Appendix B

Programmatic Section 4(f) Determination and Approval for Use of Wailua Plantation Bridge
**Eligibility Criteria**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Will the bridge be replaced or rehabilitated with Federal funds?</td>
<td>X</td>
<td></td>
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<tr>
<td>2. Will the project require the “use” of a historic structure which is on, or eligible for listing on, the National Register of Historic Places?</td>
<td>X</td>
<td></td>
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<tr>
<td>3. Has the bridge been determined to be a National Historic Landmark?</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>4. Is the environmental documentation an Environmental Impact Statement?</td>
<td></td>
<td>X</td>
</tr>
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</table>

**Alternatives Considered**

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Have all of the following alternatives, to avoid any use of the historic bridge been evaluated?</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>A. Has the “Do Nothing” alternative been studied and been determined, for reasons of maintenance and safety, not to be feasible and prudent?</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>B. Has the “Build on New Location Without Using the Old Bridge Alternate” been studied and been determined, for reasons of terrain, and/or adverse social, economic or environmental effects, and/or engineering and economy, and/or preservation of the old bridge, not to be feasible and prudent?</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>C. Has rehabilitation of the existing bridge without affecting the historic integrity of the bridge been studied and has it been determined, for reasons of structural deficiency and/or geometrics, that rehabilitation is not feasible and prudent?</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
### Measures to Minimize Harm

When an item does not apply indicate with N/A

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
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</table>

6. Has the project included all possible planning to minimize harm, including the following:

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</thead>
<tbody>
<tr>
<td>A. For bridges that are <strong>adversely affected</strong>; have the FHWA, SHPO, and ACHP reached agreement [Memorandum of Agreement (MOA)] through the Section 106 process, and this MOA includes Stipulations which amount to Measures to Minimize Harm, and those measures will be incorporated in the project?</td>
<td>X</td>
</tr>
<tr>
<td>B. For bridges that are to be <strong>rehabilitated</strong> to the point that the historic integrity is affected or that are to be moved or demolished have fully adequate records been made of the bridge in accordance with the Historic American Engineering Record (HAER) or other suitable means developed through the Section 106 consultation?</td>
<td>X</td>
</tr>
<tr>
<td>C. For bridges that are to be <strong>replaced</strong>; has the existing bridge been made available for an alternate use, provided a responsible party agrees to maintain and preserve the bridge?3 <em>(If the project is a rehabilitation project, write N/A for this question.)</em></td>
<td>N/A</td>
</tr>
<tr>
<td>D. For bridges that are to be <strong>rehabilitated</strong> and there is an **“Adverse Effect”**4 on the historic integrity of the bridge, is the historic integrity preserved to the greatest extent possible, and consistent with unavoidable transportation needs, safety, and load requirements? <em>(If the project is a replacement project, write N/A for this question.)</em></td>
<td>X</td>
</tr>
</tbody>
</table>

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**Notes**

1 Definition of Use: The action will impair the historic integrity of the bridge either by rehabilitation or demolition. Where the definition of impair is to diminish the qualities that made it eligible for the National Register of Historic Places. (Federal Register, Vol 48. No. 163, dated Monday, August 22, 1983)

2 Consult the Nationwide Programmatic Section 4(f) Evaluation for the generic (not prudent and feasible) reasons that might be addressed. (Federal Register, Vo 48. No. 163, dated Monday, August 22, 1983) The evaluation of alternatives for the subject project, however, must quantify those reasons as applicable and be supported by the circumstances of the project.

3 This criterion will require the advertisement and marketing of the bridge in accordance with FHWA requirements. Marketing will be addressed in programmatic Section 4(f) Evaluation and by appropriate provisions in the Memorandum of Agreement entered into between the State or local agency, FHWA, the SHPO, and the ACHP. Refer to Mr. Leathers’ July 22, 1987, memorandum on the applicable requirements for preservation and marketing. Copies of the advertisement and results of marketing efforts must be furnished to FHWA prior to replacement of the historic bridge.

4 When it has been determined by FHWA in consultation with the SHPO and ACHP that the rehabilitation work will result in “No Effect” or “No Adverse Effect on the historic integrity of the structure, the provisions of Section 4(f) Evaluation do not apply.
**Wailua Plantation Bridge**

Bridge ID Number: 007000560400573  
Owner: State of Hawai‘i

**Description of Resource**

The Wailua Plantation Bridge, also known as the “cane haul bridge,” is located makai of Kūhiō Highway near the mouth of the Wailua River. The bridge was constructed in 1921 for the Ahukini Terminal and Railroad Company to haul sugar and pineapples from the various mills and canneries on the island’s east side to the shipping terminal at Ahukini Landing. The railroad bridge was built makai of the 1919 bridge. After World War II, the railway right-of-way, including the bridge, was converted to a roadway for cane haul trucks. Sometime in the 1990s, the bridge was acquired by the State Department of Transportation for use as a third lane across the Wailua River. In 2003, the bridge was repaired and resurfaced with a new concrete deck and retrofitted with guardrails, but the basic structure of the 1921 bridge was not changed.

The Wailua River Plantation Bridge meets the National Register Criteria A and C. It is associated with the history of transportation and economic development in this part of Kaua‘i, and was an integral part of the sugar and pineapple economy. It is also a distinctive type of construction, being only one of two bridges on the island converted from a railroad bridge to a road bridge (the other one is the timber Omao Bridge, near Koloa Town).

The bridge retains integrity of location, with somewhat less integrity of materials and workmanship and design. The bridge retains enough original physical features to convey the feeling and association of its historic character and use as a railroad bridge.
Addition of a bike/pedestrian lane is proposed on the makai side of the bridge (right side of the photo).

Northbound Wailua River crossing: one lane on main Wailua Bridge, one lane on Wailua Plantation Bridge.

ALTERNATIVES CONSIDERED

No Action

The no action alternative was eliminated for reasons of safety. The existing cane haul bridge has a deck measuring 12 feet wide and cannot safely accommodate pedestrians and bicyclists in addition to vehicular traffic.
**Build on New Location without Using the Old Bridge**

There are two options besides using the historic bridge. One is to use the Wailua Bridge. This bridge has raised, 3-foot wide sidewalks on both sides that are inadequate for bicycling. Additionally, path users would have to cross one or more lanes of through traffic to reach the bridge and there is no safe crossing location.

The second option is to construct a new and separate bridge for the bike/pedestrian path. This option is discussed in the Environmental Assessment and remains a secondary design option. An independent bridge would be located on the makai side of the cane haul bridge for continuity of the pathway. The historic bridge itself would not be impacted directly; however, a new bridge would have similar impacts to an attached structure in terms of obscuring views of the historic bridge from the most common vantage points, such as Wailua Beach Park and Hikinaakalā Heiau.

**Rehabilitation without Affecting Historic Integrity**

Because the existing bridge is too narrow to fit a bike/pedestrian lane, it must be altered to expand the surface area of the deck. The proposed project calls for attachment of a cantilevered section that is compatible with the style and materials of the historic bridge.

**DETERMINATION AND APPROVAL**

Based on the environmental documentation and analysis, the results of public and agency consultation and coordination, the FHWA has determined that:

- The project meets the applicability criteria as set forth in the Nationwide Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges dated July 5, 1983;

- All of the alternatives set forth in the Findings section of the above Nationwide Section 4(f) Evaluation have been fully evaluated. Based on the Findings, it is determined there is no feasible and prudent alternatives to the use of the Historic Bridge; and

- The project complies with the Measures to Minimize Harm Section of the Nationwide Section 4(f) Evaluation; and agreement between FHWA, SHPO and ACHP has been reached.

Accordingly, the FHWA approves the proposed use of the historic bridge for construction under the above Nationwide Section 4(f) Evaluation issued on July 5, 1983.
HAWAII DIVISION
FEDERAL HIGHWAY ADMINISTRATION
PROGRAMMATIC SECTION 4(f) DETERMINATION AND APPROVAL
UNDER THE
NATIONWIDE PROGRAMMATIC SECTION 4(f) EVALUATION
AND APPROVAL FOR FHWA PROJECTS THAT NECESSITATE
THE USE OF HISTORIC BRIDGES
(JULY 5, 1983)

SECTION 4(f) USE OF WAILUA PLANTATION BRIDGE

Additional Information for “No” Response in Item 6B

In accordance with the Memorandum of Agreement regarding modifications to the Wailua Plantation Bridge to provide a separate crossing for bicyclists and pedestrians, the County of Kauai Department of Public Works has committed to photographic and written documentation of the bridge using the Historic American Building Survey (HABS)/Historic American Engineering Record (HAER) standards. This work will be conducted during the design phase of the project or prior to construction.

Note from the Advisory Council on Historic Preservation (ACHP)

By letter dated December 1, 2004, the Advisory ACHP informed the FHWA that its participation in resolving adverse effects would not be required.