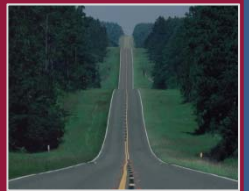


Prepared for:



# I-35/US-54(400)/K-96 Proposed Interchange

## *DRAFT* Conceptual Alternatives Study July 2014



Prepared by:



245 N. Waco Ave.  
Suite 222  
Wichita, Kansas 67202

## Contents

Executive Summary.....	4
Project Background .....	5
Concept Development .....	7
Geometric Design Considerations.....	7
Design Criteria .....	7
Alternatives Discussion .....	8
Alternative 1 .....	8
Alternative 4B.....	9
Interim Condition .....	11
Dismissed Alternatives .....	12
Alternative 2.....	12
Alternative 3.....	12
Alternative 4.....	13
Recommendations.....	13
Preferred Alternative .....	13
Traffic Analysis .....	14
Data Collection.....	14
Traffic Volume Forecasts .....	17
Operational Analysis .....	19
Environmental Impacts.....	23
Preliminary Environmental Scan Outline .....	23
Socioeconomic Factors .....	24
Minority and Low-Income Communities.....	24
Institutional and Emergency Services .....	26
Public Lands .....	27
Historic and Cultural Resources.....	27
Environmental Factors.....	28
Floodway / Floodplain .....	28
Waters of the U.S.....	29
Farmland.....	30



Water Quality, Soils and Sedimentation .....	31
Threatened and Endangered Species.....	33
Hazardous Waste .....	34
Geologic Resources.....	35
Utilities.....	36
Preliminary Utility Scan Outline.....	36
Private Utilities .....	38
AT&T .....	38
Black Hills Energy.....	39
Coffeeville Resources / CVR Energy .....	39
Cox Communications.....	40
Kansas Gas Service .....	40
Phillips 66 Pipeline LL ( formerly ConocoPhillips Pipeline Company).....	41
Southern Star Central Gas Pipeline.....	42
Textron Aviation, Beech Campus (formerly Beechcraft, formerly Hawker Beechcraft) .....	42
U.S. Sprint.....	43
Westar Energy .....	43
Public Utilities.....	44
Wichita, City of, Sanitary Sewers.....	44
Wichita, City of, Waterlines .....	45
Right of Way.....	46
Project Costs .....	49

Figure 1 - Webb and KTA Concept (Project 1A).....	5
Figure 2 - US-54(400) and Greenwich Concept (Project 1B).....	5
Figure 3 - K-96 to 159th Concept (Project 2).....	6
Figure 4 - Study Area Map .....	6
Figure 5 – Alt 1 → Movements from I-35 to K-96 / US-54(400).....	8
Figure 6 – Alt 1 → Movements from US-54(400) to I-35 / K-96.....	9
Figure 7 - Alt 1 → Movements from K-96 to US-54(400) / I-35 .....	9
Figure 8 – Alt 1 Zelta Access.....	9
Figure 9 - Alt 4B → Movements from I-35 to K-96 / US-54(400).....	10
Figure 10 - Alt 4B → Movements from US-54(400) to I-35 / K-96.....	10
Figure 11 - Alt 4B → Movements from K-96 to US-54(400) / I-35.....	11
Figure 12 - Alt 4B Zelta Access.....	11
Figure 13-Interim Alternative.....	12
Figure 14 - AirSage Origin-Destination Data Zone Structure .....	15
Figure 15 - Existing Origin-Destination Patterns.....	16
Figure 16 - U-Turn Scenario at Exit 50 with Full-Build Improvements at Exit 53, 2040 AM Volumes .....	20
Figure 17 - U-Turn Scenario at Exit 50 with Full-Build Improvements at Exit 53, 2040 PM Volumes.....	20
Figure 18 - Interim Alternative, 2040 AM Volumes.....	21
Figure 19 - Interim Alternative, 2040 PM Volumes .....	21
Figure 20 - Alternative 4B, 2040 AM Volumes .....	22
Figure 21 - Alternative 4B, 2040 PM Volumes.....	22
Figure 22 - Potential Environmental Justice Impacts.....	26
Figure 23 - FEMA Floodplain Map .....	28
Figure 24 - Waterbodies Map .....	29
Figure 25 - Prime and Other Important Farmland Map.....	31
Figure 26 - Photos of north branch of Spring Creek at US-54(400) crossing, May 7, 2014.....	33
Figure 27 - Study Area Map.....	36
Figure 28 - Interim Alt Right of Way.....	46
Figure 29 - Alternative 1 Right of Way.....	47
Figure 30 - Alternative 4B Right of Way.....	47
Table 1 - Design Criteria.....	7
Table 2 - Origin-Destination Sample Data.....	15
Table 3 - Extrapolated Origin-Destination Matrix, Existing Conditions.....	17
Table 4 - Extrapolated Origin-Destination Matrix, 2040 Traffic Volumes .....	18
Table 5 - Population, Housing Units, Area, and Density for Wichita, Kansas.....	25
Table 6 - Census 2010 Data .....	25
Table 7 - Threatened and Endangered Species List for Sedgwick County, Kansas.....	34
Table 8 - Right of Way Comparison .....	48
Table 9 - Cost Comparison.....	49
Appendix A – Design Criteria	
Appendix B – Recommended Alternatives	
Appendix C – Dismissed Alternatives	
Appendix D – Traffic Volumes	
Appendix E – Environmental	
Appendix F – Utilities	
Appendix G – Cost Estimates	

## **Executive Summary**

For many years, the Wichita Metropolitan Area has been expanding to the east towards east Wichita and the City of Andover as the City of Wichita has expanded US-54(400) to a freeway section along with the construction of K-96 Highway in northeast Wichita. In January 2014, the City of Wichita bid the next phase of the US-54(400) expansion at the KTA's Exit 50 and Webb Road. The project came in approximately \$25 million above budget causing the City to re-evaluate the scope of the project. Recognizing the cost overrun along with the potential need for a new interchange to serve the increasing commercial and residential population of East Wichita, the Kansas Turnpike Authority (KTA) asked the City to hold any scope changes to their Webb Road interchange project so the KTA could examine how a new interchange at Exit 53 could help relieve congestion at Exit 50 and possibly reduce costs for the City of Wichita by shifting traffic movements further east.

In April 2014, the Kansas Turnpike Authority hired TranSystems to perform a traffic analysis and geometric study to determine the impacts, alternatives and costs to building a new system to system to system interchange near Exit 53 along the KTA system. The interchange would connect K-96 highway, US-54(400) and I-35 (Kansas Turnpike). In addition, TranSystems was to review the impacts to the Exit 50 interchange and what potential scope reductions could be performed to reduce costs on the City of Wichita's Webb Road and KTA interchange project.

Two high level concepts were chosen as starting points for the design to incorporate all the necessary movements into each alternative evaluated given the necessity to connect three freeways to each other while maintaining service interchange access to local roads directly adjacent to the system ramps.

Alternative I is a full movement interchange providing direct access in all directions between US-54(400), I-35 and K-96. This alternative ties in to the plan and profile geometry of the City of Wichita projects.

Alternative 4B is also a full movement interchange providing direct access in all directions between US-54(400), I-35 and K-96. Unlike Alternative I, there is no frontage road along the north side of US-54(400) between Zelta Street and 143<sup>rd</sup> Street. This alternative was developed as a way to reduce the number of flyover structures by using additional loop ramps to allow easier construction phasing.

The KTA was also interested in phasing the construction and understanding the minimum movements needed to ease traffic at Exit 50 to allow the City of Wichita to modify their Project 1A design. This interim phase consists of the addition of three ramps which connect I-35 to US-54(400). The bridges over I-35 would need to be modified or replaced to accommodate these ramps.

Movements to be added include:

- ▶ US-54(400) eastbound to I-35 southbound
- ▶ US-54(400) eastbound to I-35 northbound
- ▶ I-35 southbound to US-54(400) westbound

K- 96 would remain in its current configuration at both I-35 and US-54(400).

At the conclusion of this study, two preferred viable full access alternatives have been chosen to carry forward for further evaluation which would work in this area in addition to an interim alternative providing only key movements. Further development will be completed in the next phase to determine what the final configuration will be at this location.

# Project Background

*DRAFT-Conceptual Alternatives Study  
July 2014*



EXPERIENCE | Transportation

## Project Background

The I-35 corridor in Sedgwick County is operated and maintained by the Kansas Turnpike Authority (KTA) and includes four points of access to the City of Wichita. Exit 42 is located in South Wichita at the I-235/I-135/47<sup>th</sup> Street junction, Exit 45 is located at K-15 highway, Exit 50 is located near the US-54(400) and Webb Road intersection and Exit 53 is located at K-96 highway in East Wichita.

In 2008, the City of Wichita began preliminary design of a new freeway segment along US-54(400) from the end of the existing freeway at Cypress Street and extending east to Greenwich Road (Project 1A). The design would include reconstruction of the KTA Exit 50 access along US-54(400) but would not reconstruct the Exit 50 toll plaza. The project would include direct system to system access at Exit 50 as well as provide full interchange access to Webb Road. The project was included in the Kansas Department of Transportation's (KDOT) T-Works funding program and scheduled for a 2014 letting.

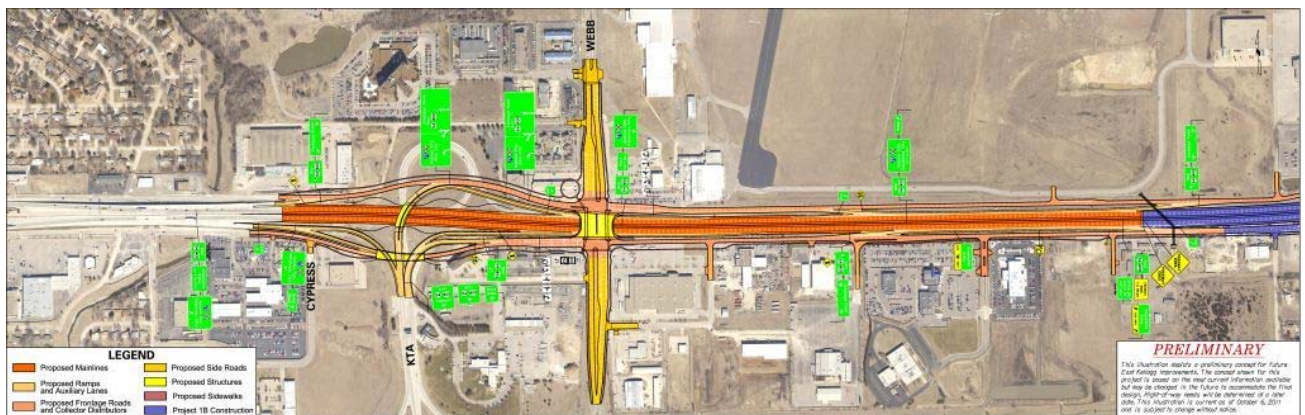


Figure 1 - Webb and KTA Concept (Project 1A)

In addition to Project 1A, construction plans were initiated in 2008 from the end of Project 1A west of Greenwich Road to 127<sup>th</sup> Street East (Project 1B). This project would build a new interchange at Greenwich Road and a grade separated structure at Zelta. Project 1B is also included in T-Works and is scheduled for a 2018 letting.

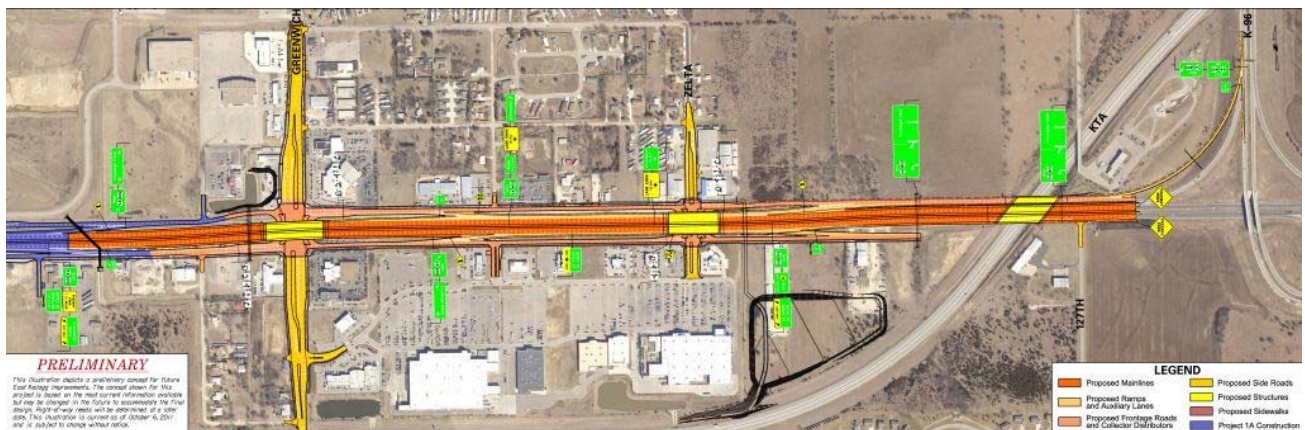


Figure 2 - US-54(400) and Greenwich Concept (Project 1B)



[illegible]

With the expansion of US-54(400) to a freeway section along with the growth occurring in East Wichita, the KTA desired to review the existing Exit 50 and Exit 53 interchanges and the movements between I-35/US-54(400)/K-96. Specifically, the KTA wanted to determine what the impacts would be to connecting I-35, K-96 Highway and US-54(400) into one system to system to system interchange prior to the expected growth in future land use and traffic volumes. In addition, by expanding the Exit 53 interchange, there is an opportunity to reduce costs for the City of Wichita's Project 1A by building a simpler interchange at Exit 50 and Webb Road since a new Exit 53 interchange will be able to handle additional movements and traffic volumes.



6 | TranSystems

# Concept Development

*DRAFT-Conceptual Alternatives Study  
July 2014*



EXPERIENCE | Transportation



## Concept Development

### Geometric Design Considerations

There are several considerations and assumptions which were taken into account at this location which affect the layout of ramps and connections required.

- ▶ Tolling → the KTA is migrating to an all-electronic tolling system and will not require the preservation of the current toll plaza at Exit 53.
- ▶ City of Wichita existing projects → currently there are three existing projects which have already been designed in this corridor.
  - US-54(400) from Cypress to Greenwich Road (Project 1A)
  - US-54(400) from Greenwich Road to 127<sup>th</sup> Street (Project 1B)
  - US-54(400) from 127<sup>th</sup> Street to 159<sup>th</sup> Street (Project 2)
- ▶ Consideration of how building a full movement interchange between I-35/US-54(400)/K-96 would impact traffic volumes and demands for certain movements at Exit 50.

Each of these factors and existing or proposed constraints was evaluated with regards to the feasibility of the design concepts.

### Design Criteria

The design criteria for this project are similar to other projects in the area. Travel speeds on system ramps were an important consideration in the concept development phase. Loop ramps, which have much lower speeds than directional ramps, were used sparingly, favoring higher speed flyover ramps. A minimum design speed of 50 mph was used for all flyover ramps unless not feasible.

In Table I are the basic design criteria used in this study. A full copy of the design criteria may be found in Appendix A.

**Table I - Design Criteria**

Roadway	I-35	K-96	US-54(400)	Lower Range Ramps	Upper / Middle Range Ramps	S. 127th Street East
Classification	Interstate (A Route)	Other Freeway (B Route)	Other Freeway (B Route)	Loop Ramps	Directional Ramps	Local Roads
AADT (2040)	52,100	25,300	92,450	> 6,000	> 6,000	< 6,000
Design Vehicle	WB-67	WB-67	WB-67	WB-67	WB-67	WB-67
Design Speed	80 mph	70 mph	70 mph	30 - 40 mph	45-65 mph	45mph

## Alternatives Discussion

Two high level concepts were chosen as starting points for the design to incorporate all the necessary movements in to each alternative design. Given the necessity to connect three freeways to each other while maintaining service interchange access to local roads directly adjacent to the system ramps, it was determined this could be best accomplished using either a Collector-Distributor system or a Frontage road system.

### Alternative I

Alternative I is a full movement interchange providing direct access in all directions between US-54(400), I-35 and K-96. This alternative ties in to the plan and profile geometry of the City of Wichita projects (1A, 1B & 2.) Some key characteristics of this alternative are listed below.

- ▶ Frontage roads along US-54(400) provide access to and from Zelta St. and 143rd St.
- ▶ K-96 has been moved from its existing alignment and bifurcated to allow access from diverging flyover ramps on either side.
- ▶ The ramp from I-35 southbound to US-54(400) westbound has a design speed less than the desirable 50 mph. This is to maximize weaving distance on K-96.

For graphics of Alternative I please refer to Figure 5 through Figure 8 below.



**Figure 5 – Alt I → Movements from I-35 to K-96 / US-54(400)**

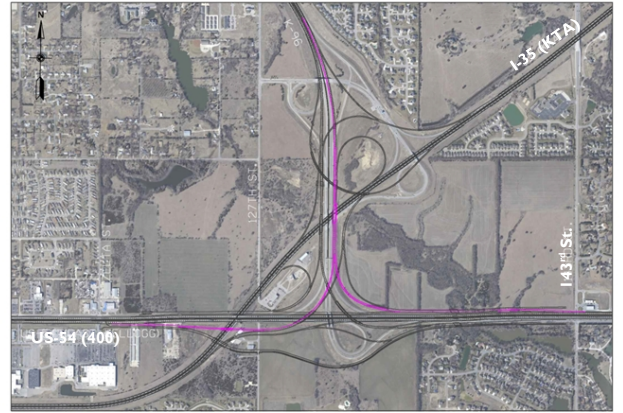
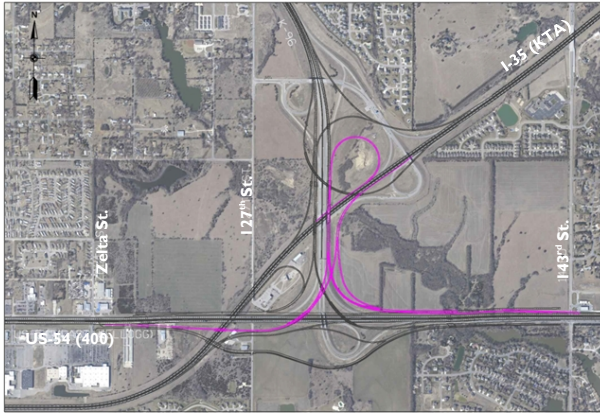


Figure 6 – Alt I → Movements from US-54(400) to I-35 / K-96



Figure 7 - Alt I → Movements from K-96 to US-54(400) / I-35



Figure 8 – Alt I Zelta Access

#### Alternative 4B

Alternative 4B is also a full movement interchange providing direct access in all directions between US-54(400), I-35 and K-96. Unlike Alternative I, there is no frontage road along the north side of US-54(400)



between Zelta Street and 143<sup>rd</sup> Street. Some key characteristics of this alternative are listed below. This alternative was developed as a way to reduce the number of flyover structures by using additional loops ramps to allow easier construction phasing.

- ▶ Ties in to the plan and profile geometry of the City of Wichita projects 1A, 1B and 2.
- ▶ Collector-Distributor roads run along both sides of I-35 to separate low speed movements from the high speed mainline.

For graphics of Alternative 4B please refer to Figure 9 through Figure 12 below.

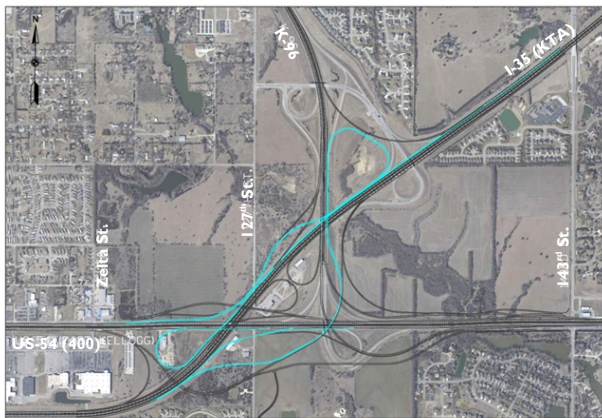


Figure 9 - Alt 4B → Movements from I-35 to K-96 / US-54(400)

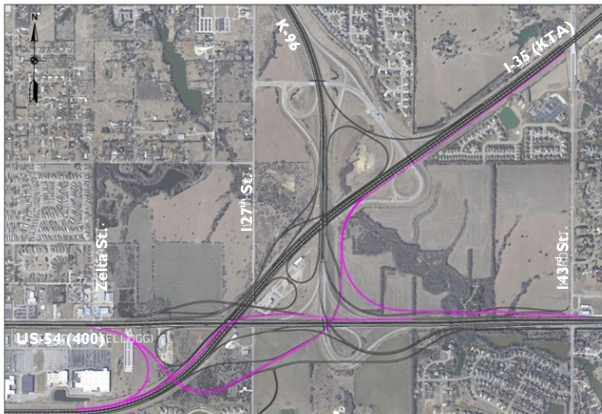
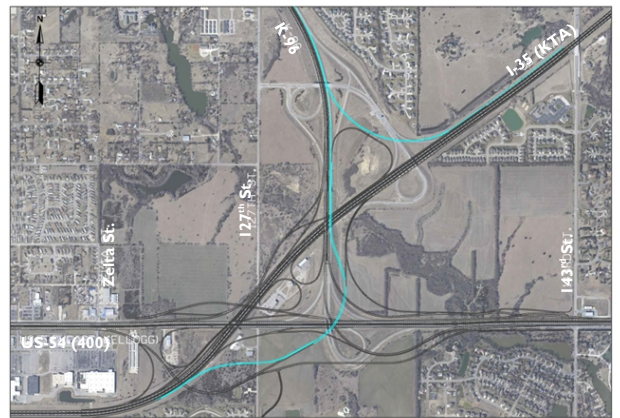


Figure 10 - Alt 4B → Movements from US-54(400) to I-35 / K-96

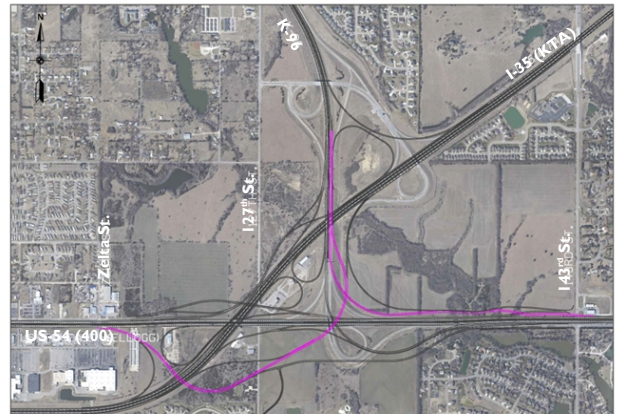




Figure 11 - Alt 4B → Movements from K-96 to US-54(400) / I-35

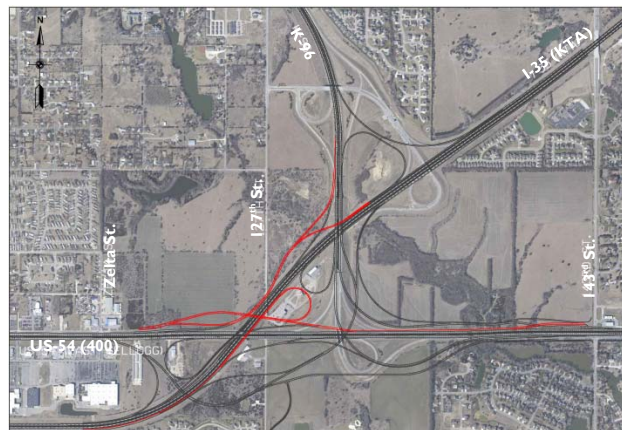


Figure 12 - Alt 4B Zelta Access

### Interim Condition

The KTA was interested in phasing the construction and understanding the minimum movements needed to ease traffic at Exit 50 to allow the City of Wichita to modify their Project IA design. This interim phase consists of the addition of three ramps which connect I-35 to US-54(400).

Movements to be added include:

- ▶ US-54(400) eastbound to I-35 southbound
- ▶ US-54(400) eastbound to I-35 northbound
- ▶ I-35 southbound to US-54(400) westbound

K- 96 would remain in its current configuration at both I-35 and US-54(400). The interim ramps would tie in to existing US-54(400). The bridges over I-35 would need to be modified or replaced to accommodate these ramps.





Figure 13-Interim Alternative

## Dismissed Alternatives

During concept development there were several variations considered of the previously discussed alternatives. The two main concepts of either Frontage roads along both sides of US-54(400) or Collector Distributor roads along both sides of I-35 remained the same.

### Alternative 2

Alternative 2 is a simplified version of Alternative 1. There are fewer high speed ramp connections and this alternative makes use of some of the existing K-96 interchange.

✘ Dismissed in lieu of alternatives with more high speed connectivity.

### Alternative 3

This alternative is the original variation on what is now Alternative 4B. The two movements which are different are the US-54(400) eastbound to K-96 and I-35 northbound in addition to the I-35 southbound to US-54(400) eastbound movement. These movements result in a short weaving segment on US-54(400) eastbound.

✘ Dismissed/modified unfavorable movements to become Alt 4B

#### Alternative 4

This alternative is also a variation on what is now Alternative 4B. The lone difference between Alternatives 3 and 4 is the I-35 southbound to US-54(400) eastbound movement. In Alternative 3 it is a higher speed flyover ramp while in Alternative 4 it is a much lower speed loop ramp. The addition of this loop ramp also adds to an already shortened weaving segment on US-54(400) eastbound.

✘ Dismissed/modified unfavorable movements to become Alt 4B

Please see Appendix C for dismissed alternative graphics.

### **Recommendations**

#### Preferred Alternative

At the conclusion of this study, two preferred viable full access alternatives have been chosen to carry forward to the next phase which would work in this area in addition to an interim alternative providing only key movements. Further development will be completed in the next phase to determine what the final configuration will be at this location.



# Traffic Analysis

*DRAFT-Conceptual Alternatives Study  
July 2014*



EXPERIENCE | Transportation

## **Traffic Analysis**

During this alternatives development phase an abbreviated data collection and traffic forecasting process was utilized and will be expanded in subsequent phases. New traffic volume data, along with limited origin-destination data were collected. Future traffic volume forecasts relied primarily on those prepared as a part of the US-54(400) study performed for the area between Cypress Street and K-96, but some of the new origin-destination data was incorporated into the forecast traffic patterns.

Operational analysis was performed using VISSIM simulation models for interim and full-build improvements for several of the alternatives studied.

This section summarizes the data collection and the results of the analysis.

### **Data Collection**

#### **Traffic Volumes**

Traffic volume data was collected at key intersections along US-54(400) between Armour Road and 143<sup>rd</sup> Street as well as at the interchanges at I-35 Exits 50, 53 and 57 and at K-96 and the Exit 53 connector road. This data was collected in April and May 2014 in 15 minute intervals. At most locations the counts were conducted between 6:00 and 9:00 A.M. and 3:00 and 6:00 P.M. on a weekday. At the Exit 50, Exit 53 and K-96 & US-54(400) interchanges data was collected for 16 or 24 hours in order to also generate daily traffic volumes. The 2014 peak hour traffic volumes are summarized in Appendix D.

#### **Origin-Destination Data - AirSage**

Origin-Destination data for the entire Wichita area was obtained from AirSage for the month of October 2013. The region was divided into 177 zones, generally about 4 square miles in size in the urban area, with much larger zones in the less developed areas. The zone structure is shown in Figure 14 on the following page. The data provides information about travel patterns between each of the zones on a daily and peak period basis and is being utilized to help calibrate the regional travel demand model, which will be utilized in subsequent phases of this project for developing more detailed traffic forecasts.

#### **Origin-Destination Data – KTA Interchanges**

Because of the proximity of the Exit 50 and Exit 53 interchanges to each other, traffic in the area has the option of using either of these two interchanges and either US-54(400) or I-35 for their travel. These patterns are likely to change with more direct access to US-54(400) at Exit 53. Therefore, understanding these traffic patterns is important to projecting future traffic demand at the two interchanges.

During this phase of the study, limited sample data was collected for 15 minutes during the A.M. and P.M. peak periods at three locations: at Exit 50 between I-35 and US-54(400), at Exit 53 between I-35 and K-96 and on K-96 between the Exit 53 access road and US-54(400). The data from the latter two areas was consolidated into one matrix based on the weighting of travel patterns between the two.

The interchange origin-destination data is summarized in Table 2 and is depicted in Figure 15.

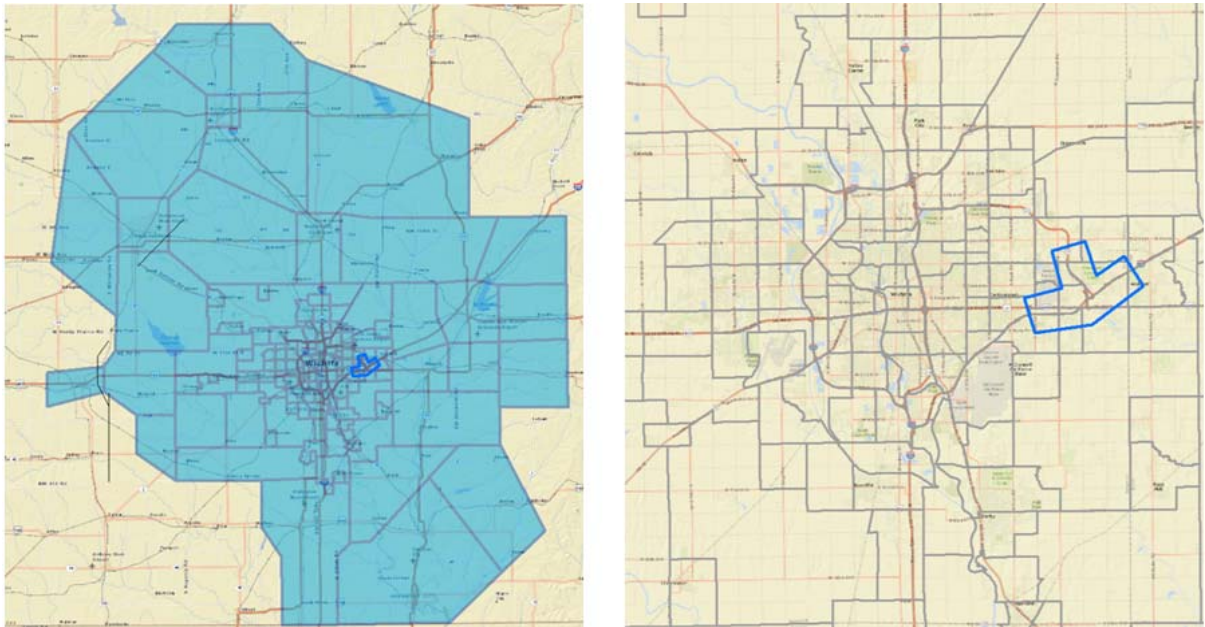


Figure 14 - AirSage Origin-Destination Data Zone Structure

#### EXISTING EXIT 50

		TO			
		35N	35S	54E	54W
FROM	35N		481	33	299
	35S	438		110	79
	54E	36	76		1923
	54W	156	28	1394	
		630	585	1537	2301

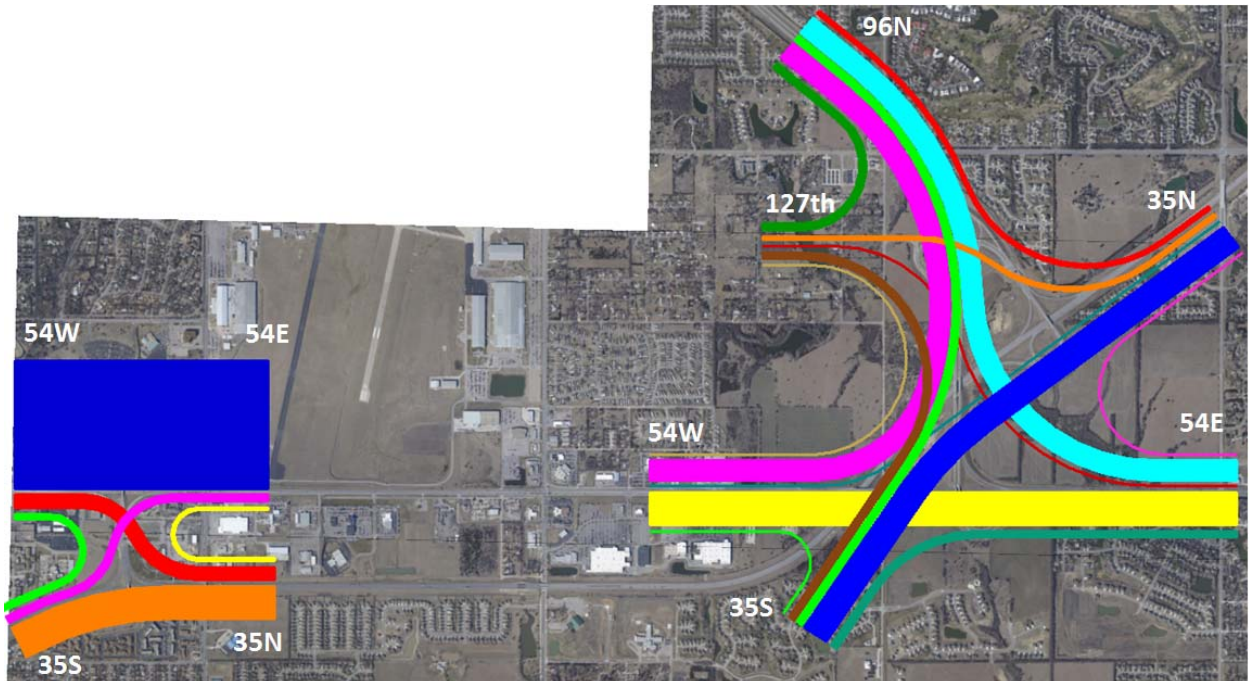
		TO			
		35N	35S	54E	54W
FROM	35N		471	43	136
	35S	551		86	73
	54E	47	158		1858
	54W	359	79	1927	
		957	708	2056	2067

#### EXISTING EXIT 53/K-96

		TO					
		35N	35S	54E	54W	96N	127th
FROM	35N		493	3	2	52	40
	35S	379		17	12	171	50
	54E	16	100		1085	775	24
	54W	3	18	641		326	0
	96N	28	51	174	132		31
	127th	27	165	15	10	86	
		453	827	850	1241	1410	145

		TO					
		35N	35S	54E	54W	96N	127th
FROM	35N		413	17	5	28	21
	35S	622		84	25	132	98
	54E	17	67		809	282	47
	54W	6	25	1152		179	0
	96N	65	120	661	247		109
	127th	22	65	46	14	34	
		732	690	1960	1100	655	275

Table 2 - Origin-Destination Sample Data



**Figure 15 - Existing Origin-Destination Patterns**

Some general observations regarding the origin-destination data:

- At Exit 50, the heaviest traffic patterns are between southbound I-35/westbound US-54(400) and eastbound US-54(400)/northbound I-35
- At Exit 53, the heaviest traffic movements are between US-54(400) and K-96. Traffic between I-35 and US-54(400) is currently fairly modest, likely due to the circuitous travel route required compared to exiting at Exit 50.

Using this data, along with existing traffic counts at locations between the two interchanges, matrix balancing procedures (TflowFuzzy in VISUM) were used in order to estimate composite traffic patterns between the two interchanges. The results of this process are summarized in Table 3.

Based on this table, as an example of the 484 southbound vehicles on I-35 during the PM peak hour (shaded in blue):

- 282 continue south on I-35
- 103 travel on US-54(400) west of Exit 50, 1 using Exit 53 and 102 using Exit 50
- 40 travel north on K-96 or 127<sup>th</sup> Street
- 16 travel east on US-54(400) into the Andover area (all use Exit 53)
- 43 have destinations on Webb, Greenwich or other areas along US-54(400) between Exits 50 and 53.

Because this data is extrapolated and is critical to future phases of the project, it is recommended that more detailed origin-destination data be collected during the next phase of the study.

Existing AM	To	10	20	21	30	40	50	60	61	70	71
Name		I-35S	US 54W*	US 54 W**	127th	K-96N	I-35N	US 54 E*	US 54 E**	Webb/ Grnw.*	Webb/ Grnw.**
From	Sum	585	1922	377	131	1408	453	640	212	1000	300
10 I-35S	627		0	79	42	117	261	30	18	80	0
20 US 54W*	1394	0		0	3	174	3	327	0	887	0
21 US 54W**	184	29	0		16	43	96	0	0	0	0
30 127th	315	154	11	0		83	40	0	11	13	4
40 K-96N	398	26	99	32	26		7	0	174	2	33
50 I-35N	593	211	9	266	20	57		0	9	18	3
60 US 54E*	1085	34	791	0	0	0	0		0	0	260
61 US 54E**	892	80	0	0	18	773	21	0		0	0
70 Webb/Green*	1090	43	1012	0	4	10	22	0	0		0
71 Webb/Green**	451	10	0	0	2	151	3	284	0	0	

Existing PM		10	20	21	30	40	50	60	61	70	71
Name		I-35S	US 54W*	US 54 W**	127th	K-96N	I-35N	US 54 E*	US 54 E**	Webb/ Grnw.*	Webb/ Grnw.**
From	Sum	708	1858	208	317	655	720	1152	777	1298	300
10 I-35S	712		0	73	77	76	339	30	60	58	0
20 US 54W*	1927	0		0	9	99	5	619	0	1197	0
21 US 54W**	440	79	0		56	56	249	0	0	0	0
30 127th	179	53	2	0		34	26	0	41	5	18
40 K-96N	1202	94	137	34	109		47	0	661	10	110
50 I-35N	484	282	1	102	20	20		0	16	29	14
60 US 54E*	809	55	596	0	0	0	0		0	0	158
61 US 54E**	366	35	0	0	32	282	17	0		0	0
70 Webb/Green*	1271	103	1121	0	7	7	33	0	0		0
71 Webb/Green**	602	8	0	0	7	80	4	503	0	0	

\* via I-35 between Exit 53 & Exit 57

\*\* via US 54 between Webb & Greenwich

**Table 3 - Extrapolated Origin-Destination Matrix, Existing Conditions**

## Traffic Volume Forecasts

WAMPO is currently in the process of performing a major update to their long-range traffic forecasting model, however, it was not completed in time to use for this phase of the study. Therefore, previous traffic volume forecasts prepared for the US-54(400) improvements between Cypress Street and 159<sup>th</sup> Street were utilized for this analysis (*Design Concept Report, East Kellogg Improvements from Cypress to 127th Street (Project I), City of Wichita Project No. 472 84615, KDOT Project No. 54-87 KA-1163-01, January 2010; Traffic Analysis Report, East Kellogg Improvements from 127th Street to 159th Street, (Project II), City of Wichita Project No. 472 84614, KDOT Project No. 54-87 KA-1164-01, March 2010*).

These reports did not include forecasts on K-96 and on I-35, therefore, forecasts were made for these areas by extending the growth from the US-54(400) corridor and from historical growth data. On K-96 the projected growth was about 300% of existing traffic, on I-35 a 200% growth rate was utilized.

Once these baseline forecasts were prepared, origin-destination matrices were generated for the future traffic volumes using a process similar to that described for exiting traffic in the previous section. These matrices are shown below in Table 4.

<b>2040 AM</b>		10	20	21	30	40	50	60	61	70	71
		I-35S	US 54W*	US 54 W**	127th	K-96N	I-35N	US 54 E*	US 54 E**	Webb/ Grnw.*	Webb/ Grnw.**
Name	Sum	1598	6385	182	411	2276	909	1955	824	3096	1100
From	Sum										
10 I-35S	1207		0	3	145	228	459	104	90	177	0
20 US 54W*	4559	0		0	6	315	10	1566	0	2662	0
21 US 54W**	112	8	0		18	29	57	0	0	0	0
30 127th	908	412	65	0		139	163	0	31	80	17
40 K-96N	1886	200	562	40	141		79	0	678	39	146
50 I-35N	1175	705	53	139	40	63		0	25	137	14
60 US 54E*	4556	90	3543	0	0	0	0		0	0	923
61 US 54E**	1604	124	0	0	32	1399	49	0		0	0
70 Webb/Green*	2381	55	2162	0	29	45	90	0	0		0
71 Webb/Green**	349	4	0	0	1	57	2	284	0	0	

<b>2040 PM</b>		10	20	21	30	40	50	60	61	70	71
		I-35S	US 54W*	US 54 W**	127th	K-96N	I-35N	US 54 E*	US 54 E**	Webb/ Grnw.*	Webb/ Grnw.**
Name	Sum	1474	6086	350	958	2581	1445	4381	2020	3348	1100
From	Sum										
10 I-35S	1680		0	102	210	284	667	146	136	134	0
20 US 54W*	6853	0		0	44	456	22	3299	0	3031	0
21 US 54W**	459	31	0		78	105	246	0	0	0	0
30 127th	540	146	7	0		134	59	0	111	34	50
40 K-96N	3364	256	500	98	305		104	0	1713	59	328
50 I-35N	968	390	4	149	93	125		0	60	90	57
60 US 54E*	3967	260	3042	0	0	0	0		0	0	665
61 US 54E**	1582	159	0	0	128	1230	65	0		0	0
70 Webb/Green*	3231	217	2533	0	87	118	276	0	0		0
71 Webb/Green**	1100	16	0	0	13	130	6	936	0	0	

\* via I-35 between Exit 53 & Exit 57

\*\* via US 54 between Webb & Greenwich

**Table 4 - Extrapolated Origin-Destination Matrix, 2040 Traffic Volumes**

Utilizing these origin-destination tables, estimates were made for traffic adjustments that would result from the addition of new direct ramps between I-35 and US-54(400) near Exit 53. For example, it was assumed that about 90% of the traffic that currently travels between I-35 north of Exit 53 and US-54(400) west of Exit 50 that currently uses Exit 50 would now use the new ramp from I-35 to US-54(400) near Exit 53 (134 of the 149 vehicles in the PM peak hour on the table above). This process was repeated for the various traffic patterns that would benefit from the new interchange improvements (approximately 130 different travel patterns).



The resulting forecast traffic volumes are summarized in Appendix D for the proposed Interim Alternative and for Alternative 4B.

### Operational Analysis

Using the projected 2040 traffic volumes, VISSIM microsimulation models were developed for the interim and full-build (Alternative 4B) concepts to test the operation of the proposed configuration near Exit 53 as well as the ability of the “U-Turn” concept at Exit 50 to accommodate the revised traffic volumes.

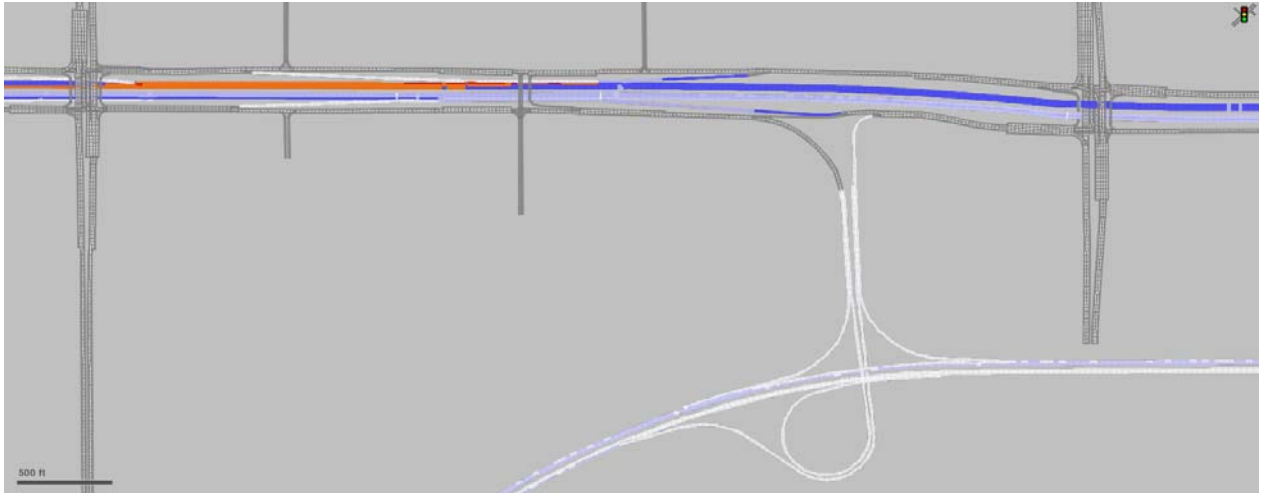
During the US-54(400) corridor study in 2010, the “U-Turn” concept at Exit 50 was evaluated but not selected as the preferred alternative due to the high volume of traffic that would have to make U-Turns at the Eastern Street crossover under US-54(400) west of Exit 50. The corridor study forecast that 1,118 vehicles would have to make this westbound to eastbound U-Turn movement during the 2040 P.M. peak hour. At Webb Road, 494 vehicles were projected to make the eastbound to westbound U-Turn at the interchange.

By shifting much of this traffic demand to the new ramps near Exit 53, the future U-Turn traffic volume at Eastern Street is projected to be reduced from 1,118 during the 2040 P.M. peak hour to 584 with the “interim” improvement concept and 421 with the full interchange improvements near Exit 53. The U-Turn demand at Webb Road is forecast to be reduced from 494 to 178 with the interim improvements near Exit 53 and would remain at that level with the full interchange improvements.

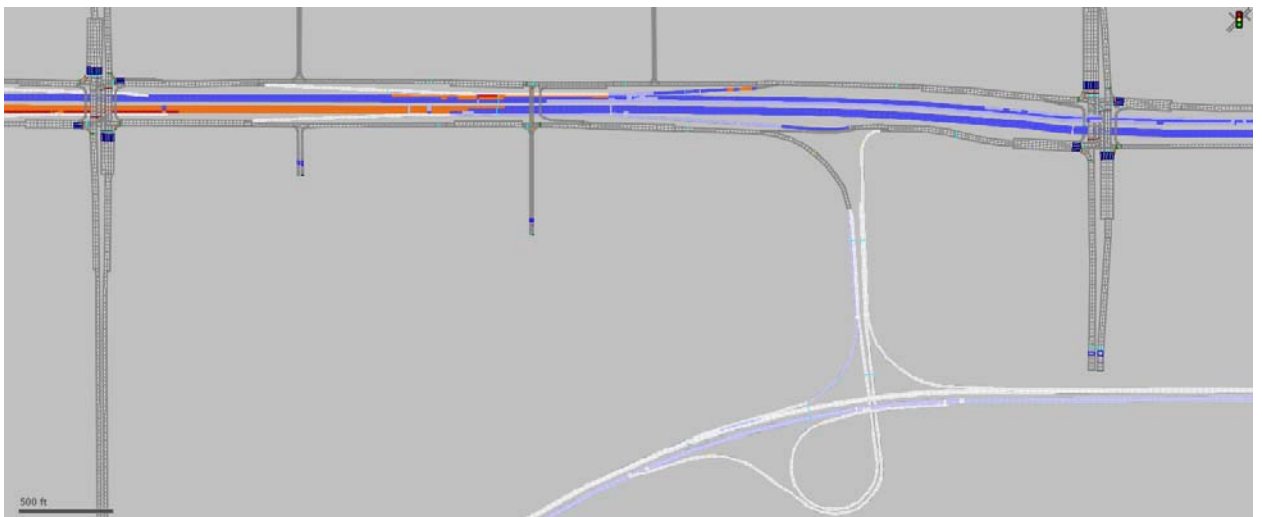
These shifts in traffic patterns significantly improve traffic operations at Exit 50/Eastern Street/Webb Road with the U-Turn configuration. Both the Eastern Street and Webb Road intersections are projected to operate at level of service D or better during the 2040 A.M. and P.M. peak hours.

Freeway traffic operations are also generally expected to operate acceptably. Figure 16 and Figure 17 below show the levels of service by segment and lane for A.M. and P.M. 2040 traffic projections. White/Blue indicates level of service A-D operation, orange is level of service E and red depicts level of service F. Because these drawings show level of service in short segments and by lane and the Highway Capacity Manual thresholds for level of service are for entire freeway segments (ramp to ramp) across all lanes, the Highway Capacity Manual average density and level of service are better than shown in these figures. The levels of service on these segments are projected to be acceptable. It should be noted that the forecast traffic volumes on US-54(400) in 2040 are near capacity of the facility. During the US-54(400) corridor study, it was agreed that the number of through traffic lanes on US-54(400) was likely to remain at three in each direction, so no additional mainline freeway improvements are anticipated beyond those indicated along the corridor.





**Figure 16 - U-Turn Scenario at Exit 50 with Full-Build Improvements at Exit 53, 2040 AM Volumes**

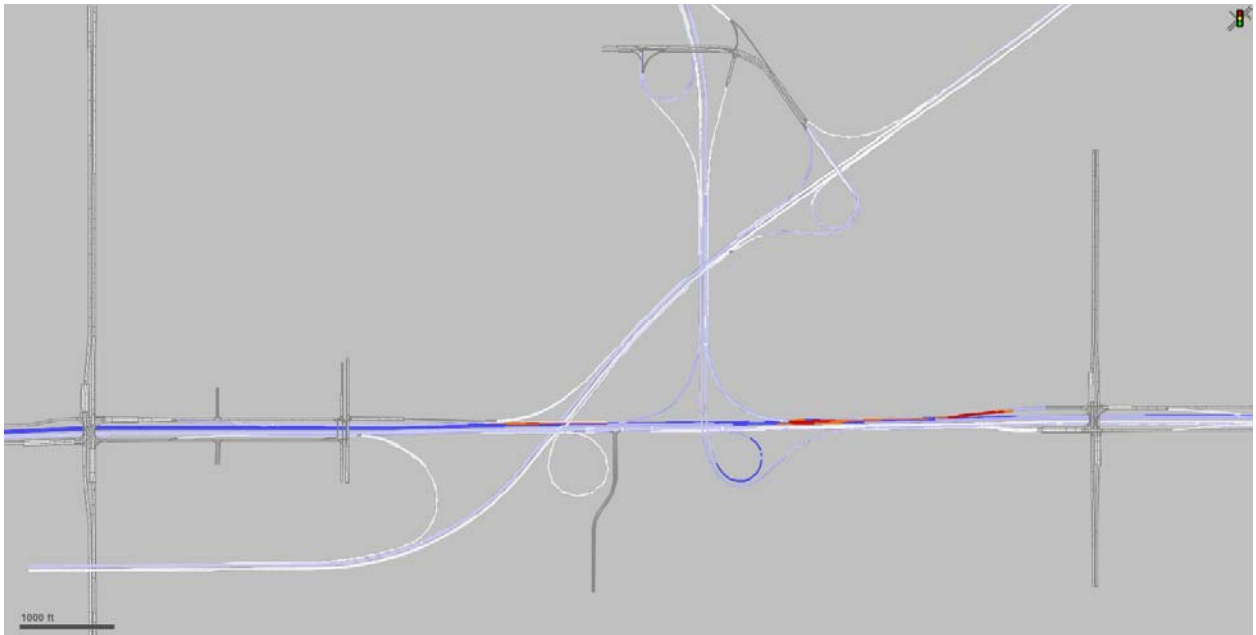


**Figure 17 - U-Turn Scenario at Exit 50 with Full-Build Improvements at Exit 53, 2040 PM Volumes**

Proposed interim improvements near Exit 53 include the following movements:

- ▶ Southbound I-35 to westbound US-54(400)
- ▶ Eastbound US-54(400) to northbound I-35
- ▶ Eastbound US-54(400) to southbound I-35

In order to analyze these improvements under 2040 traffic conditions, several other improvements were assumed in order to maintain traffic flow in the interchange area. These included the 143<sup>rd</sup> Street interchange on US-54(400) and widening the westbound US-54(400) to northbound K-96 ramp to two lanes. Without these improvements, a bottleneck would be created on US-54(400) at 143<sup>rd</sup> Street constricting traffic flow. The results of the analysis are depicted in Figure 18 and Figure 19.



**Figure 18 - Interim Alternative, 2040 AM Volumes**



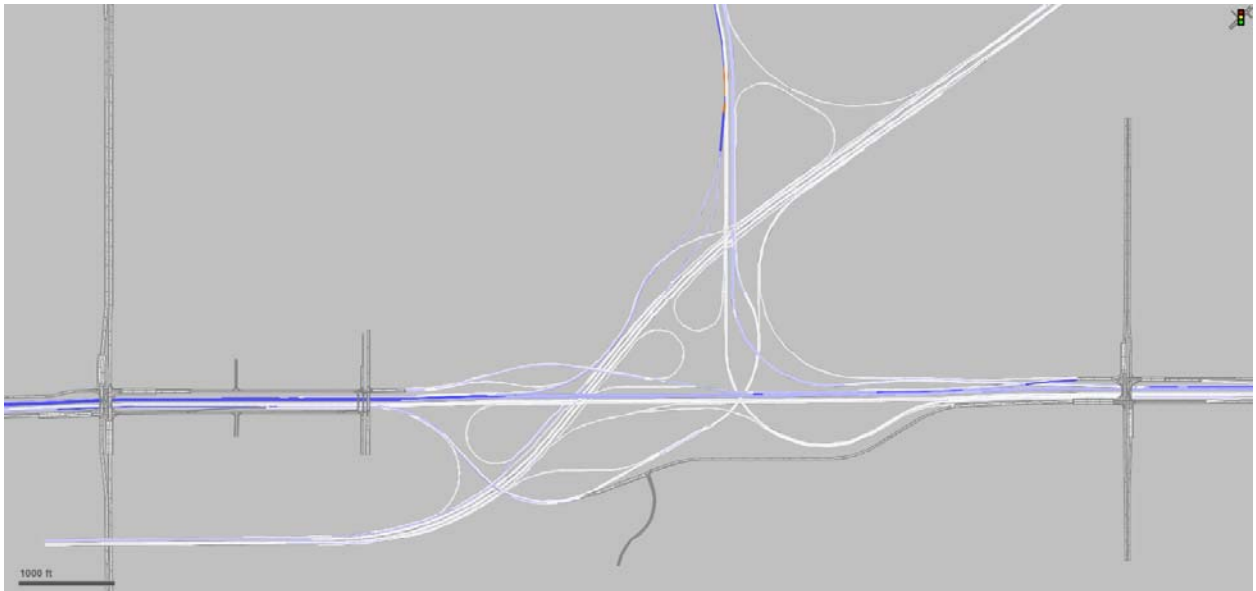
**Figure 19 - Interim Alternative, 2040 PM Volumes**

The analysis indicates that the interim ramps will continue to operate acceptably under 2040 traffic demand. However, other components of the interchange area will fail, in addition to the 143<sup>rd</sup> Street area. In particular, the connections between US-54(400) and K-96 fail, indicating that these movements should be given high priority in subsequent phases of the interchange area improvements.

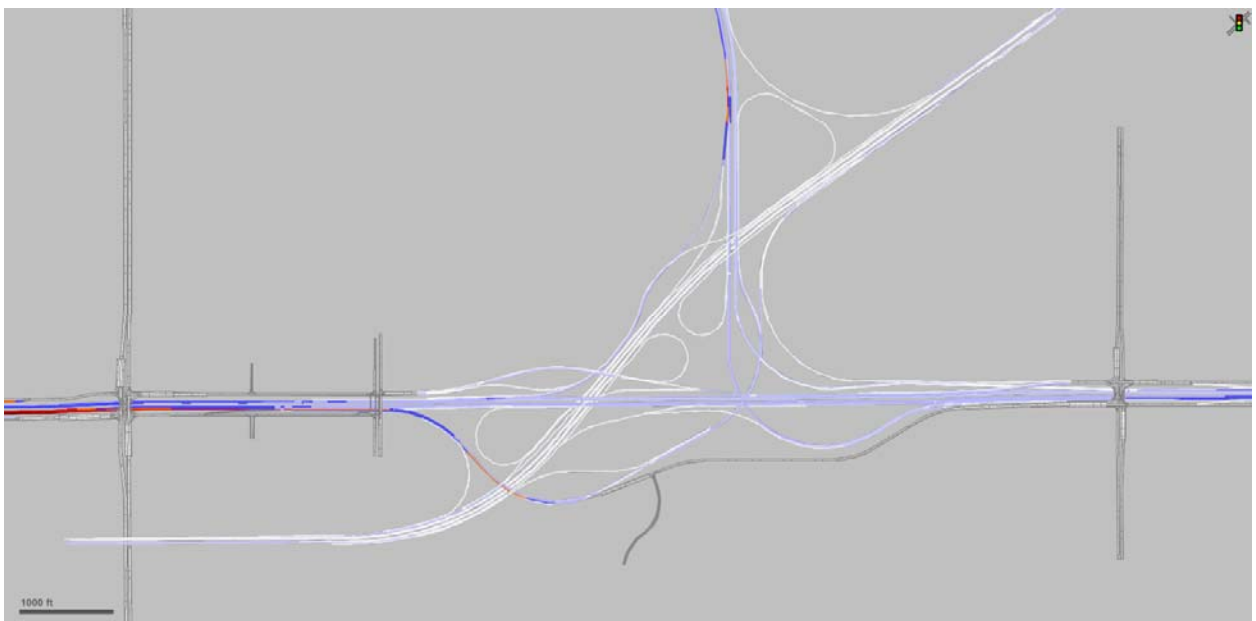
This analysis also assumed that 127<sup>th</sup> Street to the south of US-54(400) would remain as a connection to US-54(400). The analysis indicates that this is not a desirable condition. Slowing traffic on eastbound US-

54(400) to turn onto 127<sup>th</sup> Street creates operation and safety concerns and northbound traffic on 127<sup>th</sup> Street does not have sufficient gaps in traffic to turn onto US-54(400).

Finally, the forecast traffic volumes were tested on the proposed Alternative 4B interchange concept near Exit 53. The results of this analysis are depicted in Figure 20 and Figure 21 below and indicate that all of the movements will operate acceptably.



**Figure 20 - Alternative 4B, 2040 AM Volumes**



**Figure 21 - Alternative 4B, 2040 PM Volumes**

# Environmental

*DRAFT-Conceptual Alternatives Study  
July 2014*



EXPERIENCE | Transportation

## **Environmental Impacts**

### **Preliminary Environmental Scan Outline**

This preliminary environmental scan was performed for the Proposed I-35, US-54(400), K-96 (Exit 53) Interchange study area in the City of Wichita, Sedgwick County, Kansas. Most of this 660 acre study area is already occupied by highway right of way. To date, this scan has identified no significant environmental impacts of the proposed design.

The project may also include the system to system connection at I-35 (KTA) Exit 50, two miles to the west. Much of this 150 acre portion of the study area is occupied by highway right-of-way, and has already received a Categorical Exclusion (CE) as part of a larger scale environmental assessment, so it is not included in this preliminary environmental scan.

The purpose of the environmental scan is to identify potential items which may require avoidance, minimization, or mitigation measures associated with the proposed project activities, and challenges which may require the continued development of project alternatives. The outline for the environmental scan is based on the review subjects required of a National Environmental Policy Act (NEPA) categorical exclusion document, excluding displacements, air quality and noise impacts. Environmental scan subjects are listed below, along with their current status:

- ▶ Minority and low-income communities – no significant impacts anticipated.
- ▶ Institutional and emergency services – no significant impacts anticipated
- ▶ Public lands – no significant impacts anticipated.
- ▶ Historic and cultural resources – further review required, but no significant impacts currently identified.
- ▶ Floodway/floodplain – FEMA 100/500 year floodplains are encroached upon, further review required.
- ▶ Waters of the U.S. – further review required, but no significant impacts currently identified.
- ▶ Farmland – farmland is impacted; further review required, but no significant impacts currently identified.
- ▶ Water quality, soils and sedimentation – design and permitting required, but no significant impacts identified.
- ▶ Threatened and endangered species - further review required, but no significant impacts currently identified.
- ▶ Hazardous waste - further review required, but no significant impacts currently identified.
- ▶ Geological resources – no significant impacts identified, geotechnical investigation is anticipated.

The environmental scan utilized information from publically available databases, GIS mapping data, and information websites. No on-site field reconnaissance was associated with this effort. The accuracy of this environmental scan is limited to an in-house review and depends entirely upon information source quality.

As determined during the course of this environmental scan, the following items should be performed prior to project construction:

- ▶ Consultation in writing, with the Kansas State Historical Society (KSHS) to confirm the project will not impact historic resources and to determine impacts to cultural resources.
- ▶ Perform an on-site delineation of waters of the U.S. and obtain any applicable permits/certifications to satisfy Sections 404/401 of the Clean Water Act.
- ▶ Consultation with the Natural Resources Conservation Service (NRCS) and Kansas Department of Agriculture regarding impacts to farmland and streams.
- ▶ Obtain an NPDES Stormwater Runoff from Construction Activities Permit from the Kansas Department of Health and Environment (KDHE). As part of this process, it is suggested consideration be given to designing a temporary sediment basin to protect downstream waters during construction. The City of Wichita should be contacted to identify any surface water intakes for public drinking water supply within ½ mile of the project storm water discharge points.
- ▶ Consultation with the U.S. Fish and Wildlife Service (USFWS) and Kansas Department of Wildlife and Parks (KDWP) to determine if the project will impact threatened/endangered species or their critical habitat.
- ▶ Perform additional research regarding KDHE LUST/LAST locations to determine the potential to encounter contaminated soils during construction.
- ▶ Contact the City of Wichita floodplain administrator regarding proposed construction activities within FEMA flood hazard areas.

## Socioeconomic Factors

### Minority and Low-Income Communities

A general query of available Census 2010 data was conducted to provide a brief description of Wichita, Kansas. This description is presented in Table 5.

**Table 5 - Population, Housing Units, Area, and Density for Wichita, Kansas**

Population	Housing Units	Total Area (Miles <sup>2</sup> )	Water Area (Miles <sup>2</sup> )	Land Area (Miles <sup>2</sup> )	Population per sq. mi.	Housing Units per sq. mi.
382,368	167,310	163.59 sq.	4.30 sq.	159.29 sq.	2,400.5	1,050.3

Source: U.S. Census Bureau, Census 2010

Executive Order 12898 requires that actions be taken to address environmental justice in minority and low-income populations by identifying and addressing disproportionately high and adverse human health or environmental effects from potential actions of the project. The Census 2010 data was accessed to perform a search for minority and low-income populations within and adjacent to the study area. The City of Wichita, Kansas percentages of minority and low-income populations provide the benchmark data as the point of comparison for these populations. Table 6 illustrates that comparison.

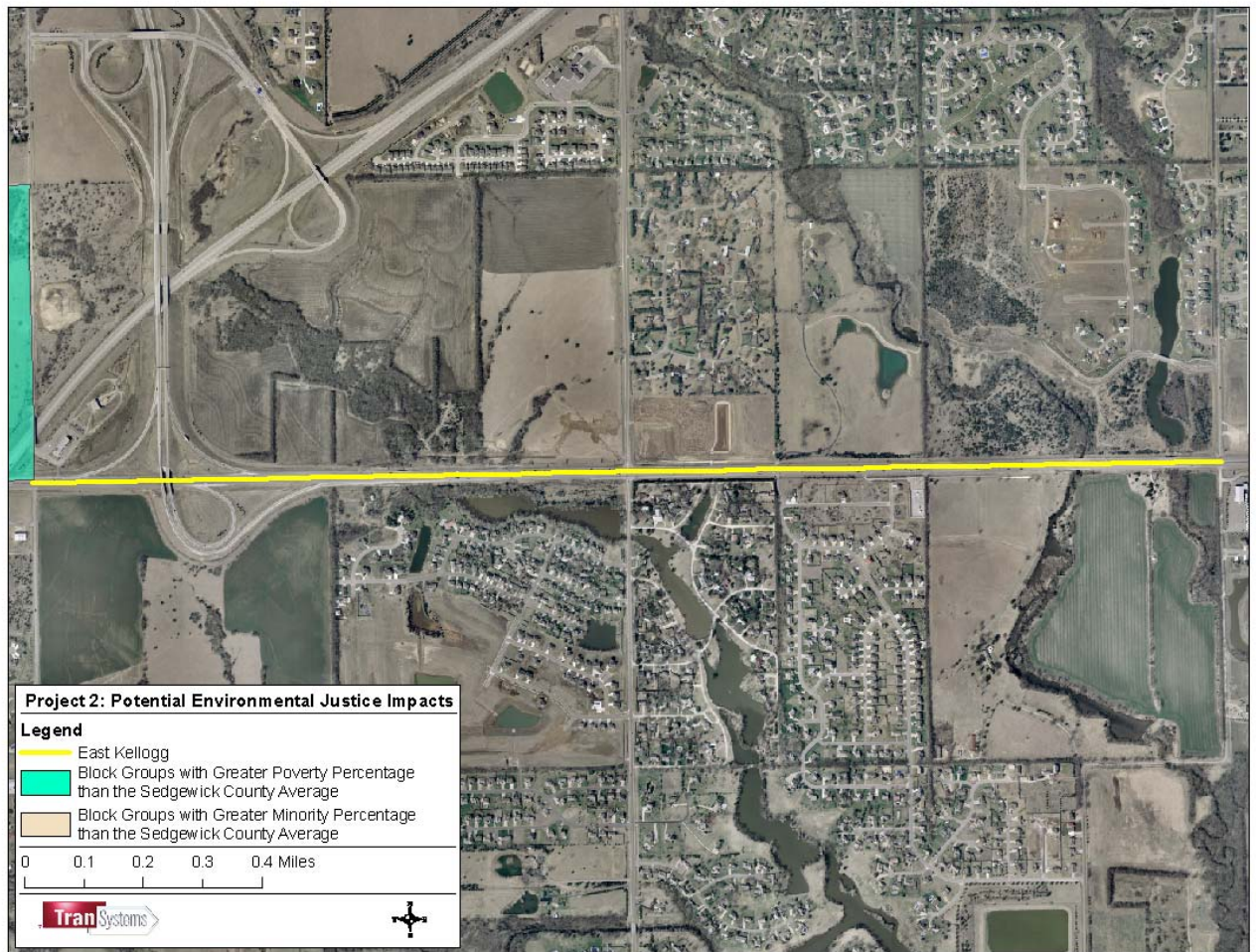
**Table 6 - Census 2010 Data**

Place of Interest	Percent Minority*	Percent Below Poverty*
City of Wichita	28.10%	15.80%
Study Area Block Groups	7.89%	1.69%

\*Source: U.S. Census Bureau, Census 2010

A May 2, 2014 review of EPA's EJ (Environmental Justice) View website indicated that: 1) In the portion of the study area east of 127<sup>th</sup> Street 0% to 10% of the population is at or below the poverty level, and minorities constitute 0% to 10% of the population; 2) In the portion of the study site west of 127<sup>th</sup> Street and north of Douglas, 10% to 20% of the population is at or below the poverty level, and minorities constitute 20% to 30% of the population; and 3) In the portion of the study site west of 127<sup>th</sup> Street and south of Douglas, 20% to 30% of the population is at or below the poverty level, and minorities constitute 20% to 30% of the population (See Figure 22.)





**Figure 22 - Potential Environmental Justice Impacts**

Only one block group located within the study area is meaningfully greater than the benchmark for percent minority. Collectively the block groups include a lower percentage of minority population and no disproportionate impacts to minority communities are anticipated as a result of the project. No areas within the project study area were determined to be meaningfully greater than the benchmark for low-income percentages.

The majority of the project study area is already occupied by highway right of way, particularly in the area west of 127<sup>th</sup> Street. No disproportionately high and adverse human health or environmental effects on minority or low income populations are anticipated.

#### **Institutional and Emergency Services**

A review of electronic, publically available mapping data was conducted on May 2, 2014. No schools or emergency services (hospitals, fire, police, and ambulance) are located within or adjacent to the project study area.

East Point Church of Christ is located just north of the current study area along K-96. Metro East Baptist Church is adjacent to the study area along the southeast side of I-35 toward the northeast corner of the project.

### Public Lands

Public lands include properties used or reserved for use as park, recreation, wildlife or waterfowl areas, and historic sites. Public park lands may be reserved for public recreational usage under a Section 4(f) or Section 6(f) designation. Section 4(f) is part of the United States Department of Transportation (USDOT) Act of 1966 that was designed to preserve the natural beauty of the countryside. Section 6(f) is part of the Land and Water Conservation Fund (LWCF) Act, which was designed to provide restrictions for public recreation facilities funded with LWCF funds. The LWCF Act provides funds for the acquisition and development of public outdoor recreation facilities that could include community, county, and state parks, trails, fairgrounds, conservation areas, boat ramps, shooting ranges, etc.

Park land data was reviewed in ArcGIS on December 8, 2008, and via publically available mapping data on May 5, 2014. There are no City, State or County parks located within the project study area. A single park land was identified near the project study area. This park land is labeled as Andover Municipal Golf Course, formerly Cedar Pines Golf Course, 1208 W. US-54(400), in the City of Andover, Butler County, Kansas. It is located on the north side of US-54(400) between 159<sup>th</sup> Street and Onewood, 2.7 miles east of the project study area. According to the Kansas State Parks office, this property is both a 4(f) and 6(f) property. The golf course, which received federal funds for its creation, is a publicly managed course open to the public. These funds, known as Land and Water Conservation Funds (LWCF), establish stringent guidelines regarding the taking of any land developed by this funding mechanism.

Project designers are encouraged to develop alternatives which will avoid the taking of any such property. If a taking is required, a significant level of documentation must be completed to convert this resource to non-park uses. Conversion of a parcel of 6(f) property may take up to one year (or greater) to complete.

### Historic and Cultural Resources

A May 5, 2014 search of the National Park Service National Register of Historic Places (NRHP) online database identified 122 listed sites in Sedgwick County, all located west of the project site, the nearest being 3.7 miles away. The search also identified 22 listed sites in Butler County to the east of the project site, the nearest being 11 miles away. No NRHP sites are located within or adjacent to the study area. Prior to construction, any existing architectural structures greater than 50 years of age requiring removal or modification must be communicated with the Kansas State Historical Society for further consultation.

For security reasons, the locations of cultural resources are not available to the general public through database or mapping inquiries. The Kansas State Historical Society must be contacted via letter to solicit a determination as to the impact this project may have on cultural resources.

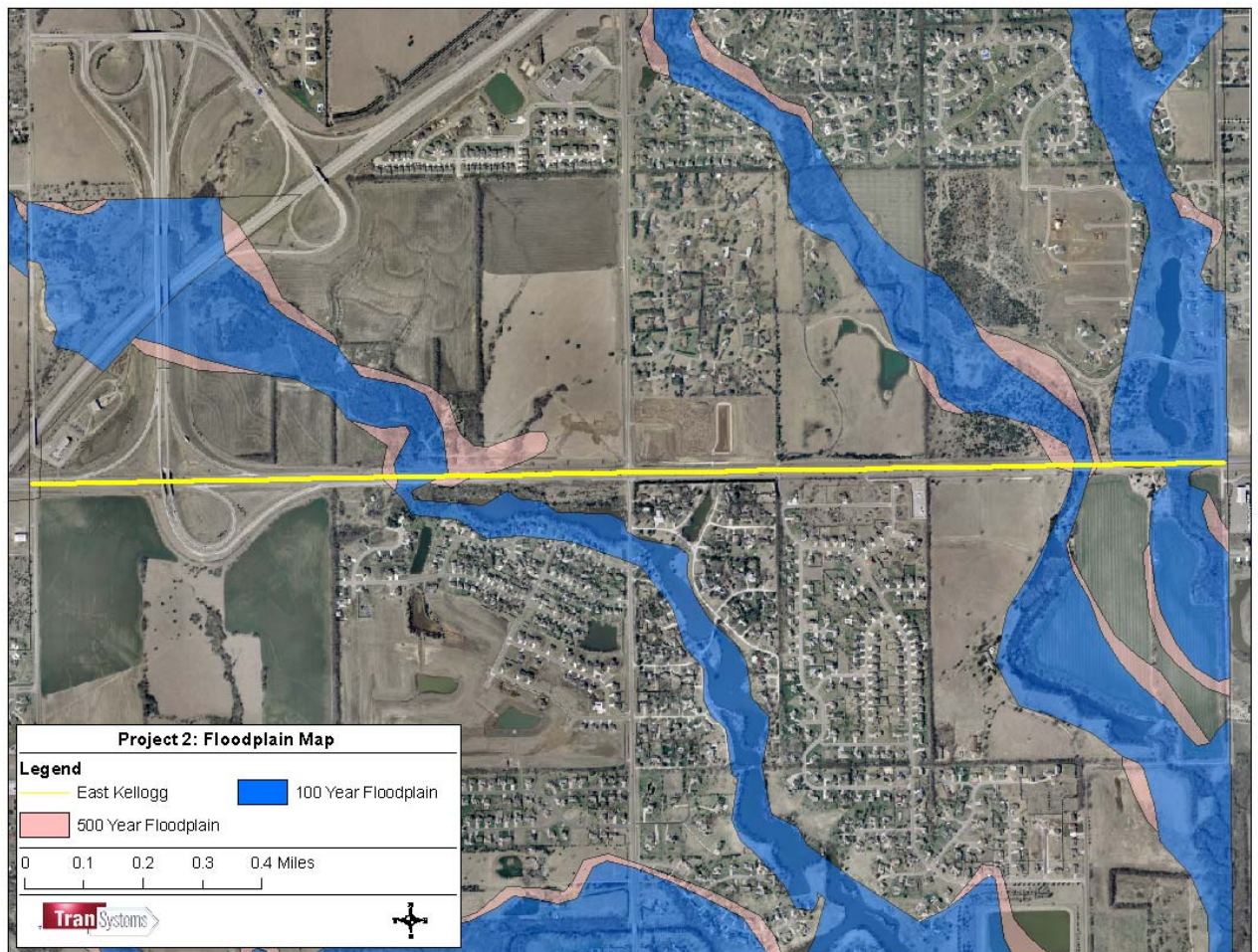


## Environmental Factors

### Floodway / Floodplain

The City of Wichita participates in the National Flood Insurance Program (NFIP). Any development that is within a special flood hazard area as identified by the Federal Emergency Management Agency (FEMA) would require obtaining a flood development permit for the project.

Digital Q3 data was referenced electronically in ArcGIS on December 8, 2008. According to the shapefile, there are FEMA 100 – 500 year floodplains within the study area. Flood Insurance Rate Map (FIRM) Panel Numbers for the study area include FIRM Panel 2003210225A, FIRM Panel 200383005B, and FIRM Panel 2003370165B (See Figure 23.)



**Figure 23 - FEMA Floodplain Map**

The City of Wichita floodplain administrator should be contacted regarding proposed construction activities within FEMA flood hazard areas, and any permitting required.

### Waters of the U.S.

Waters of the U.S. include ponds, lakes, creeks, rivers, wetlands, etc. National Wetland Inventory data compiled by the U.S. Fish and Wildlife Service is not available in an electronic shapefile for the 1:24,000 USGS quadrangle for Andover, Kansas.

As an alternative, a shapefile obtained from the National Hydrography Dataset was referenced electronically in ArcGIS on December 3, 2008. According to the shapefile, potential waters of the U.S. located within or adjacent to the study area include two unnamed streams and one named water body, the nearby Fourmile Creek. A county map identifies Spring Creek to the south of the study area, and its north branch, which drains the majority of the project site, as well as the privately owned ponds in the southeastern portion of the study area. Spring Creek discharges into Fourmile Creek five (5) miles east-southeast of the project study site (See Figure 24.)

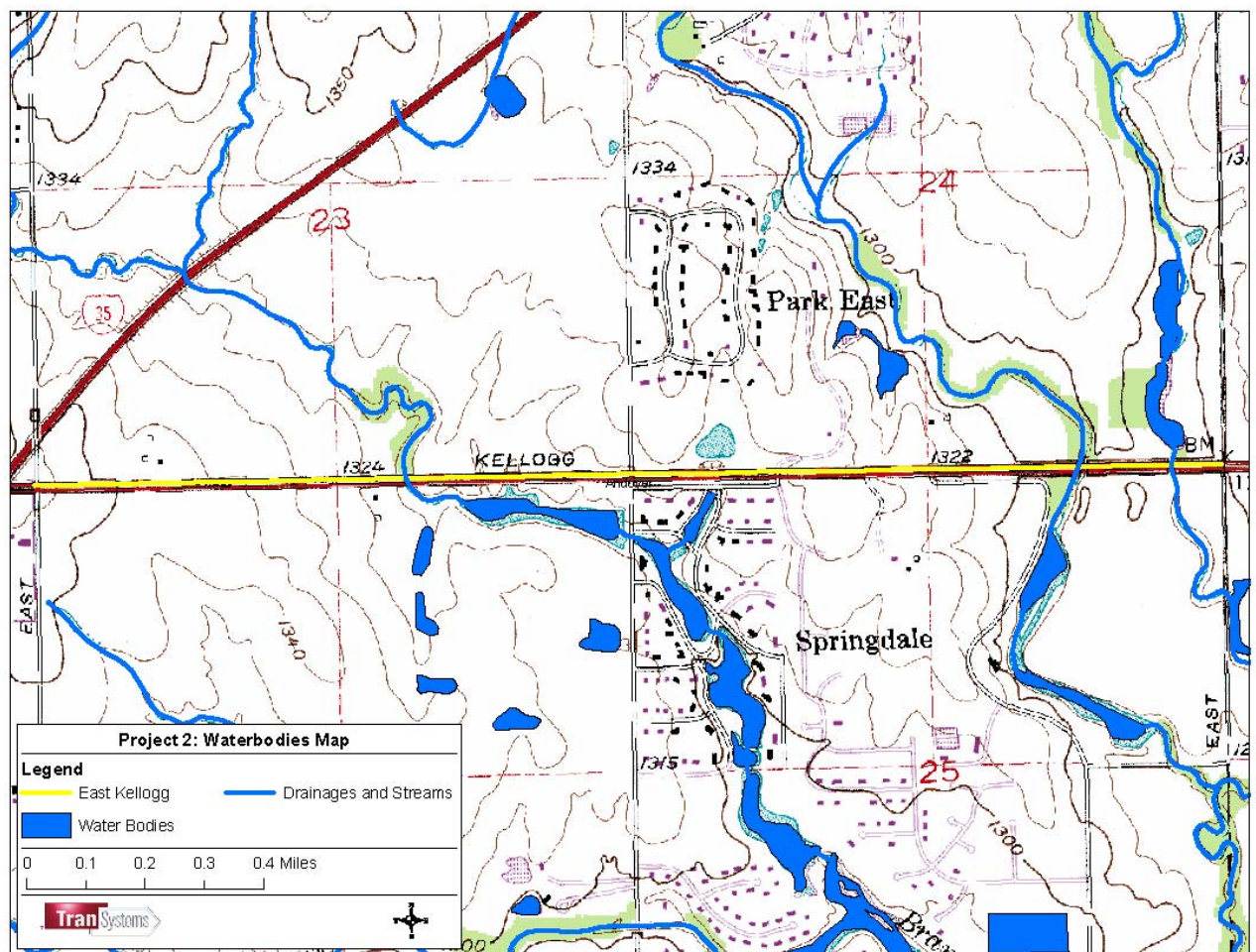


Figure 24 - Waterbodies Map

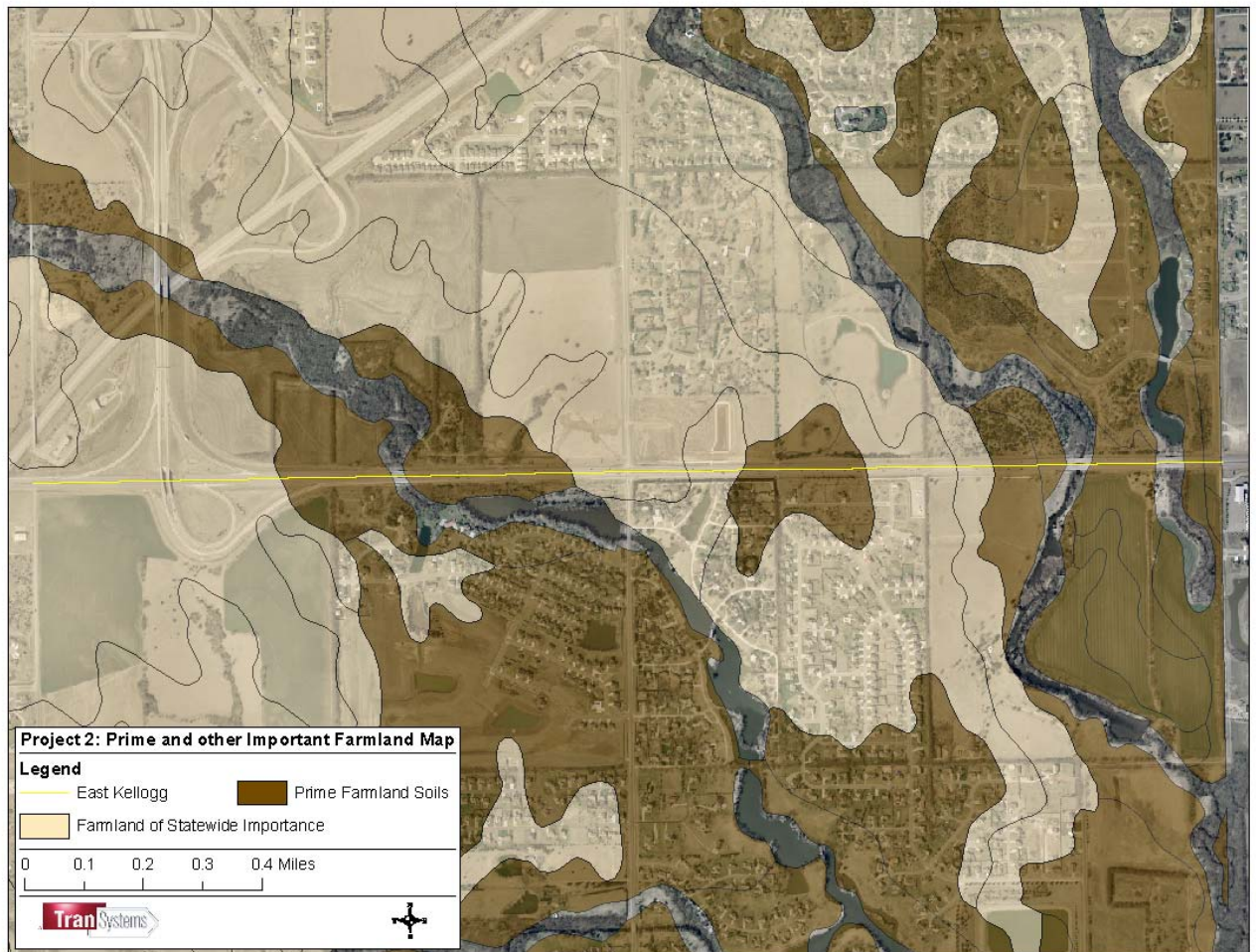
It will be necessary to perform an on-site delineation of waters of the U.S. and obtain any applicable permits/certifications to satisfy Sections 404/401 of the Clean Water Act.

### Farmland

The Farmland Protection Policy Act (FPPA) requires that a farmland conversion impact rating score be generated in cooperation with the local Natural Resources and Conservation Service (NRCS) office prior to development of such land to non-agricultural uses. Projects receiving federal funding or assistance, in whole or in part, are subject to FPPA requirements.

A shapefile obtained from the NRCS on-line technical library was referenced electronically in ArcGIS on December 3, 2008. Prime farmland and farmland of statewide importance soils are located within the study area. These soil map units are Rosehill silty clay, 1 to 3 percent slopes – farmland of statewide importance (map unit 3911), Clime silty clay, 3 to 7 percent slopes - farmland of statewide importance (map unit 4570), Irwin silty clay loam, 1 to 3 percent slopes - all areas are prime farmland (map unit 4671), Farnum loam, 1 to 3 percent slopes – all areas are prime farmland (map unit 5893), Elandco silt loam, rarely flooded – all areas are prime farmland (map unit 6244), Blanket silt loam, 1 to 3 percent slopes - all areas are prime farmland (map unit 6323). Any conversion of agricultural ground to non-agricultural use must be coordinated with the local NRCS office. The majority of the study area is already occupied by highway right of way, and is not currently dedicated to agricultural purposes (See Figure 25.)





**Figure 25 - Prime and Other Important Farmland Map**

The Kansas Department of Agriculture should be contacted regarding issuance of an Obstructions in Streams Permit.

#### Water Quality, Soils and Sedimentation

No Outstanding National Resource Waters, Exceptional State Waters, or Special Aquatic Life Use Waters as designated by the Kansas Department of Health and Environment (KDHE) were determined to be within or adjacent to the project study area (See Figure 24.)

The KDHE website was referenced for the location of Section 303(d) listed impaired water bodies on May 3, 2014. The project study area is primarily drained by the north branch of Spring Creek, which discharges into Fourmile Creek five (5) miles east-southeast of the study site in Butler County, Latitude 37.8862, and Longitude 97.0496. Fourmile Creek is designated as Stream Segment 20, within the Upper Walnut River Basin, Hydrologic Unit Code (HUC) 1103001. It discharges into the Walnut River in Butler County, which then discharges into the Arkansas River in Cowley County. Fourmile Creek is listed in Antidegradation Category (Class) GP, General Purpose Waters. It is designated as an Expected Aquatic Life Use Water, and



is a Secondary Contact Recreation Stream not open to and accessible by the public under Kansas Law. It is indicated for domestic water supply, ground water recharge, industrial water supply, irrigation and livestock, but not for food procurement use.

Fourmile Creek does not discharge into any Kansas lakes classified as Outstanding National Resource Waters, or into any Special Aquatic Life Use Waters. It occurs on the 2014 Section 303(d) List of Impaired/Potentially Impaired Waters for the state of Kansas, based on test results at Station SC 744 near Gordon, Kansas in Butler County. Fourmile Creek is impaired for aquatic life due to Total Phosphorus (Median Value: 0.296 . Flag Value: 0.201), and for use as a water supply due to Sulfate, for which a TMDL was approved on 9/30/2002.

According to the National Resources Conservation Service (NRCS) technical review of soil properties, project soils are indicated to be very limited for the construction of local roads and streets due to low strength and high shrink-swell potential. They are indicated to have silty surface layers and clayey subsoils, with moderately slow to very slow permeability. Soils will rapidly erode if left unprotected. The project will require compliance with the provisions of KDHE storm water regulations found at section 28-16-56 of the Kansas Administrative Regulations. Implementation of temporary/permanent erosion controls, best management practices, and compliance with site inspection protocols will help prevent adverse impacts to water quality and decrease the amount of sediment leaving the project site.

In order to construct the project under KDHE's existing National Pollutant Discharge Elimination System (NPDES) General Construction Permit, a Notice of Intent (NOI) must be filed, and KDHE approval must be granted. One of the requirements of the NOI is to identify any surface water intakes for public drinking water supply located within ½ mile of the site storm water discharge points. For security reasons, the locations of such intakes are no longer available on public websites. Upon completion of the project design, it is suggested the City of Wichita be contacted to identify any such intakes that may warrant special protective measures during construction.

Surface topography in the study area ranges between approximately elevations 1300 and 1370. Privately owned ponds on the north branch of Spring Creek in the southeast corner of the study area maintain an approximate water surface elevation of 1307 year round. On May 7, 2014, the north branch of Spring Creek was observed to be dry at the point it crosses beneath US-54(400) (See Figure 26), suggesting the ponds may be indicative of the static water table in the area. As part of the planned construction, it may be feasible to construct a temporary sedimentation basin upstream of the ponds to capture sediment during construction, and to coordinate such construction with permanent measures to control storm water discharges. Alternatively, consideration could be given to acquiring one or more of the existing ponds under a temporary construction easement to serve as a temporary sediment basin. However, Sedgwick County is considered to contain critical habitat for 5 threatened or endangered species of fish, and such a plan may be subject to a biological assessment, so this is not currently the recommended alternative.

Looking north beneath US-54(400) bridges



Looking north from north R/W



**Figure 26 - Photos of north branch of Spring Creek at US-54(400) crossing, May 7, 2014**

Designers of vegetation projects for the stabilization or beautification of project right of way are strongly encouraged to consider the use of native plant species. If the project requires mitigation for environmental impacts, the use of native vegetation for mitigation areas will be a special condition of permit issuance.

#### **Threatened and Endangered Species**

A search of the U.S. Fish and Wildlife Service (USFWS) Mountain – Prairie Region internet database and the Kansas Department of Wildlife, Parks and Tourism (KDWP) internet database on December 1, 2008, was performed to obtain lists of federal/state threatened, endangered, or candidate species for Sedgwick County, Kansas. The lists have been summarized in Table 7 below.

**Table 7 - Threatened and Endangered Species List for Sedgwick County, Kansas**

Common Name	State Status	Federal Status	KDWP Critical Habitat in Sedgwick County (Yes/No)
Arkansas Darter	threatened	candidate	Yes
Arkansas River Shiner	endangered	threatened	Yes
Arkansas River Speckled Chub	endangered	not listed	Yes
Bald Eagle	threatened	threatened	Yes
Eastern Spotted Skunk	threatened	not listed	Yes
Eskimo Curlew	endangered	endangered	No (considered extirpated from the state)
Least Tern	endangered	endangered	No
Peregrine Falcon	endangered	not listed	No
Piping Plover	threatened	threatened	No
Plains Minnow	threatened	threatened	Yes
Silver Chub	endangered	not listed	Yes
Snowy Plover	threatened	not listed	No
Whooping Crane	endangered	endangered	No

Although Sedgwick County may contain critical habitat for 5 of the threatened or endangered fish species, a more in-depth review of the KDWP literature indicates their critical habitat occurs primarily in the western and southern portions of the county. The Walnut River / Fourmile Creek / Spring Creek watersheds are not listed in the zones of critical habitat in Sedgwick County. Further, On May 7, 2014, the north branch of Spring Creek was observed to be dry at the point where it crosses beneath US-54(400) (See Figure 26). Upstream of this point, the north branch of Spring Creek drains most of the project study area. The ponds on the south side of US-54(400) maintain a water surface year round, suggesting the water surface may be sustained by ground water rather than perennial stream flow, further suggesting the ponds may be able to support fish populations, but not necessarily the north branch of Spring Creek, except intermittently.

As the project progresses, further coordination with the USFWS and KDWP will be required to determine potential impacts to threatened and endangered species and/or designated critical habitat. During their review process, either of these agencies may require a biological assessment be performed for one or more of the listed species.

### Hazardous Waste

The potential for encountering hazardous waste was researched by querying databases maintained by the Kansas Department of Health and Environment (KDHE) and the U.S. Environmental Protection Agency (U.S. EPA).

The March 3, 2014 KDHE UST database indicates there are two former UST sites within the study area: 1) 11212 US-54(400) at the northeast corner of US-54(400) and Greenwich, Case No. U2-087-01266; and 2) 11516 US-54(400), 0.2 miles east of that location, near the intersection of US-54(400) and Ellson, Case No. U2-087-0166. Both sites were closed in 1993. At both sites, no holes were observed in the tanks that

were removed, and Total Petroleum Hydrocarbon (TPH) levels in soil samples collected from the UST basins were nondetectible (ND) using Drager Tubes.

A May 6, 2014 search of the KDHE leaking underground storage tanks (LUST) and leaking above ground storage (LAST) database did not locate any LUST or LAST within or adjacent to the project study area.

The U.S. EPA CERCLIS database was accessed on December 5, 2008. No properties adjacent to or within the project study area are listed on the National Priorities List (Superfund sites). As of May 6, 2014, the nearest CERCLIS site is located at 57<sup>th</sup> Street and North Broadway, 10 miles northwest of the study area.

There currently appears to be a low potential to encounter contaminated soils during excavation activities within any proposed expanded right of way. Any property acquisitions required for permanent right of way should be reviewed by means of a Phase I Environmental Site Assessment, conducted to ASTM or other recognized standards.

### Geologic Resources

Most of the study area is located within the S ½ of Section 22, Section 23, N ½ of Section 26, and the N ½ of Section 27, T27S, R2E in the Andover Quadrangle, City of Wichita, Sedgwick County, Kansas. This project falls within the Wellington-McPherson Lowland Level 4 U.S. EPA Ecoregion. The physiography of this area is flat, alluvial lowlands. The soils consist of loess, and silty, sandy, clayey alluvium underlain by sandstone, shale, and salt deposits. Potential natural vegetation is tallgrass prairie with floodplain forests.

A prior geotechnical investigation included the intersection of Trig & US-54(400), 500 feet west of the west end of the study area (Greenwich & US-54(400)). It indicated a ground surface elevation of approximately 1348, and 6 feet of surface mantle, underlain by 42 feet of highly weathered shale, underlain by moderately weathered shale.

It is anticipated that a geotechnical investigation will be performed to support the project design, and that it will provide more detailed geotechnical information.

# Utilities

*DRAFT-Conceptual Alternatives Study  
July 2014*



EXPERIENCE | Transportation

## Utilities

### Preliminary Utility Scan Outline

This preliminary utility scan was performed for the Proposed I-35, US-54(400), K-96 (Exit 53) Interchange study area in the City of Wichita, Sedgwick County, Kansas. Most of this 660 acre study area (Area B see Figure 27) is already occupied by highway right of way, located within the S ½ of Section 22, Section 23, N ½ of Section 26, and the N ½ of Section 27, T27S, R2E in the Andover Quadrangle, City of Wichita, Sedgwick County, Kansas.

The project may also include the system to system connection at I-35 (KTA) Exit 50, two miles to the west (Area A see Figure 27). Much of this 150 acre portion of the study area is occupied by highway right-of-way, and utilities have been identified as part of the US-54(400) Improvements, so it is not included in this preliminary utility scan, unless otherwise noted. *Note: All Stations listed below are referenced from the City of Wichita's projects 1A, 1B and 2.*

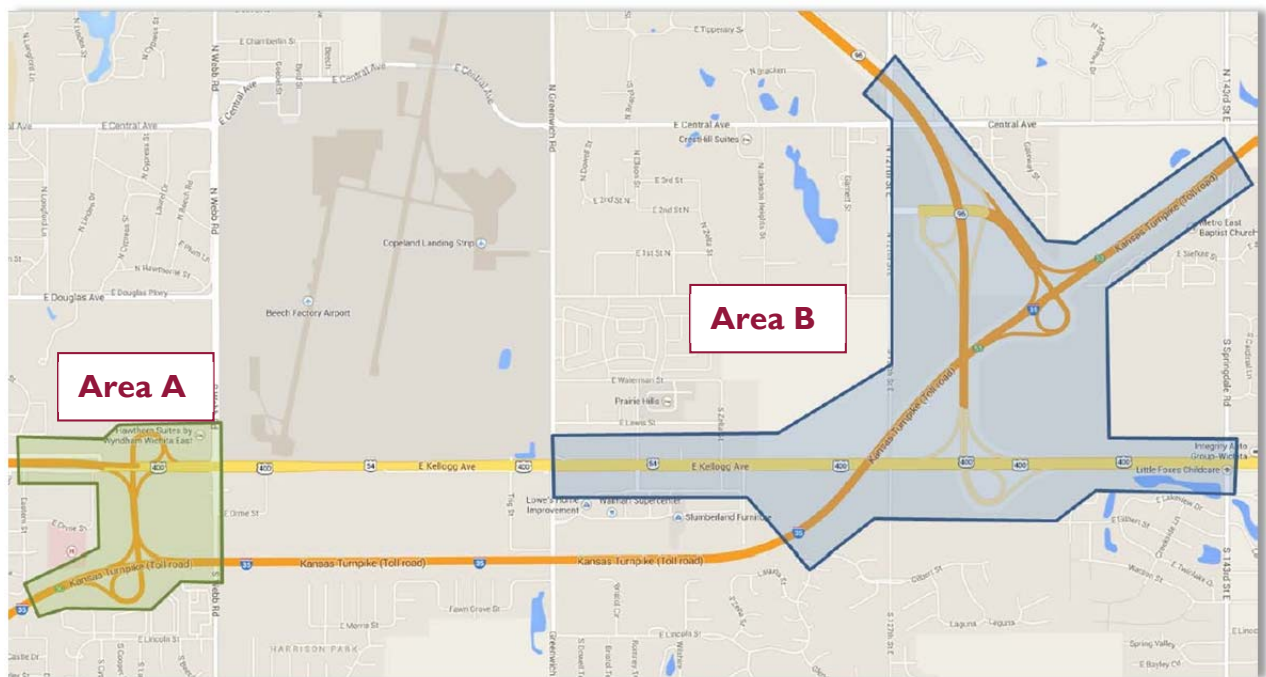


Figure 27 - Study Area Map

The purpose of the utility scan is to identify existing utilities that may require avoidance or the continued development of project alternatives. As expected, the major streets in and around the study area – US-54(400), Webb, Greenwich, 127<sup>th</sup> Street, 143<sup>rd</sup> Street, and Central Avenue – also serve as major utility corridors that can conflict with construction. For the most part, the commercial and residential subdivisions in and around the study area receive utility services via the internal streets. However, AT&T service and sometimes sanitary sewer service are provided from the back sides of the properties, meaning they could be impacted by any encroachment.



The following utility owners are known to have facilities within or near the proposed study area. The preceding paragraph summarized utilities on the fringes of the study area. Those underlined below, are utilities that pass through the core of the study area, or are otherwise very significant and costly to relocate.

*AT&T (Fiber optic and conventional copper communications lines – both transmission and distribution).*

AT&T has a major underground fiber optic duct bank running along the south R/W line of US-54(400) from Webb road beyond 143<sup>rd</sup> Street, along with a number of branch lines. Replacement of the duct bank will require redesign of all ancillary equipment, including branch lines. Fiber optic lines cross beneath I-35 along the west side of 143<sup>rd</sup> Street. Along the ramp from SWB I-35 to NWB K-96, AT&T lines from 127<sup>th</sup> Street follow the northeastern R/W line on public R/W, crossing Central Avenue to serve the existing toll plaza.

Within Area A, AT&T serves the toll plaza and has fiber optic lines crossing beneath I-35 on the west side of Webb Road.

Within both Area A and Area B, AT&T serves the commercial and residential subdivisions along the back sides, meaning any encroachment into those subdivisions will likely impact AT&T.

*Black Hills Energy (Natural gas distribution) – no facilities within the study area.*

*Coffeerville Resources / CVR Energy (Crude oil pipeline) – 6” crude oil pipeline runs from the intersection of 143<sup>rd</sup> Street and US-54(400) northwesterly through the study area, roughly paralleling the I-35 SWB to K-96 NWB Ramp, passing just northeast of the toll plaza.*

*Cox Communications (Coaxial Cable Television (CATV) and Fiber Optic (FO)) – overhead cable on Westar poles along the west side of Webb Road and along the east side of 143<sup>rd</sup> Street, crossing Central, Webb and KTA. Any encroachments on residential subdivisions may impact Cox service lines.*

*Kansas Gas Service (Natural gas distribution) – underground 4” PE and/or 6” gas lines along US-54(400), Central, Greenwich, 143<sup>rd</sup> Street, and 127<sup>th</sup> Street, plus 2” PE gas lines along the streets serving the residential subdivisions in the north parts of the study area.*

*Phillips 66 Pipeline (formerly ConocoPhillips Pipe Line Company) (Natural gas pipeline) - major natural gas pipeline running north and south along the east side of 127<sup>th</sup> Street, through the full study area.*

*Southern Star Central Gas Pipeline (Natural gas pipeline) – From the south a pipeline crossing US-54(400) 1/4 mile west of 143<sup>rd</sup> Street; thence continuing east to 143<sup>rd</sup> Street; thence north along the west R/W of 143<sup>rd</sup> Street 1/4 mile; thence crossing 143<sup>rd</sup> Street northeasterly.*

Southern Star also has facilities at the eastern edge of Area A. There is a meter station in the southeast quadrant of I-35 and Webb Road. A pipeline running along the west side of Webb Road, south of US-54(400), will become the property of Kansas Gas Service.

*Textron Aviation, Beech Campus – no facilities within Area B, Within Area A, Textron has two 4” steel gas lines running at a depth of approximately 4 feet along the east side of Webb Road on both public and private right-of-way, crossing US-54(400) at Sta. 522+30. These lines were abandoned by Beechcraft in the autumn of 2013 in preparation for the planned US-54(400) construction, but have not yet been removed, as that project has been postponed.*

U.S. Sprint (Telecommunications) – underground fiber optic line running along the northwest R/W line of I-35. Within Area A, the Sprint fiber optic line continues along the north side of I-35, and has a loop to 9791 Orme Street, east of Webb Road (just outside the study area).

Westar Energy – major overhead transmission lines running along the east side of Greenwich and the north side of US-54(400). As expected, Westar distribution lines serve the businesses along all streets, and the residential subdivisions in the northeastern part of the study area. Westar distribution serves the existing toll plaza and the lighting at the KTA connection with 127<sup>th</sup> Street.

Wichita, City of, Sewer Department – 18” gravity sanitary trunk line roughly follows the north branch of Spring Creek southeasterly through the center of the study area. An 8” branch collects from the triangle bounded by US-54(400)/K-96/I-35, crossing beneath K-96. Another 8” branch collects from the residential subdivisions in the northeastern part of the Area B, crosses southwesterly near the toll plaza, and discharges into the 18” trunk line. In the northeastern part of the study area, some of the homes are served by a sanitary sewer running along the back sides of the properties parallel to the SWB I-35 to NWB K-96 ramp, meaning any encroachment on those subdivisions could impact sanitary sewers.

Wichita, City of, Water Department – major waterlines (12” to 20”) along each major street – US-54(400), Webb, Greenwich, 127<sup>th</sup> Street, 143<sup>rd</sup> Street, and Central Avenue. There are 8” waterlines along the streets of the commercial and residential subdivisions on the outer fringes of each study area. Otherwise, there are no waterlines known to run through the center of the study area.

NOTE: All construction in and around the pipeline easements will have to comply with the overriding easement restrictions and provisions. As with the sanitary sewer lines and waterlines, these generally specify minimum clearances from other utilities or structures. Typically, pile driving is prohibited within 25 feet of a pipeline.

## Private Utilities

### AT&T

Address: 154 North Broadway, Room 210, Wichita, Kansas 67202

#### Contacts:

- ▶ Jason Edwards, (316) 268-2008, [je1682@att.com](mailto:je1682@att.com)
- ▶ Cheryl Engen, (316) 268-2931, [ch6573@att.com](mailto:ch6573@att.com)
- ▶ John Fagan, (316) 268-2102, [jf3595@att.com](mailto:jf3595@att.com)

AT&T has a major underground fiber optic duct bank running along the south R/W line of US-54(400) from Webb Road to 143<sup>rd</sup> Street, along with a number of branch lines to the south, Stations 580+27, 588+85 and 599+07. Replacement of the duct bank will require redesign of all ancillary equipment, including branch lines. Fiber optic lines cross beneath I-35 along the west side of 143<sup>rd</sup> Street, along the ramp from SWB I-35

to NWB K-96, AT&T lines from 127<sup>th</sup> Street follow the northeastern R/W line on public R/W, crossing Central Avenue to serve the Exit 53 toll plaza.

Another major underground duct bank runs along the east R/W line of Greenwich, crossing US-54(400) at Sta. 575+50.

Underground AT&T duct bank runs along both sides of Zelta, crossing US-54(400) at Stations 600+14 and 601+32.

Underground telephone (UGT) extends from a point 107' Rt. US-54(400) Sta. 626+94, thence south 31' along the west side of 127<sup>th</sup> Street, thence 205' east beneath 127<sup>th</sup> Street to a vault, thence south along the east side of 127<sup>th</sup> Street.

UGT extends from a pull box 97' Rt. US-54(400) Sta. 673+80 to a pull box 94' Rt. Sta. 679+23 to a TMH 118' Rt Sta. 679+25

Within Area A, AT&T serves the Exit 50 toll plaza and has fiber optic lines crossing beneath I-35 on the west side of Webb Road. AT&T also has significant duct banks at Webb Road and Wildcat Lane that have been accounted for in the design of the Webb Road/ US-54(400)/KTA interchange (Project 1A.)

In both Area A and Area B, AT&T serves the commercial and residential subdivisions along the back sides, meaning any encroachment into those subdivisions will likely impact AT&T.

AT&T submitted 22 full size plan sheets detailing their facilities in or near the study area.

### Black Hills Energy

#### Contacts:

- ▶ Daryl Keller, (316) 941-1654, cell 772-1808, [Daryl.Keller@BlackHillsCorp.com](mailto:Daryl.Keller@BlackHillsCorp.com)
- ▶ Calvin Briggs (316) 250-5167. [Calvin.Briggs@BlackHillsCorp.com](mailto:Calvin.Briggs@BlackHillsCorp.com)
- ▶ Mr. Kelly Kraus, (316) 941-1628, [Kelly.Kraus@BlackHillsCorp.com](mailto:Kelly.Kraus@BlackHillsCorp.com)

Kelly Kraus said in his 5/14/14 e-mail that Black Hills Energy is clear for both Areas A & B.

### Coffeerville Resources / CVR Energy

Address: 3303 E. 9<sup>th</sup> Avenue, Winfield, KS 67156-3420

Contacts: Dennis Young (620) 221-2107. (800) 982-4112, [DLYoung@CVREnergy.com](mailto:DLYoung@CVREnergy.com)

Coffeerville Resources / CVR Energy has an underground 6" crude oil pipeline crossing beneath the intersection of US-54(400) and 143<sup>rd</sup> Street on a skew from northwest to southeast. The skew from US-54(400) Sta. 679+95 is approximately 41° 10' 31" Lt. The pipeline is centered in an 80-foot Pipeline Easement, meaning any encroachments will have to be designed and constructed to Pipeline standards.

From the intersection of 143<sup>rd</sup> Street & US-54(400), the pipeline runs northwesterly through the study area, roughly paralleling the SWB I-35 to NWB K-96 ramp, passing just northeast of the toll plaza. It crosses beneath Central Avenue, breaks west beneath K-96 parallel to Central, then breaks northwest roughly paralleling the SEB lanes of K-96.

### Cox Communications

Address: 901 South George Washington Boulevard, Wichita, KS 67211

Contacts:

- ▶ Pat Roth, (316) 260-7170, [Pat.Roth@Cox.com](mailto:Pat.Roth@Cox.com)
- ▶ Marc Henderson, (316) 260-7745, fax 260-6052, [Marc.Henderson@Cox.com](mailto:Marc.Henderson@Cox.com)

Cox has overhead (OH) coaxial cable television (CATV) along the east side of Greenwich, crossing US-54(400); at Sta. 574+68; north of US-54(400), Cox is on AT&T poles; crossing US-54(400) and continuing south, Cox is on Westar poles. The overhead crossing of US-54(400) at this location includes both CATV and Fiber Optic (FO).

From the NW R/W corner at US-54(400) & Zelta (US-54(400) Sta. 600+43), Cox has OH CATV on Westar poles running north, and OH CATV running east to Sta. 603+90. From that point, Cox has UG CATV/FO in Westar conduit running south beneath US-54(400) at Sta. 603+90, thence east along the south US-54(400) R/W to Sta. 611+20.

From the Westar pole in the NW quadrant of 143<sup>rd</sup> Street and US-54(400), 40' Lt. US-54(400) Sta. 679+71, Cox has: 1) UG CATV/FO running north along the west side of 143<sup>rd</sup> Street; 2) OH CATV/FO running south across US-54(400) to a pole 126' Rt. Sta. 679+71, thence east across 143<sup>rd</sup> Street to a pole 126' Rt. Sta. 680+54, thence south along the east side of 143<sup>rd</sup> Street; and 3) OH CATV FO running east along the north US-54(400) R/W.

Cox advises that it has some flexibility in relocating its CATV lines. Due to diversity issues, FO lines must be relocated to approximately the same locations.

Cox has overhead cable on Westar poles running along the west side of Webb Road and the east side of 143<sup>rd</sup> Street, crossing Central, US-54(400) and KTA. Any encroachments of the residential subdivisions in the northeastern parts of Area B may impact Cox service lines.

### Kansas Gas Service

Address: 1021 East 26<sup>th</sup> Street North, Wichita, KS 67219-4308

Contacts:

- ▶ James Coe, (316) 532-3126, (316) 209-9181, [James.Coe@KansasGasService.com](mailto:James.Coe@KansasGasService.com)
- ▶ Tommy Moungnarath, (316) 831-3134, [atopme.Moungnarath@oneok.com](mailto:atopme.Moungnarath@oneok.com)

A 4" gas line crosses US-54(400) on the east side of Greenwich at Sta. 574+64; thence north to a point 123' Lt. Sta. 574+68 where: 1) it increases to a 6" line; thence continuing north with a service line branching west from a point 218' Lt.; and 2) a 4" line extends east along the north side of US-54(400) beyond Zelta to a point 77' Lt. Sta. 614+36, with service branches running north from Stations 580+74, 583+80, 592+11, 593+97, 595+33, 599+13, and 599+68.

Gas line runs along the south side of US-54(400) from the west side of Ellson, 128' Rt. Sta. 587+03, to the west side of Brundige, 152' Rt. Sta. 603+98, with branch lines running south from both locations, and Stations 592+80 and 598+20..

Gas lines cross US-54(400) at Stations 604+09, 606+67 and 612+70.

The 6" line comes from the south along the east side of 127<sup>th</sup> Street, crossing US-54(400) at Sta. 627+41 to a point 87' Lt., thence east to a point 99' Lt. Sta. 629+56, thence north.

There is an 8" gas line where I-35 crosses 143<sup>rd</sup> Street at the northeast corner of the study area.

There are 2" PE gas lines along Whitewood and Hawthorne Streets on the southwest side of I-35 at the ramp to EB K-96. On the opposite side of I-35, there are 2" PE gas lines along Gateway Circle and Gateway Court. Continuing northwest along the ramp to K-96, there are 2" PE gas lines along Bridgefield Street and Bridgefield Place. These will only be impacted if the improvements encroach on the residential subdivisions.

There is a 4" PE gas line along 127<sup>th</sup> Street and a 6" APCS (steel) gas line along Central Avenue at the northwest corner of the project study area.

#### Phillips 66 Pipeline LL ( formerly ConocoPhillips Pipeline Company)

Address: 500 Frank Phillips Boulevard – Phillips Building, Bartlesville, OK 74004

#### Contacts:

- ▶ Jim Noland, (918) 661-0138, (819) 841-6181, [Jim.Noland@P66.com](mailto:Jim.Noland@P66.com)
- ▶ Scott Salisbury, (316) 681-2081, [Scott.C.Salisbury@P66.com](mailto:Scott.C.Salisbury@P66.com)
- ▶ Kevin Kent, Pipeliner, Central Division, Phillips 66 Pipeline LLC, 8001 Oak Knoll, Wichita, KS, Office (316) 618-2415, cell (316) 618-2415, fax (316) 761-1621, [Kevin.L.Kent@P66.com](mailto:Kevin.L.Kent@P66.com)

ConocoPhillips has a major gas pipeline running along the east side of 127<sup>th</sup> Street, generally up to 9 feet deep, centered within a 70-foot Pipeline easement, crossing US-54(400) at Sta. 627+94. In 1999, ConocoPhillips performed a deep directional bore from the south side of US-54(400) to the north side of I-35. Any encroachments on the Pipeline easement will have to meet pipeline standards. No pile driving will be allowed within 25 feet of the pipeline.

**Southern Star Central Gas Pipeline**

Address: 4000 South Seneca, Wichita, KS 67217

**Contacts:**

- ▶ Stacy Catlin, manager, Region – Central, (316) 529-6620, (316) 570-0228, [Stacy.E.Catlin@SSCGP.com](mailto:Stacy.E.Catlin@SSCGP.com)
- ▶ Denis Chege (620) 327-7606, (316) 215-1870, [Denis.W.Chege@SSCGP.com](mailto:Denis.W.Chege@SSCGP.com)
- ▶ Andrew Buchanan, Land Representative II, (316) 529-6603, (620) 951-4335, [Andrew.D.Buchanan@SSCGP.com](mailto:Andrew.D.Buchanan@SSCGP.com)
- ▶ James Crowley, Operations Team Leader, (316) 529-6601, (316) 303-7800, [James.Crowley@SSCGP.com](mailto:James.Crowley@SSCGP.com)
- ▶ Ryan Manning, Engineering Project Coordinator, 8195 Cole Parkway, Shawnee, KS 66227, (913) 449-8274, [Ryan.Manning@SSCGP.com](mailto:Ryan.Manning@SSCGP.com)
- ▶ Tony Blandford, Principal Engineer, 4700 Highway 56 West, Box 20010, Owensboro, KY 42304, (270) 852-4495, (270) 993-8984, [Tony.Blandford@SSCGP.com](mailto:Tony.Blandford@SSCGP.com)
- ▶ Mike DeGraeve, Manager Project Engineering, 8195 Cole Parkway, Shawnee, KS 66227, (913) 310-7676, (816) 810-4500, [Mike.DeGraeve@SSCGP.com](mailto:Mike.DeGraeve@SSCGP.com)
- ▶ Terry Stiles, Farnsworth Group (Real Estate), Pipeline Engineer, (314) 962-7900, cell (314) 412-6295, [TStiles@F-w.com](mailto:TStiles@F-w.com)
- ▶ Ken Stegall, Farnsworth Group, 20 Allen Ave., Suite 200, St. Louis, MO 63119 (314) 962-7900, (314) 422-6295, [KStegall@F-w.com](mailto:KStegall@F-w.com)

Underground gas pipeline crosses US-54(400) at Sta. 663+54 1/4 mile west of 143<sup>rd</sup> Street, skew 58° 8' 2" Rt., to a point 69' Lt. Sta. 664+65, thence east to a point 47' Lt. Sta. 679+57; thence north along the west R/W line of 143<sup>rd</sup> Street. At a point between East Willowbrook Street/Cardinal Lane, and East Morningside Street, the pipeline breaks northeast, crossing beneath 143<sup>rd</sup> Street, away from the project study area. The pipeline is centered within a 50-foot pipeline easement, and any encroachments will have to meet Pipeline standards. South of US-54(400), the easement is 66 feet wide.

Southern Star also has facilities at the eastern edge of Area A. There is a meter station in the southeast quadrant of I-35 and Webb Road. A pipeline running along the west side of Webb Road will become the property of Kansas Gas Service.

**Textron Aviation, Beech Campus (formerly Beechcraft, formerly Hawker Beechcraft)**

Address: B015-A02, 10511 E. Central Avenue, Wichita, KS 67206

Contacts: Joe Freeman. (316) 676-7911, 316-712-1994, [Joe\\_Freeman@Textron.com](mailto:Joe_Freeman@Textron.com)

Textron has no facilities within the main study area. Within Area A, Textron has two 4" steel gas lines running at a depth of approximately 4 feet along the east side of Webb Road on both public and private right-of-way, crossing US-54(400) at Sta. 522+30. These lines were abandoned by Beechcraft in the autumn of 2013 in preparation for the planned US-54(400) construction, but have not yet been removed, as that project has been postponed.



### U.S. Sprint

Address: 7062 Universal Avenue, Kansas City, MO 64120

Contacts: McCoy Ingalls, (800) 521-0579, (404) 396-9726, [McCoy.W.Ingalls@Sprint.com](mailto:McCoy.W.Ingalls@Sprint.com)

Sprint has an underground fiber optic line running along the northwest R/W line of I-35, crossing beneath US-54(400) at Sta. 622+40.

Within Area A, the Sprint fiber optic line continues along the north side of I-35, and has a loop to 9791 Orme Street, east of Webb Road (just outside the study area).

### Westar Energy

Address: Distribution and Real Estate: 1900 East Central Avenue, Wichita, KS 67214  
Transmission: 818 S. Kansas Avenue, Topeka, KS 66001

Contacts:

- ▶ Shane Price (Distribution), (316) 261-6315, (316) 706-6702, [Shane.Price@WestarEnergy.com](mailto:Shane.Price@WestarEnergy.com)
- ▶ Miles Capps (Distribution), (316) 261-6824, (316) 706-6702, [Miles.Capps@WestarEnergy.com](mailto:Miles.Capps@WestarEnergy.com)
- ▶ Ken McLemore (Distribution), (316) 261-6774, (316) 706-6702, [Ken.McLemore@WestarEnergy.com](mailto:Ken.McLemore@WestarEnergy.com)
- ▶ Janelle Hutter (Real Estate) (316) 299-7120, (316) 706-6702, [Janelle.Hutter@WestarEnergy.com](mailto:Janelle.Hutter@WestarEnergy.com)
- ▶ Scott Benortham (Transmission), (785) 575-8160, [Scott.Benortham@WestarEnergy.com](mailto:Scott.Benortham@WestarEnergy.com)
- ▶ Alicia Floberg (Transmission), (785) 575-8154, (785) 289-6171, [Alicia.Floberg@WestarEnergy.com](mailto:Alicia.Floberg@WestarEnergy.com)
- ▶ Nick Koch (Transmission), [Nick.Koch@WestarEnergy.com](mailto:Nick.Koch@WestarEnergy.com)

### **Transmission Lines:**

From Beech Substation at the northwest corner of Central and Greenwich, overhead transmission lines cross Greenwich and extend south along the east R/W line of Greenwich to I-35. From the northeast quadrant of US-54(400) & Greenwich, 138 KV overhead transmission lines run easterly along the north R/W of US-54(400), to a point ½ mile beyond 143<sup>rd</sup> Street, where they cross US-54(400) to Springdale substation.

### Distribution Lines:

Westar Distribution provides lighting and electrical service to customers along both sides of US-54(400), and most of their facilities are on public R/W:

1. OHP (overhead power) & light poles along east side of Greenwich.
2. OHP from 120' Lt. Sta. 580+00 to 120' Lt. Sta. 595+00 w/ LPs along both sides of US-54(400).
3. OHP along E side of Ellson crossing US-54(400) at Sta. 587.75 & LPS along both sides of Ellson
4. OHP from 120' Lt. Sta. 595+00 to 80' L. Sta. 610+00 w/ LPs along both sides of US-54(400).
5. UGP (underground power) along E side of Zelta from US-54(400), north, w/ Zelta x-ings Sta. 600, 601, 604 & 606
6. OHP 80' Lt. Sta. 610 to 828 w/ US-54(400) x-ings at Sta. 604+50, 611+00 and 627+52 (127<sup>th</sup> St.)
7. UGP from a point 118' Lt. Sta. 630+90, thence ENE.
8. OHP x-ing Sta. 655+68 to a pole 113' Rt., thence NE to a house.
9. OHP from a pole 40' Lt. Sta. 674+35, thence 40' NE to a sign.
10. OHP from a pole 41' Lt. Sta. 676+86, thence ENE 88' to a sign
11. OHP crossing US-54(400) at Sta. 679+71, thence south along the west side of 143<sup>rd</sup> Street.

At the intersection of 127<sup>th</sup> Street and Central Avenue, Westar has OH distribution lines running along the west side of 127<sup>th</sup> Street, and along the south side of Central Avenue.

Westar provides power for light poles at the 127<sup>th</sup> Street entrance to the toll plaza.

Along the NE side of the R/W for the SB I-35 to WB K-96 Ramp, Westar has a power line extending from Central Avenue, southeast, thence southwest to serve the toll plaza.

Westar Distribution serves the residential subdivisions in the northeastern part of the study area, but those lines will not be impacted unless the subdivisions will be impacted.

Within Area A, the Westar distribution lines are already documented for the study area along US-54(400). In the southern portion of the study area, Westar has no transmission or distribution lines that will be impacted.

## Public Utilities

### Wichita, City of, Sanitary Sewers

Address: 455 N. Main, Wichita, KS 67202

#### Contacts:

- ▶ Deb Ary, Water/Sewer Project Engineer, (316) 303-8701, [DAry@Wichita.gov](mailto:DAry@Wichita.gov)
- ▶ LaDonna Lawrenz, COW Sewer Dept., (316) 303-8701, [LLawrenz@Wichita.gov](mailto:LLawrenz@Wichita.gov)
- ▶ Bill Perkins, COW Water & Sewer, (316) 303-8701, [BPerkins@Wichita.gov](mailto:BPerkins@Wichita.gov)

From a MH at the NE corner of US-54(400) & Greenwich, SAS runs west and north.

From a MH 60' Rt. Sta. 580+00, SAS runs west and south.

SAS crosses US-54(400) at Sta. 658+20.37, and runs from MH 192' Lt. Sta 658+20.37 to MH (w/ service line 185' Lt. Sta. 661+60, to MH 159' Lt. Sta. 664+30, to MH 141' Lt. Sta. 667+85, to MH 133' Lt. Sta. 670+76, to MH 128' Lt. Sta. 670+30; thence NE.

The main sanitary sewer feature potentially impacting the project is an 18" gravity trunk line roughly paralleling the north branch of Spring Creek southeasterly through the core of the study area, which is also the main drainage venue for the project. An 8" branch collects from the triangle bounded by US-54(400)/K-96/I-35, crossing beneath K-96. Another 8" branch collects from the residential subdivisions in the northeastern part of the study area, crosses southwesterly near the toll plaza, and discharges into the 18" trunk line. In the northeastern part of the study area, some of the homes are served by a sanitary sewer running along the back sides of the properties parallel to the SWB I-35 to NWB K-96 ramp, meaning any encroachment on those subdivisions could impact sanitary sewers.

Within Area A, a sanitary sewer crosses the KTA connection between the toll plaza and I-35. From there, it roughly parallels the on-ramp and I-35 to the west-southwest.

### Wichita, City of, Waterlines

Address: 455 N. Main, Wichita, KS 67202

#### Contacts:

- ▶ Deb Ary, Water/Sewer Project Engineer, (316) 303-8701, [DAry@Wichita.gov](mailto:DAry@Wichita.gov)
- ▶ Greg Lolley, COW Water Dept., (316) 303-8701, [GLolley@Wichita.gov](mailto:GLolley@Wichita.gov)
- ▶ Bill Perkins, COW Water & Sewer, (316) 303-8701, [BPerkins@Wichita.gov](mailto:BPerkins@Wichita.gov)

12" Waterline crosses US-54(400) at Sta. 574+40, and runs north along the east side of Greenwich, with branches west at 200', 300' and 350' Lt. A 15" waterline runs along US-54(400)'s north R/W from Sta. 574+40 to Sta. 626+95, with several branch lines to the north. A 12" waterline crosses US-54(400) at Sta. 626+95, and continues south, along the west R/W of 127<sup>th</sup> Street.

Around the interchange, there is a 16" waterline running along the north side of US-54(400), a 16" waterline along the east side of 127<sup>th</sup> Street. A 20" waterline along the north side of Central, and a 12" waterline along the west side of 143<sup>rd</sup> Street. In the northeast portion of the study area, 8" waterlines run along the streets and cul-de-sacs of the residential subdivisions, with service lines to each house.

Within Area A, there is a 16" waterline running along the south side of US-54(400), which is to be relocated as part of the City's Project 1A. Beyond that, there are 8" waterlines running along the streets of the commercial and residential subdivisions surrounding the study area, but none running through the study area.

# Right of Way

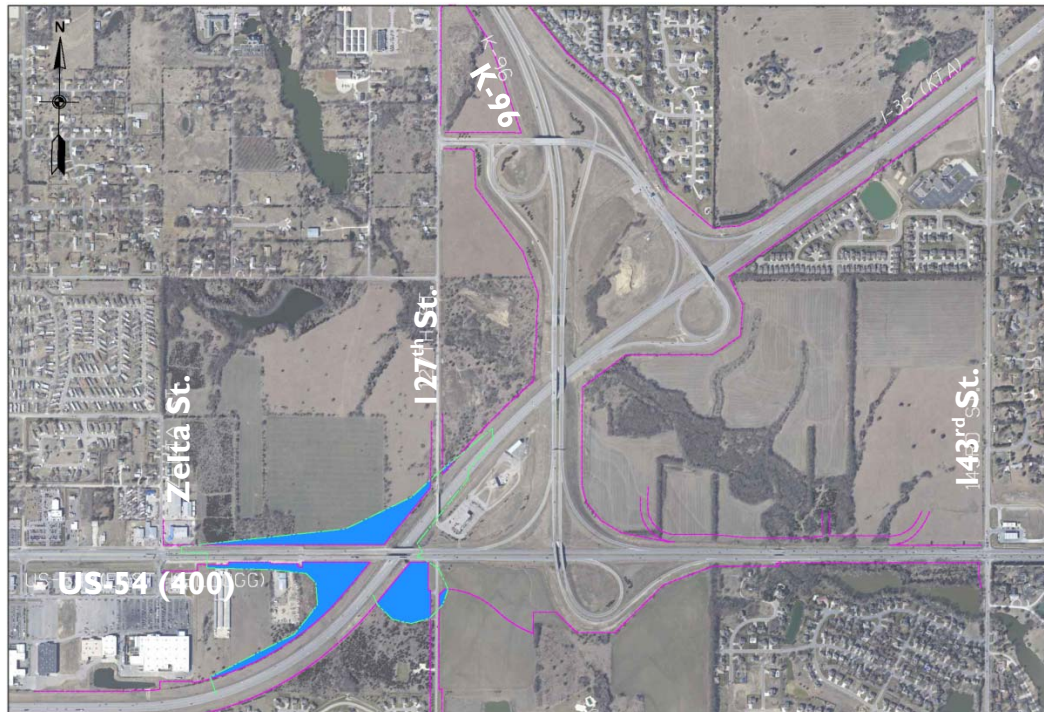
*DRAFT-Conceptual Alternatives Study  
July 2014*



EXPERIENCE | Transportation

## **Right of Way**

The majority of the land surrounding the project area is currently highway right of way. The land adjacent to the existing right of way is primarily either undeveloped land or agricultural property. There are some commercial and residential properties as well. Right of way impacts for each alternative vary greatly and are shown shaded in blue in Figure 28, Figure 29 and Figure 30 below.



**Figure 28 - Interim Alt Right of Way**



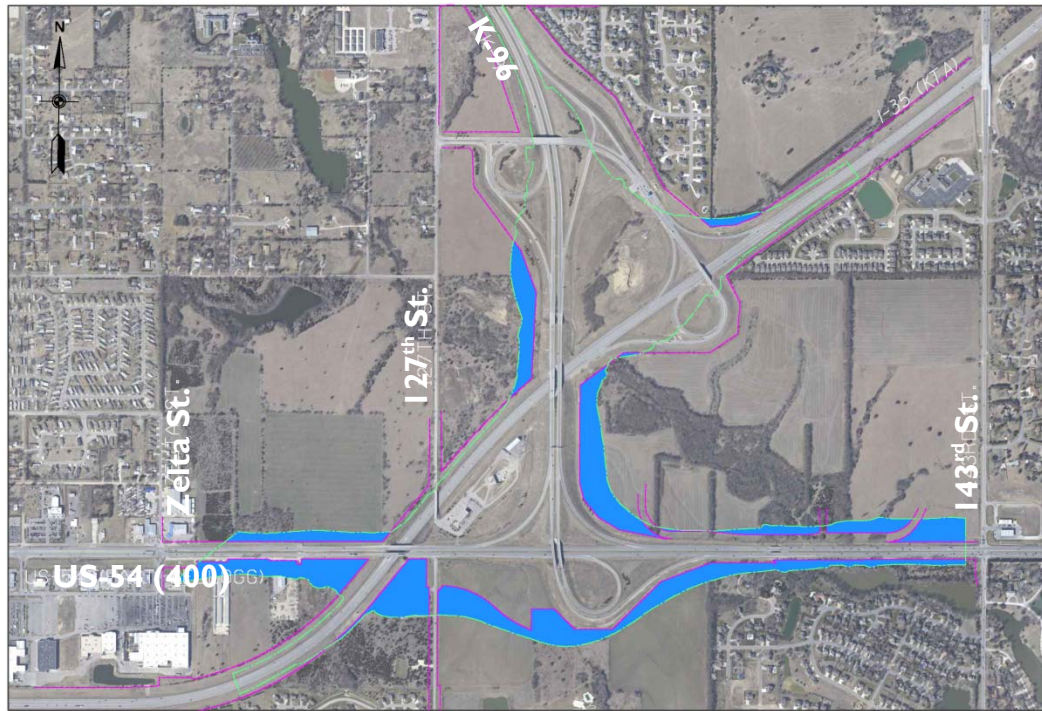


Figure 29 - Alternative I Right of Way

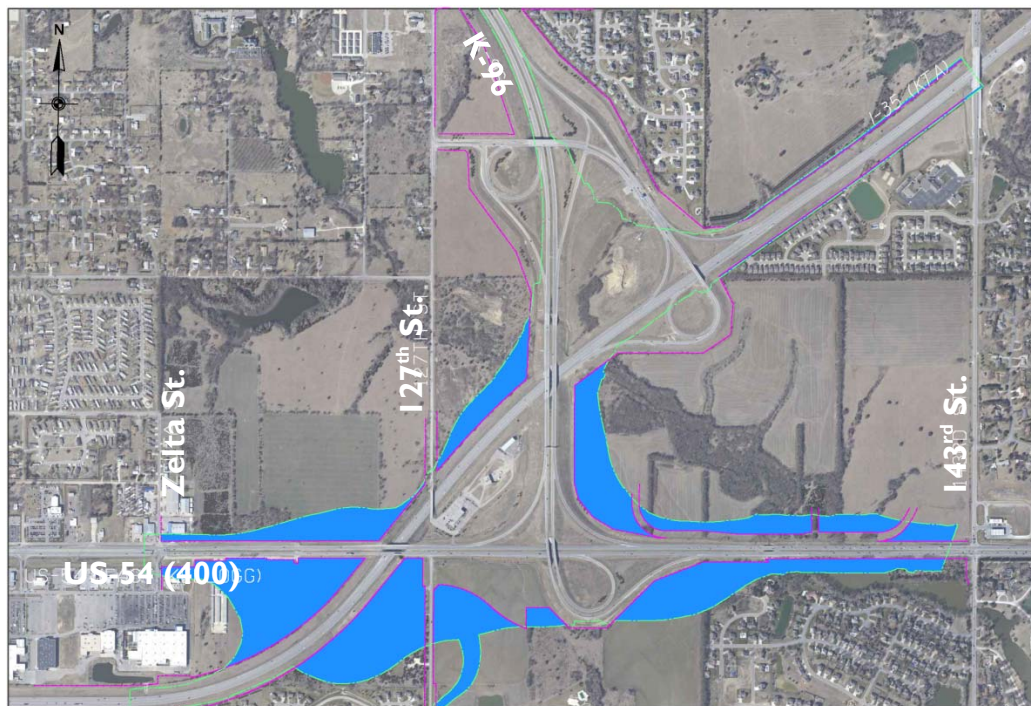


Figure 30 - Alternative 4B Right of Way

As would be expected, right of way required for the interim alternative is very small in comparison to Alternatives 1 and 4B. There is a large difference in right of way required between Alternative 1 and Alternative 4B. The majority of this extra right of way required is located in the southwest quadrant of the crossing of US-54(400) and I-35. The direct connection between US-54(400) eastbound and I-35 southbound and the shift in the frontage road to avoid the loop ramp in this quadrant are the reason for this extra required acreage. Please see Table 8.

**Table 8 - Right of Way Comparison**

Alternative	Estimated Right of Way Required (Acres)
Interim	21
Alternative 1	60
Alternative 4B	120

# Project Costs

*DRAFT-Conceptual Alternatives Study  
July 2014*



EXPERIENCE | Transportation

## **Project Costs**

Preliminary construction cost estimates have been completed for the three alternatives recommended as a part of this study. Costs for these alternatives do not include work on US-54(400) which is part of the City of Wichita projects.

Given that an estimated construction date has not been set, an inflation percentage has not been applied to the final numbers; all costs are in fiscal year 2014 dollars (See Table 9.)

**Table 9 - Cost Comparison**

<b>Alternative</b>	<b>Estimated Construction Cost (2014 Dollars)</b>
<b>Interim</b>	\$12 - \$32 Million**
<b>Alternative 1</b>	\$160 Million
<b>Alternative 4B</b>	\$195 Million

\*These costs do not include any private or public utility relocations, right of way or engineering costs.

\*\* Further analysis is needed to refine the limits of the Interim Phase.

# **Appendix A**

## ***Design Criteria***

***DRAFT-Conceptual Alternatives Study***  
***July 2014***



**EXPERIENCE** | Transportation



DESIGN CRITERIA  
I-235 - K-96 - US-54/400 (Kellogg Ave)

02/24/2014

Roadway	Classification	I-35	K-96	US-54/400 (Kellogg Ave)	Lower Range Ramps	Middle Range Ramps	Upper Range Ramps	S. 127th Street East	Remark
		Interstate (A Route)	Other Freeway (B Route)	Other Freeway (B Route)	Loop Ramps	Directional Ramps	Directional Ramps	Local Roads	
AADOT (2004)		52,100	25,300	92,450	> 6,000	> 6,000	> 6,000	< 6,000	
Truck Volume (2040 Truck DDHV)									
Design Vehicle		WB-67	WB-67	WB-67	WB-67	WB-67	WB-67	WB-67	KDOT 7.5 - KDOT design vehicle is WB-67
Design Speed		80 mph	70 mph	70 mph	30 - 40 mph	45-55 mph	50-65 mph	45mph	AASHTO Table 10-1 for Ramp Design Speed. 50mph min where possible for directional ramps
Typical Section	Lane Width	12'	12'	12'	16'	16'	16'	12'	KDOT 7.3.1 - minimum ramp width in urban areas is 16'. See Wichita standards for streets.
	Normal Crown	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	3.125%	Streets per Wichita Sedgwick Co. Standard Drawings
	Shoulder Cross Slope	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%	
	Outside Shoulder Width	10'	10'	10'	8'	8'	8'	8'	12' Outside Shoulders for Truck Volumes > 250 (AASHTO Greenbook page 8.3).
	Inside Shoulder Width	6'-10"	6'-10"	6'-10"	7'	7'	7'	2'	KDOT 7.3.1.1 - 10' inside shoulders required for 6 lane section
	Median Width	60'	60'	60'	N.A.	N.A.	N.A.	N.A.	
	Clear Zone	34'	34'	34'	16'	24'	34'	18'	From AASHTO Roadside Design Guide Table 3.1.
	Fore Slope to Clear Zone	6:1	6:1	6:1	6:1	6:1	6:1	6:1	
	Fore Slope beyond Clear Zone	4:1	4:1	4:1	4:1	4:1	4:1	4:1	
	Back Slope	4:1	4:1	4:1	4:1	4:1	4:1	4:1	
	Ditch Depth from Shoulder Point	3'-6"	3'-6"	3'-6"	3'-0"	3'-0"	3'-0"	3'-0"	
	Ditch Width	10'	10'	10'	10'	10'	10'	10'	
Horizontal Alignment Criteria	Maximum Superelevation Rate (See 681 Table)	6% Desirable	6% Desirable	6% Desirable	6% Desirable	6% Desirable	6% Desirable	6% Desirable	
	Minimum Horizontal Curve Radius	4150' Desirable 2450' Minimum	3150' Desirable 1810' Minimum	3150' Desirable 1810' Minimum	500' Desirable 214' Minimum	1250' Desirable 597' Minimum	1640' Desirable 750' Minimum	1250' Desirable 597' Minimum	Table 3-10b of the 2011 AASHTO Greenbook
	Minimum Horizontal Sight Distance	820'	645'	570'	200-305'	360/495'	425-645'	360'	Exhibit 3.1 of the 2011 AASHTO Greenbook
	Min. Intersection Return Radius	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	60'	
	Minimum Vertical Clearance	16'-4"	16'-4"	16'-4"	16'-4"	16'-4"	16'-4"	15'-4"	
Vertical Alignment Criteria	Minimum Stopping Sight Distance	910'	730'	730'	425' (50 mph) 200' (30 mph) *	425' (50 mph) 360' (45 mph) *	425'	360'	AASHTO Greenbook Exhibit 3-1. *Per KDOT 7.7.6 SSD for crest curves on downgrade exit ramps should be based on 50 mph
	Maximum Grade	3%	3%	3%	4% Desirable-Max 5% Max	4% Desirable-Max 5% Max	4% Desirable-Max 5% Max	4% Desirable-Max 5% Max	See AASHTO in Ramp Grade discussion. (AASHTO Greenbook page 10.93)
	Minimum Grade **	0.4% Desirable CL 0.3% Median Ditch 0.5% w/ Curb	0.4% Desirable CL 0.3% Median Ditch 0.5% w/ Curb	0.4% Desirable CL 0.3% Median Ditch 0.5% w/ Curb	0.4% Desirable CL 0.3% w/ Curb	0.4% Desirable CL 0.3% w/ Curb	0.4% Desirable CL 0.3% w/ Curb	0.4% Desirable CL 0.3% w/ Curb	-- (0.3% and flatter grades allowable per AASHTO page 3.119.
	Minimum K Value Crest Vertical Curve	384	247	247	19 - 44	61 - 114	84 - 193	61	AASHTO Greenbook Table 3-34 *Crest curves on downgrade exit ramps based on 50 mph (K=64) per KDOT 7.7.6
	Minimum K Value Sag Vertical Curve (if no lighting)	231	181	181	37	79	96	79	AASHTO Greenbook Exhibit 3-36. Use min curve length of 300 when practical per KDOT 7.7.3.3
	Maximum Entrance Grade	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	* See KDOT 7.7.7 for Urban Entrance Grades

Notes: The design criteria is based on KDOT's Design Manual Volume I (Part A&B) Road Section, dated November, 2011 (Revised December, 2012). Other publications used in development of the design criteria are AASHTO's A Policy on Geometric Design of Highways and Streets (Greenbook) 2011 edition, and AASHTO's Roadside Design Guide 2011 edition.

# **Appendix B**

## ***Recommended Alternatives***

***DRAFT-Conceptual Alternatives Study***  
***July 2014***

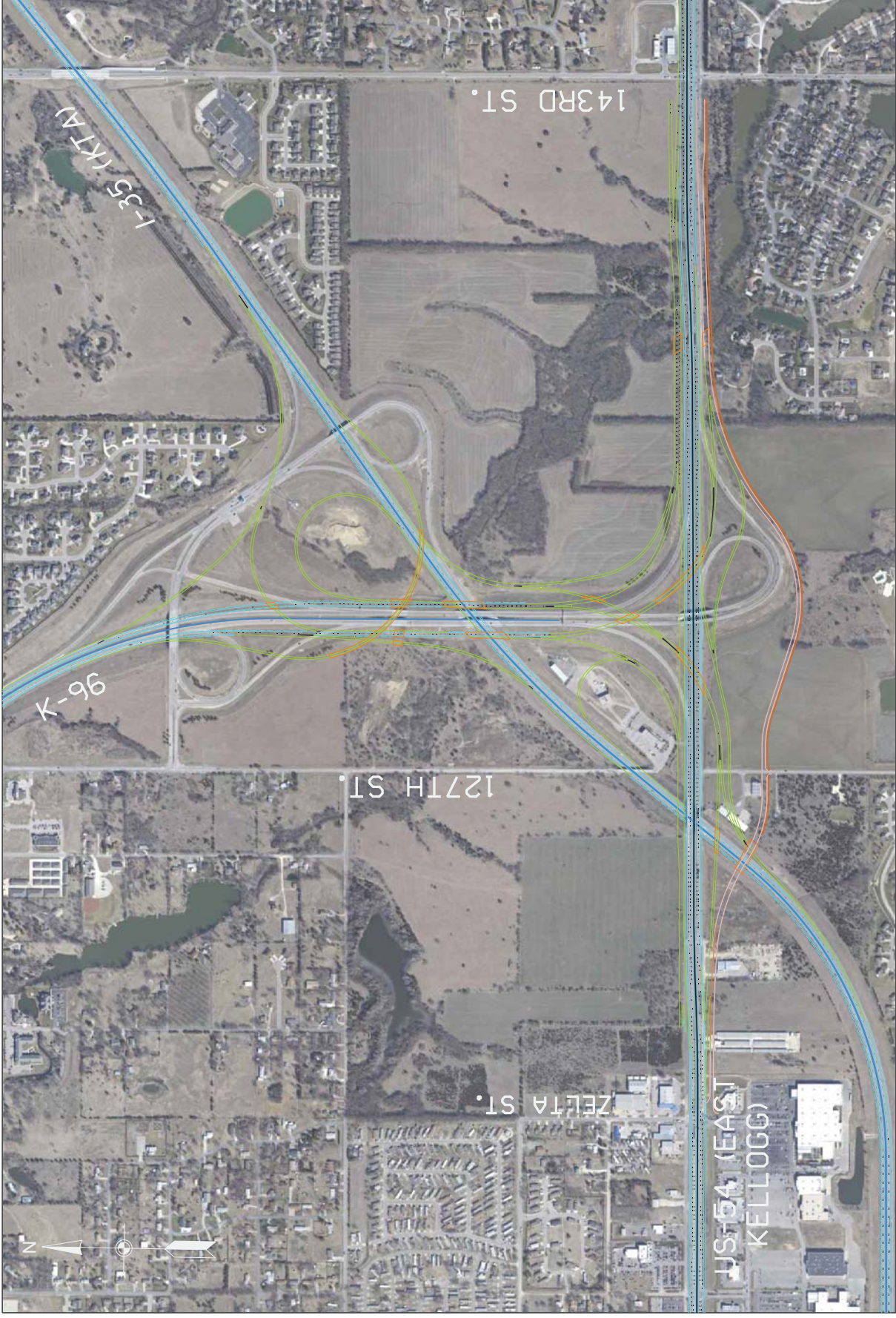


**EXPERIENCE** | Transportation



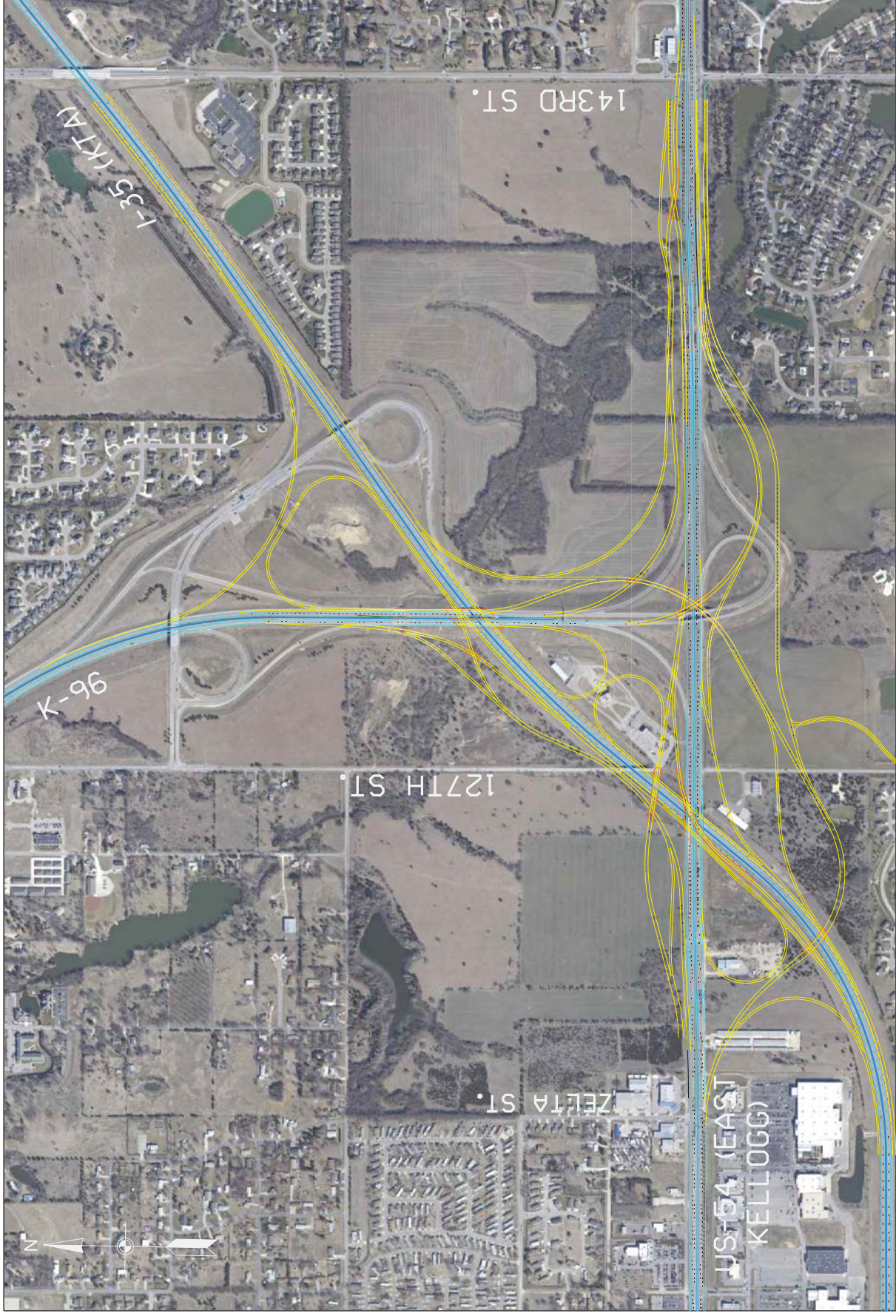
**INTERIM ALTERNATIVE**





**ALTERNATIVE 1**





**ALTERNATIVE 4B**



# **Appendix C**

## ***Dismissed Alternatives***

***DRAFT-Conceptual Alternatives Study***  
***July 2014***



**EXPERIENCE** | Transportation



Alternative 4 - DISMISSED









**Alternative 2 - DISMISSED**

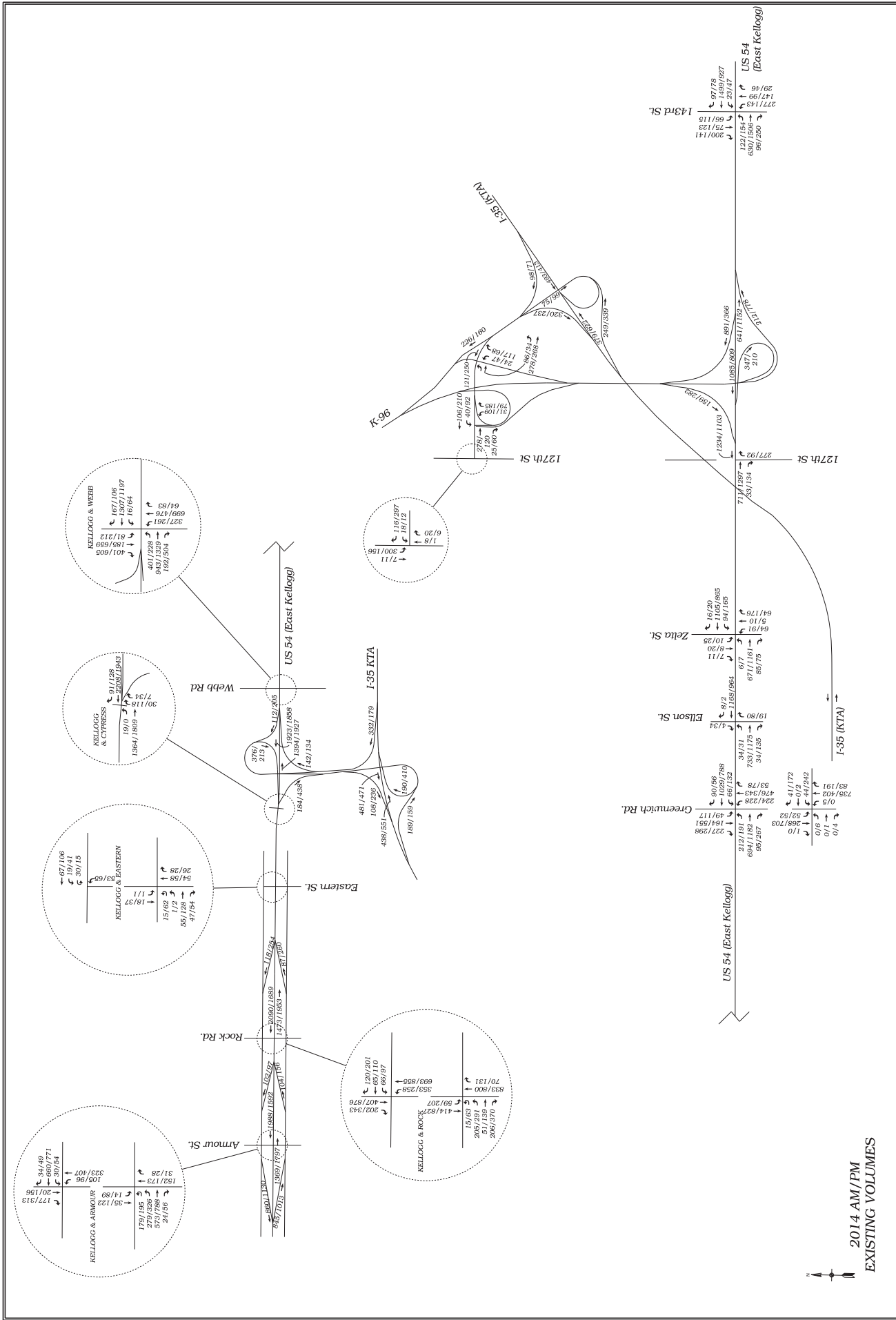
# **Appendix D** ***Traffic Volumes***

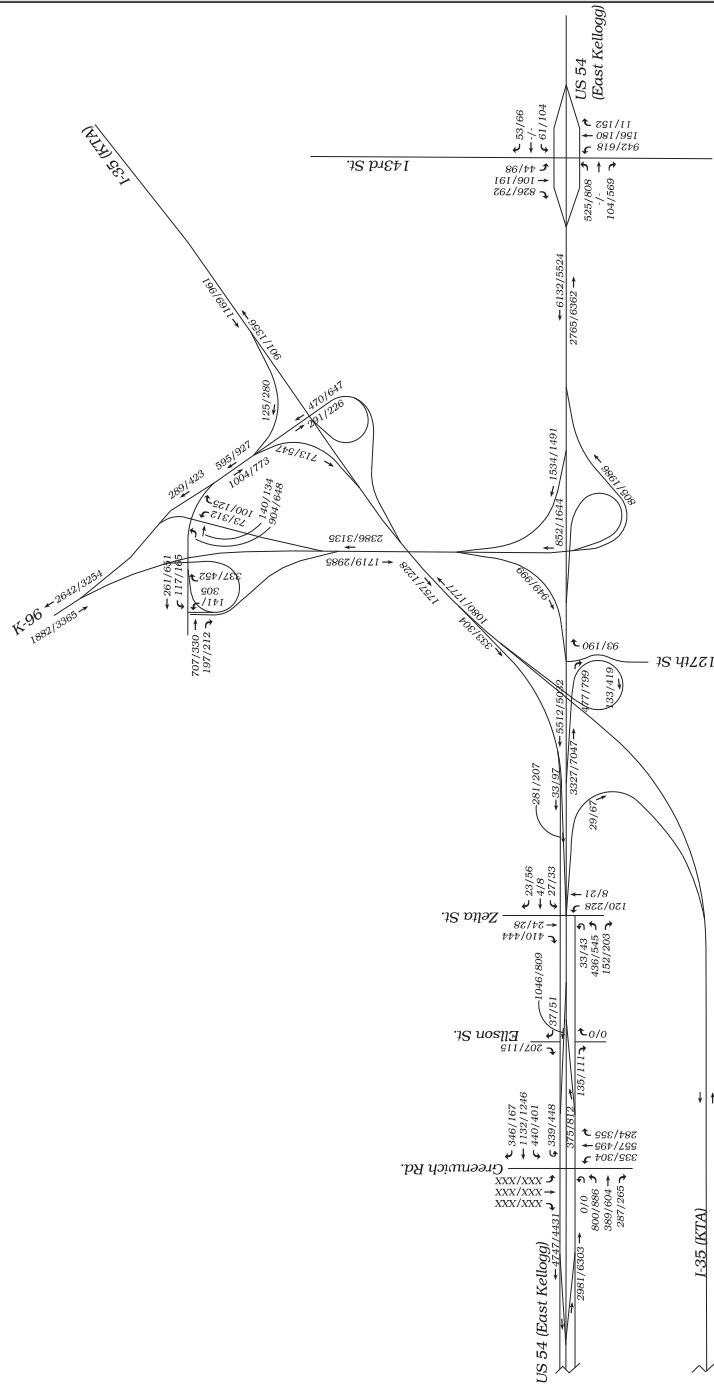
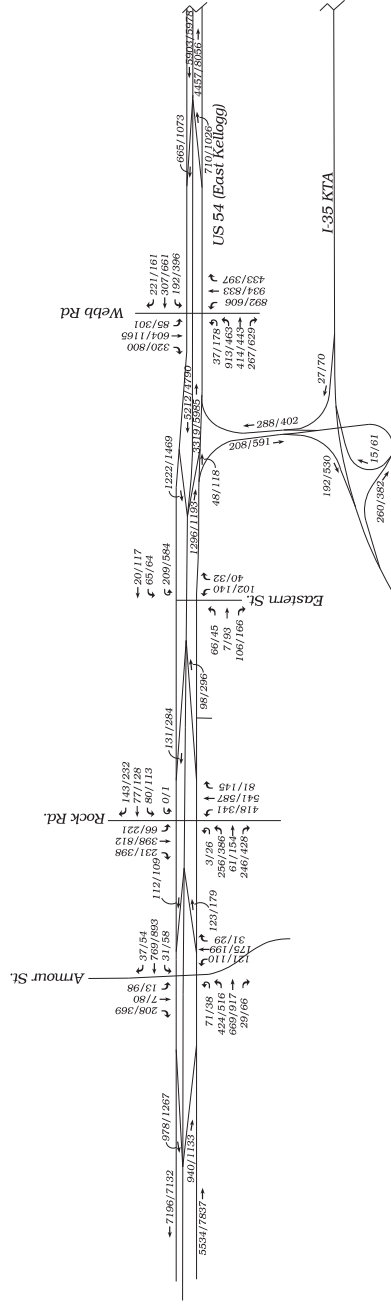
***DRAFT-Conceptual Alternatives Study***  
***July 2014***



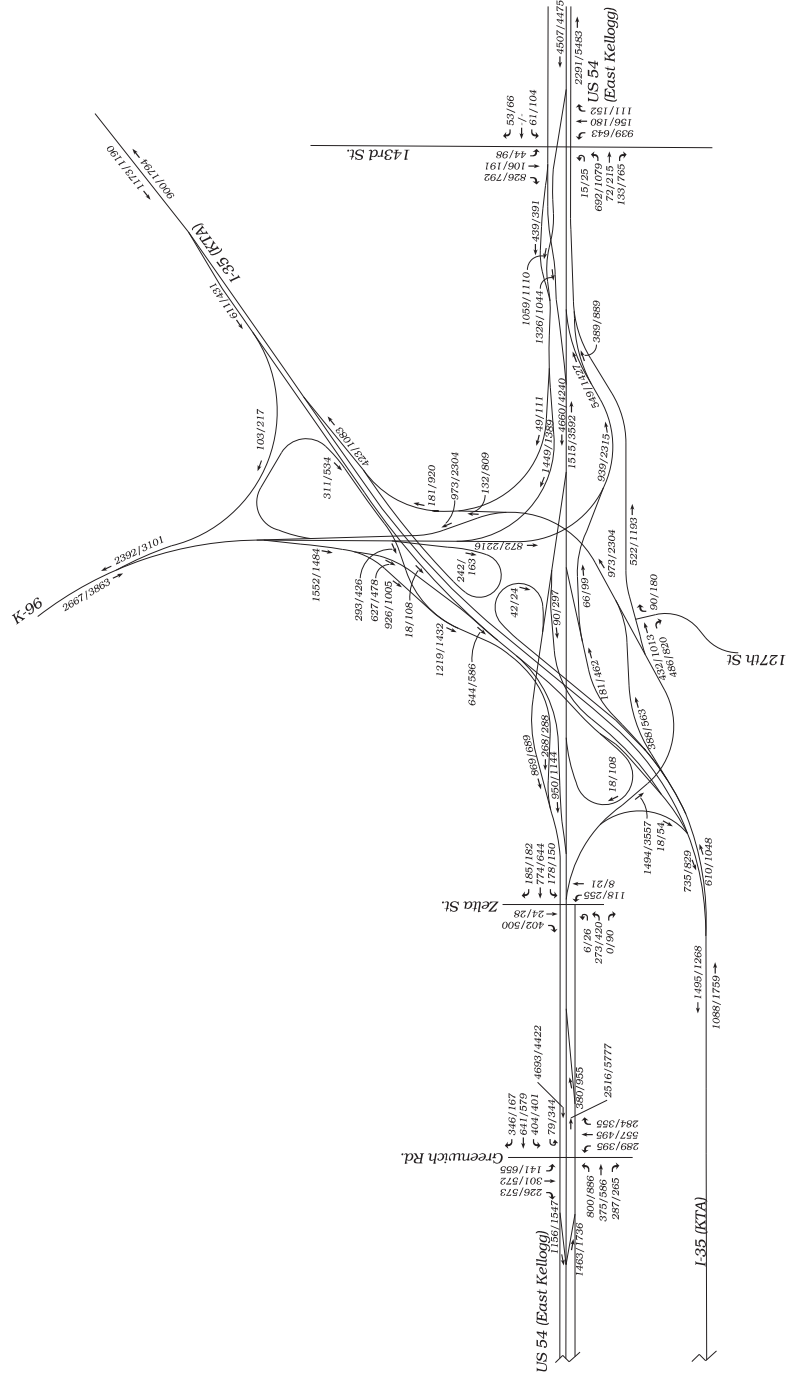
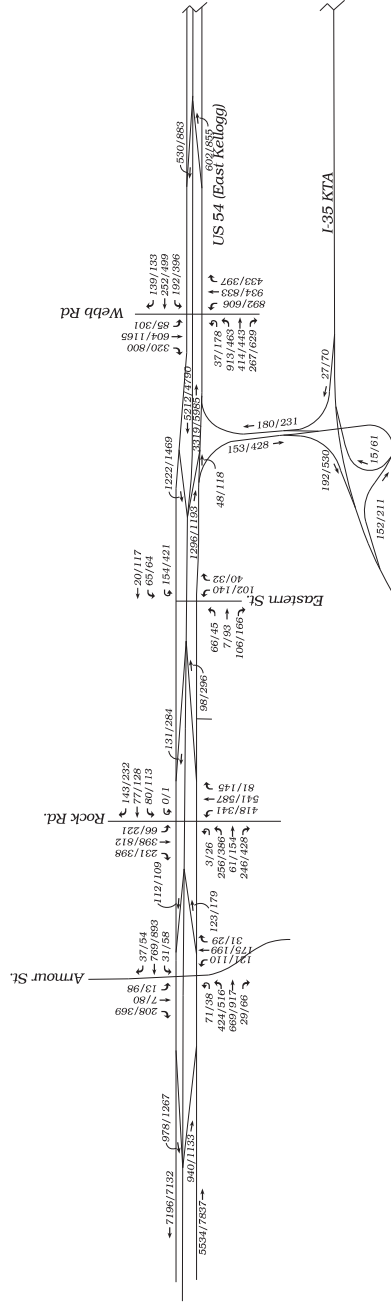
**EXPERIENCE** | Transportation







2040 AM / PM  
W/ INTERIM IMPROVEMENTS AT EXIT 53



2040 AM/PM  
W/ FULL IMPROVEMENTS AT EXIT 53

**Appendix E**  
***Environmental***

*Appendix E-1 ..... Study Area Map*  
*Appendix E-2 ..... Historic Properties*  
*Appendix E-3 ..... Waterways*  
*Appendix E-4 ..... Spring Creek*  
*Appendix E-5 ..... Kansas L.U.S.T. List*  
*Appendix E-6 ..... Endangered Species*  
*Appendix E-7 ..... City of Wichita*  
*Project References*

***DRAFT-Conceptual Alternatives Study***  
***July 2014***

# **Appendix E-I**

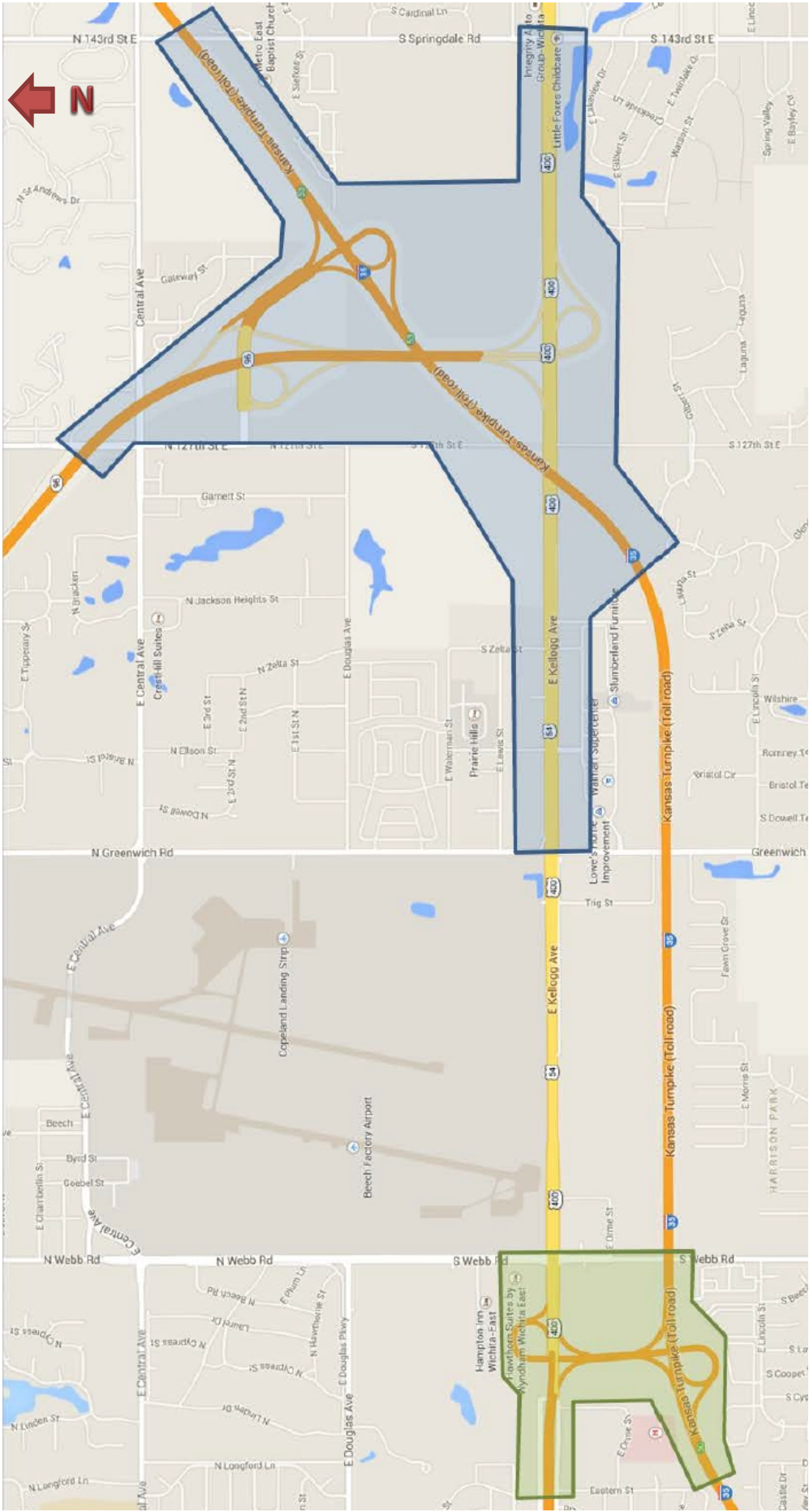
## ***Study Area Map***



**EXPERIENCE** | Transportation



Study Area Map



## **Appendix E-2**

### **Historic Properties**



**EXPERIENCE** | Transportation

# National Register of Historic Places listings in Butler County, Kansas

From Wikipedia, the free encyclopedia

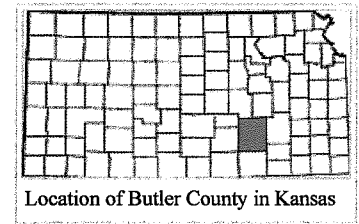
This is a list of the **National Register of Historic Places listings in Butler County, Kansas**.

This is intended to be a complete list of the properties on the National Register of Historic Places in Butler County, Kansas, United States. The locations of National Register properties for which the latitude and longitude coordinates are included below, may be seen in a Google map.<sup>[1]</sup>




There are 22 properties listed on the National Register in the county.



*This National Park Service list is complete through NPS recent listings*

*(<http://www.nps.gov/history/nr/nrlist.htm>) posted April 4, 2014.<sup>[2]</sup>*



Location of Butler County in Kansas

[3]	Name on the Register [4]	Image	Date listed <sup>[5]</sup>	Location	City or town	Summary
1	Augusta Theater		October 31, 1990 (#90001577 ( <a href="http://nhrp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=90001577&amp;natregadvancedsearch=Search">http://nhrp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=90001577&amp;natregadvancedsearch=Search</a> ))	525 State St. 37°40'37"N 96°59'22"W	Augusta	(1.4 mi)
2	Beaumont Hotel		February 3, 2012 (#11001078 ( <a href="http://nhrp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=11001078&amp;natregadvancedsearch=Search">http://nhrp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=11001078&amp;natregadvancedsearch=Search</a> ))	11651 SE Main St. 37°39'21"N 96°31'59"W	Beaumont	36.2 mi
3	Beaumont St. Louis and San Francisco Railroad Retention Pond		October 6, 2011 (#11000724 ( <a href="http://nhrp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=11000724&amp;natregadvancedsearch=Search">http://nhrp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=11000724&amp;natregadvancedsearch=Search</a> ))	SE 116th St. & SE Beaumont Rd. 37°39'19"N 96°32'06"W	Beaumont	
4	Beaumont St. Louis and San Francisco Railroad Water Tank		August 19, 1993 (#93000843 ( <a href="http://nhrp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=93000843&amp;natregadvancedsearch=Search">http://nhrp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=93000843&amp;natregadvancedsearch=Search</a> ))	Junction of 3rd and D Sts. 37°39'18"N 96°31'51"W	Beaumont	
5	Butler County Courthouse		April 26, 2002 (#02000390 ( <a href="http://nhrp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=02000390&amp;natregadvancedsearch=Search">http://nhrp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=02000390&amp;natregadvancedsearch=Search</a> ))	205 W. Central Ave. 37°49'01"N 96°51'06"W	El Dorado	
6	Creed-Mills House		June 25, 2013 (#13000430)	219 North Maple Street 37°31'17"N 97°01'05"W	Douglass	(9.6 mi) SE
7	Douglass Township Community Building		April 27, 1995 (#95000512 ( <a href="http://nhrp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=95000512&amp;natregadvancedsearch=Search">http://nhrp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=95000512&amp;natregadvancedsearch=Search</a> ))	206 S. Forest 37°31'05"N 97°00'56"W	Douglass	
8	El Dorado Carnegie Library		June 25, 1987 (#87000931 ( <a href="http://nhrp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=87000931&amp;natregadvancedsearch=Search">http://nhrp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=87000931&amp;natregadvancedsearch=Search</a> ))	101 S. Star 37°49'00"N 96°51'17"W	El Dorado	
9	El Dorado Historic District		October 30, 2013 (#13000855)	Roughly 1 blk. E. & W. of N. & S. Main Sts. from E. 3rd to E. Locust Aves. 37°49'02"N 96°50'59"W	El Dorado	
10	El Dorado Missouri Pacific Depot		May 6, 1994 (#94000429 ( <a href="http://nhrp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=94000429&amp;natregadvancedsearch=Search">http://nhrp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=94000429&amp;natregadvancedsearch=Search</a> ))	430 N. Main St. 37°49'18"N 96°50'57"W	El Dorado	
11	Amos H. Gish Building		July 3, 2012 (#12000383 ( <a href="http://nhrp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=12000383&amp;natregadvancedsearch=Search">http://nhrp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=12000383&amp;natregadvancedsearch=Search</a> ))	317 S. Main 37°48'54"N 96°51'01"W	El Dorado	
12					Augusta	

[3]	Name on the Register [4]	Image	Date listed <sup>[5]</sup>	Location	City or town	Summary
	C. N. James Cabin		April 13, 1973 (#73000745 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=73000745&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=73000745&amp;natregadvancedsearch=Search</a> ))	305 State St. 37°39'53"N 96°58'46"W		
13	Little Walnut River Pratt Truss Bridge		May 9, 2003 (#03000377 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=03000377&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=03000377&amp;natregadvancedsearch=Search</a> ))	SW. 160th Rd., ½ mile west of its intersection with Purity Springs Rd. 37°35'46"N 96°55'24"W	Bois D'Arc	
14	Loomis-Parry Residence		July 8, 2009 (#09000495 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000495&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000495&amp;natregadvancedsearch=Search</a> ))	1003 State St. 37°40'56"N 96°58'44"W	Augusta	
15	Muddy Creek Bridge		July 2, 1985 (#85001425 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=85001425&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=85001425&amp;natregadvancedsearch=Search</a> ))	Off U.S. Route 77 37°32'03"N 96°57'04"W	Douglass	
16	Oak Lawn Farm Dairy Barn		November 5, 2005 (#05001202 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=05001202&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=05001202&amp;natregadvancedsearch=Search</a> ))	12464 NW. Meadowlark 38°00'24"N 97°05'46"W	Whitewater	27.9 mi
17	James T. Oldham House		November 21, 2006 (#06001054 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=06001054&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=06001054&amp;natregadvancedsearch=Search</a> ))	321 S. Denver St. 37°48'53"N 96°51'23"W	El Dorado	
18	Polecat Creek Bridge		July 2, 1985 (#85001438 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=85001438&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=85001438&amp;natregadvancedsearch=Search</a> ))	5 miles west and 2 miles south of Douglass 37°29'23"N 97°06'33"W	Douglass	
19	Towanda Masonic Lodge No. 30 A.F. and A.M.		January 14, 2004 (#03001392 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=03001392&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=03001392&amp;natregadvancedsearch=Search</a> ))	401 Main St. 37°47'44"N 97°00'09"W	Towanda	17.3
20	US Post Office-Augusta		October 17, 1989 (#89001632 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=89001632&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=89001632&amp;natregadvancedsearch=Search</a> ))	119 E. 5th St. 37°40'33"N 96°58'38"W	Augusta	
21	Viets Block		April 16, 2012 (#12000202 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=12000202&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=12000202&amp;natregadvancedsearch=Search</a> ))	427, 429, & 431 State St. 37°40'34"N 96°58'46"W	Augusta	
22	Yingling Brothers Auto Company		July 5, 2011 (#11000409 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=11000409&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=11000409&amp;natregadvancedsearch=Search</a> ))	411 S. Main St. 37°48'51"N 96°51'01"W	El Dorado	Roadside Kansas MPS

See also



- List of National Historic Landmarks in Kansas
- National Register of Historic Places listings in Kansas

## References

1. ^ The latitude and longitude information provided in this table was derived originally from the National Register Information System, which has been found to be fairly accurate for about 99% of listings. For about 1% of NRIS original coordinates, experience has shown that one or both coordinates are typos or otherwise extremely far off; some corrections may have been made. A more subtle problem causes many locations to be off by up to 150 yards, depending on location in the country: most NRIS coordinates were derived from tracing out latitude and longitudes off of USGS topographical quadrant maps created under the North American Datum of 1927 (<http://www.ngs.noaa.gov/TOOLS/Nadcon/Nadcon.html>), which differs from the current, highly accurate WGS84 GPS system used by most on-line maps. Chicago is about right, but NRIS longitudes in Washington are higher by about 4.5 seconds, and are lower by about 2.0 seconds in Maine. Latitudes differ by about 1.0 second in Florida. Some locations in this table may have been corrected to current GPS standards.
2. ^ "National Register of Historic Places: Weekly List Actions" (<http://www.cr.nps.gov/nr/nrlist.htm>). National Park Service, United States Department of the Interior. Retrieved on April 4, 2014.
3. ^ Numbers represent an ordering by significant words. Various colorings, defined here, differentiate National Historic Landmarks and historic districts from other NRHP buildings, structures, sites or objects.
4. ^ "National Register Information System" ([http://nrhp.focus.nps.gov/natreg/docs/All\\_Data.html](http://nrhp.focus.nps.gov/natreg/docs/All_Data.html)). *National Register of Historic Places*. National Park Service. 2009-03-13.
5. ^ The eight-digit number below each date is the number assigned to each location in the National Register Information System database, which can be viewed by clicking the number.

Retrieved from "[http://en.wikipedia.org/w/index.php?title=National\\_Register\\_of\\_Historic\\_Places\\_listings\\_in\\_Butler\\_County,\\_Kansas&oldid=586682131](http://en.wikipedia.org/w/index.php?title=National_Register_of_Historic_Places_listings_in_Butler_County,_Kansas&oldid=586682131)"

Categories: Butler County, Kansas | National Register of Historic Places in Kansas by county

| Buildings and structures in Butler County, Kansas

- 
- This page was last modified on 18 December 2013 at 19:28.
  - Text is available under the Creative Commons Attribution-ShareAlike License; additional terms may apply. By using this site, you agree to the Terms of Use and Privacy Policy. Wikipedia® is a registered trademark of the Wikimedia Foundation, Inc., a non-profit organization.

# National Register of Historic Places listings in Sedgwick County, Kansas

From Wikipedia, the free encyclopedia

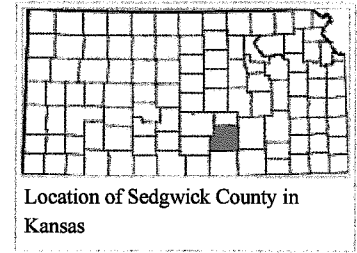
This is a list of the **National Register of Historic Places listings in Sedgwick County, Kansas**.

This is intended to be a complete list of the properties and districts on the National Register of Historic Places in Sedgwick County, Kansas, United States. The locations of National Register properties and districts for which the latitude and longitude coordinates are included below, may be seen in a Google map.<sup>[1]</sup>

There are 122 properties and districts listed on the National Register in the county.

*This National Park Service list is complete through NPS recent listings*

*(<http://www.nps.gov/history/nr/nrlist.htm>) posted April 4, 2014.<sup>[2]</sup>*











Location of Sedgwick County in Kansas











## **Current listings**










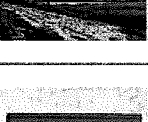











*From Kellogg & Greenwald*












[3]	Name on the Register <sup>[4]</sup>	Image	Date listed <sup>[5]</sup>	Location	City or town	Summary	
1	Frank J. and Harvey J. Ablah House		April 21, 2009 (#09000276 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000276&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000276&amp;natregadvancedsearch=Search</a> ))	102–104 N. Pinecrest Ave. 37°41'12"N 97°16'32"W	Wichita	part of the Residential Resources of Wichita, Sedgwick County, Kansas 1870-1957 Multiple Property Submission (MPS)	4.7 mi W
2	Adeline Apartment Building		April 18, 2007 (#07000314 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07000314&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07000314&amp;natregadvancedsearch=Search</a> ))	1403 N. Emporia 37°42'36"N 97°20'00"W	Wichita		8.9 mi W
3	Administration Building		June 11, 1990 (#90000908 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=90000908&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=90000908&amp;natregadvancedsearch=Search</a> ))	McConnell AFB 37°37'55"N 97°16'23"W	Wichita		5.4 mi SW
4	Allen's Market		November 21, 2006 (#06001050 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=06001050&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=06001050&amp;natregadvancedsearch=Search</a> ))	2938 E. Douglas Ave. 37°41'09"N 97°18'07"W	Wichita		5.9 mi W
5	Henry J. Allen House		March 7, 1973 (#73000775 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=73000775&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=73000775&amp;natregadvancedsearch=Search</a> ))	255 N. Roosevelt St. 37°41'23"N 97°17'31"W	Wichita		5.3 mi W
6	Arkansas Valley Lodge No. 21, Prince Hall Masons		August 24, 1977 (#77000596 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=77000596&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=77000596&amp;natregadvancedsearch=Search</a> ))	615 N. Main St. 37°41'44"N 97°20'17"W	Wichita		8.3 mi W
7	Battin Apartments Historic District		July 3, 2012 (#12000389 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=12000389&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=12000389&amp;natregadvancedsearch=Search</a> ))	1700 S. Elpyco Ave. 37°39'45"N 97°16'38"W	Wichita	part of the Residential Resources of Wichita, Sedgwick County, Kansas 1870-1957 MPS	5.3 mi W
8	Belmont Arches		April 10, 2007 (#07000313 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07000313&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07000313&amp;natregadvancedsearch=Search</a> ))	Belmont junction of Central and Douglas 37°41'44"N 97°17'11"W	Wichita		4.8 mi W
9	Bitting Building		February 28, 2012 (#12000046 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=12000046&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=12000046&amp;natregadvancedsearch=Search</a> ))	107 N. Market St. 37°41'11"N 97°20'13"W	Wichita		7.3 mi W










[3]	Name on the Register <sup>[4]</sup>	Image	Date listed <sup>[5]</sup>	Location	City or town	Summary	
10	Bitting Historic District		August 4, 2004 (#04000776 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=04000776&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=04000776&amp;natregadvancedsearch=Search</a> ))	Generally the 1100 and 1200 blocks of Bitting 37°42'22"N 97°20'54"W	Wichita		9.8 mi W
11	Frank E. Blaser House		January 7, 2010 (#09001205 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09001205&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09001205&amp;natregadvancedsearch=Search</a> ))	136 N. Crestway Ave. 37°41'14"N 97°17'06"W	Wichita	part of the Residential Resources of Wichita, Sedgwick County, Kansas 1870-1957 MPS	4.8 mi W
12	Bond-Sullivan House		November 28, 2007 (#07001228 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07001228&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07001228&amp;natregadvancedsearch=Search</a> ))	936 Back Bay Boulevard 37°42'00"N 97°20'37"W	Wichita		5.3 mi W
13	Bowers House		September 15, 2004 (#04000973 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=04000973&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=04000973&amp;natregadvancedsearch=Search</a> ))	1004 North Market 37°42'02"N 97°20'10"W	Wichita		9.7 mi W
14	Broadview Hotel		June 19, 2009 (#09000460 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000460&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000460&amp;natregadvancedsearch=Search</a> ))	400 W. Douglas Ave. 37°41'11"N 97°20'34"W	Wichita		7.9 mi W
15	Broom Corn Warehouse		June 28, 2011 (#11000394 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=11000394&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=11000394&amp;natregadvancedsearch=Search</a> ))	416 S. Commerce 37°40'56"N 97°19'51"W	Wichita		7.2 mi W
16	Brown Building		October 10, 2007 (#07001069 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07001069&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07001069&amp;natregadvancedsearch=Search</a> ))	105 S. Broadway St. 37°41'09"N 97°20'07"W	Wichita		7.5 mi W
17	Buildings at 800 West Douglas Block		October 22, 2004 (#04001160 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=04001160&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=04001160&amp;natregadvancedsearch=Search</a> ))	809, 811, and 815 W. Douglas 37°41'01"N 97°20'59"W	Wichita		8.7 mi W
18	J. Arch Butts Packard Building		July 5, 2011 (#11000410 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=11000410&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=11000410&amp;natregadvancedsearch=Search</a> ))	1525 E. Douglas Ave. 37°41'10"N 97°19'07"W	Wichita	part of the Roadside Kansas MPS	8.7 mi W
19	Calvary Baptist Church		October 28, 1988 (#88001905 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=88001905&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=88001905&amp;natregadvancedsearch=Search</a> ))	601 N. Water 37°41'40"N 97°20'27"W	Wichita		2.3 mi W
20			April 13, 1973 (#73000776 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=73000776&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=73000776&amp;natregadvancedsearch=Search</a> ))	1155 N. River	Wichita		1.0 mi W









[3]	Name on the Register <sup>[4]</sup>	Image	Date listed <sup>[5]</sup>	Location	City or town	Summary
	B. H. Campbell House		searchType=natregadvanced&selectedCollections=NPS%20Digital%20Library&referenceNumber=73000776&natregadvancedsearch=Search))	Boulevard 37°42'16"N 97°21'30"W		
21	Carey House		April 13, 1972 (#72000526 ( <a ))"="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=72000526&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=72000526&amp;natregadvancedsearch=Search</a> ))	525 E. Douglas Ave. 37°41'09"N 97°19'53"W	Wichita	8.0 mi W
22	Chapman-Noble House		November 1, 2006 (#06000962 ( <a ))"="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=06000962&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=06000962&amp;natregadvancedsearch=Search</a> ))	1230 N. Waco 37°42'27"N 97°20'30"W	Wichita	8.0 mi W
23	L. W. Clapp House		June 14, 1982 (#82002668 ( <a ))"="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=82002668&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=82002668&amp;natregadvancedsearch=Search</a> ))	1847 Wellington Pl. 37°43'00"N 97°20'22"W	Wichita	9.3 mi WNW
24	R.D.W. Clapp House		December 20, 2006 (#06001173 ( <a ))"="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=06001173&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=06001173&amp;natregadvancedsearch=Search</a> ))	320 N. Belmont 37°41'34"N 97°17'09"W	Wichita	5.1 mi W
25	College Hill Park Bathhouse		April 16, 2008 (#08000305 ( <a ))"="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=08000305&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=08000305&amp;natregadvancedsearch=Search</a> ))	304 S. Circle Dr. 37°40'55"N 97°17'35"W	Wichita	part of the New Deal-Era Resources of Kansas MPS 6.0 mi W
26	Comley House		November 1, 2006 (#06000961 ( <a ))"="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=06000961&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=06000961&amp;natregadvancedsearch=Search</a> ))	1137 N. Broadway 37°42'20"N 97°20'09"W	Wichita	8.9 mi W
27	Commodore Apartment Hotel		May 1, 2013 (#13000218)	222 E. Elm St. 601 N. Broadway Ave. 37°41'42"N 97°20'10"W	Wichita	8.2 mi W
28	Cudahy Packing Plant		September 17, 2012 (#12000390)	2300 N. Broadway St. 37°43'31"N 97°20'00"W	Wichita	10.0 mi WNW
29	Dunbar Theatre		July 2, 2008 (#08000615 ( <a ))"="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=08000615&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=08000615&amp;natregadvancedsearch=Search</a> ))	1007 N. Cleveland Ave. 37°42'04"N 97°19'20"W	Wichita	part of the Theaters and Opera Houses of Kansas MPS 7.7 mi WNW
30	Eagle's Lodge #132		January 31, 2008 (#07001484 ( <a ))"="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07001484&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07001484&amp;natregadvancedsearch=Search</a> ))	200-202 S. Emporia 37°41'12"N 97°19'58"W	Wichita	7.9 mi
31	East Douglas Avenue Historic District		August 4, 2004 (#04000777 ( <a ))"="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=04000777&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=04000777&amp;natregadvancedsearch=Search</a> ))	Roughly bounded by Topeka, Rock Island, 1st, and English Sts.	Wichita	7.7 mi

[3]	Name on the Register <sup>[4]</sup>	Image	Date listed <sup>[5]</sup>	Location	City or town	Summary	
				37°41'14"N 97°19'51"W			
32	Ellington Apartment Building		June 25, 2013 (#13000435)	514 S. Main Street 37°40'50"N 97°20'16"W	Wichita		7.6 mi W
33	Ellis-Singleton Building		May 11, 2006 (#06000389 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=06000389&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=06000389&amp;natregadvancedsearch=Search</a> ))	221 S. Broadway 37°41'03"N 97°20'08"W	Wichita		7.3 mi W
34	Engine House No. 6		February 2, 1995 (#94001623 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=94001623&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=94001623&amp;natregadvancedsearch=Search</a> ))	1300 S. Broadway 37°40'11"N 97°20'06"W	Wichita		7.6 mi W
35	Fairmount Apartments		December 30, 2009 (#09001167 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09001167&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09001167&amp;natregadvancedsearch=Search</a> ))	1702 N. Fairmount Ave. 37°42'50"N 97°17'46"W	Wichita	part of the Residential Resources of Wichita, Sedgwick County, Kansas 1870-1957 MPS	7.5 mi NW
36	Fairmount Congregational Church		November 1, 2006 (#06000963 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=06000963&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=06000963&amp;natregadvancedsearch=Search</a> ))	1650 N. Fairmount 37°42'55"N 97°17'48"W	Wichita		7.5 mi NW
37	Fairmount Cottage		September 5, 1985 (#85001979 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=85001979&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=85001979&amp;natregadvancedsearch=Search</a> ))	1717 Fairmount Ave. 37°42'51"N 97°17'46"W	Wichita		7.5 mi NW
38	Fairview Apartments		December 30, 2009 (#09001168 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09001168&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09001168&amp;natregadvancedsearch=Search</a> ))	206 E. 18th St. 37°43'02"N 97°20'11"W	Wichita	part of the Residential Resources of Wichita, Sedgwick County, Kansas 1870-1957 MPS	9.6 mi NW
39	J.E. Farmer House		June 28, 2011 (#11000395 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=11000395&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=11000395&amp;natregadvancedsearch=Search</a> ))	1301 Cleveland St. 37°42'23"N 97°19'19"W	Wichita	part of the African American Resources in Wichita, Kansas MPS	8.2 mi WNW
40	Farmer's and Banker's Historic District		October 10, 2007 (#07001070 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07001070&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07001070&amp;natregadvancedsearch=Search</a> ))	1st and Market Sts. 37°41'17"N 97°20'13"W	Wichita		7.7 mi W
41	Fourth National Bank Building		May 1, 2013 (#13000219)	100–110 N. Market St. 37°41'11"N 97°20'13"W	Wichita		7.7 mi W











[3]	Name on the Register <sup>[4]</sup>	Image	Date listed <sup>[5]</sup>	Location	City or town	Summary	
42	Fresh Air Baby Camp		November 28, 2007 (#07001229 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07001229&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07001229&amp;natregadvancedsearch=Search</a> ))	1229 W. 11th St. 37°42'15"N 97°21'08"W	Wichita		10.0 mi W
43	Gelbach House		May 22, 2002 (#02000545 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=02000545&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=02000545&amp;natregadvancedsearch=Search</a> ))	1721 Park Place 37°42'52"N 97°20'18"W	Wichita		9.9 mi W
44	Grace Methodist Episcopal Church		July 12, 2006 (#06000599 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=06000599&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=06000599&amp;natregadvancedsearch=Search</a> ))	944 S. Topeka 37°40'30"N 97°20'00"W	Wichita		7.4 mi W
45	Guldner House		January 7, 2010 (#09001206 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09001206&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09001206&amp;natregadvancedsearch=Search</a> ))	1919 W. Douglas 37°41'01"N 97°21'50"W	Wichita	part of the Residential Resources of Wichita, Sedgwick County, Kansas 1870-1957 MPS	9.1 mi W
46	Hayford Buildings		November 2, 1982 (#82000420 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=82000420&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=82000420&amp;natregadvancedsearch=Search</a> ))	255 N. Market and 115-127 E. 2nd Sts. 37°41'22"N 97°20'09"W	Wichita		8.0 mi W
47	Hillside Cottage		November 21, 1976 (#76000839 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=76000839&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=76000839&amp;natregadvancedsearch=Search</a> ))	303 Circle Dr. 37°40'59"N 97°17'36"W	Wichita		5.4 mi W
48	Holyoke Cottage		November 28, 2007 (#07001230 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07001230&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07001230&amp;natregadvancedsearch=Search</a> ))	1704 N. Holyoke 37°42'50"N 97°17'50"W	Wichita		7.7 mi W
49	Hypatia House		August 23, 1991 (#91001105 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=91001105&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=91001105&amp;natregadvancedsearch=Search</a> ))	1215 N. Broadway 37°42'25"N 97°20'08"W	Wichita		8.8 mi W
50	International Harvester Building		January 15, 2003 (#02001702 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=02001702&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=02001702&amp;natregadvancedsearch=Search</a> ))	355 N. Rock Island Ave/803-811 E. Third St. 37°41'30"N 97°19'41"W	Wichita		7.3 mi W
51	C. M. Jackman House		October 10, 2007 (#07001071 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07001071&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07001071&amp;natregadvancedsearch=Search</a> ))	158 N. Roosevelt 37°41'17"N 97°17'29"W	Wichita		5.2 mi W
52	Johnson Drug Store Building		April 4, 2007 (#07000254 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07000254&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07000254&amp;natregadvancedsearch=Search</a> ))	2329 E. Central	Wichita		6.5 mi W

[3]	Name on the Register <sup>[4]</sup>	Image	Date listed <sup>[5]</sup>	Location	City or town	Summary	
			searchType=natregadvanced&selectedCollections=NPS%20Digital%20Library&referenceNumber=07000254&natregadvancedsearch=Search))	37°41'43"N 97°18'30"W			
53	Kansas Gas & Electric Company Building		March 7, 2012 (#12000064 ( <a ))<="" a="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=12000064&amp;natregadvancedsearch=Search">)</a>	120 E. 1st St. 37°41'18"N 97°20'14"W	Wichita		7.7 mi W
54	Keep Klean Building		April 4, 2007 (#07000252 ( <a ))<="" a="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07000252&amp;natregadvancedsearch=Search">)</a>	810 E. Third 37°41'24"N 97°19'41"W	Wichita		7.4 mi W
55	Kellogg Elementary School		January 18, 2011 (#10001141 ( <a ))<="" a="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=10001141&amp;natregadvancedsearch=Search">)</a>	1220 E. Kellogg Dr. 37°40'45"N 97°19'23"W	Wichita	part of the Public Schools of Kansas MPS	7.5 mi W
56	Edward M. Kelly House		July 11, 2002 (#02000763 ( <a ))<="" a="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=02000763&amp;natregadvancedsearch=Search">)</a>	1711 N. Market St. 37°42'50"N 97°20'12"W	Wichita		9.2 mi W/W
57	S. H. Kress Company Building		June 24, 1985 (#85001385 ( <a ))<="" a="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=85001385&amp;natregadvancedsearch=Search">)</a>	224 E. Douglas 37°41'11"N 97°20'08"W	Wichita		7.5 mi W
58	Lassen Hotel		October 4, 1984 (#84000108 ( <a ))<="" a="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=84000108&amp;natregadvancedsearch=Search">)</a>	Market Ave. and 1st St. 37°41'16"N 97°20'13"W	Wichita		7.7 mi W
59	Governor L. D. Lewelling House		June 8, 2005 (#05000547 ( <a ))<="" a="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=05000547&amp;natregadvancedsearch=Search">)</a>	1245 N. Broadway 37°42'20"N 97°20'08"W	Wichita		8.7 mi W/W
60	Linwood Park Greenhouse and Maintenance Building		April 16, 2008 (#08000306 ( <a ))<="" a="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=08000306&amp;natregadvancedsearch=Search">)</a>	1700 S. Hydraulic St. 37°39'44"N 97°18'57"W	Wichita	part of the New Deal-Era Resources of Kansas MPS	8.6 mi W/W
61	Linwood Place Historic District		December 3, 2013 (#13000881)	Roughly S. Hydraulic, S. Kansas, S. Minneapolis, & S. Minnesota Aves., Stafford Ct., E. Hodson St. 37°39'16"N 97°18'55"W	Wichita	Residential Resources of Wichita, Sedgwick County, Kansas 1870-1957 MPS	13.5 mi SW
62	Chester I. Long House		July 10, 1978 (#78001289 ( <a ))<="" a="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=78001289&amp;natregadvancedsearch=Search">)</a>	3401 E. 2nd St.	Wichita		5.6 mi W



















[3]	Name on the Register <sup>[4]</sup>	Image	Date listed <sup>[5]</sup>	Location	City or town	Summary
			searchType=natregadvanced&selectedCollections=NPS%20Digital%20Library&referenceNumber=78001289&natregadvancedsearch=Search))	37°41'26"N 97°17'45"W		
63	Luling's City Laundry		February 3, 2012 (#11001081 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=11001081&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=11001081&amp;natregadvancedsearch=Search</a> ))	1730-1746 E. Douglas Ave. 37°41'11"N 97°18'57"W	Wichita	
64	John Mack Bridge		January 22, 1992 (#91002018 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=91002018&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=91002018&amp;natregadvancedsearch=Search</a> ))	S. Broadway across the Big Arkansas River 37°38'41"N 97°20'07"W	Wichita	part of the Rainbow Arch Marsh Arch Bridges of Kansas Thematic Resource (TR)
65	Market Street Cottage		April 18, 2007 (#07000315 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07000315&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07000315&amp;natregadvancedsearch=Search</a> ))	1144 N. Market St. 37°42'22"N 97°21'32"W	Wichita	
66	McClinton Market		June 28, 2011 (#11000396 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=11000396&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=11000396&amp;natregadvancedsearch=Search</a> ))	1205 East 12th, N. 37°42'22"N 97°19'27"W	Wichita	part of the African American Resources in Wichita, Kansas MPS
67	McCormick School		August 30, 1978 (#78001288 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=78001288&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=78001288&amp;natregadvancedsearch=Search</a> ))	855 S. Martinson 37°40'25"N 97°21'23"W	Wichita	
68	Elizabeth McLean House		June 19, 2009 (#09000461 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000461&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000461&amp;natregadvancedsearch=Search</a> ))	2359 N. McLean Boulevard 37°43'32"N 97°23'02"W	Wichita	part of the Residential Resources of Wichita, Sedgwick County, Kansas 1870-1957 MPS
69	Mentholatum Company Building		July 11, 2006 (#06000625 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=06000625&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=06000625&amp;natregadvancedsearch=Search</a> ))	1300 E. Douglas 37°41'11"N 97°19'16"W	Wichita	
70	Mohr Barn		December 20, 2006 (#06001170 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=06001170&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=06001170&amp;natregadvancedsearch=Search</a> ))	14920 W. 21st St. N. 37°43'27"N 97°30'50"W	Wichita	
71	Monroe-Mahan House		June 7, 1996 (#96000583 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=96000583&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=96000583&amp;natregadvancedsearch=Search</a> ))	1357 S. Broadway 37°40'07"N 97°20'07"W	Wichita	
72	Mullen Court Apartments		January 17, 2007 (#06001243 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=06001243&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=06001243&amp;natregadvancedsearch=Search</a> ))	1140-1150 N. Topeka Ave. 37°42'21"N 97°20'03"W	Wichita	



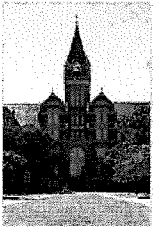


6.6 mi  
w10.6 mi  
sw8.6 mi  
wsw8.1 mi  
wsw8.5 mi  
w12.7 mi  
wsw6.7 mi  
w20.9 mi  
w7.7 mi  
w8.8 mi  
wsw

[3]	Name on the Register <sup>[4]</sup>	Image	Date listed <sup>[5]</sup>	Location	City or town	Summary
73	Darius Sales Munger House		June 14, 1982 (#82002669 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=82002669&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=82002669&amp;natregadvancedsearch=Search</a> ))	Sim Park 37°41'39"N 97°21'41"W	Wichita	
74	Naomi & Leona Apartment Buildings		June 25, 2013 (#13000436)	507-509 South Market Street 37°40'51"N 97°20'14"W	Wichita	
75	Newbern-Gore House		September 2, 2009 (#09000675 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000675&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000675&amp;natregadvancedsearch=Search</a> ))	400 South Roosevelt 37°40'50"N 97°19'29"W	Wichita	part of the Residential Resources of Wichita, Sedgwick County, Kansas 1870-1957 MPS
76	Nokomis and Navarre Apartment Buildings		March 12, 2001 (#01000234 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=01000234&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=01000234&amp;natregadvancedsearch=Search</a> ))	420-426 N. Topeka Ave. 37°41'32"N 97°20'02"W	Wichita	
77	North Market Street Apartments Historic District		August 12, 2010 (#10000548 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=10000548&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=10000548&amp;natregadvancedsearch=Search</a> ))	718, 722, and 730 N. Market St. 37°41'49"N 97°20'11"W	Wichita	part of the Residential Resources of Wichita, Sedgwick County, Kansas 1870-1957 MPS
78	North Riverside Park Comfort Station		April 16, 2008 (#08000307 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=08000307&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=08000307&amp;natregadvancedsearch=Search</a> ))	900 N. Bitting Ave. 37°42'16"N 97°20'54"W	Wichita	part of the New Deal-Era Resources of Kansas MPS
79	North Topeka Avenue-10th Street Historic District		February 14, 1983 (#83000438 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=83000438&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=83000438&amp;natregadvancedsearch=Search</a> ))	1165, 1103, 1109, 1113, and 1108 N. Topeka Ave. 37°42'11"N 97°19'59"W	Wichita	
80	North Topeka Avenue Apartments Historic District		April 21, 2009 (#09000277 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000277&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000277&amp;natregadvancedsearch=Search</a> ))	625, 630, 631, and 632 N. Topeka Ave. 37°41'45"N 97°20'03"W	Wichita	part of the Residential Resources of Wichita, Sedgwick County, Kansas 1870-1957 MPS
81	Occidental Hotel		June 14, 1982 (#82002670 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=82002670&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=82002670&amp;natregadvancedsearch=Search</a> ))	300 N. Main St. 37°41'18"N 97°20'14"W	Wichita	
82	Old Mission Mausoleum		May 28, 2009 (#09000352 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000352&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000352&amp;natregadvancedsearch=Search</a> ))	3414 E. 21st St.	Wichita	

(v. 8m)  
w7.2m  
w4.8m  
w8.4m  
w8.6m  
w9.6m  
w8.2m  
w8.6m  
w8.1m  
w(v. 7m)  
w

[3]	Name on the Register <sup>[4]</sup>	Image	Date listed <sup>[5]</sup>	Location	City or town	Summary
			searchType=natregadvanced&selectedCollections=NPS%20Digital%20Library&referenceNumber=09000352&natregadvancedsearch=Search))	37°43'22"N 97°17'43"W		
83	Old Sedgwick County Courthouse		May 14, 1971 (#71000327 ( <a ))<="" a="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=71000327&amp;natregadvancedsearch=Search">)</a>	504 N. Main St. 37°41'38"N 97°20'13"W	Wichita	
84	Old Wheeler-Kelly-Hagney Building		March 11, 1982 (#82002671 ( <a ))<="" a="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=82002671&amp;natregadvancedsearch=Search">)</a>	120 S. Market St. 37°41'08"N 97°20'11"W	Wichita	
85	Orpheum Theater and Office Building		November 28, 1980 (#80001473 ( <a ))<="" a="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=80001473&amp;natregadvancedsearch=Search">)</a>	200 N. Broadway St. 37°41'11"N 97°20'05"W	Wichita	
86	Park Place-Fairview Historic District		August 4, 2004 (#04000778 ( <a ))<="" a="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=04000778&amp;natregadvancedsearch=Search">)</a>	Roughly Park Place and Fairview Aves. between 13th and 17th Sts. and Wellington Place 37°42'53"N 97°20'22"W	Wichita	
87	Penley House		November 4, 2009 (#09000877 ( <a ))<="" a="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000877&amp;natregadvancedsearch=Search">)</a>	3400 Penley Dr. 37°40'10"N 97°17'48"W	Wichita	part of the Residential Resources of Wichita, Sedgwick County, Kansas 1870-1957 MPS
88	Powell House		November 4, 2009 (#09000676 ( <a ))<="" a="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000676&amp;natregadvancedsearch=Search">)</a>	330 N. Crestway 37°41'27"N 97°17'06"W	Wichita	part of the Residential Resources of Wichita, Sedgwick County, Kansas 1870-1957 MPS
89	Pryor House		July 8, 2009 (#09000499 ( <a ))<="" a="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000499&amp;natregadvancedsearch=Search">)</a>	263 S. Pershing 37°40'56"N 97°16'59"W	Wichita	part of the Residential Resources of Wichita, Sedgwick County, Kansas 1870-1957 MPS
90	Riverside Cottage		February 23, 1989 (#88002824 ( <a ))<="" a="" href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=88002824&amp;natregadvancedsearch=Search">)</a>	901 Spaulding Ave. 37°41'58"N 97°21'12"W	Wichita	

[3]	Name on the Register <sup>[4]</sup>	Image	Date listed <sup>[5]</sup>	Location	City or town	Summary	
91	Riverview Apartments		July 11, 2002 (#02000765 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=02000765&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=02000765&amp;natregadvancedsearch=Search</a> ))	404-408 Back Bay Boulevard 37°41'56"N 97°20'32"W	Wichita		8.8 mi ✓
92	Roberts House		April 16, 2008 (#08000308 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=08000308&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=08000308&amp;natregadvancedsearch=Search</a> ))	235 N. Roosevelt St. 37°41'22"N 97°17'33"W	Wichita		5.3 mi ✓
93	Rock Island Depot		April 23, 1973 (#73000777 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=73000777&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=73000777&amp;natregadvancedsearch=Search</a> ))	729 E. Douglas St. 37°40'36"N 97°19'44"W	Wichita		7.1 mi ✓
94	Scottish Rite Temple		May 5, 1972 (#72000527 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=72000527&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=72000527&amp;natregadvancedsearch=Search</a> ))	Northwestern corner of 1st St. at Topeka 37°41'18"N 97°20'03"W	Wichita		7.6 mi ✓
95	Sedgwick County Memorial Hall and Soldiers and Sailors Monument		November 20, 1998 (#98001359 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=98001359&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=98001359&amp;natregadvancedsearch=Search</a> ))	510 N. Main 37°41'38"N 97°20'15"W	Wichita		8.3 mi ✓
96	Sim Park Golf Course Tee Shelters		April 16, 2008 (#08000309 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=08000309&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=08000309&amp;natregadvancedsearch=Search</a> ))	2020 W. Murdock St. 37°41'52"N 97°21'48"W	Wichita	part of the New Deal-Era Resources of Kansas MPS	10.6 mi ✓
97	Smyser House		May 21, 2009 (#09000353 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000353&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000353&amp;natregadvancedsearch=Search</a> ))	931 Buffum Ave. 37°42'00"N 97°21'16"W	Wichita	part of the Residential Resources of Wichita, Sedgwick County, Kansas 1870-1957 MPS	9.6 mi ✓
98	St. Mark Church		May 1, 1991 (#91000463 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=91000463&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=91000463&amp;natregadvancedsearch=Search</a> ))	19230 W. 29th St., N. 37°44'11"N 97°33'49"W	Colwich		
99	Stackman Court Apartments		November 29, 1991 (#91001741 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=91001741&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=91001741&amp;natregadvancedsearch=Search</a> ))	1207 Franklin Ave. 37°42'29"N 97°21'09"W	Wichita		9.8 mi ✓
100	William Sternberg House		May 24, 1989 (#89000387 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=89000387&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=89000387&amp;natregadvancedsearch=Search</a> ))	1065 N. Waco 37°42'06"N 97°20'35"W	Wichita		9.3 mi ✓
101	Stoner Apartment Building		April 4, 2007 (#07000253 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07000253&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=07000253&amp;natregadvancedsearch=Search</a> ))	938-940 North Market	Wichita		8.7 mi ✓

[3]	Name on the Register <sup>[4]</sup>	Image	Date listed <sup>[5]</sup>	Location	City or town	Summary
			searchType=natregadvanced&selectedCollections=NPS%20Digital%20Library&referenceNumber=07000253&natregadvancedsearch=Search))	37°42'00"N 97°20'10"W		
102	Sunnyside School		January 18, 2011 (#10001143 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=10001143&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=10001143&amp;natregadvancedsearch=Search</a> ))	3003 E. Kellogg St. 37°40'44"N 97°18'05"W	Wichita	part of the Public Schools of Kansas MPS
103	Topeka-Emporia Historic District		August 4, 2004 (#04000779 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=04000779&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=04000779&amp;natregadvancedsearch=Search</a> ))	Roughly N. Topeka and Emporia Aves. between 10th and 13th Sts. 37°42'27"N 97°20'01"W	Wichita	
104	Union National Bank Building		February 3, 2012 (#11001082 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=11001082&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=11001082&amp;natregadvancedsearch=Search</a> ))	104 S. Broadway St. 37°41'09"N 97°20'07"W	Wichita	part of the African American Resources in Wichita, Kansas MPS
105	University Hall, Friends University		February 24, 1971 (#71000328 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=71000328&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=71000328&amp;natregadvancedsearch=Search</a> ))	2100 University Ave. 37°40'41"N 97°21'57"W	Wichita	
106	US Post Office and Federal Building-Wichita		July 18, 1989 (#89000792 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=89000792&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=89000792&amp;natregadvancedsearch=Search</a> ))	401 N. Market 37°41'30"N 97°20'18"W	Wichita	
107	W.O. Van Arsdale House		July 8, 2009 (#09000500 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000500&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000500&amp;natregadvancedsearch=Search</a> ))	201 N. Broadway 37°41'17"N 97°20'08"W	Wichita	part of the Residential Resources of Wichita, Sedgwick County, Kansas 1870-1957 MPS
108	Virginia Apartment Building		March 12, 2001 (#01000233 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=01000233&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=01000233&amp;natregadvancedsearch=Search</a> ))	401-405 E. Third St. 37°41'28"N 97°20'02"W	Wichita	
109	Judge T. B. Wall House		August 11, 1983 (#83000439 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=83000439&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=83000439&amp;natregadvancedsearch=Search</a> ))	622 N. St. Francis Ave 37°41'48"N 97°19'52"W	Wichita	
110	Westside IOOF Lodge		May 1, 2013 (#13000220)	928-930 W. Douglas Ave. 37°41'03"N 97°21'06"W	Wichita	
111	Wichita City Carnegie		June 25, 1987 (#87000971 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=87000971&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=87000971&amp;natregadvancedsearch=Search</a> ))		Wichita	part of the Carnegie

5.5 mi  
✓









8.6 mi  
✓

7.5 mi  
✓

9.7 mi  
✓


7.9 mi  
✓



[3]	Name on the Register <sup>[4]</sup>	Image	Date listed <sup>[5]</sup>	Location	City or town	Summary
	Library Building		searchType=natregadvanced&selectedCollections=NPS%20Digital%20Library&referenceNumber=87000971&natregadvancedsearch=Search))	220 S. Main 37°41'14"N 97°20'21"W		Libraries of Kansas TR
112	Wichita City Hall		May 14, 1971 (#71000329 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=71000329&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=71000329&amp;natregadvancedsearch=Search</a> ))	204 S. Main St. 37°41'05"N 97°20'15"W	Wichita	
113	Wichita High School		October 8, 2009 (#09000811 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000811&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000811&amp;natregadvancedsearch=Search</a> ))	324 N. Emporia 37°41'28"N 97°19'57"W	Wichita	part of the Public Schools of Kansas MPS
114	Wichita Historic Warehouse and Jobbers District		November 21, 2003 (#03001172 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=03001172&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=03001172&amp;natregadvancedsearch=Search</a> ))	Bounded by the elevated railroad tracks, Douglas and Washington Aves. and 2nd St. 37°41'14"N 97°19'35"W	Wichita	
115	Wichita Veterans Administration Hospital		May 24, 2012 (#12000303 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=12000303&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=12000303&amp;natregadvancedsearch=Search</a> ))	5500 E. Kellogg Ave. 37°40'52"N 97°16'26"W	Wichita	part of the United States Second Generation Veterans Hospitals MPS
116	Wichita Wholesale Grocery Company		August 11, 1983 (#83000440 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=83000440&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=83000440&amp;natregadvancedsearch=Search</a> ))	619 E. William St. 37°41'05"N 97°19'49"W	Wichita	
117	Grace Wilkie House		May 6, 2009 (#09000278 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000278&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000278&amp;natregadvancedsearch=Search</a> ))	4230 E. English St. 37°41'04"N 97°17'08"W	Wichita	
118	Wilson-Boyle House		April 15, 2011 (#11000194 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=11000194&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=11000194&amp;natregadvancedsearch=Search</a> ))	225 N. Roosevelt St. 37°41'21"N 97°17'33"W	Wichita	part of the Residential Resources of Wichita, Sedgwick County, Kansas 1870-1957 MPS
119	Fred D. Wilson House		July 6, 2010 (#10000428 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=10000428&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=10000428&amp;natregadvancedsearch=Search</a> ))	205 North Pershing 37°41'18"N 97°16'58"W	Wichita	
120	Winders Historic District		July 8, 2009 (#09000498 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000498&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000498&amp;natregadvancedsearch=Search</a> ))	1038–1040, 1044, and 1045 S. Topeka Ave.	Wichita	part of the Residential Resources of Wichita, Sedgwick

3.9 mi  
w

4.6 mi  
w

[3]	Name on the Register <sup>[4]</sup>	Image	Date listed <sup>[5]</sup>	Location	City or town	Summary
				37°40'25"N 97°20'03"W		County, Kansas 1870-1957 MPS
121	Woodburn House		September 2, 2009 (#09000677 ( <a href="http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000677&amp;natregadvancedsearch=Search">http://nrhp.focus.nps.gov/natregadvancedsearch.do?searchType=natregadvanced&amp;selectedCollections=NPS%20Digital%20Library&amp;referenceNumber=09000677&amp;natregadvancedsearch=Search</a> ))	574 North Brookfield 37°41'43"N 97°15'20"W	Wichita	part of the Residential Resources of Wichita, Sedgwick County, Kansas 1870-1957 MPS
122	Woolf Brothers Clothing Company		May 1, 2013 (#13000221)	135 E. Douglas Ave. 37°41'08"N 97°20'14"W	Wichita	

37m  
nw

## See also

- List of National Historic Landmarks in Kansas
- National Register of Historic Places listings in Kansas

## References

- <sup>^</sup> The latitude and longitude information provided in this table was derived originally from the National Register Information System, which has been found to be fairly accurate for about 99% of listings. For about 1% of NRIS original coordinates, experience has shown that one or both coordinates are typos or otherwise extremely far off; some corrections may have been made. A more subtle problem causes many locations to be off by up to 150 yards, depending on location in the country: most NRIS coordinates were derived from tracing out latitude and longitudes off of USGS topographical quadrant maps created under the North American Datum of 1927 (<http://www.ngs.noaa.gov/TOOLS/Nadcon/Nadcon.html>), which differs from the current, highly accurate WGS84 GPS system used by most on-line maps. Chicago is about right, but NRIS longitudes in Washington are higher by about 4.5 seconds, and are lower by about 2.0 seconds in Maine. Latitudes differ by about 1.0 second in Florida. Some locations in this table may have been corrected to current GPS standards.
- <sup>^</sup> "National Register of Historic Places: Weekly List Actions" (<http://www.cr.nps.gov/nr/nrlist.htm>). National Park Service, United States Department of the Interior. Retrieved on April 4, 2014.
- <sup>^</sup> Numbers represent an ordering by significant words. Various colorings, defined here, differentiate National Historic Landmarks and historic districts from other NRHP buildings, structures, sites or objects.
- <sup>^</sup> "National Register Information System" ([http://nrhp.focus.nps.gov/natreg/docs/All\\_Data.html](http://nrhp.focus.nps.gov/natreg/docs/All_Data.html)). *National Register of Historic Places*. National Park Service. 2009-03-13.
- <sup>^</sup> The eight-digit number below each date is the number assigned to each location in the National Register Information System database, which can be viewed by clicking the number.

Retrieved from "[http://en.wikipedia.org/w/index.php?title=National\\_Register\\_of\\_Historic\\_Places\\_listings\\_in\\_Sedgwick\\_County,\\_Kansas&oldid=595535225](http://en.wikipedia.org/w/index.php?title=National_Register_of_Historic_Places_listings_in_Sedgwick_County,_Kansas&oldid=595535225)"  
Categories: National Register of Historic Places in Kansas by county | Sedgwick County, Kansas  
| Buildings and structures in Sedgwick County, Kansas

- This page was last modified on 15 February 2014 at 02:49.
- Text is available under the Creative Commons Attribution-ShareAlike License; additional terms may apply. By using this site, you agree to the Terms of Use and Privacy Policy. Wikipedia® is a registered trademark of the Wikimedia Foundation, Inc., a non-profit organization.



## Appendix E-3

### *Waterways*



**EXPERIENCE** | Transportation

**KANSAS SURFACE WATER REGISTER**

December 12, 2013

Prepared By:

Kansas Department of Health and Environment  
Division of Environment  
Bureau of Water  
Curtis State Office Building  
Topeka, Kansas 66612



## TABLE OF CONTENTS

Section	Page No.
1	DESIGNATED USES OF MAJOR CLASSIFIED STREAMS ..... 1
	Cimarron Basin ..... 2
	Kansas/Lower Republican Basin ..... 3
	Lower Arkansas Basin ..... 13
	Marais des Cygnes Basin ..... 20
	Missouri Basin ..... 25
	Neosho Basin ..... 28
	Smoky Hill/Saline Basin ..... 34
	Solomon Basin ..... 39
	Upper Arkansas Basin ..... 42
	Upper Republican Basin ..... 44
	Verdigris Basin ..... 46
	Walnut Basin ..... 50
2	DESIGNATED USES OF MAJOR CLASSIFIED LAKES AND OTHER WATERS (EXCLUDING STREAMS) CONSTITUTING OUTSTANDING NATIONAL RESOURCE WATERS ..... 52
	Cimarron Basin ..... 53
	Kansas/Lower Republican Basin ..... 54
	Lower Arkansas Basin ..... 56
	Marais des Cygnes Basin ..... 58
	Missouri Basin ..... 60
	Neosho Basin ..... 61
	Smoky Hill/Saline Basin ..... 63

Solomon Basin..... 64

Upper Arkansas Basin ..... 65

Upper Republican Basin..... 66

Verdigris Basin..... 67

Walnut Basin ..... 68

3 MISCELLANEOUS SURFACE WATERS CONSTITUTING OUTSTANDING  
NATIONAL RESOURCE WATERS ..... 69

4 MISCELLANEOUS SURFACE WATERS CONSTITUTING SPECIAL  
AQUATIC LIFE USE WATERS.....70

Proposed

## SECTION ONE

### DESIGNATED USES OF MAJOR CLASSIFIED STREAMS

Designations apply only to unimpounded reaches of the specified stream segments. Use designations assigned to classified streams not listed in this table are determined by the Department on case-by-case basis in accordance with K.A.R. 28-16-28d(d).

#### Abbreviations:

HUC	= hydrologic unit code
SEG	= stream segment
CLASS	= antidegradation category
GP	= general purpose waters
EX	= exceptional state waters
ON	= outstanding national resource waters
AL	= designated for aquatic life use
S	= special aquatic life use water
E	= expected aquatic life use water
R	= restricted aquatic life use water
CR	= designated for contact recreational use
A	= Primary contact recreation stream segment is a designated public swimming area
B	= Primary contact recreation stream segment is by law or written permission of the landowner open to and accessible by the public
C	= Primary contact recreation stream segment is not open to and accessible by the public under Kansas law
a	= Secondary contact recreation stream segment is by law or written permission of the landowner open to and accessible by the public
b	= Secondary contact recreation stream segment is not open to and accessible by the public under Kansas law
DS	= designated for domestic water supply use
FP	= designated for food procurement use
GR	= designated for ground water recharge
IW	= designated for industrial water supply use
IR	= designated for irrigation use
LW	= designated for livestock watering use
X	= referenced stream segment is assigned the indicated designated use
O	= referenced stream segment does not support the indicated designated use
blank	= capacity of the referenced stream segment to support the indicated designated use has not been determined by use attainability analysis
Br	= branch
Cr	= creek
Fk	= fork
M	= middle
R	= river

Designated uses of major classified streams (continued)

**WALNUT RIVER BASIN**

LATITUDE/LONGITUDE														
STREAM SEGMENT NAME	UPPER		LOWER		SEG	CLASS	AL	CR	DS	FP	GR	IW	IR	L
SUBBASIN: UPPER WALNUT RIVER (HUC 11030017)														
Badger Cr	37.7735	97.0770	37.7384	97.0078	36	GP	E	b	O	O	X	O	O	O
Bemis Cr	37.8856	96.5870	37.8504	96.7327	8	GP	E	b	X	X	X	X	X	X
Bird Cr	37.8130	96.6472	37.8271	96.8180	213	GP	E	C	X	X	X	X	X	X
Brush Cr	37.9471	96.9916	37.9256	97.0386	881	GP	E	b						
Cole Cr	38.0789	96.7543	37.9387	96.7856	15	GP	E	C	X	X	X	X	X	X
Constant Cr	37.8407	96.9240	37.7965	96.8627	41	GP	E	a	X	X	X	X	X	X
Diamond Cr	38.0003	96.9425	37.9356	97.0343	188	GP	E	b						
Dry Cr	37.7721	97.2232	37.6745	97.0006	27	GP	E	b	X	X	X	X	X	X
Dry Cr	38.0414	97.1325	37.9273	97.0425	32	GP	E	b	O	X	O	O	O	X
Durechen Cr	38.0125	96.5597	37.9202	96.7532	12	GP	E	C	X	X	X	X	X	X
Elm Cr	37.7876	96.9514	37.6828	96.9928	43	GP	E	a	X	X	X	X	X	X
Fourmile Cr	37.9879	96.9122	37.8862	97.0496	20	GP	E	b	X	O	X	X	X	X
Gilmore Branch	37.9775	96.8192	37.9455	96.7851	39	GP	E	a	X	X	X	X	X	X
Gypsum Cr	38.0132	97.2499	37.9284	97.1515	30	GP	E	b	O	X	X	X	X	X
Henry Cr	38.1149	97.1061	37.9850	97.0276	33	GP	E	b	O	X	X	O	X	X
Lower Branch	37.8324	96.5677	37.8513	96.7174	42	GP	E	b	X	X	X	X	X	X
Prairie Cr	37.8646	97.2397	37.8419	97.1149	35	GP	E	b	O	X	X	O	X	X
Rock Cr	37.9335	96.9418	37.8532	97.0379	37	GP	E	b	X	X	X	X	X	X
Sand Cr	37.9071	97.2491	37.9021	97.1907	29	GP	E	b	O	X	X	O	X	X
Satchel Cr	37.9058	96.5766	37.8800	96.7500	10	GP	E	a	X	X	X	X	X	X
School Branch	38.0829	96.7070	38.0061	96.7234	45	GP	E	b	O	X	O	O	O	X
Sutton Cr	37.8188	96.9316	37.7544	96.8795	40	GP	E	b	X	X	X	X	X	X
Walnut Cr	38.0639	97.2642	38.0283	97.1968	44	GP	E	b	X	X	X	X	X	X
Walnut R	37.8171	96.8394	37.6564	96.9904	2	GP	E	C	X	X	X	X	X	X
Walnut R	37.8451	96.8240	37.8171	96.8394	3	GP	E	B	X	X	X	X	X	X
Walnut R	38.0215	96.5533	37.9427	96.7589	14	GP	E	B	X	X	X	X	X	X
Walnut R, W Br	38.0559	96.8621	37.8171	96.8394	16	GP	E	C	X	X	X	X	X	X
Whitewater Cr	37.8052	97.2310	37.8278	97.0955	34	GP	E	b	X	X	X	X	X	X
Whitewater Cr, E Br	38.1006	97.1893	37.9682	97.1571	31	GP	E	b	O	X	X	O	X	X
Whitewater Cr, W Br	38.1249	97.2369	37.9682	97.1571	9025	GP	E	b	O	O	X	O	X	X
Whitewater R	37.6745	97.0006	37.6564	96.9904	17	GP	E	C	X	X	X	X	X	X
Whitewater R	37.8140	97.0218	37.6745	97.0006	18	GP	E	C	X	X	X	X	X	X
Whitewater R	37.8862	97.0496	37.8140	97.0218	19	GP	E	b	X	X	X	X	X	X
Whitewater R	37.9812	97.0235	37.8862	97.0496	21	GP	E	b	X	X	X	X	X	X
Whitewater R	38.1116	97.0840	37.9812	97.0235	23	GP	E	b	X	X	X	X	X	X
Whitewater R, E Br	38.1034	96.9043	37.9812	97.0235	22	GP	E	b	X	X	X	X	X	X
Whitewater R, W Br	37.8530	97.1195	37.8140	97.0218	24	GP	E	C	O	X	X	O	X	X
Whitewater R, W Br	37.9682	97.1571	37.8530	97.1195	25	GP	E	b	O	O	X	O	X	X
Wildcat Cr	38.0000	97.2562	37.8530	97.1195	26	GP	E	b	O	X	X	O	X	X
Wildcat Cr, West	37.9797	97.2643	37.9267	97.2171	28	GP	E	b	X	X	O	O	O	X
SUBBASIN: LOWER WALNUT RIVER (HUC 11030018)														
Black Crook Cr	37.2668	96.9279	37.2197	96.9802	18	GP	E	a	X	X	X	X	X	X
Cedar Cr	37.3254	96.8115	37.3016	96.9572	19	GP	E	b	X	X	X	X	X	X
Chigger Cr	37.5412	96.8262	37.4844	96.9032	21	GP	E	b	X	X	X	X	O	X
Crooked Cr	37.3679	97.0949	37.3066	97.0425	31	GP	E	b	O	X	X	O	X	X
Durham Cr	37.4506	96.8830	37.4674	96.9436	23	GP	E	b	X	X	X	X	X	X
Dutch Cr	37.4724	96.7328	37.3393	96.9441	4	GP	E	C	X	X	X	X	X	X
Eightmile Cr	37.6303	97.1596	37.4474	97.0356	30	GP	E	b	X	X	X	X	X	X

## SECTION TWO

### DESIGNATED USES OF MAJOR CLASSIFIED LAKES AND OTHER WATERS (EXCLUDING STREAMS) CONSTITUTING OUTSTANDING NATIONAL RESOURCE WATERS

Use designations for classified lakes not listed in this table are determined by the Department on a case-by-case basis in accordance with K.A.R. 28-16-28d(d). Classification and use designation applies to all waters contained within the particular Wildlife and Park, Wildlife Refuge, State Park, wetland, or Wildlife Area. Classification and use designation applies to all waters contained within the Nature Conservancy wildlife preserve (designated as Cheyenne Bottoms in this Register) and KDWP Cheyenne Bottoms Wildlife Area (Cheyenne Bottoms).

#### **Abbreviations:**

HUC	= hydrologic unit code
CLASS	= antidegradation category
GP	= general purpose waters
EX	= exceptional state waters
ON	= outstanding national resource waters
AL	= designated for aquatic life use
S	= special aquatic life use water
E	= expected aquatic life use water
R	= restricted aquatic life use water
CR	= designated for contact recreational use
A	= Primary contact recreation lakes that have a posted public swimming area
B	= Primary contact recreation lakes that are by law or written permission of the landowner open to and accessible by the public
C	= Primary contact recreation lakes that are not open to and accessible by the public under Kansas law
a	= Secondary contact recreation lakes that are by law or written permission of the landowner open to and accessible by the public
b	= Secondary contact recreation lakes that are not open to and accessible by the public under Kansas law
DS	= designated for domestic water supply use
FP	= designated for food procurement use
GR	= designated for ground water recharge
IW	= designated for industrial water supply use
IR	= designated for irrigation use
LW	= designated for livestock watering use
X	= referenced lake is assigned the indicated designated use
O	= referenced lake does not support the indicated designated use
blank	= capacity of the referenced lake to support the indicated designated use has not been determined by use attainability analysis.
KWP	= Kansas Wildlife and Parks
LK/ L	= lake
NWR	= National Wildlife Refuge
RES	= reservoir
SFL	= State Fishing Lake
W	= wetland
W.A.	= Wildlife Area



## WALNUT RIVER BASIN

<u>LAKE NAME</u>	<u>COUNTY NAME</u>	<u>PROJECT NAME</u>	<u>TYPE</u>	<u>CLASS</u>	<u>AL</u>	<u>CR</u>	<u>DS</u>	<u>FP</u>	<u>GR</u>	<u>IW</u>	<u>IR</u>	<u>LW</u>
<b>SUBBASIN: UPPER WALNUT RIVER (HUC 11030017)</b>												
Augusta City Lake	Butler	LM040001	L	GP	E	A	X	X	X	X	X	X
Augusta Santa Fe Lake	Butler	LM041601	L	GP	E	A	X	X	O	X	X	X
El Dorado Lake	Butler	LM033001	L	GP	E	A	X	X	X	X	X	X
Harvey Co. East Lake	Harvey	LM052001	L	GP	E	A	X	X	O	X	X	X
<b>SUBBASIN: LOWER WALNUT RIVER (HUC 11030018)</b>												
Butler Co. SFL	Butler	LM049401	L	GP	E	B	X	X	O	X	X	X
Winfield City Lake	Cowley	LM050801	L	GP	E	A	X	X	X	X	X	X
Winfield Park Lagoon	Cowley	LM072301	L	GP	E	B	X	X	X	X	X	X

Proposed

### SECTION THREE

#### MISCELLANEOUS SURFACE WATERS CONSTITUTING OUTSTANDING NATIONAL RESOURCE WATERS

**Surface waters identified below shall be classified as outstanding national resource waters:**

- (1) Cimarron National Grasslands (Morton and Stevens counties); classification applies to all surface waters within national grasslands.

Proposed

## SECTION FOUR

### MISCELLANEOUS SURFACE WATERS CONSTITUTING SPECIAL AQUATIC LIFE USE WATERS

**Surface waters identified below shall be designated as special aquatic life use waters:**

- (1) All oxbow lakes and wetlands within that portion of Allen County encompassed by a line that extends from latitude 37.7471, longitude 95.4336 west to latitude 37.7471, longitude 95.4600, then south to latitude 37.7400, longitude 95.4600, then east to latitude 37.7400, longitude 95.4433, then south to latitude 37.7329, longitude 95.4430, then east to latitude 37.7329, longitude 95.4338, then north to point of origin.
- (2) All wetlands within that portion of Allen County encompassed by a line that extends from latitude 37.9220, longitude 95.4090 west to latitude 37.9216, longitude 95.5190, then south to latitude 37.8199, longitude 95.5190, then east to latitude 37.8199, longitude 95.4102, then north to point of origin.
- (3) All wetlands within that portion of Anderson County encompassed by a line that extends from latitude 38.2130, longitude 95.2596 west to latitude 38.2130, longitude 95.4255, then south to latitude 38.1108, longitude 95.4260, then east to latitude 38.1103, longitude 95.2621, then north to point of origin.
- (4) All wetlands within that portion of Atchison County encompassed by a line that extends from latitude 39.5355, longitude 95.5153 west to latitude 39.5355, longitude 95.5528, then south to latitude 39.5210, longitude 95.5528, then east to latitude 39.5210, longitude 95.5153, then north to point of origin.
- (5) All cave waters and associated springs within that portion of Cherokee County encompassed by a line that extends from latitude 37.0745, longitude 94.6177 west to latitude 37.0745, longitude 94.7402, then south to latitude 36.9985, longitude 94.7402, then east to latitude 36.9985, longitude 94.6177, then north to point of origin.

- (6) All wetlands within those portions of Cherokee and Labette counties encompassed by a line that extends from latitude 37.3379, longitude 94.6177 west to latitude 37.3379, longitude 94.7055, then south to latitude 37.1778, longitude 94.7045, then west to latitude 37.1787, longitude 95.0862, then south to latitude 36.9994, longitude 95.0862, then east to latitude 36.9985, longitude 94.6177, then north to point of origin.
- (7) All wetlands within that portion of Douglas County encompassed by a line that extends from latitude 38.9279, longitude 95.2232 west to latitude 38.9279, longitude 95.2415, then south to latitude 38.9136, longitude 95.2415, then east to latitude 38.9136, longitude 95.2232, then north to point of origin.
- (8) All wetlands, oxbow lakes and classified streams within that portion of Linn County encompassed by a line that extends from latitude 38.3742, longitude 94.6130 west to latitude 38.3742, longitude 94.8440, then south to latitude 38.1382, longitude 94.8425, then east to latitude 38.1389, longitude 94.6130, then north to point of origin.
- (9) All wetlands within that portion of Woodson County encompassed by a line that extends from latitude 37.8219, longitude 95.8520 west to latitude 37.8219, longitude 95.8704, then south to latitude 37.8069, longitude 95.8707, then east to latitude 37.8069, longitude 95.8520, then south to latitude 37.7922, longitude 95.8520, then east to latitude 37.7922, longitude 95.8337, then north to latitude 37.8069, longitude 95.8337, then west to latitude 37.8069, longitude 95.8520, then north to point of origin.
- (10) Cheyenne Bottoms Preserve (Barton County); classification applies to all surface waters within the Nature Conservancy wildlife preserve.
- (11) Cimarron National Grasslands (Morton and Stevens counties); classification applies to all surface waters within national grasslands.
- (12) Konza Prairie Natural Area (Geary and Riley counties); classification applies to all surface waters within natural area.
- (13) McPherson Valley Wetlands (McPherson County); classification applies to all surface waters within state owned portions of wetlands.

# 2014 303(d) List of All Impaired/Potentially Impaired Waters Walnut Basin

**11030017**

## Upper Walnut River

Cat.	Stream/Lake	Impaired Use	Impairment	Station	Counties	Body Type	Priority	Comment
5	Walnut River Near El Dorado	Aquatic Life	Dissolved Oxygen	SC279	BU	Watershed	2014	
5	Walnut River Near El Dorado	Aquatic Life	Selenium	SC279	BU	Watershed	2023	Pending flow analysis
5	Augusta City Lake	Aquatic Life	Eutrophication	LM040001	BU	Lake	2014	
5	Augusta Santa Fe Lake	Aquatic Life	Lead	LM041601	BU	Lake	2023	
5	Walnut River Near El Dorado	Aquatic Life	Total Phosphorus	SC279	BU	Watershed	2014	median value: 0.238 > median flag value:0.201
5	Whitewater River At Towanda	Aquatic Life	Total Phosphorus	SC038	HV, BU, SG	Watershed	2014	median value: 0.237 > median flag value:0.201
4a	Augusta Santa Fe Lake	Aquatic Life	Dissolved Oxygen	LM041601	BU	Lake	Medium	TMDL Approved on 9/30/2002
4a	Walnut River Near El Dorado	Recreation	E. coli	SC279	BU	Watershed	High	old FCB vio old FCB vio TMDL Approved on 9/30/2002
4a	Whitewater River At Towanda	Recreation	E. coli	SC038	HV, BU, SG	Watershed	High	old FCB vio TMDL Approved on 9/30/2002
4a	Augusta Santa Fe Lake	Aquatic Life	Eutrophication	LM041601	BU	Lake	Medium	TMDL Approved on 9/30/2002
4a	El Dorado Lake	Aquatic Life	Eutrophication	LM033001	BU	Lake	High	TMDL Approved on 9/30/2002
4a	Harvey Co. East Lake	Aquatic Life	Eutrophication	LM052001	HV	Lake	Medium	TMDL Approved on 9/30/2002
4a	Augusta Santa Fe Lake	Water Supply	Siltation	LM041601	BU	Lake	Medium	TMDL Approved on 9/30/2002
4a	El Dorado Lake	Water Supply	Siltation	LM033001	BU	Lake	High	TMDL Approved on 9/30/2002
3	Harvey Co. East Lake	Aquatic Life	Atrazine	LM052001	HV	Lake		



# 2014 303(d) List of All Impaired/Potentially Impaired Waters Walnut Basin

**11030018**

## Lower Walnut River

Cat.	Stream/Lake	Impaired Use	Impairment	Station	Counties	Body Type	Priority	Comment
5	Eight Mile Creek Near Douglas	Aquatic Life	Dissolved Oxygen	SC704	BU	Watershed	2014	
5	Eight Mile Creek Near Douglas	Aquatic Life	Total Phosphorus	SC704	BU	Watershed	2014	median value: 0.2635 > median flag value:0.201
5	Four Mile Creek Near Gordon	Aquatic Life	Total Phosphorus	SC744	BU, SG	Watershed	2014	median value: 0.296 > median flag value:0.201
5	Walnut River At Gordon	Aquatic Life	Total Phosphorus	SC106	BU	Watershed	2014	median value: 0.234 > median flag value:0.201
4a	Walnut River At Gordon	Aquatic Life	Biology	SC106	BU	Watershed	Medium	TMDL Approved on 9/30/2002
4a	Walnut River Near Hackney	Aquatic Life	Biology	SC532	BU, CL	Watershed	Medium	TMDL Approved on 9/30/2002
4a	Little Walnut River Near Douglas	Recreation	E. coli	SC655	BU	Watershed	High	old FCB vio old FCB vio TMDL Approved on 9/30/2002
4a	Rock Creek Near Rock	Recreation	E. coli	SC654	BU, CL	Watershed	High	old FCB vio old FCB vio TMDL Approved on 9/30/2002
4a	Butler Co. SFL	Aquatic Life	Eutrophication	LM049401	BU	Lake	Medium	TMDL Approved on 9/30/2002
4a	Winfield City Lake	Aquatic Life	Eutrophication	LM050801	CL	Lake	High	TMDL Approved on 9/30/2009
4a	Winfield Park Lagoon	Aquatic Life	Eutrophication	LM072301	CL	Lake	Low	TMDL Approved on 9/30/2002
4a	Four Mile Creek Near Gordon	Water Supply	Sulfate	SC744	BU, SG	Watershed	Low	TMDL Approved on 9/30/2002

# **2014 303(d) List of All Impaired/Potentially Impaired Waters Walnut Basin**

**11030018**

## **Lower Walnut River**

<b>Cat.</b>	<b>Stream/Lake</b>	<b>Impaired Use</b>	<b>Impairment</b>	<b>Station</b>	<b>Counties</b>	<b>Body Type</b>	<b>Priority</b>	<b>Comment</b>
4a	Walnut River At Gordon	Water Supply	Sulfate	SC106	BU	Watershed	Low	insufficient loading to cause SO4 > 250 mg/l
3	Eight Mile Creek Near Douglas	Recreation	E. coli	SC704	BU	Watershed		
3	Timber Creek Near Winfield	Recreation	E. coli	SC653	CL	Watershed		Small sample size
3	Walnut River Near Hackney	Recreation	E. coli	SC532	BU, CL	Watershed		

## **Appendix E-4**

### ***Spring Creek***



**EXPERIENCE** | Transportation



**Looking North at North Branch of Spring Creek beneath Kellogg Bridges**



**Looking North at North Branch of Spring Creek from north Kellogg ROW**





**Looking South at North Branch of Spring Creek beneath Kellogg Bridges**



**Looking West at North Branch of Spring Creek South Side of Kellogg Bridges**



## **Appendix E-5**

### **Kansas L.U.S.T. List**



**EXPERIENCE** | Transportation



U2-087-01069	Lakeview Cemetery	12100 E 13th	Wichita	67206 Sedgwick	Closed	80048	Dw Newcomer Sons	11/17/1992	11/17/1992	6/23/2005	6/23/2005	11/17/1992	gasoline	Spill/Overfill	Travis Kogl, Kathie Travis Kogl	1-500 gal gas ust & 1-500 gal diesel ust & lines removed, contam confined in backfill sand by tight clay, impacted sand removed, excavation will be filled w/ clean material, impacted sand aerated on site, another ust basin-no petrol stains/odors.		37.71	-97.20110	275 02E	
U2-087-13650	Cresview Country Club	1000 N., 127th East	Wichita	67206 Sedgwick	Closed	26872	Cresview Country Club	1/25/2005							Meer Husain	1- 2000 and 1- 560 gallons, steel tanks of 14 years of old were removed. A soil sample from 9' of depth indicated ND level of TPH. Tanks were found to be in good condition. The site is considering closed.	37.70	-97.19114	275 02E		
U2-087-13695	Fuel Up	550 N. Webb Rd.	Wichita	67206 Sedgwick	Monitor	30320	Fiber Trust Properties	6/23/2005	6/23/2005				Gasoline	Piping	Stan Marcotte	FRP line was laying on top of elect. conduit. FRP line eventually ruptured.	37.69	-97.23116	275 02E	Yes	
U2-087-00803	Quik Trip #383	11122 E Central	Wichita	67206 Sedgwick	Closed	07306	Quik Trip Corp	10/2/1991	10/2/1991				gasoline	Piping	Dave Cisewski, B&at Envr	field screening indicated contam, present soil samples from b1 & b2 indicated > hex, over excav and bio remediation recommended. soil & water samples analysis indicates no off-site migration.	37.69	-97.21116	275 02E	Yes	
U2-087-00445	A Kapaun Mt Carmel	8506 E Central	Wichita	67206 Sedgwick	Closed	05762	Kapaun Mt. Carmel	6/5/1990	6/5/1990				fuel oil	Tank	Stan Marcotte	contam, backfill was encountered during the removal of a 4000 gal. ust used to store fuel oil for backup boilers, several corrosion holes were evident along the bottom of both ends at the tank.	37.70	-97.24117	275 02E		
U2-087-00445	B Kapaun Mt Carmel	8506 E Central	Wichita	67206 Sedgwick	Closed	05762		8/2/1991							Travis Kogl	no petroleum odors or stains were encountered during excavation of 1000 gal ust (old gasoline), no corrosion holes were discovered on tank, tank was discovered by workers.	37.70	-97.24117	275 02E		
U2-087-12613	Rock Road 66	8002 E Central	Wichita	67206 Sedgwick	Monitor	19493		4/26/1999					gas		Stan Marcotte	top site analysis report (for addition to ep) indicated 265ppm tpb.	37.69	-97.24117	275 02E	Yes	
U2-087-12375	Beards 66	6402 E Central	Wichita	67206 Sedgwick	Closed	00489	Rog Inc	2/9/1999					used oil		Stan Marcotte	1-560 gal used oil ust removed, stain & odor in backfill, migration restricted by tight clays, soil sample from 7ft had no odor, filed screening indicated tpb =non-detect, closed.	37.69	-97.26118	275 02E		

U2-087-01308	Coastal Mart #9166	7990 E Central	Wichita	67206 Sedgwick	Closed	07223	00425	Coastal Mart	4/25/1994		4/15/1994	gasoline	Spill/Overfill	Kevin Johnson	Kevin Johnson	37.69	-97.2418	275 02E	
			Wichita	67206 Sedgwick	Closed	07223	00425	Coastal Mart	4/25/1994		4/15/1994	gasoline	Spill/Overfill	Kevin Johnson	Kevin Johnson	37.69	-97.2418	275 02E	
U2-087-00123	Beards 66 Service	6402 E Central	Wichita	67206 Sedgwick	Closed	00489	00489	Beard 66 Service	11/28/1988		11/28/1988	regular gasoline	Tank	Sandra Beard	Ralph O'Connor	37.69	-97.2418	275 02E	
			Wichita	67206 Sedgwick	Closed	00489	00489	Beard 66 Service	11/28/1988		11/28/1988	regular gasoline	Tank	Sandra Beard	Ralph O'Connor	37.69	-97.2418	275 02E	
U2-087-11496	Coastal Mart #9198	6485 E 13th	Wichita	67206 Sedgwick	Closed	07239	03006	Coastal Mart Inc	3/18/1997			gas	Tank		Stan Marconte	37.71	-97.2418	275 02E	Yes
			Wichita	67206 Sedgwick	Closed	07239	03006	Coastal Mart Inc	3/18/1997			gas	Tank		Stan Marconte	37.71	-97.2418	275 02E	Yes
U2-087-14349	Presto #42	7990 E Central	Wichita	67206 Sedgwick	Closed	07223	00425	Waller Morris Investment Co.	3/1/2011						Stan Marconte	37.69	-97.2418	275 02E	
			Wichita	67206 Sedgwick	Closed	07223	00425	Waller Morris Investment Co.	3/1/2011						Stan Marconte	37.69	-97.2418	275 02E	
U2-087-10485	Beard Oil Co	6402 E Central	Wichita	67206 Sedgwick	Monitor	00489			8/1/1995		7/17/1995	gasoline/diesel		Kyle Parker	Kyle Parker	37.69	-97.2418	275 02E	Yes
			Wichita	67206 Sedgwick	Monitor	00489			8/1/1995		7/17/1995	gasoline/diesel		Kyle Parker	Kyle Parker	37.69	-97.2418	275 02E	Yes
U2-087-13511	Wichita Country Club	8501 E. 13th St.	Wichita	67206 Sedgwick	Closed	82509	82509	Wichita Country Club	1/23/2004		1/23/2004	Diesel		Meer Hussain	Meer Hussain	37.71	-97.2418	275 02E	
			Wichita	67206 Sedgwick	Closed	82509	82509	Wichita Country Club	1/23/2004		1/23/2004	Diesel		Meer Hussain	Meer Hussain	37.71	-97.2418	275 02E	
U2-087-11294	Coastal Mart #9189, Wichita	8330 E Kellogg	Wichita	67206 Sedgwick	Closed	07233	00284	Coastal Mart Inc	7/21/1995						Stan Marconte	37.68	-97.2420	275 02E	
			Wichita	67206 Sedgwick	Closed	07233	00284	Coastal Mart Inc	7/21/1995						Stan Marconte	37.68	-97.2420	275 02E	

U2-087-10363	Quik Trip #253	8035 E Central	Wichita	67206 Sedgewick	Closed	07285	07247	Quiktrip Corporation	10/2/1992	9/15/1992	gasoline	Spill/Overfill	Wj Ahermally, Bdat Envir Inc	Meer Husain	One 6,000 and one 10,000 gallon gasoline USTs and lines were removed. There was contamination discovered be cause of overfill. About 300 yards of soil was excavated and transported to a nearby site for bioremediation. A field analysis showed that ther	37.69	-97.2420	275 02E	
U2-087-10366	Coastal Mart #9189, Wichita	8330 E Kellogg	Wichita	67206 Sedgewick	Closed	07233	00284	Coastal Mart Inc.	5/4/1995	5/4/1995	gasoline		Susan Turner	Stan Marconte	Five gasoline and one waste oil USTs exist on the site. The gasoline is seeping into a brick-lined sanitary sewer manhole. The tank system was tightness tested and the SIR indicated that the current system is tight.	37.68	-97.2420	275 02E	Yes
U2-087-11425	Raytheon, Bldg 22, Plant 3	9709 E Central	Wichita	67206 Sedgewick	Closed	23815	23815		1/8/1997				John Baker	Kyle Parker	100 gal gas ust removed. boring to 8ft. moderate odor. samples collected for analysis. monitoring network installed. no btx contaminant.	37.69	-97.2221	275 02E	
U2-087-11424	Raytheon, Bldg 22, Pumphouse	9709 E Central, Bldg 22	Wichita	67206 Sedgewick	Closed	23815	23815		1/8/1997					Kyle Parker	removed 1,350 gal diesel ust previously abandoned in place. boring to 4ft. sands were black. only w/strong diesel odor. sample for analysis. monitoring network installed indicates no btx contamination.	37.69	-97.2221	275 02E	
U2-087-13653	Moo To You Miami Subs	11333 E. Central	Wichita	67206 Sedgewick	Closed	30032	27753	Moo To You, Inc.	2/11/2005					Stan Marconte	No odors or stains were encountered during the removal of a 20,000 gallon compartment FRP tank. Field screening of backfill and from samples taken ~ 1' below basin floor indicated ND levels of contamination. Closed.	37.69	-97.2122	275 02E	
U2-087-00370	Cresview Country Club	1000 N 127th E	Wichita	67206 Sedgewick	Closed	26872	26872	Cresview Country Club	3/22/1990	3/27/1990	gasoline	Spill/Overfill	Stan Marconte	Stan Marconte	a small amount of low level contam (~150-200 ppm tpb) was encountered near the fill pipe end of the ust during removal.	37.70	-97.19		
U2-087-14384	Petro America QuikMart (Former)	8008 E. 21st	Wichita	67206 Sedgewick	Closed	28460	28460	Regency Land Company, LLC	6/24/2011		Gasoline	Piping		Stan Marconte	This site was previously in the trust fund and closed under KRBCA in 2005. Strong petroleum odors and staining were evident in the tank basin upon removal of the 3 USTs and near the NE dispenser. Field screening indicated TPH > 2500 ppm. Over excavati	37.72	-97.24		
U2-087-12066	Target #92	301 S Armour	Wichita	67207 Sedgewick	Closed	25707	25706	Target	7/15/1998		n/a			Meer Husain	1,300 gal diesel ust removed. soil & water sample collected from basin. nd for tpb or btx. no further action. closed.	37.68	-97.2519	275 01E	
U2-087-00991	Amoco #8885, Wichita	7210 E Kellogg	Wichita	67207 Sedgewick	Closed	25204	06456	Amoco Oil	7/12/1991	5/21/1991	gasoline		Eneco Tech	Travis Kogl	4 mw's drilled. tpb in soil samples from boring = 10.8 to 1310. gw also contaminated. (highest btx=11700ppb from mw 2). 4 gas usts & 1 waste oil ust remain on site.	37.68	-97.2519	275 01E	Yes





U2-087-00999	Firestone	7700 E Kellogg	Wichita	67207	Sedgwick	Closed	29781	29778		8/6/1992			gasoline	Other	Joe Stal-smith	Travis Kogl	soil boring around 3 abandoned usts systems indicated contamination ground water does not seem to have been affected.	02/17/98: site assigned hold status	37.68	-972219	275 02E	
U2-087-00961	Town & Country #21	438 S Rock Road	Wichita	67207	Sedgwick	Closed	06959	02796	Town & Country Market Inc	6/14/1990		4/25/1990	gasoline		Daryl Fischer		contam soil had been removed. Kille requested town & country to conduct detailed investigation to delineate the onsite & offsite contaminant plumes, leakage possibly took place due to overfill practices.	Closed under KRBCA Tier 3A in July, 2007.	37.68	-972219	275 02E	Yes
U2-087-00998	Sears # 161	7700 E Kellogg	Wichita	67207	Sedgwick	Active	27614	27780	Sears	8/5/1992			gasoline		Joe Stal-smith	Travis Kogl	soil boring investigation of town east mall revealed petrol, releases around sears usts & lines. 12 mw's installed (in deeper aquifer). 5820 ppb benzene in shallow aquifer, phase 1 & 2 on file.	02/17/98: site assigned hold status.	37.68	-972219	275 02E	
U2-087-00985	Us Postal Serv, Corporate Hills	9350 Corporate Hills Drive	Wichita	67207	Sedgwick	Closed	23230	07160		7/27/1992			gasoline		Amy Sommermyer, Versar	Travis Kogl	1-10000 gal test & lines removed, gas impacted soils. 1 excav done to remove soil. after removing 900 yds3 materials, lab samples tpb below 1al levels, 54ppm tpb high, contam still in bedding planes/fractures, mw attempt ended 28 w/ gypsum bed encou		37.68	-972220	275 02E	
U2-087-13045	Us Postal Serv, Corporate Hills	9350 E Corporate Hills Dr	Wichita	67207	Sedgwick	Closed	23230	07160	Us Postal Service	2/23/2001			n/a		Meer Husain		One 10,000 gallon UST was removed. None of the samples were greater than Kansas Action Levels.		37.68	-972220	275 02E	
U2-087-13431	Coastal 201	8330 E Kellogg	Wichita	67207	Sedgwick	Closed	07233	00284	M & V Petroleum	6/17/2003					Stan Marconte		Although significant contamination is present-it does not appear to be associated w/ current tank system, and will be addressed through the current trust fund project U2-087- 10366. This site is in the trust fund as Coastal Mart 9189, U2-087-10366. This	Although significant contamination is present-it does not appear to be associated w/ current tank system, and will be addressed through the current trust fund project U2-087- 10366. This site is in the trust fund as Coastal Mart 9189, U2-087-10366. This	37.68	-972420	275 02E	
U2-087-01368	Pizza Hut Corporate Office	9111 E Douglas	Wichita	67207	Sedgwick	Closed	29386	27738	Pizza Hut, Inc.	5/14/1992		5/14/1992	gasoline	Piping	Jim Umrah	Stan Marconte	Soil borings and two monitoring wells were installed. A field screening and lab results indicate contamination in the soil and ground water. This appears to be isolated in the area of the former pump islands. Benzene levels in monitoring well #1 are 4	Site closed by district staff in Dec. 2008.	37.68	-972220	275 02E	
U2-087-00153	Fina #9498, Wichita	102 N Rock Rd	Wichita	67207	Sedgwick	Closed	81764	81764	Fina Oil And Chemical Co.	5/3/1989		12/1/1988	gasoline	Piping	Groundwater Technology	Kyle Parker	The line testing indicated a leak in one of the steel product distribution lines. The line was replaced with a new one.	Site closed by district staff under KRBCA Tier 3B in April, 2005.	37.69	-972420	275 02E	Yes
U2-087-13825	Wichita Marriott	9100 Corporate Hills Drive	Wichita	67207	Sedgwick	Closed	28340	28340	Corporate Hills, LLC.	7/5/2006					Stan Marconte		No petroleum odors or stains were encountered during the removal of a 800 gal. diesel UST. Field screening indicated ND levels of TPH.	No petroleum odors or stains were encountered during the removal of a 800 gal. diesel UST. Field screening indicated ND levels of TPH.	37.68	-972220	275 02E	

U2-087-11243	Universal Quick Mart #6	11134 E Kellogg	Wichita	67207	Sedgwick	Monitor	26509	23287	Universal Motor Fuels Inc	11/8/1996		gas & diesel		Stan Marconte	assess. for property transaction. 1 mw contam. in gw > nels. 1 mw close to pump islands = 15,350ppb benz. applying for t.f. 04.00: 3-8000 gal & 1-8000 diesel usts removed. partial dig- out. new mw's to be installed. strong odors in tank basi	04.00s site being redeveloped with a wendy's & new c- store to be relocated to the north. partial dig-out to remove worst of contam.	37.68	-97.2121	275 02E	Yes
U2-087-01266	Witman Imports	11212 E Kellogg	Wichita	67207	Sedgwick	Closed	19882	29178		12/20/1993				Kevin Johnson	5-ust removed. all tanks were steel and had no visible defects. two soil samples were taken from the ust basin. both samples indicated non- detectable levels of tph using drager tubes. this site is considered closed.		37.68	-97.2122	275 02E	
U2-087-01166	Schofield Body Shop	11516 E Kellogg	Wichita	67207	Sedgwick	Closed	25786	27337	Schofield Bros. Inc.	5/10/1993				Travis Kogl	2-10000 gal gas usts removed. samples from the base of ust excavation were nd for tph with drager. no petrol stains or odors were noted in stockpiled backfill. no corrosion holes were observed in the removed usts.		37.68	-97.2022	275 02E	
U2-087-00526	Quik Trip #366	1620 S Webb Road	Wichita	67207	Sedgwick	Closed	07291	07247		9/24/1990	gasoline			Ralph O'comor	backfill material was tested at a former tank pit where tanks were removed in may 1988. consultant report is available at the scdo, wichita, kansas. permanently removed.		37.66	-97.2328	275 02E	
U2-087-00493	Shocker Mobil Homes	11051 E Kellogg	Wichita	67207	Sedgwick	Closed	20042	20042	Shocker Mobil Homes	8/15/1990				Ralph O'comor	1000 gallon gasoline tank 2-4000 gas, 1-4000 diesel, 1- 3000 used oil usts removed. staining from waste oil evident -fill pipe & down to liner. ~10 yds contam. sandremoved. no odor under liner. 20ppm tph. diesel odor throughout basin. backfill removed to ~12ft & spread. sample nd		37.68	-97.2128	275 02E	
U2-087-11788	AAA Rent All	9707 E Orne	Wichita	67207	Sedgwick	Closed	28372	43328	KS Enterprises	11/14/1997	waste oil, diesel	Spill/Overfill		Stan Marconte	site assess by land owner indicated 400ppb benzene in gw. 3 gas usts removed. slight odor/ tph ~200 found at 16' at e end of basin. strong odor found at middle of basin where sub- pumps for 2 tanks placed end- end. test pit excav here & samples reveal 19 ~		37.68	-97.2228	275 02E	
U2-087-11159	Groves Gas (liquor Store)	9601 E Kellogg	Wichita	67207	Sedgwick	Closed	00529	00529		7/15/1996	gasoline			Stan Marconte	site assess by land owner indicated 400ppb benzene in gw. 3 gas usts removed. slight odor/ tph ~200 found at 16' at e end of basin. strong odor found at middle of basin where sub- pumps for 2 tanks placed end- end. test pit excav here & samples reveal 19 ~	sta performed, site put into monitoring in april 1999 by must fund staff. Closed under KRBCA Tier 3A in Jan. 2011.	37.68	-97.2328	275 02E	Yes
U2-087-01064	Km, E Wichita Interchange	E Wichita Interchange	Wichita	67207	Sedgwick	Closed	26575	26564	Kansas Turnpike Authority(uta)	10/28/1992	gasoline/diesel	Piping		Meer Husain	2-6000 gas & 1-1000 diesel usts & lines removed. drager- fill sand of gas ust= tph - 800ppm. another french material of distrib line =300ppb. fill mat of diesel- highly saturated. contam sand/clay removed. aeration/bioremed technique used.			29	275 02E	
U2-087-00808	Joe Self Chevy	8801 E Kellogg	Wichita	67207	Sedgwick	Closed	23948	23948		10/16/1991	gasoline	Spill/Overfill		Travis Kogl	excvt 1: ~4000 gal gas ust & lines removed. backfill had petrol odors& was removed for aeration. excvt 2: 1-1000 gal waste oil ust & lines removed. petrol odors beneath ust. clay removed to 16.5' were odors subsided. tph = <50 ppm. from old ust leak.		37.68	-97.2329	275 02E	



U2-087-00124	U2-087-00124	7000 Cottonwood	Wichita	67207	Sedgwick	Closed	08908	08835	Used #259	11/17/1988	11/15/1988	#2 diesel fuel	Piping	Dave Goodwin	Stan Marcotte	tank had been pumped out and abandoned approx. 1 year ago, contaminated backfill material near 1 end of the tank was discovered during tank removal.	37.67	-97.2530	275 02E	
U2-087-00123	U2-087-00123	7333 E Kellogg	Wichita	67207	Sedgwick	Closed	13999	13999	Eddy's Toyon Of Wichita, Inc.	5/18/1994	5/18/1994	gasoline, diesel		Stan Marcotte	Kevin Johnson	slight/moderate diesel odors and moderate/strong gasoline odors encountered during removal of 2-10,000 gal usts, most contam appeared to be restricted to sand backfill, soil samples from 14' had no odors and nd tph, applying to ff. (more)...	37.68	-97.2530	275 02E	Yes
U2-087-00166	U2-087-00166	7923 E. Lincoln	Wichita	67207	Sedgwick	Closed	09173	08598	City of Wichita	7/24/2009					Kyle Parker	Field Tests of floor of excavation tested "Non-Detect" for TPH. Some minor odor was indicated in stock piled backfill, however it also tested ND. Water entrapped in the excavation exhibited no sheen or odor.	37.67	-97.2430	275 02E	
U2-087-001242	U2-087-001242	6813 E Harry	Wichita	67207	Sedgwick	Closed	19224	43328	Rental World Inc	10/25/1993	10/25/1993	gasoline/kerosene	Other	Meer Husan	Kevin Johnson	3-usr removed, bottom of gas/diesel tank area (13')= 900 ppm/200 ppm, 16'-90ppm, bottom of kerosene tank area (13')=300 ppm 18'= 140ppm, 20'=120ppm, owner requested trust fund app, soil was put back into tank area, trust fund was provided.	37.66	-97.2631	275 02E	Yes
U2-087-0013921	U2-087-0013921	6701 E Harry	Wichita	67207	Sedgwick	Closed	29883	29883	Fuel Managers	5/25/2007	5/25/2007	Gasoline	Other	Stan Marcotte	Stan Marcotte	Backfill (line screenings) had staining and strong gasoline odors. Sidewalks of basin also showed staining. Water was in the basin and a sample below the water had moderate to strong odors and staining. TPH was only about 100 ppm probably due to being	37.66	-97.2631	275 02E	Yes
U2-087-001358	U2-087-001358	8001 E Harry	Wichita	67207	Sedgwick	Closed	25214	27742	Amoco Oil Co.	8/25/1994					Kevin Johnson	1-560 gal waste oil ust removed, no stain/odor, dragger tube analysis indicated non-detectable levels of tph, site closed, however, 3 active usts remain on site.	37.66	-97.2432	275 02E	
U2-087-001246	U2-087-001246	2106 S Rock Road	Wichita	67207	Sedgwick	Closed	07301	07247	Quick Trip Corp	10/15/1993	10/15/1993	gasoline		David Cisewski	Meer Husan	1-usr removed, 3-10000 gal steel das tanks are located at this site, bex based on soil sample of b-1, b-3, c-4 & t-6 ranged from 3.9 to 13.6 ppb, however high benzene & bex, contam were detected in water samples, further invest will be required to	37.66	-97.2432	275 02E	Yes
U2-087-00156	U2-087-00156	8001 E Harry	Wichita	67207	Sedgwick	Closed	25214	27742	Amoco Oil Company	5/18/1993		gas	Other		Stan Marcotte	7/98: 3-12,000 gas usts removed, some staining, facility now known as total #1836. Site closed under KRBCA Tier 3B in May, 2005.	37.66	-97.2432	275 02E	Yes



U2-087-00185	Sedgwick Co Central Motor Pool	2200 S Webb	Wichita	67207	Sedgwick	Closed	09089	08719	Sedgwick County	11/13/1989	11/13/1989	diesel, gasoline	Piping	Stan Marcotte	Stan Marcotte	slightly contaminated backfill around tank, soil sample from 12' indicated 30 ppm tph, the more serious contamination appeared to be along the line trench and under the pump island which would indicate a line leak or spill at the pump.	37.65	-97.22333	275	02E
A2-087-0462	Former King Louie Enterprises/Kinkaid Bus Facility	8301 Oak Knoll	Wichita	67207	Sedgwick	Active	82901	82901		12/12/2013	#####	Gasoline/Diesel	Unknown	Chris Carey	Roger Bocken	Historical reports indicate a diesel fuel AST was located where a former fueling facility was located on the western portion of the property.		05	285	02E
U2-087-12429	Kinsaid Coach	8301 Oak Knoll	Wichita	67207	Sedgwick	Active	26317	26317	King Louie Enterprises	2/18/1999	diesel				Meer Husain	Uncooperative Owner/Operator, District office recommends hold status until future possible property transaction prompts cooperation.	37.65	-97.2405	285	02E
U2-087-01205	Seven Chrysler Plymouth	7127 E Kellogg	Wichita	67207	Sedgwick	Closed	27573	27573		8/10/1993	waste oil	Tank		Meer T. Husain	Meer Husain	1-500 gal steel waste oil tank of 30 yrs old was removed, tank was found in good condition. 1 tph measurement on the bottom of tank basin indicated <50 ppm, no further investigation action will be required at this site, closed site.	37.68	-97.25		
U2-087-11202	Fire Station #8, Wichita	1010 N 143 St E	Wichita	67230	Sedgwick	Closed	28252	07728	Sedgwick County	10/22/1996					Stan Marcotte	1 gas & 1 diesel ust removed, no odor/staining, tph = nd, closed.	37.70	-97.1713	275	02E

## **Appendix E-6**

### ***Endangered Species***



**EXPERIENCE** | Transportation

N/A



## Kansas Department of Wildlife, Parks and Tourism

[Print This Page](#)
[Back to Site](#)

### ARKANSAS DARTER

**KANSAS:** Threatened

**FEDERAL:** Candidate

**Scientific Name:** *Etheostoma cragini*

**CATEGORY:** T&E

**SPECIES CLASS:** Fishes

**Date Listed:** T 1987

**Recovery Plan:** Yes



Joseph T. Collins

#### SPECIES DESCRIPTION

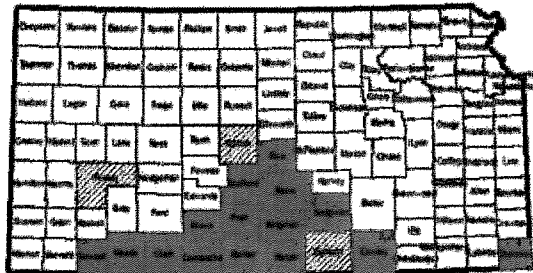
Reaching a maximum size of 2.5 inches, the Arkansas Darter is a stout-bodied member of the perch family. They are olivaceous brown above and yellowish white below with six to nine indistinct dusky saddles over the back. During spawning, males are a colorful orange along their lower abdomen.

Arkansas Darters prefer shallow, clear, spring-fed tributary and headwater streams having sand or sandy-gravel substrates. The fish are almost invariably associated with vegetative cover in spring-fed channels and generally are found in near-shore areas away from swift currents. Because of its specialized habitat requirements, this darter is localized within its range but may be quite common where it does occur.

Viable populations of Arkansas Darters are currently known only in suitable streams south of the Arkansas River in southcentral Kansas and in Spring River drainage in Cherokee County. The darter's range extends into eastern Colorado, southwestern Missouri, northeastern Arkansas and northcentral Oklahoma where local populations occur. Kansas constitutes the Arkansas Darter's primary range.

#### SPECIES PROTECTION AND CRITICAL HABITATS:

Arkansas Darters are protected by the Kansas Nongame and Endangered Species Conservation Act and administrative regulations applicable thereto. Any time an eligible project is proposed that will impact the species' preferred habitats within its probable range, the project sponsor must contact the Ecological Services Section, Kansas Department of Wildlife Parks and Tourism, 512 SE 25th Ave., Pratt, Kansas 67124-8174. Department personnel can then advise the project sponsor on permit requirements.



#### DESIGNATED CRITICAL HABITATS

As defined by Kansas Administrative Regulations, critical habitats include those areas documented as currently supporting self-sustaining population(s) of any threatened or endangered species of wildlife as well as those areas determined by the Kansas Department of Wildlife, Parks and Tourism to be essential for the conservation of any threatened or endangered species of wildlife. Currently, the following areas are designated critical for Arkansas Darter:

- (1) The main stem of the North Fork Ninescah River on the Stafford/Reno County line (Sec. 31-T24S-R10W) to its confluence with South Fork Ninescah River in Sedgwick County (Sec. 36-T28S-R4W).
- (2) The main stem of the South Fork Ninescah River on the Sedgwick/Kingman County line (Sec. 19-T28S-R4W) to the confluence with the North Fork Ninescah River (Sec. 36-T28S-R4W) in Sedgwick County.
- (3) That reach of the main stem Spring River from the Kansas-Missouri border (Sec. 1-T33S-R25E) to where it crosses SE Lostine Road (Sec. 3-T34S-R25E).
- (4) Numerous perennial spring-fed reaches of named and unnamed streams south of the Arkansas River within Barber, Clark, Comanche, Cowley, Harper, Kingman, Kiowa, Meade, Pratt, Reno, Rice, Sedgwick, Seward and Stafford counties. Contact the Department's Environmental Services Section for further information.

The following counties contain critical habitat for ARKANSAS DARTER:

Barber  
Cherokee  
Clark  
Comanche  
Cowley

HP

Harper  
Kingman  
Kiowa  
Meade  
Pratt  
Reno  
Rice  
Sedgwick  
Seward  
Stafford



[Email Page](#)



[Printable Version](#)

NM



# Kansas Department of Wildlife, Parks and Tourism

[Print This Page](#)
[Back to Site](#)

## ARKANSAS RIVER SHINER

**KANSAS:** Endangered

**FEDERAL:** Threatened

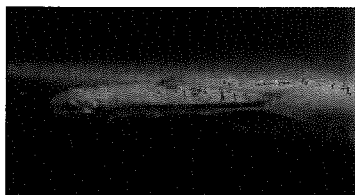
**Scientific Name:** *Notropis girardi*

**CATEGORY:** T&E

**SPECIES CLASS:** Fishes

**Date Listed:** E 1987

**Recovery Plan:** No



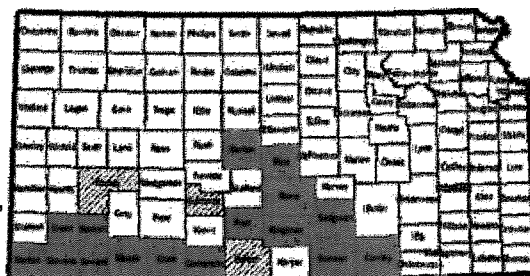
Garold Sneegas

### SPECIES DESCRIPTION

This small (usually less than 2 inches) shiner is straw-colored with silvery sides. Scattered brown flecks occur on its sides behind the head. The anal fin has 8 rays compared to 7 on other shiner species found in the same habitat. The Arkansas River Shiner formerly occurred throughout the Arkansas River main stem and in that river's major right bank tributary basins. The fish is extremely dependent upon flood flows from June through August to successfully spawn. Declining streamflows have now restricted its probable range in Kansas to a few stream reaches within the Lower Arkansas, Salt Fork Arkansas and Cimarron basins. The fish occurs in the upper reaches of the Cimarron River only during high streamflow events.

### SPECIES PROTECTION AND CRITICAL HABITATS:

Arkansas River Shiners are protected by the Kansas Nongame and Endangered Species Conservation Act, the Federal Endangered Species Act, and state and federal regulations applicable to those acts. Any time an eligible project is proposed that will impact the species' preferred habitats within its probable range, the project sponsor must contact the Ecological Services Section, Kansas Department of Wildlife, Parks and Tourism, 512 SE 25th Ave., Pratt, Kansas 67124-8174. Department personnel can then advise the project sponsor on permit requirements.



### DESIGNATED CRITICAL HABITATS

As defined by Kansas Administrative Regulations, critical habitats include those areas documented as currently supporting self-sustaining population(s) of any threatened or endangered species of wildlife as well as those areas determined by the Kansas Department of Wildlife, Parks and Tourism to be essential for the conservation of any threatened or endangered species of wildlife. Currently, the following areas are designated critical for Arkansas River Shiners:

- (1) All reaches of the main stem Cimarron River located within the state.
- (2) The main stem Arkansas River from the U.S. Highway 281 crossing Sec. 33, T19S, R13W, Barton County to the Kansas-Oklahoma border in Sec. 18, T35S, R5E, Cowley County.
- (3) The main stem South Fork Ninnescah River and main stem Ninnescah from the Pratt County Lake in Sec. 7, T28S, R12W, Pratt County to the Ninnescah-Arkansas confluence in Sec. 25, T31S, R2E, Sumner County.

The following counties contain critical habitat for ARKANSAS RIVER SHINER:

Barton  
Clark  
Comanche  
Cowley  
Grant  
Haskell  
Kingman  
Meade  
Morton

Pratt  
Reno  
Rice  
Sedgwick  
Seward  
Stevens  
Sumner

 [Email Page](#)

 [Printable Version](#)



N/A



# Kansas Department of Wildlife, Parks and Tourism

[Print This Page](#)
[Back to Site](#)

## EASTERN SPOTTED SKUNK

**KANSAS:** Threatened

**FEDERAL:** N/A

**Scientific Name:** *Spilogale putorius*

**CATEGORY:** T&E

**SPECIES CLASS:** Mammals

**Date Listed:** T 1987

**Recovery Plan:** Yes



### SPECIES DESCRIPTION

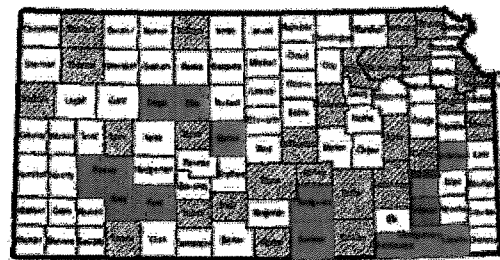
This small (16-23 inches) skunk is more weasel-like in body shape than the more familiar striped skunk. The Spotted Skunk's strips are broken in pattern, giving it a "spotted" appearance.

Spotted Skunks seem to prefer forest edges and upland prairie grasslands, especially where rock outcrops and shrub clumps are present. In western counties, it relies heavily on riparian corridors where woody shrubs and woodland edges are present. Woody fencerows, odd areas, and abandoned farm buildings are also important habitat for Spotted Skunks.

Spotted Skunks may occur in suitable habitat anywhere in the state. The marked counties are those for which occurrence has been documented or within which critical habitat has been designated.

### SPECIES PROTECTION AND CRITICAL HABITATS:

Eastern Spotted Skunks are protected by the Kansas Nongame and Endangered Species Conservation Act and administrative regulations applicable thereto. Any time an eligible project is proposed that will impact the species' preferred habitats within its probable range, the project sponsor must contact the Ecological Services Section, Kansas Department of Wildlife, Parks and Tourism, 512 SE 25th Ave., Pratt, Kansas 67124-8174. Department personnel can then advise the project sponsor on permit requirements.



### DESIGNATED CRITICAL HABITATS

As defined by Kansas Administrative Regulations, critical habitats include those areas documented as currently supporting self-sustaining population(s) of any threatened or endangered species of wildlife as well as those areas determined by the Kansas Department of Wildlife, Parks and Tourism to be essential for the conservation of any threatened or endangered species of wildlife.

Currently, the following areas are designated critical for Eastern Spotted Skunks:

- (1) All suitable habitat within Barton, Anderson, Woodson, Wilson, Chautauqua, Montgomery, and Labette counties.
- (2) All suitable habitats within the Cowskin Creek and Big Slough drainage basins located in Sedgwick and Sumner counties.
- (3) All suitable habitat within a riparian corridor along the main stem Arkansas River in Finney, Ford, and Gray counties. The corridor's outermost boundary is along a line 0.5 mile landward from the named stream's ordinary high water mark on each bank.
- (4) All suitable habitats within the Big Creek drainage basin located in Ellis and Trego counties.

The following counties contain critical habitat for EASTERN SPOTTED SKUNK:

Anderson  
Barton  
Chautauqua  
Ellis  
Finney  
Ford  
Gray

PA

Labette  
Montgomery  
Sedgwick  
Sumner  
Trego  
Wilson  
Woodson

 [Email Page](#)

 [Printable Version](#)

N/A



# Kansas Department of Wildlife, Parks and Tourism

[Print This Page](#)

[Back to Site](#)

## ESKIMO CURLEW

**KANSAS:** Endangered

**FEDERAL:** Endangered

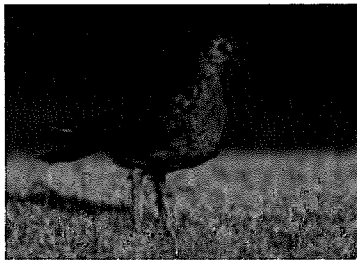
**Scientific Name:** *Numenius borealis*

**CATEGORY:** T&E

**SPECIES CLASS:** Birds

**Date Listed:** E 1987

**Recovery Plan:** No



### SPECIES DESCRIPTION

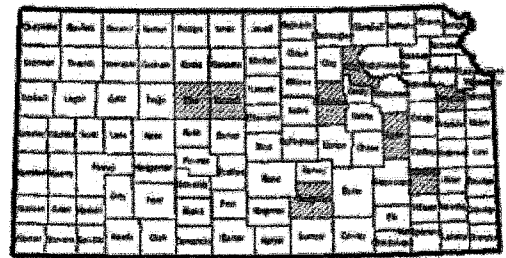
The Eskimo Curlew is an upland shorebird and the smallest of the North American curlews. It is 12-14 inches long, including its 2-2.5 inch slightly decurved bill, and has a 26-30 inch wingspread. Its general color is buff to pale cinnamon-brown, darker on the back and lighter below. There is a very light stripe over the eye. The bill is black and legs are dark green.

Eskimo Curlews were formerly a regular spring transient through the eastern half of the state. When resting or foraging, the birds preferred plowed fields heavily grazed or burned-over grasslands, and prairie-dog towns where they fed on invertebrates.

Historically, Eskimo Curlews have only been recorded in the marked counties, but they undoubtedly did occur over all the eastern two-thirds of Kansas during migration. The last verified sighting in Kansas was from a Wichita resident in 1902.

### SPECIES PROTECTION AND CRITICAL HABITATS:

Eskimo Curlews are protected by the Kansas Nongame and Endangered Species Conservation Act, the Federal Endangered Species Act, and state and federal regulations applicable to those acts. Any time a project is proposed that will impact the species' preferred habitats within its probable range, the project sponsor must contact the Ecological Services Section, Kansas Department of Wildlife, Parks and Tourism, 512 SE 25th Ave., Pratt, Kansas 67124-8174. Department personnel can then advise the project sponsor on permit requirements under Kansas' statutes. Sponsors of projects impacting Eskimo Curlew habitats must also contact the Endangered Species Specialist, U.S. Fish and Wildlife Service, 315 Houston Street, Suite E, Manhattan, Kansas 66502.



### DESIGNATED CRITICAL HABITATS

As defined by Kansas Administrative Regulations, critical habitats include those areas documented as currently supporting self-sustaining population(s) of any threatened or endangered species of wildlife as well as those areas determined by the Kansas Department of Wildlife, Parks and Tourism to be essential for the conservation of any threatened or endangered species of wildlife.

Eskimo Curlews formerly migrated through Kansas in the Spring. There have been no sightings in Kansas since 1902. Department of Wildlife & Parks personnel investigate all reported sightings, but the bird is considered extirpated from the state. There is currently no designated critical curlew habitat in the state.

The U.S. Fish and Wildlife Service also has authority to designate areas of critical habitat for federally listed endangered species, but has not done so for Eskimo Curlew in Kansas.

The following counties contain critical habitat for ESKIMO CURLEW:  
There are no related objects.

[Email Page](#)

[Printable Version](#)

N/A



# Kansas Department of Wildlife, Parks and Tourism

[Print This Page](#)
[Back to Site](#)

## LEAST TERN

**KANSAS:** Endangered

**FEDERAL:** Endangered

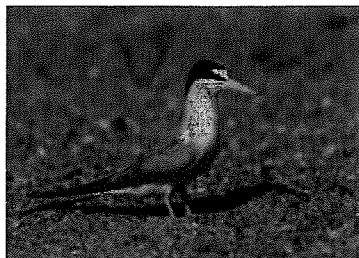
**Scientific Name:** *Sterna antillarum*

**CATEGORY:** T&E

**SPECIES CLASS:** Birds

**Date Listed:** T 1978; E 1987

**Recovery Plan:** No



### SPECIES DESCRIPTION

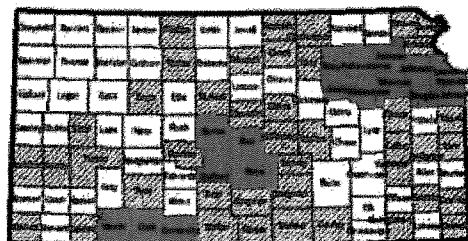
This smallest of the North American terns is 8-10 inches long with a wingspread of about 20 inches. The adult is white below and grayish above with a black cap and white forehead. The leading edge of the wing primaries is also black.

Least Terns are summer residents in Kansas. Nesting birds have been recorded in six central and western Kansas counties, Jeffery Energy Center and along the Kansas River. Terns require barren areas near water such as saline flats in salt marshes, sand bars in river beds, and shores of large impoundments. A dependable food supply of small fish and aquatic crustaceans must be nearby.

Least Terns may occur accidentally or occasionally as transients anywhere in the state. The marked counties are the only ones for which reliable records are known.

### SPECIES PROTECTION AND CRITICAL HABITATS:

Least Terns are protected by the Kansas Nongame and Endangered Species Conservation Act, the Federal Endangered Species Act, and state and federal regulations applicable to those acts. Any time a project is proposed that will likely impact the critical habitats designated below, the project sponsor must contact the Ecological Services Section, Kansas Department of Wildlife, Parks and Tourism, 512 SE 25th Ave., Pratt, Kansas 67124-8174. Department personnel can then advise the project sponsor on permit requirements under Kansas statutes. Sponsors of project impacting Least Tern habitats must also contact the Endangered Species Specialist, U.S. Fish and Wildlife Service, 315 Houston Street, Suite E, Manhattan, Kansas 66502.



### DESIGNATED CRITICAL HABITATS

As defined by Kansas Administrative Regulations, critical habitats include those areas documented as currently supporting self-sustaining population(s) of any threatened or endangered species of wildlife as well as those areas determined by the Kansas Department of Wildlife, Parks and Tourism to be essential for the conservation of any threatened or endangered species of wildlife.

Currently, the following areas are designated critical for Least Terns:

- (1) All lands and waters within the current active main stem channel of those reaches of the Cimarron River located in Clark, Comanche, and Meade counties.
- (2) All lands and waters within the boundaries of Cheyenne Bottoms Wildlife Area in Barton County.
- (3) All lands and waters within Quivira National Wildlife Refuge in Stafford, Reno, and Rice counties.
- (4) In Pottawatomie County, all lands and water within 5 miles of the Jeffery Energy Center, Secs. 6 & 7, T9S, R12E) and (Secs. 1, 12, T9S, R11E).
- (5) All the waters within a corridor along the main stem of the Kansas River from the confluence of the Smoky Hill River and Republican River on Fort Riley in Geary County to the confluence of the Missouri River in Kansas City, Wyandotte County.

The U.S. Fish and Wildlife Service has authority to designate areas of critical habitat for federally listed endangered species, but has not done so for Least Terns in Kansas.

The following counties contain critical habitat for LEAST TERN:

Barton  
Clark  
Comanche  
Douglas  
Geary  
Jackson  
Jefferson  
Johnson  
Leavenworth  
Meade  
Pottawatomie  
Reno  
Rice  
Riley  
Shawnee  
Stafford  
Wabaunsee  
Wyandotte

 [Email Page](#)

 [Printable Version](#)

NM



# Kansas Department of Wildlife, Parks and Tourism

[Print This Page](#)

[Back to Site](#)

## PIPING PLOVER

**KANSAS:** Threatened

**FEDERAL:** Threatened

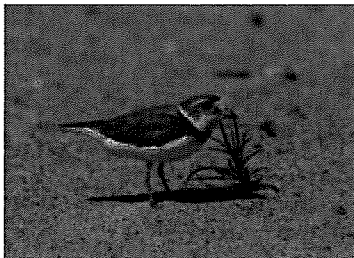
**Scientific Name:** Charadrius melodus

**CATEGORY:** T&E

**SPECIES CLASS:** Birds

**Date Listed:** T 1987

**Recovery Plan:** No



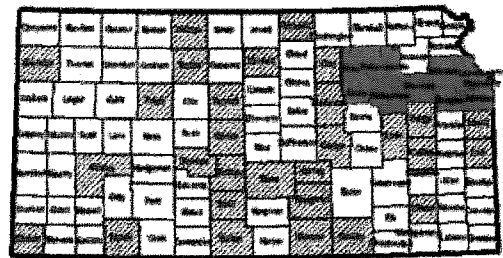
### SPECIES DESCRIPTION

The Piping Plover is a small (6-7 inches long) whitish plover the color of dry sand. It has a narrow black band above the forehead which reaches from eye to eye, a complete or incomplete dark ring around the neck, and yellow legs. In summer, the bill is yellow with a dark tip. In winter bill and legs are dark.

Piping Plovers are rare migrants through Kansas. They require sparsely vegetated shallow wetlands and open beaches and sandbars adjacent to or within streams and impoundments. Nesting has been recorded on sand bars along the Kansas River. Piping Plovers may occur occasionally anywhere in the state where suitable habitat is found. The marked counties are the only ones for which observation records are known.

### SPECIES PROTECTION AND CRITICAL HABITATS:

Piping Plovers are protected by the Kansas Nongame and Endangered Species Conservation Act, the Federal Endangered Species Act, and state and federal regulations applicable to those acts. Any time an eligible project is proposed that will impact the species' preferred habitats within its probable range, the project sponsor must contact the Ecological Services Section, Kansas Department of Wildlife, Parks and Tourism, 512 SE 25th Ave., Pratt, Kansas 67124-8174. Department personnel can then advise the project sponsor on permit requirements under Kansas' statutes. Sponsors of projects impacting Piping Plover habitats must also contact the Endangered Species Specialist, U.S. Fish and Wildlife Service, 315 Houston Street, Suite E, Manhattan, Kansas 66502.



### DESIGNATED CRITICAL HABITATS

As defined by Kansas Administrative Regulations, critical habitats include those areas documented as currently supporting self-sustaining population(s) of any threatened or endangered species of wildlife as well as those areas determined by the Kansas Department of Wildlife, Parks and Tourism to be essential for the conservation of any threatened or endangered species of wildlife.

Currently, the following areas are designated critical for Piping Plovers:

All the waters within a corridor along the main stem of the Kansas River from the confluence of the Smoky Hill River and Republican River on Fort Riley in Geary County to the confluence of the Missouri River in Kansas City, Wyandotte County.

The U.S. Fish and Wildlife Service has authority to designate areas of critical habitat for federally listed threatened species, but has not done so for Piping Plovers in Kansas.

The following counties contain critical habitat for PIPING PLOVER:

Douglas  
Geary  
Jefferson  
Johnson  
Leavenworth



Pottawatomie  
Riley  
Shawnee  
Wabaunsee

 [Email Page](#)

 [Printable Version](#)



# Kansas Department of Wildlife, Parks and Tourism

[Print This Page](#)
[Back to Site](#)

## PLAINS MINNOW

**KANSAS:** Threatened

**FEDERAL:** N/A

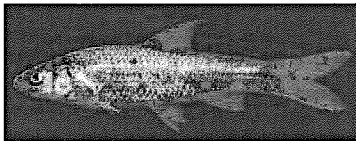
**Scientific Name:** *Hybognathus placitus*

**CATEGORY:** T&E

**SPECIES CLASS:** Fishes

**Date Listed:** SINC 1987; T 2003

**Recovery Plan:** No

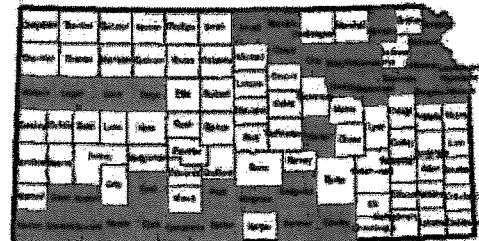


### SPECIES DESCRIPTION

The Plains Minnow was once considered one of the most common bait fishes due to its size and abundance. The species is now scarce where it was the most predominant fish in the 1950's. The Plains Minnow is a minor component of the fish assemblage in the Republican, Smoky Hill and Arkansas rivers where it was once abundant. It remains a significant portion of the fish fauna in the Cimarron River. This species needs sufficient water flow and flow rates with high and low extremes in order to complete its life cycle. The Plains minnow is partly herbivorous and has a long gut and black-lined body cavity. It feeds in schools near the bottom where sediments accumulate on sandy substrates. High flows during the summer trigger spawning and the semi-bouyant eggs hatch as they are carried downstream where flow is more reliable. Few of these minnows live longer than 2 years. The Plains Minnow has small eyes, thin lips and grows to 5 inches but it otherwise relatively nondescript.

### SPECIES PROTECTION AND CRITICAL HABITATS:

Plains Minnows are protected by the Kansas Nongame and Endangered Species Conservation Act and administrative regulations applicable thereto. Any time an eligible project is proposed that will impact the species' preferred habitats within its probable range, the project sponsor must contact the Ecological Services Section, Kansas Department of Wildlife, Parks and Tourism, 512 SE 25th Ave., Pratt, Kansas 67124-8174. Department personnel can then advise the project sponsor on permit requirements.



### DESIGNATED CRITICAL HABITATS

As defined by Kansas Administrative Regulations, critical habitats include those areas documented as currently supporting self-sustaining population(s) of any threatened or endangered species of wildlife as well as those areas determined by the Kansas Department of Wildlife, Parks and Tourism to be essential for the conservation of any threatened or endangered species of wildlife. Currently, the following areas are designated as critical habitat for the Plains Minnow:

#### Critical Habitat Counties:

- The Missouri River and associated tributaries (DP, AT, LV, WY);
- The Kansas River (GE, RL, PT, WB, SN, JF, DG);
- The Arkansas river in SG, SU, CL;
- The Cimarron River in Meade, Clark and Comanche counties (ME, CA, CM);
- Salt Fork of the Arkansas River in Barber County (BA);
- The Ninnescah River downstream of the North and South Fork confluence, (SG, SU)
- South Fork Ninnescah River (PR, KM, SG);
- North Fork Ninnescah River, downstream of Cheney Reservoir (KM, SG);
- The Medicine Lodge River in Barber County (BA).
- Republican River (CD, JW, CY, RP)
- Big Sandy Creek (BA)
- White Rock Creek (JW)
- Crooked Creek (ME)

- Smoky Hill River (LG, GO, TR)
- South Fork Nemaha and Big Nemaha (MN)
- Bluff Creek (CM)

The following counties contain critical habitat for PLAINS MINNOW:

Atchison  
Barber  
Clark  
Clay  
Cloud  
Comanche  
Cowley  
Doniphan  
Douglas  
Ford  
Geary  
Gove  
Grant  
Haskell  
Jefferson  
Jewell  
Johnson  
Kingman  
Leavenworth  
Logan  
Marion  
Meade  
Morton  
Pottawatomie  
Pratt  
Republic  
Riley  
Sedgwick  
Seward  
Shawnee  
Stevens  
Sumner  
Trego  
Wabaunsee  
Wallace  
Wyandotte

 [Email Page](#)

 [Printable Version](#)



# Kansas Department of Wildlife, Parks and Tourism

[Print This Page](#)
[Back to Site](#)

## SILVER CHUB

**KANSAS:** Endangered

**FEDERAL:** N/A

**Scientific Name:** *Macrhybopsis storeriana*

**CATEGORY:** T&E

**SPECIES CLASS:** Fishes

**Date Listed:** E 2003

**Recovery Plan:** No



David Ostendorf

### SPECIES DESCRIPTION

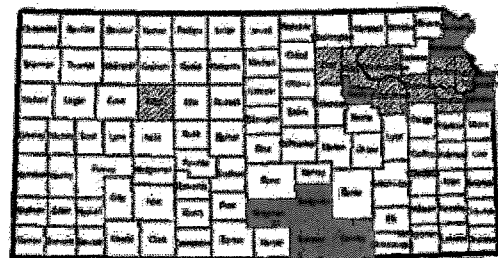
This member of the minnow family can reach 6 inches in length. The silver chub has a blunt, rounded snout, a silvery patch in front of its large eyes, and a narrow, bright, silvery streak along the sides. There are small conical barbels at the corner of its mouth that are sensitive to taste.

The silver chub is a fish of large sandy rivers. It lives on or near the bottom where it finds food by sight or taste. It is found in deep water during the summer months. Few are thought to live longer than 3 years.

It was once common in the Kansas and Missouri rivers, but now is so infrequently found during sampling efforts it is considered rare. No collections from the Kansas River have been documented at the University of Kansas Museum of Natural History since 1980. However, specimens have been found during surveys in the Arkansas River and some of its tributary streams including the Ninnescah River. Most of its natural range is east of Kansas and includes the Ohio and Mississippi river basins. In Lake Erie it is known to feed on the invasive zebra mussel.

### SPECIES PROTECTION AND CRITICAL HABITATS:

Silver Chubs are protected by the Kansas Nongame and Endangered Species Conservation Act and administrative regulations applicable thereto. Any time an eligible project is proposed that will impact the species' preferred habitats within its probable range, the project sponsor must contact the Ecological Services Section, Kansas Department of Wildlife, Parks and Tourism, 512 SE 25th Ave., Pratt, Kansas 67124-8174. Department personnel can then advise the project sponsor on permit requirements.



### DESIGNATED CRITICAL HABITATS

As defined by Kansas Administrative Regulations, critical habitats include those areas documented as currently supporting self-sustaining population(s) of any threatened or endangered species of wildlife as well as those areas determined by the Kansas Department of Wildlife, Parks and Tourism to be essential for the conservation of any threatened or endangered species of wildlife. Currently, the following areas are designated critical for Silver Chub:

- (1) Missouri River bordering Kansas
- (2) Kansas River from the confluence of Republican and Smoky Hill rivers (Ft. Riley) to the Missouri River
- (3) Arkansas River from the point it enters Sedgwick County (Sec. 6-T25S-R3W) to the Oklahoma border (Sec. 18-T35S-R05E)
- (4) South Fork Ninnescah River from point it enters Kingman County (Sec. 30-T27SR10W) to the confluence with the North Fork Ninnescah River in Sedgwick County (Sec. 36-T28S-R4W)
- (5) Ninnescah River from the confluence of the South Fork Ninnescah and North Fork Ninnescah rivers in Sedgwick County (Sec. 36-T28S-R4W) to its confluence with the Arkansas River in Sumner County (Sec 25-T31S-R2E)

The following counties contain critical habitat for SILVER CHUB:

Atchison  
Cowley  
Doniphan  
Douglas  
Geary

Jefferson  
Johnson  
Kingman  
Leavenworth  
Pottawatomie  
Riley  
Sedgwick  
Shawnee  
Sumner  
Wabaunsee  
Wyandotte

 [Email Page](#)

 [Printable Version](#)



# Kansas Department of Wildlife, Parks and Tourism

[Print This Page](#)
[Back to Site](#)

## SNOWY PLOVER

**KANSAS:** Threatened

**FEDERAL:** N/A

**Scientific Name:** *Charadrius alexandrinus*

**CATEGORY:** T&E

**SPECIES CLASS:** Birds

**Date Listed:** T 1987

**Recovery Plan:** No

### SPECIES DESCRIPTION

Adult Snowy Plovers are about 6 inches in length with a wingspread of 13-14 inches. Very light color with a thin black bill, black mark behind each eye and over forecrown, dark legs and feet, and black slash mark on each side of the lower throat. The Snowy Plover prefers open salt flats, beaches and bars of rivers, and wetlands. In Kansas, this plover is a regular but uncommon migrant and summer resident. Nesting occurs in scattered locations in central and southwestern Kansas where open salt flats or sandy areas near water occur.

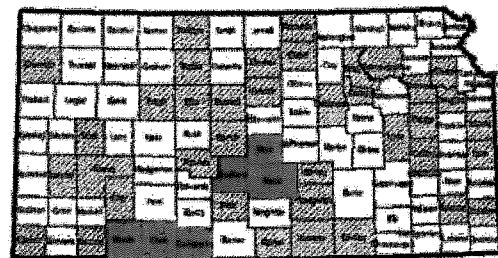


Bob Gress

Snowy Plovers may occur occasionally anywhere in the state where habitat is suitable. With the exception of Reno and Rice, the marked counties are those for which observation records are known.

### SPECIES PROTECTION AND CRITICAL HABITATS:

Snowy Plovers are protected by the Kansas Nongame and Endangered Species Conservation Act and administrative regulations applicable thereto. Any time an eligible project is proposed that will impact the species' preferred habitats within its probable range, the project sponsor must contact the Ecological Services Section, Kansas Department of Wildlife, Parks and Tourism, 512 SE 25th Ave., Pratt, Kansas 67124-8174. Department personnel can then advise the project sponsor on permit requirements.



### DESIGNATED CRITICAL HABITATS

As defined by Kansas Administrative Regulations, critical habitats include those areas documented as currently supporting self-sustaining population(s) of any threatened or endangered species of wildlife as well as those areas determined by the Kansas Department of Wildlife, Parks and Tourism to be essential for the conservation of any threatened or endangered species of wildlife.

Currently, the following areas are designated critical for Snowy Plovers:

- (1) All wetlands within Quivira National Wildlife Refuge in Reno, Rice and Stafford counties.
- (2) All lands and waters within the current active channel of those reaches of the Cimarron River within Clark, Comanche and Meade counties.

The following counties contain critical habitat for SNOWY PLOVER:

Clark  
Comanche  
Meade  
Reno  
Rice  
Stafford

[Email Page](#)
[Printable Version](#)





# Kansas Department of Wildlife, Parks and Tourism

[Print This Page](#)

[Back to Site](#)

## WHOOPING CRANE

**KANSAS:** Endangered

**FEDERAL:** Endangered

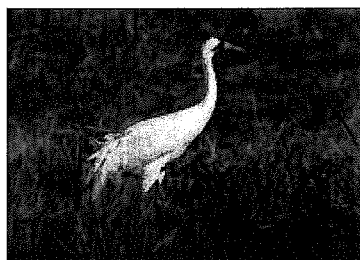
**Scientific Name:** *Grus americana*

**CATEGORY:** T&E

**SPECIES CLASS:** Birds

**Date Listed:** E 1978

**Recovery Plan:** No



Bob Gress

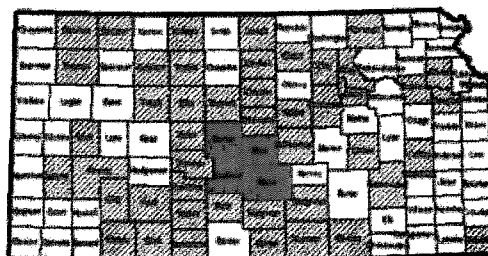
### SPECIES DESCRIPTION

The Whooping Crane is the tallest (5 ft.) North American bird and has a 7-8 foot wing spread. Adults are white with black wing tips and a red face. Young may be whitish gray with rusty wash color on their head and neck and scattered reddish brown feathers over their back and sides.

Whooping Cranes are regular spring and fall transients through Kansas, generally passing through the marked corridor in March-April and October-November. Occurrences outside the marked corridor have been infrequent but as crane populations increase, such sightings may become more frequent. Preferred resting areas are wetlands in level to moderately rolling terrain away from human activity where low, sparse vegetation permits ease of movement and an open view. During migration, cranes feed on grain, frogs, crayfish, grasshoppers, fish, crickets, spiders, and aquatic plants.

### SPECIES PROTECTION AND CRITICAL HABITATS:

The Whooping Crane is the tallest (5 ft.) North American bird and has a 7-8 foot wing spread. Adults are white with black wing tips and a red face. Young may be whitish gray with rusty wash color on their head and neck and scattered reddish brown feathers over their back and sides.



Whooping Cranes are protected by the Kansas Nongame and Endangered Species Conservation Act, the Federal Endangered Species Act, and state and federal regulations applicable to those acts.

Any time an eligible project is proposed that will impact the species' preferred habitats within its probable range, the project sponsor must contact the Ecological Services Section, Kansas Department of Wildlife, Parks and Tourism, 512 SE 25th Ave., Pratt, Kansas 67124-8174. Department personnel can then advise the project sponsor on permit requirements under Kansas' statutes. Sponsors of projects impacting critical Whooping Crane habitats must also contact the Endangered Species Office, U.S. Fish and Wildlife Service, 315 Houston Street, Suite E, Manhattan, Kansas 66502.

### DESIGNATED CRITICAL HABITATS

As defined by Kansas Administrative Regulations, critical habitats include those areas documented as currently supporting self-sustaining population(s) of any threatened or endangered species of wildlife as well as those areas determined by the Kansas Department of Wildlife, Parks and Tourism to be essential for the conservation of any threatened or endangered species of wildlife.

Currently, the following areas are designated critical for Whooping Cranes:

- (1) All lands and waters within Cheyenne Bottoms Wildlife Area located east of U.S. Highway 281 and north of U.S. Highway 56 in Barton County.
- (2) All lands and waters within Quivira National Wildlife Refuge in Stafford, Reno, and Rice counties.

The U.S. Fish and Wildlife Service has authority to designate areas of critical habitat for federally listed endangered species and has designated the following in Kansas:

Areas of land, water, and airspace with the following components: (1) Quivira National Wildlife Refuge in Stafford, Reno, and Rice counties; (2) Cheyenne Bottoms State Waterfowl Management Area in Barton County. (50CFR17.95)

The following counties contain critical habitat for WHOOPING CRANE:

Barton

Reno

Rice

Stafford

 [Email Page](#)

 [Printable Version](#)

## **Appendix E-7**

### ***City of Wichita Project References***



**EXPERIENCE** | Transportation

Environmental Constraints Matrix

East Kellogg Projects I and II

April 24, 2008

Impact	Project 1	Project 2
Section 4(f) Parkland	None	None
Section 6(f) Parkland	Probably None	Probably None
NWI Maps	N/A	N/A
Hydric Soils (wetlands)	None	None
Water Bodies (Section 404)	4 Crossings	3 Crossings
100 Year Floodplain	None	3 Areas
Prime/ Important Farmland	Yes*	Yes*
Environmental Justice (Low Income)	Yes	None
Environmental Justice (Minority)	Yes	None

# **Environmental Scan**

**Project 2: East Kellogg Improvements (US-54)  
127<sup>th</sup> Street to S. Onewood Drive**

Prepared for:

**The City of Wichita, Kansas**

Prepared By:



2400 Pershing Road, Suite 400  
Kansas City, MO 64108  
(816) 329-8600  
[www.TranSystems.com](http://www.TranSystems.com)

## Socioeconomic Factors

### Minority and Low-Income Communities

A general query of available Census 2000 data was conducted to provide a brief description of Wichita, Kansas. This description is presented in Table 1.

**Table 1 – Population, Housing Units, Area, and Density for Wichita, Kansas**

Population	Housing Units	Total Area (Miles <sup>2</sup> )	Water Area (Miles <sup>2</sup> )	Land Area (Miles <sup>2</sup> )	Population per sq. mi.	Housing Units per sq. mi.
344,284	152,119	138.93 sq.	3.18 sq. mi.	135.75 sq. mi.	2,536.1	1,120.6

Source: U.S. Census Bureau, Census 2000

Executive Order 12898 requires that actions be taken to address environmental justice in minority and low-income populations by identifying and addressing disproportionately high and adverse human health or environmental effects from potential actions of the project. The Census 2000 data was accessed to perform a search for minority and low-income populations within and adjacent to the study area. The City of Wichita, Kansas percentages of minority and low-income populations provide the benchmark data as the point of comparison for these populations. Table 2 illustrates that comparison.

**Table 2 – Census 2000 Data**

Place of Interest	Percent Minority*	Percent Below Poverty*
City of Wichita (Benchmark)	24.80%	11.21%
Study Area Block Groups	7.89%	5.18%

\*Source: U.S. Census Bureau, Census 2000

Only one block group located within the study area is meaningfully greater than the benchmark for percent minority. Collectively the block groups include a lower percentage of minority population and no disproportionate impacts to minority communities are anticipated as a result of the project. No areas within the project study area were determined to be meaningfully greater than the benchmark for low-income percentages, no disproportionate impacts to low-income communities will occur as a result of the project.

### Institutional and Emergency Services

A review of electronic, publically available mapping data was conducted on December 5, 2008. No institutional services (schools, churches) or emergency services (hospitals, fire, police, and ambulance) are located within or adjacent to the project study area.

### Public Lands (see Figure 1: Section 4(f), 6(f) Location Map)

Public lands include properties used or reserved for use as park, recreation, wildlife or waterfowl areas, and historic sites. Public park lands may be reserved for public recreational usage under a Section 4(f) or Section 6(f) designation. Section 4(f) is part of the United States Department of Transportation (USDOT) Act of 1966 that was designed to preserve the natural beauty of the countryside. Section 6(f) is part of the Land and Water Conservation Fund (LWCF) Act, which was designed to provide restrictions for public recreation facilities funded with LWCF funds. The LWCF Act provides funds for the acquisition and development of public outdoor recreation facilities that could include community, county, and state parks, trails, fairgrounds, conservation areas, boat ramps, shooting ranges, etc.

Park land data was reviewed in ArcGIS on December 8, 2008. A single park land was identified within/adjacent to the project study area. This park land is labeled as Cedar Pines Golf Course. According to the Kansas State Parks office, this property is both a 4(f) and 6(f) property. The golf course, which received federal funds for its creation, is a privately managed course open to the public. These funds, known as Land and Water Conservation Funds (LWCF), establish stringent guidelines regarding the take of any land developed by this funding mechanism.



# **Appendix F**

## ***Utilities***

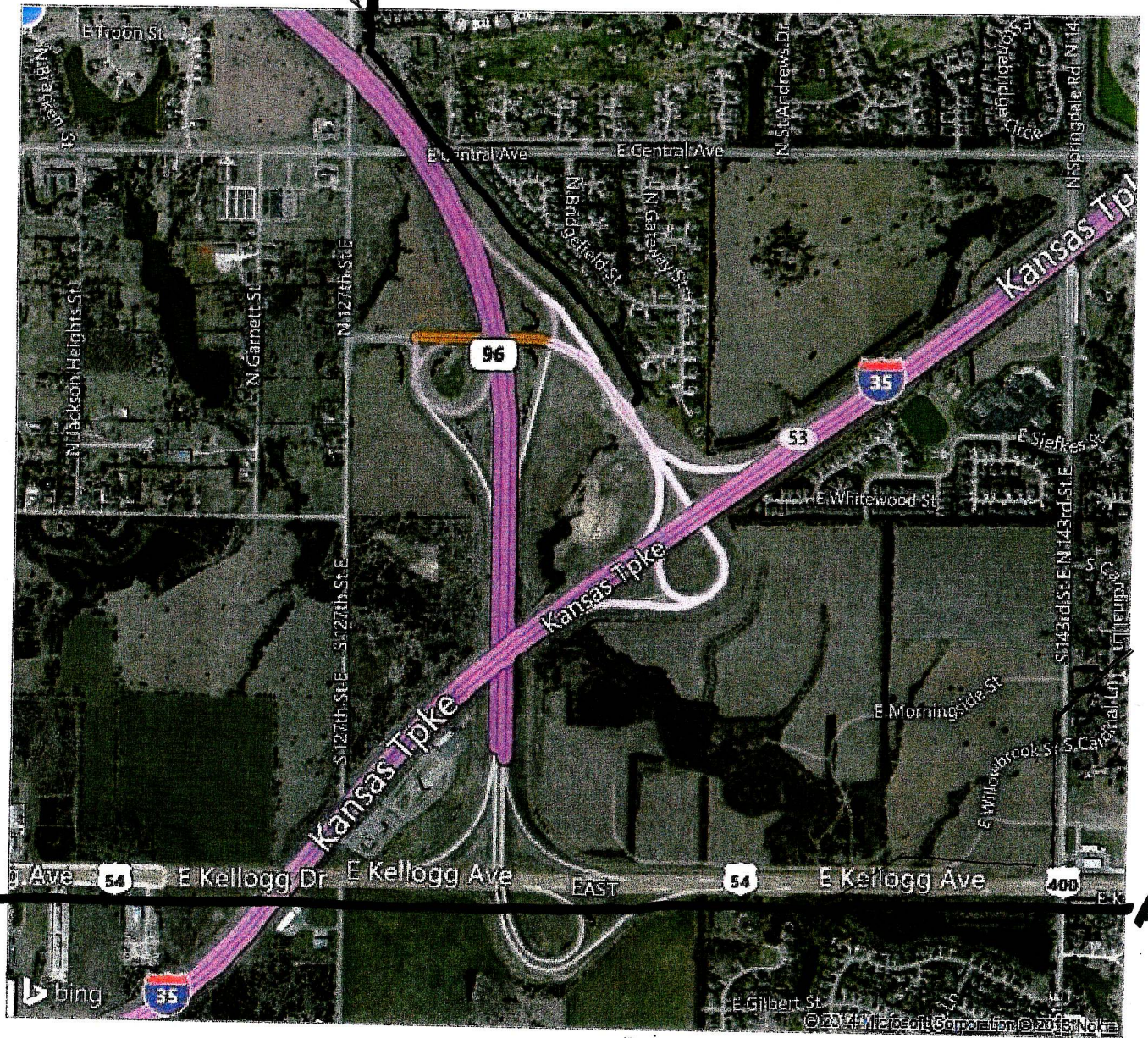
***DRAFT-Conceptual Alternatives Study***  
***July 2014***



**EXPERIENCE** | Transportation







AT&T

7

AT&T



## WI-Jon Wolverton

---

**From:** Kraus, Kelly <Kelly.Kraus@blackhillscorp.com>  
**Sent:** Wednesday, May 14, 2014 8:08 AM  
**To:** WI-Jon Wolverton  
**Subject:** RE: KTA Scope Areas

Jon,

Black Hills Energy is clear for both of these sites/projects. Don't hesitate to contact me with any other projects or questions.

Thanks,

**Kelly Kraus | Construction Coordinator | Black Hills Energy**

office: (316) 941-1628 | cell: (316) 293-6864 | fax: (402) 829-2541 | [kelly.kraus@blackhillscorp.com](mailto:kelly.kraus@blackhillscorp.com)

2330 North Hoover Road | Wichita, KS 67205 | [www.blackhillscorp.com](http://www.blackhillscorp.com)



---

**From:** [jawolverton@transystems.com](mailto:jawolverton@transystems.com) [<mailto:jawolverton@transystems.com>]  
**Sent:** Tuesday, May 13, 2014 4:12 PM  
**To:** Kraus, Kelly  
**Subject:** KTA Scope Areas

\*\*\* This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or in unexpected email. If this email appears to be coming from an internal source but contains this heading, verify by another means before acting or responding. \*\*\*

---

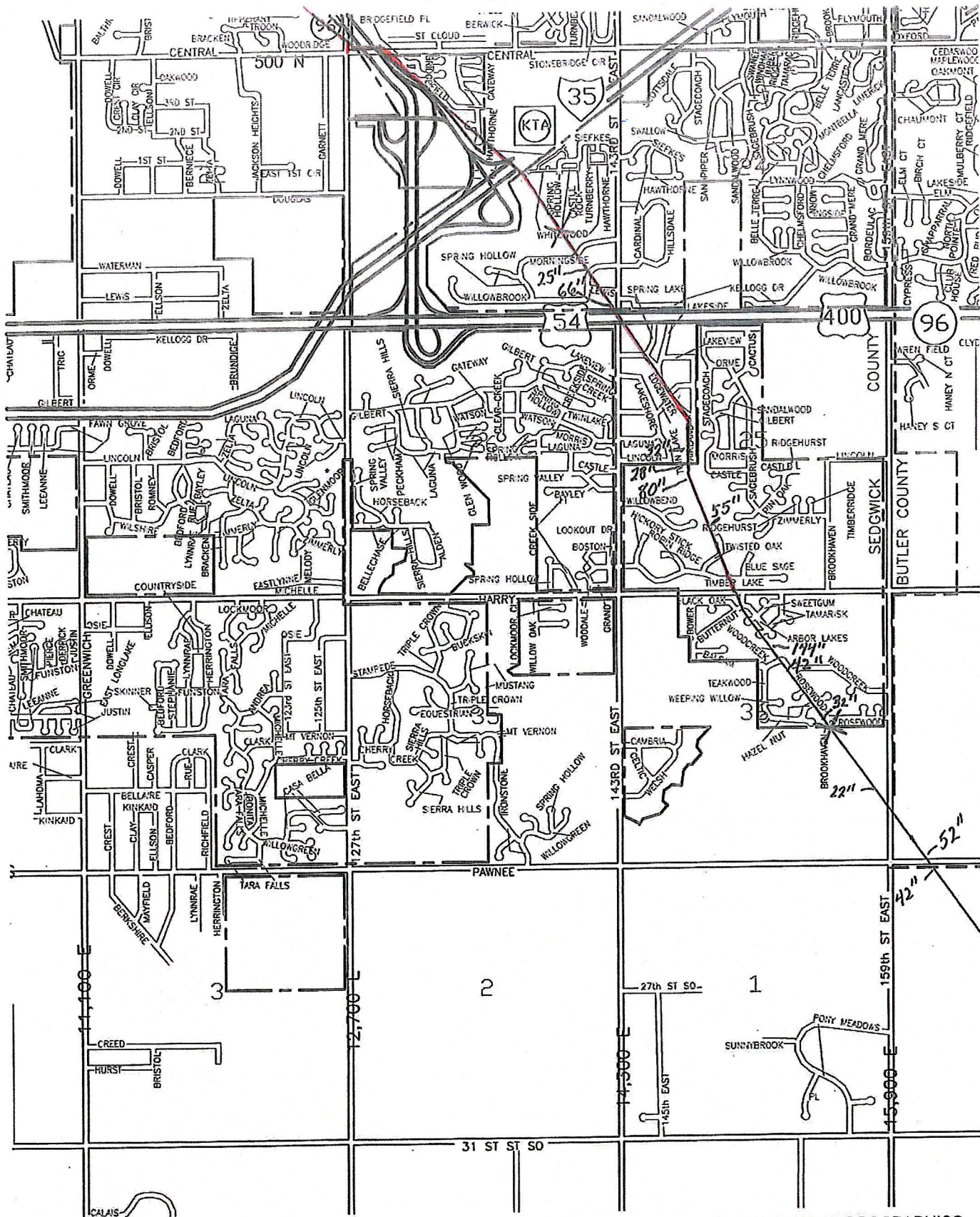
Hi Kelly:

TranSystems has been retained by the Kansas Turnpike Authority (KTA) to study two potential interchange improvements on I-35 in the City of Wichita, Sedgwick County Kansas.

The smaller one at the left side of the diagram below, is KTA Exit 50 near the intersection of Kellogg Avenue and Webb Road. On Kellogg, the study area is between Cyprus and Webb Road.

The larger one to the right is Exit 53 at the intersections of I-35, K-96, and Kellogg (US-54/400), which is also shown in the attached drawing. On Kellogg, the study area is between Greenwich and 143<sup>rd</sup> Street.





(See Page 40)

© AMERICAN REPROGRAPHICS

X-GATE VALVE

CVR Pipeline



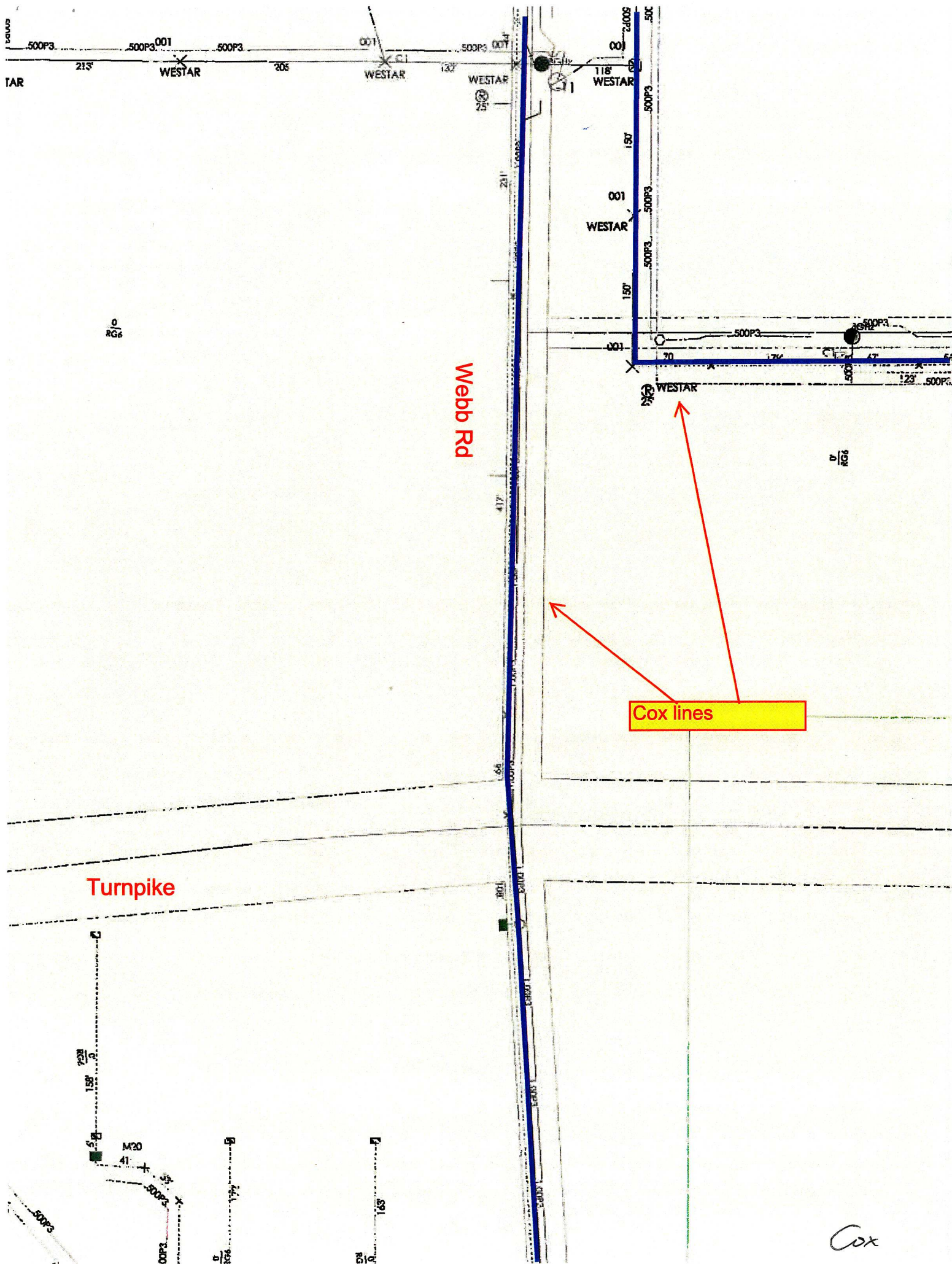
33

Coffeeville / CVR

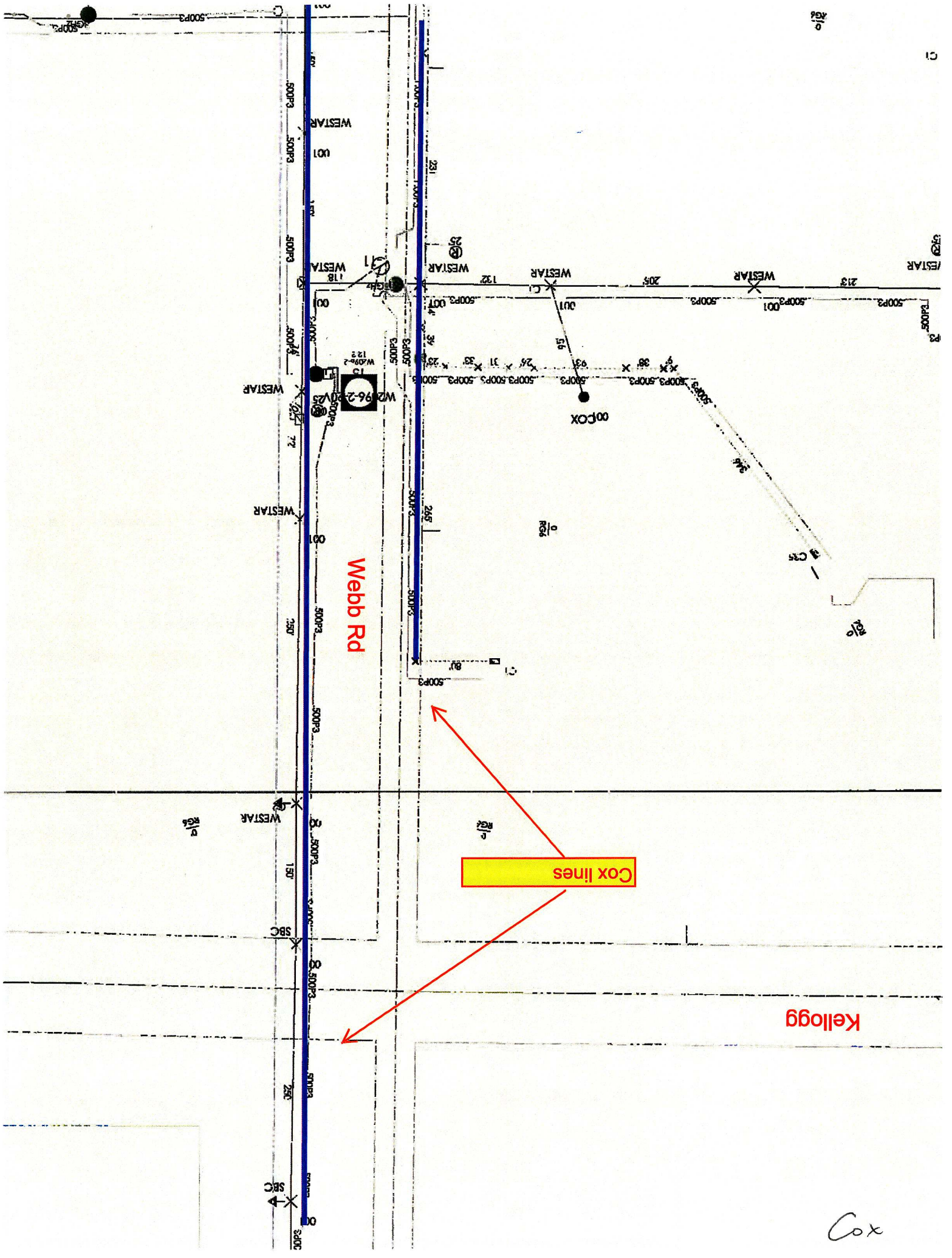














T2/RP12

Central

01-1-10V  
15  
W101-1  
80

overhead cox lines

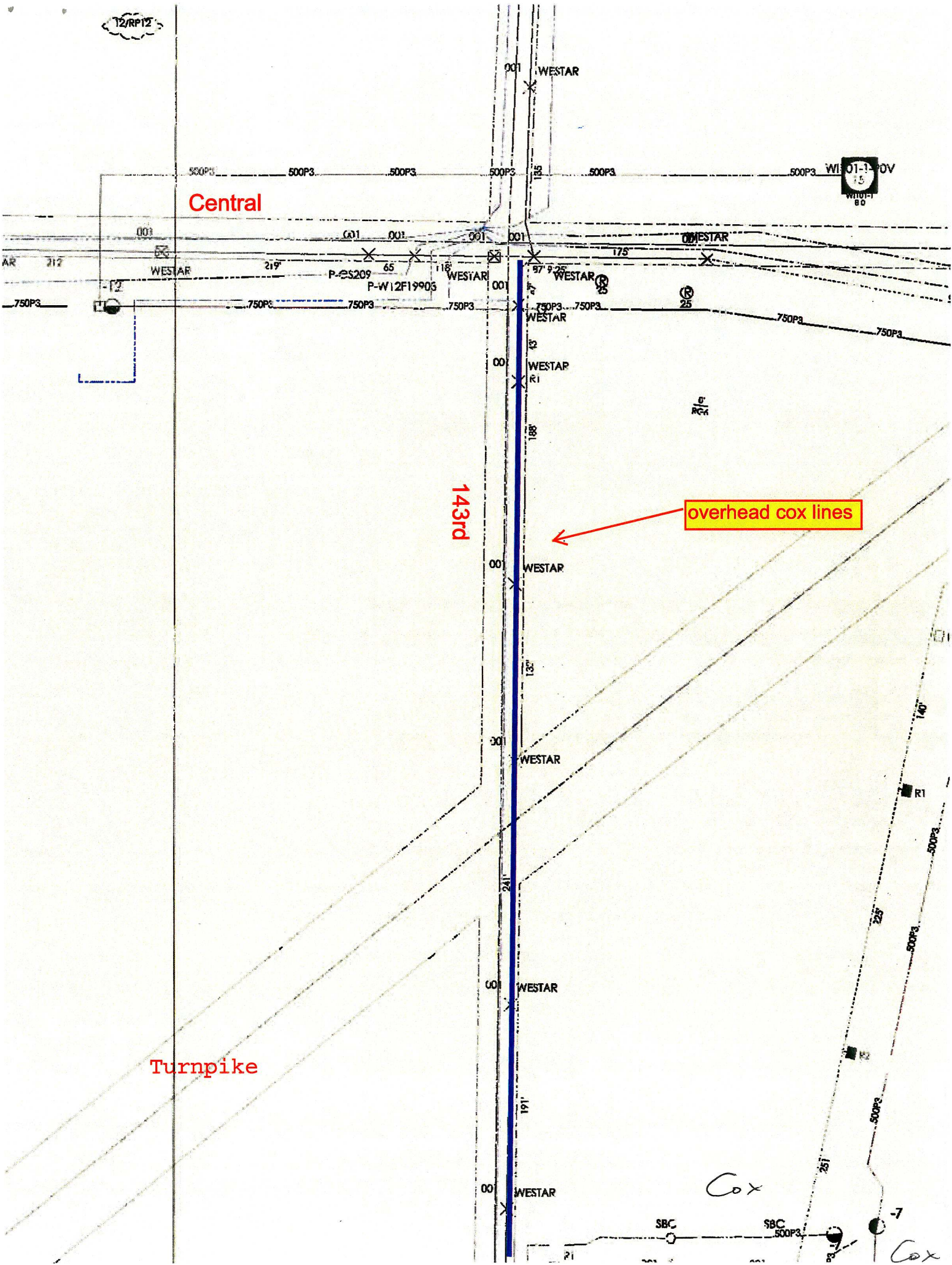
143rd

Turnpike

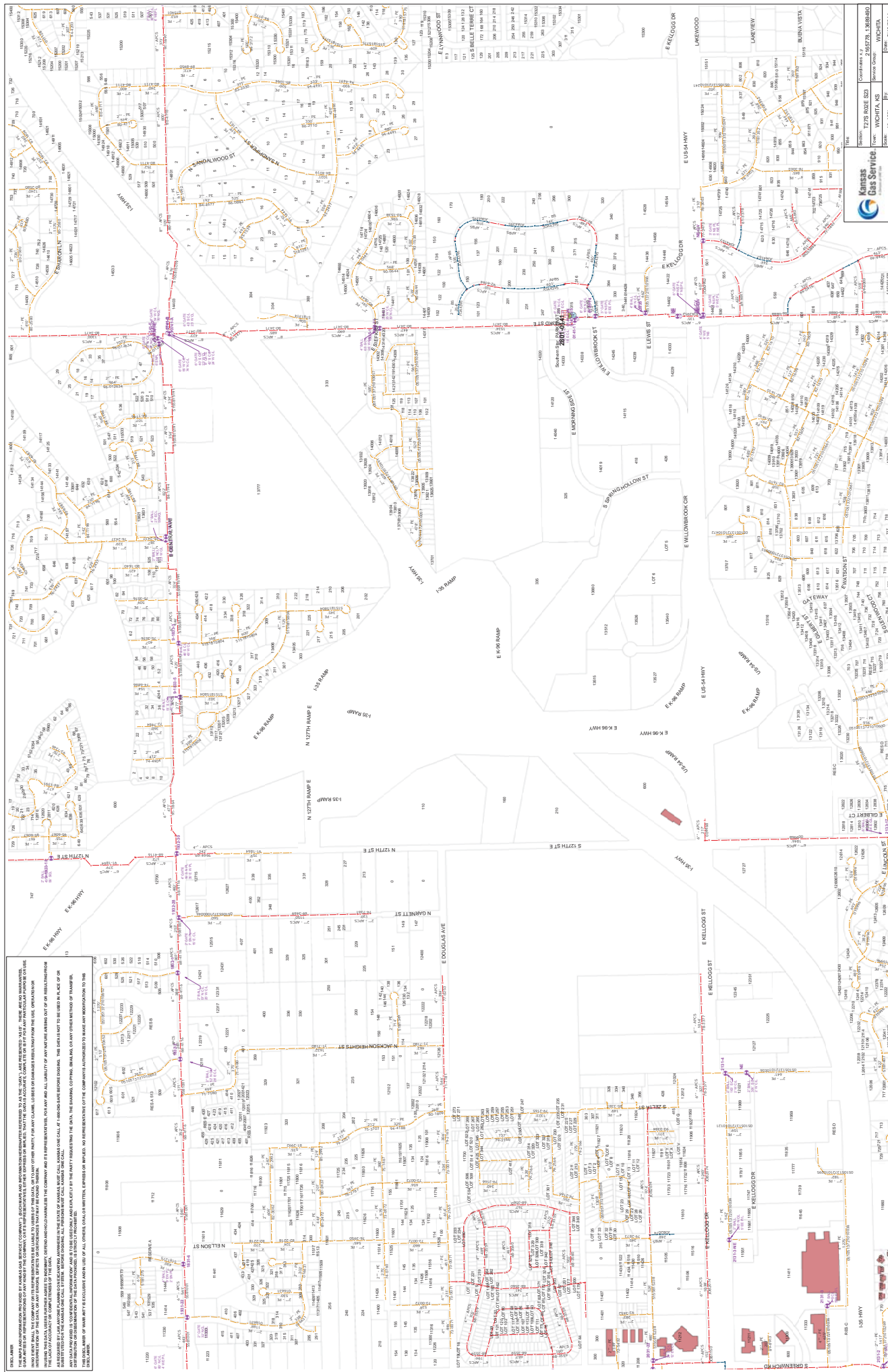
Cox

-7

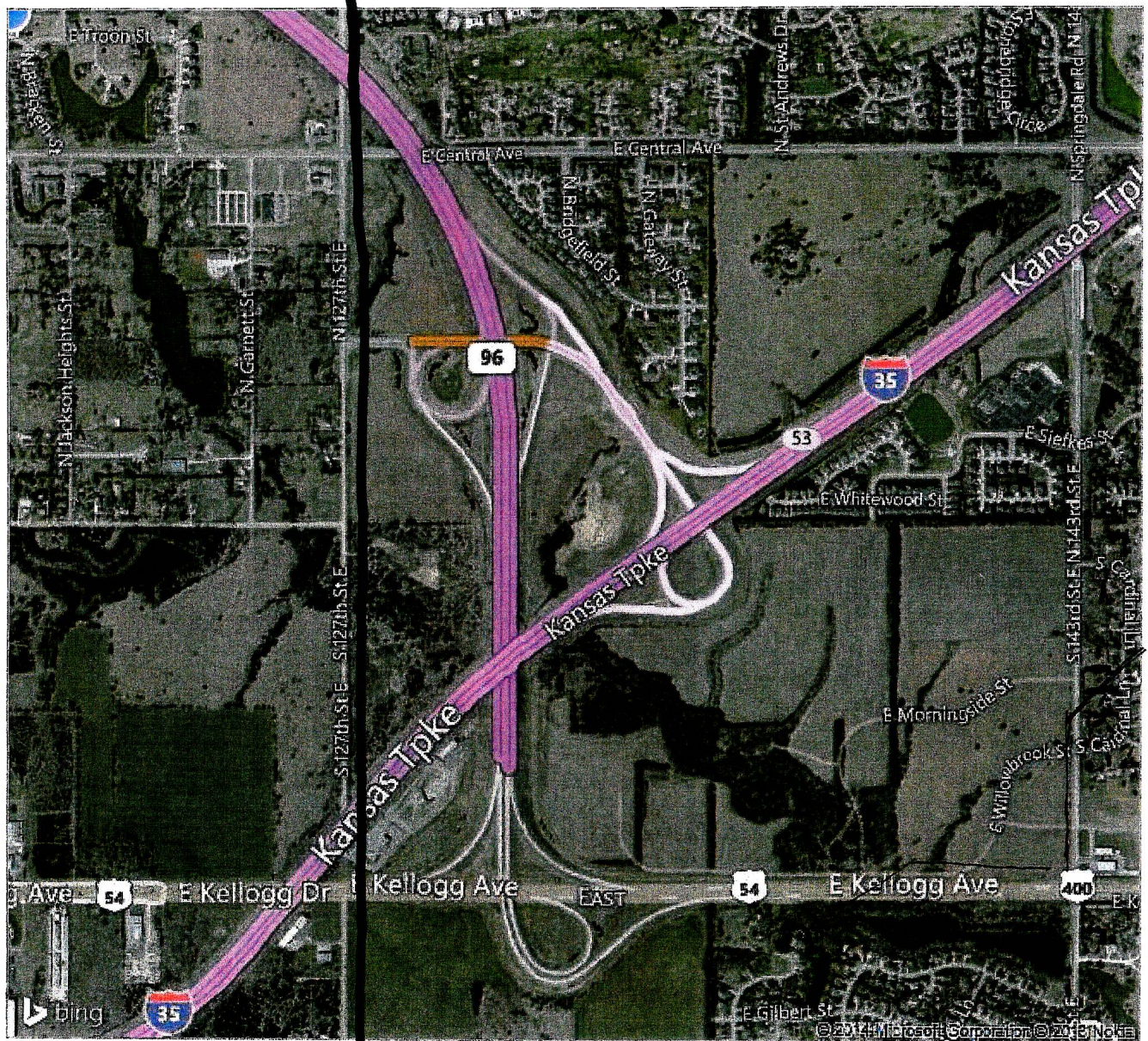
Cox







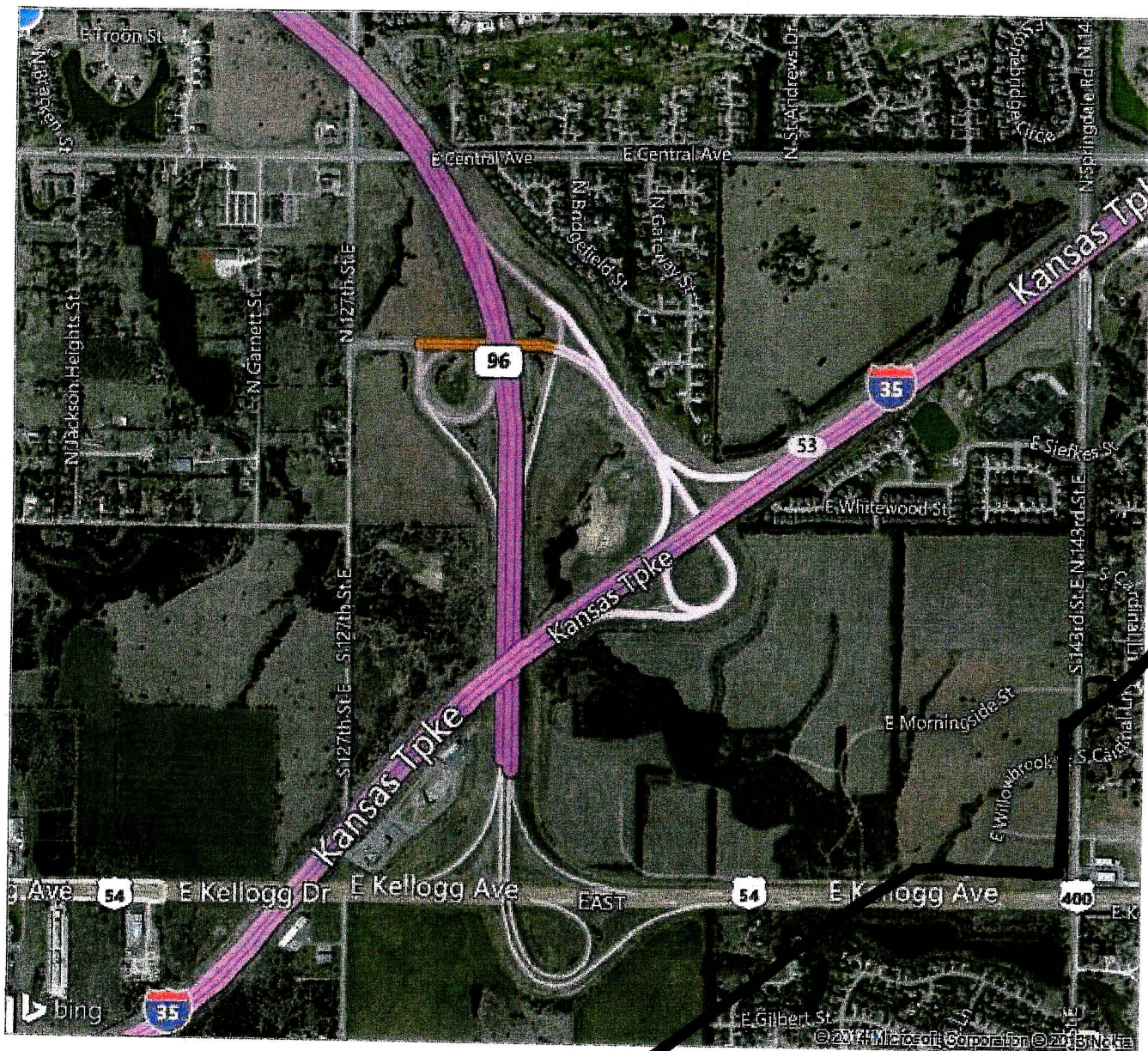




Ph. 11/7/05 66

Ph. 11/7/05 66





Southern Star

Southern Star



HWY 54

SEC. 29

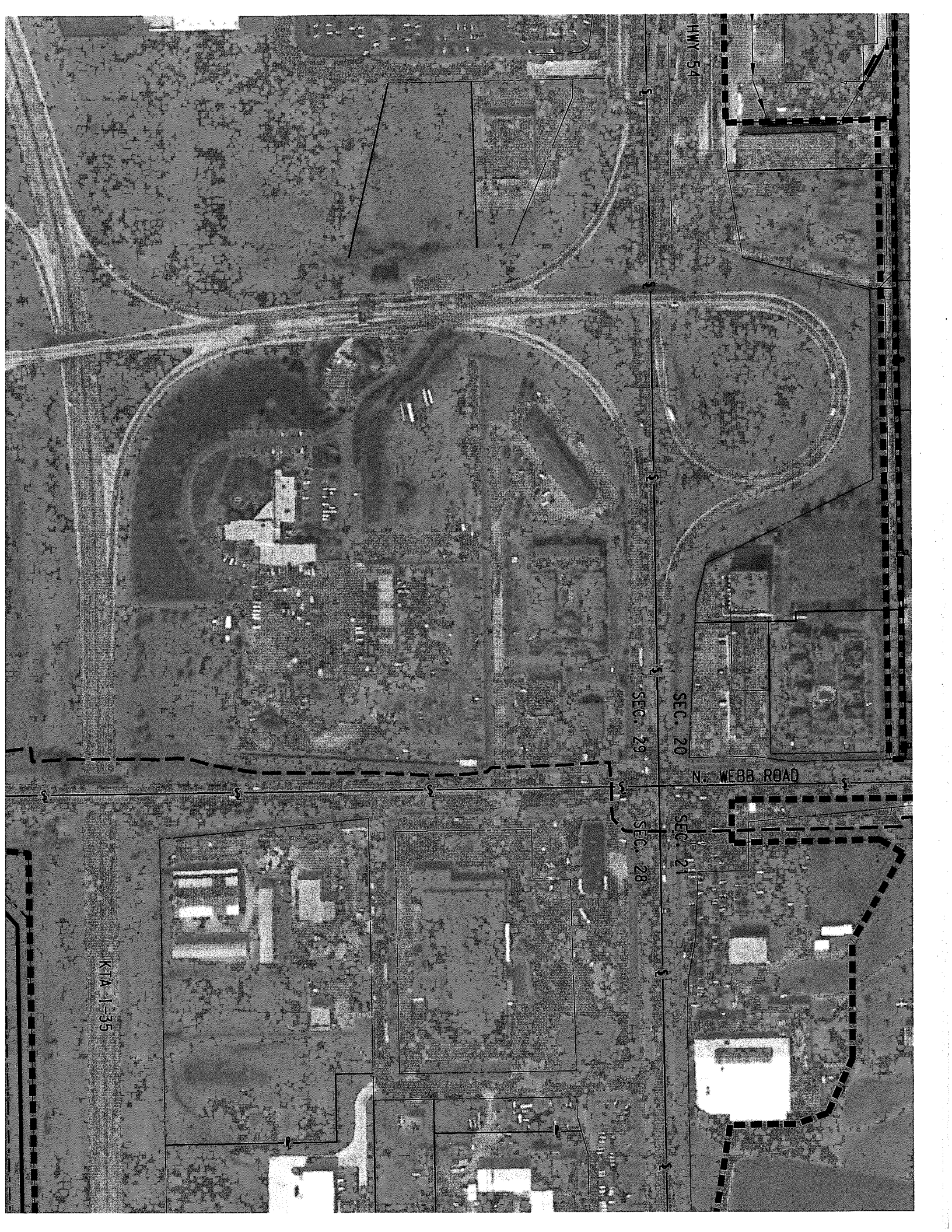
SEC. 20

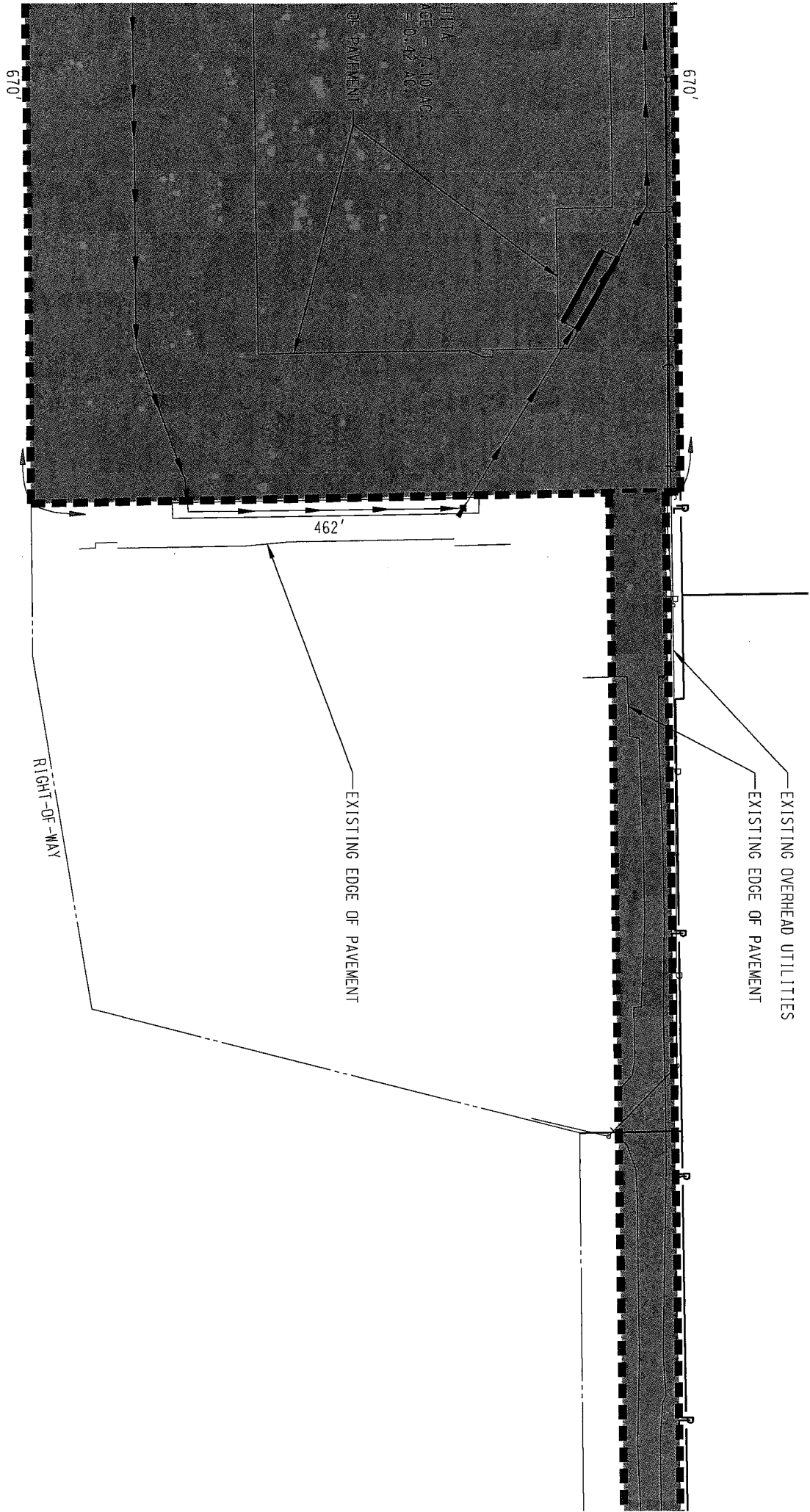
N. WEBB ROAD

SEC. 28

SEC. 21

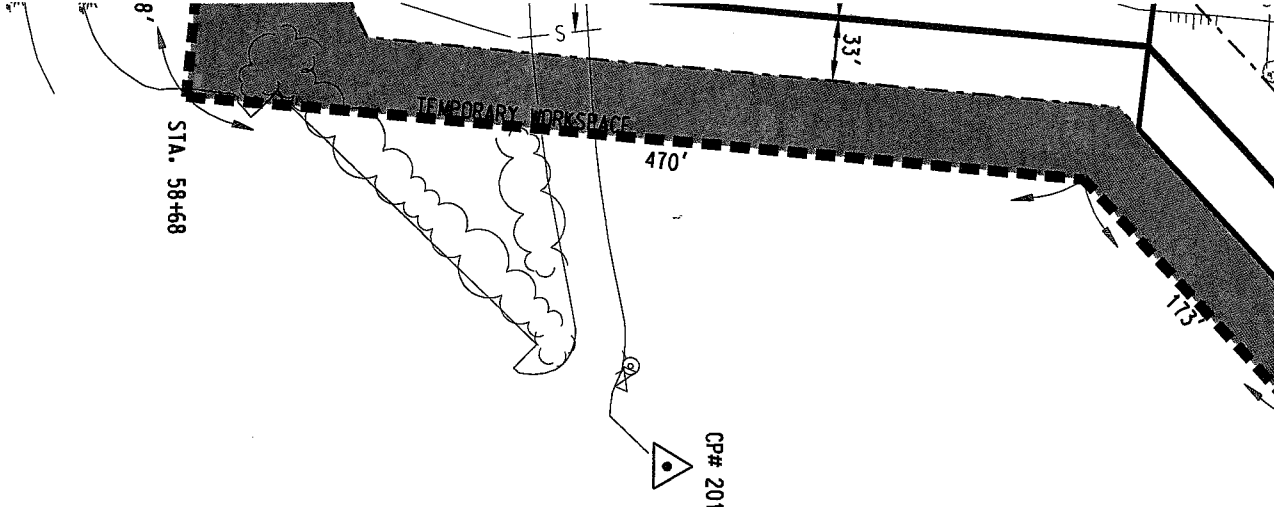
KITA 1-35



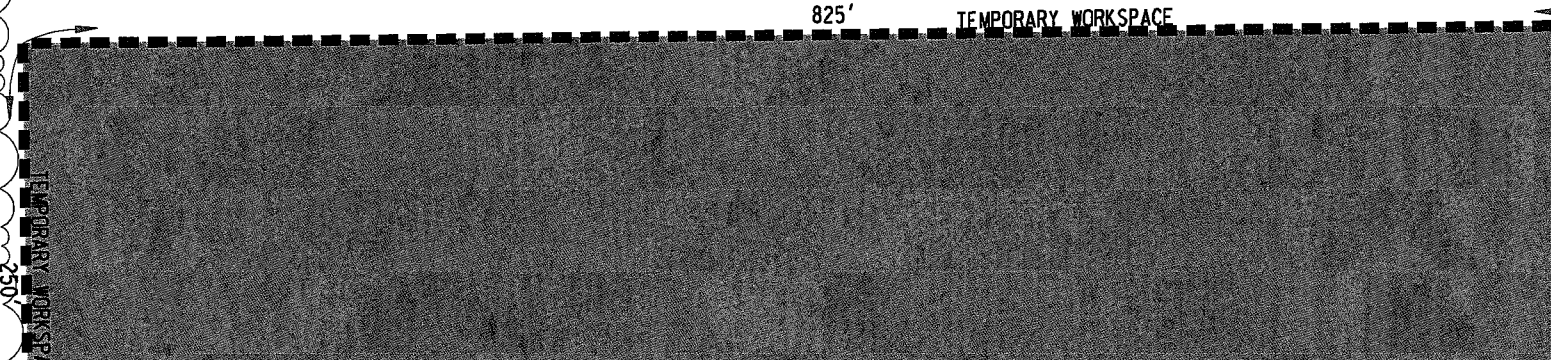


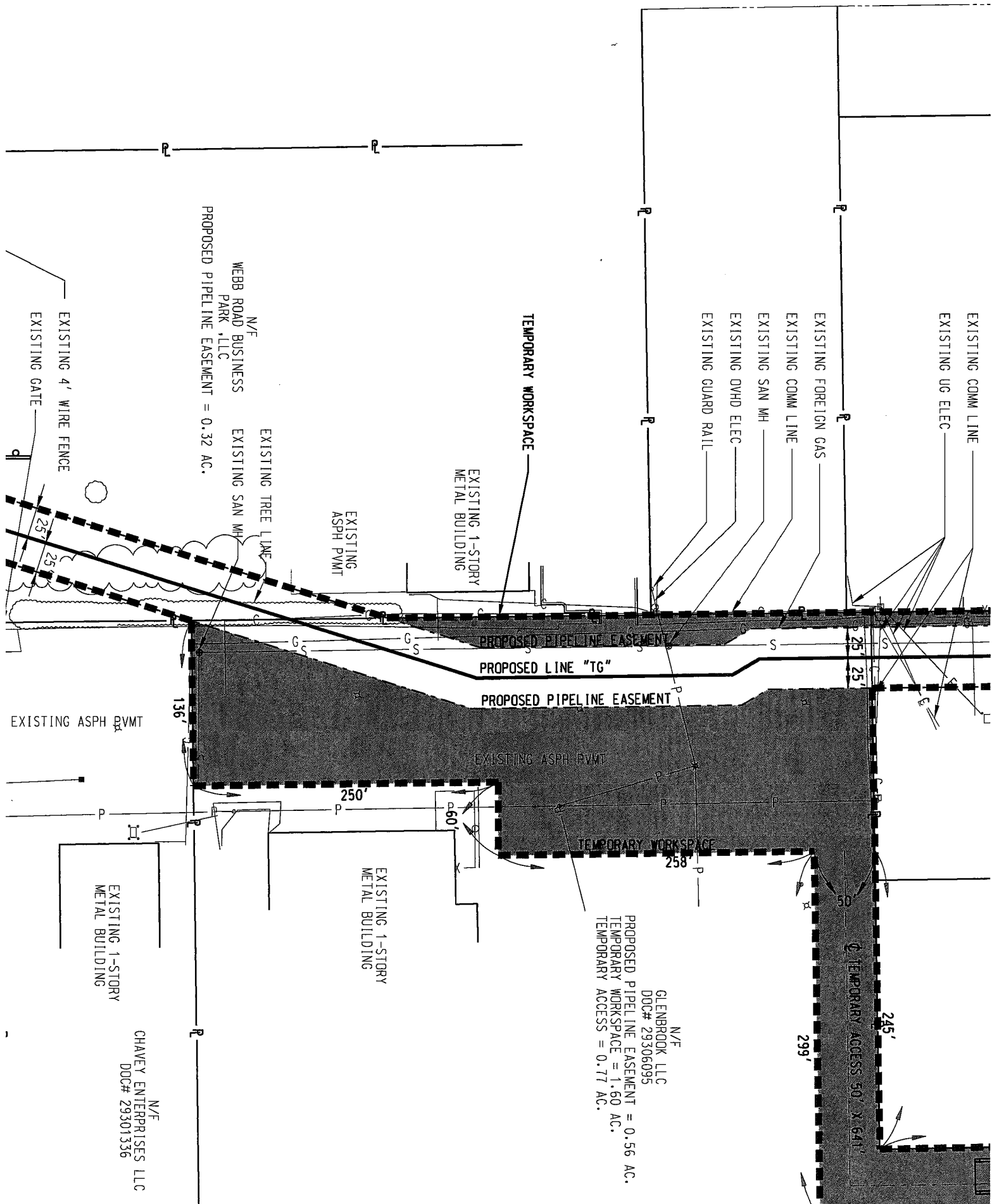
E. KELLOGG STREET - US HWY 54





N/F  
FIRST ASSEMBLY OF GOD CHURCH  
OF WICHITA, KANSAS INC  
BK 649, PG 484  
PROPOSED PIPELINE EASEMENT = 2.43 AC.  
EXISTING PIPELINE EASEMENT = 0.09 AC.  
TEMPORARY WORKSPACE = 6.67 AC.  
TEMPORARY ACCESS = .05 AC.





EXISTING COMM LINE  
EXISTING UG ELEC

EXISTING FOREIGN GAS  
EXISTING COMM LINE  
EXISTING SAN MH  
EXISTING DVED ELEC  
EXISTING GUARD RAIL

TEMPORARY WORKSPACE

EXISTING 1-STORY  
METAL BUILDING

EXISTING  
ASPH PVMT

EXISTING TREE LINE

N/F  
WEBB ROAD BUSINESS  
PARK, LLC

PROPOSED PIPELINE EASEMENT = 0.32 AC.

EXISTING 4' WIRE FENCE  
EXISTING GATE

PROPOSED PIPELINE EASEMENT  
PROPOSED LINE "TG"

PROPOSED PIPELINE EASEMENT

EXISTING ASPH PVMT

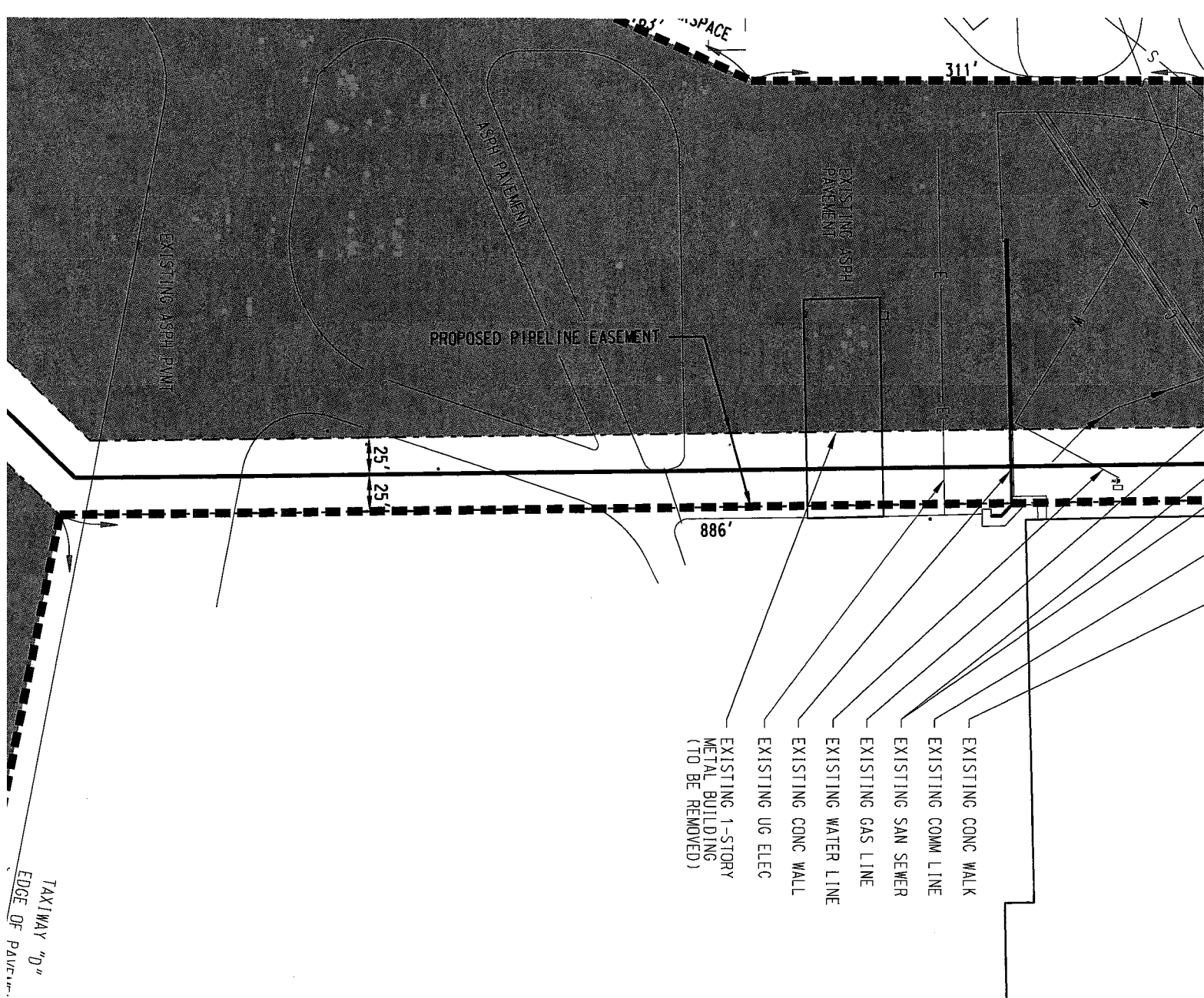
TEMPORARY WORKSPACE

EXISTING 1-STORY  
METAL BUILDING

EXISTING 1-STORY  
METAL BUILDING

N/F  
CHAVEY ENTERPRISES LLC  
DOC# 29301336

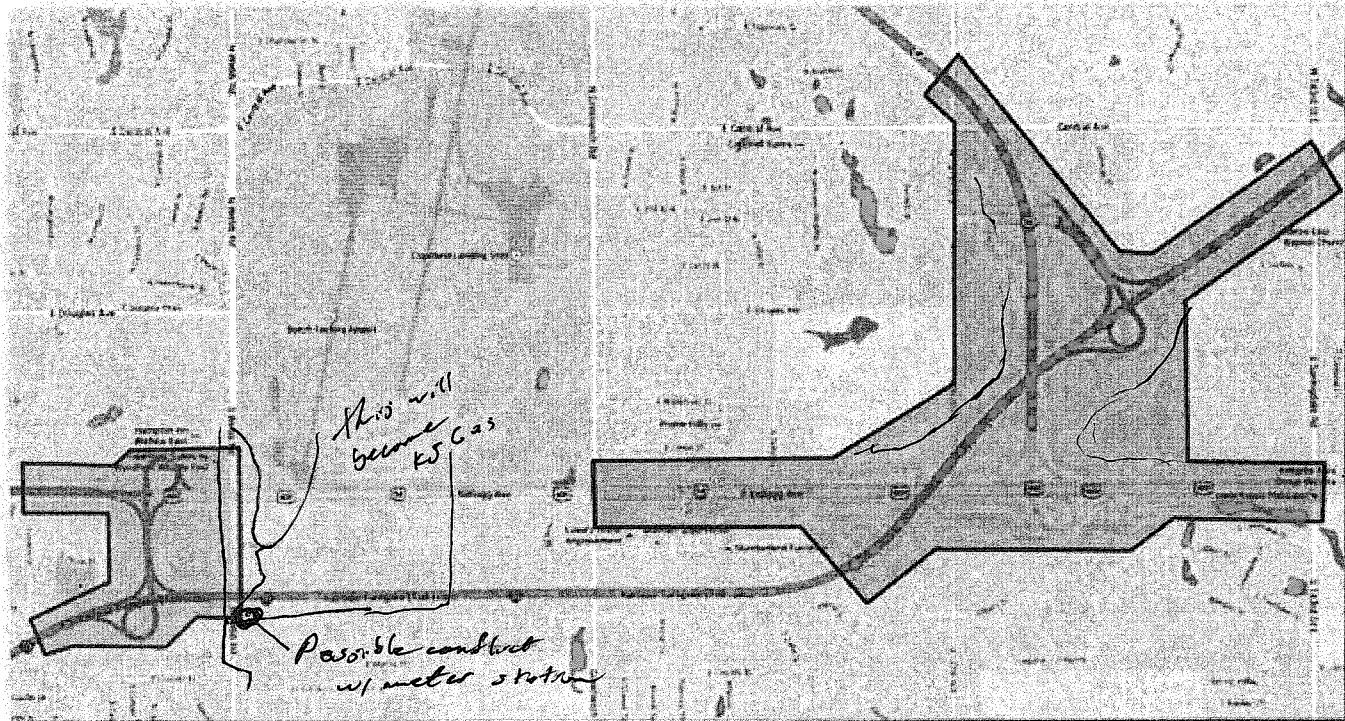
N/F  
GLENBROOK, LLC  
DOC# 29306095  
PROPOSED PIPELINE EASEMENT = 0.56 AC.  
TEMPORARY WORKSPACE = 1.60 AC.  
TEMPORARY ACCESS = 0.77 AC.



N/F  
 BEECH AIRCRAFT CORPORATION  
 EXISTING PIPELINE EASEMENT = 2.24 AC.  
 PROPOSED PIPELINE EASEMENT = 2.48 AC.  
 PROPOSED METER SITE EASEMENT = 0.57  
 TEMPORARY WORKSPACE = 20.55 AC.

## WI-Jon Wolverton

**From:** WI-Jeff Lackey  
**Sent:** Monday, May 12, 2014 11:11 AM  
**To:** WI-Jon Wolverton  
**Subject:** KTA Scope Areas



Jeffrey R. Lackey PE



**TranSystems**  
245 N. Waco, Suite 222  
Wichita, KS 67202  
Main: 316-303-3000  
Direct: 316-303-3012  
Fax: 316-303-0156  
Cell: 316-518-8661  
[www.transystems.com](http://www.transystems.com)

Note: The information contained in this transmission as well as all documents transmitted herewith are privileged and confidential information. This information is intended only for the use of the individual or entity to whom it was sent, and the recipient is obliged to protect this information as appropriate. If the recipient of the e-mail, and/or the documents attached is not the intended recipient, you are hereby notified that any dissemination, distribution or reproduction, copy, or storage of this communication is strictly prohibited. Thank you.



E A S E M E N T

For and in consideration of the sum of One Dollar and other valuable consideration (\$1.00 O.V.C.), receipt of which is hereby acknowledged, W. E. Lusk does hereby grant, convey and warrant to Cities Service Gas Company, its successors and assigns, a Right of Way to construct, operate, maintain, inspect, repair, alter, replace and remove a pipeline, for the transportation of gas, oil, petroleum, water and other substances, and such drips, valves, fittings, meters, rectifiers, ground beds and other equipment and appurtenances as may be necessary or convenient for such operation, over and through the following real estate in Sedgwick County, State of Kansas, to-wit:

Part of the Southeast Quarter of Section 23,  
Township 27 South, Range 2 East.

More particularly described as a strip of land 50 feet in width the center line of which shall have its point of beginning 1681 feet west of the southeast corner of the Southeast Quarter (SE/4) of Section 23, Township 27 South, Range 2 East, thence northeasterly 133 feet, thence angle right 56 degrees, thence east 1472 feet, thence angle left 90 degrees, thence north 1002 feet, thence angle right 52 degrees, thence northeasterly 62 feet.

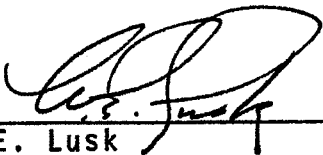
*Original Compared  
With Record*

Center line of the pipeline constructed hereunder and the center line of the above described strip are one and the same as per the attached plat marked Exhibit "A" and made a part hereof,

together with the right of ingress and egress at convenient points for such purposes, together with all rights necessary for the convenient enjoyment of the privileges herein granted. To have and to hold the same unto said Grantee, its successors and assigns, until said easement be exercised, and so long as any pipeline or appurtenance thereto installed hereunder is used or remains thereon.

Grantee shall pay reasonable damages to growing crops, fences and other improvements occasioned in laying, repairing or removing all lines, drips, valves, fittings, meters, rectifiers, ground beds and other equipment and appurtenances.

Executed this 25th day of January, 1972.

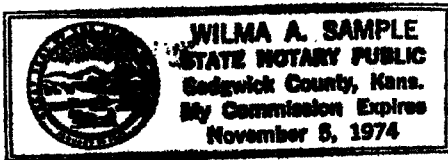
  
\_\_\_\_\_  
W. E. Lusk

STATE OF KANSAS     )  
                              )   SS:  
SEDGWICK COUNTY    )

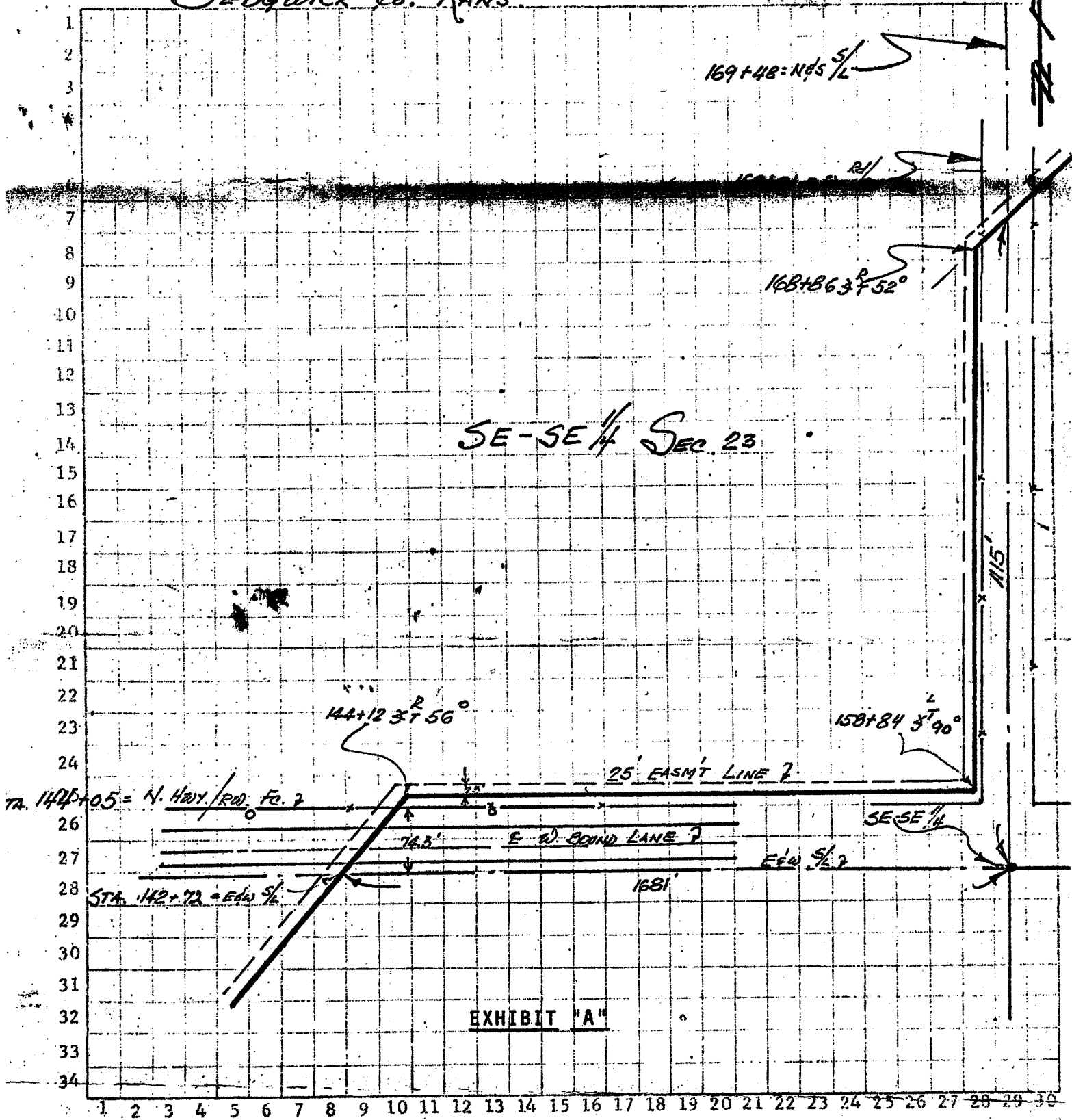
Before me, a notary public in and for said county and state, on this 25th day of January, 1972, personally appeared W. E. Lusk, to me personally known to be the identical and same person who executed the within and foregoing instrument and duly acknowledged to me that he executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.

Wilma A. Sample  
Notary Public

My Commission Expires:



IN SE 1/4 SEC. 23 T.27S. - R2E  
SEDGWICK Co. KANS.



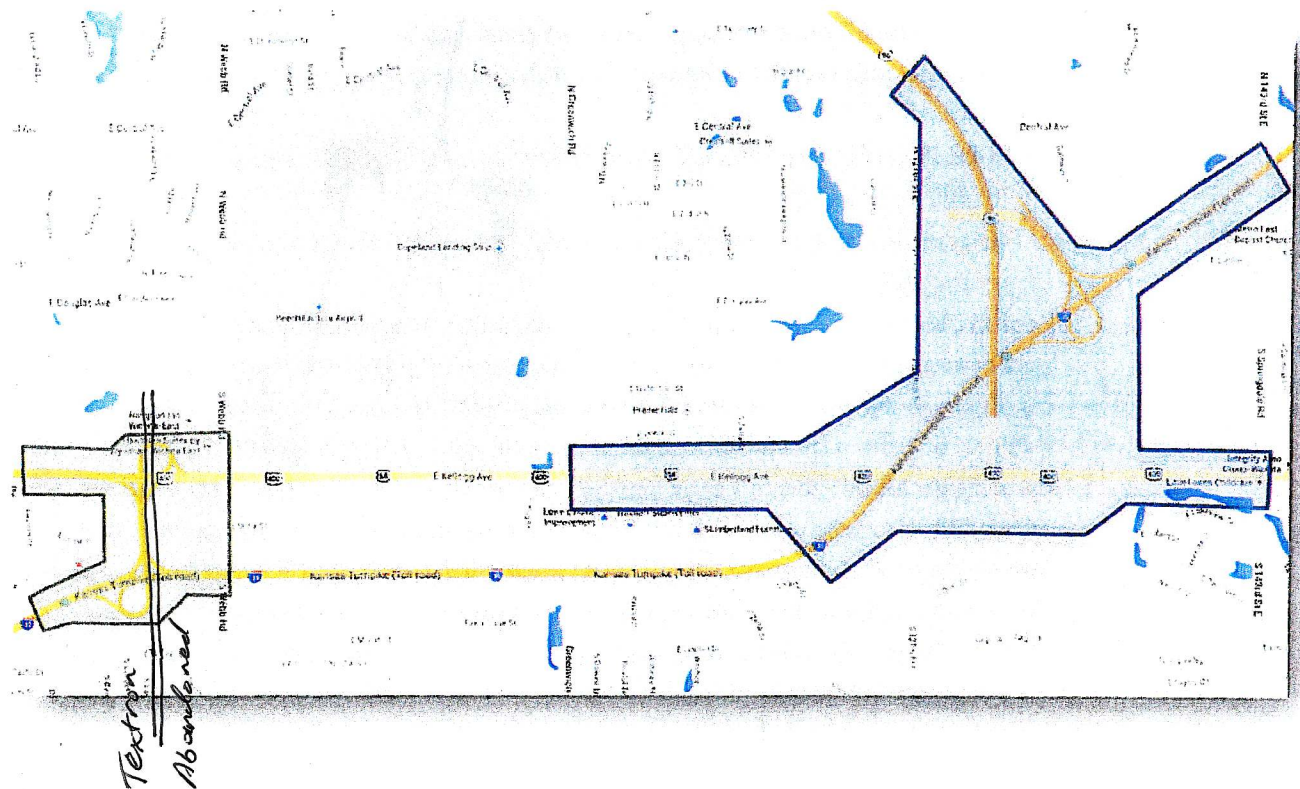
## EXHIBIT A

### I-35, US-54/400, K-96 (Exit 53) Proposed Interchange Concept Design Scope of Services

#### Purpose:

- Develop preliminary horizontal and vertical layouts for a full system to system interchange, providing more direct access between I-35, US-54/400 and K-96 and leaving some movements at Exit 50 (assuming Exit 50 remains open).
- Develop a project phasing approach to constructing a full system to system interchange.
- Develop probable cost estimates associated with constructing a full system to system interchange.
- Evaluate impacts of proposed access to KTA at Exit 50.
- Maintain stakeholder communications.

#### Study Area Map:



The study area will include the interchange of I-35, US-54/400 and K-96 as well as the system to system connection at existing Exit 50. The study will include review of the City of Wichita's E. Kellogg Projects that extends from Cypress to 127th Street (Project 1) and 127th Street to 159th (Project 2) and how our project will interface with the interchanges that are proposed on E. Kellogg. This will include but not be limited to the Webb Road Interchange, Greenwich Interchange, Zelta Interchange, the westbound CD, and the frontage roads. At Exit 50 we will



Text on

## WI-Jon Wolverton

---

**From:** Ingalls, McCoy M [NTK] <McCoy.W.Ingalls@sprint.com>  
**Sent:** Tuesday, May 27, 2014 11:18 AM  
**To:** WI-Jon Wolverton  
**Cc:** Ingalls, McCoy M [NTK]  
**Subject:** RE: KTA Scope Areas

As discussed today Sprint has one fiber cable on the KTA right of way that runs along the northwest side of I-35. The fiber cable leaves the KTA ROW and loops into 9791 East ORME ST. and back on to KTA ROW which continues to Oklahoma.

If you need additional assistance please let me know.

McCoy Ingalls  
Sprint, Inc.  
Facilities Engineer II/OSP - East  
National Field Operations  
101 Holmes  
Kansas City, MO 64106  
Wireless: (404)396-9726

---

**From:** [jawolverton@transystems.com](mailto:jawolverton@transystems.com) [<mailto:jawolverton@transystems.com>]  
**Sent:** Tuesday, May 27, 2014 9:22 AM  
**To:** Ingalls, McCoy M [NTK]  
**Subject:** FW: KTA Scope Areas

Good morning McCoy:

I'm re-sending this inquiry to your corrected e-mail address.

Please take a look and let me know of any significant conflicts.

Thanks

Jon

---

**From:** WI-Jon Wolverton  
**Sent:** Tuesday, May 13, 2014 2:40 PM  
**To:** 'McCoy.Ingalls@Sprint.com'  
**Subject:** KTA Scope Areas

Hi McCoy:

TranSystems has been retained by the Kansas Turnpike Authority (KTA) to study two potential interchange improvements on I-35 in the City of Wichita, Sedgwick County Kansas.

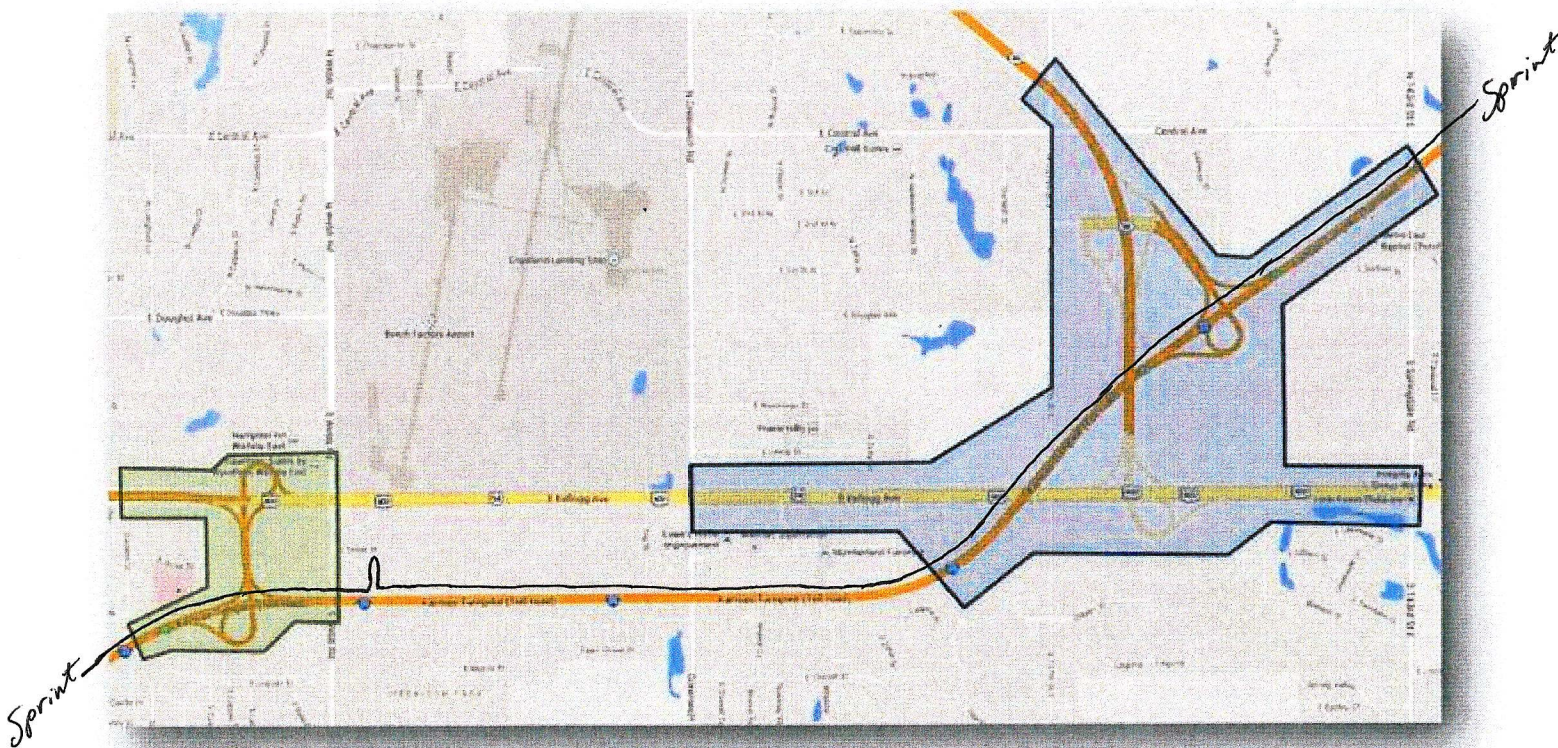
The smaller one at the left side of the diagram below, is KTA Exit 50 near the intersection of Kellogg Avenue and Webb Road. On Kellogg, the study area is between Cyprus and Webb Road.







The larger one to the right is Exit 53 at the intersections of I-35, K-96, and Kellogg (US-54/400), which is also shown in the attached drawing. On Kellogg, the study area is between Greenwich and 143<sup>rd</sup> Street.



We are familiar with the Sprint line that runs along the northwest side of I-35 at the point it crosses beneath Kellogg (US-54/400). In the areas beyond the Kellogg right-of-way, we are interested in learning about any major facilities Sprint may have, in hope of avoiding them and/or accounting for the cost of relocation in our feasibility study.

Please let me know if you see any significant impacts. You can e-mail back, or call me at (316) 213-0043.

Thanks

Jon

---

This e-mail may contain Sprint proprietary information intended for the sole use of the recipient(s). Any use by others is prohibited. If you are not the intended recipient, please contact the sender and delete all copies of the message.







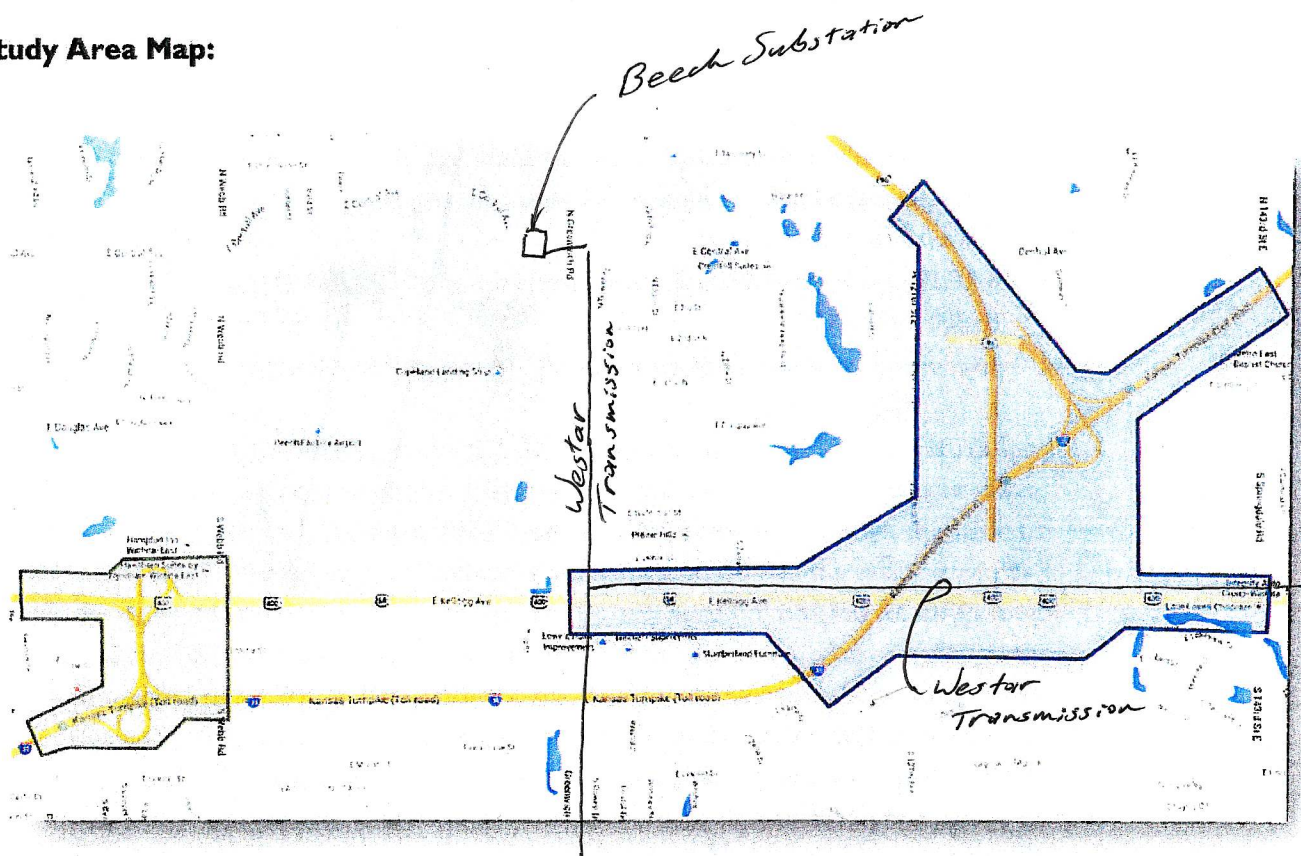
## EXHIBIT A

### I-35, US-54/400, K-96 (Exit 53) Proposed Interchange Concept Design Scope of Services

#### Purpose:

- Develop preliminary horizontal and vertical layouts for a full system to system interchange, providing more direct access between I-35, US-54/400 and K-96 and leaving some movements at Exit 50 (assuming Exit 50 remains open).
- Develop a project phasing approach to constructing a full system to system interchange.
- Develop probable cost estimates associated with constructing a full system to system interchange.
- Evaluate impacts of proposed access to KTA at Exit 50.
- Maintain stakeholder communications.

#### Study Area Map:



The study area will include the interchange of I-35, US-54/400 and K-96 as well as the system connection at existing Exit 50. The study will include review of the City of Wichita's E. Kellogg Projects that extends from Cypress to 127th Street (Project 1) and 127th Street to 159th (Project 2) and how our project will interface with the interchanges that are proposed on E. Kellogg. This will include but not be limited to the Webb Road Interchange, Greenwich Interchange, Zelta Interchange, the westbound CD, and the frontage roads. At Exit 50 we will

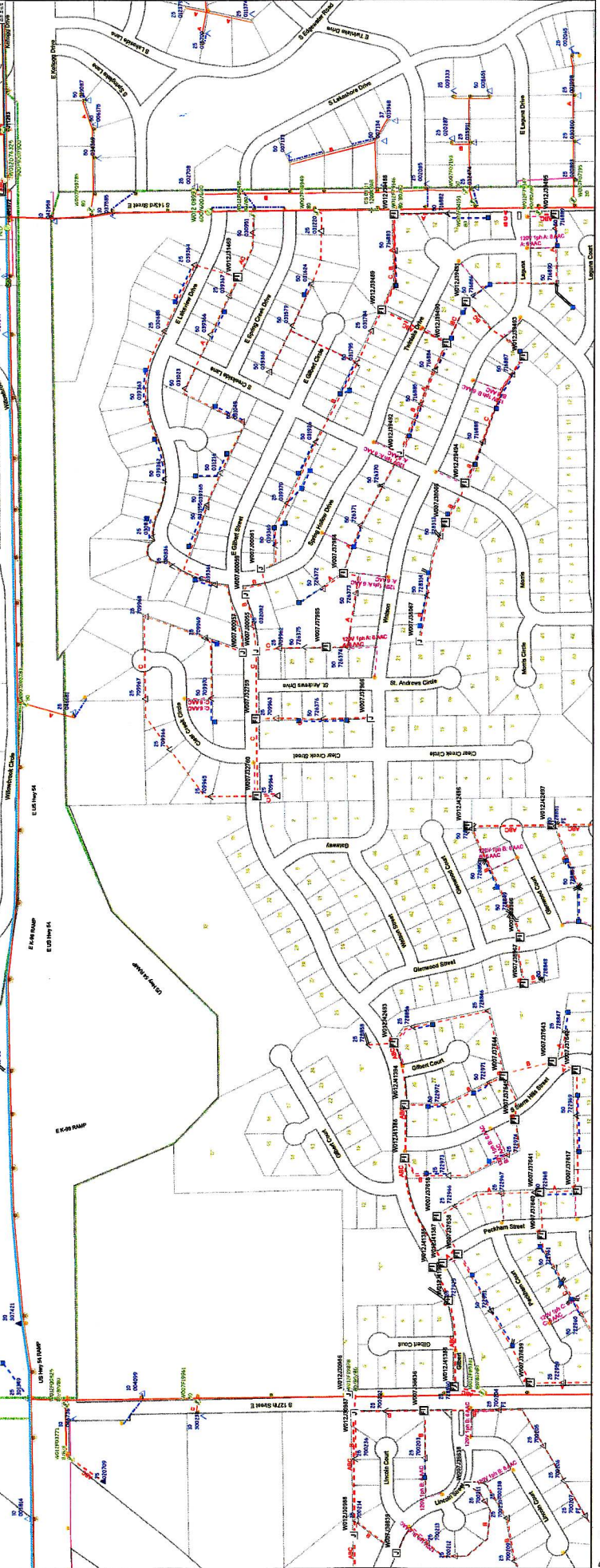
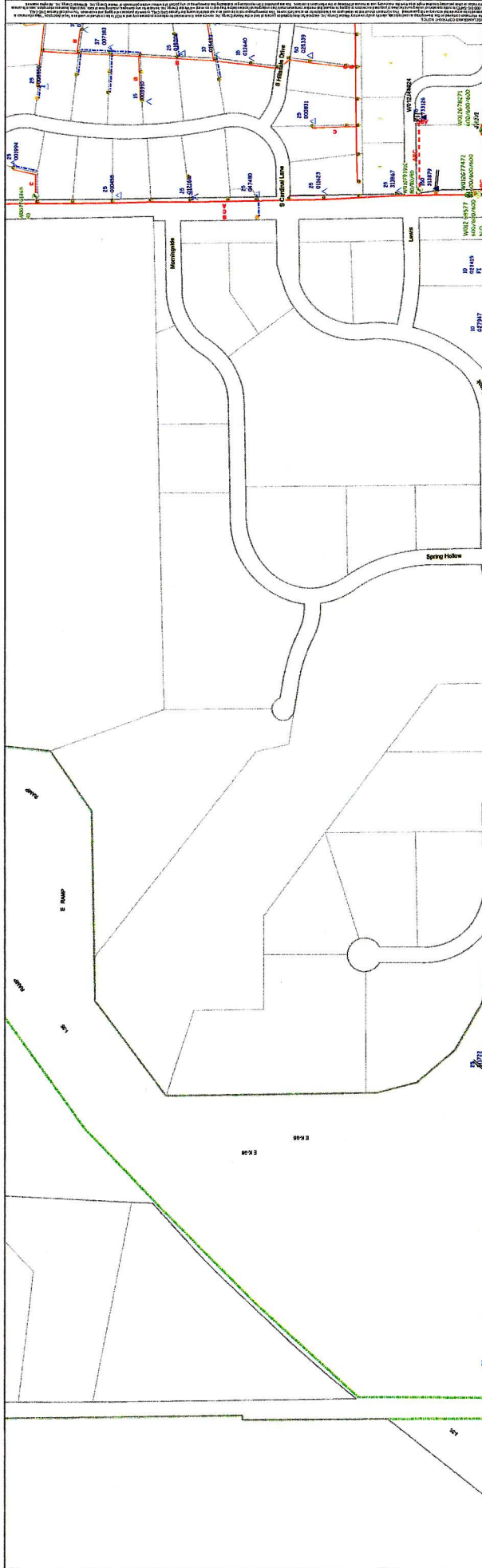


Westar Transmission



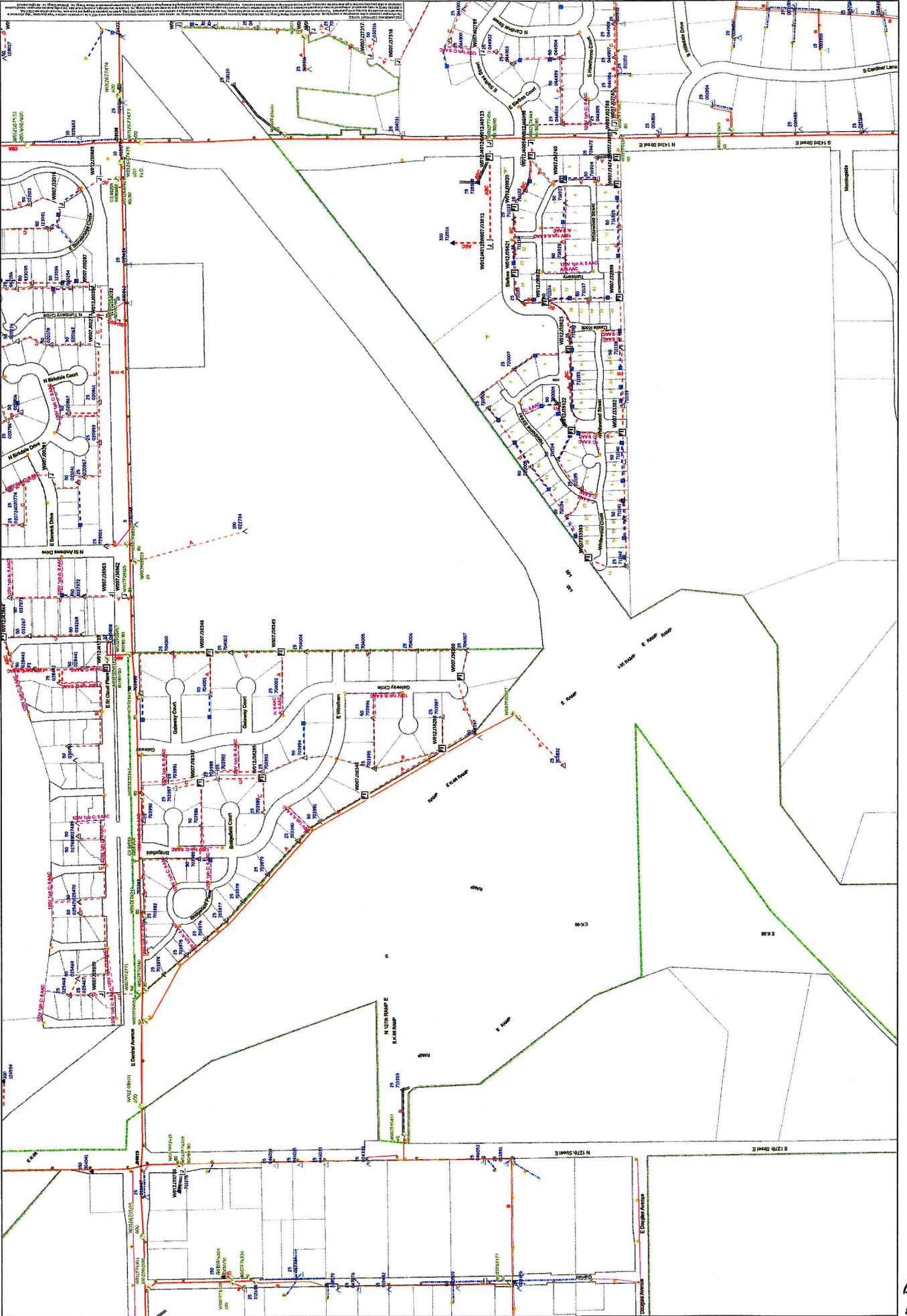
Westar  
Distri-  
bution





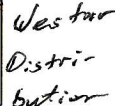
Westar  
 Distri-  
 bution



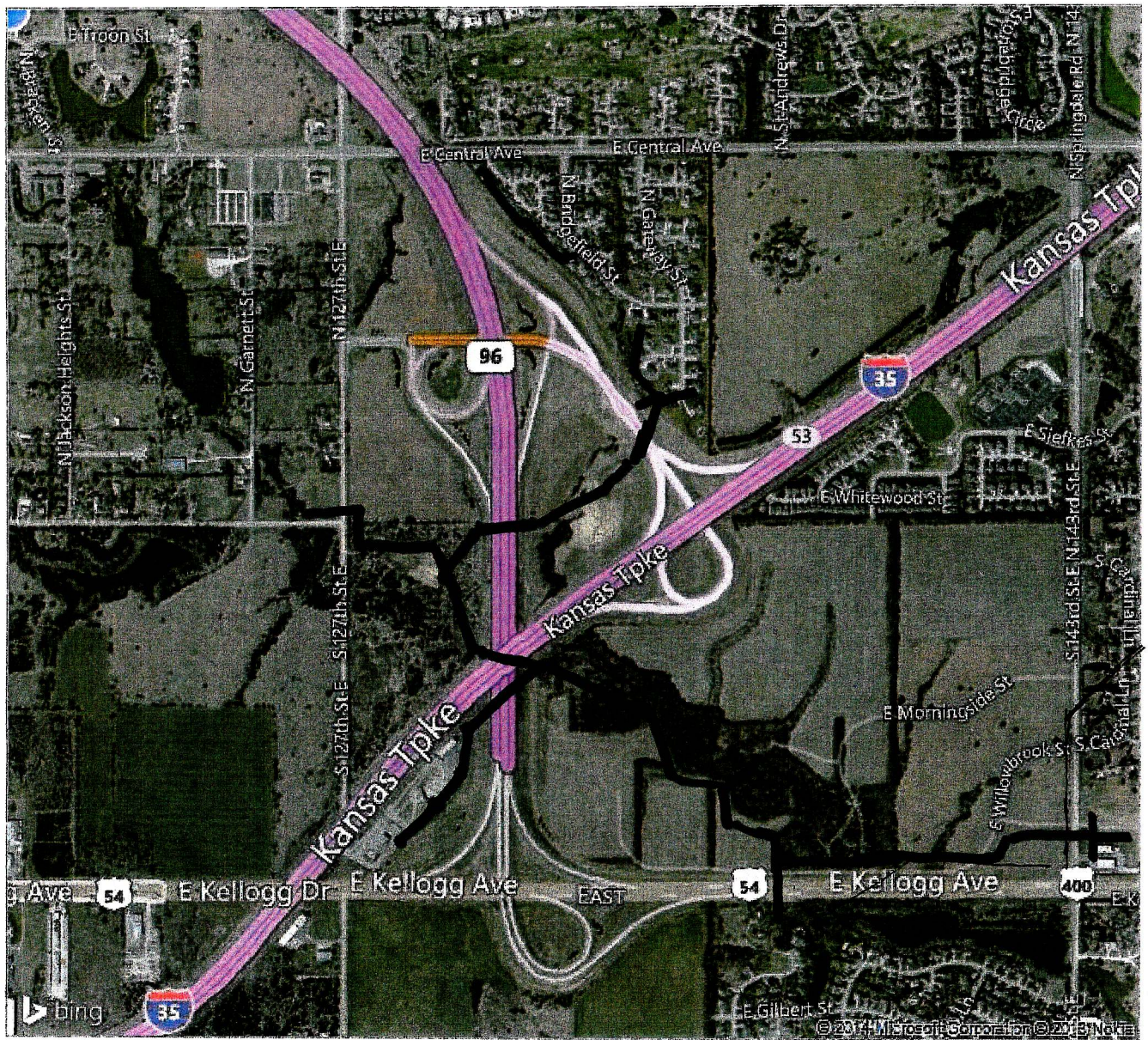


Westar  
 Distri-  
 bution









— City Sanitary Sewer

City Sanitary Sewer





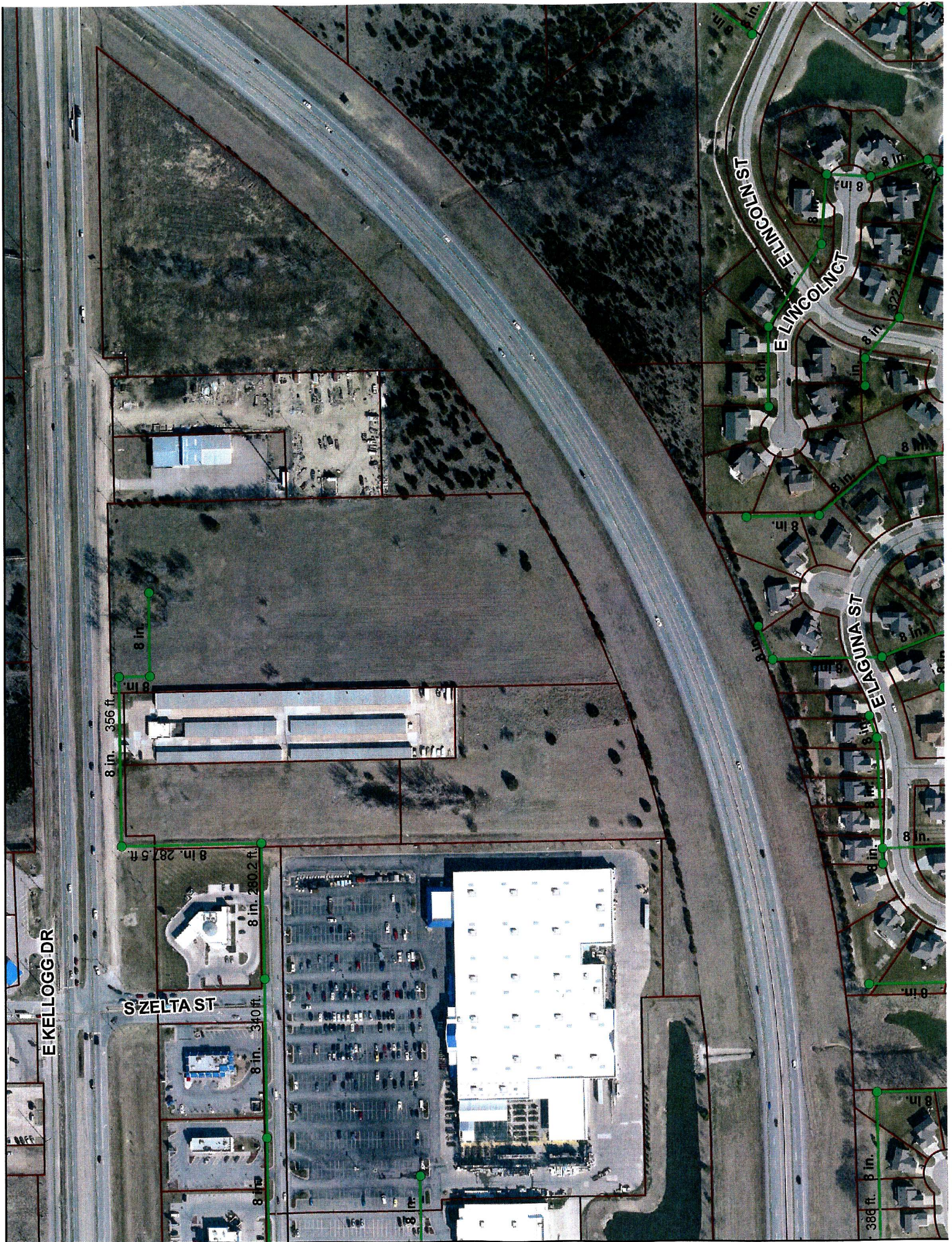
City Sanitary Sewer





City Sanitary Sewer





City Sanitary Sewer





City Sanitary Sewer





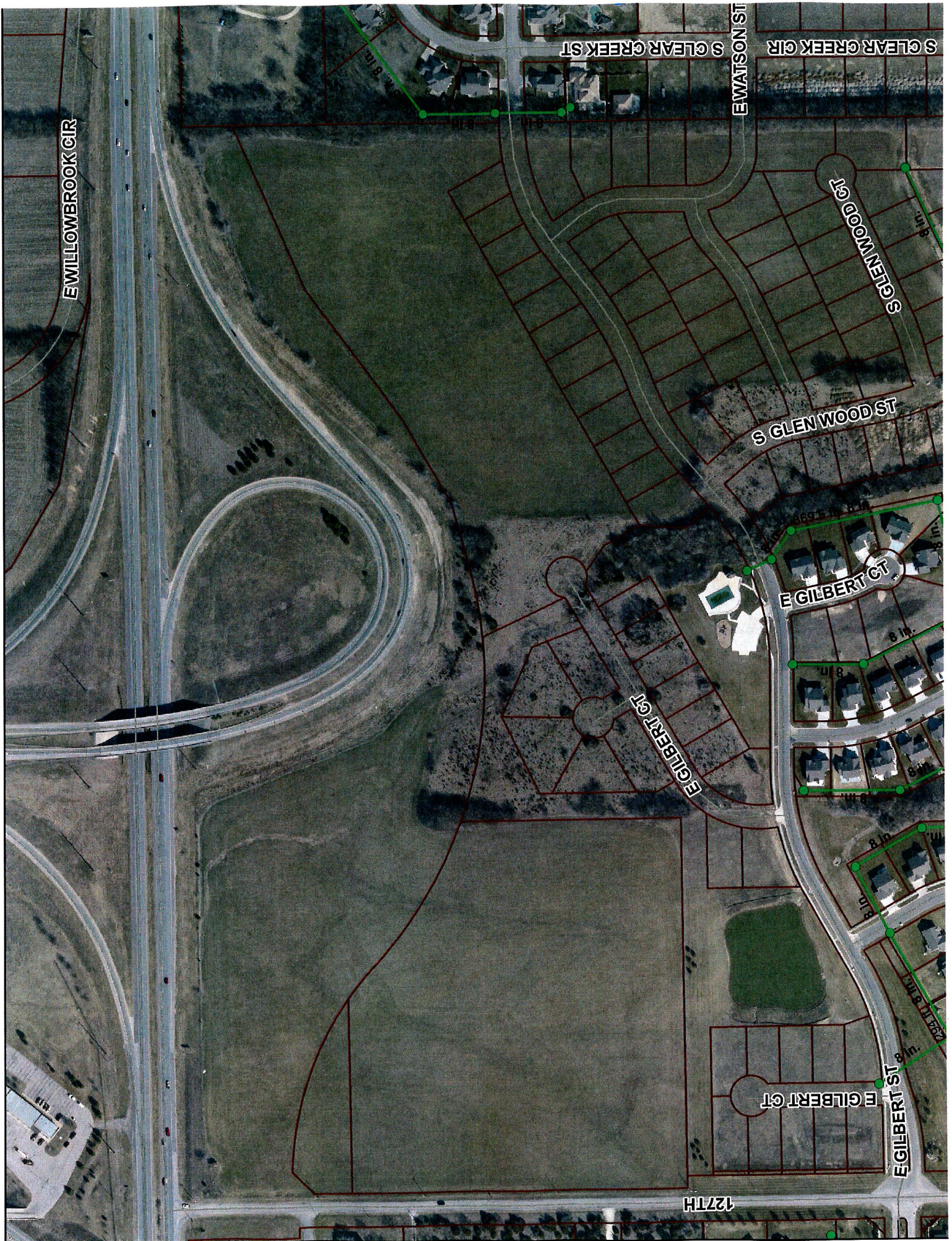
City Sanitary Sewer





City Sanitary Sewer





City Sanitary Sewer





City Sanitary Sewer







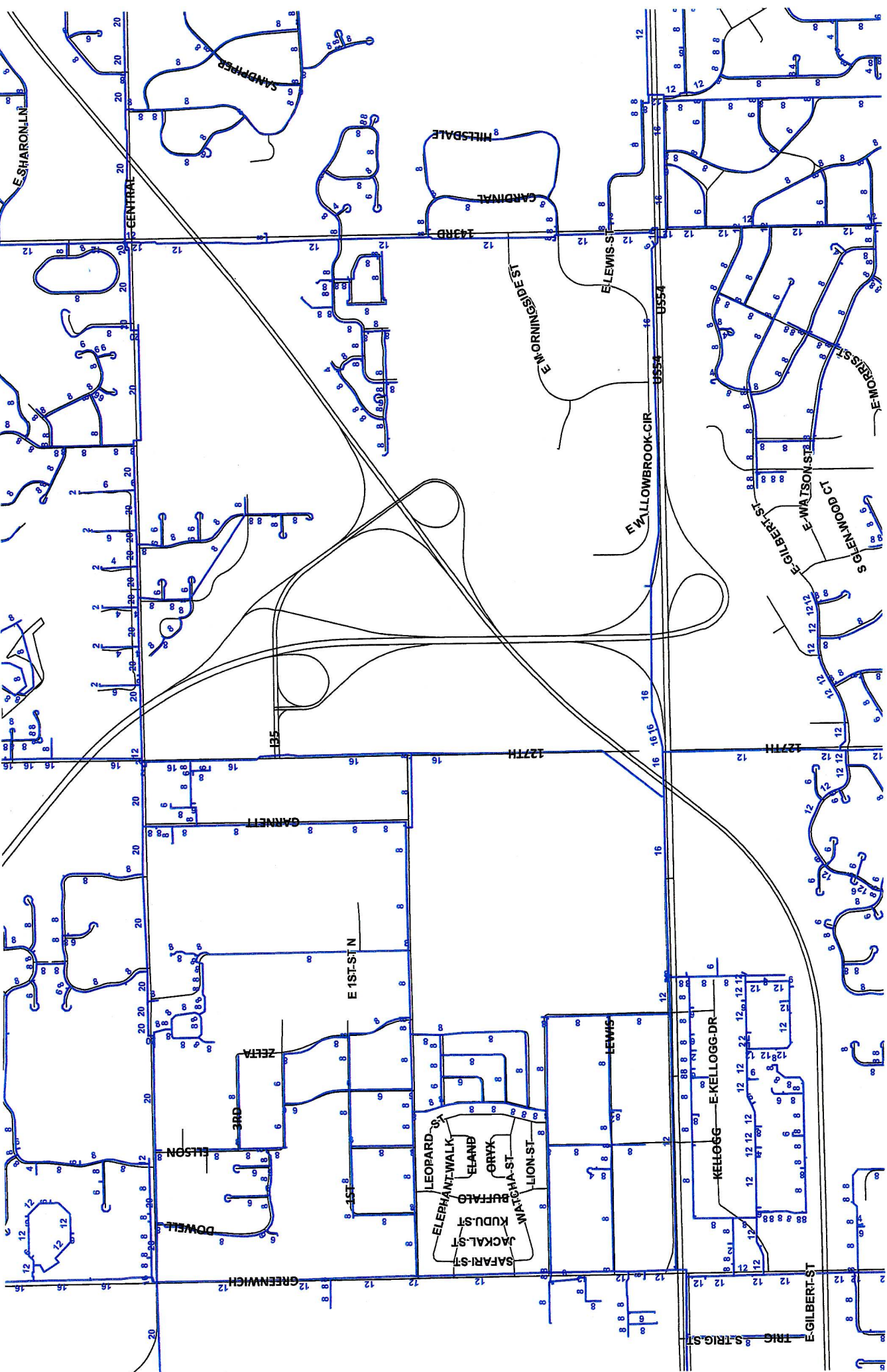








77



City  
Water  
Lines

Updated 5/27/14	Utility Company	Contact	WICHITA UTILITY CONTACT LIST			Telephone	Alternate	Updated 5/27/14
	AT&T	Jason Edwards	154 N. Broadway, Rm 210	Wichita, KS	67202	316-268-2008		Email <a href="mailto:JE1682@ATT.com">JE1682@ATT.com</a>
	AT&T	Cheryl Engen	154 N. Broadway, Rm 210	Wichita, KS	67202	316-268-2931		<a href="mailto:CH6573@ATT.com">CH6573@ATT.com</a>
	AT&T	John Fagan	154 N. Broadway, Rm 210	Wichita, KS	67202	316-268-2102		<a href="mailto:JF3595@ATT.com">JF3595@ATT.com</a>
	Beechcraft	Joe Freeman	B015-A02 10511 E. Central Ave.	Wichita, KS	67206	316-676-7911	316-712-1994	<a href="mailto:Joe.Freeman@Beechcraft.com">Joe.Freeman@Beechcraft.com</a>
	Black Hills Energy	Daryl Keller				316-941-1654		<a href="mailto:Daryl.Keller@BlackHillsCorp.com">Daryl.Keller@BlackHillsCorp.com</a>
	Black Hills Energy	Calvin Briggs				316-250-5167		<a href="mailto:Calvin.Briggs@BlackHillsCorp.com">Calvin.Briggs@BlackHillsCorp.com</a>
	Black Hills Energy	Kelly Kraus, Mr.				316-941-1628		<a href="mailto:Kelly.Kraus@BlackHillsCorp.com">Kelly.Kraus@BlackHillsCorp.com</a>
Coffeerville Resources / CVR Energy		Dennis Young	3303 E. 9th Ave.	Winfield, KS	67156-3420	620-221-2107	800-982-4112	<a href="mailto:DYoung@CVREnergy.com">DYoung@CVREnergy.com</a>
Cox Communications		Pat Roth	901 S. George Washington Blvd.	Wichita, KS	67211	316-260-7170		<a href="mailto:Pat.Roth@Cox.com">Pat.Roth@Cox.com</a>
Cox Communications		Marc Henderson	901 S. George Washington Blvd.	Wichita, KS	67211	316-260-7745	260-6052 fax	<a href="mailto:Marc.Henderson@Cox.com">Marc.Henderson@Cox.com</a>
Kansas Gas Service		James Coe	1021 East 26th Street North	Wichita, KS	67219-4308	316-832-3126	316-209-9181	<a href="mailto:James.Coe@KansasGasService.com">James.Coe@KansasGasService.com</a>
Kansas Gas Service		Tommy Moungnarath	1021 East 26th Street North	Wichita, KS	67219-4308	316-831-3134		<a href="mailto:atopme.Moungnarath@oneok.com">atopme.Moungnarath@oneok.com</a>
Phillips 66 Pipeline LLC		Jim Noland	500 Frank Phillips Blvd. - Phillips Building	Bartlesville, OK	74004	918-661-0138	819-841-6181	<a href="mailto:Jim.Noland@P66.com">Jim.Noland@P66.com</a>
Phillips 66 Pipeline LLC		Scott Salisbury	500 Frank Phillips Blvd. - Phillips Building	Bartlesville, OK	74004	316-681-2081		<a href="mailto:Scott.C.Salisbury@P66.com">Scott.C.Salisbury@P66.com</a>
Phillips 66 Pipeline LLC		Kevin Kent	Pipeliner, 8001 Oak Knoll	Wichita, KS		316-618-2415	316-618-2415	<a href="mailto:Kevin.L.Kent@P66.com">Kevin.L.Kent@P66.com</a>
Southern Star Central Gas Pipeline		Stacy Catlin	Mgr.-Region-Central, 4000 S. Seneca	Wichita, KS	67217	316-529-6620	316-570-0228	<a href="mailto:Stacy.E.Callin@SSCGP.com">Stacy.E.Callin@SSCGP.com</a>
Southern Star Central Gas Pipeline		Andrew Buchanan	Land Rep II, 4000 S. Seneca	Wichita, KS	67217	316-529-6603	620-951-4335	<a href="mailto:Andrew.D.Buchanan@sscgcp.com">Andrew.D.Buchanan@sscgcp.com</a>
Southern Star Central Gas Pipeline		James Crowley	Ops Team Ldr., 4000 S. Seneca	Wichita, KS	67217	316-529-6601	316-303-7800	<a href="mailto:James.Crowley@sscgcp.com">James.Crowley@sscgcp.com</a>
Southern Star Central Gas Pipeline		Denis Chege	4000 S. Seneca	Wichita, KS	67217	620-327-7606	316-215-1870	<a href="mailto:Denis.W.Chege@SSCGP.com">Denis.W.Chege@SSCGP.com</a>
Southern Star Central Gas Pipeline		Ryan Manning	Engr. Proj. Coord., 8195 Cole Pkwy.	Shawnee, KS	66227		913-449-8274	<a href="mailto:Ryan.Manning@sscgcp.com">Ryan.Manning@sscgcp.com</a>
Southern Star Central Gas Pipeline		Tony Blandford	Prin. Engr. 4700 Hwy 56 W., Box 20010	Owensboro, KY	42304	270-852-4495	270-993-8984	<a href="mailto:Tony.Blandford@sscgcp.com">Tony.Blandford@sscgcp.com</a>
Southern Star Central Gas Pipeline		Mike DeGraeve	Mgr., Proj.Engineering 8195 Cole Pkwy.	Shawnee, KS	66227	913-310-7616	816-810-4500	<a href="mailto:Mike.DeGraeve@sscgcp.com">Mike.DeGraeve@sscgcp.com</a>
Farnsworth Group (Real Estate)		Terry Stiles	Pipeline Engineer			314-962-7900	412-6295cell	<a href="mailto:TStiles@F-w.com">TStiles@F-w.com</a>
Farnsworth Group (Real Estate)		Ken Stegall	Farnsworth Grp, 20 Allen Ave, Ste. 200	St. Louis, MO	63119	314-962-7900	314-422-6295	<a href="mailto:kstegall@F-W.com">kstegall@F-W.com</a>
Textron Aviation, Beech Campus		Joe Freeman	B015-A.02, 10511 E. central Ave.	Wichita, KS	67206	316-676-7911	316-712-1994	<a href="mailto:Joe.Freeman@Textron.com">Joe.Freeman@Textron.com</a>
US Sprint		McCoy Ingalls	7062 Universal Ave.	Kansas City, MO	64120	800-521-0579	404-396-9726	<a href="mailto:McCoy.W.Ingalls@sprint.com">McCoy.W.Ingalls@sprint.com</a>
Westar Energy (Distribution)		Shane Price	1900 E. Central Ave.	Wichita, KS	67214	316-261-6315	316-706-6702	<a href="mailto:Shane.Price@WestarEnergy.com">Shane.Price@WestarEnergy.com</a>
Westar Energy (Distribution)		Miles Capps	1900 E. Central Ave.	Wichita, KS	67214	316-261-6824	316-706-6702	<a href="mailto:Miles.Capps@WestarEnergy.com">Miles.Capps@WestarEnergy.com</a>
Westar Energy (Distribution)		Ken McLemore	1900 E. Central Ave.	Wichita, KS	67214	316-261-6774	316-706-6702	<a href="mailto:Ken.McLemore@WestarEnergy.com">Ken.McLemore@WestarEnergy.com</a>
Westar Energy (Real Estate)		Janelle Hutter	1900 E. Central Ave.	Wichita, KS	67214	316-299-7120	316-706-6702	<a href="mailto:Janelle.Hutter@WestarEnergy.com">Janelle.Hutter@WestarEnergy.com</a>
Westar Energy (Transmission)		Scott Benortham	818 S. Kansas Ave.	Topeka, KS	66001	785-575-8160		<a href="mailto:Scott.Benortham@WestarEnergy.com">Scott.Benortham@WestarEnergy.com</a>
Westar Energy (Transmission)		Alicia Floberg	818 S. Kansas Ave.	Topeka, KS	66001	785-575-8154	785-289-6171	<a href="mailto:Alicia.Floberg@WestarEnergy.com">Alicia.Floberg@WestarEnergy.com</a>
Westar Energy(Transmission)		Nick Koch	818 S. Kansas Ave.	Topeka, KS	66001			<a href="mailto:Nick.Koch@WestarEnergy.com">Nick.Koch@WestarEnergy.com</a>
Wichita, City of, Utility Project Mgr.		Don Kirkland	455 N. Main	Wichita, KS	67202	316-303-8701		<a href="mailto:DKirkland@Wichita.gov">DKirkland@Wichita.gov</a>
Wichita, City of, Water/Sewer Proj. Engr		Deb Ary	455 N. Main	Wichita, KS	67202	316-303-8701		<a href="mailto:DAry@Wichita.gov">DAry@Wichita.gov</a>
Wichita, City of, Water & Sewer Dept.		Bill Perkins	455 N. Main	Wichita, KS	67202	316-268-4555		<a href="mailto:BPerkins@Wichita.gov">BPerkins@Wichita.gov</a>
Wichita, City of, Sewer Dept.		LaDonna Lawrenz	455 N. Main	Wichita, KS	67202	316-303-8701		<a href="mailto:LLawrenz@Wichita.gov">LLawrenz@Wichita.gov</a>
Wichita, City of, Water Dept.		Greg Lolley	455 N. Main	Wichita, KS	67202	316-303-8701		<a href="mailto:GLolley@Wichita.gov">GLolley@Wichita.gov</a>

# **Appendix G**

## ***Cost Estimates***

***DRAFT-Conceptual Alternatives Study***  
***July 2014***



**EXPERIENCE** | Transportation



