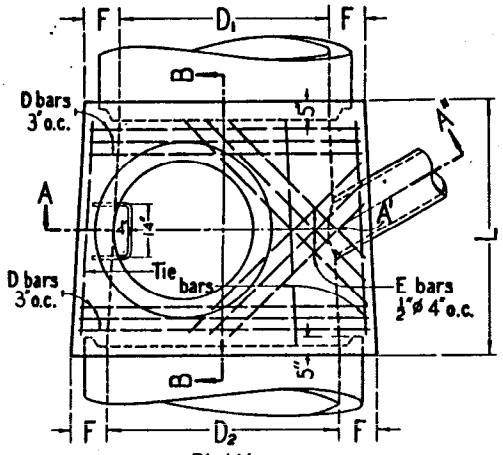
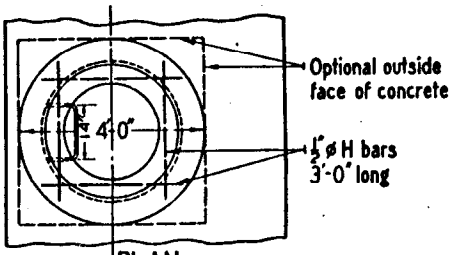
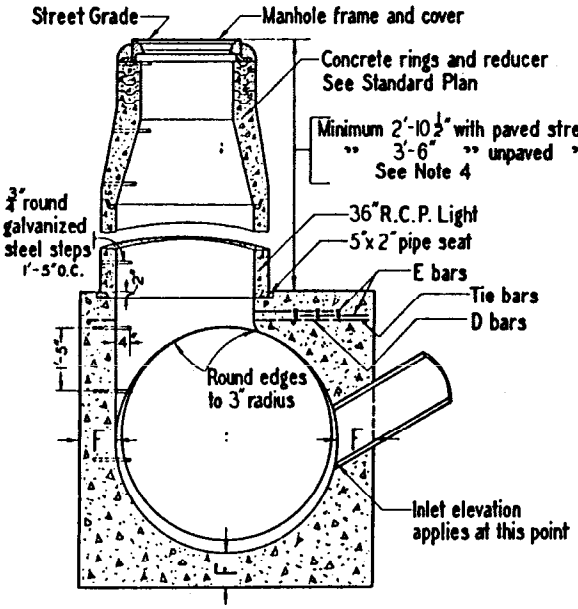


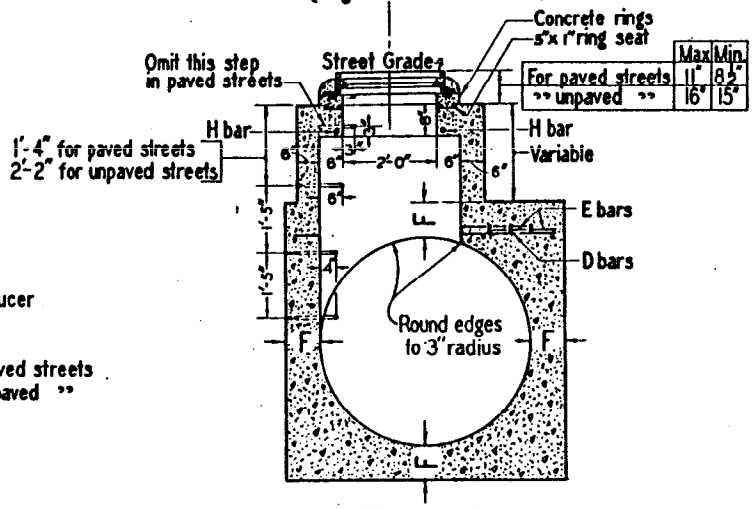
PLAN
(Shaft not shown)



PLAN
(Rings and cover not shown)

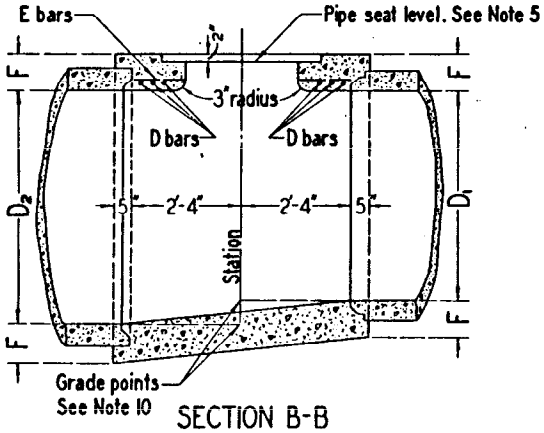


SECTION A-A'-A"



	Max	Min
For paved streets	11"	8½"
" unpaved "	16"	15"

DETAIL M
(See Note 4)



SECTION B-B

TABLE OF VALUES FOR F	
D_2	F
36"	6½"
39"	7"
42"	7½"
45"	7½"
48"	8"
51"	8½"
54"	9"
57"	9½"
60"	9½"
63"	10"
66"	10½"
69"	10½"
72"	11"
78"	11½"
84"	12½"
90"	13½"
96"	14"

DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING — CITY OF LOS ANGELES

MANHOLE AX

STANDARD PLAN

B-1700

DESIGNED BY C.H.	SUBMITTED Feb 3 1933	APPROVED Feb 3 1933
DRAWN BY McN.	BY L.F. Armstrong ENGINEER OF STORM DRAINS	J.J. Jessup CITY ENGINEER
CHECKED BY F.E.C.		

SHEET 1 OF 2 SHEETS

NOTES

1 - TABLE of values for F are on this plan.

2 - CENTER OF MANHOLE SHAFT shall be located over center line of storm drain when diameter D_1 is 48" or less, in which case place E bars symmetrically around shaft at 45° with center line.

3 - LENGTH L shall be 5'-6" unless shown otherwise on improvement plan. At option of Contractor L may be increased or location of manhole shifted to meet pipe ends.

4 - DETAIL M: When depth of manhole from street grade to top of box is less than 2'-10½" for paved streets or 3'-6" for unpaved streets, construct monolithic shaft as per Detail M. The Contractor shall have the option of constructing shaft as per Detail M for any depth of manhole. When diameter D_1 is 48" or less, center of shaft shall be located as per Note 2.

5 - THICKNESS OF DECK shall vary when necessary to provide level pipe seat, but shall not be less than tabular values for F shown on this plan.

6 - REINFORCING STEEL shall be round, deformed bars, 1½" clear from face of concrete unless shown otherwise. Sizes and lengths are shown in table below.

7 - CONCRETE shall be class F.

8 - STEPS shall be ¾" round, galvanized steel and anchored not less than 6 inches in the walls of structure. Unless otherwise shown the spacing shall be 1'-5" on centers. The lowest step shall be not more than 2'-6" above the invert.

9 - RINGS, REDUCER, AND PIPE for access shaft shall be seated in class B mortar and neatly pointed or wiped inside the shaft.

10 - STATIONS of manholes shown on improvement plan apply at center of shaft. Elevations shown at stations refer to prolonged invert grade lines.

11 - FLOOR of manhole shall be steel-troweled to springing line.

12 - BODY of manhole shall be poured in one continuous operation, except that the Contractor shall have the option of placing at the springing line a construction joint with a longitudinal keyway.

STEEL TABLE FOR MANHOLE - AX

	D bars			E bars		
Diam. D_2	No Req'd	Size	Length	No Req'd	Size	Length
36"	6	½" ø	3'-10"	4	½" ø	2'-9"
39"	6	"	4'-2"	4	"	2'-11"
42"	6	⅝" ø	4'-6"	4	"	3'-2"
45"	6	"	4'-10"	4	"	3'-5"
48"	6	"	5'-1"	4	"	3'-7"
51"	6	"	5'-5"	6	"	4'-9"
54"	6	"	5'-9"	6	"	5'-1"
57"	6	"	6'-1"	6	"	5'-6"
60"	6	"	6'-4"	6	"	5'-11"
63"	6	"	6'-8"	6	"	6'-3"
66"	6	"	7'-0"	8	"	6'-8"
69"	6	"	7'-4"	8	"	6'-8"
72"	6	"	7'-7"	8	"	6'-8"
78"	6	"	8'-3"	8	"	6'-8"
84"	6	"	8'-10"	10	"	6'-8"
90"	6	¾" ø	9'-6"	10	"	6'-8"
96"	6	"	10'-1"	10	"	6'-8"

D bars shall be spaced 3" o.c. E bars shall be spaced 4" o.c. Tie bars shall be ⅜" ø, spaced 18" o.c. or closer.

When L greater than 5'-6" is specified on improvement plan, continue D bars at 6" o.c.

Lengths shown in table are for longest bars. Where shorter bars are required, bend or cut to meet field requirements.

DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING — CITY OF LOS ANGELES

NOTES FOR
MANHOLE AX

STANDARD PLAN
B-1700

DESIGNED BY C.H.
DRAWN BY McN.
CHECKED BY F.E.C.

SUBMITTED Feb. 3 1933
BY L. V. Armstrong
ENGINEER OF STORM DRAINS

APPROVED Feb 3 1933
J. J. Jeasup
CITY ENGINEER

SHEET 2 OF 2 SHEETS