

GENERAL NOTES

Underground utility service lines and overhead utility pole lines are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor or unless the plans specifically identify a utility to be adjusted by its owner during construction. Existing utilities and their location, as shown on the plans, represent the best information obtainable for design. Location information has been obtained from the various utility companies and is either from company record drawings or company-provided field locations. The Contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.

Rubble from the removal of miscellaneous structures and excess excavation which is to be wasted shall be disposed of on sites to be provided by the Contractor. These sites shall be approved by the Engineer as to suitability, appearance and site location. Locations that, in the opinion of the Engineer, will leave an unsightly appearance will not be approved.

All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a flood plain would require a Kansas State Board of Agriculture permit. Any material dumped in waters of the United States or wetlands is subject to U.S. Corps permitting regulations. Any material buried or stockpiled beyond approved of Engineers construction limits would require additional archeological investigations unless buried in a previously approved borrow location.

Trees and shrubs in public right-of-way which are in direct conflict with proposed new construction shall be removed by the Contractor with the Engineer's approval. Trees and shrubs which are not in direct conflict with proposed new construction shall be saved and protected from damage.

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.

Contractor will be required to provide a minimum advance notice of twenty-four (24) hours to utility companies prior to starting any excavation as follows:

- | | |
|-------------------------------------|----------------------|
| Kansas One-Call | 687-2470 |
| Cablevision | 262-4270 or 263-2061 |
| K.G.&E. Gas | 383-8650 |
| K.G.&E. Electric | 383-8600 |
| Peoples Natural Gas Company | 342-8350 or 263-8161 |
| Southwestern Bell Telephone Company | 1-571-2611 |
| City of Wichita Water Department | 268-4908 |
| City of Wichita Sewer Maintenance | 268-4071 |

The Contractor must notify the following in case of an emergency:

SANITARY SEWER IMPROVEMENTS

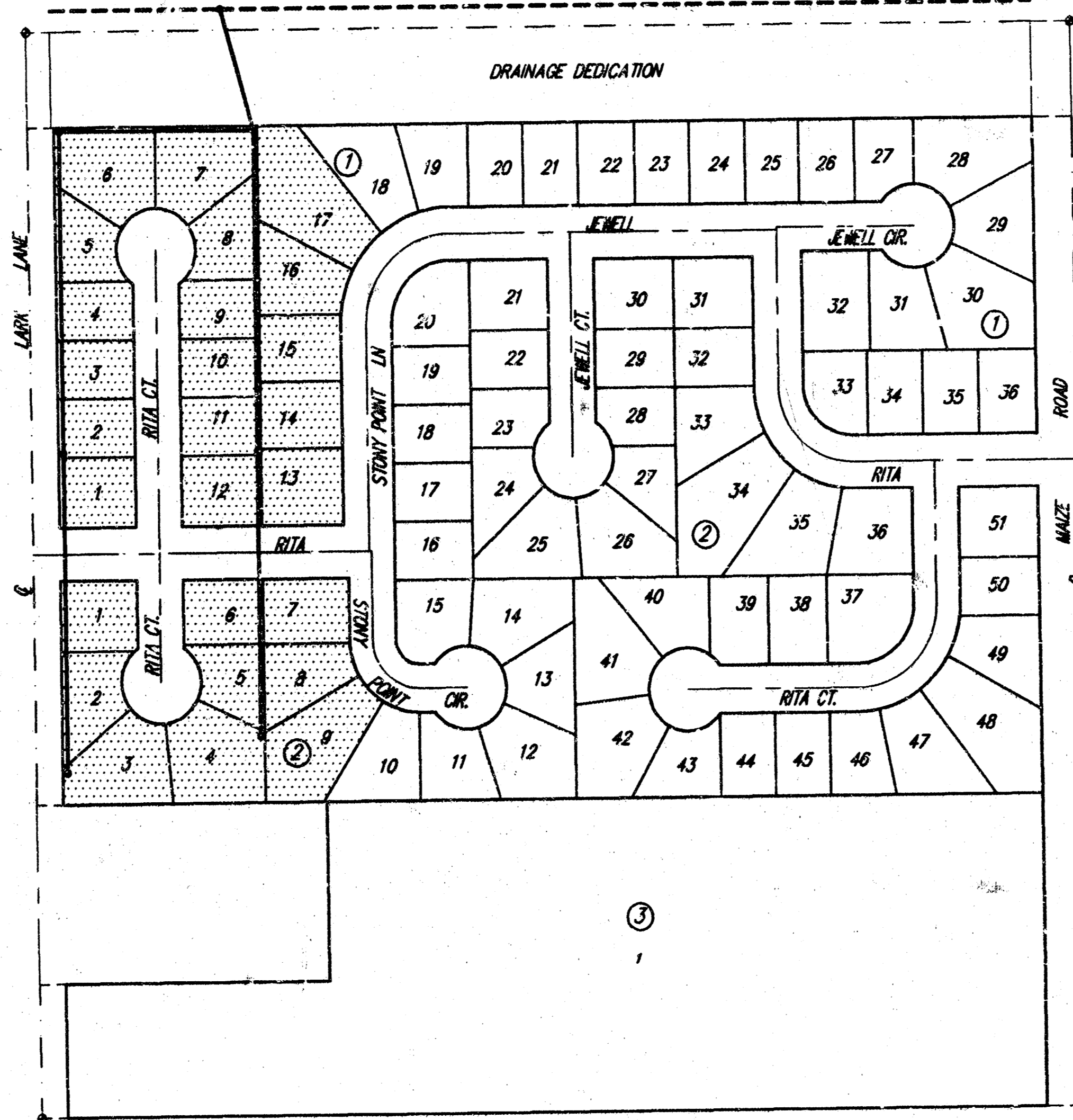
LOTS 1-17 BLOCK 1 AND LOTS 1-9 BLOCK 2

LINDSAY'S ORCHARD ADDITION

LATERAL 20, MAIN 13, S.W.I.

INDEX CODE 743450

PROJECT NUMBER 468-82809



IMPROVEMENT DISTRICT

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

BENCH MARKS

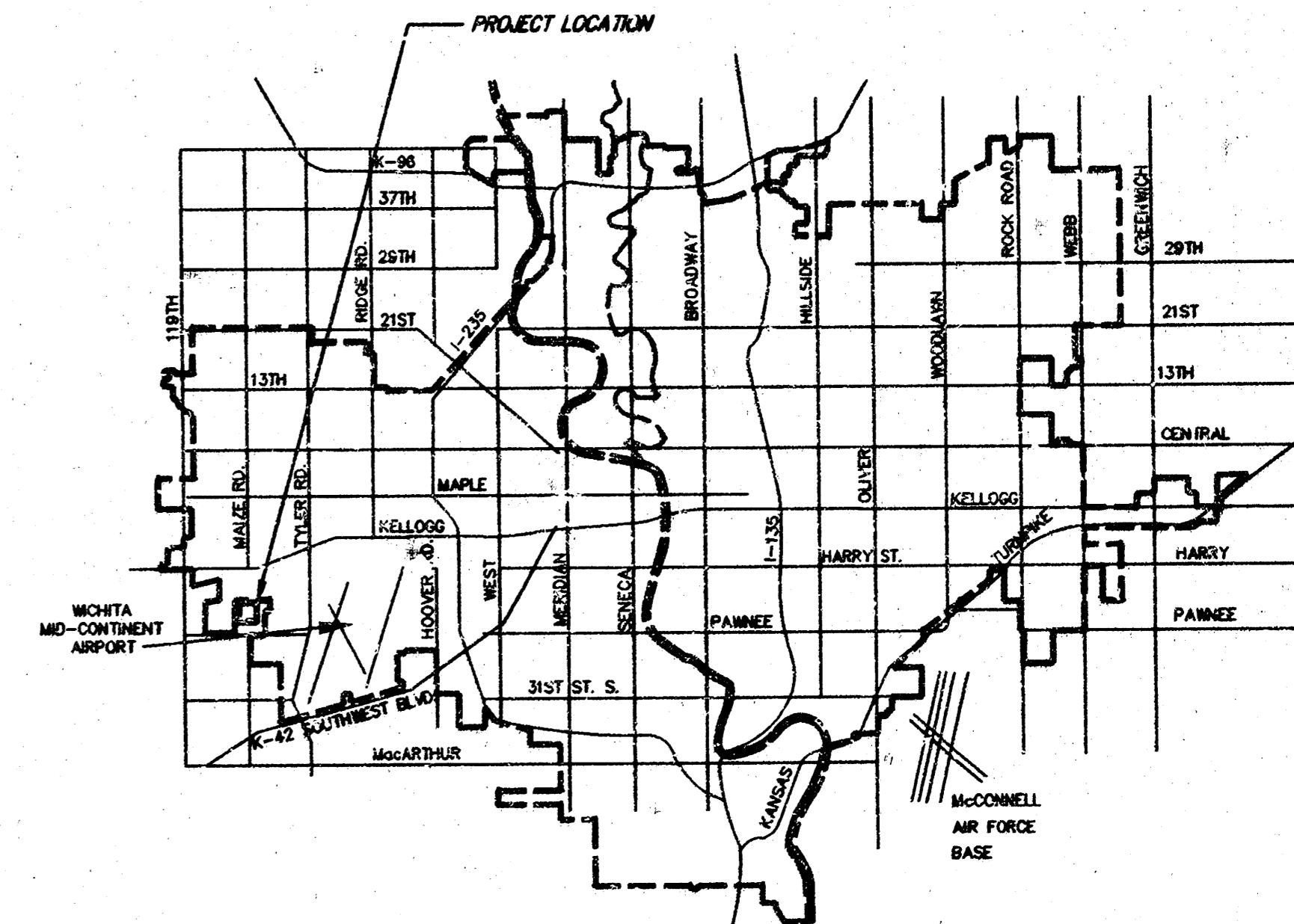
BM #1 - C&W BENCH MARK, NORTH END, WEST HEADWALL, ROSS UNDER LARK LANE, 1/2 MILE NORTH OF PAMNEE
 ELEV. = 139.20

INDEX OF SHEETS

1. TITLE SHEET
2. TYPE P MANHOLE DETAILS
3. MANHOLE RING AND COVER
- 4-5. PLAN AND PROFILE
6. EASEMENT GRADING PLAN
7. PLAT

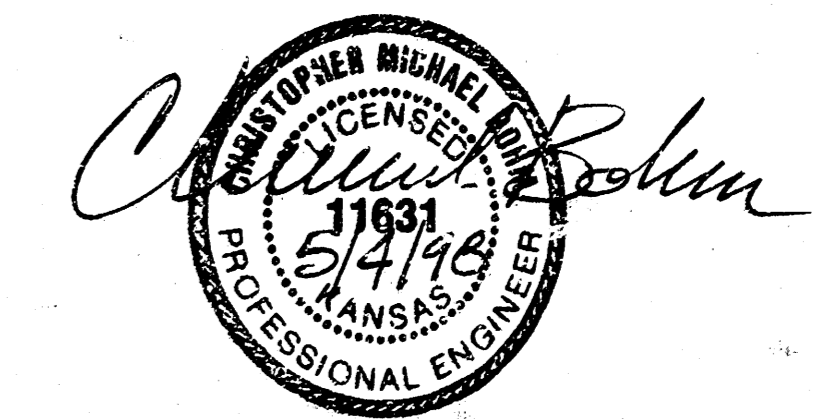
SRB

Scale: 1" = 150'



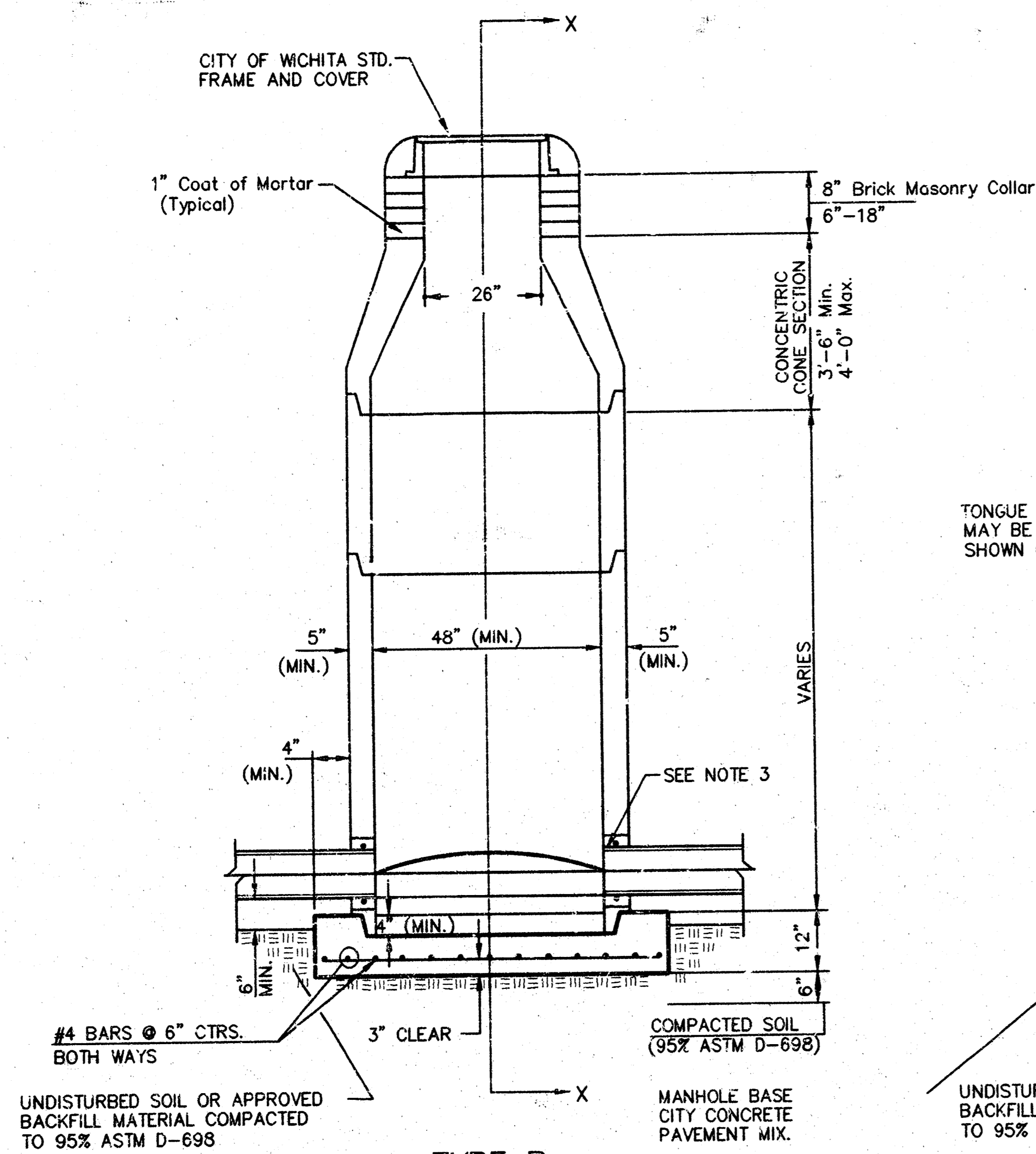
VICINITY MAP

AS BUILT
 Booked
 P-31
 R. Loomis
 9/8/98

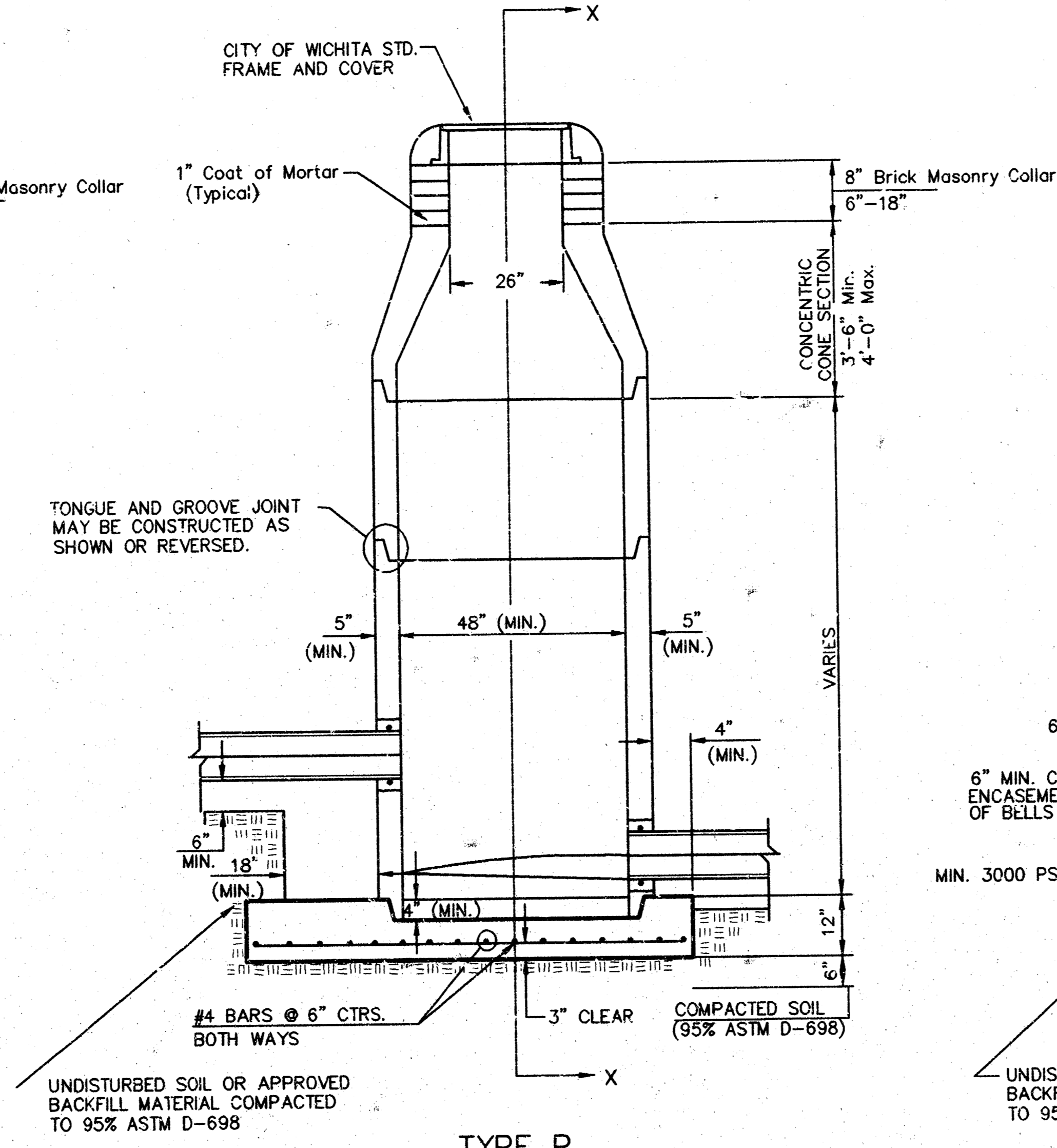


SRB 924 NORTH MAIN WICHITA, KANSAS 67203 316-264-8008 FAX 264-4621
SAVOY, RUGGLES & BOHM, P. A.
 ENGINEERING & SURVEYING

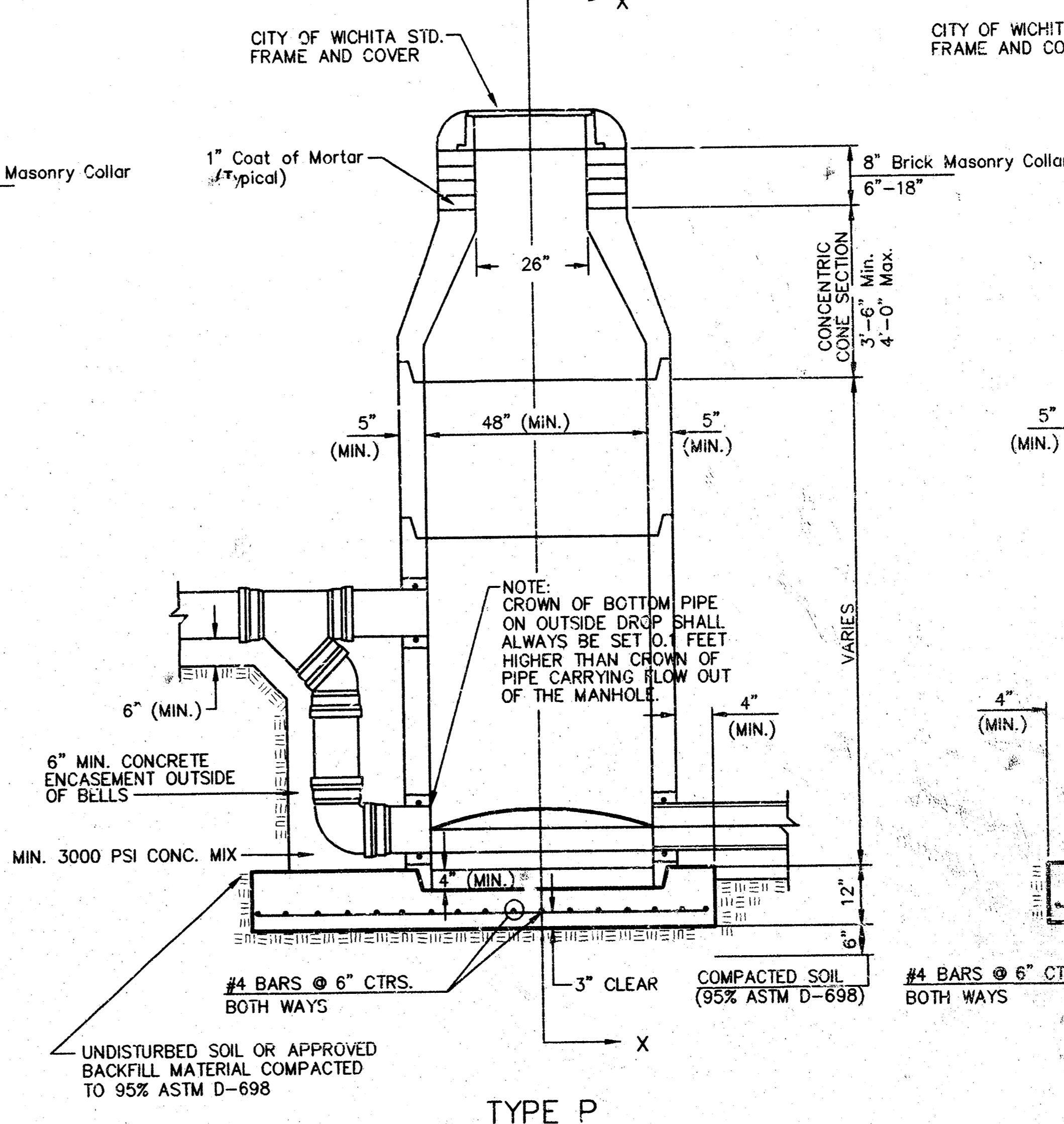
SEWER APPURTENANCES DETAILS



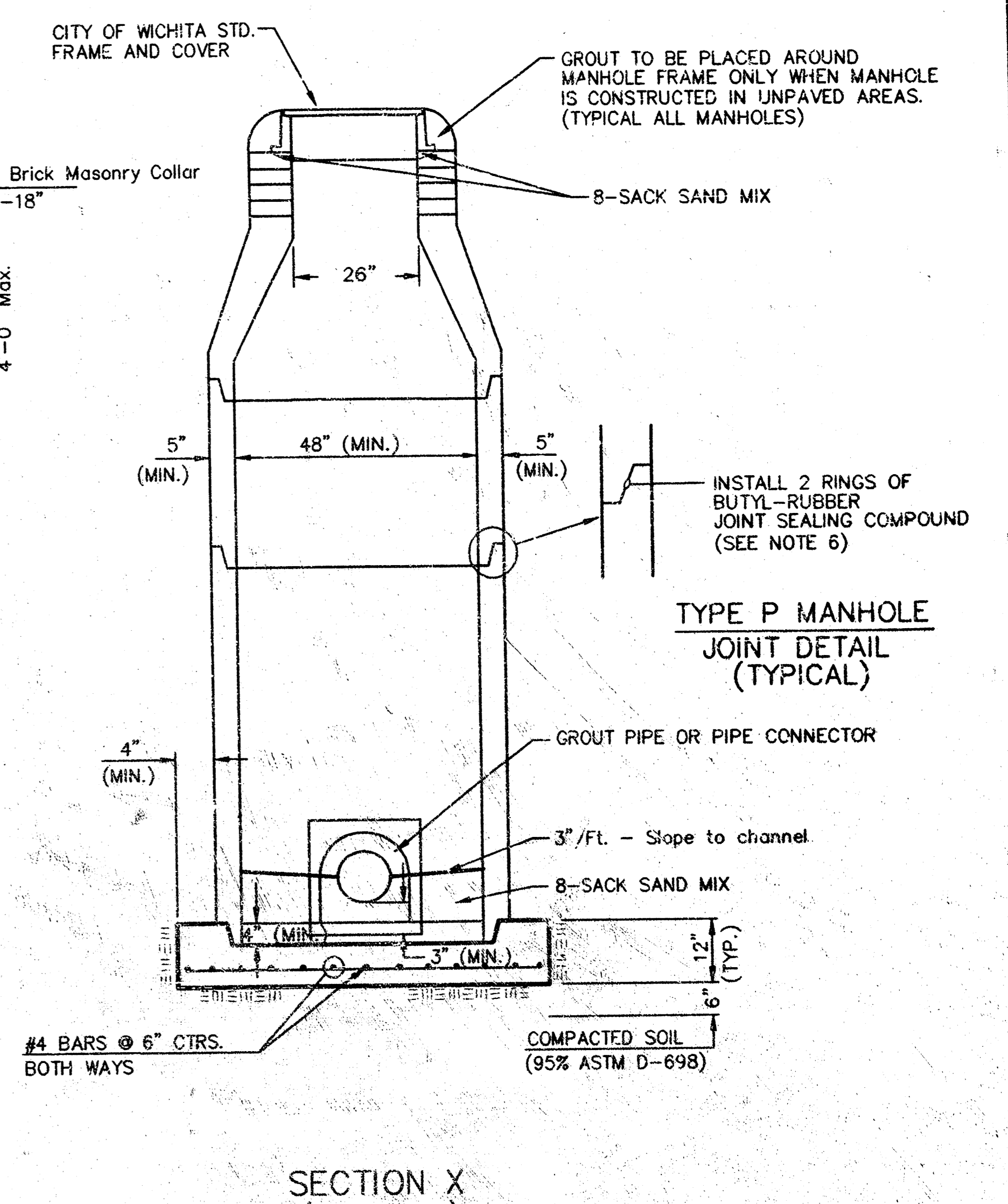
**TYPE P
STANDARD MANHOLE**



**TYPE P
INSIDE DROP MANHOLE**



**TYPE P
OUTSIDE DROP MANHOLE**



**SECTION X
(TYPICAL)**

GENERAL NOTES

PRECAST MANHOLE 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.B.S. COMPOSITE PIPE OR P.V.C. PIPE IS USED. FOR OTHER TYPES OF PIPE THE SEWER SHALL BE GROUDED 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 INEMEC 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.

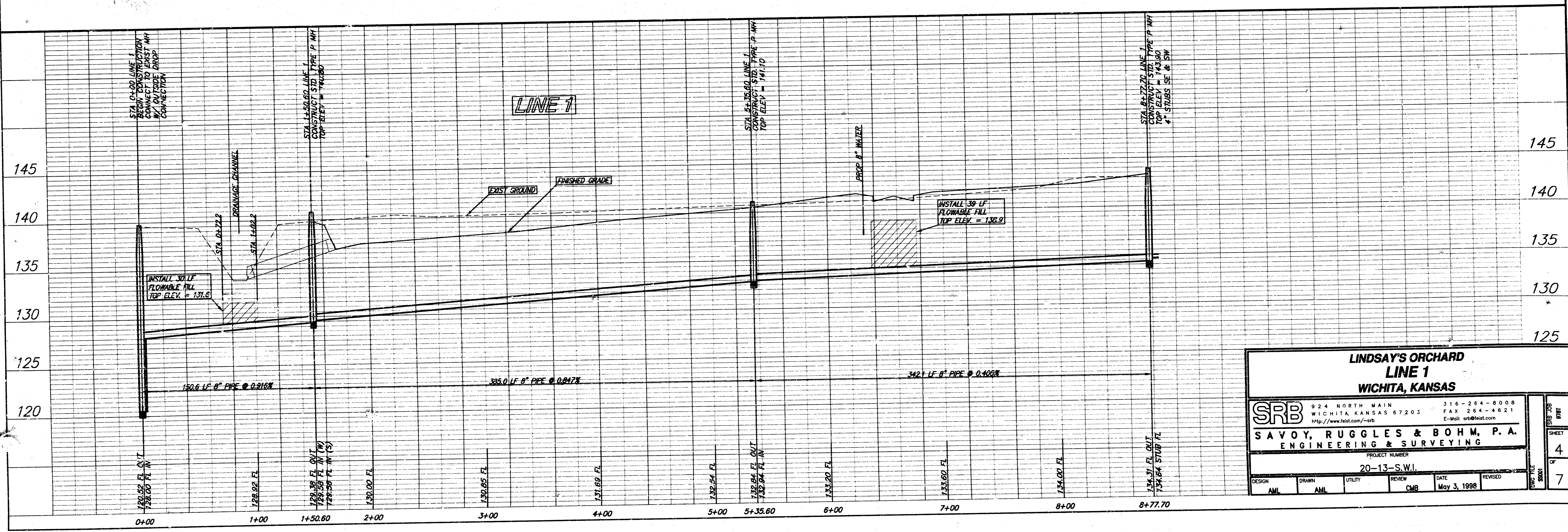
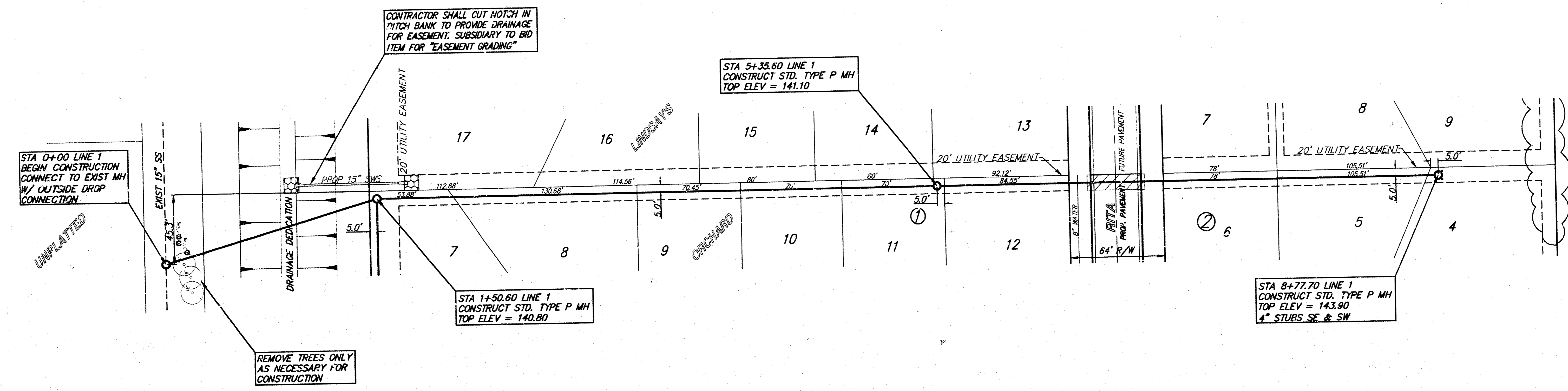
11. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED AT LEAST 3" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
12. 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 GROUDED 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 GROUDED 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 FLOW 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.
13. 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.
14. 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.

15. 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.
16. 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.
17. 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.
18. 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.

<p>THE CITY OF WICHITA</p> <p>CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 255 SOUTH MAIN STREET WICHITA, KANSAS 67202 (316) 268-4000 (316) 268-4114 FAX</p>	<p>STANDARD TYPE 'P' MANHOLES</p>	
	<p>M. E. LINDEBAK P.E. - CITY ENGINEER</p>	
<p>PROJECT NUMBER</p>	<p>INDEX CODE</p>	
<p>DATE MAR 96</p>	<p>SHEET 2 OF 7</p>	



SCALE: 1" = 40' (PLAN)
1" = 5' (PROFILE)



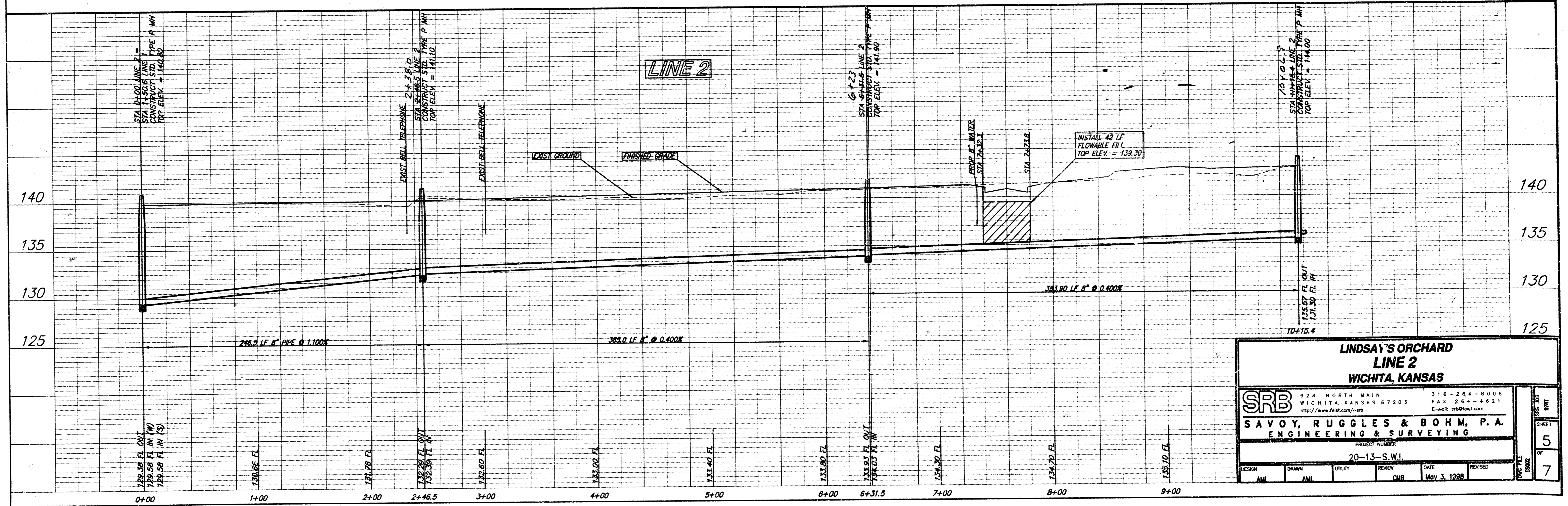
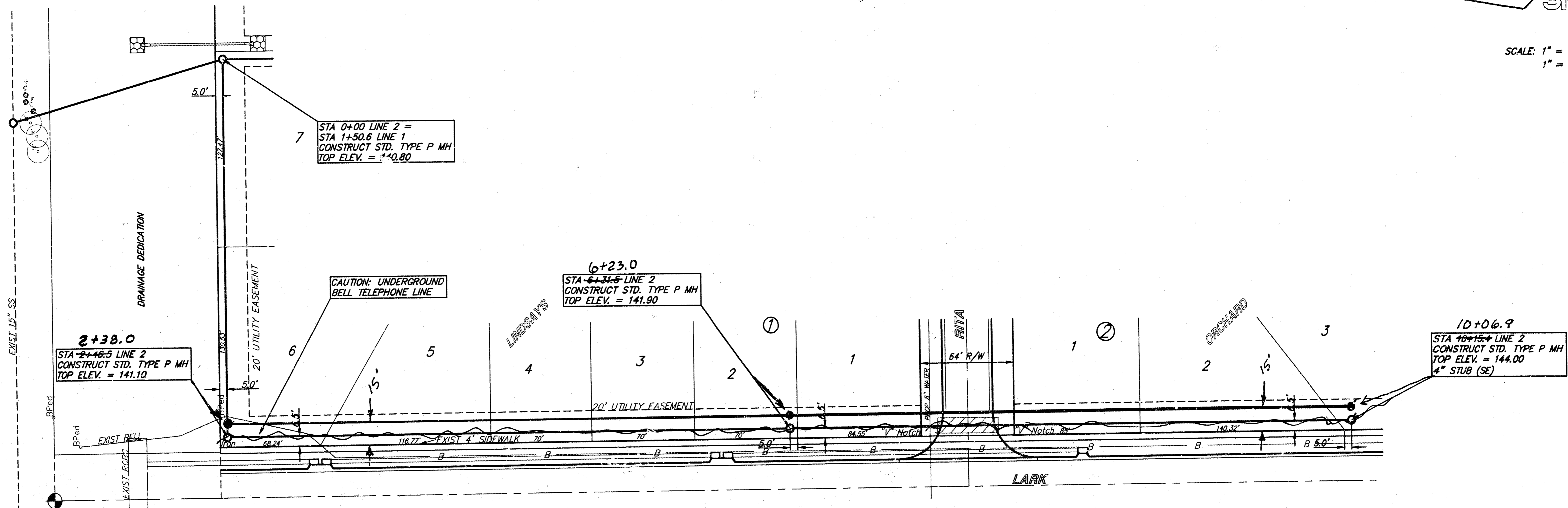
LINDSAY'S ORCHARD LINE 1 WICHITA, KANSAS			
		924 NORTH MAIN WICHITA, KANSAS 67203 http://www.felst.com/~srb	
316-264-8008 FAX 264-4621 E-Mail: srbb@earth.com		316-264-8008 FAX 264-4621 E-Mail: srbb@earth.com	
SAVOY, RUGGLES & BOHM, P. A. ENGINEERING & SURVEYING			
PROJECT NUMBER 20-13-S.W.I.			
DESIGN	DRAWN	UTILITY	REVIEW
AML	AML	CMB	CMB
DATE		REVISED	
May 3, 1998			

145
140
135
130
125

4
7

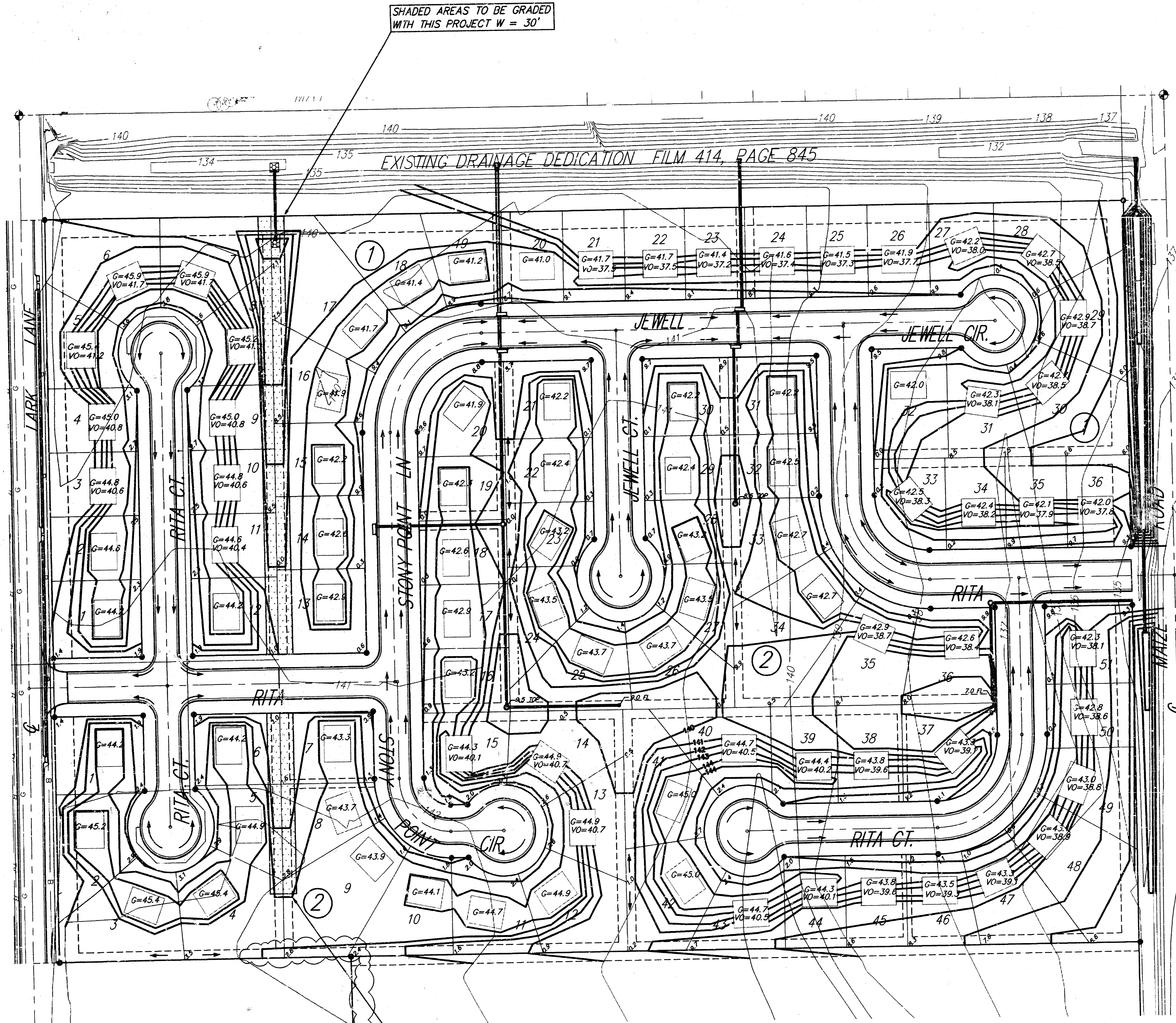


SCALE: 1" = 40' (PLAN)
1" = 5' (PROFILE)



LINDSAY'S ORCHARD LINE 2 WICHITA, KANSAS			
SRB		924 NORTH MAIN WICHITA, KANSAS 67203 http://www.fest.com/~srb	
SAVOY, RUGGLES & BOHM, P.A.		310-264-8008 FAX 264-4621 E-mail: srbofest.com	
PROJECT NUMBER 20-13-S.W.I.			
DESIGN AM	DRAWN AM	REVIEW CMB	DATE May 3, 1988
			SHEET 5 OF 7

SHADED AREAS TO BE GRADED WITH THIS PROJECT W = 30'

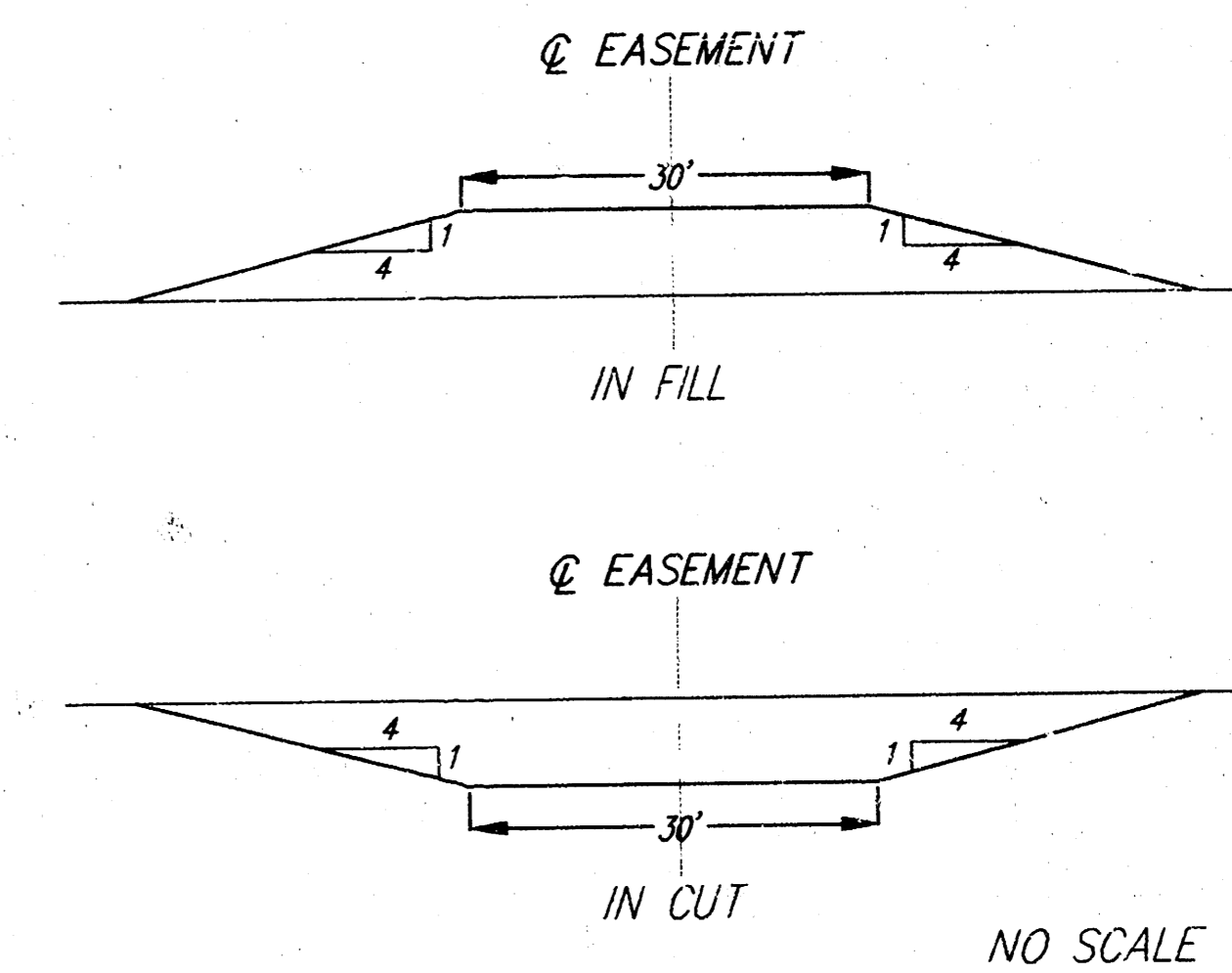


SHADED AREAS TO BE GRADED WITH THIS PROJECT W = 30'

EXISTING DRAINAGE DEDICATION FILM 414, PAGE 845

SRB

SCALE: 1" = 60'



NO SCALE

EASEMENT GRADING EARTHWORK TABLE

STA	DEPTH	AREA		VOLUME	
		CUT	FILL	CUT	FILL
1+50.6	0.00	0.00	-	3.2	-
1+62	0.47	14.98	-	25.8	-
1+72.6	3.08	132.35	-	126.5	-
2+00	2.20	110.18	-	186.9	-
2+50	2.33	91.62	-	133.9	-
3+00	1.97	74.62	-	122.6	-
3+50	1.59	57.81	-	90.7	-
4+00	1.18	40.18	-	62.5	-
4+50	0.82	27.29	-	40.1	-
5+00	0.50	16.00	-	14.8	-
5+50	0.00	0.00	0.00	15.5	-
6+00	0.52	-	16.70	-	19.2
6+25.2	0.74	-	24.39	-	29.2
6+83.7	0.47	-	14.98	-	8.7
7+00	0.44	-	13.97	-	22.2
7+50	0.32	-	10.07	-	6.3
8+00	0.22	-	6.79	-	8.1
8+50	0.10	-	3.04	-	1.6
8+77.7	0.33	-	0.33	-	5.3
		TOTAL		843.9	80.2

**EASEMENT GRADING PLAN
LINDSAY'S ADDITION
WICHITA, KANSAS**

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

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

PROJECT NUMBER
20-13-S.W.I.

DESIGN	DRAWN	UTILITY	REVIEW	DATE	REVISED
AML	AML		CMB	May 3, 1998	

SHEET 6 OF 7

LINDSAY'S ORCHARD ADDITION

WICHITA, SEDGWICK COUNTY, KANSAS

State of Kansas) SS
Sedgwick County)

We, Savoy, Ruggles & Bohm, P.A., Surveyors in aforesaid county and state do hereby certify that, under the supervision of the undersigned, we have surveyed and platted "LINDSAY'S ORCHARD ADDITION", Wichita, Sedgwick County, Kansas and that the accompanying plat is a true and correct exhibit of the property surveyed, described as follows:

That part of the NE1/4 of the SE1/4 of Sec 31, Twp. 27-S, R-1-W of the 6th P.M., Sedgwick County, Kansas, except the north 115 feet thereof and except the north 215 feet of the south 375 feet of the west 365 feet of the NE1/4 of the SE1/4 of said Sec. 31.

All Public easements and dedications being vacated by virtue of K.S.A. 12-512(b).

Savoy, Ruggles & Bohm, P.A.

Date _____

Mark A. Savoy RLS #788 Surveyor

Know all men by these presents that we, the undersigned have caused the land described in the surveyor's certificate to be platted into Lots, Blocks, Reserves and Streets to be known as "LINDSAY'S ORCHARD ADDITION", Wichita, Sedgwick County Kansas. The utility easements are hereby granted as indicated for the construction and maintenance of all public utilities. The Streets are hereby dedicated to and for the use of the public. Access Controls are hereby granted to the City of Wichita (as indicated on the face of the plat), with the location of openings to be approved by the City Engineer. Minimum building pad elevations for lowest opening to a structure shall be as shown on the face of the plat.

Rick Thompson Construction Inc.

Rick Thompson President

State of Kansas) SS
Sedgwick County)

The foregoing instrument acknowledged before me, this _____ day of _____, 1998, by Rick Thompson, President, Rick Thompson Construction Inc.

Notary Public

My App't. Exp. _____

This plat of "LINDSAY'S ORCHARD ADDITION", Wichita, Sedgwick County, Kansas, has been submitted to and approved by the Wichita-Sedgwick County Metropolitan Area Planning Commission, Wichita, Kansas. Dated this _____ day of _____, 1997.

Wichita-Sedgwick County Metropolitan Area Planning Commission

John C. Frye Chairman

Marvin S. Krout Secretary

Bob Knight Mayor

Pat Burnett City Clerk

This plat approved and all dedications shown hereon, accepted by the City Council of the City of Wichita, Kansas, this _____ day of _____, 1998.

James Alford County Clerk

Entered on transfer record this _____ day of _____, 1998.

State of Kansas) SS
Sedgwick County)

This is to certify that this plat has been filed for record in the office of the Register of Deeds, this _____ day of _____, 1998, at _____ o'clock _____ M. and is duly recorded.

Larry Consover Register of Deeds

Michael D. Hurtt Deputy

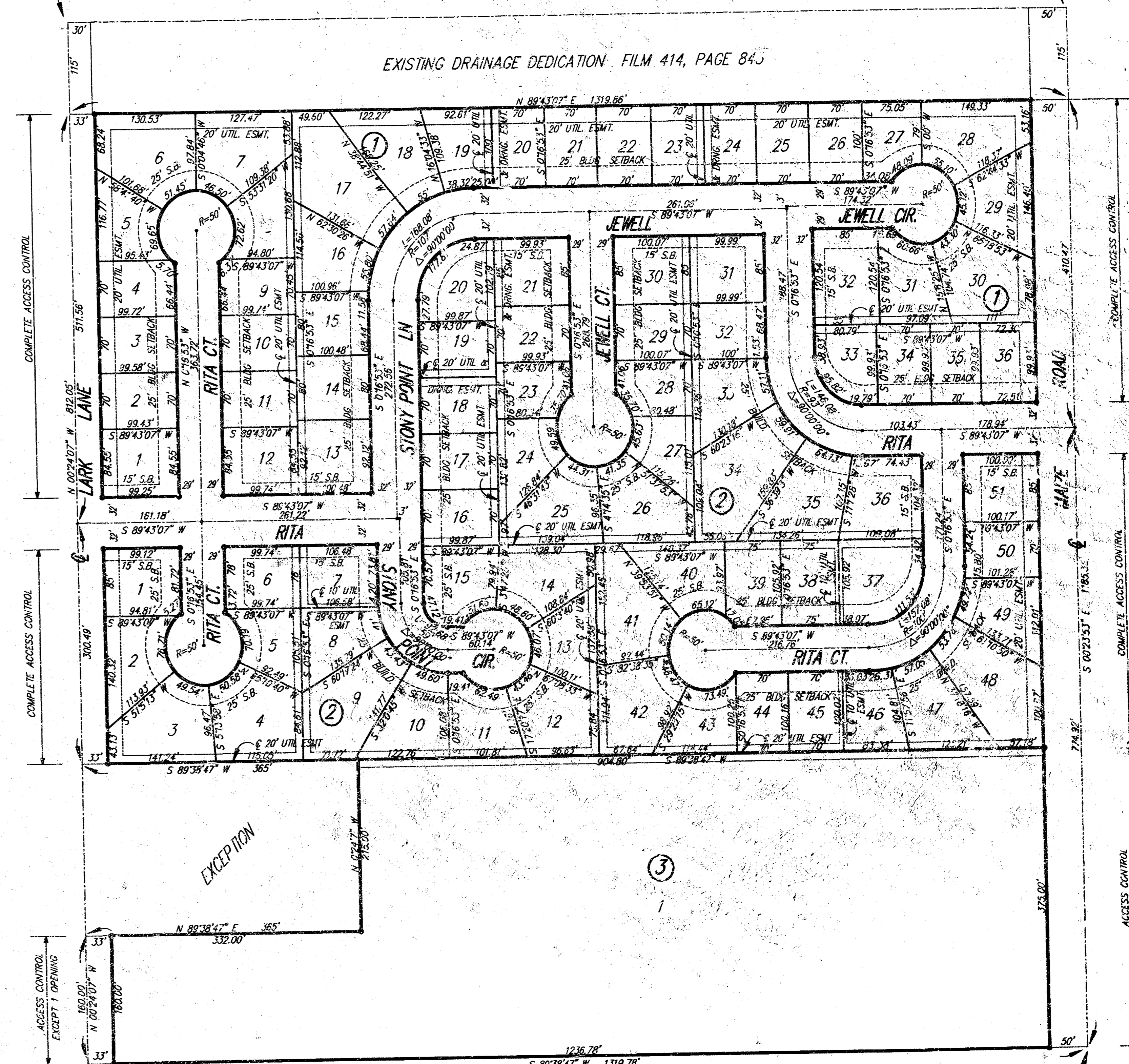
MINIMUM BUILDING PAD ELEVATION FOR LOWEST OPENING TO A STRUCTURE			
LOT	BLOCK	ELEVATION	
		CITY DATUM	N.G.V.D.
6, 7	2	138.5	1325.9
17, 18, 19	2	138.0	1325.4
20, 21, 22	2	137.5	1324.9
23, 24, 25, 26	2	137.0	1324.4
27, 28	2	136.5	1323.9

BENCHMARK:
City of Wichita Benchmark disc @ Maize Road and May Street
31.5' S. and 38' E. of centerline both.
Elev=137.63 (City Datum)
Elev=132.7 (NGVD)

1" = 100'
• = 1/2" REBAR W/SRB CAP
S.B. = BUILDING SETBACK
C.A.C. = COMPLETE ACCESS CONTROL

N.W. COR NE1/4, SE1/4
SEC. 31, TWP. 27-S, R-1-W

N.E. COR NE1/4, SE1/4
SEC. 31, TWP. 27-S, R-1-W



S.W. COR NE1/4, SE1/4
SEC. 31, TWP. 27-S, R-1-W

S.E. COR NE1/4, SE1/4
SEC. 31, TWP. 27-S, R-1-W

LINDSAY'S ORCHARD PLAT
WICHITA, KANSAS

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

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

PROJECT NUMBER
20-13-S.W.I.

DESIGN	AML	DRAWN	AML	UTILITY	REVIEW	CMB	DATE	REVISION
							May 3, 1998	

19-50-50-11