

# Summary

## 0.1 INTRODUCTION

On July 29, 2002, the Kansas Department of Transportation (KDOT) submitted a Section 404 permit application to the U.S. Army Corps of Engineers, Kansas City District (KCD) for authorization to place fill material in waters of the U.S. in association with construction of a four-lane, controlled access roadway in the vicinity of Lawrence, Kansas. The proposal (commonly known as the South Lawrence Trafficway) would relocate an approximately seven mile long section of Kansas Highway 10 (K-10 Highway) from within the city to a bypass location along the southern edge of the community. The Kansas City District has three options available in responding to KDOT's application:

- Approve the requested permit without conditions
- Approve the requested permit with conditions
- Deny the requested permit

The Kansas City District's decision to issue or deny the requested permit will be made after completion of an environmental impact statement to address KDOT's proposal. This draft environmental impact statement (Draft EIS) has been prepared by KCD with assistance from KDOT and is intended to provide a comprehensive analysis of the environmental impacts associated with the proposed highway relocation. This document has been prepared in accordance with the Council On Environmental Quality Regulations For Implementing The Procedural Provisions Of The National Environmental Policy Act (NEPA) (40 C.F.R. 1500-1508) and the U.S. Army, Corps of Engineers (Corps) implementing regulations for its regulatory program (33 C.F.R. Part 325 Appendix B).

The study process followed five steps. These steps are outlined below and are explained in greater detail later in this summary.

- **Step One – The Kansas Department of Transportations statement of Purpose and Need** – The Purpose and Need statement describes the problem and defines the characteristics of an acceptable solution. The Kansas Department of Transportation has defined the conditions that require action by the state and how it would measure success in addressing those conditions.
- **Step Two – Defining the Range of Alternatives** – The Kansas Department of Transportation and KCD have defined a range of alternatives that could solve the problem identified in the Purpose and Need.
- **Step Three – Identification of Reasonable Alternatives** – The Kansas Department of Transportation and KCD have tested the range of alternatives against the statement of purpose and need. Alternatives that were feasible, from a technical and economic perspective, and that had the potential to satisfy the purpose and need were considered reasonable alternatives and were carried forward for further review.

- **Step Four – Evaluation of Reasonable Alternatives** – The reasonable alternatives were tested through four screening processes until KCD and KDOT identified their preferred alternative(s).
- **Step Five – Future Steps** – What happens after the publication of the Draft EIS and before a decision is made regarding the Selected Alternative and the issuance of a Section 404 permit.

## 0.2 PROJECT DESCRIPTION

The Kansas Department of Transportation proposes to construct a new section of K-10 Highway beginning in Douglas County near the eastern edge of Lawrence and extending approximately six miles south and west to the existing K-10 Highway/US-59 Highway interchange in southwest Lawrence. The proposed new road section would replace the existing K-10 route through Lawrence with a direct, limited access, freeway connection along the southern edge of the city.

The proposed project includes:

- Acquisition of right-of-way
- Construction of a four-lane divided freeway, on a 32<sup>nd</sup> Street alignment, with access limited at interchanges
- Construction of grade-separated interchanges
- Relocation of 31<sup>st</sup> immediately adjacent to the proposed new freeway
- On and off-site mitigation features

Greater detail regarding the project and its history is provided in Chapter 1.

## 0.3 STEP ONE – KDOT’S STATEMENT OF PURPOSE AND NEED

Kansas Highway 10 is presently routed through Lawrence on city streets. Routing the highway on city streets creates congested and unsafe driving conditions for travelers due both to insufficient capacity of the road and to inadequate access control. The congested and unsafe condition of the present route through Lawrence has been established through a review of accident data, an area Origin and Destination Study, collection of area traffic volume data, a projection of future traffic volume, and a survey of area residents.

Under KDOT’s statutory responsibility, the purpose and need for the proposed project is to provide a safe, efficient, environmentally sound and cost-effective transportation facility for users of K-10 Highway and the surrounding state highway system and, to the extent possible, to do so in a manner that is consistent with local land use and transportation planning objectives.

As the lead Federal agency, KCD has a responsibility to exercise independent judgment in defining KDOT’s purpose and need statement from both KDOT’s and the public’s perspective. The Kansas City District is responsible for ensuring that the proposal’s purpose and need statement does not unduly restrict the range of alternatives considered and, at the same time, is not so broadly defined that an unreasonably large number of alternatives must be considered.

The Kansas City District has reviewed the information provided by KDOT related to accident rates, access control, current and predicted traffic volumes, and other documentation presented

in support of its purpose and need statement, and is of the opinion that the information is reliable. Based on that information, KCD has determined that KDOT's purpose and need statement is appropriate.

#### 0.4 STEP TWO – DEFINING THE RANGE OF ALTERNATIVES

Based on the current and projected transportation needs identified for the K-10 Highway corridor (as reflected in the KDOT's purpose and need statement) and after considering the information collected through a public and agency scoping process, the following range of alternatives has been identified.

Alternative	Brief Description
No Action Alternative	The No-Action Alternative assumes that no permit is issued and that no activity requiring a KCD permit occurs as a result of this study.
Enhanced Transit	Enhanced transit service could include improved local transit service and a regional transit connection between Topeka and Kansas City.
Upgrade Existing K-10 Highway Link	Improve the existing K-10 Highway connection through the city of Lawrence.
31 <sup>st</sup> Street Alternative	Four-lane route along the existing 31 <sup>st</sup> Street alignment.
32 <sup>nd</sup> Street Alternative	Four-lane roadway along an alignment that roughly approximates the location of 32 <sup>nd</sup> Street.
35 <sup>th</sup> Street Alternative	Four-lane roadway in the vicinity of 35 <sup>th</sup> Street.
38 <sup>th</sup> Street Alternative	Four-lane roadway along an alignment that roughly approximates the location of 38 <sup>th</sup> Street.
42 <sup>nd</sup> Street Alternative	Four-lane roadway along an alignment that roughly approximates the location of 42 <sup>nd</sup> Street.
Far East and South Corridor	Four-lane roadway in a corridor extending from US-59 Highway south of the Wakarusa River to K-10 Highway near Eudora.
Far South Corridor	Four-lane roadway in an undefined corridor sufficiently south of N 1100 Road to avoid all but a few residential displacements.
Eastern Bypass	Four-lane roadway connecting K-10 Highway to Interstate 70 in a corridor east of Lawrence.
Tunnel	Four-lane roadway through a tunnel under Baker Wetlands.

## 0.5 SCREENING OF ALTERNATIVES

A multi-level screening process was developed to allow for a systematic decision-making process through which alternative were given a thorough review at appropriate stages in the process and either rejected or retained for further evaluation. The screening process is intended to assist KCD and KDOT in their selection of a preferred alternative(s) and to provide an orderly decision process for public review.

### First Screening

This initial screening subjected alternatives to one basic question: Would the alternative meet the purpose and need? This screening identified the reasonable alternatives that would be studied in detail. For build alternatives, evaluation was at the corridor level.

### Second Screening

The second screening balanced the collective environmental, social and cultural impacts of an alternative against its operational characteristics. In other words, even though a specific alternative might meet the project's purpose and need, did it do so at a cost that KCD and/or KDOT considered unacceptable. For build alternatives, evaluation was at the corridor level.

### Third Screening

The third screening identified the best alignment alternative within the two remaining corridors. This screening was designed to focus later analysis on the two alternative alignments appeared most suitable.

### Fourth Screening

The fourth and final screening identified the Preferred Alternative(s) selected by KCD and KDOT. At this level of screening, the two remaining alternatives were rigorously compared against one another. At this level, differences between alternatives were sharply defined.

## 0.6 STEP THREE – IDENTIFICATION OF REASONABLE ALTERNATIVES

Each alternative included within the initial range of alternatives was tested against the purpose and need for the project. Those alternatives that passed this basic test (appeared to meet the project's purpose and need) were considered reasonable alternatives and were carried forward for detailed analysis. Alternatives that did not pass this initial test were rejected as not suitable for further evaluation. A full discussion of the screening process is included in Chapter 2 of this document.

<b>First Screening</b>
The following alternatives were eliminated through the first screening.
<b>Enhanced Transit Service</b>
<p><b>Reason for Elimination:</b> Under best-case forecasts, transit reduces traffic on the connecting link by three to five percent, which would not eliminate the severe congestion present within the route.</p>
<b>Upgrade Existing K-10 Highway Link</b>
<p><b>Reason for Elimination:</b> Previous studies have determined that connecting link improvements, such as increased capacity and enhanced access management, are not feasible.</p>
<b>Far East and South Corridor</b>
<p><b>Reason for Elimination:</b> Would not attract a sufficient amount of traffic to justify the increased cost and associated environmental impacts.</p>
<b>Far South Bypass</b>
<p><b>Reason for Elimination:</b> Would not attract a sufficient amount of traffic to justify the increased cost and environmental impacts.</p>
<b>Eastern Bypass</b>
<p><b>Reason for Elimination:</b> Would not attract a sufficient amount of traffic to justify the environmental and social impacts.</p>
<b>Tunnel</b>
<p><b>Reason for Elimination:</b> Eliminated due to excessive construction cost, environmental impacts and risk factors related to periodic flooding in the area.</p>

## 0.7 STEP FOUR – EVALUATION OF REASONABLE ALTERNATIVES

The Kansas City District and KDOT independently evaluated each reasonable alternative in detail. As part of the review, KCD and KDOT collected and evaluated data for a variety of categories. Those categories, which are detailed in Chapter 3 (Affected Environment) and Chapter 4 (Environmental Consequences) included:

- Land Use
- Population and Economic Environment
- Hazardous Waste
- Education and Academic Programs
- Cultural Resources
- Farmland
- Air Quality
- Noise
- Visual Environment
- Water Quality
- Floodplains
- Wetlands
- Natural Resources and Communities
- Threatened and Endangered Species

The information collected through this process and documented in Chapter 3 (Affected Environment) and Chapter 4 (Environmental Consequences) was used in conducting the remaining three screening levels summarized below.

The second screening balanced the collective environmental, social and cultural impacts of an alternative against its operational characteristics. If the environmental, social and cultural impacts were considered excessive in relation to an alternative's operational characteristics (i.e., projected traffic volume, accident rates, level of service), it was eliminated from further evaluation.

<b>Second Screening</b>
The following alternatives were eliminated through the second screening.
<b>31<sup>st</sup> Street</b>
From a strictly financial, environmental and operational perspective, the 31 <sup>st</sup> Street corridor is the optimal location for the SLT. However, as the history of the SLT suggests, there are significant political and social obstacles to constructing the roadway on HINU property. Therefore, KCD and KDOT eliminated the 31 <sup>st</sup> Street Alternative from further consideration, as long as there are other operationally comparable alternatives available that do not directly impact HINU property.
<b>35<sup>th</sup> Street</b>
Alternatives within the 35 <sup>th</sup> Street Corridor could clearly achieve the purpose and need for the project; however, KCD and KDOT determined that the environmental impacts associated with alignments that bifurcate Baker Wetlands would be unacceptable given the availability of less environmentally damaging alternatives.
<b>38<sup>th</sup> Street</b>
The 38 <sup>th</sup> Street Corridor was eliminated from further consideration by KCD and KDOT since construction of a roadway within the corridor would separated the majority of the Baker Wetlands complex from the riparian corridor along the Wakarusa River. Construction of a road along this corridor is considered to have a high potential to significantly impact Baker Wetlands. Other less environmentally damaging alternatives were determined to be available.

The second screening eliminated all but the 32<sup>nd</sup> Street and 42<sup>nd</sup> Street alternatives. In order to clarify the options available to KCD and KDOT, and to focus the discussion on those options, a screening was conducted to identify the best 32<sup>nd</sup> Street alternative and the best 42<sup>nd</sup> Street alternative. In the third screening, KCD and KDOT sought to identify the two alternatives that maximized the positive impacts of each alternative corridor while minimizing the adverse impacts.

<b>Third Screening</b>	
The following alternatives were eliminated through the third screening.	
<b>32<sup>nd</sup> Street Alternatives</b>	
<b>32<sup>nd</sup> Street A</b>	This alternative
<b>32<sup>nd</sup> Street C</b>	This alternative was eliminated primarily because it resulted in a high number of farmland impacts, farm ownership severances, and residential and business displacements.
<b>32<sup>nd</sup> Street D</b>	This alternative was eliminated primarily because it resulted in the highest number of farmland impacts, farm ownership severances, and residential and business displacements.
<b>32<sup>nd</sup> Street E</b>	This alternative was eliminated due to a lack of access to the local roadway system.
<b>42<sup>nd</sup> Street Alternatives</b>	
<b>42<sup>nd</sup> Street B</b>	This alternative was eliminated primarily because of excessive residential property impacts and high construction and maintenance costs.

The fourth and final screening allowed KCD and KDOT to select their Preferred Alternative(s). The 32<sup>nd</sup> Street Alternative B Alignment and the 42<sup>nd</sup> Street Alternative A Alignment were carried into this final screening. The 32<sup>nd</sup> Street Alignment B, represents KDOT's Section 404 permit request.

In order to select a Preferred Alternative, KCD and KDOT needed to establish which criteria were particularly meaningful. The purpose and need for the project and the input received through the public involvement process were determined to be critical to this stage of the review process. Once the individual components of the project's purpose and need were combined with the key issues identified through the public involvement process, the following criteria were established.

Fourth Screening	
Criteria	Application
<b>Safety</b>	Based on the measure of accident reductions, <i>32<sup>nd</sup> Street Alternative B</i> would result in 608 fewer accidents over the planning horizon for this project.
<b>Efficiency</b>	<i>The 32<sup>nd</sup> Street Alternative B</i> carries more traffic and offers a shorter route for through traffic.
<b>Environmental Impacts</b>	The <i>32<sup>nd</sup> Street Alternative B</i> impacts 68 percent more wetlands than the <i>42<sup>nd</sup> Street Alternative A</i> .
<b>Cost</b>	The <i>32<sup>nd</sup> Street Alternative B</i> costs \$23.2 million less to construct and \$33,000 less per year to operate and maintain. Over the 20-year planning horizon of this project, those savings total \$23.8 million.

## 0.8 PUBLIC INVOLVEMENT, COMMENTS AND COORDINATION

In addition to collecting and evaluating data related to environmental impacts associated with various alternatives, KCD and KDOT implemented a comprehensive public involvement program to solicit public input. The Kansas City District and KDOT collected public views regarding the proposal through a comprehensive public involvement program designed with four objectives in mind.

- Enhance the public understanding of the purpose and need for the project
- Provide citizens with easy access to information and frequent opportunities to participate
- Ensure that public input is collected from the widest possible audience
- Provide opportunities for a constructive exchange of views

The following tools have been employed to support public involvement in the Draft EIS.

Tools	Comments
<b>INTERNET: WEB SITE AND E-MAIL</b>	Individuals with Internet access may visit the project web site 24 hours a day, seven days a week.
<b>PUBLIC MEETINGS</b>	Meetings were held in Lawrence at various times during the study. Exact dates are listed in Chapter 5.
<b>POST OFFICE BOX AND HOT LINE</b>	A project post office box and hot line have been promoted through the media, the web site, and in study publications and presentations.
<b>MAILING LIST</b>	KDOT has compiled a mailing list for this project in excess of 800 individuals and organizations.

<b>MEDIA RELATIONS</b>	Local media outlets were contacted early in the study process to help inform the public.
<b>PUBLICATIONS</b>	A brochure and maps of conceptual alignments have been published and distributed.
<b>STAKEHOLDER COORDINATION, COMMUNITY PRESENTATIONS AND BRIEFINGS</b>	KCD and/or KDOT conducted more than two dozen presentations and briefings.
<b>TELEPHONE SURVEY</b>	KDOT conducted a survey of Kansas residents during January 2002. The purpose of the survey was to gather statistically valid input from residents regarding issues related to the KDOT's proposal.
<b>FACILITATED STAKEHOLDER INPUT GROUP</b>	To support the goal of creating opportunities for constructive, public dialogues related to this controversial project, KDOT established a facilitated stakeholder group (FSG). Participants had to represent an organized, interested group or a distinct audience with a specific interest in the project.

In addition to using the tools outlined above, KCD initiated an extensive Native American consultation and outreach program. This effort included an initial mailing to every federally recognized tribe in the United States and an invitation to consult on a government-to-government basis with 29 Kansas reservation and homeland tribes.

The following is a brief summary of the input received through the public involvement process.

<b>Summary of Public Input</b>	
<b>ENVIRONMENTAL IMPACTS</b>	There are broadly held concerns regarding any alignment that will impact Baker Wetlands. Concerns are based on the potential for significant environmental impacts to occur from construction on such alignments. Concern was also expressed regarding the impact of river a crossing related to the 42 <sup>nd</sup> Street alignments.

<b>DESIRE FOR PROGRESS ON WHAT IS PERCEIVED AS A NEEDED TRANSPORTATION PROJECT</b>	For those who consider the SLT an important and necessary project, there is widely expressed frustration with the community's inability to implement the action. The "let's just get it done" opinion was frequently expressed.
<b>TRAFFIC CONCERNS</b>	There is widely expressed concern for the traffic problems experienced on 23 <sup>rd</sup> , 31 <sup>st</sup> and other city streets. Proponents of the SLT expressed concerns that (1) traffic conditions would continue to deteriorate, (2) 31 <sup>st</sup> Street would become a de facto trafficway with highly deleterious consequences for the community and (3) failure to build the SLT would damage the economic growth and quality of life in the Lawrence community.
<b>NATIVE AMERICAN CONCERNS</b>	The important cultural/sacred character of the HINU and Baker Wetlands property is an important issue for many individuals. Those who accept the wetlands as an important part of the Haskell community/Native American experience in Lawrence are adamant in their opposition to any alignment that would impact the properties.
<b>HISTORICAL AND CULTURAL RESOURCES AND RESIDENTIAL IMPACTS SOUTH OF THE RIVER</b>	The 42 <sup>nd</sup> Street alignment is most frequently viewed as the best alternative to avoid the most severe environmental impacts. However, there has been significant involvement from individuals who live south of the Wakarusa River or who have an interest in the historical and cultural character of that area and do not want the road to be located south of the river.
<b>SUPPORT FOR ALTERNATIVE MODES OF TRANSPORTATION</b>	Support for the No-Build Alternative is generally expressed as a proxy for support of alternative modes of transportation. Commuter rail between Topeka, Lawrence and Kansas City and increased use of local and regional bus transit were offered as alternative measures to address real traffic and mobility needs.

## 0.9 SELECTION OF KDOT'S PREFERRED STRATEGY

Relying on the screening activities outlined above and based on a review of all the data gathered regarding the impacts and operational characteristics of the alternatives under consideration in the final screening, KDOT has selected a slightly modified 32<sup>nd</sup> Street Alternative B as its Preferred Alternative.

Although the 32<sup>nd</sup> Street Alternative B was preferred on four of the five key criteria outlined above, KDOT did not make its selection on that basis alone. The Kansas Department of Transportation considered the role mitigation could play in each of the alternatives and within each of the key selection criteria. The Department of Transportation determined that the measures of safety, efficiency and cost could not be significantly improved for any alternative through mitigation. However, KDOT was able to compensate for wetland impacts through a significant mitigation proposal.

Mitigation for the loss of 57 acres of wetlands, most of which is within Baker Wetlands, will be the creation of 317 acres of additional wetlands and the construction of a \$1.2 million Wetland Visitor and Study Center. The center would be paid for by KDOT and owned and operated for the public by Baker University. The mitigation also includes relocation of 31<sup>st</sup> Street from HINU property to a location adjacent to SLT. Relocation would result in the vacation of the Douglas County's right-of-way and easement on HINU property and return of the land to HINU.

## 0.10 KDOT'S PREFERRED ALTERNATIVE

The 32<sup>nd</sup> Street Alternative B, KDOT's Preferred Alternative, commences at the intersection of US-59 Highway (South Iowa Street) and the existing western leg of SLT. The road completes the diamond interchange at US-59 Highway, and proceeds northeast to Louisiana Street, crossing over Louisiana just south of the existing 31<sup>st</sup> Street. No intersection is planned at Louisiana Street. The alignment then proceeds east and parallel to the north levee of Baker Wetlands to a folded-diamond interchange with relocated Haskell Avenue. Haskell Avenue would be relocated approximately 1,000 feet east of its present location to minimize impacts to the Baker Wetlands. The alignment then proceeds east and parallel to 31<sup>st</sup> Street. Approximately 3/4 of a mile east of East 1750 Road the alignment turns northeast to an interchange at K-10 Highway/23<sup>rd</sup> Street. The interchange is proposed to be fully-directional, with the major movement being K-10 Highway and the minor movement tying into 23<sup>rd</sup> Street to the west. The alignment will not have intersections or interchanges at N 1300, E 1600, E 1700 or East 1750 Road. East 1750 Road will be extended north, intersecting Douglas County Route 442 at the East Hills Business Park, north of the existing K-10 Highway. East 1750 Road will be on a bridge over existing K-10 Highway/23<sup>rd</sup> Street.

A primary feature of the Preferred Alternative is the relocation of 31<sup>st</sup> Street approximately 500 feet south of its existing location. The existing pavement and fill material will be removed, allowing for restoration of the easement to wetlands. The right-of-way would be conveyed from Douglas County to BIA/HINU. The at-grade intersections at Louisiana Street and Haskell Avenue would be reconstructed and would incorporate traffic signals. New drainage structures would be constructed at 31<sup>st</sup> and Louisiana Streets to mitigate annual flooding problems at this location from Naismith Creek and surrounding neighborhoods.

The proposed action includes:

1. Right-of-way acquisition of 300 to 400 feet.

2. Construction of a four-lane, divided roadway with full access control. Construction will be staged with the first stage being the construction of two lanes on 4 lanes of right-of-way.
3. Construction of a 4-lane, relocated 31<sup>st</sup> Street to city of Lawrence standards.
4. Interchanges at US-59 Highway, Haskell Avenue and K-10 Highway/23<sup>rd</sup> Street.
5. A comprehensive wetland and educational mitigation plan, including acquisition of over 317 acres to be used for additional wetland conversion, and construction of a 10,000 square foot Cultural and Wetland Center.

### **0.11 KCD'S PREFERRED ALTERNATIVES**

The Kansas City District has carefully reviewed the screening information presented in this document and concurs with KDOT's evaluation of alternatives and its decision process through the third screening level - where the 32<sup>nd</sup> Street Alternative B alignment and the 42<sup>nd</sup> Street Alternative A alignment are retained for further analysis. The Kansas City District does, however, disagree with the selection of only one Preferred Alternative for this project. The District's final screening (level 4) has resulted in a determination that two Preferred Alternatives (32<sup>nd</sup> Street Alignment B and 42<sup>nd</sup> Street Alignment A) will be identified in this Draft EIS. The District has concluded that, on balance, the benefits and detriments associate with the two preferred alternatives are similar, and that no single alternative appears to clearly best represent the overall public interest in this matter.

### **0.12 SUMMARY**

A 45-day review and comment period will begin for this document on the date that a Notice of Availability is published in the Federal Register. At the close of the public comment period KCD will review all comments received along with all other information available to the District regarding KDOT's proposal and will identify a single Selected Alternative in a Final EIS. Although KCD has identified two Preferred Alternatives, that does preclude the District from selecting an alternative not among the Preferred Alternatives. The District's Selected Alternative will be based on a determination that reflects the overall public interest in this matter.