

SANITARY SEWER EXTENSION - PHASE 2

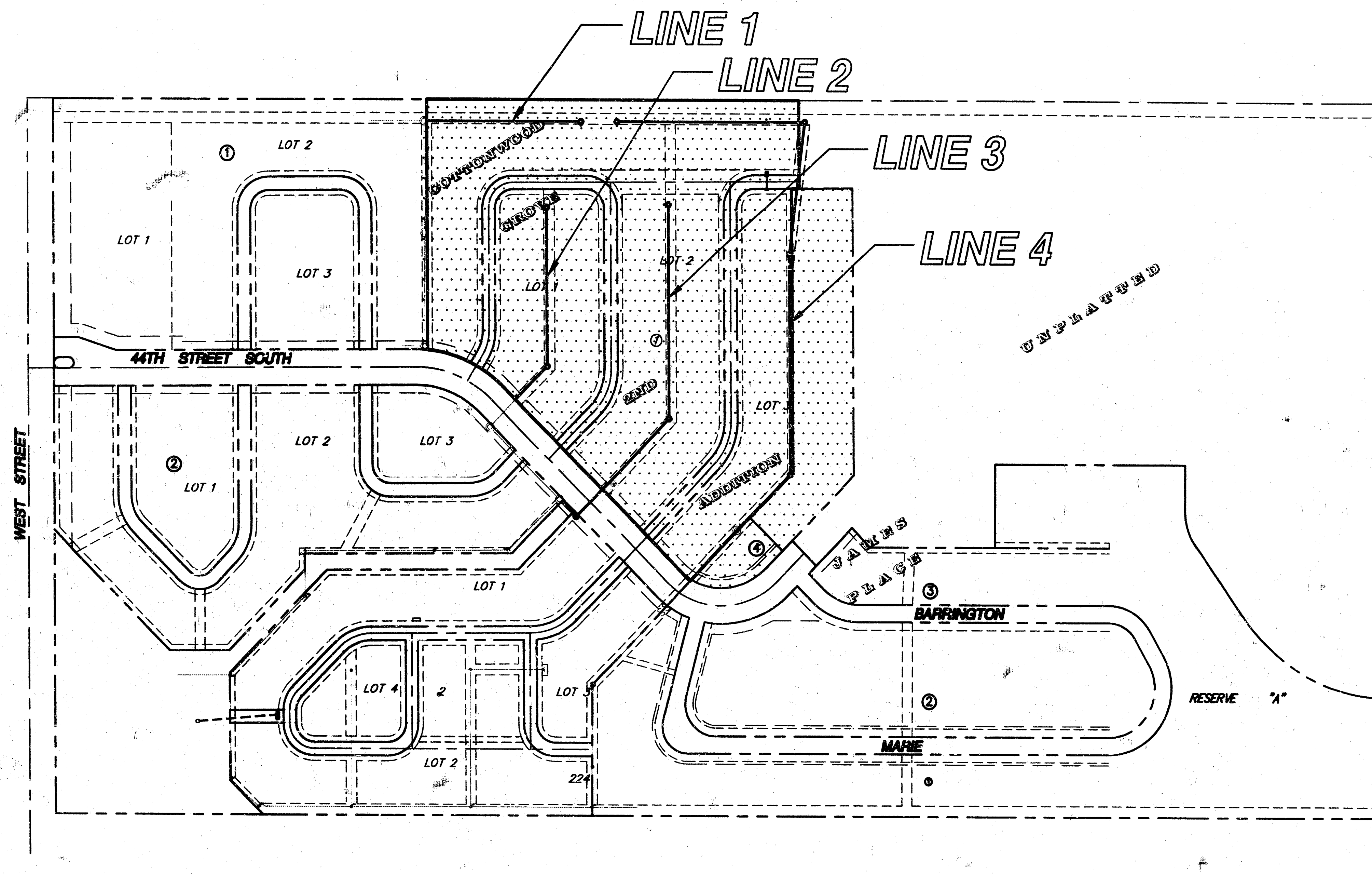
COTTONWOOD GROVE 2ND ADDITION

PRIVATE PROJECT NUMBER: 697 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.
5. Not more than one lane of traffic may be closed on 44th Street south at any time during construction.

SRB



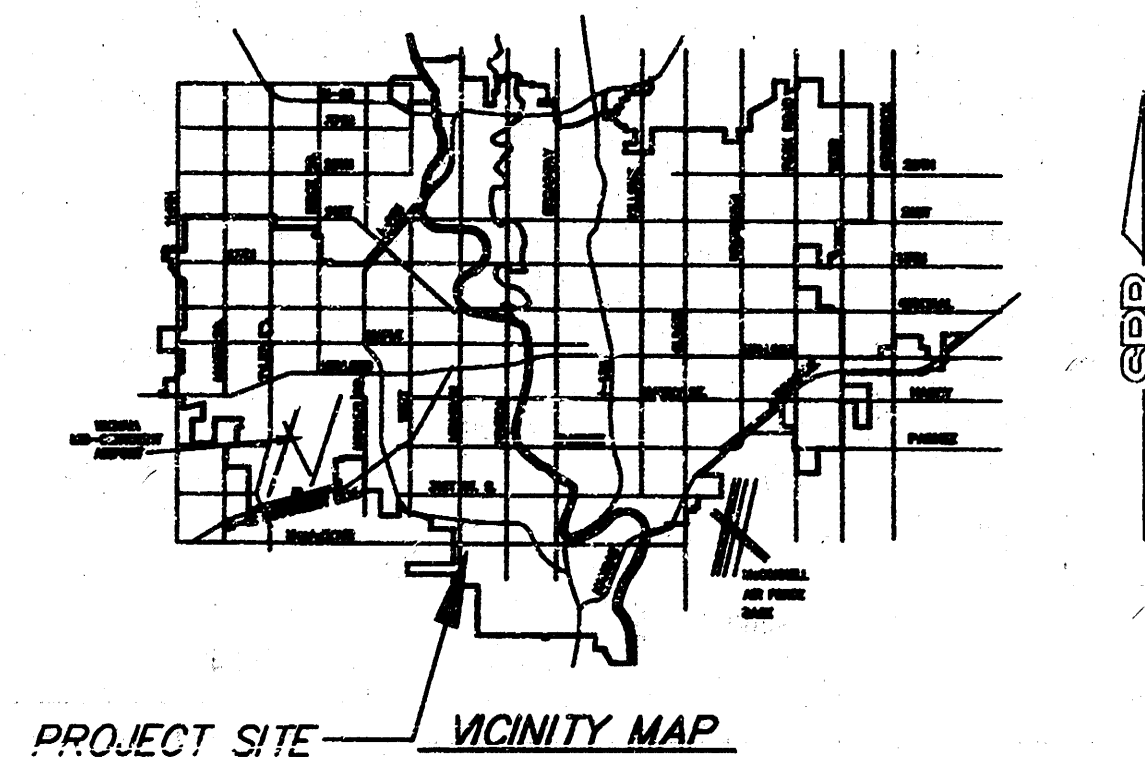
INDEX OF SHEETS

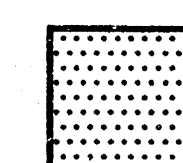
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|-------|--------------------------|
| 1. | TITLE SHEET |
| 2.-5. | PLAN AND PROFILE SHEETS |
| 6. | TYPE "P" MANHOLE DETAILS |

Booked
9/25/97
N-273
RDL

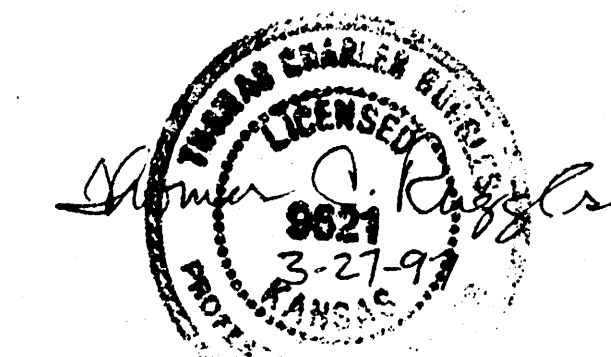
BENCH MARKS

- * 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 HUBGUARD
- * CENTER OF E. GUARDRAIL OF RCBC ON WEST ST. S. OF 44TH ST.; ELEV. 94.19



 SERVICE AREA

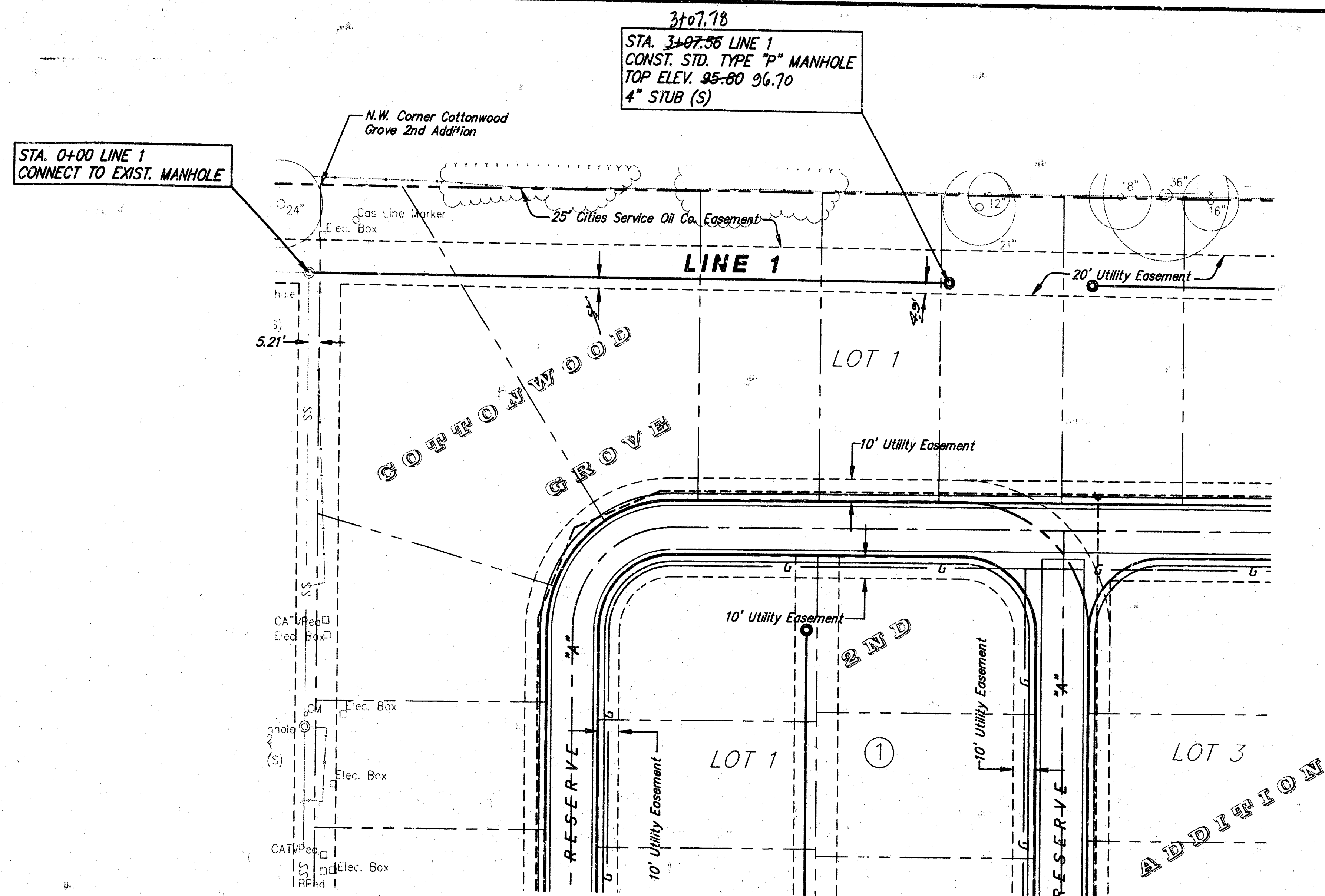
APPROVED AS NOTED BY CITY ENGINEER OF WICHITA	
Sanitary Sewers	VRH 4/11/97
Storm Sewers	
Driveway Approaches	
Water Mains	
Paving	
NOTE TO CONTRACTORS	
Inspection and testing for this project are to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said inspection 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.	



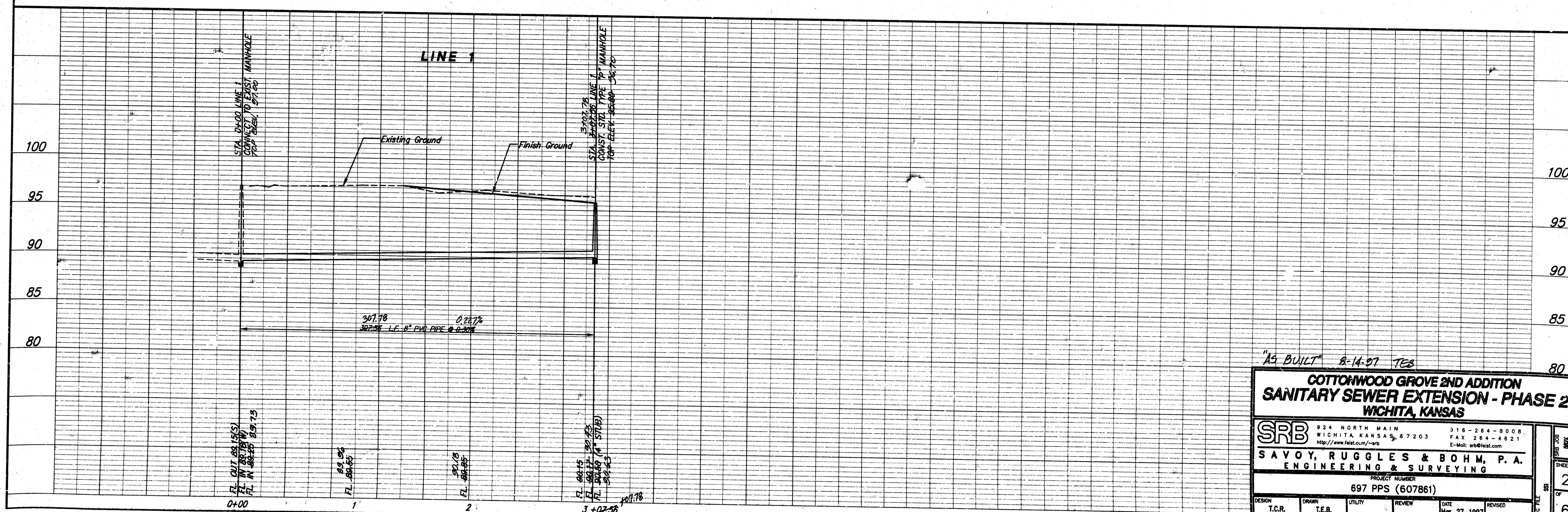
CITY OF WICHITA, KANSAS
MICHAEL E. LINDEBAK - CITY ENGINEER

"45 BUILT" 8-14-97 TCB
SRB 924 NORTH MAIN WICHITA, KANSAS 67203 316-264-8008 FAX 264-4621
SAVOY, RUGGLES & BOHM, P.A.
ENGINEERING & SURVEYING

F:\Active Projects\Tom Brooks\686a Cottonwood Grove 2nd - Phase 2\SS1 Thu Mar 27 10:56:00 1997 TEB



Scale: PLAN
1" = 40'
PROFILE
1" = 40' Horiz.
1" = 5' Vert.



"AS BUILT" 8-14-97 TEB

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

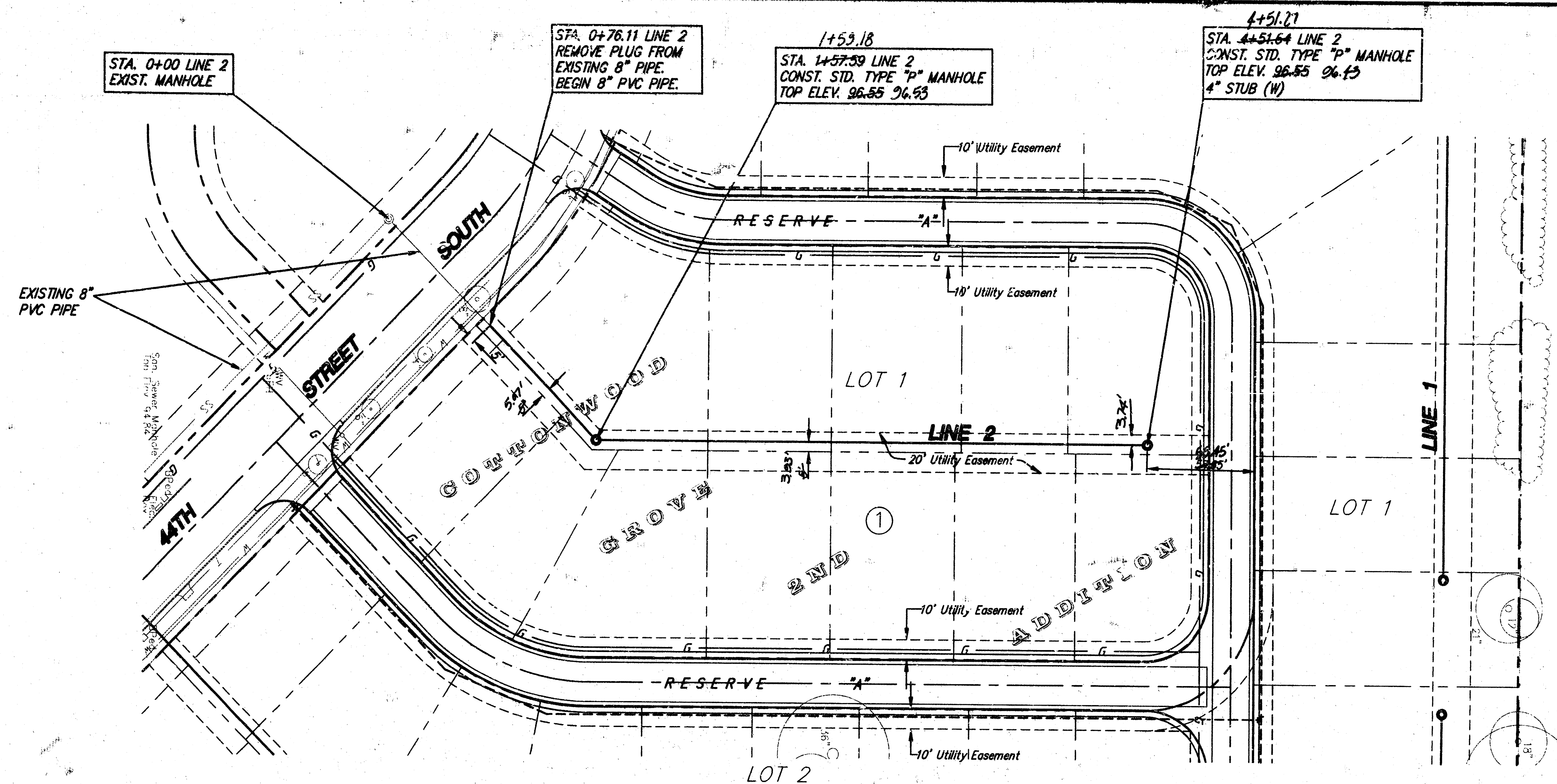
SRB 924 NORTH MAIN WICHITA, KANSAS 67203 316-264-8008 FAX: 316-264-4621
http://www.felst.com/~srb E-Mail: srbs@felst.com

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

PROJECT NUMBER
697 PPS (607861)

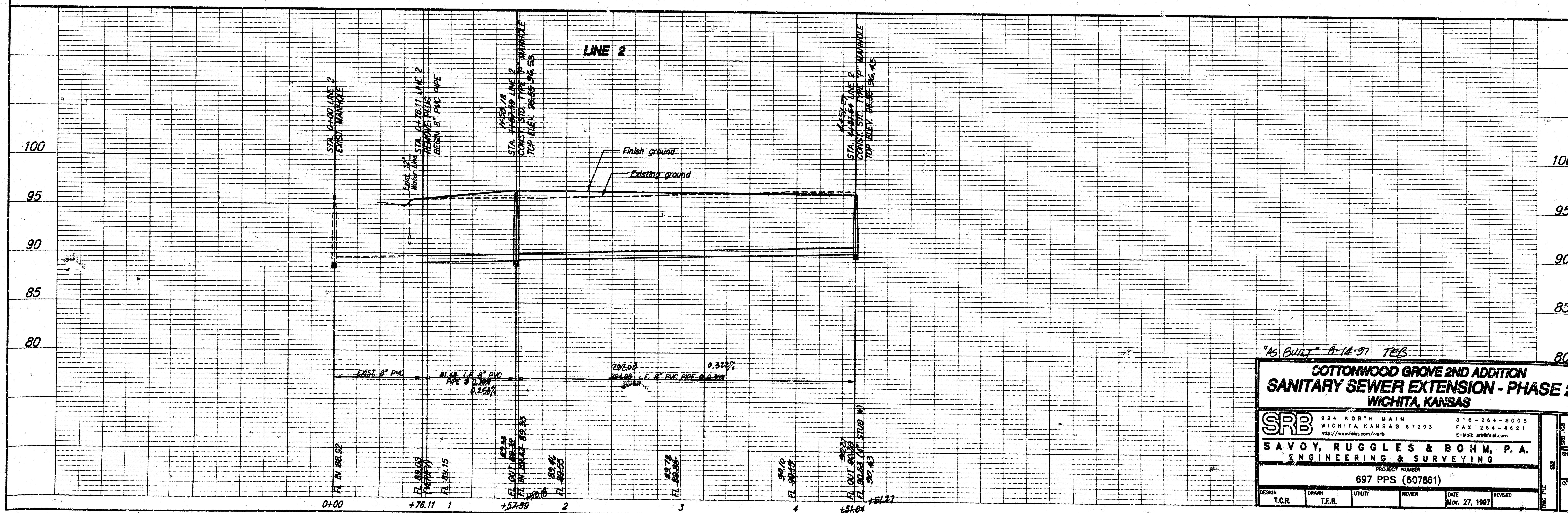
DESIGN	DRAWN	UTILITY	REVIEW	DATE	REVISED
T.C.R.	T.E.B.			Mar. 27, 1997	

SHEET 2 OF 6



SRB

Scale: PLAN
1" = 40'
PROFILE
1" = 40' Horiz.
1" = 5' Vert.



"As Built" 8-18-97 TEB

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

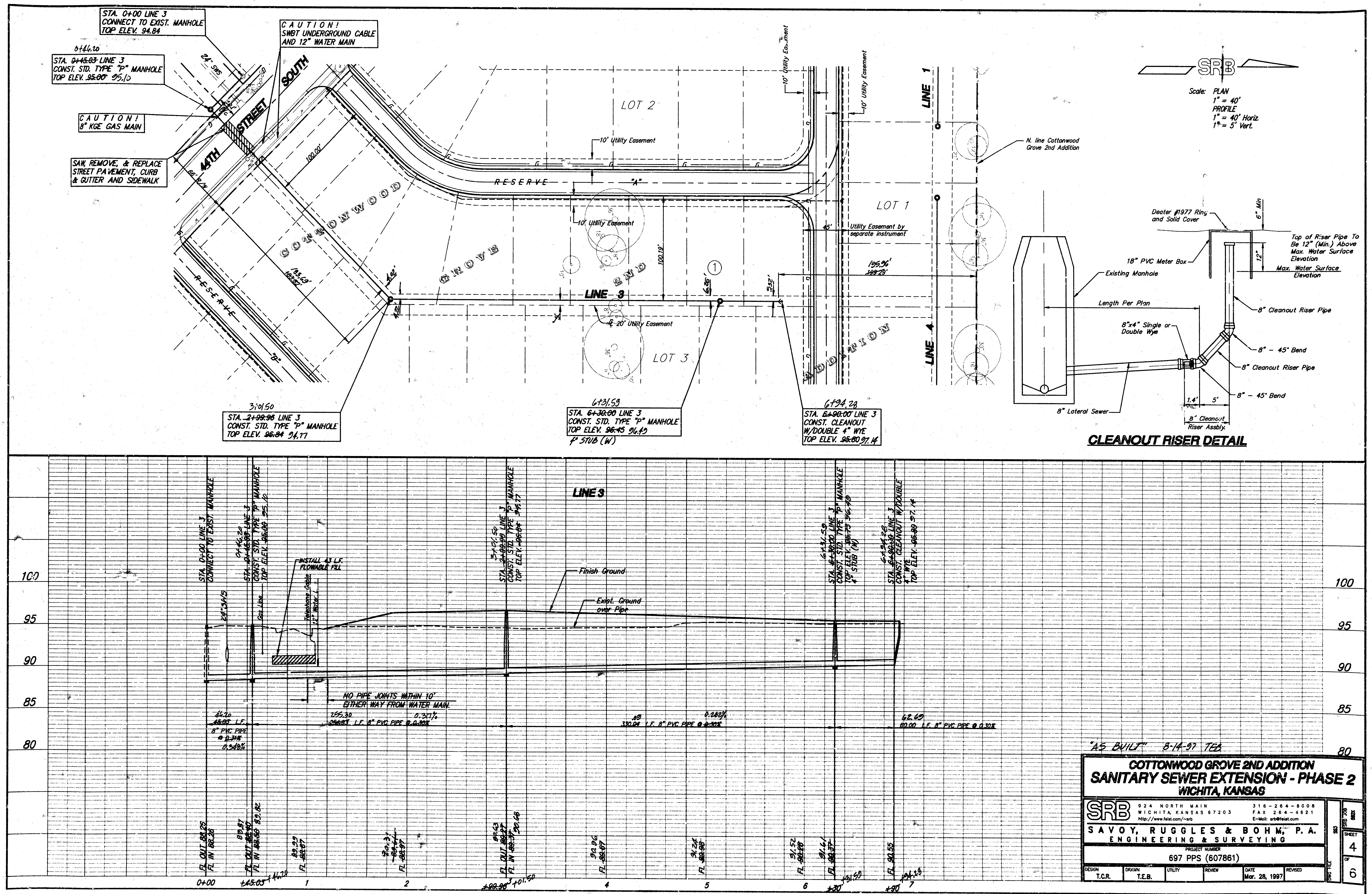
SRB 924 NORTH MAIN 316-264-8008
WICHITA, KANSAS 67203 FAX 264-4621
http://www.fehl.com/srb E-Mail: srb@fehl.com

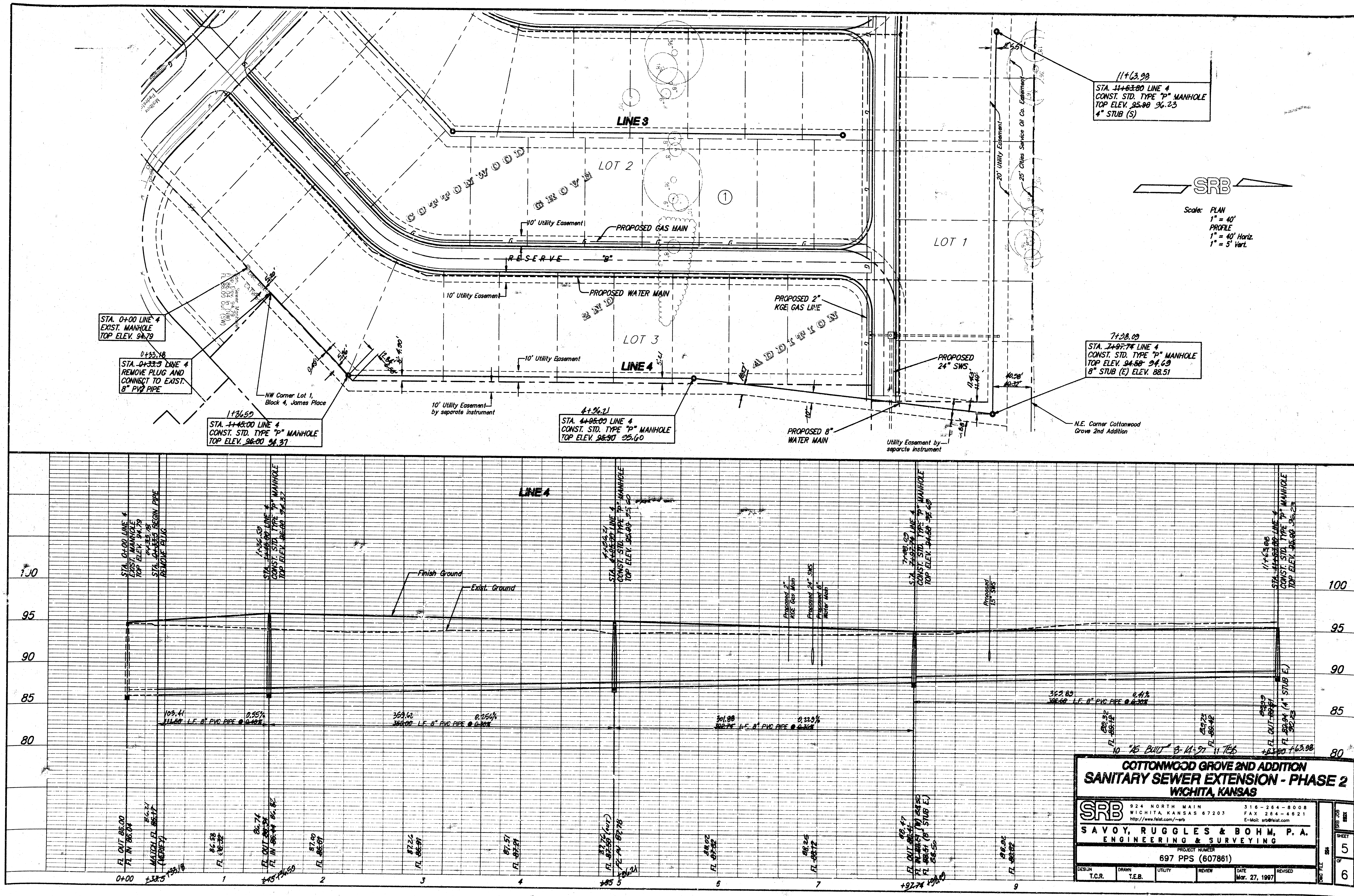
SAVOY, RUGGLES & BOHM, P.A.
ENGINEERING & SURVEYING

PROJECT NUMBER
697 PPS (607861)

DESIGN T.C.R.	DRAWN T.E.B.	UTILITY	REVIEW	DATE Mar. 27, 1997	REVISED
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SHEET
3
OF
6





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

SRB 824 NORTH MAIN 316-264-8008
WICHITA, KANSAS 67203 FAX 264-4821
http://www.felst.com/~srb E-Mail: srb@felst.com

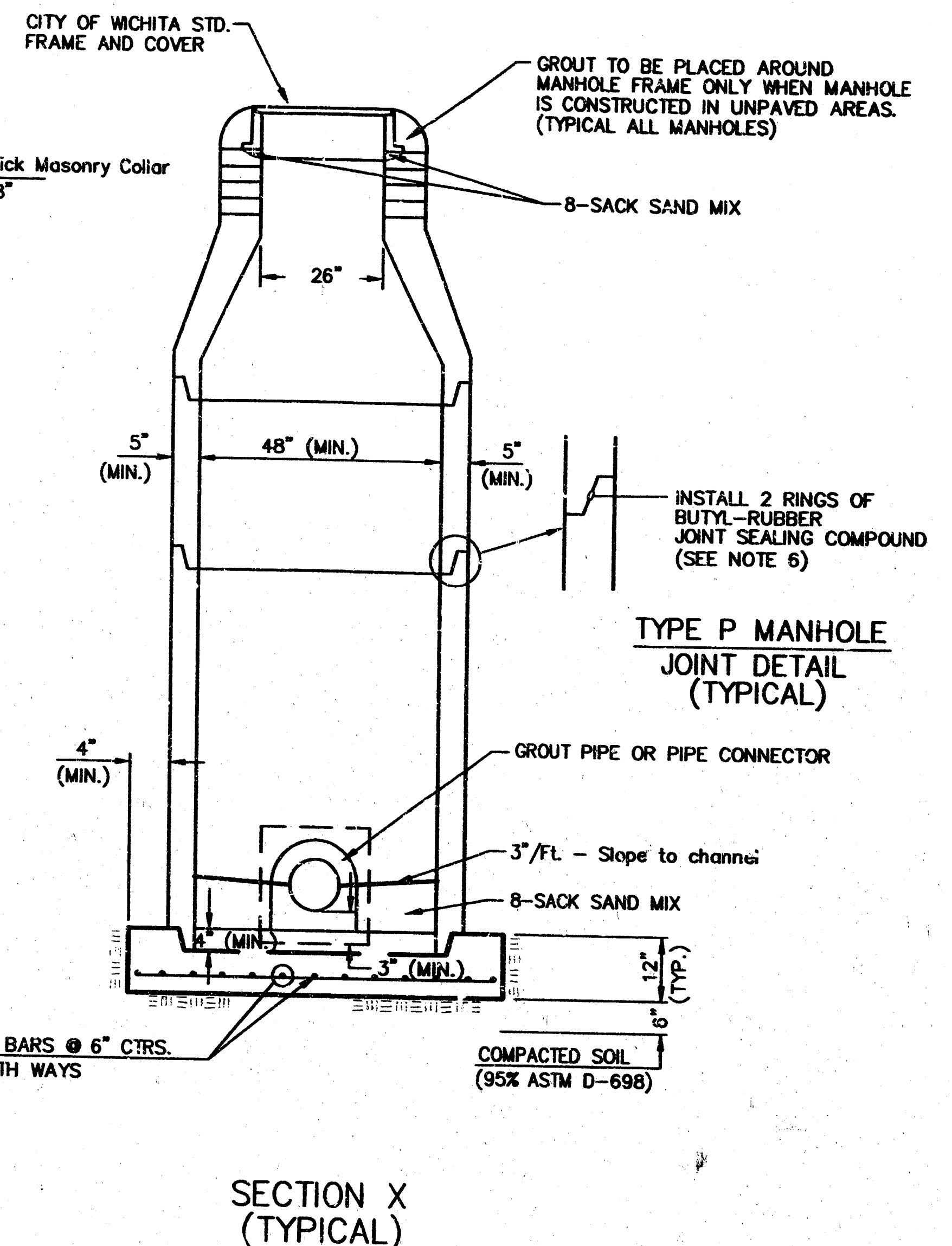
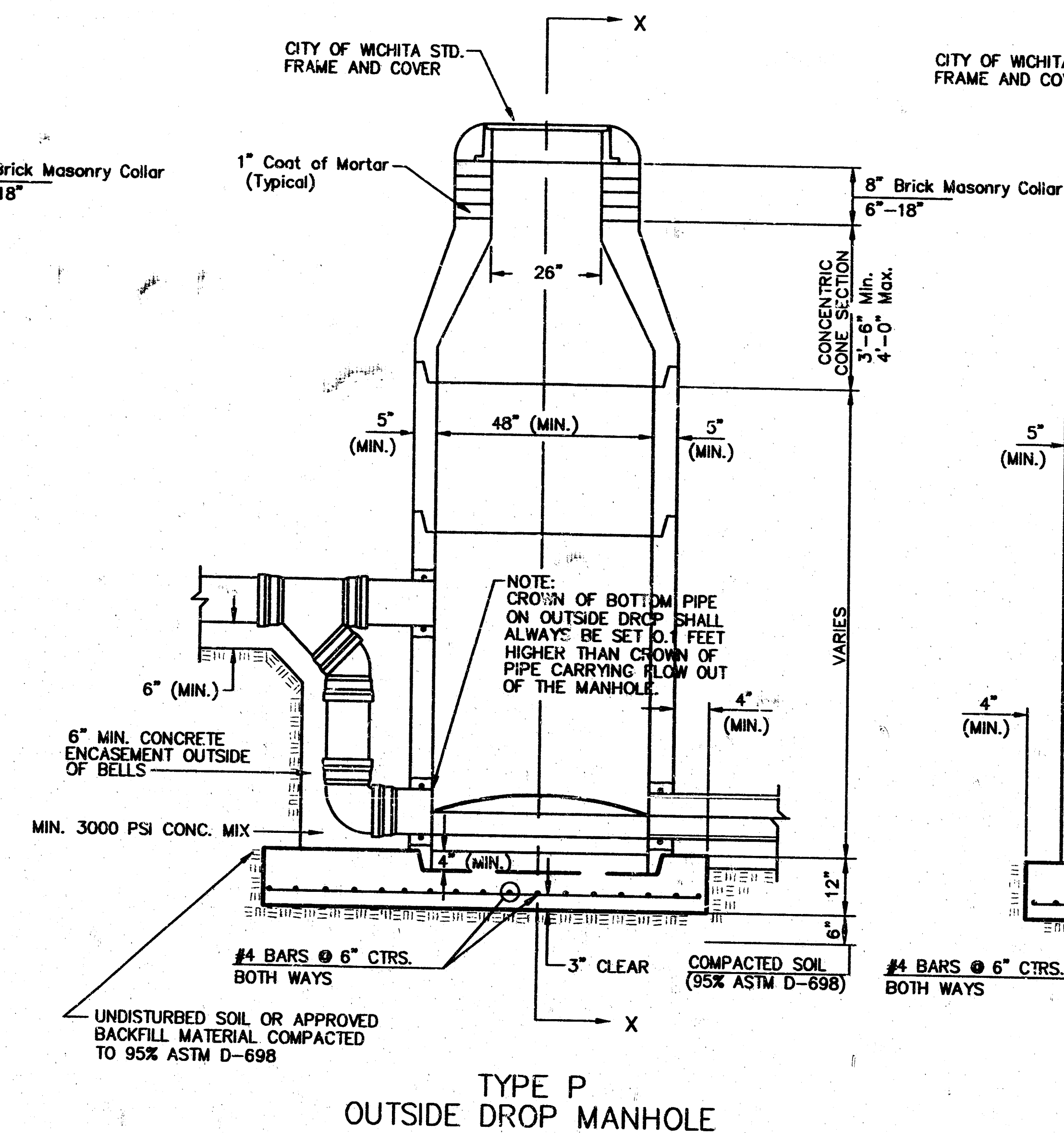
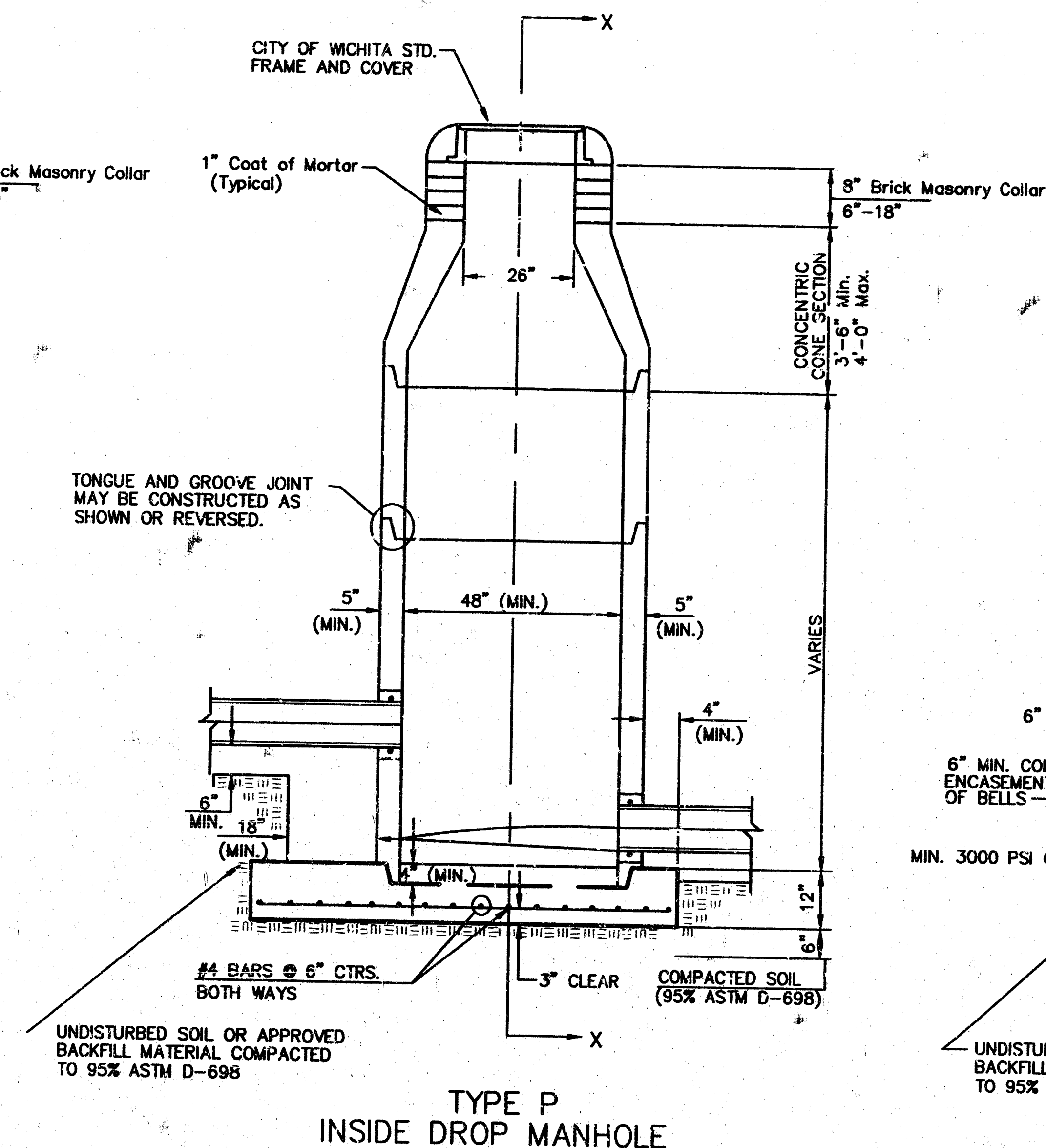
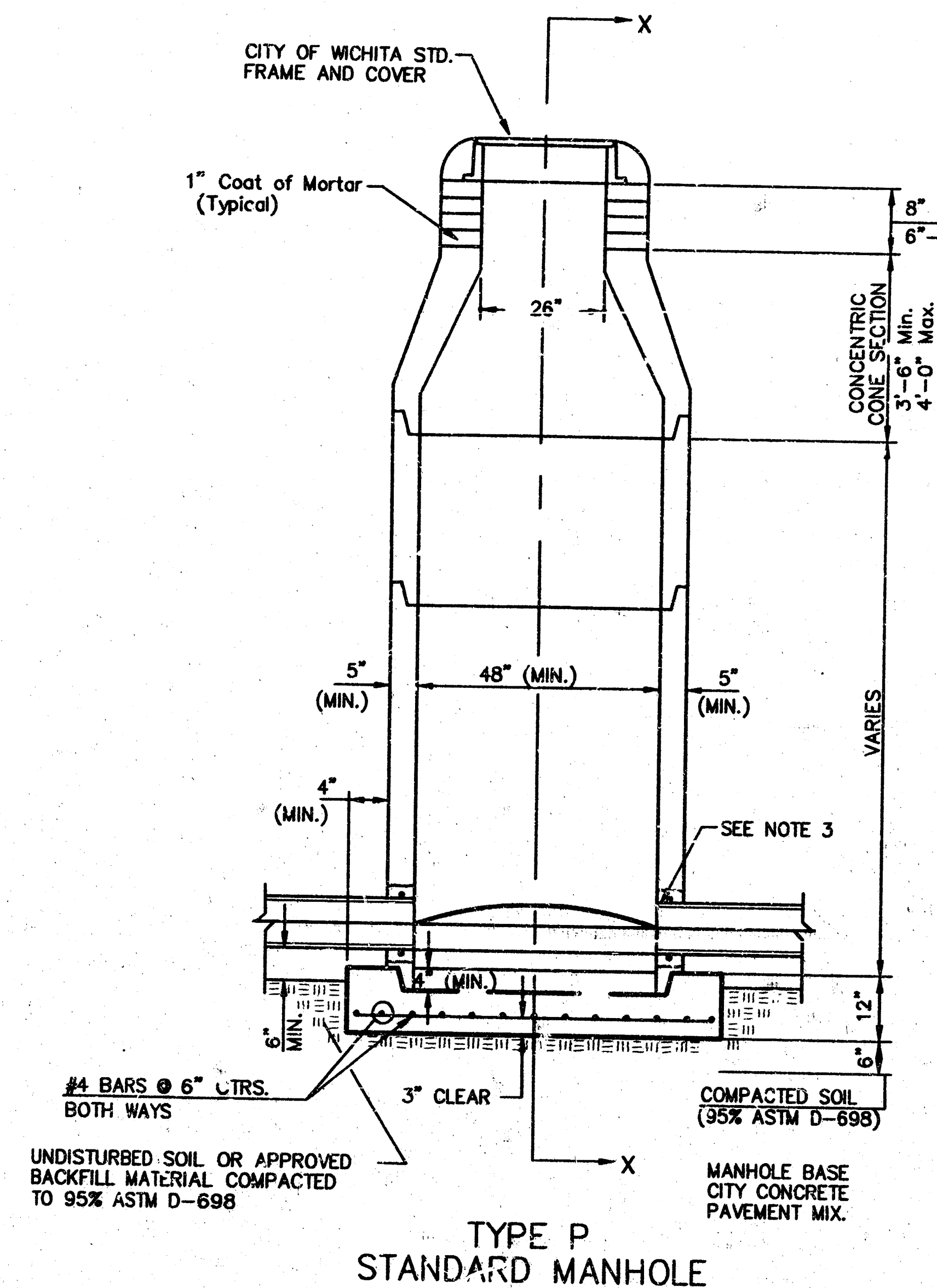
**SAVOY, RUGGLES & BOHM, P.A.
ENGINEERING & SURVEYING**

PROJECT NUMBER
697 PPS (607861)

DESIGN T.C.R.	DRAWN T.E.B.	UTILITY	REVIEW	DATE Mar. 27, 1997	REVISED
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SEWER APPURTENANCES DETAILS



GENERAL NOTES PRECAST MANHOLE NOTES

- ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISIONS OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
- NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
- APPROVED FLEXIBLE WATERSTOP GASKETS SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL WHEN A.B.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 ENCASMENT A MINIMUM OF 3 FEET FROM THE MANHOLE WALL AND TO THE FIRST JOINT FOR V.C.P. SUCH THAT THE JOINT REMAINS FLEXIBLE.
- ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED WITH 2 COATS TNEPEC SERIES 66 HI-BUILD EPOXOLINE, DRY THICKNESS OF 8 MILS (MIN.)
- EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MOBIL 633 BITUMINOUS COATING.
- JOINT SEALING COMPOUND SHALL BE KENT SEAL NO. 2 OR APPROVED EQUAL.
- PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE.
- 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.
- LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.
- 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 PAVING 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.

- 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.
- OPENINGS SHALL BE CUT INTO THE MANHOLE WALL WHEN OUTSIDE DROPS ARE CONSTRUCTED ON EXISTING MANHOLES. SUCH OPENINGS CUT INTO EXISTING MANHOLES SHALL BE AS SMALL AS PRACTICAL TO FACILITATE INSTALLING AND GROUTING THE NEW PIPE IN PLACE. WATERSTOP GASKETS SHALL BE USED WITH P.V.C. AND A.B.S. COMPOSITE PIPE. THE NEW PIPE SHALL BE GROUTED INTO THE OPENING USING AN APPROVED NONSHRINK GROUT FOR THE FULL MANHOLE WALL THICKNESS. THE EXTERIOR OF THE COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT. FLOOR OF MANHOLE SHALL BE MODIFIED TO FORM NEW FLOOR CHANNEL FOR THE NEW CONNECTION AS INDICATED BY THE DRAWING. THIS WORK, INCLUDING MODIFICATION OF MANHOLE FLOOR, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR OUTSIDE DROP STACK CONSTRUCTED ON EXISTING MANHOLE.
- 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 REAR 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.
- 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.

- 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 2' FOR INFLOWING PIPES SIZED 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 AND STANDARD INSIDE DROP MANHOLES 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.
- A BRICK MASONRY COLLAR SHALL BE INSTALLED BETWEEN THE CAST IRON FRAME AND THE CONCENTRIC CONE. THE COLLAR WILL HAVE 8" WALLS AND A VERTICAL HEIGHT OF 6" MINIMUM AND 18" MAXIMUM. A 1" COAT OF MORTAR WILL BE PLASTERED ON THE OUTSIDE OF THE COLLAR. THE USE OF PRE-CAST CONCRETE SPACERS FOR MANHOLE TOP ADJUSTMENT IS ALSO ALLOWED.

THE CITY OF WICHITA CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 244-1111 FAX	STANDARD TYPE P MANHOLES	
	M. E. LINDEBAK P.E. - CITY ENGINEER	
	PROJECT NUMBER 697 PPS	INDEX CODE 607861
	DATE MAR 98	