

Drainage Report

Replat of Rich's Addition

Location

The subject property is in the City of Wichita, Sedgwick County, Kansas. The proposed development is bordered by Jeanette Street to the west and Ferrell Street to the east; 15th Street North cuts through the center of the plat. The property comprises approximately 0.5 acres located within the southwest 1/4 of Section 8, Township 27 South, Range 1 East. The site was previously platted as a portion of Rich's Addition. The site is shown in the Wichita, Kansas Quadrangle located in Appendix A.

Soils

According to the NRCS (SCS) GIS Sedgwick County Soil Survey (Appendix B), the soil on the site is Urban land-Canadian complex, 0 to 3 percent slopes (HSG "B"). The Hydrologic Soil Group used to select runoff coefficients for the site is "B".

Pre-Project Conditions

Existing Development

There are two existing residential houses on the site. 15th Street North runs east and west through the center of the property.

Pre-Project Landform and Slope

Slopes across the site range from 0.5 to 2.0%.

Pre-Project Drainage Conditions

The entire site is located within Zone B – Area protected from the 100-year storm by a levee, dike, or other structure. The nearest Zone A1 – Area within the 100-year floodplain, is located just to the east of the site over the Little Arkansas River. (FIRM Panel 10, City of Wichita, Kansas, Sedgwick County), Appendix C. The 100-year Base Flood Elevation (BFE) of the Little Arkansas River adjacent to the site is approximately 1302 feet (NGVD) or 114.6 feet Standard Wichita City Datum.

Pre-Project Runoff Characteristics

Runoff from the site drains to Ferrell and Jeanette Streets. Flow entering Ferrell Street is routed west along 15th Street North into inlets located on Jeanette Street. The SWS then routes the runoff east into the Little Arkansas River.

Post-Project Conditions

Post-Project Development

The existing residential buildings on the site will remain. The existing 15th Street North right-of-way is being reclaimed and replated as Reserve A. The pavement will be removed and a sanitary sewer pump station will be constructed within Reserve A. Curb and gutter will be constructed on the west side of Reserve A, preventing access to 15th Street from Jeanette Street. On the east side of Reserve A, an area of rolled curb will allow access to the pump station from Ferrell Street.

Post-Project Landform and Slope

The post-project slopes will be similar to pre-project slopes; however land around the pump station will be built up, preventing runoff from flowing from Ferrell Street to Jeanette Street. The Finished Floor Elevation (FFE) of the pump station has been set at 192.0, approximately 7.4 feet above the BFE and 1.7 feet above the top of the nearest proposed inlet located on Ferrell Street. A Site Grading & Paving Plan is Appendix D.

Post-Project Runoff Characteristics

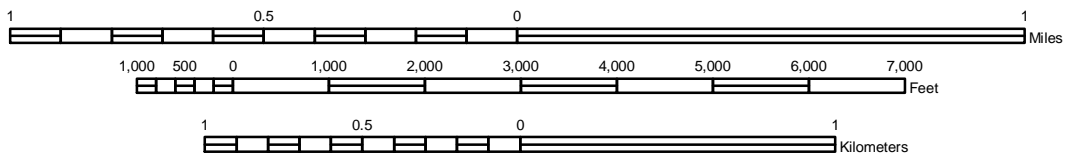
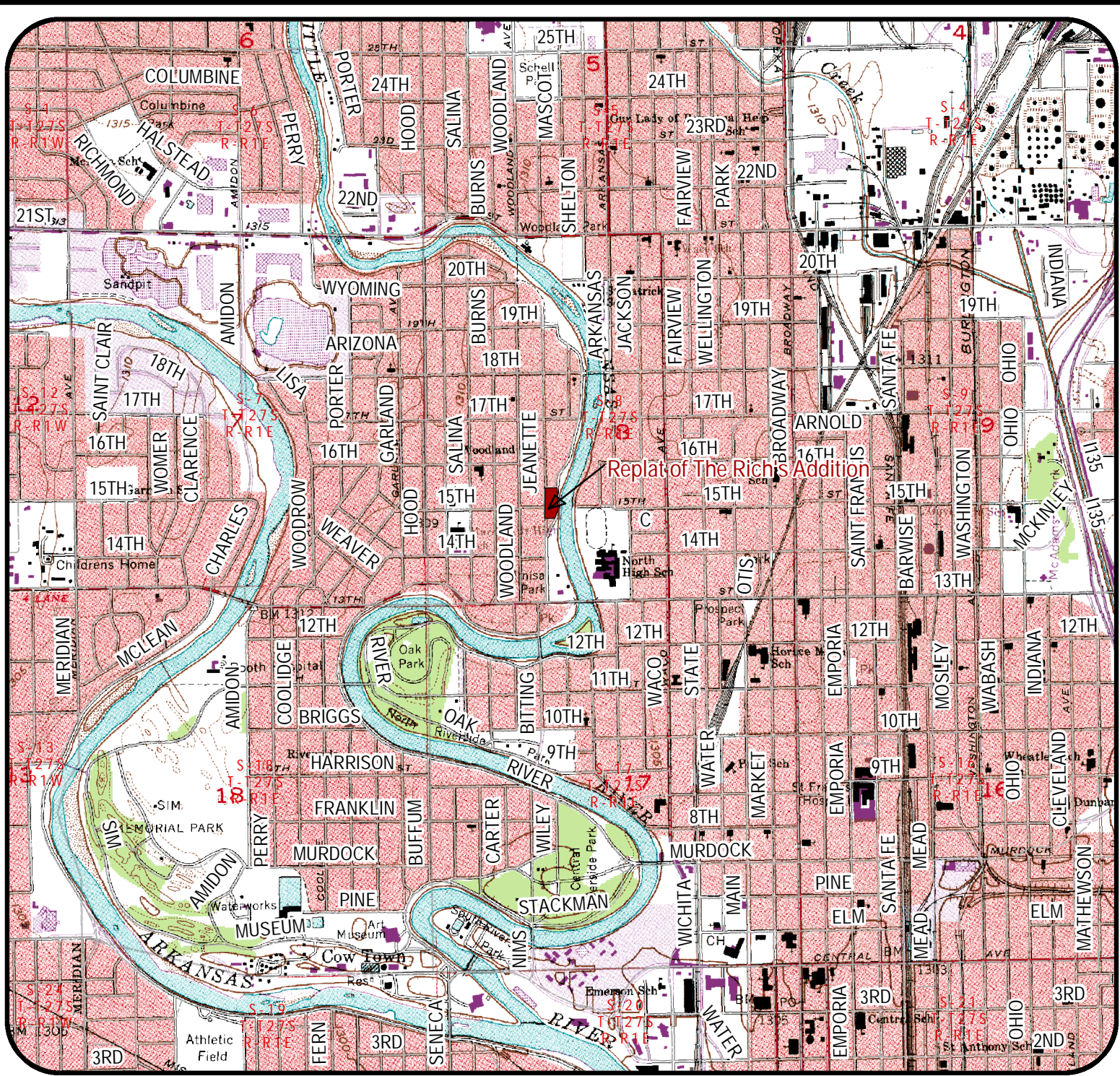
Two Standard Type II-M inlets will replace the existing SWS inlets on Jeanette Street. Runoff from Jeanette Street will continue to follow existing flow paths to the new inlets. A Type I SWS inlet will be constructed on Ferrell Street. This inlet will pick up all the runoff from Ferrell Street. A fourth inlet will be constructed to handle the flow from onsite. All runoff is being routed into the Little Arkansas River via an existing 30" RCP. The Drainage & Utility Plan shows the location of the proposed inlets, Appendix E. The pump station is being built on ground that is currently 100% impervious; therefore the construction of the pump station will not increase the runoff offsite. Due to the small size, the construction of the pump station will not affect the BFE of the Little Arkansas River.

Summary


A sanitary sewer pump station will be constructed within the 15th Street right-of-way between Jeanette Street and Ferrell Street. The right-of-way is being reclaimed in a replat of Rich's Addition. Curb and gutter will be constructed eliminating through traffic on 15th Street. Additional Storm Sewer inlets will route runoff blocked by the new curb and gutter into the existing 30"RCB under 15th Street. All runoff is routed east into the Little Arkansas River. Since the land where the pump station will be constructed is already a 100% impervious road the construction of the pump station will not increase the flow rate leaving the site. A 30" SWS drains all runoff east into the Little Arkansas River.

Appendix A

Quadrangle

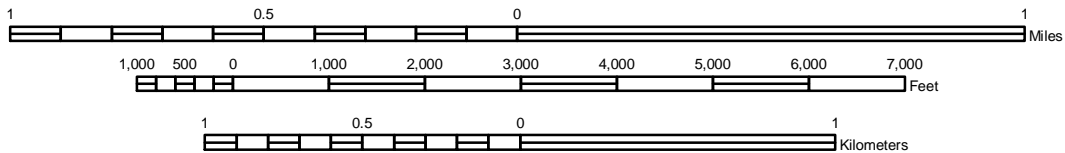
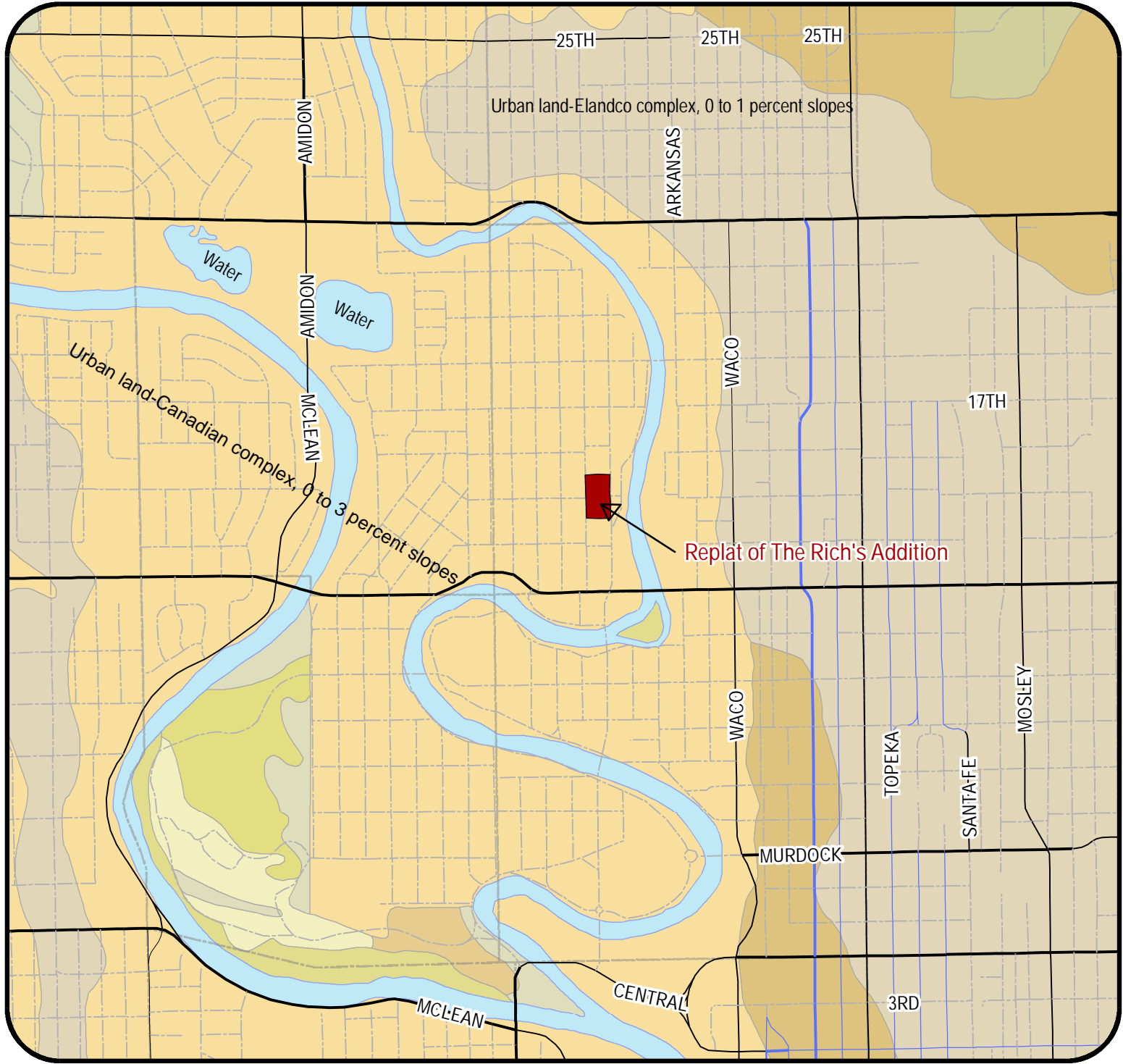


I:\Envr\103310\dwg\Civil\Drng\Drng-USGS

REPLAT OF THE RICH'S ADDITION									
Project Name:	USGS - Sedgwick County, KS								
Sheet Title:									
 MKEC ENGINEERING CONSULTANTS, INC.	<table border="1"> <tr> <td>KWS</td> <td>Dec. 2005</td> </tr> <tr> <td>Drawn By:</td> <td>Date:</td> </tr> <tr> <td>AJK / KLA</td> <td>03310</td> </tr> <tr> <td>Design / Review:</td> <td>Job No.:</td> </tr> </table>	KWS	Dec. 2005	Drawn By:	Date:	AJK / KLA	03310	Design / Review:	Job No.:
KWS	Dec. 2005								
Drawn By:	Date:								
AJK / KLA	03310								
Design / Review:	Job No.:								

Appendix B

Soil Survey



I:\Envr\103310\dwg\Civil\Drmg\hrcs-soil

Replat of The Rich's Addition

Project Name:
 Soil Survey - Sedgwick County, KS
 Sheet Title:



KWS	Dec., 2005
Drawn By:	Date:
AJK / KLA	03310
Design / Review:	Job No.:

Appendix C
FIRM & FBFM



NATIONAL FLOOD INSURANCE PROGRAM


FIRM
FLOOD INSURANCE RATE MAP

CITY OF
WICHITA,
KANSAS
SEDGWICK COUNTY

PANEL 10 OF 40
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
200328 0010 B

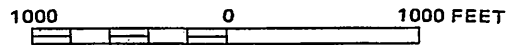
EFFECTIVE DATE:
MAY 15, 1986



Federal Emergency Management Agency



APPROXIMATE SCALE




MKEC
ENGINEERING
CONSULTANTS
411 N. WEBB ROAD
WICHITA, KS. 67206
316 - 684 - 9600

REPLAT OF THE RICH'S ADDITION
PROJECT NAME

FIRM MAP
SHEET TITLE

AJK
DESIGN BY:

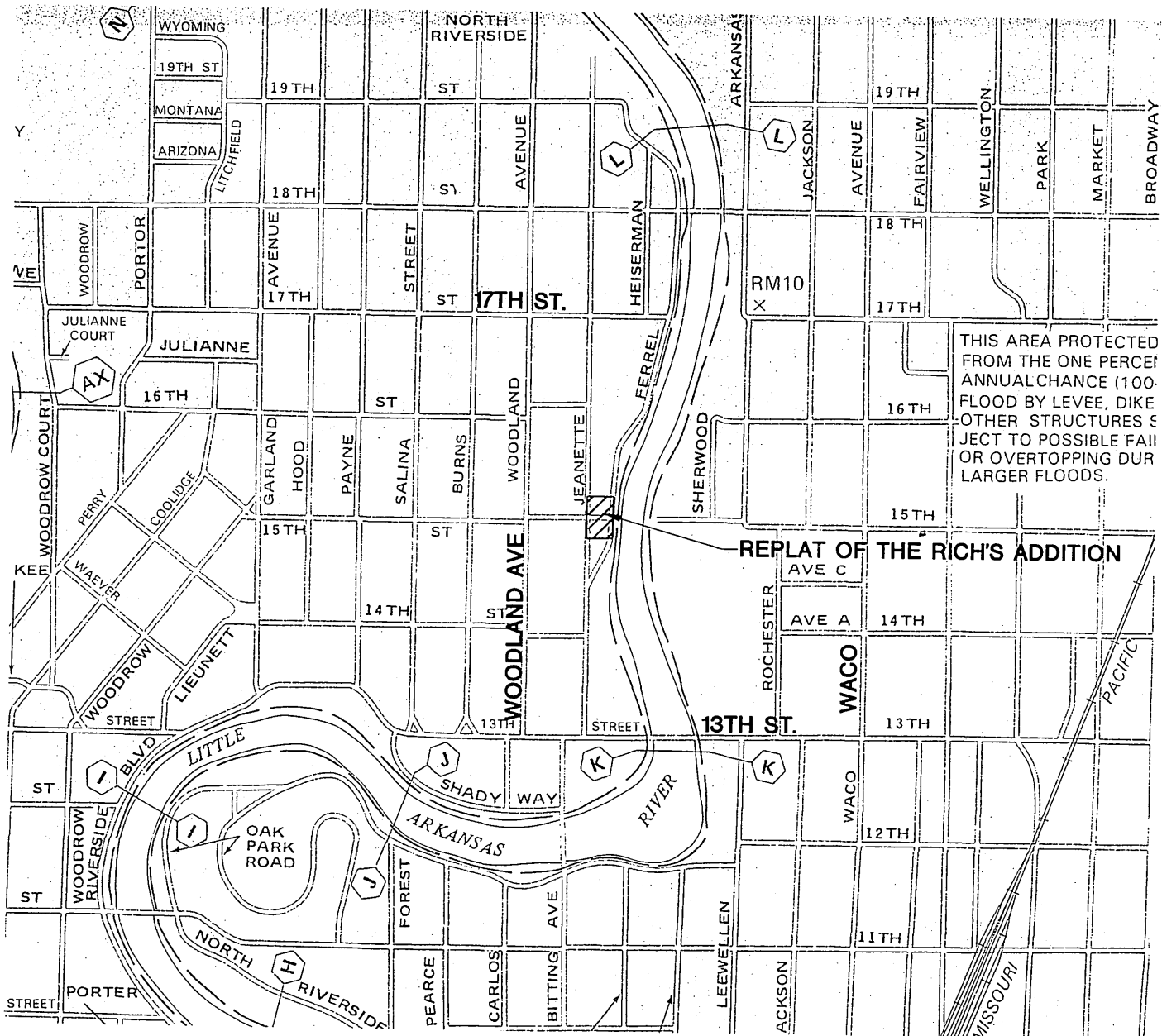
KWS
DRAWN BY:

GJA
CHECKED BY:

DECEMBER 2005
DATE

03310
JOB NO.

1 / 1
SHEET/OF



THIS AREA PROTECTED FROM THE ONE PERCENT ANNUAL CHANCE (100-FLOOD BY LEVEE, DIKE OTHER STRUCTURES SUBJECT TO POSSIBLE FAIL OR OVERTOPPING DURING LARGER FLOODS.

REPLAT OF THE RICH'S ADDITION

NATIONAL FLOOD INSURANCE PROGRAM

FLOODWAY
FLOOD BOUNDARY AND FLOODWAY MAP

CITY OF WICHITA, KANSAS
SEDGWICK COUNTY

PANEL 10 OF 40
(SEE MAP INDEX FOR PANELS NOT PRINTED)

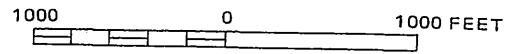
COMMUNITY-PANEL NUMBER
200328 0010
EFFECTIVE DATE:
MAY 15, 1986



Federal Emergency Management Agency



APPROXIMATE SCALE



MKEC
ENGINEERING CONSULTANTS
411 N. WEBB ROAD
WICHITA, KS. 67206
316 - 684 - 9600

REPLAT OF THE RICH'S ADDITION
PROJECT NAME

FLOOD BOUNDARY AND FLOODWAY MAP
SHEET TITLE

AJK DESIGN BY.	KWS DRAWN BY.	GJA CHECKED BY.
-------------------	------------------	--------------------

DECEMBER 2005 DATE	04394 JOB NO.	1 / 1 SHEET/OF
-----------------------	------------------	-------------------

I:\ENVR\03310\DWG\Civil\Drng\FBFA

Appendix D
Site Grading & Paving Plan

GRADING & PAVING LEGEND

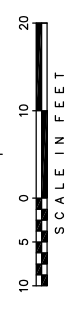
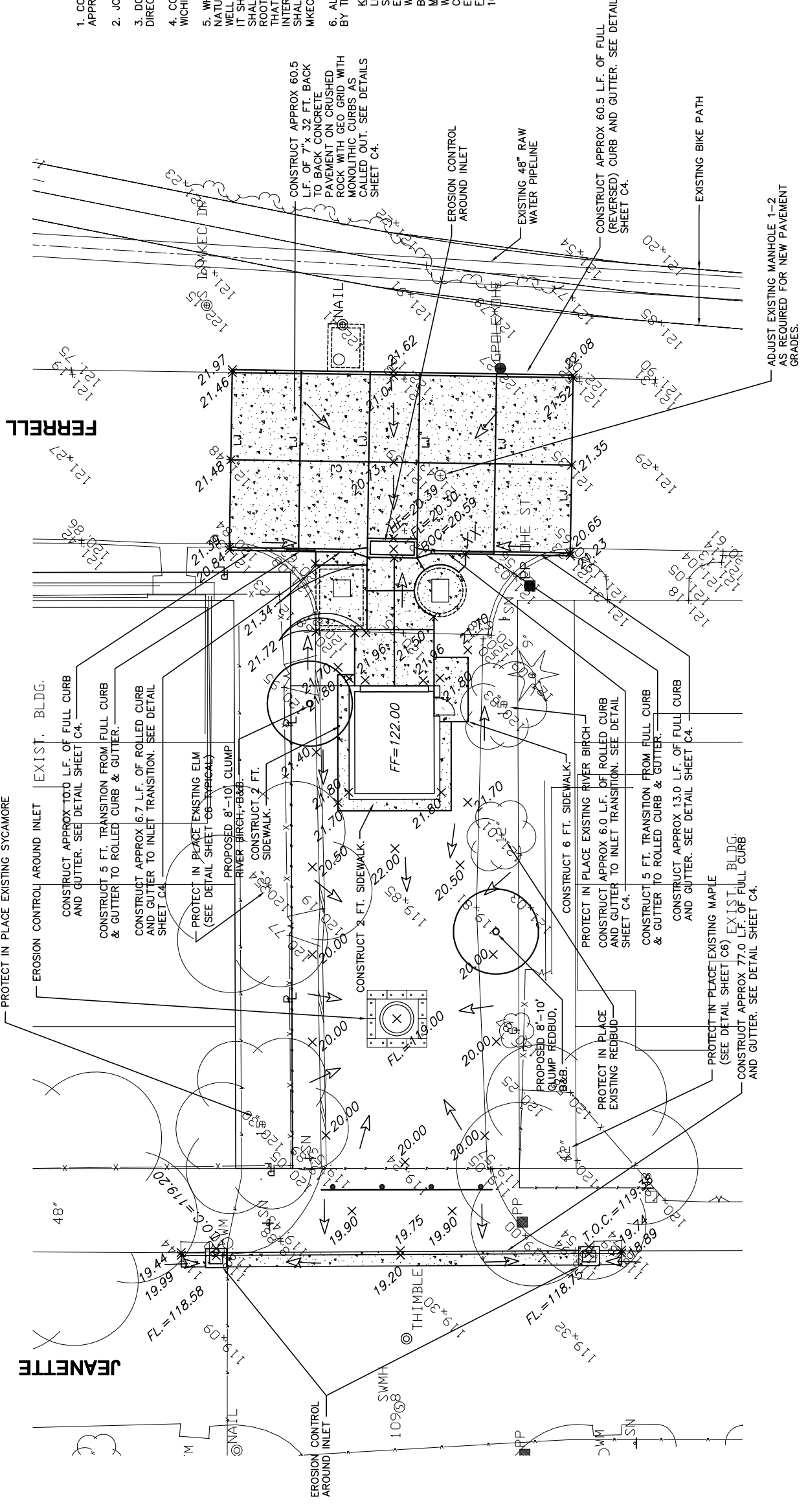
PROPOSED CONCRETE PAVEMENT

PROPOSED SPOT ELEVATION

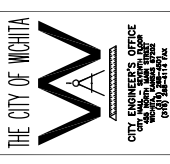
EXISTING SPOT ELEVATION

PLAN NOTES

- CONTRACTOR TO SUBMIT JOINT PATTERNS TO ENGINEER FOR APPROVAL.
- JOINTS NOT TO EXCEED 14.0' (MAX).
- DOWELS FOR LONGITUDINAL JOINTS TO BE PLACED PARALLEL DIRECTION OF TRAFFIC.
- CONTRACTOR TO PROVIDE EROSION CONTROL PER CITY OF WICHITA STANDARDS.
- WHERE OFFSITE TOPSOIL IS NEEDED, IT SHALL BE FERTILE NATURAL TOPSOIL, TYPICAL OF THE LOCALITY, OBTAINED FROM WELL DRAINED AREAS. STOCKPILED TOPSOIL MAY BE USED. IT SHALL BE WITHOUT ADMIXTURE OF SUBSOIL OR SLAG AND SHALL BE FREE OF STONES, LUMPS, STICKS, PLANTS OR THEIR ROOTS, TOXIC SUBSTANCES OR OTHER EXTRANEIOUS MATTER THAT MAY BE HARMFUL TO PLANT GROWTH OR WOULD INTERFERE WITH FUTURE MAINTENANCE. TOPSOIL pH RANGE SHALL BE 5.5 TO 7.0. TOPSOIL SHALL BE APPROVED BY MKEC'S LANDSCAPE ARCHITECT PRIOR TO PLACEMENT.
- ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE SEEDED BY THE CONTRACTOR, AS FOLLOWS.
KANSAS PREMIUM FESCUE BLEND: AT A RATE OF 300 LBS./ACRE. THIS AREA SHALL BE FINE GRADED AND SURFACE SHALL BE FREE FROM STICKS, SMALL STONES AND OTHER EXTRANEIOUS MATERIALS. ALL SEED SHALL BE DISTRIBUTED WITH AN ACCEPTABLE DRILL, OR OTHER EQUIPMENT APPROVED BY THE ENGINEER. SEEDING DEPTH SHALL BE 1/4".
MULCH: ALL SEEDED AREAS SHALL BE IMMEDIATELY MULCHED W/ CLEAN WHEAT STRAW AT 2 TONS/ACRE. ANCHOR MULCHBY CRIMPING INTO TOPSOIL WITH SUITABLE MECHANICAL EQUIPMENT.
FERTILIZING: SEEDED AREAS SHALL BE FERTILIZED WITH 10-20-10 AT A RATE OF 350 LBS./ACRE.

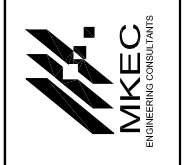


PLAN



DESIGNED BY	DLM	CHECKED BY	DLM
DRAWN BY	BOM	DATE	JUNE, 2005
PROJECT	0301030310	CONTRACT	
DRAWING	C3	REVISION	0
FILE	I:\NEW\333R\333R\333R\C3-SITE_GRADING-LONG 11/17/05 08:49 PM CST		

CITY OF WICHITA, KANSAS
15th STREET PUMP STATION
AND FORCE MAIN



NO.	BY	DATE	DESCRIPTION
0	DLM	10/17/05	ISSUE FOR CONSTRUCTION

Appendix E
Drainage & Utility Plan

MINIMUM PAD ELEVATIONS (LOWEST OPENINGS)			
LOTS	BLOCK	ELEVATION (NGVD)	City Datum
1 and 2	1	1307.5	120.1

LEGAL DESCRIPTION

A replat of a tract of land lying within a portion of Rich's Addition to the City of Wichita, said tract being described as follows:
All of Lots 211, 213, 215, and 217, said Rich's Addition, EXCEPT the North 50 feet thereof;

TOGETHER WITH,
All of the North 70 feet of Lots 220, 222, 224, and 226, said Rich's Addition;

TOGETHER WITH,
Portions of 15th Street and River Boulevard also known as Ferrell Street, said Rich's Addition;

Said tract being more particularly described as follows:
COMMENCING at the Northwest corner of said Lot 211; thence

along the West line of said Lot 211 on an assumed basis of bearing S00°00'49"W, 50 feet to the POINT OF BEGINNING,

thence parallel with and 50 feet South of the North line of said

Lots 211, 213, 215, and 217 N89°43'29"E, 105.01 feet; thence

S00°01'07"E, 99.97 feet; thence S07°06'13"W, 40.33 feet to a

point lying 10 feet North of the Northeast corner of said Lot 226;

thence along the East line of said Lot 226, S00°01'07"E, 80.14

feet to a point lying 70 feet North of the Southeast corner of said

Lot 226; thence parallel with and 70 feet North of the South line

of said Lots 220, 222, 224, and 226, S89°48'56"W, 100.03

feet; thence along the West lines of Lots 220 and 221,

N00°00'49"W, 219.94 feet to the POINT OF BEGINNING.

BENCH MARKS

BM #1 City of Wichita Benchmark- Brass
Rod in Concrete Post NE Cor.
17th/Arkansas.
Elev. = 119.05

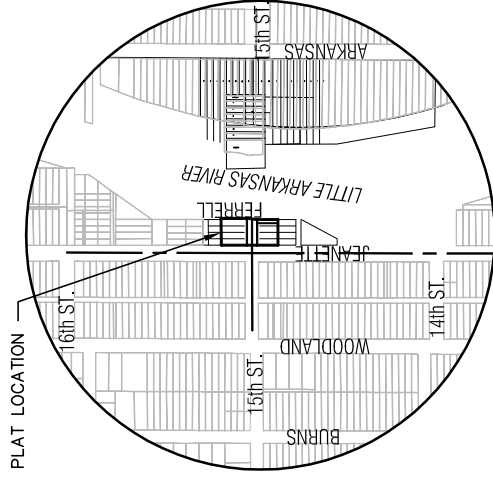
BM #2 Hole Drilled in Center of Concrete
Pad for Discus Throw North of 11th
Station Site Approx. 50' North.
Elev. = 121.53

LEGEND

- ▲ - Sec. Corner
- - Find. Prop. Corner
- ⊙ - SIGN
- ⊗ - GATE
- ⊕ - TREES
- ⊖ - EDGE OF TREES
- ⊙ - POLE
- - STORM SEWER PIPE
- - WATER LINE
- - SANITARY SEWER LINE
- - GAS LINE
- - TELEPHONE LINE
- - OVERHEAD ELECTRIC
- - FENCE
- ⊙ - GAS METER
- ⊙ - SANITARY SEWER MANHOLE
- ⊙ - POWER POLE/GUY ANCHOR
- ⊙ - ELECTRIC BOX
- ⊙ - FIRE HYDRANT
- ⊙ - WATER VALVE
- ⊙ - WATER METER
- ⊙ - TELEPHONE RISER

NOTES

- ZONING: Existing / Proposed TF-3- Two Family
- PUBLIC UTILITIES: Shall be extended to site by public project
- LEGAL DESCRIPTION: See herein
- EXISTING USE: Residence and also Public Street
- PROPOSED USE: Residences and public utility
- PLAT AREA: 0.52 Ac.
- SURVEY DATE: 2004 (by MKEC)
- MINIMUM PADS: As shown on the Final Drainage Plan
- LOT TOTAL: 2
- RESERVE: "A" is platted for drainage, utilities (both public and private), landscaping, irrigation, and open space. The Reserve shall be owned and maintained by the City of Wichita and or its assigns. All abutters rights of access to or from Jeanette Street and Ferrell Street over and across the South line of Lot 1, and the North line of Lot 2, are hereby granted to the appropriate governing body.



VICINITY MAP

OWNERS / DEVELOPERS:
Barry Davis
Delora Donavan
City of Wichita

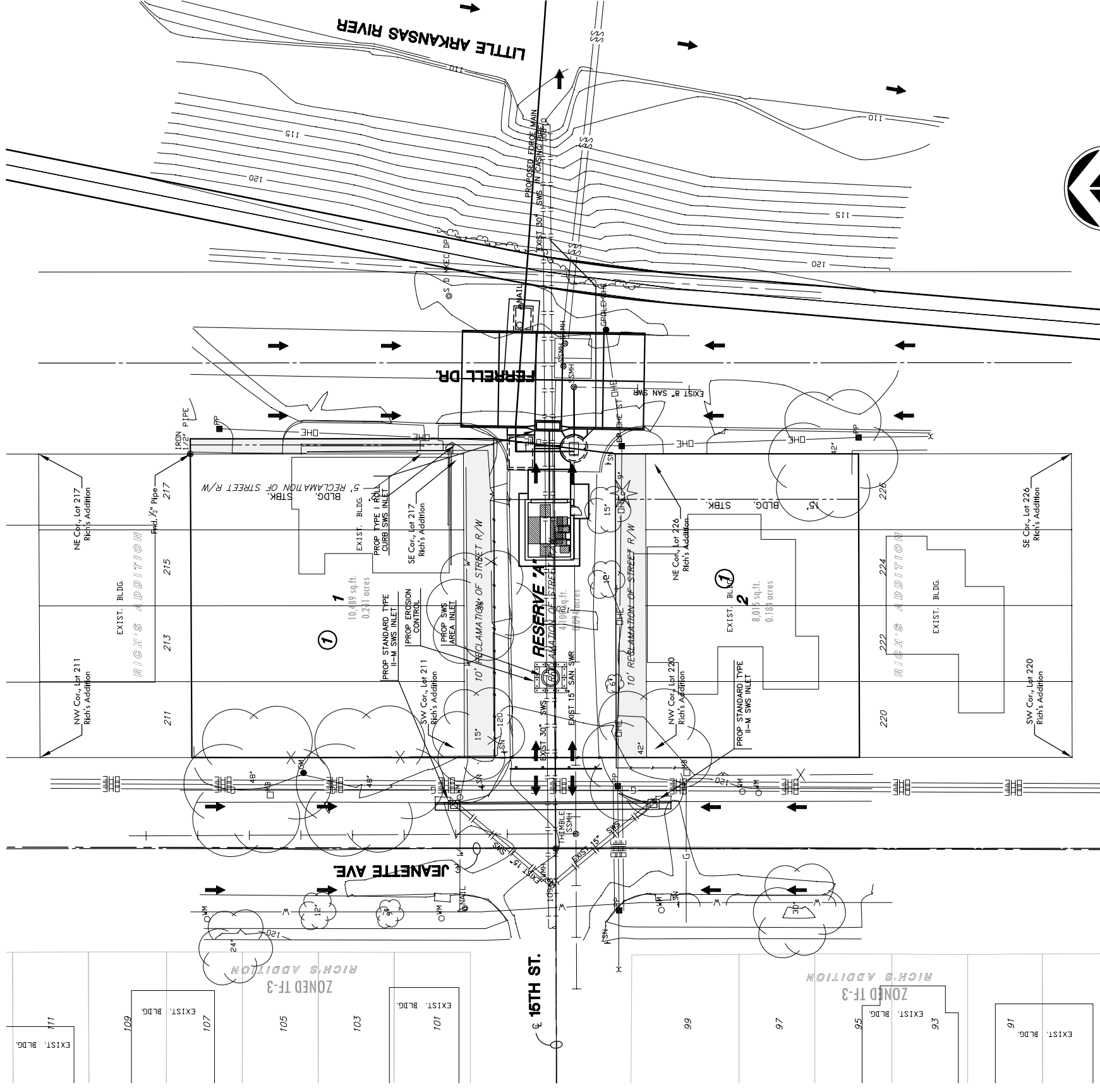
1600 N. Jeanette Street
1559 N. Ferrell
455 N. Main St.

(316)942-8201
(316)262-0596
(316)268-4436 c/o John Philbrick

DRAINAGE AND UTILITY PLAN

REPLAT OF THE RICH'S ADDITION

Date: JANUARY, 2006



MKEC
ENGINEERING
CONSULTANTS, INC.
411 N. WEBB ROAD
WICHITA, KS 67208
W.W.M.K.E.C.COM