PHASE 2
SANITARY SEWER IMPROVEMENTS
LINDSAY'S ORCHARD ADDITION
LATERAL 422, S.W.I.
PROJECT NO. 468-82943
INDEX CODE 743791

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.

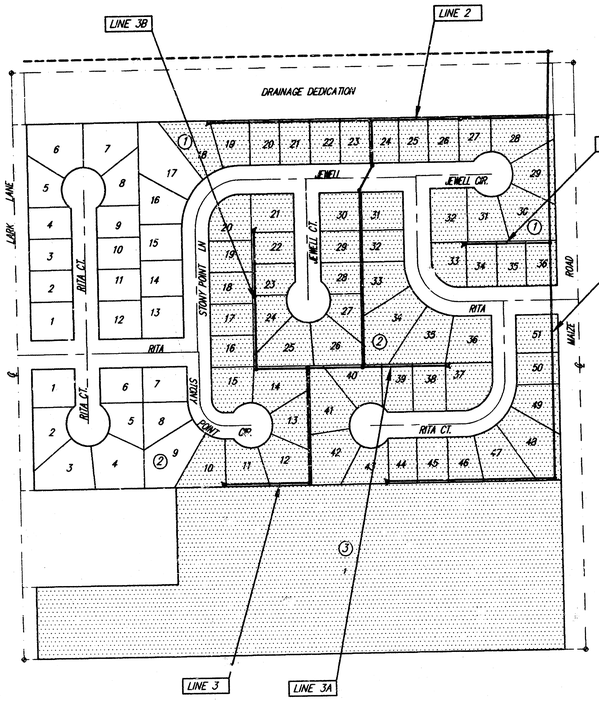
The Contractor shall be responsible for preserving property irons. The Contractor will be required to re-establish any property irons which are damaged or destroyed by his construction operations. Such irons shall be re-established by a licensed land surveyor in accordance with state laws.

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

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

Cablevision	262-4270 or 263-2061
K.G.&E. Gas	383-8650
K.G.&E. Electric	383-8600
Peoples Natural Gas Company	942-8350 or 263-8161
Southwestern Bell Telephone Company	1-571-2611
City of Wichita Water Department	268-4908
City of Wichita Sewer Maintenance	268-4071



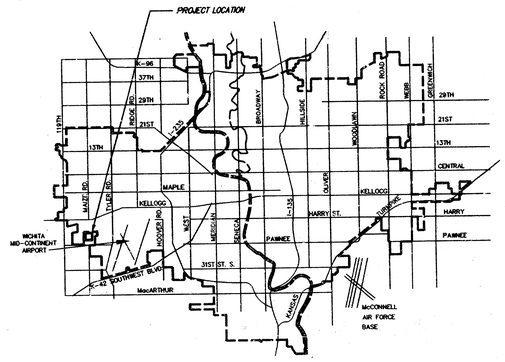
Scale: 1" = 150'

BENCH MARKS

BM #1 - COW BENCH MARK, NORTH END, WEST HEADWALL RCBC UNDER LARK LANE, 1/2 MILE NORTH OF PAWNEE

ELEV. = 139.20

INDEX OF SHEETS



VICINITY MAP

As-built Plans : 07/22/99

Booked
P.95
R.D.C
9-13-99

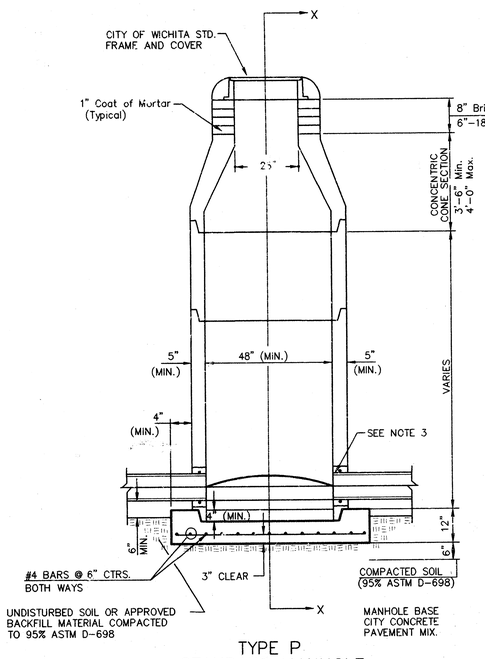
KENNETH W. LEE
15373
3-12-99
LAND SURVEYOR

IMPROVEMENT DISTRICT

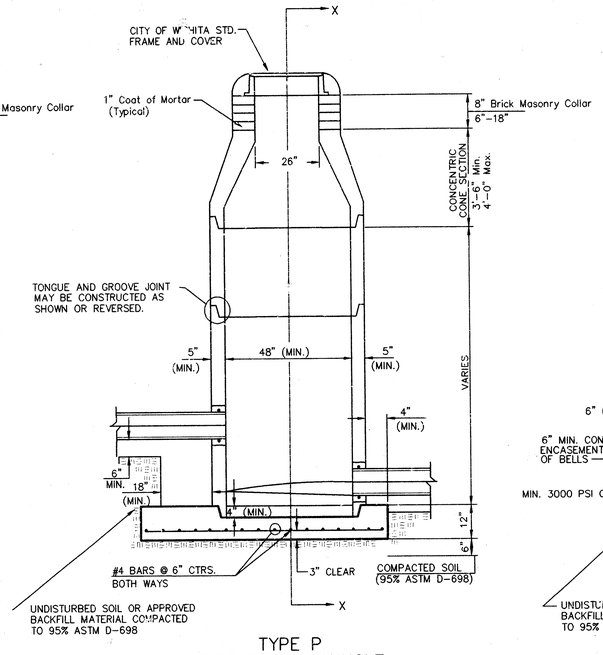
CITY OF WICHITA, KANSAS
MICHAEL E. LINDEBAK, P.E. - CITY ENGINEER

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

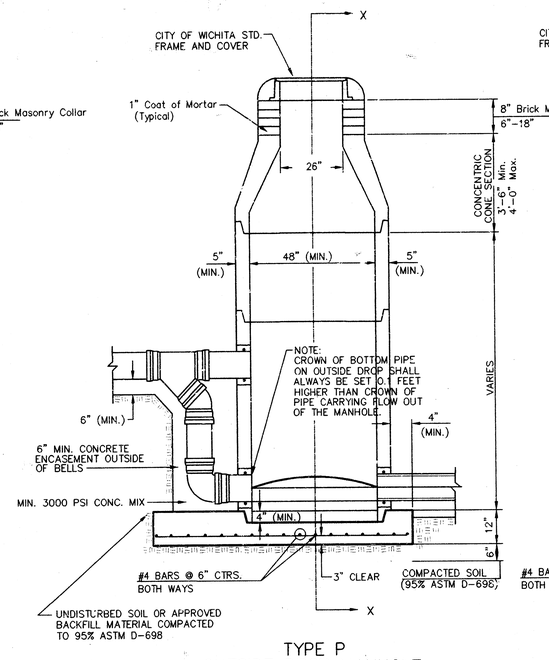
SEWER APPURTENANCES DETAILS



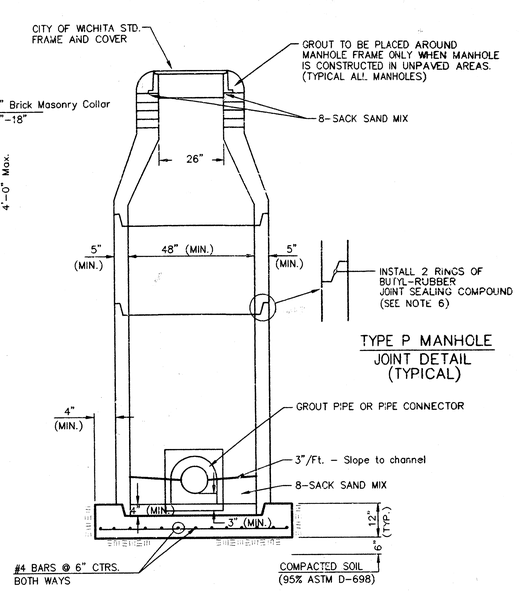
TYPE P
STANDARD MANHOLE



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 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 TNEMEC SERIES 66 HI-BUILD EPOXOLINE, 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 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 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 MAHOLE. 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.

THE CITY OF WICHITA

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STANDARD TYPE 'P' MANHOLES

M. E. LINDEBAK P.E. - CITY ENGINEER

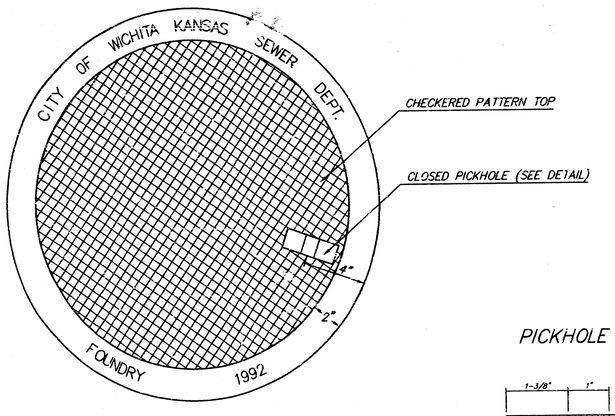
PROJECT NUMBER	INDEX CODE
468-82943	743791

DATE	SHEET
MAR '96	SHEET 2 OF 13

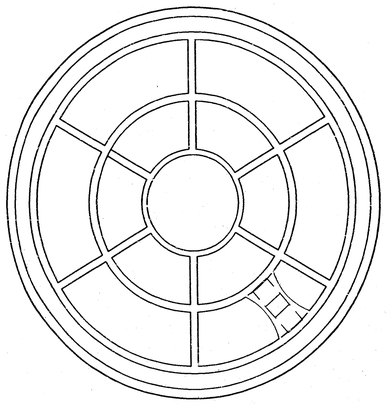
MANHOLE FRAME AND COVER DETAIL

ADOPTED AS STANDARD DESIGN BY
CITY OF WICHITA, KANSAS

MANHOLE COVER
Weight = 180 Lbs.

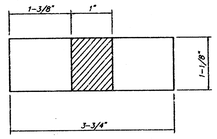


TOP VIEW

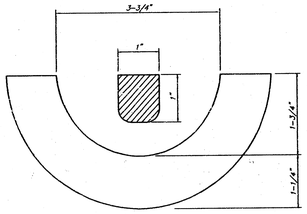


BOTTOM VIEW

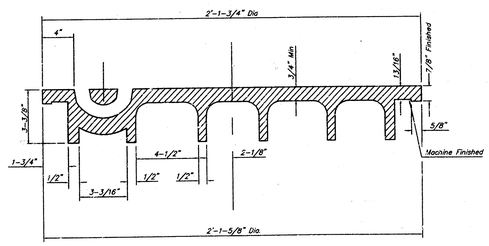
PICKHOLE DETAIL



TOP VIEW

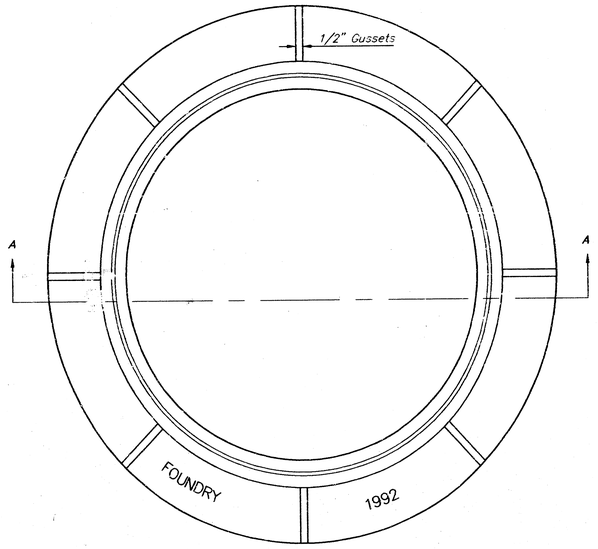


SECTION VIEW

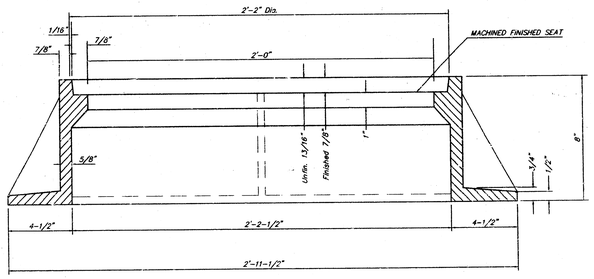


SECTION VIEW

MANHOLE FRAME
Weight = 240 Lbs.



TOP VIEW



SECTION A–A

GENERAL NOTES

MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A-48. DIMENSIONS AND WEIGHTS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.

MANHOLE CASTINGS SHALL BE COATED WITH AN ASPHALT PAINT RESULTING IN A SMOOTH, TOUGH AND TENACIOUS COATING WHICH IS NOT BRITTLE OR TACKY.

MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDARY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND STILL MEET ALLOWABLE CLEARANCES AND NON-ROCKING REQUIREMENTS. THIS WILL REQUIRE MANUFACTURING OF THE MATCHING FACES ON THE COVER AND THE FRAME TO CLOSE TOLERANCES.

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 AS THESE SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUMFERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.

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 INCH IN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SEWER DEPARTMENT". THE WORD DEPARTMENT MAY BE ABBREVIATED. THE TEXTURE OF 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.

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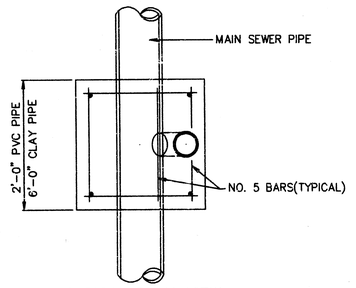
MANHOLE FRAME AND COVER

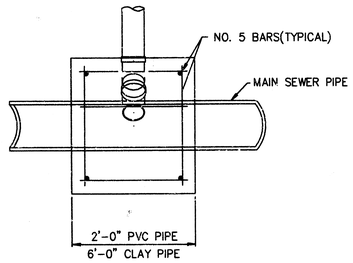
M. E. LINDEBAK P.E. – CITY ENGINEER

PROJECT NUMBER	INDEX CODE
468-82943	743791
DATE MAR 96	SHEET 3 OF 13

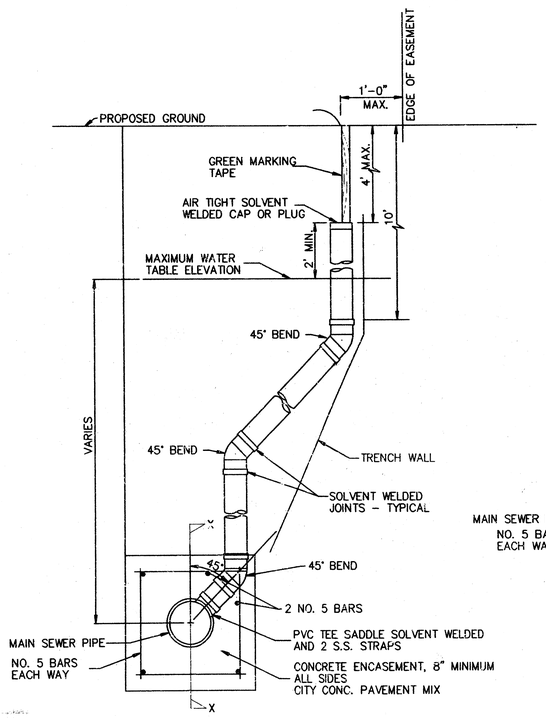
VERTICAL RISER DETAILS
ADOPTED AS STANDARD DESIGN
BY
CITY OF WICHITA, KANSAS
OCTOBER 1992



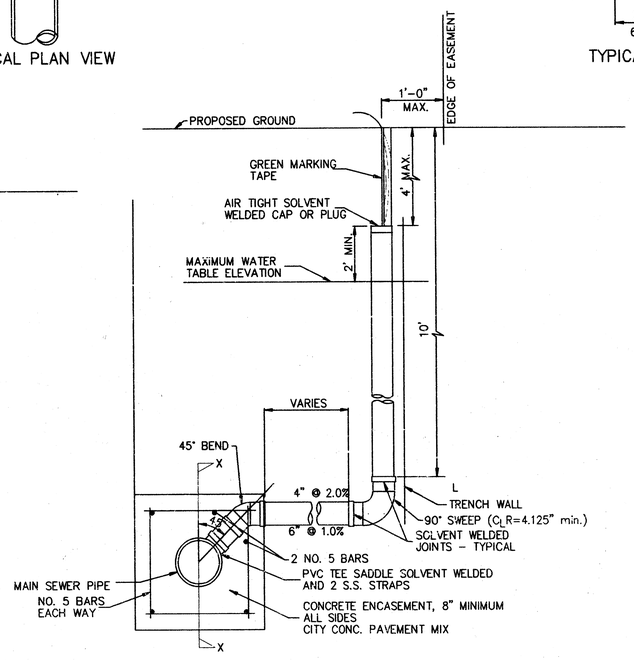
TYPICAL PLAN VIEW



TYPICAL SECTION X-X



METHOD "A"



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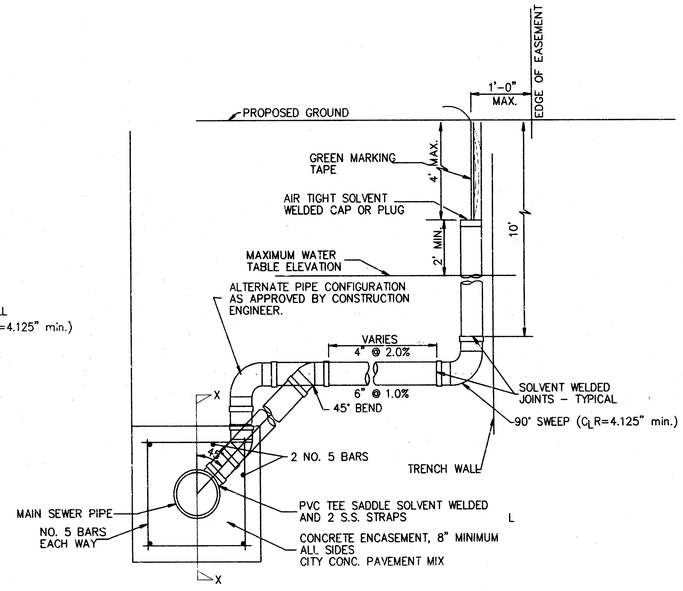

METHOD "C"

NOTE: RISER PIPE REQUIREMENTS AT MANHOLE STUBS SHALL BE SIMILAR TO THOSE SHOWN ABOVE.

GENERAL NOTES

1. RISERS. Risers shall be installed to serve all lots or tracts where the sanitary sewer main is below the water table. Risers shall also be installed to serve all lots and tracts where the sanitary sewer main depth is greater than 12 feet below the proposed ground elevation. Installation of risers because of field conditions shall be as approved by the Construction Engineer. The location of the risers to serve developed property shall be approved by the property owner and the Construction Engineer.

2. PIPE STUBS. Pipe stubs shall be installed in manholes where locations of manholes will provide satisfactory service connection as determined by the Construction Engineer. The vertical distance between the flowline of the manhole pipe stub and the flowline of the sanitary sewer main out of the manhole shall not exceed 2 feet. Risers shall be utilized at manhole pipe stubs as indicated in Note 1. Manhole pipe stubs shall be set such that the top of the stub is not lower than the top of the sanitary sewer main.

3. SIZING. Pipe stubs and risers shall be sized according to the plans and riser table where risers are indicated by the plans. Where risers or pipe stubs are required because of field conditions, the risers and stubs shall be six-inch diameter for commercial or industrial properties and 4" or 6" diameter for residential properties, based on lot size and sanitary sewer main depth. Sizing of risers and stubs shall be approved by the Construction Engineer prior to installation.

4. RISER OR STUB MATERIAL. Risers and stubs shall be constructed of SDR 35 PVC Pipe or Schedule 40 PVC Pipe, meeting the requirements of the latest revision of A.S.T.M. . All pipe joints shall be solvent welded.

5. REINFORCED CONCRETE ENCASEMENT. Riser connections to clay pipe sanitary sewers shall be reinforced concrete encased both ways from the riser centerline. The reinforced concrete encasement shall extend three feet from the riser centerline or stop at the first sanitary sewer pipe joint within three feet of the riser centerline. Riser connections to PVC Sanitary Sewer mains shall be reinforced concrete encased one foot each way from the riser centerline. The concrete encasement shall be reinforced using reinforcing steel as shown in the appropriate drawing. The concrete shall conform to the City Standard Specifications for concrete pavement.

6. BEDDING. Bedding around the sanitary sewer riser shall be compacted Pipe Bedding Type 1 or 2. The bedding shall be placed and compacted from the depth of the sanitary sewer main to the top of the sanitary sewer riser pipe. Compacted Pipe Bedding Type 1 or 2 shall be required for all risers whether constructed in vertical wall or sloped wall trenches. Bedding material and construction practices shall be approved by the Construction Engineer prior to installation.

7. SUPPORT OF RISERS. Sanitary sewer riser pipe shall be supported during trench backfill. The riser pipe shall be held in a vertical position at all times until trench backfill and compaction has been completed. Contractor's methods for supporting and backfilling the riser pipe shall be approved by the Construction Engineer.

8. PLUGGING. The ends of the riser pipes and manhole stubs shall be plugged using an airtight solvent welded cap or plug. Cap or plug fittings shall be approved by the Construction Engineer prior to installation. Caps or plugs which do not provide an airtight seal will not be accepted.

9. TOP OF THE RISER PIPE. The top elevation of the sanitary sewer riser pipe shall be built per plan elevations, unless otherwise directed by the Construction Engineer. Where riser elevations are not shown on the plans, the top of the risers shall be set at an elevation four feet below the proposed ground surface. If ground water is encountered, the top of the riser pipe shall be set at an elevation two feet (min.) above the maximum water table elevation, regardless of the riser elevation shown on the plans.

10. MARKING. Locations of the ends of the sanitary sewer riser pipe shall be marked by fastening green colored plastic tape to the end of the riser. The tape shall be supported by a length of wooden 2 x 4, extending from the top of the riser pipe to the proposed ground surface. The green tape shall be visible and extend one foot above the proposed ground surface. The green tape shall be 4 mil Polyethylene film with a minimum width of three inches, specifically manufactured for the purpose of identification of underground sewers.

11. LOCATION MEASURES. The project inspector shall record and document the location of all risers constructed as measured from the nearest manhole, indicating the direction from the manhole, the direction and distance from the main, riser size, and elevation of the top of the riser.

12. RISER LOCATION. The riser shall be located per plan if shown. If not shown on the plan, the riser shall be located at the center of the lot, within one foot of the property side of the easement for the lot being served. All riser locations shall be approved by the Construction Engineer prior to installation.

13. PAYMENT. "Sanitary sewer risers" shall be paid for at the contract unit price per each, which price shall be full compensation for all pipe, fittings, marking tape, length of wooden 2 x 4, reinforced concrete encasement, support during backfill, backfill, labor, site restoration, and any other items necessary to complete the work.

"Manhole stubs" shall be paid for at the contract unit price per each, which shall be full compensation for all labor, material, and incidentals necessary to complete the work including all pipe, fittings, reinforced concrete encasement, and all other items as required and listed for "Sanitary Sewer Risers".

THE CITY OF WICHITA

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VERTICAL RISER DETAIL

M. E. LINDEBAK P.E. - CITY ENGINEER

PROJECT NUMBER	INDEX CODE
468-82943	743791

DATE	SHEET
MAR 96	SHEET 4 OF 13

SRB

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

REMOVE AND REPLACE EXISTING FENCE ONLY AS NEEDED FOR CONSTRUCTION

STA 0+04.69 LINE 1
CONNECT TO EXIST. MH
CONSTRUCT OUTSIDE DROP
TOP ELEV. = 137.0

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

Existing 15" San. Sewer

STA 4+28.54 LINE 1 =
STA 0+00.00 LINE 1A
CONSTRUCT STANDARD MH
TOP ELEV. = ~~136.5~~ 136.65

STA 6+77.47 LINE 1
CONSTRUCT STANDARD MH
TOP ELEV. = ~~137.3~~ 137.38

STA 9+50.47 LINE 1
CONSTRUCT STANDARD MH
TOP ELEV. = ~~138.9~~ 136.86

MAIZE ROAD
Existing A.C. Pavement

8.47'
50' R/W
53.16'
15.0'
146.40'
78.98'
15.0'
99.93'
85'
15.0'
70'
112.01'
100.97'
15.0'
5.0'
20' UTILITY EASEMENT
25.51'
30' ESMT.
5.0'
91°51'10"
90°07'00"
90°07'00"
89°57'21"
64' F/W
115'
Existing 15" San. Sewer
EXISTING DRAINAGE DEDICATION
LINDSAY'S ORCHARD ADDITION
29
30
28
27
31
35
34
36
51
50
49
48
47
37
1
2
STA 1+50.00 LINE 1 =
STA 0+00, LINE 2
CONSTRUCT STANDARD MH
TOP ELEV. = ~~137~~ 137.07
JEWELL CIR.
Future A.C. Pavement
RITA
Future A.C. Pavement
RITA CT.
Future A.C. Pavement
PROPOSED 8" WATER
LINE 2
SEE SHEET 6
LINE 1A
SEE SHEET 5
LINE 1 (CONT.)
SEE SHEET 5

LINE 1

STA 0+04.69 LINE 1
CONNECT TO EXIST. MH
TOP ELEV. = 137.0

STA 1+50 LINE 1
CONSTRUCT STANDARD MH
TOP ELEV. = ~~137.07~~ 137.07

STA 4+28.54 LINE 1
CONSTRUCT STANDARD MH
TOP ELEV. = ~~136.5~~ 136.65

STA. 5+55.50 TO STA. 5+96.00
PLACE FLOWABLE FILL AS INDICATED.
TOP ELEV. 136.0

Proposed 8" Water
(By Others)

STA 6+77.47 LINE 1
CONSTRUCT STANDARD MH
TOP ELEV. = ~~137.3~~ 137.38

STA 9+50.47 LINE 1
CONSTRUCT STANDARD MH
TOP ELEV. = ~~138.9~~ 136.86

FINISHED GRADE

EXIST GROUND

CONRETE ENCASE
35 L.F. 8" SAN. SEWER

0+70.21
1+05.18

145.31 LF 8" PIPE @ 0.40%
278.54 LF 8" PIPE @ 0.40%
243.98 LF 8" PIPE @ 0.40%
273.00 LF 8" PIPE @ 0.40%

118.94 FL OUT (W)
126.82 FL IN (N)
118.83 FL IN (E)
123.79 FL IN (S)
125.65 FL
124.32
124.32 FL OUT
124.49 FL IN (S) 124.42
126.25 FL IN (W) 126.21
126.46 FL
126.66 FL
127.27 FL
127.32 FL OUT 127.32
127.47 FL IN (S, W) 127.42
127.25 FL
128.15 FL
128.45 FL OUT 128.51
128.65 FL IN 128.61
128.84 FL
129.04 FL
129.41 FL
129.64 FL OUT 129.45
129.74 FL IN (W) 129.55

0+00 0+04.69 1+00 1+50 2+00 3+00 4+28.54 5+00 6+00 6+77.47 7+00 8+00 9+00 9+50.47

140 135 130 125 120

LINDSAY'S ORCHARD
LINE 1
WICHITA, KANSAS

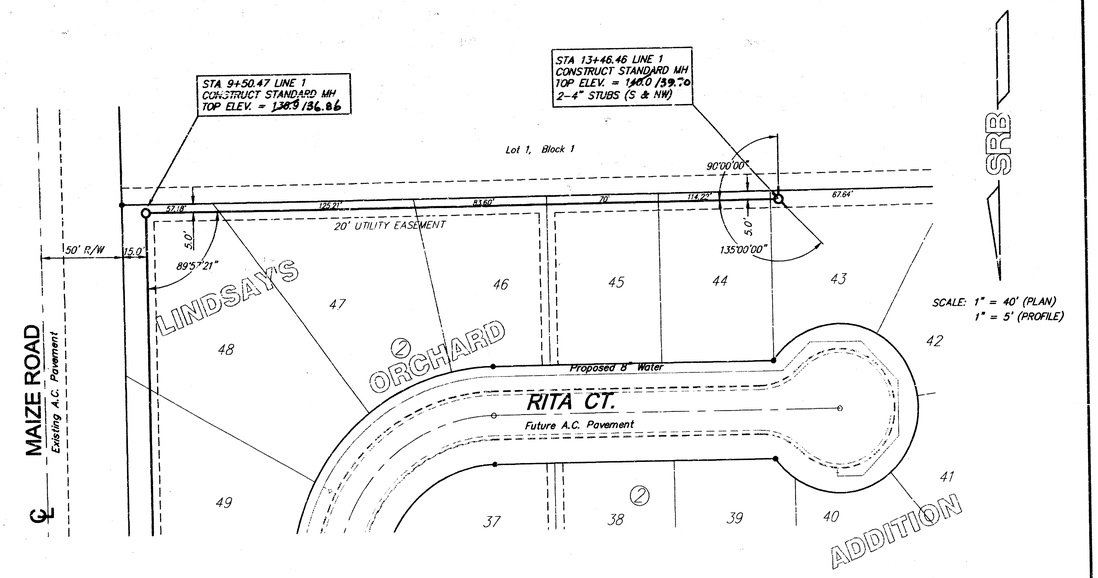
SRB
924 NORTH MAIN
WICHITA KANSAS 67203
http://www.feist.com/~srb
316-264-8008
FAX 264-4621
E-Mail: srb@feist.com
SAVOY, RUGGLES & BOHM, P.A.
ENGINEERING & SURVEYING

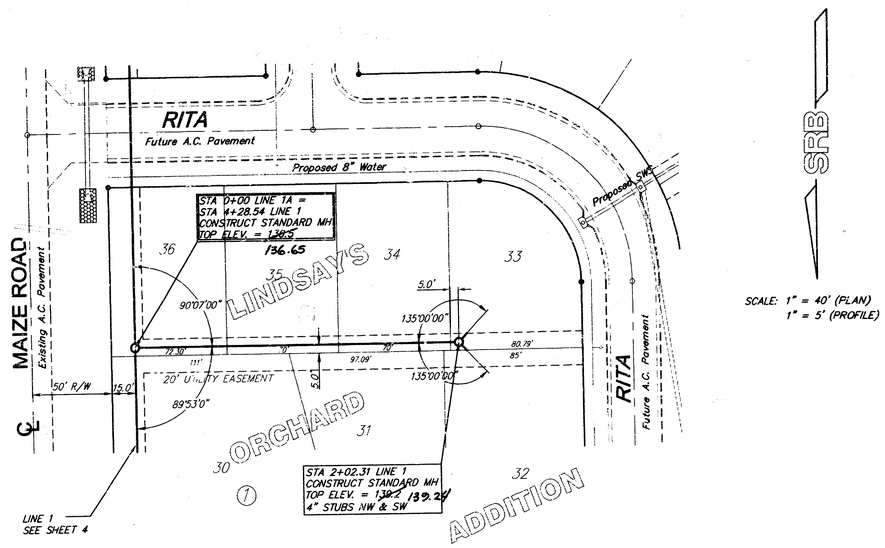
PROJECT NUMBER 468-82943

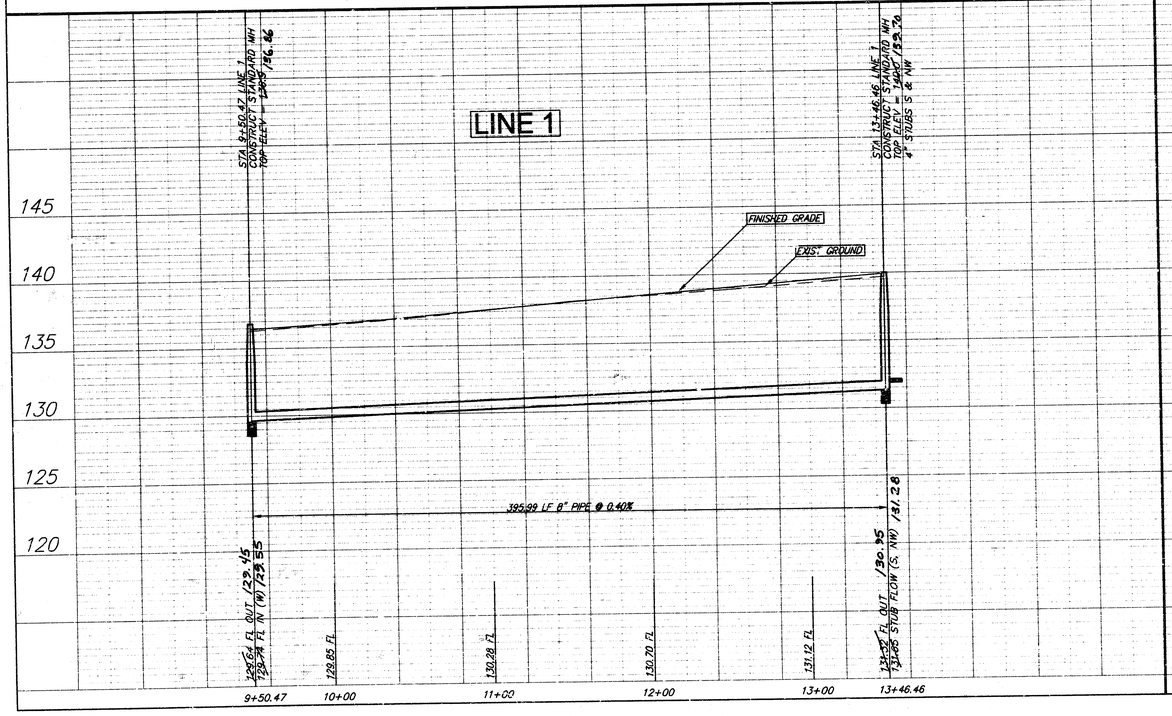
DESIGN	DRAWN	UTILITY	REVIEW	DATE	REVISED
	EJG\JRA		CMB	Feb. 24, 1999	

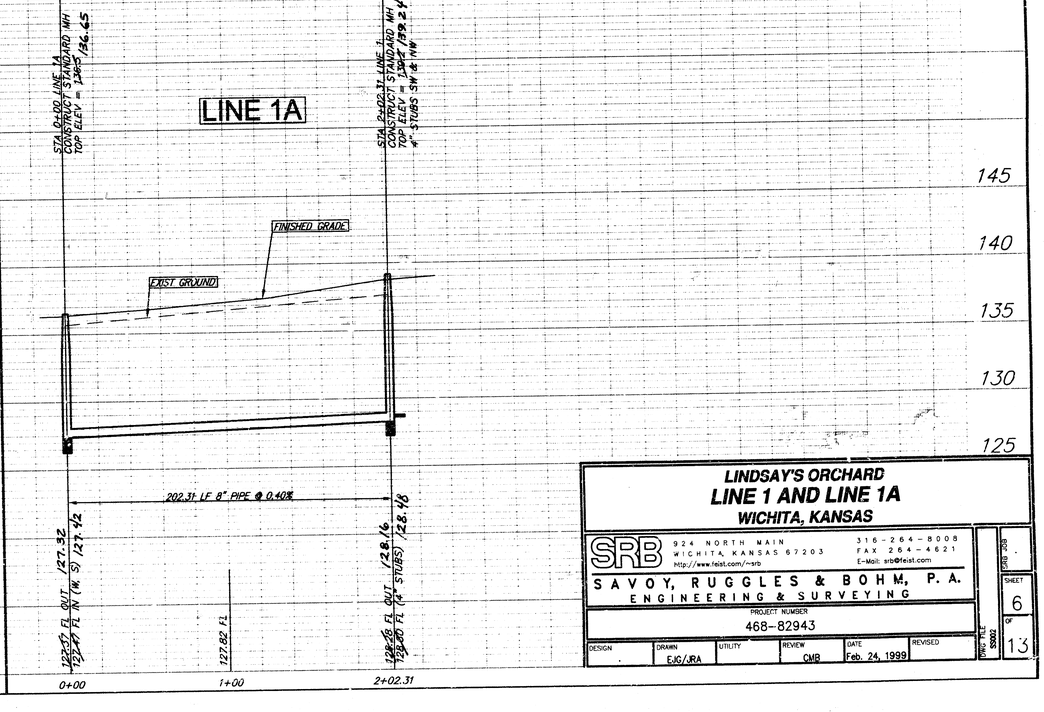
DWG TITLE SHEET

SHEET 5 OF 13









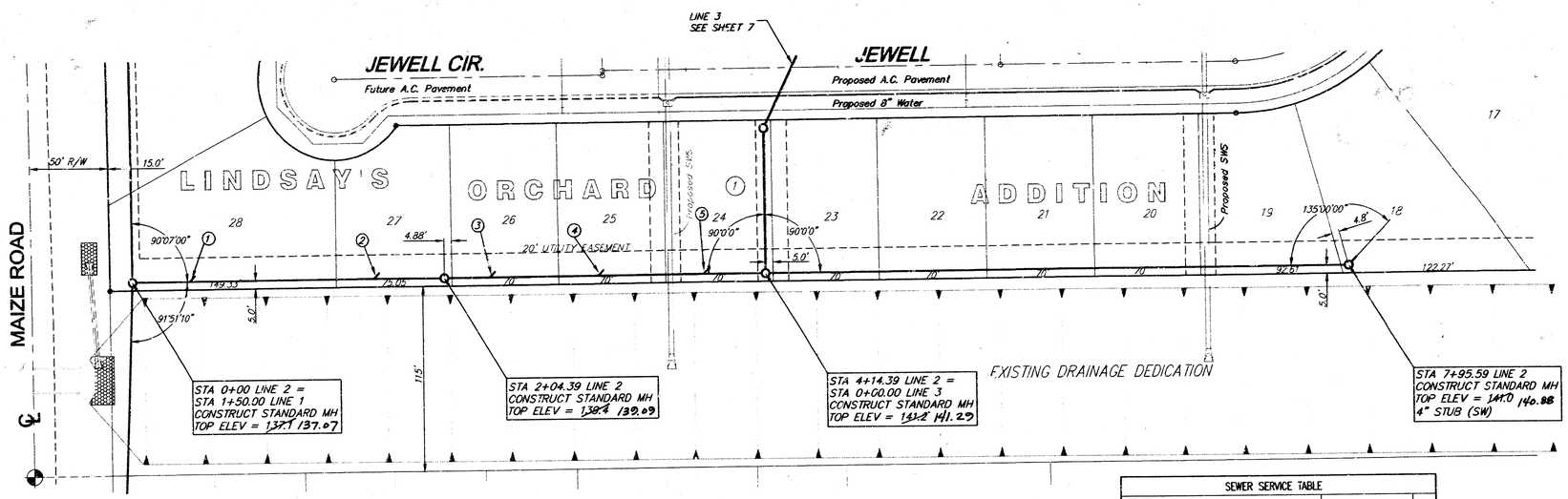
LINDSAY'S ORCHARD
LINE 1 AND LINE 1A
WICHITA, KANSAS

SRB
924 NORTH MAIN
WICHITA, KANSAS 67203
http://www.feist.com/~srb
316-264-8008
FAX 264-4621
E-Mail: srb@feist.com
SAVOY, RUGGLES & BOHM, P.A.
ENGINEERING & SURVEYING

PROJECT NUMBER 468-82943

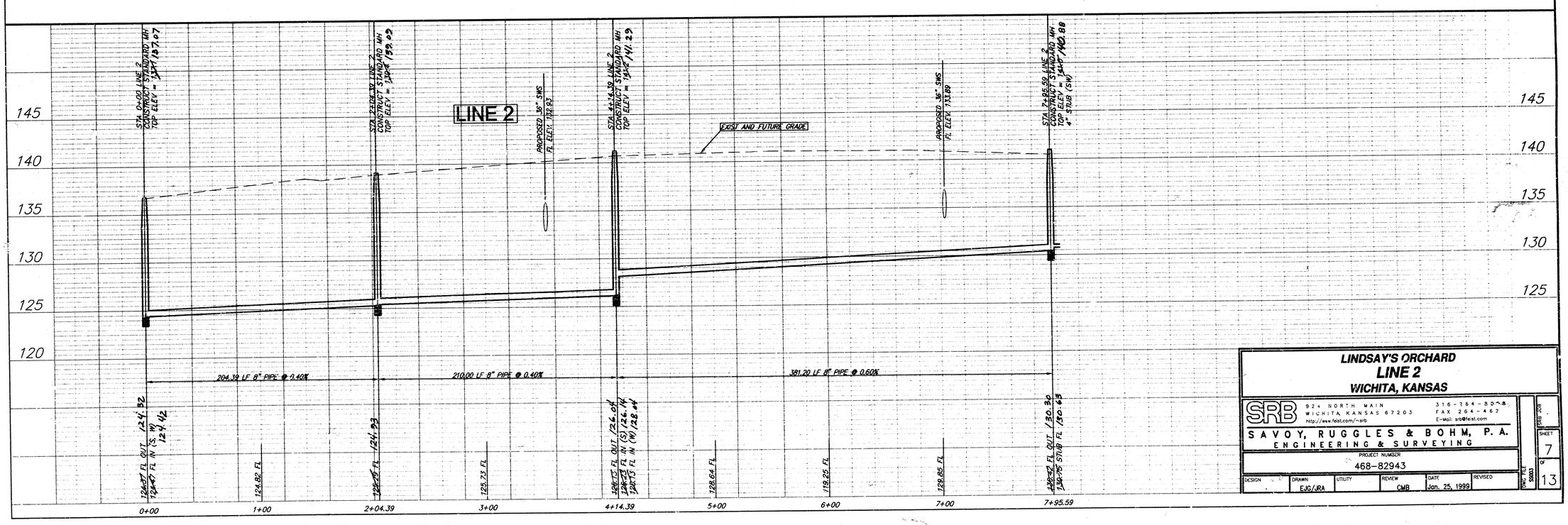
DESIGN	DRAWN	UTILITY	REVIEW	DATE	REVISED
.	EJC/JRA		CMB	Feb. 24, 1999	

DWG FILE S5002 | SRB JOB . | SHEET 6 | OF 13



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

SEWER SERVICE TABLE						
LOCATION					FOR INFORMATION ONLY	
NO.	LOT NO.	BLOCK NO.	LATERAL NO.	STATION/ DIRECTION	APPROXIMATE LENGTH 4" PIPE	NO.
1	28	1	2	0+38.51 / SW	5'	1
2	27	1	2	1+59.37 / SW	5'	2
3	26	1	2	2+34.39 / SW	5'	3
4	25	1	2	3+04.39 / SW	5'	4
5	24	1	2	3+74.39 / SW	5'	5



LINDSAY'S ORCHARD
LINE 2
WICHITA, KANSAS

SRB
924 NORTH MAIN
WICHITA, KANSAS 67203
http://www.feist.com/~srb
316-264-8008
FAX 264-4462
E-Mail: srb@feist.com
SAVOY, RUGGLES & BOHM, P.A.
ENGINEERING & SURVEYING

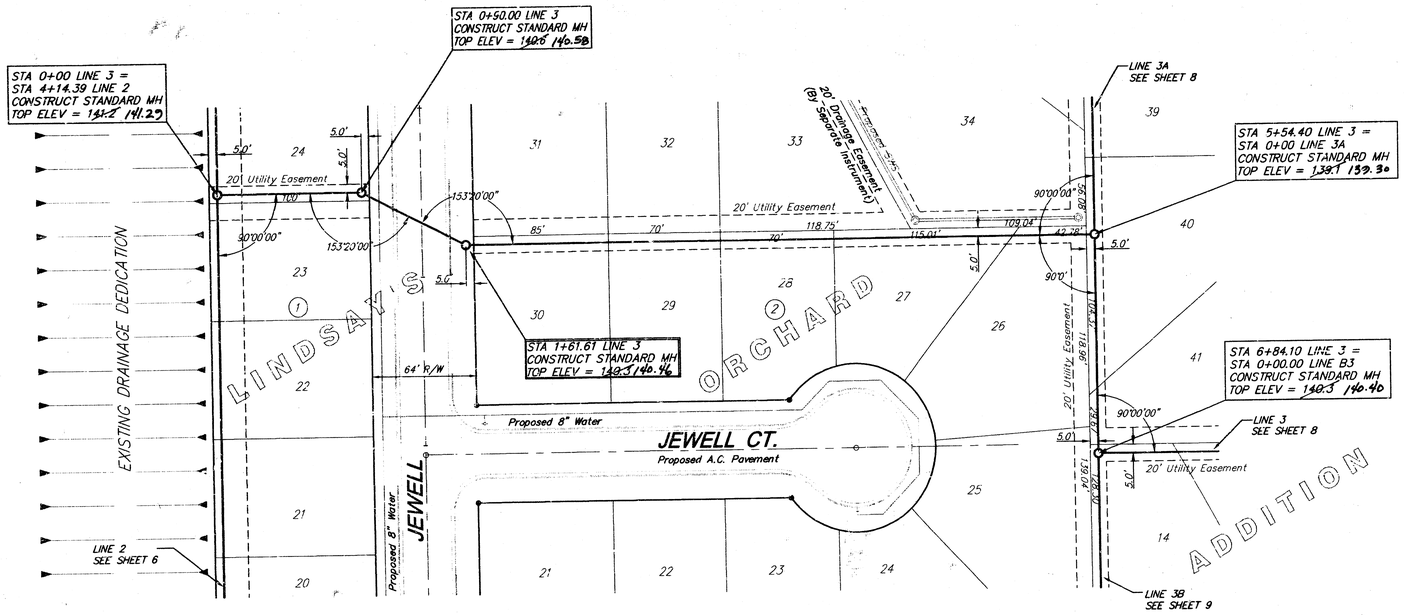
PROJECT NUMBER
468-82943

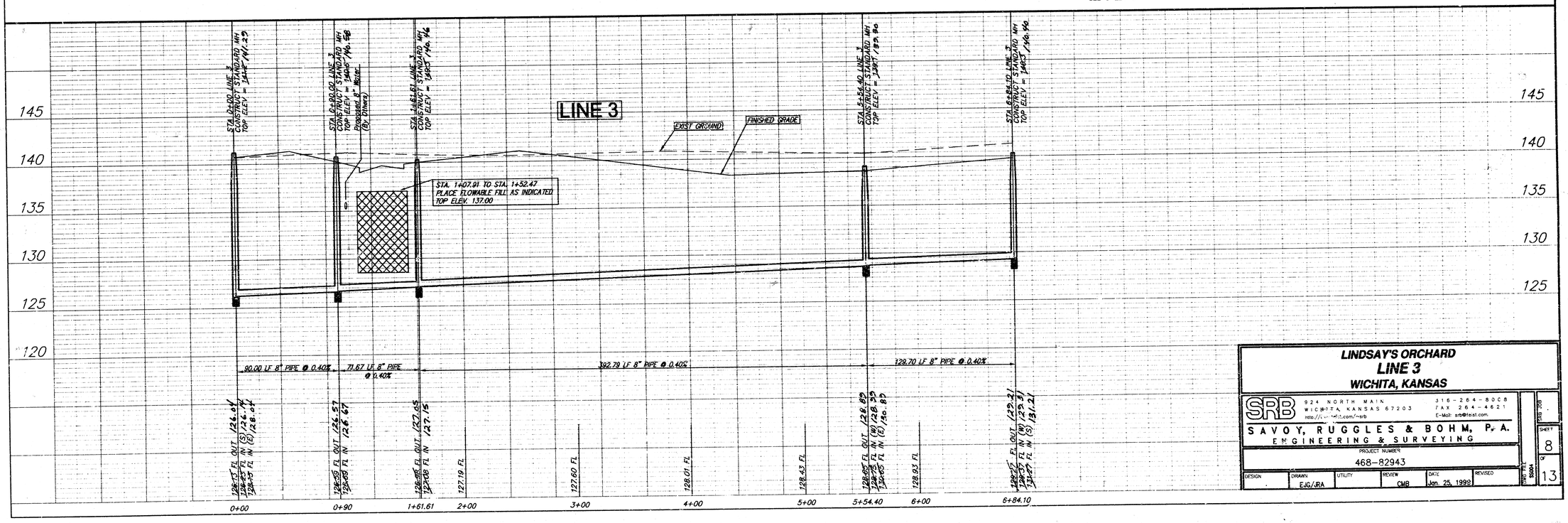
DESIGN	DRAWN	UTILITY	REVIEW	DATE	REVISED
	EJG/JRA		CMB	Jan. 25, 1999	

SRB JOB
SHEET 7 OF 13
DWG FILE 99033

SRB

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





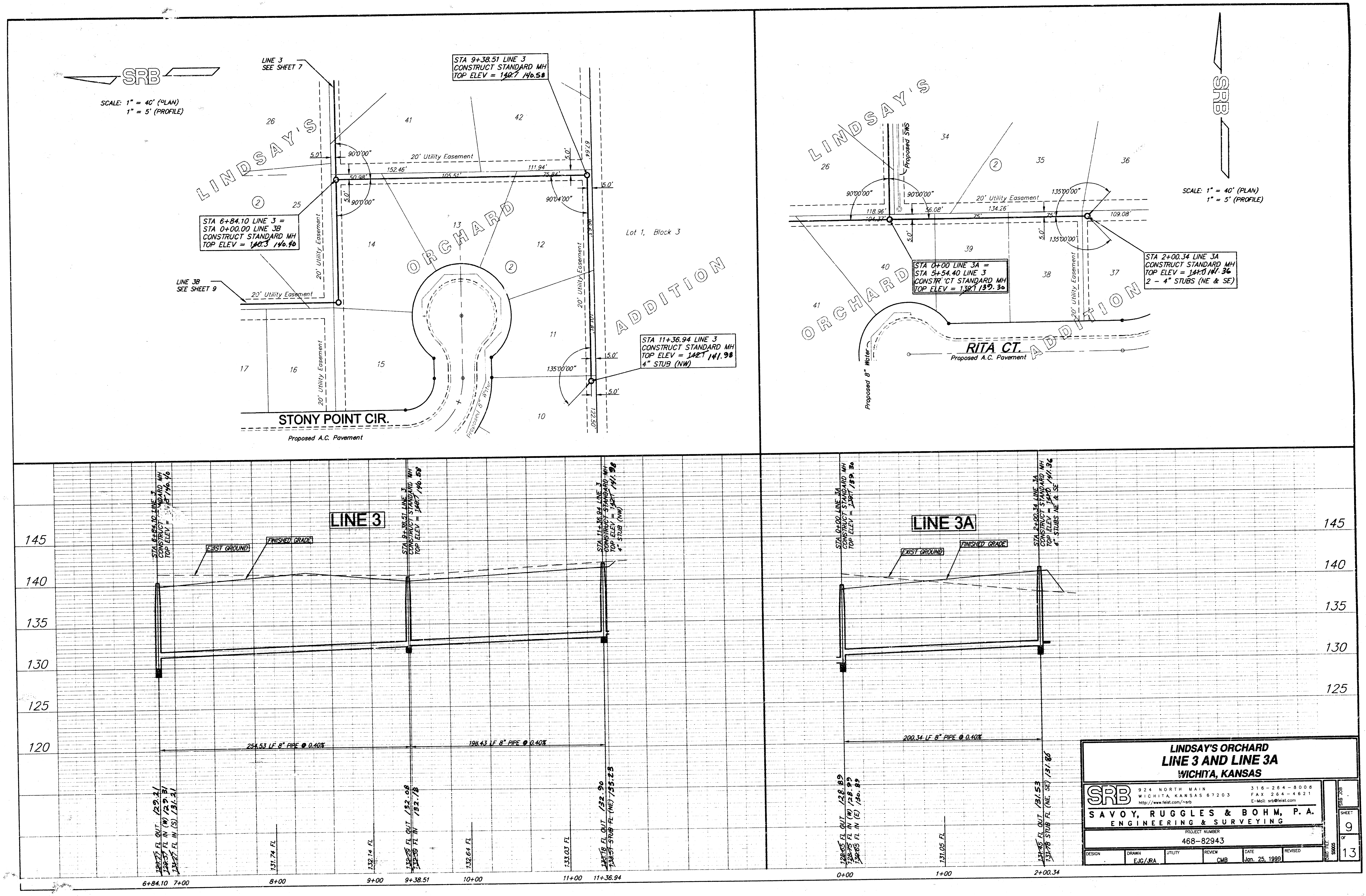
LINDSAY'S ORCHARD
LINE 3
WICHITA, KANSAS

SRB
924 NORTH MAIN
WICHITA, KANSAS 67203
http://www.swbc.com/~srb
316-264-8005
FAX 264-4621
E-Mail: srb@feist.com
SAVOY, RUGGLES & BOHM, P.A.
ENGINEERING & SURVEYING

PROJECT NUMBER 468-82943

DESIGN	DRAWN	UTILITY	REVIEW	DATE	REVISED
	EJG/JRA		CMB	Jan. 25, 1999	

SRB 268
SHEET 8
OF 13



LINDSAY'S ORCHARD
LINE 3 AND LINE 3A
WICHITA, KANSAS

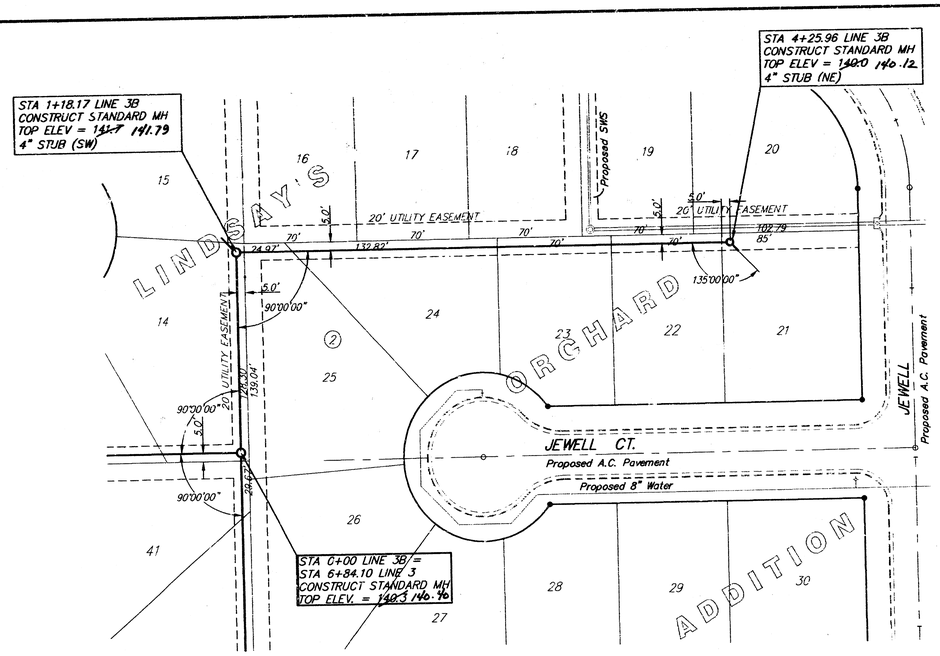
SRB 924 NORTH MAIN WICHITA, KANSAS 67203 http://www.feist.com/~srb 316-264-8008 FAX 264-4621 E-Mail: srb@feist.com

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

PROJECT NUMBER 468-82943

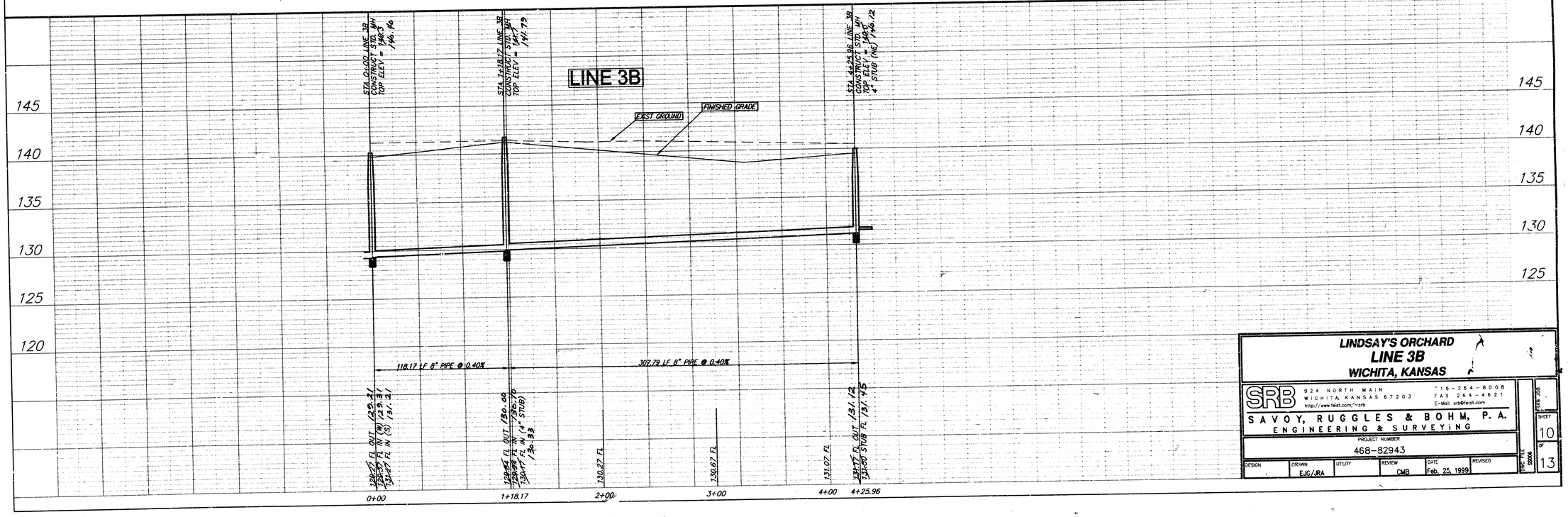
DESIGN	DRAWN	UTILITY	REVIEW	DATE	REVISED
	EJG/JRA		CMB	Jan. 25, 1999	

SHEET 9 OF 13



SRB

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

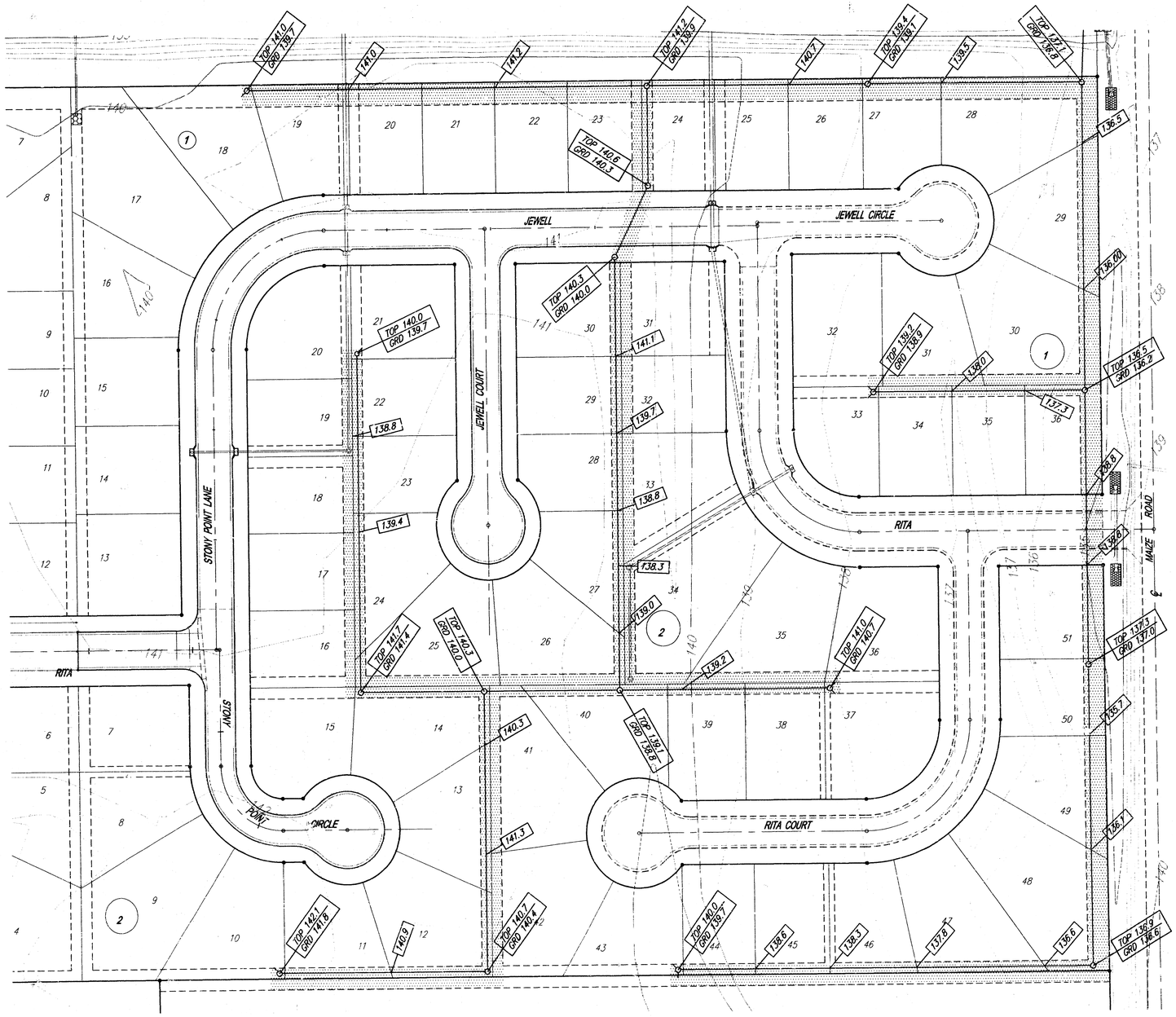


LINDSAY'S ORCHARD
LINE 3B
WICHITA, KANSAS

SRB
924 NORTH MAIN
WICHITA, KANSAS 67203
http://www.feist.com/~srb
316-264-8008
FAX 264-4621
E-Mail: srb@feist.com
SAVOY, RUGGLES & BOHM, P. A.
ENGINEERING & SURVEYING

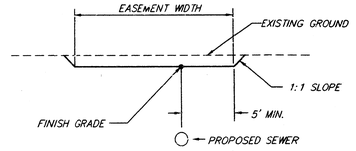
PROJECT NUMBER					
468-82943					
DESIGN	DRAWN	UTILITY	REVIEW	DATE	REVISED
	EJG/JRA		CMB	Feb. 25, 1999	

SRB PDB
SHEET 10 OF 13
DWG FILE S5006



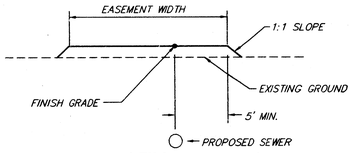
SRB

Scale 1" = 50'



CUT

TYPICAL GRADING SECTION



FILL

TYPICAL GRADING SECTION

LEGEND

- 163.1 — FINISH ELEVATION – THIS PROJECT
- ~162.31 TC — PROPOSED TOP OF CURB ELEVATION
- ~162.31 — PROPOSED GROUND ELEVATION
- EXISTING GROUND ELEVATION
- GRADING AREA – THIS PROJECT

EASEMENT GRADING PLAN

LINDSAY'S ORCHARD ADDITION

WICHITA, KANSAS

SRB
924 NORTH MAIN
WICHITA KANSAS 67203
http://www.feist.com/~srb
316-264-8008
FAX 264-4621
E-mail: srb@feist.com
SAVOY, RUGGLES & BOHM, P. A.
ENGINEERING & SURVEYING

PROJECT NUMBER 468-82943

DESIGN	DRAWN	UTILITY	REVIEW	DATE	REVISED
KML	JRA	-		Feb. 25, 1999	-

SRB JOB NO. 468

SHEET 11 OF 13

DWG FILE east grading

LINE 1

STATION	DEPTH Feet		AREAS Square Feet		VOLUMES Cubic Yards		CUMULATIVE VOLUMES Cubic Yards	
	FILL	CUT	FILL	CUT	FILL	CUT	FILL	CUT
3+45	0.00	0.00	0.00	0.00				
4+00	0.43	0.00	8.78	0.00	8.88	0.00	8.88	0.00
4+50	1.24	0.00	26.34	0.00	32.52	0.00	41.40	0.00
5+00	2.47	0.00	55.50	0.00	75.78	0.00	117.18	0.00
5+50	3.31	0.00	77.16	0.00	122.83	0.00	240.01	0.00
6+00	3.79	0.00	90.16	0.00	154.93	0.00	394.93	0.00
6+50	2.22	0.00	49.33	0.00	129.16	0.00	524.08	0.00
7+00	1.30	0.00	27.69	0.00	71.31	0.00	595.41	0.00
7+50	0.37	0.00	7.54	0.00	32.62	0.00	628.02	0.00
8+00	0.04	0.00	0.80	0.00	7.72	0.00	635.74	0.00
8+50	0.17	0.00	3.43	0.00	3.92	0.00	639.66	0.00
9+00	0.26	0.00	5.27	0.00	8.05	0.00	647.71	0.00
9+50	0.51	0.00	10.46	0.00	14.56	0.00	662.28	0.00
10+00	0.08	0.00	1.61	0.00	11.17	0.00	673.45	0.00
10+50	0.07	0.00	1.40	0.00	2.79	0.00	676.24	0.00
11+00	0.02	0.00	0.40	0.00	1.67	0.00	677.91	0.00
11+50	0.00	0.00	0.00	0.00	0.37	0.00	678.28	0.00
12+00	0.05	0.00	1.00	0.00	0.93	0.00	679.21	0.00
12+50	0.15	0.00	3.02	0.00	3.73	0.00	682.93	0.00
13+00	0.19	0.00	3.84	0.00	6.35	0.00	689.29	0.00
13+50	0.23	0.00	4.65	0.00	7.86	0.00	697.15	0.00

LINE 1A

STATION	DEPTH Feet		AREAS Square Feet		VOLUMES Cubic Yards		CUMULATIVE VOLUMES Cubic Yards	
	FILL	CUT	FILL	CUT	FILL	CUT	FILL	CUT
0+00	0.83	0.00	17.29	0.00				
0+50	0.58	0.00	11.94	0.00	27.06	0.00	27.06	0.00
1+00	0.58	0.00	11.94	0.00	22.10	0.00	49.16	0.00
1+50	0.76	0.00	15.78	0.00	25.66	0.00	74.83	0.00
2+02	1.10	0.00	23.21	0.00	37.77	0.00	112.59	0.00

LINE 2

Finished Grade = Existing Grade

LINE 3

STATION	DEPTH Feet		AREAS Square Feet		VOLUMES Cubic Yards		CUMULATIVE VOLUMES Cubic Yards	
	FILL	CUT	FILL	CUT	FILL	CUT	FILL	CUT
0+00	0.00	0.00	0.00	0.00				
0+50	0.40	0.00	8.16	0.00	7.56	0.00	7.56	0.00
1+00	0.00	1.23	0.00	26.11	7.56	24.18	15.11	24.18
1+50	0.00	1.52	0.00	32.71	0.00	54.47	15.11	78.64
2+00	0.00	0.25	0.00	5.46	0.00	34.97	15.11	113.62
2+50	0.48	0.00	9.83	0.00	9.10	4.69	24.21	118.31
3+00	0.00	0.37	0.00	7.54	9.10	6.98	33.32	125.29
3+50	0.00	1.22	0.00	25.89	0.00	30.95	33.32	156.24
4+00	0.00	1.99	0.00	43.76	0.00	64.49	33.32	220.72
4+50	0.00	2.36	0.00	52.77	0.00	89.38	33.32	310.10
5+00	0.00	2.10	0.00	46.41	0.00	91.83	33.32	401.94
5+50	0.00	1.84	0.00	40.19	0.00	80.18	33.32	482.12
6+00	0.00	1.71	0.00	37.12	0.00	71.58	33.32	553.70
6+50	0.00	1.59	0.00	34.33	0.00	66.16	33.32	619.86
7+00	0.00	1.33	0.00	28.37	0.00	58.05	33.32	677.91
7+50	0.00	0.74	0.00	15.35	0.00	40.48	33.32	718.39
8+00	0.00	0.16	0.00	3.23	0.00	17.20	33.32	735.59
8+50	0.00	0.09	0.00	1.81	0.00	4.66	33.32	740.25
9+00	0.00	0.36	0.00	7.33	0.00	8.46	33.32	748.71
9+50	0.00	0.70	0.00	14.49	0.00	20.20	33.32	768.91
10+00	0.00	0.68	0.00	14.06	0.00	26.44	33.32	795.35
10+50	0.00	0.67	0.00	13.85	0.00	25.84	33.32	821.19
11+00	0.00	0.65	0.00	13.42	0.00	25.25	33.32	846.45
11+50	0.00	0.64	0.00	13.21	0.00	24.66	33.32	871.11

LINE 3A

STATION	DEPTH Feet		AREAS Square Feet		VOLUMES Cubic Yards		CUMULATIVE VOLUMES Cubic Yards	
	FILL	CUT	FILL	CUT	FILL	CUT	FILL	CUT
0+00	0.00	1.75	0.00	38.06				
0+50	0.00	0.75	0.00	15.56	0.00	49.65	0.00	49.65
1+00	0.31	0.00	6.30	0.00	5.83	14.41	5.83	64.06
1+50	1.36	0.00	29.05	0.00	32.73	0.00	38.56	64.06
2+00	2.92	0.00	66.93	0.00	88.87	0.00	127.43	64.06
2+25	0.00	0.00	0.00	0.00	30.98	0.00	158.41	64.06

LINE 3B

STATION	DEPTH Feet		AREAS Square Feet		VOLUMES Cubic Yards		CUMULATIVE VOLUMES Cubic Yards	
	FILL	CUT	FILL	CUT	FILL	CUT	FILL	CUT
0+00	0.00	1.51	0.00	32.48				
0+50	0.00	0.93	0.00	19.46	0.00	48.10	0.00	48.10
1+00	0.00	0.36	0.00	7.35	0.00	24.81	0.00	24.81
1+50	0.00	0.42	0.00	8.58	0.00	14.73	0.00	14.73
2+00	0.00	0.88	0.00	18.37	0.00	24.95	0.00	24.95
2+50	0.00	1.44	0.00	30.87	0.00	45.60	0.00	45.60
3+00	0.00	1.88	0.00	41.13	0.00	66.67	0.00	66.67
3+50	0.00	1.87	0.00	40.90	0.00	75.95	0.00	75.95
4+00	0.00	1.30	0.00	27.69	0.00	63.51	0.00	63.51
4+50	0.00	1.00	0.00	21.00	0.00	45.08	0.00	45.08

PROJECT TOTALS	
FILL	CUT
1001.46 CY	1251.32 CY

EASEMENT GRADING EARTHWORK SUMMARY
LINDSAY'S ORCHARD
WICHITA, KANSAS

SRB
924 NORTH MAIN
WICHITA, KANSAS 67203
http://www.feist.com/~srb
316-264-8308
FAX 264-4621
E-mail: srb@feist.com
SAVOY, RUGGLES & BOHM, P. A.
ENGINEERING & SURVEYING

PROJECT NUMBER 468-82943

DESIGN	DRAWN	UTILITY	REVIEW	DATE	REVISED
KWL	JRA			Mar. 10, 1999	

SRB JOB 1268
SHEET 12 OF 13

LINDSAY'S ORCHARD ADDITION

WICHITA, SEDGWICK COUNTY, KANSAS

State of Kansas)
Sedgwick County) SS

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 ____________

______________________ Surveyor
Mark A. Savoy RLS #788

Know all men by these presents that we, the undersigned have caused the land described in the suveyor'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.

______________________ President
Rick Thompson

State of Kansas)
Sedgwick County) SS

The foregoing instrument acknowledged before me, this ________day of ____________1998, by RickThompson, President, RickThompson 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

______________________ Chairman
John C. Frye

______________________ Secretary
Marvin S. Krout

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

______________________ Mayor
Bob Knight

______________________ City Clerk
Pat Burnett

Entered on transfer record this ____ day of ____________, 1998.

______________________ County Clerk
James Alford

State of Kansas)
Sedgwick County) SS

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.

______________________ Register of Deeds
Larry Consolver

______________________ Deputy
Michael D. Hurtt

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

1" = 100'

● = 1/2" REBAR W/SRB CAP

S.B. = BUILDING SETBACK

C.A.C. = COMPLETE ACCESS CONTROL

BENCHMARK:
City of Wichita Benchmark disc @ Maize Road and May Street 31.5' S. and 38' E. of centerline both.
Elev.=137.67 (City Datum)
Elev.=1325.07 (NGVD)

LINDSAY'S ORCHARD
PLAT
WICHITA, KANSAS

SRB
924 NORTH MAIN
WICHITA, KANSAS 67203
http://www.feist.com/~srb
316-264-8008
FAX 264-4621
E-mail: srb@feist.com
SAVOY, RUGGLES & BOHM, P.A.
ENGINEERING & SURVEYING

PROJECT NUMBER

DESIGN	DRAWN	UTILITY	REVIEW	DATE	REVISED	DWG FILE	SRB JOB
AML	AML		CMB	Jan. 12, 1999		PLAT	1206