

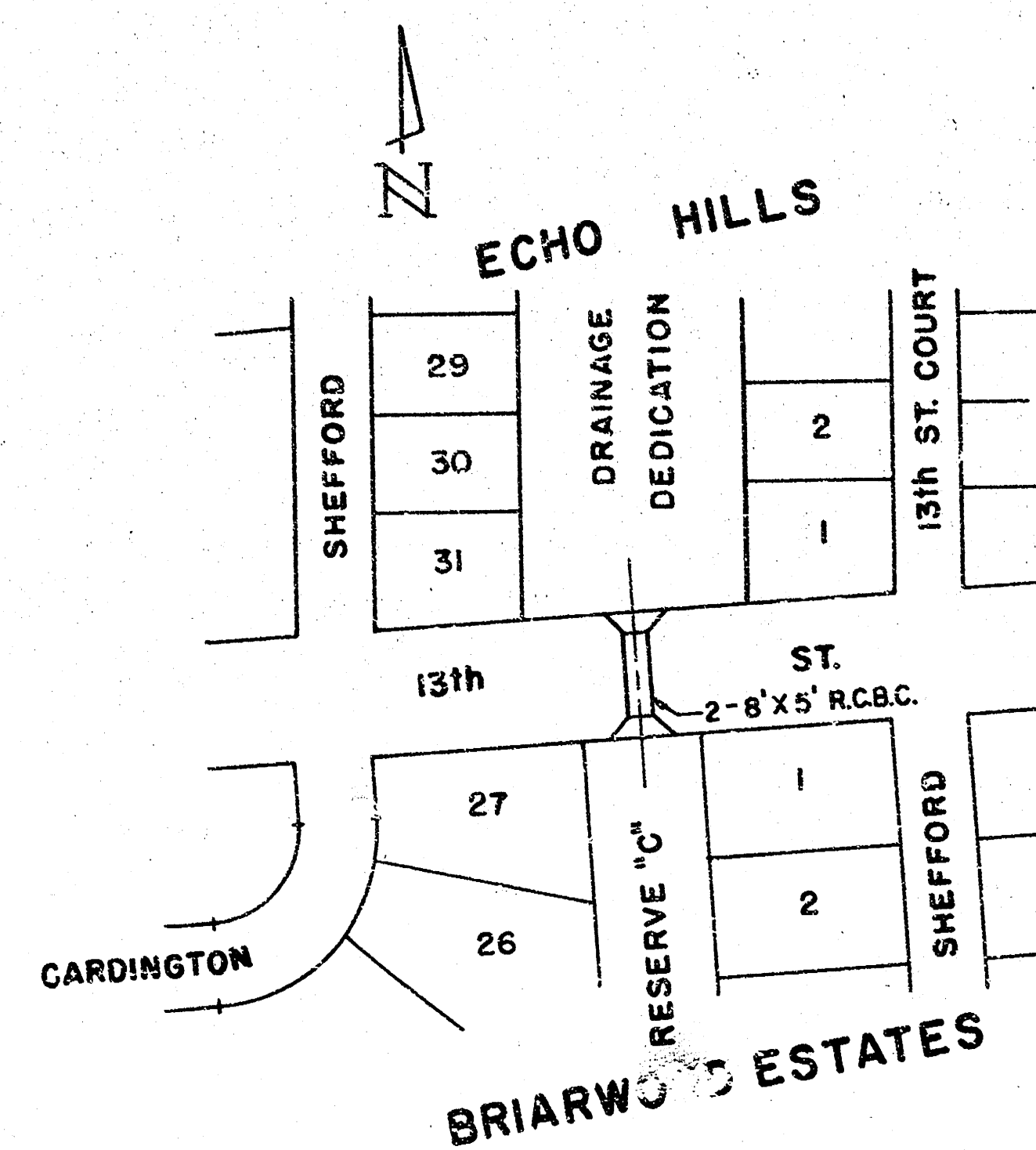
2-8'x5' R.C.B.C.
13th ST. BRIDGE
ONE-HALF MILE WEST OF MAIZE ROAD

CITY OF WICHITA, KANSAS

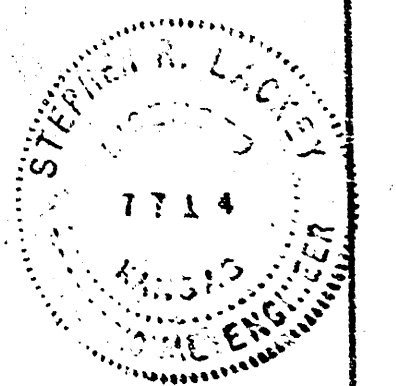
R.W. BRUGGEMAN DIRECTOR OF ENGINEERING / CITY ENGINEER

DATE:

PROJ.NO. 472 76 245 81061 000 000 004



LOCATION MAP
SCALE: 1" = 150'



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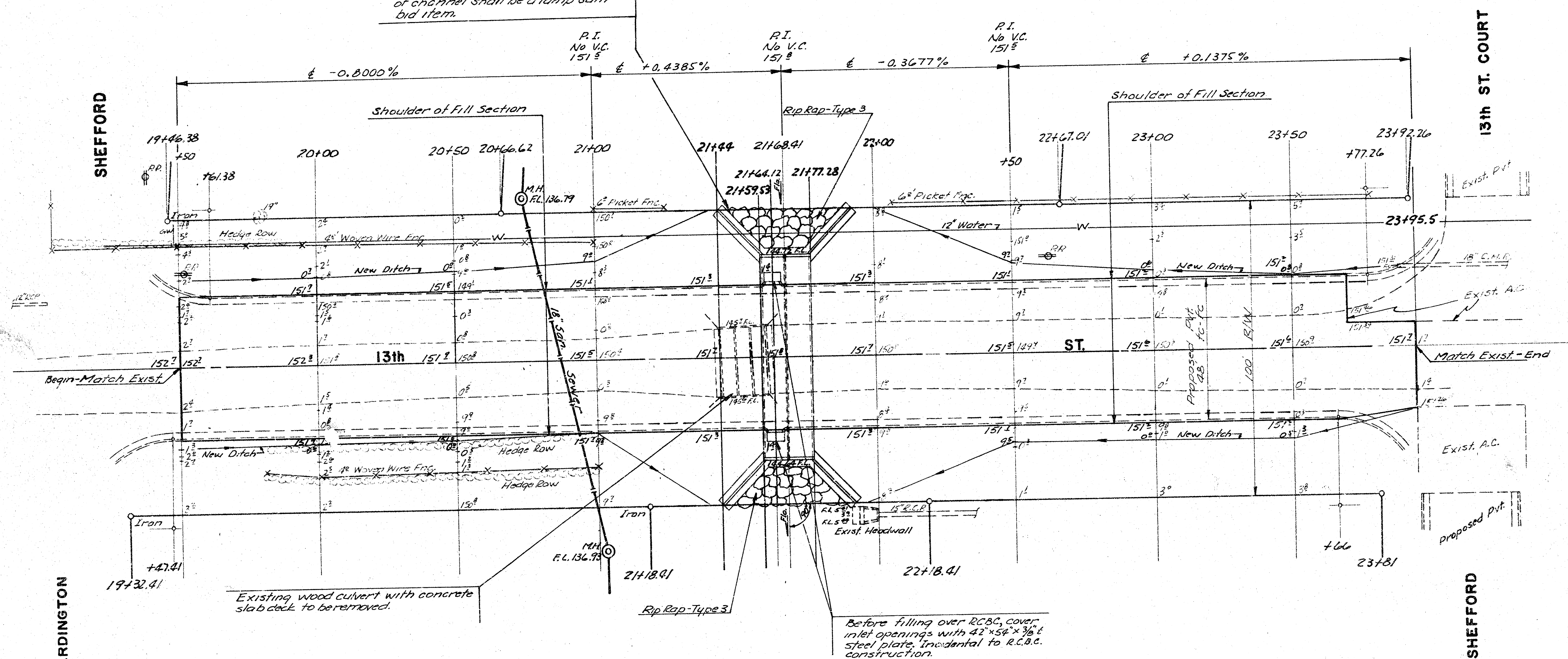
1/3

Survey & P.
Plan & E.C.
Checked

B.M. 157.975 City Sta. 26' N. & 26' E. of 1/4 Sec. on 13th St. 1/2 Mile W. of Maize Rd.
B.M. 157.654 Bridge Spk. S. face of R.R. approx. 997' E. & 32' N. of E. 119th St. W. 1/2 13th St. N.
B.M. 158.74 R.R. Spk. E. face of R.R. approx. 31' N. & 163' E. of E. 119th St. W. 1/2 13th St. N.
B.M. 153.16 Bridge Spk. S. face of R.R. approx. 1952' E. & 31' N. of E. 119th St. W. 1/2 13th St. N.

NOTE:
Excavate channel from N. 1/2 to 300'
N. of N. 1/2. Match cut for wingwalls
at N. 1/2 and match ground, zero
cut, at 300' N. of N. 1/2. Excavation
of channel shall be a lump sum
bid item.

Scale: 1" = 20'



NOTE:
After the R.C.B.C. is constructed, compacted fill
is to be added to the 13th St. roadway between
the limits shown, and set to the elevations
shown on the plan.

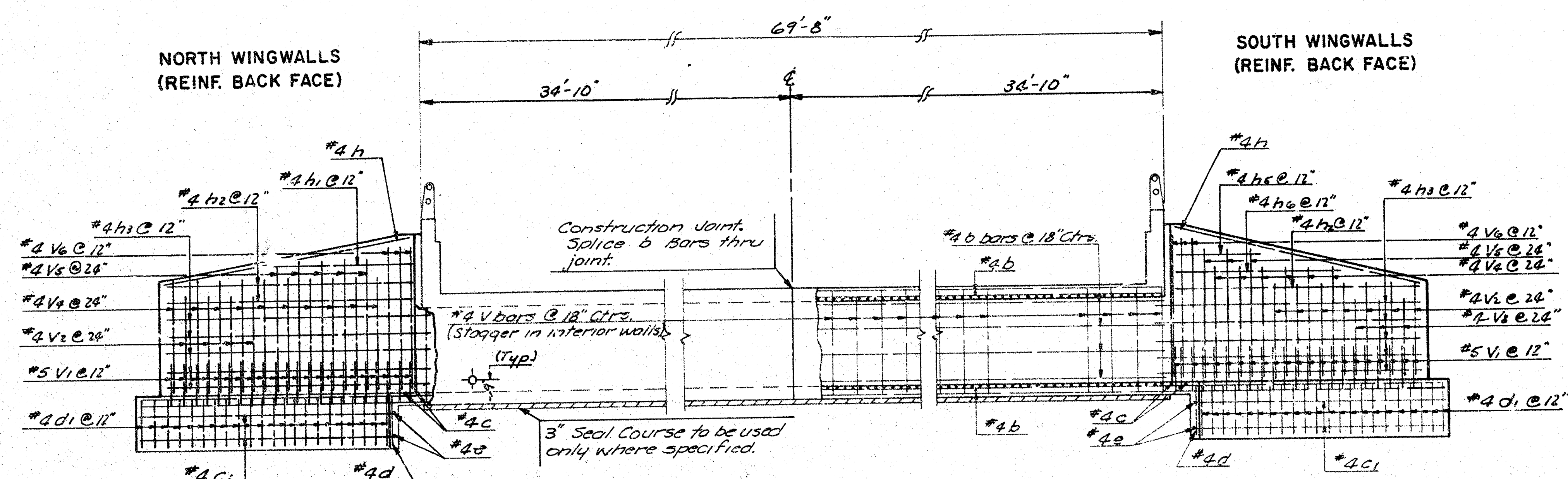
2-8'x5' R.C.B.C.

13th ST. BRIDGE

ONE-HALF MILE WEST OF MAIZE ROAD

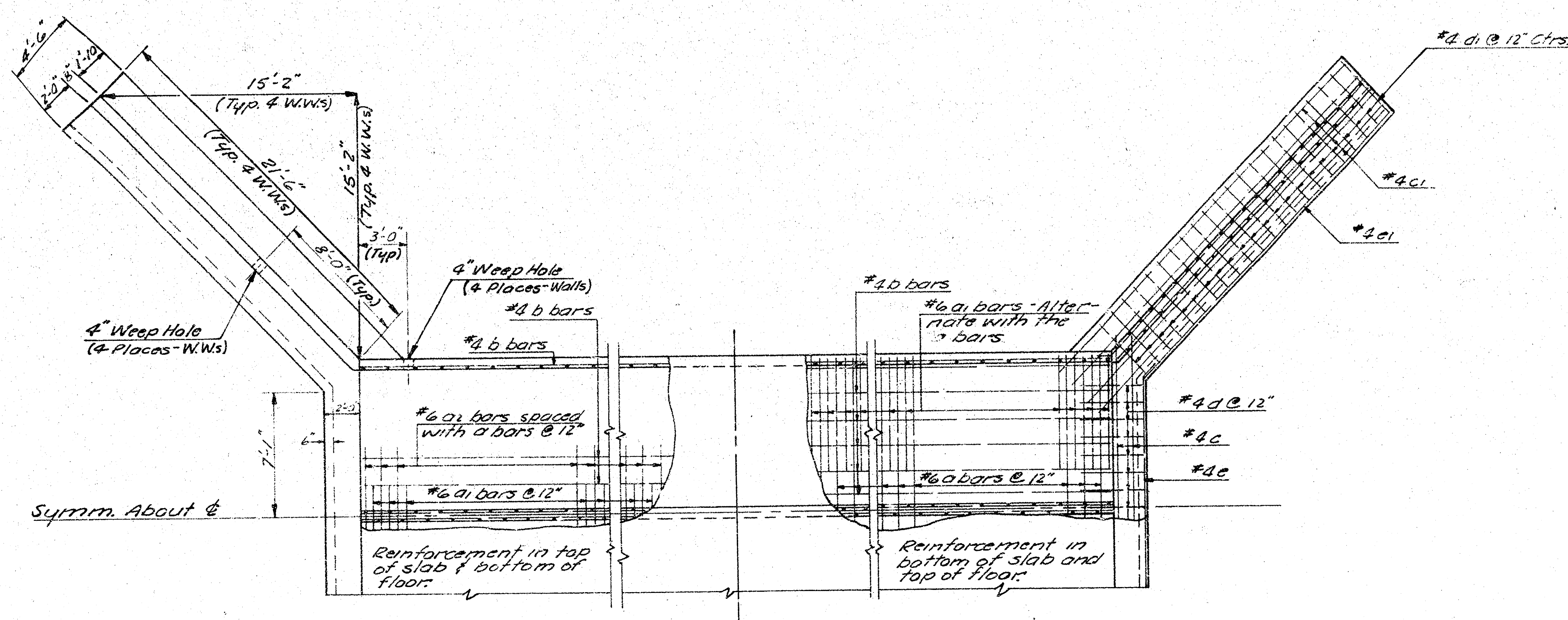
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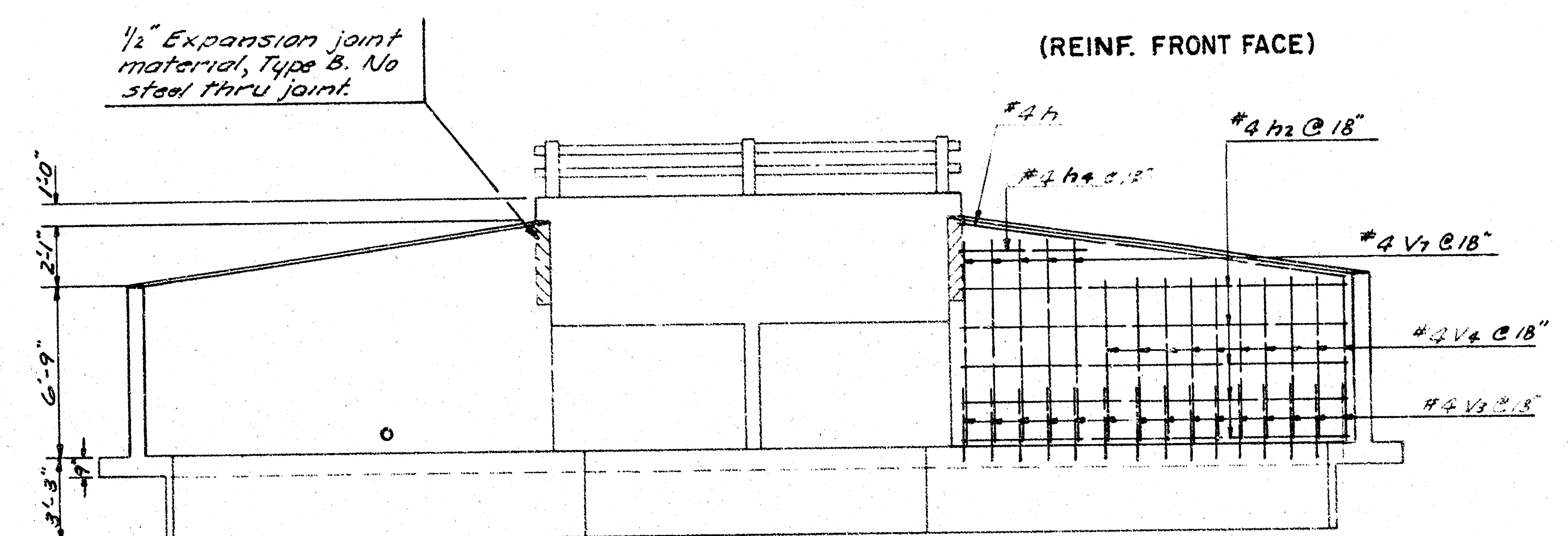
ELEVATION & SECTION

3/16" = 1' 0"



PLAN & SECTION

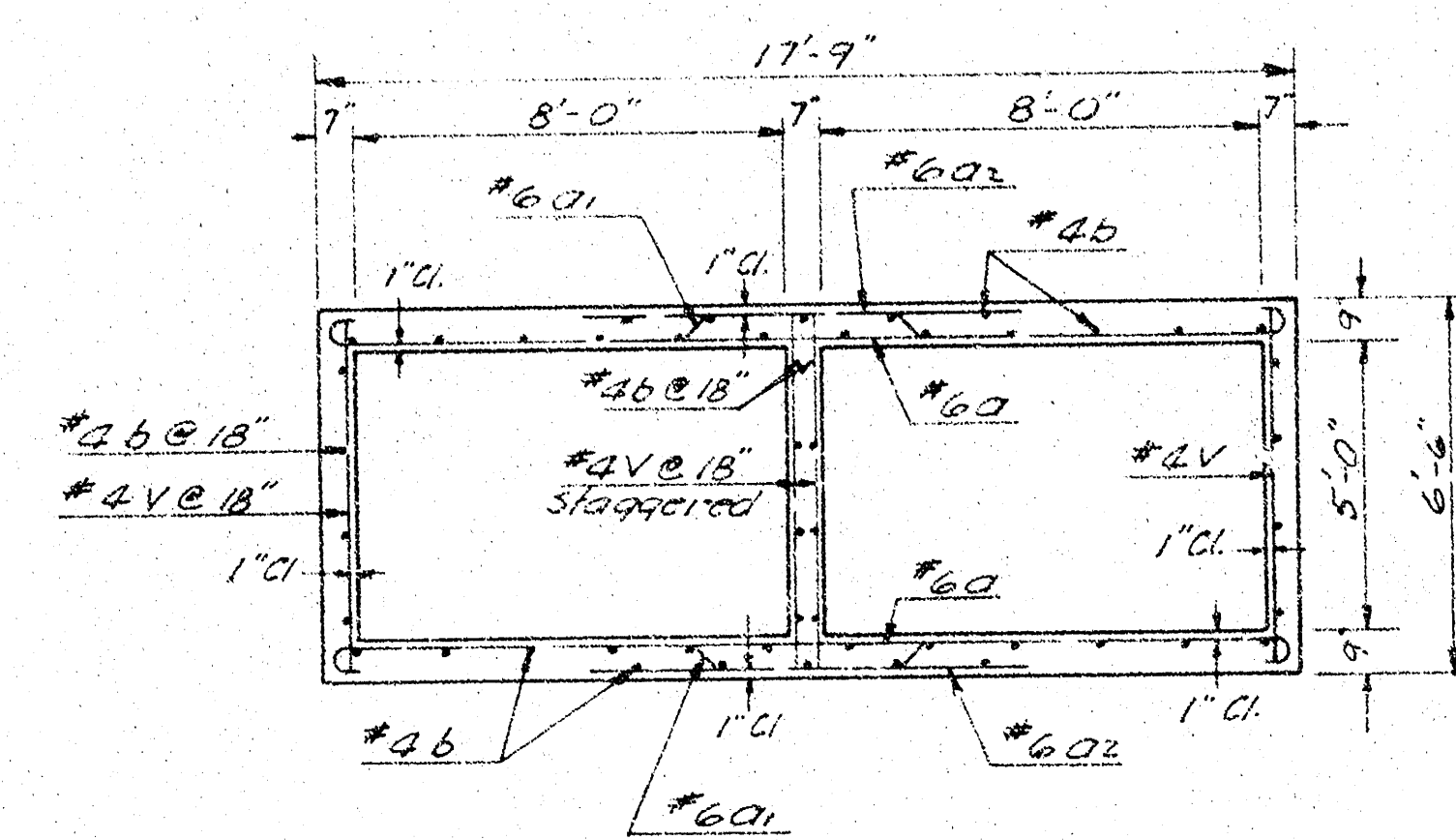
3/16" = 1' 0"



END ELEVATION & SECTION

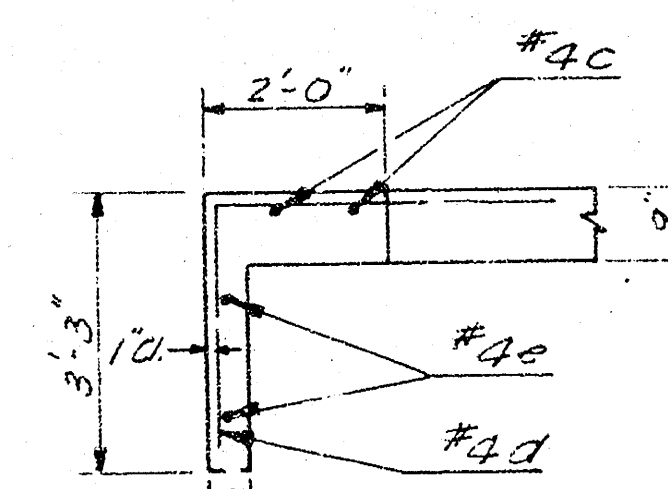
(NORTH WINGWALLS)

NO SCALE



BOX SECTION

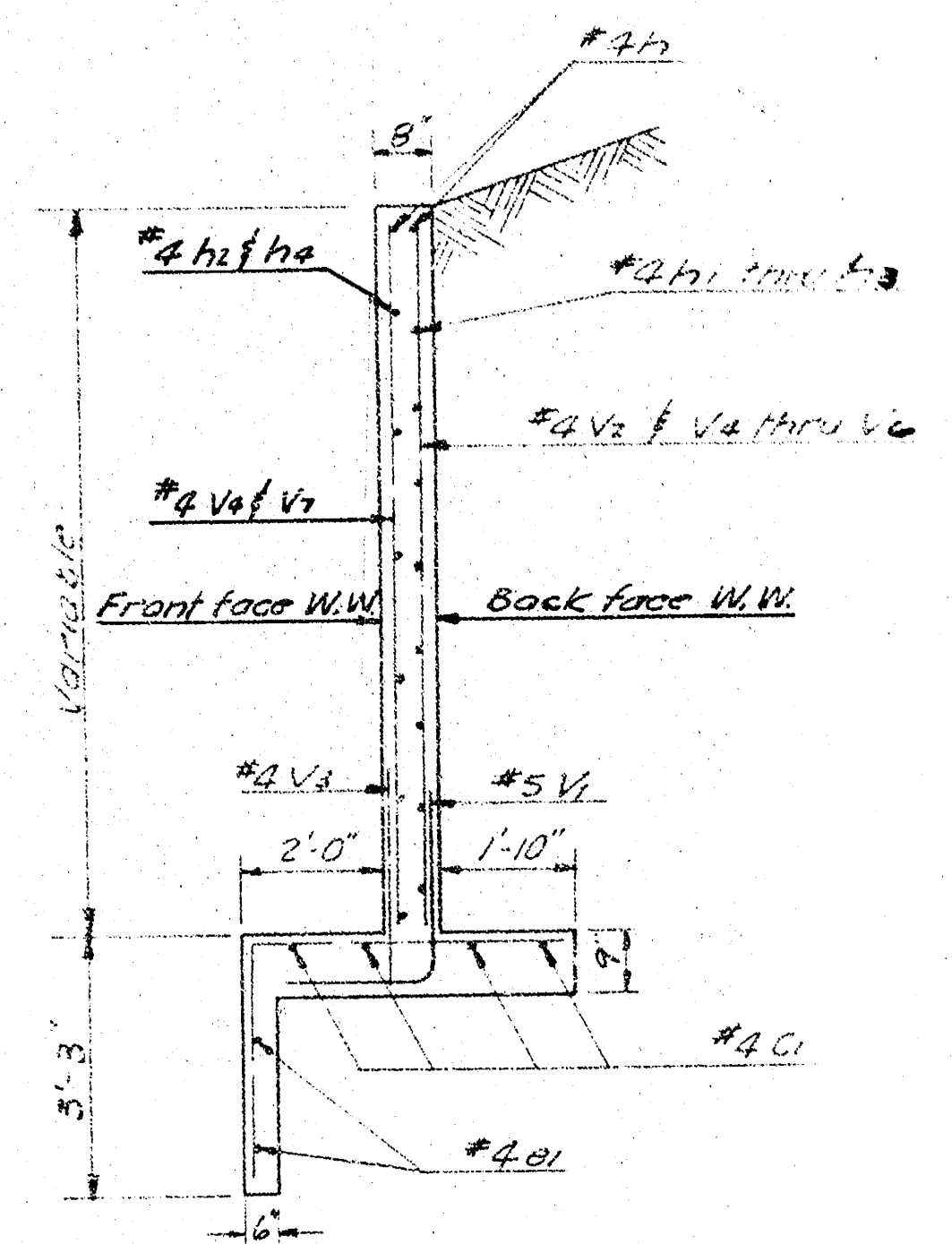
NO SCALE



APRON SECTION

(TYP)

NO SCALE



WINGWALL SECTION

(NORTH WINGWALLS)

NO SCALE

2-8'x5' R.C.B.C.

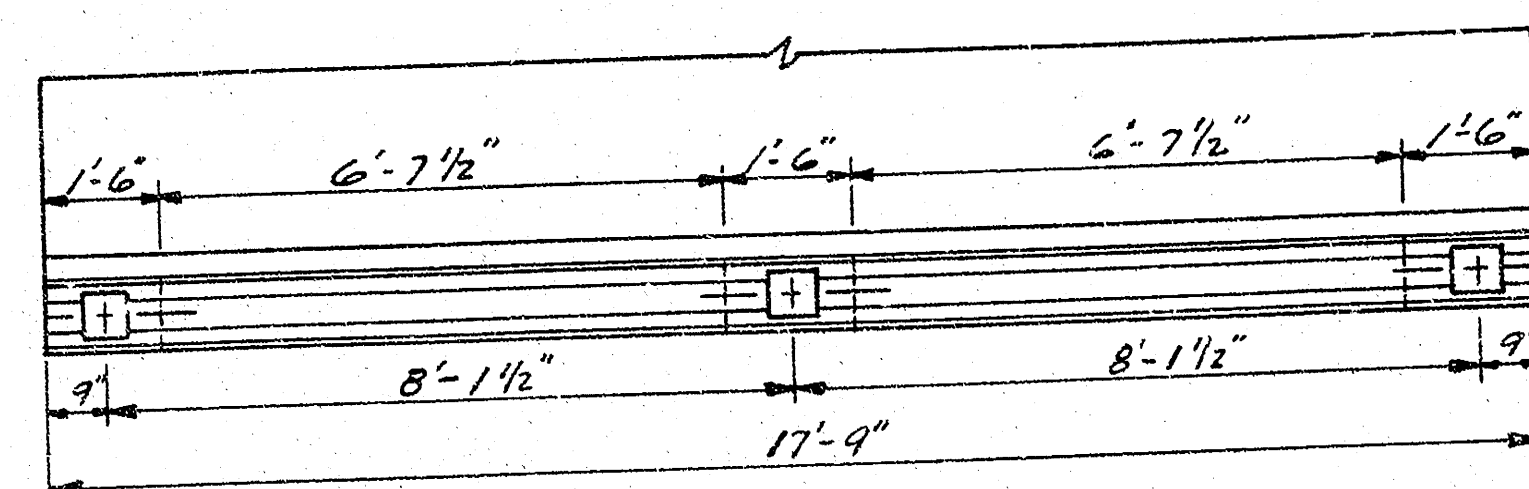
13th ST. BRIDGE

ONE-HALF MILE WEST OF MAIZE ROAD

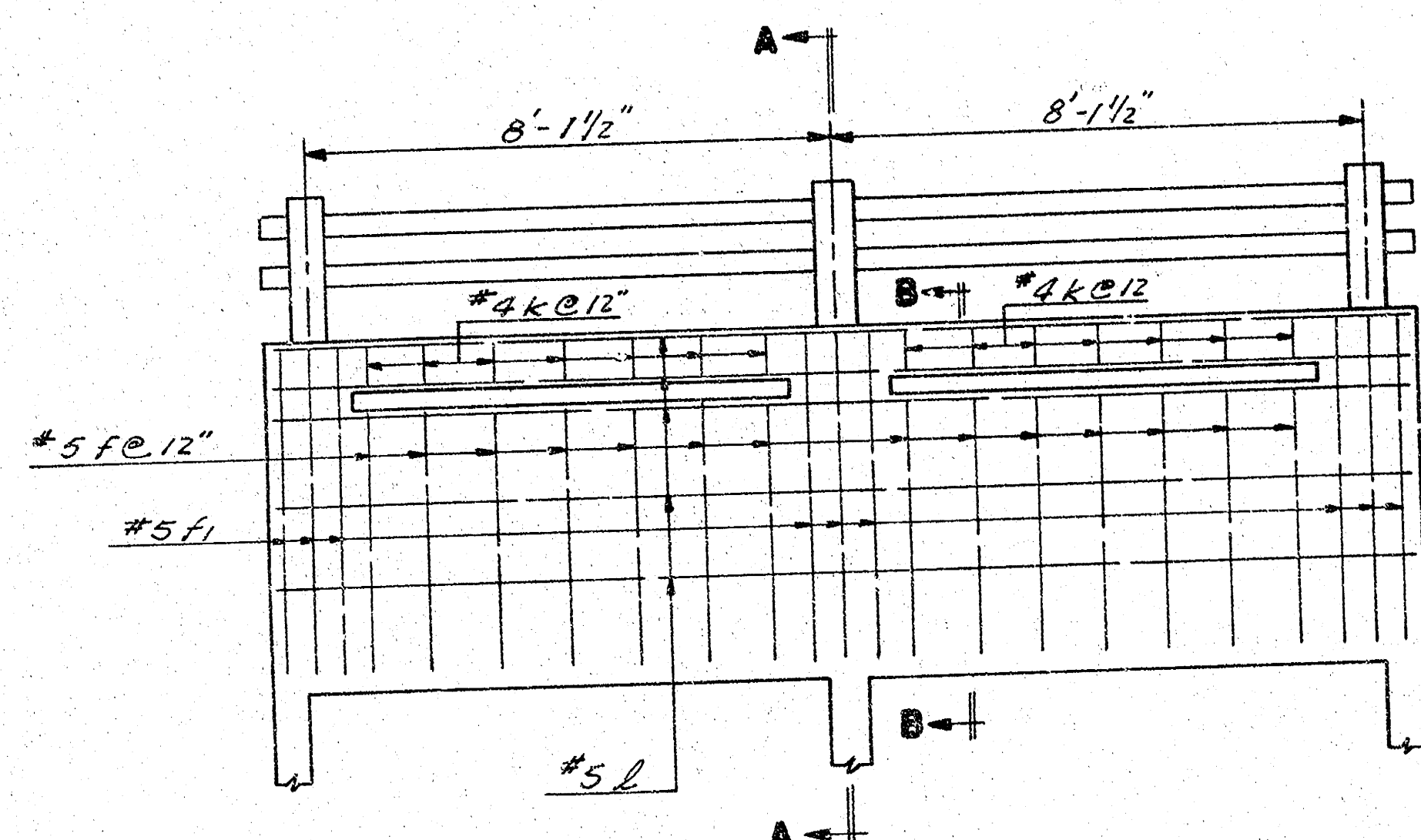
PROJ. NO. 472 76 245 81061 000 000 004

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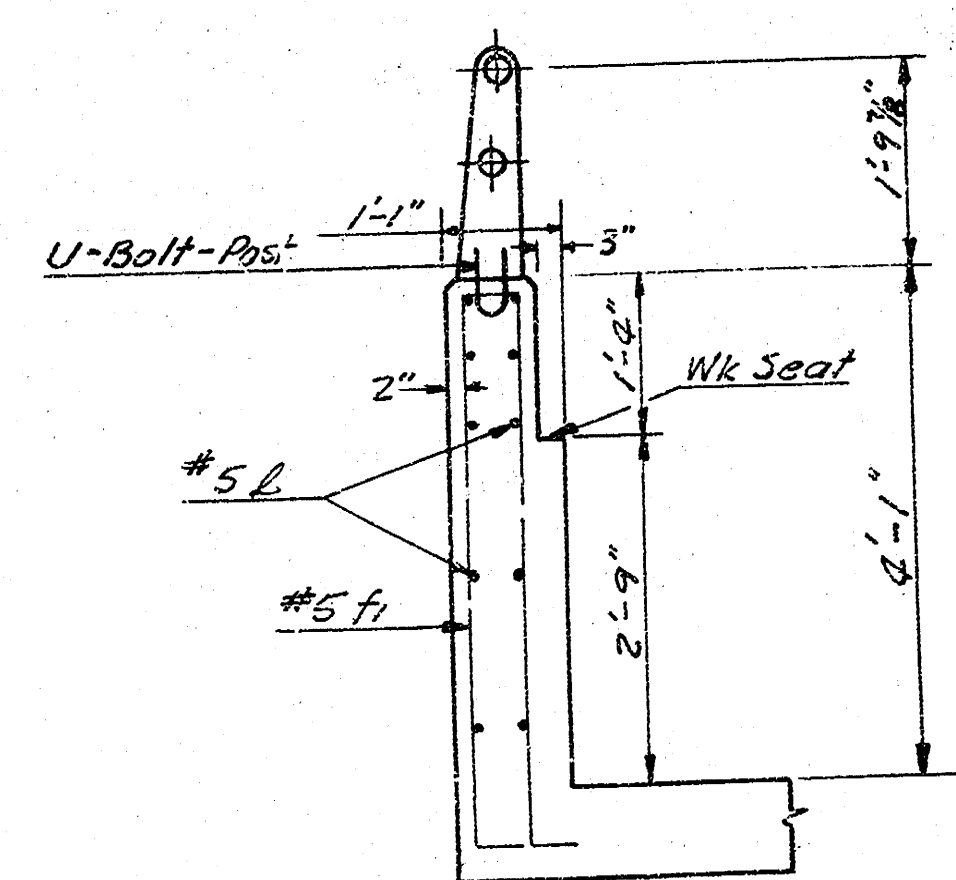
3/5



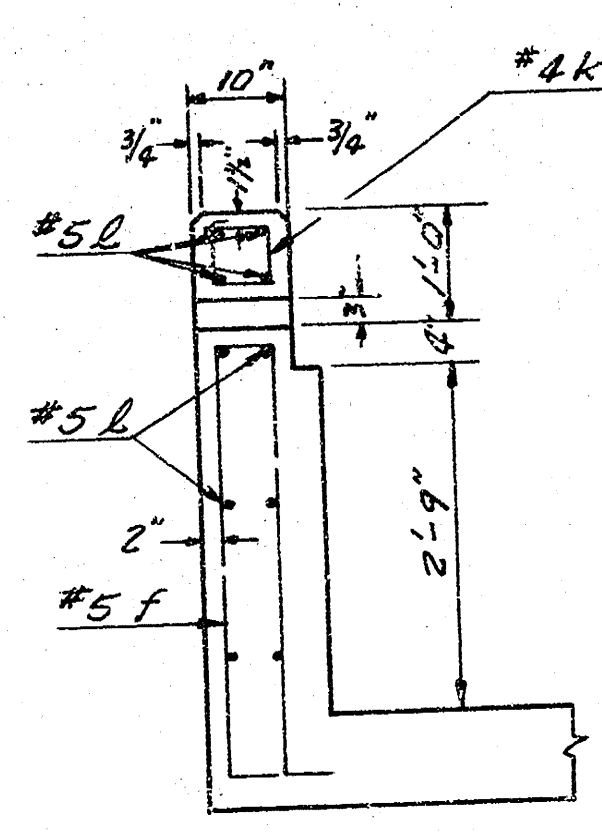
PLAN-RAILING
NO SCALE



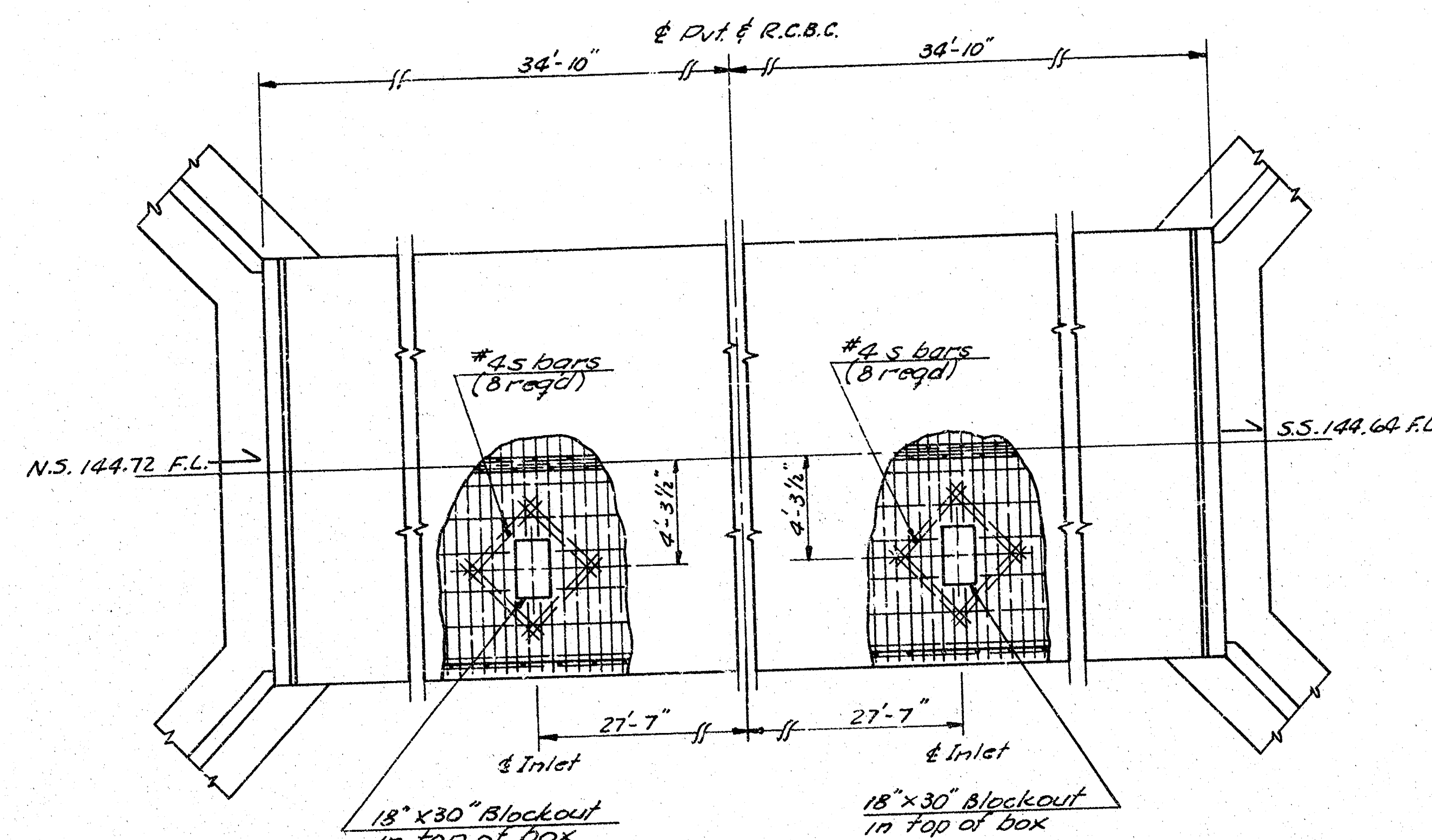
ELEVATION & SECTION-RAILING
NO SCALE



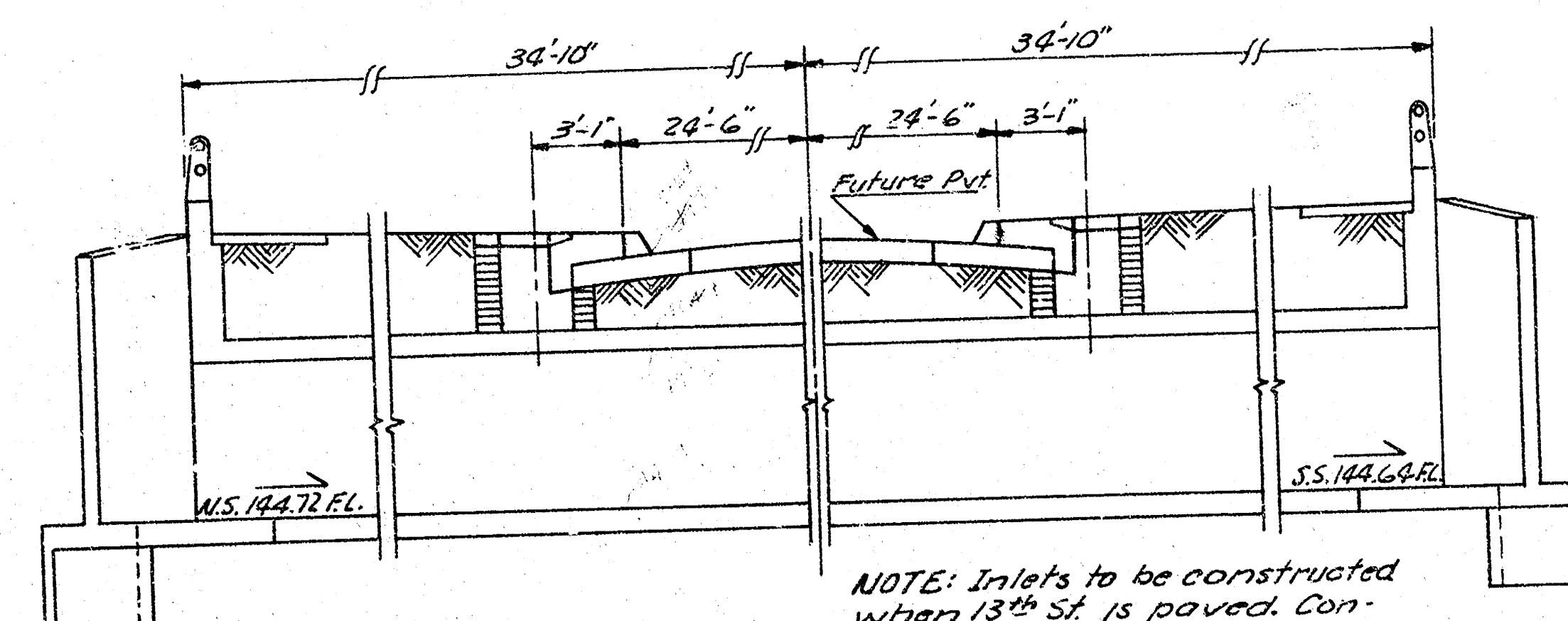
SECTION A-A
NO SCALE



SECTION B-B
NO SCALE

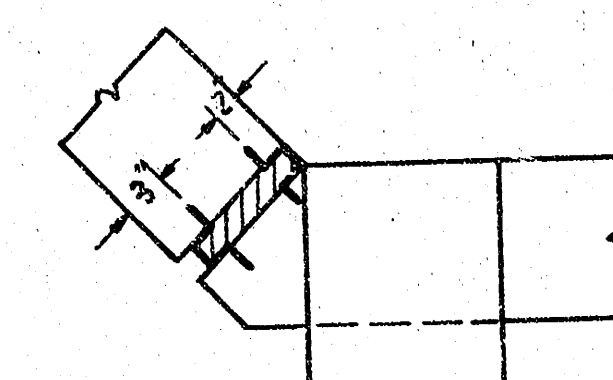


CURB INLETS-LOCATION
NO SCALE

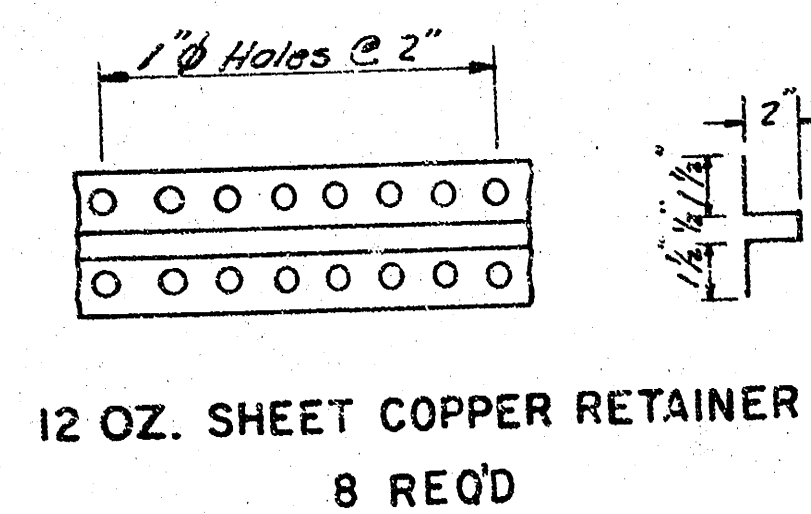


CURB INLETS-SECTION
NO SCALE

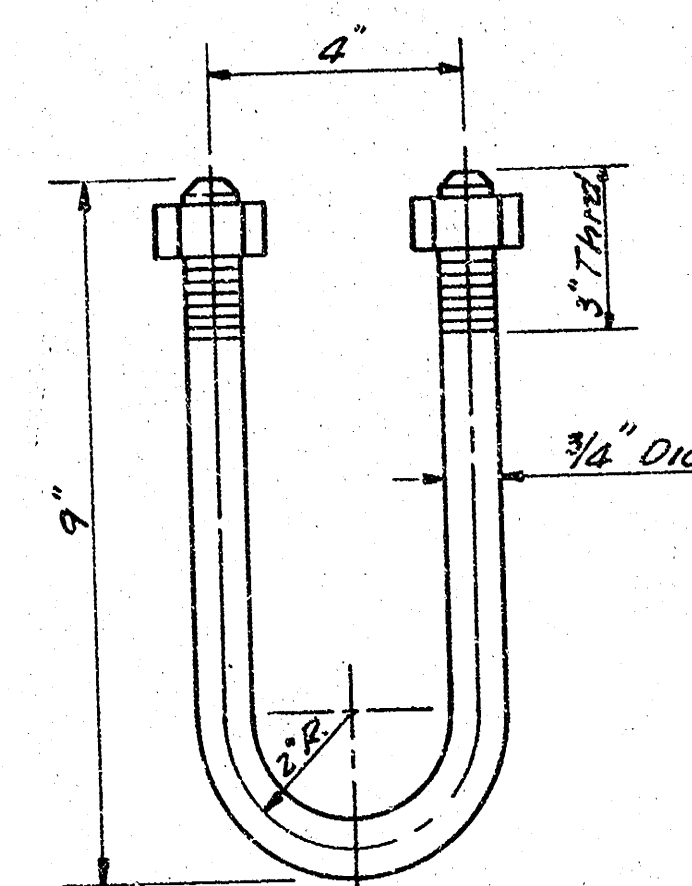
NOTE: Inlets to be constructed when 13th St. is paved. Construct openings in slab now.



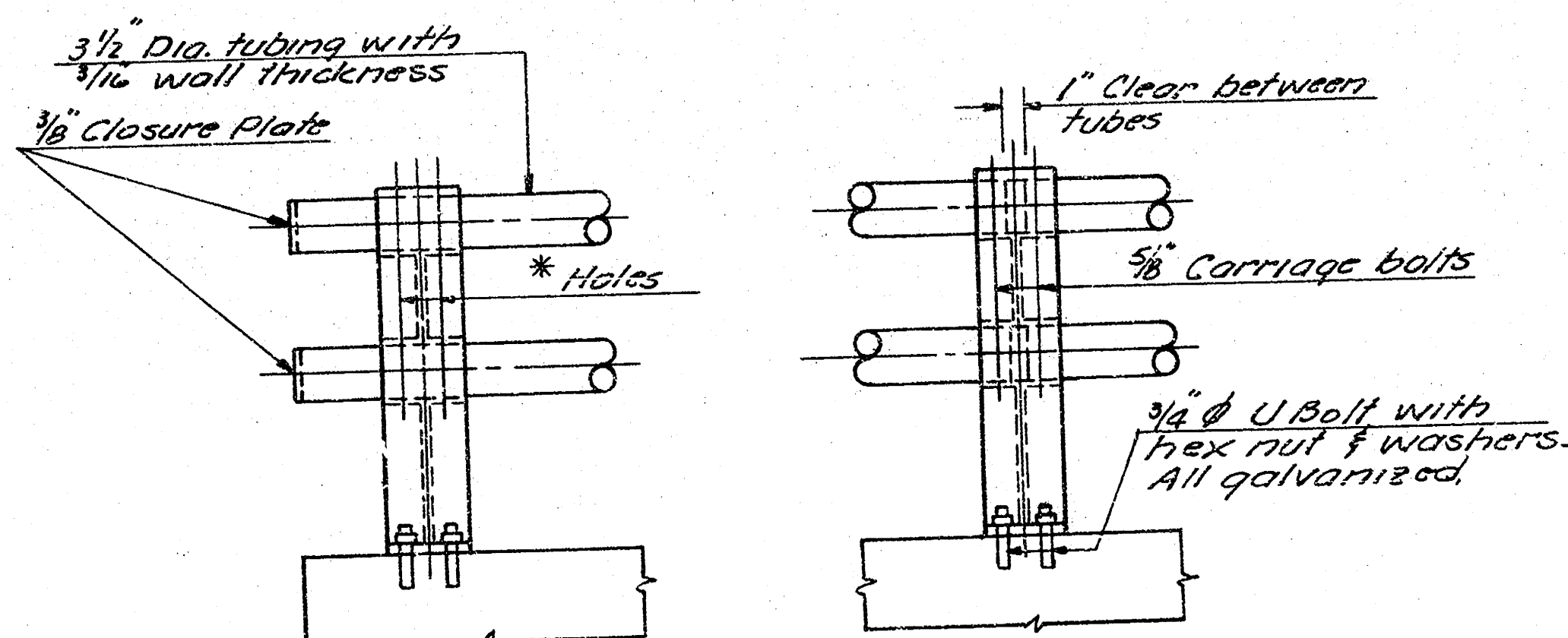
WING EXPAN. JOINT



12 OZ. SHEET COPPER RETAINER
8 REQ'D



GALVANIZED U BOLT
NO SCALE



DETAIL-ALUMINUM RAILING
NO SCALE

* Holes: 1 1/4" Square holes in post under head, and 1 1/4" round holes under nuts for 3/8" x 5/8" carriage bolts with hex nuts.

NOTE: Aluminum Handrail
Aluminum posts shall be Reynolds Aluminum Highway Products Bridge Railing System 2619A or equal.
Top & bottom rails shall be 3 1/2" O.D. x 3/16" wall tube of 6063-T6 Aluminum.
Aluminum shims between concrete and post base may be used. The space below posts shall be thoroughly caulked with Aluminastic compound or other approved material.

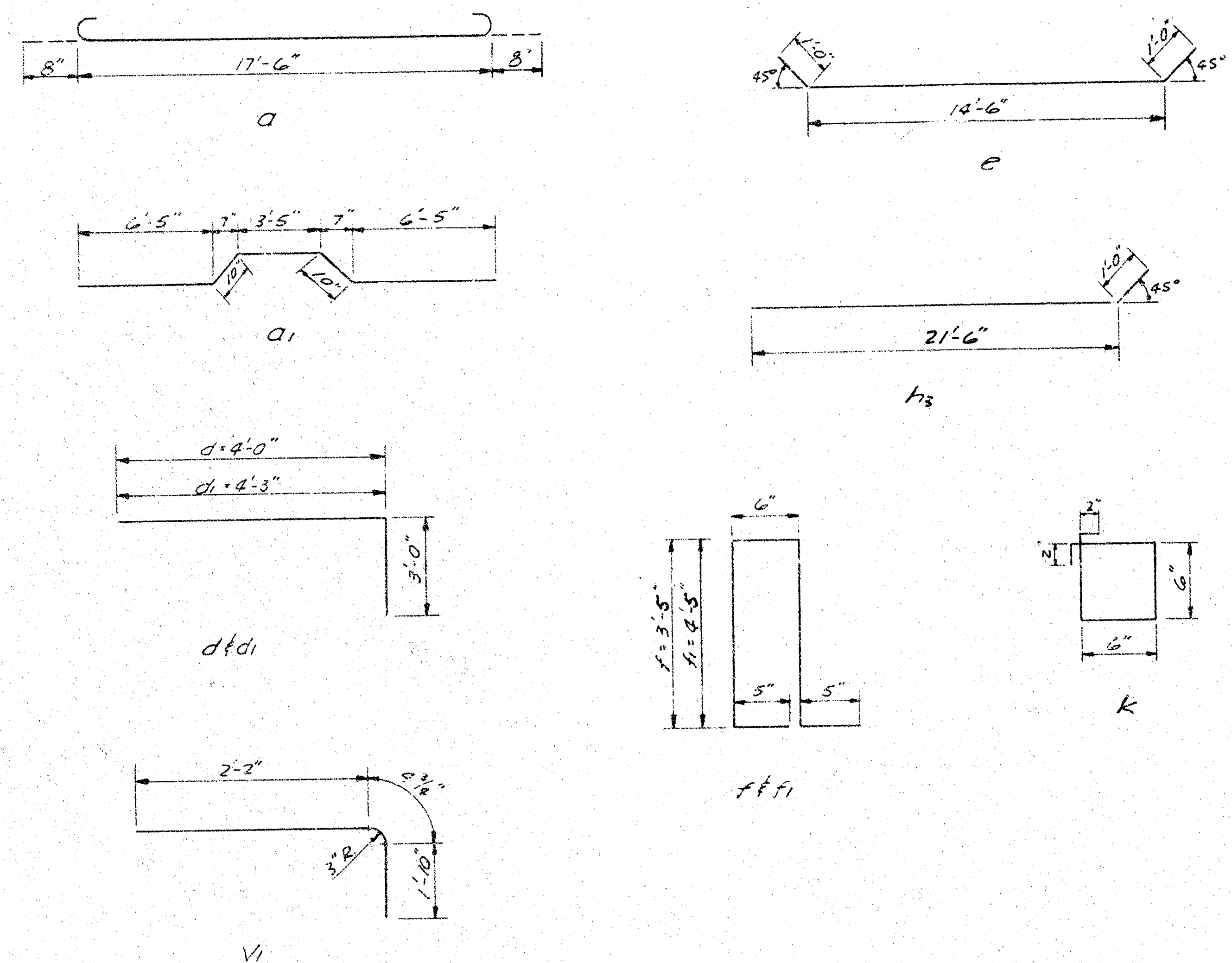
2-8'x5' R.C.B.C.

13th ST. BRIDGE

ONE-HALF MILE WEST OF MAIZE ROAD

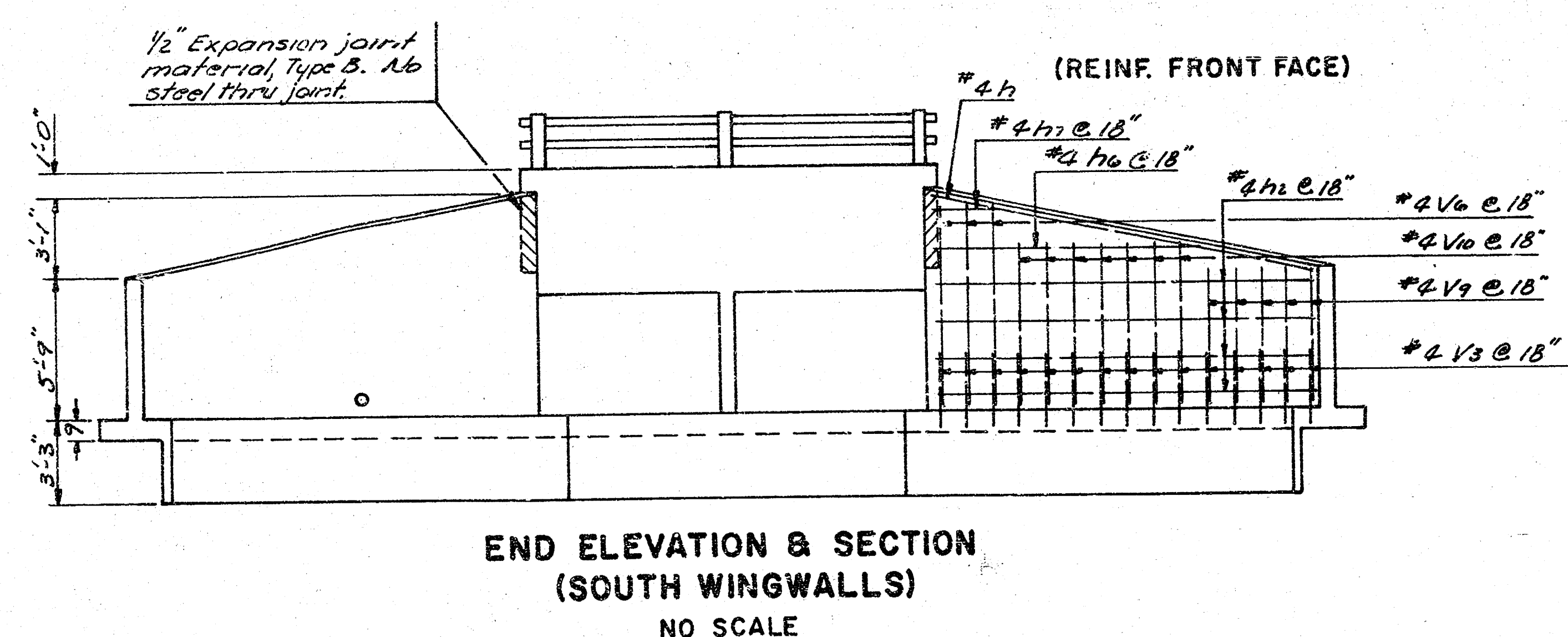
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BENDING DIAGRAMS

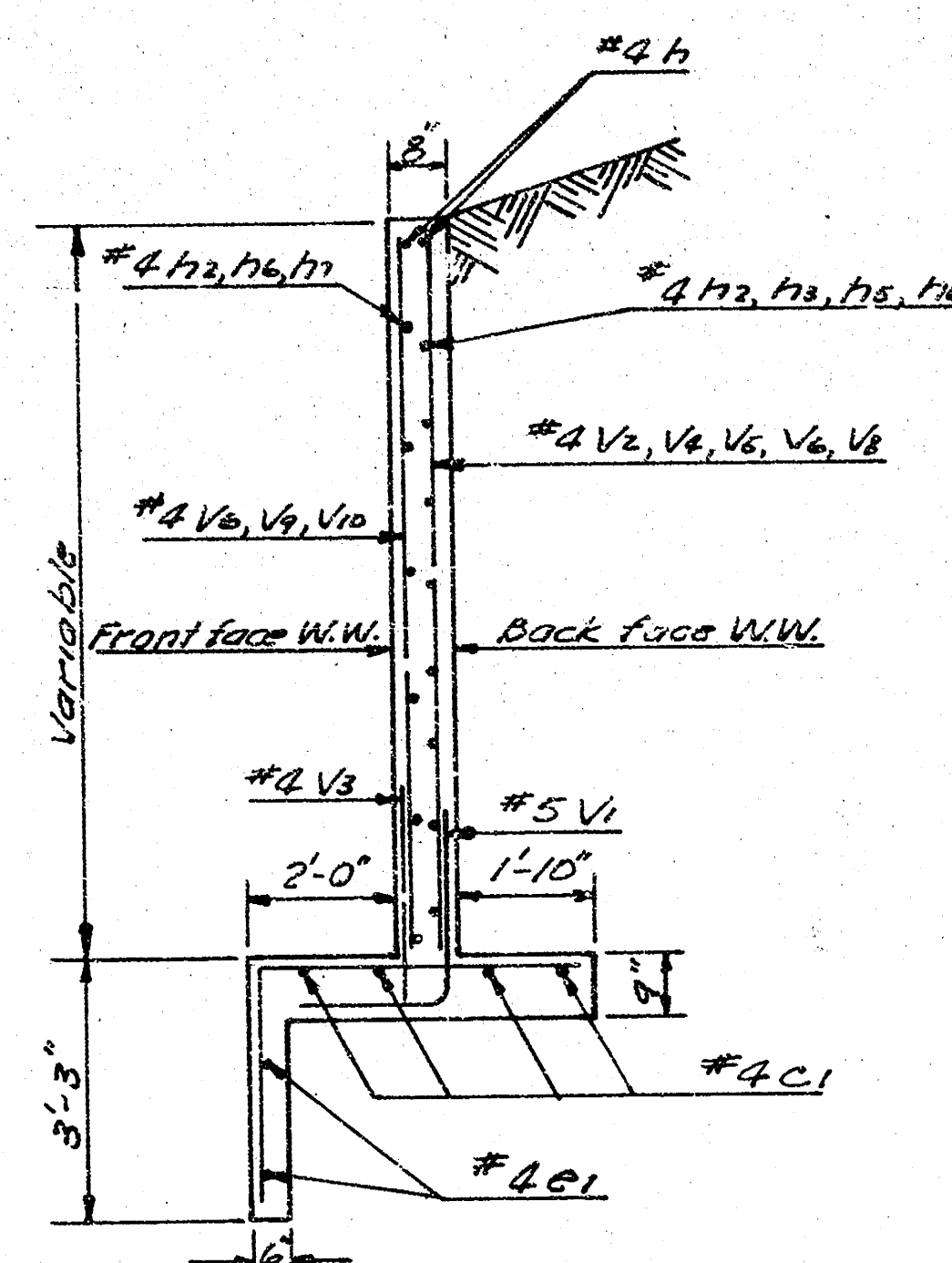
ALL DIMENSIONS OUT TO OUT OF BARS
NO SCALE



END ELEVATION & SECTION
(SOUTH WINGWALLS)
NO SCALE

BILL OF MATERIALS		
ITEMS	QUANTITY	UNIT
Class A-AE Concrete	130.8	C.Y.
Reinforcing Steel	16,526.6	Lbs.
Hand Excavation	15.9	C.Y.
Aluminum Handrail	35.5	L.F.
Class A Concrete Seal Course	11.5	C.Y.
Excavation	314.7	C.Y.
Compacted Fill	1774.2	C.Y.
Rip Rap - Type 3	97.8	S.Y.
Borrow	2065.0	C.Y.

* Includes quantities for R.C.B.C. and for fill on 13th St. Does not include quantities for channel excavation (300' Mat R.)



WINGWALL SECTION
(SOUTH WINGWALLS)
NO SCALE

BAR SCHEDULE				
BAR	SIZE	LENGTH	NO.	WEIGHT
Q1	#6	18'-10"	140	3959.57
Q2	#6	17'-11"	140	3768.22
Q3	#6	8'-0"	140	1682.24
Q4	#6	35'-8"	100	2382.76
Q5	#6	19'-6"	4	52.10
Q6	#6	24'-6"	14	261.86
Q7	#6	7'-0"	30	180.28
Q8	#6	7'-3"	18	426.18
Q9	#6	16'-6"	4	44.09
Q10	#6	21'-4"	5	113.99
Q11	#6	8'-2"	28	238.60
Q12	#6	10'-2"	18	190.93
Q13	#6	2'-4"	8	113.99
Q14	#6	18'-6"	2	16.20
Q15	#6	21'-3"	24	340.68
Q16	#6	22'-6"	20	300.60
Q17	#6	6'-6"	2	8.68
Q18	#6	8'-0"	2	10.67
Q19	#6	14'-6"	4	38.74
Q20	#6	3'-6"	2	4.68
Q21	#6	2'-4"	28	43.58
Q22	#6	17'-6"	20	365.05
Q23	#6	8'-6"	16	48.10
Q24	#6	6'-3"	190	793.25
Q25	#6	6'-2 1/2"	88	403.85
Q26	#6	5'-6"	22	80.83
Q27	#6	5'-0"	60	120.24
Q28	#6	6'-6"	52	225.78
Q29	#6	7'-5"	16	77.30
Q30	#6	8'-3"	18	99.20
Q31	#6	8'-0"	10	63.44
Q32	#6	8'-6"	6	18.04
Q33	#6	5'-7"	10	37.27
Q34	#6	6'-9"	14	63.73

GENERAL NOTES

- CLASS A-AE - CONCRETE SHALL BE USED THROUGHOUT ON THE STRUCTURE. THE REINFORCING STEEL SHALL CONFORM TO A.S.T.M. SPECIFICATIONS.
- EARROWORK - ALL EARTHWORK SHALL BE CONSIDERED AS "COMMON EXCAVATION" EXCEPT FOR THE TOEWALL. TOEWALL EXCAVATION SHALL BE INCLUDED IN "LUMP SUM BID".
- BACKFILL - ALL BACKFILL AND EXCAVATION TO EXTEND TO (2') BEYOND SIDES OF BOX AND WING-WALLS.
- BEVEL - ALL EXPOSED EDGES OF CONCRETE WITH 3/4" TRIANGULAR MOUNDING.
- WEEPHOLES - COURSE AGGREGATE SHALL BE DEPOSITED BEHIND EACH WEEPHOLE TO OCCUPY A SPACE EXTENDING (15") IN ALL DIRECTIONS ABOVE WEEPHOLE FLOW 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 UPON IT WITHOUT DAMAGE.
- BIDDING FOR CULVERT - THE CULVERT SHALL BE BID AS A "LUMP SUM BID" WHICH SHALL INCLUDE THE FOLLOWING ITEMS: CLASS A-AE CONCRETE, REINFORCING STEEL, HAND EXCAVATION AND ALUMINUM HAND RAIL. ALL OTHER ITEMS SHALL BE INCLUDED AS BID ITEMS.
- THE QUANTITIES SHOWN IN THE "BILL OF MATERIALS OR ITEMS" WHICH ARE INCLUDED IN THE "LUMP SUM BID" OF THE CULVERT ARE FOR "INFORMATION PURPOSES ONLY". THE CONTRACTOR MUST SATISFY HIMSELF AS TO THE "QUANTITIES" AND THE ENGINEER ASSUMES NO RESPONSIBILITIES FOR THEIR ACCURACY. THE CONTRACTOR WILL HAVE THE FULL RESPONSIBILITY FOR PROVIDING ALL MATERIALS ON THE DETAILED PLANS NECESSARY TO COMPLETE THE PROJECT.

2-8'x5' R.C.B.C.

13th ST. BRIDGE

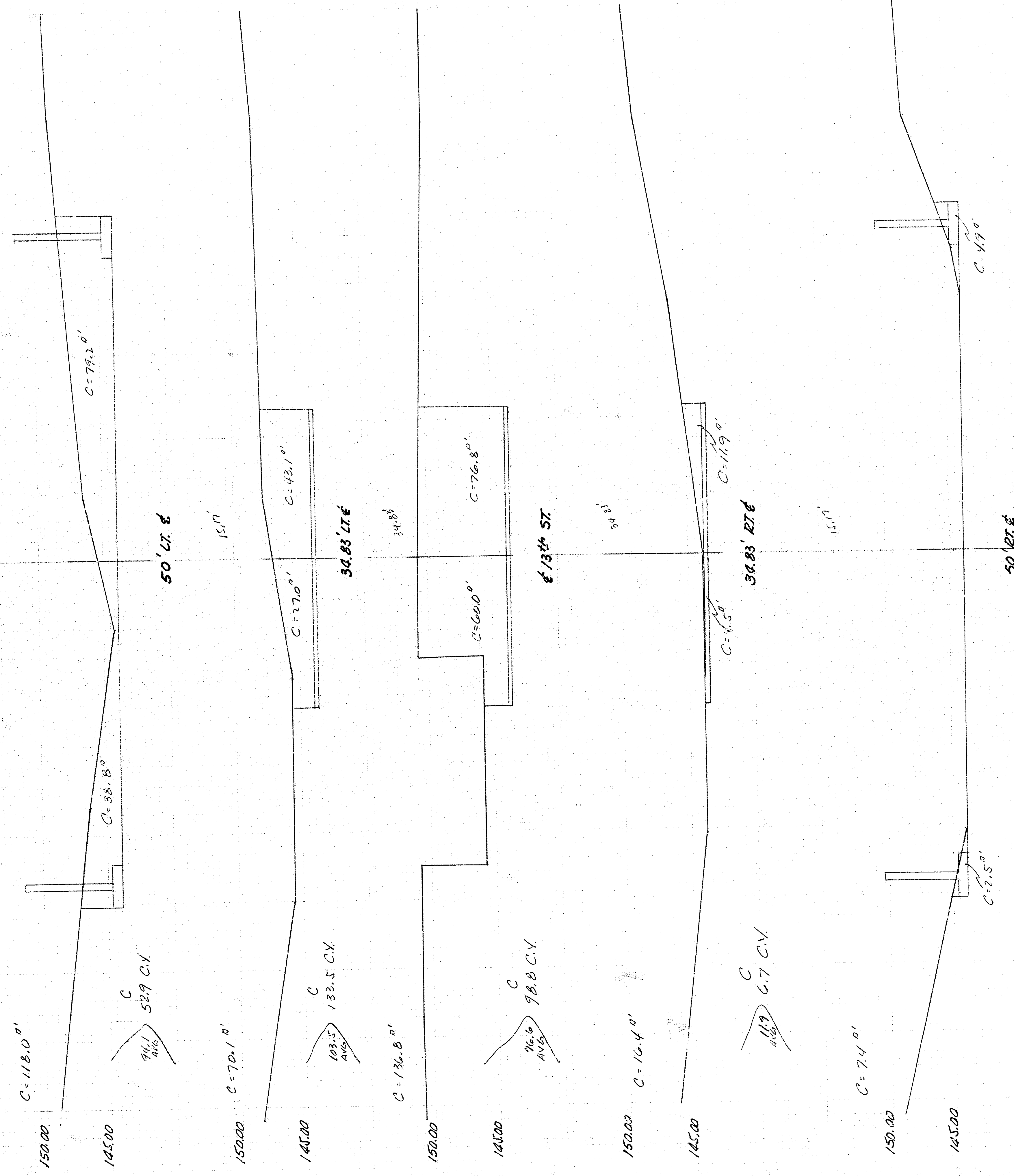
ONE-HALF MILE WEST OF MAIZE ROAD

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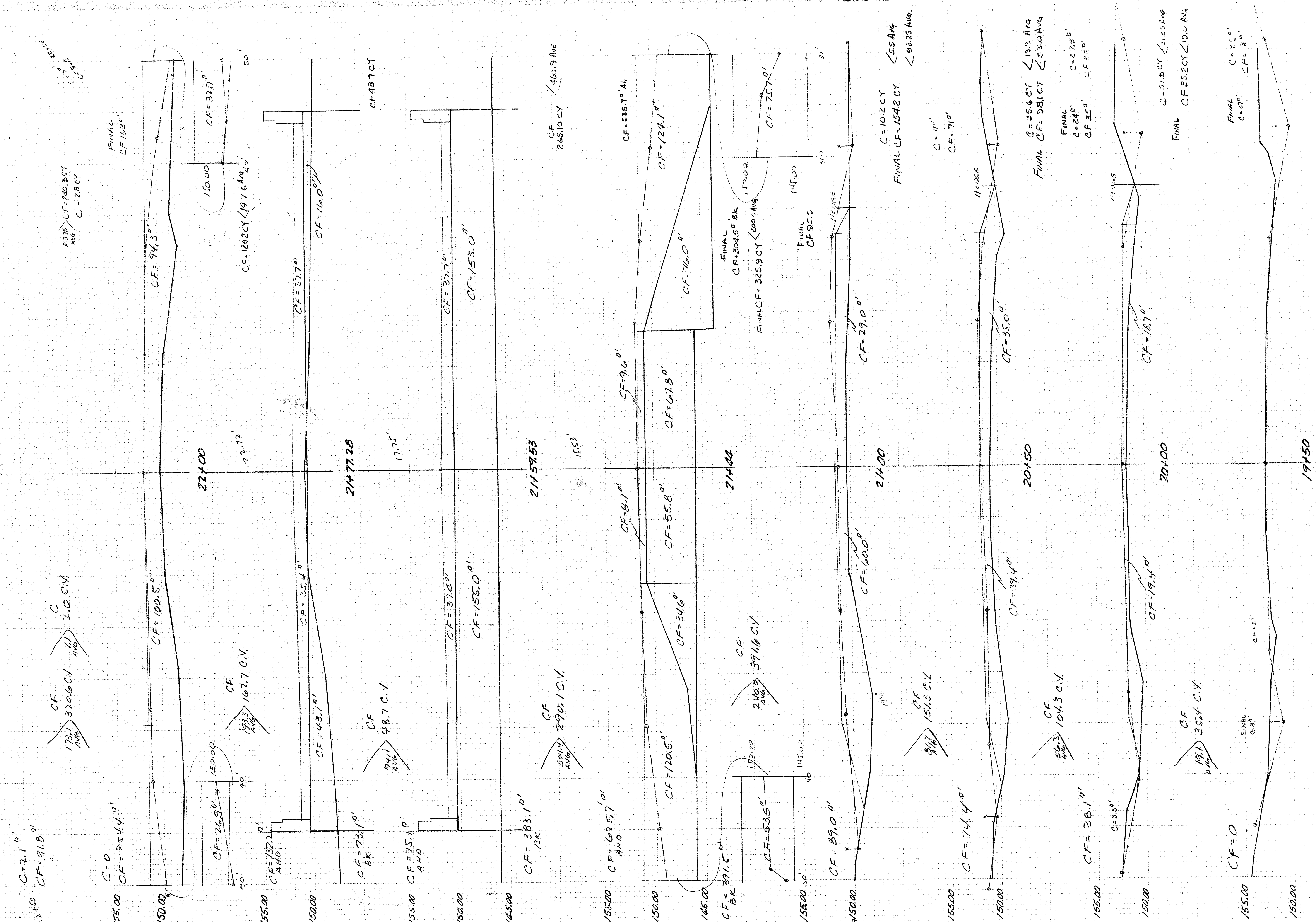
HAND EXCALC. = TOE WALLS

$$4 \left(\frac{244 \times 11.5 \times 2.5}{27} \right) + \frac{2}{27} (1435 \times 11.5 \times 2.5) = \frac{429}{27} = 15.9 \text{ C.Y.}$$



ONE-HALF MILE WEST OF MAIZE ROAD
 PROJ. NO. 472 76 245 81061 000 000 004
 2-8'x5' R.C.B.C.
 13th ST. BRIDGE
 R.C.B.C.
 0 5 10 15 20 25 30 35 40
 145.00 150.00

R.C.B.C.
 EARTHWORK THIS SHEET (R.C.B.C.)
 EXCAV. 1141.0 EXCAV.
 271.9 C.Y. 15.9 C.Y.
 COMPLETED FILL FOR R.C.B.C. IS INCLUDED
 IN EARTHWORK CALCULATIONS FOR 13th ST.

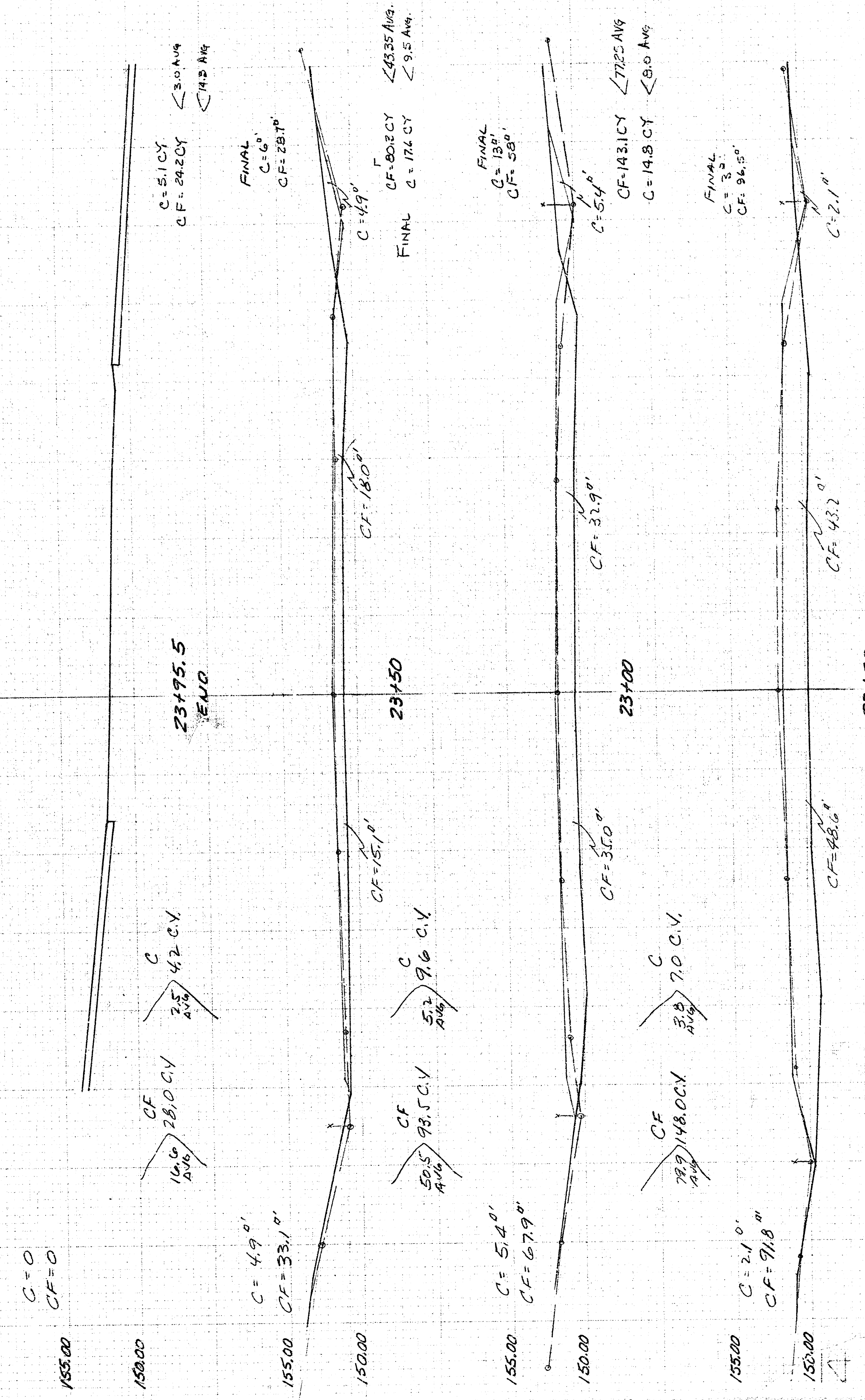


2-8'x5' R.C.B.C.
13th ST. BRIDGE
ONE-HALF MILE WEST OF MAIZE ROAD

PROJ. NO. 472 76 245 81061 000 000 004

13th St

FARTHWORK - THIS SHEET			
CITY	EXCAV	CITY C.F.	1504.7 C.Y.
		FINAL	189.70 C.Y.
		13th St	
TOTAL EARTHWORK - 2 ALL SHEETS			
CITY	EXCAV	CITY C.F.	1774.2 C.Y.
		FINAL	189.70 C.Y.



40	35	30	25	20	15	10	5	0	5	10	15	20	25	30	35	40
13th St.																
EARTHWORK - THIS SHEET																
EXCAV.																
20.8 C.Y.																
CF																
20.8 C.Y.																
FINAL																
27.6 C.Y.																

2-8'x5' R.C.B.C.
 13th ST. BRIDGE
 ONE-HALF MILE WEST OF MAIZE ROAD
 PROJ. NO. 472 76 245 81061 000 000 004

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