

# PUBLIC MEETING WEST BROADWAY BRIDGE

October 27, 2020  
6:30 PM EST





## PROJECT PURPOSE AND NEED

The purpose of the project is to implement a long-term solution to address deteriorating structural conditions as well as safety concerns for pedestrians and boaters who travel beneath the structure.



# HISTORY OF THE WEST BROADWAY BRIDGE

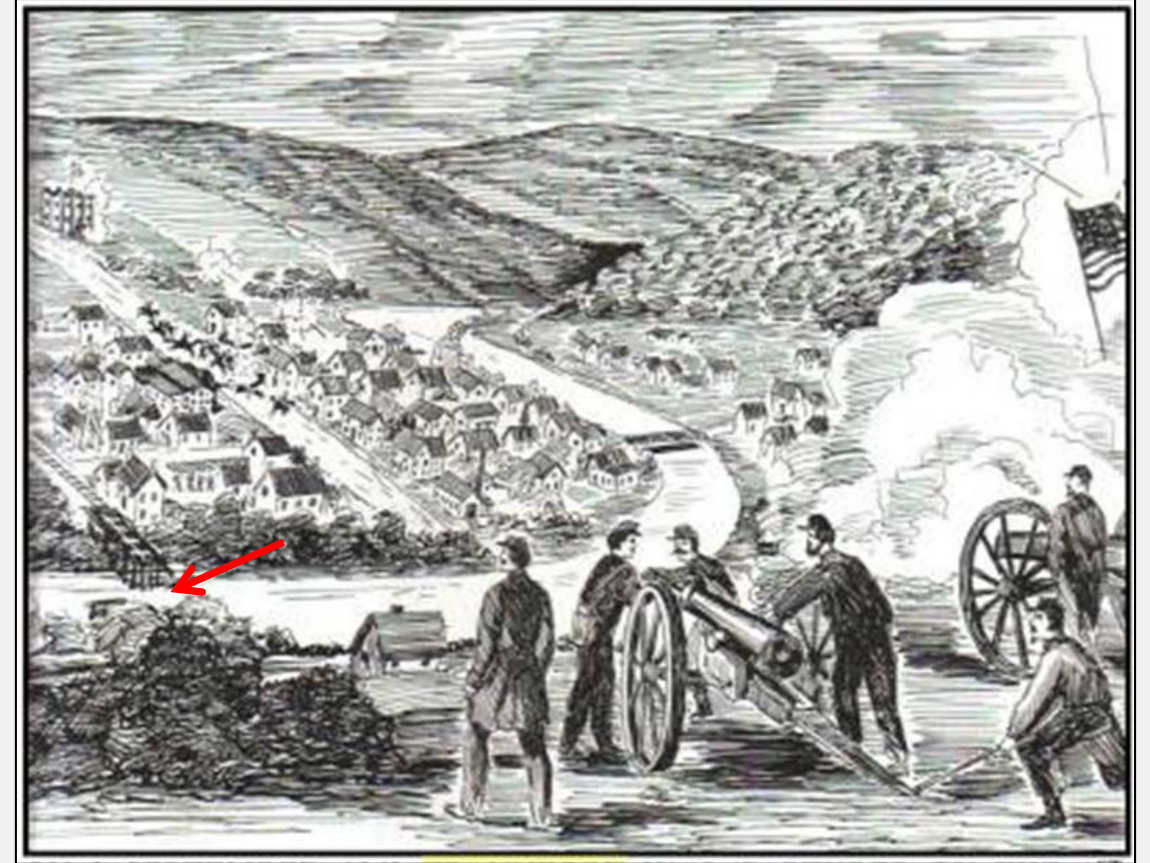




## HISTORY OF THIS CROSSING OVER THE KENTUCKY RIVER

1851 – Suspension bridge built but could not support long rail loads.

1856 – That bridge was replaced by a covered bridge, which was subsequently burned during the Civil War. Its replacement was washed away in a flood.



## HISTORY OF THIS CROSSING OVER THE KENTUCKY RIVER

1868 – An iron Fink truss bridge restored the crossing across the river.

1910 – The current W. Broadway Bridge was constructed as a pin-connected Baltimore Petit truss.



## HISTORY OF THIS CROSSING OVER THE KENTUCKY RIVER

1929 – The adjacent railroad bridge was constructed.

1951 – Major rehabilitation and reconfiguration of the W. Broadway Bridge to better accommodate vehicular use.





## DETERIORATION OF THE BRIDGE

- 1977 – Load limits reduced due to inadequate floor system.
- 1991 – Weight limit reduced to 3 tons.



# DETERIORATION OF THE BRIDGE

- 1993 – Bridge closed to traffic.
- 2019 – Bridge Conversion Feasibility Study found the bridge rates 1 out of 9 according to the Federal Highway Administration's guidelines (imminent failure condition).





## CURRENT STATUS

- Closed to vehicular and pedestrian traffic.
- The conditions below water are unknown.
- KYTC has commissioned an underwater inspection to assess the pier conditions.



# CURRENT STATUS

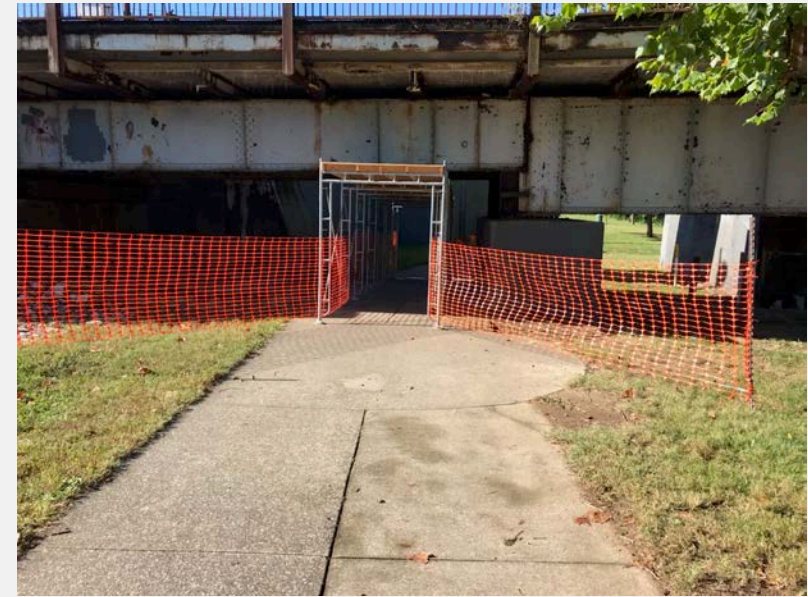
- Falling concrete and steel poses safety hazard.
- Corrective measures may return it to light service.





# CURRENT STATUS

- Feasibility Study recommends installation of netting.
- The KYTC has installed an overhead protection system on the sidewalk.



## FRANKFORT DOWNTOWN MASTER PLAN

“Improvements to the [trail] system are recommended. Foremost is renovation and reuse of the Broadway Bridge into a pedestrian/bike facility.”





# PEDESTRIAN & BICYCLE MASTER PLAN

The Broadway Bridge is  
priority 4A in the City of  
Frankfort & Franklin County  
Pedestrian & Bicycle Master  
Plan 2016 Update.



## City of Frankfort & Franklin County Pedestrian & Bicycle Master Plan

2016 Update



Prepared by



# PROJECT ALTERNATIVES

- Bridge Conversion
- Bridge Demolition
- New Pedestrian Bridge



Pedestrian bridge concept in Frankfort Downtown Master Plan.



## ALTERNATIVES CONSIDERED BUT DISMISSED

- No-build alternative
- Conversion of the bridge to a full-width (23.25-foot) pedestrian path



# PROJECT CHALLENGES

- Railroad coordination required due to shared pier and RR right of way.
- Coast Guard coordination and approval will be required.
- Working above a navigable stream adds costs.





## PROJECT ALTERNATIVES – CONVERSION

- Conversion to a pedestrian path is possible.
- Costs estimated at \$2-4M, plus design fees and underwater repairs.
- Analyze impacts to historic properties and River View Park.



## PROJECT ALTERNATIVES – CONVERSION

- Typically, local government accepts responsibility for the structure and its long-term maintenance.
- FHWA Historic Bridge Program contribution estimated at \$600,000.





# CONVERSION VARIABLES

- Several variables were considered in the Bridge Conversion Feasibility Study including:
  - Pier repair method
  - Path type (wooden or concrete)
  - Path width



# CONVERSION VARIABLES

Pier concrete  
encasement vs.  
historically sympathetic  
repair





# CONVERSION VARIABLES

10' wooden path vs. 12' concrete  
path (10' usable)



## PROJECT ALTERNATIVES – DEMOLITION

- Cost estimates are \$375,000 (deck only) - \$600,000 (deck and truss).
- Analyze impacts to historic properties and River View Park.





## PROJECT ALTERNATIVES – NEW PEDESTRIAN BRIDGE

- New bridge downstream or in the same location as the existing bridge.
- 12' concrete path (10' usable), box beam approaches, and a truss as the main span.
- The deck of the W. Broadway Bridge would still be removed.



# COST ESTIMATES

	Rehab with 12' Concrete Path & Historic Pier Repair	Rehab with 12' Concrete Path & Concrete Pier Repair	Rehab with 10' Wooden Path & Historic Pier Repair	Rehab with 10' Wooden Path & Concrete Pier Repair	New Ped Bridge	Deck Removal	Full Superstructure Removal
Deck Removal	\$375,000	\$375,000	\$375,000	\$375,000	\$375,000	\$375,000	
Superstructure Removal							\$600,000
Truss Rehab	\$220,000	\$220,000	\$220,000	\$220,000			
Approach Span Rehab	\$200,000	\$200,000	\$200,000	\$200,000			
Full Historic Pier Repair	\$2,366,000		\$2,366,000				
Pier Repair - Concrete		\$873,000		\$873,000			
12' Concrete Ped Path	\$256,000	\$256,000					
10' Timber Ped Path			\$131,000	\$131,000			
Blast Clean & Paint	\$487,000	\$487,000	\$487,000	\$487,000			
New Ped Bridge					\$1,650,000		
TOTAL	\$3,904,000	\$2,411,000	\$3,779,000	\$2,286,000	\$2,025,000	\$375,000	\$600,000



## NEXT STEPS

- KYTC is seeking public input.
- Comments will be accepted following this meeting, through November 10, 2020.
- Comments can be submitted by:
  - Submitting online at: <https://transportation.ky.gov/DistrictFive/Pages/Broadway-Bridge-Project.aspx>
  - Mailing a comment card downloadable from the website listed above.
  - Through the Q&A feature during this Public Meeting.
- Interested people/organizations can apply on the website to become Consulting Parties and provide input on the historic aspects of the project.
- First Consulting Party Meeting (Zoom) scheduled for 10:00 a.m. November 9.



## NEXT STEPS

- KYTC has initiated environmental studies.
  - A cultural historic analysis of the bridge and surrounding area is being conducted.
  - Archaeological survey is being conducted, including side-scan sonar of the river.
  - Section 4(f) analysis will occur to examine potential effects to historic properties and recreational resources.
  - Ecological studies are also underway, including side-scan sonar surveys to identify potential endangered mussel habitat.





## REMINDERS

- Project documents will be available on the project website. Watch for updates there.
- Comments may be submitted directly through the website.
- Project updates will be communicated to the public throughout project development.
- Public meeting attendees will receive email updates.



## ANY QUESTIONS/COMMENTS?

- Please submit your comments through the project website.
- Questions may be submitted via email at:

[BroadwayBridge@palmernet.com](mailto:BroadwayBridge@palmernet.com)

or by contacting

- David Waldner, Consultant Project Manager, Palmer Engineering

Phone: 859-744-1218

