Build Kansas Fund | Fiscal Year 2024 Application Package | Memo

To: Senator Ty Masterson, Chair, Build Kansas Advisory Committee
Murl Riedel, Kansas Legislative Research Department
Shauna Wake, Office of the Kansas State Treasurer

From: Vanessa Lamoreaux, Kansas Department of Transportation

RE: Build Kansas Fund Application # 2024-007-MARC

Date: November 17, 2023

Attached, please find an application made to the Build Kansas Fund by the Unified Government of Wyandotte County and Kansas City, Kansas (UG).

The application packet includes the following items:

- Coversheet – provides a high-level overview of the application including a unique identification number for the application and tracking information for the application review and advice process. *(Page 1, bottom right corner page number reference)*
- Build Kansas Fund Application – includes information the applicant submitted with the Build Kansas Fund Application. (*Page 2-9, bottom right corner page number reference*)
- Attachments – Please note this applicant provided their Bipartisan Infrastructure Law (BIL) Program Application submitted to the Federal Emergency Management Agency (FEMA). This information is supplemental and referenced only to determine eligibility and means test criteria of the Build Kansas Fund. (*Page 10-38, bottom right corner page number reference*)

Project Overview

The Unified Government of Wyandotte County and Kansas City, Kansas (UG) seeks funding from the US Department of Transportation (USDOT) to the Kansas Avenue River Bridge spanning the Kansas River between Kansas City, Kansas and Kansas City, Missouri. The project would reconnect and serve as a catalyst for economic revitalization for the historically underserved communities of Armourdale and Westside. The scope of the project would extend along Kansas Avenue/Cesar Chavez Avenue from 7th Street (US-169) on the Kansas side to the Southwest Boulevard/I-35 on the Missouri side. The UG has partnered with the City of Kansas City, Missouri on the application, with both entities supplying funds toward the required local match. for the Multimodal Project Discretionary Grant (MPDG) Program, MEGA and INFRA.

The UG has submitted a BIL grant application to USDOT for the Multimodal Project Discretionary Grant (MPDG) Program, MEGA and INFRA. The UG seeks Build Kansas Funds to satisfy a portion of their local match requirement.

Applications were due on August 21, 2023. The Build Kansas Fund application was received on November 9, 2023, after the federal application submission. The Kansas Infrastructure Hub and Build Kansas Steering Committee recommended the UG submit a Build Kansas Fund Application as no Federal Award has been made for this project.

Build Kansas Fund Steering Committee Recommendation

The Build Kansas Fund Steering Committee reviewed this application on November 15, 2023, following a successful completeness check. The Steering Committee **RECOMMENDS APPROVAL** of Build Kansas Funding to the Build Kansas Advisory Committee for final advice.

Build Kansas Fund | Fiscal Year 2024 Application Package | Coversheet

Build Kansas Fund Application Number	2024-007-MARC	
Project Name	Unified Government of Wyandotte County and Kansas City, Kansas (UG) KC Connect Bi-State River Bridge Replacement Project	
Entity Type	Local Government	
Economic Development District (EDD) Planning Commission	MARC Mid-America Regional Council	
Infrastructure Sector(s)	Transportation	
BIL Program	20.937 (MEGA); 20.934 (INFRA) Multimodal Project Discretionary Grant (MPDG)	
BIL Program Type	Discretionary	
BIL Application Deadline	08/21/2023	
Build Kansas Fund Request	$10,000,000	
Technical Assistance Received	General	No
	BIL Application	No
	Build Kansas Fund Application	Yes
	Other (Brief Description): Support provided in the resubmission of a viable application	
Application Notes	Build Kansas Fund contribution will unlock $69,960,000 in federal BIL funding. The project is receiving a contribution of $21,200,000 from the City of Kansas City, MO and investing $15,440,000 of their own funds.	

Steering Committee Funding Recommendation	**11/15/2023 | Approve**

Advisory Committee Target Review	**DATE**

Advisory Committee Funding Recommendation	**DATE | Approve or Deny**

Completeness Review Data

Build Kansas Application Received:	November 9, 2023
Completeness Check:	November 9, 2023
Forwarded to Steering Committee:	November 13, 2023

Title

Unified Government of Wyandotte County and Kansas City, Kansas (UG)

11/09/2023

id. 44654296

by **Christopher Harker** in **Build Kansas Fund Fiscal Year 2024 Application**

charker@benesch.com

Original Submission

11/09/2023

	Part 1: Applicant Information
The name of the entity applying for the Build Kansas Fund:	Unified Government of Wyandotte County and Kansas City, Kansas (UG)
Project Name:	KC Connect Bi-State River Bridge Replacement Project
Entity type:	County Government
Applicant Contact Name:	Christopher Harker
Applicant Contact Position/Title:	Transportation Group Manager
Applicant Contact Telephone Number:	+19132135145
Applicant Contact Email Address:	charker@benesch.com
Applicant Contact Address:	11010 Haskell Avenue; Suite 200
Applicant Contact Address Line 2 (optional):	Kansas City, Kansas 66109
Applicant Contact City:	Kansas City
Applicant Contact State:	Kansas
Applicant Contact Zip Code:	66109

Is the Project Contact the same as the Applicant Contact?	No
Project Contact Name:	Troy Shaw
Project Contact Position/Title:	County Engineer
Project Contact Telephone Number:	+19135735416
Project Contact Email Address:	tshaw@wycokck.org
Project Contact Address:	701 North 7th Street; Suite 712
Project Contact Address Line 2 (optional):	Kansas City, Kansas 66101
Project Contact City:	Kansas City
Project Contact State:	Kansas
Project Contact Zip Code:	66101
	Part 2: Build Kansas Fund - Eligibility Criteria
Certify that you are pursuing a viable Bipartisan Infrastructure Law (BIL) funding opportunity for which your entity is eligible:	Yes
Certify that the Bipartisan Infrastructure Law (BIL) funding opportunity you are pursuing has a non-federal match component:	Yes
What is the primary county that the project will occur in?	Wyandotte County

The Build Kansas Fund is intended to support Kansas-based infrastructure projects. Please provide a list of all the zip codes this project will be located in, along with an estimated percent [%] of the project located in that zip code. For example, if seeking funding for road infrastructure, provide a rough percent of the roads expected in each zip code:

Zip Code Percentage.xlsx

	Part 3: Bipartisan Infrastructure Law (BIL) - Grant Application Information Please Note: This information is related to the federal Bipartisan Infrastructure Law (BIL) funding opportunity to which you will apply. This is NOT information for the Build Kansas Match Fund.
Please enter the Bipartisan Infrastructure Law (BIL) funding opportunity title that the entity is applying for:	Multimodal Project Discretionary Grant (MPDG)
What is the federal funding agency for this Bipartisan Infrastructure Law (BIL) funding opportunity?	U.S. Department of Transportation
What is the Assistance Listing Number (ALN) for this Bipartisan Infrastructure Law (BIL) funding opportunity?	20.937 (MEGA) ; 20.934 (INFRA)
What is the application due date for this Bipartisan Infrastructure Law (BIL) funding opportunity?	8/21/2023
What is the federal fiscal year for this Bipartisan Infrastructure Law (BIL) funding opportunity?	2026

Enter the amount of funding being applied for, from the Bipartisan Infrastructure Law (BIL) funding opportunity:	$69,960,000.0
	Part 4: Build Kansas Fund - Match Application Information
Enter the non-federal match amount requested from the Build Kansas Fund:	$10,000,000.0
Is the project able to move forward with a lesser match amount than requested?	No
If you are awarded less match than the amount requested, at what amount would your project NOT be able to move forward?	0.0
Expected breakdown of funding sources to support the project: Enter the funding source and projected amount from each source to support this project: **Kansas+DOT+table.xlsx**	
	Part 5: Build Kansas Fund - Means Test
Confirm that there are no available funding sources currently planned to go unused by your entity that could be leveraged for this project:	Yes
Confirm there are no available American Rescue Plan Act (ARPA) or Coronavirus State & Local Fiscal Recovery Fund monies that could be used for this match:	Yes

Confirm that you have explored other readily available funding sources (federal or non-federal) to be used for this match:	Yes
Briefly describe your efforts to find other available funding sources for this project:	Funding sources were explored starting in late 2021. Federal grant programs were identified and prioritized base on needs of project and available funding. The MEGA/INFRA combined application, which is what was selected, provided the best opportunity due to grant criteria alignment with project need. On the Missouri side of this project footprint, a Reconnecting Communities Pilot Program Grant was awarded. UG explored leveraging KDOT's KLBIP as a secondary funding source, however a mutual decision between KDOT and UG decided this funding source was not intended for project applications of this magnitude.

Part 6: Additional Information

Please upload a copy of the Bipartisan Infrastructure Law (BIL) program application associated with this request OR a 2-page executive summary providing an overview of the project:

KC_Connect_Grant_Submittal_-_8-21-23.pdf

Provide any additional information about this project (optional):	For clarification on the question federal fiscal year funding - if UG is awarded funds through the federal grant it would be obligated for FY'27 (fall of 2026). Due to the magnitude of this project, UG is requesting Build Kansas funds to support its matching contribution for this $116 Million dollar project. This is a critical urban freight corridor for both Kansas City, Kansas and KCMO. It also provides connection between two historically underserved communities on either side of the river. The project has the support of both cities, MARC, the KCK Chamber and political leadership at City, State, and Federal levels. This project is only one of multiple major river crossings needing replacement. If awarded support from the Kansas Build Fund, local matching resources will be allocated to addressing other river crossings such as the currently closed Central Avenue River Bridge (also attached to an on-going KDOT project), the 12th Street Bridge, or the James Street Bridge. All of these river crossings are at the end of their service life (approximately 100 year old) and will require action in coming years by UG. If our request for Kansas Build Funds is not provided, then the backlog of structurally deficient infrastructure across the County will increase with noteworthy impacts to economic prosperity, access for residents and interstate commerce. Our grant application has been submitted and we are awaiting response. We have spoken with Ms. Vanessa Lamoreaux and Secretary Reed about this application over previous months. If helpful, we can provide a copy of the application, support letters, and BCA appendix material.

	Part 7: Terms and Conditions
Understanding of Fund Release Requirements:	checked
Understanding of Use of Funds:	checked
Understanding of Reporting Requirements:	checked
Authority to Make Grant Application:	checked
Persons and Titles: The following persons are responsible for making this Build Kansas Fund application.	Christopher Harker
Position/Title:	Transportation Group Manager (Benesch)
Additional:	Troy Shaw
Position/Title:	UG County Engineer
Additional:	
Position/Title:	
Additional:	
Position/Title:	

Internal Form

	Pre-Award Information:
	Post-Award Information:

Budget Table	
Source	**Amount**
BIL Federal Funds (applied for)	$ 69,960,000
Build Kansas Funds (non-federal match)	$ 10,000,000
Additional Project Contribution (if applicable)	$ 15,440,000
City of Kansas City, Missouri	$ 21,200,000
TOTAL PROJECT COST	$ 116,600,000

Project Zip Code Table		
Zip Code	% of project in zip code	State
66105	55% (100% of KS Portion)	Kansas
64108	45%	Missouri

County Administrator's Office
David W. Johnston, County Administrator

701 North 7th St., Suite 945
Kansas City, Kansas 66101-3064

Phone: (913) 573-5030
Fax: (913) 573-5540

November 8, 2023

Steering Committee - Kansas Build Fund
Kansas Infrastructure Hub

Attn: Mr. Calvin Reed | Secretary of Transportation

Re: Local Commitment to Infrastructure Investment
Application for Funding Support | KC Connect Bi-State River Bridge Replacement

Dear Secretary Reed and Steering Committee Members:

On behalf of the Unified Government of Kansas City, Kansas, and Wyandotte County (UG), I ask that you include this letter with our application to the Kansas Build Fund (KBF). Our staff and I understand that the KBF Steering Committee is currently evaluating the UG's application for funding support as it pertains to the proposed "KC Connect Bi-State River Bridge Replacement Project". This proposed project would replace the existing Kansas Avenue River Bridge spanning the Kansas River between Kansas City, Kansas (KCK) and Kansas City, Missouri (KCMO). In addition, this project would reconnect and serve as a catalyst for economic revitalization for the historically underserved communities of Armourdale and Westside. The UG, and our project partner KCMO, has submitted a FY 2023 Mega/INFRA Grant Application for this project. The scope of the project would extend along Kansas Avenue/Cesar Chavez Avenue from 7th Street (US-169) on the Kansas side to Southwest Boulevard/I-35 on the Missouri Side. Per the federal grant schedule, the UG anticipates hearing about potential selection by the end of calendar year 2023.

Recently, the UG was notified that the KBF Steering Committee was considering awarding potential matching funds for the KC Connect Bi-State River Bridge Replacement Project in the amount of $10 Million. If awarded these funds, and assuming the project received a federal grant, KBF funding would allow the UG to reallocate an equivalent dollar value currently committed to the matching effort towards other priority infrastructure needs locally. It was requested by the KBF Steering Committee, as part of their evaluation to receive a written commitment, in the form of this letter, that reallocated local funding due to KBF support would be used solely for the purpose of addressing infrastructure priorities within the jurisdiction of the UG.

As the UG's County Administrator, I commit that, if the UG is awarded KBF funds, equivalent current local funding allocated to the matching portion of our Mega/INFRA grant application will be repurposed for other infrastructure needs within the County. As discussed in our KBF application, the UG has a funding gap pertaining to existing infrastructure needs (preservation, maintenance, repair, and replacement) and available resources. Therefore, any support the KBF would award the UG would be greatly appreciated, allowing us to address additional priority infrastructure needs, including other river bridge crossings.

If the KBF Steering Committee has any questions or requires further clarification of the UG's commitment to both this project and any repurposed local resources, please feel free to contact me or our Executive Director of Public Works, Mr. Jeff Fisher. Our contact information is djohnston@wycokck.org | (913) 573-5030X and jfisher@wycokck.org | (913) 573-5415, respectively. On behalf of the UG, thank you for your strong consideration of our project.

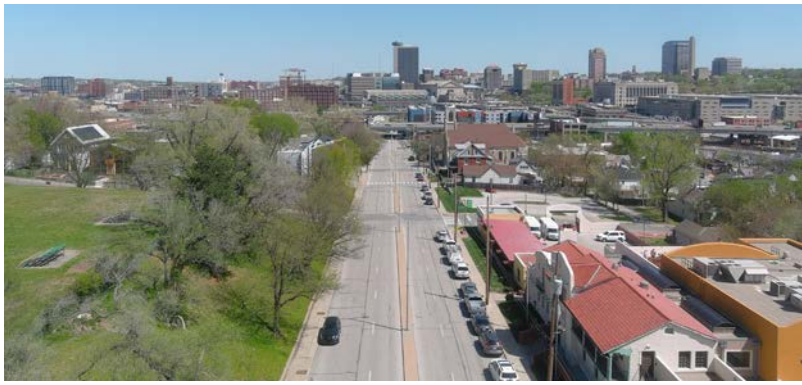
Respectfully,

David W. Johnston
County Administrator

CC: Office of the Mayor
Board of County Commissioners
UG Public Works Department

KC CONNECT

BI-STATE RIVER BRIDGE REPLACEMENT



Submitted to
Build America Bureau
Office of the Secretary of Transportation, USDOT

FY 2023 Mega/INFRA Grant Application

Submitted by

Basic Project Information	
What is the Project Name?	KC Connect Bi-State River Bridge Replacement Project
Who is the Project Sponsor?	Unified Government of Wyandotte County, Kansas and Kansas City, Kansas (UG)
Was an application for USDOT discretionary grant funding for this project submitted previously?	No
A project will be evaluated for eligibility for consideration for all three programs, unless the applicant wishes to opt-out of being evaluated for one or more of the grant programs.	____ Opt-out of Mega? ____ Opt-out of INFRA? _X_ Opt-out of Rural?
Project Costs	
MPDG Request Amount	Exact Amount in year-of-expenditure dollars: $69,960,000
Estimated Other Federal funding (excl. MPDG)	Estimate in year-of-expenditure dollars: $0
Estimated Other Federal funding (excl. MPDG) further detail	Other Federal funding from Federal Formula dollars: $0 Other Federal funding being requested from other USDOT grant opportunities?: $0 From What Program(s)?:
Estimated non-Federal funding	Estimate in year-of-expenditure dollars: $46,640,000
Future Eligible Project Cost (Sum of previous three rows)	Estimate in year-of-expenditure dollars: $116,000,000
Previously incurred project costs (if applicable)	Estimate in year-of-expenditure dollars: $0
Total Project Cost (Sum of 'previous incurred' and 'future eligible')	Estimate in year-of-expenditure dollars: $116,600,000
INFRA: Amount of Future Eligible Costs by Project Type	1) A highway freight project on the National Highway Freight Network: $116,600,000
Mega: Amount of Future Eligible Costs by Project Type	2) A highway or bridge project on the National Highway Freight Network: $116,600,000
Rural: Amount of Future Eligible Costs by Project Type	N/A

Project Location	
State(s) in which project is located	Kansas, Missouri
INFRA: Small or Large project	Large
Urbanized Area in which project is located, if applicable	43912 (Kansas City)
Population of Urbanized Area (According to 2010 Census)	1,519,417
Is the project located (entirely or partially) in Area of Persistent Poverty or Historically Disadvantaged Community?	Yes. The project is partially located in multiple Areas of Persistent Poverty and Historically Disadvantaged Communities (Tracts 426, 430, and 153).
Is the project located (entirely or partially) in Federal or USDOT designated areas?	Yes
Is the project currently programmed in the: TIP, STIP, MPO Long Range Transportation Plan, State Long Range Transportation Plan, State Freight Plan	TIP Amendment anticipated 1/15/24.

Table of Contents

1. Project Description

The Unified Government of Wyandotte County, Kansas and Kansas City, Kansas (UG), in partnership with the City of Kansas City, Missouri (KCMO), requests $69.9 million in Mega/INFRA grant funding for the **KC Connect Bi-State River Bridge Replacement** project – a replacement effort to restore a vital crossing of the Kansas River and reconnect neighboring, historically disadvantaged communities, including Justice 40 areas. Using Complete Street sections, providing new pedestrian, cyclist, and multimodal accommodations and integrating beautifying green space, this project will strengthen the the historic backbone of the heart of Kansas City, and in the process provide new and continued opportunities to working class families in both Kansas and Missouri.

The existing, 102-year-old, steel deck truss bridge spans across the Kansas-Missouri border and is owned, inspected, and maintained by both cities (UG and KCMO). The structure has provided vital, daily access across the Kansas River for thousands of local and regional freight vehicles daily, but was closed in Spring of 2022 due to poor structural conditions jeopardizing the structure's integrity and safety for users. Full replacement is warranted, but is beyond the financial capabilities of Kansas City alone. The two (2) cities are partnering on short-term rehabilitation efforts starting in Fall 2022 with the structure's anticipated reopening with traffic lane restrictions and load postings scheduled in Spring 2024. Additional repairs are anticipated in coming years as the structure ages further, causing repeated river crossing closures, detrimental impacts to the efficient movement of freight and goods throughout the Kansas City metro, and restricting access to employment, health, and economic opportunity services for thousands of nearby residents. Through this grant, UG and KCMO will leverage federal and local investment to Build Back Better this essential community arterial.

As a designated Critical Urban Freight Corridor (CUFC), repeated closures of the structure have negatively impacted commercial and industrial freight traffic. Existing industries that rely on this local river crossing to access regional highways and the interstate system. The detour and additional mileage required during closures cost the Kansas City freight industry hundreds of thousands of dollars each month and directly negate the sustainability efforts of both UG and KCMO. The functional limitations of the existing bridge also hamper growth opportunities along riverfront areas that investors and developers are interested in. Replacement of the bridge would serve as a multi-year catalyst for hundreds of millions of dollars of redevelopment in communities historically overlooked.

Image 1: View of Cesar E Chavez Bridge

Existing bridge and roadway closures also isolate the nearby communities of Armourdale, KS, and Westside, MO, both of which are designated as Historically Disadvantaged Communities. These neighborhoods depend on safe passage across the Kansas River for work, medical services, entertainment and recreation activities.

Past and current closures of this river bridge place a significant burden on these residents who often do not have the means of detouring around due to low vehicular ownership and tight financial circumstances. Armourdale and Westside together represent two (2) of the five neighborhoods that form “La Colonia”, the historic center of Mexican immigration to Kansas City during the city’s nascency. Without reliable infrastructure, these areas, which have experienced significant underinvestment, will remain isolated from the economic opportunities, cultural heritage and social equity experienced by many in the Kansas City metro. There are now revitalization efforts occurring in the area, such as a planned Riverfront District and West Bottom Revitalization. Without access along the bridge, however, the community will not reap the benefits of these investments. The corridor encompassing this project is the primary means of accessing opportunities for future prosperity.

Image 2: Kansas Avenue in Armourdale

I. Project Background & Context

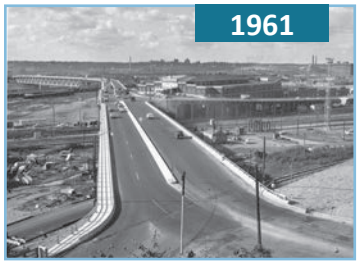
The Cesar E Chavez Bridge has been a staple in the metro’s infrastructure since the completion of its original construction in 1921. The adjacent neighborhoods, now referred to as the Historic West Bottoms and Armourdale, were once the home of the Kansas City Stockyards; 55 acres of holding corrals, loading docks, and associated facilities that ranked 2nd, next only to Chicago, as the busiest commercial livestock hub in the nation. Trucks and freight vehicles relied on the Cesar E Chavez Bridge for safe access to the stockyards until the Great Flood of 1951, which inundated the banks of the Kansas River to historic levels, devastating nearby facilities and businesses, and claiming the lives of 28 people and over 5,000 animals. The era of the booming stockyards has passed, but both the UG and KCMO are investing in the revitalization of Westwide, the West Bottoms, and Armourdale. New commercial and business developments are underway, catalyzed by the tranformation of the adjacent Rock Island Bridge into a community gathering and event space like no other in the region, suspended above the Kansas River. Progress has been slowed by limited access from Cesar E Chavez Bridge, and this grant funding would have a magnifying effect on riverfront redevelopment, creating well paying jobs for Armourdale and Westside residents.

After over a century of withstanding floods, undergoing essential repairs and maintenance, and supporting millions of fatigue cycles, the existing Cesar E Chavez Bridge must be replaced to ensure equitable access to nearby services and safe passage across a prominent waterway. Repeated closures plague this area’s homeowners and businesses alike, impacting both pedestrians and vehicles attempting to cross state lines. The KC Connect Bi-State River Bridge has the opportunity to modernize access across the Kansas River and to the new developments currently under construction in its immediate vicinity. This project will showcase the collaborative efforts between two cities, two states, and dozens of business and community stakeholders. It will literally bridge obstacles to bring people together. There is consensus and financial commitment for a common vision for the West Bottoms and greater riverfront area. With the support of this grant the vision will begin to be realized with construction of a modern bridge capable of facilitating growth in Kansas City for another century.

KC Connect Bridge History

Looking North over Stockyards

When the bridge was constructed, it was celebrated for creating opportunity for a "new commercial era in the history of Armourdale." [1]

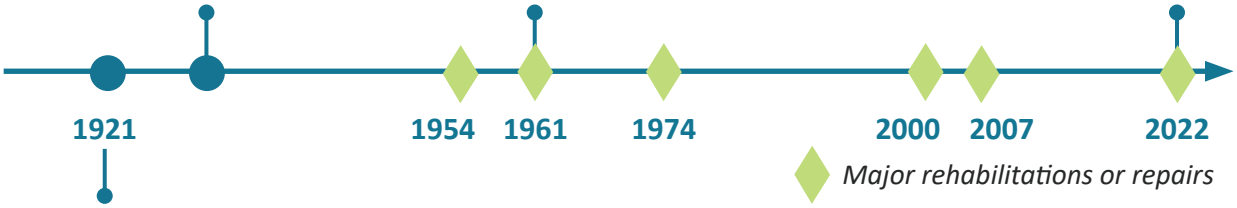


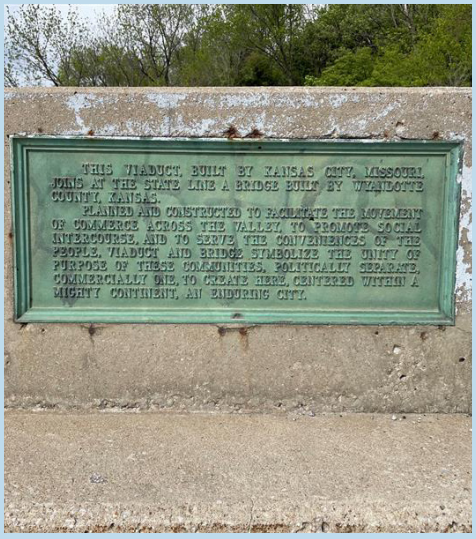
Bridge Reopened after Major Rehabilitations

Reopened after repairs in 1961, the bridge contributed to "better service to the Central Industrial district and stock yards, and to the community as a whole." [2]

Bridge Currently Closed Due to Structural Deterioration

With historic underinvestment yet promising new economic development in the area, the revitalization of the Cesar E Chavez Bridge and adjacent corridors are critical for the future.





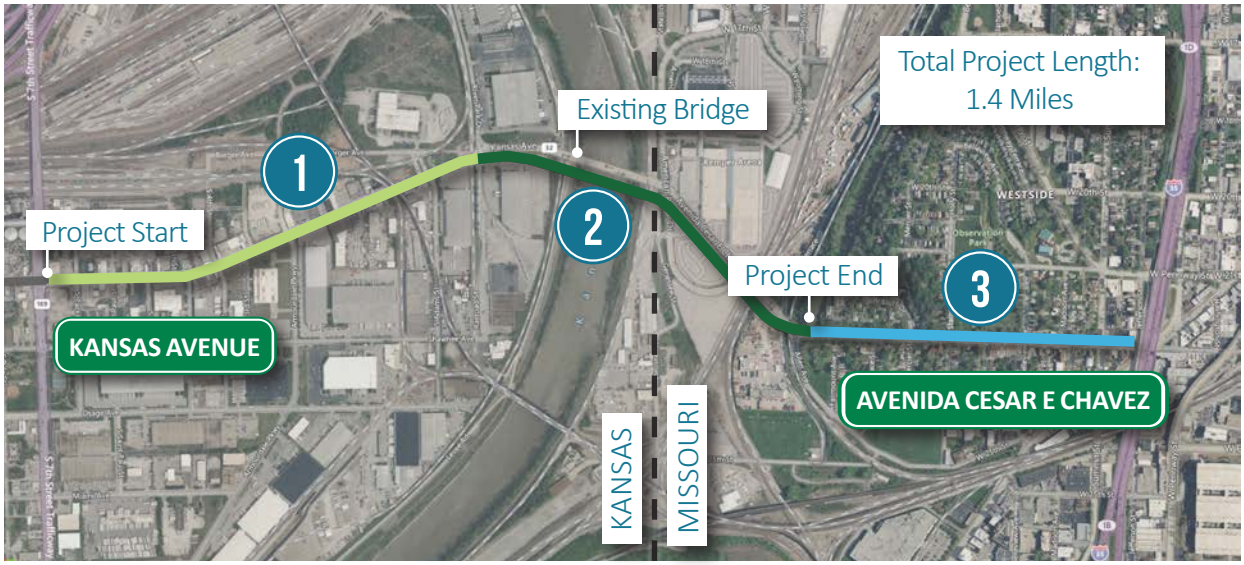
Bringing Communities Together for 100 Years

KC Connect reflects the existing bridge's purpose to connect the past and future, as captured by the original, commemorative plaque:

"This viaduct, built by Kansas City, Missouri, joins at the state line a bridge built by Wyandotte County, Kansas. Planned and constructed to facilitate the movement of commerce across the valley, to promote social intercourse, and to serve the conveniences of the people, viaduct and bridge symbolize the unity of purpose of these communities, politically separate, commercially one, to create here, centered within a mighty continent, an enduring city."

1. The Kansas City Star, Sep 2, 1921, "Armourdale Rejoices"
2. The Kansas City Star, Sep 8, 1961, "Open A Viaduct Between Cities"

Proposed Typical Sections



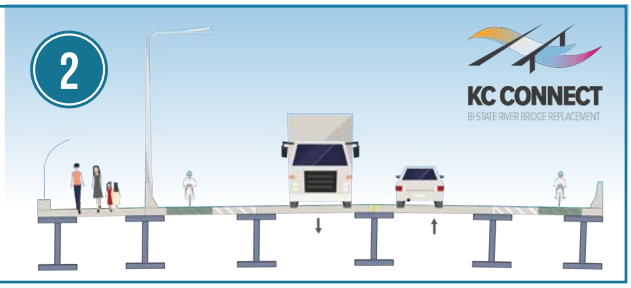
Legend — Corridor Improvements — Proposed Bridge — Reconnecting Kansas City Grant Area

The KC Connect Bi-State River Bridge Replacement project will replace the Cesar E Chavez Bridge with a similar structure on a parallel offset alignment. It will reconstruct the adjoining Kansas Avenue and Avenida Cesar Chavez corridors with Complete Streets standard sections including improved pedestrian, bicycle, and multimodal accommodations. Additionally, it will provide improved safety and traffic operations, modernized drainage systems to alleviate frequent roadway flooding, and beautifying green spaces to promote sustainability and walkability.

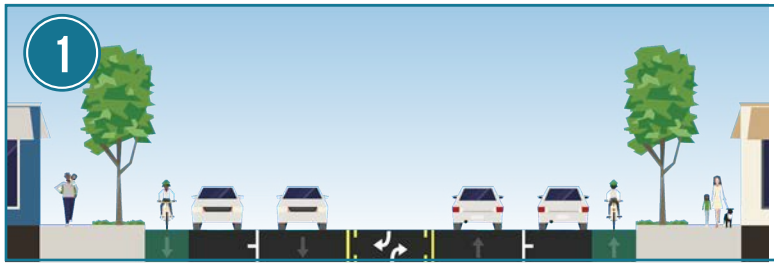
KC Connect

BI-STATE RIVER BRIDGE REPLACEMENT

One 12’ multi-use path
Two 10’ bike/maintenance shoulders
Two 12’ thru lanes



This infrastructure project will modernize the bridge and approach corridors by providing approximately 1.4 miles of roadway improvements along an essential east-west arterial and a major Kansas River crossing. The planned work focuses on building the replacement structure on a parallel, offset alignment of similar length to the original crossing, approximately 3,100 feet long. The bridge section includes a 12-foot multi-use path, 10-foot bike/maintenance shoulders, and 12-foot travel lanes.



Kansas Avenue Corridor

Two 10’ sidewalks
Two 5’ bike lanes
Two 8’ parking
Two 12’ thru lanes
One 12’ center turn lane

To the west, roadway reconstruction begins at the intersection of Kansas Avenue and South 7th Street. The project would reimagine Kansas Avenue as a complete street, with pedestrians and cyclists in mind all while maintaining freight traffic. The proposed Kansas Avenue section has two (2), 12-foot thru lanes, a 12-foot center turn lane with on-street parking and protected bike lanes. Sidewalks would be widened to 10 feet with trees and greenspaces added to promote sustainability and walkability. Widening sidewalks, adding bike lanes, and connecting the residential neighborhood of Armourdale through the ring of industry that encircles it are all changes to the Kansas Avenue corridor suggested by the Armourdale Area Plan (2021).

3 Avenida Cesar E Chavez

The project continues east connecting the bridge to Avenida Cesar E. Chavez. Avendia Cesar E Chavez is part of the Westside neighborhood that is being studied for the USDOT’s Reconnecting Communities Pilot Program. The City of Kansas City, Missouri was awarded the grant to repair connections, addressing longstanding inequities and barriers in the Westside neighborhood. The project, referred to as Reconnecting Kansas City, will develop a comprehensive plan to increase mobility and connectivity through the area, including Avenida Cesar E Chavez. These improvements in accessibility rely on the connecting bridge repairs as well; without the proposed KC Connect Project, the Westside community would continue to be isolated and disconnected.

II. Addressing Transportation Challenges

The KC Connect project serves to rectify numerous transportation and social equity challenges present in the area:

- Repeated structure and road closures disrupt the regional freight network along a Critical Urban Freight Corridor.
- Isolation of proud Hispanic neighborhoods, also Historically Disadvantaged Communities, whose past, current and future prosperity is interwoven with reliable access to services on both sides of the river.
- Inequitable access to health care, social services, entertainment, economic growth, and employment opportunities.
- Modernizing 1.4 miles of urban corridor with improved ADA accommodations and safety features for pedestrians, cyclists, and people with disabilities.
- Healthy community and living investment promoting increased home ownership, equity valuations, and personal wealth.
- Green infrastructure.

KC Connect Project Benefits

Regional Freight & Interstate Commerce

As a **Critical Urban Freight Corridor** (CUFC), the integrity of this corridor must be maintained to provide access and connection to primary freight highways, freight transportation facilities, and more.

Economic Redevelopment

Hundreds of millions of dollars of redevelopment are being evaluated or underway along the riverfront and West Bottoms area. Projects such as the Rock Island Bridge Development, a FEMA/COE Levee Improvements, new trail systems, outdoor theaters, and **new commercial destinations** will all need access from this bridge/corridor.

Connecting Communities & Respecting Cultural Heritage

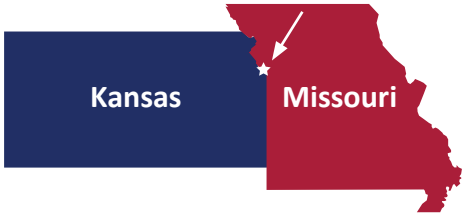
Restoring the severed connection between **two historic Hispanic communities**, Armourdale (Kansas) and West Side (Missouri), will reduce economic isolation and facilitate opportunities for cultural growth.

Public Safety & Social Equity

The project would bring more mobility options to these **Historically Disadvantaged Communities,** including Justice 40 areas, that rank above the 88th percentile for low-income and historic underinvestment. The bridge replacement is needed for **equitable access** for people with disabilities to this area of economic growth.

Legend

- Economic Development Area
- Historic Hispanic Communities
- Improved Bike & Pedestrian Access
- KC Connect Bridge Replacement
- Reconnecting Kansas City Grant Area
- Regional Highways & Interstates
- State Line



KC Connect Bi-State River Bridge Replacement would restore a critical freight route, with significant freight transportation through the Armourdale community. Reopening this route aids interstate commerce, as the bridge offers direct access from Kansas to Missouri.

The communities of Armourdale and Westside have limited access to other neighborhoods and services and are reliant upon this river crossing for connection to the surrounding communities. Replacing the structure restores their vital link not only to necessary resources, but to their longstanding heritage and cultural unity as well as access to economic development along the Kansas River.

The project, serving multiple areas of persistent poverty and historically disadvantaged communities in Justice 40 areas, addresses vehicle dependence by improving cycling, pedestrian, and multimodal accommodations. The project also addresses ADA barriers by finally completing a bridge that everyone can access.

Future economic development in the area, as well as existing local businesses, rely on efficient passage between Kansas and Missouri. There are two (2) significant event centers, the American Royal Center and Hy-Vee Arena, that rely on access as well. With improved transportation facilities via the KC Connect project, equitable access is ensured for all members of the community to reap the rewards of this area's reinvestment.

2. Project Location

The KC Connect Bi-State River Bridge Replacement project is located within the Urban Area Census (UACE) named Kansas City, MO—KS, UACE number 43912 (previously known as the Urbanized Area Kansas City° 36000 in the 2010 Census). The proposed project is located in Kansas's 2nd Congressional District and Missouri's 5th Congressional District. Kansas City, MO—KS had a 2010 Decennial Census population of 1,519,417 within 714.10 square miles.

The project runs through Jackson County, Missouri, and Wyandotte County, Kansas. The impacted census tracts and their designation(s) are found below:

County	Census Tract Number	Area of Persistent Poverty	Historically Disadvantaged Community	Opportunity Zone
Jackson Co, MO	152	X		
	153 (29095015300)	X	X	X
Wyandotte Co, KS	9809 (20209043000)	X	X	

I. Project Map

3. Project Parties

This Mega/INFRA project showcases the generational improvements that can be made to the core of a city's infrastructure when multiple parties collaborate to achieve a common goal for the betterment of their respective communities. The UG and KCMO, with support from both the Kansas and Missouri Departments of Transportation, have broken down the barriers often associated with agencies sharing a state border to reconnect the disadvantaged neighborhoods of Armourdale and Westside to jobs and services, to restore efficient and reliable freight routes to regional highways and interstates, and to right the past wrongs of inequitable access to social and economic opportunities for the surrounding communities.

I. Project Sponsor

The Unified Government of Wyandotte County & Kansas City, Kansas (UG), will serve as the lead applicant for the Mega/INFRA project, with the City of Kansas City, Missouri serving as a major project partner in this joint application. UG is responsible for the operation and maintenance of Kansas City's (Kansas) local transportation systems, including roads, bridges, transit, signals, traffic control, and right-of-way permitting. The agency is funded primarily by general taxes supplemented by fees and state-supported program funding. In 2022, the UG's total operating budget was $428,738,274 million. KCMO serves a similar role for the local transportation system on the Missouri side of Kansas City.

UG is also responsible for implementing the first-ever inter-jurisdictional transportation planning policy compiling countywide goals, strategies, and metrics from municipalities beyond Kansas City including Bonner Springs, Edwardsville, and Lake Quivira. The 2022 goDotte Strategic Mobility Plan is founded upon improving the health and safety of all Wyandotte County residents, emphasizing the movement of people over vehicles, connecting communities with opportunities, creating greater mobility options, and aligning transportation investments with community goals.

II. Project Partners

City of Kansas City, Missouri: KCMO is a major project partner and serves as a joint applicant for this Mega/INFRA project. As the owner and custodian of part of the bridge, KCMO has been and will continue to be involved in every aspect of planning, funding, community outreach, and stakeholder coordination.

Kansas Department of Transportation (KDOT): As the governing transportation agency in Kansas, KDOT provides transportation design support and environmental permitting review for municipalities to meet the obligations of federally funded projects.

Missouri Department of Transportation (MoDOT): MoDOT is the governing transportation agency in Missouri and provides design review and environmental permitting support for locals pursuing federal funding.

III. Project Supporters

As a vital river crossing for the greater Kansas City metro, the opportunity to not only modernize a piece of major infrastructure but also restore the opportunities and quality of life to thousands of residents has drawn the attention and interest of stakeholders and the Kansas City community at large.

The primary supporters for the the KC Connect Bi-State River Bridge Replacement are the two cities themselves. The project has the backing of the Unified Government of Wyandotte County & Kansas City, Kansas (UG), as well as their partner applicant, City of Kansas City, Missouri.

4. Grant Funds, Sources & Uses

The total project cost for the KC Connect Bi-State River Bridge Replacement project is $116.6 million, including previously incurred planning and conceptual design costs. This total does not include additional expenses incurred and paid by UG for activities such as existing ongoing bridge rehabilitation and inspection, maintenance of traffic, and community outreach. The project will be broken into three project components – the bridge replacement, Unified Government of Wyandotte County & Kansas City, Kansas (UG) roadway improvements, and the tie in to the City of Kansas City, Missouri roadway improvements.

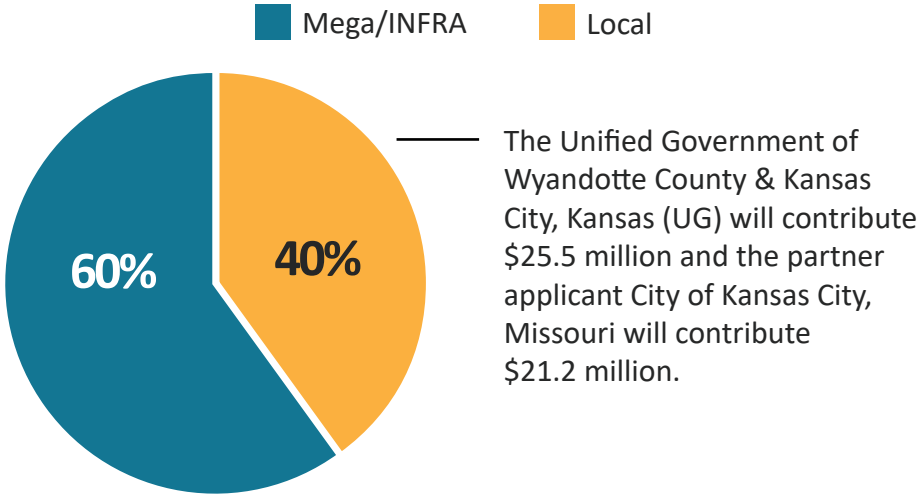
The total future eligible project cost for the KC Connect Mega/INFRA grant project is $116.6 million, consisting of design, permitting, and construction-related expenses. UG is requesting $69.9 million in Mega/INFRA grant funding to see this project through to the end of construction. This represents 60% of the future eligible project cost. Table 1 presents a breakdown of the total project costs by general category. Table 1 presents a breakdown by funding source.

While all future eligible design and permitting costs are expected to be performed starting in 2023, all costs are shown in FY2027 dollars since all construction costs are anticipated to be incurred beginning this year.

Table 1: KC Connect Total Project Cost, and Future Eligible Project Costs	
Cost Category	**Cost (Thousands)**
Design & Pre-Construction	
Survey & Geotechnical Investigation	$700.0
Design Engineering	$5,000.0
R/W Acquisitions & Temporary Easements	$6,885.5
Design & Pre-Construction Subtotal	*$12,585.5*
Construction	
Utility Relocation	$50.0
Mobilization	$6,300.0
Traffic Control & Site Preparation	$100.0
Roadway & Corridor Improvements	$7,541.6
Bridge Replacement	$55,483.5
Contingency	$13,890.0
Construction Engineering	$5,000.0
Construction Subtotal	*$88,365.1*
Project Total	***$116,600.0***

Table 2: KC Connect Project Funding by Source		
Source	Funding Amount ($ Thousands)	Percent of Total
Mega/INFRA Grant	$69.9	60%
UG	$25.5	40%
KCMO	$21.2	

KC Connect Project Funding Split



The Unified Government of Wyandotte County & Kansas City, Kansas (UG) will contribute $25.5 million and the partner applicant City of Kansas City, Missouri will contribute $21.2 million.

5. Project Outcome Criteria

I. Safety

Due to poor structural condition deriving from over 100 years of service, this structure cannot continue to safely move goods and people from state to state. The NBI bridge inspection from Spring 2021 reported a sufficency rating at 5%, which signifies an evaluation rating of “replace”. As the bridge conditions continue to deteriorate, user safety is threatened, especially if maintenance cannot keep up with the anticipated decline of the bridge. The safe movement of goods and people is the purpose of this structure, and if the bridge’s integrity is questioned, this creates major safety issues for all users.

Pedestrian safety is also a critical issue of this project, specifically the bridge approaches from the west have missing sidewalk sections. These missing sidewalks cause a connectivity issue for users, particularly those who are vulnerable to roadway traffic along the corridor. Missing sidewalks cause problems for pedestrians as they must walk through various conditions, for example grass, mud, and gravel. Pedestrians also have the choice to walk directly on the roadway, which is a major concern for both pedestrians and drivers. Currently, cyclists also must cross the bridge in vehicular lanes increasing potential for crashes. Considering this route serves as a CUFC, potential conflicts between pedestrians, bicyclists, vehicles and trucks could be fatal. A lack of pedestrian accommodations also leaves little option for residents who may not own cars.

The lack of ADA accessibility is the third major safety concern for pedestrians. Kansas Avenue, west of the bridge lacks ADA accessible sidewalk ramps. Currently, the western pedestrian portion of the bridge ends in access to a staircase, which is not ADA accessible. The staircase ends under the bridge, without sidewalk or access to a walkway. This corridor lacks pedestrian connectivity, and ADA users are severely restricted as they are not able to utilize this corridor safely.

The bridge is over a century old, so the cost effectiveness of continued maintenance decreases with each rehabilitation. It requires significant upgrades to move people, vehicles, and goods, and the heart of the investment will be safety. The proposed travel way includes shoulders of sufficient width to accommodate future maintenance efforts with minimal impact to traffic and multimodal operations.

Image 4: Existing deteriorated staircase with no adjoining pedestrian path

The proposed design provides increased sidewalk width to accommodate pedestrians, bicyclists, and other multimodal users. Throughout the corridor, there will be intersection improvements and moderinzation. The design is intended to enhance safety for all users as the project will be classified as a complete street. Pedestrian accommodation and ADA accessibility will be as important as vehicular access, especially as the project will connect the Armourdale community to the Avenida Cesar E. Chavez Corridor.

II. State of Good Repair

The project will replace a load-posted, structurally deficient, 102-year-old river crossing that has recently experienced multiple closures related to structural deterioration and associated repairs. The superstructure of the existing main river spans consist of steel truss members requiring costly fracture critical inspections at no more than 12-month intervals. The remainder of the structure requires isolated repairs related to full-depth deck spalls, conduit and streetlight fixture repair, and miscellaneous steel member replacement, conducted by either UG or KCMO as needed. Following a significant rehabilitation effort performed in 2023, the roadway section was reduced, via permanent traffic control devices, from 2 thru lanes in each direction to 1 thru lane in each direction to reduce live load effects and extend service life as long as possible. It is anticipated that additional repairs, costing upwards of $1 million, will be incurred within the next 10 years by UG and KCMO to maintain service, even in a limited capacity, on the bridge.

Image 5: Repairs underway on main river span truss bearing

A replacement bridge will grant UG, KCMO, and the traveling public of the greater Kansas City metro a sustainable, reliable river crossing for the next 75 years with minimal risk for closure or service interruption due to repair or rehabilitation needs. This structure will be designed and built to current AASHTO design standards, removing the existing load posting and allowing the free flow of commercial and freight traffic along this route. The main river spans will consist of multiple, weathering steel, welded plate girders which require little routine maintenance, and the reapplication of paint only near expansion joints at 10-to-12-year intervals. Expensive, fracture critical inspections will no longer be required with this superstructure type; only typical, routine inspections for the entire structure. The approach spans will consist of prestressed concrete beams which have historically performed well in this region and only require the occasional surface patching due to isolated consolidation defects from casting.

Image 6: Multiple failing deck joints with full depth spalls

III. Economic Impacts, Freight Movement, and Job Creation

This corridor and river bridge have been a foundational element for Kansas City for over 100 years. It is not hyperbole to state that the continued service of this route is essential to the prosperity of key industrial and commercial centers.

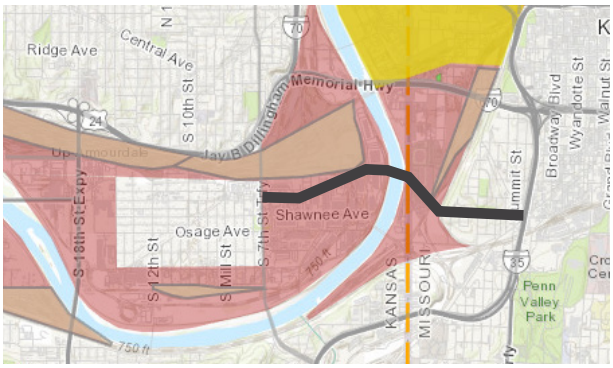
The project will provide direct and indirect benefits to local and regional interests. Economic impacts, including business sales; freight movement; job creation; and new development interests all rely on modern, functionally appropriate, transportation infrastructure.

In the existing closed condition, businesses and motorists experience noteworthy inconveniences and additional costs due to detour routes not ideal for freight or local traffic. For recreational users, primarily bicyclists and pedestrians, a complete loss of connectivity is experienced. Other nearby river crossings either do not provide multi-modal accommodations or are closed. Access to the West Bottoms and other prime real estate, both commercial and industrial, is severely hampered, resulting in unrealized job creation, sales tax, and private economic investment. Approximately 2,220 acres of riverfront area have been identified for redevelopment due to their current vacant or underutilized status. However, this potential windfall is dependent on this proposed KC Connect project providing necessary access.

It is estimated that approximately $3.3 million from vehicle operating costs and roughly $3.6 million from vehicle travel time would be saved annually. It is estimated that cyclists would save roughly $11,500 annually from the proposed project to the new Cesar E Chavez Bridge.

Area businesses have already felt the impact of the closed bridge and will continue to feel the effects if a detour continues. There are dozens of businesses within a half mile of this corridor, with 13 currently entirely reliant on street access. These businesses range from food and dining, furniture, hardware, and auto-related sales. All these businesses depend on traffic as a main source of customers, and the reconstruction and reopening of the Cesar E Chavez Bridge will serve as a stimulus to the local economic activity of the firms and businesses concentrated along the Kansas Avenue project corridor.

Kansas City Freight Map



Legend

- National Highway System
- Rail Yards
- Intermodal Freight Yards
- Freight Activity Area
- Proposed Project Corridor & Bridge Area

Missouri Dept. of Conservation, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS | MARC Transportation Planning Intern - LFord (2015-2017) | MARC Public Safety Program; MARC GIS; The cities and counties comprising the MARC region. *https://marc-gis.maps.arcgis.com/apps/webappviewer/index.html?id=03db7764e8a14972a20d7d9fd51fdbef*

There is a loss in sales revenues to the immediate neighborhood that may be expected to be spent elsewhere while the Cesar E Chavez Bridge is closed. It is calculated that approximately $2.5 million in retail sales is lost annually due to the closed bridge. Bridge reconstruction will be vital to the transportation network but will have an even greater impact regionally on the local businesses and economy along this corridor.

In terms of freight movement, the project would open the critical freight route that is currently closed. The Kansas Avenue/Avenida Cesar E. Chavez Corridor is an essential connector for the efficient movement of freight across state lines. The ADT of the Kansas Avenue Corridor is 6,175 as estimated by the Kansas Department of Transportation (2018). Among the thousands of annual daily motorists, the truck volume for Avenida Cesar Chavez traveling west is conservatively 5-8% of ADT, with an additional 5-8% of ADT traveling east. The project directly impacts interstate commerce, as it connects both metropolitan areas of Kansas City, Missouri, and Kansas City, Kansas, to each other, regional businesses, and national destinations. Bridge closure results in an extra roughly $500,000 in truck operating costs and approximately $580,000 in truck travel time costs annually.

IV. Climate Change, Freight Movement, and Job Creation

Both the Unified Government of Wyandotte County, Kansas and Kansas City, Kansas (UG) and the City of Kansas City, Missouri (KCMO) are committed to environmental justice and climate action.

Kansas City Regional Climate Action Plan

The **Kansas City Regional Climate Action Plan** (CAP) published in 2021 aims to transform the Kansas City metropolitan area into a more resilient, equitable and healthy community. An ambitious set of interrelated strategies will help to mitigate climate change by achieving net zero greenhouse gas emissions by 2050, and adapt to and bounce forward from the many risks climate change poses.

One goal listed in the plan is to reduce vehicle miles traveled per capita, which the KC Connect project accomplishes. By having a clear and direct path out of Armourdale, KC Connect decreases travel times for all, including freight, commuters, and residents. Based on pre-closure traffic counts, as well as project traffic from developments in adjoining areas, it is estimated that 14,600 metric tons of CO^2 release will be eliminated.

Another goal listed in the plan is to shift trips to affordable, equitable and safe mobility options. The KC Connect project accomplishes this through connected bike lanes, as well as accessible sidewalks. This will not only provide low-cost forms of transportation, but also increases the use of lower-carbon travel modes by creating complete streets with pedestrians and cyclists in mind. If just 10% of the existing non-truck local traffic is converted to non-fossil fuel transportation, 1,000+ metric tons of CO2 release will be avoided. The project also addressed increasing complete and green streets throughout the region, which is another desired outcome, as research shows that when safe pedestrian and bicycle infrastructure is built, more people will utilize walking and biking options.

By increasing both green space and multimodal options, the project reduces the impacts of current environmental issues within the project area. As of the 2010 Census, the Avenida Cesar Chavez corridor ranks in the 92nd and 98th percentiles for diesel particulate matter exposure and traffic proximity/volume, respectively. As improvements to the Westside are made through the USDOT's Reconnecting Communities Pilot Program grant, improved pedestrian and cyclist connectivity through the KC Connect Project will help increase green transporation options as well for the neighborhood.

KC Connect will also utilize the EPA EJSCREEN for the project. According to EJSCREEN, the project footprint involves Blockgroup 290950153001, MISSOURI, EPA Region 7. Compared to the rest of the nation, this area of the project contains the following environmental justice indexes:

- Particulate Matter 2.5 – 85%
- Ozone – 99%
- Diesel Particulate Matter – 99%
- Air Toxics Cancer Risk – 96%
- Air Toxics Respiratory HI – 96%
- Traffic Proximity – 99%
- Lead Paint – 95%
- Superfund Proximity – 97%
- RMP Facility Proximity – 99%
- Hazardous Waste Proximity – 99%
- Underground Storage Tanks – 89%
- Wastewater Discharge – 98%

Implementation of the KC Connect project will involve extensive outreach efforts focused on proactive, continuous, and relevant engagement of the community and other stakeholders. This effort will ensure representatives from identified disadvantaged communities help define project objectives and value, and realize expected benefits. This will be achieved by mindful use of EJSCREEN, building upon established relationships with neighborhood groups, business chambers, and local commissioners.

V. Equity, Multimodal Options, and Quality of Life

The KC Connect Bi-State River Bridge Replacement connects Armourdale and Westside, two (2) areas that share a rich Hispanic heritage that traces back to the 19th Century when Mexicans immigrated to the area following the Mexican Revolution. In recent decades, Mexican culture has been supplemented and enhanced with a diverse population of immigrants representing all of Latin America. These communities have contributed heavily to the current identify of greater Kansas City.

Both neighborhoods belong to the historic "La Colonia" of Kansas City – a historic area of predominately Hispanic neighborhoods. Armourdale's population today is 70% Hispanic or Latino, with 38% of the district born outside the United States. Westside shares this heritage as well. In the Westside project area, Census Tract 29095015300 in Jackson County, Missouri, the population is 56% Hispanic or Latino, 19% Black or African American, and 21% white.

The Armourdale Area Plan lists isolation as a key problem facing Armourdale residents. Armourdale's isolation from the rest of Kansas City results in an "island-like quality". Historically, the neighborhood has been isolated from the Kansas City community due to rail, river, and industry cutting off its access to the city. The Armourdale community is also cut off from health care facilities (Armourdale Area Plan 210), having none of its own. And despite its isolation, only 1% of Armourdale residents work within the community's borders (150).

For community connection, health, and employment, its residents rely on the limited bridges and roadways that connect Armourdale to the two (2) cities, including Kansas Avenue. Armourdale also has a significant number of industrial shipping companies that rely on the connection of Kansas Avenue to regional highways and arterials.

Armourdale finds itself even further cut off due to the Cesar E Chavez Bridge's closure. Even before its closure, the Cesar E Chavez Bridge lacked a walkable structure that provided easy access to pedestrians. The Armourdale Area Plan specifically mentions the need for friendlier pedestrian accommodations (228). On the Armourdale side, pedestrian access is currently only available by a metal staircase under the bridge, that lacks sidewalk access or an ADA-accessible option.

Westside has faced isolation as well. When I-35 was constructed, Westside was cut off from the Central Business District of Kansas City, Missouri. I-670 was constructed through the Westside, Missouri, bisecting the community and stripping its inhabitants of their sense of solidarity. This isolation, compounded by decades of systemic underinvestment, has left the Westside community fractured by the rest of the city. **However, the USDOT's Reconnecting Communities Pilot Program awarded KCMO a grant for planning changes to the viaduct, as well as other roadways, and ways to address the isolation of this community to the east, downtown Kansas City, Missouri, and the western industrial area**. KC Connect Bi-State River Bridge Replacement Project directly addresses this isolation as well, improving the connection throughout Westside.

The project crosses through several Areas of Persistent poverty, including tracks 9809 in Wyandotte County, Kansas, and tracks 152 and 153 in Jackson County, Missouri. The project area also includes tracks idenified as Historically Disadvantaged Communities, according to the Climate & Economic Justice Screening Tool. As seen in Table 3 below, the surrounding inhabitants face numerous climate and economic hardships. While not possible to address all current challenges, the KC Connect project is dedicated to reinvesting in these neighborhoods and improving opportunities where feasible.

Table 3: Climate and Economic Justice Screening Results for KC Connect Project Footprint

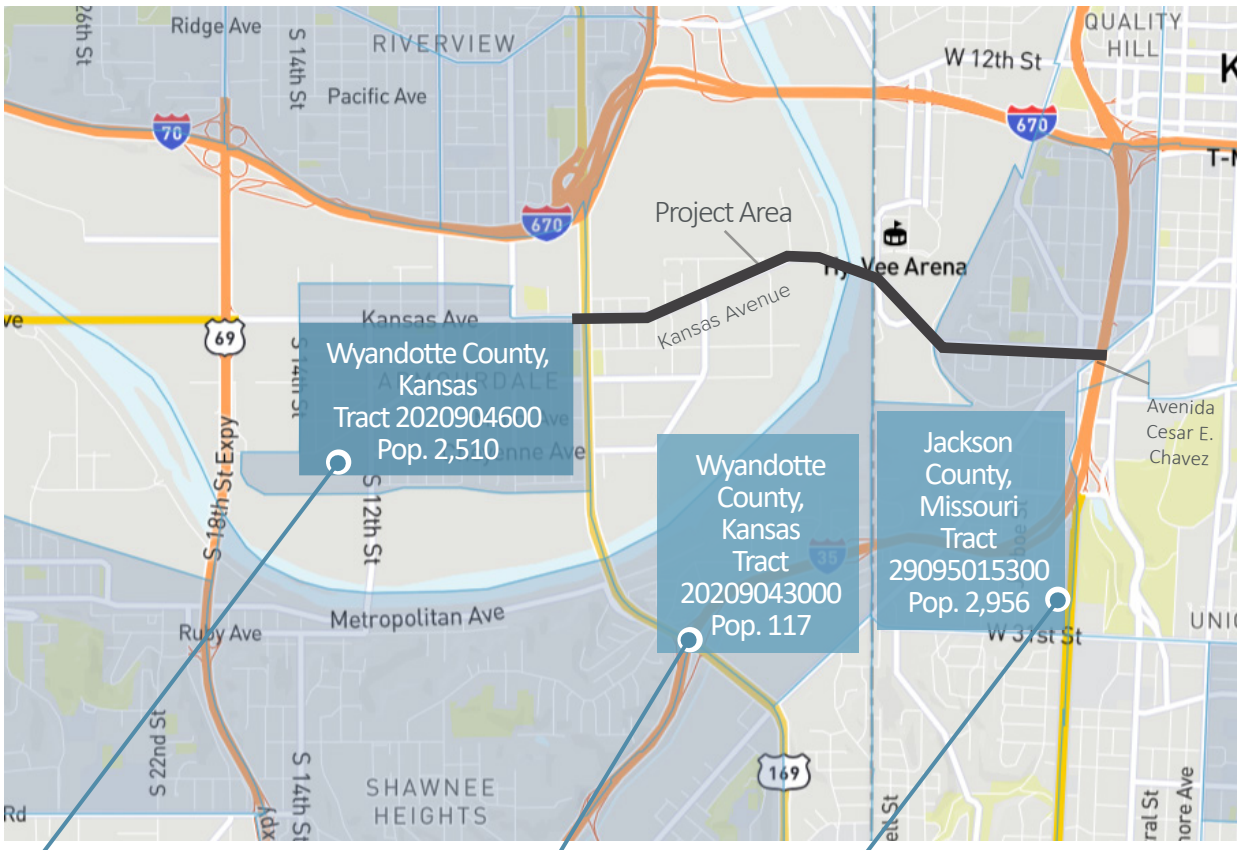
Climate and/or Economic Justice Factor	Wyandotte Co, KS	Jackson Co, MO
	Tract Number: 20209043000	Tract Number: 29095015300
Opportunity Zone		X
Historically Disadvantaged Community	X	X
Historic Underinvestment	X	X
Low Income	96th	88th
Energy Cost	91st	66th
Lack of Green Space	73rd	82nd
Linguistic Isolation	84th	89th
Poverty	13th	85th

Source: Council on Environmental Quality, Climate and Economic Justice Screening Tool

Climate and Economic Justice Screening Tool

The Westside community, shown below as Jackson County Tract 29095015300, meets the requirements for a disadvantaged tract due to challenges related to housing, legacy pollution, transportation, and workforce development.

The community of Armourdale is represented by Wyandotte County Tracts 2020904600 and 20209043000. Tract 2020904600 is disadvantaged due to challenges related to energy, health, housing, legacy pollution, and workforce development. Tract 20209043000 is disadvantaged due to challenges related to energy, health, housing, legacy pollution, and transportation.



Disadvantaged tract that meets 5 criteria categories:

- Energy
- Health
- Housing
- Legacy pollution
- Workforce development

Disadvantaged tract that meets 5 criteria categories:

- Energy
- Health
- Housing
- Legacy pollution
- Transportation

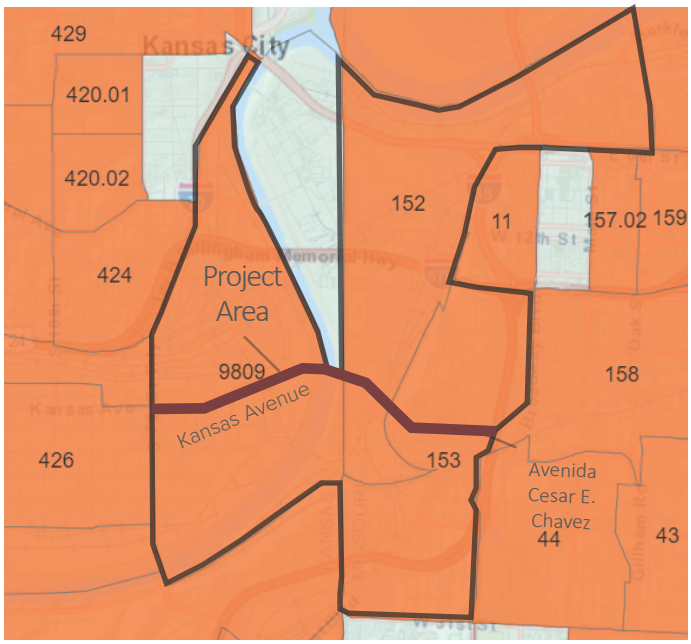
Disadvantaged tract that meets 4 criteria categories:

- Housing
- Legacy pollution
- Transportation
- Workforce development

Data from Climate and Economic Justice Screening Tool

The project area is also experiencing transportation-related disavantages, such as being underserved by transit. The closure of the Cesar E Chavez Bridge adds to these disavantages, preventing the development of further public transportation to communitites that would benefit. According to the USDOT Equitable Transportation Community (ETC) Explorer, an estimated 15.10% of households within tract 29095015300 do not own vehicles. The average household in this tract spends 25% of their household income on transporation, which is an estimated $10,456. With 59.35% of the population in the tract at or below 200% of the federal poverty line, the closure of the bridge adds transportation costs to an area with a median household income of $36,016 (USDOT Equitable Transportation Community (ETC) Explorer).

Areas of Persistent Poverty



Map and data according to Grant Project Location Verification, https://maps.dot.gov/BTS/GrantProjectLocationVerification/

The project will address these longstanding economic justice issues, by bringing access back to both neighborhoods, and decreasing commute travel times for isolated Armourdale and Westside. The project encourages expansion of city transit services, including RideKC, the bus service in Kansas City. This project will help residents in and adjacent to this corridor as well as workers commuting to the West Bottoms and businesses along Kansas Avenue.

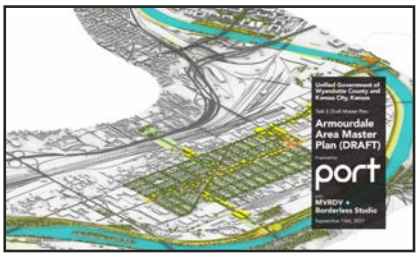
KC Connect also improves the walkability of the Armourdale and Westside areas through the implementation of Complete Streets design methodologies and addresses ADA accessibility issues with the current river crossing. KC Connect project adds safe pedestrian access to the corridor. The proposed project includes a shared-use path to the bridge as well as improved sidewalks to Kansas Avenue. The cycling options would also improve, with bike lanes added to Kansas Avenue, in addition to the shared-use path to the bridge. Through these improved multimodal options, the project would help residents access potential employment opportunities, and connect local residents and visitors to nearby entertainment developments in the West Bottoms.

By replacing the bridge, the KC Connect honors the history of “La Colonia”, increasing access between the Armourdale and Westside neighborhoods, leading to greater equity and potential for economic development.

Project Outreach

The UG has conducted outreach with communities in the project area, including Armourdale, one of the Historically Disadvantaged Communities impacted by the project.

The Armourdale Area Plan conducted extensive outreach, consisting of a steering committee, expert interviews, workshops, and focus groups, creating the plan as a vision and development framework for the Armourdale neighboorhood. One goal of the plan was to "identify a true multi-modal transportation network that balances the needs of motorists, transit, pedestrians and cyclists" as well as "prioritize public infrastructure investments" (Armourdale Area Plan 8).



Armourdale Area Plan

In the Economic Development Workshop, Armourdale community members came together, and a shared goal of safety emerged: "Upgrade bridges and main streets to be more pedestrian friendly, with dedicated lanes for trucks, bikes, pedestrians" (Armourdale Area Plan 229). From public involvement, the Armourdale Area Plan developed strategies, such as improving Kansas Avenue east of 7th Street, by widening sidewalks and adding bike lanes, as well as connecting to the river and the Rock Island Bridge development. KC Connect Bi-State River Bridge Replacement project leverages this previous public engagement and community concerns.

As the KC Connect Bi-State River Bridge Replacement project develops, the UG will continue public engagement with the Armourdale and Westside communities to develop thoughtful solutions that respect the heritage of the neighborhood and address equity considerations. The project will include public meetings and targeted in-person outreach to longstanding organizations within the community to solicit input during project planning. Considering the linguistic isolation of both Armourdale and Westside, the project will conduct outreach in both English and Spanish.

While designing project alternatives, the UG will engage the public early on to mitigate and address potential concerns and prevent possible physical and economic displacement.

6. Innovation Areas: Technology, Project Delivery, and Financing

The KC Connect Bi-State River Bridge project contributes to each of the three (3) areas of innovation that are identified as USDOT goals.

Innovative Technology

As part of the modernization and safety improvements planned for this project, numerous traffic operation technologies will be implemented across the full length of the reconstructed corridors.

Traffic Safety & Incident Management

- Pan-Tilt-Zoom signal cameras: highly mobile cameras mounted on signal mast arms to assist emergency medical services in incident severity, location, and coordination.

- Dynamic message boards: Customizable notification boards to be utilized during construction to alert drivers to traffic control schemes, detours, and/or lane closures.
- Kansas River flood monitoring: Water level monitoring devices and alert systems will keep trail users and pedestrians informed about unsafe conditions.

Efficient & Accessible Operations
- Bicycle detection signal sensors: Intersection signal sensors calibrated to automatically detect and provide phases for bicyclists.
- Charging stations: Electric vehicle charging stations and e-bike hubs promoting the use of V2G (vehicle-to-grid) technologies and environmentally friendly forms of transportation.

Aesthetic & Convenience Technologies
- LED wayfinding maps along trails: Dynamic maps and/or message boards on trails and sidewalks providing notices related to closures/maintenance or offer navigational direction to key points along the levee trail system.
- Themed, LED lighting on bridge exterior: Color-changing LED lighting with aesthetic fixtures along exterior of bridge to promote local sporting events, holidays, or events.

Innovative Project Delivery

UG and KCMO are actively investigating innovative delivery mechanisms for the project in the form of design-build or design-bid-build methods based on Kansas and Missouri state statute requirements.

Innovative Financing

Through the **Kansas Local Bridge Improvement Program**, local bridge owners may apply for funding assistance on bridge replacements with required matches ranging from 0% to 25%, based on county population density. Locals are responsible for 100% of design, right-of-way, utility relocation, and permitting costs but may receive assistance for construction and construction engineering expenses. UG has successfully been awarded funding for projects through this program in the past and will collaborate with KDOT for assistance through similar means on the KC Connect project.

6. Benefit-Cost Analysis

A benefit-cost analysis (BCA) was conducted per the benefit-cost methodology and guidance outlined by USDOT in the March 2022 (Revised) Benefit-Cost Analysis Guidance for Discretionary Grant Programs. The analysis period corresponds to 75 years (representing the industry standard design life of highway bridges) once operations begin in 2026.

The capitol cost of this project is calculated as $116.6 million in undiscounted 2027 dollars. At a 7% real discount rate, these costs are $72.61 million in 2020 dollars. $109.7 million of these costs in undiscounted 2027 dollars account for design, engineering, and construction of the replacement river crossing and corridors, or $68.32 million when discounted at 7%.

The project is expected to generate $99.79 million in 2020 dollars in discounted benefits using a 7% discount rate. The replacement of the KC Connect Bi-State River Bridge, in addition to corridor reconstruction along Kansas Avenue and Avenida Cesar Chavez, will restore traffic and pedestrian connectivity to the businesses and communities in the heart of Kansas City, and will reduce costly maintenance and rehabilitation expenses on a structurally deficient structure. These improvements lead to an overall project Net Present Value of $14.66 million and a Benefit-Cost Ratio (BCR) of 1.172. While this BCR represents the quantifiable economic benefits that outweigh capitol costs, there are many other social and environmental benefits that will be realized by the surrounding historically disadvantaged neighborhoods for years to come.

The overall project matrix can be seen below in Table 4, and the full BCA report can be found in the Appendix. As this table shows, the replacement of vital infrastructure represents a major portion of project costs; however, the benefits of restoring freight and commuter connectivity to the nearby regional highways and interstates illustrate one of the driving forces behind this endeavor. The reinvestment in these corridors also translates into fair commercial and recreational access for users from all corners of the metro, righting past wrongs and ensuring equitable access.

Table 4: KC Connect Project Summary of Benefits and Costs

BCA Factor	Annual / One-Time Benefit (Thousands)	Total Project Benefit (Thousands)	Cost (Thousands)	Discounted Cost (Thousands)
Vehicle Operating Costs Savings	$3,314.6	$33,549.7		
Vehicle Travel Time Savings	$3,581.8	$36,254.4		
Value of Cycling	$11.4	$184.2		
Road and Bridge Maintenance Savings		$2,187.0		
Engineering & Construction Cost			$109,645.0	$68,281.4
Right-of-Way Acquisition / Business Relocation Cost			$6,886.0	$4,287.9
Net Benefit / Loss of Retail Sales		$27,619.0		$12,424.1
Loss of UG Property Taxes			$164.8	$143.9
Total	$6,907.8	$99,794.3	N/A	$85,137.3
BCR		1.172	to	1.00

7. Project Readiness and Environmental Risk

I. Technical Feasibility

For the KC Connect project, conceptual layouts, typical sections, and project scope have all been agreed upon by both UG and KCMO. The cost estimate included in this application accounts for a combined 20% construction/risk contingency. As the design progresses, this contingency will be updated. The project will follow both Kansas and Missouri DOT design standards and a Design Memo document will identify all assumptions and standards that are applied.

Engineering and Design Studies and Activities

The scope of the KC Connect project includes both a river bridge replacement and the reconstruction of one minor arterial corridor. This structure was identified by UG as a high-priority candidate for structure replacement in its "2021 Summary Report: Biennial Legal Bridge Inspections" and is listed as a long-range priority candidate for replacement in KCMO's "2022 Summary Report: KCMO Biennial Bridge Inspections". The conceptual layout and design of the replacement structure are based upon general guidelines from both DOTs, preliminary design models with current assumptions, and past projects with similar layouts. The intent of the proposed parallel offset alignment, shown in aerial map figures within this application, is to maintain traffic operations, in a limited capacity, during the construction of the new bridge. Reconstruction of the Kansas Avenue corridor facilitates the flooding mitigation, pedestrian safety improvements, ADA accommodations, and densification of the corridor as identified in the Armourdale Area Plan. Along Avenida Cesar Chavez, this area will be addressed by the USDOT's Reconnecting Communities Pilot Program grant, as Kansas City, Missouri develops a comprehensive plan to increase mobility and connectivity in the Westside.

Design Criteria

The project will comply with all current American Association of State Highway Transportation Officials (AASHTO) design provisions, in addition to state-specific design requirements in Kansas and Missouri, respectively. Additional design features and/or best practices, as specified by UG and KCMO Public Works Design and Construction Standards, will be included when practical.

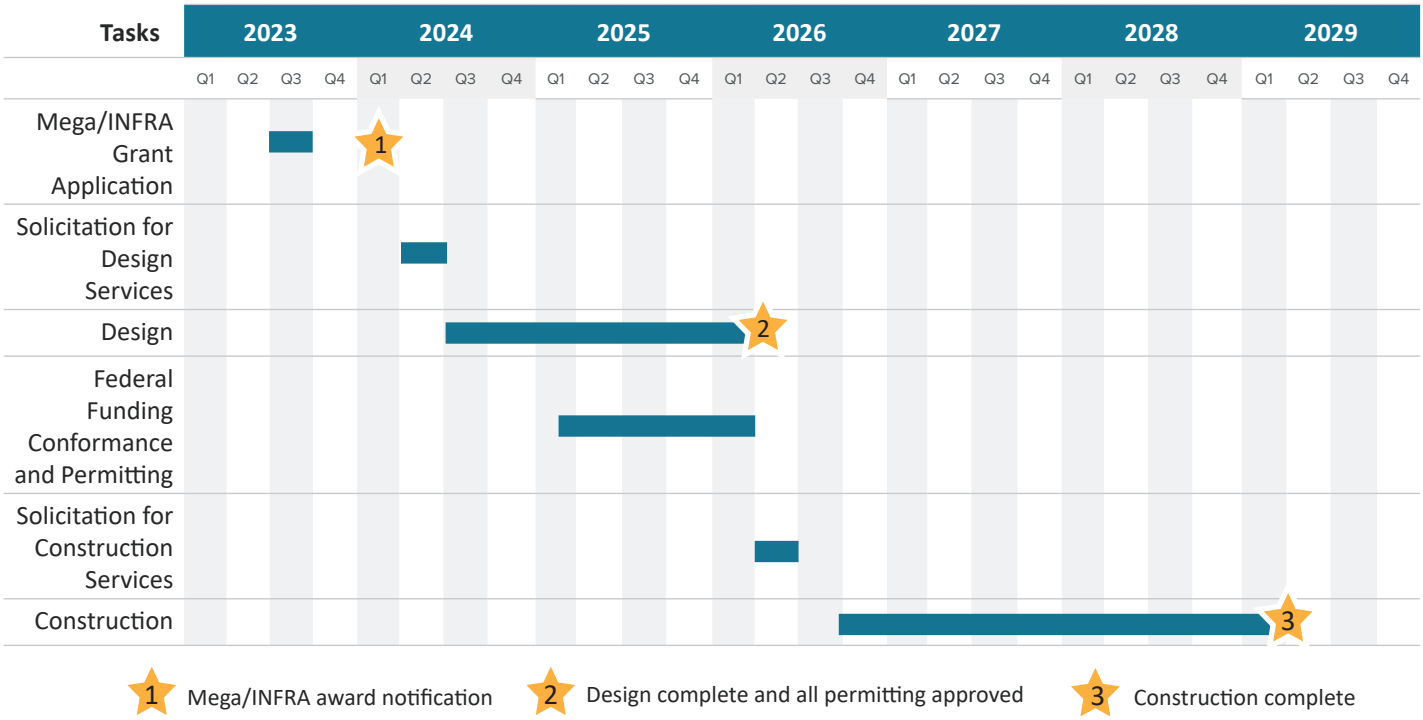
Basis for the Cost Estimate

The total project is estimated to be $116.6 million, including survey, geotechnical investigations, right-of-way and property acquisition, design, construction, traffic control, and construction engineering. Additionally, a 20% construction/risk contingency is included to address fluctuations in material prices and contractor labor challenges observed in the Kansas City region in recent years.

II. Project Schedule

The KC Connect Bi-State River Bridge Replacement project has undergone a conceptual layout phase and is prepared to begin solicitations for design consultant engineering upon notification of funding award. Both UG and KCMO decided to rehabilitate the closed bridge in Fall 2022 with the intent to extend the service life of the structure for a maximum of 10 years. While this structure serves as a vital river crossing, feasible rehabilitation methods decrease in cost-effectiveness with each passing year, and repeated closures for repairs and inspections continue to plague vehicular and pedestrian traffic alike. The UG and KCMO are committed to obligating Mega/INFRA funds and utilizing the full extent of available funding from all sources with immediate urgency to establish a reliable river crossing for decades to come, and to reinvest in the neighboring communities that deserve the same opportunities as other areas of the Kansas City metro. Project milestones are shown on the schedule.

Project Schedule



Assessment of Project Risks and Mitigation Strategies

The UG has developed a project risk matrix to identify project risks and mitigation measures. The most relevant risk and mitigation strategies for the KC Connect Bi-State River Bridge Replacement project are summarized below:

Risk	Description	Mitigation Strategy
Public/Political	Concerns about the project raise issues during design or construction	Ensure full transparency through early public involvement in design phase and construction as well as outreach to community organizations in the project area.
Funding	Managing funding from two (2) separate agencies as well as ensuring adequate funding throughout the project	Both agencies (UG and KCMO) have identified dedicated, dependable funding sources to support their local match obligations. Support from each respective DOT has been discussed as further funding reinforcement. If not awarded this project, UG and the City of Kansas City do not have the funds necessary to complete the project.
Water Contamination	Potential environmental impacts when removing the previous structure and during construction	A detailed removal plan will be created to minimize negative impacts to the Kansas River and surrounding environments per local, state, and Federal regulations.
Ground Contamination	Potential for ground contamination due to proximity to industrial sites and rail lines that could be disturbed during construction	Soil sampling and environmental investigation will be conducted during design to identify and if necessary avoid or mitigate impacts per local, state and federal regulations.

III. Required Approvals

As this project involves local infrastructure owners utilizing federal funding sources, both KDOT and MoDOT have separate, although similar, processes for ensuring federal conformance. Each owner, or owner's consultant, is assigned a DOT representative to assist during the approval process. The steps required for this project to receive final DOT approval and meet federal funding conformance are shown below in Table 5. Both owners are experienced at navigating environmental clearances and have investigated likely impacts and/or mitigations required as part of this project.

TIP approval coordination has been conducted with the Mid-America Regional Council (MARC), the Metropolitan Planning Organization for the bistate Kansas City region who develops the Transportation Improvement Program in cooperation with the Kansas Department of Transportation and the Missouri Department of Transportation. Formal amendments are processed quarterly each year. Once the awarded projects are announced, the local agency will submit a TIP amendment to MARC for approval. It is expected that the local agency will submit the TIP amendment for the January 15, 2024, or April 15, 2024, TIP amendment cycle.

Table 5: Federal Funding Conformance Checklist

General Category	Anticipated with Project	Time Needed to Complete
NEPA Classification*	X	1 month
Cultural Resources & Public Land Impact (Section 106 & 4f)	X	10 weeks / 6 months
Clean Water Act Sections 404, 401, 408 (Proximity to river levees)	X	8 months
Nationwide Rivers Inventory (Kansas River)		1 month
Endangered Species (T&E, Migratory Birds)	X	3 months
Clean Water Act Section 602 & MS4 Communities (NPDES permit)	X	2 months
FEMA/SEMA Buyout Lands		1 month
Land Disturbance (Borrow & Spoil Sites)	X	2 months
Hazardous Waste Impact (Local DNR compliance)	X	1 month
Farmland Protection Policy Act		6 weeks
Environmental Justice, Title VI, ADA	X	4 months
Noise Impact (Article 772)		2 months
Clean Air Act	X	6 months
Cumulative Impacts (Other projects in area)	X	3 months
Public Involvement	X	12 months