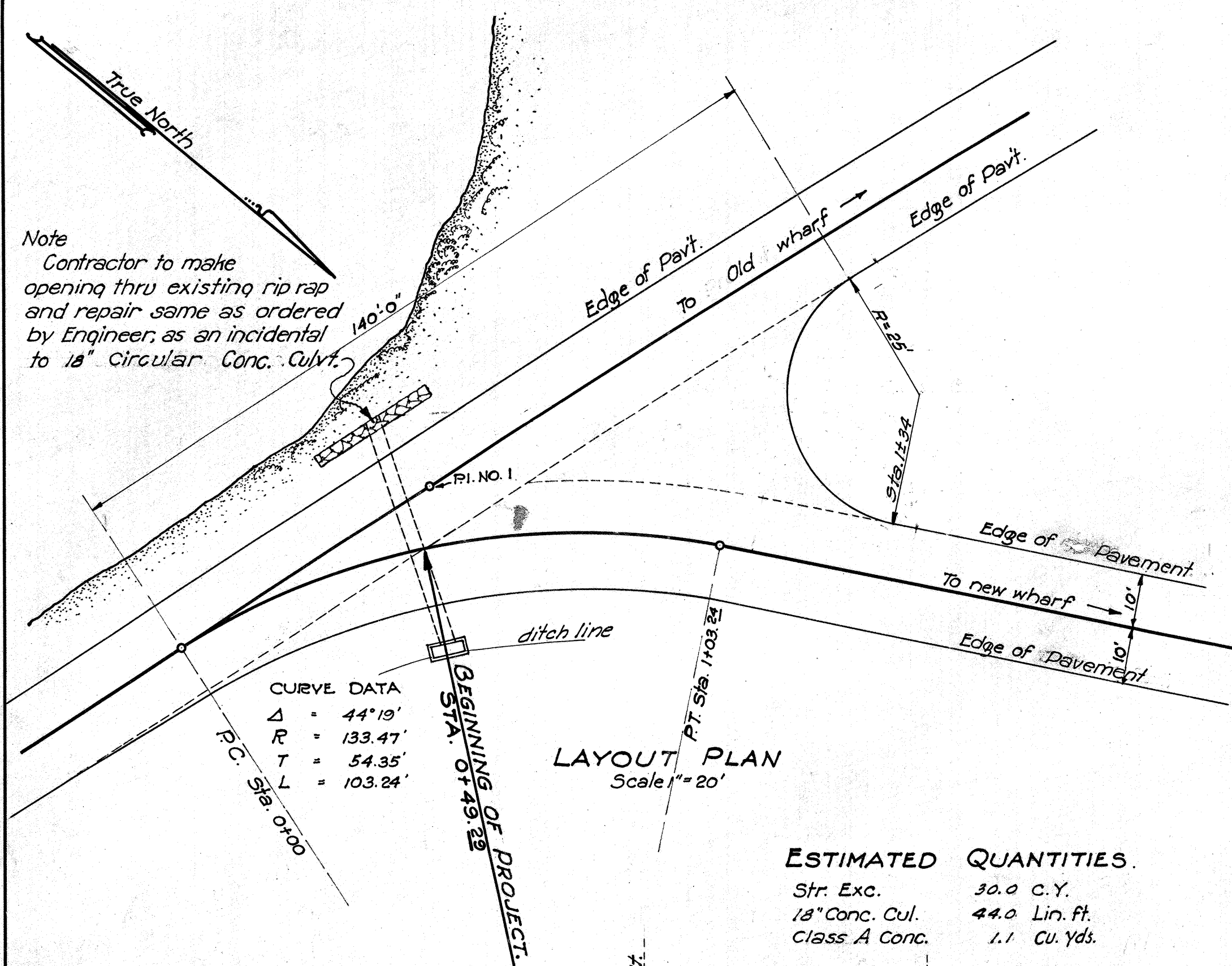
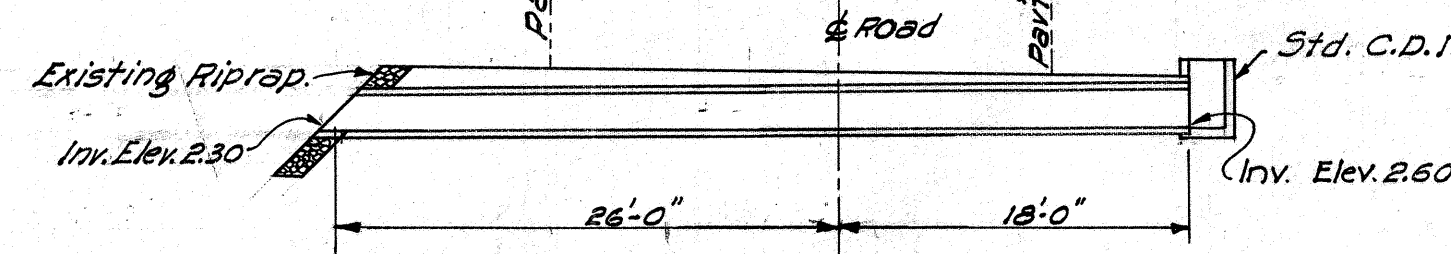


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	11-D	1937	6	11



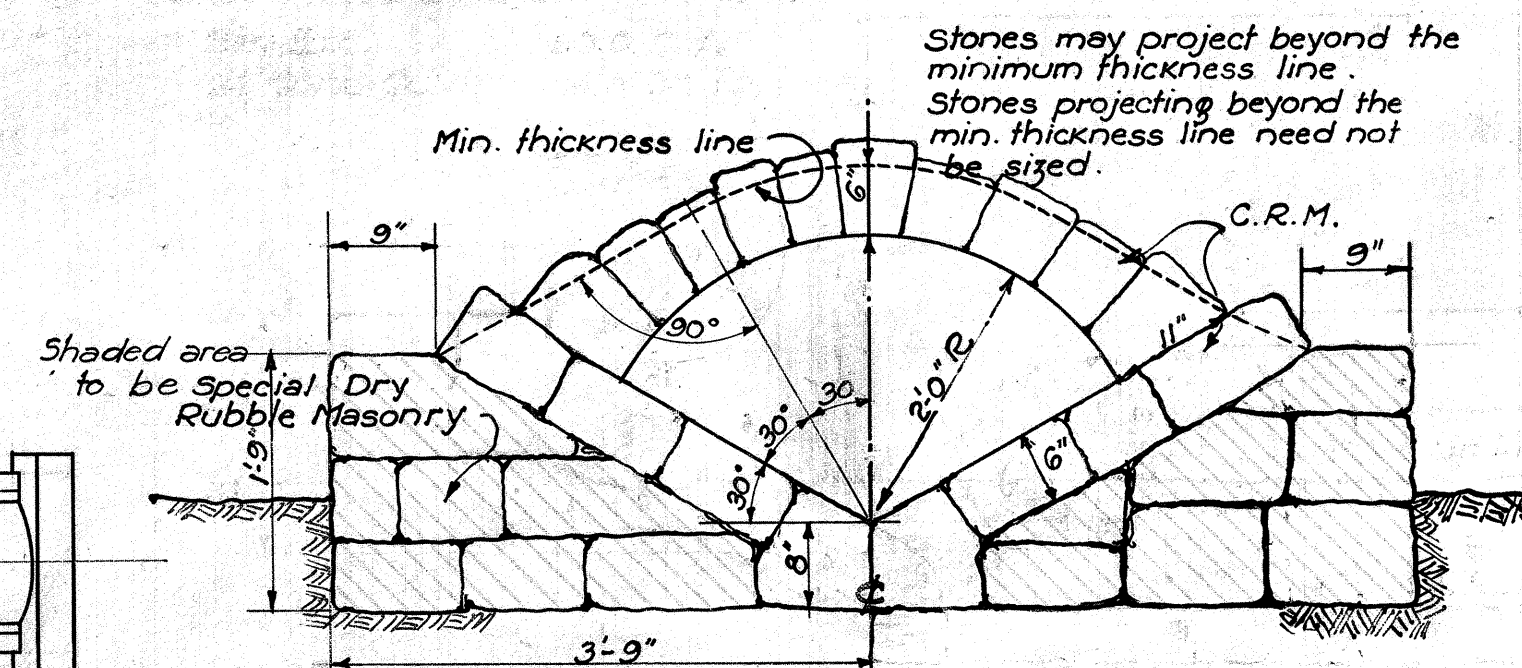
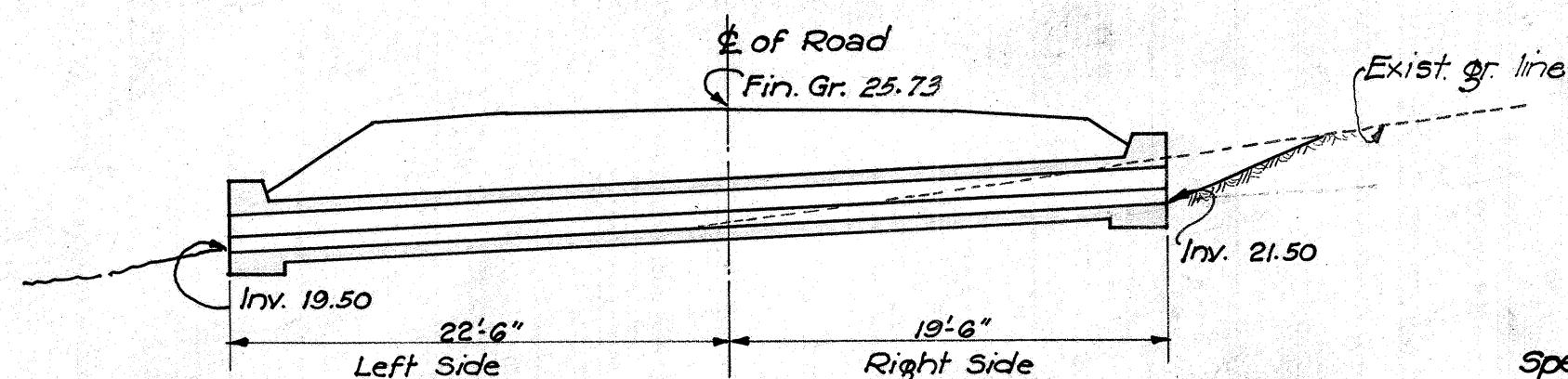
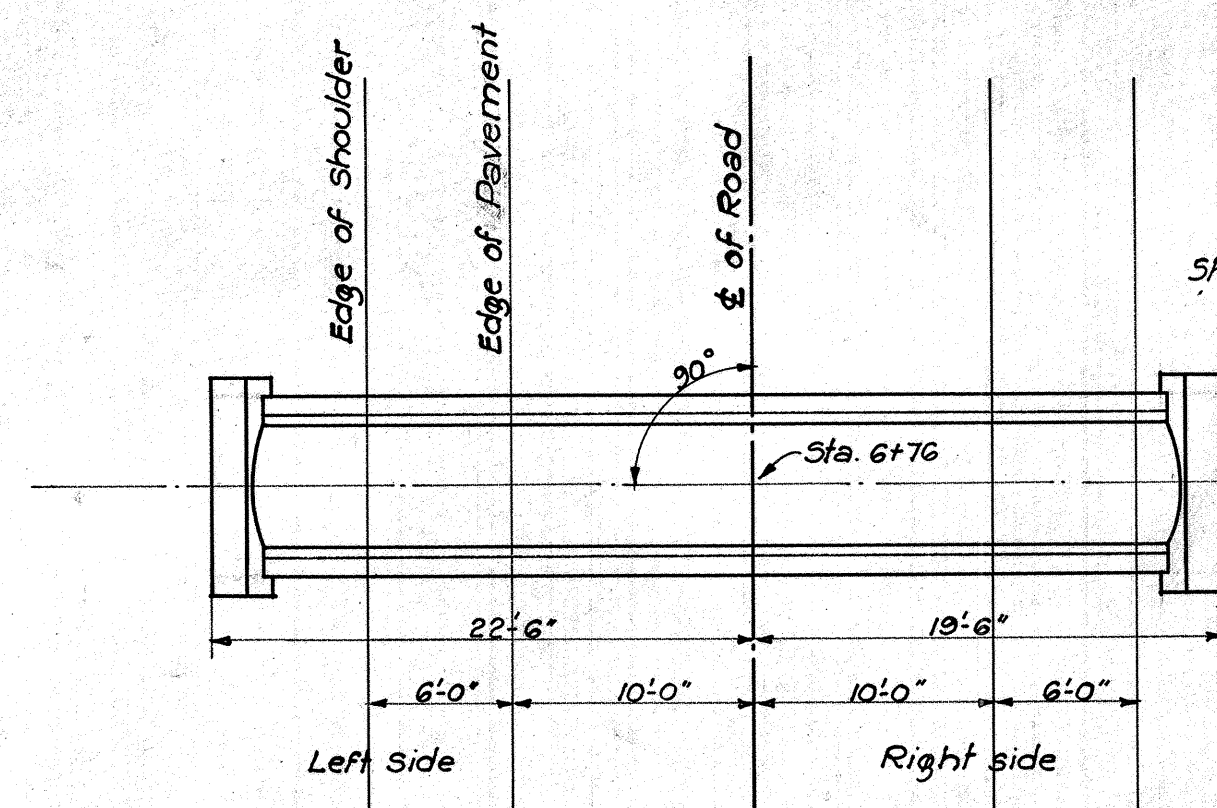
ESTIMATED QUANTITIES.

Str. Exc.	30.0 C.Y.
18" Conc. Cul.	44.0 Lin. ft.
Class A Conc.	1.1 Cu. Yds.



SECTION THRU & OF 18" CIRCULAR CONC. CULVERT.

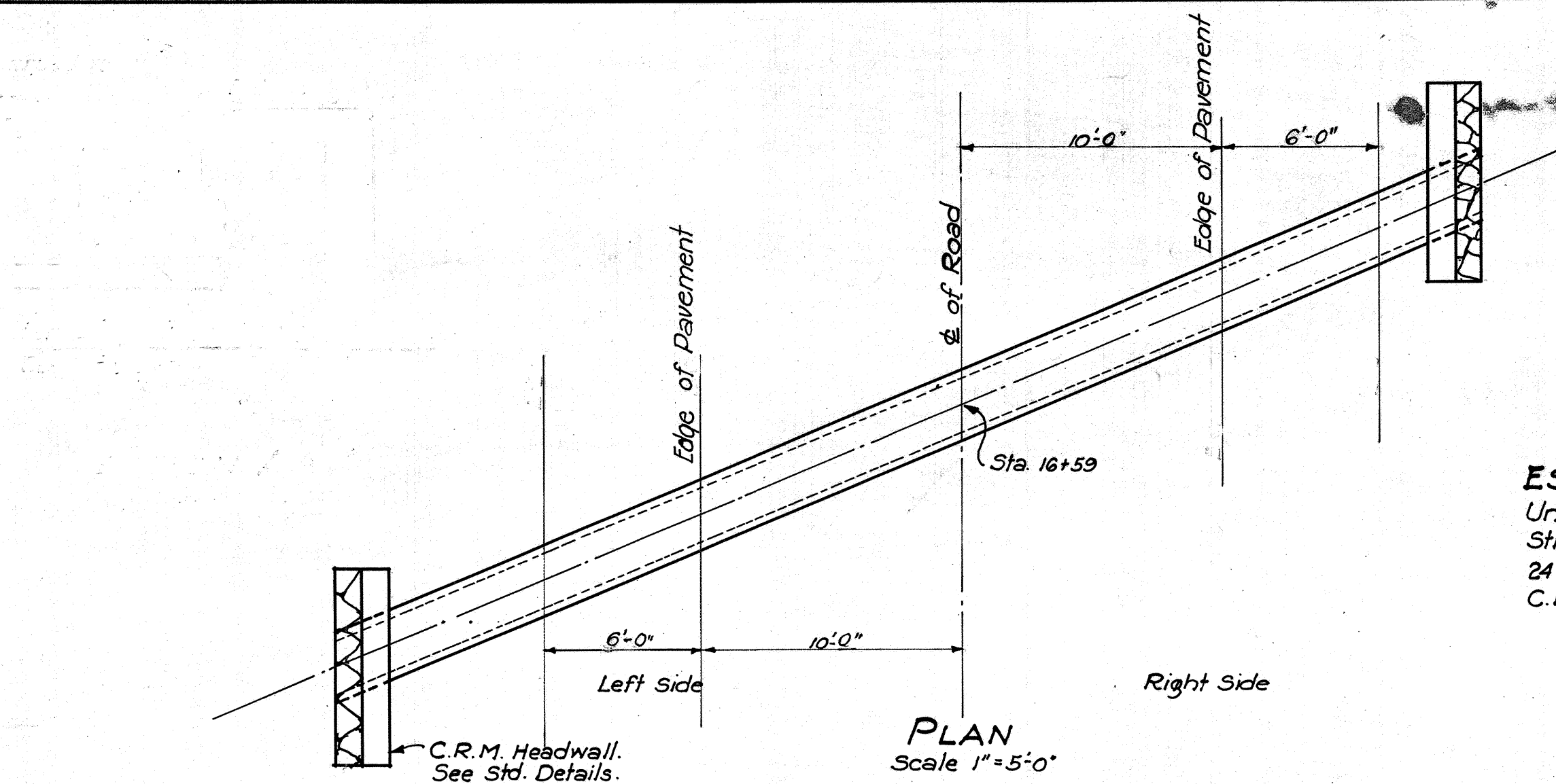
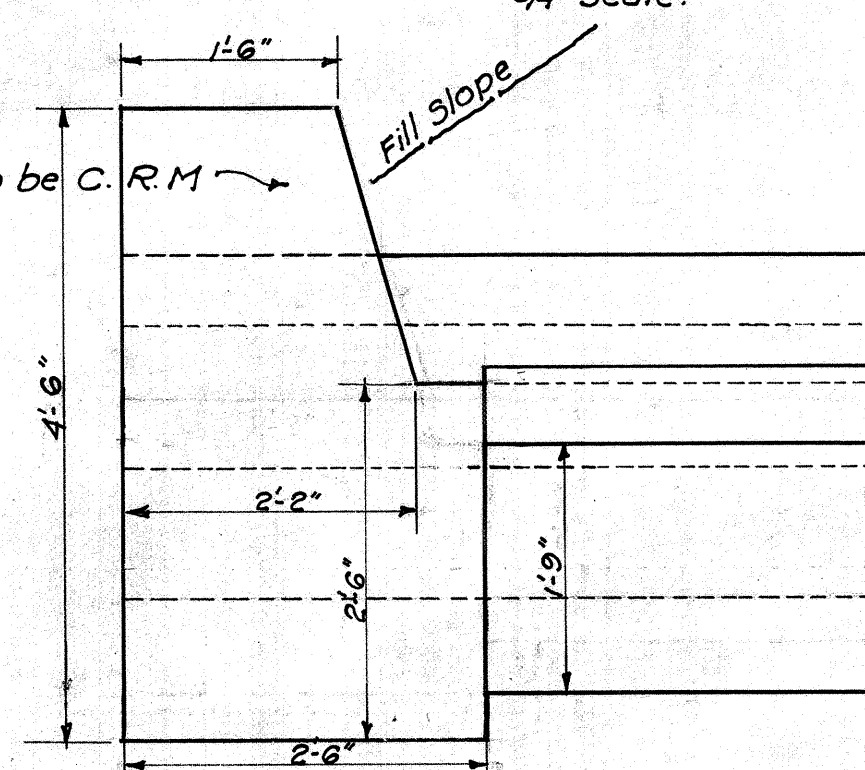
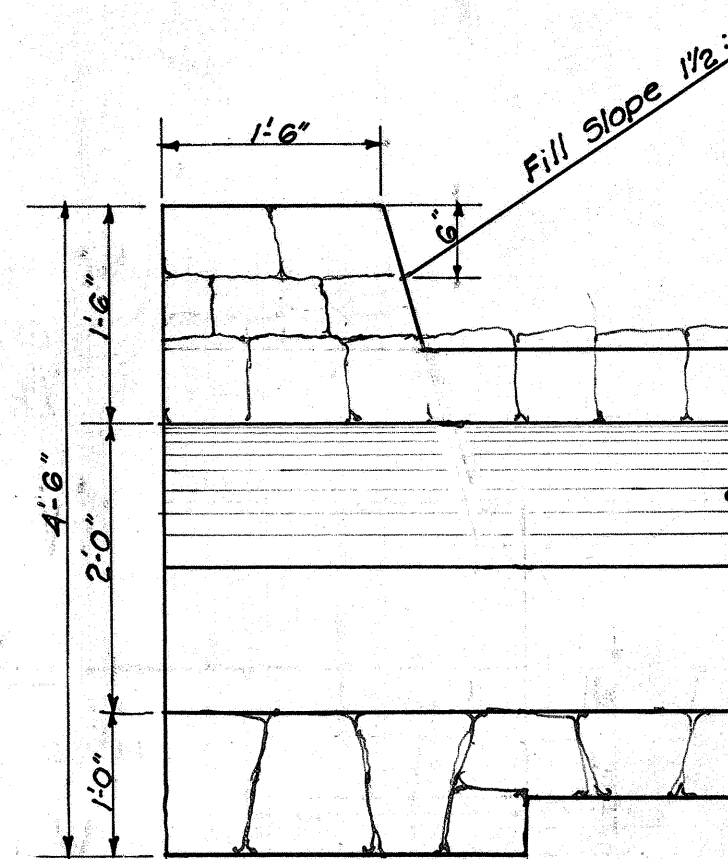
Scale 1"=10'



C.R.M.=0.233 C.Y. per lin. ft. (Barrel of Culv.)
 Special D.R.M.=0.285 " " " "

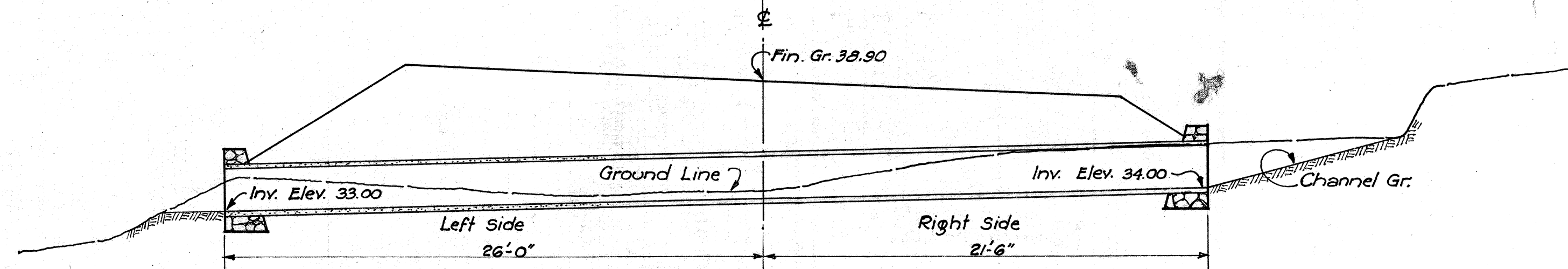
ESTIMATED QUANTITIES.

Str. Exc.	10.00 C.Y.
C.R.M.	15.00 C.Y.
Special D.R.M.	10.50 C.Y.



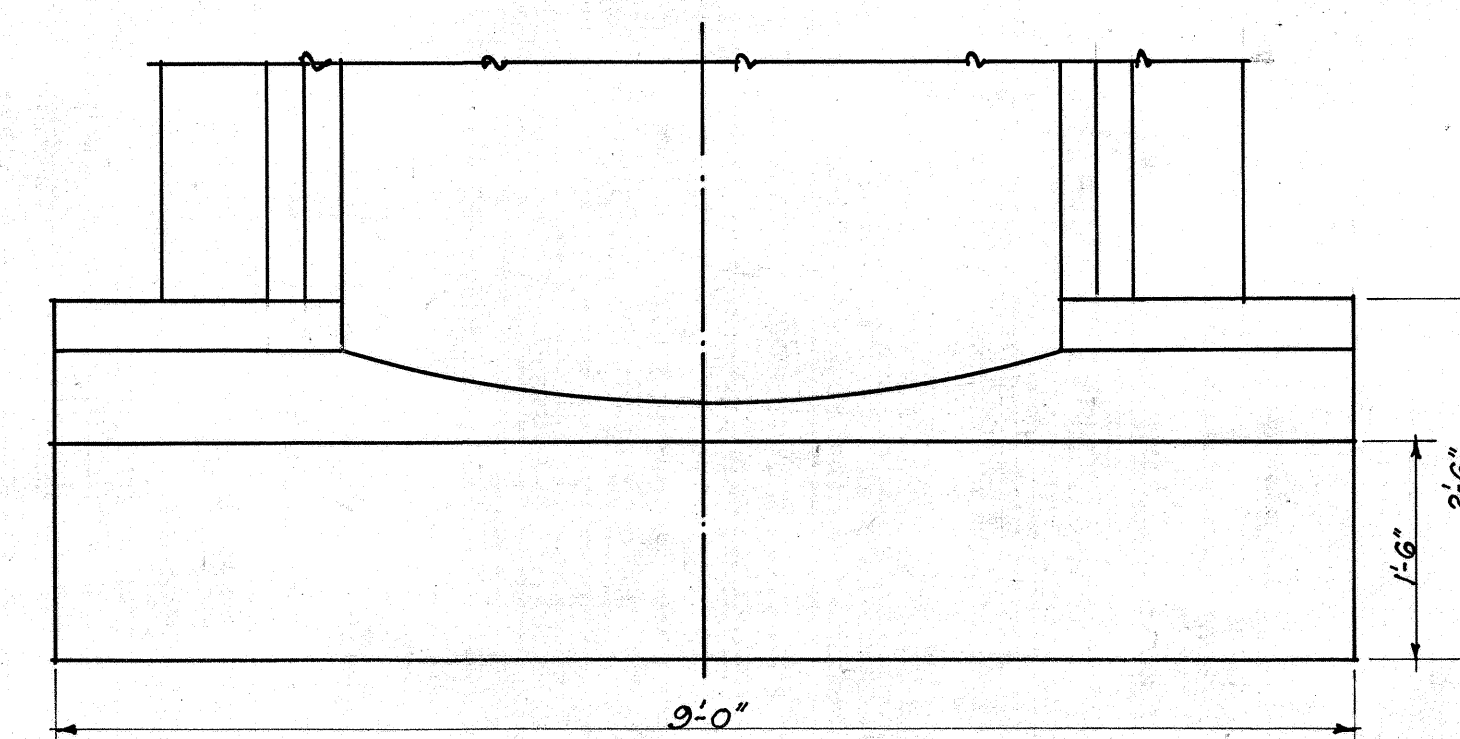
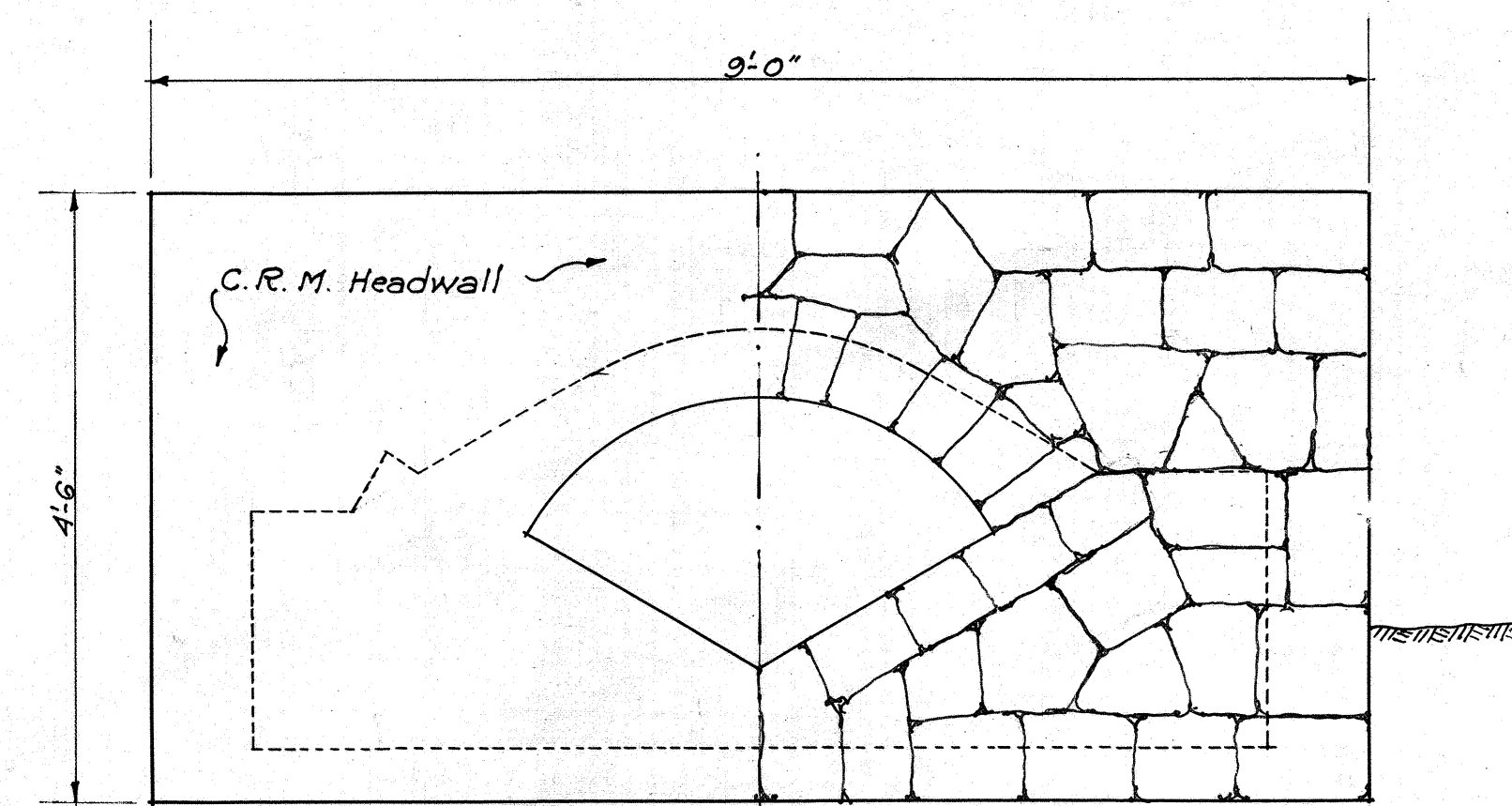
ESTIMATED QUANTITIES

Uncas. Exc.	2.0 C.Y.
Str. Exc.	22.0 C.Y.
24" Conc. Culv.	47.5 Lin. ft.
C.R.M.	3.0 C.Y.



SECTION THRU & OF 24" CIRCULAR CONC. CULV. 2-C.R.M. HEADWALLS.

Scale 1"=5'-0"



TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

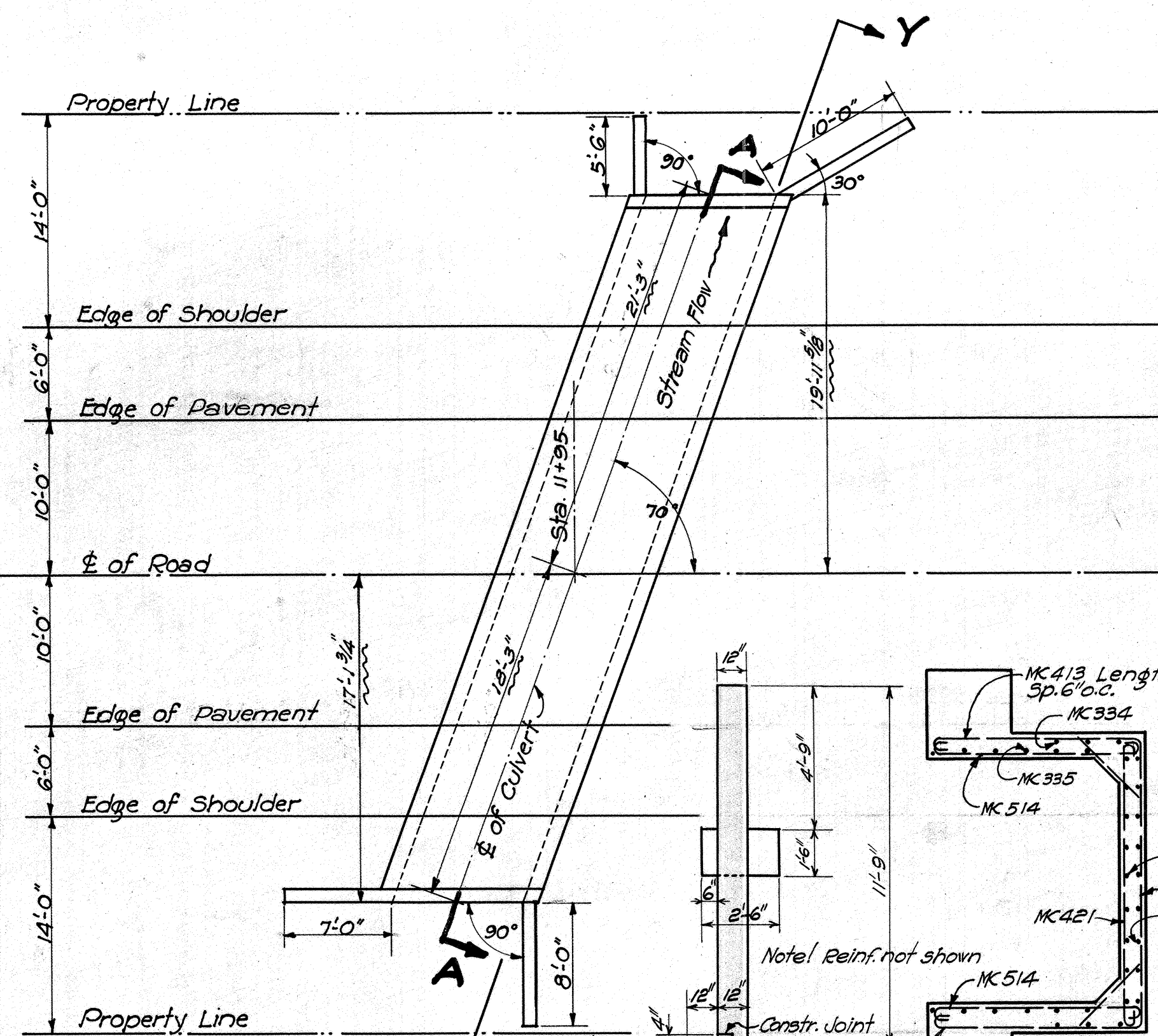
MISC. CULVERT DETAILS.

KAWAIIHAE ROAD F.A.R. 11-D.
 SCALES AS NOTED DATE

SHEET NO. OF SHEETS

4414.6

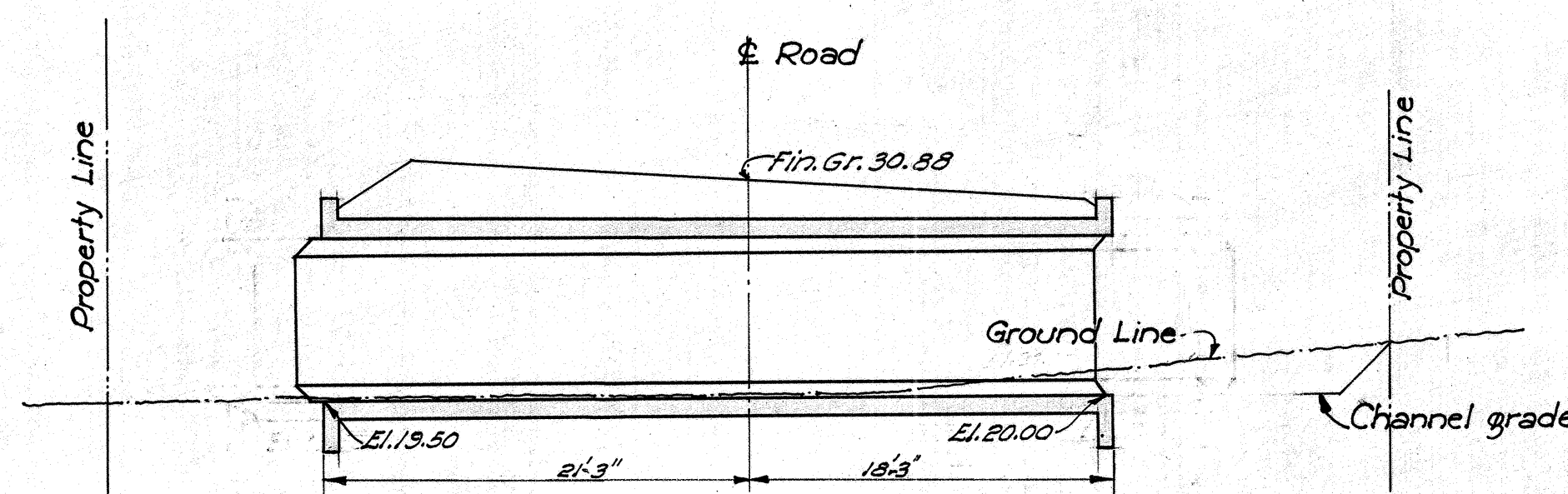
DATE	July 1937
DESIGNED BY	M. E. Partridge
TRACED BY	C. F. M.
QUANTITIES BY	C. F. M.
CHECKED BY	C. F. M.
NO.	



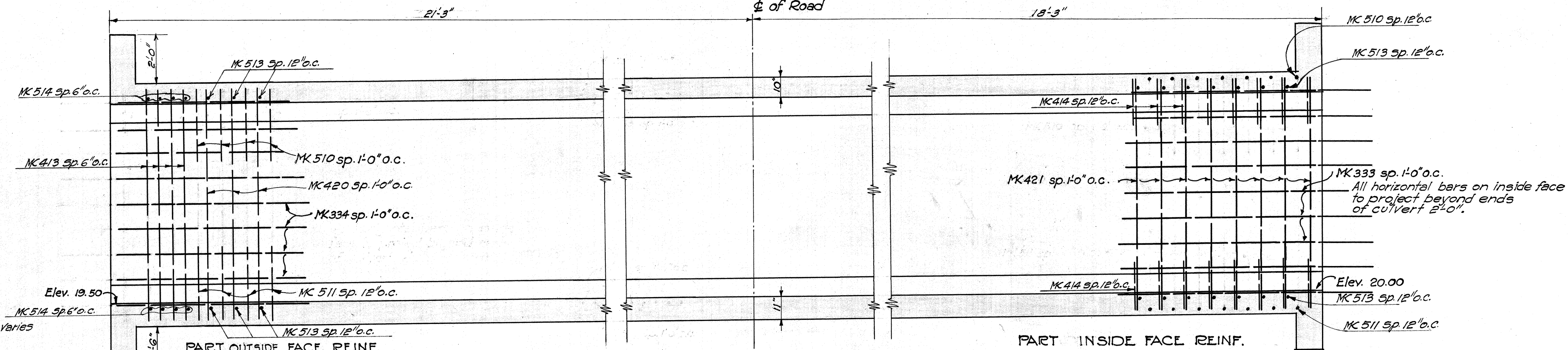
LAYOUT PLAN.
1/8" Scale.

SECT. B-B
Scale 1/4"=1'-0"

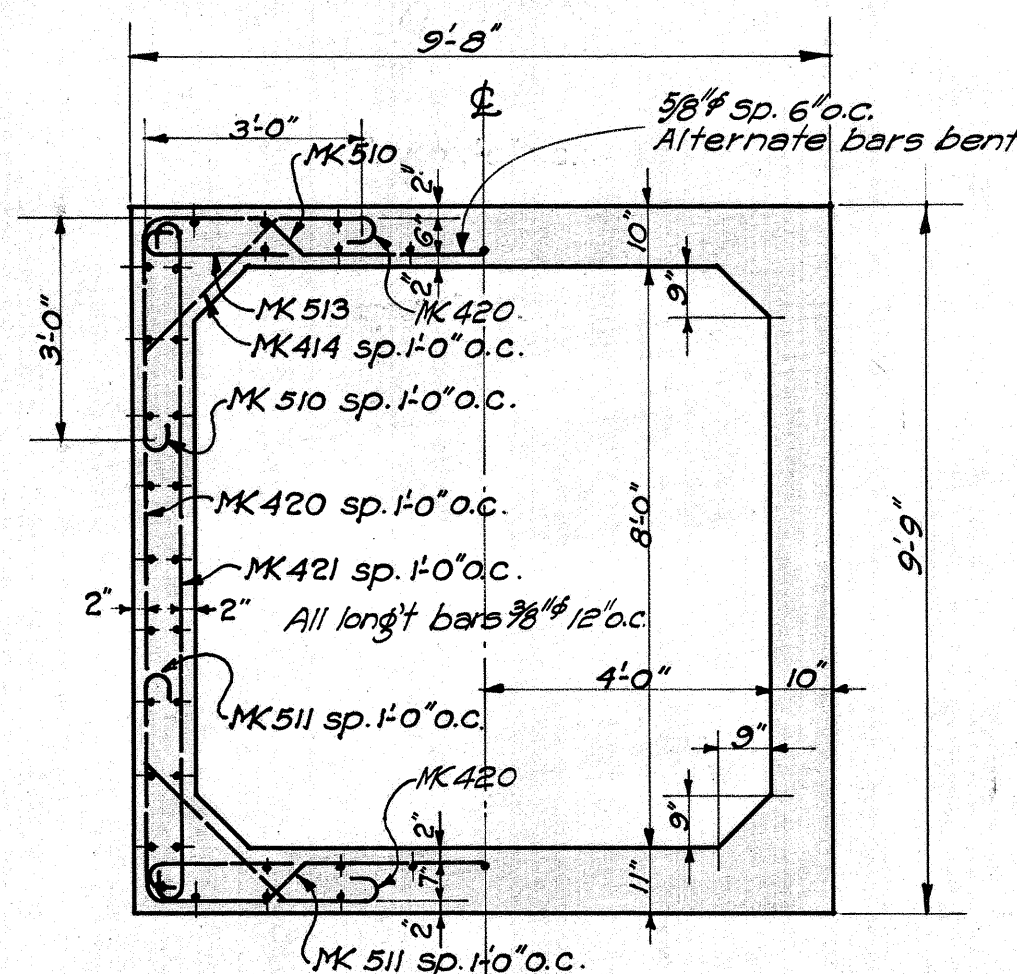
SECT. X-X
Scale 1/4"=1'-0"



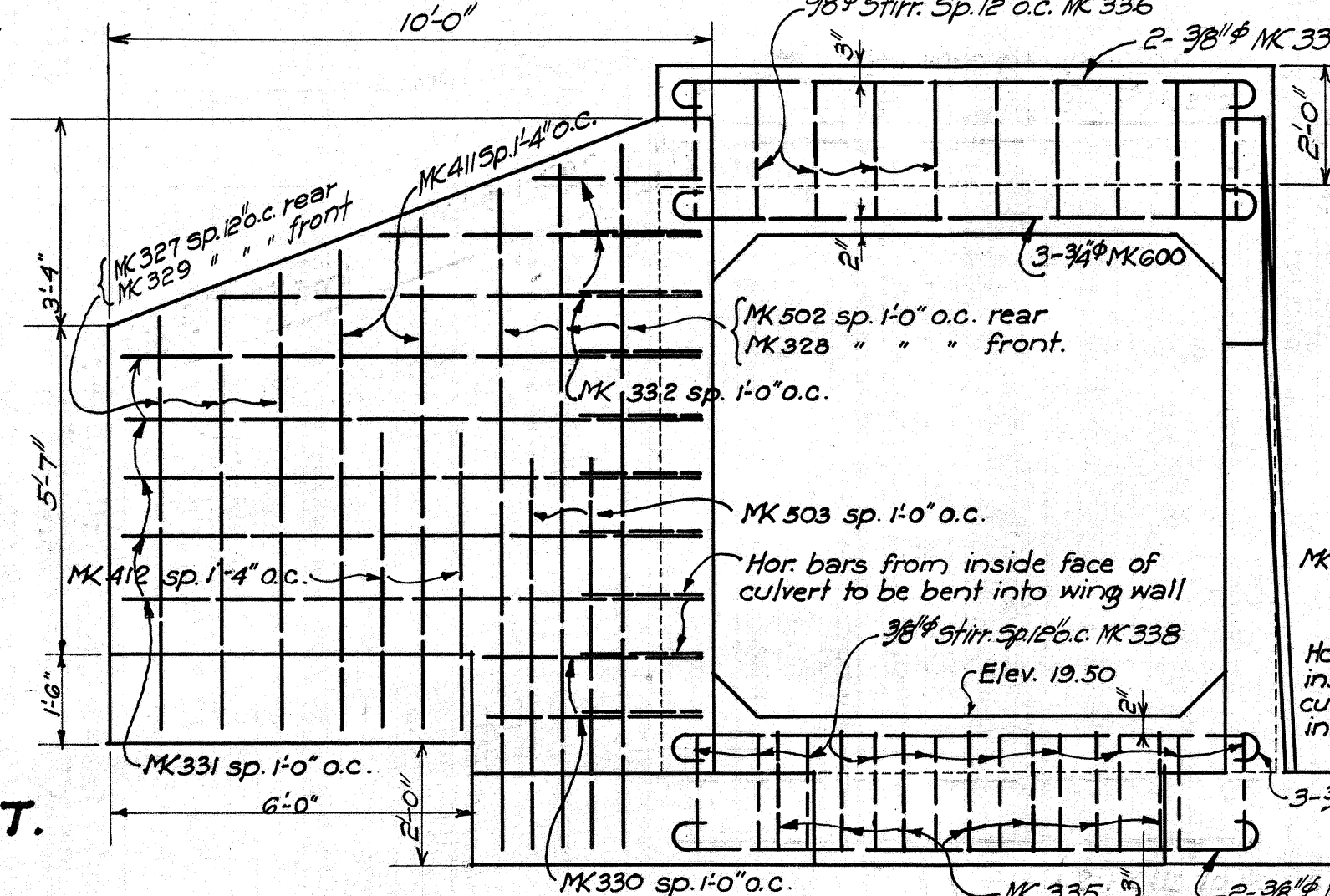
SECTION A-A.
1/8" Scale.



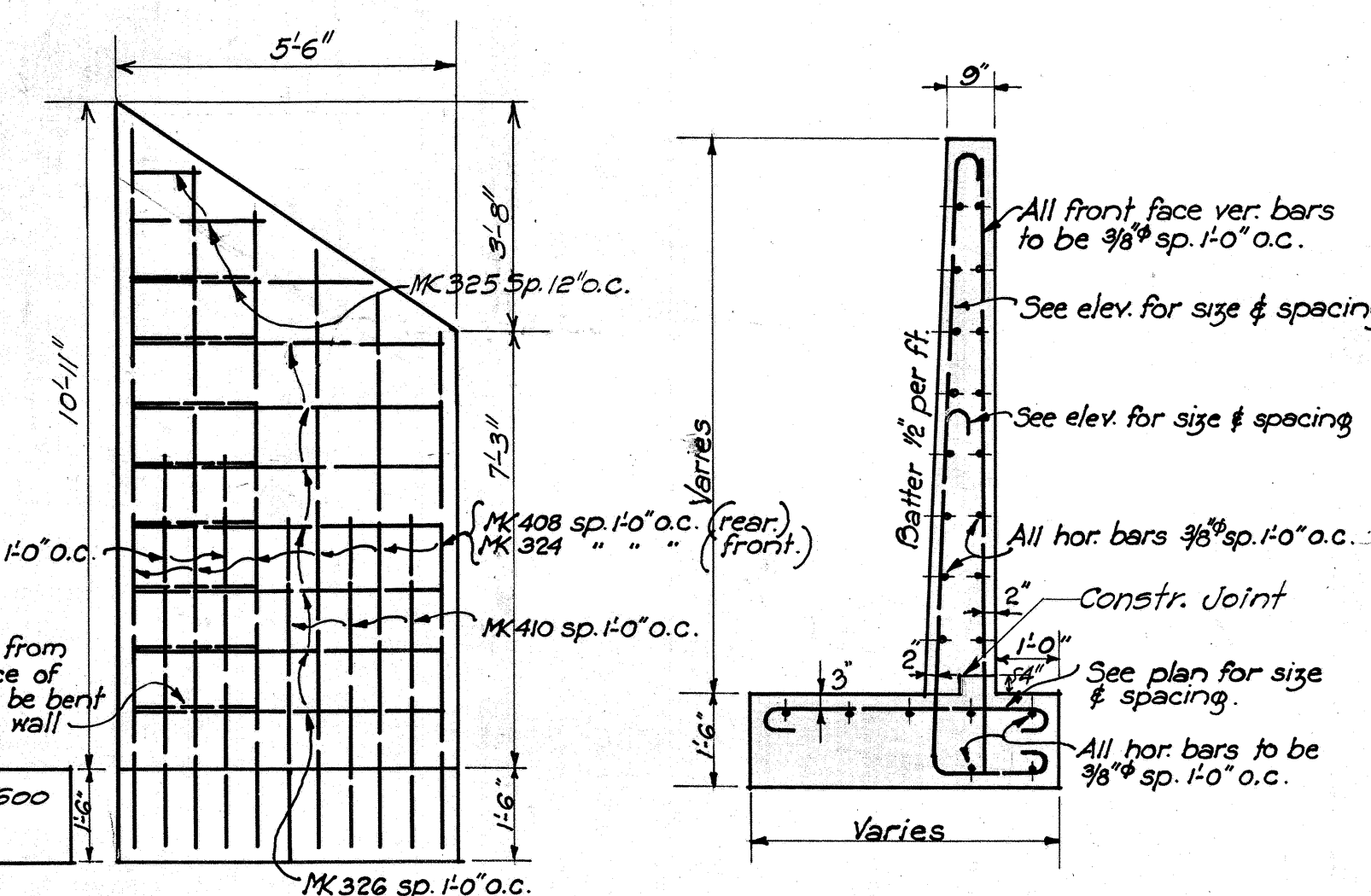
WALL REINFORCING SECTION Y-Y
3/8" Scale.



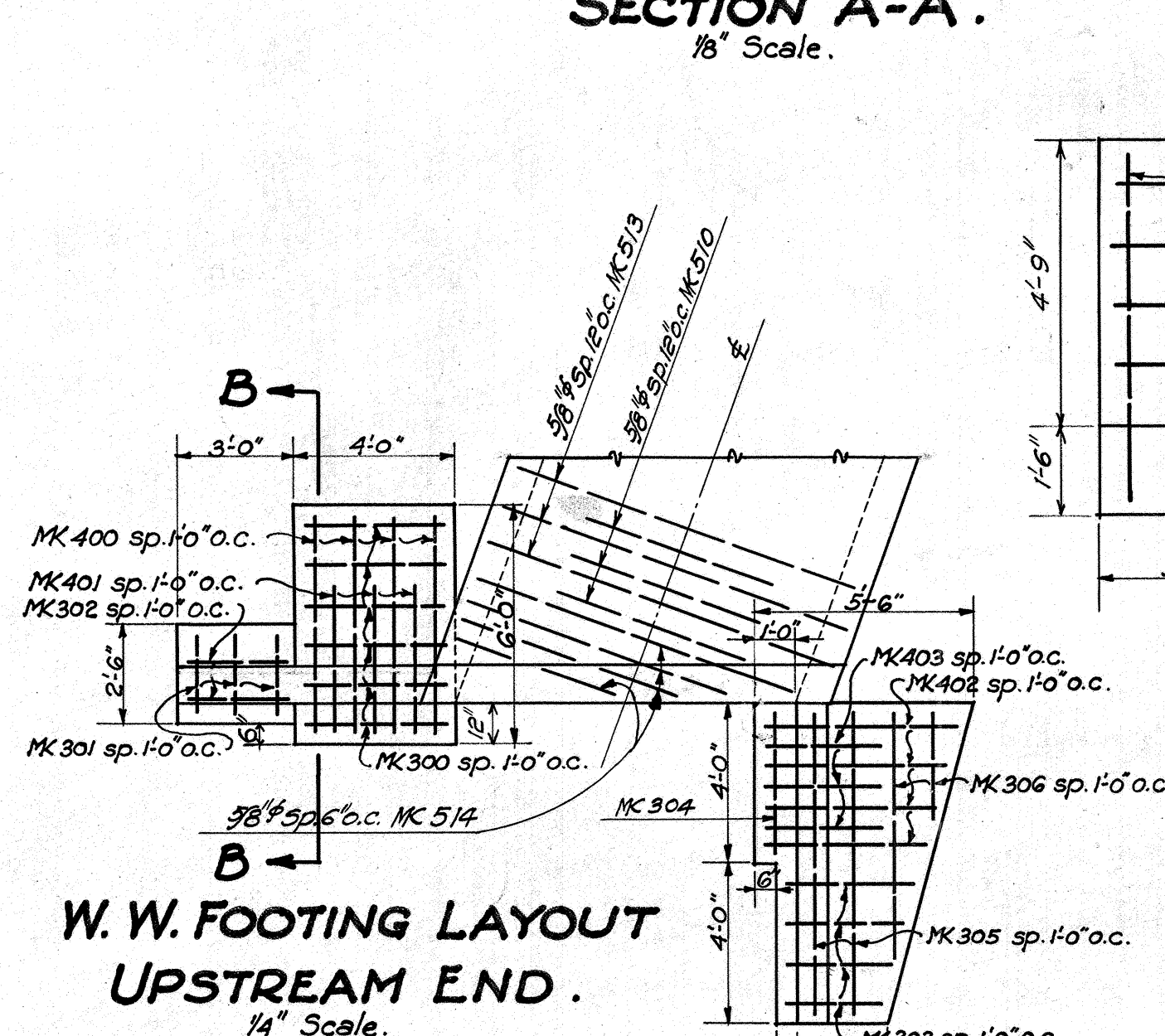
NORMAL SECTION THRU CULVERT.
3/8" Scale.



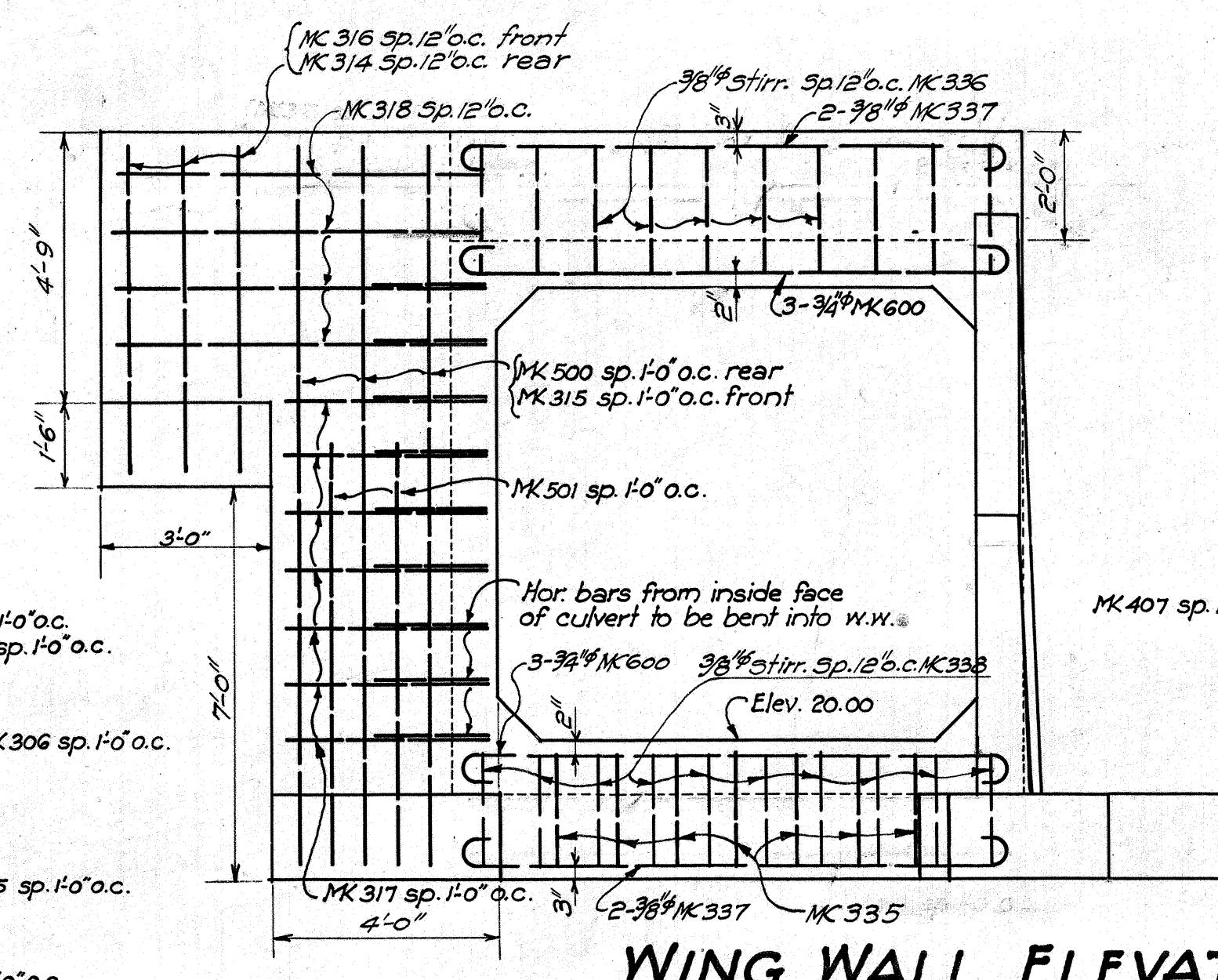
DOWNSTREAM WING WALLS.
3/8" Scale.



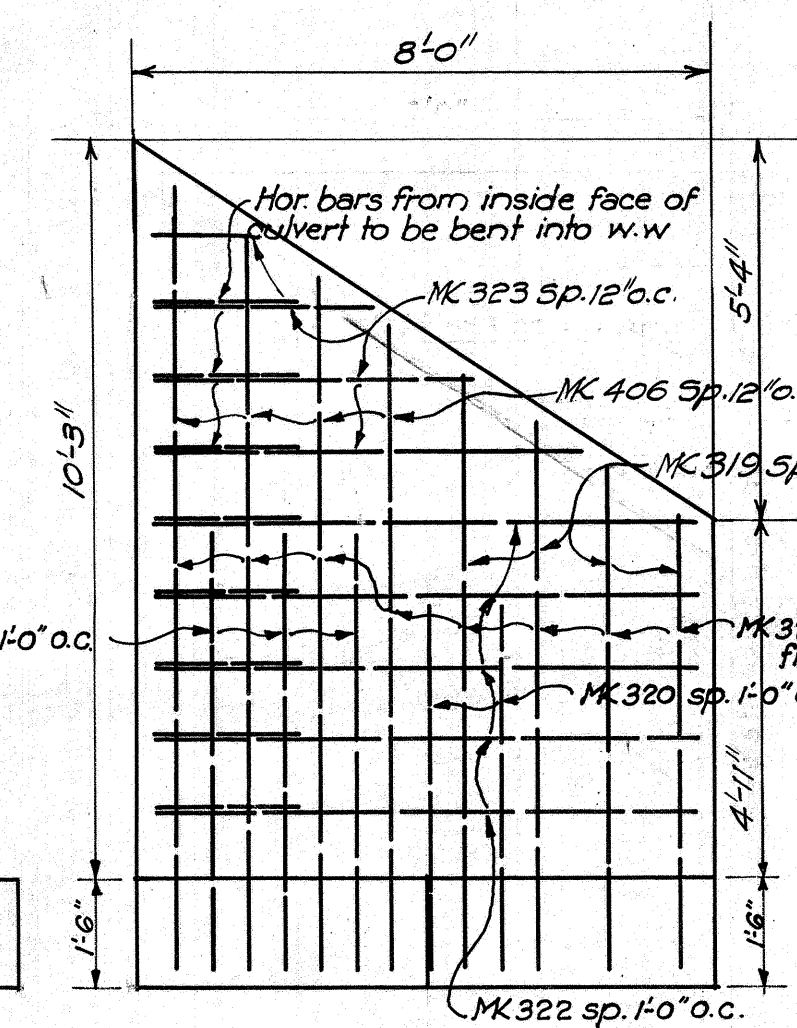
SEC. THRU WING WALL.
3/8" Scale.



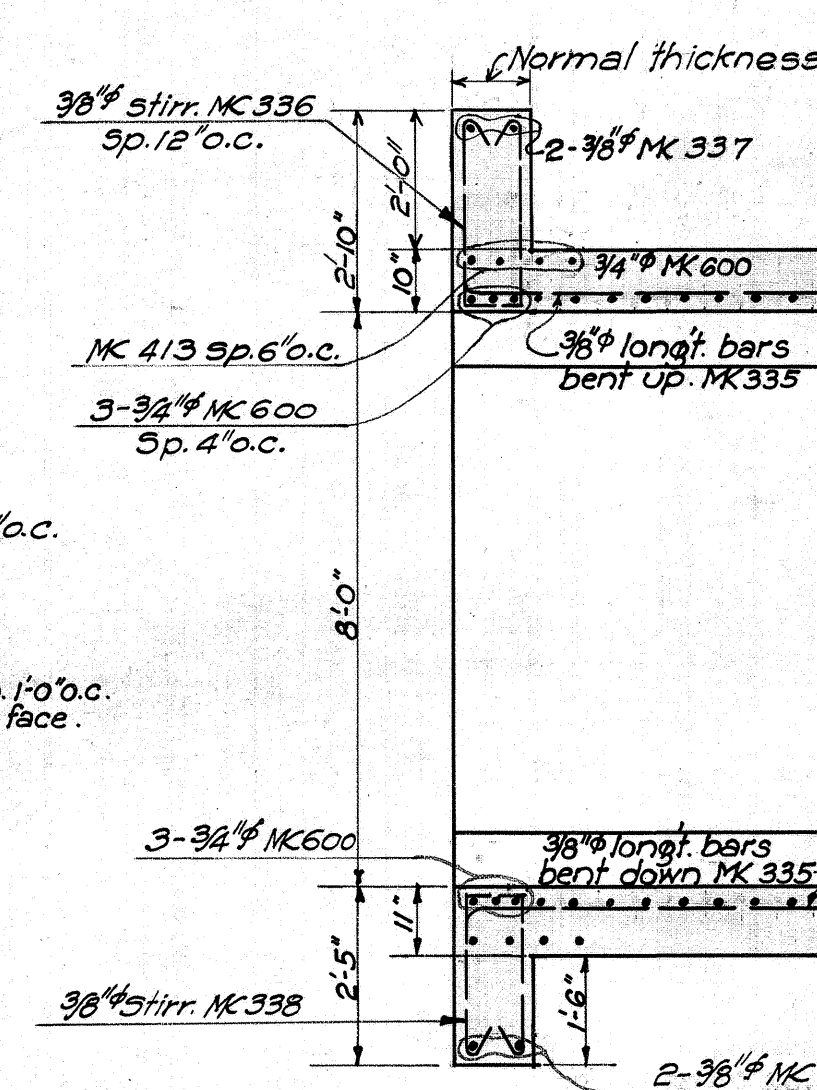
W. W. FOOTING LAYOUT UPSTREAM END.
1/4" Scale.



WING WALL ELEVATIONS UPSTREAM END.
3/8" Scale.



LONGT. SEC. THRU END AT 1/4"
3/8" Scale.



W. W. FOOTING LAYOUT DOWNSTREAM END.
1/4" Scale.

TABLE OF QUANTITIES.

Channel Exc.	5.0 Cu. Yds.
Structure Exc.	50.0 " "
Class "A" Conc.	64.0 " "
Reinf. Steel	6003.0 lbs.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

8'x8' BOX CULVERT
STA. 11+95.00

KAWAIIAE ROAD
DATE JULY 1937

F.A.R. 11-D.
SCALES AS NOTED

SHEET NO. 7 OF 11 SHEETS

STEEL SCHEDULE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	11-D	1937	8	11

MK	DESCRIPTION	LOCATION	SIZE	LENGTH	NO OF BARS IN EA. UNIT	NO OF UNITS	TOTAL NO OF BARS	TOTAL LENGTH	WEIGHT PER FT.	TOTAL WEIGHT
510		TRUNK Top Slab	5/8"	17'-5"	37	1	37	644.4	1.04	670
511		Bot Slab	5/8"	17'-6"	37	1	37	647.5	"	673
513		Top & Bot Slab	5/8"	10'-9"	36	2	72	774.0	"	805
420		Side Slab	1/2"	16'-7"	36	2	72	1194.0	0.67	800
421		"	"	9'-4"	37	2	74	690.7	"	463
414		Corners	"	2'-6"	39	4	156	390.0	"	261
333		Side Slab	3/8"	43'-6"	9	2	18	783.0	0.38	298
334		"	"	39'-0"	15	2	30	1170.0	"	445
335		top & bot. Slab	"	43'-2"	7	1	14	597.3	"	227
413		"	1/2"	Av. 23'-11"	4	2	8	191.4	0.67	128
600		top & bot H.W.	3/4"	11'-5"	3	4	12	137.0	1.50	206
336		"	3/8"	6'-6"	10	2	20	130.0	0.38	49
337		"	"	10'-6"	2	4	8	84.0	0.38	32
338		"	"	5'-8"	10	2	20	113.4	"	43
514		top & bot. Slab	5/8"	Av. 7'-11"	4	4	16	126.8	1.04	132
301		W.V. FOOTING Upstream End	3/8"	2'-11"	3	1	3	8.7	0.38	3
302		"	"	2'-6"	3	1	3	7.5	"	3
400		"	1/2"	6'-8"	4	1	4	26.7	0.67	18
401		"	"	5'-0"	3	1	3	15.0	"	10
300		"	3/8"	3'-6"	8	1	8	28.0	0.38	11
304		"	"	3'-6"	2	1	2	7.0	"	3
305		"	"	7'-6"	3	1	3	22.5	"	9
306		"	"	8'-9"	1	1	1	8.75	"	3
402		"	1/2"	Av. 5'-8"	4	1	4	22.7	0.67	15
403		"	"	4'-3"	3	1	3	12.7	"	8
303		"	3/8"	Av. 3'-8"	4	1	4	14.7	0.38	6

MK	DESCRIPTION	LOCATION	SIZE	LENGTH	NO OF BARS IN EA. UNIT	NO OF UNITS	TOTAL NO OF BARS	TOTAL LENGTH	WEIGHT PER FT.	TOTAL WEIGHT
307		W.V. FOOTING Downstream End	3/8"	Av. 4'-5"	2	1	2	8.8	0.38	3
308		"	"	3'-5"	2	1	2	6.8	0.38	3
404		"	1/2"	Av. 5'-8"	7	1	7	39.7	0.67	26
405		"	"	4'-0"	5	1	5	20.0	"	13
309		"	3/8"	5'-0"	5	1	5	25.0	0.38	9
310		"	"	6'-9"	1	1	1	6.7	"	3
311		"	"	3'-6"	6	1	6	21.0	0.38	8
339		"	"	2'-9"	1	1	1	2.7	"	1
313		"	"	5'-6"	4	1	4	22.0	"	8
312		"	"	Av. 3'-6"	6	1	6	21.0	"	8
324		WINGWALL	"	Av. 10'-0"	6	1	6	60	"	23
408		"	1/2"	Av. 12'-9"	6	1	6	76.5	0.67	51
409		"	"	9'-5"	2	1	2	18.8	"	13
410		"	"	8'-3"	4	1	4	33	0.67	22
326		"	3/8"	5'-0"	7	2	14	70.0	0.38	27
328		"	3/8"	Av. 11'-2"	3	1	3	33.5	"	13
502		"	5/8"	14'-5"	3	1	3	43.3	1.04	45
503		"	"	10'-1"	2	1	2	20.2	1.04	21
411		"	1/2"	Av. 10'-5"	2	1	2	20.8	0.67	14
412		"	"	7'-1"	2	1	2	14.2	"	9
329		"	3/8"	Av. 7'-6"	6	1	6	45	0.38	17
327		"	"	Av. 9'-3"	3	1	3	27.7	"	10
331		"	"	9'-6"	5	2	10	95.0	"	36
325		"	"	Av. 2'-3"	3	2	6	13.5	0.38	5
332		"	"	Av. 5'-3"	3	2	6	31.5	0.38	12
330		"	"	3'-6"	2	2	4	14.0	0.38	5

MK	DESCRIPTION	LOCATION	SIZE	LENGTH	NO OF BARS IN EA. UNIT	NO OF UNITS	TOTAL NO OF BARS	TOTAL LENGTH	WEIGHT PER FT.	TOTAL WEIGHT
406		WINGWALL Upstream End	1/2"	Av. 12'-8"	4	1	4	54.7	0.67	34
319		"	3/8"	Av. 9'-3"	4	1	4	37.0	0.38	14
407		"	1/2"	8'-8"	3	1	3	26.0	0.67	17
320		"	3/8"	6'-11"	2	1	2	13.8	0.38	5
321		"	"	Av. 8'-6"	8	1	8	68.0	0.38	26
323		"	"	Av. 3'-9"	4	2	8	30.0	0.38	11
322		"	"	7'-6"	5	2	10	75.0	0.38	28
500		"	5/8"	16'-0"	3	1	3	48.0	1.04	50
501		"	"	10'-10"	2	1	2	21.7	1.04	23
315		"	3/8"	12'-9"	3	1	3	38.2	0.38	14
317		"	"	3'-6"	7	2	14	49.0	"	19
318		"	"	6'-6"	4	2	8	52.0	"	20
316		"	"	5'-9"	3	1	3	17.25	"	7
314		"	"	7'-10"	3	1	3	23.5	"	9

This steel schedule is subordinate to details shown on plans. In case of discrepancy between steel list and detail drawings the latter shall govern.

The Territorial Highway Dept. does not assume responsibility for any errors that occur in the steel schedule. Contractor shall check steel before placing order.

All stirrup dimensions are to inside of stirrups; all other dimensions are figured to $\frac{1}{2}$ of bars.

8'x8' Box CULVERT
STA 11+95.00

KAWAIHAE ROAD F.A.P. 11-D

4414.8

Aug. 37
 Aug. 37
 Paul Kang
 R.E. Smith