Alternatives Considered

No-Build The No-Build Alternative would retain the existing, historic bridge and would make no improvements beyond normal bridge maintenance. Normal maintenance includes washing the bridge twice a year to remove de-icing chemicals, sealing the bridge deck every three to five years, sealing and replacing the expansion joints as needed, and replacing minor portions of the steel and concrete that have deteriorated. This alternative would not include any new major construction.

+ Retains historic bridge
+ No environmental impacts
- Would not correct existing deficiencies
- Would not correct flooding issues
- Continued deterioration of the bridge over time
- Estimated service life of 7 years

Rehabilitation The Rehabilitation Alternative would be similar to the 1983, 1999 and 2005 MoDOT rehabilitation projects and extend the current bridge's life. This alternative would not change the existing bridge's width or vertical clearance.

+ Would retain existing, historic bridge
+ Few environmental impacts
- Would not correct existing deficiencies
- Would not correct flooding issues
- Extends service life 10-15 years

Partial Replacement The Partial Replacement Alternative (new superstructure) would remove the existing bridge deck and steel truss and replace it with steel plate girder spans and construct a new deck. This alternative will allow for some widening of the roadway but would not provide full width shoulders. A 26-foot roadway, likely the widest that could be built on the existing piers, would accommodate two 11-foot lanes and two 2-foot shoulders.

+ Increases roadway width to 26'
+ Few environmental impacts
+ Provides life expectancy of 50 years
- Bridge would still be deficient
- Would not correct flooding issues
- Anticipated 12-month closure

Existing Location The Existing Location Alternative would completely remove the existing deficient bridge and construct a new bridge in the same location.

+ Meets all project needs
+ Minimizes new right of way
+ Few environmental impacts
- Removes the historic bridge
- Anticipated 3 – 4 year closure

Adjacent Upstream (Red) The Adjacent Upstream Alternative would construct a new two-lane bridge approximately 50 feet north of the existing bridge then crossing to the downstream side of the roadway to avoid impacts to the marina and U.S. Corps of Engineers river access.

+ Meets all project needs
+ Minimizes new right of way
+ Minimizes impacts to businesses
+ Maintains traffic during construction
- Removes the historic bridge

Adjacent Downstream (Green) The Adjacent Downstream Alternative would construct a new two-lane bridge approximately 50 feet south of the existing bridge.

+ Meets all project needs
+ Minimizes new right of way
+ Minimizes impacts to businesses
+ Maintains traffic during construction
- Removes the historic bridge

Skewed Downstream (Blue) The Skewed Downstream Alternative would construct a new two-lane bridge adjacent to the existing bridge on the west that deflects away from the existing bridge to the east.

+ Meets all project needs
+ Maintains traffic during construction
+ Shortest new bridge length
- Requires longer main navigational span
- Removes the historic bridge
- Most environmental impacts and new right of way

Adjacent Upstream With Improved Alignment (Yellow) The Adjacent Upstream With Improved Alignment Alternative would construct a new two-lane bridge generally north of the existing bridge that flattens the curves on both ends.

- \+ Meets all project needs
- \+ Improves roadway alignment on both ends
- \+ Maintains traffic during construction
- − Removes the historic bridge
- − Removes homes and businesses
- − More environmental impacts than Red & Green Alternatives

Alternatives Considered but Eliminated The Far Upstream Alternative would construct a new bridge approximately one-half mile upstream of the existing bridge. The Far Downstream Alternative would construct a new bridge just upstream of the existing Kansas City Southern Railway bridge.

Either of these alternatives

- \+ Meets all project needs
- \+ Maintains traffic during construction
- − Removes the historic bridge
- − Changing traffic patterns could negatively impact businesses
- − Requires substantial new right of way
- − Greater environmental impacts than other alternatives
- − Cost considerably more than all other alternatives