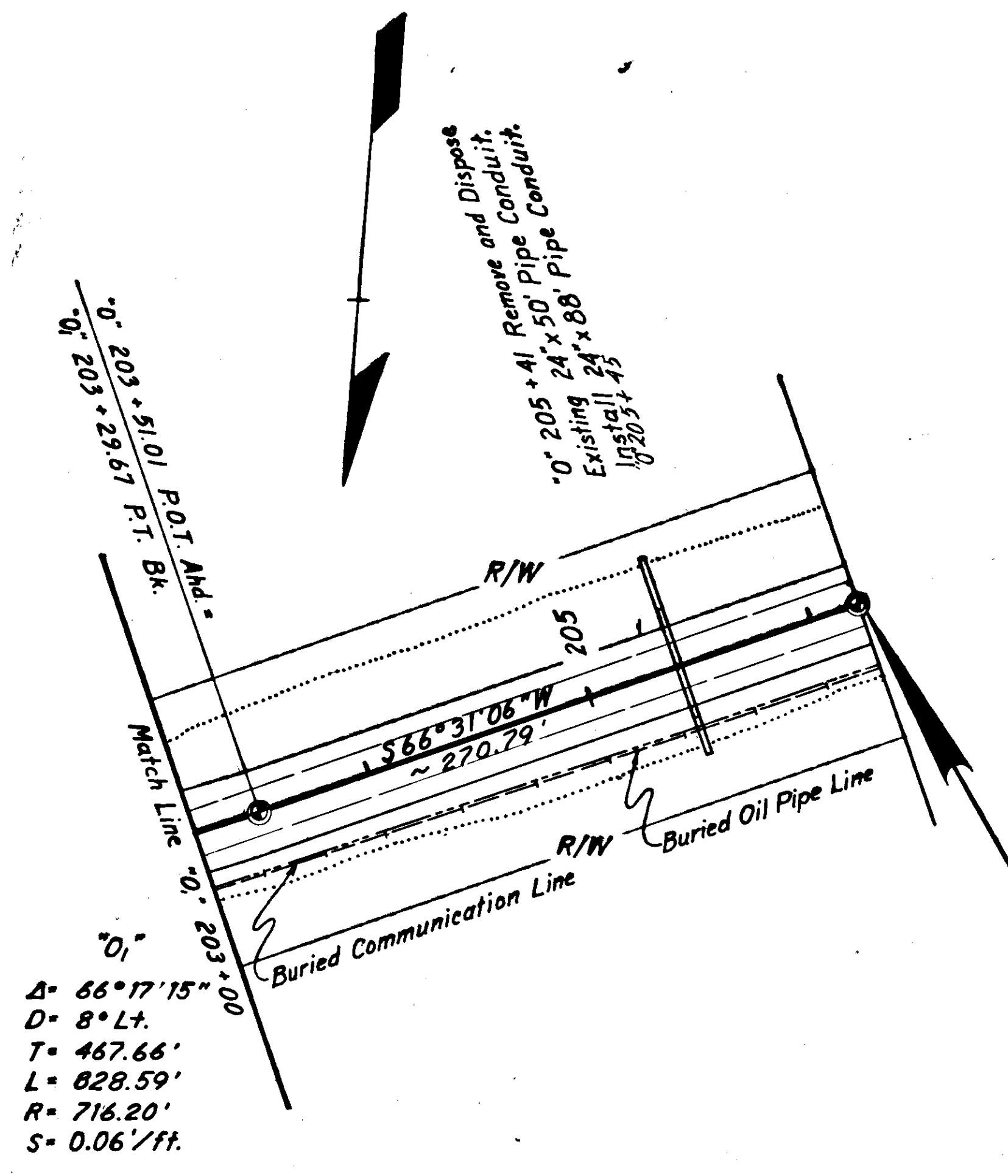
Embankment: 1813 cu. yds. (Includes 572 cu. yds. *Selected Material
 Unclassified Excavation: 1557 cu. yds. (Includes 1185 cu. yds. waste)
 Borrow: 1441 cu. yds.

* Borrow for Unclassified Excavation
 meeting requirements of Sub-Section 403-2.07



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RF-095-10 (7)	1976	15	33

HAINES HIGHWAY M.P. 2-5

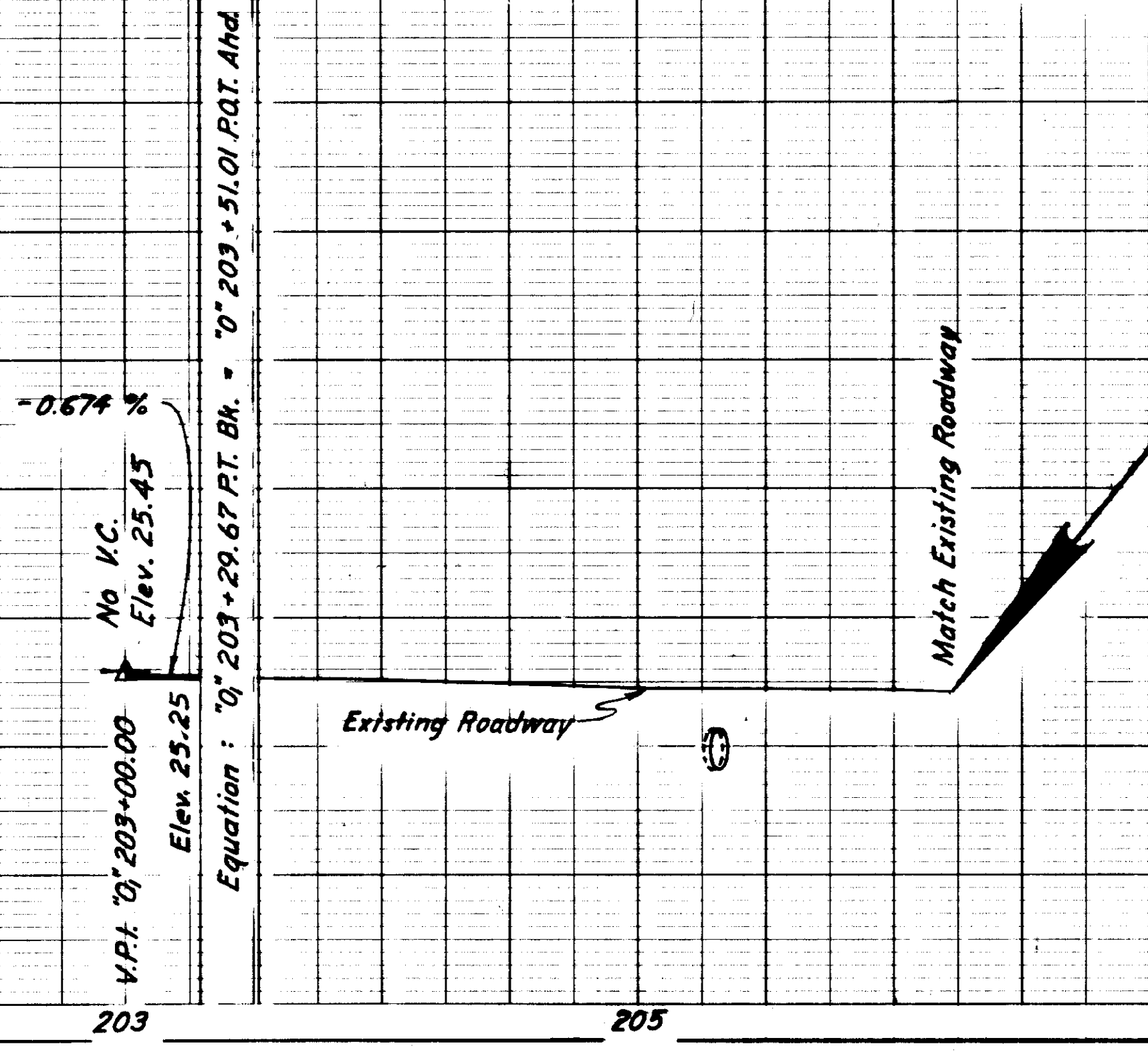


$\Delta = 66^{\circ}17'15''$
 $D = 8^{\circ}L+$
 $T = 467.66'$
 $L = 828.59'$
 $R = 716.20'$
 $S = 0.06'/ft.$

Embankment: 741 cu. yds. (Includes 214 cu. yds. * Selected Material
 Unclassified Excavation: 121 cu. yds. (Includes 2 cu. yds. waste)
 Borrow: 622 cu. yds.

END PROJECT
RF-095-10(7)
 Sta. "0" 206+21.80 P.C.

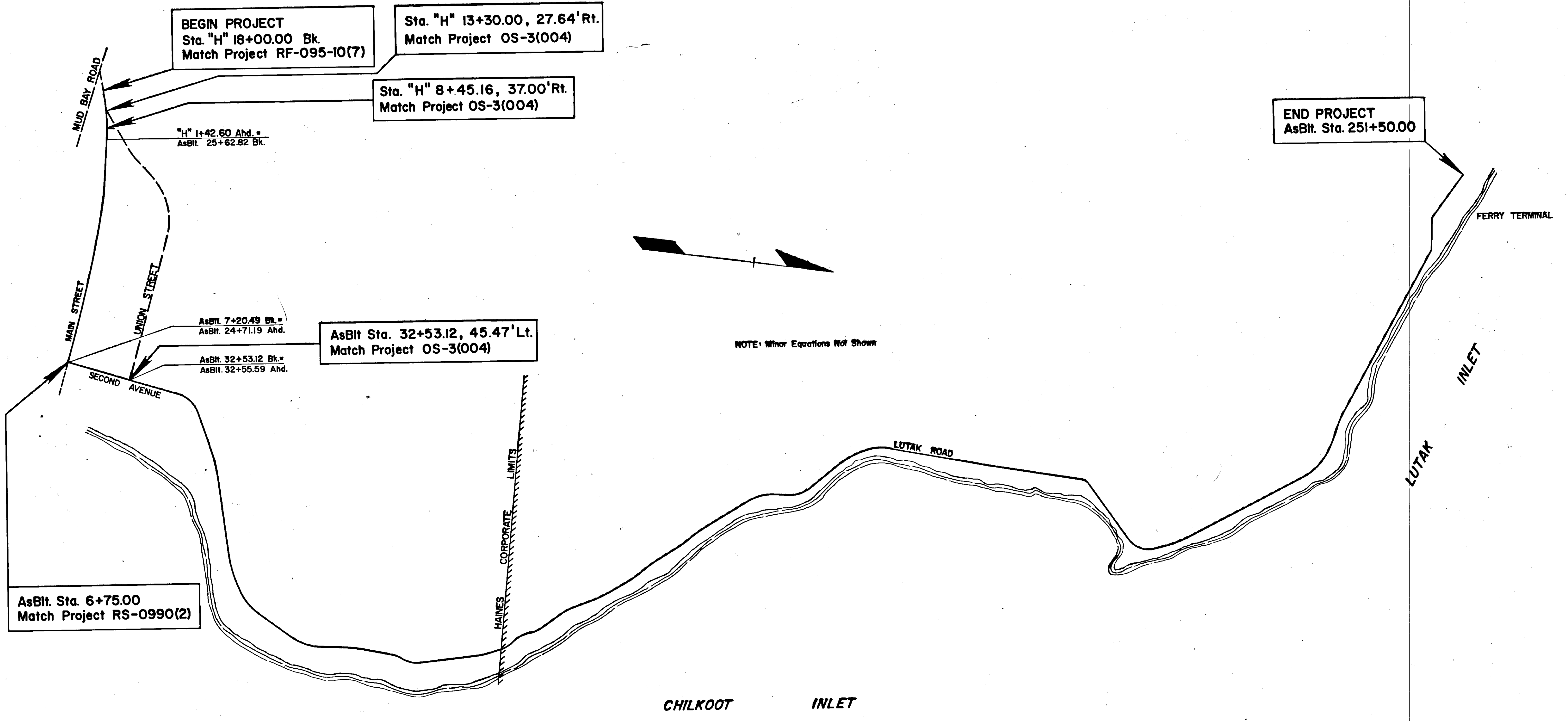
~~* Borrow for Unclassified~~
~~Excavation meeting requirements~~
~~of Sub-section 703-2.07.~~



V.P. "0" 203+00.00 Elev. 25.45
 P.T. "0" 203+29.67 Elev. 25.25
 Equation: "0" 203+29.67 P.T. Bk. = "0" 203+51.01 P.T. Ahd.

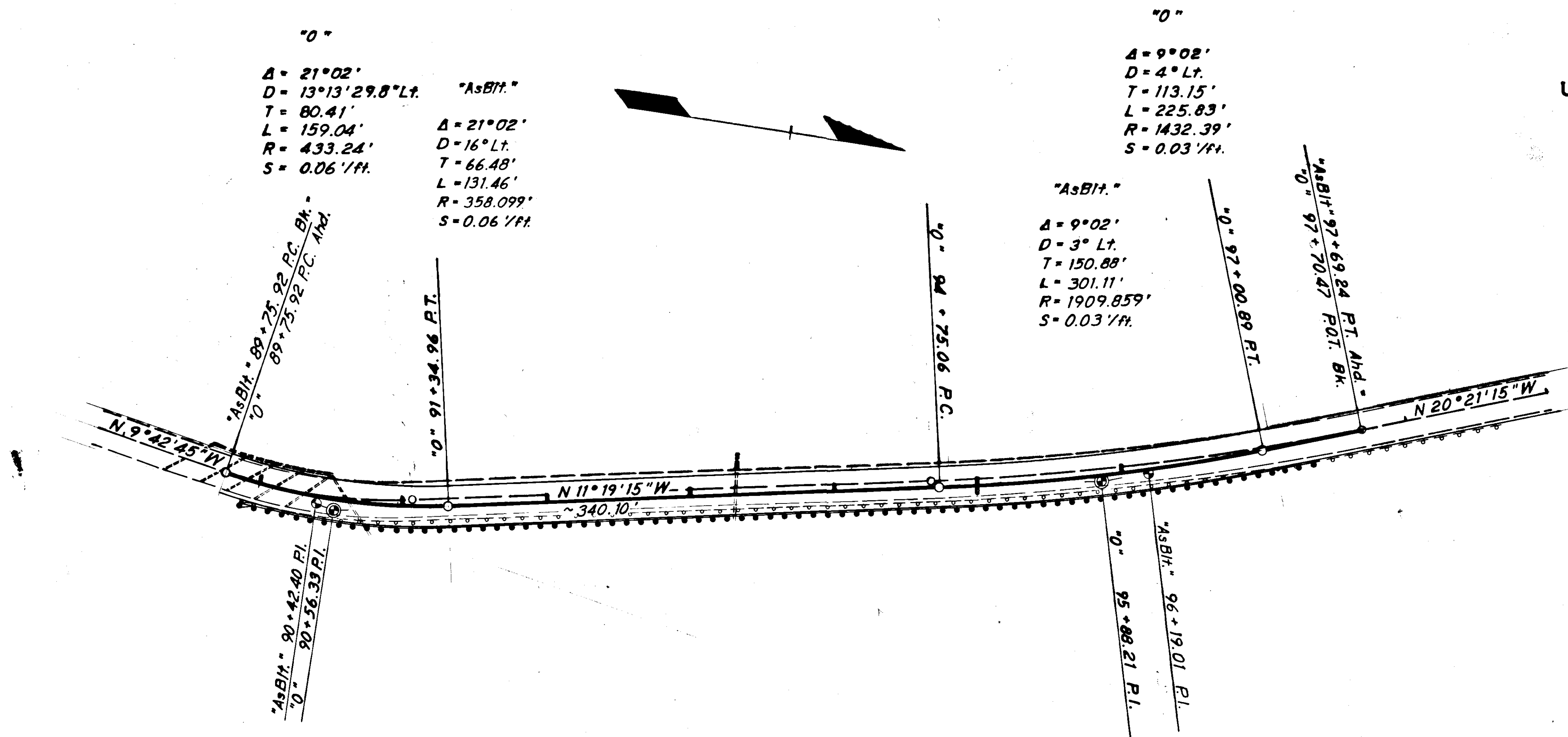
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RF-095-10(8)	1976	16	33

U.S. CUSTOMS TO HAINES FERRY TERMINAL



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RF-095-10 (8)	1967	16A	33

U.S. Customs to Haines Ferry Terminal



"0"
 $\Delta = 21^\circ 02'$
 $D = 13^\circ 13' 29.8'' \text{ Lt.}$ "AsBlt."
 $T = 80.41'$
 $L = 159.04'$
 $R = 433.24'$
 $S = 0.06' / \text{ft.}$

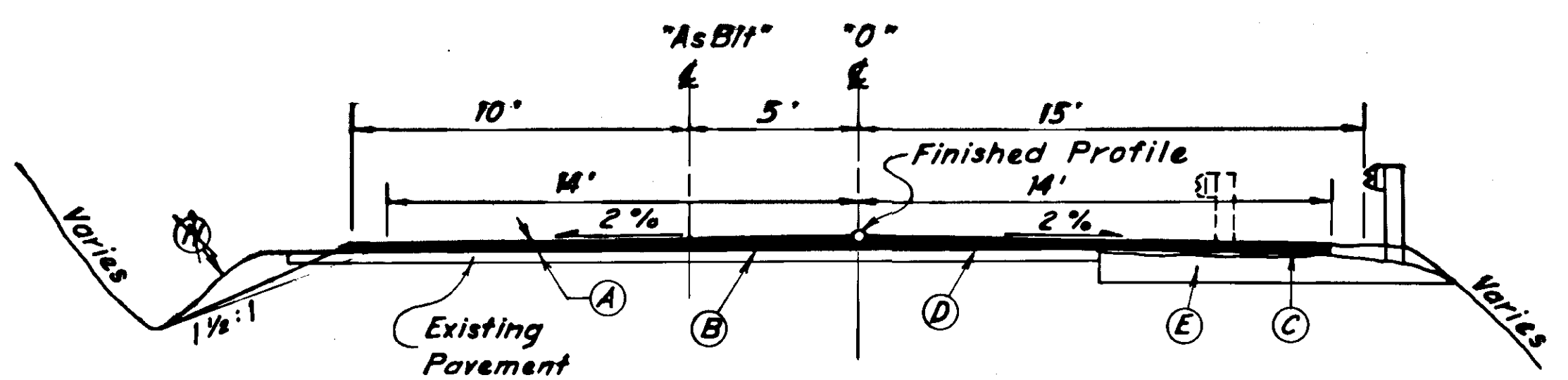
"AsBlt."
 $\Delta = 21^\circ 02'$
 $D = 16^\circ \text{ Lt.}$
 $T = 66.48'$
 $L = 131.46'$
 $R = 358.099'$
 $S = 0.06' / \text{ft.}$

"0"
 $\Delta = 9^\circ 02'$
 $D = 4^\circ \text{ Lt.}$
 $T = 113.15'$
 $L = 225.83'$
 $R = 1432.39'$
 $S = 0.03' / \text{ft.}$

"AsBlt."
 $\Delta = 9^\circ 02'$
 $D = 3^\circ \text{ Lt.}$
 $T = 150.88'$
 $L = 301.11'$
 $R = 1909.859'$
 $S = 0.03' / \text{ft.}$

LABELING INDEX

- (A) — 2" Hot Asphalt Pavement - Class I
- (B) — Leveling Course (as directed by the Engineer)
- (C) — MC-30 Liquid Asphalt for Prime Coat
- (D) — CSS-1 Cationic Emulsified Asphalt for Tack Coat.
- (E) — 6" Crushed Aggregate Base Course Grading C
- (H) — Useable Unclassified Excavation and/or Borrow



TYPICAL REALIGNMENT SECTION
 "0" 89+75.92 to "0" 97+70.47

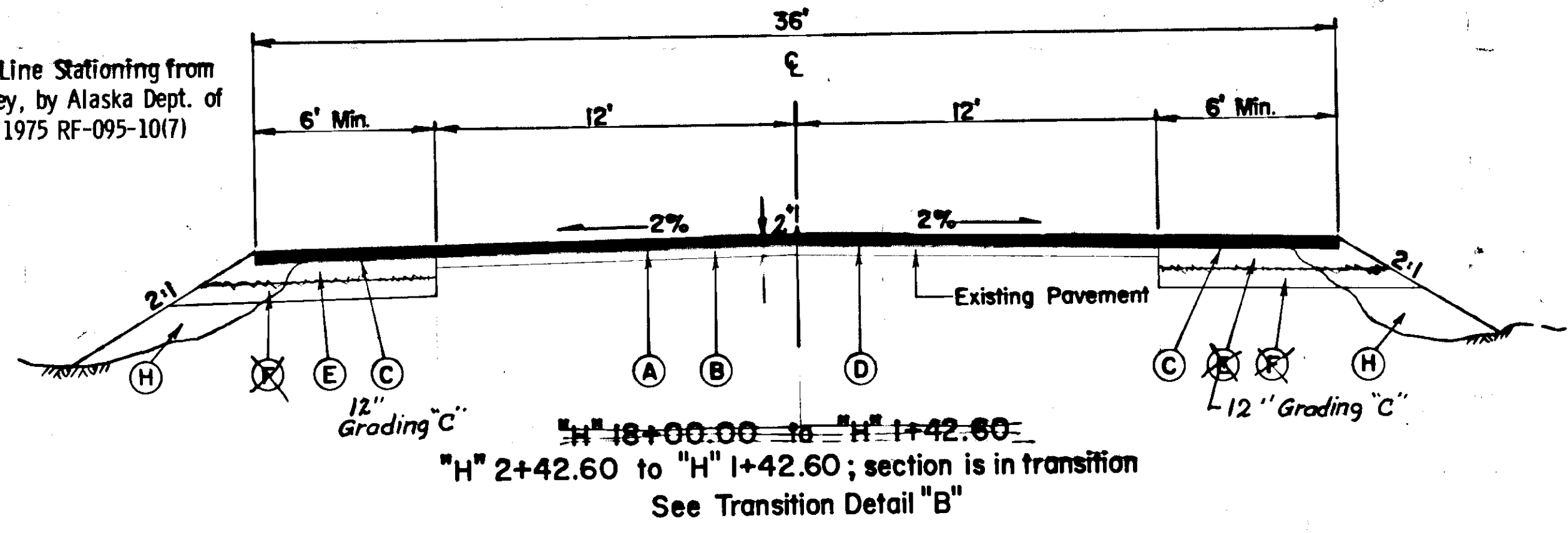
NOTES

1. Alignment as shown on this plan is subject to minor revisions. Grades shall be staked in the field as directed by the Engineer.
2. Between sta. "0" 89+90 and sta. "0" 97+75, the existing guard rail shall be removed and reconstructed 15' Rt. of \mathcal{E} . A 25' transition shall be provided to match existing guard rail.

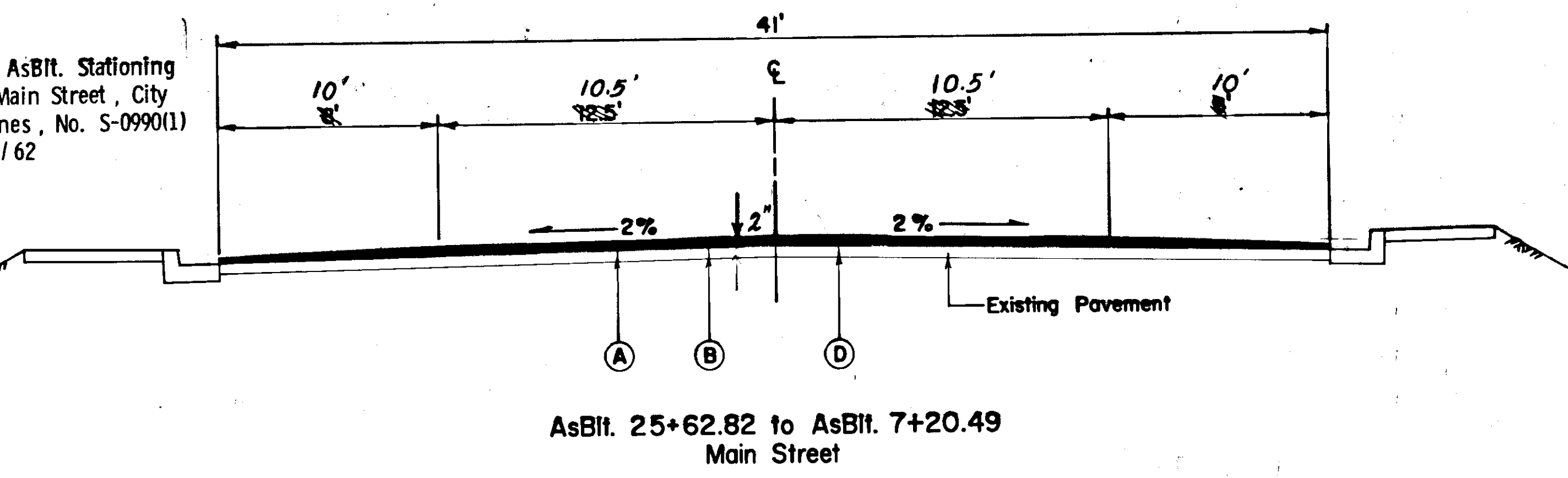
TYPICAL SECTIONS OF IMPROVEMENT

U.S. CUSTOMS TO HAINES FERRY TERMINAL

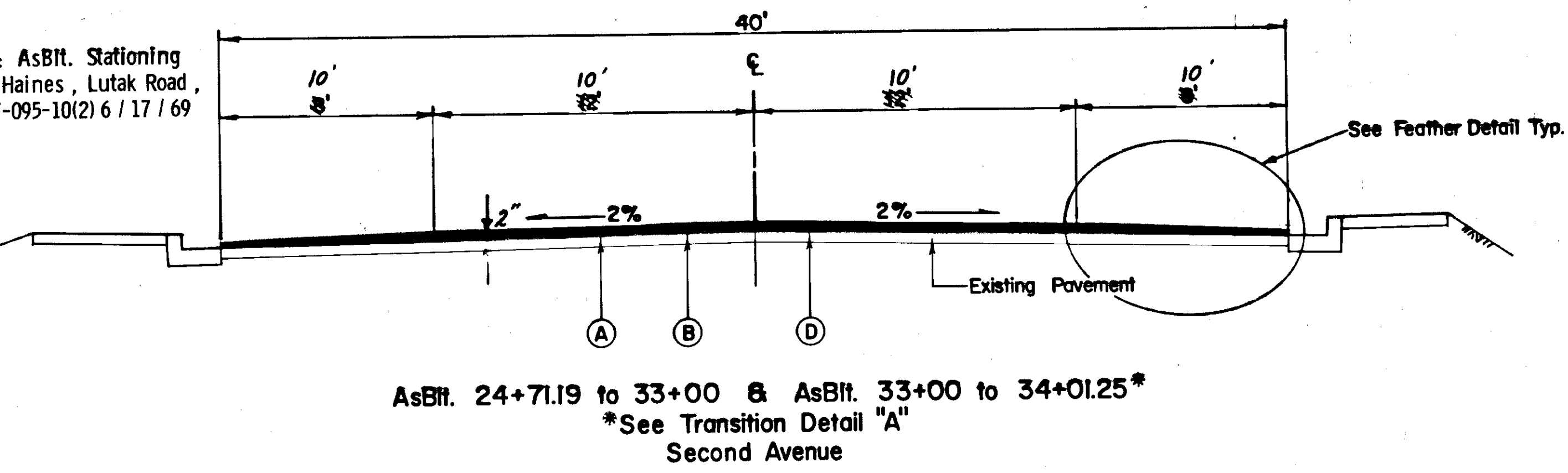
NOTE: "H" Line Stationing from field Survey, by Alaska Dept. of Highways, 1975 RF-095-10(7)



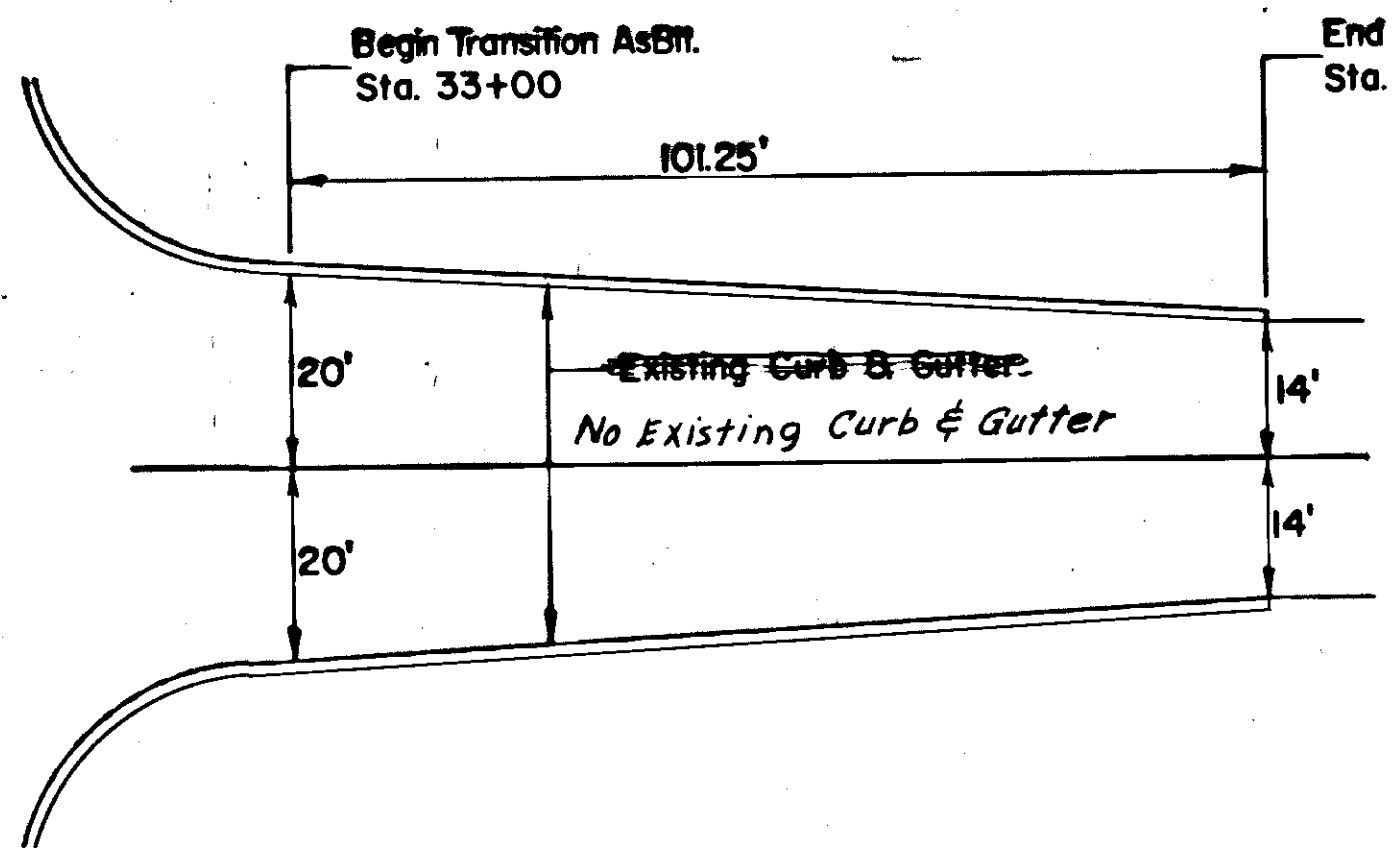
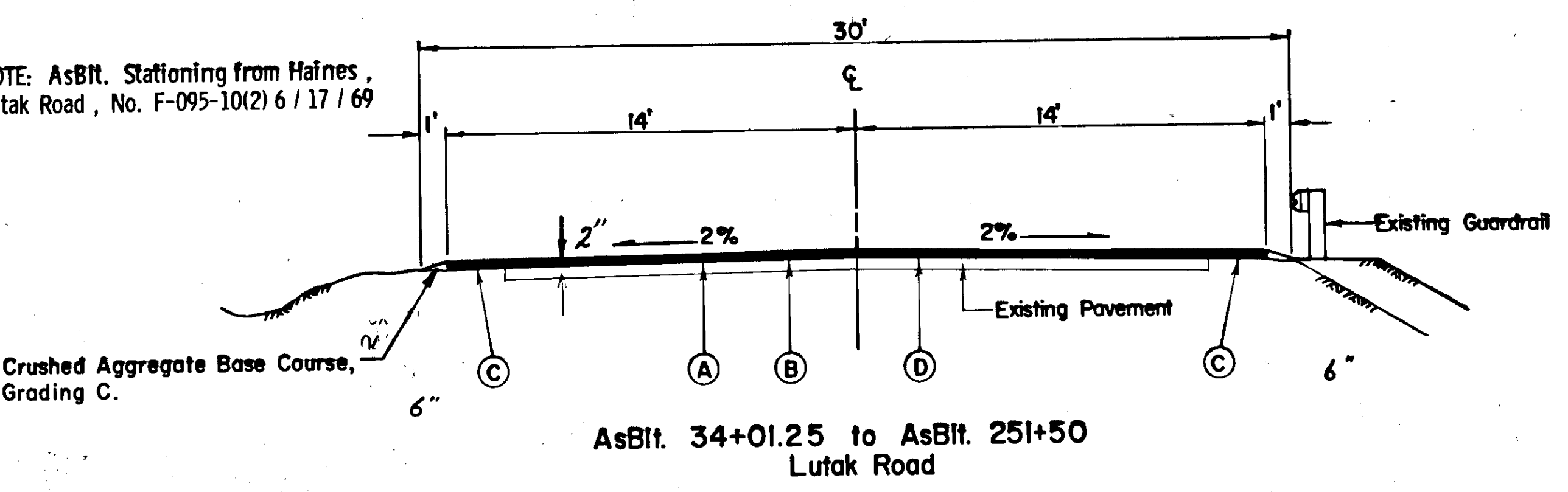
NOTE: AsBit. Stationing from Main Street, City of Haines, No. S-0990(1) 8/31/62



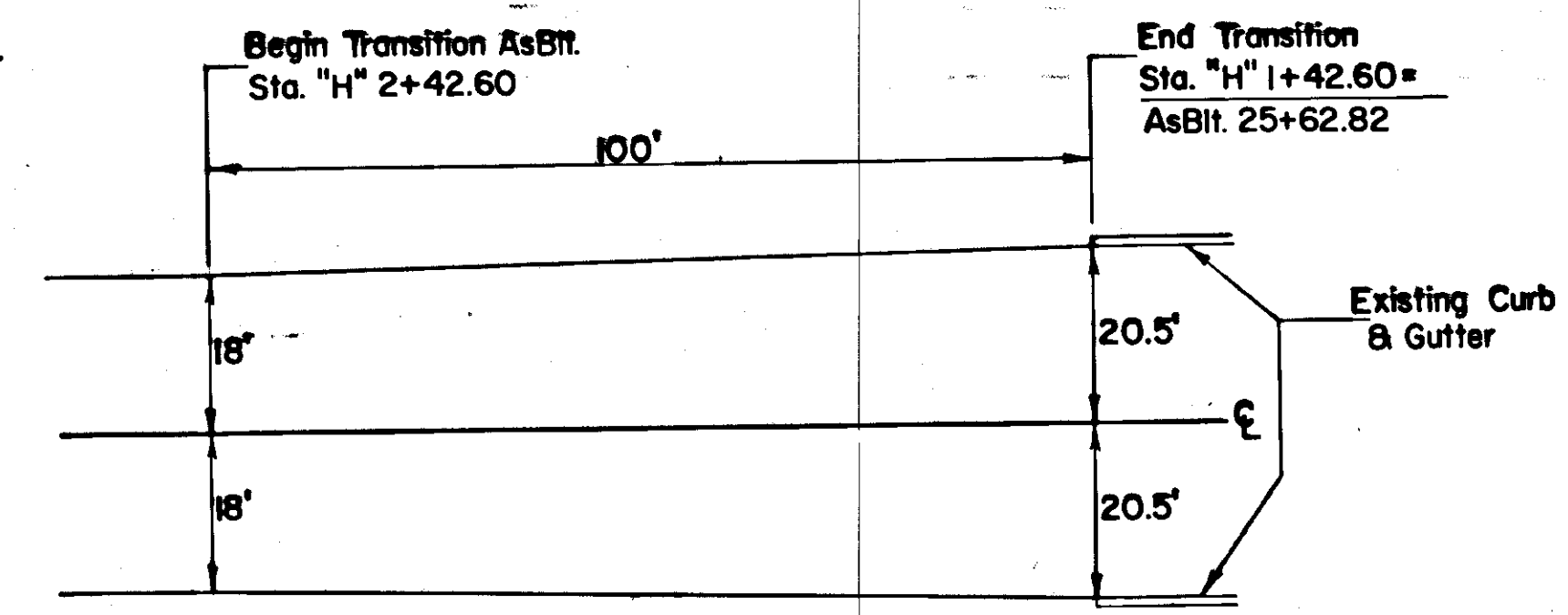
NOTE: AsBit. Stationing from Haines, Lutak Road, No. F-095-10(2) 6/17/69



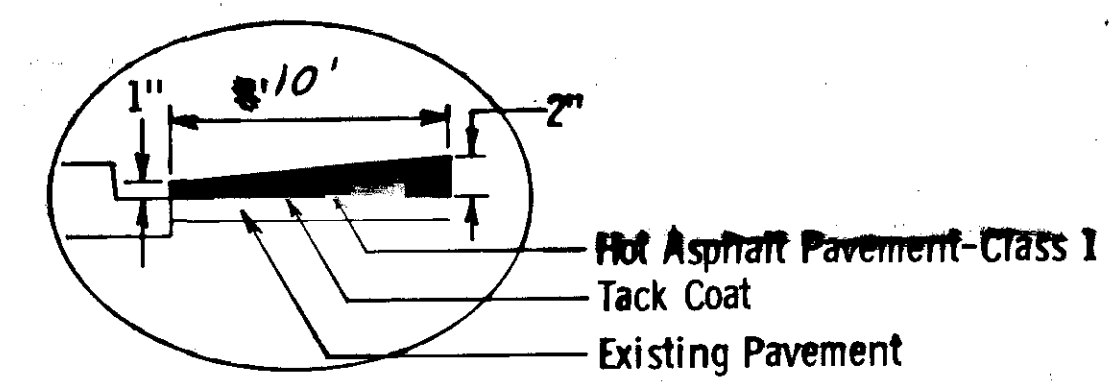
NOTE: AsBit. Stationing from Haines, Lutak Road, No. F-095-10(2) 6/17/69



Transition Detail "A"



Transition Detail "B"



Feather Detail

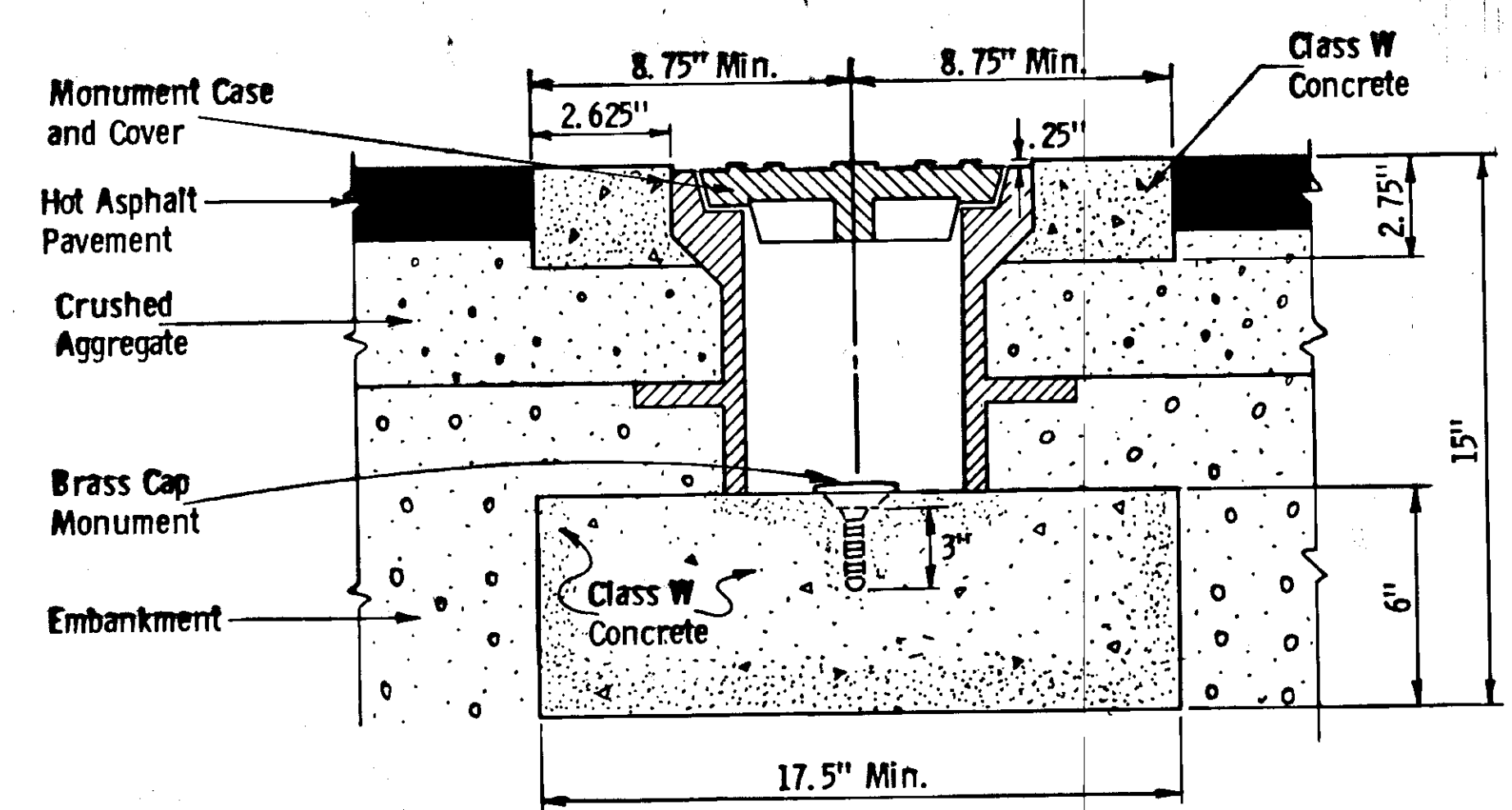
Labeling Index

- (A) Hot Asphalt Pavement - Class I
- (B) Leveling Course (as directed by the Engineer)
- (C) MC-30 Liquid Asphalt for Prime Coat
- (D) CSS-1 Cationic Emulsified Asphalt for Tack Coat
- (E) 6" Crushed Aggregate Base Course, Grading C
- (F) 6" Subbase, Grading A
- (H) Useable Unclassified Excavation and/or Borrow

Basis of Estimate	
ITEM NO.	ESTIMATING FACTOR
203(5B)	1.80 Tons / Cu. Yd.
301(1)	1.96 Tons / Cu. Yd.
304(2)	1.87 Tons / Cu. Yd.
401(1)	112 Lbs. / Sq. Yd. / Inch Depth
401(2)	7% of Item 401(1)
402(2)	0.10 Gal. / Sq. Yd. - 253 Gal. / Ton
403(1)	0.25 Gal. / Sq. Yd. - 256 Gal. / Ton

General Notes

1. Culvert lengths and locations are approximate only, and are subject to minor revisions.
2. Locations of underground utilities are approximate only.
3. Tack Coat shall be applied between Existing Pavement and Leveling Course; Leveling Course and Hot Asphalt Pavement.
4. Removal and Relocation of existing signs, as directed by the Engineer, shall be incidental to item 203(3).
5. Where pavement ends at an existing unpaved roadway, a 50' transition of Subbase, Grading A shall be provided to match existing surface.
6. From "AsBit." sta. 55+00 Lt. to "AsBit." sta. 251+50 Lt., ditch cleaning shall be required as directed by the Engineer.



MONUMENT INSTALLATION DETAIL

- NOTES: 1. This detail shall be used in conjunction with Standard Drawings M-13.01 and M-16.03.
 2. Class W concrete shall be incidental to Item 614(1), Survey Monuments.

U.S. CUSTOMS TO HAINES FERRY TERMINAL

SUMMARY TABLES

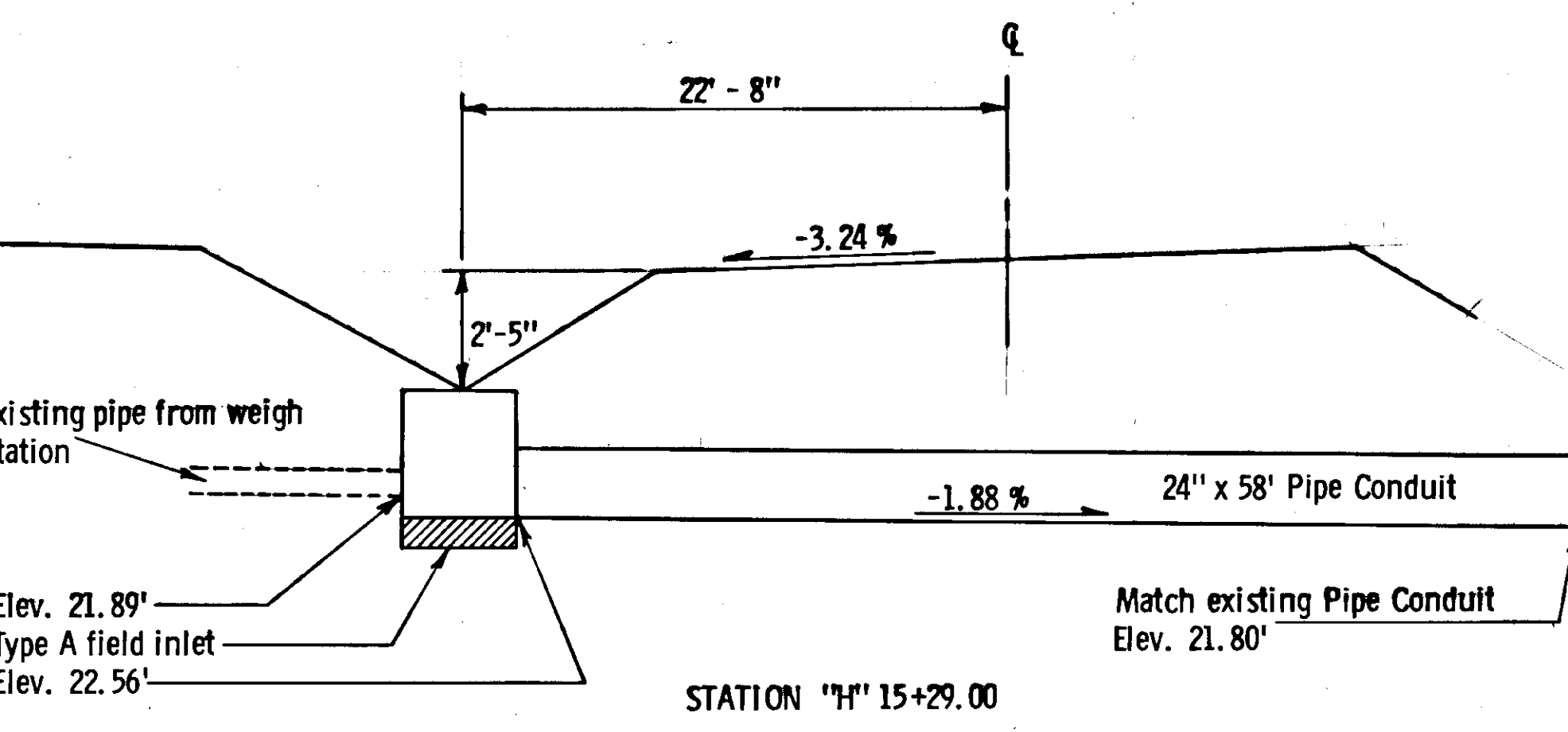
CULVERT SUMMARY					
STATION	SIZE	LENGTH	INLET ELEV.	OUTLET ELEV.	REMARKS
"H" 15+29	24"	58'	22.56	21.80	Install, See detail this sheet.
"H" 8+14	24"	78'	25.70	24.80	Install
"H" 3+31	24"	58'	28.50	27.80	Install

MONUMENT SUMMARY	
STATION	REMARKS
"H" 14+46.17 P. I.	Install Monument and Case
"H" 8+45.16 P. O. T.	
"H" 2+43.86 P. I.	
MAIN STREET	
22+20.49 5' Rt.	Main St. & Sixth Ave., See Note
18+45.40 5' Rt.	Main St. & Fifth Ave., See Note
14+70.40 5' Rt.	Main St. & Fourth Ave., See Note
10+95.40 5' Rt.	Main St. & Third Ave., See Note
7+20.49 5' Rt.	Main St. & Second Ave., See Note
SECOND AVENUE	
28+53.08	Second Ave. & Dalton St., See Note
32+53.12	Second Ave. & Union St., See Note
LUTAK ROAD	
33+89.66 P. C.	Install Monument and Case
42+25.36 P. T.	
48+83.10 P. I.	
58+00.00 P. I.	
60+38.51 P. C.	
65+19.62 P. I.	
65+42.93 P. C.	Install Monument and Case
69+37.03 P. T.	
74+14.20 P. C.	
78+10.29 P. T.	
82+57.00 P. C.	
86+81.86 P. T.	Install Monument and Case
90+42.40 P. I.	
96+19.00 P. I.	
101+26.20 P. I.	
103+90.80 P. I.	
105+54.20 P. C.	Install Monument and Case
106+84.10 P. I.	
108+12.13 P. C.	
112+76.52 P. T.	
114+11.10 P. I.	
119+14.20 P. I.	Install Monument and Case
123+01.10 P. I.	
127+49.70 P. I.	
133+00.00 P. I.	
136+99.38 P. C.	
141+23.76 P. T.	Install Monument and Case
142+46.62 P. C.	
145+66.62 P. T.	
149+83.90 P. C.	
153+71.68 P. C.	
157+21.10 P. T.	Install Monument and Case
163+98.00 P. I.	
173+19.40 P. I.	
180+33.50 P. C.	
180+75.62 P. T.	
188+73.15 P. C.	Install Monument and Case
197+93.05 P. T.	
200+38.70 P. I.	
204+56.03 P. I.	
209+99.94 P. O. T.	
216+68.98 P. C.	Install Monument and Case
221+83.39 P. T.	
224+08.20 P. I.	
232+57.88 P. O. T.	
245+29.83 P. C.	
246+31.10 P. I.	Install Monument and Case
247+29.39 P. C.	
250+06.40 P. T.	
251+40.00 E. O. P.	

APPROACH SUMMARY				
STATION	WIDTH		REMARKS	PAVING LIMIT
	Lt.	Rt.		
"H" 17+35		26'	Commercial	25'
"H" 16+70		40'	Commercial	25'
"H" 13+35		40'	Commercial	25'
"H" 13+30	310'		Road	27.64'
"H" 12+25		24'	Commercial	25'
"H" 8+45	24'		Union Street	25'
"H" 5+17	40'		Commercial	25'
"H" 5+08		64'	Commercial	25'
"H" 3+08		14'	Residential	20'
"H" 2+35		24'	Commercial	25'
MAIN STREET				
22+20.40	40'		6th Avenue	20'
22+20.40		40'	Future Street	9.5'
18+45.40	40'		5th Avenue	20'
18+45.40		40'	Future Street	9.5'
14+70.40	40'		4th Avenue	20'
14+70.40		40'	Future Street	9.5'
10+95.40	40'	40'	3rd Avenue	20'
7+20.49 Bk. =				
24+71.19 Ahd.		40'	Main Street	20'
SECOND AVENUE				
26+56.00	14'		Alley	12.2'
28+53.00	40'	40'	Dalton Street	26.7'
32+53.12	40'	40'	Union Street	33.47'
LUTAK ROAD				
34+54.00	24'		Alley	25'
34+58.00		14'	Alley	25'
35+40.00		20'	Residential	20'
36+00.00	24'		Commercial	25'
36+25.00	40'	40'	View Street	25'
37+90.00	14'	14'	Residential	20'
38+60.00	14'		Residential	20'
38+89.00		14'	Residential	20'
38+89.66	24'		Young Road	25'
39+30.00	14'		Residential	20'
41+10.00		24'	Service Road	25'
44+90.00	14'		Residential	20'
48+83.10		24'	Service Road	25'
50+00.00	14'		Service Road	25'
61+50.00		24'	Front Street	25'
141+20.00	14'		Residential	20'
149+00.00	14'		Residential	20'
173+50.00	14'		Residential	20'
175+95.00		14'	Residential	20'
179+90.00	14'		Residential	20'
182+20.00	24'		Road	25'
183+00.00	24'		Road	25'
191+50.00	24'		Commercial	25'
194+96.00		24'	Commercial	25'
218+50.00	24'		Commercial	25'
228+55.00		24'	Commercial	25'
246+31.00		22'	Ferry Terminal, Match Existing	25'
250+84.16		46.5'	Ferry Terminal, Match Existing	25'

NOTE: Paving limit is from the edge of traveled way.

NOTE: ALL "H" LINE AND MAIN STREET OFFSETS IN THE APPROACH SUMMARY, ADJUST MANHOLE TABLE, AND ADJUST VALVE BOXES TABLE REFER TO THE ALIGNMENT LOOKING BACK ON STATION.



- NOTE: 1. Existing pipe from weigh station sump is to be field adjusted as directed by the Engineer.
 2. Removal of existing inlet shall be incidental to Pay Item 604(5) Inlets.

INLET DETAIL
Station "H" 15+29.00

ADJUST MANHOLES			
STATION	Lt.	Rt.	
"H" 5+12.09	27'		
MAIN STREET			
22+24.00		8'	
18+55.00		8'	
14+92.40	19'		
14+80.40		8'	
14+49.40	19'		
11+17.40	19'		
11+05.40		8'	
10+74.40	19'		
7+40.49	19'		
7+35.49		3'	
7+00.49	19'		
SECOND AVENUE			
26+57.00	20'		
LUTAK ROAD			
34+58.00	12'		
38+98.00	18'		

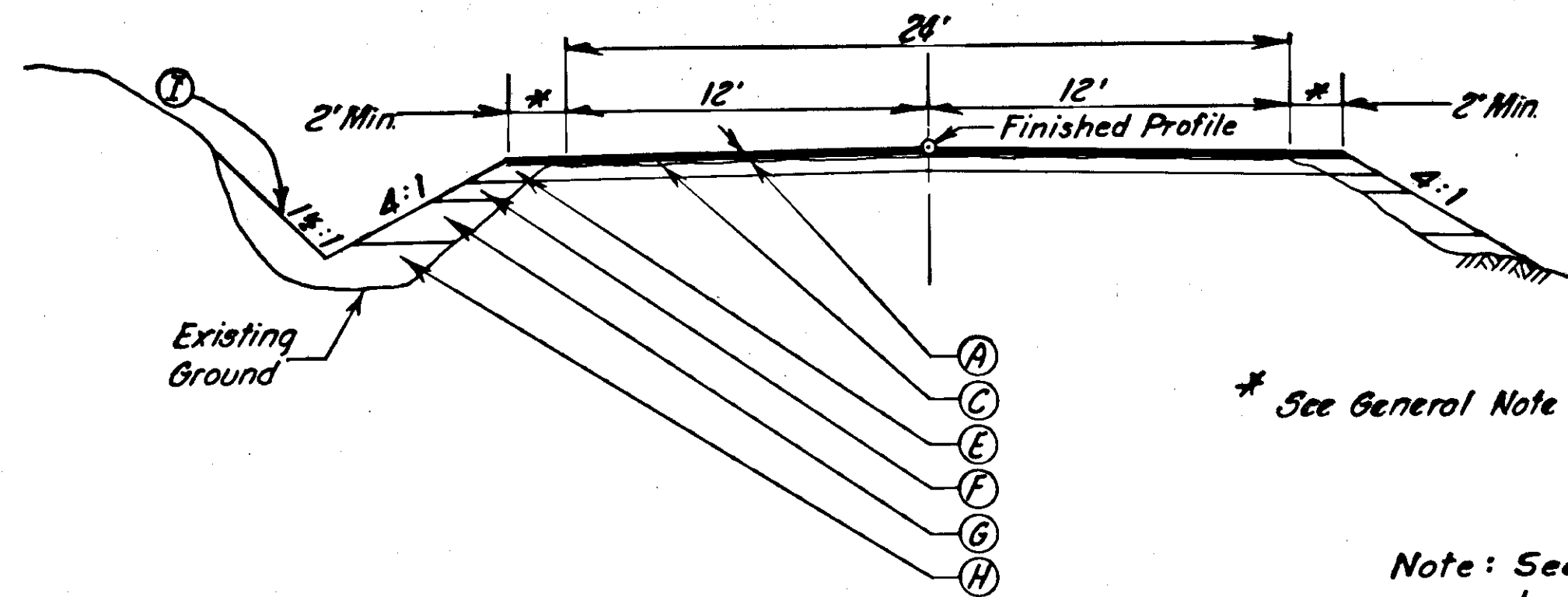
ADJUST VALVE BOXES			
STATION	Lt.	Rt.	
MAIN STREET			
24+19.00		15'	
21+79.40		20'	
18+02.40		20'	
14+28.40		20'	
14+75.00		15'	
10+54.40		20'	
7+63.49		20'	
7+09.00			4'
SECOND AVENUE			
24+86.19			8'
26+75.00			22'
28+63.00			6.5'
28+63.00			8.5'
32+55.80			9'
32+63.00			9'
32+63.00			11'
LUTAK ROAD			
36+73.00			7'
36+75.00			6'
36+75.00			9'

ADJUST SEWER CLEANOUTS			
STATION	Lt.	Rt.	
SECOND AVENUE			
24+75.19		18'	
27+12.00	15'		
30+40.00	5'		

REMOVAL OF CURB & GUTTER			
STATION	Lt.	Rt.	
SECOND AVENUE			
34+01.25	34+35.00	20'	
34+01.25	34+35.00		20'

CULVERT REMOVAL	
STATION	LENGTH
"H" 15+29	53'
"H" 8+14	73'
"H" 3+51	53'

MUD BAY ROAD



TYPICAL SECTION

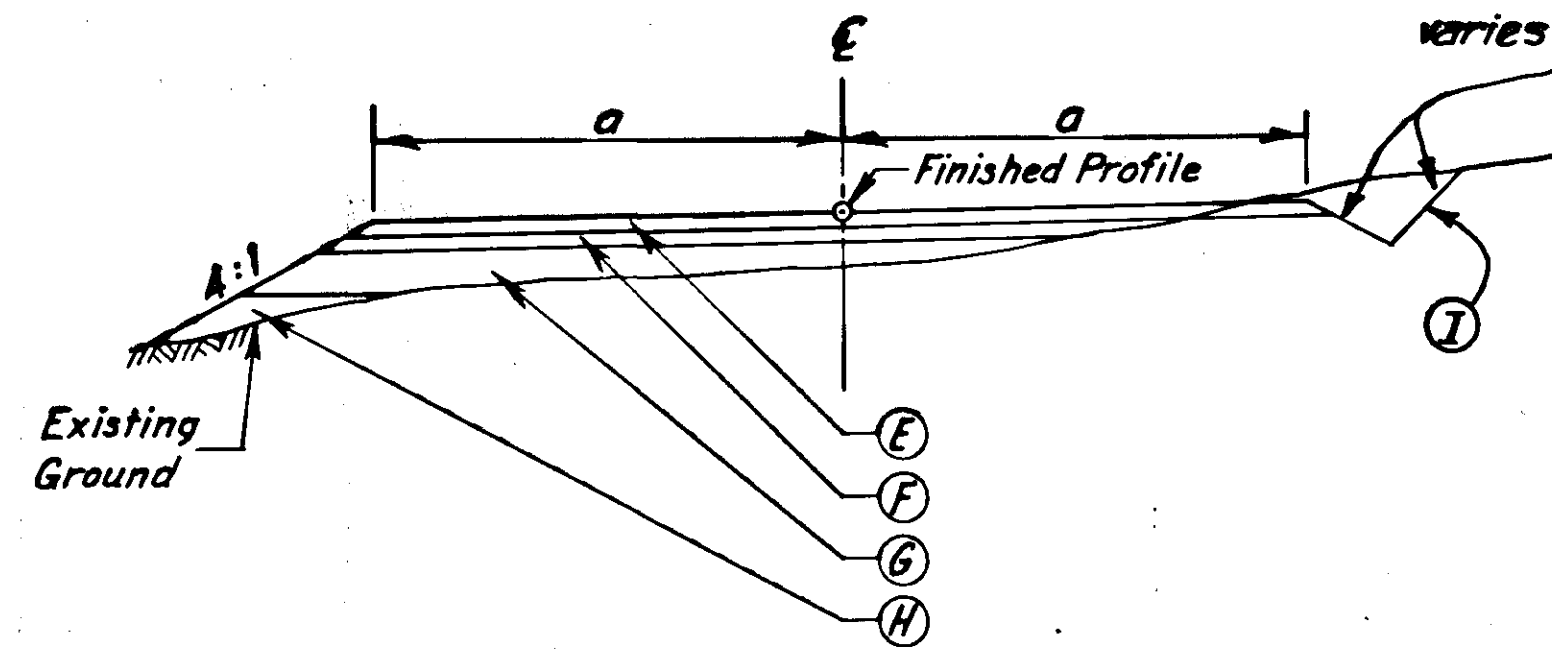
Sta. 0+9+00.00 to Sta. 0+59+00.00,
Sta. Y+0+12.00 to Sta. Y+26+85.48

LABELING INDEX

- (A) 2" Hot Asphalt Pavement - Class I
- (C) MC-30 Liquid Asphalt for Prime Coat
- (E) 12" 4" Crushed Aggregate Base Course, Grading C
- (F) 6" Subbase, Grading A
- (G) 18" Minimum Borrow for Unclassified Excavation meeting requirements Sub-Section 703-2.07
- (H) Useable Unclassified Excavation and/or Borrow
- (I) Seeding, Class I

* See General Note #5.

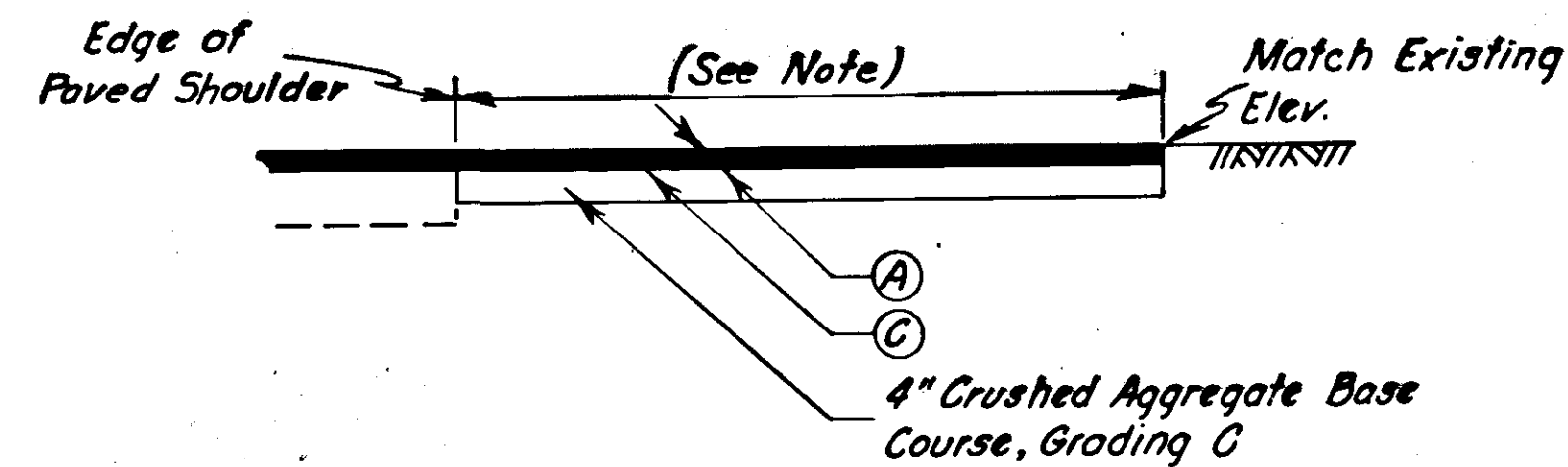
Note: See slope table for exceptions to typical sections, Sheet #20.



TYPICAL SECTION

- "A" Line See sht. # , a=14'
"A" 0+37 to "A" 1+12
- "B" Line See sht. # , a=25'
"B" 0+37 to "B" 0+85
- "C" Line See sht. # , a=36'
"C" 0+37 to "C" 0+58
- "D" Line See sht. # , a=14'±10'±
"D" 10+57.24 to "D" 11+70.01

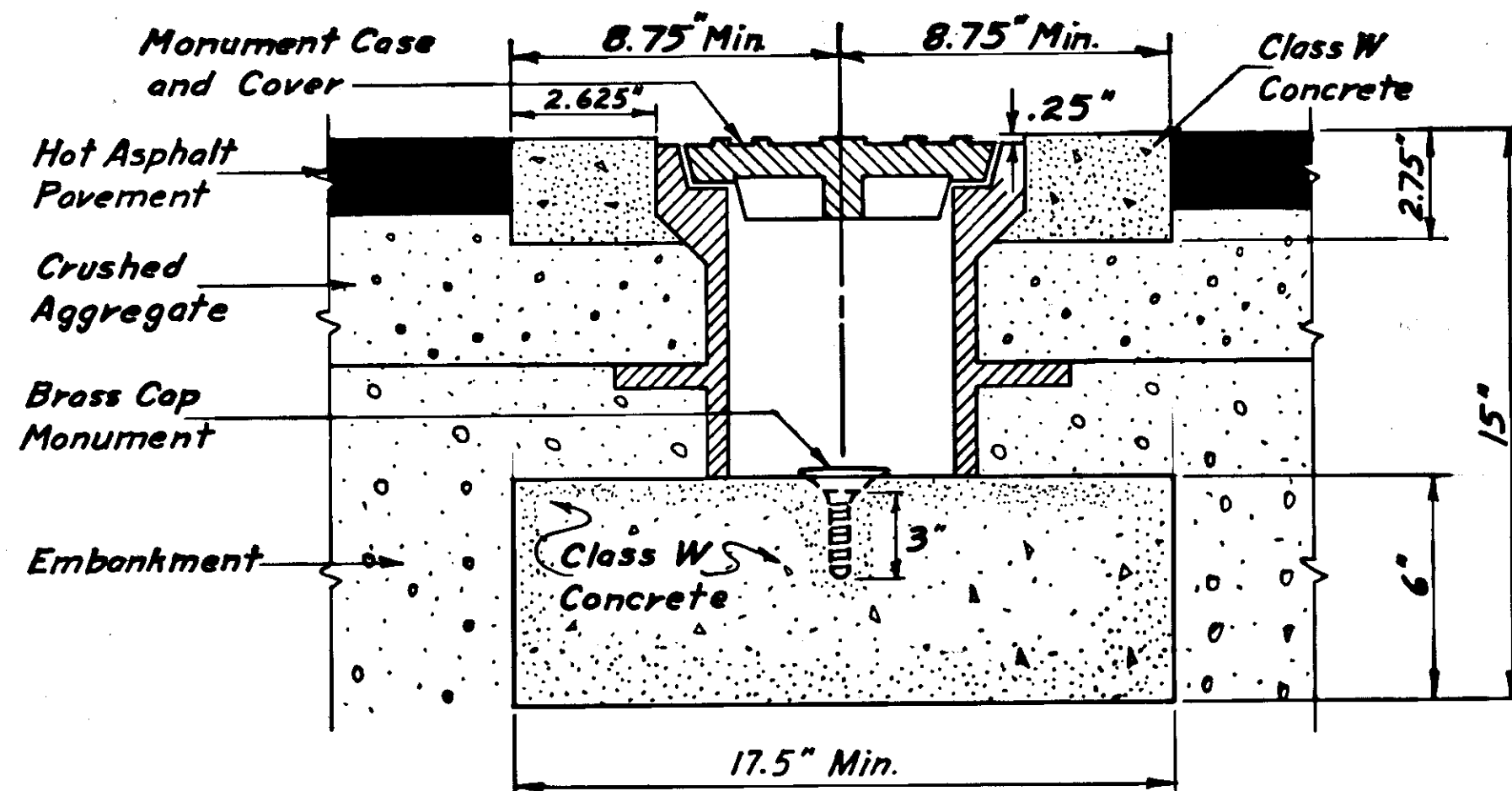
* "D" 10+57.24 to "D" 11+70.10, roadway shall be transitioned from 28' in width to 20' in width.



Note: Unless shown otherwise on the plans, the dimensions and radii shall conform to Standard Drawing I-40.10.

APPROACH & INTERSECTION SURFACING DETAIL
(See General Note #7)

Basis of Estimate	
Item	Estimating Factor
203(5)	1.80 Tons per cu. yd.
301(1)	1.96 Tons per cu. yd.
304(1)	1.87 Tons per cu. yd.
401(1)	112 lbs. per sq. yd. inch depth
401(2)	7.0 % of Item 401(1)
403(1)	0.25 gals. per sq. yd. / 256 gals. per ton.



Monument Installation Detail

1. This detail shall be used in conjunction with Standard Drawings M-13.01 and M-16.03.
2. Class W Concrete shall be incidental to Item 614(1), Survey Monuments.

GENERAL NOTES

1. Stationing with "O", "Y", and "Z" designations refer to the alignments as staked in the field. Stationing with "O", "Y", "A", "B", "C", & "D" designation refer to office alignment.
2. Grades and alignment shown on these plans are subject to minor revisions.
3. Culvert lengths and locations are approximate only, and are subject to minor revisions.
4. Finished roadway crown shall be 0.02/ft., or as directed by the engineer.
5. Clearing and grubbing limits shall be 10' beyond slope limits in cut areas and 5' beyond slope limits in fill areas, or to ROW, whichever is less.
6. The shoulder shall be widened and paved to 6' left, between "O" 12+00.00 and "O" 27+00.00 and right, between "O" 28+00.00 and "O" 44+25.00.
7. Surfacing Detail does not apply to the "A", "B", "C", and "D" Lines. These lines shall conform the "Y" typical section.
8. Removal and relocation of existing signs, as directed by the Engineer, shall be incidental to Item 203(3), with the exception of two existing signs at "O" 11+13 Lt., which shall be removed by others.
9. Where pavement ends of an existing unpaved roadway, a 50' transition of ^{Base Course} Grading "C" shall be provided to match existing surface.
10. Utility Poles within construction limits shall be moved by others.

SUMMARY TABLES

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0987(I)	1976	20	33

MUD BAY ROAD

CULVERT SUMMARY

STATION	SIZE	LENGTH	INLET ELEVATION	OUTLET ELEVATION	REMARKS
"O" 9+63		30 154'			Remove
"O" 9+63	36"	30 79'	22.0	21.0	Install, Skewed 9° Rt. Ahd.
"O" 10+00 Lt.		75'			Remove
"Y" 0+26		45 47'			Remove
"Y" 0+29	24"	30 80'	32.5	31.5	Install
"Y" 1+60 Rt.	18"	60'			install
"O" 17+95 Lt.		12			Remove Deleted
"O" 17+95 Lt.	18"	24	36.2	36.0	Install "
"O" 18+00 Rt.		24			Remove "
"O" 18+00 Rt.	18"	24	35.2	34.9	Install "
"O" 23+00	24"	30 60'	33.0	32.5	Install
"O" 26+78		30 49'			Remove
"O" 27+60 Rt.		59'			Remove
"O" 27+60 Rt.	24"	64'	34.3	33.6	Install
"O" 28+00 27+95	24"	58'	35.8	34.3 33.3	Install
"O" 29+16 Rt.		30 40'			Remove
"O" 29+16 Rt.	18"	46'	35.3	34.9	Install
"O" 44+00 Rt.		30 74'			Remove
"O" 45+83 Lt.		45			Remove "
"O" 45+83 Lt.	18"	30	30.2	29.7	Install "
"O" 50+00	24"	70'	28.5	27.75	Install
"O" 55+00	24"	68'	26.0	25.25	Install
"O" 58+35 Rt.		43'			Remove
"O" 58+35 Rt.	24"	44'	24.4	23.9	Install
"O" 58+35 Rt.	24"	30 62'	23.85 23.0	23.15 24.0	Install
"A" 0+20		33'			Remove
"A" 0+23	18"	46'	48.3	45.7	Install
"B" 0+18		44'			Remove
"B" 0+22	18"	30 60'	60.0	56.5	Install, Skewed 13° Lt. Ahd.
"C" 0+16		30 74'			Remove
"C" 0+23	18"	100'	30 77'	30 70'	Install, Skewed 13° Lt. Ahd.
"Y" 6+65 Lt.		30 40'			Remove
"Y" 6+65 Lt.	18"	58'	33.2 30.0	30 29.6	Install
"Y" 8+30 Rt.	18"	30	35.1	31.5	Install Deleted
"Y" 9+86 Lt.		30'			Remove
"Y" 9+86 Lt.	18"	44'	104.0	100.5	Install
"Y" 13+40		30 47'			Remove
"Y" 13+40	24"	30 81'			install Skewed 29° Rt. Ahd.
"D" 10+75	24"	30 84'	134 135.0	133 134.0	Install, Skewed 29° Rt. Ahd.
"Y" 15+96 Rt.		20'			Remove
"Y" 15+96 Rt.	18"	38'	151.8	151.0	Install
"Y" 18+40 Rt.	18"	50'	154.1	153.6	Install
"Y" 20+10 Rt.	18"	36'	157.2	155.9	Install
"Y" 20+10 Rt.		20'			Remove
"Y" 22+00 Lt.	18"	36'	167.2	164.7	Install
"Y" 22+00 Lt.	18"	36'	173.6	170.7	Install
"Y" 24+75 Lt.	18"	56'	186.9	185.5	Install
"Y" 25+00 Rt.		17'			Remove
"Y" 25+00 Rt.	18"	36'	187.3	186.6	Install

APPROACH SUMMARY

STATION	LT.	RT.	WIDTH
"O" 9+46	X		24'
"O" 9+60		X	24'
"O" 13+23		X	40'
"O" 13+76 14+03	X		30 160' 4' width
"O" 14+45		X	40'
"O" 17+95	X		30 10'
"O" 18+00		X	30 10'
"O" 27+19	X		46'
"O" 27+60		X	58'
"O" 29+18		X	30'
"O" 37+93		X	26'
"O" 40+56		X	26'
"O" 44+56		X	32'
"O" 45+83	X		28'
"O" 58+35		X	26'
"Y" 1+47			54' 4' width
"Y" 6+17		X	20 145' 4' width
"Y" 6+65	X		24'
"Y" 7+35		X	20'
"Y" 8+30		X	24'
"Y" 9+36		X	24'
"Y" 9+86	X		16'
"Y" 15+96		X	14'
"Y" 18+40		X	24'
"Y" 20+10		X	14'
"Y" 22+00	X		14'
"Y" 22+10		X	14'
"Y" 24+75	X		30'
"Y" 25+00		X	14'
"Y" 26+00		X	42'

BRASS CAP MONUMENTS & CASES

STATION	LOCATION	POINT	REMARKS
"O" 9+00.00	Q	B.O.P.	Install
"O" 11+60.00	Q	P.O.T.	Install
"Y" 0+00.00			
"Y" 1+17.40	4.72' Lt.	P.I.	Install
"O" 14+40.37	1.46' Rt.	P.I.	Install
"O" 30+99.86	Q	P.C.	Install
"O" 40+41.97	Q	P.T.	Install
"Y" 2+25.97	Q	P.O.T.	Install, See Note
"Y" 6+21.69	Rt.	P.O.S.T.	Install, See Note
"Y" 6+44.68	9.09' Rt.	P.I.	Install
"Y" 8+96.02	.93' Rt.	P.I.	Install
"Y" 13+04.92	Q	P.C.	Install
"D" 8+76.85	Q	P.O.T.	Install
"D" 9+61.19	4.70' Rt.	P.I.	Install
"D" 10+57.24	Q	P.C.	Install
"D" 11+55.12	Q	P.T.	Install
"Y" 15+31.15	Q	P.T.	Install
"Y" 16+77.24	24.18' Q	P.C.	Install
"Y" 18+39.91	22.65' Lt.	P.I.	Install, See Note
"Y" 19+94.26	Q	P.T.	Install
"Y" 24+78.08 Bk=			
"Y" 24+75.48 AHD	Q	A.P.	Install
"Y" 24+96.45	.67' Lt.		Install, See Note
"Y" 26+85.47	Q	E.O.P.	Install

NOTE: Remove and dispose existing monument (rock with lead plug and copper tack - approximately 2' deep).

ADJUST MANHOLES (To Be Adjusted by City of Haines)

STATION	LT.	RT.	OFFSET
"O" 9+41	X		26'
"O" 10+17		X	26'
"O" 27+85		X	33'
"O" 44+38		X	33'
"O" 45+70	X		30'
"O" 49+75		X	25'
"O" 52+78		X	27'
"Y" 18+35	X		4'
"Y" 22+28		X	17'
"Y" 25+42		X	13'

ADJUST VALVE BOXES

STATION	OFFSET
"O" 27+23	33' Lt.
* "Y" 24+72	17' Lt. (3)

* To Be Adjusted By City of Haines

"O" LINE SUPERELEVATION TABLE

BEGIN TRANSITION	BEGIN FULL SUPER	END FULL SUPER	END TRANSITION	RATE %	DIR.
"O" 12+27.28	"O" 13+52.78	"O" 15+27.91	"O" 16+52.91	R.C.	Lt.
"O" 30+16.53	"O" 31+41.53	"O" 40+00.30	"O" 41+25.30	3.5%	Lt.

NOTE: Rotate superelevation about inside shoulder.

"Y" & "D" LINE SUPERELEVATION TABLE

BEGIN TRANSITION	BEGIN FULL SUPER	END FULL SUPER	END TRANSITION	RATE %	DIR.
"Y" 0+12.00	"Y" 0+99.62	"Y" 0+99.62	"Y" 1+99.62	4%	Rt.
"Y" 4+75.55	"Y" 5+75.55	"Y" 7+11.66	"Y" 8+11.66	2.9%	Lt.
"Y" 12+38.25	"Y" 13+38.25	"Y" 14+97.82	"Y" 15+97.82	4%	Lt.
"Y" 16+10.57	"Y" 17+10.57	"Y" 19+60.93	"Y" 20+60.93	2.9%	Rt.
"D" 10+12.00	"D" 10+87.00	"D" 10+95.01	"D" 11+70.01	R.C.	Rt.

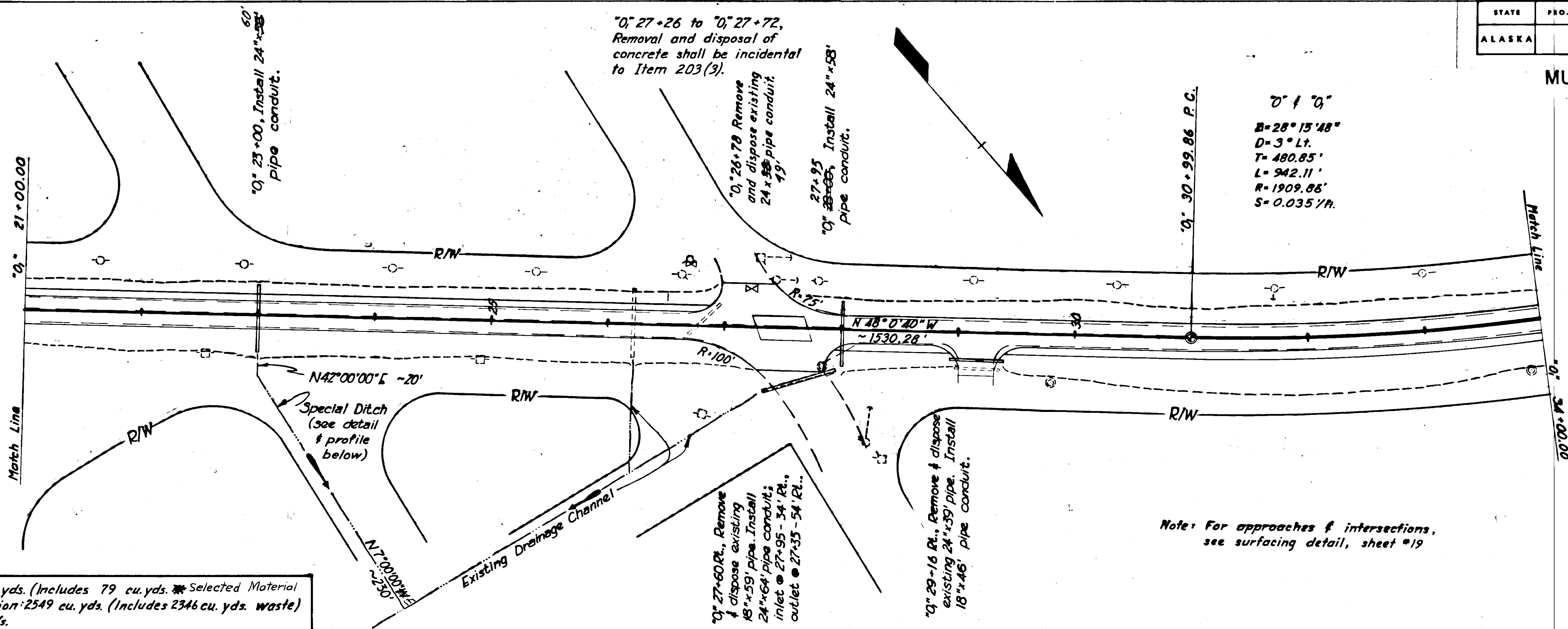
NOTE: 1. Rotate superelevation about inside shoulder.
2. "D" Line only, transition length shall be 75'.

"O" & "Y" SLOPE TABLE

LT.	STATION	RT.	LT.	STATION	RT.
2:1	"O" 9+00	2:1		"O" 44+00	2:1
	"O" 12+00	2:1		"O" 45+00	3:1
	"O" 16+00	4:1	4:1	"O" 46+00	4:1
	"O" 16+00	4:1	4:1	"O" 59+00	4:1
	"O" 33+00	4:1			
	"O" 33+50	3:1	4:1	"Y" 0+37	4:1
	"O" 34+50	3:1	2:1	"Y" 3+00	2:1
	"O" 35+00	4:1			
	"O" 36+00	4:1	4:1	"Y" 6+00	
	"O" 37+00	3:1	2:1	"Y" 12+00	
	"O" 38+00	2:1			
2:1	"O" 39+00		4:1	"Y" 16+52	
3:1	"O" 40+00				
4:1	"O" 41+00		2:1	"Y" 20+52	
			2:1	"Y" 26+85.42	2:1

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0987(I)	1976	22	33

MUD BAY ROAD

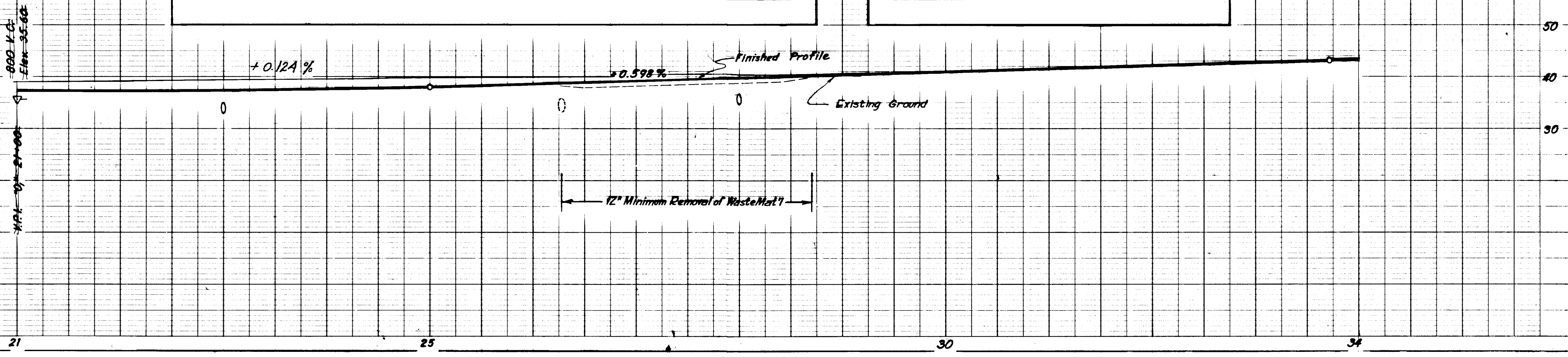
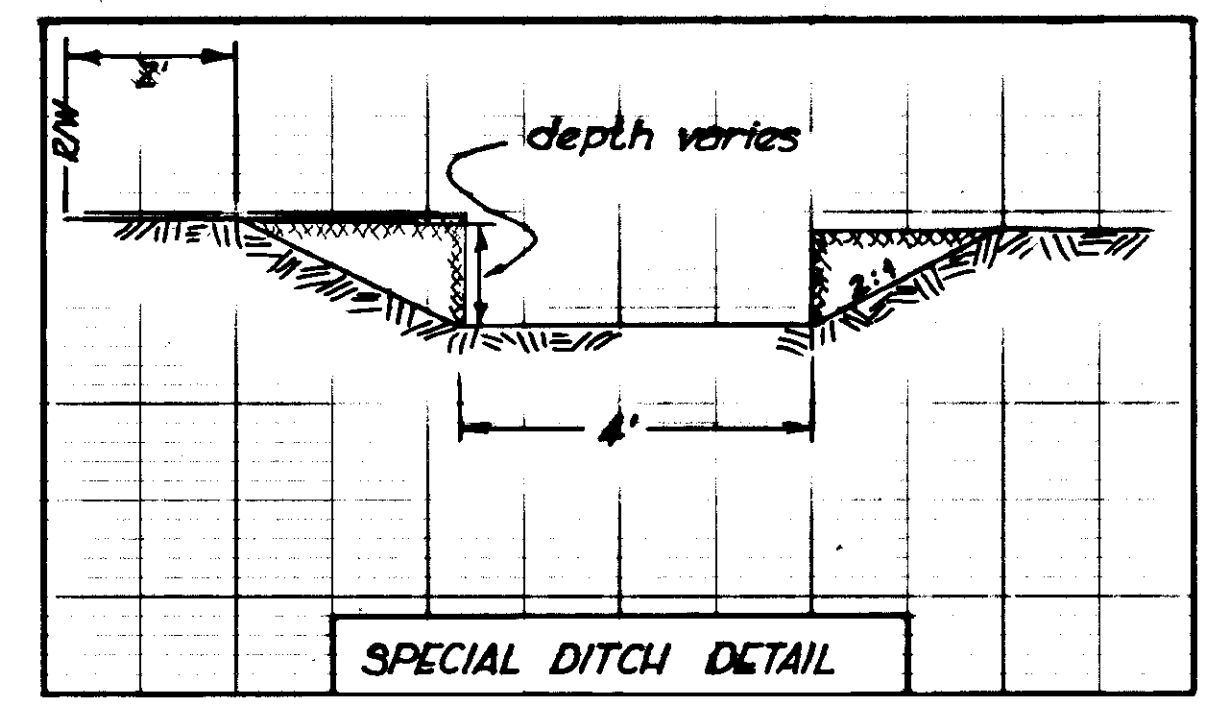
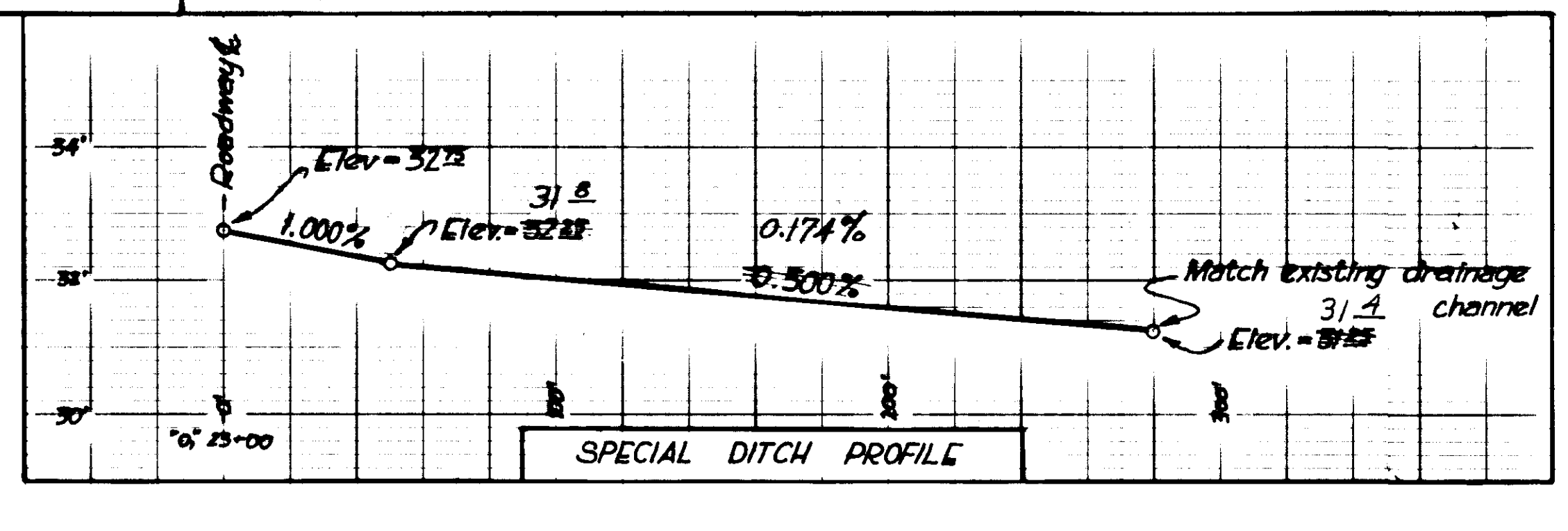


0+ + 0+
 B=28° 15' 48"
 D=3° Lt.
 T=480.85'
 L=942.11'
 R=1909.86'
 S=0.035 1/R.

Note: For approaches & intersections, see surfacing detail, sheet #19

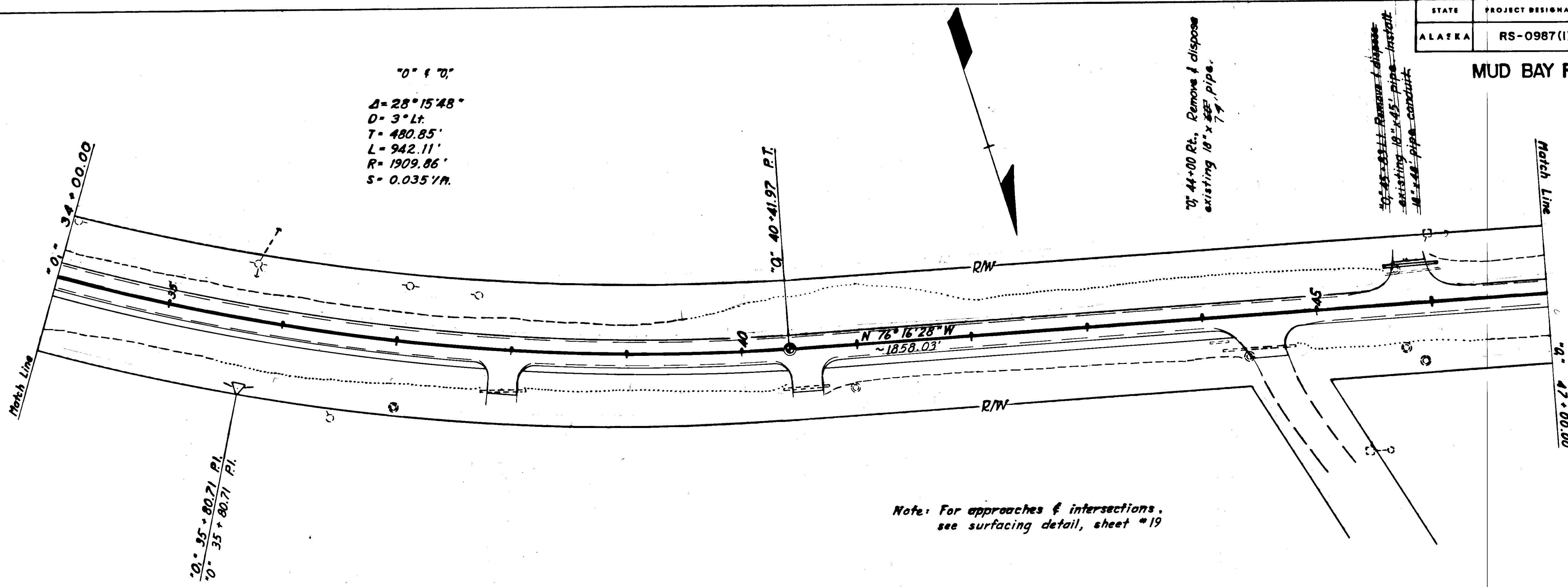
embankment: 203 cu. yds. (Includes 79 cu. yds. Selected Material)
 unclassified Excavation: 2549 cu. yds. (Includes 2346 cu. yds. waste)
 borrow: 0 cu. yds.

* Borrow for unclassified Excavation meeting requirements of Sub-Section 203-2.07



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0987(1)	1976	23	33

MUD BAY ROAD



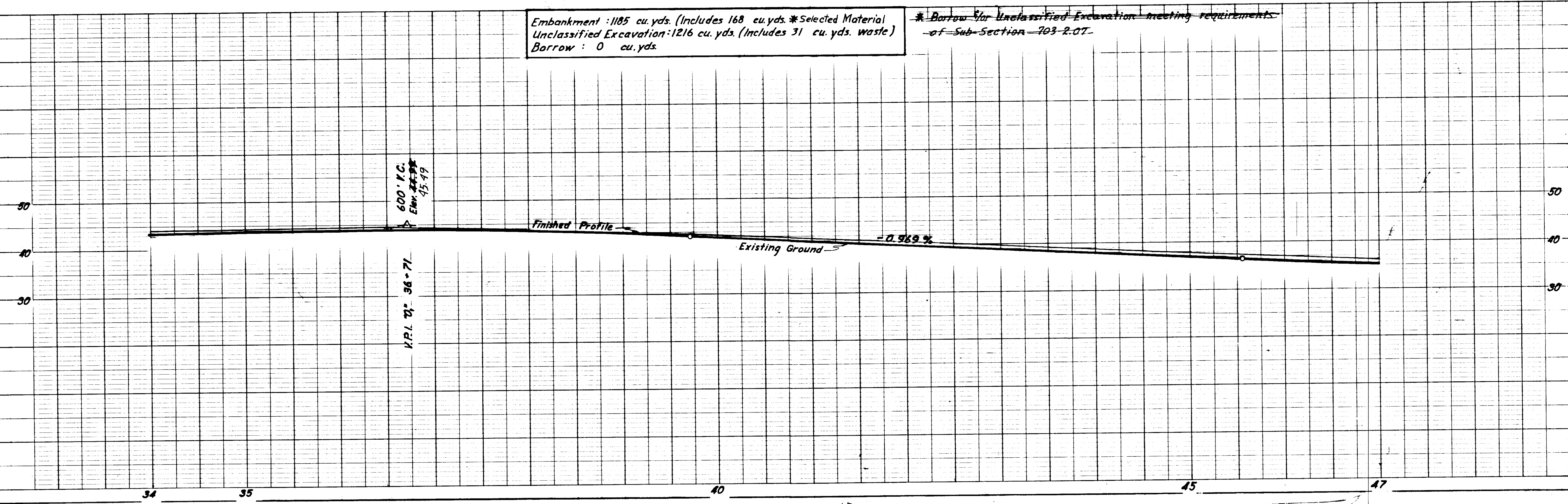
0+44+00 Rt., Remove & dispose existing 18" x 45" pipe.

0+45+00 Rt. Remove & dispose existing 18" x 45" pipe. Install 18" x 48" pipe conduit.

Note: For approaches & intersections, see surfacing detail, sheet #19

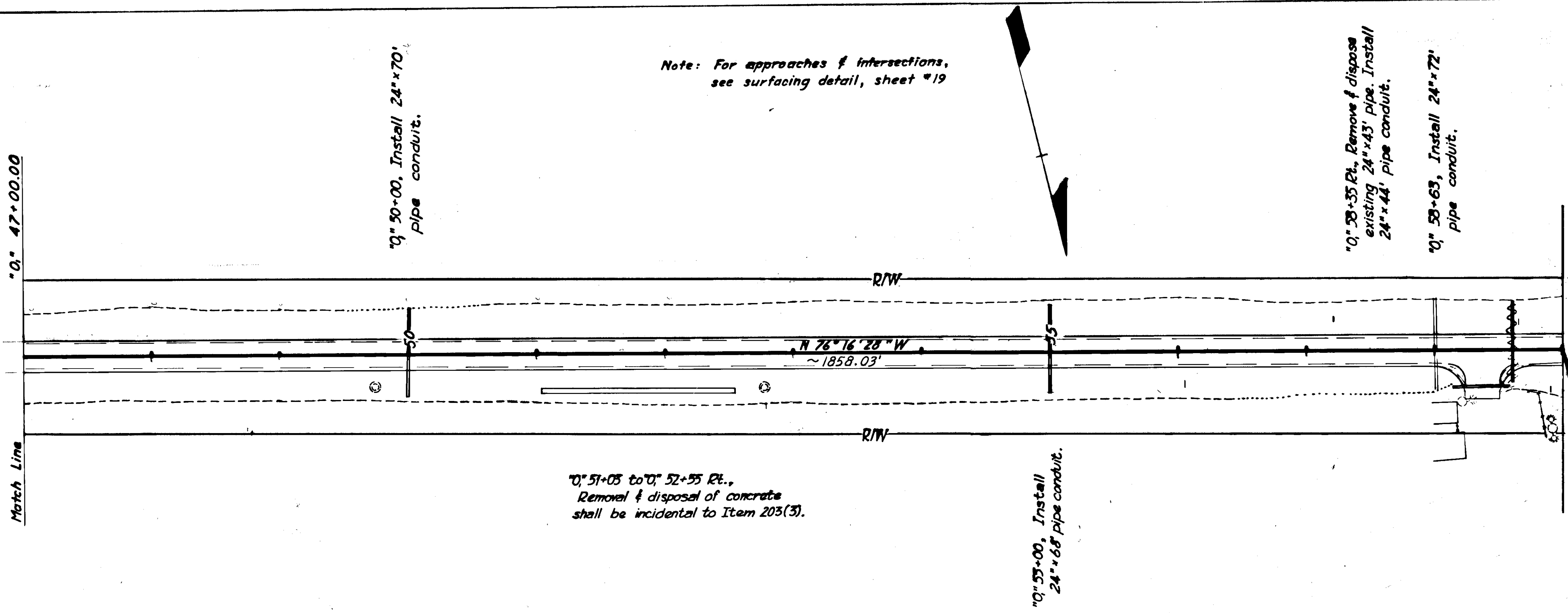
Embankment: 1185 cu. yds. (Includes 168 cu. yds. * Selected Material)
 Unclassified Excavation: 1216 cu. yds. (Includes 31 cu. yds. waste)
 Borrow: 0 cu. yds.

* Borrow for Unclassified Excavation meeting requirements of Sub-Section 703-2.07



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0987(1)	1976	24	33

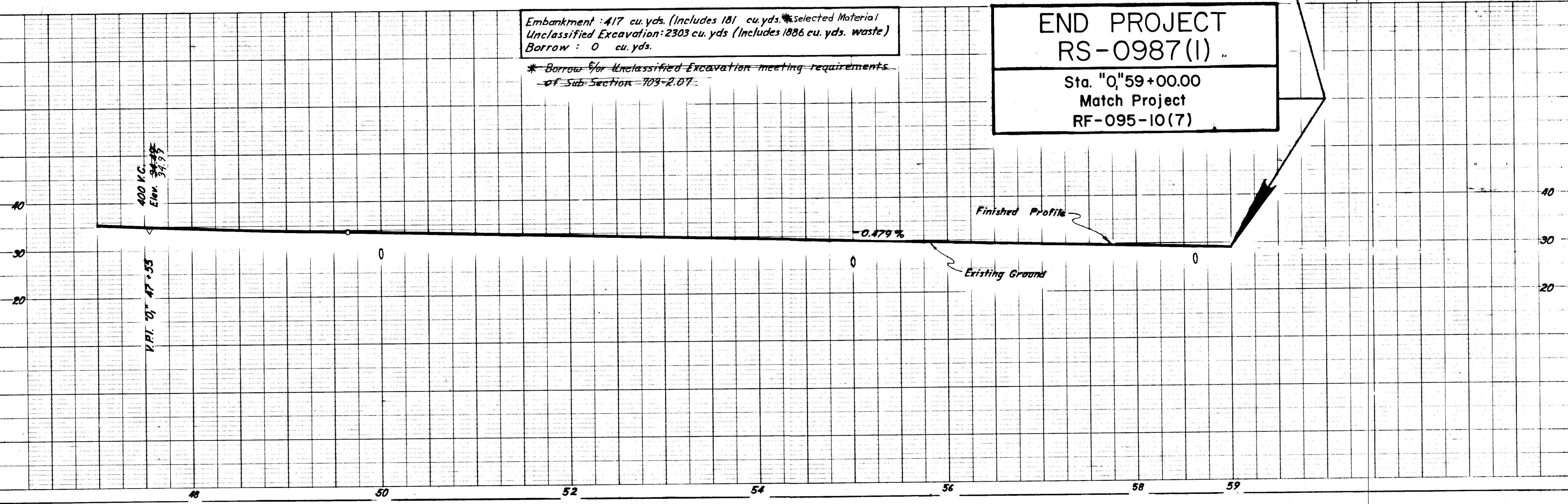
MUD BAY ROAD



Embankment : 417 cu. yds. (Includes 181 cu. yds. *selected Material)
 Unclassified Excavation: 2303 cu. yds. (Includes 1886 cu. yds. waste)
 Borrow : 0 cu. yds.

* Borrow for Unclassified Excavation meeting requirements of Sub-Section 709-2.07.

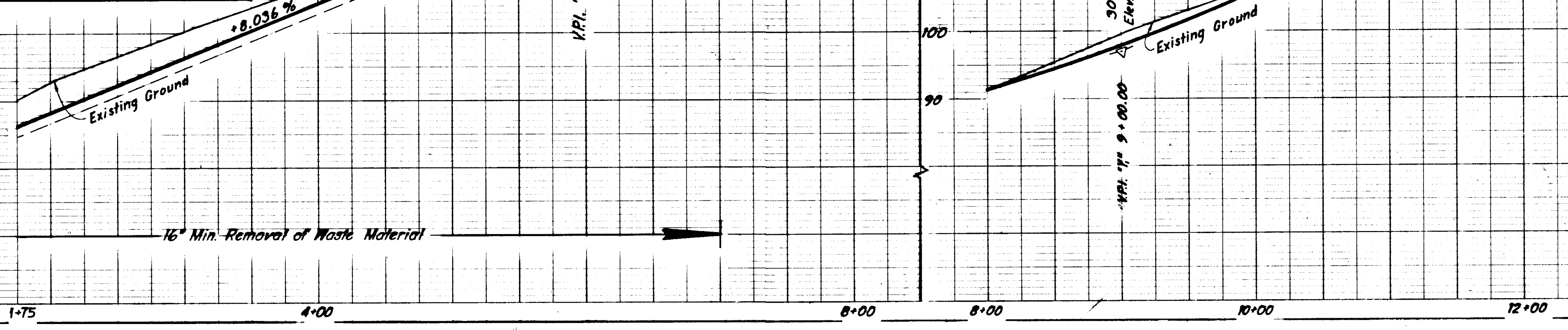
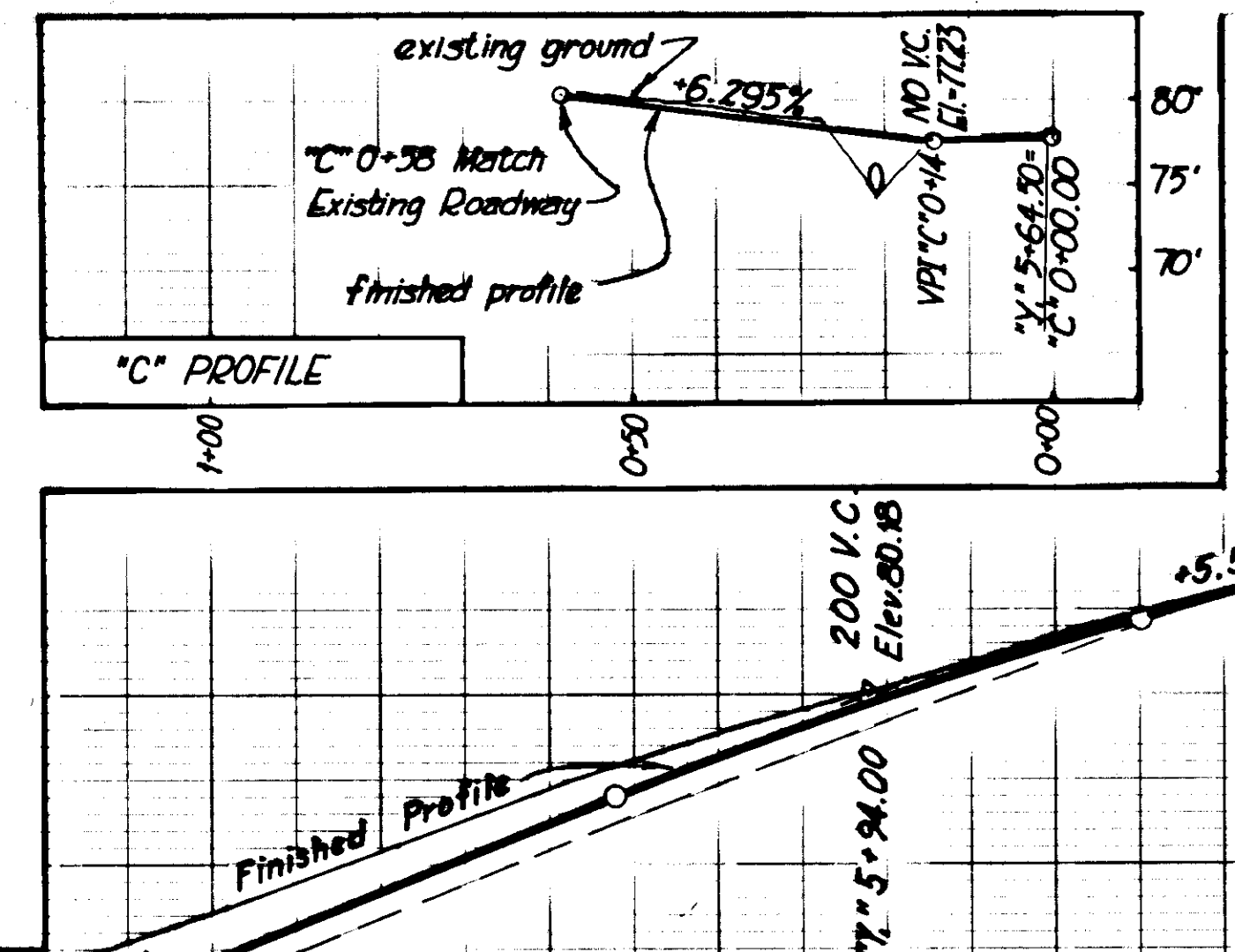
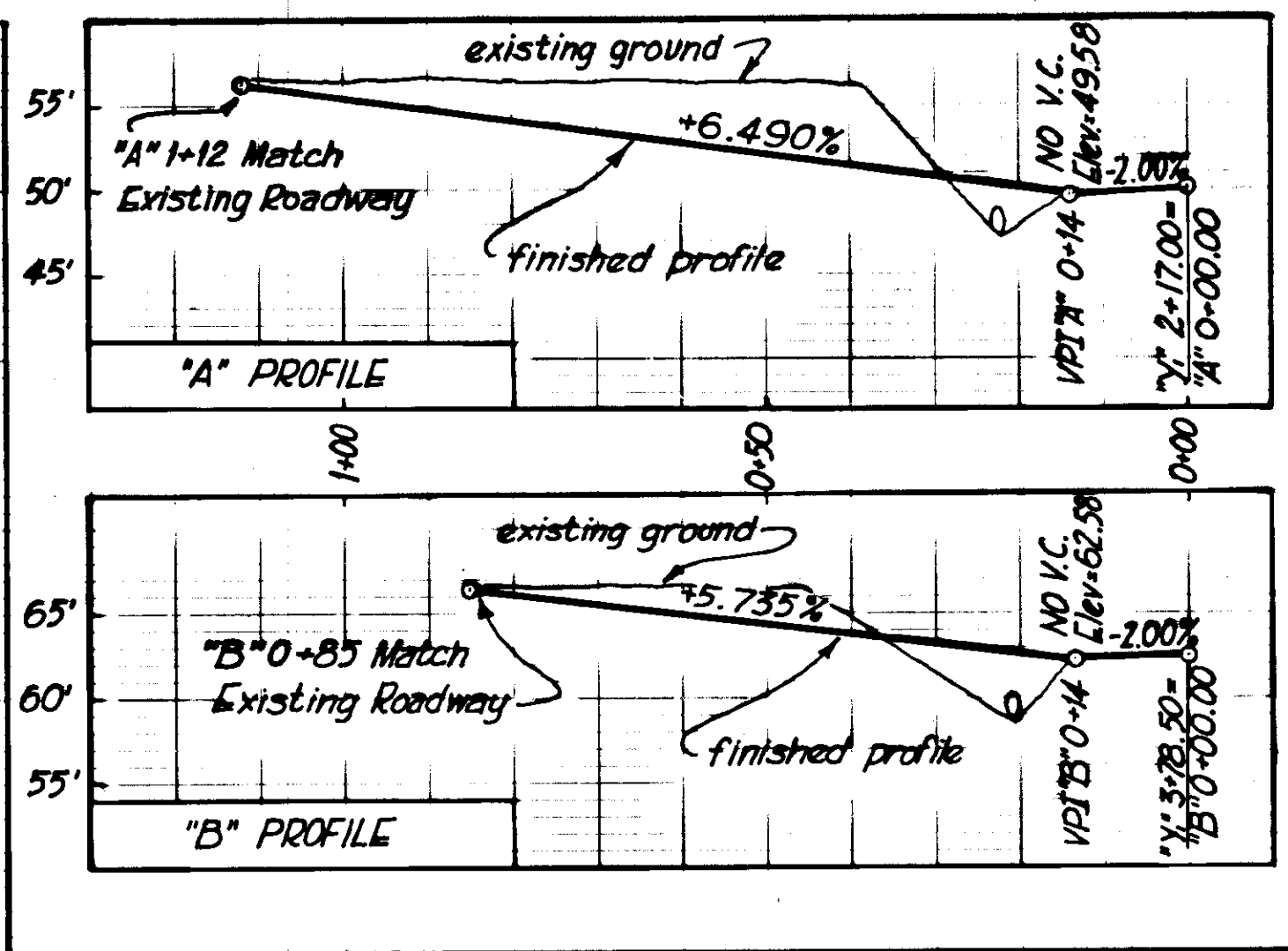
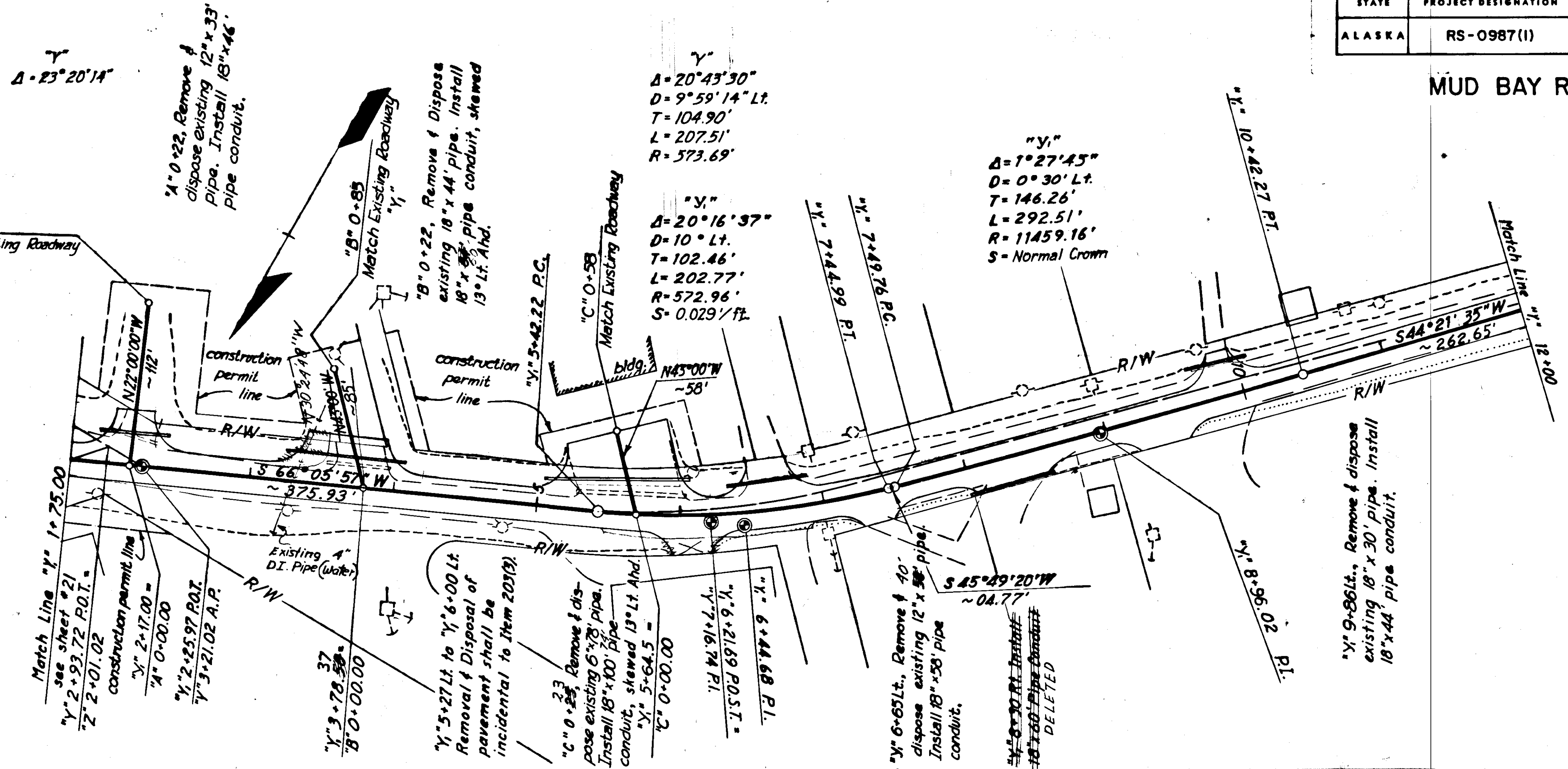
END PROJECT
 RS-0987(1)
 Sta. 0+59+00.00
 Match Project
 RF-095-10(7)



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0987(II)	1976	25	33

MUD BAY ROAD

Note: For approaches & intersections, see surfacing detail, sheet #19



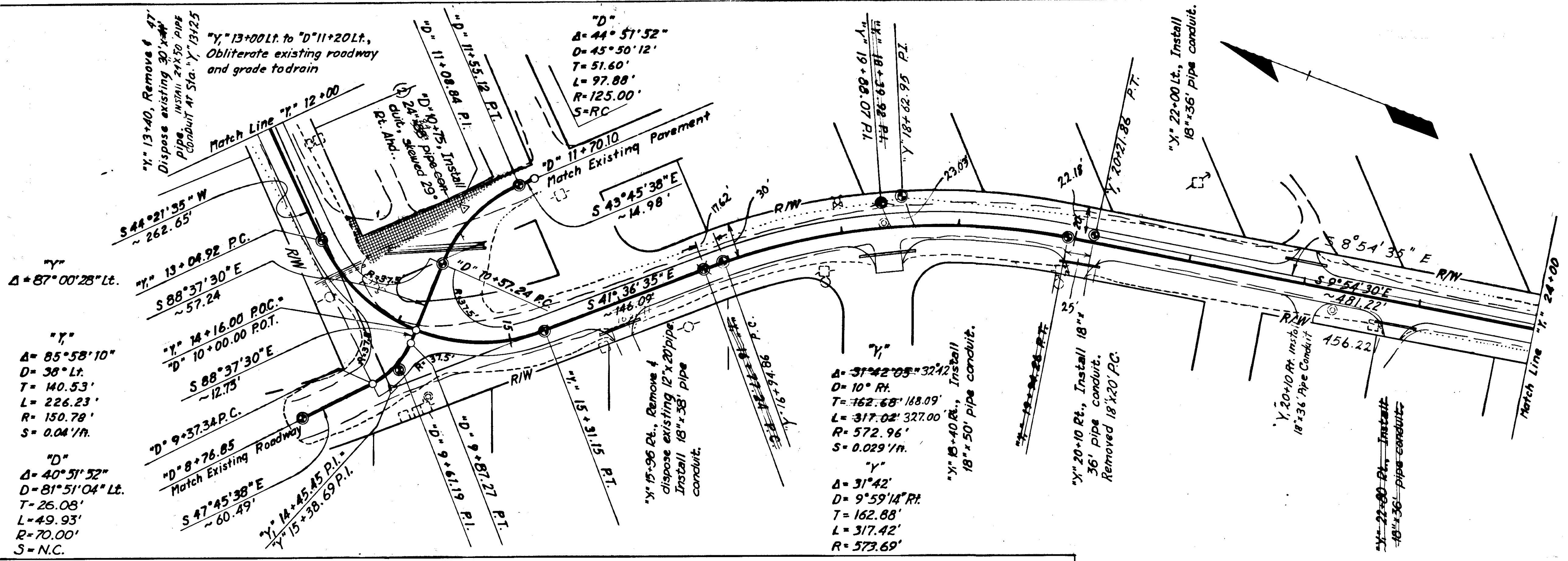
Embankment : 949 cu. yds. (Includes 833 cu. yds. Selected Material)
 Unclassified Excavation : 5029 cu. yds. (Includes 4080 cu. yds. waste)
 Borrow : 0 cu. yds.

* Borrow for Unclassified Excavation meeting requirements of Sub-Section 703-2.07

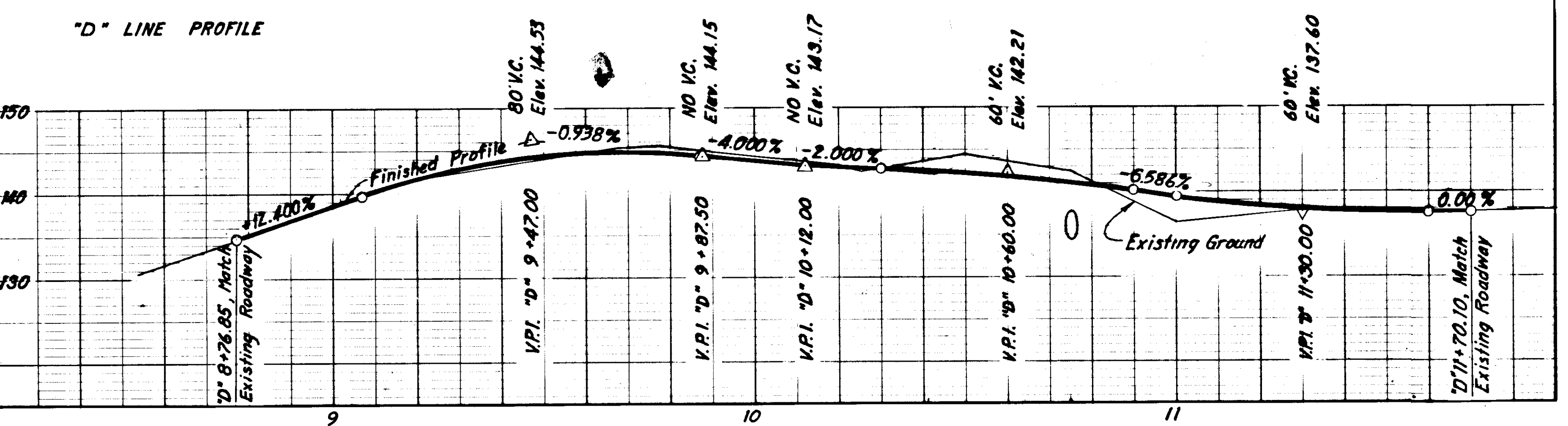
16" Min. Removal of Waste Material

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0987(1)	1976	26	33

MUD BAY ROAD

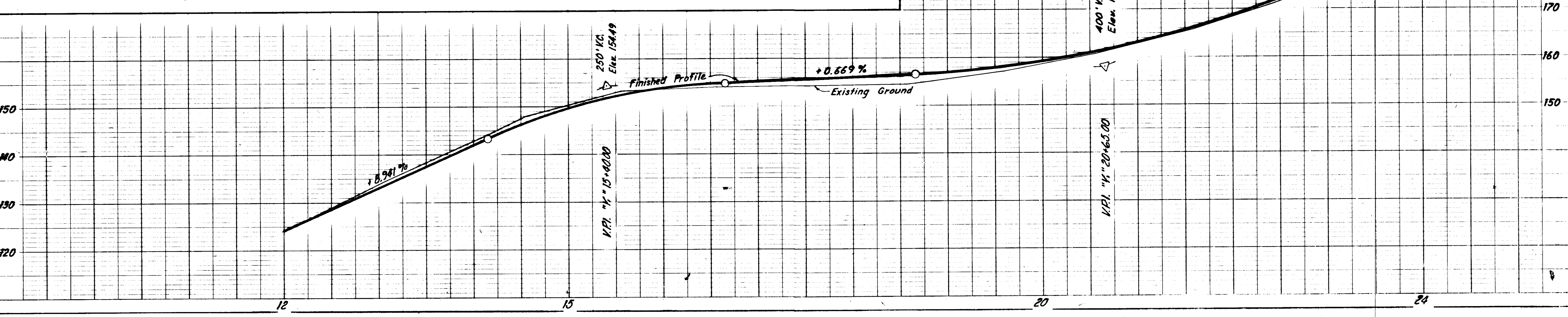


Note: For approaches & intersections, see surfacing detail, sheet #19



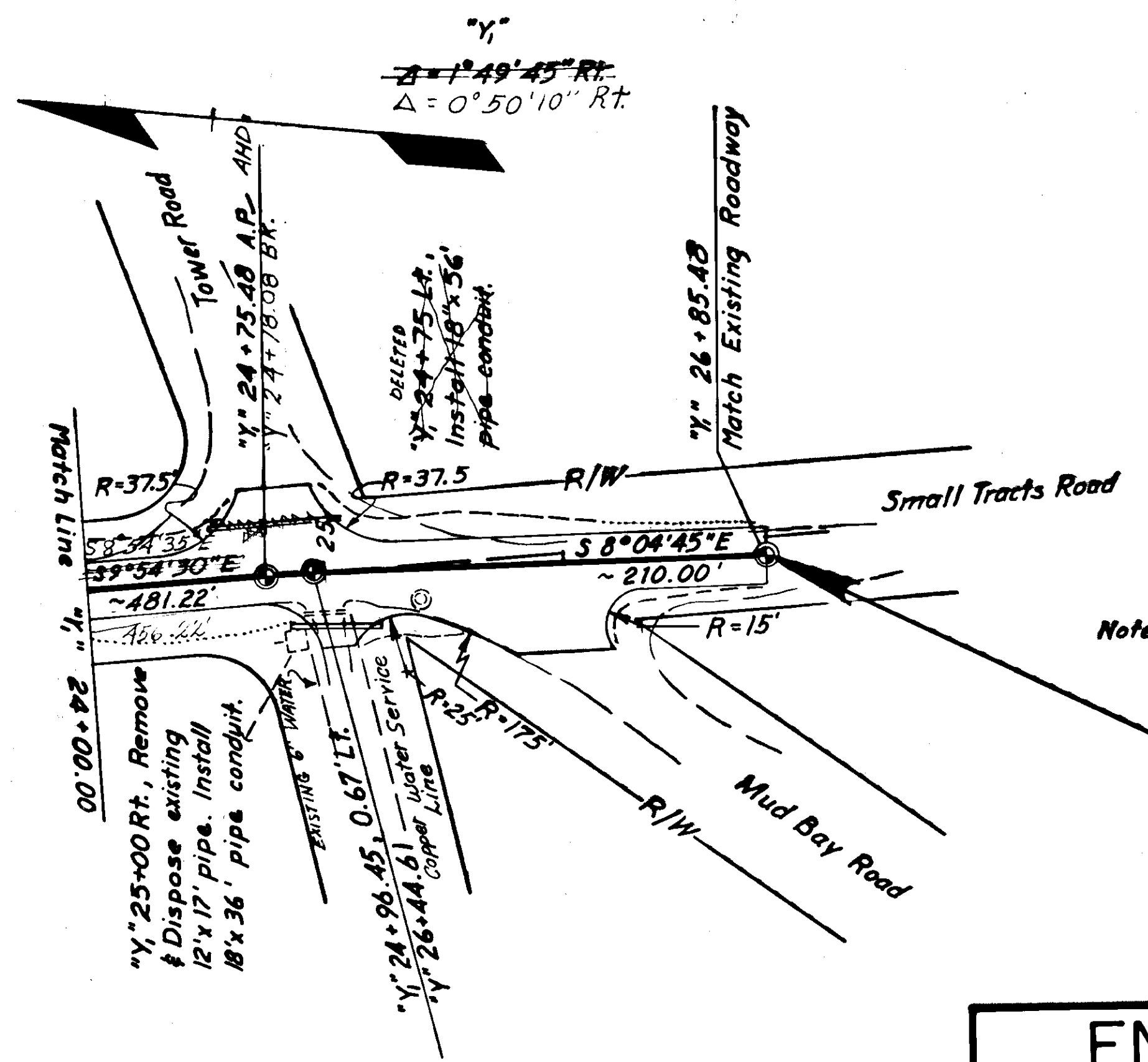
Embankment: 549 cu. yds. (Includes 467 cu. yds. Selected Material)
 Unclassified Excavation 2394 cu. yds. (Includes 1851 cu. yds. waste)
 Borrow: 0 cu. yds.

* Borrow for Unclassified Excavation meeting requirements of Sub-Section 703-2.07



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0987(1)	1976	27	33

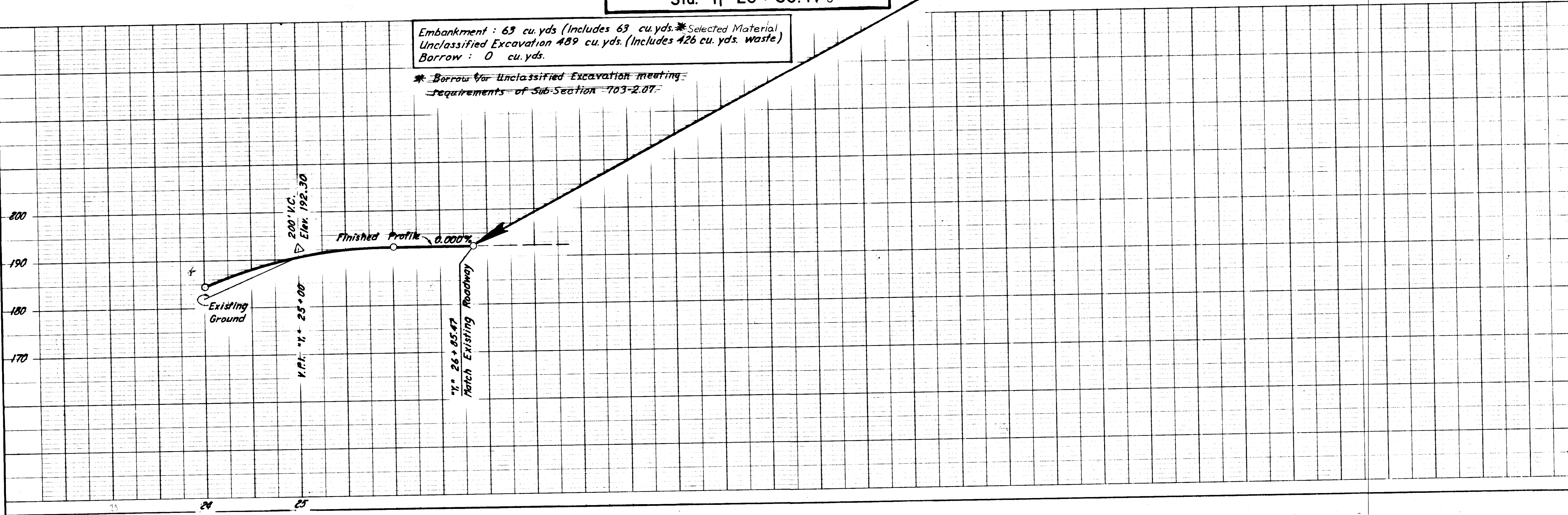
MUD BAY ROAD



END PROJECT
RS-0987(1)
Sta. "Y" 26 + 85.48

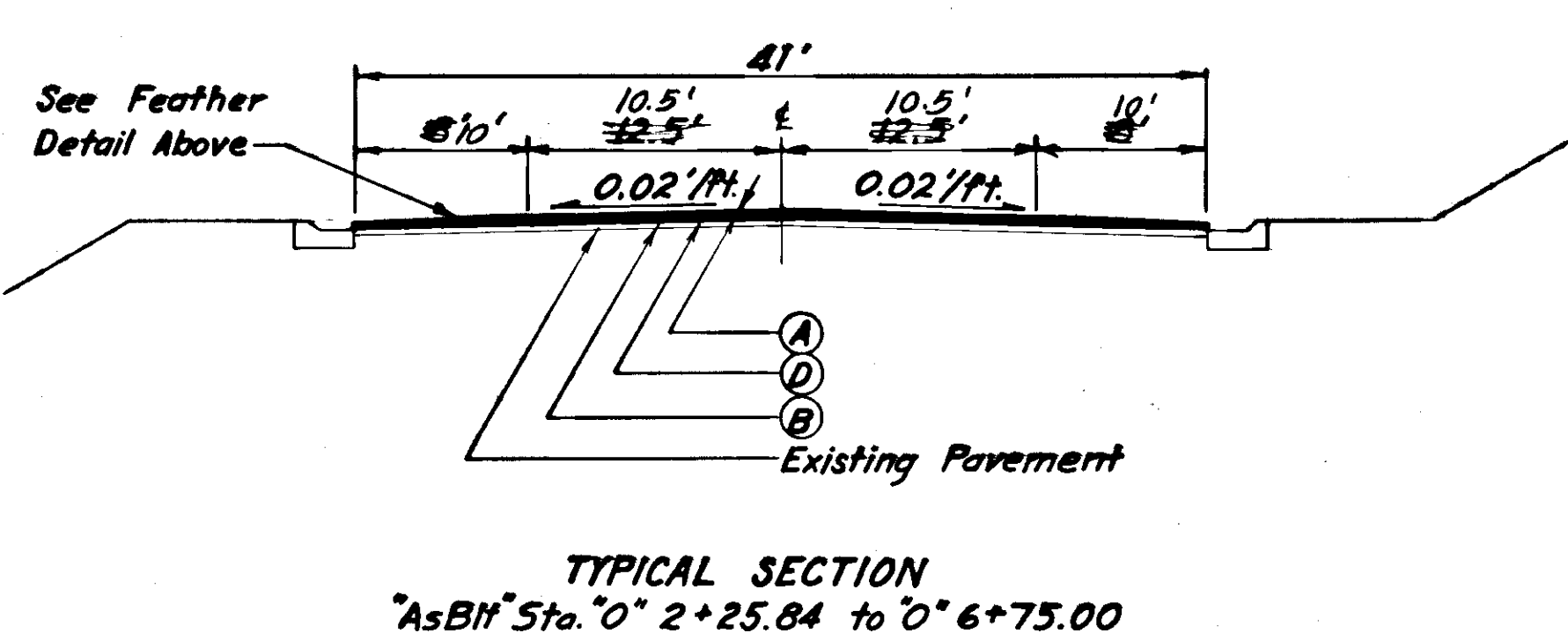
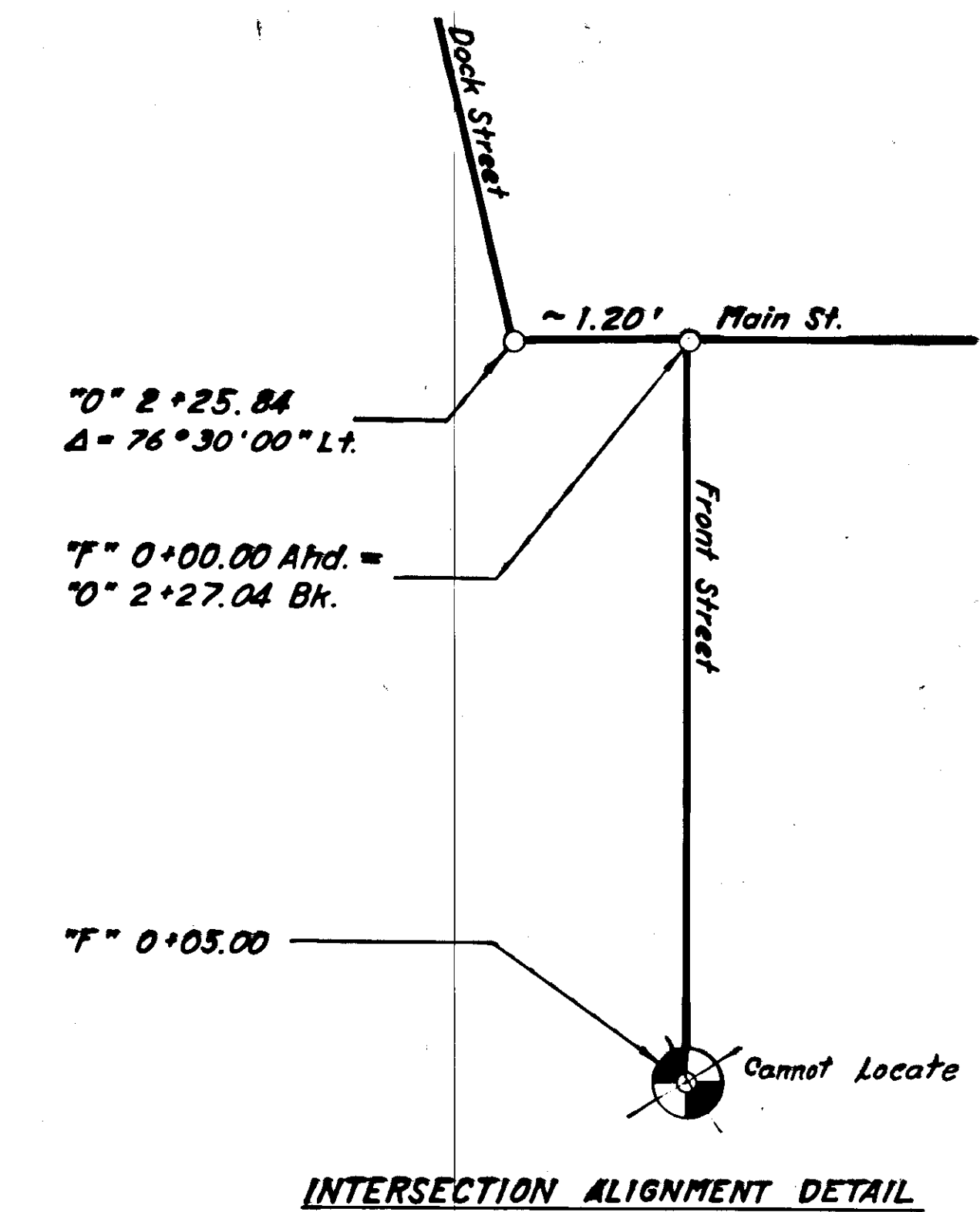
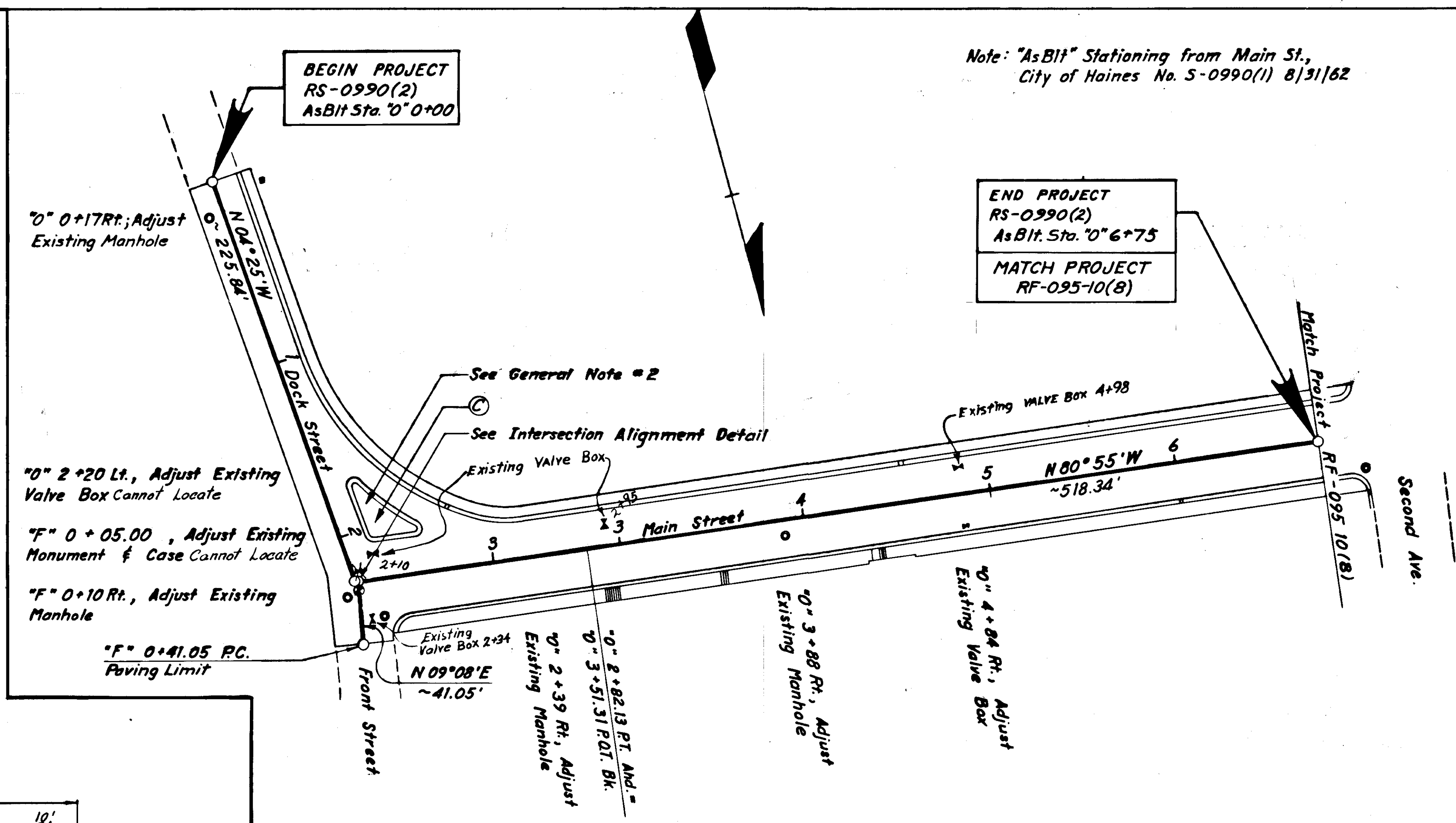
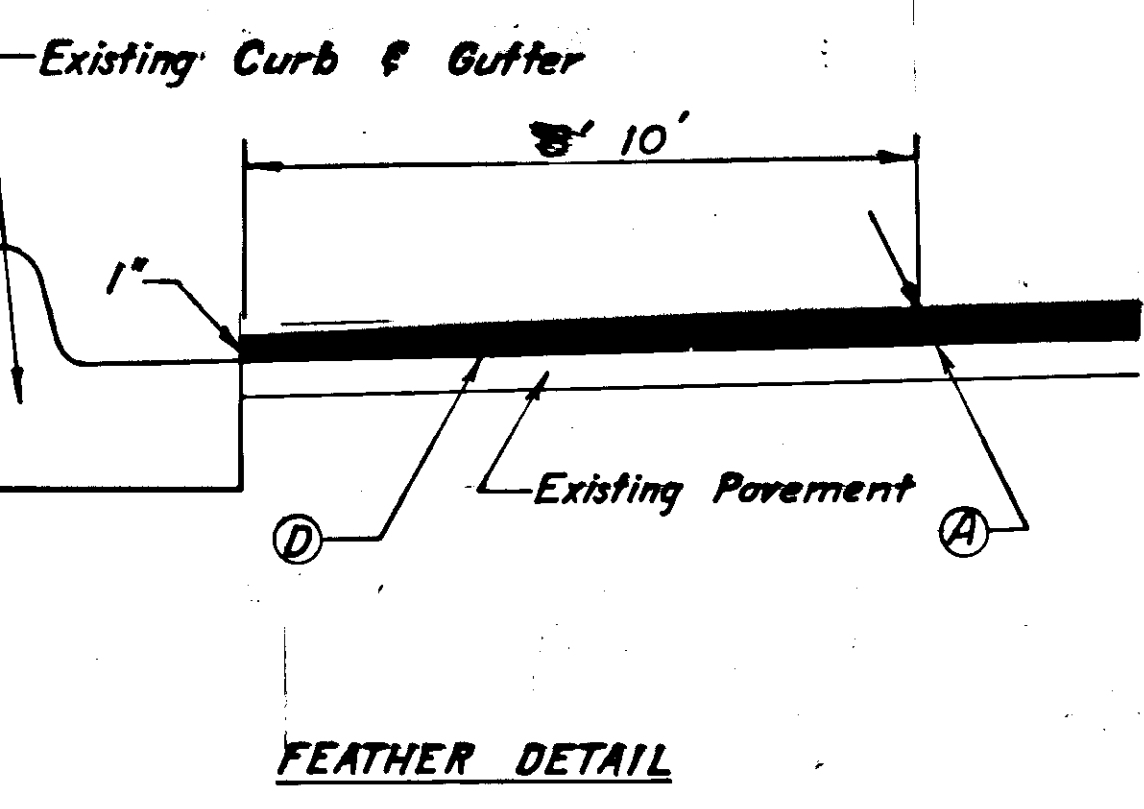
Embankment : 63 cu. yds (Includes 63 cu. yds. Selected Material)
Unclassified Excavation 489 cu. yds. (Includes 426 cu. yds. waste)
Borrow : 0 cu. yds.

* Borrow for Unclassified Excavation meeting requirements of Sub-Section 703-2.07.

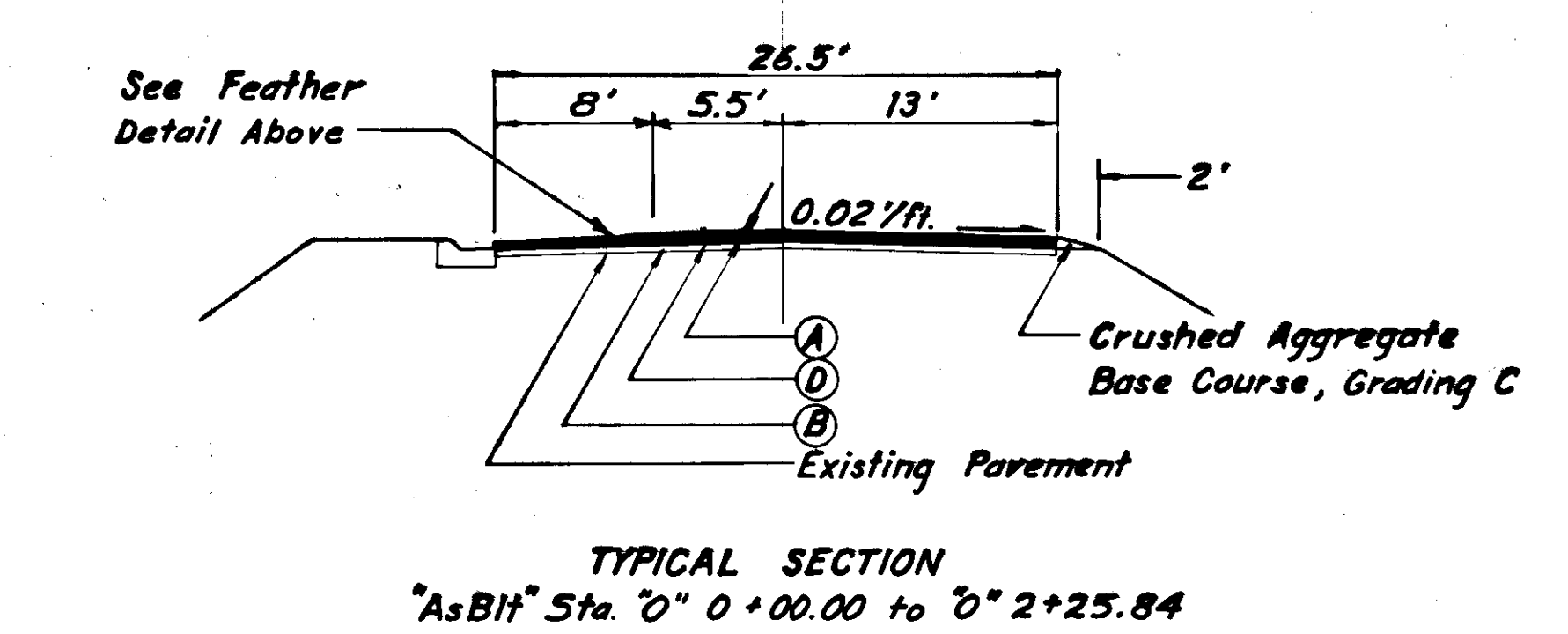


MAIN STREET SPUR

Note: "AsBlt" Stationing from Main St.,
City of Haines No. S-0990(1) 8/31/62



Note: Section is in transition between stations 0+1+00.37 and 0+3+18.12.



LABELING INDEX	
A	2" Hot Asphalt Pavement - Class I
B	Leveling Course (as directed by the Engineer).
C	MC-30 Liquid Asphalt for Prime Coat.
D	C55-1 Cationic Emulsified Asphalt for Tack Coat.

BASIS OF ESTIMATE	
Item	Estimating Factor
301(1)	1.96 Ton/c.y.
304(1)	1.87 Ton/c.y.
401(1)	112 lb./sq.yd./in. Depth
401(2)	7.0 % of 401(1)
402(2)	0.10 gals./sq.yd./253 gals./Ton
403(1)	0.25 gals./sq.yd./256 gals./Ton

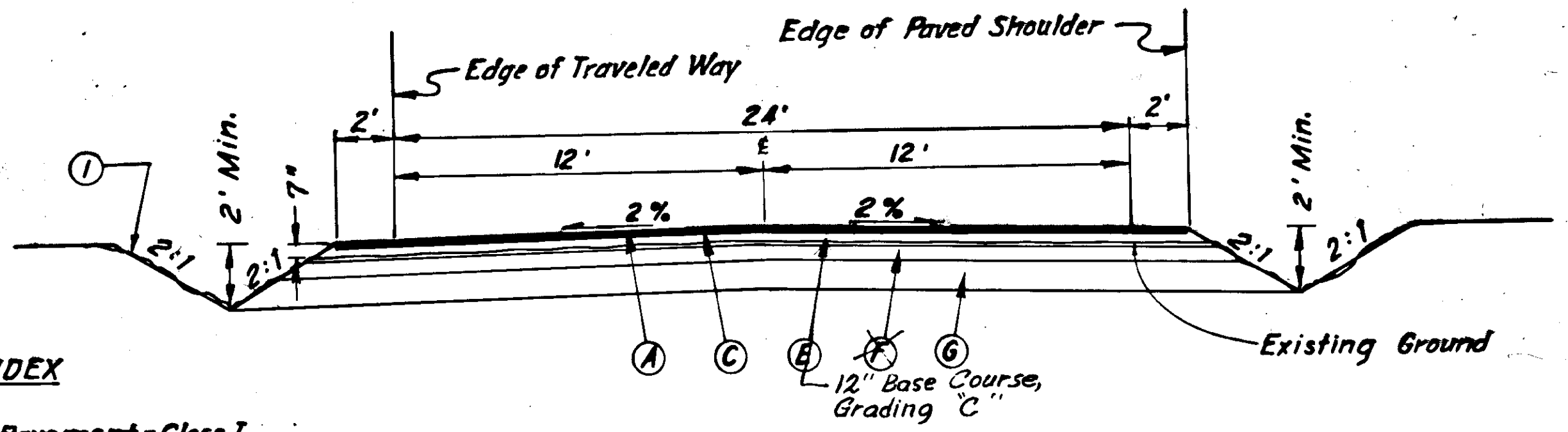
- GENERAL NOTES**
- Tack coat shall be applied between: i) existing pavement and leveling course, ii) leveling course and hot asphalt pavement.
 - Remove and dispose existing traffic island, which includes 108 L.F. of curb and gutter. Overlay with Hot Asphalt Pavement as directed by the Engineer.
 - Where pavement ends at an existing unpaved roadway, a 50' transition of Subbase, Grading "A" shall be provided to match existing surface.
Base Course, Grading "C"

UNION STREET

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	OS-3(004)	1976	29	33

GENERAL NOTES

1. Alignment shown on these plans is subject to minor revisions. Grades shall be staked in the field as directed by the Engineer.
2. Culvert lengths and locations are approximate only and are subject to minor revisions, as directed by the engineer.
3. Finished roadway crown shall be 0.02'/ft., or as directed by the engineer.
4. Removal and Relocation of existing signs, as directed by the engineer, shall be incidental to item 203(3).
5. The Intersection and Approach Surfacing Detail shall be used in lieu of Standard Drawing 1-40.10.

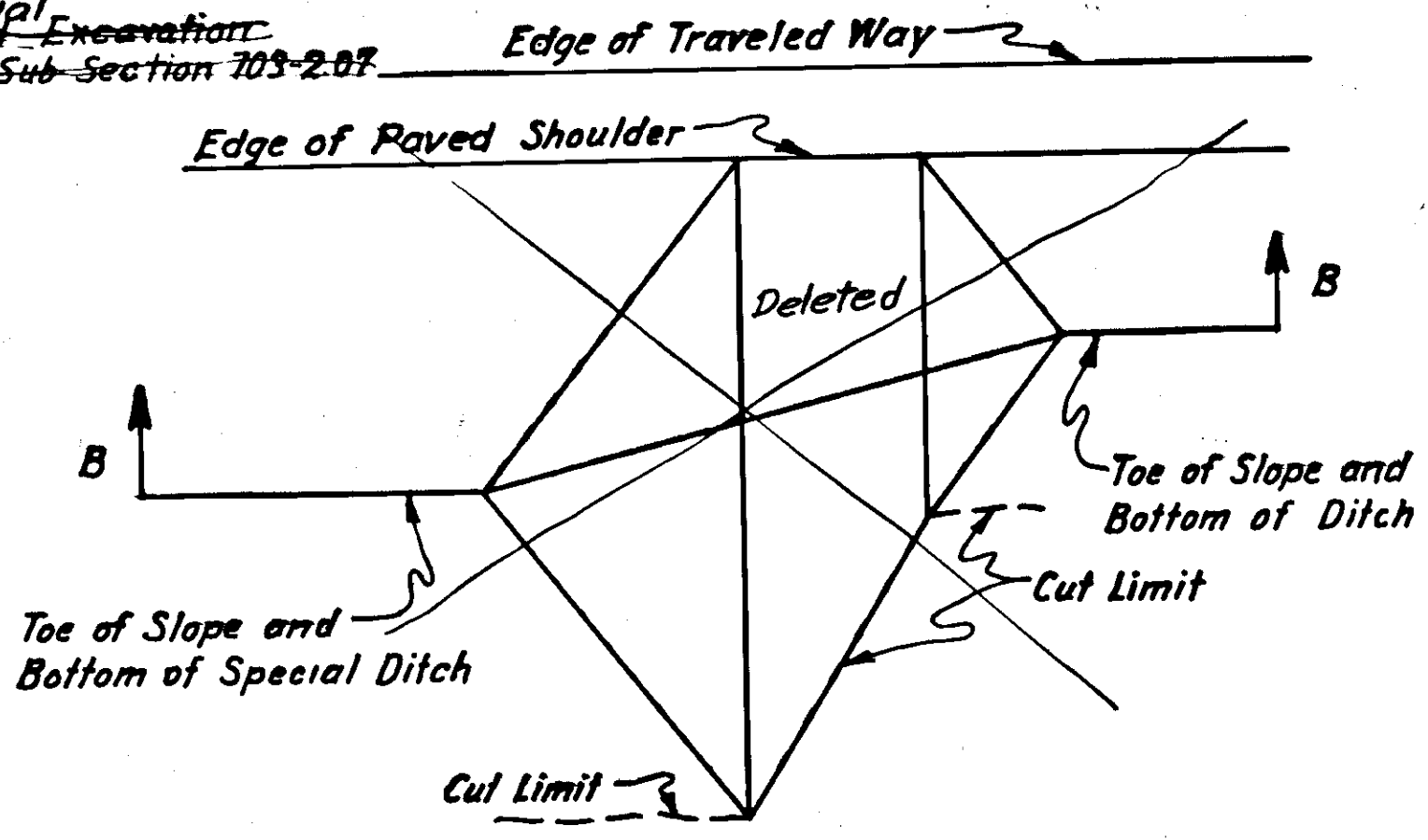


TYPICAL SECTION

"D" Sta. 0+37 to 32+07.72
 "C" Sta. 3+97.78 to 10+43.86

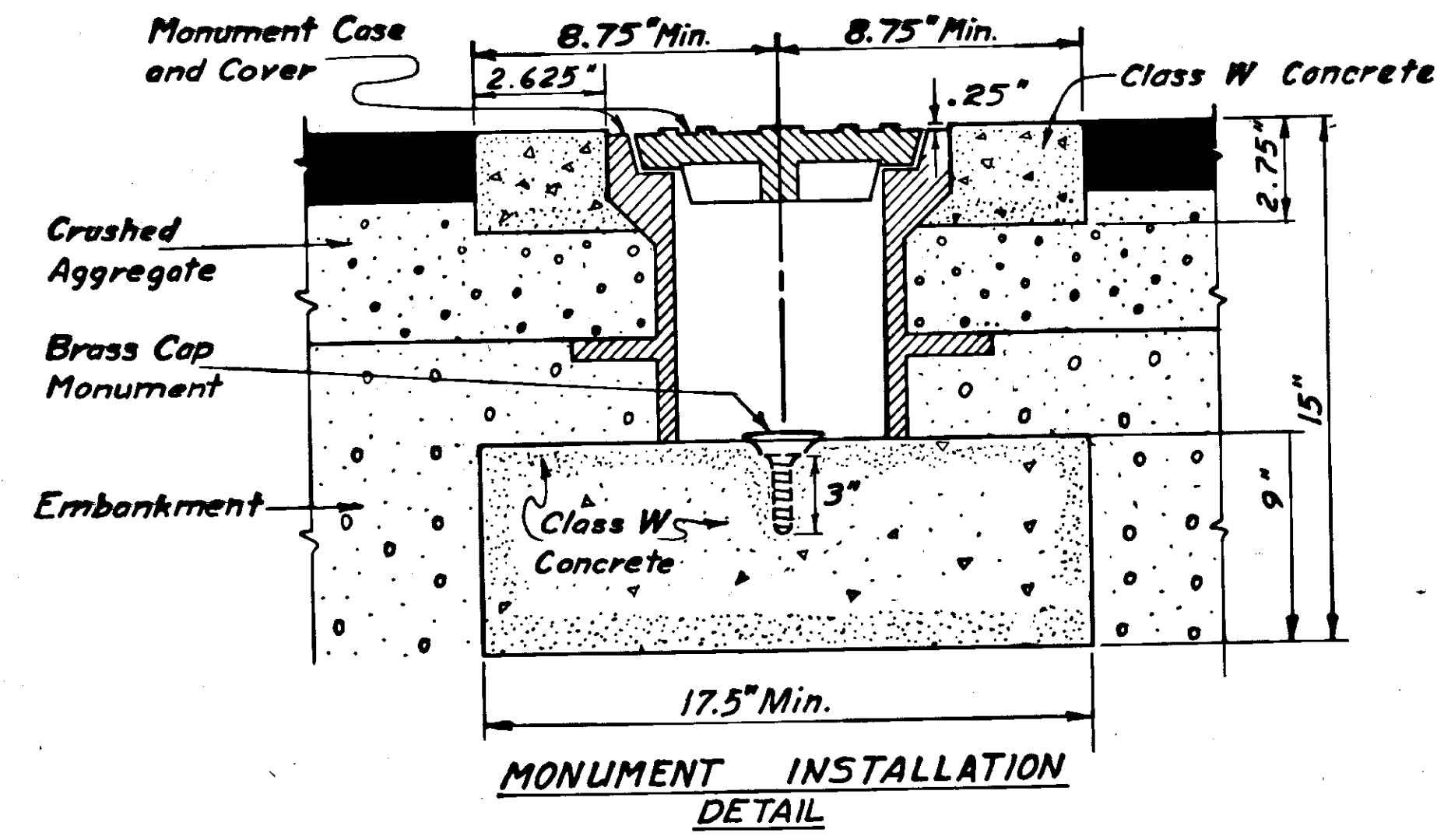
LABELING INDEX

- (A) 3" Hot Asphalt Pavement-Class I (2-1 1/2 Lifts)
- (C) MC-30 Liquid Asphalt for Prime Coat
- (E) 6" Crushed Aggregate Base Course, Grading C
- (F) 6" Subbase, Grading A
- (G) 16" Minimum ~~Borrow~~ ^{Selected Material} ~~Excavation~~ ^{meeting requirements of Sub-Section 703-2.07}
- (H) Useable Unclassified Excavation and/or Borrow
- (I) Seeding, Class I



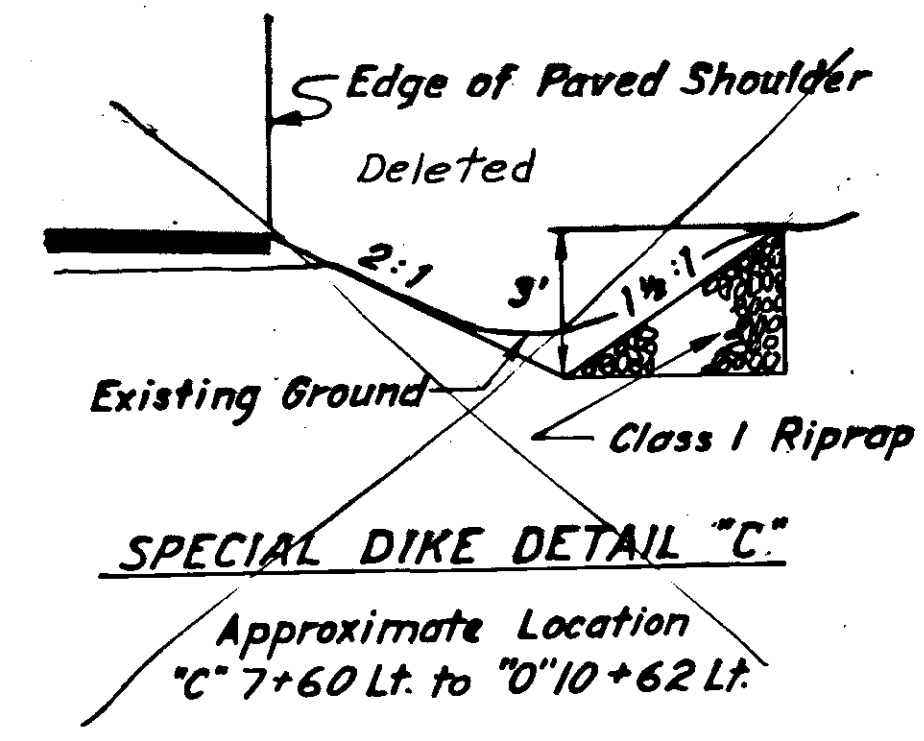
Deleted DITCH BLOCK DETAIL "B"

Approximate Locations
 "D" 19+82 Lt. to "D" 19+97 Lt.
 "D" 24+47 Lt. to "D" 24+62 Lt.
 "D" 28+26 Lt. to "D" 28+41 Lt.

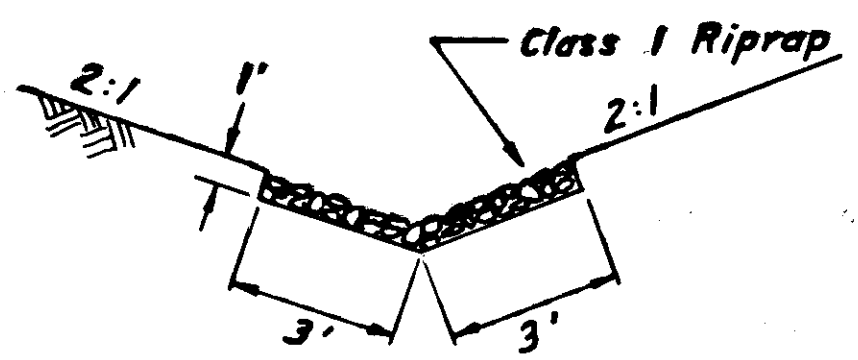


MONUMENT INSTALLATION DETAIL

Notes: 1. This detail shall be used in conjunction with Standard Drawings M-13.01 and 16.03.
 2. Class W Concrete shall be incidental to Item 614(1), Survey Monuments.

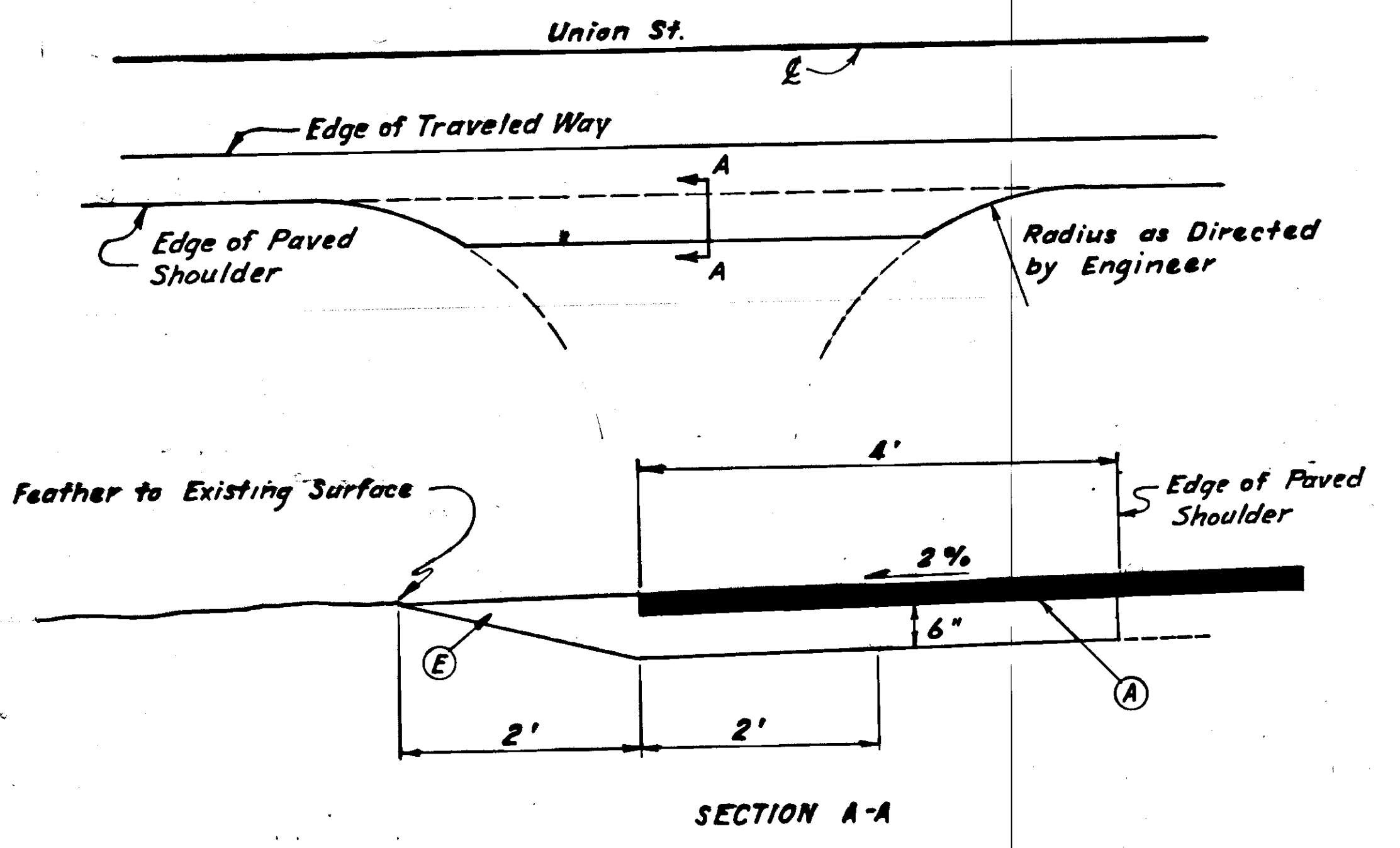


SPECIAL DIKE DETAIL "C"



ROCK LINED DITCH DETAIL "D"

Approximate Locations
 "D" 14+10 Rt. to "D" 15+00 Rt.
 "D" 13+40 Lt. to "D" 14+50 Lt.



TYPICAL INTERSECTION AND APPROACH SURFACING DETAIL

SUMMARY TABLES

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	OS-001(4)	1976	30	33

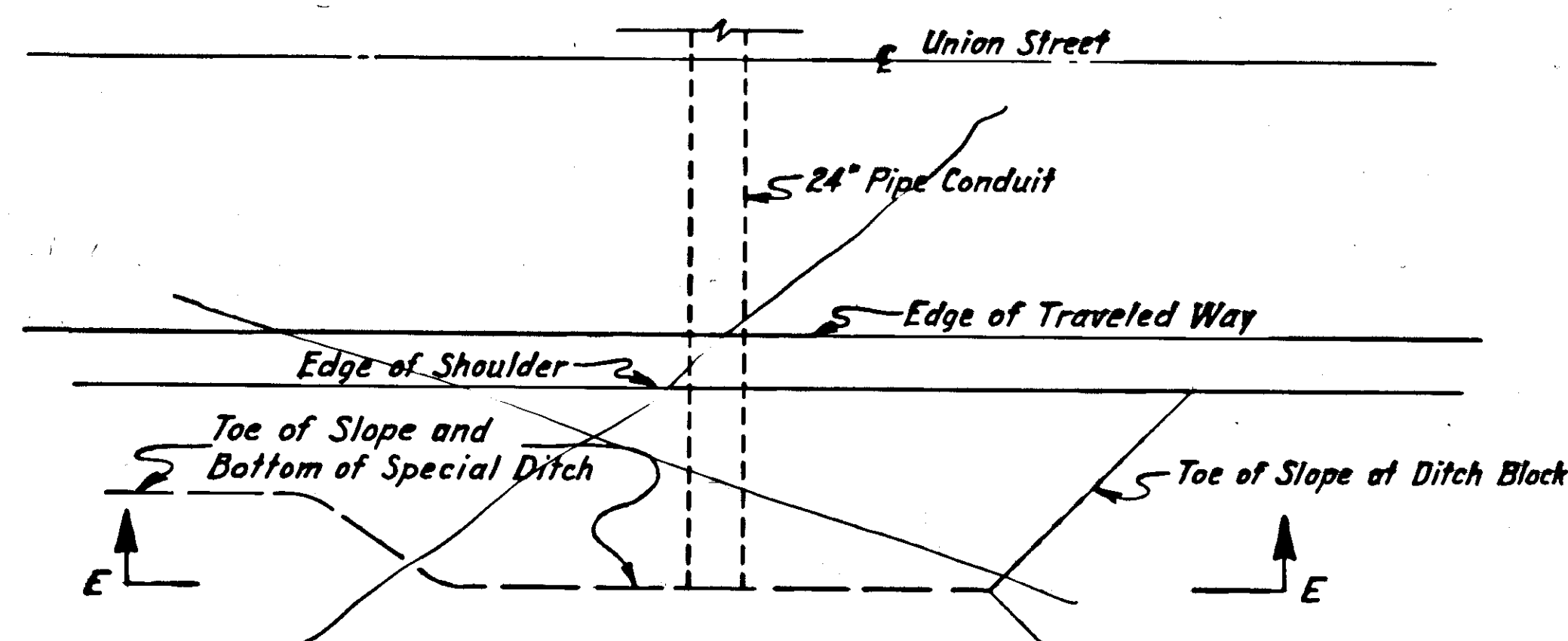
UNION STREET

CULVERTS

Station	Size	Length	Remarks
"0" 13+66.0 12+42	36"	124'	Install, Skewed 40 Rt. Ahd. See General Note 2
"0" 20+07	24"	46'	Install, Skewed 10 Rt. Bk. See General Note 2
"0" 12+42	24"	124'	Install Above 36" P.C.
"0" 24+72	24"	50'	Install
"0" 28+51	24"	44'	Install
"0" 24+94 Lt.	24"	40'	install
"0" 26+47 Lt.	18"	30'	install
"0" 27+16 Lt.	18"	30'	install
"0" 30+09 Lt.	18"	30'	install
"0" 30+38 Rt.	18"	30'	install
"0" 30+74 Lt.	12"	30'	install
"0" 30+97 Rt.	18"	30'	install
"0" 30+38 Rt.	18"	30'	install
"0" 30+74 Lt.	12"	30'	install
"0" 30+97 Rt.	18"	30'	install

MONUMENTS & CASES

Station	Location	Point
"0" 1+02.32	☐	P.C.
"0" 3+25.22	☐	P.T.
"0" 10+43.86	☐	
"0" 9+82.40 Ahd.	☐	P.C.
"0" 8+51.52 Bk.	☐	
"0" 12+93.70	☐	P.T.
"0" 17+40.65	☐	P.O.T.
"0" 21+16.65	☐	P.O.T.
"0" 24+93.65	☐	P.O.T.
"0" 28+69.61	☐	P.O.T.
"0" 4+77.96	☐	P.C.
"0" 15+65.93	☐	A.D.
"0" 18+65.99 Bk.	☐	A.D.
"0" 20+00.00 AHD	☐	

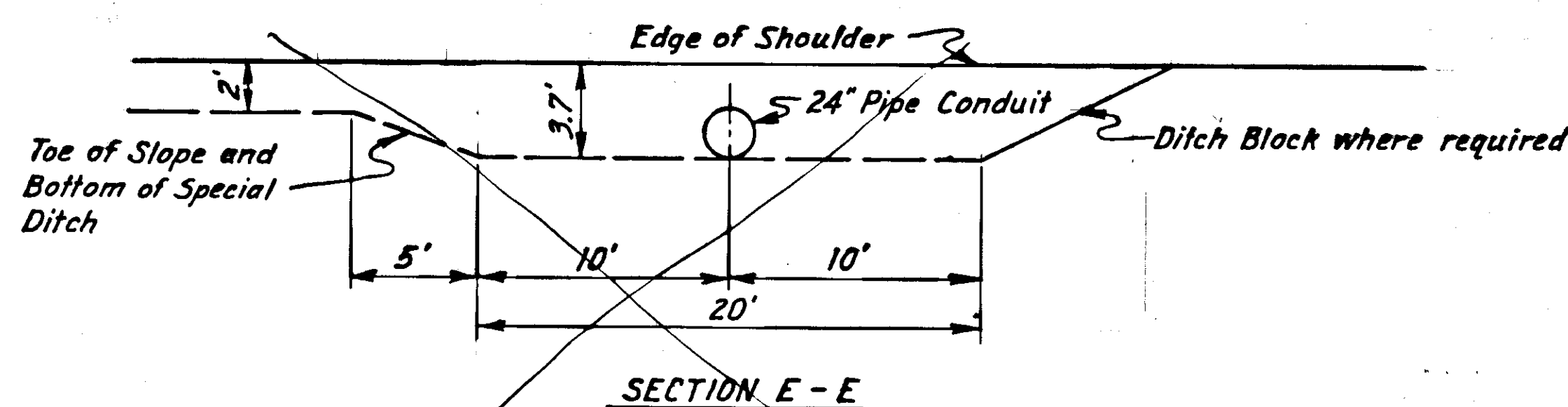


CULVERT PIPE REMOVAL

Station	Length	Station	Length
"0" 13+66 0' 12+42	240' 20'		
"0" 20+03	64' 6'		
"0" 24+72	51' 50'		
None Found			
"0" 24+94 Lt.	40'		
"0" 26+50 Lt.	20'		

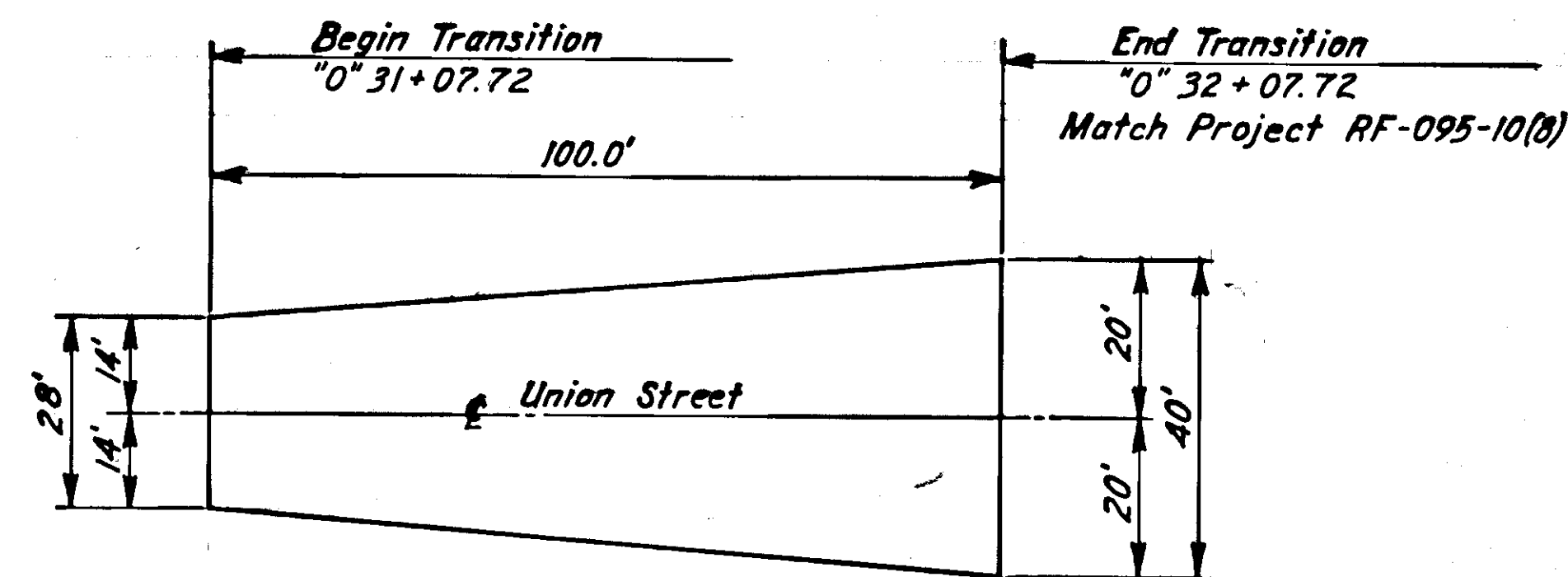
APPROACHES

Station	Lt./Rt.	Width	Type
"0" 4+75	Rt.	20'	Service
"0" 5+10	Lt.	24'	Allen Rd.
"0" 6+82	Rt.	24'	Service
"0" 11+00	Lt.	24'	Public Rd.
"0" 11+10	Rt.	20'	Service
"0" 13+00	Rt.	20'	Service
"0" 14+90	Lt.	14'	Residential
"0" 16+74	Rt.	125'	Service
"0" 17+40.65	Lt. & Rt.	24'	6th Ave.
"0" 18+66	Rt.	250'	Service
"0" 18+97	Lt.	24'	Service
"0" 21+16.65	Lt. & Rt.	24'	5th Ave.
"0" 21+56	Lt.	40'	Residential
"0" 21+67	Rt.	50'	Service
"0" 22+54	Rt.	20'	Service
"0" 22+74	Lt.	14'	Residential
"0" 24+93.65	Lt. & Rt.	24'	4th Ave.
"0" 27+16	Lt.	14'	Residential
"0" 26+50	Lt.	14'	Residential
"0" 27+10	Rt.	14'	Residential
"0" 27+60	Rt.	14'	Residential
"0" 28+69.65	Lt. & Rt.	24'	3rd Ave
"0" 31+09 30+97	Rt.	14'	Residential
"0" 31+54 30+74	Rt.	14'	Residential
"0" 32+02 30+38	Rt.	14'	Residential
"0" 31+70 30+09	☐	40'	



SPECIAL DITCH FLOWLINE TRANSITION DETAIL "E"

APPROXIMATE LOCATION
 "0" 20+07 Lt.
 "0" 24+72 Lt.
 "0" 28+51 Lt.



PAVEMENT TRANSITION DETAIL "F"

GUARDRAIL

FROM		TO		Length
Station	Length	Station	Length	
"0" 12+64 0' 11+30	16' Lt.	"0" 14+14 0' 12+80	16' Lt.	150'
"0" 13+58 0' 12+16	16' Rt.	"0" 15+08 0' 13+66	16' Rt.	150'
"0" 17+80 0' 16+46	16' Lt.	"0" 18+80 0' 17+46	16' Lt.	100'

Reconstruct ADJUST MANHOLES

Station	Right	Left
"0" 5+20	X	
"0" 17+20 15+97	X 4.3'	
"0" 20+97 21+05	X 4.2'	
"0" 24+84 24+96	X 5.0'	
"0" 28+57 28+67	X 6.2'	

ADJUST VALVE BOXES

Station	Right	Left
"0" 14+06 12+91	9.5'	X
"0" 14+15 12+94	5.0'	X
"0" 24+88 25+04		X 9.2'
"0" 24+94 25+09		X 24.6'

ADJUST SEWER CLEANOUTS

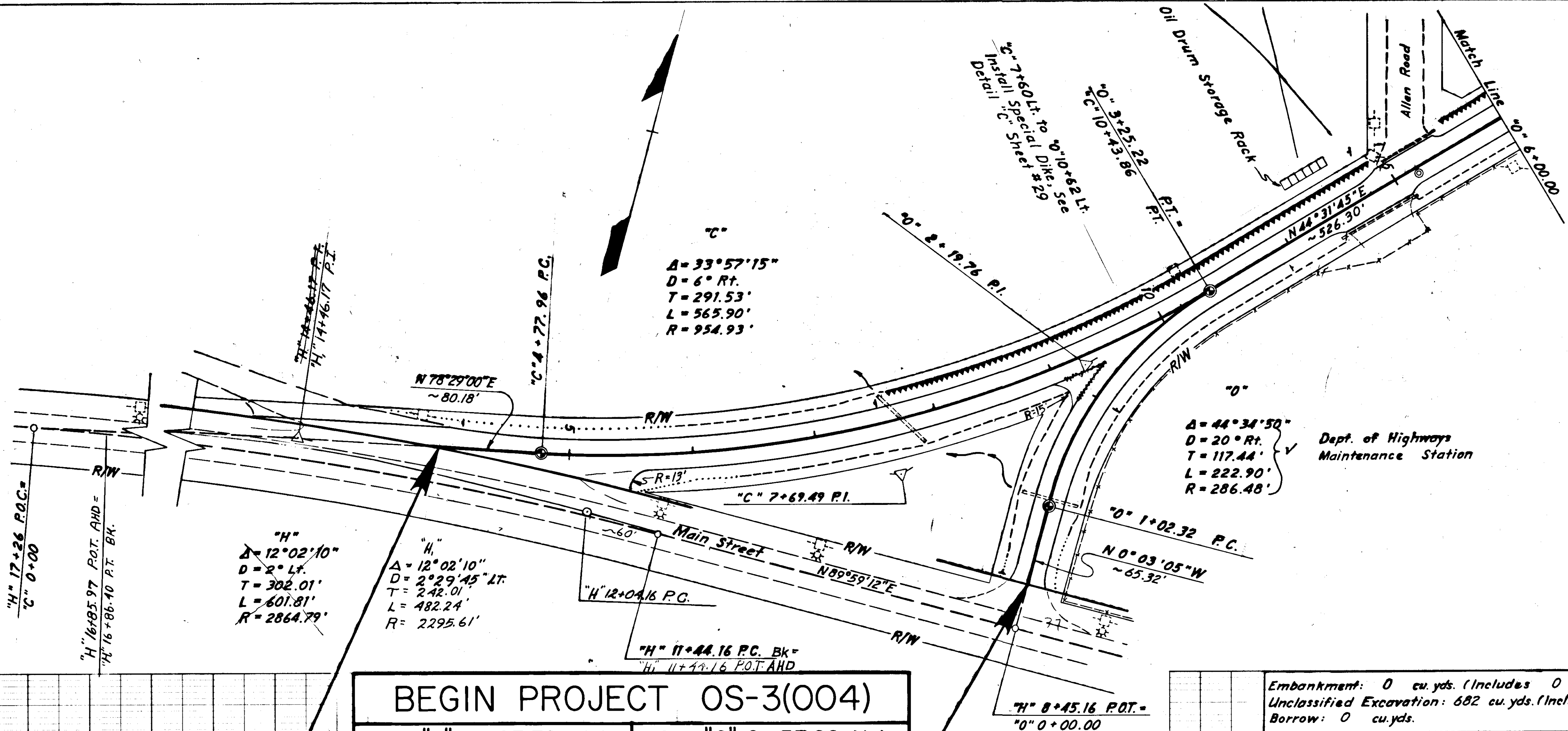
Station	Right	Left
"0" 36+12 14+93	7.5'	1.5'
"0" 31+42 31+54	7.1'	

BASIS OF ESTIMATE

ITEM	ESTIMATING FACTOR
203(5B)	1.80 Tons per Cu. Yd.
301(1)	1.96 Tons per Cu. Yd.
304(1)	1.87 Tons per Cu. Yd.
401(1)	112 lbs. per Sq. Yd. Inch Depth
401(2)	7.0% of Item 401(1)
403(1)	0.25 Gals. per Sq. Yd. - 256 Gals. per Ton

* City of Haines Will Adjust.

UNION STREET



BEGIN PROJECT OS-3(004)

Sta. "C" 3+97.78 Ahd.	Sta. "O" 0+37.00 Ahd.
Match Project RF-095-10(8)	Match Project RF-095-10(8)
Sta. "H" 13+30.00, 27.64' Rt.	Sta. "H" 8+45.16, 37.00' Rt.

Horizontal Control: Based on a bearing of N61°06'10"W from U.S.C. & G.S. "Mill" to U.S.C. & G.S. "Yind" with State Plane Coordinates:

Mill: N2,707,632.43 E 2,346,447.75
 Yind: N2,713,937.85 E 2,335,024.21

A scale factor of 0.99995591 was used to convert grid distances to ground distances.

Vertical Control: Shall be established in the field as directed by the engineer.

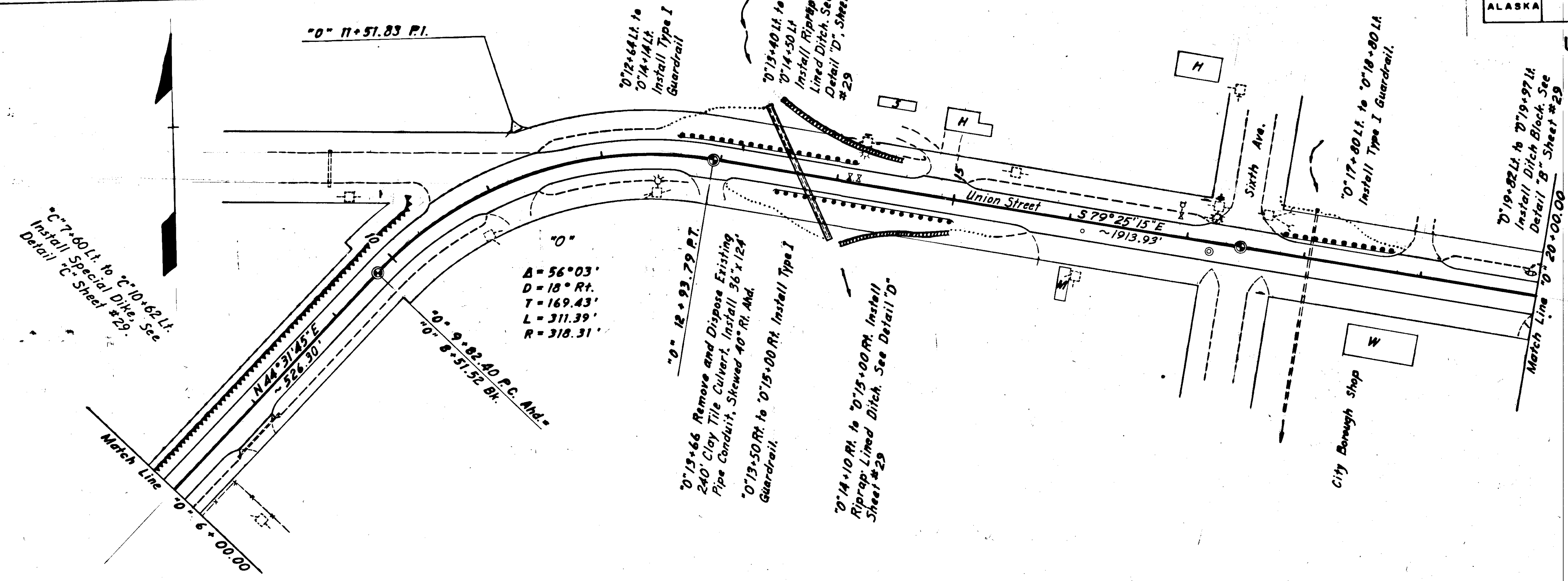
Embankment: 0 cu. yds. (Includes 0 cu. yds. *
 Unclassified Excavation: 682 cu. yds. (Includes 682 cu. yds. waste)
 Borrow: 0 cu. yds.

Earthwork Equation:
 Embankment = Excavation - Waste x Grading Factor + Borrow

* Borrow for Unclassified Excavation meeting requirements of Sub-Section 703-2.07

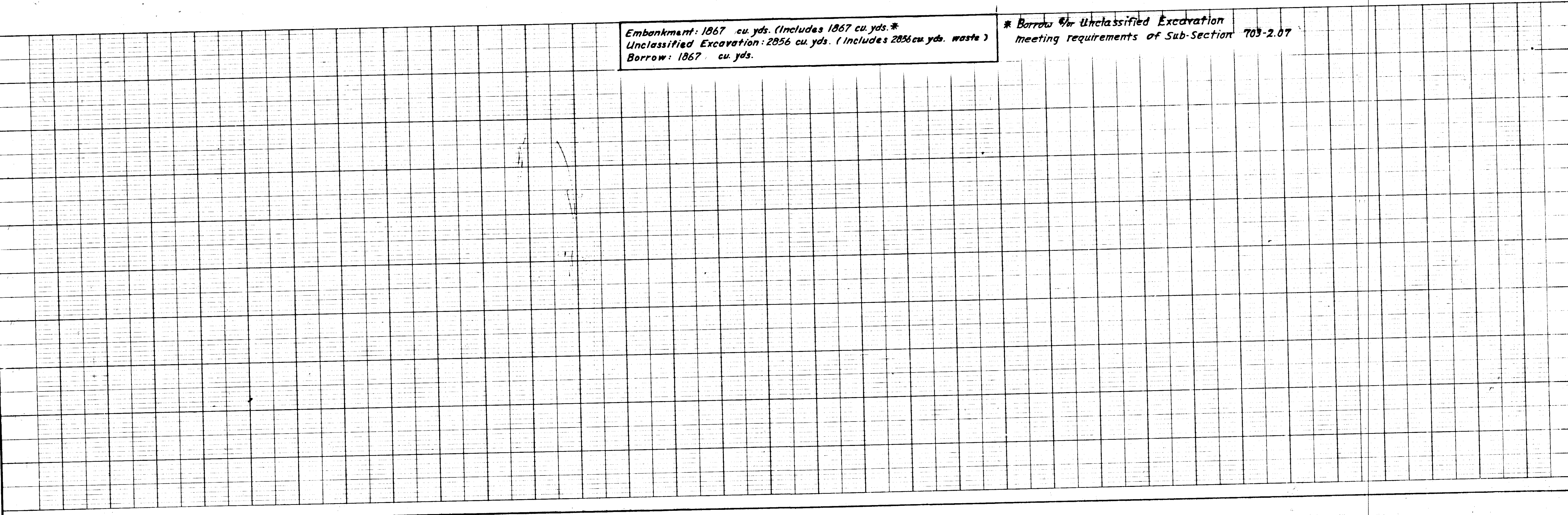
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	OS-3 (004)	1976	32	33

UNION STREET



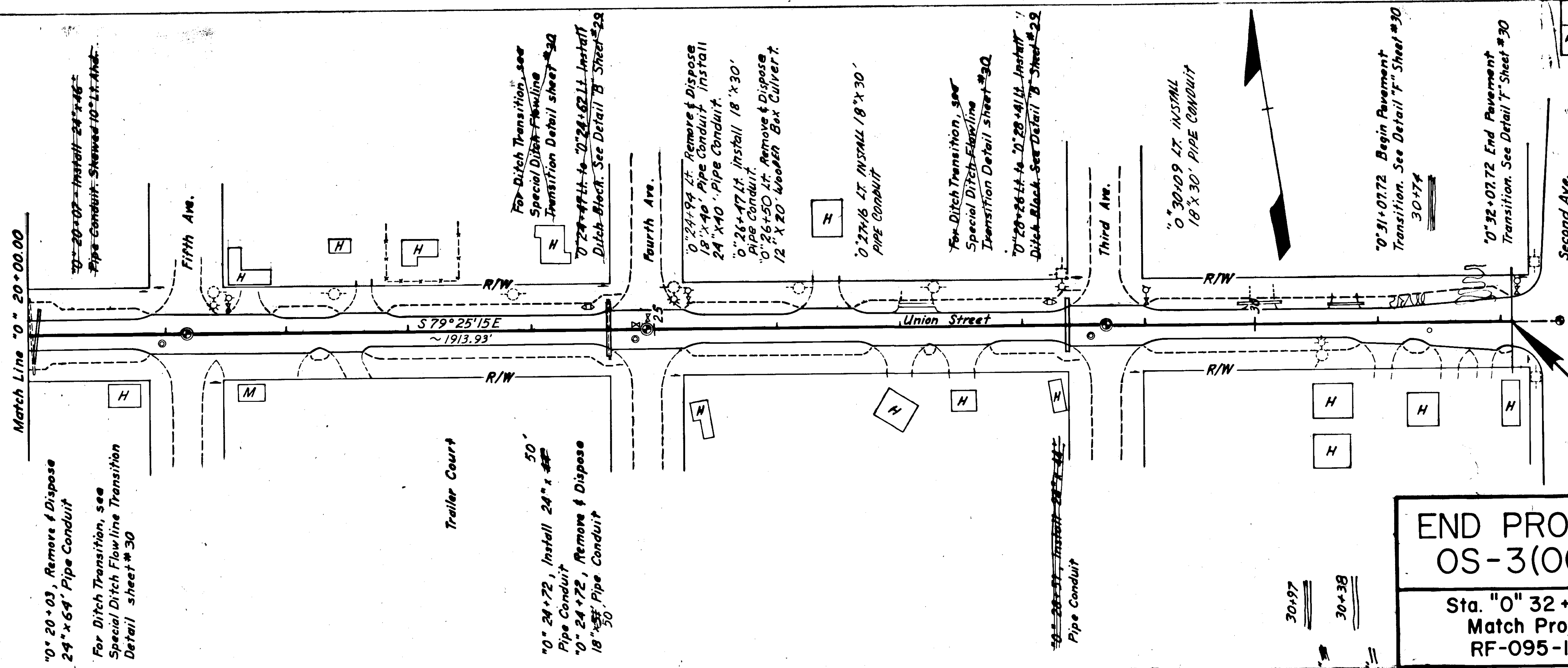
Embankment: 1867 cu. yds. (Includes 1867 cu. yds. *)
 Unclassified Excavation: 2856 cu. yds. (Includes 2856 cu. yds. waste)
 Borrow: 1867 cu. yds.

* Borrow for Unclassified Excavation meeting requirements of Sub-Section 703-2.07



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	OS-3 (004)	1976	33	33

UNION STREET



END PROJECT
OS-3(004)
 Sta. "0" 32+07.72
 Match Project
 RF-095-10(8)

Embankment: 1690 cu. yds. (Includes 1690 cu. yds. *
 Unclassified Excavation: 2612 cu. yds. (Includes 2612 cu. yds. waste)
 Borrow: 1690 cu. yds.

* Borrow for Unclassified Excavation meeting requirements of Sub-Section 703-2.07

