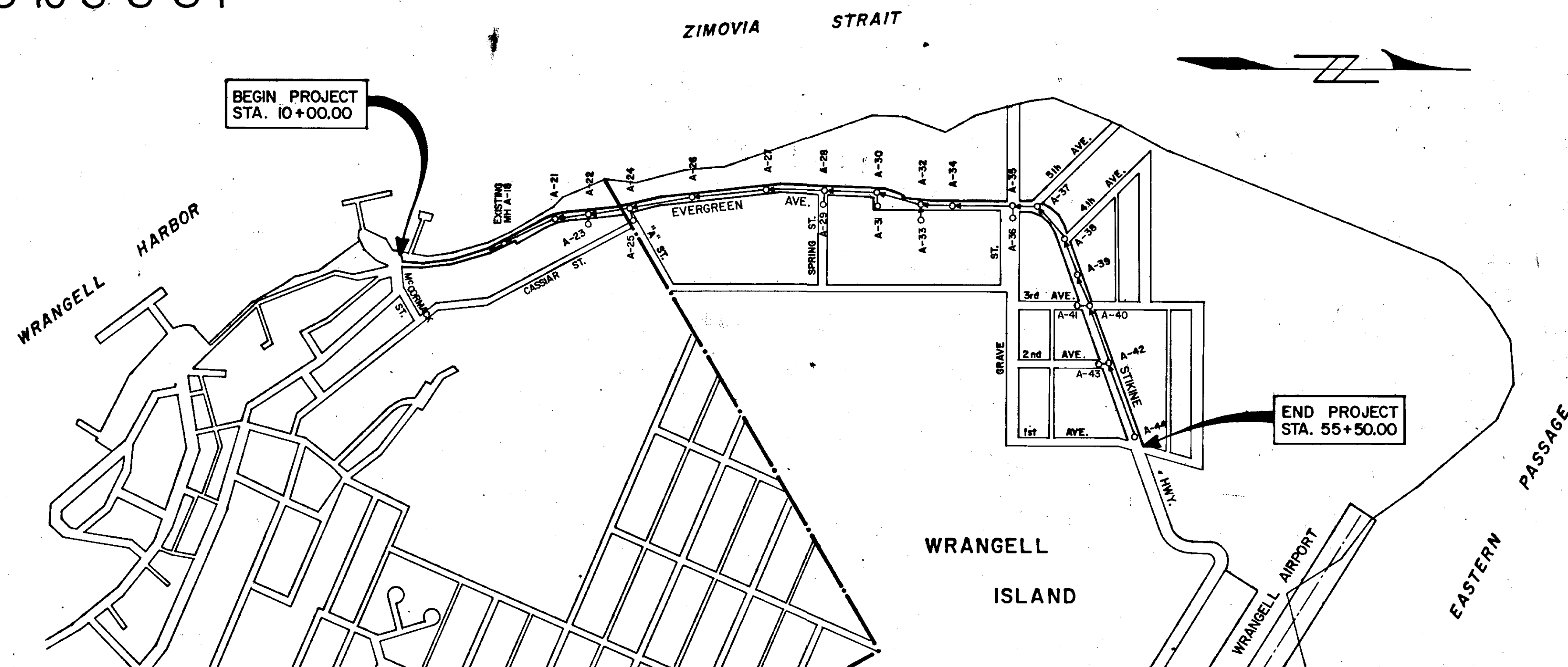


SUPPLEMENTAL WORK "A"

STIKINE & EVERGREEN AVE. SEWER & WATER EXTENSION R-30717

"As-Built" Plans
THE MASSART COMPANY
PROJ. ENG. DALE ROBBINS
5-26-83 to 5-8-84



VICINITY MAP
SCALE: 1" = 400'

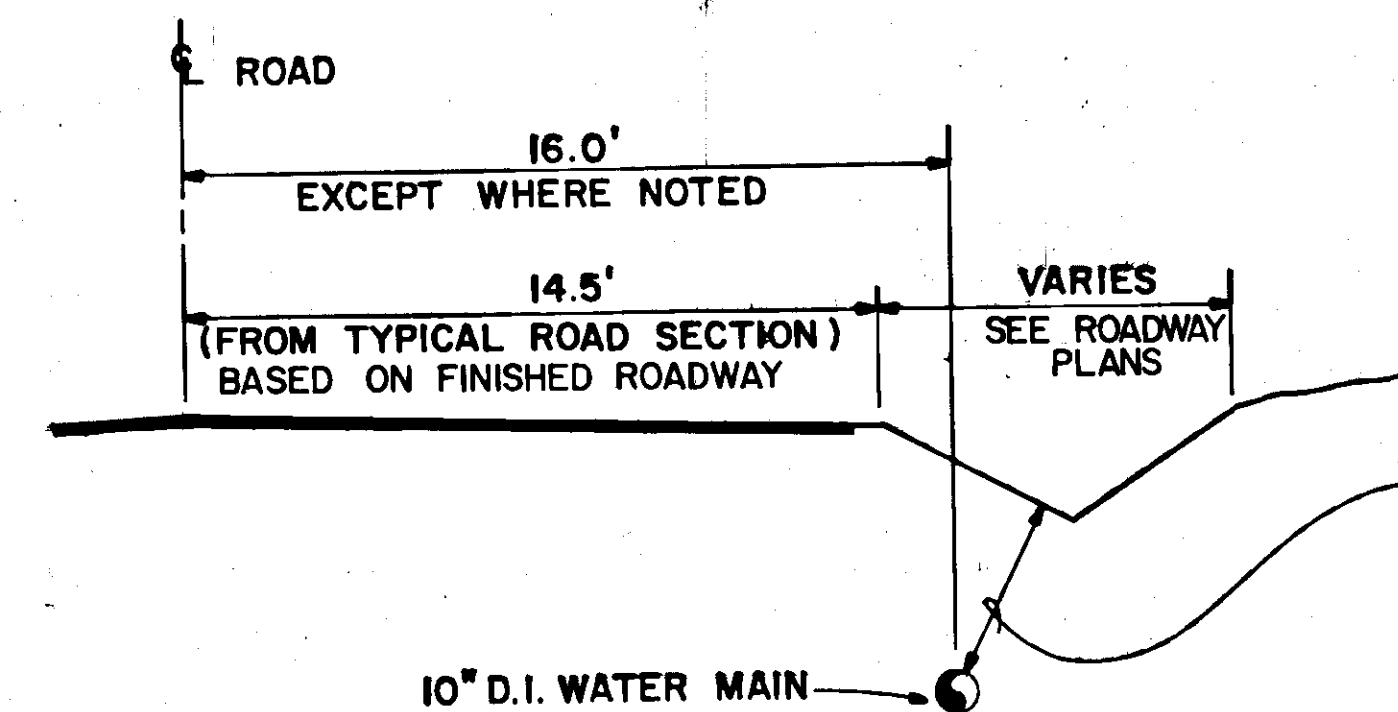
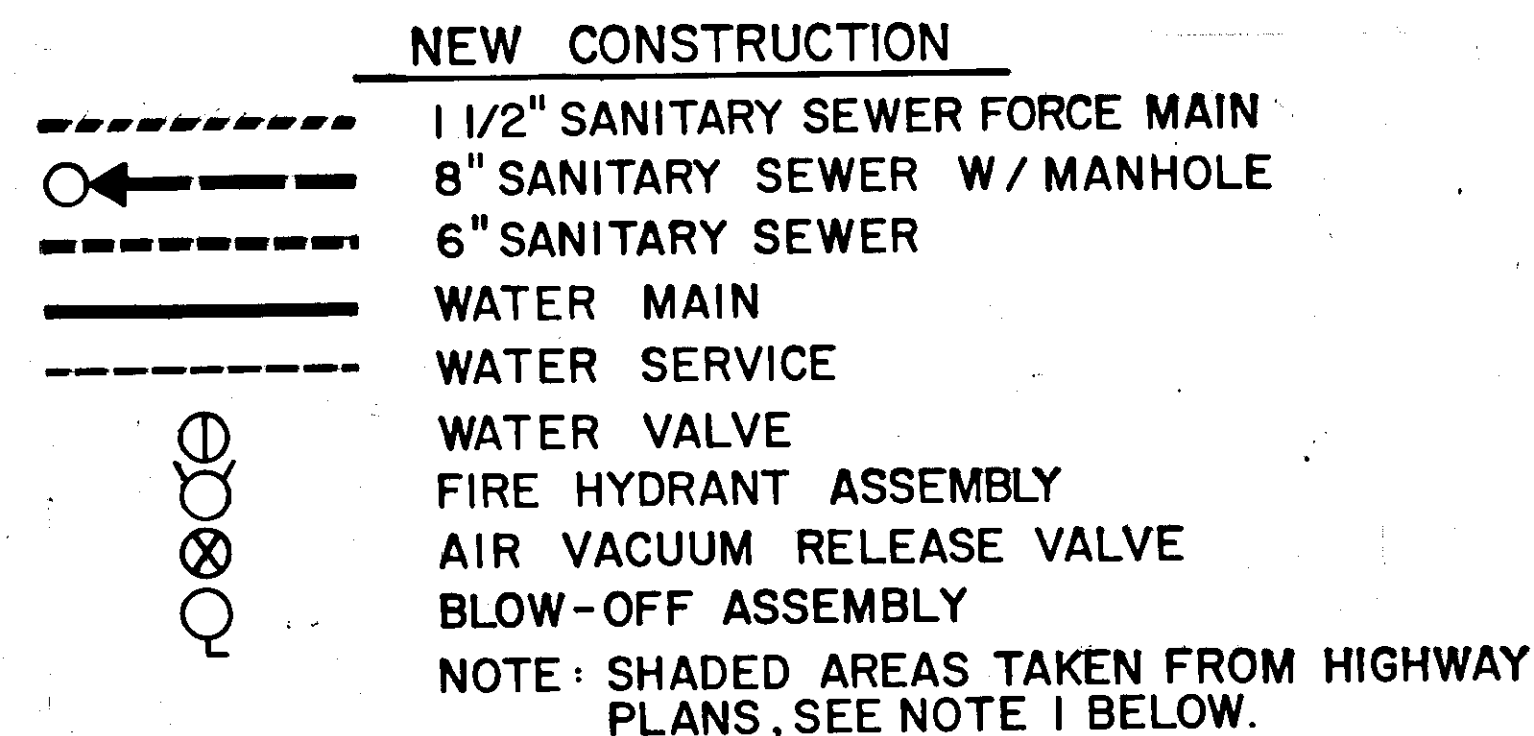
SHEET INDEX

S-1	COVER SHEET
S-2	ESTIMATE OF QUANTITIES, LEGEND & NOTES
S-3	STATION 10+00.00 TO 15+00.00
S-4	STATION 15+00.00 TO 21+00.00
S-5	STATION 21+00.00 TO 27+00.00
S-6	STATION 27+00.00 TO 32+00.00
S-7	STATION 32+00.00 TO 38+00.00
S-8	STATION 38+00.00 TO 43+00.00
S-8A	5th AVENUE SEWER & WATER EXTENSION
S-9	STATION 43+00.00 TO 49+00.00
S-10	STATION 49+00.00 TO 55+50.00

ESTIMATE OF QUANTITIES

ITEM NUMBER	ITEM	UNIT	SHEET NUMBERS								TOTAL
			S-3	S-4	S-5	S-6	S-7	S-8#8A	S-9	S-10	
110 (1A)	MOBILIZATION	L.S.									ALL REQUIRED
114 (1A)	CONSTRUCTION SURVEYING BY THE CONTRACTOR	L.S.									ALL REQUIRED
113 (1A)	FLAGGING	MAN HOUR									200
203(3A)	ADDITIONAL EXCAVATION	L.S.									ALL REQUIRED
203(9)	EXCAVATION FOR PUMP STATION VAULT	L.S.									ALL REQUIRED
628(16A)	1" WATER SERVICE	EACH									2
SANITARY SEWER											
604 (2)	SANITARY SEWER MANHOLE	EACH	0	3	3	3	4	5	4	3	25
604 (8)	MANHOLE EXTRA DEPTH	V. F.	0	2	8	3	6	5	8	8	-40-28
604 (9)	INSIDE DROP MANHOLE CONNECTION	EACH	0	0	0	0	1	0	0	0	1
626 (1-6)	6 INCH PVC SEWER CONDUIT	L. F.	0	320	200	170	30	170	260	370	+520-1725
626 (1-8)	8 INCH PVC SEWER CONDUIT	L. F.	0	602	621	529	708	621	622	559	-4262-4204
626 (2)	8 INCH DUCTILE IRON SEWER CONDUIT	L. F.	0	18	18	18	36	18	18	18	144
626 (3)	6" ON 8" TEE	EACH	0	3	5	9	3	7	10	13	-50-53
626 (4)	6" ON 6" TEE OR WYE	EACH	0	12	5	11	3	9	12	18	-70-40
626 (5)	CONNECTION TO EXISTING SEWER LINE	EACH	0	1	0	0	3	0	0	0	4
626 (6)	CLEANOUT	EACH	0	2	0	0	0	1	0	0	3
626 (7)	1 1/2 INCH SEWER FORCE MAIN	L. F.	0	0	0	0	0	400	0	0	400
626 (8)	1 1/4 INCH SEWER SERVICE CONNECTION WATER	EACH	0	0	0	0	0	7	0	0	7
628 (2-4)	4 INCH DUCTILE IRON WATER CONDUIT, CLASS 50	L. F.	0	25	0	0	0	0	0	0	-25-105
628 (2-6)	6 INCH DUCTILE IRON WATER CONDUIT, CLASS 50	L. F.	0	0	0	0	20	0	0	0	-20-100
628 (2-8)	8 INCH DUCTILE IRON WATER CONDUIT, CLASS 50	L. F.	0	0	20	20	0	510	110	0	-660-1056
628 (2-10)	10 INCH DUCTILE IRON WATER CONDUIT, CLASS 50	L. F.	495	600	592	500	600	490	578	615	-4470-4478
628 (2-12)	12 INCH DUCTILE IRON WATER CONDUIT, CLASS 50	L. F.	0	0	0	0	0	0	0	55	55
628 (4)	INSTALL VALVE BOX	EACH	2	1	2	2	1	3	5	4	-20-21
628 (6)	FIRE HYDRANT INSTALLATION	EACH	1	1	1	1	1	2	1	2	-10-11
628 (8)	FIRE HYDRANT REMOVAL	EACH	1	1	0	0	0	0	0	0	2
628 (9)	2 INCH WATER SERVICE CONNECTION	EACH	0	0	0	1	0	1	0	0	-2-3
628 (10-4)	INSTALL 4 INCH GATE VALVE	EACH	0	1	0	0	0	0	0	0	1
628 (10-6)	INSTALL 6 INCH GATE VALVE	EACH	1	0	0	0	1	0	0	0	2
628 (10-8)	INSTALL 8 INCH GATE VALVE	EACH	0	0	1	1	0	2	3	1	8-9
628 (12)	CAST IRON FITTINGS	LB.	970	1000	730	600	550	1580	1450	1750	-8630-11834
628 (13)	COMBINATION AIR VACCUUM RELEASE VALVE ASSEMBLY	EACH	0	0	0	0	1	0	0	1	2
628 (14)	CONNECTION OF WATER CONDUIT TO EXISTING WATER SYSTEM	EACH	2	1	0	0	0	0	0	0	-3-4
628 (15-10)	INSTALL 10 INCH BUTTERFLY VALVE	EACH	1	0	1	1	0	1	2	2	8
628 (15-12)	INSTALL 12 INCH BUTTERFLY VALVE	EACH	0	0	0	0	0	0	0	1	1
628 (16)	3/4" WATER SERVICE CONNECTION, NEAR SIDE	EACH	7	2	5	4	0	5	2	5	-30-31
628 (17)	3/4" WATER SERVICE CONNECTION, FAR SIDE	EACH	7	2	0	7	3	8	5	10	-42-41
628 (18)	GUARD POSTS	EACH	0	2	2	2	0	4	0	2	-12-14
628 (19)	BLOW-OFF ASSEMBLY	EACH	0	0	0	0	0	1	0	0	1

LEGEND - SHEETS S-3 THRU S-10



TYPICAL WATER MAIN LOCATION

NOT TO SCALE

GENERAL NOTES

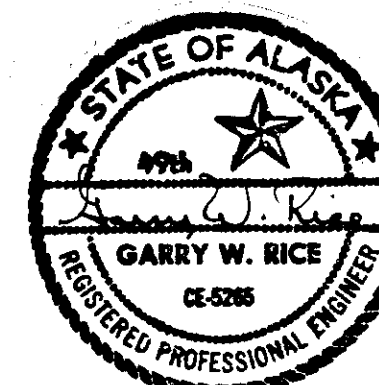
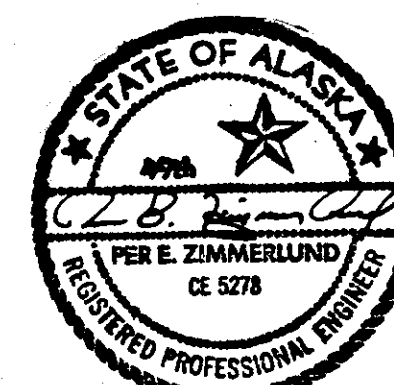
- THE SHADED PORTIONS OF SHEETS S-3 THRU S-10 WERE TAKEN FROM THE PLAN AND PROFILE SHEETS OF 'PROPOSED HIGHWAY PROJECT A-80311' PRIOR TO COMPLETION OF THE FINAL DESIGN AND SHOULD BE USED AS A REFERENCE ONLY. REFER TO THE HIGHWAY PLAN AND PROFILE SHEETS FOR THE FINAL DESIGN DATA.
- THE 'FINISHED PROFILE' SHOWN REFERS TO THE CENTERLINE OF 'PROPOSED HIGHWAY PROJECT A-80311'.
- ALL EXISTING WATER SERVICES WITHIN THE RIGHT-OF-WAY SHALL BE REPLACED AND SHALL BE RECONNECTED TO THE NEW WATER MAIN.
- THE EXACT LOCATION OF WATER AND SEWER SERVICES SHALL BE DETERMINED AT THE TIME OF CONSTRUCTION.
- PROVIDE 10' MINIMUM HORIZONTAL SEPARATION BETWEEN WATER AND SEWER CONDUITS.
- INSTALL ONE 18 L.F. LENGTH OF 8 INCH DUCTILE IRON SEWER CONDUIT WHERE THE 8 INCH SEWER CROSSES OVER, OR LESS THAN 3 FEET BELOW, A NEW OR EXISTING WATER MAIN. THE 18 L.F. LENGTH OF DUCTILE IRON PIPE SHALL BE CENTERED OVER (OR UNDER) THE WATER MAIN.
- THE EXISTING FIRE HYDRANTS AND VALVES TO BE REMOVED SHALL BE DELIVERED TO THE CITY OF WRANGELL'S MAINTENANCE DEPARTMENT.
- LOCATION OF EXISTING UTILITIES ARE APPROXIMATE AND SUBJECT TO FIELD VERIFICATION BY THE CONTRACTOR.
- PIPE CONDUIT LENGTHS AND LOCATIONS ARE APPROXIMATE AND ARE SUBJECT TO FIELD ADJUSTMENT.
- FOR SUB-SOILS INFORMATION SEE CENTERLINE SOILS REPORT MARCH 1982 FOR INTERPRETATION OF UNDERLYING MATERIALS.
- FIRE HYDRANTS, VALVES, WATER MAIN AND SERVICES SHALL BE INSTALLED AT DEPTHS AND LOCATIONS TO AVOID CONFLICTS WITH EXISTING AND FUTURE STORM DRAINS AND SANITARY SEWERS.

MANHOLE SUMMARY

MH. NO.	STATION	OFFSET	MH. NO.	STATION	OFFSET
A-21	18+00	24' LT.	A-33	36+84	50' RT.
A-22	19+80	17' LT.	A-34	38+05	15' LT.
A-23	19+70	28' RT.	A-35	40+87	15' LT.
A-24	22+12	17' LT.	A-36	40+87	30' RT.
A-25	22+12	30' RT.	A-37	42+06	20' LT.
A-26	24+82	17' LT.	A-38	44+24	17' LT.
A-27	28+40	17' LT.	A-39	46+16	17' LT.
A-28	31+65	17' LT.	A-40	47+83	17' LT.
A-29	31+65	30' RT.	A-41	47+66	30' RT.
A-30	34+23	17' LT.	A-42	50+75	17' LT.
A-31	34+26	22' RT.	A-43	50+75	30' RT.
A-32	36+84	16' LT.	A-44	54+30	17' LT.
			A-37A	42+30	85' LT.

ABBREVIATIONS

A.C.	ASBESTOS CEMENT
BSMT.	BASEMENT
C.O.	CLEANOUT
D.I.	DUCTILE IRON
DMH	DROP MANHOLE
F.	FLANGE
FF.	FINISHED FLOOR
F.H.	FIRE HYDRANT
G.V.	GATE VALVE
H.	HUB
HSE.	HOUSE
INV.	INVERT
L.F.	LINEAL FEET
LT.	LEFT OF HIGHWAY CENTERLINE
M.J.	MECHANICAL JOINT
MH.	MANHOLE
P.E.	PLAIN END
PVC.	POLYVINYL CHLORIDE
RT.	RIGHT OF HIGHWAY CENTERLINE
S.	SLOPE
S.S.	SANITARY SEWER



URS COMPANY

A Professional Services Organization
Seattle, Washington

STIKINE & EVERGREEN AVE.
ESTIMATE OF QUANTITIES,
LEGEND & NOTES

S-2

SHEET 2 OF 10

No.	DATE	BY	REVISION
2	3/17/83	T.W.M.	MAIN & BLOW-OFF ASSEMBLY TO LEGEND, MH A-37A TO SUMM. 604(2), 628(2-8), 628(6), 628(12), (16), (17), (18), ADDED FORCE
1	2/1/83	T.W.M.	ADDED 626 (7) & (8), 628 (19), CHANGED QUANT. FOR ITEMS CHANGED ITEM NUMBERS 110, 113 & 114

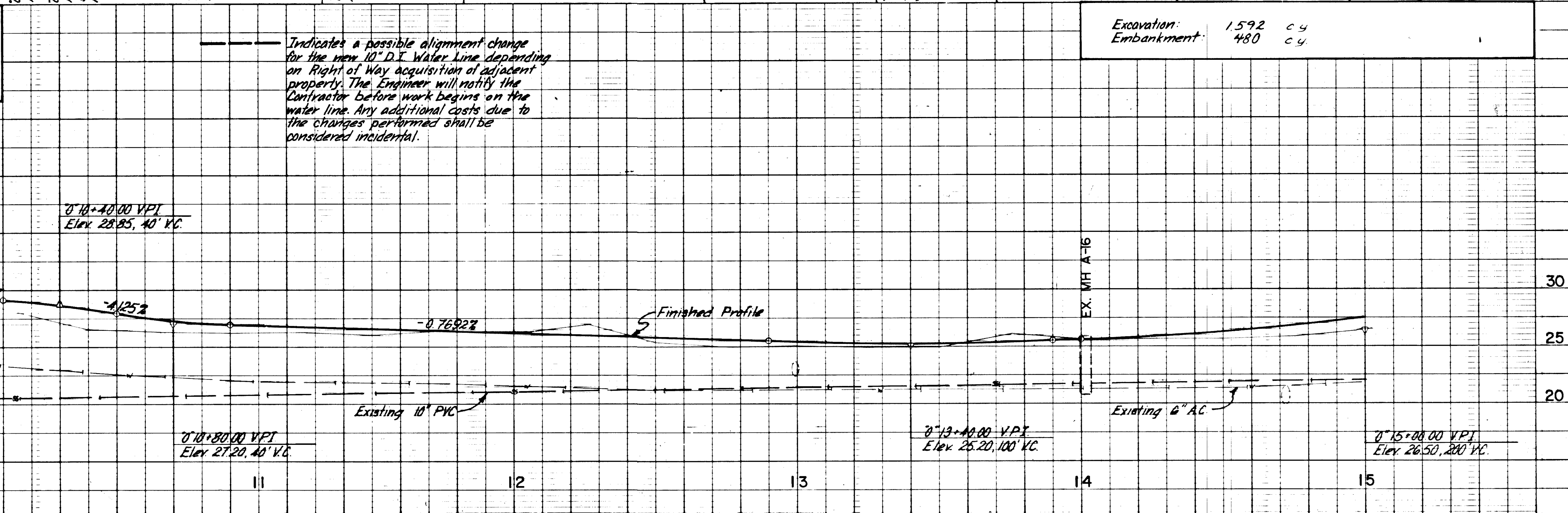
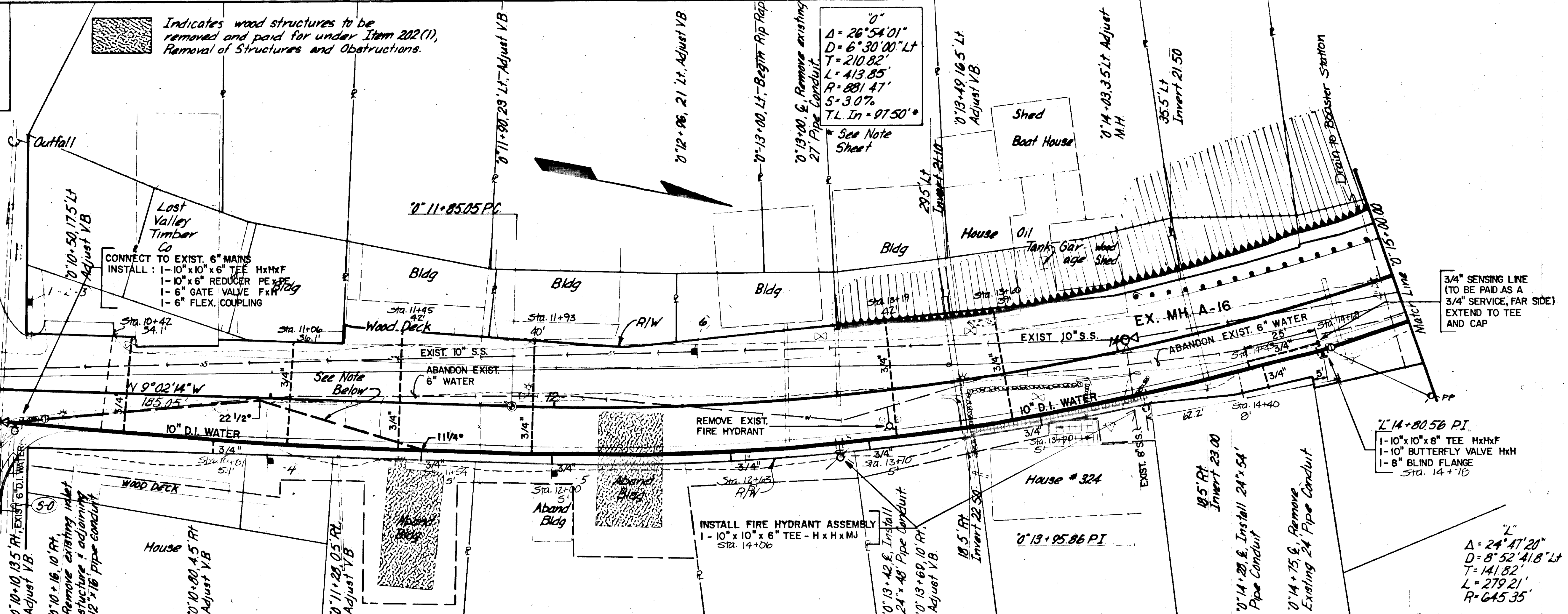
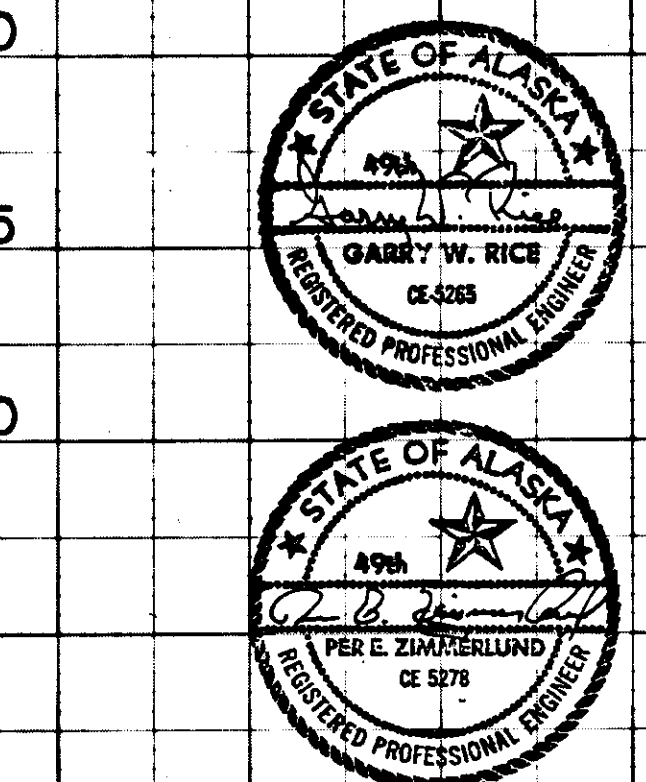
Job No. 4634-0007-05	Designed: KRL	Prof. Eng. [Signature]
SCALE NONE	Drawn by: SLN	Approved by: [Signature]
	Checked by: YS	Date: 11-18-82

HORIZONTAL CONTROL
Horizontal Control is based on a reference bearing of $S 21^{\circ} 56' 35'' W$ from U.S.C. & G.S. Brass Cap Field to a U.S.C. & G.S. Brass Cap Lithograph.

BOP Coordinates
State Plane Grid Coordinates
(N 1697779.967) (E 2944135.043)
Project Datum (Assumed)
(N 26790907) (E 80951604)

BEGIN PROJECT
A-80311
STA. "O" 10+00 (4.0' LT.) =
STA. "L" 10+00

VERTICAL CONTROL
Vertical Control is based on a U.S.C. & G.S. Bench Mark No 9, 1971. It is set flush with the top step of the stairs leading to the basement of the U.S. Post Office & Customs House Elevation 44.80' above M.L.L.W.



No.	DATE	BY	REVISION
1	2/1/83	T.W.M.	ADDED ALIGNMENT CHANGE AND NOTE

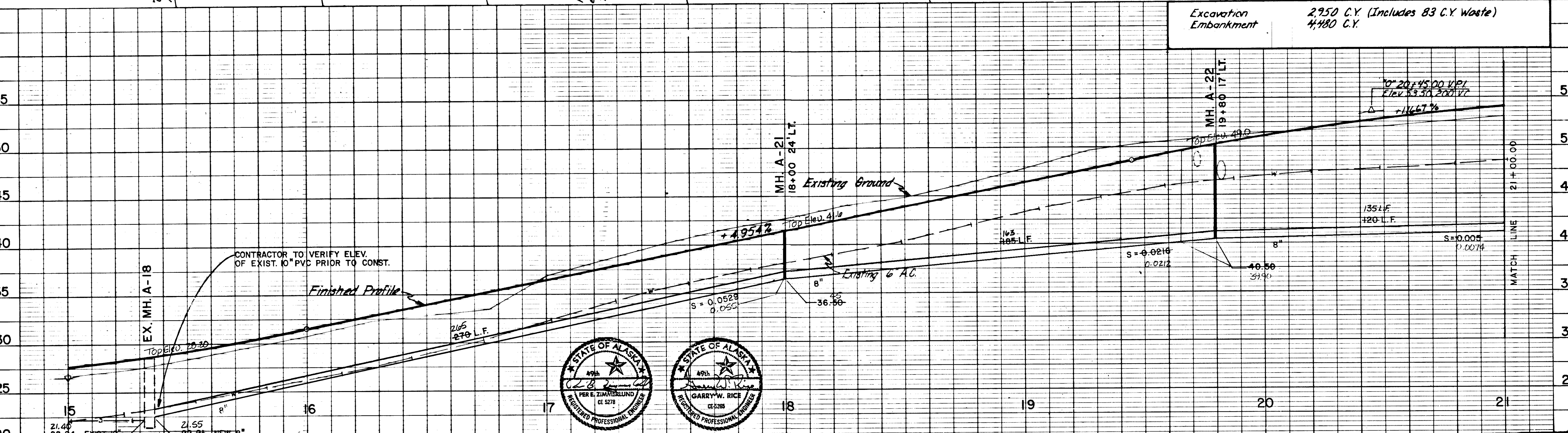
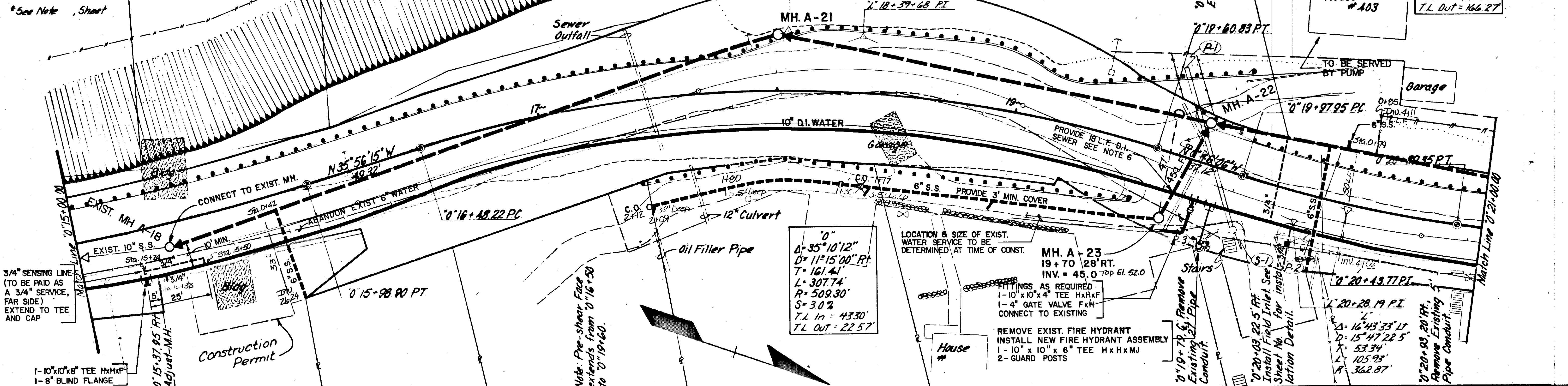
Job No 4634-0007-05
Designed VS / KRL
Proj. Engr. [Signature]
Drawn by SM / DJ
Checked by GR
Date 11-18-82

SCALE
Vert. 1" = 5'
Horiz. 1" = 20'

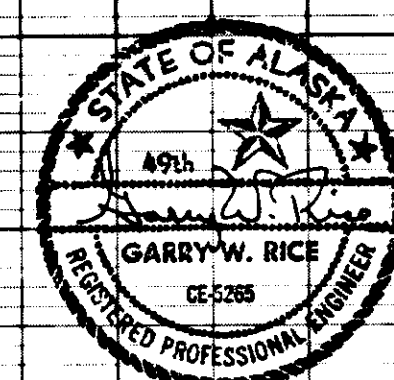
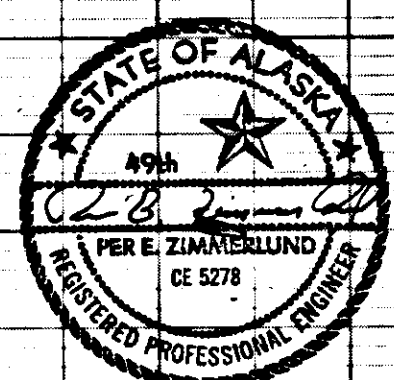
URS COMPANY
A Professional Services Organization
Seattle, Washington

0"
 $\Delta = 26^{\circ}54'01''$
 $D = 6^{\circ}30'00''$ Lt
 $T = 210.82'$
 $L = 413.85'$
 $R = 881.47'$
 $S = 3\%$
 $T.L. In = 97.50'$

0"
 $\Delta = 10^{\circ}17'00''$
 $D = 11^{\circ}15'00''$ Lt
 $T = 45.83'$
 $L = 91.41'$
 $R = 509.30'$
 $S = 3.0\%$
 $T.L. In = 22.57'$
 $T.L. Out = 166.27'$



Excavation 2,950 C.Y. (Includes 83 C.Y. Waste)
 Embankment 4,480 C.Y.



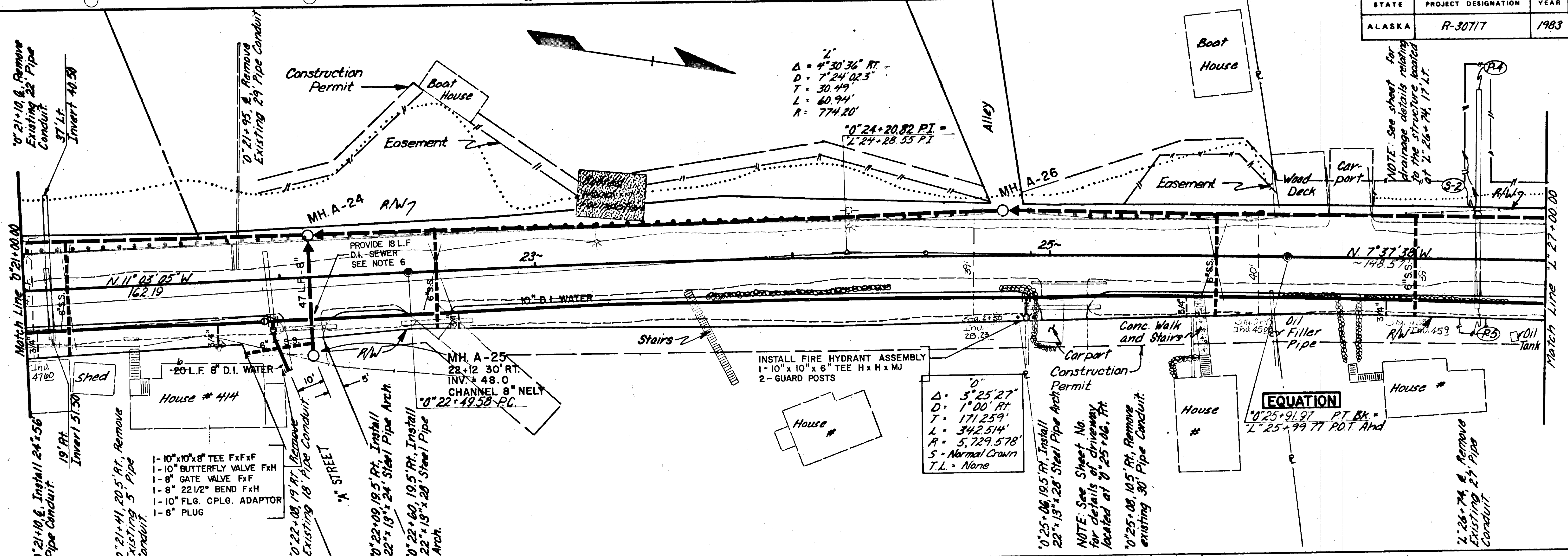
URS COMPANY
 A Professional Services Organization
 Seattle, Washington

STIKINE & EVERGREEN AVE
 STATION 15+00 TO STATION 21+00
 SEWER & WATER EXTENSIONS

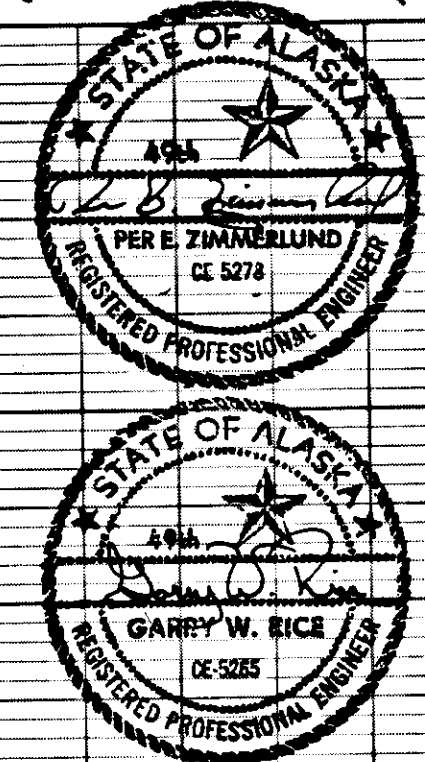
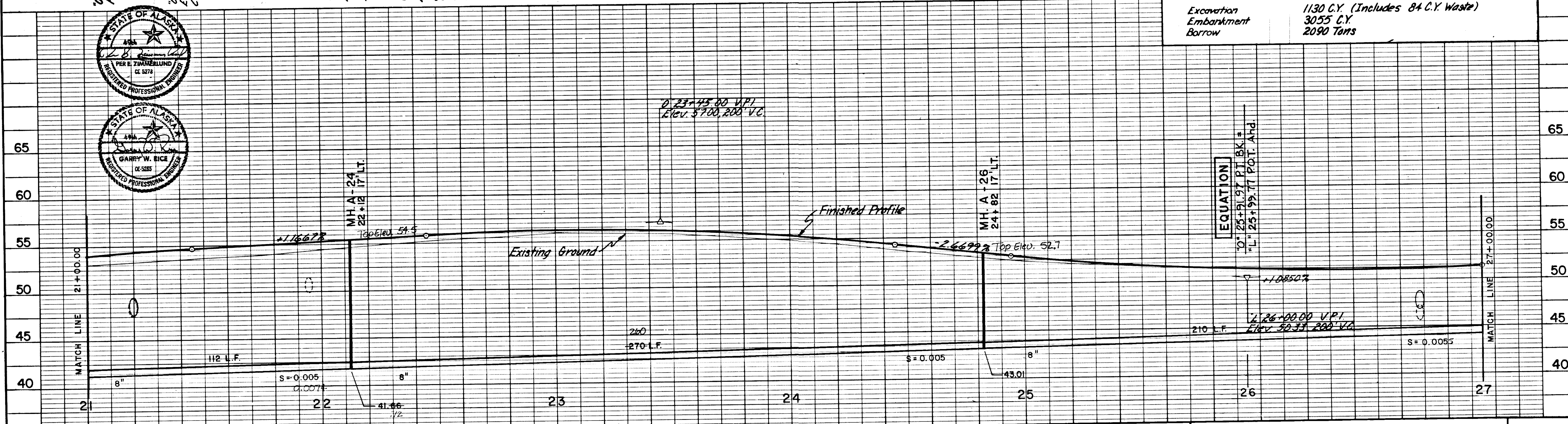
S-4
 SHEET 4 OF 10

No.	DATE	BY	REVISION

Job No 4634-0007-05
 Designed by VS / KRL
 Drawn by SM / DJ
 Checked by GR
 Scale: Vert. 1" = 5', Horiz. 1" = 20'
 Project Engineer: [Signature]
 Approved by: [Signature]
 Date: 11-18-82



Excavation	1130 C.Y. (Includes 84 C.Y. Waste)
Embankment	3055 C.Y.
Borrow	2090 Tons

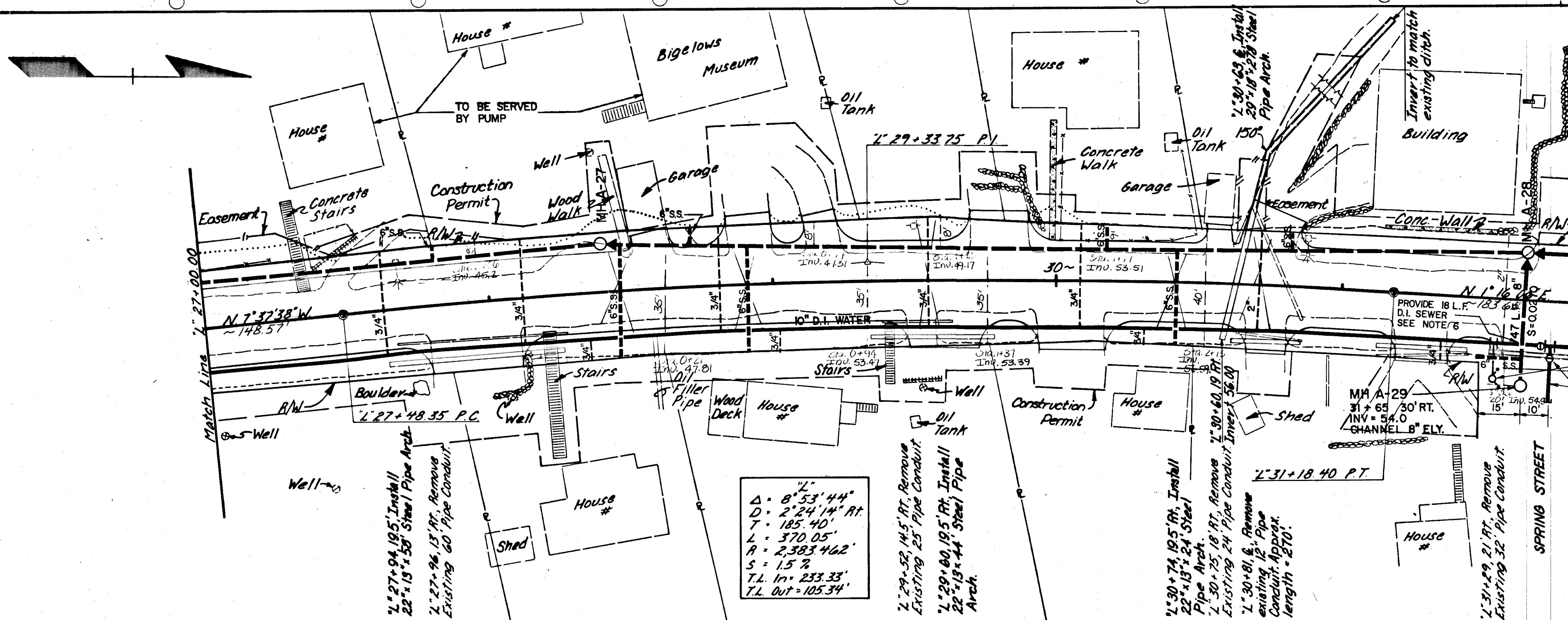


No.	DATE	BY	REVISION

Job No. 4634-0007-05
 Designed by VS/KRI
 Drawn by SM/DJ
 Checked by GR
 Date 11-18-82

URS COMPANY
 A Professional Services Organization
 Seattle, Washington

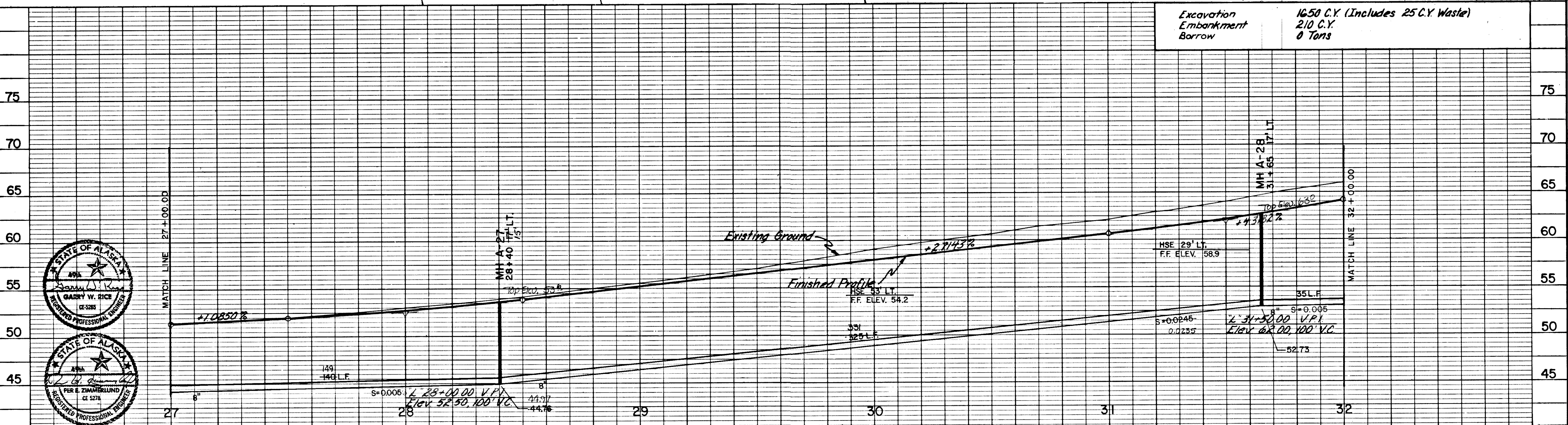
STIKINE & EVERGREEN AVE.
 STATION 21+00 TO STATION 27+00
 SEWER & WATER EXTENSIONS



Note: See Sheet No. for details of driveways located at L. 27+94' RT., L. 29+60' RT., L. 29+80' LT.

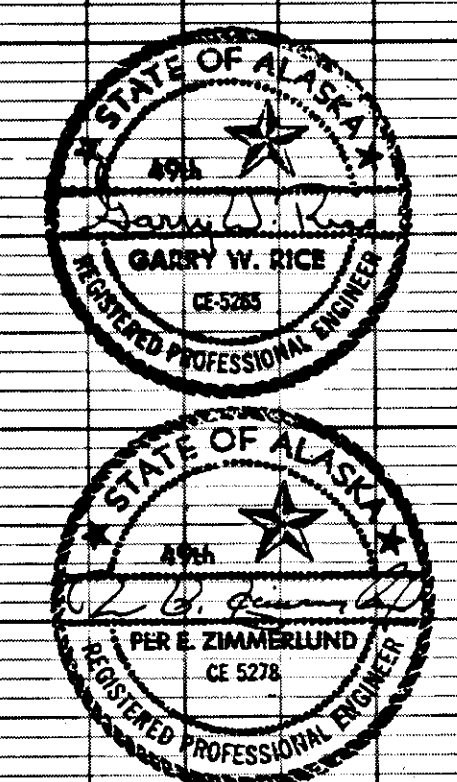
- INSTALL FIRE HYDRANT ASSEMBLY
 1- 10" x 10" x 6" TEE - H x H x MJ
 2- GUARD POSTS
- 20L.F. 8" D.I. WATER
- 1- 10" x 10" x 8" TEE - F x F x F
 - 1- 10" BUTTERFLY VALVE - F x H
 - 1- 8" GATE VALVE F x H
 - 1- 10" FLG. CPLG. ADAPTOR
 - 1- 8" PLUG

$\Delta = 8.53' 44"$
 $D = 2.24' 14" RT.$
 $T = 185.40'$
 $L = 370.05'$
 $R = 2,383.462'$
 $S = 1.5\%$
 $T.L. In = 233.33'$
 $T.L. Out = 105.34'$



Excavation
Embankment
Borrow

1650 C.Y. (Includes 25 C.Y. Waste)
210 C.Y.
0 Tons



No.	DATE	BY	REVISION

Job No 4634-0007-05
 Designed VS/KRL
 Drawn by DJ/SM
 Checked by GR
 Scale: Vert. 1" = 5', Horiz. 1" = 20'

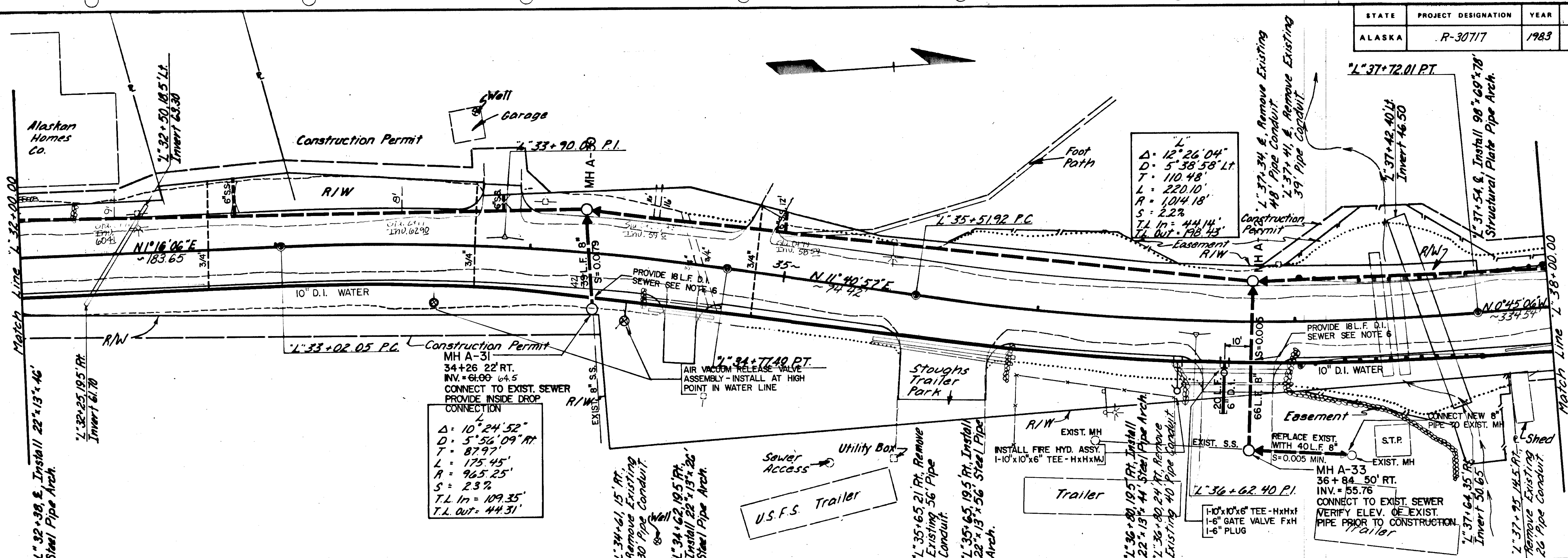
URS COMPANY
 A Professional Services Organization
 Seattle, Washington

Proj. Engr. [Signature]
 Approved by [Signature]
 Date: 11-18-82

STIKINE & EVERGREEN AVE.
 STATION 27+00 TO STATION 32+00
 SEWER & WATER EXTENSIONS

S-6
 SHEET 6 OF 10

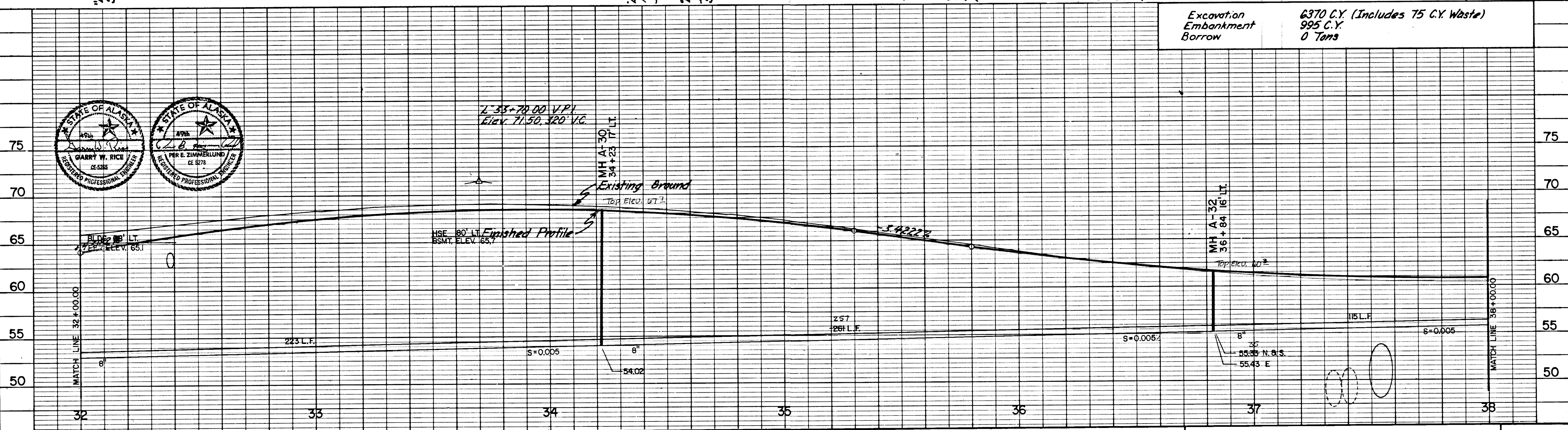
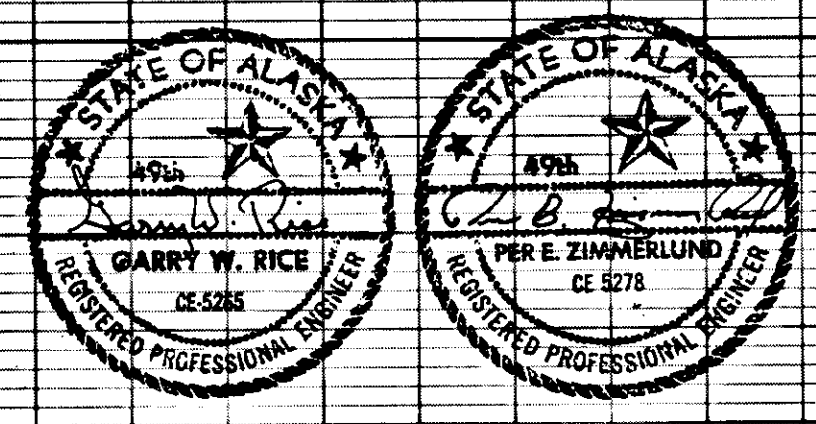
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	R-30717	1983		

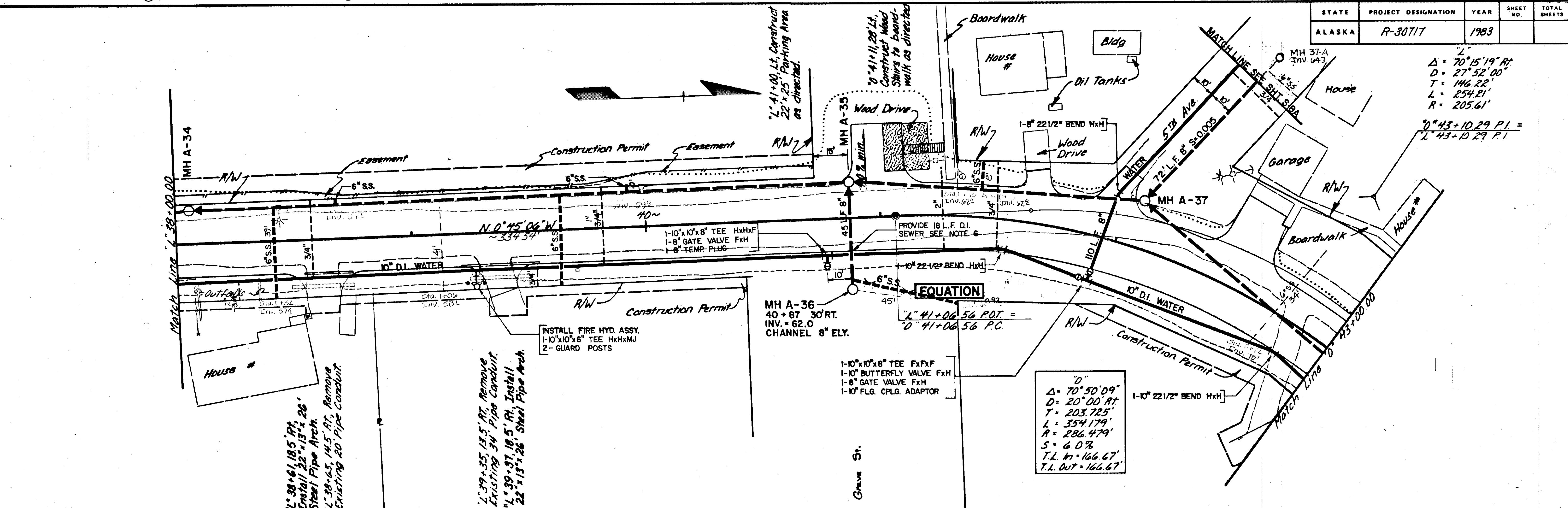


CONNECTION
 $\Delta = 10^{\circ}24'52''$
 $D = 5^{\circ}56'09''$ RT
 $T = 87.97'$
 $L = 175.45'$
 $R = 965.25'$
 $S = 2.3\%$
 $T.L. IN = 109.35'$
 $T.L. OUT = 44.31'$

Curve Data:
 $\Delta = 12^{\circ}26'04''$
 $D = 5^{\circ}38'58''$ LT
 $T = 110.48'$
 $L = 220.10'$
 $R = 1,014.18'$
 $S = 2.2\%$
 $T.L. IN = 44.14'$
 $T.L. OUT = 128.43'$

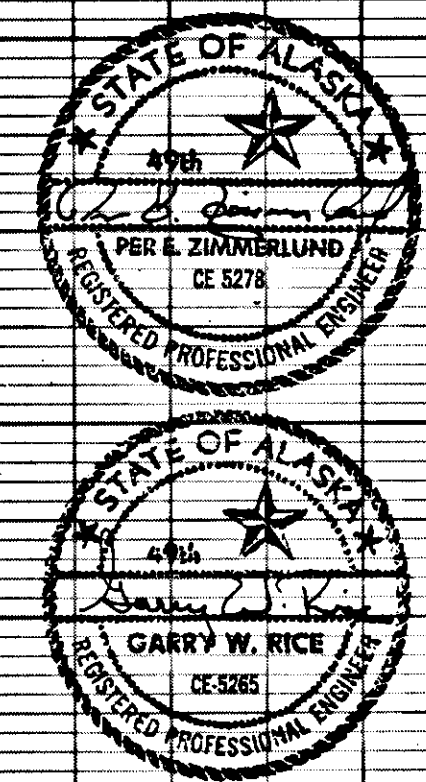
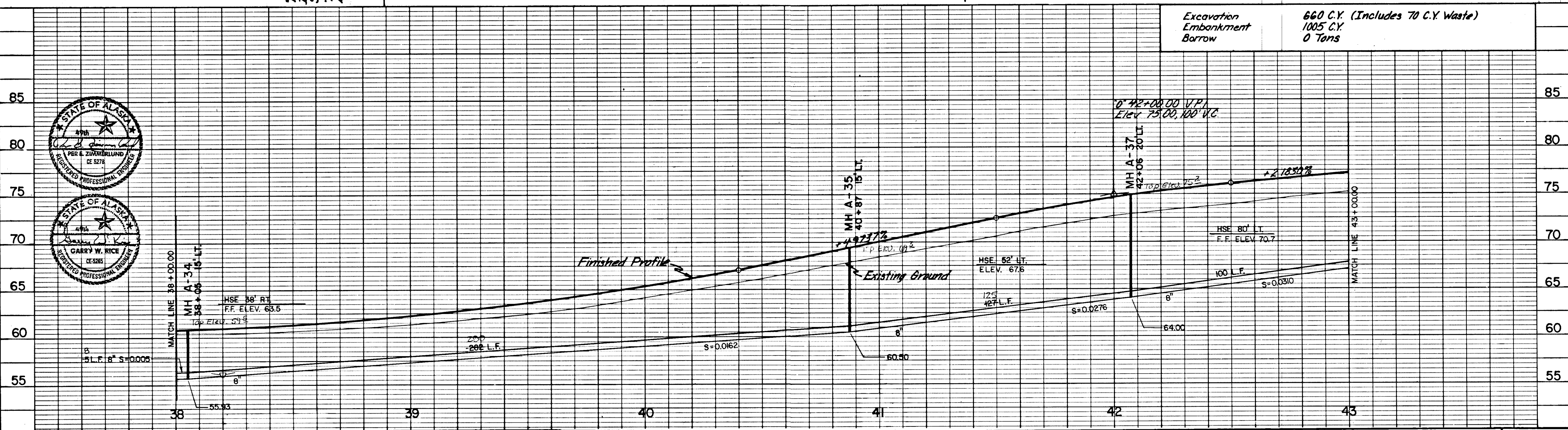
Excavation
Embankment
Borrow
 6370 C.Y. (Includes 75 C.Y. Waste)
 995 C.Y.
 0 Tons





$\Delta = 70^{\circ}15'19" RT$
 $D = 27^{\circ}52'00"$
 $T = 146.22'$
 $L = 254.21'$
 $R = 205.61'$
 $0^{\circ}43+10.29 P.I. =$
 $L' 43+10.29 P.I.$

$\Delta = 70^{\circ}50'09"$
 $D = 20^{\circ}00' RT$
 $T = 203.725'$
 $L = 354.179'$
 $R = 286.479'$
 $S = 6.0\%$
 $T.L. In = 166.67'$
 $T.L. Out = 166.67'$

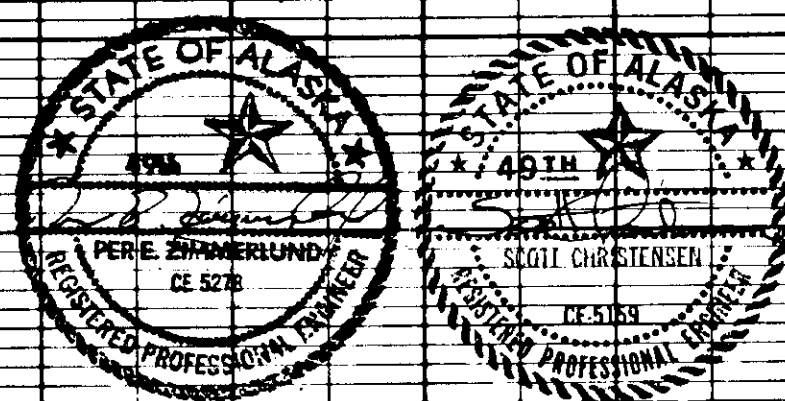
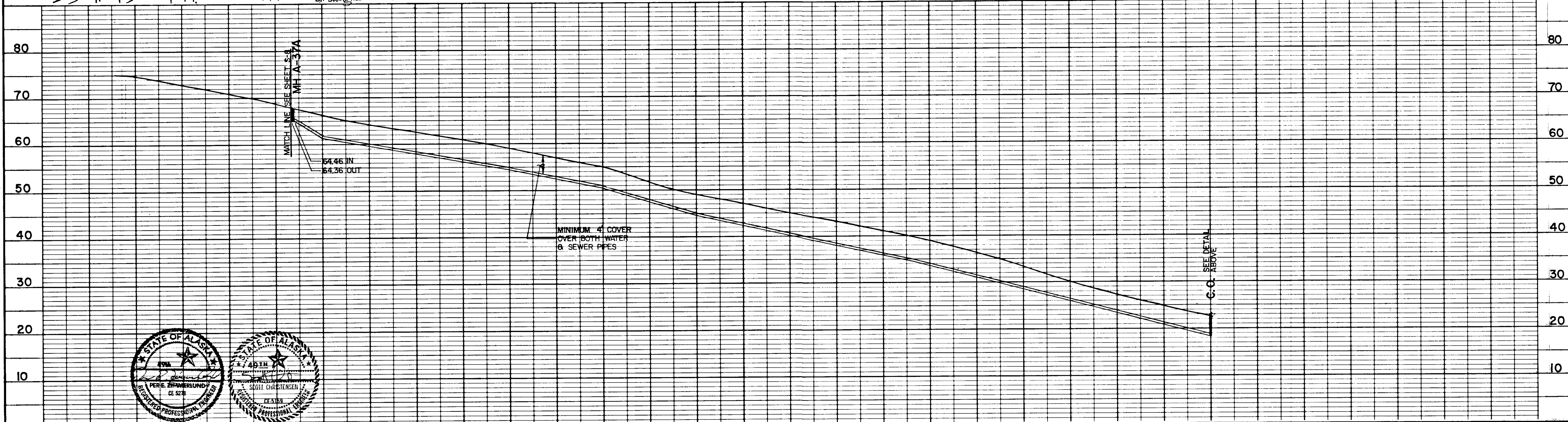
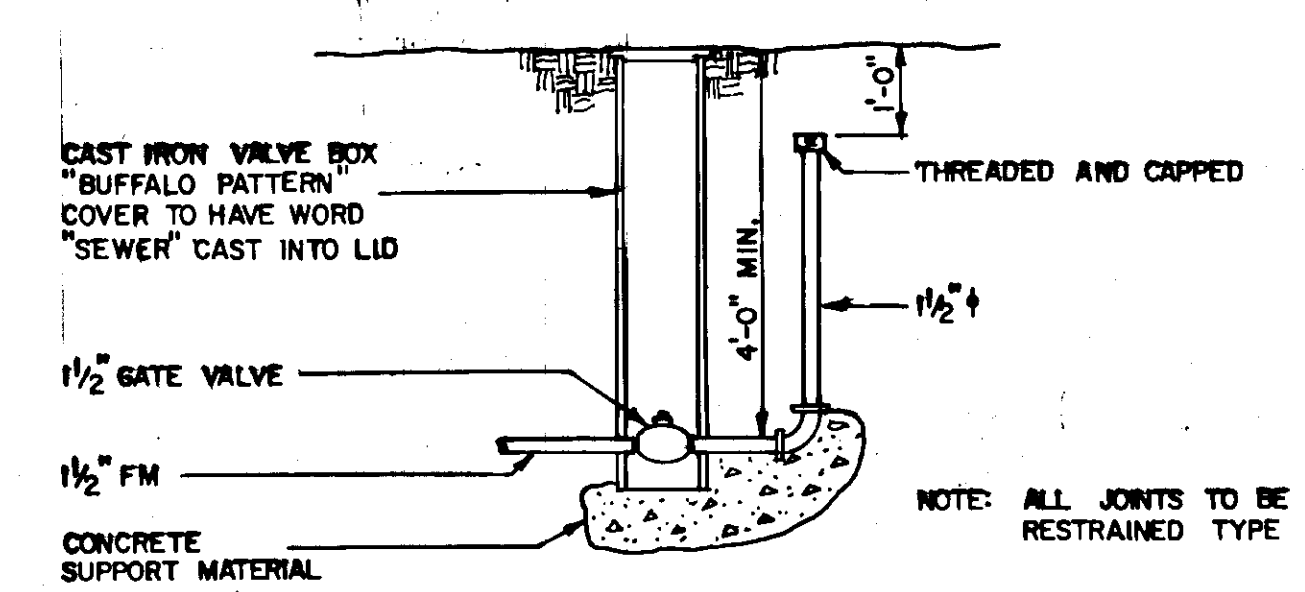
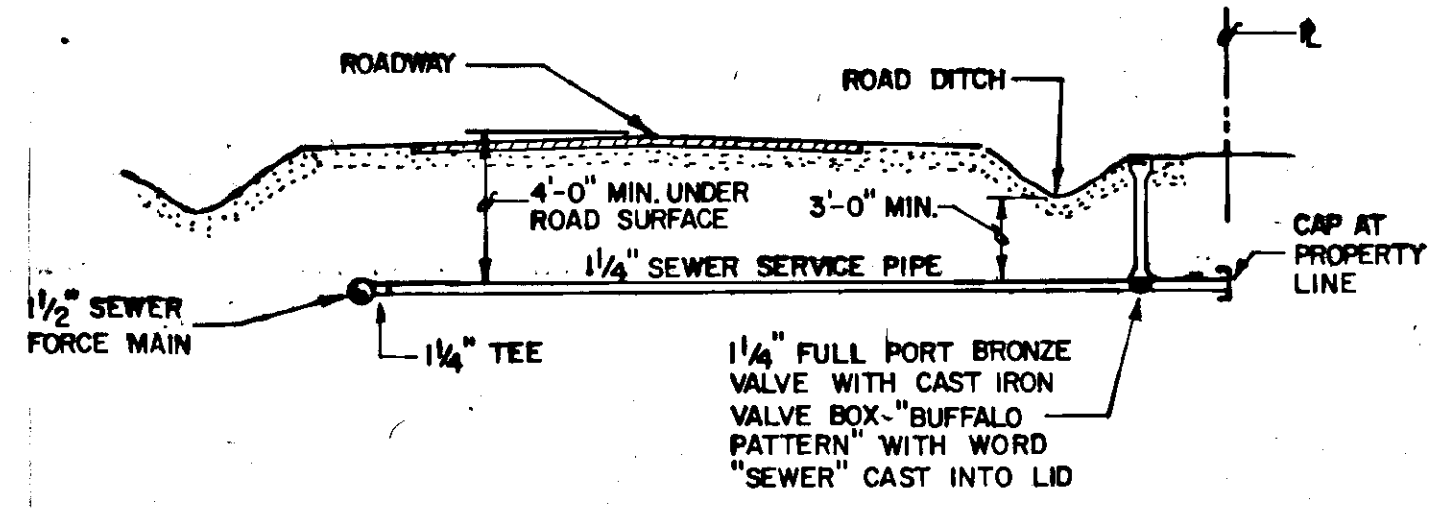
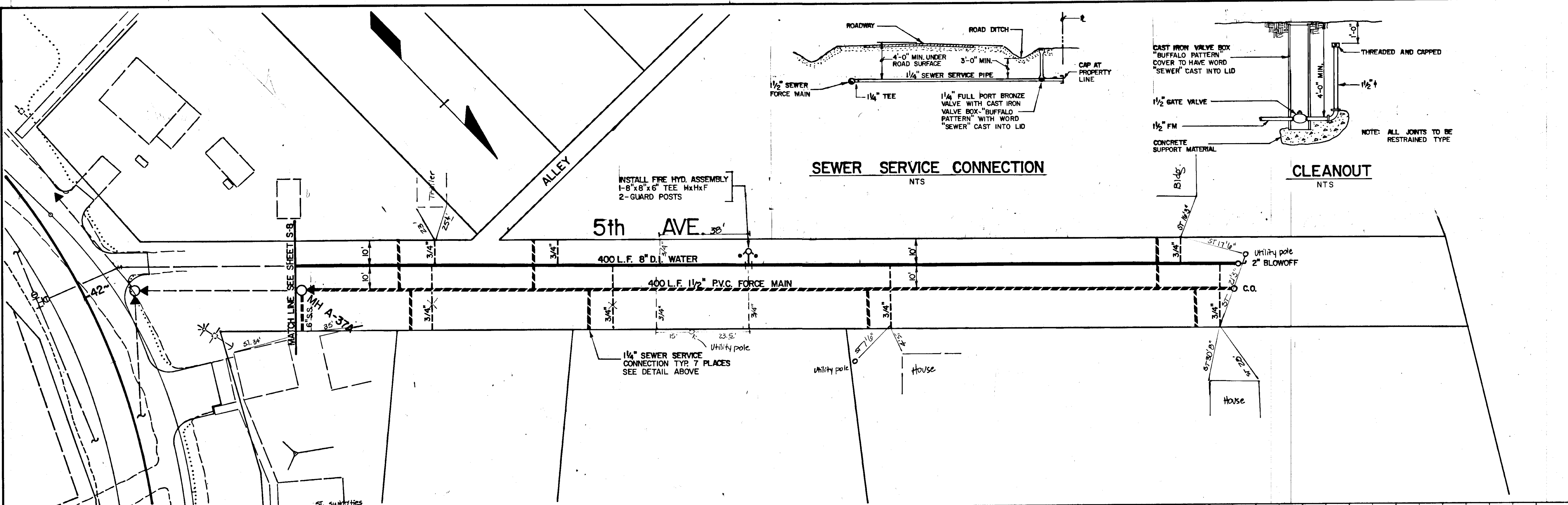


1	3/17/83	T.W.M.	ADDED MATCH LINE & REVISED QUANT. ON 5th AVE.
No.	DATE	BY	REVISION

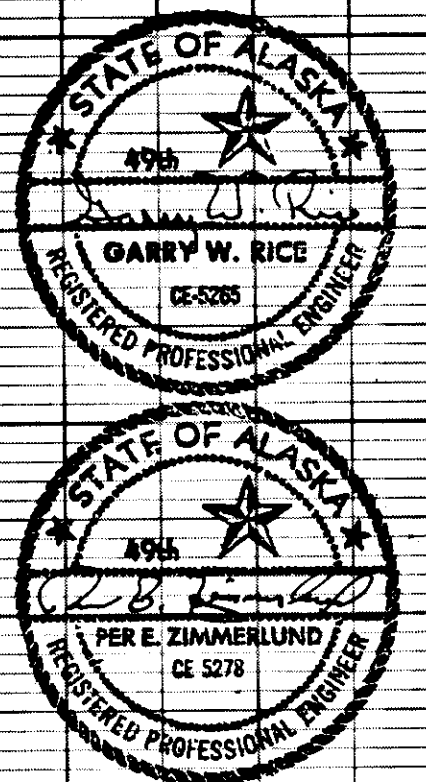
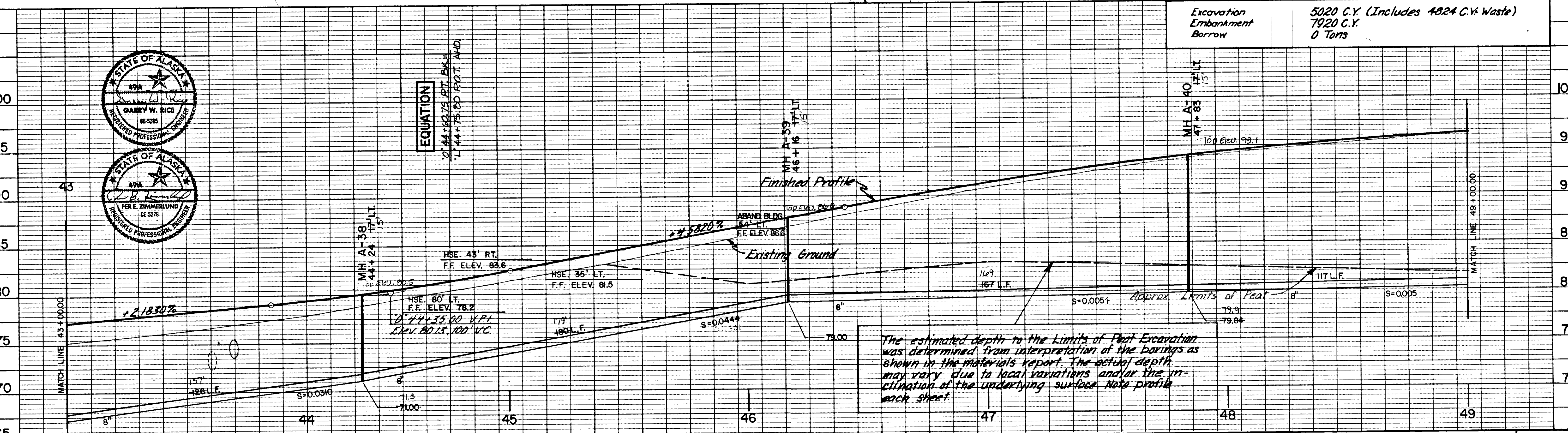
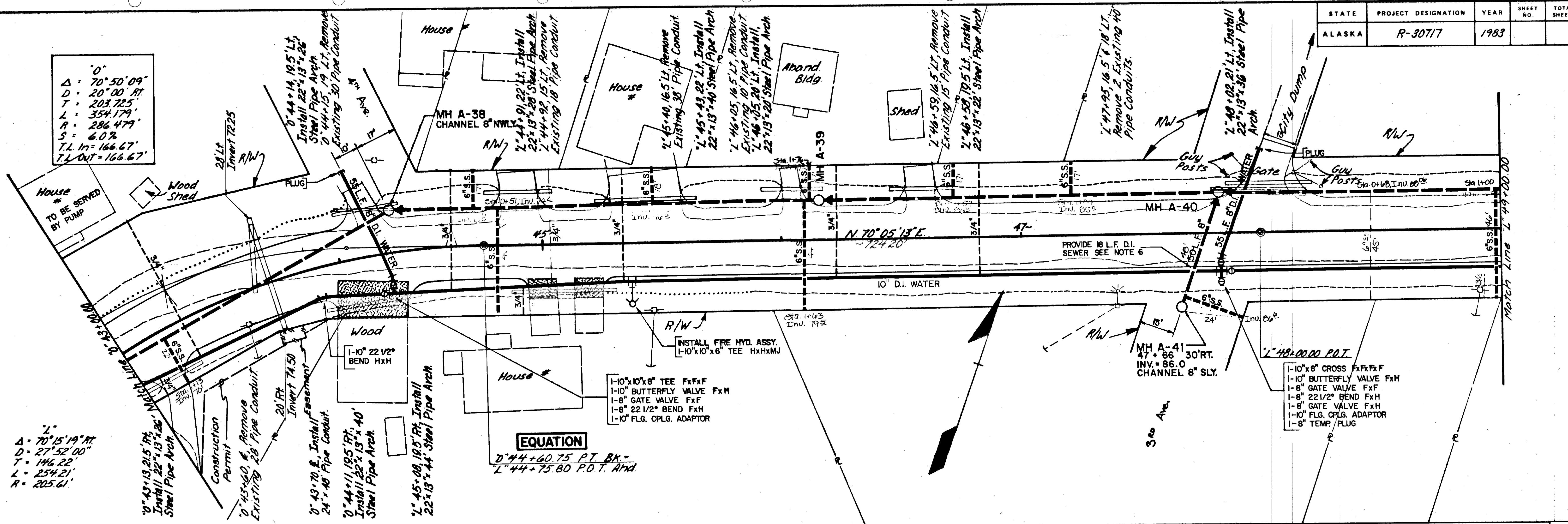
Job No 4634-0007-05	Designed VS/KRL	Proj. Eng. [Signature]
SCALE	Drawn by DJ/SM	Approved by [Signature]
Vert. 1" = 5'	Checked by GR	Date: 11-18-82
Horiz. 1" = 20'		

URS COMPANY
 A Professional Services Organization
 Seattle, Washington

STIKINE & EVERGREEN AVE.
 STATION 38+00 TO STATION 43+00
 SEWER & WATER EXTENSIONS

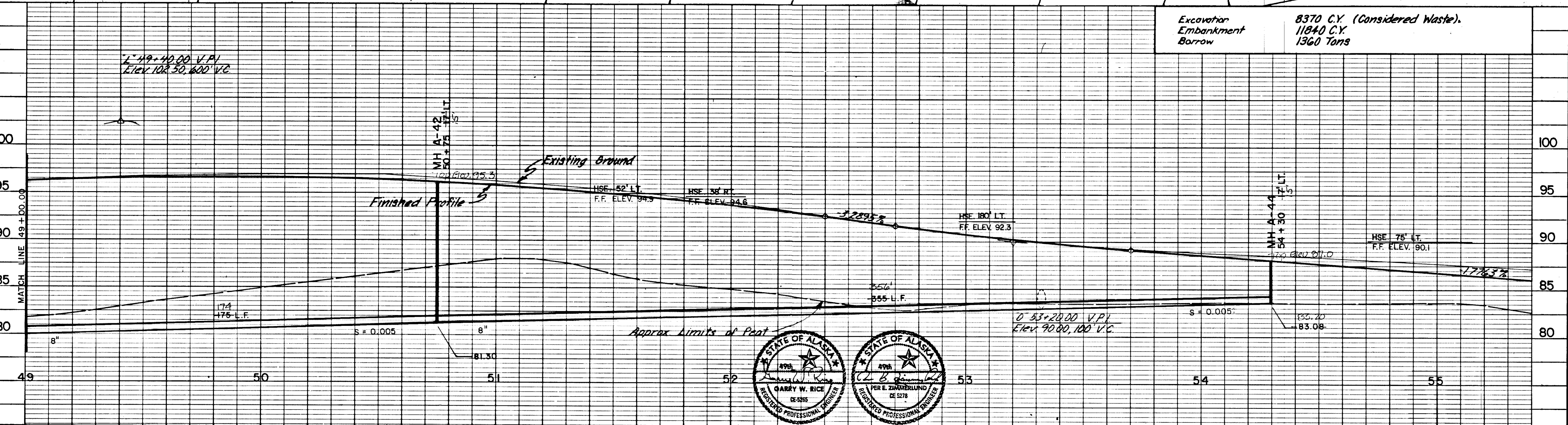
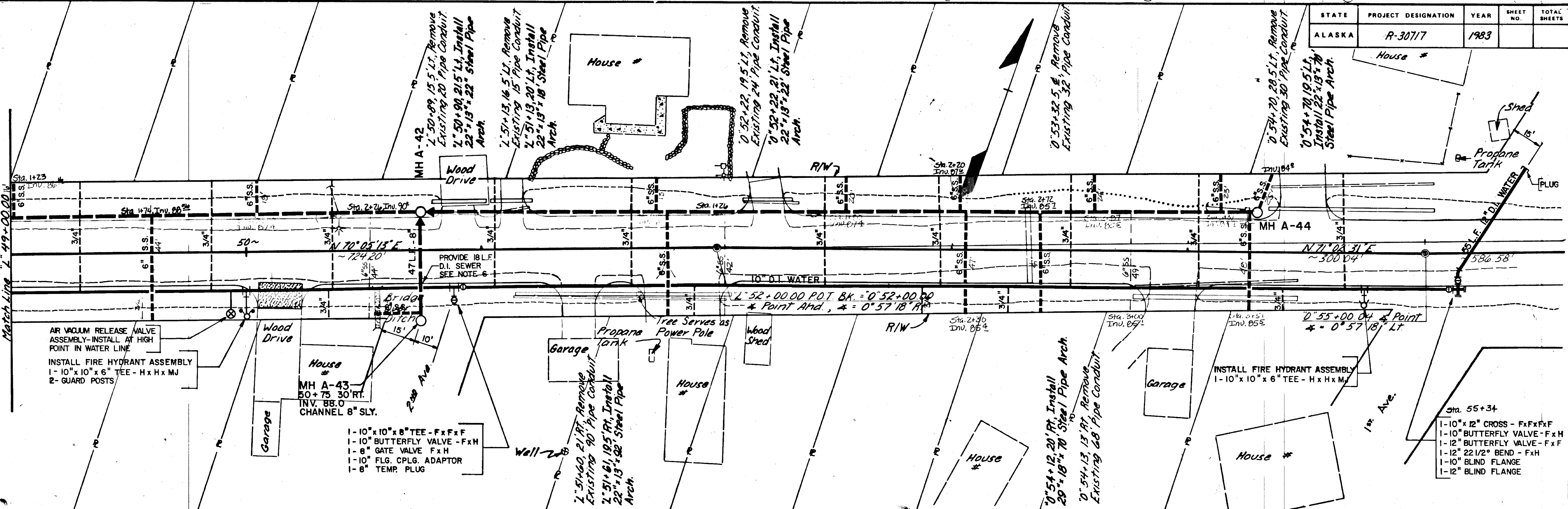


3/17/83 T.W.M. CORRECTED 3/4\" W.S. THAT WAS SHOWN CONNECTED TO S.S. No. DATE BY REVISION		Job No 4634-0007-05 SCALE Vert. 1"=10' Horiz. 1"=20'	Designed... SC Drawn by... DJ Checked by... SC	Proj. Eng. [Signature] Approved by [Signature] Date 3-15-85	URS COMPANY A Professional Services Organization Seattle, Washington	STIKINE & EVERGREEN AVE. FIFTH AVENUE SEWER & WATER EXTENSIONS	S-8A SHEET 8A OF 10
--	--	---	--	---	---	--	------------------------

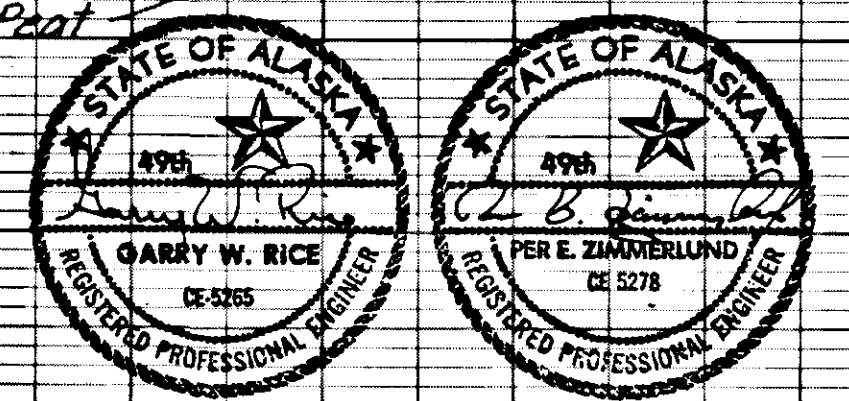


The estimated depth to the Limits of Peat Excavation was determined from interpretation of the borings as shown in the materials report. The actual depth may vary due to local variations and/or the inclination of the underlying surface. Note profile each sheet.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	R-30717	1983		



Excavator
Embankment
Borrow
8370 C.Y. (Considered Waste).
11840 C.Y.
1360 Tons



Job No 4634-0007-05		Designed: VS/KRL	Proj. Engr. [Signature]	URS COMPANY A Professional Services Organization Seattle, Washington	STIKINE & EVERGREEN AVE. STATION 49+00 TO STATION 55+30 SEWER & WATER EXTENSIONS	S-10 SHEET 10 OF 10
SCALE Vert. 1" = 5' Horiz. 1" = 20'	Drawn by: DJ/SM	Checked by: GR	Approved by: [Signature]			
No.	DATE	BY	REVISION			