Pulaski Skyway Rehabilitation

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The Skyway rises high above the Meadowlands, reaching a height of over 135 feet. It is included in the National Register of Historic Places because of its age and unique design features.

Overview

The Pulaski Skyway, dedicated on October 11, 1933, is a vital link in the northern New Jersey transportation network, connecting Jersey City, South Kearny and Newark. Over seventy-five years old, the 3.5 mile long elevated structure is composed of 118 spans that carry Route 1&9 over the Hackensack and Passaic Rivers, the New Jersey Turnpike, several railroads, and industrial facilities. It serves as an express link for car and bus traffic (no trucks allowed) to and from the Holland Tunnel and destinations farther north on Route 1&9, carrying more than 67,000 vehicles a day. Motorists can access the Skyway from either end (Jersey City or Newark) and at two locations along the span: Broadway Avenue and South Kearny.

The Skyway is in need of major repairs/rehabilitation due to deterioration that has occurred over its lifetime. The Skyway is also functionally obsolete, with narrow lanes and unusual left entrance and exit ramps that do not meet modern design and safety standards. Despite these limitations, the Skyway carries heavy volumes of traffic and is congested at the Newark and Jersey City ends during peak hours.

NJDOT developed a two-part strategy to keep the Pulaski Skyway open for the next several decades. The first part of the strategy is a series of short-term, priority repairs to preserve the structural integrity of the bridge and to keep it functional. These repairs are currently underway. The second part of the strategy is a long term improvement of the entire structure, anticipated to commence in 2015. Due to its high cost and complexity, this major project is likely to be performed in several stages and could take as long as twenty years to complete. NJDOT is currently conducting a Feasibility Assessment Study to evaluate project alternatives and select a preferred alternative to advance to design.

SHORT-TERM REPAIRS UNDERWAY

Short-term repairs to keep the Skyway functional are one of NJDOT's top priorities in the next few years. The repairs are needed to preserve the structural integrity of the bridge until a long-term solution (rehabilitation or replacement) is decided upon. The Department has been investing approximately $35 million per year on short-term priority improvements.

The following repairs have been completed:

- ☑ Deck repairs on the entire structure were completed in May 2009.
- ☑ A new polymer overlay to improve the quality of the riding surface was completed in May 2009.

Completed deck overlay on eastbound roadway.

Additional repairs currently in process include:

- ☐ Repairs to the concrete encasement/substructure, concrete railings, lighting and other miscellaneous repairs began in July 2009 and will be completed in February 2010.
- ☐ Drainage repairs to prevent water from damaging the steel beneath the deck began in October 2009 and will be completed in August 2011.

Repairs to the Skyway's drainage system are currently underway.

Future interim repairs or advanced construction breakout projects may include the following:

- ☐ Structural steel repairs and spot painting of all steel connections;
- ☐ Sub-structure repairs and safety improvements, and
- ☐ Ramp-deck replacement and total painting of ramp structural steel.

Steel corrosion to be addressed in future repair project.

LONG-TERM ALTERNATIVES BEING ANALYZED

The Feasibility Assessment Study (FA) that is currently underway is investigating various long-term alternatives for the Pulaski Skyway. Potential alternatives include rehabilitation of the existing structure, rehabilitation with widening of the deck to accommodate shoulders, building a new structure, or a no build alternative. Currently the Skyway prohibits truck traffic, and none of the rehabilitation alternatives would change that.

In the FA study, the alternatives are compared and ranked based on their cost, potential environmental, social and economic impacts, and how effective each alternative would be in meeting project needs such as improving the Skyway's structural capacity and traffic safety. This information is used to select the preferred alternative (one that is most efficient, minimizes environmental impacts, and is acceptable to NJDOT and the stakeholders). Once selected, the preferred alternative will be advanced to the design phase. The FA study is scheduled for completion by early 2011.

Rehabilitation

The rehabilitation alternatives would be designed to keep the Skyway operational for another 50 years. Rehabilitation may include the following work: replacement of the entire bridge deck; repairs to structural steel, concrete columns, piers and abutments; removal of existing lead paint and repainting of steel surfaces, and strengthening of the substructure component as part of a seismic retrofit. Additionally, a new balustrade may be used to meet current design standards and to replicate the historic appearance.

Eastbound deck and steel through truss.

Rehabilitation with Widening

Beyond rehabilitation, the FA study is analyzing the feasibility of widening the existing bridge and/or relocating some of the center ramps to the outside of the structure. These alternatives could improve safety, but their costs and environmental impacts may be very significant.

Building a New Structure

Another alternative would be to build a new structure parallel to the Skyway. The existing Skyway could either be demolished or rehabilitated to serve travel in one direction while the new parallel structure carried traffic in the other direction. The advantages would include improved traffic operations and safety with wider lanes, shoulders, and accommodation of trucks. However, since NJDOT does not own the full right of way beneath the alignment of a new structure, there would be very significant right of way acquisition and construction costs with this alternative.

Underside view of the deck.

"No Build" Alternative

The "no build" (or "do nothing") alternative would mean continued deterioration of the Skyway, which would ultimately result in the need to close the bridge. An earlier study explored other ways of handling the traffic if the bridge were to close, such as widening Route 1&9T to accommodate traffic diverted from the Skyway. This would require widening or replacing the Hackensack River Bridge and the Passaic River Bridge, which would be challenging and very costly.

As the Feasibility Study proceeds, opportunities will be provided for public input in the decision-making process. To join the project mailing list, visit the project website at http://www.state.nj.us/transportation/works/studies/pulaski

LIBRARY EXHIBITS FEATURE SKYWAY HISTORY

The history of the Pulaski Skyway was featured in special exhibits at area libraries in 2009. NJDOT partnered with the Newark Public Library and the Jersey City Free Public Library to display a special pictorial exhibit showcasing the unique characteristics and contributions of "America's First Superhighway." Newark Library Director Wilma J. Grey stated that the bridge is "one of New Jersey's greatest architectural treasures, one that has become an iconic symbol of the state's industrial strengths." The exhibit included images of the Skyway's construction, special features, history and upkeep.

SKYWAY TRIVIA

1. When the Pulaski Skyway was built (in the 1930s), the price of gasoline was about:

a) 5 cents/gallon
b) 10 cents/gallon
c) 20 cents/gallon

2. Other major roads named for General Kazimierz Pulaski can be found in all of the following states except:

a) New York
b) Michigan
c) Ohio
d) Indiana
e) Illinois

3. The estimated cost of removing lead paint and repainting the entire steel structure of the Pulaski Skyway is about:

a) $70 million
b) $190 million
c) $380 million

Answers: 1 (a), 2 (c), 3 (c)

The Skyway's northern end at Tonnelle Circle, Jersey City during the 1930s.

FOR MORE INFORMATION

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The Skyway not long after it first opened in 1932.