

18th Street Bridge Replacement Study

KDOT Project No. 69-105 KA-4881 01



Project Area

The study limits are along 18th Street Expressway (US-69) from Steele Road interchange to Kansas Avenue (K-32) in Kansas City, Kansas and Wyandotte County.

PURPOSE OF THE STUDY

The 18th Street Bridge over the Kansas River is one of the few remaining deck truss bridges on the state highway system. Built in 1959, the bridge has undergone numerous rehabilitations over its 60-year life and it is nearing the end of its service life.

In the summer of 2017, a bridge inspection revealed the bridge was in deteriorating condition and in need of repairs. While the bridge was never considered unsafe, it was important to address existing corrosion and prevent further deterioration. Repair plans were developed and the bridge was closed to traffic in April of 2018. Work included significant repairs to the existing steel truss.



Repairs were completed and the bridge reopened to traffic in December of 2018. It is estimated that the repairs will extend the service life of the bridge 5 to 10 years. The purpose of the study is to determine a solution for replacement of the bridge since continued maintenance of the structure is no longer cost effective.

GOALS OF THE STUDY INCLUDE:

- **Evaluate** alternatives and identify a Preferred Draft Alternative bridge replacement for the long-term.
- **Develop** options to maintain the river crossing and enhance safety for all travelers through the 18th Street Corridor.
- **Engage** the public and understand the needs and concerns of the Unified Government.

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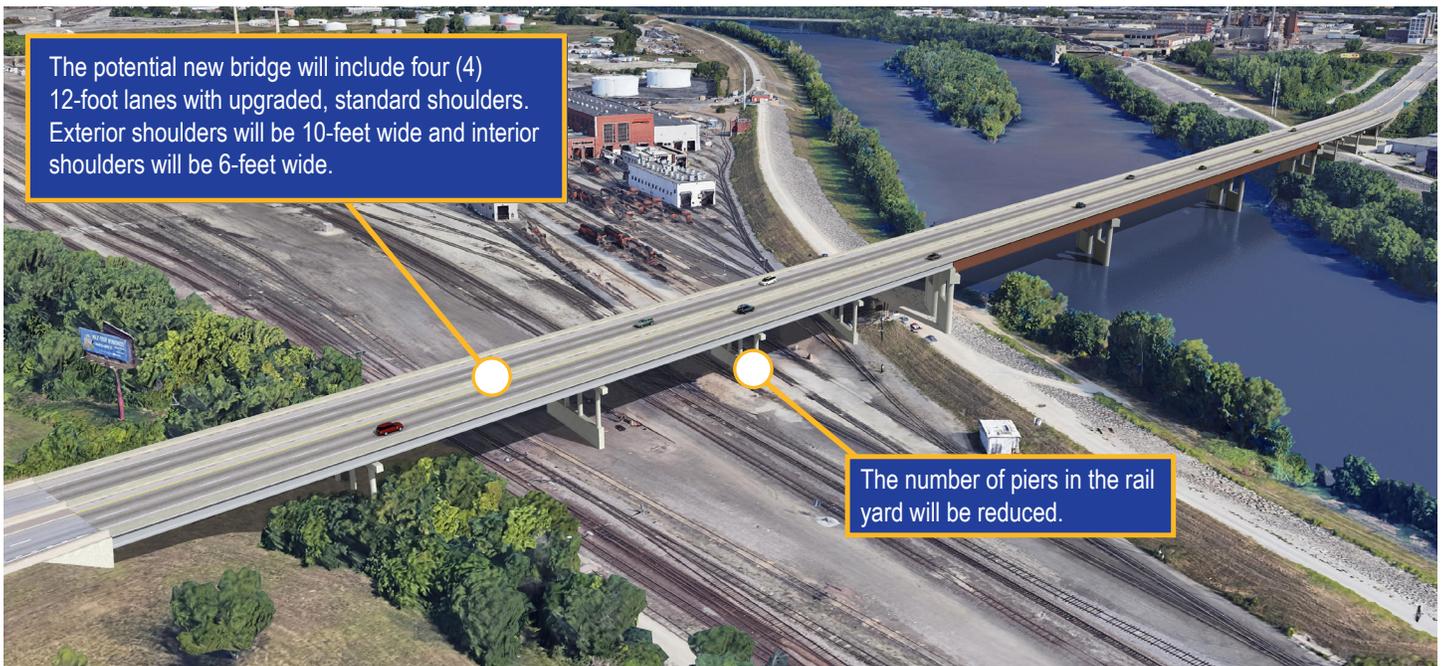
STUDY PROCESS

The study process to develop a Preferred Draft Alternative starts with gathering and evaluating information for the study area, soliciting input from project stakeholders, and establishing project goals. A range of initial alternatives are developed to address the goals of the project. Each of the alternatives are compared and evaluated using qualitative and quantitative factors. The alternatives that best meet the goals of the study are carried forward for additional screening and evaluation.



CONCEPTUAL REPLACEMENT BRIDGE

The image below is a draft illustration of what the replacement bridge and corridor may look like once the project is complete.



REASONABLE ALTERNATIVES

Three (3) Reasonable Alternatives have been identified as the most feasible options based on key factors and how well the alternatives met the goals of the study. The figures below identify each of the alternatives and the pros and cons of each option.



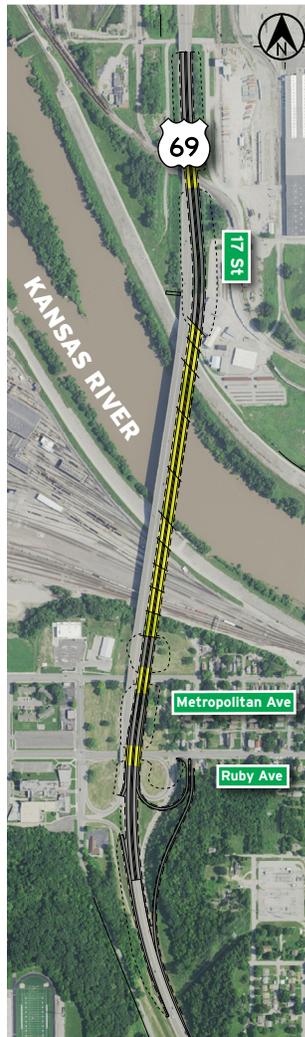
Alternative 1, On-Alignment:

Pros

- Minimizes required improvements
- Lowest cost alternative
- Limits impacts to adjacent properties
- Limits environmental impacts

Cons

- Requires full closure of 18th Street during construction



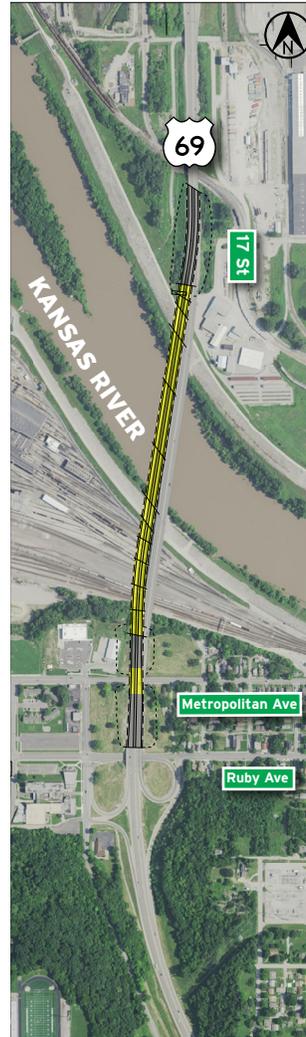
Alternative 2, Full East Shift:

Pros

- Ability to maintain traffic during construction along 18th Street
- Improved river bridge configuration

Cons

- Requires additional improvements along corridor
- Significant impacts to adjacent properties
- Safety and travel time concerns during construction should incidents occur in work zone



Alternative 7, Partial West Shift:

Pros

- Ability to maintain traffic during construction along 18th Street
- Lower impacts to adjacent properties

Cons

- Requires additional improvements along corridor
- Most challenging river bridge configuration
- Safety and travel time concerns during construction should incidents occur in work zone

Maintenance of Traffic (MOT) and Safety

A key factor in evaluating the Reasonable Alternatives is Maintenance of Traffic (MOT). MOT identifies how each alternative may impact safety and travel times during construction. Considerations include predicting if the rate of crashes will increase, and if crashes do happen how it will impact the travel time for commuters. Lack of lanes or reduced shoulder width during construction, is also a negative impact because there is no where to go if a car breaks down.

BICYCLE AND PEDESTRIAN IMPROVEMENTS

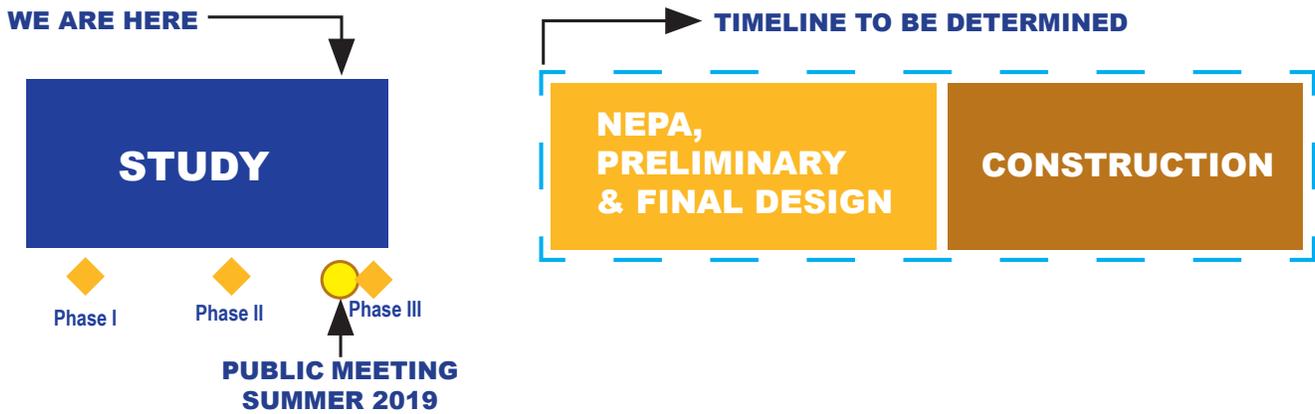
KDOT will be working with the UG to identify improvements to bicycle and pedestrian accommodations in the area considering the Mid-America Regional (MARC) policies and the Unified Government's Master Plan.



NEXT STEPS

The 18th Street Bridge Replacement Study project kicked off in November of 2018 and a Preferred Alternative will be recommended by fall of 2019. A final public information fact sheet will be provided to the community and will identify the Preferred Draft Alternative and benefits.

No funding has been identified for further design or construction of this project at this time. Once funding is identified, the project will move into preliminary and final design.



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