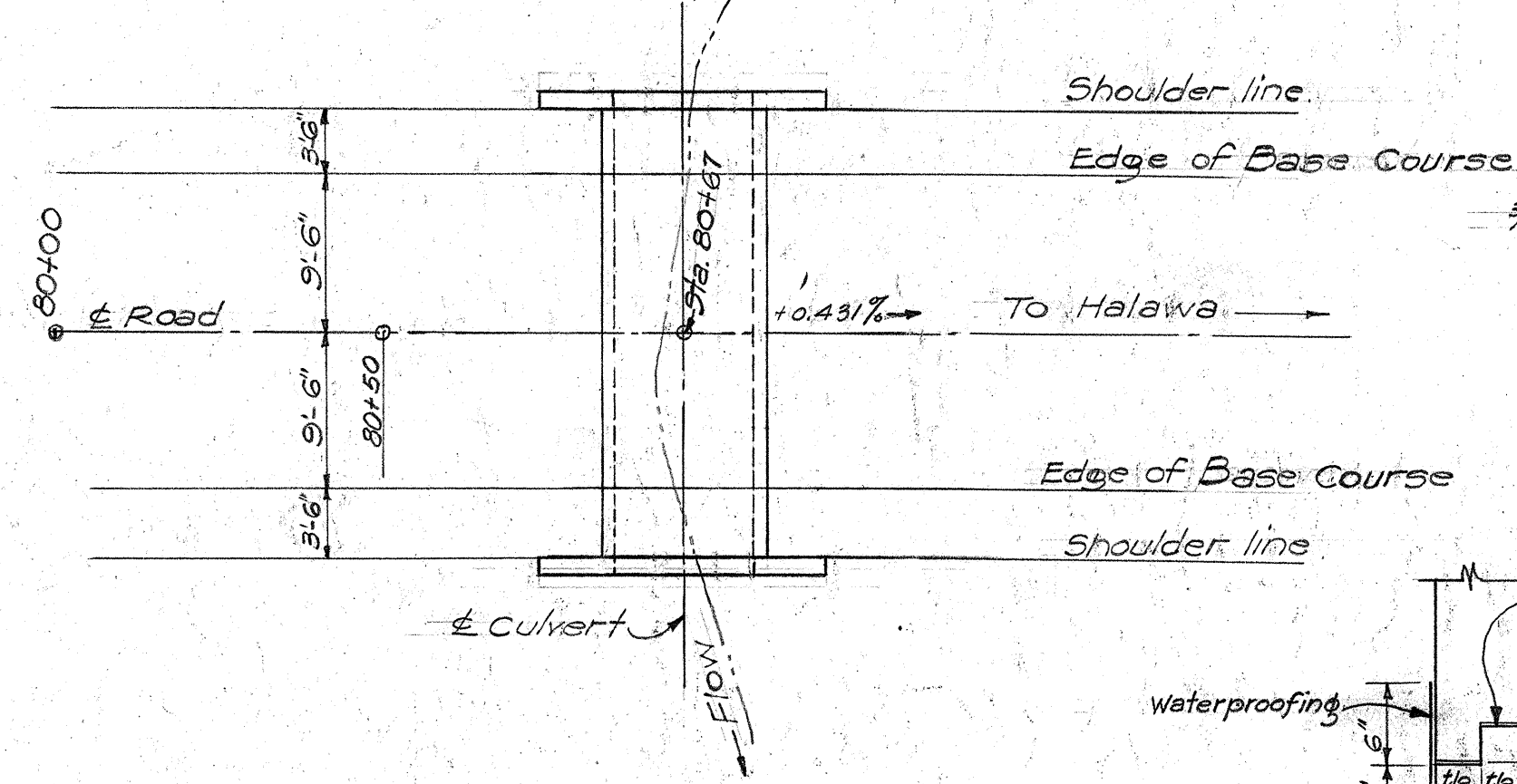
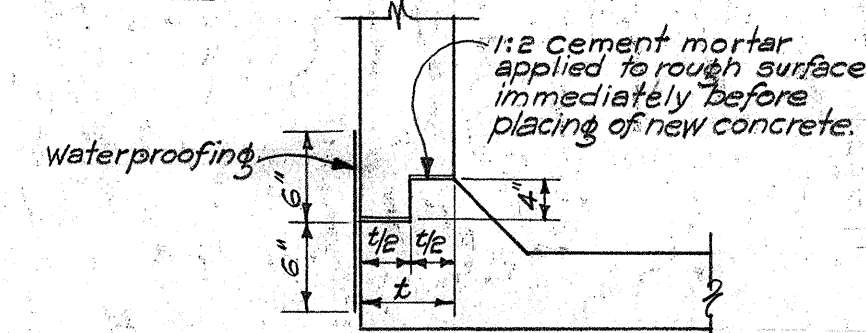


Curve Data
 $\Delta = 22^\circ 24' 40''$
 $D = 2^\circ 00'$
 $R = 2864.79$
 $PC = 75+53.91$
 $PT = 86+74.47$

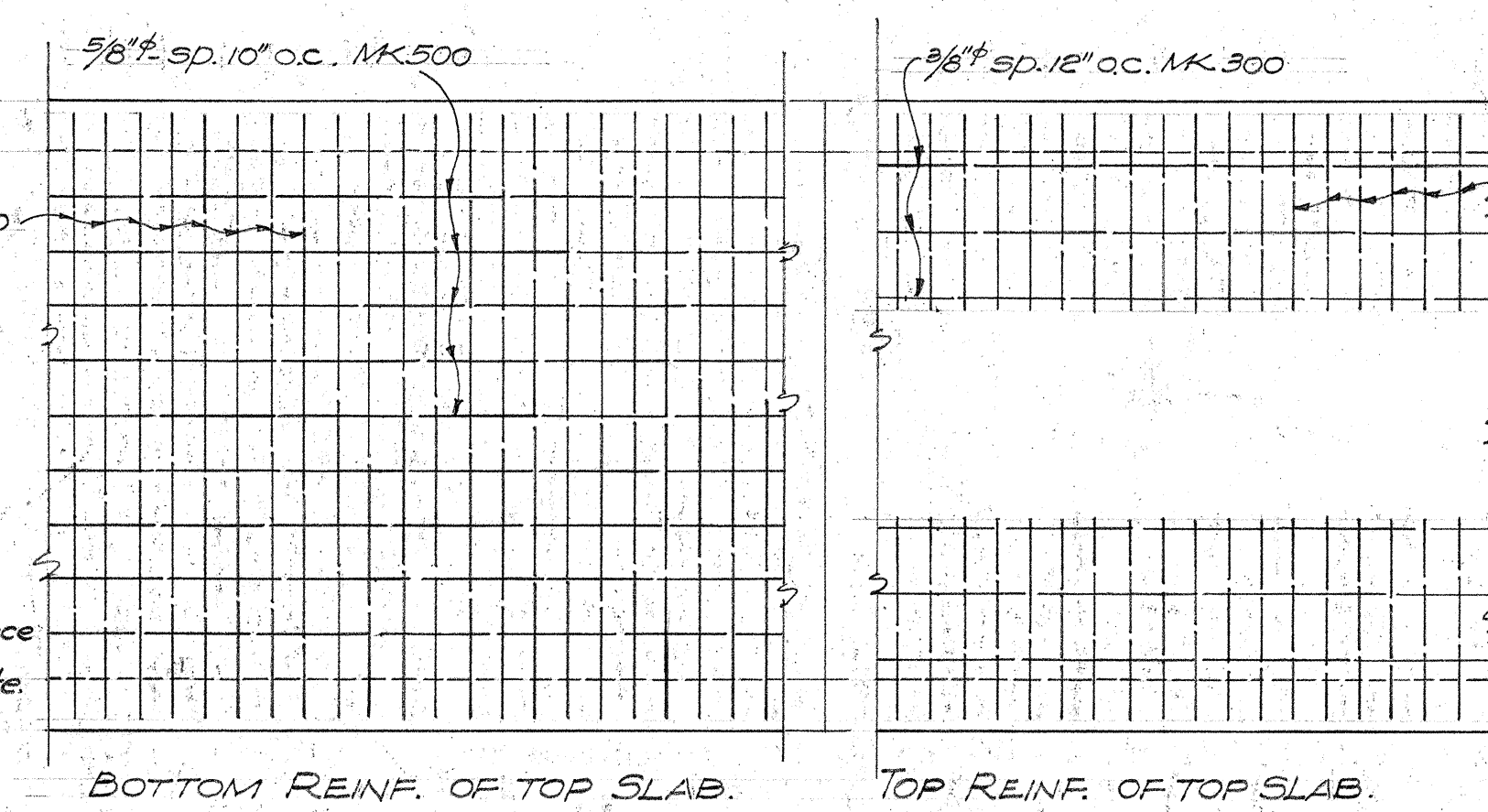


PLAN
 Scale 1"=10'

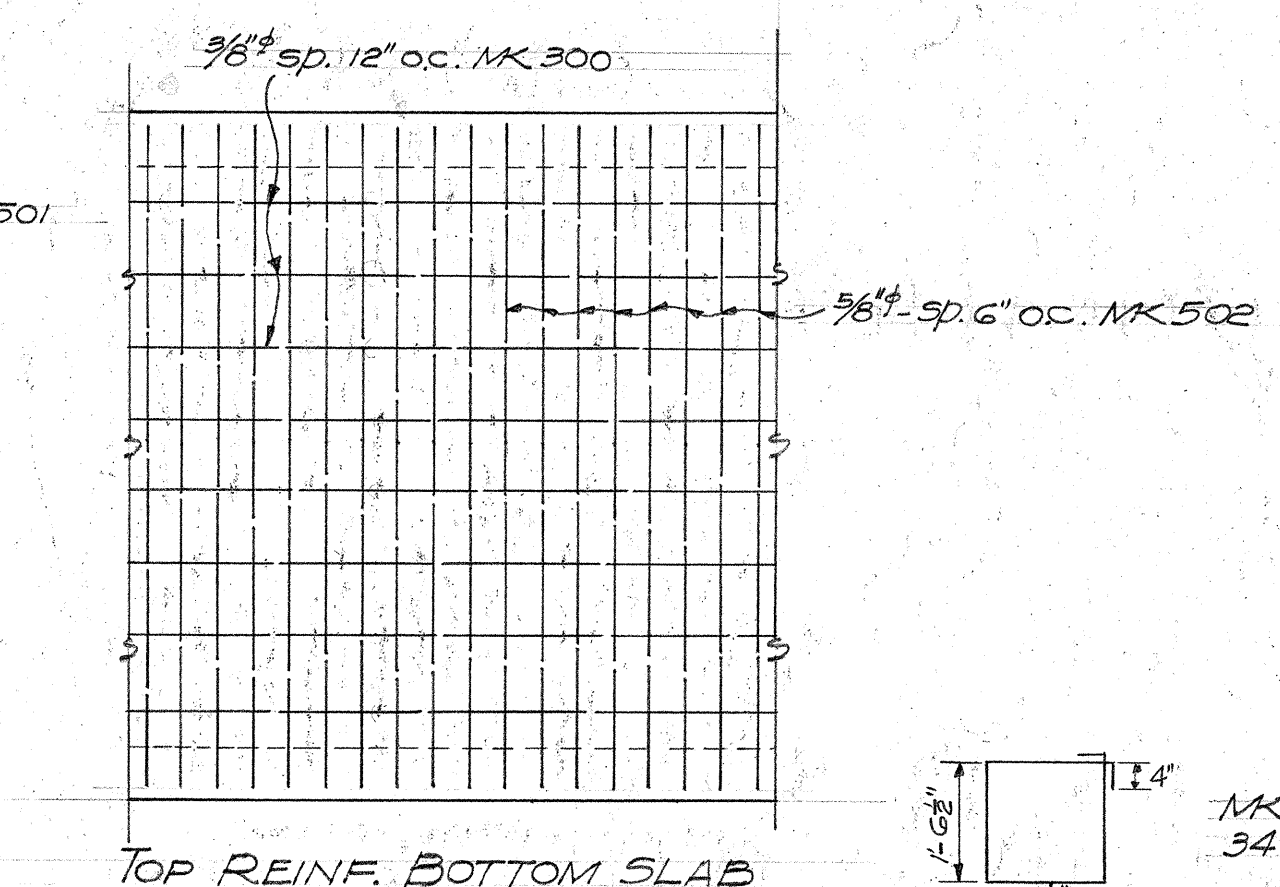


TYPICAL CONSTR. JOINT
 DETAIL FOR CULVERTS

METHOD OF APPLYING CONSTR. JOINT WATERPROOFING
 FIRST: Mop surface 10" either side of joint with asphalt, 85-100 penetration, applied at 200°F.
 SECOND: Apply one layer of 2-ply roofing paper lapping 6" either side of joint to hot asphalt; then mop entire surface with a thick coat of hot asphalt.



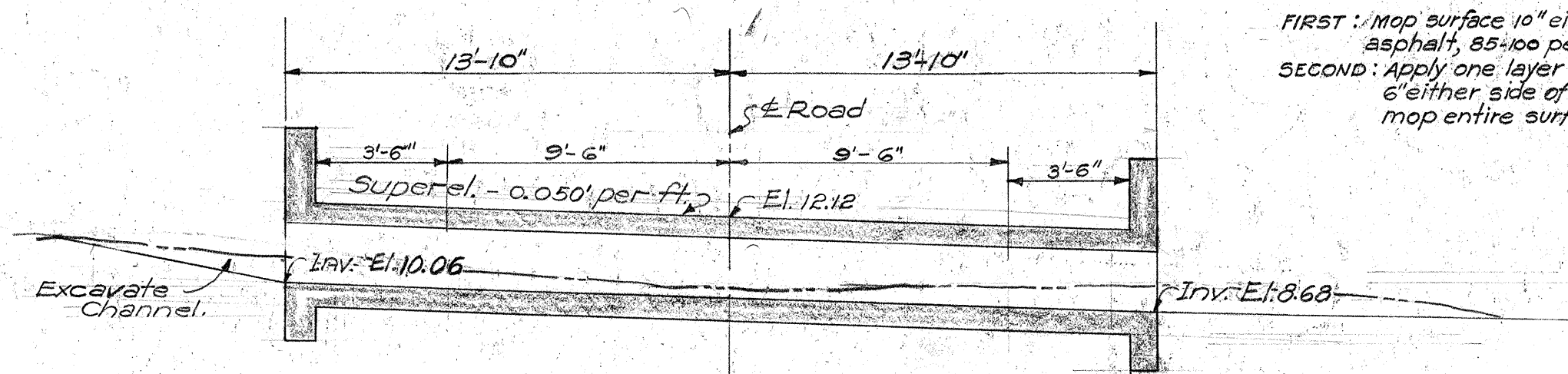
PART SLAB REINF.
 Scale 3/8"=1'-0"



PART SLAB REINF.
 Scale 3/8"=1'-0"

- MK300 3/8" Length 4'-6" 34 Required.
- MK305 3/8" Length 6'-1" 30 Required.
- MK600 Length 10'-9" 53 Required.
- MK500 Length 10'-6" 53 Required.
- MK501- 5/8" Length 11'-0" 106 Required.
- MK307 3/8" Length 6'-5" 8 Required.
- MK308 3/8" Length 5'-6" 8 Required.

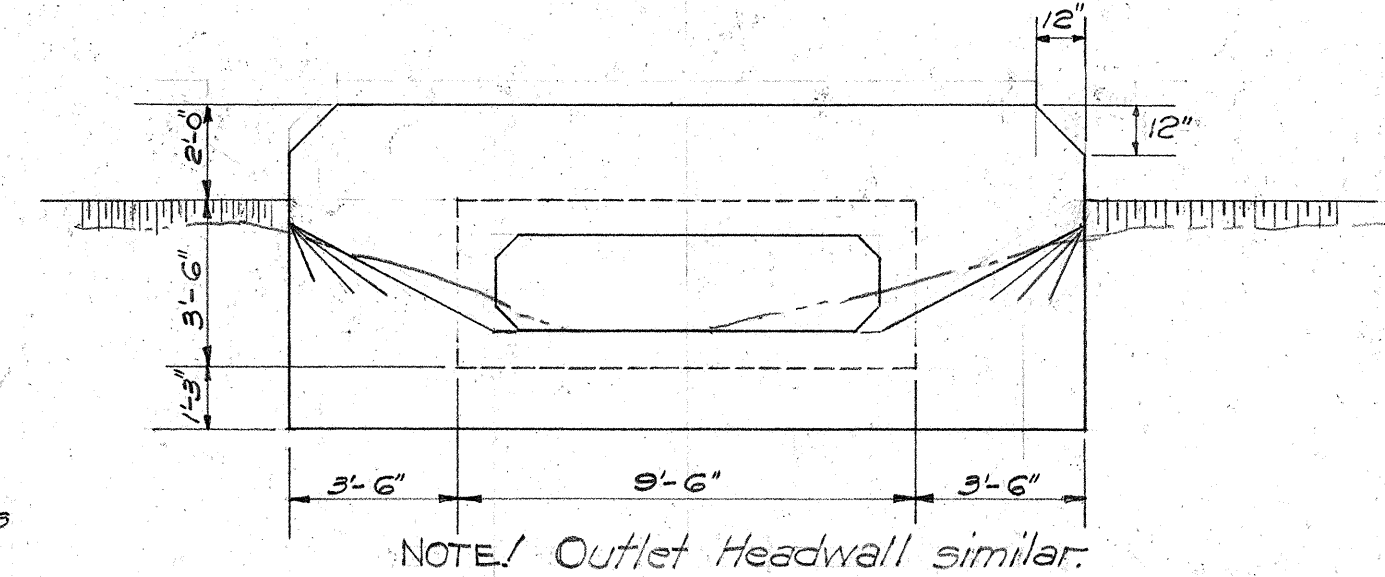
ESTIMATED QUANTITIES	
CONCRETE	22.9 C.Y.
REINF. STEEL	3924 LBS.
STR. EXCAVATION	31 C.Y.
CHANNEL EXCAVATION	10 C.Y.



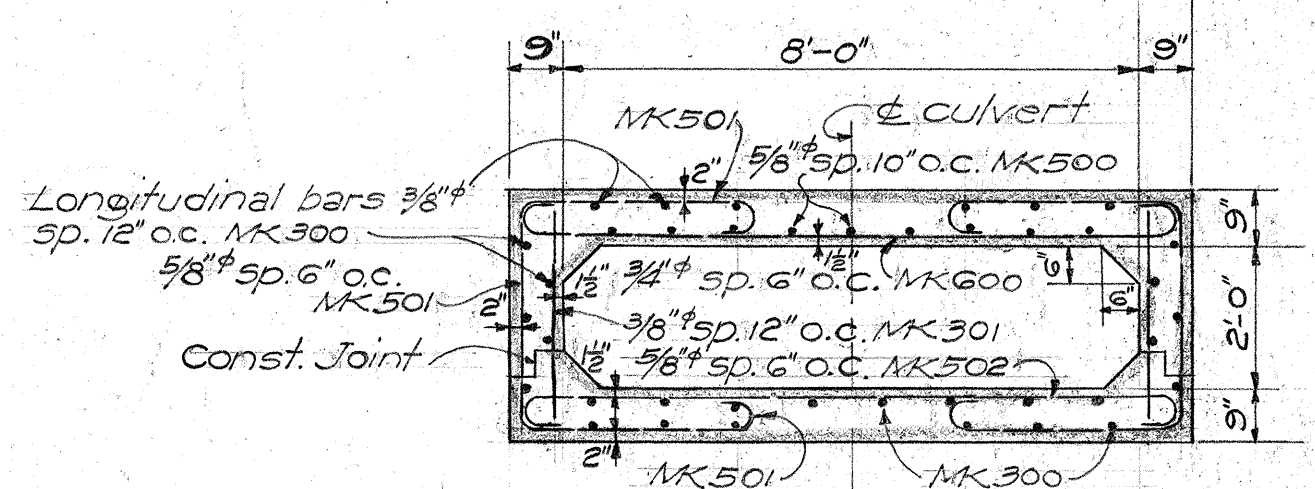
SECT. ALONG & CULVERT
 Scale 1"=5'

~GENERAL NOTES~

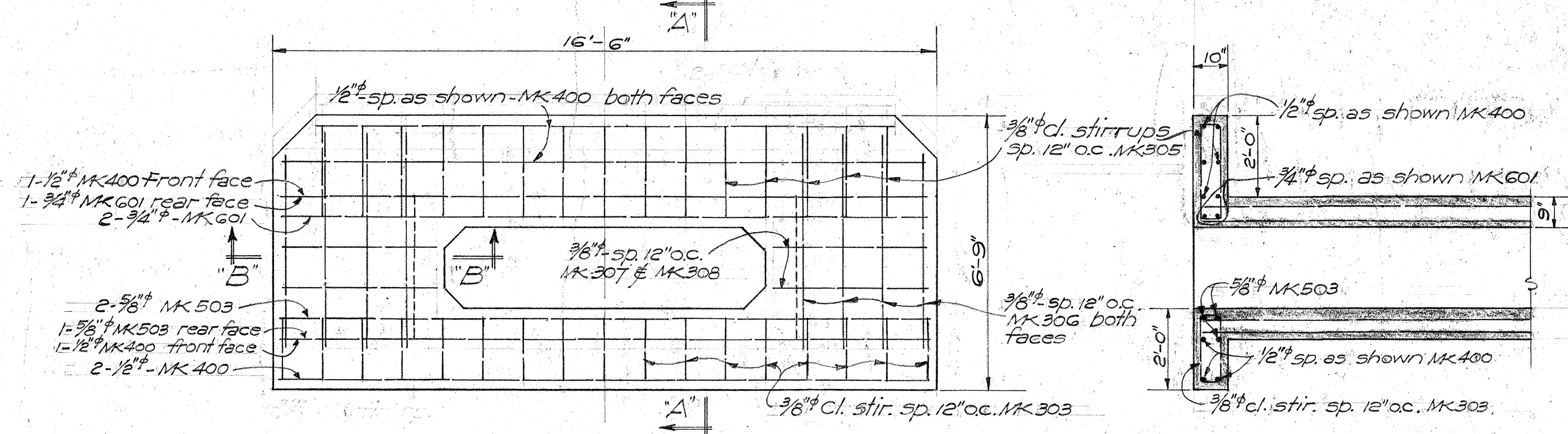
To Resident Engineer: All location and direction of culverts shall be checked in each individual case in the field, and shall be adjusted where required by actual conditions.
 Fill at structures: The fill in front of bridge wingwalls and culvert headwalls shall be specially selected by the Resident Engineer and shall consist of rocky material.
 At structures: The armor coat shall be applied for the full length and width of all box culverts, except for those box culverts under fills where the width of the armor coat shall be the standard roadway width. All elevations shown on culvert detail sheets refer to top of base course.



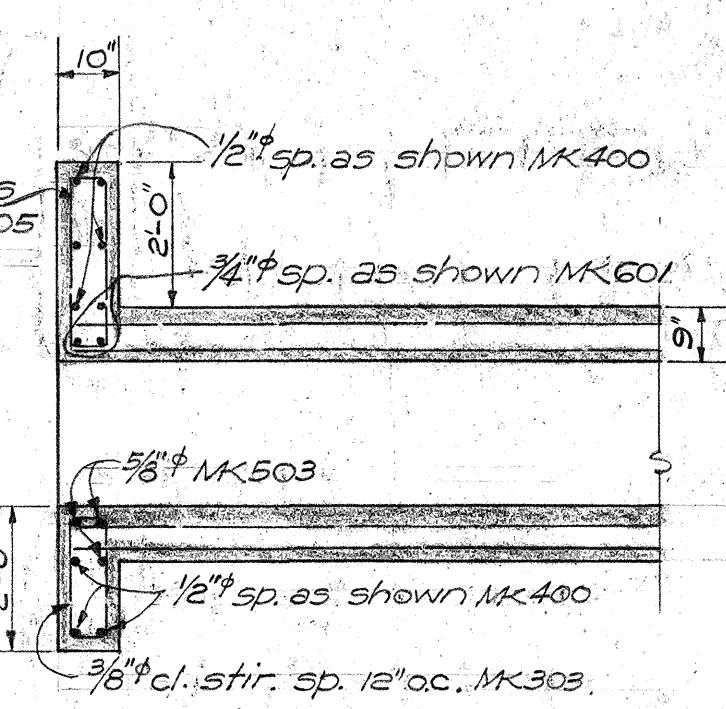
INTAKE HEADWALL
 Scale 1/4"=1'-0"



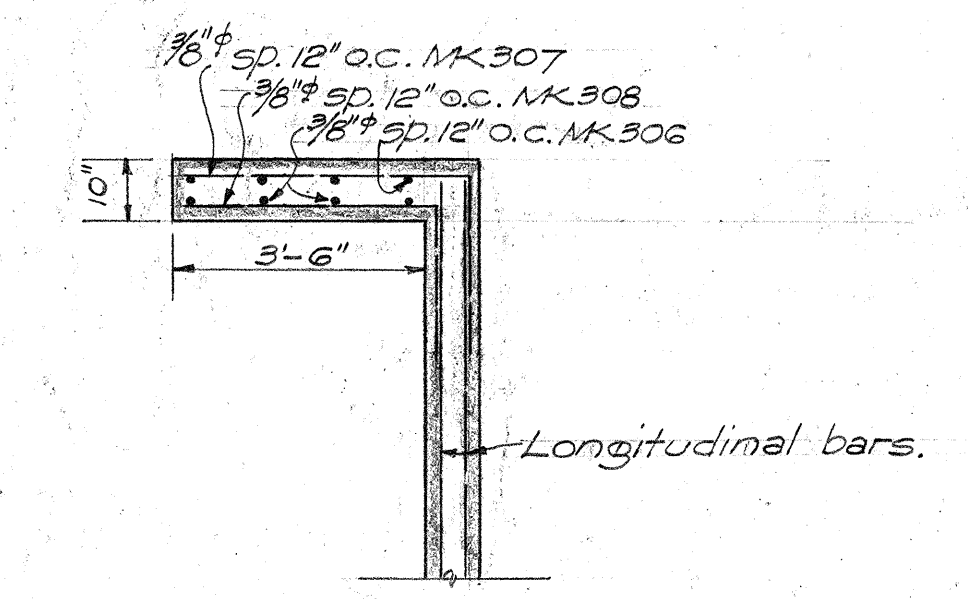
NORMAL SECTION
 Scale 3/8"=1'-0"



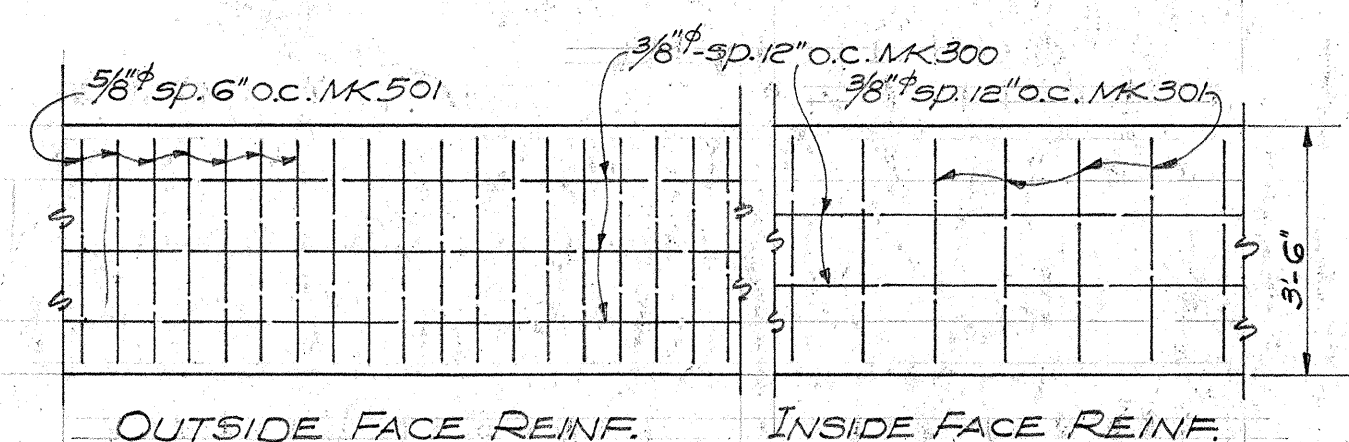
HEADWALL REINF.
 Scale 3/8"=1'-0"



SECT. A-A
 Scale 3/8"=1'-0"



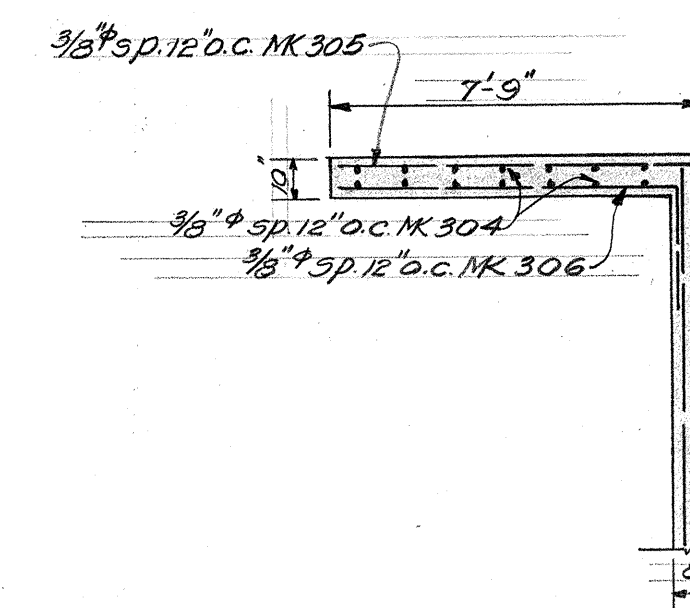
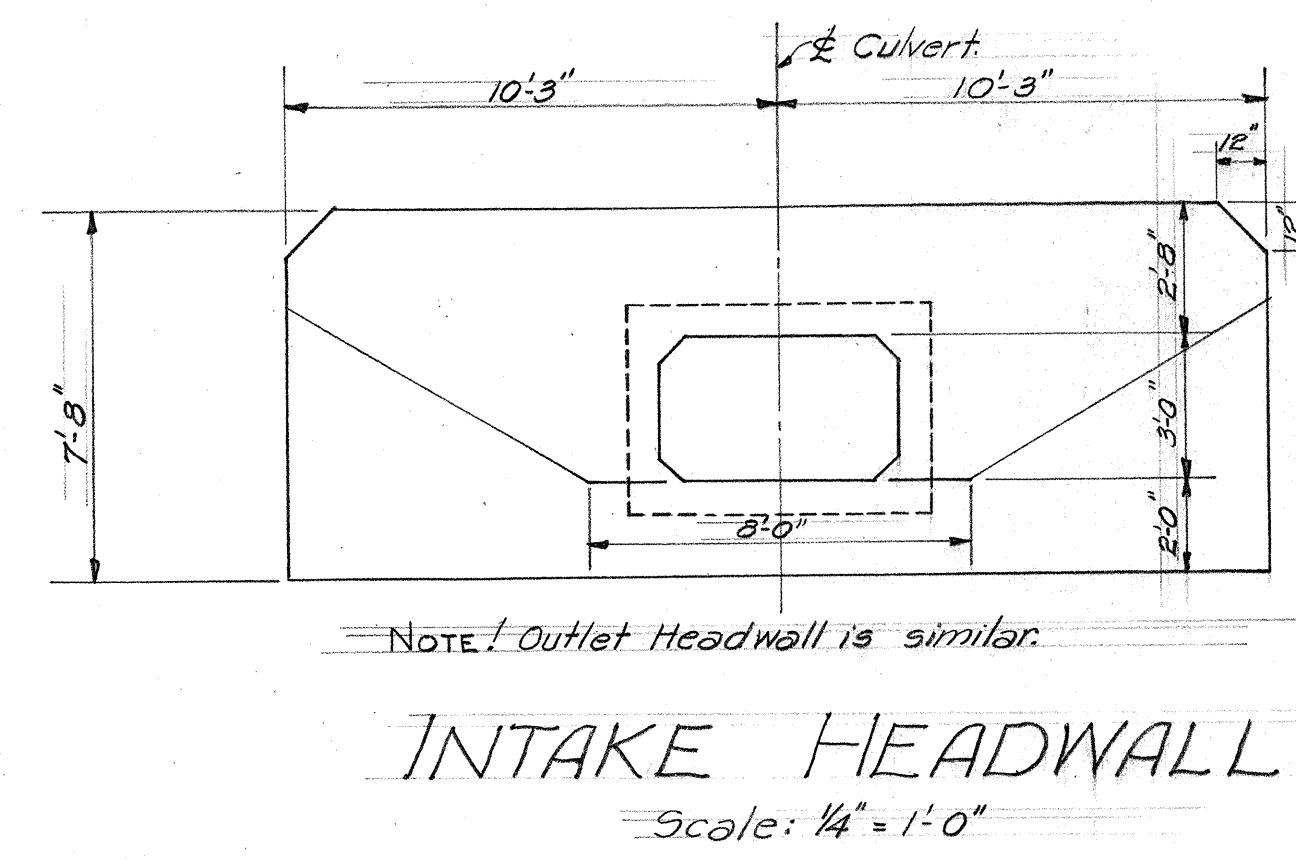
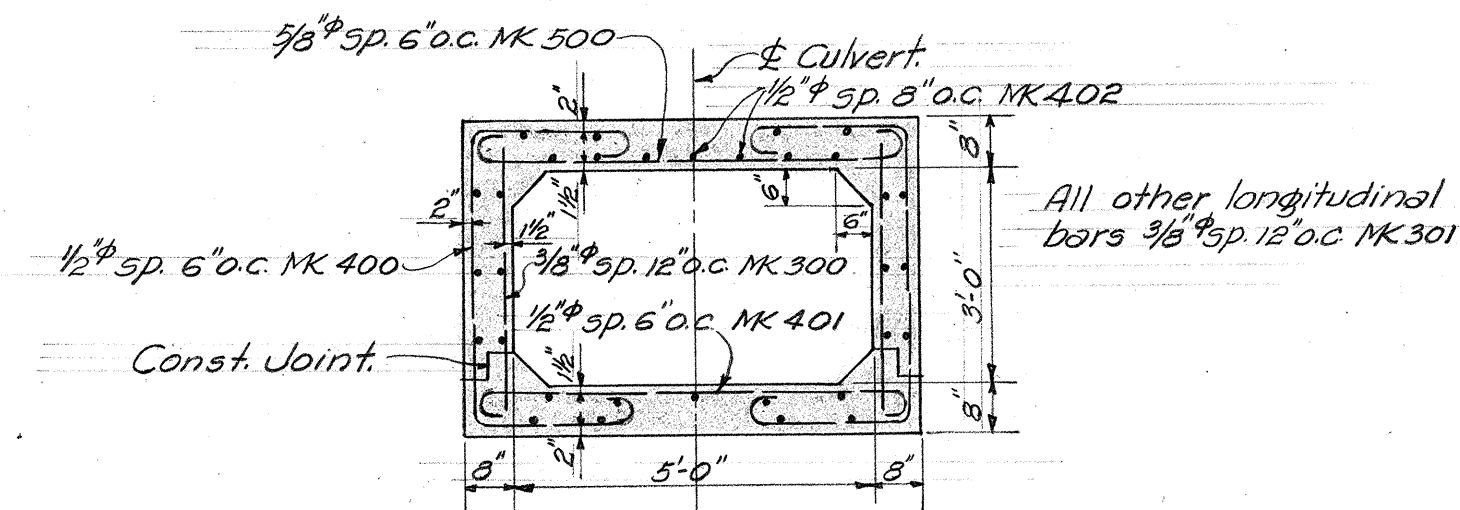
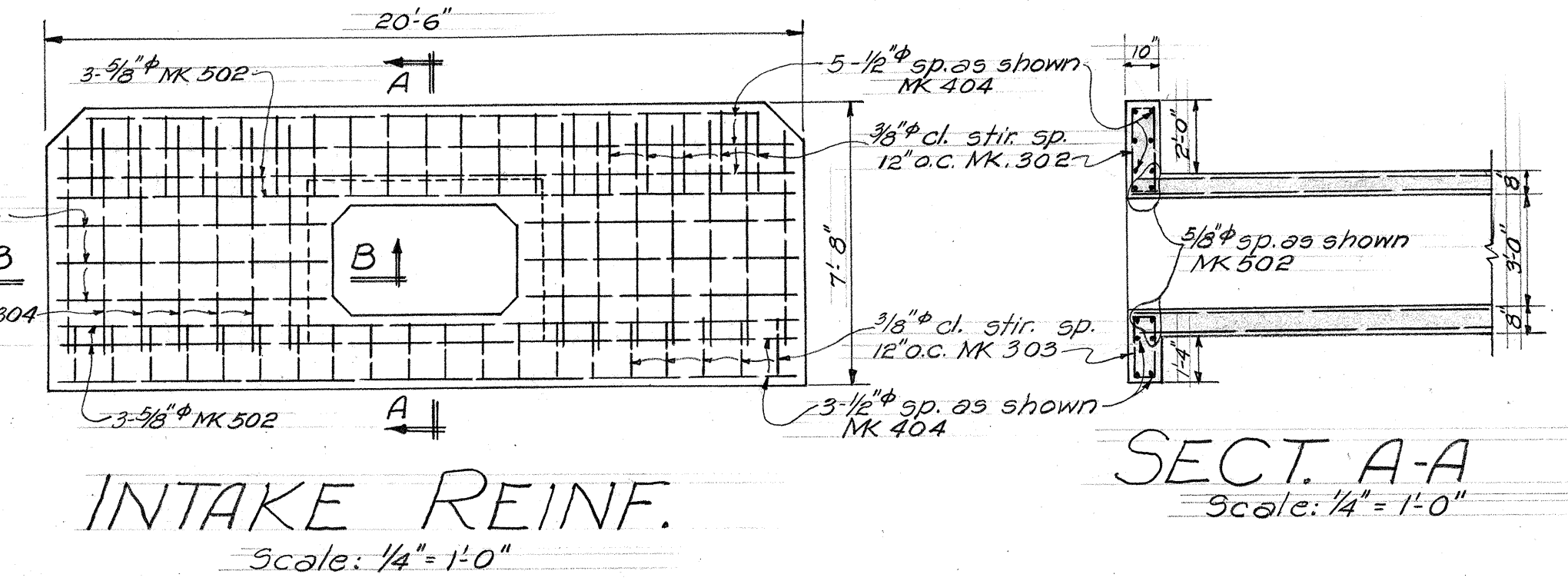
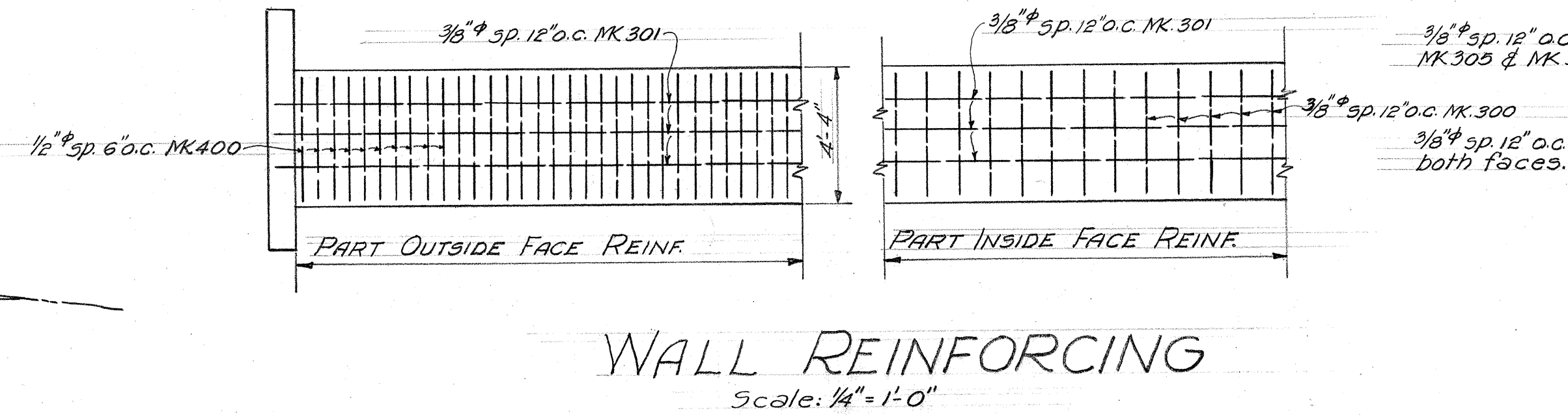
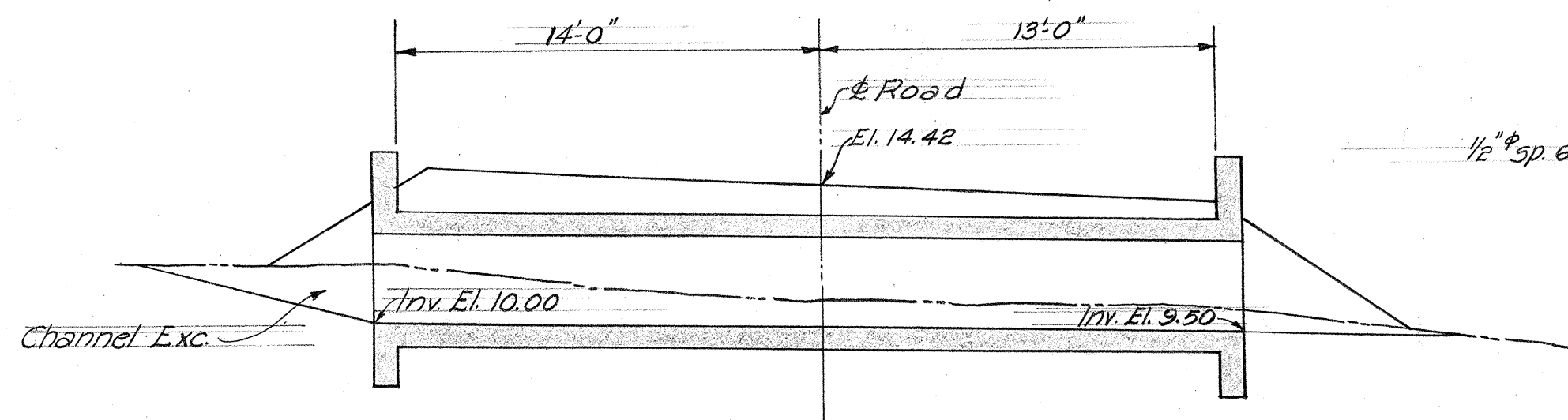
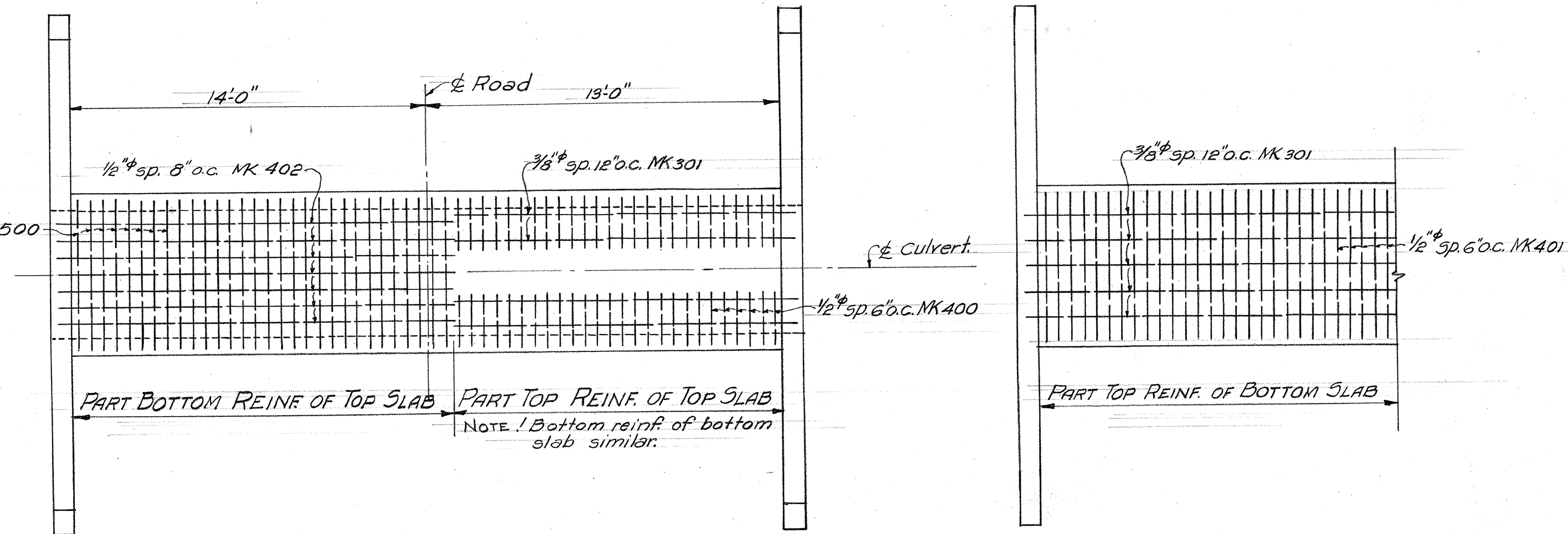
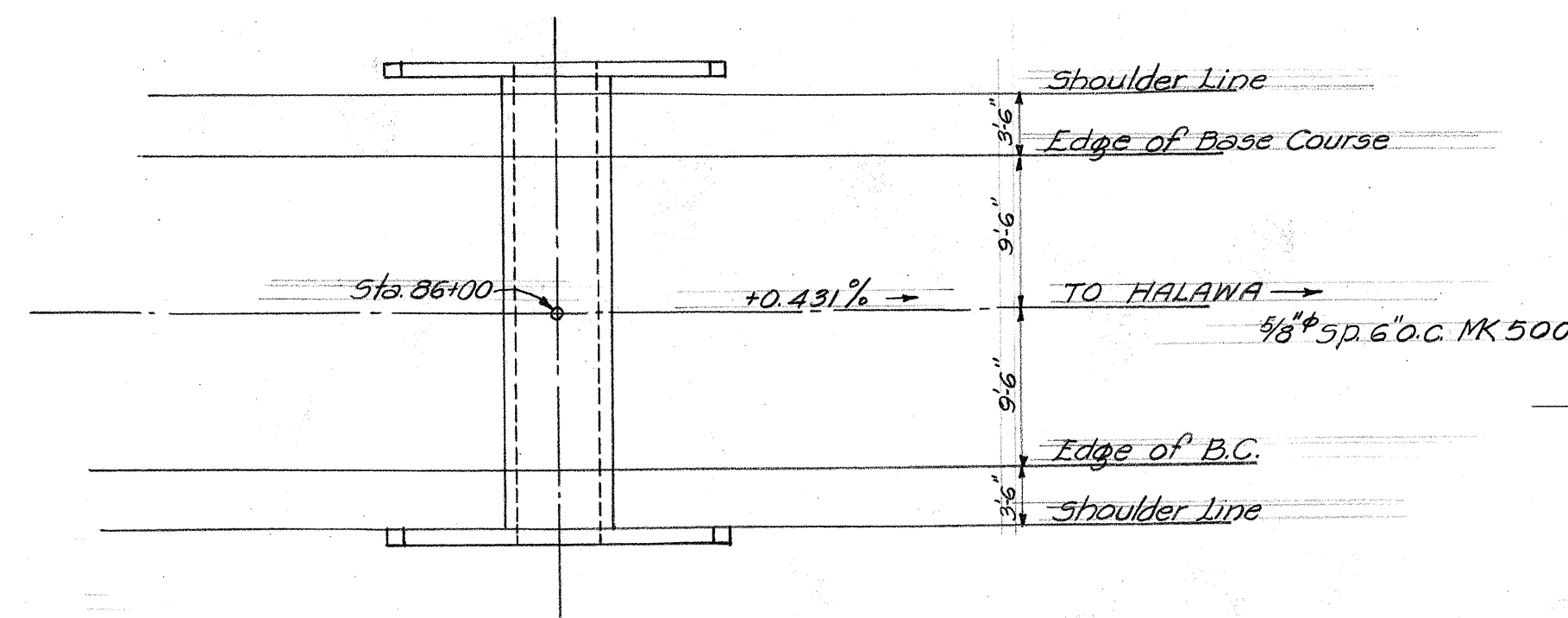
SECT. B-B
 Scale 3/8"=1'-0"



WALL REINF.
 Scale 3/8"=1'-0"

TERRITORIAL HIGHWAY DEPARTMENT
 TERRITORY OF HAWAII
8x2 CONC. CULVERT
 STA. 80+67
 EAST MOLOKAI ROAD F.A.S. 2A(1)
 AUGUST-1938 SCALES AS NOTED

Curve Data
 $\Delta = 22^\circ 24' 40''$
 $D = 2^\circ 00'$
 $R = 2864.79'$
 $PC = 75+53.91$
 $PT = 86+74.47$



MK 500 5/8" ϕ
Length 7'-4"
56 Required

MK 401 1/2" ϕ
Length 7'-0"
56 Required

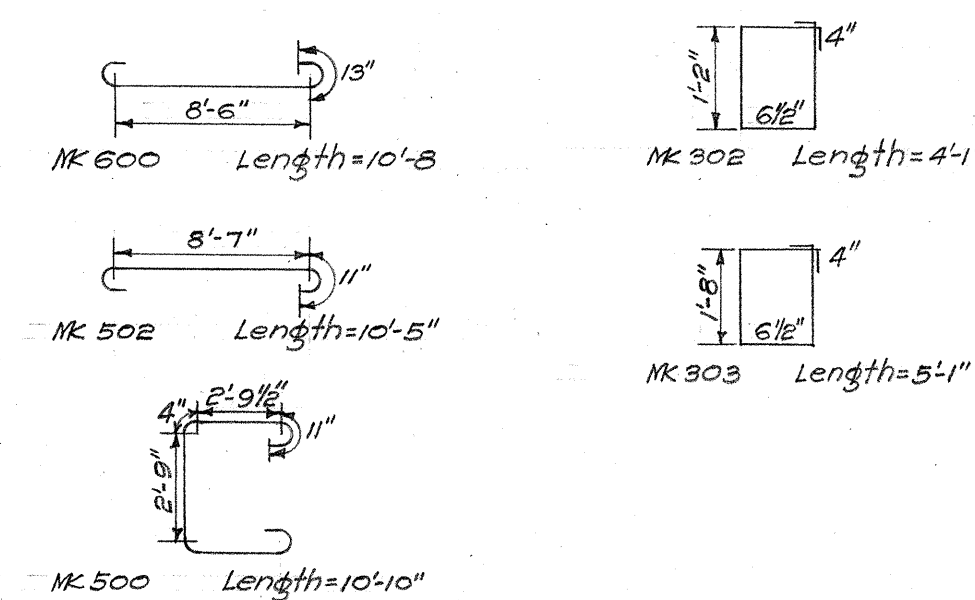
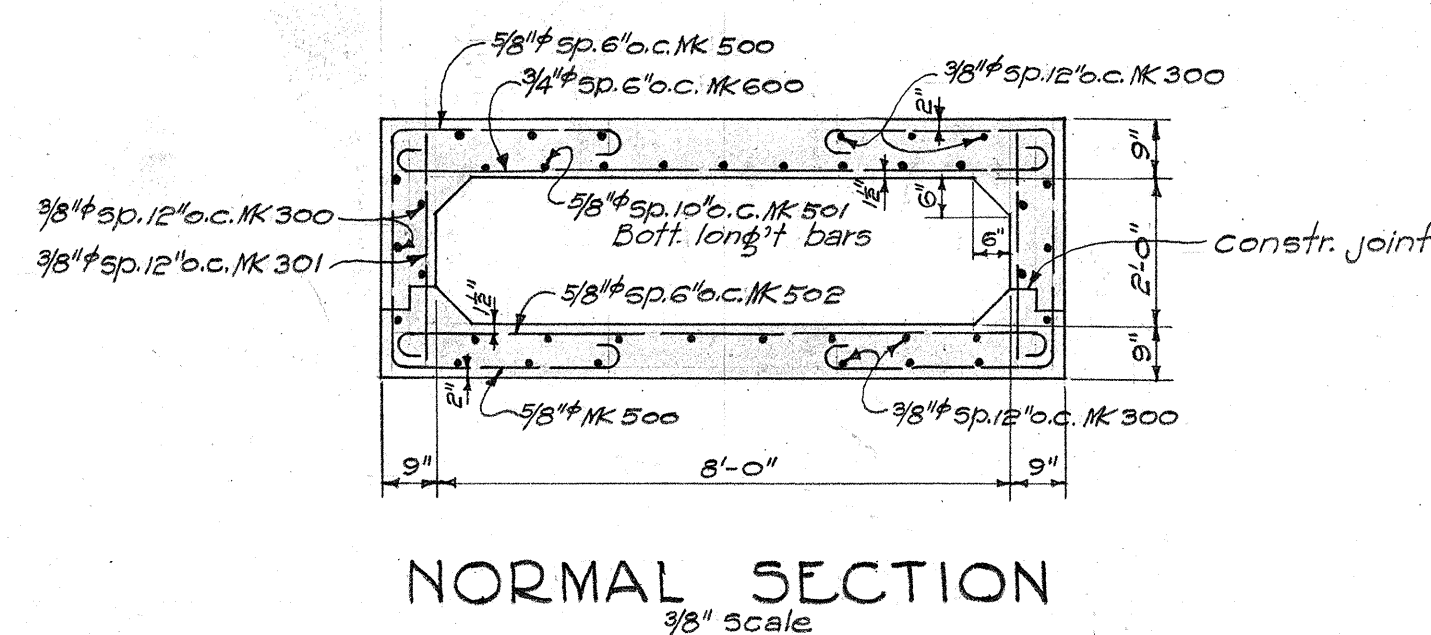
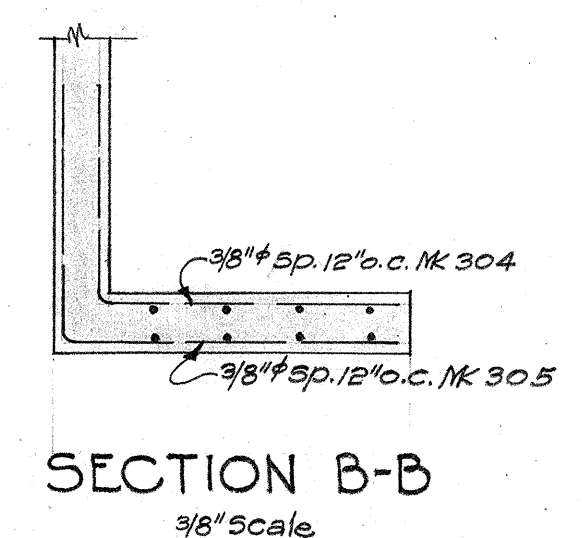
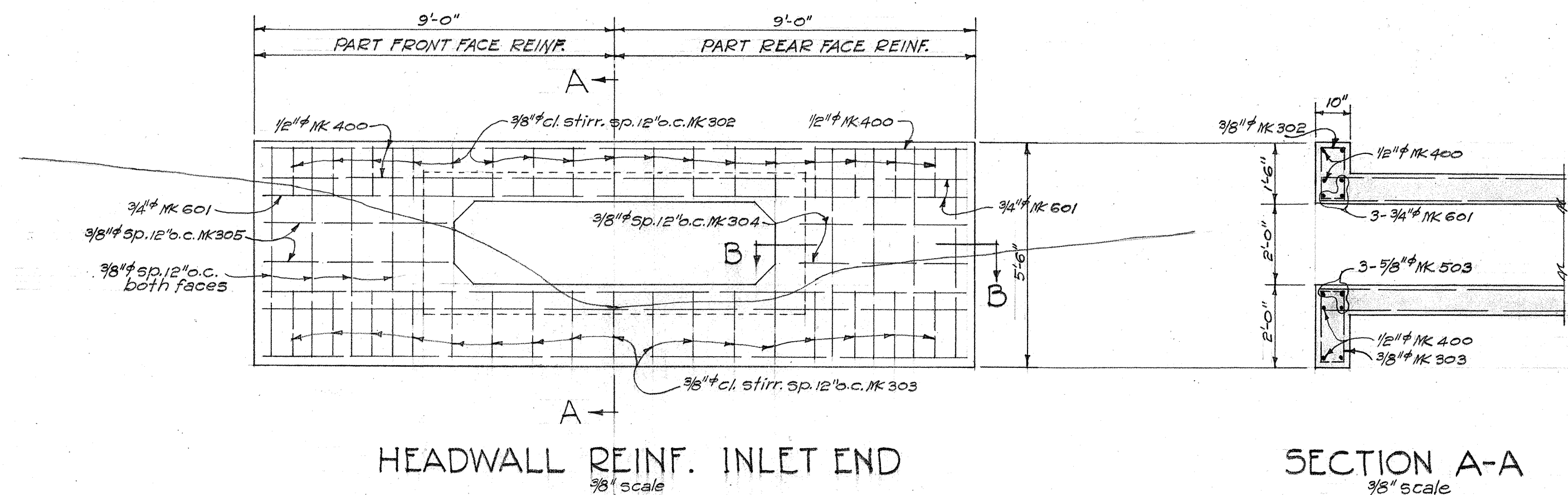
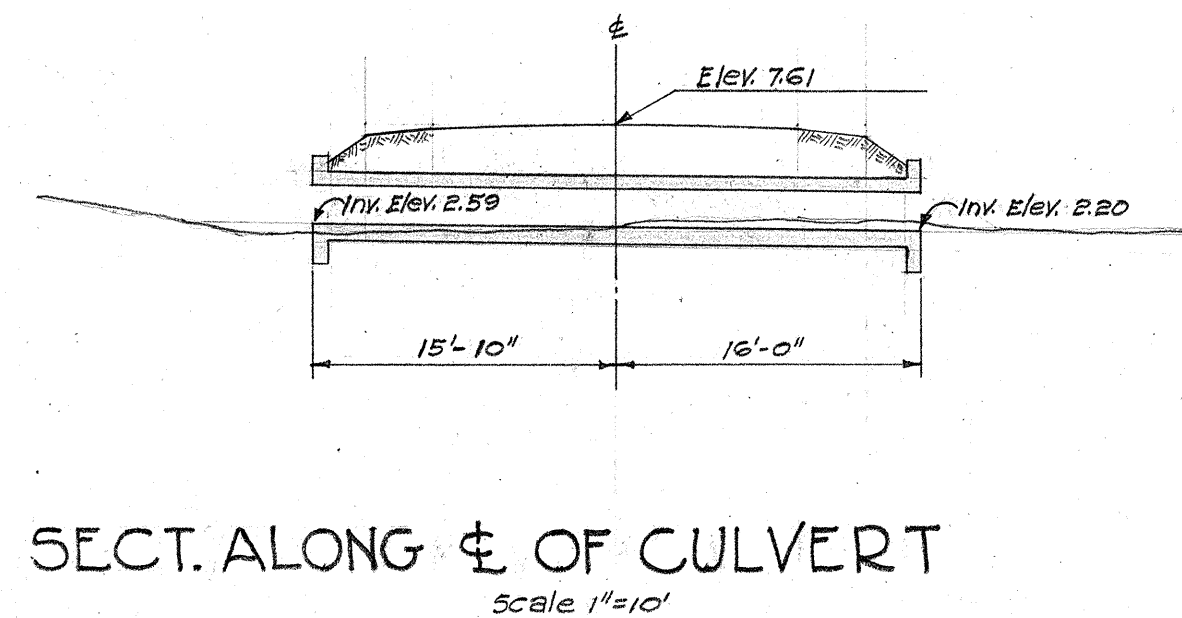
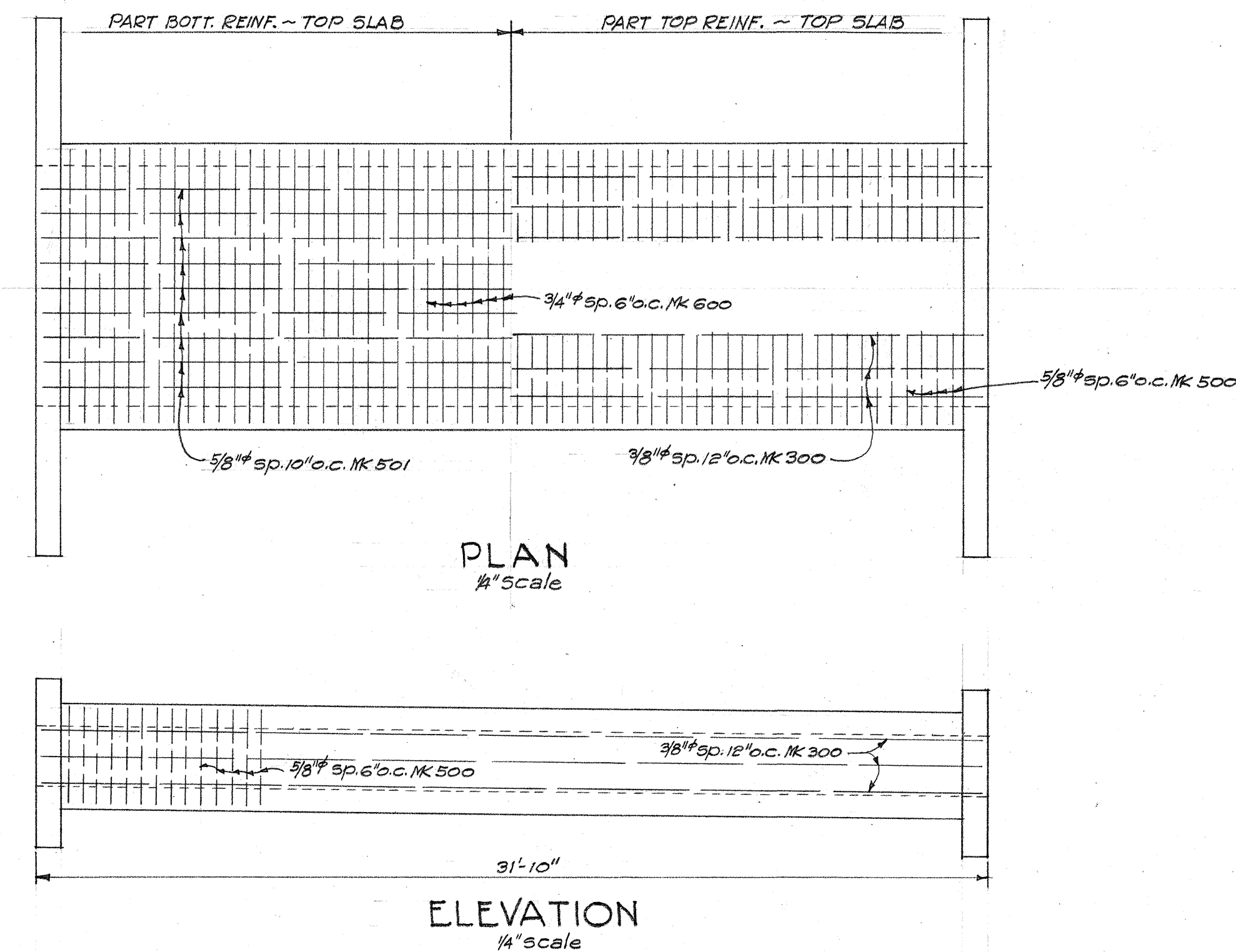
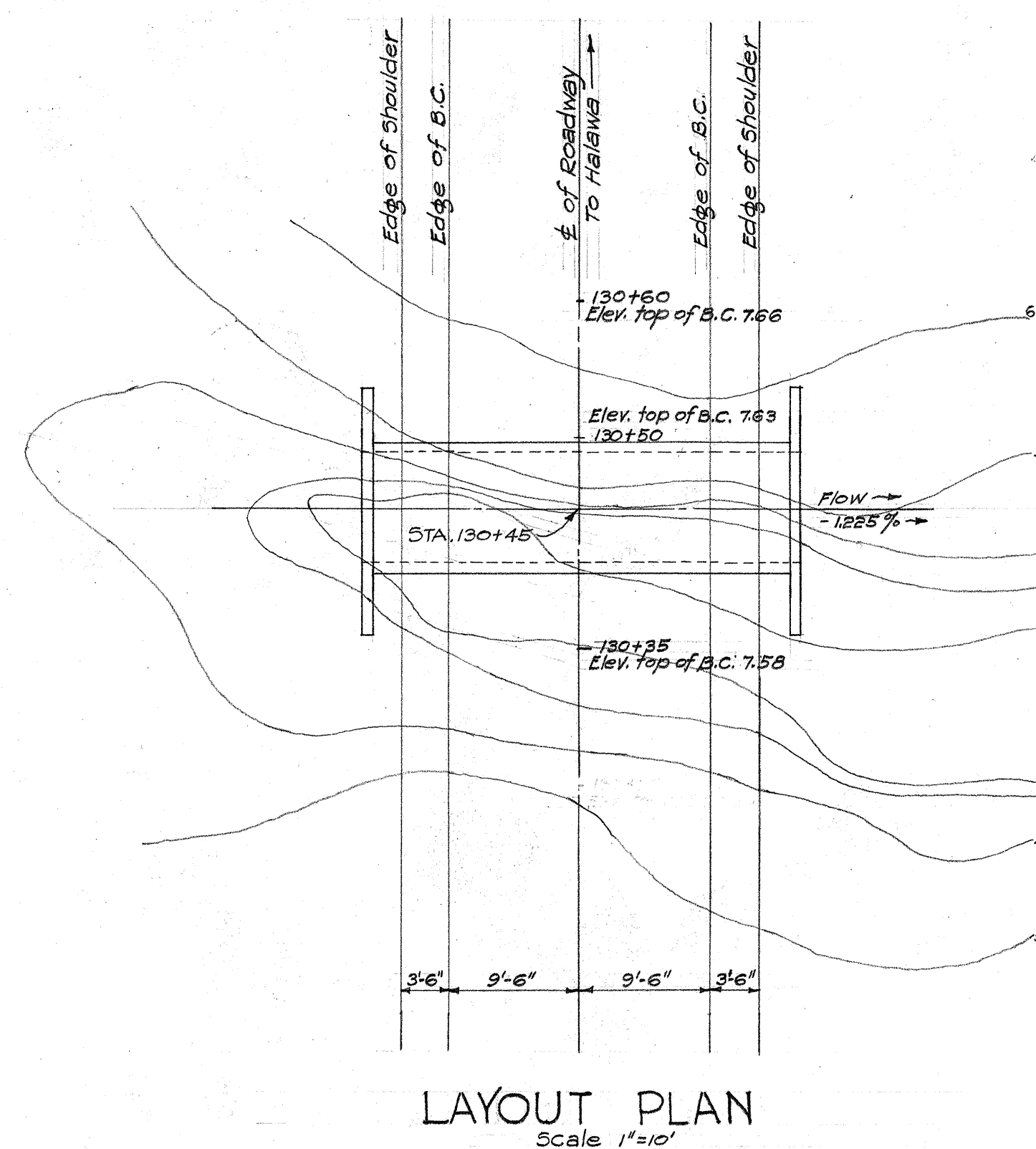
MK 400 1/2" ϕ
Length 9'-4"
112 Required

MK 305 3/8" ϕ
Length 10'-4"
12 Required.

MK 306 3/8" ϕ
Length 9'-5"
12 Required.

ESTIMATED QUANTITIES	
CONCRETE	20.5 C.Y.
REINF. STEEL	2706 LBS
STR. EXCAVATION	25 C.Y.
CHANNEL EXCAVATION	10 C.Y.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
5'x3' CONC. CULVERT.
STA. 86+00
EAST MOLOKAI ROAD F.A.S. 2A(1)
MARCH-1939 SCALE S AS NOTED



ESTIMATED QUANTITIES	
REINF. STEEL	4324 LBS.
CLASS 'A' CONC.	25.0 C.Y.
STR. EXC.	31.0 C.Y.
CHANNEL EXC.	29.0 C.Y.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

8'x2' CONC. BOX CULVERT

STA. 130+45

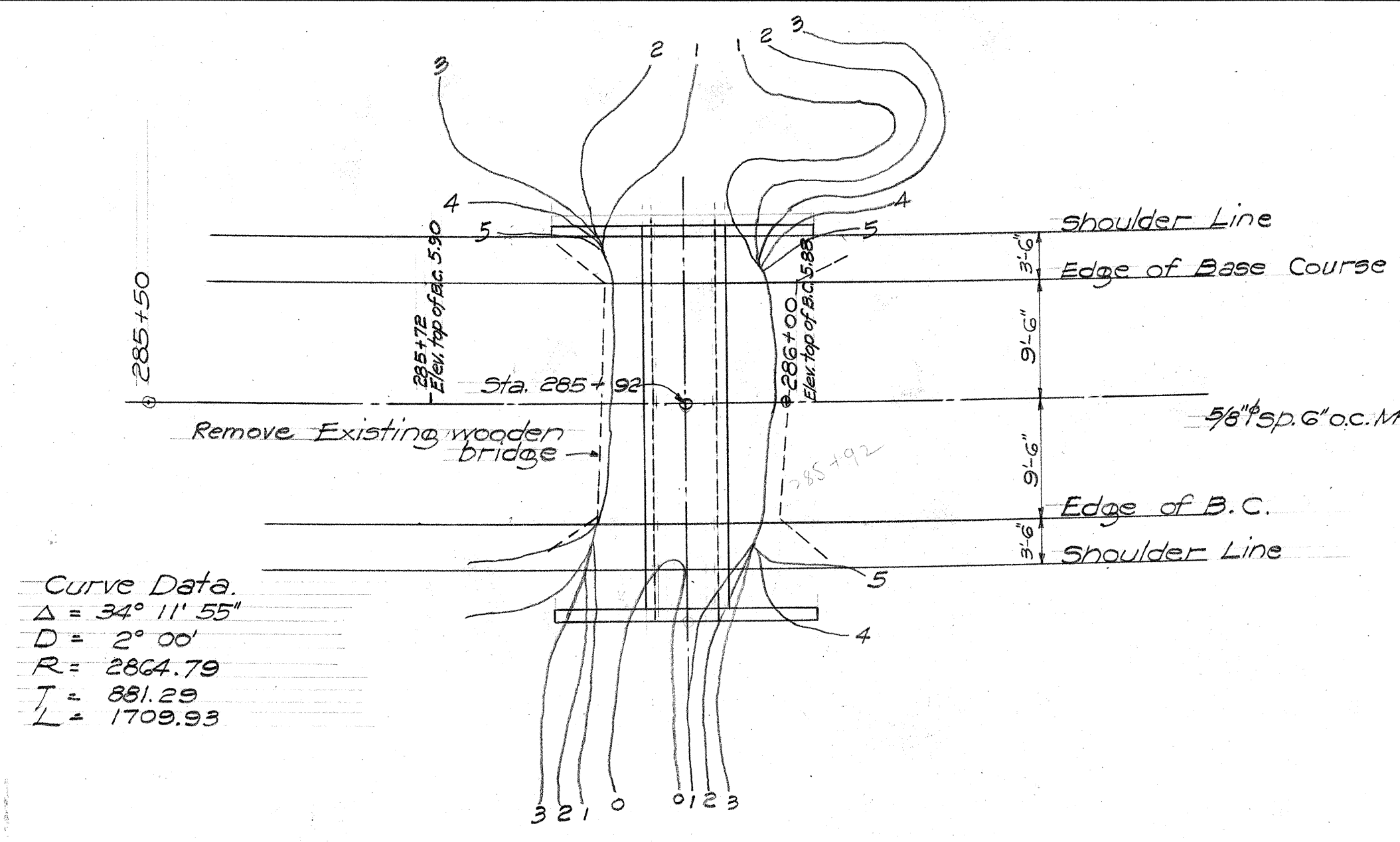
EAST MOLOKAI ROAD F.A.S. 2A(1)

SHEET NO. 19 OF 53 SHEETS

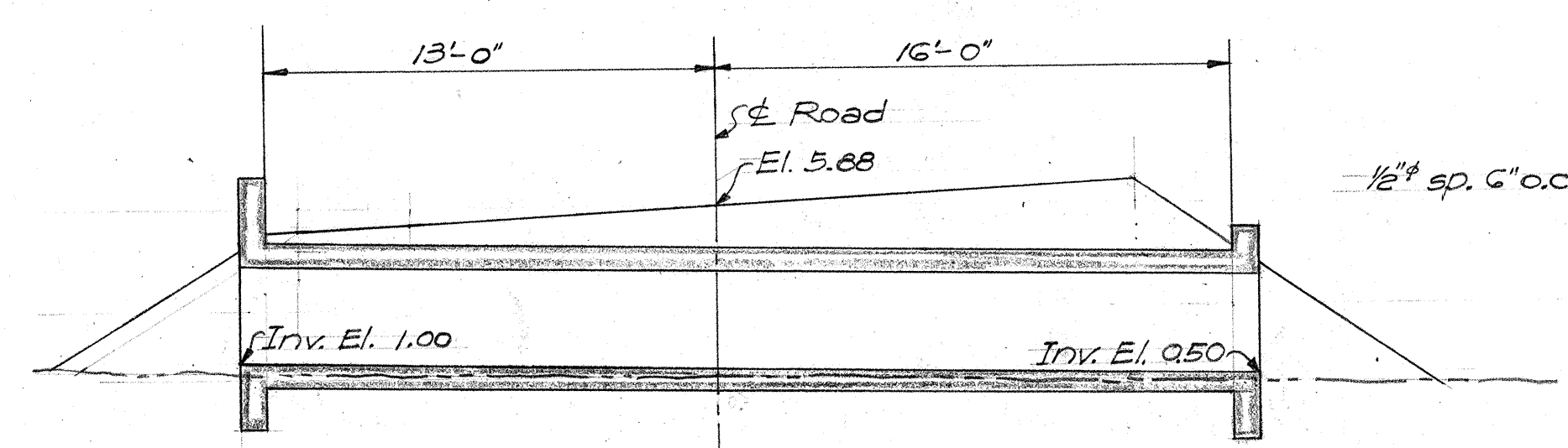
4477.19

DATE: 12/1/38
DESIGNED BY: M.S. 2815
DRAWN BY: J.S. 2815
QUANTITIES CHECKED BY: J.S. 2815
CHECKED BY: J.S. 2815

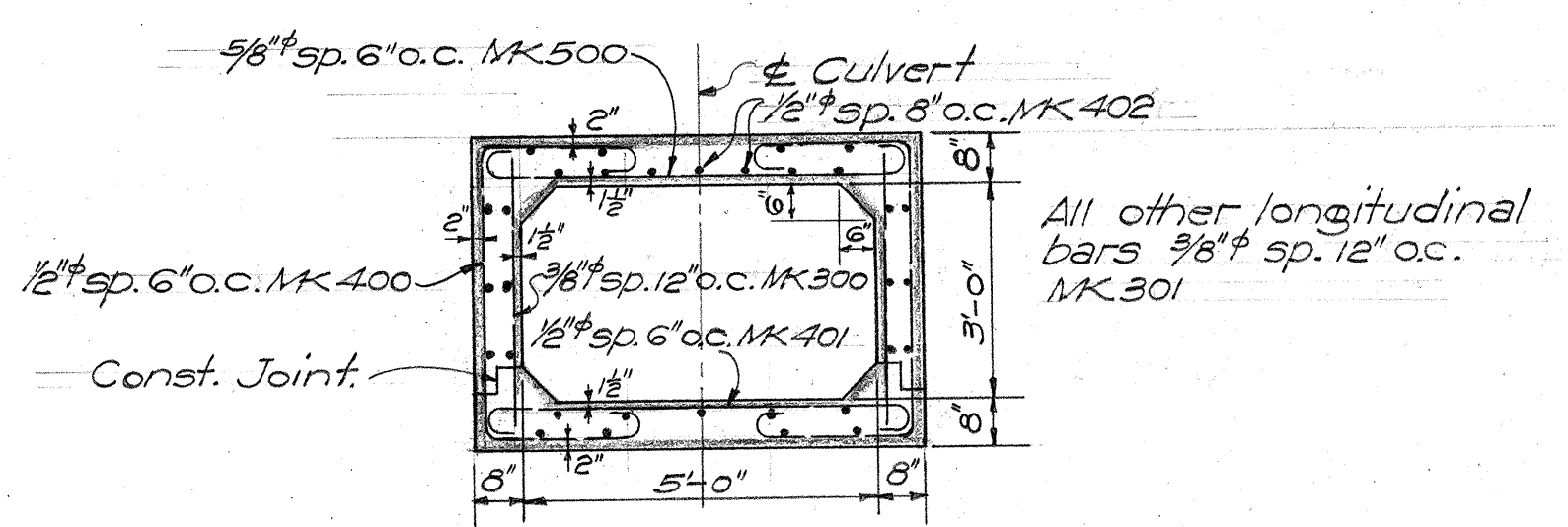
ORIGINAL PLAN
NOTE BOOK
No.



PLAN
Scale 1"=10'

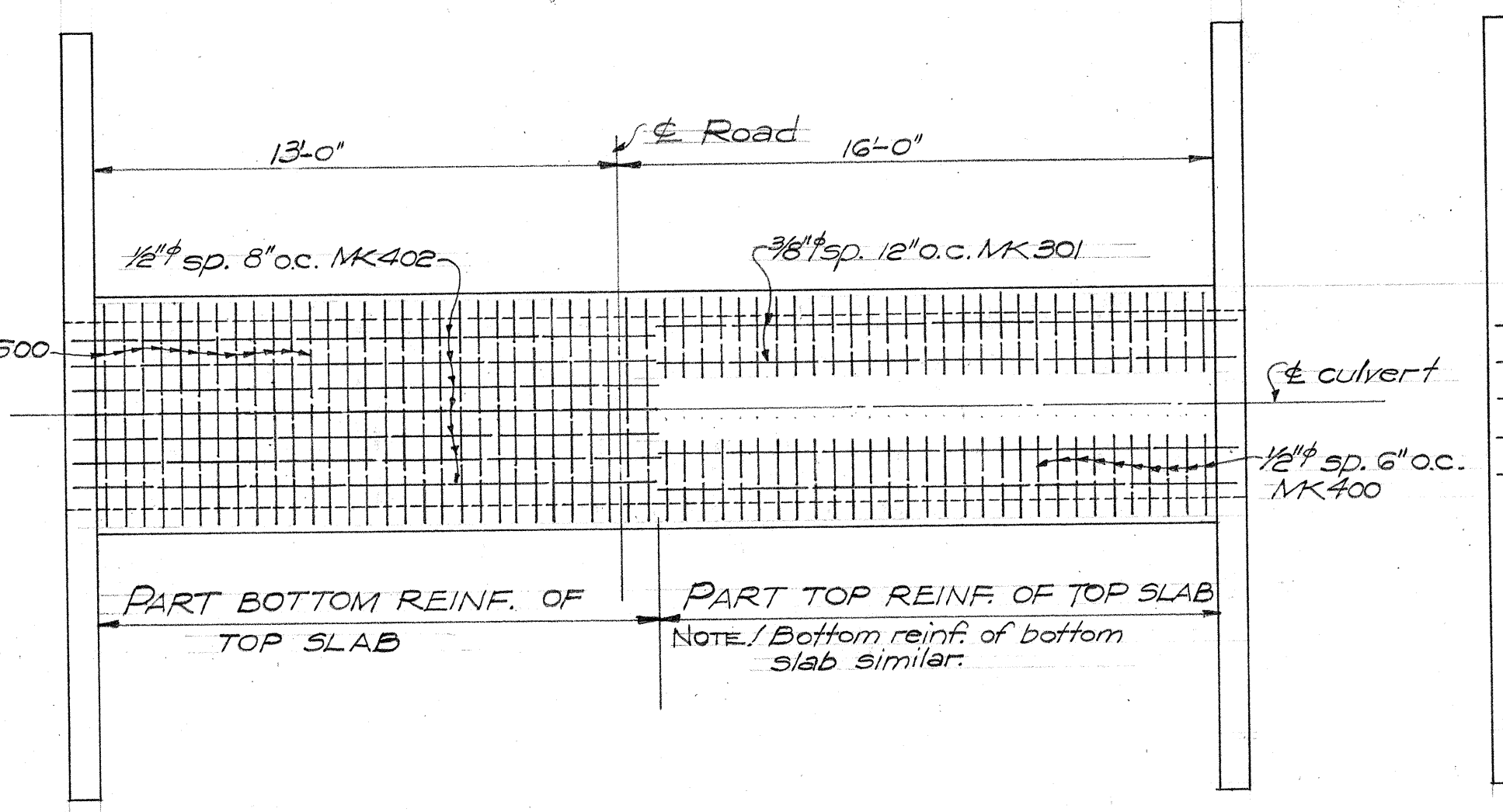


SECT. ALONG & CULVERT.
Scale 1"=5'

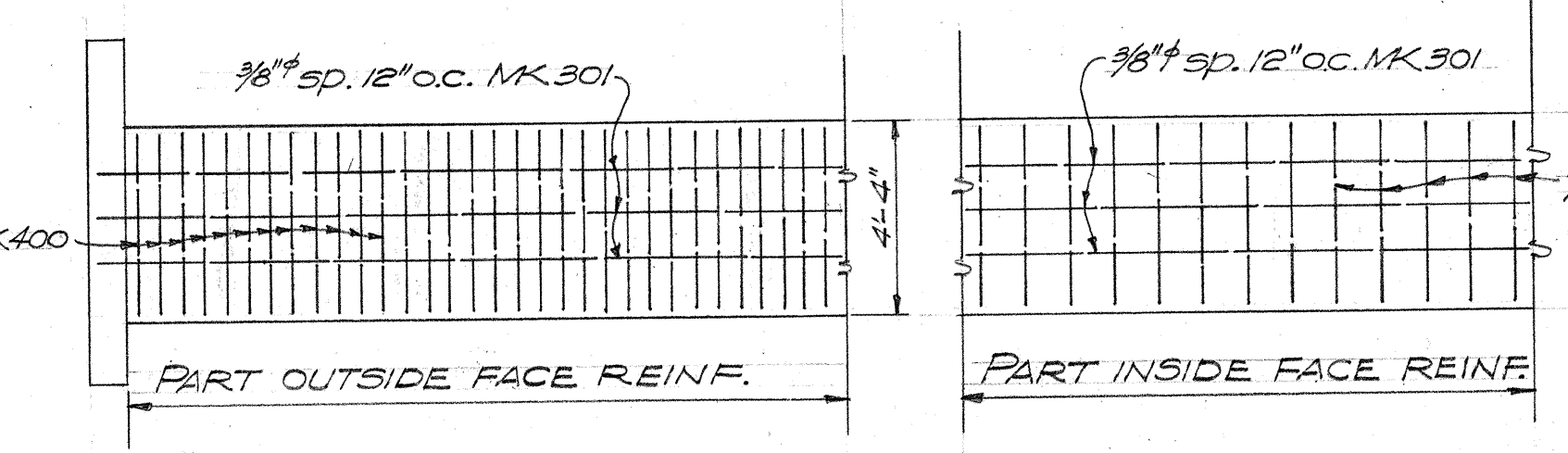


NORMAL SECTION
Scale 3/8"=1'-0"

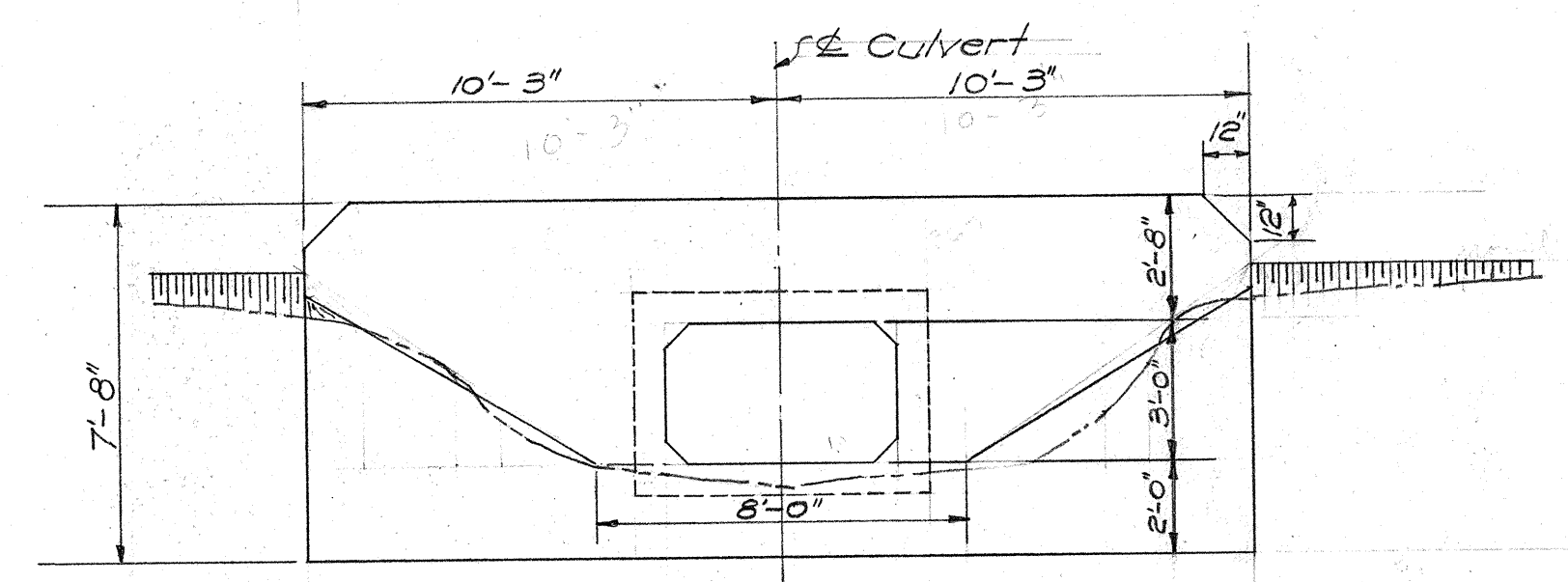
ESTIMATED QUANTITIES	
CONCRETE	22.0 C.Y.
REINF. STEEL	2734 LBS.
STR. EXCAVATION	16 C.Y.
CHANNEL EXCAVATION	3 C.Y.



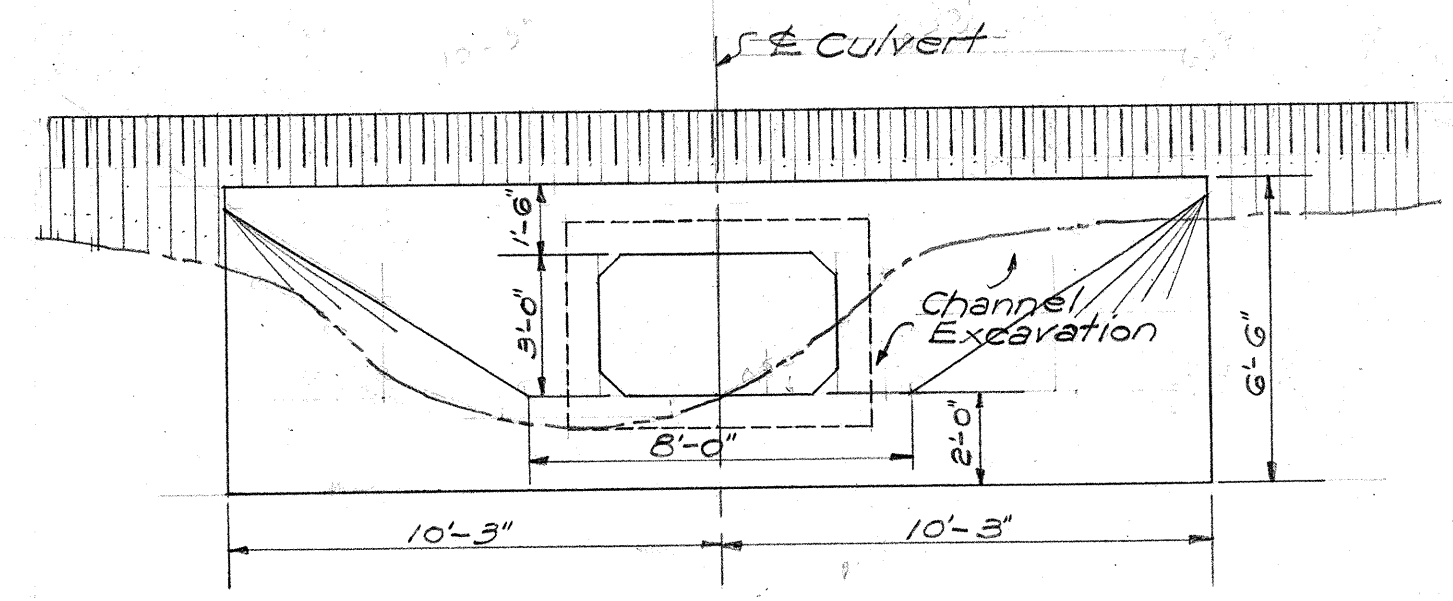
SLAB REINFORCING.
Scale 1/4"=1'-0"



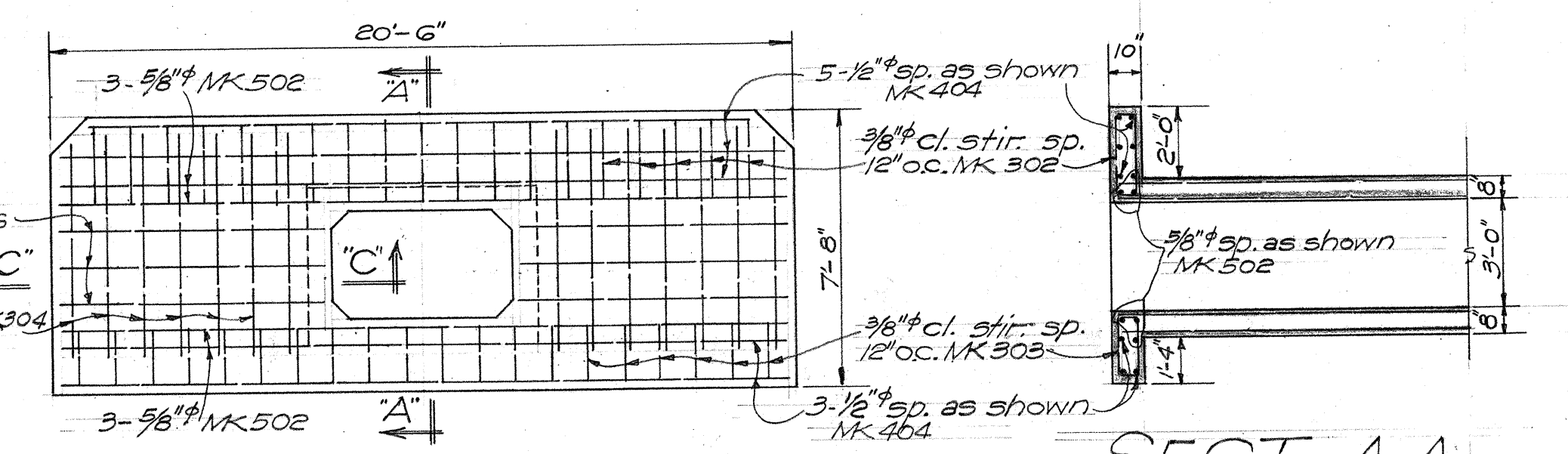
WALL REINFORCING
Scale 1/4"=1'-0"



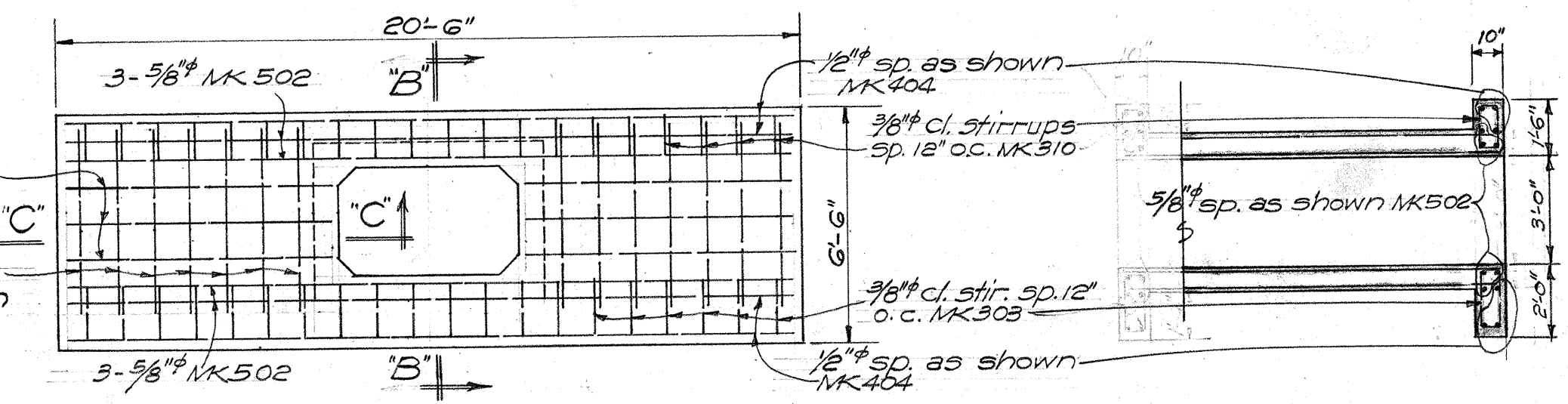
INTAKE HEADWALL
Scale 1/4"=1'-0"



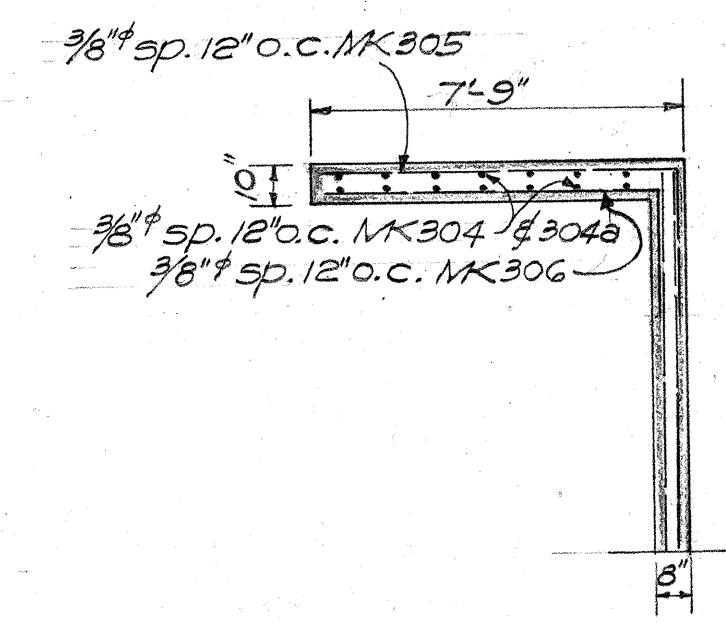
OUTLET HEADWALL
Scale 1/4"=1'-0"



INTAKE REINF.
Scale 1/4"=1'-0"



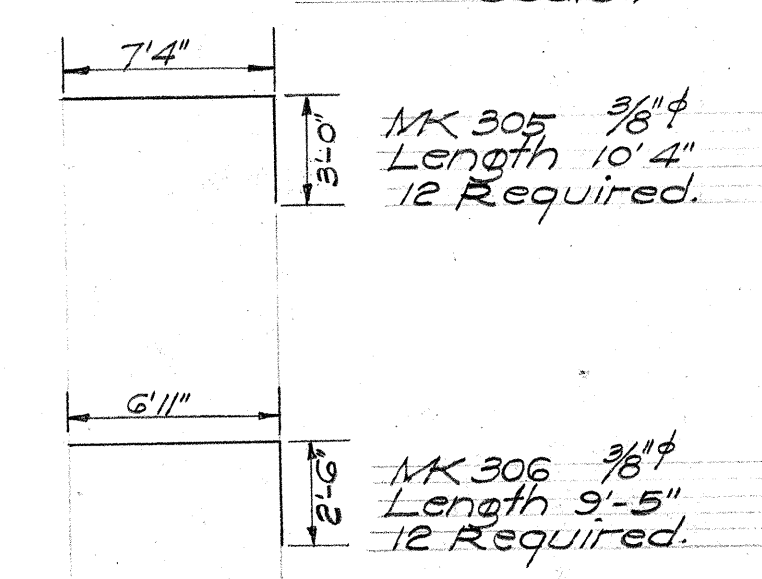
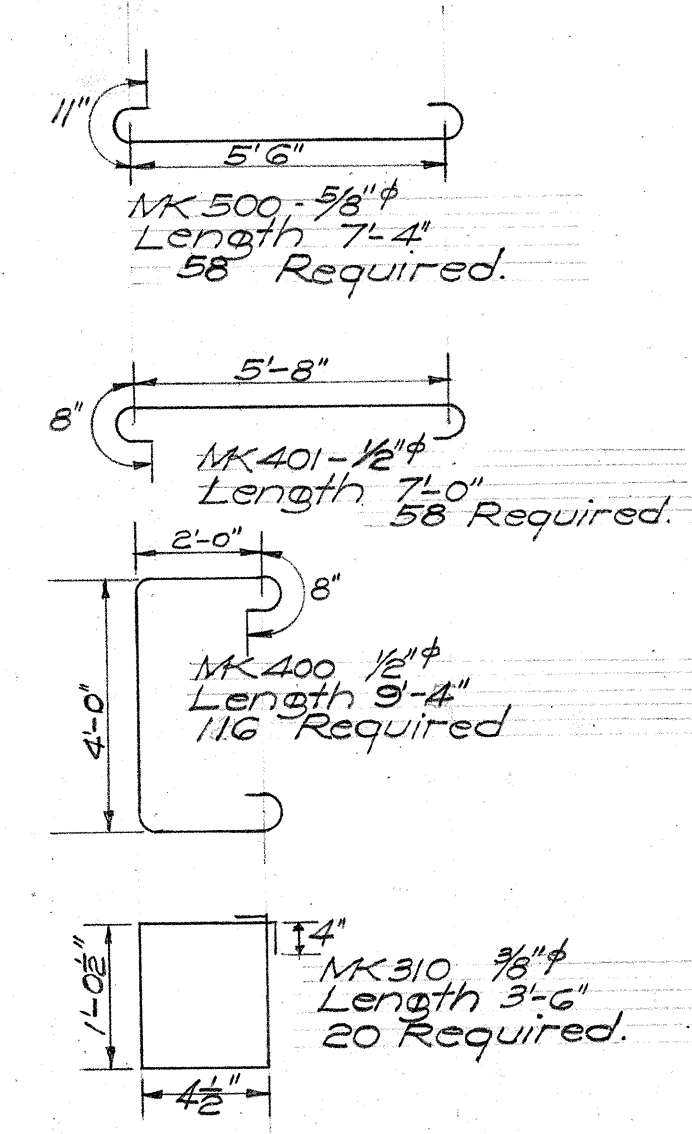
OUTLET REINF.
Scale 1/4"=1'-0"



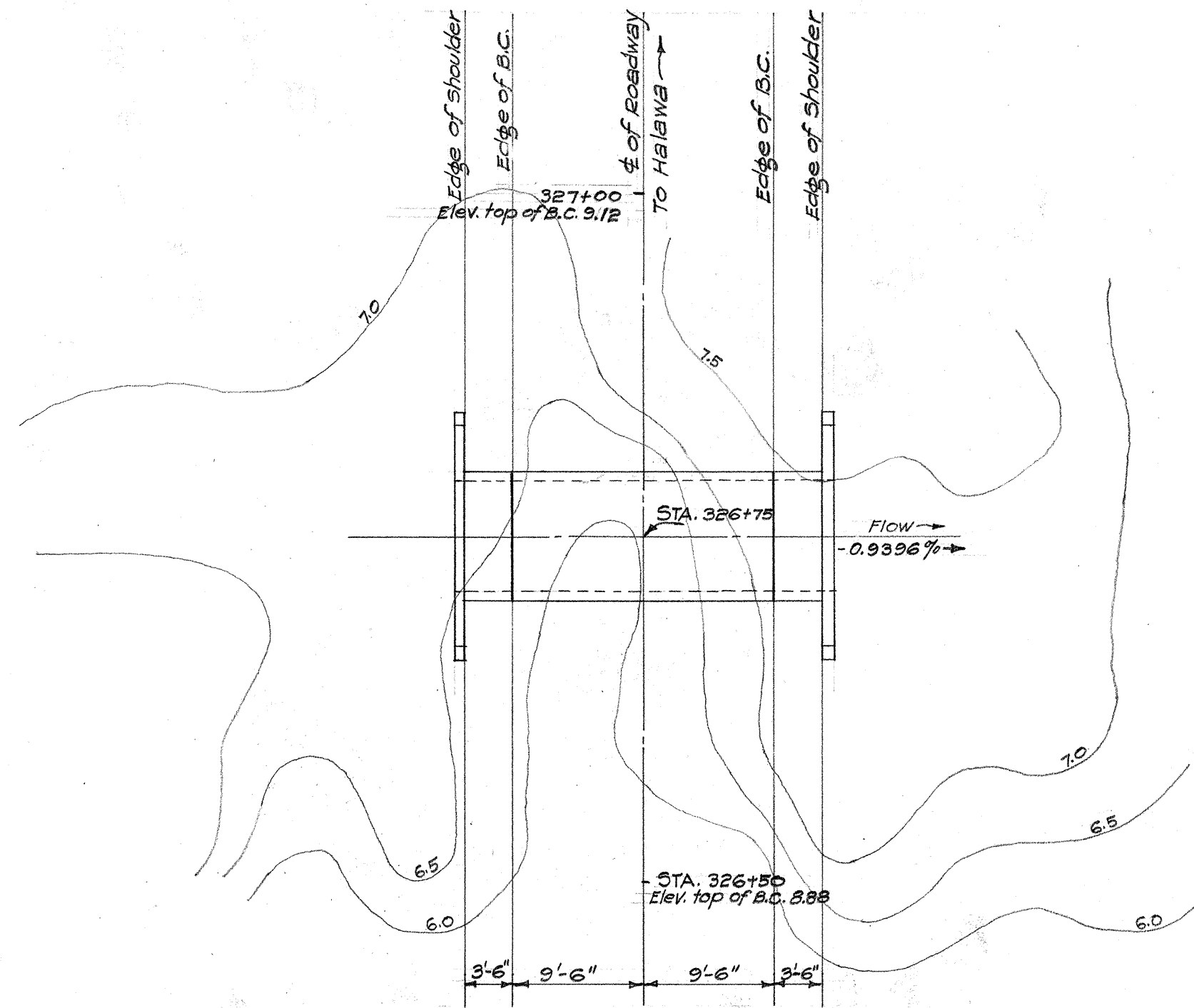
SECT. C-C
Scale 1/4"=1'-0"

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

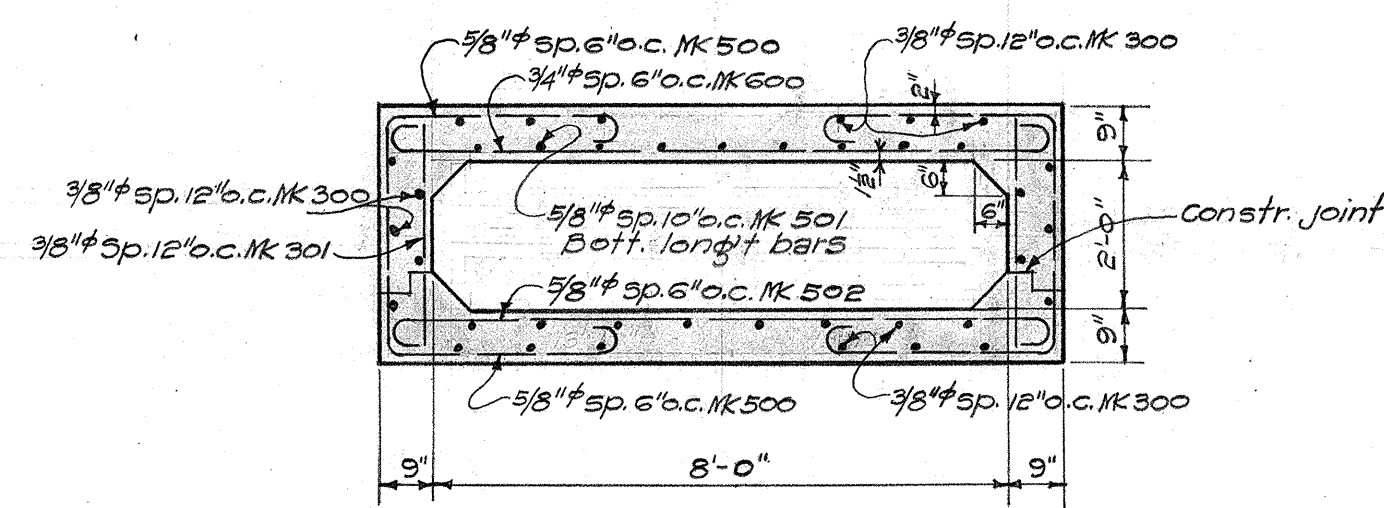
SECT. B-B
Scale 1/4"=1'-0"



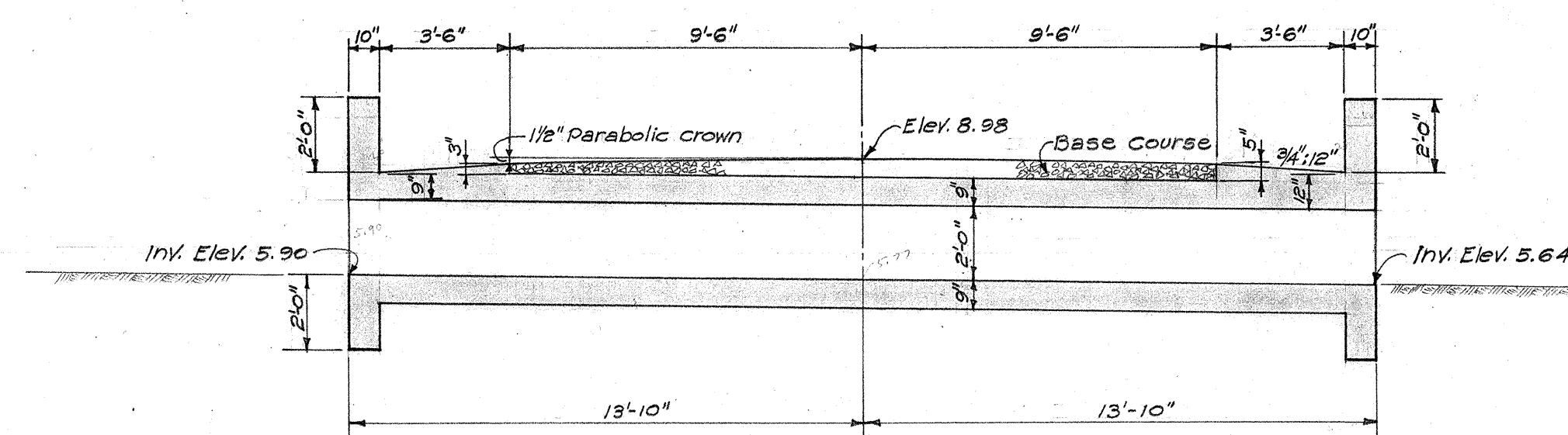
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
5'x3' CONC. CULVERT.
STA. 285+92
EAST MOLOKAI ROAD F.A.S. 2A(1)
AUGUST-1938 SCALES AS NOTED
SHEET No. 1 OF 1 SHEETS



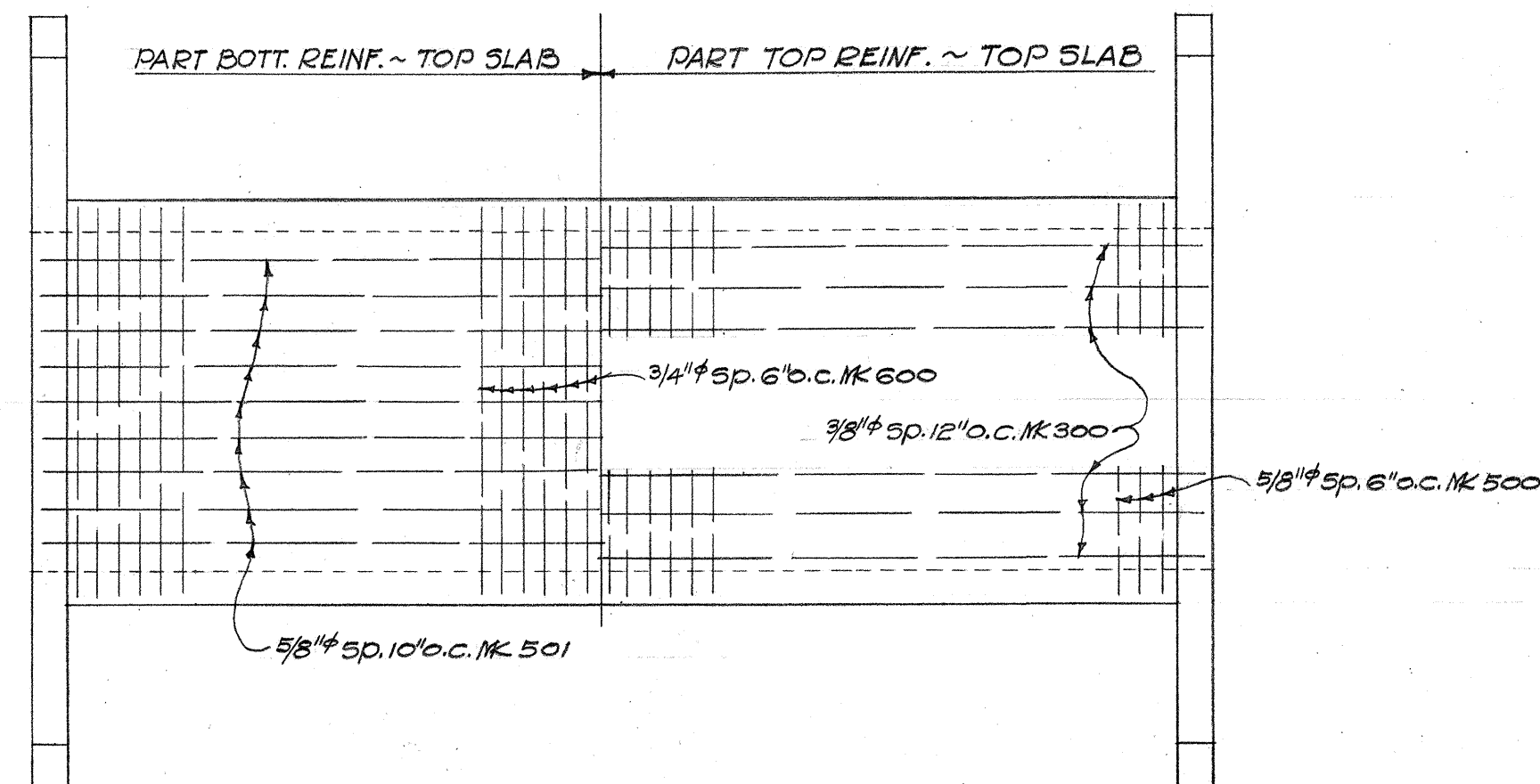
LAYOUT PLAN
Scale 1"=10'



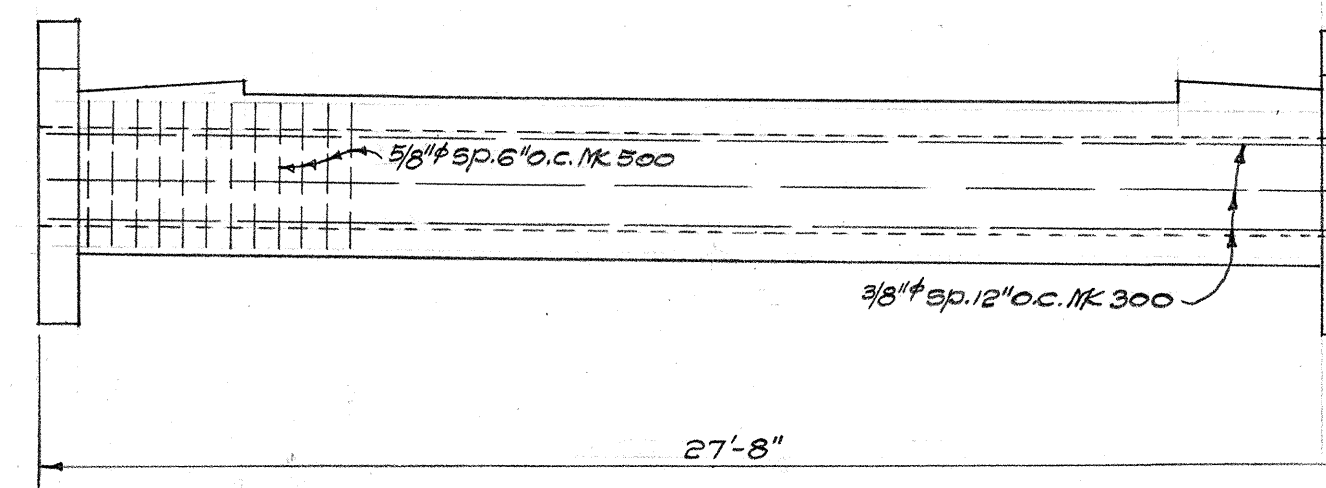
NORMAL SECTION
3/8" Scale



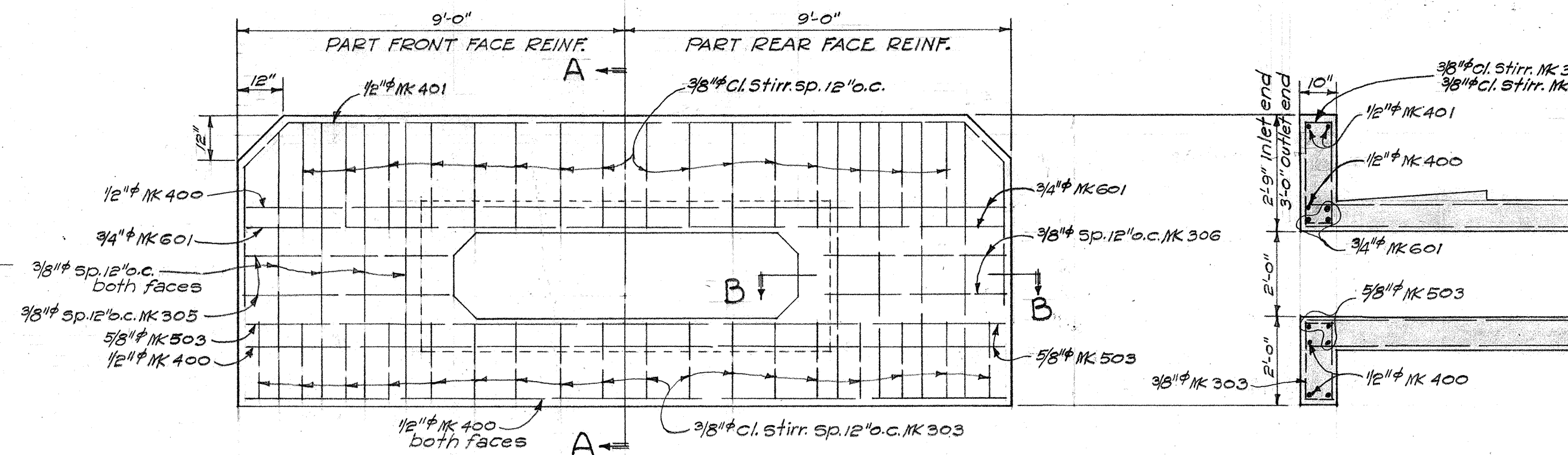
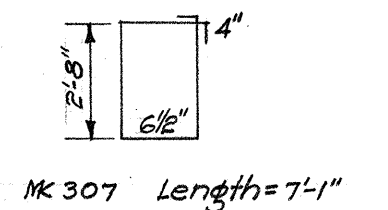
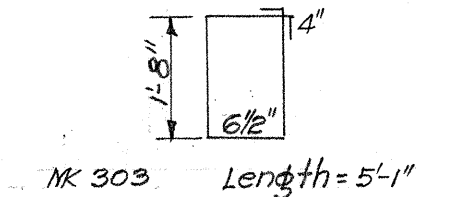
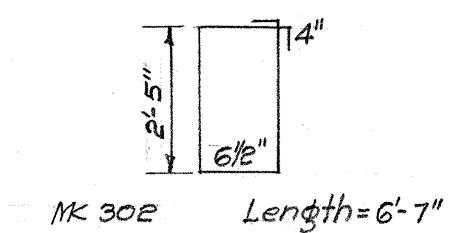
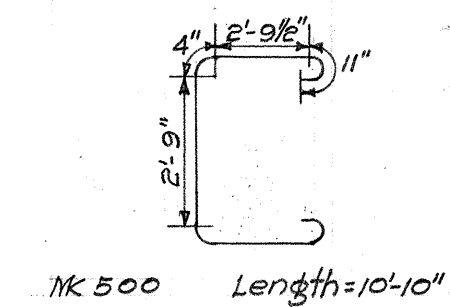
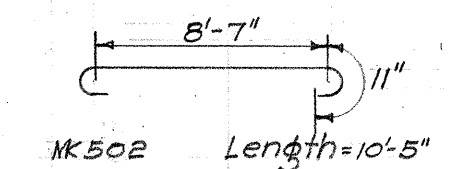
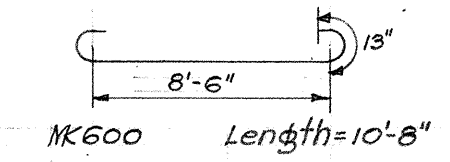
SECTION ALONG & OF CULVERT
1/4" Scale



PLAN
1/4" Scale

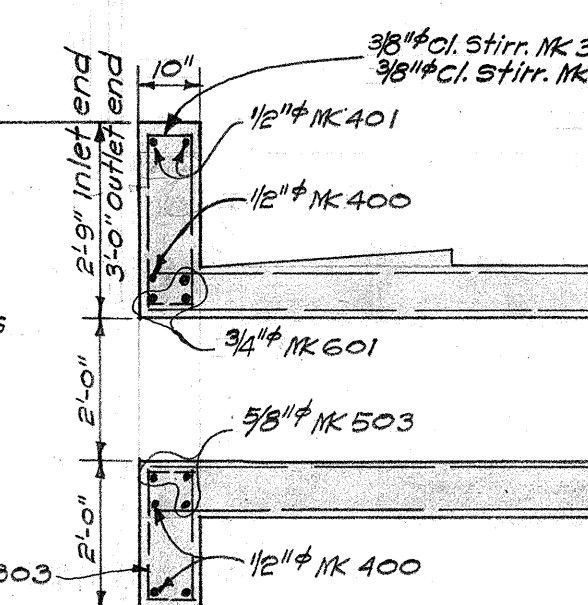


ELEVATION
1/4" Scale

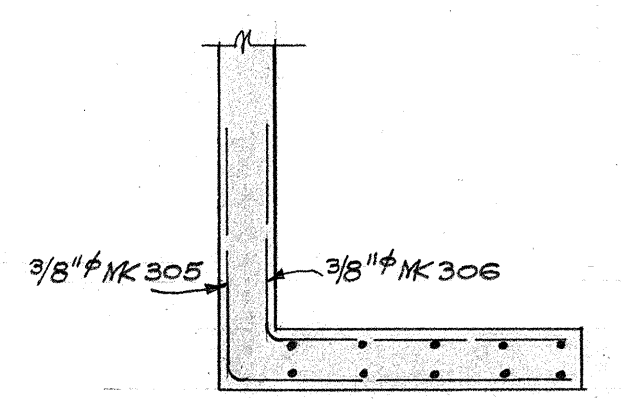


HEADWALL REINF. - INLET END
3/8" Scale

Note! Outlet end headwall is similar.



SECTION A-A
3/8" Scale



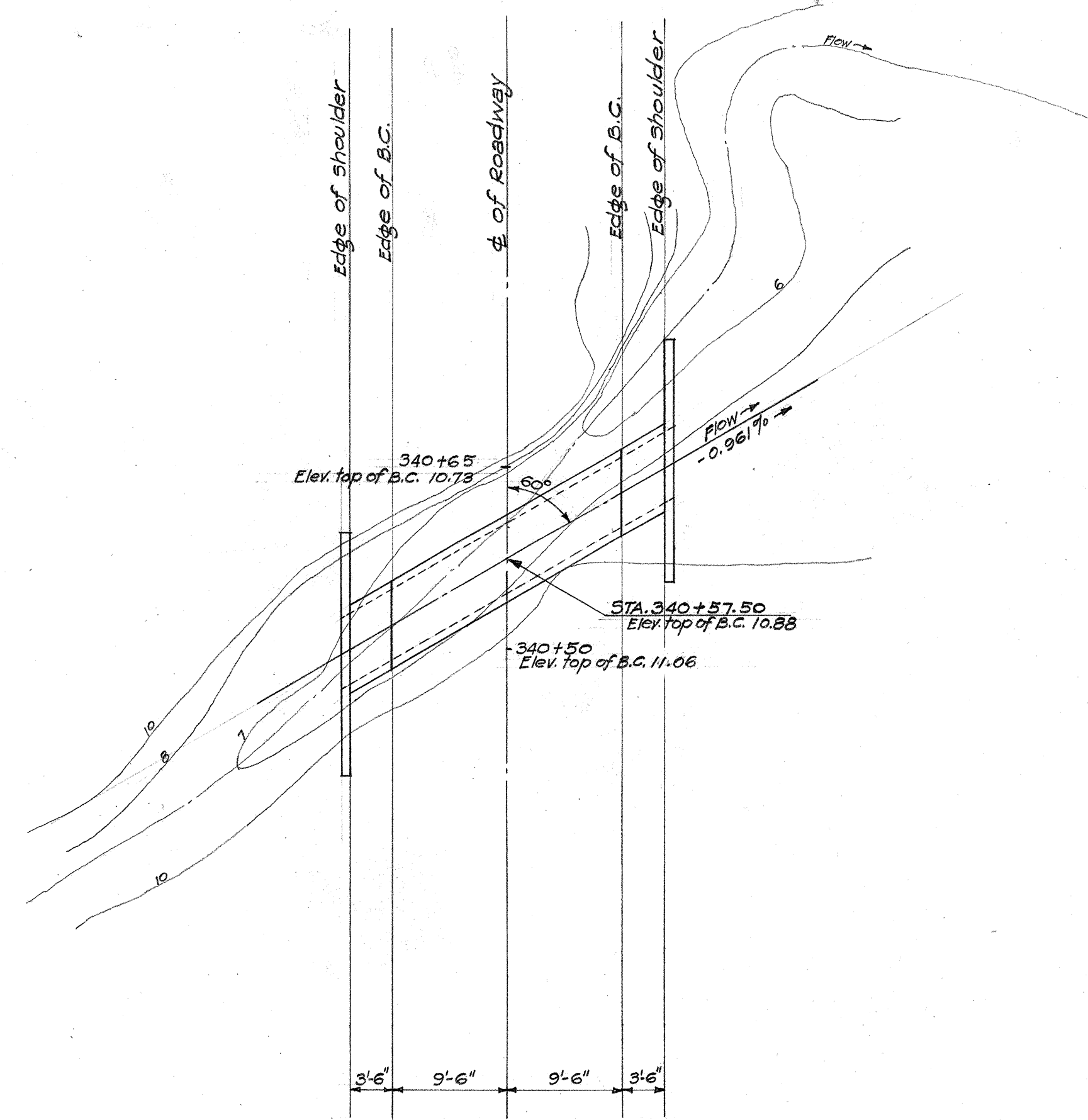
SECTION B-B
3/8" Scale

ESTIMATED QUANTITIES

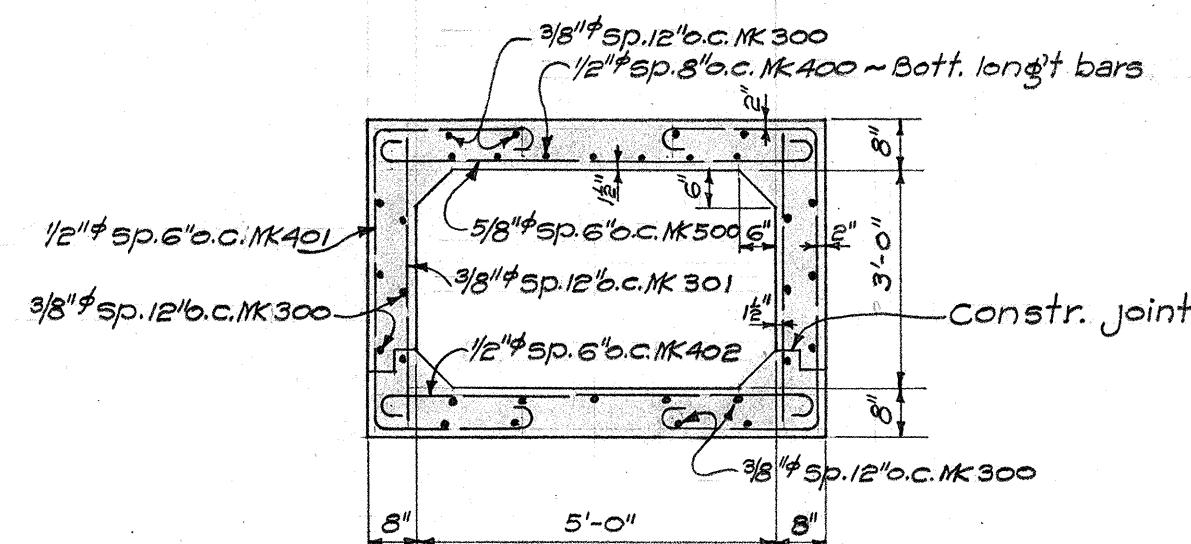
REINF. STEEL	3901 LBS.
CLASS "A" CONC.	24.3 C.Y.
STR. EXC.	23.0 C.Y.
CHANNEL EXC.	19.0 C.Y.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
8'x2' CONC. BOX CULVERT
STA. 326+75
EAST MOLOKAI ROAD F.A.S. 2A(1)

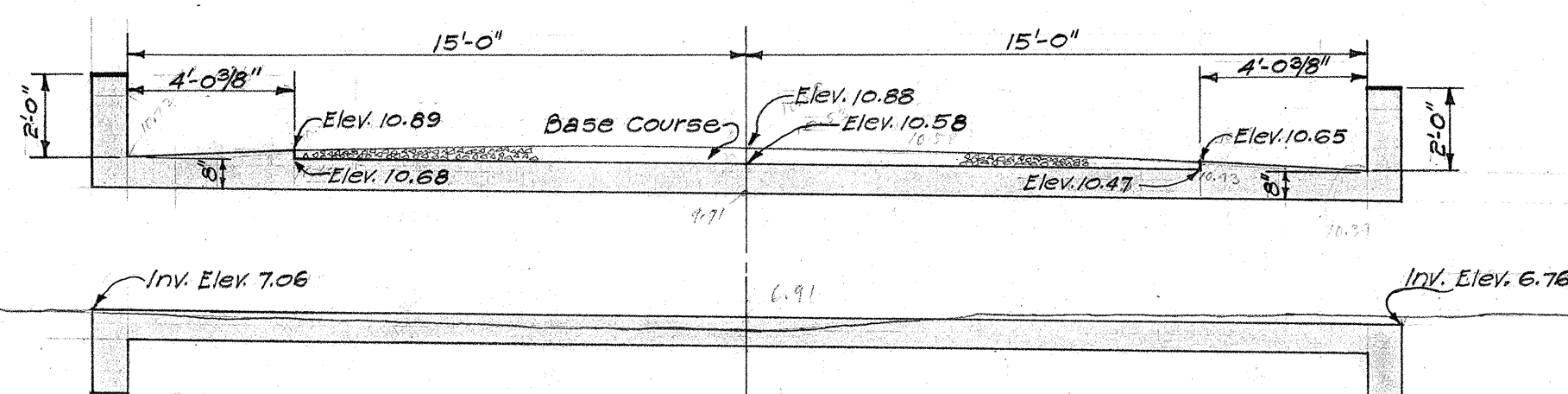
ORIGINAL PLAN
SURVEY PLOTTED BY: [Signature]
DATE: 10/1/38
DRAWN BY: [Signature]
CHECKED BY: [Signature]
NOTE BOOK
No. [Blank]



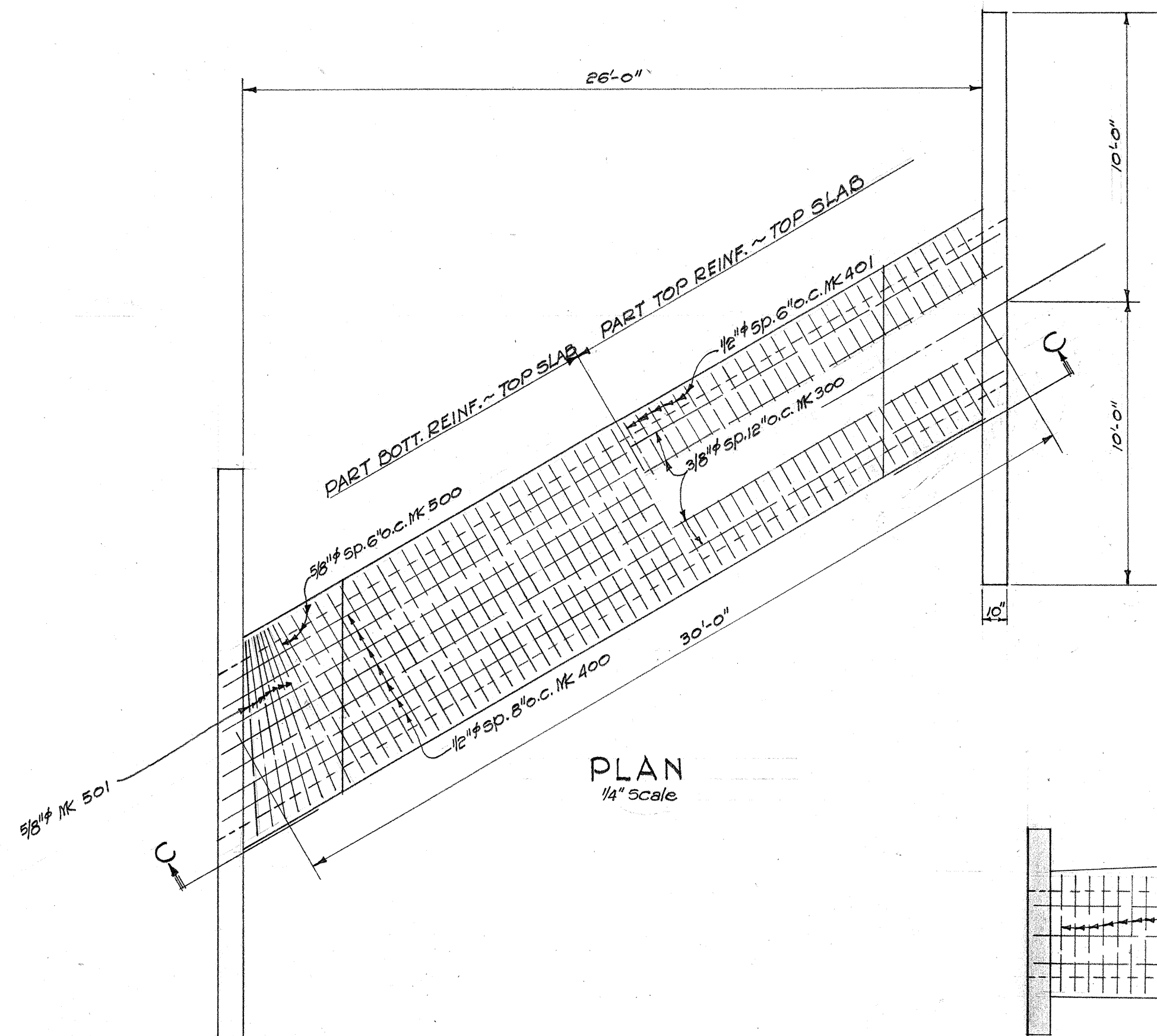
LAYOUT PLAN
Scale 1"=10'



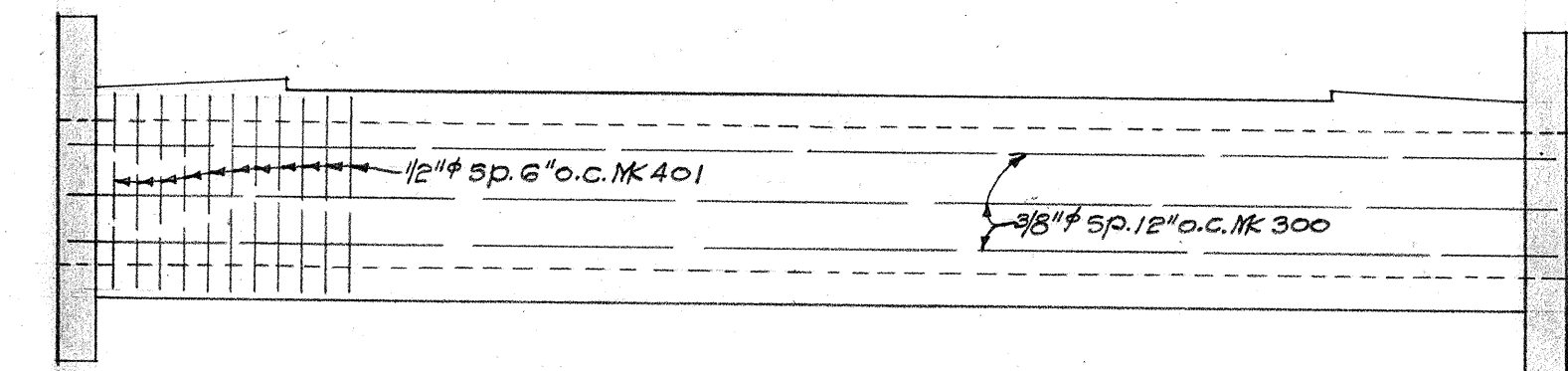
NORMAL SECTION
3/8" Scale



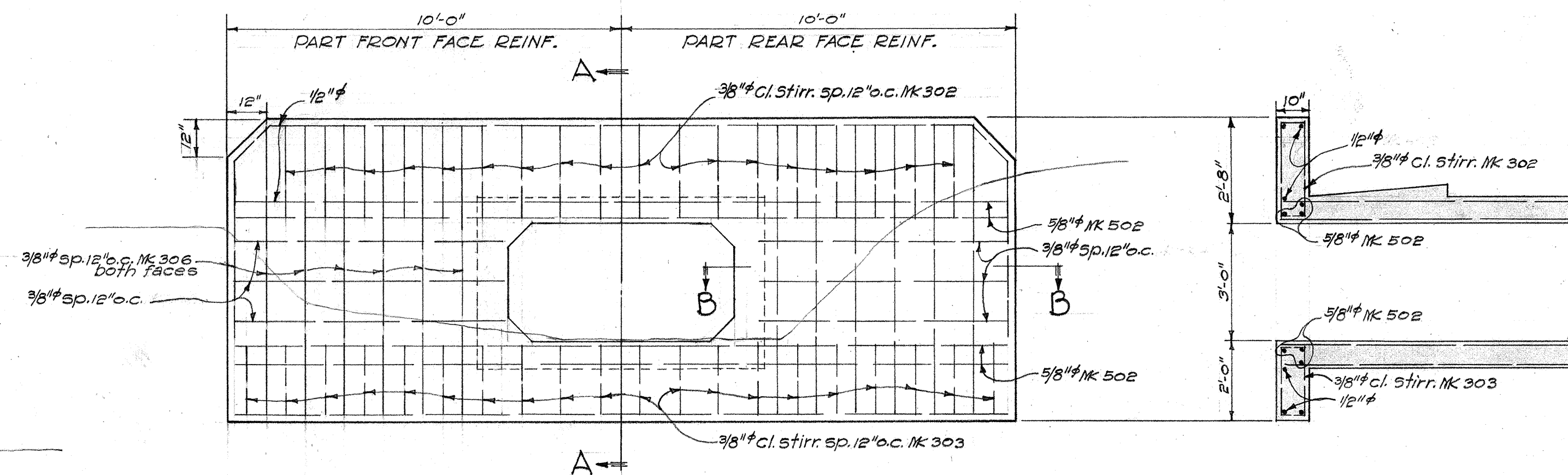
SECTION ALONG Φ OF CULVERT
1/4" Scale



PLAN
1/4" Scale



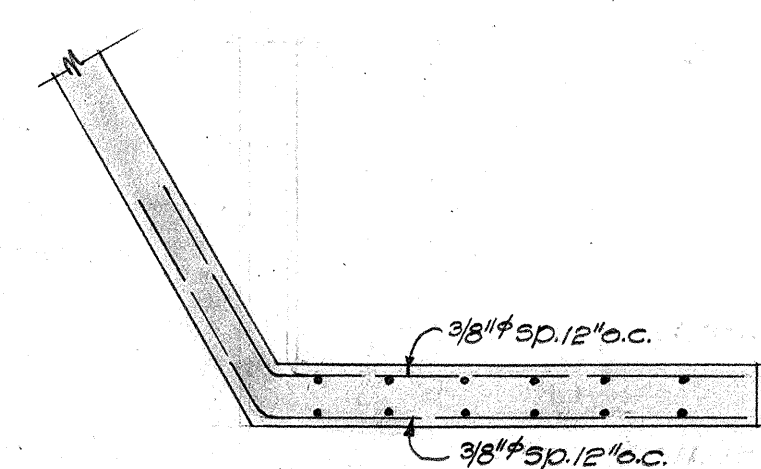
SECTION C-C
1/4" Scale



HEADWALL REINF. ~ INLET END
3/8" Scale

Note: Outlet end headwall is similar.

SECTION A-A
3/8" Scale



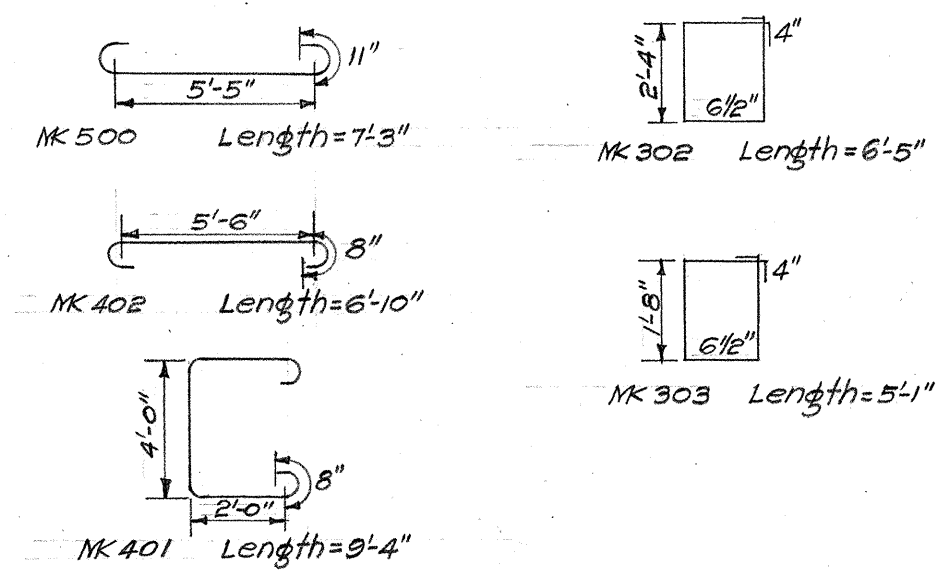
SECTION B-B
3/8" Scale

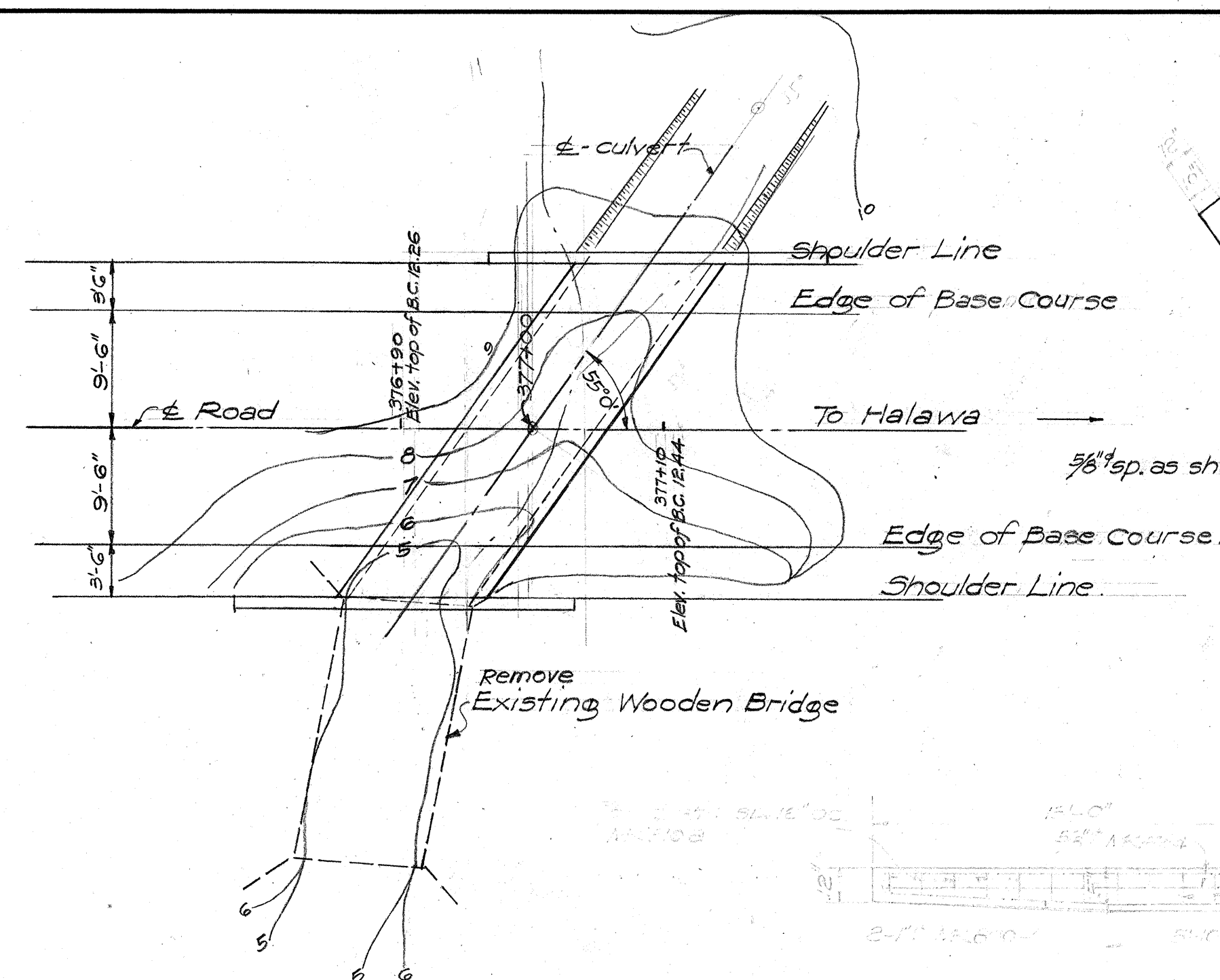
ESTIMATED QUANTITIES

REINF. STEEL	2,908 LBS
CLASS A' CONC.	22.9 C.Y.
STR. EXC.	10.0 C.Y.
CHANNEL EXC.	3.0 C.Y.

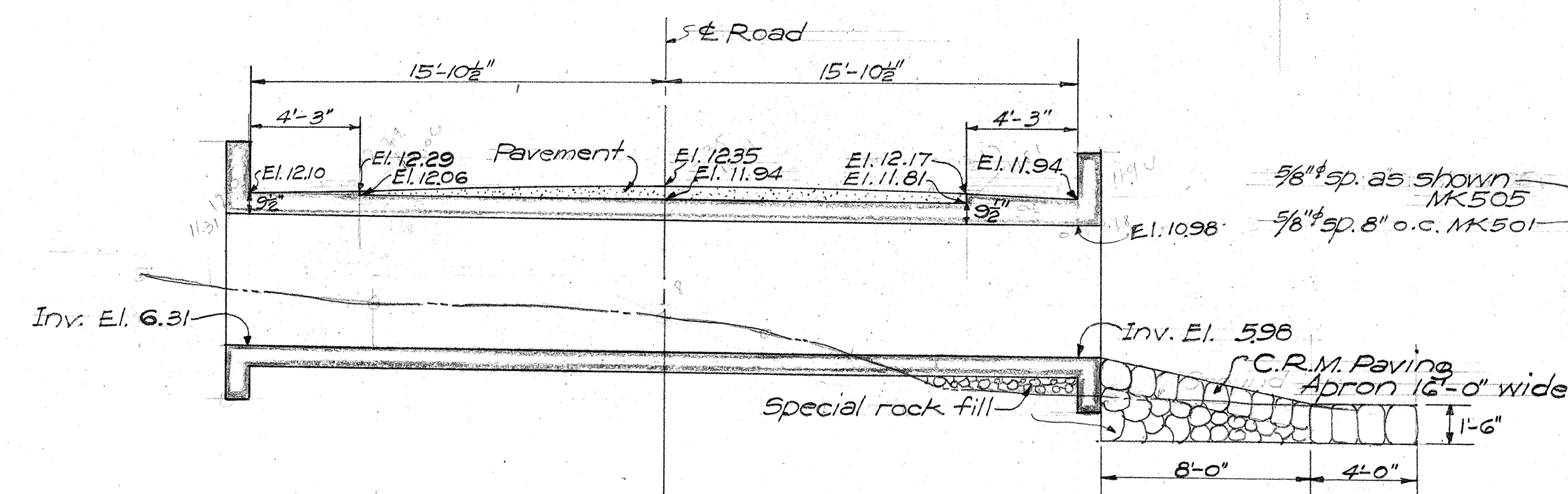
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
5'x3' CONC. BOX CULVERT
STA. 340+57.50
EAST MOLOKAI ROAD F.A.S. 2A(1)

SURVEY PLOTTED BY: DATE: 10/1/31
DESIGNED BY: W. C. DILLON
TRACED BY: J. H. DILLON
QUANTITIES BY: J. H. DILLON
CHECKED BY: J. H. DILLON
ORIGINAL PLAN NO. 1000
NOTE BOOK NO. 1000

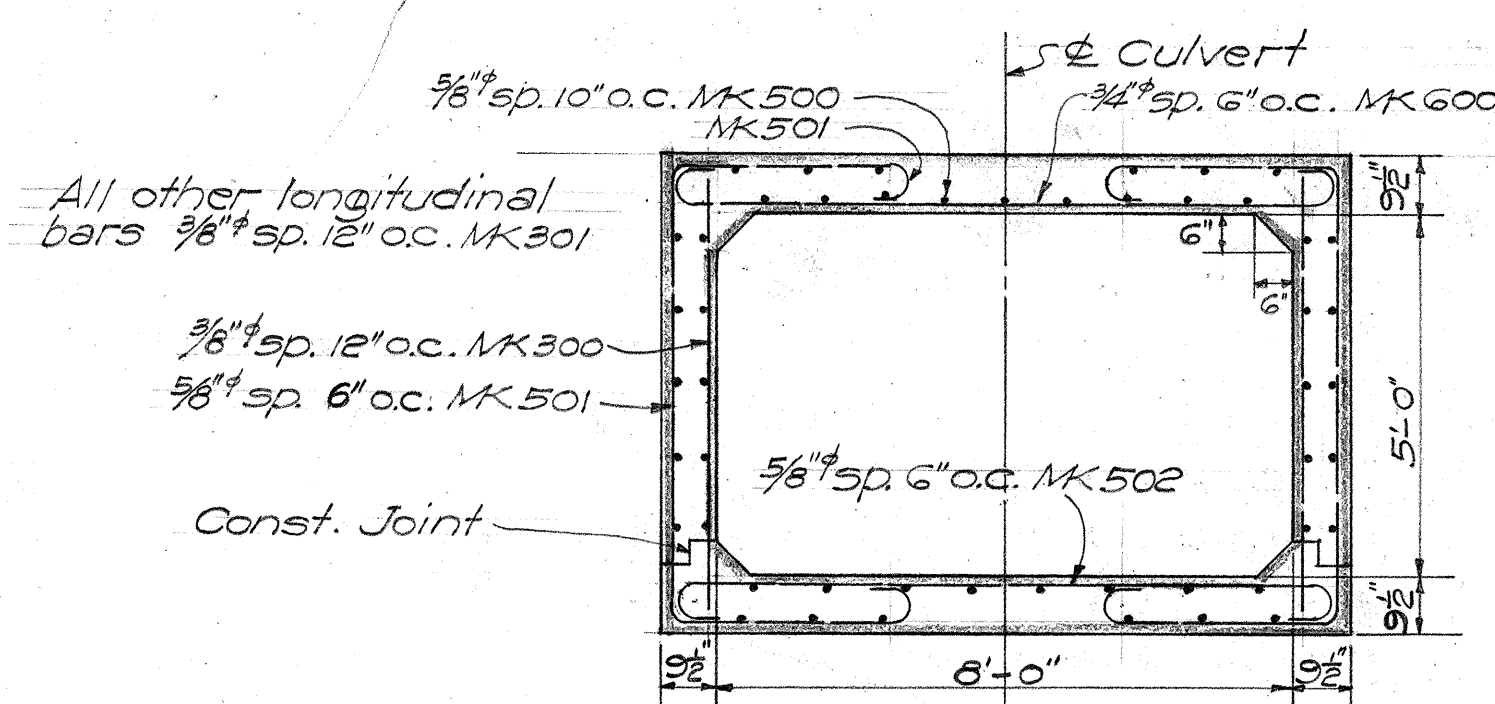




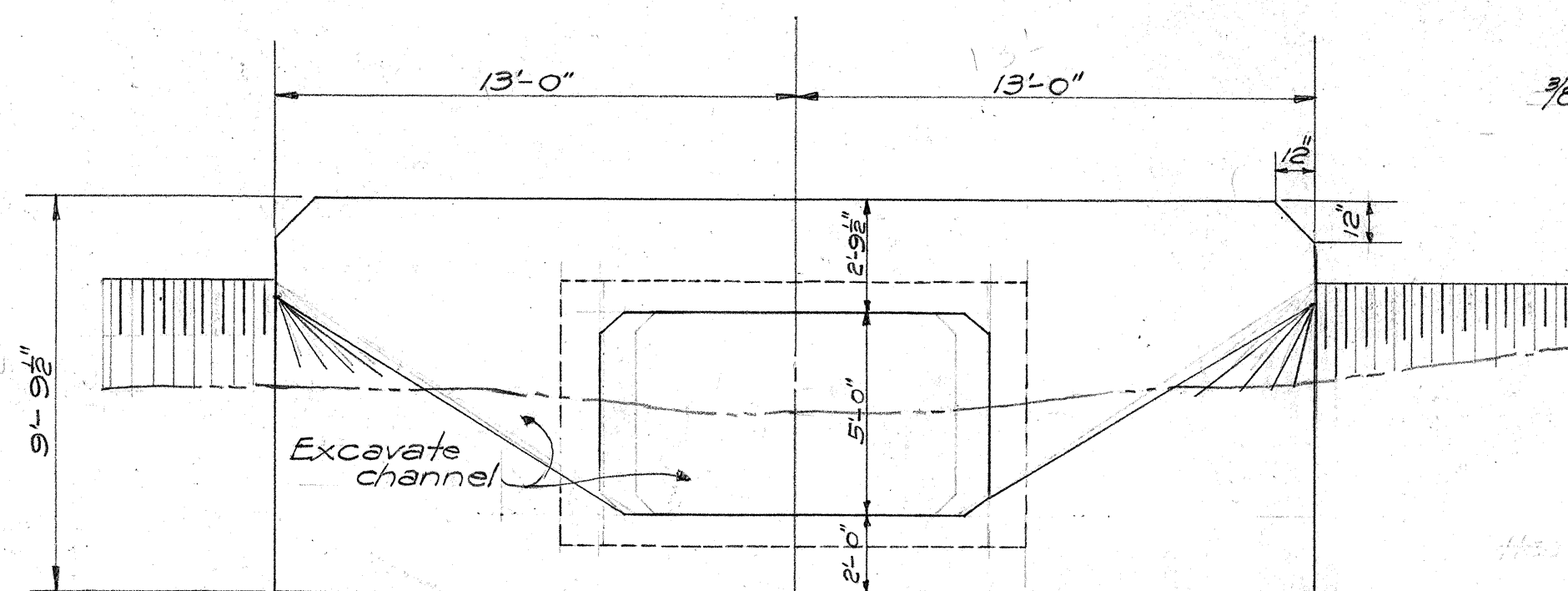
PLAN
Scale 1"=10'



SECT. ALONG & CULVERT
Scale 1"=5'



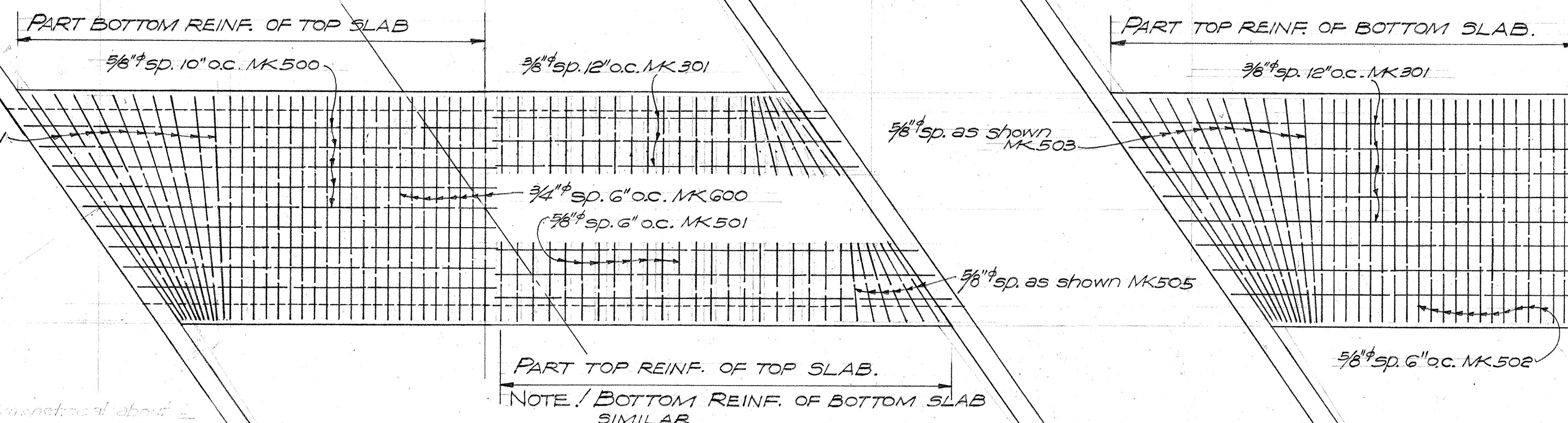
NORMAL SECTION
Scale 3/8"=1'-0"



NOTE! OUTLET HEADWALL SIMILAR

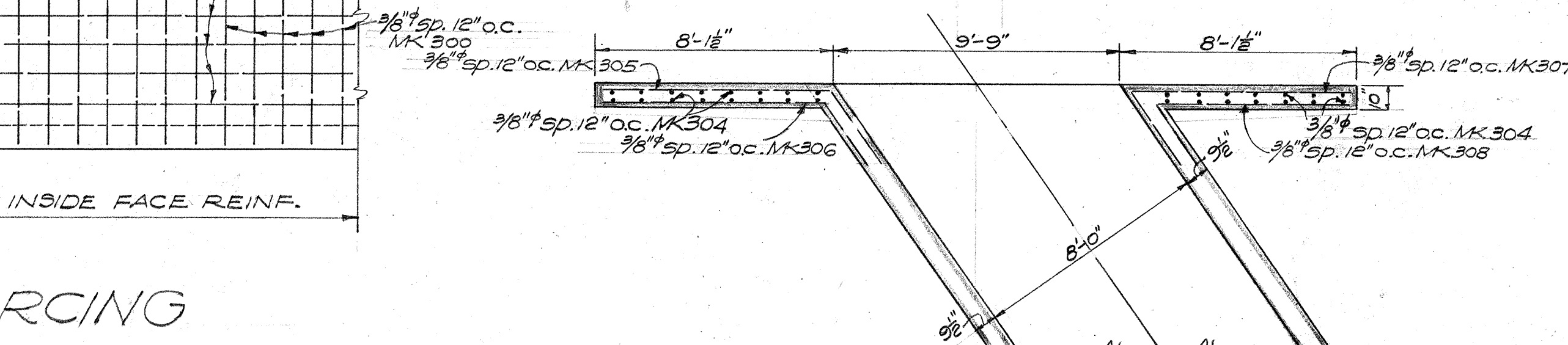
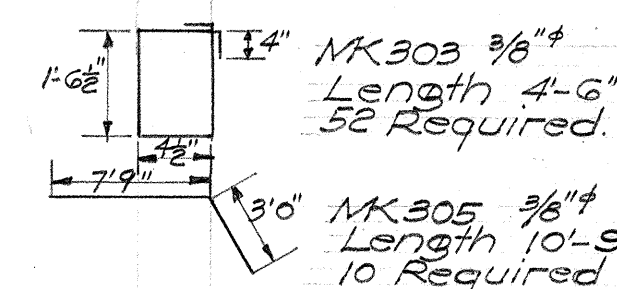
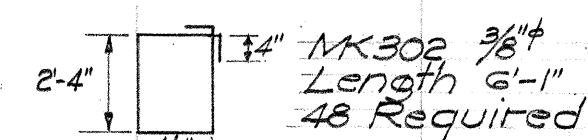
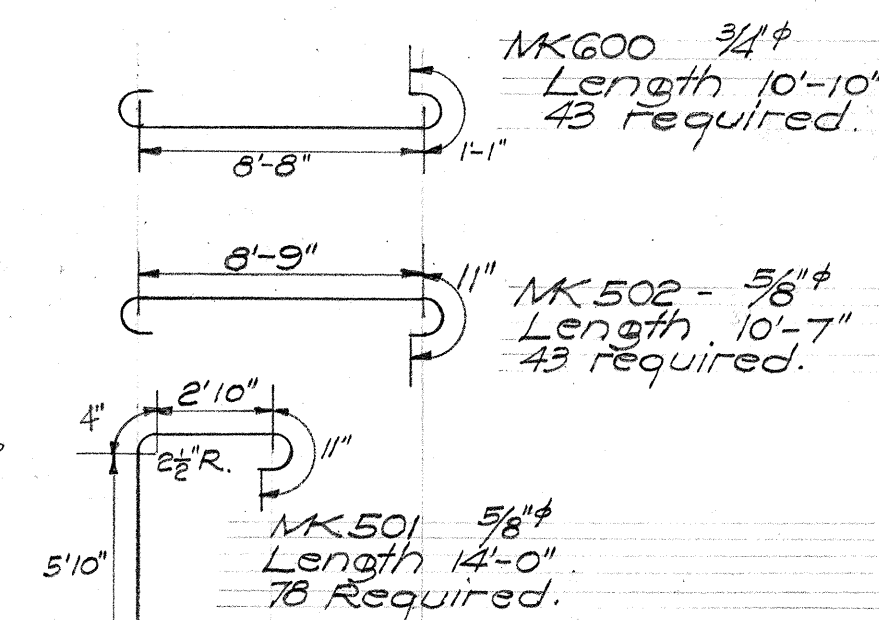
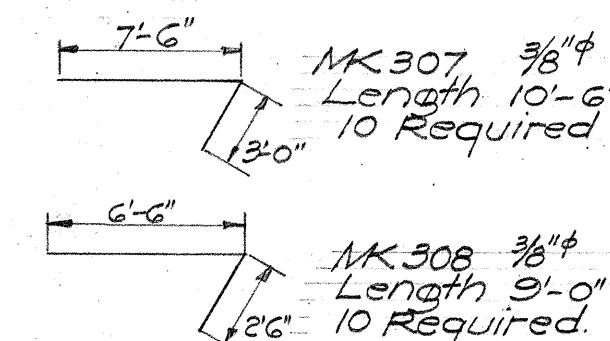
INTAKE HEADWALL
Scale 1/4"=1'-0"

SECT. D-D
Scale 3/8"=1'-0"

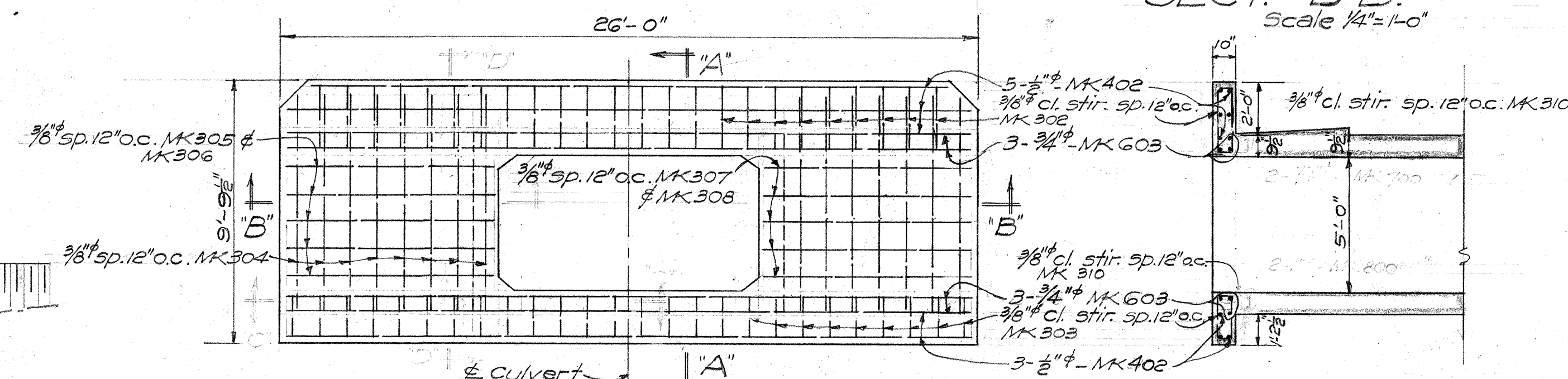


SLAB REINFORCING
Scale 1/4"=1'-0"

WALL REINFORCING
Scale 1/4"=1'-0"



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



HEADWALL REINF.
Scale 1/4"=1'-0"

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

ESTIMATED QUANTITIES	
CONCRETE	41.0 C.Y.
REINF. STEEL	5470 LBS.
STR. EXCAVATION	30 C.Y.
CHANNEL EXC.	12 C.Y.
SPECIAL ROCK FILL	9 C.Y.
CRM PAVING	8 C.Y.

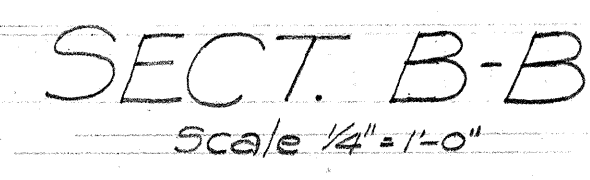
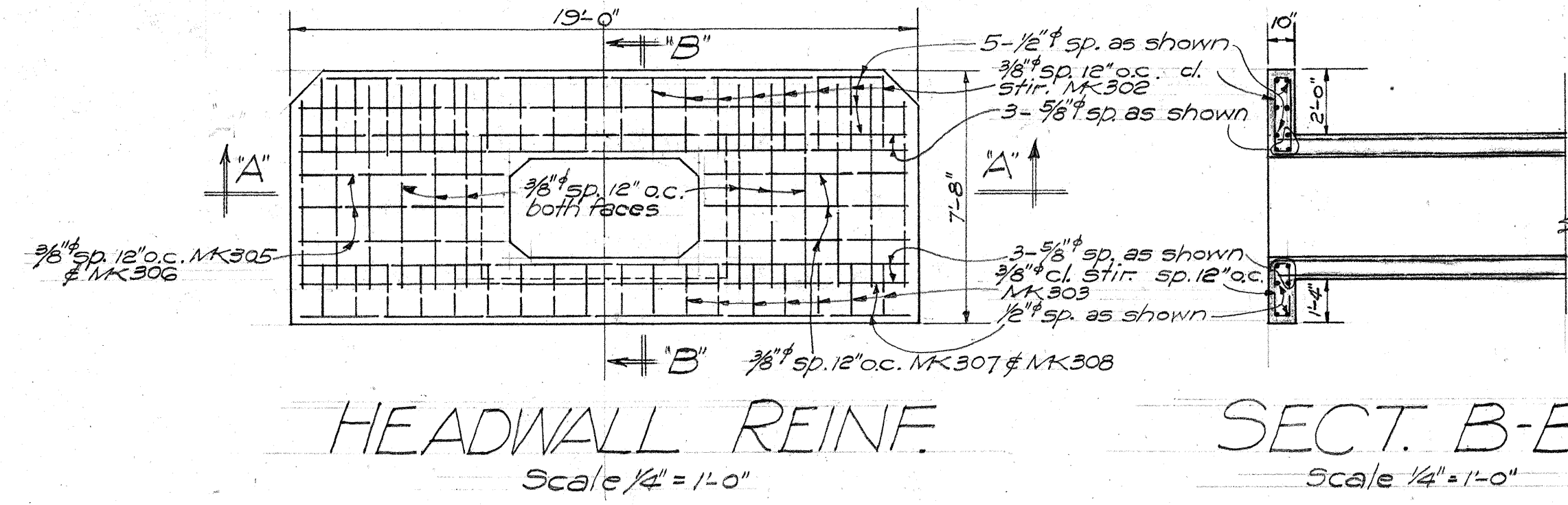
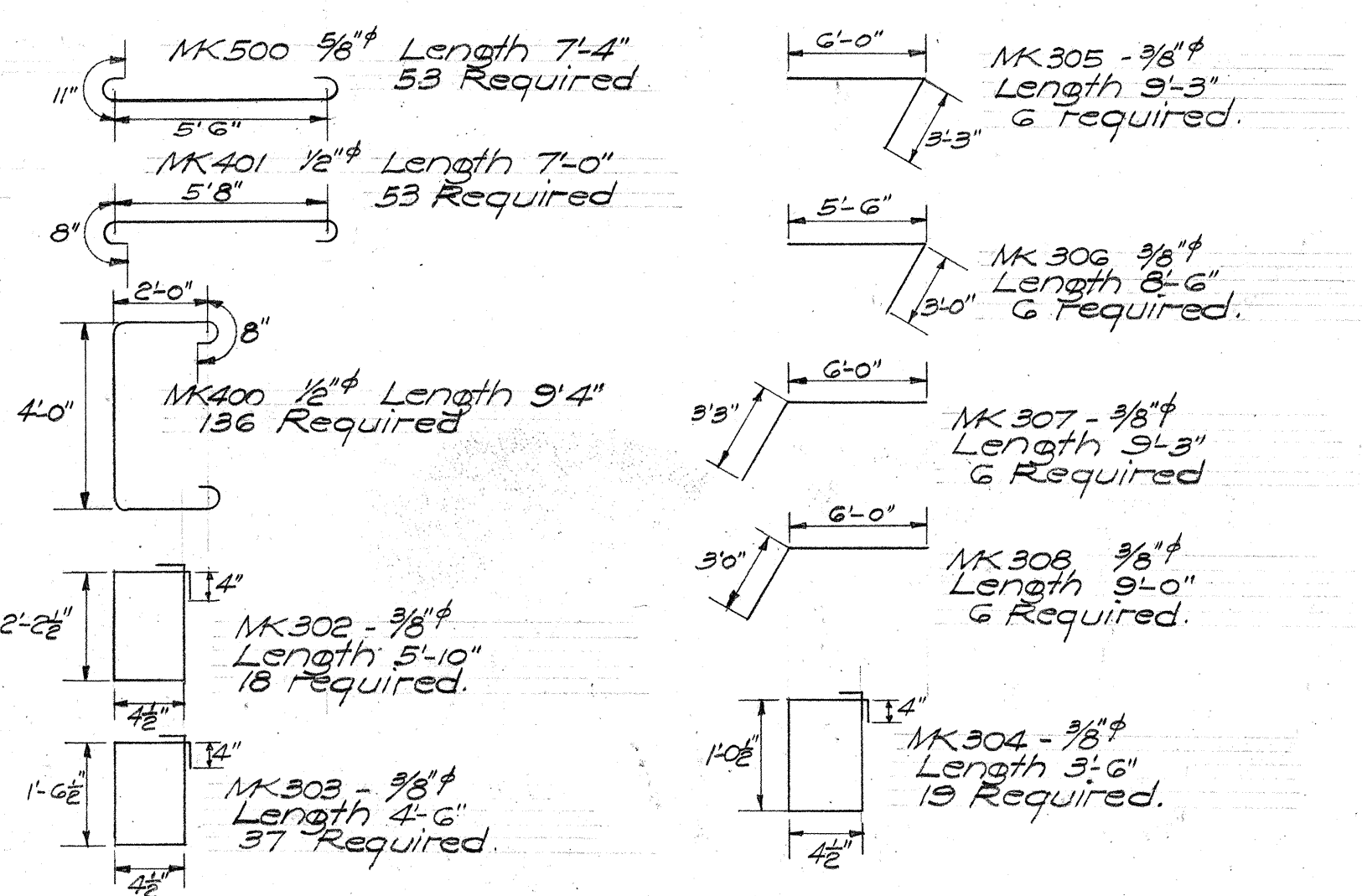
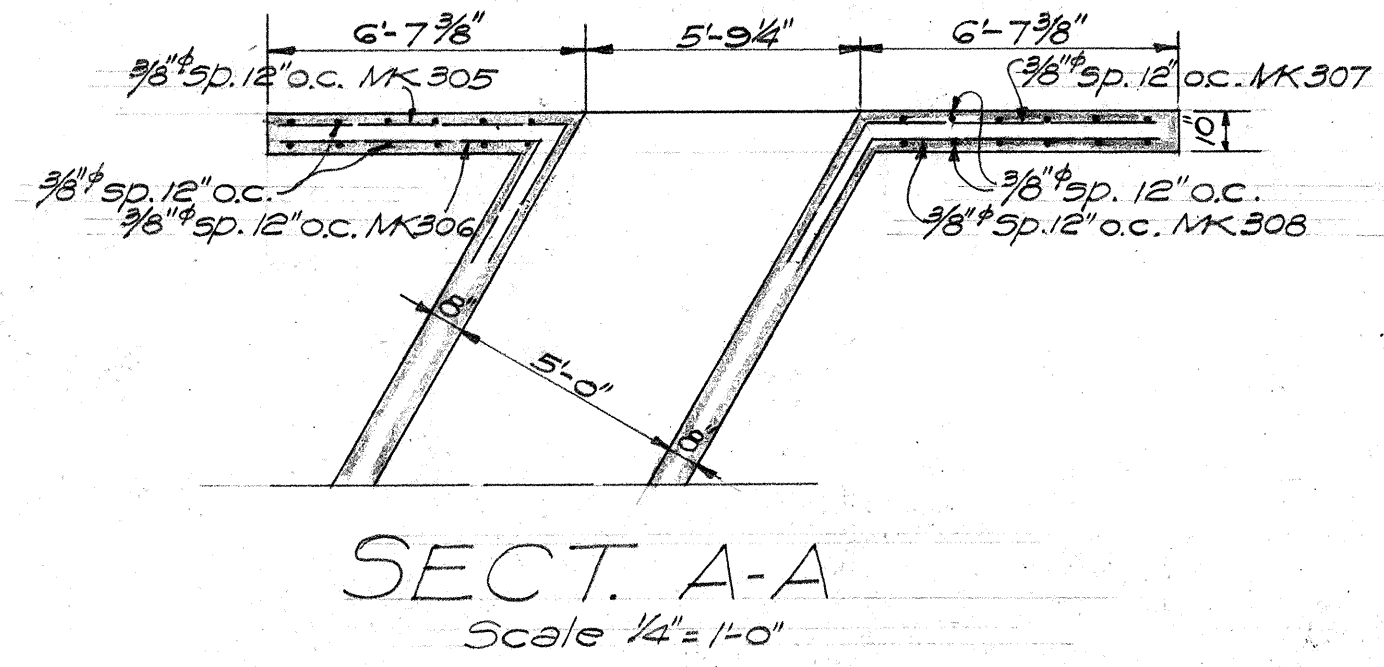
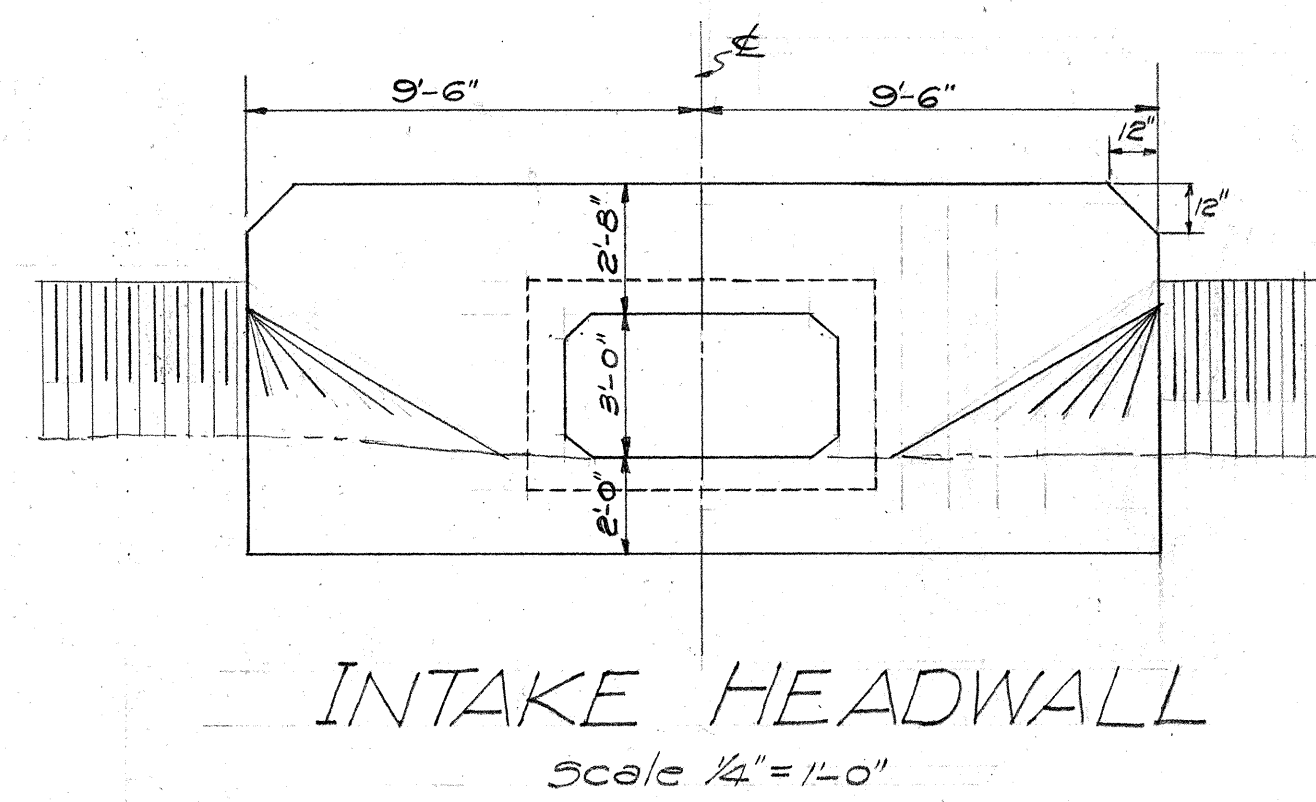
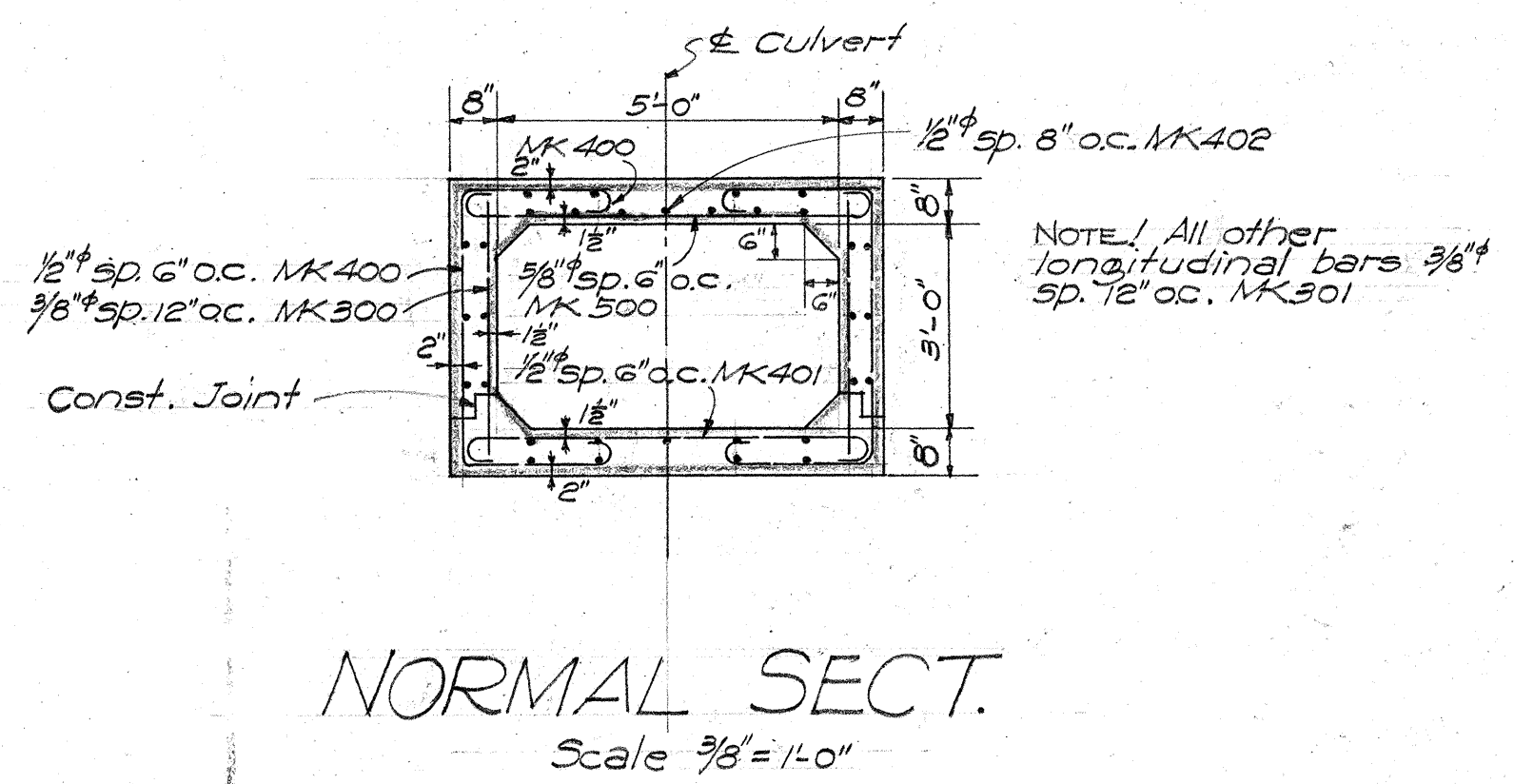
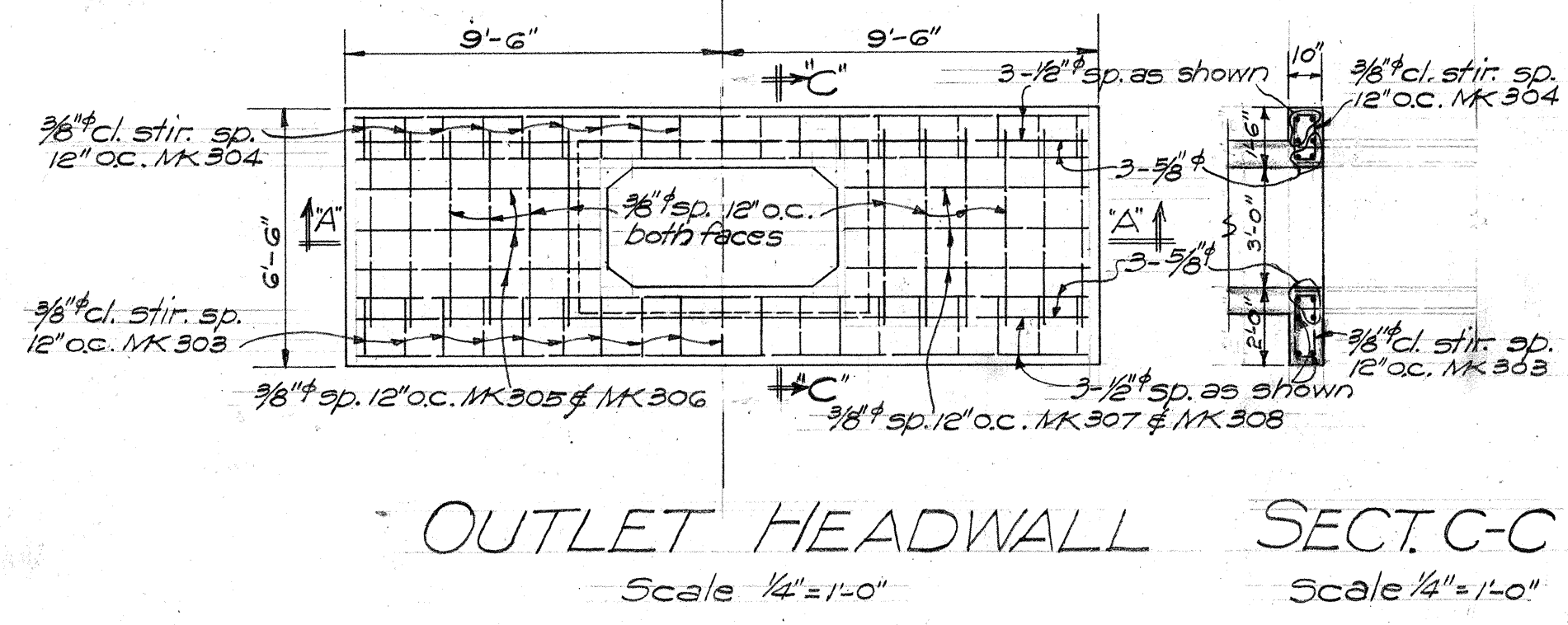
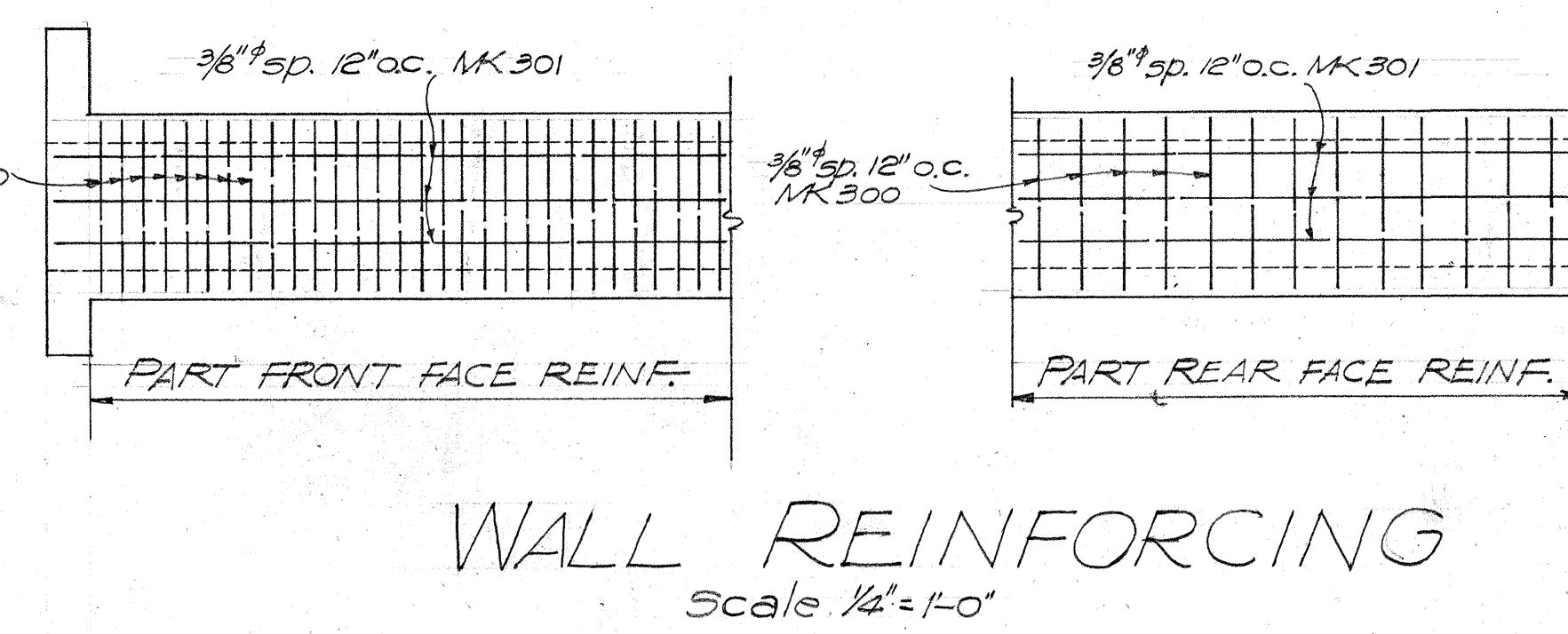
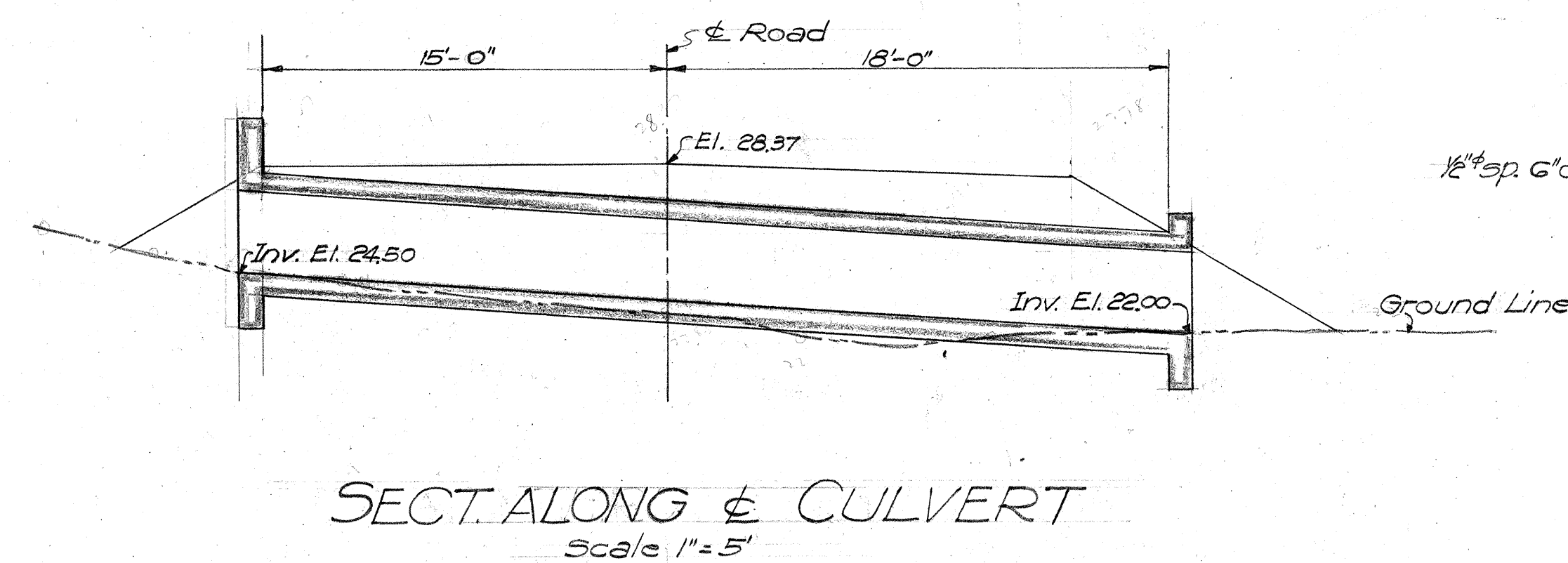
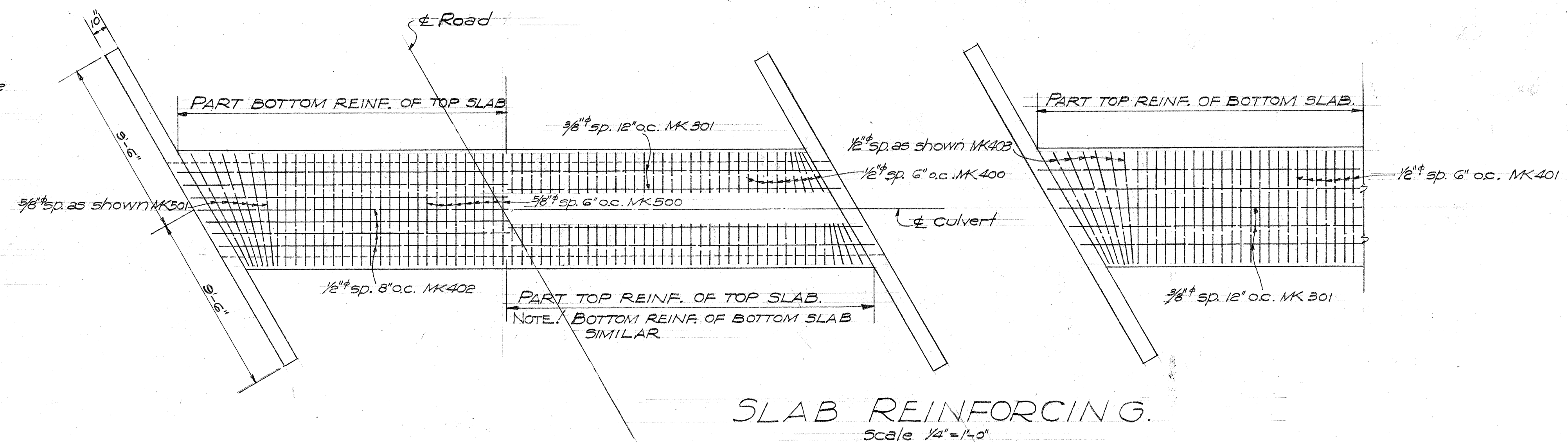
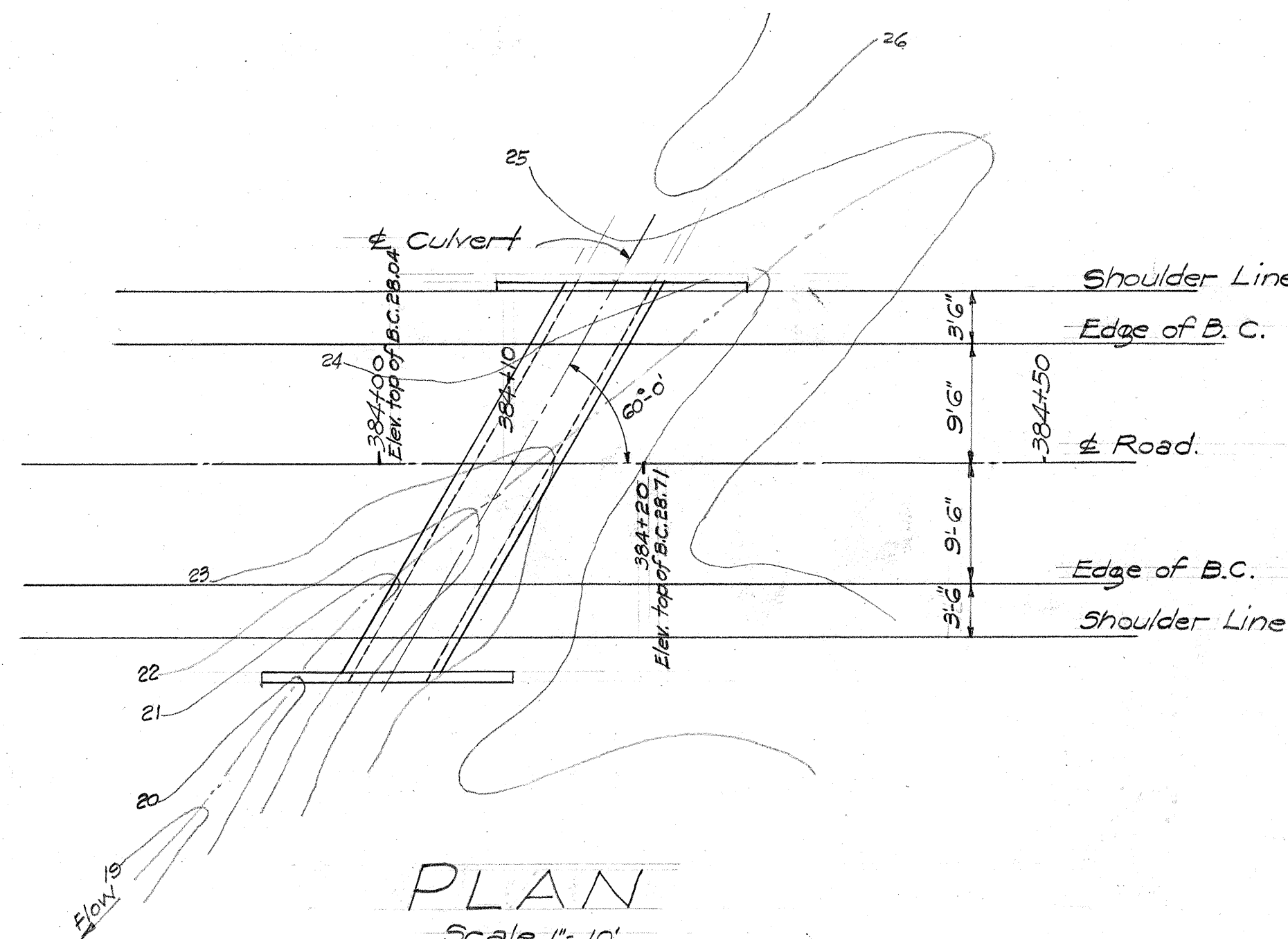
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

8x5 CONC. CULVERT
STA. 377+00

EAST MOLOKAI ROAD FAS.2A(1)
AUGUST 1938 SCALES AS NOTED.

SHEET No 1 OF 1 SHEETS

4477.23



ESTIMATED QUANTITIES	
CONCRETE	23.2 C.Y.
REINF. STEEL	2970 LBS
STR. EXCAVATION	18 C.Y.
CHANNEL EXC.	2 C.Y.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
5x3 CONC. CULVERT.
STA. 384+10
EAST MOLOKAI ROAD F.A.S. 2A(1)
AUGUST-1938 SCALES AS NOTED.

ORIGINAL PLAN
DATE 11-2-38
DRAWN BY W. E. B. B.
CHECKED BY W. E. B. B.
NOTE BOOK No.