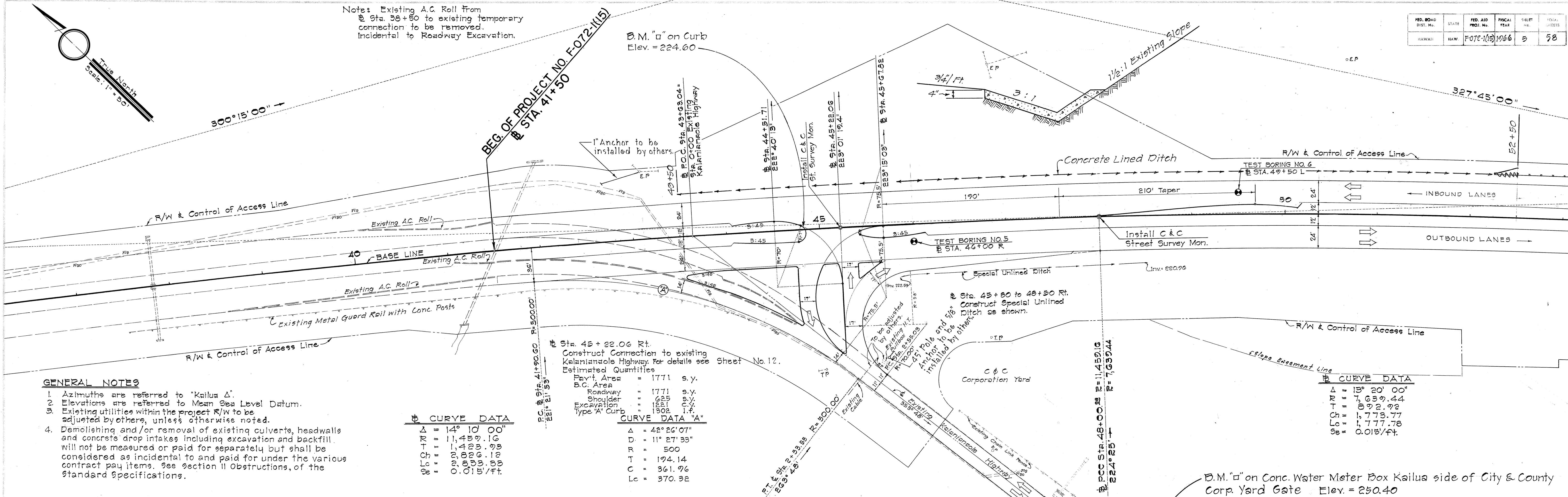


Notes: Existing A.C. Roll from Sta. 38+50 to existing temporary connection to be removed. Incidental to Roadway Excavation.

B.M. "a" on Curb Elev. = 224.60

BEG. OF PROJECT NO. F-072-1(15)
@ STA. 41+50



GENERAL NOTES

1. Azimuths are referred to "Kailua Δ".
2. Elevations are referred to Mean Sea Level Datum.
3. Existing utilities within the project R/W to be adjusted by others, unless otherwise noted.
4. Demolishing and/or removal of existing culverts, headwalls and concrete drop intakes including excavation and backfill will not be measured or paid for separately but shall be considered as incidental to and paid for under the various contract pay items. See section II Obstructions, of the standard specifications.

CURVE DATA

Δ	= 14° 10' 00"
R	= 11,459.16
Ch	= 1,423.93
Lc	= 2,826.16
Se	= 0.01574

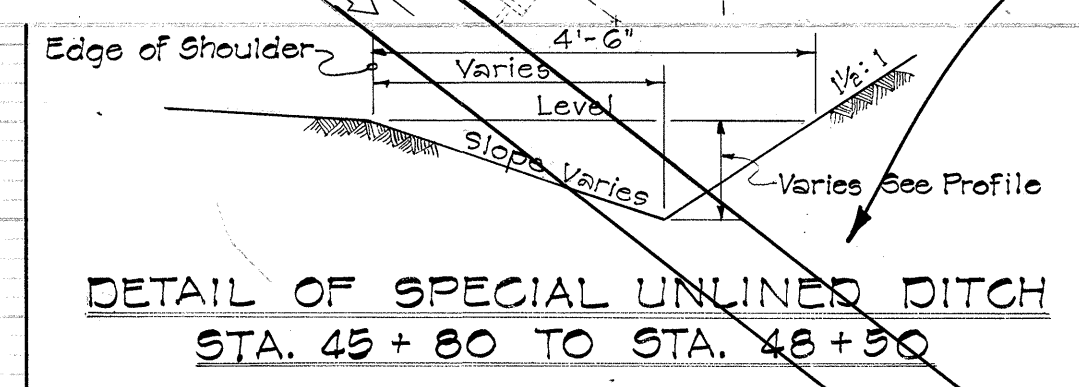
CURVE DATA "A"

Δ	= 42° 26' 07"
D	= 11° 27' 33"
R	= 500
T	= 194.14
C	= 361.96
Lc	= 370.32

CURVE DATA

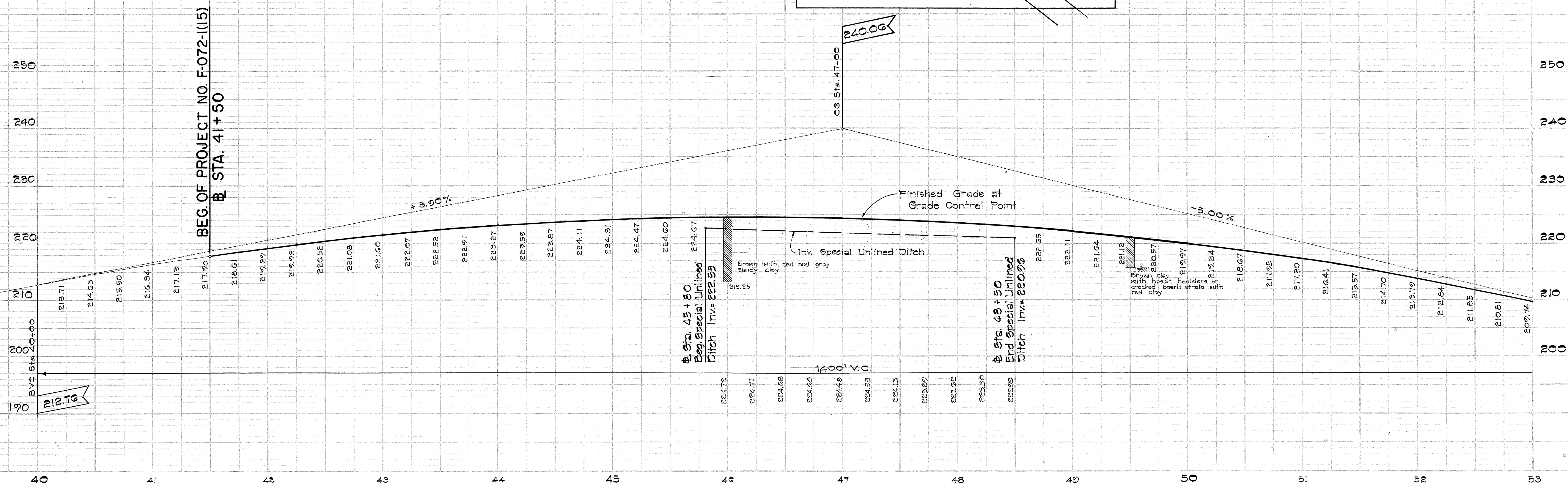
Δ	= 13° 20' 00"
R	= 7,639.44
T	= 892.92
Ch	= 1,773.77
Lc	= 1,777.78
Se	= 0.01574

B.M. "a" on Conc. Water Meter Box Kailua side of City & County Corp. Yard Gate Elev. = 250.40



NOTE TO CONTRACTOR

The Soil Profile Data shown on these sheets are for design purposes only and are intended for the convenience of the Engineer in the control of earthwork. The borings were carefully made and are believed to be reliable, but the Engineer does not guarantee the accuracy of same. The Contractor is hereby advised and will be presumed to have made his own investigation on the site prior to submission of his bid. The State will not be responsible for the data shown on these sheets.



Sta. 52+25 to Sta. 67+75 Lt.
Install Metal Guard Rail with
Posts. 1,750 L.F.

Sta. 66+00
Construct: Type "A" C. D. I., Top Elev. = 148.50
Gauge = 148.00 Inv. = 149.00. Install 24" R.C.C.P. Class III
or 24" C.G.M.P. 14 Gauge, 24" C.G.M.P. 9-pipe 14 Gauge

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	F-072-1(15)	1966	6	58

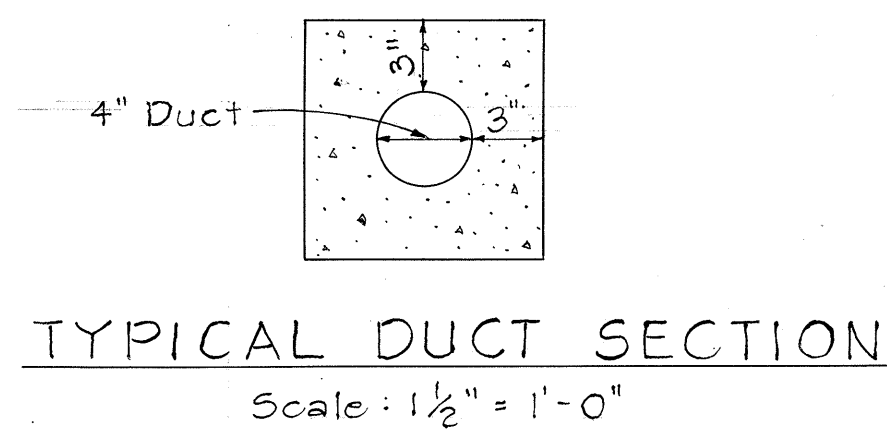
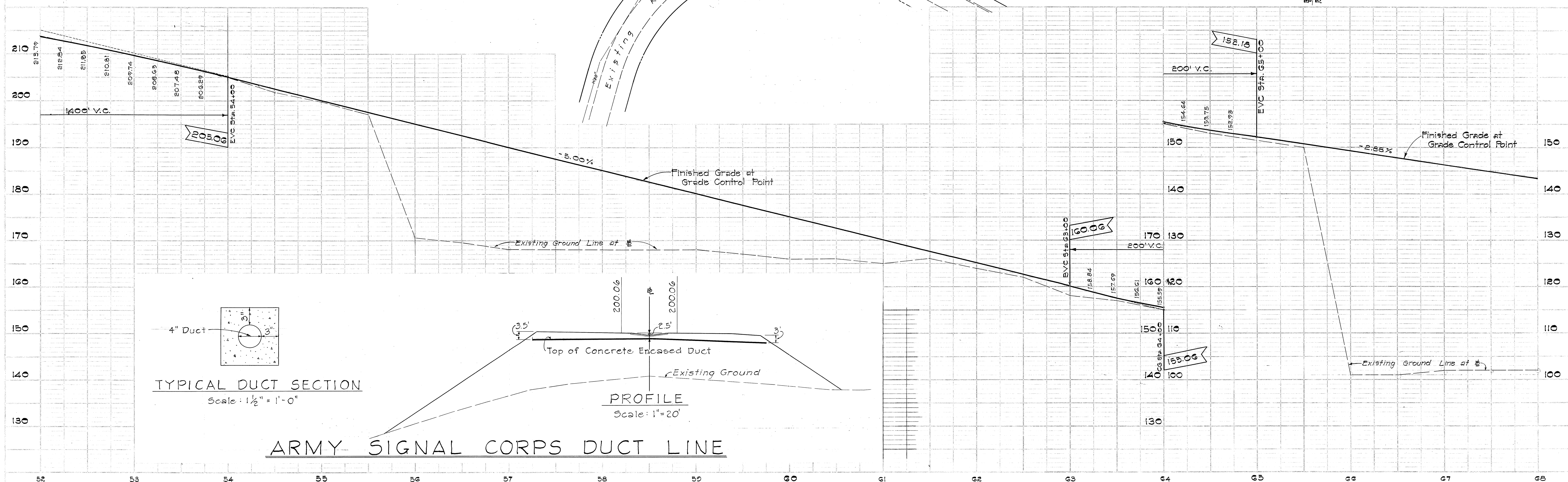
Estimated Quantities
Class "B-1" Conc. 1.8 C.Y.
9" Truc. Exc. 51 C.Y.
24" Pipe Culvert 54 L.F.
24" C.G.M.P. 9-pipe 136 L.F.

- Sta. 55+00 (See detail below)
1. One duct encased in reinforced concrete jacket. (Work to be done entirely by others)
 2. The Contractor shall coordinate his work, and give at least 30 days notification prior to final grading to the office of the Army Signal Officer.

Sta. 54+25 to Sta. 67+75 Rt.
Install Metal Guard Rail with
Posts. 1,550 L.F.

CURVE DATA

Δ	= 13° 20' 00"
TX	= 7,639.44
TY	= 872.93
CH	= 1,773.77
LC	= 1,777.78
SE	= 0.015/ft.



ARMY SIGNAL CORPS DUCT LINE

Sta. 52+25 to Sta. 69+75 Lt.
Install Metal Guard Rail with
Posts 1,750 L.F.

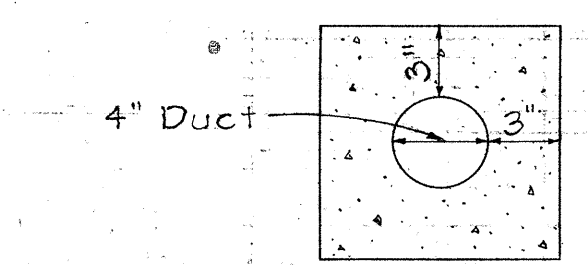
Sta. 65+00
Construct: Median Drop Intake, Inv.=148.00
Install: 24" CGMP 14 Gage, 24" CGM
Spillway 14 Gage, for details see sheets no. 26A & 26B
Estimated Quantities
Class "B-1" Conc. 1.9 ~~1.8~~ C.Y.
Struc. Exc. 27 ~~48~~ C.Y.
24" Pipe Culvert 59.2 ~~58~~ LF
24" C.G.M. Spillway 55.6 ~~46~~ LF
Type A-2 Steel Frame & Grate 1 Ea.

FED. ROAD DIST. NO.	STATE	FED. ID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
		F-072-108	1966	6A	58

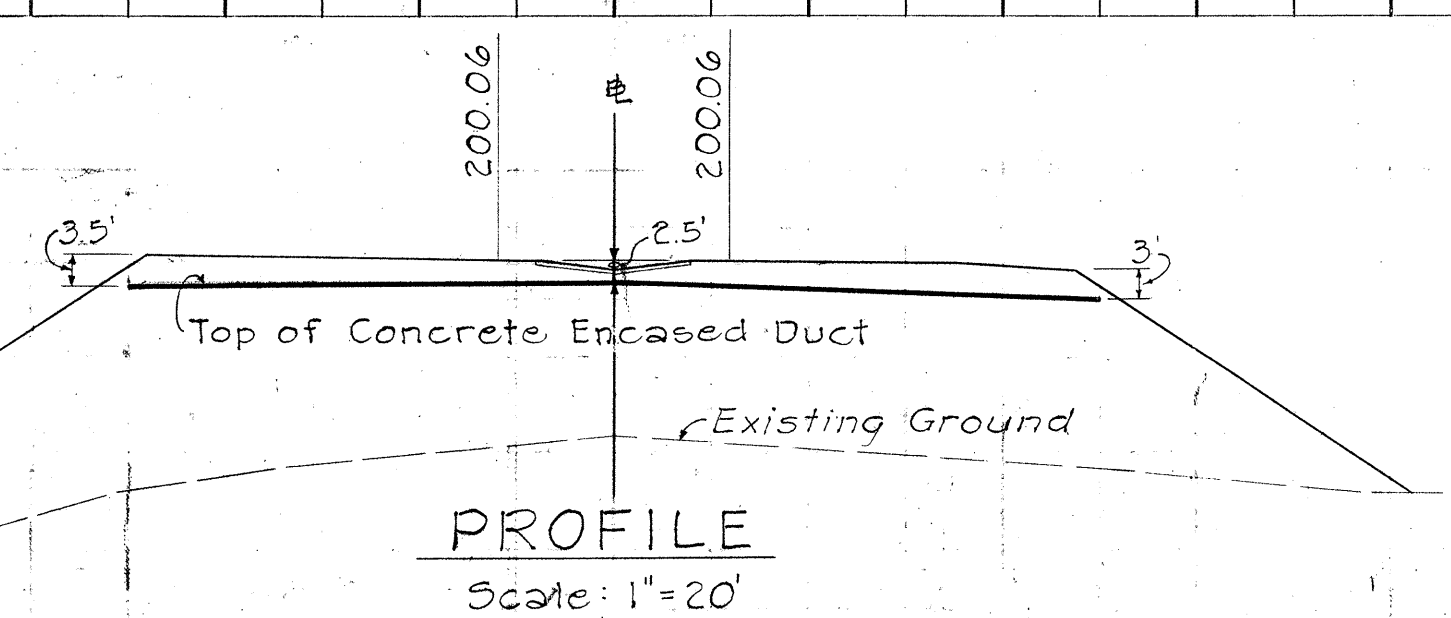
PLAN	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	ALIGNMENT CHECKED	
	RT. OF WAY CHECKED	

PROFILE	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	STRUCTURE NOTED	
	NOTES CHD.	

CURVE DATA
 $\Delta = 13^\circ 20' 00''$
 $R = 7,639.44$
 $T = 892.98$
 $Ch = 1,779.77$
 $Lc = 1,777.78$
 $Se = 0.015'/ft$



TYPICAL DUCT SECTION
Scale: 1 1/2" = 1'-0"



PROFILE
Scale: 1" = 20'

ARMY SIGNAL CORPS DUCT LINE

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	GRADES CHECKED		
	B. M.'S NOTED		
NO.	STRUCTURE NOTATIONS CH'KD.		

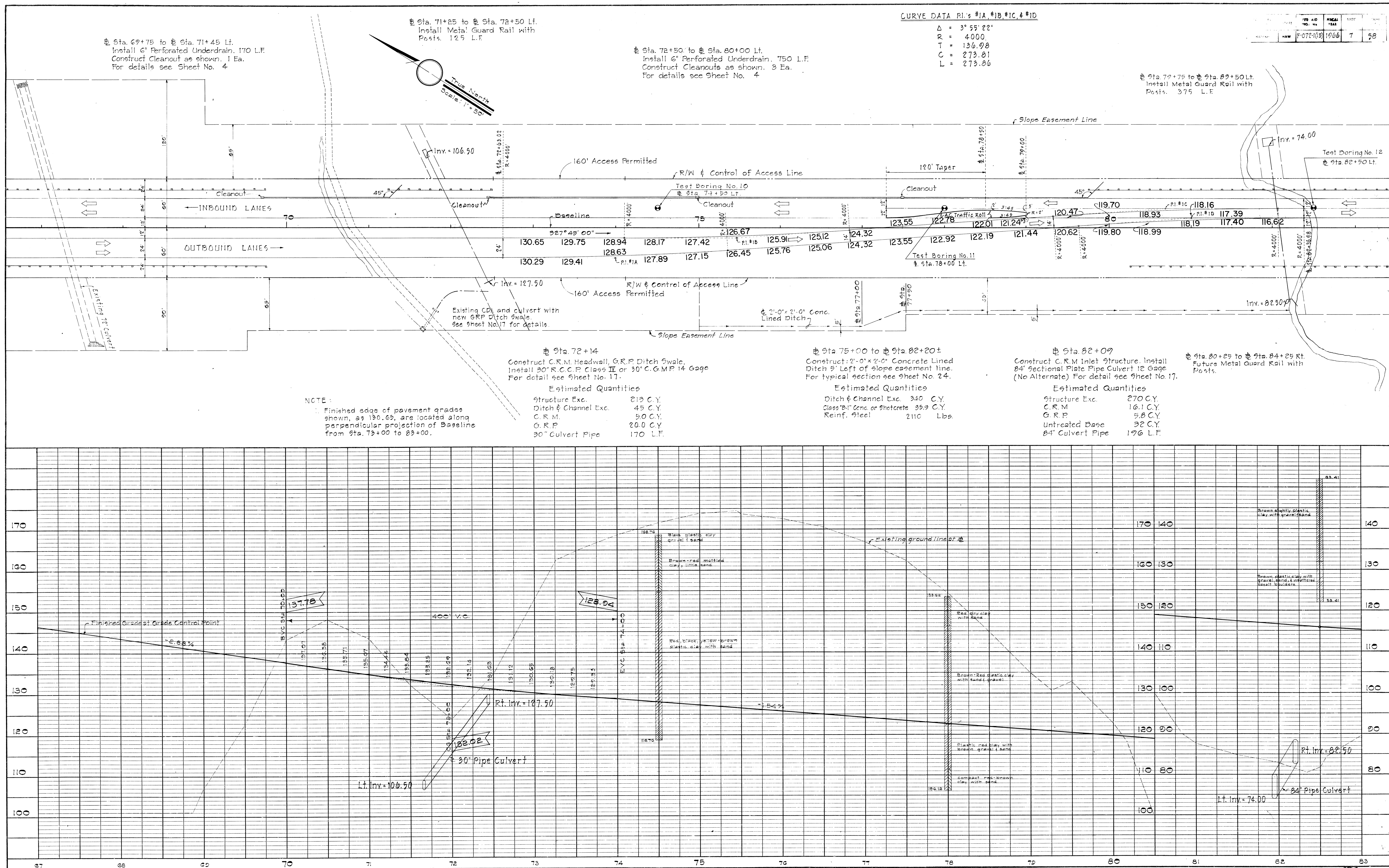


PLATE 1—PLAN—PROFILE O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

K & E Co. No. 346-IC
"IMPERIAL" TRACING CLOTH
14281

Sta. 69+75 to Sta. 71+45 Lt.
Install 6" Perforated Underdrain, 170 L.F.
Construct Cleanout as shown, 1 Ea.
For details see Sheet No. 4

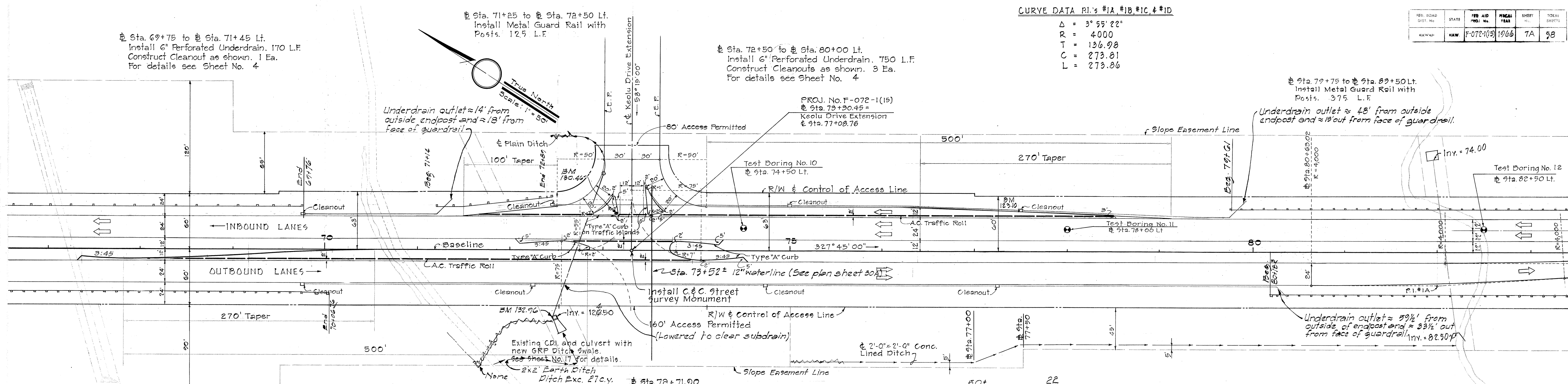
Sta. 71+25 to Sta. 72+50 Lt.
Install Metal Guard Rail with
Posts, 125 L.F.

Sta. 72+50 to Sta. 80+00 Lt.
Install 6" Perforated Underdrain, 750 L.F.
Construct Cleanouts as shown, 3 Ea.
For details see Sheet No. 4

CURVE DATA P.I.'s #1A, #1B, #1C, & #1D

$\Delta = 3^\circ 55' 22''$
 $R = 4000$
 $T = 136.98$
 $C = 273.81$
 $L = 273.86$

FEED ROAD DIST. No.	STATE	FED AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
HAWAII	HAW	F-072-1(13)	1966	7A	58



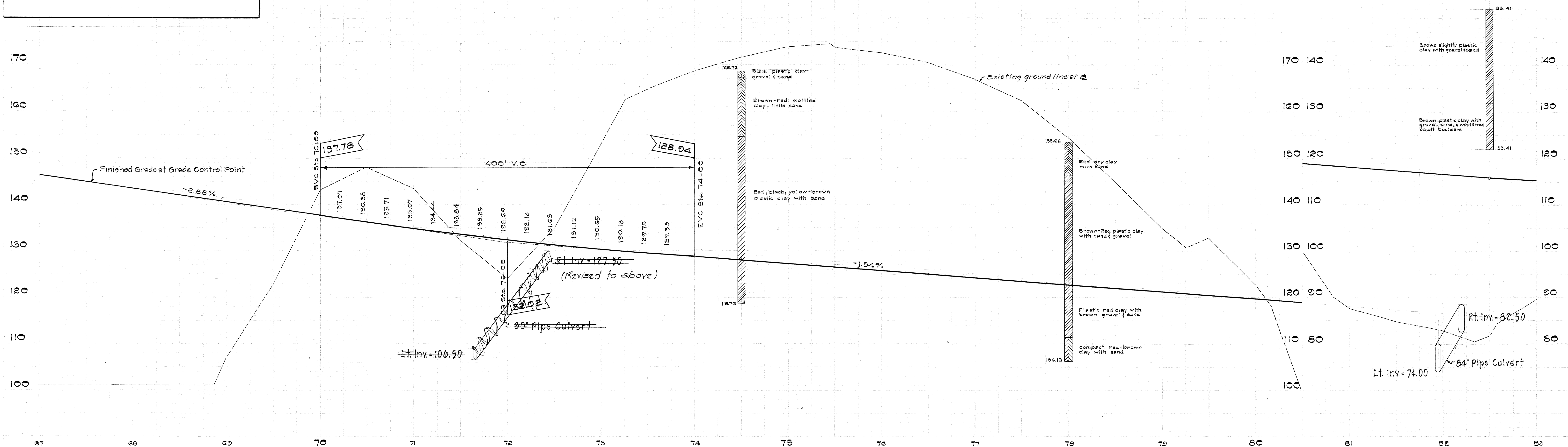
Sta. 69+75 to Sta. 80+30 Rt.
Install 6" Perforated Underdrain 1,055 L.F.
Construct Cleanouts as shown, 4 Each
For details see Sheet No. 4

Sta. 72+71.00
Construct C.D.I. Inlet Structure, GRP Spillway
Install 30" CGMP Culvert, 14 Gage.
For details see sheet no. 22 A
ESTIMATED QUANTITIES
Ditch & Channel Exc. = 1287 c.y.
Struc. Exc. = 155 c.y.
Class B-1 Conc. = 3.8 c.y.
Reinf. Steel = 255 lbs.
30" CGMP, 14 Ga. = 160.3 l.f.
GRP = 3.9 c.y.

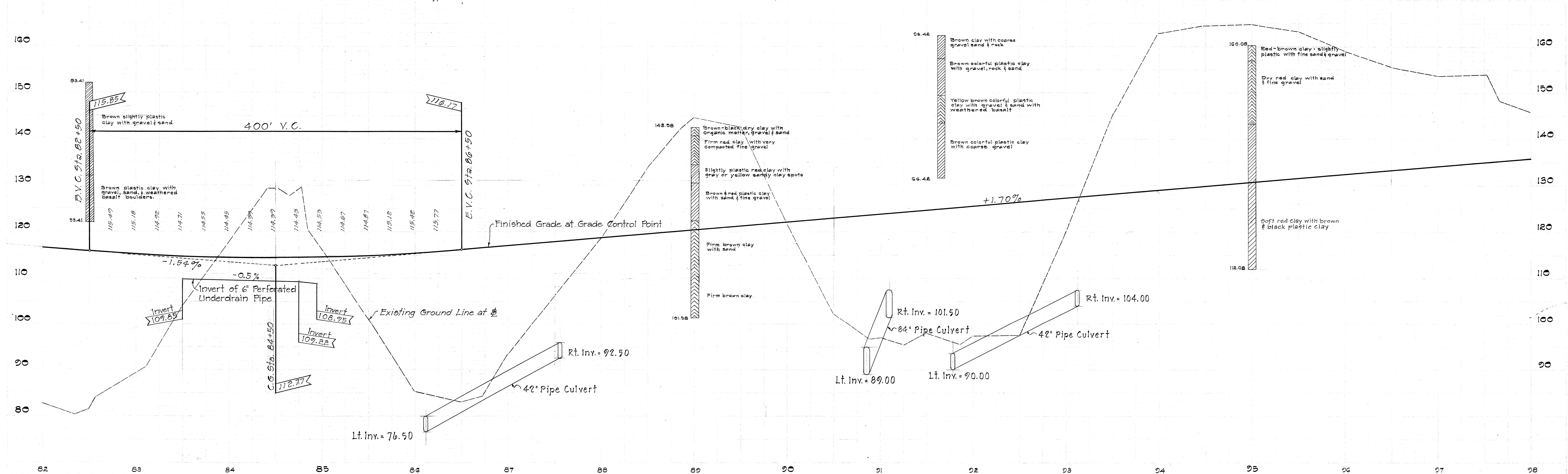
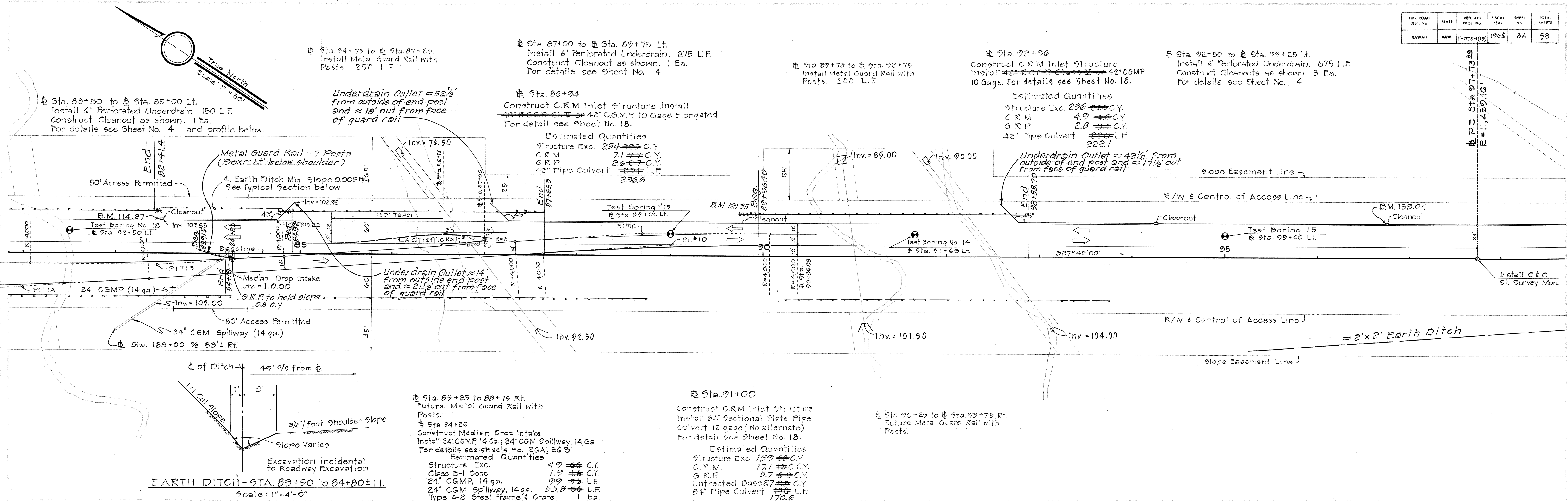
Sta. 75+00 to Sta. 82+00 Rt.
Construct 2'-0" x 2'-0" Concrete Lined
Ditch 5' Left of slope easement line.
For typical section see Sheet No. 24.
Estimated Quantities
Ditch & Channel Exc. = 354 C.Y.
Class B-1 Conc. or shotcrete = 55.2 C.Y.
Reinf. Steel 1430 Lbs.

Sta. 82+09
Construct C.R.M. Inlet Structure. Install
84" Sectional Plate Pipe Culvert 12 Gage
(No Alternate) For detail see Sheet No. 17.
Estimated Quantities
Structure Exc. = 246-270 C.Y.
C.R.M. = 16.2-16.4 C.Y.
G.R.P. = 5.7-5.8 C.Y.
Untreated Base = 32 C.Y.
84" Culvert Pipe 196.5-196 L.F.

Sta. 80+25 to Sta. 84+25 Rt.
Install Metal Guard Rail with
Posts, 400 L.F.



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
SAWAH	MAW.	F-072-1(15)	1966	8A	58



PROJ. ROAD DIST. No.	STATE	PROJ. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
HAWAII	HAW.	F-072-1(19)	1966	10	98

PLAN	DATE
DESIGNED BY	
CHECKED BY	
NOTED BY	
DATE	

PROFILE	DATE
DESIGNED BY	
CHECKED BY	
NOTED BY	
DATE	

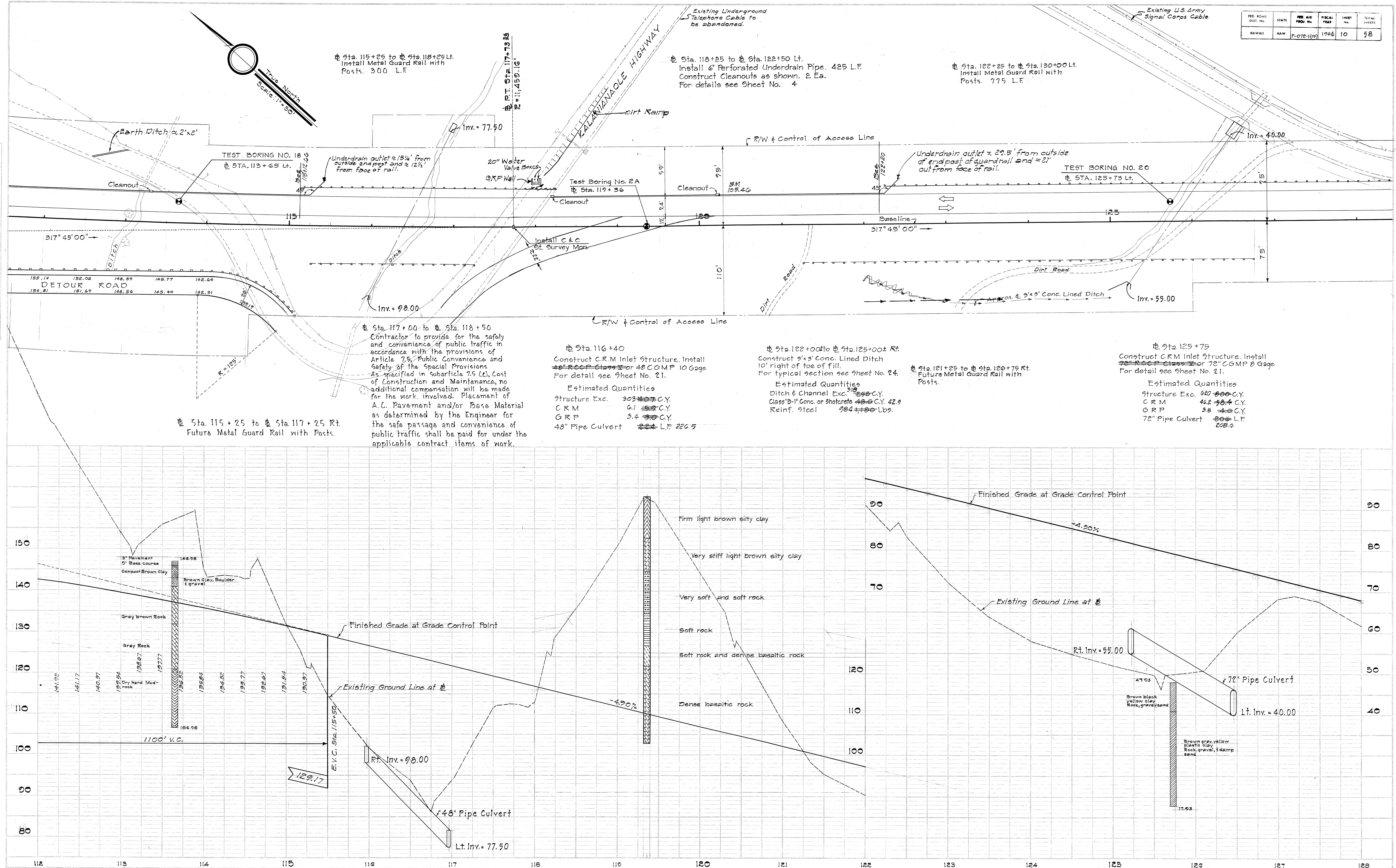


PLATE 1 - PLAN-PROFILE O. P. & R. E. STANARD
KEUFFEL & ESSER CO., NEW YORK
R. & E. CO. No. 328-10
1966

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-072-1(15)	1966	11	58

DATE	BY	REVISION
		1. AS NOTED
		2. AS NOTED
		3. AS NOTED
		4. AS NOTED
		5. AS NOTED
		6. AS NOTED
		7. AS NOTED
		8. AS NOTED
		9. AS NOTED
		10. AS NOTED

DATE	BY	REVISION
		1. AS NOTED
		2. AS NOTED
		3. AS NOTED
		4. AS NOTED
		5. AS NOTED
		6. AS NOTED
		7. AS NOTED
		8. AS NOTED
		9. AS NOTED
		10. AS NOTED

