

Pennsylvania Department of Transportation
Engineering District 8-0
SR 0022, Section 075; Riverlands Safety Implementation Project (MPMS #106554)
SR 0022, Section 059 Clark's Ferry Bridge PM (MPMS #93178)

Route 22/322 Clark's Ferry Improvement Project
Dauphin and Perry Counties

The Pennsylvania Department of Transportation is currently performing preliminary engineering and environmental studies for the rehabilitation of the Clark's Ferry Bridge and safety improvements along US 22/322 extending roughly one mile to the SR 11/15 interchange.

Project Needs

- The Clark's Ferry Bridge deck requires repair to extend the service life of the structure. Leaking damaged deck joints are causing deterioration of bridge concrete and steel girders and repairs are needed to girders, joints, and concrete pier caps.
- Left-turning and crossing maneuvers along US 22/322 cause many safety concerns along the corridor. Between 2011 and 2021, there were 371 recorded crashes along the corridor. Of these, 39 percent were angle collisions. Angle and rear-end collisions are highly concentrated between the Market Street Bridge (SR 849) and the SR 11/15 interchange, where approximately 55 percent of the total crashes occurred. The angle-crashes are likely a direct result of left-turn and crossing maneuvers while the high percentage of rear-end collisions is likely due to speed differentials resulting from turning vehicles.
- The Clark's Ferry Bridge carries the Appalachian Trail over the Susquehanna River. Signage for trail users is outdated and will need to be updated to improve trail connections.

Project Purpose

- Ensure structural adequacy of the Clark's Ferry Bridge
- Improve safety for all modes of transportation, reduce fatalities, and improve traffic flow within the project area

Scope of Work

Proposed improvements include rehabilitation of Clark's Ferry Bridge and replacing the existing center turn lane on US 22/322 with a continuous median barrier from the Clark's Ferry Bridge to the US 11/15 interchange. The following is a more detailed description of the proposed improvements:

The Clark's Ferry Bridge structure, built in 1986, has a reinforced concrete deck that requires repair to extend the service life of the structure. The proposed bridge deck rehabilitation will include performing localized concrete deck repairs and sealing the concrete deck cracks. A latex modified concrete overlay will be applied to the entire deck. Existing strip seal deck joints will be replaced, and large tooth dam joints (including drainage troughs) will be repaired. Barriers will be cleaned of debris, the deck drainage system, including scuppers and downspouting, will be flushed, drainage system sections will be repaired, and bearings and bearing areas at the piers will be cleaned. Lastly, existing concrete and steel beams at

joint locations will be repaired and repainted. Damaged concrete diaphragms will be repaired and steel diaphragm members will be replaced as needed.

Various proposed improvements will be made to US 22/322 between the Clark's Ferry Bridge and the SR 11/15 Interchange. The existing concrete median barriers on the Clark's Ferry Bridge and at the north end of the project limits will be connected to form a continuous median barrier along the entire corridor. This will restrict left-turns and crossing maneuvers on US 22/322 and is expected to reduce angle crashes. To facilitate slower vehicles turning into and out of local businesses along the westbound side of US 22/322, a frontage lane will be constructed to access these businesses. This frontage lane will separate higher speed thru-traffic from lower speed traffic decelerating and accelerating and is expected to reduce rear-end and sideswipe crashes. Furthermore, acceleration and deceleration lanes at the SR 11/15 interchange will be lengthened to improve traffic flow and safety. Improvements will maintain 12-foot travel lanes and full-width shoulders. Lighting and signage will also be improved along the corridor.

Lastly, improvements will be made to Appalachian Trail signage including trail crossing signs at the SR 147 interchange and the SR 849 interchange. The Appalachian Trail will remain accessible throughout construction with a protected detour during rehabilitation of the eastbound side of the Clark's Ferry Bridge.

Environmental

The project is located at the confluence of the Susquehanna and Juniata Rivers approximately 18 miles north of Harrisburg in an area known as Clarks Ferry in Reed Township, Dauphin County. Land use on the eastern end of the project (i.e., east of the Susquehanna River) consists predominantly of a forested floodplain and undeveloped mountain land interrupted by the 22/322 roadway and an active Norfolk Southern Rail Line. Land use on the western end of the project (i.e., west of the Susquehanna River) consists predominantly of a commercially developed corridor containing a diverse mix of business establishments. State Game Land No. 290 is located adjacent to a portion of the 22/322 roadway along its northern edge.

Environmental studies completed for the project have included evaluations of natural, cultural, and recreational resources, as well as potential hazardous/residual waste sites. Peregrine falcons are known to nest in the project area and coordination is underway with both the Pennsylvania Game Commission and the U.S. Fish and Wildlife Service to resolve this issue.

Evaluation of historic and recreational resources protected under Section 4(f) of the U.S. Department of Transportation Act of 1966 include:

- the Appalachian National Scenic Trail/Historic District
- the Susquehanna River National Recreation Trail/State Water Trail
- State Game Land No. 290
- the Red Rabbit Drive-In restaurant

The Appalachian Trail crosses the Clarks Ferry Bridge and then turns south along SR 849 into Duncannon. The project will not have any permanent impacts on the Appalachian Trail. Accommodations for hikers will be made during the construction phase of the project to ensure uninterrupted access along the length of the trail.

The Appalachian Trail Historic District and the Red Rabbit Drive-In restaurant are both eligible for listing on the National Register of Historic Places. Each of these historic resources has been evaluated under

Section 106 of the National Historic Preservation Act. Archaeological investigations for the project are ongoing. Coordination has been ongoing with historical agencies, organizations, and other interested consulting parties regarding the project effect on historic resources. Coordination is also ongoing with agencies with jurisdiction over recreational resources. The water trail will remain open to boating and access will be maintained to the State Game Lands.

Maintenance and Protection of Traffic

Vehicle and pedestrian traffic will be accommodated via a combination of both intermittent/short-term and long-term work zone patterns throughout the duration of construction. Tentatively, there will be seven (7) total stages of construction five (5) of which will require long-term work zone patterns (patterns that will be in place for an extended period of time). Bridge and roadway work will impact traffic along US 22/322, US 15, SR 147, and SR 849 to varying degrees and durations throughout construction. The Appalachian Trail between SR 849 and SR 147 and across the Clark's Ferry Bridge will be open and accessible throughout construction. Existing driveway accesses will be maintained during construction. Major long-term work zone patterns and their traffic impacts include:

- **Stage 1** – The inside lane of US 22/322 westbound across the Clark's Ferry Bridge and the left-in and left-out movements to/from SR 849 will be restricted. A SR 849 detour and an overall transportation management plan will be deployed to encourage and provide an alternate route for westbound motorists during this stage. The Appalachian Trail will be unaffected.
- **Stage 2** – One US 22/322 eastbound lane will be crossed over into the westbound side of the Clark's Ferry Bridge. Access to the Appalachian Trail on the eastern shore will be provided via a short detour and then accommodated within a barrier separated path across the bridge. The US 22/322 eastbound ramp to SR 147 will also be detoured. The Appalachian Trail will return to its existing conditions upon completion of this stage.
- **Stage 3** – One US 22/322 eastbound lane will be crossed over into the westbound side of the bridge. The Appalachian Trail will be unaffected.
- **Stage 4** – One US 22/322 westbound lane will be crossed over into the eastbound side of the bridge. The Appalachian Trail will be unaffected. The US 22/322 westbound ramp from SR 147 will be detoured.
- **Stage 5** – One US 22/322 westbound lane will be crossed over into the eastbound side of the Bridge. The Appalachian Trail will be unaffected.

For all other stages not listed, motorists can expect intermittent and localized work zones in order to perform day-to-day construction activities.

Schedule and Cost

Overall construction is anticipated to start in 2026 and last through 2031. The combined estimated construction cost for bridge repairs and roadway safety enhancements is \$35,000,000. The project schedule and cost estimate will be refined as the project design progresses.

Contact

If there are any questions or concerns related to the project following the review of the website materials, please contact Dave Fratangeli, Senior Project Manager, at (717) 705-6176 or email at dfratangel@pa.gov.