



## **Table of Contents**

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Programmatic Section 4(f) Evaluation for use of a Historic Bridge  
Replacement of Route 30/130 Bridge over the Cooper River  
Structure No. 0405-153  
City of Camden, Borough of Collingswood, Township of Pennsauken  
Camden County

	<u>Page</u>
I. Introduction	1
II. Project Purpose and Need	2
III. Description of Proposed Action	2
IV. Description of Section 4(f) Property	2
V. Impacts to Section 4(f) property	3
VI. Applicability	3
VII. Alternatives Analysis	4
VIII. Measures to Minimize Harm	5
IX. Coordination	6
X. Conclusions	6

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## **Appendix**

USGS Camden Quadrangle

**Programmatic Section 4(f) Evaluation for Use of a Historic Bridge**

Route 30/130 Collingswood/Pennsauken (Phase B)

City of Camden, Borough of Collingswood, Township of Pennsauken

Camden County

**I. Introduction**

The New Jersey Department of Transportation (NJDOT), using Federal Funds, is proposing the complete replacement of the Route 30/130 Bridge over the Cooper River (Structure No. 0405-153), located in the City of Camden and Township of Pennsauken, Camden County. The proposed project is Phase B of the Collingswood Circle Elimination Project; Phase A is currently under construction. Project limits for Phase B begin along Route 30/130 just north of the Port Authority Transit Corporation Bridge in Collingswood and extend north to North Park Drive in Pennsauken. Improvements involve the resurfacing of Route 30/130 within the project limits, improving a number of roadway deficiencies (e.g., stopping sight distance, cross slopes/superelevation, minimum radius, shoulder width, and intersection sight distance), replacing the Haddon Avenue Bridge superstructure (Structure No. 0405-152), and replacing the Route 30/130 Bridge over the Cooper River with a *wider* structure (Structure No. 0405-153).

The Route 30/130 Bridge over the Cooper River is a concrete encased steel bridge, built in 1926, and reconstructed in 1947. Currently, the deck is in serious condition, while the superstructure and substructure are in fair and poor condition, respectively. The bridge is surrounded by Section 4(f) properties on all four (4) quadrants. A copy of the Camden USGS Quadrangle with the project area highlighted is enclosed for your reference.

This Section 4(f) document was prepared to address the use of the historic bridge, which is a contributing resource to the Cooper River Park Historic District. The Cooper River Park Historic District eligible for the National Registers of Historic Places (State Historic Preservation Officer (SHPO) Opinion: 02/16/00). Coordination with the SHPO during the Section 106 process resulted in the finding that the proposed project will result in an adverse affect to the Cooper River Park Historic District due to the demolition and replacement of the bridge. The project is, therefore, subject to Section 4(f) of the U.S. Department of Transportation Act of 1966 (Programmatic Section 4(f) for the contributing bridge).

This documentation has been prepared to demonstrate the following:

- There are no feasible and prudent alternatives to the use of the Route 30/130 Bridge over the Cooper River.
- Project includes all possible planning to minimize harm resulting from the use of the Route 30/130 Bridge over the Cooper River.
- That the project meets the applicability criteria for the programmatic Section 4(f) evaluation for projects that necessitate the use of historic bridges, which was issued by the FHWA.

## **II. Project Purpose and Need**

The purpose of the proposed project is to accommodate traffic load and improve the safety and operational conditions along Route 30/130 within the project limits, which begin along Route 30/130 just north of the Port Authority Transit Corporation Bridge in Collingswood and extend north to North Park Drive in Pennsauken.

The Route 30/130 Bridge over the Cooper River is classified as structurally deficient and scour critical. The concrete encased steel bridge was built in 1926 and reconstructed in 1947. Currently, the deck is in serious condition, while the superstructure and substructure are in fair and poor condition, respectively. The overall condition of the bridge warrants replacement in order to assure public safety.

## **III. Description of Proposed Action**

The Preferred Alternative involves improvements designed to correct substandard geometric roadway features, such as sight distance, vertical clearance, and superelevation. The Haddon Avenue Bridge (Structure No. 0405-152) will be rehabilitated and the Route 30/130 Bridge over the Cooper River (Structure No. 0405-153), which is a historic bridge surrounded by additional Section 4(f) properties, will be replaced on its existing alignment with a single-span bridge consisting of multiple longitudinal steel stringers composite with a reinforced concrete deck slab.

The superstructure of the bridge will be supported by reinforced concrete abutments founded on pile supported foundations. The bridge will also be widened from two (2) to three (3) lanes from Haddon Avenue to just north of the Route 30/130 Bridge over the Cooper River. Widening will provide for two through-lanes and an auxiliary lane in either direction of divided two-way traffic, and sidewalks along both fascias. The Preferred Alternative is both feasible and prudent and meets the project's purpose and need, which is to accommodate traffic load and improve the safety and operational conditions along Route 30/130 in the project area.

Please see Section VII for alternatives studied that avoid any use of the historic bridge; these alternatives were dismissed due to not being feasible and prudent, as well as not meeting the project's purpose and need.

## **IV. Description of Section 4(f) Property**

### **1. Route 30/130 Bridge over the Cooper River**

The Route 30/130 Bridge of the Cooper River, built in 1926, and reconstructed in 1947, is a concrete encased steel bridge in need of complete replacement due to it being structurally deficient, as well as scour critical. The 1994 Statewide Historic Bridge Survey recommends the bridge as not individually eligible for the National Register. A 12/06/94 letter from the SHPO states that although not individually eligible, the Route 30/130 Bridge over the Cooper River is a contributing resource to the Cooper River Park HD due to it being an integral feature of the park's circulation plan and one (of two bridges) that was built within the general period of the park's conception and realization.

## 2. Cooper River Park Historic District

The Cooper River Park Historic District (HD) is eligible for listing in the National Register on February 28, 1994 and again on February 16, 2000. The HD was determined eligible under Criterion A in the areas of community planning and development and entertainment and recreation as an example of an early-twentieth-century park. Under Criterion C, the HD is eligible for its landscape architecture that embodies the design concepts heralded by the Olmstead Brothers at the turn of the century and for its embodiment of the work of a master, Charles W. Leavitt and Son, one of the most prominent early-twentieth-century landscape architecture firms in the United States. The Cooper River Park HD qualifies for listing in the National Register because it incorporates scenic overlooks, docks, footbridges, footpaths, and staircases into its design. Important aspects of integrity include setting, design, location, and materials.

## 3. Harleigh Cemetery

The Harleigh Cemetery, located on the southwest quadrant of the bridge crossing, is a historic site eligible for the National Register (SHPO opinion: 6/15/95). A strip taking of the property is required for the proposed improvements. Impacts to the Harleigh Cemetery are covered under a *de minimis* Evaluation of Impacts, which was approved by the FHWA on 3/27/08; all applicability criteria have been met and impacts to the Cemetery resulted in a No Adverse Effect under Section 106. The NJDOT informed the State Historic Preservation Officer FHWA's intention to use the *de minimis* Evaluation of Impacts in a letter dated March 26, 2008.

### **V. Impacts to Section 4(f) Property**

The proposed project involves the replacement of the Route 30/130 Bridge over the Cooper River on its existing alignment, which minimizes impacts to adjacent Section 4(f) resources. This alternative involves the demolition of the Route 30/130 Bridge over the Cooper River, and replacement with a wider structure to accommodate the addition of a third lane in the north- and south-bound directions (currently two (2) lanes in either direction over the bridge). A shoulder will also be added in the southbound direction (currently a shoulder exists in the northbound direction). The bridge has been identified as contributing element to the Cooper River Park Historic District; therefore, the proposed project constitutes a Section 4(f) impact due to demolition and replacement of the bridge.

A separate Programmatic Section 4(f) Evaluation for Use of a Public Park has been prepared to address impacts to the Cooper River Park, publicly-owned parkland, and is being submitted concurrently with this Programmatic Section 4(f) document, which addresses the removal of the Route 30/130 Bridge over the Cooper River. As noted above, impacts to the Harleigh Cemetery are covered under the *de minimis* Evaluation of Impacts.

### **VI. Applicability**

This programmatic Section 4(f) evaluation may be applied by the FHWA to the proposed project because the project meets the following five (5) required criteria:

1. The bridge is to be replaced or rehabilitated with Federal funds.

The proposed project is a bridge replacement and is being federally funded. The federal project number is MG-0016 (148).

2. The project will require the use of a historic bridge structure, which is on or is eligible for listing on the National Register of Historic Places.

The Route 30/130 Bridge over the Cooper River is a contributing resource to the Cooper River Park Historic District (SHPO Opinion: 12/06/94). The bridge has been determined by SHPO to be a contributing element of the Historic District and is, therefore, eligible for listing on the National Register.

3. The bridge is not a National Historic Landmark.

Structure No. 0405-153 is not a National Landmark.

4. The FHWA Division Administrator determines that the facts of the project match those set forth in the sections of this document labeled Alternatives, Findings, and Mitigation.

The facts of the proposed project have been set forth in the Sections of this document in order for the FHWA Division Administration to determine that this programmatic Section 4(f) is applicable.

5. Agreement among the FHWA, the State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation (ACHP) has been reached through procedures pursuant to Section 106 of the National Historic Preservation Act.

Procedures have been followed and an agreement has been reached with the FHWA and the SHPO regarding the eligibility of the bridge. The ACHP was notified during Phase A of the project and declined to participate.

## **VII. Alternatives Analysis**

In addition to the attached Alternative Analysis copied from the Feasibility Report prepared by Dewberry-Goodkind, Inc. (June 2006), the following list of alternatives were developed and evaluated:

1. No-build

Although the No-Build alternative does not affect any Section 4(f) lands, this option does not improve the existing condition along Route 30/130 within the project limits or address the safety issue regarding the structurally deficient Route 30/130 Bridge over the Cooper River. Routine maintenance is not adequate to address the bridge's deficiencies, nor does it address other project needs, including improvement of existing substandard roadway geometric deficiencies, increased traffic volume demands on the roadway and structure, and improvement of traffic safety conditions. The proposed bridge structure and approach roadway improvements are designed to incorporate improved safety features as an integral part of the new design. In addition, the No-Build Alternative is not recommended for further consideration because it ignores the basic transportation need, which is to replace the existing bridge with a new, wider structure to accommodate traffic, and to improve safety and operational conditions along Route 30/130 in the project area. The No-build Alternative, therefore, is not feasible and prudent, nor does it meet the project's purpose and need.

2. Build on new location without using the old bridge

It is not feasible to construct a bridge parallel to the old bridge (allowing for a one-way couplet) without affecting the historic integrity of the old bridge. To utilize the existing structure and build an adjacent couplet bridge of similar style, the problem of substandard roadway geometric features and operational problems in the project area would not be resolved. In addition, the existing bridge would still require rehabilitation, which is not possible for reasons noted in #3 below.

Even though a new bridge will be built at a new location, the existing bridge will not be preserved because it is beyond rehabilitation for reasons noted in #3 below. In addition, as per Section 123(f) of the Surface Transportation and Uniform Relocation Assistance Act of 1987, potential interested parties were informed that the structure was available for relocation and transfer of ownership. However, no responsible party could be located to maintain and preserve the existing bridge. Building on a new location without using the old bridge, therefore, is not a feasible and prudent alternative, nor does it meet the project's purpose and need.

3. Rehabilitation without affecting the historic integrity of the bridge

The existing bridge is so structurally deficient that it cannot be rehabilitated to meet minimum acceptable load requirements without impairing the historic integrity of the bridge. Although repairs to the superstructure could arrest some of the bridge's ongoing deterioration, the large/wide cracks in the substructure units indicates a structural or settlement problem with the underlying timber pile foundation. Underpinning, installation of micro-piles or complete replacement of the pile foundations would require a significant or complete reconstruction of the substructure units. Furthermore, to allow for access to the pile supported foundation the existing superstructure must be disassembled, rehabilitated, and reassembled in stages upon completion of the substructure modifications. Furthermore, this alternative does not allow for the creation of auxiliary traffic lanes. Such an invasive rehabilitation/reconstruction would be cost prohibitive, impractical and, as a result, only a fraction of the structure will be original. Rehabilitating the bridge, therefore, is not a feasible and prudent alternative, nor does it meet the project's purpose and need.

### **VIII. Measures to Minimize Harm**

NJDOT has been consulting with the SHPO since March of 1995 on ways to minimize and mitigate impacts to Section 4(f) properties within the project area. NJDOT developed a Memorandum of Agreement (MOA) that was reviewed and approved for circulation by FHWA on 10/9/08.

The following stipulations are included in the MOA:

1. Aesthetics: The new bridge will be designed to include an aesthetic parapet that will emulate the look of the existing (e.g., Texas type railing), tinted concrete for the bridge abutments and wingwalls, and other design features to complement the above-ground features of the Cooper River Park Historic District, where appropriate; lighting installed over the Route 30/130 Bridge over the Cooper River will consist of powder-coated black tear-drop lights, as used in Phase A of the referenced project.

2. Pennsylvania Mica Staircases: The two (non-contributing) Pennsylvania mica staircases located south of South Park Drive and at the bridge's southeast quadrant, which will be removed, will be carefully disassembled; salvaged materials will be reused in the repair/reconstruction of the debilitated (contributing) Pennsylvania mica staircase located at the northeast quadrant of the bridge crossing.
3. Signage: An interpretative sign concerning the history of the Cooper River Park Historic District will be developed in consultation with the SHPO, and placed at the Northeast Quadrant of the bridge crossing on NJDOT right-of-way, at an appropriate location at the top of the staircase.
4. National Register Nomination: A draft final National Register nomination will be prepared for the Cooper River Park Historic District (HD), a resource which is eligible for listing on the National Register (SHPO Opinion: 2/28/94). The HD was determined to be eligible under Criterion A in the areas of community planning and development and entertainment and recreation as an example of an early-twentieth-century park. Under Criterion C, the HD is eligible for its landscape architecture that embodies the design concepts heralded by the Olmstead Brothers at the turn of the century and for its embodiment of the work of a master, Charles W. Leavitt and Son, one of the most prominent early-twentieth-century landscape architecture firms in the United States. The HD qualifies for listing in the Register because it incorporates scenic overlooks, docks, footbridges, footpaths, and staircases into its design. Important aspects of integrity include setting, design, location, and materials.
5. Archeological Monitoring Program: An archeological monitoring program has been developed and is attached for reference (see Attachment A); the program was approved by SHPO on 9/17/08.

## **IX. Coordination**

Pursuant to Section 4(f), the NJDOT has coordinated with SHPO, the ACHP, and interested/consulting parties as called for in CRF Part 800. Coordination among SHPO, FHWA, and NJDOT has resulted in agreement that the Route 30/130 Bridge over the Cooper River and the staircase located on the northeastern quadrant of the bridge crossing are contributing features to the Cooper River Park HD, and that the proposed project will result in an adverse effect to the HD due to the demolition and alternation of these resources.

Coordination included discussion of avoidance alternatives, impacts to the property and measures to minimize harm. A Public Information Center (PIC) was held in Pennsauken Township, Camden County, on 11/17/03. The PIC revealed little opposition to the proposed project. Another PIC will be held in the near future.

## **X. Conclusions**

As noted in the introduction, the objective of the Section 4(f) document is to show that the proposed project complies with Section 4(f) of the 1966 USDOT Act by meeting the following conditions:

- There is no feasible and prudent alternative to the use of land from the Section 4(f) property; and



- The project includes all possible planning to minimize harm to the Section 4(f) property.

Given the information presented in this Section 4(f) document, it is concluded that the proposed project meets the above-noted conditions, and thereby complies with Section 4(f) of the 1966 USDOT Act. Furthermore, based on the above considerations, there is no feasible and prudent alternative to the use of land from the Rt. 30/130 Bridge over the Cooper River, and the proposed action includes all possible planning to minimize harm to the bridge resulting from such use.