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Kūhiō Highway Short-term Improvements

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Glossary of Acronyms and Hawaiian Terms^{*}

AASHTO	American Association of State Highway Transportation Officials
ADA	Americans with Disabilities Act
ADAAG	Americans with Disabilities Act Accessibility Guidelines
ahupua‘a	a land division usually extending from the uplands to the sea
DEA	Draft Environmental Assessment
DOH	Department of Health, State of Hawaii
DOT	Department of Transportation, State of Hawaii
EA	Environmental Assessment
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact
HRS	Hawai‘i Revised Statutes
heiau	Pre-Christian place of worship; shrine
kama‘āina	native born, one born in a place; acquainted, familiar
KIUC	Kaua‘i Island Utility Cooperative
kuleana	small parcel of land within an ahupua‘a
LCA	Land Commission Award. Awards issued by the Board of Commissioners to Quiet Land Titles between 1846 and 1855 to persons who filed claims to land between 1846 and 1848
makai	toward the ocean (seaward)
mauka	toward the mountains (landward)
MSL	mean sea level
NPDES	National Pollutant Discharge Elimination System
OEQC	Office of Environmental Quality Control
SMA	Special Management Area
SSV	Shoreline Setback Variance

^{*} English definitions of Hawaiian terms from *Hawaiian Dictionary*, Revised and Enlarged Edition (Pukui and Elbert, 1986) and *Dictionary of Hawaiian Legal Land-Terms* (Lucas, 1995)

1 INTRODUCTION

1.1 PROPOSING AGENCY AND ACTION

The State of Hawai‘i, Department of Transportation, Highways Division (HDOT) proposes to improve Kūhiō Highway on the island of Kaua‘i between the north end of Leho Drive and the vicinity south of Kuamo‘o Road. This section of Kūhiō Highway is approximately .34 mile in length and extends from Milepost 5.62 to Milepost 5.96. Figure 1 shows the project location.

The focal point of the project is to reconstruct the Wailua River cane haul bridge (also known as the plantation bridge). The existing concrete deck, which currently carries one lane of traffic, will be removed and replaced with a wider deck for two vehicular lanes and a cantilevered bike/pedestrian lane. Both vehicular travel lanes will be in the northbound direction. The new deck will be constructed using a prefabricated modular system. Existing piers will remain in place and unaltered, except for the addition of struts extending from the pile cap to the underside of the deck. To accommodate the longer and wider bridge, new piers and abutments will be constructed landward of the existing abutments, and roadway approaches will be modified on both sides of the crossing. Other improvements will include retaining walls, drainage inlets, guardrails, signs, striping, and landscaping. An existing roadway located south of the two bridges will be improved to facilitate access to the Wailua Marina.

HDOT is considering several traffic control alternatives that would be implemented while the cane haul bridge is closed for construction. One alternative is to make limited structural alterations to the Wailua River (highway) bridge, including partial removal of the sidewalk on the makai side of the bridge. This action would open enough space to temporarily restripe the highway bridge for three lanes of traffic and install a temporary guardrail. After the cane haul bridge is reopened, the sidewalk would be restored and highway bridge would be striped and signed to accommodate two travel lanes in the southbound direction.

HDOT is also considering traffic control alternatives that do not involve changes to the highway bridge, but require temporary changes in traffic patterns, including a detour route.

This project will integrate a County bike and pedestrian path from approximately Aloha Beach Resort, across the river—where the path will be attached to the reconstructed cane haul bridge—to Kuamo‘o Road.

A more detailed description of the project may be found in Chapter 3. The project description in this Draft Environmental Assessment (DEA) is based on information available through the preliminary design and engineering phase. Specific features and details of the project may change during the final design phase.

The HDOT will own and operate the roadway and bridge structure. The County of Kauaʻi, Department of Public Works (DPW) will own and operate the bike/pedestrian path, except for the portion attached to the cane haul bridge. The project will be funded, in part, by the U.S. Department of Transportation, Federal Highway Administration (FHWA).

1.2 DEFINING THE PROJECT AREA

The project area satisfies three general principles contained in the FHWA regulations (23 CFR 771.111(f) (GPO 2004)) on framing a transportation project.

- (1) Connect logical termini and be of sufficient length to address environmental matters on a broad scope

Discussion. The proposed action has logical termini. The project will improve Kūhiō Highway beginning at the north end of Leho Drive and terminating just south of Kuamoʻo Road. Leho Drive is the nearest major cross street on the south side of Wailua River, and Kuamoʻo Road is the nearest major cross street on the north side of the river. The length of the project area is sufficient to evaluate potential impacts on the natural, social, and cultural environment resulting from modifications to the river crossing.

- (2) Have independent utility or independent significance, i.e., be usable and be a responsible expenditure even if no additional transportation improvements in the area are made

Discussion. Improving Kūhiō Highway between the project termini will provide an independent and useful facility that serves local and regional transportation needs. This project is intended to operate in tandem with a separate project to widen Kūhiō Highway from Kuamoʻo Road to the southern terminus of the temporary bypass road. However, even if the highway widening project does not proceed as expected, upgrading traffic capacity across Wailua River will facilitate traffic flow through the narrow river corridor.

As an independent project, the Wailua Bridge short-term improvement project will benefit travel on Kuamoʻo Road (State Route 580), serving the Wailua Homesteads community, the upper portion of Wailua River State Park, and the new Coco Palms Resort. Among all

the mauka-makai feeder roads to Kūhiō Highway on the east side of Kauaʻi, Kuamoʻo Road carries the highest traffic volumes during peak periods (Wilson Okamoto, 2002). The intersection of Kūhiō Highway and Kuamoʻo Road is highly impacted because it is located at the southernmost end of the urbanized area. As vehicles funnel down from mauka residential areas, traffic counts increase as one travels south on Kūhiō Highway, like a river accumulating the flow of multiple tributaries. Traffic congestion will worsen when the Coco Palms Resort reopens with 196 condominium units and 48 hotel bungalows (Finnegan, 2006). With the permanent addition of a second southbound lane, the Kuamoʻo Road intersection will be able to operate more effectively.

- (3) Not restrict consideration of alternatives for other foreseeable transportation improvements

Discussion. The project area was sufficiently broad to consider a range of alternatives, from retrofitting either or both of the existing bridges to constructing a new bridge. The constraining factors were the layout of the existing structures and their physical tolerances. Transportation planners sought to work with the existing infrastructure to the extent possible, given a pressing need to address congestion. The alternatives considered focused on ways to minimize environmental effects and allow quick implementation.

This project was conceived as an interim solution from the outset. It does not preclude any long-term solution for the transportation issues in East Kauaʻi, such as those being studied in the separate Kapaʻa Relief Route project.

1.3 PURPOSE OF THE DRAFT ENVIRONMENTAL ASSESSMENT

This Draft Environmental Assessment (Draft EA) has been prepared to satisfy the requirements of Chapter 343, Hawaiʻi Revised Statutes; and Title 11, Chapter 200, Environmental Impact Statement Rules of the Hawaiʻi Administrative Rules.

The proposed action triggered the rules and regulations for environmental review for the following reasons:

- use of public funds and public lands
- potential use of land classified as Conservation District
- location within the Special Management Area
- use within the shoreline setback area

The EA also documents compliance with applicable federal laws and regulations due to the proposed use of federal funds administered by the Federal Highway Administration (FHWA). A Categorical Exclusion pursuant to the National Environmental Policy Act of 1969 (NEPA), as amended, is anticipated for this project.

Figure 1: Location Map

1.4 STEPS IN THE ENVIRONMENTAL REVIEW AND IMPLEMENTATION PROCESS

Once completed, the Draft EA is submitted to the State Office of Environmental Quality Control (OEQC) for processing. OEQC will notify the public when the Draft EA is available for review. The announcement is made in a bimonthly bulletin called the *OEQC Environmental Notice*, which is available in print and on line. Publication in the *Notice* initiates a 30-day comment period during which government agencies and interested members of the public can review and comment on the EA findings. After the review period has ended, the HDOT will review all comments and determine whether the EA warrants a Finding of No Significant Impact (FONSI).

Additional channels for public input will be available after the environmental assessment is completed. The project will need permits (see Section 1.5, below) that have their own procedural requirements for public involvement. Although the exact nature of the public participation program is unknown at this time, the public will be notified of opportunities to provide feedback through the design phase of the project.

1.5 PERMITS AND APPROVALS REQUIRED OR POTENTIALLY REQUIRED

Government permits required or potentially required to implement the proposed action are listed below:

Agency	Permit
U.S. Army Corps of Engineers	Department of Army Permit Section 10, Rivers and Harbors Act
Board of Land and Natural Resources, State Dept. of Land and Natural Resources	Conservation District Use Permit
State Department of Health	National Pollutant Discharge Elimination System (NPDES) Permit Section 402, Clean Water Act
State Department of Health	Construction Noise Permit/Variance
State Office of Planning	Coastal Zone Management Consistency Review
County of Kaua‘i Planning Department	Special Management Area Permit Shoreline Setback Variance

1.6 PROJECT SUMMARY

Project Name	Kūhiō Highway Short-term Improvements, Wailua River Bridge
Proposing Agency	State of Hawai‘i, Department of Transportation
Approving Agency	State of Hawai‘i, Department of Transportation
Anticipated Determination	Finding of No Significant Impact (FONSI)
Tax Map Keys	Island of Kaua‘i, 3-9-06: 12, 29 (portion); 4-1-04: 01 (por.), 20
Existing Uses of the Site	Project is located in an existing highway corridor measuring approximately 60 feet wide. On the north side of the Wailua River, a portion of the bike/pedestrian path will be located within Wailua Beach Park, adjacent to the existing south parking area.
Proposed Project	Improvements to Kūhiō Highway from the northern intersection with Leho Drive to Kuamo‘o Road. The Wailua cane haul bridge (also known as the plantation bridge) will be reconstructed by removing the existing deck and replacing it with a wider, 30-foot deck for two vehicular lanes and a pedestrian lane. To support the wider bridge, approaches will be modified and new abutments installed. An existing bike/pedestrian path that currently ends near Aloha Beach Resort will be extended to Wailua Beach Park, with the over-water section attached to the cane haul bridge. Ancillary improvements include retaining walls, drainage inlets, guardrails, signs, striping, and landscaping.
State Land Use	Land areas are in the Urban District. The bridge crosses Wailua River, which is in the Conservation District.
Kaua‘i General Plan	Except for the Wailua River crossing, the highway corridor passes through or adjacent to land designated for park use. On the north of the river, lands on the mauka side of the highway are designated for residential use (between the river and Kuamo‘o Road) and resort use (Coco Palms area).
Zoning	All land areas surrounding the project area are zoned “open.” Aloha Beach Resort and Coco Palms, located near the project area, are in resort zones “RR20.”
Special Management Area (SMA) Designation	The project area is wholly located within the SMA.

2. PURPOSE OF AND NEED FOR ACTION

2.1 CONTEXT OF THE PROJECT

Kūhiō Highway (Route 56) is part of the National Highway System and connects Līhu‘e and Kapa‘a, the two largest urban centers on the island of Kaua‘i. The highway provides the only interregional link for the north and east sides of the island. As the county seat, Līhu‘e is the center for all branches of government, with the island’s most advanced medical and educational institutions and the largest airport and harbor facilities. Kapa‘a, on the east side, contains sizeable residential communities, resort properties, and a large commercial area with a mix of shopping centers and a historic downtown district. Beyond Kapa‘a, lie a string of small towns and a major visitor destination at Princeville on the North Shore. Based on data from the 2000 U.S. Census and Kaua‘i General Plan, approximately 42.5% of the resident population and 49% of the visitor units are located north of the Wailua River.

2.2 PROJECT PURPOSE AND NEED

The highway improvement project addresses several needs:

- Existing capacity deficiencies
- Future travel demand
- Improved highway safety
- Improved safety for pedestrians, bicyclists, and others using non-motorized modes of transportation

Existing Capacity Deficiencies

In the project area, Kūhiō Highway consists of three travel lanes: two lanes northbound and one lane southbound. During the morning peak period, contraflow operations are needed to alleviate the heavy travel demand in the southbound direction from Kapa‘a to Līhu‘e. After the contraflow lane is removed at approximately 10:30 am on weekday mornings, capacity on the single through lane is insufficient to accommodate existing traffic volumes. Congestion through the river corridor produces back-ups that impede the function and performance of intersections along the highway. Poor traffic conditions are worsened by traffic accidents, vehicular breakdowns, and roadway and utility repair work.

Construction of a fourth travel lane will provide for two permanent lanes in the southbound direction, in addition to the two existing northbound lanes. After the project is completed, contraflow operations will continue south of Wailua River, but will no longer be needed at the Wailua River crossing itself.

Future Travel Demand

Kaua‘i is experiencing a period of economic prosperity that has supported new construction and job creation, including the anticipated reopening of Coco Palms Resort, located immediately north of the project area. Other development proposals remain in the pipeline. With Kūhiō Highway being the only regional highway in East Kaua‘i, its capacity is insufficient to accommodate existing traffic volumes, as well as anticipated increases in traffic volumes that are consistent with growth in population, employment, and visitors. Without capacity enhancements, traffic conditions will deteriorate further, with increased travel delays, driver frustration, excess fuel consumption, and air pollutant emissions.

This project will extend the useful life of existing highway facilities while planning and environmental analyses are completed for a long-term solution for East Kaua‘i’s traffic.

Improved Highway Safety

Highway safety across Wailua River will be improved in two ways. First, the Wailua River highway bridge will be converted from an undivided two-way bridge to a two-lane bridge for southbound travel only, thereby eliminating the possibility of head-on collisions. Second, the traffic pattern will be rationalized when both northbound lanes follow the same alignment over the cane haul bridge, rather than being split between the Wailua River highway bridge and the cane haul bridge. This unconventional traffic pattern occasionally causes motorist confusion, especially for visitors unfamiliar with the area.



Unconventional roadway pattern can lead to motorist uncertainty

Improved Safety for Pedestrians, Bicyclists, and Others Using Non-motorized Modes of Transportation

At present, pedestrians, joggers, and bicyclists in the project area use shoulders or the sides of roads, or share sidewalks where available. A continuous path that separates these users from vehicles will enhance safety and offer a comfortable route for those who wish to use non-motorized modes of travel.



To cross Wailua River, pedestrians must cross the approach to the cane haul bridge in order to reach sidewalks located on the highway bridge

3. PROJECT ALTERNATIVES

3.1 PROJECT BACKGROUND

The proposal to widen Kūhiō Highway is included in the *Kaua‘i Long-Range Land Transportation Plan (LRLTP)* (State of Hawai‘i, Department of Transportation, 1997). The implementation portion of this plan recommends that Kūhiō Highway be widened from Kapule Highway to Ma‘īlihuna Road in the first phase (1996-2000), with construction of a bypass recommended for Phases 2 (2001-2005) and 3 (2006-2020). As explained in the LRLTP, “The widening of Kūhiō Highway is proposed first because the traffic related to the hotels and commercial properties along this section of Kūhiō Highway is expected to remain even if the bypass highway were constructed.”

In 2001, the HDOT resumed planning for a potential bypass highway¹ between Hanamā‘ulu and Kapa‘a. This project, known as the Kapa‘a Relief Route, addresses long-term transportation needs in East Kaua‘i. Soon after the project began, tourism on Kaua‘i experienced a setback due to the 9/11 and SARS events, which slowed an economy recovering from the aftermath of Hurricane ‘Iniki. By 2004, however, the pace of economic growth had accelerated and, by 2005, Kaua‘i’s annual visitor count exceeded 1 million and visitor spending topped \$1.1 billion (Gross 2005; Curtis 2006). Jobs grew by 4.2% and the unemployment rate dropped to record low levels: 2.2 % in February 2006 compared to a national rate of 4.8% (Gunter 2006). The surging economy has also led to an increased number of vehicles on the island’s roadways. The Kapa‘a Relief Route project, already in progress, is tied to an extended schedule of detailed technical studies and agency coordination, and is not able to address the acute increase in traffic congestion.

Therefore, in July 2005, the HDOT, FHWA, and County of Kaua‘i, convened a workshop to examine short-term solutions for traffic relief. The concept of a fourth lane across Wailua River was endorsed by all parties as a viable interim solution. Alternatives to implement the lane addition were considered in follow-up planning activities and preliminary design, as discussed below. Load tests, conducted in July 2006, confirmed that the existing pier system of the cane haul bridge road would be able to bear the additional load of a wider bridge and the weight of expected traffic.

¹ The first round of planning for a possible bypass highway began in 1992. Although planning had proceeded through three public meetings, the project was tabled in 1996 when it became evident that full compliance with federal and State environmental laws would require more resources than had been allocated.

3.2 TECHNICAL DESCRIPTION OF THE PREFERRED ALTERNATIVE

Replace Deck of the Cane Haul Bridge (Previously referred to as Alternative 1)

This project will make improvements to a section of Kūhiō Highway measuring approximately one-third mile from the north end of Leho Drive, across Wailua River to the vicinity south of Kuamo‘o Road. The cane haul bridge (also known as the plantation bridge) will be reconstructed. The existing deck, 14 feet wide, provides one northbound travel lane (see Figure 2). It will be replaced with a wider deck capable of carrying two northbound vehicular lanes (see Figures 3 and 4). The new upper structure will be constructed using a modular system which can be constructed efficiently. Attached to the deck will be a cantilevered walkway/bikeway.

Vehicular travel lanes will measure 11 feet wide. Shoulders on the bridge will be 2 feet wide on the left side and 6 feet wide on the right side. Shoulders on the approaches will be 8 feet wide on either side. The bike and pedestrian path will be 10 feet wide on land; 8 feet wide crossing the river, and will accommodate two-way travel.

The new deck will be constructed using a prefabricated panel system made of galvanized steel. In order to transition to the wider, prefabricated bridge, new concrete bridge sections will be built: a 43-foot section on the south end and a 33-foot section on the north end. Additionally, new piers and abutments will be constructed landward of the existing abutments, and roadway approaches will be modified on both sides of the crossing.

Upon completion, the deck of the cane haul bridge will be approximately two feet higher than it is currently, but this difference will not be noticeable to motorists. The modular system, selected for its economical cost and relatively ease of construction, involves standard panels that are 7.5 feet high. When attached to the deck, approximately 4.5 feet will be above the deck, and 3 feet will be at deck level and below. The new side panels will be slightly higher than the existing railing system, but motorists will be able to see above them and/or through the open grid of metalwork.

Underneath the bridge, existing piers will remain in place and unaltered, except for the addition of struts extending from the pile cap to the underside of the deck. No underwater construction work will be involved.

Other improvements will include retaining walls, drainage inlets, guardrails, signage, striping, and landscaping.

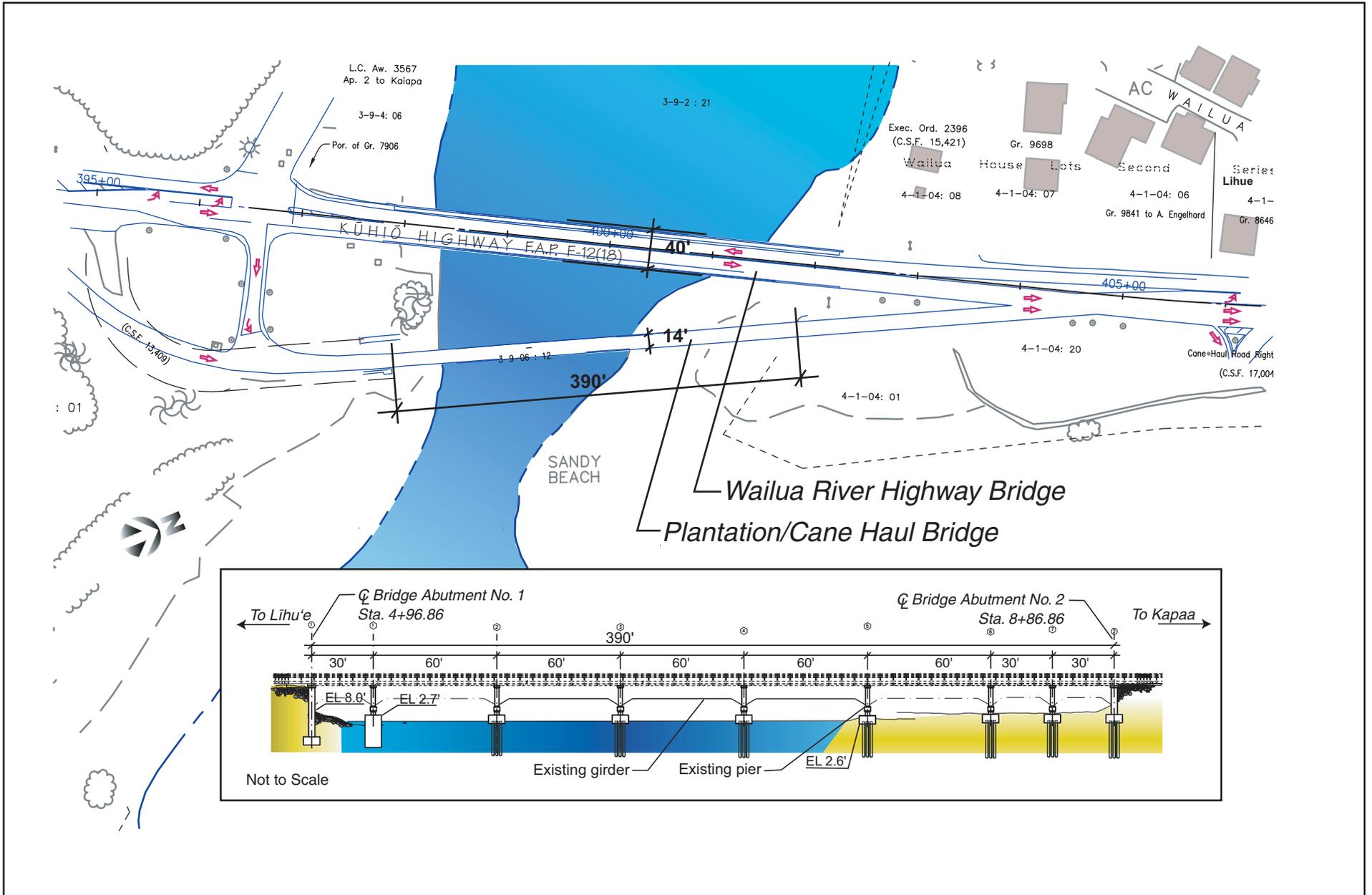


Figure 2
Existing Conditions
Wailua River and Plantation/Cane Haul Bridge
Wailua River Bridge Improvements

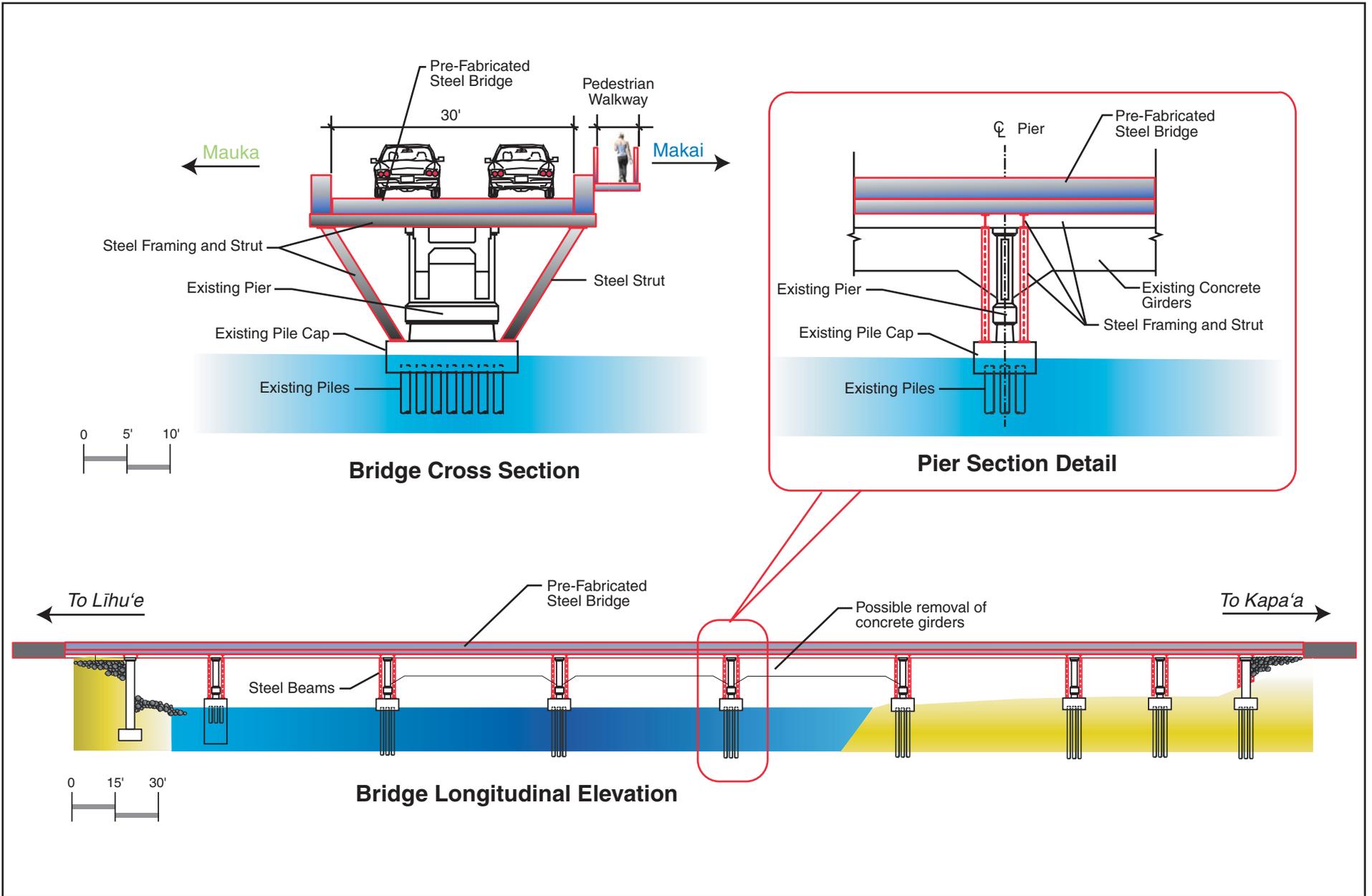
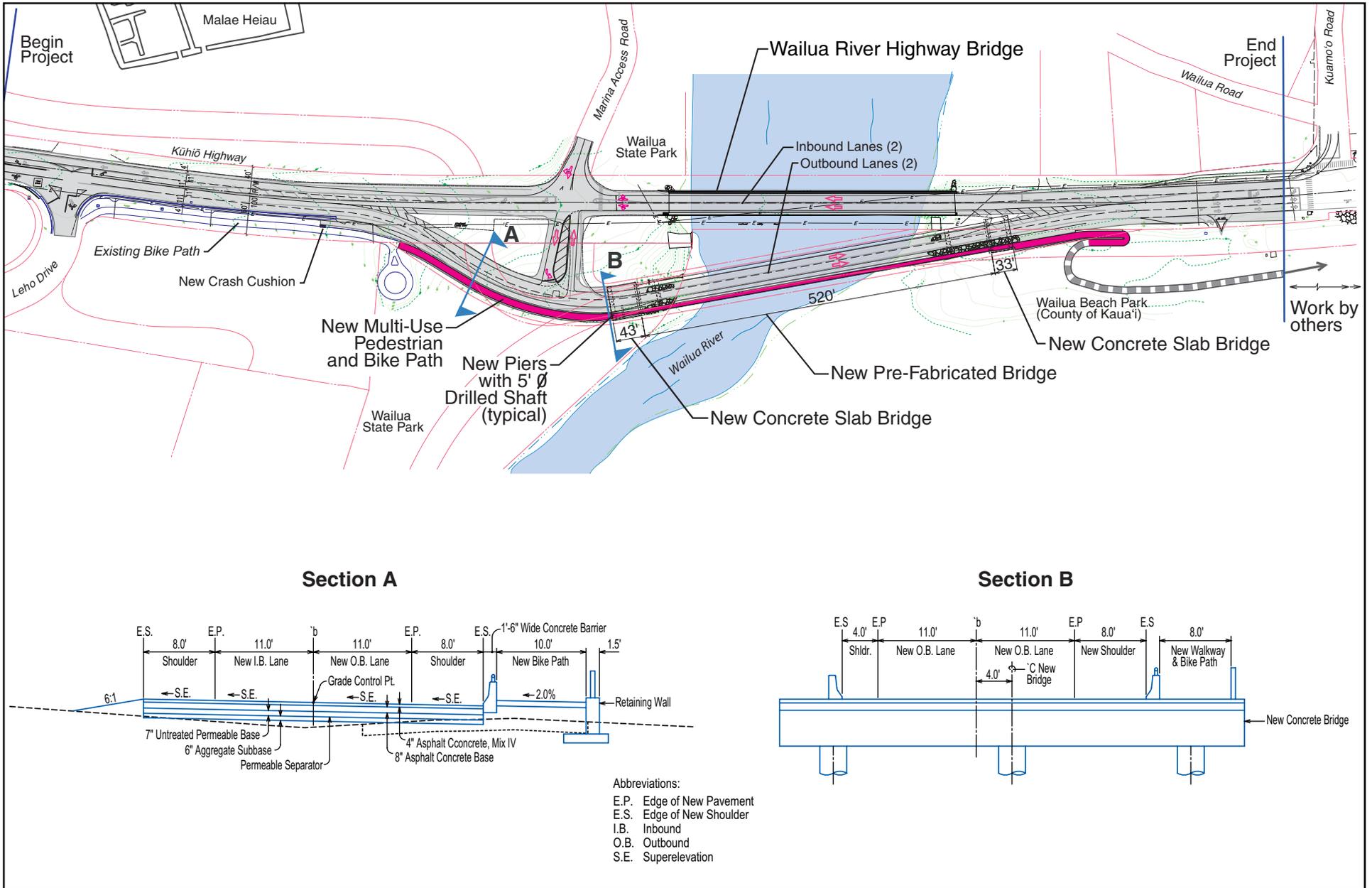


Figure 3
Preferred Alternative
Pre-Fabricated Bridge over Existing Cane Haul Bridge Piers
Wailua River Bridge Improvements



3-5

Figure 4
Site Plan
Wailua River Bridge Improvements

Wailua River Highway Bridge

There will be no permanent structural alterations to the Wailua River highway bridge. However, as a potential traffic control measure, HDOT is considering partial removal of the sidewalk on the makai side of the highway bridge. The intent is to widen the roadway so that it can be re-striped for three travel lanes plus the installation of a temporary guardrail. Pedestrians will continue to use the sidewalk on the mauka side of the highway bridge. This arrangement would remain in place while the cane haul bridge is closed for construction. After the cane haul bridge is reopened, the makai side walk would be restored and the temporary guardrail removed. In the long term, the highway bridge will be converted to two lanes of travel in the southbound direction with the appropriate signage and striping.

Connector Road between the Two Bridges

An existing road located south of the two bridges will be improved to facilitate access to the Wailua Marina area. Southbound vehicles will be able to turn right into the marina access road and turn right out of the access road. Northbound vehicles will need to use the 200-foot connector road, which is long enough to provide storage for tour buses and vehicles waiting to cross the southbound lanes of Kūhiō Highway. Drivers exiting the marina access road who wish to go northbound will need to cross two lanes of southbound traffic and use the connector road to reach the northbound lanes of Kūhiō Highway. This intersection will remain unsignalized. The connector road will serve as a refuge lane for vehicles waiting to turn left onto Kūhiō Highway. This traffic pattern is currently in use when the southbound contraflow lane is operational.

Bike/Pedestrian Path

This project will integrate an 8- to 10-foot wide County bike and pedestrian path from approximately Aloha Beach Resort, across the river—where the path will be attached to the reconstructed cane haul bridge—to Kuamo‘o Road. At the north end of the cane haul bridge, the bike/pedestrian path will require a ramp to meet slope guidelines established under the Americans with Disabilities Act (ADA). Under the scope of this project, the bike/pedestrian path project ends where the ramp reaches ground level.

The County of Kauai has a separate project to continue the bike/pedestrian path from the foot of the ramp to Lihi Park in Kapa‘a.

Right-of-Way

The cane haul bridge has been used by the HDOT since the 1990s, when it became part of Kūhiō Highway and was opened to the motoring public. Improvements to the cane haul bridge were made initially through Project 56A-01-91 and, more recently, through Project

STP 056-1(43) to refurbish the deck and install guardrails. Research-to-date indicates that use of the cane haul bridge was granted through a right-of-entry. The HDOT is in the process of finalizing an Executive Order to withdraw lands in the highway corridor from the Department of Land and Natural Resources and convey the right-of-way to HDOT.

The improvements proposed in this project are within the 60-foot limits of the cane haul bridge and its approaches. The bike/pedestrian path on the south side of Wailua River is located within the highway's limits². On the north side of the river, the bike/pedestrian path is located in Wailua Beach Park. The County of Kaua'i, Division of Parks and Recreation, provided written consent to using park land for the path during Section 4(f) consultations.

Construction Parcels

Construction parcels (sometimes called construction easements) are areas needed for various construction-related purposes, such as construction management and staging, storage of construction materials, equipment mobilization, and adequate space for construction to take place in a safe manner. Figure 5 shows the anticipated construction parcels. The main staging area will be located in an existing paved area near the Wailua Marina; however, the precise location is still to be determined in consultation with the Department of Land and Natural Resources. Two parcels located between the existing bridges on the south side of Wailua River will also be used during construction. These vacant parcels will allow convenient access to the construction site and thereby enable more efficient staging.

A construction parcel extends 20 to 60 feet outward from the makai side of the cane haul bridge to facilitate access to the structural members. Construction work will be performed primarily from the deck above or from the banks of the river. This project does not involve construction work under water and no mechanical equipment will be placed in the river itself. However, construction barges may be deployed to access some parts of the bridge and/or to collect debris when the existing deck is removed.

Additional, space will be required on the north side of the river. Use of portions of Wailua Beach Park will be unavoidable since it abuts the bridge and highway. For safety reasons, public recreational use will be off limits in an active construction zone.

² The County of Kauai is in the process of acquiring a permanent easement from the Department of Land and Natural Resources, Division of State Parks for a cul-de-sac that was constructed for pedestrian and bicyclist use. This acquisition is technically part of the project that constructed the bike/pedestrian path in Lydgate Park, and is separate from the improvements proposed in the subject project.

On the mauka side of Kūhiō Highway, between Wailua River and Kuamo‘o Road, a construction easement is needed to construct a retaining wall at the edge of the highway. The wall itself will be sited within the highway right-of-way, but access is needed to construct the wall. Four parcels adjacent to Kūhiō Highway will be affected:

TMK: 4-1-04: 05	174 Wailua Road
TMK: 4-1-04: 06	180 Wailua Road
TMK: 4-1-04: 07	166 Wailua Road

All construction parcels involve temporary use. The HDOT Right-of-way Branch is acquiring the construction easements according to customary departmental procedures.

Construction material and equipment will be removed after the project is completed and properties restored to their former condition.

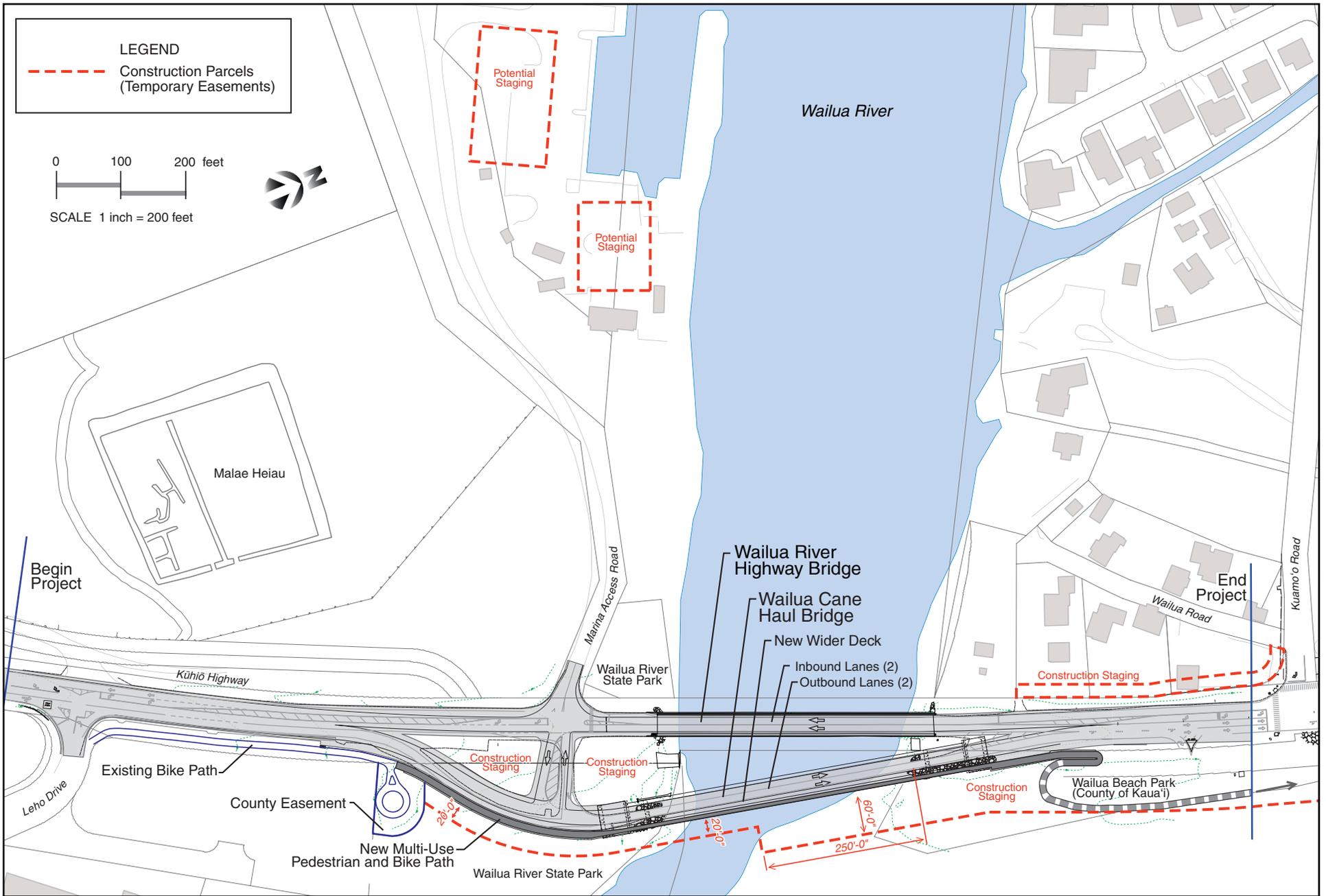


Figure 5
Construction Parcels
Wailua River Bridge Improvements

3.3 ALTERNATIVES CONSIDERED, BUT NOT SELECTED

No Build Alternative. The no build alternative consists of the existing highway infrastructure and improvements that are “in the pipeline” and expected to be implemented. The only such improvement in the vicinity of Wailua River is the widening of Kūhiō Highway from Kuamo‘o Road to the southern terminus of the temporary bypass road. This project is being coordinated with transportation improvements required by permit conditions placed on the Coco Palms redevelopment project. The Kūhiō Highway widening project is currently in the preliminary design phase with completion targeted for summer 2008. It will increase traffic capacity by adding a second southbound through lane. However, without expanding highway capacity across Wailua River, queues will continue to limit traffic flow.

Alternative 2: Construct a new bridge between the two existing bridges. Alternative 2 proposed the construction of a new, pre-fabricated steel bridge with pre-cast piles or drilled shaft piers between the Wailua River highway bridge and the cane haul bridge (see Figure 6). The new bridge would carry two lanes of traffic, northbound, and the cane haul bridge then would be used exclusively for the bike/pedestrian path. Alternative 2 was not selected because it requires construction work within the river and, therefore, has the highest potential for adverse environmental effects. Accordingly, this alternative also has the greatest environmental permitting requirements, which would lengthen the time to completion. The preliminary cost of a new bridge was estimated to be 40-60% higher than the cost of retrofitting the existing cane haul bridge.

Both of the new-bridge alternatives (Alternatives 2 and 3) offered an advantage in traffic flow during construction. The cane haul bridge, which provides a third lane of traffic across the river, would continue to operate while work is started on the new structure. Nevertheless, at some point, the third lane would have to be closed under all alternatives since any work on the approaches to the new bridge would also halt access to the cane haul bridge.

Alternative 3: Construct a new, single-span bridge between the two existing bridges. Like Alternative 2, Alternative 3 proposed the construction of a new, two-lane pre-fabricated steel bridge, but using a single-span design to eliminate the need for piers in the water (see Figure 7). The cane haul bridge would then be used for the bike/pedestrian path.

During the scoping process, the Kaua‘i Planning Department and State Historic Preservation Division commented that a single-span bridge is advantageous because it would not trap debris, particularly during flood conditions. However, because the existing bridges would remain in operation under Alternative 3, there would be no difference in the level of debris entrapment between the preferred alternative and Alternative 3.

This alternative was not selected because it was highest in cost at more than twice the cost of the preferred alternative and required a longer construction period. Another serious concern

was the height of the trusses required for the relatively long span across the river, which would create greater adverse visual impacts relative to the other alternatives considered.

3.4 CONSTRUCTION COST AND SCHEDULING

The project has a \$12 million construction allocation in the State Transportation Improvement Program (STIP) for FY 2007-08.

The targeted schedule to complete the project is as follows:

Final Design	March 2007
Bid and Procurement	August 2007
Mobilization and Construction	2008

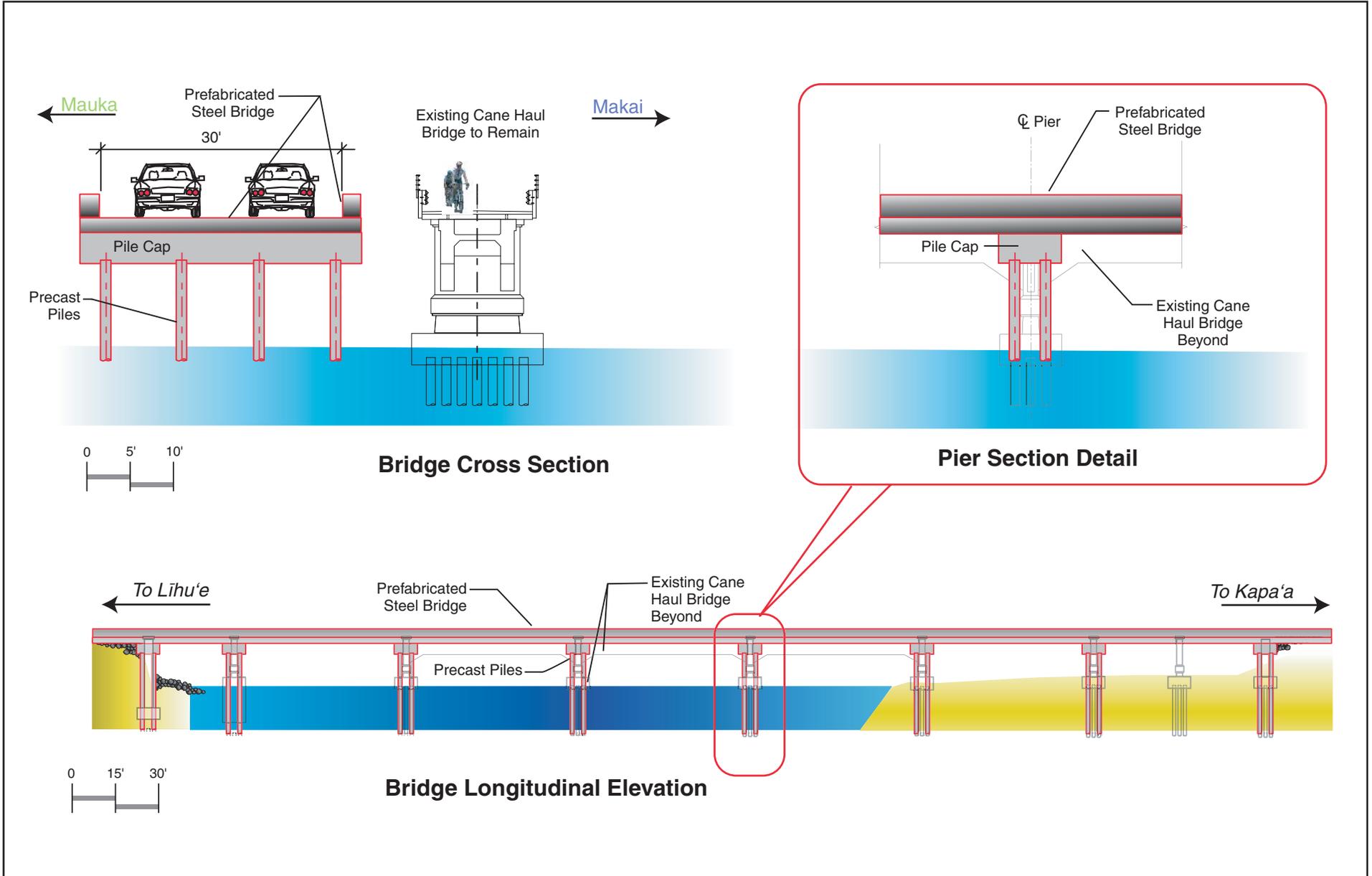


Figure 6
Alternative 2
Independent Pre-Fabricated Steel Bridge
with Pre-Cast Piles or Drilled Shaft Piers
Wailua River Bridge Improvements

3-13

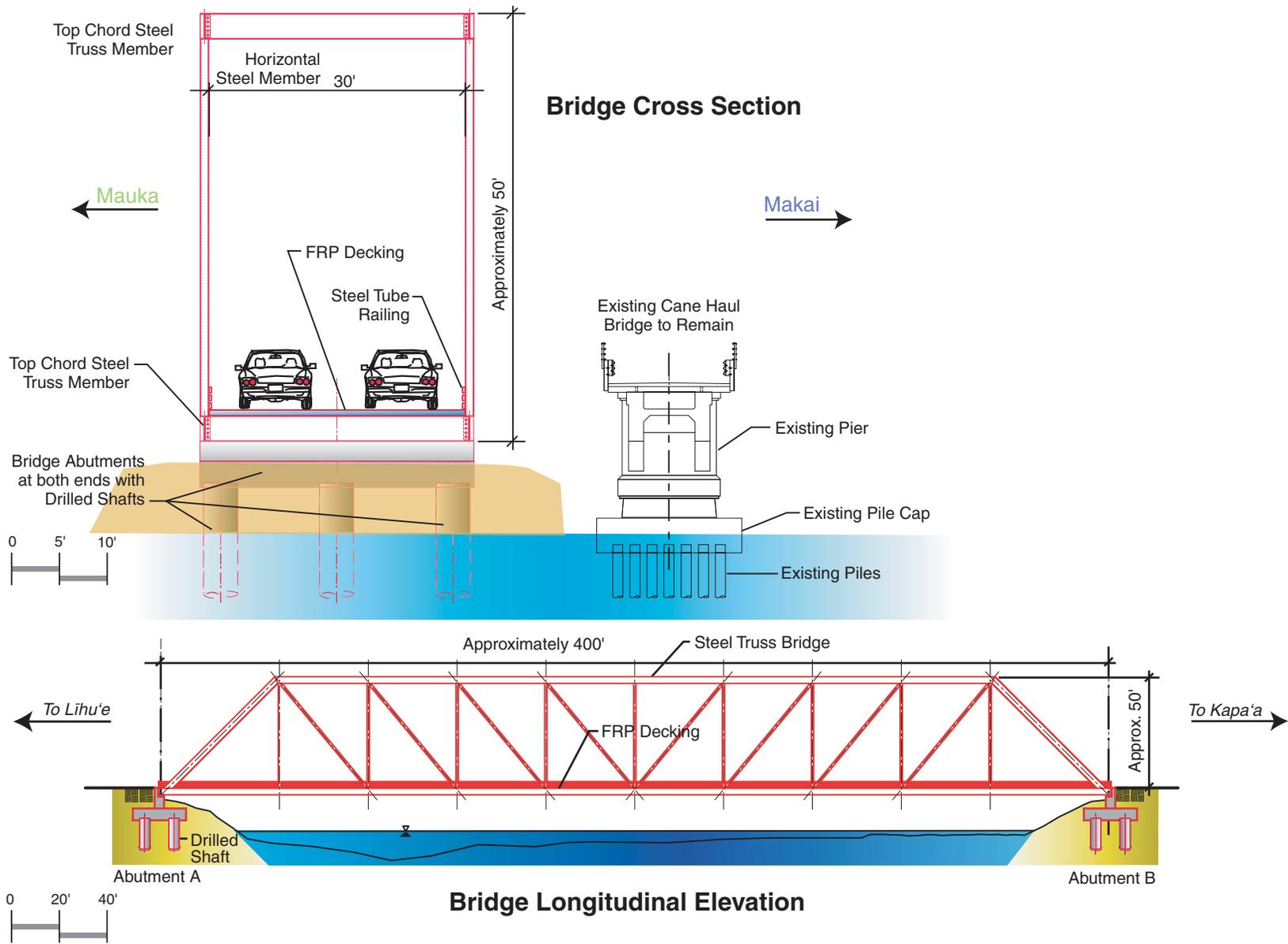


Figure 7
Alternative 3
Independent Pre-Fabricated Steel Truss Bridge, Single Span
Wailua River Bridge Improvements

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4 AFFECTED ENVIRONMENT, IMPACTS, AND MITIGATION

4.1 PHYSICAL ENVIRONMENT

4.1.1 Geology and Topography

The island of Kauaʻi is composed of a single basalt shield volcano built by the extrusion of lava of the Waimea Canyon Volcanic Series during the late Pleistocene Era (more than two million years ago). Following the cessation of this main shield building phase, there was renewed volcanic activity with the extrusion of basaltic lava of the post-erosional Kōloa Volcanic Series. Therefore, the majority of the Kauaʻi is covered by lava of the Waimea Canyon Volcanic Series, but rocks of the Kōloa Volcanic Series cover most of the eastern half of the island. These rocks generally are characterized as thick flows of dense basalt extruded from groups of vents aligned in north-south trends in various locales.

The weathering process has formed a mantle of residual soils that grade to saprolite with depth. In general, saprolite is composed of mainly silty materials and is typical of the tropical weathering of volcanic rocks. The saprolite grades to basaltic rock formation with increasing depth.

Along streams, drainage ways, and low-lying areas, erosion of the upper Kōloa and Waimea Canyon Volcanic Series has deposited alluvial sediments. These sediments generally are unconsolidated to moderately consolidated, non-calcareous soil deposits.

Based on geologic references, the project area consists of alluvial soils, weathered volcanic rock, with some beach deposits. The terrain is relatively level with some low-lying areas. Ground surface elevations ranging from sea level to approximately +50 Mean Sea Level (MSL).

Potential Impacts and Mitigation Measures

The project will not require major cuts or changes in land form since modifications to the roadway approaches will be kept to a minimum. However, because a wider deck will be placed on the existing pier system, new concrete bridge sections and abutments are needed to anchor the larger bridge and make the transition to grade. These new sections will require new retaining walls that reinforce the existing retaining structures on the north and south banks. The design concept calls for the existing retaining wall to remain as is, and for a second or outer wall to be constructed. Earthen material will be used to fill the gap between the two walls. By leaving the existing retaining walls intact, the integrity of the cane haul bridge will be maintained and it will be usable for as long as possible into the construction period.

Improvements to the cane haul bridge and its approaches will involve some land disturbance that may result in waterborne and airborne soil erosion. However, the erosion potential is considered relatively low given the small area of disturbance. To minimize the potential for construction-related erosion impacts, various best management practices will be developed as part of the project's engineering and design, including:

- Use of temporary berms and cut-off ditches
- Use of temporary silt fencing and screens
- Regular watering of graded areas to reduce the amount of fugitive dust in the air
- Sodding or planting of slopes immediately after grading work has been completed
- Restrictions on the stockpiling of construction material and proper disposal of construction debris.

All erosion control measures will comply with the County's erosion and sedimentation control regulations. Other mitigation measures would be specified as part of applicable National Pollutant Discharge Elimination System (NPDES) permits obtained from the State Department of Health.

4.1.2 Climate and Air Quality

Kaua'i, like the rest of the state, generally meets the standards set by the Clean Air Act (i.e., is within an "attainment area"). The State of Hawai'i, Department of Health operates a network of air quality monitoring stations at various locations around the state. Stations typically do not monitor the full complement of air quality parameters. The monitoring station closest to the project area is located in Līhu'e. The only pollutant monitored at this station is particulate matter <10 microns (PM₁₀). The readings at this location indicate that air quality is relatively good.

Potential Impacts and Mitigation Measures

Short-term, Construction-related Emissions

Short-term impacts on air quality may result from project construction. However, such impacts are not expected to be significant because of their limited duration and the ability of best management practices to minimize emissions. Two common types of pollutants are (1) fugitive dust emissions from vehicular movement and soil excavation, and (2) exhaust emissions from on-site construction equipment.

Fugitive Dust. A dust control plan that incorporates best management practices will be implemented to minimize air quality impacts during the project construction phase. Among the measures available to control airborne emissions are the following:

- Erect dust screen barriers during construction
- Cover stockpiles with appropriate material; dispose of debris properly
- Water active work areas, as necessary, to control dust
- Keep clean adjacent paved roads
- Cover open-bodied trucks whenever hauling material that can be blown away
- Limit the amount of disturbed area at any given time and/or stabilize inactive areas that have been exposed

Exhaust Emissions. Emissions from the engine exhausts of on-site mobile and stationary construction equipment would also have some impact on air quality. Emission impacts can be minimized by requiring contractors to use vehicles that are properly maintained. Nitrogen oxide emissions from diesel engines can be relatively high compared to emissions from gasoline-powered equipment; however, the standard for nitrogen oxide is set on an annual basis and is unlikely to be violated by emissions from short-term construction equipment. Carbon monoxide emissions from diesel engines are low and should be relatively insignificant compared to vehicular emissions on nearby roadways.

Construction activities will employ fugitive dust emission control measures in compliance with provisions of the State Department of Health Rules and Regulations (Chapter 43, Section 10), and Hawai‘i Administrative Rules (HAR), Chapter 11-60.1, “Air Pollution Control,” Section 11-60.1-33 on Fugitive Dust.

Long-term Impacts on Air Quality

The purpose of this project is to relieve traffic congestion crossing Wailua River by constructing one additional vehicular travel lane and a pedestrian/bike lane. This project will not result in any meaningful changes in traffic volumes, vehicle mix, location of the existing facility, or any other factor that would cause an increase in emissions impacts relative to the no-build alternative. As such, this project will generate minimal air quality impacts for Clean Air Act criteria pollutants and has not been linked with any special mobile source air toxics (MSAT) concerns.

4.1.3 Coastal Resources and Processes

The project site is located on the windward shore of Kaua‘i, directly exposed to tradewinds and tradewind-generated waves. Immediately north of Wailua River is a small embayment, in which Wailua Beach is situated. Tradewind waves break directly off the beach, which is relatively wide and flat with little visible reef offshore.

The information in this section is based on a report by Sea Engineering, Inc. entitled *Coastal Evaluation for the Lydgate Park-Kapaa Bike Path Master Plan and Environmental Assessment* prepared in April 2004.

Aloha Beach Resort to Wailua River

The edge bordering the river on the south runs approximately normal to the road, which is at a significantly higher elevation than the beach. Approaching the river, the strip of land along the road becomes increasingly narrow and a revetment has been constructed to stabilize the bank (Photo 1). The slope adjacent to the revetment on the south is stabilized by vegetation, including trees and naupaka. The bridge itself shows numerous signs of repair, including visible areas of restoration and gunite patches (Photo 2).

Although the highway and the bike/pedestrian path are on the landward side of the trees and far from the coastline, structural supports for the improved bridge will be built into the revetment above elevation 10 MSL. The *Kaua‘i Island Hurricane Vulnerability Study* (Sea Engineering, Inc., 2000) showed typical inundation elevations in this area for a hurricane to exceed 10 feet.



Photo 1. Revetment on south side of Wailua River (cane haul) Bridge



Photo 2. Wailua River (cane haul) Bridge

Wailua River to Kuamo‘o Road

The northern side of the cane haul bridge is supported in a manner similar to the southern side and transitions into a vegetation-stabilized bank (Photo 3). The road elevation decreases and the slope from the road becomes gentler. The beach here is quite wide and the back beach area is well vegetated with beach morning glory and naupaka. A low uncemented rock wall stabilizes the shoulder of the road (Photo 4), which is located 125 to 225 feet inland of the shoreline. Boulders are also used as barriers to keep vehicles from driving onto the beach. The wall transitions into an approximately 3.5-foot high vertical Cement Rubble Masonry (CRM) wall that runs along the shoulder of the road (Photo 5).

Wailua Beach is about 2,000 feet in length, measured from the Wailua River to the Sea Shell Restaurant and appears to be stable. The limits of this project end just south of Kuamo‘o Road which is approximately 600 feet from Wailua River. The beach (Photo 6) is typically more than 100 feet wide and has a history of accretion.



Photo 3. Revetment on north side of Wailua River



Photo 4. Uncemented rock wall and beach vegetation along Kūhiō Highway



Photo 5. Transition from uncemented wall to CRM wall



Photo 6. Wailua Beach

Potential Impacts and Mitigation Measures

All roadway and bridge improvements will occur within the existing highway corridor and will not encroach onto coastal lands.

On the north side of the river, the bike/pedestrian path will ramp down from the bridge. To meet the accessibility guidelines established under the Americans with Disabilities Act, the ramp requires a switchback design. The resulting structure may encroach into the 40-foot shoreline setback area and require a shoreline setback variance. To mitigate potential adverse impacts, the bike path ramp will be located as close as possible to the highway. The path will not be designed nor is it intended to constitute shoreline hardening.

4.1.4 Hydrology and Water Quality

Surface Water

The project area is located in the Wailua-‘Ōpaeka‘a watershed which is drained primarily by the Wailua River and also by ‘Ōpaeka‘a Stream and a drainage canal behind the Coco Palms Hotel. Both Wailua River and ‘Ōpaeka‘a Stream are navigable for considerable distances inland. Within the lower reaches of these waterways, freshwater moves toward the shoreline in a layer overlying saltwater at depth. Although the Wailua River discharges into the ocean, the wave-built beach berm at the shoreline creates some restriction of the river’s discharge. As a result, the amplitude and phase of the tide are considerably reduced and lagged upstream.

Water quality in the Wailua River is generally better than in the tributaries and ditches because of more continuous flow through. Readings in the level of organic nutrients (nitrogen and phosphorous) and turbidity tend to increase moving inland.

Clean Water Act, Section 303(d)

The federal Clean Water Act requires states to collect and review surface water quality data and related information, and to prepare and submit to the U.S. Environmental Protection Agency biennial lists of waterbodies that are impaired (i.e., not expected to meet state water quality standards). The current list is dated December 2002. For all impaired waters, the State Department of Health (DOH) is required to compute the Total Maximum Daily Load (TMDL), which is the maximum amount of a pollutant (from point and nonpoint sources) that a waterbody can receive and still meet water quality standards, and to establish an allocation of that amount to the pollutant’s sources. Because of there is a large demand for TMDL calculations, the State DOH has assigned a priority of low, medium, or high to each of the impaired waters listed based on the severity of pollution

and how the water is used. There are two listings in the project area. Wailua River is impaired because of enterococci and has been assigned a medium priority.

Ground Water

In the Wailua-‘Ōpaeka‘a watershed, groundwater is pumped from wells within and above the Wailua House Lots on the east side of Nounou Ridge, tapping into the Waimea volcanics. Additional wells are located in the north end of the Kapa‘a watershed, where groundwater is drawn from the Kōloa volcanics. Water levels in the Kōloa volcanics range from about 7 feet in near-shore wells to about 13 feet further inland.

Potential Impacts and Mitigation Measures

Water Quality

A water quality study was conducted by Tom Nance Water Resource Engineering and Marine Research Consultants in 2003 as part of background environmental studies for the proposed Kapa‘a Relief Route. The study found that water quality measures in the stream and canal systems in the Wailua-‘Ōpaeka‘a watershed is generally within the limits set by the State Department of Health. The results were attributed to the relatively short residence time of water and continuous flow to the ocean which prevents biotic cycling from dominating water composition. The study concluded that if materials are added to the waterways as a result of activities associated with construction of new roadway segments (for example, through erosion), these materials would not stay within the streams for a period of time sufficient to promote a permanent change to the stream system. There is no reason to expect the situation to be any different for the subject project, which has a more limited scope.

The Nance/Marine Research study also investigated potential contamination of surface water quality by petroleum products that may be contained in roadway runoff. Based on sample results, the study concluded that there are no consistent, measurable inputs of petroleum products to waterways adjacent to Kūhiō Highway.

Notwithstanding the natural flushing action present in Wailua River, waterborne erosion will be mitigated with appropriate design and best management practices (BMPs) in place during construction. Because new disturbance will exceed one acre, a National Pollution Discharge Elimination System or NPDES permit (NOI Form C) will be obtained under Clean Water Act, Section 402. BMPs will be specified in detailed as part of the NPDES permit application

To mitigate potential long-term impacts on water quality, storm water drainage improvements will be constructed on the south side of Wailua River, including grassed swale, drain intakes, drain manholes, and drain lines. These improvements will be

connected to an existing concrete drainage ditch that discharges into Wailua River. All drainage improvements are being designed in compliance with the HDOT's Storm Water Management Program Plan (SWMPP) and the Clean Water Act.

This project will not involve the discharge of fill material in Wailua River, therefore neither a Clean Water Act, Section 404 permit nor a Clean Water Act, Section 401 permit (State Water Quality Certification) are required.

Waters of the U.S. and Navigation

The U.S. Army Corps of Engineers has jurisdiction over Wailua River as waters of the U.S. Because the cane haul bridge affects navigable waters (33 CFR 322.3), the proposed improvements will require a Rivers and Harbor Act, Section 10 permit. The permit will be obtained under Nationwide #3 (see Army Corps of Engineers letter dated February 16, 2006, Chapter 9).

The U.S. Coast Guard, 14th District has jurisdiction over waterway management on Wailua River. However, after evaluating potential project impacts on navigation, the Coast Guard determined that the cane haul bridge is not subject to federal permitting by the USCG (letter dated November 6, 2006).

4.1.5 Natural Hazards

Flooding

Wailua River is a floodway, as designated on the Flood Insurance Rate Map (FIRM) (see Figure 8). A hydrology and hydraulics report was prepared for the Kapa'a Relief Route project in compliance with Title 23 of the Code of Federal Regulations, Part 650—Bridges Structures and Hydraulics, Subpart A—Location and Hydraulic Design of Encroachments on Flood Plains (23 CFR 650A) (Park Engineering 2006). Computer calculations indicated that the existing Wailua River highway bridge and the cane haul bridge will not be overtopped during the 100-year, 200-year, and 500-year floods. The limits of flooding and overtopping are consistent with the Federal Emergency Management Agency's FIRM.

Tsunami

The Hawaiian Islands have a history of destructive tsunamis. Since 1819, 22 severe tsunamis have occurred, with runup heights at varying locations throughout the islands ranging from 4 to 60 feet. Four tsunamis have occurred in recent history, taking place in 1946, 1957, 1960, and 1964. The tsunami runup height at any given Hawai'i coastline location during an occurrence varies greatly. The height is affected by a number of factors including offshore bathymetry, coastal configuration, and exposure to the generating area.

In the project area, the runup for the 1957 tsunami ranged from 9.5 to 20 feet, and 5 to 7 feet for the 1960 tsunami (Loomis, 1976). Limited data exist for the 1946 and 1964 tsunamis. The only data points in the project area for those two tsunamis are on the northern side of the Wailua River. The data show runup heights of 20 and 4 feet for the 1946 and 1964 tsunamis, respectively.

Tables and methods in the *Manual for Determining Tsunami Runup Profiles on Coastal Areas of Hawai‘i* (M&E Pacific, Inc., 1978) show the predicted 10-year tsunami runup height for the project area is 2 to 4 feet above mean sea level. The methodology in the manual has been used to develop the shoreline classifications for the Flood Insurance Rate Maps (FIRM) for the state. Along the shoreline, the classifications are based on the 100-year tsunami. The FIRM for the region shows that the shoreline in the Wailua River area is classified Zone VE with a base flood elevation of 11 feet (see Figure 8). Zone VE is a “Coastal High Hazard Area where wave action and/or high velocity water can cause structural damage in the 100-year flood,” and is primarily identified as an area where a 3-foot or greater wave height could occur (Federal Emergency Management Agency, 1995).

Hurricanes and Swells

Four primary wave types can describe the prevailing Hawaiian wave climate: northeast tradewind waves, North Pacific swell, south swell, and Kona storm waves. The project area is partially sheltered from south swell and Kona storm waves by the island, and is exposed to North Pacific swell and northeast tradewind waves.

North Pacific swell is produced by severe winter storms in the Aleutian area of the North Pacific and by mid-latitude low-pressure systems. Although North swell may arrive in Hawaiian waters throughout the year, it is largest and most frequent during the winter months of October through March. The North Pacific swell approach direction is from the west through north, with periods of 13 to 20 seconds and typical deepwater wave heights of 4 to 10 feet. Some of the largest waves reaching the Hawaiian Islands are of this type. The windward shoreline is partially sheltered from the approach of North Pacific swell, and only the more northerly of these swells arrive at the project area.

Northeast tradewind waves may be present in Hawaiian waters throughout the year, and are most frequent in summer months, when they dominate the wave climate on windward shores. They result from the strong and steady tradewinds blowing from the northeast quadrant over long fetches of open ocean. Typical deepwater tradewind waves have periods of 5 to 10 seconds and heights of 3 to 10 feet.

Hurricane Waves

In addition to the two primary wave types, infrequent tropical hurricanes may generate large waves, which can impact any coastal area of Hawai‘i. In any given year, one or more

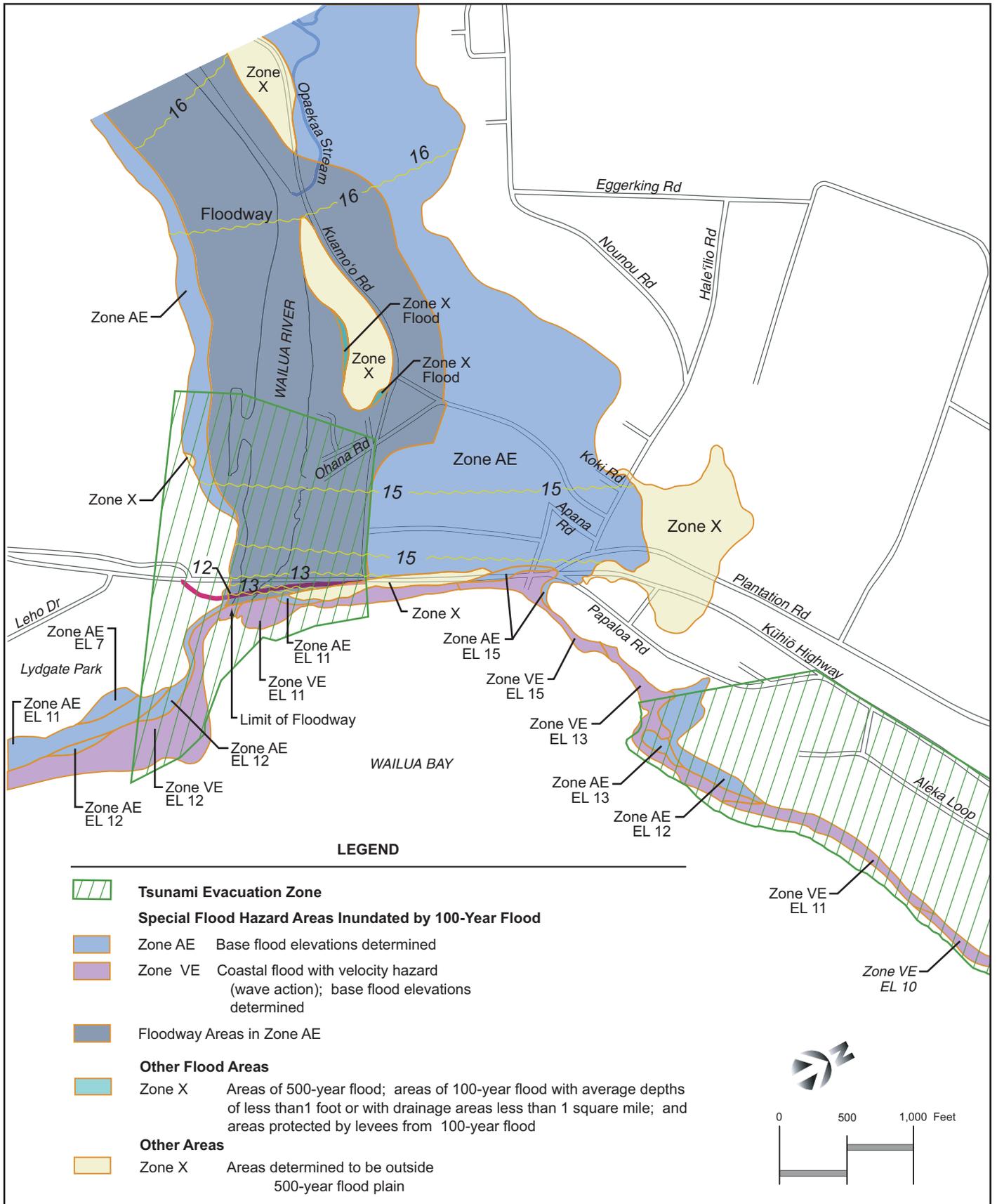
hurricanes can be expected to occur in the central North Pacific Ocean. Although hurricanes occur infrequently in the immediate vicinity of Hawai‘i, they do occasionally pass near the islands. Notable recent examples are Hurricane Iwa, which passed within 30 miles of Kaua‘i in 1982, and Hurricane Iniki, which passed directly over Kaua‘i in 1992. Because hurricanes directly impact the Hawaiian Islands at such infrequent intervals, it is difficult to calculate a statistically meaningful return period.

The report *Kaua‘i Island Hurricane Vulnerability Study* (Sea Engineering, Inc., 2000), prepared for the State of Hawai‘i Department of Defense and the U.S. Army Corps of Engineers, Pacific Ocean Division, considered the impact of four hurricane scenarios on the windward coast of Kaua‘i. The conditions considered included two hurricane intensities, typical and worst-case, and two approach directions, east-southeast and south-southwest, for a total of four scenarios. Calculated deepwater wave conditions under these scenarios varied from 17.8 feet with a period of 9.2 seconds to a worst case of 40.5 feet, with a period of 13.9 seconds.

Seismic Activity

Earthquakes in the Hawaiian Islands are primarily associated with volcanic eruptions from the expansion or shrinkage of magma reservoirs, rather than shifts in the earth’s crust. The island of Kaua‘i is periodically subject to episodes of seismic activity of varying intensity, but available historical data indicates that the number of major earthquakes occurring on Kaua‘i have generally been fewer and of lower intensity compared with other islands, such as the Big Island.

Earthquakes cannot be avoided or predicted with any degree of certainty, and an earthquake of sufficient magnitude (greater than 5.0 on the Richter Scale) could cause damage to the path. The Uniform Building Code (UBC) provides minimum design criteria to address potential for damages due to seismic disturbances. The UBC scale is rated from Seismic Zone 1 through Zone 4, with 1 the lowest level for potential seismic induced ground movement. Kaua‘i is designated Seismic Zone 1.



Source: FEMA Panel 15002-0130-D (9/30/1995), 15002-0135-C (3/4/1987), 15003-0140-D (9/30/1995)

Figure 8
**Flood Insurance Rate Map
 and Tsunami Evacuation Zone
 Wailua River Bridge Improvements**

Potential Impacts and Mitigation Measures

The existing cane haul bridge (like the highway bridge) does not meet current standards for flood elevation. The deck elevation of the existing cane haul bridge is ± 19 feet mean sea level (MSL). The finished elevation of the new deck will be slightly higher at ± 22 feet MSL. The current standard is to have a 2-foot minimum freeboard from finished deck elevation to the 100-year water surface elevation, calculated at 11.8 feet MSL. For the design of new bridges, AASHTO recommends a 5-foot freeboard from the 100-year water surface to the bottom of the bridge or girders. Raising the bridge to this height is not possible without a more extensive effort, including replacing the existing pier system and raising the roadway approaches. This level of effort is being considered in the long-term, Kapa‘a Relief Route project.

Another flooding related concern is debris flowing down the Wailua River and becoming trapped on the piers of the existing bridges. In the past, HDOT maintenance crews have been dispatched following flood events for emergency removal of tree trunks, large branches, and other debris. Reconstruction of the cane haul bridge will not affect the size or spacing of the existing piers and, therefore, will not change these conditions. New struts supporting the deck will not be flow obstructions since they will be attached to the existing piers and placed in line with the existing piers.

Both Wailua River bridges are located in a tsunami evacuation zone. In the event of a tsunami or tsunami warning, some sections of the highway may be closed to the general public, including the bridges. Alternatives to relocate the crossing outside the tsunami zone are beyond the scope of this short-term project, but are being studied as part of the Kapa‘a Relief Route project.

Although the highway and the bike/pedestrian path are located away from the ocean’s edge, these facilities are at a generally low elevation on the north side of the river and will be subject to flooding during extreme storm or wave events. In recent years, waves overtopped Wailua Beach and inundated portions of Kūhiō Highway near Coco Palms in the winter of 2003-4. These events may require temporary facility closure and emergency clean up. The Kaua‘i District Office of HDOT has maintenance and repair procedures in place to respond to such contingencies.

Because the bike/pedestrian path is aligned through the beach park, it is also subject to high waves, as well as sand drifts. The County Department of Public Works is responsible for maintenance and will be monitoring conditions to ensure safe use.

4.1.6 Noise

Existing noise levels in the project area are consistent with similar urban environments. Traffic along Kūhiō Highway is the primary noise generator. Along the coastline, the ocean waves contribute to the ambient noise level, but is also a factor in masking sources of noise that are less pleasurable to human ears.

The project is located near the Aloha Beach Resort and several residential and commercial properties off Wailua Road north of the river. According to State Department of Health (DOH) regulations, maximum permissible noise levels for construction equipment during nighttime hours in residential areas is 45 dBA and 55 dBA during daytime hours or the ambient noise level—whichever is higher.

Potential Impacts and Mitigation Measures

Construction-related Noise

Construction noise impacts are unavoidable, but will be temporary. Equipment likely to be used include drill rig, crane, excavator, backhoe, front-end loader, grader, forklift, semi-trucks, dump trucks, concrete trucks, compactors, paving equipment, and compressors. Typical ranges of construction equipment noise vary between 70 and 95 dBA, which exceeds permissible levels. The actual noise levels produced will be a function of the methods employed during each stage of the construction process. Earthmoving equipment, e.g., backhoes, front loaders, bulldozers, and diesel-powered trucks, will probably be the loudest equipment used during construction. The contractor will be required to maintain and properly muffle construction equipment and on-site vehicles that exhaust gas or air.

A noise permit will be obtained from the State Department of Health under Hawai‘i Administrative Rules Chapter 11-46, Rules on Community Noise because of the proximity of Aloha Beach Resort (south of the river) and residences on Wailua Road (north of the river). In addition to the noise permit, a noise variance may be requested to extend work hours into the evenings and on weekends and shorten the overall construction schedule.

Long-term Noise Impacts

A noise analysis was not performed specifically for this project; however, a noise study was conducted for the Kapa‘a Relief Route project (Parsons Brinckerhoff Quade & Douglas, Inc. 2006). Two of the build alternatives examined in that noise study follow the same alignment as the subject project, but the Kapa‘a Relief Route alternatives involve six travel lanes and, therefore, are greater in scope than the four travel lanes planned in this project. Yet even with a larger scope, the noise model predicted worse-hour traffic noise levels of 61 dBA (+1 dBA increase over existing conditions) for Aloha Beach Resort. For the residences at Wailua and Kuamo‘o Road, post-construction noise levels were predicted

to be 55 dBA (+2 dBA increase over existing conditions). The predicted noise levels fall below the FHWA Noise Abatement Criteria. The proposed lane addition to Kūhiō Highway and the bike/pedestrian path are not expected to generate noise levels exceeding these predictions.

4.1.7 Hazardous Materials

A Phase I Environmental Site Assessment (Phase 1 ESA) was conducted for the proposed Kapa‘a Relief Route project (Kimura International, Inc., 2003). The purpose of the Phase 1 ESA is to identify the presence of recognized environmental conditions as defined by the American Society for Testing and Materials (ASTM) Practice E 1527-00. Data on potential sources of ground contamination were obtained through searches of commercial and government databases, review of files and records maintained by the Department of Health, site reconnaissance, and interviews.

There are no sites of potential concern in the project area.

Potential Impacts and Mitigation Measures

The proposed action is not expected to generate any hazardous material impact, nor is it likely to be impacted by hazardous materials.

4.2 BIOLOGICAL ENVIRONMENT

4.2.1 Flora¹

At the southern terminus of the project area, the vegetation consists of grassy lawn maintained by the Aloha Beach Resort, as well as landscape plantings. Between the hotel property and the Wailua River, vegetation in the open space consists primarily of Bermuda grass (*Cynodon dactylon*) and pitted beardgrass (*Bothriochloa pertusa*). Overgrown weedy areas support patches of swollen fingergrass (*Chloris barbata*), nodeweed (*Synedrella nodiflora*), and false mallow (*Malvastrum coromandelianum*). The bike/pedestrian path would skirt a small area with koa haole shrubs (*Leucaena leucocephala*), California grass (*Brachiaria mutica*), castor bean (*Ricinus communis*), and a few coconut trees (*Cocos nucifera*) before joining the cane haul bridge.

¹ The plant names used in this assessment follow Wagner *et al.* (1990) and Wagner and Herbst (1999). The few recent name changes are those reported in the Hawai‘i Biological Survey series (Evenhuis and Eldredge, eds., 1999-2002).

On the north side of Wailua River, the vegetation consists of scattered trees of hala (*Pandanus tectorius*), coconut, ironwood (*Casuarina equisetifolia*), and tree heliotrope (*Tournefortia argentea*). Low thickets of beach naupaka or naupaka kahakai (*Scaevola sericea*), 2 to 3 feet tall, are abundant, while beach morning glory or pohuehue (*Ipomoea pescaprae*) forms extensive mats seaward of the line of trees. Locally common are mats of ‘aki‘aki grass (*Sporobolus virginicus*) and beach pea or nanea (*Vigna marina*).

Potential Impacts and Mitigation Measures

None of the plants observed within the project area is a threatened and endangered species or a species of concern (U.S. Fish and Wildlife Service 1999a, 1999b; Wagner et al. 1999). All of the native species encountered can be found in similar environmental habitats throughout the Hawaiian Islands.

Improvements to the highway will occur primarily within the previously developed right-of-way. To access the bridge and widen the deck, scrub vegetation adjacent to the bridge will be removed. Construction of the bike/pedestrian path will require more extensive vegetation removal since it is located outside the existing highway shoulder.

Landscaping will be incorporated into the project for aesthetic purposes and as a barrier or means of defining the bike/pedestrian path boundaries. To the extent possible, the landscaping scheme will use low-maintenance, native plants. Native strand plants such as beach naupaka, pohuehue, ‘aki‘aki grass, and nanea are adapted to the harsh environmental conditions along the coast. These plants are common to abundant within the project area and they are easily propagated through cuttings and plugs.



Typical vegetation along the southern approach to the cane haul bridge

4.2.2 Terrestrial Fauna and Avifauna

A significant amount of effort has been expended in conducting avian and mammalian surveys in East Kaua‘i over the past few years. This environmental assessment is based on data from a biological survey conducted for the Lydgate Park- Kapa‘a Bike/Pedestrian Path (David 2004), supplemented by other recent surveys conducted for the proposed Kapa‘a Relief Route and other projects in the general area (David 2002, 2003; Day et al. 2001, 2002).

One-time surveys cannot provide a total picture of the wildlife using any given area as certain species will not be detected for one reason or another. Seasonal variations in populations, coupled with seasonal availability and use of resources will cause different use patterns throughout a year and, in fact, over a number of years. However, coupling the results of a one-time survey with the results of previous surveys conducted in similar habitats and locations greatly expands the value of the information gathered.

Mammalian Species

During the biological survey conducted in March 2004, endangered Hawaiian hoary bats were seen on both nights of the survey. Three bats were seen simultaneously from the Wailua River bridge crossing.

The findings of the mammalian survey were consistent with the results of other recent surveys conducted within the lowland areas of Kaua‘i (David, 1995, 1998, 1999a, 199b, 2000, 2001, 2002, and 2003). The detection of the endangered Hawaiian hoary bat was not unexpected as this species is regularly seen in and around Kapa‘a, as well as most of the lowland areas on Kaua‘i (Tomich, 1986; David, 1995, 1999b, 2001, 2002, 2003; R. David, personal observations 1980-2002).

Although no live rodents were detected during the course of the 2004 survey, it is likely that roof rats (*Rattus r. rattus*), Norway rats (*Rattus norvegicus*), European house mice (*Mus domesticus*) and possibly Polynesian rats (*Rattus exlans hawaiiensis*) use various resources in the project area. Without conducting a trapping program, it is difficult to assess the population densities of these often hard-to-see mammals. All of these introduced rodents are deleterious to native ecosystems and their dependent faunal components.

Avian Species

Also during the survey (David 2004), a total of 339 individual birds of 17 species, representing 14 separate families were recorded during station counts. Of the 17 species detected in the coastal area, two species—Pacific Golden Plover (*Pluvialis fulva*) and Ruddy Turnstone (*Arenaria interpres*) are indigenous migratory species commonly found

throughout the state during the winter months. The other 15 species detected are alien to the Hawaiian Islands. No avian species that is either listed, or proposed for listing under either the federal or State of Hawai‘i’s endangered species programs was detected in the coastal area during the course of the survey.

Avian diversity was relatively low in the coastal area. Three species, Zebra Dove (*Geopelia striata*), Common Myna (*Acridotheres tristis*), and House Sparrow (*Passer d. domesticus*), accounted for 44% of the total of all birds recorded during station counts. The most common avian species detected was the House Sparrow, which accounted for 10% of the total number of individual birds recorded. An average of 56 birds was recorded per station count.

One species detected during station counts, the Short-eared Owl (*Asio flammeus sandwichensis*) or pueo is an endemic sub-species which is listed by the State of Hawai‘i as endangered on O‘ahu, but not on Kaua‘i. The owl is not listed under the federal Endangered Species Act. Two additional species: White-tailed Tropicbird and Black-crowned Night Heron (*Nycticorax nycticorax hoactli*) or ‘auku‘u are relative common indigenous breeding species. Three other indigenous breeding seabird species: Wedge-tailed Shearwater (*Puffinus pacificus chororhynchus*) or ‘ua‘u kani, Red-Footed booby (*Sula s. rubripes*), or ‘a, and Great Frigatebird (*Fregata minor palmestroni*) or ‘iwa were detected as incidental observations while traversing portions of the survey area.

Due to the timing of the 2004 survey neither the endangered Hawaiian Petrel (*Pterodroma sandwichensis*) or ‘ua‘u nor the threatened endemic sub-species of the Newell’s Shearwater (*Puffinus auricularis newelli*) or ‘a‘o were detected flying over the project site. Both of these species are pelagic seabirds which do not return to their breeding colonies until late April. Both species cross the northern, eastern, and southern coastline of Kaua‘i across a broad front and in relatively large numbers during the breeding season, and both have been recorded over-flying all areas of the project site.

Both species of seabirds, especially fledging birds, can become disoriented by exterior lighting on their way to sea in the Fall. When disoriented, seabirds often collide with man-made structures and, if not killed outright, the dazed or injured birds become easy targets of opportunity for feral mammals. Collision with man-made structures is considered to be the second most significant cause of mortality of these two seabird species in Hawai‘i. The primary cause of mortality is thought to be predation by alien mammalian species at the nesting colonies.

Potential Impacts and Mitigation Measures

Consultations were conducted under Section 7 of the Endangered Species Act for a related project, the County of Kaua‘i’s Lydgate Park to Kapa‘a Bike/Pedestrian Path. These

consultations are also relevant to the subject project because of coordination between the two projects in the vicinity of Wailua River.

Correspondence from the U.S. Fish and Wildlife Service (letter dated August 11, 2005, see Appendix E) and the National Marine Fisheries Service (letter dated July 15, 2005, see Appendix E) stated that there will be no adverse impact on threatened and endangered species.

The Fish and Wildlife Service recommended that lights be set directly into the railings of guardrails on the Wailua River bridge or on the shortest poles and using the lowest wattage bulbs possible to prevent lights from disorienting listed seabird species during flyovers. However, there are no plans for additional street lighting on the cane haul bridge, the approaches or in this section of the bike/pedestrian path.

The transportation improvements are not expected to have any impact on the Hawaiian hoary bat or threatened and endangered waterbird species.

4.2.3 Aquatic Fauna

No endangered Hawaiian monk seals (*Monachus schauinslandi*), were detected along the shoreline during the 2004 botanical survey. However, they are occasionally to be found hauled out in the intertidal zone and on the beaches of East Kaua‘i. Both the federal and State of Hawai‘i wildlife agencies have an ongoing and very comprehensive outreach and protection program to ensure that seals are not disturbed while in near-shore waters or when they are basking on land.

There is also the chance that the threatened green sea turtle (*Chelonia mydas agassizii*) occasionally hauls out in the intertidal zone and on the beach along this section of the coastline. They even may nest on the beach in this area. There are similar comprehensive outreach and protection programs in place to protect this species and its nests.

Potential Impacts and Mitigation Measures

It is highly unlikely that monk seals or green sea turtles will be encountered since the proposed transportation improvements are located in or immediately adjacent to developed areas. Additionally, temporary fencing is typically erected to demarcate the construction site and will serve as a barrier. In the unlikely event that monk seals or green sea turtles approach the construction area, the contractor will immediately contact State and federal wildlife officials. To maintain the quality of waters that support listed aquatic fauna, spoils created by construction activity will not be allowed to enter the river or near-shore waters under or adjacent to the proposed improvements. Best Management Practices will be

developed and implemented during the construction phase of the project to avoid despoiling the aquatic habitat.

4.2.4 Stream Fauna

This section includes a description of the aquatic environment for various stream fauna. The information is based primarily on an aquatic biological assessment prepared by Michael H. Kido for the proposed Kapa‘a Relief Route. The transportation improvements at Wailua River are located in a portion of the larger Kapa‘a Relief Route study area.

The Wailua River has one of the largest deep-water estuaries (in length and volume) in Hawai‘i and has been long utilized for recreational and commercial tour boat activities. The estuary receives stream water from no less than fifteen tributaries.

Salinity readings near the Wailua Boat Ramp (Department of Health Station #822) indicate a typical deep-water Hawaiian estuary function with a variable salt-water wedge that intrudes into up-river areas and retreats toward the ocean depending on the balance between river flow and ocean conditions. Measurements at this station have also found elevated enterococcus levels, indicating chronic nonpoint source pollution of the estuary from cesspools, septic tanks, and other sources of sewage in the watershed. The Wailua estuary, therefore, is strongly influenced by human activities, serving as a repository for organic waste and other discharged pollutants.

The lowland drainage canals and other waterways that empty into the Wailua estuary are infested with pest tilapia, primarily *Oreochromis mossambicus*, although other tilapia species may also be present. Tilapia likely prey upon and compete for habitat with native stream and estuarine species, thereby resulting in low levels of native species in the estuary. In the sandy areas closer to the ocean, four brackish water native fish species were observed during visual surveys; however, areas slightly upstream of the mouth were dominated by large *O. mossambicus*. Tilapia, therefore, are clearly the dominant fish species in the lower Wailua River and have invaded streams throughout low gradient areas of the watershed and is one of the leading causes of biotic integrity impairment.

Potential Impacts and Mitigation Measures

Benthic Environment

A substantial effort in Kido’s study was focused on locating populations of the endangered aquatic snail, Newcomb’s Snail (*Erinna newcombi*), using both underwater visual observation and standard benthic sampling methodologies; however, no individuals were observed. Given the degraded waterways inhabited by large populations of alien predatory

fish species, this outcome is not surprising. Therefore, there is little potential impact to this federally listed endangered species.

Riverine Environment

The Wailua River and canal system is severely impaired from both habitat, as well as biotic integrity perspectives, and this environment does not provide adequate support for native species. Therefore, the potential impacts to populations of native stream species from project construction activities are expected to be minimal. Nevertheless, attention will be given to minimizing non-point source pollutants during construction and the long-term operation and maintenance of the bridge crossing.

4.3 SOCIO-ECONOMIC ENVIRONMENT

4.3.1 Archaeological, Historic, and Cultural Resources

Archaeological Resources

The information for this section is based on archaeological assessments prepared for the Lydgate to Kapa‘a Bike/Pedestrian Path project and the Kapa‘a Relief Route project (Cultural Surveys Hawai‘i 2004 and 2003). Archaeological sites are shown in Figure 9.

The Wailua River, along both shores, was the most important high-status area on Kaua‘i in pre-Contact times. This area was the royal center where the high chiefs and chiefesses carried on their business when they were not traveling about the island(s), and where they entertained visitors. Today a small portion of this royal center can be seen in the remnants of heiau (where official decision making was carried out), the Hauola Pu‘uhonua (place of refuge), the birthstones, the royal coconut grove, the bellstone, and the royal fishponds. There exist no visible surface remnants of the chiefly homes, the supporting lo‘i and kula lands, the places of recreation, the burial place called Mahunapu‘uone (just makai of the fishponds), the fish traps, and the canoe landings.

The Wailua Complex of Heiau National Historic Landmark, designated in 1988, is located within the Wailua River State Park and consists of five discontinuous properties: Site -104, Malae Heiau; Site -105, Hikinaakalā Heiau (and petroglyphs); Site -106, Holoholokū Heiau and Pōhaku Ho‘ohānau, Site -107, Poli‘ahu Heiau; and Site -335, the Wailua Bellstone(s). The designation of these properties for the National Register/National Historic Landmark listing is five circles each centered in the middle of each of the sites but only slightly greater than the radius of the sites themselves.

Wailua Complex of Heiau

Today, the Wailua Complex of Heiau is a National Historic Landmark (NHL) listed on both the National and State Registers of Historic Places. It is a complex of historical, cultural and archaeological sites designated as Site 50-30-08-502. In the nomination form for the National Register of Historic Places, the Wailua Complex of Heiau is called “one of the most important site complexes in the Hawaiian Islands.” The Wailua NHL is comprised of five separate sites located along the Wailua River.

- Malae Heiau
- Hikinaakalā Heiau and Pu‘uhonua o Hauola (place of refuge) and petroglyphs
- Kalaeokamanu Heiau (also known as Holoholokū) and associated Pōhaku Ho‘ohanau (birthstones)
- Poli‘ahu Heiau
- Wailua Bellstones

The Malae Heiau (State site 50-30-08-104) is the largest existing heiau structure on Kaua‘i and located 150 to 250 feet mauka of Kūhiō Highway. The massive stacked rock walls create a large, roughly square enclosure that encompasses two acres. Its origin is traditionally traced to the mythical menehune and there is a traditional relationship of this heiau with Poli‘ahu Heiau located further upriver. Other historical references suggest that the construction of the heiau may have been directed by the chief Mo‘ikeha, circa A.D. 1300. Part of this heiau’s importance lies in its position and visual relationship between Poli‘ahu Heiau (mauka) and Hikinaakalā Heiau (makai).

An associated Site 50-30-08-104A is an adze workshop/flake scatter located along the north and northeast exterior of Malae Heiau.

Hikinaakalā Heiau and Pu‘uhonua o Hauola (State site 50-30-80-105) comprise a site complex situated on the southern riverbank at the mouth of the Wailua River. These two sites are located within a portion of the Wailua River State Park located makai of Kūhiō Highway, and adjacent to the County’s Lydgate Park. Hikinaakalā is a walled rectangular enclosure, while Hauola, the place of refuge is where a kapu-breaker could enter and escape punishment. The boundaries of the pu‘uhonua are uncertain, but are believed to be located closer to Kūhiō Highway. This complex was first recorded in 1907, but by the time it was surveyed in 1931, many of the stones had been removed from the heiau for road and bridge projects. In the early 1960’s, the construction of a parking lot and comfort station (since removed) further impacted the structural integrity of this site.

The Wailua petroglyph site (Ka Pae Ki‘i Mahu o Wailua, Site 50-30-08,105A) at the mouth of the Wailua River was clearly regarded as “historically part of the temple of Hikina-a-ka-lā and the City of Refuge, Hau‘ola (both sites coded 50-30-08-05)” (Kikuchi,

1984). Thus the petroglyphs is regarded as a contributing element of the designated Wailua Complex of Heiau National Historic Landmark.

Kalaeokamanu Heiau (State site 50-30-80-106) lies on the north bank of the Wailua River at the base of Pu‘ukī. This heiau is where the first temple drum (pahu) was brought from Kahiki by La‘amaikahiki, son of Mo‘ikeha. The stacked rock wall enclosure at the base of the pu‘u has been called the heiau, but recent research suggests that the heiau may be situated atop the pu‘u. Adjacent to the enclosure is Pōhaku Ho‘ohanau, the birthstones where Kaua‘i ali‘i were born. This site has been called Holoholokū Heiau, but recent research indicates that Holoholokū is the place name for the larger area that includes the heiau and birthstones.

Poli‘ahu Heiau (State site 50-30-80-107) is located on the ridge separating Wailua River and ‘Ōpaeka‘a Stream. This is another large, rectangular walled enclosure heiau, but Poli‘ahu Heiau is noted for its notched corner and extensive stone paving. Thrum’s description of Poli‘ahu records a special relationship to Malae Heiau: “This heiau of medium size is situate[d] within sight of Malae, and was connected with it in its working.”²

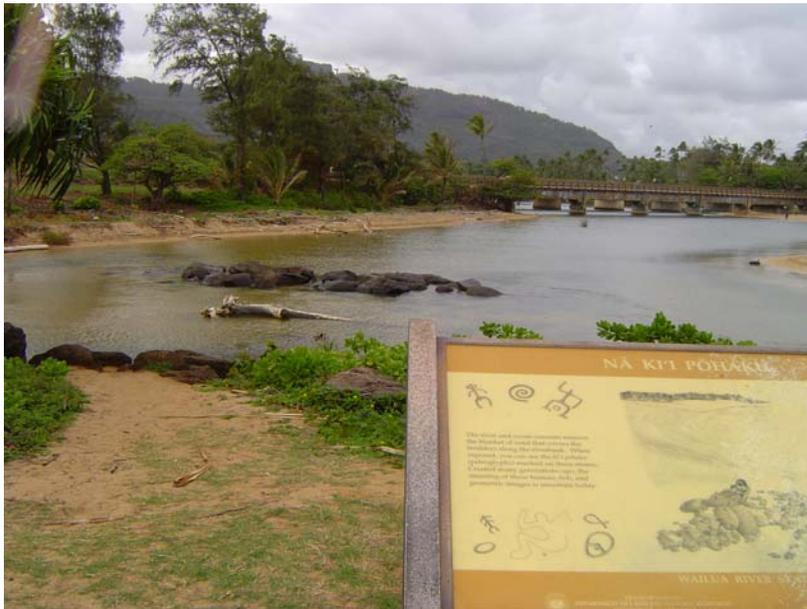
Bellstones (State site 50-30-80-335) are located makai of Poli‘ahu Heiau on the same ridge above the Wailua River. When these stones were struck in a particular spot, the resonant tone could be heard for great distances. They were usually "rung" to signal a significant event, such as a royal birth.

Burials and Cultural Layers (Coco Palms area)

There have been documented burials in the areas around the existing Kūhiō Highway in the vicinity of the Coco Palms Resort. The highest density of burials are believed to be located inland of the existing Kūhiō Highway. This area is also particularly rich in other non-burial cultural resources. Two known resources are described below.

Mahunapu‘uone Burial Ground (Site 50-30-08-681) is a reinterment site on the Coco Palms Hotel property, where over 85 sets of remains are buried. Cultural Surveys Hawai‘i has noted that there are possibly many more burials remaining in the immediate vicinity, within the larger designated “burial ground.” The burial area is located along the makai side of the hotel property, fronting Kūhiō Highway.

² Thrum, in Cultural Surveys Hawai‘i, 2003



Interpretive sign for Ka Pae Kī'i Mahu o Wailua, the petroglyph field, in the foreground. Rock formation with petroglyphs about middle of photo with cane haul bridge to the right.

Potential Impacts on Archaeological Resources and Mitigation Measures

Potential impacts to archaeological sites and artifacts focus around two major areas—the Wailua Complex of Heiau and potential burials.

Wailua Complex of Heiau National Historic Landmark

The transportation improvements will not have a direct impact on the Wailua Complex of Heiau NHL.

Malae Heiau. The intersection of Kūhiō Highway and the marina access road will be improved to accommodate two lanes of southbound traffic coming off the Wailua River highway bridge. Since this roadway also provides access to Malae Heiau, the changes in traffic flow also will be beneficial to the heiau property. A new parking facility for heiau visitors, designed by the Division of State Parks, is located outside the project area.

Hikinaakalā Heiau and Pu'uhonua o Hauola. The bike/pedestrian path is separated from Hikinaakalā Heiau and Hauola by a grass- and scrub-covered open space. Although the path will not encroach on the cultural sites, the Division of State Parks has expressed concern that path users might wander off the path or use the heiau as a short-cut to Lydgate Park. To discourage inappropriate passage through sacred sites, the path will be clearly defined and a combination of landscaping and railings will be used as barriers. In addition,

the path provides opportunities for interpretive signage that will help to educate path users about the cultural significance of the area.

Petroglyph Site. Field inspection and available maps indicate that the off-shore petroglyph field (Ka Pae Ki‘i Mahu o Wailua) is well to the southeast of the cane haul bridge and will not be affected by this project.

Field Boulders. Large boulders are used for the existing retaining structures at the north and south abutments of the cane haul bridge. Sections of the existing retaining structures, including some of the boulders will be encased in a larger wall to support the wider the bridge deck. Staff at the SHPD and Division of State Parks consulted about the potential archaeological or cultural significance of the boulders indicated that the proposed action would not be an adverse impact.

Burials

Another archaeological issue is the potential impact to human remains. On the north side of the Wailua River mouth, excavations for roadway improvements and construction of the bike/pedestrian path may encounter burials and/or cultural artifacts. Areas of Jaucas sand in the Waipouli and Kapa‘a ahupua‘a are known for both burials and intact cultural deposits. It is understood that proposed roadway improvements generally will occur in areas that have been disturbed previously and that the path will have a very light footprint requiring minimal excavation. Many of the burials and cultural deposits previously documented, however, are quite shallow.

During the pre-assessment consultation period, the Office of Hawaiian Affairs commented that construction shall stop immediately upon discovery of significant cultural deposits or human skeletal remains and that SHPD be contacted (see letter dated February 27, 2006, Chapter 9). The Contractor for this project will be required to follow all procedures specified in Section 6E-46.6, Hawai‘i Revised Statutes and Chapter 13-300, Hawai‘i Administrative Rules in the event that inadvertent discoveries are made. Specific protocols will be described in an archaeological monitoring program (including a monitoring plan, a combination of on-call and on-site monitoring, and a monitoring report) to be prepared and implemented by the contractor per a Memorandum of Agreement for the Lydgate Park to Kapa‘a Bike/Pedestrian Path previously signed by the County of Kaua‘i, the FHWA, and the SHPD.

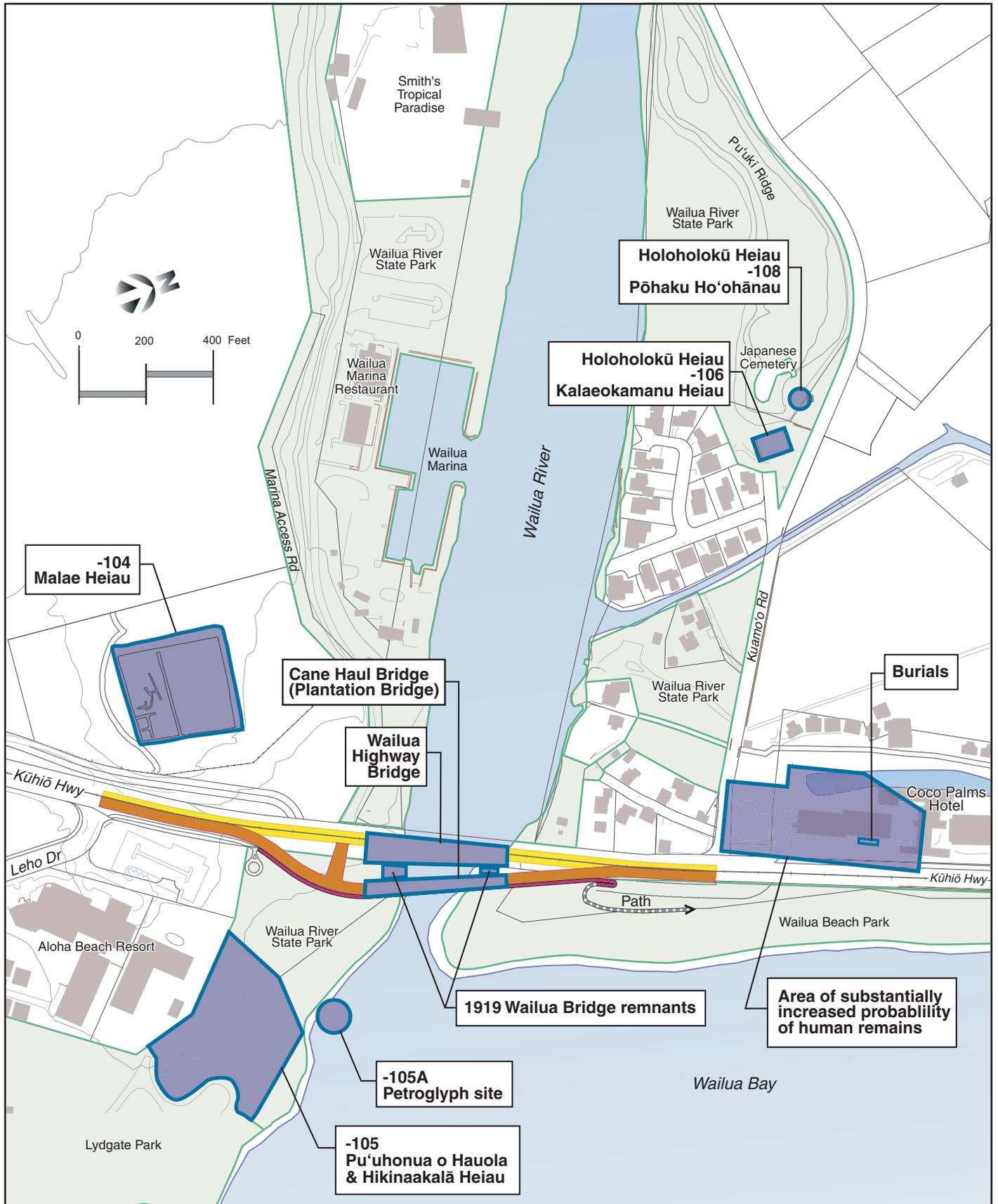


Figure 9
Archaeological and Historic Sites
Wailua River Bridge Improvements

Historic Buildings and Structures

In addition to archaeological resources, the proposed action will affect historic structures that may be eligible for listing on the National Register of Historic Places. The information for this section is drawn from an Historic Resources Survey prepared by Mason Architects (2003) for the Kapa‘a Relief Route project, which encompasses the subject project area. This study examined properties with construction dates of 1960 or earlier in areas where road construction or widening has been proposed. Historic sites within the project area are shown in Figure 9.

The National Register of Historic Places (Title 36, part 60 of the Code of Federal Regulations), defines the criteria for legally evaluating the significance of cultural resources. It states that “the quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association,” and

- (A) that are associated with events that have made a significant contribution to the broad patterns of our history; or
- (B) that are associated with the lives of persons significant in our past; or
- (C) that embody the distinctive characteristics of type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (D) that have yielded, or may be likely to yield, information important in prehistory or history (U.S. Department of Interior, 1991, p. 37)

Mason Architects made a preliminary evaluation of eligibility based these criteria. The Hawai‘i State Register of Historic Places generally utilizes the same criteria as the National Register; therefore, properties listed on the Hawai‘i Register are usually considered eligible for the National Register.

Three historic properties are located in the project area.

- Wailua Plantation Bridge (cane haul bridge)
- Wailua Bridge (highway bridge)
- Former Wailua Bridge Remnants (1919 bridge)

Wailua Cane Haul (Plantation) Bridge

Description: The Wailua River cane haul bridge was acquired by the State recently and has not been included in any of the historic bridge inventory studies conducted over the years. It was constructed in 1921 and has a roadway length of 395 feet, supported on seven intermediate and two end piers.

The bridge is only one of two bridges on the island converted from railroad bridge to road bridge. It is also one of only two extant concrete railroad bridges on the island. These concrete bridges are distinctive since industrial and railroad bridges in Hawai‘i were primarily steel stringer bridges. The Wailua Railroad Bridge was an integral part of the sugar and pineapple economy on the eastern side of Kaua‘i. It is one of the few remaining parts of the rail line, which represents a change in the 1920s from individual plantation ship landings to a more centralized transportation system.

Assessment of Significance: Satisfies Criteria A and C

Potential Impacts: The proposed action would alter the bridge by removing the existing concrete deck and replacing it with a new, wider deck using a prefabricated panel system. Paving on the deck will be asphalt or concrete, while the side panels will be made of galvanized steel. New struts will be added under the bridge to support the wider structure. These changes, in effect, represent another step in the evolution of structure. The Mason study concludes that the bridge has minimal integrity of materials and workmanship because they are obscured by a gunite coating over most of the original concrete. The integrity of design was diminished by the post-WWII addition of the deck portion and the more recent guard rails. Despite these changes, the study’s authors note that the bridge retains its integrity of location and enough original physical features to convey the feeling and association of its historic character.

Mitigation Measures: Following Section 106 consultations for the Lydgate Park-Kapaa Bike/Pedestrian Path, the County of Kaua‘i, FHWA, and SHPD entered into a Memorandum of Agreement to mitigate expected impacts on the cane haul bridge. The bike/pedestrian path project proposed a cantilevered attachment to the cane haul bridge. The bridge crossing portion of the bike/pedestrian path as subsequently merged with HDOT’s short-term bridge improvement project. In both cases, the alterations affect the bridge deck, including a cantilevered attachment for the bike/pedestrian path. The MOA calls for documentation of the bridge prior to alteration (see Appendix B); mitigation is also indicated in the Programmatic Section 4(f) Determination on the Use of Historic Bridge (see Appendix C). The level of documentation will follow guidelines established by the Historic American Engineering Record (HAER).

Wailua River (Highway) Bridge

Description: The existing Wailua Bridge, built in 1949, is the fourth bridge to be built across the Wailua River. It replaced the 1919 concrete arch bridge (discussed below under “Former Wailua River Bridge Remnants”), which was considered too narrow, given its 18-foot width. The entire stretch of the Belt Road from Līhu‘e to Keālia was widened to 24 feet in 1948.

Assessment of Significance: The historic resources survey field work did not reveal any notable engineering or aesthetic design merit, “except for its distinctive setting at the mouth of Kaua`i’s widest and most beautiful river valleys.” (Mason Architects, Inc. 2003). It appears to be a standard bridge type of the post –WWII period.

The bridge appears to meet the National Register of Historic Places Criterion C, since it has the distinctive characteristics of its period of construction. It retains integrity of location, as the setting has undergone little change since 1949. It retains integrity of design, materials and workmanship, as only the addition of metal railings intrudes on the original design.

Expected Impacts: This project proposes temporary changes to the bridge, specifically partial removal of the sidewalk on the makai side of the bridge and the addition of a temporary guardrail. These changes would allow three travel lanes on the highway bridge while the cane haul bridge is closed for construction. After the cane haul bridge reopens, the makai sidewalk will be restored and the temporary guardrail removed. The highway bridge will be restriped and signed for two travel lanes in the southbound direction.

Mitigation. Consultations with SHPD and other stakeholders, including mitigation measures, are in progress.

Former Wailua Bridge Remnants

Description: These are the remnants of the second bridge to cross the Wailua River, commonly known as the “Wailua River 1919 Bridge.” The remnants are located makai of the existing Wailua Bridge on Kūhiō Highway and mauka of the Wailua Plantation Bridge. Most of the 1919 bridge was dismantled when the current Wailua Bridge was building in 1949. Only the concrete abutments remain on both sides of the river, and the parapet walls of the approach section remain only on the Līhu`e side of the river. The bridge abutments and parapet walls are obscured by vegetation.

Assessment of Significance: The bridge abutments and parapet walls meet the National Register Criterion A for their association with the development Wailua River crossings, and the development of the belt road on Kaua`i. It also meets Criterion B for its association with former County Engineer Joseph H. Moragne. As structural remains, they have high integrity of location, design, materials, workmanship, and setting. However, the integrity of feeling and association is low.

Expected Impacts: The bridge remnants will not be affected and will remain as is.

Mitigation: No mitigation required.

Property Group-Wailua Road Lots

Description: The property group referred to as the Wailua Road Lots includes a group of lots along Wailua Road, near the intersection of Kūhiō Highway and Kuamo`o Road. It is also commonly known as the “Smith’s Visitor Services area.” Eight privately-owned parcels range in size from about 2,000 square feet to over 21,000 square feet. This group does not include two State-owned properties that are part of the Wailua River State Park, or a large, privately-owned riverfront parcel at the southwest end of Wailua Road.

Assessment of Significance: The Wailua Road Lots, as a grouping, do not appear to meet the significance or integrity criteria of the National Register of Historic Places. The area’s history and building styles are so mixed that it does not represent a “significant and distinguishable entity” which could be considered a historic district. There do not appear to be any National Register-eligible historic period buildings in this area.

Cultural Impact Assessment

Act 50, Session Laws of Hawai‘i, 2000, requires that a proposed action’s impacts on the community’s cultural practices be disclosed in the environmental review process. A cultural impact assessment was conducted for the proposed Kapa‘a Relief Route by Cultural Surveys Hawai‘i (Volumes I and II, 2004). Because the affected area for this project is fully contained within the Kapa‘a Relief Route study area and both are linear transportation projects, the findings of the 2004 cultural impact assessment were re-examined in this context.

CSH conducted historic research of the project to identify cultural resources and traditional cultural practices associated with the proposed relief route corridor. In addition, they conducted community consultations with contact overtures to 54 parties regarding cultural knowledge, land use history, cultural sites, and traditional Hawaiian or other cultural practices in the vicinity of the project area. Nine interviews were completed but only seven interviewees signed authorization and release forms.

One of the primary concerns voiced by several kama‘āina, including some interviewees was concern about potential impacts on human burials (iwi kupuna). Based on background research, the most likely location for burials is in the sandy coastline sediments. One kupuna who had witnessed the discovery of a large number of burials in the Wailua area adjacent to Coco Palms and Kūhiō Highway expressed serious concern about uncovering additional burials if a road were to be extended there. This area is thought to correlate with a documented historic sand dune burial ground, Mahunapu‘uone. Though the sandy sediments along the coastline are of primary concern, there have been a few isolated burials inland. The potential inland burial areas include locations of former kuleana, particularly in Wailua mauka of Coco Palms. Several of those consulted indicated that the

discovery of iwi (bones) is a very sensitive issue for the Hawaiian community requiring much mediation and appropriate protocol.

A second very important cultural concern identified during consultation is related to the heiau of Wailua. The heiau complex is on the National Register of Historic Sites and various groups have been working closely with the Division of State Parks to ensure protection of these historic properties and cultural sites. Those consulted stressed that the heiau are not just historic properties to preserve for their historic value, but also living cultural sites. Malae Heiau was mentioned specifically, but references to this site are more pertinent to the Kapa‘a Relief Route project—the short-term improvements will not impact Malae Heiau.

Fishing and gathering along the coastline from Hanamā‘ulu to Keālia was and continues to be a vital cultural activity. There is evidence that fishing and crabbing still occurs within the Wailua River. In many ways, fishing is not as easy as it once was, but fishing remains one of the few cultural traditions families still feel relatively free to engage in in this area. Kama‘āina consulted and interviewed indicated that most of their families had long histories of fishing at various locales. Fishing traditions have been passed down through the ‘ohana and are viewed as a way to continue to perpetuate important aspects of the Hawaiian culture. A number of individuals expressed their concern that construction related to any proposed transportation improvement take into account water quality and potential negative impact on fishing resources. This would be especially true in the case of the Wailua River, where bridge reconstruction would occur.

During the construction period, fishing, crabbing, and other gathering activities near the bridge will be temporarily restricted for safety reasons. All permitted activities will resume once the improvements have been completed.

Although most of the kama‘āina consulted grew up in an era when expressions of the Hawaiian culture were discouraged, they were all aware that Wailua was a unique place for their ancestors. The issues raised by the cultural impact assessment reflect a deep connection with the land and its resources. With both vehicular and bike/pedestrian components, this project will enhance accessibility to the Wailua area. The intent of the project is to improve access in a way that is respectful of historic and cultural resources.

4.3.2 Population and Demographic Factors

The project area is not located in a residential neighborhood. However, the stretch of Kūhiō Highway proposed for improvements is anchored by two resort properties: Aloha Beach Resort at the southern end and Coco Palms Resort at the northern end. A small residential cluster is located on the mauka side of Kūhiō Highway, between Wailua River and Kuamo‘o Road.

The larger Wailua- Kapa‘a region is composed of Census Tracts 402.02 (Wailua) and Census Tract 403 (Kapa‘a). According to the 2000 Census, 15,402 people lived in these two census tracts. The adjacent census tract to the north, Census Tract 402.01 (Keālia), had a population of 3,123, for a total population of 18,525 people in the three-tract region. This number constituted 31.6% of Kaua‘i’s total population (58,463 in 2000), or slightly less than a third.

In 2001, the Department of Business, Economic Development, and Tourism (DBEDT) reported that Kaua‘i’s average daily visitor census was 16,830. The 2000 *Kaua‘i General Plan*, reported that, in 1999, 30% of the island’s visitor units were located in the Kawaihau District. The Plan also pointed out that occupancy rates in the district are consistently 5 points below the islandwide average. After adjusting for these ratios, it is estimated that the average daily visitor census in the Wailua-Keālia region is 4,645. Combined with the residential population, the region had a *de facto* population of approximately 23,170 in the 2000-2001 time period. Assuming slight growth in the resident population since the 2000 census, and an increased visitor count due to a rebounding economy and travel market, an estimated daily census of 24,000 would be reasonable.

The demographic statistics show that the Wailua- Kapa‘a region has one of the largest concentrations of population on Kaua‘i. What distinguishes the region is the mix of residential and visitor populations and the density of commercial activity.

Potential Impacts and Mitigation Measures

The proposed action is not expected to have an impact on the number of people in the area or to change the demographic characteristics. However, an analysis of the existing population supports the need for a shared use path in the area. There is a concentration of residents and visitors within a relatively small area, and within comfortable walking and biking distances to numerous businesses and community facilities. The region is also home to large segments of the population that are unable to use the motorways, notably children and teens. Improving the transportation infrastructure for pedestrians and bicyclists will help to increase the mobility of these groups.

Environmental Justice. The project involves improvements to an existing structure and is not located in a residential area. Neither minority nor low-income populations will receive disproportionately high or adverse impacts as a result of the proposed project. Rather, given the project’s location, transportation benefits resulting from increased capacity will accrue to highway users throughout the east side of the island.

4.3.3 Economic and Fiscal Resources

The economy of Kaua‘i has transformed over time from a plantation economy to a modern economy with a mix of tourism, diversified agriculture, construction, retail, and professional businesses. Through the early 1990s, the island economy worked to recover from the closing of the sugar plantations, the devastating aftermath of Hurricane Iniki, and a national economic slowdown. Today, the economy appears buoyant as evidenced by an unemployment rate in April 2004 of 3.9% (not seasonally adjusted). Although slightly higher than the unemployment rate for the state as a whole (3.6%), it was nonetheless lower than the U.S. rate (5.4%). Moreover, the unemployment rate the year before, in April 2003, stood at 5.6% (State Department of Labor and Industrial Relations, 2004).

Industries

The largest industries in terms of jobs are trade (retail and wholesale) and services. In 2002, hotels and food services accounted for 6,650 jobs, retail trade had 7,950, and professional and business services had 4,400. In a study by the State Department of Labor and Industrial Relations, service and production jobs were expected to account for about half of all job growth through the year 2008.

Income

Personal income of County residents has been increasing over time, but not as fast as the State as a whole. The per capita disposable personal income level for residents of the County has fallen below income levels for the state since the mid 1970s. In 2001, per capita income in Kaua‘i County was \$23,786 (in current dollars) compared to \$29,034 for the state as whole. The per capita income for all counties (excluding the City and County of Honolulu) was \$23,666.

The 2000, the Hawai‘i Health Survey indicated that 21.9% of the County’s population was below the poverty line, compared to 14.1% of the statewide population. This study also found that the “extremely low” and “low” income groups (households with incomes up to \$30,000) form a larger share of the County population than the comparable state proportion. These statistics indicate a higher degree of segmentation in the island population among those at the higher and lower ends of the income spectrum.

Potential Impacts and Mitigation Measures

Economic Impacts

The proposed action is anticipated to have several types of economic impacts. One type is construction-related employment and income. With a preliminary estimated cost of \$18

million, the project is expected to support a number of engineers and construction workers for the duration of the project (approximately 18 months). Unless the economy expands significantly and existing firms are working at full capacity, this project is more likely to help sustain existing employment and income levels than to create new jobs. However, because project funds are coming from (federal) sources outside the region, the wages paid to workers on this project (direct income), payments to suppliers (indirect income), and their subsequent expenditures (induced income) could have a large cumulative impact as the monies circulate through the local economy.

Fiscal Impacts

Public funds will be needed for long-term maintenance and repair of the proposed facilities. In the case of bridge and highway improvements, reconstructing the cane haul bridge will allow HDOT to extend the timeframe for major bridge repair and maintenance. Additional, if small, costs savings will also be achieved by reducing the scale of contraflow operations. After this project is completed, and with the expected widening of Kūhiō Highway from Kuamo‘o Road to the temporary bypass road, contraflow will no longer be needed from Wailua River north. Contraflow operations will continue during the weekday morning peak period south of Wailua River.

For the County of Kaua‘i, additional costs will be incurred by the Division of Parks and Recreation to operate, maintain, and repair the bike/pedestrian path, a new facility. A budget allocation will be needed to support personnel and their equipment. At the same time, as the County’s path system expands, there may be economies of scale that allow for more efficient operations, for example, by making it cost effective to acquire specialized path-sweeping equipment.

4.3.4 Scenic and Aesthetic Resources

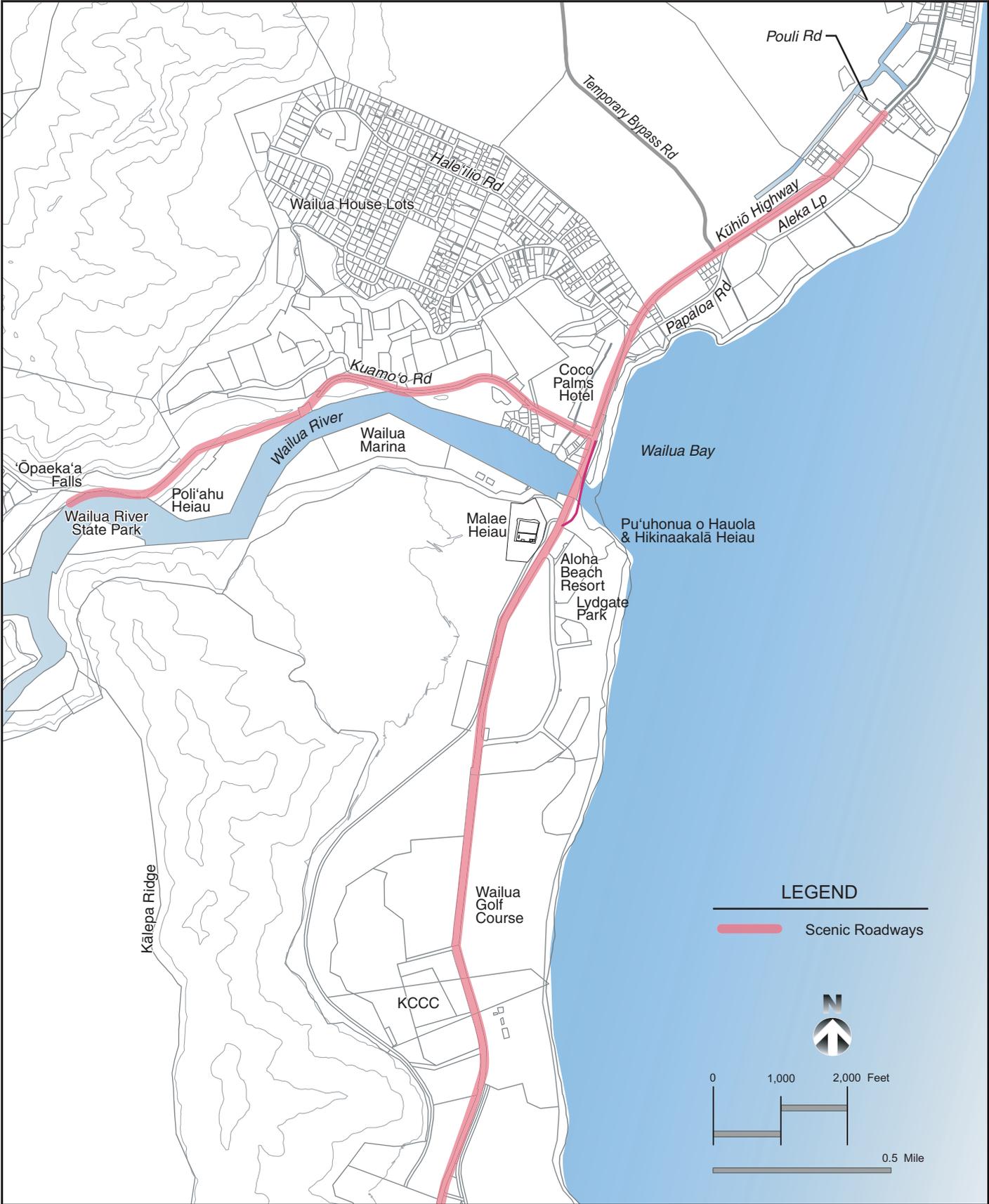
The 2000 *Kaua‘i General Plan* identifies important scenic resources, such as major land forms, open spaces, viewing points, and scenic drives. The Plan’s Kawaihau Planning District Heritage Resources map was reviewed to identify resources that may be affected by the project. Kūhiō Highway, from Lydgate Park to the coconut grove in Waipouli, is identified as a scenic roadway corridor. The project area is located within this stretch of Kūhiō Highway (see Figure 10).

Potential Impacts and Mitigation Measures

This project is not anticipated to have significant impacts on view planes of the coastline from the highway. The profile of the bridge will look different because of the steel panels used in the modular system; however, the bridge’s appearance will not change markedly.

Motorists will find that the side railings are slightly higher than the existing guardrails, but they will continue to enjoy mauka and makai views. One of the alternatives considered during the early planning stages of the project was rejected, in part, because the height of the vertical trusses (approximately 50 feet high) would have been a dramatic departure from the existing aesthetics of the Wailua River crossing.

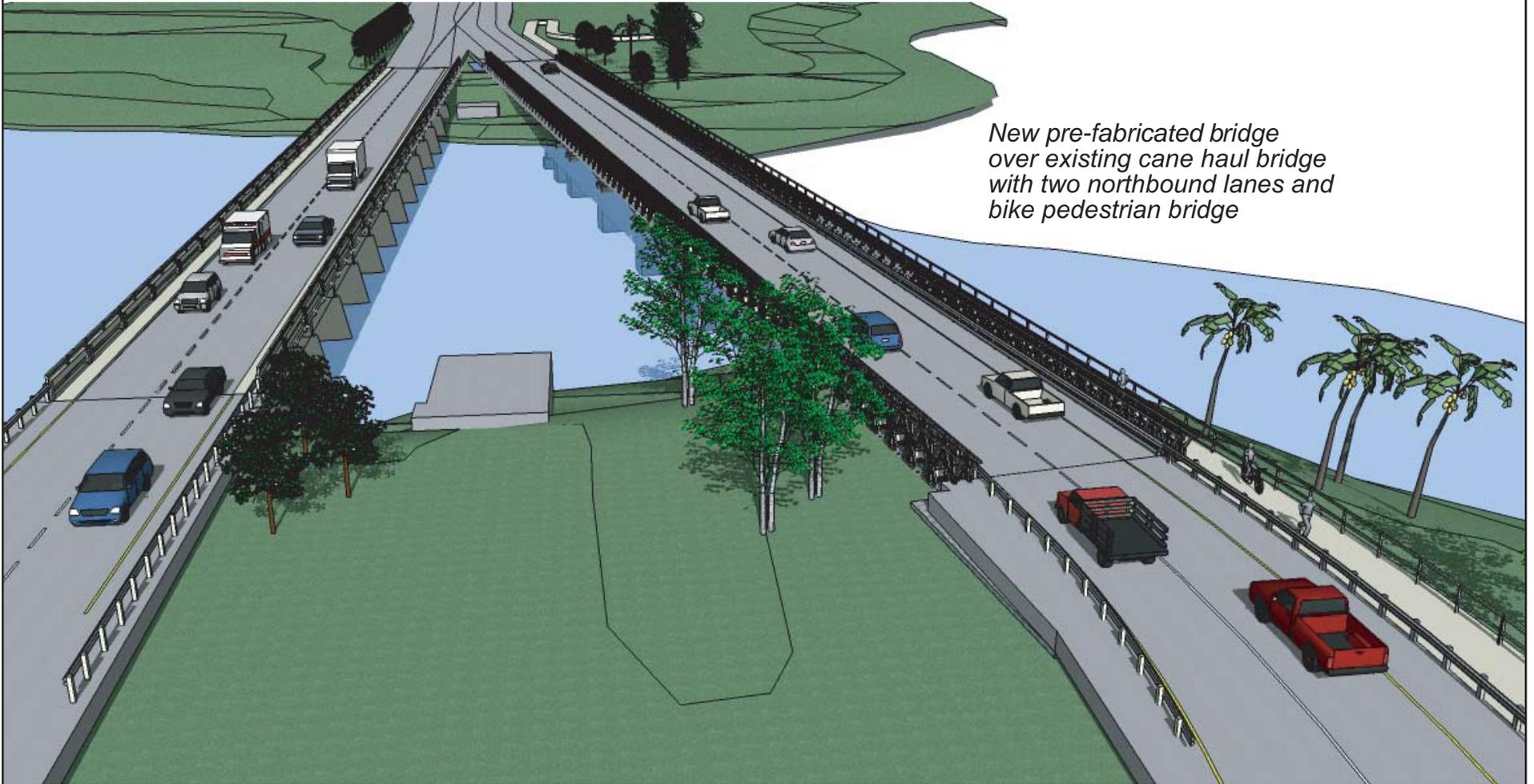
Figures 11 and 12 provide computerized simulations of the reconstructed bridge with the attached pedestrian lane.



Source: County of Kaua'i, *Kaua'i General Plan, 2000*

Figure **10**
Scenic Roadways
 Wailua River Bridge Improvements

*Existing Wailua Bridge
converted to
two southbound lanes*



*New pre-fabricated bridge
over existing cane haul bridge
with two northbound lanes and
bike pedestrian bridge*

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Figure **11**
**Oblique Perspective of Cane Haul Bridge Improvements
(Looking North)**
Wailua River Bridge Improvements

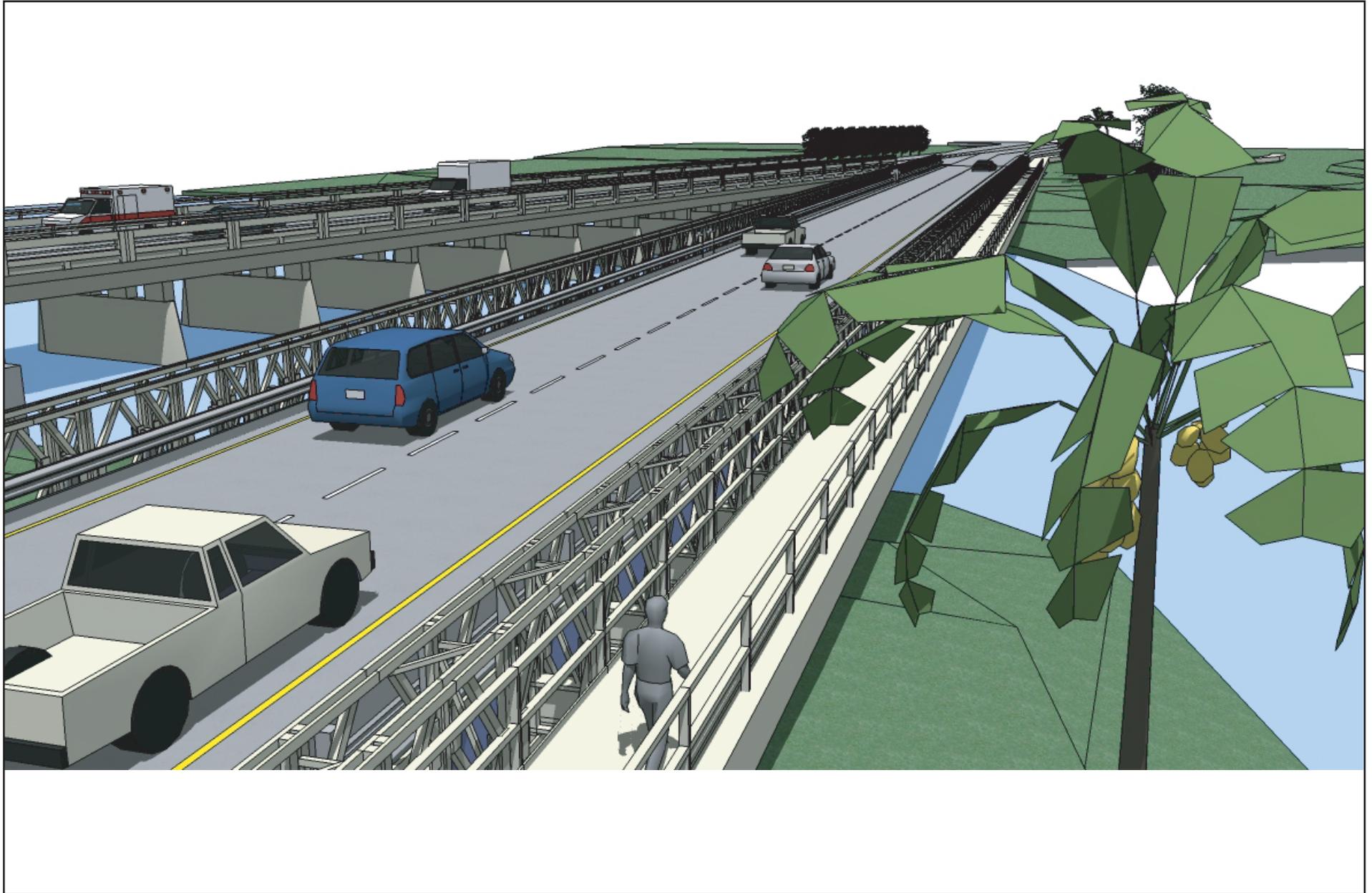


Figure 12
Oblique Perspective of Cane Haul Bridge and Walkway
(Looking North)
Wailua River Bridge Improvements

4.4 TRAFFIC AND CIRCULATION

Kūhiō Highway (State Highway No. 56) is the main transportation spine through the east side of the island. The highway serves regional through traffic between Līhu‘e and the North Shore. It also passes through the heart of the Waipouli-Kapa‘a commercial area; therefore, it also serves the local circulation needs of residents and businesses.

The proposed improvements will start at the north end of Leho Drive. Through the project area, Kūhiō Highway consists of two northbound lanes and one southbound lane. The three-lane configuration continues across Wailua River to Kaua‘i Village Shopping Center. South of Leho Drive, the highway is rural in character and the posted speed limit is 50 mph. North of Leho Drive, the posted speed limit varies between 25-35 mph crossing river and through the urbanized area. Except for the Wailua highway bridge, there are no curbs or sidewalks on Kūhiō Highway within the project area.

Potential Impacts and Mitigation Measures

Development in the State Highway Right-of-Way

This project will be constructed and operated within an existing highway facility. The highway and bridge improvements will occur in areas previously impacted by the original facility construction and subsequent upgrades and repairs.

The cane haul bridge has been used by the HDOT since the 1990s, when it became part of Kūhiō Highway and open to the motoring public. Improvements to the cane haul bridge were made initially through Project 56A-01-91 and, more recently, through Project STP 056-1(43) to refurbish the deck and install guardrails. Research-to-date indicates that use of the cane haul bridge was granted through a right-of-entry with the Department of Land and Natural Resources. HDOT is in the process of obtaining an Executive Order to withdraw lands in the highway corridor from DLNR and convey the right-of-way to HDOT. The improvements proposed in this project are within the 60-foot limits of the cane haul bridge and its approaches.

The bike/pedestrian path on the south side of Wailua River is also located within the highway’s limits. On the north side of the river, the bike/pedestrian path is located in Wailua Beach Park with the written consent and approval of the County of Kaua‘i, Division of Parks and Recreation, obtained during consultations under Section 4(f) of the U.S. Department of Transportation Act.

Wailua Marina Access Road

An engineering evaluation was conducted at the intersection of Kūhiō Highway and the Wailua Marina Access Road to determine whether a traffic signal is warranted. Before any

traffic signal is placed on a Federal-aid highway, the FHWA requires an evaluation to determine whether one or more “signal warrants” are satisfied, as described in the *Manual of Uniform Control Devices for Streets and Highways (MUTCD)*. Of the eight warrants described in the MUTCD, consultant Julian Ng, Incorporated, addressed the three warrants related to traffic volumes. The warrants related to pedestrian volume, school crossing, coordinated traffic signal system, and roadway network are not applicable to this location. Data to evaluate the eighth warrant, for crash experience, was not readily available.

Based on existing and expected future conditions, the study found that traffic volumes at the intersection of Kūhiō Highway and the Marina Access Road are not expected to meet any of the volume warrants from the MUTCD. There is sufficient traffic volume on Kūhiō Highway to satisfy the minimum volumes for a major street. However, even anticipating a new visitor parking area at Malae Heiau, the Marina Access Road does not have the minor street volumes necessary to meet or exceed the federal traffic signal warrants.

After stopping at the stop sign, motorists leaving the marina area and wishing to travel northbound on Kūhiō Highway will need to cross the two southbound lanes to the connector road. The connector road will also serve as a shelter lane for drivers waiting to turn left (northbound) onto Kūhiō Highway. The connector road has sufficient storage length for one car plus one bus.

Accessibility of the Bike/Pedestrian Path

The bike/pedestrian path will be designed and constructed in compliance with design guidelines issued under the Americans with Disability Act (ADA). These guidelines require a minimum path width that is five feet wide. Sections of the path on land will be at least 10 feet wide, while the bridged section over water will be 8 feet wide. The path will also meet the maximum grades on sloped sections.

Wailua Beach Parking and Access

Vehicular access to the southern parking area for Wailua Beach Park will not be affected. Access to the parking area from Kūhiō Highway will continue to be right turn in and right turn out only. The overall capacity of the parking lot will not be reduced and will remain unpaved. However, it may be reconfigured to accommodate the bike/pedestrian path.

A portion of the beach parking area may be used during bridge reconstruction for staging or to provide access to the construction site. Such usage will be temporary and kept to the minimum area necessary to expedite construction.

Traffic Impacts

Short-term Construction-related Impacts. Construction is expected to extend over 8-12 months. From a traffic perspective, the most severe impacts will occur when closure of the cane haul bridge is unavoidable, an estimated 2.5 months, leaving two travel lanes on the highway bridge. A concerted effort will be made to limit the duration of closures; however, the bridge will be unavailable when concrete sections are poured, approaches are realigned and, of course, when the existing deck is removed and replaced. A prefabricated bridge design was selected to minimize the time needed for construction. Extending the workday will also help to accelerate the construction schedule.

Traffic Control. HDOT is evaluating traffic control alternatives to mitigate congestion, in particular, when the cane haul bridge is closed and one travel lane across Wailua River is unavailable. Two approaches are being consideration: (1) to restrict left turns from Kūhiō Highway onto Kuamo‘o Road and provide a detour route or (2) to reconfigure the highway bridge temporarily for three travel lanes.

(1) No Left onto Kuamo‘o/Detour Route. In this approach, left turns from Kūhiō Highway (northbound) onto Kuamo‘o Road will be prohibited. Because of the proximity between Kuamo‘o Road and the river crossing, the left-turn queue is expected to back up onto the bridge. Disallowing the left turn at Kuamo‘o Road will facilitate traffic flow off the bridge, but a detour route must be provided for those using Kuamo‘o Road. Figure 13 shows four alternative detour routes:

- Alt. 1: Detour along the canal maintenance road mauka of Coco Palms
- Alt. 2: Detour loop through Wailua House Lots
- Alt. 3: Detour on cane haul road mauka of Kūhiō Highway
- Alt. 4: Detour on Papaloa Road and Lanikai Street

Of these, the most feasible detour is Alternative 4, wherein vehicles would turn right onto Papaloa Road, left onto Lanikai Street, then another left onto Kūhiō Highway (southbound), and a right turn onto Kuamo‘o Road. A police officer would be stationed at the intersection of Kūhiō Highway and Lanikai Street to assist left-turning vehicles. Alternative 4 is the shortest detour and uses public roads. The other detour alternatives are longer, require costly improvements, and/or involve private property.

AM Peak Period. Another concern is the morning peak traffic. At present, contraflow operations provide two southbound lanes to handle the high volume of traffic in the Līhu‘e-bound direction. When the cane haul bridge is closed, there will be only two lanes (both on the highway bridge). A proposal under consideration is to continue contraflow across the highway bridge during the morning peak period. Police officers or traffic control personnel will be stationed

on the marina access road, south of the bridge, and at the Kuamo‘o Road intersection. When Kūhiō Highway southbound has the green light at Kuamo‘o Road, southbound vehicles will be allowed to use both lanes of the bridge, while northbound vehicles will be stopped from traveling onto the bridge. After southbound vehicles have cleared the bridge, and while Kūhiō Highway has the red light, northbound traffic will be allowed to proceed on the makai lane of the bridge. At the same time, vehicles on Kuamo‘o Road turning right (southbound) onto the highway will use the mauka lane of the bridge.

This traffic control measure will increase traffic levels on Papaloa Road and Lanikai Street, with temporary inconveniences to the residents and businesses on the affected roadways. Travel times for Kuamo‘o Road users will increase by several minutes per trip because of the detour, if their trip originates south of Kuamo‘o Road. This traffic control measure is contingent upon completion of a project to widen Kūhiō Highway from Kuamo‘o Road to the temporary bypass road. Therefore, it has the additional impact of lengthening the overall timetable for transportation improvements in the Wailua corridor, and will affect all highway users on the east side.

- (2) Three Lanes on the Highway Bridge. A second approach is to modify the highway bridge temporarily to carry three lanes of traffic in order to maintain traffic capacity at the current level. The three lanes will be configured for two lanes northbound and one lane southbound, except during the weekday morning peak period when contraflow operations will provide two southbound lanes (see Figures 14 and 15). This proposal involves partial removal of the sidewalk on the makai side of the highway bridge and installation of a temporary guardrail. The sidewalk on the mauka side will remain as is, and be open for pedestrians and bicyclists (to walk their bicycles across). After the cane haul bridge reopens, the makai sidewalk will be restored to its original dimensions and the guardrail will be removed. In the long-term the highway bridge will carry two southbound vehicular lanes.

With this traffic control alternative, there would be no restrictions on left turn lanes from Kūhiō Highway onto Kuamo‘o Road and no need for a detour route, except as a back-up measure.

This traffic control alternative is expected to provide the most favorable mitigation against traffic congestion while the cane haul bridge is closed. However, the 58-year old bridge is a historic resource eligible for the National Historic Register; therefore, consultations with the appropriate agencies are in progress.

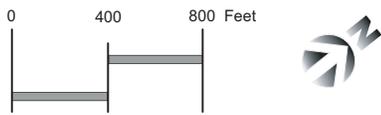
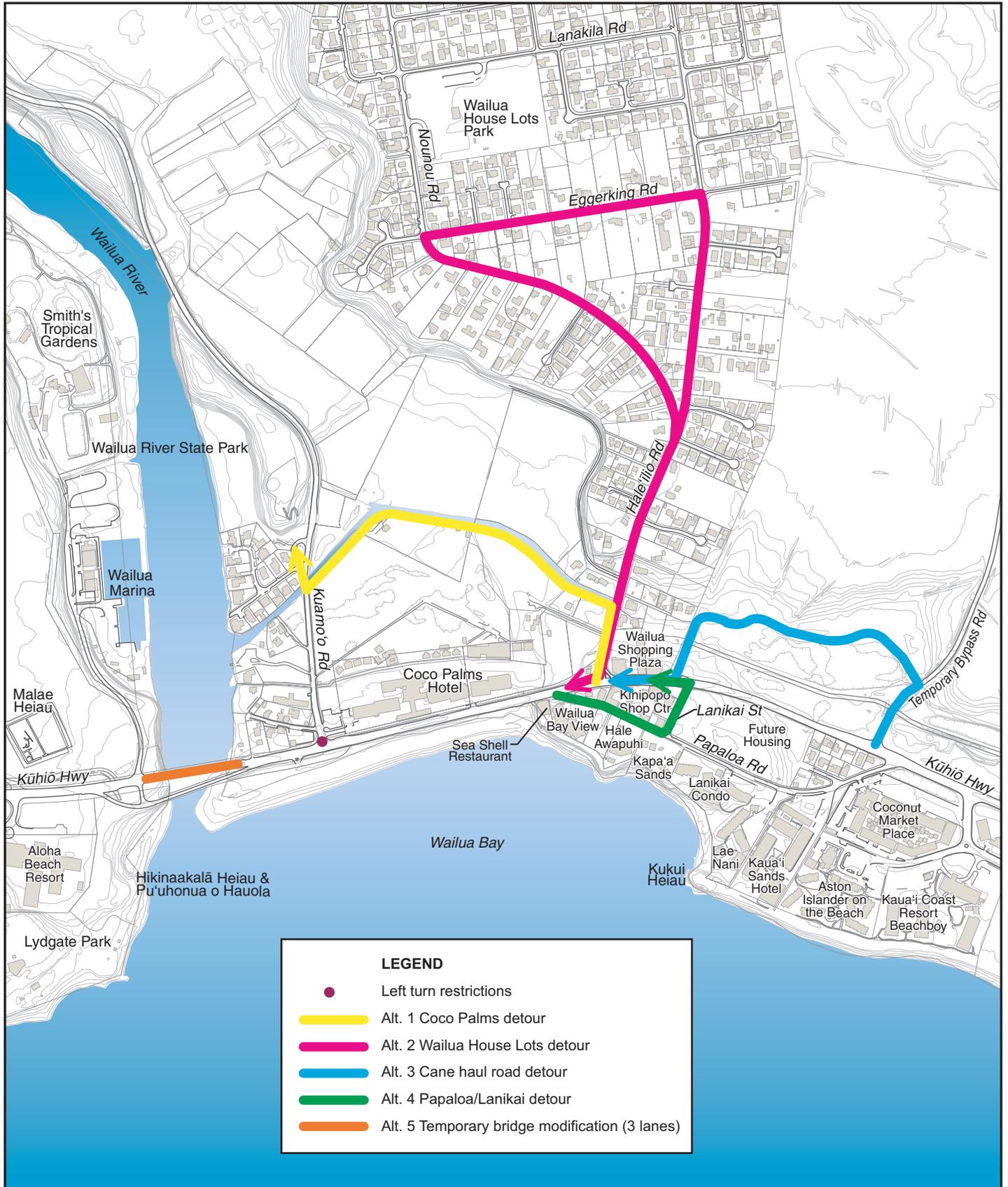
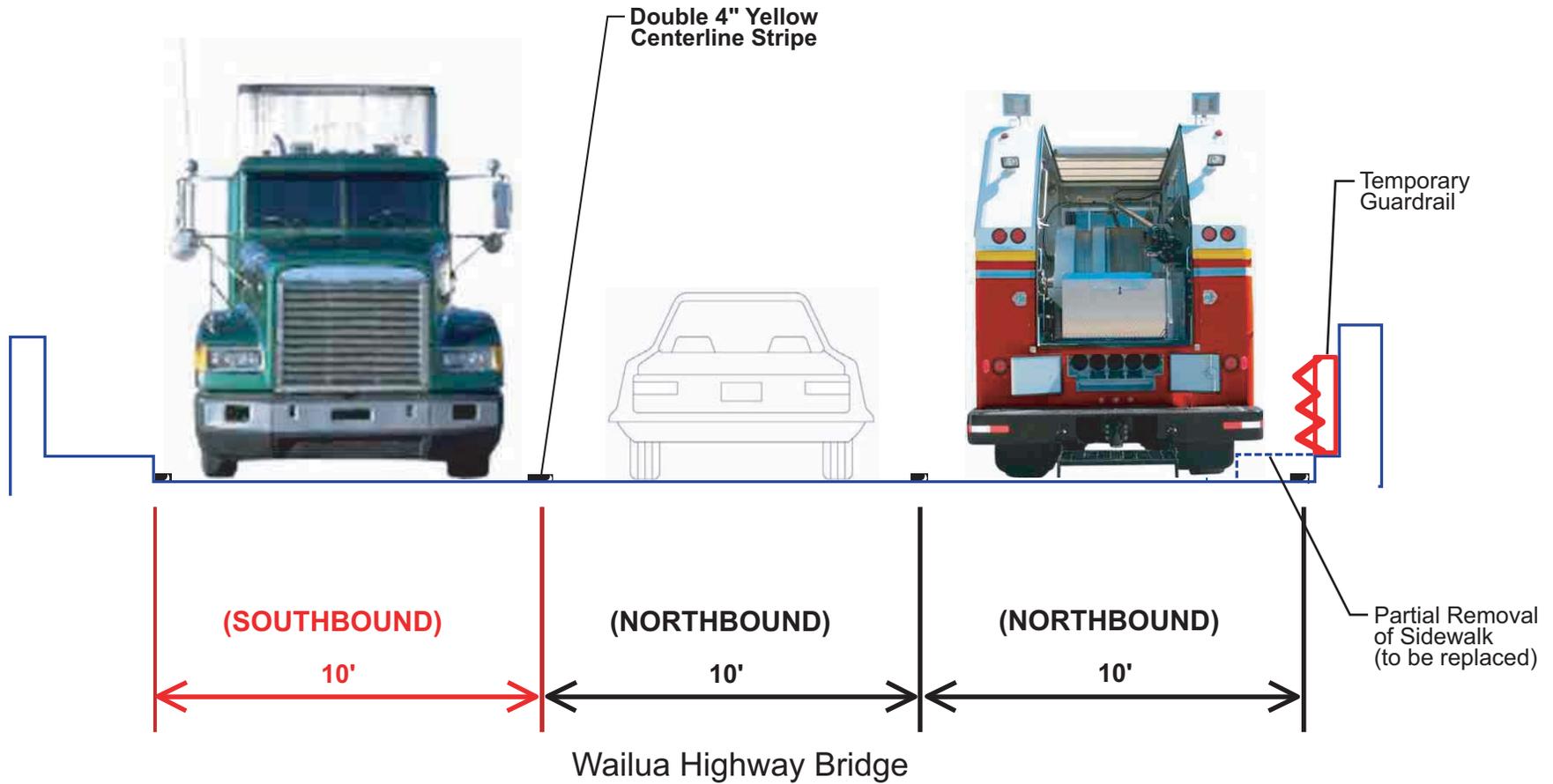


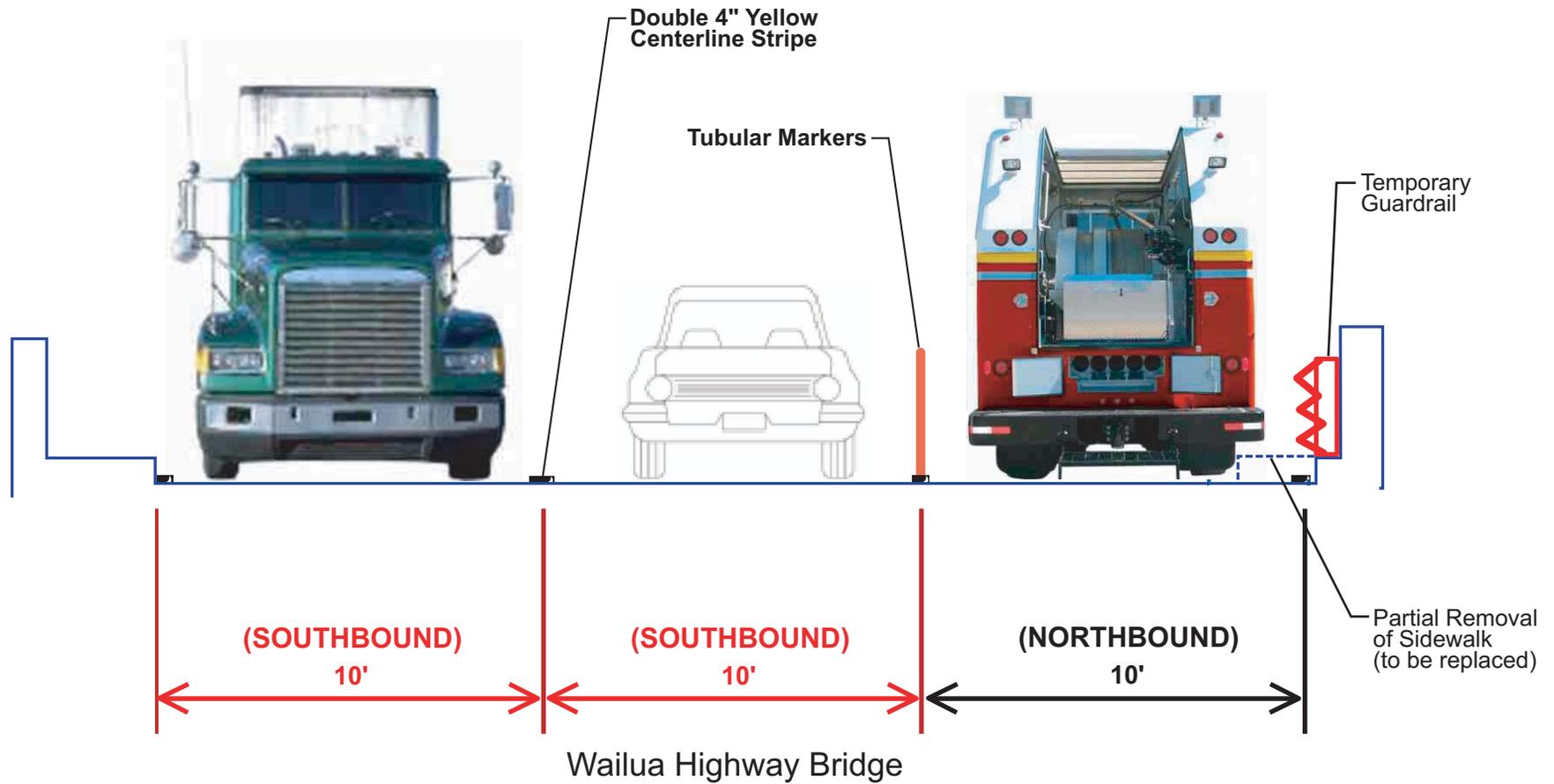
Figure **13**
Traffic Control Alternatives
Wailua River Bridge Improvements

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Normal Lane Configuration (Conceptual)

Figure **14**
Traffic Control Alternative 5
Wailua River Bridge Improvements



A.M. Contraflow Southbound (Conceptual)

Figure **15**
Traffic Control Alternative 5
Wailua River Bridge Improvements

Besides the traffic control options discussed previously, project engineers also studied an alternative to allow left turns from Kūhiō Highway onto Kuamo‘o Road with a police officer stationed at the intersection. However, even with an officer directing traffic, the volume of cars going through and turning left will be too heavy to prevent the queuing of cars on Wailua Bridge. Once a backlog occurs, northbound traffic will be at a standstill. Therefore, this alternative was dismissed.

A final traffic control plan will be selected and fleshed out based on agency coordination, further analysis of technical feasibility and costs, and comments received on the DEA. Any traffic plan will include public notices and electronic signboards to inform motorists about the work schedule and to help plan their travels.

Post-construction Impacts. At the Kuamo‘o Road intersection, the existing Kūhiō Highway normally has a single southbound through lane and a separate right turn lane to Kuamo‘o Road. There are two through lanes for northbound traffic with a separate left turn lane for vehicles turning onto Kuamo‘o Road. During the weekday AM peak period, cones are used to implement a contraflow operation in which one northbound lane is reversed to carry southbound traffic. After the project is completed, Kūhiō Highway will be widened to four lanes south of Kuamo‘o Road, thereby eliminating the need for contraflow operation in the AM peak period.

The operational analysis described in the *Highway Capacity Manual* was used to evaluate existing operations at the Kuamo‘o Road intersection (see Table 1) and repeated for the proposed improvements.

Table 1. Levels of Service, Intersection of Kūhiō Highway and Kuamo‘o Road

	Average Delay per Vehicle (seconds), LOS					
	Kuamo‘o Road		Kūhiō Hwy northbound		Kūhiō Hwy southbound	
	Left turn	Right turn	Left turn	Through	Through	Right turn
AM Peak Hour						
Existing	132.9 F	371.9 F	54.2 D	16.4 B	119.9 F	3.1 A
After project	34.9 C	301.5 F	49.2 D	10.5 B	95.0 F	2.4 A
PM Peak Hour						
Existing	131.1 F	60.1 E	286.8 F	8.3 A	109.2 F	37.0 D
After project	54.6 D	27.5 C	42.4 D	5.9 A	29.9 C	23.9 C

Source: Traffic Report, Kūhiō Highway Short-term Improvements by Julian Ng, Incorporated, November 2005.

For existing conditions, signal timing parameters obtained from the Highways Division were used. A cycle length of 150 seconds was used for the AM Peak Hour and a cycle length of 240 seconds was used for the PM Peak Hour. The long cycle lengths result in long delays and poor levels of service for southbound traffic on the highway and for Kuamo‘o Road movements. If a shorter signal cycle (120 seconds) were used, overall capacity of the intersection would be reduced further.

All of the intersection measures are expected to improve after the project is completed in terms of reducing the average delay per vehicle. In most cases, the reduced delay times produce an improvement in the LOS rating. Predicted benefits to the LOS are especially notable during the PM Peak period which, under existing conditions, has only one southbound travel lane.

Contraflow Operations

The existing contraflow operation on Kūhiō Highway extends from the intersection of the temporary bypass road to the Kūhiō Highway and Kapule Highway intersection. The proposed improvements will alleviate the need to contraflow in the project area. However, contraflow operations will continue south of the project area, between Wailua River and Kapule Highway, to efficiently utilize the three lanes that are available on the highway.

Relationship to Other Transportation Improvement Projects

Kūhiō Highway Widening, Kuamo‘o Road to the Temporary Bypass Road. A related project is the widening of Kūhiō Highway from Kuamo‘o Road to the temporary bypass road. This project will add one southbound travel lane within the existing right-of-way. Because of the interface between this project and the Kūhiō Highway widening project, close coordination will be maintained to integrate the design work, and to organize and schedule construction to minimize disruptions to the motoring public.

Future Bypass Highway. HDOT is studying several alternatives to address long-term transportation needs in east Kaua‘i through the Kapa‘a Relief Route project. The short-term improvements proposed in this project will not eliminate the need for comprehensive measures to meet future traffic volumes. The Kapa‘a Relief Route project has a planning horizon to the year 2025. As seen in Table 1, this project will ease traffic congestion, but will not provide enough additional capacity to meet the long-term needs of a federal-aid highway.

At the outset of the Kapa‘a Relief Route project, proposals to add a fourth lane across Wailua River and to widen Kūhiō Highway from the river to the temporary bypass road were considered as part of a Transportation System Management (TSM) Alternative.

Because these improvements are on an accelerated schedule, they will become part of the pre-existing condition in the Kapa‘a Relief Route project.

The Kapa‘a Relief Route project will continue to study two alternatives for the Wailua River crossing. One option is to build a new, six-lane bridge at the approximate location of the existing bridges. Preliminary engineering studies indicate that both bridges would have to be demolished, with the cane haul bridge site used to phase in construction. The new crossing would be designed with sufficient capacity to meet future traffic volumes and would comply with current design standards.

A second option is to build a new river crossing at a location approximately one-half mile further inland. The mauka bridge would carry four travel lanes, two in each direction. The existing bridges would remain in use.

Lydgate Park to Kapa‘a Bike/Pedestrian Path. The County of Kaua‘i, Department of Public Works is planning to construct a bike and pedestrian path from Lydgate Park path to Lihi Park (Waikā‘ea Canal). The southernmost section of this path (approximately one-third mile) will be construction in conjunction with the Kūhiō Highway improvements since both projects involve the cane haul bridge. The County will construct the rest of the path as a separate effort, beginning at Wailua Beach Park and continuing to Lihi Park.

4.5 PARK AND RECREATION FACILITIES

Public parks are a major land use in the project area (see Figure 16). Kūhiō Highway passes through the Wailua River State Park. The project will also affect the County’s Wailua Beach Park.

Wailua River State Park

TMK: 3-9-06: 29

Owner: State of Hawai‘i, Department of Land and Natural Resources, State Parks Division

Wailua River State Park is a State-owned park in the project area. The park was established in 1954, and has an estimated annual visitation of 615,812 based on a 2003 visitor survey conducted for the Hawai‘i Tourism Authority. The Wailua River State Park is located along the banks of the Wailua River and covers a large tract of land extending from the shoreline makai of Kūhiō Highway up into the valley. It encompasses over 1,000 acres of land, of which about 50 acres are developed for recreational use, including sight seeing of natural and cultural sites, hiking, picnicking, and boat rides along the river.

This large State park complex is comprised of several other park areas including the Fern Grotto Area, the Marina Area, the Wailua River Reserve Area, Kaumuali‘i Area, Poli‘ahu

Area, Hikinaakalā Heiau State Historic Site and Malae Heiau State Historic Site. Lessees include Smith's Tropical Paradise and the Marina Restaurant. Many of these areas are scattered within the 1,000 acres, which requires visitation by vehicle for most of these park areas. Wailua River State Park includes three waterfalls, two of which can be viewed from within the park (Wailua Falls on the river's south fork and 'Ōpaeka'a Falls on 'Ōpaeka'a Stream that feeds into the Wailua River). The Wailua Beach Park and Lydgate Park, located along the shoreline, were formerly part of the Wailua River State Park, before their transfer to the County in 1992.

The Fern Grotto and the Wailua River Reserve Area are located in the mauka areas of the park outside of the project corridor. These mauka areas are accessed via Kuamo'o Road, which connects with Kūhiō Highway just north of the Wailua River Bridge. Another recreational area in the upper river valley outside the project corridor is the Keahua Arboretum, where hiking and picnicking activities are managed by the Department of Land and Natural Resources (DLNR) Division of Forestry and Wildlife.

The Wailua Complex of Heiau National Historic Landmark (NHL) is located within the Wailua River State Park. This heiau complex is comprised of seven historic sites, grouped into five discrete sites. The path passes mauka of Hikinaakalā Heiau and Pu'uho'ou o Hauola (designated as State Historic Site No. 50-30-08-105 and one of the five NHL sites), but will not have an adverse impact on these important cultural sites. A cluster of boulders with petroglyphs, known as Ka Pae Ki'i Mahu o Wailua (State Historic Site No. 50-30-08-105A) is located offshore in a small inlet at the mouth of the Wailua River.

Vehicular access to the Wailua Marina area, also within the project area, is via Marina Access Road, which connects with Kūhiō Highway just south of the Wailua River Bridge. There are currently three private concessionaires in the Marina Area--the Wailua Marina Restaurant, a gift shop, and Smith's boat tours. Smith's Tropical Paradise is a 30-acre botanical and cultural garden, and includes luaus three evenings per week. An international pageant featuring dancers representing Pacific cultures is held on Monday, Wednesday and Friday evenings in the amphitheatre. Smith's has a lease from the State for these facilities.

Wailua River is the largest navigable river in the state. Daily commercial boat tours transport visitors from the Marina to Fern Grotto, one of Kaua'i's most famous visitor attractions (Clark, 1990). The boat ramp at the Marina is used by the concessionaires, the permitted commercial water skiing company, the permitted commercial kayak/hiking tours, and by the State Department of Land and Natural Resources. There is also a boat ramp at the Kaumuali'i area, which is used by public boaters. Several canoe clubs launch their canoes from Old Smith's Landing on the northwest corner of Wailua Bridge. Fishing activities generally occur in the lower marina area along with crabbing along the banks. The marina dock and ramps and the Kaumuali'i boat ramp are under the jurisdiction of the State of Hawai'i Department of Land and Natural Resources, Division of Boating and Ocean Recreation (DOBOR).

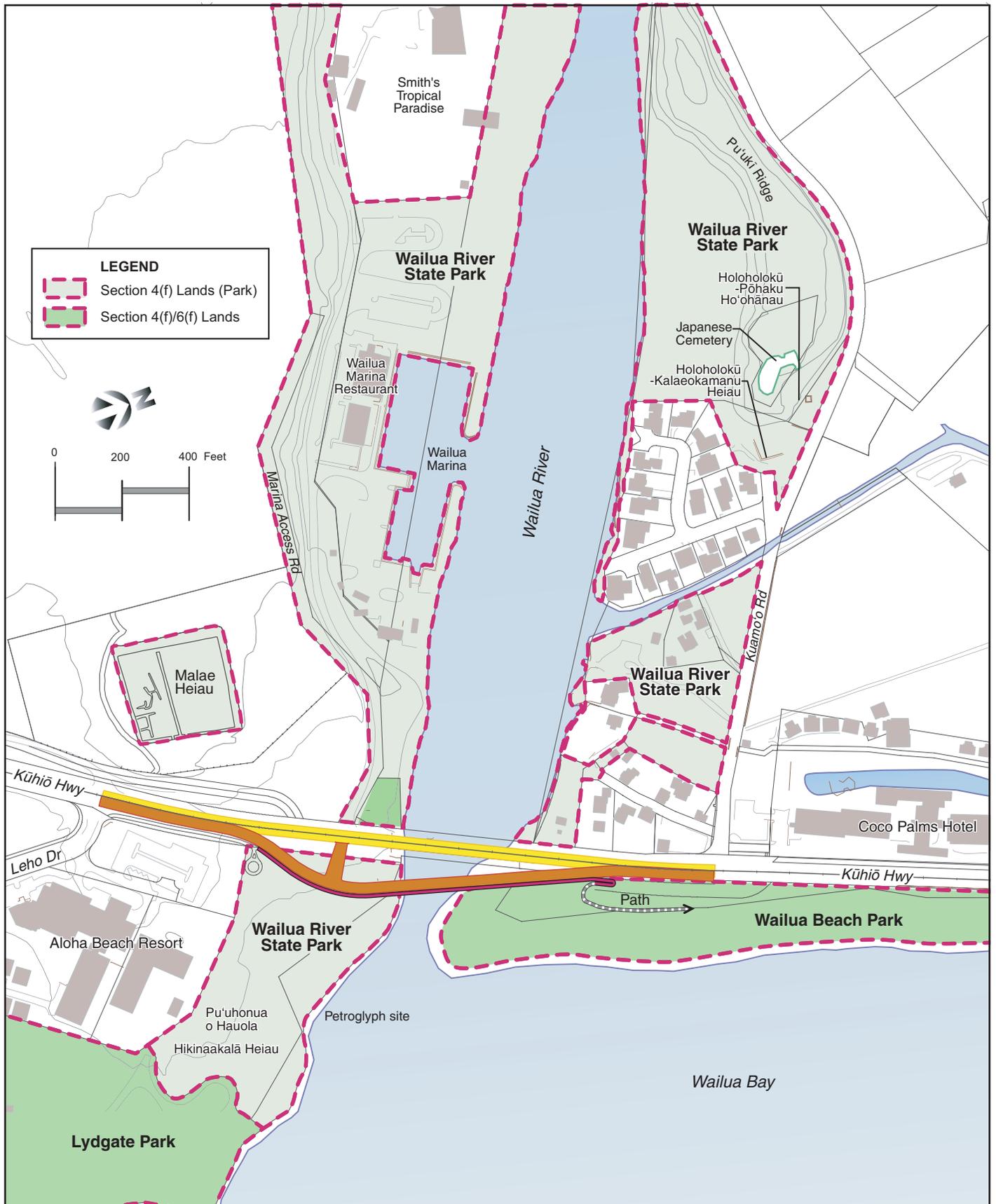


Figure 16
Parks

Wailua River Bridge Improvements

Wailua River Use Regulations

By amendments to Chapter 13-250 and 13-256, Hawai‘i Administrative Rules, adopted in September 2002, the State of Hawai‘i implemented regulations for navigable waters of the Wailua, with boundaries beginning at the high water mark at the mouth of the Wailua River and including all the navigable waters along the Wailua River in a westerly direction to the base of Kaholalele Falls on the north fork of the river and all of the navigable waters to the base of the Wailua Falls on the south fork of the river.

The restricted area is divided into four zones (see Figure 17):

- Zone A includes all the navigable waters beginning 50 feet into the river from the western side of the Wailua River bridge and from 75 feet into the Wailua River from the north shoreline to approximately 1,800 feet along the shoreline, then extending from the banks of the north shoreline to approximately 783 yards upstream, as indicated by navigational aids designating the boundary between Zones A and B.
- Zone B includes all waters extending approximately 2 miles upstream from the navigational aids on both sides of the river designating the boundary between Zones A and B.
- Zone C includes the waters beginning at the west side of the Wailua River ridge between the north and south banks and extends 50 feet into the river, then proceeds along the north shoreline extending 75 feet into the Wailua River from the north shoreline to a point approximately 1,800 feet along the shoreline.
- Zone D begins at the eastern boundary of Zone C and extends under the Wailua River bridge between the north and south banks, extending to the shoreline.

The eastern half of the lower Kaumuali‘i area, Zone A, is used exclusively for launching and recovery of Hawaiian outrigger canoes. The western half of lower Kaumuali‘i area, Zone A, may be utilized by recreational vessels other than Hawaiian outrigger canoes.

General Rules

Only commercial and recreational vessels not exceeding 21 feet in length are allowed to utilize the Wailua River and use is limited to vessels for waterskiing, motorized vessels (but excluding thrill craft), and manually propelled vessels (such as canoes and kayaks). Commercial activity is regulated by permits, restrictions on the number of vessels allowed per activity permit, and the activity zones.

- Recreational motorized vessels and recreational and rented manually propelled vessels may utilize Zones A, B, and C
- Zone C is designated a swimming zone, indicated by marker buoys.
- All manually propelled vessels required to operate along side the northern river bank.
- All vessel operators shall possess a state park permit to embark or disembark along the shores only within the state park in Zone B.
- Commercial barges or vessels allowed by the department may only use Zones A and B
- All commercial vessel activity is prohibited from Zones C and D.

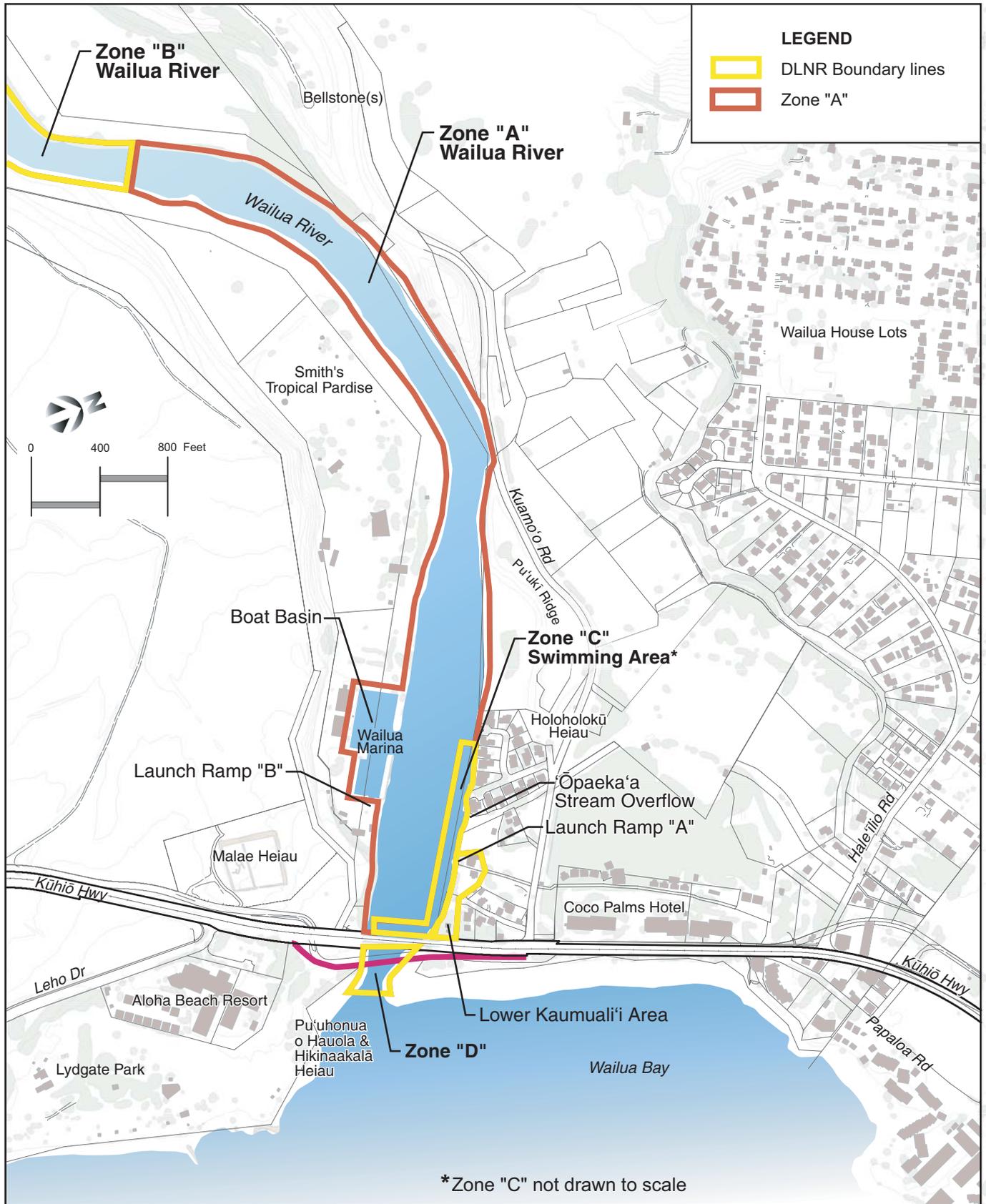


Figure **17**
Wailua River Use Management Zones
Wailua River Bridge Improvements

Wailua Beach Park

TMK: 4-1-04: 01; 4-1-05: 04; 4-3-02: 01

Owner: County of Kaua‘i

Wailua Beach Park encompasses about 6.0 acres of undeveloped beach area situated to the north of Wailua River and makai of Kūhiō Highway. This County-owned park is located near the mouth of the river, and is a popular area for both visitors and residents. The near shore bottom fronting most of the beach consists of a shallow sand bar, creating favorable surfing conditions. The beach is also used by swimmers, sunbathers, and fishermen.

The park was part of the Wailua River State Park complex before being transferred to the County in 1992. There are two unpaved parking areas off Kūhiō Highway, one just north of the Wailua River Bridge, and another adjacent to the vacant Seashell Restaurant. There are limited public facilities provided at this beach park—a few portable toilets, showerheads, and a lifeguard station.



Kūhiō Highway looking north, approaching the Kuamo'o Road intersection. Wailua Beach Park is to the right.



Wailua Beach Park



Wailua Beach Park makai of the Wailua Plantation Bridge



Park users on north end of Wailua River

County Pedestrian/Bike Path

The County is proposing the development of a 16-mile, shared use path on the east side of Kaua‘i, extending from Nāwiliwili (south of the project corridor) to Anahola (north of the project corridor). The path will be used by pedestrians, bicyclists, and other users.

The pedestrian/bike path is being proposed in phases. A 2.3-mile phase was constructed in Lydgate Park in 2003. Future phases within the project corridor include a Lydgate Park to Waika‘ea Canal phase, and a Waika‘ea Canal to Keālia phase. The Lydgate Park to Waika‘ea Canal phase includes the bike/pedestrian path that is part of this project. Construction of the Waika‘ea Canal to Keālia phase began in early 2006.

Potential Impacts and Mitigations Measures

Wailua Beach Park. The highway component of the subject project is completely outside Wailua Beach Park. During construction, there may be temporary restrictions on recreational activities near the construction site.

The northern end of the bike/pedestrian path is in Wailua Beach Park. The path will ramp down from the cane haul bridge and reach ground level in the vicinity of the southern parking area. The bike/pedestrian path will improve access to the park and improve connectivity with the Wailua State Park and Lydgate Park on the south side of the Wailua River.

Wailua River State Park. Proposed highway improvements will be made within the existing alignment and are not expected to generate a net change in impacts on the State Park.

During consultations with the Division of State Parks, concern was expressed about the possibility that path users would go off the path and into the nearby sacred sites of Hikinaakalā Heiau and Hauola (see Appendix D, Programmatic Section 4(f) Determination for Independent Bikeway and Walkway). To mitigate these potential impacts, a combination of landscaping, railings, and signs will be used to educate path users about the cultural significance of the area and discourage them from deviating from the path.

The Division of State Parks also expressed concerns about the petroglyph rocks located off shore, but which are associated with Hikinaakalā. Given the distance between the rock formation and the cane haul bridge, no adverse construction-related or long-term impacts are expected.

4.6 PUBLIC HEALTH AND SAFETY

4.6.1 Police Services

The County of Kauaʻi Police Department has three stations located approximately 25 miles apart. The main station and administrative headquarters is located in Līhuʻe; smaller stations are co-located with fire stations in Waimea and Hanalei. A small substation is located on Niu Street adjacent to Kapaʻa Beach Park. To ensure continued high levels of public safety, a new police headquarters building was constructed recently in a newly established judiciary complex.

4.6.2 Fire and Emergency Medical Services

The Fire Department's main station and administration headquarters are located in Līhuʻe. There are six other stations, including one in Kapaʻa. The existing station is located on Kūhiō Highway, at Pouli Road. A new facility is being designed on a site near Mahelona Hospital. The County has a unified, island-wide system of fire protection and rescue services. Satellite stations typically have 2-3 men per station to provide quick response to medical calls.

The island's main trauma center is located at Wilcox Memorial Hospital in Līhuʻe, approximately five miles from Wailua River. Emergency-room services are also available at Samuel Mahelona Memorial Hospital in Kapaʻa, primarily for the treatment of non-life threatening illnesses, injuries, and conditions.

Potential Impacts and Mitigation Measures

In the short-term, construction activities may generate an increase in calls to the police from motorists who are confused by or have complaints about temporary lane closures and disruptions to portions of Kūhiō Highway and adjacent County roadways. To mitigate traffic impacts, a traffic control plan will be developed and coordinated with the appropriate State and County agencies. Police officers may be hired to assist with implementing traffic controls during construction. However, these added services should not negatively impact the Department's regular operations.

The Contractor will be required to make provisions for emergency access and will be required to maintain full access during non-working hours. Emergency services, including police, fire, and ambulance services, will be notified prior to implementation of any required roadway closures or detours.

The project is not expected to have long-term impacts on public safety services.

4.7 PUBLIC INFRASTRUCTURE AND UTILITIES

4.7.1 Water and Wastewater Systems

The County of Kauaʻi, Department of Water provides water service throughout the island. Water lines are generally located in the streets and distribute potable water for domestic, industrial, and commercial consumption and for fire protection. There is a 12-inch water line attached to the underside of the Wailua River highway bridge. This waterline will be replaced by a new 16-inch water line in the future.

Wastewater generated on Kauaʻi is processed by three types of systems: the County sewage system, private treatment facilities, and individual cesspools. The County's wastewater system is operated by the Department of Public Works, Wastewater Division. Sewage from the Kapaʻa, Waipouli and Wailua areas flows via gravity lines and collected at sewage pump stations located along Kūhiō Highway and Papaloa Road. Sewage is pumped through force mains to the Coco Palms sewage pump station located at the intersection of Kūhiō Highway and Haleʻilio Road. Crossing Wailua River, sewage passes through existing 10- and 16-inch sewer force mains attached to the makai side of the Wailua River highway bridge.

Sewage is then pumped to the Wailua Wastewater Treatment Plant (WWTP) located on Leho Drive, one of four County-owned wastewater treatment facilities on the island. The Wailua WWTP was constructed in 1968 and upgraded in the early 1990s. It currently has a design capacity of 1.0 MGD (million gallons per day). Secondary treatment is generally applied at the facility, but it also has the equipment to apply tertiary treatment if needed.

The WWTP treats about 0.8 MGD. The treated effluent is used primarily to irrigate Wailua Golf Course. An ocean outfall is available as a backup.

Potential Impacts and Mitigation Measures

The proposed action will not have a large demand for water. During construction, water will be used for dust control and to expedite the growth of plant cover for erosion control.

Over the long term, water use will be minimal. Landscaping will include low-maintenance, drought-tolerant plants where possible.

The proposed action will not generate additional wastewater flows.

Existing water and sewer lines are attached to the Wailua River highway bridge, which will not be affected by improvements to the cane haul bridge. Relocation of utility lines under the north and south approaches is not anticipated.

4.7.2 Solid Waste Management

The County of Kauaʻi, Department of Public Works, Solid Waste Division operates the primary refuse collection system. The County is responsible for regulating the disposal of all solid waste with the exception of hazardous materials. Refuse collection crews operate out of three baseyards on Kauaʻi, including one in Kapaʻa that covers trash collection from Puhi to Anahola.

The island has a single landfill located in Kekaha. The 34-acre Kekaha Landfill Phase II site opened in 1993 and was allowed by the State to have its height limit increased to 60 feet in 1998. In FY 1999, the landfill accepted approximately 67, 590 tons of solid waste. The facility also serves as a drop-off point for segregated recoverable waste, such as cardboard, newspaper, glass, aluminum cans, and batteries. The remaining lifespan of the landfill with the addition of the vertical expansion and assuming then-current waste levels was 5-6 years. The search for a new landfill site is in progress.

Potential Impacts and Mitigation Measures

Solid waste impacts are expected to be short-term and related to construction activities. Removing the existing deck from the cane haul bridge will generate debris consisting primarily of concrete slabs, asphalt pavement, and metal guardrails, posts, and fastenings. The contractor will be required to dispose of or recycle all materials at approved sites and with proper handling during transport. The contractor will be required to have a waste disposal plan that specifies proper removal and disposal of all debris from the project area.

Project-related waste material would be a small proportion of the islandwide total, and is not expected to have a significant impact on the County's solid waste facilities.

By State law, HRS §§103D-407, highway and road construction projects funded by the State or a County are required to use a minimum of 10% crushed glass aggregate in all base course and sub-base, when glass is available to the contractor at a price no greater than the equivalent aggregate.

4.7.3 Electrical and Telecommunications Systems

Electrical System

The Kaua'i Island Utility Cooperative (KIUC) is the local utility company that provides electrical power to service customers on the island. KIUC customers in the project area are served from two substations, the Lydgate Substation located south of Wailua River and the Kapa'a Substation located north of the river.

A major KIUC overhead pole line system runs along the entire length of the Kūhiō Highway corridor. The overhead system typically consists of a 57.1 kV transmission circuit, 12.47 kV distribution circuit(s) and secondary lines mounted on joint use poles. Pole-mounted transformers serve the smaller loads, including street lighting. Many larger loads are served from 12.47 kV lines that are run underground from the pole line along Kūhiō Highway to a pad-mounted transformer located on or near the customer's property.

Telecommunications Systems

Hawaiian Telcom (formerly Verizon Hawaii) is the utility company that provides land line telecommunications service to customers on the island. The company's main telecommunications lines run along the Kūhiō Highway corridor. These lines consist of a varying combination of cable (copper and fiber optic) and method of distribution (overhead and underground).

There are numerous copper cables that run along Kūhiō Highway. These copper cables support anywhere from several hundred to several thousand pairs of conductors. Except when crossing under the Wailua River, these main copper cables are routed overhead. The cables are mounted on joint use poles with KIUC cables and on dedicated telecommunications poles. Thus telecommunications lines may be found on poles on both sides of Kūhiō Highway in some locations.

Hawaiian Telcom's fiber optic cables also run along Kūhiō Highway. These cables support from 24 up to 72 fiber optic strands in different sections along the highway. The main fiber optic cables are routed underground to the Kapa'a Central Office. Hawaiian

Telcom also has existing fiber optic duct lines attached to the underside of Wailua River highway bridge.

Oceanic Time Warner Cable is the company that provides wired cable television (CATV) service to customers on the island. The CATV distribution system generally consists of overhead lines. Oceanic Cable fiber optic and coaxial cables are run overhead on joint use and dedicated telecommunications utility poles along the length of Kūhiō Highway. Laterals are also run overhead along secondary roads to service nearby residential areas.

Sandwich Isle Telecommunications has an existing fiber optic ductline system (6-inch duct in a casing) attached to the underside of Wailua River highway bridge.

Highway Lighting and Power

The lighting system along Kūhiō Highway generally consists of street lights with metal arms mounted on wood utility poles. The street lights typically consist of a “cobra head” type luminaire with a high pressure sodium lamp. KIUC owns, operates, and maintains the highway lighting system.

While not owned, operated or maintained by utility companies, traffic signal control cables are routed overhead on poles shared with Hawaiian Telcom and/or KIUC along significant portions of Kūhiō Highway. These traffic signal cables are owned, operated, and maintained by the State Department of Transportation, Highways Division.

Potential Impacts and Mitigation Measures

The southern approach to the cane haul bridge will need to be reoriented, thereby requiring relocation of at least one utility pole which supports electrical cables. HDOT will coordinate with KIUC for proper relocation of affected facilities.

At present there are a number of cables and duct lines on the Wailua River highway bridge that will not be affected by this project. In pre-assessment comments, Hawaiian Telcom inquired about the possibility of attaching cables to the cane haul bridge to replace the overhead cables that are now located between the highway and cane haul bridges. The HDOT is disinclined to attach any utility line on the cane haul bridge because of the interim status of this bridge. Meanwhile, the existing overhead cables are a potential obstacle to cranes and other equipment, and will require special consideration during construction planning to ensure against damage or other adverse impacts.

There is an existing telephone booth near the existing entrance to the southern parking area of Wailua Beach Park. Project designers will work with Hawaiian Telcom to relocate the telephone booth to make it accessible according to the ADA Accessibility Guidelines.

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5 LAND USE PLANS, POLICIES, AND CONTROLS

This chapter discusses the project's relationship to and consistency with State of Hawai'i and Kaua'i County plans, policies and regulations.

5.1 STATE OF HAWAI'I

5.1.1 Hawai'i State Plan

The Hawai'i State Plan, Chapter 226 Hawai'i Revised Statutes (HRS), established a set of goals, objectives and policies that serve as long-range guidelines for the growth and development of the State. The Wailua Bridge improvement project is generally consistent with the objectives and policies of the Hawai'i State Plan. The project is compatible with applicable elements of the State Plan, as described below.

Section 226-12, Objective and policies for the physical environment—scenic, natural beauty, and historic resources.

Objective: (a) Planning for the State's environment shall be directed toward achievement of the objective of enhancement of Hawai'i's scenic assets, natural beauty, and multi-cultural/historical resources.

Policies: (1) Promote the preservation and restoration of significant natural and historic resources.
(3) Promote the preservation of views and vistas to enhance the visual and aesthetic enjoyment of mountains, ocean, scenic landscapes and other natural features
(4) Protect those special areas, structures, and elements that are an integral and functional part of Hawai'i's ethnic and cultural heritage.

Discussion: The project is being planned to avoid and/or minimize impacts to significant natural and historic resources, and to preserve the views of these important resources in the project area.

Section 226-13, Objectives and policies for the physical environment—land, air and water quality.

Objective: (1) Maintenance and pursuit of improved quality in Hawai'i's land, air and water resources.

- Policies:
- (4) Encourage actions to maintain or improve aural and air quality levels to enhance the health and well-being of Hawai‘i’s people.
 - (5) Reduce the threat to life and property from erosion, flooding, tsunamis, hurricanes, earthquakes, volcanic eruptions, and other natural or man-induced hazards and disasters.
 - (6) Encourage design and construction practices that enhance the physical qualities of Hawai‘i’s communities.
 - (7) Encourage urban developments in close proximity to existing services and facilities.

Discussion: The project will improve traffic flow on Kūhiō Highway and result in improved air quality near the existing highway. The project will expand capacity across the river in the event of a natural disaster such as a tsunami or hurricane or road closure due to accidents, or other man-made events.

While the highway improvements alone will not generate or induce new development, improved vehicular access will support future infill development in close proximity to existing urbanized areas.

Section 226-17, Objectives and policies for facility systems—transportation.

- Objective:
- (1) An integrated, multi-modal transportation system that services statewide needs and promotes the efficient, economical, safe and convenient movement of people and goods.
- Policies:
- (6) Encourage transportation systems that serve to accommodate present and future development needs of communities
 - (10) Encourage the design and development of transportation systems sensitive to the needs of affected communities and the quality of Hawai‘i’s natural environment.

Discussion: The project will improve ground transportation facilities to accommodate the needs of residents and visitors on Kaua‘i. Widening of Kuhio Highway to a four-lane roadway was recommended in the Kaua‘i Long-Range Land Transportation Plan. The project is being planned with sensitivity to the needs of affected communities and the natural environment. The project will provide short-term construction employment, and enhance economic opportunities through the efficient transportation of people and goods. Furthermore, the bike/pedestrian path component of this project promotes a multi-modal transportation system and supports those who choose to travel by non-motorized modes.

5.1.2 State Functional Plans

The State Plan directs appropriate State agencies to prepare functional plans for their respective program areas. There are twelve State Functional Plans that serve as the primary implementing vehicle for the goals, objectives and policies of the State Plan. The following discusses the State Functional Plans that are applicable to the project.

State Transportation Functional Plan

The 1991 State Transportation Functional Plan identified the four most critical issues of transportation: congestion, economic development, funding and education. Objectives, policies and implementing actions were identified for each issue. The following objectives and policies apply to the project:

Objective: (I.A) Expansion of the transportation system.

Policies: (I.A.1) Increase transportation capacity and modernize transportation infrastructure in accordance with existing master plans and laws requiring accessibility for people with disabilities.

(I.A.2) Improve regional mobility in areas of the State experiencing rapid urban growth and road congestion. (Road infrastructure improvements from Līhu‘e to Kapa‘a were identified as implementing action I.A.2.c.).

Discussion: The project will increase capacity and modernize the ground transportation facilities needed to accommodate the needs of residents and visitors. The project is consistent with the Transportation Functional Plan, as a “bypass highway and/or widening” and “road infrastructure from Līhu‘e to Kapa‘a” were listed as implementing actions to address the issue of congestion.

Objective: (I.E) Planning and designing State highways to enhance inter-regional mobility.

Policy: (I.E.1) Design highways with controlled accesses, grade-separated crossings, and minimum four-lane divided highway standards where applicable. Encourage counties to develop local road networks for local travel and access.

Discussion: The project will enhance inter-regional mobility for residents and visitors traveling through the Wailua River corridor between Līhu‘e and north shore areas of the island. The project will not increase the number of accesses to Kūhiō Highway. Applicable highway standards are being utilized.

State Historic Preservation Functional Plan

The objectives, policies and implementing actions of the 1991 Historic Preservation Functional Plan are intended for implementation by the State Department of Land and Natural Resources and affiliated State agencies. Historic and archaeological sites within the project corridor have been identified and are described in this EA. Recommendations are included for those sites identified as significant for cultural, scientific or educational value.

State Tourism Functional Plan

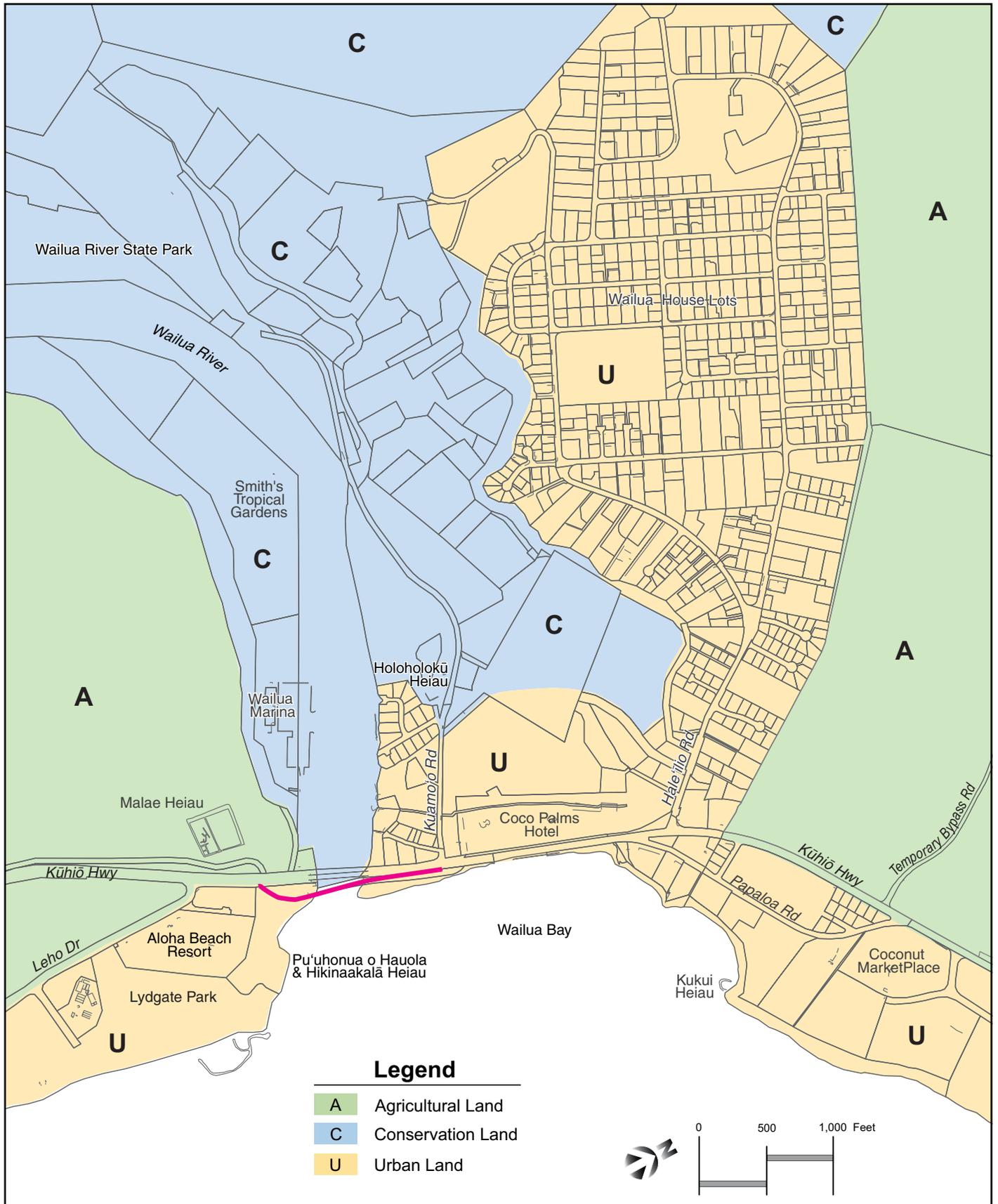
- Objective: (II.A) Development and maintenance of well-designed visitor facilities and related developments which are sensitive to the environment, sensitive to neighboring communities and activities, and adequately served by infrastructure and support services.
- Policy: (II.A.1) Maintain high standards of overall quality of existing visitor destination and attraction areas.

Discussion: The project is designed to meet the ground transportation needs of both residents and visitors. The Kūhiō Highway is the sole access for 3,410 visitor units, or 49% of the islandwide total, located in the Kawaihau and Hanalei Districts. The vast majority of the island's annual visitors rent vehicles during their stay. Improvement of roadway conditions, reduced traffic delays and alternate routes would all contribute to maintaining a high quality visitor experience.

5.1.3 State Land Use Classification

All lands in the State have been classified into one of four land use districts (Urban, Rural, Agricultural, and Conservation) by the State Land Use Commission (LUC), pursuant to Chapter 205, HRS. Figure 18 shows the State Land Use districts in the project corridor. Developed areas of the project corridor, particularly those north of the Wailua River immediately surrounding Kūhiō Highway are in the Urban District. The Wailua River and Wailua River State Park, including the existing highway river crossing, are in the Conservation District.

Public roadways and roadway improvements are allowed in the Urban District, per Chapter 205, HRS. During pre-assessment consultation, the Office of Conservation and Coastal Lands noted that support shafts for the preferred alternative do not appear to be located on Conservation lands (OCCL letter dated February 13, 2006, in Chapter 9). The State LUC will be contacted to confirm this.



Source: Hawaii State Land Use 1964, Hawaii State GIS Program

Figure **18**
State Land Use Districts
Wailua River Bridge Improvements

5.1.4 Coastal Zone Management Act

The federal Coastal Zone Management Act of 1972 encourages the management and enhancement of the nation's coastal zone. The Hawai'i Coastal Zone Management (CZM) Program was promulgated in 1977 in response to the federal Coastal Zone Management Act. The objectives and policies of the state CZM program are described in Chapter 205-A-2, HRS, Part I. The objectives of the Hawai'i CZM program are to protect and maintain valuable coastal resources. The CZM area encompasses the entire state with the exception of forest reserves. The CZM area includes all marine waters seaward to the extent of the state's police power and management authority, including the 12-mile U.S. territorial sea and all archipelagic waters.

Federal activities and projects are required to be consistent with approved state coastal programs to the maximum extent practicable. Federal agencies cannot act without regard for, or in conflict with, state policies and related resource management programs that have been officially incorporated into state CZM programs.

Key areas of the CZM program include a permit system to control development within the designated Special Management Area (SMA); a Shoreline Setback Area, which serves as a buffer against coastal hazards and erosion, and protects view-planes; and a Federal Consistency provision requires that federal activities, permits and financial assistance be consistent with the Hawai'i CZM program.

This project is located in the SMA and will be required to comply with CZM provisions.

The State's CZM program is built upon ten policy areas. A brief discussion of the project's conformance with the CZM objectives is included below:

1. Recreational Resources

To provide coastal recreational opportunities accessible to the public and protect coastal resources uniquely suited for recreational activities that cannot be provided elsewhere.

Comments: The project follows the existing highway corridor across the Wailua River, abutting State and County parks, including the Wailua River State Park and Wailua Beach Park. None of the alternatives will obstruct access to the shoreline or other recreational facilities. During roadway construction, access may be temporarily rerouted or diverted, but will remain available.

2. Historic Resources

To protect, preserve, and where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.

Comments: The project will not have an adverse impact on historic resources, as determined by the State Historic Preservation Division (letter dated March 16, 2006).

3. Scenic and Open Space Resources

To protect, preserve, and where desirable, restore or improve the quality of coastal scenic and open space resources.

Comments: The project corridor includes scenic and open space resources, including the Wailua River and Wailua River State Park, the Wailua Complex of Heiau National Historic Landmark, and coastal areas. The project will result in a wider roadway and bridge structure. The improvements will be visible from public parks, but will not alter existing view planes.

4. Coastal Ecosystems

To protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.

Comments: The project will not involve construction work in the river channel. During construction work on the river banks, best management practices will be utilized and all federal and state water quality permit conditions will be followed. Water quality impact studies found that there are no consistent, measurable inputs of petroleum products from the existing highway into surface waters, though there may be periodic and isolated inputs at some locations due to high rainfall. This situation is expected to be similar with the bridge improvements.

5. Economic Uses

To provide public or private facilities and improvements important to the state's economy in suitable locations; and ensure that coastal dependent development such as harbors and ports, energy facilities, and visitor facilities, are located, designed, and constructed to minimize adverse impacts in the coastal zone area.

Comments: The purpose and need for the project is consistent with the CZM objective of providing facilities and improvements important to the state's economy. One of the primary purposes of the project is to provide roadway capacity enhancements, addressing existing limitations through the project corridor. The existing highway provides access between the island's two major economic centers, Līhu'e and Kapa'a, and to the majority of the island's visitor units which are, located on the east and north sides of the island. Reduction in existing travel delays will have a positive economic impact.

6. Coastal Hazards

To reduce hazard to life and property from tsunamis, storm waves, stream flooding, erosion, subsidence, and pollution.

Comments: The project will enhance emergency evacuation and access by increasing capacity at the river crossing. Improvements to the existing cane haul bridge will not increase the risk of stream flooding or erosion.

7. Managing Development

To improve the development review process, communication, and public participation in the management of coastal resources and hazards.

Comments: This project has involved outreach and public participation, including a public information meeting and the upcoming Draft EA public review and comment period.

8. Public Participation

To stimulate public awareness, education, and participation in coastal management; and maintain a public advisory body to identify coastal management problems and provide policy advice and assistance to the CZM program.

Comments: As noted above, there has been public participation in the planning process to date. Additional meeting will be convened during the design phase and public notices provided to keep the community apprised of project developments.

9. Beach Protection

To protect beaches for public use and recreation; locate new structures inland from the shoreline setback to conserve open space and to minimize loss of improvements due to erosion.

Comments: The project follows the existing Kūhiō Highway alignment, which passes close to the shoreline in the Wailua segment. However, these alternatives will not contribute to or cause shoreline erosion, or impede access to beach or coastal areas.

10. Marine Resources

To implement the state's ocean resources management plan.

Comments: None of the alternatives will directly impact ocean resources or impact the state's ocean resources management plan. The project will not adversely affect marine water quality due to non-point source pollution or runoff.

5.1.5 Kaua‘i Long-Range Land Transportation Plan

The Kaua‘i Long-Range Land Transportation Plan (LRLTP) was completed in 1997 by the State Department of Transportation in cooperation with the County of Kaua‘i Department of Public Works and Planning Department. The LRLTP identifies the land transportation improvements needed to support projected growth for the island of Kaua‘i to the year 2020. It was prepared in accordance with federal requirements, as a prerequisite to receiving federal highway transportation funds. The LRLTP uses a State-generated set of economic and population projections that is substantially higher than the 2020 projections utilized by the Kaua‘i Planning Department.

The proposed project is consistent with the recommendations of the Kaua‘i Long-Range Land Transportation Plan, which included Kūhiō Highway widening.

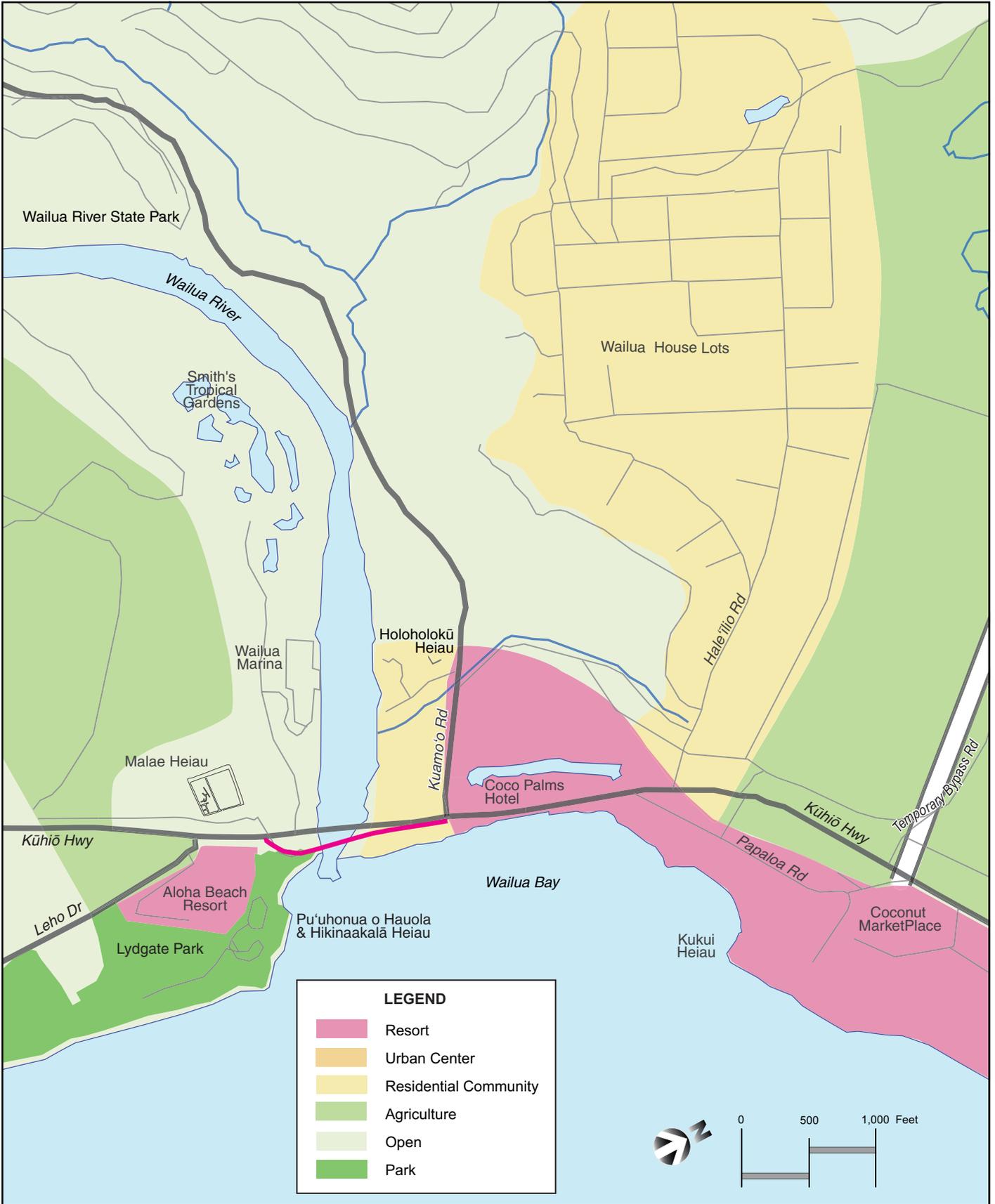
A circulation study was recommended to assess Wailua-Kapa‘a area access and circulation roadway needs. A Kapa‘a Circulation Study was completed by Wilson Okamoto and Associates (2002) for the HDOT. The study focused on readily implemented solutions to improve local traffic circulation, rather than ways to address long-term travel demand. Although the limits of the circulation study ended north of Wailua River, the widening of Kuhio Highway was endorsed between Kuamoo Road and the temporary bypass road.

5.2 COUNTY OF KAUA‘I

5.2.1 Kaua‘i General Plan

The County of Kaua‘i General Plan was recently revised and adopted in November 2000. The General Plan establishes policy for the long-range development, conservation, use and allocation of land, water, and other resources in the County. The General plan identifies geographic areas of the County that are intended to be used for various general purposes such as agriculture, resorts, urban communities, and preservation of natural, cultural and scenic resources. The General Plan sets for the basic policy of the County, which is elaborated through the more detailed plans, zoning and land use regulations. The General Plan land uses for the project corridor are shown in Figure 19.

The General Plan includes vision statements which describe the desired state of the County 20 years in the future. The General Plan also contains policies intended to achieve that vision and specific implementing actions that set forth recommended course of action to carry out the policies.



Source: Kaua'i General Plan 2000, GDSI Kaua'i County Tax Assessor Data 2001, Hawai'i State GIS Program

Figure **19**
General Plan Land Use
Wailua River Bridge Improvements

Scenic Roadway Corridors

The General Plan discussion of Scenic Roadway Corridors also includes policies that are directly applicable to the project:

- (a) In planning, designing and constructing highway and road improvements, transportation agencies shall balance conservation of the area’s natural, historic and scenic qualities with transportation objectives. In some cases, it will be preferable to accept a lesser design speed or capacity in order to maintain the rural character and appearance of the Garden Island.
- (b) Maintain the small scale of Kaua‘i’s roadways by limiting roadway width.
- (c) Maintain the unique features of historic bridges, striking a balance between safety needs and preserving historic and scenic character
- (d) Design new bridges and bridge improvements to afford scenic views
- (e) Develop and maintain green highways and roads, providing trees and vegetation in rights-of-way as appropriate to the character of the area. For divided highways, provide a landscaped median.

Discussion: One of the primary objectives of this Draft EA is to evaluate the proposed project and potential impacts on the area’s natural, historic, and scenic resources. This document will provide information for decision makers to balance conservation of these resources with transportation objectives. The preferred alternative increases highway capacity with limited modifications to the existing infrastructure.

Regional Highways and Roads

The chapter of the General Plan most applicable to the proposed project is Chapter 7, Building Public Facilities and Services. In Section 7.1, Regional Highways and Roads, the General Plan identifies “New Facilities Needed by 2020,” and specifically identifies road widening, combined with the eventual construction of a new bypass road.

Policies

The following are General Plan policies for Regional Highways and Roads:

- (a) Use General Plan policies concerning rural character, preservation of historic and scenic resources, and scenic roadway corridors as part of the criteria for long-range highway planning and design. The goal of efficient movement of through traffic

should be weighed against community goals and policies relating to community character, livability, and natural beauty.

- (b) Consider transportation alternatives to increasing the size and capacity of roadways. Alternatives include increased utilization of public transit.
- (c) Planning for the Kapa‘a By-Pass should incorporate connector roads between the By-Bypass and the coastal highway and between the By-Pass and roads serving the valley.

Discussion: The project is consistent with the General Plan’s recommendation for new facilities needed by 2020, which include road widening and future construction of a new bypass road. The bike/pedestrian path component of the project is a complementary transportation alternative. Since it is one link in an expanding pathway system that provides greater connectivity and access, Kauaians are gaining meaningful travel options.

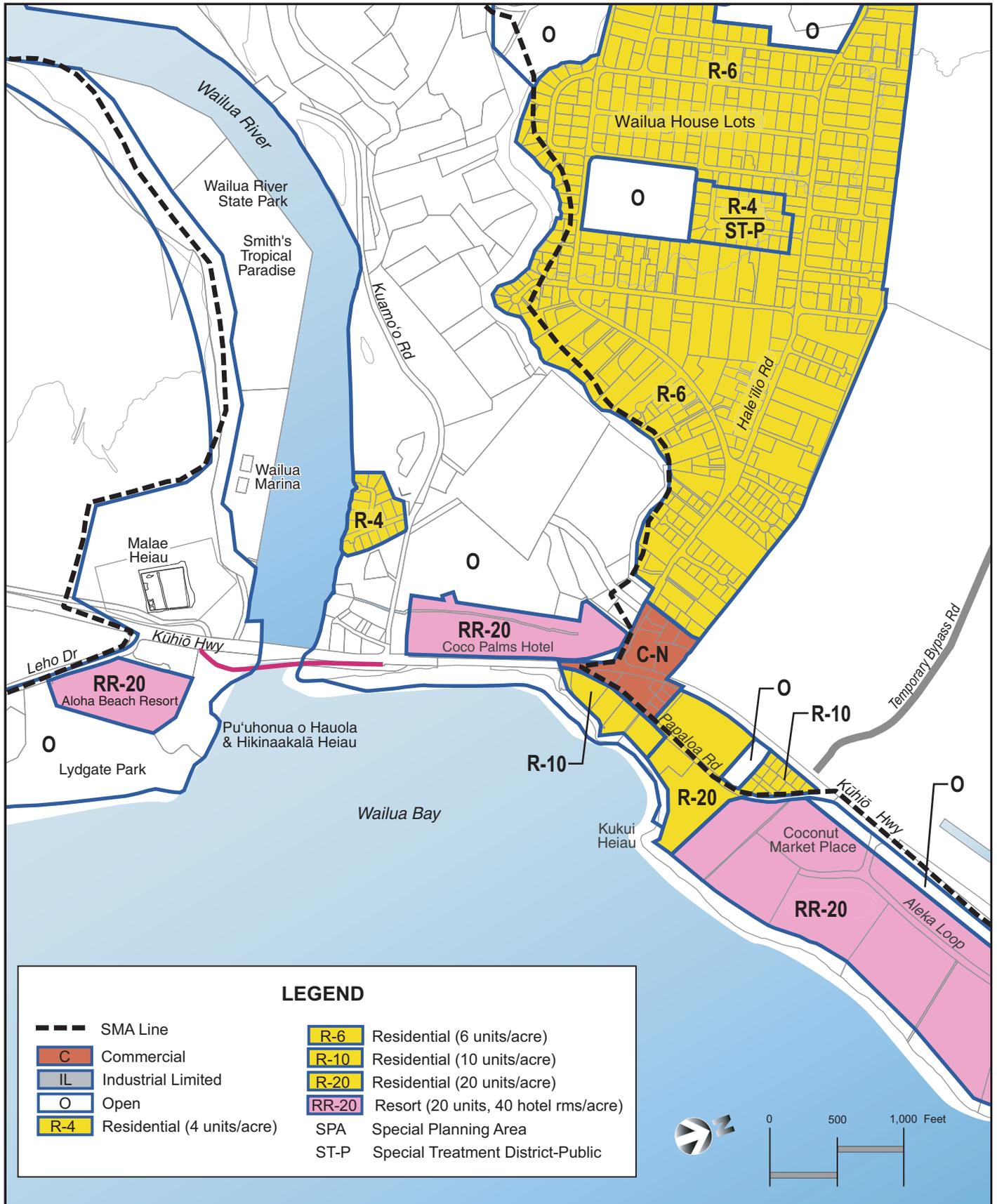
The project follows General Plan policies concerning rural character and preservation of historic and scenic resources and scenic roadway corridors. The project will not encroach on important archaeological and historic sites and will maintain existing buffer space. Users of the bike/pedestrian path will be discouraged from inappropriate activities that may adversely affect nearby sacred sites, particularly Hikinaakalā Heiau and Pu‘uhonua o Hauola, through design features, such as barriers, landscaping, and interpretive signs.

5.2.2 Development Plan

A Development Plan is intended to direct physical development and public improvements within a specific geographic area of the County within the framework of the General Plan. Six Development Plans were prepared in the 1970’s as a follow-up to the original 1971 General Plan. They addressed urban-designated lands in six Planning Areas, and established zoning districts within urban areas. Since the adoption of the Kauai General Plan in 2000, the County is systematically updating the Development Plans. Planning for East Kauai (covering Wailua to Kealia) began in 2006 and is currently in progress.

5.2.3 Zoning

County zoning provides the most detailed set of regulations affecting land development, prior to actual construction. Zoning is typically limited to land within the State’s Urban District. The Kaaui Comprehensive Zoning Ordinance (CZO) provides regulations and standards for development of land uses and the construction of structures. The CZO establishes various zoning districts and overlay districts; delineates uses and development standards for each district; establishes permits and permit processes, and establishes



Source: County of Kaua'i

Figure 20
Zoning & Special Management Area
Wailua River Bridge Improvements

criteria for granting permits. The CZO and zoning maps are revised as necessary to conform to the General Plan.

As shown in Figure 20, all of the lands within the project corridor are designated Open (O). The proposed action will not require any zoning changes.

5.2.4 Special Management Area

Coastal Zone Management objectives and policies (Section 205A-2, HRS) were developed to preserve, protect, and where possible, to restore the natural resources of the coastal zone of Hawai‘i. The Special Management Area (SMA) and Shoreline Setback Area are designated for more intensive management by Hawai‘i’s four counties. The SMA originally encompassed all lands extending not less than 100 yards inland from the shoreline. The shoreline is defined as the upper reaches of the wash of the waves (other than storm or seismic waves) at high tide during the season of the year in which the highest wash of the waves occurs. The shoreline is usually evidenced by vegetation growth, or the upper limit of debris left by the wash of waves.

As shown in Figure 16, the project is located entirely within the boundary of the SMA. No development can occur in the SMA unless the County first issues a permit. Since this project has a development cost exceeding \$125,000, it will require a Special Management Area Use Permit (SMP)-Major. The permitting process provides a heightened level of government and public scrutiny to ensure consistency with SMA objectives.

5.3 OTHER PLANS

5.3.1 Bike Plan Hawaii

Bike Plan Hawaii is the statewide bicycle master plan prepared periodically by the State Department of Transportation. The latest update was completed in September 2003. *Bike Plan Hawaii* addresses the bicycling component of the Long-range Land Transportation Plans (LRLTP)—each County has its own plan—and is incorporated into the LRLTP by reference. At present there is no master plan for pedestrian facilities, except in the case of shared use (bike-pedestrian) paths that are included in *Bike Plan Hawaii*.

The plan is important for several reasons:

- To establish a long-term strategy for transportation facilities improvements
- To enable better coordination between transportation and land-use planning
- To create the ability to leverage funds for transportation facilities
- To provide a mechanism to achieve community consensus

In order to qualify for federal funds, bikeway and roadway improvements are at an advantage if they are listed and shown in appropriate transportation planning documents. To FHWA, this demonstrates that the projects are part of a coherent transportation system and have been vetted through a public planning process.

The bike/pedestrian path component of the proposed bridge improvements are part of a larger proposal for a “coastal bikepath” from Anahola to Nāwiliwili that first appeared in the 1994 edition of *Bike Plan Hawaii*. That proposal was endorsed by participants attending two public meetings on Kaua‘i and in comments received on the bicycle master plan.

5.3.2 State Comprehensive Outdoor Recreation Plan

The Department of Land and Natural Resources prepares the *State Comprehensive Outdoor Recreation Plan (SCORP)* as part of a requirement to qualify for federal grants of outdoor recreation projects. *SCORP* provides technical guidance to various government agencies and private entities that plan, develop, and manage outdoor recreation resources in the state. The eighth update of *SCORP* was completed in March 2003.

Focus group meetings with representatives of various outdoor recreation user groups and a series of general public information meetings were held as part of the planning process for *SCORP 2003*. After combining the output obtained from the meetings and surveys, *SCORP* found that Hawai‘i residents were most concerned about the following recreational needs and issues (in order of importance):

- Park maintenance and cleanliness, particularly restrooms
- Need for more youth-oriented facilities
- Overcrowding at popular recreation sites
- Need for more facilities, such as beach parks, playgrounds, ball fields, paths for biking/jogging, skate parks, and expansion of mauka trail systems for multiple users
- Public access to mauka and makai recreation areas
- Safety issues

The perceived need for walking and bicycling facilities is relatively high and the level of demand has been sustained from earlier versions of *SCORP*. For example, a survey conducted during the planning process for the 1997 edition revealed that more than three-quarters of the respondents (76%) felt that Hawai‘i needed more paths for jogging and biking. Close to half of the respondents (47%) said that the state needed more of them, while 29% felt that a few more paths were needed. That study also found that the most popular activities were (in order): fitness walking, hiking, and bicycling.

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6 ANTICIPATED DETERMINATION

Based on the information presented and examined in this document, the proposed project is not expected to result in significant social, economic, cultural, or environmental impacts. Consequently, a finding of no significant impact is anticipated, pursuant to the provisions of Subchapter 6 of Chapter 200, Title 11, Hawai‘i Administrative Rules of the Department of Health.

7 FINDINGS AND REASONS SUPPORTING THE ANTICIPATED DETERMINATION

This Environmental Assessment (EA), prepared in accordance with Chapter 343, HRS, as amended, has found that the potential for impacts associated with the proposed action will not be significant. Potential environmental impacts will be temporary. Short-term, construction-related impacts will be mitigated through best management practices and the project will have no long-term, adverse effects on the environmental quality of the area.

The potential effects of the proposed project were evaluated based on the significance criteria in Section 11-200-12, Hawai‘i Administrative Rules. The following is a summary of potential effects of the action. The findings are subject to change based on public and agency comments that may be submitted during the public review period for the Draft EA.

SIGNIFICANCE CRITERIA

1. Irrevocable commitment to loss or destruction of natural or cultural resources.

The proposed action will improve transportation facilities across Wailua River. The crossing involves a long-term commitment of land, but the improvements are not irrevocable. Environmental impacts will be minimized by constructing within the existing roadway corridor or, in the case, of the shared use path, adjacent to it.

2. Curtailment of the range of beneficial uses of the environment.

The project will not curtail the range of beneficial uses of the environment. Lands surrounding project area are used primarily for recreational purposes. This project will not reduce recreational opportunities. Indeed, highway improvements and construction of the bike/pedestrian path is expected to increase access to outdoor spaces, provide more travel options, and create new opportunities for recreation and fitness activities.

3. Conflicts with the State’s long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders.

The proposed project is consistent with the environmental policies, goals, and guidelines defined in Chapter 344, HRS. In particular, the project is consistent with the following guidelines by improving the region’s transportation infrastructure and expanding its recreation facilities.

Transportation

- A. *Encourage transportation systems in harmony with the lifestyle of the people and environment of the State.*
- C. *Encourage public and private vehicles and transportation systems to conserve energy, reduce pollution emissions, including noise, and provide safe and convenient accommodations for their users.*

Parks, Recreation and Open Space

- A. *Establish, preserve and maintain scenic, historic, cultural, park and recreation areas, including the shorelines, for public recreational, educational and scientific uses.*
- B. *Protect the shorelines of the State from encroachment of manmade improvements, structures, and activities.*
- C. *Promote open space in view of its natural beauty not only as a natural resource but as an ennobling, living environment for its people.*

4. Substantially affects the economic or social welfare of the community or state.

The project will provide a needed increase in transportation capacity between the two largest urban centers on Kaua‘i. A substantial proportion of the island’s visitor accommodations are located in the Wailua-Kapa‘a area and on the North Shore, with hundreds of new units currently in construction. The project lies at the gateway to the east side commercial and resort district. The continued vitality of tourism depends, in part, on a convenient and reliable transportation system, especially between airport and harbor facilities and the major visitor destination areas. The improved crossing will also be used by a substantial proportion of the east side resident population as they commute to jobs in Līhu‘e and the west side.

5. Substantially affects public health.

The bike/pedestrian path component of the project is anticipated to have a beneficial effect on public health. Widespread news coverage has focused attention on the growing number of obese adults and children and the need to encourage a sedentary population to exercise more. Walking is reported to be especially beneficial because it is low-impact, low-cost, and low-skill. The path at Lydgate Park has become a popular venue for those engaged in physical exercise. The extended path is expected to receive comparable use.

6. Involves substantial secondary impacts, such as population changes or effects on public facilities.

The project itself is not expected to generate population or business growth, but is expected to accommodate traffic associated with new development that is currently under construction and proposed infill development.

7. Involves substantial degradation of environmental quality.

The highway improvements will not substantially degrade environmental quality. The proposed action will not change the existing land use. With increased capacity, the roadway will accommodate existing volumes in a more efficient manner.

The bike/pedestrian path component of the project will increase the volume of non-motorized traffic (pedestrians, joggers, bicyclists, etc.) crossing Wailua River. This improvement will enhance mobility and access while minimizing harm to the surrounding environment. To reduce the potential for adverse impacts on nearby cultural sites— notably Hikinaakalā Heiau and Pu‘uhonua o Hauola—the project will incorporate a combination of landscaping, signs, and barriers.

8. Is individually limited but cumulatively has considerable effect on the environment, or involves a commitment for large actions.

The proposed project is being coordinated with a separate project to widen Kūhiō Highway from Kuamo‘o Road to the southern terminus of the temporary bypass road. However, the bridge improvement project is proceeding independently from the highway widening project.

Although the two projects will maximize traffic relief in tandem, each alone will achieve the respective purpose and needs established at the outset. As a project with independent utility, the fourth lane (i.e., the second southbound lane) will accommodate traffic from Kuamo‘o Road, which services Wailua Homesteads and the soon to reopen Coco Palms Resort. Reducing southbound queues at the Kuamo‘o Road intersection will help to improve backups at adjoining intersections. Contraflow operation will not be needed on weekday mornings and the traffic pattern for northbound motorists will be simplified.

The bike/pedestrian path component of the project is being coordinated with the Lydgate Park to Kapa‘a bike/pedestrian path project. The Wailua River crossing section of the bike/pedestrian path has been folded into this project because of their shared use of the cane haul bridge. A safe means for pedestrians and bicyclists to cross Wailua River is beneficial even without the full build-out of the two-mile long path to Waika‘ea Canal in Kapa‘a.

9. Substantially affects a rare, threatened, or endangered species, or its habitat.

The project will not affect any protected species or its habitat. Because no additional lighting is proposed within the scope of this project, this project will not have an adverse impact on the Newell's shearwater.

10. Detrimentially affects air or water quality or ambient noise levels.

There may be short-term impacts on air quality and noise levels during the construction period. Mitigation measures will be implemented to minimize construction-related impacts. Long-term, adverse impacts to air or water quality or ambient noise levels are not expected.

11. Affect or is likely to suffer damage by being located in an environmentally sensitive area, such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, freshwater, or coastal waters.

The existing cane haul bridge is located in a flood plain and tsunami inundation zone. The existing cane haul bridge does not meet current design standards for flood elevation. Remediating the flood clearance issue would require large-scale reconstruction that would not be possible if the existing pier system is reused. Similarly, relocating the bridge outside the tsunami zone requires a more extensive solution. These issues are being addressed by the HDOT as part of the separate Kapa'a Relief Route project. The subject improvement, therefore, is intended as an interim measure for congestion management.

12. Substantially affects scenic vistas and view planes identified in county or state plans or studies.

The State of Hawai'i does not have a scenic highways or byways program. The *Kaua'i General Plan* identifies scenic roadway corridors, whose purpose is "to conserve open space, scenic features, and views within and along Kaua'i's most heavily-traveled routes" (*General Plan*, p. 5-20). The project is located in a scenic road corridor that runs between Wailua River and the Coconut Grove. The modular system used for the new bridge deck will have side rails that are higher than the existing guardrails, but motorists will continue to enjoy unobstructed views.

13. Requires substantial energy consumption.

Fuel will be consumed by construction vehicles and equipment, but this use is not expected to be extraordinary. Over the long term, reducing congestion will improve vehicular fuel use. And, to the extent that trips taken on the bike/pedestrian path replace travel by motor vehicles, the project will help to reduce the consumption of non-renewable fossil fuel.

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9 CONSULTATION AND COORDINATION

9.1 Organizations Contacted During Preparation of the Draft EA

As part of the early consultation process, the following agencies and organizations were sent a pre-assessment letter dated February 6, 2006, requesting comments prior to completion of the Draft Environmental Assessment. Comments were requested by March 1, 2006.

Agency	Response Date	Additional Consultation
FEDERAL AGENCIES		
14 th U.S. Coast Guard District	11-6-06	Meeting with Lt. Jannusch on 9-19-06
U.S. Army Corps of Engineers	2-16-06	Coordination at progress meetings
U.S. Environmental Protection Agency		
U.S. Fish and Wildlife Service		
National Marine Fisheries Service		
STATE AGENCIES		
Department of Hawaiian Home Lands	2-23-06	
Department of Health		
Environmental Planning Office		
Office of Environmental Quality Control	2-22-06	
Department of Land and Natural Resources		
Commission on Water Resource Management	2-9-06	
Division of Boating and Ocean Recreation		
Division of State Parks		Meetings with Martha Yent on 6-27-06; 8-28-06
Kaua'i Land Agent		
Office of Conservation and Coastal Lands	2-13-06	
State Historic Preservation Division	3-16-06	Meeting with Nancy MacMahon on 10-17-05

Agency	Response Date	Additional Consultation
Office of Hawaiian Affairs	2-27-06	Meeting with LaFrance Kapaka-Arboleda on 10-17-05
Office of Planning, CZM Program	2-14-06	
COUNTY AGENCIES		
Department of Planning	2-13-06	
Kaua‘i Historic Preservation Review Commission	4-10-06	
Department of Public Works		
Building Division		
Parks Division		
Department of Water	2-17-06	
Kaua‘i Fire Department		
Kaua‘i Police Department		
Kaua‘i Transportation Agency		
Office of the Mayor		
ELECTED OFFICIALS		
Council Chair Bill “Kaipo” Asing		
Council Vice Chair James Kunane Tokioka		
Councilmember Jay Furfaro		
Councilmember Daryl W. Kaneshiro		
Councilmember Shaylene Iseri-Carvalho		
Councilmember Mel Rapozo		
Councilmember JoAnn A. Yukimura		
State Senator Gary L. Hooser		
State Representative Hermina M. Morita		
State Representative Ezra R. Kanoho		
OTHERS		
Hawaiian Telcom	2-18-06	
Kaua‘i Island Utility Cooperative (KIUC)		

Agency	Response Date	Additional Consultation
Sandwich Isles Communications	2-21-06	
Oceanic Time Warner Cable		
American Medical Response		
Kapa‘a Business Association		
Aloha Beach Resort		
Smith’s Kauai		
Marina Restaurant		
Wailua Kayak & Canoe, Inc.		
The Weiser Companies, Inc.		
Rotary Club of Kapa‘a		
Kaua‘i Chamber of Commerce		
Friends of Kamalani and Lydgate Park		
Na Kahu Hikina A Ka Lā		

9.2 Early Consultation Comment Letters

Eleven agencies provided letters during the pre-consultation period. Substantive comments are summarized below and complete letters are reproduced in this chapter (by date of letter). Comments have been incorporated into the Draft Environmental Assessment.

Agency comments received during the early consultation period:

Federal Agencies

- **Department of Army** (letter dated February 16, 2006). Preliminary evaluation that DA permit under Section 404 of the Clean Water Act is not required for any of the alternatives. However, all alternatives will require authorization under Section 10 of the Rivers and Harbors Act, either under Nationwide #14, Linear Transportation Projects for Alternatives 2 and 3, or Nationwide #3 for Alternative 1.
- **U.S. Coast Guard** (letter dated November 6, 2006). The Kūhiō Highway highway bridge and the cane haul bridge do not presently have, nor are they subject to, federal permits by the USCG.

State Agencies

- **Commission on Water Resource Management** (letter dated February 9, 2006). Stream Channel Alternation Permit (SCAP) needed for Alternative 2, but not Alternatives 1 and 3. CWRM requests review of final design to make a definitive determination.
- **Office of Conservation and Coastal Lands** (letter dated February 13, 2006). Alternatives that require placing or retrofitting piers in the river would require a Conservation District Use Permit. Alternative 3 and possibly Alternative 1 would not take place on Conservation land. Further consultation needed.
- **Office of Planning** (letter dated February 14, 2006). Coastal Zone Management federal consistency review is needed.
- **Office of Environmental Quality Control** (letter dated February 21, 2006). If Kapaa Relief Route project does not materialize, will the improvements in this project become permanent?
- **Department of Hawaiian Home Lands** (letter dated February 23, 2006). Notification that, in the 5-10 year time frame, DHHL is planning to construct a shopping complex and timeshares on the makai side of Kuhio Highway and approximately 500 residential units on the mauka side of the highway, which would generate a substantial increase in traffic volumes. Alternative 3 is preferred to minimize disruptions in traffic flow and allows the possibility of expanding three bridges in the future.
- **Office of Hawaiian Affairs** (letter dated February 27, 2006). Section 6E-46.6 HRS mandates certain procedures in the event of inadvertent archaeological discoveries.
- **State Historic Preservation Division** (letter dated March 16, 2006). No archaeological concerns for any of the alternative proposals. The cane haul bridge has been repaved several times; use of the bridge was approved previously for the bike/pedestrian path. The project will have “no effect” on significant historic sites.

County Agencies

- **Kauai Department of Water** (letter dated February 17, 2006). There is a 12-inch waterline mounted to the Wailua River Bridge, but will not be affected by the proposed improvements. No water facilities along the cane haul bridge.
 - **Kauai Planning Department** (letter dated February 13, 2006). Recommendation that the problem of debris trapped in the bridge piers (particularly during floods) be
-

considered in planning bridge improvements. A new, single span bridge is preferred for this reason.

- **Kauai Historic Preservation Review Commission** (memorandum dated April 10, 2006). KHPC reviewed the project and preliminarily concurred with Alternative 1. In using the bridge, KHPRC recommends that the existing structure be maintained to the extent possible.

Other Agencies

- **Hawaiian Telcom** (letter dated February 18, 2006). Proposes coordinating highway/bridge improvements with replacement of existing overhead copper cables.
- **Sandwich Isles Communications, Inc.** (letter dated February 21, 2006). Concerned about potential adverse impact to safety and operation of its fiber optic cable system. Requests coordination to determine impacts.

9.3 Public Information Meeting

A public information meeting was held on Thursday, February 16, 2006, at Kapaa Middle School. The purpose of this meeting was to provide information about the project and solicit feedback and concerns from members of the general public. The meeting was attended by 31 members of the community. During the Q&A session that followed the presentation, questions were raised and comments offered about project costs, schedule, construction-related traffic disruptions, and suggestions for additional measures to relieve congestion. Minutes of the meeting are attached as Appendix A.

9.4 Environmental Justice

Executive Order (E.O.) 12898 on Environmental Justice requires that federal agencies and recipients of federal funds take appropriate steps to identify and address “disproportionately high and adverse human health or environmental effects” of federal projects on minority or low-income populations. Title VI of the Civil Rights Act of 1964, as amended, provides similar non-discrimination protection.

The project involves improvements to an existing structure and is not located in a residential area. However, to obtain input from the broadest segment of the community, notice about the project and an informational meeting was disseminated through a variety of means, including publication in *The Garden Island* and announcements on radio programs and Ho‘ike, public access TV.

HDOT will continue to inform the public about the project’s status, construction activities, and potential inconveniences through mass media, electronic signs, and possible community briefings.

Based on consultations that occurred during the planning process, the subject project will not cause disproportionately high and adverse effects on any minority or low-income population as per E.O. 12898 regarding environmental justice.

9.5 Coordination related to Federal Environmental Regulations

Regulatory Authority	Agencies Consulted	Summary of Coordination
Section 404, Clean Water Act	U.S. Army Corps of Engineers	Joint field visit 9-21-05 Letter from USCOE 2-16-06 USCOE representative at project meetings 9-29-05, 1-23-06, 2-21-06, 4-24-06, 7-10-06, 8-11-06
Section 10, Rivers and Harbors Act of 1899	U.S. Army Corps of Engineers	Letter from USCOE 2-16-06 USCOE representative at project meetings 9-29-05, 1-23-06, 2-21-06, 4-24-06, 7-10-06, 8-11-06
Section 7, Endangered Species Act	U.S. Fish and Wildlife Service U.S. National Marine Fisheries Service	Letter from FWS 8-11-05 NMFS Meeting 6-6-05 Letter from NMFS 7-15-05
Section 106, National Historic Preservation Act Chapter 6E, Hawaii Revised Statutes	State Historic Preservation Division Kauai Historic Preservation Review Commission	SHPD Meetings 10-17-05, 11-21-06, 3-2-07 Letter from SHPD 3-16-06 KHPRC Meetings 3-2-06, 3-1-07 Memo from KHPRC 4-10-06
Section 4(f), U.S. DOT Act	State Parks Division County Parks, Department of Public Works	State Parks Meetings 6-27-06, 8-28-06 Letter from State Parks 8-22-06 Letter from County Parks 12-7-05
Rivers and Harbors Act of 1899; General Bridge Act of 1946	U.S. Coast Guard	USCG Meeting 9-19-06 Letter from USCG 11-6-06

February 6, 2006

(name, address)

Dear (salutation):

**Wailua Bridge Short-Term Improvements
Wailua River, Kaua‘i, Hawai‘i
Pre-Assessment Consultation**

Kimura International, Inc. is preparing a draft environmental assessment (DEA) for the State of Hawai‘i, Department of Transportation—Highways Division (HDOT) to examine the impacts of proposed lane additions across Wailua River. The additions will consist of one vehicular lane and a shared use lane for pedestrians and bicyclists. The addition will result in four vehicular travel lanes, with two northbound and two southbound. At present there are two northbound lanes and one southbound lane.

We are requesting comments and agency input regarding environmental concerns in all resource areas, and information that might assist in evaluating the alternatives.

Project Purpose

The purpose of this project is to implement relatively quick and low-cost measures to reduce severe traffic congestion in the Wailua corridor. The improvements are intended to be temporary. There is a separate, ongoing project, known as the Kapa‘a Relief Route Project, that is evaluating long-term solutions to regional transportation issues.

Project Description

The DEA will evaluate three alternatives that emerged from scoping meetings with public agencies, landowners, and business and community groups. A preferred alternative will be determined based on findings of the DEA, public and agency comments, and detailed engineering analysis. As shown in the attached map, the proposed improvements will occur within the existing HDOT right-of-way across Wailua River.

Three bridge designs are under consideration—see conceptual diagrams (attached). In all scenarios, the existing Wailua Bridge will be converted to two lanes, southbound.

Alternative 1: Replace deck of the cane haul bridge. The existing 14-foot deck is used for one northbound travel lane. It will be replaced with a new, pre-fabricated deck approximately 42 feet wide for two northbound vehicular lanes and a bike/pedestrian lane. Existing piers may need to be retrofitted to bear the additional load.

Alternative 2: Construct a new bridge between the two existing bridges. It will be a pre-fabricated steel bridge with pre-cast piles or drilled shaft piers. The cane haul bridge will be used for the bike/pedestrian path.

Alternative 3: Construct a new bridge between the two existing bridges. Like Alternative 2, the new bridge will be a pre-fabricated steel bridge, but using a single-span design and, therefore, eliminating the need for piers in the water. The cane haul bridge will be used for the bike/pedestrian path.

Detailed design and engineering could begin as early as Summer 2006, with construction taking place in 2007.

Public Information Meeting

You are cordially invited to a public information meeting on the proposed short-term transportation improvements in the Wailua corridor. The meeting will take place on Thursday, February 16, 2006; 7:00 p.m. at the Kapa'a Middle School cafetorium.

Pre-Assessment Consultation

The DEA for this project is being prepared in accordance with State (Chapter 343, HRS) rules and guidelines. A copy of the DEA will be sent to your agency for review in the next few months. You will also have an opportunity to comment at that time.

Please send any preliminary comments to Kimura International, Inc. by Wednesday, March 1, 2006. If you have questions, please feel free to call me or Nancy Nishikawa at (808) 944-8848. Thank you for your interest in this project.

Sincerely,
KIMURA INTERNATIONAL, INC.



Glenn T. Kimura
President

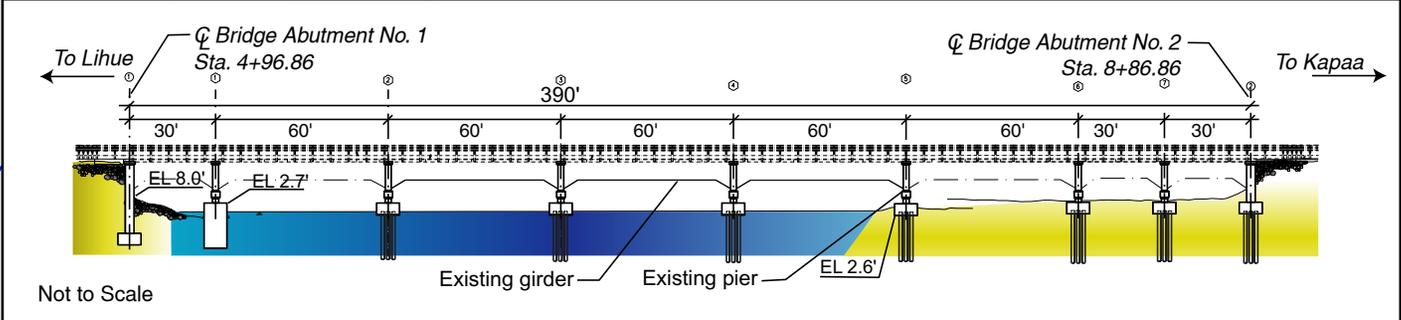
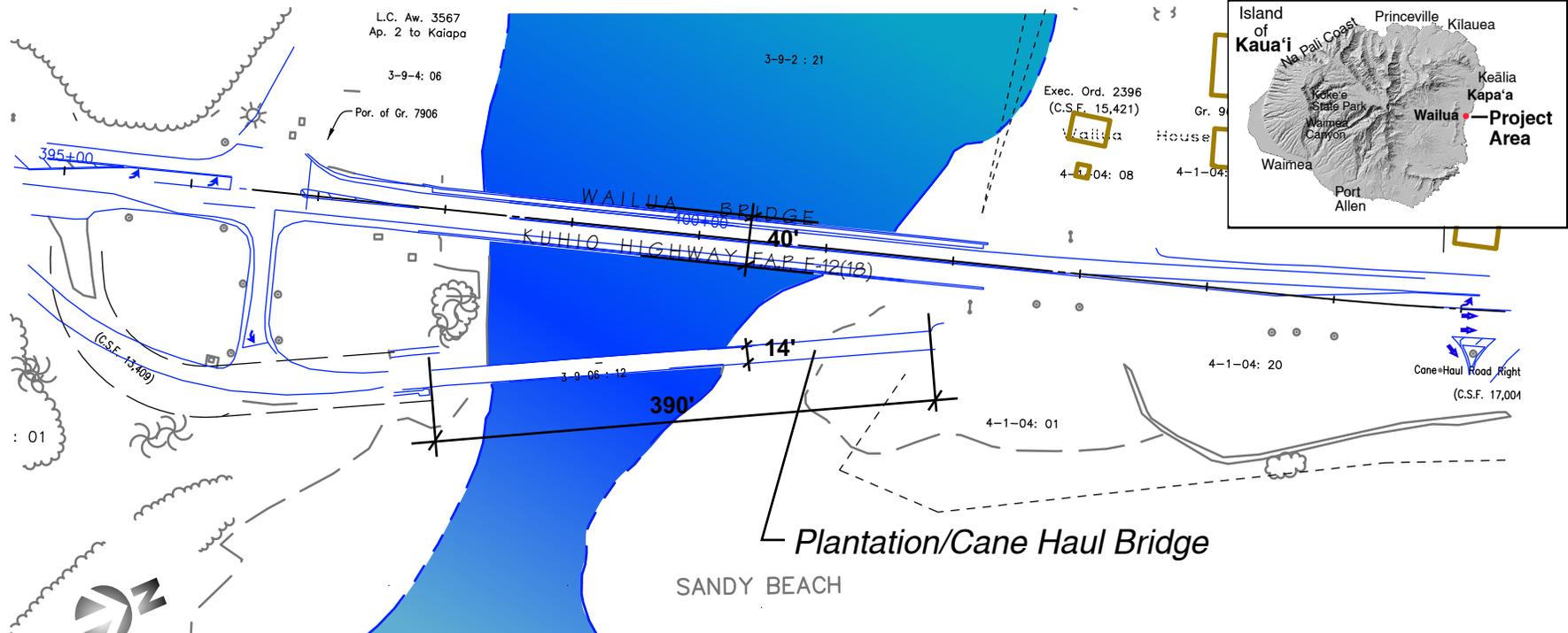
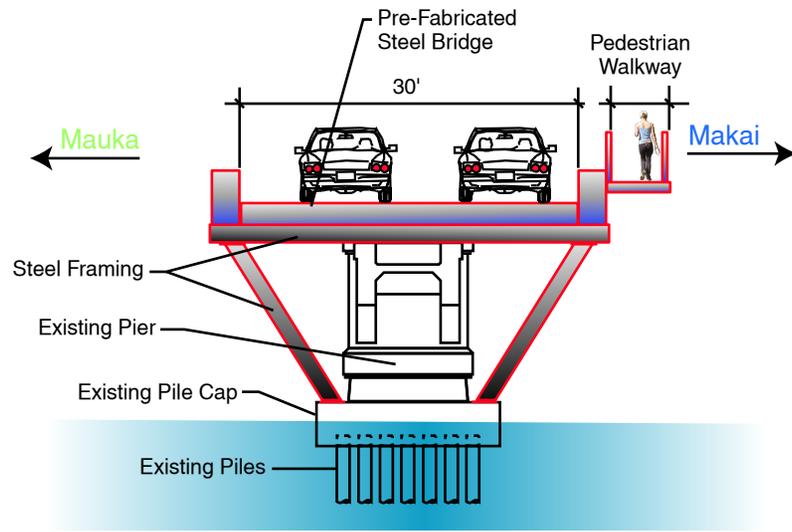
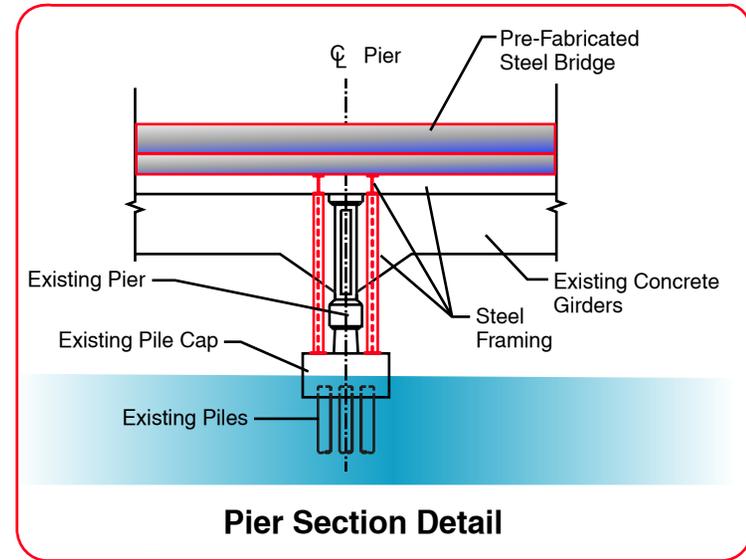


Figure 1
Existing Conditions
Wailua River and Plantation/Cane Haul Bridge
Wailua River Bridge Improvements

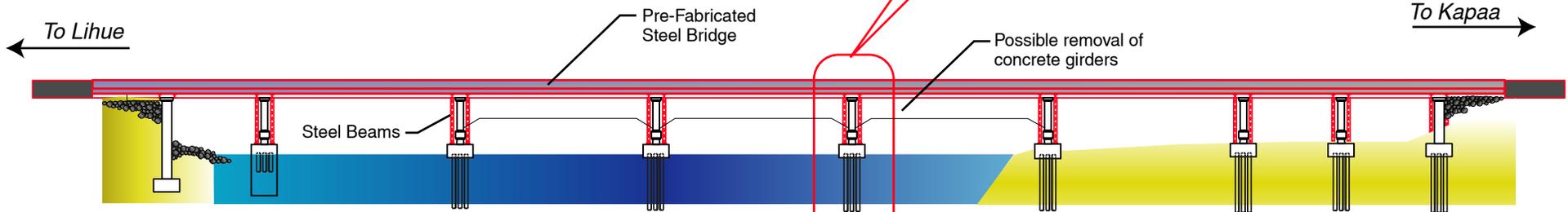


Bridge Cross Section



Pier Section Detail

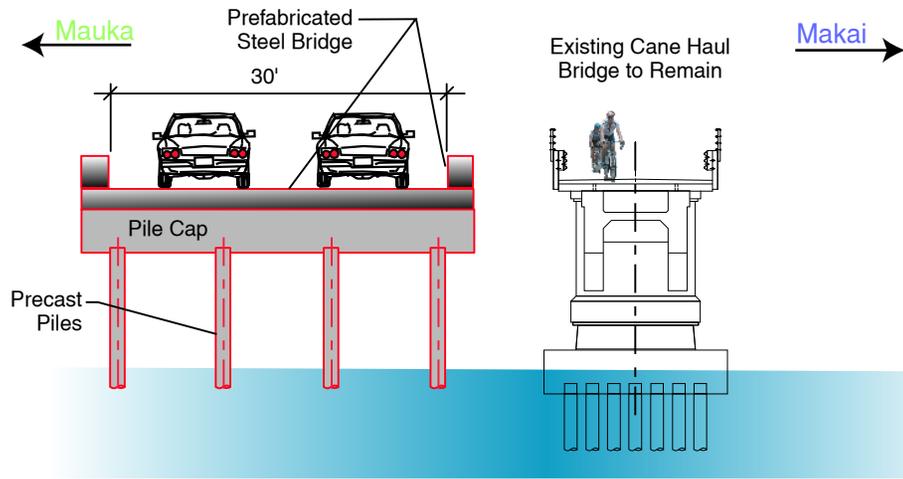
0 5' 10'
Scale: 1" = 10'



Bridge Longitudinal Elevation

0 15' 30'
Scale: 1" = 30'

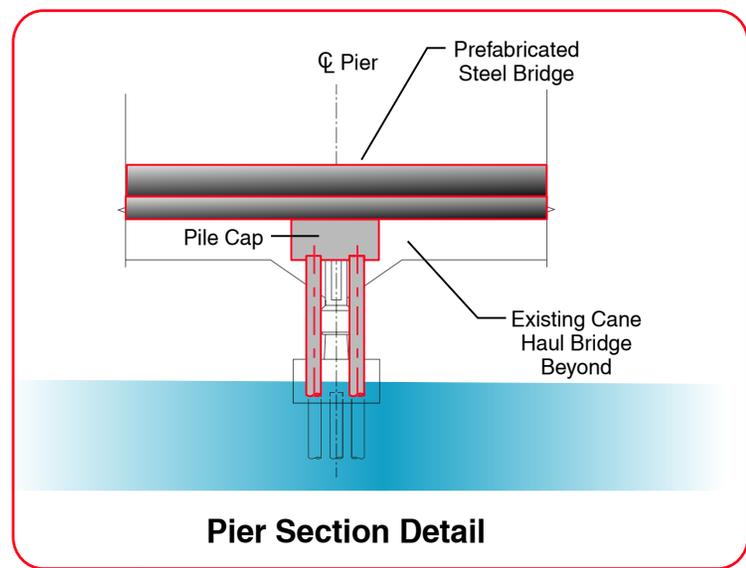
Figure 2
ALTERNATIVE 1
Acrow Panel Bridge over Existing Cane Haul Bridge Piers
Wailua River Bridge Improvements



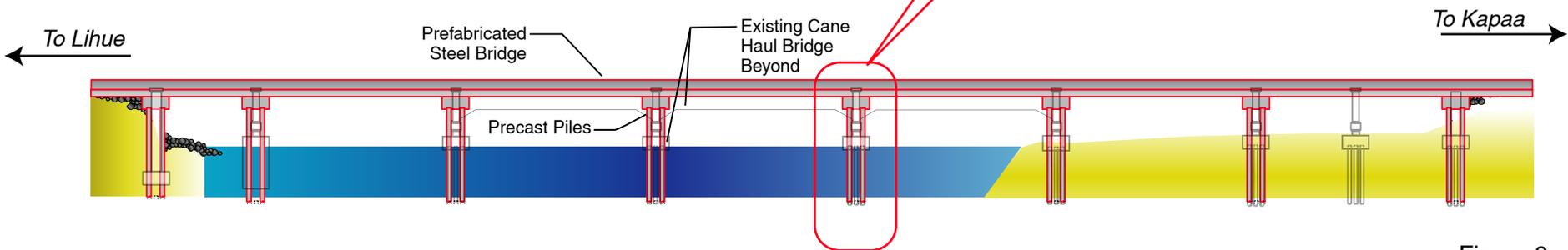
0 5' 10'

Scale: 1" = 10'

Bridge Cross Section



Pier Section Detail



0 15' 30'

Scale: 1" = 30'

Bridge Longitudinal Elevation

Figure 3
ALTERNATIVE 2
Independent Pre-Fabricated Steel Bridge
with Pre-Cast Piles or Drilled Shaft Piers
Wailua River Bridge Improvements

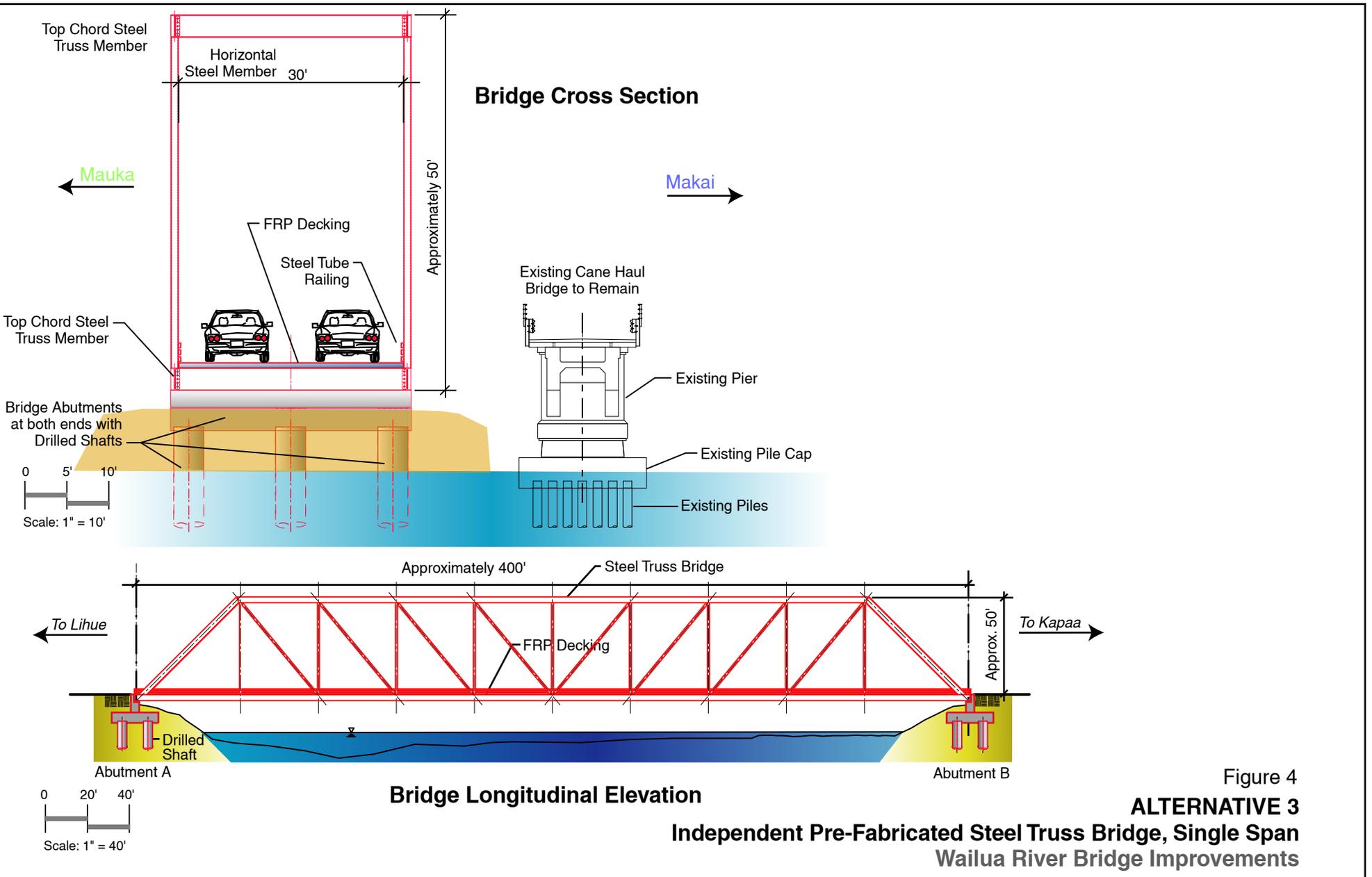


Figure 4
ALTERNATIVE 3
Independent Pre-Fabricated Steel Truss Bridge, Single Span
Wailua River Bridge Improvements

LINDA LINGLE
GOVERNOR OF HAWAII



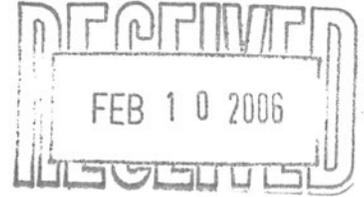
PETER T. YOUNG
CHAIRPERSON

MEREDITH J. CHING
JAMES A. FRAZIER
NEAL S. FUJIWARA
CHIYOME L. FUKINO, M.D.
LAWRENCE H. MIIKE, M.D., J.D.
STEPHANIE A. WHALEN

DEAN A. NAKANO
ACTING DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

February 9, 2006



Mr. Glenn T. Kimura, President
Kimura International, Inc.
1600 Kapiolani Boulevard, Suite 1610
Honolulu, Hawaii 96814

Dear Mr. Kimura:

Thank you for your February 6, 2006 letter concerning pre-assessment consultation for the Wailua Bridge Short-Term Improvements project at Wailua River, Kauai.

In general, any project that affects the bed or banks of a stream would require a stream channel alteration permit (SCAP) from the Commission on Water Resource Management. Specifically, regarding the alternative bridge designs: 1) Alternative 1 does not appear to affect any portion of the bed or banks of Wailua River so would not require a SCAP; 2) Alternative 2 would require a SCAP; and 3) Alternative 3 does not appear to affect the bed of Wailua River, but could possibly affect its banks, so we would have to review the final design to determine whether a SCAP would be required.

Please be advised that the project may require other agency approvals regarding wetlands, water quality, grading, stockpiling, and floodways. This letter should not be used for other regulatory jurisdictions or used to imply compliance with other federal, state, or county rules.

If you have any questions, please contact Ed Sakoda at 587-0234.

Sincerely,

Edwin T. Sakoda
for: DEAN A. NAKANO
Acting Deputy Director

BRYAN J. BAPTISTE
MAYOR



IAN K. COSTA
DIRECTOR OF PLANNING

GARY K. HEU
ADMINISTRATIVE ASSISTANT

MYLES S. HIRONAKA
DEPUTY DIRECTOR OF PLANNING

**COUNTY OF KAUAI
PLANNING DEPARTMENT**

4444 RICE STREET
KAPULE BUILDING, SUITE A473
LIHU'E, KAUAI, HAWAII 96766-1326

TEL (808) 241-6677 FAX (808) 241-6699

February 13, 2006

Glenn T. Kimura
Kimura International, Inc.
1600 Kapiolani Blvd, Suite 1610
Honolulu, Hawaii 96814

Subject: Wailua Bridge Short-Term Improvements
Wailua River, Kauai
Pre-Assessment Consultation

Dear Mr. Kimura:

Our only comment at this time would be regarding Alternative 2, a new bridge between the two existing bridges. Past flood conditions have shown that the piles on both existing bridges "catch" much vegetative debris flowing to the ocean – complete trees, clumps of hau bush with their root balls, whole mats of buffalo grass, etc. Adding another "screen" of piles for a third bridge would appear to catch that much more vegetation, which could then put additional stress on the main bridge if enough vegetation gets stuck. Can the wooden piles of this bridge stand additional stress of vegetation slowing down flood flows?

Also, in order to clear vegetative debris caught in its pilings, can the heavy equipment maneuver from the decks of the existing main and canehaul bridges and reach underneath the new bridge? Conversely, can heavy equipment be placed on this third bridge to clear debris beneath the main and canehaul bridges? Please contact DOT Highways and County Public Works regarding their past efforts regarding the above, and the types and weights of the equipment used in the clearing activities.

To minimize the above impacts, it appears Alternative 3 could be the best consideration. However, will the location of Bridge 3 impede or restrict, in any way, the ability for heavy equipment to remove vegetative debris from the piers of the existing bridges?

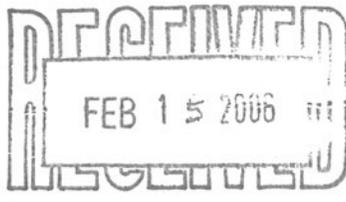
AN EQUAL OPPORTUNITY EMPLOYER

Thank you for the opportunity to provide comment at this time. Should there be any questions regarding the above, please contact Michael Laureta at 241-6677.

A handwritten signature in black ink, appearing to read 'Ian Costa', written in a cursive style.

IAN COSTA
Planning Director

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
DEPUTY DIRECTOR

DEAN A. NAKANO
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

REF:OCCL: MC

Correspondence: KA-06-176

FEB 13 2006

Glenn Kimura, President
Kimura International, Inc.
1600 Kapi`olani Blvd., Suite 1610
Honolulu HI 96814

Dear Mr. Kimura:

SUBJECT: Wailua Bridge Improvements
TMK (4) 3-9-002
Wailua, Līhu`e, Kaua`i

The Office of Conservation and Coastal Lands [OCCL] has received your request for comments on the upcoming Environmental Assessment [EA] for short-term improvements to the Wailua Bridge. The State Department of Transportation – Highways Division [HDOT] will be studying the impacts of proposed lane additions across Wailua River. There are currently two bridges - the Wailua Bridge along Kūhiō Highway, and a nearby cane haul bridge. HDOT proposes to add one additional vehicular lane, and one to be shared by bicyclists and pedestrians.

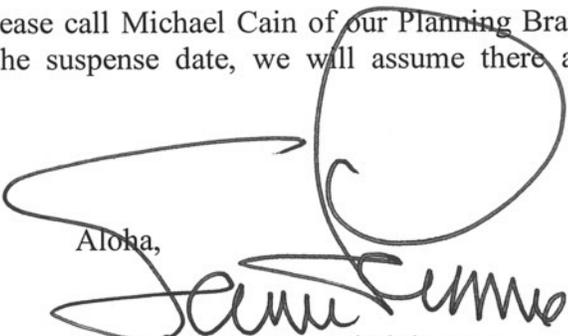
HDOT has identified three alternatives, as follows:

- **Alternative 1:** Replace the deck of the cane haul bridge, using the existing cane haul bridge piers. The piers may need to be retrofitted to bear the additional load.
- **Alternative 2:** Construct a new pre-fabricated steel bridge between the two bridges, and use the cane haul bridge for bicyclists and pedestrians. The new bridge will use pre-cast piles or drilled shaft piers.
- **Alternative 3:** Construct a new pre-fabricated single span steel bridge between the two bridges, and use the cane haul bridge for bicyclists and pedestrians. This alternative does not require placing piles in the water.

OCCL notes that the Wailua River lies within the Resource Subdivision of the Conservation District. The proposal is an identified use in the Conservation District pursuant to Hawai'i Administrative Rules §13-5-22 *Identified land uses in the protective subzone, P-6 PUBLIC PURPOSE USES, (D-1) Land uses undertaken by the State of Hawai'i or the counties to fulfill a mandated government function, activity, or service for public benefit and in accordance with public policy and the purpose of the conservation district. Such land uses may include transportation systems, water systems, communication systems, and recreational facilities.* This use requires a permit from the Board of Land and Natural Resources [BLNR].

OCCL would like to note that those alternatives that require placing or retrofitting piers in the river would occur on Conservation Land, and would require a Conservation District Use Permit from BLNR. It appears that the support shafts for Alternative 3, and possibly Alternative 1, would not take place on Conservation Land. OCCL recommends that you contact the State Land Use Commission to confirm this; if the support structures are not in the Conservation District then a BLNR permit would not be needed.

Should you require additional information, please call Michael Cain of our Planning Branch at 587-0048. If no response is received by the suspense date, we will assume there are no comments.



Aloha,

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands



Water has no substitute.....Conserve it

February 17, 2006

RECEIVED FEB 23 2006

Mr. Glenn Kimura
Kimura International
1600 Kapi'olani Boulevard Suite 1610
Honolulu, HI 96814

Dear Mr. Kimura:

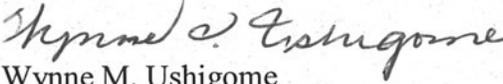
Subject: Pre-Assessment Consultation; Wailua Bridge Short-Term Improvements, Wailua River, Kaua'i, Hawai'i

The Department of Water (DOW), County of Kaua'i, presently has no comments regarding the pre-assessment consultation for the draft environmental assessment for the subject project.

We currently have an existing 12" waterline mounted along the mauka side of the Wailua Bridge. It appears that the proposed improvements will not result in the relocation or modification of this waterline. We do not have any water facilities along the existing Plantation/Cane Haul Bridge.

If there are any questions, please call Mr. Bruce Inouye at (808) 245-5411.

Sincerely,


Wynne M. Ushigome
Acting Manager and Chief Engineer

BI:bdm
Wailua Bridge 1

Network Engineering & Planning

Hawaiian Telcom
4040 Halau St.
Lihue, HI 96766

Phone 808 241-5062

February 18, 2006

Mr. Glenn T. Kimura
President
Kimura International
1600 Kapiolani Blvd., Suite 1610
Honolulu, HI 96814

Subject: **Wailua Bridge Short-Term Improvements
Wailua River, Kauai, Hawaii
Pre-Assessment Consultation**

Gentlemen:

Thank you for your opportunity to comment on the subject project. We understand that the project will implement a temporary, expeditious, and cost-effective solution to the traffic congestion in the Wailua corridor by adding a fourth lane to the existing three that currently exist along Kuhio Highway. Further, we understand that three Alternative designs are being considered for Wailua Bridge; summarized as follows.

Alternative 1: Replace deck of the cane haul bridge.

Alternative 2: Construct a new prefab bridge w/ piles or piers between the two existing bridges.

Alternative 3: Construct a new prefab single span bridge between the two existing bridges.

Hawaiian Telcom has overhead copper cables crossing on the makai side of the existing two-lane Wailua Bridge. The weight and the long 462' span cause the cables to sag significantly across the river. Also, they have increased exposure to the corrosive elements of the tradewinds, conflict visually with its surroundings, and are difficult to maintain because of its relative proximity to the bridge.

The Wailua Bridge short-term improvement project may be an opportunity for Hawaiian Telcom to convert these cables from overhead to underground. If possible, in any one of the alternatives, Hawaiian Telcom would benefit with 2-4" conduits installed across the proposed bridge. The conduits could be suspended under the bridge, strapped to the side of it, or embedded in the bridge deck.

Mr. Glenn T. Kimura
Wailua Bridge Short-Term Improvements
February 18, 2006
Page 2

We understand that a load test is required for Alternative 1. If practicable, we ask that the load test be performed with the potential added weight of Hawaiian Telcom facilities in mind. However, we recognize that the need for an expeditious solution to the traffic problem is more important than our need for an overhead to underground facility conversion. Should the load test succeed without the additional Hawaiian Telcom load, but fail with it; Hawaiian Telcom will not require the proposed conduits in Alternative 1.

Total Weight of Hawaiian Telcom Facilities on Bridge (Present and Future):

Weight of Hangers on Bridge = $400' / 10' * 11.5 \text{ lbs./each} = 460 \text{ lbs.}$

Weight of Two 4" Fiberglass conduits on Bridge = $400' * 2 * (0.80 \text{ lbs./ft}) = 640 \text{ lbs.}$

Weight of Existing Cable 'A' (AKF 100-22) = $400 * 0.73 \text{ lbs./ft} = 292 \text{ lbs.}$

Weight of Existing Cable 'B' (AKF 300-24) = $400 * 1.26 \text{ lbs./ft} = 504 \text{ lbs.}$

Weight of Future Cable 'C' (UKF 900-24) = $400 * 4.74 \text{ lbs./ft} = 1896 \text{ lbs.}$

Total Weight (assumed 400' length) = 3792 lbs.

Should you have any questions, call me at 808-241-5052 or email jimmy.sone@verizon.com

Sincerely,



James 'Jimmy' Sone P.E.
Engineer

c: File



Sandwich Isles
Communications, Inc.

A Waimana Company

RECEIVED FEB 22 2006

February 21, 2006

Ms. Nancy Nishikawa
Planner
Kimura International, Inc.
1600 Kapiolani Blvd., Suite 1610
Honolulu, HI 96814

Dear Ms. Nishikawa:

Thank you for your letter inviting us to participate in the pre-assessment consultation meeting for the Wailua Bridge Short-Term Improvement project. As you know Sandwich Isles Communications, Inc. recently installed a fiber optic cable duct system that is attached to the underside of Wailua Bridge. We are very concerned about any adverse impact to the safety and optimum operation of our fiber optic cable system.

As more specific plans and information becomes available, we ask that you continue to coordinate with us to determine any impacts that may affect our infrastructure. Please keep us on the mailing list and we look forward to receiving a copy of the draft environmental statement for the project.

We appreciate the opportunity to cooperate with you on this project and look forward to its success. If there are any questions, please contact me at 808-540-5736.

Sincerely,

KAUHI KELIAA

LINDA LINGLE
GOVERNOR OF HAWAII



GENEVIEVE SALMONSON
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186
E-mail: oeqc@health.state.hi.us

RECEIVED FEB 22 2006

February 21, 2006

Mr. Glenn Kimura
Kimura International
1600 Kapiolani Blvd., Suite 1610
Honolulu, HI 96814

Subject: Wailua Bridge Short-Term Improvements Wailua River, Kauai, Hawaii

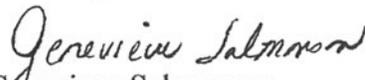
Dear Mr. Kimura,

We have received your letter dated February 6, 2006 to pre-consult on the Wailua Bridge short-term improvements.

The improvements are intended to be temporary. If the Department of Transportation Highway Division decides that the Kapaa Relief Route Project will not materialize, will this improvement become permanent?

We have no other comments, but reserve the right for further comments when we receive the documents. If you have any questions, please call our office at 586-4185.

Sincerely,


Genevieve Salmonson
Director

LINDA LINGLE
GOVERNOR
STATE OF HAWAII



MICAH A. KANE
CHAIRMAN
HAWAIIAN HOMES COMMISSION

BEN HENDERSON
DEPUTY TO THE CHAIRMAN

KAULANA H. PARK
EXECUTIVE ASSISTANT

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS

P.O. BOX 1879

HONOLULU, HAWAII 96805

February 23, 2006

RECEIVED MAR 01 2006

Mr. Glenn T. Kimura
President
Kimura International, Inc.
1600 Kapiolani Boulevard
Suite 1610
Honolulu, Hawaii 96814

Dear Mr. Kimura:

Subject: Wailua Bridge Short-Term Improvements, Pre-Assessment
Consultation, Wailua River, Island of Kauai

Thank you for your letter dated February 23, 2006, asking for input from the Department of Hawaiian Home Lands (DHHL) regarding the Wailua bridge short-term improvements.

In the next five (5) to ten (10) years, DHHL will hire a developer to construct a commercial shopping complex and timeshares on the makai side of Kuhio Highway, near the Aloha Resort hotel. Across the street from the commercial property, mauka of Kuhio Highway, we will construct approximately five hundred (500) residential homes. This will increase car traffic flow substantially in this area, so it is imperative that roads and bridges are improved.

Of the three (3) alternatives, we believe the third choice is the best alternative. This will allow traffic to continue to flow smoothly during the construction phase, and is the most environmentally friendly. It also allows room to expand the three (3) bridges should this need to be done to compensate for future growth.

If you have any questions regarding our choice of alternatives, please call Land Agent, Mr. Kaipo Duncan, at 586-3855.

Aloha and mahalo,

Micah A. Kane, Chairman
Hawaiian Homes Commission



DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

LINDA LINGLE
GOVERNOR
THEODORE E. LIU
DIRECTOR
MARK K. ANDERSON
DEPUTY DIRECTOR
LAURA H. THIELEN
DIRECTOR
OFFICE OF PLANNING

OFFICE OF PLANNING

235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone: (808) 587-2846
Fax: (808) 587-2824

Ref. No. P-11266

February 14, 2006

RECEIVED FEB 16 2006

Mr. Glenn T. Kimura, President
Kimura International
1600 Kapiolani Boulevard, Suite 1610
Honolulu, Hawaii 96814

Dear Mr. Kimura:

Subject: Pre-Assessment Consultation for Wailua Bridge Short-Term Improvements,
Wailua River, Kauai

This responds to your request for comments on the proposed improvements to Wailua Bridge, Kauai. The Hawaii Coastal Zone Management (CZM) Program reviewed the pre-assessment information that was provided. CZM federal consistency review will be needed if: (1) any of the three alternatives requires a Department of the Army Permit from the U.S. Army Corps of Engineers or a bridge construction permit from the U.S. Coast Guard; or (2) if federal funding is requested from a federal grant source that is subject to CZM review, such as Federal Highway Administration Highway Planning and Construction grants.

The following CZM resource areas are potentially applicable to the project:

- Recreational resources. Wailua River is a resource for numerous recreational activities including boating, kayaking, swimming, and sight seeing. The beach area adjacent to the Wailua River mouth is used for swimming, fishing, and surfing offshore. The project's potential impacts to recreational resources are a CZM concern and should be addressed in the environmental assessment (EA).
- Historic resources. Wailua Bridge and the Cane Haul Bridge may be historic resources. Also, archaeological resources could be impacted by land-side construction activities such as installing bridge abutments.
- Scenic and open space resources. The bridge improvements may have potential impacts to coastal scenic and open space resources. For example, Alternative 3 – Independent Pre-Fabricated Steel Truss Bridge, may adversely affect scenic resources and public views to and along the shoreline.

Mr. Glenn T. Kimura
Page 2
February 14, 2006

- Coastal Ecosystems. Potential impacts to water quality, aquatic resources, and endangered species such as turtles and monk seals, are CZM concerns that need to be discussed in the EA.
- County of Kauai Special Management Area (SMA) and Shoreline Setback Area requirements may be applicable to the project. We recommend that the County of Kauai, Department of Planning be consulted regarding SMA and Shoreline Setback requirements.

Thank you for consulting with the Office of Planning early in the project development process. If you any questions about our comments or would like more information, please call John Nakagawa of our CZM Program at 587-2878.

Sincerely,



Laura H. Thielen
Director

c: Department of Planning, County of Kauai
U.S. Army Corps of Engineers, Regulatory Branch



DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858-5440

RECEIVED FEB 17 2006

REPLY TO
ATTENTION OF

February 16, 2006

Regulatory Branch

File No. **POH 2006-70**

Mr. Glenn T. Kimura, President
Kimura International
1600 Kapiolani Blvd., Suite 1610
Honolulu, HI 96814

Dear Mr. Kimura,

This letter is written in response to your request for agency comments on the Wailua Bridge Short-Term Improvement project located in Kauai, Hawaii. Due to traffic congestion between the Wailua Marina driveway and the Kapaa temporary bypass road, solutions to alleviate the congestion were being sought by the County of Kauai. Ms. Lolly Silva of my staff attended the Wailua River Corridor Transportation Improvement workshop held in July 2005 and subsequent monthly meetings with County, State and Federal agencies to address environmental concerns and/or other issues related to the Corps of Engineers Department of the Army (DA) permit requirements under Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act of 1899.

Based on the meetings and on-going discussions, the project's scope of work included the rehabilitation and/or replacement of the Wailua River bridge. The following comments are provided for the three (3) alternatives being considered:

- 1) Alternative 1: Replace existing bridge deck and if required retrofit the existing piers with steel framing to bear the additional load.
Comment: Work does not involve discharges of dredged or fill material into a water of the U.S. (Wailua River), therefore no authorization under Section 404 of the CWA required. However, a DA permit is required for any structures and/or work affecting navigable waters (33 CFR 322.3) and the work can be authorized under NW #3, Section 10 only.
- 2) Alternative 2: Construct a new bridge between two existing bridges. New pre-fabricated steel bridge will be located between the Cane Haul Bridge and the Kuhio Highway Wailua River Bridge. Pre-cast piles or drilled shaft piers placed approximately 60' apart will be used to support the steel deck.
Comment: The new bridge is being constructed between two existing bridges and pre-cast piles will be used to minimize adverse effects to the aquatic environment. Due to the placement of the piles within the river (approximately 60 feet apart), there should be no change to the hydraulic flow characteristics of the river or an increase in flooding. Degradation of

water quality should be minimal with use of best management practices. The pre-cast piles are not considered a discharge of dredged or fill material as defined by 33 CFR 323.3(c), therefore Section 404 authorization is not required. The bridge and all associated work can be authorized under NW #14, Linear Transportation Projects, Section 10 only.

- 3) Alternative 3: Construct a new, single-span steel bridge between two existing bridges. Placement of the abutments to support the bridge will be located outside of the high tide line.

Comment: Design of the new single-span bridge eliminates the need for piles or footings. The work will not involve the discharge of dredged or fill material, however authorization is required for work in navigable waters. The bridge and all associated work can be authorized under NW #14, Linear Transportation Projects, Section 10 only.

Provided that the above work does not involve any temporary construction measures, (i.e., discharges of fill material for access into the river, installation of a cofferdam or sandbags to divert water, temporary fill material associated with dewatering a site, etc.) a DA permit under Section 404 of the CWA is not required. In addition, best management practices will be required to minimize degradation to the aquatic environment.

It should be concluded that any alternative selected will require authorization under Section 10 of the Rivers and Harbors Act of 1899. In addition, a Coastal Zone Management federal consistency determination from the Department of Business, Economic Development and Tourism, State Office of Planning will be required. Please contact Mr. John Nakagawa at 587-2878 for further information.

Furthermore, the draft environmental assessment should include information on the known presence of any endangered species or habitat that may be impacted within the project area; known historical or burial sites; identify all waters of the U.S., to include tributaries and wetlands; and/or other information pertaining to the environment. Should you have any questions, please call Ms. Lolly Silva at 438-7023 or by electronic mail at laurene.l.silva@usace.army.mil. Please refer to the above file number in any future correspondence with this office regarding this project.

Sincerely,



George P. Young, P.E.
Chief, Regulatory Branch

Copy furnished:

Mr. John Nakagawa, Department of Business, Economic Development and Tourism



STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813

RECEIVED MAR 03 2006

HRD05/2249

February 27, 2006

Glen T. Kimura
Kimura International, Inc.
1600 Kapi'olani Blvd., Suite 1610
Honolulu, HI 96814

RE: Pre-Environmental Assessment Consultation for the Wailua Bridge Short-Term Improvements, Wailua, Kaua'i.

Dear Mr. Kimura,

The Office of Hawaiian Affairs (OHA) is in receipt of your February 6, 2006 request for comment on the above listed proposed project. OHA offers the following comments:

Our staff has no comment specific to the above-listed proposed project at this time. Thank you for your correspondence.

OHA asks that, In accordance with Section 6E-46.6, Hawaii Revised Statutes and Chapter 13-300, Hawaii Administrative Rules, if any significant cultural deposits or human skeletal remains are encountered, work shall stop in the immediate vicinity and the State Historic Preservation Division (SHPD/DLNR) shall be contacted.

Thank you for the opportunity to comment. If you have further questions or concerns, please contact Jesse Yorck, Native Rights Policy Advocate, at (808) 594-0239 or jessey@oha.org.

'O wau iho nō,


Clyde W. Nāmu'o
Administrator

CC: La France Kapaka-Arboleda
OHA Community Affairs Coordinator (Kaua'i)
3-3100 Kuhio Hwy., Suite C4
Lihue, HI 96766-1153

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BLVD., ROOM 555
KAPOLEI, HAWAII 96707

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
DEPUTY DIRECTOR - LAND

DEAN NAKANO
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

March 16, 2006

RECEIVED MAR 18 2006

Glenn T. Kimura, President
Kimura International
1600 Kapiolani Boulevard, Suite 1610
Honolulu, Hawai'i 96814

LOG NO: 2006.0656
DOC NO: 0602NM26
Archaeology

Dear Mr. Kimura:

**SUBJECT: Chapter 6E-8 Historic Preservation Review–
Pre-Assessment Consultation for Wailua Bridge Short-Term Improvements,
Department of Transportation, Highways Division
Wailua River, Lihue District, Island of Kaua'i**

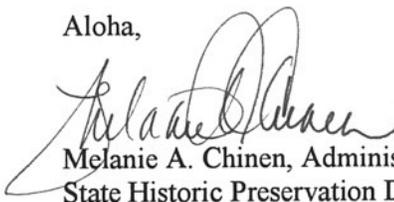
Thank you for submitting your letter on the aforementioned grant which we received on February 8, 2006. The project involves proposed additional lanes across Wailua River. The following three alternatives are proposed: (1) Replace the deck of the cane haul bridge for two northbound lanes and a bike/pedestrian lane, (2) Construct a new bridge between the two existing bridges, and use the cane haul – railroad bridge as a bike/pedestrian bridge, (3) Construct a new bridge between the two existing bridges using a single span design and eliminating the piers in the water.

There are no archaeological concerns for any of the alternative proposals for additional lanes across the Wailua River. The cane haul - railroad bridge was approved in an early project for the bike/pedestrian path, to include mounting or expanding the railroad bridge. The existing bridge has been repaved several times. This project will have "no effect" on significant historic sites.

Alternative 3 would eliminate piers in the water which may be safer for river uses as it would keep the river clear from debris that may come down the river in heavy rains or flooding. This alternative may be more cost effective over the long run as it would eliminate pier repairs.

If you have any questions please call Nancy McMahan, Kauai Section archaeologist at (808) 742-7033.

Aloha,


Melanie A. Chinen, Administrator
State Historic Preservation Division

NM:dlb

RECEIVED APR 12 2006

COUNTY OF KAUAI
PLANNING DEPARTMENT
4444 RICE STREET, SUITE A473
LIHUE, KAUAI, HAWAII 96766-1326

MEMORANDUM

DATE: April 10, 2006

TO: Glenn T. Kimura
Kimura International

FROM: Kauai Historic Preservation Review Commission *PA*

SUBJECT: Letter (2/6/06) from Glenn T. Kimura, Kimura International requesting input for a draft environmental assessment for proposed lane additions across Wailua River. Wailua Bridge Short-Term Improvements, Wailua River, Kauai Hawaii, Pre-Assessment Consultation.

This is to inform you that the Kauai Historic Preservation Review Commission (KHPRC) met on April 6, 2006 to review the above-mentioned project.

Based on the information provided, it is the KHPRC's understanding that this project proposes three alternatives to facilitate two northbound and two southbound lanes across the Wailua River. The improvements are intended to be temporary to implement quick and low cost measures to reduce severe traffic congestion in the Wailua corridor area.

Of the three bridge design alternatives provided, the Commission preliminarily concurred with Alternative 1, the replacement of the deck of the cane haul bridge. In utilizing the historic bridge, the KHPRC further recommended that no further erosion of what exists occur and that the structure be maintained to the highest standard possible.

Please contact Rick Tsuchiya at (808)241-6677 should you have any questions.

Mahalo.

cc: SHPD-Honolulu

U.S. Department of
Homeland Security

United States
Coast Guard



Commander
Fourteenth Coast Guard District

300 Ala Moana Blvd, 9-216
Honolulu, HI 96850-4982
Staff Symbol: (dpw)
Phone: (808) 541-2320
Fax: (808) 541-2309

16590
November 6, 2006

Mr. Pat Phung
DOT-FHA Hawaii Division
P.O. Box 50206
300 Ala Moana Blvd, Rm. 3-306
Honolulu, HI 96850

RECEIVED NOV 08 2006

Dear Mr. Phung,

The U.S. Coast Guard (USCG) received your invitation on September 10, 2004 to participate as a cooperating agency in the Federal Highway Administration's (FHWA) and Hawaii Department of Transportation's (HDOT) Kapa'a Relief Route Project on Kauai. Kimura International, Inc., recently requested our response to this invitation.

Both Kuhio Highway Bridge and Cane Haul Bridge do not presently have, and are not subject to, federal permits by the USCG. Furthermore, the Corps of Engineers has no plans at present for any future waterway improvements that would need to be addressed as part of a long-term solution. Therefore, this agency has no comment on the Wailua Bridge Short-Term Improvements Project.

With respect to the river above Kuhio Highway Bridge and this agency's participation in the Kapa'a Relief Route Project, it is necessary that we first conduct a navigability determination of the waterway. This study would determine the waterway's eligibility for federal regulation and the USCG's consequent participation in the project as a cooperating agency. We will work with your agency while conducting the study. If the waterway proves ineligible for federal regulation, the USCG would not be involved in the project.

If you have any questions or concerns, please do not hesitate to contact my representative in this matter, LT Doug Jannusch, at (808) 541-2319 or Douglas.A.Jannusch@uscg.mil

Sincerely,

A handwritten signature in black ink that reads "B. A. Havlik".

B. A. HAVLIK
Commander, U. S. Coast Guard
Chief, Waterways Management Branch
By direction

Copy: Mr. Darell Young, HDOT
Mr. Glenn Kimura, Kimura International, Inc.

**Notes of Public Information Meeting
Wailua Short-Term Transportation Improvements
Thursday, February 16, 2006**

The first of two public information meetings for proposed improvements to Kuhio Highway in Wailua was held on Thursday, February 16, 2006, beginning at 7:00 p.m. at the Kapaa Middle School cafetorium. The meeting was attended by 31 members of the community and 11 members of the project planning team.

Steve Kyono, State Department of Transportation, Kauai District Engineer, welcomed all attendees and provided an overview of the transportation proposals.

Glenn Kimura of Kimura International, Inc. gave a slideshow that described the bridge and highway widening projects.

Introductory Remarks by Mayor Baptiste

Mayor Bryan Baptiste thanked State Highways. He then reviewed the timeline to this point beginning with a workshop at the Radisson in July 2005. Mayor Baptiste recounted that he “locked the door and wouldn’t let people leave until they came up with a solution.” He emphasized that “time is of the essence” and that “there is a sense of urgency to get things done.” At the same time, he commended everybody for carrying their load, and expressed his desire to use the skills of all the people in the room.

In addition to the specific projects being addressed at the meeting, Mayor Baptiste noted that a request has been submitted to fund the extension of Pouli Road. For those who are not into lane widening, mass transit options are being studied, such as a park and ride facility on the east side.

Mayor Baptiste concluded by stating how important it is to differentiate what’s real from what’s just an idea. “We need to work with and utilize what we have to do things in a short time.”

Comments, Questions, and Dialogue

Comment: Thank you for moving this along. Would like to see if it can be expedited even more.

Steve Kyono: We’ll do our best to shorten the schedule.

Question: Everything runs on money. What’s real and what’s not?

Mayor Baptiste: \$19 million is in the budget, but it needs to be approved by the Legislature. I’ve met with Kauai’s legislators and others. This is not money from the General Fund, but transportation funds (STIP).

Comment: If the load test fails and we have to go to Alternatives 2 or 3, the bridge alone will take up most of the budget.

Response: If the load test fails, it's still possible to retrofit and reinforce the cane haul bridge. However, Mayor Baptiste acknowledged relying on Alternative 1.

Comment: Sometimes retrofitting can be more expensive than building new.

Steve Kyono: We split up bridge and highway projects because the bridge is the challenging part and we don't want it to hinder highway expansion. HDOT's pier inspection is scheduled for next week.

Question: When do anticipate getting results on the load test?

Response: Within 3 months.

Question: Can we have another meeting to update the status in 6 months?

Response: We're planning to hold another public meeting during the review period for the Environmental Assessment.

Mayor Baptiste: Highway widening design being done now with funding by Coco Palms. I'm challenging consultants to work concurrently. Optimistically, we want the four lane widening completed by the end of 2007.

Question: Won't the choke point shift to the south of the river? Won't the bottleneck shift downstream?

Response: Contraflow will continue. With two travel lanes, traffic generally moves well.

Mayor Baptiste: We're not going to get funding for everything. The county needs to rely on the cumulative effect of small improvements. Between \$30 million for widening of Kaumualii Highway on the west side, and \$19 million for short-term improvements in Wailua, Kauai is getting a lion's share of transportation money.

Comment (also submitted in writing): Traffic is going to be horrendous during construction. Years ago, you could travel down Eggerking to Waipouli. I recommend a short connector (detour) so people in House Lots can avoid using Haleilio Road.

Response: It's a good idea and we're studying it. But your suggestion can't be implemented quickly because land acquisition takes time.

Comment: Problem with people taking a short cut on Papalooa Road and Lanikai.

Comment: Suggest putting bollards up and don't allow left turn from Papalooa.

Response: Looking at restricting turning movements southbound on Papalooa to right turn only. Might be able to do this before the (widening) project gets underway.

Comment: The bypass road works. Why can't there be further use of cane haul roads?

Steve Kyono: The short time it took to complete the temporary bypass road was a special case. Highway widening is more complicated than paving over a cane haul road.

Question: How are you dealing with anticipated Coco Palms traffic? The parking garage and access is off Haleilio Road.

Steve Kyono: The developer was required to prepare a Traffic Impact Report. The TIR was used by the State and County as the basis for imposing infrastructure requirements on the developer. For example, there needs to be a separate right turn lane from Haleilio onto Kuhio Highway. This will be incorporated into the four-lane widening project.

Mayor Baptiste: We're also studying a continuous green at the "T" intersections at Kuamoo and Haleilio Roads.

Steve Kyono: But we also need to address pedestrian concerns.

Comment: 5-6 years ago, our position was to wait until the long-term plan is completed. Since that plan is still being developed and it won't be implemented for many more years, what's happening now (maybe another 2-3 years) is as fast as possible.

Question: Have you looked at a roundabout in front of Safeway and Foodland?

Steve Kyono: We don't have enough land in that area. We're constantly looking at signal adjustment, but getting the right balance is difficult because when we lengthen the signal for through traffic, cars start to back up in the shopping center parking lot.

Question: Is there any way to make the cantilever portion wider for bicyclists and pedestrians?

Response: Acrow's* cantilever module is usually four feet. The five feet we're looking at is already a special design at five feet. (A width of five feet is needed for a 400-foot span, even for walking.) A wider cantilever puts more load on the existing structure.

Comment: Would like the bike/pedestrian lane to be as wide as possible within the economics of the project

Comment: This might be a reason for a new, third bridge.

Comment: If there's a tsunami, the bridges will get wiped out.

Response: The bridge improvements are not intended to withstand a tsunami. This is an emergency fix.

Comment: I'm confused about the column labeled "completion time" and whether it's supposed to mean cumulative time.

Mayor Baptiste: 60,000 guys on Kauai are not going to have the weight to get more dollars when Maui, the Big Island are coming in with projects. Only option that works with the money we have is Alternative 1. Maybe not the best, but it's something. Afterward we can put effort into the long-term plan.

Question: What month is completion of the EA anticipated?

Response: By summer.

Comment: Would like to see utilities put underground.

* Acrow is a manufacturer of prefabricated bridges.

Written Comment (verbatim):

Appropriation to relieve the traffic to the Hyatt and condos in Poipu works great for the few tourists. The residents of this island should get the same sense of urgency or respect. The Kawaihau District is the largest district on the island yet our infrastructure seems to be shortchanged in relation to other parts of the island (in relation to population). Am I wrong?

Written Comment (verbatim):

Years ago we traveled from Eggerking Rd to the Plantation Rd to Waipouli Town. As an interim solution to relieve traffic to and from Wailua House Lots, this could possibly be reestablished. This would reduce traffic on Kuhio Hwy entering and exiting Haleilio Rd. During the next 3-4 years from planning to completion.

Attendance Sheet

Meeting: Public information Meeting on Wailua Corridor Short-term Transportation Improvements

Date/Time: Thursday, February 16, 2006, 7:00 PM

Name	Mailing Address	E-mail Address
ROLAND LICONA	PO Box 1206 ⁹⁶⁷⁶⁴ Lihue HI	Roland.E.Licon@hawaii.gov
PAT PHUNG	FtNA	pat.phung@ftna.col.gov
Jean + Dave Camp	Po Box 750, Anahola	jeanscamp@yahoo.com
Ray Carpenter	6221 Oloke Kapa	rcarp@aloha.net
Jessie Muramoa	4982 Olu Rd Kapa	muramoa4982@yahoo.com
RAYNE REGUSH	POB 510032 Kealia	RayneRegush@aol.com
Annette Baptiste	331 Eggerking Rd Kapa	nnttbap@hotmail.com
Rodney Funakoshi	1907 S. Bertani St	rfunakoshi@wilsonkamoto.com
Sheri Kunioka-Volz	4870 Iiwi Rd Kapa	KuniokaVolz@hiers.org
ARTHUR K. DEFRIES	P.O. Box 42 ^{Anahola} HI 96703	

Attendance Sheet

Meeting: Public information Meeting on Wailua Corridor Short-term Transportation Improvements

Date/Time: Thursday, February 16, 2006, 7:00 PM

Name	Mailing Address	E-mail Address
OLGA URMINSKA	96746 P.O. Box 1323 KAPAA	6420ENS@AOL.COM
Doug Haigh	6431 Kahunā Rd	dhaigh@kauai.gov
TOM ELLIS	6485 MAKANA RD	tom@KIONS.COM
Marge Freeman	6448 Kāhala St ^{Kapaa}	
Lauru Yoshida	Gov's office	
Pat Pannell	KBA PO Box 1480 KAPAA	ppannell@KBALUVAI.ORG
Beverly Newbury	5767 Ani St. Kapaa, HI 96746	
DAVE & DEANA SHEPHERD	BOX 639, ANAHOA ⁹⁶⁷⁰³	dlshep@cox.com
Jimmy Sone	4040 Halau St. Lihue, HI 96766	jimmy.sone@verizon.com
RAYMOND AII	KAPAA HI 96746 4855-C MOHOU RD	

Attendance Sheet

Meeting: Public information Meeting on Wailua Corridor Short-term Transportation Improvements

Date/Time: Thursday, February 16, 2006, 7:00 PM

Name	Mailing Address	E-mail Address
Mark Baird	976 KUHIO HWY KAPAA, HI 96746	mabds@yahoo.com
Gail Paris	1833 Halieloa Rd.	Famousethawaii.net
JACK SIART	4617 KUAMOO RD, KAPAA HI 96746	JACKSIART@YAHOO.COM
Derek O'Brien	98-1435 AKAKA ST AIEA, HI 96701	
Neill Sams	4588 Kanaele Road Kapaa, HI. 96746	ntdd@aloha.net
Wanda Kudo	Aiea River St Lihue, HI 96766	wkudo@kamei.gov.com
Dennis MacCumber	P.O. Box 1236 Kapaa 96746	

MEMORANDUM OF AGREEMENT

Submitted to the

ADVISORY COUNCIL ON HISTORIC PRESERVATION

Pursuant to 36 CFR §800.6(a)

Among the

**U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY
ADMINISTRATION**

And the

HAWAII STATE HISTORIC PRESERVATION OFFICER

And the

COUNTY OF KAUAI, DEPARTMENT OF PUBLIC WORKS

Regarding the

LYDGATE PARK TO KAPA'A BIKE AND PEDESTRIAN PATH PROJECT

Kaua'i, Hawai'i

WHEREAS, the Federal Highway Administration (FHWA) has determined that the Lydgate Park to Kapa'a Bike and Pedestrian Path Project (Project) will have an effect upon historic properties eligible for inclusion in the National Register of Historic Places, and has consulted with the Hawaii State Historic Preservation Officer (SHPO) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act (16 U.S.C. 470(f)); and

WHEREAS, this Project, being proposed by the County of Kauai (County), Department of Public Works (DPW), is a Federal "Undertaking"; and

WHEREAS, this Project involves developing a typically 10 to 12-foot-wide multi-use recreational path for bicyclist, pedestrians, and other users along an approximately 2 mile stretch of coastline from Lydgate Park, Wailua to Kapa'a Town on the island of Kaua'i; and

WHEREAS, this Project has an "area of potential effects" consisting of lands that are either owned or under the jurisdiction of the County within project corridors generally located between Lydgate Park at Wailua north up to Kapa'a Town, and situated from the shoreline inland up to Kūhiō Highway or other privately-owned properties as shown on Exhibit A; and

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JUN 14 2006

HAWAII DIVISION

WHEREAS, FHWA and County DPW have consulted with the SHPO and native Hawaiian organizations, which included the Kaua'i/Ni'ihau Islands Burial Council, Office of Hawaiian Affairs, Kaua'i Historic Preservation Review Commission, and Hui Malama I Nā Kupuna 'O Hawaii Nei under this Section 106 process which was incorporated under the environmental review process conducted under the Federal National Environmental Policy Act and State of Hawaii Chapter 343, Hawaii Revised Statutes; and

WHEREAS, FHWA will require the County DPW to carry out the agreed to stipulations identified under this Memorandum of Agreement (MOA) which are based upon the SHPD accepted *Archaeological Assessment of Alternative Routes Proposed for the Lydgate to Kapa'a Bike Pedestrian Pathway Project* final report, dated April 2004; and

NOW, THEREFORE, FHWA and the Hawaii SHPO agree that the Undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the Undertaking on historic properties shown on Exhibit A included with this document.

STIPULATIONS

The FHWA shall ensure that the following measures are carried out:

A. Archaeological Monitoring Plan

1. Develop an archaeological monitoring plan for path improvements and amenities with provisions for addressing burial treatment that are to be implemented during construction activities.
2. The monitoring plan will be developed and implemented by a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology (Federal Register, Vol. 48, No. 190, page 44738-9).
3. The archaeological monitoring plan will include the following major elements:
 - a. Archaeological monitoring provisions and procedures to be implemented during the course of the Undertaking's implementation; and
 - b. Specific levels of archaeological monitoring determined to be appropriate for each path section, and
 - c. A follow-up monitoring report for the Undertaking shall be submitted to State Historic Preservation Division (SHPD). The monitoring report, containing the location and description of any human burial remain discovered during the course of the Undertaking shall remain confidential and the precise location data may be provided in a separate confidential index.
4. The archaeological monitoring plan shall be submitted by the County DPW, through FHWA, to the SHPD for a 30-day review. Unless the SHPD objects within 30 days

after receipt of such Plan, the County DPW shall ensure that its provisions are implemented.

B. Mitigation Documentation for the Seaward Wailua River Bridge and Vicinity

1. Consultation will be conducted by the County DPW with the SHPD, with prior consultation with the Kauai Historic Preservation Review Commission, regarding design plans developed for improvements to the seaward Wailua River Bridge (also known as the Plantation or cane haul bridge).
2. The County DPW will consult with the architectural branch staff of SHPD prior to starting any construction activities if design plans would alter the seaward Wailua River bridge.
3. Historic American Engineering Record (HAER) documentation shall be conducted for the seaward Wailua River bridge if deemed appropriate by the architectural branch staff of SHPD
4. To avoid any possible adverse impacts to the Wailua petroglyph site (known as Ka Pae Ki'i Mahu o Wailua and designated as site 50-0-08-105A) plans will be shared with Hawai'i State Parks and the State Historic Preservation Division archaeology branch to determine the possible need for a program of subsurface testing to further evaluate the prospect of impacting any buried portion of this petroglyph site or other significant cultural properties.

C. Burial Treatment Plan

1. A burial treatment plan will be prepared when appropriate to address the preservation of any burials or other human remains encountered in the course of this project.
2. This burial treatment plan shall be prepared and presented to the Kaua'i/Ni'ihau Islands Burial Council (KNIBC) for review, consultation, and approval in accordance with Title 13, Subtitle 13, Chapter 300 of the Hawaii Administrative Rules.
3. The pertinent provisions of the KNIBC approved burial treatment plan shall be executed prior to the completion of the undertaking

D. Preservation/Interpretive Plan

1. Prepare a Preservation Plan addressing interpretive signage to be provided along the multi-use path that is reviewed and approved by the SHPD if deemed appropriate by the SHPD.
2. Consult with the SHPD, Kauai Historic Preservation Review Commission, and Kauai Health and Heritage Coastal Trails Committee in developing the interpretive signage associated with this Undertaking. Interpretive signage will be developed under the following conditions.
 - a. The timeframe for development of interpretive signage under the Preservation Plan will be limited to one (1) year from execution of this MOA.

- b. The SHPD will have 60 days from receipt of the submitted Preservation Plan to review, revise, and approve this Preservation Plan.
- c. Development and implementation of interpretive signage improvements can proceed concurrently or after construction of improvements under this Undertaking.

E. Amendments to this Memorandum of Agreement

1. Any party to this MOA may request that any term or stipulation of the MOA be amended; whereupon the parties to the MOA shall consult with each other in accordance with 36 CFR Part 800 to consider such amendment.
2. Should any party to this MOA object to the mitigative plans prepared pursuant to these stipulations within 30 days from receipt, the FHWA shall consult with the objecting party to resolve the objection. If the FHWA determines that the objection cannot be resolved, the FHWA shall forward all documentation relevant to the dispute to the Advisory Council on Historic Preservation (Council). Within 30 days after receipt of all pertinent documentation, the Council will either:
 - a. Provide the FHWA with recommendations, which the FHWA will take into account in reaching a final decision regarding the dispute; or
 - b. Notify the FHWA that it will comment pursuant to 36 CFR 800.6(b), and proceed to comment. Any Council comment provided in response to such a request will be taken into account by the FHWA in accordance with 36 CFR 800.6(c)(2) with reference to the subject of the dispute.
3. Any recommendation or comment provided by the Council to address such objections will be understood to pertain to the subject of the dispute. The FHWA's responsibility to carry out all actions under this MOA that are not the subject of the dispute will remain unchanged.

F. Termination of the MOA

1. If necessary and appropriate, SHPO may request, at any time, a review of the stipulations. This MOA shall be effective upon being signed and considered in full force and effect until replaced by future agreement, or until the Undertaking is fully implemented.
2. Interim archaeological monitoring reports for phases implemented shall be submitted to SHPD no later than 90 days from the completion of any discrete phase of the Project. Once the Undertaking has been completed, and the monitoring plan submitted and approved, this MOA shall terminate by its own course without the necessity of further action by any of the other signatories to this MOA.

G. Timeframe for Undertaking Initiation

Should the undertaking not take place within 5 years of the executed MOA, the parties shall consult in accordance with 36 CFR Section 800 to determine whether amendment should be considered.

H. Counterpart Signatures

This MOA may be executed in counterparts. Each signature page shall be incorporated into the MOA and considered a part of this MOA.

Execution of this Memorandum of Agreement by FHWA and the Hawaii SHPO, its subsequent acceptance by the Council, and the implementation of its terms, evidence that the FHWA has afforded the Council an opportunity to comment on the Lydgate Park, Wailua to Kapa'a Bike and Pedestrian Path Project and its effects on historic properties, and that FHWA has taken into account the effects of the Undertaking, on historic properties.

FEDERAL HIGHWAY ADMINISTRATION

By: Abraham Wong
Abraham Wong, Division Administrator

DATE: 4/28/06

HAWAII STATE HISTORIC PRESERVATION OFFICER

By: Peter F. Young
Peter F. Young, State Historic Preservation Officer

DATE: 6-9-2006

Concurred By:

COUNTY OF KAUAI, DEPARTMENT OF PUBLIC WORKS

By: Donald Fujimoto
Donald Fujimoto, County Engineer

DATE: 6-21-06

Concurred By:

STATE OF HAWAII, OFFICE OF HAWAIIAN AFFAIRS

By: _____
Trustee Haunani Apoliona, Chairperson of the Board of Trustees

DATE: _____

PHONE (808) 594-1888



STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813

PP _____
FAX (808) 594-1865

RECEIVED

AUG 4 2006

HAWAII DIVISION

HRD06/2591

July 31, 2006

Pat V. Phung
U.S. Department of Transportation
Federal Highway Administration, Highways Division
300 Ala Moana Blvd., Room 3-306
Honolulu, HI 96850

**RE: Kapa'a Bike and Pedestrian Path [Federal-Aid Project No. STP-0700-(49)]
Memorandum of Agreement (MOA), Kapa'a, Kaua'i.**

Dear Pat V. Phung,

The Office of Hawaiian Affairs (OHA) is in receipt of your July 14, 2006 submission and offers the following comments:

As is suggested in the above-listed submission, our staff feels that it is not in OHA's interest to be a concurring party to the Kapa'a Bike and Pedestrian Path Memorandum of Agreement (MOA) at this time. Thank you for the opportunity and for your continued correspondence.

Thank you for the opportunity to comment. If you have further questions or concerns, please contact Jesse Yorck, Native Rights Policy Advocate, at (808) 594-0239 or jessey@oha.org.

Aloha,

A handwritten signature in black ink, appearing to read "Clyde W. Nāmu'o".

Clyde W. Nāmu'o
Administrator

OHA Community Affairs Coordinator (Kaua'i)
3-3100 Kuhio Hwy., Suite C4
Lihue, HI 96766-1153



PP —

Preserving America's Heritage

December 1, 2004

Pat V. Phung
Federal Highway Administration
Box 50206
300 Ala Moana Boulevard, Room 3-308
Honolulu, HI 96850

RECEIVED
DEC 13 2004
HAWAII DIVISION

REF: *Bike and Pedestrian Path, Lydgate Park to Kapa'a, STP-0700(049).*

We received your notification and supporting documentation regarding the adverse effects of the referenced project on a property or properties eligible for inclusion in the National Register of Historic Places. Based upon the information you provided, we do not believe that our participation in consultation to resolve adverse effects is needed. However, should circumstances change, please notify us so we can re-evaluate if our participation is required. Pursuant to 36 CFR 800.6(b)(iv), you will need to file the Agreement, and related documentation at the conclusion of the consultation process. The filing of this Agreement with the ACHP is necessary to complete the requirements of Section 106 of the National Historic Preservation Act.

Thank you for providing us with your notification of adverse effect. If you have any questions, please contact Carol Legard at 969-5110 or via eMail at clegard@achp.gov.

Sincerely,

Nancy Kochan
Office Administrator/Technician
Western Office of Federal
Agency Programs

**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)**

PROJECT NUMBER: CMAQ-0700(49)

BRIDGE NAME: Wailua Plantation Bridge

BRIDGE ID: 007000560400573

ROUTE: 56

MILEPOST: 5.7 to 5.8

COUNTY: Kauai

Instructions: consult the Nationwide Section 4(f) Evaluation as it relates to the following items. Complete all items. Any response in a shaded box requires additional information prior to approval. This Section 4(f) determination will be attached to the applicable EA, FONSI, or Categorical Exclusion.

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

Alternatives Considered	Yes	No
5. Have all of the following alternatives, to avoid any use of the historic bridge been evaluated? ²	X	
A. Has the “Do Nothing” alternative been studied and been determined, for reasons of maintenance and safety, not to be feasible and prudent?	X	
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?	X	
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?	X	

<p align="center">Measures to Minimize Harm When an item does not apply indicate with N/A</p>	<p align="center">Yes</p>	<p align="center">No</p>
<p>6. Has the project included all possible planning to minimize harm, including the following:</p>		
<p>A. For bridges that are adversely affected; 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?</p>	<p align="center">X</p>	
<p>B. For bridges that are to be rehabilitated to the point that the historic integrity is affected or that are to be moved or demolished have fully adequate records ben made of the bridge in accordance with the Historic American Engineering Record (HAER) or other suitable means developed through the Section 106 consultation?</p>		<p align="center">X</p>
<p>C. For bridges that are to be replaced; has the existing bridge been made available for an alternate use, provided a responsible party agrees to maintain and preserve the bridge?³ <i>(If the project is a rehabilitation project, write N/A for this question.)</i></p>	<p align="center">N/A</p>	
<p>D. For bridges that are to be rehabilitated 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? <i>(If the project is a replacement project, write N/A. for this question.)</i></p>	<p align="center">X</p>	

<p align="center">Notes</p>
<p>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)</p> <p>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.</p> <p>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.</p> <p>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 <u>not</u> apply.</p>

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.



Wailua Plantation 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.

Date Approved

Federal Highway Administration

**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.

Programmatic Section 4(f) and 6(f) Evaluation

(Revised November 30, 2006)

1. REGULATORY AUTHORITY

Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966 (49 USC §303(c)) declares that “it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public parks and recreational lands, wildlife and waterfowl refuges and historic sites.” Section 4(f) applies to historic sites and designated publicly owned parks, recreational areas, and wildlife and waterfowl refuges that are determined by the FHWA to have national, state, or local significance. Under the Act, the Secretary of Transportation cannot approve a project requiring the “use” of a Section 4(f) property unless

- there is no feasible and prudent alternative to the use of such land, and
- such program includes all possible planning to minimize harm to such park, recreational area, wildlife and waterfowl refuge, or historic site resulting from such use. (23 CFR 771.135)

The purpose of this Programmatic Section 4(f) Evaluation is to provide the information required by the Secretary of Transportation to make the decision regarding the use of properties protected by Section 4(f) legislation under the preferred alternative in the Lydgate Park-Kapa‘a Bike/Pedestrian Path Environmental Assessment.

Four 4(f) resources are potentially impacted by the proposed shared use path:

- Wailua Plantation (Cane Haul) Bridge
- Wailua Beach Park
- Lihi Park (Waipouli Beach Park)
- Wailua River State Park

A separate Programmatic Statement has been prepared for the Wailua Plantation Bridge.

This document examines public park lands affected in the context of the *Negative Declaration/Section 4(f) Statement for Independent Bikeway or Walkway Construction Projects*.

Because Land and Water Conservation Funds (LWCF) were used to improve Wailua Beach Park, provisions of Section 6(f) are applicable to the proposed project. Please see discussion in Section 6, below.

2. PROPOSING AGENCY AND ACTION

The County of Kaua‘i, Department of Public Works (County DPW) proposes to construct a shared use path for pedestrians, bicyclists, and other users from Lydgate Park to Waika‘ea Canal in Kapa‘a, a distance of approximately two miles. This project, referred to as the “Lydgate Park-Kapa‘a Bike/Pedestrian Path,” is part of a longer, continuous pathway that will ultimately travel along the east side of Kaua‘i from Nāwiliwili in the south to Anahola in the north. The scope of this project includes two other feeder routes:

- (1) A shared use path connecting the Lydgate-Kapa‘a bike-pedestrian path to the Wailua House Lots Park and the Nounou Mountain (Sleeping Giant) trail, and
- (2) A shared use path connecting the Kawaihau Road bike-pedestrian path to the Kapa‘a-Keālia bike-pedestrian path.

The bike/pedestrian path will be 10 to 12 feet wide and allow movement in both directions. It is intended to accommodate a wide variety of users; however, motorized vehicles will not be allowed with the exception of motorized wheelchairs, emergency vehicles, and maintenance vehicles. The path will be constructed from concrete with graded shoulders. In some areas, existing development may preclude a full, 10-foot wide path, thereby requiring consideration of other options, such as improved, widened sidewalks.

Specific design elements will be established in the design phase of the project. For this document, the proposed action is assumed to be a facility built in conformance with guidelines for bicycle facilities published by the American Association of State Highway Transportation Officials (AASHTO) and standards established in the Americans with Disabilities Act (ADA) Accessibility Guidelines or ADAAG.

The Lydgate Park to Kapa‘a bike/pedestrian path project does not include additional comfort stations, pavilions, picnic areas, or parking areas. However, possible design elements related to site conditions, such as major grading, retaining walls, railings, fencing, and/or changes to traffic patterns, are described and discussed in the Environmental Assessment. Other elements that may be included in the proposed action are landscaping, signage, and amenities, such as trash receptacles and benches.

The County of Kaua‘i will construct, own, and operate the facility. The project will be funded, in part, by the U.S. Department of Transportation, Federal Highway Administration.

3. PURPOSE AND NEED

The bike/pedestrian path project addresses several needs:

Improved safety for pedestrians, bicyclists, and others using non-motorized modes of transportation. At present, pedestrians, joggers, and bicyclists in the project area use shoulders or the sides of roads, or share sidewalks where available. A continuous path that separates these users from passing vehicles is needed for safe and comfortable travel.

Increased choices among alternative modes of transportation. Shared use paths have been popular across the nation because separating motor vehicles from those traveling on foot or by bicycles increases people’s sense of safety and comfort. These characteristics are fundamental to giving people viable choices in how they travel. The proposed path is intended for use by all age groups, and those who possess a range of skill levels.

Greater connections among destination nodes. A pathway is needed to connect the existing path at Lydgate Park and a path that will soon begin design and construction (from Kapa‘a to Keālia). It is the continuity of the path network—what transportation specialists call “system connectivity”—that will increase the usefulness of the transportation facility and allow people to go where they want to go.

Enhanced access to natural areas, while minimizing impacts on sensitive ecosystems. The Wailua-Waipouli-Kapa‘a area is surrounded by natural places of great scenic beauty. A facility is needed to enable residents and visitors to access some of these places under conditions that are better controlled than they are at present.

For those who require wheelchairs or other aids to mobility (as well as parents with children in buggies), a hard, smooth surface will make it easier to travel through the outdoors, especially in places that are sandy, rocky, or covered with grass. To the extent that it is technically feasible, the path will be designed in compliance with guidelines established under the Americans with Disabilities Act.

Increased opportunities for recreation and physical fitness. The proposed path is needed to provide more opportunities for outdoor recreation and fitness. There is no other area in town that provides a safe, dedicated facility for people to walk, jog, and bicycle.

Implementation of bikeway proposals in the *Kaua‘i General Plan* and *Bike Plan Hawaii*. The proposed action is mentioned in the *Kaua‘i General Plan* (2000) and in *Bike Plan Hawaii* (1994, 2003). Both the *General Plan* and *Bike Plan Hawaii* were developed with extensive community outreach and participation efforts. Consistent endorsement of the bike/pedestrian path proposal is an indication of steady community support for over a decade.

4. PREFERRED ALTERNATIVE

The preferred alternative includes a combination of shoreline and canal components (see Figure A1). It was selected as the alignment that would optimize project objectives (provide a safe route for pedestrians and bicyclists that is separated from vehicular traffic to the extent possible, connect origin and destination nodes, enhance access to beach and recreational resources, and provide a scenic, outdoor experience), while avoiding, minimizing, or being able to mitigate adverse environmental impacts.

The project’s start point lies between the Aloha Beach Resort and Kūhiō Highway. The path will be aligned adjacent to the northbound approach to the cane haul bridge. Where possible, the path will be located within the highway right-of-way; however, some sections of the path are expected to pass through Wailua River State Park. Heading north, the path will continue across Wailua River and along the makai side of Kūhiō Highway. North of the Sea Shell Restaurant, the path will follow Papaloa Road, then turn mauka at Lanikai Street. A user-activated traffic signal is planned at the intersection of Kūhiō Highway and Lanikai Street to facilitate path users crossing the highway. On the mauka side of Kūhiō Highway, the path will jog inland, heading northward using the roadbed of a former cane haul road. After crossing the temporary bypass road, the path will continue along the Waipouli Drainage Canal, behind the Waipouli Town Center, then along the south bank of Uhelekawawa Canal back to Kūhiō Highway. The path will shift to the makai side of the highway, then use the right-of-way on Ala Road, Niulani Street, and Moanakai Road before reaching the northern terminus at Waika‘ea Canal.

5. SECTION 4(f) PROPERTIES

Section 4(f) properties are shown in Figures A2 and A3.

5.1 Wailua Beach Park

TMK: 4-1-04: 01; 4-1-05: 04; 4-3-02: 01

Owner: County of Kaua‘i

Description of Resource

Wailua Beach Park encompasses about 6.0 acres of undeveloped beach area situated directly across from the Coco Palms Resort and makai of Kūhiō Highway. This County-owned park is located near the mouth of Wailua River, and is a popular area for both visitors and residents. The near shore bottom fronting most of the beach consists of a shallow sand bar, creating favorable surfing conditions. The beach is also used by swimmers, sunbathers, and fishermen.

Lydgate Park-Kapa‘a Pedestrian/Bike Path

Programmatic Section 4(f) and 6(f) Evaluation

The park was part of the Wailua River State Park complex before being transferred to the County in 1992. There are two unpaved parking areas off Kūhiō Highway, one just north of the Wailua River Bridge, and another adjacent to the vacant Seashell Restaurant. There are limited public facilities provided at this beach park—a few portable toilets, showerheads, and a lifeguard station.



Kūhiō Highway looking north, Wailua Beach Park is to the right.

Lydgate Park-Kapa‘a Pedestrian/Bike Path

Programmatic Section 4(f) and 6(f) Evaluation



Wailua Beach Park. Path will be set back as far inland as practicable.

5.2 Lihī Park (Waipouli Beach Park)

TMK: 4-5-2: 01

Owner: County of Kaua‘i

Description of Resource

Kapa‘a Beach is the sandy beach that fronts Kapa‘a town, and extends from Waika‘ea Canal on the south to the intersection of Kawaihau Road and Kūhiō Highway. Anchoring the south end of the beach is Lihī Park (also known as Waipouli Beach Park), a popular picnic and fishing area.

To control shoreline erosion, the state completed a revetment in the area in 1964. Artificial structures along the shoreline include jetties at the mouths of Waika‘ea and Mo‘ikeha Canals. The wide, shallow offshore reef attracts many local fishermen. Adjacent to Lihī Park is the heavily used State-owned boat ramp into Waika‘ea Canal.

Lydgate Park-Kapa'a Pedestrian/Bike Path
Programmatic Section 4(f) and 6(f) Evaluation



Lihi Park



Waika'ea Canal bridge at Lihi Park is the northern project terminus.

Lydgate Park-Kapa‘a Pedestrian/Bike Path

Programmatic Section 4(f) and 6(f) Evaluation

5.3 Wailua River State Park

TMK: 3-9-06: 29

Owner: State of Hawai‘i, Dept of Land and Natural Resources, Division of State Parks

Description of Resource

Wailua River State Park, established in 1954, is the only State-owned park in the project corridor. A survey taken by the Hawai‘i Tourism Authority in 2003 estimated that 615,800 people visited the park in 2003. The State Park is located along the banks of the Wailua River and covers a large tract of land extending from the shoreline makai of Kūhiō Highway into the valley. Overall, the park encompasses over 1,000 acres of land, of which about 50 acres are developed for recreational use, including sightseeing of natural and cultural sites, hiking, picnicking, and boat rides along the river.

The Wailua Complex of Heiau National Historic Landmark (NHL) is located within the Wailua River State Park. This heiau complex is comprised of seven historic sites, grouped into five discrete sites. The path passes mauka of Hikinaakalā Heiau and Pu‘uhonua o Hauola (designated as State Historic Site No. 50-30-08-105 and one of the five NHL sites), but will not have a direct adverse impact on these important cultural sites. A cluster of boulders with petroglyphs, known as Ka Pae Ki‘i Mahu o Wailua (State Historic Site No. 50-30-08-105A) is located offshore in a small inlet at the mouth of the Wailua River, and away from any adverse impact that might be generated by the path.

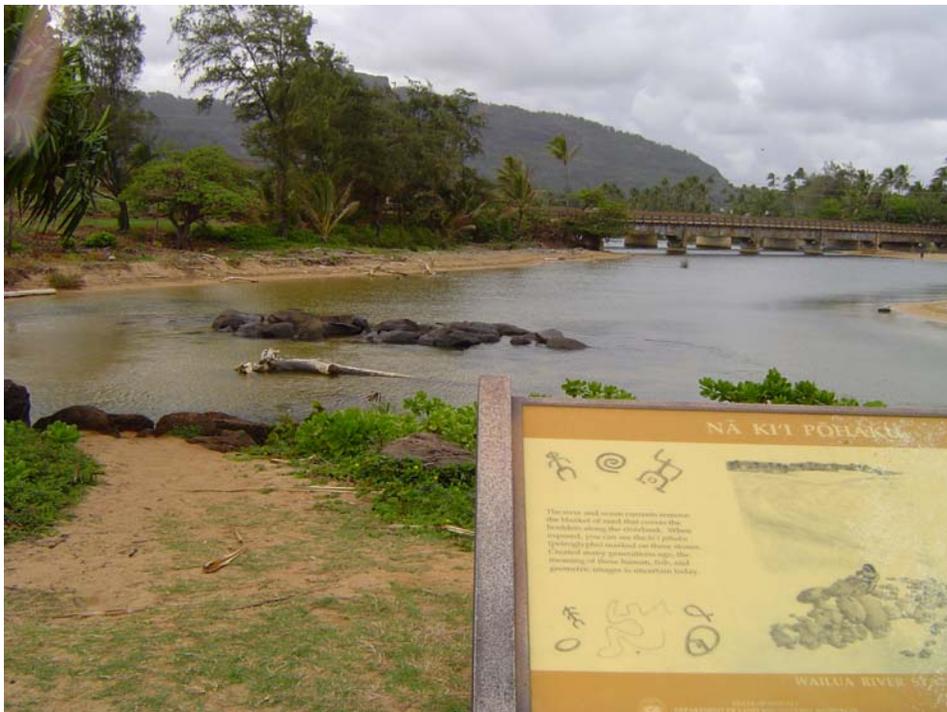


Northern terminus of the Lydgate Park shared use path. New section will extend past the stub out. Existing path on the right-hand side forms a cul-de-sac

Lydgate Park-Kapa'a Pedestrian/Bike Path
Programmatic Section 4(f) and 6(f) Evaluation



Proposed path will be located adjacent to and on the makai side of the highway (toward the cane haul bridge)



Looking toward the cane haul bridge from the interpretive sign for the petroglyph boulders located at the river's mouth

6. SECTION 6(F) PROPERTIES

State and local governments sometimes obtain grants through the federal Land and Water Conservation Fund (LWCF) to acquire or make improvements to parks and recreation areas. Section 6(f) of the LWCF Act prohibits the federal government from converting any property acquired or developed with LWCF funds to anything other than public outdoor recreation use.

Proposed conversion of LWCF lands to non-recreation use requires the approval of the Department of Interior National Park Service and replacement lands “of equal value, location and usefulness” must be provided.

Section 6(f) lands in the project area:

LWCF Project #	LWCF Improvements	TMK	Location	Property Ownership
15-00012	Purchase of coastal lands on both sides of Wailua River in 1967	(4) 4-1-04:1	Wailua Beach Park across from Coco Palms	County (transferred from State Parks in 1992)
		(4) 4-1-05:4	Wailua Beach by House Lots	
15-00001	Development of beach park in 1966-67	(4) 4-5-02, 07, 08, 11 & 12	Lihi Park	County

Because the project will construct a path for use by walkers, joggers, skaters, bicyclists, and others for recreational purposes, the FHWA and County of Kaua‘i requested that the DSP find that project use of park land does not constitute a conversion. The recreational value of the bike/pedestrian path will improve the park and expand the range of outdoor activities supported by the existing facility.

Based on a draft version of the Programmatic Section 4(f) Evaluation, the DSP commented that “there should not a ‘taking’ according to 6(f)” because the path promotes outdoor recreation and remains under the jurisdiction of the County parks (letter dated August 22, 2006). However, DSP also asked for further evaluation on potential impacts to existing recreational activities, park facilities, and public access—which has since been completed and incorporated into this document. The final step in this process is review and concurrence by the LWCF Section of the National Park Service.

7. POTENTIAL IMPACTS FROM THE PROPOSED PROJECT

Potential impacts to park lands are discussed in this section. Measures to mitigate adverse effects are discussed in Section 10.

7.1 Wailua Beach Park

The alignment for the proposed bike/pedestrian path will pass through Wailua Beach Park, extending for approximately 2,200 linear feet (LF). At 10 feet wide, the proposed path will use approximate 22,000 SF of park land. At the north end of the cane haul bridge, the path will ramp down to ground level at grades complying with the ADA Accessibility Guidelines. Two new handicap stalls will be constructed in the south parking area with a paved connection from the handicap stalls to the path. The north parking area will not be affected. To avoid conflicts with vehicles entering from and exiting onto Kūhiō Highway, the path will be aligned along the makai periphery of both parking areas.

There is a low rock wall that extends partially along the park’s frontage, parallel to Kūhiō Highway. This project will extend the wall to provide an additional buffer between the highway and the path; the path will be located on the makai side of the wall.

The bike and pedestrian path will have the positive effect of enabling park users to circulate more easily through the park. Because there is no paved walkway at present, park users have to walk through loose sand and matted vegetation to get from one end to the other. Access is even more difficult for those requiring mobility aids. The path will not be located in any area that would impede swimming, fishing, or other recreational use of the beach park.

7.2 Lihi Park (Waipouli Beach Park)

The project ends at Waika‘ea Canal, which runs through Lihi Park. Lihi Park anchors one end of the linear Kapa‘a Beach Park. From the end of Moanakai Road to Waika‘ea Canal, approximately 800 LF of the path (9,600 SF) will pass through park land. The bridge over Waika‘ea Canal will be reconstructed as part of the Kapa‘a-Keālia Bike-Pedestrian Path.

The path will not impair vehicular access to the park or with parking. The path is located in an open area that is used for passive recreation and will not interfere with typical park activities. The path will have several beneficial effects. It will provide a recreational amenity for fitness walkers, joggers, and bicyclists; a hard, even surface for handicapped persons, and a defined travel way that will allow for more effective lawn maintenance.

7.3 Wailua River State Park

Based on existing maps of the Wailua River cane haul bridge, the Kūhiō Highway corridor extends between 12 and 20 feet beyond the pavement on the makai side of the highway.

The State of Hawaii, Department of Transportation is in the process of preparing and submitting a request to transfer the highway corridor from the Department of Land and Natural Resources, where the corridor is based on an earlier construction easement. The proposed bike/pedestrian path, beginning at the existing stubout and going north, will be located within the new highway right-of-way.

Although the path will not have a direct adverse impact on State park land, its proximity to cultural sites, such as Hikinaakalā Heiau and Pu‘uhonua o Hauola, increases the potential for inappropriate off-path activities and increased public traffic through sensitive areas.

8. PROGRAMMATIC SECTION 4(f) APPLICABILITY

Negative Declaration/Section 4(f) Statement for Independent Bikeway or Walkway Construction Projects

The project is applicable for these programmatic evaluations by satisfying the following criteria:

- Involves the use of recreation and park areas established and maintained primarily for active recreation, open space, and similar purposes

Wailua Beach Park and Lihi Park are on the County’s inventory of park lands and contain parking areas, user amenities (portable toilets, showerheads, picnic tables, and trash receptacles), and lifeguard station (in the case of Wailua Beach Park).

- Official having specific jurisdiction over the Section 4(f) property has given his approval in writing that the project is acceptable and consistent with the designated use of the property and that all possible planning to minimize harm has been accomplished in the location and design of the bikeway or walkway facility

A letter of approval from the County of Kauai is attached to this programmatic statement.

A letter of approval from the Division of State Parks is being requested.

- Project does not require the use of critical habitat of endangered species. Nor does the project use any land from a publicly owned wildlife or waterfowl refuge or any land from a historic site of national, State, or local significance.

The park lands do not contain critical habitats or significant historic resources.

- Project does not involve any unusual circumstances (major impacts, adverse effects, or controversy).

The pathway will provide a facility that enhances the recreational experience of the parks and make them more accessible to a larger number of people.

9. ALTERNATIVES AND FINDINGS

No Action

The “no action” alternative assumes the status quo. Under this alternative, the project would not proceed. Bicyclists, pedestrians, joggers, and others would continue to use road shoulders, sidewalks, and informal footpaths, as they currently do; however, there would be no improvements to these travel ways.

Improvement without Using the Section 4(f) Lands (Avoidance)

Early in the planning process, and in consultation with the Division of State Parks (DSP), a possible alignment from Lydgate Park to Kūhiō Highway via an old railroad easement was eliminated from consideration due to potential impacts on Hikinaakalā Heiau, which is part of the Wailua Complex of Heiau National Historic Landmark. The preferred alternative does not impact the heiau site; however, DSP has asked that guardrails or vegetative hedges and interpretive signage be installed for added separation and to increase user awareness of nearby cultural resources.

Two sections evaluated in the project’s Draft Environmental Assessment (DEA)—the Papaloa Coastal Access Phase and Coastal Access Extension Phase—were not selected for the preferred alternative. These phases were located in a portion of Wailua Beach Park, but deleted from the project description in favor of the canal route.

Wailua Beach Park. The remaining use of Wailua Beach Park occurs between Wailua River and the Seashell Restaurant. Use of the park cannot be avoided completely because the north end of the Wailua River crossing lies within the park itself. However, the section that traverses the park can be shortened by taking a detour approximately 1,000 feet inland on Kuamo‘o Road, along the mauka boundary of the Coco Palms property, and through private residential lots mauka of Wailua Shopping Plaza. Land acquisition of the residential lots alone was estimated to cost \$1,090,000 and would displace three residences.

Furthermore, a majority of path users are likely to continue walking or bicycling along the beach or along Kūhiō Highway—the shortest and most direct path—even when facilities are not available. As seen in the photographs of Wailua Beach Park, above, bicyclists and pedestrians currently do not have a comfortable travel way. The shoulders along both sides Kūhiō Highway contain minimal space, and there is no pathway through the park itself. Park users have no recourse but to walk through the sand covered by naupaka vines. Access by people in wheelchairs or those needing mobility aids is virtually impossible.

Given the additional cost and social impacts involved in realignment to avoid a relatively small amount of 4(f) property (.25 mile), this alternative is not feasible or prudent.

Lihi Park. The project’s end point is at Lihi Park (Waipouli Beach Park). Because one of a key purpose the project is to connect to the Kapa‘a-Kealiā Bike/Pedestrian Path, the terminus is fixed. In the preferred alternative, the path connects Moanakai Road and the Waika‘ea Canal pedestrian bridge. The only other alternative would run makai-bound along the south bank of Waika‘ea Canal from Kūhiō Highway. This alternative would also be located within Lihi Park, but would also require acquisition of a residential lot just south of the canal and fronting the highway. Without acquiring this property (and displacing the homeowner), there is insufficient space to locate the path. Therefore, the makai-bound alternative is not feasible or prudent.

Wailua River State Park. The shortest and safest route from the project start to the river crossing passes through the State Park. As long as bicyclists and pedestrians stay on the makai side of the river crossing, they do not have to cross a travel lane. In order to avoid State park land, path users would have to cross traffic on the cane haul bridge to use the main highway bridge. Such an alternative would not be feasible or prudent.

10. MEASURES TO MINIMIZE HARM

To minimize harm to park lands, the County DPW will implement the following measures:

- Consult with the County Parks and Recreation Division and Division of State Parks during final design of the path to ensure that the path does not interfere with ongoing recreation, cultural, and/or maintenance activities.
- Design, select construction materials, and use construction methods that will minimize the maintenance requirements of the path.
- Design the path to meet guidelines of the Americans with Disability Act (ADA).
- Provide landscaping, signage and other design features and amenities consistent with safe and proper use of the facility and to reduce off-path, public traffic through sensitive cultural sites. Where the path abuts the Hikinaakalā Heiau Section of Wailua River State Park, landscaping and signage plans will be submitted to the Division of State Parks for approval.
- Plan and conduct construction activities so as to minimize disruption to park use.

11. COORDINATION

Attached is a letter from the owner of the public parks, the County of Kaua‘i, Department of Public Works, granting approval to use Wailua Beach Park and Lihi Park for the bike and pedestrian path.

A copy of the Draft Programmatic Section 4(f) Evaluation was sent to the State of Hawai‘i, Department of Land and Natural Resources, Division of State Parks (DSP) with a request for written approval to use State Park land, and for concurrence with the finding of non-conversion of LWCF land. The DSP administers the local LWCF program on behalf of the National Park Service, U.S. Department of the Interior.

Comments from the DSP were received by letter dated August 22, 2006. A revised 4(f)/6(f) evaluation was transmitted to the DSP in December 2006.

12. DETERMINATION AND CONCLUSION

The proposed project meets the eligibility criteria established in the *Negative Declaration/Section 4(f) Statement for Independent Bikeway or Walkway Construction Projects*.

Based on the above considerations, the project has included all possible planning to avoid and minimize harm to Section 4(f) lands resulting from project use.

APPROVED BY:

Date Approved

Federal Highway Administration

Lydgate Park - Kapa'a Bike/Pedestrian Path

Programmatic 4(f) Statement

November 2006

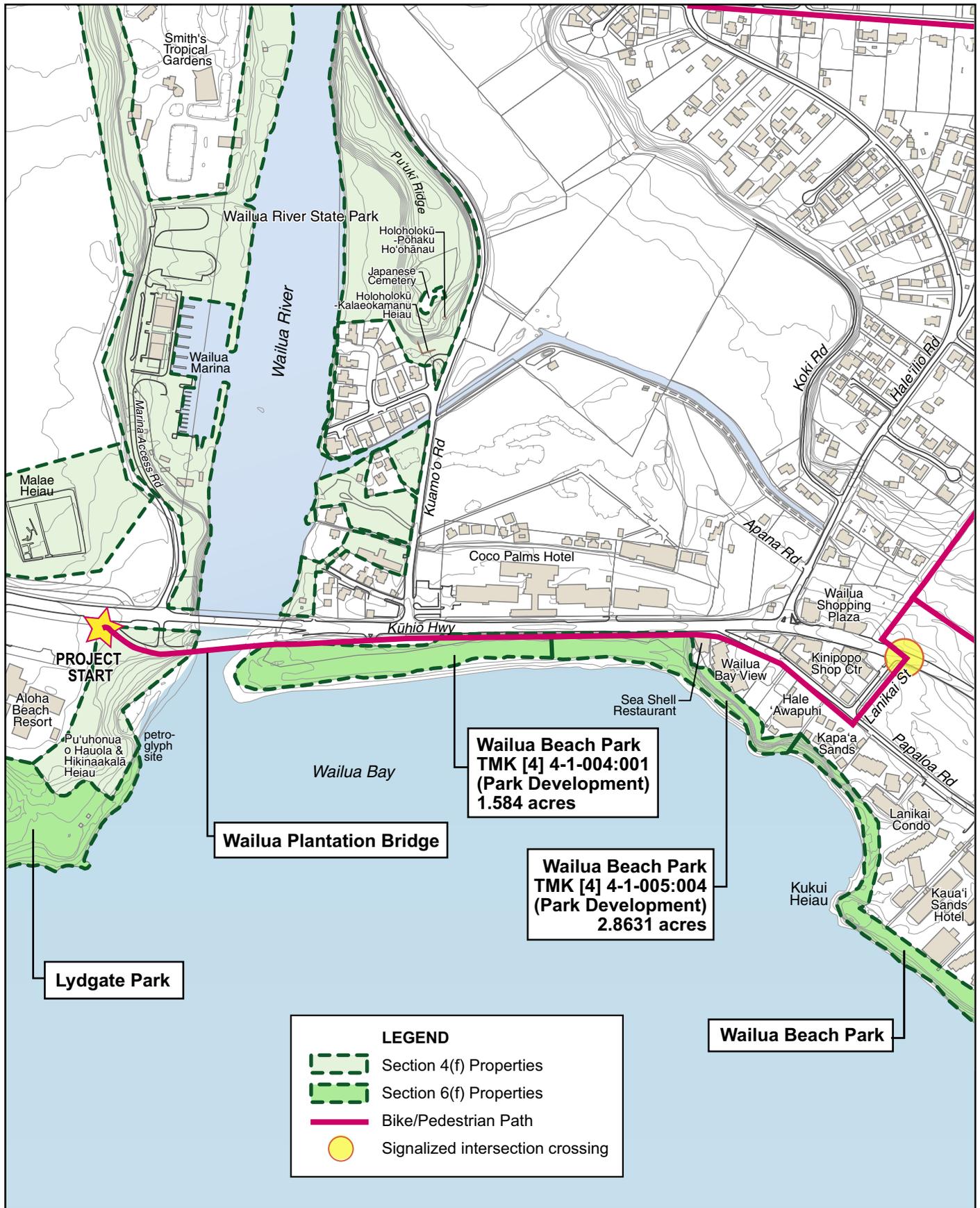


Figure **A2**

Section 4(f)/6(f) Resources - South

Lydgate Park - Kapa'a Bike/Pedestrian Path

Programmatic 4(f) Statement

November 2006

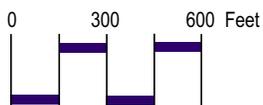
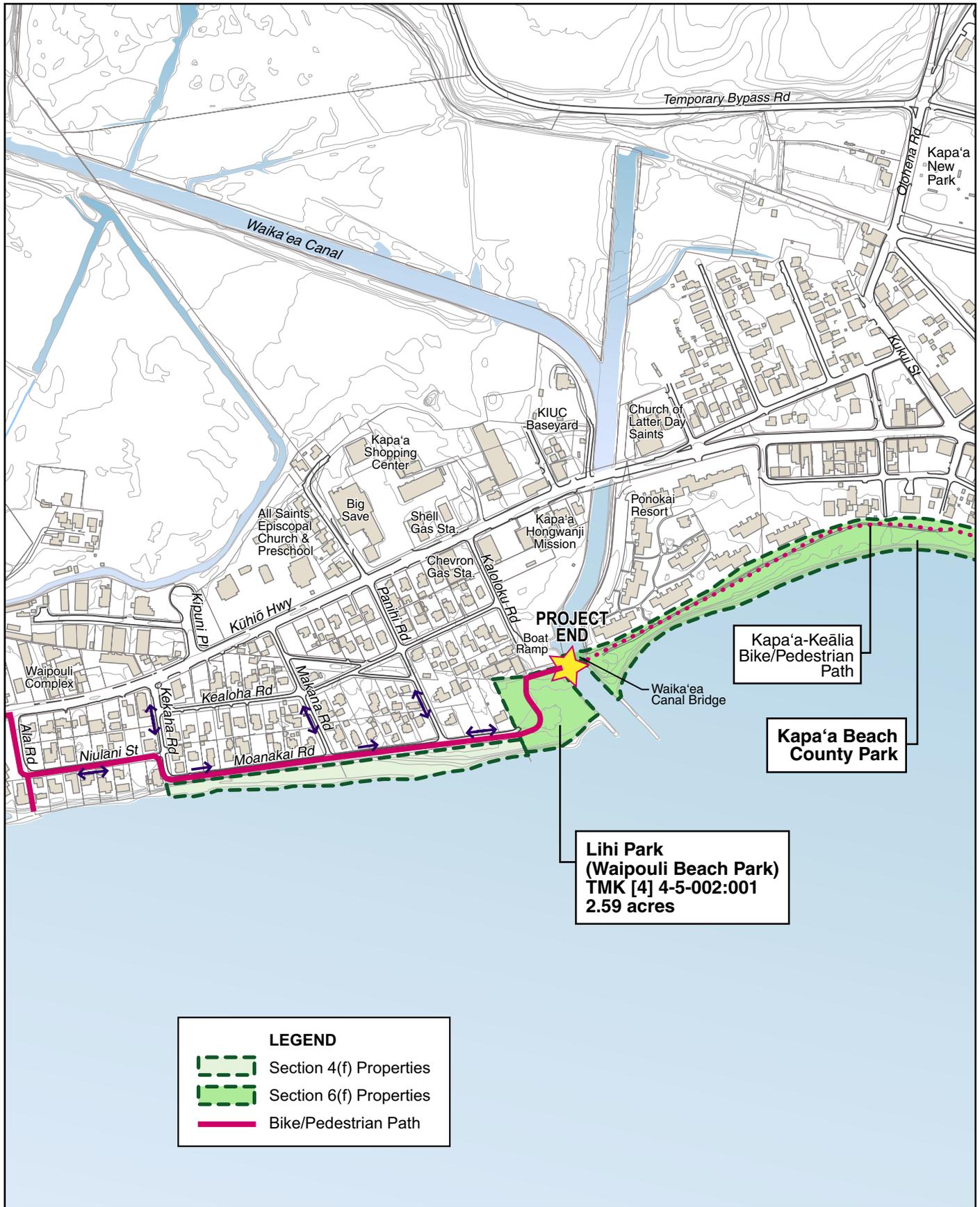


Figure **A3**

Section 4(f)/6(f) Resources - North

BRYAN J. BAPTISTE
MAYOR



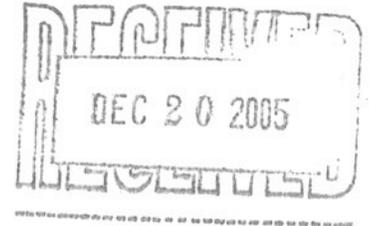
DONALD M. FUJIMOTO
COUNTY ENGINEER
TELEPHONE 241-6600

GARY K. HEU
ADMINISTRATIVE ASSISTANT

LADYE H. MARTIN
DEPUTY COUNTY ENGINEER
TELEPHONE 241-6600

AN EQUAL OPPORTUNITY EMPLOYER
COUNTY OF KAUA'I
DEPARTMENT OF PUBLIC WORKS
4444 RICE STREET
MO'IKEHA BUILDING, SUITE 275
LIHU'E, KAUA'I, HAWAII 96766-1340

December 7, 2005



Mr. Abraham Wong
Division Administrator
Federal Highway Administration
Box 50206
300 Ala Moana Boulevard, Room 3-306
Honolulu, HI 96850

Dear Mr. Wong:

Lydgate Park-Kapaa Bike/Pedestrian Path
CMAQ-0700(49)

The Kauai County Department of Public Works, with jurisdiction over Wailua Beach Park and Lihi Park (also known as Waipouli Beach Park) approves their use for construction of a shared use path. Based on the Programmatic Section 4(f) evaluation for the project, we concur with the finding that there is no feasible and prudent alternative to the use of Section 4(f) lands, and that all possible planning has occurred to minimize harm from their proposed use.

We also recognize that the Environmental Assessment for the project has determined that there will be no significant adverse effect on the quality of the human environment.

We look forward to working with you to implement this project.

Very truly yours,

CONCUR:

MEL NISHIHARA
Parks & Recreation Administrator

DONALD M. FUJIMOTO
County Engineer

cc: Christine Yamasaki, State Department of Transportation
Glenn Kimura, Kimura International
Douglas Haigh, Building Division

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

DIVISION OF STATE PARKS
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
DEPUTY DIRECTOR - LAND

DEAN NAKANO
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

August 22, 2006

Mr. Pat V. Phung, P.E.
U.S. Department of Transportation
Federal Highway Administration
Hawaii Division
P.O. Box 50206
Honolulu, Hawaii 96850

Dear Mr. Phung:

SUBJECT: 4(f) and 6(f) Evaluation of Lydgate-Kapa'a Bike/Pedestrian Path, Kaua'i

We apologize for the delay in responding to the Final Environmental Assessment and Draft Programmatic Section 4(f) and 6(f) Evaluation of the proposed extension of the bike/pedestrian path from Lydgate Park to Kapa'a. This 10-foot wide concrete path will begin at the Hikinaakalā Heiau Section of Wailua River State Park and cross the Wailua River. The path will follow the *makai* side of Kūhiō Highway along Wailua Beach Park. The other park area affected by this project is Lihi Park, also known as Waipouli Beach Park. These park areas are under the jurisdiction of the County of Kaua'i. An effort will be made to keep the path within the road right-of-way, but there will be instances where the path extends into the parks and may affect designated 6(f) parklands where Land and Water Conservation Fund (LWCF) grant funds were used for either park acquisition or park improvements.

In general, we believe that this path will increase the outdoor recreational opportunities available for the Wailua-Kapa'a communities of southern Kaua'i, including both residents and visitors. The demand for more linear paths for walking, jogging, and bicycling, was identified as a priority recreational need in Hawai'i's 2003 Statewide Comprehensive Outdoor Recreational Plan (SCORP). Therefore, this project meets one of the objectives in the SCORP strategic plan.

Our comments are presented by park area and include both 4(f) and 6(f) evaluations.

Hikinaakalā Heiau Section, Wailua River State Park

Because 4(f) also refers to historic properties, it is important that this evaluation consider Hikinaakalā Heiau, Hauola, and the petroglyphs along the banks of the Wailua River. As pointed out on page 6-7, these sites are part of the Wailua Complex of Heiau, a National Historic Landmark designated in 1962. While we agree that the pathway will not directly impact these historic properties, the indirect impacts should be addressed, such as visual impacts on the cultural landscape and the potential for increased public traffic through the historical area. As discussed on page 6-11, the mitigation of these indirect impacts might include landscaping and interpretation. Please note that the petroglyphs are incorrectly mapped on Figure A2.

During a meeting held on June 27, State Parks requested that your consultant, Kimura International, determine jurisdiction of the land between Kūhiō Highway and the cane-haul bridge by consulting with the State Department of Transportation. We have also requested that the County of Kaua'i address the use of

Mr. Pat Phung
August 22, 2006
Page 2

State Park land for the existing stub out. It is our understanding that the pathway will follow along the *makai* side of the cane-haul bridge and will involve the use of approximately 7,200 square feet of land within Wailua River State Park. Before granting approval to use the State Park land, as requested in your letter of March 28, 2006, we are requesting a better map indicating the location of the path in the park. As previously discussed with the County, State Parks would expect the land used for the bike path to be withdrawn from the State Park and set aside to the County.

The Hikinaakalā Heiau Section of Wailua River State Park was not part of the park acquisition using LWCF grant funds and therefore, is not within the 6(f) boundary map.

Wailua Beach Park

This park was part of the park acquisition in 1964-1967 using LWCF grant funds (LWCF Project 15-00012). Therefore, the use of approximately 41,500 square feet of the park will affect 6(f) parkland. Because the path promotes outdoor recreation and remains under the jurisdiction of the County parks, there should not be a "taking" according to 6(f). However, the evaluation should address any potential impacts on existing recreational activities, park facilities, and public access.

Lihi Park (Waipouli Beach Park)

This park on the southern side of Waika'ea Canal was part of the original acquisition of Kapa'a Beach Park. LWCF funds were used for park improvements in 1965 (LWCF Project 15-00001). Therefore, the use of approximately 800 square feet of park will affect 6(f) parkland and should be evaluated as discussed above.

Conclusions

Attached to this letter are the LWCF forms and maps for Projects 15-00001 and 15-00012 to assist with your 6(f) evaluation. Please provide a more complete evaluation of the impacts on existing recreational use, facilities, and access where the path will be located in the 6(f) parks.

Please clarify ownership of the land adjacent to the cane-haul road, including the boundaries of the right-of-way and the grassed area between the cane-haul road and Kūhiō Highway. We would also like to see a map that indicates the 7,200 square feet of land within Wailua River State Park being requested.

Once these documents are received, we should be able to complete our 4(f) and 6(f) evaluation and forward our review to the National Park Service. We should also be able to determine if we can approve the use of State Park land for the path. If you have any questions, please feel free to contact Martha Yent at 587-0287 or Martha.E.Yent@hawaii.gov

Very truly yours,



DANIEL S. QUINN
State Parks Administrator

Attachments

cc: Nancy Nishikawa, Kimura International
Wayne Souza, Kaua'i State Parks
Doug Haigh, Kaua'i County Dept. of Public Works

UNITED STATES DEPARTMENT OF THE INTERIOR
 Bureau of Outdoor Recreation
 Land and Water Conservation Fund Project Agreement

State	Hawaii	Project Number	51-00001
Project Title KAPAA BEACH DEVELOPMENT			
Period Covered by this Agreement		Project Period	
3/15/66 - 6/30/67		3/15/66 - 6/30/67	
Project Scope (Description of Project)			

This project will be the development of a public beach park and include the following facilities: Two new open air pavilions (20 x 30 ft.), 7 tables, 4 outdoor grill fireplaces, leveling and paving with asphalt an area comprising 60 ft. x 250 ft., landscaping and beautification, extension of water and electric lines, installation of nightlights, construction of building to accommodate toilet facilities, dressing area and shower pads, reconstruction of existing comfort station to provide storage area and intensive development site planning prior to construction.

This project will be located within the town of Kapaa, on the Island of Kauai.

Project Stage Covered by this Agreement Complete Project.

Project Cost		Attachments
Total Cost	\$ <u>50,400.00</u>	1. General Provisions (dated <u>December - 1965</u>)
Fund Support	<u>50</u> %	2. _____
Fund Amount	\$ <u>25,200.00</u>	3. _____
Cost of this Stage	\$ <u>50,400.00</u>	4. _____
Assistance this Stage	\$ <u>25,200.00</u>	

The United States of America, represented by the Director, Bureau of Outdoor Recreation, United States Department of the Interior, and the State named above (hereinafter referred to as the State), mutually agree to perform this agreement in accordance with the Land and Water Conservation Fund Act of 1965, 78 Stat. 897 (1964), and with the terms, promises, conditions, plans, specifications, estimates, procedures, project proposals, maps, and assurances attached hereto and hereby made a part hereof.

The United States hereby promises, in consideration of the promises made by the State herein, to obligate to the State the amount of money referred to above, and to tender to the State that portion of the obligation which is required to pay the United States' share of the costs of the above project stage, based upon the above percentage of assistance. The State hereby promises, in consideration of the promises made by the United States herein, to execute the project or project stage described above in accordance with the terms of this agreement.

The following special project terms and conditions were added to this agreement before it was signed by the parties hereto:

The State of Hawaii shall transfer to the County of Kauai all funds granted hereunder necessary to the undertaking and completion of this project.

In witness whereof, the parties hereto have executed this agreement as of the date entered below.

THE UNITED STATES OF AMERICA

STATE

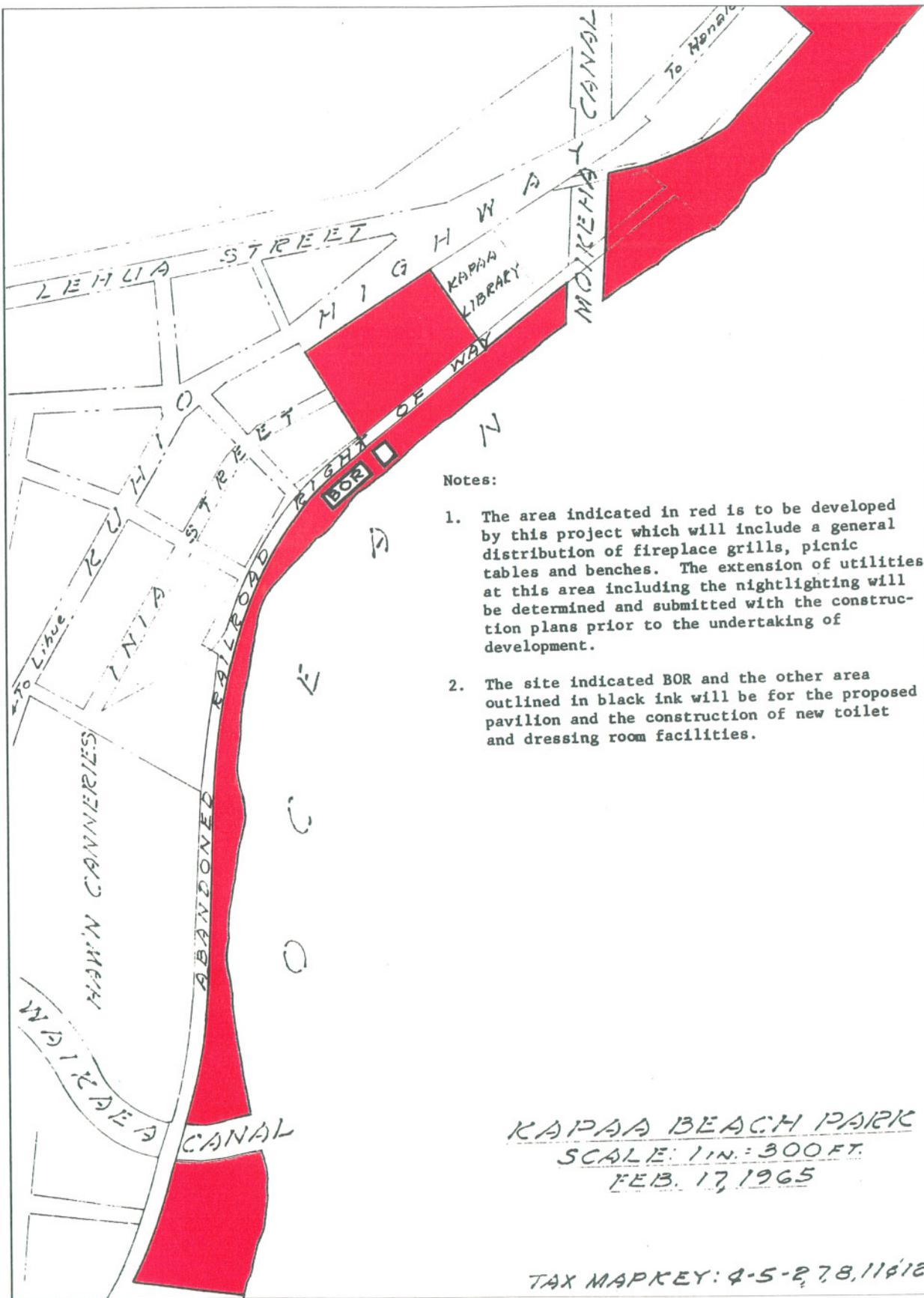
By Lawrence N. Stevens
Director, Bureau of Outdoor Recreation
United States Department of the Interior

Hawaii
(State)

By _____
(Signature)
Shelley M. Mark

Date 6-23-66

Liaison Officer
(Title)



UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Outdoor Recreation
Land and Water Conservation Fund Project Agreement

State Hawaii	Project Number 51-00012
Project Title Wailua River State Park Development	
Period Covered by this Agreement 10/1/64 - 12/31/67	Project Period 10/1/64 - 12/31/67
Project Scope (Description of Project)	

This project is an intensive development of part of an ocean beach-wilderness stream State Park. This State Park, which contains a total of approximately 416 acres, includes specific areas known as the Lydgate, Poliahu, Kuamualii, Opaekaa, Fern Grotto and the Wailua River Reserve areas, which are closely inter-related and largely contiguous, and are therefore managed as one unit.

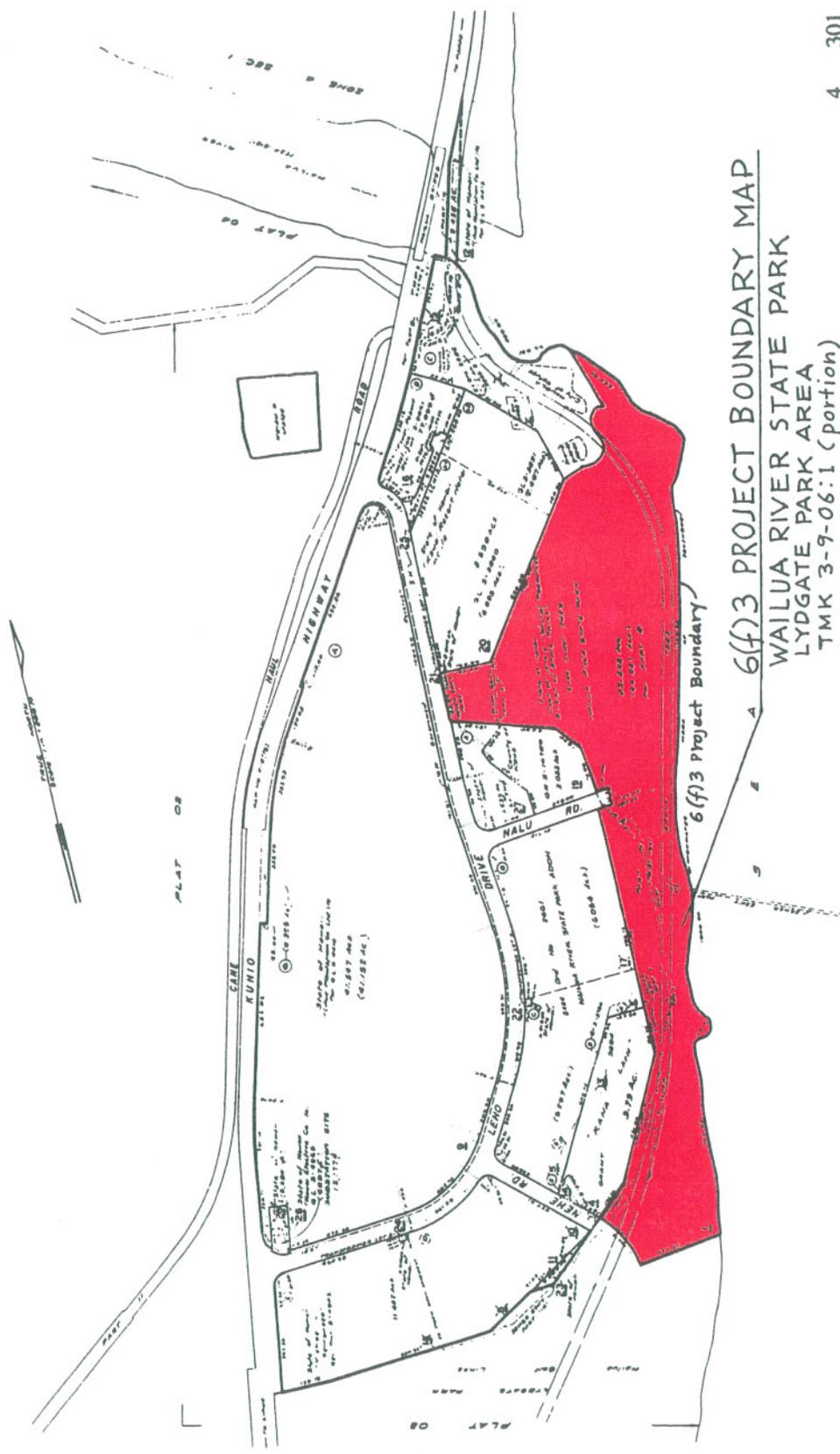
This project proposal includes: (a) construction of a marina and boat launching facilities; (b) snagging, dredging, and clearing the stream for navigation of small boats; (c) providing outdoor lighting facilities for beach picnic areas; (d) landscaping of stream banks and other areas; and (e) construction of picnic and camping facilities including cabana shelters, tables, fireplace grills, utilities and restroom facilities.

Project Stage Covered by this Agreement

Complete Project

Project Cost		Attachments
Total Cost	\$ <u>498,510.00</u>	1. General Provisions (dated <u>December, 1965</u>)
Fund Support	<u>50</u> %	2. _____
Fund Amount	\$ <u>249,255.00</u>	3. _____
Cost of this Stage	\$ <u>498,510.00</u>	4. _____
Assistance this Stage	\$ <u>249,255.00</u>	

State of Hawaii Department of Taxation
 Division of Land and Natural Resources
 1500 Ala Moana Blvd., Suite 2000
 Honolulu, HI 96813

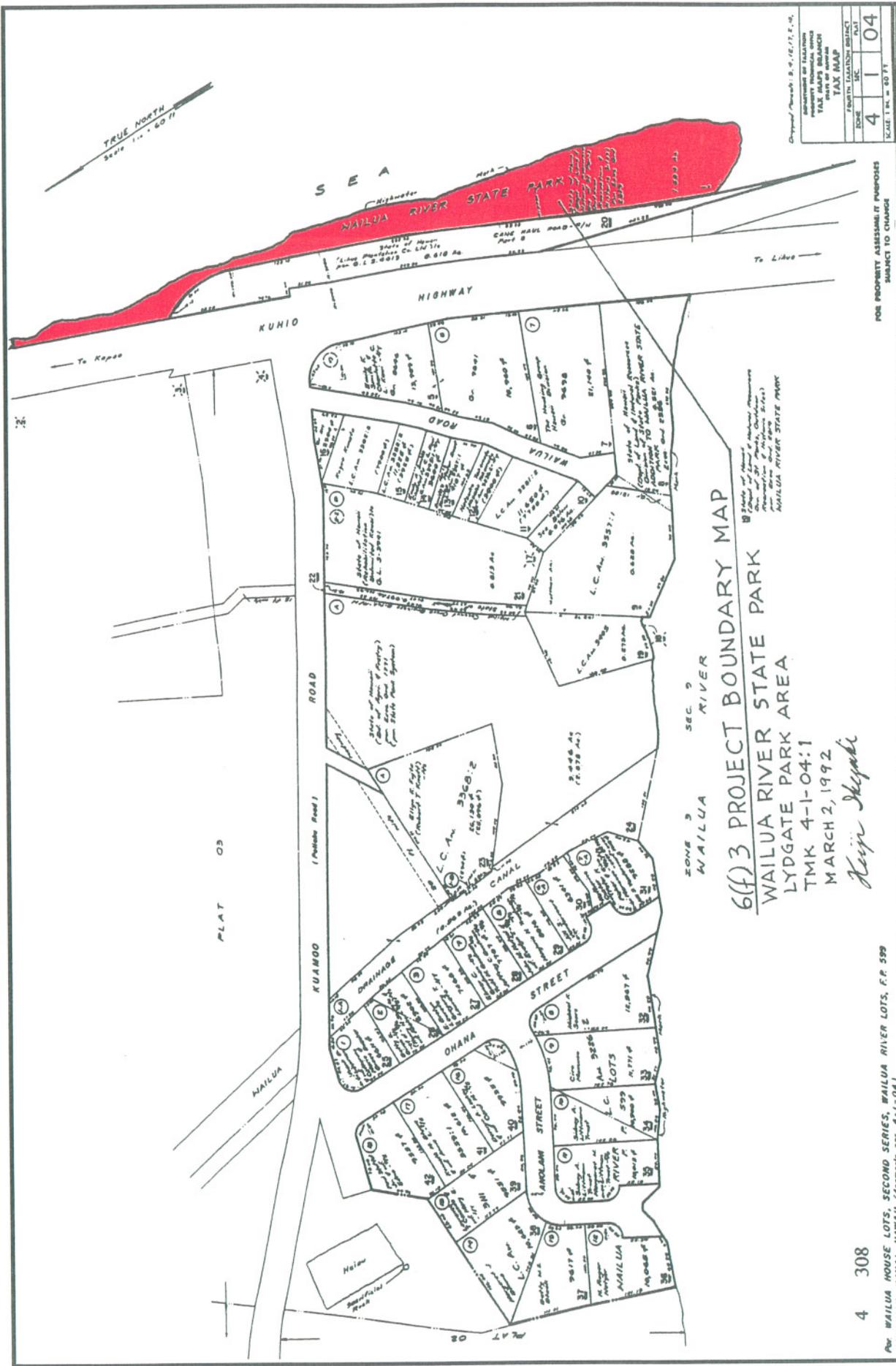


6(f)3 PROJECT BOUNDARY MAP
WAILUA RIVER STATE PARK
LYDGATE PARK AREA
TMK 3-9-06:1 (portion)
MARCH 2, 1992

Keen Skye

4 301

DEPARTMENT OF TAXATION	
TAXATION MAPS DIVISION	
STATE OF HAWAII	
TAX MAP	
DATE	3 9 06
SCALE	1 IN. = 200 FT.



TRUE NORTH
Scale 1" = 60 FT

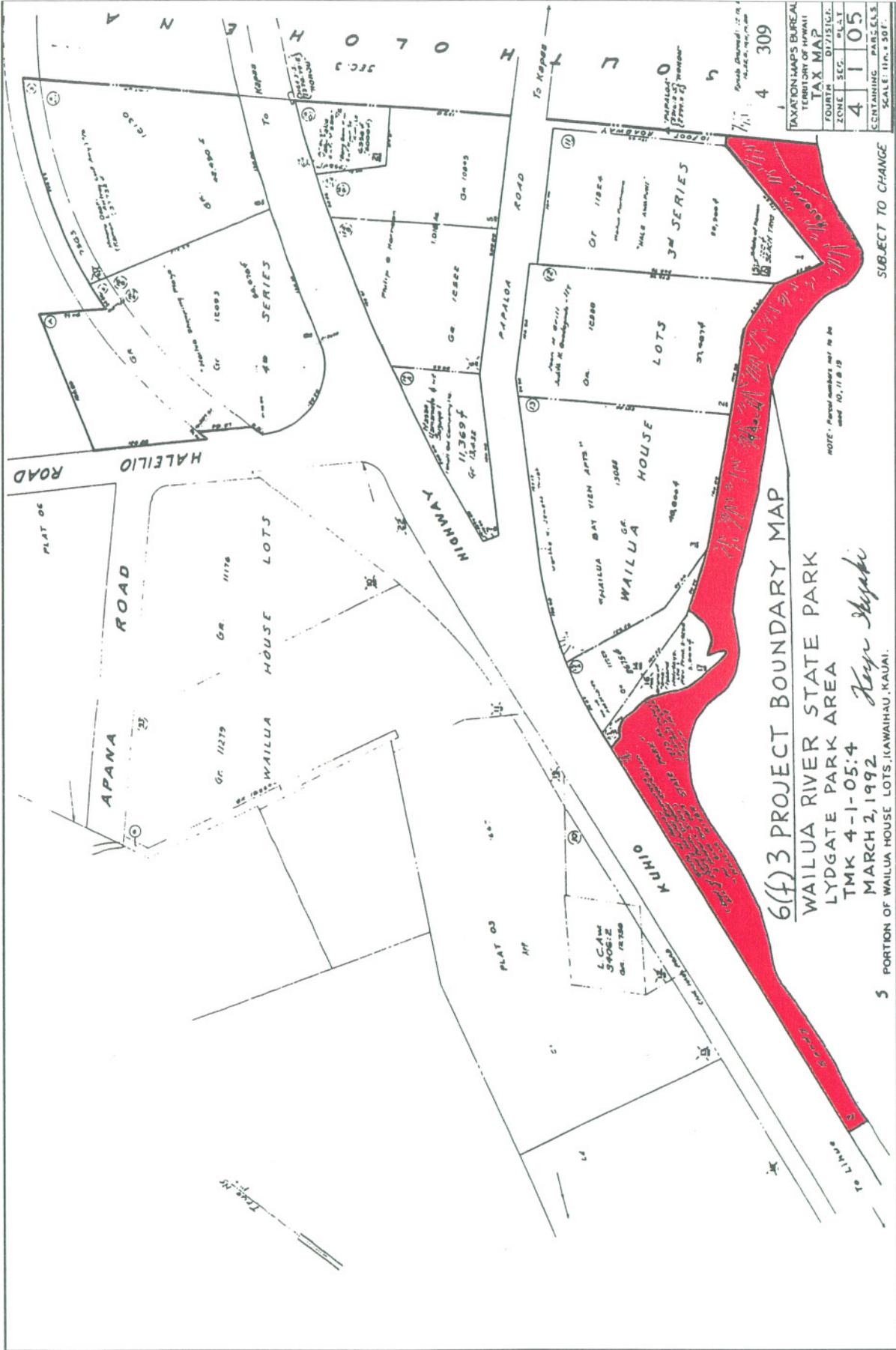
Original Plans: S. 12, 13, 14, 15	
APPROVED FOR REVISION	
TAX MAP'S BALANCE	
DATE OF REVISION	
TAX MAP	
FOURTH QUANTILE	104
ZONE	4
MC	1
MC	04
SCALE 1" = 60 FT	

FOR PROPERTY ASSESSMENT PURPOSES
SUBJECT TO CHANGE

ZONE 3
WAILUA RIVER
6(f) 3 PROJECT BOUNDARY MAP
WAILUA RIVER STATE PARK
LYDGATE PARK AREA
TMK 4-1-04:1
MARCH 2, 1992
Keiji Miyake

4 308

Per WAILUA HOUSE LOTS, SECOND SERIES, WAILUA RIVER LOTS, P.P. 599
KAPAHULU, KAUAI, HAWAII (Form 10 per 4-1-04)



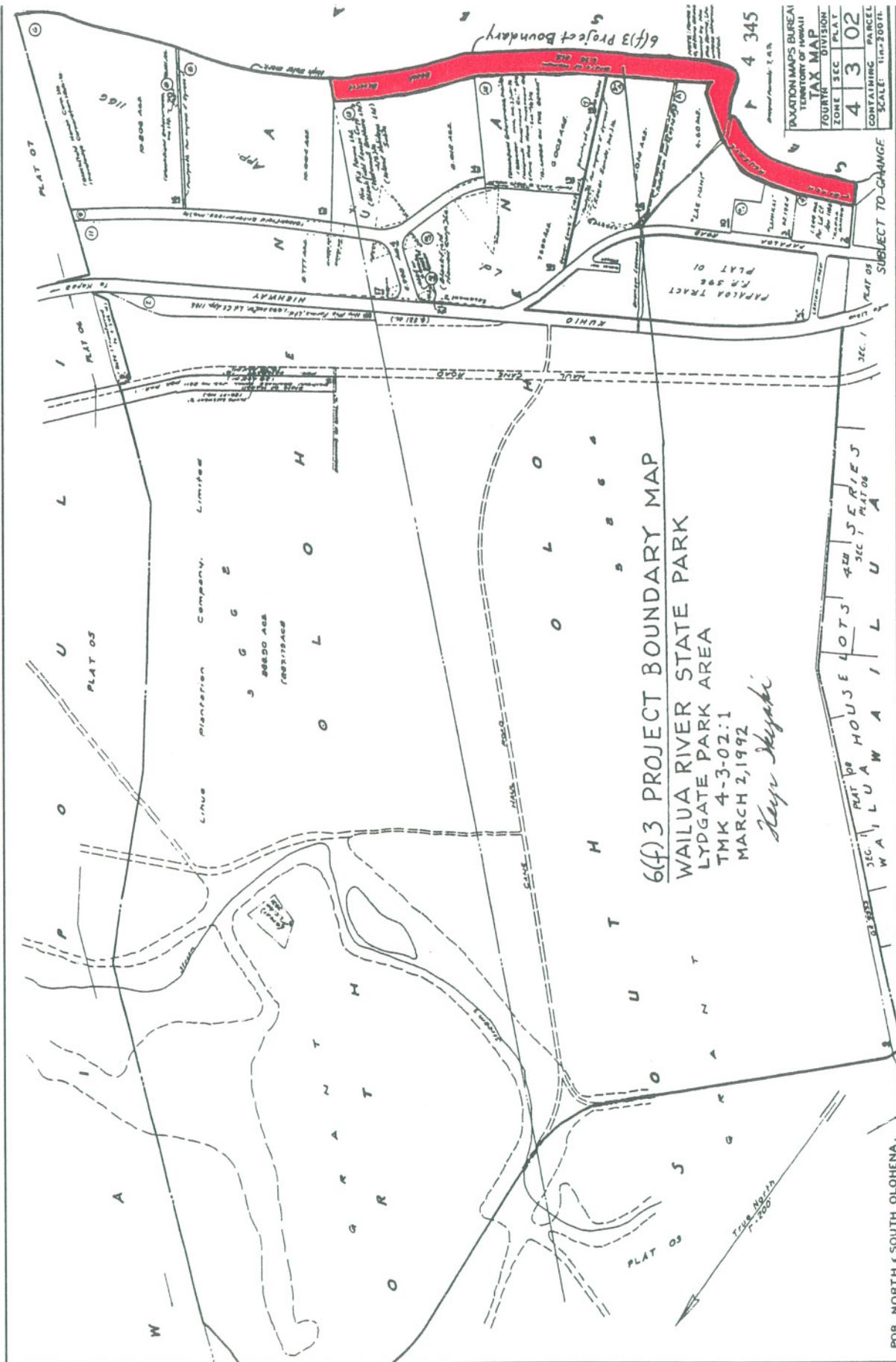
6(f)3 PROJECT BOUNDARY MAP
 WAILUA RIVER STATE PARK
 LYDGATE PARK AREA
 TMK 4-1-05:4
 MARCH 2, 1992
Rayn Shyaki

5 PORTION OF WAILUA HOUSE LOTS, KAWAHAU, KAUAI.

TAXATION MAPS BUREAU	
TERRITORY OF HAWAII	
TAX MAP	
FOURTH QUARTER	1071/1072
ZONE	SEC. 4
BLK.	105
CONTAINING PARCELS	
SCALE: 1" = 50'	

NOTE: Parcel numbers ref. to be used 10, 11 & 12

5 SUBJECT TO CHANGE



6(f)3 PROJECT BOUNDARY MAP
 WAILUA RIVER STATE PARK
 LYDGE PARK AREA
 TMK 4-3-02:1
 MARCH 2, 1992
Keay Miyake

TAX MAP	
FOURTH DIVISION	PLAT
ZONE SEC	4 3 02
CONTAINING PARCEL	
SCALE: 1"=200'	

4 345
 SUBJECT TO CHANGE

POR. NORTH & SOUTH OLOHENA.



U.S. Department
of Transportation

**Federal Highway
Administration**

Hawaii Division
Box 50206
300 Ala Moana Boulevard, Room 3-306
Honolulu, HI 96850

December 5, 2006

In Reply Refer To:
HEC-HI

Mr. Daniel Quinn, Administrator
Division of State Parks
Department of Land and Natural Resources
1151 Punchbowl Street, Room 310
Honolulu, HI 96813

Attn: Ms. Martha Yent

Dear Mr. Quinn:

Subject: Lydgate Park-Kapa'a Bike/Pedestrian Path
CMAQ-0700(49)
Section 4(f) and 6(f) Consultation

Thank you for your comments on the Draft Programmatic Section 4(f) and Section 6(f) Evaluation for the Lydgate Park to Kapa'a Bike and Pedestrian Path project, transmitted by letter dated August 22, 2006. We also note that the project planning team met with Ms. Martha Yent on August 28, 2006, to discuss the comments.

A revised Section 4(f) and Section 6(f) document has been prepared based on comments received from your agency and is attached. The changes are summarized below with references to the revised sections.

Hikinaakalā Heiau Section, Wailua River State Park

Section 7.3 includes a discussion of indirect impacts, including the potential for increased public traffic through the archaeological sites. Measures to mitigate the potential impacts are listed in Section 10. The County of Kaua'i will supplement the landscaping in the cul-de-sac area to create a better buffer between the path and the surrounding park land as a deterrent against off-path use. In the new section of the path, north of the cul-de-sac, the County will use a mix of landscaping, physical barriers, and signage, both for aesthetic purpose and to keep users on the path. For the section of the path that is contiguous with State park land, the County will provide preliminary design plans, including landscaping and signage, to the Division of State Parks for approval.

Figure A-2 has been revised to show the correct location of the petroglyph site.



To give you a better indication of the path location, attached are two maps. One map shows the approximate areas that will be requested from the State Park. A combined request for transfer of the property will be submitted and processed by the State Department of Transportation as part of the project titled Kūhiō Highway Short-term Improvements, Wailua River Bridge (Project No. 56A-02-06). Because the bike/pedestrian path will be integrated into the new deck for the cane haul bridge, the path project is being folded into the bridge project in the vicinity of Wailua River. A more detailed map is being prepared by HDOT's cadastral staff for the land transfer request.

- The area shown in yellow demarcates the cul-de-sac portion of the existing bike/pedestrian path. This area will be subdivided and ultimately transferred to the County of Kaua'i.
- The green area shows the cane haul bridge and approaches. The cane haul bridge has been used by the HDOT since the 1990s, when it became part of Kūhiō Highway and open to the motoring public. Improvements to the cane haul bridge were made initially through Project 56A-01-91 and, more recently, through Project STP 056-1(43) to refurbish the deck and install guardrails. Research-to-date indicates that use of the cane haul bridge was granted through a right-of-entry and a construction easement was obtained in the past, but a permanent easement was not acquired. DOT is in the process of obtaining an Executive Order to withdraw lands in the highway corridor from the State Park to establish a DOT right-of-way. The new bike/pedestrian path will be constructed within the limits of the proposed highway right-of-way, approximately 60 feet wide.
- The parcels shown in blue are located between the two bridges and are virtually encircled by roadways. HDOT will be requesting these properties for use as a construction staging area in the short-term and for long-term maintenance of the bridges. This area is also needed to accommodate improvements to the connector road. The connector road will be used more heavily for access to the marina area after changes are made to traffic patterns on the bridges.

A second map attachment is a site plan of the short-term Wailua Bridge Improvements and shows the location of the path.

Wailua Beach Park

Section 7.1 includes updated information about the path's alignment. Originally, the path was aligned parallel to Kūhiō Highway. However, to avoid potential conflicts with vehicular access from Kūhiō Highway, the path will be located immediately Makai of the two existing parking areas on the north and south ends of the park. Through the middle section, the path will be aligned along the Mauka boundary of the park, close to the highway. The revised alignment will separate vehicles and pedestrians, thereby increasing safety and the path will still be located on the perimeter of recreational space.

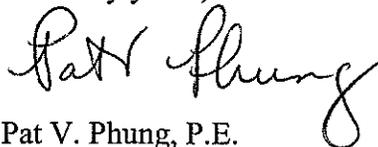
Lihi Park (Waipouli Beach Park)

We note that Lihi Park, as part of the larger Kapa'a Beach Park, is a Section 6(f) property and has been added to the table in Section 6 of the evaluation.

Section 7.2 includes a more detailed discussion of expected project impacts. Although the path will occupy park space, the overall effect will be a net benefit to the recreational experience afforded to park users.

We believe the revised Programmatic Section 4(f) and 6(f) Evaluation provides the information needed to complete your evaluation on the use of State Park land for the bike and pedestrian path. However, if you have any questions or concerns, please contact me at 541-2700 ext. 305.

Sincerely yours,

A handwritten signature in black ink that reads "Pat Phung". The signature is written in a cursive, flowing style.

Pat V. Phung, P.E.
Transportation Engineer

Enclosures

Cc: Mr. Douglas Haigh, Kaua'i Department of Public Works
Ms. Christine Yamasaki, HDOT, HWY-D
Mr. Glenn Kimura, Kimura International, Inc.

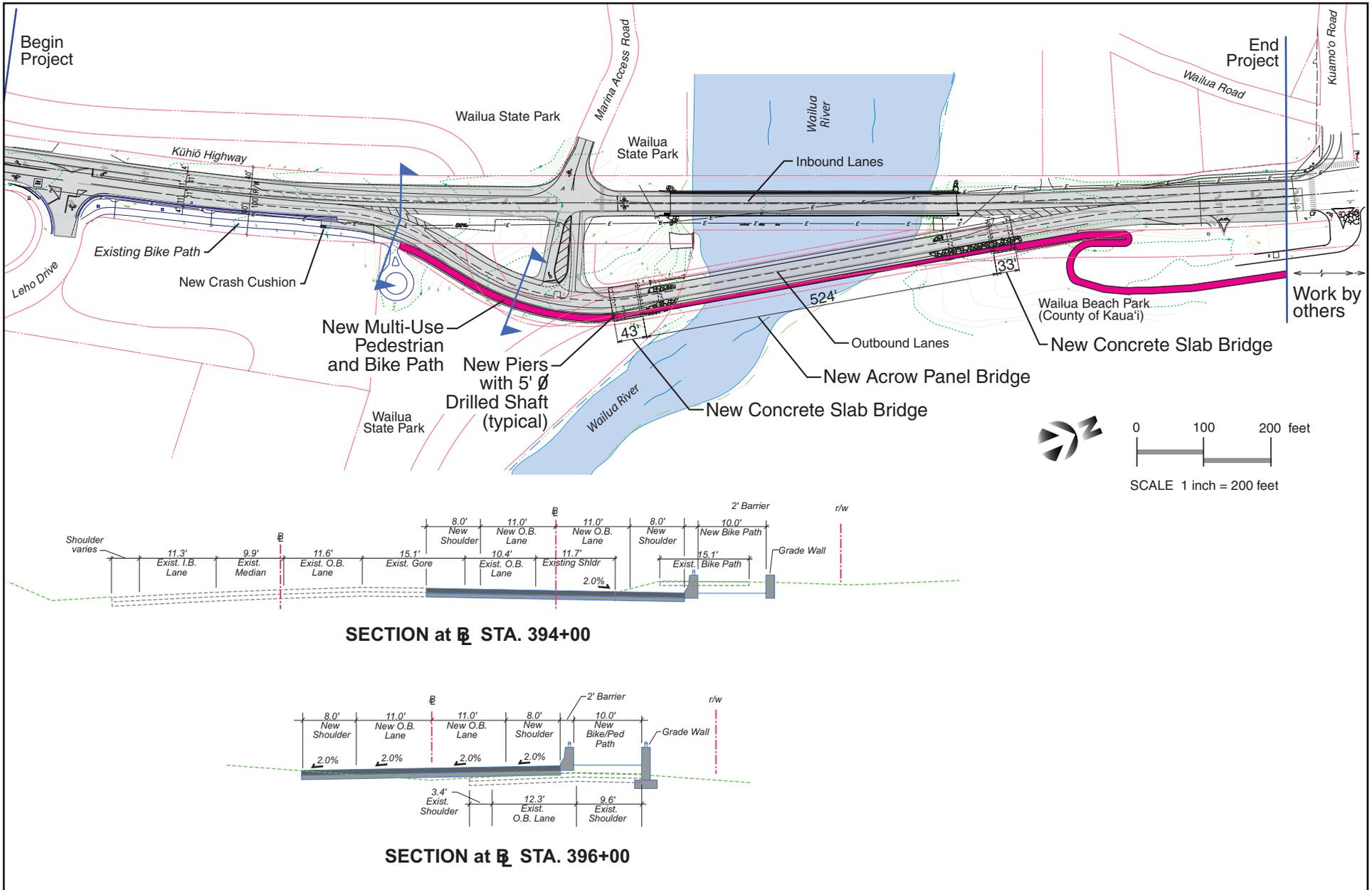


KUHIO HIGHWAY



Yellow=County easement for bike/pedestrian path (incl. cul-de-sac)
Green=State DOT right-of-way (bridge and approaches)
Blue=State DOT additional parcels

LEHI



3-5

Figure 4
Wailua Bridge Improvements
Site Plan
 Wailua River Bridge Improvements



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122, Box 50088
Honolulu, Hawaii 96850



Glenn T. Kimura

Migratory Bird Treaty Act. Please contact our office for more information about avoiding and minimizing negative impacts to migratory birds.

Thank you for your efforts to conserve endangered species. If you have any questions, please contact Holly Freifeld, Fish and Wildlife Biologist (phone: 808/792-9400; fax: 808/792-9581).

AUG 11 2005

In Reply Refer To:
1-2-2005-1268

Glenn T. Kimura
Kimura International, Inc.
1600 Kapiolani Boulevard, Suite 1610
Honolulu, Hawaii 96814

Sincerely,

Patrick Leonard
Field Supervisor

cc:
Pat Phung, FHWA

Dear Mr. Kimura:

Thank you for your request of June 9, 2005, for our concurrence under section 7 of the Endangered Species Act (Act) with determinations in your Final Environmental Assessment (FEA) regarding the effects on threatened and endangered species of the proposed Lydgate Park-Kapaa Bike/Pedestrian Path CMAQ-0700(49). We received your letter on June 10, 2005. We understand that the project will be funded in part by the Federal Highway Administration and that you have determined that the proposed project will not adversely affect the listed species that may occur in the action area: the threatened green sea turtle (*Chelonia mydas*) and Newell's shearwater (*Puffinus auricularis newelli*), and the endangered Hawaiian petrel (*Pterodroma sandwichensis*), Hawaiian duck (*Anas wyvilliana*), Hawaiian coot (*Fulica alai*), Hawaiian common moorhen (*Gallinula chloropus sandwichensis*), and Hawaiian stilt (*Himantopus mexicanus knudseni*). The FEA also includes determinations regarding the endangered Hawaiian monk seal (*Monachus schauinslandi*). Please note that the National Marine Fisheries Service, not the U.S. Fish and Wildlife Service, has regulatory authority under the Act for this species and for sea turtles that are in the ocean and not hauled out or nesting on the beach.

We concur with your conclusion that this project is unlikely to have negative impacts on listed waterbirds, and that native wildlife will benefit from the removal of a feral cat "feeding station" in the vicinity of the project area. We also agree with your determination that the existing Federal and State protection and public outreach programs are sufficient to minimize adverse effects on sea turtles that happen to haul out in the vicinity of the proposed bike/pedestrian path, especially given the likely low frequency of this occurrence. Finally, we concur with your determination that the project is unlikely to adversely affect the two listed seabird species if lighting associated with the bike/pedestrian path is shielded to prevent light from "leaking" upward and disorienting birds traveling to or from their montane nesting areas. In addition, we recommend that any lights be set directly into the railings or guard rails on the Waiau River bridge and that the shortest poles and lowest wattage bulbs possible be used for any other lights.

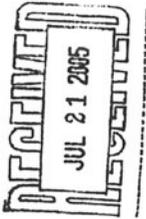
We understand that wedge-tailed shearwaters (*Puffinus pacificus*) may nest in littoral vegetation in the project area, and nesting adults thus may be displaced by construction of this path. This species is not threatened or endangered, but it is protected federally from take under the





U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Pacific Islands Regional Office
1507 Kapiolani Blvd., Suite 1110
Honolulu, Hawaii 96814-4700
(808) 973-8937 • Fax: (808) 973-8941

July 15, 2005



Glenn T. Kimura
Kimura International
1600 Kapiolani Blvd., Suite 1610
Honolulu, HI 96814

RE: Final Environmental Assessment for Proposed Lydgate Park - Kapa'a Bike/Pedestrian Path CMAQ-0700(49)
Please refer to Consultation No.: I-PI-05-438-1F

Dear Mr. Young:

This letter responds to your letter dated June 9, 2005, regarding the Draft Final Environmental Assessment for the Proposed Lydgate Park - Kapa'a Bike/Pedestrian Path. Your letter requests that comments be submitted on the project. We provide the following comments and information under our statutory authorities under the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. §1531 *et seq.*), and the Marine Mammal Protection Act of 1972, as amended (16 U.S.C. 1361 *et seq.*).

The County of Kauai proposes to construct a shared use path from Lydgate Park to Waika'ea Canal in Kapa'a. Total distance of the path would be approximately two miles. The majority of the path will be 10 to 12 feet wide and made of concrete. The path will not include comfort stations, pavilion areas, picnic areas, or parking areas. One alternative considered for the Papaloa Coastal Access Phase is to have the path turn inland at Papaloa Road with a five foot wide subsidiary path for pedestrian traffic only following a coastal route and constructed on county land. The subsidiary path would connect again to the main path north of the Kukui Heiau. At this point the main path would then continue north along the coast to Mokihana of Kauai before turning inland again.

ESA-listed species under NOAA Fisheries jurisdiction that may be present in the vicinity of the proposed project area include Hawaiian monk seals. Hawaiian monk seals are known to haul out on the beach areas in both the Papaloa Coastal Access Phase and the Coastal Extension Phase. You should be aware that the presence of the bike/pedestrian path near to known monk seal haulouts could increase the likelihood of interactions between monk seals and people. You should also be aware that if monk seals hauled out near the proposed path it could become necessary to temporarily block sections of the shoreline or path in order to ensure that monk



seals are not disturbed.

As you indicated in your letter, warning signs, informational literature, and protocols are already employed during haul out events. You also indicated that supplemental signs could be installed as needed and that the coastal path for pedestrians would be located as far inland as practicable. To further minimize the potential for interactions between people and monk seals we recommend you consider the following mitigation measures:

1. Plant vegetation (i.e. naupaka) between beach areas and the path to serve as a natural barrier. This vegetation would not be meant to inhibit beach access, rather, it would be intended to form a visual barrier thus minimizing disturbance of monk seals.
2. We encourage the posting of signs along the Papaloa Access Phase and Coastal Extension Phase informing people of the possibility of monk seal haulouts and proper behavior in the presence on monk seals.
3. We encourage placement of the path as far inland as possible in order to maximize the distance between people and monk seals.
4. We encourage construction of a combined bike path and walking path from the Sea Shell Restaurant to the Kukui Heiau to minimize the possibilities of interactions between people and monk seals at Papaloa Bay.

Care should also be taken during the project's construction phase to avoid interactions with monk seals. Below we have listed a set of protocols we recommend be followed to avoid these interactions.

1. A survey of the project area should be performed just prior to commencement or resumption of construction activity to ensure that no protected spec(ies) are in the project area. If protected spec(ies) are detected, construction activities must be postponed until the animal(s) voluntarily leave the area.
2. If any listed spec(ies) enters the area during the conduct of construction activities, all activities must cease until the animal(s) voluntarily depart the area.
3. All on-site project personnel must be apprised of the status of any listed spec(ies) potentially present in the project area and the protections afforded to those species under Federal laws. A brochure explaining the laws and guidelines for listed species in Hawaii, American Samoa, and Guam may be downloaded from http://www.nmfs.noaa.gov/prot_res/MMWatch/hawaii.htm.
4. Any incidental take of marine mammals must be reported immediately to NOAA Fisheries' 24-hour hotline at 1-888-256-9840, Hawaii only. Any injuries to sea turtles must be reported immediately to NOAA Fisheries at 1-808-983-5730. Information reported must include the name and phone number of a point of contact, location of the incident, and nature of the take and/or injury.

5. Appropriate best management practices (BMPs) must be implemented as applicable to minimize turbidity, minimize species disturbance, and to avoid the release of pollutants into the water.
6. Any intake pipes on project-related equipment must be screened or otherwise configured to ensure the prevention of entrainment of protected species.

Thank you for working with NOAA Fisheries Service to protect our nation's living marine resources.

Sincerely,



Tamra Faris
Assistant Regional Administrator
for Protected Resources

