

## Sedgwick County, Kansas

*Breaking Barriers and Connecting  
Communities to Opportunity*



**Arkansas River Crossing and 95th Street**

### **ARC95: Arkansas River Crossing and 95th Street**

**Project Type:** Roadway (New Capacity) and Bridge

**Project Activities:** Planning, Design, and Preparation

**Location:** Sedgwick County, Kansas

**Area:** Urban (Wichita Metropolitan Statistical Area)

**Applicant:** Sedgwick County, Kansas

**Requested Amount:** \$6,200,000

**Primary Contact:**

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# EXECUTIVE SUMMARY

## I. Project Description

Sedgwick County, Kansas is pursuing a FY2023 RAISE Planning Grant of \$6.2 million to complete preliminary engineering, a tolling feasibility study, environmental approvals, and final design of the Arkansas River Crossing and 95th Street (ARC95) project. The project encompasses corridor improvements along a 4.0-mile segment of 95th Street from Broadway Street (US-81) to Woodlawn Boulevard, including a new bridge crossing of the Arkansas River.

The *South Area Transportation Study (2008)* projected that existing river crossings would exceed capacity by 2030 and identified 95th Street as the southern segment of a new arterial loop. In 2017, Sedgwick County initiated the *Arkansas River Crossing and 95th Street (ARC95) Corridor Study* to examine current conditions, analyze traffic and growth patterns, engage the community regarding potential improvements, and identify action steps to create an efficient and effective thoroughfare that attracts economic growth. Based on the analysis of multiple improvement concepts, the *ARC95 Corridor Study* recommended upgrading the 95th Street corridor to a five-lane parkway, including a new crossing of the Arkansas River, a new interchange with I-35/Kansas Turnpike Authority (KTA), and a grade separated crossing of the BNSF Railway. With the support of several project partners, the ARC95 project was also one of nine regional priority projects subsequently included in the *WAMPO Re-Imagined MOVE 2040 Metropolitan Transportation Plan (2020)*.

### Project Description

The ARC95 project is comprised of three components: (1) alignment, (2) typical section, and (3) access improvements to the 4.0-mile 95th Street corridor from Broadway Street (US-81) to Woodlawn Boulevard. The project area is shown in Figure E-1 with key components of the project summarized in Table E-1. The FY2023 RAISE Planning Grant would support the planning, preparation, and design activities for this phase of the ARC95 project.

Figure E-1: Project Area

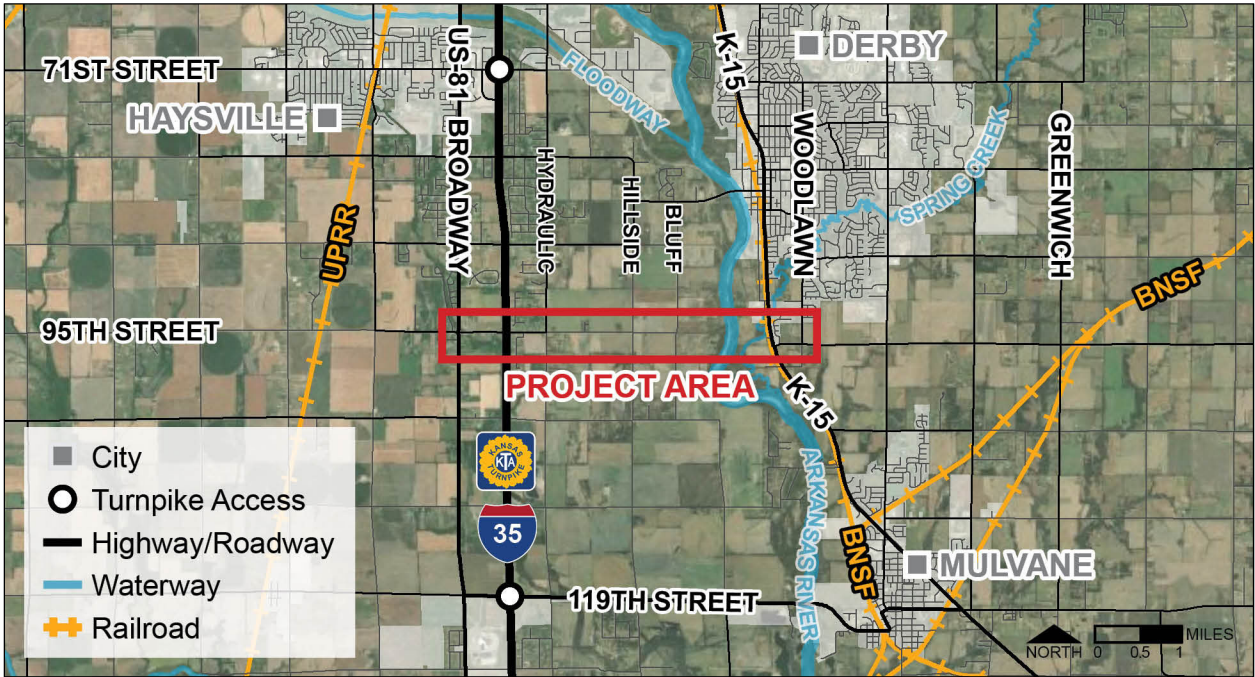


Table E-1: ARC95 Project Components

Component	Existing Condition	Project Description
Alignment	Discontinuous roadway with a 1.2-mile gap due to the Arkansas River, Spring Creek, and BNSF Railway corridor	Connect segments of 95th Street with a 4.0-mile roadway with bridge crossings of waterways, rail, and K-15
Typical Section	Two-lane, rural roadway with open ditch and no multimodal facilities	Expand to five-lane parkway with a shared-use path and sidewalk
Access	No access to I-35/KTA, at-grade intersection with K-15, and no turn lanes for turning traffic at multiple intersections and driveways	Provide new interchange access to I-35/KTA, upgrade to grade separated intersection at K-15, and implement access management at intersections

### Use of Project Funding

The FY2023 RAISE Planning Grant would be utilized for eligible planning, preparation, and design of the ARC95 project for the 4.0-mile corridor from Broadway Street (US-81) to Woodlawn Boulevard. These non-construction activities include: (1) project work plan, (2) preliminary engineering, (3) KTA Interchange Tolling Feasibility Study, (4) NEPA evaluation, and (5) final design. Based on the environmental scan completed during the *ARC95 Corridor Study*, an Environmental Assessment (EA) level of analysis is anticipated. Design will not include right-of-way acquisition. A summary of the scope of work is outlined in Table E-2.

Table E-2: Scope of Work for RAISE Planning Grant

Task	Description	Cost	
1	Project Work Plan	Detailed Project Work Plan, including budget and schedule, to outline the steps necessary to complete the scope of work and meet the grant requirements	\$50,000
2	Preliminary Engineering	Preliminary Design Package including 30% plan sheets, details, specifications, preliminary cost estimate, and preliminary construction schedule	\$2,220,000
3	KTA Tolling Feasibility Study	Feasibility Study to assess the cost of improvements, impact to KTA operations, projected traffic usage, projected revenue, and impacts to connector roads	\$100,000
4	NEPA Evaluation	NEPA Document (anticipate Environmental Assessment) to assess environmental impacts, understand any mitigation requirements, and obtain necessary approvals	\$200,000
5	Final Design	Final Design Package with 100% Plans, Specifications, and Estimates (PS&E) in preparation for construction at a later phase (no right-of-way acquisition included)	\$5,180,000
Total Cost for Scope of Work		\$7,750,000	

## Transportation Challenges and Project Solutions

The proposed ARC95 project addresses four key transportation challenges:

- *Meet Mobility Needs for Regional Growth:* Population and economic growth has amplified the need to meet increasing mobility and capacity needs for vehicles, freight, bicyclists, and pedestrians. The ARC95 project upgrades the existing rural, two-lane 95th Street roadway to a five-lane arterial with bicycle and pedestrian facilities to meet future mobility and capacity needs. Mobility improvements to meet the needs of southern Sedgwick County improve regional connectivity and travel time reliability to support regional growth.
- *Improve Multimodal Safety:* The existing roadway does not provide turn lanes, paved shoulders, or bicycle and pedestrian accommodations. The ARC95 project implements Kansas Department of Transportation (KDOT) access management guidelines and provides turn lanes, acceleration lanes, and deceleration lanes at designated access points to reduce crashes while maintaining traffic flow. A shared-use path and a sidewalk provide designated, off-street facilities for bicyclists and pedestrians with a buffer from traffic.
- *Increase Access to the Transportation Network:* Currently, residents in the vicinity have indirect access to the interstate system via circuitous routing as the closest KTA access points are approximately 3.0 miles away. Limited access points within southern Sedgwick County have stunted growth and increased local congestion on nearby north-south arterials such as Broadway Street (US-81) and K-15. The ARC95 project proposes a new interchange to provide a convenient access point for residents in the immediate area as well as other nearby communities in southern Sedgwick County and northern Sumner County.
- *Eliminate Barriers to Connectivity:* 95th Street in the project area is not a continuous corridor with a 1.2-mile gap between Bluff Street and K-15 due to barriers such as the Arkansas River, Spring Creek, and BNSF Railway. The ARC95 project proposes one bridge that spans the Arkansas River and Spring Creek to provide a continuous 95th Street corridor. The project also includes a grade separated crossing of the BNSF Railway and K-15 near the eastern project limits to remove conflicts points.

## II. Project Location

Sedgwick County is located in south central Kansas along the Arkansas River and is the second-most populous county in the state with nearly 525,000 residents. The City of Wichita, the county seat, is the most populous city in Kansas with a population approaching 400,000 residents. The Wichita Metropolitan Statistical Area (MSA) encompasses Sedgwick, Butler, Harvey, and Sumner counties. With approximately 650,000 residents, the Wichita MSA is the 93rd largest metropolitan area.

The ARC95 project is located in the census-designated urbanized area of Wichita, Kansas. The project area for the proposed RAISE Planning Grant encompasses the 4.0-mile segment of 95th Street from Broadway Street (US-81) to Woodlawn Boulevard, which served as the primary study area (approximately 7.9 square miles) in the *ARC95 Corridor Study*. The project is located within the Wichita Area Metropolitan Planning Organization (WAMPO) boundaries.

The study area is primarily rural with low population density. However, the project area experienced a 60% increase in population from 2010 to 2020 while the Wichita region experienced a slower 4% increase in population. Overall, the project area has demonstrated strong growth and a higher median household income compared to other areas in the Wichita region. Four cities, which served as project partners during the *ARC95 Corridor Study*, are located near the project: Clearwater, Derby, Haysville, and Mulvane.

The existing transportation network in southern Sedgwick County, including the project area, is primarily comprised of highways, roadways, and railroads. Some active transportation facilities exist in suburban areas near the project but are generally limited. There is currently no transit service in the area. The east-west 95th Street corridor has multiple functional classification designations depending on the segment. Within the project area, 95th Street is generally considered a major collector. Intersecting north-south roadways generally follow the one-mile or half-mile pattern that follows section lines established by the Public Land Survey System. These intersecting corridors include Hydraulic Street (major collector), Hillside Street (minor collector), Bluff Street (local), and Woodlawn Boulevard (major collector). As the Wichita region grows, development is anticipated southward along these corridors.

While the median travel time to work for Sedgwick County is 19.5 minutes, the project area has a median travel time of 27.4 minutes, which is 40.5% higher than the county median value. The lack of connectivity to the existing transportation network has caused the project area to have the second highest median travel time to work in Sedgwick County. Areas in the nearby City of Haysville and the City of Derby have higher concentrations of low-income populations with areas above the 60th national percentile.

### III. Grant Funds, Sources, and Uses

The overall project cost is \$7.75 million. Sedgwick County is seeking \$6.2 million in FY2023 RAISE Planning Grant funds, which represents 80% of the estimated cost of the scope of work for planning, preparation, and design activities for the ARC95 project. Sedgwick County will provide the 20% match funds of \$1.55 million. The Letter of Commitment from Sedgwick County is included in Appendix A. A summary of the funding components is outlined in Table E-3.

Table E-3: Funding Components

Task		Total Cost	Federal	Non-Federal
1	Project Work Plan	\$50,000	\$40,000	\$10,000
2	Preliminary Engineering	\$2,220,000	\$1,776,000	\$444,000
3	KTA Tolling Feasibility Study	\$100,000	\$80,000	\$20,000
4	NEPA Evaluation	\$200,000	\$160,000	\$40,000
5	Final Design	\$5,180,000	\$4,144,000	\$1,036,000
Total Cost for Scope of Work		\$7,750,000	\$6,200,000	\$1,550,000

With the support of several project partners, the ARC95 project was one of nine regional priority projects subsequently included in the Wichita Area Metropolitan Planning Organization (WAMPO) *Re-Imagined MOVE 2040 Metropolitan Transportation Plan (2020)*.  
- Wichita Area MPO

“ARC95 is an investment in the future of south Sedgwick County’s commercial and residential growth. Supporting it means we have the vision to see beyond the problems of today and can envision what will be needed in 20 years.”  
- Kathy Sexton, City of Derby, City Manager (retired December 2021)

## IV. Merit Criteria

Table E-4 provides a summary of how the project aligns with the eight goals of the RAISE program, with additional details in Section IV.

Table E-4: Merit Criteria Summary

Merit Criteria	Description
Safety	<ul style="list-style-type: none"> <li>Reduces severe crashes by minimizing roadway departures and turning conflicts</li> <li>Protects non-motorized users with safe, designated bicycle and pedestrian facilities</li> <li>Addresses systematic issues at highway-rail crossings by eliminating a conflict point</li> </ul>
Environmental Sustainability	<ul style="list-style-type: none"> <li>Reduces VMT and emissions by improving connectivity across major barriers</li> <li>Provides alternative options for bicyclists, pedestrians, and potential transit service</li> <li>Improves resiliency by maintaining access during flood and weather events</li> <li>Incorporates sustainable construction materials in the design process</li> </ul>
Quality of Life	<ul style="list-style-type: none"> <li>Increases opportunity and equity for users by addressing key barriers to connectivity</li> <li>Reduces transportation cost burdens for employees and encourages new job growth</li> <li>Enhances unique characteristics as a regional parkway and connection to greenways</li> </ul>
Mobility and Community Connectivity	<ul style="list-style-type: none"> <li>Increases access with an I-35/KTA interchange and new Arkansas River crossing</li> <li>Enhances freight movement on preferred corridors and supports rail movement</li> <li>Fosters a live-work-play environment to support growth and economic development</li> </ul>
Economic Competitiveness and Opportunity	<ul style="list-style-type: none"> <li>Improves operations and travel time reliability with a new Arkansas River crossing</li> <li>Strengthens the economy by facilitating strong growth in housing and employment</li> <li>Increases opportunity for disadvantaged communities with identified vulnerabilities</li> </ul>
State of Good Repair	<ul style="list-style-type: none"> <li>Addresses network vulnerabilities by adding new interstate access and river crossing</li> <li>Upgrades core assets to meet expectations regarding travel demands and growth</li> </ul>
Partnership and Collaboration	<ul style="list-style-type: none"> <li>Partners with four local cities, state agencies, and other transportation services</li> <li>Integrates quality public engagement tailored to the intended audiences</li> <li>Incorporates the private sector to leverage the expertise of partners, including DBEs</li> </ul>
Innovation	<ul style="list-style-type: none"> <li>Deploys innovative technology related to tolling and traffic operations</li> <li>Utilizes innovative project delivery to identify tasks that can occur concurrently</li> <li>Seeks innovative funding and partnerships to blend sources for future construction</li> </ul>

## V. Project Readiness

Sedgwick County and its partners have conducted planning and other pre-design activities related to the ARC95 project for nearly 15 years. Project partners including KDOT, KTA, WAMPO, City of Clearwater, City of Derby, City of Haysville, and City of Mulvane have actively participated in and supported the process. Letters of support are included in Appendix B.

The estimated schedule for the scope of work for the RAISE Planning Grant is approximately 46 months. Tasks would begin within 15 months following the announcement of the project selections in June 2023. All necessary activities would be completed to allow RAISE funds to be obligated well in advance of the statutory deadline of September 30, 2027. All tasks will include stakeholder coordination and public engagement. Community engagement is anticipated to include multiple

touchpoints and methods, including traditional public meetings. The project schedule is outlined in Table E-5.

Table E-5: Project Schedule

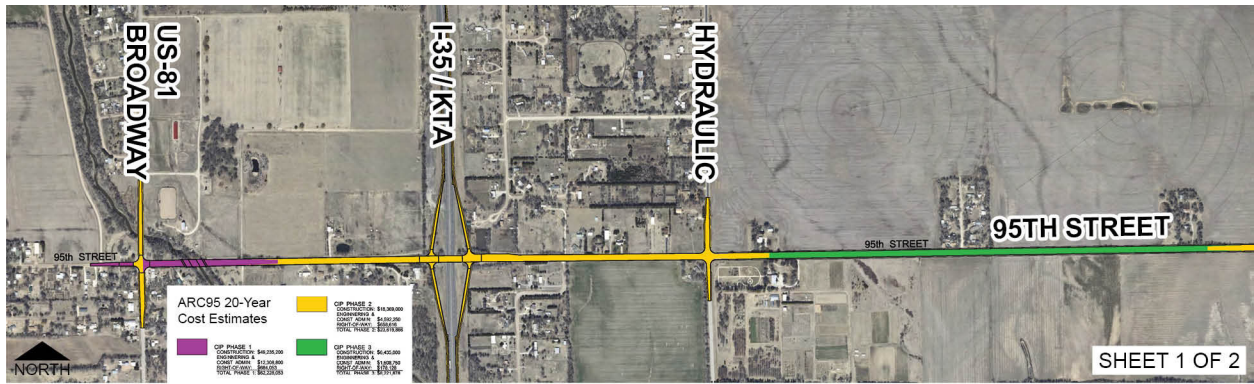
Task	Start Date	End Date	Duration
1   Project Work Plan	September 2024	October 2024	2 months
2   Preliminary Engineering	November 2024	November 2026	24 months
3   KTA Tolling Feasibility Study	January 2025	September 2025	9 months
4   NEPA Evaluation	May 2025	May 2026	12 months
5   Final Design	June 2026	June 2028	24 months
Total Schedule	September 2024	June 2028	46 months

Compliance with NEPA would be completed as part of the scope of work for the RAISE Planning Grant. Based on the environmental scan completed during the *ARC95 Corridor Study*, an Environmental Assessment (EA) level of analysis is anticipated. The ARC95 project is currently included as one of nine regional priority projects in the *WAMPO Re-Imagined MOVE 2040 Metropolitan Transportation Plan (2020)*. Prior to final design, the ARC95 project would be entered into the WAMPO Transportation Improvement Plan (TIP) and Kansas State Transportation Improvement Program (STIP).

The requested FY2023 RAISE Planning Grant supports the critical final steps to prepare for future construction. In the future, Sedgwick County anticipates seeking public and private partnerships to fund construction of the ARC95 project. Overall, the ARC95 project, as shown in Figure E-2, will greatly enhance safety, connectivity, and community growth with improvements to the 95th Street corridor, a new interchange with I-35/KTA, and a new bridge crossing of the Arkansas River.

Figure E-2: Proposed Alignment





## I. PROJECT DESCRIPTION

Sedgwick County, Kansas is pursuing a FY2023 RAISE Planning Grant of \$6.2 million to complete preliminary engineering, a tolling feasibility study, environmental approvals, and final design of the Arkansas River Crossing and 95th Street (ARC95) project. The project encompasses corridor improvements along a 4.0-mile segment of 95th Street from Broadway Street (US-81) to Woodlawn Boulevard, including a new bridge crossing of the Arkansas River.

### Project History

In 2008, the *South Area Transportation Study* addressed the future mobility and access needs of the southern portion of the Wichita Area Metropolitan Planning Organization (WAMPO) region. The study developed cost-effective transportation improvement concepts to support economic development and improve quality of life for residents and business owners in the southern planning region. In particular, the *South Area Transportation Study* outlined a potential arterial loop to improve access and provide mobility to support future growth needs. The 95th Street corridor from Meridian Avenue to Greenwich Road was identified as the southern segment of the proposed loop system.

Following completion of the *South Area Transportation Study*, several other planning efforts recommended improvements along the 95th Street corridor including:

- Derby-Mulvane Joint Area Plan (2010)
- Sedgwick County Quad Cities Joint Area Plan (2013)
- US-81/K-53 Casino Area Transportation Plan (2014)
- Kansas Turnpike Authority (KTA) Long-Term Needs Study (2015)

In 2017, Sedgwick County initiated the *Arkansas River Crossing and 95th Street (ARC95) Corridor Study* to examine current conditions, analyze traffic and growth patterns, engage the community regarding potential improvements, and identify action steps to create an efficient and effective thoroughfare that attracts economic growth. The 95th Street study area encompassed an 8.9-mile corridor from Meridian Avenue to Greenwich Avenue in southern Sedgwick County. Four nearby communities also served as project partners throughout the study: City of Clearwater, City of Derby, City of Haysville, and City of Mulvane.

Based on the analysis of multiple improvement concepts, the *ARC95 Corridor Study* recommended upgrading the 95th Street corridor to a five-lane parkway, including a new crossing of the Arkansas River, a new interchange with I-35/KTA, and a grade separated crossing of the BNSF Railway and K-15. With the support of several project partners, the ARC95 project was also one of nine regional priority projects subsequently included in the *WAMPO Re-Imagined MOVE 2040 Metropolitan Transportation Plan (2020)*.

### Project Description

The *ARC95 Corridor Study* recommended a phased approach to implementing improvements over a 20-year period based on community needs and priorities. The first phase includes implementation of alignment, typical section, and access improvements for a 4.0-mile segment of 95th Street from Broadway Street (US-81) to Woodlawn Boulevard. The FY2023 RAISE Planning Grant would support the planning, preparation, and design activities for this first phase of the ARC95 project.

## Existing Conditions

As shown in Figure 1, the existing 95th Street corridor from Broadway Street (US-81) to Woodlawn Boulevard varies in character. Overall, the project area is a rural, two-lane roadway with open ditches and no bicycle or pedestrian facilities. Land uses in the area are primarily rural residential or agricultural uses. While 95th Street crosses over the Kansas Turnpike Authority (KTA), there is currently no access to I-35/KTA. There is also currently no connection across the Arkansas River or the BNSF Railway corridor that parallels K-15. Existing transportation and land use conditions are summarized by segment in Table 1.

Figure 1: Project Area

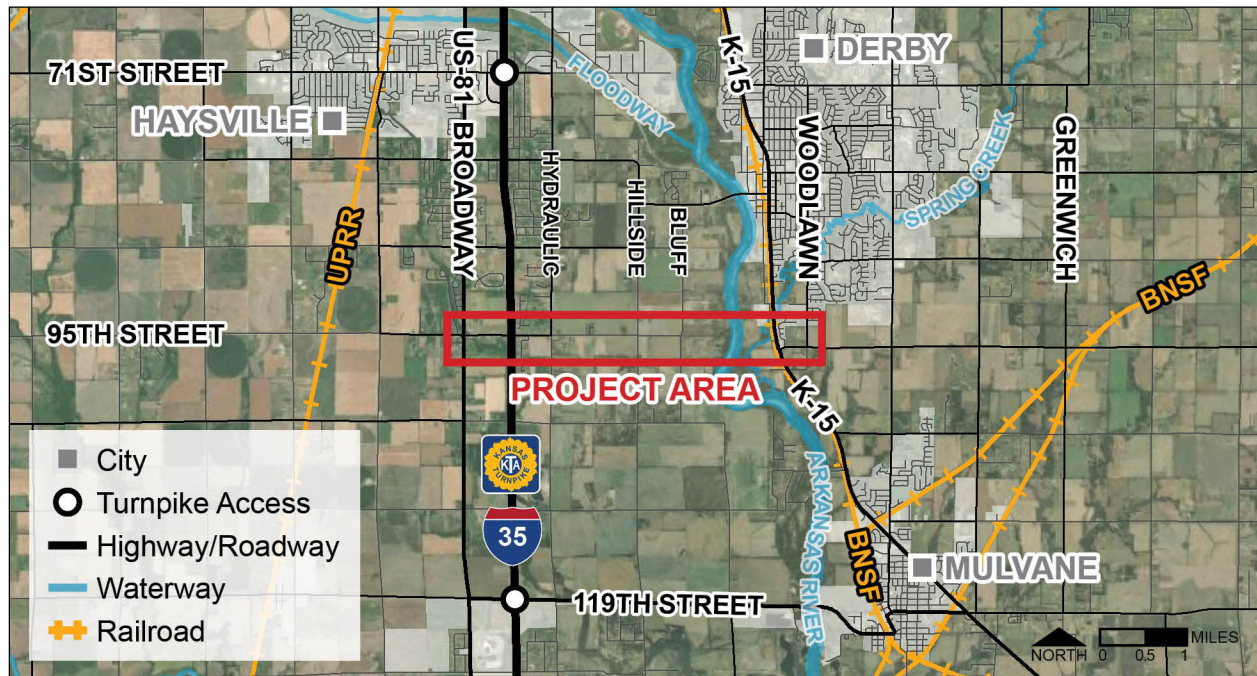


Table 1: Existing Conditions

Segment	Length	Transportation Conditions	Land Use Conditions
Broadway Street (US-81) to Hydraulic Street	1.0 miles	Rural, two-lane paved roadway with a non-access bridge over I-35/KTA	Low-density, rural residential uses
Hydraulic Street to Hillside Street	1.0 miles	Rural, two-lane paved roadway	Agricultural uses with small pockets of rural residential
Hillside Street to Bluff Street	0.5 miles	Rural, unpaved gravel roadway	Agricultural uses
Bluff Street to K-15	1.2 miles	No roadway connection, including no access across river or railroad	Primarily floodplain with some agricultural and utility/infrastructure uses
K-15 to Woodlawn Boulevard	0.3 miles	Rural, two-lane paved roadway with at-grade intersection at K-15	Agricultural uses with small pockets of rural residential

## Project Description

The ARC95 project is comprised of three components: (1) alignment, (2) typical section, and (3) access improvements to the 4.0-mile 95th Street corridor from Broadway Street (US-81) to Woodlawn Boulevard. Key components of the project are summarized in Table 2. The proposed alignment is shown in Figure 2 with the proposed typical section in Figure 3.

Table 2: ARC95 Project Components

Component	Existing Condition	Project Description
Alignment	Discontinuous roadway with a 1.2-mile gap due to the Arkansas River, Spring Creek, and BNSF Railway corridor	Connect segments of 95th Street with a 4.0-mile roadway with bridge crossings of waterways, rail, and K-15
Typical Section	Two-lane, rural roadway with open ditch and no multimodal facilities	Expand to five-lane parkway with a shared-use path and sidewalk
Access	No access to I-35/KTA, at-grade intersection with K-15, and no turn lanes for turning traffic at multiple intersections and driveways	Provide new interchange access to I-35/KTA, upgrade to grade separated intersection at K-15, and implement access management at intersections

**Alignment:** The proposed alignment for 95th Street generally follows the existing centerline of the corridor with some shifts to address the 1.2-mile gap in the network between Bluff Street and K-15. From the west project limits, the project generally follows the centerline of the existing 95th Street corridor from Broadway Street (US-81) to Hillside Street. The alignment then angles southeast before continuing east at the Arkansas River crossing, which provides a more favorable location and perpendicular alignment to cross the river. After crossing the river, the alignment shifts back northeast to create a perpendicular grade separated crossing over the BNSF Railway mainline and K-15. East of K-15, the alignment again follows the existing 95th Street centerline.

**Typical Section:** Design criteria for 95th Street establishes the corridor as a major arterial. The roadway is five-lane section with two travel lanes (12') in each direction and a center turn lane (12') that could also accommodate a wide median based on development patterns and access management. A shared-use path (10') is included on one side of the roadway with a sidewalk (5') on the opposite side of the roadway. The shared-use path would provide a connection to the future greenway trail along the Kansas River. The majority of the 4.0-mile project area is constructed as an urban typical section with curb and gutter, storm sewer, and a design speed of 45 mph. The 1.5-mile segment from Hydraulic Street to Bluff Street is anticipated to be a rural typical section with paved shoulders, open ditches, and a design speed of 55 mph.

**Access:** Access along 95th Street will generally conform to KDOT access management guidelines as a partial access control roadway. Auxiliary lane lengths and medians are used to control current access and roadway configurations at intersections along 95th Street. Improvements are included at the key at-grade intersections of Broadway Street (US-81), Hydraulic Street, Hillside Street, Bluff Street, and Woodlawn Boulevard. In addition to improvements at these five at-grade intersections along 95th Street, the project includes major changes to the existing I-35/KTA bridge crossing and the existing at-grade K-15 intersection. The 95th Street bridge crossing over I-35/KTA, which currently does not provide access to the interstate, is identified as a future access point on the turnpike system. A high-level analysis of traffic and revenue estimates indicated sufficient justification for a future detailed tolling feasibility study of the proposed 95th Street interchange. At K-15, the existing at-grade signalized intersection is removed to create a grade separated crossing to enable free flow through

movement on K-15. A new signalized intersection is added on 95th Street to the east, approximately midway between K-15 and Woodlawn Boulevard, to serve as an access road to K-15.

### Use of Project Funding

The FY2023 RAISE Planning Grant would be utilized for eligible planning, preparation, and design of the ARC95 project for the 4.0-mile corridor from Broadway Street (US-81) to Woodlawn Boulevard. These non-construction activities include: (1) project work plan, (2) preliminary engineering, (3) KTA Interchange Tolling Feasibility Study, (4) NEPA evaluation, and (5) final design. Based on the environmental scan completed during the *ARC95 Corridor Study*, an Environmental Assessment (EA) level of analysis is anticipated. Design will not include right-of-way acquisition. A summary of the scope of work is outlined in Table 3.

Table 3: Scope of Work for RAISE Planning Grant

Task		Description	Cost
1	Project Work Plan	Detailed Project Work Plan, including budget and schedule, to outline the steps necessary to complete the Scope of Work and meet the grant requirements	\$50,000
2	Preliminary Engineering	Preliminary Design Package including 30% plan sheets, details, specifications, preliminary cost estimate, and preliminary construction schedule	\$2,220,000
3	KTA Tolling Feasibility Study	Feasibility Study to assess the cost of improvements, impact to KTA operations, projected traffic usage, projected revenue, and impacts to connector roads	\$100,000
4	NEPA Evaluation	NEPA Document (anticipate Environmental Assessment) to assess environmental impacts, understand any mitigation requirements, and obtain necessary approvals	\$200,000
5	Final Design	Final Design Package with 100% Plans, Specifications, and Estimates (PS&E) in preparation for construction at a later phase (no right-of-way acquisition included)	\$5,180,000
Total Cost for Scope of Work			\$7,750,000

### Scope of Work

Sedgwick County is pursuing a FY2023 RAISE Planning Grant with the intent to fully plan the ARC95 project from conceptual planning through final design with the understanding that construction funding would be pursued at a later phase. Sedgwick County understands that with federal funding, preliminary engineering and USDOT-approved NEPA must be completed and approved prior to authorization of any final design tasks. If the RAISE Planning Grant funding is awarded for this project, the following tasks would serve as the foundation of the grant agreement.

#### Task 1: Project Work Plan

Sedgwick County will develop and submit a Project Work Plan, including the budget and schedule, for the project. The Project Work Plan will describe the detailed activities and steps necessary to complete the tasks outlined in this scope of work. The Project Work Plan will also include information regarding the project management approach (team organization, team decision-making structure, roles and responsibilities, and interaction with the lead funding agency and other project partners) as

well as address quality assurance and quality control procedures. Sedgwick County will commence work once the Project Work Plan has been reviewed and approved by the lead federal agency.

*Deliverables: Detailed Project Work Plan, Budget, and Schedule*

### **Task 2: Preliminary Engineering**

The preparation of preliminary plans will include the development of typical sections, plan and profile sheets, cross sections, and intersection and driveway layouts based on access management guidelines. Other supporting components will include survey, geotechnical investigation, and utility coordination and design. Public and stakeholder meetings will be incorporated into the preliminary engineering schedule, including significant coordination with BNSF Railway. Overall, the preliminary design package will include 30% plan sheets, details, specifications, a preliminary cost estimate, and a preliminary construction schedule for the ARC95 project.

*Deliverables: Preliminary Design Package for ARC95 Project*

### **Task 3: KTA Tolling Feasibility Study**

As new interchange partnership opportunities arise, KTA works with interested partners to evaluate potential solutions for providing new access and assess project feasibility factors including: the cost of improvements, projected traffic usage, impact to KTA operations and revenue, and impacts to connector roads. KTA has documented support for a new interchange at 95th Street in the *KTA Long-Term Needs Study (2015)* and the *ARC95 Corridor Study*. To advance the analysis of a potential new KTA interchange, the two-pronged feasibility study will include technical analysis and community engagement. Technical analysis will include existing conditions and data collection, socioeconomic review, travel demand model calibration, traffic and toll revenue projections, and an overall assessment of financial feasibility. Community engagement will include multiple touchpoints and methods to determine public support for tolling, including a minimum of one public meeting.

*Deliverables: KTA Interchange Tolling Feasibility Study for 95th Street Interchange*

### **Task 4: NEPA Evaluation**

Sedgwick County will begin the NEPA process to evaluate the environmental effects of the proposed project, including any alternatives. The project will include environmental services and documents in anticipation of, at a minimum, a NEPA Environmental Assessment (EA) for the ARC95 project. An EA would include a discussion of the project purpose and need, alternative courses of action, the environmental impacts of the proposed action and alternatives, and a listing of agencies and persons consulted. Based on an environmental scan conducted in the *ARC95 Corridor Study*, it is anticipated that coordination with the following agencies will be key: Kansas Division of Water Resources, Kansas Department of Health and Environment, U.S. Army Corps of Engineers, and Federal Emergency Management Agency (FEMA). The NEPA evaluation task will ensure Sedgwick County can obtain necessary federal and state approvals to advance the design process.

*Deliverables: NEPA Documentation for ARC95 Project; Federal and State Environmental Approvals*

### **Task 5: Final Design**

Following the required approvals, final design will include advancing typical sections, plan and profile sheets, cross sections, intersection and driveway layouts, and quantities tables and design details. Other supporting deliverables will include traffic signal plans, pavement marking and signing plans, storm sewer design tables and plans, utility coordination, construction sequencing and traffic control plans, and right-of-way plans. Right-of-way acquisition is not included. Public and stakeholder meetings will be incorporated into the schedule, including significant coordination with BNSF Railway. Overall, the final design package will include 100% Plans, Specifications, and Estimates (PS&E) in preparation for construction at a later phase.

*Deliverables: Final Design Package (PS&E) for ARC95 Project*

Figure 2: Proposed Alignment

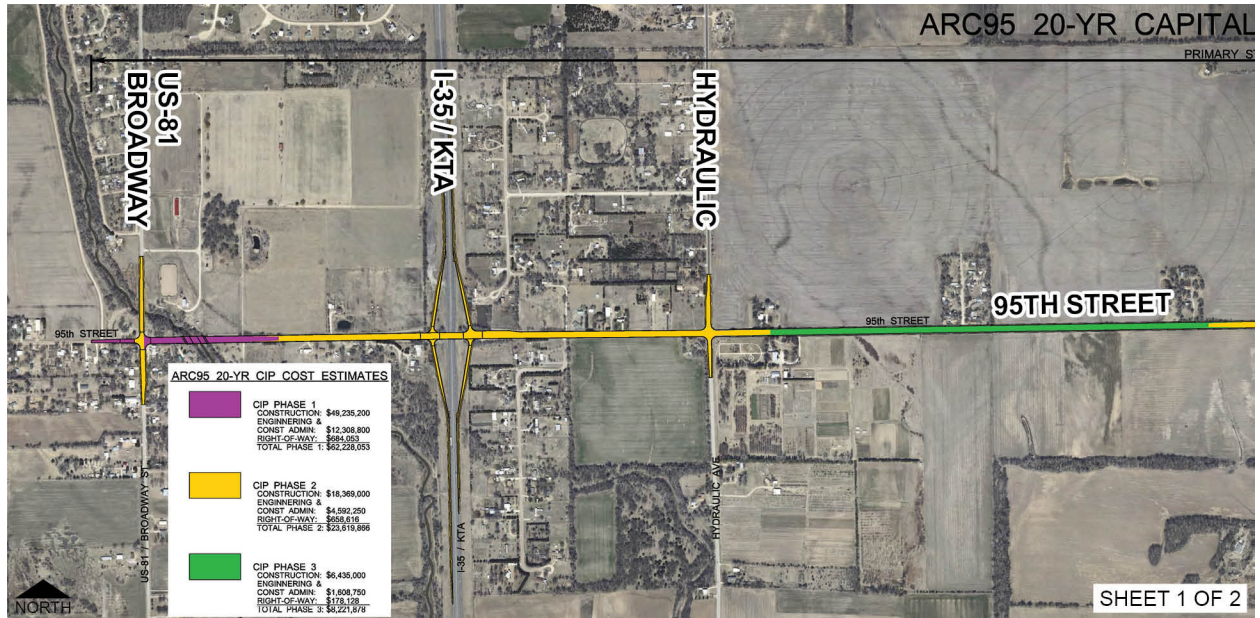
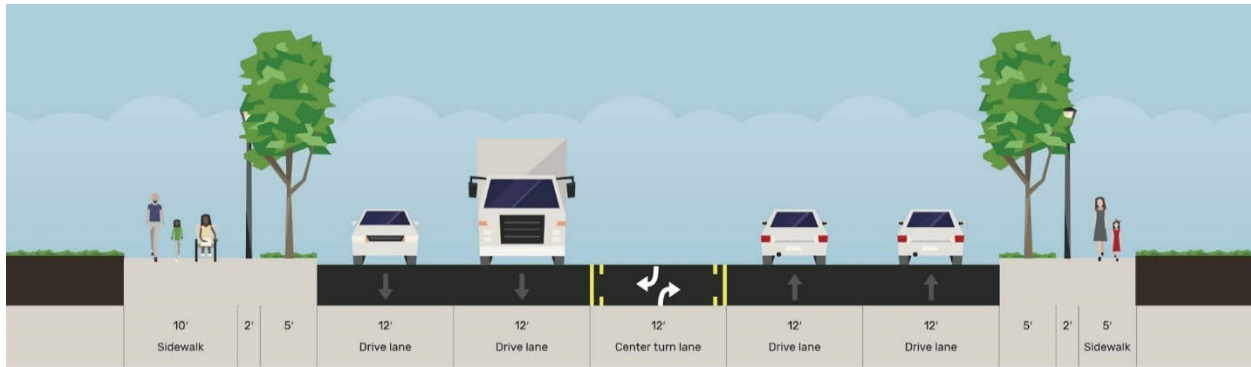
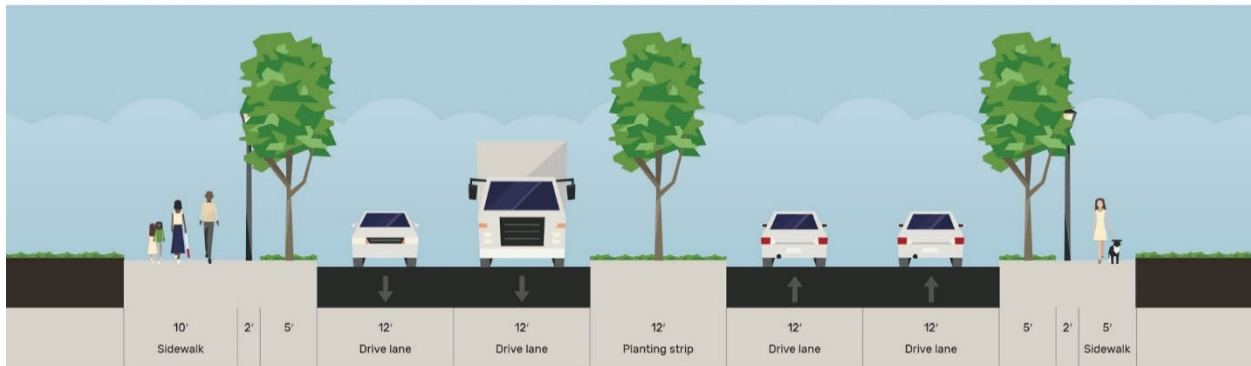


Figure 3: Proposed Typical Section



Urban Typical Section with Turn Lane



Urban Typical Section with Wide Landscaped Median

## Transportation Challenges and Project Solutions

The proposed ARC95 project addresses four key transportation challenges: (1) meet mobility needs for regional growth, (2) improve multimodal safety, (3) increase access to the transportation network, and (4) eliminate barriers to connectivity. The four key transportation challenges and the project solutions are depicted in Figure 4.

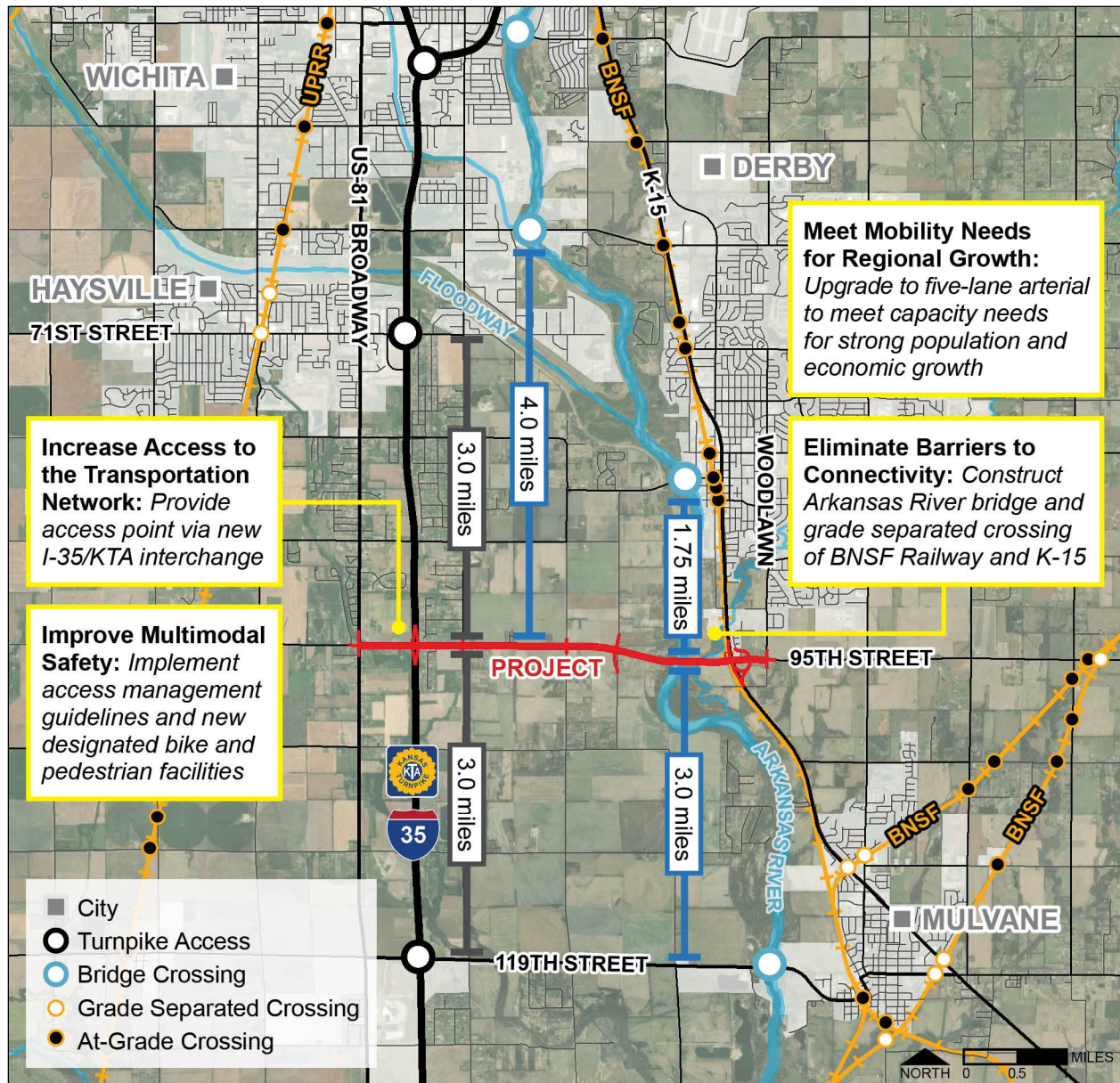
### Meet Mobility Needs for Regional Growth

**Challenge:** Southern Sedgwick County, including the project area, has experienced very strong growth compared to other areas in the region. Population and economic growth have amplified the need to meet increasing mobility and capacity needs for vehicles, freight, bicyclists, and pedestrians. From 2010 to 2020, the project area experienced a 60% increase in population while the Wichita region experienced a slower 4% increase in population. Travel demand and land use projections evaluated in the *ARC95 Corridor Study*, described in further detail in Section IV, also indicate major growth in housing and employment by 2040.

**Solution:** The ARC95 project upgrades the existing rural, two-lane 95th Street roadway to a five-lane arterial with bicycle and pedestrian facilities to meet future mobility and capacity needs. Project components include additional travel and turn lanes, new bicycle and pedestrian facilities, and upgrades to an urban typical section with paved roadway and curb and gutter. In addition to improving east-west connectivity along 95th Street, the project includes improvements at key intersections with north-south arterials to provide regional connections. Mobility improvements to meet the needs of southern Sedgwick County improve regional connectivity and travel time reliability to support regional growth.



Figure 4: Transportation Challenges



### Improve Multimodal Safety

**Challenge:** The existing roadway does not provide turn lanes or paved shoulders. Within the developing areas of the corridor, limited access management with multiple intersecting roadways and driveways creates vehicular conflict points. The corridor does not provide any bicycle or pedestrian accommodations, which also limits first-mile/last-mile access to any potential future transit services.

**Solution:** The ARC95 project implements KDOT access management guidelines and provides turn lanes, acceleration lanes, and deceleration lanes at designated access points. Access management reduces crashes and provides predictable turning movements while maintaining traffic flow. A shared-use path (10') on one side of the roadway and a sidewalk (5') on the opposite side of the roadway provides designated, off-street facilities for bicyclists and pedestrians with a buffer from traffic.

## Increase Access to the Transportation Network

**Challenge:** I-35 provides national and regional connectivity through Kansas City, Wichita, and Oklahoma City. I-35 within the Wichita region functions as a tolled highway (KTA) with limited access points. Currently, residents in the vicinity have indirect access to the interstate system via circuitous routing as the closest KTA access points are approximately 3.0 miles to the north at 71st Street and approximately 3.0 miles to the south at 119th Street (K-53). Limited access points within southern Sedgwick County have stunted growth and increased local congestion on nearby north-south arterials such as Broadway Street (US-81) and K-15.

**Solution:** The 95th Street corridor is the next logical access point to I-35/KTA as the Wichita region grows to the south. The ARC95 project proposes a new interchange to provide a convenient access point for residents in the immediate area as well as other nearby communities in southern Sedgwick County and northern Sumner County. KTA has been coordinating with project partners and has documented support for the new interchange in the *KTA Long-Term Needs Study (2015)* and the *ARC95 Corridor Study*. The RAISE Planning Grant funds would enable further study of projected traffic and revenue impacts through a KTA Interchange Tolling Feasibility Study with the goal of pursuing a new I-35/KTA interchange at 95th Street.

## Eliminate Barriers to Connectivity

**Challenge:** 95th Street in the project area is not a continuous corridor with a 1.2-mile gap between Bluff Street and K-15 due to barriers such as the Arkansas River, Spring Creek, and BNSF Railway. The floodplain is very wide and shallow near 95th Street. The total width of the floodway between the western floodway boundary of the Arkansas River and the eastern floodway boundary of Spring Creek is approximately 2,750 feet. The total width of the floodplain is over two miles (11,000 feet). The nearest bridge crossings are: 4.0 miles to the north at 63rd Street (four lanes), 1.75 miles to the north at 83rd Street (two lanes), and 3.0 miles to the south at 119th Street (K-53) (two lanes). The *South Area Transportation Study (2008)* projected that existing river crossings would exceed capacity by 2030. The BNSF Railway mainline (with trackage rights by Union Pacific Railroad and Southern Kansas & Oklahoma Railroad), which generally parallels K-15, also serves approximately 30 trains per day with speeds up to 55 mph. As train volume and train length continue to increase, the rail corridor will remain a barrier to safe connectivity.

**Solution:** After an evaluation of alternatives, the ARC95 project proposes one bridge that spans the Arkansas River and Spring Creek to provide a continuous 95th Street corridor. The analysis demonstrated one long bridge, rather than separate bridges, would cause less disruption to the natural floodplain. The project also includes a grade separated crossing of the BNSF Railway and K-15 near the eastern project limits. The road over rail and road crossing removes conflicts with the high volume, high speed rail corridor and traffic on K-15. K-15 also benefits from the improvement as traffic can continue free flow on K-15 without the need for a future signalized intersection.

“We [southern Sedgwick County] have always been left behind. We need more improvements.”  
- ARC95 Corridor Study Meeting Attendee

“For our area to develop, we must have more and easier access to main arteries.”  
- ARC95 Corridor Study Meeting Attendee

“Imagine a world with a new east-west route between communities in southern Sedgwick County. A route that eliminates the frustration of waiting on trains and the need to drive miles out of your way to cross the Arkansas River.”  
- Dan Squires, City of Derby, Assistant City Manager for Development

## II. PROJECT LOCATION

Sedgwick County is located in south central Kansas along the Arkansas River and is the second-most populous county in the state with nearly 525,000 residents. The City of Wichita, the county seat, is the most populous city in Kansas with a population approaching 400,000 residents. The Wichita Metropolitan Statistical Area (MSA) encompasses Sedgwick, Butler, Harvey, and Sumner counties. With approximately 650,000 residents, the Wichita MSA is the 93rd largest metropolitan area.

The Wichita area is an industrial hub with the #1 skilled manufacturing workforce in the nation. As the “Air Capitol of the World,” the region is home to several aerospace and aviation businesses including Cessna Aircraft, Beechcraft Corporation, Airbus Engineering, Bombardier Learjet, and Spirit AeroSystems. The region manufactures or provides critical components for over half of all general aviation, commercial, and military aircraft. McConnell Air Force Base borders southeast Wichita with over 17,000 personnel and 2,800 active duty military. Other key industries include advanced manufacturing and metals, agriculture, energy, healthcare, and transportation and logistics.

The ARC95 project is located in the census-designated urbanized area of Wichita, Kansas. The *ARC95 Corridor Study* area of influence covered a 30 square mile area from 87th Street (north), 103rd Street (south), Butler Road (east), and Ridge Road (west). The project area for the proposed RAISE Planning Grant encompasses the 4.0-mile segment of 95th Street from Broadway Street (US-81) to Woodlawn Boulevard, which served as the primary study area (approximately 7.9 square miles) in the *ARC95 Corridor Study*. The project is located within the Wichita Area Metropolitan Planning Organization (WAMPO) boundaries. The project location map is shown in Figure 5.

*Project Location: Latitude 37.52067, Longitude -97.29737*

### Socioeconomic Characteristics

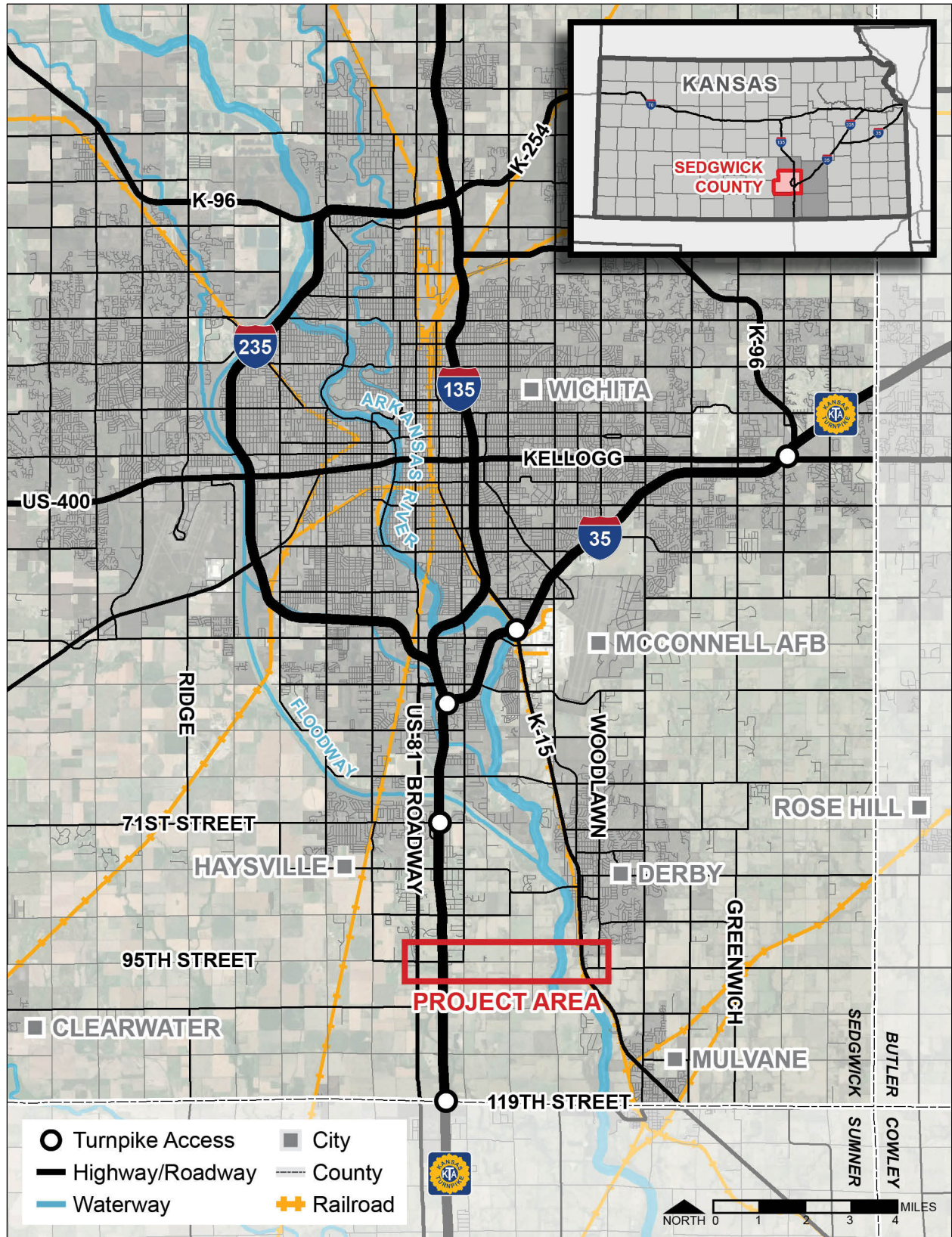
The study area is primarily rural with low population density. However, the project area experienced a 60% increase in population from 2010 to 2020 while the Wichita region experienced a slower 4% increase in population. Overall, the project area has demonstrated strong growth and a higher median household income compared to other areas in the Wichita region. Four cities, which served as project partners during the *ARC95 Corridor Study*, are located near the project: Clearwater, Derby, Haysville, and Mulvane. Population characteristics for the project area and nearby jurisdictions are outlined in Table 4.

Table 4: Population Characteristics Comparison

Jurisdiction	Population			Growth Rate	
	2000	2010	2020	2000-2010	2010-2020
Kansas	2,688,418	2,853,118	2,937,880	6.1%	3.0%
Wichita MSA	571,164	623,061	647,610	9.1%	3.9%
Sedgwick County	452,869	489,365	523,824	10.0%	7.0%
City of Derby	19,172	22,158	25,625	15.6%	15.7%
City of Haysville	9,100	10,826	11,262	19.0%	4.0%
City of Mulvane	5,539	6,111	6,268	10.3%	2.9%
<b>Project Area</b>	<b>2,537</b>	<b>3,606</b>	<b>5,762</b>	<b>42.1%</b>	<b>59.8%</b>

Source: U.S. Census Bureau, American Community Survey, 2016-2020 5-Year Estimates

Figure 5: Project Location Map



## Disadvantage Indicators

Although the project area is not located in a federally-designated historically disadvantaged community or an area of persistent poverty, the project area aligns with the six Disadvantage Indicators identified by USDOT: (1) transportation access, (2) health, (3) environmental, (4) economic, (5) resilience, (6) social.



**Transportation Access:** While the median travel time to work for Sedgwick County is 19.5 minutes, the project area (Census Tract 97) has a median travel time of 27.4 minutes, which is 40.5% higher than the county median value. The lack of connectivity to the existing transportation network has caused the project area to have the second highest median travel time to work in Sedgwick County.

*(Source: U.S. Census Bureau, American Community Survey, 2016-2020 5-Year Estimates)*

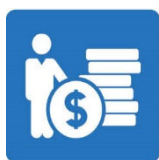


**Health:** The National Walkability Index uses built environmental characteristics to rank areas according to their relative walkability. Due to the lack of designated bicycle and pedestrian facilities, the project area is classified as least walkable. The lack of access to I-35/KTA and lack of connectivity across the Arkansas River and BNSF Railway increases emergency response time for residents in the area.

*(Source: EPA National Walkability Index, 2022)*



**Environmental:** Although not identified as an area with higher-than-average air pollution, the lack of connectivity to I-35/KTA and across the Arkansas River and BNSF Railway forces residents to use circuitous routes. By improving connectivity to or across these major barriers, the project may decrease vehicle miles traveled (VMT) and associated emissions. *(Source: EPA EJSscreen, 2022)*



**Economic:** Areas in the City of Derby and the City of Haysville have higher concentrations of low-income populations with areas above the 60th national percentile. In particular, Census Tract 55.01 (City of Haysville) is in the 80th percentile for low-income populations. Three census tracts within or adjacent to the project area are also over the 50th national percentile threshold for unemployment: Census Tract 97 (Sedgwick County) at 77%, Census Tract 99 (Sedgwick County) at 80%, and Census Tract 22 (Sumner County) at 93%. *(Source: EPA EJSscreen, 2022)*



**Social:** The CDC Social Vulnerability Index refers to the potential negative effects on communities caused by external stresses on human health. Two census tracts within or adjacent to the project area are over the 50th national percentile threshold for the Social Vulnerability Index: Census Tract 98.01 (City of Derby) at 65% and Census Tract 55.01 (City of Haysville) at 63%. *(Source: CDC Social Vulnerability Index, 2022)*



**Resilience:** A significant portion of the project area is located in the 100-year floodplain associated with the Arkansas River and Spring Creek. Resiliency to climate change in the project area, particularly associated with flooding and drainage patterns, is significantly impacted by development patterns upstream in the City of Wichita and other communities in northern Sedgwick County. As a result, the project area and adjacent areas to the north are over the 50th national percentile threshold for wastewater discharge pollution: Census Tract 97.01 (Sedgwick County) at 85%, Census Tract 97.02 (Sedgwick County) at 91%, and Census Tract 56.02 (City of Haysville) at 99%. *(Source: EPA EJSscreen, 2022)*

## Physical Features

Of the 30 square miles in the *ARC95 Corridor Study* area of influence, 80% is agricultural land uses while approximately 12% are residential uses. The remaining land is park/recreation, utilities, or undeveloped areas. The 4.0-mile project segment has the highest proportion of non-agricultural uses, although agriculture still comprises about 70% of the project area. While the ARC95 project corridor is generally rural, the area has some uses typical of transitional development areas including pockets of residential and commercial uses. A limited number of community facilities are located in the area including four cemeteries, three parks, two private airfields, one school, a horticultural research center, and a wastewater treatment plant.

The topography in the area is relatively flat ranging from about 1,200 feet to 1,350 feet above sea level. The project area is impacted by various waterways including the Arkansas River and Spring Creek. The confluence of the Arkansas River and the M.S. “Mitch” Mitchell Floodway is located approximately 2.1 miles north of 95th Street. The M.S. “Mitch” Mitchell Floodway, locally referred to as the “Big Ditch,” diverts water from several upstream waterways around central Wichita before emptying back into the Arkansas River downstream of the city. As a result of the wide floodway downstream, a large portion of the project area is within the 100-year flood zone as designated by FEMA. As described in Section I, the total width of the floodplain encompassing the Arkansas River and Spring Creek is over two miles (11,000 feet). There are multiple areas within the project limits where the water table varies between 0 to 70 inches, which will also impact design and construction of project improvements.

## Existing Transportation Network

The existing transportation network in southern Sedgwick County, including the project area, is primarily comprised of highways, roadways, and railroads. Some active transportation facilities exist in suburban areas near the project but are generally limited. There is currently no transit service in the area. Existing conditions photos are shown in Figure 6.

### Highway

Three interstate highways serve the Wichita region: I-35 as the national route between Texas and Minnesota, I-135 as the regional route between the City of Salina and the City of Wichita, and I-235 as the interstate loop for the region. Through southern Sedgwick County, including the project area, I-35 is a toll facility owned and operated by the KTA. This segment of I-35/KTA serves approximately 22,700 vehicles per day, including nearly 25% truck traffic. While the north-south I-35/KTA corridor has two travel lanes in each direction with a posted speed of 75 mph, the nearest toll plazas are 3.0 miles north of the project at 71st Street in the City of Haysville and 3.0 miles south of the project at 119th Street (K-53) near the Kansas Star Casino.

### Roadway

Two major arterials in the area serve as toll-free, north-south alternatives to I-35/KTA: Broadway Street (US-81), which is designated a minor arterial, and K-15, which is designated a principal arterial. Broadway Street (US-81) parallels the I-35/KTA corridor approximately 0.5 miles to the west and serves the growing City of Haysville. Broadway Street (US-81) serves up to 7,200 vehicles per day near the project area with traffic volume decreasing to 3,700 vehicles per day as the corridor continues south. K-15 is located on the east side of the Kansas River and travels in a southeasterly direction from the City of Wichita to growing suburbs in the City of Derby and City of Mulvane. Similarly, K-15 serves up to 16,000 vehicles per day near the project area with traffic volume decreasing to 6,300 vehicles per day as the corridor continues south.

Figure 6: Existing Conditions Photos



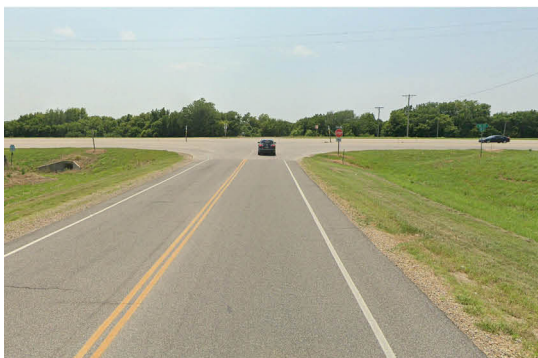
95th Street looking east towards I-35/KTA



95th Street looking east towards Hillside Road



95th Street looking east towards Bluff Road



95th Street looking west towards K-15

The east-west 95th Street corridor has multiple functional classification designations depending on the segment. Within the project area, 95th Street is generally considered a major collector. Intersecting north-south roadways generally follow the one-mile or half-mile pattern that follows section lines established by the Public Land Survey System. These intersecting corridors include Hydraulic Street (major collector), Hillside Street (minor collector), Bluff Street (local), and Woodlawn Boulevard (major collector). As the Wichita region grows, development is anticipated southward along these corridors.

### Railroad

Four railroads operate within the Wichita region: Union Pacific Railroad, BNSF Railway, Kansas & Oklahoma Railroad, and Wichita Terminal Association. The BNSF Southern Transcontinental route is located about 3.5 miles southeast of the project and travels in a northeasterly direction towards Kansas City, crossing 95th Street about 3.2 miles east of the east project limits. Another BNSF corridor, the Arkansas City subdivision, travels through the project area as it parallels K-15 on the west side of the highway. The Arkansas City subdivision has one mainline track in the project area and serves approximately 30 trains per day with speeds up to 55 mph. Union Pacific Railroad and the Southern Kansas & Oklahoma Railroad also have trackage rights along the rail corridor. Interaction with this BNSF corridor is a major consideration of the ARC95 project, particularly as train volume and train lengths are anticipated to grow.

### Active Transportation

Bicycle and pedestrian facilities do not currently exist in the project area. Active transportation facilities are generally limited to sidewalks and a growing network of multi-use trails in the nearby cities of Haysville, Derby, and Mulvane. In particular, a multi-use path was constructed along Rock Road in 2020, including a crossing of 95th Street approximately one mile east of the project limits. The Rock Road multi-use path connects the existing Derby network to the existing Mulvane network. The WAMPO *Regional Pathway Plan (2011)* also identifies a rural loop pathway along 83rd Street and future trails along the Arkansas River. These projects demonstrate southern Sedgwick County's commitment to providing active transportation options as the community grows.

### III. GRANT FUNDS, SOURCES, AND USES OF ALL PROJECT FUNDING

The overall project cost is \$7.75 million. Sedgwick County is seeking \$6.2 million in FY2023 RAISE Planning Grant funds, which represents 80% of the estimated cost of the scope of work outlined in Section I. Sedgwick County will provide the 20% match funds of \$1.55 million.

#### Source and Amount of Project Funds

The source and amount of project funds are summarized in Table 5. Sedgwick County plans to leverage local, regional, and state project partners and resources, along with awarded federal funds, to deliver a high-quality project on time and on budget. Based on the scope of work outlined in Section I, the cost of the funding components is outlined in Table 6.

Table 5: Funding Sources

Type	Source	Amount	Percent
Federal	FY2023 RAISE Planning Grant	\$6.20 million	80%
	Other Federal	\$0.00 million	0%
	Total Federal Sources	\$6.20 million	80%
Non-Federal	Sedgwick County	\$1.55 million	20%
	Other Non-Federal	\$0.00 million	0%
	Total Non-Federal Sources	\$1.55 million	20%
Total Sources		\$7.75 million	100%

Table 6: Funding Components

Task	Total Cost	Federal	Non-Federal
1 Project Work Plan	\$50,000	\$40,000	\$10,000
2 Preliminary Engineering	\$2,220,000	\$1,776,000	\$444,000
3 KTA Tolling Feasibility Study	\$100,000	\$80,000	\$20,000
4 NEPA Evaluation	\$200,000	\$160,000	\$40,000
5 Final Design	\$5,180,000	\$4,144,000	\$1,036,000
Total Cost for Scope of Work	\$7,750,000	\$6,200,000	\$1,550,000

#### Commitment of Non-Federal Funds

Sedgwick County is committed to funding the complete 20% match for the project, in the amount of \$1.55 million, towards the total cost for the proposed RAISE Planning Grant scope of work. The Letter of Commitment from Sedgwick County is included in Appendix A.



## IV. MERIT CRITERIA

Table 7 provides a summary of how the project aligns with the eight goals of the RAISE program, with additional details in the following sections.

Table 7: Merit Criteria Summary

Merit Criteria	Description
Safety	<ul style="list-style-type: none"> <li>Reduces severe crashes by minimizing roadway departures and turning conflicts</li> <li>Protects non-motorized users with safe, designated bicycle and pedestrian facilities</li> <li>Addresses systematic issues at highway-rail crossings by eliminating a conflict point</li> </ul>
Environmental Sustainability	<ul style="list-style-type: none"> <li>Reduces VMT and emissions by improving connectivity across major barriers</li> <li>Provides alternative options for bicyclists, pedestrians, and potential transit service</li> <li>Improves resiliency by maintaining access during flood and weather events</li> <li>Incorporates sustainable construction materials in the design process</li> </ul>
Quality of Life	<ul style="list-style-type: none"> <li>Increases opportunity and equity for users by addressing key barriers to connectivity</li> <li>Reduces transportation cost burdens for employees and encourages new job growth</li> <li>Enhances unique characteristics as a regional parkway and connection to greenways</li> </ul>
Mobility and Community Connectivity	<ul style="list-style-type: none"> <li>Increases access with an I-35/KTA interchange and new Arkansas River crossing</li> <li>Enhances freight movement on preferred corridors and supports rail movement</li> <li>Fosters a live-work-play environment to support growth and economic development</li> </ul>
Economic Competitiveness and Opportunity	<ul style="list-style-type: none"> <li>Improves operations and travel time reliability with a new Arkansas River crossing</li> <li>Strengthens the economy by facilitating strong growth in housing and employment</li> <li>Increases opportunity for disadvantaged communities with identified vulnerabilities</li> </ul>
State of Good Repair	<ul style="list-style-type: none"> <li>Addresses network vulnerabilities by adding new interstate access and river crossing</li> <li>Upgrades core assets to meet expectations regarding travel demands and growth</li> </ul>
Partnership and Collaboration	<ul style="list-style-type: none"> <li>Partners with four local cities, state agencies, and other transportation services</li> <li>Integrates quality public engagement tailored to the intended audiences</li> <li>Incorporates the private sector to leverage the expertise of partners, including DBEs</li> </ul>
Innovation	<ul style="list-style-type: none"> <li>Deploys innovative technology related to tolling and traffic operations</li> <li>Utilizes innovative project delivery to identify tasks that can occur concurrently</li> <li>Seeks innovative funding and partnerships to blend sources for future construction</li> </ul>

### Safety

The project provides direct, significant safety benefits to reduce severe crashes, protect non-motorized users, and address systematic issues.

- Reduce Severe Crashes:** Roadway departures are the leading cause of roadway fatalities in Kansas. The project incorporates strategies to reduce departures including widening, curb and gutter, paved shoulders, rumble strips, and improved pavement markings. Intersection-related crashes also account for over 20% of all fatalities in Kansas. The project proactively applies KDOT access management guidelines to provide a wide landscaped median, turn lanes, and intersection improvements to reduce the frequency of head on, rear end, and left-angle crashes. Other project elements that will improve safety include paving of gravel roadway segments, traffic control devices, and street lighting. *(Source: WAMPO 2040 Metropolitan Transportation Plan)*

- **Protect Non-Motorized Users:** There are currently no paved shoulders or bicycle and pedestrian facilities for non-motorized users. The project includes a shared-use path on one side of the roadway and a sidewalk on the opposite side of the roadway to provide designated, safe bicycle and pedestrian facilities separated from vehicular traffic. Crossing improvements are also incorporated at intersections. In particular, the shared-use path builds upon recent multi-use trail investments in the City of Derby, City of Mulvane, and City of Haysville to gradually connect segments of the network.
- **Address Systematic Issues:** At-grade highway-rail crossings are a significant safety concern for both railroads and local jurisdictions. Severe crashes have recently occurred on the BNSF Railway mainline, which currently serves about 30 trains per day at speeds up to 55 mph, approximately 4.0 miles to the north at 63rd Street. These crashes resulted in two fatalities in 2018 and a serious injury in 2016. A new at-grade crossing of the railroad at 95th Street would have similar characteristics to the existing at-grade crossing at 63rd Street, and therefore present similar safety risks. To avoid the addition of a new at-grade crossing at 95th Street, the project includes a grade separated crossing of both the BNSF Railway and K-15 (road over rail and road). Eliminating conflict points for rail, highway, and roadway users addresses an important systematic issue regarding safety at at-grade crossings. (Source: FRA Accident Inventory, 2022)

## Environmental Sustainability

The project provides direct, significant environmental sustainability benefits to reduce air pollution and emissions, provide alternative modes of transportation, improve the resilience of at-risk infrastructure, and incorporate sustainable construction practices.

- **Reduce Air Pollution and Emissions:** The lack of connectivity to I-35/KTA and across the Arkansas River and BNSF Railway forces residents to use circuitous routes. Limited access points within southern Sedgwick County have stunted growth and increased local congestion on nearby north-south arterials such as Broadway Street (US-81) and K-15. By improving connectivity to or across these major barriers, the project decreases vehicle miles traveled (VMT) and associated air pollution and emissions.
- **Provide Alternative Modes of Transportation:** There are currently no paved shoulders or bicycle and pedestrian facilities for non-motorized users. The project includes a shared-use path and a sidewalk to provide safe, designated alternative modes of transportation that can also help reduce VMT. The facilities also support first-mile/last-mile access to any potential future transit service.
- **Improve the Resilience of At-Risk Infrastructure:** The project is located in an area with a very wide (11,000 feet) and shallow floodplain. With limited existing bridge crossings of the Arkansas River, the project adds another critical bridge crossing at 95th Street to maintain access during flood and weather events. One long bridge, rather than separate bridges, will also cause less disruption to the natural floodplain and alleviate potential issues as the region manages climate change. Roadway upgrades, such as paving of unpaved segments and storm sewer improvements, also ensure infrastructure can meet the needs of a growing community.
- **Incorporate Sustainable Construction Practices:** Lower-carbon pavement and other environmentally-friendly construction materials will be considered during the design process. Items may include concrete paths to reduce the heat island effect, green infrastructure within the wide median, and solar or LED street lighting.

## Quality of Life

The project provides direct, significant quality of life benefits to increase opportunity and equity for users, reduce transportation cost burdens, and enhance unique characteristics of the community. As described in Section II, the project particularly addresses areas that face transportation access, economic opportunity, and social vulnerability disadvantages.

- *Increase Opportunity and Equity for Users:* Completion of the 1.2-mile gap in the network due to the Arkansas River and BNSF Railway removes a key physical barrier to connectivity. This connection, as well as proposed access to I-35/KTA, promotes better access to jobs, services, and other opportunities. ADA-compliant bicycle and pedestrian facilities included in the project also increase accessibility for non-motorized users and reduce auto-dependence.
- *Reduce Transportation Cost Burdens:* While the median travel time to work for Sedgwick County is 19.5 minutes, the project area (Census Tract 97) has a median travel time of 27.4 minutes, which is 40.5% higher than the county median value. By increasing access to the existing transportation network and reducing the need for circuitous routes, the project addresses the disproportional transportation burden experienced by residents in the area. The project will also encourage economic development and community growth, which will bring new services and employment opportunities closer to residents.
- *Enhance Unique Characteristics of the Community:* As the southern segment of the proposed arterial loop parkway, the project corridor will be designed to showcase the character of the area. Bicycle and pedestrian facilities on 95th Street will also support a connection to a future greenway trail along the Arkansas River.

## Mobility and Community Connectivity

The project provides direct, significant mobility and community connectivity benefits to increase access for all users, enhance freight movement, and foster a live-work-play environment.

- *Increase Access for Users:* Limited access points to I-35/KTA and across the Arkansas River have stunted growth in southern Sedgwick County. Proposed access to I-35/KTA and completion of the 1.2-mile gap in the network greatly enhances mobility and community connectivity. Bicycle and pedestrian facilities included in the project ensure access for all users, including first-mile/last-mile access to potential future transit service.
- *Enhance Freight Movement:* I-35/KTA is one of only two Primary Highway Freight System corridors in the Wichita region with truck traffic accounting for approximately 25% traffic volume. The proposed 95th Street interchange at I-35/KTA would facilitate a more direct route for freight and eliminate safety, traffic flow, noise, and maintenance concerns caused by trucks on local roadways. Interstate access and the grade separation at K-15 would relieve congestion on the K-15 corridor, which is the only non-Interstate corridor in the Wichita region with poor truck travel time reliability (TTTR 1.6-3.0). A grade separation of the BNSF Railway also eliminates a potential conflict point for rail freight movement. (Source: WAMPO 2040 Metropolitan Transportation Plan)
- *Foster a Live-Work-Play Environment:* The project improves a critical southern link to support growth and economic development. Associated proactive land use plans and nodal development will help create quality, mixed-use places for people to live, work and play. Connections created by the project will also assist disadvantaged communities, as identified in Section II, that experience higher unemployment rates and longer commute times when compared to state and national averages.

## Economic Competitiveness and Opportunity

The project provides direct, significant economic competitiveness benefits to improve system operations and travel time reliability, facilitate growth and strengthen the regional economy, and increase opportunity for disadvantaged communities.

- Improve System Operations and Travel Time Reliability:** Existing bridge crossing of the Arkansas River are projected to be operating at capacity by 2030. The project addresses this critical gap in the network by providing increased access and conveying vehicles to routes of higher functional classification with the capacity to handle additional traffic. This indirectly relieves congestion on nearby corridors, such as K-15, to ensure optimal use of the overall transportation network. The improved operations benefit residents, employees, and freight.  
*(Source: South Area Transportation Study, 2008)*
- Facilitate Growth and Strengthen the Regional Economy:** Southern Sedgwick County has experienced very strong growth compared to other areas in the region. The project provides a critical corridor as part of an arterial loop network to support future growth needs. Travel demand and land use projections evaluated in the *ARC95 Corridor Study*, summarized in Table 8, indicate major growth over the next few decades that would be spurred by the project.
- Increase Opportunity for Disadvantaged Communities:** The project area has a median travel time 40.5% higher than the county median value. In addition to decreasing travel times within southern Sedgwick County, the project will also encourage economic development and community growth, which will bring services and employment opportunities closer to residents. Overall, transportation improvements associated with the project will help foster investment in greater land use productivity.

Table 8: Travel Demand and Land Use Projections

Year	Scenario	Condition	Housing Units		Employment	
			Total	Change	Total	Change
2010	Base Year	Existing	1,760	N/A	440	N/A
2040	Projected Year	No Build	3,390	93%	850	93%
	Low Growth	Build	3,610	105%	1,230	180%
2060	Moderate Growth	Build	5,140	192%	1,630	270%
	High Growth	Build	8,210	367%	4,270	870%

Source: *ARC95 Corridor Study (2018)*

## State of Good Repair

The project supports maintaining infrastructure in a state of good repair by addressing network vulnerabilities and modernizing core assets.

- Address Network Vulnerabilities:** Existing bridge crossing of the Arkansas River are projected to be operating at capacity by 2030. The project adds another bridge crossing at 95th Street for improved connectivity but also ensures regional resiliency in the case of closures at other bridge crossings. The proposed 95th Street interchange at I-35/KTA would facilitate a more direct route for freight and eliminate safety, traffic flow, noise, and maintenance concerns caused by trucks on local roadways. The project also includes bicycle and pedestrian facilities to provide safe travel for vulnerable, non-motorized users. *(Source: South Area Transportation Study, 2008)*

- *Modernize Core Assets:* Upgrades to the project corridor ensure 95th Street can function as the southern segment of the planned arterial parkway loop. Urban standards for the project corridor, including upgrading a 0.5-mile segment of a rural gravel roadway to a paved roadway, ensures that 95th Street can meet community expectations regarding travel demands and growth.

## Partnership and Collaboration

The project has and will continue to engage multiple communities and project partners, integrate quality public engagement into the design process, and incorporate private sector entities.

- *Engage Communities and Project Partners:* Partnerships have been critical over the past 15 years to plan for the ARC95 project. Communities and partners involved in the process included KDOT, KTA, WAMPO, BNSF Railway, and four nearby communities (City of Clearwater, City of Derby, City of Haysville, and City of Mulvane). These entities will remain committed partners throughout the project, as evidenced by regional support for the project in the WAMPO *Re-Imagined MOVE 2040 Metropolitan Transportation Plan*.
- *Integrate Quality Public Engagement:* The *ARC95 Corridor Study* held public meetings in the City of Derby and the City of Haysville to gather input at various stages in the planning process. Online surveys and other forms of digital engagement were also utilized. The project will continue the use of these effective forms of engagement while also tailoring activities to the intended audience as the design advances. A variety of effective communication methods will be selected for different groups such as adjacent property owners, area residents, businesses, and staff and elected officials from nearby communities. Engagement will also be tailored to areas identified as disadvantaged communities to ensure participation is accessible.
- *Incorporate Private Sector Entities:* Community organizations (such as the Greater Wichita Partnership), private sector industries, and consulting partners have been involved in the ARC95 planning process for many years. Sedgwick County will continue to leverage the expertise and experience of these key partners that are invested in our region. A DBE goal will also be considered in the procurement process.

## Innovation

The project deploys innovative technology, utilizes innovative project delivery practices, and seeks innovative financing to ensure a successful, high-quality project.

- *Deploy Innovative Technology:* Sedgwick County will coordinate with KTA to use the appropriate tolling technology for the proposed 95th Street interchange at I-35/KTA. With the recent modernization improvements made along the turnpike in the past decade, it is anticipated that “open road” tolling will be utilized to provide more efficient travel flow and improve the customer experience. Traffic signal synchronization and dynamic message signs could be integrated into existing Intelligent Transportation System (ITS) improvements, including integration into KDOT’s KanDrive and Wichita’s WICHway systems. Environmentally-conscious materials for pavement and street lighting will also be incorporated into the design process.
- *Utilize Innovative Project Delivery:* The schedule ensures efficiency by identifying planning and design tasks that can occur concurrently. The development of a construction phasing plan will also be key to efficiently implement improvements using available resources.
- *Seeks Innovative Funding:* Sedgwick County anticipates seeking public and private partnerships to fund construction of the ARC95 project. County staff and project partners have experience blending multiple funding sources to advance a project.

## V. PROJECT READINESS

Sedgwick County and its partners have conducted planning and other pre-design activities related to the ARC95 project for nearly 15 years. Sedgwick County is poised to advance the project through preliminary engineering, feasibility studies, environmental documentation, and final design. Project partners including KDOT, KTA, WAMPO, City of Clearwater, City of Derby, City of Haysville, and City of Mulvane have actively participated in and supported the process. Letters of support are included in Appendix B. The requested FY2023 RAISE Planning Grant supports the critical final steps to prepare for future construction. The following sections detailing project schedule, required approvals, and an assessment of project risks and mitigation strategies describe Sedgwick County’s approach to minimizing environmental risk.

### Project Schedule

The estimated schedule for the scope of work for the RAISE Planning Grant is approximately 46 months. Tasks would begin following the announcement of the funding awards in August 2023. All necessary activities would be completed to allow RAISE funds to be obligated in advance of the statutory deadline in June 2026. All tasks will include stakeholder coordination and public engagement. Community engagement is anticipated to include multiple touchpoints and methods, including traditional public meetings. The project schedule is outlined in Table 9.

Table 9: Project Schedule

Task	Start Date	End Date	Duration
1   Project Work Plan	September 2023	October 2023	2 months
2   Preliminary Engineering	November 2023	November 2025	24 months
3   KTA Tolling Feasibility Study	January 2024	September 2024	9 months
4   NEPA Evaluation	May 2024	May 2025	12 months
5   Final Design	June 2025	June 2027	24 months
Total Schedule	September 2023	June 2027	46 months

### Required Approvals

#### Environmental Permits and Reviews

Compliance with NEPA would be completed as part of the scope of work for the RAISE Planning Grant. Based on the environmental scan completed during the *ARC95 Corridor Study*, an Environmental Assessment (EA) level of analysis is anticipated. Resources in the project area that are anticipated to receive the most attention include land use, prime farmland, right-of-way, floodplain, wetlands, water quality, and threatened and endangered species. Based on the ARC95 project components, coordination with the following agencies will be key throughout the environmental process: Kansas Division of Water Resources, Kansas Department of Health and Environment, Kansas State Historic Preservation Office, U.S. Army Corps of Engineers, and the Federal Emergency Management Agency.

Right-of-way acquisition to accommodate the ARC95 improvements would be acquired during construction and not as part of the scope of work for the RAISE Planning Grant. Therefore, it is critical that environmental documentation occurs prior to final design to conduct public engagement and mitigate any impacts.

## Federal Requirements

The scope of work for the RAISE Planning Grant would follow USDOT requirements such as NEPA compliance, federal requirements in the procurement of planning and design services, and reporting requirements to the sponsoring agency. Sedgwick County understands federal requirements for domestic preference for procurements, and during design, all efforts will be made to ensure compliance with Buy America requirements once the project reaches the construction phase.

## State and Local Requirements

The scope of work for the RAISE Planning Grant has been approved by Sedgwick County with support from the several state, regional, and local partners identified above. No right-of-way acquisition is included in the scope of work, but quantities of right-of-way requirements would be determined during the preliminary engineering and final design phases. The ARC95 project is currently included as one of nine regional priority projects in the WAMPO *Re-Imagined MOVE 2040 Metropolitan Transportation Plan (2020)*. Prior to final design, the ARC95 project would be entered into the WAMPO Transportation Improvement Plan (TIP) and Kansas State Transportation Improvement Program (STIP).

As part of the scope of work for the RAISE Planning Grant, Sedgwick County would initiate and coordinate with KDOT and KTA to conduct the KTA Tolling Feasibility Study to evaluate solutions to providing new access to the turnpike. If the feasibility study is positive and indicates local support, a joint proposal from Sedgwick County and KDOT would be presented to KTA for consideration. If approved by the KTA Board of Directors, the joint proposal would proceed to the State Finance Council for final evaluation and approval. Once approved, the new interchange access would move forward as a priority for the state highway system. In the case of the ARC95 project, the approved 95th Street interchange would be included in the final design of the overall ARC95 project.

## Assessment of Project Risks and Mitigation Strategies

*Project Scope, Schedule, and Costs:* The project scope, schedule, and cost estimate have been prepared to accommodate anticipated challenges that might be associated with a standard planning and design process. The project schedule identifies tasks that can occur concurrently to ensure an efficient process. Additionally, contingencies have been incorporated into the cost estimate to accommodate for potential scope changes and other impacts that may increase project costs.

*Environmental Risks:* A full evaluation of environmental impact under NEPA will be completed and anticipated impacts mitigated. Coordination with the appropriate federal and state agencies will be initiated immediately upon funding award notification. Sedgwick County conducted an environmental scan during the *ARC95 Corridor Study* in order to anticipate the NEPA level of analysis and agency coordination that would likely be required. Based on the environmental scan, an Environmental Assessment (EA) level of analysis is anticipated.

*Design Risks:* All design risks would be evaluated and mitigated. (1) Unforeseen relocations or acquisitions would be limited and all utilities would be documented in the design process and verified with both utility companies and adjacent property owners. Accurate survey and right-of-way plans will limit unanticipated right-of-way acquisitions. (2) A comprehensive understanding of site conditions, particularly regarding floodplains, wetlands, soil types, and geotechnical factors, would minimize unknown construction costs. The design will build upon information from the previously completed environmental scan to ensure the design and construction cost estimates align with site conditions. (3) Coordination with KDOT and KTA will be required to evaluate the feasibility and seek

approval for the new 95th Street interchange to access I-35/KTA. The project would build upon previous coordination efforts from the *ARC95 Corridor Study* to initiate the KTA Tolling Feasibility Study. (4) Coordination with BNSF Railway will be required for the proposed grade separation at the railroad mainline and K-15. The project would build upon previous coordination efforts from the *ARC95 Corridor Study* to continue advancing design and phasing plans to limit any impacts to rail operations. Overall, BNSF Railway has expressed a preference for a grade separated highway-rail solution to avoid a new at-grade crossing, and associated safety risks, on 95th Street.

*Project Sponsor Capacity:* Sedgwick County has the capacity to implement this project with experienced staff capable of contracting, procurement, and project practices that comply with state and federal requirements. Sedgwick County Public Works staff and the joint Wichita-Sedgwick County Metropolitan Area Planning Commission have experience in managing and executing a wide variety of capital improvement projects that have received state and federal funding. The Wichita region, including Sedgwick County, is currently executing two, federally funded projects: (1) \$21.0 million 2020 BUILD Grant for the North Junction Gold Project and (2) \$14.2 million 2019 FTA 5339 Bus and Bus Facilities Grant for the Wichita Transit Multimodal Center. Sedgwick County and project partners will leverage experience and expertise from these projects for the ARC95 project. Sedgwick County and its state, regional, and local partners have a positive working relationship as proven successful by the previous planning efforts through the *ARC95 Corridor Study*.

*Public Engagement and Support:* Due to the scope of the ARC95 project, improvements have far-reaching impacts on many stakeholders and residents in southern Sedgwick County. A summary of key topics discussed during previous public meetings is displayed in Figure 7. The project will tailor public engagement methods to the intended audience, such as adjacent property owners, area residents, businesses, and staff and elected officials from nearby communities. Design of the ARC95 project will be optimized to limit impacts to residents directly affected by the project while improving the overall transportation network for the greater community.

Figure 7: Community Input from *ARC95 Corridor Study (2018)*





## APPENDIX

### Appendix A: Letter of Commitment

Sedgwick County is committed to funding the complete 20% match for the project, in the amount of \$1.55 million, towards the total cost for the proposed RAISE Planning Grant scope of work. A Letter of Commitment from Sedgwick County is attached.

### Appendix B: Letters of Support

Letters of support from local project partners were developed for the ARC95 project in late 2020 when Sedgwick County began actively seeking funds to advance the design and construction of the project. Attached letters of support include the following key partners:

- City of Derby
- City of Haysville
- City of Mulvane
- Wichita Area Metropolitan Planning Organization (WAMPO)
- Greater Wichita Partnership
- Southcentral Kansas Transportation Coalition

### Appendix C: Supporting Documentation

In 2018, Sedgwick County completed the *Arkansas River Crossing and 95th Street (ARC95) Corridor Study*. The study recommended upgrading the 95th Street corridor to a five-lane parkway, including a new crossing of the Arkansas River, a new interchange with I-35/KTA, and a grade separated crossing of the BNSF Railway.

ARC95 Corridor Study (2018):

[https://www.sedgwickcounty.org/media/57513/arc95\\_final\\_report.pdf](https://www.sedgwickcounty.org/media/57513/arc95_final_report.pdf)

### Appendix D: Required Forms

Application for Federal Assistance - Standard Form 424 (SF-424)