

BILL OF REINFORCING BARS					
BAR NO.	SIZE	LENGTH	SHAPE	LOCATION	
C1	12	2 1/2	5'-0"	BENT	CURB
C2	4	2	14'-0"	STRT.	"
C3	6	3 1/2	15'-8"	HOOK	"
F1	6	8	14'-7"	STRT.	FLOOR-TRANSV.
F2	4	3 1/2	34'-0"	"	APRON "
F3	8	3 1/2	19'-6"	BENT	DROP WALL
F4	21	3 1/2	17'-0"	STRT.	FLOOR-LONGIT.
F5	28	3 1/2	13'-7"	"	"
H1	16	2	16'-8"	STRT.	SIDE WALLS-HORIZ.
H2	18	2	16'-3"	"	CENTER "
S1	32	5 1/2	15'-6"	HOOK	SLAB-TRANSV.
S2	64	5 1/2	7'-5"	BENT	" - LONGIT.
S3	24	2	18'-0"	STRT.	" - LONGIT.
V1	6	8	5'-11"	HOOK	SIDE WALLS-VERT.
V2	34	2	5'-3"	STRT.	CENTER WALL "
V3	10	2	13'-3"	BENT	WINGS-VERT.
V4	5	2	6'-10"	HOOK	CENTER WALL-VERT.

TOTAL REINFG. STEEL 110.08 L + 1230 = LBS
 TOTAL CONCRETE 1.145L + 10.9 = C.Y.
 * 2 PCS. 6" x 10" LG. STEEL PIPE FOR GUARD RAIL

HALF LONGIT. SECTION "A-A" SHOWING REINFORCING IN SIDE WALL

HALF LONGIT. SECTION "B-B" SHOWING REINFORCING IN CENTER WALL

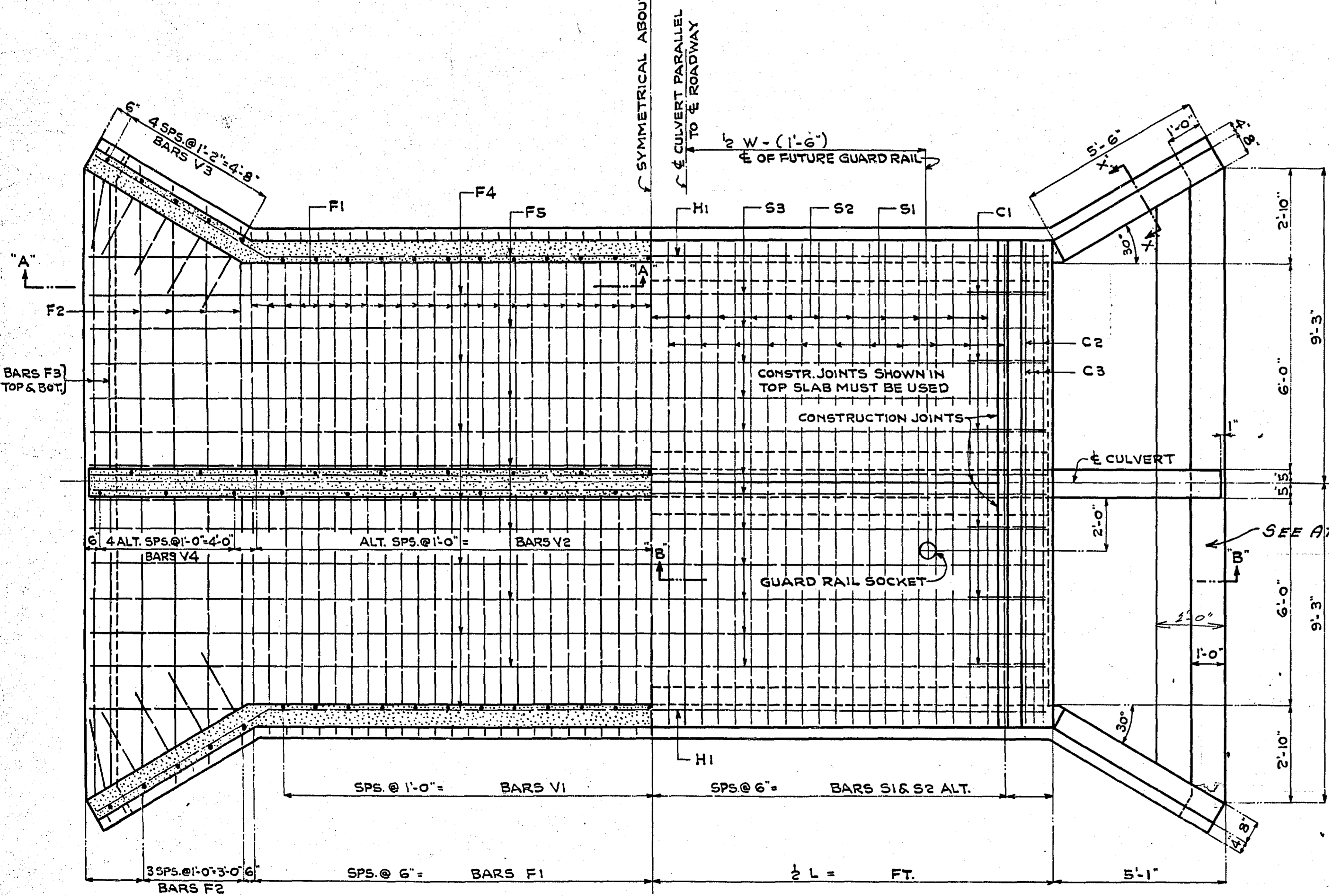
HALF END ELEVATION

HALF TRANSV. SECTION

L = LENGTH OF CULVERT
 W = WIDTH OF ROADWAY
 H = HEIGHT OF FILL
 L = W + 3H + 2 FT.

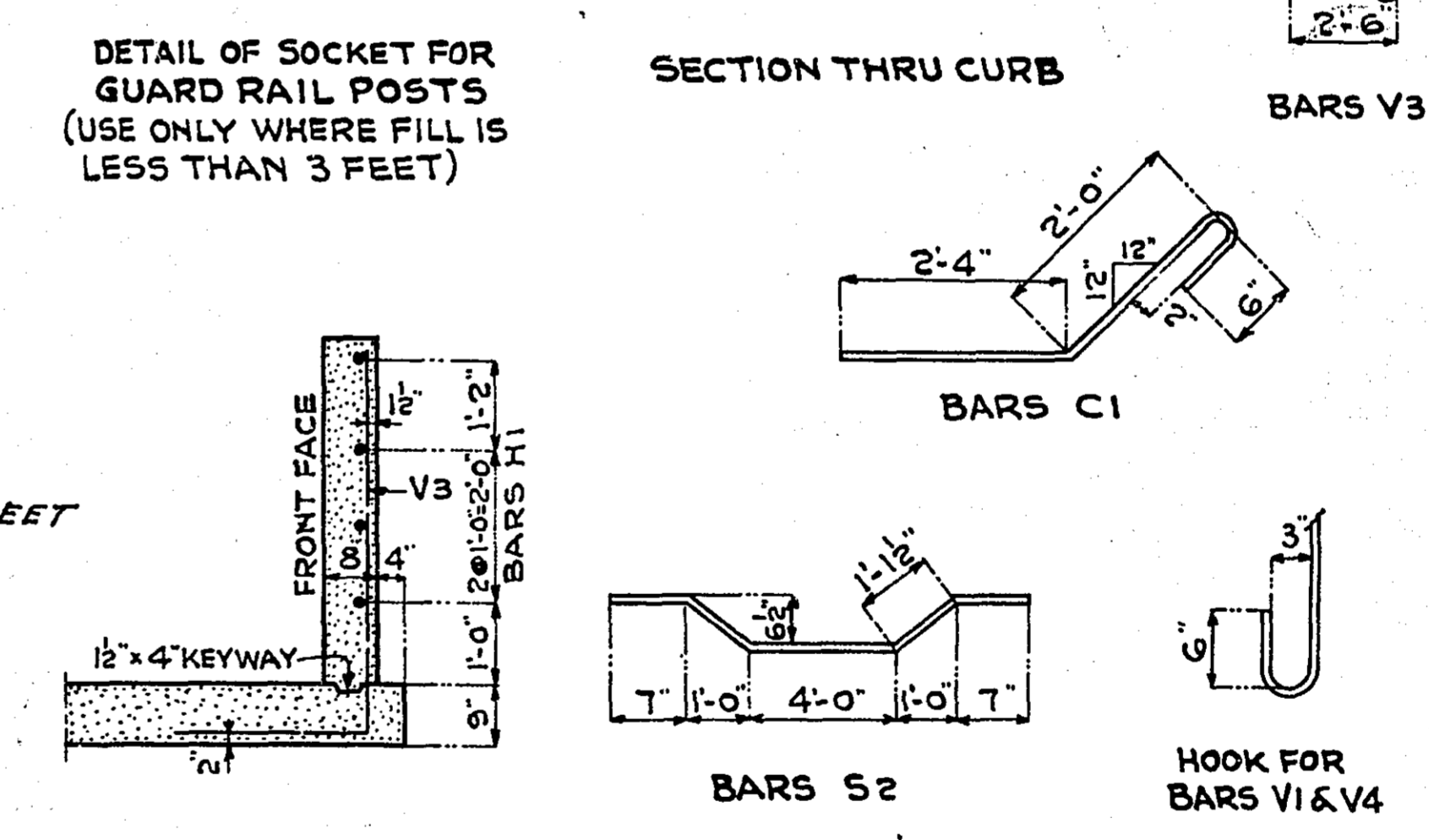
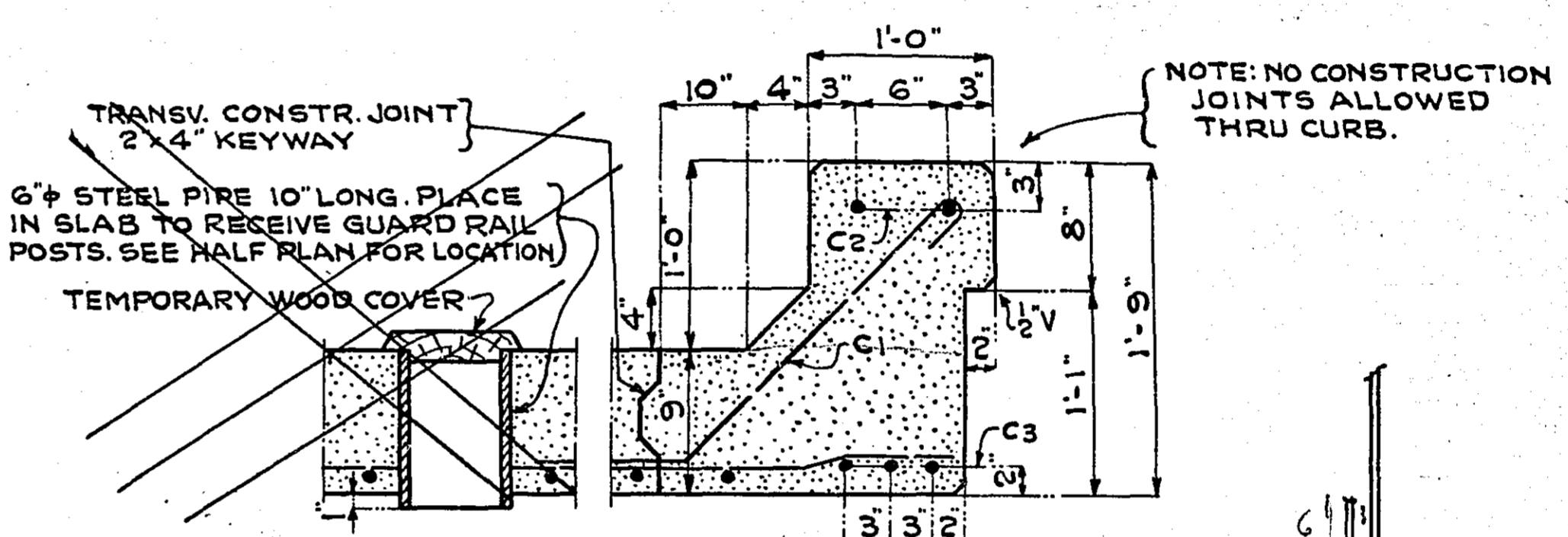
- ① NUMBER OF F1 BARS = 2L
- ② LENGTH OF F4 BARS = 3L + (5'-8")
- ③ " " F5 " = 4L + (5'-1")
- ④ " " H1 " = 3L + (5'-4")
- ⑤ " " H2 " = 3L + (4'-11")
- ⑥ NUMBER OF S1 BARS = L-2
- ⑦ " " S2 " = 2L-4
- ⑧ LENGTH OF S3 BARS = 1/2 L + (1'-0")
- ⑨ NUMBER OF V1 BARS = 2L
- ⑩ " " V2 " = L

* CUT TWO BARS FROM EACH F2, V3 & V4 BAR, ONE LONG AND ONE SHORT.
 # LAP H1, H2 & S3 BARS 2'-6" AT SPLICES.
 # LAP F4 & F5 BARS 3'-6" AT SPLICES.

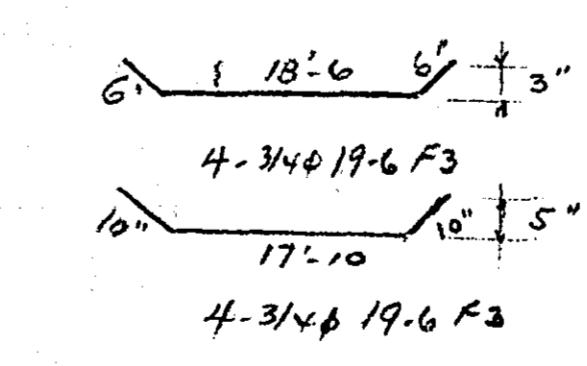


HALF SECTION ABOVE FTG. SHOWING REINFORCING IN FLOOR.

HALF PLAN SHOWING REINFG. IN SLAB



SECT. "X-X" THRU WING



CONSTRUCTION NOTES

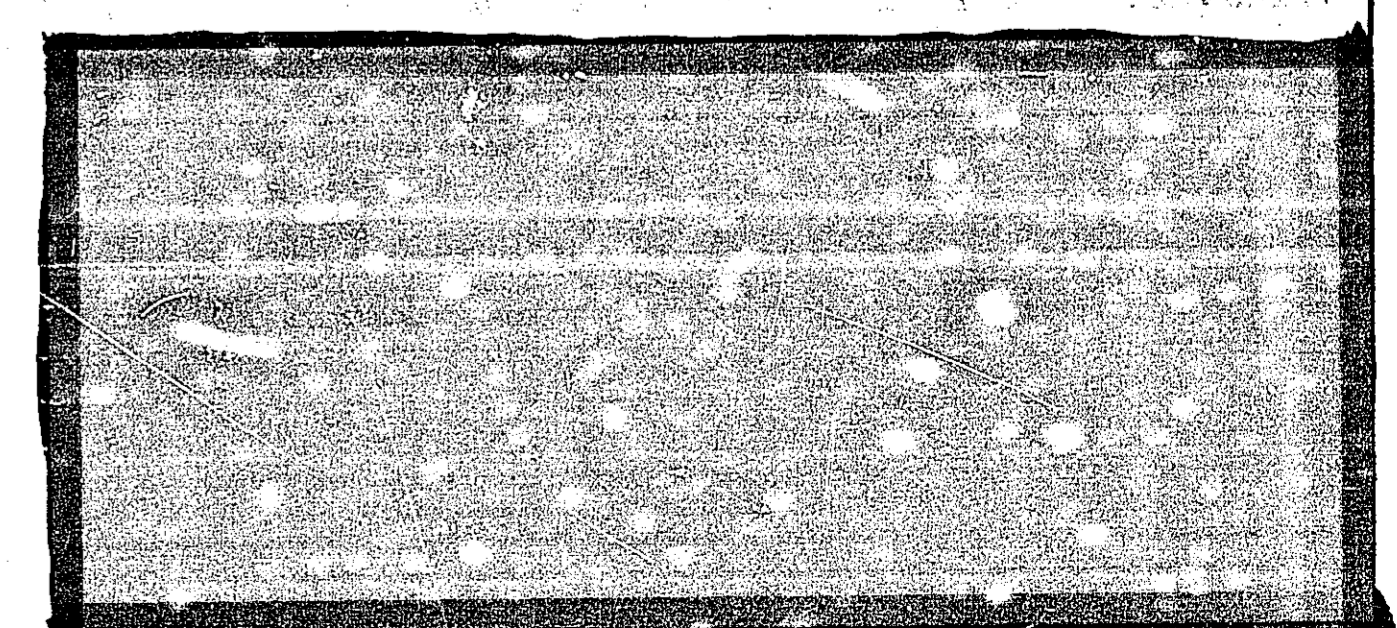
ALL CONCRETE TO BE GRADE "A" AS PER SECTION 48 OF THE STANDARD SPECIFICATIONS DATED APRIL 1, 1929. ALL EDGES OF CONCRETE ABOVE TOP OF FLOOR TO BE FINISHED TO A 3/4" BEVEL UNLESS OTHERWISE NOTED. NO CONSTRUCTION JOINTS ALLOWED, EXCEPT AS NOTED. ALL REINFORCING BARS TO BE OF SPECIFIED LENGTH AND SECURELY WIRED AT EACH INTERSECTION. CULVERT TO HAVE MINIMUM GRADE OF 1/8" PER FOOT IN DIRECTION OF FLOW.

OFFICE OF
 RAMSEY COUNTY SURVEYOR
 HARRY S. BRONSON

PLAN OF
 MONOLITHIC BRIDGE & SPILLWAY
BALD EAGLE BLVD. W.
 AT STA. 41+47

SEPT. 1939 SCALE AS SHOWN

PLAN APPROVED 7/20 1939 *Harry S. Bronson*
 COUNTY SURVEYOR



AWN G.W.E. JUNE 1932
 ACD G.W.E. JUNE 1932
 K&D G.W.H. JULY 1932

OFFICE OF
 RAMSEY CO. SURVEYOR
 HARRY S. BRONSON
 DETAIL OF
CREST & FISH SCREEN
BALD EAGLE L. OUTLET
 SCALE AS SHOWN

