
**CLAY STREET BRIDGE OVER PASSAIC RIVER,
STRUCTURE NUMBER 0700-H01**

PROJECT PURPOSE & NEED STATEMENT

The purpose of this project is to address the deficiencies of the structure carrying Clay Street over the Passaic River in order to provide a safer and more efficient crossing.

The bridge provides an important transportation connection for residents and commuters in Hudson County to and from the City Newark's downtown business district. The existing bridge is rated in overall serious condition due to the localized advanced material losses to the steel truss members, above and below the deck level, and to girders and floor beams in the swing span. The bridge was built in 1908 and has a Sufficiency Rating of 33.0. The bridge is structurally deficient due to the condition of the superstructure, which is rated in serious condition. Several gusset plates at the bottom chord are holed through. The bridge was rehabilitated in 1942, 1958, 1975, 1992, and 1997. The existing bridge is scour critical and does not currently meet seismic design standards. The bridge opening duration does not meet desirable criteria. Additionally, the bottom chord of the swing span trusses are fracture critical members.

The project goals and objectives are a compendium of statements made by Hudson and Essex Counties, local elected officials, businesses, residents, and other stakeholders involved in the project. While the project may not be able to satisfy all goals and objectives listed herein, the Preferred Alternative seeks to address as many as possible. The project's goals and objectives are identified as follows:

- Provide bicycle compatibility and connectivity to the approach roadways
- Provide ADA compliant pedestrian facilities and crossings as well as connectivity to the approach roadways
- Upgrade bridge and approach roadway conditions to meet AASHTO and NJDOT safety standards including new parapets and guide rail
- Correct the controlling substandard design elements
- Avoid or minimize social, economic and environmental impacts
- Provide for earthquake resistance of the structure so as to meet current design standards

- Modernize bridge mechanical and electrical components to meet current standards
- Reduce the frequency of major bridge maintenance activities that result in detours and/or disruption of traffic flow
- Maintain traffic operations and volume with minimum disruption and delay during construction; maintain pedestrian and vehicular access to properties at all times during construction and minimize detours
- Provide accommodations for commercial and recreational users of the Passaic River
- Address the high rate of vehicular and pedestrian crashes occurring at the Clay Street & Passaic Avenue intersection