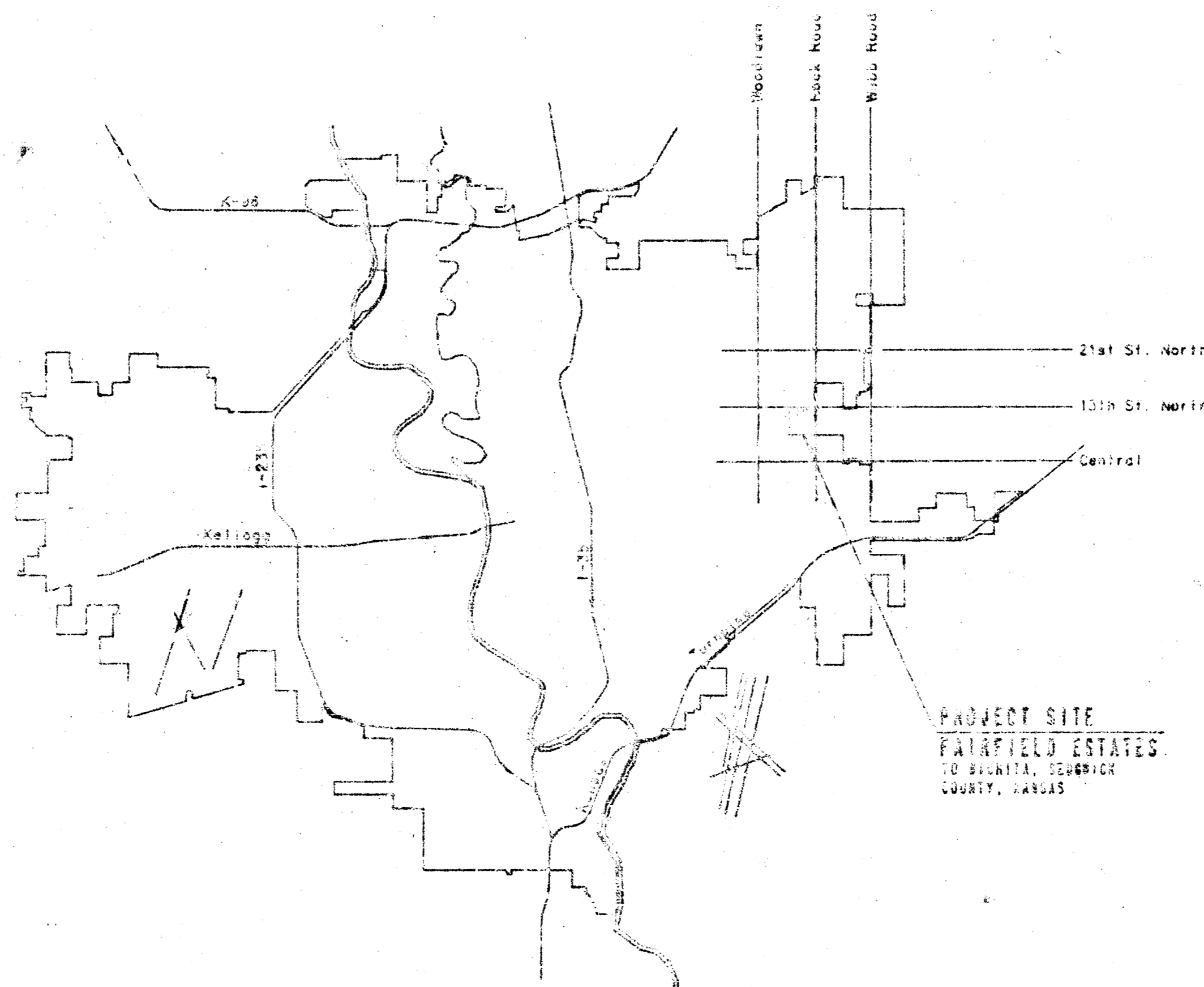


CONSTRUCTION PLANS FOR
SANITARY SEWER IMPROVEMENTS
 FOR
FAIRFIELD CLUB APARTMENTS

THE CITY OF WICHITA,
 SEDGWICK COUNTY, KANSAS
 MICHAEL E. LINDBERK, P.E.-CITY ENGINEER

INDEX OF SHEETS

SHEET NO. 1	TITLE SHEET
SHEET NO. 2	SITE CONDITIONS
SHEET NO. 3	EXISTING SANITARY PLAN
SHEET NO. 4 & 5	PLAN & PROFILE
SHEET NO. 6	PIPE A MANHOLE DETAILS
SHEET NO. 7	PIPE B MANHOLE DETAILS
SHEET NO. 8	PIPE C MANHOLE DETAILS



LOCATION MAP

APPROVED AS SHOWN
 BY CITY ENGINEER OF WICHITA
 Sanitary Sewers *[Signature]*
 Storm Sewers _____
 Driveway Approaches _____
 Water Mains _____
 Fluming _____

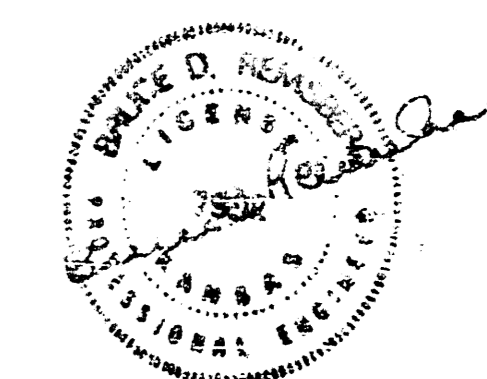
NOTE TO CONTRACTOR

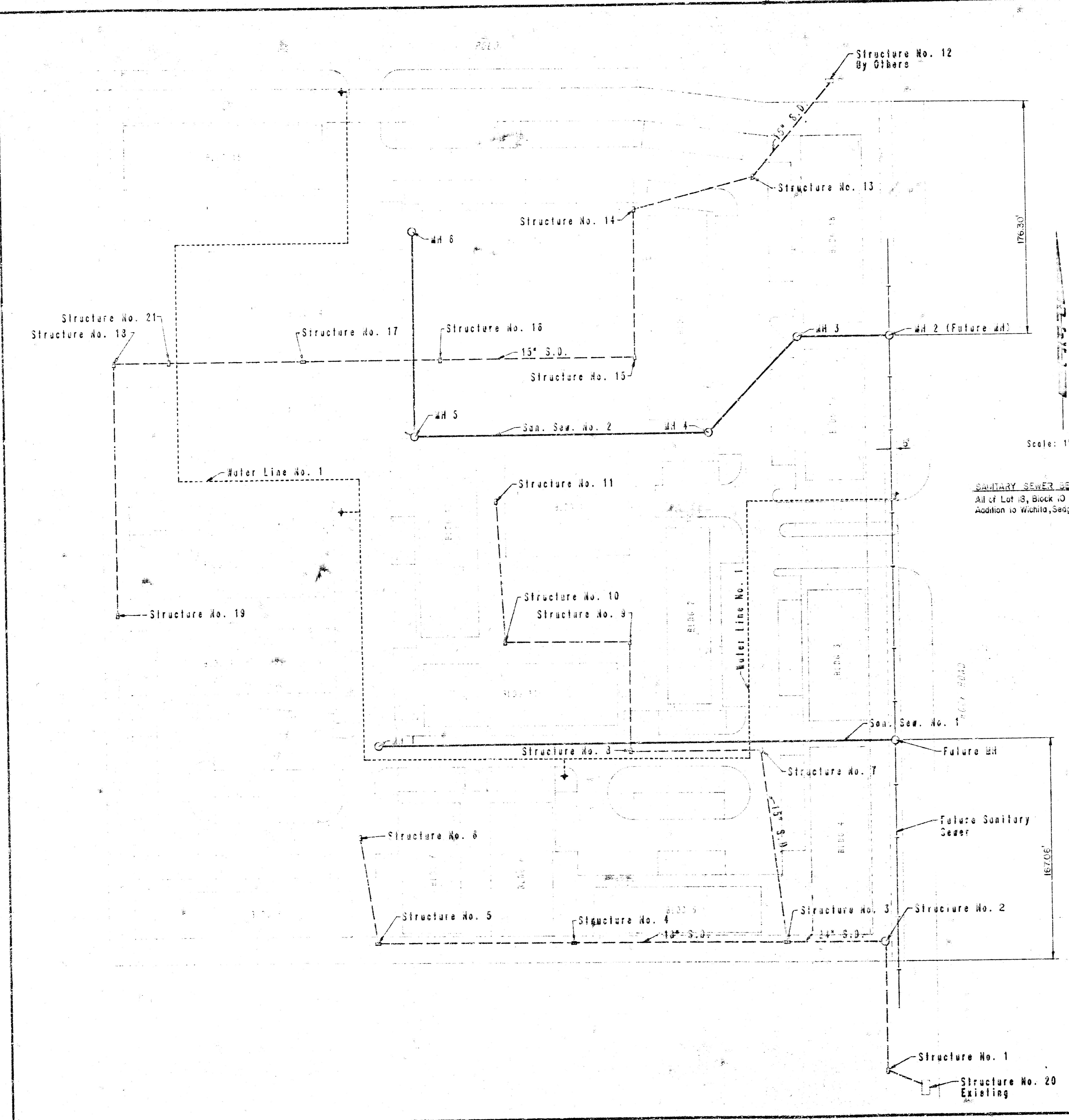
This project will be constructed under the supervision of the CITY ENGINEER and conforming to the ORDINANCES of the CITY OF WICHITA. THE CONTRACTOR will pay the City of Wichita for all costs of plan review, inspection and testing per contract.

CITY OF WICHITA PROJECT NO. 468-76-245-80001-000-000-052

JANUARY, 1986

PLANS PREPARED BY
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
 ENGINEERS
 WICHITA, KANSAS





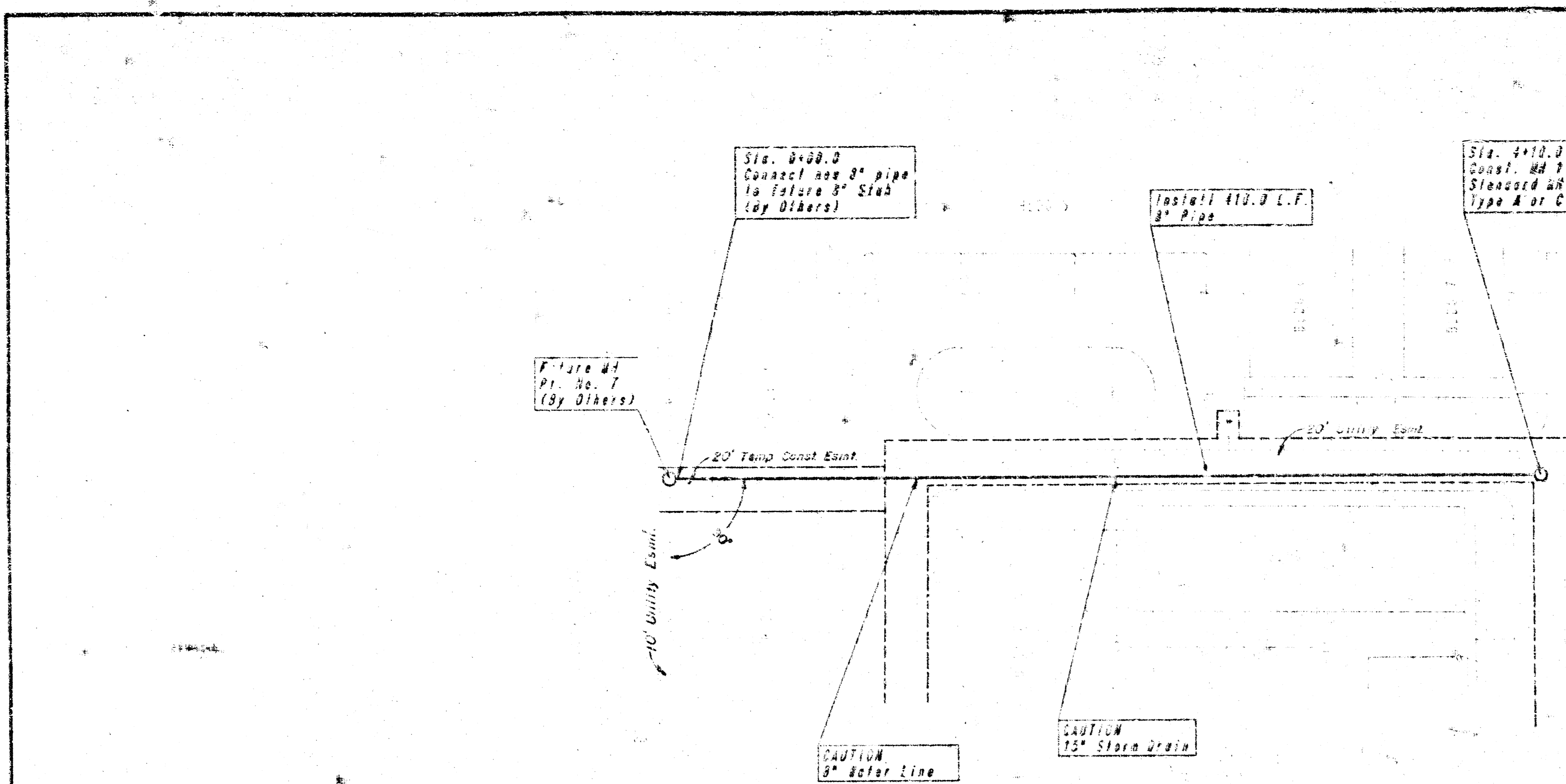
SANITARY SEWER BENEFIT DISTRICT
 All of Lot 13, Block 10 in Fairfield Estates
 Addition to Wichita, Sedgewick County, Kansas.

Scale: 1" = 40'

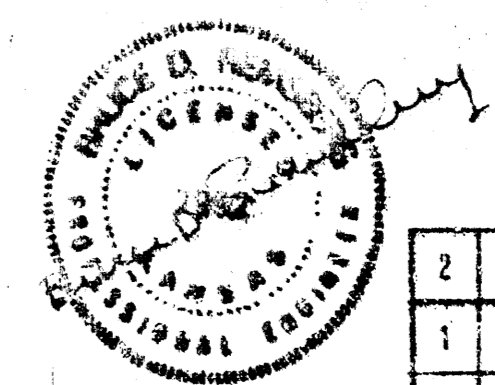
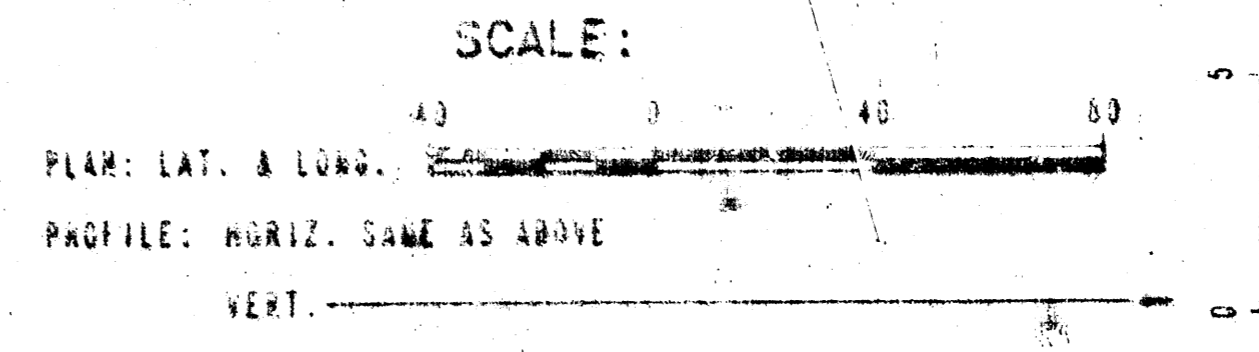
2	Revised San. Sewer - Water	BR	1-27-68
1	Per Revised Grading Plan	BR	11-27-65
No.	Revision	By	Date

FAIRFIELD CLUB APARTMENTS
UTILITY LAYOUT PLAN
 MICHAEL E. LINDEBARK, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 78-043-3141-300
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
 ENGINEERS
 WICHITA, KANSAS

Designed by BDR Job No. 34-85492 Sht. C6 of 16
 Drawn by CAL Date November, 1965

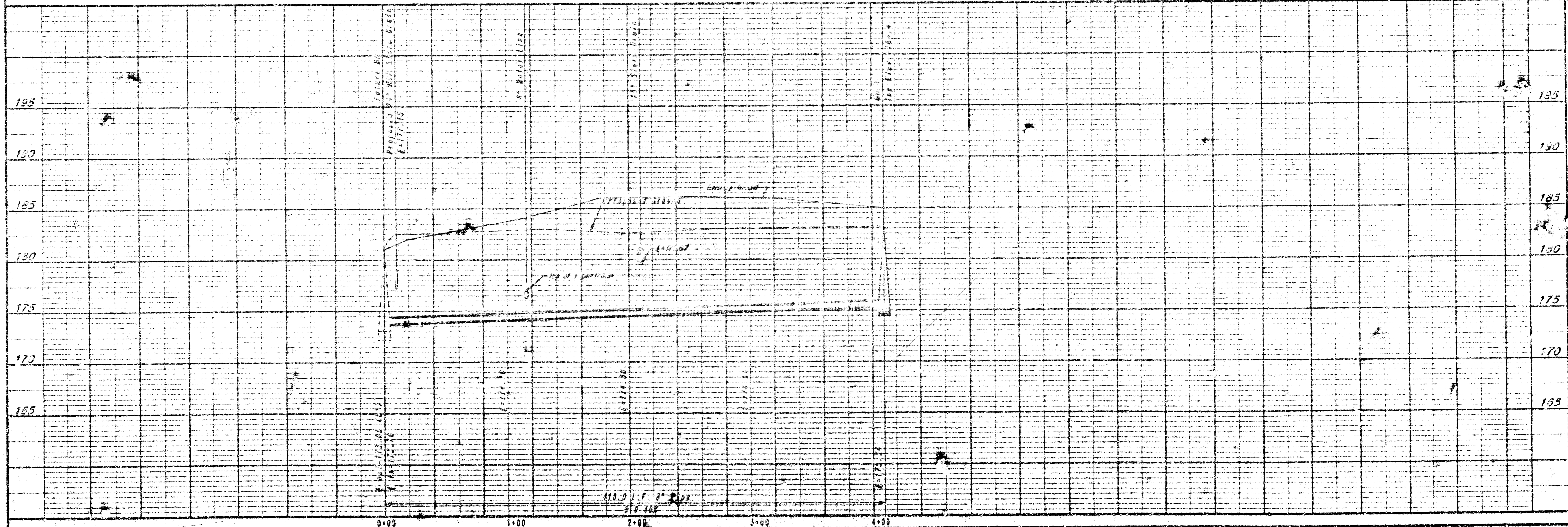


- GENERAL NOTES
1. ALL CONSTRUCTION AND MATERIALS TO COMPLY WITH CITY OF WICHITA SPECIFICATIONS AND STANDARDS.
 2. ALL ELEVATIONS SHOWN ARE CITY OF WICHITA DATUM (EUGES 1187.4 = CITY DATUM)
 3. THE CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH TO REMAIN OPEN OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.
 4. AT LEAST 48 HOURS PRIOR TO BEGINNING EXCAVATION, IF REQUIRED (EXCLUDING WEEKENDS AND HOLIDAYS), THE CONTRACTOR SHALL CONTACT THE KANSAS GAS SYSTEM, A UTILITY LOCATION SERVICE, AT (913) 947-2470 TO REQUEST THE FOLLOWING UTILITY COMPANIES TO LOCATE ANY EXISTING LINES WITHIN THE PROJECT AREA: GAS SERVICE COMPANY, K.S.B.E., THE WICHITA WATER DEPARTMENT, AND AIR CAPITAL CABLEVISION.
 5. THE CONTRACTOR MUST ALSO NOTIFY THE TELEPHONE COMPANY AT (913) 571-2115 48 HOURS PRIOR TO BEGINNING EXCAVATION AND REQUEST THAT ANY LINES WITHIN THE PROJECT AREA BE FLAGGED.
 6. THE BURIED UTILITIES AS LOCATED ON THE PLANS ARE APPROXIMATE LOCATIONS ONLY. IT SHOULD BE NOTED THAT OTHER BURIED LINES AND CABLES MAY EXIST WHICH ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING TRENCHING OPERATIONS TO AVOID DAMAGING THESE LINES. ANY LINES DAMAGED SHALL BE REPLACED OR REPAIRED IMMEDIATELY AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
 7. THE CONTRACTOR SHALL RESTORE ALL DITCHES, SCALES, ROAD SHOULDER, ENTRANCES, AND BANK LINES TO THEIR ORIGINAL SLOPES EXCEPT AS SHOWN OTHERWISE ON THE EASEMENT GRADING PLAN.
 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY LINES. THE CONTRACTOR SHALL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY LINES WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH TRENCHES SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR OR A LICENSED PROFESSIONAL ENGINEER IN ACCORDANCE WITH STATE LAWS. ALL COSTS FOR THIS WORK SHALL BE SUBSIDIARY TO THE OTHER ITEMS OF WORK.
 9. ALL EXCESS EXCAVATED MATERIAL FROM THIS PROJECT SHALL BE WASTED ON SITE. NO EXCESS MATERIAL SHALL BE PLACED WITHIN STREET RIGHTS-OF-WAY. THE CONTRACTOR SHALL CONTACT THE DEVELOPER FOR INFORMATION PERTAINING TO ACCEPTABLE LOCATIONS FOR THE DISPOSITION OF WASTE MATERIAL. WASTE MATERIAL SHALL BE GRADED SMOOTH AND SLOPED TO DRAIN. THIS WORK SHALL BE SUBSIDIARY TO OTHER BID ITEMS.
 10. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL MANHOLE COVERS.



No.	Revision	Date
2	Revised San. Sewer	11-27-88
1	Per Revised Grading Plan	11-27-85
No.	Revision	Date

LINE NO. 1

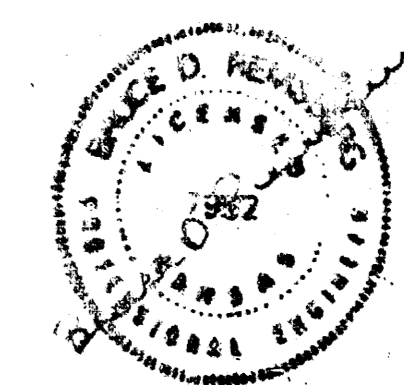
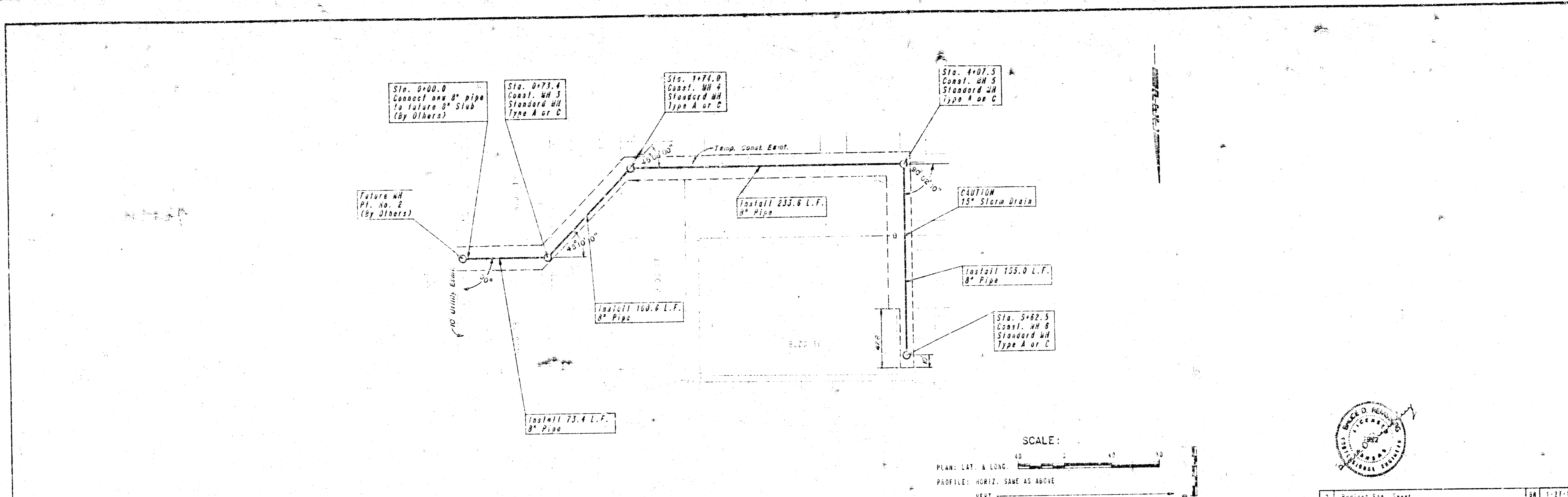


FAIRFIELD CIDE APARTMENTS

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
 1000 W. 17th St., Wichita, Kansas
 Assigned By: BOK
 Drawn By: CA

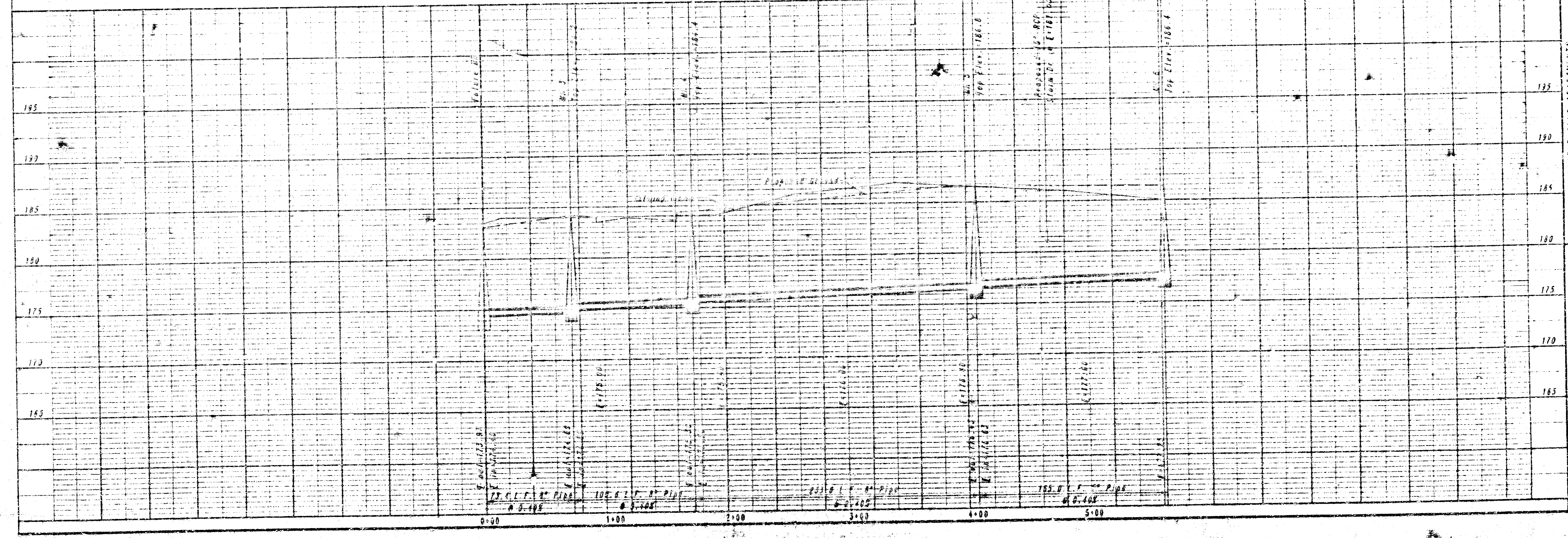
Job No. 34-B-402
 Date No. 11-27-88

Sheet C8 of 10



No.	Revision	By	Date
2	Revised San. Sheet	SR	1-27-56
1	Per Revised Grading Plan	SR	11-27-55

LINE NO. 2



FAIRFIELD CLUB APARTMENTS
 LINE NO. 2
 PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
 MICHAEL, MINTZ & MINTZ
 1500 CALIFORNIA STREET, OAKLAND, CALIF. 94612
 JOB No. 34-61492
 Drawn By: BDR
 Date: November, 1955
 Sheet 02 of 16

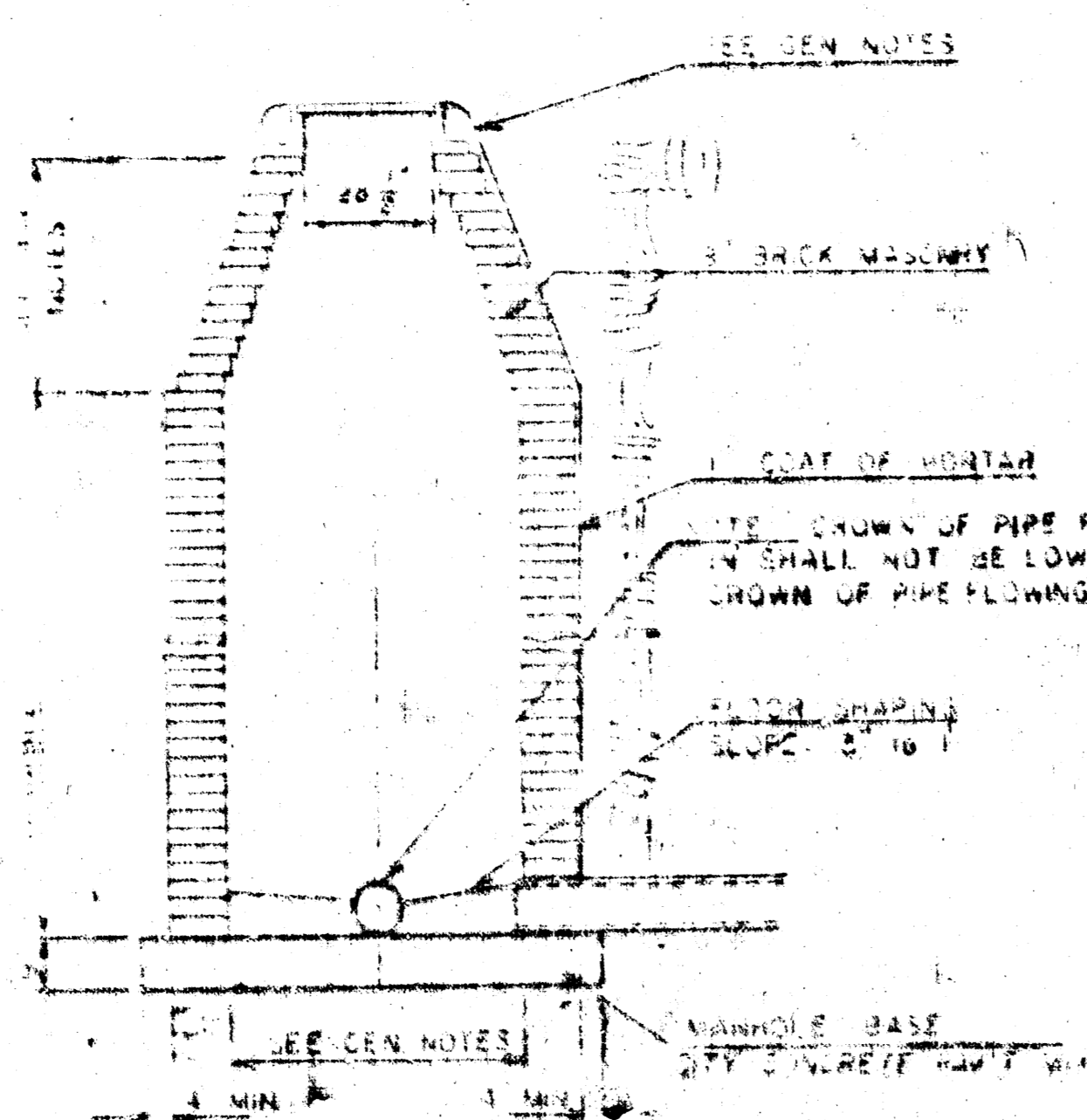
SEWER APPURTENANCES DETAILS

ADOPTED AS STANDARD DESIGN
BY

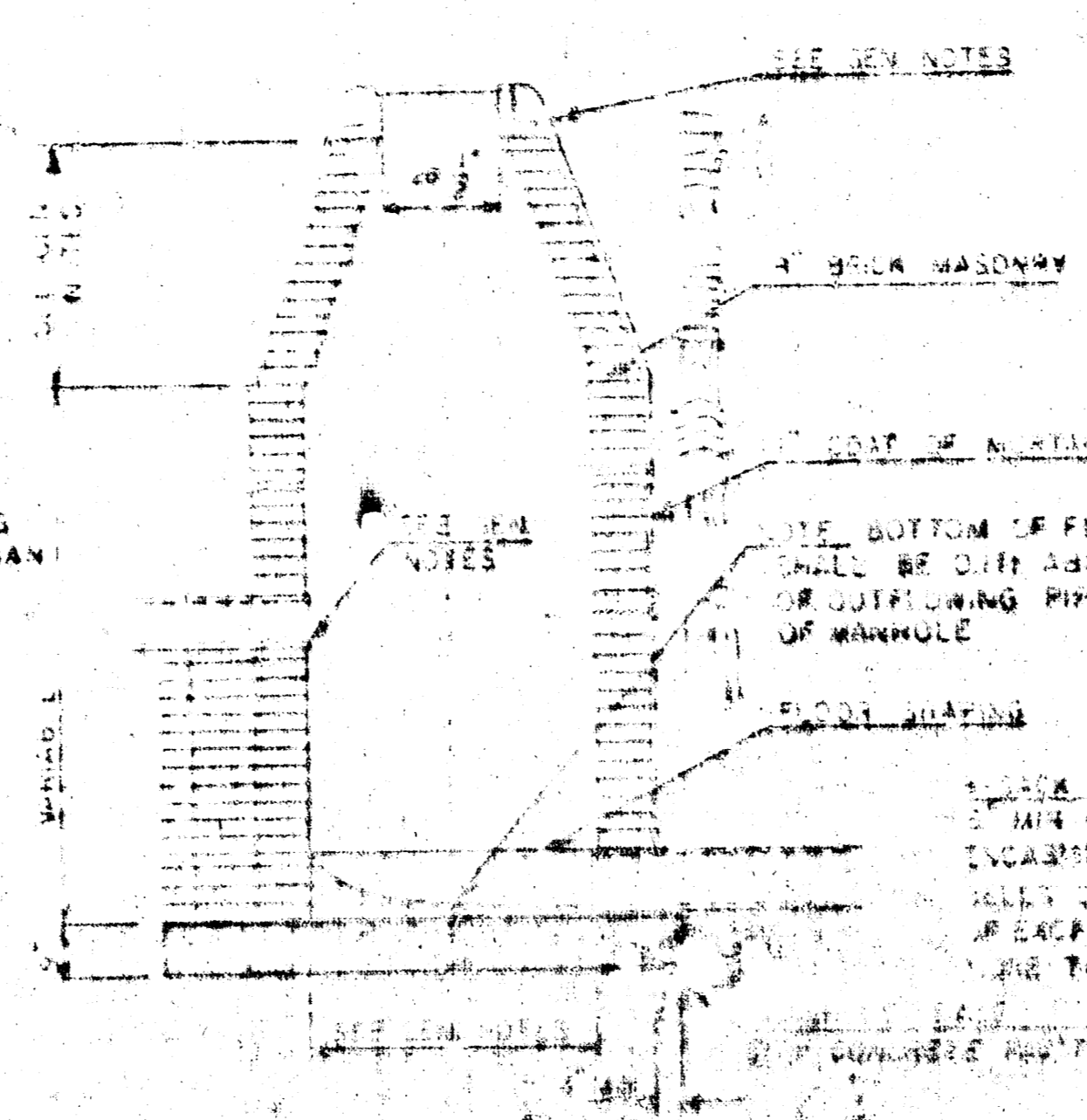
CITY OF WICHITA, KANSAS

REVISED SEPTEMBER 1980
REVISED DECEMBER 1981

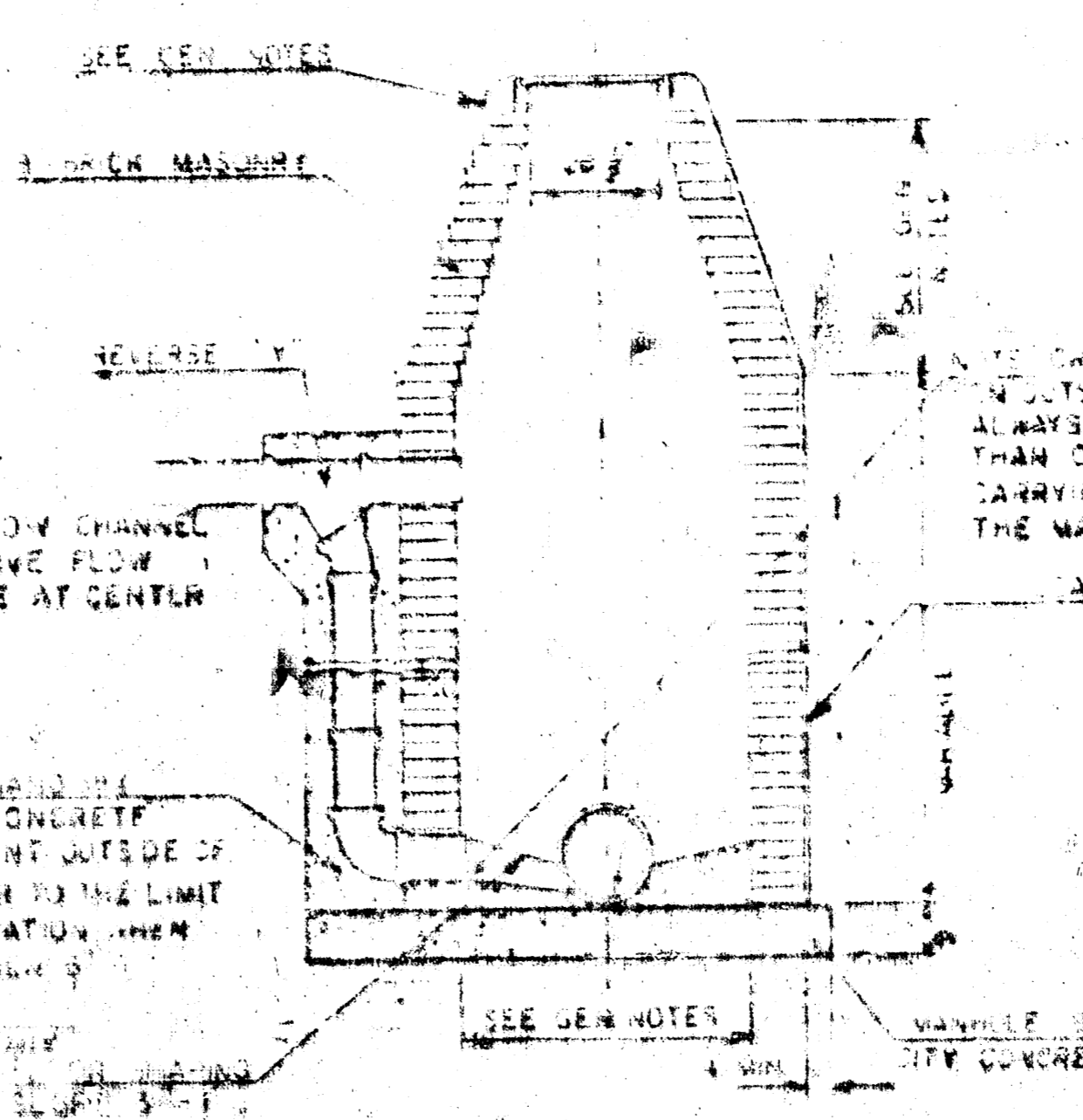
TYPE "A" MANHOLE



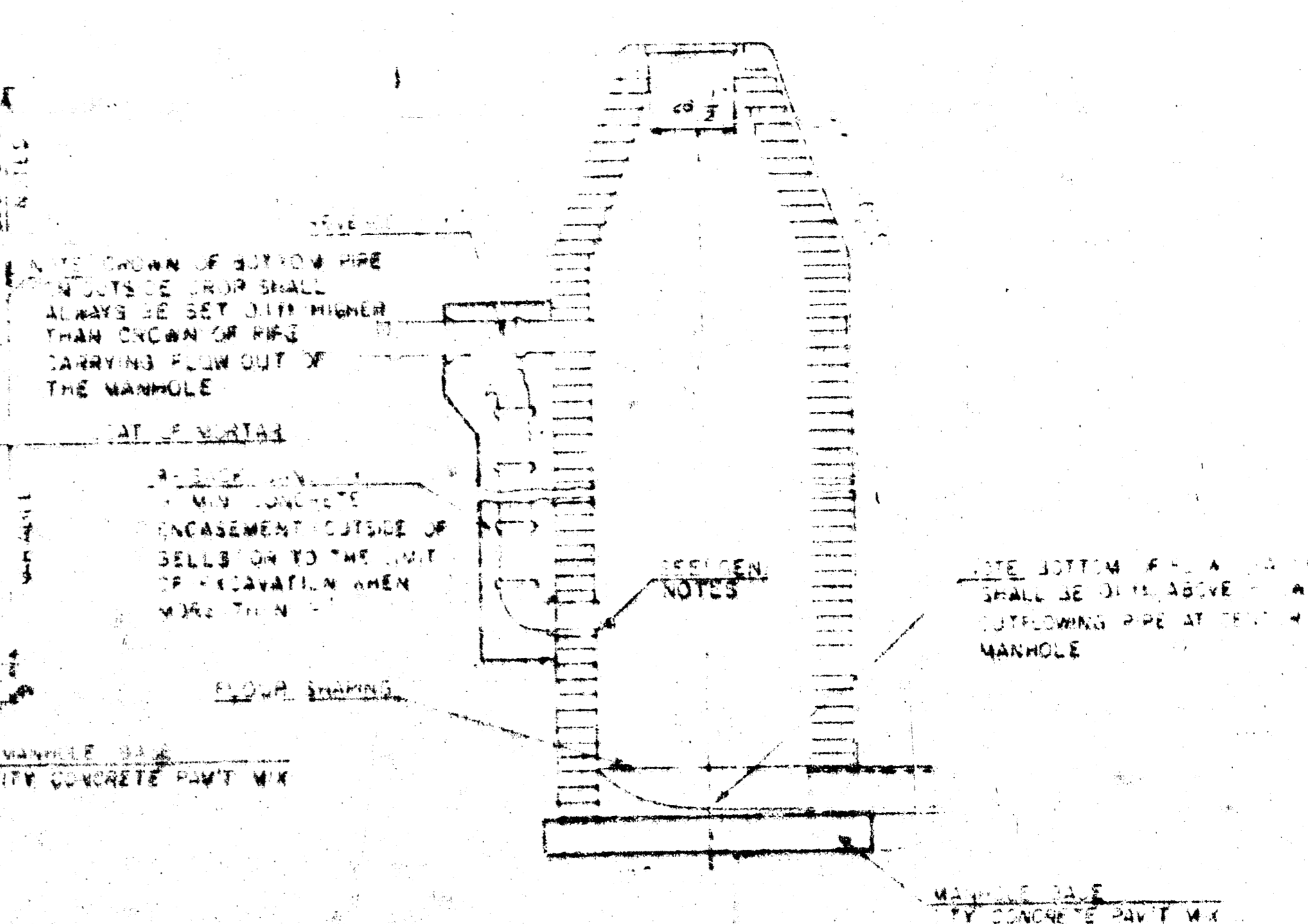
TYPE "A" INSIDE DROP MANHOLE



TYPE "A" OUTSIDE DROP MANHOLE



DETAIL OF OUTSIDE DROP
CONSTRUCTED ON EXISTING MANHOLE



THIS SET OF DRAWINGS IS INTENDED TO BE USED AS A GUIDE FOR THE CONSTRUCTION OF SEWER APPURTENANCES. THE CITY ENGINEER SHALL BE RESPONSIBLE FOR THE DESIGN AND SPECIFICATIONS OF THE SEWER APPURTENANCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION OF THE SEWER APPURTENANCES IN ACCORDANCE WITH THE DESIGN AND SPECIFICATIONS OF THE CITY ENGINEER. THE CITY ENGINEER SHALL BE RESPONSIBLE FOR THE INSPECTION AND ACCEPTANCE OF THE SEWER APPURTENANCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE SEWER APPURTENANCES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION OF THE SEWER APPURTENANCES IN ACCORDANCE WITH THE DESIGN AND SPECIFICATIONS OF THE CITY ENGINEER. THE CITY ENGINEER SHALL BE RESPONSIBLE FOR THE INSPECTION AND ACCEPTANCE OF THE SEWER APPURTENANCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE SEWER APPURTENANCES.

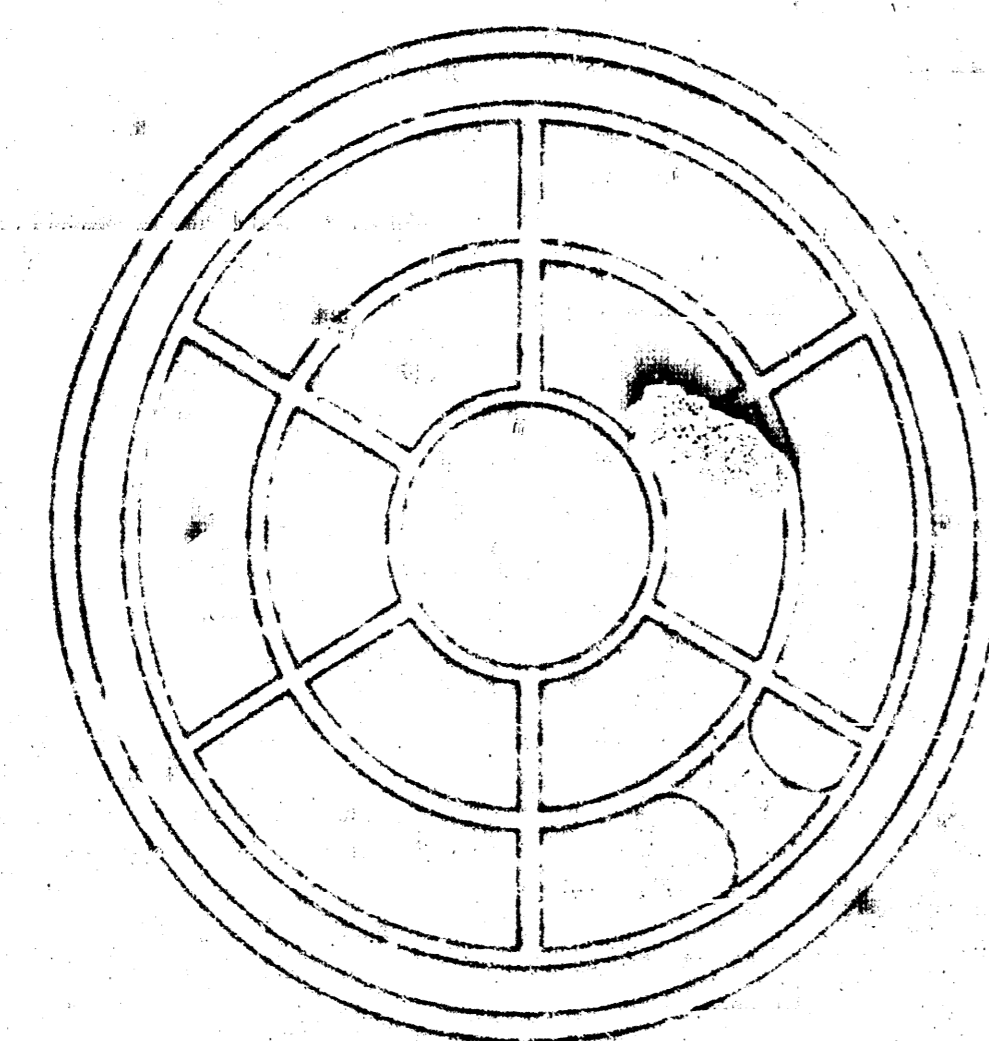
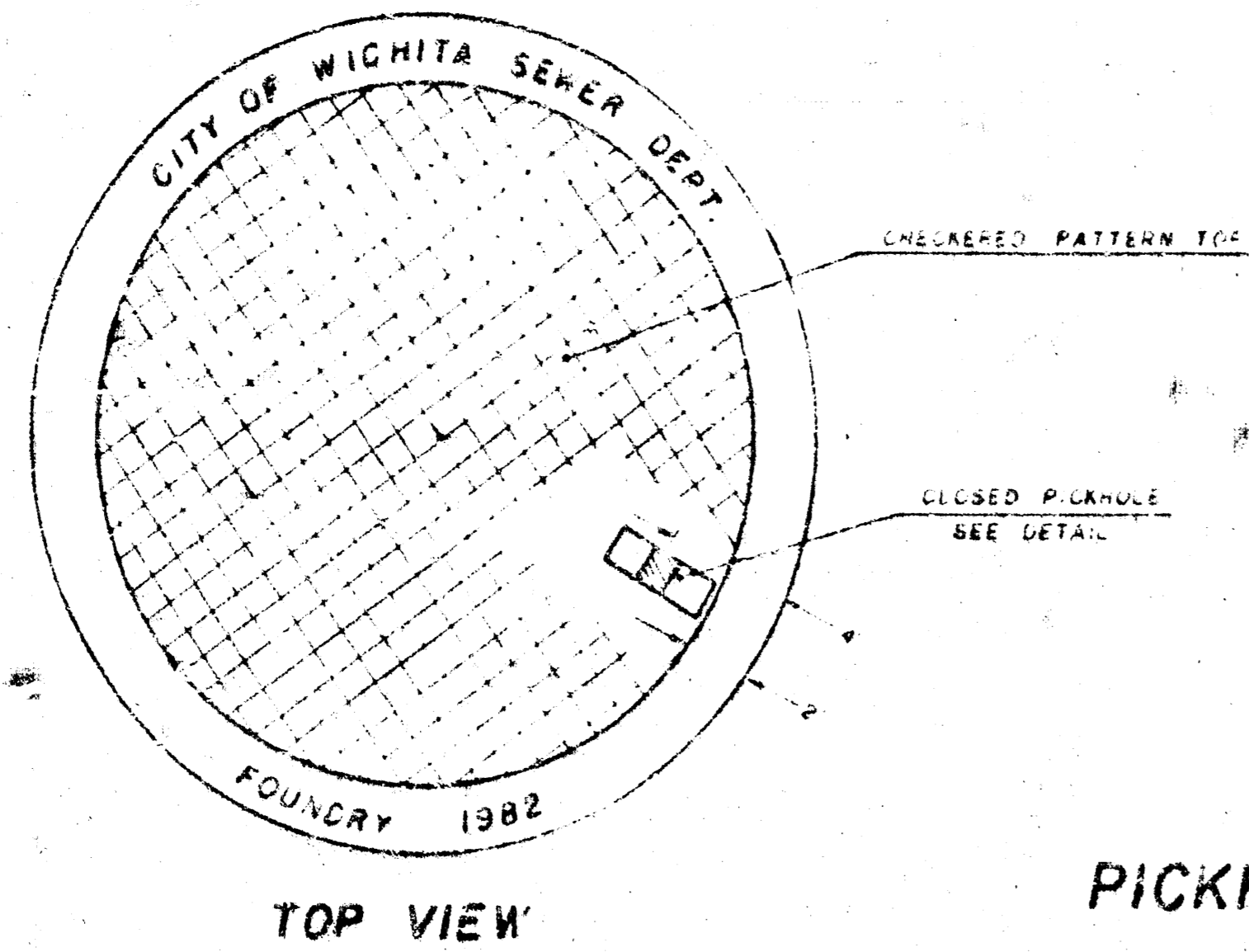
MANHOLE FRAME AND COVER DETAIL

ADOPTED AS STANDARD DESIGN

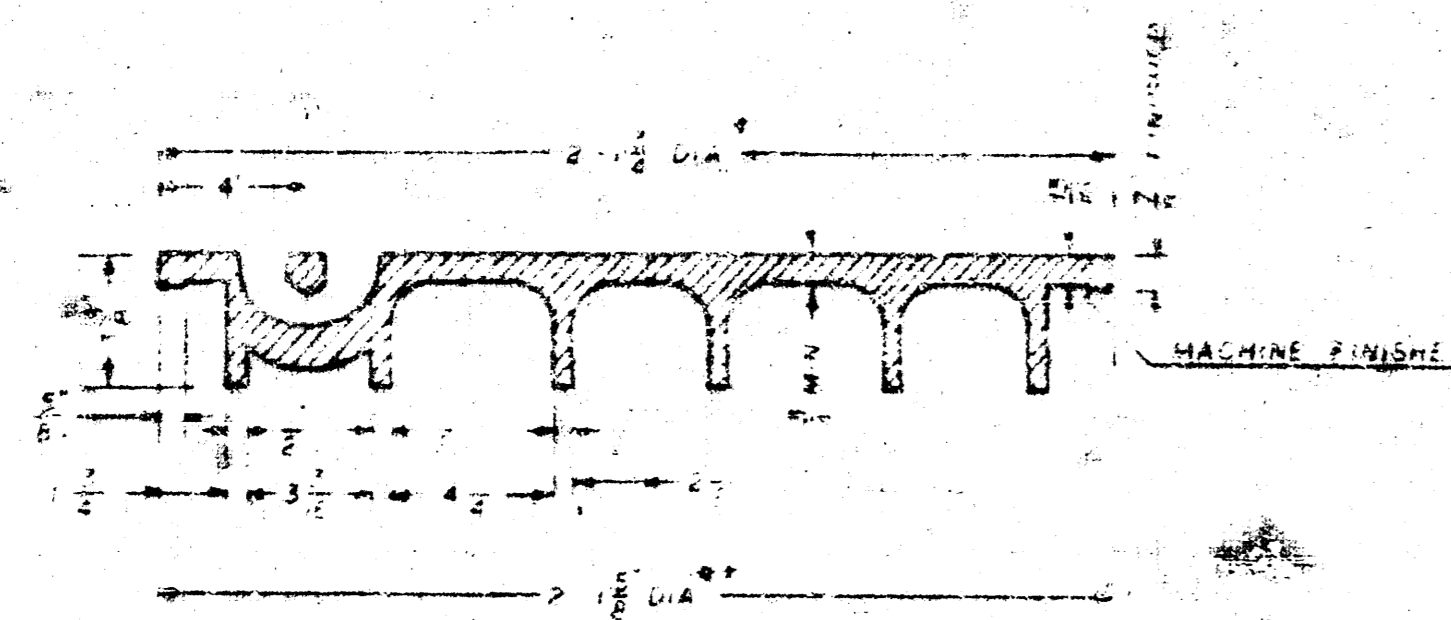
BY

City of Wichita, Kansas

MANHOLE COVER
Weight: 180 Lbs.



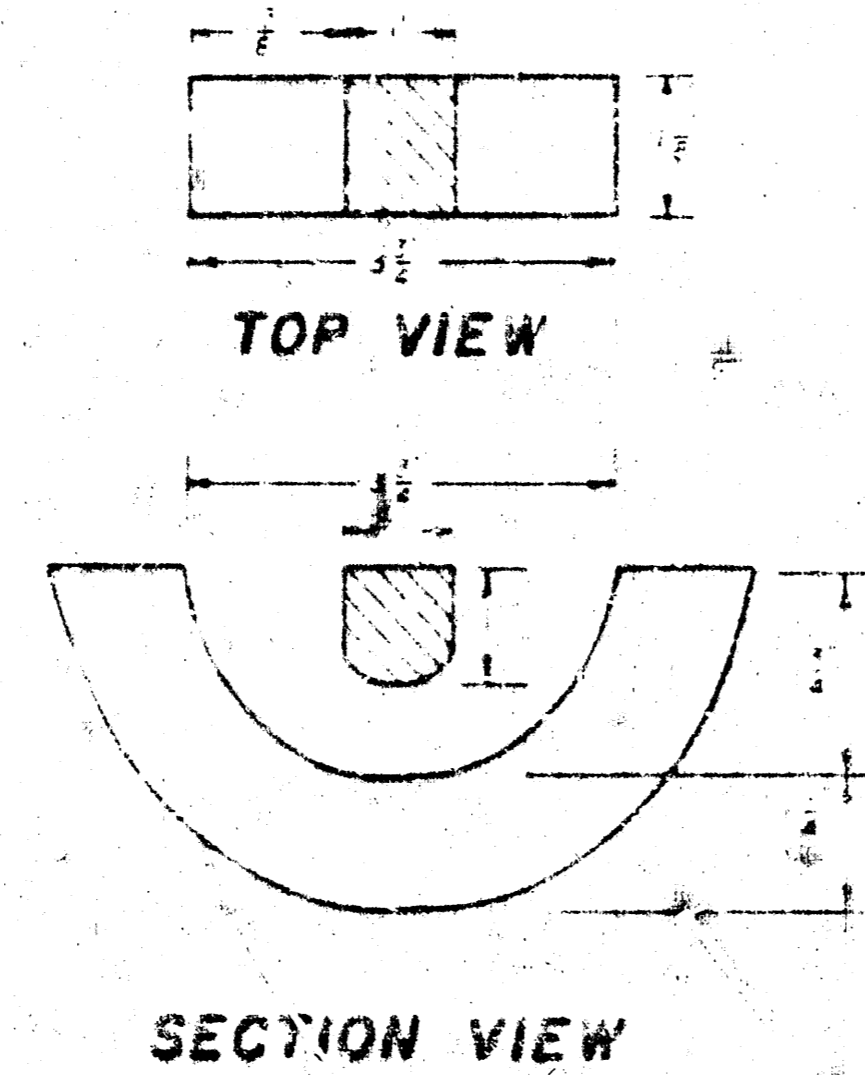
BOTTOM VIEW



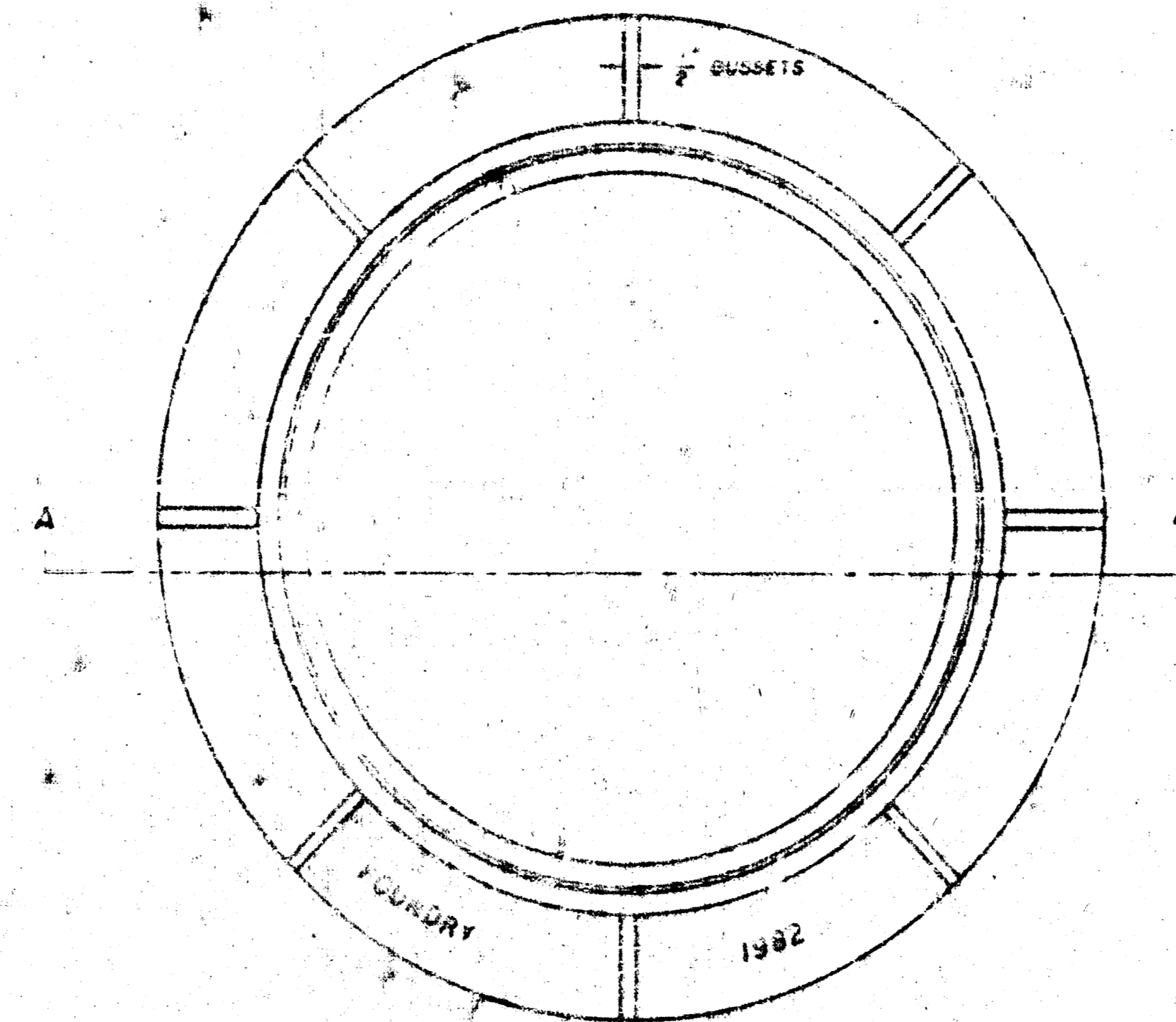
SECTION VIEW

* OUTSIDE DIA. TOP OF CO.
** OUTSIDE DIA. BOTTOM OF CO.

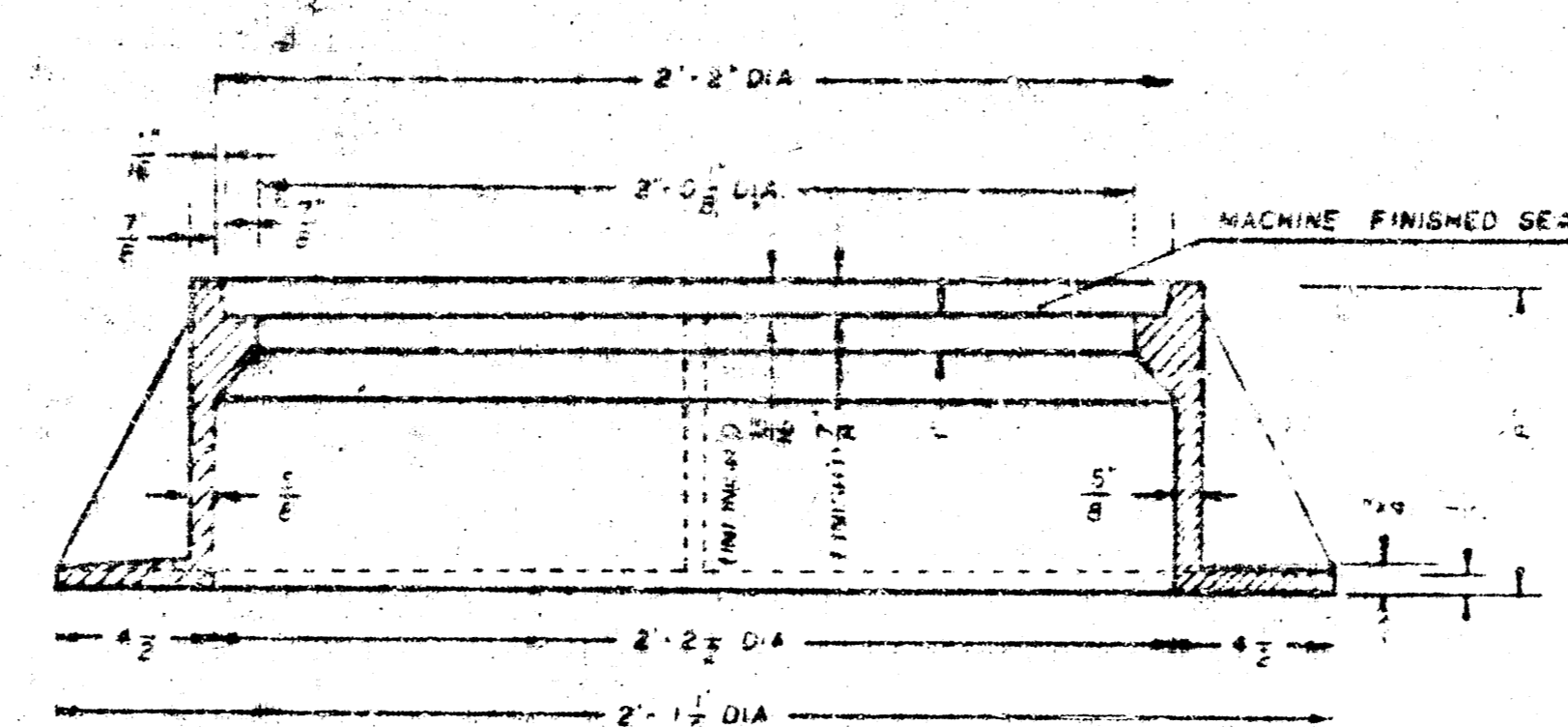
PICKHOLE DETAIL



MANHOLE FRAME
Weight: 240 Lbs.



TOP VIEW



SECTION A-A

- GENERAL NOTE
1. MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A-12. DIMENSIONS AND WEIGHTS SHOWN ON THE DETAIL DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE PREVIOUSLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BURSTLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.
 2. MANHOLE CASTINGS SHALL BE COATED WITH AN ASPHALT PAINT RESULTING IN A SMOOTH, TOUGH AND TENACIOUS COATING WHICH IS NOT BRITTLE OR TACKY.
 3. MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDRY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND STILL MEET ALLOWABLE CLEARANCE AND NON-ROCKING REQUIREMENTS. THIS WILL REQUIRE MANUFACTURING OF THE MATCHING FACES ON THE COVER AND THE FRAME TO CLOSE TOLERANCES.
 4. THE OUTSIDE CIRCUMFERENCE OF THE VERTICAL FACE OF THE COVER AND THE INSIDE CIRCUMFERENCE OF THE VERTICAL FACE IN THE FRAME RECESS SHALL BE MANUFACTURED TO TOLERANCES SUCH THAT THE CLEARANCE BETWEEN THE COVER AND FRAME WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING SURFACES BETWEEN THE COVER AND FRAME SHALL BE MACHINED SUCH THAT THESE SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUMFERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.
 5. THE MANHOLE FRAME AND COVER SHALL BE MARKED WITH LETTERING INDICATING THE NAME OF THE MANUFACTURER AND THE YEAR WHEN THE COVER OR FRAME WAS CAST. THE COVER SHALL BE FURTHER IDENTIFIED WITH REGARDS TO OWNERSHIP USING LETTERS AT LEAST 1" IN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SEWER DEPARTMENT". THE WORD DEPARTMENT MAY BE ABBREVIATED. THE TEXTING ON THE TOP SURFACE OF THE COVER SHALL BE MANUFACTURED IN A CHECKERED PATTERN DESIGN AS INDICATED ON THE DRAWINGS. SMOOTH BLOCKOUTS SHALL BE UTILIZED TO HIGHLIGHT THE LETTERING ON THE COVER SURFACE. THE TOTAL AREA OF SMOOTH SURFACE BLOCKOUT SHALL NOT EXCEED THE AREA AS INDICATED ON THE DRAWING. POSITIONING OF SMOOTH BLOCKOUTS AND LETTERING MAY VARY FROM THAT SHOWN ON THE DETAILED DRAWING.

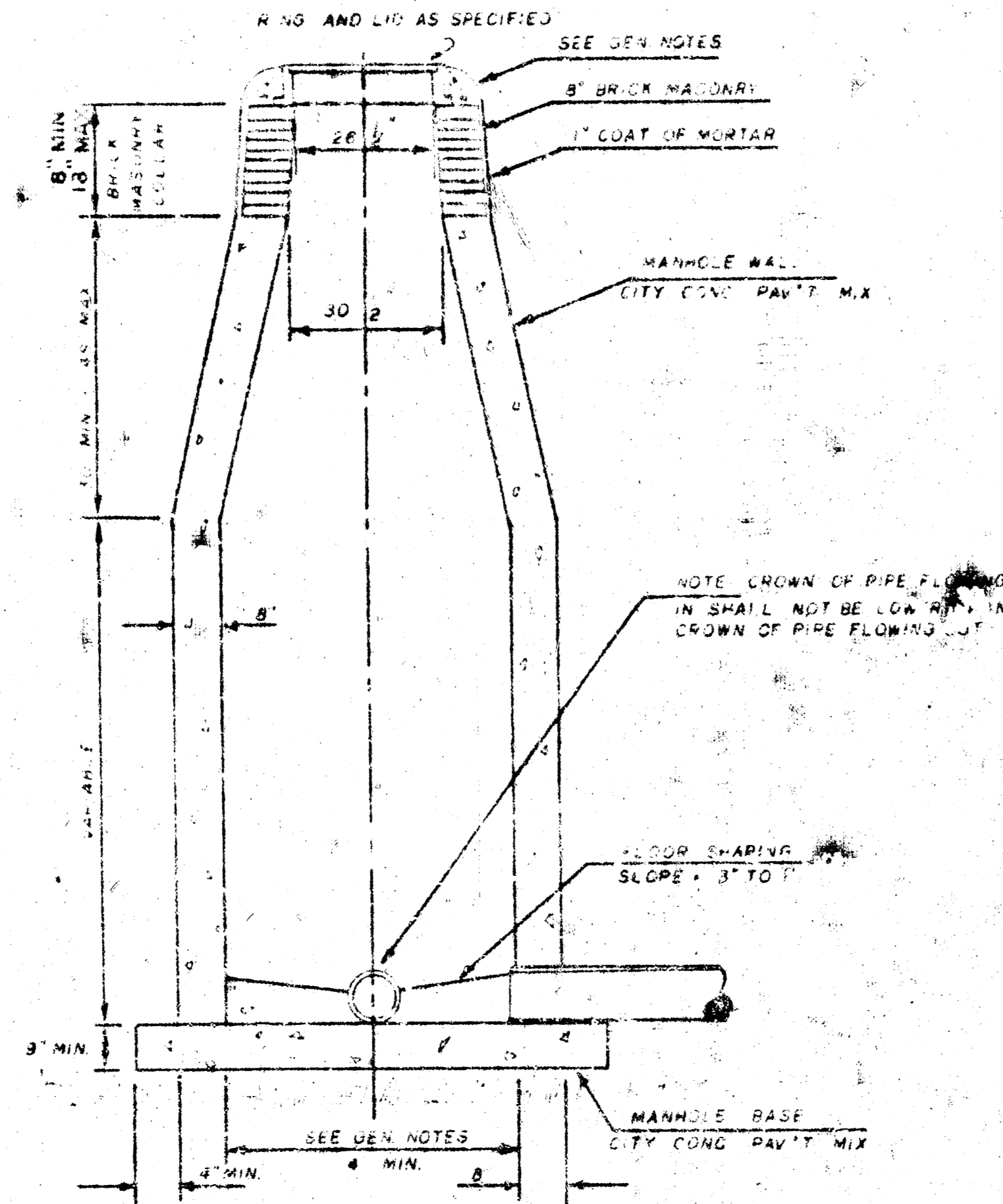
SEWER APPURTENANCES DETAILS

ADOPTED AS STANDARD DESIGN

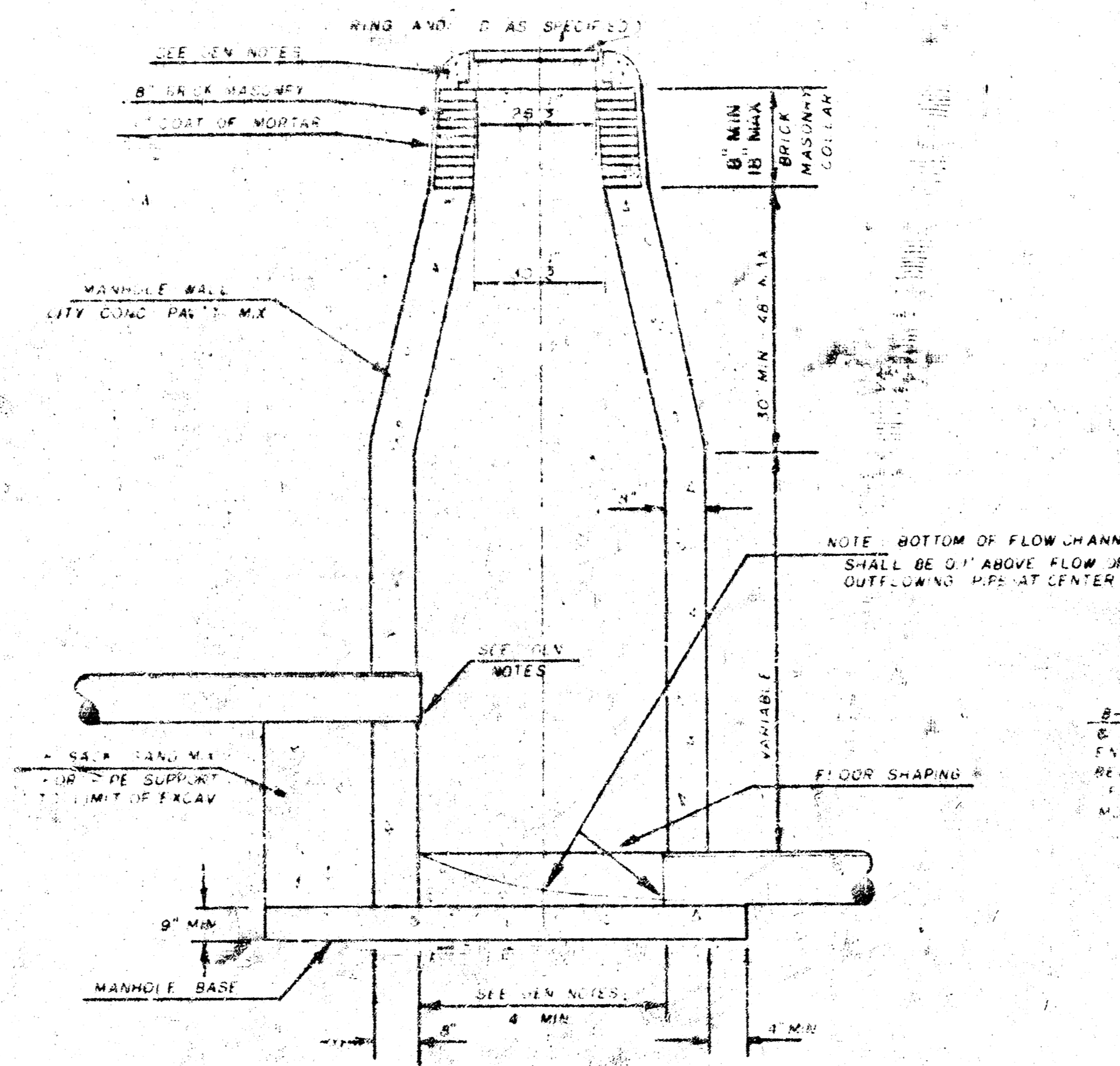
BY

City of Wichita, Kansas

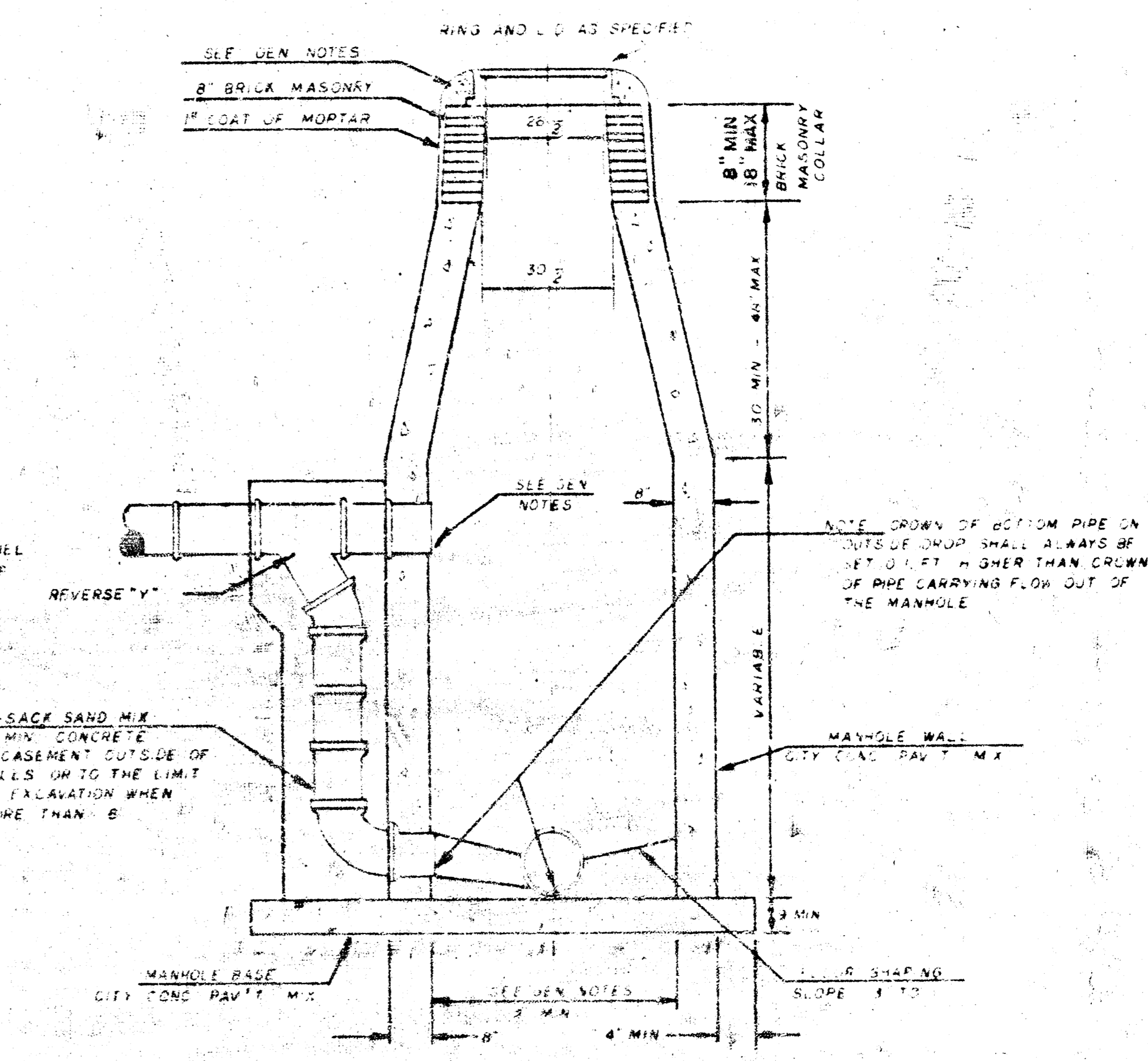
STANDARD MANHOLE TYPE "C"



INSIDE DROP MANHOLE TYPE "C"



OUTSIDE DROP MANHOLE TYPE "C"



GENERAL NOTES

- 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 CITY CONCRETE PAVEMENT MIX 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 MANHOLES SHALL BE WITHOUT LEAKS AND WATER TIGHT.
- 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.
- 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 DROTTED INTO THIS OPENING WITH NON-SHARP EDGES. THE EXTERIOR OF THIS COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROPRIATE AIRTIGHTNESS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT.
- 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 SLOPE OF 3 INCHES PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPED TOWARD THE FLOW CHANNELS. PIPES LAID THROUGH MANHOLE SHALL HAVE THE TOP HALF REMOVED TO NEAR LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL BE SHAPED AROUND THE BOTTOM HALF OF THE PIPE WHICH FORMS THE FLOW CHANNEL.
- 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 GRADLE SHALL EXTEND TO THE FIRST JOINT OUTSIDE THE MANHOLE. THE GRADLE SHALL BE TERMINATED AT THE CLAY PIPE JOINT IN A MANNER WHICH WILL MAINTAIN THE FLEXIBILITY OF THE JOINT. COST OF GRADLE WITHIN MANHOLE EXCAVATION OR TO CLAY PIPE JOINTS ADJACENT TO MANHOLE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
- 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.
- THE VERTICAL DROP IN INSIDE DROP MANHOLES SHALL NOT EXCEED 4" FOR INFLOWING PIPES SIZE 12" OR SMALLER AND 2" FOR INFLOWING PIPES LARGER THAN 12". THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.
- STANDARD MANHOLES TYPE "C" AND STANDARD INSIDE DROP MANHOLES TYPE "C" SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES TYPE "C" SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4" UNLESS INDICATED OTHERWISE.