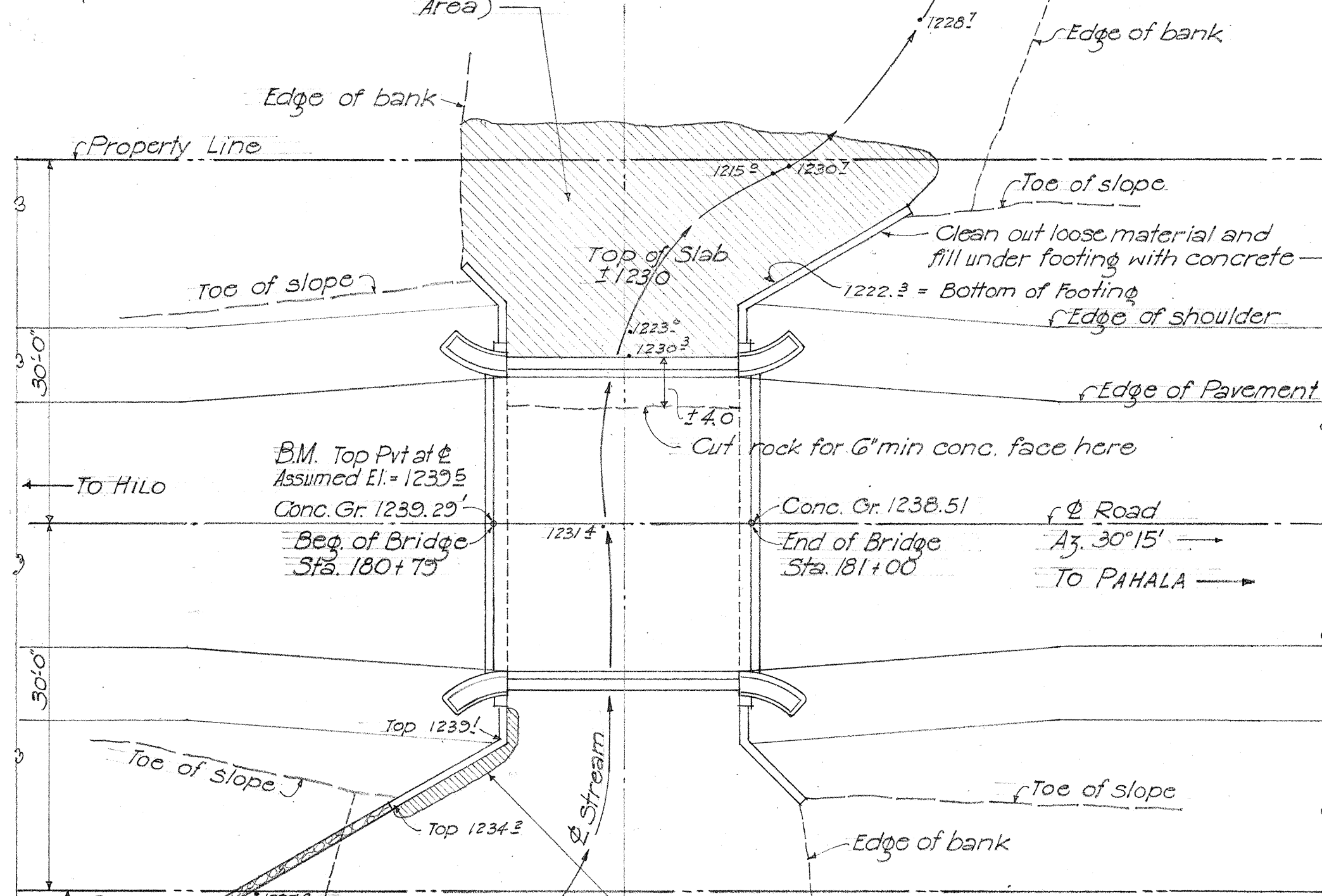


EST. QUANT.
 Rock Fill at Bns. = 230 CY.
 Class D-1 Conc. = 30 CY.
 Spec. Str. Exc. = 4.0 CY.

Fill pockets with rocky material, and construct 15" conc. slab to grades ordered, bounding same carefully against solid rock at all edges (Hatched Area)

NOTE:

Ground Elevations are assumed using as B.M. $\pm$ top of pavement at Beginning of Bridges. Elevations of these B.M. are to be used for this bridge repair project only and are assumed from PROJECT 18-B Plans.



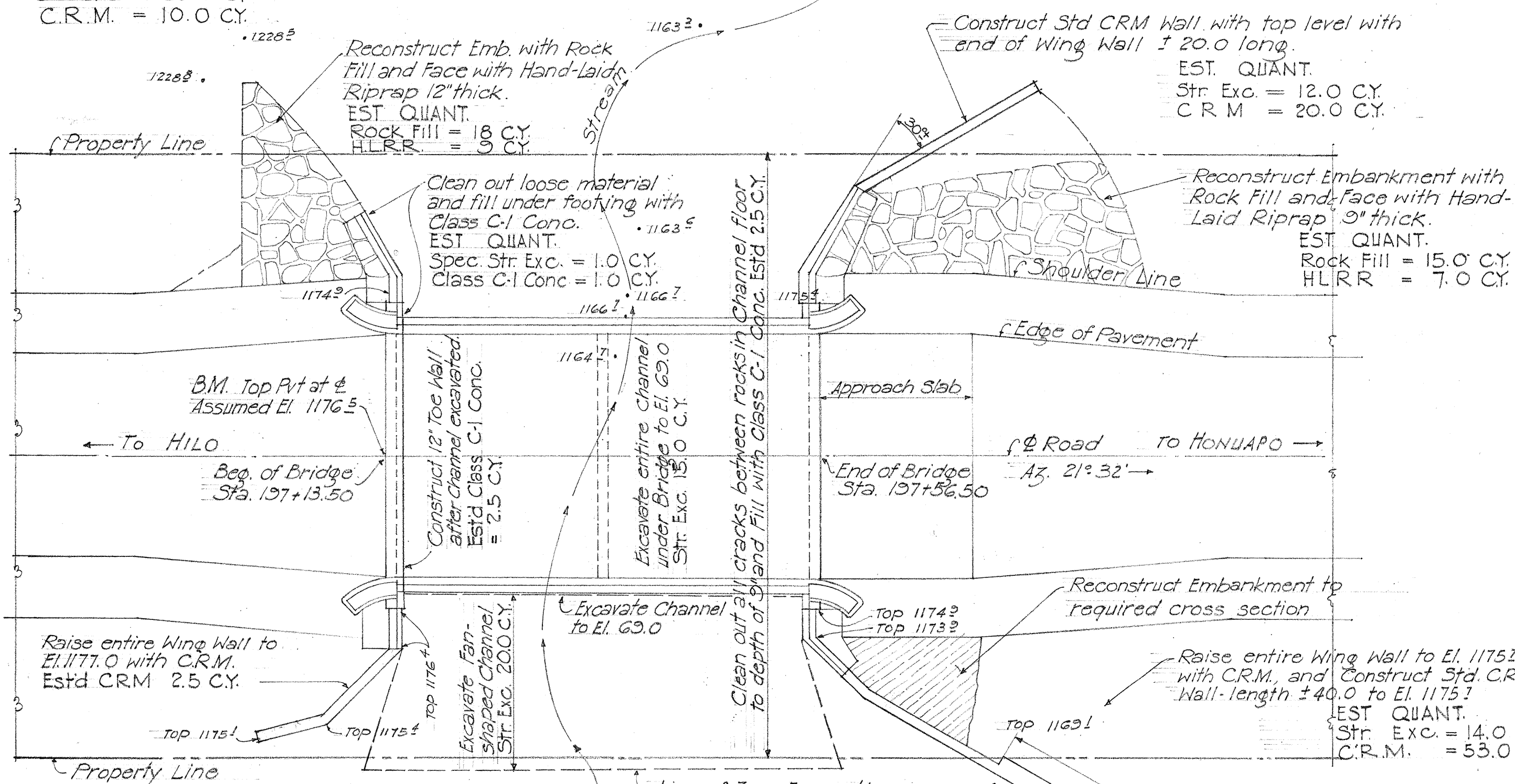
EST. QUANT.
 Spec. Str. Exc. = 1.0 CY.
 Class C-1 Conc. = 1.0 CY.

LOCATION PLAN PIKEA BRIDGE

Scale: 1" = 1'-0"
 BRIDGE NO. 1

Construct Std CRM Wall, better on back
 Top at $\pm$ 1234.2
 Lgth $\pm$ 30.0
 EST. QUANT.
 Str. Exc. = 20.0 CY.
 C.R.M. = 10.0 CY.

EST. QUANT.
 Spec. Str. Exc. = 1.5 CY.
 Class C-1 Conc. = 2.0 CY.

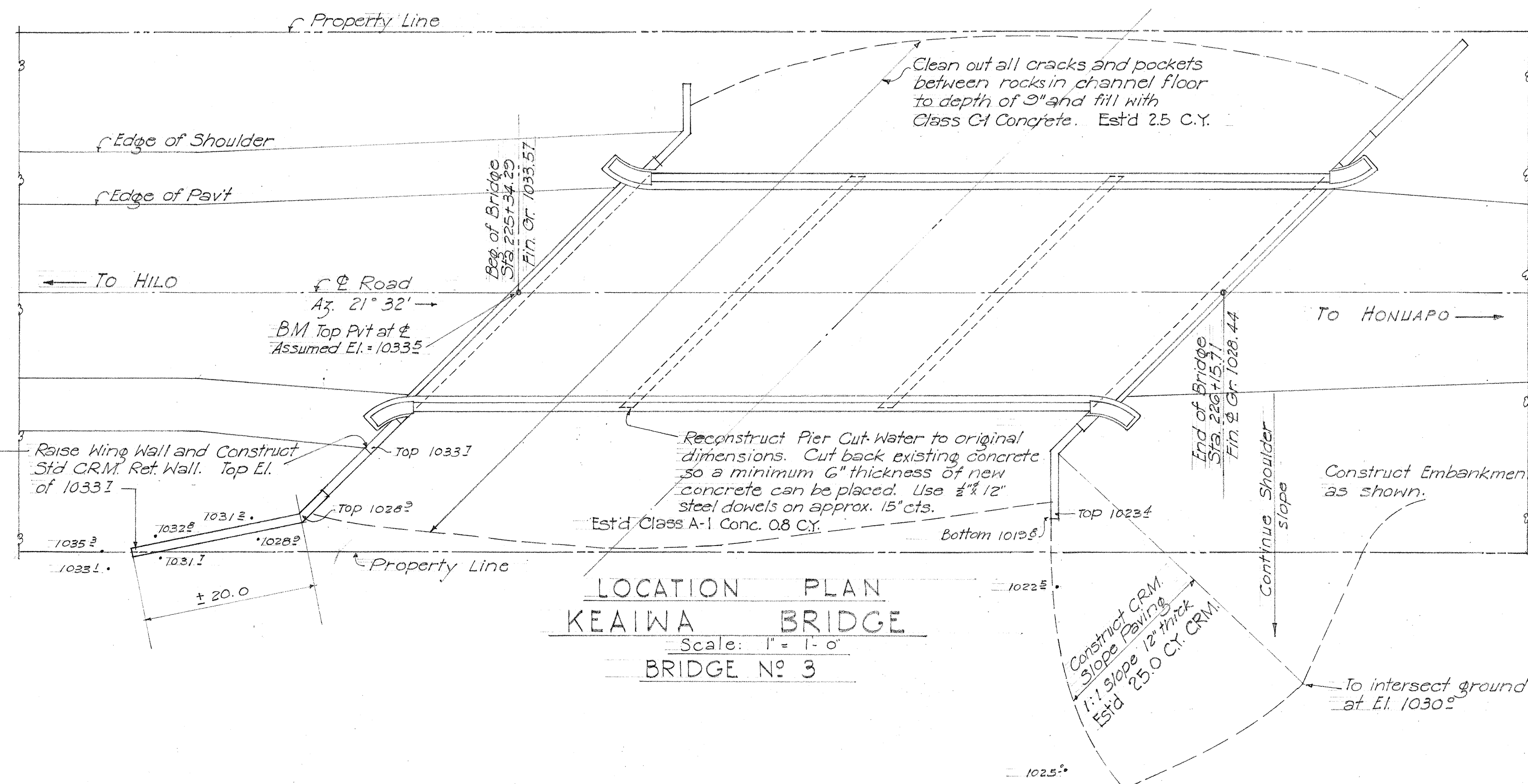


EST. QUANT.
 Str. Exc. = 6.0 CY.
 C.R.M. = 7.0 CY.

LOCATION PLAN KAALAALA BRIDGE

Scale: 1" = 1'-0"
 BRIDGE NO. 2

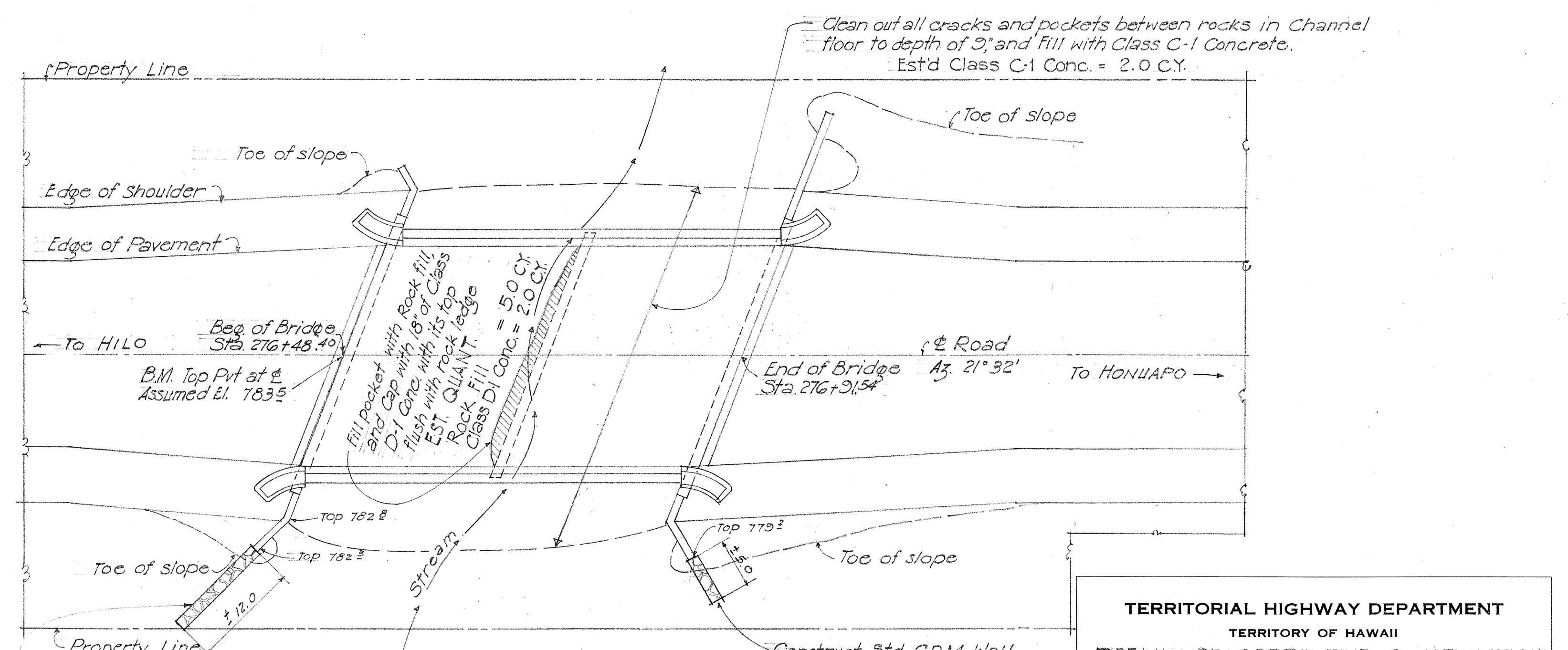
EST. QUANT.
 Str. Exc. = 14.0 CY.
 C.R.M. = 55.0 CY.



LOCATION PLAN KEAIIWA BRIDGE

Scale: 1" = 1'-0"
 BRIDGE NO. 3

EST. QUANT.
 Str. Exc. = 6.0 CY.
 C.R.M. = 7.0 CY.



LOCATION PLAN PAUAU BRIDGE

Scale: 1" = 1'-0"
 BRIDGE NO. 4

EST. QUANT.
 Str. Exc. = 5.0 CY.
 C.R.M. = 6.5 CY.

EST. QUANT.
 Str. Exc. = 3.0 CY.
 C.R.M. = 2.0 CY.

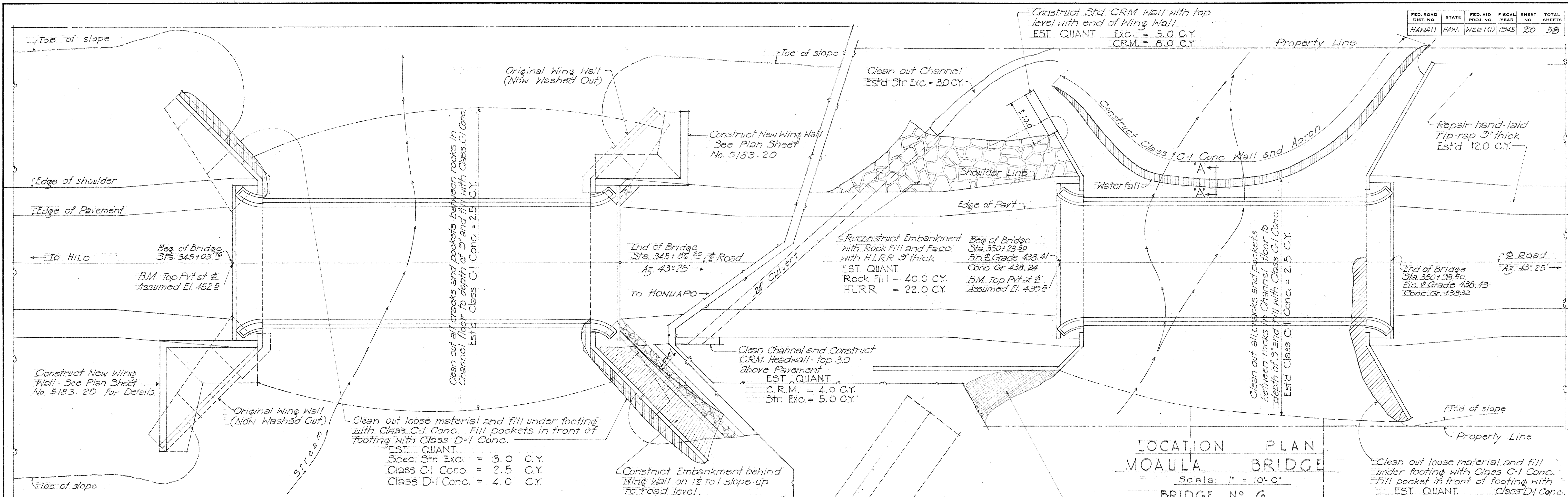
TERRITORIAL HIGHWAY DEPARTMENT
 TERRITORY OF HAWAII
 DETAIL OF CORRECTIVE CONSTRUCTION
 AT
 BRIDGES & CULVERTS
 HAWAII BELT ROAD, PAHALA SECTION, KAU
 PROJECT NO WER 1 (1)
 SCALE: AS NOTED

SHEET NO. 1 OF 4 SHEETS

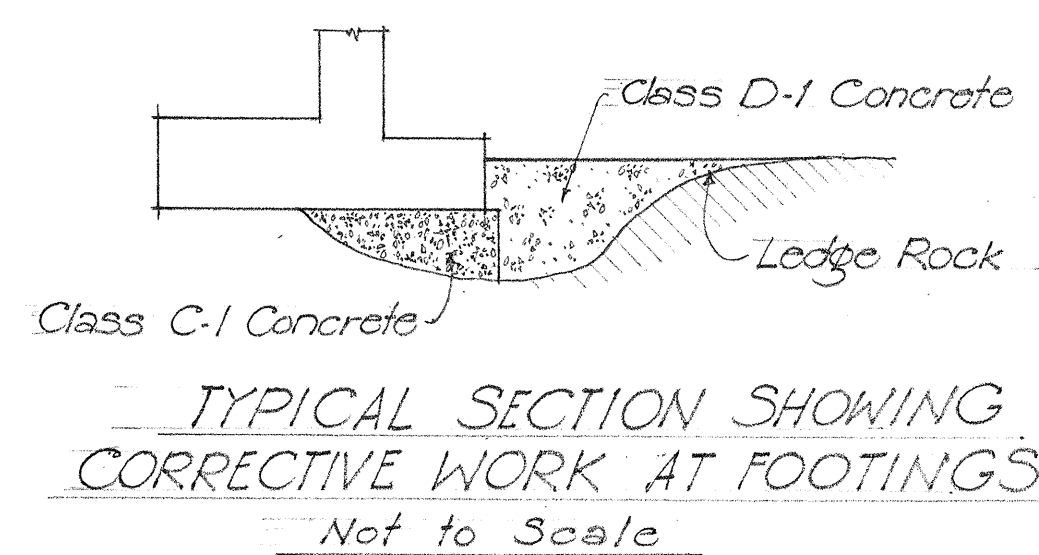
5183.19

ORIGINAL PLAN
 DATE
 DESIGNED BY
 DRAWN BY
 CHECKED BY
 QUANTITIES CHECKED BY
 NOTE BOOK
 NO.

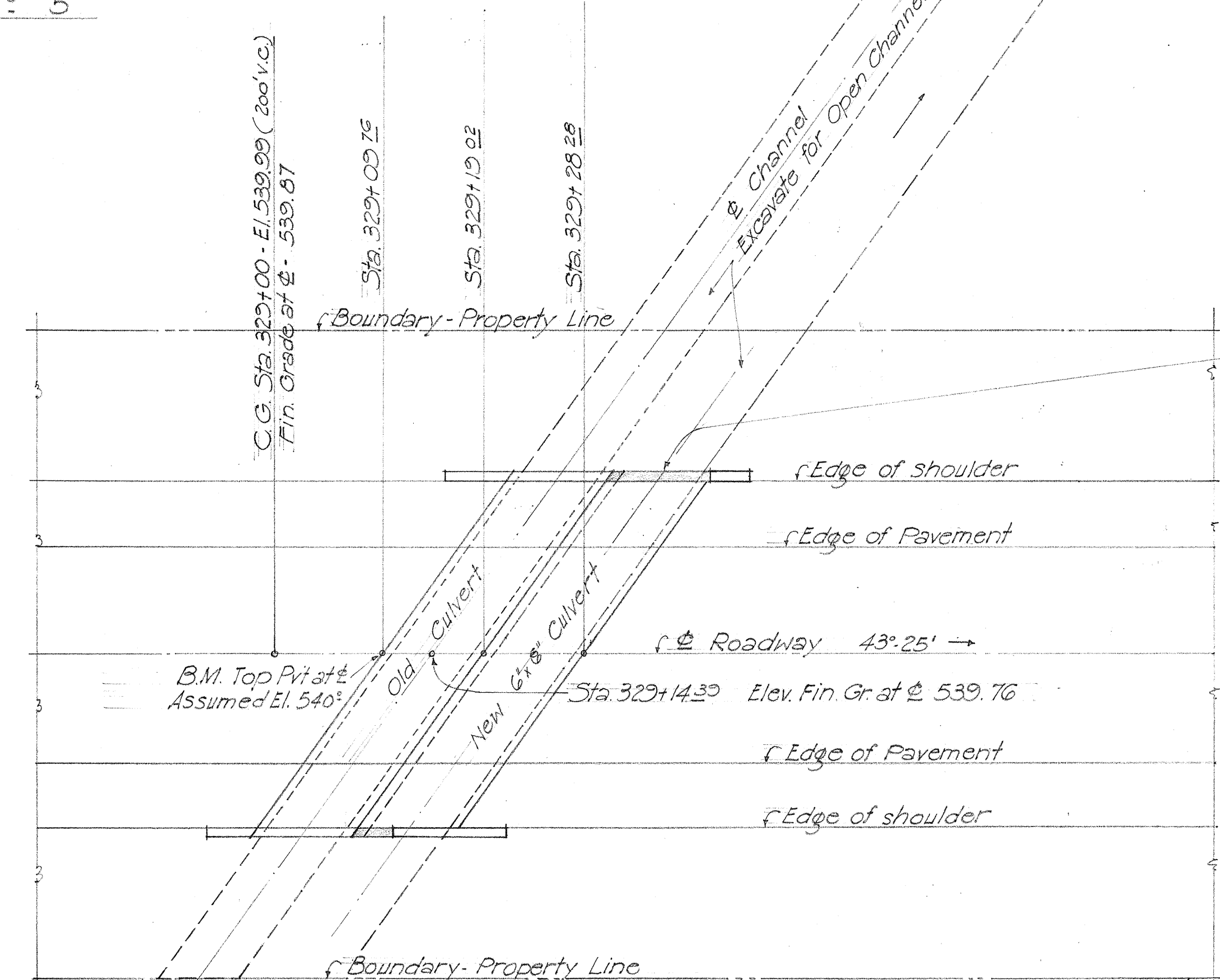
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	WER 101	1945	20	38



LOCATION PLAN
HIONAMO A BRIDGE
Scale: 1" = 10'-0"
BRIDGE NO. 5

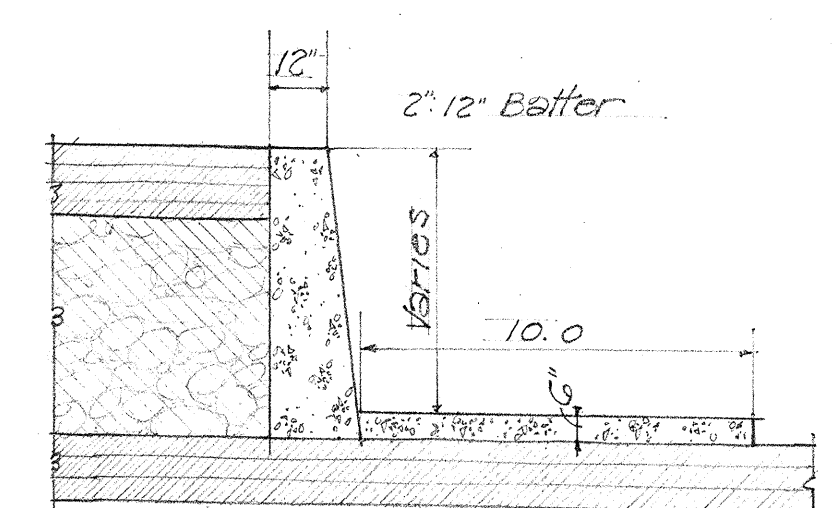


- GENERAL NOTES
1. - All Std. CRM. Walls are to be bedded in solid rock. Details here indicated are to be varied as Engineer finds advisable on ground.
 2. -



Remove existing wing wall this side. Construct New 6'x6' Conc. Box Culvert against existing structure. Open Channel for full width of both structures 30 ft. up stream and for distance directed down stream. See Plan Sheet No. 5183.21 for Culvert Details and EST. QUANT.

LOCATION PLAN
6'x6' BOX CULVERT AT STA. 329+23.65
Scale: 1" = 10'-0"



SECTION "A-A"
MOAULA BRIDGE
Not to Scale
EST. QUANT. Str. Exc. = 8.0 C.Y., Class C-1 Conc. = 40.0 C.Y.

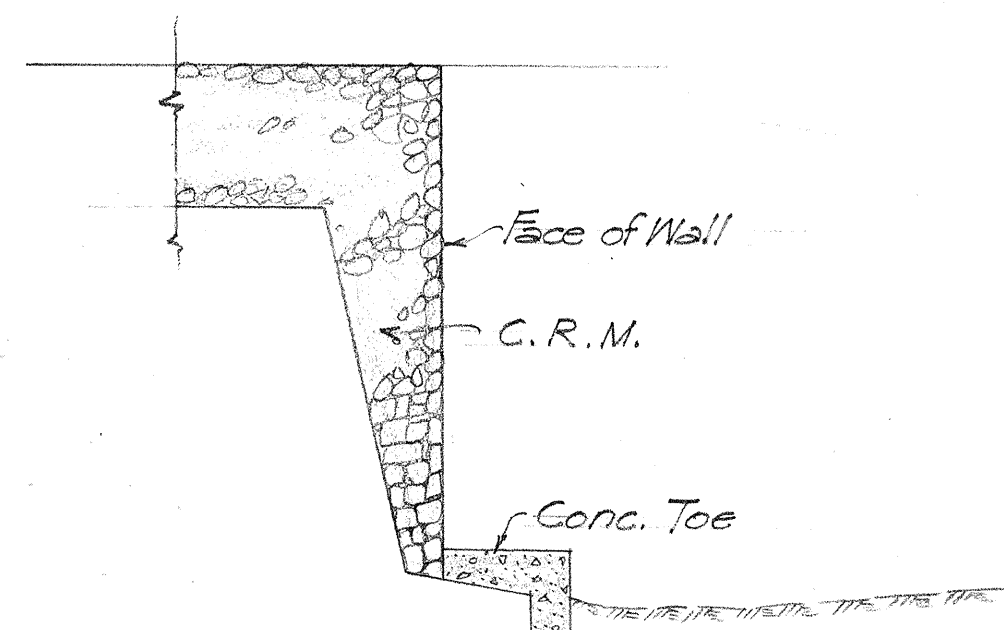
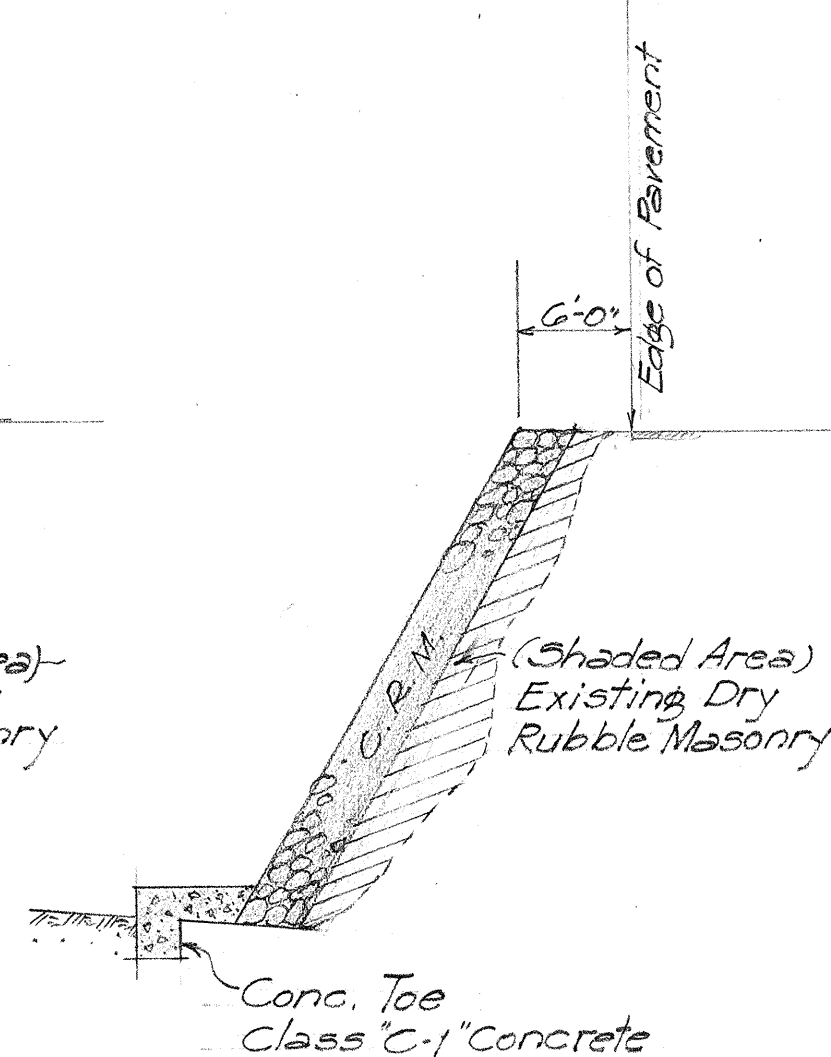
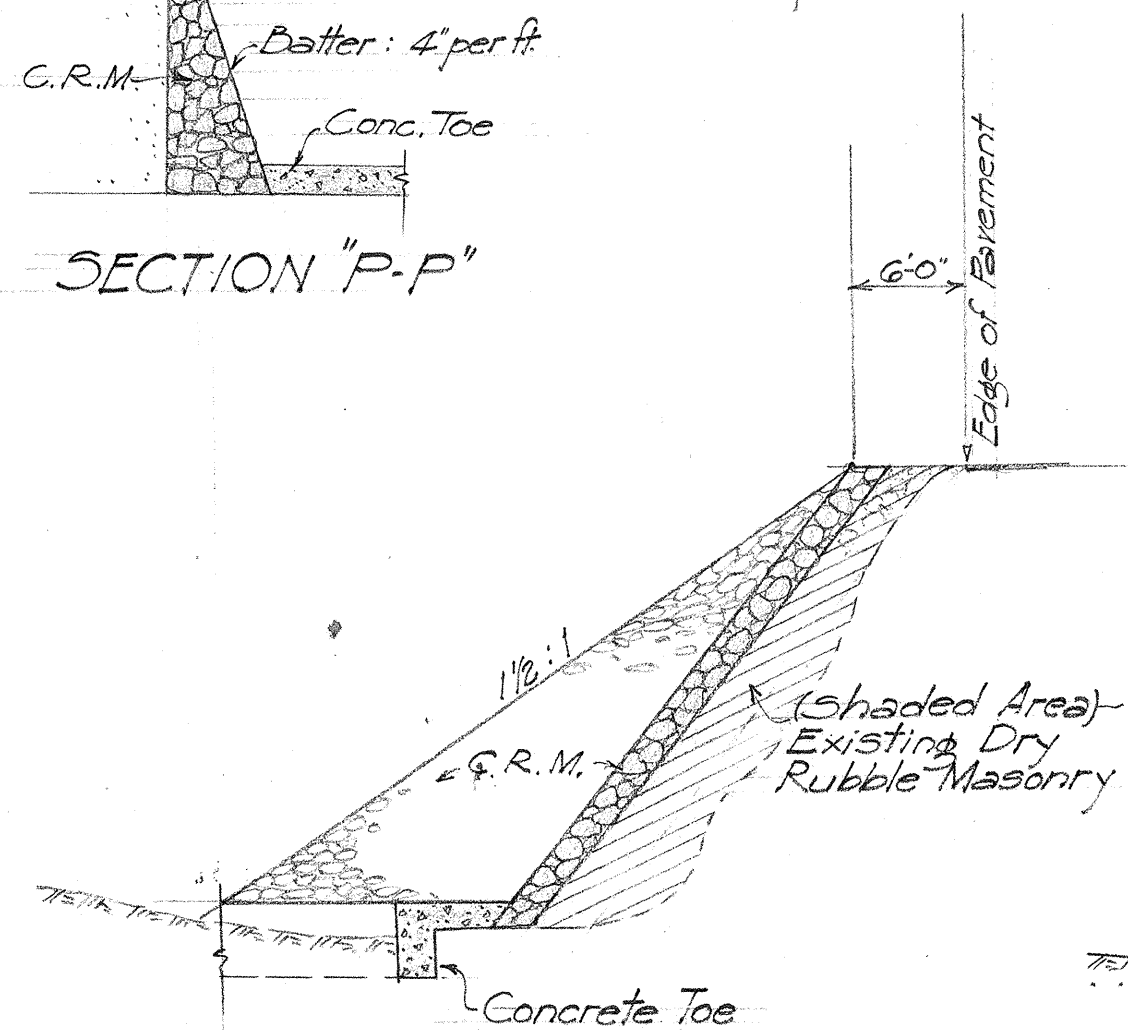
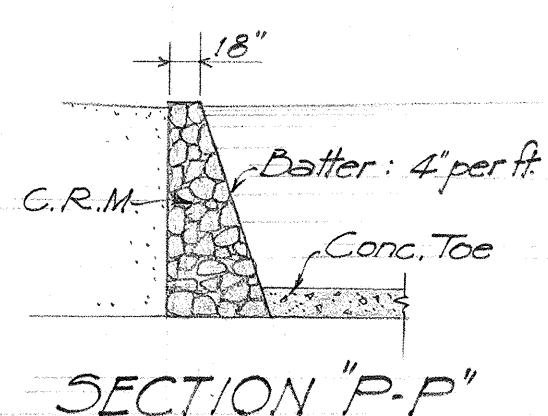
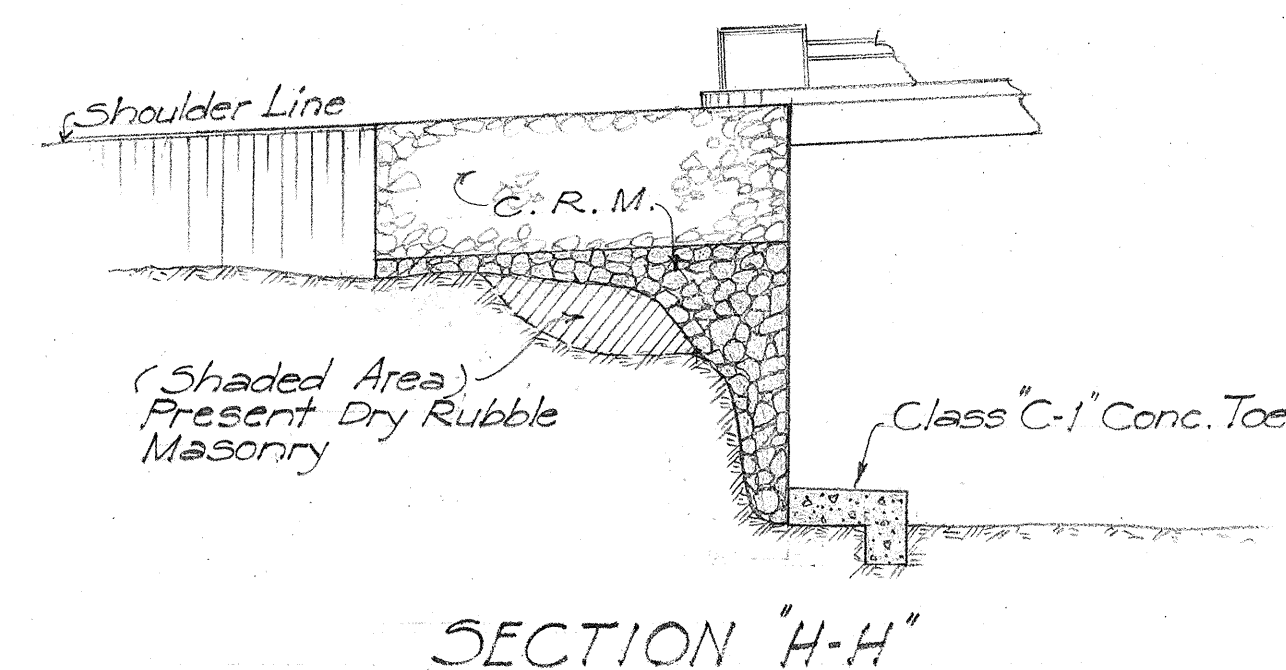
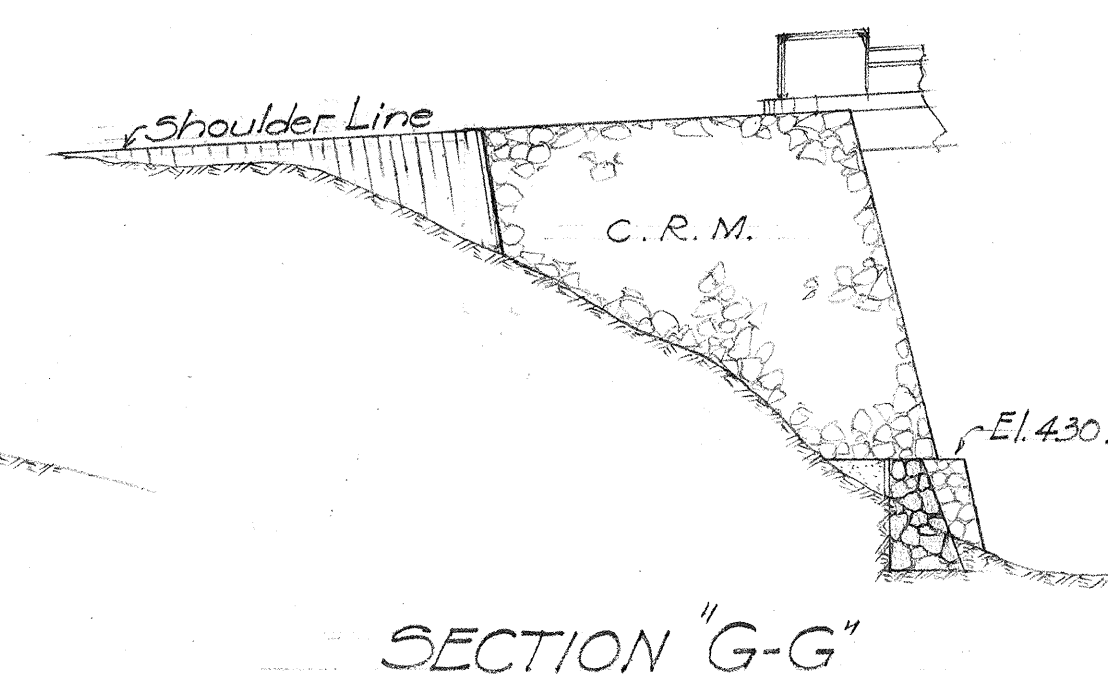
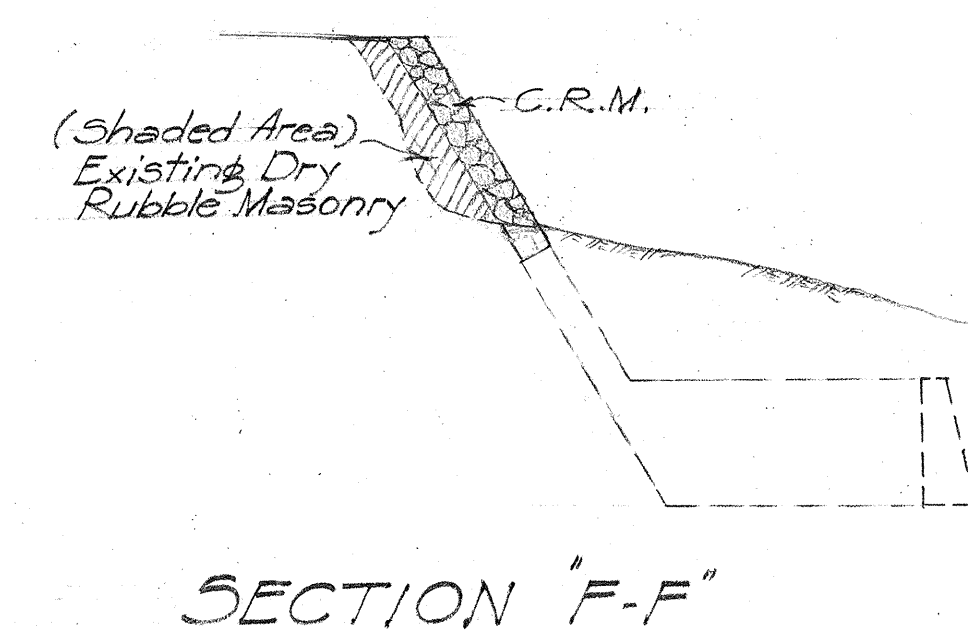
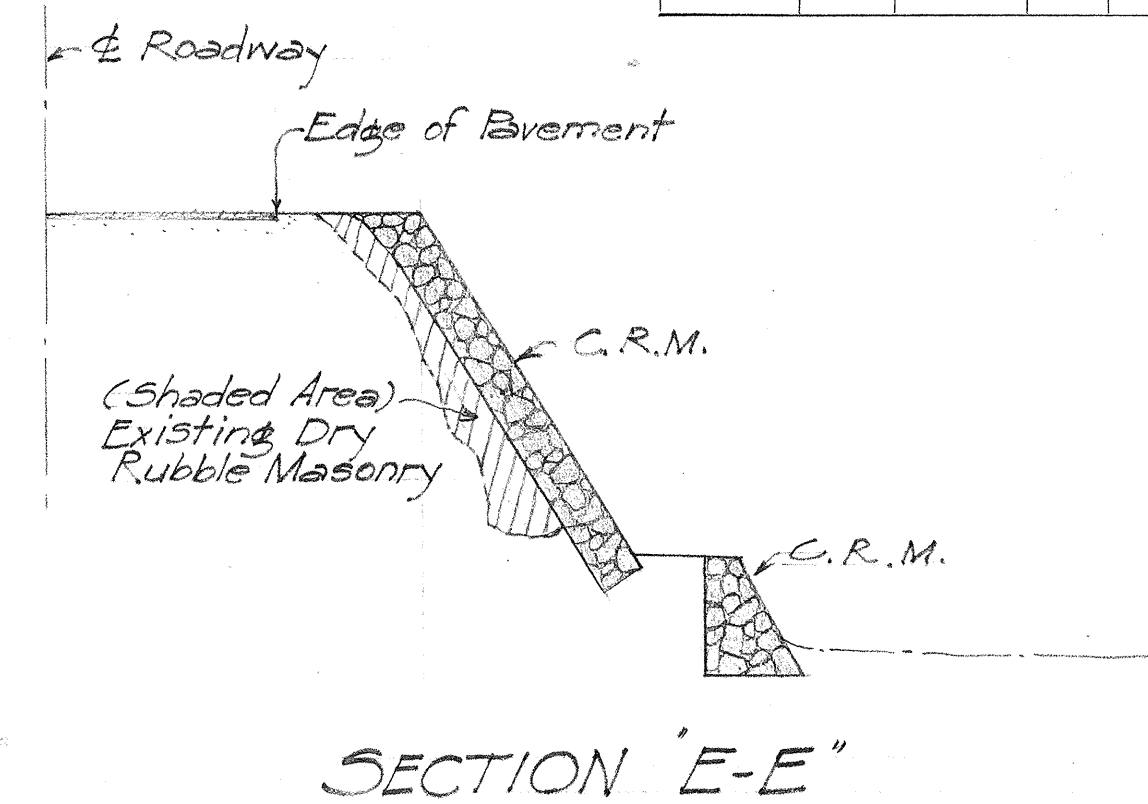
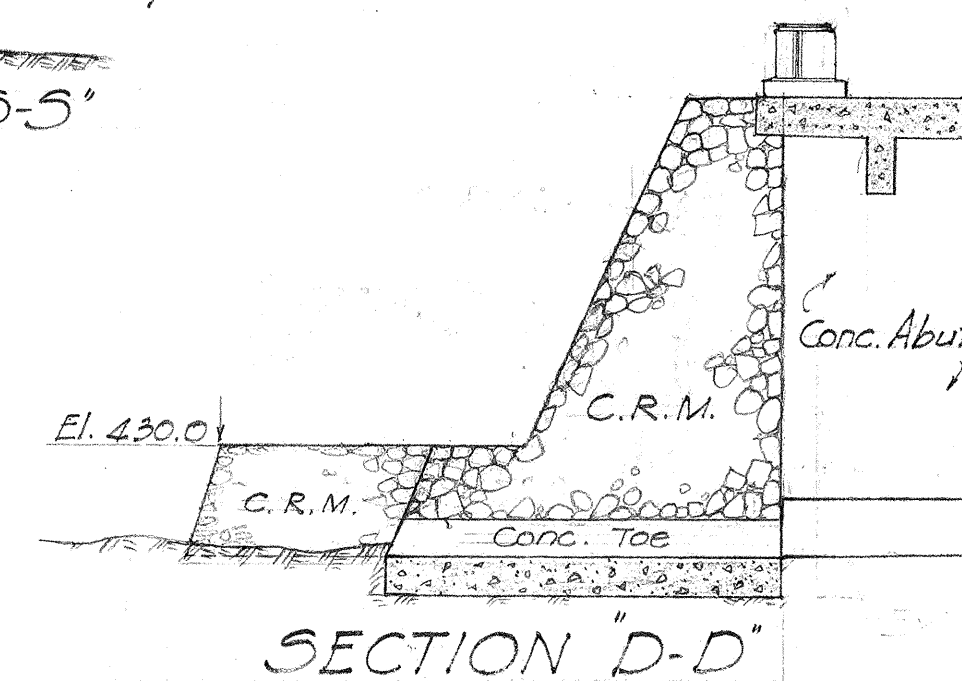
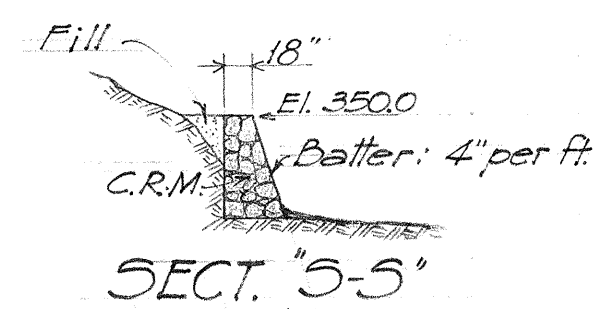
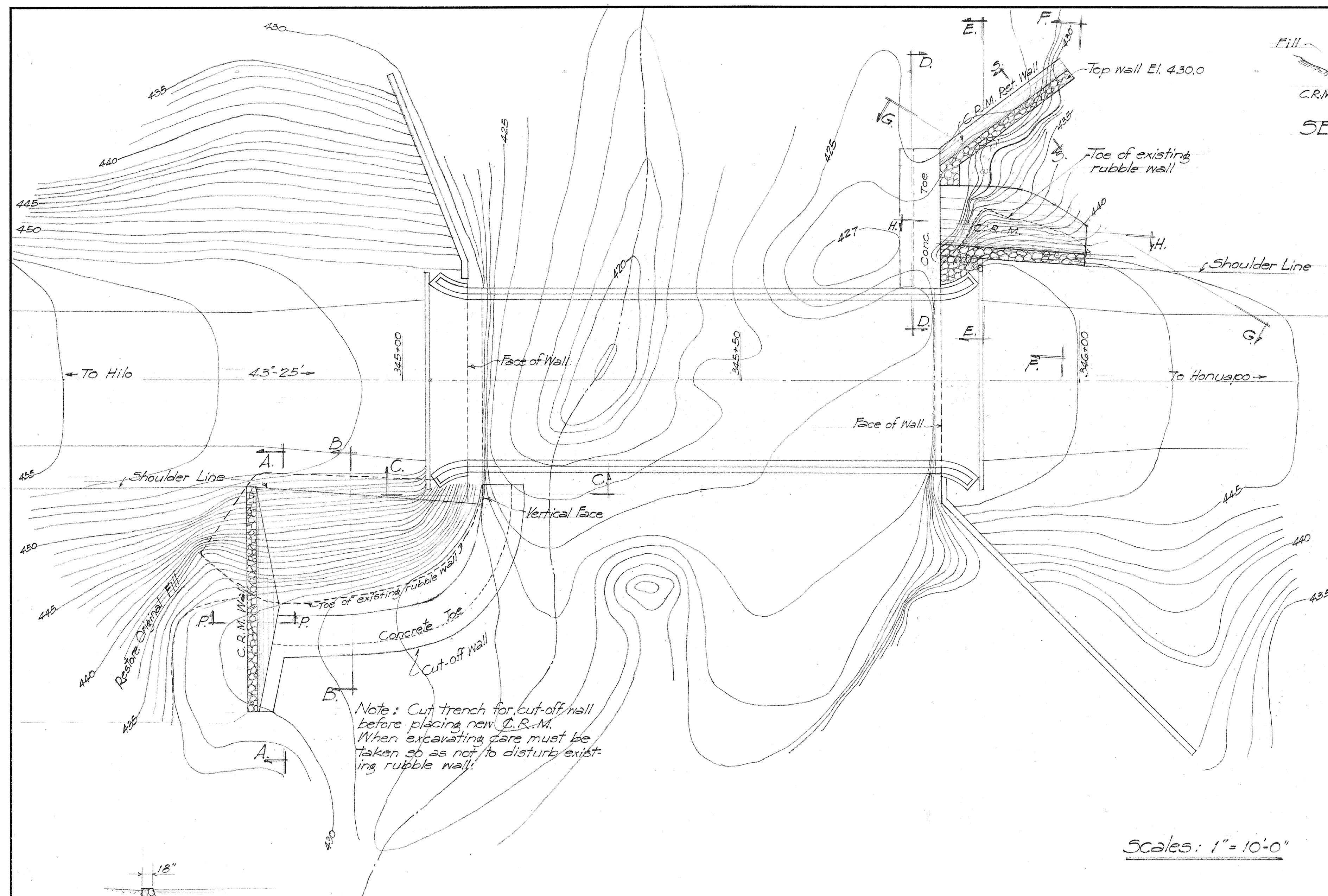
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
DETAIL OF CORRECTIVE CONSTRUCTION
AT
BRIDGES & CULVERTS
HAWAII BELT ROAD, PAHALA SECTION, KAU
PROJECT NO. WER 1 (1)
SCALE: AS NOTED

SHEET NO. 2 OF 4 SHEETS

5183.20

DESIGNED BY	DATE
DRAWN BY	12/24/45
CHECKED BY	
QUANTITIES CHECKED BY	
NOTE BOOK	
NO.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS



Scales: 1" = 10'-0"

EST. QUANT.
 Class "C-1" Conc. 40 C.Y.
 C. R. M. 220 C.Y.
 Excavation 26 C.Y.

This sheet supersedes Sheet #5183.21

TERRITORIAL HIGHWAY DEPARTMENT
 TERRITORY OF HAWAII
 WINGWALL REPAIR DETAILS
 HIONAMO A BRIDGE
 HAWAII BELT RD. WER 1 (1)
 MAY, 1946
 SHEET No 3 OF 4 SHEETS

5183.21A

ORIGINAL PLAN	DATE
DESIGNED BY	
DRAWN BY	
CHECKED BY	
NOTED BY	
QUANTITIES CHECKED BY	
CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	108	1936	21	29

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	WER 1(1)	1945	22	38

SEE REVISED LOCATION PLAN
Sheet No. 5183. 20

GENERAL LOCATION PLAN

Scale - 1" = 10'

Profile of Ground

Excavate for Channel

Elev. 540.87

R.E.S. Elev. 539.97

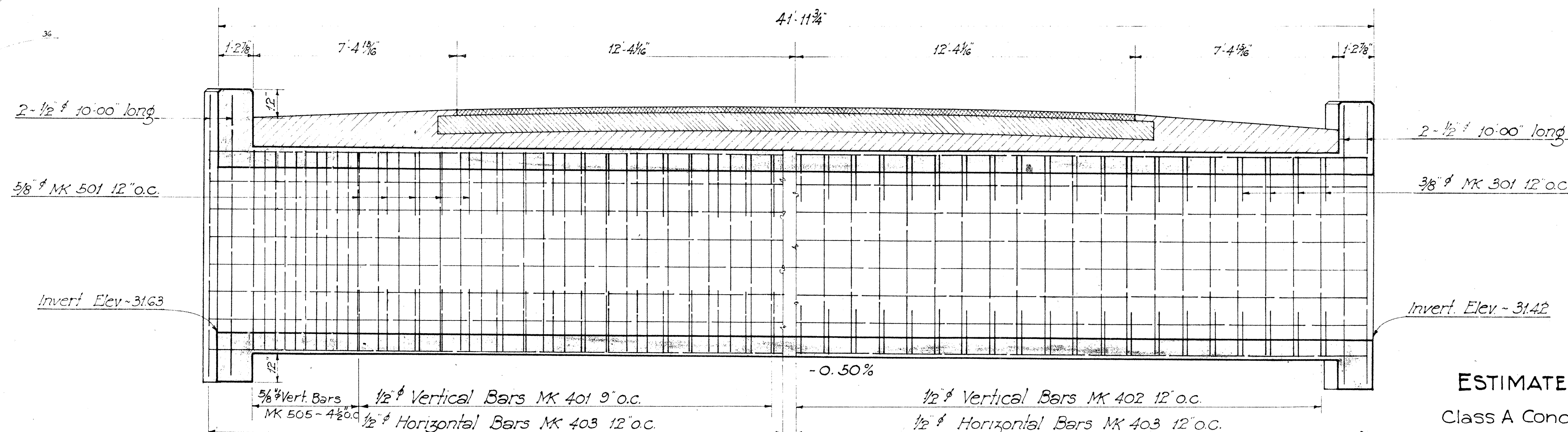
R.E.P. Elev. 539.12

Profile of Ground on Culvert & Excavate for Channel

Elev. 540.01

SECTION A-A

Scale - 1" = 10'

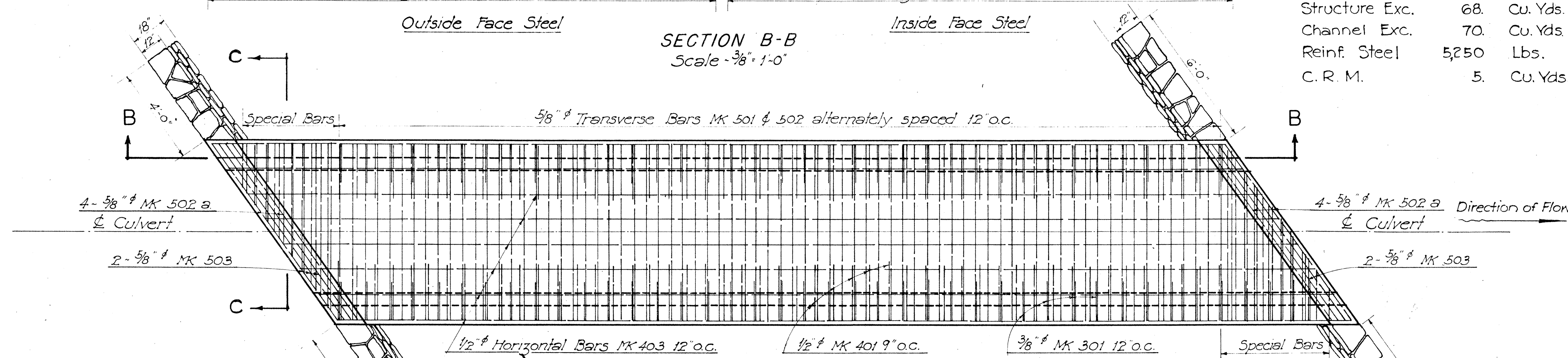


ESTIMATED QUANTITIES

Class A Conc.	35.	Cu. Yds.
Structure Exc.	68.	Cu. Yds.
Channel Exc.	70.	Cu. Yds.
Reinf. Steel	5,250	Lbs.
C. R. M.	5.	Cu. Yds.

SECTION B-B

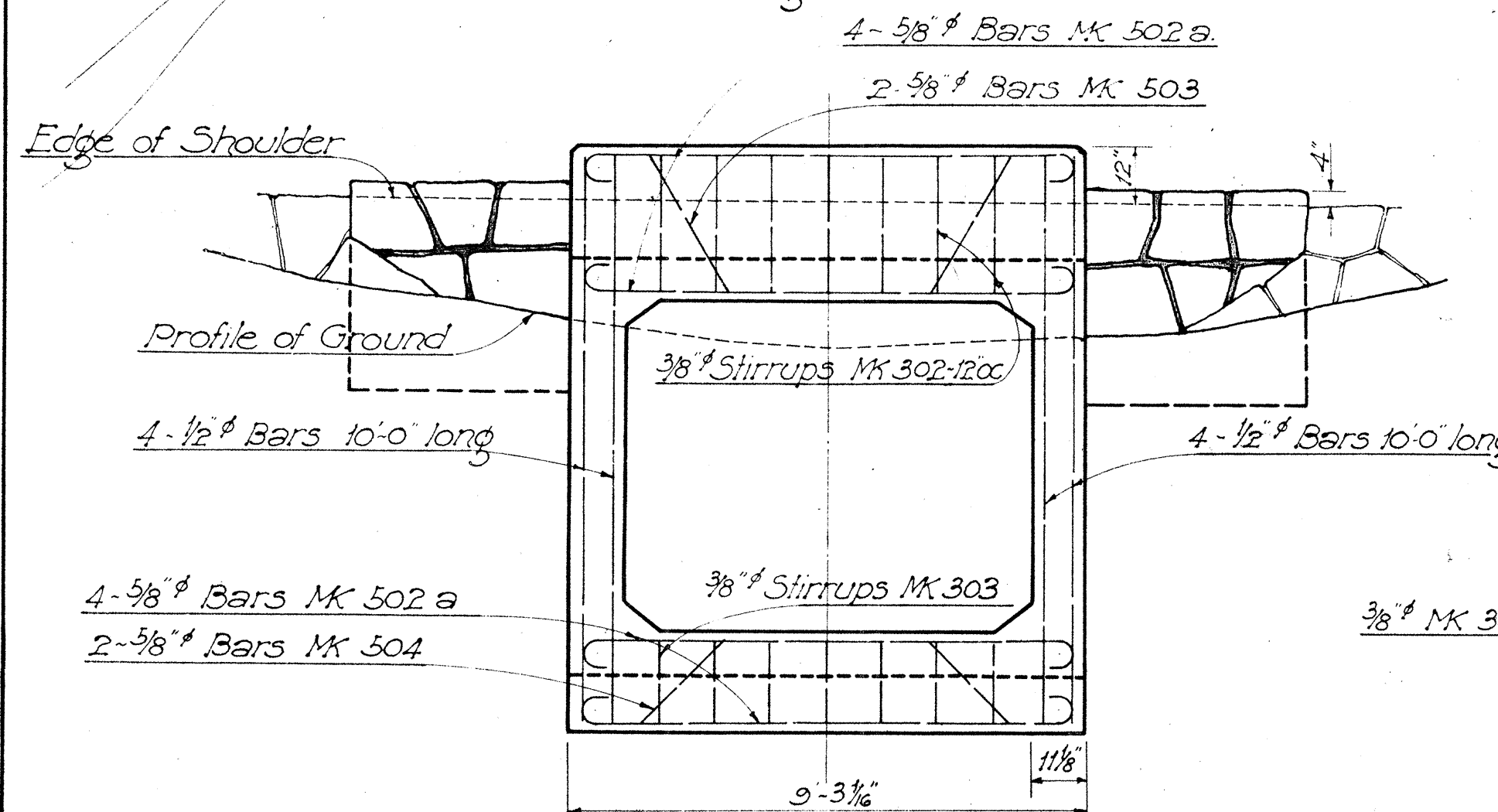
Scale - 3/8" = 1'-0"



ELEVATION AT INTAKE

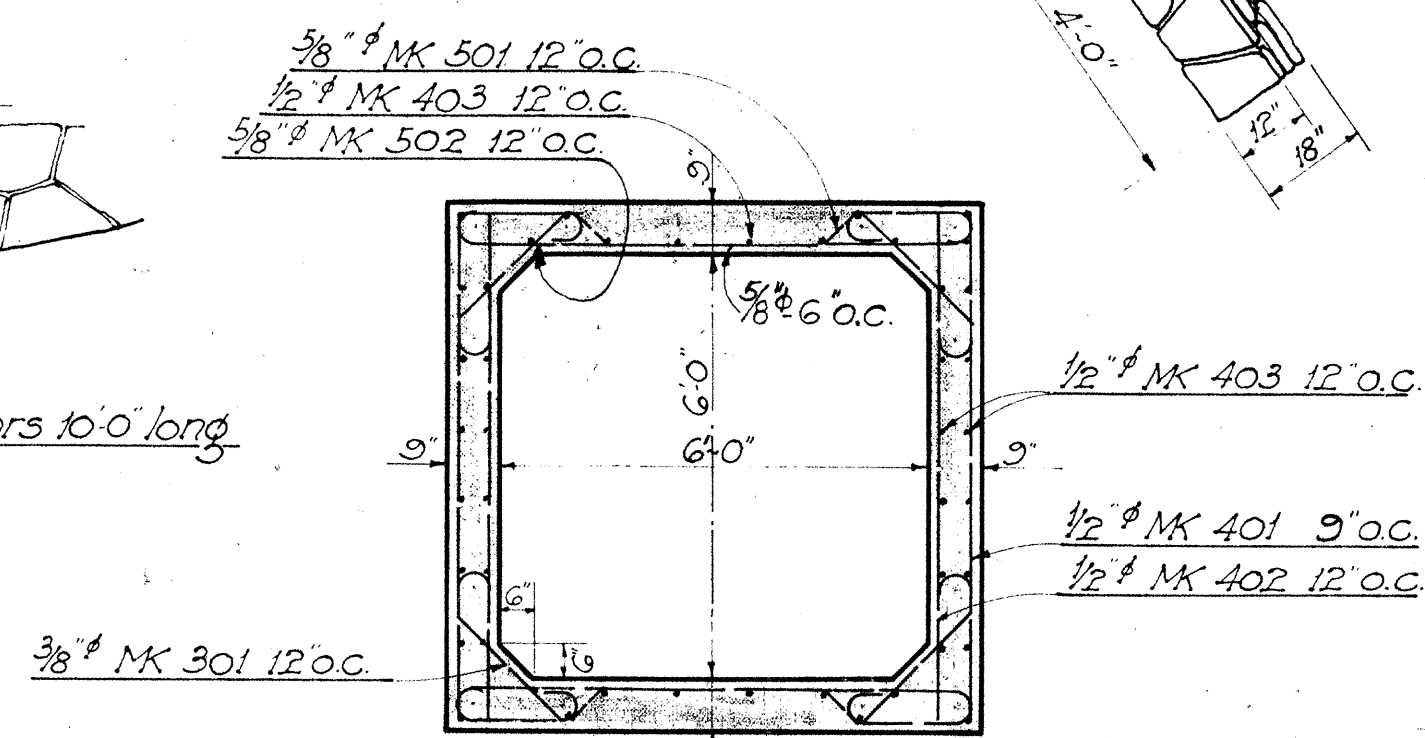
Scale - 3/8" = 1'-0"

Note: Steel arrangement at Outlet Similar



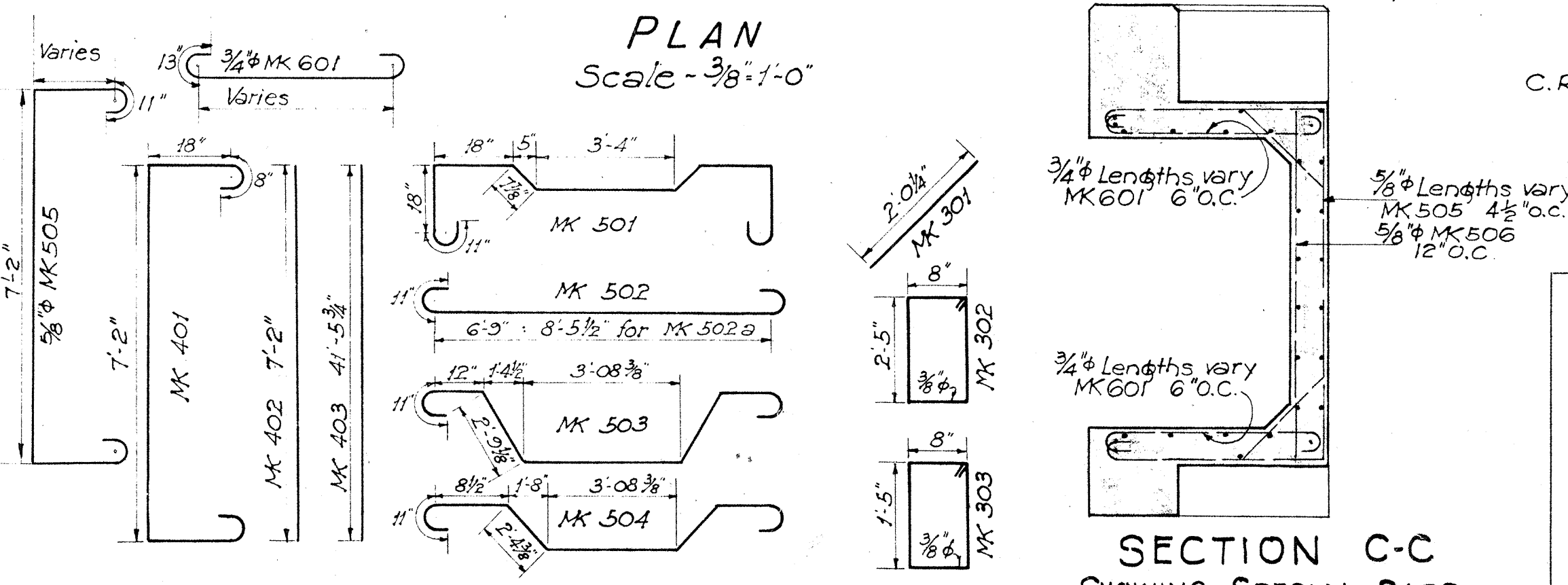
TYPICAL TRUNK SECTION

Scale - 3/8" = 1'-0"



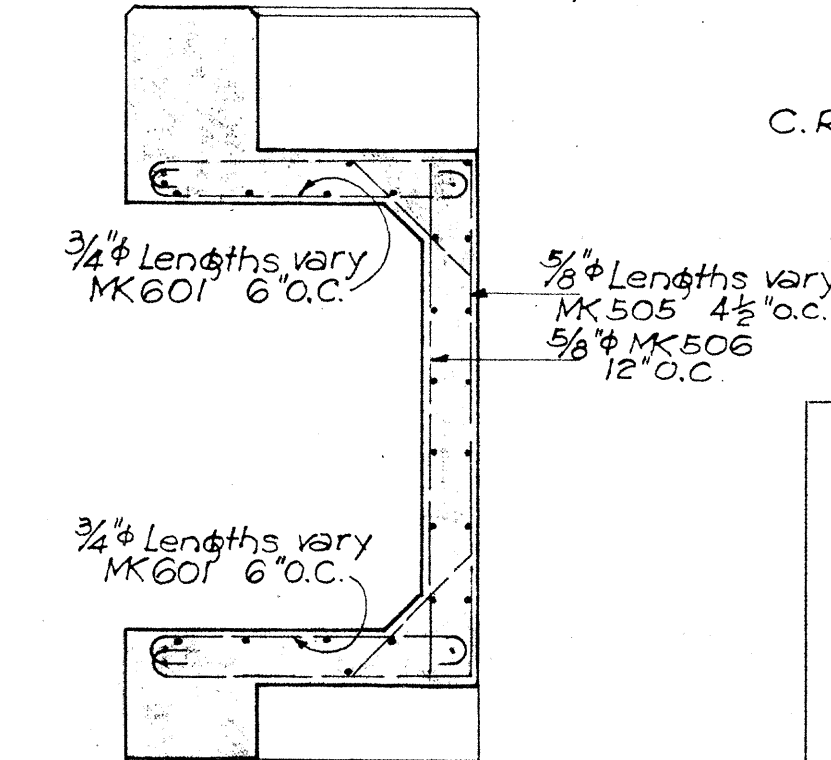
PLAN

Scale - 3/8" = 1'-0"



SECTION C-C

SHOWING SPECIAL BARS



TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

6' X 6' BOX CULVERT

AT STA. 329+23.65

HAWAII BELT ROAD WER 1(1)

SHEET NO. 4 OF 4 SHEETS

DATE: Sept. 36
DESIGNED BY: H. F. Criss
DRAWN BY: Gilbert Kobatake
CHECKED BY: William Kamau