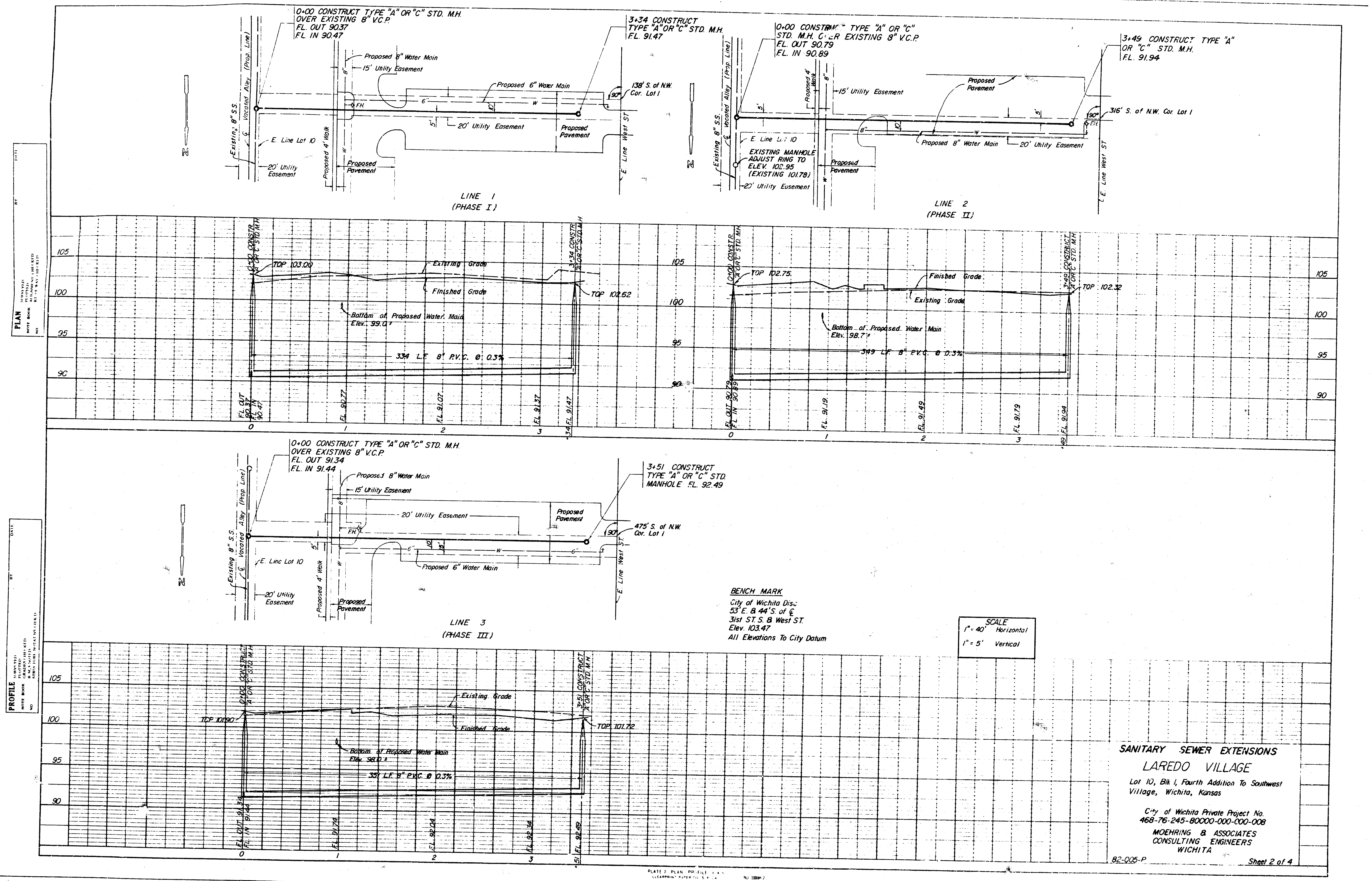


BENCH MARK

City of Wichita Disc
53' E. & 44' S. of ℄
31st ST. S. & West ST.
Elev. 103.47
All Elevations To City Datum

SCALE
1" = 40' Horizontal
1" = 5' Vertical

SANITARY SEWER EXTENSIONS

LAREDO VILLAGE

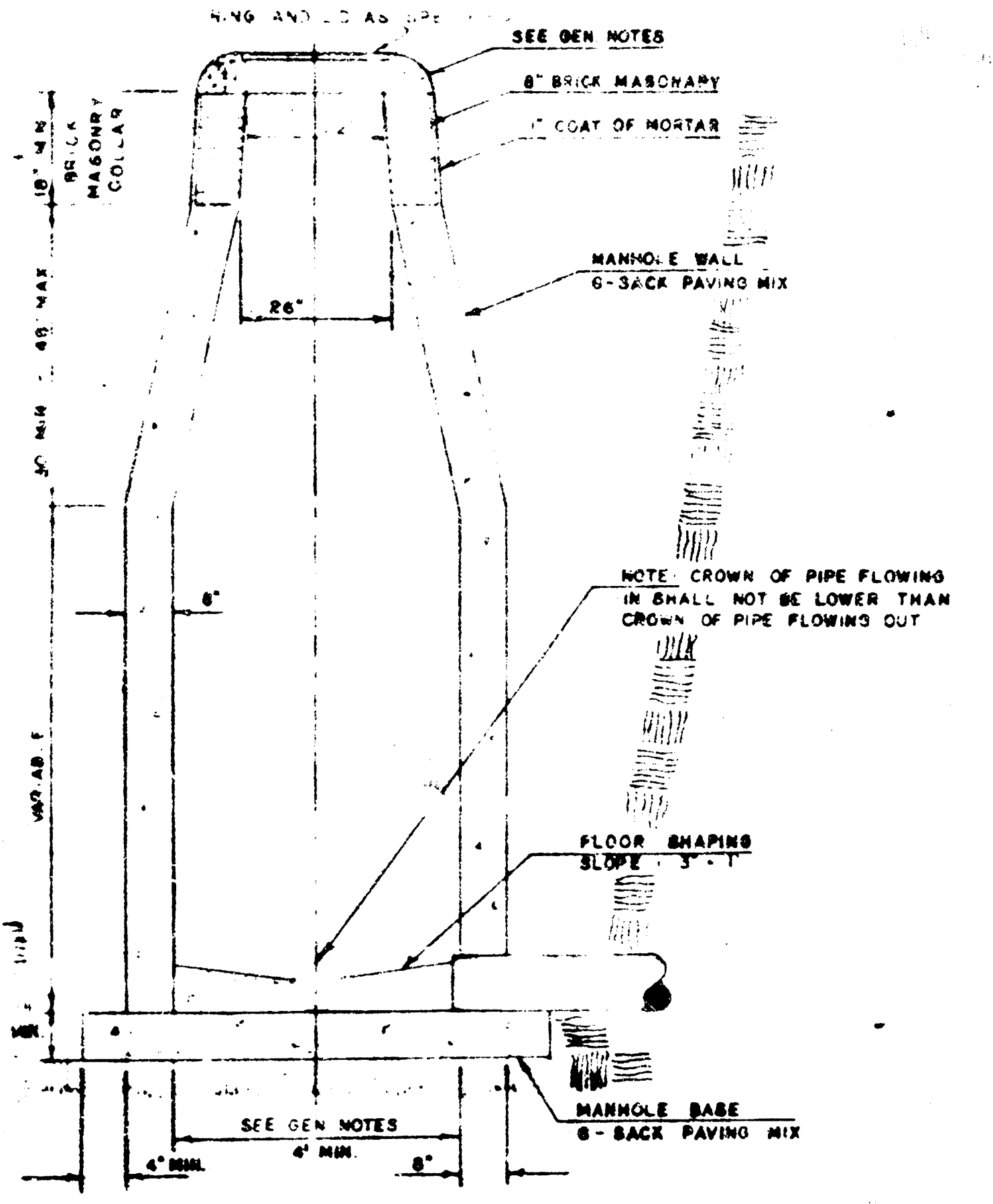
Lot 10, Blk 1, Fourth Addition To Southwest
Village, Wichita, Kansas

City of Wichita Private Project No.
468-76-245-80000-000-000-008

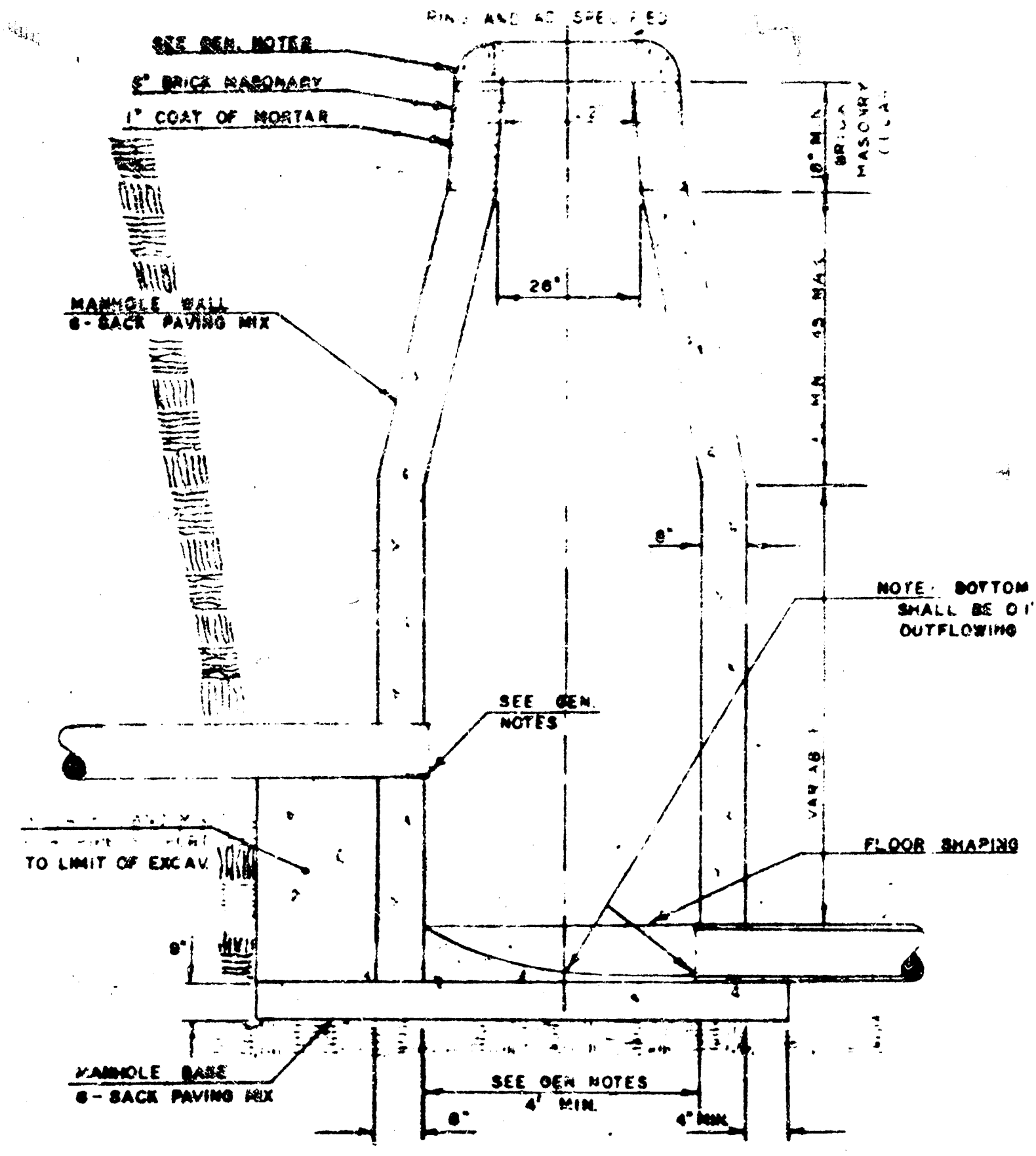
MOEHRING & ASSOCIATES
CONSULTING ENGINEERS
WICHITA

82-005-P
Sheet 2 of 4

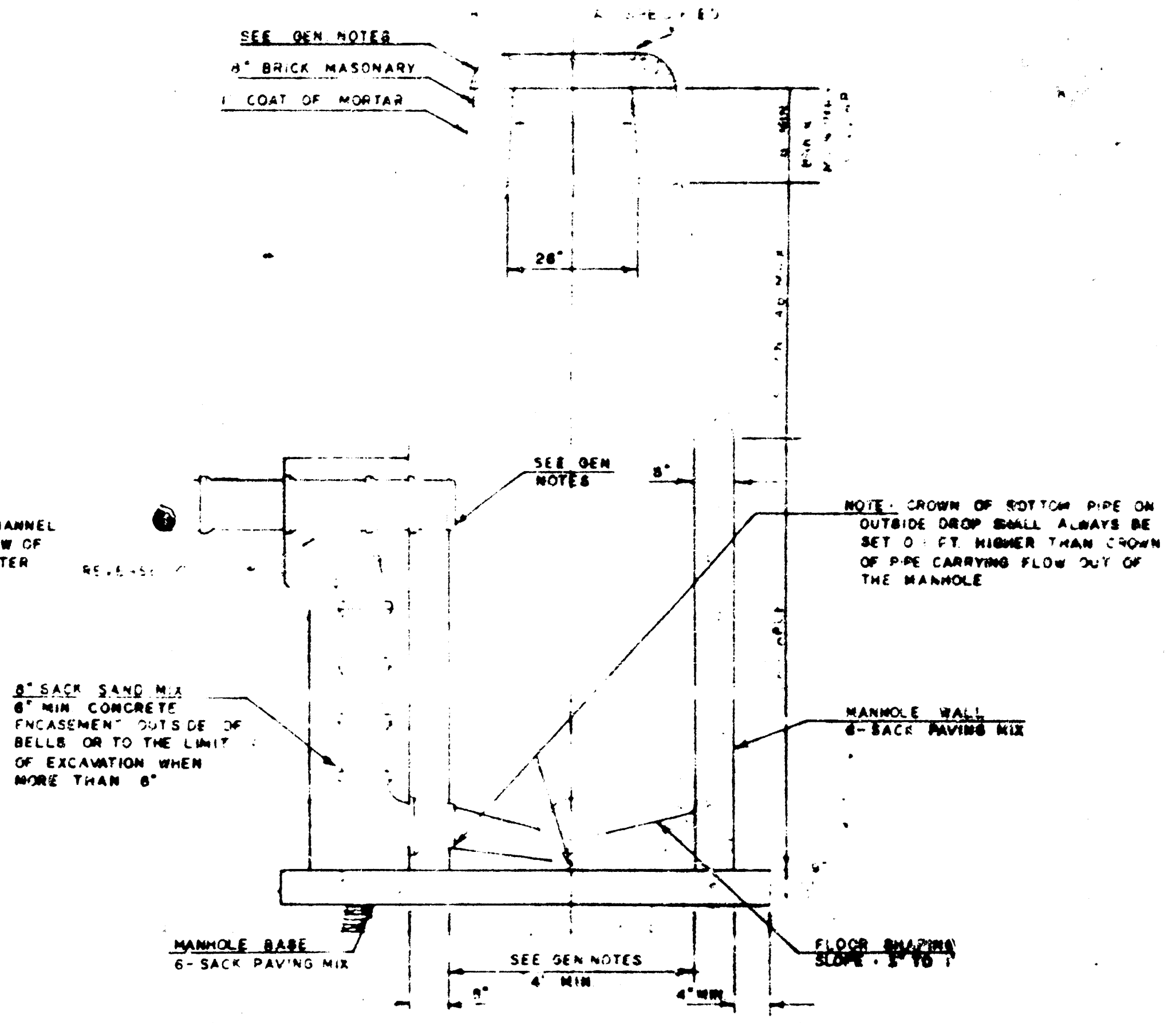
STANDARD MANHOLE, TYPE "C"

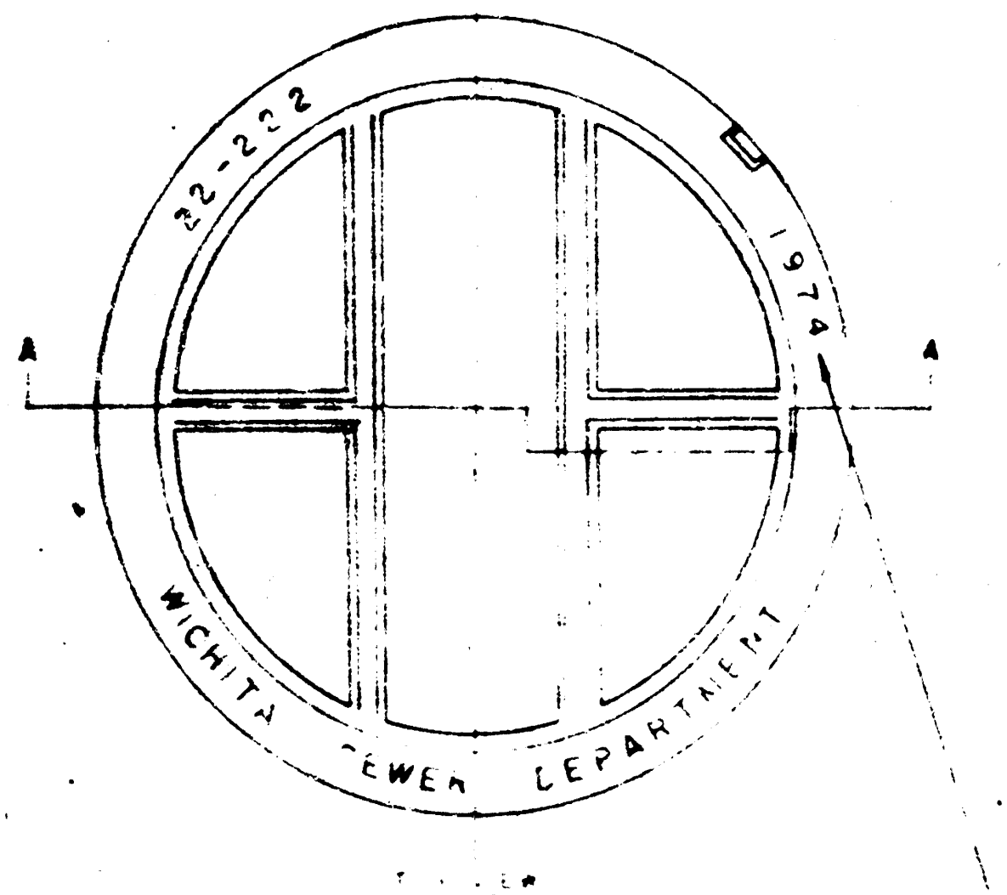


INSIDE DROP MANHOLE, TYPE "C"



OUTSIDE DROP MANHOLE, TYPE "C"



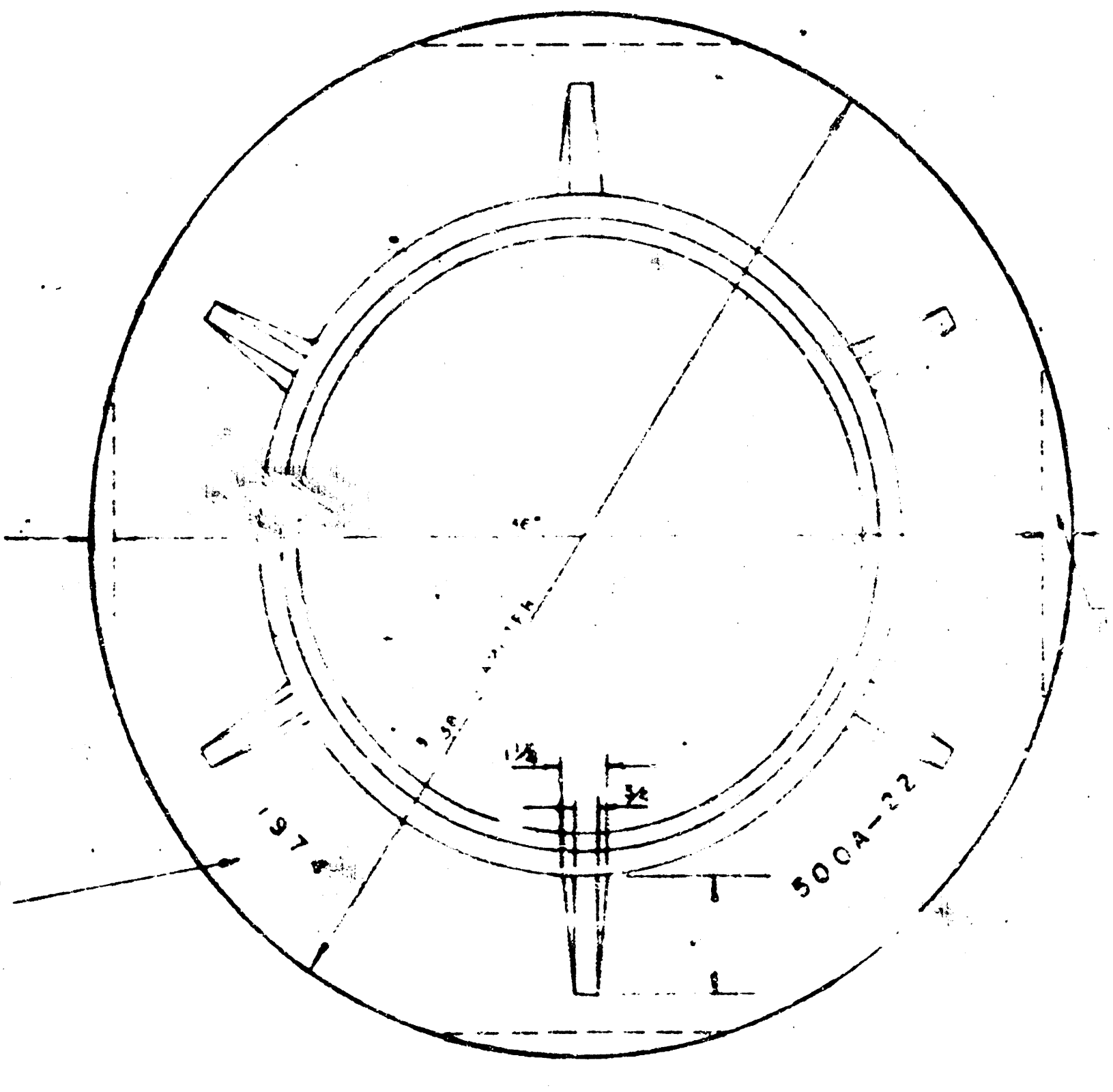


TOP VIEW

MANHOLE COVER

WEIGHT 110 LBS

YEAR CASTING IS MADE

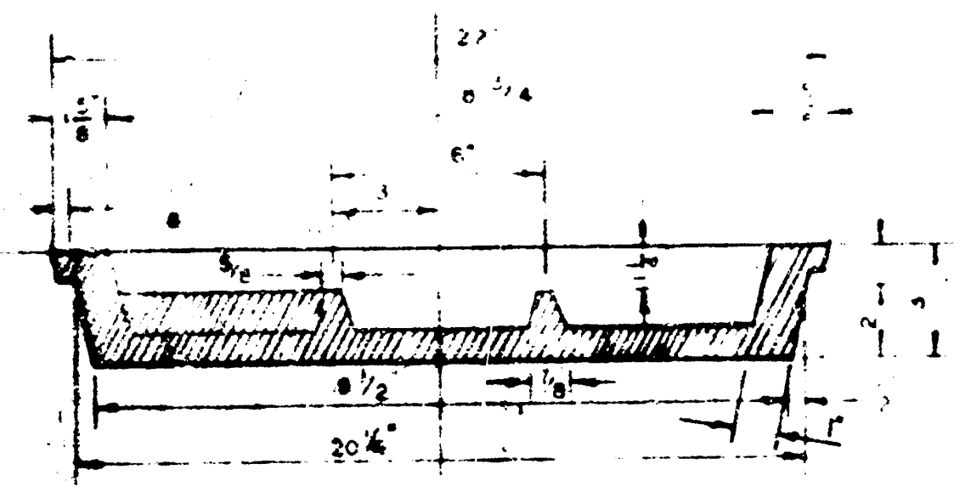


TOP VIEW

MANHOLE RING

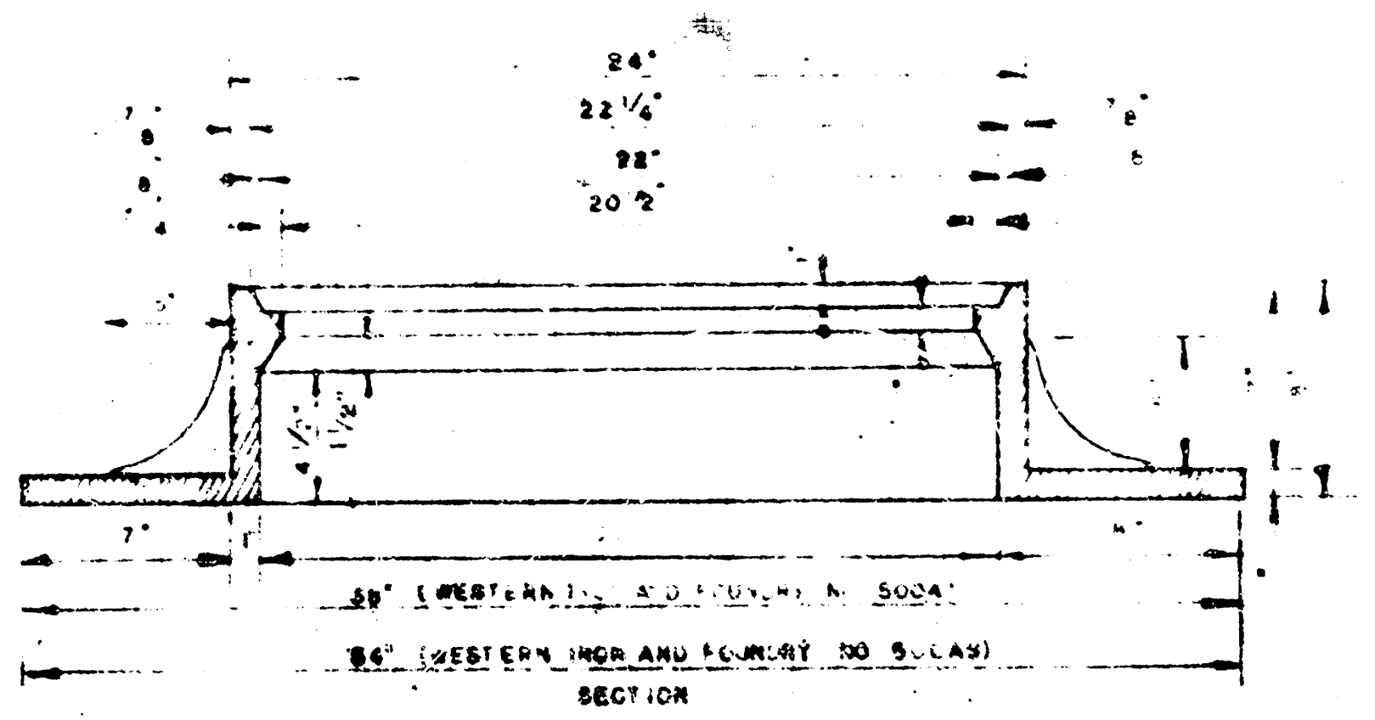
WEIGHT [illegible] LBS RING NO. 500A

WEIGHT 600 LBS RING NO. 500AS



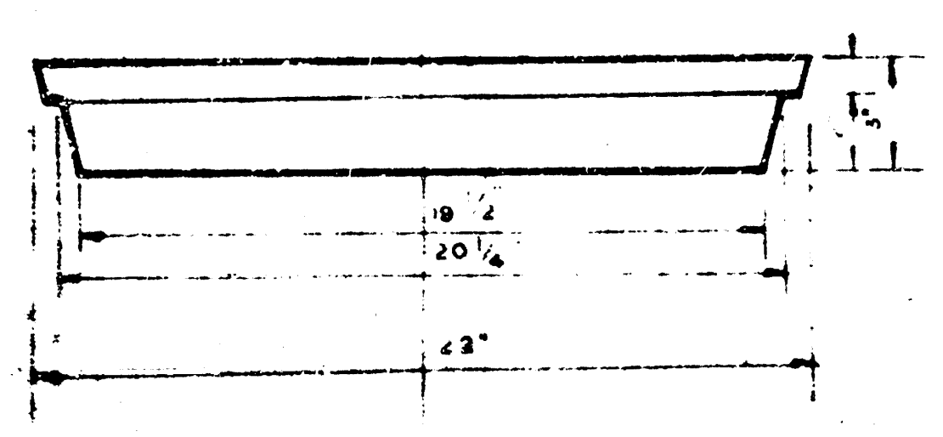
SECTION A-A

MANHOLE COVER



SECTION

MANHOLE RING



SIDE VIEW

MANHOLE COVER

GENERAL NOTES

1. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE WALLS AND BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING 6 SACKS OF CEMENT PER CUBIC YARD WITHOUT AIR ENTRAINING ADMIXTURE. MORTAR SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. TYPE C MANHOLES CAN BE CONSTRUCTED ONLY WHERE PIPE SIZES ARE 8" OR SMALLER. THE INSIDE DIAMETER OF TYPE C MANHOLES SHALL BE 4'. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.

2. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASE. REINFORCING STEEL SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. REINFORCING STEEL SHALL BE PLACED 6" ABOVE THE BOTTOM OF THE MANHOLE BASE. COST OF FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.

3. AN OPENING SHALL BE CUT IN THE MANHOLE WALL FOR THE UPPER INLET PIPE FOR INSIDE AND OUTSIDE DROP MANHOLES. THE UPPER [illegible] SHALL BE GROUTED INTO THIS OPENING WITH NON-SHRINK GROUT. THE EXTERIOR OF THIS COMPLETED CONNECTION SHALL [illegible] AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT.

4. THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF CLEANING AND FREE OF AREAS WHERE SOLIDS COULD BE DEPOSITED AS SEWAGE FLOWS THROUGH THE MANHOLE FROM ALL INLET PIPES TO THE OUTLET PIPE. FLOW CHANNELS SHALL BE FORMED TO MATCH THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTFLOWING PIPE AS SHOWN BY THE DRAWINGS EXCEPT FOR INSIDE DROP MANHOLES. FLOW CHANNELS FOR INSIDE DROP MANHOLES SHALL BE CONSTRUCTED AS INDICATED BY THE DRAWING. MANHOLE FLOORS SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPED TOWARD THE FLOW CHANNELS. PIPES LAID THROUGH MANHOLES SHALL HAVE THE TOP HALF REMOVED TO NEAT LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL THEN BE SHAPED AROUND THE BOTTOM HALF OF THE PIPE, WHICH FORMS THE FLOW CHANNEL.

5. PIPES INSTALLED WITHIN THE EXCAVATION MADE FOR THE MANHOLE SHALL BE CRADLED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. WHEN CLAY PIPE IS USED, THE CRADLE SHALL EXTEND TO THE FIRST JOINT OUTSIDE THE MANHOLE. THE CRADLE SHALL BE TERMINATED AT THE CLAY PIPE JOINT IN A MANNER WHICH WILL MAINTAIN THE FLEXIBILITY OF THE JOINT. COST OF CRADLE WITHIN MANHOLE EXCAVATION OR TO CLAY PIPE JOINTS ADJACENT TO MANHOLE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.

6. THE OUTSIDE CIRCUMFERENCE OF MANHOLE COVERS, THE INSIDE CIRCUMFERENCE OF MANHOLE RINGS, AND THE SEATING FACES [illegible] THE RING SHALL BE MACHINED TO THE DIMENSIONS INDICATED SO THE MANHOLE COVER WILL FIT INTO THE RING SUCH THAT THE CLEARANCE BETWEEN THE COVER AND THE RING SHALL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING SURFACES BETWEEN THE RING AND COVER SHALL BE MACHINED SUCH THAT THESE SURFACES WILL MAKE CONTACT [illegible] THEIR FULL CIRCUMFERENCE WITHOUT ROCKING. A PICK HOLE SHALL BE FABRICATED AT ONE LOCATION IN THE OUTER CIRCUMFERENCE OF THE COVER TO FACILITATE REMOVAL OF THE COVER. THE PICK HOLE SHALL BE CONSTRUCTED IN SUCH A MANNER THAT WILL PRECLUDE AN OPENING THROUGH WHICH STORM WATER COULD ENTER INTO THE MANHOLE.

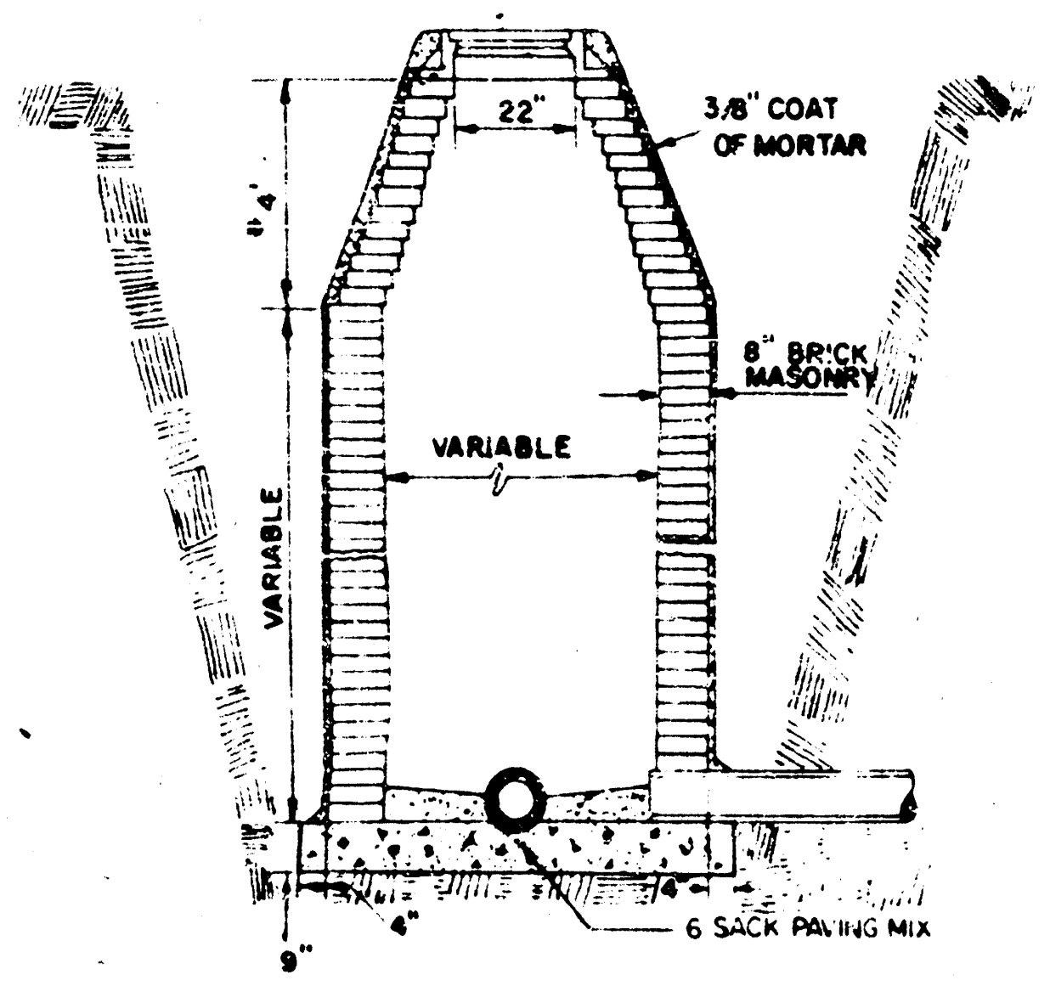
7. THE VERTICAL DROP IN INSIDE DROP MANHOLES SHALL NOT EXCEED 4' FOR INFLOWING PIPES [illegible] 12" OR [illegible] FOR INFLOWING PIPES LARGER THAN 12". THE CROWN OF INFLOWING PIPES SHALL NEVER BE [illegible] THAN THE CROWN OF THE OUTFLOWING PIPE.

8. STANDARD MANHOLES TYPE C AND STANDARD INSIDE DROP MANHOLES TYPE C SHALL BE BID AS STANDARD MANHOLES FOR THE [illegible] AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES TYPE C SHALL BE BID AS STANDARD [illegible] FOR [illegible] THE [illegible] DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS SPECIFIED OTHERWISE.

REVISED 4-4-80

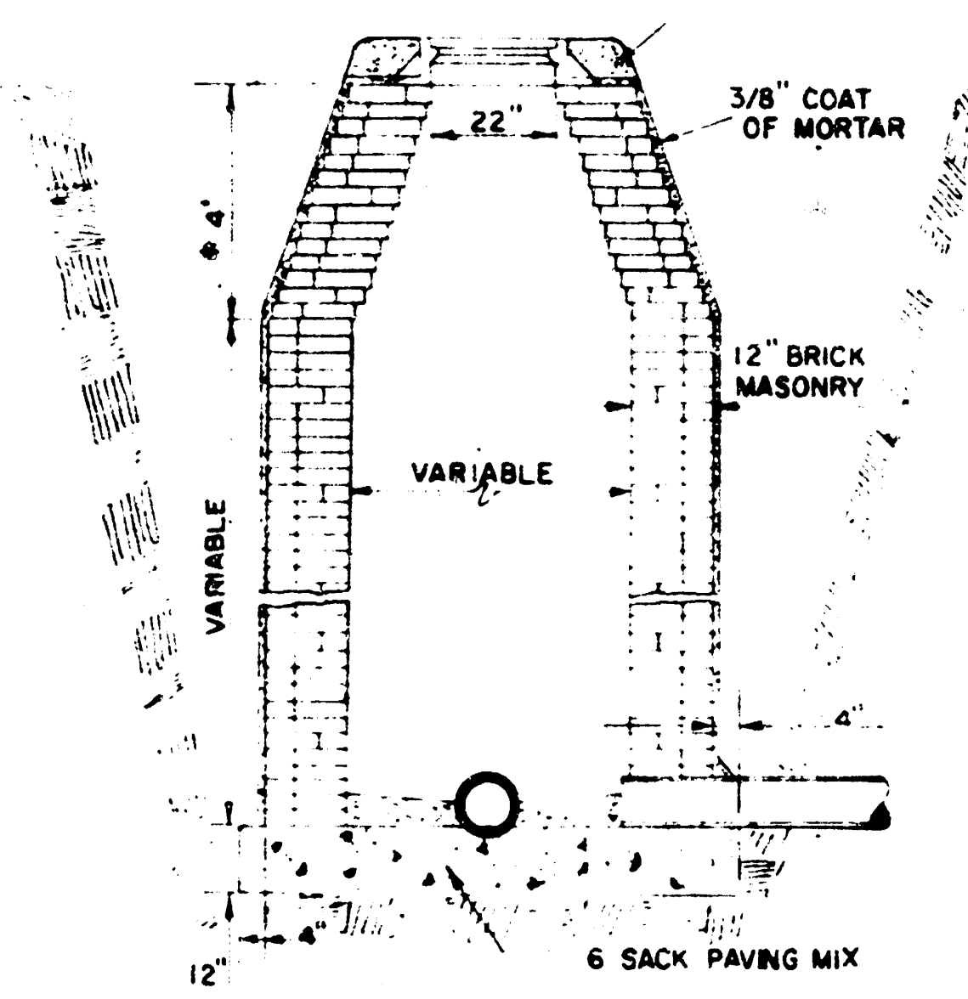
DETAILS OF
SEWER APPURTENANCES
ADOPTED AS STANDARD DESIGN
BY
ENGINEERING DIVISION
CITY OF WICHITA, KANSAS
1974

GROUT TO BE PLACED AROUND MANHOLE RING ONLY WHEN MANHOLE IS CONSTRUCTED IN UNPAVED AREAS. (TYPICAL ALL MANHOLES)



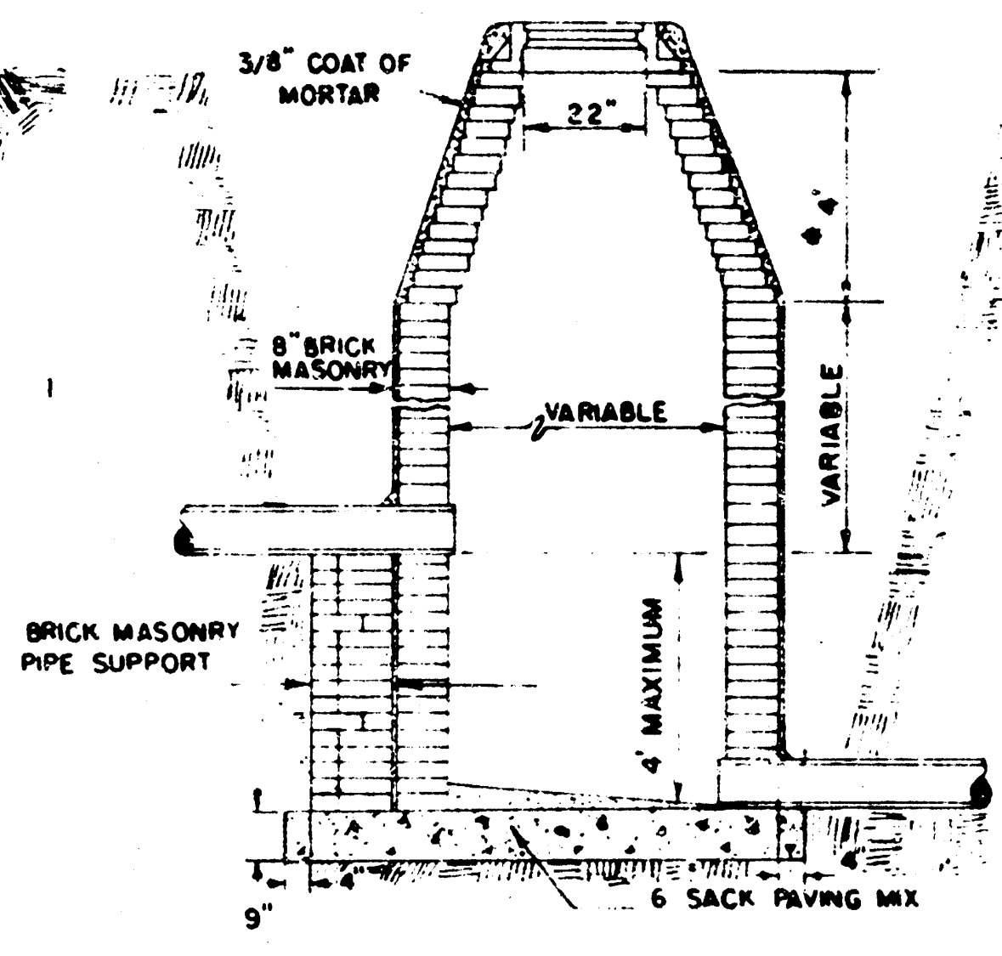
STANDARD MANHOLE TYPE "A"

* DRAW = 6' ON 5' DIA. M.H.

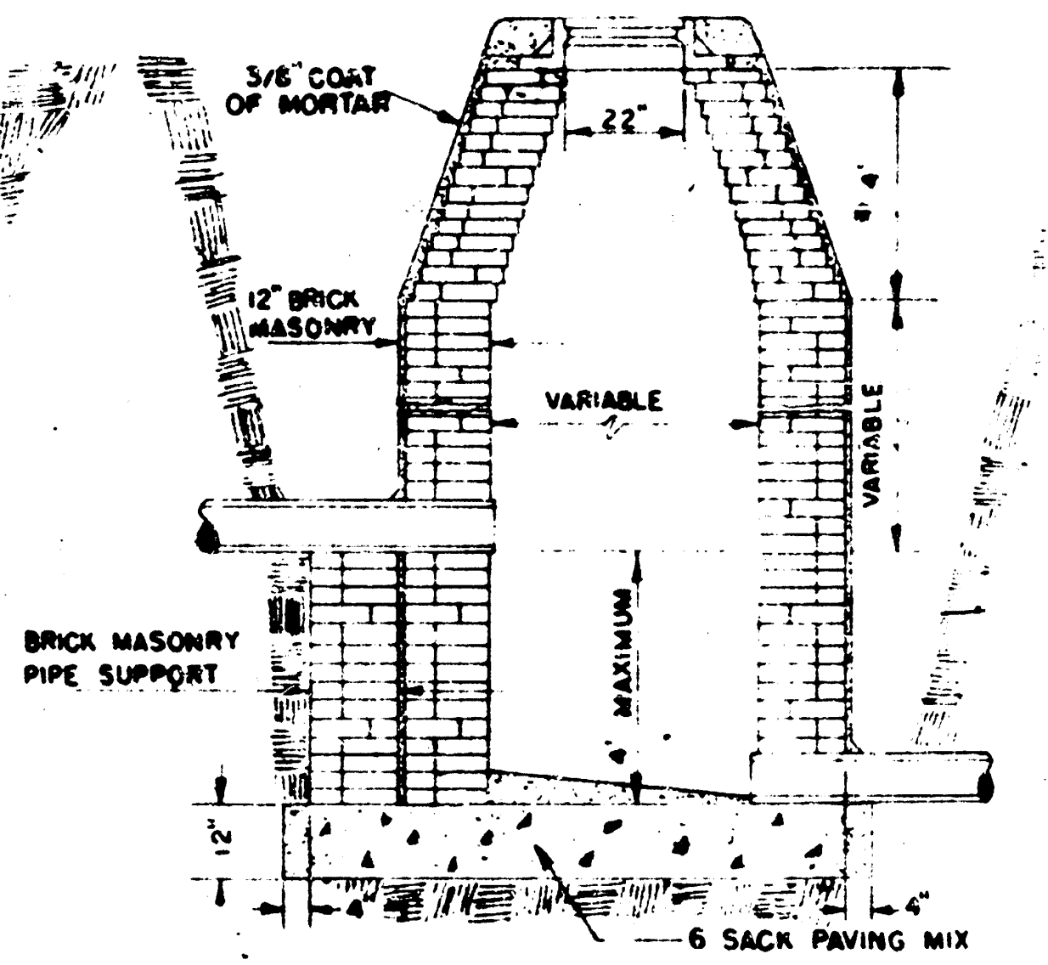


STANDARD MANHOLE -TYPE "B"

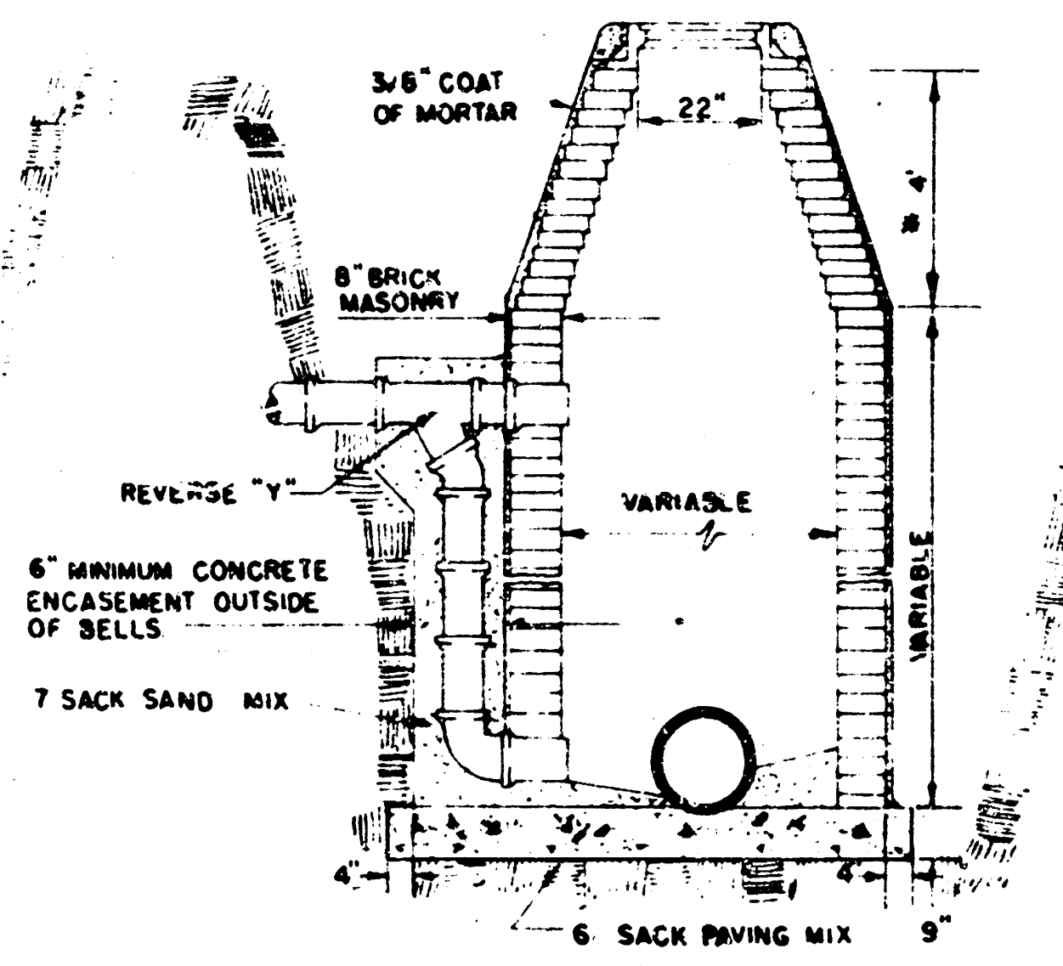
NOTE : REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES 6" ABOVE THE BOTTOM. REINFORCING STEEL SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE COST OF REINFORCING STEEL IS TO BE INCLUDED IN THE PRICE BID FOR THE MANHOLE.



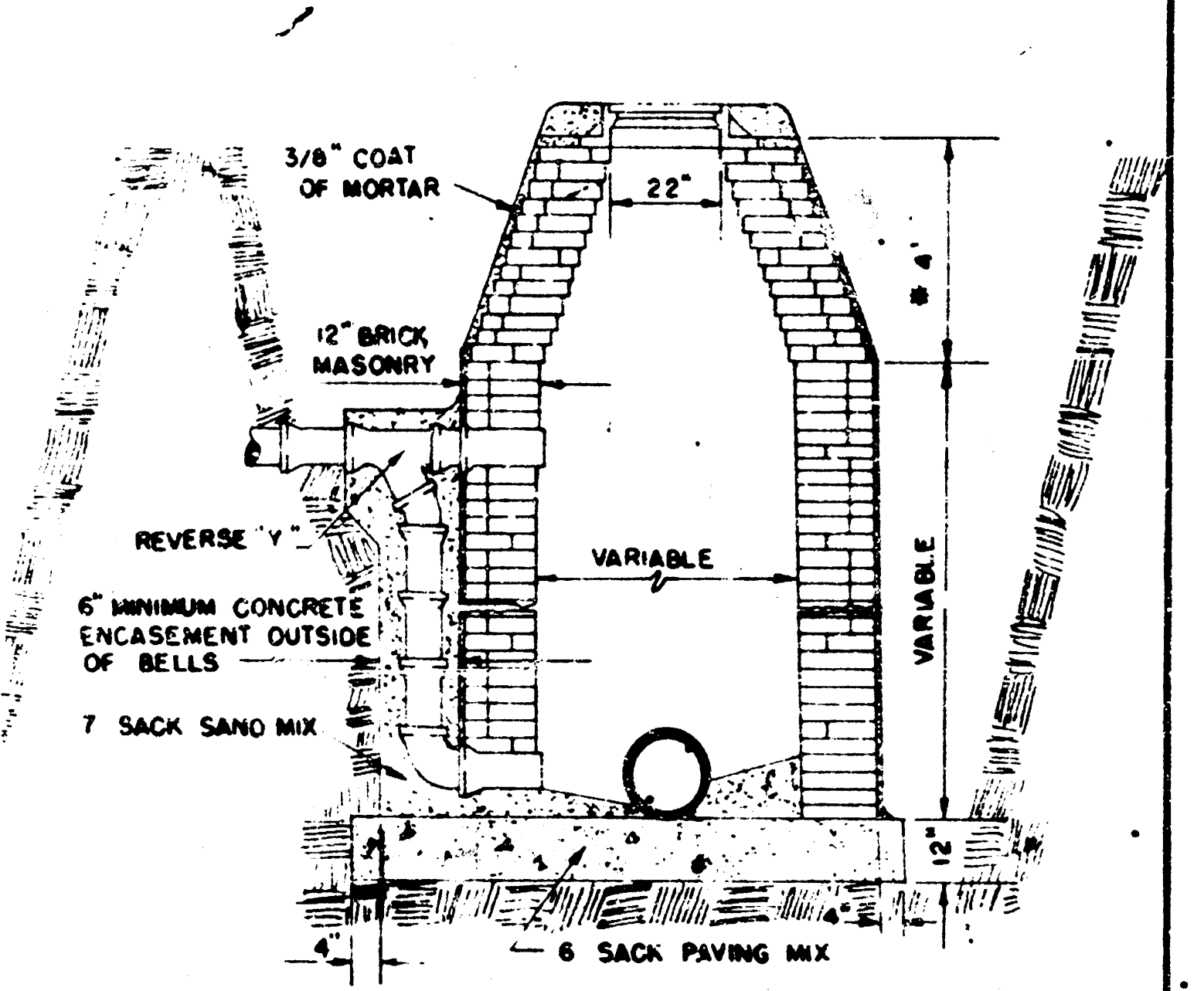
DROP MANHOLE TYPE "A"



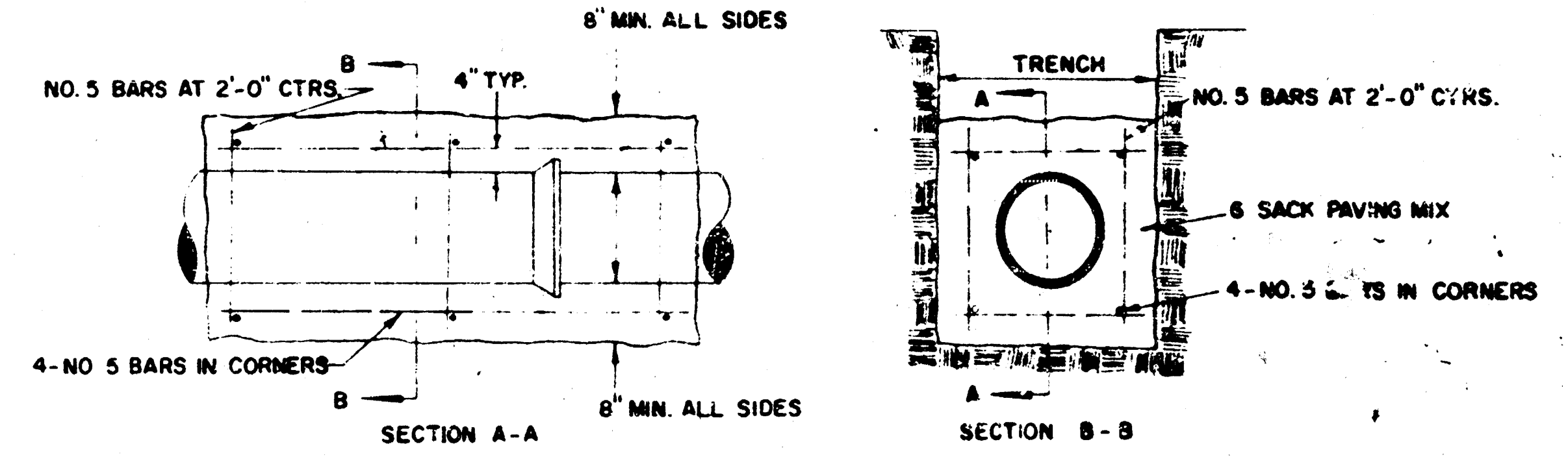
DROP MANHOLE TYPE "B"



OUTSIDE DROP MANHOLE TYPE "A"

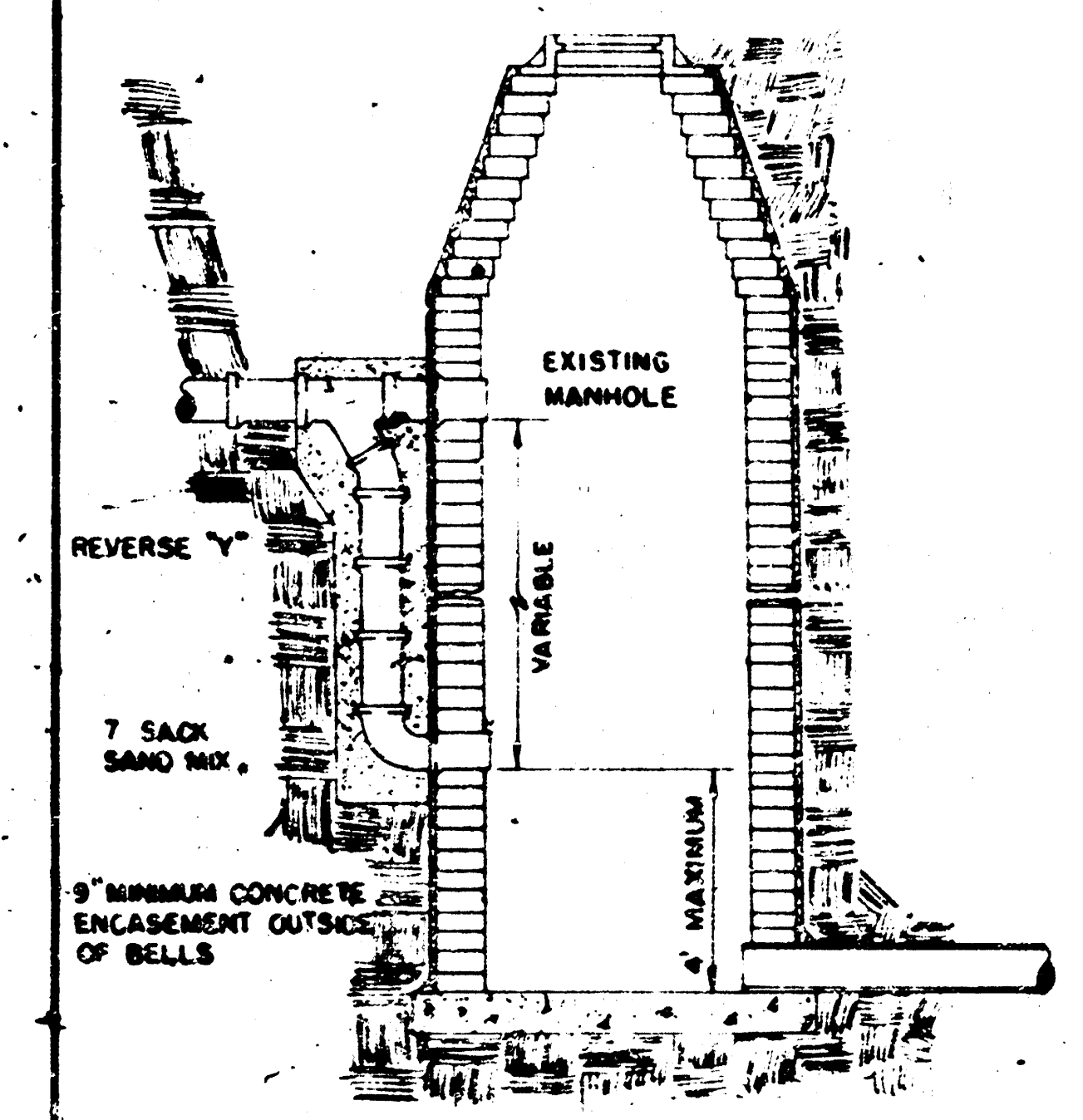


OUTSIDE DROP MANHOLE TYPE "B"



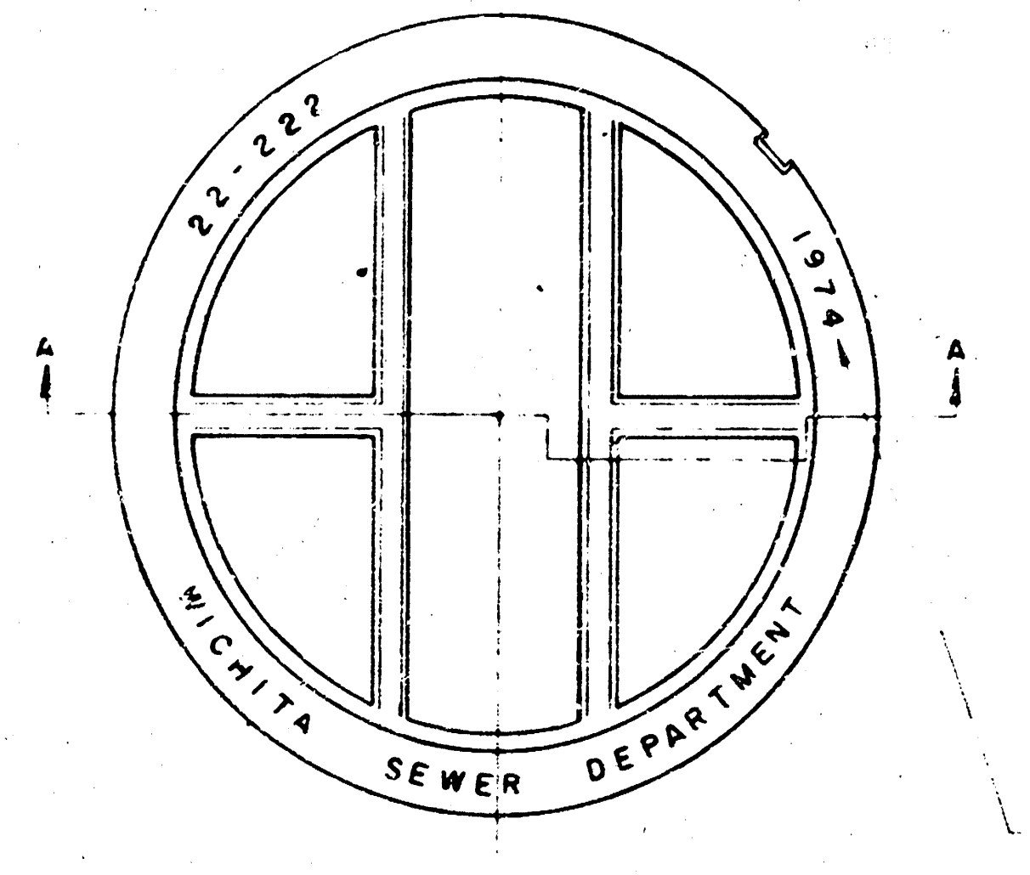
REINFORCED CONCRETE ENCASEMENT

NOTE : CONCRETE ENCASEMENT AND CONCRETE CRADLE SHALL BEGIN AND END AT A JOINT WHEN CLAY PIPE IS USED.



DETAIL OF DROP STACK

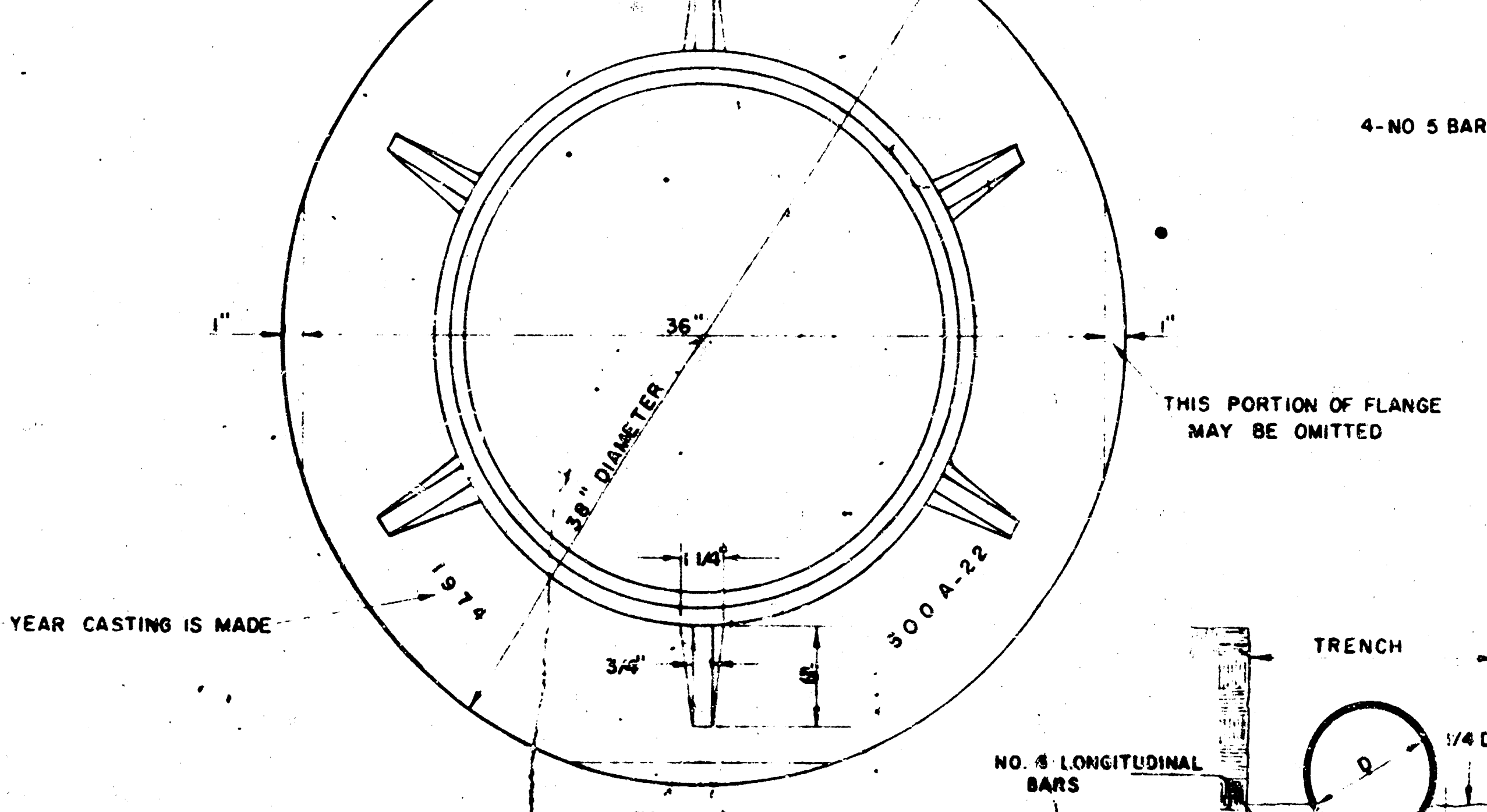
FOR EXISTING MANHO[illegible] GROUND WATER



TOP VIEW

MANHOLE COVER

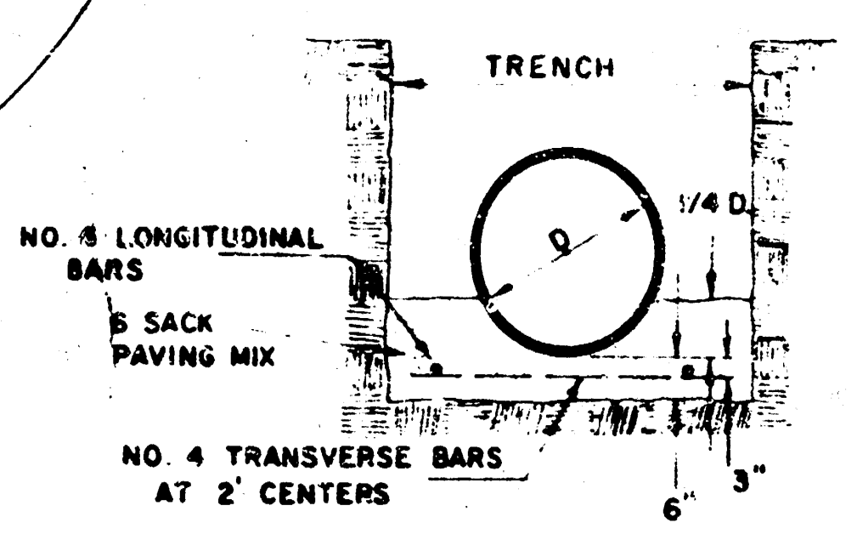
WEIGHT 110 LBS.



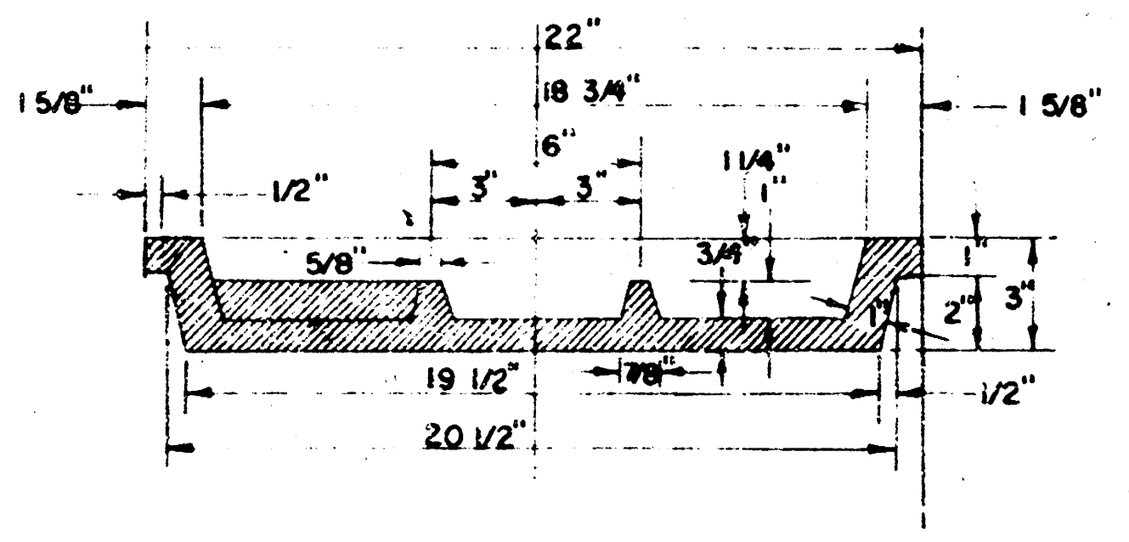
TOP VIEW

MANHOLE RING

WEIGHT 325 LBS. RING NO. 500A
WEIGHT 800 LBS. RING NO. 500AS

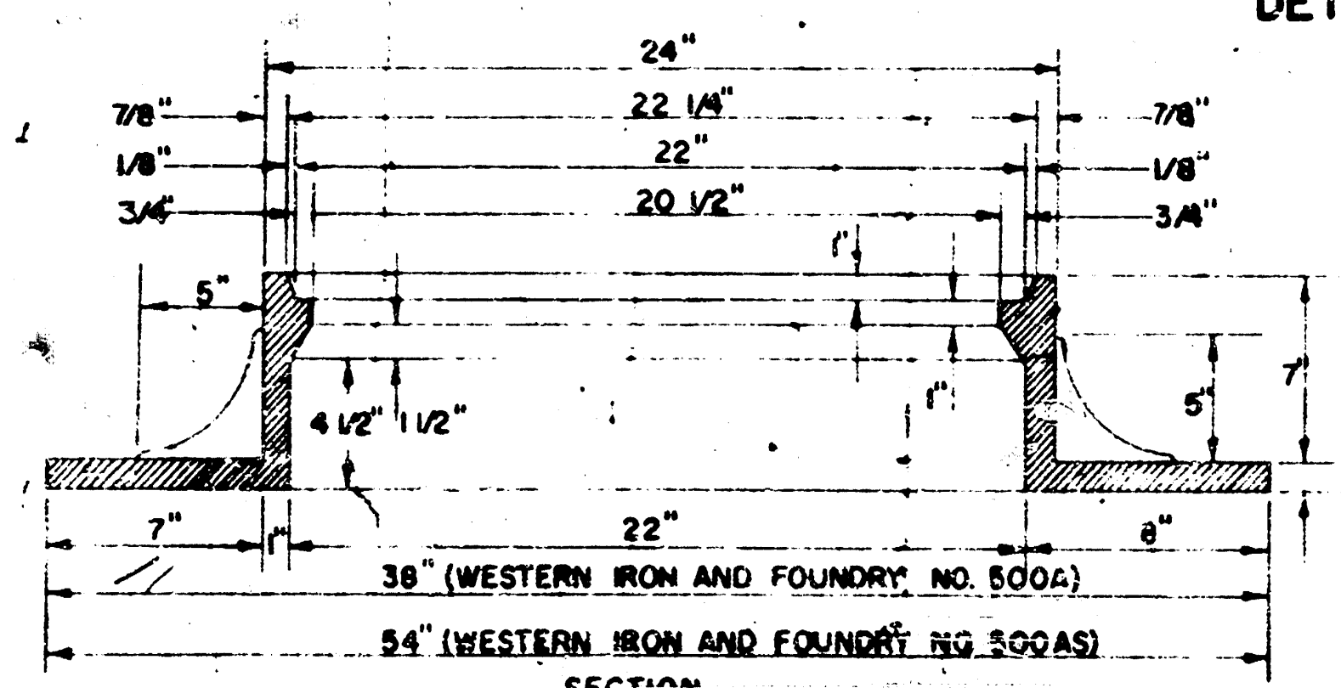


DETAIL OF CONCRETE CRADLE



SECTION A-A

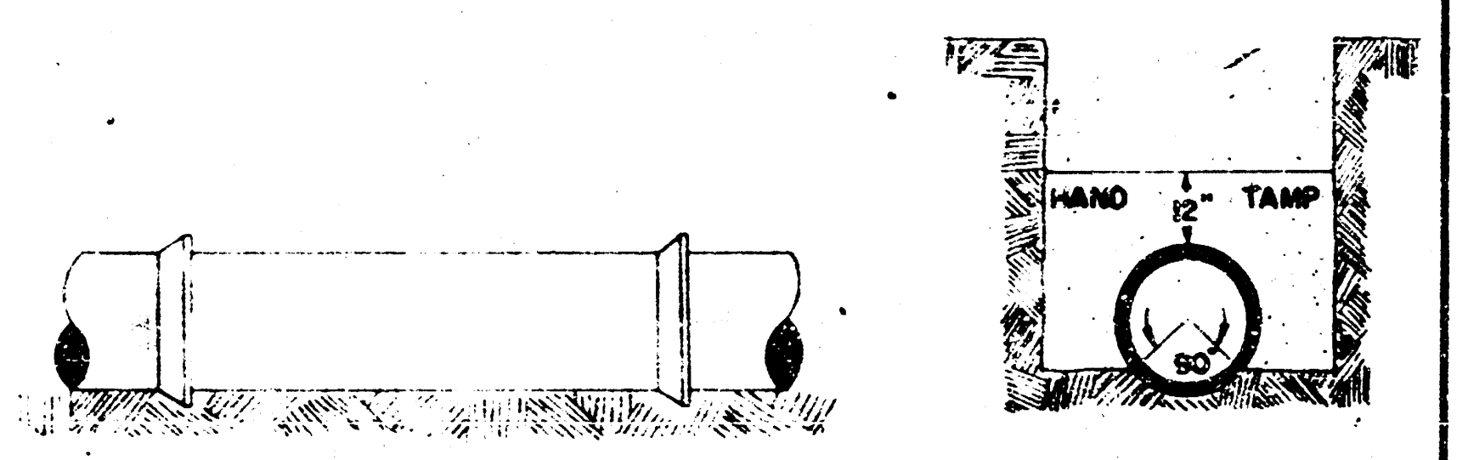
MANHOLE COVER



SECTION

MANHOLE RING

OUTSIDE CIRCUMFERENCE OF COVER AND THE INNER FACE AND SEAT OF RING TO BE MACHINE FIT.



ORDINARY BEDDING METHOD

STORM SEWER PIPE

GENERAL NOTES

- MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD.
- STANDARD MANHOLES TYPE "A" OR TYPE "B" AND STANDARD DROP MANHOLES TYPE "A" OR TYPE "B" SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE. MANHOLES WITH PIPE SIZES LARGER THAN 24" SHALL BE 5' DIAMETER.
- THE FLOORS OF ALL MANHOLES SHALL BE SHAPED TO INCREASE HYDRAULIC EFFICIENCY USING 8 SACK SAND MIX CONCRETE.
- PIPES INSTALLED WITHIN THE MANHOLE EXCAVATION SHALL BE CRADLED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. COST OF CRADLE WITHIN MANHOLE EXCAVATION SHALL BE INCLUDED IN THE PRICE BID FOR THE MANHOLE. CRADLE SHALL EXTEND TO FIRST JOINT OUTSIDE OF MANHOLE WHEN CLAY PIPE IS USED.

REVISED 4-13-77

DETAILS OF
SEWER APPURTENANCES
ADOPTED AS STANDARD DESIGN
BY
ENGINEERING DIVISION
CITY OF WICHITA , KANSAS

Sheet 3 of 4

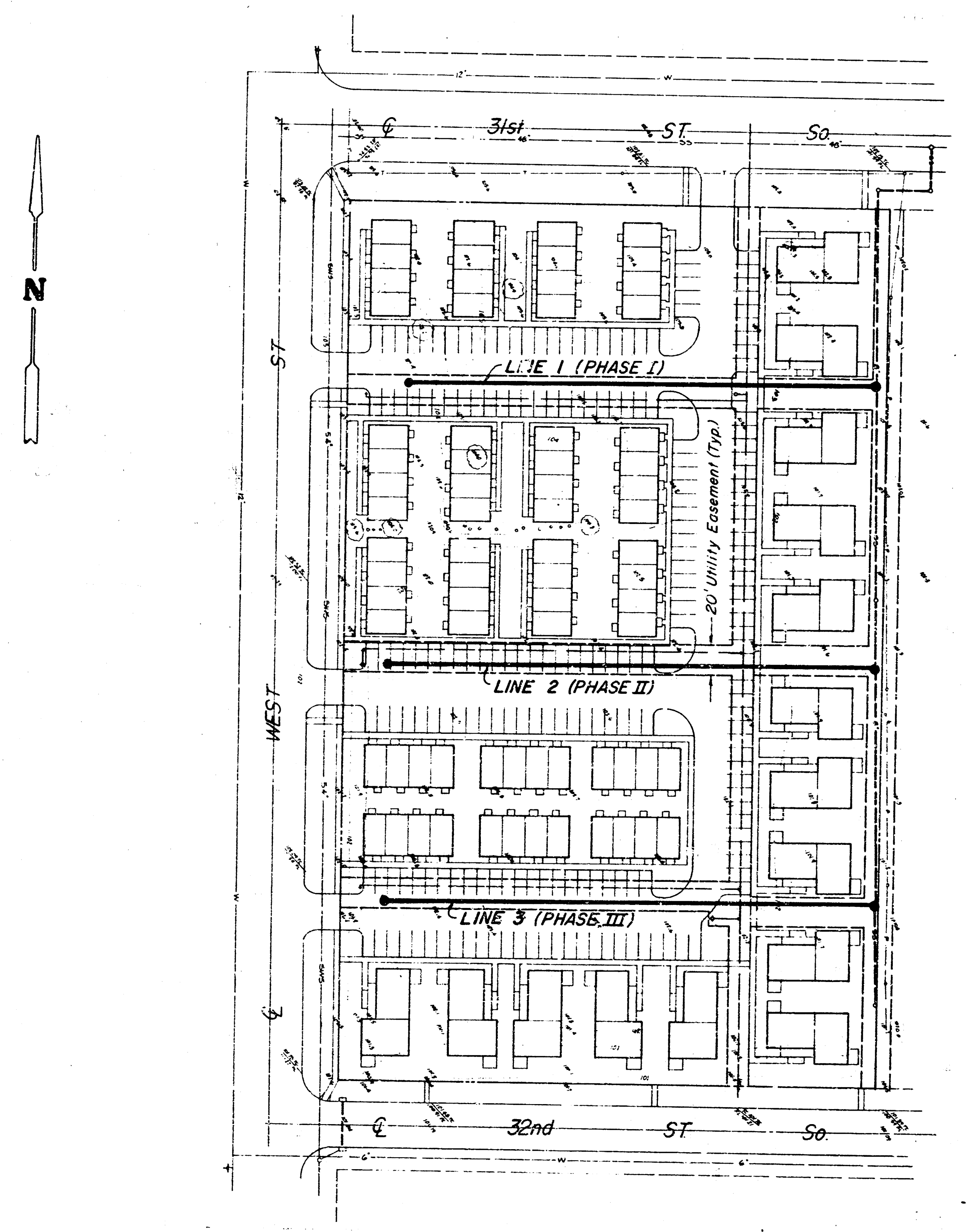
SANITARY SEWER EXTENSIONS
For
LAREDO VILLAGE

Lot 1C, Block 1, Fourth Addition
To Southwest Village
Wichita, Kansas

City of Wichita Private Project No. 468-76-245-80000-000-000-008
TO BE CONSTRUCTED IN THREE PARTS

NOTE TO CONTRACTOR
This project will be constructed under [illegible]

APPROVED AS NOTED
[illegible]
Driveway Approaches



INDEX

Sheet	1	AREA PLAN
	2	PLAN-PROFILE
	3-4	APPURTENANCES

MOEHRING & ASSOCIATES
CONSULTING ENGINEERS
WICHITA
April 1982