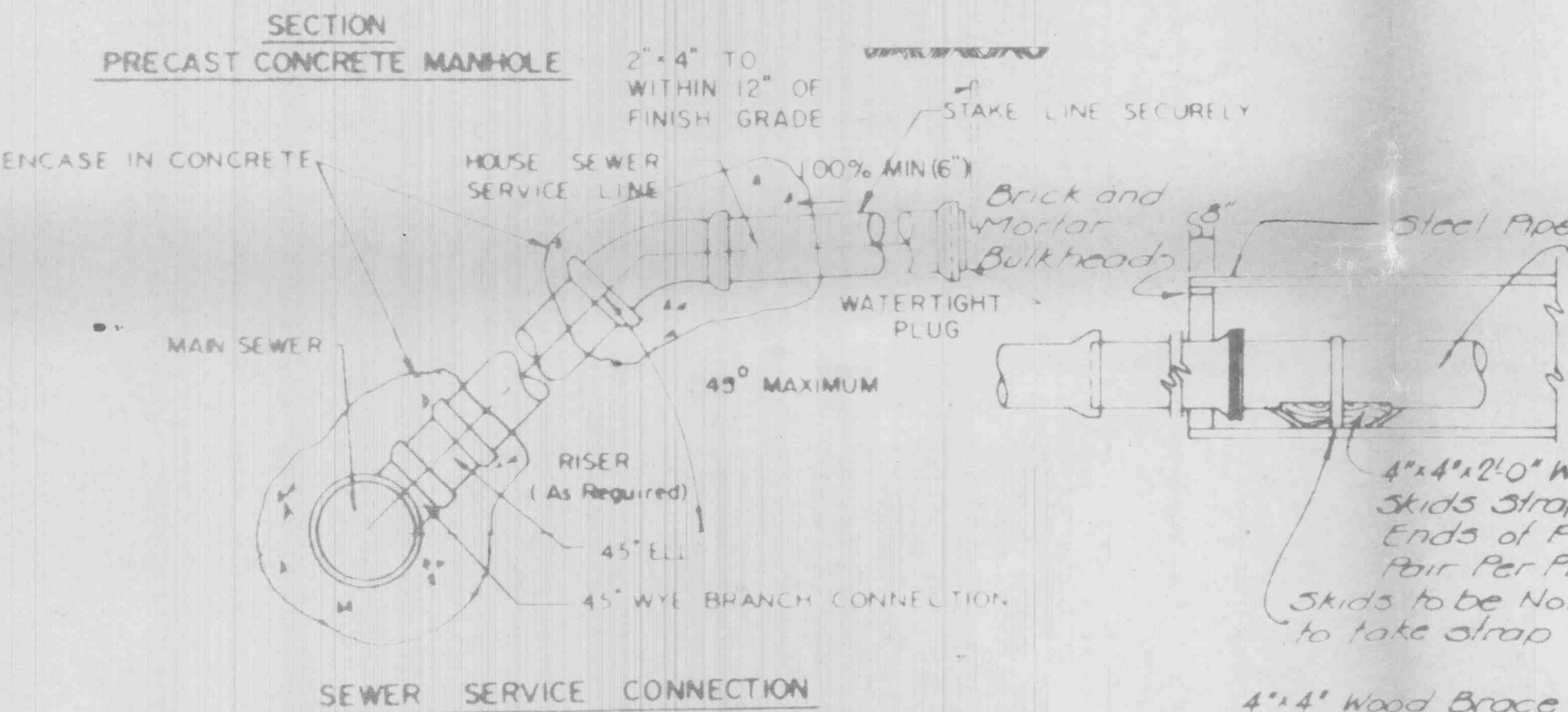
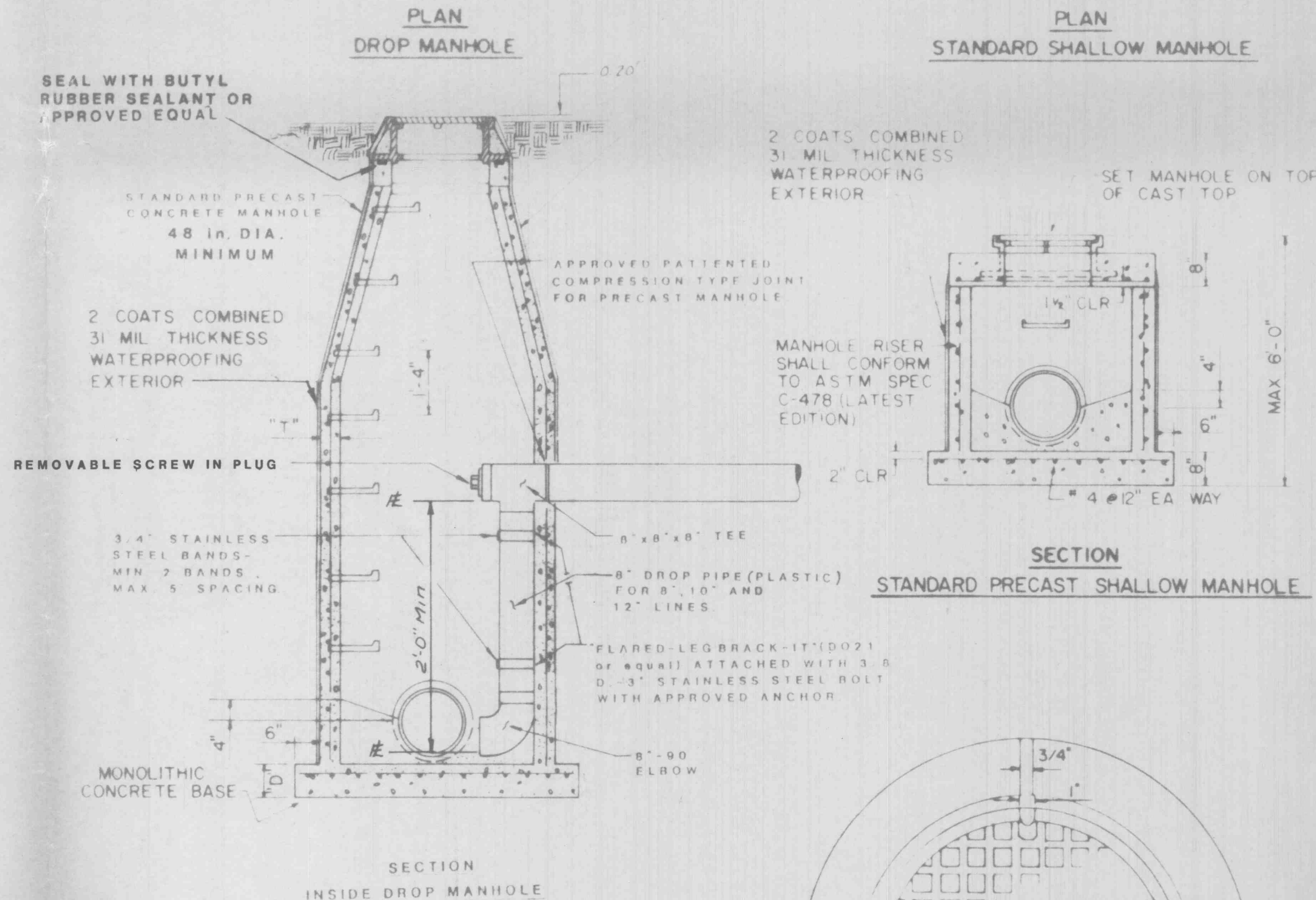
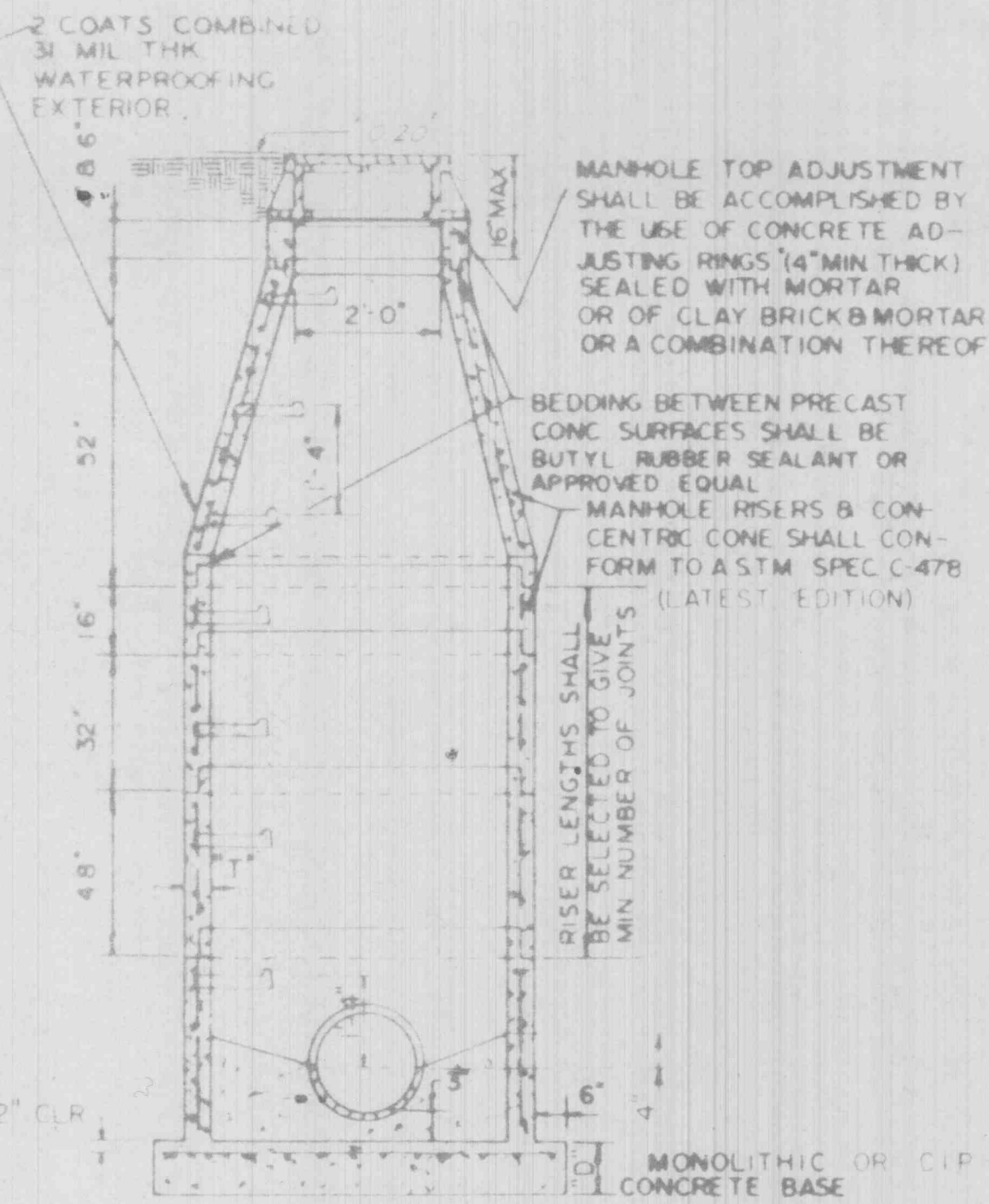
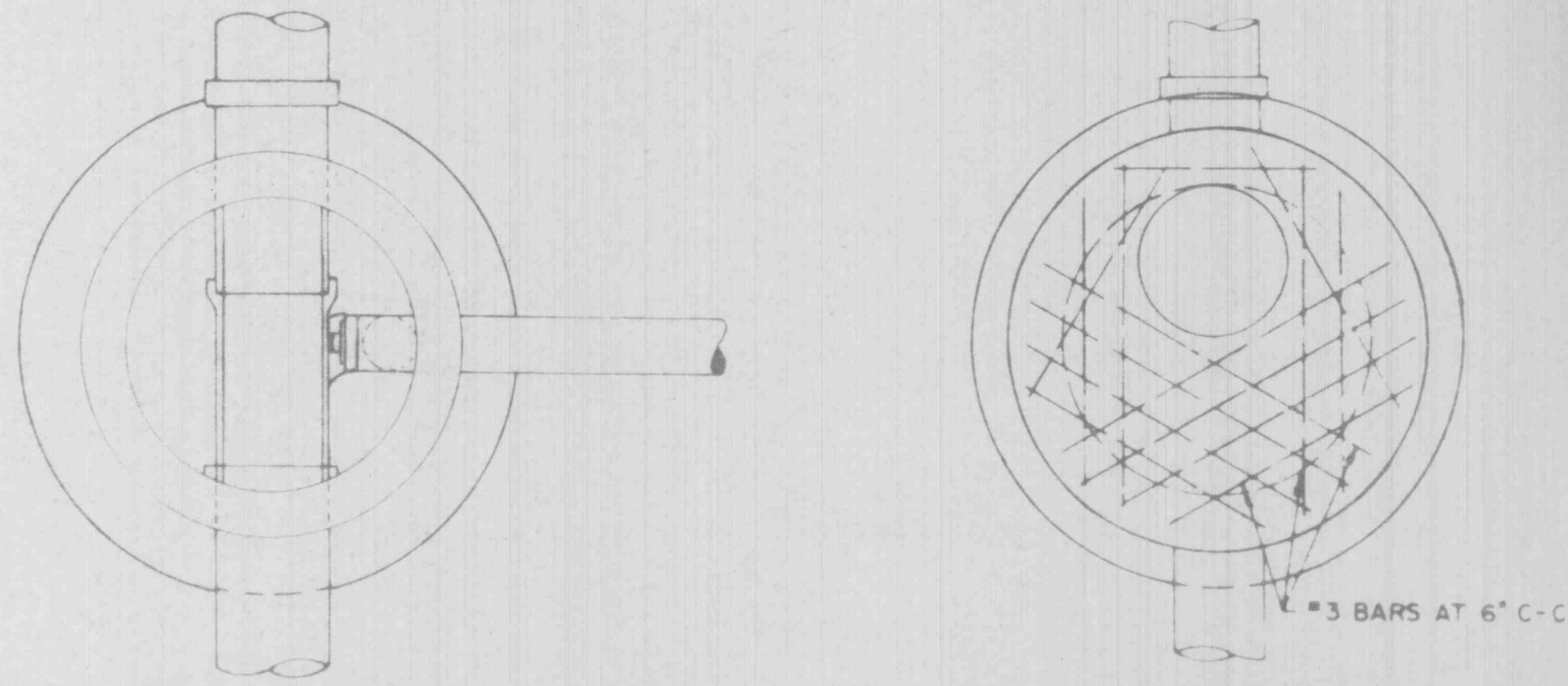
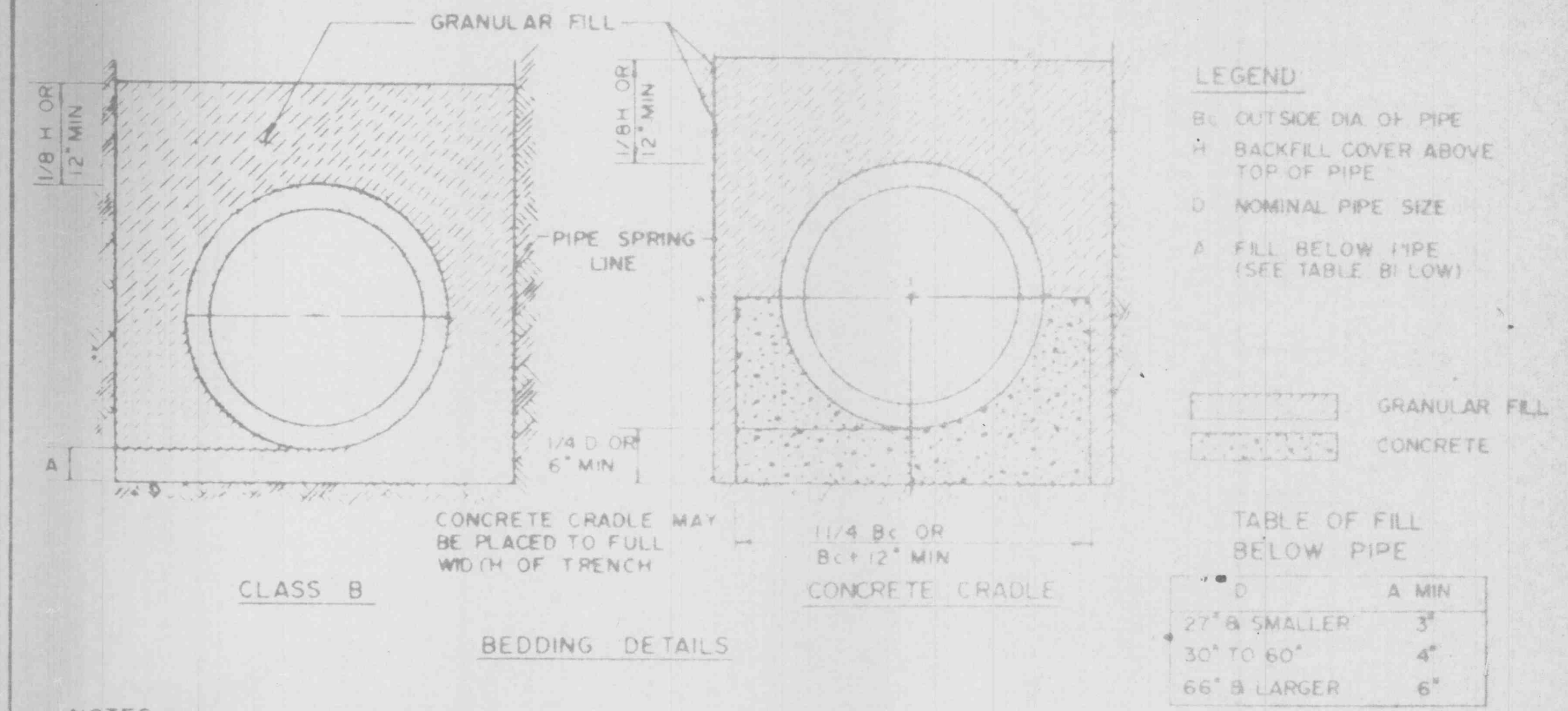
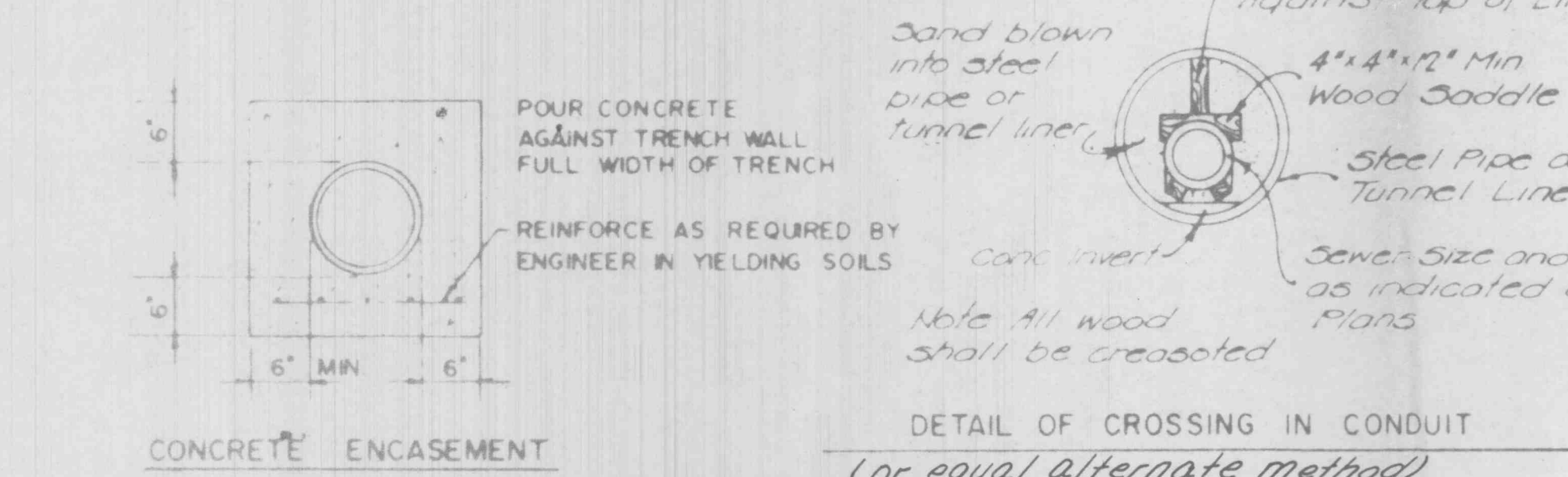
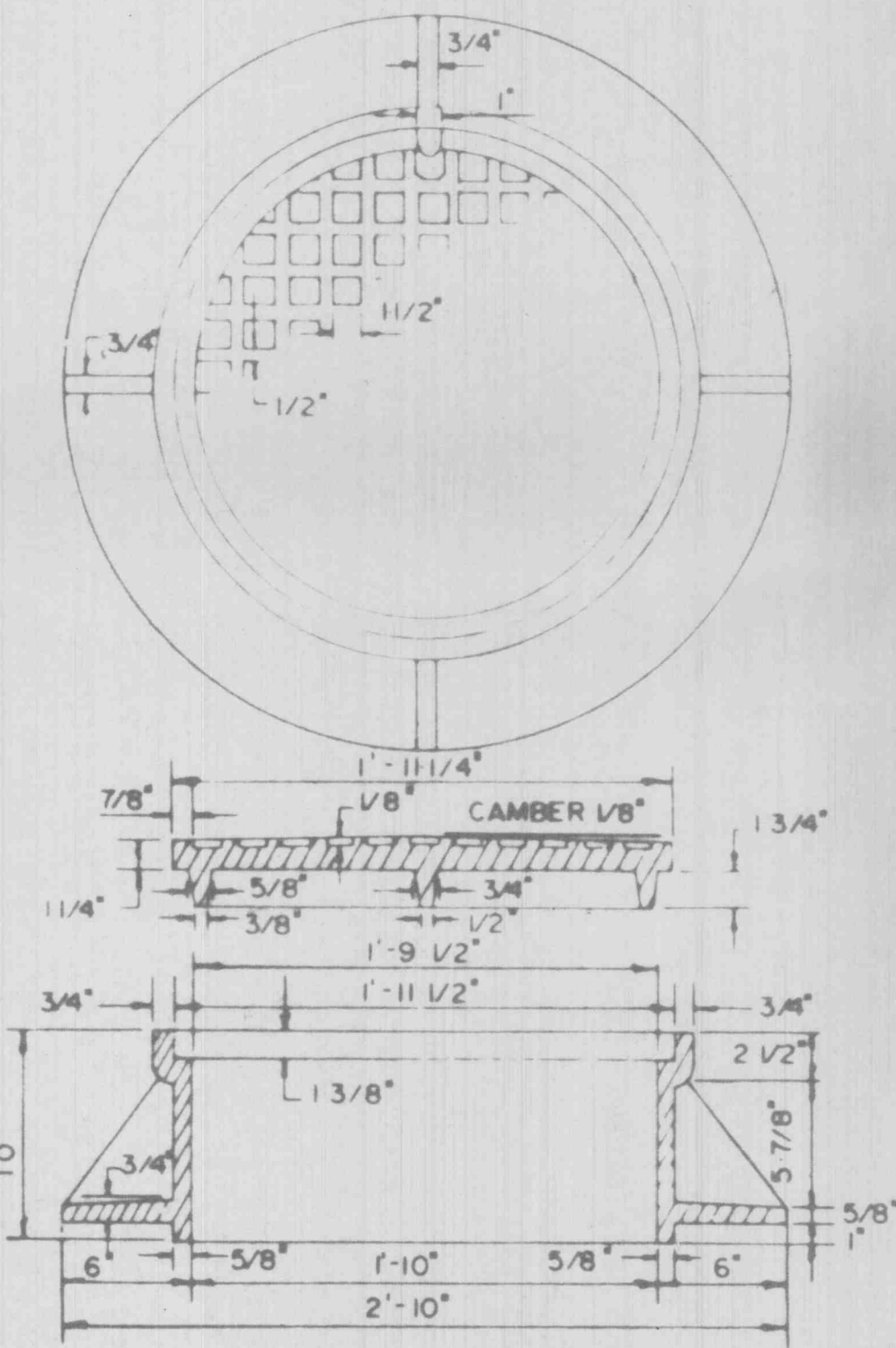


WALL THICKNESS		MANHOLE BASE THICKNESS	
DIA. MH	PIPE DIA.	DEPTH (FEET)	"O" DIM
48"	5"	0-20	8" #4 BARS @ 12" CTRS. EACH WAY
60"	6"	20-30	8" #4 BARS @ 9" CTRS. EACH WAY
72"	7"	30-40	10" #5 BARS @ 10" CTRS. EACH WAY

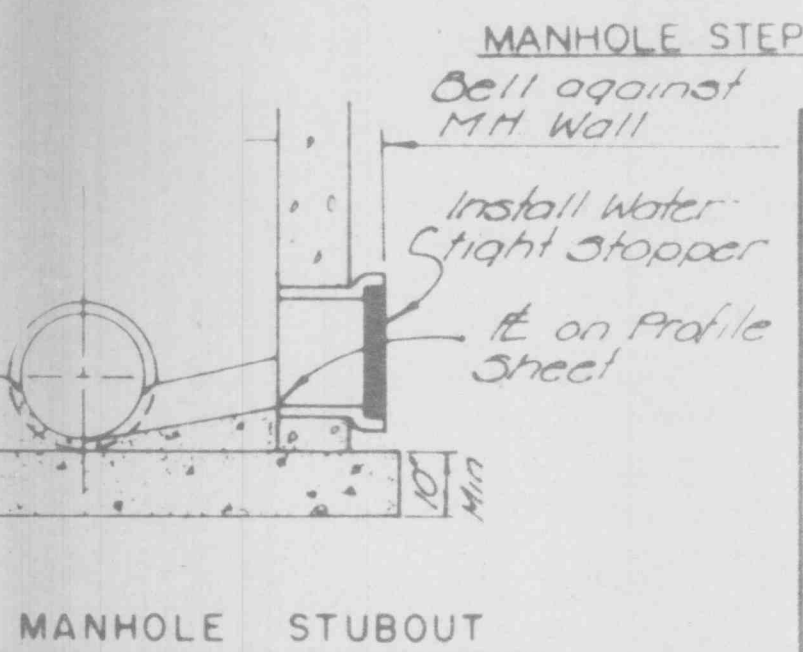
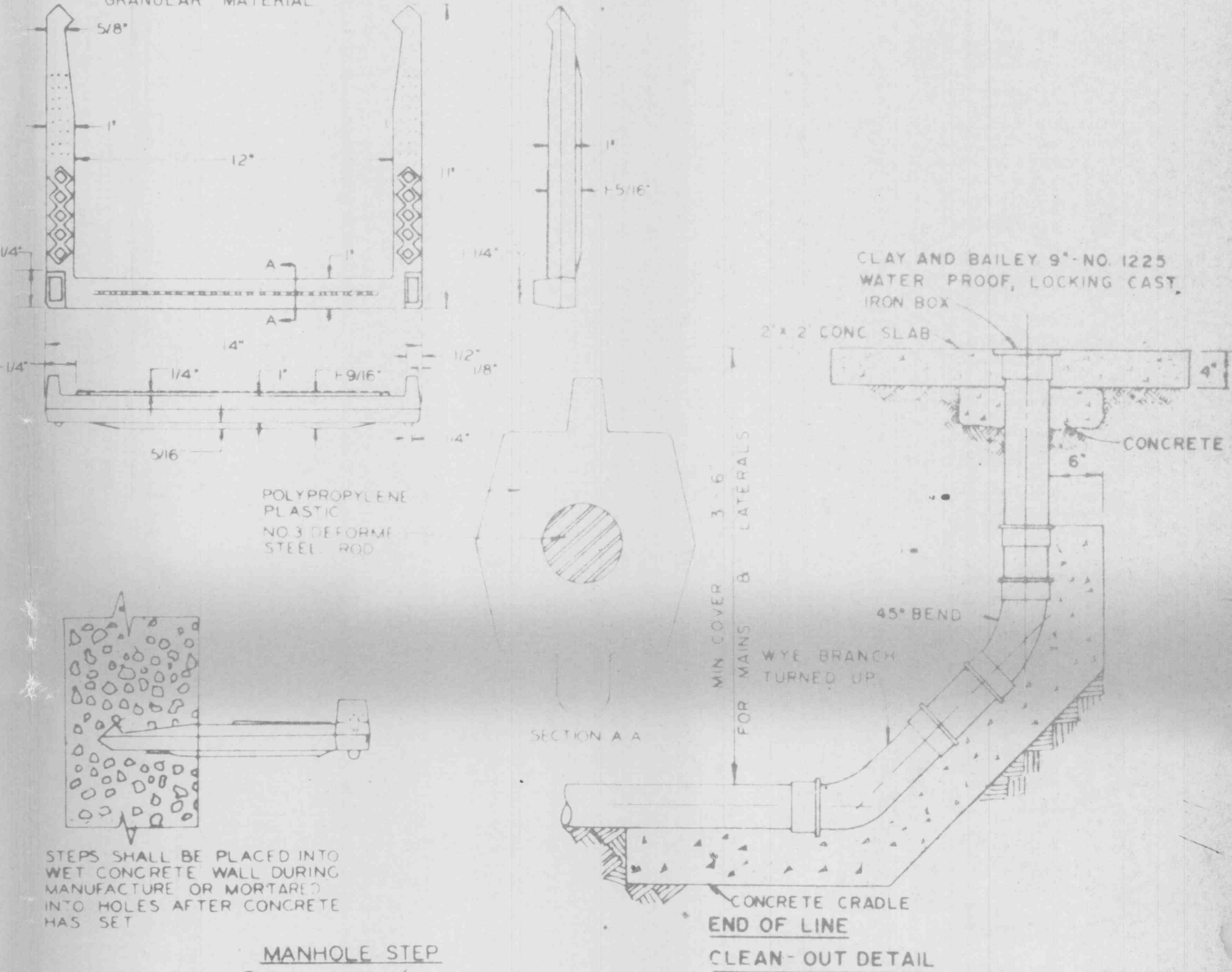


- NOTES**
- 1 ANY MATERIAL EXCAVATED BENEATH PIPE ENTERING OR LEAVING MANHOLES SHALL BE REPLACED WITH CONCRETE
 - 2 ALL MANHOLE RINGS AND ADJUSTING RINGS SHALL BE SET IN MORTAR
 - 3 INSIDE DIAMETER OF MANHOLES TO BE 4'-0" FOR PIPE 21" & SMALLER, 5'-0" FOR PIPE 24" THRU 30", 6'-0" FOR PIPE OVER 30"
 - 4 PLASTERING OF INSIDE OF MANHOLES SHALL BE THE OPTION OF THE CONTRACTOR
 - 5 ALL SEWERS EXTENDING FROM MANHOLES SHALL BE SUPPORTED WITH CONCRETE TO FIRST JOINT
 - 6 CONTRACTOR SHALL BE PAID FOR 6" CONCRETE ENCASUREMENT AROUND PIPE AS SHOWN IN DETAIL
 - 7 LAMP LINES BEFORE AND AFTER INSTALLATION OF CONCRETE ENCASUREMENT
 - 8 PRECAST MANHOLE SHALL BE WATERPROOFED OUTSIDE
 - 9 ALL CONC MANHOLES TO HAVE RUBBER GASKET ON ALL PIPE OPENINGS.
 10. ALL PVC PIPE TO BE SDR-35.



- NOTES**
- 1 GRANULAR FILL TO BE CRUSHED STONE OR PEA GRAVEL WITH NOT LESS 95% PASSING 1/2" AND NOT LESS THAN 95% TO BE RETAINED ON A #4, TO BE PLACED IN NOT MORE THAN 6" LAYERS AND COMPACTED BY SLICING WITH A SHOVEL (1/2" & #4 REFERS TO SIEVE SIZE)

- 2 ALL BEDDING DETAILS APPLY TO BUILDING SEWER SERVICE LINES AS WELL AS OTHER SEWERS
- 3 CONCRETE CRADLE SHALL BE USED WHEN TRENCH WIDTH EXCEEDS 24" PLUS THE PIPE DIAMETER
- 4 PVC PIPE SHALL BE BEDDED IN ACCORDANCE WITH ASTM D 2321 USING CLASS 1 (3/4" TO 1/4") GRANULAR MATERIAL



GBA
 GEORGE BUTLER ASSOCIATES
 CONSULTING ENGINEERS ARCHITECTS
 LANDSCAPE ARCHITECTS PLANNERS

84 LUMBER
SANITARY SEWER
CONSTRUCTION DETAILS
 PREPARED FOR
CITY OF O'FALLON, MO.

DESIGNED BY FLK DRAWN BY SAS CHECKED BY GRH

OFFICES:
 SUITE 300-A FAIRWAY OFFICE CENTER
 4710 JIMMISON DRIVE SHAWNEE MISSION KANSAS 66201
 1100 CITY CENTER SQUARE
 1100 MAIN KANSAS CITY MISSOURI 64101
 4000 CORPORATE DRIVE KANSAS CITY MISSOURI 64110

JOHN LENTZ BARRON
 REGISTERED PROFESSIONAL ENGINEER
 E-22572

JOB NO. 5126
 DATE Dec. 1987
 SCALE As Shown
 SHEET 7 OF 9