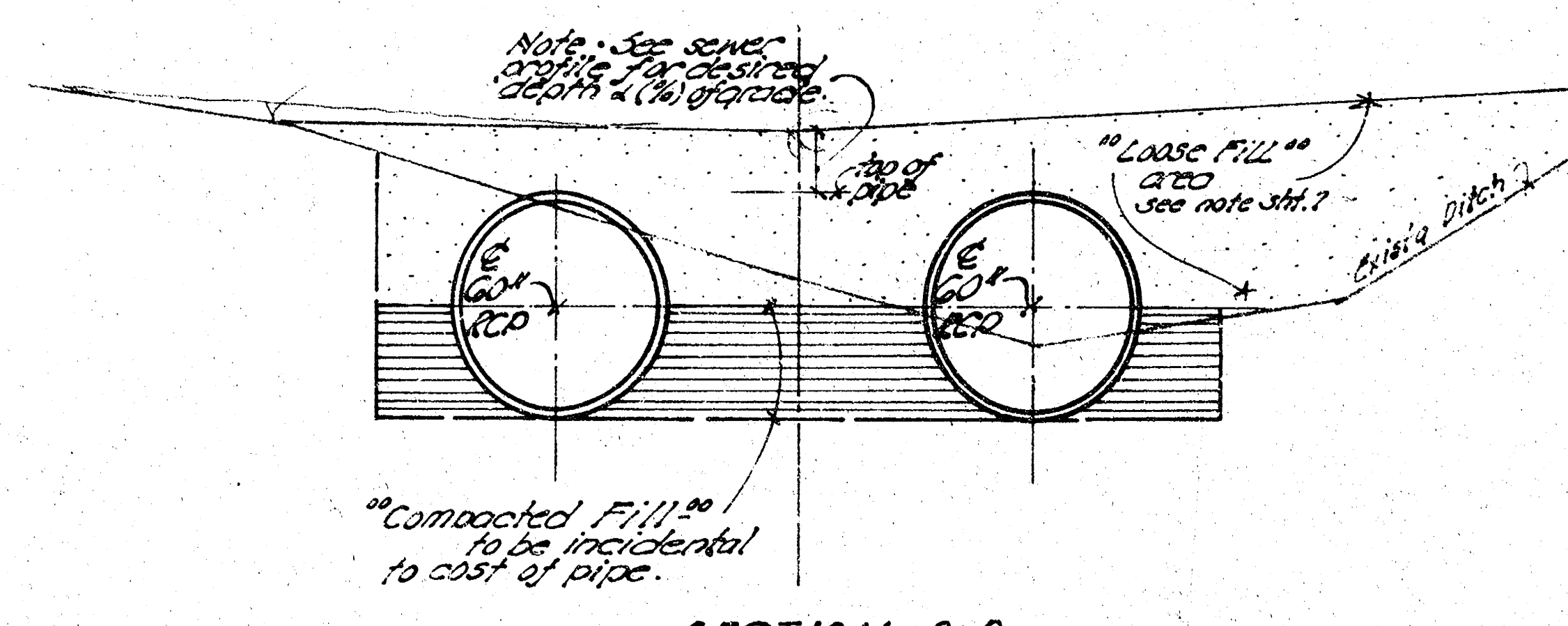
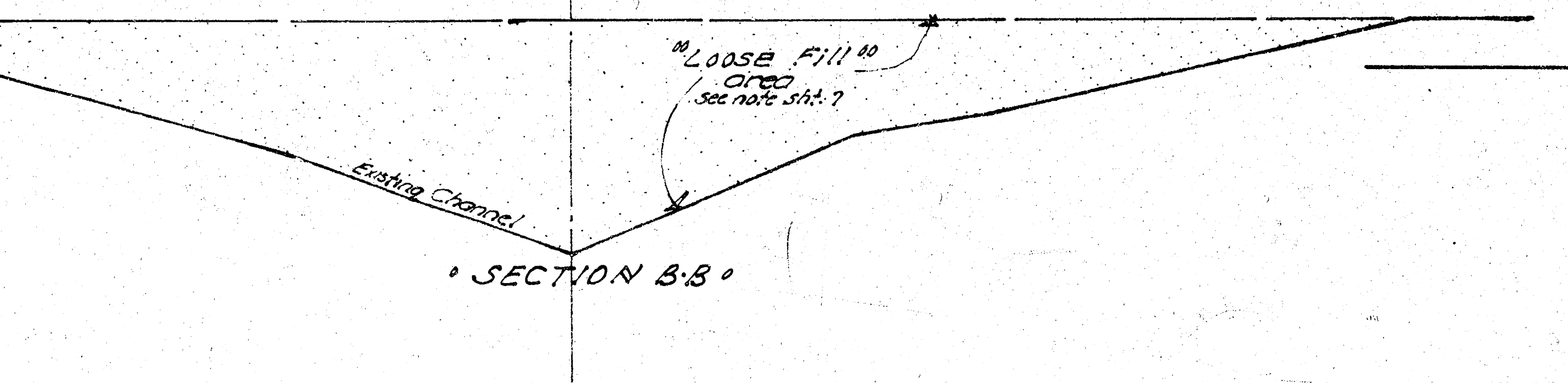


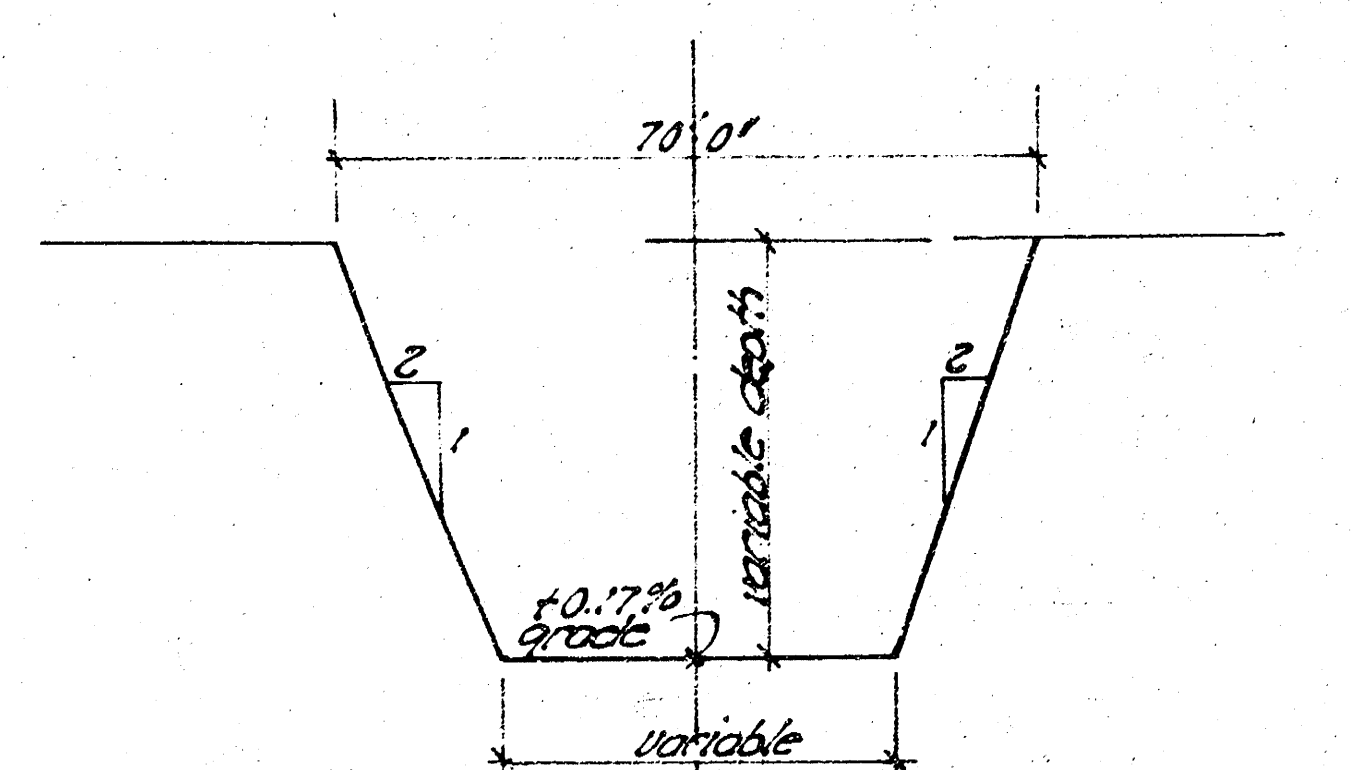
Survey 2/28/29
 City Engineer
 S.E. Smith



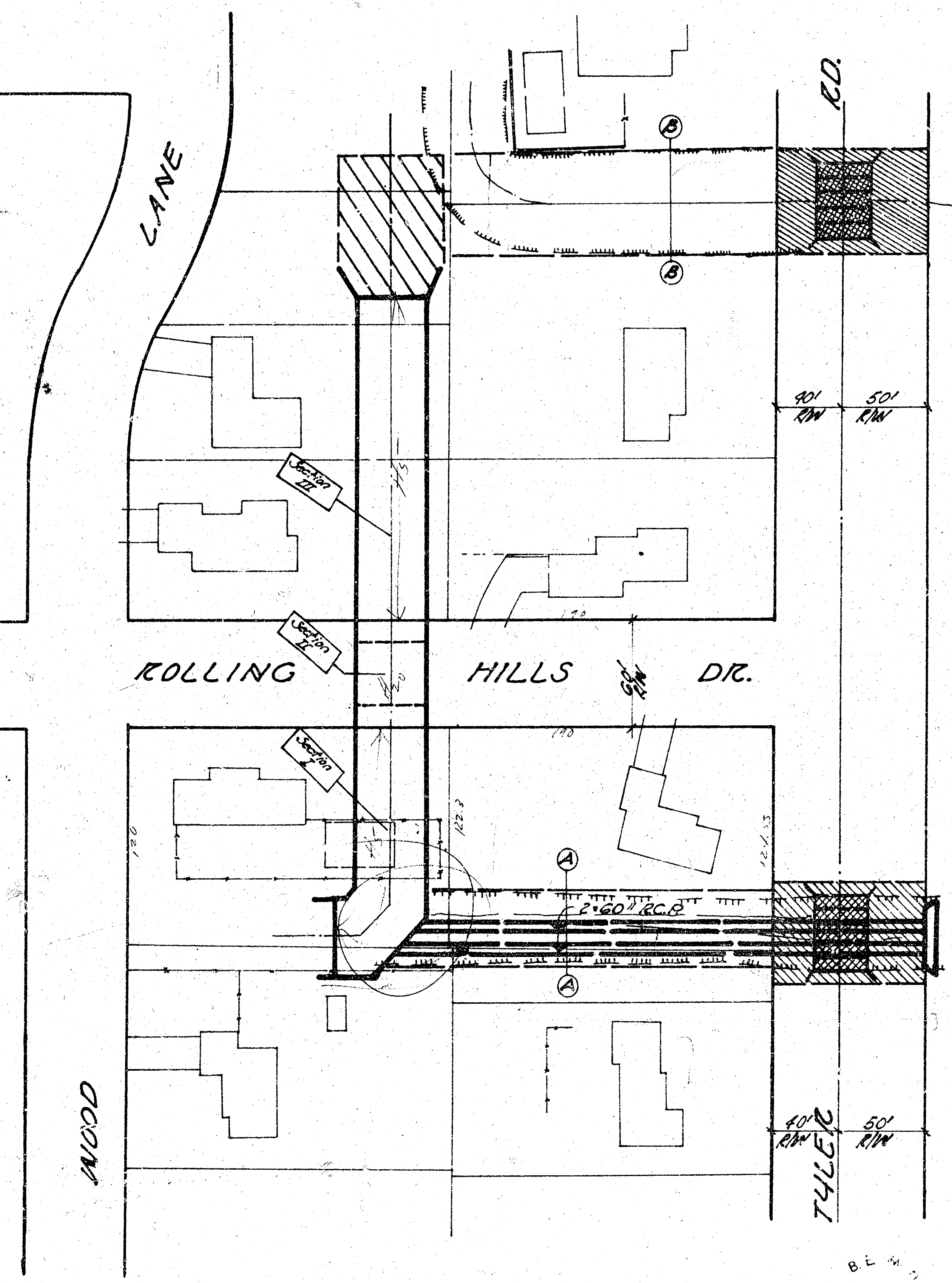
SECTION A-A



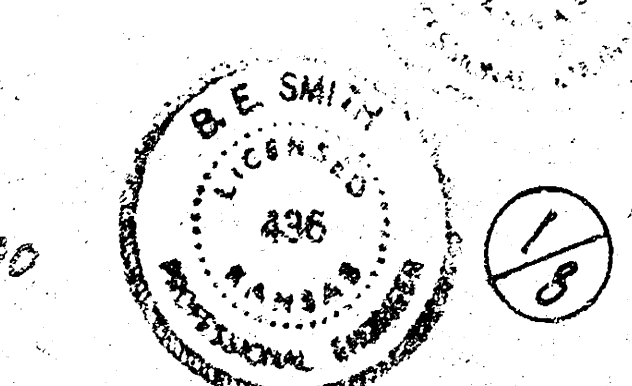
SECTION B-B



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

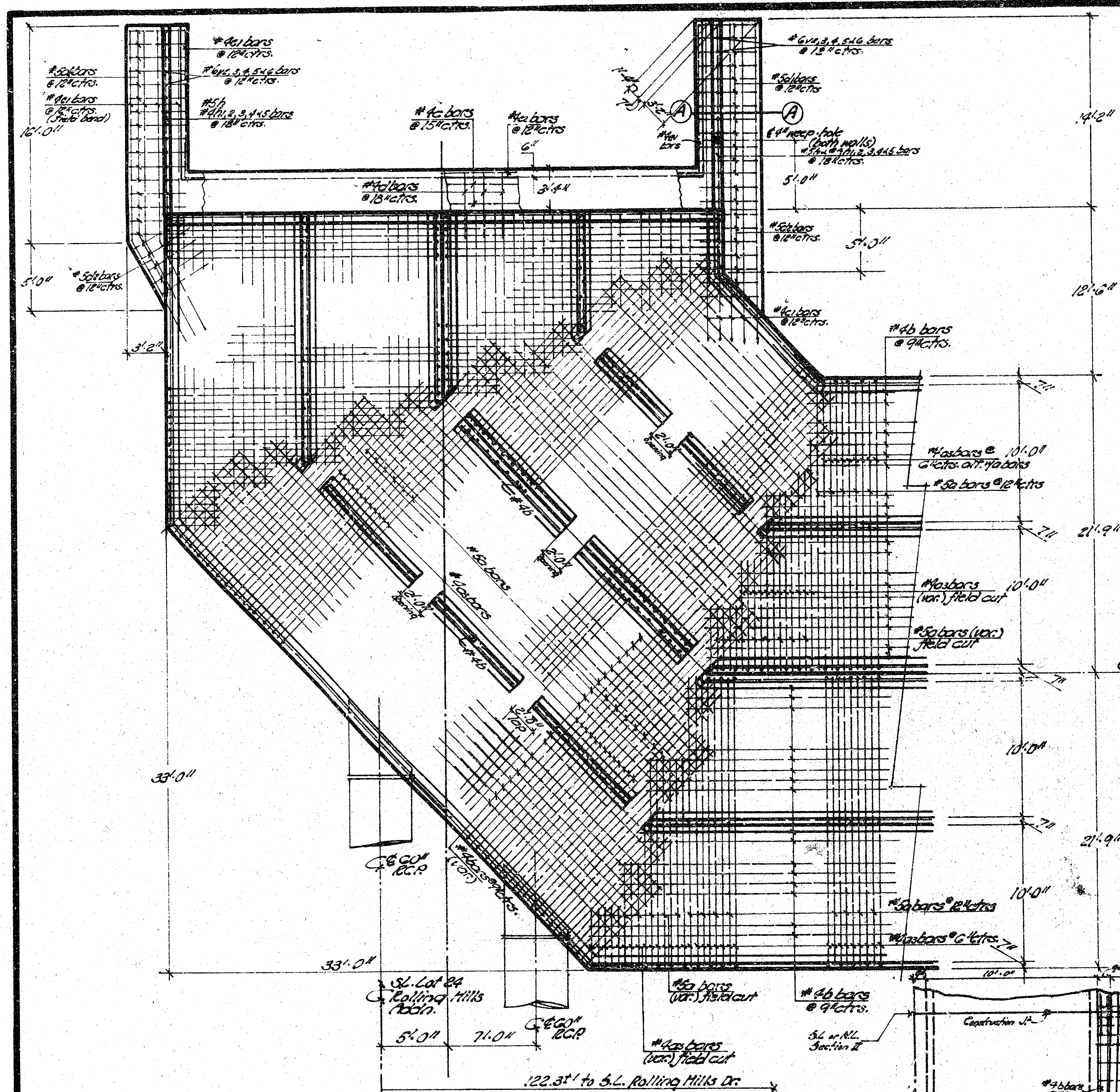


OFFICE PLAN

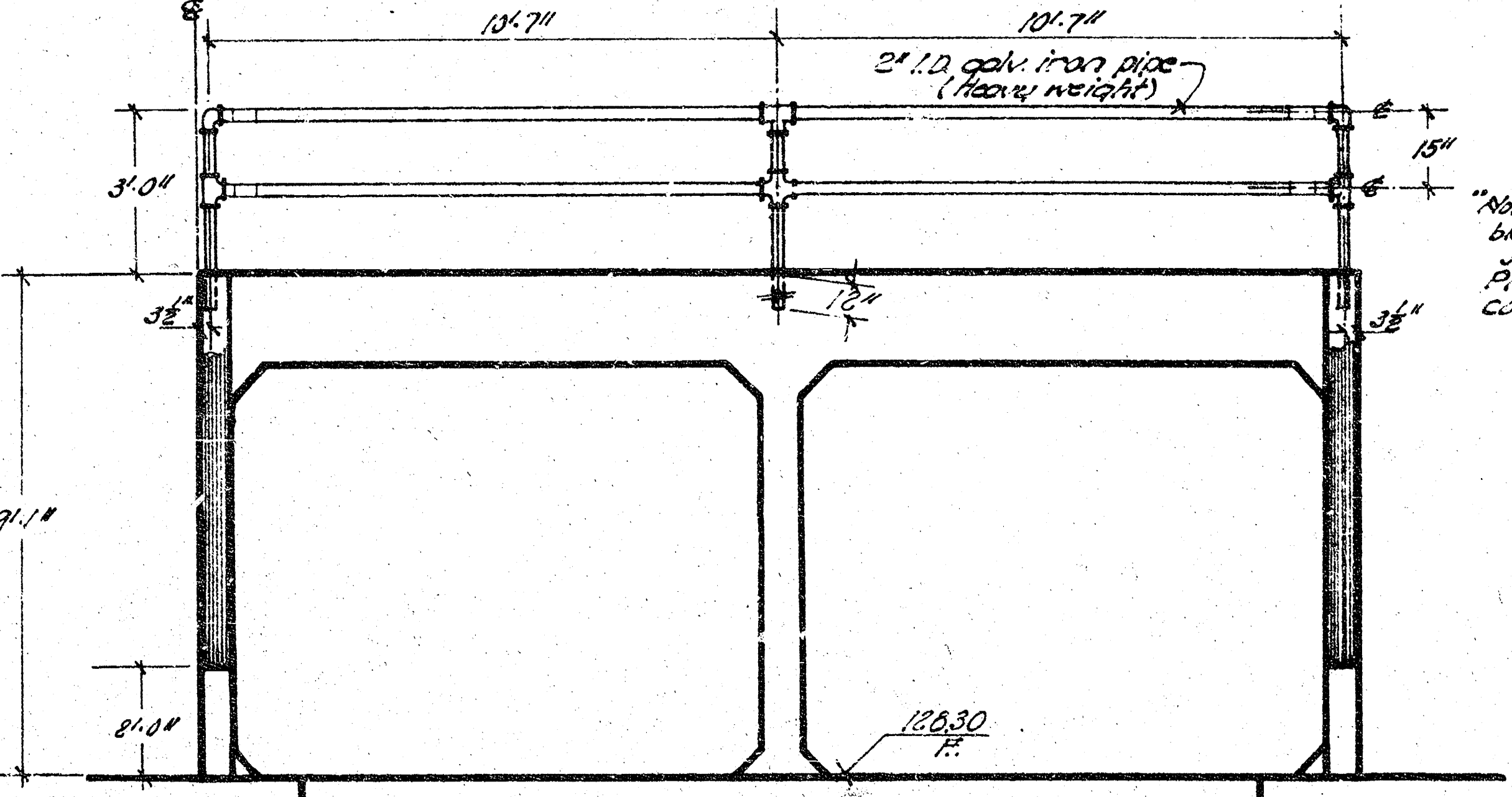
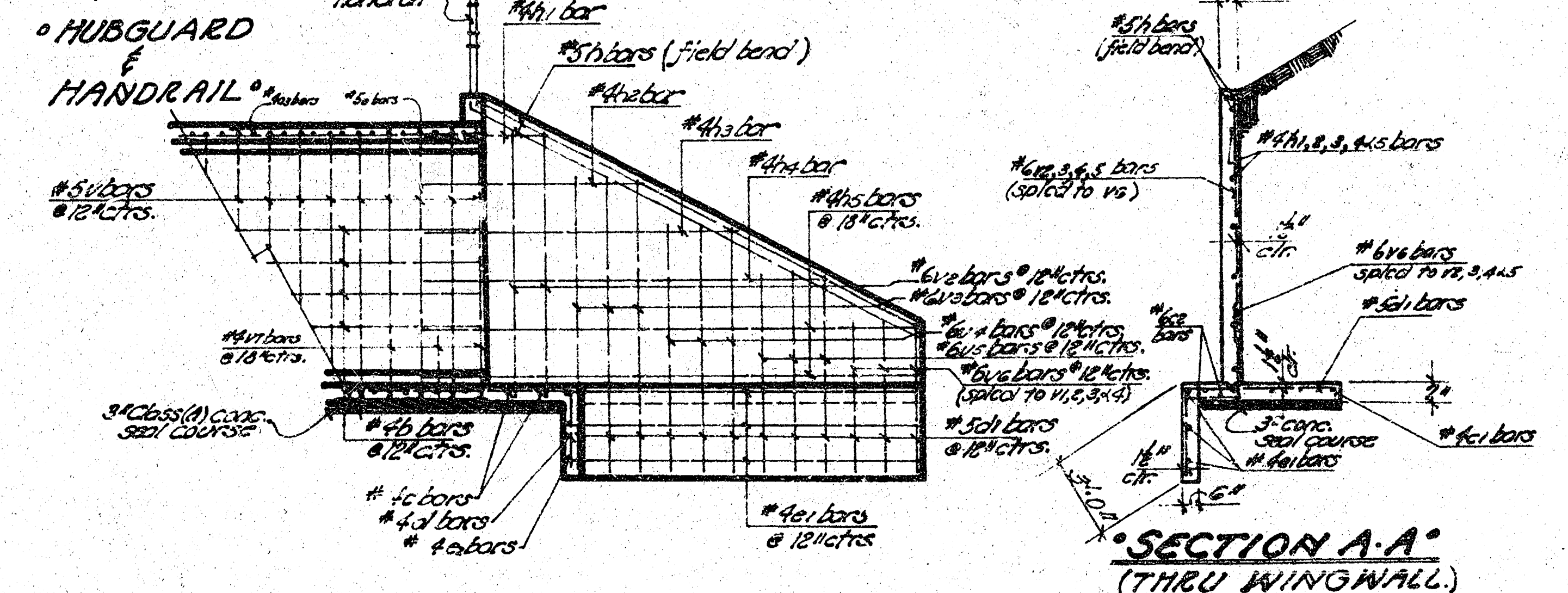
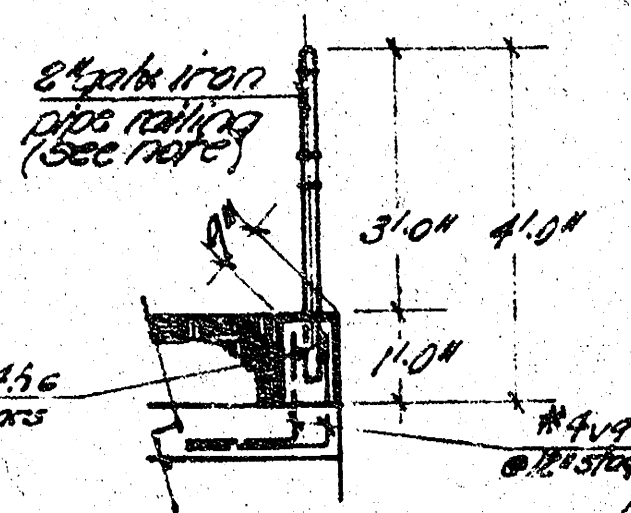
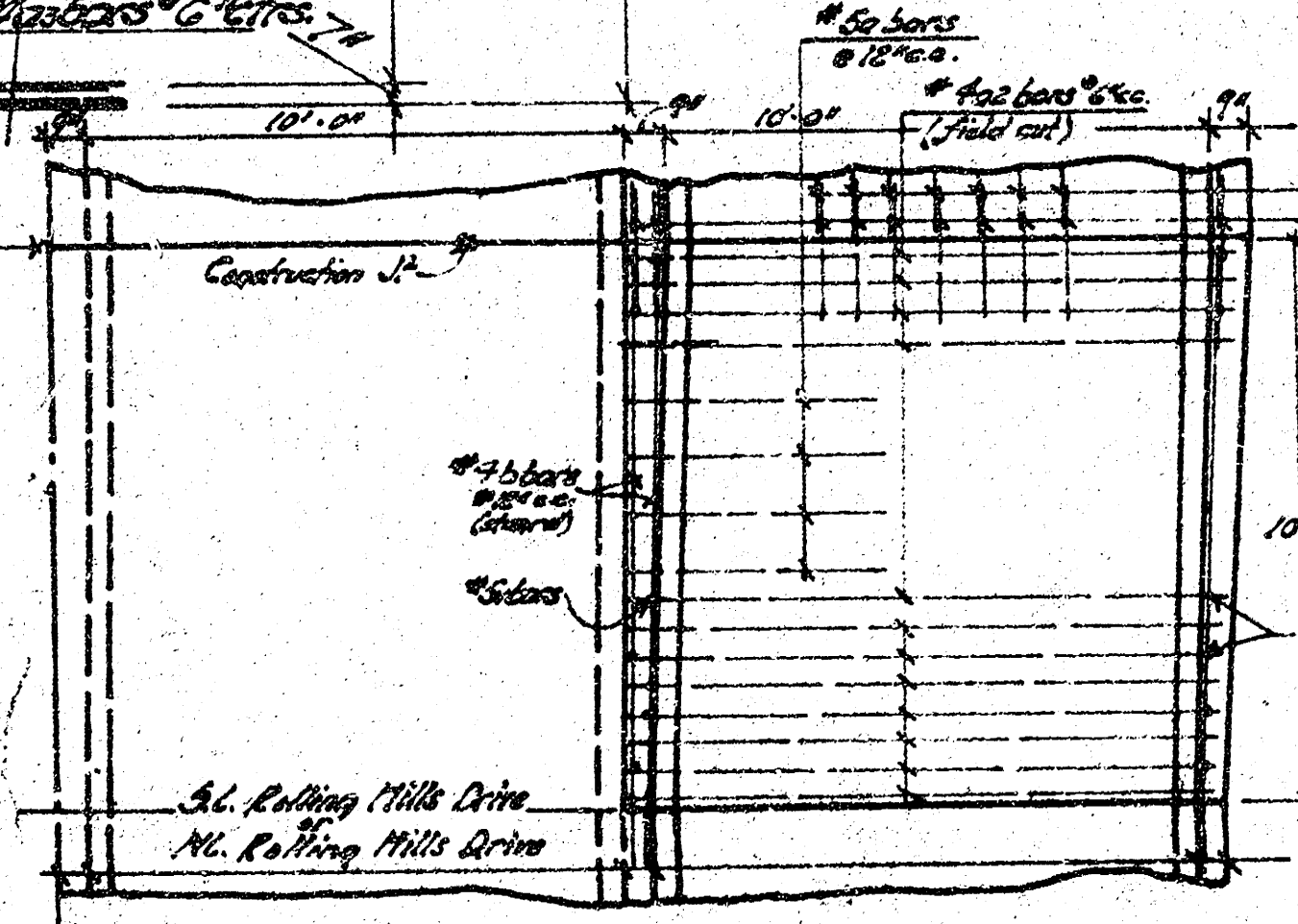


LOCATION MAP
 4-10'x8' reinforced
 4-10'x8' reinforced
 Concrete Box Culverts - in connection with
 TYLER ROAD paving - S.W. Maple Street
 to (700') N. of N.E. Central Avenue.
 City of Wichita, Kansas
 S.E. Smith City Engineer
 Date: Proj. No. C17-11

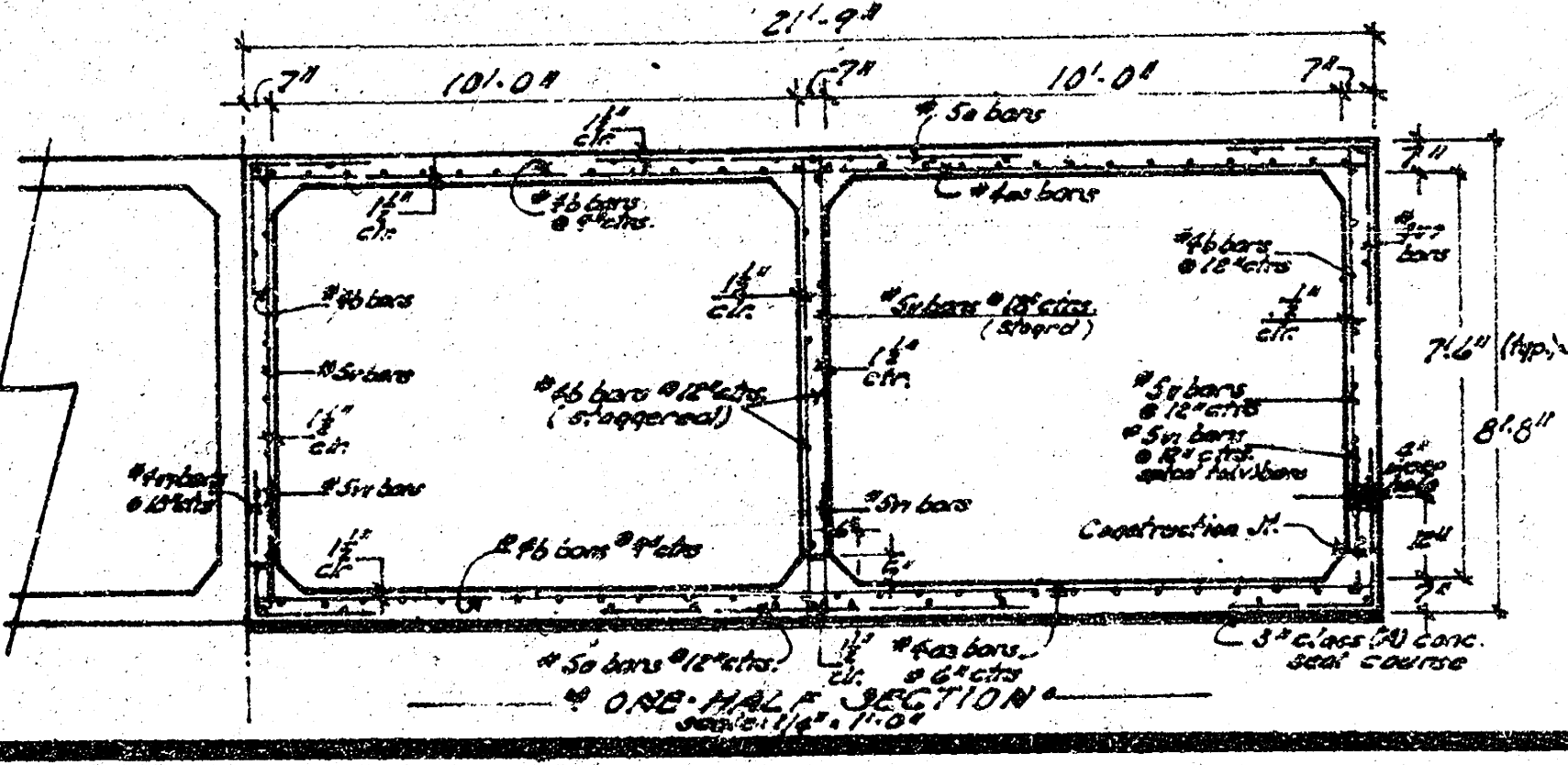
1/25/29 - Engr.
 1/25/29 - Engr.



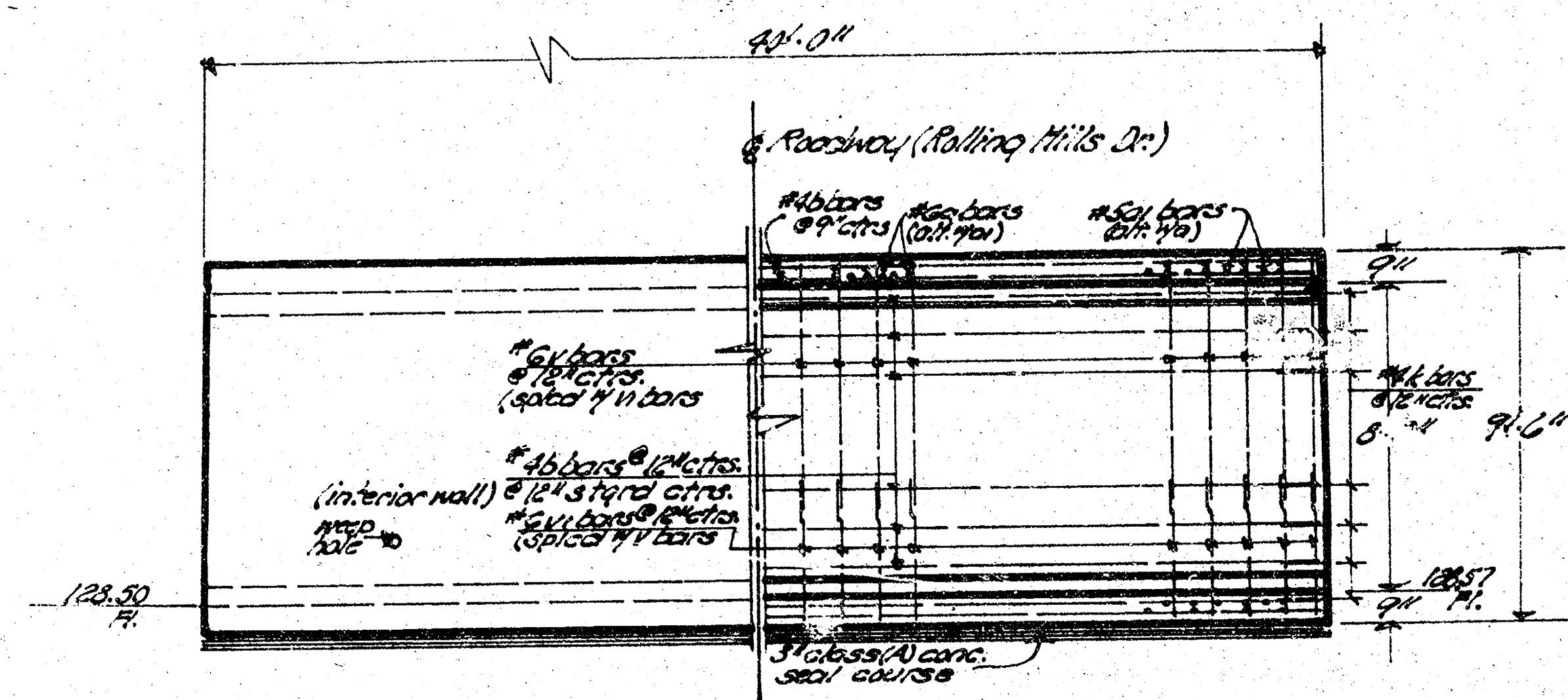
Note:
 Construction Joints @ 40'-0" on @ dist. by 3 and.
 Install 6" weep-holes @ 30'-0" cts.
 by 3 of N. end Culvert.



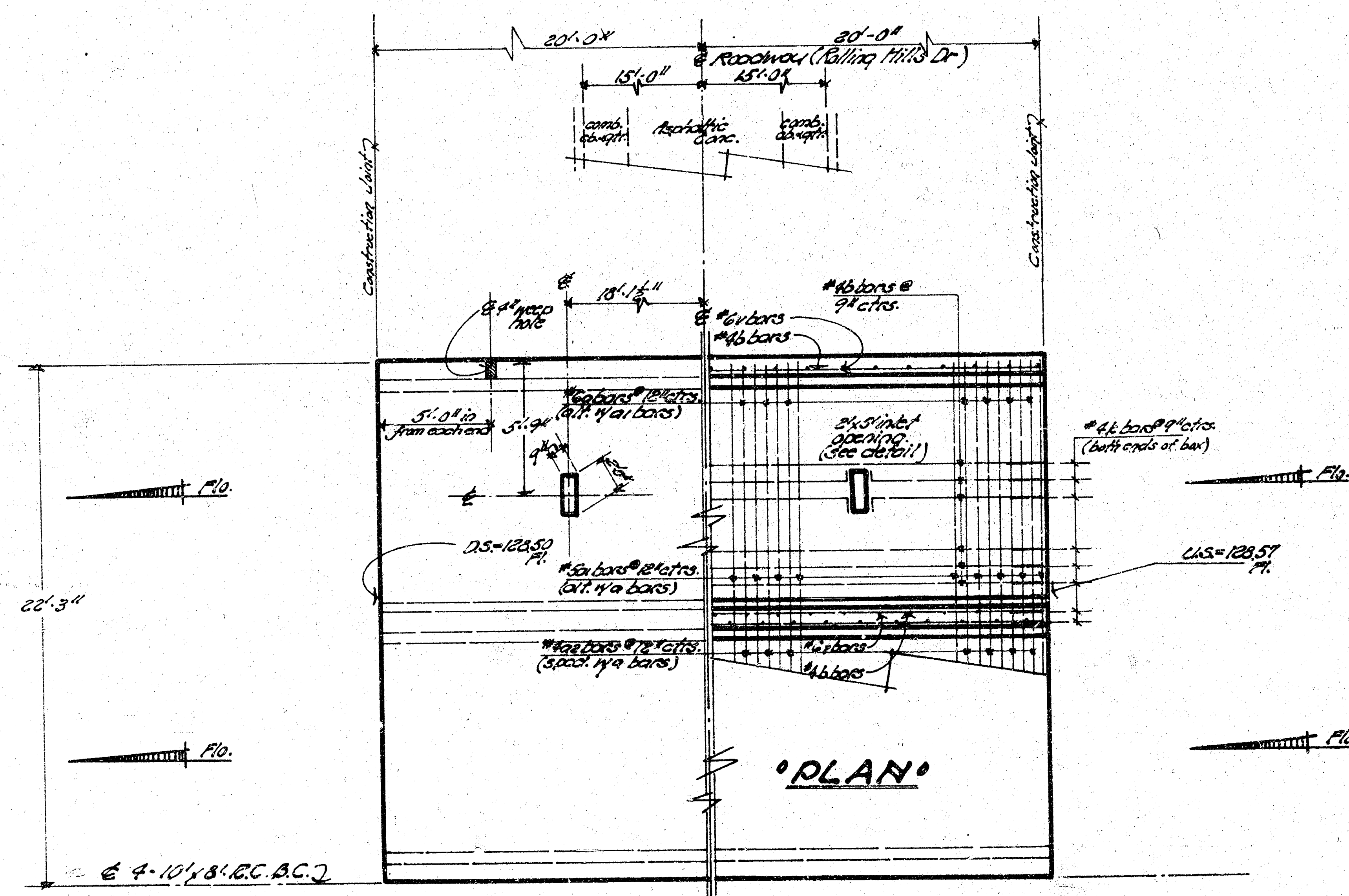
Note: Handrail to be shop assembled and placed on project just prior to installation. Place handrail in sight concrete the reqd depth.



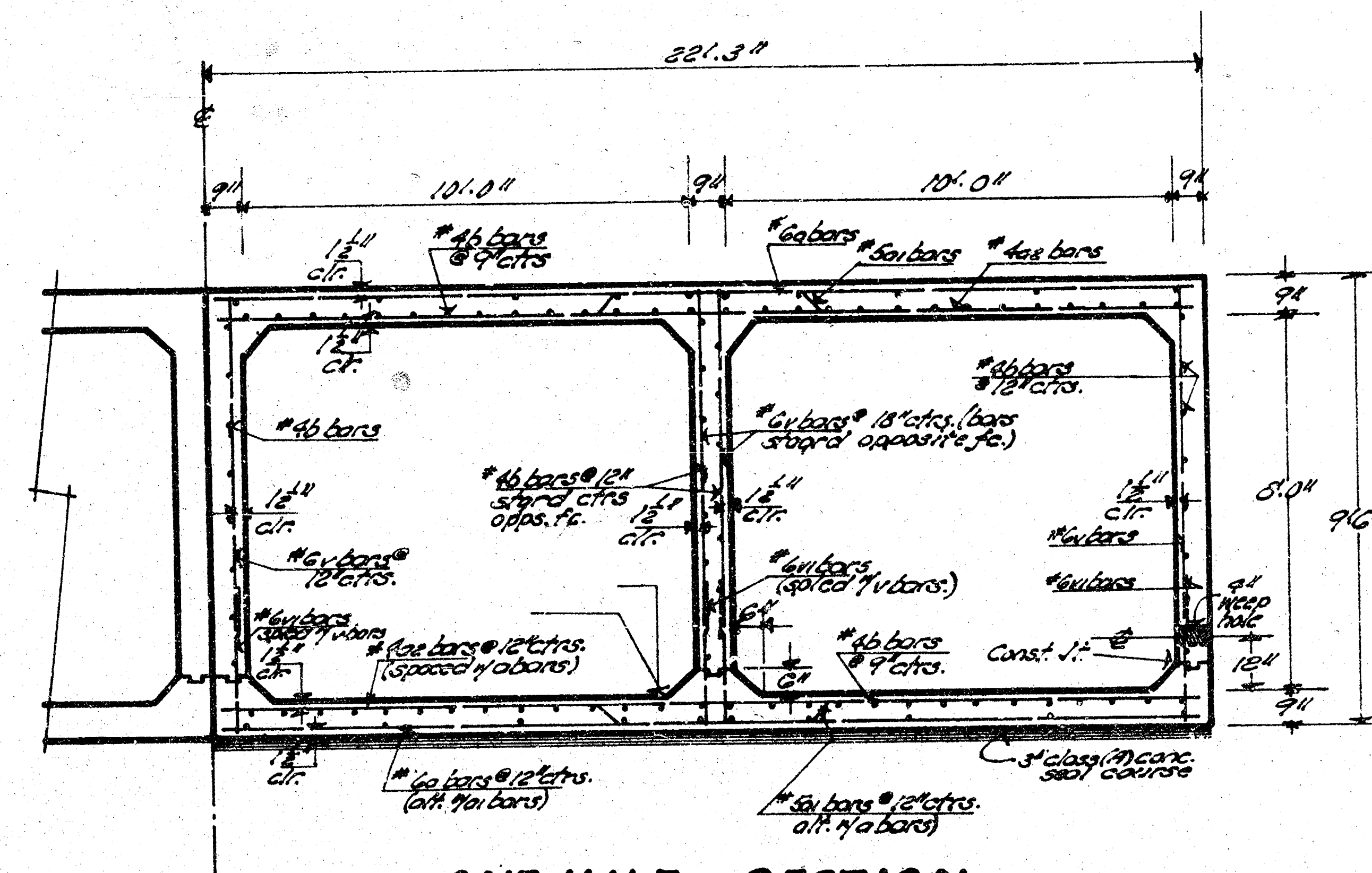
Note: All exposed rebar to be triangular rubbing on all surfaces.



ELEVATION

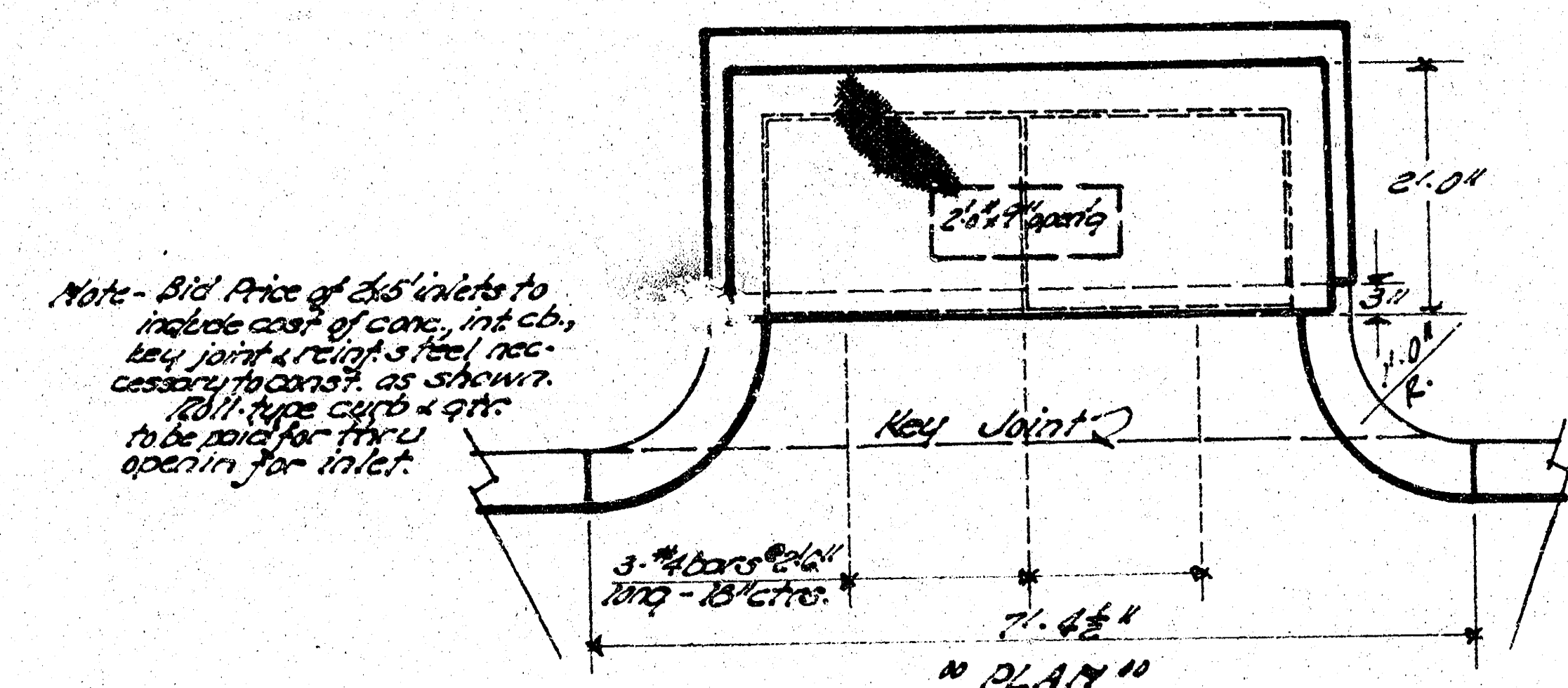


PLAN

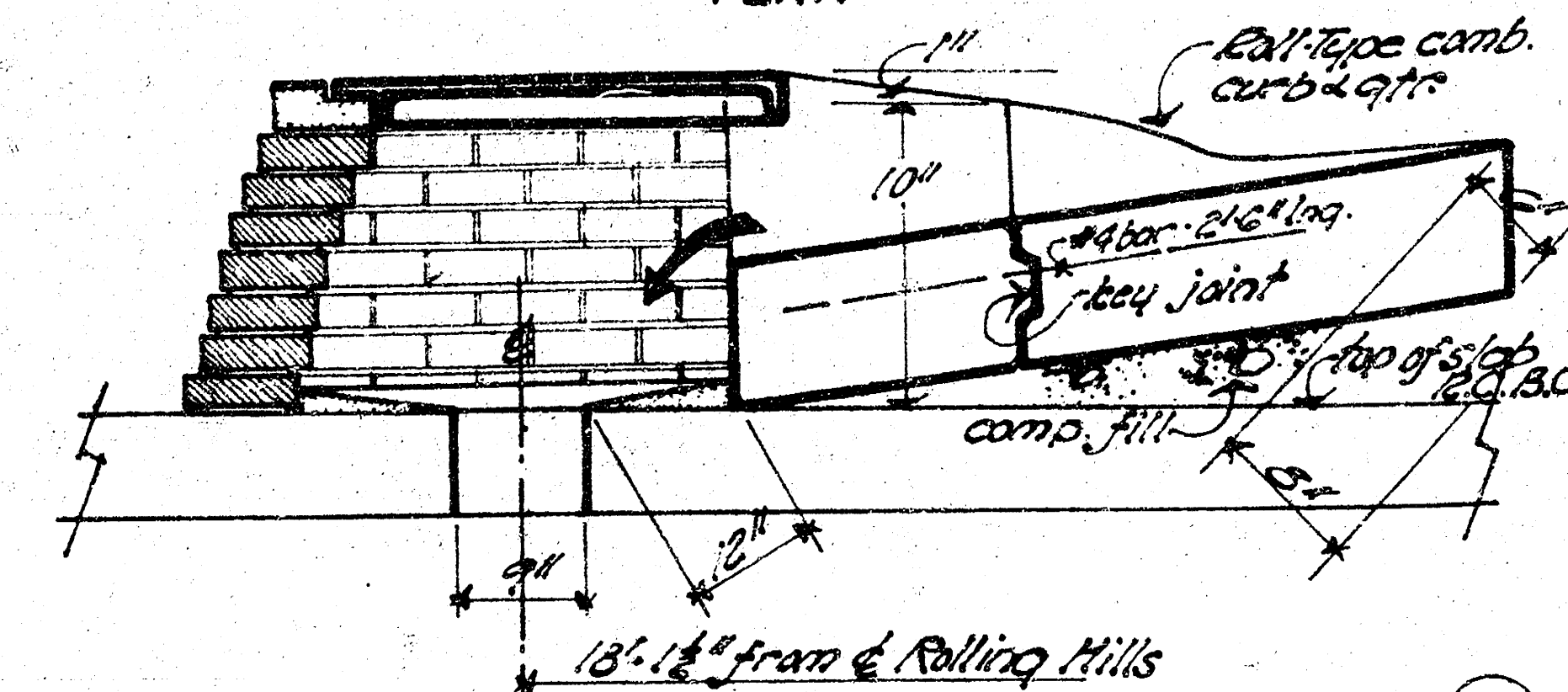


ONE-HALF SECTION

Scale: 1/2" = 1'-0" Note: Bore all exposed edges 1/4" triangular mitering unless otherwise noted.

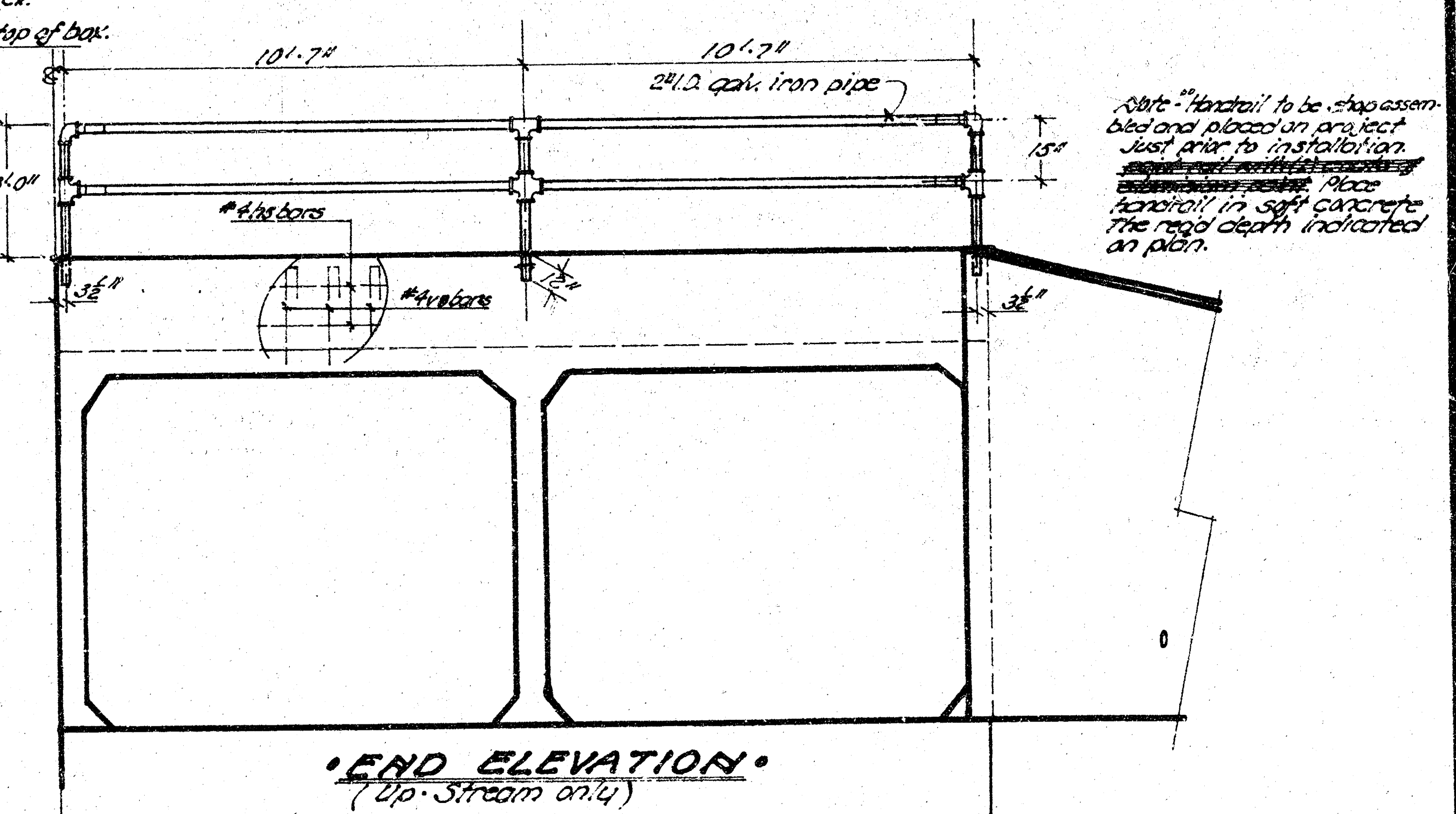
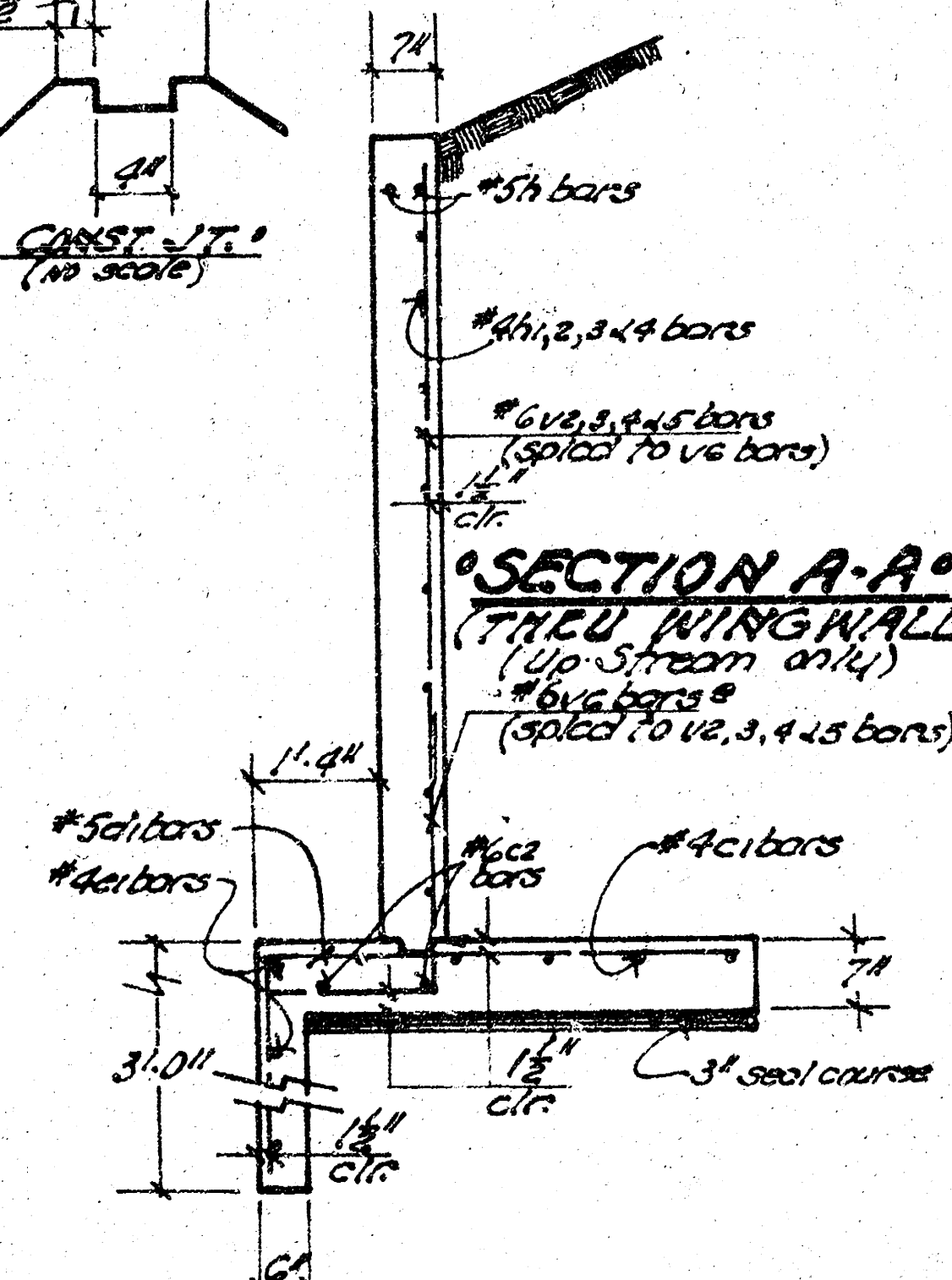
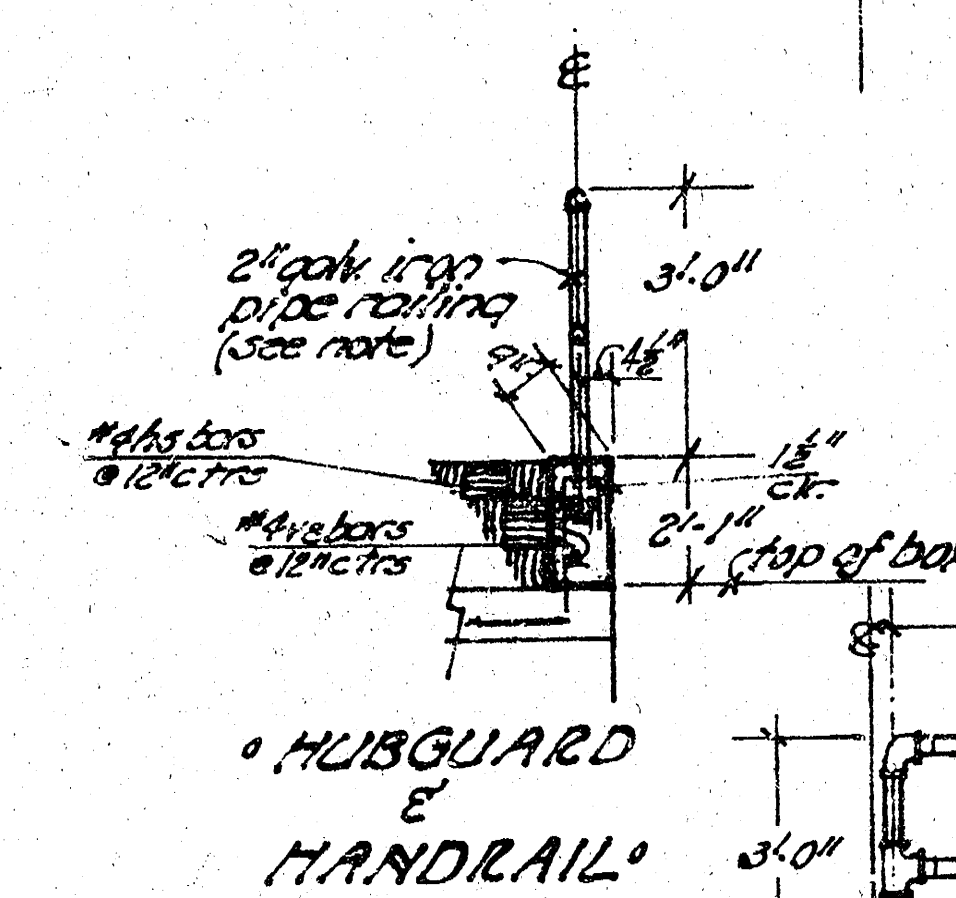
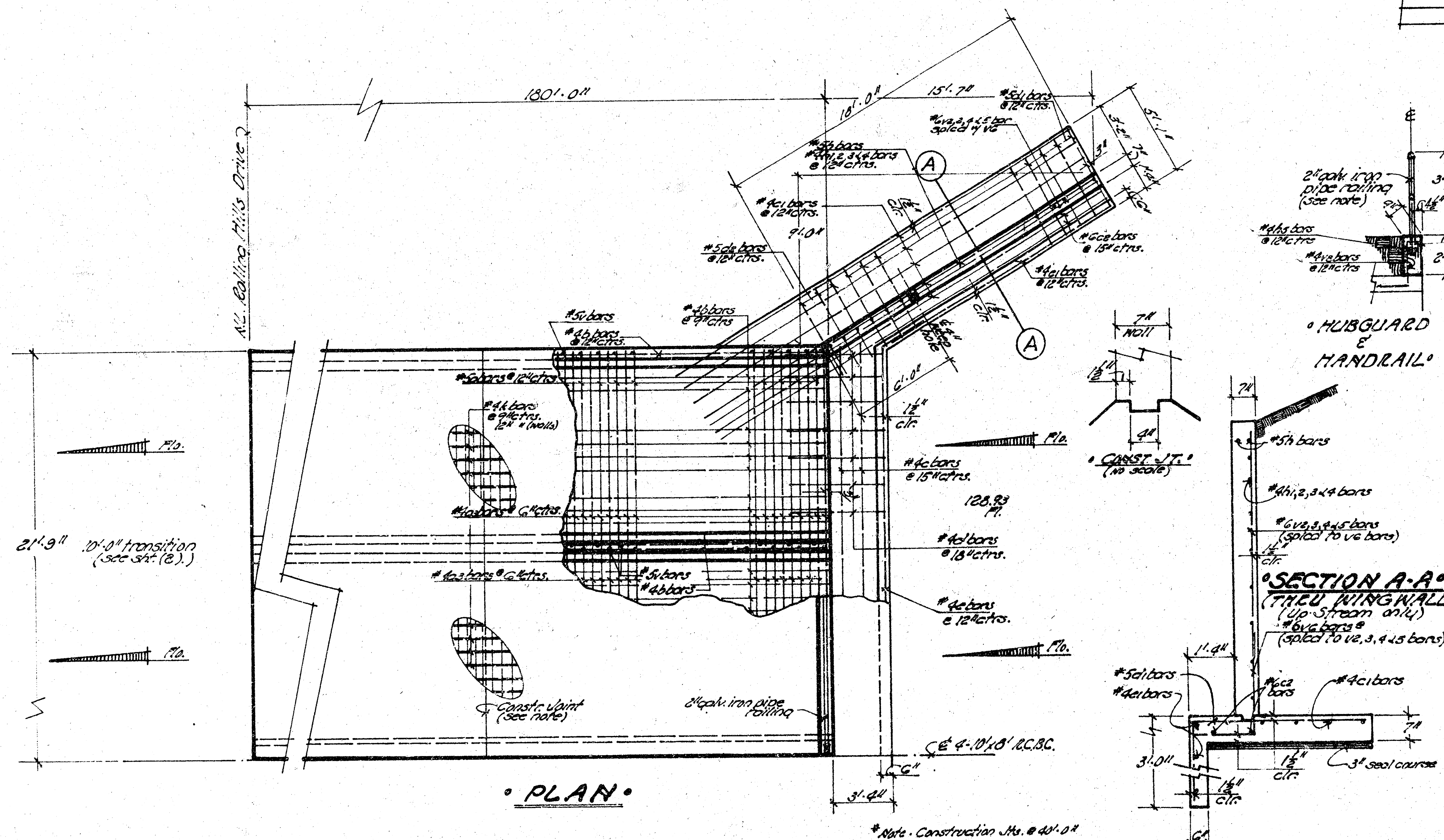
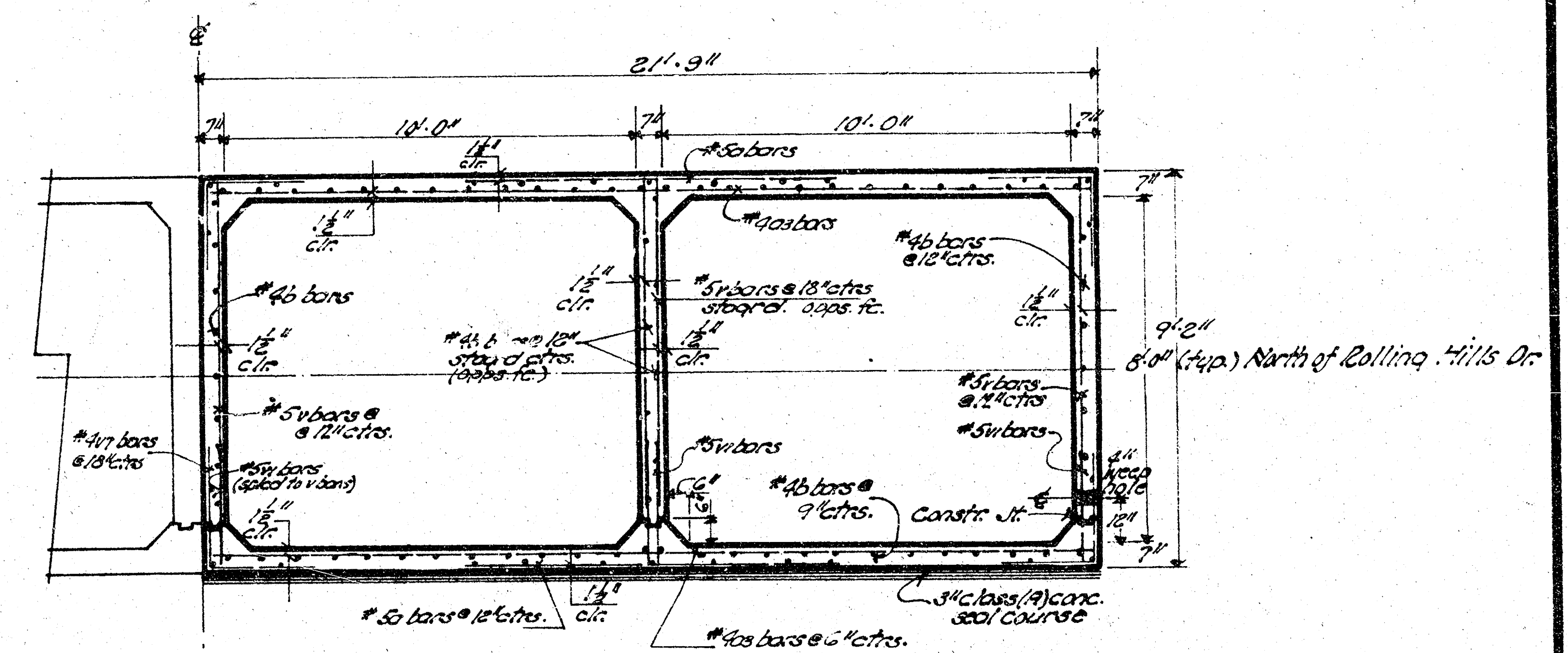
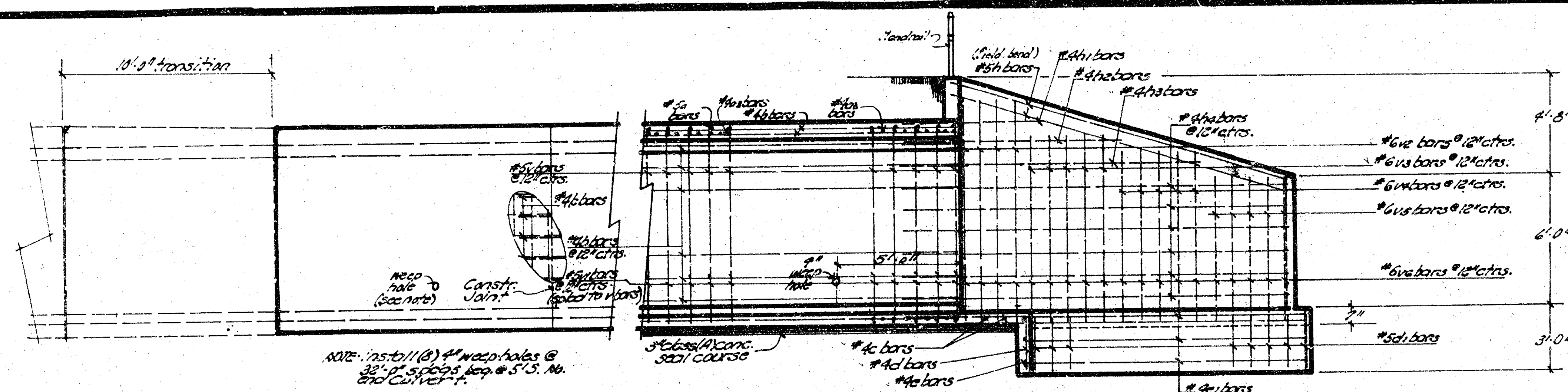


Note: Bid Price of 24" inlets to include cost of concrete, int. abutment joint & right of way, as shown. Roll-type curb & gtr. to be paid for by U. open in for inlet.



INLET DETAIL FOR ROLL-TYPE CURB, C.B. & GTR.

"REFINE CONC. CULVERT" SECTION (II)



**"REINF. CONC. CULVERT"
SECTION (III)**

SECTION (1)

BAR SCHEDULE

Bar	Size	Length	No.	Location	Shape	Spacing	Weight
a	#5	10'-0"	480	box		12"	5006.400
b	#4	21'-6"	960	"		12"	13787.520
c	#4	39'-9"	640	box		12"	17047.020
d	#4	21'-6"	4	apron		15"	57.448
e	#4	21'-6"	10	wingwall		12"	168.320
f	#4	7'-5"	28	"		12"	138.722
g	#5	7'-5"	34	"		12"	185.655
h	#5	21'-9"	18	"		12"	90.740
i	#4	21'-9"	6	apron		12"	87.174
j	#4	10'-9"	6	wingwall		12"	42.418
k	#5	17'-9"	4	"		6"	74.038
l	#4	4'-0"	2	"			5.344
m	#4	7'-0"	2	"			7.352
n	#4	10'-0"	2	"			13.360
o	#4	13'-0"	2	"			17.368
p	#4	16'-0"	4	"		18"	42.752
q	#4	21'-6"	2	subgrade			57.448
r	#4	3'-0"	640	box		9"x12"	1886.568
s	#5	7'-2"	798	"		9"x12"	5764.945
t	#5	3'-0"	798	"		9"x12"	2476.792
u	#5	7'-6"	4	wingwall		12"	65.960
v	#6	6'-3"	6	"		12"	55.325
w	#6	4'-0"	6	"		12"	27.034
x	#6	3'-0"	6	"		12"	16.322
y	#6	4'-0"	28	"		12"	99.072
z	#4	3'-2"	44	subgrade		12"	99.072
Subtotal = 47001.830							

SECTION (2)

BAR SCHEDULE

Bar	Size	Length	No.	Location	Shape	Spacing	Weight
a	#6	22'-0"	160	box		12"	5282.080
b	#5	22'-0"	136	"		12"	3633.800
c	#4	22'-0"	160	"		12"	2351.360
d	#4	39'-9"	214	"		9"x12"	5682.342
e	#6	7'-0"	266	"		12"x18"	3129.654
f	#6	3'-0"	266	"		12"x18"	1129.574
g	#4	3'-0"	408	"		9"x12"	857.712
Subtotal = 22140.511							
TRANSITION SECTION							
h	#5	10'-0"	240	box		12"	2503.200
i	#4	10'-0"	480	box		6"	7054.080
j	#4	29'-9"	428	"		9"x12"	8505.644
k	#5	7'-0"	404	"		12"x18"	3230.532
l	#6	3'-0"	404	"		12"x18"	1264.116
m	#4	5'-0"	656	"		13"	2191.040
Subtotal = 24748.612							

SECTION (3)

BAR SCHEDULE

Bar	Size	Length	No.	Location	Shape	Spacing	Weight
a	#5	10'-0"	240	box		12"	2503.200
b	#4	21'-6"	1280	"		6"	13383.360
c	#4	39'-9"	856	"		9"x12"	22727.368
d	#4	21'-6"	4	apron		15"	57.448
e	#4	26'-0"	10	wingwall		12"	173.680
f	#4	26'-0"	4	"		15"	156.208
g	#4	7'-5"	28	apron		12"	138.722
h	#5	7'-5"	36	wingwall		12"	210.442
i	#5	4'-10"	6	"		12"	50.247
j	#4	10'-0"	6	apron		12"	77.180
k	#4	18'-0"	6	wingwall		12"	60.120
l	#5	20'-3"	4	"		6"	44.483
m	#4	7'-0"	2	"			9.352
n	#4	11'-0"	2	"			14.676
o	#4	15'-0"	2	"			20.040
p	#4	20'-0"	2	"		12"	160.320
q	#4	21'-6"	12	subgrade		12"	86.172
r	#4	3'-0"	856	box		9"x12"	1715.424
s	#5	7'-8"	1864	"		12"x18"	8504.132
t	#5	3'-0"	1064	"			3322.258
u	#5	7'-0"	8	wingwall		12"	112.140
v	#6	7'-9"	10	"			116.405
w	#6	7'-0"	10	"			105.140
x	#6	5'-0"	8	"			64.091
y	#6	4'-0"	36	"		12"	216.288
z	#4	5'-0"	856	box		18"	2882.320
aa	#4	5'-1"	44	subgrade		12"	149.400
Subtotal = 66324.743							

BILL OF MATERIALS

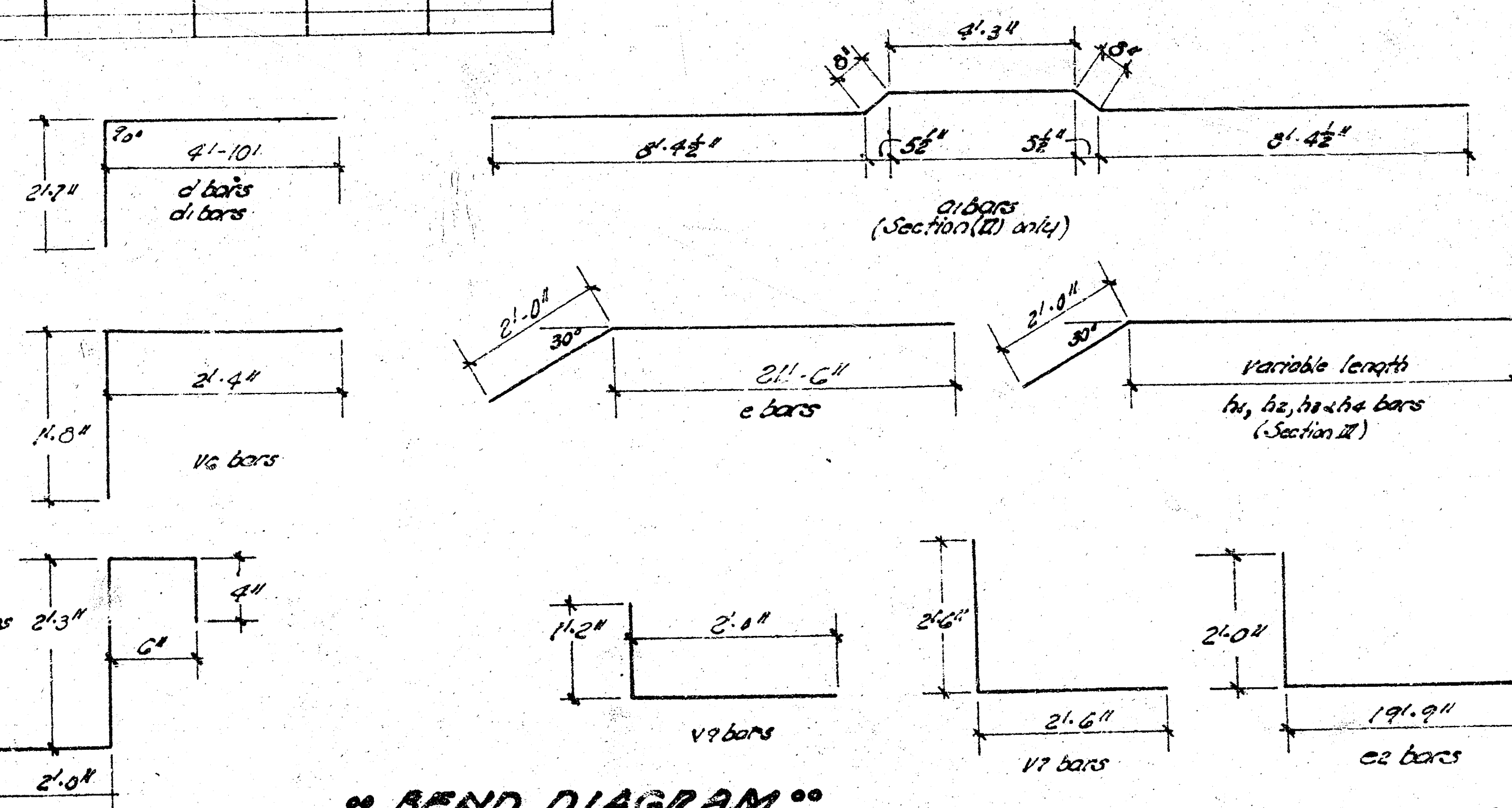
ITEM	QUAN.	UNIT
Class A-AE Concrete	1200.00	C.Y.
Reinforcing Steel	160220	LBS.
Manual Excavation	6.18	C.Y.
Manual Fill	104.61	C.Y.
Reinf. Conc. Headwall & 60" R.C.P.	1	ea.
" " Inlets (60")	2	ea.
3x2 grate inlet	1	ea.
60" R.C.P.	610	L.F.
24" " "	4	"
15" " "	4	"
Roll-type Comb. ch. & grt.	145	"
Asphalt	76.74	TONS
Common Excavation	8865.7	C.Y.
Compacted Fill	1715.2	C.Y.
24" brick inlets	2	ea.
Comb. ch. & grt. rem.	145	"
Existing Culverts Rem.	2	"
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 "Wingwall" to occupy a space extending (15') in all directions above weed hole flange. 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. (w/inf) headwall for 60" R.C.P., reinf. conc. inlets, 2x2 grate, 15" 24" 60" R.C.P., roll-type comb. ch. & grt., tons asph., common excavation, compacted fill, 2x2 inlets, comb. ch. & grt. rem., structures rem., class (A) conc. clearing, R.C.W., loose fill. The quantities shown in the "Bill of Materials" or items which are included in the "Lump Sum Bid" of the Culvert are for "Information Only". The Contractor must satisfy himself to the "Quantities" and the Engineer 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') 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 Taylor Road which will be a bid item.



BEND DIAGRAM

5/8