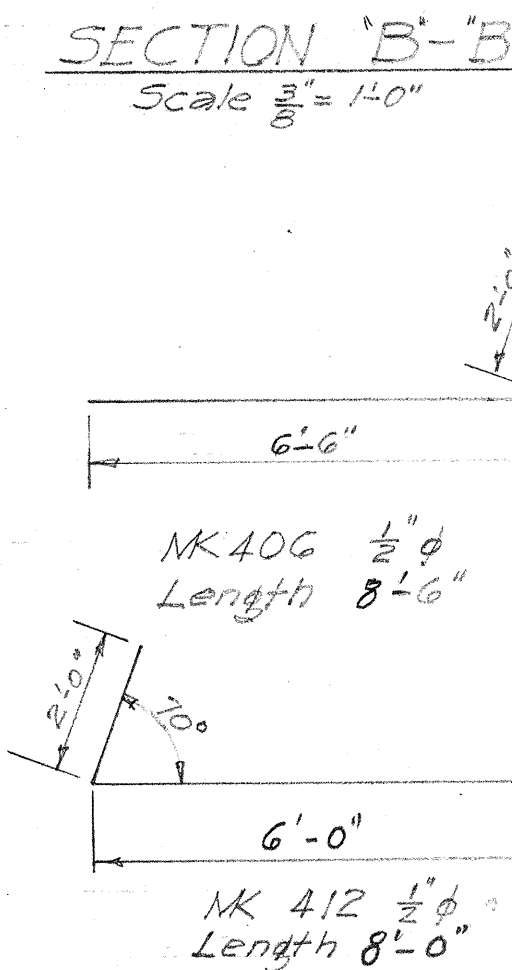
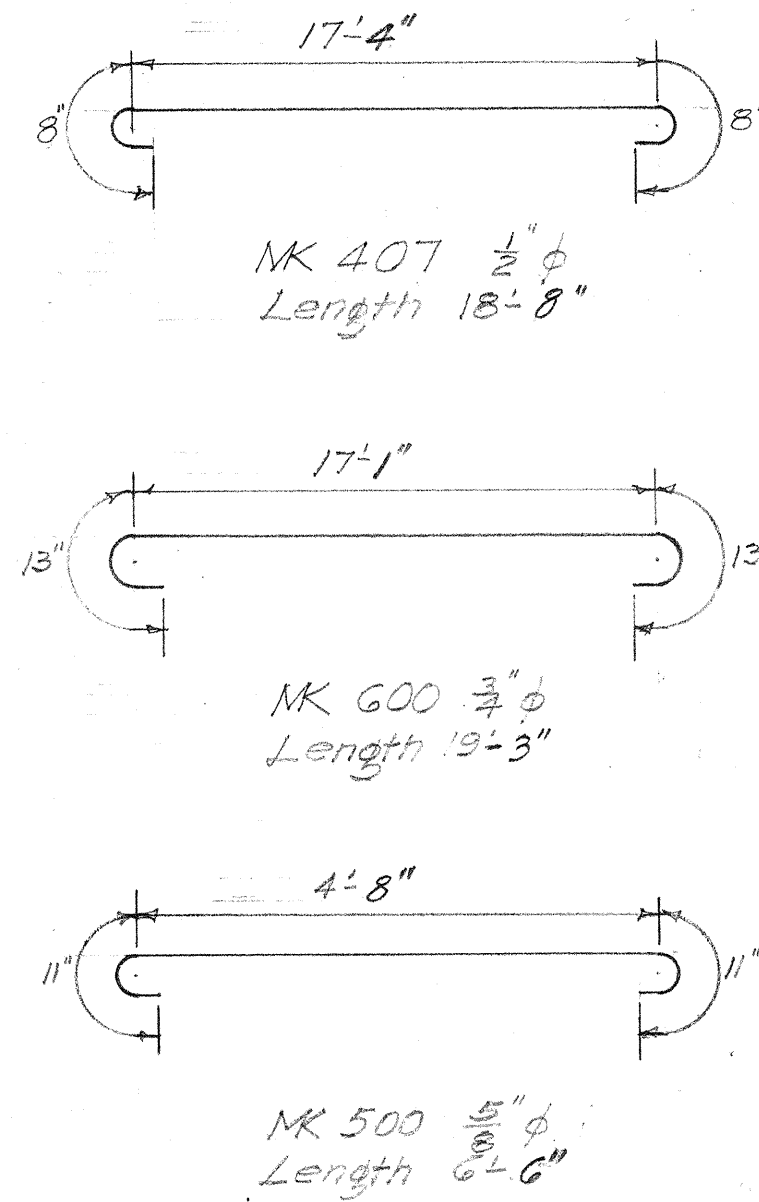
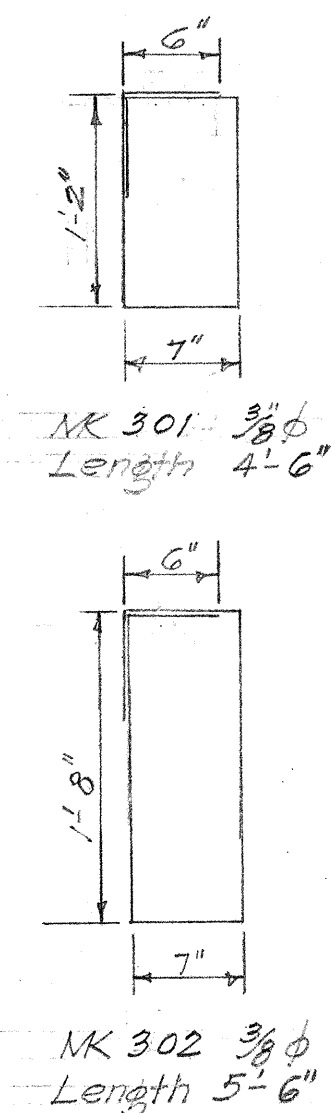
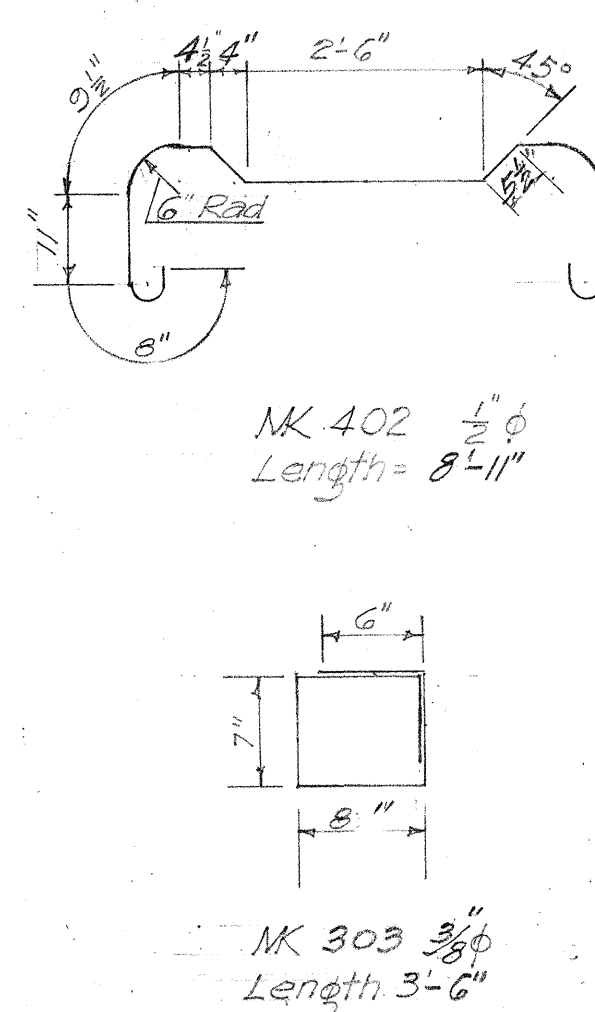
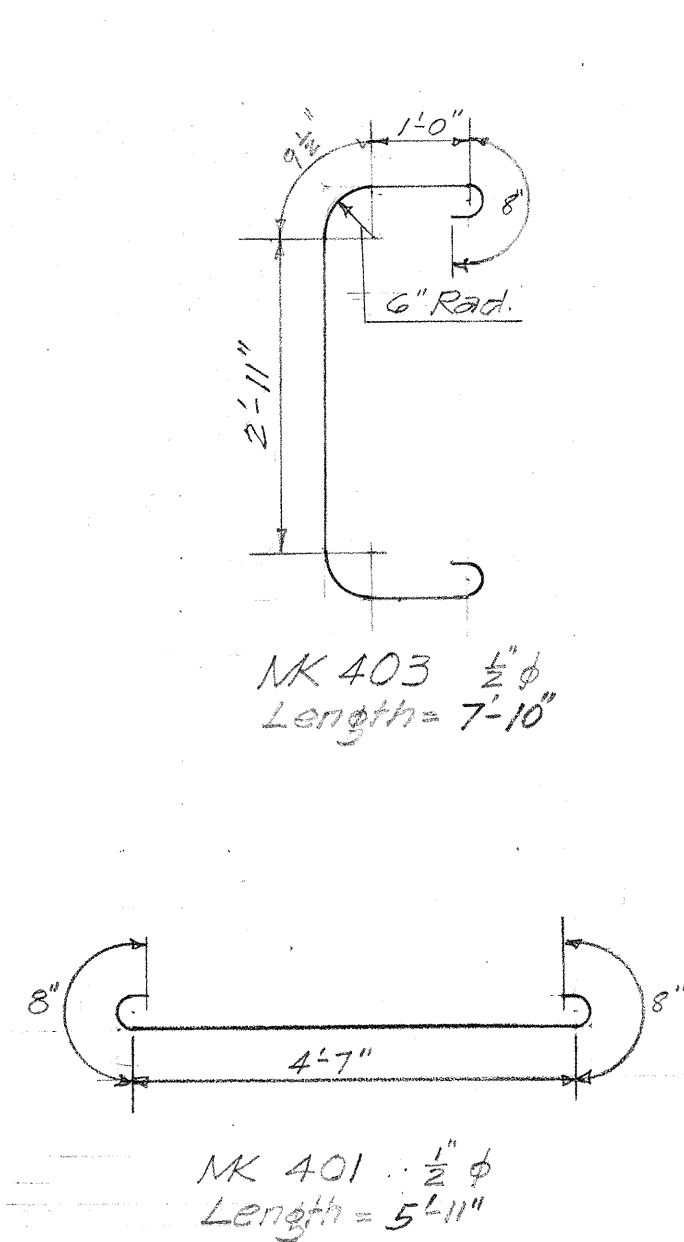
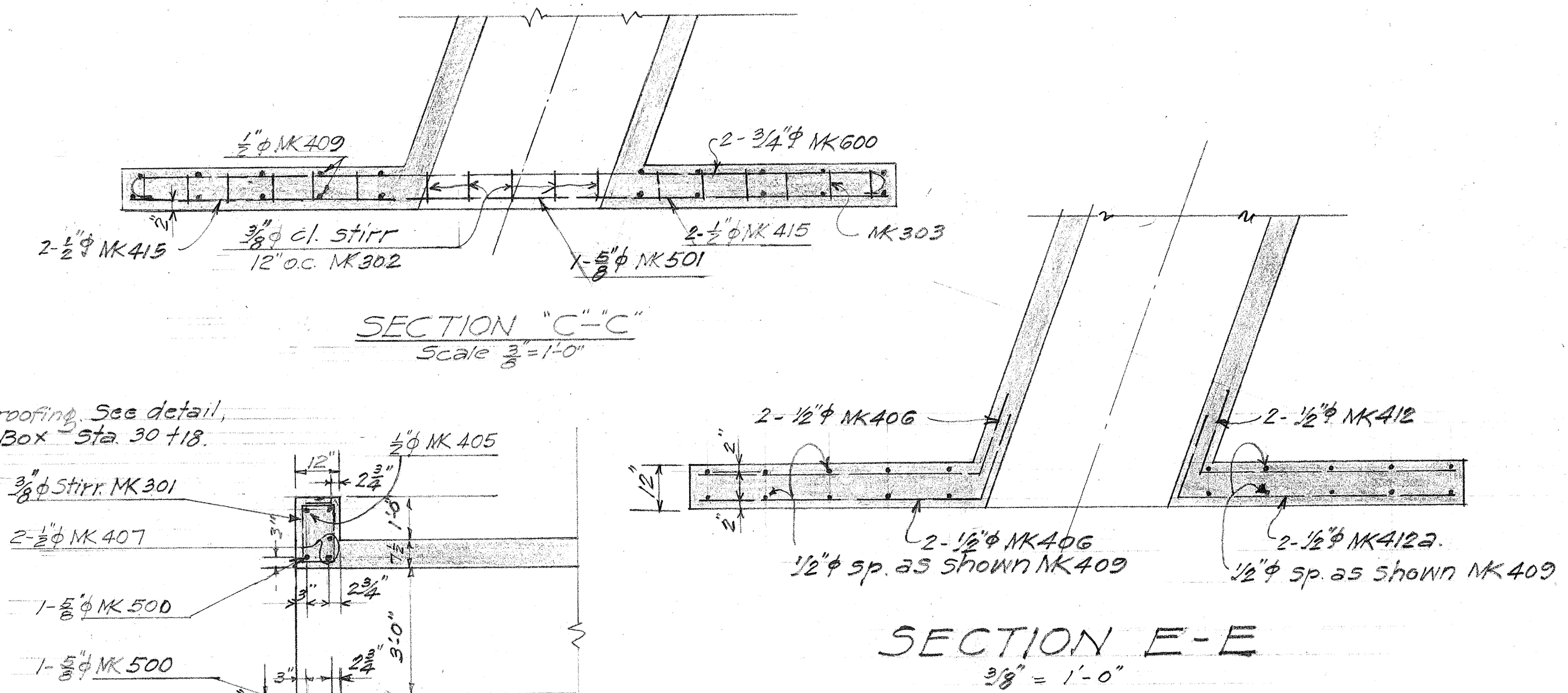
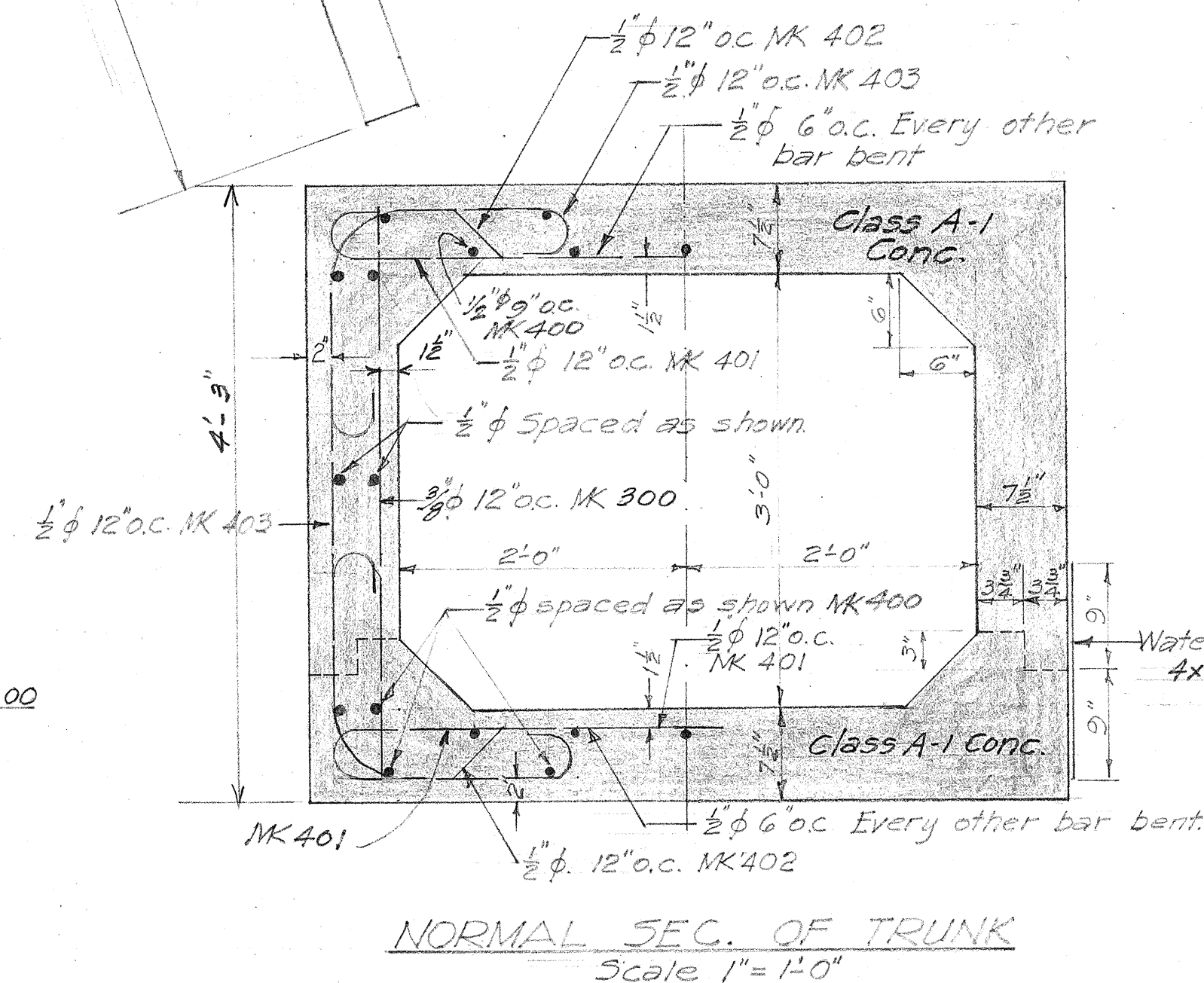
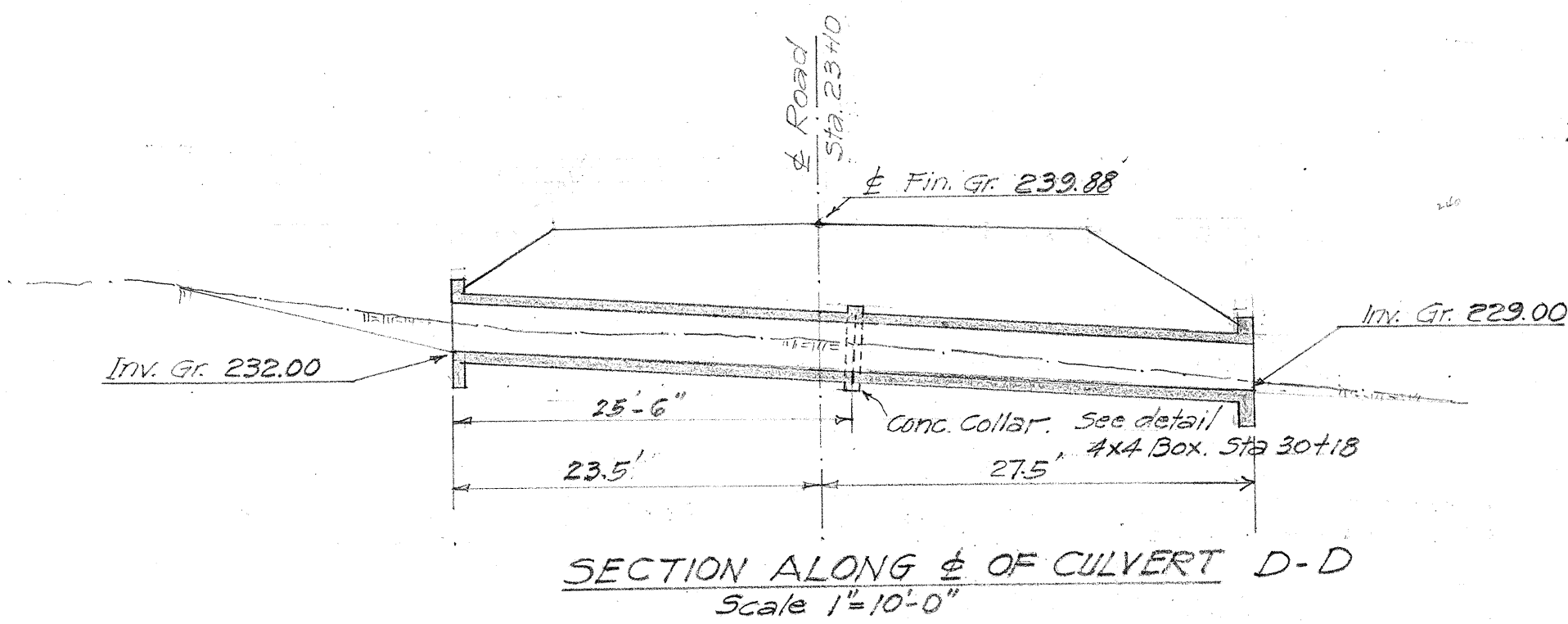
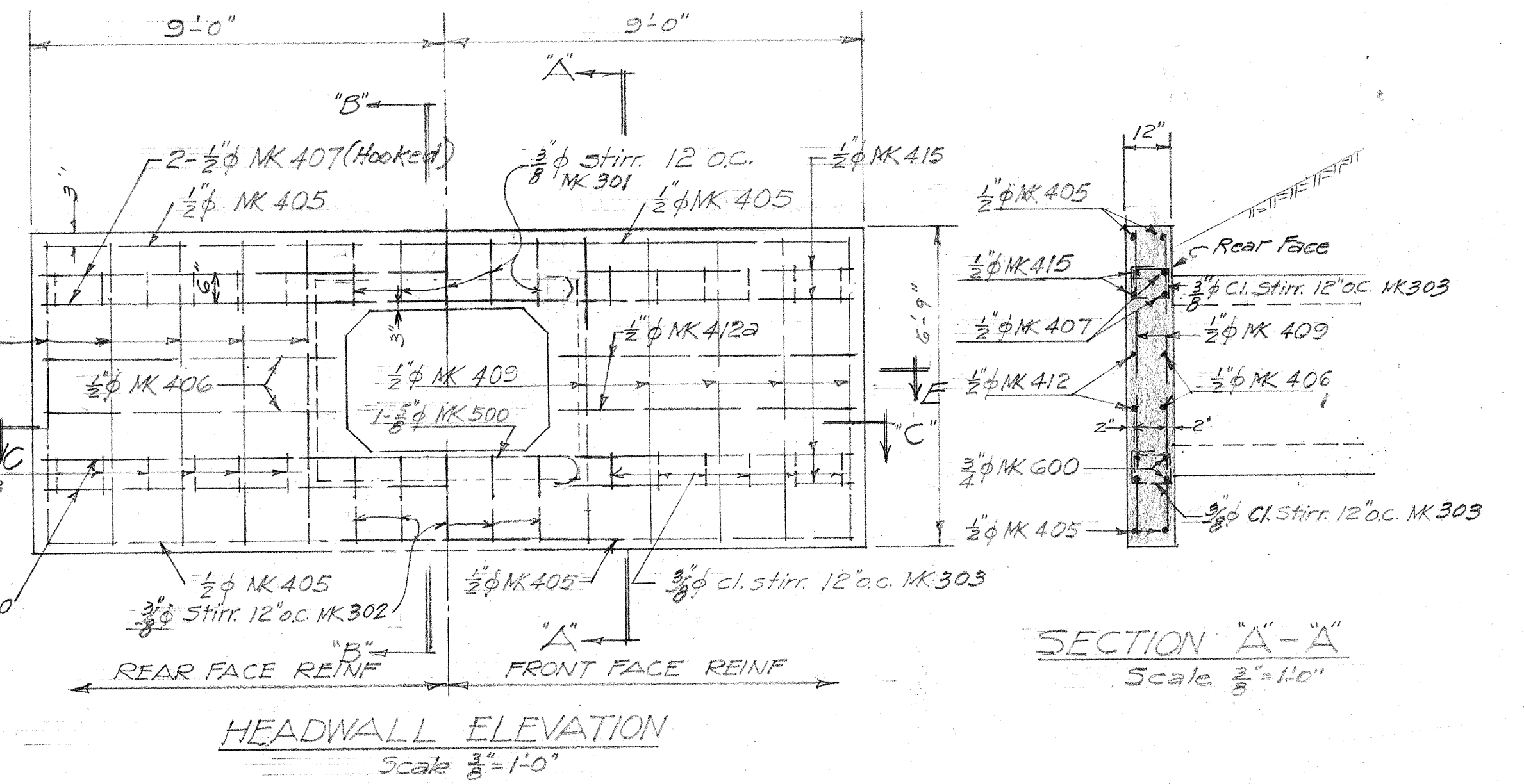
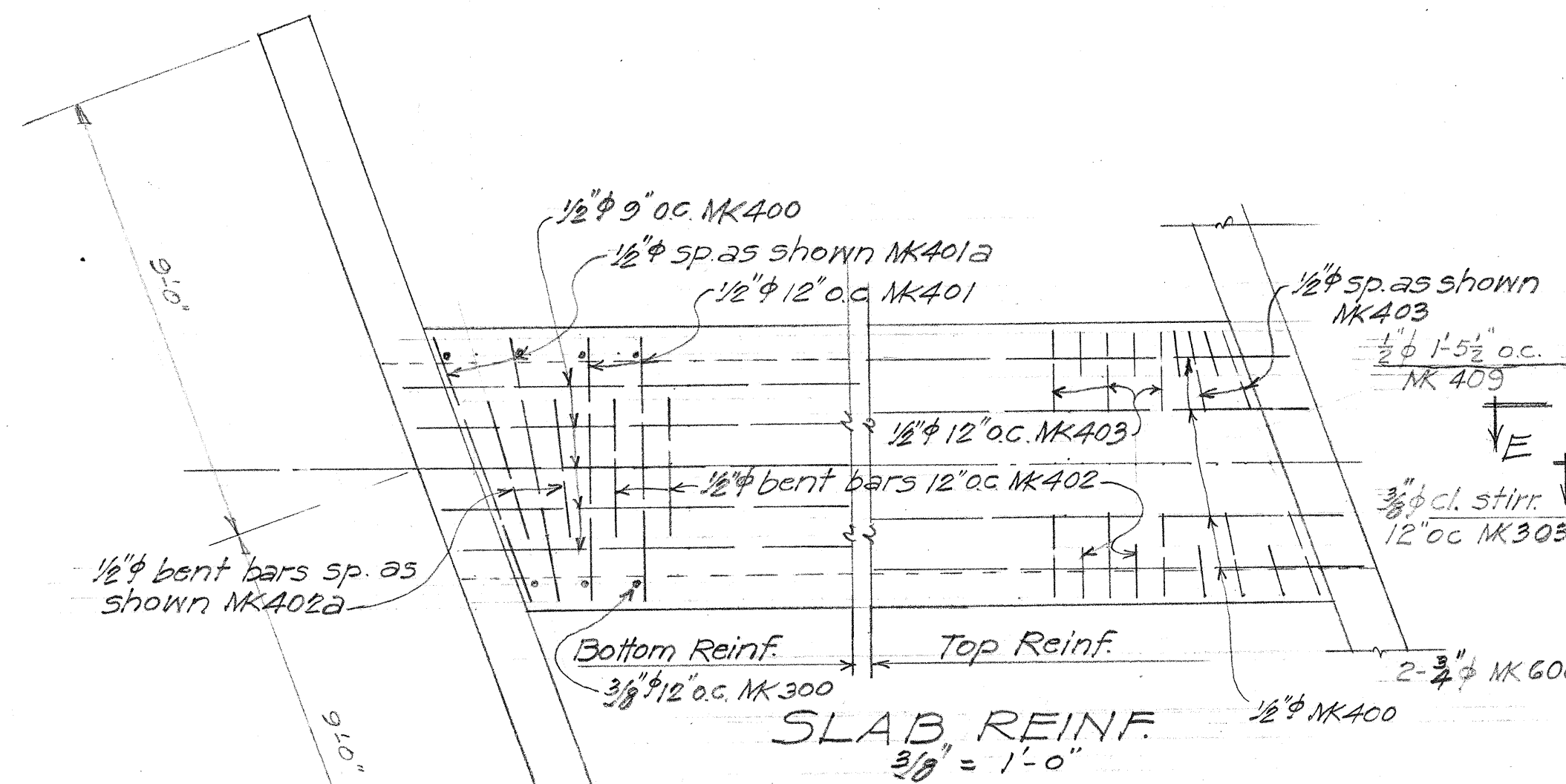
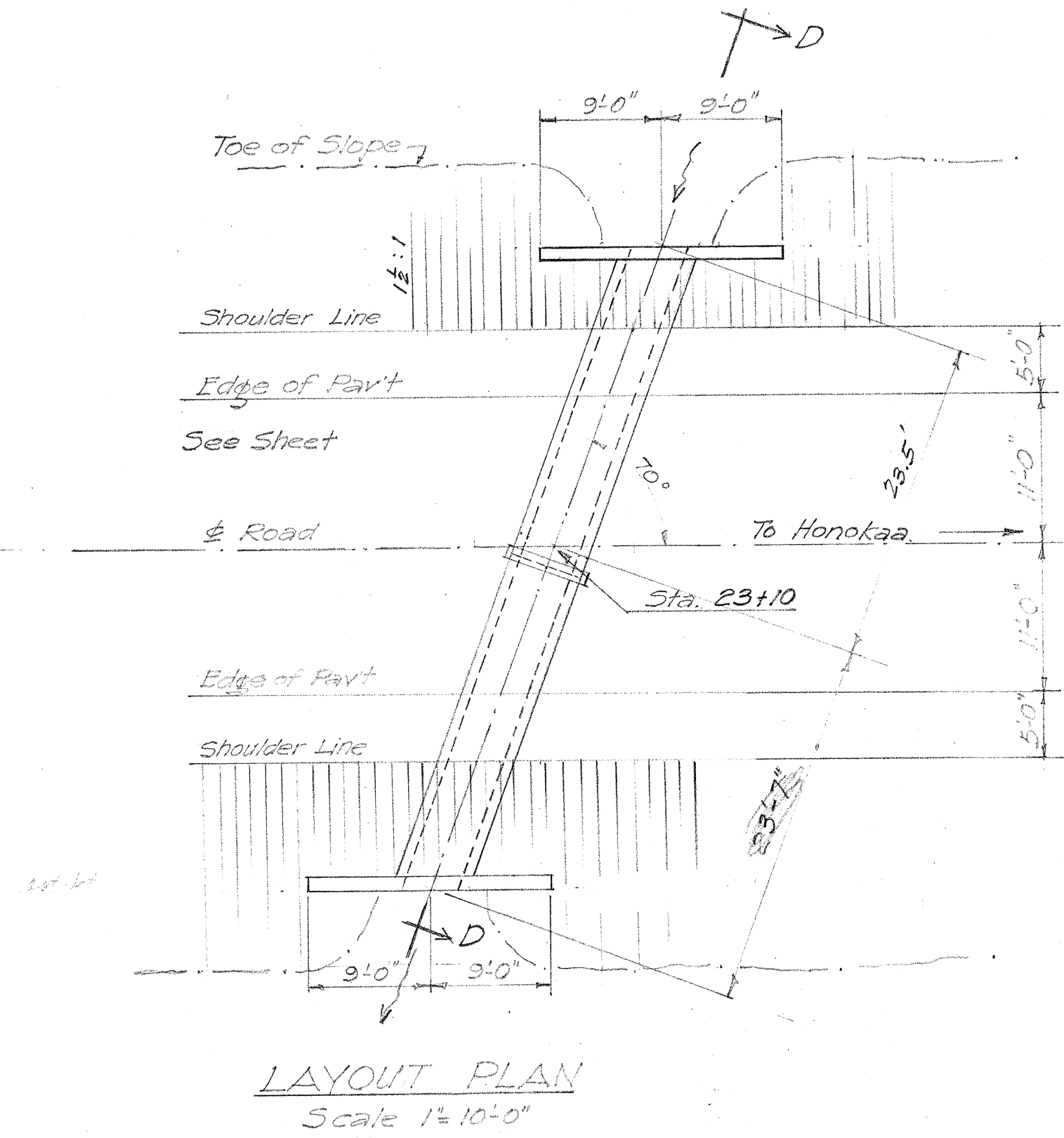




ESTIMATED QUANTITIES

Class A-1 Conc.	28.35 C.Y.
Reinf. Steel	3420. lbs
Str. Exc.	440. C.Y.
Channel Exc.	6.0 C.Y.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

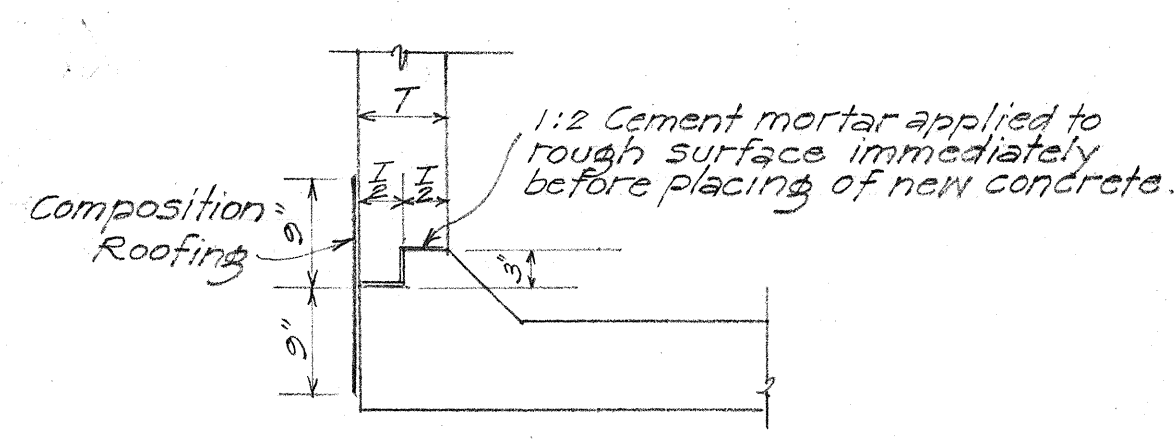
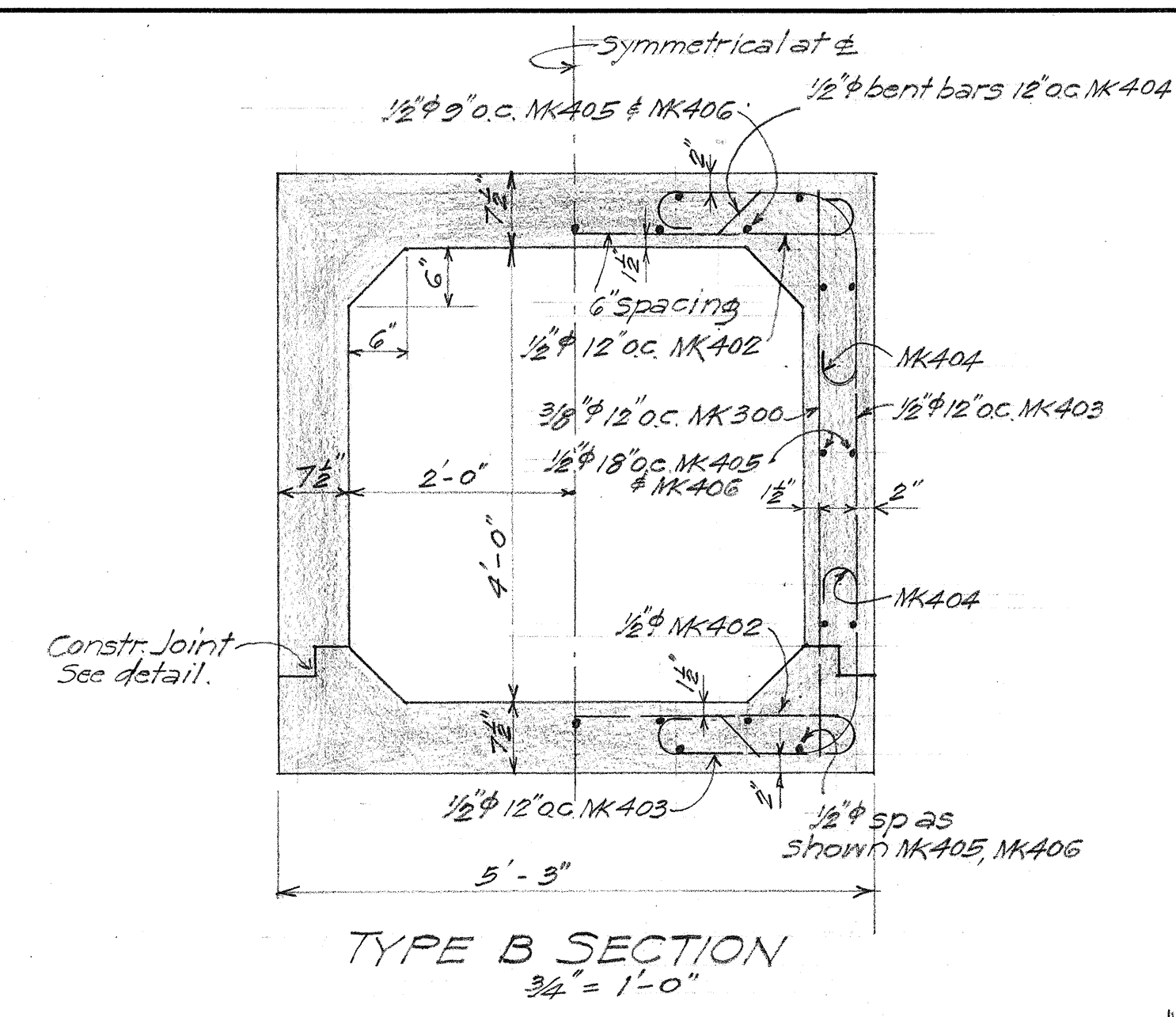
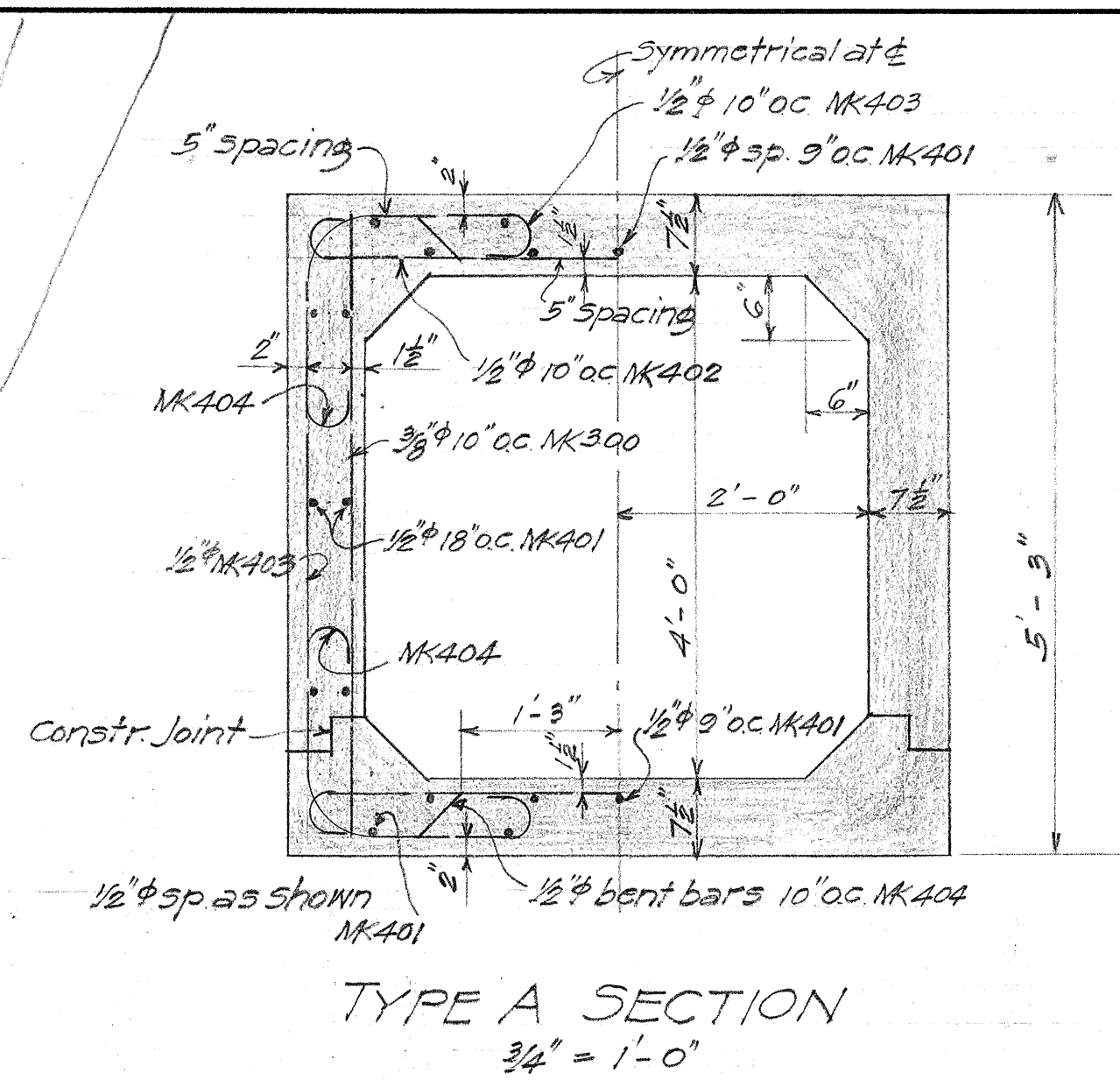
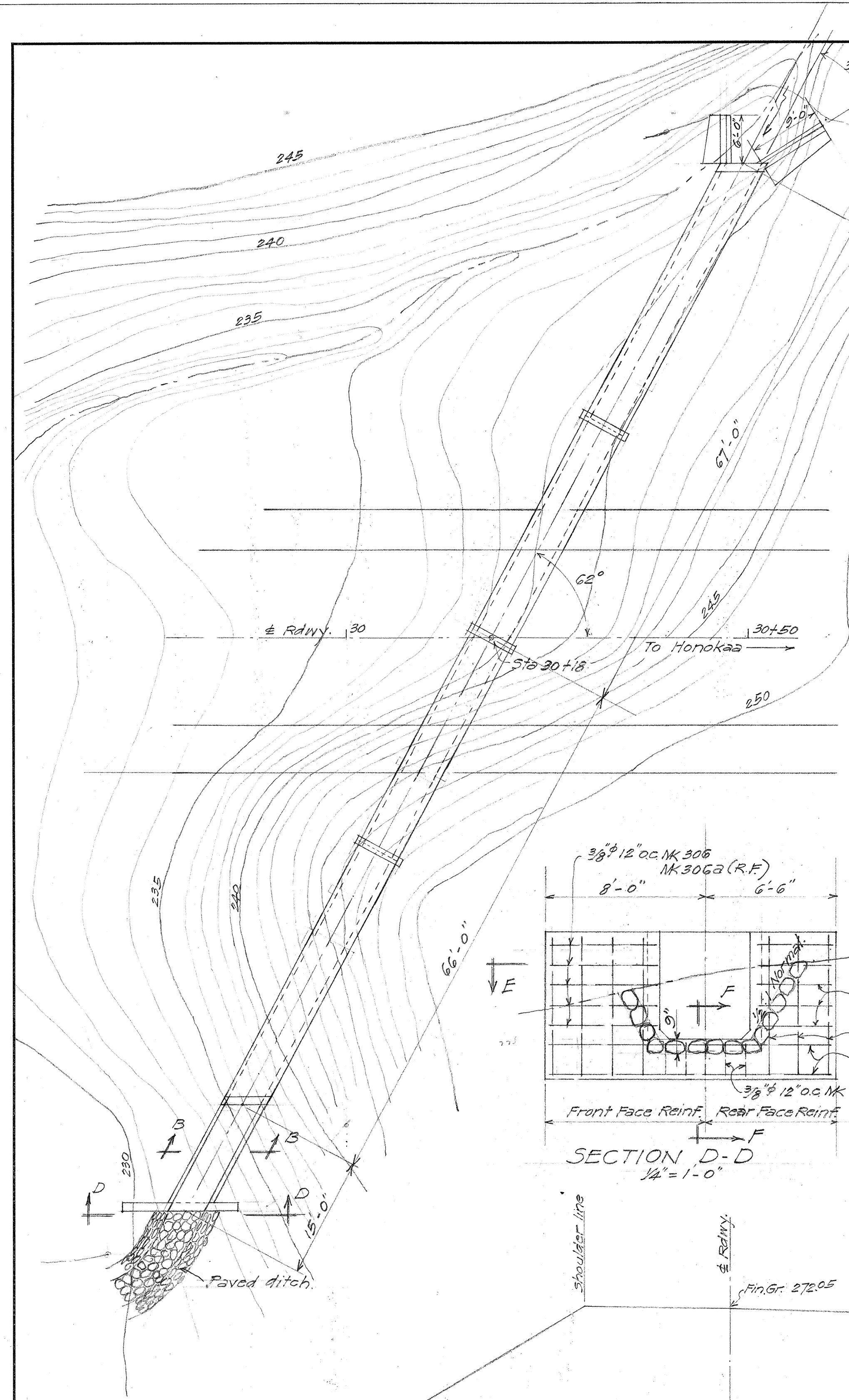
4x3' BOX CULVERT
Sta. 23+10

HAWAII BELT ROAD FA-F148(1)
Jan. 1946

SHEET No. 13 / OF 13 SHEETS

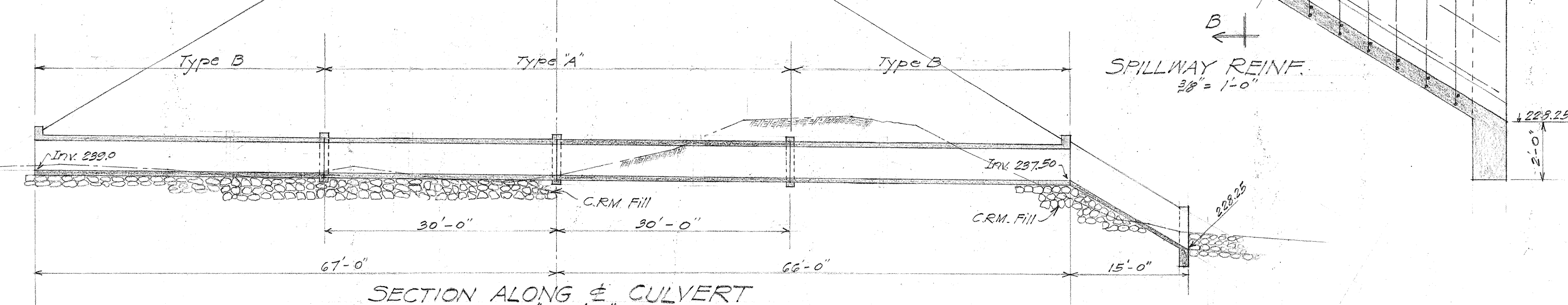
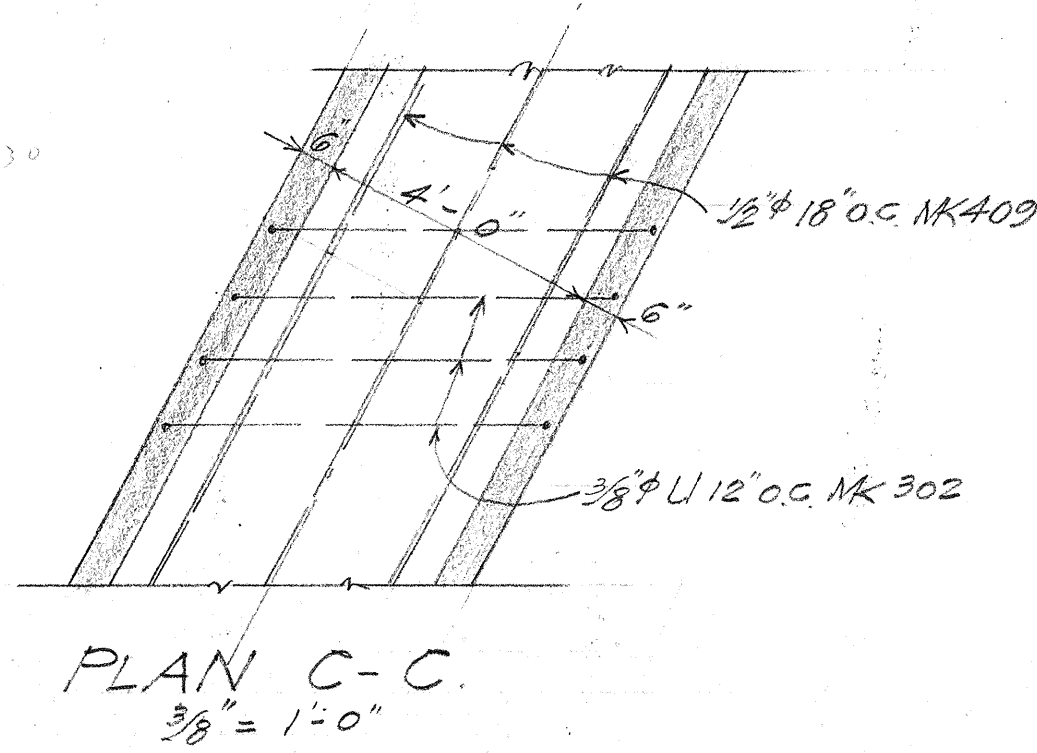
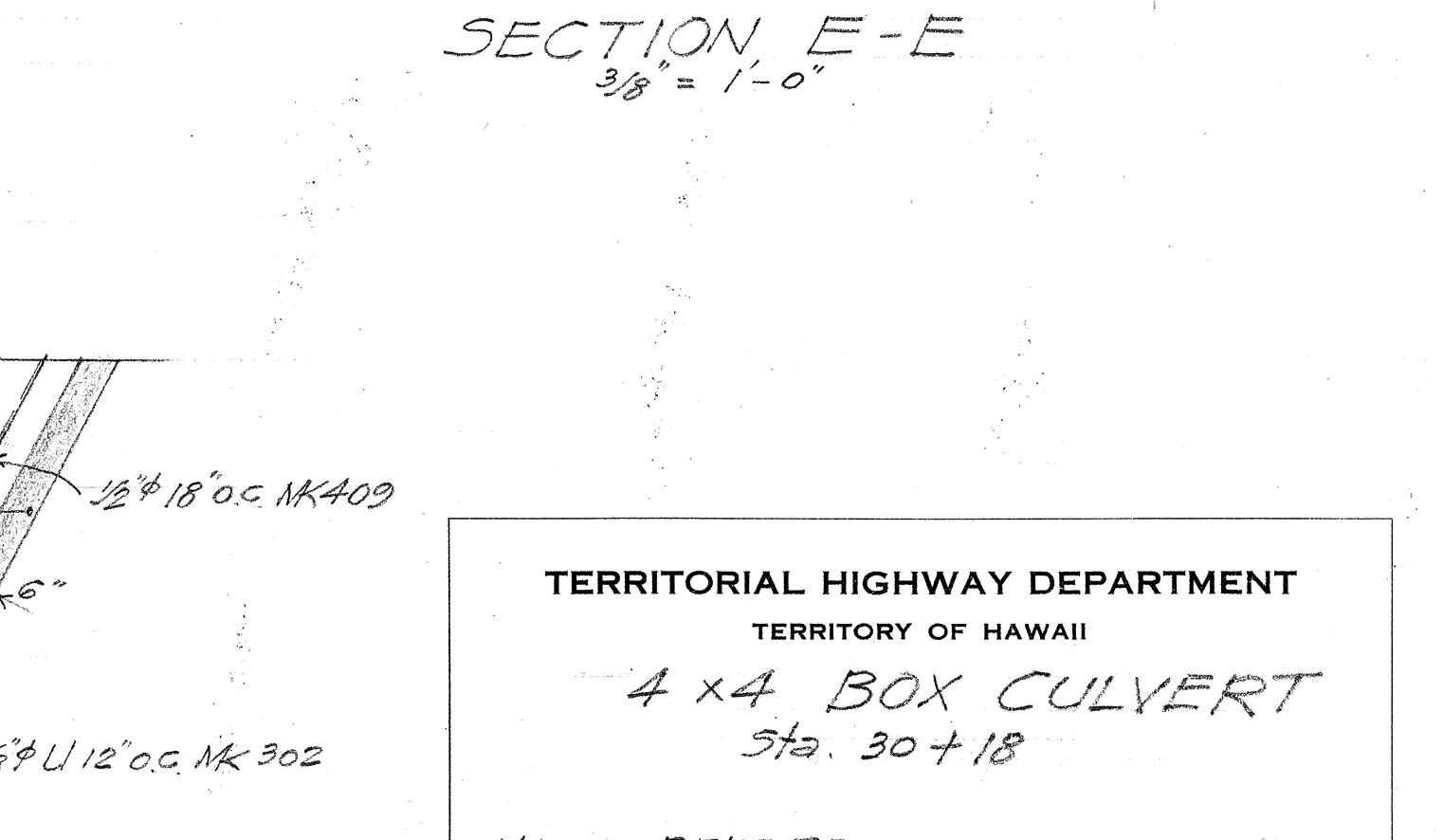
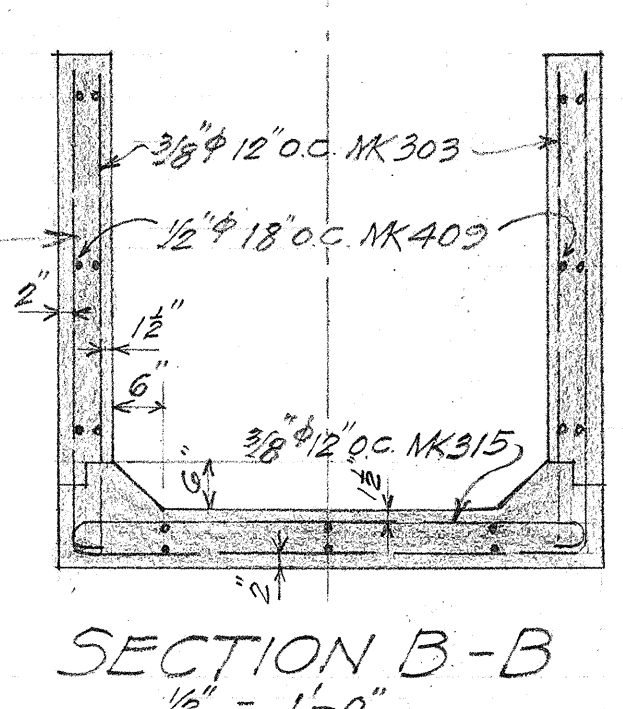
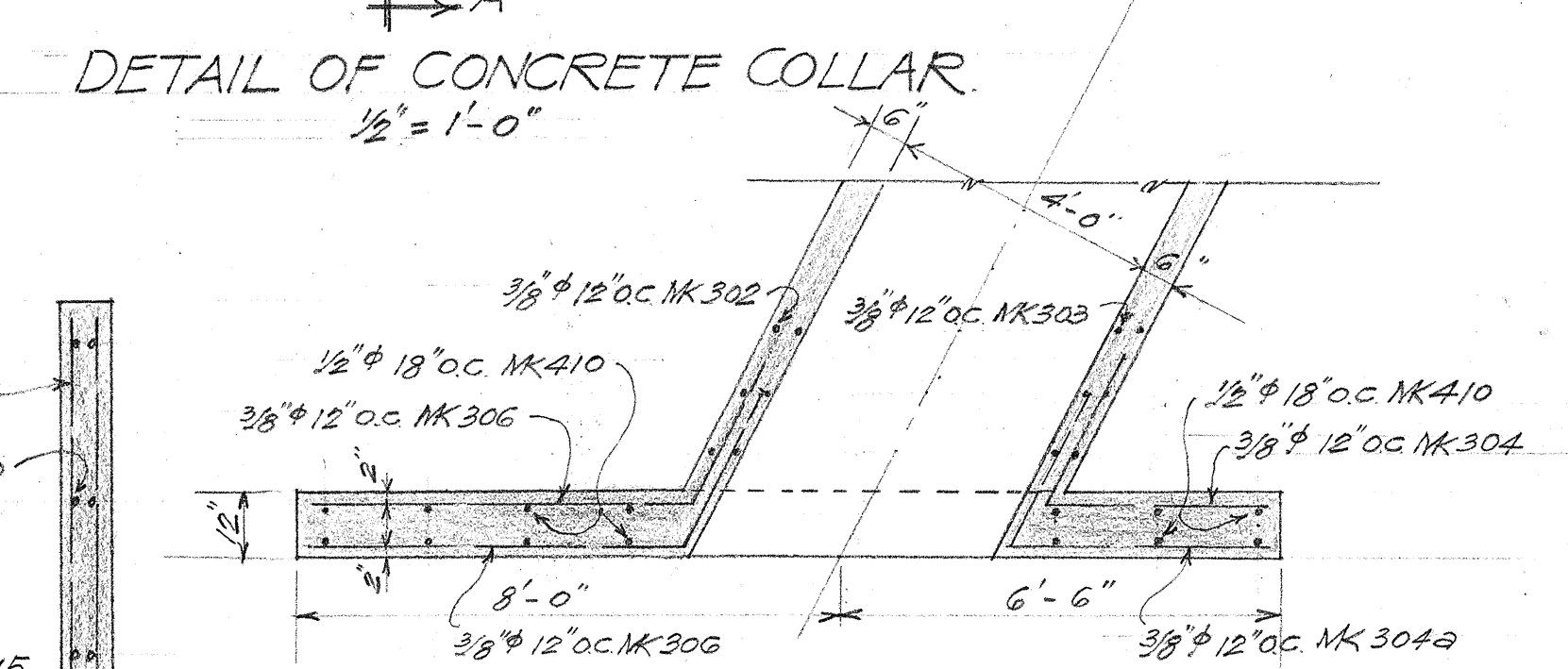
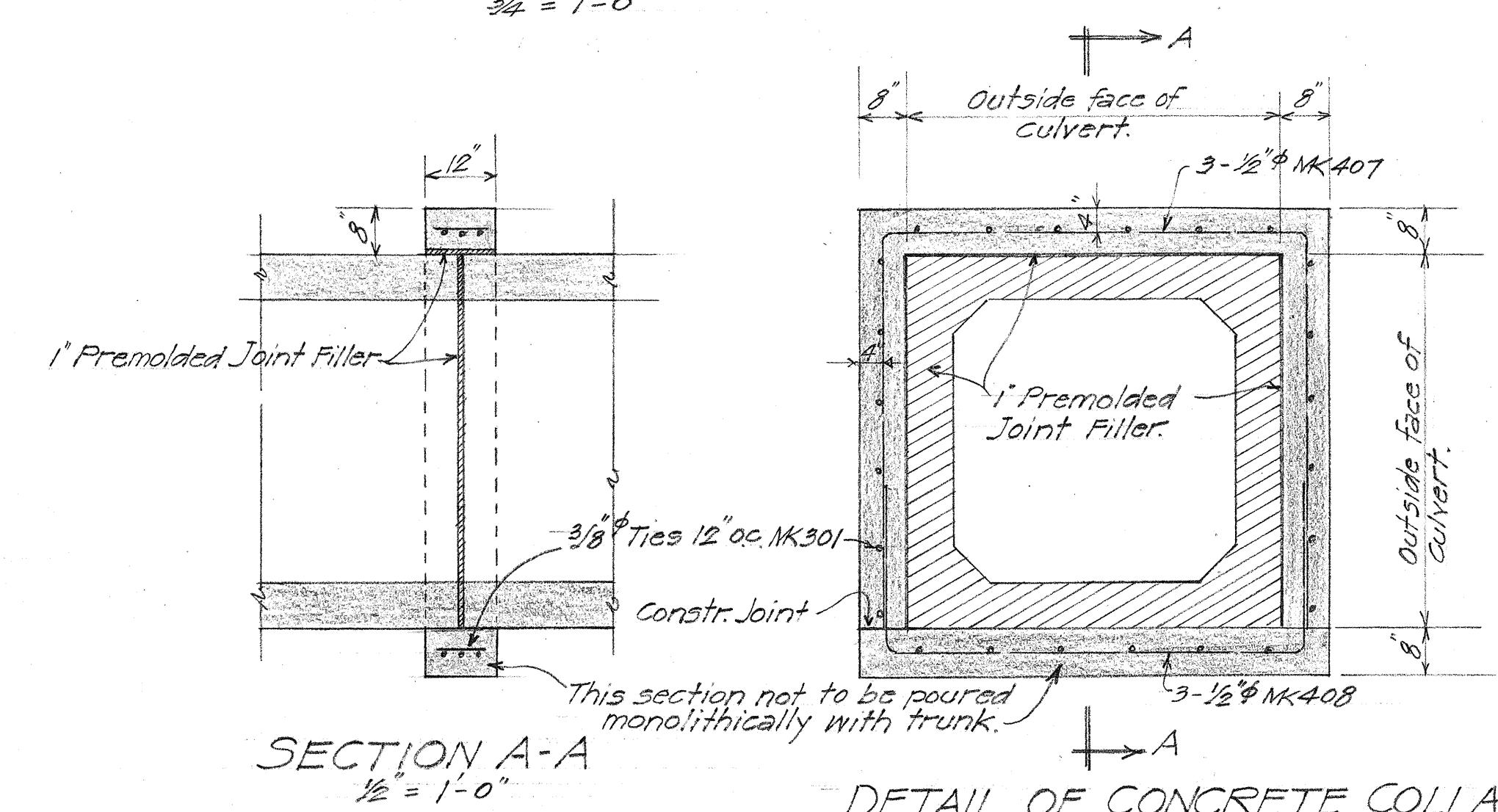
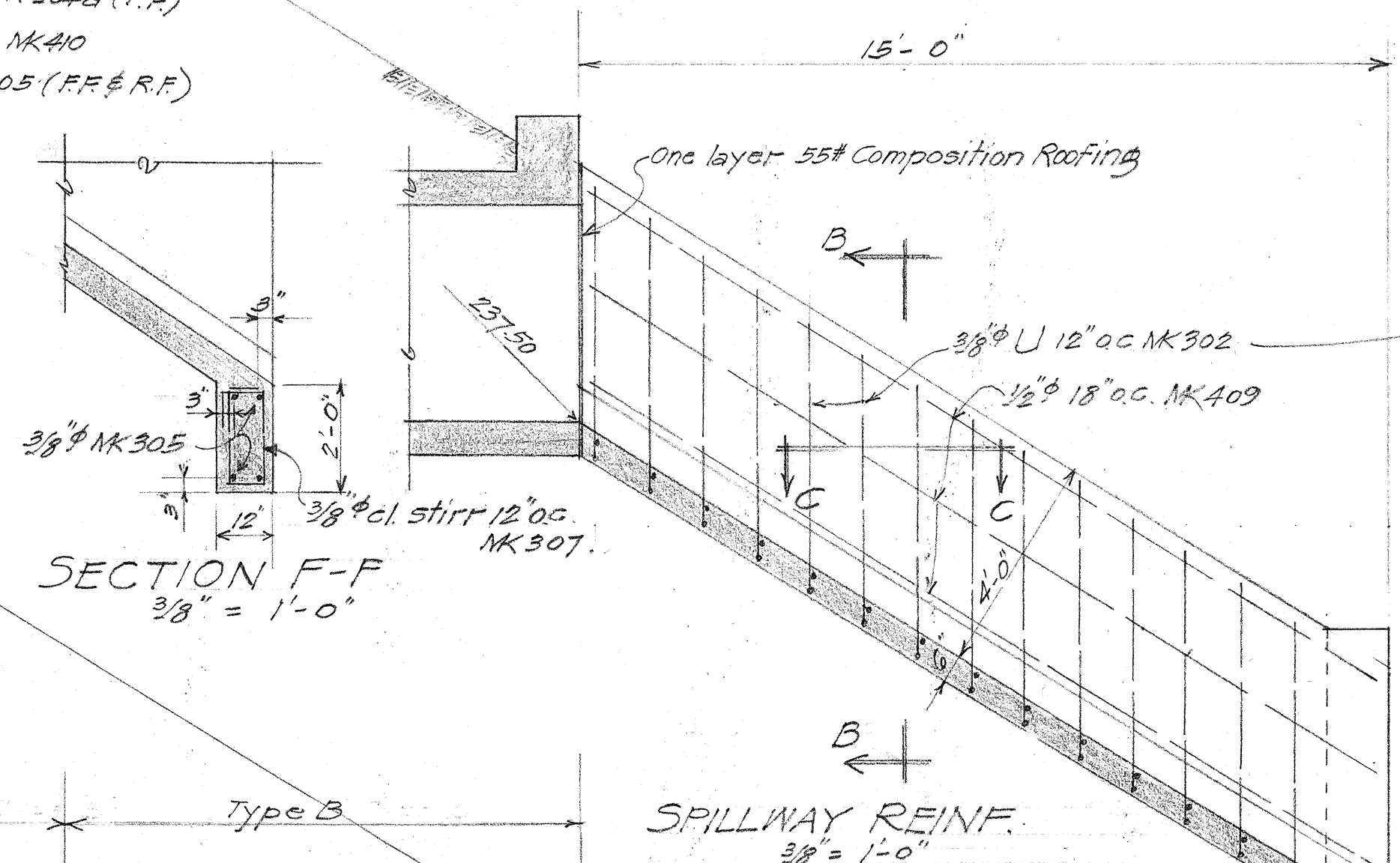
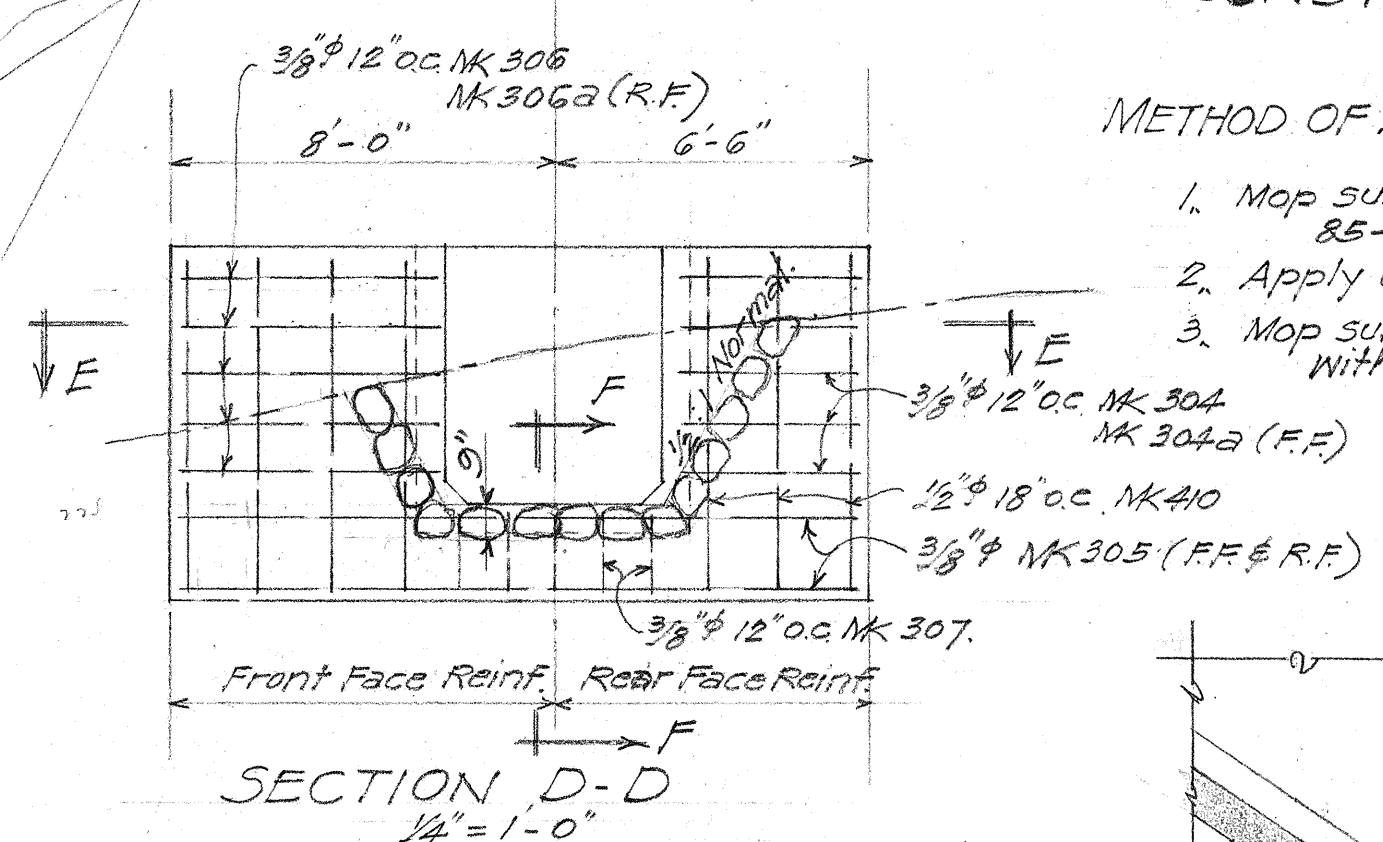
5194.13

ORIGINAL PLAN
DATE
SURVEY PLOTTED BY
DRAWN BY
CHECKED BY
NO.



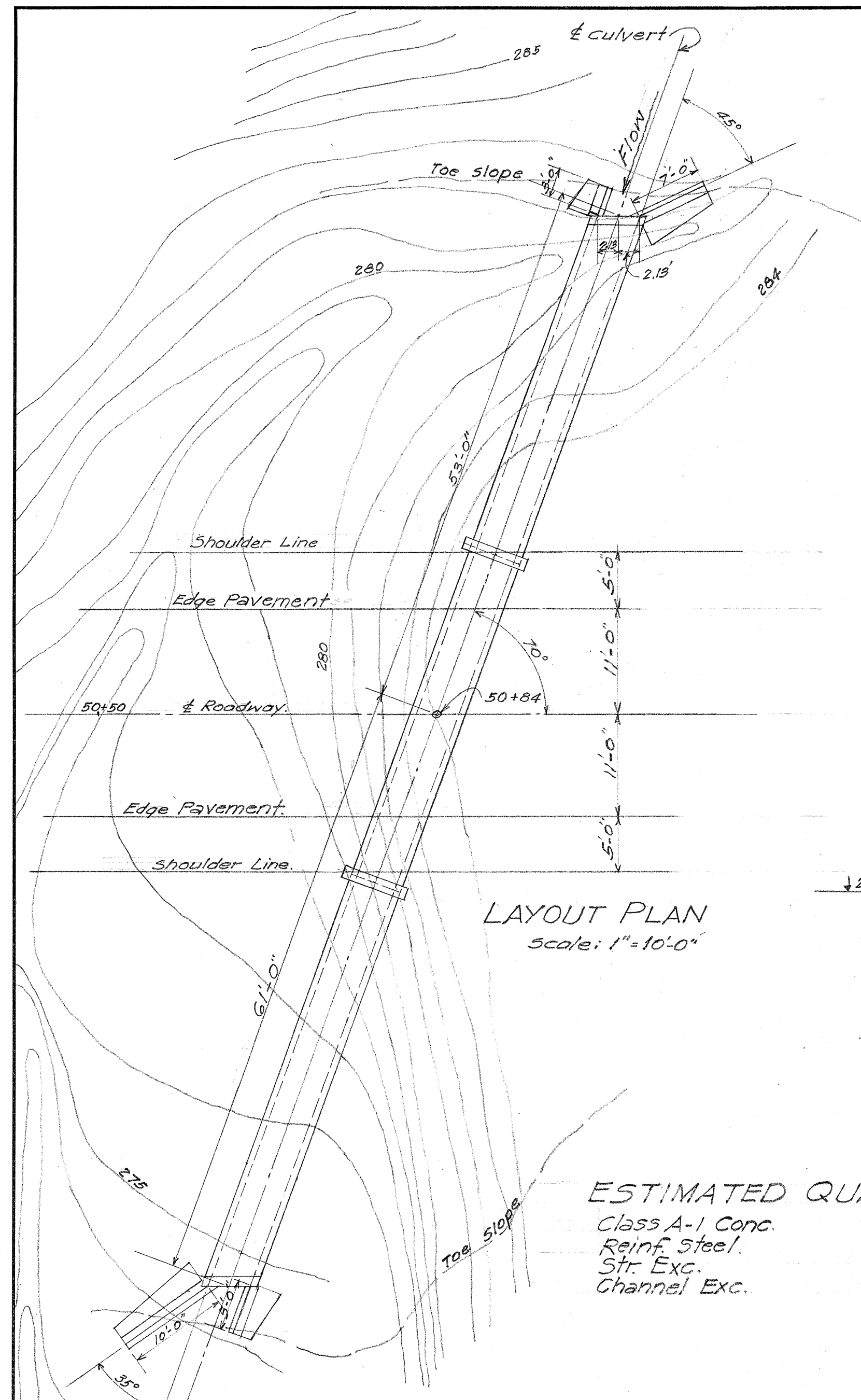
METHOD OF APPLYING CONSTR. JOINT WATERPROOFING

1. Mop surface either side of joint as required with asphalt 85-100 penetration applied at 200°F.
2. Apply one layer of 55 lb. composition roofing to hot asphalt.
3. Mop surface of composition roofing and 3" beyond all around with thick coat of asphalt as specified under (1).



TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
4 x 4 BOX CULVERT
Sta. 30+18
HAWAII BELT RD. FA-F14B(1)
Jan 1946
SHEET No 1 OF 2 SHEETS

DATE: Jan 1946
DESIGNED BY: J. B. Smith
CHECKED BY: J. B. Smith
ORIGINAL PLAN NO. 14
NOTE BOOK NO. 14

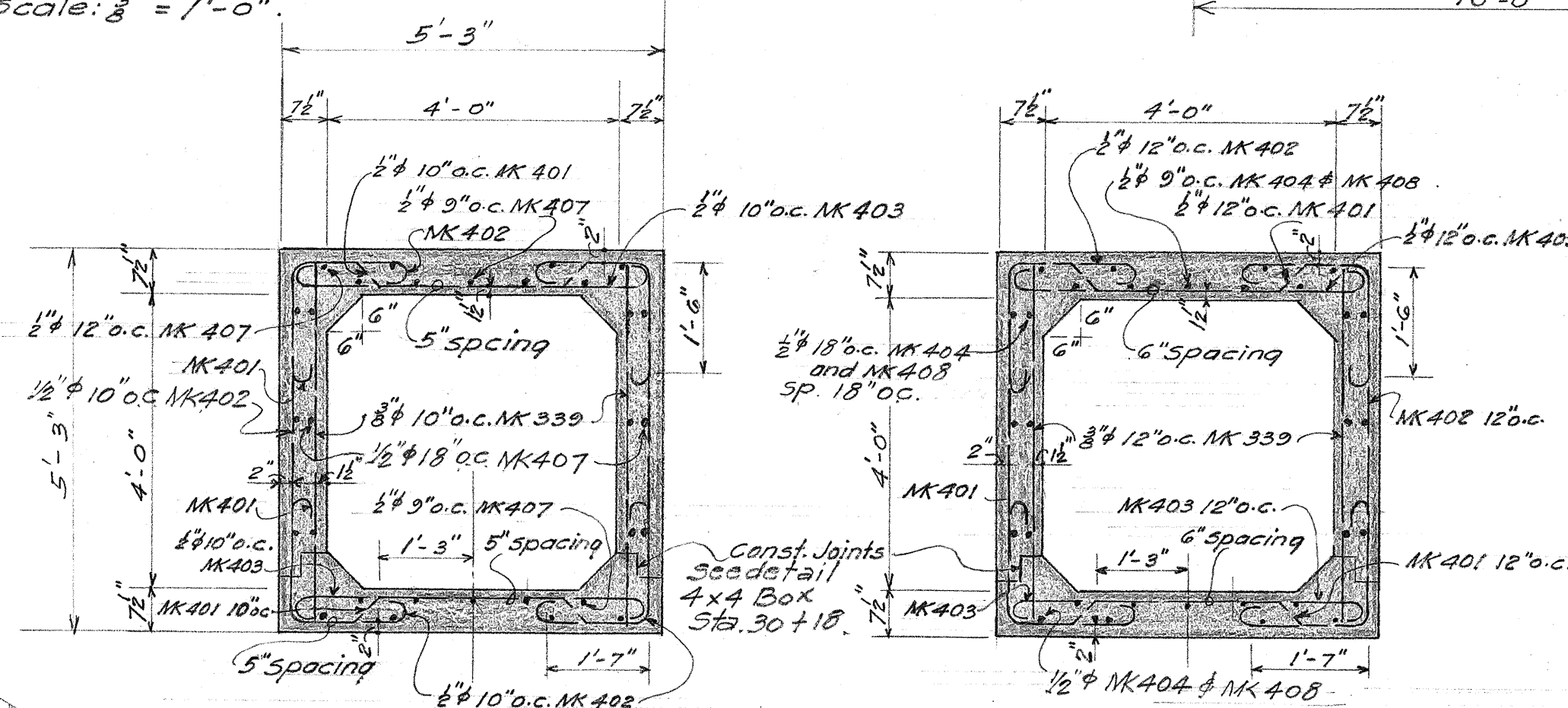


ESTIMATED QUANTITIES

Class A-1 Conc.	60.4 C.Y.
Reinf. Steel	7138 lbs.
Str. Exc.	132.0 C.Y.
Channel Exc.	40.0 C.Y.

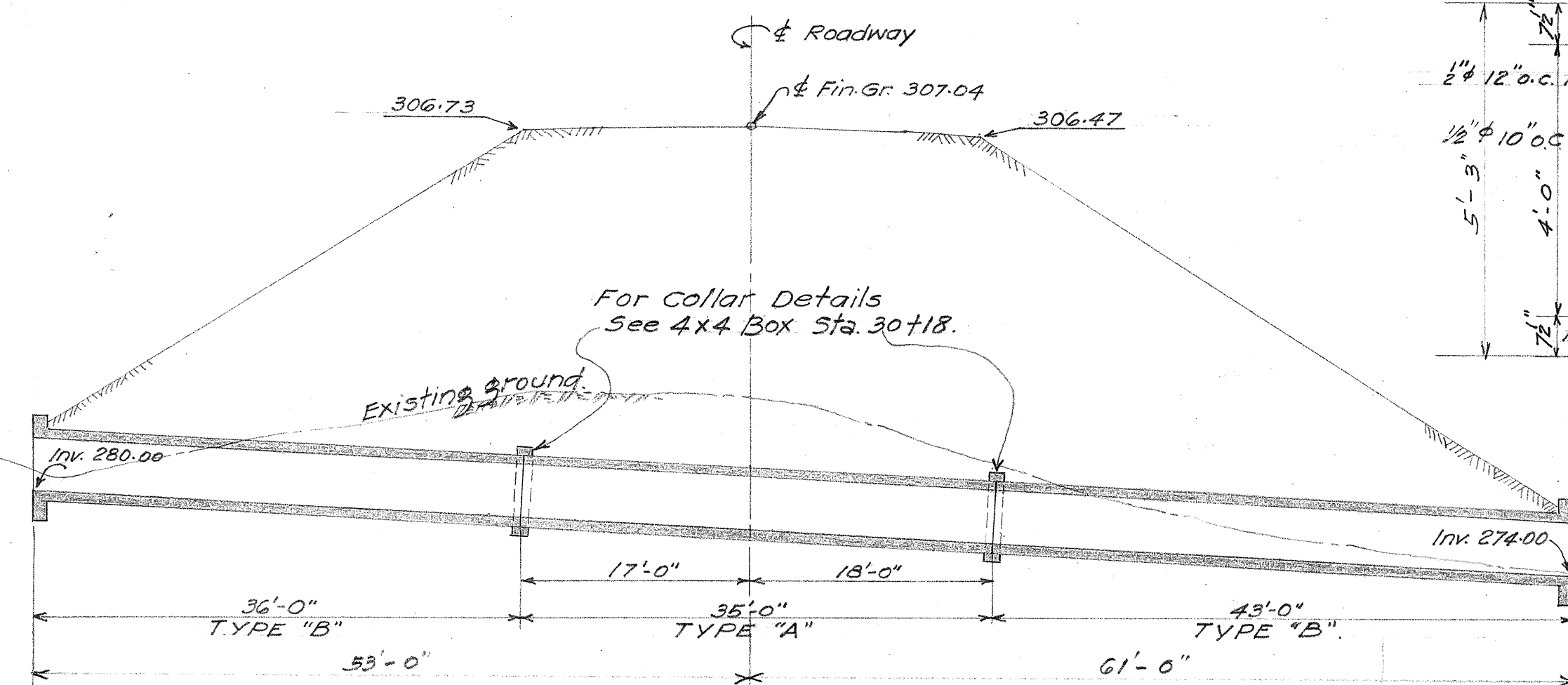
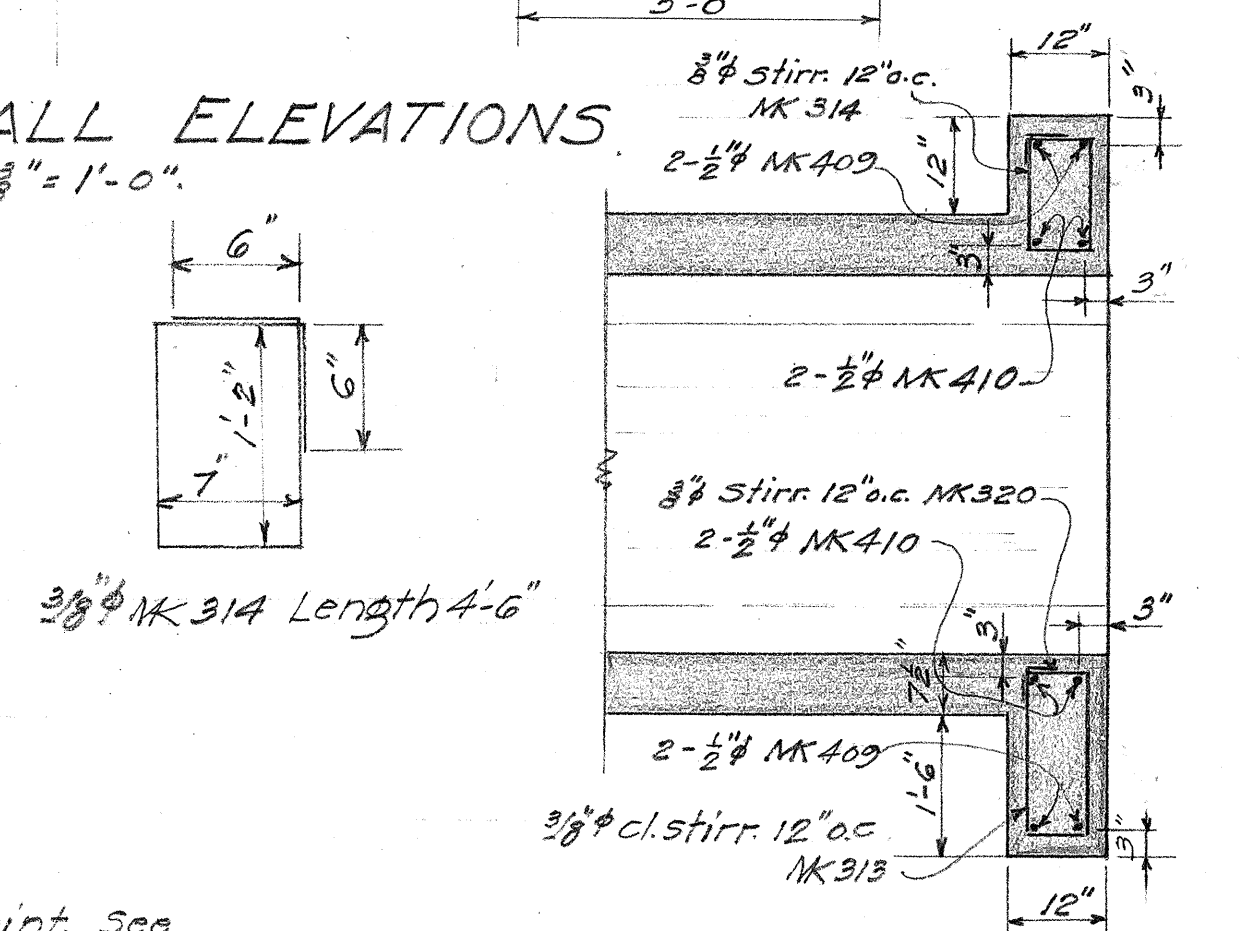
INTAKE END WALL ELEVATIONS

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



OUTLET END WALL ELEVATIONS

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

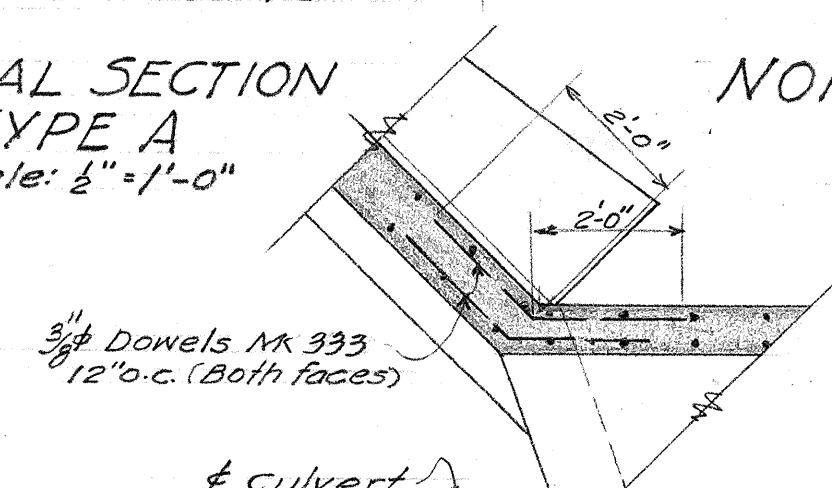


NORMAL SECTION TYPE A

Scale: 1/2" = 1'-0"

NORMAL SECTION TYPE B

Scale: 1/2" = 1'-0"



TYPICAL WINGWALL SECTION

Scale: 1/2" = 1'-0"

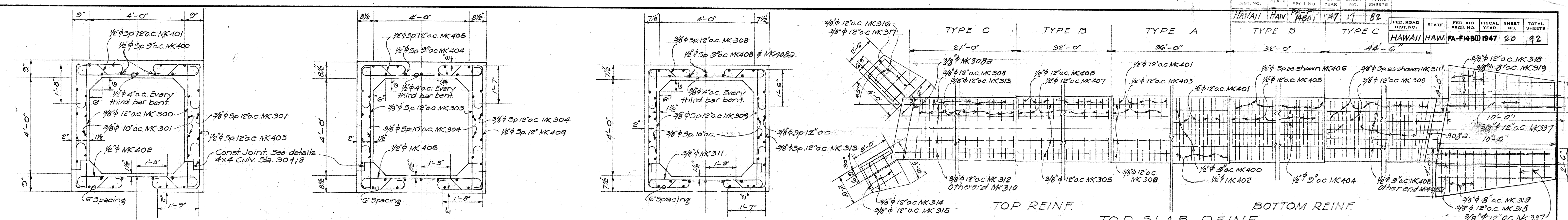
HEADWALL SECTION A-A

Scale: 1/2" = 1'-0"

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
4 x 4 BOX CULVERT
STA. 50+84
HAWAII BELT RD. FA-F148(1)
JAN. 1946.

SHEET No 1 OF 1 SHEETS

5194.16

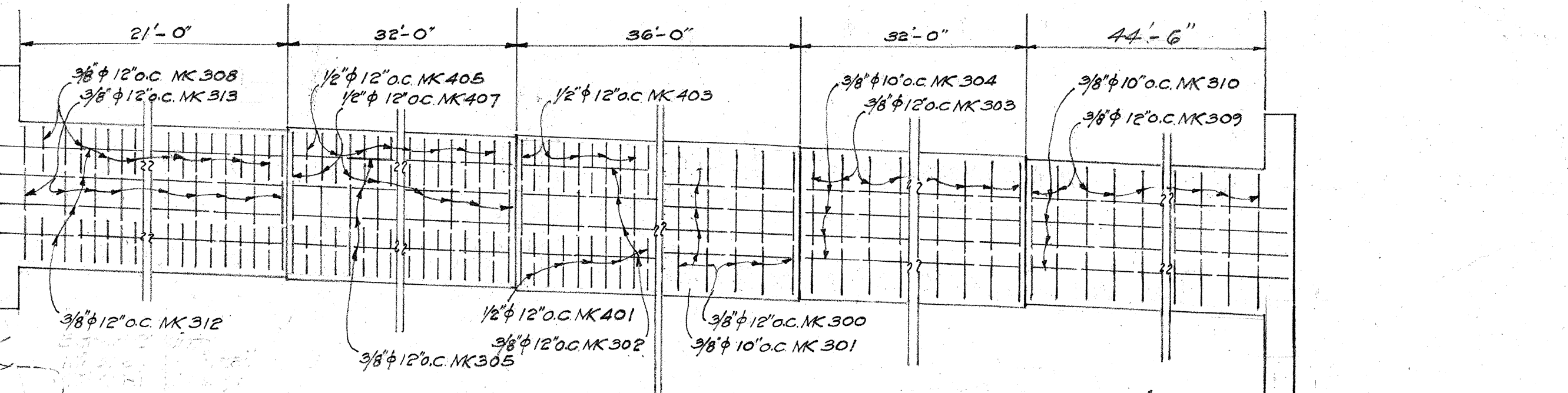


NORMAL SECTION
TYPE A
Scale 1/2" = 1'-0"

NORMAL SECTION
TYPE B
Scale 1/2" = 1'-0"

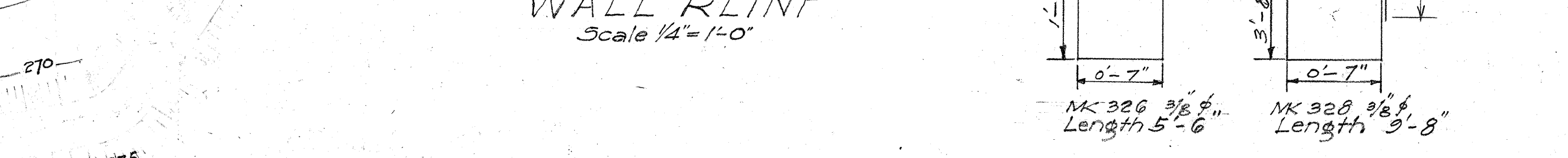
NORMAL SECTION
TYPE C
Scale 1/2" = 1'-0"

TOP REINF.
TOP SLAB REINF.
Scale 1/4" = 1'-0"

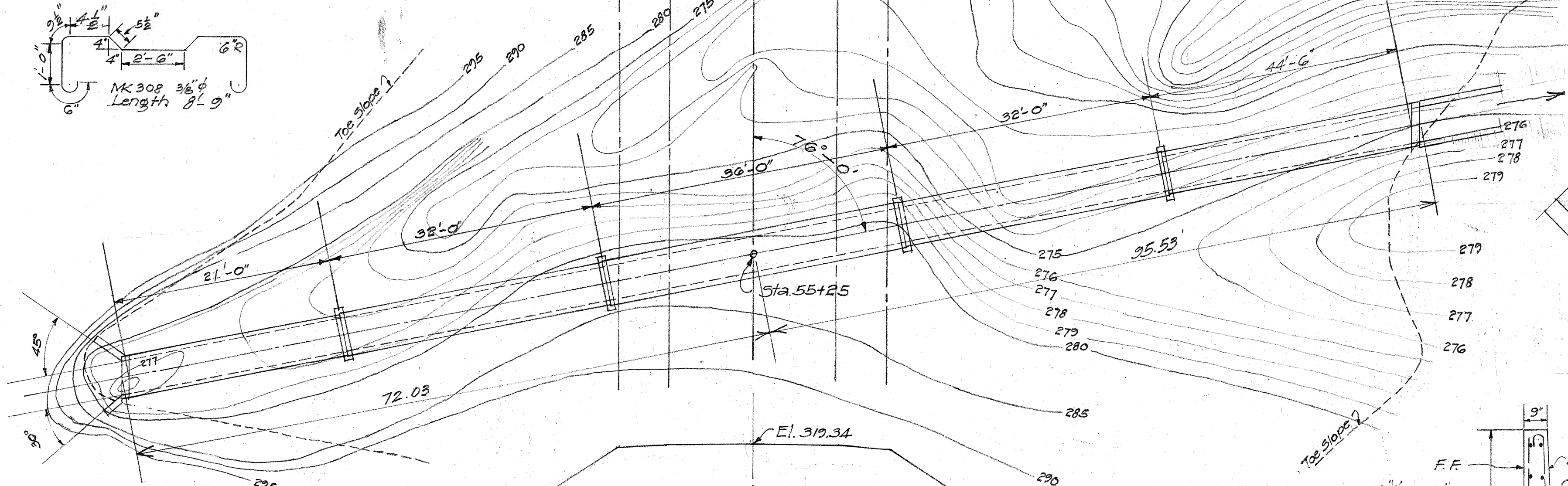


OUTSIDE FACE REINF. INSIDE FACE REINF.

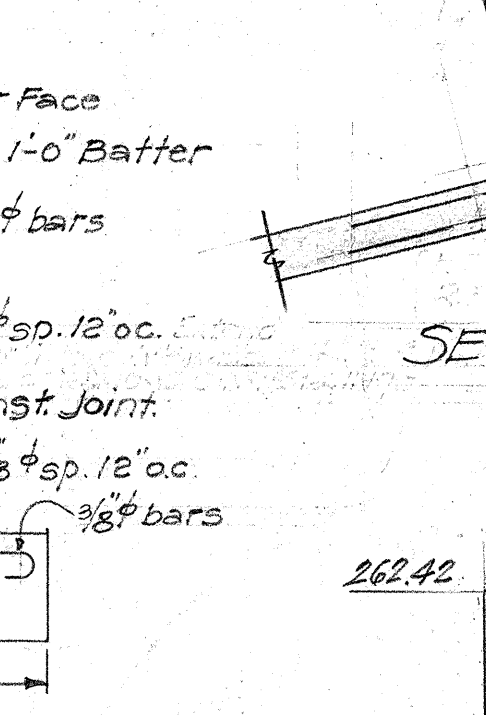
WALL REINF.
Scale 1/4" = 1'-0"



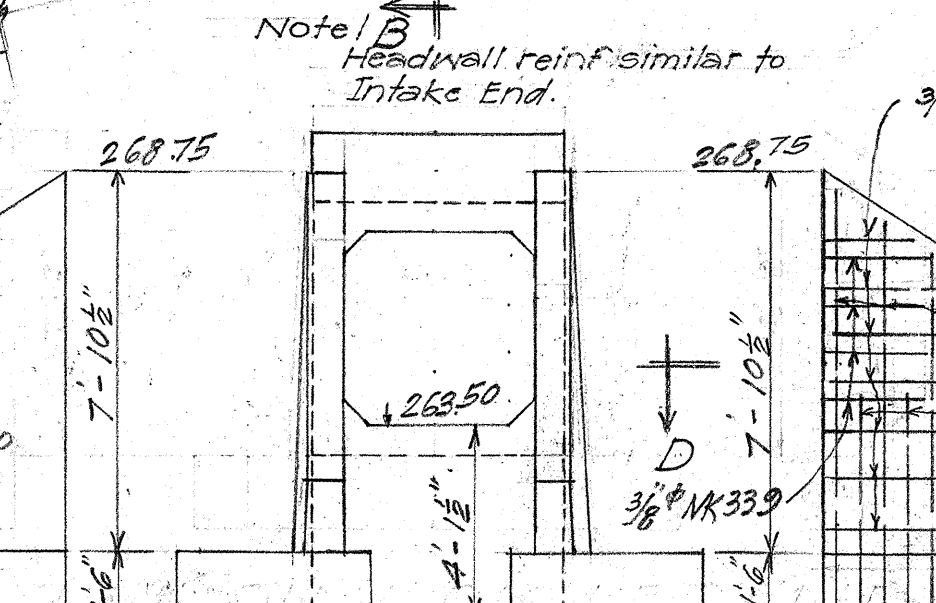
LAYOUT PLAN
Scale 1" = 10'-0"



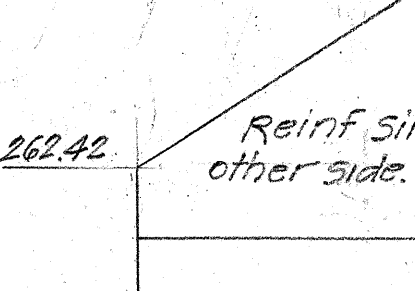
SECTION C-C
3/8" = 1'-0"



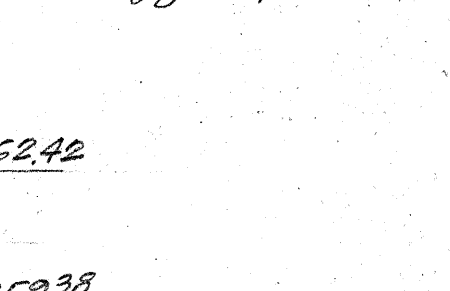
ELEVATION INTAKE END
Scale 1/4" = 1'-0"



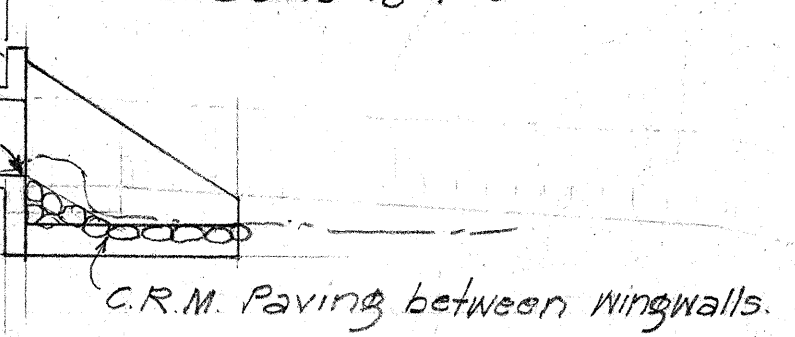
SECTION D-D
3/8" = 1'-0"



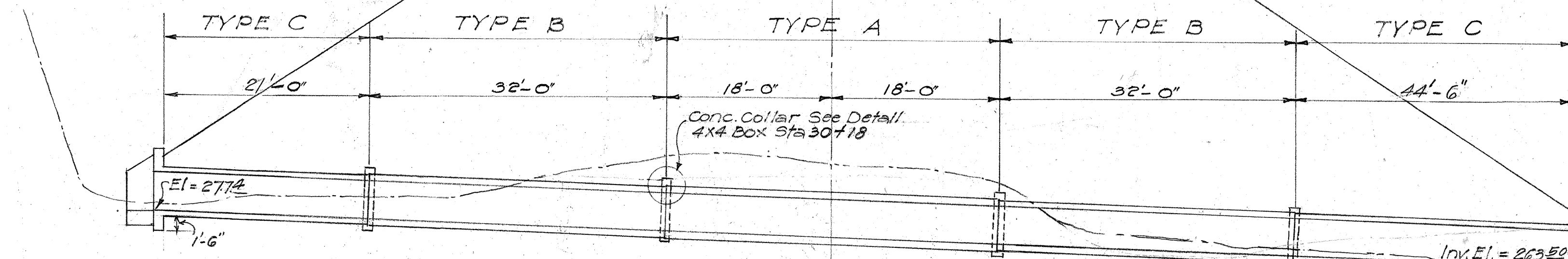
SECTION B-B
3/8" = 1'-0"



TYPICAL W.W. SECTION
Scale 3/8" = 1'-0"



SECTION ALONG & CULVERT
Scale 1" = 10'-0"



ESTIMATED QUANTITIES

Class A Conc.	254 C.Y.
Reinf. Steel	9484 lbs
Str. Exc.	2580 C.Y.
Channel Exc.	10.0 C.Y.
C.R.M. Paving	1.8 C.Y.

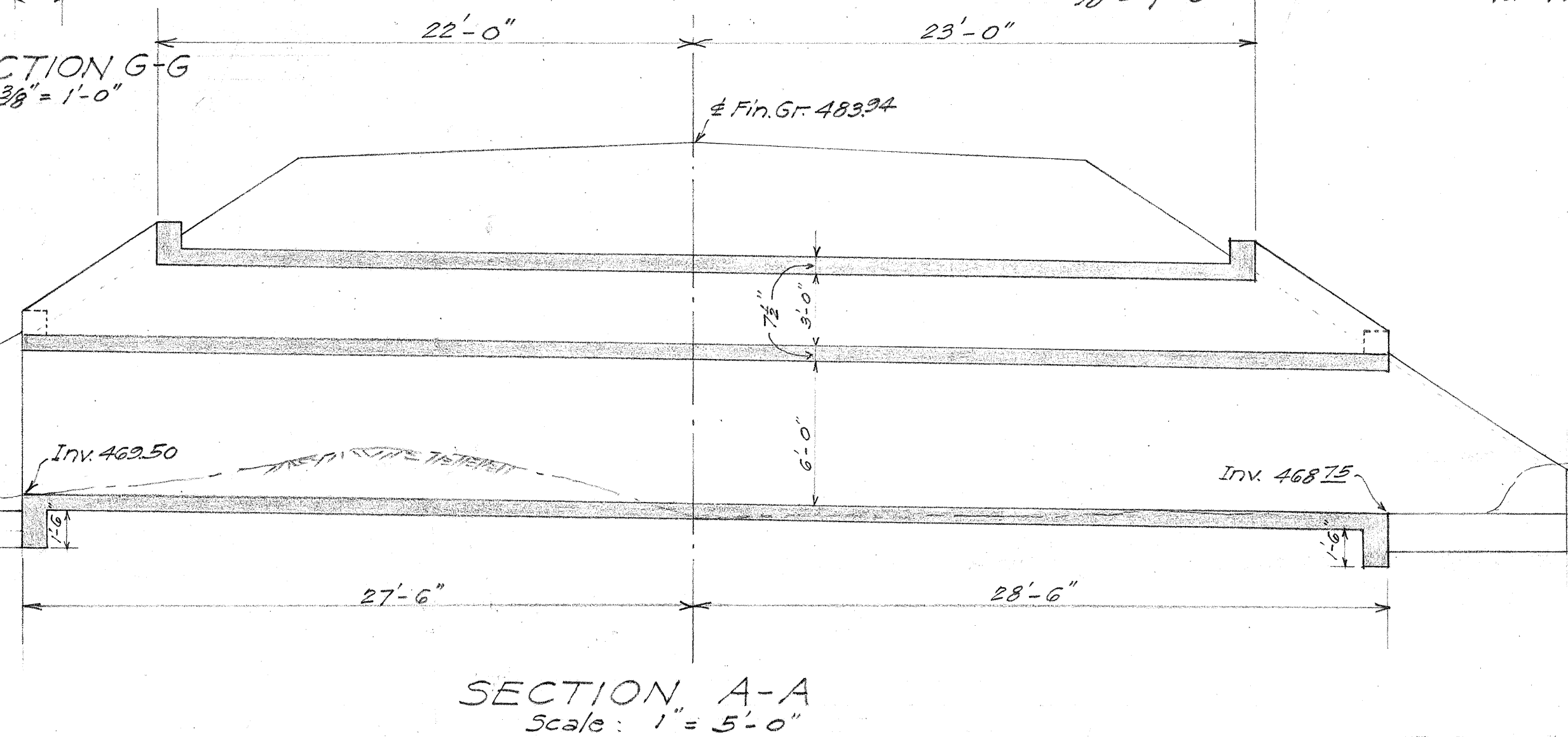
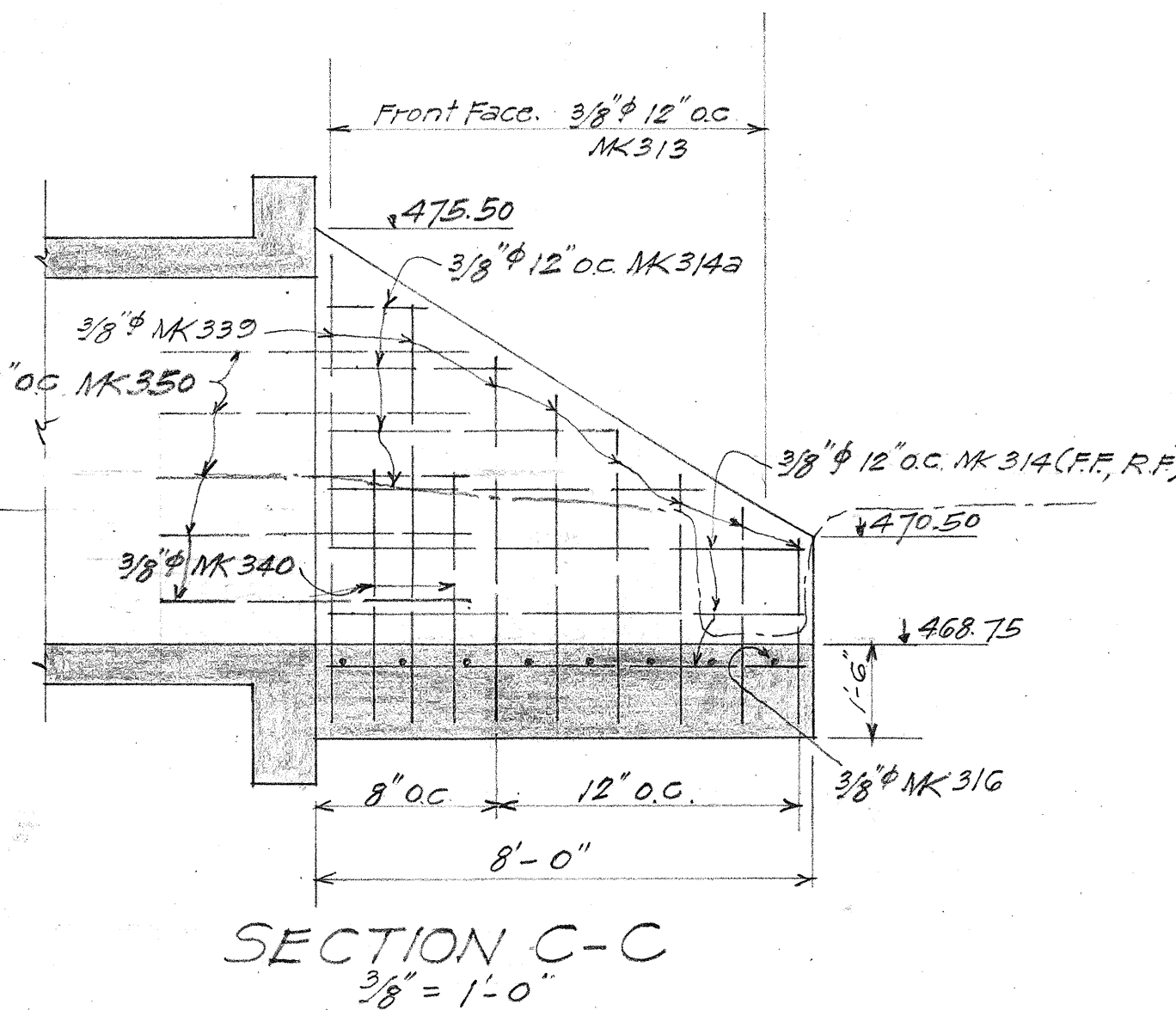
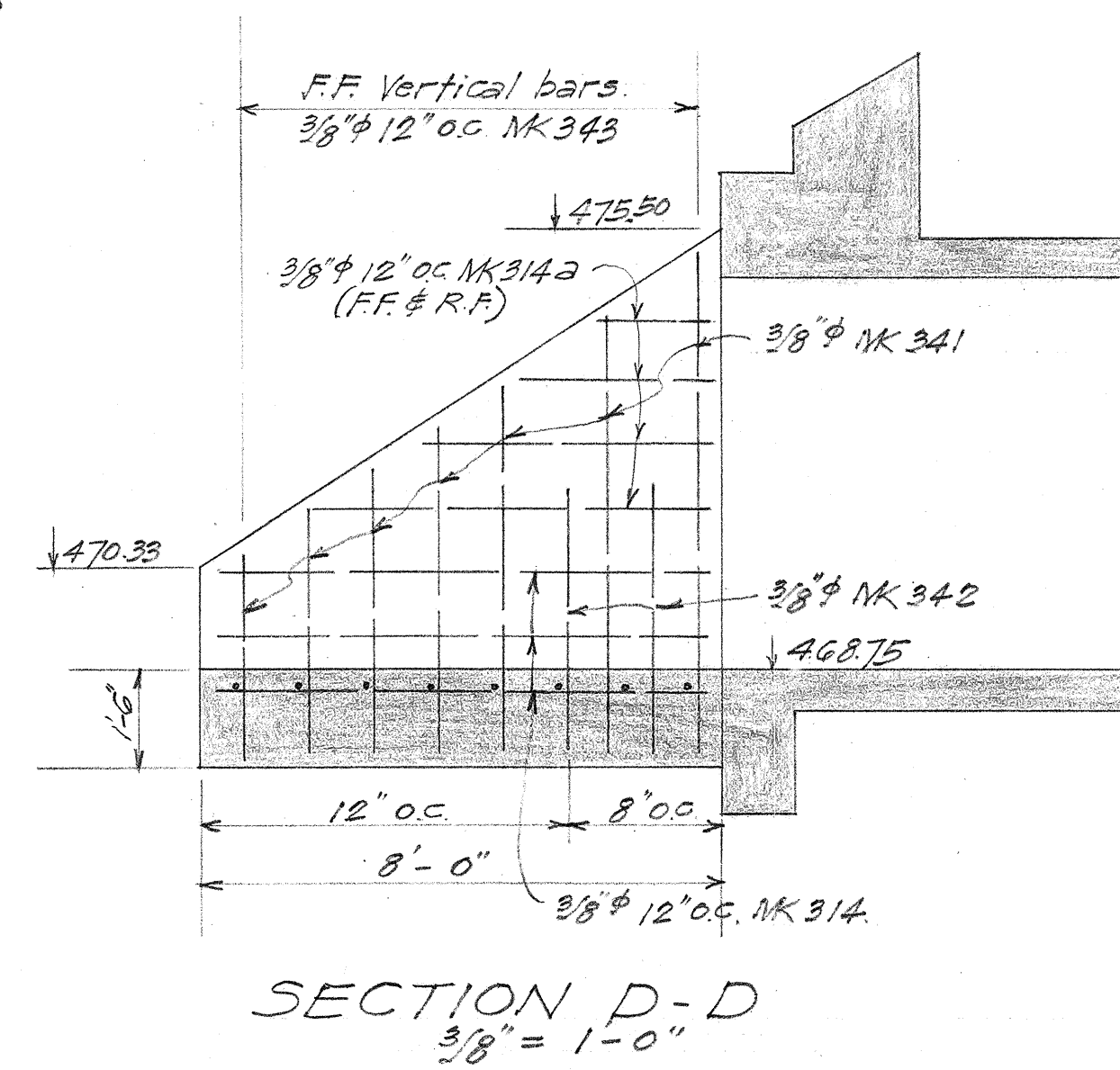
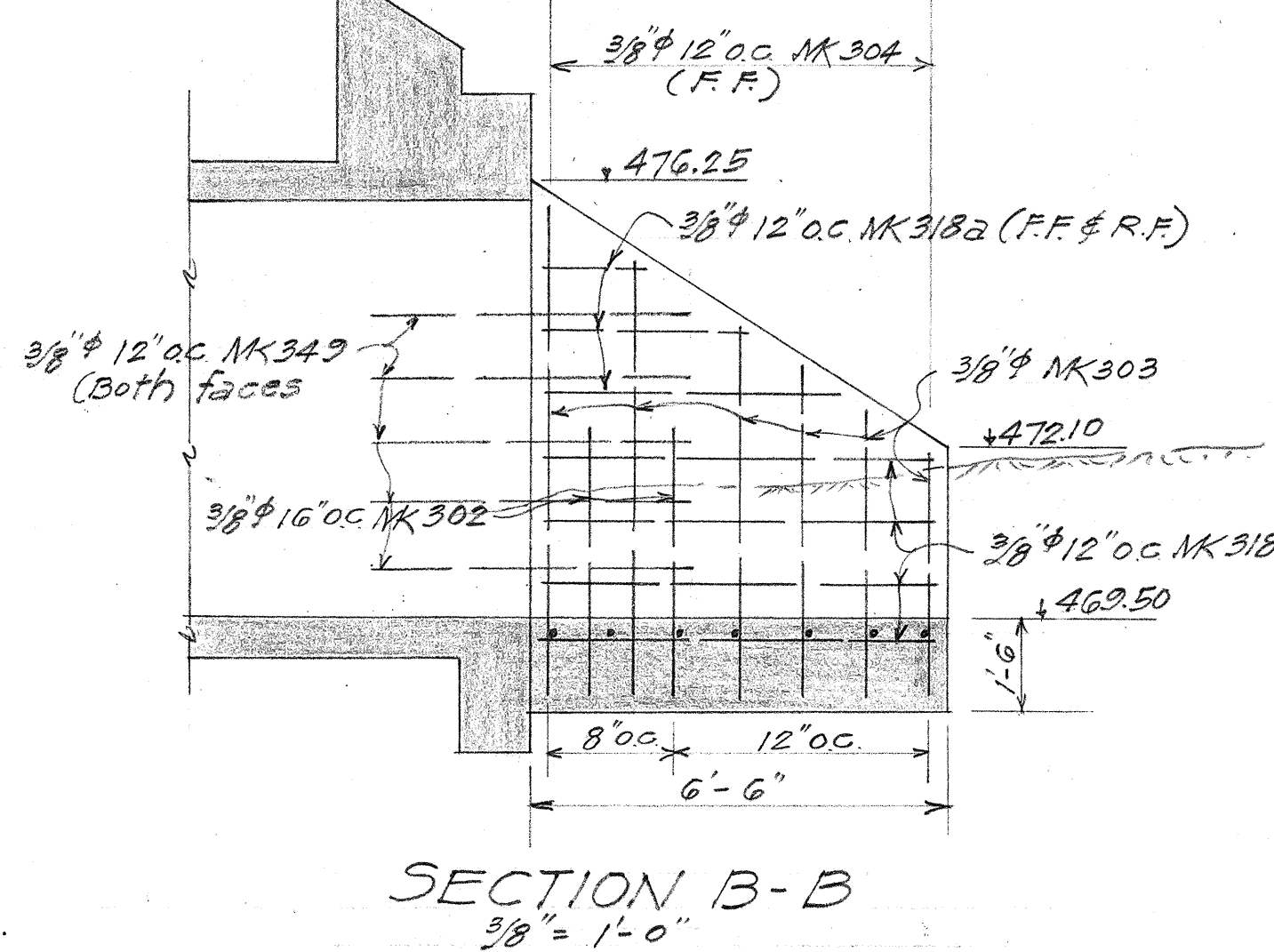
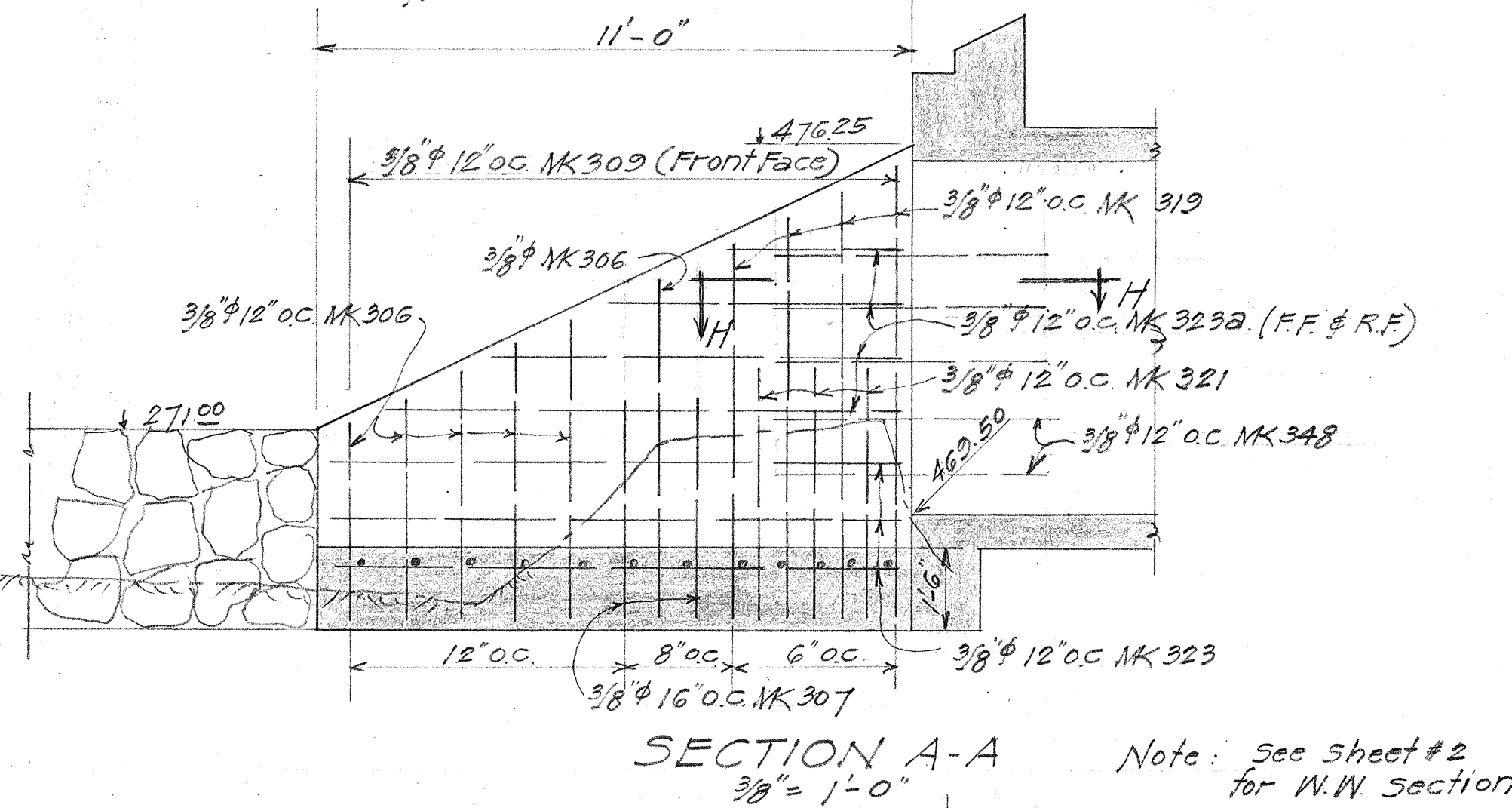
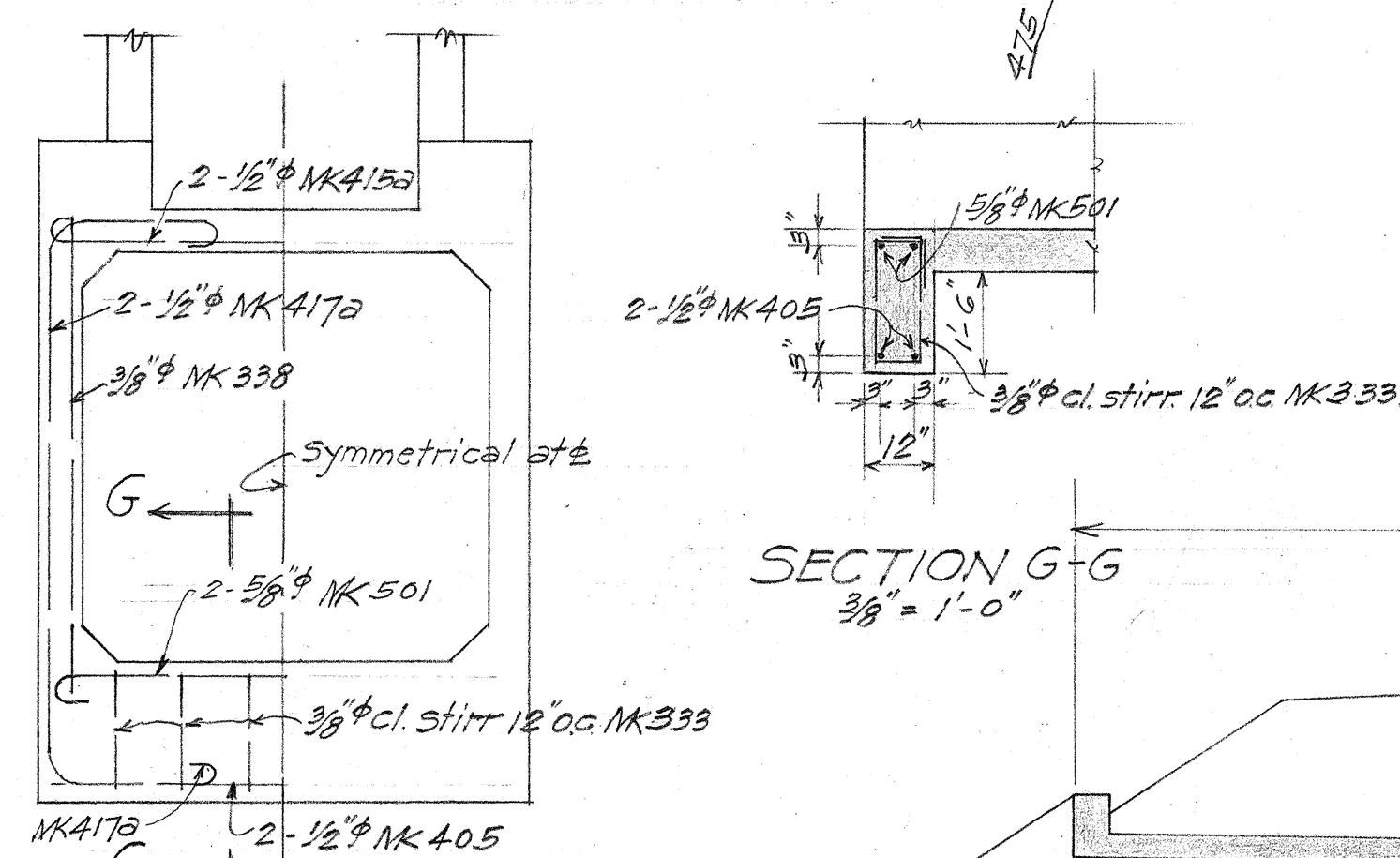
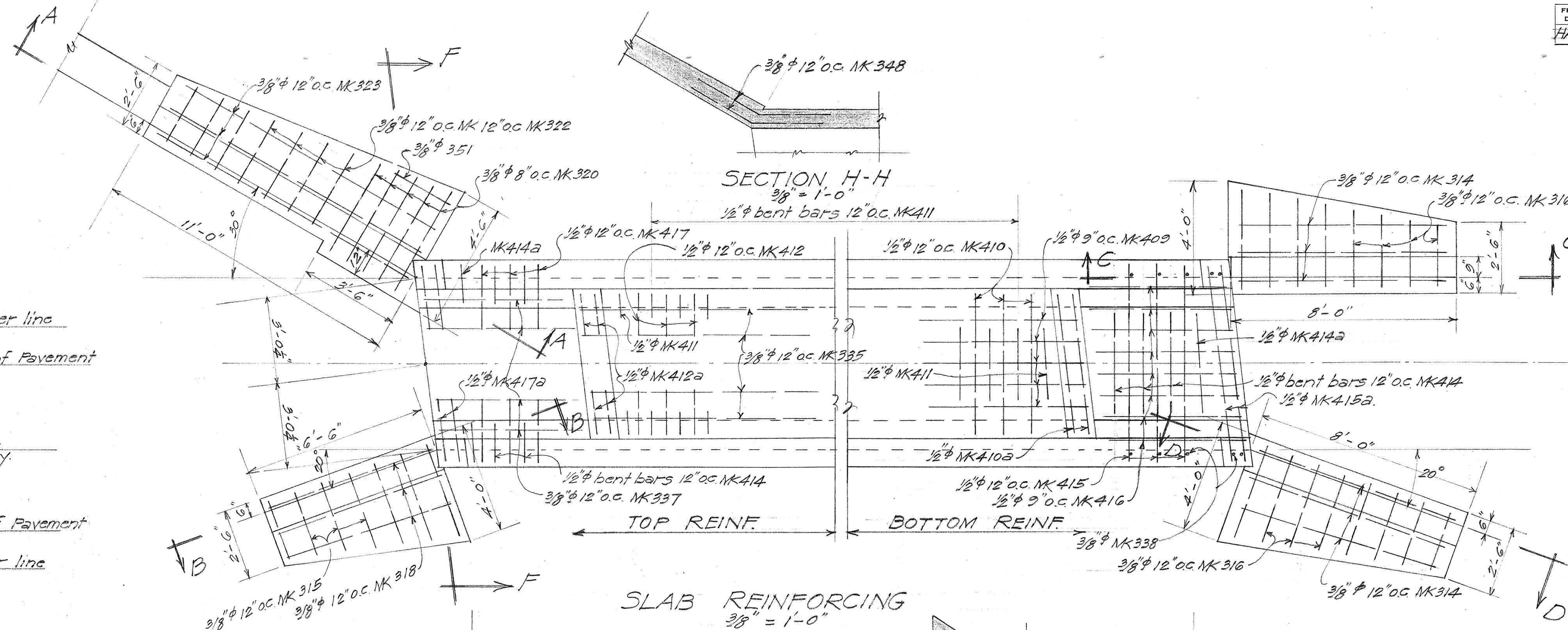
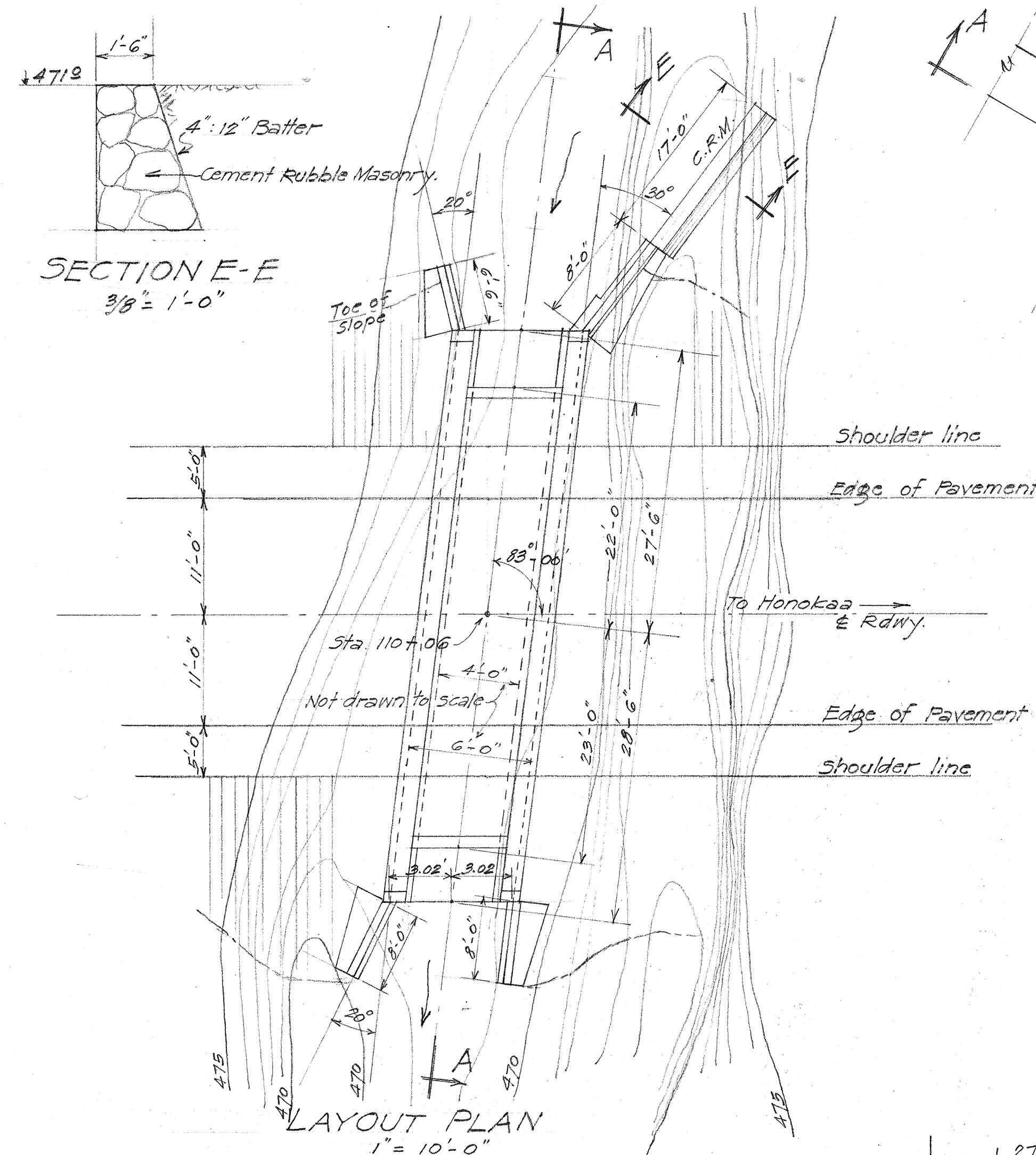
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

4x4 BOX CULVERT

STA. 55+25

HAWAII BELT RD. FA-1480(1)

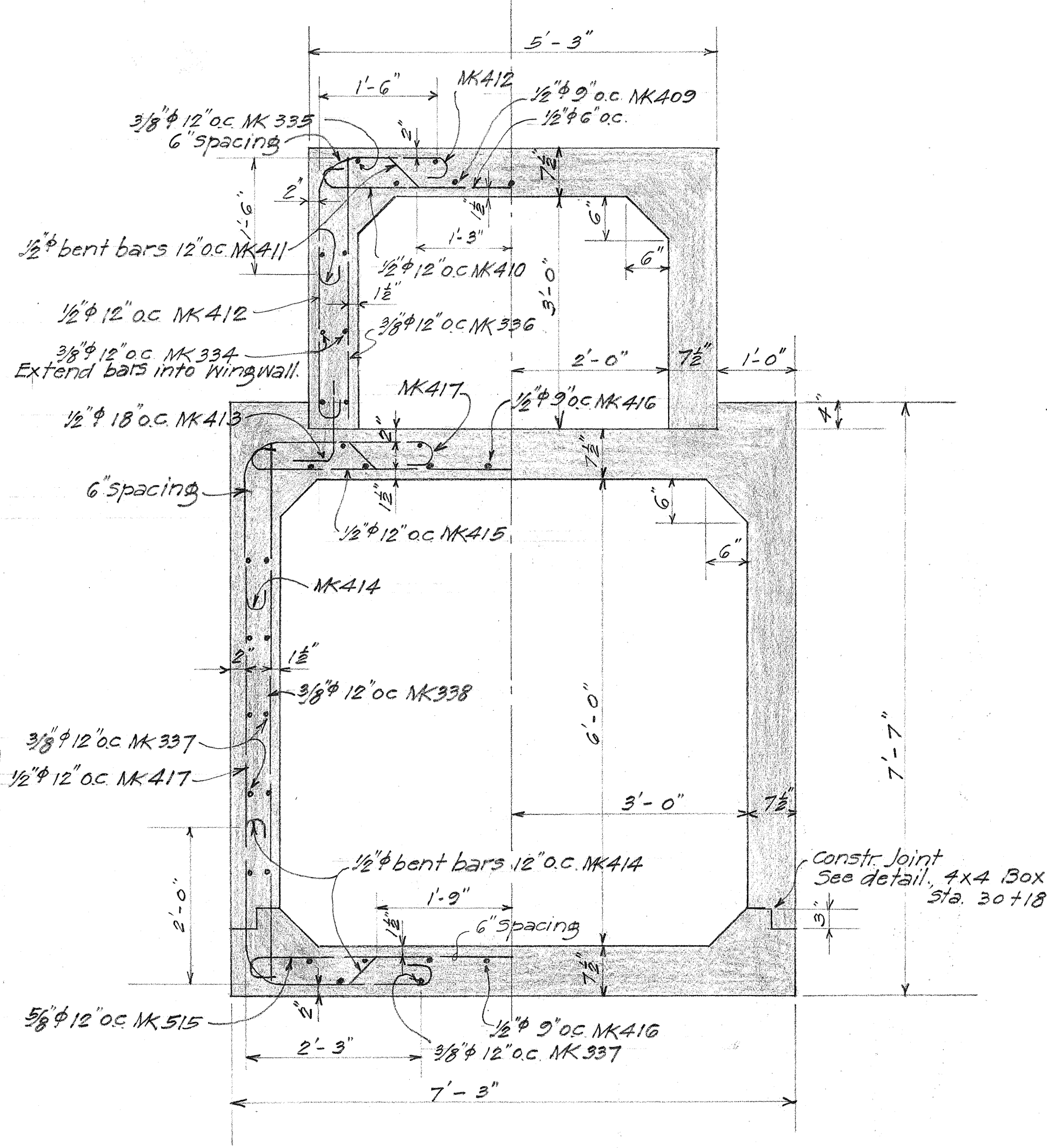
SEPT. 1940



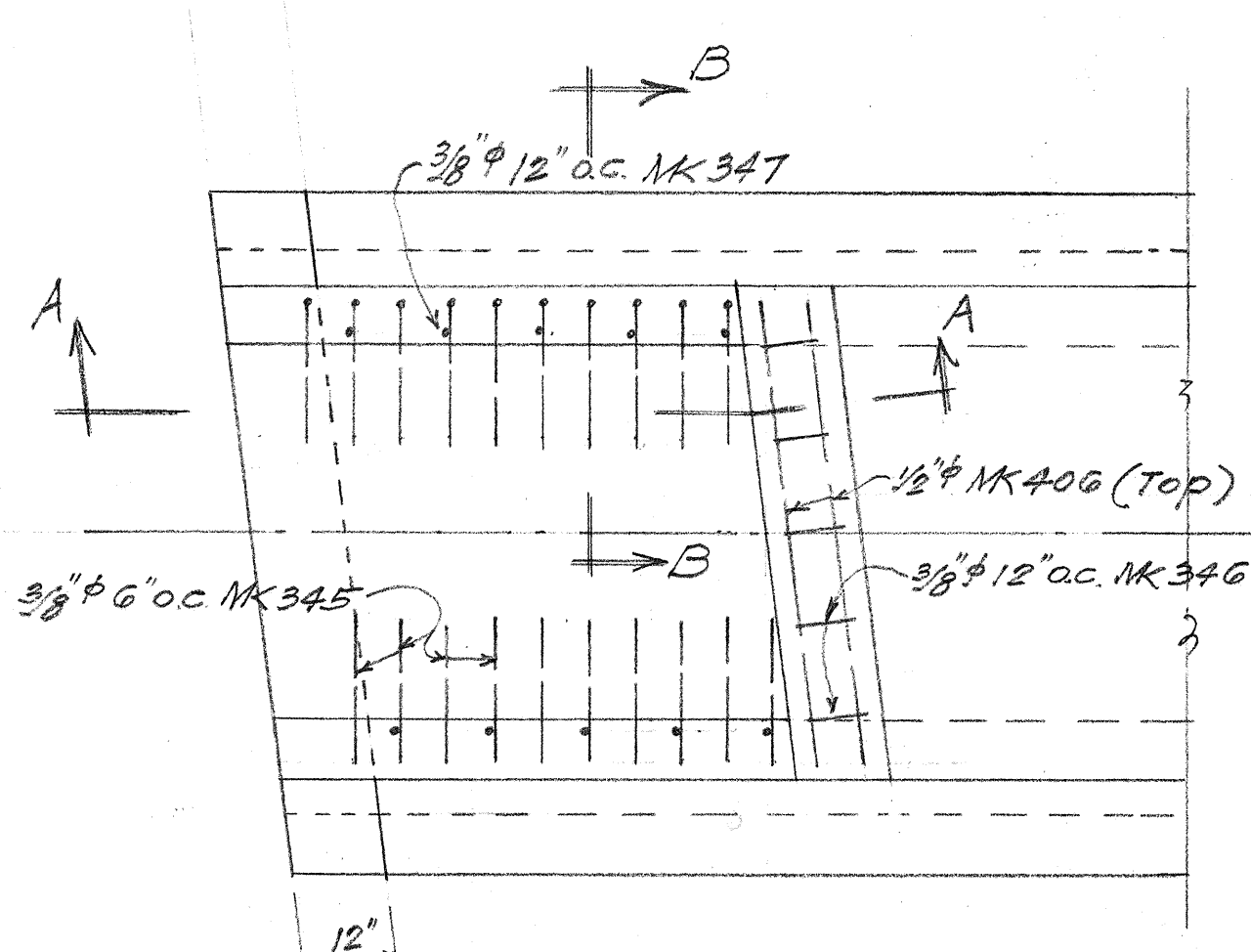
DRAWN BY: *[Signature]*
 CHECKED BY: *[Signature]*
 DATE: *[Date]*
 ORIGINAL PLAN
 NOTE BOOK
 QUANTITIES CHECKED BY: *[Signature]*
 No. *[Number]*

TERRITORIAL HIGHWAY DEPARTMENT
 TERRITORY OF HAWAII
 4x3 & 6x6 COMBINATION
 CONCRETE BOX CULVERT
 Sta. 110+06
 HAWAII BELT RD. FA-F1480
 Feb. 1946
 SHEET No. 1 OF 2 SHEETS

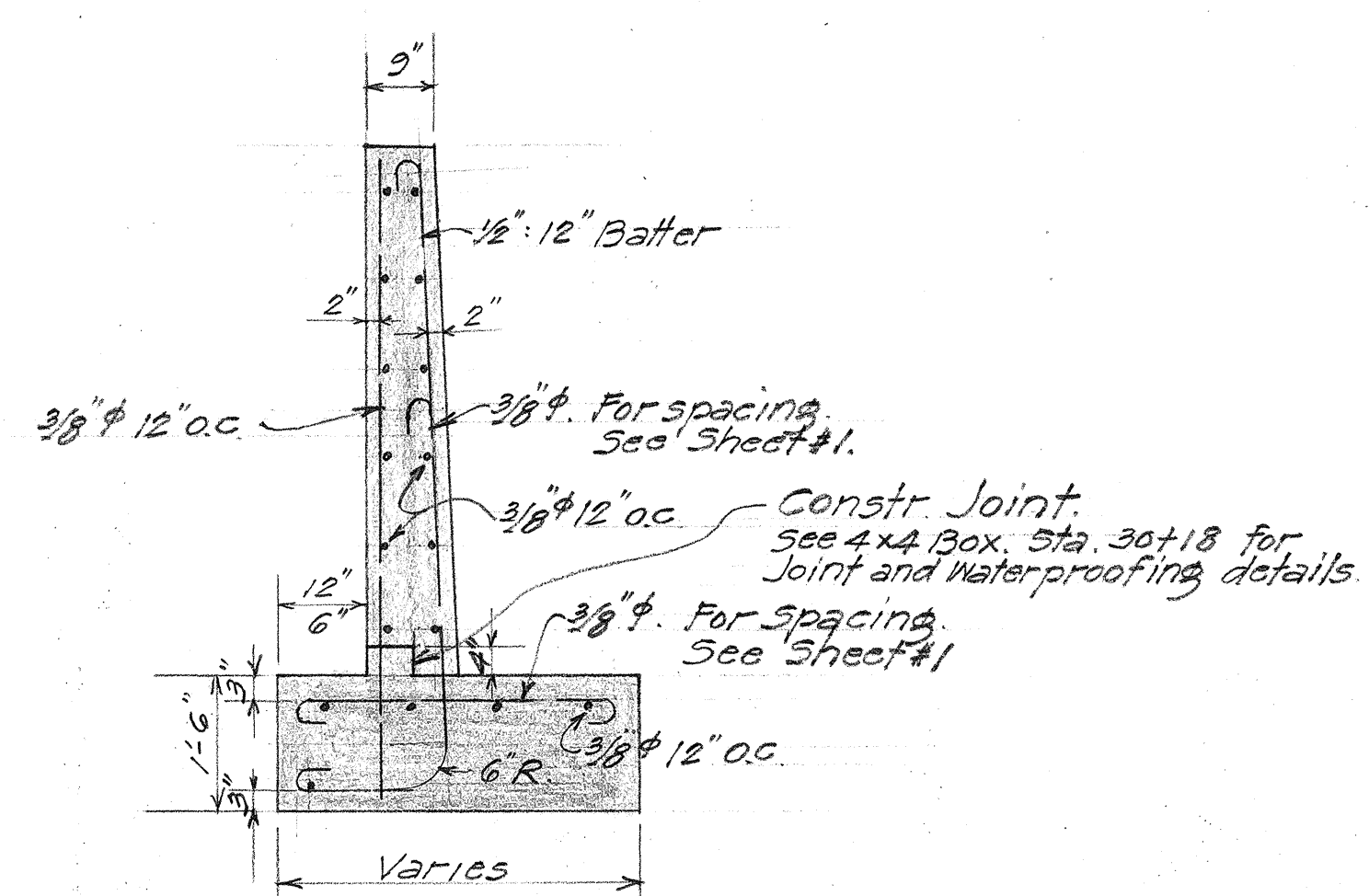
5194.18



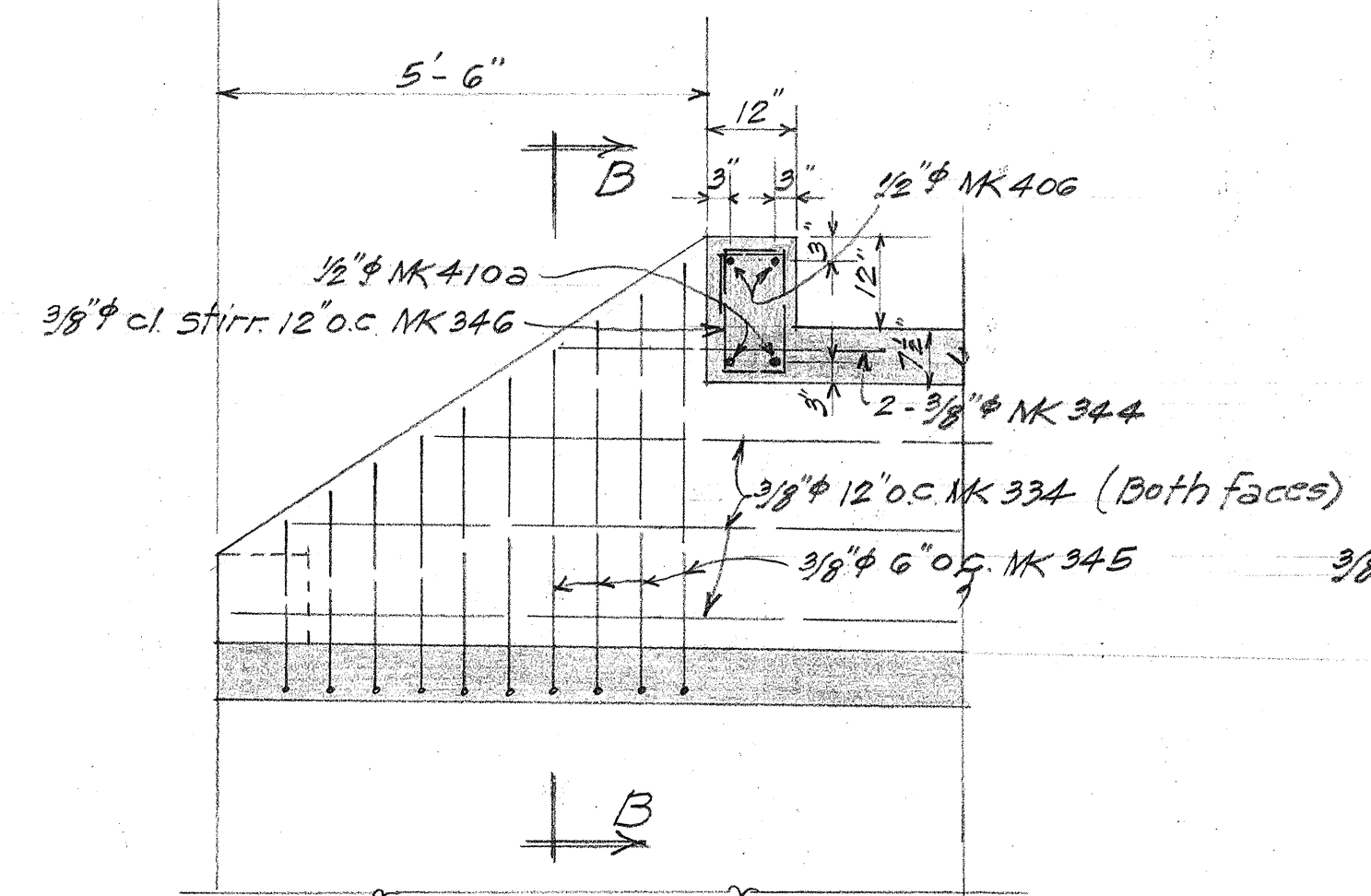
NORMAL TRUNK SECTION
3/4" = 1'-0"



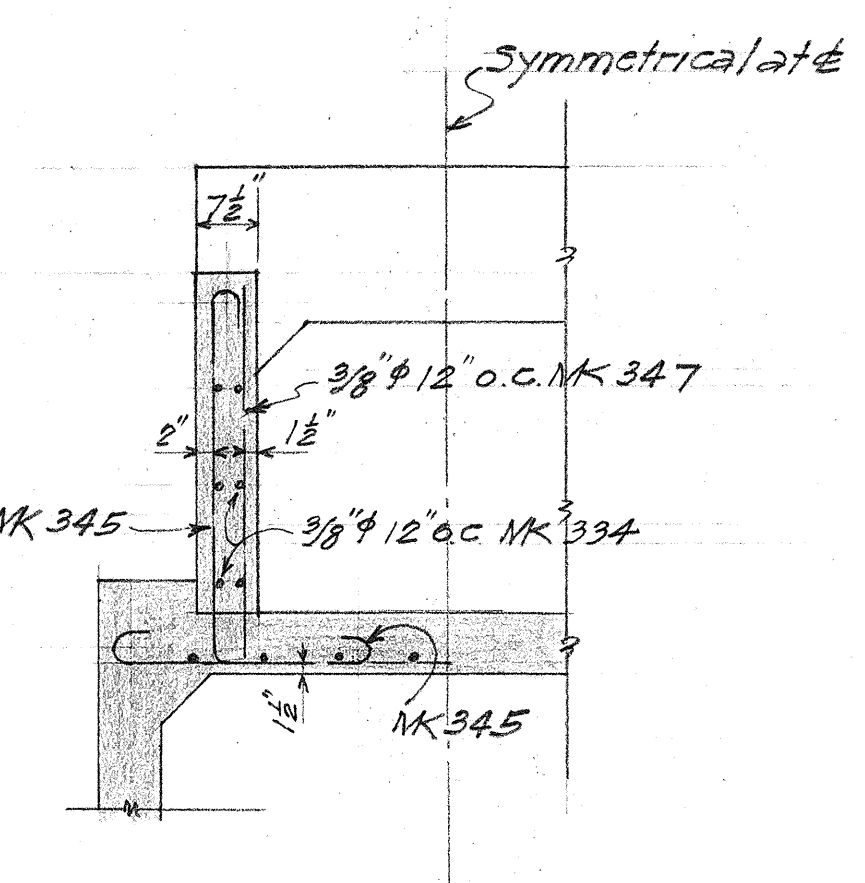
PLAN, INTAKE END
1/2" = 1'-0"
Note! Outlet end similar



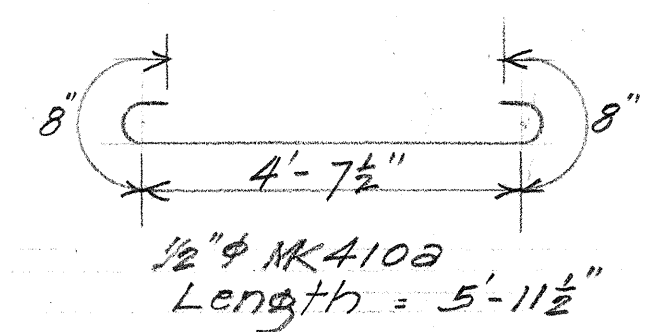
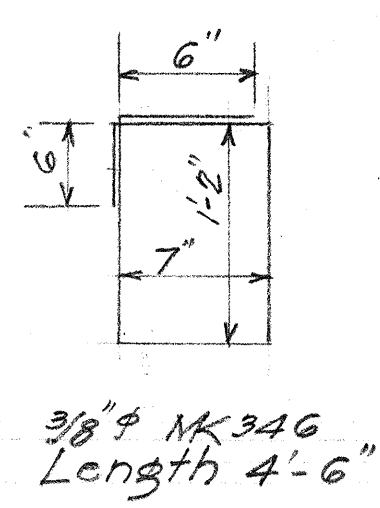
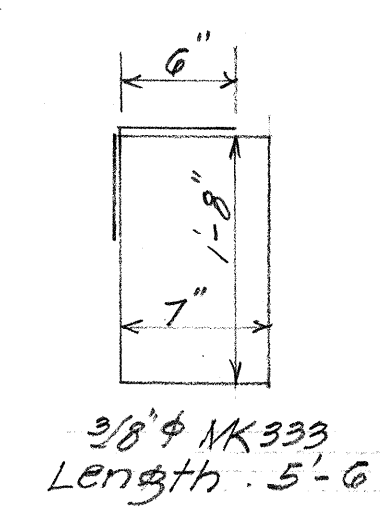
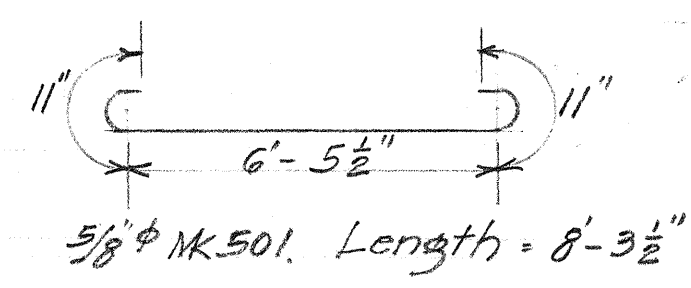
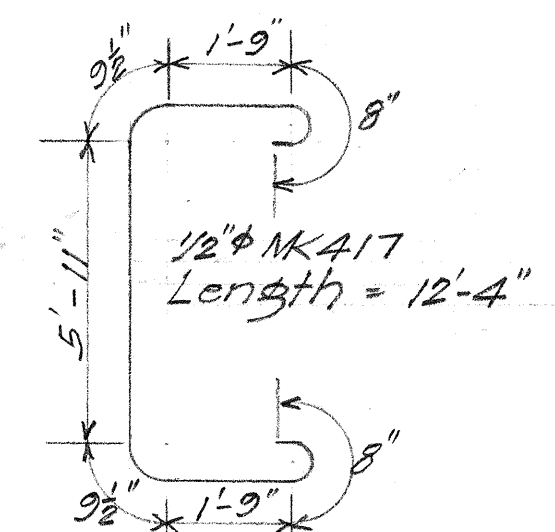
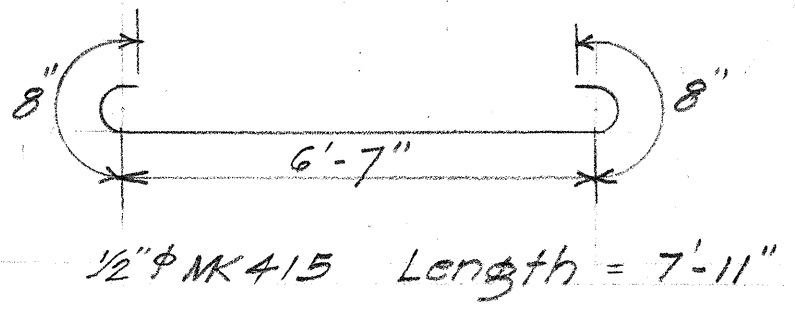
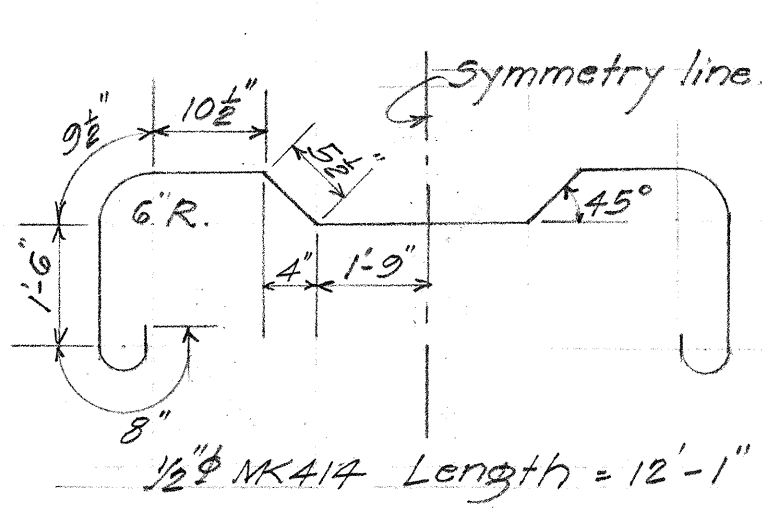
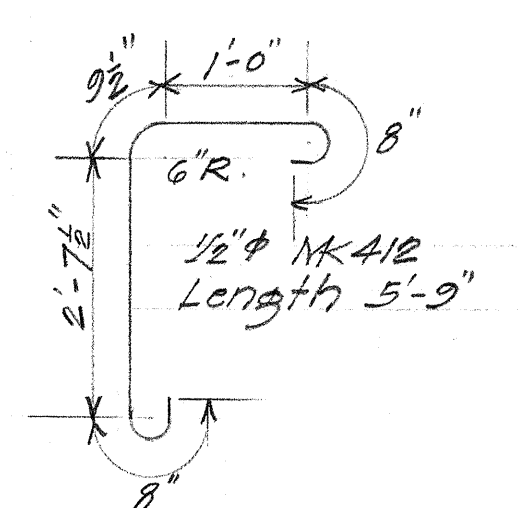
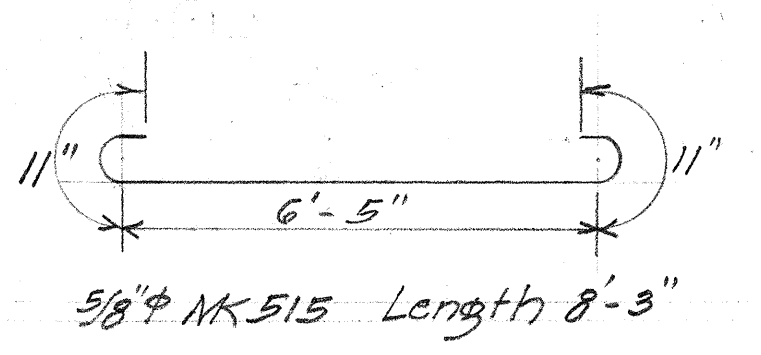
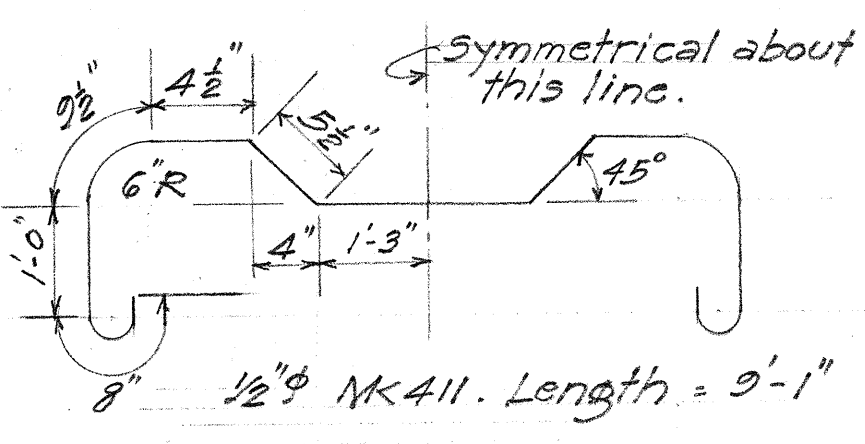
TYPICAL WINGWALL SECTION
1/2" = 1'-0"



SECTION A-A
1/2" = 1'-0"



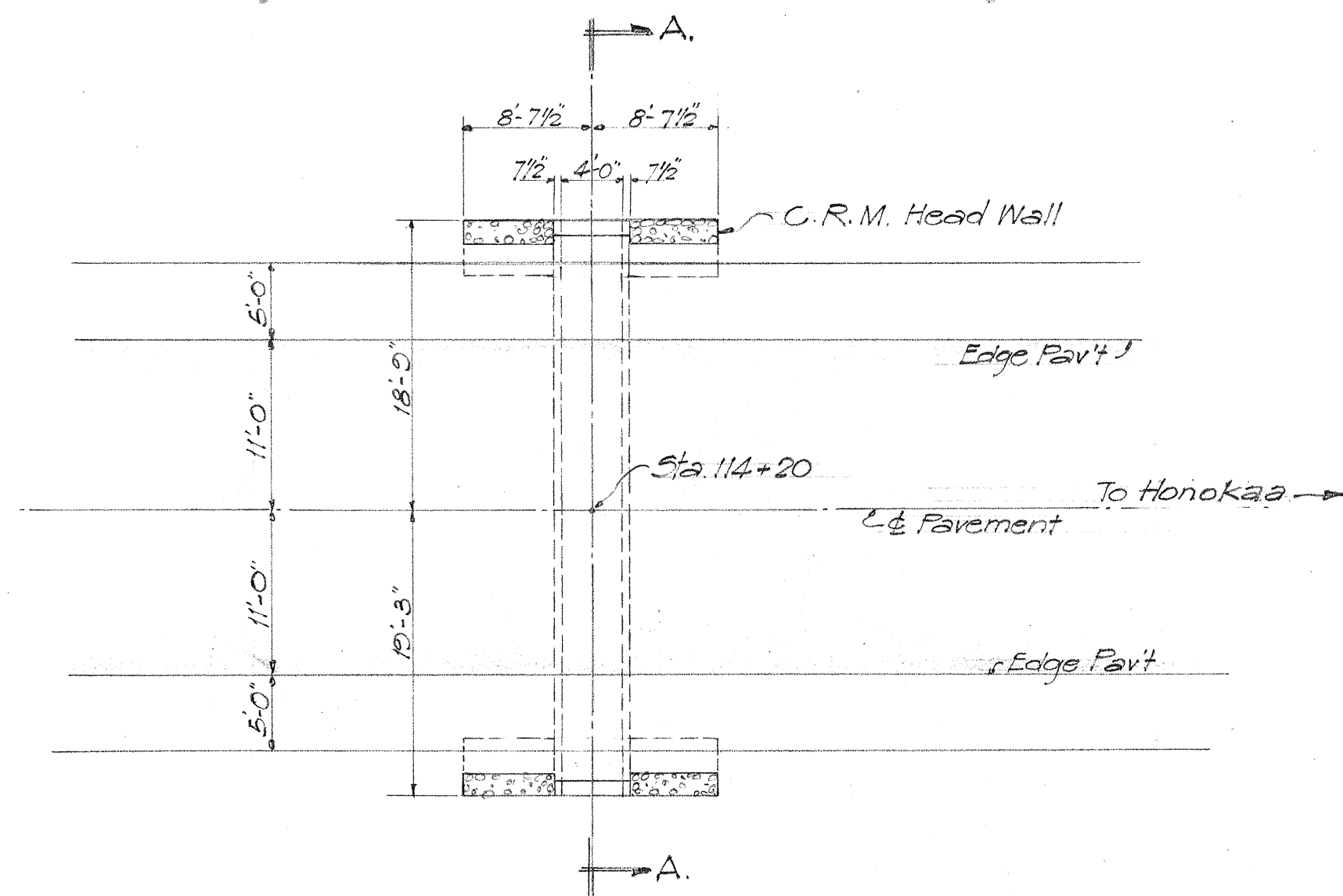
SECTION B-B
1/2" = 1'-0"



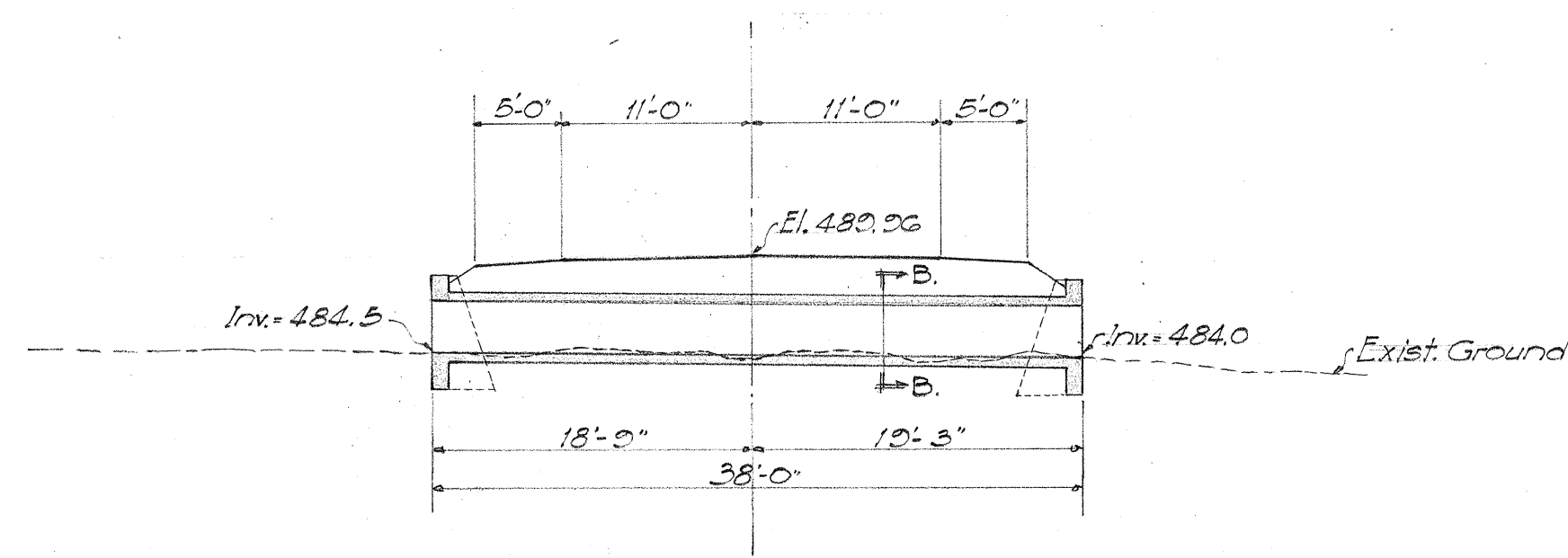
ESTIMATED QUANTITIES

Class A-1 Conc.	59.0 C.Y.
Reinf. Steel	6296 lbs.
Str. Exc.	139.2 C.Y.
Cement Rubble Masonry	5.0 C.Y.
Channel Exc.	18.2 C.Y.

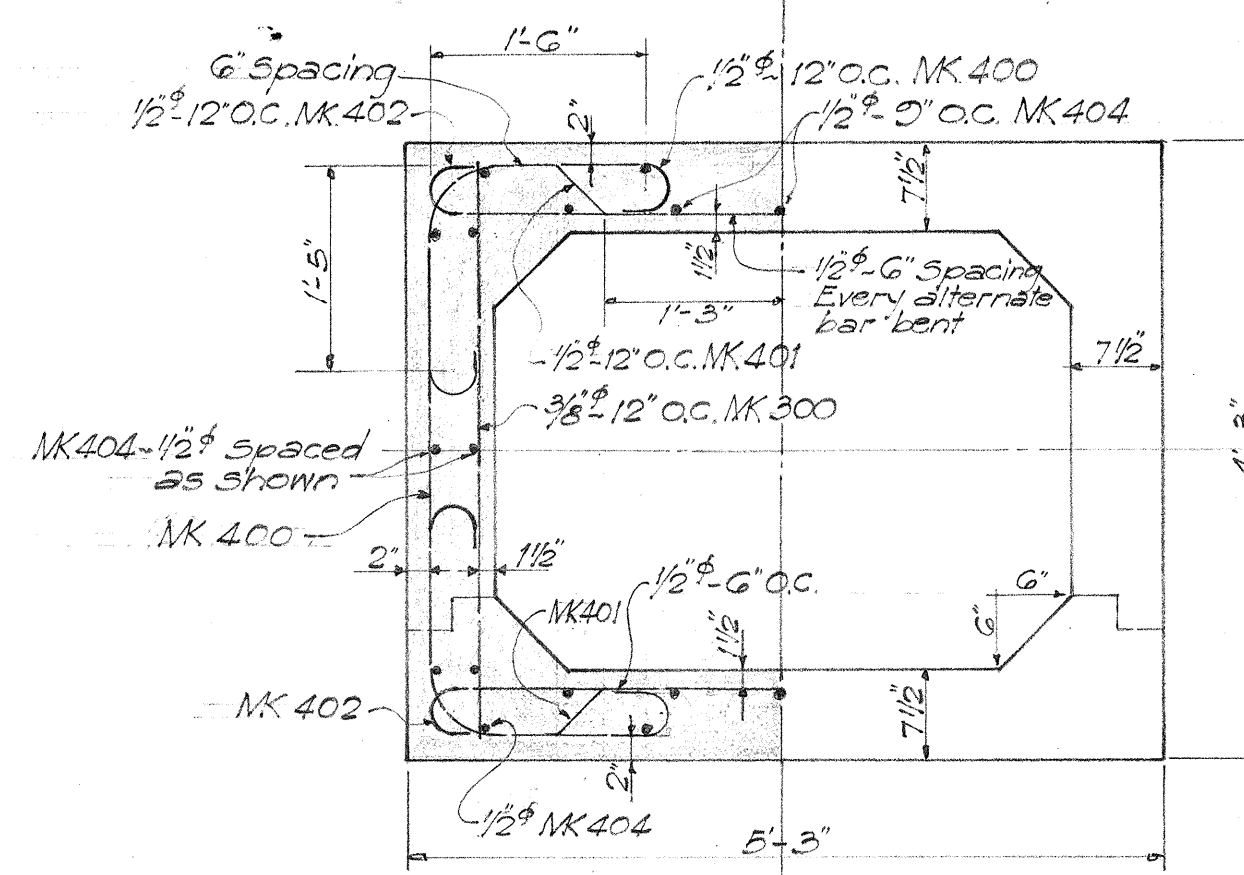
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
4x3 & 6x6 COMBINATION
CONCRETE BOX CULVERT
Sta. 110+06
HAWAII BELT RD. FA-F14B(1)
Feb. 1946
SHEET No 2 OF 2 SHEETS



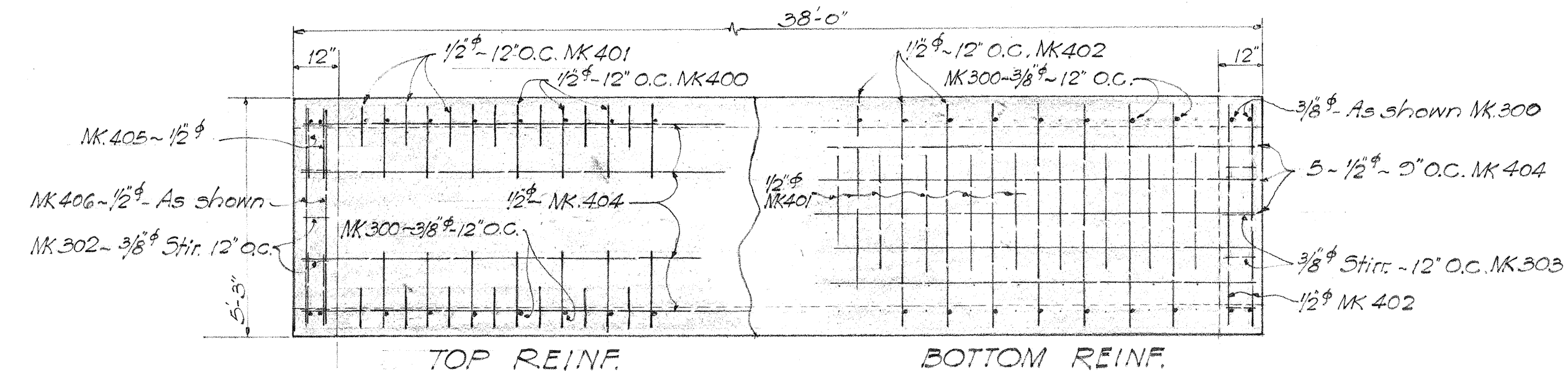
LAYOUT PLAN
Scale: 1" = 10'-0"



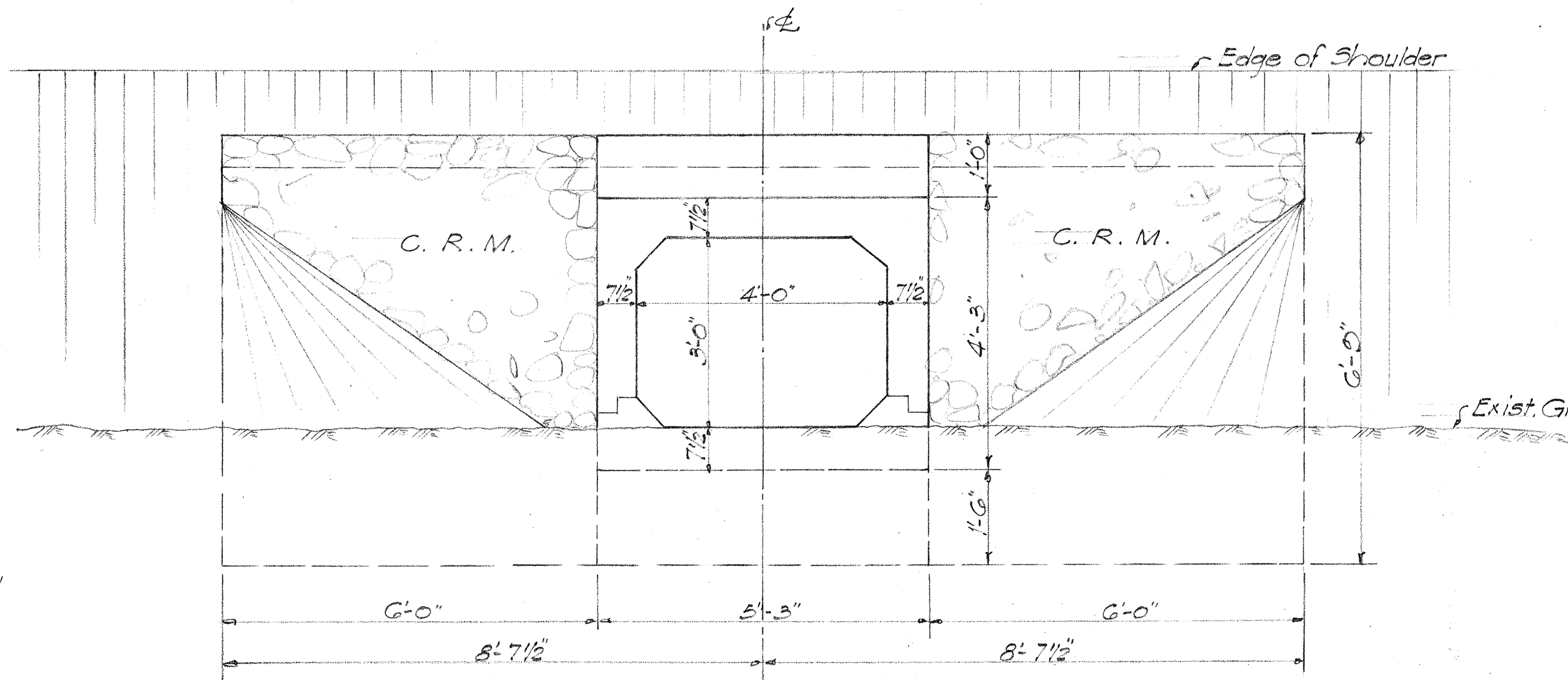
SECTION "A-A"
1" = 10'-0"



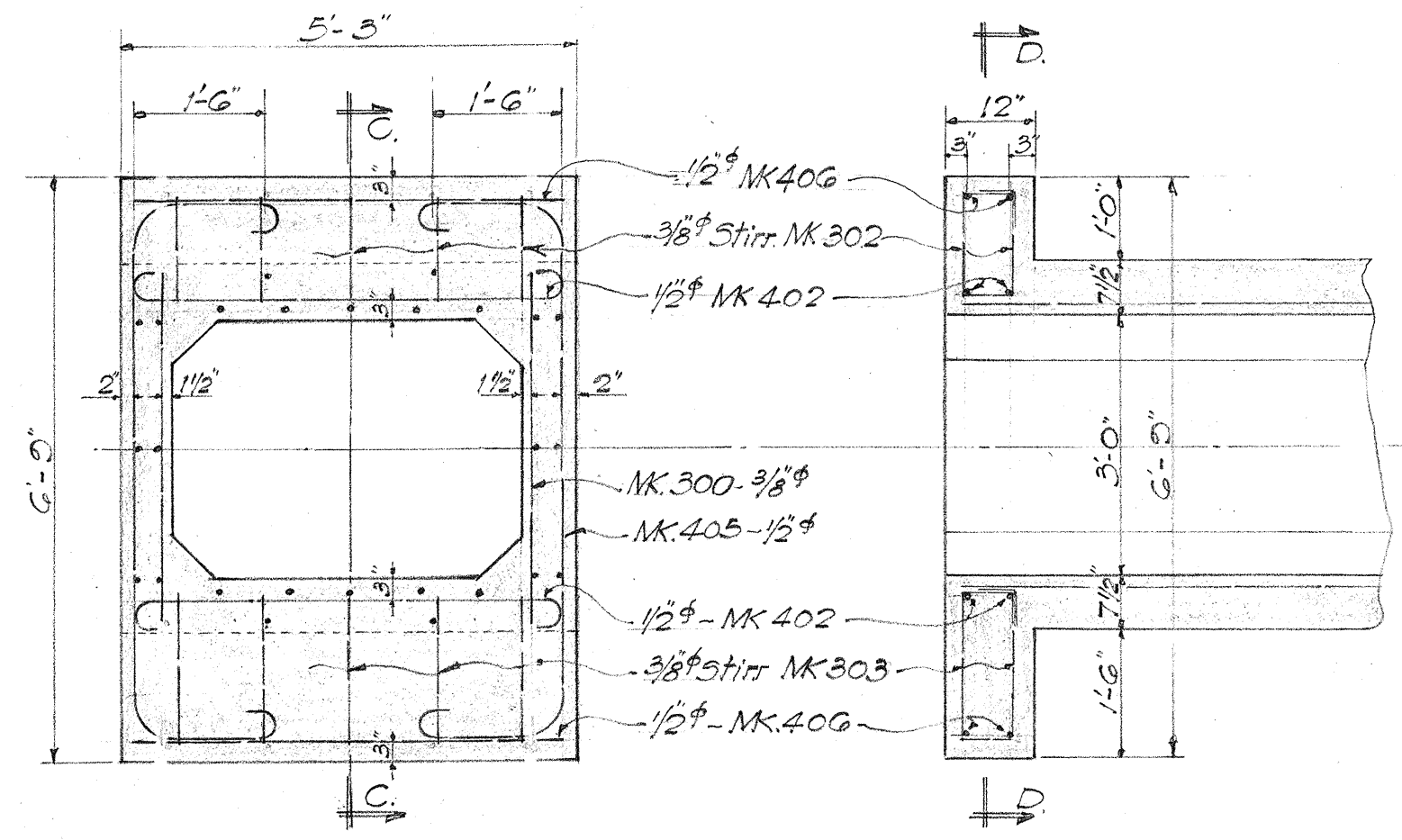
SECTION "B-B"
Scale: 3/4" = 1'-0"



STEEL LAYOUT PLAN
Scale: 3/8" = 1'-0"



ELEVATION AT INTAKE
(Similar at Outlet)
Scale: 1/2" = 1'-0"



SECTION "D-D"
1/2" = 1'-0"

SECTION "C-C"
1/2" = 1'-0"

ESTIMATED QUANTITIES

Class A-1 Conc.	16.2 C.Y.
Reinf. Steel	2096 lbs.
Cement Rubble Masonry	15.75 C.Y.
Str. Exc.	20.8 C.Y.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
4'x5' CULVERT
STA. 114+20
HAWAII BELT RD. FA-F1480(I)
Feb. 1946

SHEET No. / OF / SHEETS

5194.20

DATE: Feb. 1946
DESIGNED BY: R. K. BETHLEHEM
DRAWN BY: R. K. BETHLEHEM
CHECKED BY: R. K. BETHLEHEM
ORIGINAL PLAN
NOTE BOOK
No.

SECTION - C.R.M. HEAD WALL
1/2" = 1'-0"

