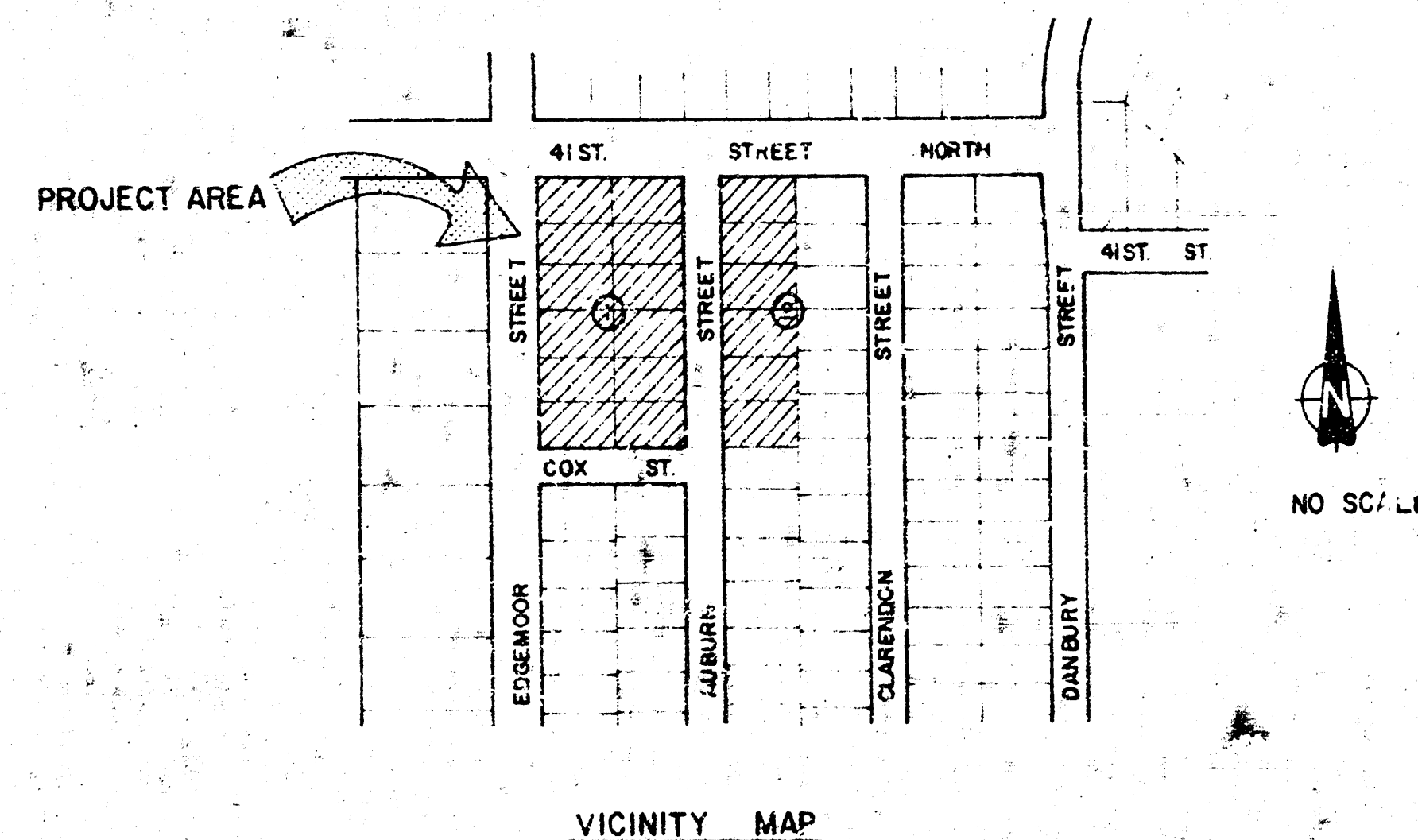


FOR

BEL AIRE VILLAGE SECOND ADDITION

BEL AIRE, KANSAS

1983



NOTE TO CONTRACTOR

This project will be constructed under the supervision of the CITY ENGINEER and conforming to the SPECIFICATIONS of the CITY OF WICHITA. The CONTRACTOR will prepay the City of Wichita for all costs of Inspection.

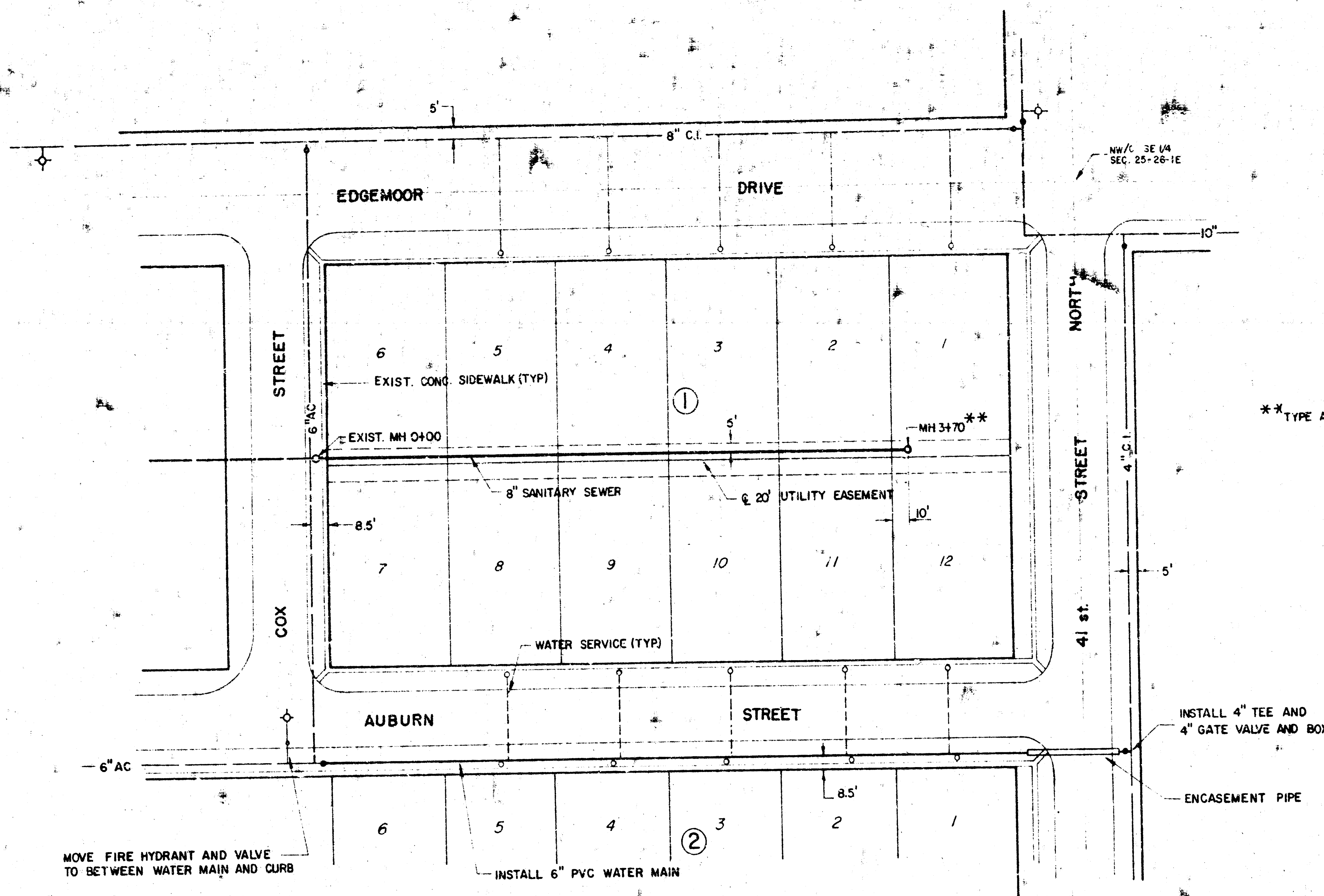
7-7-83

APPROVED AS NOTED
By CITY ENGINEER OF WICHITA
Sanitary Sewers
Storm Sewers
Driveway Approaches

REISS & GOODNESS ENGINEERS
2106 WEST 21ST STREET
WICHITA, KANSAS 67203
(316) 832 0213

Proj. # 468-76-245-80000-000-000-008

REVISION	#	DRAWN BY	CHECKED BY	DESIGNED BY	PROJECT	CUSTOMER	SCALE NOTED DATE 6/22/83 SHEET 1/1

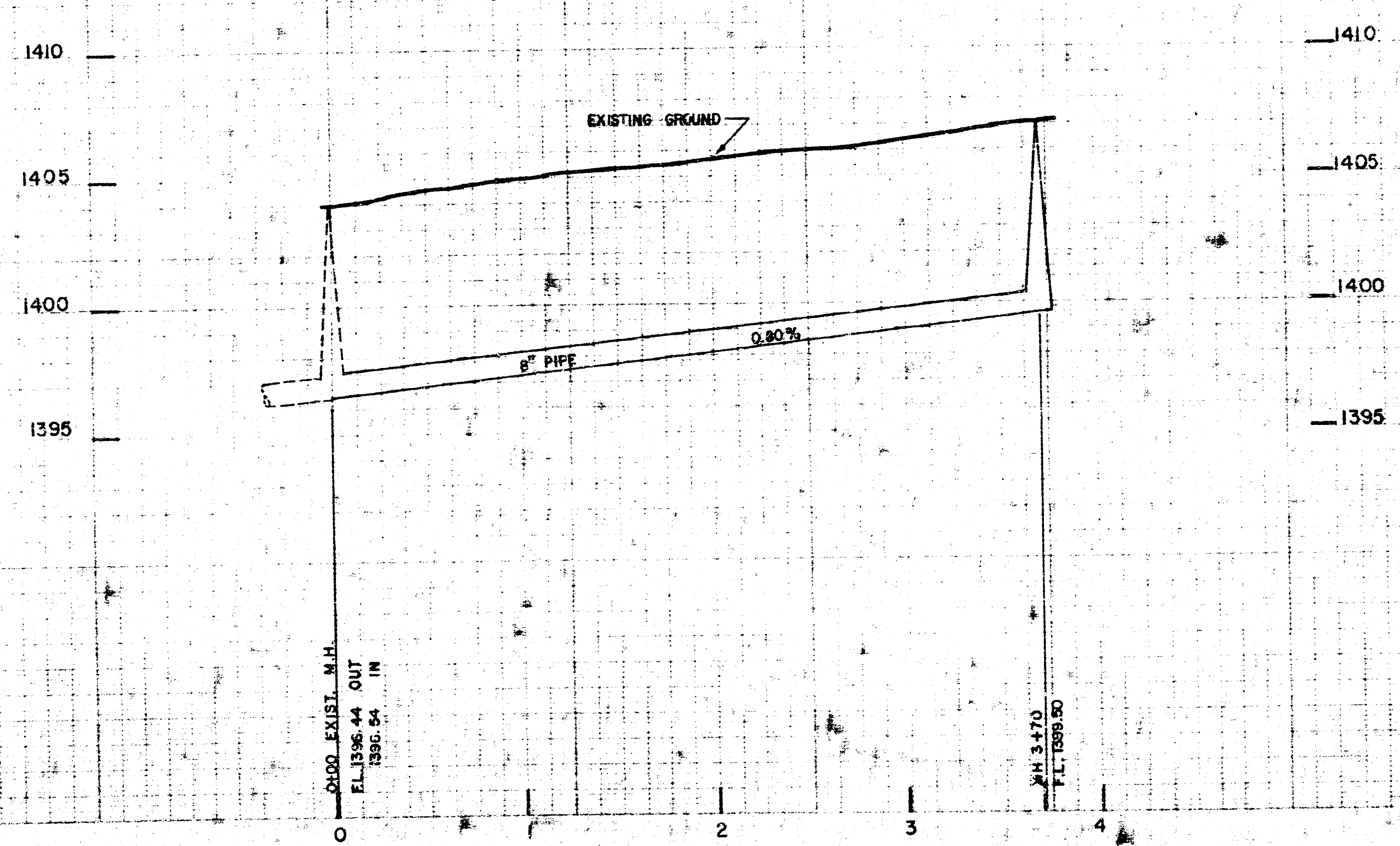


BM
 "MH" ON FIRE HYDRANT, SW COR. EDGEMOOR DRIVE
 AND 41st STREET NORTH
 EL. 1411.27 USGS DATUM

SCALE
 PLAN 1"=50'
 PROFILE 1"=50'
 HORIZ. 1"=50'
 VERT. 1"=4'

LAT. BV-1A EXTENSION

PIPE TO BE PVC, ABS, OR VCP



REVIS 6-30-83
 7-5-83

REISS & GOODNESS ENGINEERS
 2100 WEST 21st STREET
 WICHITA, KANSAS 67204
 (316) 832-0200

FILMED FROM THE BEST COPY

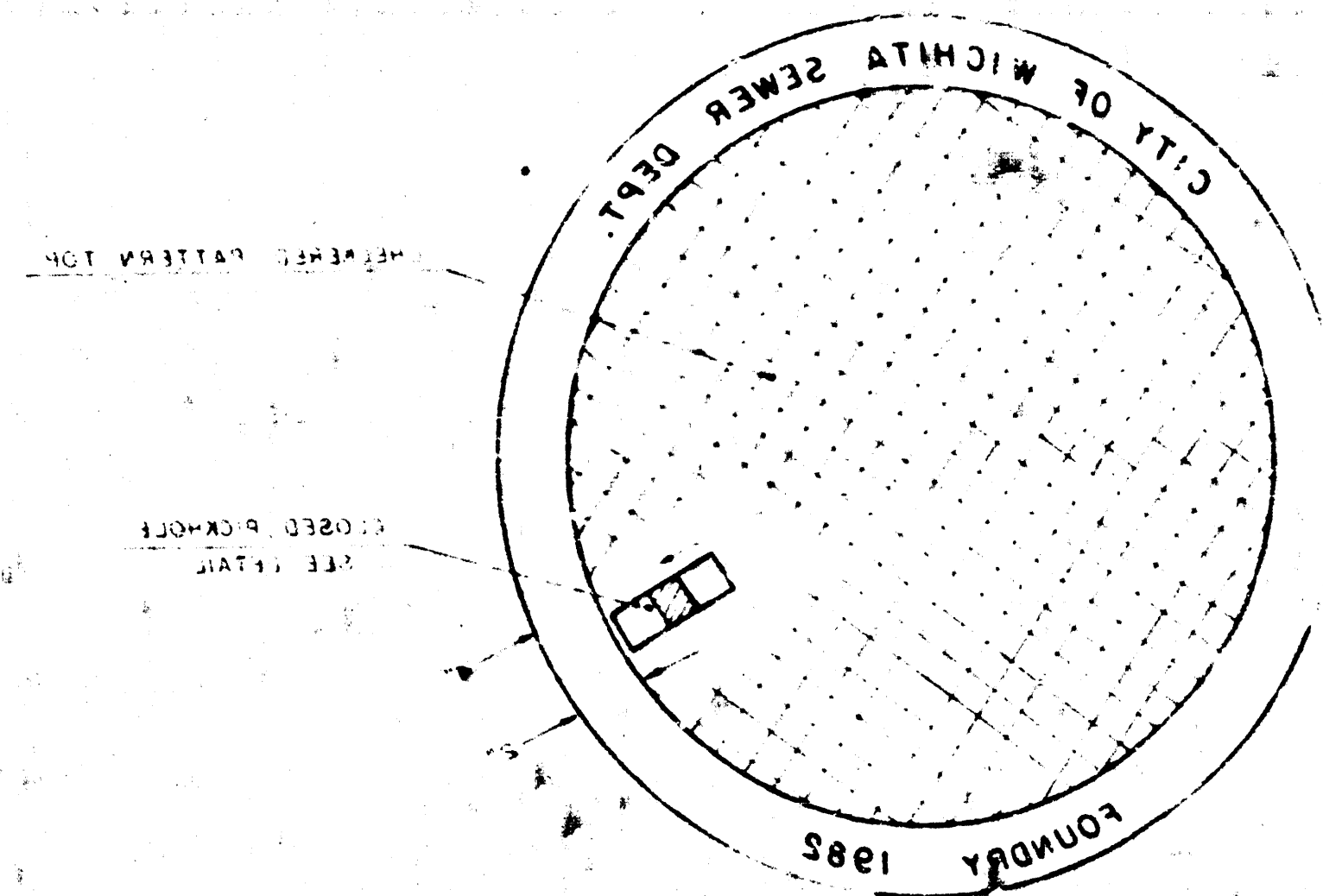
MANHOLE FRAME AND COVER DETAIL

ADOPTED AS STANDARD DESIGN
BY

City of Wichita, Kansas

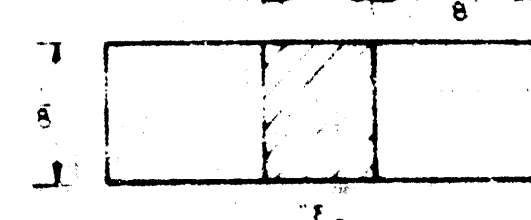
MANHOLE COVER

Weight 180 lbs

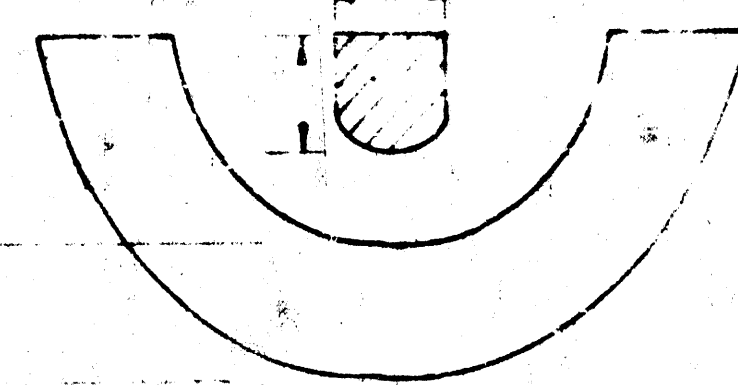


TOP VIEW

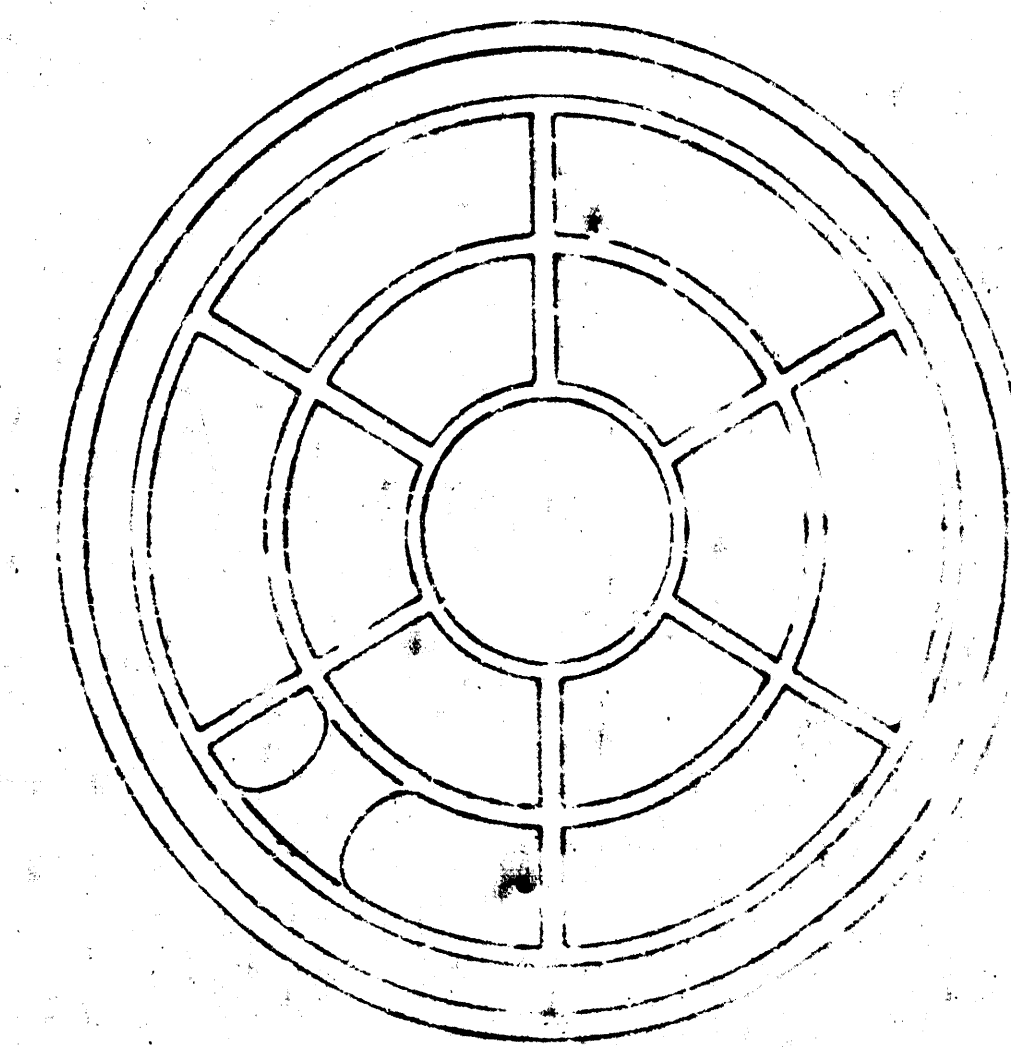
PICKHOLE DETAIL



TOP VIEW



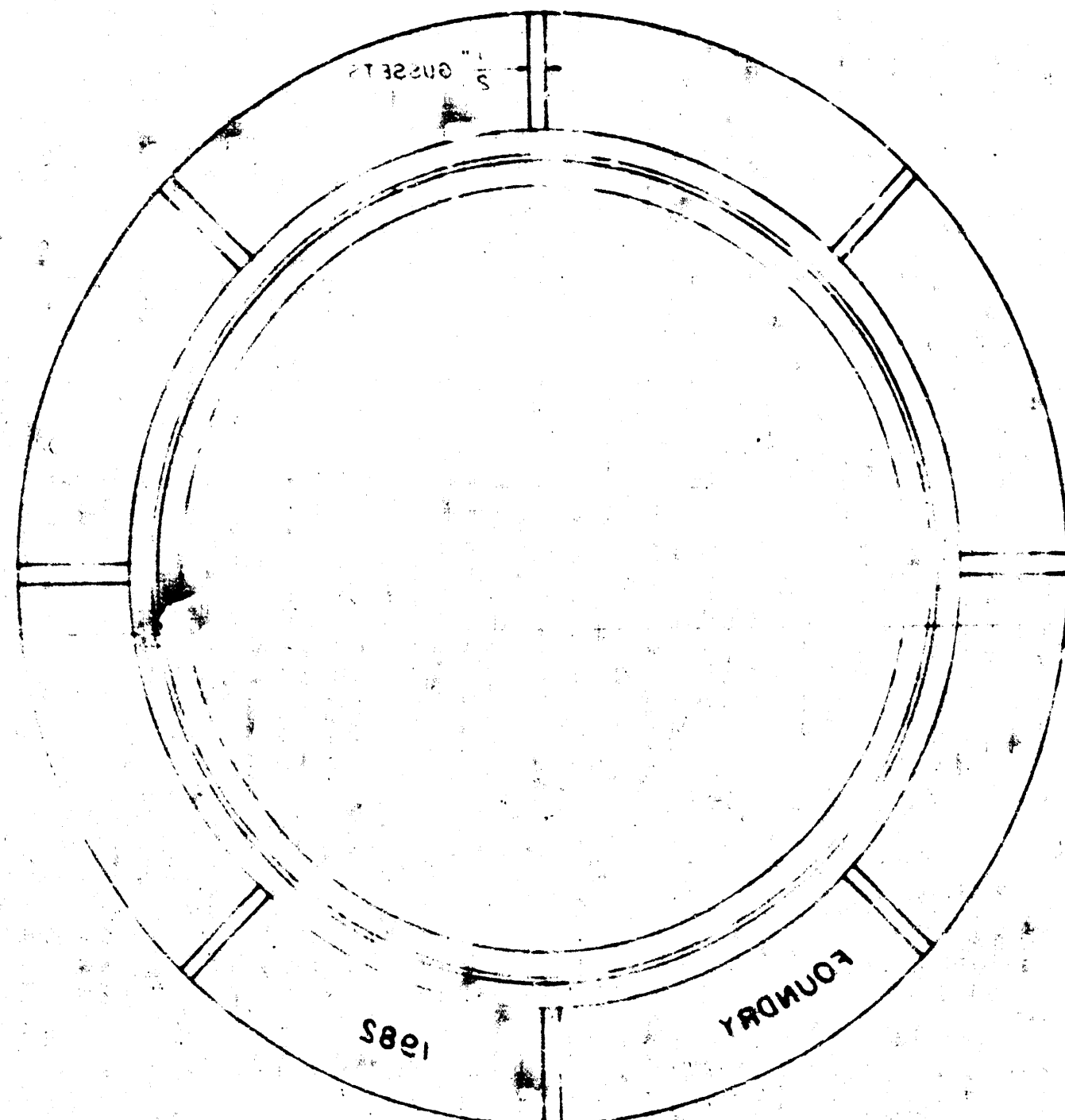
SECTION VIEW



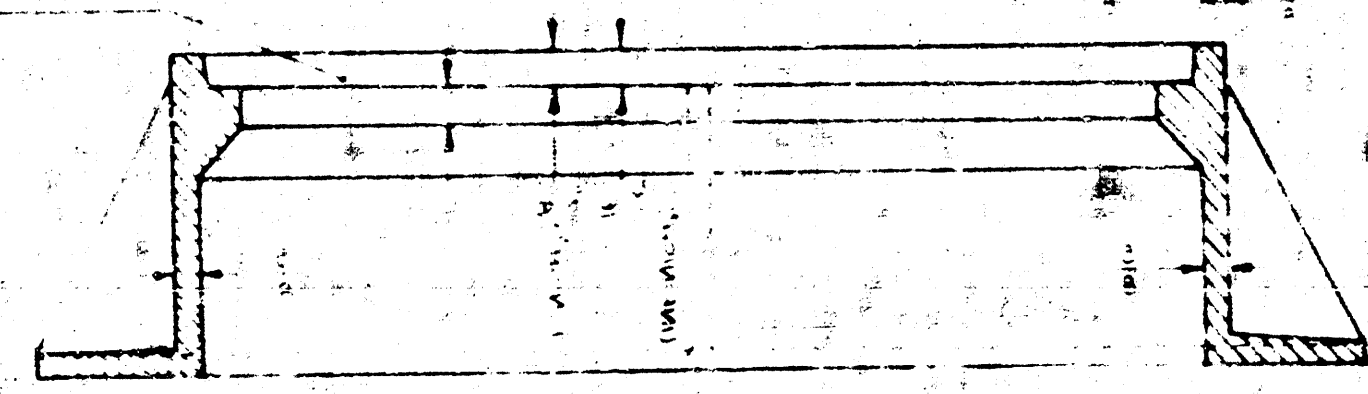
BOTTOM VIEW

MANHOLE FRAME

Weight 340 lbs



TOP VIEW



SECTION A-A

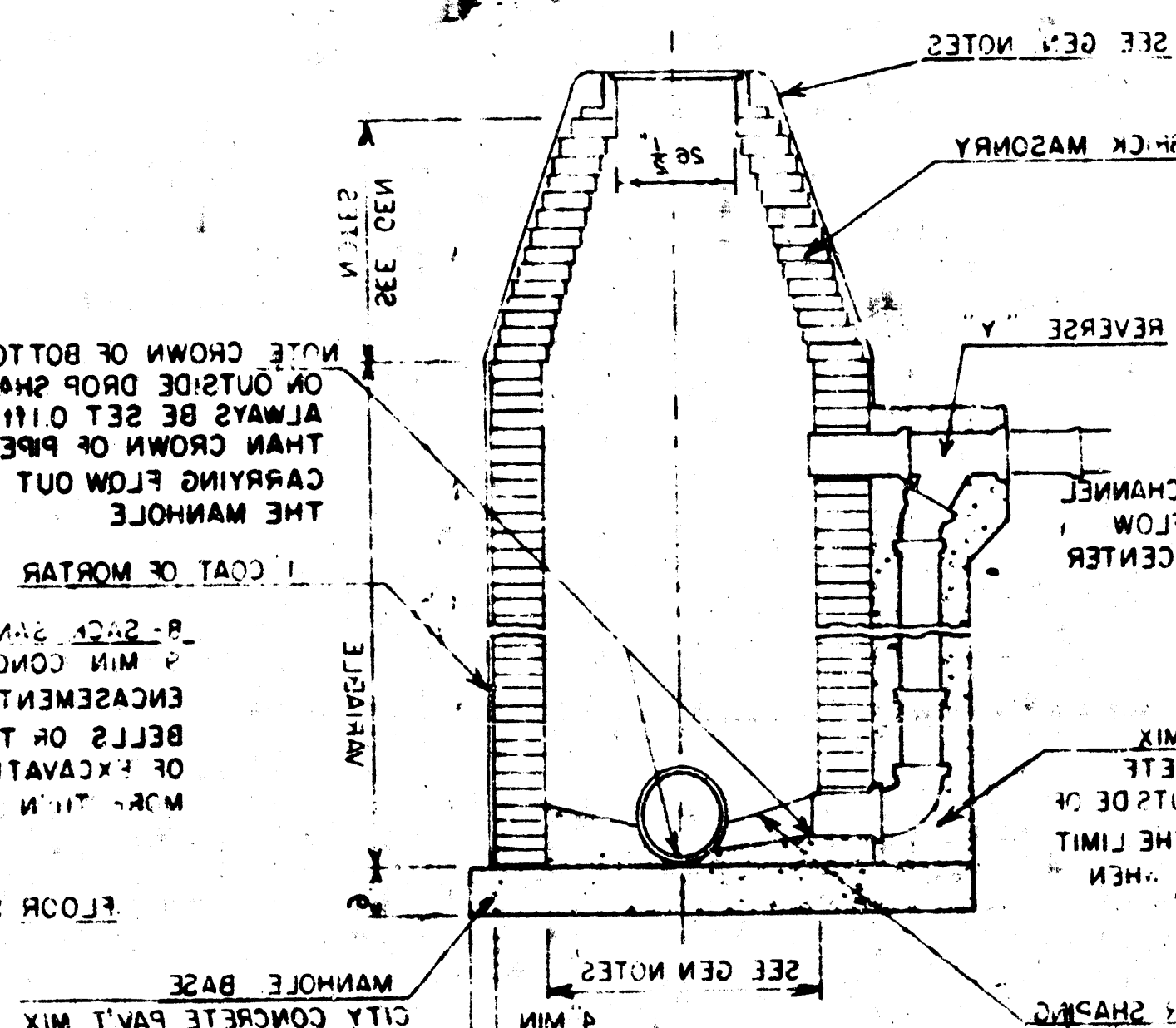


SECTION VIEW

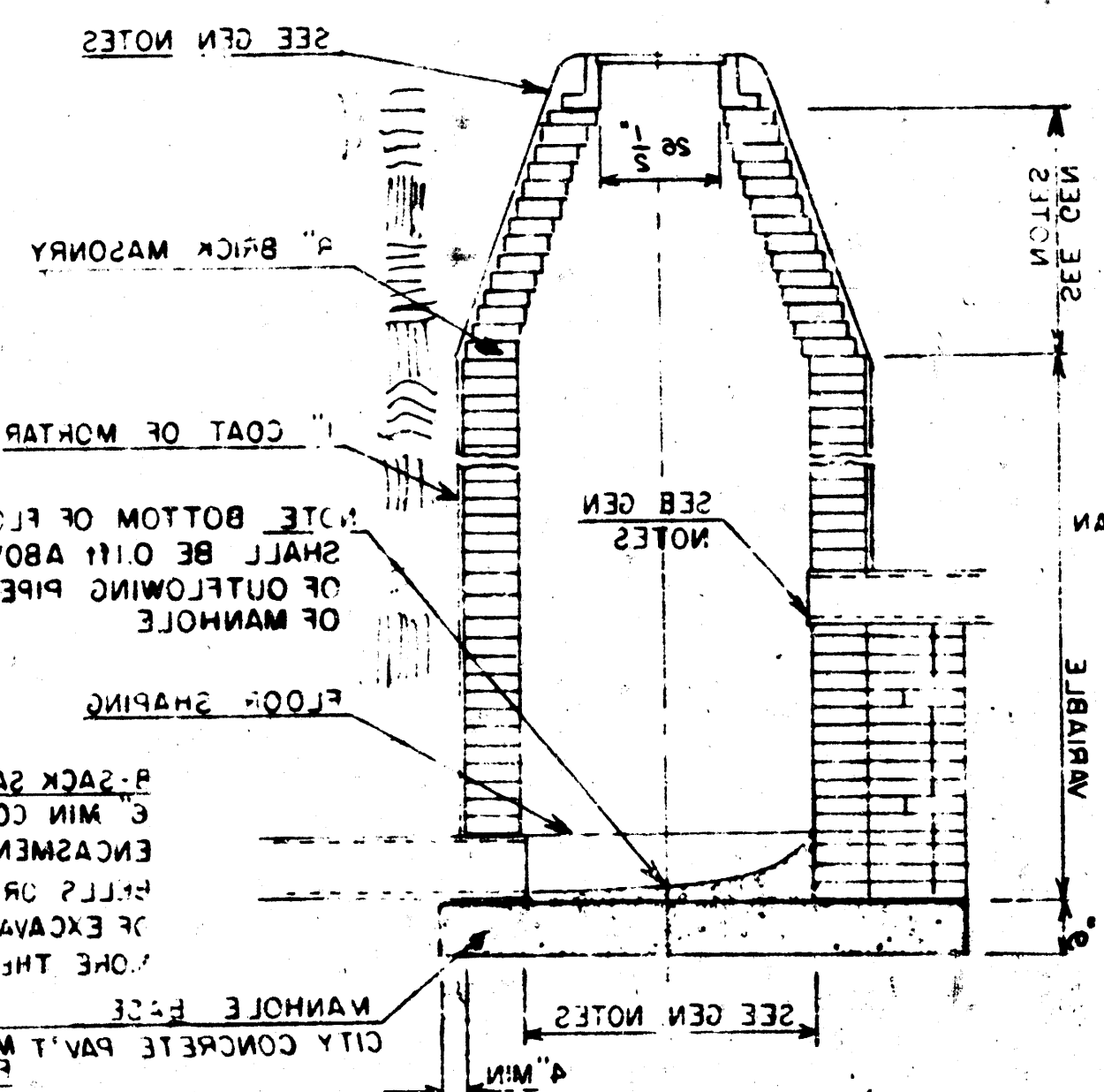
GENERAL NOTES
1. THE COVER SHALL BE MANUFACTURED FROM GOOD CAST IRON CONFORMING TO THE REQUIREMENTS OF THE A.S.T.M. SPECIFICATION FOR CAST IRON PIPE AND FITTINGS. THE COVER SHALL BE CAST IN A SINGLE PIECE AND SHALL BE FINISHED BY GRINDING OR TURNING. THE COVER SHALL BE MARKED WITH THE CITY OF WICHITA SEWER DEPT. AND FOUNDRY 1985.
2. THE FRAME SHALL BE MANUFACTURED FROM GOOD CAST IRON CONFORMING TO THE REQUIREMENTS OF THE A.S.T.M. SPECIFICATION FOR CAST IRON PIPE AND FITTINGS. THE FRAME SHALL BE CAST IN A SINGLE PIECE AND SHALL BE FINISHED BY GRINDING OR TURNING. THE FRAME SHALL BE MARKED WITH THE CITY OF WICHITA SEWER DEPT. AND FOUNDRY 1985.
3. THE COVER AND FRAME SHALL BE TESTED TO A MINIMUM OF 10,000 LBS. PER SQUARE INCH OF AREA. THE COVER SHALL BE TESTED TO A MINIMUM OF 15,000 LBS. PER SQUARE INCH OF AREA. THE FRAME SHALL BE TESTED TO A MINIMUM OF 10,000 LBS. PER SQUARE INCH OF AREA.
4. THE COVER AND FRAME SHALL BE SHIPPED TO THE SITE IN A PROTECTED CONDITION. THE COVER SHALL BE SHIPPED IN A PROTECTED POSITION. THE FRAME SHALL BE SHIPPED IN A PROTECTED POSITION.
5. THE COVER AND FRAME SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF WICHITA SEWER DEPT. SPECIFICATIONS. THE COVER SHALL BE INSTALLED IN A PROTECTED POSITION. THE FRAME SHALL BE INSTALLED IN A PROTECTED POSITION.
6. THE COVER AND FRAME SHALL BE MAINTAINED IN GOOD CONDITION. THE COVER SHALL BE MAINTAINED IN A PROTECTED POSITION. THE FRAME SHALL BE MAINTAINED IN A PROTECTED POSITION.
7. THE COVER AND FRAME SHALL BE REPLACED IN ACCORDANCE WITH THE CITY OF WICHITA SEWER DEPT. SPECIFICATIONS. THE COVER SHALL BE REPLACED IN A PROTECTED POSITION. THE FRAME SHALL BE REPLACED IN A PROTECTED POSITION.
8. THE COVER AND FRAME SHALL BE REMOVED IN ACCORDANCE WITH THE CITY OF WICHITA SEWER DEPT. SPECIFICATIONS. THE COVER SHALL BE REMOVED IN A PROTECTED POSITION. THE FRAME SHALL BE REMOVED IN A PROTECTED POSITION.

REVISED SEPTEMBER 1980

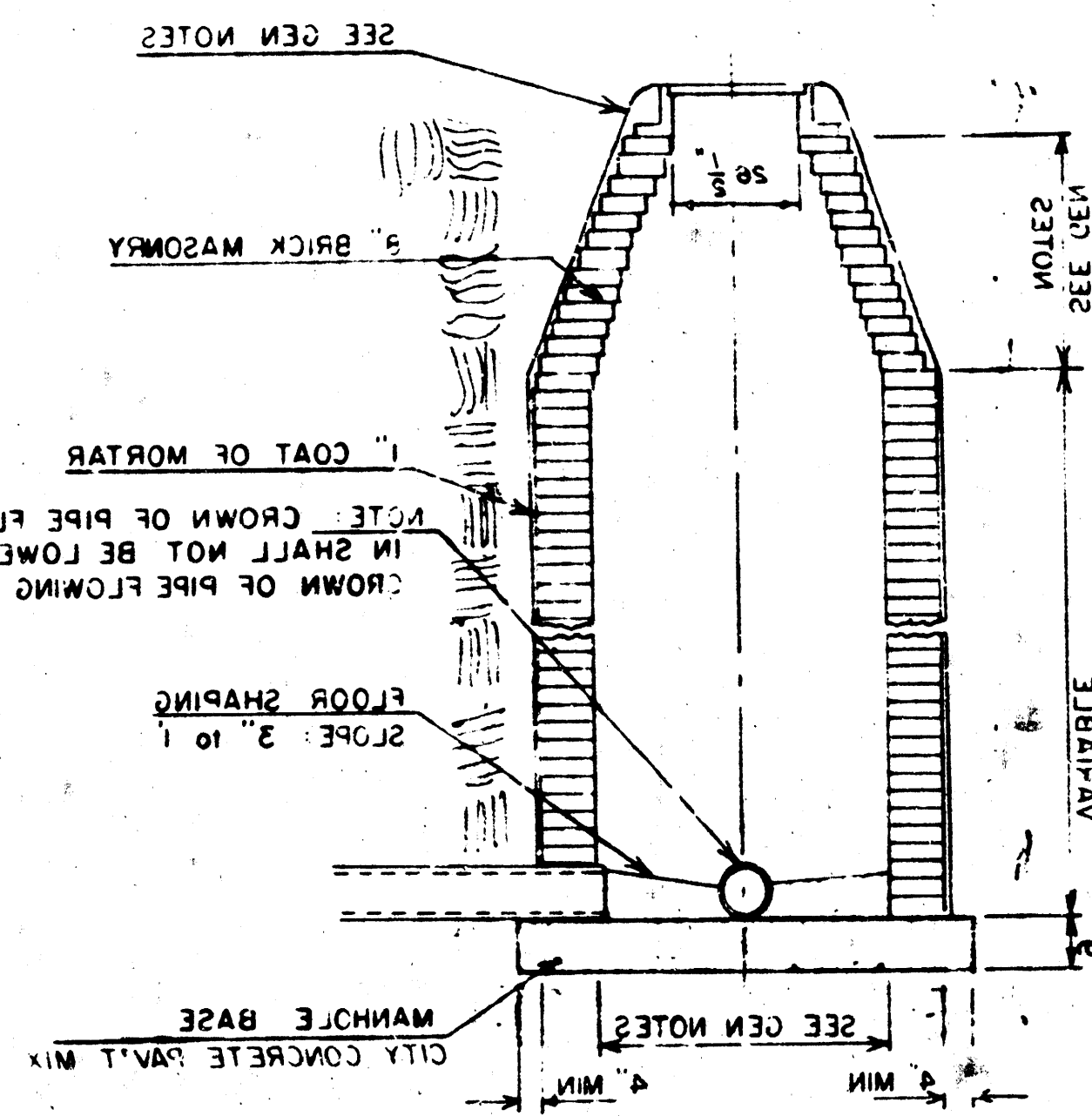
TYPE "A" OUTSIDE DROP MANHOLE



TYPE "A" INSIDE DROP MANHOLE



TYPE "A" MANHOLE



These conditions have been similar to those existing before the second half of 1964. The situation has changed little since then, and the same problems have been encountered. The situation has changed little since then, and the same problems have been encountered. The situation has changed little since then, and the same problems have been encountered.

1. Ustav je temeljni zakon države, koji određuje oblik i
 organizaciju vlasti, prava i obaveze građana, te
 načine postupanja države prema svojim građanima.
 2. Pravni sistem je skup svih pravila koja
 uređuju ponašanje ljudi u društvu, a koji su
 obavezujući za sve građane.
 3. Pravna država je država u kojoj su
 svi građani jednaki pred zakonom, a vlast
 je ograničena zakonom.
 4. Pravna država je država u kojoj su
 svi građani jednaki pred zakonom, a vlast
 je ograničena zakonom.
 5. Pravna država je država u kojoj su
 svi građani jednaki pred zakonom, a vlast
 je ograničena zakonom.

1. The first step in the process of the investigation is the identification of the problem. This is done by the investigator who is responsible for the investigation. The investigator must identify the problem and the scope of the investigation. The investigator must also identify the objectives of the investigation. The objectives of the investigation are the goals that the investigator wants to achieve. The objectives of the investigation are the goals that the investigator wants to achieve.

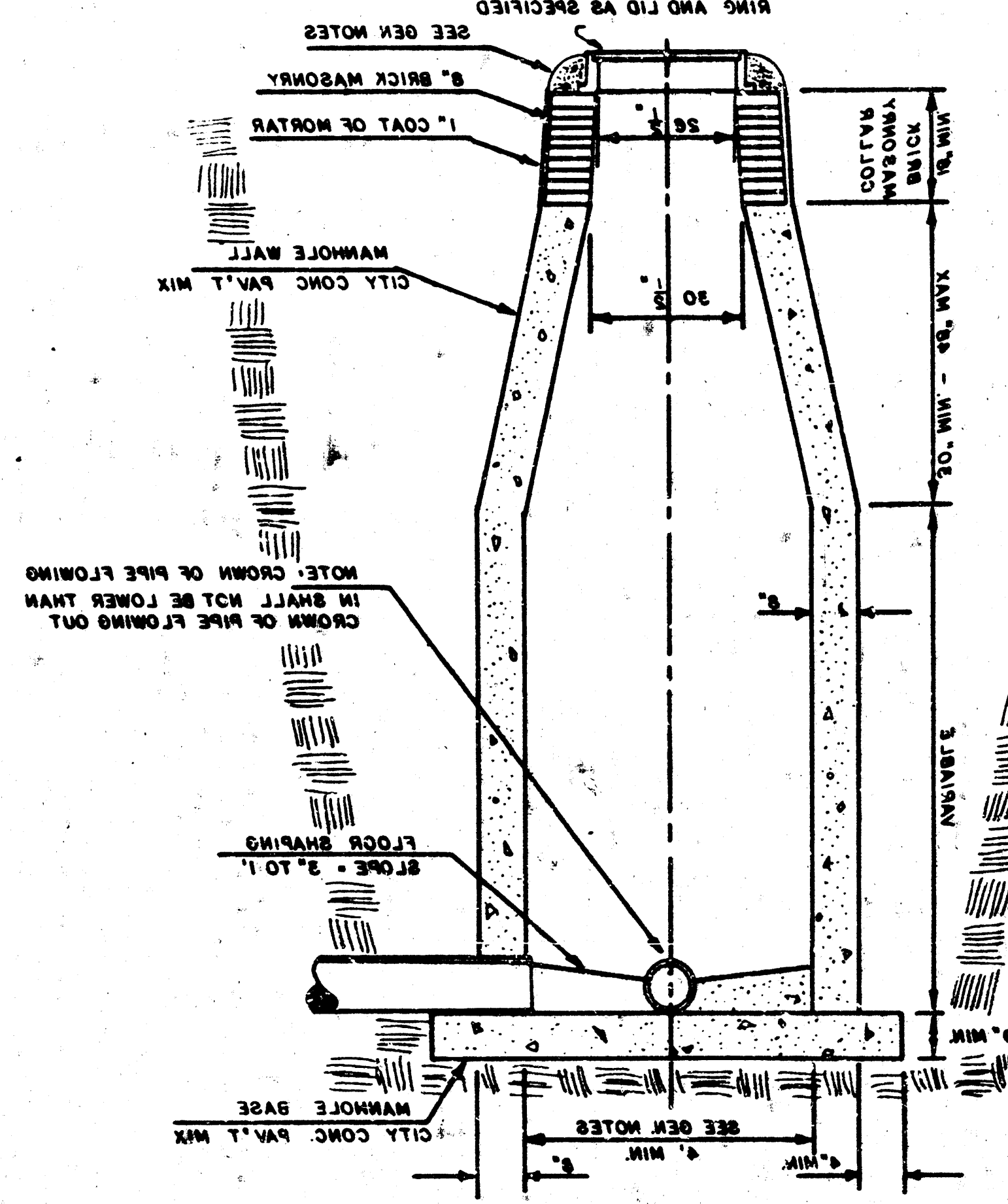
SEWER APPURTENANCES DETAILS

ADOPTED AS STANDARD DESIGN

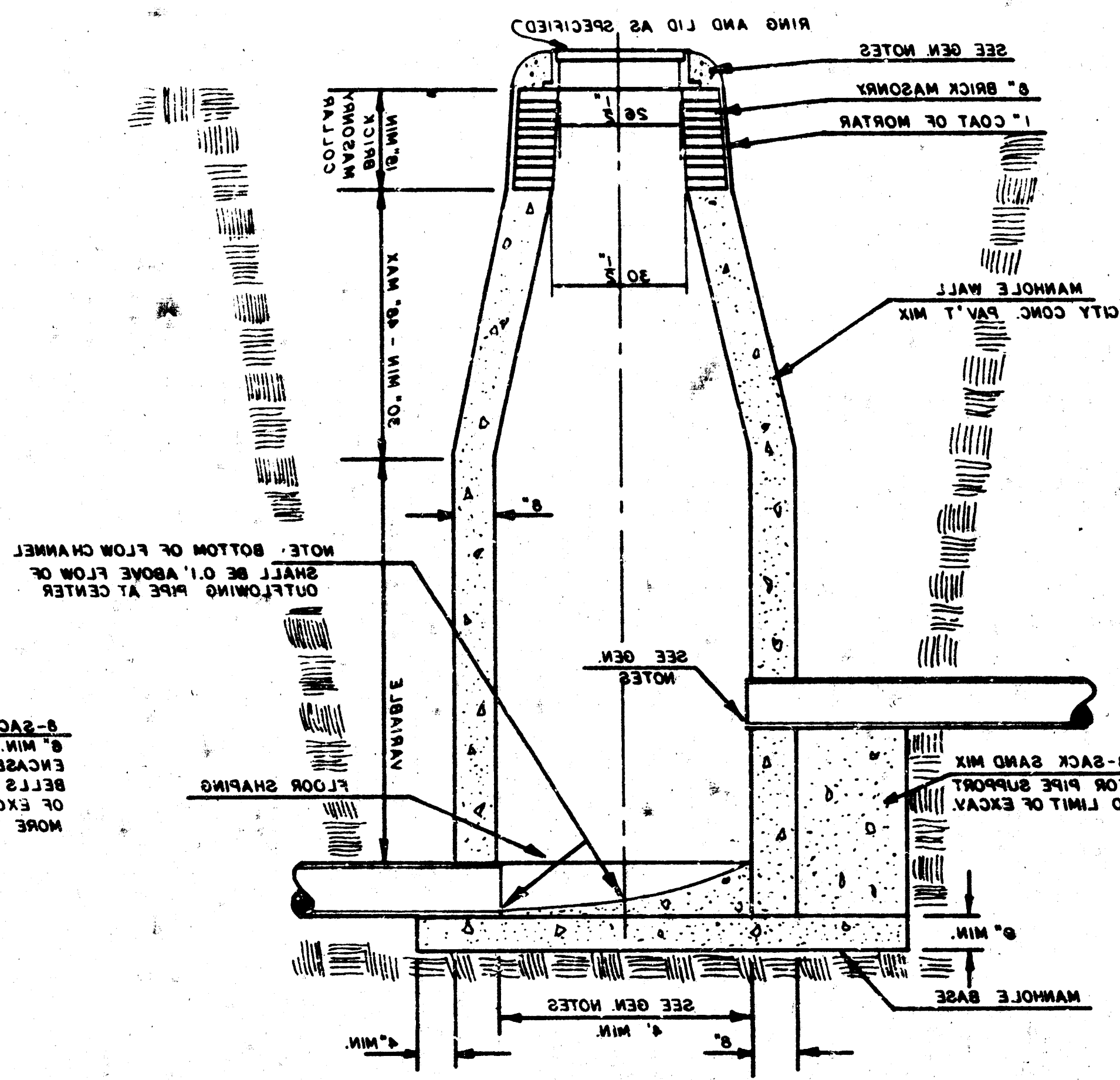
BY

City of Wichita, Kansas

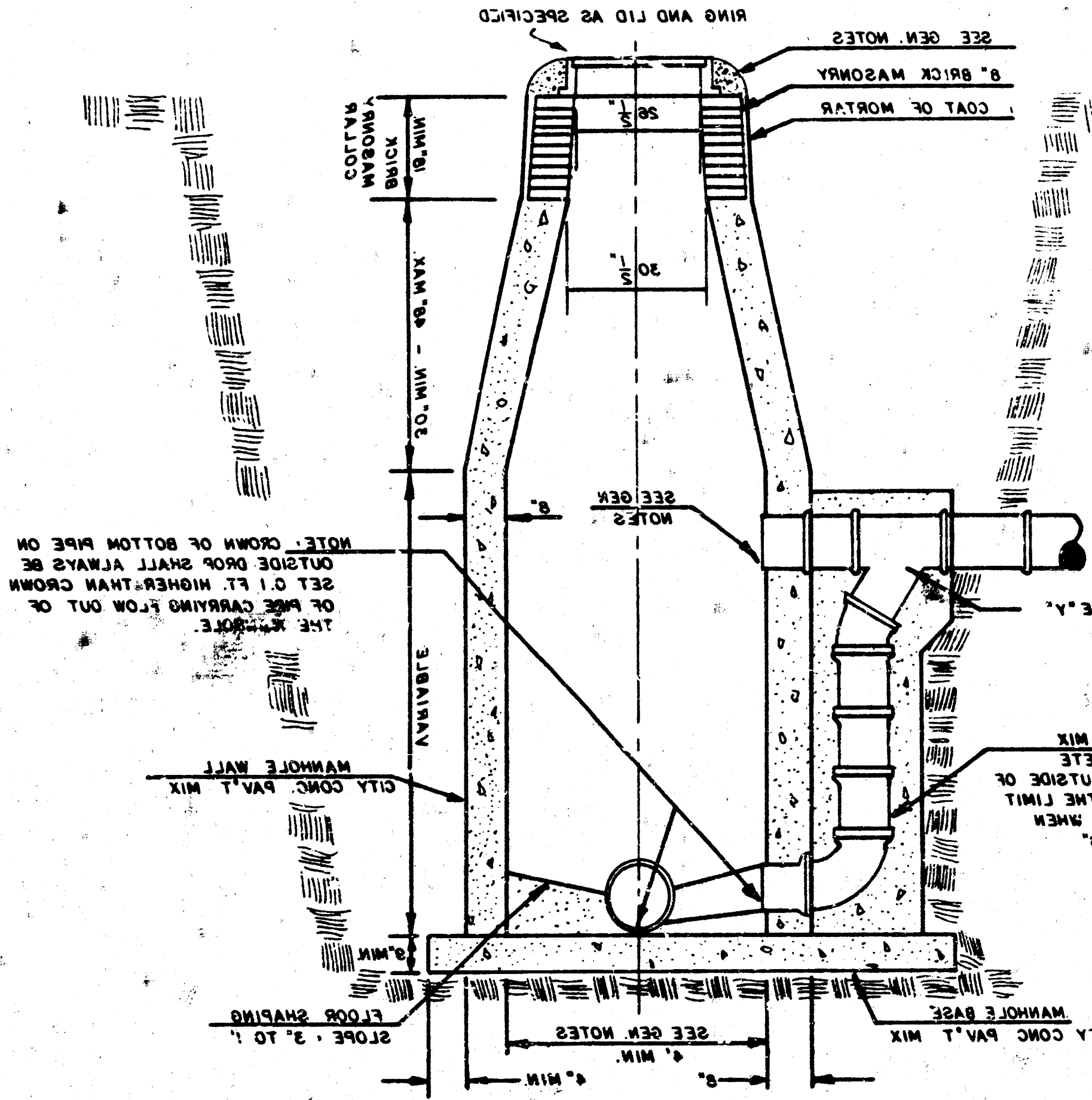
STANDARD MANHOLE TYPE "C"



INSIDE DROP MANHOLE TYPE "C"

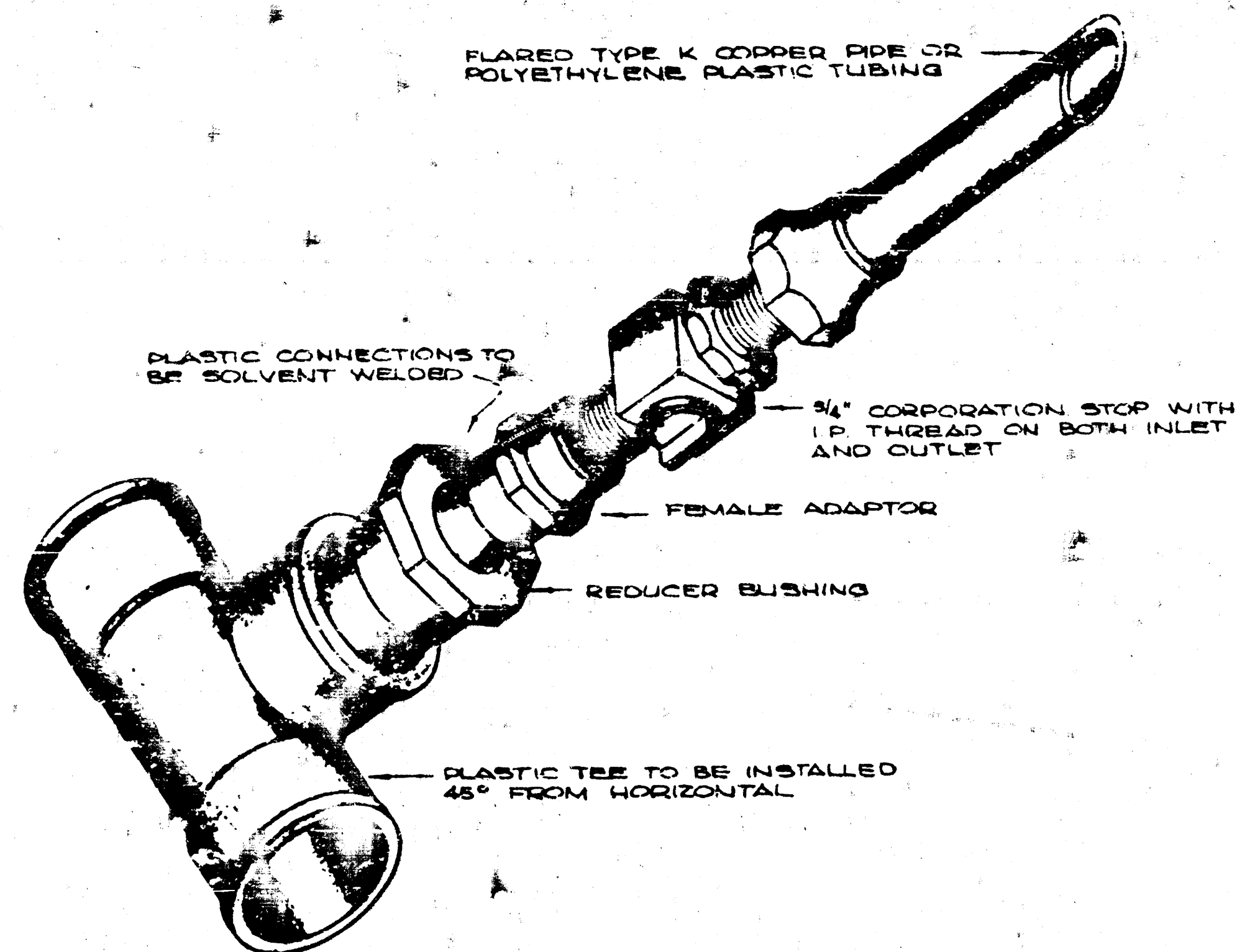


OUTSIDE DROP MANHOLE TYPE "C"

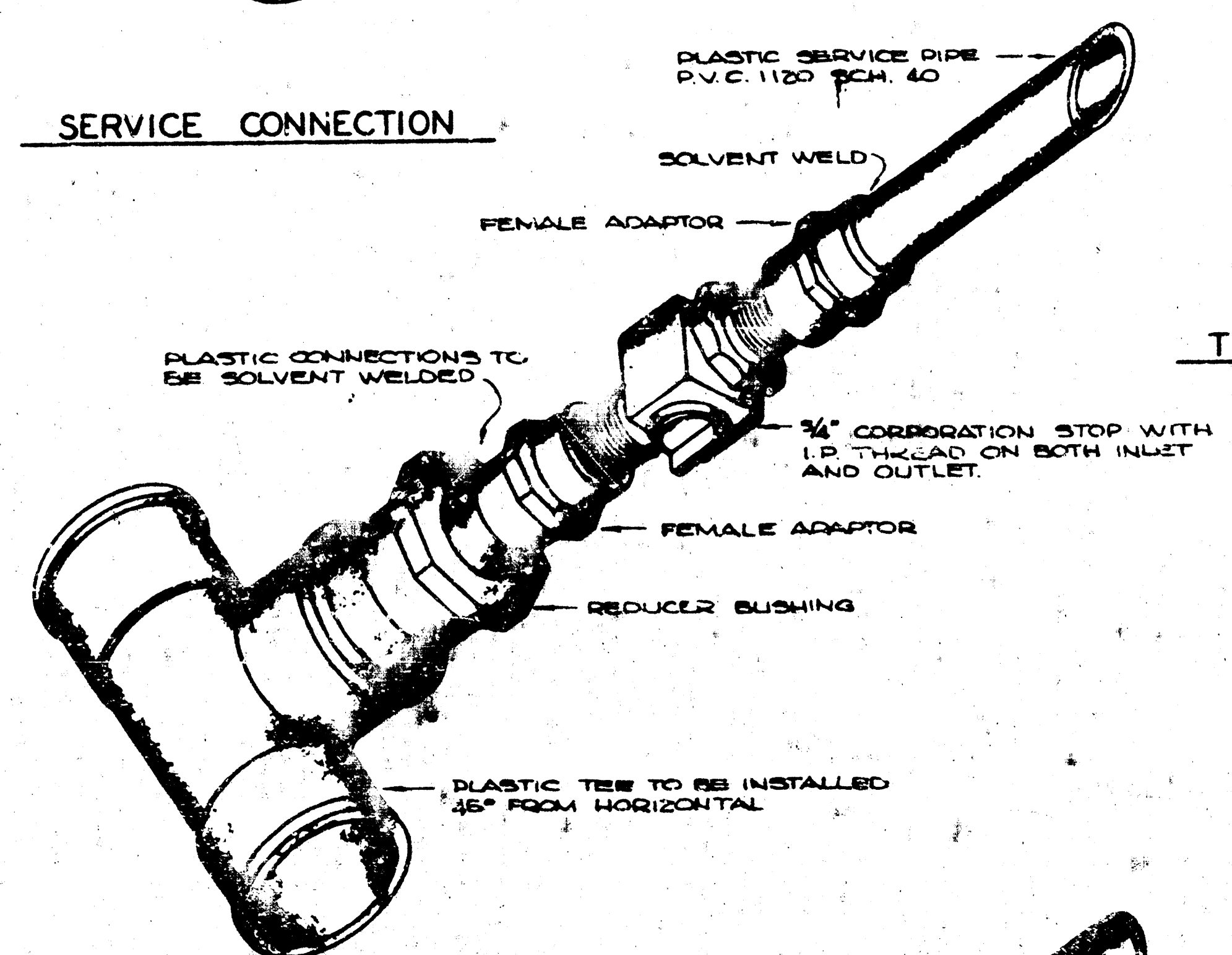


1. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 BAGS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE WALLS AND BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD SPECIFICATIONS. THE CITY STANDARD SPECIFICATIONS SHALL BE USED IN THE CITY STANDARD SPECIFICATIONS. THE CITY STANDARD SPECIFICATIONS SHALL BE USED IN THE CITY STANDARD SPECIFICATIONS.
2. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASE. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASE. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASE. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASE.
3. AN OPENING SHALL BE CUT IN THE MANHOLE WALL FOR THE UPPER INLET PIPE FOR INSIDE AND OUTSIDE DROP MANHOLES. THE UPPER INLET PIPE SHALL BE GROUDED INTO THIS OPENING WITH NON-SHRINKING GROUT. THE EXTERIOR OF THIS COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT.
4. THE FLOOR OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLE 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 WAVES OF THE INLET PIPES AND THE OUTLET PIPE. THE TYPE AND DIMENSIONS OF STANDARD OUTSIDE DROP MANHOLES FOR INSIDE DROP MANHOLES SHALL BE INDICATED BY THE DRAWING. MANHOLE DIMENSIONS WILL BE 4" UNLESS INDICATED OTHERWISE.
5. STANDARD MANHOLES TYPE "C" AND STANDARD INSIDE DROP MANHOLES TYPE "C" SHALL BE 18" STANDARD MANHOLES FOR THE TYPE AND DIMENSIONS INDICATED. OUTSIDE DROP MANHOLES FOR THE TYPE AND DIMENSIONS INDICATED. ALL MANHOLE DIMENSIONS WILL BE 4" UNLESS INDICATED OTHERWISE.
6. MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWING.
7. THE EXTERIOR DROP IN INSIDE DROP MANHOLES SHALL NOT EXCEED 4" FOR INLET PIPES 15" OR SMALLER AND 5" FOR INLET PIPES 18" OR LARGER. THE EXTERIOR DROP IN OUTSIDE DROP MANHOLES SHALL NOT EXCEED 4" FOR INLET PIPES 15" OR SMALLER AND 5" FOR INLET PIPES 18" OR LARGER. THE EXTERIOR DROP IN OUTSIDE DROP MANHOLES SHALL NOT EXCEED 4" FOR INLET PIPES 15" OR SMALLER AND 5" FOR INLET PIPES 18" OR LARGER.
8. 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 REVEAL THE FULL INSIDE DIAMETER OF THE MANHOLE. FLOORS SHALL THEN BE SHAPED AROUND THE BOTTOM OF THE PIPE WHICH FORMS THE FLOW CHANNEL.
9. PIPES INSTALLED WITHIN THE EXCAVATION MADE FOR THE MANHOLE SHALL BE GRADED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. WHEN CLAY PIPE IS USED, THE GRADE SHALL EXTEND TO THE FIRST JOINT OUTSIDE THE MANHOLE. THE GRADE SHALL BE TERMINATED AT THE CLAY PIPE JOINT IN A MANNER WHICH WILL MAINTAIN THE FLEXIBILITY OF THE JOINT. COST OF GRADE WITHIN MANHOLE EXCAVATION TO CLAY PIPE JOINTS ADJACENT TO MANHOLE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
10. MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWING.

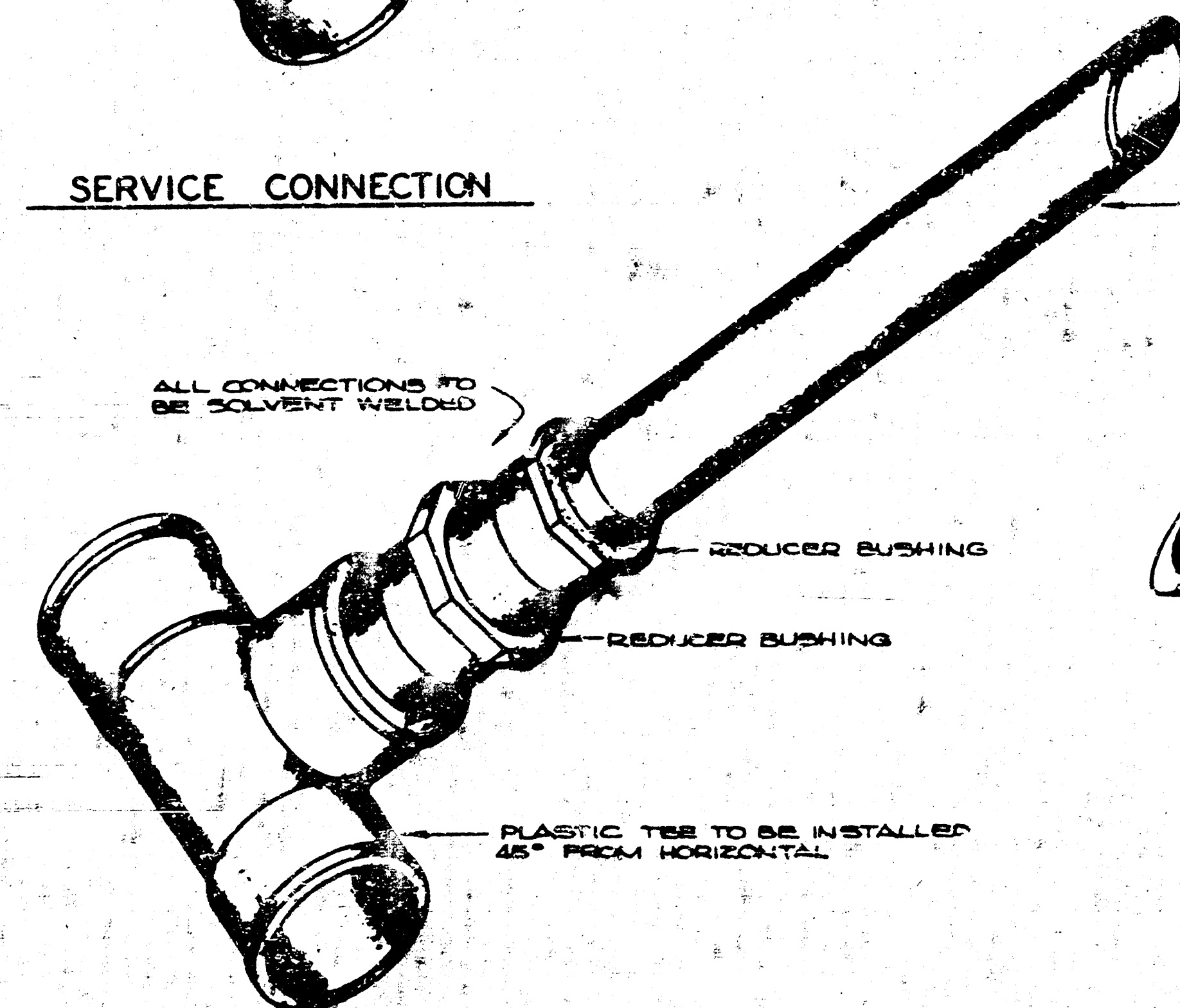
GENERAL NOTES



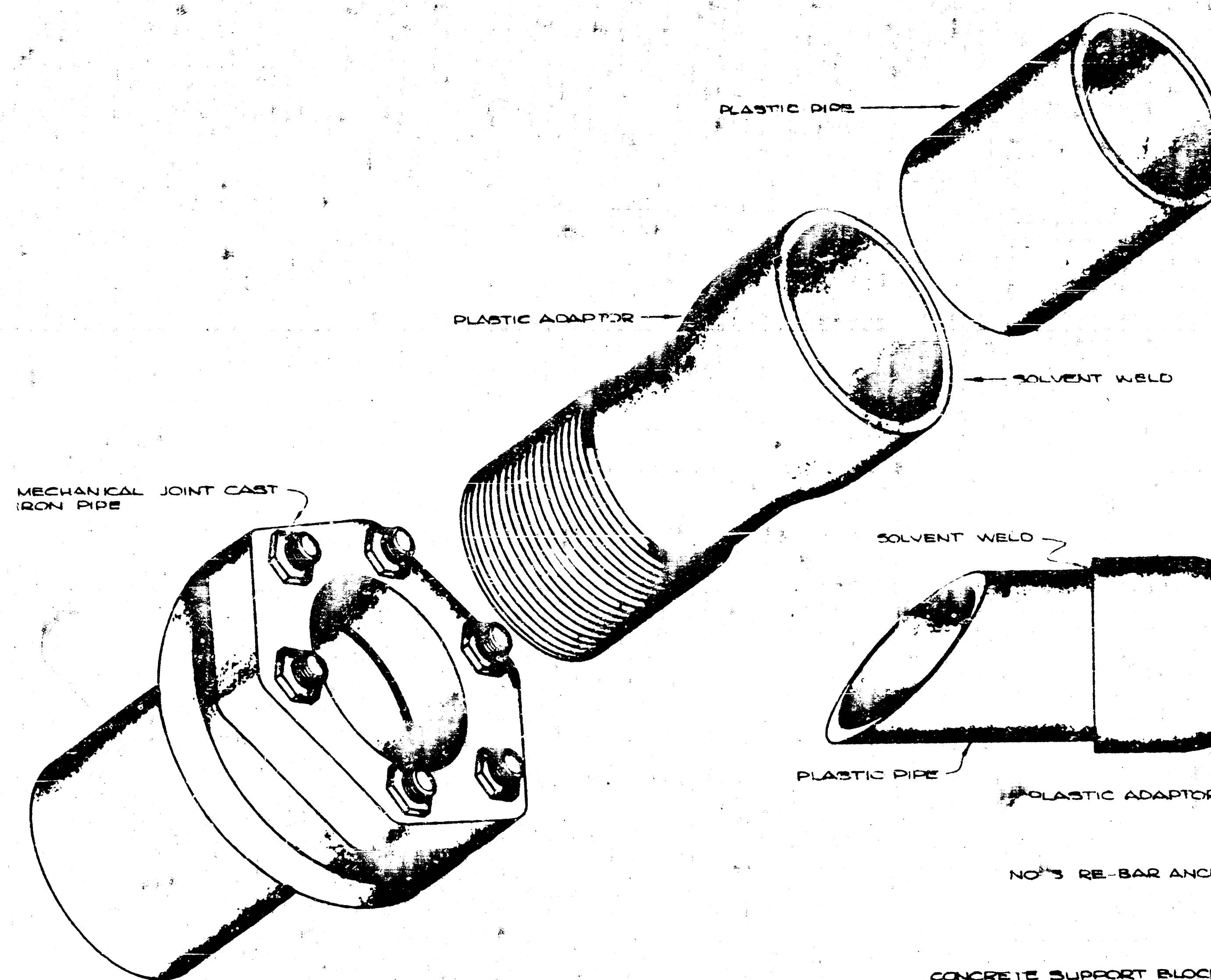
SERVICE CONNECTION



SERVICE CONNECTION

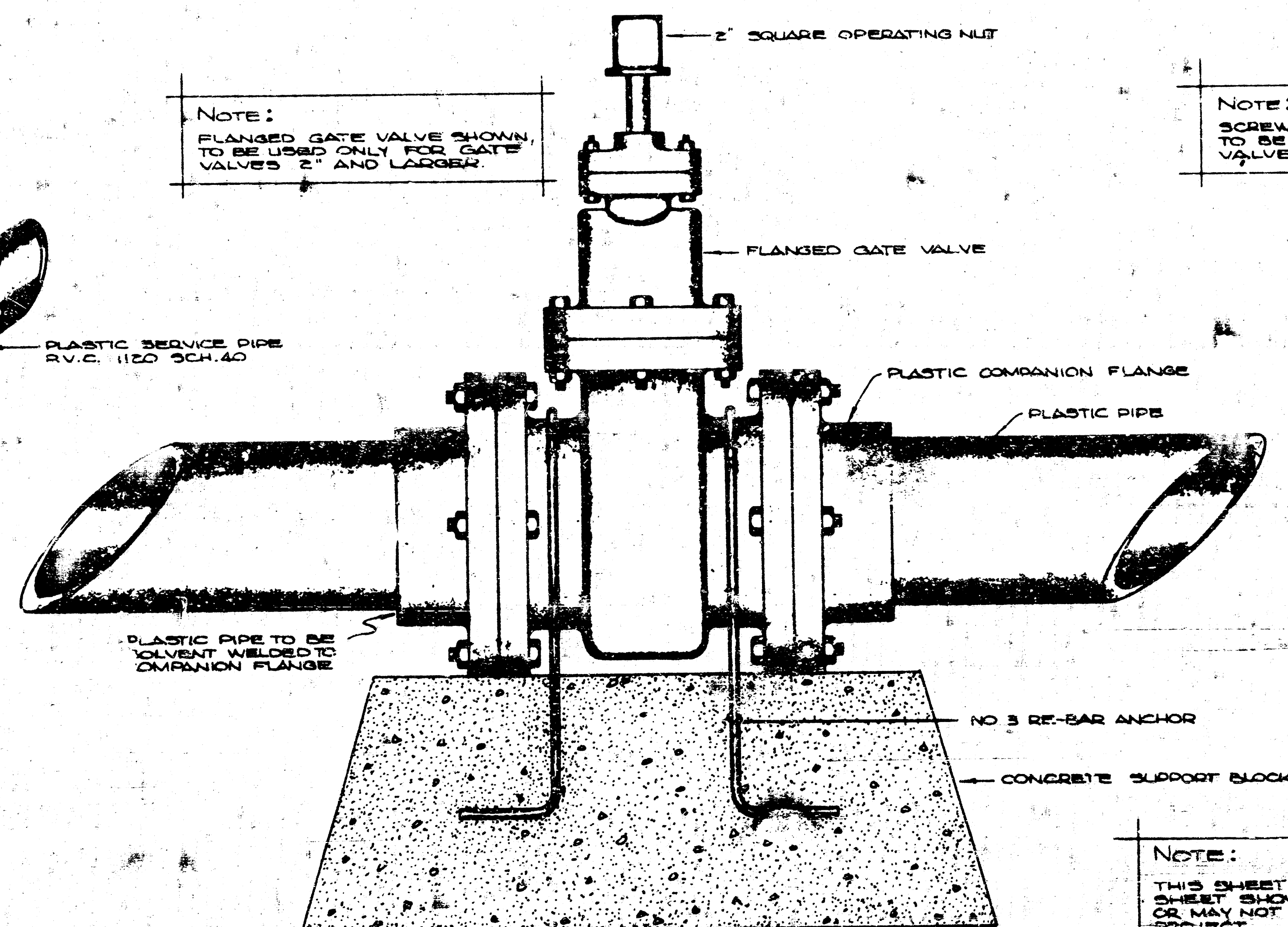


SERVICE CONNECTION



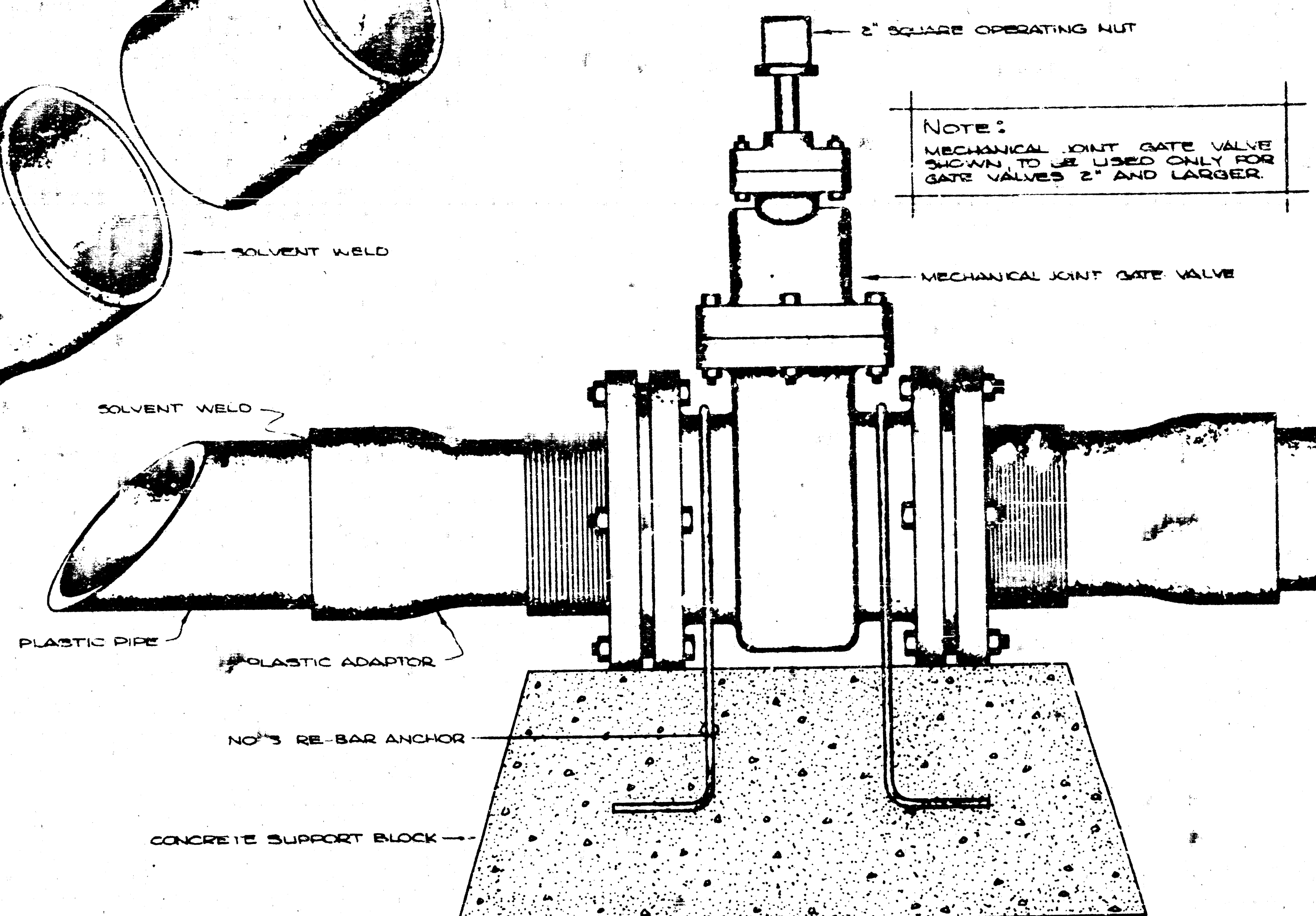
TYPICAL MECHANICAL JOINT C.I.P. TO PLASTIC PIPE

NOTE:
FLANGED GATE VALVE SHOWN,
TO BE USED ONLY FOR GATE
VALVES 2" AND LARGER.



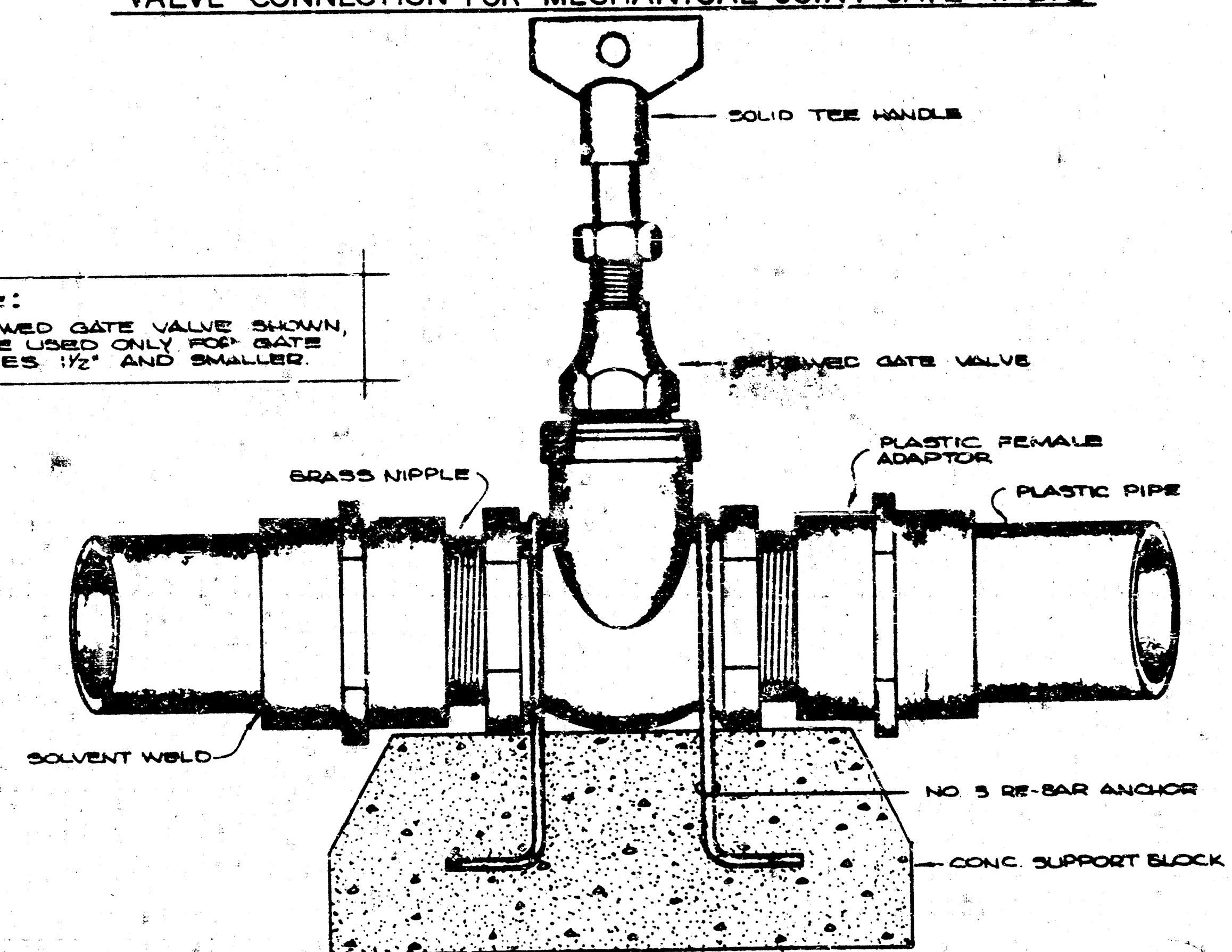
VALVE CONNECTION FOR FLANGED GATE VALVE

NOTE:
THIS SHEET IS A STANDARD DETAIL
SHEET SHOWING DETAILS WHICH MAY
OR MAY NOT BE INCLUDED ON A SPECIFIC
PROJECT.



NOTE:
MECHANICAL JOINT GATE VALVE
SHOWN TO BE USED ONLY FOR
GATE VALVES 2" AND LARGER.

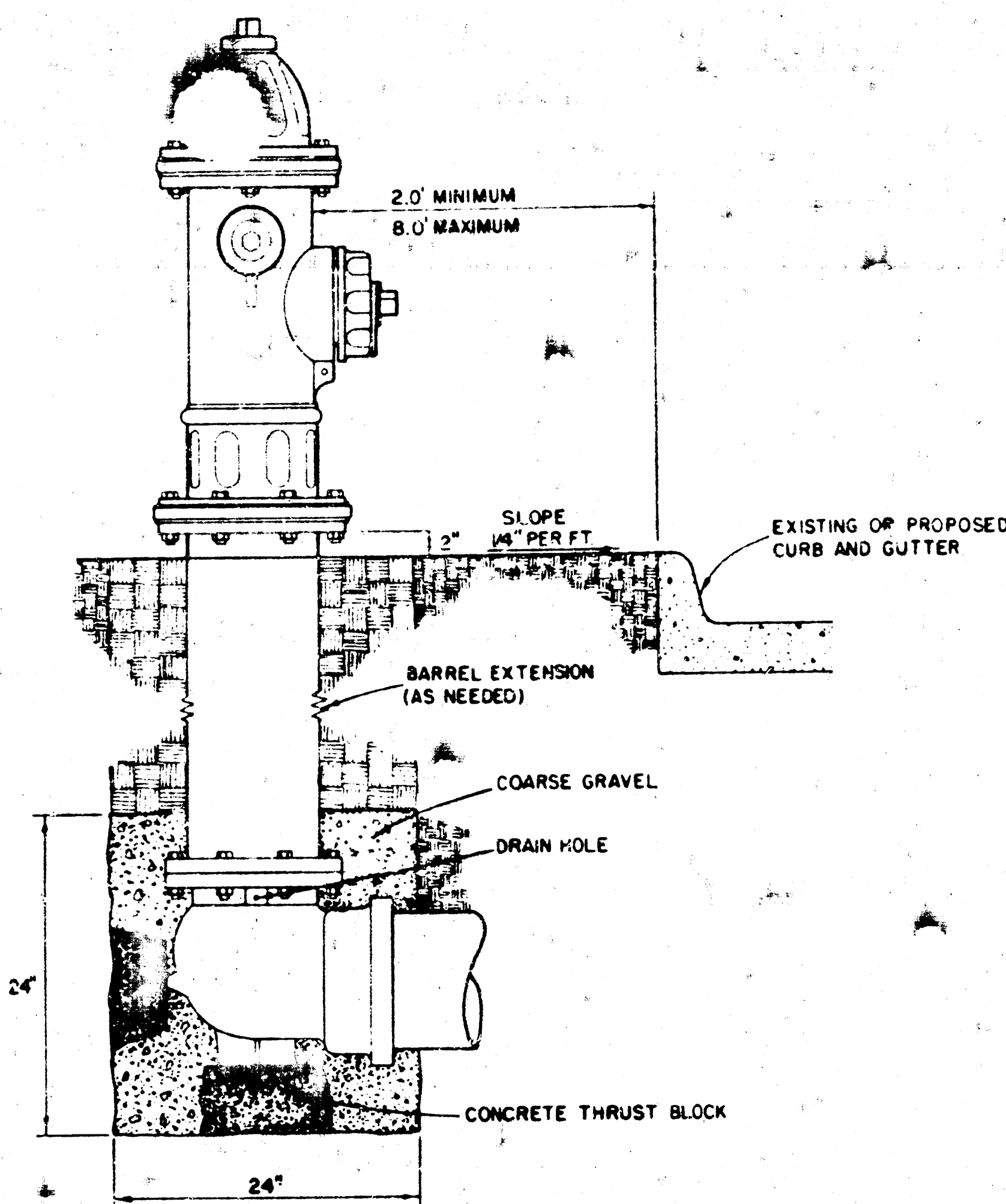
VALVE CONNECTION FOR MECHANICAL JOINT GATE VALVE



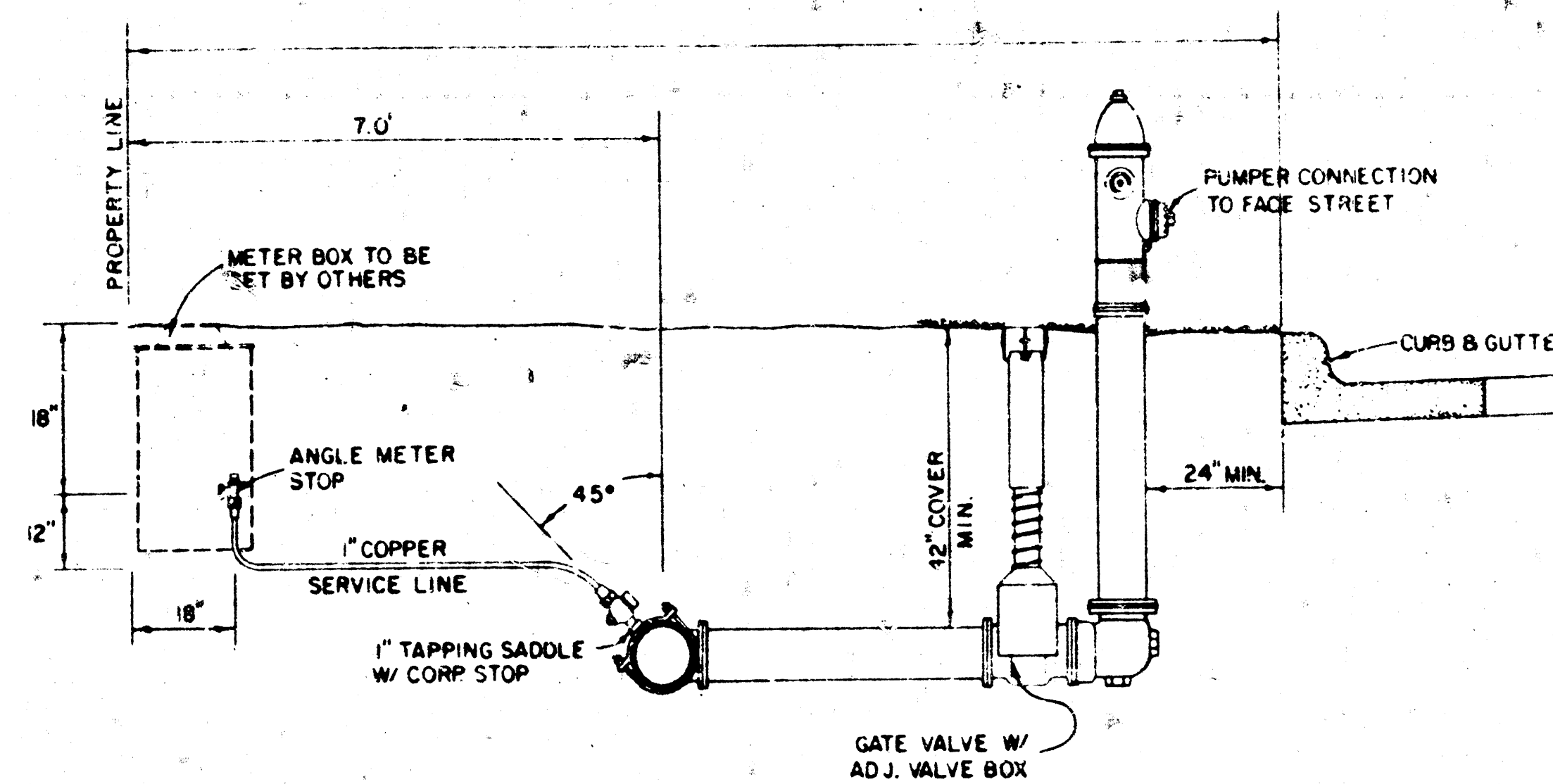
VALVE CONNECTION FOR SCREWED GATE VALVE

REISS & GOODNESS ENGINEERS
2160 WEST 21ST STREET
WICHITA, KANSAS 67204
(316) 532-0283

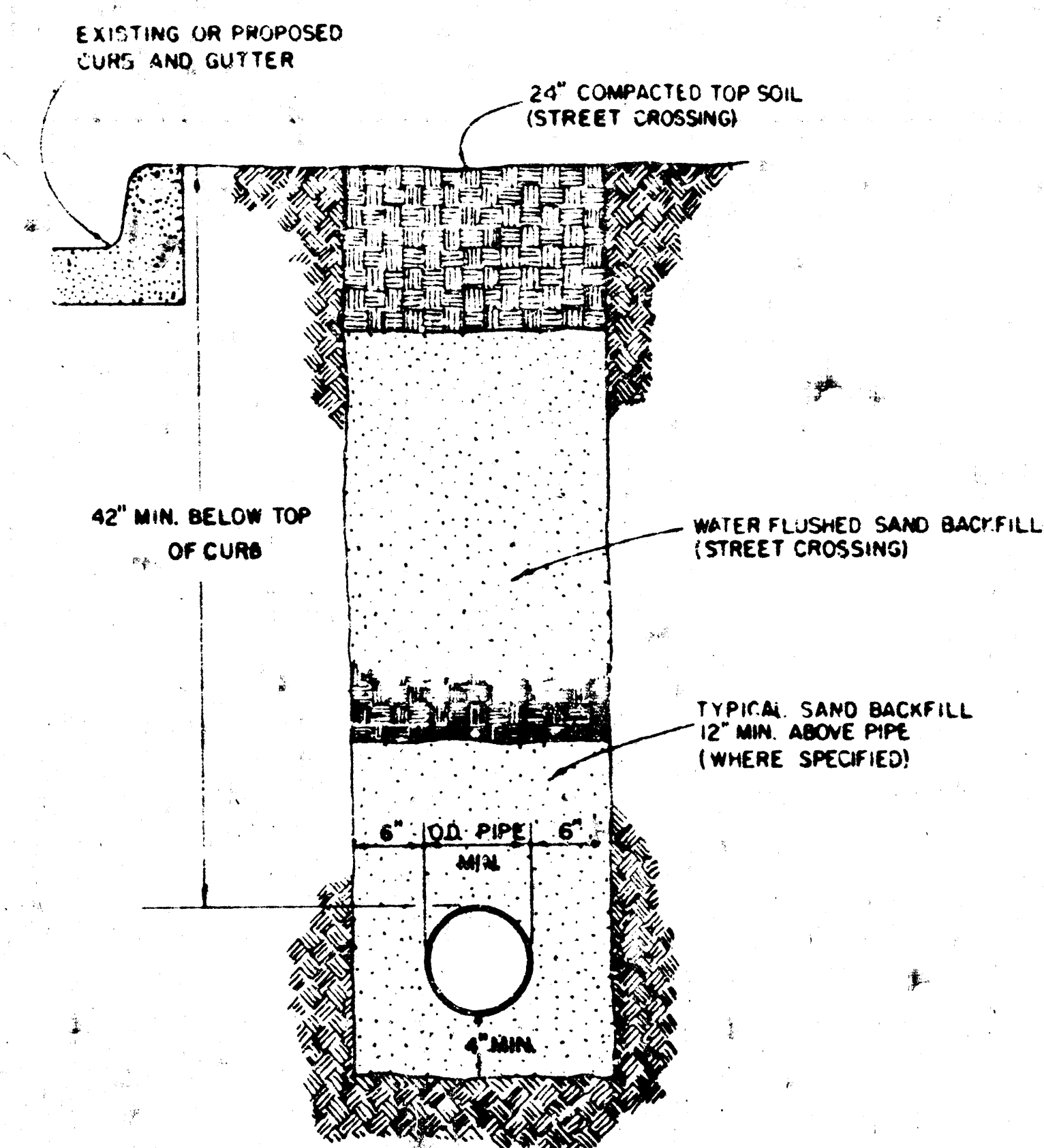
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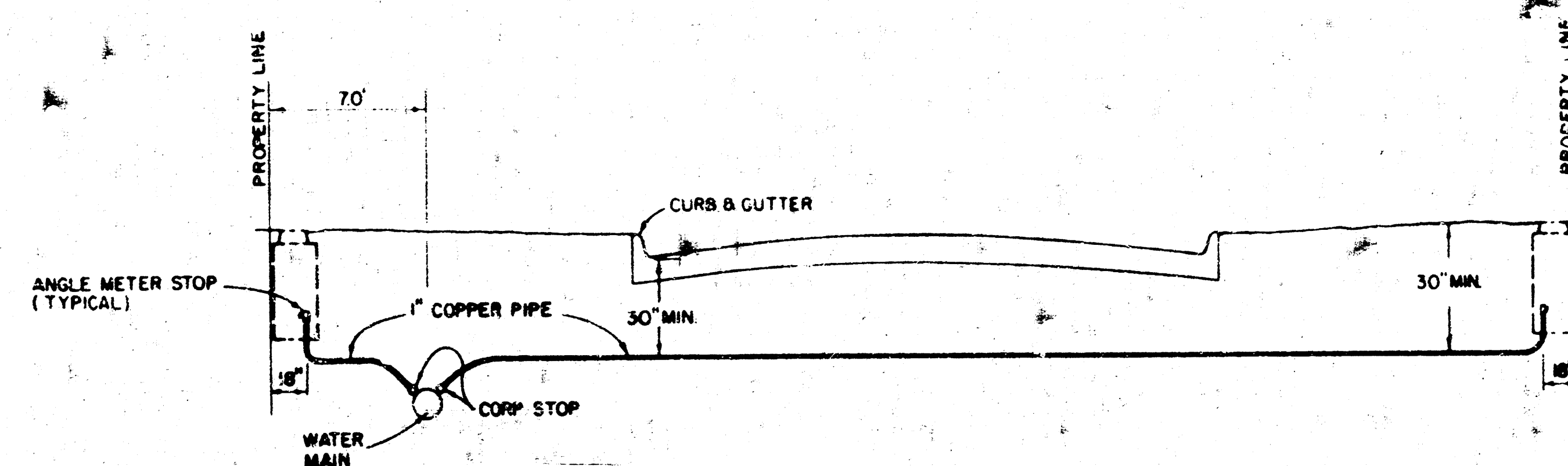
FIRE HYDRANT SETTING DETAIL



TYPICAL SERVICE & FIRE HYDRANT LOCATION

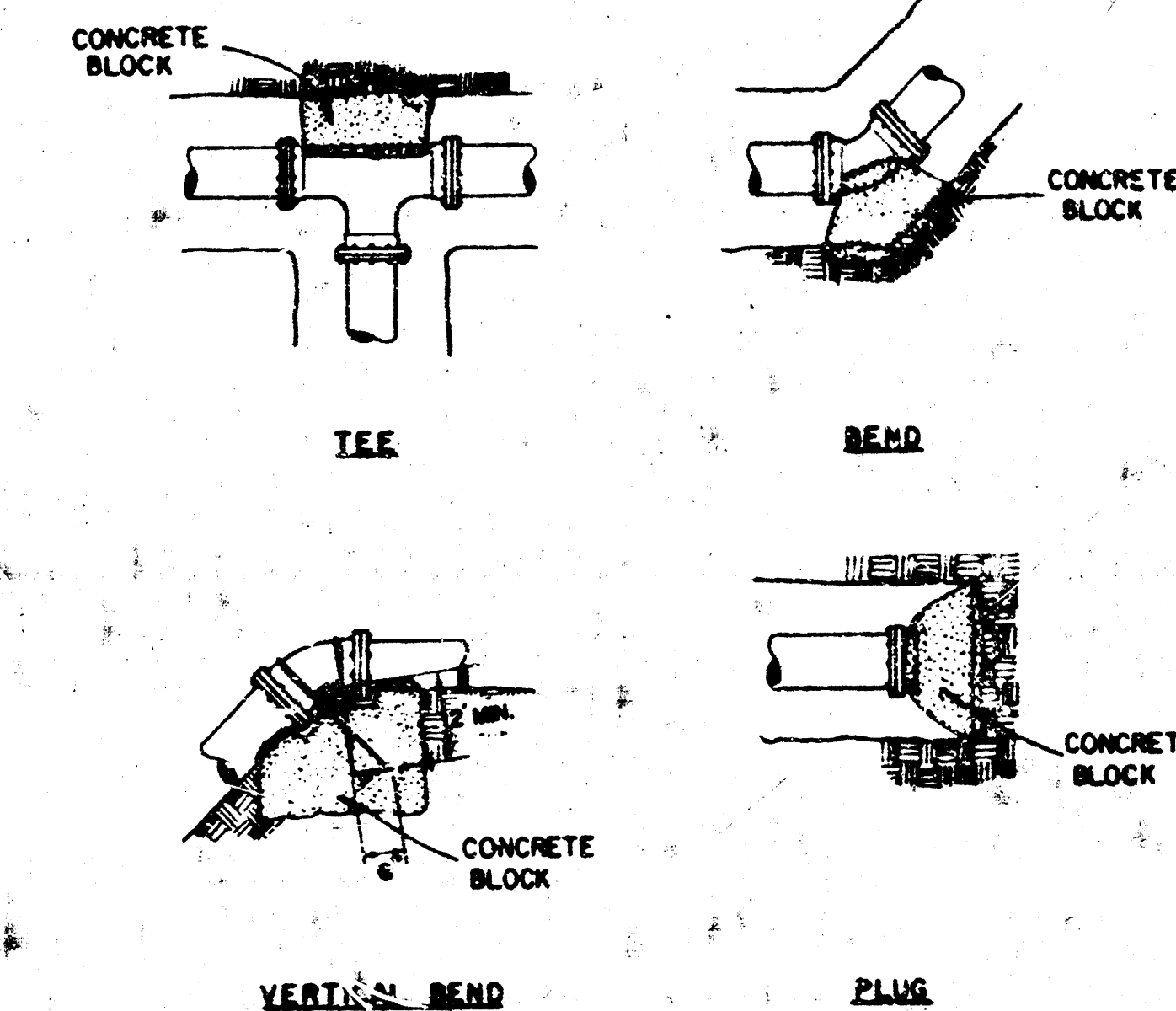


TRENCH DETAIL



TYPICAL SERVICE INSTALLATION

NOTE
TRENCH TO BE FILLED WITH FLUSHED AND VIBRATED SAND TO WITHIN 12" OF FINISHED GROUND ELEVATION OR TO PAVEMENT BASE UNDER PAVEMENT.



PIPE SIZE	THRUST AT FITTINGS IN TONS (AT 150° / IN. P.)					
	PLUG	90°	45°	22 1/2°	11 1/4°	TEE
6"	2.8	3.95	2.15	1.09	.55	2.8
8"	4.9	6.95	3.75	1.90	.96	4.5
12"	11.4	16.1	8.75	4.45	2.23	11.4
16"	20.15	28.5	15.4	7.85	3.95	20.15
20"	31.15	44.0	23.85	12.15	6.1	31.15
24"	44.55	63.0	34.1	17.4	8.75	44.55

THRUST BLOCKS

REISS & GOODNESS ENGINEERS
2100 WEST 31ST STREET
WICHITA, KANSAS 67204
(316) 838-0225