

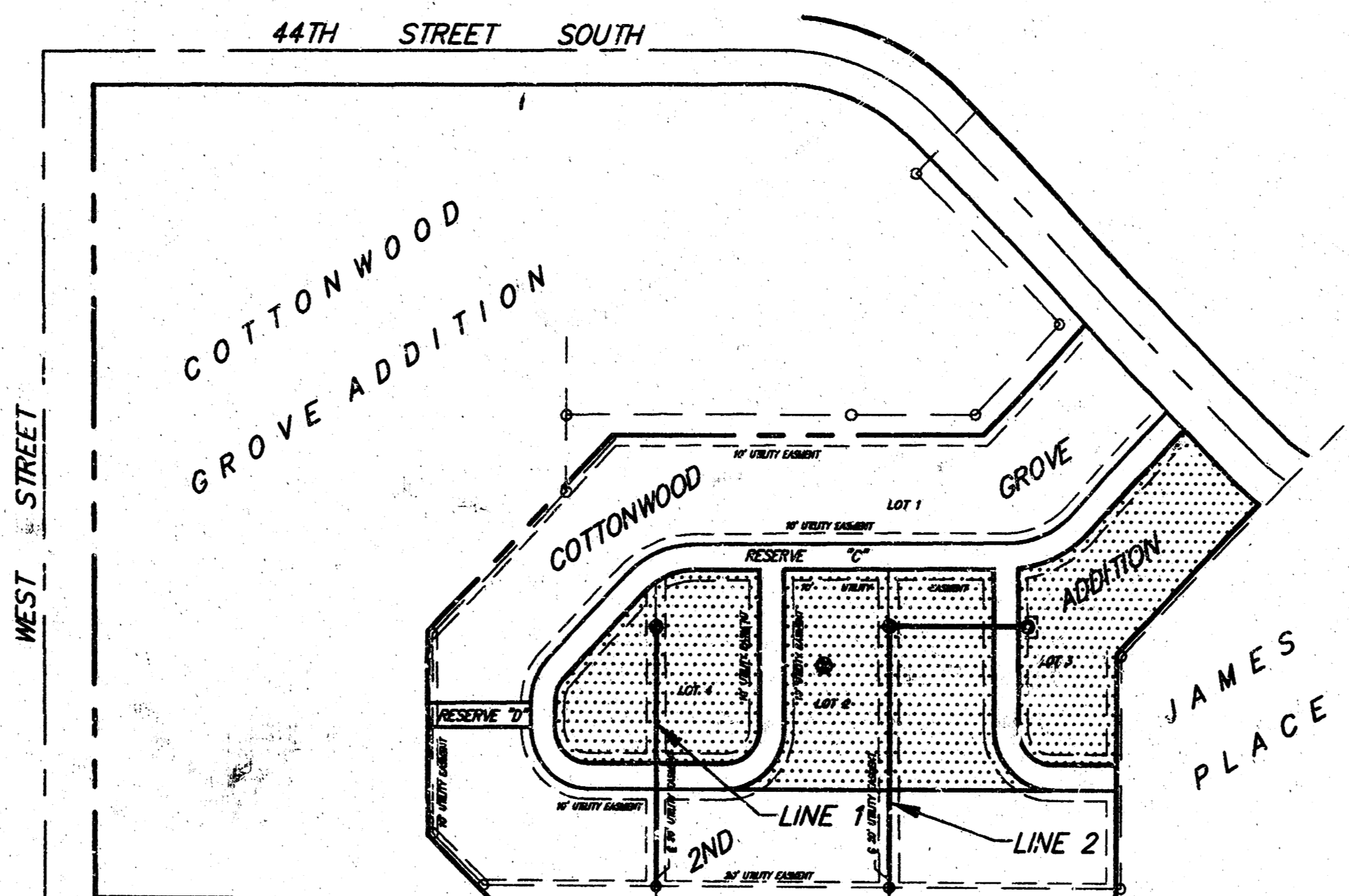
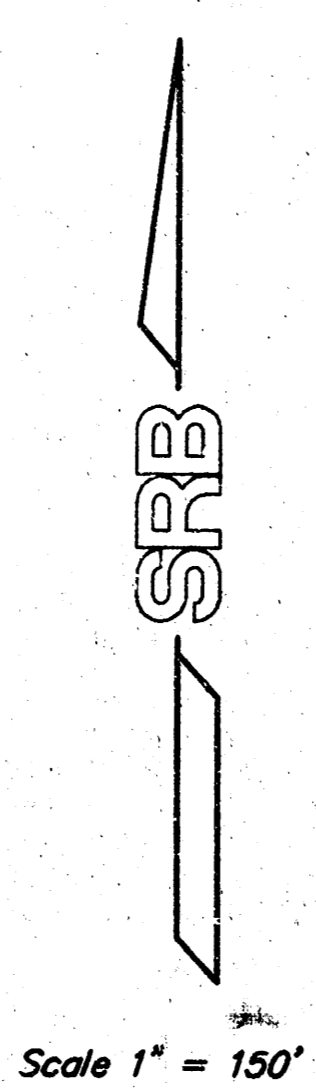
# SANITARY SEWER EXTENSION - PHASE 1

## COTTONWOOD GROVE 2ND ADDITION

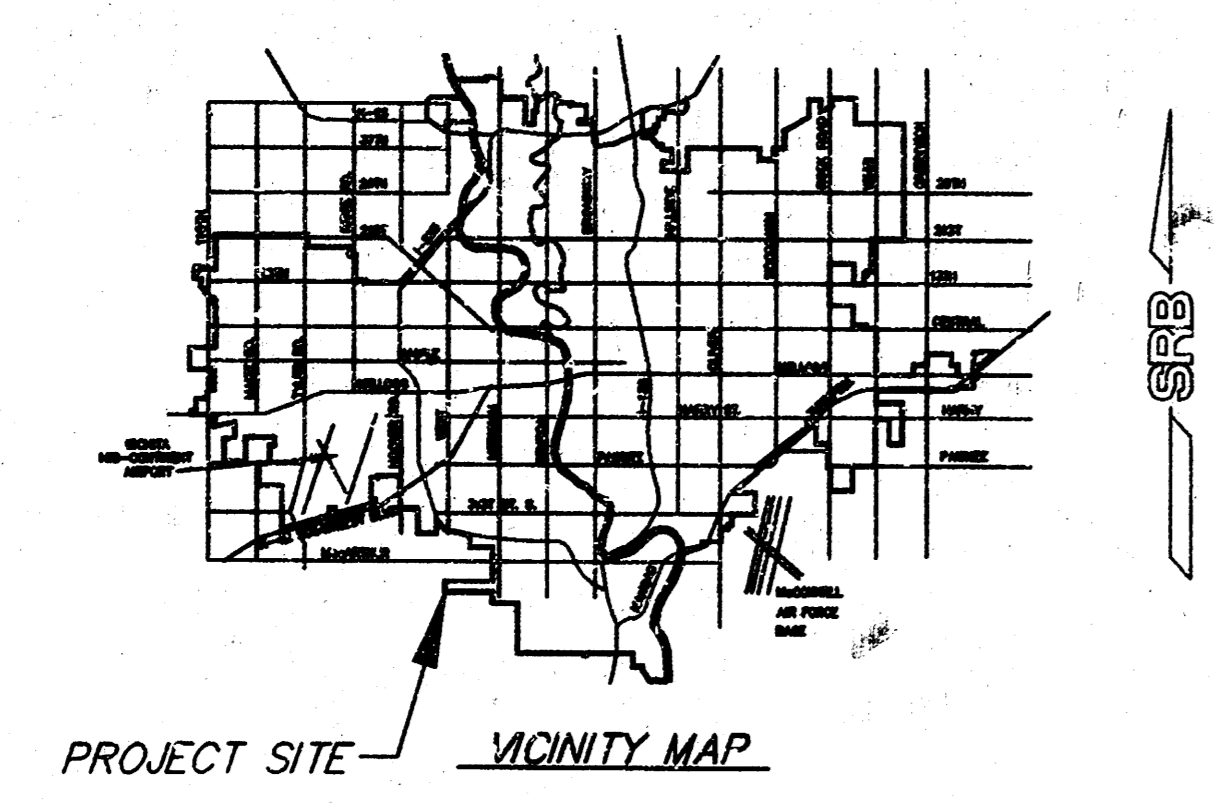
### PRIVATE PROJECT NUMBER: 635 PPS (607861)

### GENERAL NOTES

1. This project is to be constructed in accordance with City of Wichita standard specifications for construction of sanitary sewers.
2. The Contractor shall be responsible for preserving property irons. The Contractor will be required to re-establish any property irons which are damaged or destroyed by his construction operations. Such irons shall be re-established by a licensed land surveyor in accordance with state laws.
3. The Contractor shall contact Kansas One Call (687-2470) prior to construction to verify the location of all underground utility lines. A minimum of 48 hours prior to any excavation. Any cost or arrangements for the relocation of underground utility lines shall be the responsibility of the Contractor.
4. All areas disturbed by construction of this project are to be fertilized and seeded with annual rye grass @ the rate of 2 lbs. / 1000 sq.ft., or permanently seeded at Contractor's option.



SERVICE AREA



### INDEX OF SHEETS

- |    |                         |
|----|-------------------------|
| 1. | TITLE SHEET             |
| 2. | STANDARD MANHOLE DETAIL |
| 3. | PLAN AND PROFILE        |

*Booked  
4/14/97  
N-246*

### BENCH MARKS

- \*  CUT ON TOP OF S. CURB 44TH ST. S.
- \*  E. END OF CURVE ON N. SIDE OF LOT 3, BLOCK 2, COTTONWOOD GROVE ADDITION; ELEV. 95.40
- \*  CUT ON TOP OF HUBBIARD
- \*  CENTER OF E. GUARDRAIL OF ROBC. ON WEST ST. S. OF 44TH ST.; ELEV. 94.19

APPROVED AS NOTED  
BY CITY ENGINEER OF WICHITA

Sanitary Sewers VRH 8/27/96

Storm Sewers \_\_\_\_\_

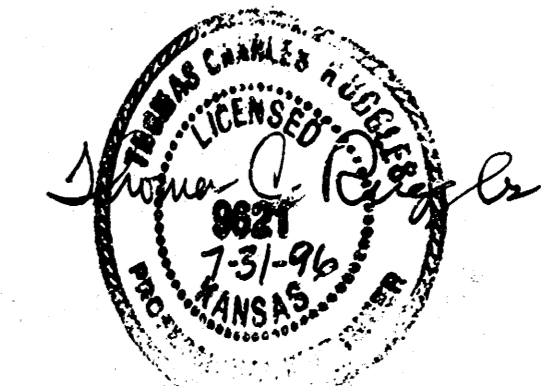
Driveway Approaches \_\_\_\_\_

Water Mains \_\_\_\_\_

Paving \_\_\_\_\_

NOTE TO CONTRACTORS

Inspection and testing for this project are to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said inspection to be in accordance with the City of Wichita standard construction engineering practices and certified by a Licensed Professional Engineer. No work shall be performed in dedicated easements or public right-of-way by the Contractor without such inspection, nor shall any work be commenced without written authorization by the City Engineer.



**CITY OF WICHITA, KANSAS**  
**MICHAEL E. LINDEBAK - CITY ENGINEER**

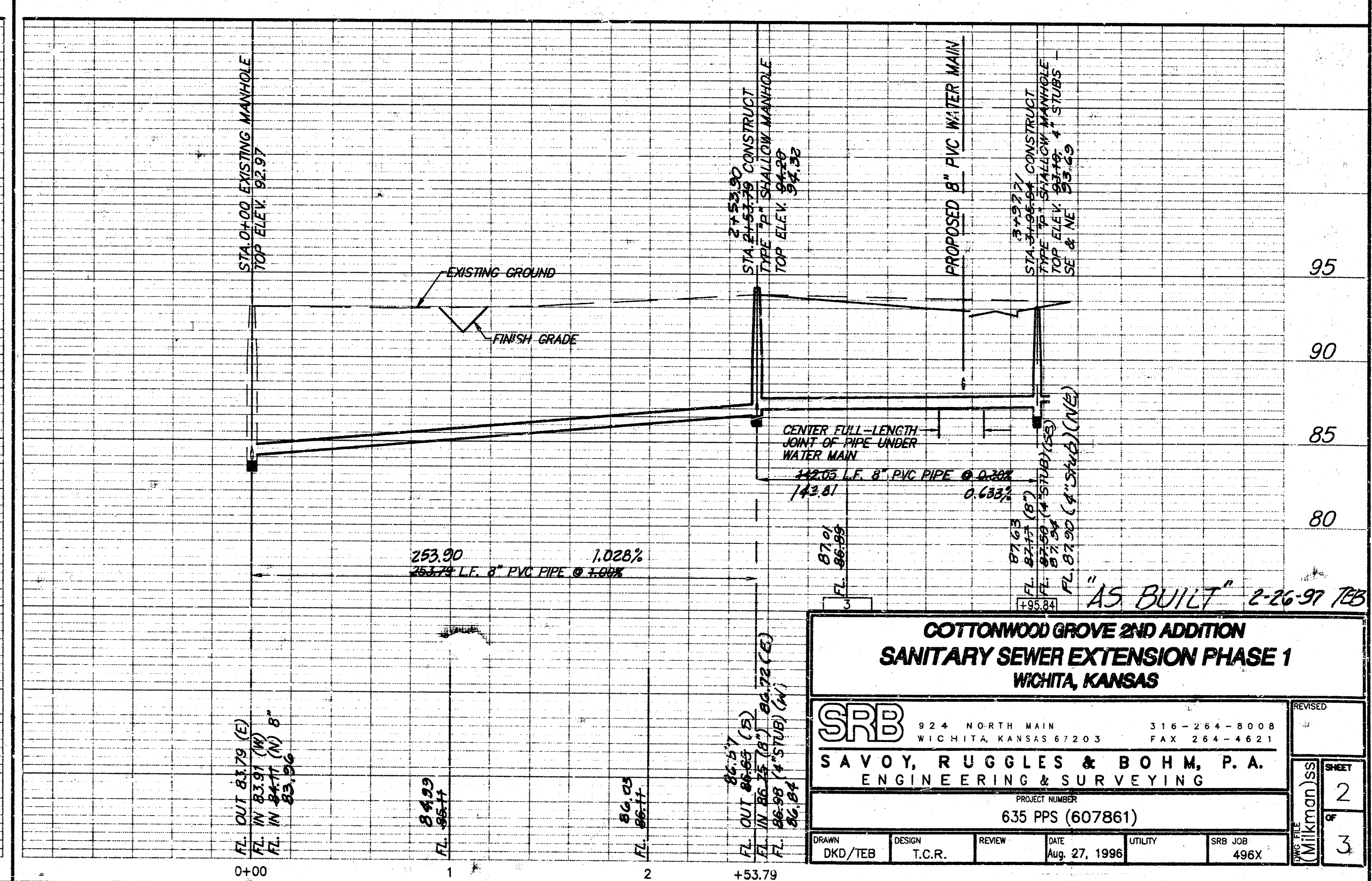
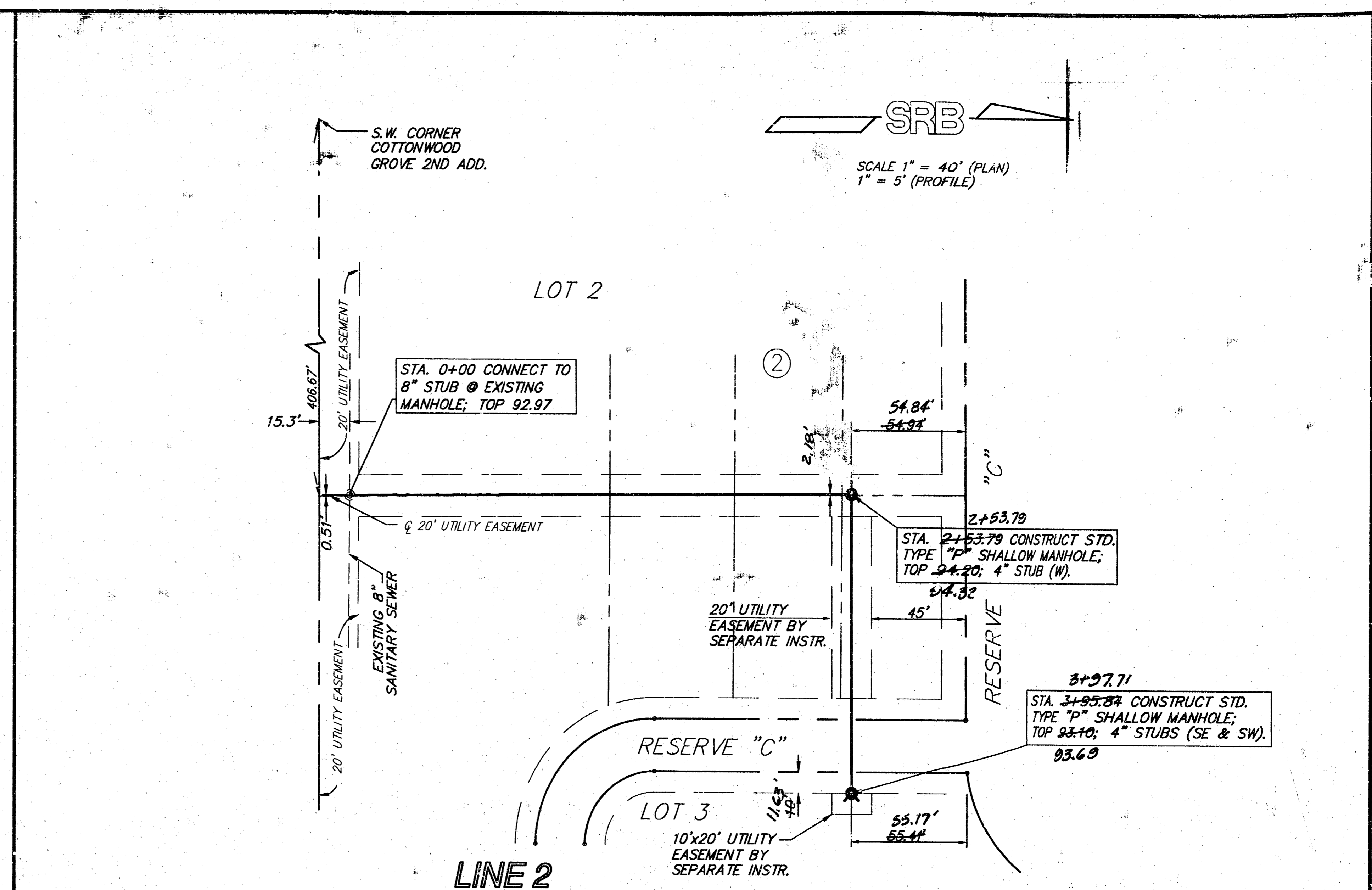
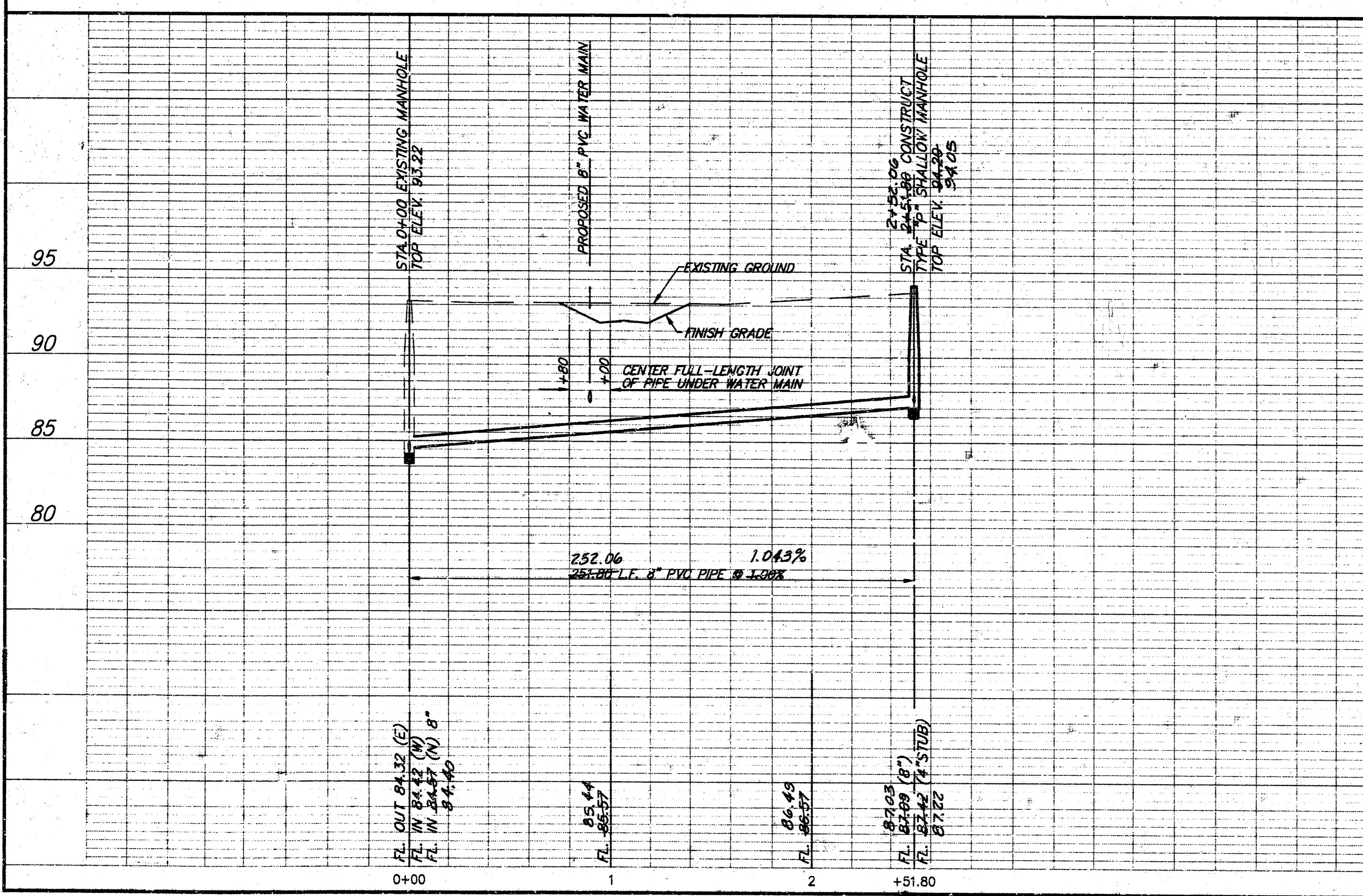
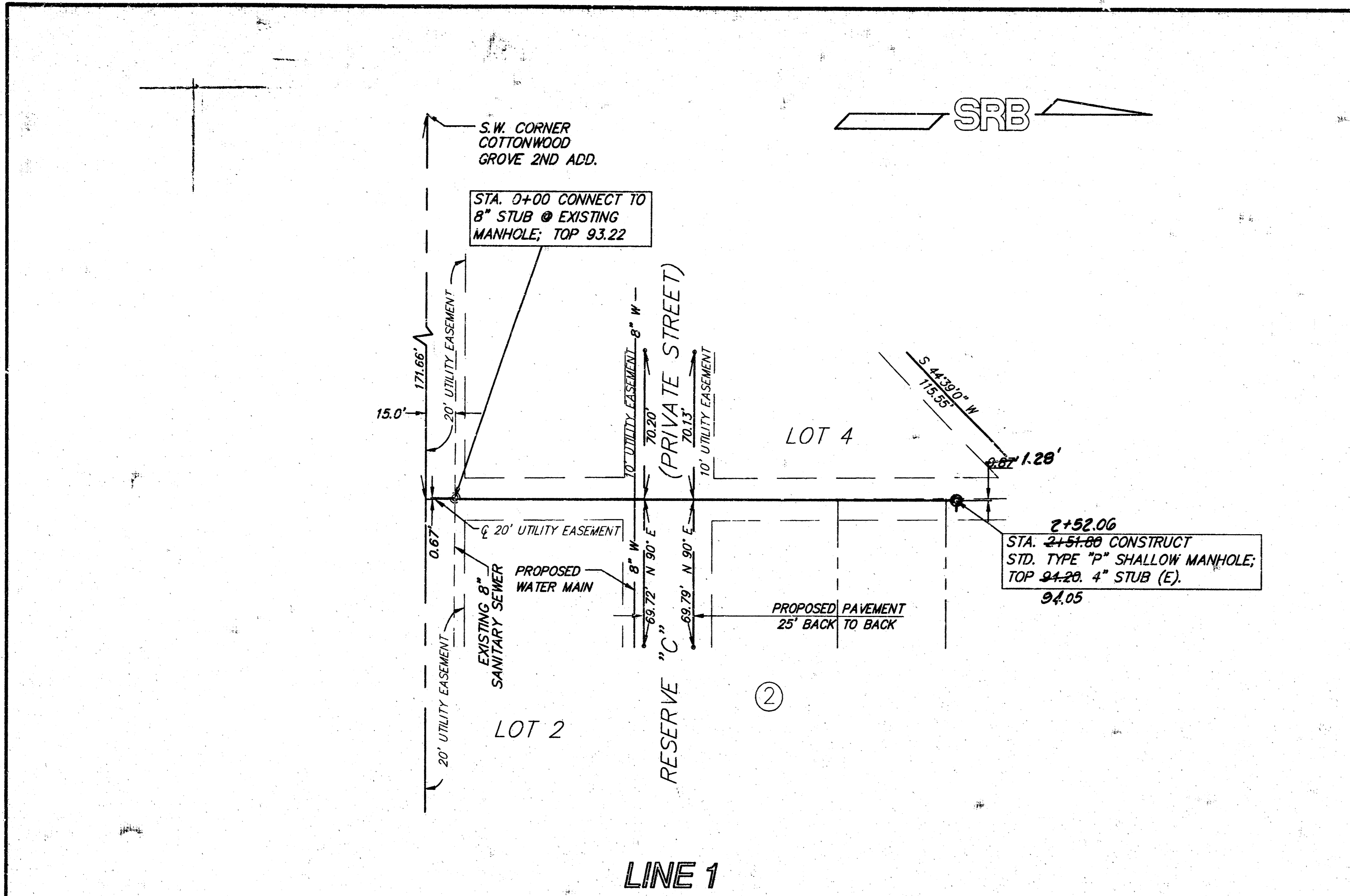
REVISED AC BUILT 2/26/97 JCR

**SRB** 324 NORTH MAIN 318-264-8008  
WICHITA, KANSAS 67203 FAX 264-4921

**SAVOY, RUGGLES & BOHM, P.A.**  
ENGINEERING & SURVEYING

F:\Active Projects\Non Revenue\65X Cottonwood Grove 2nd SS\asscover

F:\ACTIVE PROJECTS\10M BROOKS\48X Cottonwood Grove 2nd SSI\135 Tue Aug 27 14:25:41 1996 TEB



**COTTONWOOD GROVE 2ND ADDITION  
SANITARY SEWER EXTENSION PHASE 1  
WICHITA, KANSAS**

**SRB** 924 NORTH MAIN WICHITA, KANSAS 67203 316-264-8008 FAX 264-4621

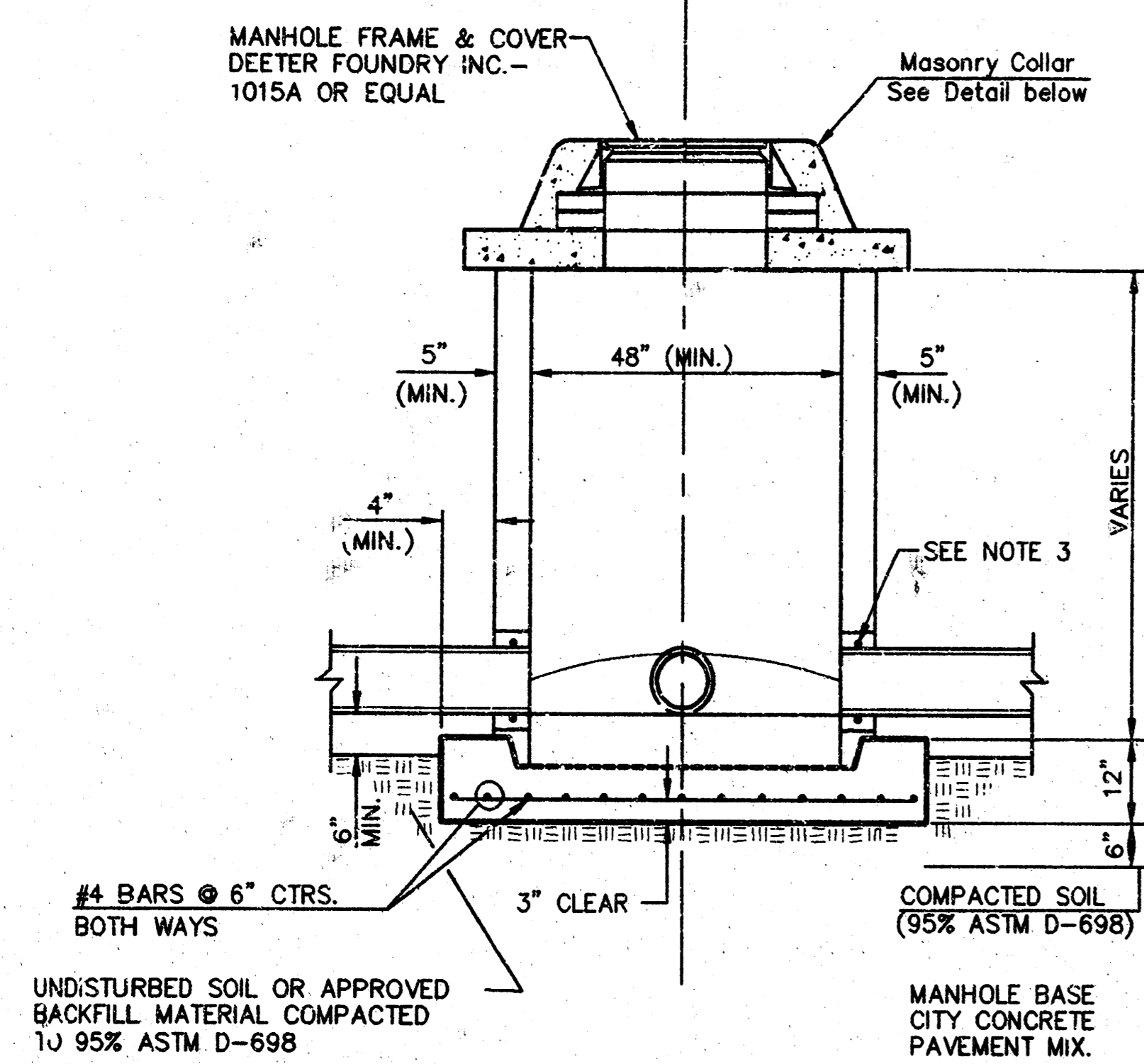
**SAVOY, RUGGLES & BOHM, P.A.**  
ENGINEERING & SURVEYING

PROJECT NUMBER  
635 PPS (607861)

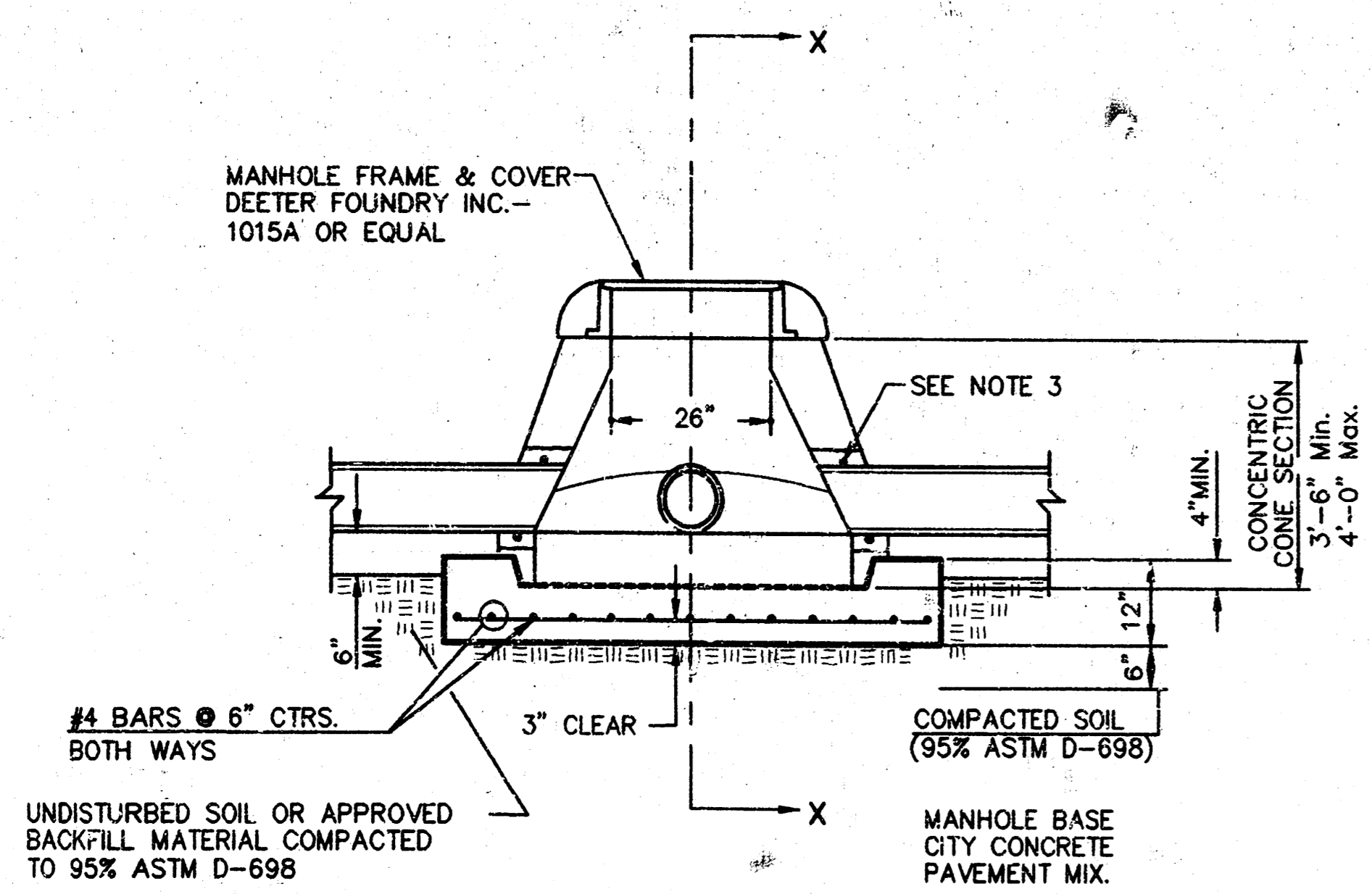
DRAWN DKD/TEB	DESIGN T.C.R.	REVIEW	DATE Aug. 27, 1996	UTILITY	SRB JOB 496X
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REVISIONS

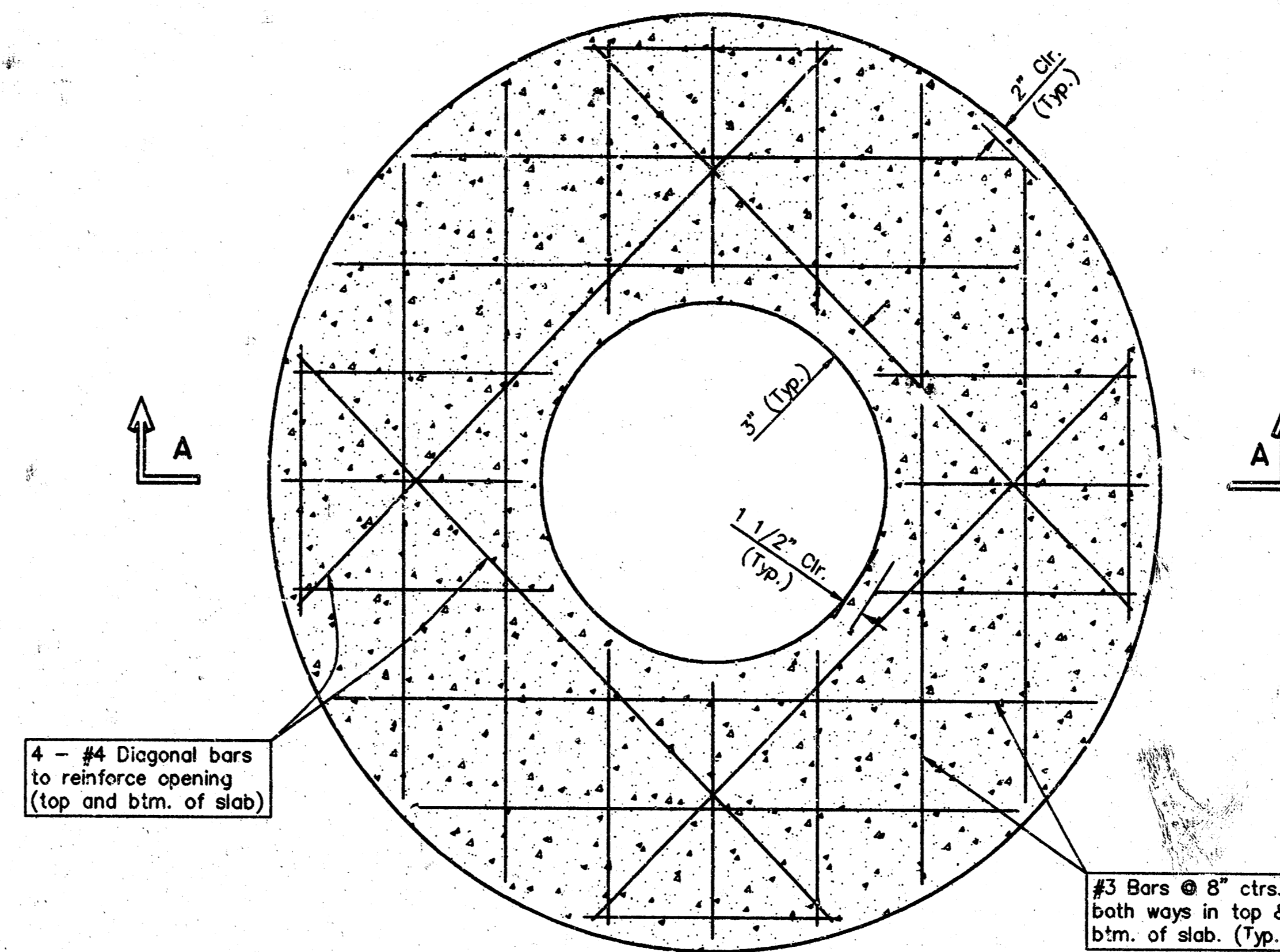
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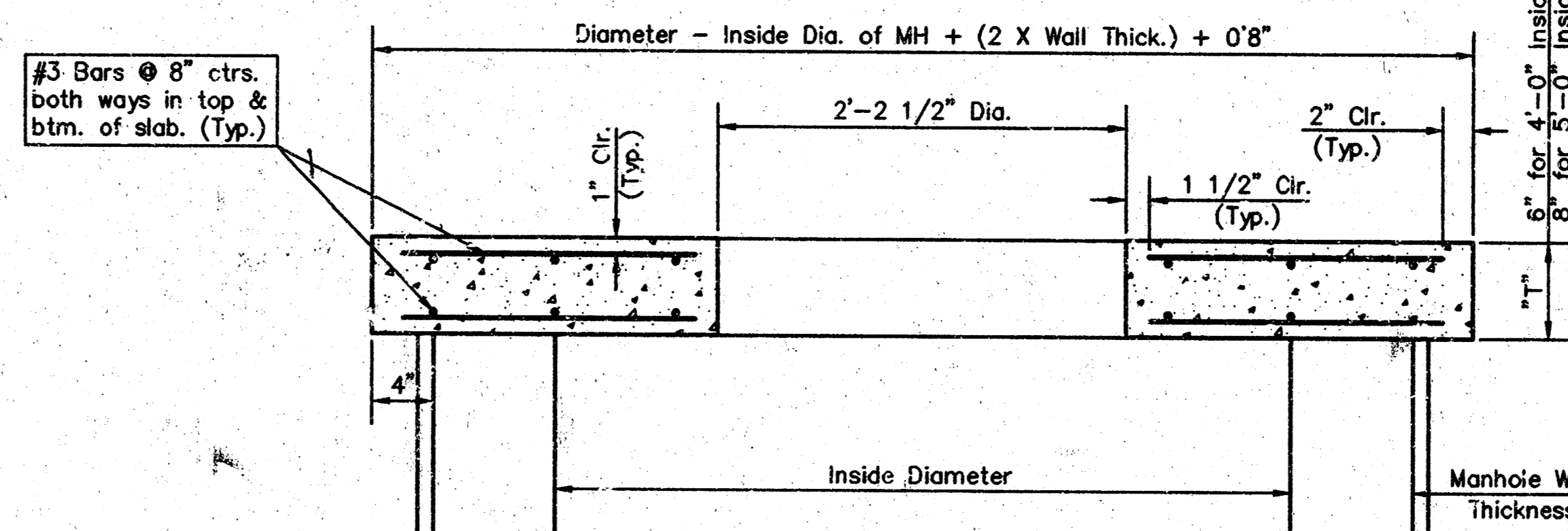
**SHALLOW TYPE "P" MANHOLE**



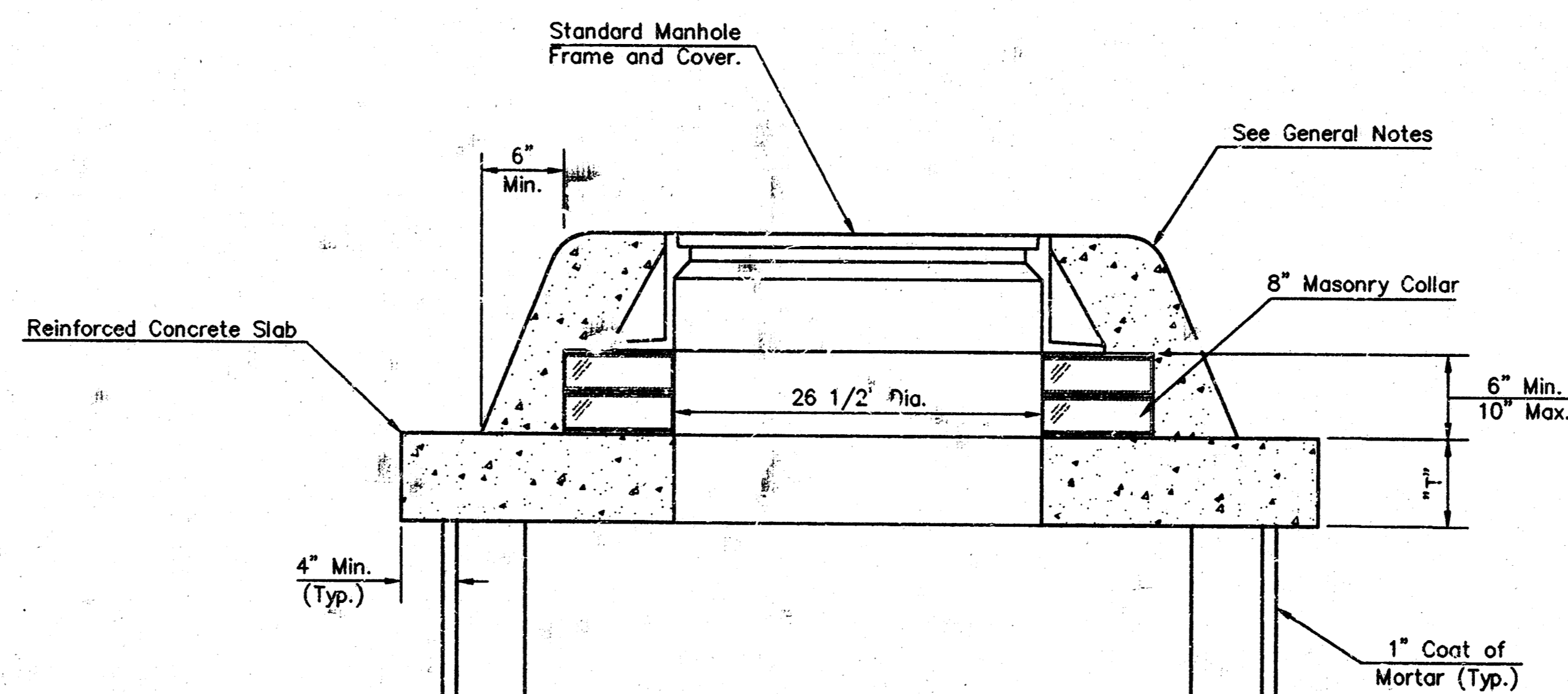
**SPECIAL SHALLOW TYPE "P" MANHOLE**



**PLAN**



**SECTION A-A  
CONCRETE SLAB DETAILS**



**MASONRY COLLAR DETAIL**

**GENERAL NOTES**

1. ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISIONS OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
2. NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
3. APPROVED FLEXIBLE WATERSTOP GASKETS SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL WHEN A.J.S. COMPOSITE PIPE OR P.V.C. PIPE IS USED. FOR OTHER TYPES OF PIPE THE SEWER SHALL BE GROUTED IN PLACE WITH NON-SHRINK GROUT. THE SEWER PIPE SHALL BE SUPPORTED WITH CONCRETE ENCASEMENT A MINIMUM OF 3 FEET FROM THE MANHOLE WALL AND TO THE FIRST JOINT FOR V.C.P. SUCH THAT THE JOINT REMAINS FLEXIBLE.
4. ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED WITH 2 COATS INMEC SERIES 66 HI-BUILD EPOXYLINE, DRY THICKNESS OF 8 MILS (MIN.)
5. EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MOBILARMA 633 BITUMINOUS COATING.
6. JOINT SEALING COMPOUND SHALL BE KENT SEAL NO. 2 OR APPROVED EQUAL.
7. PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE.
8. TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
9. LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.
10. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE 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. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE SMALLER THAN 24" SHALL HAVE AN INSIDE DIAMETER OF 4". MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE 24" OR LARGER SHALL HAVE AN INSIDE DIAMETER OF 5". COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.
11. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED AT LEAST 3" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
12. 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.
13. 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.
14. 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.
15. ALL BRICK USED IN MANHOLE CONSTRUCTION SHALL MEET GRADE SW OF ASTM C652 OR C62-87.

F:\Active Projects\04n Devore\496X (Gottwood Grove 2nd SS)\sh.mh.d

SHALLOW TYPE "P" MANHOLE DETAILS					
		924 NORTH MAIN WICHITA, KANSAS 67203		316-264-8008 FAX 264-4621	
<b>SAVOY, RUGGLES &amp; BOHM, P. A.</b> ENGINEERING & SURVEYING					
PROJECT NUMBER 635 PPS (607861)					
DRAWN DKD	DESIGN	REVIEW	DATE 7-1-96	UTILITY	SRB JOB 496X
<b>19-9-15</b>					

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