



KEY MAP

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

PLAN AND PROFILE
PROPOSED HIGHWAY PROJECT

OLD GLACIER HIGHWAY
NUGGET MALL TO LOOP ROAD

STAGE I

(B59882)

RS-0960(4) & R-30029

GRADING, DRAINAGE, PAVING, STRIPING, SIGNING & ILLUMINATION

AS-BUILT PLANS
ASSOCIATED SAND AND GRAVEL
PAT KEMP ~ PROJECT ENGINEER
Notice to Proceed: July 9, 1984
Begin: June 29, 1984
Ended: Oct. 26, 1984
Preliminary Est: \$1,833,874.75
Actual Cost:

INDEX OF SHEETS

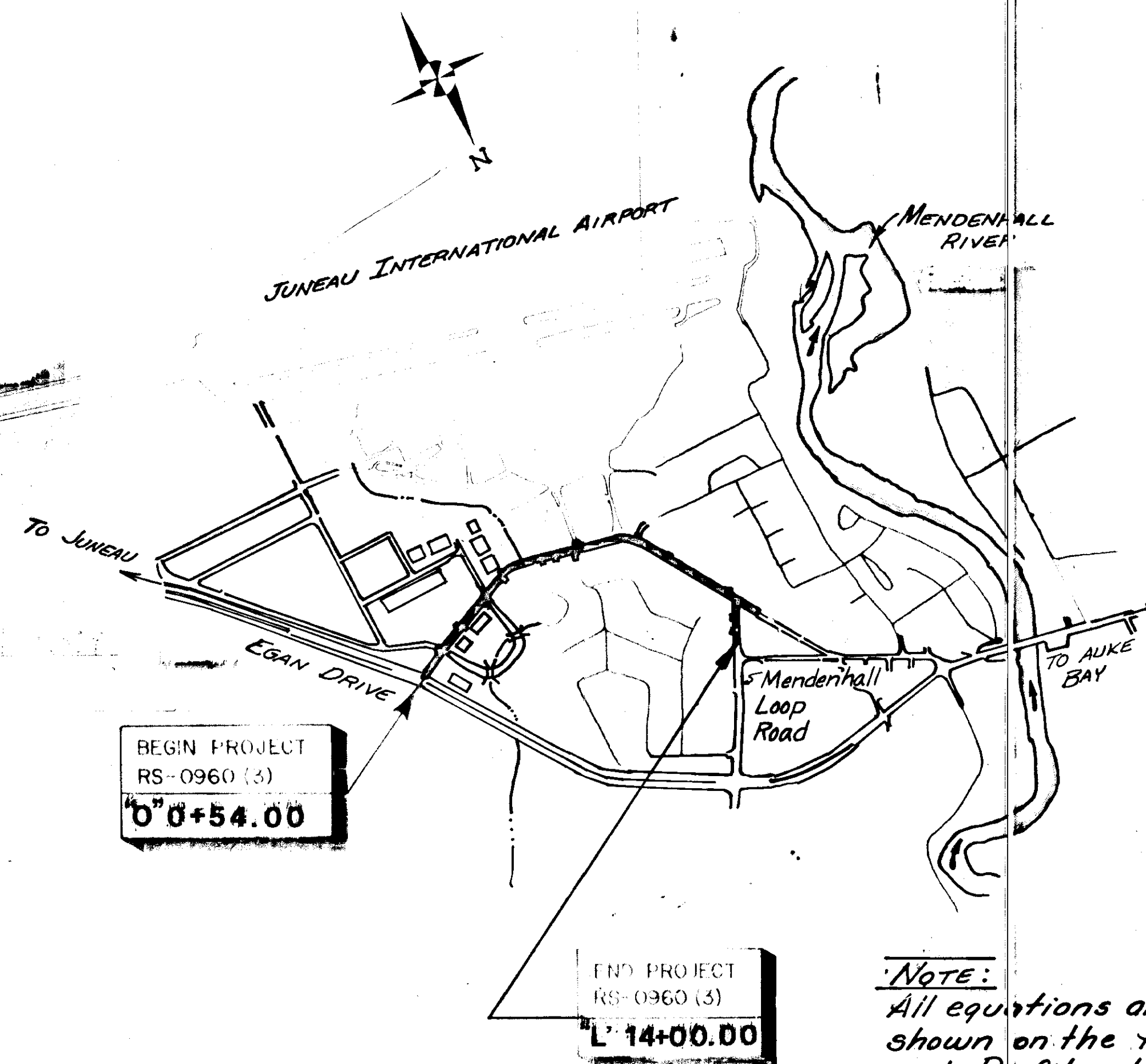
1	Title Sheet
2	Typical Sheet
3-5	Estimate of Quantities
6	Project & General Notes
7 & 8	Traffic Control Plan
9	State Furnished Stockpile Site
10-13 A	Summary Tables
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19	Corps of Engineer Permit Medigation Details
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36-38	Jordan Creek Creek Details
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43	Striping, Signing & Illumination Notes
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PROJECT SUMMARY

	FEET varies	MILES
WIDTH OF PAVING.....	22 to 60	-
LENGTH OF RECONST'N.....	3,815.29	0.72
LENGTH OF TEMPORARY CONNECTIONS.....	523.30	0.10
TOTAL LENGTH OF PROJECT....	4338.59	0.82

DESIGN DESIGNATION-10 YEARS

EGAN DRIVE TO SHELL SIMMONS		SHELL SIMMONS TO LOOP ROAD
ADT 1981	= 7,401	6,995
ADT 1990	= 13,892	13,130
DHV (12%)	= 1,667	1,576
D	= 55-45	60-40
T	= 4%	4%
V	= 30 mph	30 mph
T. I.	= 8.0	8.0

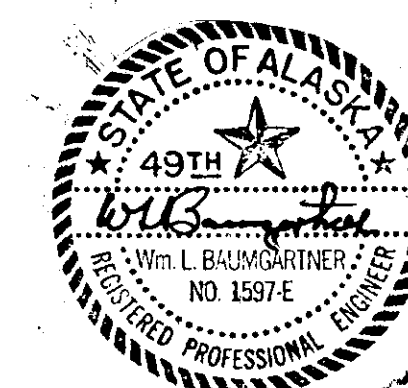


NOTE:
All equations are
shown on the Plan
and Profile sheets.

THE FOLLOWING STANDARD DRAWINGS ARE INCLUDED IN THIS PROJECT:
A-1, C-00.00, C-10.01, C-11.01, D-01.00, D-04.01, D-05.01, D-07.00,
D-24.00, D-26.01, F-01.01, F-03.01, G-04.01S, G-04.01W, G-14.01S
G-14.01W, G-18.00, I-40.00, L-03.00, L-10.00, L-14.00,
L-23.00, L-30.00, M-16.00, M-20.01, M-23.00, S-0, S-05.00, S-30.00,
T-20.00, T-21.00, T-22.00, T-32.00, T-34.00, U-03.00

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

APPROVED
Wallace K. Williams Date 3/28/84
DESIGN CHIEF
SOUTHEAST REGION



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
&
PUBLIC FACILITIES

APPROVED
W. Williams Date 3/28/84
DIRECTOR OF DESIGN & CONSTRUCTION
SOUTHEAST REGION

TYPICAL SECTIONS OF IMPROVEMENT

NOTES:

1. * DISTANCES VARY - SEE PLAN AND PROFILE SHEETS AND INTERSECTION DETAIL SHEETS FOR ACTUAL WIDTH.
2. ** INDICATES EDGE OF EXISTING PAVEMENT.
3. † INDICATES ALL CUT AND FILL SLOPES SHALL BE 2:1 UNLESS OTHERWISE NOTED IN THE SLOPE TABLE, SHEET 11
4. ‡ 4 FEET UNLESS SPECIAL DITCHES REQUIRED. SEE PLAN AND PROFILE SHEETS.
5. ‡‡ INDICATES EXISTING DITCHES THAT ARE TO BE CLEANED AND EVENLY GRADED TO DRAIN TO STORM PIPES AT "O" 9+00 LT. AND RT. THIS WORK SHALL NOT BE MEASURED FOR PAYMENT, BUT SHALL BE PAID FOR UNDER ITEM 202.
6. AREAS OF BENCHING - WIDTH OF BENCH STEPS SHALL BE AS DIRECTED.
7. SEE SEETS 21, 22 AND 30. BEGIN AND END CURB SECTIONS.
8. BETWEEN "L" 11+80 AND "L" 14+00 NO ATB WILL BE REQUIRED.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960(4)	1984	2	49

BASIS OF ESTIMATE	
EST. FACTOR	
301(1)	1.96 tons/c.y.
401(1)	1/4 lbs./sq. yd. per inch of depth
402(1)	6% of 401(1) & 4% of 306(1)
403(1)	0.03 gal./sq. yd. 2 1/2 gal./ton *
403(2)	0.25 gal./sq. yd. 253 gal./ton @ 60°F
611(3)	2.0 tons/c.y.

* Diluted Mixture

LABELING

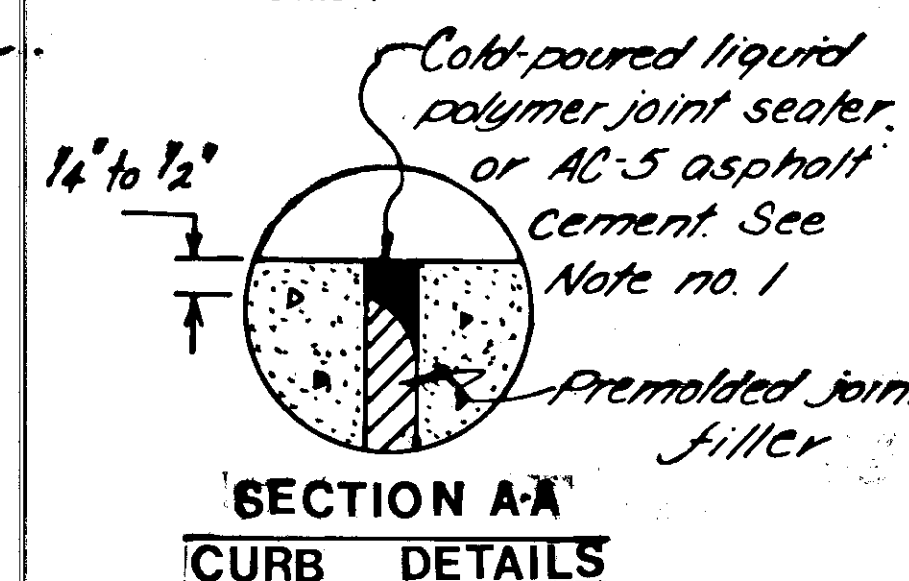
- 1 Existing Pavement
- 2 4" of asphalt conc. Type II 3 lifts @ 1 1/2" ea. CSS-1 asphalt for tack coat shall be used as directed
- 3 MC-30 liquid asphalt for Prime Coat
- 4 6" of crushed aggregate base course
- 5 1" of asphalt treated base course
- 6 Concrete curb, Type I A-C - See Det. this sh. & 28
- 7 1/2" of asphalt concrete, Type II
- 8 4" of crushed aggregate base course

INDEX

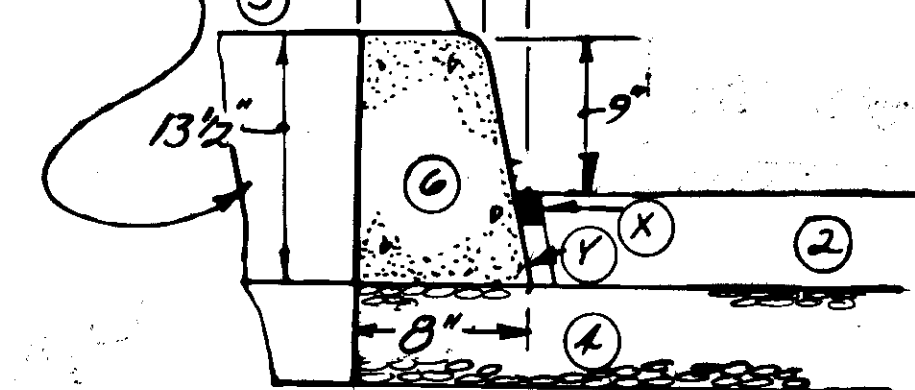
- 9 Embankment
- 10 Unclassified excavation
- 11 Water conduit - Size & location varies. See sh. 20-28
- 12 Future pipes - Size & location varies. See sh. 12 & 13.
- 13 Clearing & grubbing limits
- 14 Seeding limits

NOTES:

- 1A PREMOLDED EXPANSION JOINT FILLER AND LIQUID POLYMER JOINT SEALER (SEE SPECIFICATIONS) OR AC-5 ASPHALT CEMENT SHALL BE CONSIDERED INCIDENTAL TO ITEM 609(1) "CURB" AND NO SEPARATE PAYMENT SHALL BE MADE.
- 2 CURB EXPANSION JOINTS SHALL BE AT THE END OF THE CURB RETURN, AND IMMEDIATELY FOLLOWING THE PRECEDING CURB CUTS. THEREAFTER THEY SHALL BE PLACED AT INTERVALS OF 30' EXCEPT WHERE SHORTER SECTIONS ARE NEEDED FOR CLOSURE.
- 3 ** INDICATES TRANSITION AREAS. THE ENTIRE AREA SHALL BE CONSTRUCTED WITH THE SAME TYPE OF CONCRETE USED IN THE STANDARD TYPE CURB. THE FACE OF CURB SHALL TRANSITION SMOOTHLY FROM THE NORMAL PAVEMENT ELEVATION TO FULL HEIGHT IN THE LENGTH INDICATED ON THE INTERSECTION DETAILS. PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 609(1) "CURBING".

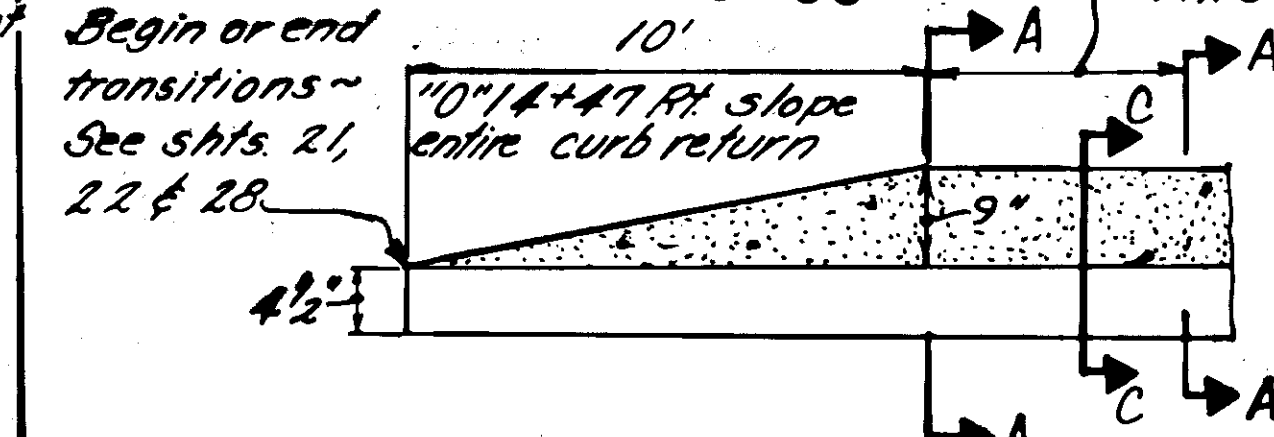


Type of material behind the curb varies & shall be as detailed on this sh. Offset shown on the Plan & Profile or Intersection Detail sheets are to this point "O" E

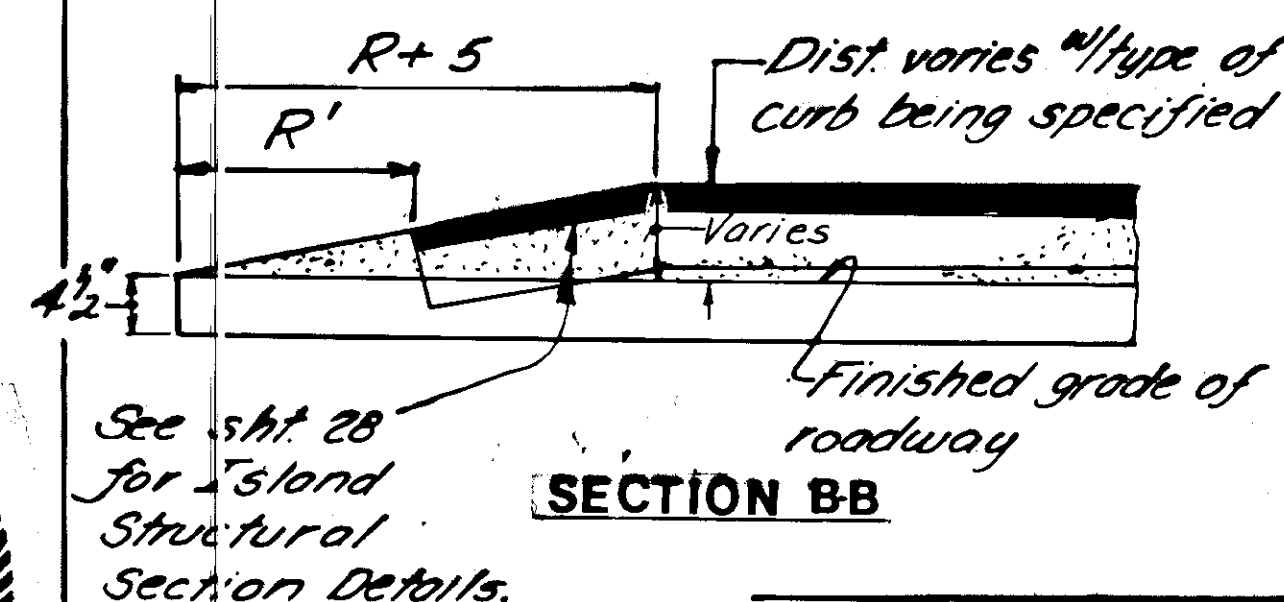


See SECTION A-A this sh. Payment shall be considered incidental to Item 401(1) and no separate payment shall be made therefore.

TYPE I-C CURB DETAIL SECTION CC

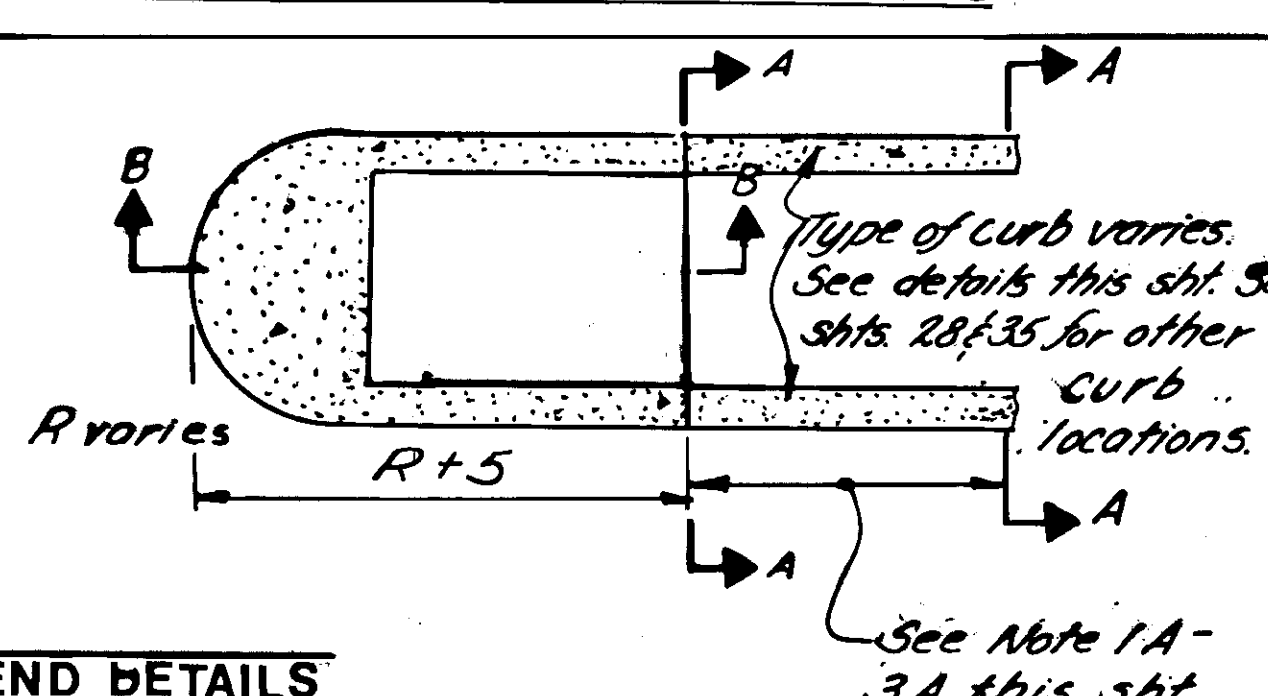


TYPE I-C PLOWABLE CURB DETAILS

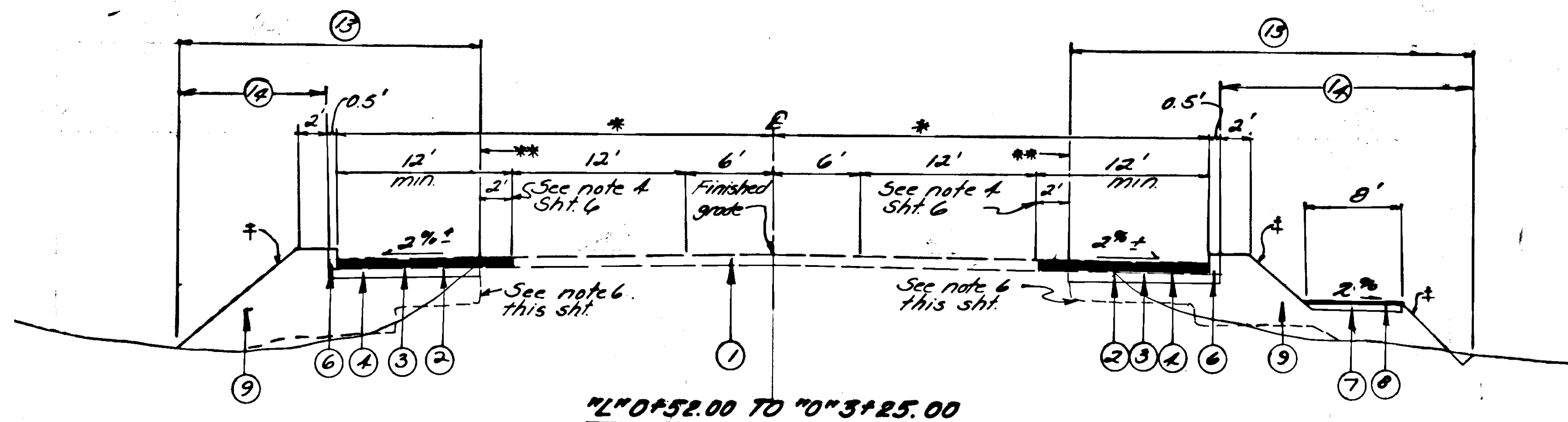


SECTION BB

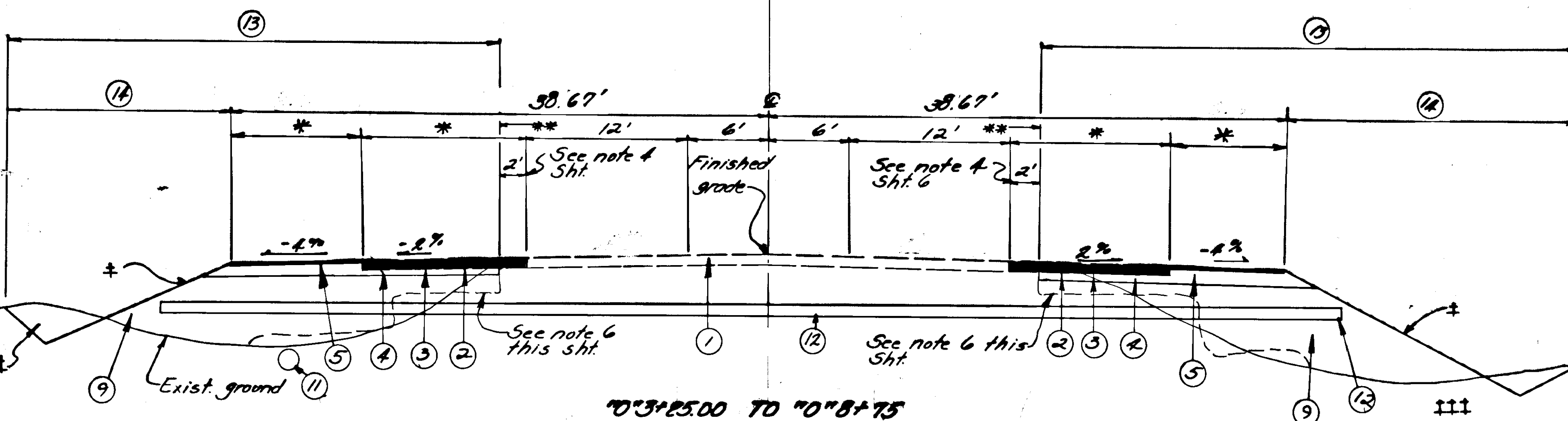
PLOWABLE ISLAND END DETAILS



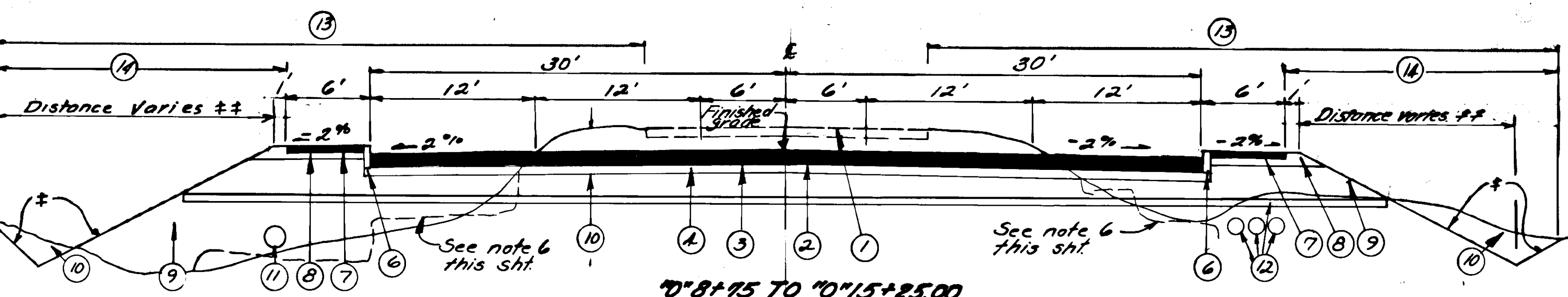
See Note 1A-3A this sh.



"L" 0+52.00 TO "O" 3+25.00



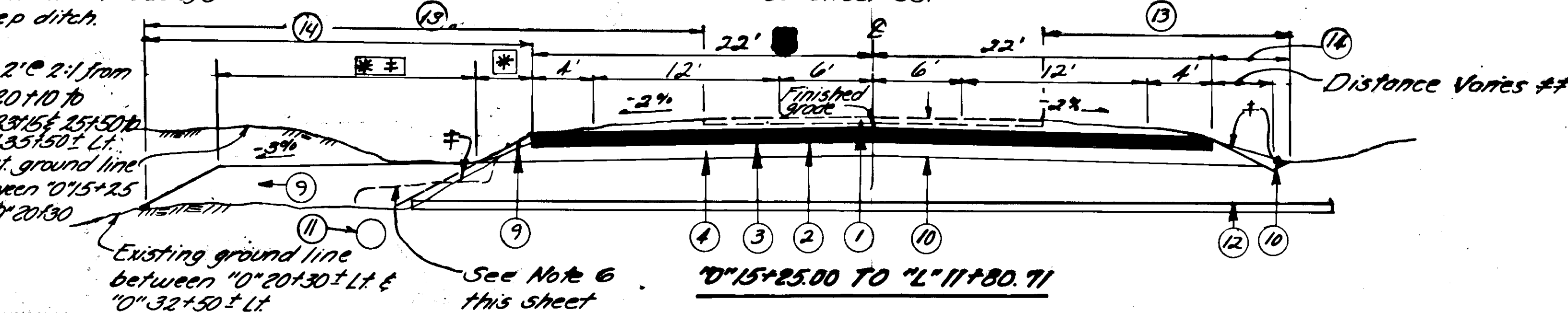
"O" 3+25.00 TO "O" 8+75
"L" 11+80.71 TO "L" 14+00



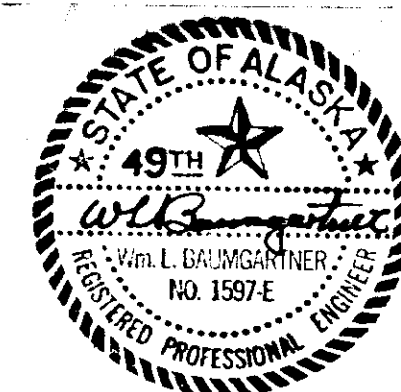
"O" 8+75 TO "O" 15+25.00

Widen embankment on additional 16.6' between "O" 20+10. "O" 23+15 ± & "O" 25+50 to "O" 35+50 ± Lt. "O" 23+15 to "O" 25+50 ± Lt. construct a 9' wide by 3' deep ditch.

"O" 34+17 to "O" 37+49 Lt. Pavement width widens to 30'. See Sheet 35.



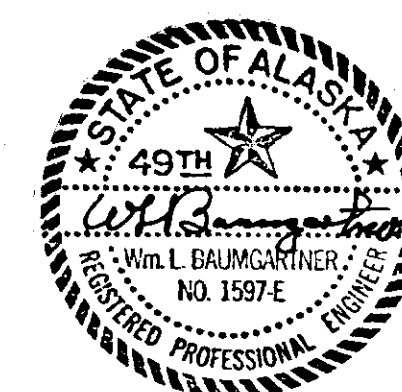
"O" 15+25.00 TO "L" 11+80.71



ESTIMATE OF QUANTITIES

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960 (4)	1984	3	49

ITEM NO.	ITEM	UNIT	SHEET NUMBER										ROADWAY TOTALS	SUPPLEMENTAL WORK TOTALS	GRAND TOTAL
			20	21	22	23	24	25	26	27	9				
110(1)	Mobilization	L.S.											All Req'd.	All Req'd.	All Req'd.
111(1)	Temporary Erosion & Pollution Control	C.S.											All Req'd.		All Req'd.
112(1)	Training Program in accordance w/FHA order, INTERIM T-2(2)	C.S.											All Req'd.		All Req'd.
113(1)	Flagging	M.H.											Est. Hr. 958	Est. Hr. 302. = 958 Hr.	Est. Hr. 1260
114(1)	Construction Surveying by the Contractor	L.S.											All Req'd.	All Req'd.	All Req'd.
115(1)	Traffic Maintenance	L.S.											All Req'd.	All Req'd.	All Req'd.
115(2)	Construction Sign	L.S.											All Req'd.	All Req'd.	All Req'd.
115(3)	Temporary Pavement Markings	L.S.											All Req'd.		All Req'd.
116(1)	Furnishing & Maintaining Field Office	L.S.											All Req'd.		All Req'd.
116(2)	Furnishing & Maintaining Field Laboratory	L.S.											All Req'd.		All Req'd.
201(2B)	Clearing & Grubbing	L.S.										All req'd.	All Req'd.		All Req'd.
202(1)	Removal of Structures & Obstructions	L.S.											All Req'd.		All Req'd.
202(2)	Removal of Pavement	S.Y.	890	1,937	2,960	3,970	2,920	2,375	2,100	950			17,902		17,902
202(4)	Removal of Culvert Pipe	L.F.		146	304	241	91	48	250				1,080		1,080
202(9)	Single Mail Box Installation	Ea.						1	1				2		2
202(10)	Multiple Mail Box Installation	L.F.								4			4		4
203(3)	Unclassified Excavation	C.Y.	268	565	2049	1511	1415	917	489	688	300	125	8,327		8,327
203(8)	Embankment	C.Y.	1238	680	1492	215	490	1037	963	113	500		6,728		6,728
204(1)	Haul	C.Y.											3810		3,810
208(1)	Mitigation	L.S.											All Req'd.		All Req'd.
301(1)	Crushed Aggregate Base Course	TON	745	1647	1636	1968	1301	981	1170	464			9,912		9,912
306(1)	Asphalt Treated Base Course	TON	11	80									91		91
401(1)	Asphalt Concrete, TYPE II	TON	517	668	1,141	1,212	929	711	768	350			6,296		6,296
401(1A)	Asphalt Concrete, TYPE II	TON	4	1	2	8	4	3	7	1				30	30
401(2)	Asphalt Cement, (AC-5)	TON	34.2	13.3	68.4	72.7	55.7	42.7	46.1	21.0			377.8		377.8
401(2a)	Asphalt Cement, (AC-5)	TON	.24	.06	.12	.48	.24	.18	.42	.06				1.8	1.8
402(1)	CSS-1 Asphalt for Tack Coat	TON	1.33	1.73	2.95	3.14	2.40	1.84	1.99	0.91			16.3		16.3
403(2)	MC-30 Liquid Asphalt for Prime Coat	TON	1.98	2.53	4.39	4.67	3.58	2.74	2.96	1.35			24.2		24.2

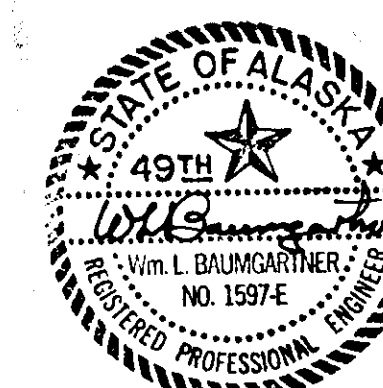


ESTIMATE OF QUANTITIES

ESTIMATE OF QUANTITIES

STATE	PROJECT DESIGNATION	YEAR	SHEET NO	TOTAL SHEETS
ALASKA	RS-0960 (A)	1984	5	49

ITEM NO.	ITEM	UNIT	SHEET NUMBER										ROADWAY TOTAL	SUPPLEMENTAL WORK TOTALS	GRAND TOTAL
			20	21	22	23	24	25	26	27	9				
627(1)	Watering	M-Gal	6.0	9.4	9.0	9.0	9.4	7.9	4.1	6.0			60.8		60.8
628(2-4)	6 inch Ductile Iron Water Conduit, Class 50	L.F.	44		34	14	74	236	128	72				602	602
628(2-8)	8 inch Ductile Iron Water Conduit, Class 50	L.F.			101		73	46						220	220
628(2-10)	10 inch Ductile Iron Water Conduit, Class 50	L.F.	120	34		136	44		180	386				900	900
628(2-16)	16 inch Ductile Iron Water Conduit, Class 50	L.F.				244	90							334	334
628(2-20)	20 inch Ductile Iron Water Conduit, Class 50	L.F.	150	619	656	574	665	524	456					3646	3646
628(4)	Install Valve Box	Ea	2	1	5	6	4	5	3	1				27	27
628(6)	Fire Hydrant Installation	Ea	1	1	1	1	1	1	1	1				8	8
628(9)	Water Service Connection	Ea				3								3	3
628(10-6)	Install 6 inch gate valve	Ea	1		1		1	4	1					8	8
628(10-8)	Install 8 inch gate valve	Ea			2		1	1						4	4
628(10-10)	Install 10 inch gate valve	Ea	1	1		1	1		1	1				6	6
628(12)	Install Air release Valve	Ea	1				1		1					3	3
628(13)	Install 20" Butterfly Valve	Ea			2	1	1		1					4	4
628(14)	Install 16" Butterfly Valve	Ea				1	1							2	2
629(1)	20 inch Steel Pipe	L.F.	234	70									304		304
629(1A)	20 inch Steel Pipe	Lt.	80											80	80
639(1)	Approaches	Ea		1	9	8	6	5	3	1			33		33
660(1)	Traffic Signal System	L.S.											All Req'd.		All Req'd.
660(3)	Highway Lighting Complete	L.S.											All Req'd.		All Req'd.
670(6)	Thermoplastic Pavement Markings	L.S.			See sht. 43 for estimated quantities								All Req'd.		All Req'd.
671(1)	Electrical Conduit System	L.S.													
672(7)	Electrical Vaults Installed	Ea													

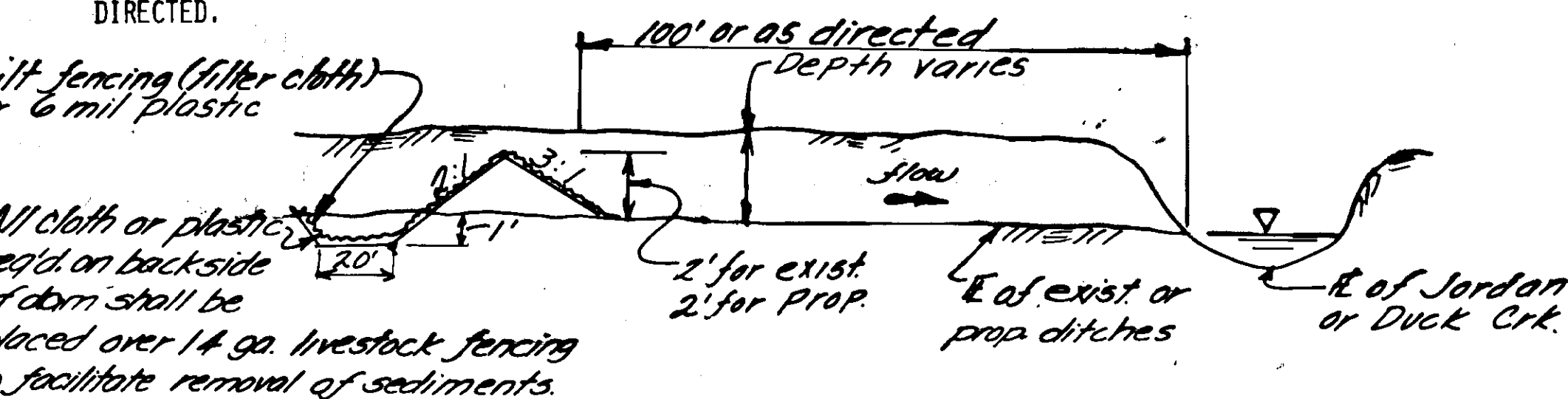


TYPICAL SECTION NOTES

- THE EXISTING ROADWAY ASPHALT TO BE REMOVED ON THIS PROJECT IS APPROXIMATELY 22 FEET WIDE AND 4 INCHES DEEP. DEPTH OF EXISTING ASPHALT AND PORTLAND CEMENT PARKING AREAS ARE UNKNOWN.
- WHERE SUPERELEVATION IS REQUIRED ON THIS PROJECT, IT SHALL BE REVOLVED ABOUT THE INSIDE SHOULDER.
 - RATE OF SUPERELEVATION AND TRANSITION LENGTHS ARE SHOWN ON THE PLAN AND PROFILE SHEETS.
 - THE METHOD USED TO OBTAIN SPECIFIC ELEVATIONS BETWEEN B.S.T. (BEGIN SUPER TRANSITION) AND E.S.T. (END SUPER TRANSITION) AT EACH END OF THE CURVE SHALL BE OBTAINED FROM THE ENGINEER.
- ALL PORTLAND CEMENT PAVEMENT AND WASTE EXCAVATION ENCOUNTERED ON THE PROJECT SHALL BE DISPOSED OF OUTSIDE THE PROJECTS R/W LIMITS. ANY WASTE EXCAVATION DERIVED FROM THE WORK SHOWN ON SHEET 9 SHALL ALSO BE DISPOSED OF OUTSIDE THE R/W LIMITS SHOWN ON THAT SHEET.
- ALL PAVEMENT CUTS REQUIRED ON THIS PROJECT SHALL BE MADE WITH A CONCRETE SAW. THE SAW SHALL BE FURNISHED WITH A BLADE THAT WILL MAKE ALL THE REQUIRED CUTS IN ONE PASS.
 - THE FOLLOWING MAJOR PAVEMENT CUTS ARE REQUIRED. HOWEVER, OTHERS MAY BE REQUIRED BY THE ENGINEER.
 - ALL CUTS REQUIRED TO ACCOMPLISH THE REMOVAL OF PAVEMENT AT THE B.O.P. INTERSECTION.
 - PARALLEL CUTS BETWEEN THE B.O.P AND "0+8+75
 - PERPENDICULAR CUTS AT "0+8+75 AND "L+11+80.
 - PERPENDICULAR CUTS REQUIRED ON THE PAVED SIDE STREET AND APPROACHES.
 - CUTS PARALLEL TO AND AT THE SLOPE LIMITS.
 - PAYMENT FOR ALL PAVEMENT CUTS SHALL BE CONSIDERED INCIDENTAL TO SECTION 202(2)

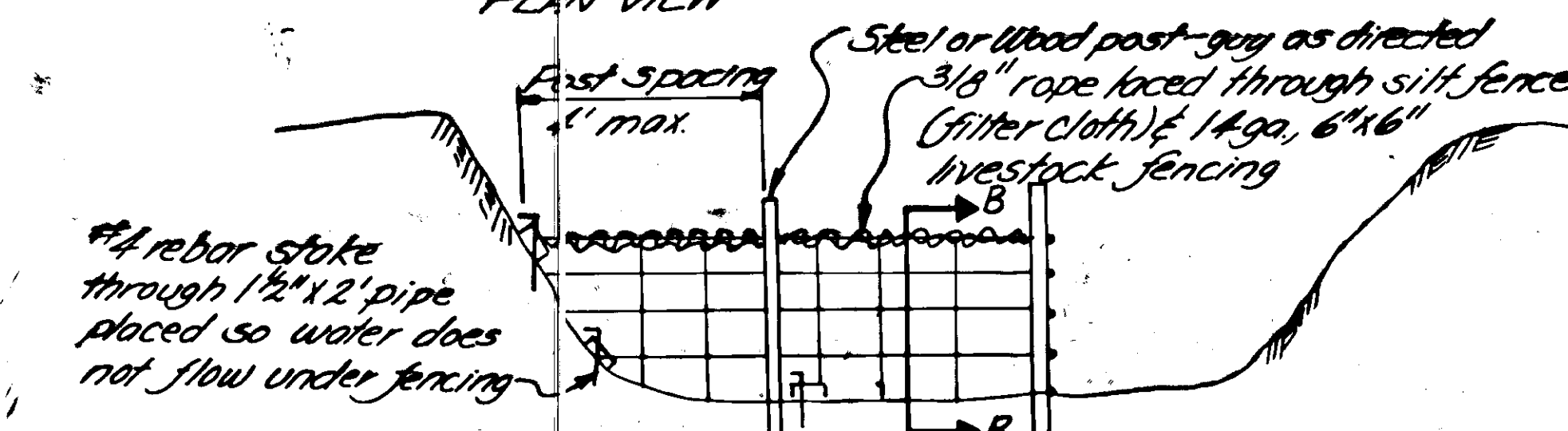
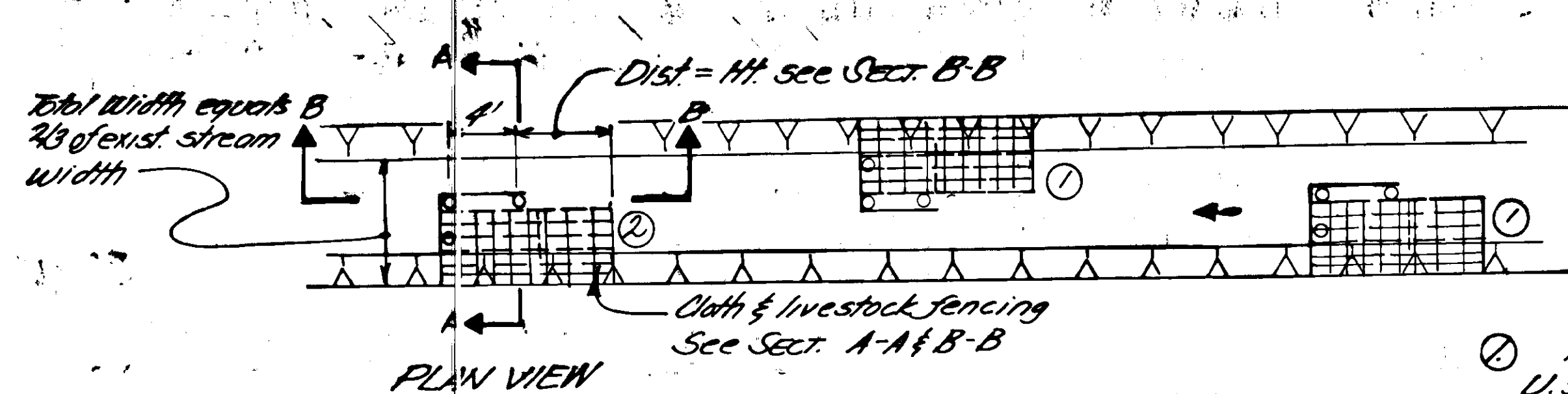
PROJECT GENERAL NOTES

- GRADE AND ALIGNMENT SHOWN ON THESE PLANS ARE SUBJECT TO MINOR REVISIONS.
- STORM INLET LOCATIONS AND ELEVATIONS SHOWN ARE SUBJECT TO MINOR REVISIONS.
- CULVERT LENGTHS AND LOCATIONS SHOWN ON THESE PLANS ARE SUBJECT TO MINOR REVISIONS.
- THE LOCATIONS OF ALL UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY AND SHALL BE VERIFIED BY THE CONTRACTOR.
- THE INSTALLATION, ADJUSTMENT OR REMOVAL OF UTILITY POLES AND ALL THEIR APPURTENANCES SHALL BE PERFORMED BY OTHERS.
- PROPOSED UTILITY POLE LOCATIONS ARE SHOWN AND ARE TO BE CONSIDERED INFORMATIONAL ONLY.
- RECONSTRUCTION AS REFERRED TO IN THIS CONTRACT ASSEMBLY, IS ANY WORK CALLED FOR UNDER THIS CONTRACT
- THE PLANS INDICATE ALL KNOWN SANITARY SEWER SERVICE CONNECTIONS, AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND DETERMINE WHICH SERVICE LINES DO NOT MEET THE FOLLOWING CRITERIA. IF THE SERVICES DO NOT MEET THE FOLLOWING CRITERIA, THEY SHALL BE EXTENDED OR RECONSTRUCTED
 - MINIMUM DEPTH OF BURIAL SHALL BE 3.5 FEET BELOW FINISHED GRADE. IF THE SERVICE LINE HAS ADEQUATE DEPTH OF BURIAL, EVERYWHERE EXCEPT UNDER THE REQUIRED DITCH LINE, THEN SAID SERVICE LINE SHALL BE ENCASED IN 3 INCHES OF CONCRETE 5 FOOT EITHER SIDE OF DITCH FLOW LINE TO PROTECT IT FROM FURTHER MAINTENANCE OPERATIONS.
 - SERVICES REQUIRING EXTENSION SHALL BE EXTENDED WITH PLASTIC CONDUIT (MATCHING THE EXISTING CONDUIT SIZE) AND CONFORMING TO SECTION 706-2.08 OF THE STANDARD SPECIFICATIONS.
 - PAYMENT FOR THE ABOVE LABOR AND MATERIALS SHALL BE IN ACCORDANCE WITH 109-1.05 OF THE STANDARD SPECIFICATIONS
- ALL IN-WATER CONSTRUCTION ACTIVITIES REQUIRED IN JORDAN CREEK AND DUCK CREEK SHALL BE COMPLETED BETWEEN MAY 15 AND JULY 31.
- PRIOR TO, AND DURING THE RECONSTRUCTION OF THIS PROJECT, THE CONTRACTOR SHALL INSTALL AND MAINTAIN THE CHECK DAMS (DETAILED BELOW) NEAR ALL EXISTING OR PROPOSED OUTLET INTO JORDAN AND DUCK CREEKS UNTIL OTHERWISE DIRECTED.

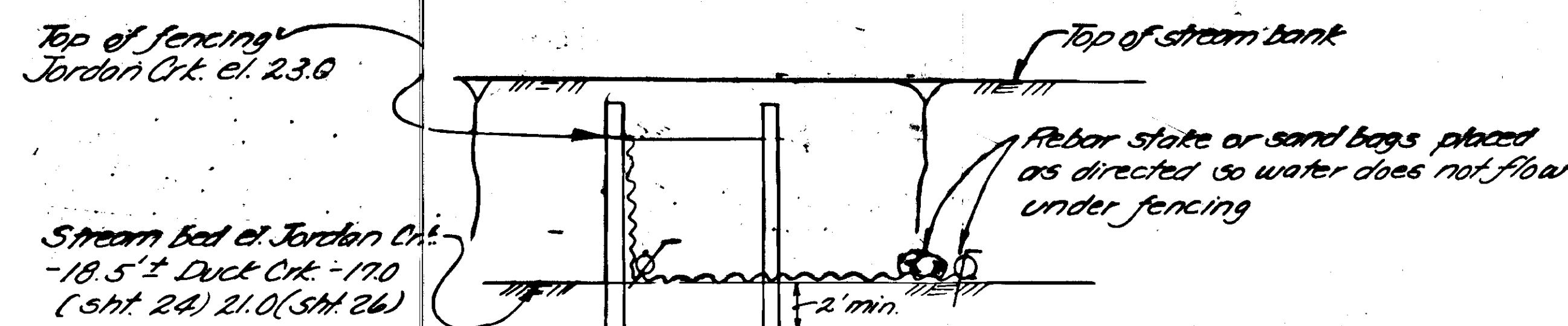


STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960(4)	1984	6	49

A. PRIOR TO AND DURING THE RECONSTRUCTION OF THIS PROJECT, THE CONTRACTOR SHALL INSTALL AND MAINTAIN SILT FENCES IN JORDAN AND DUCK CREEKS. LOCATION OF THE FENCES ARE SHOWN ON SHEETS 24, 26, AND 36 AND AS DETAILED BELOW.



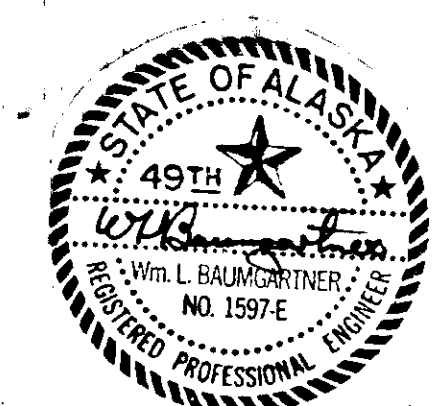
SECTION A-A



SECTION B-B

- IN-WATER WORK DATES SHOWN IN NOTE NO. 9 DO NOT APPLY TO INSTALLATION OF THE SILT FENCES.
- SILT COLLECTED IN THE CHECK DAMS OR SILT FENCES SHALL BE REMOVED WHEN DIRECTED.

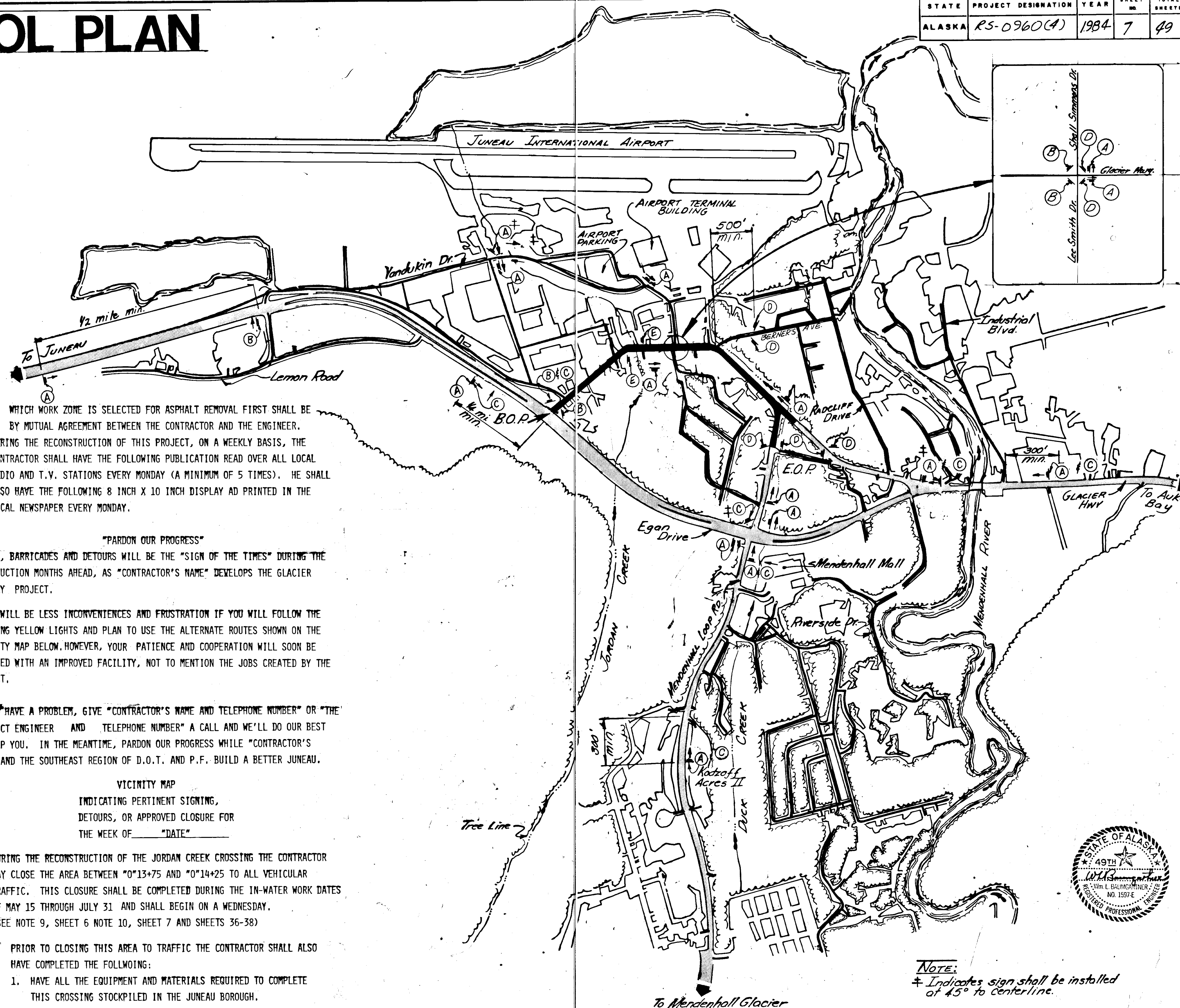
- FABRIC AND FENCING SHALL BE FOLDED UP AND LIFTED FROM THE WATER SO THAT AS LITTLE SEDIMENT AS POSSIBLE ESCAPES DOWN STREAM.
- DISPOSAL OF THE USED FABRIC AND SEDIMENTS SHALL BE OUTSIDE THE PROJECT LIMITS
- FABRIC, FENCING, AND SEDIMENT SHALL NOT BE REMOVED FOR CLEANING DURING HEAVY RUN-OFF TIMES OR WHEN THERE IS A DANGER OF LARGE PASSAGE OF SEDIMENT.
- IF UPSTREAM FLOODING BEGINS TO ENDANGER PRIVATE PROPERTY THE CHECK DAMS & FENCES SHALL BE REMOVED AND REPLACED AS DIRECTED.
- PAYMENT FOR ALL LABOR AND MATERIALS REQUIRED TO INSTALL AND MAINTAIN BOTH THE CHECK DAMS AND SILT FENCES SHALL BE PAID FOR UNDER SECTION 111.
- ALL WATER REMOVED FROM PIPE, CONDUIT OR VAULT TRENCHES SHALL BE DISPOSED OF UPSTREAM OF A CHECK DAM PRIOR TO LETTING IT RUN BACK INTO JORDAN OR DUCK CREEKS.
- THE CONTRACTOR IS ADVISED TO REVIEW SHEETS 40 - 42 PRIOR TO BIDDING ITEM NO'S 604(5 A & B).
 - PRIOR TO FINAL ACCEPTANCE OF THE STORM SEWER SYSTEM THE CONTRACTOR SHALL CLEAN EACH SILT SUMP TO THE SATISFACTION OF THE ENGINEER. IF SO DIRECTED, THIS WORK MAY ALSO INCLUDE CLEANING THE PIPING.
 - PAYMENT FOR THIS WORK IS CONSIDERED INCIDENTAL TO OTHER ITEMS OF WORK APPEARING IN THE BID SCHEDULE.
- DURING THE RECONSTRUCTION OF THIS PROJECT, THE CONTRACTOR SHALL KEEP ALL HEAVY EQUIPMENT OFF THE TOP OF THE TELEPHONE MANHOLE AT "0+25+30 LT. UNTIL IT HAS BEEN RECONSTRUCTED PER THE DETAILS ON SHEET 11.
- UPON COMPLETING A WORK ZONE (SEE NOTE NO. 8 & 9; SHEET 7) THE CONTRACTOR SHALL SEED THE EMBANKMENT SLOPES AS OUTLINED IN SECTION 618 OF THE SPECIAL PROVISIONS.



HERNIM. 8905®
RAFTING FILM

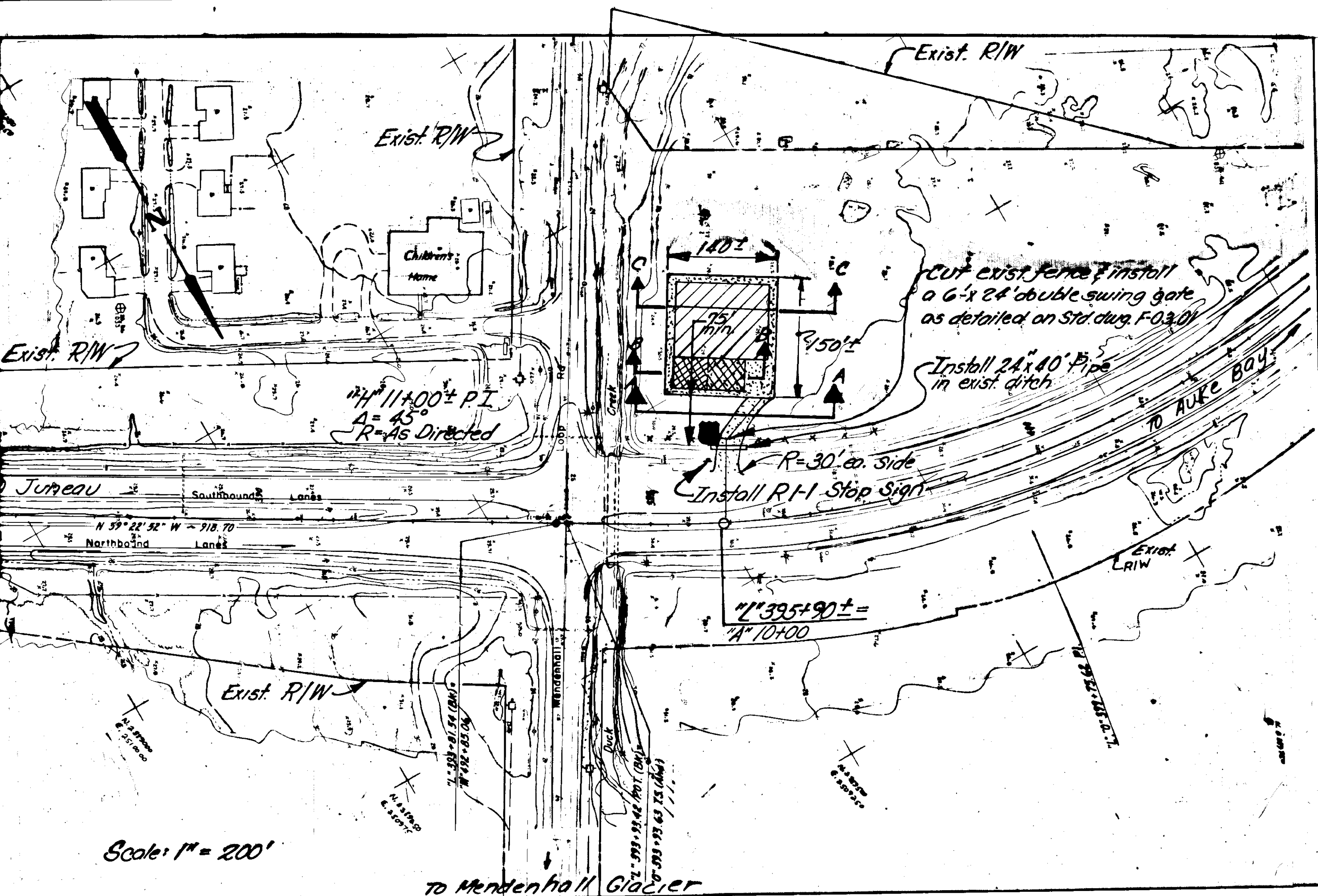
HERNIM. 8905®
RAFTING FILM

- NOTE:
‡ Indicates sign shall be installed
at 45° to centerline.



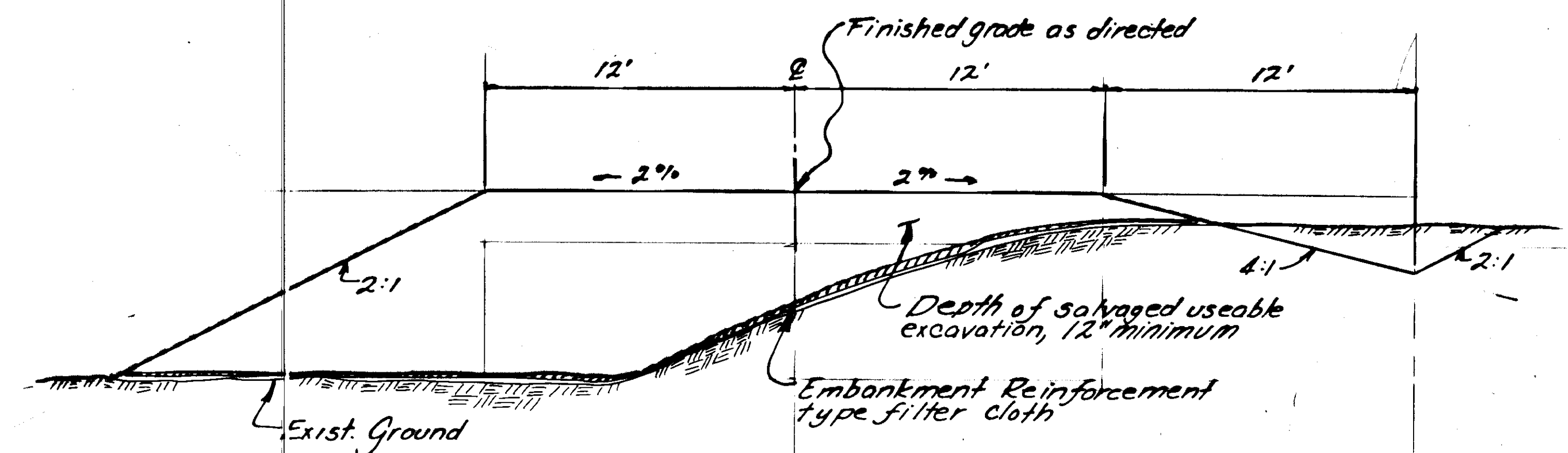
STATE FURNISHED MATERIALS STOCK PILE SITE

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960(4)	1984	9	49

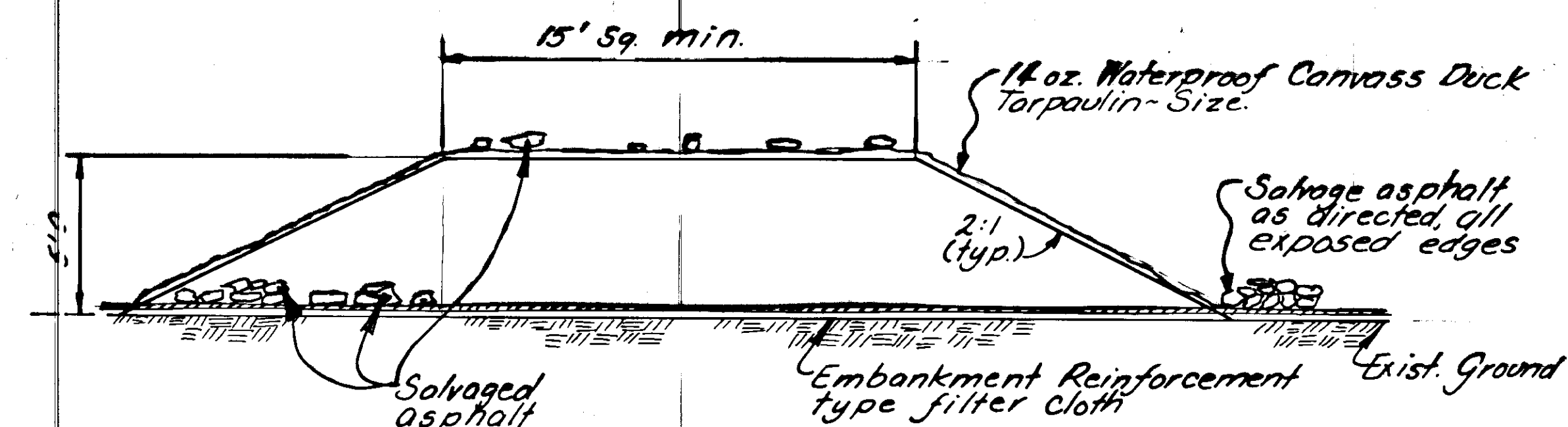


NOTES

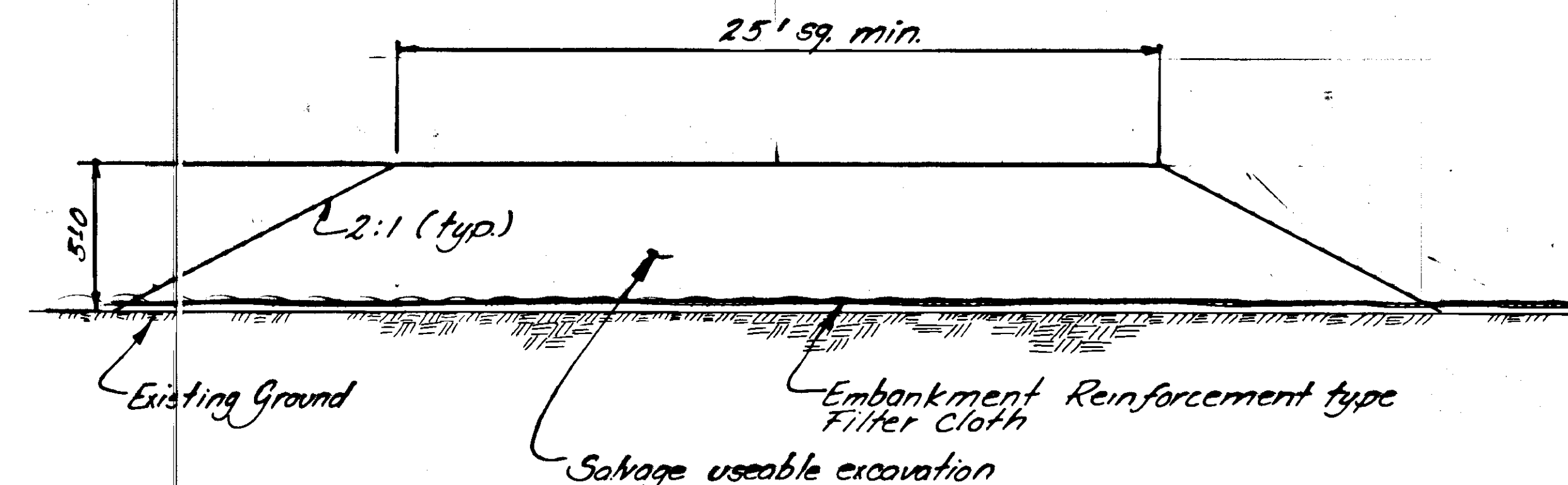
- INDICATES THE APPROXIMATE AREA SET ASIDE FOR CONSTRUCTING THE HAUL ROAD. HAUL ROAD EMBANKMENT TO BE PAID FOR UNDER ITEM 204(1)
- INDICATES THE APPROXIMATE AREAS SET ASIDE FOR STOCK-PIILING THE SALVAGED ASPHALT AND THE EXCESS USEABLE UNCLASSIFIED EXCAVATION.
- PRIOR TO BEGINNING ANY WORK IN THE ABOVE AREAS, THE CONTRACTOR SHALL REQUEST THE AREAS TO BE FLAGGED BY THE ENGINEER AND THE S.E. REGIONAL ENVIRONMENTAL COORDINATOR.
 - THE REQUEST TO HAVE THE AREA FLAGGED SHALL BE MADE A MINIMUM OF 2 WEEKS PRIOR TO WANTING TO BEGIN WORK IN THE STOCKPILE AREA.
- ONCE THE ROUGH AREAS HAVE BEEN FLAGGED, THEY SHALL BE CLEARED AND GRUBBED TO THE SATISFACTION OF THE ENGINEER. ALL THE CLEARING AND GRUBBING REQUIRED SHALL BE PAID FOR UNDER ITEM 201(2B)
 - PORTIONS OF THE AREA ARE COVERED WITH ALDERS AND BUSHES 6 OR LESS INCHES IN DIAMETER.
 - WOODED MATERIAL DERIVED FROM THE CLEARING AND GRUBBING OPERATIONS MAY BE BURNED IN THE STOCKPILE AREA PROVIDED THE CONTRACTOR HAS OBTAINED ALL THE REQUIRED BURNING PERMITS AND OPEN BURNING IS PERMITTED BY A.D.E.C.
- AFTER THE CLEARING, GRUBBING AND EXCAVATION FOR THE HAUL ROAD HAS BEEN COMPLETED THE FILTER CLOTH SHALL BE LAID OUT IN THE DIRECTION OF TRAFFIC. ALL FABRIC PANELS SHALL BE OVERLAPPED 2', AND MINIMUM OF 6 INCHES OF SALVAGE EXCAVATION SHALL BE PLACED OVER THE FABRIC BEFORE ANY CONSTRUCTION EQUIPMENT IS ALLOWED OVER THE FABRIC.
- PAYMENT FOR THE 14 OZ. WATERPROOF CANVASS DUCK TARPULIN AND FILTER CLOTH SHALL BE CONSIDERED INCIDENTAL TO OTHER ITEMS OF WORK APPEARING IN THE BID SCHEDULE.
- INDICATES REMOVAL OF STRUCTURES AND OBSTRUCTIONS. SEE SHEET 10.



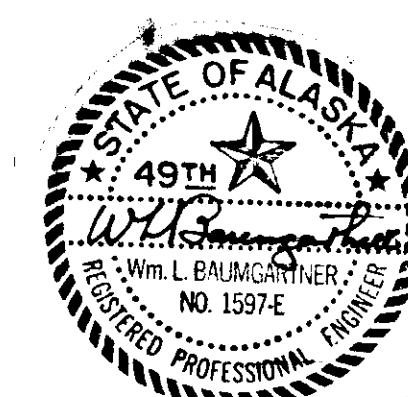
SECTION A-A



SECTION B-B

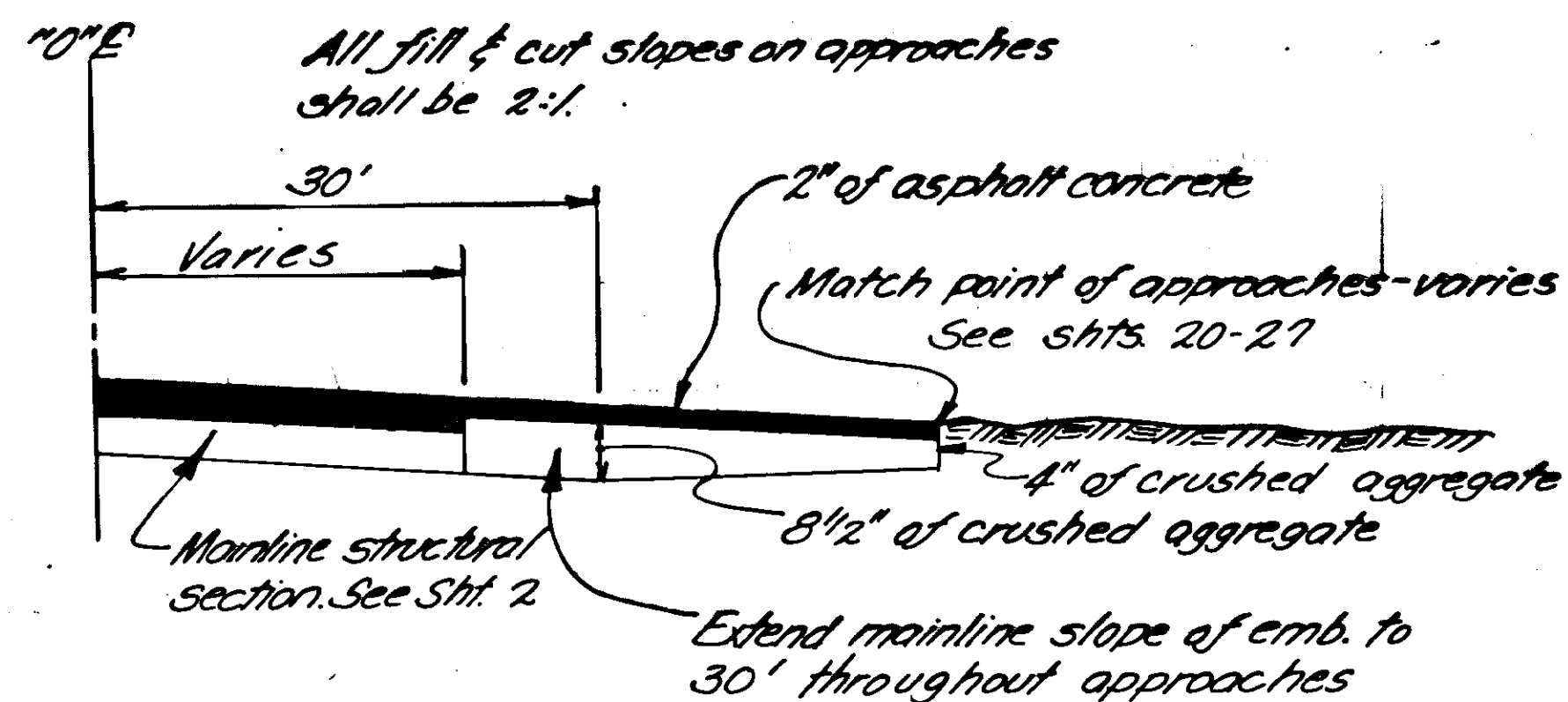


SECTION C-C



APPROACH SUMMARY

STATION	LT	RT	WIDTH	RADIUS	REMARKS
0" 6+10	X		24'	25'	Reconstruct Approach Typical
0" 0+72	X		14'	10'	
0" 0+72 0" 14+50		X	14' 10	18' 0	
0" 16+47		X	24'	10'	
0" 17+55	X		34'	15'	
0" 17+57		X	28'	15'	
55" 2+00	X		24'	15'	
0" 18+80	X		14'	10'	
55" 1+10	X		24'	10'	
0" 20+23		X	14'	10'	
0" 20+95		X	24'	10'	
5" 0+90	X		24'	15'	
0" 22+18		X	14'	10'	
0" 23+67		X	24'	15'	
0" 25+16		X	24'	15'	
0" 26+86		X	25'	25'	
0" 28+28		X	25'	25'	
0" 28+46	X		25'	15'	
0" 28+79		X	18'	25' One Side	
0" 30+46		X	24'	15'	
0" 30+95		X	24'	15'	
0" 31+03	X		7'	25'	
0" 32+03		X	24' 30'	15'	
0" 32+41	X		12'	15'	
0" 33+95		X	14' 24'	15'	
0" 0+89	X		18'	25'	
0" 3+04	X		14'	25'	
0" 4+30		X	14'	15'	
0" 36+69		X	36'	15'	
0" 11+65		X	14'	15'	

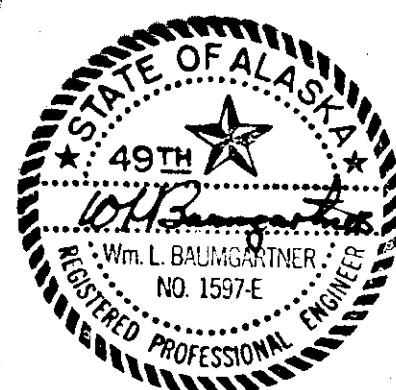


APPROACH TYPICAL

REMOVAL OF STRUCTURES AND OBSTRUCTIONS					
FROM STATION	TO STATION	OFFSET			REMARKS
		LT	RT		
"0" 1+33 & 134			X		Remove exist. curb - See Sht. 28 for details
"1" 362+00	"1" 362+57	X			Remove & Salvage 60 L.F. of 6' Chain Link Fence
"1" 363+52	"1" 363+80	X			Remove & Salvage 20 L.F. of 6' Chain Link Fence
"1" 365+55	"1" 363+75	X			Remove & Salvage 20 L.F. of 6' Chain Link Fence
"1" 395+78	"1" 396+02	X			Remove & Salvage 24 L.F. of 6' Chain Link Fence (See Sht. 9)
"0" 9+80		X			Remove 80 L.F. of Curb & Gutter
"0" 10+50		X			Remove 120 L.F. of Curb & Gutter
"0" 10+50		X			Remove 79 L.F. of Concrete Sidewalk
"0" 10+75			X		Remove 5 L.F. of Curb
"0" 11+30	"0" 11+72		X		Remove 36 L.F. of Curb
"0" 12+00			X		Remove 55 L.F. of Curb
"0" 12+45			X		Remove existing bridge and Concrete ramp as directed
"0" 12+50			X		Remove existing pole stubs
"0" 12+70		X			Remove exist. sign posts.
"0" 12+90 Rt.	"0" 14+45 Lt.	X	X		Remove and dispose of existing guardrail and bridge
"0" 16+31			X		Remove exist. fire hydrant
"0" 19+54		X			Remove and dispose of existing manhole.
"0" 23+10	"0" 24+80	X			Remove and salvage existing guardrail
"0" 24+55	"0" 24+57	X			Remove & dispose exist. guardrail
"0" 32+60	"0" 33+20	X			Remove existing gasoline storage tanks. * See Note / this Sht.
Shts. 44 & 48		X	X		Remove & Salvage exist. electrolaters & J-Boxes as in Illumination Summaries.
"0" 0+54 to "0" 4+50 & "1" 14+00		X	X		Remove & Salvage exist. roadway signs.

*NOTE: If it is unknown if these tanks have any fuel in them, and it shall be the contractor's responsibility to determine if the tanks contain fuel prior to beginning removal. The contractor is also required to take all precautions he or the engineer deem necessary to insure the safety of the public and surrounding property when removing these tanks.

FENCE		RECONSTRUCTION		
FROM STATION	TO STATION	OFFSET		REMARKS
		Lt.	Rt.	
1"363+68	1"363+87	X		6'
1"363+65	1"363+87	X		4'



MANHOLE SUMMARY				
O' STATION	OFFSET	EXIST. ELEV.	PROP. ELEV.	REMARKS
9+33	48' L.	27.08		
9+87	52' R.	26.20	26.66	Sewer M.H. adjust
10+02	20.5' L.	26.75	26.76	Sewer M.H. adjust
10+11	21' L.	25.56	26.71	Teleph. M.H. adjust *
12+72	16' R.	25.73	25.84	Sewer M.H. adjust
12+73	19' L.	25.39	26.56	Teleph. M.H. adjust *
14+78	19' R.	25.59	25.64	Sewer M.H. adjust
17+31	18' L.	25.80	25.85	Teleph. M.H. adjust *
19+57	23' L.	26.14	26.383	Sewer M.H. adjust
23+12	16' L.	25.28	26.73	Teleph. M.H. Reconstruct
23+73	31' L.	25.74	26.50	Sewer M.H. adjust
24+15	0' R.	27.06	26.41	Sewer M.H. Reconstruct
25+9	17' L.	25.31	26.10	Teleph. M.H. adjust & Reconst. See Vault Det. This Sht.
25+93	0' R.	25.86	25.81	Sewer M.H. adjust
28+56	3' R.	25.26	24.77	Sewer M.H. adjust
29+45	15' L.	24.21	24.51	Teleph. M.H. adjust *
31+39	6.5' R.	25.31	25.86	Sewer M.H. adjust
35+49	38' L.	25.17	26.81	Teleph. M.H. adjust *

GUARDRAIL SUMMARY						
FROM STATION	TO STATION	OFFSET LT.	OFFSET RT.	REMOVE/DISPOSE	INSTALL	END SECT.
0+23+14	0+24+80			150'		
0+24+61	8+0+76	X		100'	2	1-35'R. where L=30'
8+0+74	0+26+23	X		112.5'	2	1-35'R. where L=30'
0+0+99	0+3+51	X		207.5'	2	2-25'R. where L=37.5'
0+37+32	0+3+41	X		150'	2	1-30'R. where L=112.5'

1. ALL GUARDRAIL RADII OF 150' OR LESS SHALL BE SHOP FABRICATED.
2. THE CONTRACTOR HAS HIS CHOICE OF FURNISHING WOOD OR STEEL POSTS, BUT THE SAME TYPE OF POST SHALL BE FURNISHED THROUGHOUT THE PROJECT.

- MANHOLE NOTES
- # INDICATES GIVEN ELEVATIONS ARE, (THE BEST AVAILABLE INFORMATION,) TO THE TOP OF THE EXISTING TELEPHONE VAULTS.
 - * INDICATES MANHOLES THAT ARE TO BE ADJUSTED OR RECONSTRUCTED USING COMBINATIONS OF RISER RINGS MANUFACTURED BY "UTILITY VAULT CO." OR APPROVED EQUAL.
 - UTILITY VAULT CO. CATALOG NO. FOR THE RINGS ARE 4204, 4206, AND 4212.
 - ADJUSTMENT OR RECONSTRUCTION SHALL BE DETERMINED AS FOLLOWS:
EXAMPLE- 26.73-25.28=1.45
 - IT IS ESTIMATED THAT THE FOLLOWING NUMBER OF NEW RINGS WILL BE REQUIRED:
4204 = 3 EA.
4206 = 1 EA.
4212 = 1 EA.
 - THE EXISTING MANHOLE LIDS AND FRAMES ARE TO BE SALVAGED AND REINSTALLED. IF THE CONTRACTOR DAMAGES THE LID AND FRAME DURING REMOVAL, HE SHALL REPLACE SAME AT HIS COST.
 - EXISTING SEWER MANHOLES THAT REQUIRE MORE THAN 1 FOOT OF PRECAST CONCRETE ADJUSTING RINGS SHALL BE RECONSTRUCTED. IF ADJUSTMENT IS CALLED FOR AND RECONSTRUCTION IS REQUIRED, THE WORK SHALL BE PAID FOR AS RECONSTRUCTION.

SURVEY MONUMENT SUMMARY			
STATION	POINT	MONU-MENT	CASE
0+13+57.56	P.1	X	X
0+24+87.44	P.1	X	X
0+35+98.10	P.1	X	X

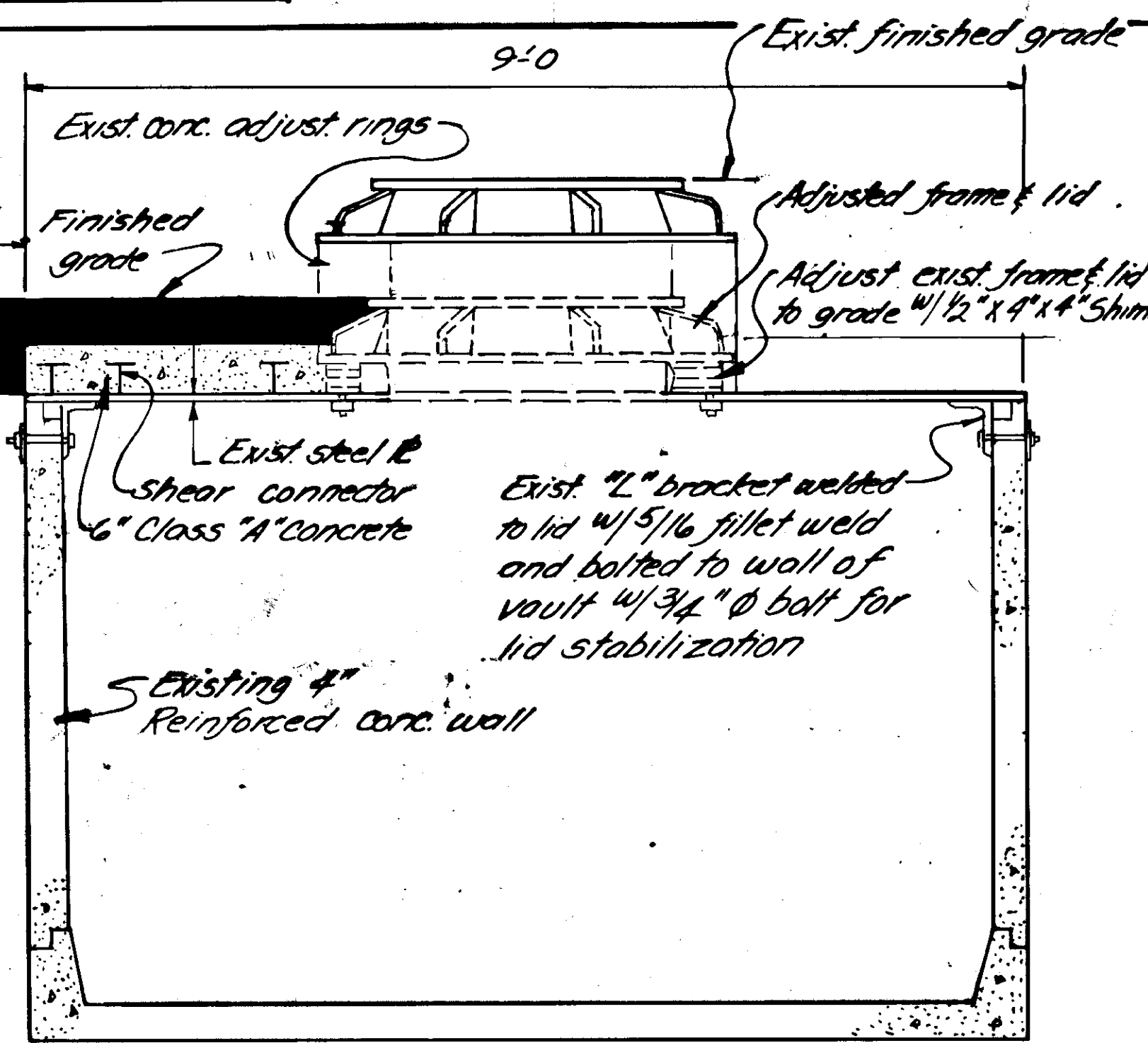
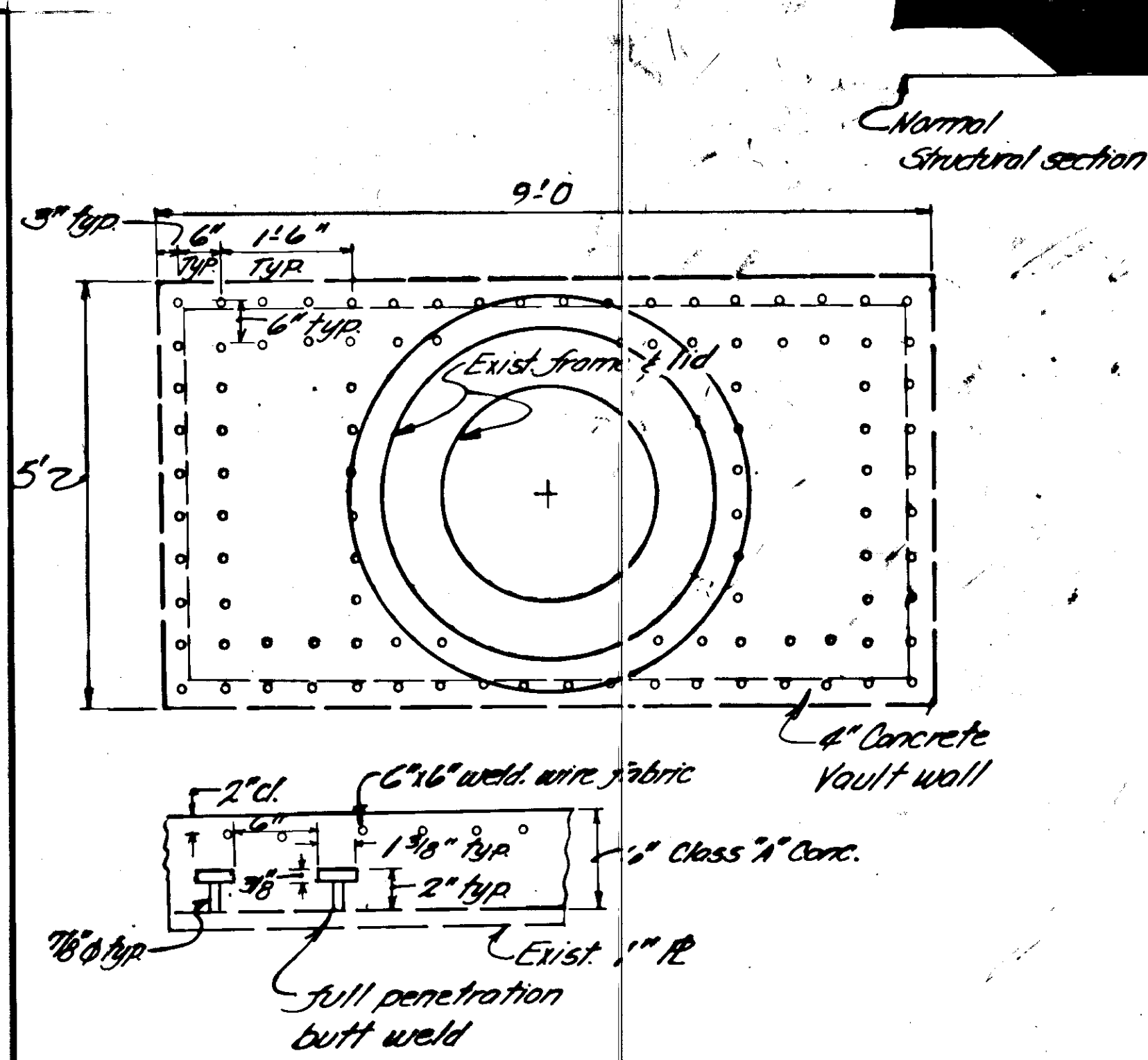
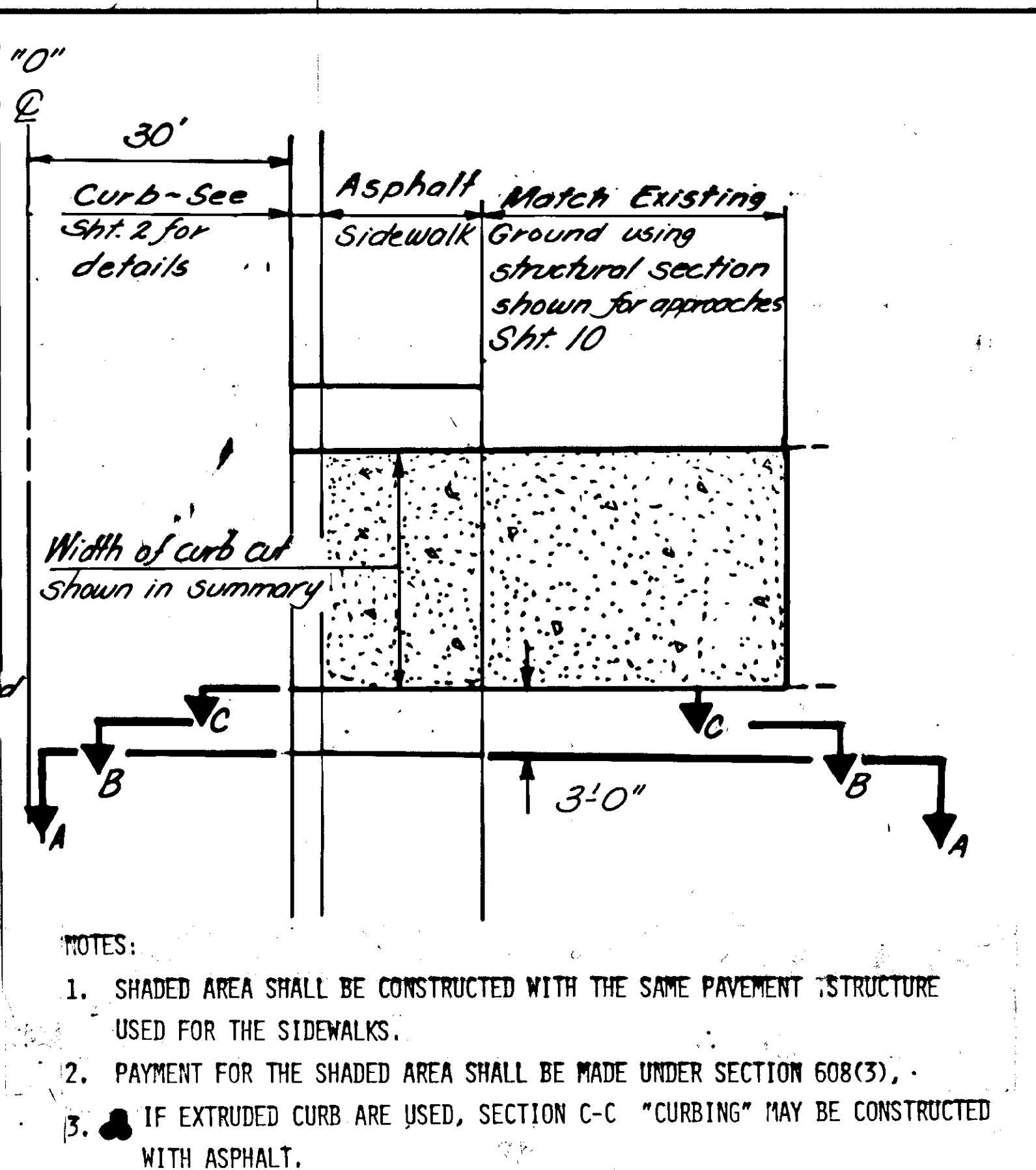
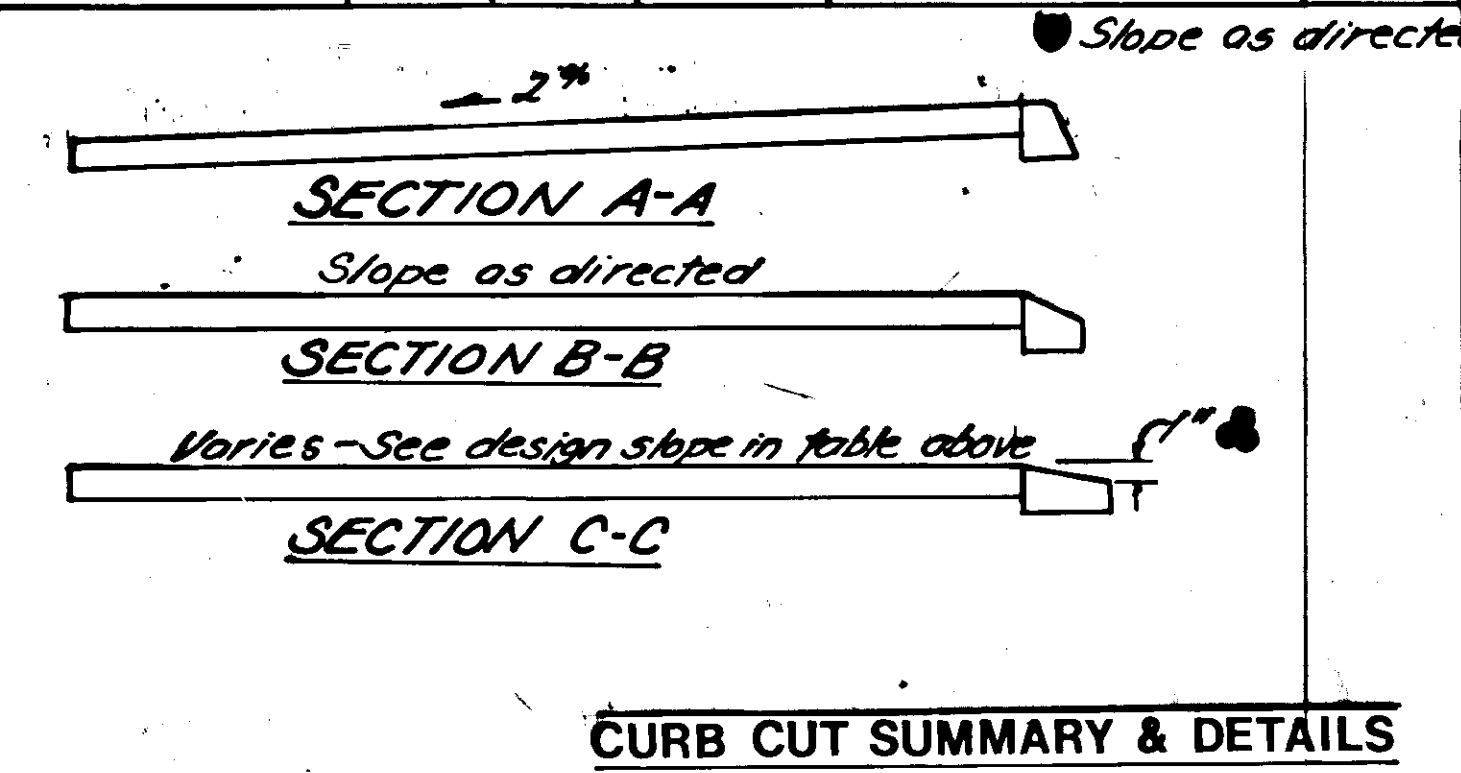
1. THE MONUMENTS SHOWN ABOVE SHALL BE SET AT THE STATION SHOWN UNLESS OTHERWISE DIRECTED.
2. THESE MONUMENTS SHALL BE SET BY REGISTERED LAND SURVEYOR, HOLDING CURRENT REGISTRATION IN THE STATE OF ALASKA.
3. THE MONUMENTS SHALL BE SET TO THE STANDARD OF ACCURACY SHOWN FOR "THIRD-ORDER" CLASS II AS SPECIFIED IN THE "CLASSIFICATION, STANDARD OF ACCURACY AND GENERAL SPECIFICATIONS OF GEODETIC CONTROL SURVEYS", U.S. DEPARTMENT OF COMMERCE-N.T.I.S. # PB 261037.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960(4)	1984	11	49

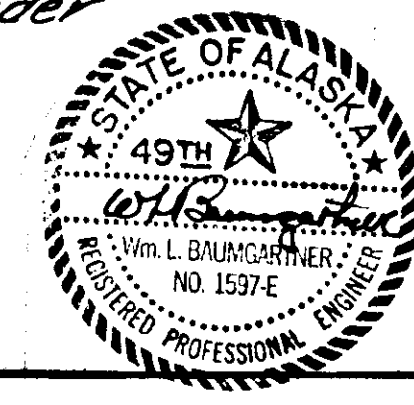
MAILBOX SUMMARY				
STATION	LT	RT	NO. OF BOXES	REMARKS
0+29+31		27'	1	Remove & Replace
0+32+25	26'		1	
0+34+50	20'		2-1	Remove & Replace

TABLE OF SLOPES					
FILL		STATION		CUT	
LT.	RT.	FROM	TO	LT.	RT.
1/2:1		0+28+68	0+29+18		
	4:1	0+12+68	0+13+43		

CURB CUT SUMMARY				
Station	Lt.	Rt.	Width	Remarks
0+31+25		X	12	Pedestrian Way
0+10+60	X		6'	Wheel Chair Ramp
0+11+09		X	18' 20"	
0+11+82		X	20'	
0+12+50	X		20'	
0+13+40		X	24'	
0+14+00		X	24'	
0+14+95	X		34' 30"	
0+36+40	X		2'	Drainage Channel
0+14+63	X		As Req'd	VS relocating exist. J-box

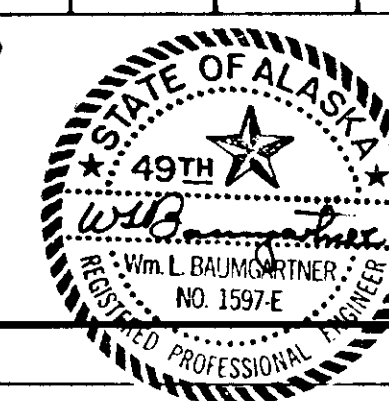


- NOTES
- Payment for adjusting the frame and lid shall be paid for under ITEM 604(3)
 - Payment for furnishing and installing the shear connectors, rebar, Class "A" concrete and additional asphalt concrete, and AC-5 required to reinforce the top of this vault shall be paid for under ITEM 604(4).
- MANHOLE LID & ADJUSTING RING DETAILS



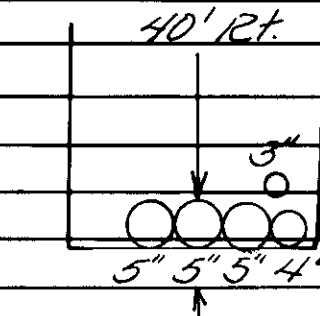
CONDUIT AND PIPE SUMMARY

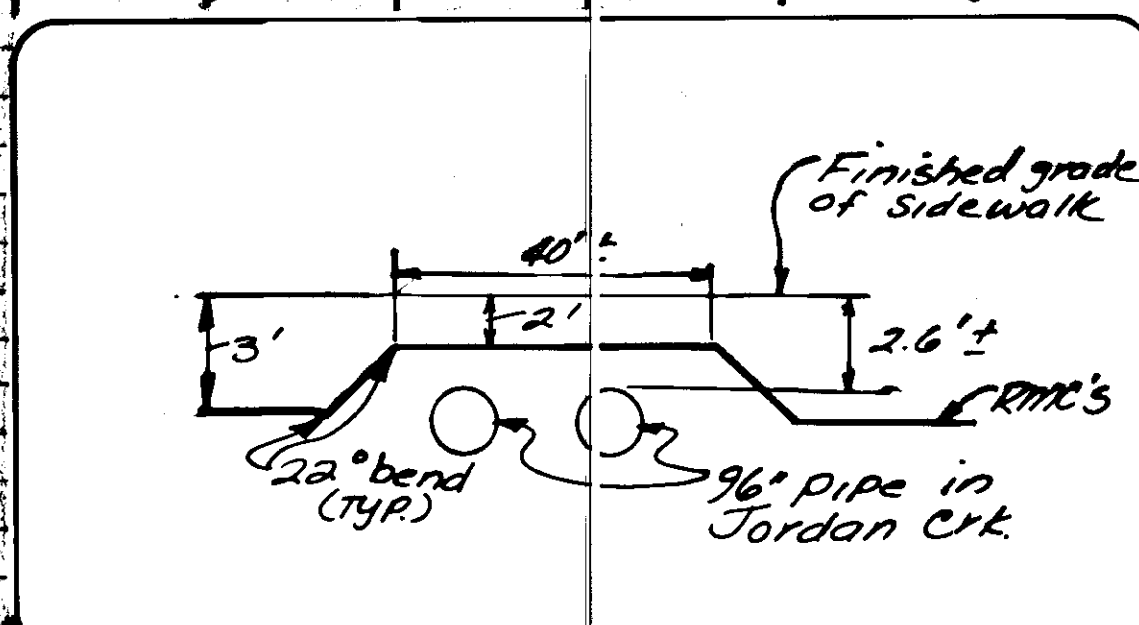
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960(4)	1984	12	49



REMOVAL AND DISPOSAL OF EXISTING PIPE STATION	LENGTH L.F.	HEIGHT OF COVER	INLET			OUTLET			INSTALL PER SECTION 671										INSTALL PER SECTION 603					REMARKS			
			STATION	OFFSET	INVERT ELEV.	STATION	OFFSET	INVERT ELEV.	2" I.M.C. CONDUIT	2 1/2" I.M.C. CONDUIT	3" I.M.C. CONDUIT	4" I.M.C. CONDUIT	5" I.M.C. CONDUIT	6" I.M.C. CONDUIT	8" I.M.C. CONDUIT	12" I.M.C. CONDUIT	18" I.M.C. CONDUIT	24" I.M.C. CONDUIT	36" I.M.C. CONDUIT	54" I.M.C. CONDUIT	96" I.M.C. CONDUIT	22x13" PIPE ARCH	29x18" PIPE ARCH		20" I.M.C. CONDUIT		
			10+31.75	45'L	24.4	10+31.75	35'R	24.4																		80'	For Supplemental Work
			10+41.80	34'L	In casing	10+41.80	34'R	In casing																		70'	Install 4x5 inch PVC Conduit Prior to installing vaults. Install after grading ditch ~ See Sht. 2
		2'	10+51.82	40'L		10+61.30	45'L																				
			10+61.30	48'	22.0	10+101.10	40'R	22.0				72'															Cap both ends Cap both ends Cap both ends Cap both ends Cap both ends
			10+91.64	60'R	24.2	10+101.10	58'R	24.2				72'															
			10+91.64	60'R	24.2	10+101.10	58'R	24.2				72'															
			10+91.84	58'L	24.5	10+101.72	53'L	24.5																			
			10+91.73	56'L	23.9	10+101.82	52'L	24.0																			
			10+101.46	33'R	22.7	10+101.84	52'L	22.7				92'															
			10+101.47	33'R	24.0	10+101.85	52'L	24.0				92'															
			10+101.80	50'L	23.0	10+121.27	34'L	23.5				150'	150'														
			10+121.32	34'L	22.5	10+121.32	33'R	22.5				68'															
			10+121.40	50'L	22.5	10+121.40	32'R	22.5				68'															
			10+121.32	33'R	22.5	10+111.75	33'R	22.5				56'															
			10+121.40	32'R	22.5	10+111.75	32'R	22.5				56'															
			10+121.37	34'L	23.5	10+151.15	33'L	23.5				292'	292'														
			10+121.40	50'L	22.5	10+141.73	60'L					286'															
		5'	10+121.39	46'R	16.6	10+131.77	42'L	16.6																			
			10+131.20	36'L	24.5	10+131.56	36'R	23.0																			
			10+141.73	60'L	22.5	10+141.98	90'R																				
		20'	10+131.17	18'L	24.0	10+141.17	18'L	23.0																			
		25'	10+131.82	50'R	21.5	10+131.82	33'L	21.5				84'															
			10+131.82	33'L	21.5	10+151.15	33'L	23.5				140'															
			10+131.82	33'L	21.5	10+151.15	33'L	23.5				140'															
		115'	10+151.15	33'L	23.5	10+151.47	33'L	21.8				30'															
		60'	10+151.47	33'L		10+151.47	33'L					30'															
		60'	10+151.47	33'L		10+151.47	33'L					60'															
			10+151.15	34'L	23.5	10+151.50	34'L	21.8				60'															
			10+151.15	34'L	23.5	10+151.50	34'L	21.8				60'															

Cap both ends
Cap both ends
Cap both ends
Cap both ends
Cap both ends





Finished grade of sidewalk

2.6'±

96" pipe in Jordan Crk.

22" bend (TYR)

90° bend @ 10+101.80 & Cap

90° bend @ 10+121.32 R.T.

90° bend @ 10+121.32 R.T.

90° bend @ 10+121.32 R.T.

Cap end, install 90° bend R.T.

90° bend @ 12+40

90° bend @ 12+32 R.T. Cap @ 10+111.75, 33' R.T.

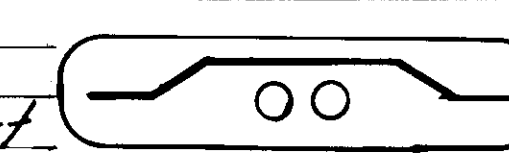
90° bend @ 12+32 R.T. Cap @ 10+111.75, 33' R.T.

90° bend @ 12+32 R.T. Cap @ 10+111.75, 33' R.T.

90° bend @ 12+32 R.T. Cap @ 10+111.75, 33' R.T.

Cap @ 11+75 end

See Insert



90° bend @ 12+40 & 14+73, Cap both ends

See Shts. 36, 37 & 38 for details

Cap both ends

Cap both ends, install 2" I.M.C. @ same elev. as exist. 1 1/2" PVC

Tie to exist. Telephone Ducts @ 10+131.17 & 10+141.17 Lt.

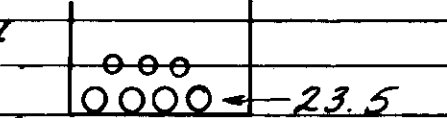
Cap @ 10+131.82, 50' R.T. 90° bend @ 10+131.82, 33' Lt.

Cap @ 10+131.82, 50' R.T. 90° bend @ 10+131.82, 33' Lt.

90° bend @ 13+82, 33' Lt.

90° bend @ 13+82, 33' Lt.

Cap @ 10+141.72, 60' Lt.



90° bend @ 15+47, 33' Lt.

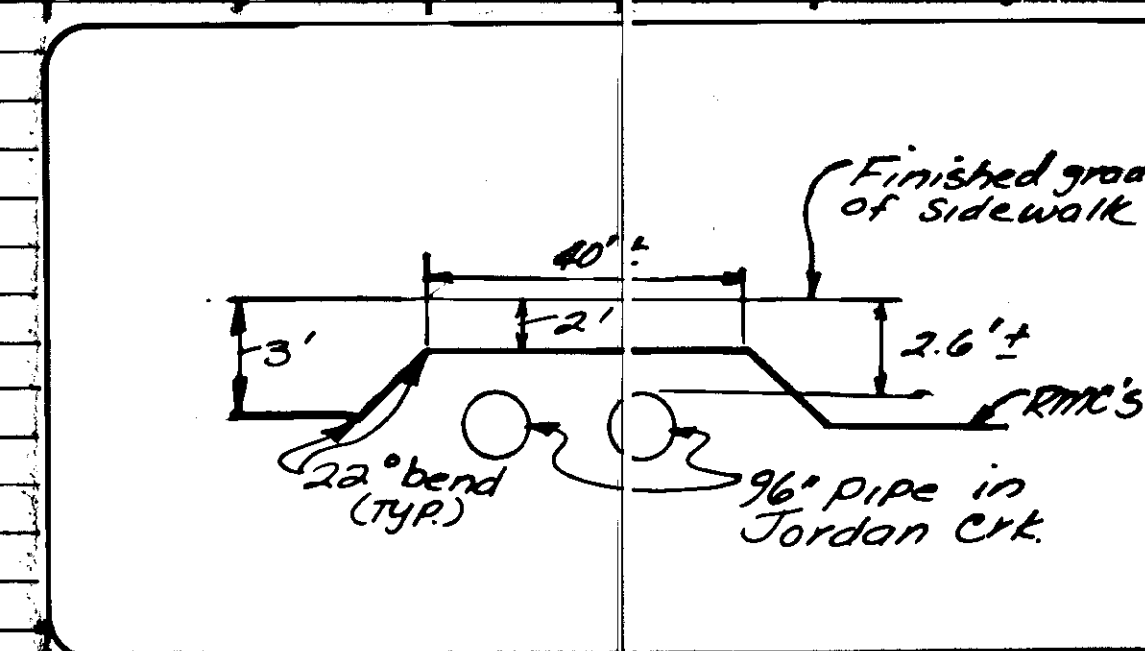
90° bend @ 15+47, 33' Lt. 32' Lt.

Cap @ 15+47, 30' R.T.

Cap @ 15+47, 30' R.T.

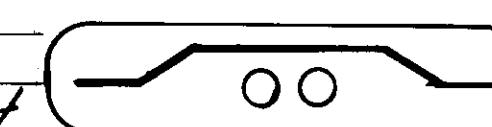
Cap @ 15+47, 30' R.T.

Cap @ 15+47, 30' R.T.



90° bend @ 10+101.80 & Cap
 90° bend @ 10+121.32 Rt.
 90° bend @ 10+121.32 Rt.
 90° bend @ 10+121.32 Rt.
 Cap end, install 90° bend Rt.
 90° bend @ 12+40
 90° bend @ 12+32 Rt. Cap @ 10+111.75, 33' Rt.
 90° bend @ 12+32 Rt. Cap @ 10+111.75, 33' Rt.
 90° bend @ 12+32 Rt. Cap @ 10+111.75, 33' Rt.
 90° bend @ 12+32 Rt. Cap @ 10+111.75, 33' Rt.
 Cap @ 11+75 end

See Insert



90° bend @ 12+40 & 14+73, Cap both ends
 See Shts. 36, 37 & 38 for details
 Cap both ends
 Cap both ends, install 2" I.M.C. @ same elev. as exist. 1 1/2" PVC

Tie to exist. Telephone Ducts @ 10+131.77 & 10+141.17 Lt.

Cap @ 10+131.82, 50' Rt. 90° bend @ 10+131.82, 33' Lt.
 Cap @ 10+131.82, 50' Rt. 90° bend @ 10+131.82, 33' Lt.
 90° bend @ 13+82, 33' Lt.
 90° bend @ 13+82, 33' Lt.

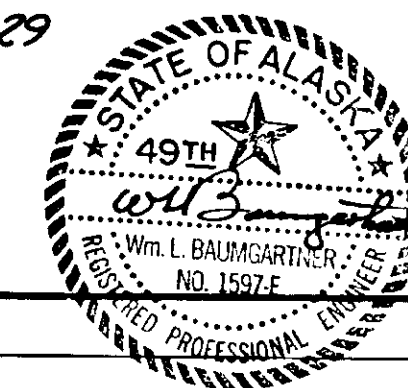
Cap @ 10+141.72, 60' Lt.
 0000-23.5

90° bend @ 15+47, 33' Lt.
 90° bend @ 15+47, 33' Lt. 32' Lt.
 Cap @ 15+47, 30' Rt.
 Cap @ 15+47, 30' Rt.
 Cap @ 15+50, 34' Rt.
 14' Lt. Conduit
 30' Rt.
 2.20' I.P.
 21.0'

CONDUIT AND PIPE SUMMARY

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960(4)	1984	13	45

REMOVAL AND DISPOSAL OF CULVERT PIPE STATION		LENGTH L.F.	HEIGHT OF COVER	INLET			OUTLET			INSTALL PER SECTION 671										INSTALL PER SECTION 603							REMARKS	
				STATION	OFFSET	INVERT ELEV.	STATION	OFFSET	INVERT ELEV.	2 INCH I.M.C. CONDUIT	2 1/2 INCH I.M.C. CONDUIT	3 INCH I.M.C. CONDUIT	4 INCH I.M.C. CONDUIT	5 INCH I.M.C. CONDUIT	6 INCH I.M.C. CONDUIT	4 INCH PVC CONDUIT	5 INCH PVC CONDUIT	12 INCH PIPE	18 INCH PIPE	24 INCH PIPE	36 INCH PIPE	54 INCH PIPE	96 INCH S.P.P.A.	22x13 INCH PIPE ARCH	29x18 INCH PIPE ARCH	20 INCH STEEL CASING		
0+16+45 R	24'			0+15+15	34' L	23.5	0+15+50	34' L	21.8																		Cap @ 15+50; 34' Lt.	
0+17+68 R	51'	2		0+17+26	25' L		0+17+77	25' L																				
			2	0+17+93	26' R		0+17+37	32' R																				
			2	0+18+64	26' R		0+18+98	26' R																				
				0+18+65	33' L	22.2 21.0	0+19+21	33' Lt.	21.8 21.0																			
				0+19+21	33' L	22.2 21.0	0+19+21	70' L	22.5																			
				0+19+23	70' Lt.	22.5	0+19+23	100' R	22.5																			
				0+19+25	70' L	22.5	0+19+25	36' R	22.5																			
				0+19+25	33' R	22.5	0+19+82	33' R	22.5																			
				0+19+25																								
				0+19+26	70' L	22.5	0+19+26	52' L	22.5																			
0+19+24	56'			0+19+26	52' L	22.5	0+20+00	52' L	22.5																			
				0+19+26	57' R	23.2	0+19+67	57' R	23.2																			
				0+19+26	57' R	23.2	0+19+67	57' R	23.2																			
				0+19+30	49' L	23.0	0+20+14	47' L	23.0																			
				0+19+30	56' L	23.0	0+19+98	52' L	23.0																			
				0+19+31	133' L	19.0	0+19+91	133' L	19.0																			
				0+19+31	70' L	22.5	0+19+31	100' R	22.5																			
				0+19+31	100' R	22.5	0+19+31	34' R	22.5																			
				0+19+31	34' R	22.5	0+19+82	34' R	22.5																			
				0+19+31																								
0+19+48 R	40'																											
0+20+07 R	45'	2		0+20+08	29' R		0+20+37	32' R																				
0+20+98 R	49'			0+20+09	44' L	20.2	0+20+01	23' R	20.2	70'																		
				0+20+35	35' L	25.0	0+20+35	25' R	25.0	60'																		
			2	0+20+77	31' R		0+21+15	21' R																				
			2	0+21+81	21' L		0+22+33	18' L																				
			2	0+22+76	26' R		0+23+18	26' R																				
			2	0+25+14	26' L	22.0	0+25+52	31' R																				
				0+25+35																								
			2	0+25+55	50' L	22.0	0+25+99	30' R	22.0																			
			3	0+25+70	33' R	19.1	0+26+96	42' L	17.0																			
				0+25+90	25' L	22.5	0+25+90	25' R	22.5	50'																		
0+25+35	91			0+27+94	25' L		0+29+00	26' R																				
				0+28+38	35' L	21.5	0+28+38	25' R																				
				0+29+90	30' L	21.4	0+29+90	30' R	19.8	21.4																		
				0+25+15	116' L	21.00	0+25+78	30' R	21.78																			
				0+25+10	112' L	22.5	0+25+05	78' L																				
				0+25+20	120' L		0+25+75	122' L																				
				0+25+05	81' L		0+25+15	112' L																				
				0+25+05	81' L		0+25+15	112' L																				
				0+25+05	81' L		0+25+15	112' L																				
				0+25+05	81' L		0+25+15	112' L																				



Cap @ 15+50; 34' Lt

52'
56'
34'

Cap @ 18+65; 33' Lt; 90° bend @ 19+21; 35' Lt.

90° bend @ 19+21; 35' Lt; Cap @ 19+21; 70' Lt.

Cap both ends

3" 4" 5" 4" 5" 22.1

Cap @ 19+25; 70' Lt; 90° bend @ 19+25; 33' Lt.

90° bend @ 19+25; 36' Lt; Cap @ 19+25; 36' Lt.

Cap @ 19+26; 70' Lt; 90° bend @ 19+26; 52' Lt.

90° bend @ 19+26; 52' Lt; Cap @ 20+00; 52' Lt.

Cap both ends
Cap both ends
Cap end @ 100' L. & install 90° bend @ 34' R
Cap @ 10' 19+82 end

30'

90° elbow @ 30' R.

38'
52'
42' 1/2"
36'

106'

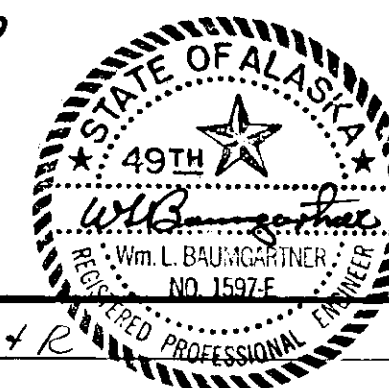
Cap both ends; 22° elbow @ 28+38; 30' Lt. Vert. plane

Cap @ 25+78; 30' R.

Cap @ 25+78; 30' R.

Install 90° Bend @ 25+07; 80' R. Cap 2' above existing ground.

REMARKS



EXIST. PAVEMENT THICKNESS VARIES

$D+3$

D

SEE NOTE 2

BACKFILL MATERIAL

BEDDING MATERIAL IF REQUIRED

OF ASPHALT CONCRETE

SEE STAND. DRAWING D-01 FOR DETAILS.

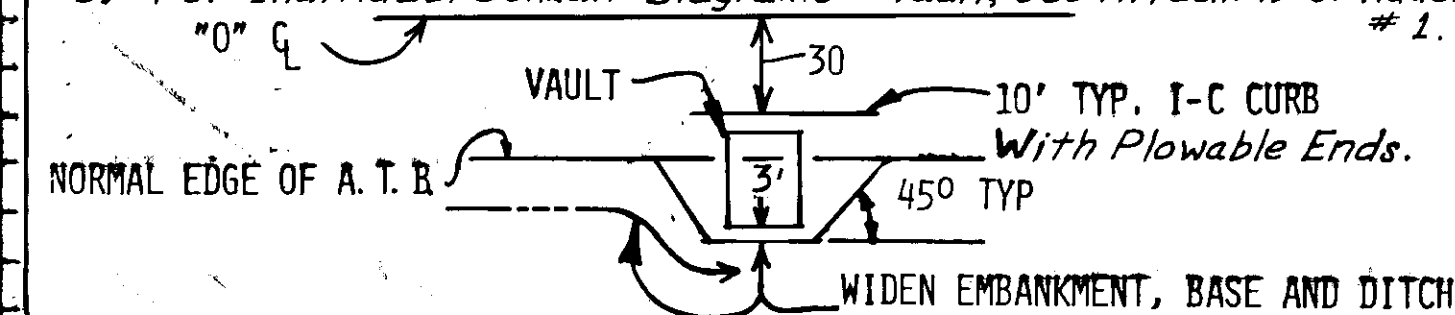
ASPHALT PATCH DETAIL

NOTES:

1. EACH PIPE OR CONDUIT CROSSING OF AN EXISTING ASPHALT SURFACE SHALL BE PATCHED AS DETAILED ABOVE AND AS REQUIRED ON THE T.C.P.
2. PATCHES SHALL BE INSTALLED FOR THE WIDTH OF THE EXISTING ASPHALT SURFACING.
3. PRIOR TO PAVING THE CULVERT PATCH, THE EXISTING PAVEMENT SHALL BE CUT BACK OVER UNDISTURBED EARTH AS DIRECTED BY THE ENGINEER.

VAULT	NOTE
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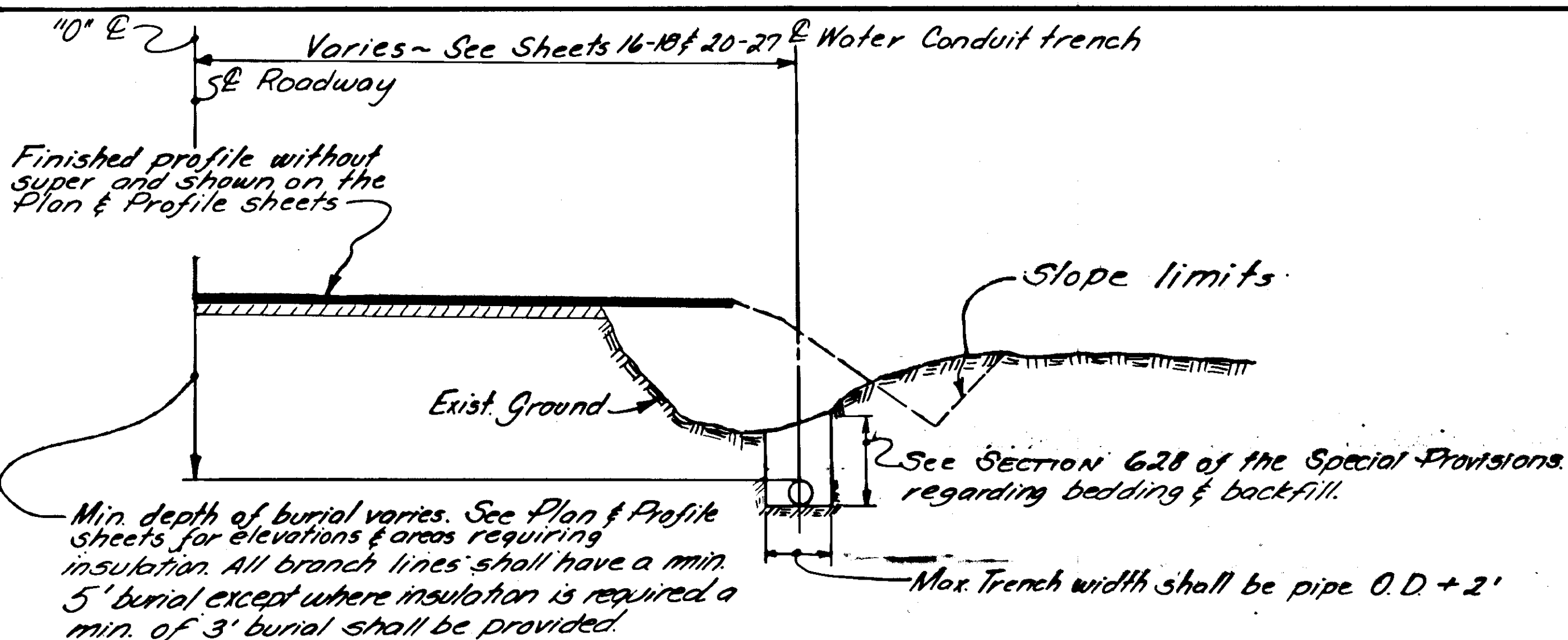
1. STATIONS, OFFSETS, & ELEVATIONS SHOWN FOR THE VAULTS ARE TO THE CENTERLINES OF THE VAULTS.
2. INSTALL VAULTS AT "0"4+80 LT. & RT. AS DETAILED BELOW;
3. ~~For Individual Conduit Diagrams @ Vault, See Attach. 19 of Addend.~~



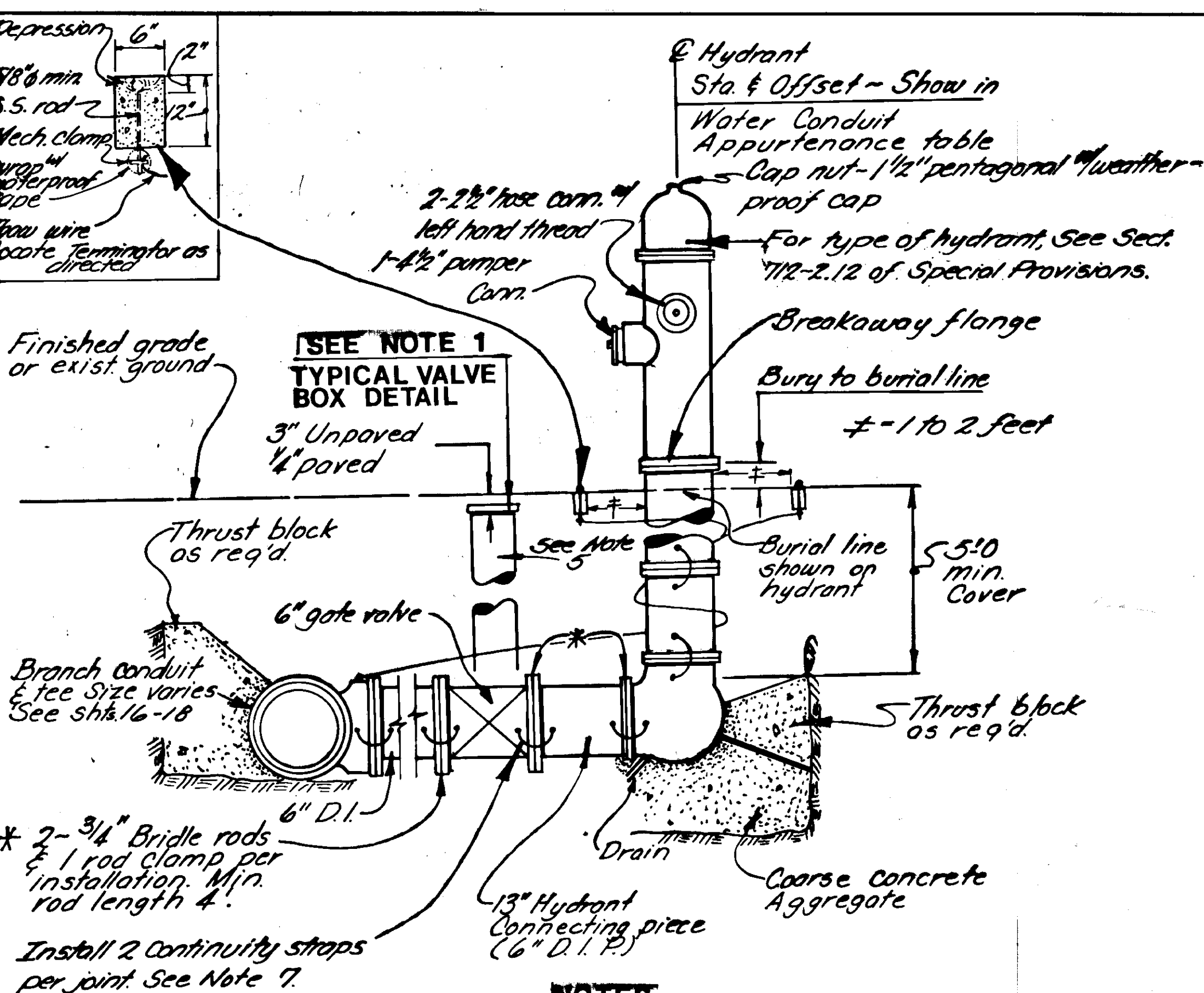
WATER CONDUIT NOTES & DETAILS

GENERAL WATER CONDUIT NOTES:

1. ALL INFORMATION SHOWN IN THE WATER CONDUIT APPURTENANCE TABLE IS APPROXIMATE ONLY AND IS SUBJECT TO FIELD ADJUSTMENTS.
2. THE WORKING PRESSURE OF THIS MAIN AND IT'S APPURTENANCES IS 100 P.S.I.
3. SIZE OF THRUST BLOCKS FOR THIS CONDUIT AND IT'S APPURTENANCES SHALL BE AS INDICATED IN THE THRUST BLOCK MINIMUM SIZE TABLE FOR WATER PRESSURE IN THE PIPE OF 150 P.S.I. TABLE IS SHOWN ON STANDARD DRAWING U-03.00.
4. THE HORIZONTAL AND VERTICAL ALIGNMENTS SHOWN ON THE PLAN AND PROFILE SHEETS, INDICATES THAT SOME CHANGES IN LINE AND GRADE MAY BE ACCOMPLISHED UTILIZING THE RECOMMENDED MAXIMUM DEFLECTION PER JOINT PER 18' LENGTH OF CONDUIT. IF THE SPECIFIED OR REQUIRED ALIGNMENTS REQUIRE DEFLECTIONS IN EXCESS OF THE MANUFACTURERS LIMITS, THE CONTRACTOR SHALL, AS APPROVED, EITHER PROVIDE SPECIAL BENDS OR A SUFFICIENT NUMBER OF SHORTER LENGTHS OF CONDUIT TO PROVIDE THE SPECIFIED OR REQUIRED ALIGNMENTS.
5. ALL CURB STOPS AND CAPPED MAINS SHALL BE REFERENCED WITH HORIZONTAL AND VERTICAL TIES.
 - A. HORIZONTAL TIES MAY BE ACCOMPLISHED WITH SWING TIES FROM PERMEANT OBJECTS TO REMAIN IN PLACE AFTER CONSTRUCTION IS COMPLETE. ALL HORIZONTAL TIES SHALL BE INDICATED TO THE NEAREST TENTH OF A FOOT.
 - B. VERTICAL TIES SHALL ALSO BE INDICATED TO THE NEAREST TENTH OF A FOOT AND BE ON THE PROJECT DATUM.
 - C. ALL TIES SHALL BE SHOWN ON THE PROJECT "AS-BUILTS".
 - D. ALL PAYMENT FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 114(1).
6. ALL TREATED AND UNTREATED TIMBER REQUIRED TO COMPLETE THE WATER SYSTEM SHALL BE CONSIDERED INCIDENTAL TO SECTION 628.
7. THE CONTRACTOR SHALL BLOCK ALL CAPPED CONDUIT ENDS PRIOR TO TESTING ANY SECTION OF CONDUIT.
8. WHEN THE EXISTING ASPHALT MUST BE REMOVED TO INSTALL ANY CONDUIT OR APPURTENANCE THE ASPHALT SHALL BE CUT AND PATCHED AS DETAILED ON SHEET 13 UNLESS OTHERWISE DIRECTED.



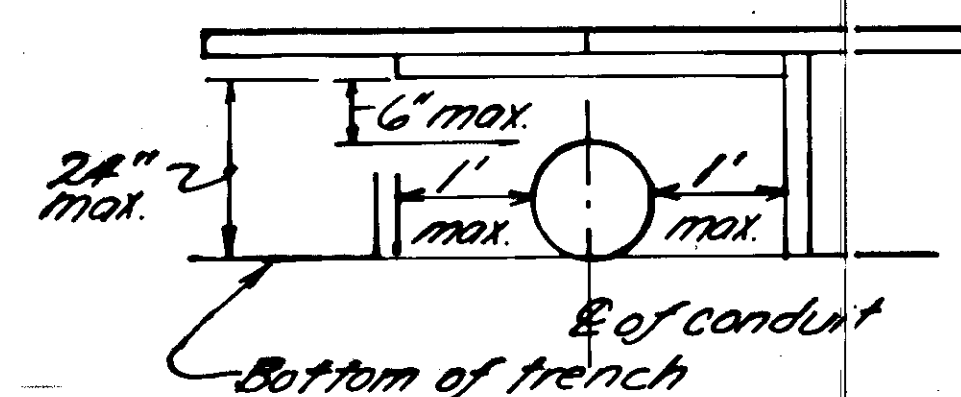
TYPICAL WATER CONDUIT TRENCH DETAILS



NOTES

- HYDRANT BARREL MUST BE PLUMB .
- THE HYDRANT TEE, AUX. GATE VALVE, CONNECTING PIECE, VALVE BOX AND HYDRANT SHALL BE PAID FOR AS A UNIT, COMPLETE & IN PLACE. NO HORIZONTAL OR VERTICAL DEFLECTIONS OF MORE THAN 11 1/4" SHALL BE ALLOWED BETWEEN THE MAIN &/OR BRANCH MAIN & HYDRANT.
- * INDICATES THE USE OF MECHANICAL JOINTS AND 3/4 INCH BRIDLE RODS.
- VALVE BOX SHALL BE INSTALLED AS SHOWN ON THE PLAN AND PROFILE SHEETS OR AS DIRECTED.
- HYDRANT BARREL, JUST BELOW CAP, SHALL HAVE NO. OF FEET TO VALVE PRINTED IN BLACK 1/2" BLOCK LETTERS. ALL HYDRANTS WITH PLUG DRAINS SHALL HAVE A 6" BLUE BAND PAINTED BELOW PUMPER CONNECTION.
- TWO CONTINUITY STRAPS PER JOING. ATTACH END OF STRAPS AND THAW WIRES TO FIRE HYDRANT BRANCH LINES WITH A "CAD" WELD THREADED STUD OR EQUAL. ANY PIPE COATING DESTROYED DURING THE INSTALLATION OF STRAP OR WIRES SHALL BE REPAIRED WITH COAL TAR PITCH AS DIRECTED.

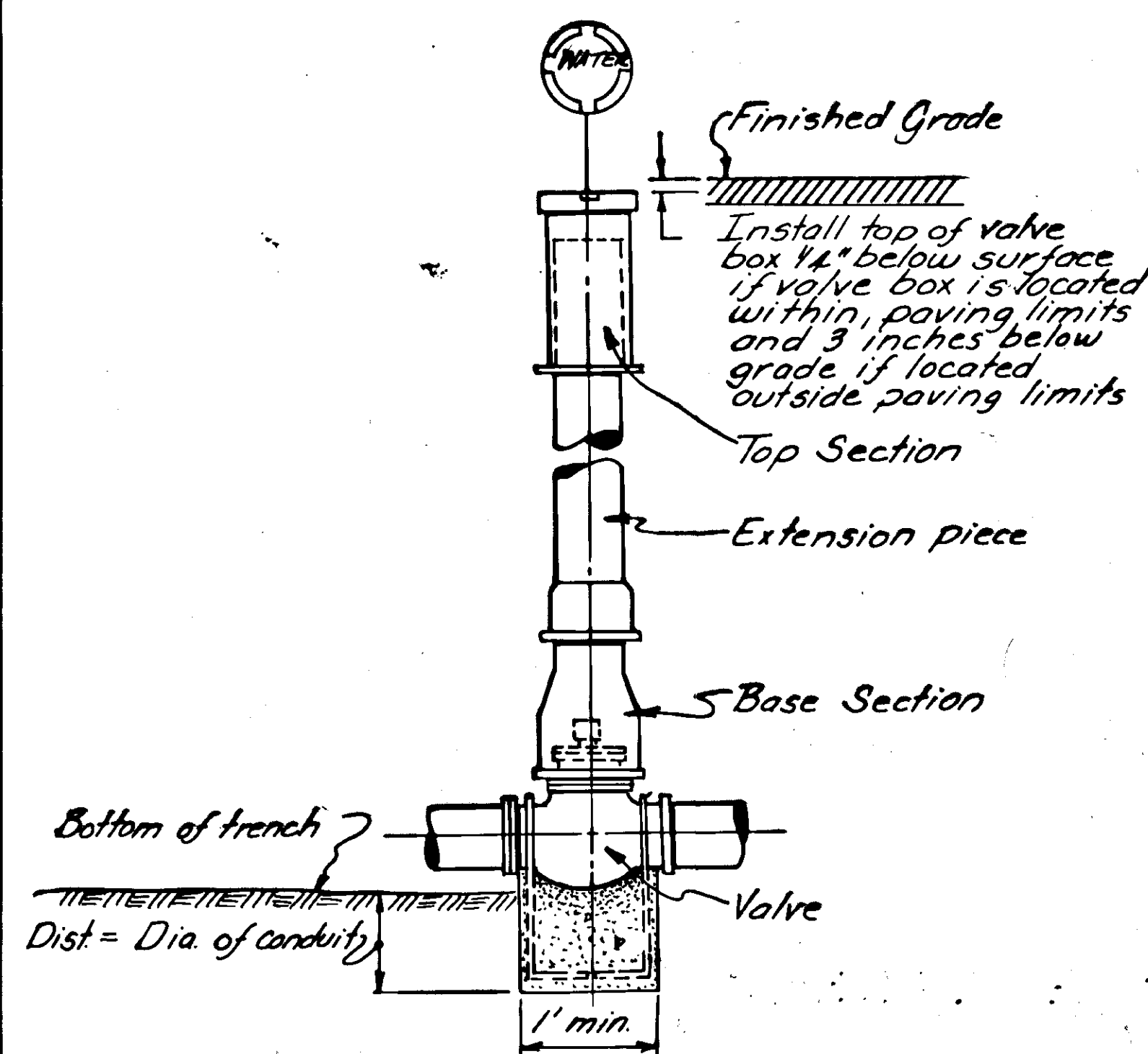
TYPICAL FIRE HYDRANT DETAIL



NOTES

1. AREAS REQUIRING INSULATION ARE SHOWN ON SHTS. 20-27.
2. THE CONTRACTOR SHALL HAVE THE OPTION OF INSULATING THE CONDUIT WITH INSULATION BOARD OR SPRAY ON URETHANE FOAM. SEE SECTION 628 OF THE SPECIAL PROVISIONS.
3. IF THE CONTRACTOR ELECTS THE INSULATION BOARD OPTION, THE FOLLOWING REQUIREMENTS SHALL APPLY:
 - A. "0"13+00 TO "0"14+50; LT. "0" 24+45 TO "0"24+78; LT. AND "0"1+50 TO "0"12+80 LT. THE CONDUIT SHALL BE INSULATED IN 2 LAYERS. THE FIRST SHALL BE 2" THICK AND 4' WIDE. THE SECOND SHALL BE 2" THICK AND 8' WIDE. 8' WIDE. ALL JOINTS SHALL BE STAGGERED A MIN. OF 2'.
 - B. ALL OTHER AREAS REQUIRING INSULATION BOARD SHALL BE INSTALLED 2" THICK AND 4' WIDE.

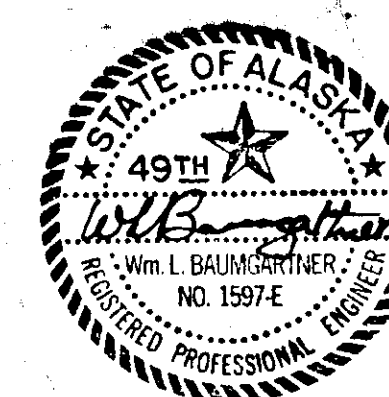
INSULATION DETAILS



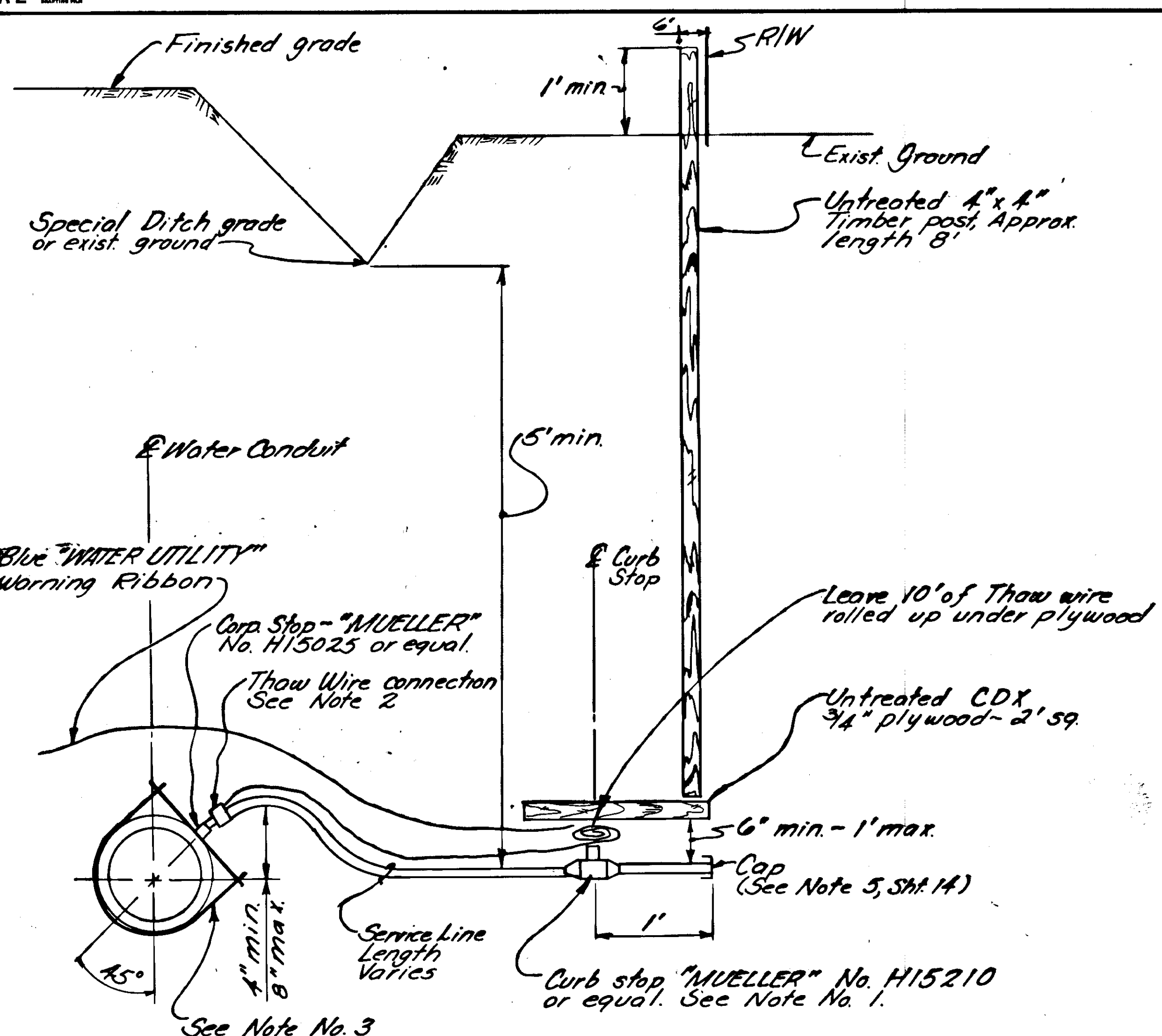
NOTES

1. VALVE BOX TOP SECTION, EXTENSION SECTION AND BASE SECTION SHALL BE "RICH MFG. CO." NO. 940-8 OR APPROVED EQUAL. VALVE BOXES SHALL BE CAPABLE OF BEING EXTENDED TO A MIN. OF 8.0 FEET OF BURIAL.

TYPICAL VALVE BOX DETAIL

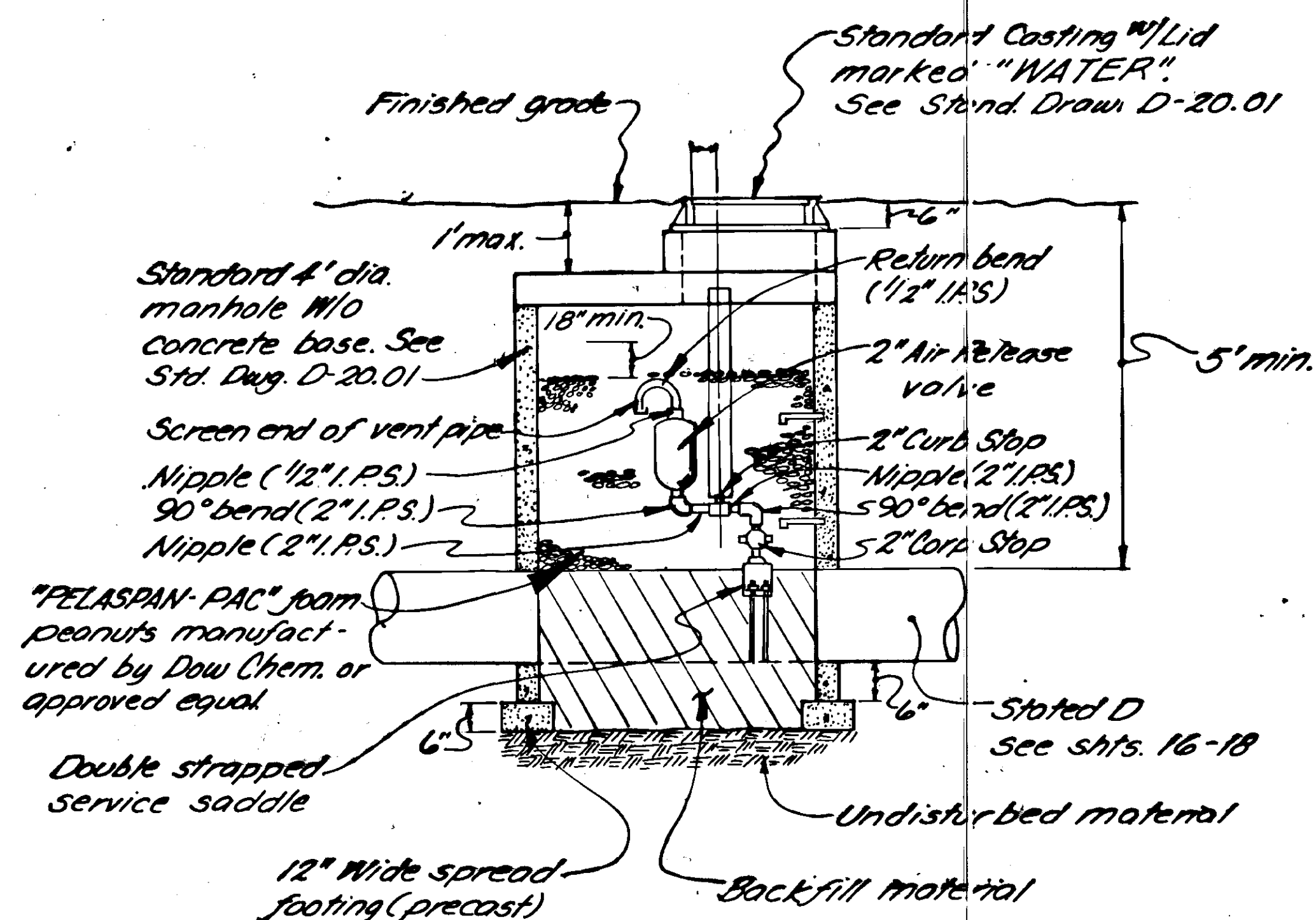


WATER CONDUIT DETAILS

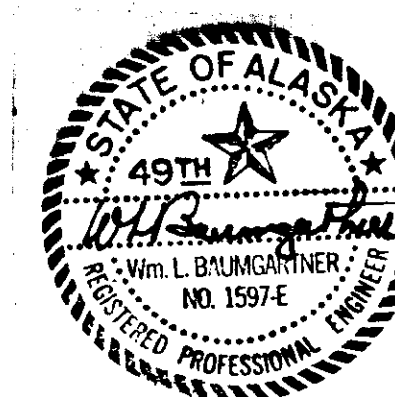


WATER SERVICE CONNECTION DETAILS

1. REFERENCE CORPORATION AND CURB STOPS AS INDICATED IN GENERAL WATER CONDUIT NOTE NO. 5.
2. NO. 2 COPPER WIRE W/THHW INSULATION SHALL BE CONNECTED TO SERVICE PIPE DIRECTLY BEHIND CORPORATION STOP WITH "MUELLER" 220 PIPE SAVER CLAMP OR EQUAL. REMOVE COATING FROM THAW WIRE FULL LENGTH OF CLAMP.
3. "ROCKWELL" NO. 313 DOUBLE STRAP SADDLE WITH EPOXY COATING AND STAINLESS STRAPS OR APPROVED EQUAL, WILL BE REQUIRED ON ALL SERVICES UP TO 2 INCHES.
4. VALVE BOXES FOR CURB STOPS SHALL BE FURNISHED BY THE CONTRACTOR AND DELIVERED TO THE ENGINEER.



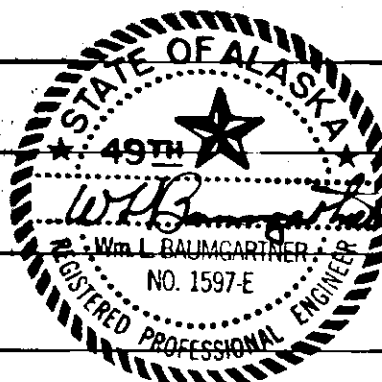
AIR RELEASE VALVE DETAIL



WATER CONDUIT AND APPURTENANCE TABLE

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960(4)	1984	16	4

STATION	OFFSET	APPROX. LENGTH OF D.I. WATER CONDUIT				AIR RELEASE VALVE	WATER SERVICE	APPROX. LENGTH OF SERVICE LINE	VALVE BOXES	BUTTERFLY VALVE		GATE VALVE			FIRE HYDRANT ASSEMBLY		REMARKS
		MAIN 20"	BRANCHES							20"	16"	10"	8"	6"			
			10"	8"	6"												
"0"3+60	120' Lt															Begin 20" D.I. W.C. @ 5' of burial, insulate to next appurtenance as directed, cap end ~ See shts 14 & 28 for details	
"0"3+75	80' Lt	46'						/					/			Install 20"x20"x6" Tee, 6" Gate valve, Valve box & connect existing PVC line to system	
"0"3+75	62' Lt	18'					/									See sheet 15 for details. Lid elev. 30.69	
"0"3+75	61' Lt															Install a 20"x20"x20" 45° WYE	
"0"3+75	60' Lt															Install a 20"x10" Reducer	
"0"3+75	59' Lt							/			/					Lid elev. 30.35	
"0"3+75	34' Rt			94'												Install 80 L.F. of 20"x 1/4" steel casing ~ See Section 629 of the Special Provisions	
"0"3+75	38' Rt			4'												Install 10"x10"x6" Tee	
"0"3+75	60' Rt			22'												Cap end of 10" Branch Main	
"0"3+90	43' Lt	24'														Install 20"x20" ~ 22 1/2° elbow	
"0"4+25	38' Rt				44'									/		See sht. 14 for more details 33.02 Top nut	
"0"4+30	34' Lt	42'														Install 20"x20" ~ 22 1/2° elbow	
"0"8+76	34' Lt	448'												/		Install 20"x20"x6" Tee & F.H. @ 38' Lt ~ See sht. 14 for F.H. details.	
"0"9+80	34' Lt	104'														Install 20"x20"x10" Tee.	
"0"9+80	36' Lt															Install 22 1/2° bend	
"0"9+92	67' Lt	12'		34'				/			/					Cap end branch main	
"0"11+50	34' Lt	158						/	/							Install 20" Butterfly valve box Lid elev. 25.66	
"0"12+44	34' Lt	94			18'			/					/			Install 20"x20"x8" Tee @ 34' Lt & cap branch main @ 52' Lt	
"0"13+15	34' Lt	77														Install 11 1/4° elbow	
"0"13+54	44' Lt	48'														Install 22 1/2° bend	
"0"14+02	48' Lt	57'														Install 22 1/2° bend	
"0"14+41	34' Lt	47'														Install 11 1/4° bend	
"0"14+40	38' Rt				20'									/		Install Fire hydrant assembly. See sht. 14 for details. 29.26 Top nut	
"0"14+61	34' Lt	20'														Install 20"x20"x8"x6" Cross	
"0"14+61	38' Rt				72'											Install 8"x8"x6" Tee	
"0"14+61	49' Rt				10'			/				/				Cap end of 8" Gate valve. Lid elev. 26.45	
"0"14+61	37.5' Lt				4'			/				/				Lid elev. 27.18	
"0"14+61	38' Lt				10											Cap end of 6" D.I. W.C.	
"0"14+66	34' Lt							/	/							Install 20" Butterfly valve box Lid elev. 27.31	
													</				



WATER CONDUIT AND APPURTENANCE TABLE

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960(4)	1984	17	49

STATION	OFFSET	APPROX. LENGTH OF D.I. WATER CONDUIT						AIR RELEASE VALVE	WATER SERVICE	ARROX. LENGTH OF SERVICE LINE	VALVE BOXES	BUTTERFLY VALVE		GATE VALVE				FIRE HYDRANT ASSEMBLY	REMARKS
		MAIN	BRANCHES									20"	16"	10"	8"	6"			
			20"	16"	10"	8"	6"												
"0"19+10	65' Rt.	449					14'										1		Install fire hydrant assembly. See Sht. 14 for details 28 ³² TOP Nut
"0"19+25	37' Lt.	16'									1			1					Install 20" x 20" x 10" Tee. Lid elev. 25.99
"0"19+25	67' Rt.				104'														Install 10" x 10" x 6" Tee.
"0"19+25	91' Rt.				24'						1			1					
"0"19+25	96' Rt.				5			2-2"		2									Cap Services @ 30' Rt. & Lt. of "LS" 0+95, furnish valve boxes to engineer
"0"19+25	99' Rt.				3					1									Cap end of 10" Branch main
"0"19+81	275' Lt.		229'																Cap end of 16" Branch main. End of branch main to have 7' burial.
"0"19+90	185' Lt.							1-1"		1									
"0"20+02	35' Lt.	76'																	Install 20" x 20" x 16" Tee.
"0"20+02	54' Lt.		15'							1	1								
"0"20+50	34' Lt.	48'								1	1								
"0"23+09	36' Rt.																		Cap end of branch main
"0"23+09	37' Rt.	259'																	Install 20" x 20" x 8" Tee.
"0"23+13	38' Rt.	4'						1											See Sht. 15 for Details. El. 26.61
"0"24+01	47' Lt.	93'					4'										1		Install 20" x 20" x 6" Tee & Fire hydrant assembly. See Sht. 14 for details.
"0"24+35	54' Lt.	39'																	Install 20" x 20" x 20" 45° WYE
"0"24+36	55' Lt.																		Install 20" x 16" Reducer
"0"24+37	56' Lt.																		Install 22 1/2° bend ~ See Sht. 24 for details
"0"24+54	60' Lt.	46'																	Install 90° elbow ~ See Sht. 24 for details.
"0"24+94	78' Lt.	44'								1	1								Cap end of 16" branch w/ 16" Butterfly Valve El. 26.66 Lid
"0"28+08	34' Lt.	398'																	Install 20" x 20" x 10" Tee
"0"28+08	36' Lt.									1			1						Lid elev. 21.15
"0"28+08	79' Lt.				44'														Cap end of 10" branch main. Maintain a minimum of 5' of Cover for the branch main
"0"28+43	34' Lt.	39'																	Install 20" x 20" x 6" Tee
"0"28+43	35' Rt.					70'				1					1				Cap end of branch main.

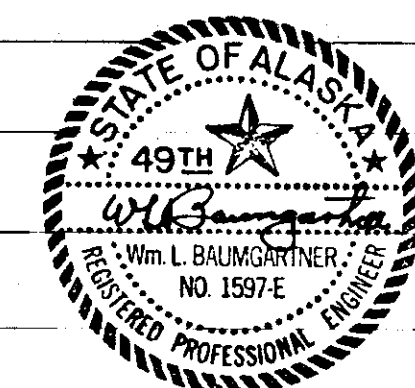
STATE OF ALASKA

49TH

Wm. L. BAUMGRÖNER

REGISTERED PROFESSIONAL ENGINEER

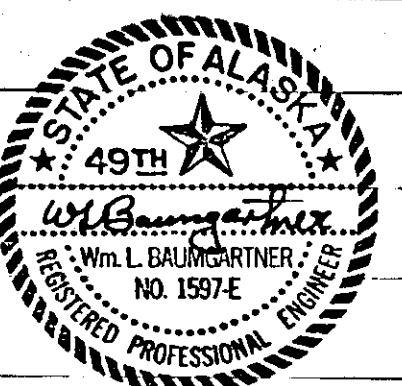
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WATER CONDUIT AND APPURTENANCE TABLE

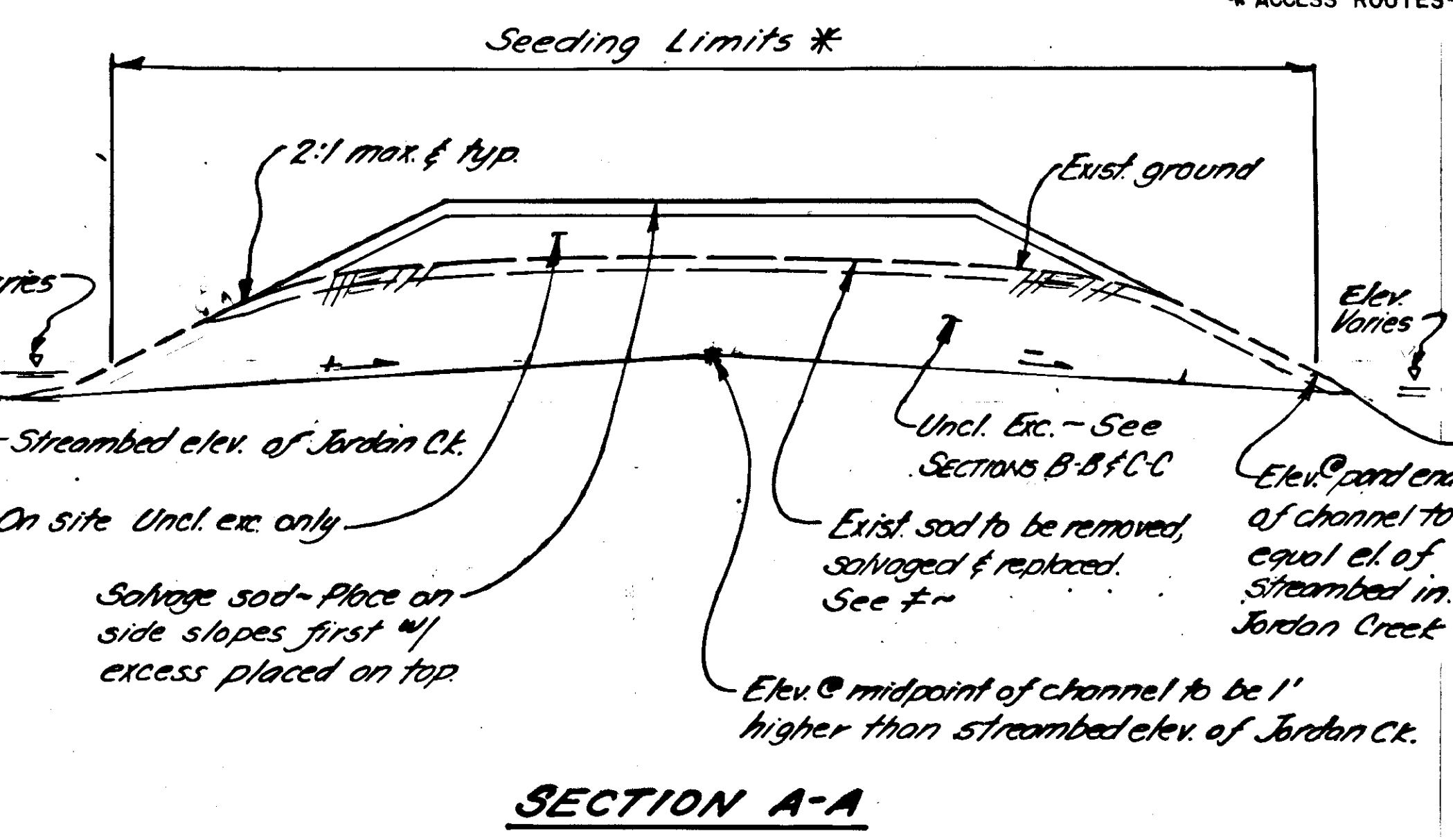
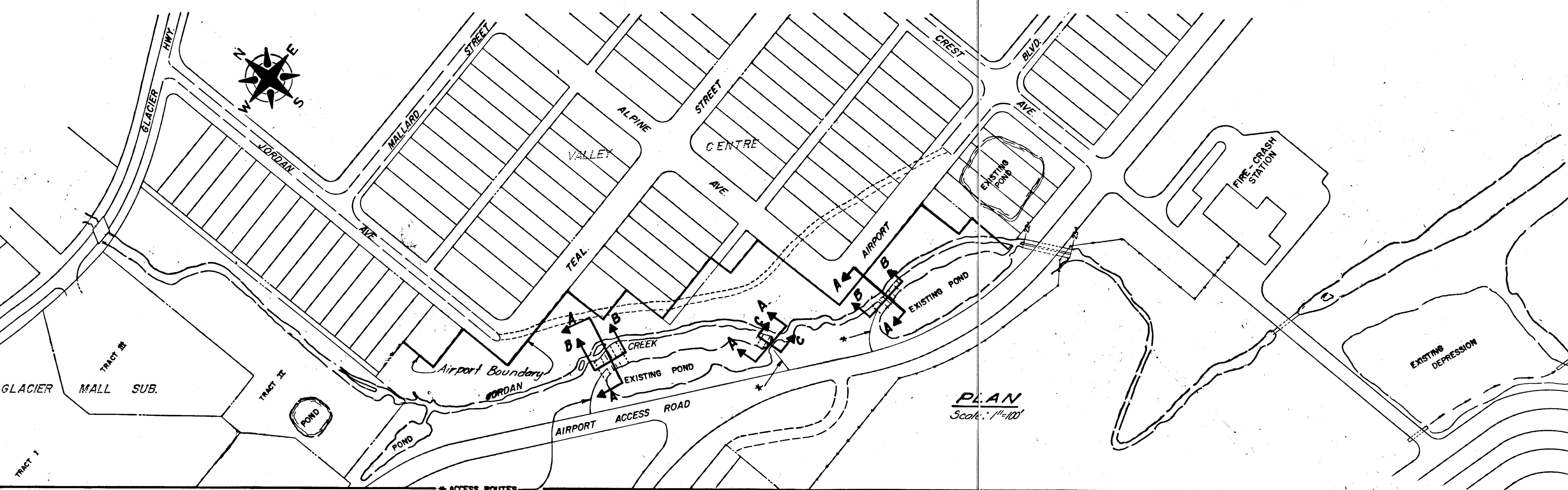
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960 (4)	1984	18	49

STATION	OFFSET	APPROX. LENGTH OF D.I. WATER CONDUIT				AIR RELEASE VALVE	WATER SERVICE	ARROX. LENGTH OF SERVICE LINE	VALVE BOXES	BUTTERFLY VALVE		GATE VALVE			FIRE HYDRANT ASSEMBLY	REMARKS
		MAIN 20"	BRANCHES 10"	8"	6"					20"	16"	10"	8"	6"		
0+30+13	34' Lt	170'														Install 20" x 20" x 8" Tee.
0+30+13	40' Lt			6'												Install 22 1/2° bend on the 8" branch main.
0+30+33	74' Lt		40'						1			1				Cap end of 8" Gate valve; maintain a minimum of 5' of cover for the branch line.
0+30+42	34' Lt	30'														Install 20" x 20" x 6" Tee.
0+30+42	40' Rt			74'					1				1			Cap end of branch main.
0+30+50	38' Lt	8'													1	20" x 20" x 6" Tee & F.H. assembly. Top nut el. 26.65
0+30+40	34' Lt	90'							1							Install 20" x 20" x 6" Tee.
0+30+40	50' Lt			16'									1			Cap end of 6" Gate valve.
0+31+96	34' Lt	56'														Install 20" x 20" x 6" Tee.
0+31+96	37' Rt			72'					1				1			Cap end of branch main w/ 6" gate valve & Cap.
0+33+90	34' Lt	194'														Install 20" x 20" x 6" Tee.
0+33+90	40' Rt			74'					1				1			Cap end of branch main.
0+34+80	42' Lt	90'														Install 20" x 20" x 6" x 6" Cross.
0+34+75	85' Lt			48'					1				1			Cap end of branch main.
0+34+98	39' Rt			80'											1	Install Fire Hydrant assembly. See Sht. 14 for details. Top nut 28.95
0+420	34' Lt	52'				1										See Sht. 15 for details.
0+433	34' Lt	14'														Install 20" x 20" x 10" WYE.
0+435	34' Lt								1	1						Lid el. 23.36
0+434	33' Lt								1			1				Lid el. 23.36
0+480	45' Lt	326'														Cap end of 20" Water main.
13+70	34' Lt		552'													Install 10" x 10" x 6" Tee.
13+70	38' Rt			72'											1	Install Fire hydrant assembly. See Sht. 14 for details. Top nut 29.23
13+85	34' Lt		14'						1			1				Cap end of 10" Gate valve.



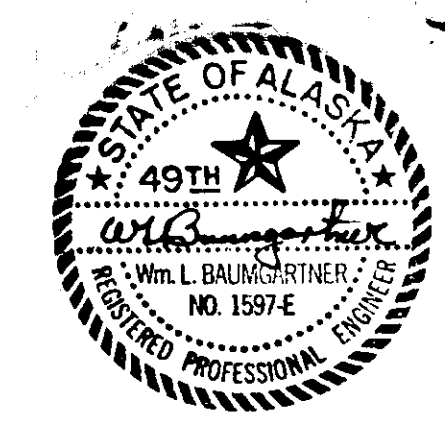
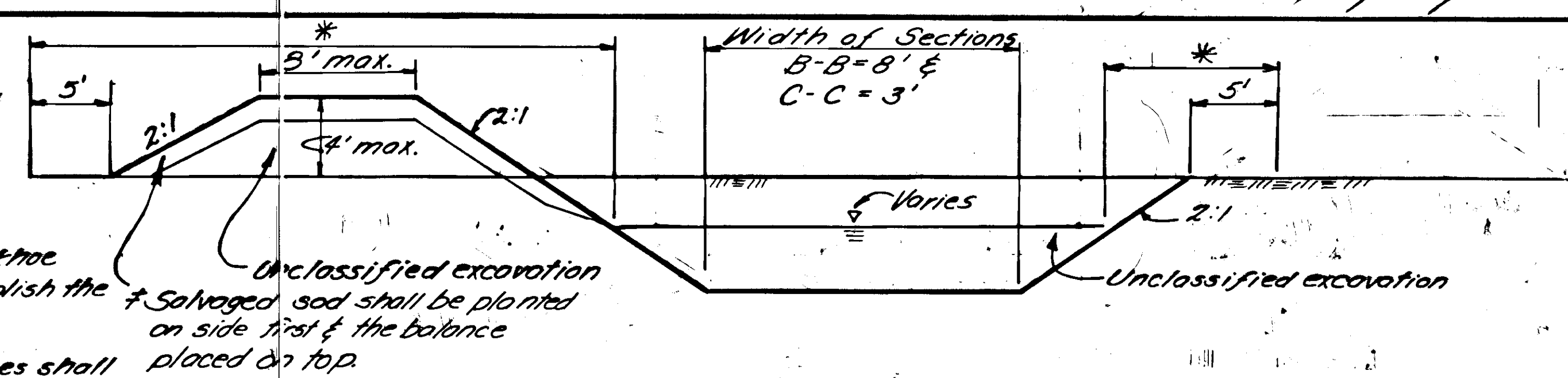
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960 (4)	1984	19	49

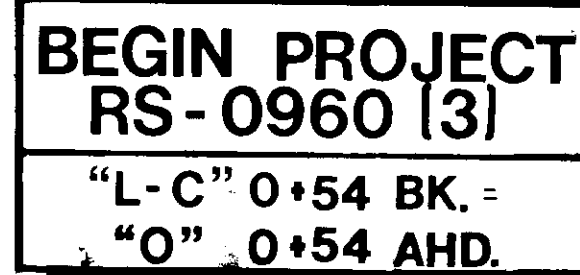
**CORPS OF ENGINEERS PERMIT
MITIGATION DETAILS**



NOTES-

1. All work detailed on this sheet shall be accomplished between May 15 & July 31.
2. Disturbances to the wet lands between the edge of pavement, along Airport Access Road, and the work site shall be held to a minimum.
3. Only a rubber tired backhoe or track mounted backhoe with extra wide pads shall be utilized to accomplish the excavation work detailed on this sheet.
4. Upon completion of the excavation work, all slopes shall be groomed, as directed, salvaged sod replanted, and the required seeding shall be completed. The access routes shall also be seeded after all other work has been completed.

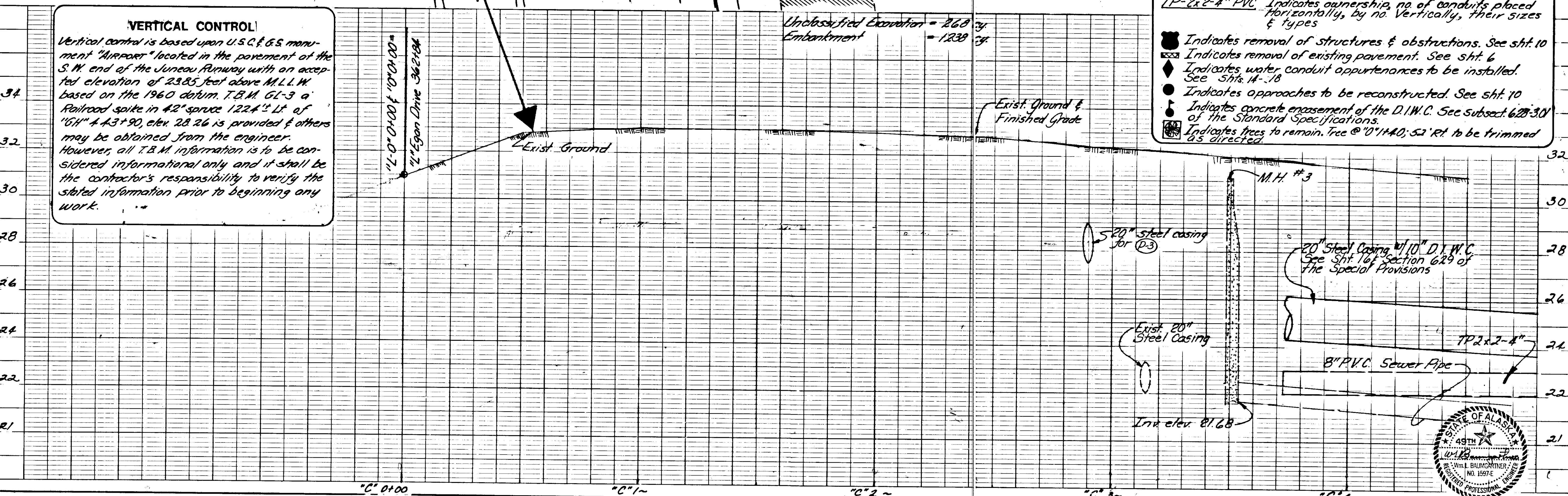




The basis of bearing is D.A.T./P.F. Egan Expressway centerline monuments P.C. "0" 375+97.16 and P.T. "0" 394+62.43 Bk. with a grid bearing of N. 46° 24' 32" W. & bearings are rotated 0° 45' 55" to obtain the plan bearings shown.

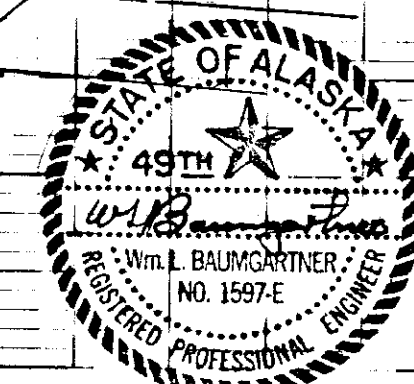
The basis of coordinates is the Egan Expressway centerline monument "0" 375+97.16 P.C. with grid coordinates of N. 2,388,005.971, E. 2,510,824.029 and assigned geodetic coordinates of N. 87,996.163, E. 10,809,454. A scale factor of .9999296 was used to convert grid distances to geodetic distances.

Vertical control is based upon U.S.C. & G.S. monument "AIRPORT" located in the pavement at the S.W. end of the Juneau Runway with an accepted elevation of 23.85 feet above M.L.L.W. based on the 1960 datum. T.B.M. GL-3 a Railroad spike in #2 spruce 122.4' E of "GH" 4.43+90, elev. 28.26 is provided & others may be obtained from the engineer. However, all T.B.M. information is to be considered informational only and it shall be the contractor's responsibility to verify the stated information prior to beginning any work.

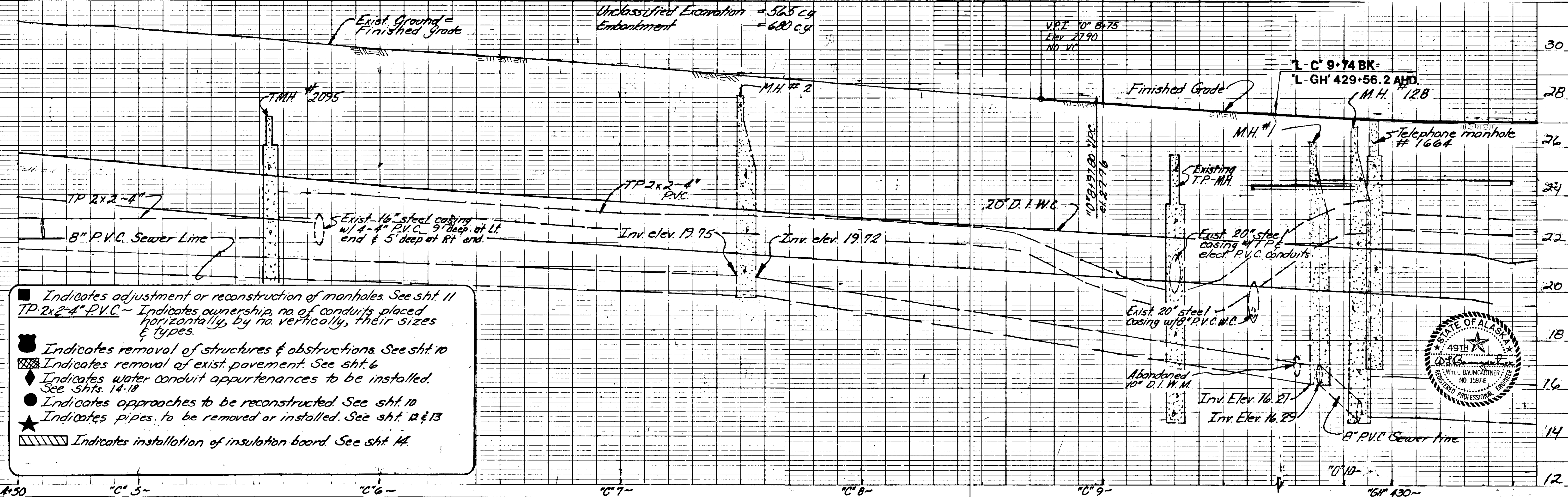
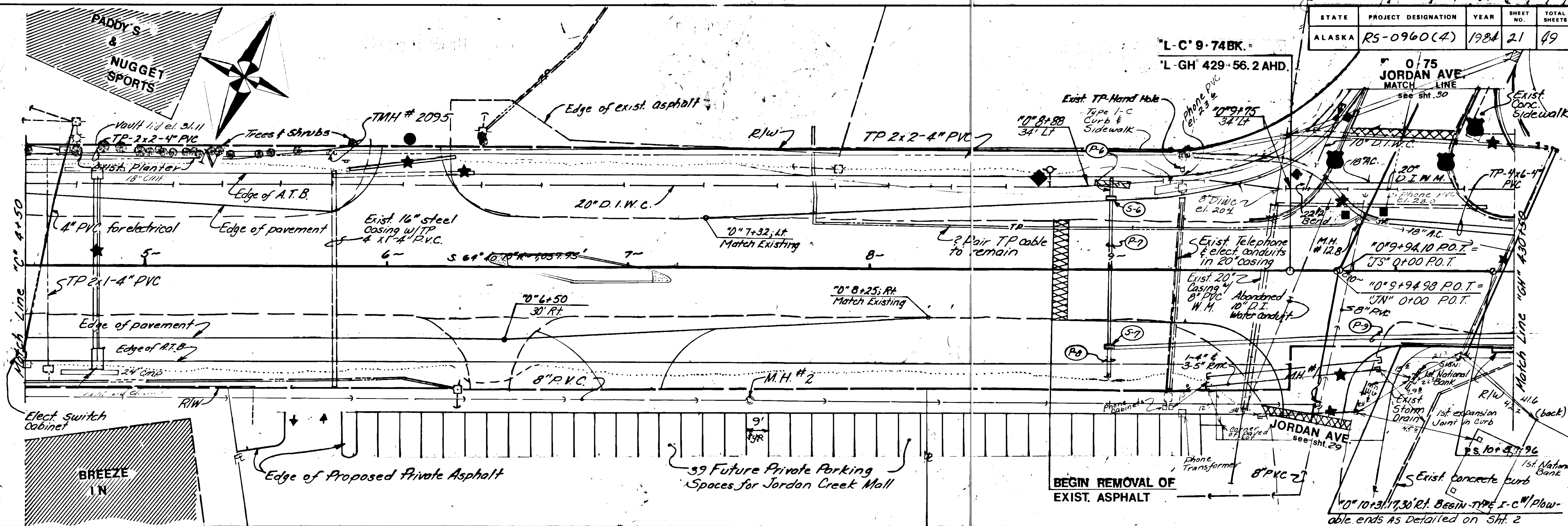


K $\leftrightarrow$ Σ PLATE 1, PLAN-PROFILE
KEUFFEL & ESSER CO

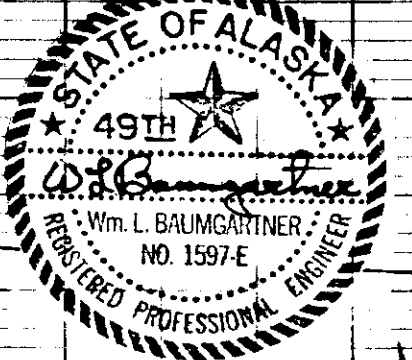
48 7024 Made in U.S.A.



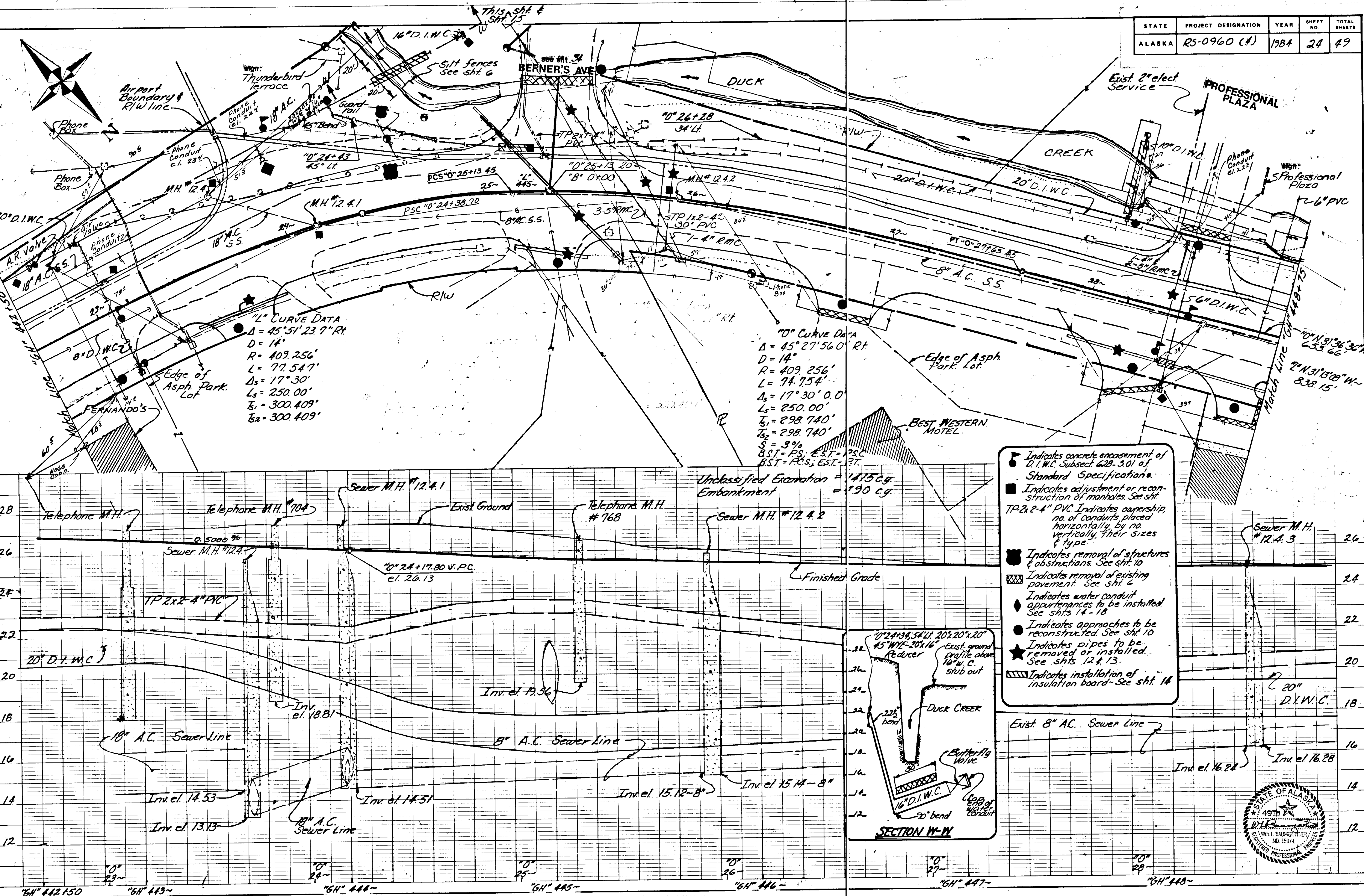
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960(4)	1984	21	49



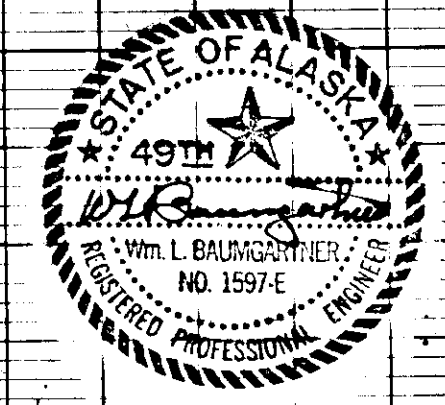
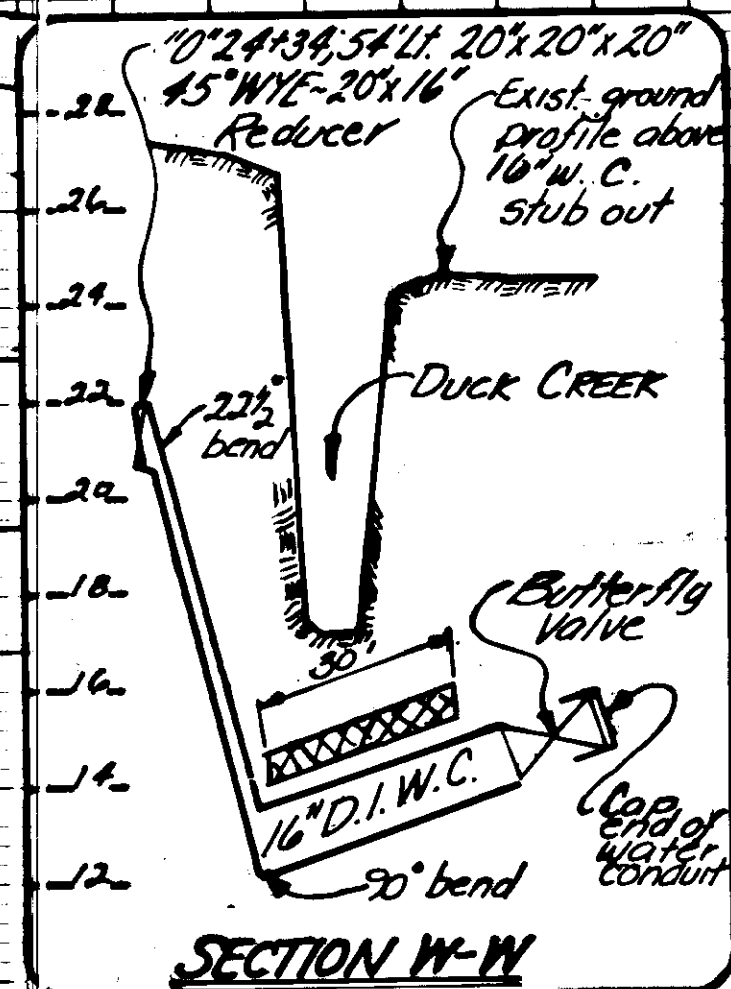
- Indicates adjustment or reconstruction of manholes. See sheet 11
- TP 2x2-4" PVC - Indicates ownership, no. of conduits placed horizontally, by no. vertically, their sizes & types.
- Indicates removal of structures & obstructions. See sheet 10
- ▨ Indicates removal of exist. pavement. See sheet 6
- ◆ Indicates water conduit appurtenances to be installed. See sheets 14-18
- Indicates approaches to be reconstructed. See sheet 10
- ★ Indicates pipes to be removed or installed. See sheet 12 & 13
- ▨ Indicates installation of insulation board. See sheet 14.

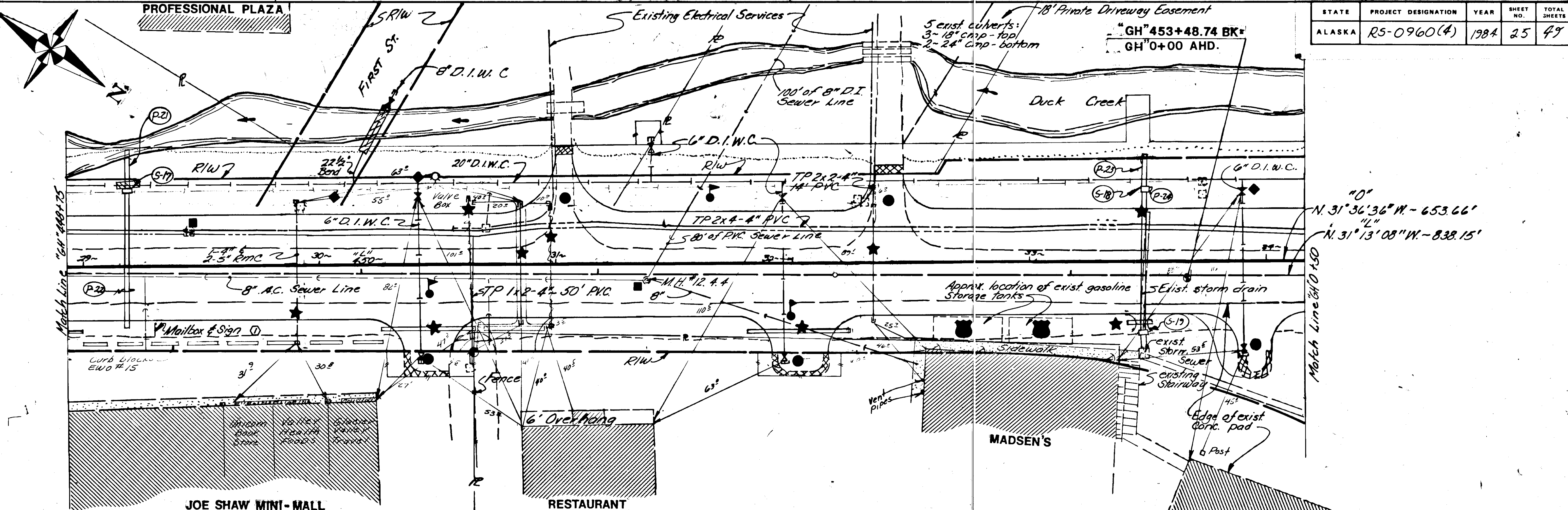


STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960 (#)	1984	24	49

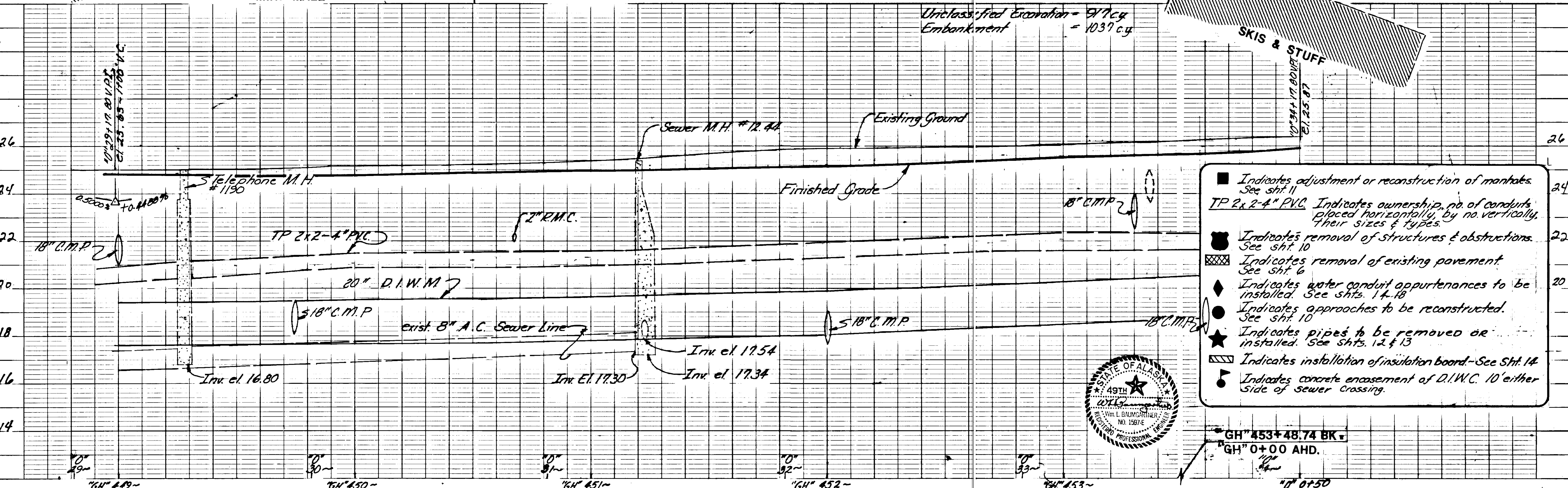


- Indicates concrete encasement of D.I.W.C. Subject 628.301 of Standard Specifications.
- Indicates adjustment or reconstruction of manholes. See sheet TP2x2-4" PVC. Indicates ownership, no. of conduits placed horizontally, by no. vertically, their sizes & type.
- Indicates removal of structures & obstructions. See sheet 10
- Indicates removal of existing pavement. See sheet 6
- Indicates water conduit appurtenances to be installed. See sheets 14-18
- Indicates approaches to be reconstructed. See sheet 10
- Indicates pipes to be removed or installed. See sheets 12 & 13.
- Indicates installation of insulation board. See sheet 14

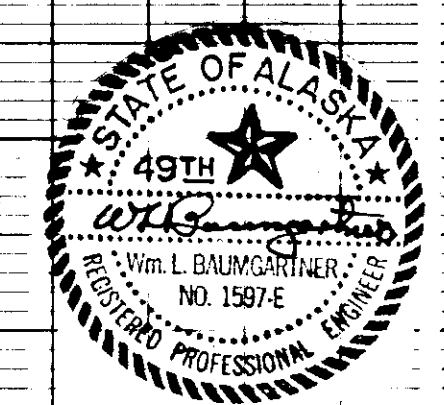




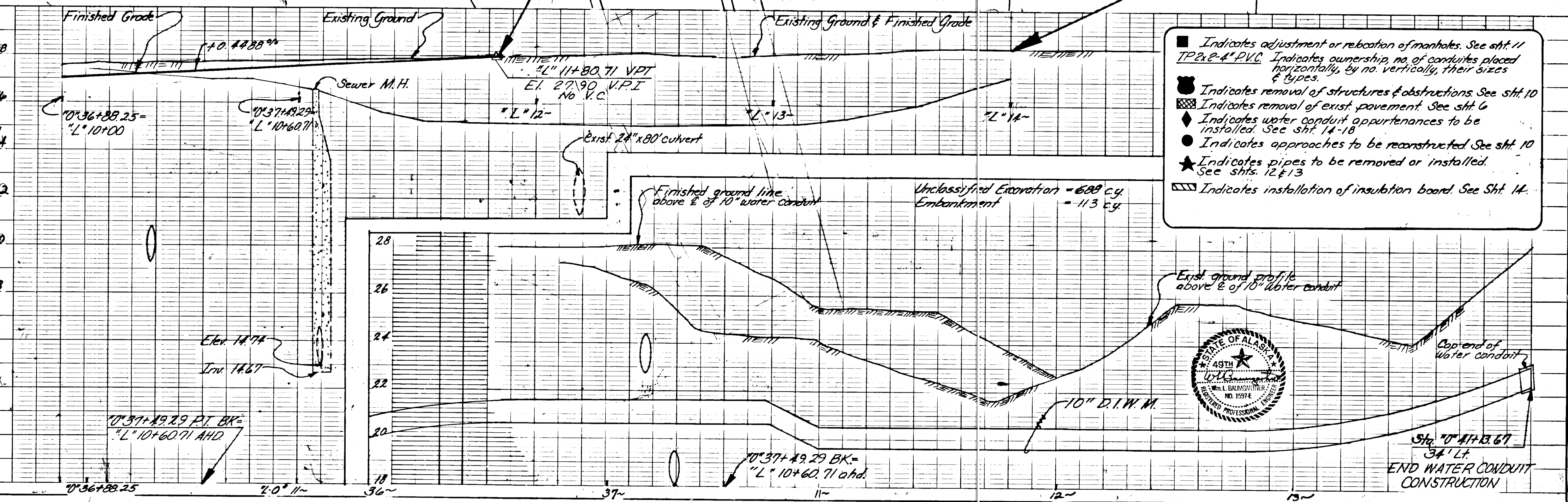
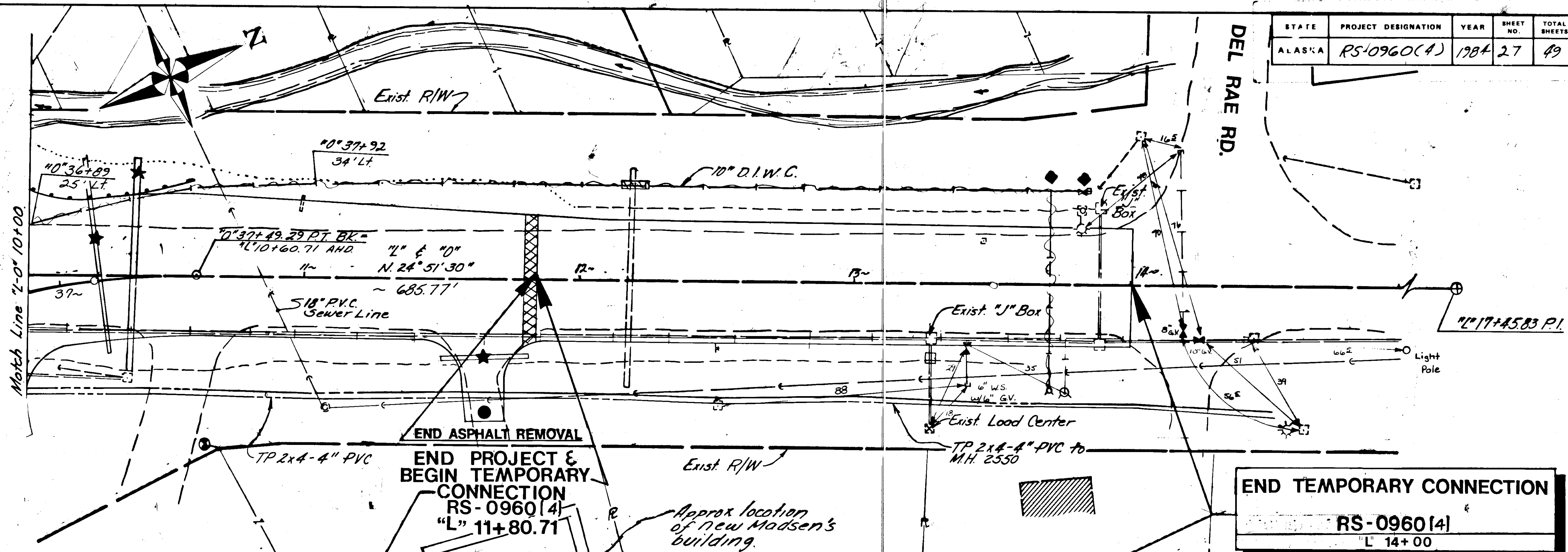
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960(4)	1984	25	49



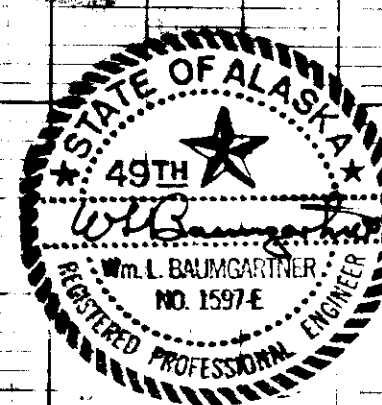
- Indicates adjustment or reconstruction of manholes. See sheet 11
- TP 2x2-4" PVC Indicates ownership, no. of conduits placed horizontally, by no. vertically, their sizes & types.
- Indicates removal of structures & obstructions. See sheet 10
- Indicates removal of existing pavement. See sheet 6
- ◆ Indicates water conduit appurtenances to be installed. See sheets 14 & 18
- Indicates approaches to be reconstructed. See sheet 10
- ★ Indicates pipes to be removed or installed. See sheets 12 & 13
- ▨ Indicates installation of insulation board. See sheet 14
- Indicates concrete encasement of D.I.W.C. 10' either side of sewer crossing.



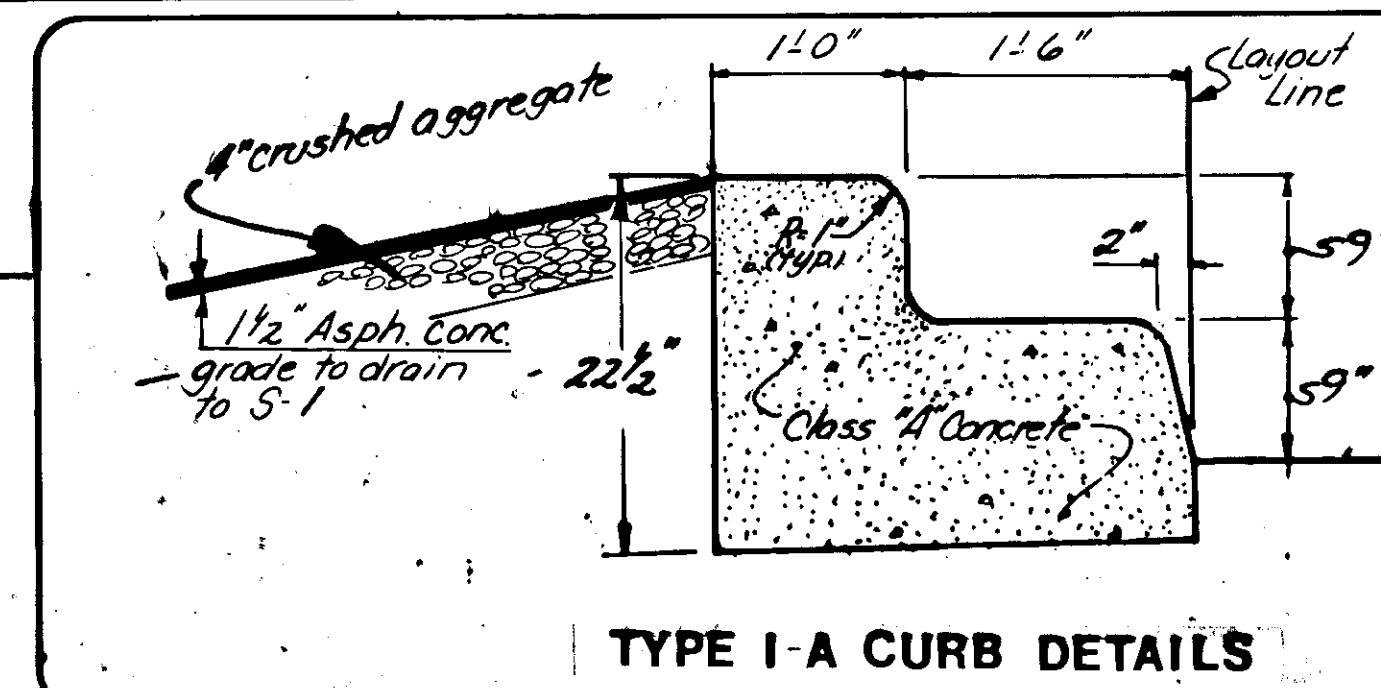
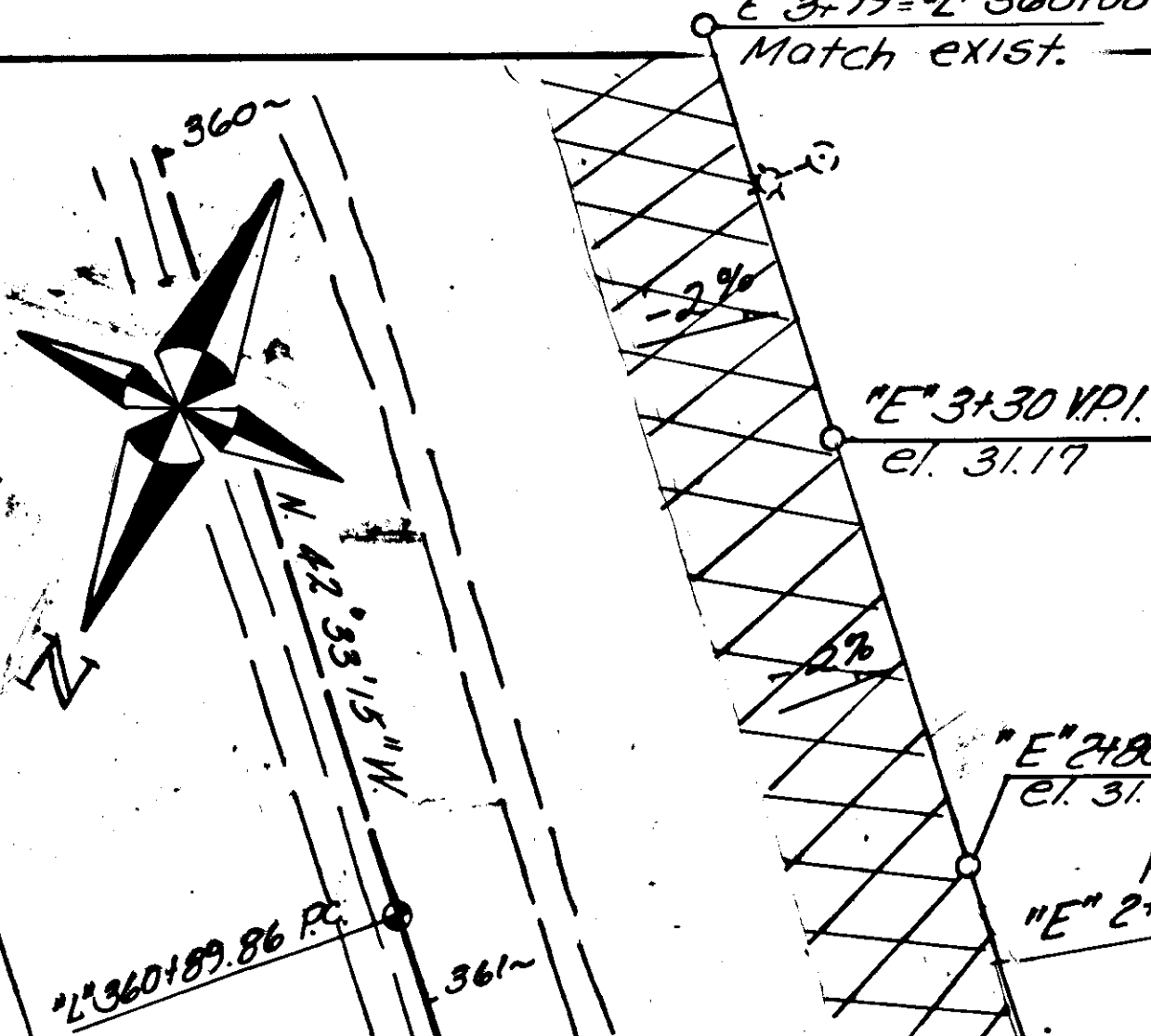
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960(4)	1984	27	49



- Indicates adjustment or relocation of manholes. See Sht. 11
- TP 2x4-4" PVC Indicates ownership, no. of conduits placed horizontally, by no. vertically, their sizes & types.
- ⬛ Indicates removal of structures & obstructions. See Sht. 10
- ⬛ Indicates removal of exist. pavement. See Sht. 6
- ◆ Indicates water conduit appurtenances to be installed. See Sht. 14-18
- Indicates approaches to be reconstructed. See Sht. 10
- ★ Indicates pipes to be removed or installed. See Shts. 12 & 13
- ▨ Indicates installation of insulation board. See Sht. 14.

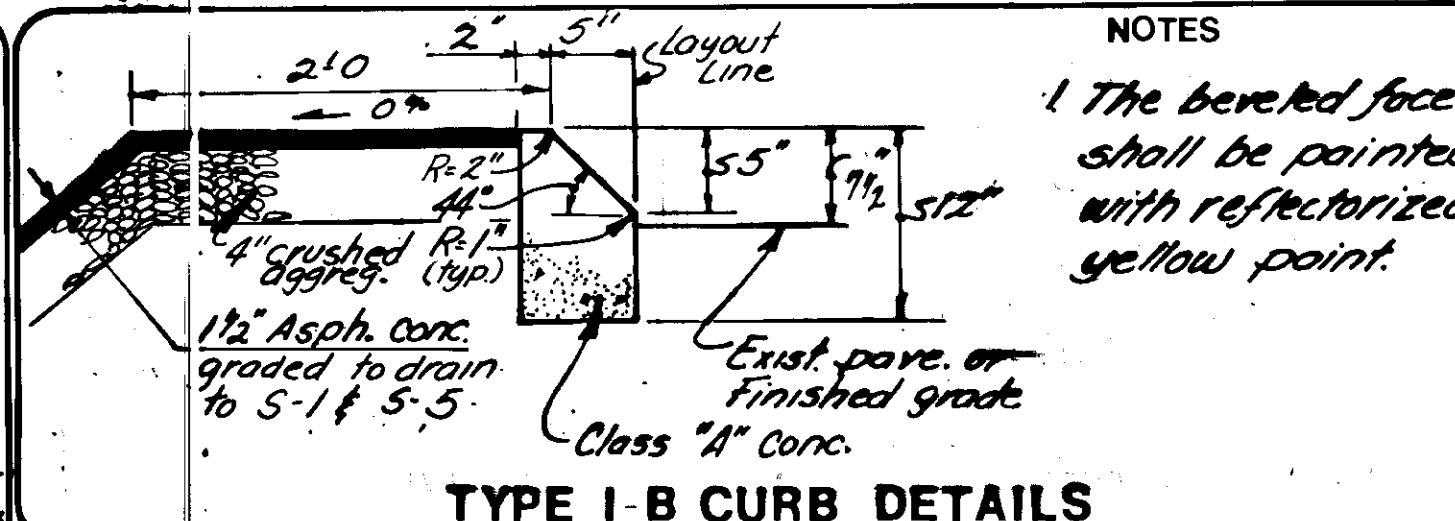


GLACIER HIGHWAY INTERSECTION W/ EGAN DR. AT MILE POST 8.7 (Mc-NUGGET)



NOTES

- 1 Vert. faces shall be painted with reflectorized yellow paint. All labor & materials incidental to ITEM 670 (6)
- 2 The transition between Section A-A's or Section B-B's top of curb elev. the end of the plowable curb shall be as directed



NOTES

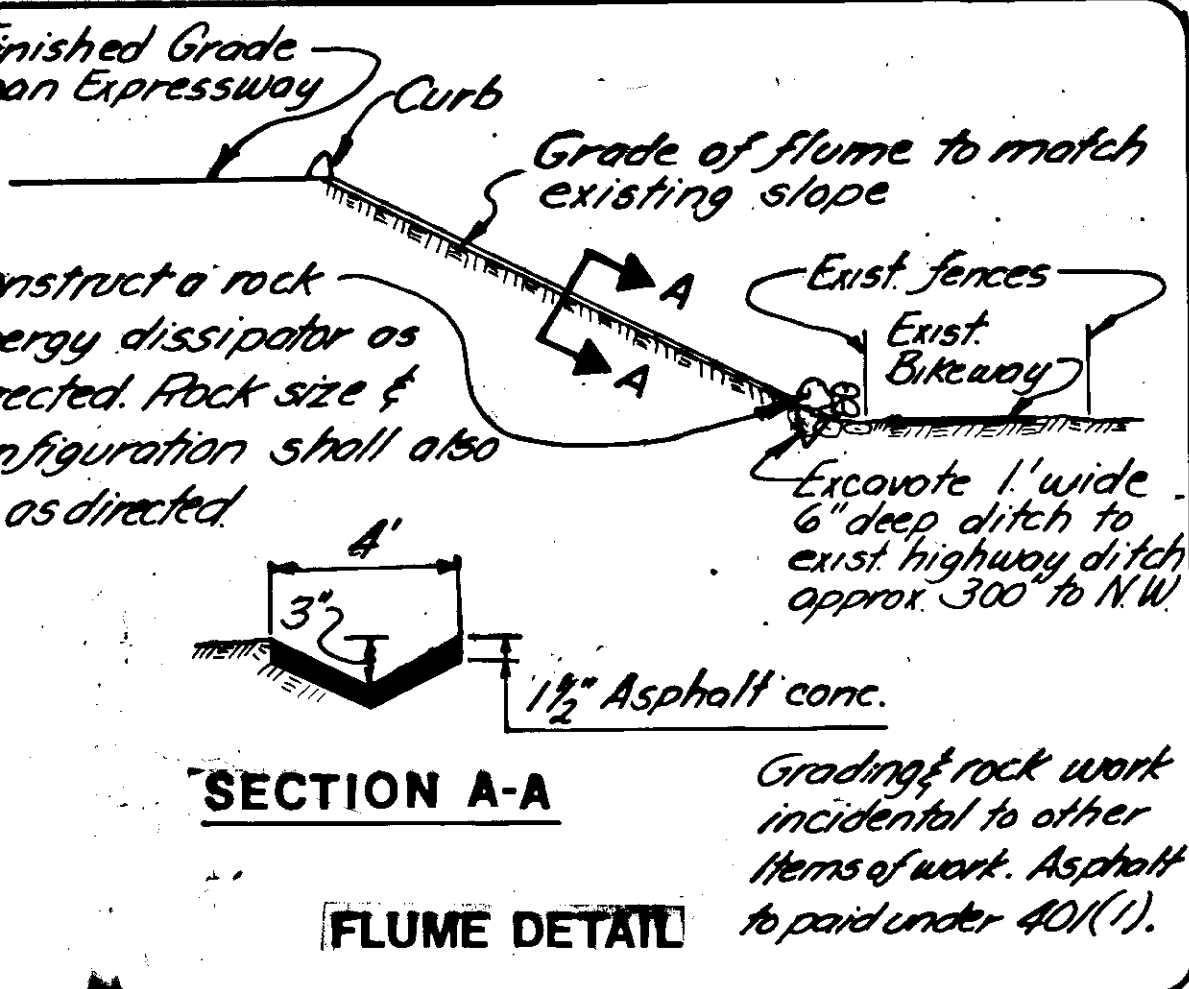
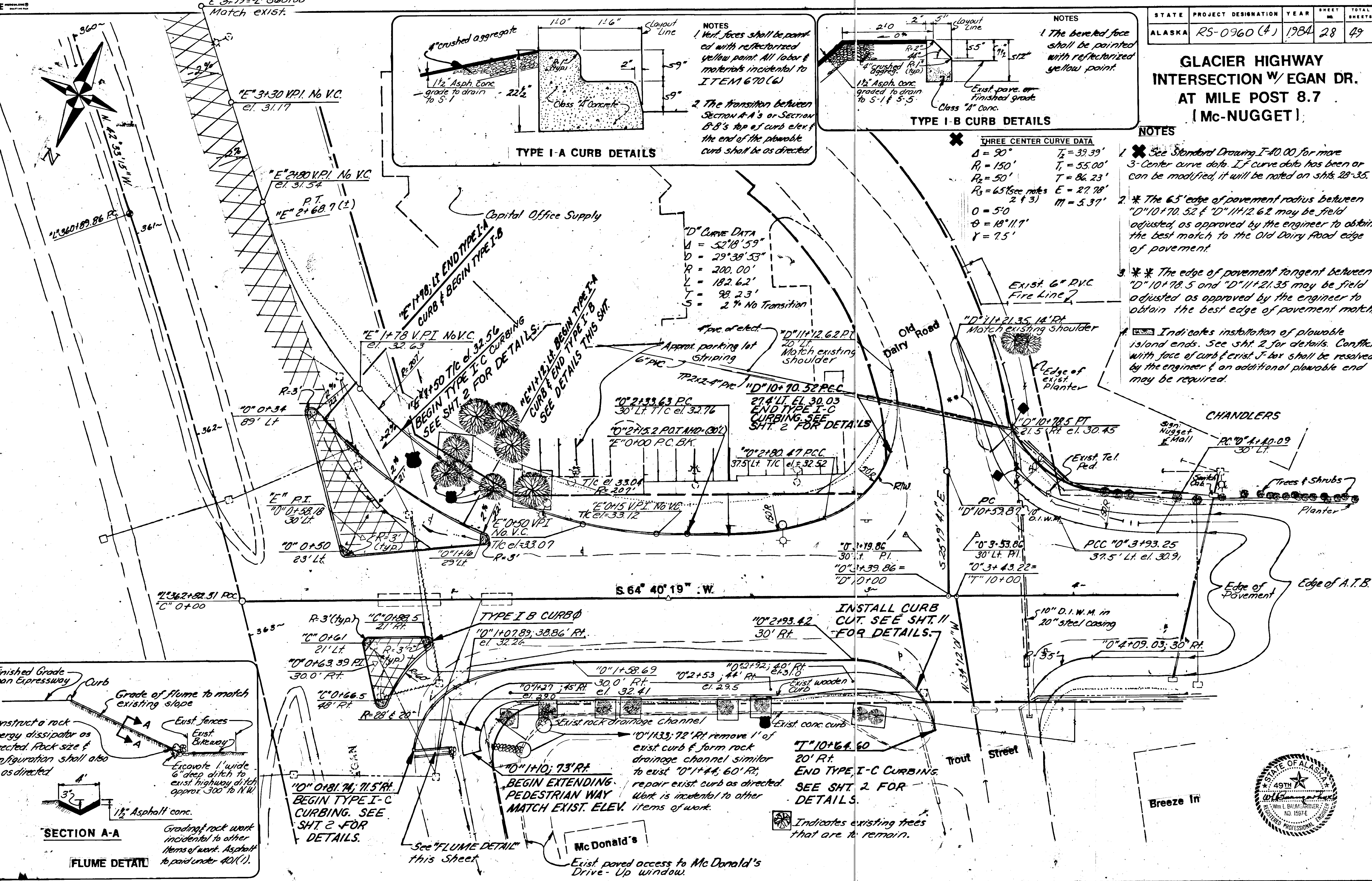
- 1 The beveled face shall be painted with reflectorized yellow paint.

THREE CENTER CURVE DATA

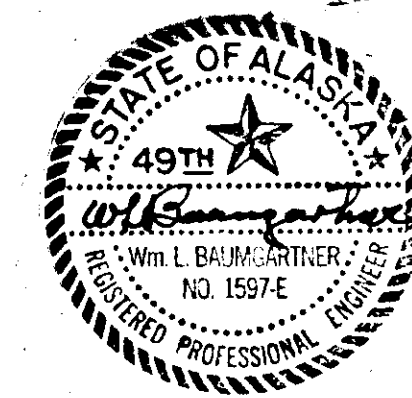
$\Delta = 90^\circ$
 $R_1 = 150'$
 $R_2 = 50'$
 $R_3 = 65'$ (see notes 2 & 3)
 $O = 5'0"$
 $\theta = 18^\circ 11'7"$
 $\gamma = 7.5'$

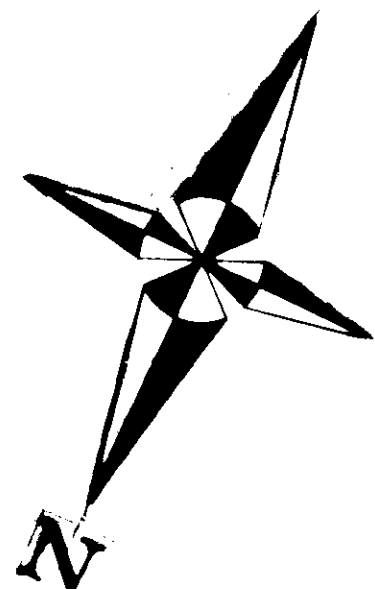
NOTES

- 1 See Standard Drawing I-40.00 for more 3-Center curve data. If curve data has been or can be modified, it will be noted on sheets 28-35.
- 2 * The 65' edge of pavement radius between "D" 10+70.52 & "D" 11+12.62 may be field adjusted, as approved by the engineer to obtain the best match to the Old Dairy Road edge of pavement
- 3 * * The edge of pavement tangent between "D" 10+70.5 and "D" 11+21.35 may be field adjusted as approved by the engineer to obtain the best edge of pavement match
- 4 Indicates installation of plowable island ends. See Sht. 2 for details. Conflicts with face of curb & exist. J-box shall be resolved by the engineer & an additional plowable end may be required.



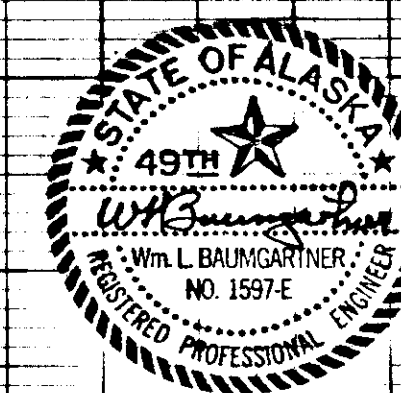
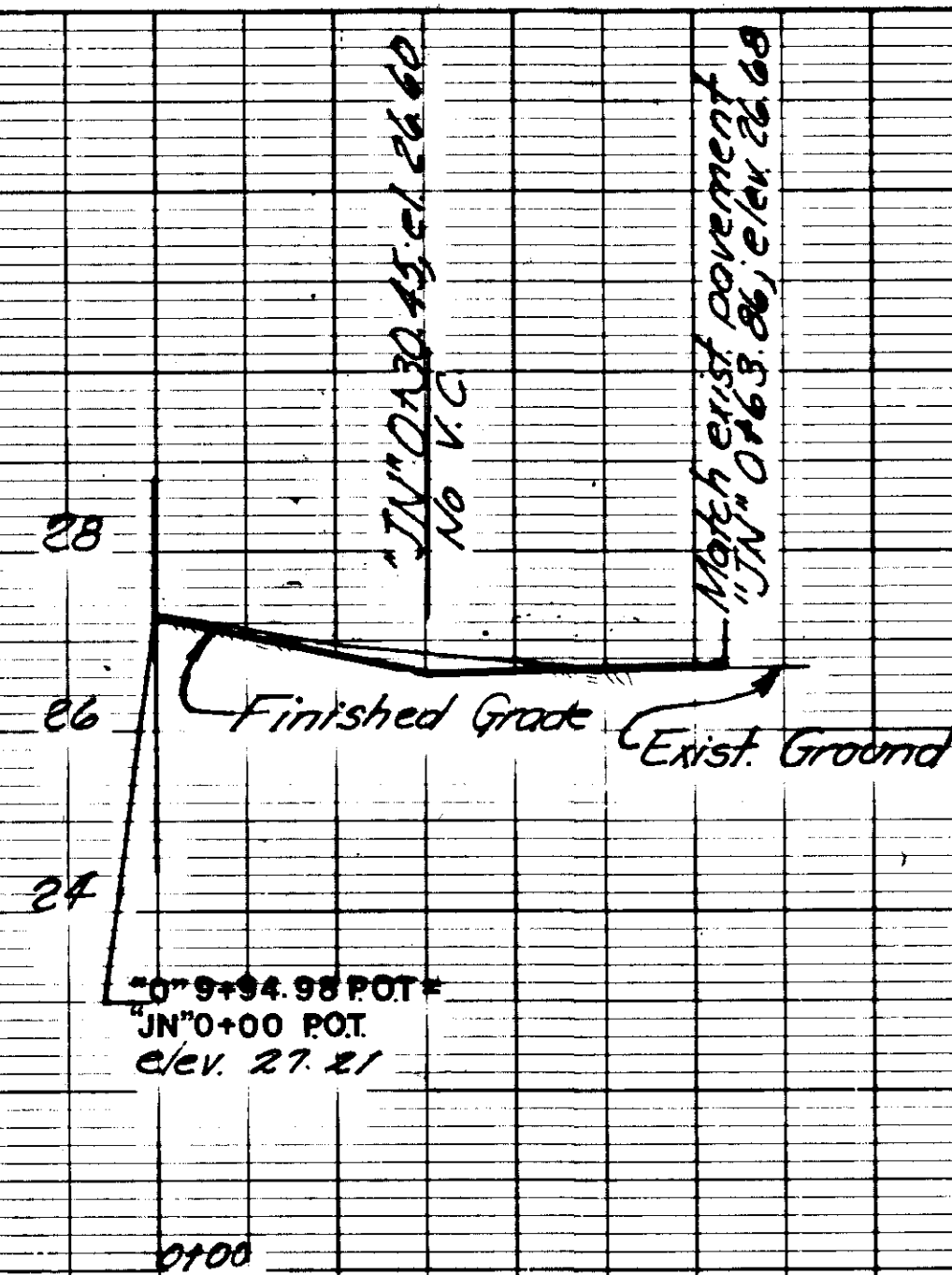
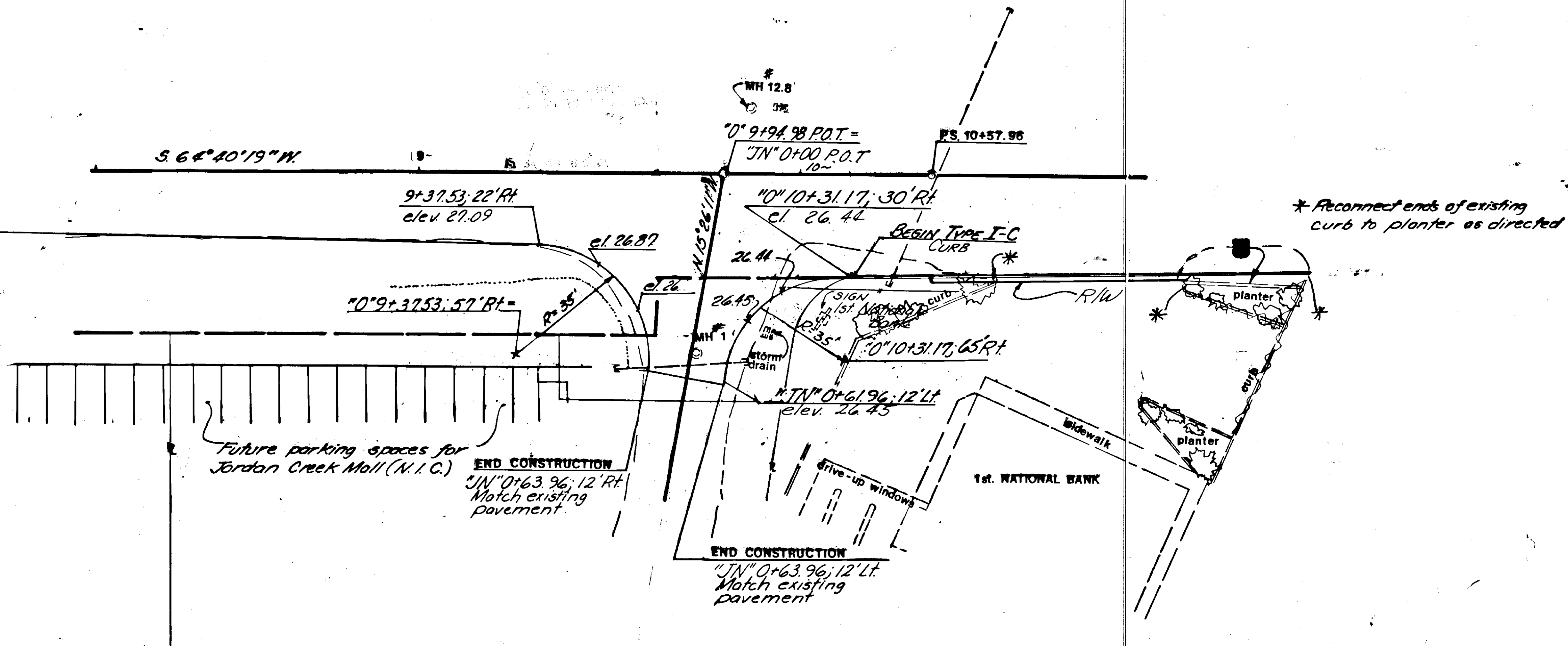
Grading & rock work incidental to other items of work. Asphalt to paid under 401(1).





STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960(4)	1984	29	49

JORDAN AVENUE (north)
INTERSECTION DETAIL



THREE CENTER CURVE DATA

$\Delta = 65^{\circ}05'32''$ $R_1 = 200'$
 $T_1 = 32.48'$ $R_2 = 75'$
 $T_2 = 50.10'$ $O = 3.5'$
 $T = 79.48'$ $\theta = 13^{\circ}35'40''$
 $E = 18.13'$ $\gamma = 5.6'$
 $M = 4.06'$

NOTE

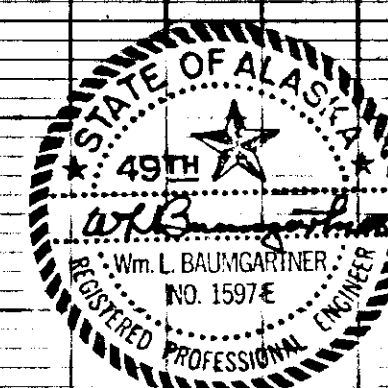
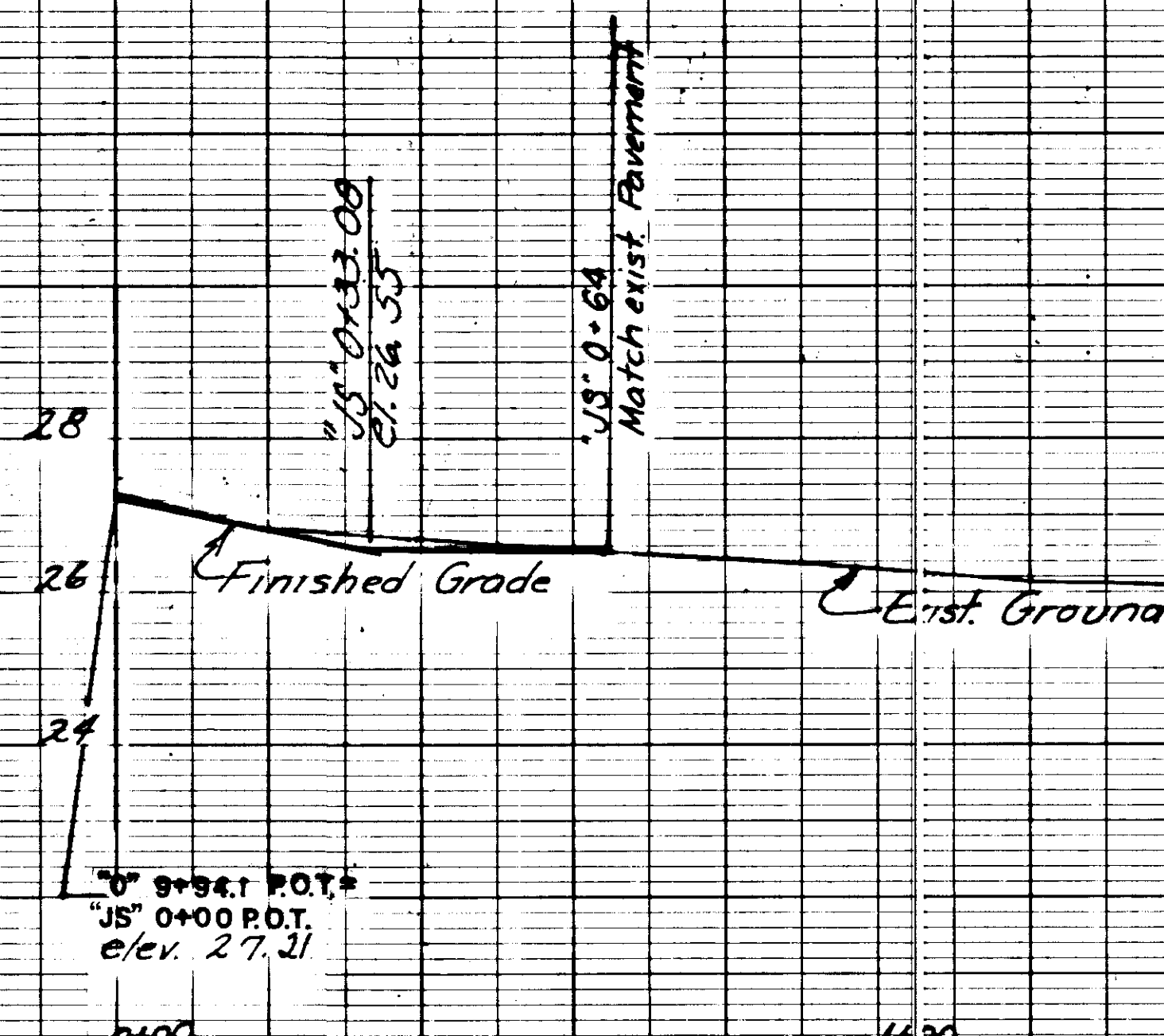
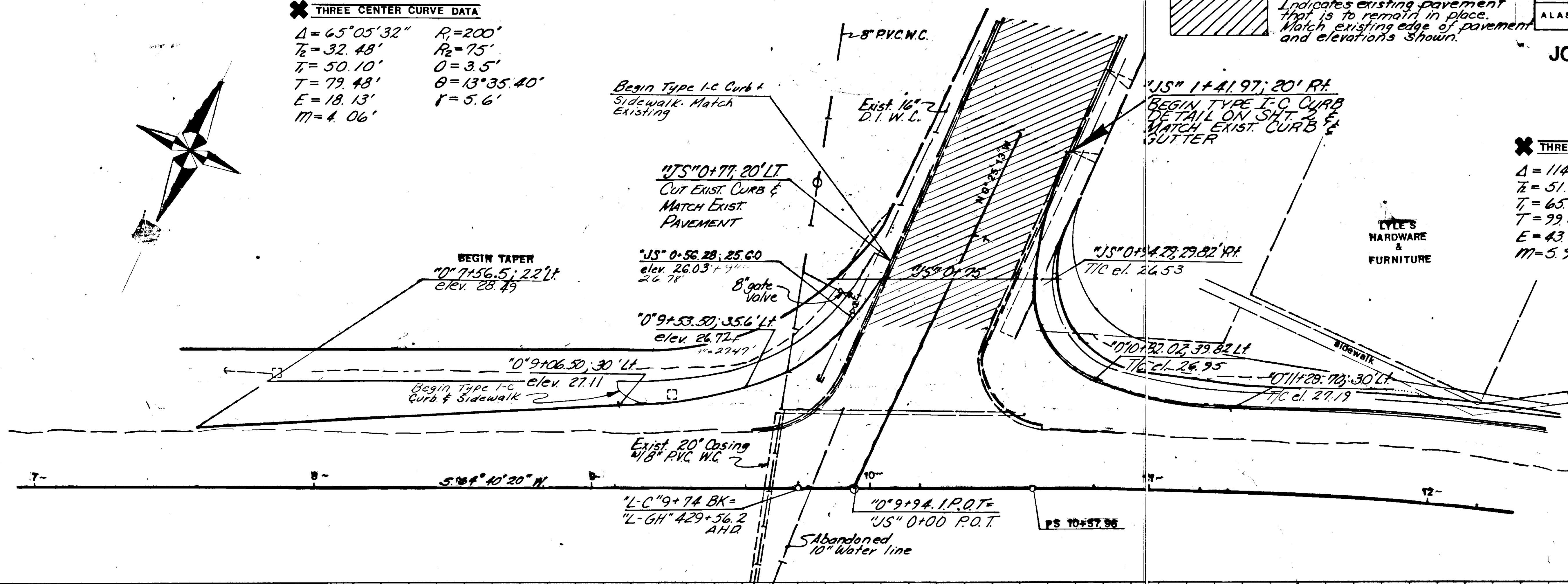
Indicates existing pavement that is to remain in place. Match existing edge of pavement and elevations shown.

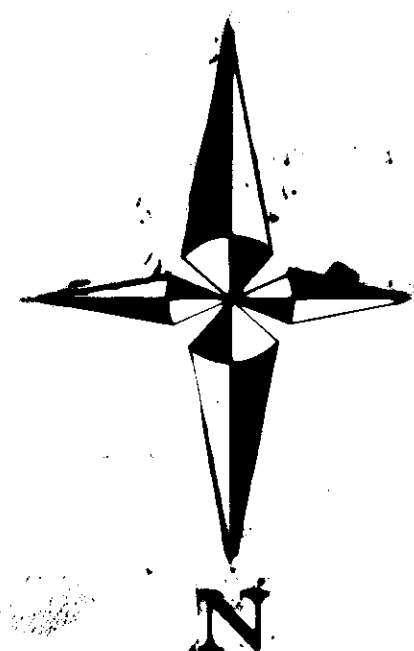
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960(4)	1984	30	49

JORDAN AVENUE (south) INTERSECTION DETAILS

THREE CENTER CURVE DATA

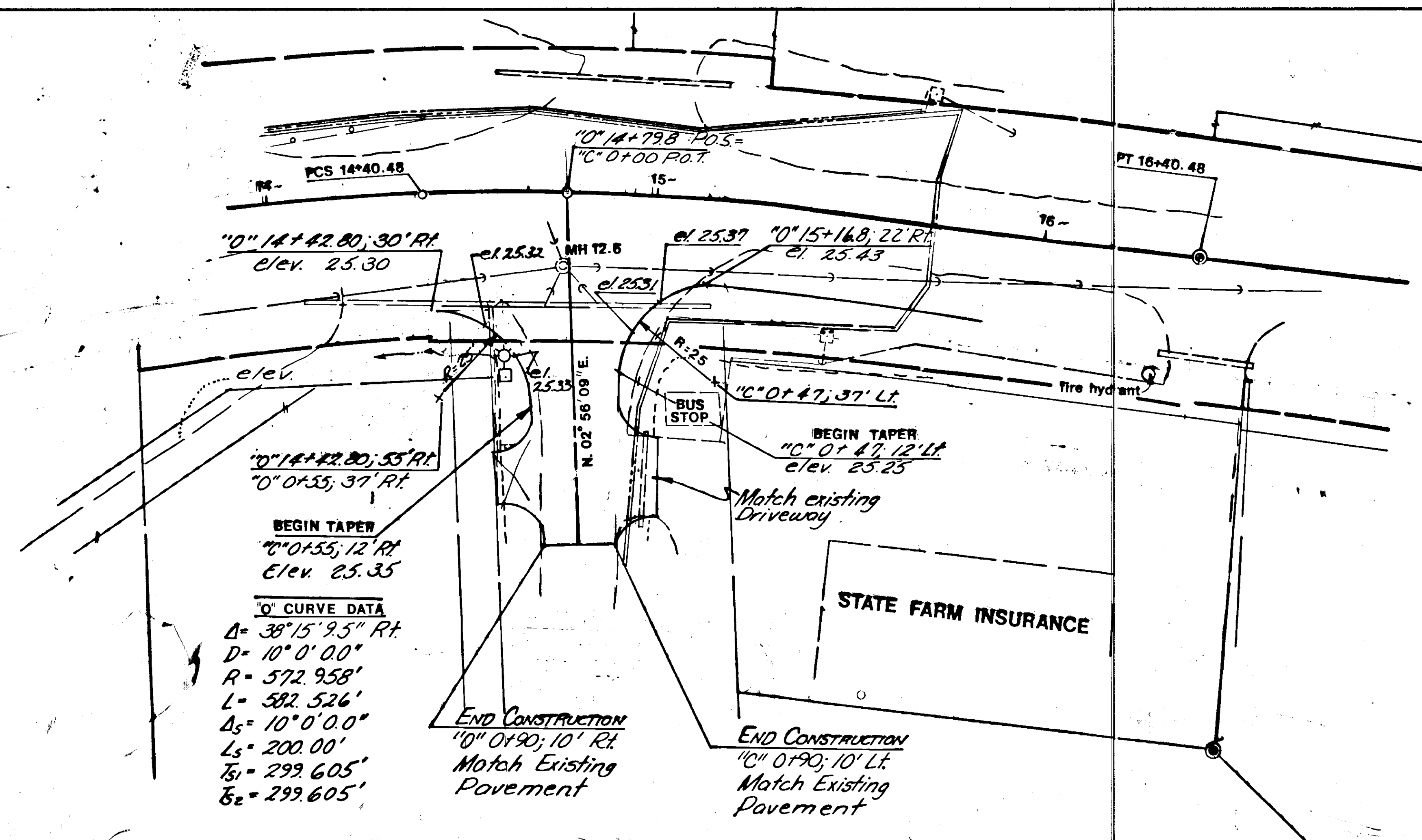
$\Delta = 114^{\circ}54'28''$ $R = 120'$
 $T_1 = 51.93'$ $R_2 = 35'$
 $T_2 = 65.83'$ $O = 7.0'$
 $T = 99.61'$ $\theta = 23^{\circ}24'90''$
 $E = 43.09'$ $\gamma = 9.82'$
 $M = 5.99'$



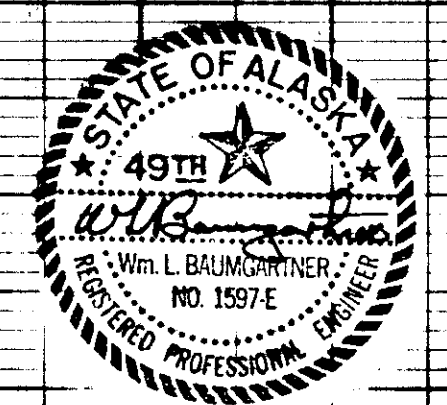
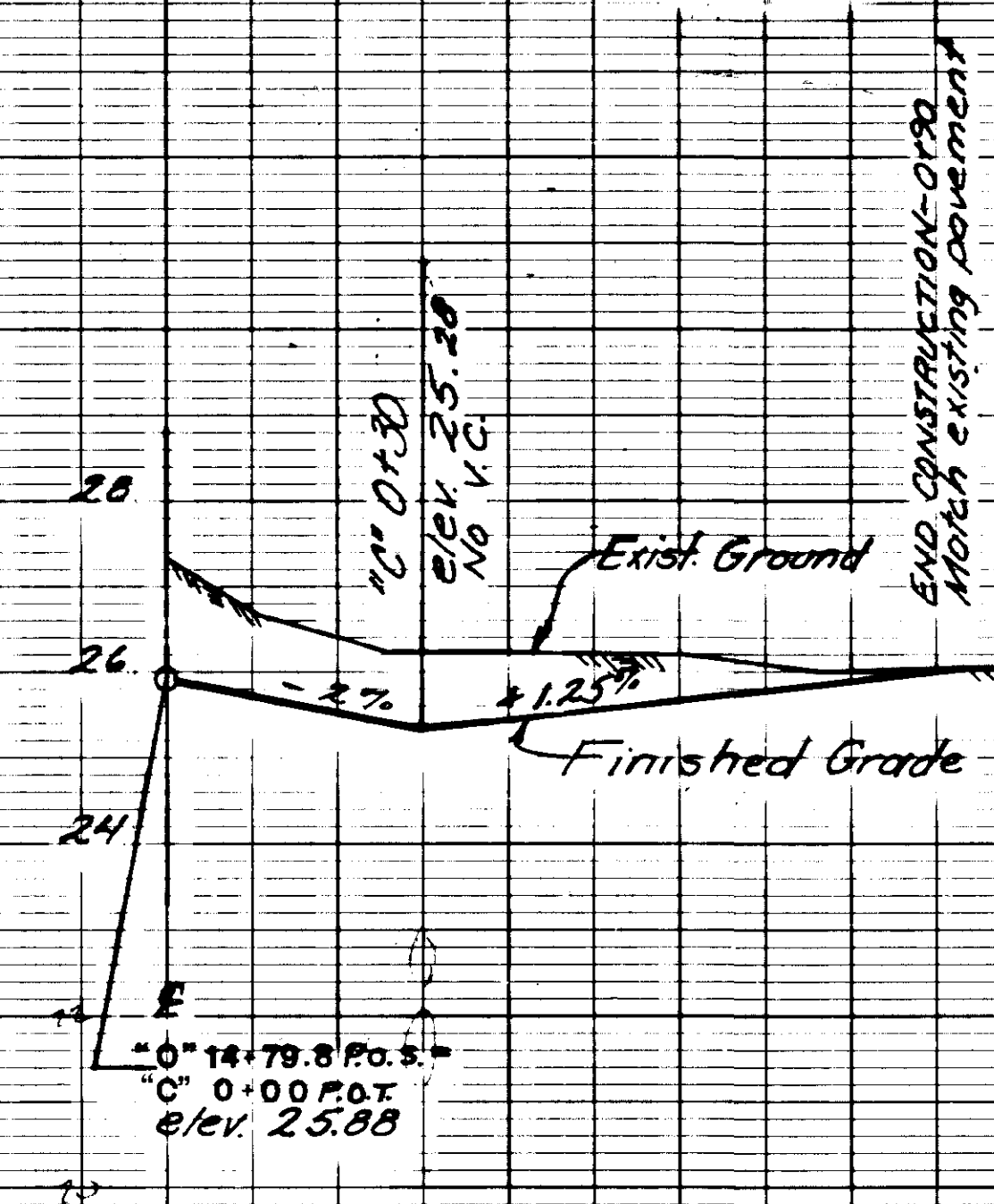


STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS 0960(4)	1984	31	49

CASCADE STREET
INTERSECTION
DETAILS



CURVE DATA



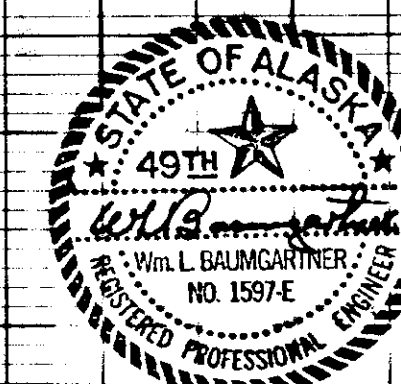
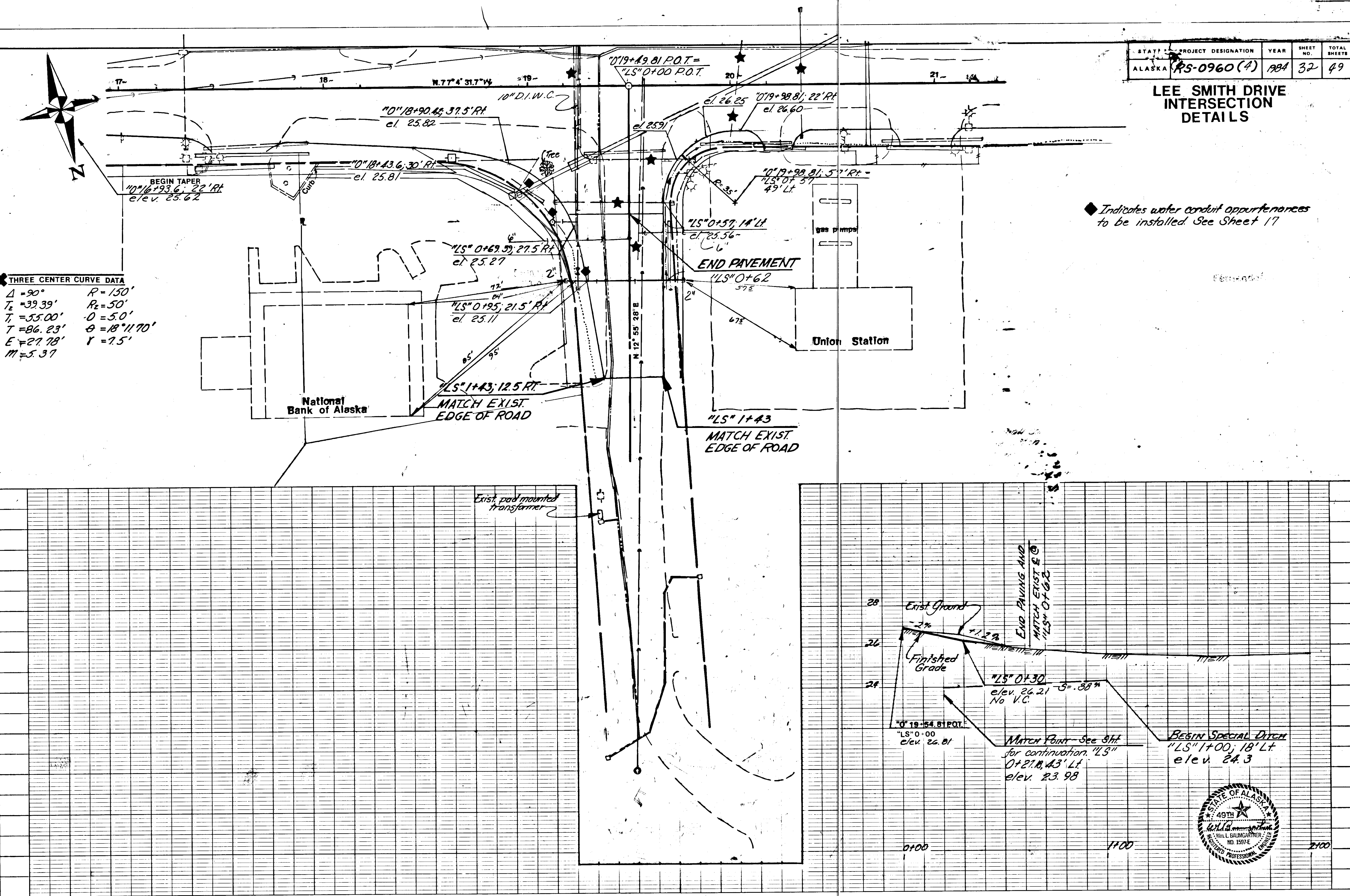
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960 (4)	1994	32	49

LEE SMITH DRIVE INTERSECTION DETAILS

◆ Indicates water conduit appurtenances
to be installed. See Sheet 17

THREE CENTER CURVE DATA

$\Delta = 90^\circ$ $R = 150'$
 $T_1 = 39.39'$ $R_2 = 50'$
 $T_2 = 55.00'$ $D = 5.0'$
 $T = 86.23'$ $\theta = 18^\circ 11' 70''$
 $E = 27.78'$ $\gamma = 7.5'$
 $M = 5.37$



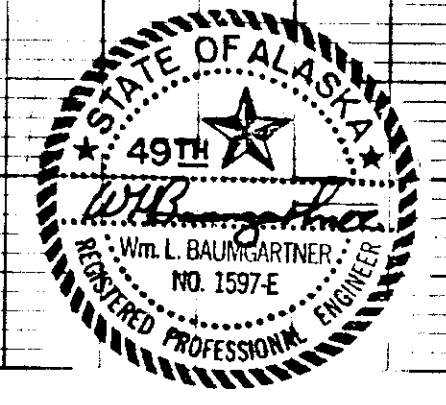
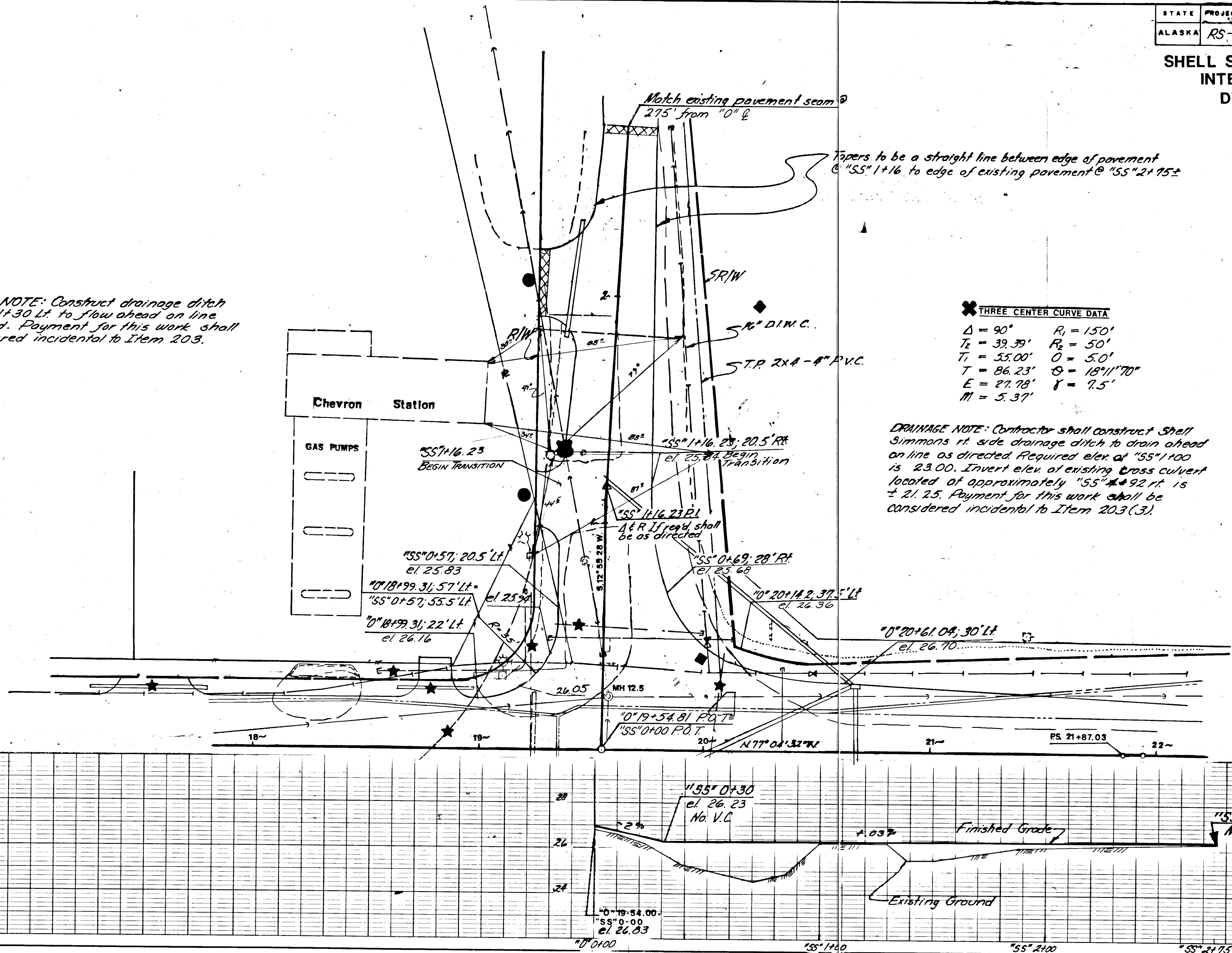
SHELL SIMMONS DRIVE INTERSECTION DETAILS

DRAINAGE NOTE: Construct drainage ditch from "SS" 1+30 Lt. to flow ahead on line as directed. Payment for this work shall be considered incidental to Item 203.

THREE CENTER CURVE DATA

$\Delta = 90^\circ$ $R_1 = 150'$
 $T_2 = 39.39'$ $R_2 = 50'$
 $T_1 = 55.00'$ $O = 5.0'$
 $T = 86.23'$ $\theta = 18^\circ 11' 70''$
 $E = 27.78'$ $\gamma = 7.5'$
 $M = 5.37'$

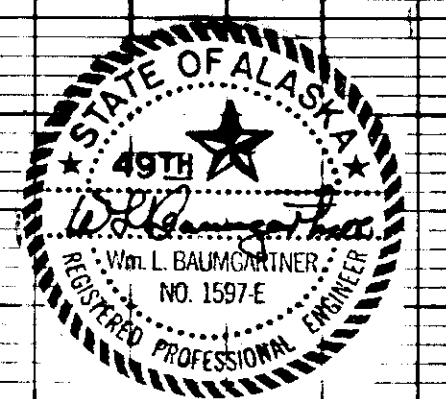
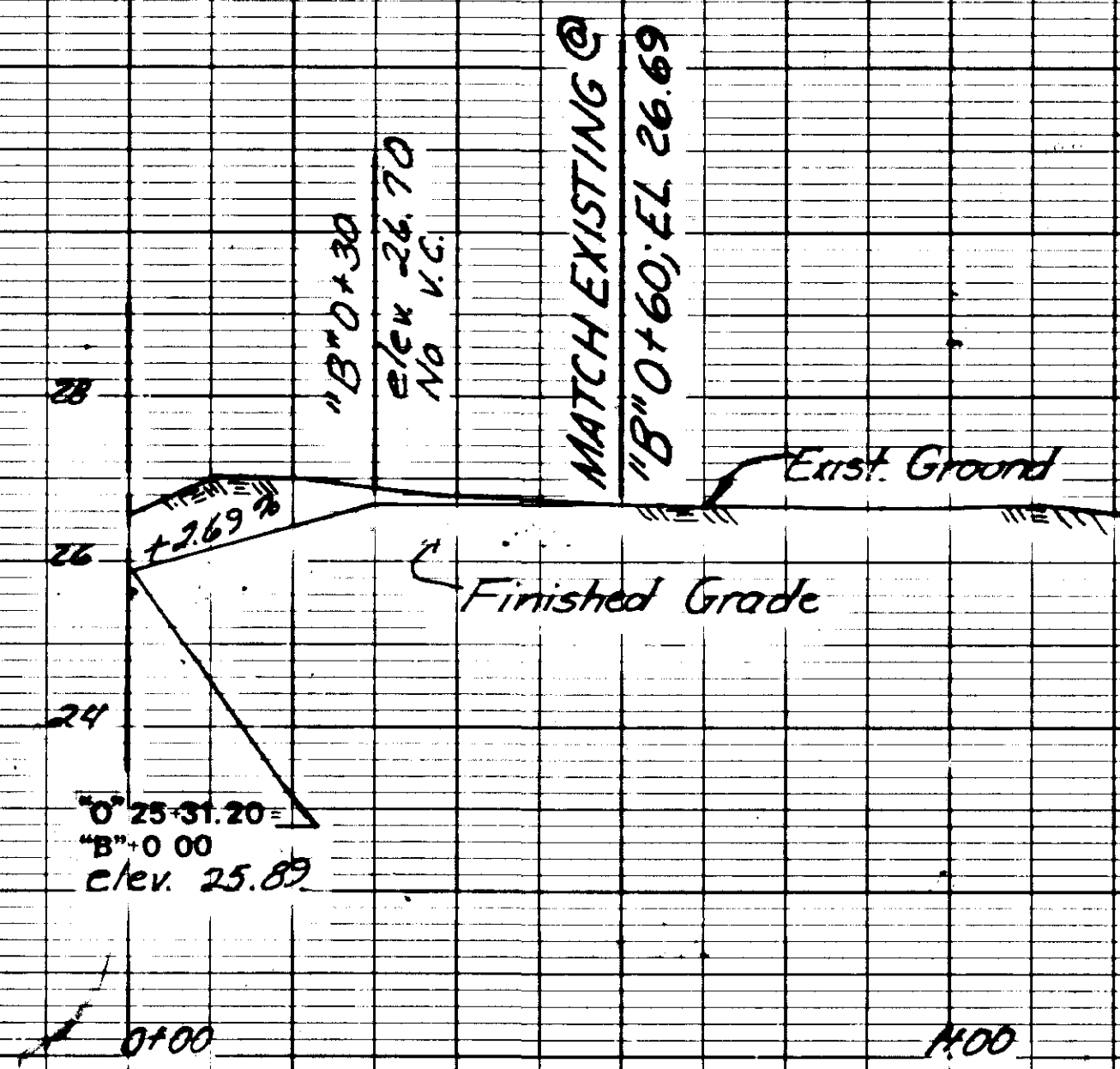
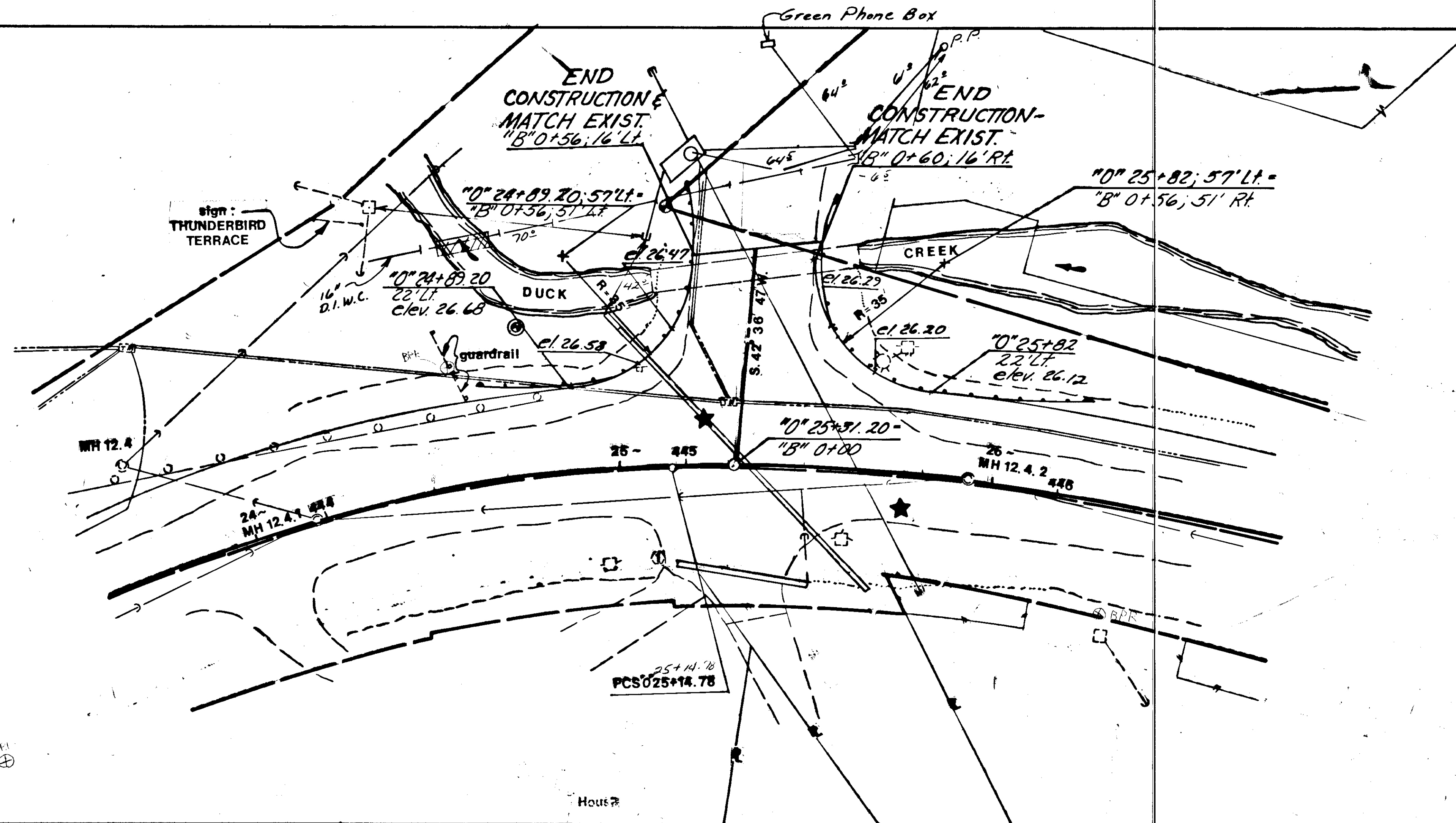
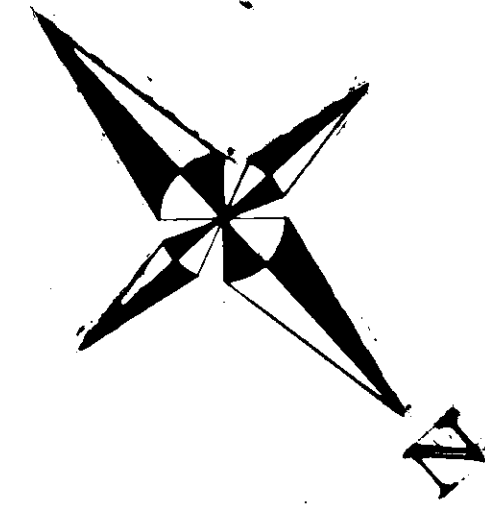
DRAINAGE NOTE: Contractor shall construct Shell Simmons rt. side drainage ditch to drain ahead on line as directed. Required elev. at "SS" 1+100 is 23.00. Invert elev. of existing cross culvert located at approximately "SS" 1+92 rt. is ± 21.25 . Payment for this work shall be considered incidental to Item 203(3).



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	AS-0960(4)	1984	34	49

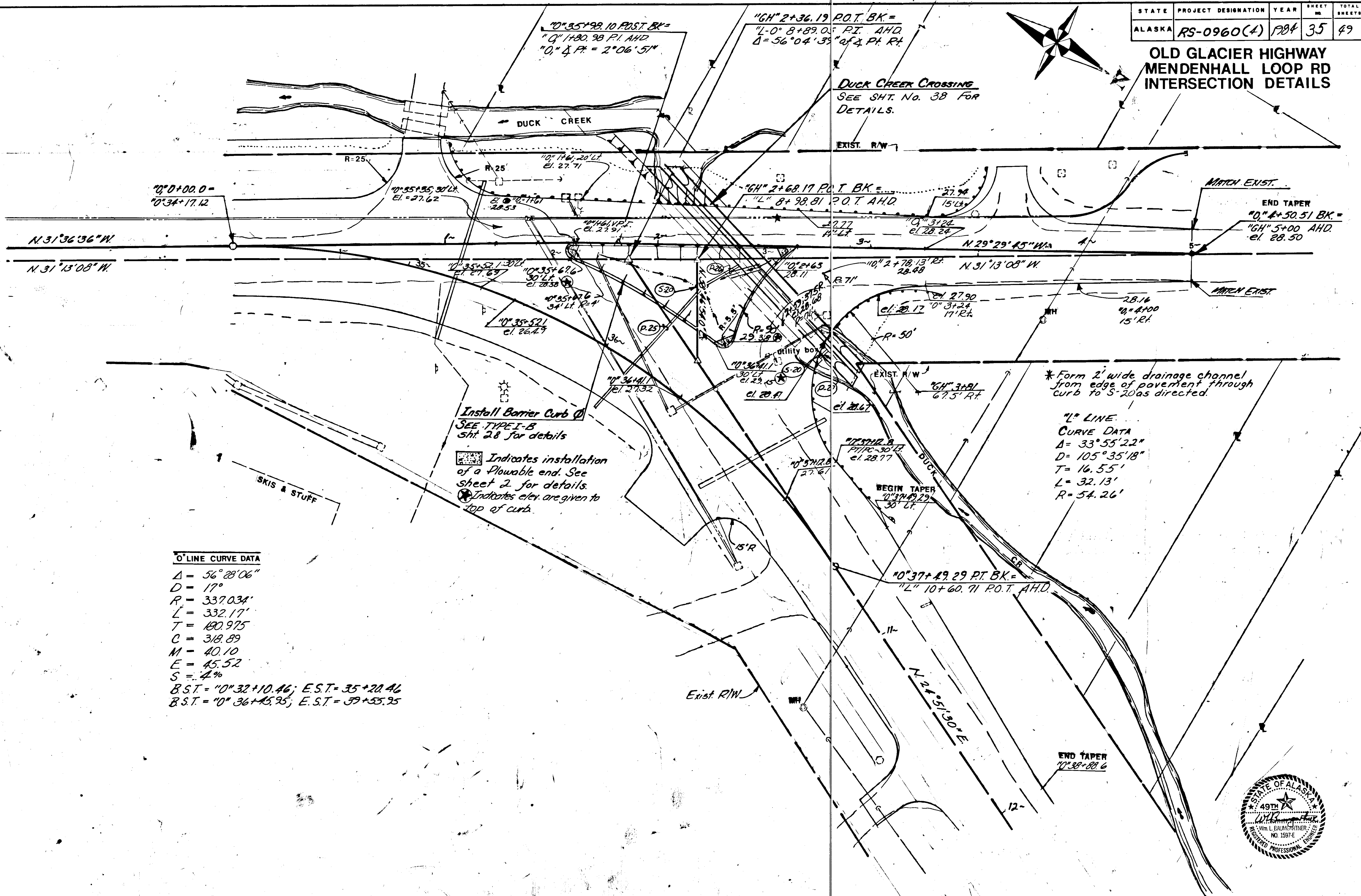
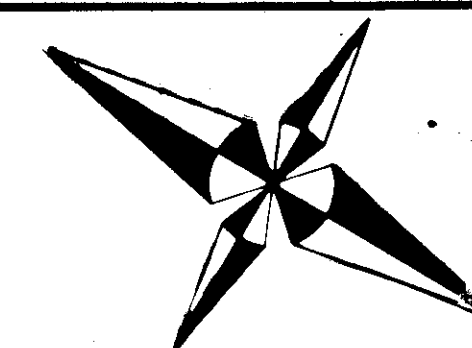
BERNERS AVENUE INTERSECTION DETAILS

* "0" CURVE DATA
 $\Delta = 45^{\circ} 51' 23.7''$ Rt
 $D = 14^{\circ} 0' 00''$
 $R = 409.256'$
 $L = 600.819'$
 $\Delta_s = 17^{\circ} 30' 0.0''$
 $L_s = 250.00'$
 $T_{s1} = 300.409'$
 $T_{s2} = 300.409'$
 $S = 3\%$



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960(4)	1984	35	49

OLD GLACIER HIGHWAY MENDENHALL LOOP RD INTERSECTION DETAILS



O'LINE CURVE DATA

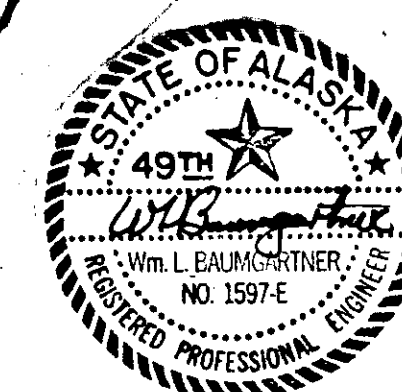
$\Delta = 56^{\circ}28'06''$
 $D = 17''$
 $R = 337.034'$
 $L = 332.17'$
 $T = 180.975'$
 $C = 318.89$
 $M = 40.10$
 $E = 45.52$
 $S = 4\%$
 $B.S.T. = 0+32+10.46; E.S.T. = 35+20.46$
 $B.S.T. = 0+36+45.95; E.S.T. = 39+55.25$

Install Barrier Curb @
 SEE TYPE I-B
 Sht. 28 for details

Indicates installation
 of a flowable end. See
 sheet 2 for details.
 Indicates elev. are given to
 top of curb.

* Form 2' wide drainage channel
 from edge of pavement through
 curb to S-20 as directed

"1" LINE
 CURVE DATA
 $\Delta = 33^{\circ}55'22''$
 $D = 105^{\circ}35'18''$
 $T = 16.55'$
 $L = 32.13'$
 $R = 54.26'$

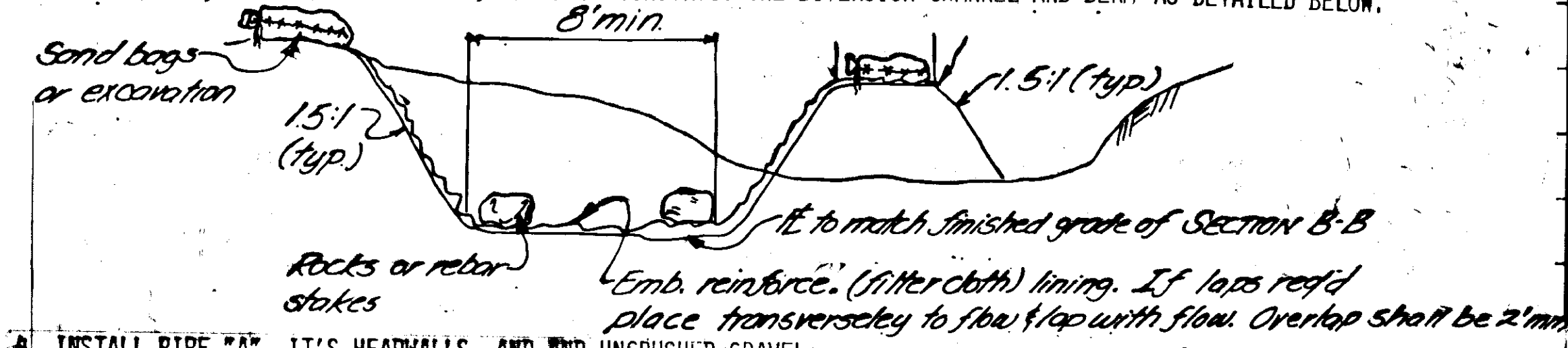


STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960(4)	1984	36	72

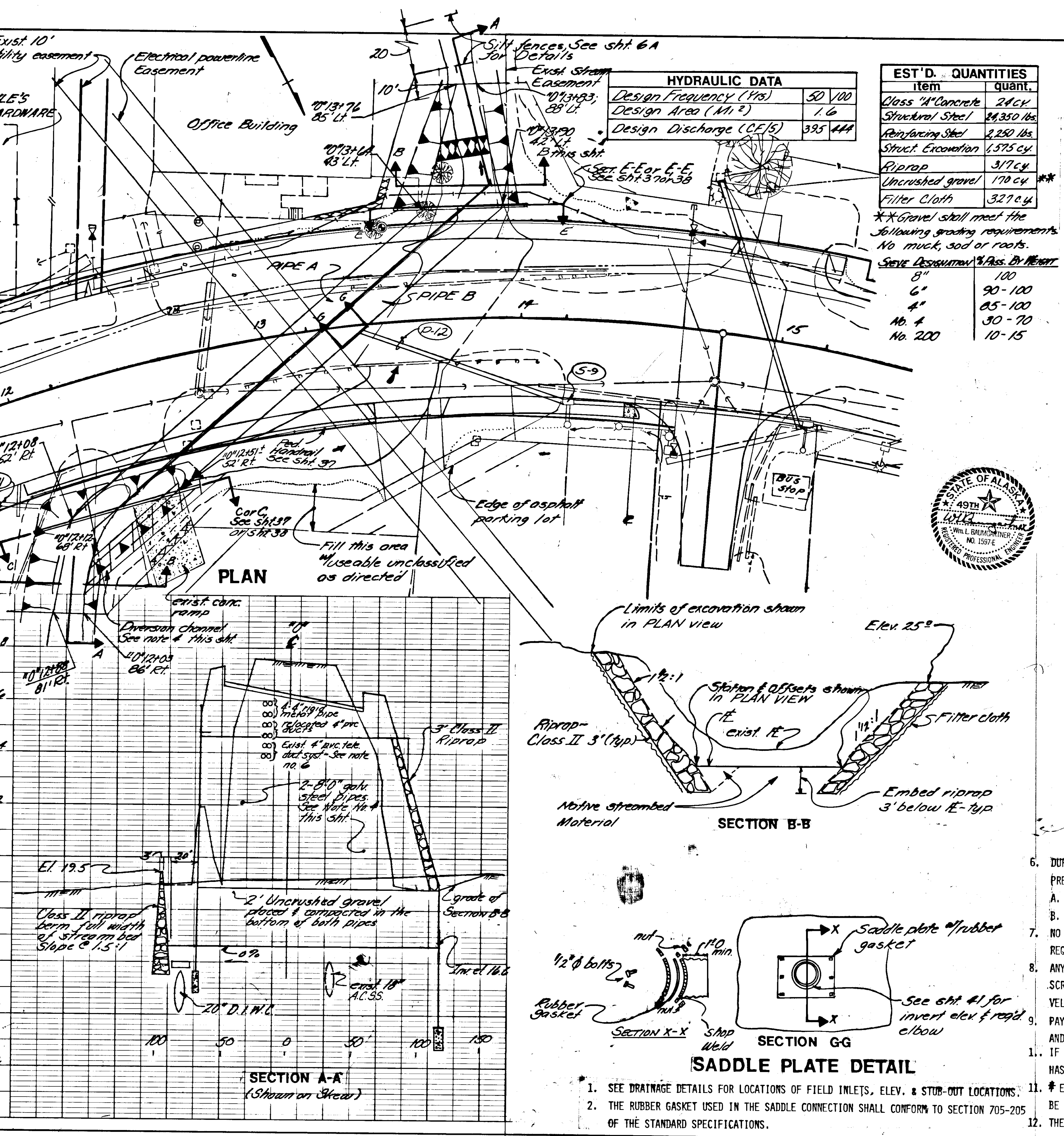
JORDAN CREEK SITE PLAN

NOTES

- AS-BUILT PLANS OF THE EXISTING JORDAN CREEK BRIDGE (BRIDGE NO. 789) ARE AVAILABLE FOR REVIEW AT THE D.O.T./P.F. BUILDING AT 7 MILE GLACIER HIGHWAY IN THE OFFICE OF THE BRIDGE DESIGN SECTION.
- ANY PORTION OF THE EXISTING BRIDGE THAT LIES WITHIN OR UNDER THE LIMITS OF THE PIPES, EXCEPT THE EXISTING TELEPHONE DUCTS, SHALL BE REMOVED IN IT'S ENTIRETY. ALL OTHER PORTIONS OF THE EXISTING BRIDGE SHALL BE REMOVED TO A MINIMUM OF 4 FEET BELOW FINISHED GRADE.
- DURING THE RECONSTRUCTION OF THIS CROSSING, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY FOR SUPPORTING AND PROTECTING THE EXISTING TELEPHONE DUCT SYSTEM THAT CROSSES THIS CROSSING. THESE DUCTS CARRY THE EXISTING LONG-DISTANCE TRUNK LINE BETWEEN DOWNTOWN JUNEAU AND LENA POINT SATELLITE STATION AS WELL AS OTHER EXISTING CABLES, AND DAMAGE TO THE CABLE OR DUCT SYSTEM SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. SEE SECTION 105-1.06 OF THE SPECIAL PROVISIONS.
- "0+13+23.8 (CENTERLINE OF INSTALLATION) INSTALL TWIN 96" STEEL PIPES ON A SKEW ANGLE OF 56° RT. AND.
 - PIPE "A" IS 138-FOOT-IN LENGTH AND PIPE "B" IS 174 FOOT
 - THE INLET ENDS SHALL BE STEP BEVELED AT A 2:1 SLOPE ON THE REQUIRED SKEW ANGLE PRIOR TO INSTALLATION & PER D-27.00.
 - THE OUTLET END SHALL BE CUT FLUSH WITH THE DOWNSTREAM HEADWALL AFTER INSTALLATION.
 - THE GAUGE OF THE PIPES SHALL BE AS RECOMMENDED BY THE MANUFACTURER FOR A HS-20 LOADING AND HEIGHT OF COVER OF 5 FEET
 - THE TYPE I AND II HEADWALLS TO BE INSTALLED AT THIS CROSSING SHALL BE FURNISHED IN EITHER STEEL OR PRECAST CONCRETE AS DETAILED ON SHEETS 37 & 38. HEADWALLS MAY BE SUPPLIED WITH CONSTRUCTION JOINTS OTHER THAN THOSE DETAILED, PROVIDED THE CONTRACTOR HAS SUBMITTED AND HAD THEM APPROVED ON THE SHOP DRAWINGS.
- DURING THE RECONSTRUCTION OF THIS CROSSING, THE FLOW IN JORDAN CREEK SHALL NOT BE IMPEDED EXCEPT AS NOTED BELOW.
 - COMPLETE THE REQUIREMENTS LISTED IN THE T.C.P.
 - THE FOLLOWING CONSTRUCTION SEQUENCE IS SUGGESTED, HOWEVER, OTHERS MAY BE SUBMITTED FOR APPROVAL.
 - SUBMIT A PLAN FOR SUPPORTING THE EXISTING TELEPHONE DUCTS BETWEEN "0+13+00 AND "0+14+00 WHILE THE CROSSING IS BEING RECONSTRUCTED. THIS PLAN SHALL BE SUBMITTED AT THE PRECONSTRUCTION CONFERENCE AND SUFFICIENT TIME SHALL BE ALLOWED FOR IT'S REVIEW AND APPROVAL BY D.O.T. AND THE TELEPHONE COMPANY.
 - INSTALL AND TEST THE 20 INCH WATER CONDUIT BETWEEN "0+13+10 AND "0+14+00 LT.
 - "0+12+00, 70' RT. TO "0+12+70, 43' RT. CONSTRUCT THE DIVERSION CHANNEL AND BERM AS DETAILED BELOW.



- INSTALL PIPE "A", IT'S HEADWALLS, AND AND RMP DIVERSION.
- BALLAST PIPE "A".
- EXCAVATE AND INSTALL THE REQUIRED RIPRAP ON THE EAST SIDE OF PIPE "A" AT BOTH ENDS.
- DIVERT STREAM FLOW THROUGH PIPE WHEN AND AS DIRECTED.
- COMPLETE THE ENTIRE CROSSING TO WITHIN 3 INCHES OF FINISHED GRADE AND TO A MINIMUM WIDTH OF 28 FEET. CURBS, SIDEWALKS, AND HANDRAILS MAY BE INSTALLED AT A LATER DATE, HOWEVER, ADEQUATE TRAFFIC CONTROL MEASURES SHALL BE REQUIRED IN THE INTERIM.
- DURING THE INSTALLATION OF THE 4" R.M. P. BETWEEN "0+12+65+ AND "0+14+00 A REPRESENTATIVE OF THE TELEPHONE COMPANY SHALL BE PRESENT.
 - STUB EAST END OF 4" R.M.P. INTO THE TELEPHONE MANHOLE AT "0+12+65+ AND REGROUT MANHOLE.
 - TIE THE WEST END R.M.P. TO EXISTING PVC.
- NO TRAFFIC OR CONSTRUCTION EQUIPMENT SHALL BE ALLOWED TO CROSS OVER THE PIPES UNTIL THE MINIMUM HEIGHT OF COVER REQUIREMENTS RECOMMENDED BY THE PIPE MANUFACTURER HAS BEEN PLACED OVER THE PIPES.
- ANY PUMPS UTILIZED IN THE RECONSTRUCTION OF THIS CROSSING SHALL HAVE IT'S SUCTION HOSES PLACED IN A 2 FOOT SQUARE SCREENED BOX. THE OPENING SIZE OF SCREEN SHALL BE 0.04 INCHES. TO REDUCE FISH IMPINGEMENT ON THE SCREENED SURFACES WATER VELOCITY AT THE SCREEN/WATER INTERFACE SHALL NOT EXCEED 0.1 FT./SECOND WHEN THE PUMP IS OPERATING.
- PAYMENT FOR FURNISHING, FAVRICATING, AND INSTALLING THE TYPE I AND TYPE II HEADWALLS, STRUCTURAL EXCAVATION FOR THE HEADWALLS AND PIPES, THE UNCRUSHED GRAVEL, BEDDING AND BACKFILL IS INCIDENTAL TO ITEM 603(1).
- IF THE CONTRACTOR ELECTS TO FABRICATE AND INSTALL THE STEEL HEADWALLS, THEY SHALL BE GALVANIZED AFTER ALL FABRICATION HAS BEEN COMPLETED AND IN ACCORDANCE WITH AASHTQ 218.
- * EXACT CURVATURE OF THESE CUTS AND LENGTHS OF 3/8 ANGLES TO BE DETERMINED BY THE FABRICATOR. THIS INFORMATION SHALL BE SHOWN ON THE SHOP DRAWINGS.
- THE GRADE OF STEEL FOR THE STEEL HEADWALL OPTION SHALL BE A-36.

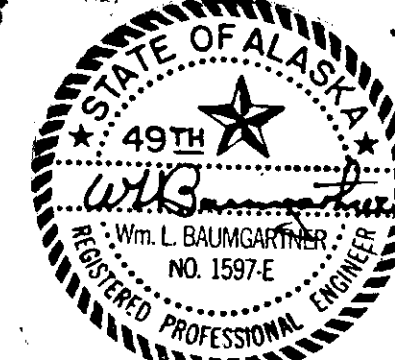
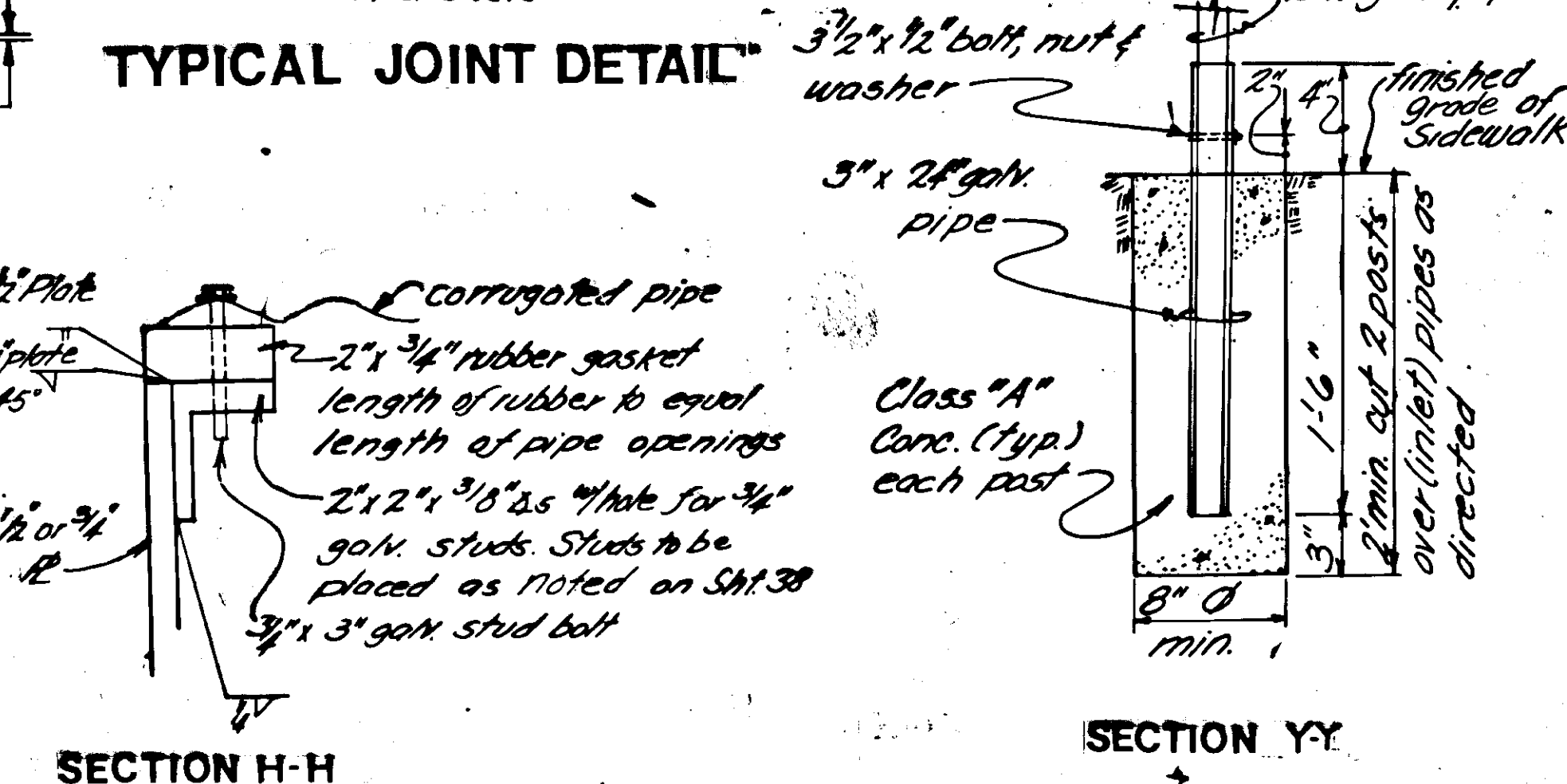
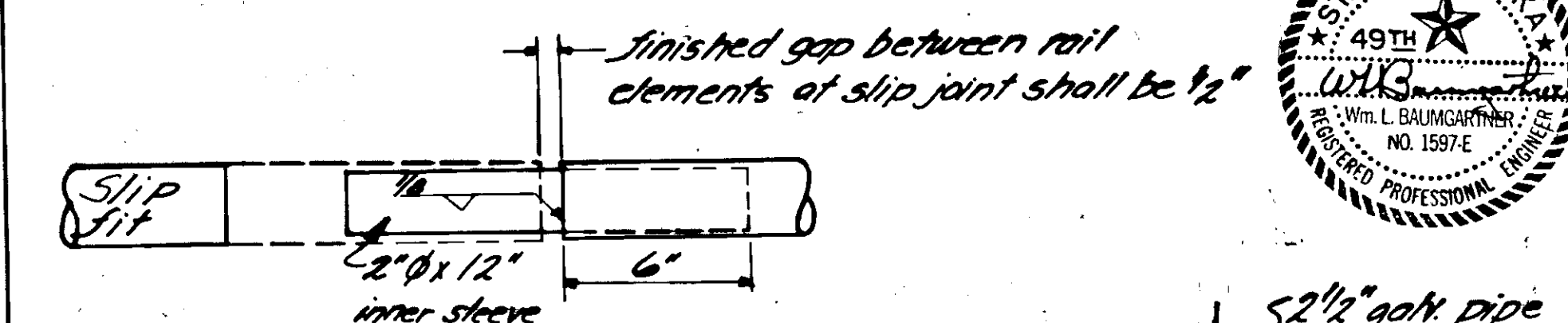
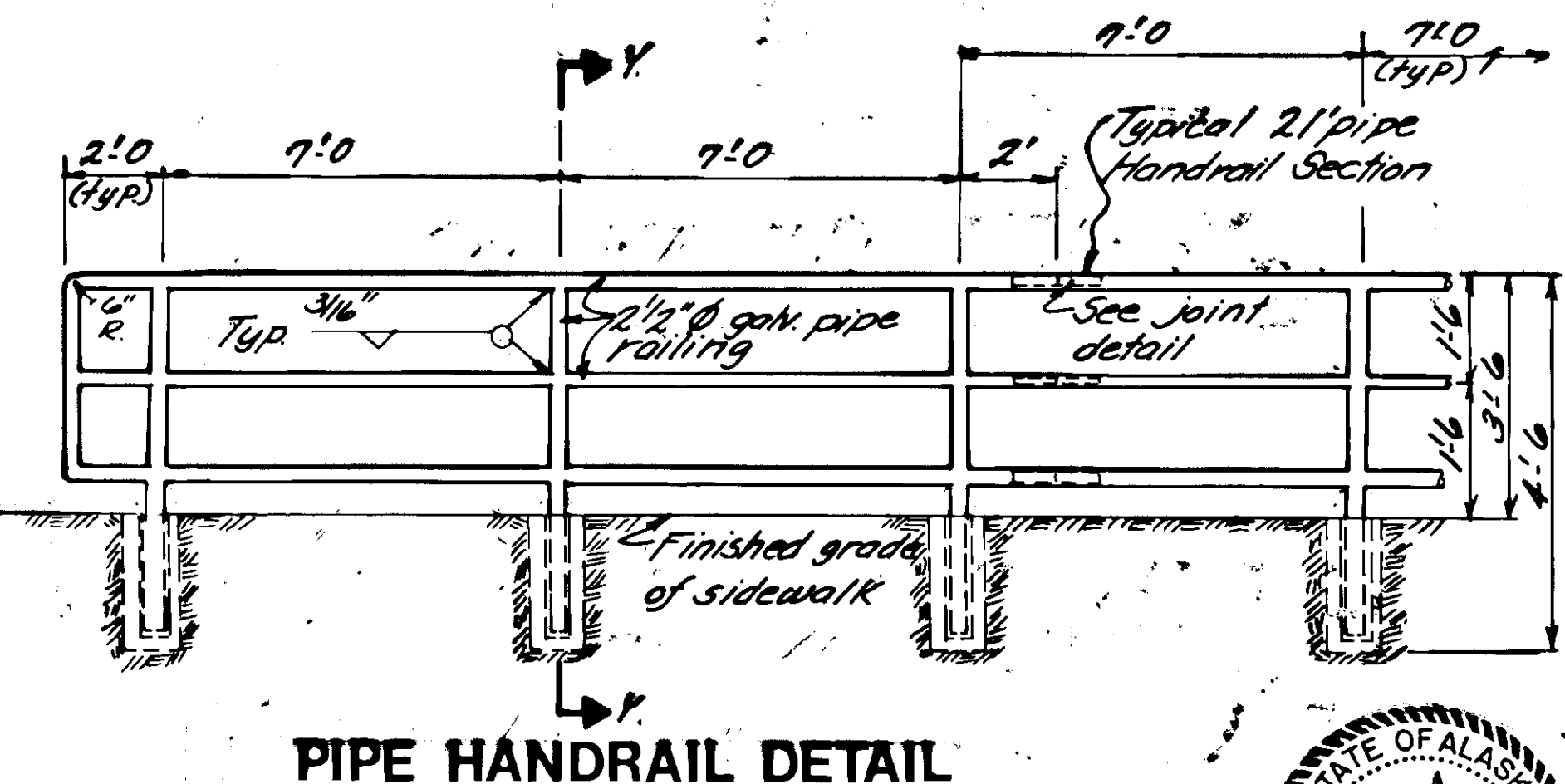
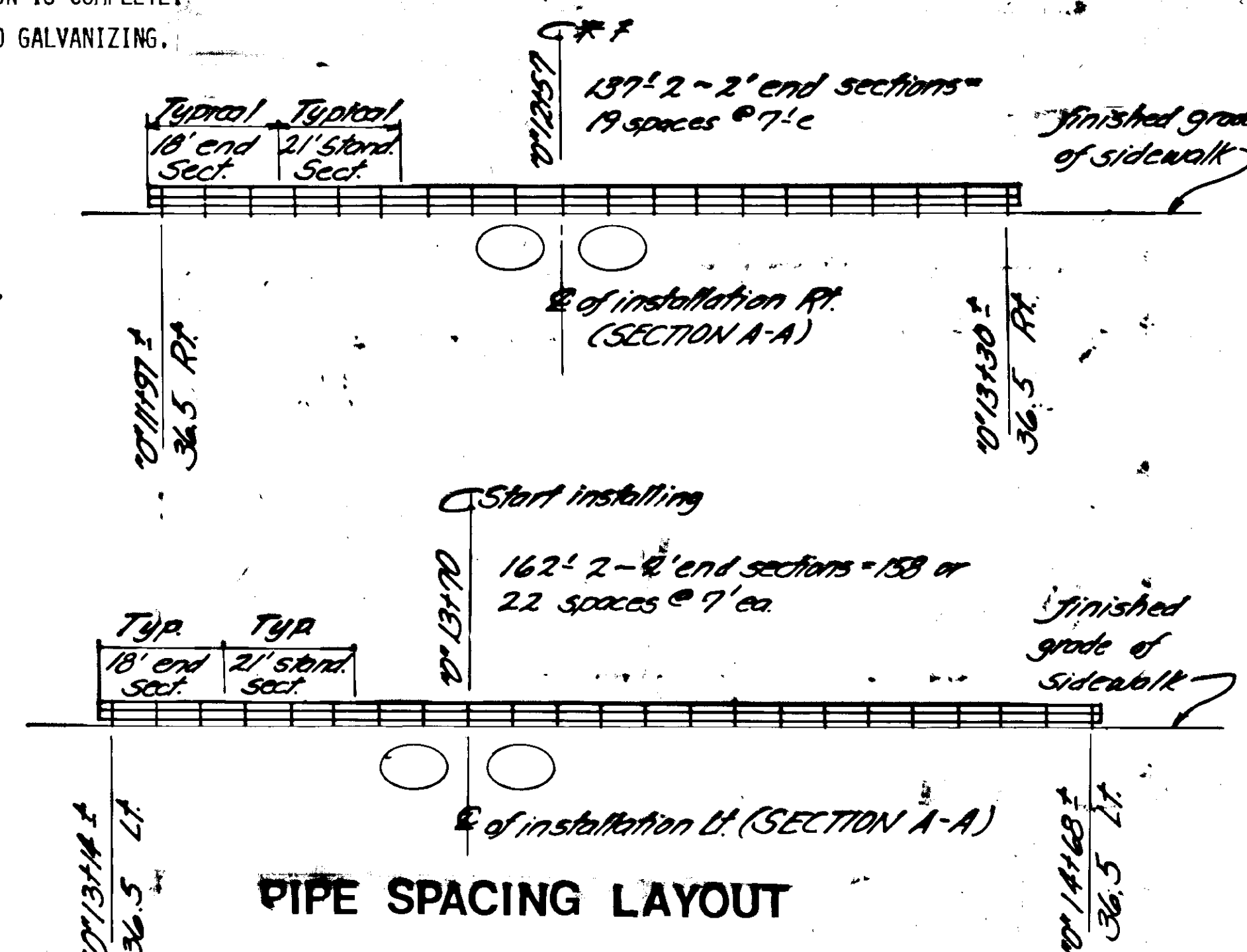
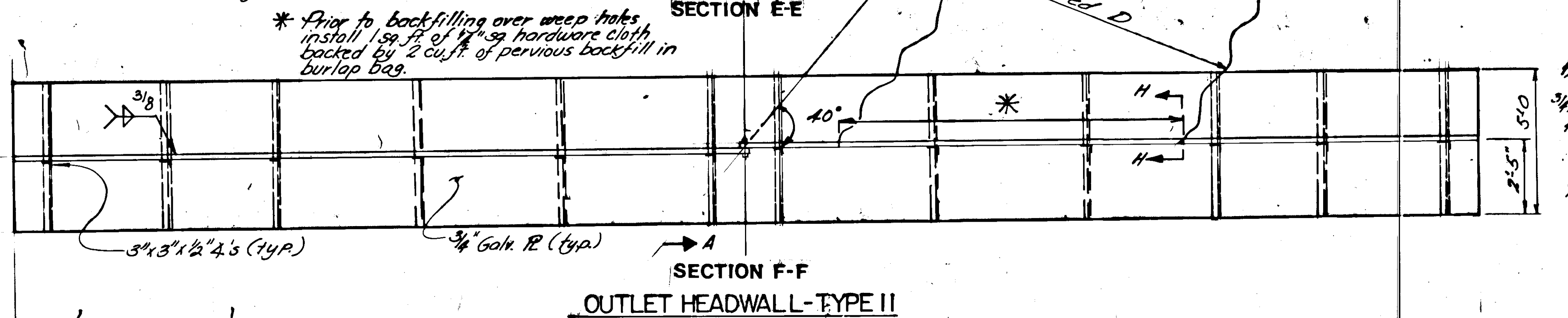
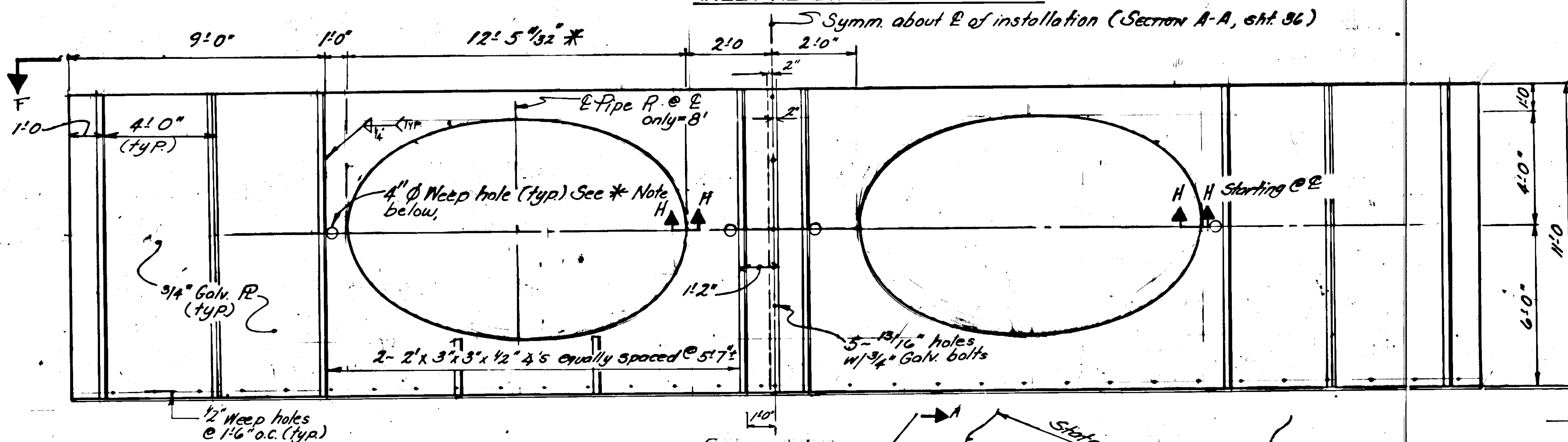
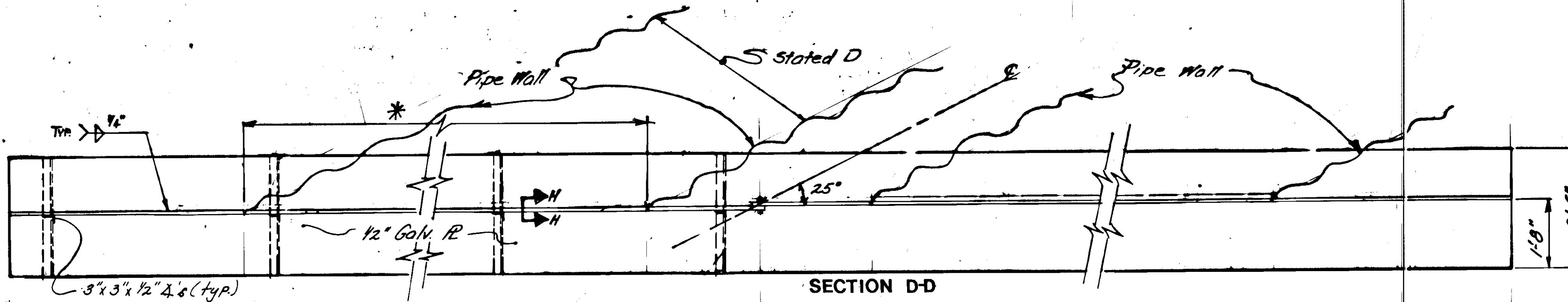
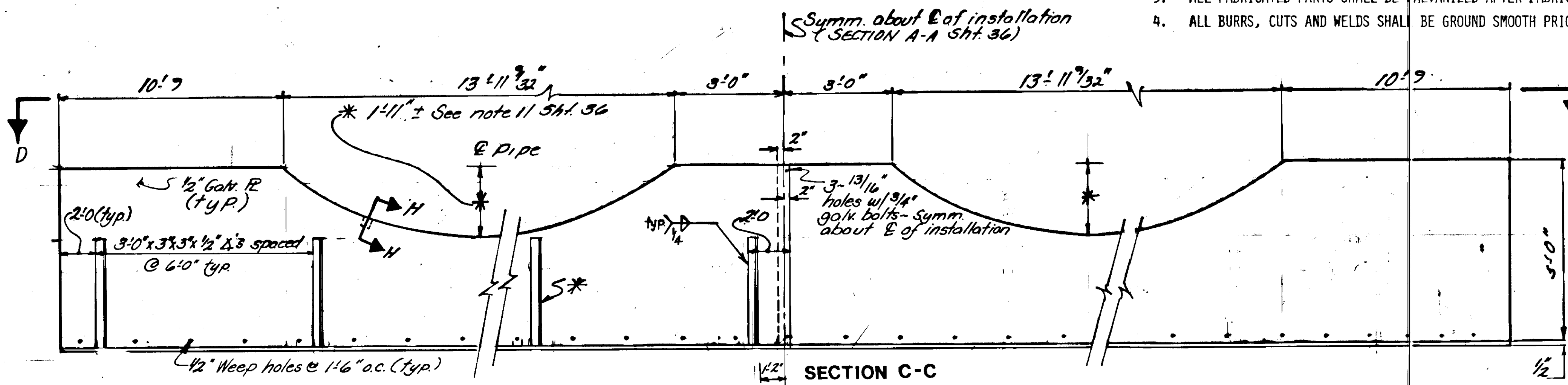


JORDAN CREEK STEEL HEADWALL OPTION DETAILS & NOTES

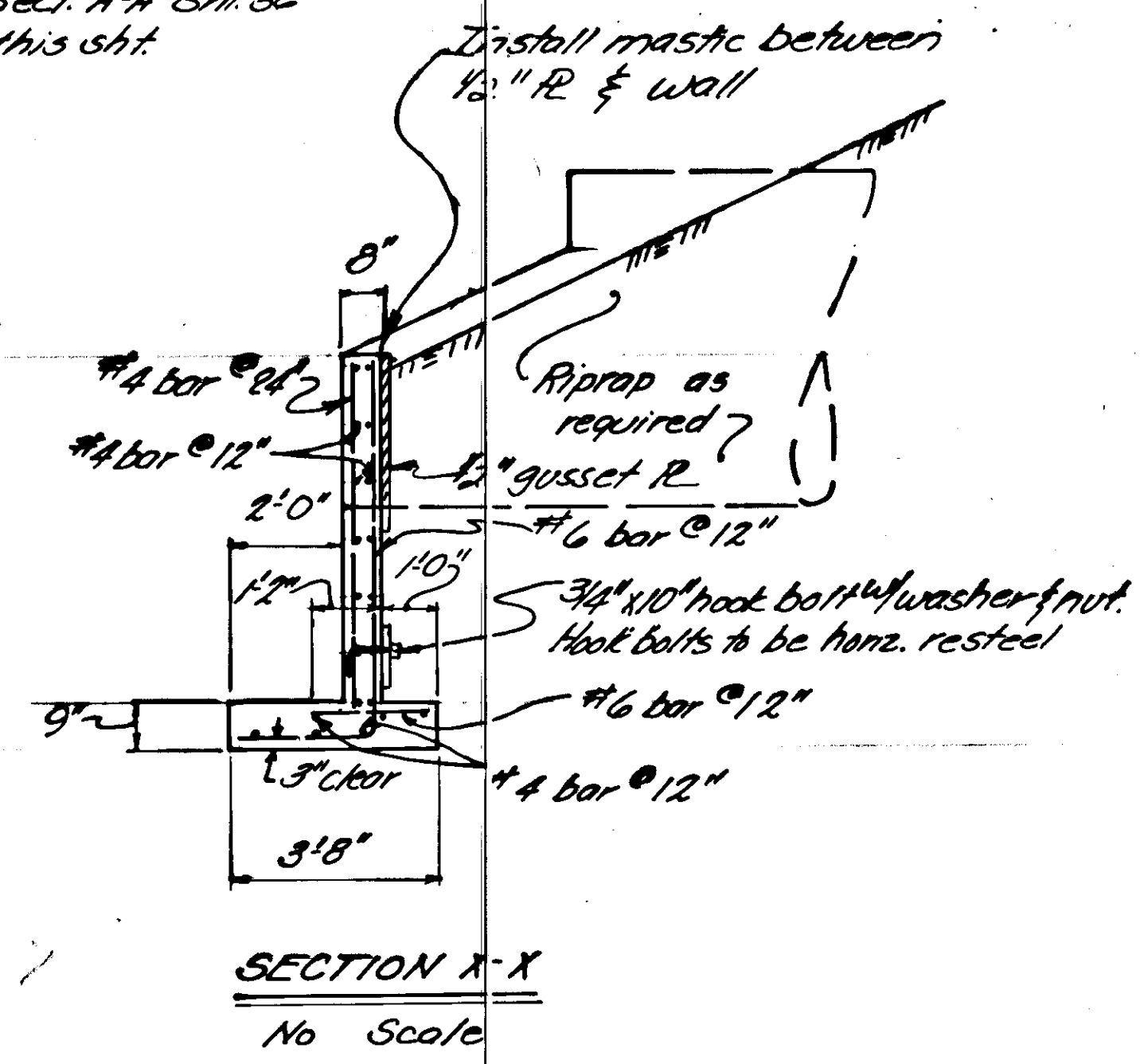
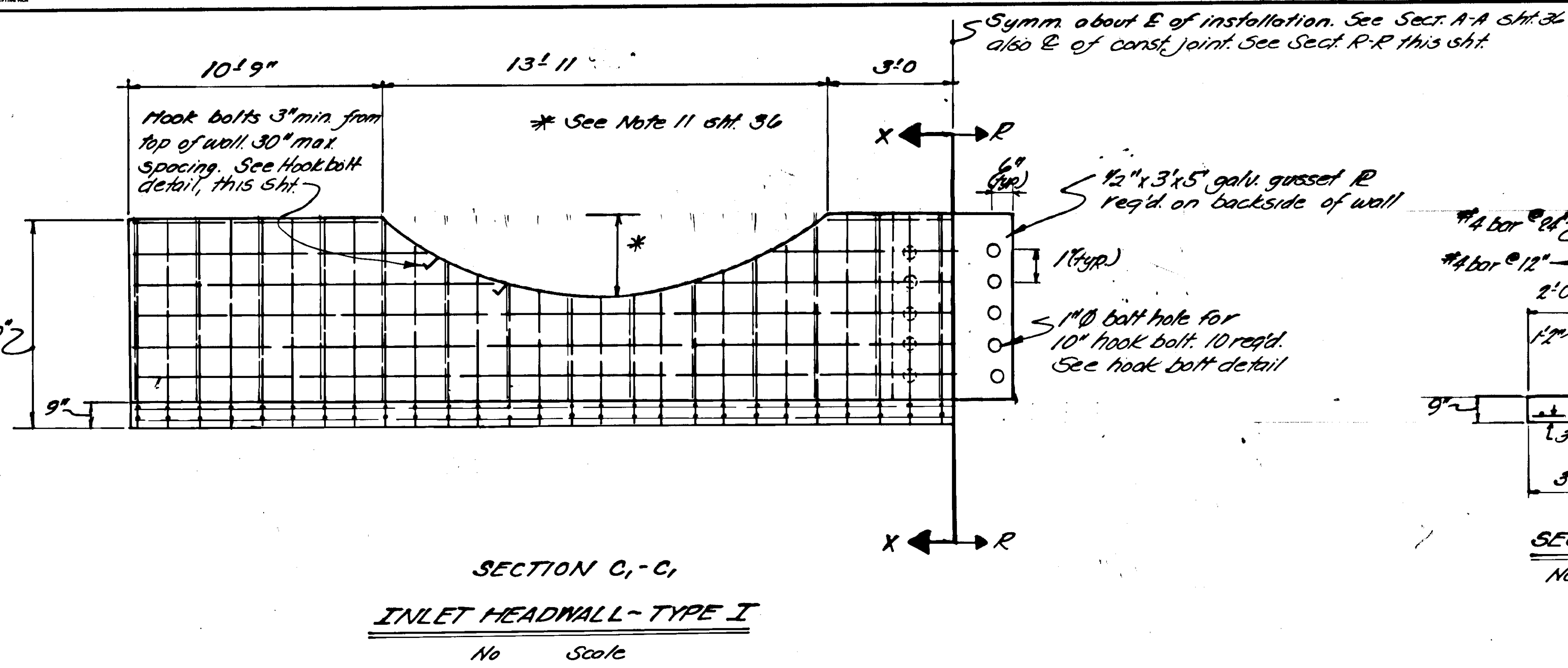
HANDRAIL NOTES:

1. SLEEVE JOINTS SHALL BE PROVIDED BETWEEN EVERY THIRD POST.
2. PIPE HANDRAIL SECTIONS MAY BE CUT AND POST SPACING MAY VARY AS DIRECTED BY THE ENGINEER.
3. ALL FABRICATED PARTS SHALL BE GALVANIZED AFTER FABRICATION IS COMPLETE.
4. ALL BURRS, CUTS AND WELDS SHALL BE GRIND SMOOTH PRIOR TO GALVANIZING.

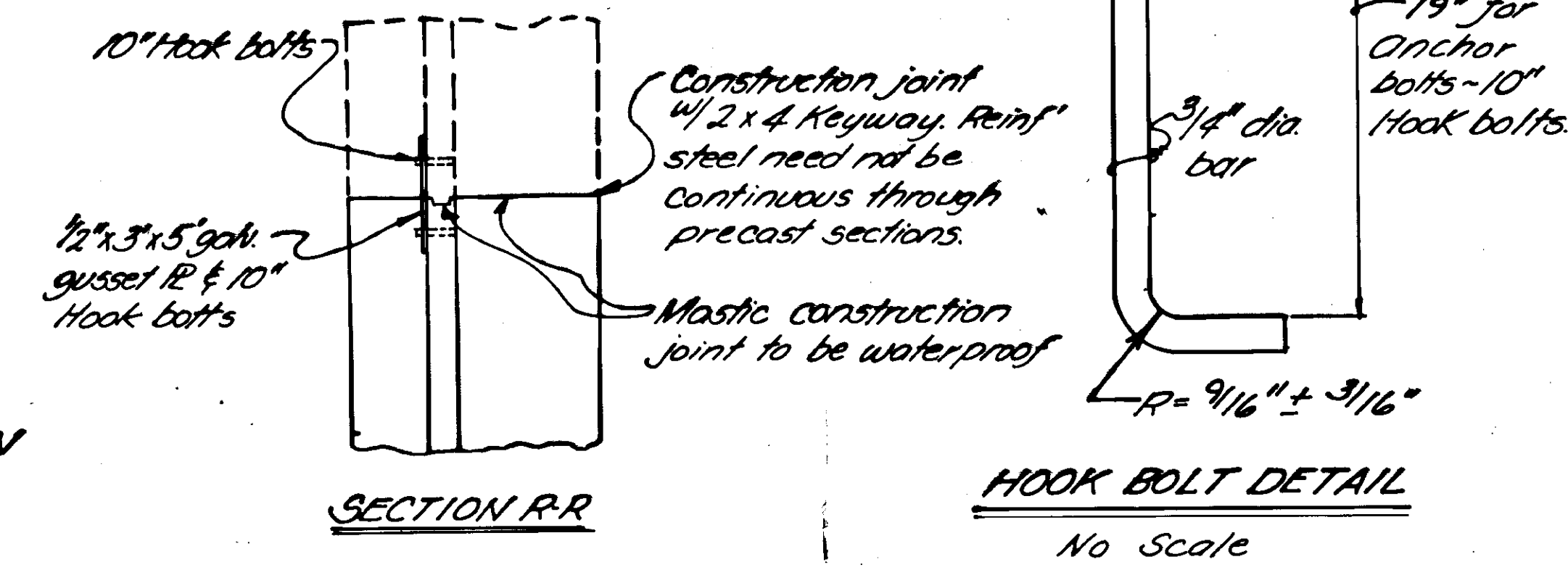
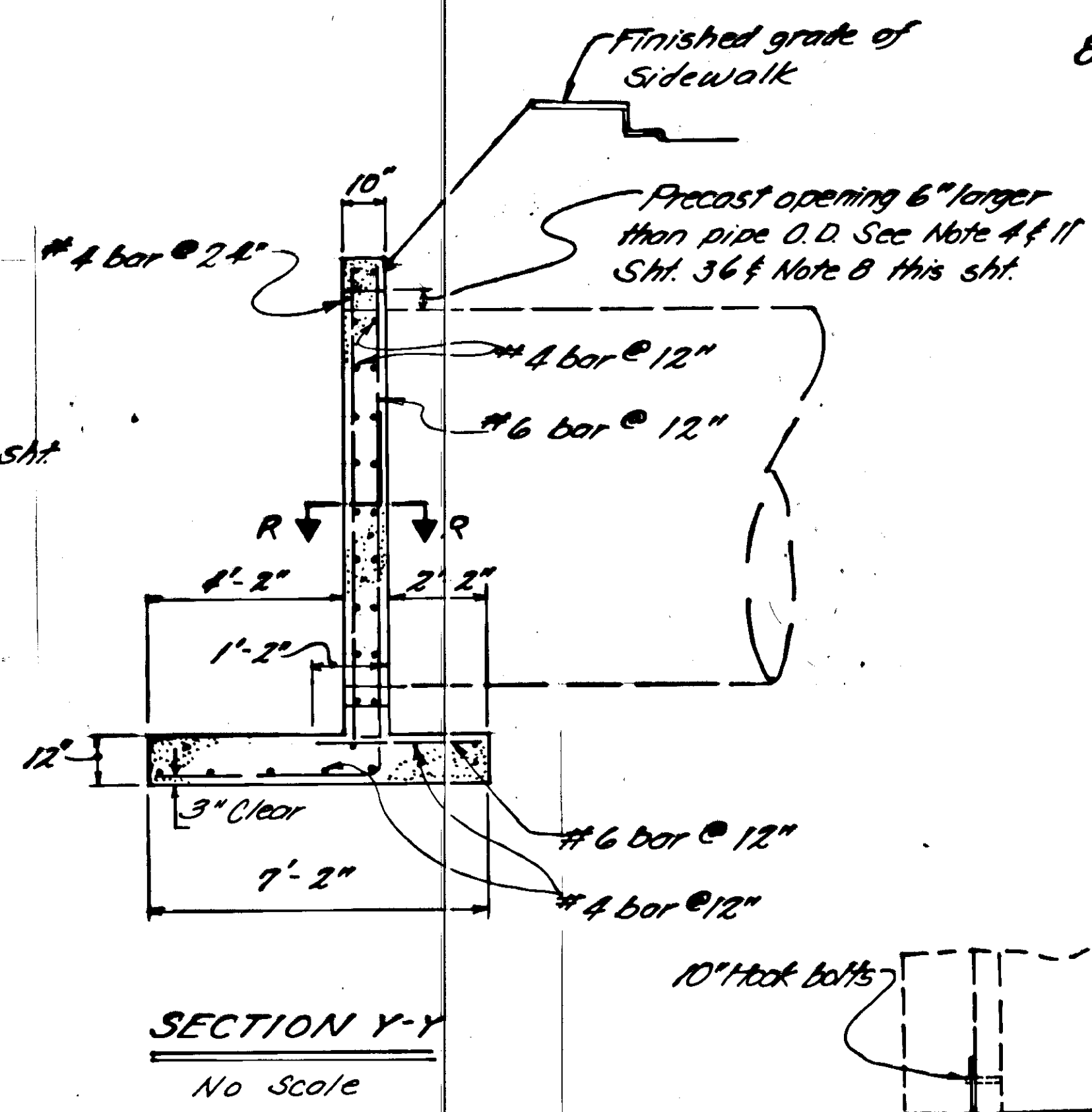
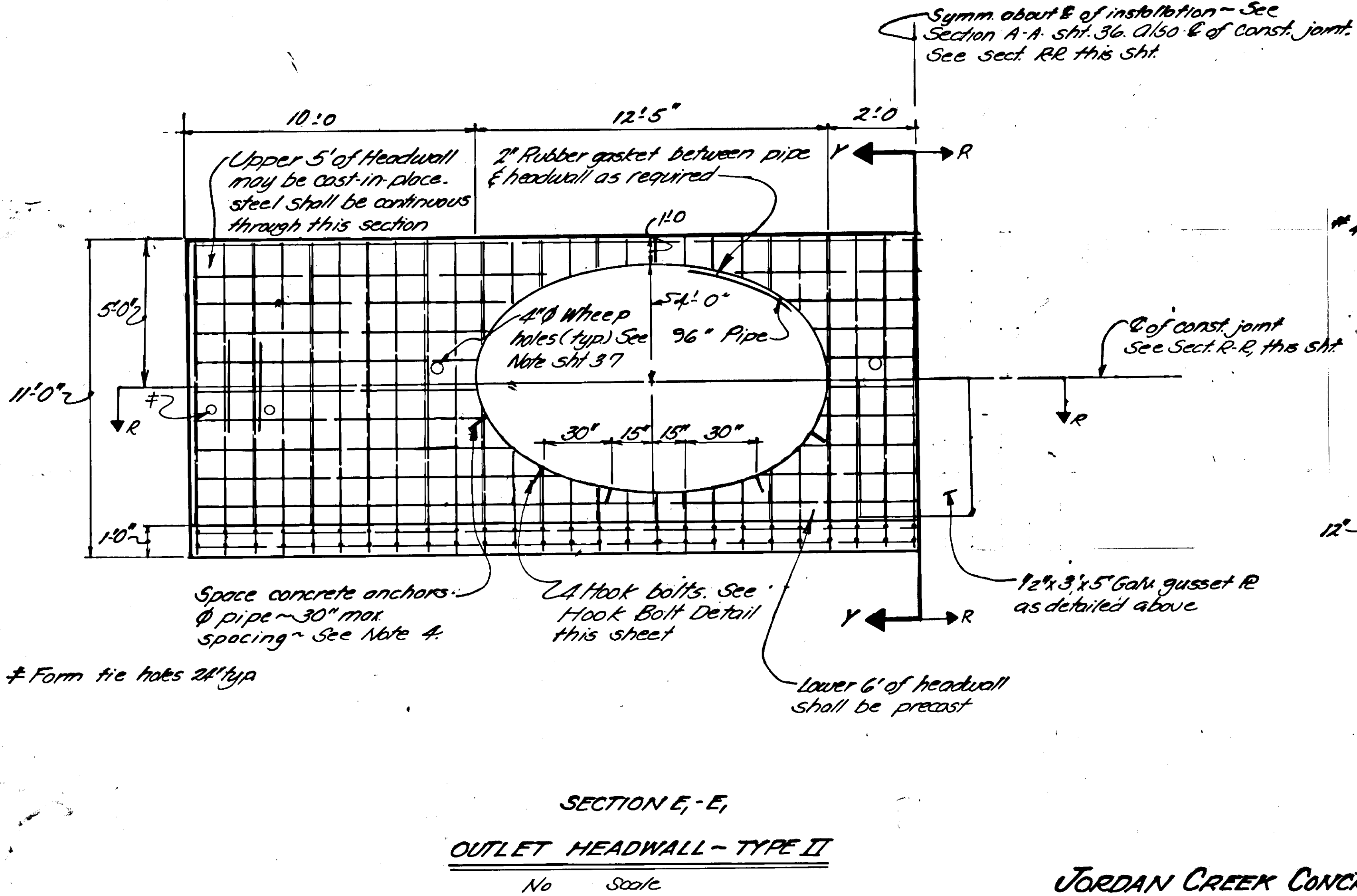
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960(4)	1984	57	49



STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960(4)	1984	38	49



- NOTES**
1. All concrete shall be Class A w/ $f_c = 3,000$ psi used on the headwalls.
 2. Reinforcement steel shall be of intermediate grade.
 3. All exposed concrete corners shall be chamfered 3/4".
 4. Hook bolts & nuts or 3/4" x 12" Cinch Clinch concrete Anchor studs shall be Galvanized.
 5. Headwalls shall be skewed to the culverts as shown on sht. 37.
 6. Reinforcement shall be placed 2" clear from surface of concrete unless otherwise noted.
 7. One construction joint is detailed per headwall. However, the contractor may request others on the Shop Drawings.
 - A. A shop drawing shall be approved prior to beginning any fabrication.
 8. All construction joints shall be grouted with the joint mortar shown in Section 705-2.04 of the "Standard Specifications for Highway Construction."
 8. Reinforcing steel, as detailed, does not account for hoisting, handling, etc. & it shall be the contractor's responsibility to insure that shop drawings indicate the steel required for hoisting, handling, transporting, etc. See Section 502-3.03 of the 1981 "Standard Specifications for Highway Construction".



**JORDAN CREEK CONCRETE HEADWALL OPTION
DETAILS & NOTES**

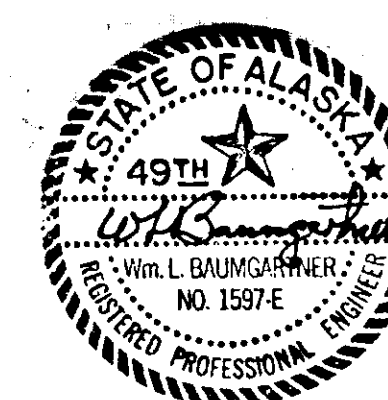
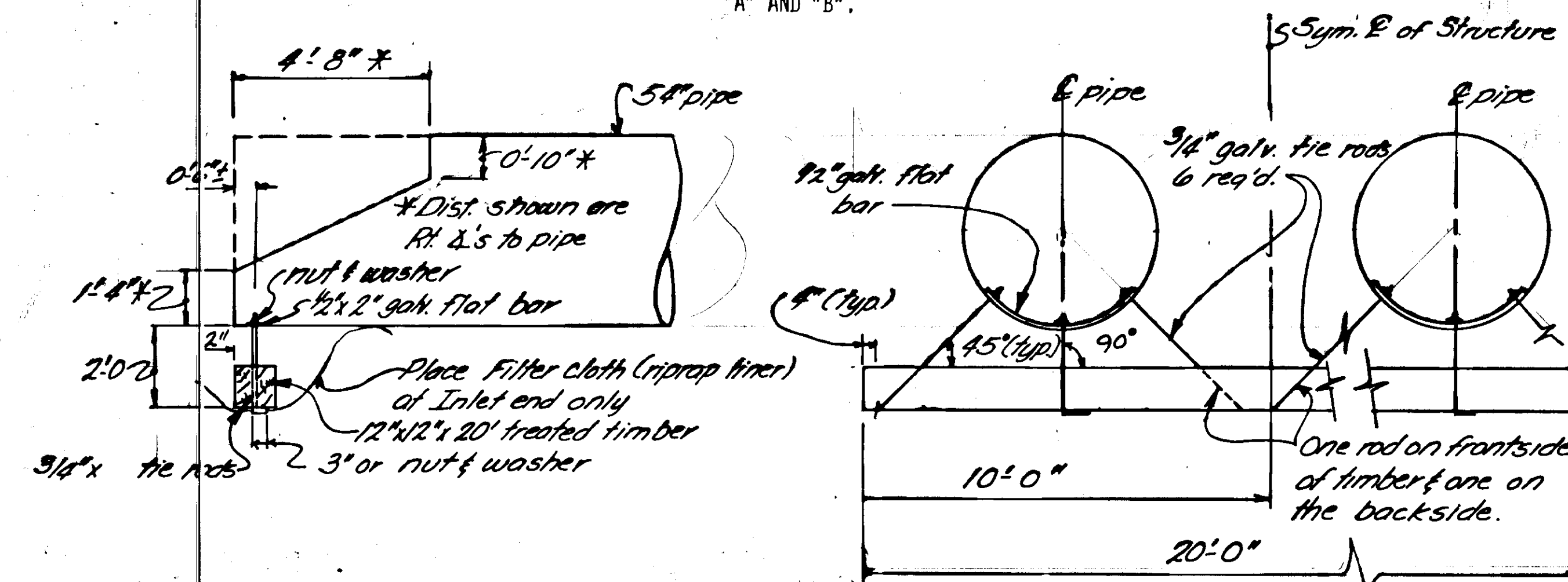
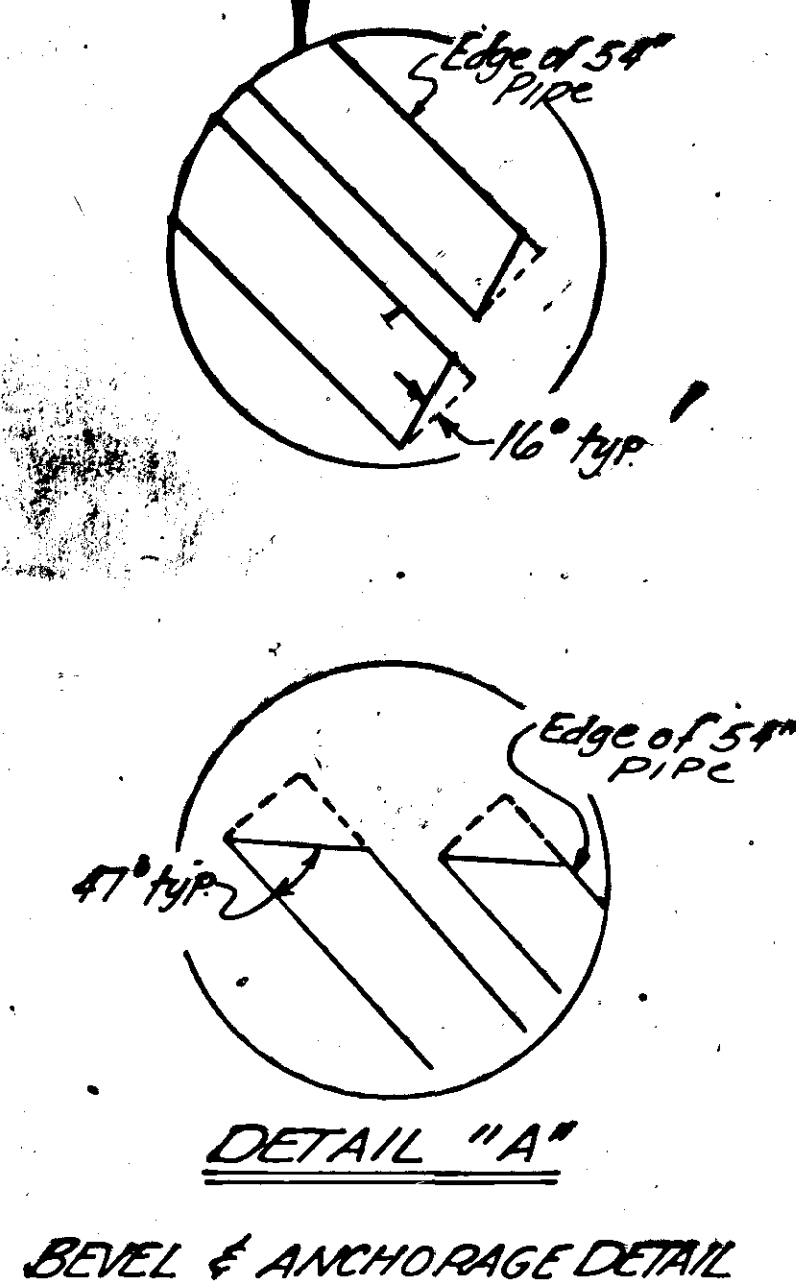
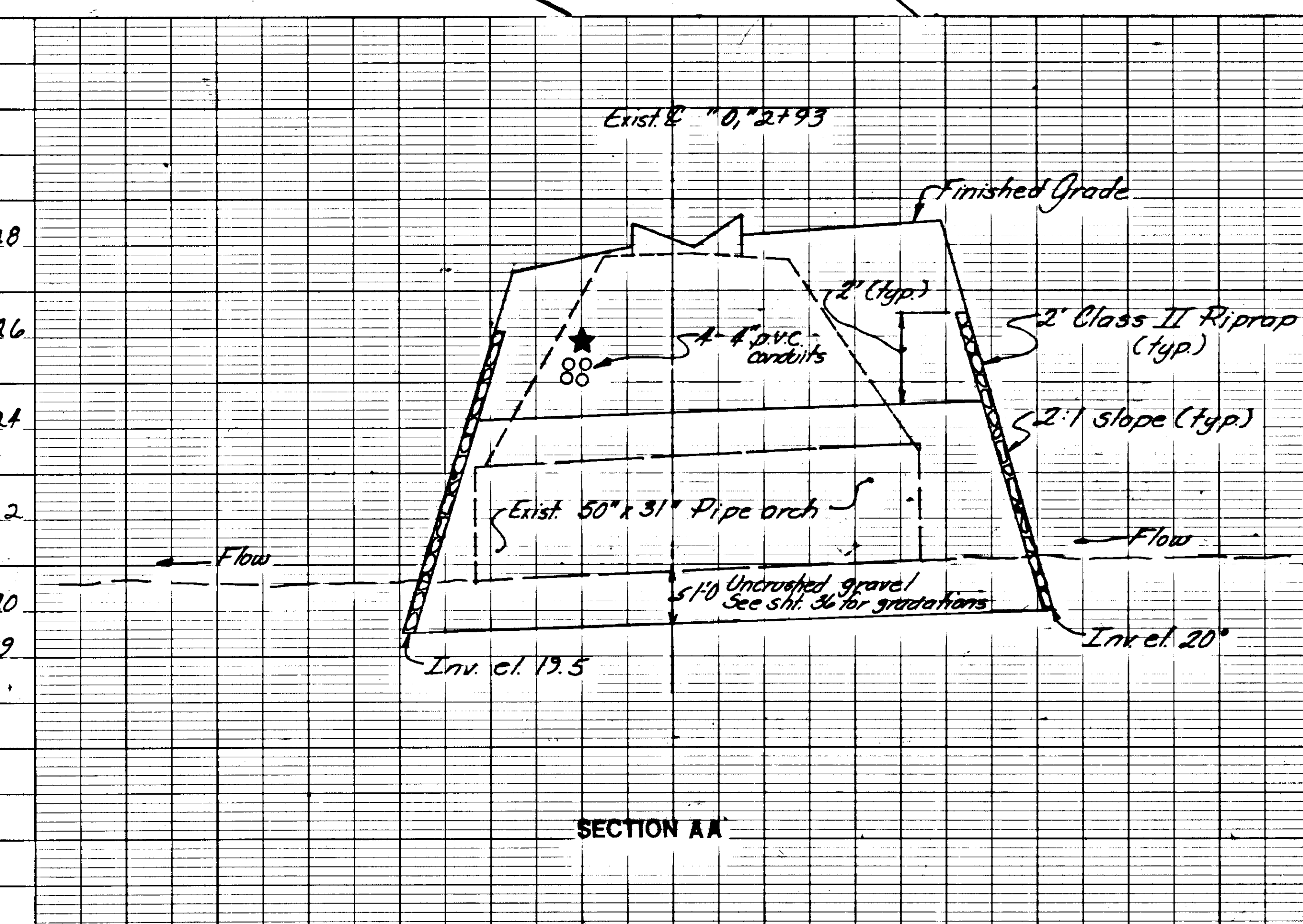
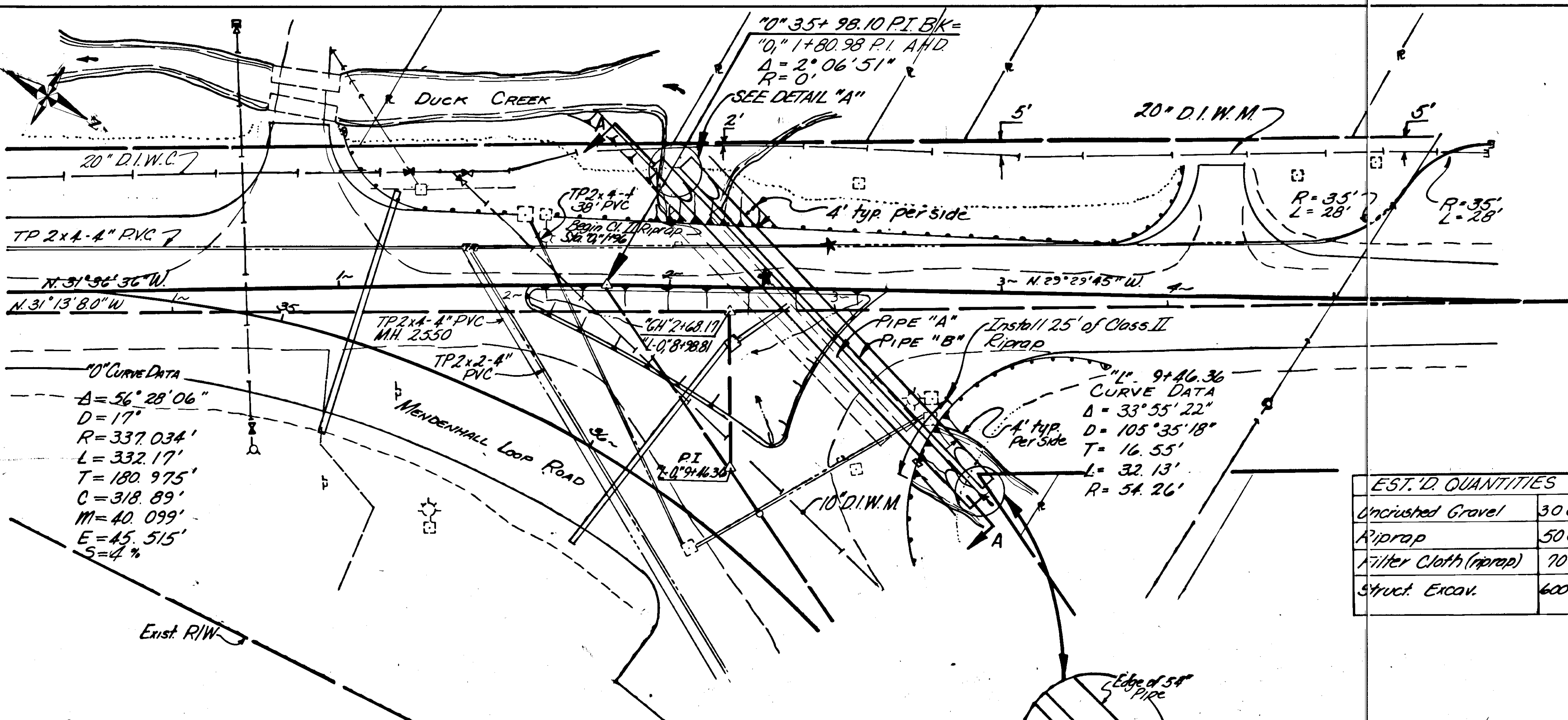
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960(4)	1984	39	49

DUCK CREEK SITE PLAN DETAILS & NOTES

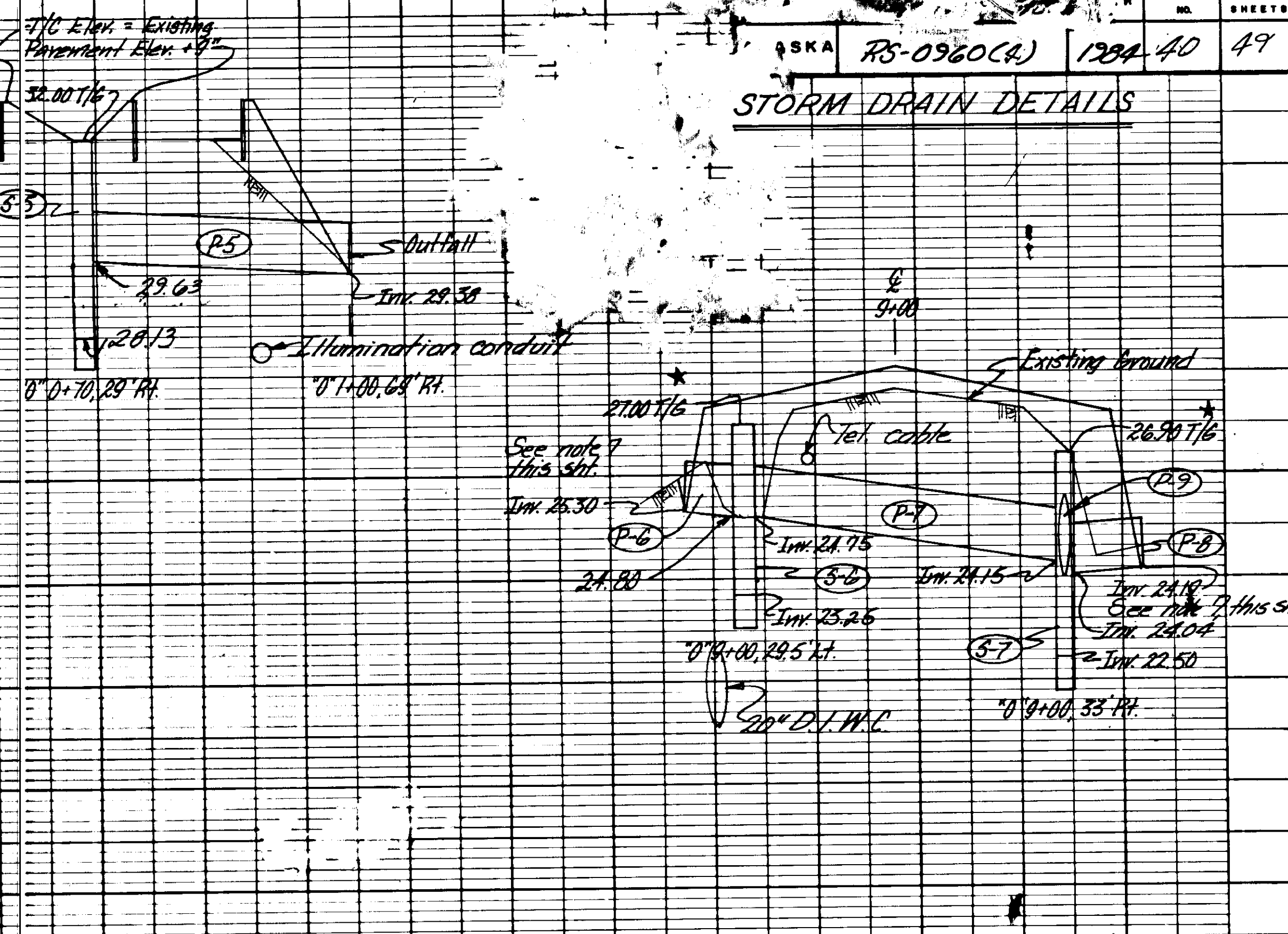
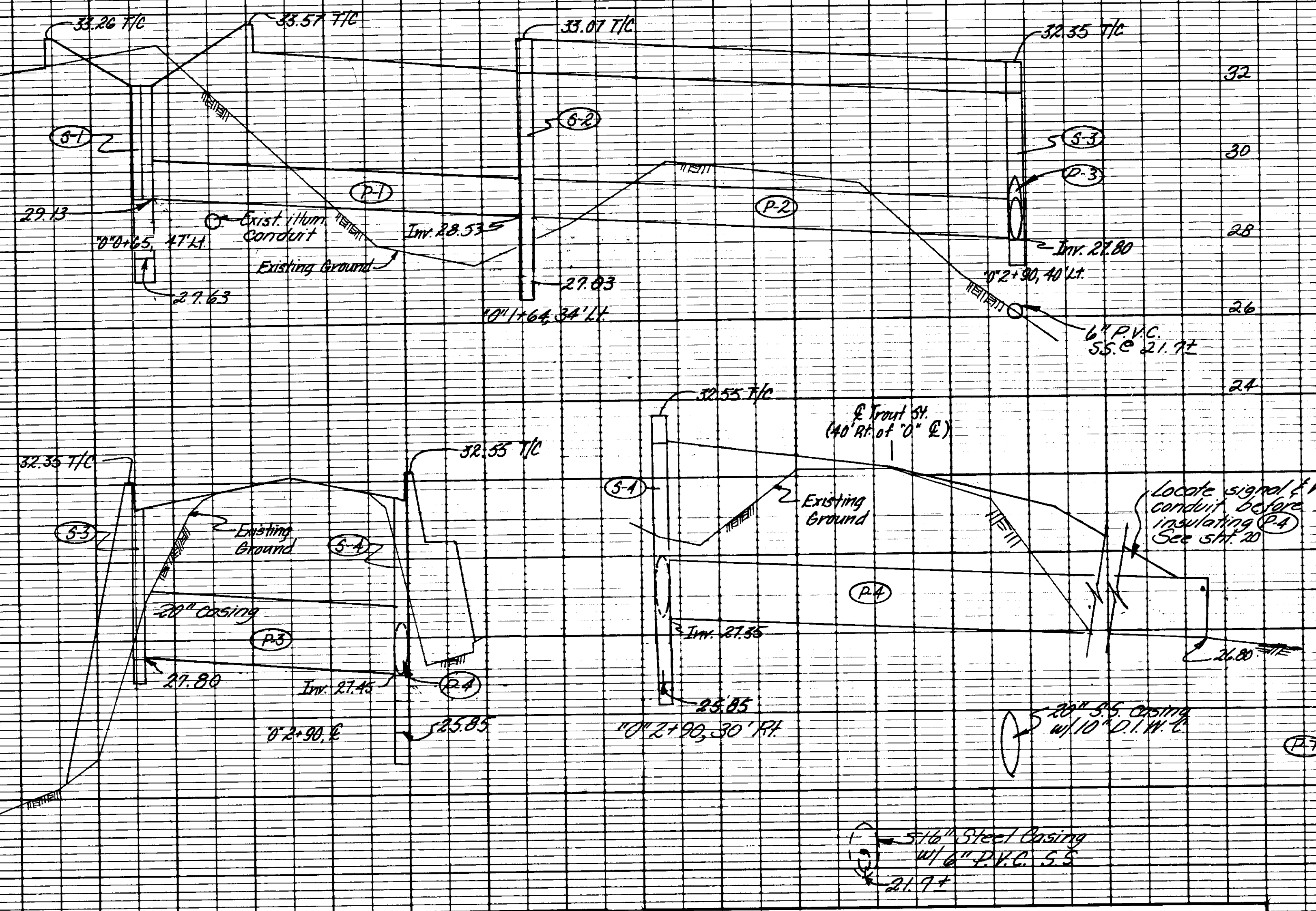
NOTES

- "0" 2+36 INSTALL 2-54 INCH PIPES ON A SKEW ANGLE OF $46^{\circ} 30'$. PIPE "A" LENGTH IS 140' AND PIPE "B" LENGTH IS 134'. THE ENDS OF BOTH PIPES SHALL BE STEP BEVELED FOR A 2:1 SLOPE, ON THE GIVEN SKEW ANGLE AND AS DETAILED BELOW. THE GAUGE OF THESE PIPES SHALL BE AS RECOMMENDED BY THE MANUFACTURER FOR HS-20 LOADING WITH A HEIGHT OF COVER OF 5 FEET.
- NO WORK AT THIS CROSSING MAY BEGIN UNTIL ALL THE REQUIREMENTS LISTED IN THE T.C.P. FOR THIS CROSSING HAVE BEEN COMPLETED.
- ONCE THE CONTRACTOR CLOSES THIS AREA TO TRAFFIC, HE SHALL HAVE 3 CONSECUTIVE DAYS TO COMPLETE THE CROSSING (FULL WIDTH) TO WITHIN 4 1/2 INCHES OF FINISHED GRADE.
- NO TRAFFIC OR CONSTRUCTION EQUIPMENT SHALL BE ALLOWED TO CROSS OVER THESE PIPES UNTIL THE MINIMUM HEIGHT OF COVER REQUIREMENTS RECOMMENDED BY THE PIPE MANUFACTURER HAVE BEEN PLACED OVER THE PIPES.
- DURING THE RECONSTRUCTION OF THIS CROSSING, THE FLOW OF DUCK CREEK SHALL NOT BE IMPEDED.
- PAYMENT PER THE LINER FOOT OF 54 INCH PIPE INCLUDES ALL 205 ITEMS, UNCRUSHED GRAVEL TO BE PLACED IN THE INVERTS OF THE PIPES, THE END ANCHORAGES, AND STRUCTURAL EXCAVATION REQUIRED TO INSTALL PIPES "A" AND "B".

EST. QD QUANTITIES	
Uncrushed Gravel	30 cy
Riprap	50 cy
Filter Cloth (riprap)	70 sy
Struct. Excav.	600 cy



STORM DRAIN DETAILS

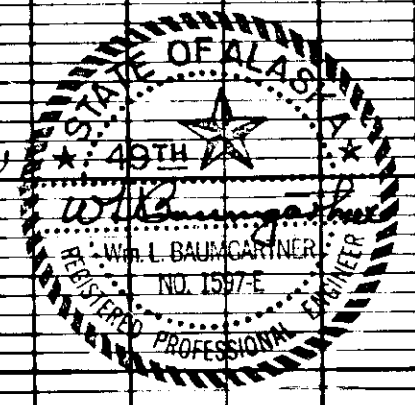
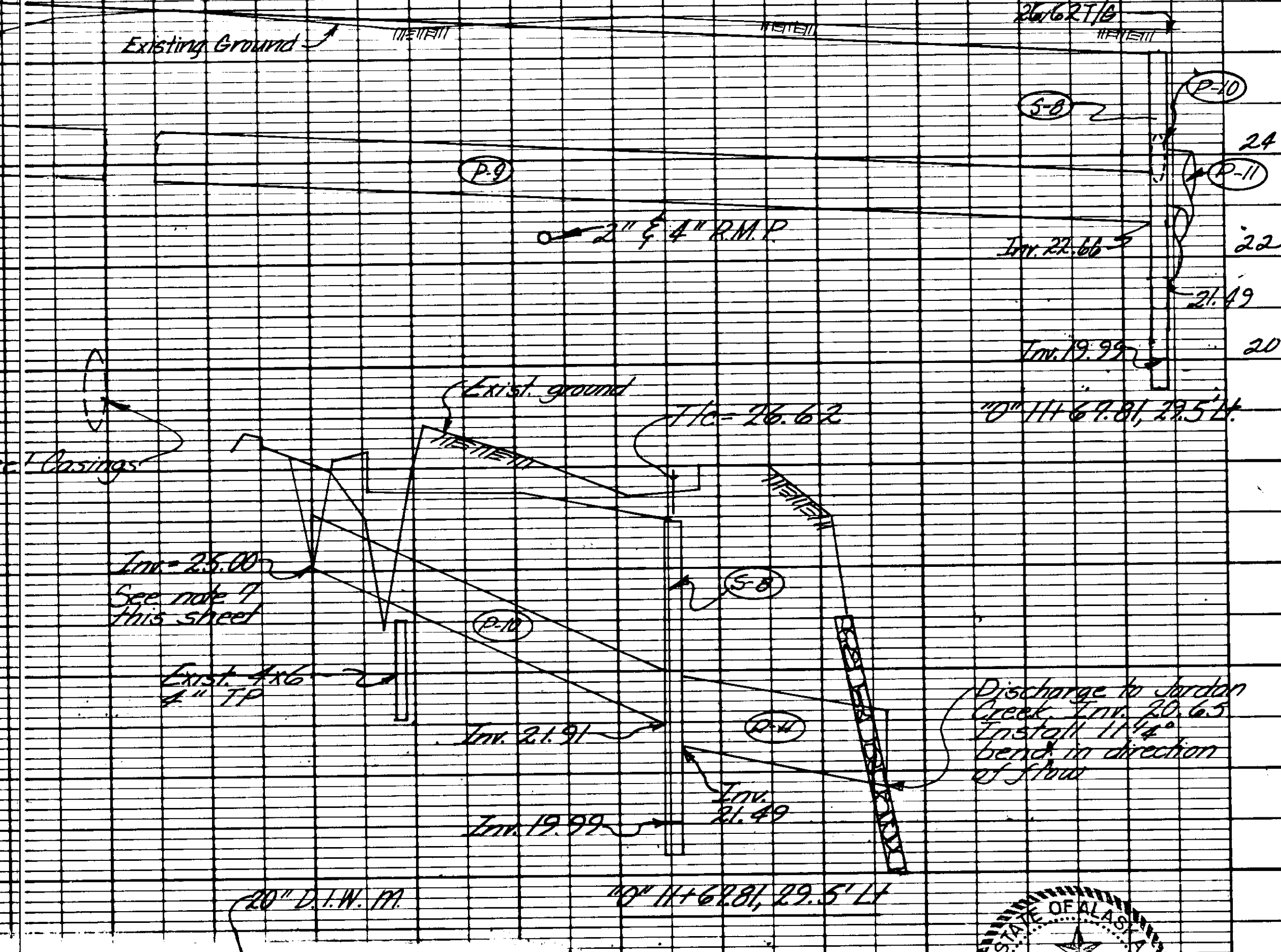


PIPE SUMMARY					
PIPE	DIAMETER	LENGTH	FROM	TO	
			STRUCTURE	STRUCTURE	
			ELEV.	ELEV.	
P-1	22"x13"	100'	S-1	S-2	28.53
P-2	22"x13"	124'	S-2	S-3	27.80
P-3	22"x13"	70'	S-3	S-4	27.45
P-4	22"x13"	164'	S-4	S-5	26.80
P-5	12"	60'	S-5	S-6	25.30
P-6	22"x13"	10'	S-6	S-7	24.75
P-7	22"x13"	60'	S-7	S-8	24.15
P-8	22"x13"	14'	S-8	S-9	24.04
P-9	22"x13"	288'	S-9	S-10	22.66
P-10	22"x13"	76'	S-10	S-11	21.91
P-11	22"x13"	42'	S-11	S-12	20.65
P-12	22"x13"	74'	S-12	S-13	20.58
P-13	22"x13"	10'	S-13	S-14	21.81
P-14	22"x13"	100'	S-14	S-15	21.36
P-15	22"x13"	8'	S-15	S-16	22.34
P-16	22"x13"	20'	S-16	S-17	22.20
P-17	22"x13"	38'	S-17	S-18	22.80
P-18	22"x13"	24'	S-18	S-19	23.00
P-19	22"x13"	8'	S-19	S-20	22.99
P-20	22"x13"	58'	S-20	S-21	23.20
P-21	22"x13"	18'	S-21	S-22	23.42
P-22	22"x13"	58'	S-22	S-23	20.94
P-23	22"x13"	16'	S-23	S-24	21.00
P-24	22"x13"	56'	S-24	S-25	21.92
P-25	22"x13"	76'	S-25	S-26	23.15
P-26	18"	20'	S-26	S-27	22.20
P-27	18"	6'	S-27	S-28	23.00

STRUCTURE SUMMARY					
STRUCTURE	TYPE	LOCATION	OFFSET	T/G EL.	INVERT
			LT.	RT.	
S-1	Field	"0" 0+65	47'		32.00
S-2	A	"0" 1+04	34'		32.80
S-3	A	"0" 2+90	40'		32.33
S-4	A	"0" 2+90		30'	32.55
S-5	Field	"0" 0+70		20'	32.00
S-6	A	"0" 9+00		29.5'	27.00
S-7	A	"0" 9+00		33'	26.90
S-8	B	"0" 11+67.81		29.5'	26.62
S-9	B	"0" 14+17.81		29.5'	26.07
S-10	Field	"0" 14+17.81		41'	25.50
S-11	A	"0" 15+17.80		29.5'	24.40
S-12	Field	"0" 15+17.80		41'	24.00
S-13	A	"0" 16+67.80		29.5'	25.00
S-14	Field	"0" 16+67.80		40.0'	24.81
S-15	Field	"0" 18+93		52'	25.00
S-16	A	"0" 20+67.81		29.5'	25.00
S-17	A	"0" 29+18.36		29.5'	22.60
S-18	A	"0" 33+48.37		29.5'	23.00
S-19	Field	"0" 33+48.37		29.5'	24.11
S-20	Field	"0" 36+17		50'	27.74
S-21	Field	"0" 36+77		55'	28.50

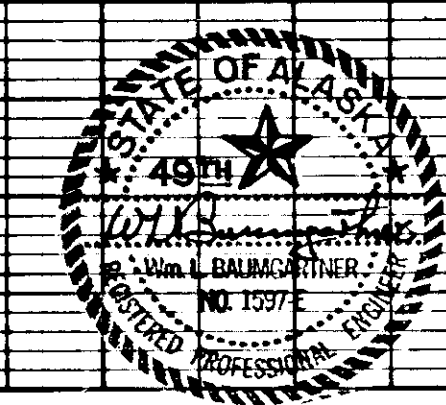
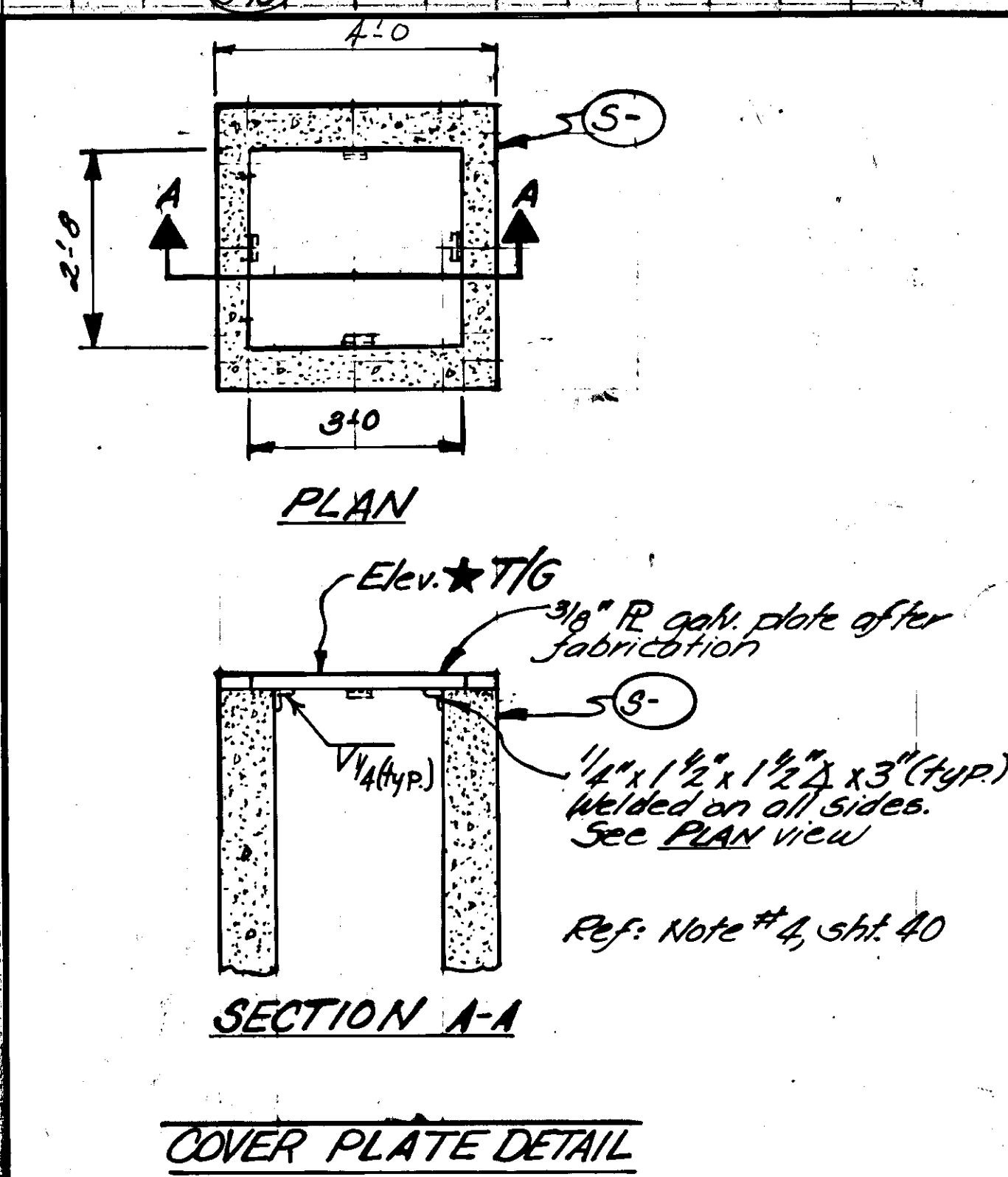
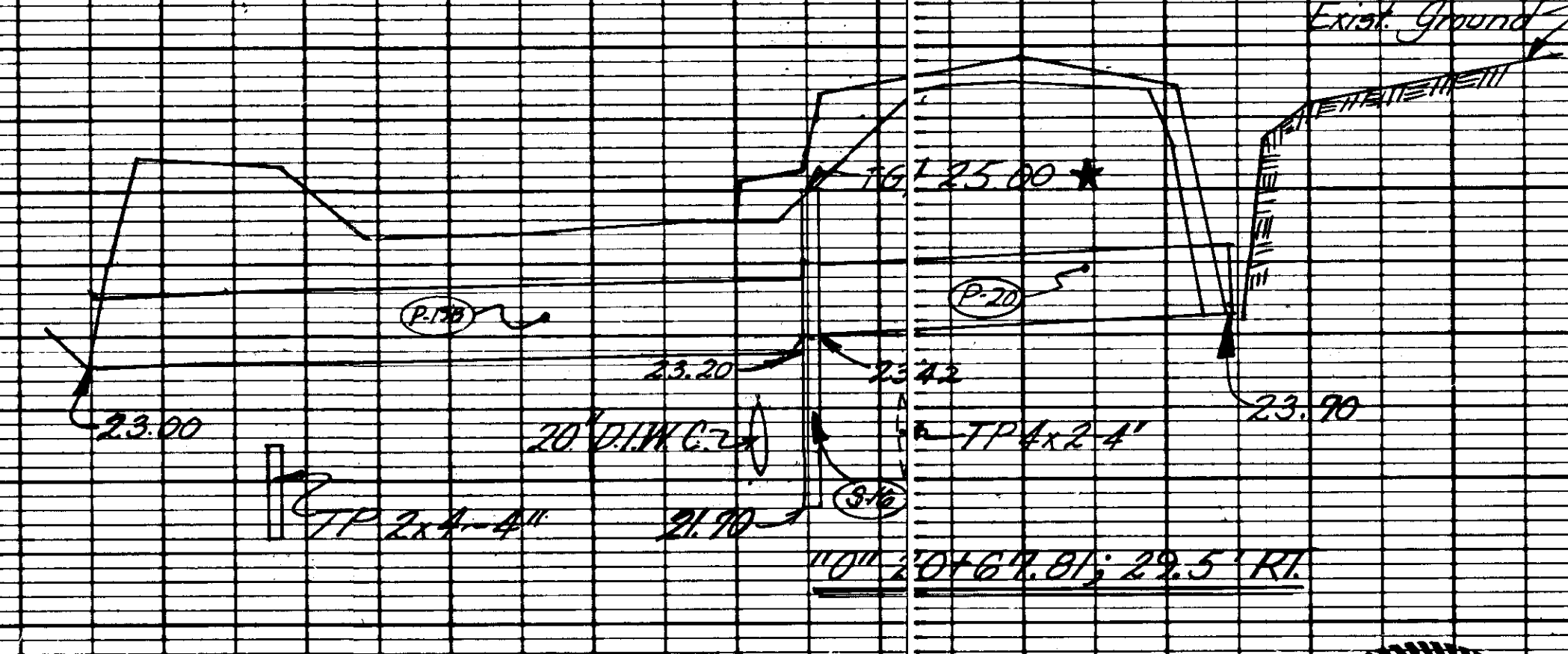
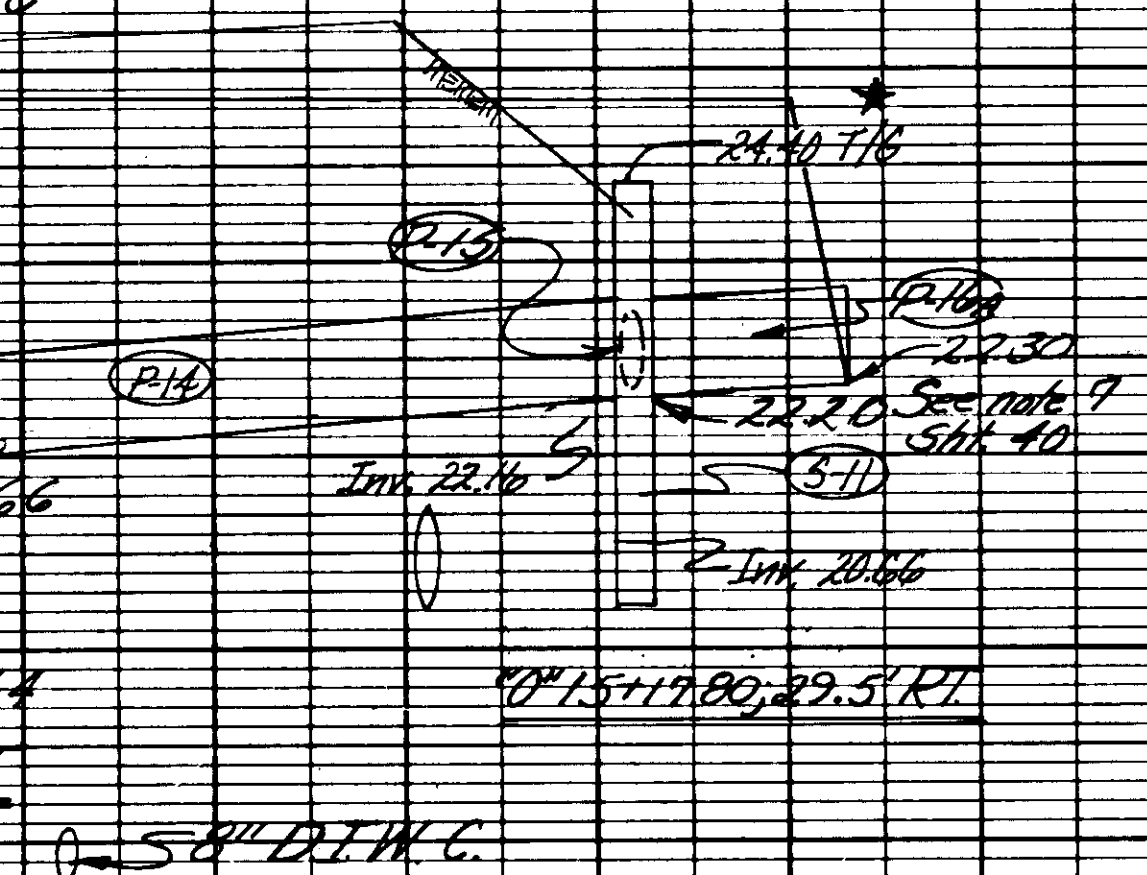
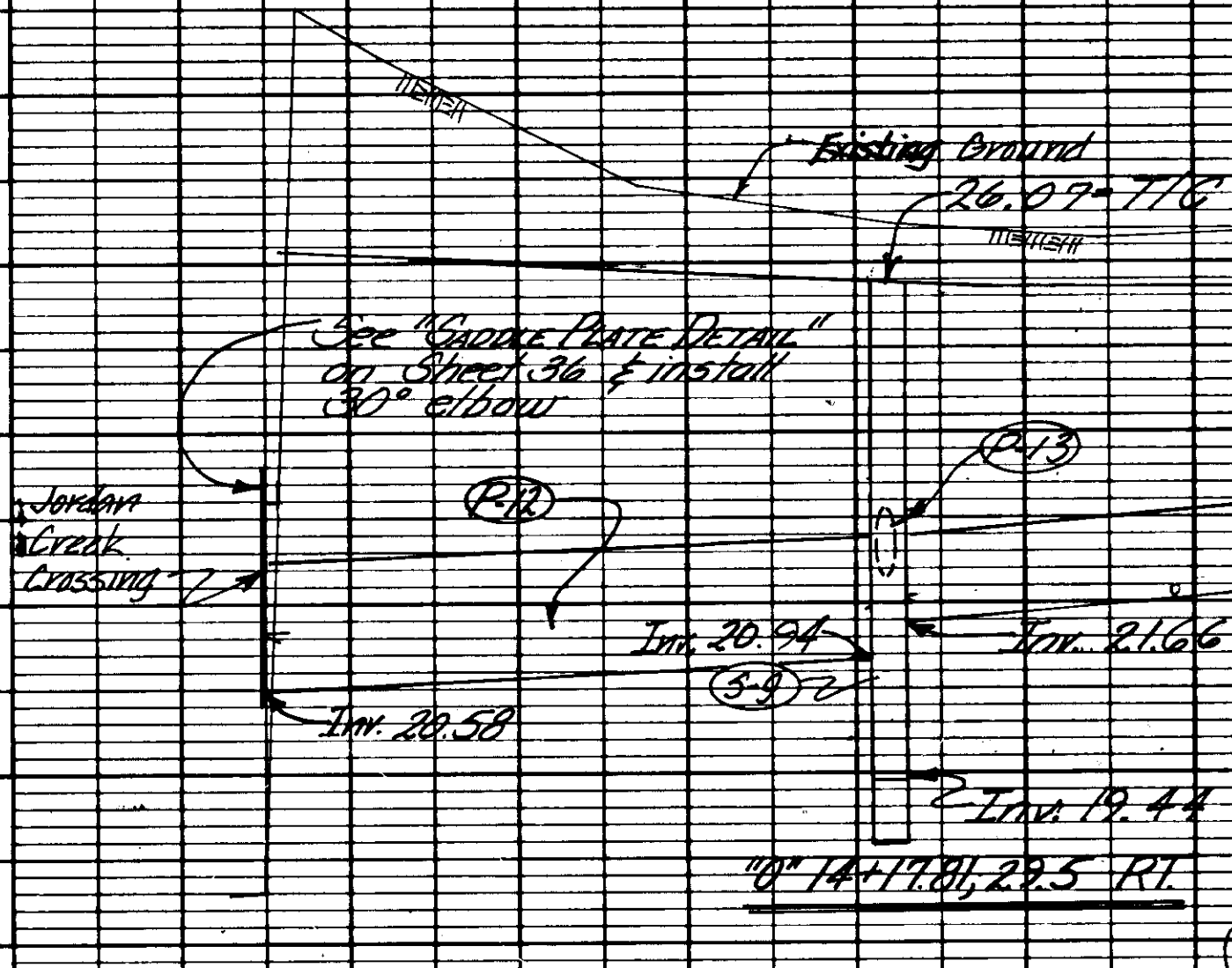
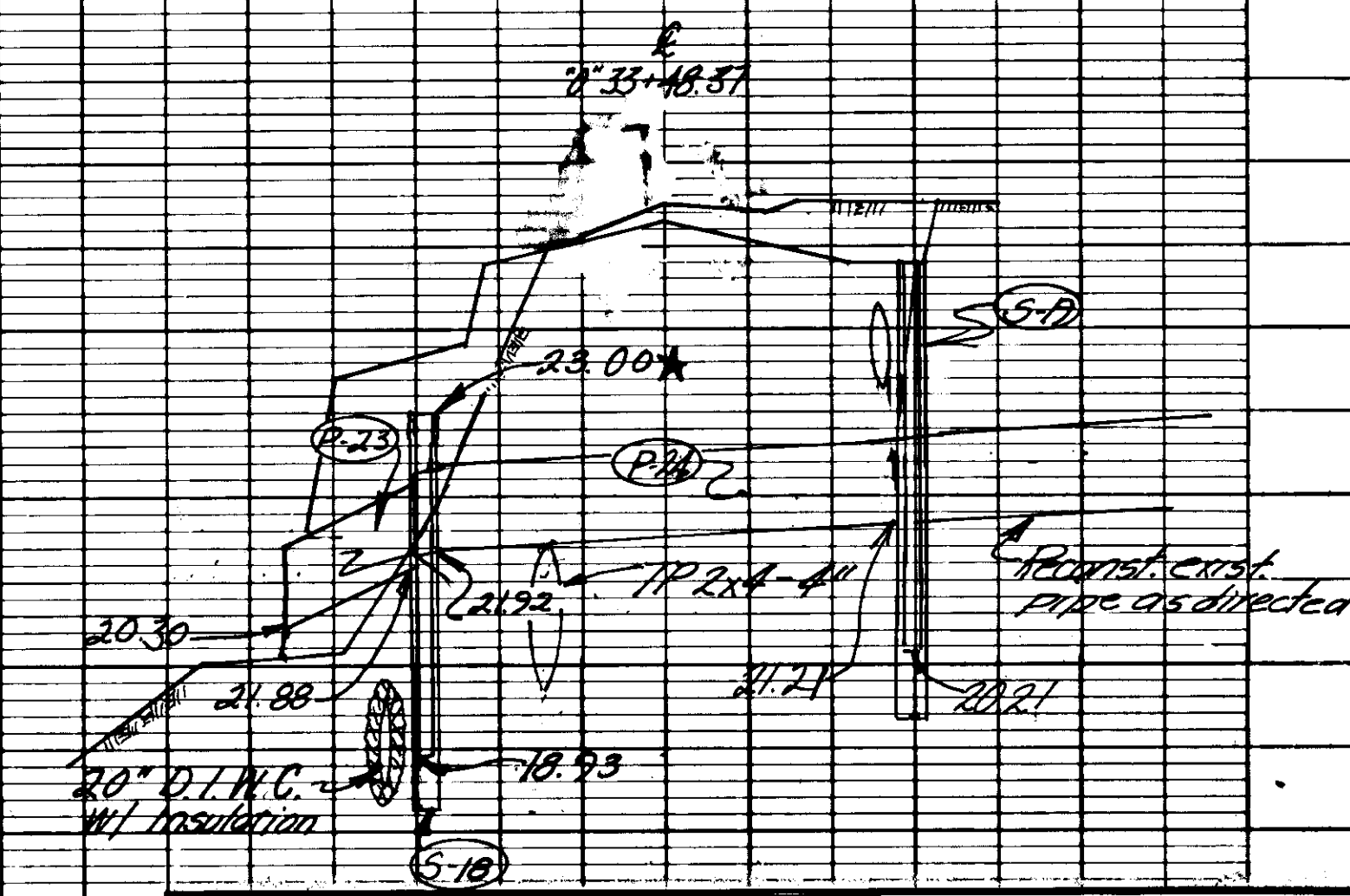
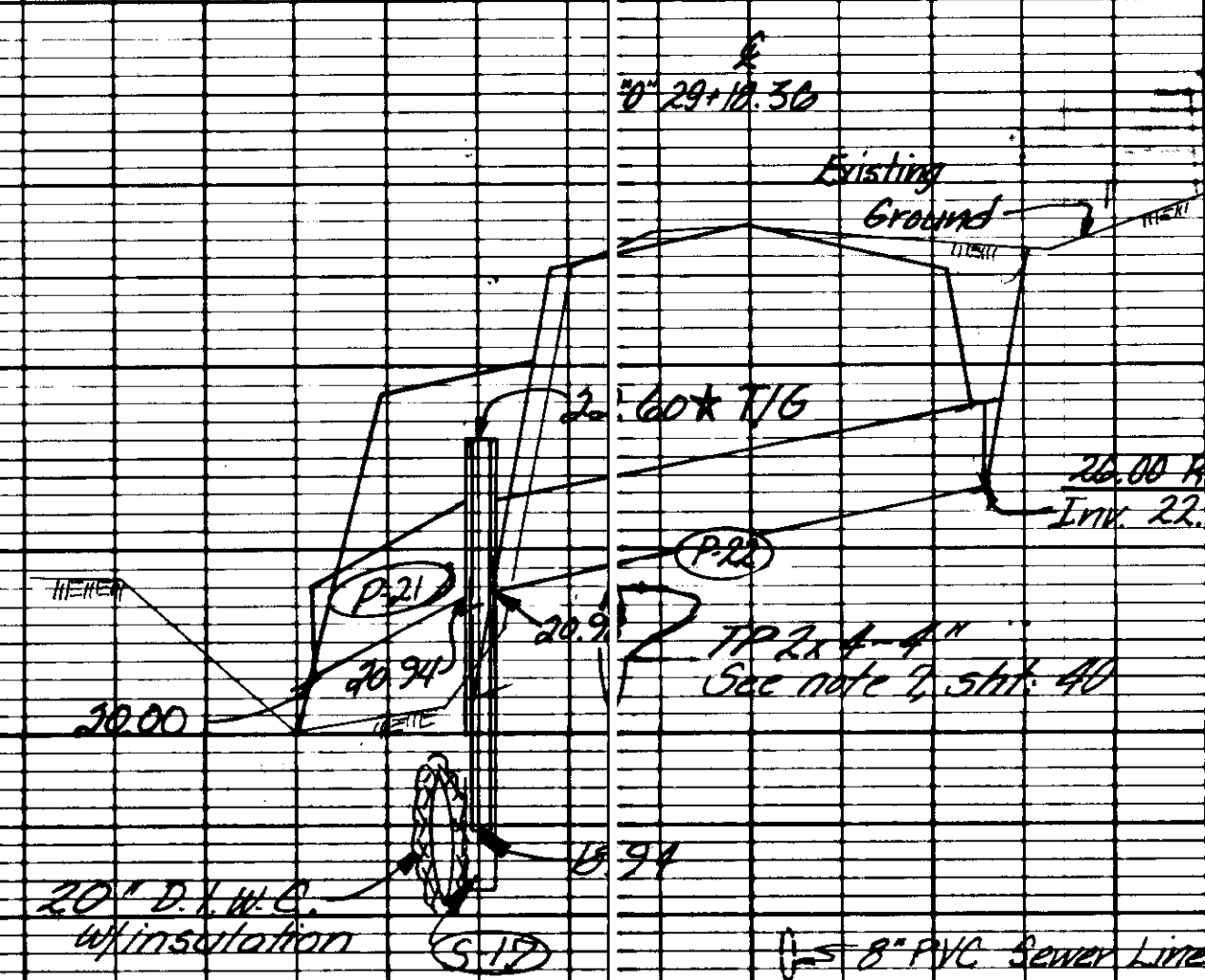
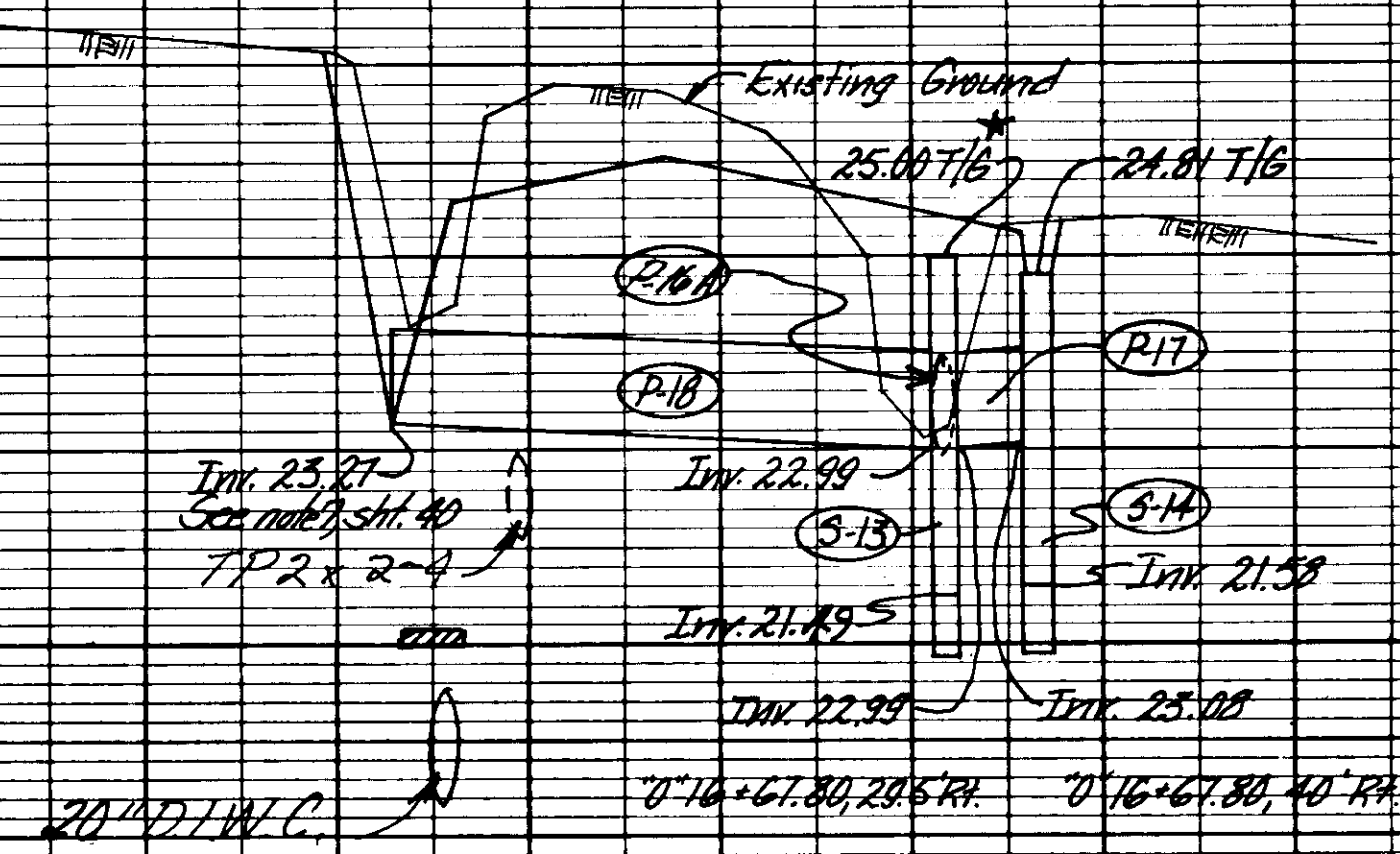
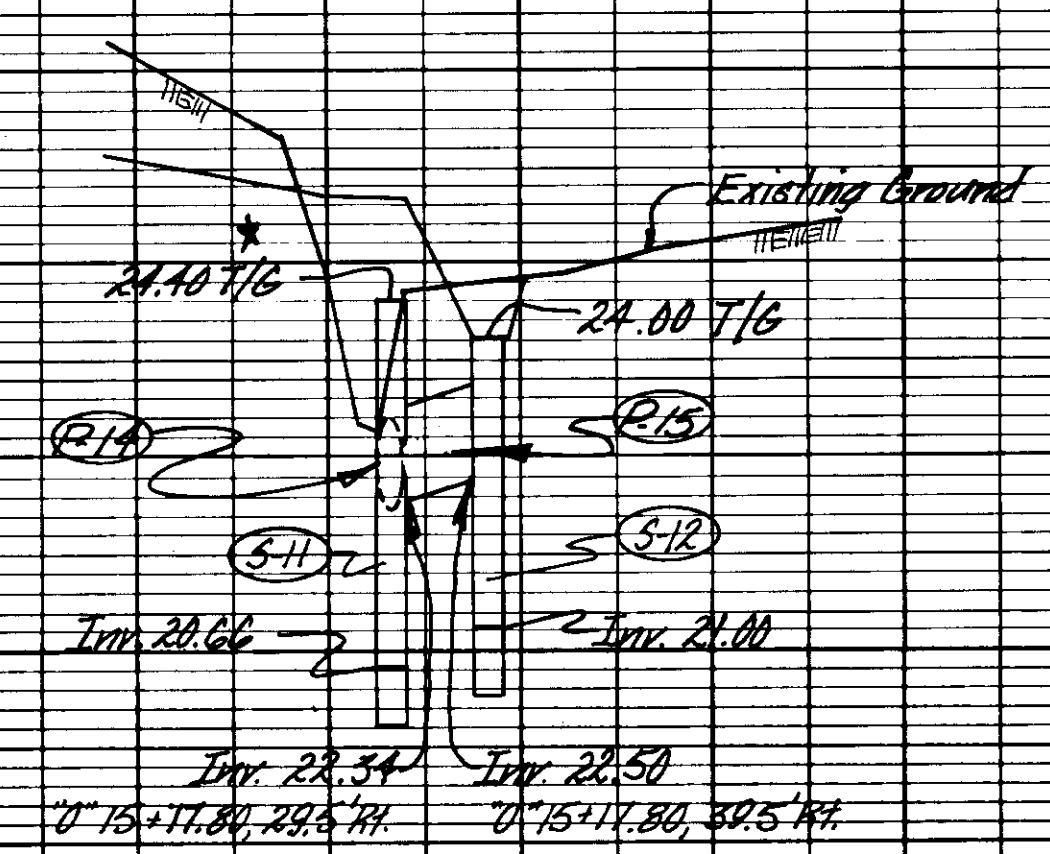
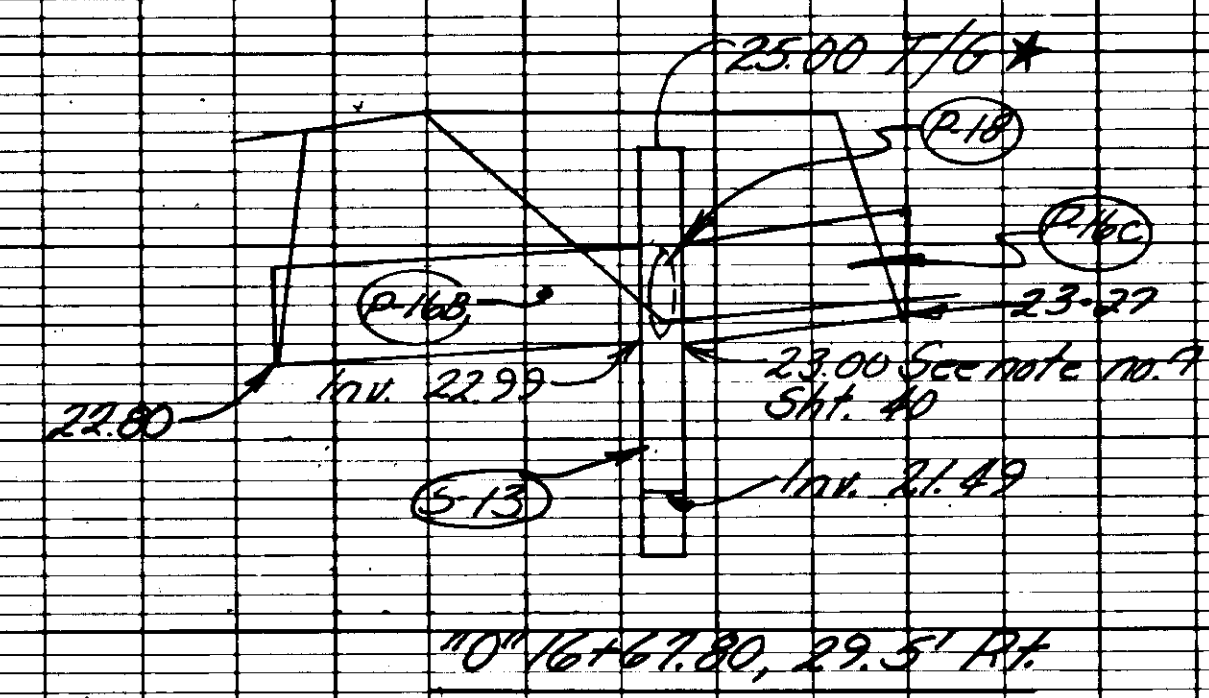
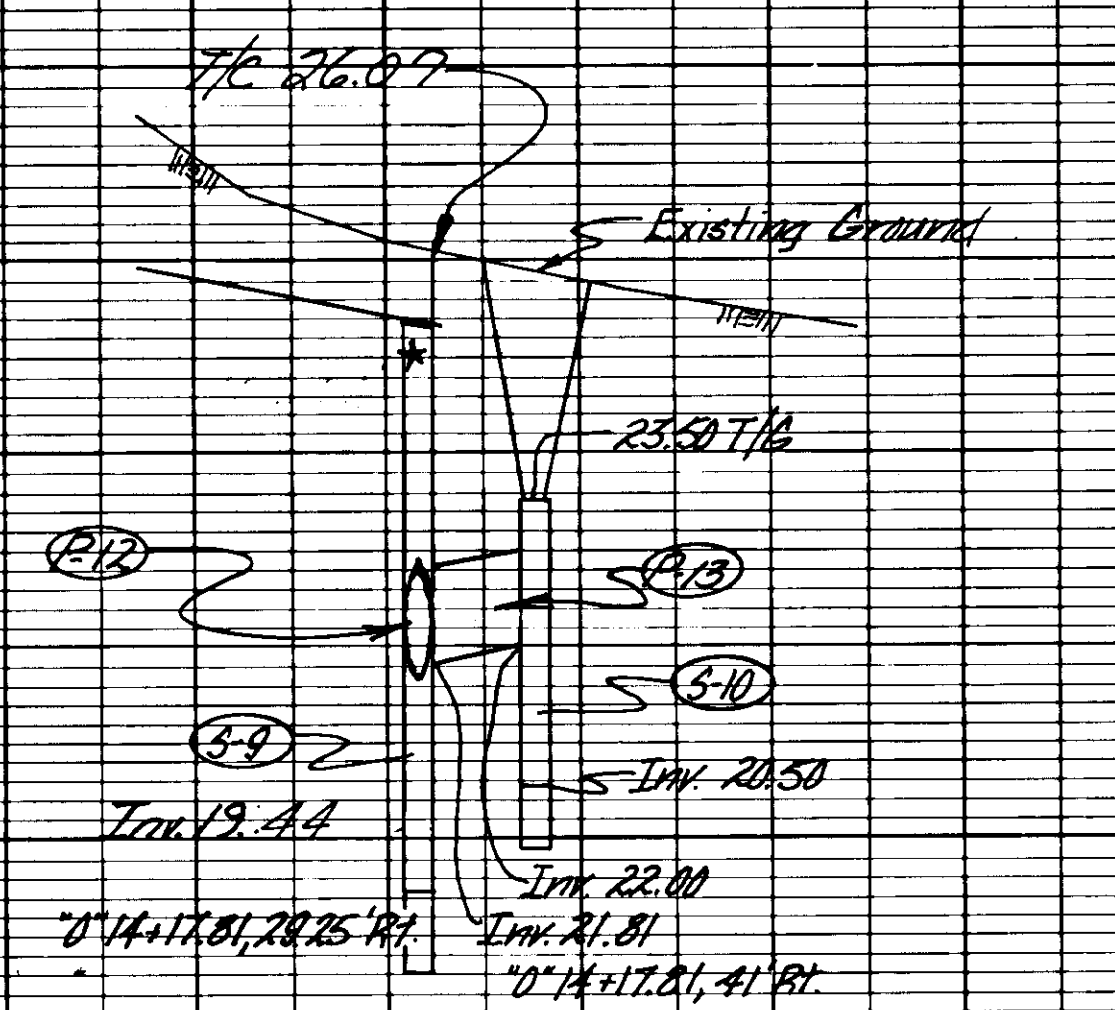
DRAINAGE GENERAL NOTES

- All Type "A" Inlets shall be installed w/ 3 R or L unless otherwise noted. See Det. D-23.00
- All field inlets shall be installed with field inlet frame & grate unless otherwise noted. See Std. Det. 24.00
- Indicates elev. are to top of curb.
- Indicates elev. are to top of cover plate. See "Cover Plate Detail" sht. 41.
- Indicates inlets to be installed w/ a petroleum separator. See sht. 42 for details. Payment to be incidental to Item 604.5.
- All type "A" & Field Inlets to be supplied with an 18" sump. See Std. Det. D-26.01
- Indicates pipe inlet to be beveled at 2:1 & installation of a trash rack. See "Trash Rack Detail" sht. 42.
- Payment incidental to Item 604.5.
- P-3 will require approx. 30' of jacking; P-4 will require approx. 65' of jacking.



STATE	PROJECT	DATE	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960(4)	1984	41	49	

STORM DRAIN DETAILS

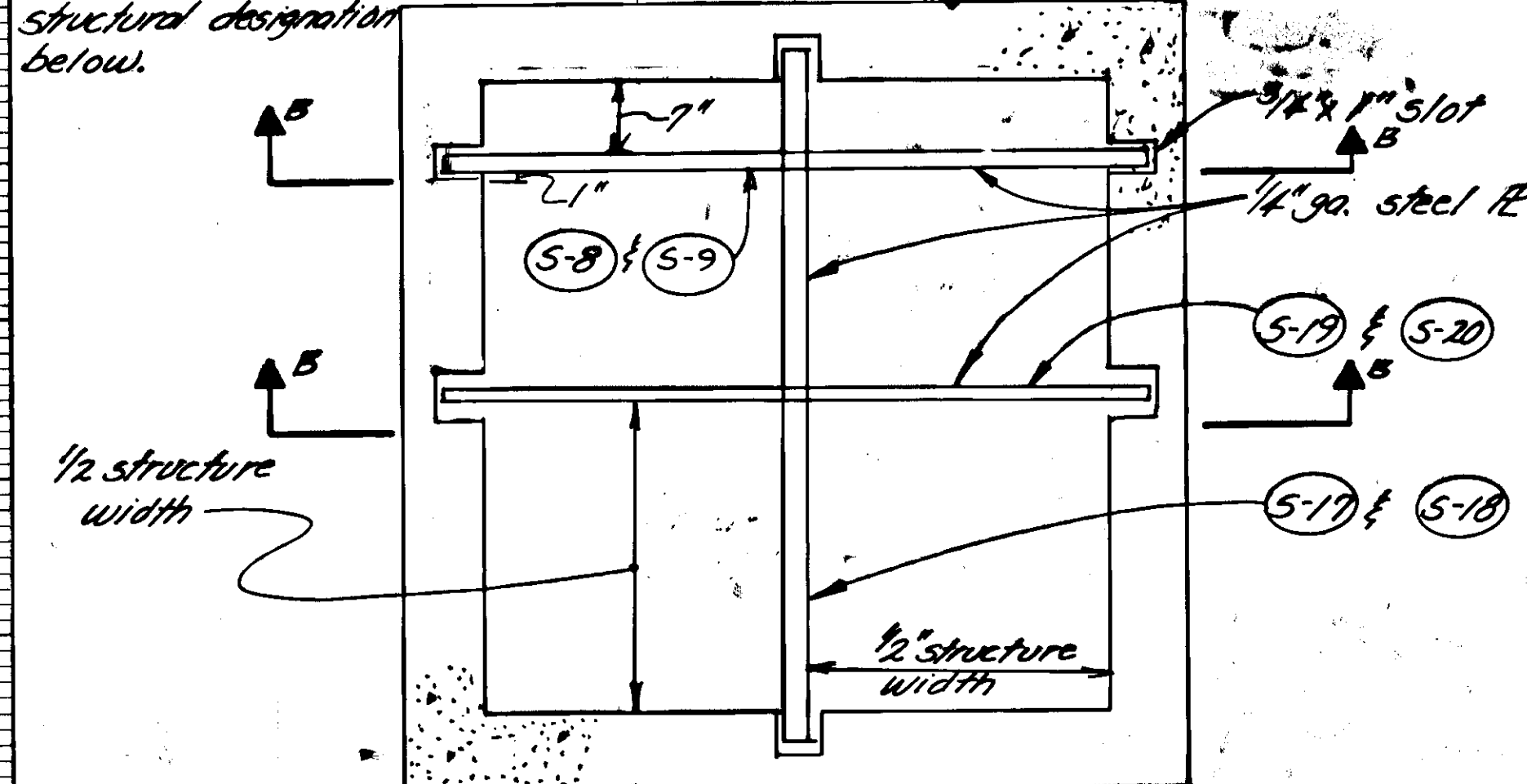


STATE	PROJECT, DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960(4)	1984	42	49

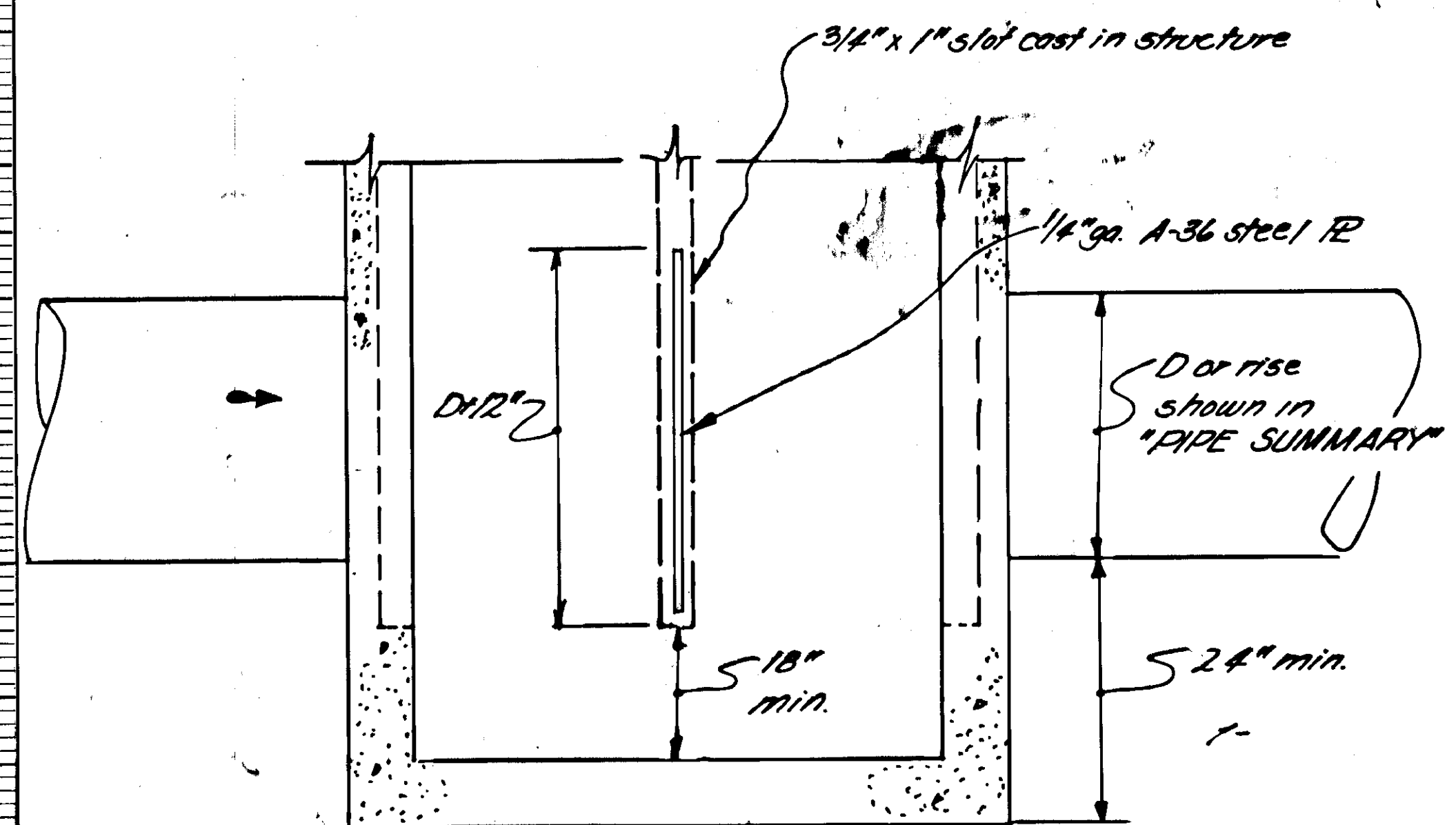
STORM DRAIN DETAILS

Outlet pipe location varies per structure - therefore steel IP location & size will vary. See structural designation below.

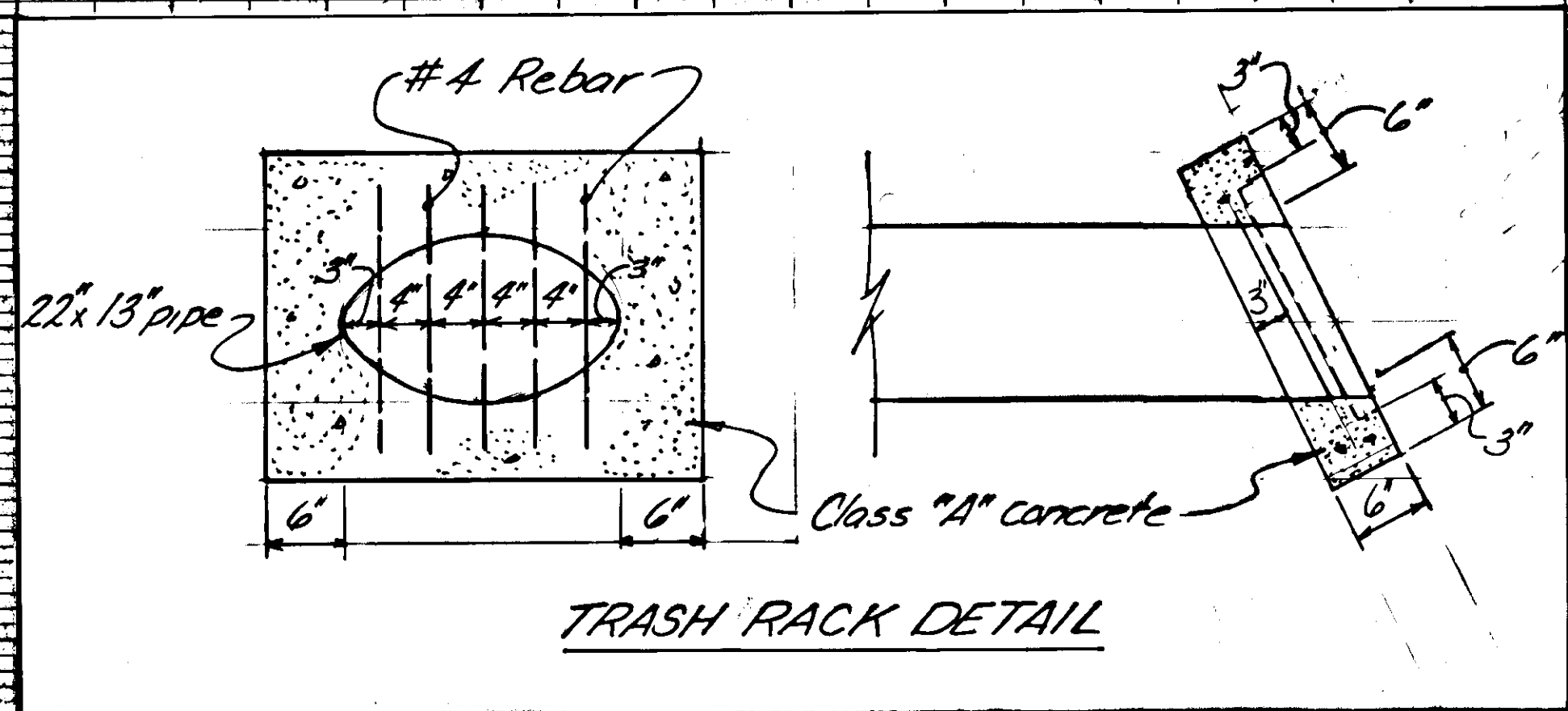
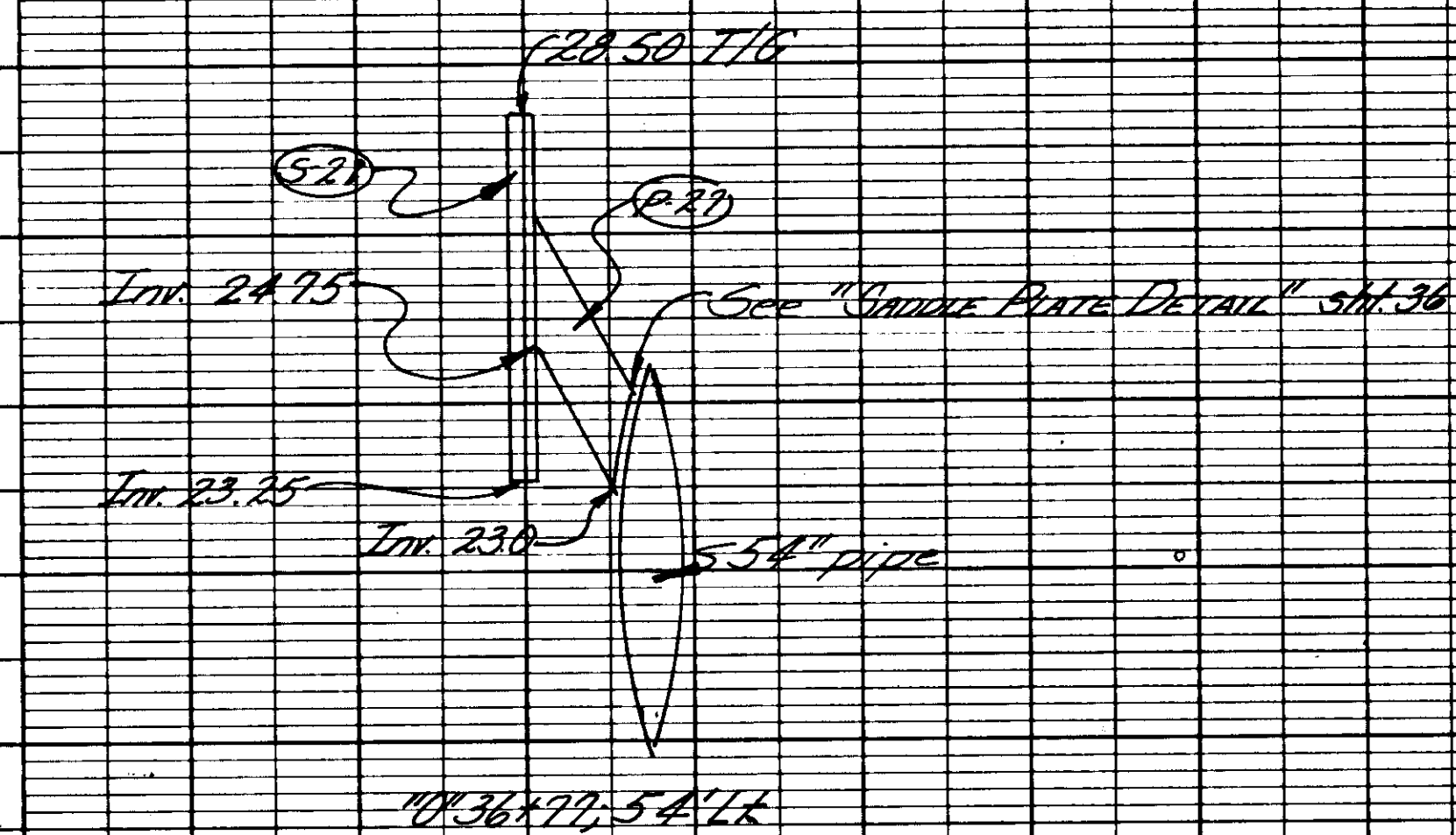
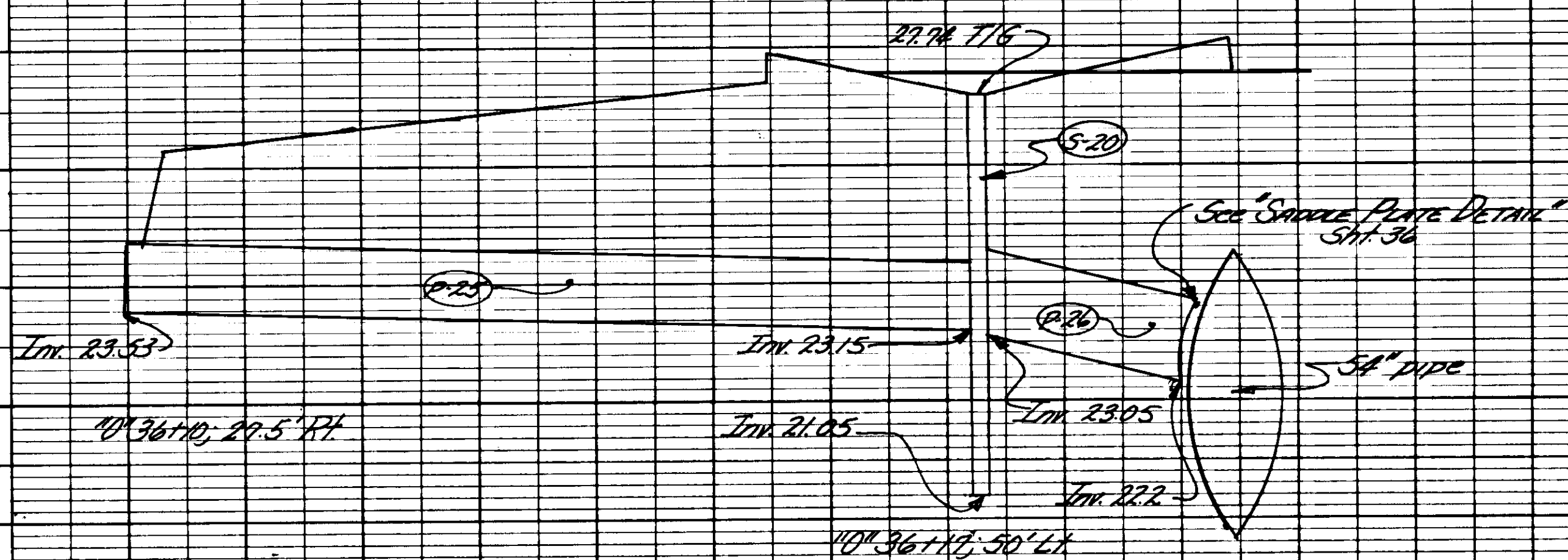
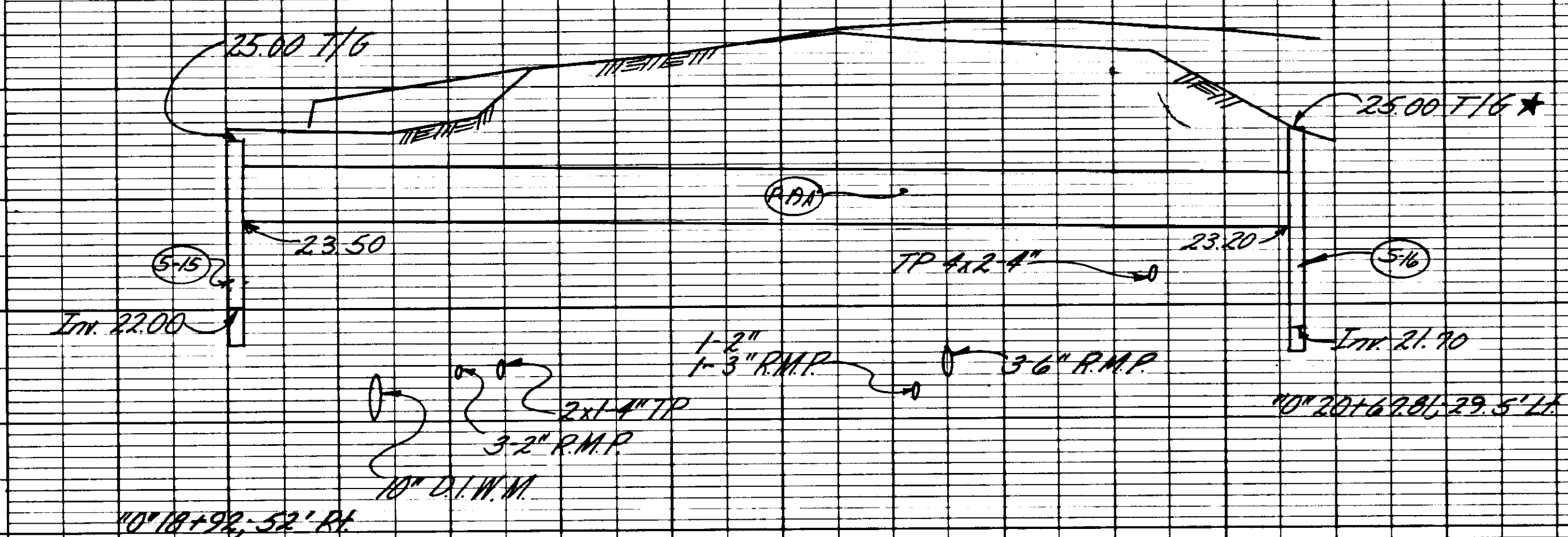
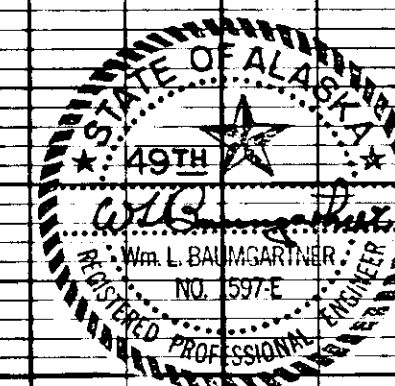
Type "A" or "B" Inlet boxes See Std. Dwg. D-26.01



PLAN VIEW
PETROLEUM SEPARATOR



SECTION B-B



TRASH RACK DETAIL

GENERAL SIGNING NOTES:

1. SIGN LOCATIONS AND POST LENGTHS ARE APPROXIMATE ONLY AND ARE SUBJECT TO MINOR REVISIONS.
2. ALL SIGN POSTS SHALL BE SQUARE TELESCOPING PERFORATED GALVANIZED STEEL POSTS; THE 2 INCH SIZE SHALL BE USED ABOVE GROUND AND THE 2 1/4 INCH SIZE SHALL BE USED BELOW GROUND FOR THE SLEEVE.
3. ALL SIGN POSTS SHALL BE INSTALLED WITH THE SLEEVE TYPE EMBEDMENT AS PER STANDARD DRAWING S-30.00 EXCEPT THAT THE 2 1/4 INCH SIZE SHALL BE USED FOR THE ENTIRE EMBEDMENT DEPTH.
4. POST LENGTHS ARE FROM THE CUT-OFF IN THE SLEEVE TO THE TOP OF THE POST. SEE STANDARD DRAWINGS S-05.00 AND S-30.00
5. "O" 0+54 TO "O" 3+50 & "L" 14+00 THE CONTRACTOR SHALL REMOVE AND DISMANTLE ALL EXISTING SIGNS. ALL DISMANTLED SIGNS SHALL BE RETURNED TO THE D.O.T./P.F. MAINTENANCE STATION LOCATED AT 7.5 MILE GLACIER HIGHWAY. THIS WORK SHALL BE PAID FOR UNDER ITEM 202. SEE SHEET 48 AND EXCEPTION
6. ALL "NO PARKING" SIGNS SHALL BE INSTALLED IN PARALLEL TO THE CENTERLINE.
7. ALL R7-202M AND R7-202K SIGNS SHALL BE MANUFACTURED WITH A BLACK LEGEND, INSTEAD OF RED ON A REFLECTORIZED WHITE BACKGROUND.

GENERAL STRIPING NOTES:

1. ALL TRAFFIC MARKINGS REQUIRED ON THIS PROJECT SHALL BE THERMOPLASTIC PAVEMENT MARKING AND THEY SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST COPY OF THE A.S.T.M. WITH ALASKA SUPPLEMENT AND STANDARD DRAWING T-21.00
2. REMOVAL OF THE EXISTING TRAFFIC MARKING BETWEEN THE FOLLOWING STATIONS SHALL BE AS DIRECTED. PAYMENT FOR ALL LABOR AND MATERIALS REQUIRED TO REMOVE ANY EXISTING PAVEMENT MARKINGS SHALL BE CONSIDERED INCIDENTAL TO SECTION 670;

B.O.P. TO "O" 8+75
"JS" 0+64 TO "JS" 1+41
"L" 11+80 TO E.O.P.

3. A COPY OF THE MANUFACTURER'S INSTALLATION SPECIFICATIONS FOR HOT ASPHALT AND COLD SURFACE APPLICATIONS THERMOPLASTIC MARKINGS SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEER PRIOR TO BEGINNING ANY INSTALLATION
4. THE FOLLOWING QUANTITIES OF THERMOPLASTIC MARKINGS ARE REQUIRED ON THIS PROJECT;

"HOT ASPHALT APPLICATION THERMOPLASTIC MARKINGS"

8514	FT. OF 4" YELLOW FOR BI-DIRECTIONAL STRIPING
7648	FT. OF 4" WHITE FOR SHOULDER STRIPING
792	FT. OF 8" WHITE FOR BI-DIRECTIONAL STRIPING
176	FT. OF 18" YELLOW FOR ISLANDS
254	FT. OF 24" WHITE FOR STOP BARS
10	NO. OF WHITE FOR LEFT TURN ARROWS.
286	FT. OF 18" WHITE FOR ISLANDS

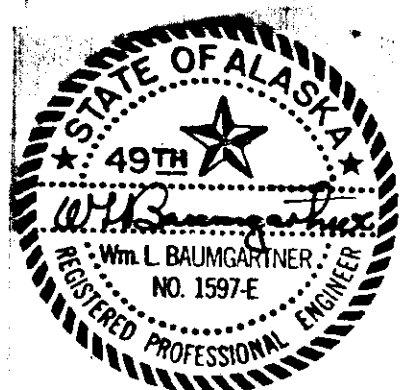
"COLD SURFACE APPLICATION THERMOPLASTIC MARKINGS"

2646	FT. OF 4" YELLOW FOR BI-DIRECTIONAL STRIPING
1352	FT. OF 4" WHITE FOR SHOULDER STRIPING
738	FT. OF 8" WHITE FOR BI-DIRECTIONAL STRIPING
274	FT. OF 18" YELLOW FOR ISLANDS
80	FT. OF 24" WHITE FOR STOP BARS
0	NO. OF WHITE FOR LEFT TURN ARROWS.
74	FT. OF 18" WHITE FOR ISLANDS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960(4)	1984	43	49

GENERAL ILLUMINATION NOTES

1. LOCATIONS SHOWN IN ALL ILLUMINATION TABLES ARE APPROXIMATE ONLY AND ARE SUBJECT TO MINOR FIELD ADJUSTMENT BY THE ENGINEER.
2. ALL EXISTING LUMINAIRES, POLES, AND APPURTENANCES NOT SPECIFICALLY CALLED OUT FOR RE-INSTALLATION OR RE-USE SHALL BE RETURNED TO THE STATE OF ALASKA.
3. ANY EXISTING CONCRETE FOOTINGS NOT DESIGNATED FOR RE-USE SHALL BE REMOVED AS DIRECTED. THIS WORK WILL BE CONSIDERED INCIDENTAL TO ITEM 202(1)
4. ALL LUMINAIRES WILL BE MOUNTED 40' ABOVE THE ROADWAY SURFACE.
5. ALL NEW MAST ARMS SHALL BE 10' LONG UNLESS OTHERWISE NOTED.
6. ALL LUMINAIRES SHALL BE 240V MEDIUM DISTRIBUTION, SEMI-CUTOFF TYPE II HIGH PRESSURE SODIUM AND WILL BE OF THE WATTAGE SHOWN IN THE ILLUMINATION TABLES.
7. FOOTINGS FOR LUMINAIRE POLES SHALL BE AS SHOWN ON STANDARD DRAWING L-30.00.
8. ALL LUMINAIRE POLES SHALL BE FURNISHED WITH SLIP BASES EXCEPT WHERE NOTED IN TABLES.
9. ALL JUNCTION BOXES SHALL BE TYPE I UNLESS OTHERWISE NOTED.
10. ALL JUNCTION BOX COVERS WILL BE MARKED "LIGHTING" UNLESS OTHERWISE NOTED IN TABLES.
11. ALL CONDUIT SHALL BE 2" R.M.C., EXCEPT WHERE SPECIFIED OTHERWISE.



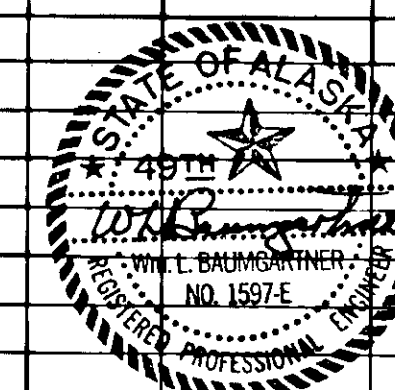
SIGNING SCHEDULE

No.	Station	Dist. from Lt. Rt.	Code No.	Legend	Sign Panel Thickness			No. Of Posts	* Post			Facing Traffic	Remarks
					Size	Unframed	Framed Area S.F.		Type	Size	Length	Embedment	
1	"0"362+00	55	R3-8L/L	ONLY DAILY	36x30	.080	7.5						E.B. Bond to exist. Signal mast arm
2	"0"2+60	32	W1-2R		36x36	.080	90.5F	1	TUBE	2"	15	3'	E.B. Bond to Pole
3	"0"2+60	32	W13-1	25 M.P.H.	24x24	.080	40.5F	1	TUBE	2"	15	3'	E.B. Mount below #2
4	"0"2+92	50	R1-1	STOP	30x30	.080	6.25	1	TUBE	2"	15	3'	N.B.
5	"0"2+92	50	D3-1	OLD DAIRY RD.	54x8	.080	3.0						E.B. Mount above #4
6	"0"3+85	41	R1-1	STOP	30x30	.080	6.25	1	TUBE	2"	15	3'	S.B.
7	"0"3+85	41	D3-1	TROUT ST.	42x8	.080	2.33		TUBE	2"			W.B. Mount above #6
8	"0"4+08		W14-2	Symbol- RIGHT LINE END	36x36	.080	9.0						W.B. Bond to Light Pole
9	"0"4+08	38	R7-101	NO PARKING ANYTIME	12x18	.080	1.50	1	TUBE	2"	15	3'	N.B. Bond to Light Pole below #8
10	"0"5+00	38	R2-1	SPEED LIMIT 30	30x36	.080	7.5	1	TUBE	2"	13	3'	W.B.
11	"0"5+92	41	R1-1	STOP	30x30	.080	6.25	1	TUBE	2"	15	3'	N.B.
12	"0"9+85	53	R1-1	STOP	30x30	.080	6.25	1	TUBE	2"	15	3'	N.B.
13	"0"9+85	53	D3-1	JORDAN AVE	48x8	.080	2.67						E.B. Mount above #13
14	"0"10+15	50	R1-1	STOP	30x30	.080	6.25	1	TUBE	2"	15	3'	S.B.
15	"0"10+18	50	D3-1	JORDAN AVE	48x8	.080	2.67						Mount above #15
16	"0"11+35	37	R3-9B	TWO-WAY-CENTER LEFT TURN LANE	24x36	.080	6.0	1	TUBE	2"	11	3'	E.B.
17	"0"11+35	37	R7-202M	END	24x36	.080	2.0						E.B. Mount above #17 - SEE NOTE NO. 7 SHT. 42
18	"0"11+35	31	R3-9B	TWO-WAY-CENTER LEFT TURN LANE	24x36	.080	6.0	1	TUBE	2"	11	3'	W.B.
19	"0"11+35	31	R7-202K	BEGIN	24x12	.080	2.0						W.B. Mount above #19 - SEE NOTE 7 SHT. 42
20	"0"12+00		I-3	JORDAN CREEK	36x24		6.0	2	TUBE	2"	15	3'	
21	"0"12+00		R7-101	NO PARKING ANYTIME	12x18		1.50						Mount below #21
22	"0"14+05		I-3	JORDAN CREEK	36x24		6.0	2	TUBE	2"		3'	
23	"0"14+05		R7-101	NO PARKING ANYTIME	12x18		1.50						E.B. Mount below #23
24	"0"14+70	37	R1-1	STOP	30x30	.080	6.25	1	TUBE	2"	15	3'	N.B.
25	"0"15+08	25	R1-1	STOP	30x30	.080	6.25	1	TUBE	2"	15	3'	S.B.
26	"0"15+08	25	D3-1	CASCADE ST.	48x8	.080	2.67						S.B. Mount above #26
27	"0"17+38	27	R1-1	STOP	30x30	.080	6.25	1	TUBE	2"	15	3'	N.B.
28	"0"18+30	32	R3-9B	TWO-WAY-CENTER LEFT TURN LANE	24x36	.080	6.0	1	TUBE	2"	11	3	W.B.
29	"0"18+30	32	R7-202M	END	24x12	.080	2.0						W.B. Mount above #29 - SEE NOTE 7 SHT. 42
30	"0"18+30	32	R7-101	NO PARKING ANYTIME	12x18	.080	1.50						Mount below #29 - SEE NOTE 7 SHT. 42
31	"0"18+30	25	R3-9B	TWO-WAY-CENTER LEFT TURN LANE	24x36	.080	6.0		TUBE	2"	11	3	E.B.
32	"0"18+30	25	R7-202K	BEGIN	24x12	.080	2.0						E.B. Mount above #32 - SEE NOTE 7 SHT. 42
33	"0"18+30	25	R7-101	NO PARKING ANYTIME	12x18	.080	1.50						Mount below #32 - SEE NOTE 7 SHT. 42
34	"0"18+30	30'	R6-1R	ONE-WAY	36x12	.080	3.00	1	TUBE	2"	11	3	E.B.
35	"0"19+20	32	R1-1	STOP	30x30	.063	6.25	1	TUBE	2"	15	3	N.B.
36	"0"19+20	32	D3-1	SHELL SIMMONS DR.	66x8	.080	3.67						E.B. Mount above 35
37	"0"19+82	30	R1-1	STOP	30x30	.080	6.25						S.B.
38	"0"19+82	30	D3-1	LEE SMITH DR	48x8	.080	2.67						W.B. Mount above 38
39	"0"20+38	28	R6-1R	ONE-WAY	36x12	.080	3.00	1	TUBE	2"	15	3	W.B.
40	"0"20+80	32	R3-9B	TWO-WAY-CENTER LEFT TURN LANE	24x36	.080	6.0	1	TUBE	2"	11	3	E.B.
41	"0"20+80	32	R7-202M	END	24x12	.080	2.0						E.B. Mount above 41 - SEE NOTE 7 SHT. 42
42	"0"20+80	32	R7-101	NO PARKING ANYTIME	12x18	.080	1.50						E.B. Mount below 41 - SEE NOTE 7 SHT. 42
43	"0"21+25	25	R3-9B	TWO-WAY-CENTER LEFT TURN LANE	24x36	.080	6.0		TUBE	2"	11	3	W.B.

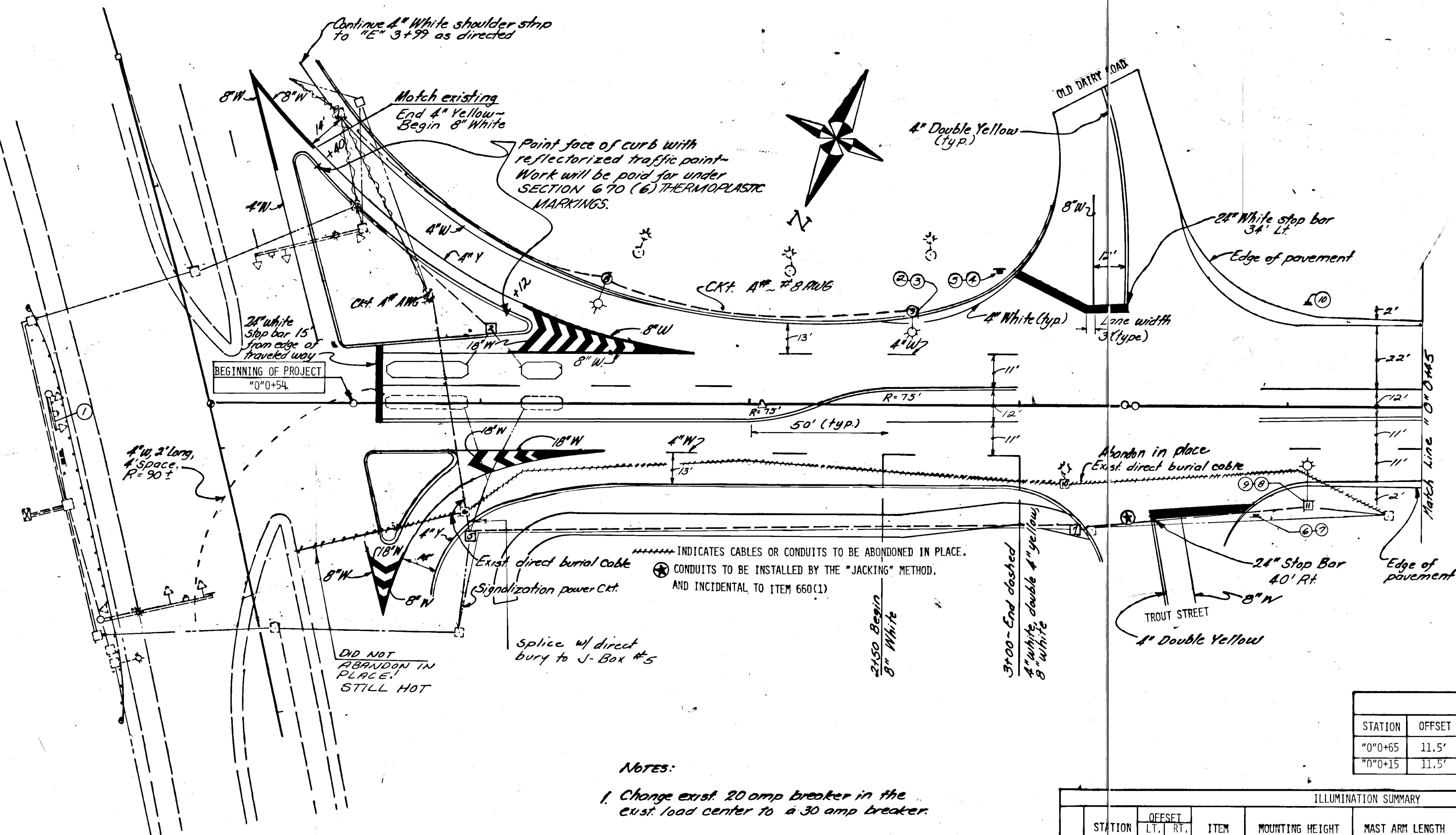
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960 (4)	1984	44	49

SIGNING SCHEDULE

No.	Station	Dist. from Lt. Rt.	Code No.	Legend	Sign Panel Thickness			No. Of Posts	* Post			Facing Traffic	Remarks
					Size	Unframed	Framed Area S.F.		Type	Size	Length	Embedment	
45	"0"21+25	25	R7-202K	BEGIN	24x12	.080	2.00						W.B. Mount above 44 - SEE NOTE 7 SHT. 42
46	"0"21+25	25	R7-101	NO PARKING ANYTIME	12x18	.080	1.50						W.B. Mount below 44 - SEE NOTE 7 SHT. 42
47	"0"22+40	30	R6-1R	ONE WAY	36x12	.080	3.00	1	TUBE	2"	11	3	W.B.
48	"0"25+10	35	R1-1	STOP	30x30	.080	6.25	1	TUBE	2"	15	3	E.B.
49	"0"25+10	35	D3-1	BERNER'S AVE.	54x8	.080	3.00						N.B. Mount above 48
50	"0"27+07	35	R6-1	ONE WAY	36x12	.080	3.00						N.B.
51	"0"27+50	30	R3-9B	TWO-WAY-CENTER LEFT TURN LANE	24x36	.080	6.00	1	TUBE	2"	15	3'	W.B.
52	"0"27+50	30	R7-101	NO PARKING ANYTIME	12x18	.080	1.50						N.B. Mount below 51
53	"0"27+50	26	R3-9B	TWO-WAY-CENTER LEFT TURN LANE	24x36	.080	6.00	1	TUBE	2"	15	3'	E.B.
54	"0"27+50	26	R7-101	NO PARKING ANYTIME	12x18	.080	1.50						S.B. Mount below 53
55	"0"28+24	27	R1-1	STOP	30x30	.080	6.25	1	TUBE	2"	15	3'	N.B.
56	"0"28+40	35	R1-1	STOP	30x30	.080	6.25	1	TUBE	2"	15	3	S.B.
57	"0"28+93	32	R6-1R	ONE WAY	36x12	.080	3.00	1	TUBE	2"	11	3	W.B.
58	"0"30+38	34	R1-1	STOP	30x30	.080	6.25	1	TUBE	2"	11	3	S.B.
59	"0"32+22	34	R1-1	STOP	30x30	.080	6.25	1	TUBE	2"	11	3	S.B.
60	"0"34+06	34	R6-1R	ONE WAY	36x12	.080	3.00	1	TUBE	2"	11	3	W.B.
61	"0"34+25	24	R2-1	SPEED LIMIT 30	30x36	.080	7.50	1	TUBE	2"	14	3	S.B.
62	"0"35+10	55	R3-9B	TWO-WAY-CENTER LEFT TURN LANE	24x36	.080	6.00	1	TUBE	2"	15	3	W.B.
63	"0"35+10	55	R7-202K	BEGIN	24x12	.080	2.00						W.B. Mount above 62 - SEE NOTE 7 SHT. 42
64	"0"35+10	55	R7-101	NO PARKING ANYTIME	12x18	.080	1.50						N.B. Mount below 62
65	"0"35+10	35	R3-9B	TWO-WAY-CENTER LEFT TURN LANE	24x36	.080	6.00	1	TUBE	2"	11	3	E.B.
66	"0"35+10	35	R7-202M	END	24x12	.080	2.00						E.B. Mount above 65 - SEE NOTE 7 SHT. 42
67	"0"35+10	35	R7-101	NO PARKING ANYTIME	12x18	.080	1.50						S.B. Mount below 65
68	"0"36+41	39	R1-1	STOP	30x30	.080	6.25	1	TUBE	2"	15	3	N.B.
69	"0"3+00	23	I-3	DUCK CREEK	42x24	.080	7.0	2	TUBE	2"	15	3	E.B.
70	"0"3+00	23	R7-101	NO PARKING ANYTIME	12x18	.080	1.50						Mount below 69
71	"0"2+05	23	R1-2	YIELD	36x36x36	.080	3.90						E.B. Bond to Pole
72	"0"2+05	23	R5-1	DO NOT ENTER	30x30	.080	6.25						
73	"0"35+70	32	R5-1	DO NOT ENTER	30x30	.080	6.25	1	TUBE	2"	11	3	W.B.
74	"0"36+80	32	R1-1	STOP	24x24	.080	4.00	1	TUBE	2"	12	3	W.B.
75	"0"38+65	32	R6-1	ONE WAY	36x12	.080	3.00	1	TUBE	2"	11	3	N.B.
76	"0"39+50	24	R2-1	SPEED LIMIT 30	30x36	.080	7.50	1	TUBE	2"	15	3	S.B.
77	"0"39+50	24	R2-1	SPEED LIMIT 35	30x36	.080	7.50	1	TUBE	2"	15	3	N.B.
35A	"0"18+68	30	R5-1	DO NOT ENTER	30x30	.080	6.25	1					Mount below 35
40A	"0"20+38	28											" " 40
47A	"0"22+40	30											" " 47
50A	"0"31+00	35											" " 50
57A	"0"28+93	32											" " 57
60A	"0"34+06	34											" " 60
75A	"0"38+65	32											" " 75



STRIPING, SIGNING, SIGNALIZATION & ILLUMINATION DETAILS



NOTES:

1. Change exist. 20 amp breaker in the exist. load center to a 30 amp breaker.
2. Signal shall remain in operation at all times.
3. Install 2- 12 loop lead in cable in 2" RMC from J-Box 2 to J-Box 12. The cable will continue to controller in existing conduit.

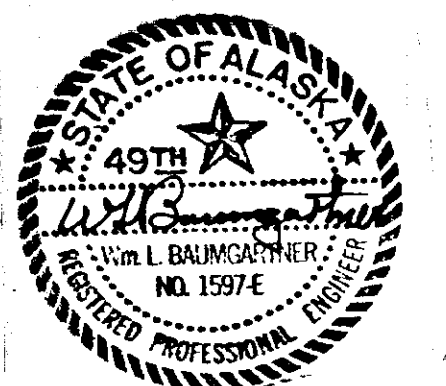
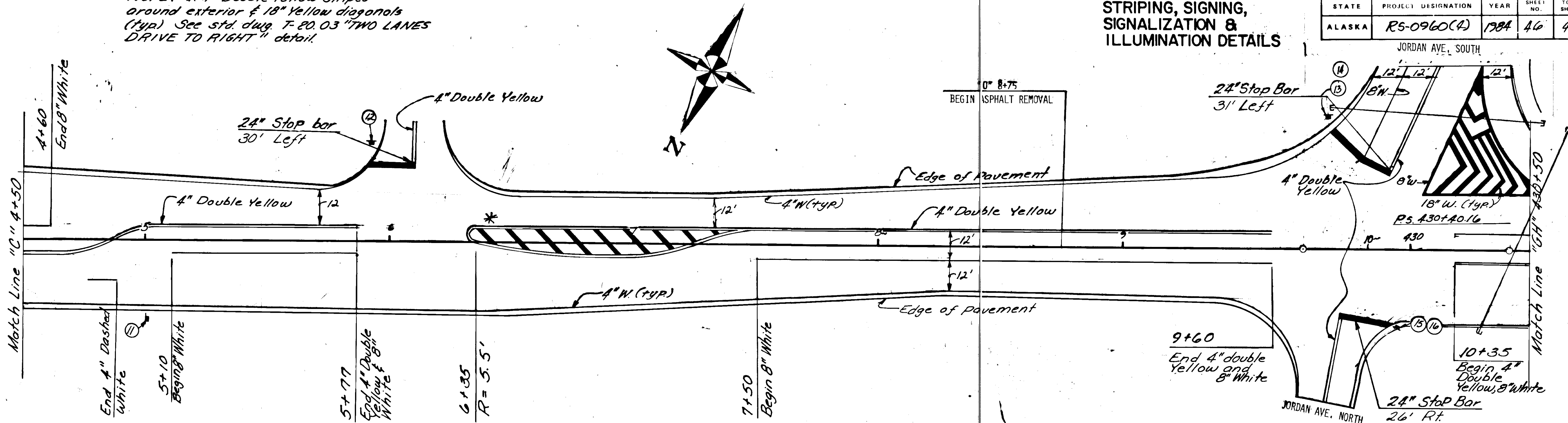
DETECTOR SUMMARY					
STATION	OFFSET	TYPE	PHASE	SIZE	REMARKS
"0"0+65	11.5'	LOOP	3	6'x30'	QUADRUPOLE-2 TURN
"0"0+15	11.5'	LOOP	3	6'x15'	QUADRUPOLE-2 TURN

		ILLUMINATION SUMMARY							
	STATION	OFFSET LT. RT.		ITEM	MOUNTING HEIGHT	MAST ARM LENGTH	LUMINAIR WATTAGE	BASE ELEV.	REMARKS
1	"0"	0+54	106'		EXIST. J-B	E/ 32 ²⁵			ADJUST EXIST. J-B
2	"0"	4+02	28'		J-B	33 ²⁸			INSTALL
3	"0"	0+92		83'	EXIST. J-B				ADJUST EXIST. J-B
4	"0"	0+80	34'		EXIST. J-B	33 ⁴⁸			ADJUST EXIST. J-B
5	"0"	0+95		50'	J-B	31 ⁵²			INSTALL
6	"0"	0+94		40'	EXIST. J-B				REMOVE AND DISPOSE
7	"0"	3+33		45'	EXIST. J-B				ADJUST EXIST. J-B
8	"0"	1+46	46'		POLE	40'		400	
9	"0"	2+60	43'		POLE	40'		400	
10	"0"	3+17		31'	EXIST. ELECTROLER & BASE				REMOVE AND DISPOSE
11	"0"	4+18		38'	POLE	40'		400	
12	"0"	0+54	73'		EXIST. J-B	33 ⁵⁹			

NOTE: * 4" Double Yellow stripes
around exterior & 18" Yellow diagonals
(typ) See std. dwg. T-20.03 "TWO LANES
DRIVE TO RIGHT" detail.

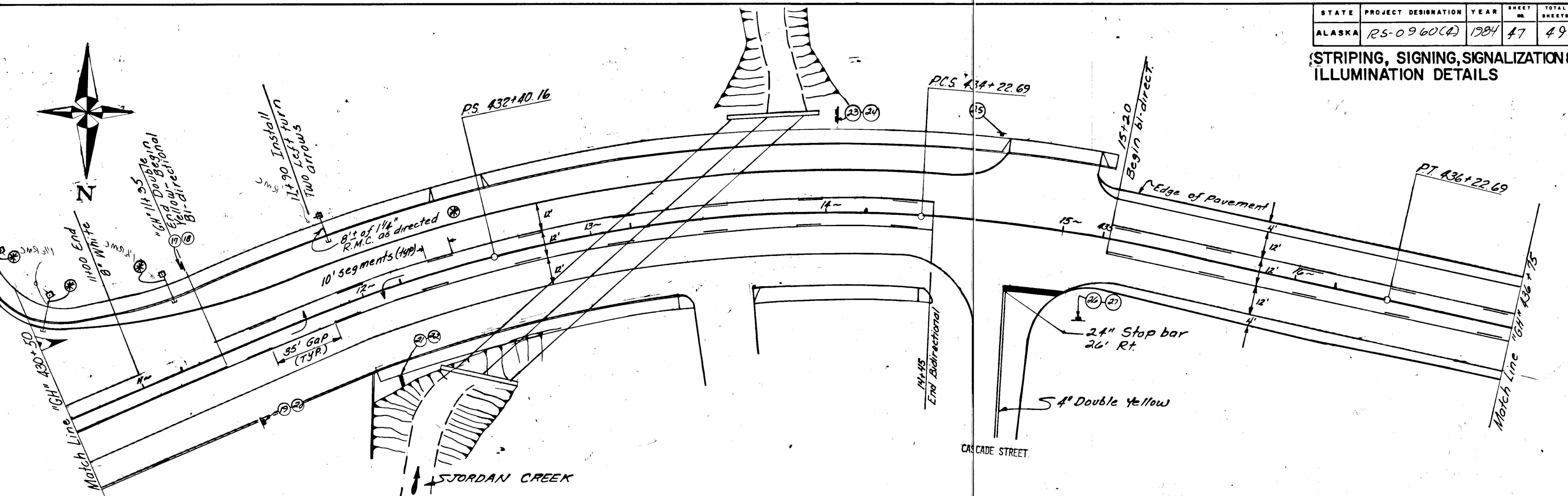
STRIPING, SIGNING, SIGNALIZATION & ILLUMINATION DETAILS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	R5-0960(4)	1984	46	49

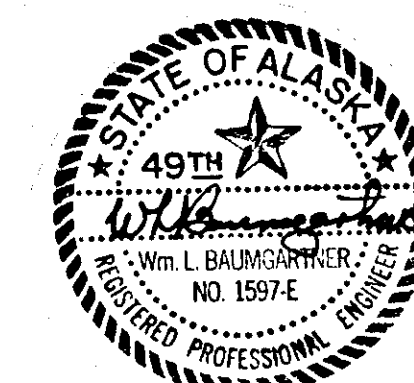
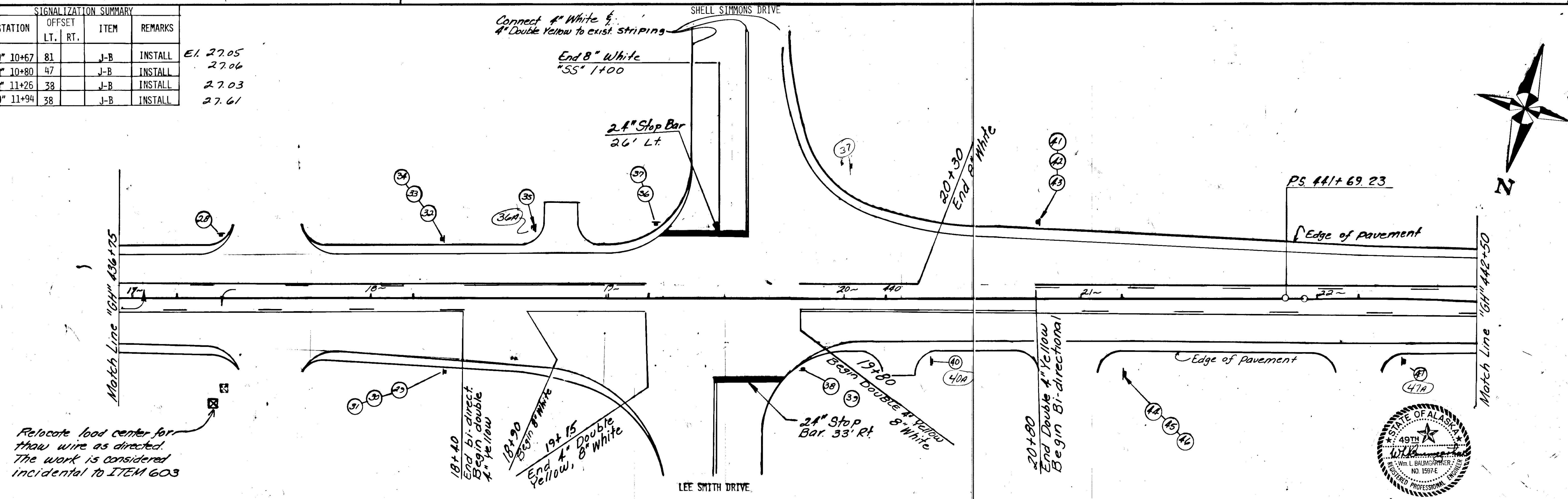


STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960(4)	1984	47	49

STRIPING, SIGNING, SIGNALIZATION ILLUMINATION DETAILS

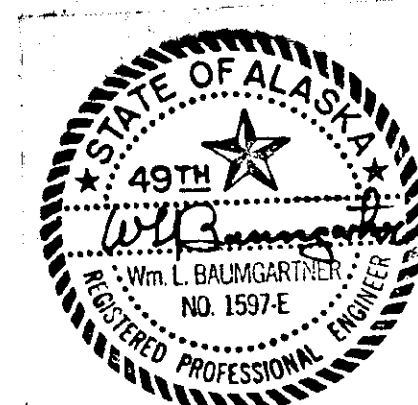
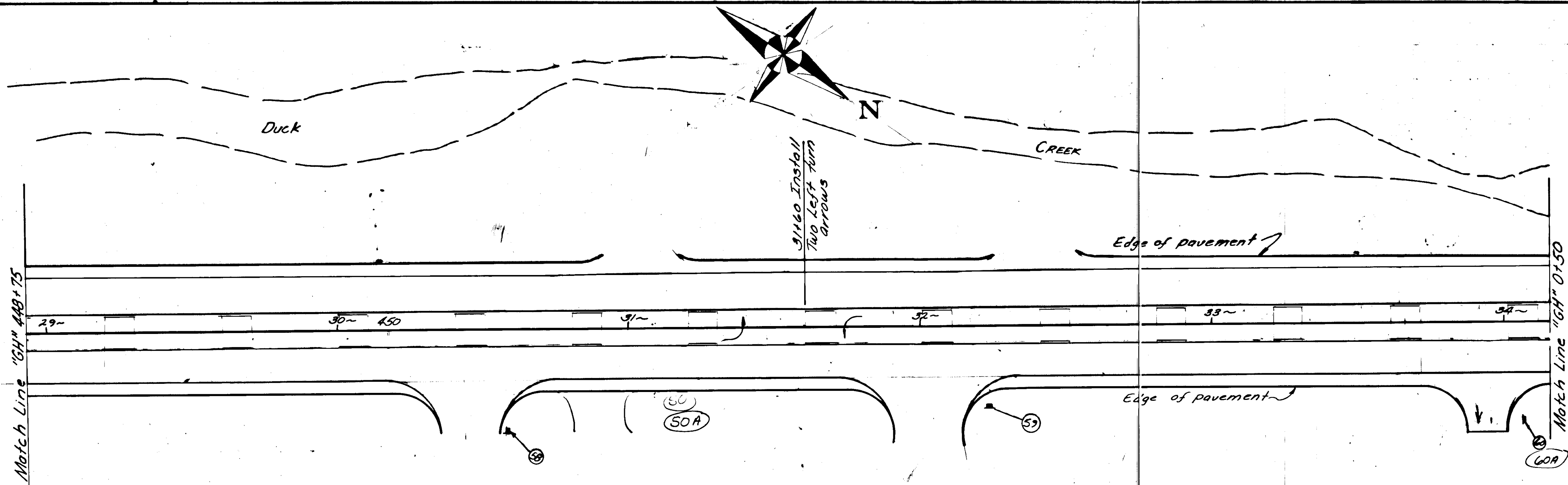
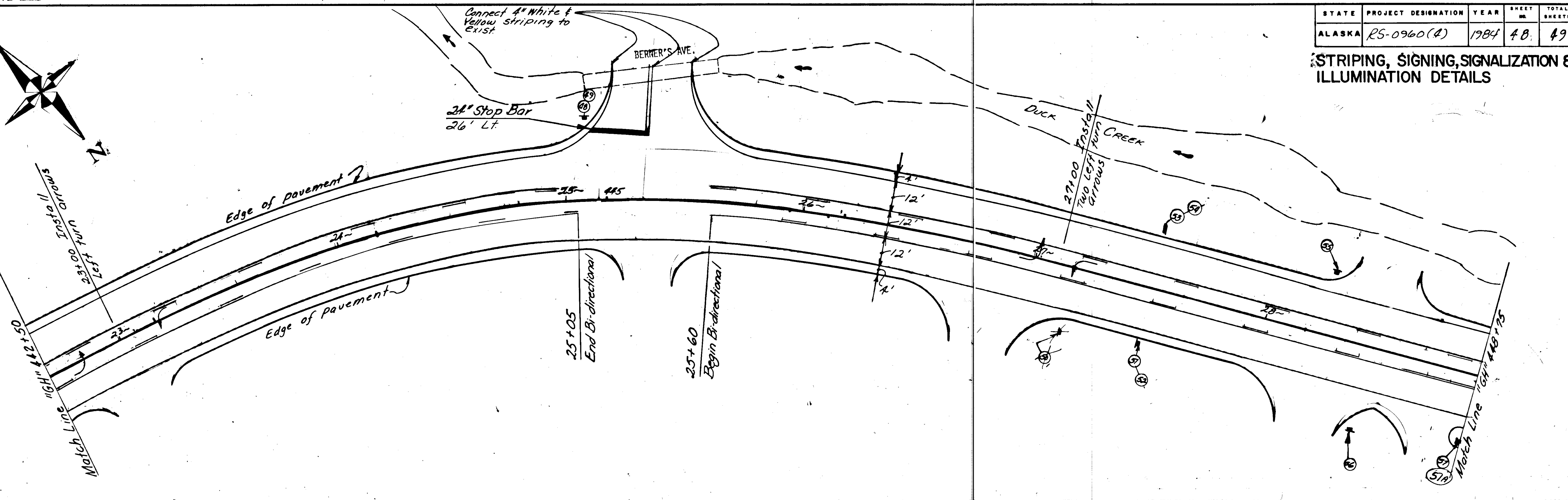


SIGNALIZATION SUMMARY				
STATION	OFFSET	ITEM	REMARKS	
LT.	RT.			
" 10+67	81	J-B	INSTALL	EI. 27.05
" 10+80	47	J-B	INSTALL	27.06
" 11+26	38	J-B	INSTALL	27.03
" 11+94	38	J-B	INSTALL	27.61

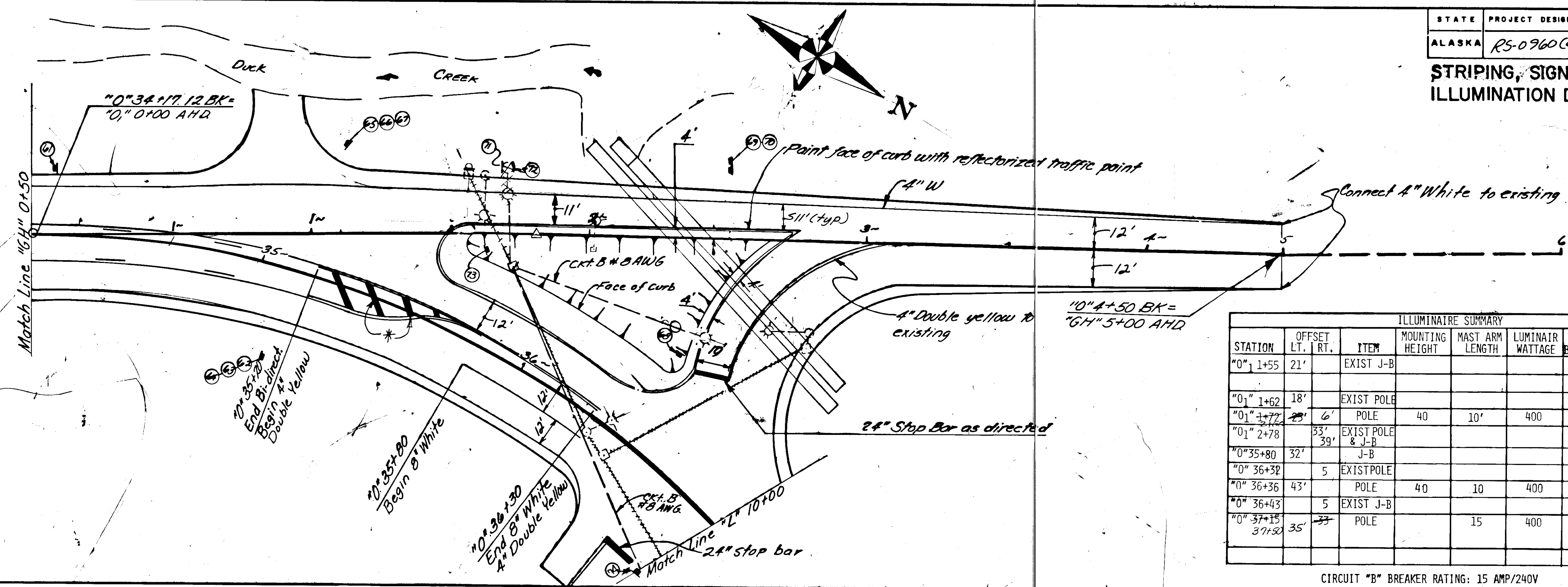


STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	RS-0960(4)	1984	48	49

STRIPING, SIGNING, SIGNALIZATION &
ILLUMINATION DETAILS



STRIPING, SIGNING, SIGNALIZATION & ILLUMINATION DETAILS



ILLUMINAIRE SUMMARY								
STATION	OFFSET LT.	RT.	ITEM	MOUNTING HEIGHT	MAST ARM LENGTH	LUMINAIRE WATTAGE	BASE ELEV	REMARKS
"0" 1+55	21'		EXIST J-B					REMOVE & DISPOSE
"0" 1+62	18'		EXIST POLE					REMOVE & DISPOSE
"0" 1+72	28'	6'	POLE	40	10'	400	-27.60	INSTALL
"0" 1+78	33'	39'	EXIST POLE & J-B					REMOVE & DISPOSE
"0" 35+80	32'		J-B					INSTALL
"0" 36+32		5'	EXIST POLE					REMOVE & DISPOSE
"0" 36+36	43'		POLE	40	10	400	28.70	INSTALL
"0" 36+43		5'	EXIST J-B					REMOVE & DISPOSE
"0" 37+15	35'	33'	POLE		15	400	25.50	INSTALL SALVAGE ELECTROLIER W/NEW BASE

CIRCUIT "B" BREAKER RATING: 15 AMP/240V

NOTE: * 4" DOUBLE YELLOW STRIPS AROUND ENTIRE EXTERIOR AND 18" YELLOW DIAGONALS (TYP.) SEE STANDARD DRAWING T-20.03"
"TWO LANES DRIVE TO RIGHT" DETAIL

