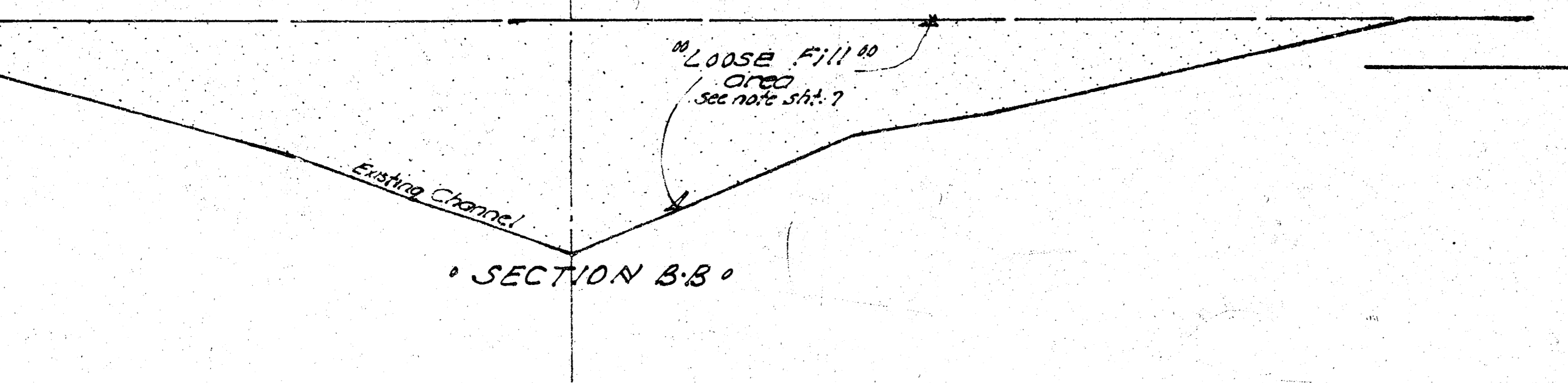
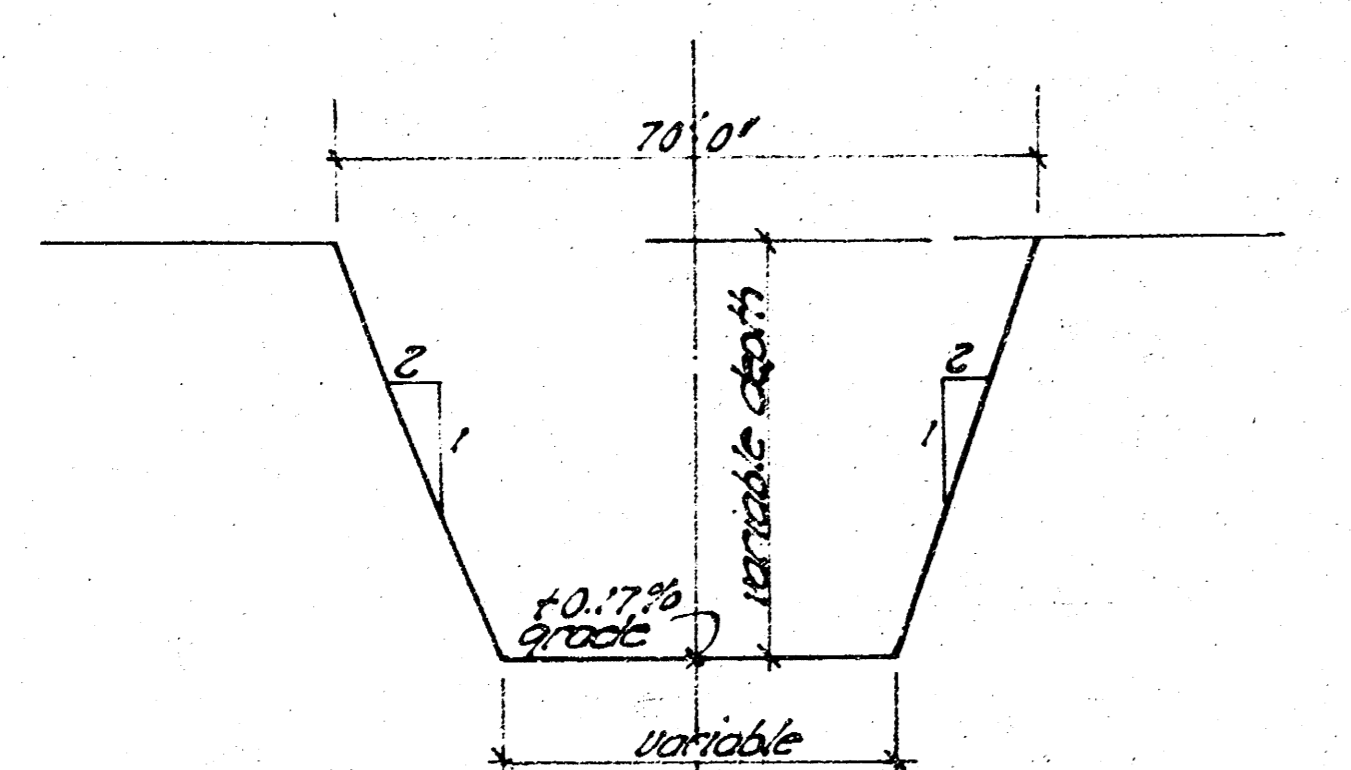


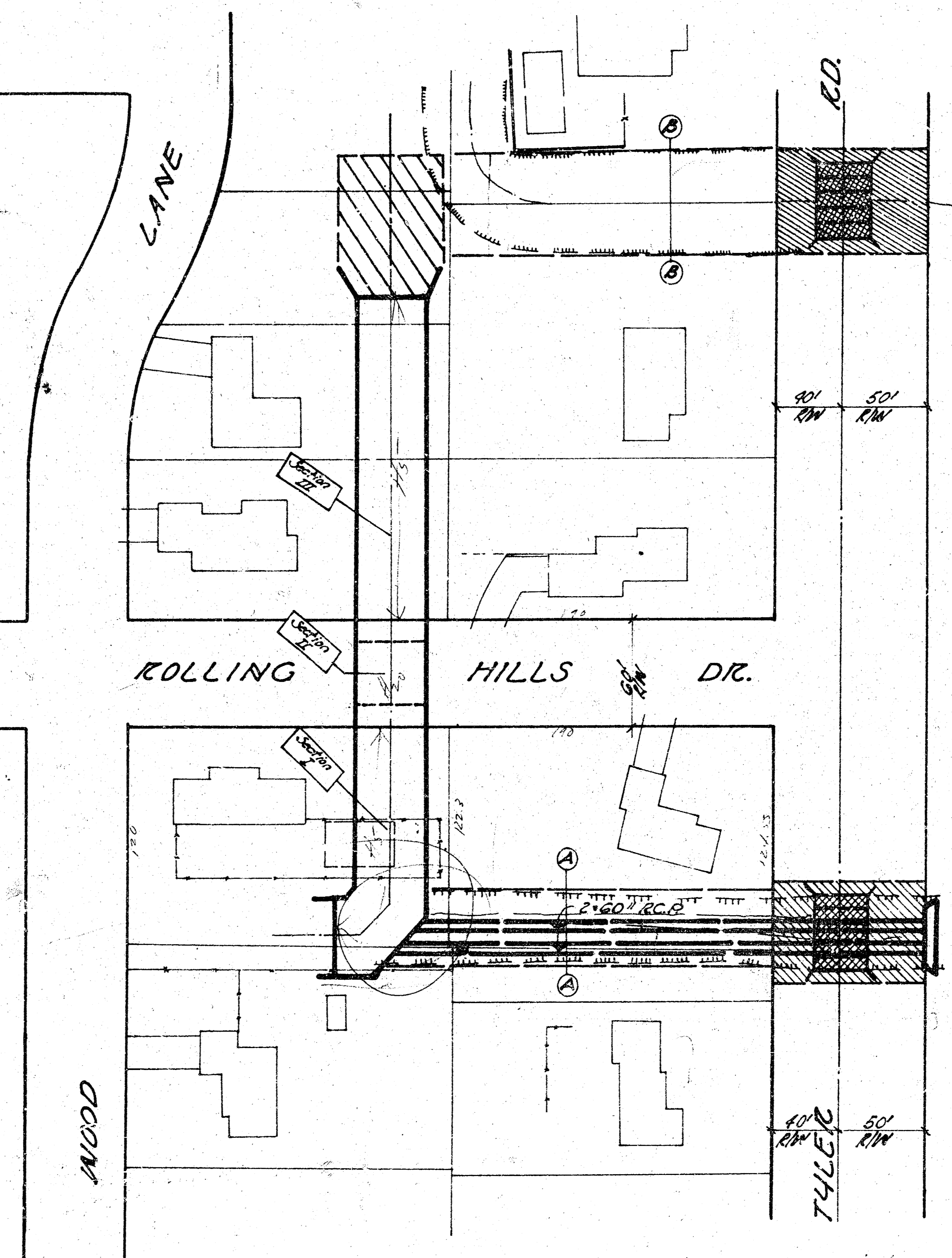
SECTION A-A



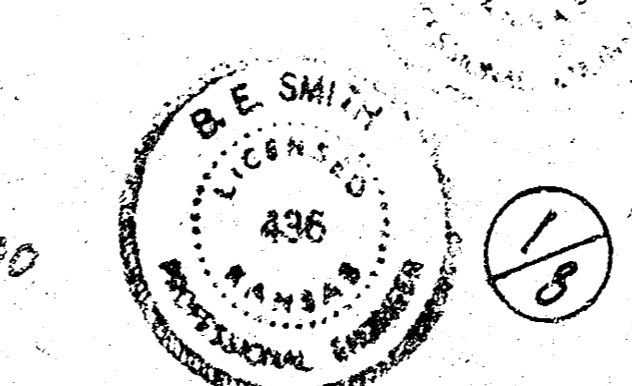
SECTION B-B



TYPICAL DETAIL OF NEW CHANNEL NO. OF RC.B.C.

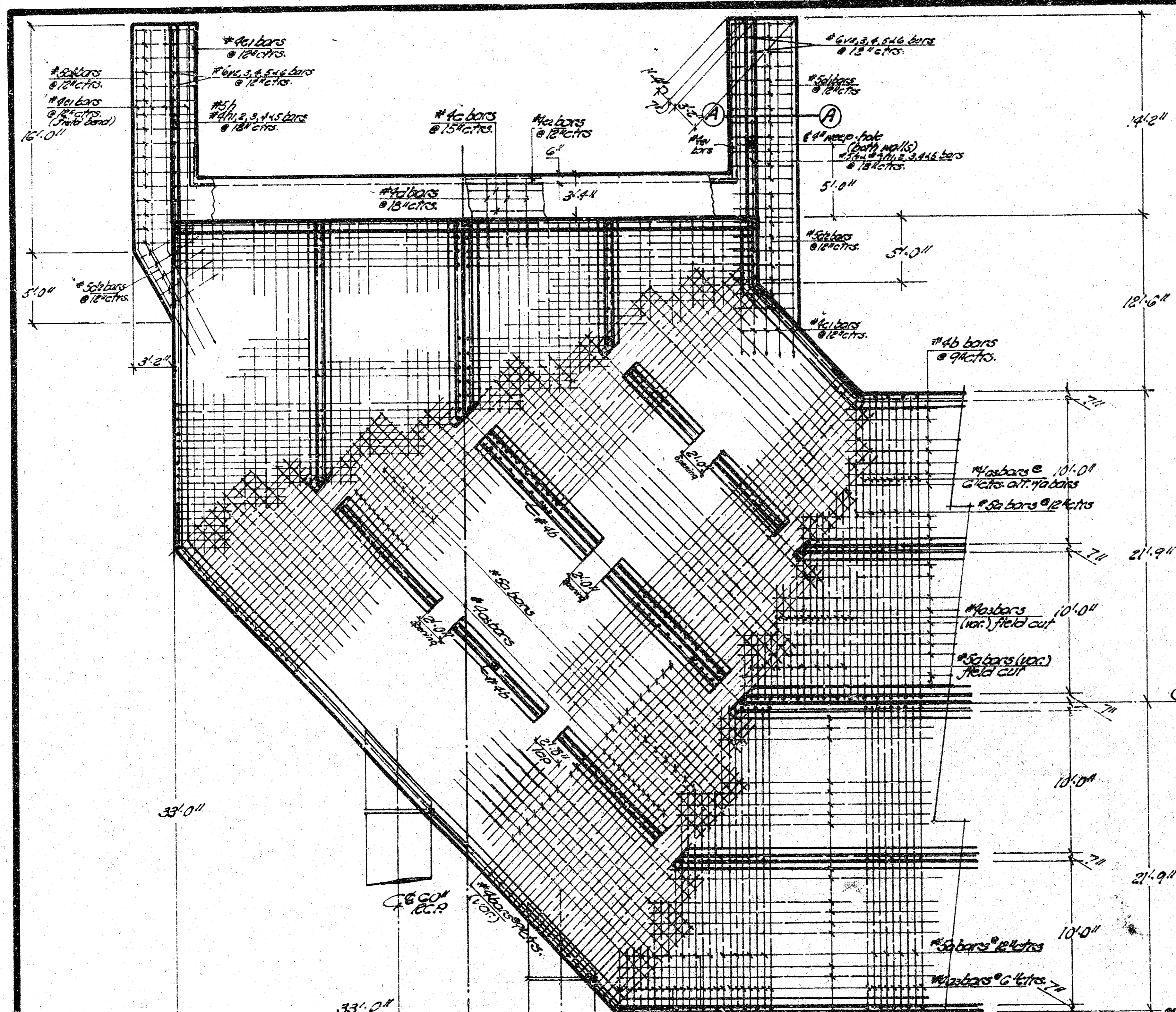


OFFICE PLAN



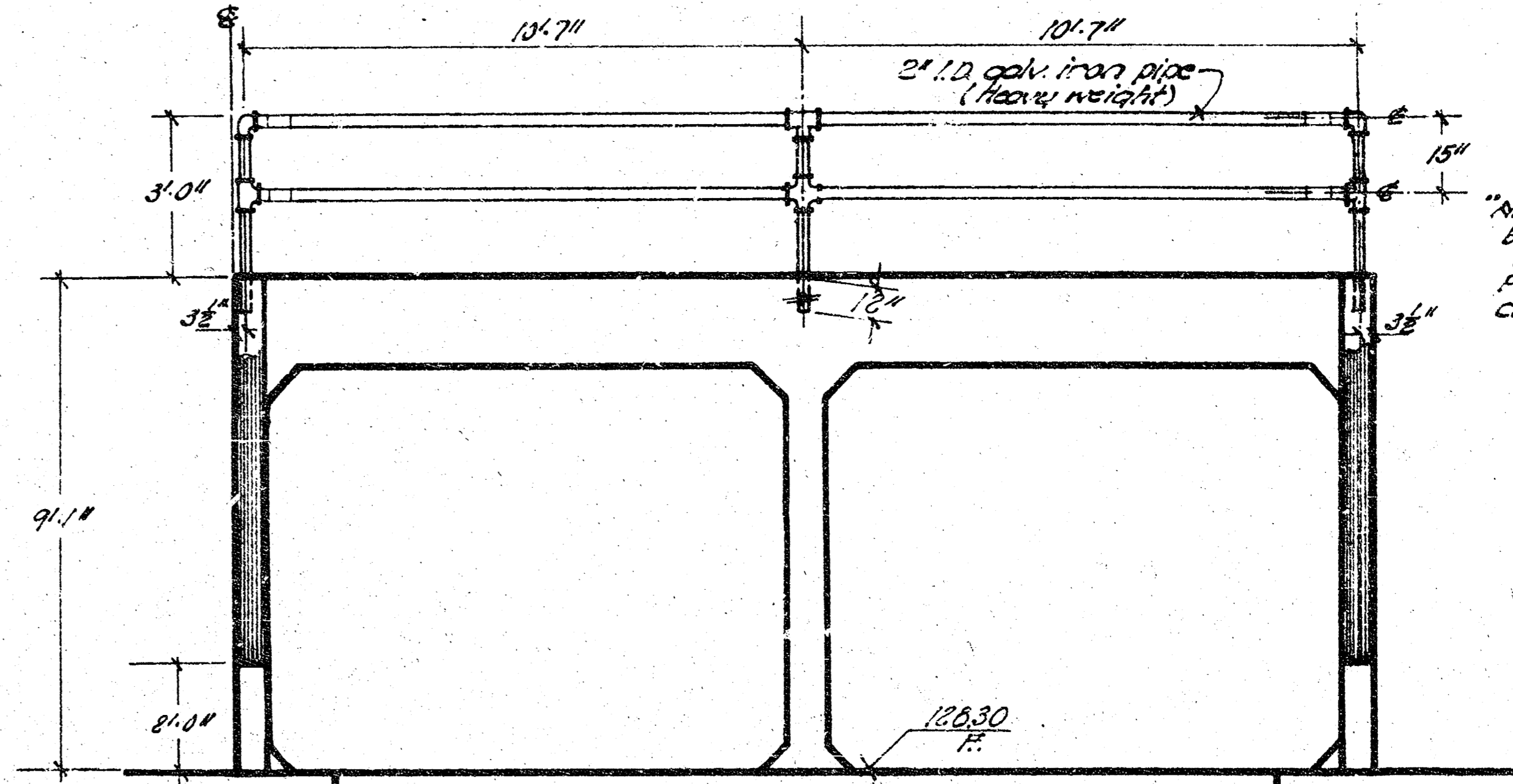
LOCATION MAP
 4-10x8' reinforced
 4-10x7.5'
 Concrete Box Culverts - in connection with
 "TYLER ROAD" paving - S.W. Maple Street
 to (700') N. of N.L. Central Avenue.
 City of Wichita, Kansas
 B.E. Smith City Engineer
 Date: Proj. No. C17-11

14 500 - 5000
 1 250 - 110



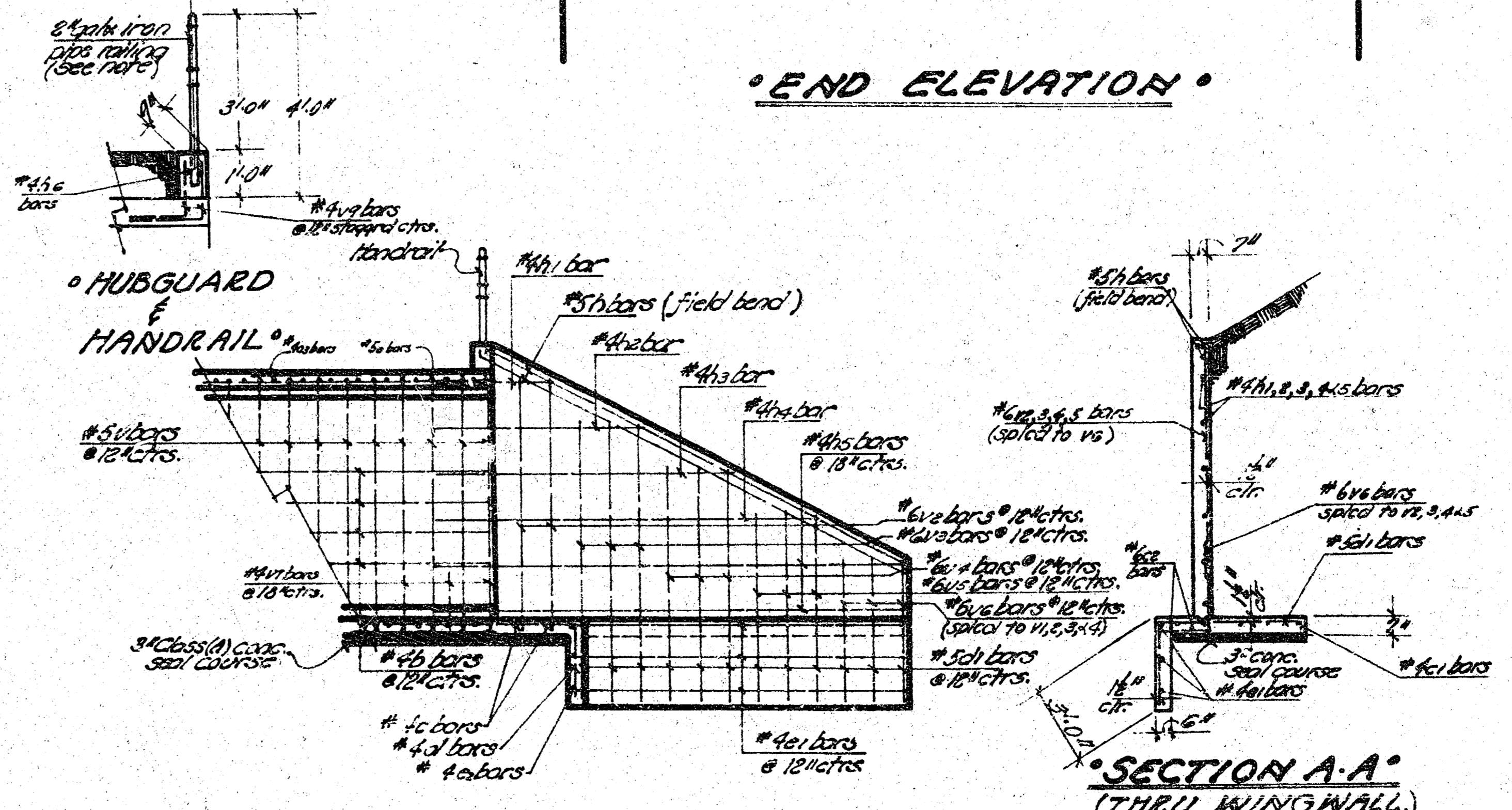
PLAN

Note:
 Construction Joints @ 40'-0" on dist. bay 3 and
 at full 4" spacing @ 38'-0" cts.
 bay @ 3'-0" of N. end Culvert.

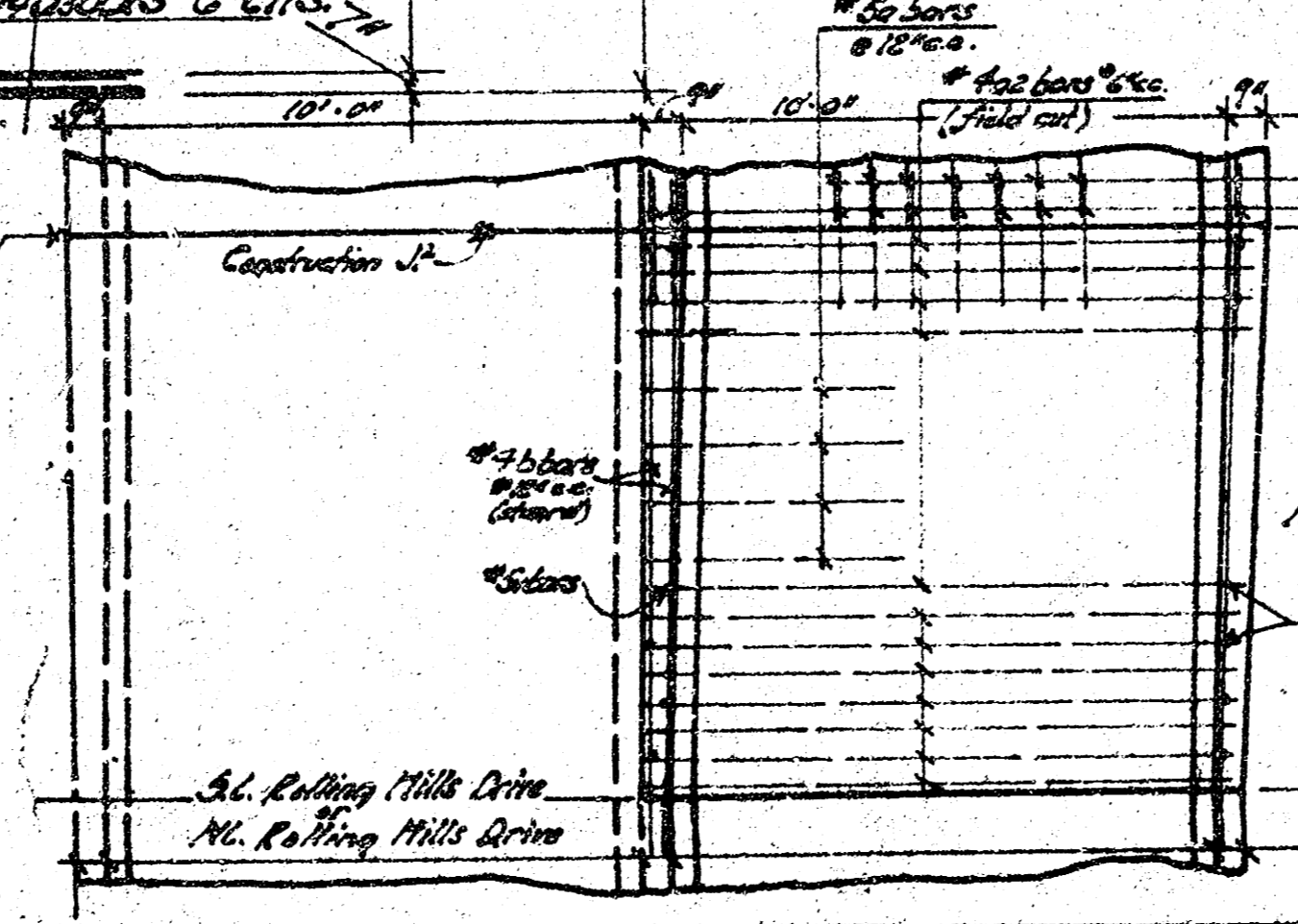


END ELEVATION

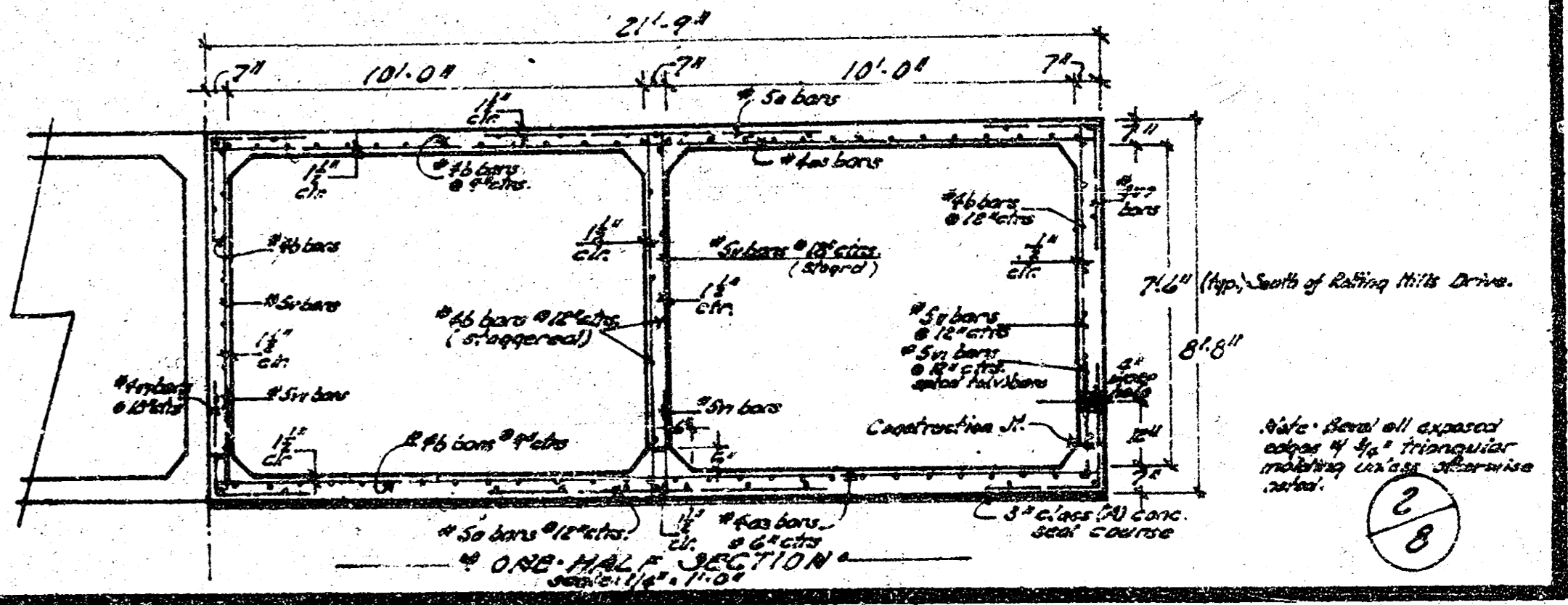
Note: Handrail to be shop assembled and placed on project just prior to installation. Place handrail in sight concrete the reqd depth.



ELEVATION

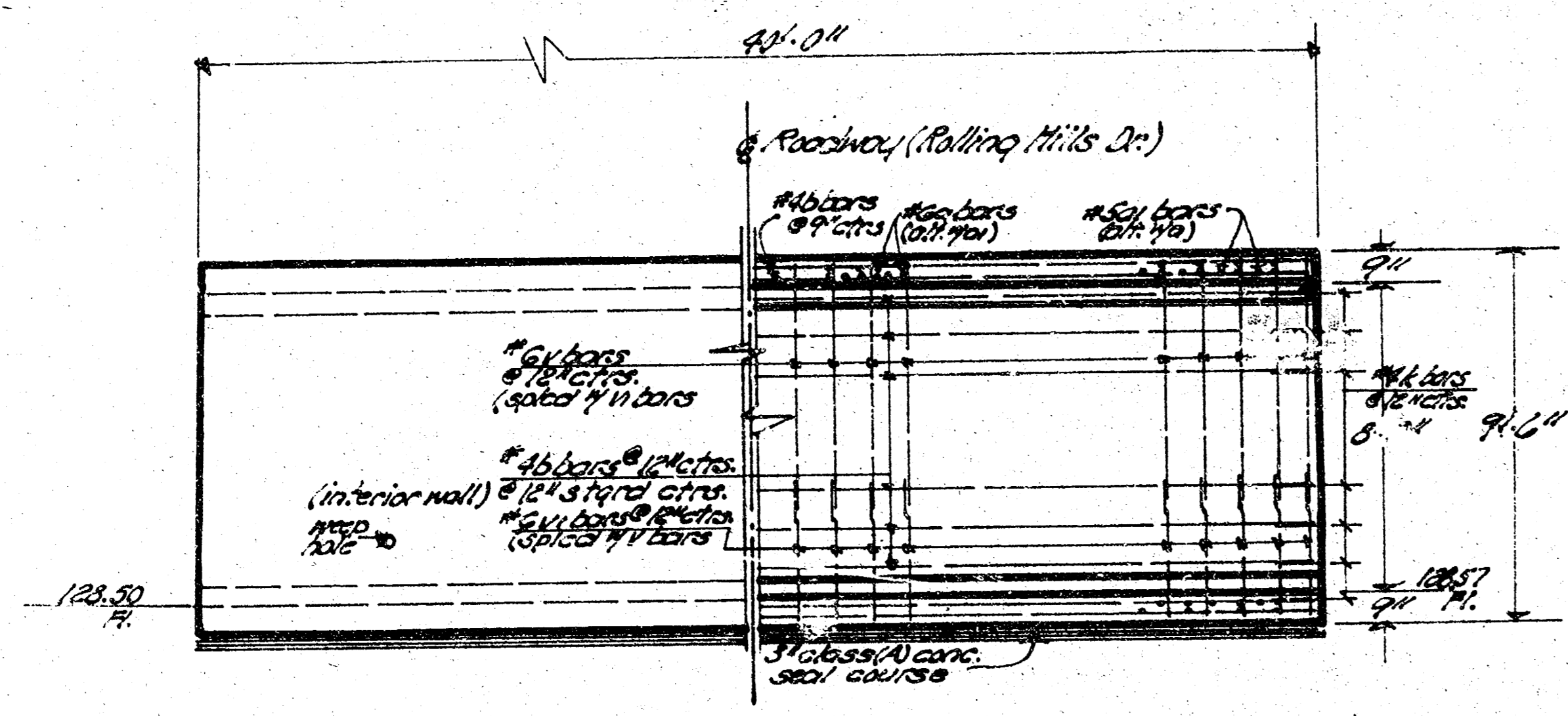


REINFC. CONC. CULVERT SECTION (1)

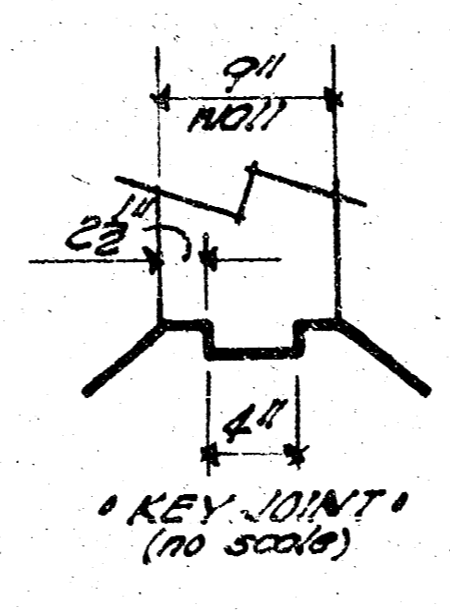


Note: All spaced above of 6\"/>

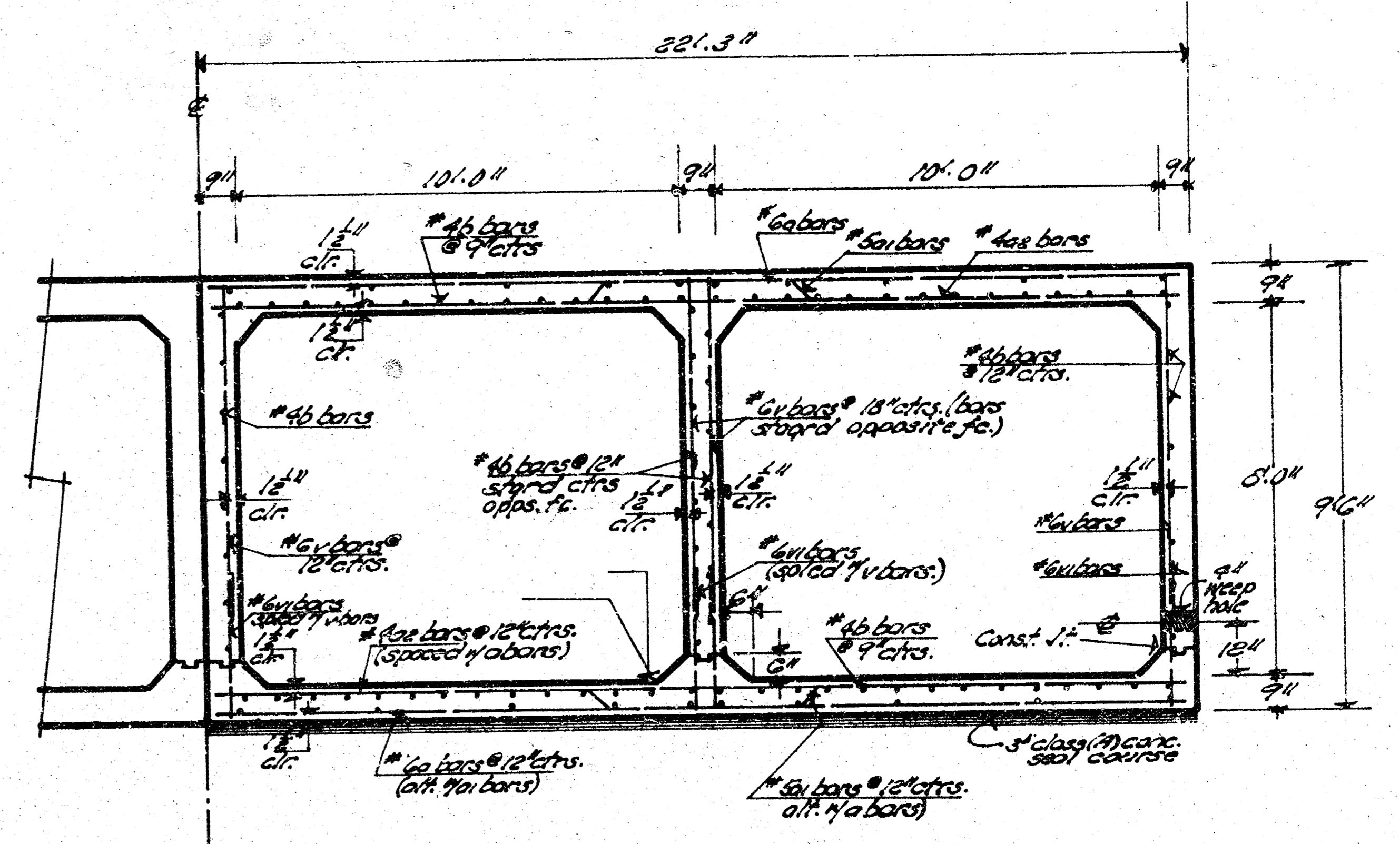
8



ELEVATION

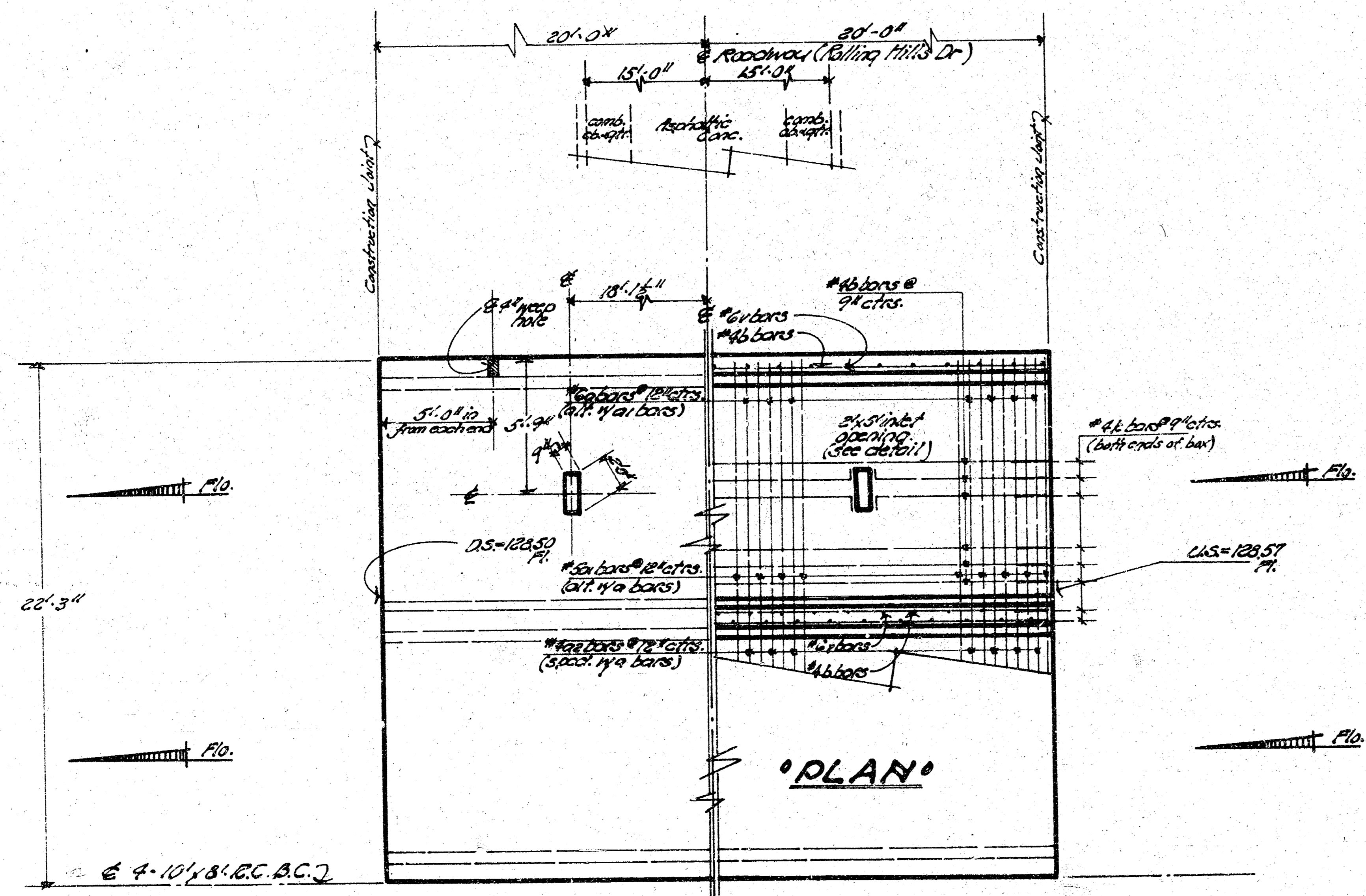


KEY JOINT
(no scales)



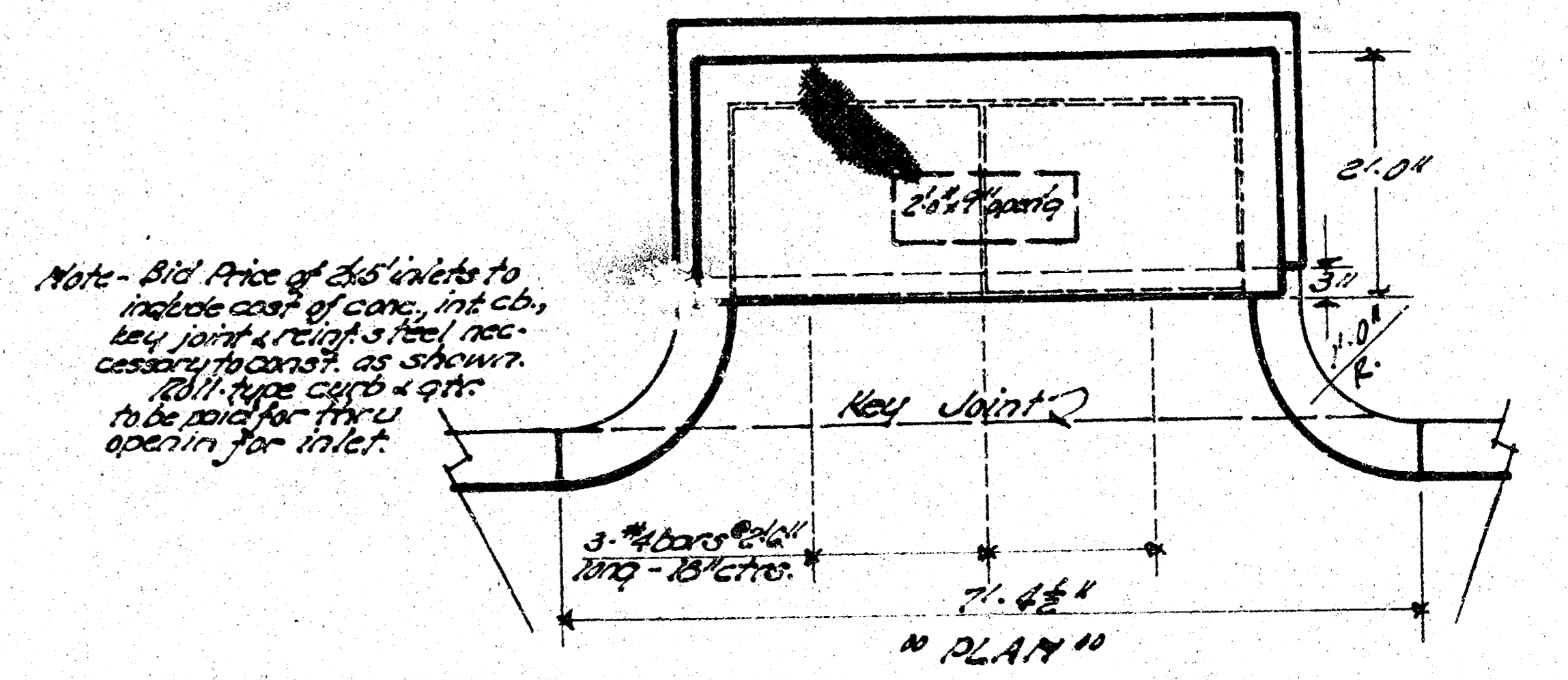
ONE-HALF SECTION

Scale: $\frac{3}{8} = 1'-0"$ Note: Bevel all exposed edges $\frac{1}{4}"$ triangular making unless otherwise noted.

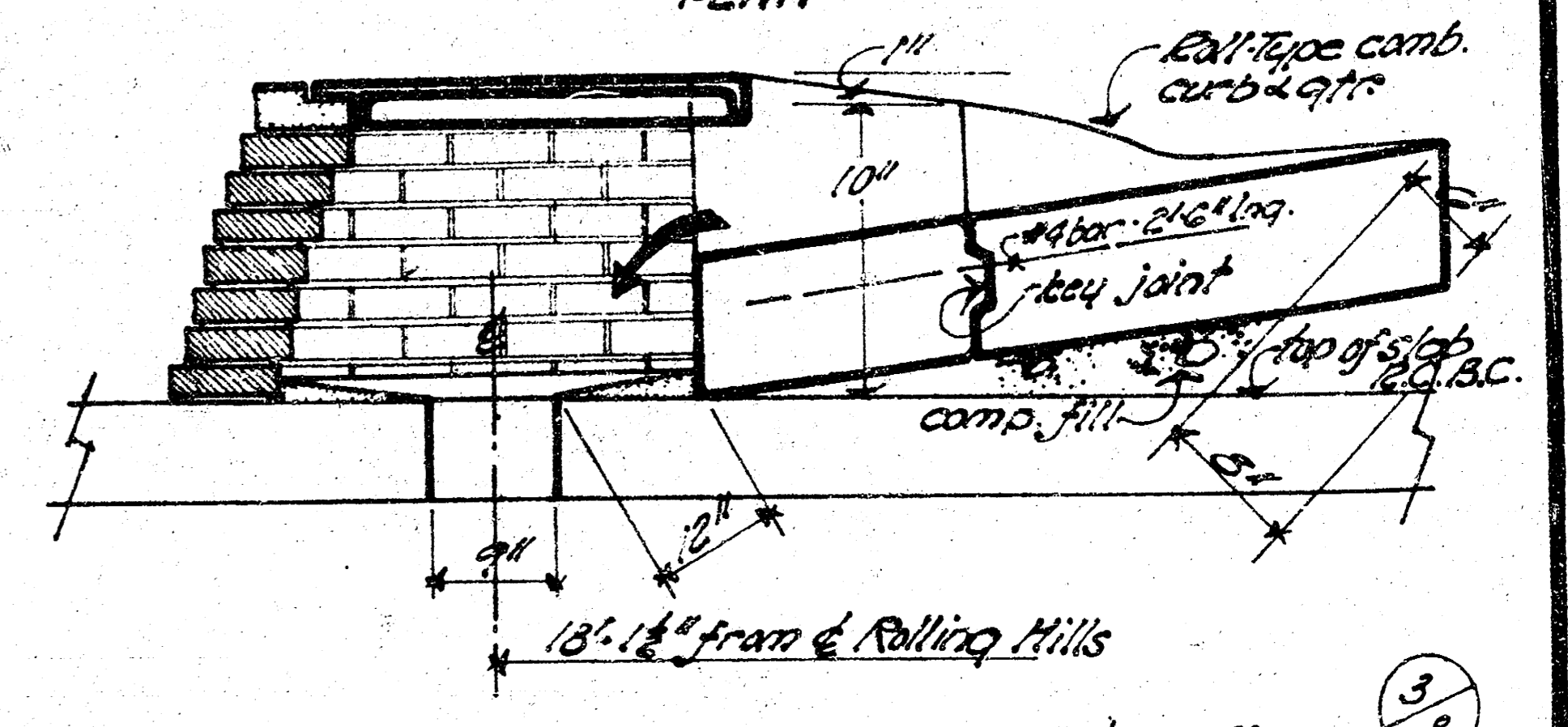


PLAN

@ 4-10/8 R.C. B.C.



Note: Bid Price of 2'-6\"/>



"REFINE CONG. CULVERT" SECTION (II)

"INLET DETAIL FOR ROLL-TYPE COMB. CURB & GTR."

3/8
07-11

SECTION (1)
BAR SCHEDULE

Bar	Size	Length	No.	Location	Shape	Spacing	Weight
a	#5	10'-0"	480	box		12"	5006.900
a1	#4	21'-6"	960	"		12"	13787.560
b	#4	39'-9"	642	box		12"	17047.026
c	#4	21'-6"	4	apron		15"	57.448
c1	#4	21'-0"	10	Wingwall		12"	168.320
d	#4	7'-5"	28	"		18"	138.722
e	#5	7'-5"	34	"		12"	185.655
e1	#5	4'-10"	18	"		12"	90.790
e2	#4	21'-9"	6	Apron		12"	87.774
f	#4	10'-9"	6	Wingwall		12"	42.418
h	#5	17'-9"	4	"		6"	7.344
h1	#4	4'-0"	2	"		-	5.344
h2	#4	7'-0"	2	"		-	7.352
h3	#4	10'-0"	2	"		-	13.360
h4	#4	13'-0"	2	"		-	17.368
h5	#4	16'-0"	4	"		18"	42.752
h6	#4	21'-0"	2	Subward		-	57.448
k	#4	3'-0"	642	box		9" x 12"	1286.568
l	#5	7'-3"	798	"		9" x 18"	5764.945
v	#5	3'-0"	798	"		9" x 18"	2476.792
12	#6	7'-6"	4	Wingwall		12"	65.060
13	#6	6'-3"	6	"		12"	55.325
14	#6	4'-0"	6	"		12"	42.854
15	#6	3'-0"	6	"		12"	27.034
16	#6	4'-0"	28	"		12"	163.224
17	#4	3'-2"	44	Subward		12"	93.076
Sub-Total = 47001.830							

SECTION (2)
BAR SCHEDULE

Bar	Size	Length	No.	Location	Shape	Spacing	Weight
a	#6	22'-0"	160	box		12"	5282.080
a1	#5	22'-0"	156	"		12"	3633.807
a2	#4	22'-0"	160	"		12"	2351.360
b	#4	39'-9"	214	"		9" x 12"	5682.342
v	#6	7'-0"	266	"		12" x 18"	3129.654
v1	#6	3'-0"	266	"		9" x 12"	1188.576
k	#4	3'-0"	428	"		9" x 12"	857.712
Sub-Total = 22140.511							
TRANSITIONAL SECTION							
q	#5	13'-0"	240	box		12"	2503.200
q2	#4	12'-0"	480	box		6"	7854.080
b	#4	29'-9"	428	"		9" x 12"	8505.644
v	#5	7'-0"	404	"		12" x 18"	3230.532
v1	#5	3'-0"	404	"		12" x 18"	1264.116
17	#4	5'-0"	626	"		13"	2191.040
Sub-Total = 24748.612							

SECTION (3)
BAR SCHEDULE

Bar	Size	Length	No.	Location	Shape	Spacing	Weight
a	#5	10'-0"	640	box		12"	6475.200
a1	#4	21'-6"	1280	"		12"	13383.360
b	#4	39'-9"	856	"		9" x 12"	22727.368
c	#4	21'-6"	4	Apron		15"	57.448
c1	#4	26'-0"	10	Wingwall		12"	173.680
c2	#6	26'-0"	4	"		15"	156.208
d	#4	7'-5"	28	Apron		18"	138.722
d1	#5	7'-5"	36	Wingwall		12"	210.482
d2	#5	4'-10"	6	"		12"	302.47
e	#4	14'-0"	6	Apron		12"	77.188
e1	#4	18'-0"	6	Wingwall		12"	64.122
f	#5	21'-3"	4	"		6"	44.443
h	#4	7'-0"	2	"		-	9.352
h1	#4	11'-0"	2	"		-	14.676
h2	#4	15'-0"	2	"		-	20.040
h3	#4	20'-0"	2	"		12"	120.320
h4	#4	25'-0"	12	"		12"	82.172
h5	#4	21'-6"	6	Subward		9" x 12"	1715.424
k	#4	3'-0"	856	box		12" x 18"	8304.132
v	#5	7'-8"	1864	"		12" x 18"	3329.258
v1	#5	3'-0"	1064	"		12"	112.140
12	#6	7'-0"	8	Wingwall		12"	116.405
13	#6	7'-0"	10	"		12"	105.140
14	#6	7'-0"	10	"		12"	64.091
15	#6	5'-8"	8	"		12"	216.288
16	#6	4'-0"	36	box		18"	2882.360
17	#4	5'-0"	852	Subward		12"	149.400
18	#4	5'-1"	44	"		12"	149.400
Sub-Total = 66324.743							

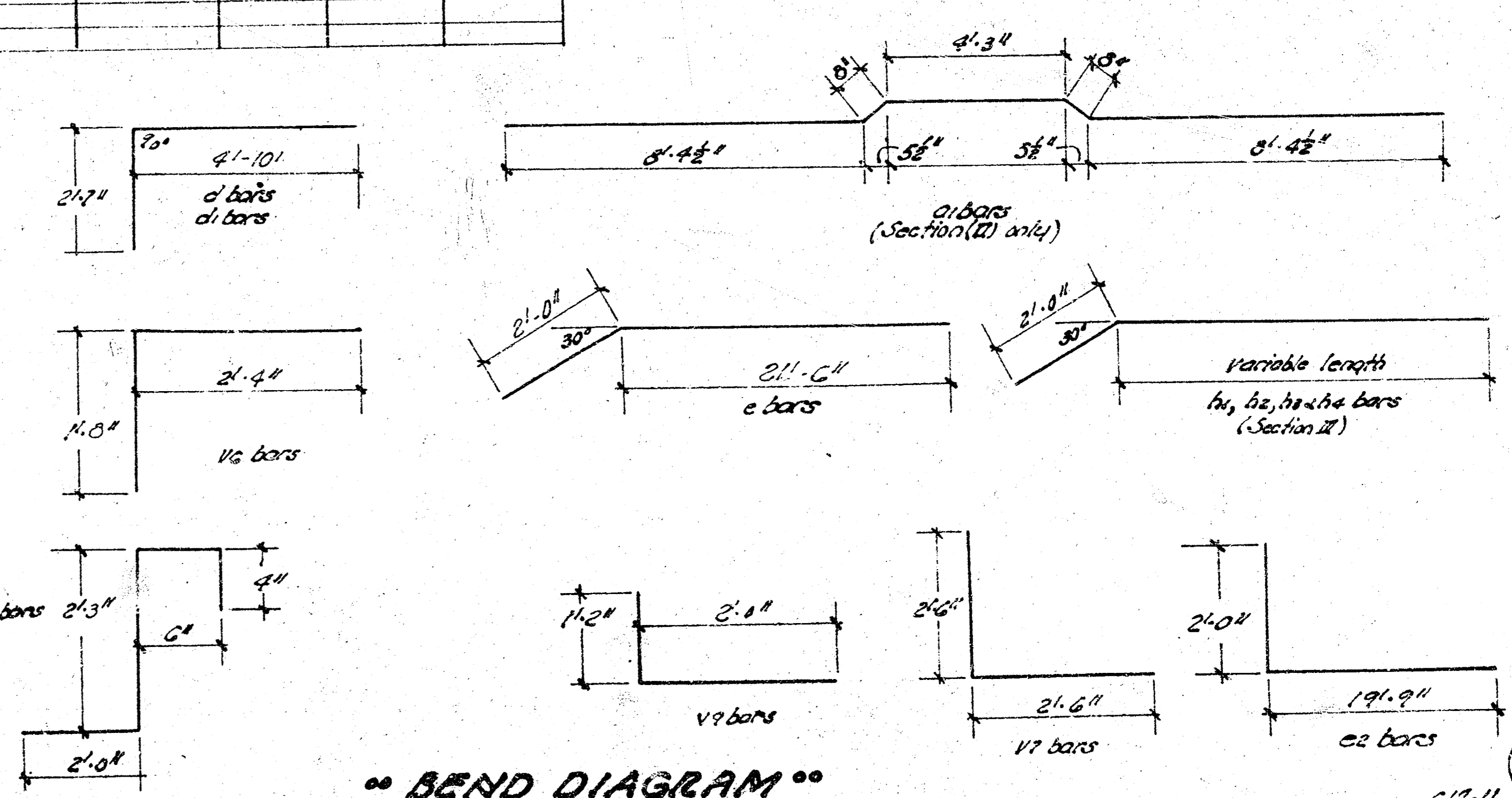
BILL OF MATERIALS

ITEM	QUAN.	UNIT
Class A-AE Concrete	1000.00	C.Y.
Reinforcing Steel	160220	LBS.
Hand Excavation	6.18	C.Y.
Hand Roll	1084.01	L.F.
Reinf. Conc. Roadway 11' & 6" R.C.P.	1	ea.
" " Inlets (60")	2	ea.
3x2 grate inlet	1	ea.
6" R.C.P.	610	L.F.
2" " "	4	"
1.5" " "	4	"
Roll-type Comb.cb. & qtr.	145	"
Asphalt	72.74	TONS
Common Excavation	4865.7	C.Y.
Compacted Fill	1715.2	C.Y.
2"x6" brick inlets	2	ea.
Comb.cb. & qtr. rem.	145	"
Existing Culverts .Rem.	2	ea.
Class (A) Concrete	16880	C.Y.
Clearing 12.0 W.	-	Lump Sum
Grass Fill (existing channels)	3340	C.Y.

Lump Sum Bid
30' Items

GENERAL NOTES

- CLASS A-AE Concrete shall be used throughout this Project. All reinforcing steel shall conform to A.S.T.M. Specifications.
- EXCAVATION: all earthwork shall be considered as "Common Excavation" except for the toe wall. Toe wall Excavation shall be included in the "Lump Sum Bid".
- BACK FILL: Shall be compacted to the bottom of new pavement grade where necessary to top of box in all other areas. All backfill excavation to extend (2') beyond sides of walls & wingwalls.
- WEED HOLES: Coarse aggregate shall be deposited behind each "Weed-hole" to occupy a space extending (18") in all directions above weed-hole fill line. This work shall not be paid for directly but shall be considered a part of the excavation work.
- SEAL COURSE: A seal course consisting of (3") class (A) concrete shall be constructed only where specified on the plans or by the Engineer. No reinforcing shall be placed until the seal course has gained sufficient strength to permit working on it without injury.
- BIDDING ON CULVERT: The Culvert shall be bid as a "Lump Sum Bid" except for the following items: conc.(min) roadway for all R.C.P., reinf. conc. inlets, 2"x6" grate, 1.5" & 2"x4" R.C.P., roll-type comb. cb. & qtr., tons asph., common excavation, compacted fill, 2"x6" inlets, comb. cb. & qtr. rem., structures rem., class (A) conc. clearing, R.O.W., loose fill. The quantities shown in the "Bill of Materials" or items which are included in the "Lump Sum Bid" of the contract are for "Information Only". The Contractor must satisfy himself to the "Quantities" and the Eng. assumes no responsibility for their accuracy. The contractor will have the full responsibility for providing all materials shown on the detailed sheets of the plans necessary to complete this project.
- Backfilling & grading over new culvert to be incidental to the project. The top (1) ft. of top soil to be stockpiled in location indicated on plans.
- Clearing of Right-of-Way: This item to include any removal necessary to complete this project with the exception of "culverts rem" on Tyler Road which will be a bid item.



BEND DIAGRAM