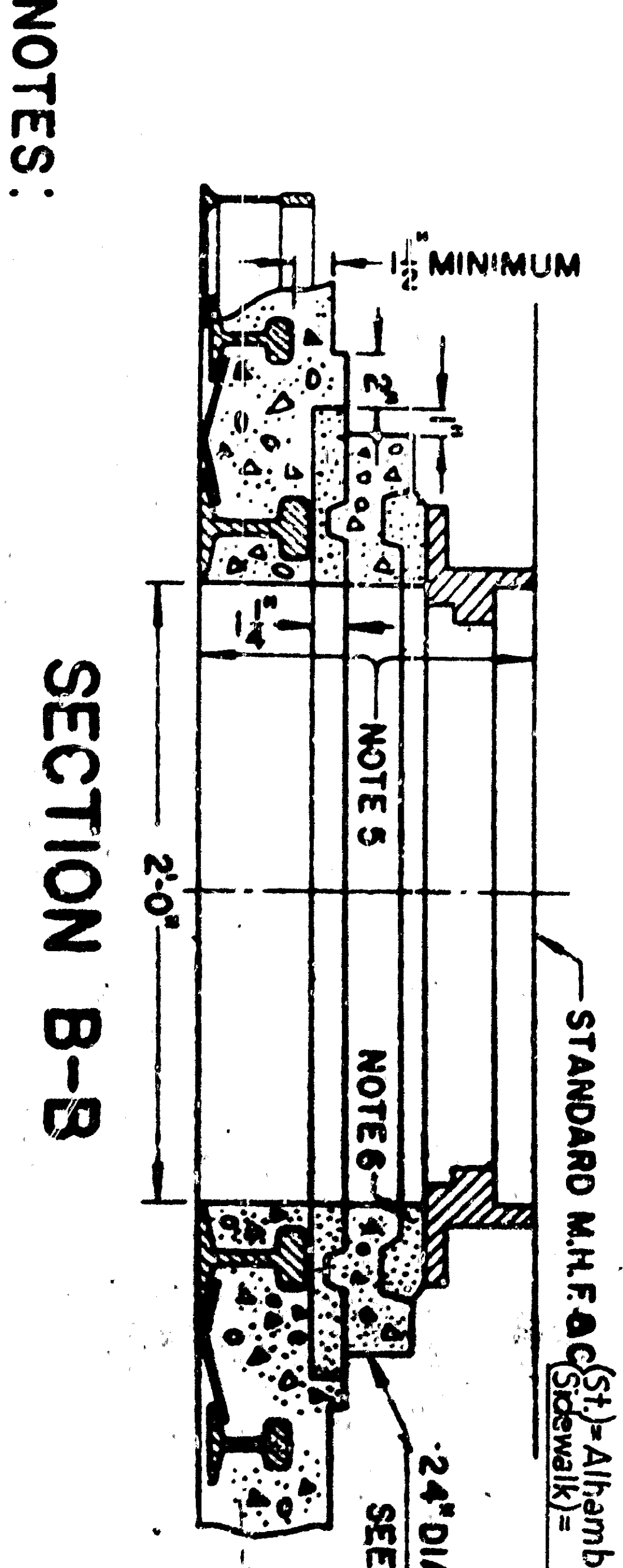
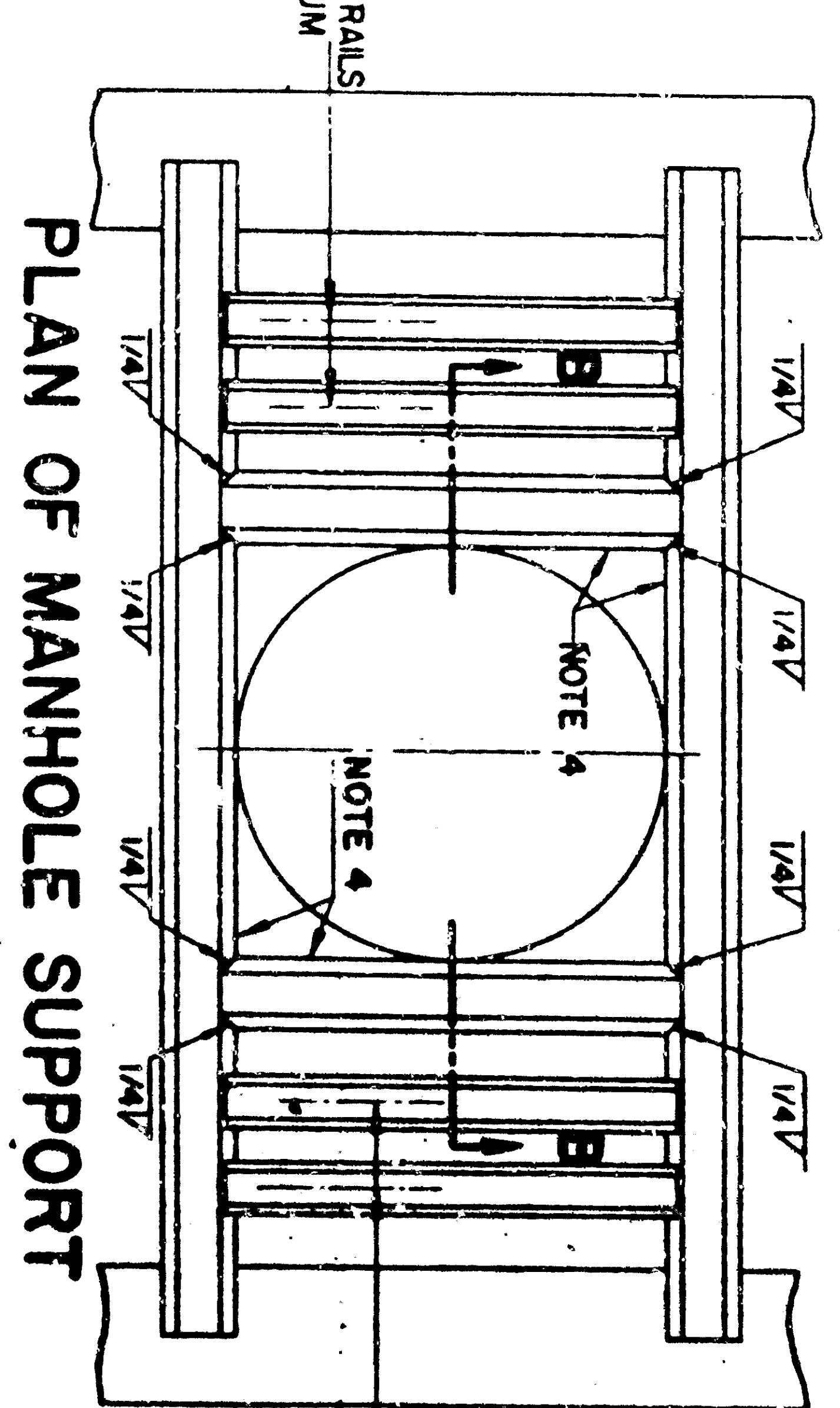


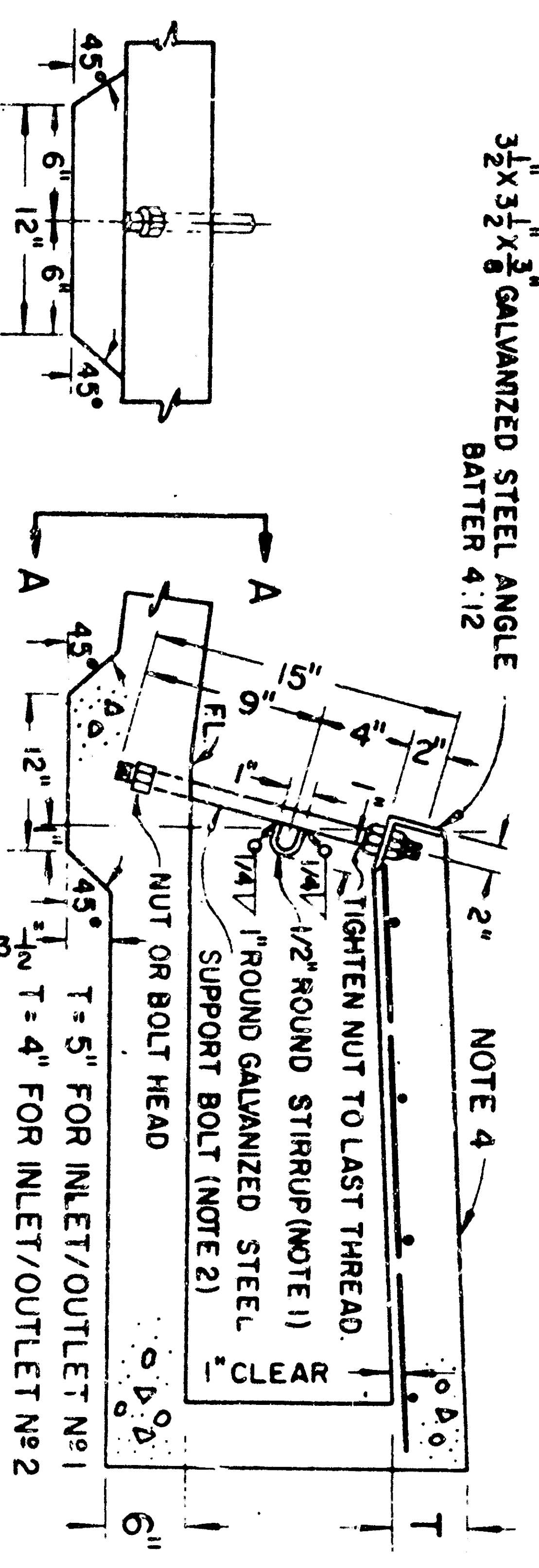
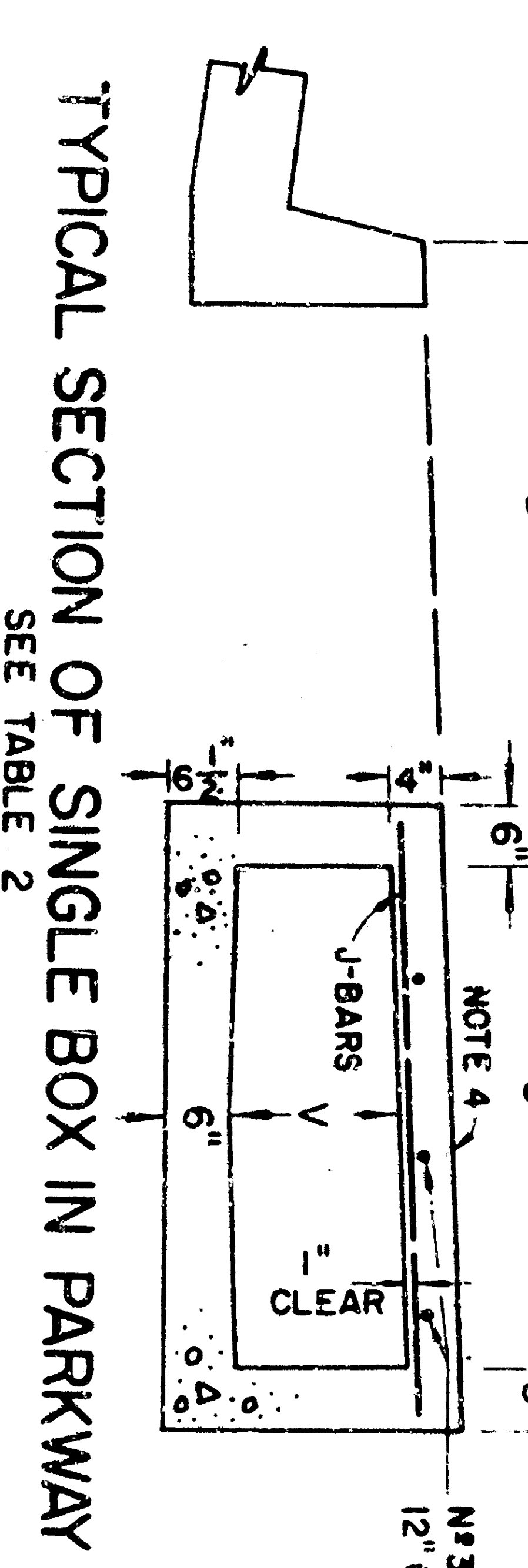
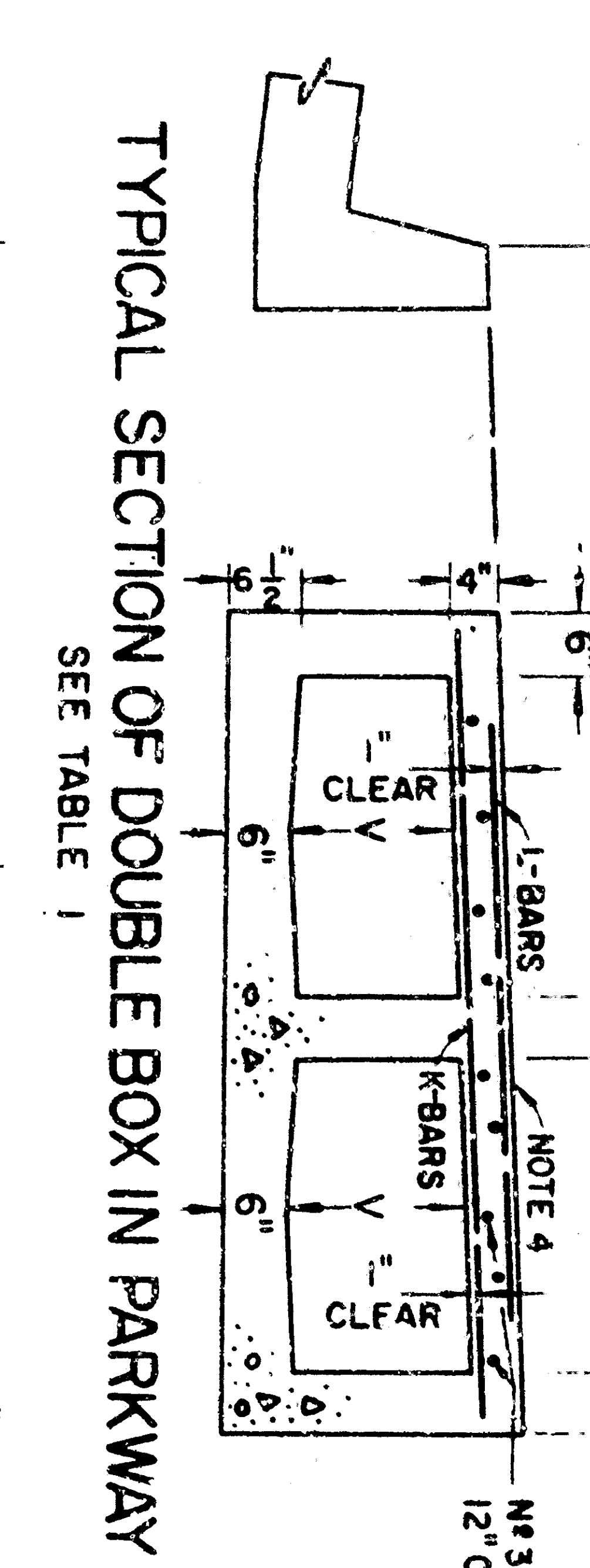
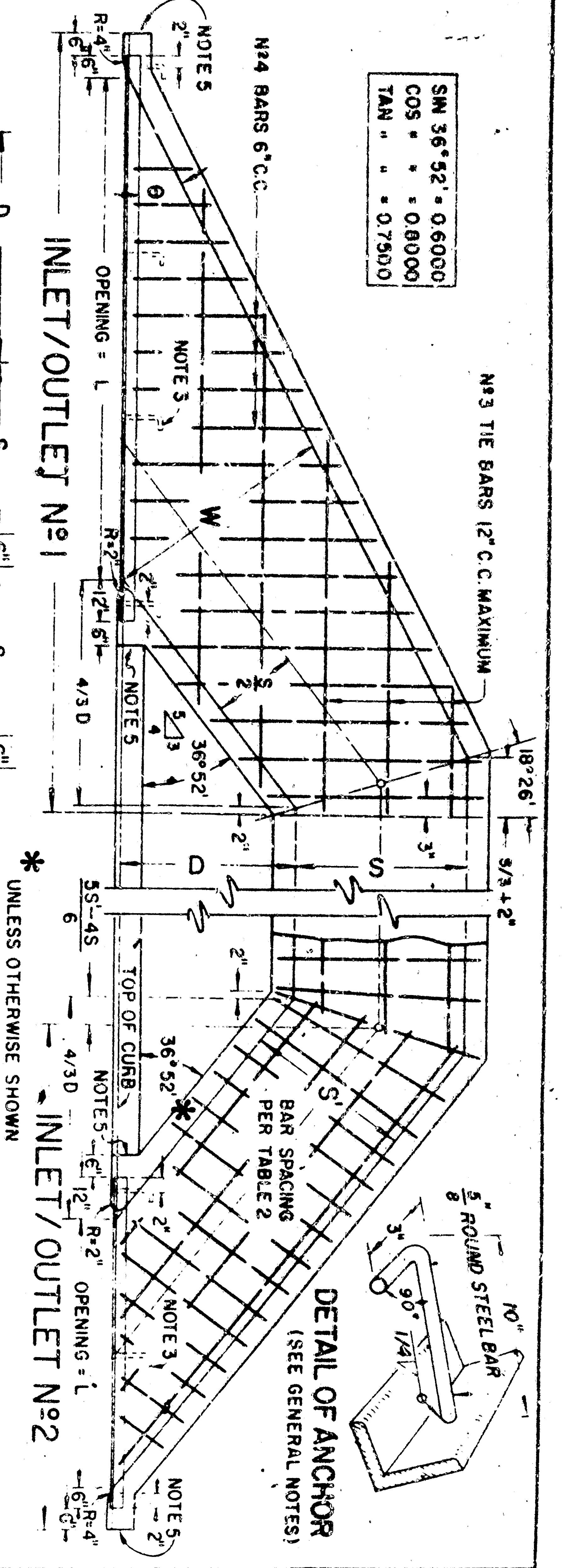
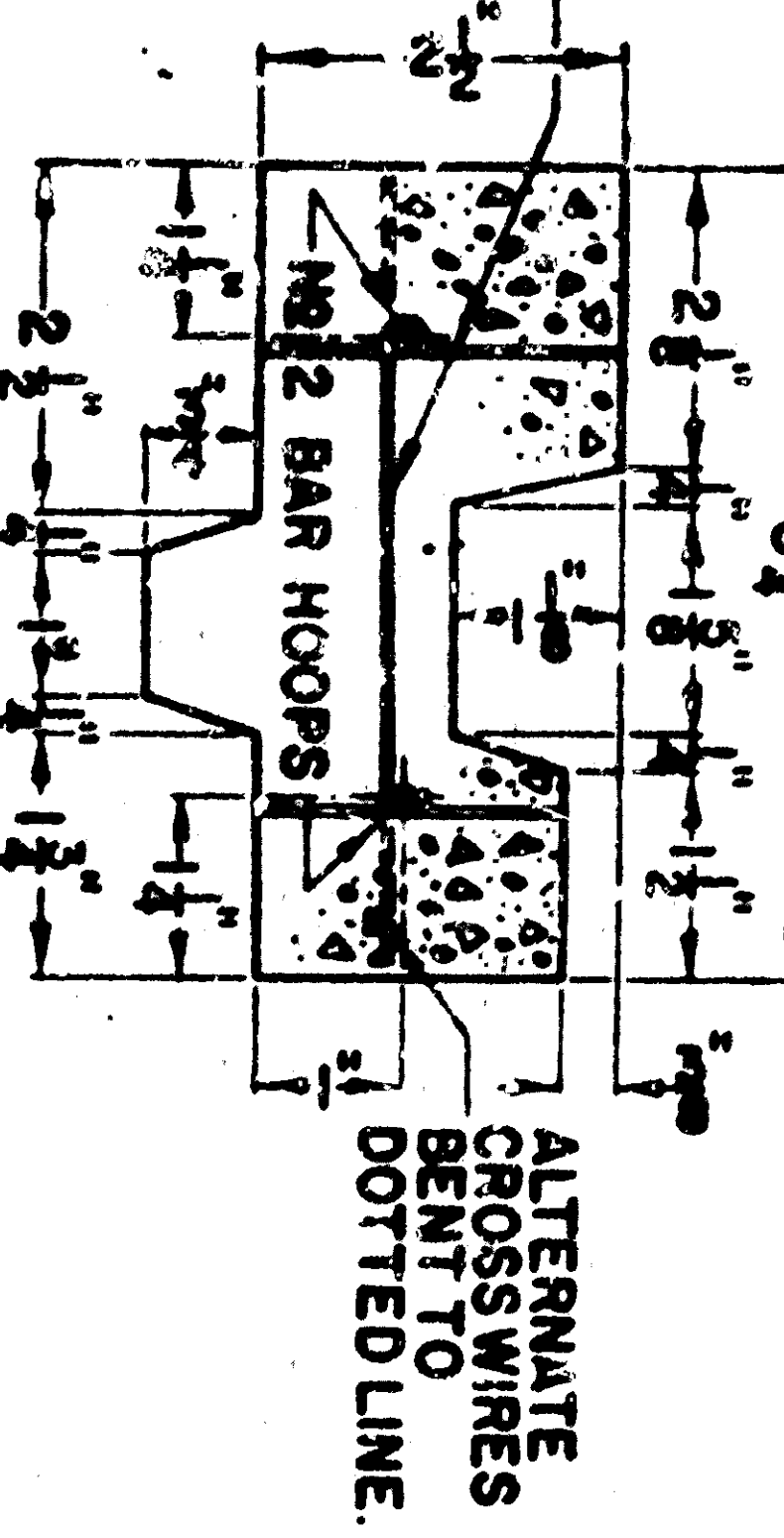
RAIL WEIGHT	D
30 L.B./YD.	3 1/8"
35 L.B./YD.	3 5/8"
40 L.B./YD.	3 7/8"
45 L.B./YD.	4 1/8"
50 L.B./YD.	4 3/8"
55 L.B./YD.	4 5/8"
60 L.B./YD.	4 7/8"
65 L.B./YD.	5 1/8"

S	30 L.B. 35 L.B.	40 L.B.	45 L.B.	50 L.B.	55 L.B.	60 L.B.	65 L.B.	SOLE LENGTH
2'-0"	7 1/2"	8 1/2"	10"	10"	10"	10"	10"	3'-2"
3'-0"	6 1/2"	7 1/2"	9 1/2"	10"	10"	10"	10"	3'-8"
3'-6"	5 1/2"	6 1/2"	8 1/2"	9"	10"	10"	10"	4'-2"
4'-0"	5"	6"	7 1/2"	8 1/2"	9 1/2"	10"	10"	4'-8"
4'-6"	4 1/2"	5 1/2"	7 1/2"	8 1/2"	9 1/2"	10"	10"	5'-2"
5'-0"	4"	5"	6 1/2"	7 1/2"	8 1/2"	9 1/2"	10"	5'-8"
5'-6"	3 1/2"	4 1/2"	5 1/2"	6 1/2"	7 1/2"	8 1/2"	9 1/2"	6'-2"
6'-0"	3 1/8"	4 1/8"	5 1/8"	6 1/8"	7 1/8"	8 1/8"	9 1/8"	6'-8"



- NOTES:**
1. PLACE ALL RAILS ON CLASS A MORTAR, MINIMUM.
 2. FLOOR LINE ELEVATION AS SHOWN ON PLAN.
 3. FLOOR OF BOXES TO BE TROWELED SMOOTH.
 4. USE 60 LB. RAILS FOR 3'-2" TO 4'-6" SO L.B. RAILS FOR 3'-6" TO 6'-0".
 5. MINIMUM WHEN USING SOLE RAILS: MINIMUM WHEN USING SOLE RAILS.
 6. PLACE MANHOLE FRAME AND COVER UNLESS OTHERWISE SHOWN.
 7. USE MANHOLE FRAME AND COVER UNLESS OTHERWISE SHOWN.

DETAIL OF CONCRETE RINGS



- NOTES:**
- NOTE 1 - CATCH BASIN PROTECTION BAR AND STIRRUPS TO BE INSTALLED AT INLETS ONLY.
 - NOTE 2 - STEEL SUPPORTS TO BE SPACED EVENLY IN OPENING AND NOT TO EXCEED 7'C.C. THREAD 3" ON UPPER END.
 - NOTE 3 - NOT LESS THAN 3'-5/8" DIA. X 10" ANCHOR BOLTS WELDED TO ANGLE.
 - NOTE 4 - SLORE 1/4" PER FOOT UNLESS OTHERWISE SHOWN, SIDEWALK FINISH.
 - NOTE 5 - CONSTRUCTION JOINT.
- GENERAL NOTES:**
- REINFORCING STEEL SHALL HAVE A COVERING OF AT LEAST 1 INCH OF CONCRETE AT ALL POINTS FOR REINFORCING AROUND MANHOLES IN SIDEWALK AREA SEE NOTES BELOW.
- SPACING OF TRANSVERSE REINFORCEMENT SHALL BE MEASURED ALONG E & OF CURVERT EXCEPTING INLET/OUTLET N#1.
- ALL REINFORCING BARS SHALL BE LAPPED TWENTY DIAMETERS AT ALL SPLICES.
- FLOOR OF BOXES TO BE TROWELED SMOOTH.
- REINFORCING STEEL STUDS 1/2" X 3/8" WITH HEADS 1/2" ATTACHED BY A FULL PENETRATION BUTT WELD MAY BE USED AS AN ALTERNATE ANCHOR.
- FORMULAS:**
- INLET/OUTLET N#1: AREA OF TOP SLAB (IN SQ. FT.) = $\frac{1}{2} M \left(\frac{1}{2} M + 2L + 3D \right) + \frac{M^2}{4} - \frac{M^2}{4} (2D - L)^2$
- INLET/OUTLET N#2: AREA OF TOP SLAB (IN SQ. FT.) = $\frac{1}{2} M \left(\frac{1}{2} M + 2L + 3D \right) + \frac{M^2}{4} - \frac{M^2}{4} (2D - L)^2$
- INLET/OUTLET N#3: AREA OF TOP SLAB (IN SQ. FT.) = $\frac{1}{2} M \left(\frac{1}{2} M + 2L + 3D \right) + \frac{M^2}{4} - \frac{M^2}{4} (2D - L)^2$

SPAN	SIZE	SPACING	LENGTH
3'-0"	N#3	10"	2'-3"
3'-6"	N#3	10"	2'-9"
4'-0"	N#3	10"	3'-3"
4'-6"	N#3	10"	3'-9"
5'-0"	N#3	10"	4'-3"
5'-6"	N#3	10"	4'-9"
6'-0"	N#3	10"	5'-3"

SPAN	SIZE	SPACING	LENGTH
2'-6"	N#3	10"	1'-3"
3'-0"	N#3	10"	1'-9"
3'-6"	N#3	10"	2'-3"
4'-0"	N#3	10"	2'-9"
4'-6"	N#3	10"	3'-3"
5'-0"	N#3	10"	3'-9"
5'-6"	N#3	10"	4'-3"
6'-0"	N#3	10"	4'-9"

SPAN	CUBIC YARDS OF CONCRETE	WEIGHT IN POUNDS
2'-6"	1.101 + 0.031V	26
3'-0"	1.239 + 0.031V	29
3'-6"	1.417 + 0.031V	34
4'-0"	1.574 + 0.031V	39
4'-6"	1.731 + 0.031V	53
5'-0"	1.889 + 0.031V	71
5'-6"	2.046 + 0.031V	86
6'-0"	2.204 + 0.031V	100
6'-6"	2.333 + 0.046V	65
7'-0"	2.646 + 0.046V	82
7'-6"	2.955 + 0.046V	97
8'-0"	3.267 + 0.046V	114
8'-6"	3.578 + 0.046V	147
9'-0"	3.889 + 0.046V	203
9'-6"	4.200 + 0.046V	276

DEPARTMENT OF ENGINEERING
CITY OF SAN BERNARDINO
STREET IMPROVEMENT PLAN AND PROFILE

BASELINE STREET
FROM MUSCOTT ST. TO 1st ST. WEST AND
FROM MUSCOTT ST. TO 1st ST. SOUTH

DESIGNED BY: [Name]
DRAWN BY: [Name]
CHECKED BY: [Name]

REGISTERED CIVIL ENGINEER

19

DATE

SCALE