FINAL ENVIRONMENTAL ASSESSMENT

Halona Street Bridge Replacement Project Interstate Route H-1 (Adjacent)

Honolulu District, Oahu Island, Hawaii

Project No. HI STP H1(1)
TMKs: [1] 1-6-002; [1] 1-6-006

Submitted Pursuant to Hawaii Revised Statutes, Chapter 343

State of Hawaii, Department of Transportation
Highways Division
869 Punchbowl Street
Honolulu, HI 96813

August 2016

HALONA STREET BRIDGE REPLACEMENT PROJECT
INTERSTATE ROUTE H-1 (ADJACENT)
Project No. HI STP H1(1)
Oahu, Hawaii

Final Environmental Assessment/ Finding of No Significant Impact

Submitted Pursuant to
Hawaii Revised Statutes, Chapter 343

State of Hawaii, Department of Transportation, Highways Division

8.16.16
Date of Approval

For State of Hawaii, Department of Transportation

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This Final Environmental Assessment (FEA) documents impact studies of proposed improvements to the Halona Street Bridge, adjacent to Interstate Route H-1 on the island of Oahu. The project would replace the existing five-span bridge with a three-span bridge that would have a similar length and narrower width than the existing bridge. It would improve mobility for highway users, address existing structural deficiencies, and meet current design standards for roadway width, load capacity, pedestrian and bicycle traffic, bridge railing and transitions, and bridge approaches.

Kapalama Canal (SIHP #50-80-14-7808) is eligible for listing on the National Register of Historic Places and the Hawaii Register of Historic Places. Removal of the existing bridge features could result in some minor, isolated damage to the lava rock walls, which are a contributing component to the significance of the canal. Photos will be taken prior to the start of construction. If the walls are physically affected during construction, the stone will be salvaged and repaired to match its existing condition. The endangered Hawaiian hoary bat could potentially occur within the project limits, but restrictions on the timing of construction and minimization of the project footprint would preclude any long-term effects to the species. Overall, no significant long-term environmental or cultural impacts are anticipated from construction and operation of the proposed project. Construction activities are anticipated to result in short-term noise, traffic, and air quality impacts, but implementation of best management practices would minimize the potential effects. Therefore, a Finding of No Significant Impact (FONSI) has been issued under HRS, Chapter 343.

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Acronyms and Abbreviations

°F	degrees Fahrenheit
µg/m^3	micrograms per cubic meter
AASHTO	American Association of State Highway and Transportation Officials
ACM	asbestos-containing material
ahupuaa	traditional land division
ALISH	Agricultural Lands of Importance to the State of Hawaii
amsl	above mean sea level
APE	Area of Potential Effects
BMP	Best Management Practice
BWS	Board of Water Supply
CAA	Clean Air Act
CDP	census-designated place
CE	Categorical Exclusions
CEQ	Council of Environmental Quality
CER	computerized environmental report
CFR	*Code of Federal Regulations*
CFLHD	Central Federal Lands Highway Division
CIA	cultural impact assessment
CIP	cast-in-place
CO	carbon monoxide
CWA	Clean Water Act
CZM	Coastal Zone Management
dBA	A-weighted decibels
DLNR	State of Hawaii Department of Land and Natural Resources
DPP	City and County of Honolulu Department of Planning and Permitting
DTS	City and County of Honolulu Department of Transportation Services
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FFY	Federal Fiscal Year
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FPPA	Farmland Protection Policy Act
FWCA	Fish and Wildlife Coordination Act
FWPCA	Federal Water Pollution Control Act
H-1	Interstate H-1
HAR	Hawaii Administrative Rules
HDOH	State of Hawaii Department of Health

HDOT	State of Hawaii Department of Transportation
HECO	Hawaiian Electric Company
HRS	Hawaii Revised Statutes
LBP	lead-based paint
LRFD	Load and Resistance Factor Design
makai	oceanward
mauka	mountainward
MBTA	Migratory Bird Treaty Act
MP	Milepost
mph	miles per hour
MSAT	mobile source air toxics
N/A	not applicable
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
OEQC	State of Hawaii Office of Environmental Quality Control
ORTP	Oahu Regional Transportation Plan
$PM_{2.5}$	particulate matter <2.5 microns
PM_{10}	particulate matter <10 microns
ppb	parts per billion
ppm	parts per million
SHPO	State Historic Preservation Officer
SIHP	State Inventory of Historic Properties
SLR	sea-level rise
SMA	Special Management Area
SO_2	sulfur dioxide
SOEST	School of Ocean and Earth Science and Technology
STIP	Statewide Transportation Improvement Program
SWCA	SWCA Environmental Consultants
TMDL	Total Maximum Daily Load
TMK	Tax Map Key
USACE	U.S. Army Corps of Engineers
U.S.C.	United States Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
WPA	Works Progress Administration
WQC	water quality certification

Project Summary

Table PS-1 contains a description of the project and applicable land-use designations.

TABLE PS-1
Project Summary

Project Name	Halona Street Bridge Replacement, Interstate H-1 (Adjacent), Island of Oahu
Proposing/Determination Agency	State of Hawaii Department of Transportation
Determination	Finding of No Significant Impact under Chapter 343, Hawaii Revised Statutes
Tax Map Key(s)	[1] 1-6-002 (Olomea Street and H-1 Interstate Highway Rights-of-Way, and Kapalama Canal); [1] 1-6-006 (Halona Street, Kokea Street, Kohou Street, and H-1 Interstate Highway Rights-of-Way, and Kapalama Canal); see Figures 2-8 and 2-9
Existing Uses of the Project Corridor	Roadway adjacent to highway, through primarily urban residential neighborhoods
State Land Use	Urban District
Special Management Area	No
Primary Urban Center Development Plan	Lower-Density Residential; Major Parks and Open Space
Zoning	R-5 Residential
Proposed Project	The existing five-span bridge would be replaced with a three-span bridge that would be approximately 131 feet long, with a deck width of 39 feet that would continue to carry two lanes of travel in the westbound direction. Detour routes would be provided for freeway traffic, local traffic, bicycles, and pedestrians throughout the construction period. The project would also include scour protection measures, supporting walls and slopes, utility relocations, and temporary staging areas.
Anticipated Impacts	Kapalama Canal (State Inventory of Historic Properties [SIHP] #50-80-14-7808) is eligible for listing on the National Register of Historic Places and the Hawaii Register of Historic Places. Removal of the existing bridge features could result in some minor, isolated damage to the lava rock walls, which are a contributing component to the significance of the canal. The proposed action would have “no adverse effect” on the Kapalama Canal (SIHP #50-80-14-7808) in accordance with 36 Code of Federal Regulations 800.5 and “effect, with agreed upon mitigation” in accordance with Hawaii Administrative Rule §13-13-275-7. Photos will be taken before the start of construction. If the walls are physically affected during construction, the stone will be salvaged and repaired to match its existing condition. The endangered Hawaiian hoary bat could potentially occur within the project limits, but restrictions on the timing of construction and minimization of the project footprint would preclude any long-term effects to the species. Overall, no significant long-term environmental or cultural impacts are anticipated from the construction and operation of the proposed project. Construction activities are anticipated to result in short-term noise, traffic, and air quality impacts, but the implementation of best management practices would minimize the potential effects.

Preface

The proposed project involves replacing the Halona Street Bridge (crossing the Kapalama Canal), which is located adjacent to Interstate H-1 (H-1) in the Honolulu District on Oahu. As the proposed project would involve the use of State funds and State lands (comprising the H-1 rights-of-way, under the jurisdiction of the State of Hawaii Department of Transportation), compliance with Hawaii Revised Statutes (HRS) Chapter 343 is required. This Environmental Assessment (EA) has been prepared pursuant to HRS Chapter 343 (as amended), and Title 11, Chapter 200, Hawaii Administrative Rules.

The project would also use Federal funding provided by the U.S. Department of Transportation Federal Highway Administration (FHWA). Use of Federal funds subjects the project to environmental documentation requirements set forth under the National Environmental Policy Act (NEPA) of 1969; (42 U.S. Code Section 4321); the Council of Environmental Quality Regulations; 40 *Code of Federal Regulations* (CFR) Parts 1500-1508; and 23 CFR Parts 625, 640, 712, 771, and 790, Environmental Impact and Related Procedures. To comply with NEPA, the FHWA is preparing environmental documentation, which would be consistent with the findings of this EA.

SECTION 1

Introduction

1.1 Proposing Agency and Action

The State of Hawaii Department of Transportation (HDOT), in partnership with the Federal Highway Administration, Central Federal Lands Highway Division (FHWA-CFLHD), proposes improvements to the Halona Street Bridge (crossing the Kapalama Canal) on the island of Oahu. This Environmental Assessment (EA) has been prepared in compliance with Chapter 343 of the Hawaii Revised Statutes (HRS).

This project would replace the existing five-span structure with a slightly longer three-span bridge, along with a narrower bridge deck on the same alignment. This project would improve mobility for highway users, address existing structural deficiencies, and meet current design standards for roadway width, load capacity, pedestrian and bicycle traffic, bridge railing and transitions, and bridge approaches.

1.2 Existing Conditions

The Halona Street Bridge crosses the Kapalama Canal on Halona Street, between Kohou Street and Kokea Street at Milepost (MP) 20.21 in the Honolulu District of Honolulu, on the Island of Oahu (see Figure 1-1). The bridge is under the jurisdiction of HDOT. Photos of the Halona Street Bridge are included in Figure 1-2.

The Halona Street Bridge, built in 1938, is an approximately 130-foot-long, reinforced-concrete slab with five spans. The existing bridge has a deck width of approximately 55 feet and superstructure depth of 2.5 feet.

Halona Street is classified as a Principal Urban Arterial. It is located adjacent to H-1 between the on-ramp from Vineyard Boulevard and the off-ramp to Houghtailing Street. It is a two-lane roadway with one-way traffic in the westbound direction and a posted speed of 30 miles per hour (mph) within the project area. Traffic volumes on Halona Street currently average 3,900 vehicles per day (2015), and are projected to be 5,900 in the 2036 design year.

Halona Street is included as part of the National Highway System.

1.3 Project Purpose and Need

The purpose of the project is to improve Halona Street Bridge and its approaches to maintain the Kapalama Canal crossing on Halona Street as a safe and functional component of the regional transportation system for highway users.

The project is needed because the existing bridge does not meet the current (2014) American Association of State Highway Transportation Officials (AASHTO) and HDOT structural and design standards for load capacity, bridge railing and transitions, and bridge approaches.

The U.S. Department of Transportation requires that bridges are inspected every 2 years. The National Bridge Inventory Standards inspection produces a “sufficiency rating,” which is a single number that can vary from a high score of 100 to a low score of 0, with scores higher than 50 indicating that a bridge meets current engineering design standards. Ratings do not imply that the bridge is unsafe to operate; rather, ratings indicate whether improvements are needed. Based on the most recent 2013 bridge inspection report, the Halona Street Bridge has a sufficiency rating of 32.1.

The existing bridge has the following deficiencies:

- The inventory load rating (daily carrying capacity) is 30 tons, which is below the minimum standard of 36 tons.
- The bridge deck and superstructure are rated to be in poor condition.

- The approach roadway width is 26.6 feet, neither matching the existing bridge width nor complying with current design standards.
- The guardrail is deteriorating and, at 32 inches, does not meet the standard 42-inch minimum height for pedestrian and bicyclist safety.
- Halona Street Bridge does not meet current seismic standards or conform to AASHTO Load and Resistance Factor Design (LRFD) Bridge Design Specifications.

1.4 Purpose of the Environmental Assessment

This EA discloses the environmental and socio-cultural impacts that may result from the project's implementation, and commits to specific mitigation measures that would be implemented to avoid and/or minimize potential impacts. The EA has been prepared to satisfy the requirements of HRS Chapter 343 and Hawaii Administrative Rules (HAR) Title 11, Chapter 200, Environmental Impact Statement (EIS), and other environmental compliance requirements. The proposed project triggered the rules and regulations for environmental review because the project would use State lands and State funds.

1.5 Public Comment on the Environmental Assessment

The State of Hawaii Office of Environmental Quality Control (OEQC) notifies the public when a Draft EA is available for review in its bimonthly bulletin, the OEQC *Environmental Notice*. OEQC officially announced the availability of the Draft EA on February 23, 2016, which initiated a 30-day review and comment period that ended on March 28, 2016. Comments received during the review period are included in Chapter 7.

1.6 Permits, Approvals, and Compliance Required or Potentially Required

The following requirements must be met to implement the proposed project:

1.6.1 Federal

- Department of the Army Permit (Section 10 of the Rivers and Harbors Act; Section 404 of the Clean Water Act), U.S. Army Corps of Engineers (USACE)
- Section 106 Consultation (National Historic Preservation Act [NHPA]), State of Hawaii Department of Land and Natural Resources (DLNR) State Historic Preservation Officer (SHPO)
- Section 7 Consultation (Endangered Species Act [ESA]), U.S. Fish and Wildlife Service (USFWS); National Marine Fisheries Service (NMFS)

1.6.2 State

- Clean Water Act Section 401 Water Quality Certification, State of Hawaii Department of Health (HDOH)
- National Pollutant Discharge Elimination System (NPDES) Permit, HDOH
- Stream Channel Alteration Permit, DLNR Commission on Water Resource Management
- Coastal Zone Management Act Federal Consistency Review, State of Hawaii Department of Business, Economic Development, and Tourism, Office of Planning
- Historic Preservation Review (HRS Chapter 6E), DLNR State Historic Preservation Division
- Americans with Disabilities Act compliance (HRS §103-50), HDOH, Disability and Communication Access Board
- Occupancy and Use of State Highway Right-of-Way Permit, HDOT
- Community Noise Permit/Variance, HDOH

1.6.3 County

- Street Use Permit, City and County of Honolulu Department of Transportation Services (DTS)
- Demolition, grading, grubbing, and stockpiling permits, City and County of Honolulu Department of Planning and Permitting (DPP)

1.7 References

American Association of State Highway and Transportation Officials (AASHTO). 2014. *AASHTO LRFD Bridge Design Specifications, Customary U.S. Units, 7th Edition, with 2015 Interim Revisions.*

State of Hawaii Department of Transportation (HDOT). 2014. *Design Criteria for Bridges and Structures*. January 7.

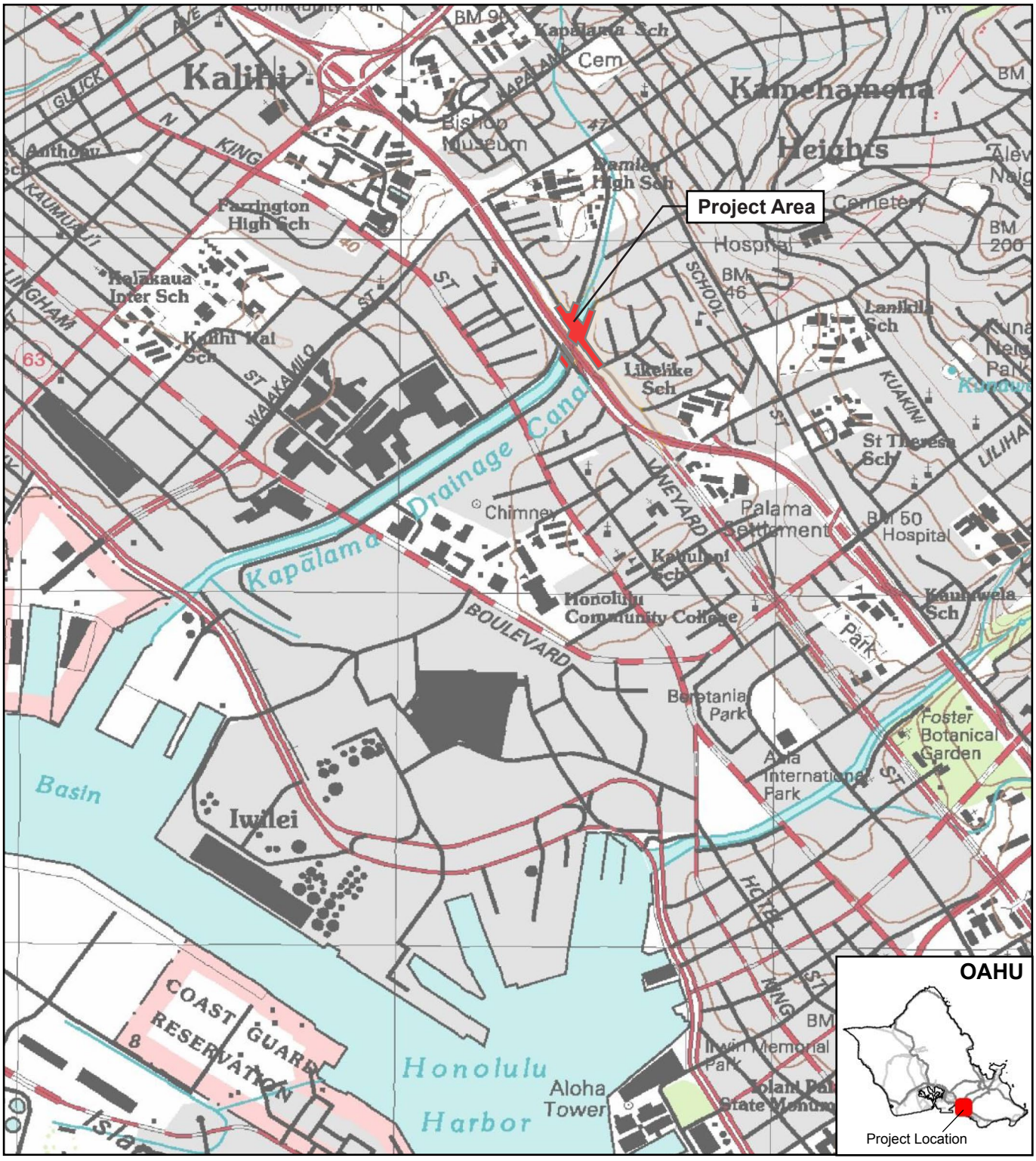


FIGURE 1-1
Project Location
Halona Street Bridge Project
Hawaii Bridges Program –
Central Federal Lands Highway Division and
Hawaii Department of Transportation

LEGEND

Project Area

Photo 1. View of Halona Street Bridge, looking Makai

Photo 2. View of Halona Street Bridge, looking west

Photo 3. View of Halona Street Bridge, looking southeast

Photo 4. Gaps in the concrete beneath H-1, Mauka side of the bridge

FIGURE 1-2
Project Area Photos
Halona Street Bridge Project
Hawaii Bridges Program –
Central Federal Lands Highway Division and
Hawaii Department of Transportation

SECTION 2

Project Description

2.1 Project Location

The Halona Street Bridge crosses the Kapalama Canal on Halona Street, between Kohou Street and Kokea Street at MP 20.21 in Kalihi (see Figure 1-1). Halona Street is classified as a Principal Urban Arterial and is adjacent to H-1 between the on-ramp from Vineyard Boulevard and the off-ramp to Houghtailing Street. There are several residential neighborhoods on either side of the Kapalama Canal, and the residents on the Diamond Head side of the canal use this access to reach Houghtailing Street. Parking is allowed on the *mauka* (mountainward) side of the Halona Street before and after the bridge. The Halona Street Bridge is under the jurisdiction of HDOT. Figure 2-1 shows the limits of the proposed project.

2.1.1 Surrounding Land Uses

The proposed project is located approximately 1.2 miles west of downtown Honolulu in the southern part of Oahu. Land within and adjacent to the project limits is characterized by level terrain with landscaped vegetation adjacent to the Halona Street Bridge. Urban residential developments are located *mauka* of the bridge. The Kapalama Canal is owned and maintained by the City and County of Honolulu; the canal runs through the project limits under Halona Street Bridge and terminates 200 feet upstream of the bridge. The Kapalama Canal is a realigned channel receiving flow from Kapalama Stream, as well as runoff from urban Kalihi and Kamehameha Heights, and leads into Honolulu Harbor. The State of Hawaii Land Use Commission has classified land within and adjacent to the project in the Urban District, and it is zoned by the City and County of Honolulu as R-5 Residential. Several schools, small parks, businesses, and other community resources are also located along H-1 and Halona Street within 0.5 mile of the project limits. Land uses surrounding the project limits are shown in Figure 2-2.

2.1.2 Other Nearby State and County Projects

There are no State transportation improvement projects in the immediate vicinity of the Halona Street Bridge project. The DTS, in conjunction with HDOT, has identified two streets for rehabilitation that connect to Halona Street adjacent to the project limits (Kohou Street and Kaauwai Place). Both Kohou Street (*mauka* of the existing bridge) and Kaauwai Place (one block northwest of Kohou Street, *mauka* of the existing bridge) are identified as in “planning” phases. Kaauwai Place is outside the project limits and would be affected by traffic control. Kohou Street would serve as a detour route for local traffic (see Section 2.3, Proposed Project, for additional information). The contractor would coordinate with the street rehabilitation project if it is concurrent with the proposed project, to minimize logistical and traffic routing impacts. Because there is no physical permanent overlap between the projects, the proposed project would not conflict with any other State or County project.

2.2 Existing Conditions along the Project Corridor

2.2.1 Right-of-Way and Surrounding Elevations

The right-of-way on Halona Street Bridge and associated approaches is 60 feet as measured between the guardrail or edge of the existing sidewalk on the *mauka* side of the bridge and the H-1 guardrail on the *makai* (oceanward) side of the bridge. Halona Street Bridge is at an elevation of approximately 9 feet above mean sea level (amsl) and the terrain surrounding the bridge is relatively flat.

2.2.2 Bridge Structure and Approaches

Halona Street Bridge was constructed in 1938. The existing structure is an approximately 130-foot-long, reinforced-concrete slab with five spans. The deck width is approximately 55 feet and the bridge deck thickness is 2.5 feet. The existing bridge consists of two travel lanes (14 foot and 12.5 foot, respectively), a

7-foot sidewalk, a 2-foot bridge rail, a 1-foot curb, and an 18.5-foot landscape buffer that sits atop the bridge deck (see Figure 2-3). A chain-link fence is located in the middle of the landscape buffer, separating H-1 from Halona Street. The bridge abuts the *mauka* side of H-1.

Halona Street Bridge, H-1 Bridge, and Olomea Street Bridge cross over Kapalama Canal. The canal runs in a northeastern/southeastern direction through residential developments. It has vertical concrete rubble masonry walls and is concrete-lined in the upstream reach, with a natural bottom beneath Halona Street Bridge and downstream of the bridge. In addition to the fencing between H-1 and Halona Street in the landscape buffer, chain-link fencing is also located adjacent to the canal along Kokea Street and Kohou Street. Fencing is primarily used to deter the public from entering the canal and traveling under Halona Street Bridge.

Halona Street is designated as State Route 98 for travel in the westbound (Ewa) direction, while Olomea Street is designated as State Route 98 for travel in the eastbound (Diamond Head) direction. According to counts collected for the project, an average of 3,900 vehicles use Halona Street daily (2015). The posted speed on Halona Street within the project limits is 30 mph.

Pedestrian and bicycle counts were also collected for the project in February 2015. Weekdays between 6 am and 5 pm, 98 pedestrians and 24 bicyclists were identified in the project limits. On weekends, during the same period, 52 pedestrians and 25 bicyclists were identified. Pedestrians and bicyclists travel both eastbound and westbound on Halona Street.

2.2.3 Utilities

Providers with utilities or services within the project area include the following:

- Hawaiian Electric Company (HECO) – Electric/Power
  - Overhead power lines along the *mauka* side of the road on both sides of Halona Street Bridge that do not cross over the canal
  - An electric line along Halona Street adjacent to H-1
- Honolulu Board of Water Supply (BWS) – Water Distribution and Service
  - 8-inch distribution water line hung under the bridge inside the girders
  - 42-inch transmission waterline buried on the *mauka* side of the bridge that runs in the east-west direction, feeding into smaller distribution lines to provide water to the surrounding communities
- City and County of Honolulu – Sewer Line
  - Sewer lines and associated manholes located on both sides of Halona Bridge; these are within Kohou and Kokea Streets and cross H-1
- Hawaii Gas – Gas
  - 2-inch gas line hung under the bridge inside the girders
- HDOT – Street Lighting
  - Two light poles located on each of the *mauka* corners of the bridge
- Oceanic Time Warner Cable - Wired Cable Television Service
  - Service provider, with no infrastructure identified within project limits
- Hawaiian Telcom - Land-line Telecommunications Service
  - Service provider, with no infrastructure identified within project limits

2.3 Proposed Project

The proposed project would replace Halona Street Bridge to address structural and functional deficiencies described in Section 1.3, Purpose and Need. The preliminary bridge design is shown on Figure 2-4. The project limits extend beyond Halona Street Bridge to include the approach roadways and potential staging areas (see Figure 2-1): the limits extend approximately 600 feet along Halona Street and extend beyond HDOT right-of-way along Kokea Street and Kohou Street. Where Kapalama Canal crosses beneath Halona Street Bridge, the project limits would extend 400 feet upstream and downstream of the bridge to include considerations for construction and hydraulics. The project limits encompass a total area of 1.1 acres, consisting of 0.59 acre of permanent impact area and 0.51 acre of temporary impact area. Section 2.3.4 provides information on properties affected by the project.

HDOT and AASHTO standards and regulations govern the design criteria and construction methods and procedures for the proposed project. The design would meet or exceed both HDOT and AASHTO criteria (see Table 2-1). The posted speed limit of 30 mph on Halona Street and Halona Street Bridge would remain. The replacement bridge would not meet HDOT Manual (HDOT, 2010) criteria of 2 feet of freeboard because meeting this criterion would require raising the bridge and consequently cutting off access to Kohou Street and Kokea Street. The proposed replacement bridge and roadway would pass the 50-year storm with limited freeboard.

TABLE 2-1
Project Design Criteria

Design Criteria	Existing Conditions	Standards		Proposed
		AASHTO	State	
Design Speed	Posted speed = 30 mph	30 mph	15-30 mph	Design speed = 40 mph Posted speed = 30 mph
Travel Way Width (feet)	12.5 and 14	12	10	12
Shoulder Width (feet)	Curb/Sidewalk	8 (2 urban)	10/4 right/left	2/4 right left
Bridge Width (feet)	55	N/A	N/A	39 (includes bridge rail)

Note:
N/A = not applicable

The proposed project would be designed and constructed in accordance with Federal, HDOT, and AASHTO standards and regulations including but not limited to the following:

HDOT's *Design Criteria for Bridge and Structures* (2014) would be followed for structure design.

The project would use HDOT's *Design Criteria for Highway Drainage* (HDOT, 2010) to govern the hydraulic evaluation, analysis, and design. The project would consider incorporating low-impact development concepts, such as directing stormwater drainage into grass swales adjacent to the bridge and highway.

The approach travel lanes and shoulders would be designed to AASHTO and HDOT guidelines (*A Policy on Geometric Design for Highways and Streets* [AASHTO, 2011] and *Hawaii Statewide Uniform Design Manual for Streets and Highways* [HDOT, Highways Division, 1980], and all subsequent amendments).

2.3.1 Replacement Bridge

The existing Halona Street Bridge would be demolished and replaced with a new precast bridge. The replacement bridge would be a three-span bridge with a total length of approximately 131 feet, a deck width of 39 feet, and a superstructure depth of 2.5 feet The new bridge would have the same road profile as

the existing bridge but would be narrower because of the removal of the landscaped buffer that sits atop the existing bridge deck.

The four existing piers would be removed and replaced with two piers that would align with the two existing and adjacent H-1 Bridge piers. This pier placement would result in less turbulence, and as a result, greater hydraulic efficiency. The pier shapes would be similar to the existing H-1 Bridge piers, with a pier cap width of 3.5 feet and pile width of 1.4 feet. The piers would be a group of piles that are installed parallel to the direction of flow. The proposed new bridge abutments would be set back from and behind the existing abutments.

2.3.2 Construction Activities

Staging of personnel and equipment would occur within the project limits. Potential staging areas are located along Halona Street (on pavement) on either side of the bridge, as well as adjacent to the Kohou Street and Kokea Street intersections. The work area would be accessed from the sides of the canal. Existing piers would be removed and replaced with new piers. Demolition debris would require disposal at an approved landfill. Disposal of dredged material and water from dewatering activities would require approval by HDOH.

Construction would last approximately 13 months. Construction would occur both during normal work hours and on weekends. To minimize impacts to the surrounding residential areas, night work is not anticipated. It is anticipated that Halona Street Bridge would be closed to normal vehicular traffic for the duration of the project. The project would maintain a corridor along the existing bridge during construction that meets HDOT-approved safety standards to protect pedestrians and bicyclists from H-1 traffic. During construction, a portion of the existing bridge immediately adjacent to H-1 would remain open to temporarily accommodate utilities.

2.3.3 Traffic Control During Construction

Halona Street is one-way in the westbound direction. Residential neighborhoods along Kokea Street and Kohou Street would need access maintained during both bridge and intersection closures (affecting the Halona/Kokea Street and the Halona/Kohou Street intersections). During bridge closure periods when both Kokea Street and Kohou Street intersections can remain open (when bridge railing work is being conducted), local traffic can be routed onto Kokea Street and around to Kohou Street as shown in Figure 2-5. During bridge closure periods when the Kokea Street intersection is closed and the Kohou Street intersection is open (during bridge demolition and construction), local traffic can be routed onto Auld Lane and around to Kohou Street as shown on in Figure 2-6.

Seven properties (six residences and the Queen Liliuokalani Children's Center) have private driveways that front Halona Street between Kohou Street and the H-1 off-ramp. Access to these properties would be maintained during construction by barricading Halona Street Bridge, keeping the Houghtailing Street off-ramp open, and directing traffic onto Kohou Street. Details regarding access and traffic control during construction would be provided in a traffic management plan. Travel time delays are expected to be minimal using a combination of H-1, North School Street, and the detour routes shown in Figure 2-5 and Figure 2-6.

Access to the H-1 on-ramp would be maintained during construction. Signage at the freeway on-ramp would inform drivers that Halona Street past the on-ramp is open to local traffic only. A message board would direct non-local traffic to use the freeway on-ramp and off-ramp to access Houghtailing Street. The routes for non-local traffic (blue line) traveling to Houghtailing Street and freeway access (orange line) are shown in Figure 2-5 and Figure 2-6.

Pedestrian and bicycle access would be maintained across Kapalama Canal during construction. It is currently recommended that a portion of the existing structure be maintained for pedestrian and bicycle access. Pedestrians and bicyclists would use either Kokea Street or Kohou Street to cross over Halona Street and then cross the canal in a temporary pedestrian route within the existing landscaped area between the

construction work and H-1. This temporary route would accommodate a pedestrian path, with a barrier on both sides of the path to protect pedestrians and bicyclists, as shown in Figure 2-7. The route would meet American with Disabilities Act requirements and would be accessible for wheelchair users.

2.3.4 Properties Affected by the Project

The proposed project would not require the permanent acquisition of private property outside of the existing right-of-way. However, as shown in Table 2-2, 0.44 acre of land would be needed from four temporary easements to accommodate bridge construction and paving improvements. This would temporarily affect property owners: the City and County of Honolulu as the owner of the Kapalama Canal and adjacent streets. The Tax Map Keys (TMKs) associated with these parcels are shown in Figure 2-8 and Figure 2-9. Construction parcels would be coordinated through HDOT. No additional permanent easements for maintenance and operation are needed.

TABLE 2-2
Right-of-Way Requirements

TMK	Land Use	Estimate of Area Needed (Acres)	Project Requirement
(1) 1-6-000:000	Undeveloped (River)	0.12	Temporary Construction Parcel (Bridge Construction)
	Undeveloped (River)	0.18	Temporary Construction Parcel (Bridge Construction)
No TMK Kohou Street and Kokea Street	Developed/Undeveloped (Roadway)	0.09	Temporary Construction Parcel (Bridge Construction, Pavement Improvements)
	Developed/Undeveloped (Roadway)	0.05	Temporary Construction Parcel (Bridge Construction, Pavement Improvements)
Total		**0.44**	

2.4 No Action Alternative

The No Action Alternative would retain the existing bridge with no changes. The bridge would not be repaired to meet current design standards for roadway width, load capacity, bridge railing and transitions, and bridge approaches, and the bridge would continue to be structurally deficient.

Under the No Action Alternative, environmental impacts resulting from construction activities would be averted and improvement costs would not be incurred by HDOT. The existing bridge would continue to deteriorate, requiring regular inspection and increasing maintenance to maximize its useful lifespan. Eventually, the bridge may no longer provide a safe support for vehicle, pedestrian, and bicycle traffic, and could face closure.

2.5 Bridge Alternatives Considered and Dismissed

2.5.1 Rehabilitation

Rehabilitation of the existing bridge was evaluated, but dismissed from further consideration based on the age and deteriorated condition of the existing bridge (as described in Chapter 1, according to the most recent bridge inspection report, the bridge is structurally deficient).

2.5.2 Bridge Replacement (Cast-in-Place Concrete Slab Bridge)

This alternative consists of replacing the existing bridge with a three-span cast-in-place (CIP) concrete slab bridge. This bridge design is very similar to the existing Halona Street Bridge. The needed replacement structure is slightly longer so that the abutments would be constructed behind the existing abutments and

would match with the adjacent H-1 Bridge. The three spans would be constructed as continuous spans to eliminate the need for expansion joints over the piers.

The advantage of the CIP concrete slab bridge is that it would provide a relatively shallow superstructure depth to allow for a maximum hydraulic opening for the canal. The continuous reinforced concrete slab is readily adaptable to a wide range of shapes and skew angles. The CIP concrete slab bridge usually has proportions that are considered to be aesthetically pleasing.

The disadvantage is that the construction of the reinforced concrete slab requires the placement of formwork and falsework in the canal underneath the bridge. In addition, the construction of the CIP slab bridge is generally considered to be a labor-intensive and time-consuming operation and, therefore, more costly than the precast alternative. If traditional reinforced concrete abutments are constructed on deep foundations, approach slabs would be placed at each end of the bridge and expansion joints would be placed at the end of the approach slabs.

As with the proposed project, this alternative is practical, serviceable, and constructible, and would perform well from a structural standpoint. However, the proposed project offers several advantages compared to this alternative including a lower initial construction cost, faster construction period, and fewer environmental impacts (because it would not require the use of falsework or temporary supports in the canal during construction). In all other areas, this alternative was similar to the proposed project. For these reasons, the CIP concrete slab bridge was dismissed from further consideration.

2.5.3 Construction Period Alternatives

2.5.3.1 Phased Construction

Several options for phased construction were considered during project development. However, these were dismissed from further consideration because costs would be greater and it would take longer to construct, increasing the duration of construction related disturbances for local residents and the traveling public.

2.5.3.2 Temporary Pedestrian Bridge

This alternative would construct a temporary pedestrian bridge *mauka* of the existing Halona Street Bridge that would accommodate pedestrians, bicyclists, and temporary utilities. This alternative was eliminated from further consideration because costs would be greater and it would take longer to construct, increasing the duration of construction related disturbances for local residents and the traveling public.

2.6 Statewide Transportation Improvement Program

The Statewide Transportation Improvement Program (STIP) provides a multiyear listing of State and County transportation projects and identifies those projects slated for Federal funding. It is a multimodal transportation improvement program that is developed using existing transportation plans and policies, as well as current highway, transit, and transportation programming processes. The STIP delineates the funding categories and the Federal and local share required for each project. Although projects are on the STIP, that does not necessarily mean those projects will be planned, designed, or constructed within the fiscal period because of unforeseen occurrences such as project readiness or project priorities.

The current STIP, which covers the period from Federal Fiscal Year (FFY) 2015 to FFY 2018 (and FFY 2019 to FFY 2020, for information purposes only), was published by HDOT on October 27, 2014. The H-1, Bridge Rehabilitation, Kapalama Canal (Halona Street Bridge) Project is listed on the STIP as a System Preservation project.

2.7 Preliminary Cost and Schedule

In 2015, the estimated construction cost for the proposed action is approximately $4.6 million. Construction of this project would occur after completion of the project's design and obtaining necessary entitlements.

The current schedule is for construction to last 13 months and end in 2018.

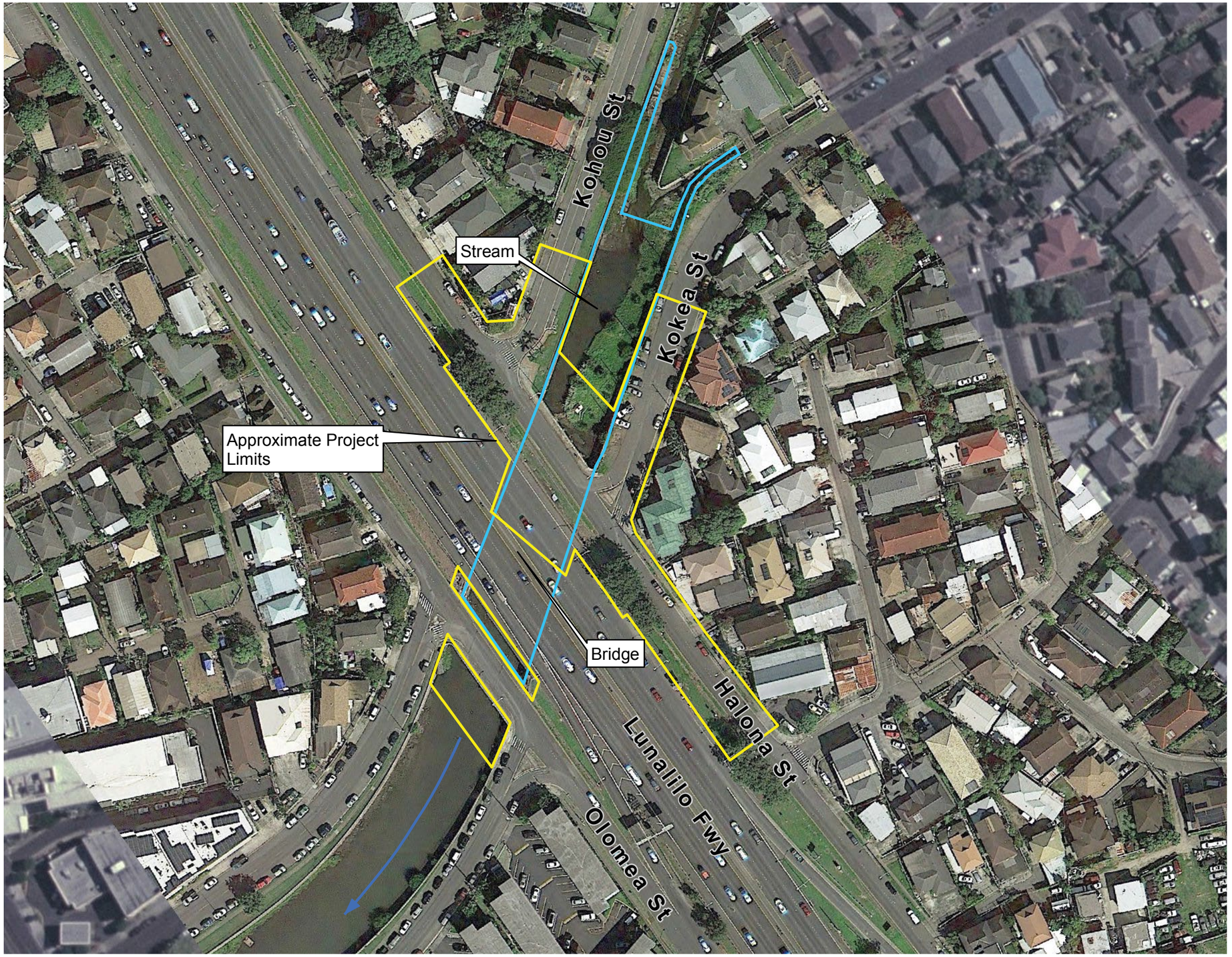
2.8 References

American Association of State Highway and Transportation Officials (AASHTO). 2011. *A Policy on Geometric Design for Highways and Streets.*

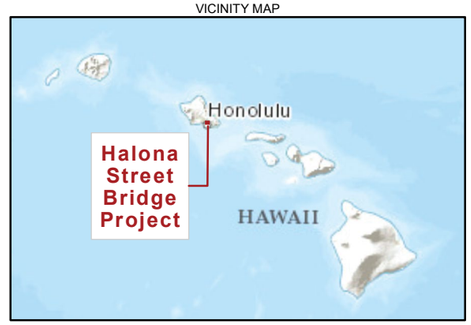
State of Hawaii Department of Transportation (HDOT), Highways Division. 1980. *Hawaii Statewide Uniform Design Manual for Streets and Highways*. October.

State of Hawaii Department of Transportation (HDOT). 2010. *Design Criteria for Highway Drainage*. October 1.

State of Hawaii Department of Transportation (HDOT). 2014. *Design Criteria for Bridge and Structures*. January 7.



VICINITY MAP



LEGEND

- Approximate Project Limits
- Waters of the U.S. and Flow Directions

Notes:
1. High-Res Imagery Source: Google Earth 01/16/2013
2. Low-Res Imagery Source: Digital Globe 01/11/2011
3. Imagery base map is not orthorectified; therefore project features may not properly align with the imagery.

North

0 100 200

Approximate scale in feet

FIGURE 2-1
Project Limits
Halona Street Bridge Project
Hawaii Bridges Program –
Central Federal Lands Highway Division and
Hawaii Department of Transportation

Data Source: State of Hawaii Office of Planning – Land Use and Land Cover Data, 2015

North

0 .05 .1

Approximate scale in miles

LEGEND

- Residential
- Commercial and Services
- Mixed Urban Development
- Transportation, Communications, and Utilities
- Industrial

FIGURE 2-2
Surrounding Land Use
Halona Street Bridge Project
Hawaii Bridges Program –
Central Federal Lands Highway Division and
Hawaii Department of Transportation

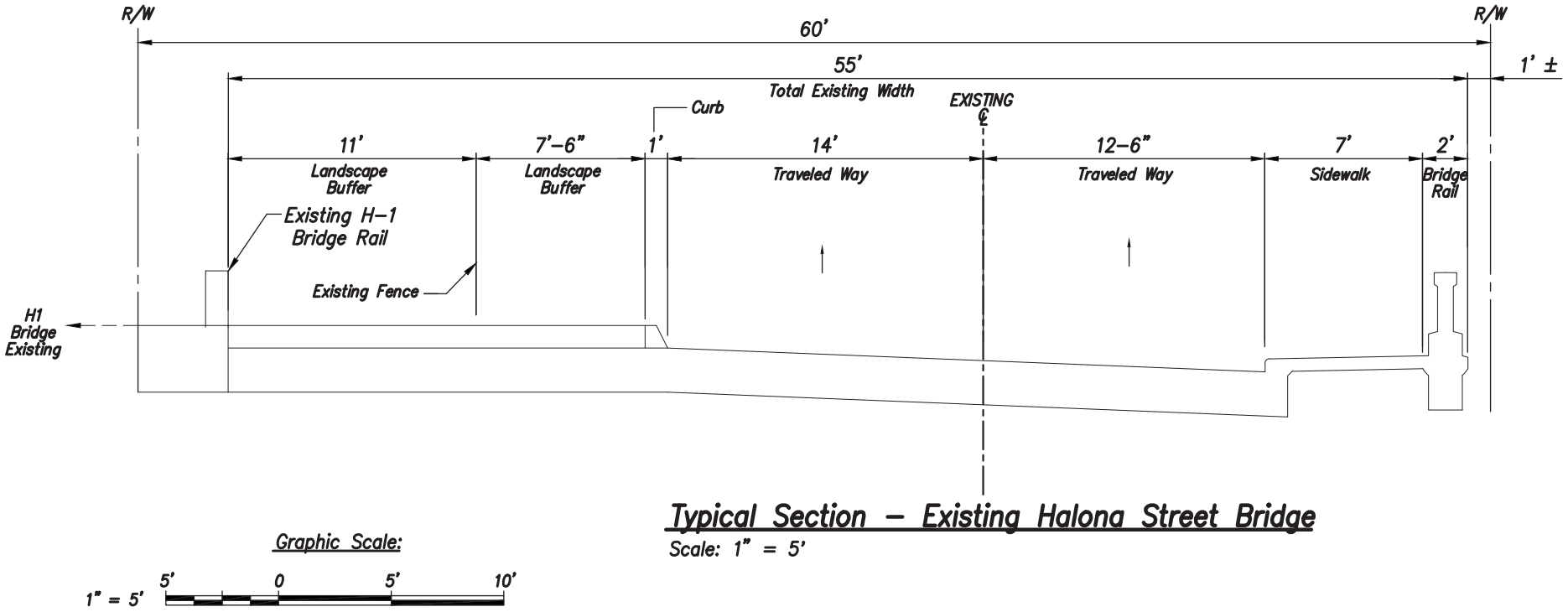
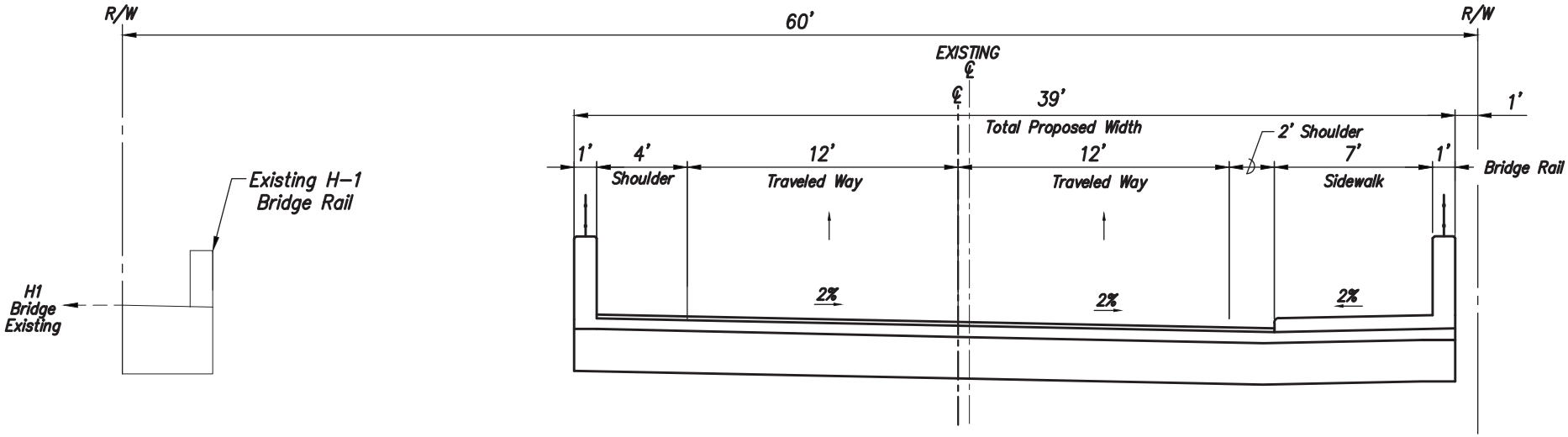


FIGURE 2-3
Typical Section – Existing Halona Street Bridge
Halona Street Bridge Project
Hawaii Bridges Program –
Central Federal Lands Highway Division and
Hawaii Department of Transportation



Typical Section – Proposed Halona Street Bridge

Scale: 1" = 5'

FIGURE 2-4
Typical Section – Proposed Halona Street Bridge
Halona Street Bridge Project
Hawaii Bridges Program –
Central Federal Lands Highway Division and
Hawaii Department of Transportation

LEGEND

- Direction of Travel
- Work Area/Road Closure
- Detour Route for Local Traffic
- Detour Route for Non-Local Traffic to Access Houghtailing St.
- Route for Freeway Access

Notes:
1. Work area limits allows for Halona St. & Kokea St. intersection to remain open.
2. Non-local traffic will be directed by message board to use Freeway to access Houghtailing St.
3. Minimal impact to normal westbound Freeway access traffic
4. N. School St. has two travel lanes in each direction during rush hour due to no parking restrictions

North

0 250 500

Approximate scale in feet

FIGURE 2-5
Detour Route: Kokea Street and Kohou Street Intersections Open
Halona Street Bridge Project
Hawaii Bridges Program –
Central Federal Lands Highway Division and Hawaii Department of Transportation

LEGEND

- Direction of Travel
- Work Area/Road Closure
- Road Closed, Local Traffic Only
- Detour Route for Local Traffic
- Detour Route for Non-Local Traffic to Access Houghtailing St.
- Route for Freeway Access

Notes:
1. Work area limits allows for Halona St. & Kokea St. intersection to remain open.
2. Non-local traffic will be directed by message board to use Freeway to access Houghtailing St.
3. Minimal impact to normal westbound Freeway access traffic
4. N. School St. has two travel lanes in each direction during rush hour due to no parking restrictions

North

0 250 500

Approximate scale in feet

FIGURE 2-6
Detour Route: Kokea Street Intersection Closed
Halona Street Bridge Project
Hawaii Bridges Program –
Central Federal Lands Highway Division and Hawaii Department of Transportation

CH2MHILL

Aerial photo source: Google ©2015, modified by CH2M HILL.

North

0 50 100

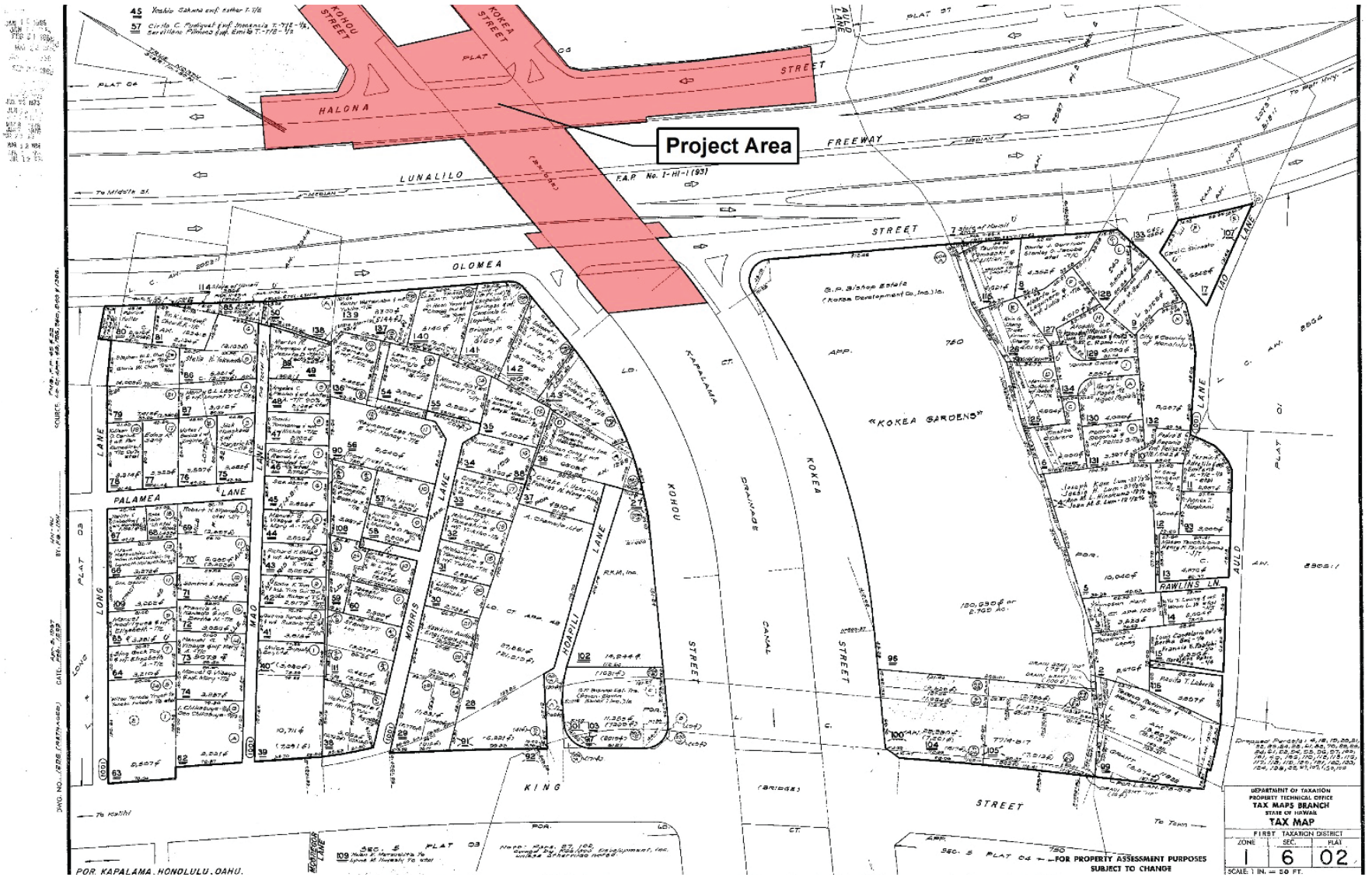
Approximate scale in feet

LEGEND

Temporary Pedestrian/Bicyclist Route

Work Area/Road Closure

FIGURE 2-7
Temporary Pedestrian and Bicyclist Route During Construction
Halona Street Bridge Project
Hawaii Bridges Program –
Central Federal Lands Highway Division and
Hawaii Department of Transportation



Base Map: Tax Map Key [1] 1-6-002, showing project area at the H-1 Interstate Highway crossing at Kapālama Canal (Hawai'i TMK Service)
Data Sources: CSH, 2015

LEGEND

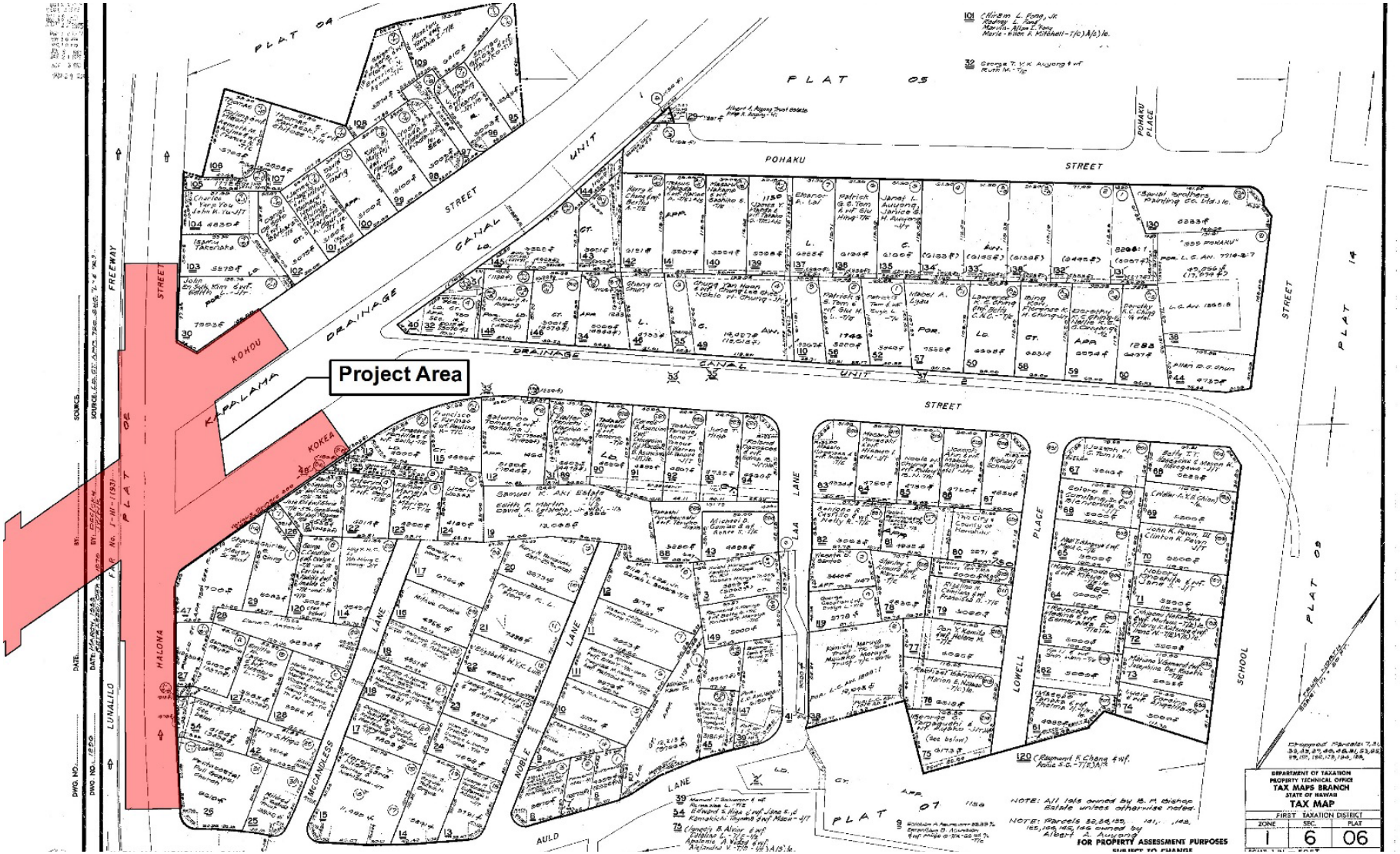
Project Area

North

0 100 200

Approximate scale in feet

FIGURE 2-8
Tax Map Key 1
Halona Street Bridge Project
Hawaii Bridges Program –
Central Federal Lands Highway Division and
Hawaii Department of Transportation



Base Map: Tax Map Key [1] 1-6-006, showing project area at the H-1 Interstate Highway crossing at Kapālama Canal (Hawai'i TMK Service)
Data Sources: CSH, 2015

LEGEND

Project Area

North

0 100 200

Approximate scale in feet

FIGURE 2-9
Tax Map Key 2
Halona Street Bridge Project
Hawaii Bridges Program –
Central Federal Lands Highway Division and
Hawaii Department of Transportation

SECTION 3

Affected Environment, Impacts, and Mitigation

3.1 Topography, Geology, and Soils

3.1.1 Existing Conditions

Halona Street Bridge is at an elevation of approximately 9 feet amsl and the terrain surrounding the bridge is relatively flat. The proposed project is located approximately 1.2 miles west of downtown Honolulu in the southern part of Oahu. Land within and adjacent to the project limits is characterized by level terrain. A topographic map of the project area is presented in Figure 1-1.

The Island of Oahu is composed largely of the weathered remnants of the Waianae and Koolau shield volcanoes. The older Waianae Volcano forms the bulk of the western third of the island, while the younger Koolau Volcano forms the majority of the eastern two-thirds of the island. It is believed that Waianae Volcano became extinct while Koolau Volcano was still active, and its eastern flank is partially below Koolau lavas in central Oahu.

The project area lies within the coastal plain of Oahu and is to the southwest of the Koolau Mountain Range. As a result, much of the generally flat land area is underlain by unconsolidated coastal sediments (coralline silts and sands) with pockets of hard, cemented sand dunes (sandstone) and coral/limestone rock formation. Progressing toward the hills of the Koolau Mountains, the subsurface conditions gradually change to reflect an increase in thickness of terrestrial sediments, such as the alluvial soils derived from the hills and valleys located to the southwest of the coastline. The alluvial soils overlie the buried coral and sand deposits in the subsurface.

The Natural Resources Conservation Service identifies five soil types in the project area (see Figure 3-1):

- **Ewa Silty Clay Loam, 0 to 2 percent slopes (EmA):** The Ewa series consists of well-drained soils that formed in alluvium weathered from basaltic rock. Ewa soils are on alluvial fans and terraces and have slopes of 0 to 2 percent. Elevations range from sea level to 150 feet amsl. The soils are considered well drained with slow to medium runoff and moderate permeability.
- **Hanalei Silty Clay Loam, 0 to 2 percent slopes (HnA):** The Hanalei series consists of somewhat poorly drained to poorly drained soils that formed in alluvium derived from basic igneous rock. Hanalei soils are on bottom lands and low terraces along streams with slopes of 0 to 2 percent. Elevation ranges from near sea level to 300 feet. The soils are considered somewhat poorly to poorly drained with slow runoff and moderate permeability.
- **Kaena Clay, 2 to 6 percent slopes (KaB):** The Kaena series consists of deep, poorly drained soils that formed in alluvium and colluvium. Kaena soils are on alluvial fans on steep colluvial slopes and have slopes of 2 to 6 percent. Elevation ranges from 50 and 150 feet. The soils are considered poorly drained with slow to rapid runoff and slow permeability.
- **Kawaihapai Stony Clay Loam, 2 to 6 percent slopes (KlaB):** The Kawaihapai series consists of well-drained soils that formed in alluvium derived from basic igneous rock in humid uplands. Kawaihapai soils are in drainageways and on alluvial fans on the coastal plains and have slopes of 2 to 6 percent. Elevation ranges from sea level to 300 feet. The soils are considered well-drained with slow to medium runoff and moderate permeability.
- **Fill Land, 0 to 3 percent slopes (FL):** Fill land consists of well-drained soils with slopes of 0 to 3 percent. It is characterized by mixed or similar soil types. Elevation ranges from 0 to 500 feet. The soils are considered well-drained with slow runoff and low to moderate permeability.

The Natural Resources Conservation Service (NRCS) classifies the Kapalama Canal as "water" (U.S. Department of Agriculture, 2015).

According to the NRCS data, the project does not contain soils classified as prime or important farmland. Two soil types—Ewa Silty Clay Loam (located south of Auld Lane and west of H-1) and Kawaihapai Stony Clay Loam (located northwest of Kohou Street)—are defined as "Prime Farmland, if irrigated." However, the land in these areas is not irrigated and is within a census-designated urbanized area, which is exempt from protection under the Farmland Protection Policy Act of 1981. The State of Hawaii Department of Agriculture also classifies Agricultural Lands of Importance to the State of Hawaii (ALISH), including prime, unique, and important agricultural lands. The lands surrounding the project area are not considered ALISH (OP, 2006).

As part of the project's field exploration program, three borings were drilled for the replacement bridge. Two exploratory test borings were drilled at the rear of existing bridge abutments and the third boring was drilled in the canal. Soils near the surface at the rear of the existing east abutment and extending to depths of 10 feet consist of reddish brown silty sand with gravel. Soils near the surface at the west abutment and extending to depths of 3 feet consist of medium dense gray silty gravel. Underlying the near surface granular soils and extending to depths of 16.5 to 18 feet was dark brown to grayish brown silty clay. Underlying the soft and compressible silty clay was older alluvium soils consisting of interlayers of silty clay, silty gravel, and clayey silt extending down to the maximum depths drilled (between 100.5 and 120.5 feet). The silty clay and clayey silt were in a medium stiff to stiff condition, while the silty gravel was in medium dense to dense condition. Groundwater was encountered in the borings at depths ranging from 8 to 9 feet.

3.1.2 Potential Impacts and Mitigation Measures

The proposed project is not constrained by geological and topographic site conditions, nor would it affect any unique geological formations. Because of the subsurface soils encountered, deep foundations such as driven concrete pile foundations are recommended for support of the proposed Halona Street Bridge replacement. Roadway sections would be designed to standard HDOT specifications that consist of asphalt and base course over sub-base course material.

The proposed project would result in short-term impacts to topography, geology, and soils during the construction of the replacement bridge and roadway approaches. Ground disturbance associated with these activities include clearing, grading, excavating, and recontouring of soils, which would remove vegetation and expose soil, which could leave affected areas exposed to erosion. To minimize the potential for construction-related erosion impacts, Best Management Practices (BMPs) would be developed as part of the project's engineering and design, and implemented during construction. These are expected to include, but are not limited to, the following:

- Using 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
- Restricting the stockpiling of construction material and properly disposing construction debris

All erosion control measures would comply with Honolulu County Code for erosion and sedimentation control (Honolulu County Code, Chapter 14, Article 13). Other applicable measures would be specified as part of the NPDES permit obtained from HDOH.

3.2 Climate and Air Quality

3.2.1 Existing Conditions

Climate on Oahu is heavily influenced by terrain and tradewinds. The island consists of two parallel mountain ranges running in the northwestern to southeastern direction, which is perpendicular to the prevailing northeastern trade winds. As a result, the western (leeward) sides of Oahu (including the project area), are drier and warmer than the windward sides of the island. The average maximum daily temperature is approximately 80 degrees Fahrenheit (°F), with an average minimum of 66°F. Mean annual rainfall for this

area is approximately 37 inches. Rainfall is typically highest in November and December and lowest from June through August (Giambelluca et al., 2013). The closest rainfall gage to the site has experienced slightly above-average rainfall for 2014 through the end of September (NOAA, National Weather Service, Weather Forecast Office Honolulu, 2014).

Oahu, like the rest of the State, meets the Federal and State air quality standards and is within an attainment area.[1] HDOH operates a network of air quality monitoring stations around the state. Stations typically do not monitor the full complement of air quality parameters. There are four air quality monitoring stations on the island of Oahu, with the nearest air quality monitoring station to the project area in downtown Honolulu at 1250 Punchbowl Street, on the roof of the HDOH building. This station was established in 1971 to monitor air quality in Honolulu, which is primarily affected by commercial, industrial, and transportation activities. This station samples carbon monoxide (CO), sulfur dioxide (SO_2), and particulate matter (PM_{10} and $PM_{2.5}$). The readings at this location show that criteria pollutant levels were below State and Federal ambient air quality standards in 2013 (see Table 3-1).

TABLE 3-1
Island of Oahu Air Monitoring Station (Honolulu) Readings (2013)

Pollutant	Annual Mean	Federal Air Quality Standard (Primary)	State Air Quality Standard
$PM_{2.5}$ (24-hour)	5.3 µg/m^3	35 µg/m^3	None
PM_{10} (24-hour)	11.4 µg/m^3	150 µg/m^3	None
SO_2 (1-hour)	0.001 ppm	75 ppb	None
SO_2 (3-hour)	0.001 ppm	0.50 ppm[a.]	0.50 ppm
SO_2 (24-hour)	0.001 ppm	None	0.14 ppm
CO (1-hour)	0.4 ppm	35 ppm	9 ppm

Source: HDOH, 2014b

Notes:

[a.] Federal secondary standard

µg/m^3 = micrograms per cubic meter
ppb = parts per billion
ppm = parts per million

Air quality in the project area is currently affected primarily by emissions from mobile sources (traffic on H-1) and commercial and industrial activities. The primary mobile sources of emission are all types of vehicles, which generate pollutants (primarily nitrogen oxide and CO) when traveling or idling on roadways within and adjacent to the project limits.

3.2.2 Potential Impacts and Mitigation Measures

3.2.2.1 Short-term, Construction-related Emissions

Short-term impacts on air quality may result from project construction. Impacts could be associated with two common types of pollutants: (1) fugitive dust emissions from vehicular movement and soil excavation, and (2) exhaust emissions from onsite construction equipment. Overall, air quality impacts are expected to be negligible because the construction period is of limited duration and impacts would be minimized with the implementation of BMPs for dust control and exhaust emissions.

[1] Exceedances of SO_2 and $PM_{2.5}$ have been reported on Hawaii Island, but these are associated with the volcano, which is considered a natural, uncontrollable event. Therefore, the State is requesting exclusion of these exceedances from attainment/nonattainment determination (HDOH, 2014c).

Fugitive Dust. BMPs for dust control would be implemented to minimize air quality impacts during the project construction phase. Construction activities would incorporate fugitive dust emission control measures in compliance with provisions of HAR Chapter 11-60.1, "Air Pollution Control," Section 11-60.1-33 on Fugitive Dust. The following measures are expected to be used to control airborne emissions:

- Cover stockpiles with appropriate material; dispose of debris properly
- Use water, dust fences, disturbance area limitations, and revegetation to minimize dust emissions, as appropriate
- Keep clean adjacent paved roads
- Cover open-bodied trucks whenever hauling material that can be blown away
- Limit the amount of disturbed areas at any given time and/or stabilize inactive areas that have been exposed
- Revegetate disturbed area as soon as practical after construction
- Stabilize construction entrances to avoid offsite tracking of sediment

Exhaust Emissions. Emissions from engine exhausts of onsite mobile and stationary construction equipment would also affect air quality. Emission impacts would be minimized by requiring the Contractor 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 are expected to be negligible compared to vehicular emissions on nearby roadways.

3.2.2.2 Long-term Impacts on Air Quality

This project would not result in any meaningful changes in traffic volumes, vehicle mix, location of the existing facility, or any other factor that can cause an increase in emissions. As such, this project would generate minimal air quality impacts for the Clean Air Act (CAA) criteria pollutants and would not be linked with any special mobile source air toxics (MSAT) concerns.

3.3 Wetlands, Hydrology, and Water Quality

3.3.1 Wetlands

Biologists with SWCA Environmental Consultants (SWCA) conducted a delineation of Waters of the U.S. on September 11, 2014 (see Appendix A). The biologists used methods for determining the presence of wetlands as prescribed by the 1987 Manual (USACE, 1987) and the 2012 Hawaii and Pacific Island Regional Supplement (USACE, 2012). Based on these documents, jurisdictional wetlands are identified using the following three criteria:

- Hydric soils—soils that are permanently or seasonally saturated by water
- Hydrophytic vegetation—plants adapted to life in water or waterlogged conditions
- Wetland hydrology—areas that are periodically inundated or have soils saturated to the surface at some time during the growing season

No wetlands were identified within the survey area. As shown in Figure 3-2, the survey area covered an area of approximately 0.45 acre that encompassed Halona Street from Kaauwai Place to Palama Street, a segment of H-1 (Lunalilo Freeway), and portions of Kokea Street and Kohou Street. The majority of the site is composed of pavement and concrete. Vegetated areas are mowed grasses and ornamental trees, interspersed with various weeds. The only hydrophytic plants seen occur within the concrete channel, where sediment has accumulated.

3.3.2 Non-wetland Waters

A single perennial non-wetland water (Kapalama Stream) was delineated in the survey area (see Figure 3-2). Standing water was observed in the stream during the survey. This portion of Kapalama Stream was determined

to be tidally influenced, based on the presence of marine/estuarine fish (striped mullet [*Mugil cephalus*] and great barracuda [*Sphyraena barracuda*]) and observed changes in water levels throughout the day.

Approximately 660 linear feet of non-wetland waters were delineated on the eastern side of the channel and 675 linear feet were delineated on the western side. Because the stream is channelized and contains vertical concrete walls, SWCA identified the jurisdictional boundary of the potential non-wetland Waters of the U.S. by mapping the top of the vertical concrete wall. The boundaries of the stream under the freeway were estimated by connecting the known boundaries of the stream at the existing bridge with the boundaries of the stream just north of Olomea Street.

Downstream of the survey area, Kapalama Stream flows southwest between Kokea and Kohou Street and eventually empties into Honolulu Harbor, roughly 0.8 mile from the survey area.

3.3.3 Clean Water Act, Section 303(d)

HAR Chapters 11-54 and 11-55 outline a number of requirements related to water quality in the State of Hawaii. These include, but are not limited to, an antidegradation policy; designated uses of waters, which must be maintained; water quality criteria, which must be met during construction and operation; and permitting requirements.

The classification of water use of Kapalama Stream near the project site is mapped as Inland Class 2 on the Water Quality Standards Map of the Island of Oahu (HDOH, 2014a). Use categories classify waters for the purpose of applying the water quality standards, as well as the selection or definition of quality parameters and uses to be protected. Class 2 waters are to be protected for uses compatible with the protection and propagation of fish, shellfish, and wildlife, and with recreation in and on these waters. In addition, Class 2 waters are to be protected for agricultural and industrial water supply, shipping, and navigation use (HDOH, 2014d).

The Federal Clean Water Act (CWA) 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 (USEPA) biennial lists of waterbodies that are impaired (that is, not expected to meet State water quality standards) or threatened. The states identify all waters where required pollution controls are not sufficient to attain or maintain applicable water quality standards. The current list, which is included in the 2014 *State of Hawaii Water Quality Monitoring and Assessment Report* (HDOH, 2014c), lists Kapalama Stream as impaired as a result of nitrogen, phosphorus, turbidity, and trash.

For all impaired waters, HDOH is required to develop 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 there is a large demand for TMDL calculations, the HDOH 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. Kapalama Stream has been assigned a low priority.

3.3.4 Potential Impacts and Mitigation Measures

The project would involve demolition, excavation, grading, and construction in the stream. Construction of the proposed project would result in approximately 0.16 acre of permanent impacts to Waters of the U.S. and approximately 0.22 acre of temporary impacts to Waters of the U.S.

Stormwater runoff is expected to remain the same, if not less, due to the new bridge having less impervious surface than the existing one due to it being narrower and removal of the old structure which has soil on top of it.

Waterborne erosion would be mitigated by implementing BMPs in place during construction. BMPs to protect water quality include the following:

- Manage onsite drainage to minimize sedimentation or other pollution discharge to streams, including placing BMPs fronting drainage outlets
- Stabilize all disturbed areas with erosion control measures
- Revegetate disturbed areas as soon as possible after construction
- Stabilize construction entrances to avoid offsite tracking of sediment
- Ensure all project-related materials and equipment placed in the water are free of pollutants
- Fuel land-based vehicles and equipment at least 50 feet away from the water, preferably over an impervious surface

Accidental spills or releases of hazardous materials during construction could degrade the quality of stormwater runoff and reach Kapalama Stream. Temporary stormwater control measures would be implemented to protect water quality in the stream. The potential for accidental spills or releases is low and, if they did occur, would be attended to and cleaned up immediately.

All, or portions, of the bridge construction area would be dewatered before in-stream work begins using a cofferdam or other method, as appropriate for the location. The dewatering structure would be constructed where needed for dewatering below the High Tide Line (HTL) and would be sized as needed to dewater the bridge construction area, but still allow for existing flow capacity. The size and location of the dewatering structure would account for tidal fluctuations anticipated during the construction window. The dewatering structure would be removed immediately after it is no longer needed. The dewatering structure would be removed in a manner that avoids re-release of sediments into the stream. The area to be temporarily disturbed below the HTL would be determined before applying for CWA Section 404 and other required permits.

Federal (CWA Section 404) and State (Stream Channel Alteration) permits would be obtained for discharges or fill in regulated waters. Because Kapalama Canal is tidally influenced, authorization under Section 10 of the Rivers and Harbors Act of 1899 would also be obtained, as needed. Collecting and disposing groundwater would be conducted in accordance with applicable permit requirements.

A CWA Section 401 Quality Certification (State water quality certification) would also be acquired. An erosion control plan would be implemented during construction to reduce the potential for impacts to water quality. An NPDES permit would also be obtained if disturbance exceeds 1 acre, and FHWA is responsible for ensuring that permit measures are met during construction. The owner accepts responsibility for the permit after construction, until the Notice of Termination is filed and accepted. Permit and water quality certification conditions would be implemented during construction to avoid or minimize effects to the water quality of Kapalama Stream. BMPs and other methods (as described above and in Sections 3.6.2 and 3.8.8) would reduce the potential for sediment and/or pollutants to reach downstream waters. Although small plumes of sediment may be released during construction, primarily as a result of construction and/or removal of the dewatering/isolation structures, any turbidity released as a result of construction activities would be minimal and would dissipate quickly.

With the implementation of BMPs and adherence to permit requirements, impacts to non-wetland waters and water quality would be minimal.

3.4 Natural Hazards

3.4.1 Flooding

The Halona Street Bridge is not located within a Federal Emergency Management Agency (FEMA)-regulated floodplain according to FEMA Flood Insurance Rate Map (FIRM) Community Panel Numbers 15003C0354G

and 15003C0353G, dated January 19, 2011 (FEMA, 2011). The project area is located within Zone X, areas determined to be outside the 0.2 percent annual chance floodplain. Therefore, the design of the replacement bridge is not required to comply with the National Flood Insurance Program's regulations and requirements. Hydrologic design for the replacement bridge is based on a 1-in-50-year storm event based on the classification of Halona Street as a Principal Arterial and on applicable FHWA Hydraulic Engineering Circulars.

The results of the hydraulic analyses conducted for the project indicate that the proposed replacement bridge would not experience pressure flow conditions during the 1-in-50-year design flood and that the flow for the 1-in-50- and 1-in-100-year storms would be confined within Kapalama Canal walls. The proposed project would pass the 50-year storm with limited freeboard. Because this does not meet HDOT Manual criteria of 2 feet of freeboard, a design exception would be required (see Section 2.3, Proposed Project).

HDOT currently does not evaluate the future threat of sea level rise (SLR) when constructing within the coastal zone. The School of Ocean and Earth Science and Technology (SOEST) at the University of Hawaii is studying the potential threat of sea level rise on the islands. SOEST has projected a schedule of global mean SLR based on published best- and worst-case scenarios that SOESTs suggests could be adopted in Hawaii in lieu of a local analysis (Table 3-2).

TABLE 3-2
Schedule of Sea-level Rise 2011 to 2100

Sea Level Rise	Worst case	Best Case
1 foot	2040	2050
2 feet	2050	2070
3 feet	2070	2090

SOURCE:
http://www.soest.hawaii.edu/coasts/sealevel/index.html
(accessed May 23, 2016)

The proposed Halona Bridge would be designed for a life span of 75 years and the elevation of the proposed bridge deck is approximately 11.5 feet. It is anticipated that SLR would not affect the use of the bridge during its lifetime under the best-case scenario (best-case SLR of 3 feet by 2090), nor under the worst-case scenario if 1 foot per 10 years is assumed out to 2090 (giving a worst-case SLR of 5 feet by 2090). However, adjacent roadways with elevations less than 11.5 feet could be affected by SLR before Halona Bridge. It is anticipated that SLR will be addressed in the design if a future bridge is required to cross Halona Channel at the existing bridge location.

Because of the project's inland location, no hydraulic parameters generated from coastal events (such as storm surges, storm waves, tsunamis, or hurricanes) were used to analyze the capacity or stability design of the replacement bridge. The State of Hawaii Emergency Management Agency (Civil Defense) establishes tsunami inundation zones and maps for all coastal areas in Hawaii. The project is not located within a tsunami evacuation zone; the boundaries of the nearest evacuation zone end approximately 0.5 mile southwest of the project area at Dillingham Boulevard (Pacific Disaster Center, 2010).

3.4.2 Seismic Activity

The AASHTO LRFD Bridge Design Specifications (2014) provide minimum design criteria to address potential damages from seismic disturbances. The recommended seismic response parameters for use in design represent ground motion corresponding to an exceedance probability of approximately 7 percent in 75 years for an earthquake with an approximate 1,000-year return period. The AASHTO LRFD Bridge Design Specification scale is from Seismic Zone 1 through 4, where 1 is the lowest level for potential seismic induced ground movement. Oahu is designated Seismic Zone 2A, indicating a place that has a low potential for ground motion created by seismic activity.

3.4.3 Potential Impacts and Mitigation Measures

Because the project is not located within a regulatory floodplain, impacts to floodplains would not occur. The proposed project would be designed to conform to AASHTO LRFD Bridge Design Specifications, including specifications and recommendations for seismic design. Therefore, no significant impacts relative to seismic activity are anticipated with implementation of the proposed project.

3.5 Noise

A quantitative noise analysis was not performed because the project does not meet Federal or State criteria for when a noise analysis is needed; specifically, the proposed project would not increase highway capacity and does not meet the classification of a Type I or Type II project as defined in 23 *Code of Federal Regulations* (CFR) 772.5.

3.5.1 Existing Conditions

Land surrounding the project limits is zoned for apartments and urban residential development. Land uses are primarily urban, industrial, and residential. Existing noise sources in the area include vehicular noise associated with transportation on H-1, Halona Street, and Olomea Street. The closest noise receptors are residences located along Halona Street, Kohou Street, and Kokea Street.

Noise is regulated by FHWA (23 CFR 772, *Procedures for Abatement of Highway Traffic Noise and Construction Noise*) and HDOT (N*oise Analysis and Abatement Policy*, developed in 1997 to implement the requirements of 23 CFR 772 as well as the noise-related requirements of National Environmental Policy Act [NEPA]). The HDOH also regulates noise exposure in the following statutes and rules: HRS Section 342F, Noise Pollution; HAR Chapter 11-46, Community Noise Control; and HAR Chapter 12-60.50 part C, State specific standards for Occupational Noise Exposure.

Per HAR Chapter 11-46-4, the maximum daytime permissible sound levels within areas zoned for apartments and urban residential development (zones A-1 and R-5) are 60 A-weighted decibels (dBA). Construction activities may not exceed the maximum permissible sound levels for more than 10 percent of the time within any 20-minute period, except by permit or variance issued. Per HAR Section 12-60.50, the permissible occupational noise exposure is set at 90 dBA for a continuous 8-hour exposure. Permissible noise exposures for shorter periods are higher, with a maximum exposure of 115 dBA permissible for a duration of 15 minutes or less.

3.5.2 Potential Impacts and Mitigation Measures

3.5.2.1 Construction-related Noise

Construction noise impacts are unavoidable, but would be temporary. Noise levels produced during construction would be a function of the methods employed during each stage of construction. 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.

In cases where construction noise is exceeded, or is expected to exceed the State's "maximum permissible" property line noise levels, a Community Noise Permit would be obtained from HDOH under HAR Chapter 11-46, Community Noise Control. In order for HDOH to issue a noise permit, the application would describe construction activities for the project. Before issuing the permit, HDOH may require noise mitigation measures to be incorporated into the construction plans. HDOH may also require the Contractor to conduct noise monitoring.

Specific permit restrictions required for construction projects include the following:

- No permit shall allow construction activities creating excessive noise before 7 am and after 6 pm of the same day.

- No permit shall allow construction activities that emit noise in excess of 95 dBA except between 9 am and 5:30 pm of the same day.
- No permit shall allow construction activities that exceed the allowable noise levels on Sundays and on certain holidays. Pile driving and other activities exceeding 95 dBA would be prohibited on Saturdays.

The HDOH noise permit does not limit the noise level generated at the construction site, but rather the times at which high-volume construction can take place.

In addition to the noise permit, a noise variance may be requested from HDOH for specific occasions when work hours need to be extended into the evenings and/or on weekends to implement the overall construction schedule.

Additional BMPs to minimize construction related noise would include, but are not limited to, the following:

- The project engineer would coordinate with local residents and businesses to let them know the construction schedule, and when high noise producing construction activities can be expected.
- Enforcement of HDOH occupational noise exposure regulations would be the responsibility of the construction Contractor. If workers experience noise exceeding HDOH standards, administrative or engineering controls would be implemented. Use of personal protective equipment such as earplugs or muffs may also be required.
- To reduce nearby residential noise exposure, construction activities would be conducted during normal working hours to the extent possible. For any work that would occur after normal working hours (that is, on weekends), or if permissible noise levels are exceeded, appropriate permitting and monitoring as well as development and implementation of administrative and engineering controls would be employed.
- The Contractor is responsible for minimizing noise by properly maintaining noise mufflers and other noise-attenuating equipment, and maintaining noise levels within regulatory limits.

3.5.2.2 Long-term Noise Impacts

The proposed project would not increase the capacity of the roadway or induce an increase in traffic, and would therefore have no long-term effect on noise levels.

3.6 Hazardous Materials

3.6.1 Existing Conditions

A regulatory database computerized environmental report (CER) was acquired in the form of an EDR Radius Map Report with GeoCheck®. The CER is an evaluation of select Federal and State standard source environmental databases to identify sites within a search radius of up to 1 mile. CH2M HILL reviewed the sites listed in each environmental database to determine whether the identified sites are suspected to represent a material negative environmental impact to the subject property. A total of 153 sites were identified within the 1-mile search radius. The review focused on sites with documented releases that either had contamination left in place or had not been determined to be protective of human health and the environment with regulatory concurrence of no further action required. Three areas (two single sites and one cluster of sites) were identified within one-eighth mile of the proposed project site. The two single sites appear to be up gradient or cross gradient of the project area. One of the up- or cross gradient sites is the Queen Liliuokalani Hospital which is a conditionally exempt small quantity generator of hazardous waste. The second up- or cross gradient site was identified as a historical auto station. No release of hazardous substances or regulatory violations has been reported at either site. The third area is a cluster of four sites, two of which are greater than one-eighth mile from the project area. No release of hazardous substances or regulatory violations has been reported for two of the four clustered sites. The remaining two clustered sites are identified in several databases including leaking underground storage tank and institutional and engineering controls databases (sites having restrictions related to contamination that

provide protections to health and the environment). One is listed with a regulatory concurrence of No Further Action (NFA) indicating the environmental activities to date are protective of human health and the environment and contamination is likely not migrating off the properties. The last site is also listed NFA but with institutional and engineering controls, and is greater than one-eight mile from the project area. Both NFA sites are down-gradient of the project area and are not likely to present a material negative environmental impact for the proposed action. The CER is included in its entirety within Appendix B.

Additionally, the CER identified eight orphan sites (sites without adequate location information to identify on a map). No further action letters have been issued for six of the sites; two of which have institutional or engineering controls. The other two sites have ongoing assessments or actions. Based on the status or location of these sites they are not likely to present a material negative environmental impact for the proposed action (HDOH, 2014e). There is potential for the bridge to contain asbestos-containing material (ACM) and lead-based paint (LBP). Potential ACM on bridge structures includes abutment forms, waterproof membranes between the deck and the paving, geo-textiles, asbestos cement pipes and conduits, textured surfaces, and asbestos concrete. Lead-based paint may be present in paint chips or waste generated during removal of paint from bulk material, including striping paint grindings from asphalt pavement.

3.6.2 Potential Impacts and Mitigation Measures

Project construction would require the removal, demolition, and rehabilitation of the existing bridge structures. Construction-related activities would also require use of hazardous materials, including lubricants of various weights and viscosities, hydraulic fluid for transit and construction equipment, cleaning products, and materials used for corrosion protection such as paint or other coatings on exposed steel. Based on the results of the CER, no hazardous materials are anticipated to be encountered within the proposed project site. In addition, the proposed project would not impact the identified sites of potential concern. However, based on the number of sites identified in the CER, the following measures would be implemented to address potential encounter of hazardous materials during construction:

- A construction management plan that prescribes activities for workers to follow in the event that soil or groundwater contamination is encountered based on visual observation or smell will be prepared and implemented.

Sites identified as having engineering or institutional controls were identified in the CER within one-eighth mile of the project area. The following measure will be implemented to avoid impacts related to these controls:

- If determined applicable, construction would comply with restrictions and requirements related to engineering and institutional controls on nearby sites.

A hazardous materials spill plan would be developed that describes spill prevention measures regarding the location of refueling and storage facilities and the handling of hazardous materials. The hazardous materials spill plan would describe actions to be taken in case of a spill. The contents and requirements of the hazardous materials spill plan include the following:

- The project manager and heavy equipment operators would perform daily pre-work equipment inspections for cleanliness and leaks. All heavy equipment operations would be postponed or halted should a leak be detected, and they would not proceed until the leak is repaired and the equipment is cleaned.
- Absorbent material manufactured for containment and cleanup of small hazardous materials spills would be kept at the project site.
- In the event of a large hazardous materials spill or if unanticipated hazardous materials were to be encountered within the project site, HDOH Hazard Evaluation and Emergency Response Office and HDOT Hazard Evaluation and Environmental Response Office would be contacted immediately.

Hazardous waste generated as a result of removal, demolition, and rehabilitation activities would be managed to the highest and best end use, and in a manner to ensure the protection of human health (workers, visitors to the site, and the general public) and the environment in accordance with applicable laws, rules, and regulations.

A hazardous waste determination for all anticipated waste would be prepared to determine whether the waste is classified as hazardous waste, universal waste, excluded waste, waste water, or solid waste. Prior to commencement of removal, demolition and rehabilitation activities related to ACM or LBP, all applicable permits will be obtained from and notifications be provided to the Federal, State and local permitting and regulatory agencies with jurisdiction over this work. These permits and notifications will be documented in the project files.

A survey would be performed to determine whether ACM, LBP, or both are present. If asbestos is present or suspected, an Asbestos Abatement Plan would be prepared to establish the appropriate protocols for abatement. If LBP is identified, work practices (in accordance with applicable State and Federal regulations) would be implemented before LBP removal to contain debris, control airborne dust, and properly dispose of materials with LBP.

3.7 Flora[2]

The following subsections on flora and fauna summarize the findings of a biological resource assessment (SWCA, 2015) and a biological assessment conducted by SWCA (see Appendix C). Biologists with SWCA conducted a field reconnaissance survey of the project area on September 11, 2014. Representative portions of the area were driven or walked, to describe vegetation types and wetlands or streams, as well as known or suspected threatened, endangered, or candidate plant species. No State- or Federally-listed threatened, endangered, or candidate plant species were recorded in the survey area. Two Native Hawaiian plants, *aeae* (*Bacopa monnieri*) and *Cyperus polystachyos*, were observed during the survey. These species are indigenous, or found in Hawaii and elsewhere.

3.7.1 Existing Conditions

Vegetation in the action area is composed of mowed grasses interspersed with weedy non-native grasses and herbaceous plants, as well as scattered ornamental trees and shrubs. Mowed lawns adjacent to houses and the Kapalama Canal (or Kapalama Stream) consist mainly of swollen fingergrass (*Chloris barbata*), Bermuda grass (*Cynodon dactylon*), wire grass (*Eleusine indica*), and Panama paspalum (*Paspalum fimbriatum*). Non-native herbaceous weeds common in the grassy areas include creeping indigo (*Indigofera spicata*), morning glory (*Ipomoea obscura*), pitted beardgrass (*Bothriochloa pertusa*), Guinea grass (*Urochloa maxima*), buffel grass (*Cenchrus ciliaris*), khaki weed (*Alternanthera pungens*), and spiny amaranth (*Amaranthus spinosus*).

A few large monkeypod trees (*Samanea saman*) and rainbow shower trees (*Cassia x nealiae*) are planted along Kohou Street and Halona Street (see Appendix C). Other ornamental plantings in the survey area include *kou haole* (*Cordia sebestena*), manila palm (*Veitchia merrillii*), lantana (*Lantana camara*), wedelia (*Sphagneticola trilobata*), and mock orange (*Murraya paniculata*). Sesban tree (*Sesbania grandiflora*) and sweet potato (*Ipomoea batatas*) are planted in a garden in the northern portion of Kokea Street in the survey area. Similar ornamental plants are expected to occur in the larger action area.

Within the canal, hydrophytic plants are present near the northern portion of the action area. These include umbrella sedge (*Cyperus involucratus*), California grass (*Urochloa mutica*), *Cyperus polystachyos*, *Ludwigia octovalvis*, and *aeae*.

[2] The plant names used in this assessment follow Wagner et al. (2012), Wagner and Herbst (2013), and Wagner et al. (1999).

3.7.2 Potential Impacts and Mitigation Measures

The vegetation types and species identified during the survey are not unique. The two native species observed are indigenous (found in Hawaii and elsewhere) and are common throughout the Hawaiian Islands. No threatened or endangered plants were found. In addition, no designated plant critical habitat occurs nearby. Small areas of landscaping or ruderal vegetation may be temporarily disturbed during construction, along with a few mature trees within the right of way. These areas will be restored following construction to their prior topography and condition. Vegetation disturbed during construction would be replaced as part of the project, to the extent practicable. Using native species will be considered for revegetation where warranted and suitable for the site conditions. The final disposition of street trees will be determined during final design, and coordination with HDOT's landscape architect will be conducted to mitigate the removal of any street tree required by construction. The spread of noxious weeds would be managed through the implementation of BMPs as part of the project. Section 3.8.6 presents requirements for vegetation management to protect wildlife habitat, such as seasonal restrictions for vegetation removal. Therefore, the proposed project is not expected to have a significant adverse impact on botanical resources.

3.8 Fauna

SWCA biologists also investigated the fauna within the project area, including the presence of known or suspected threatened, endangered, or candidate wildlife species during the September 11, 2014, field survey (see Appendix C).

3.8.1 Avifauna

The bird species observed in and near the project area are species typically found in Hawaii's urban areas, gardens, and waterways. In all, 17 bird species were documented: black-crowned night-heron (*Nycticorax nycticorax*), cattle egret (*Bubulcus ibis*), common myna (*Acridotheres tristis*), garganey (*Anas querquedula*), Hawaiian duck–mallard hybrids (*Anas* sp.), house sparrow (*Passer domesticus*), Japanese white-eye (*Zosterops japonicas*), Java sparrow (*Padda oryzivora*), Pacific golden-plover (*Pluvialis fulva*), red-crested cardinal (*Paroariaa 3-12exicana*), red-vented bulbul (*Pycnonotus cafer*), red junglefowl (*Gallus gallus*), rock pigeon (*Columbia livia*), spotted dove (*Streptopelia chinensis*), wandering tattler (*Tringa incana*),white tern (*Gygis alba*), and zebra dove (*Geopelia striata*).

Two species, the black-crowned night-heron and the white tern, are indigenous to Hawaii and protected by the Migratory Bird Treaty Act (MBTA). Of the 12 non-native species, only the cattle egret and the Hawaiian duck-mallard hybrids are protected by MBTA. The garganey, pacific golden-plover, and wandering tattler are all MBTA-protected migrant birds.

3.8.2 Mammalian Species

3.8.2.1 Hawaiian Hoary Bat

The Hawaiian hoary bat or opeapea (*Casiurus cinereus semotus*), which is Federally and State listed as endangered, is the only native terrestrial mammal species that is still existent within the Hawaiian Islands. A survey specifically for Hawaiian hoary bats was not conducted, but suitable habitat for roosting and foraging was noted during the biological survey. The bats forage in open, wooded, and linear habitats with a wide range of vegetation types. These animals are insectivores and are regularly observed foraging over streams, reservoirs, and wetlands, and up to 300 feet offshore. The stream corridor in the project area is considered suitable bat foraging habitat.

Hawaiian hoary bats typically roost in dense canopy foliage or in the subcanopy when canopy is sparse, with open access for launching into flight. Hawaiian hoary bats could use tree species within the vicinity of the project for foraging and roosting.

3.8.2.2 Other Terrestrial Mammals

Dogs (*Canis familiaris*) and cats (*Felis catus*) were not observed during the biological survey, but are likely to enter the project area. Other mammals that can be expected onsite include mongoose (*Herpestes auropunctatus*), mice (*Mus musculus*) and rats (*Rattus spp.*).

3.8.3 Terrestrial Invertebrates

Three species of terrestrial invertebrates were noted during the biological survey. Rambur's forktail (*Ischnura ramburii*) and Chinese dragonfly (*Crocothemis servilia*) are both non-natives. One native terrestrial invertebrate, Sonoran carpenter bee (*Xylocopa sonorina*), was also observed.

3.8.4 Fish

Four fish species were observed in the northern portion of the survey area. Indigenous species observed include striped mullet (*Mugil cephalus*) and great barracuda (*Sphyraena barracuda*) and non-native species included poeciliids (*Gambusia affinis or Poecilia 3-13exicana*) and tilapia (*Oreochromis* sp. Or *Sarotherodon* sp.).

3.8.5 Marine Species

Three marine species — the endangered Hawaiian monk seal, threatened green sea turtle, and endangered Hawksbill sea turtle — are unlikely to occur in the action area because suitable habitat does not exist; thus, these species are not discussed further.

3.8.6 Potential Impacts and Mitigation Measures

3.8.6.1 State and Federally listed Species

Hawaiian Hoary Bats

This species may roost and forage in monkeypods, rainbow shower trees, *kou haole*, and Manila palms in the project area, or they may forage throughout the area. Direct impacts to bats would occur only if a juvenile bat too small to fly but too large to be carried by a parent were present in a tree that is trimmed or cut down. The possibility of adversely affecting Hawaiian hoary bats as a result of the proposed project is likely small; however, the following measures would be taken to avoid impacts:

- Any fences erected as part of the project will have barbless top-strand wire to prevent entanglements of the Hawaiian hoary bat or ʻōpeʻapeʻa (*Lasiurus cinereus semotus*) on barbed wire. No fences with barbed wire were observed in the survey area; however, if fences are present, the top strand of barbed wire will be removed or replaced with barbless wire.
- In general, no trees taller than 15 feet (4.6 m) would be trimmed or removed between June 1 and September 15 as a result of this project, when juvenile bats that are not yet capable of flying may be roosting in the trees. However, if a limited number of trees would need to be cleared during that time period, a qualified biologist would use appropriate protocols to surveys for bats before trimming or cutting.

Monk Seal and Sea Turtles

- Although not expected to occur within the action area, construction activities would not begin if a monk seal (*Neomonachus schauinslandi*) or listed sea turtle is in the construction area or within 150 feet (46 m) of the construction area. Construction will only begin after the animal voluntarily leaves the area.
- Workers will not attempt to feed, touch, ride, or otherwise intentionally interact with any monk seals or sea turtles.

3.8.6.2 Migratory Bird Treaty Act

SWCA observed three migratory, two indigenous, and two introduced bird species Federally protected under the MBTA during the biological survey: the black-crown night-heron, cattle egret, garganey, Hawaiian duck-mallard hybrids, Pacific golden-plover, wandering tattler, and white tern. The white tern is also listed

as a State of Hawaii threatened species. Construction may temporarily displace some of these bird species, but long-term impacts are not expected. These birds (likely limited to a few individuals) are expected to find suitable foraging habitat in nearby areas. The temporary displacement of these individuals at the project site is not expected to affect their survival or the overall species' populations. The possibility of adversely affecting migratory birds, including the white tern as a result of the proposed project is likely small; however, the following measures would be taken to avoid impacts:

- Tree removal and trimming would be conducted in the fall and early winter, when the breeding rate for the white tern is the lowest.
- Prior to any tree removal, trees would be inspected for white tern eggs or chicks.

3.8.6.3 Aquatic Resources

While the type and extent of impacts would depend on the final project design, the following mitigation measures would be implemented to reduce potential impacts to aquatic resources in the area (also see Section 3.3.4:

- Erosion and sediment control measures would be in place before initiating earth-moving activities. Functionality would be maintained throughout the construction period.
- A contingency plan to control toxic materials would be developed.
- All project-related materials and equipment placed in the water would be free of pollutants.
- Fueling of land-based vehicles and equipment would take place at least 50 feet from the water, preferably over an impervious surface.
- Appropriate materials to contain and clean potential spills would be stored at the worksite and be readily available.
- Turbidity and siltation from project-related work would be minimized and contained through the appropriate use of erosion control practices, effective silt containment devices, and the curtailment of work during adverse weather/flow conditions.
- Any soil exposed near water would be protected from erosion and stabilized as soon as practicable.
- Stream channel should be maintained to provide a continuous connection to the ocean during stream flows resulting from heavy rains, to accommodate aquatic species.
- No project-related materials would be stockpiled in the water.
- No contaminants, including trash or debris would be placed in adjacent habitats.

3.9 Archaeological Resources

3.9.1 Existing Conditions

The project sits within the central area of the Kapalama *ahupuaa* (traditional land division) along the drainage of Kapalama and Niuhelewai streams. Historically, agriculture and habitation were intensive in this area. The project area was historically used for rice cultivation, but habitation within the project area does not seem to have been prevalent.

Traditional Hawaiian land use in adjacent lands consisted of habitation, irrigated taro fields, *kula* (dryland plots used for cultivation and/or pasture), and aquaculture via fishponds. Some uncertainty pertains to a burial ground dating to 1855 on the plains of Kaiwiula, which may have been near the current project area.

By the twentieth century, the coastal and central sections of Kapalama had become suburbs of Honolulu. Much development in Kapalama primarily occurred before archaeological investigation became standard during construction activities, in the late 1970s. As a result, few archaeological studies have been conducted

in this area. The only previous projects known within the current project area are projects dealing with H-1. No previously recorded archaeological sites are located within or directly adjacent to the current project area. Historic infrastructure relating to the Halona Street Bridge and the Kapalama Canal are present within the project area.

Archaeological field work was conducted by Cultural Surveys Hawaii archaeologists in September 2014. Two cultural resources were identified during field investigations which are discussed in Section 3.10, Historic Architecture resources. No archaeological resources were identified. The Final Archaeological Inventory Survey Report and letter from SHPD accepting the AIS (dated July 27, 2016) may be found in Appendix D.

3.9.2 Potential Impacts and Mitigation Measures

As no archaeological resources were identified within the project area, no impacts to archaeological resources are anticipated as a result of project implementation. As further discussed in Section 3.10, with respect to historic architectural resources, the proposed project would have "no adverse effect" in accordance with Federal regulations (36 CFR 800.5) and "effect, with agreed upon mitigation" in accordance with HAR §13-13-275-7.

No further archaeological fieldwork is proposed for this project. Archaeological monitoring will be conducted for all initial ground disturbance and excavation activities during construction. If cultural resources or human remains were inadvertently discovered during construction, the contractor would comply with State law and administrative rules for handling them.

3.10 Historic Architectural Resources

3.10.1 Existing Conditions

The following two historic architectural resources were identified within the project area (see Figure 3-3):

- State Inventory of Historic Properties (SIHP) #50-80-14-7807: Halona Street Bridge
- SIHP #50-80-14-7808: Kapalama Canal and associated lava rock walls

The Halona Street Bridge (SIHP #50-80-14-7807) was built in its present five-span form in 1938 by the City and County of Honolulu. This 1938 construction added two approximately 25-foot spans on each side of the existing center three spans (each of approximately 16 feet). At the time, the bridge carried Vineyard Street across the canal and was called the Vineyard Street Bridge. The original construction date for the older, three-span bridge is not known, but it is likely to be circa 1930. The existing three-span bridge was lengthened with two additional spans to cross the new canal between its newly built lava rock retaining walls. In 1963, construction of the adjacent H-1 removed about half of the bridge; only the upstream parapet, sidewalk, and two traffic lanes of the 1938 bridge remain.

Construction of the Kapalama Canal and associated lava rock walls (SIHP #50-80-14-7808) was completed in February 1939 as a Works Progress Administration (WPA) project. Planning for the canal dates to the early 1920s, when the potential commercial value of the low-lying land of the Kapalama area was recognized and dredging spoils were used to raise the low-lying land. Along with this filling project, the City and County of Honolulu formed a drainage plan to prevent heavy rains from inundating the new land. This design combined the two streams of the area, Niuhelewai and Kapalama, into the Kapalama Canal, which was routed along the approximate contour of Niuhelewai Stream.

Significance Statement

The Halona Street Bridge is not included in the November 2013 Hawaii State Historic Bridge Inventory and Evaluation by MKE Associates, LLC, and Fung Associates, Inc. It is also not included in the 1983 Historic Bridge Inventory, Island of Oahu, by Bethany Thompson.

The Halona Street Bridge was evaluated by Mason Architects in 2015; a copy of the Historic Inventory Form is contained in Appendix D. Although the Halona Street Bridge is significant under Criterion A for its

association with the transportation history of the area, it lacks integrity of its 1938 form. This is because of the circa 1963 removal of the southwestern parapet, reduction of roadway width, and construction of the adjacent H-1. As such, the evaluation of eligibility by Mason Architects is that the Halona Street Bridge is not eligible for listing on the National Register of Historic Places. FHWA is in agreement with the recommendations of Mason Architects and has determined that the Halona Street Bridge (SIHP #50-80-14-7807) lacks integrity and is therefore not eligible for listing on the NRHP.

The Kapalama Canal and its lava rock walls were evaluated by Mason Architects in 2015 as potentially eligible for the National Register of Historic Places under Criterion A for their association with WPA projects in Hawaii and under Criterion C as an example of vernacular building materials. FHWA is in agreement with the recommendations of Mason Architects and has therefore determined that SIHP #50-80-14-7808, the Kapalama Canal and associated lava rock walls is eligible for the NRHP under Criteria A and C.

3.10.2 Potential Impacts and Mitigation Measures

The proposed project would have "no adverse effect" on the Kapalama Canal (SIHP #50-80-14-7808) in accordance with Federal regulations (36 CFR 800.5) and "effect, with agreed upon mitigation commitments" in accordance with HAR §13-13-275-7. The canal's lava rock lining walls would be retained and protected in place adjacent to the bridge. The removal of the existing bridge superstructure that is in contact with the lava rock lining walls may cause minor and incidental damage to the Kapalama Canal wall on the upstream east and upstream west portions of the bridge abutments. The area in contact with lava rock lining walls is approximately 13 square feet at each location to total 26 square feet. Every effort will be made to not impact the lava rock lining walls. Photos of the lava rock walls will be taken before the start of construction. In the event of cracked mortar or loosened lava rock stones they will be salvaged and replaced and the mortar restored to match the existing condition. Additional mitigation will include photo documentation and profile recordation of the canal.

3.11 Cultural Resources

3.11.1 Existing Conditions

Consistent with the requirements of HRS Chapter 343, Cultural Surveys Hawaii conducted a cultural impact assessment (CIA) to evaluate the potential effect of the proposed project on cultural beliefs, practices, and resources. The assessment included archival research of relevant background history, *kaao* (legends), traditional *moolelo* (stories), *wahi pana* (storied places), *olelo noeau* (proverbs), *oli* (chants), *mele* (songs), traditional subsistence and gathering methods, and ritual and ceremonial practices. Ethnographic interviews were also conducted with persons knowledgeable about cultural resources, practices, and beliefs relevant to the study area. Specifically, Cultural Surveys Hawaii conducted three interviews for the project: Jan Becket, Melvin Ishihara and DeSoto Brown. The findings of the CIA are summarized below; a copy of the CIA report is provided in Appendix E.

Based on background research, the primary area of traditional Hawaiian settlement and intensive agriculture within Kapalama seems to have been in the upper valleys, as well as near streams and springs. The project sits within the central area of Kapalama along the drainage of Kapalama and Niuhelewai streams. Historically, agriculture and habitation were intensive in this area. Historically, the area encompassed by the survey area was used for rice cultivation, but immediate habitation within the survey area does not seem to have been prevalent.

Traditional Hawaiian land use indicated in the adjacent land commission awards (LCAs) documentation consisted of habitation, irrigated taro fields (loi), kula (dryland plots used for cultivation and/or pasture), and aquaculture via fishponds. The majority of kuleana (title) land claims located near the study area were located near the freshwater sources of Kalihi and Niuhelewai streams as they were the most arable sources of land. This is the area described as an uncultivated plain in John Papa Ii's (1959) account of the area in 1810, until you reached "the taro patches of Kalihi." Major strife is indicated ca. 1782 in the defeat of the Oahu ruling chief Kahahana when the dead backed up the lagoonal backwaters (muliwai) of Niuhelewai Stream—but this may

have been well seaward of the study area. Another uncertainty pertains to the indicated ca. 1855 burial ground on the plains of Kaiwiula which may have been near the current study area.

By the twentieth century, the coastal and central sections of Kapalama had become suburbs of Honolulu. Much development in Kapalama primarily occurred before the late 1970s when archaeological investigation became standard during construction activities. As a result, few archaeological studies have been conducted in this area. The only previous projects located within the current study area consist of projects dealing with H-1. No previously recorded archaeological sites are located within or directly adjacent to the current study area. Historic infrastructure relating to the Halona Street Bridge and the Kapalama Canal are anticipated within the study area.

3.11.2 Potential Impacts and Mitigation Measures

Based on the preliminary results of the CIA, cultural resources and practices are not expected to be affected by the proposed project. Cultural practices near the proposed project (should any occur) would be temporarily restricted during the construction period for safety reasons. All permitted activities would resume once the improvements have been completed. If cultural resources or human remains were inadvertently discovered during construction, the contractor would comply with State law and administrative rules for handling them.

3.12 Population and Demographic Factors

3.12.1 Existing Conditions

As shown in Figure 3-4, the proposed project is located in the Kalihi area within Census Tract 56, Block Groups 1, 2, 3, and 4. The area comprises residential neighborhoods with associated services and development (schools and medical clinics) as well as highway- and travel-related commercial establishments (for example, car dealerships, car repair shops, and restaurants). Approximately 1.7 percent of the regional population (southwestern Honolulu) resides within Census Tract 56. As presented in Table 3-3, between 2000 and 2010, the census block groups surrounding the project area have experienced a moderate growth of 7.6 percent. The neighborhood between H-1 and King Street, west of the project area, experienced the most growth (26.9 percent) between 2000 and 2010. This area contains a large complex of multi-family residences, as well as small single-family residences.

TABLE 3-3
Resident Population, Selected Census Block Groups: 2000 and 2010

Block Group	Area	2000 Population	2010 Population	Net Change	Percent Change
Census Tract 56, Block Group 1	Kalihi	1,880	2,385	505	26.9%
Census Tract 56, Block Group 2	Kalihi	2,128	941	-1187[2]	-55.8%[2]
Census Tract 56, Block Group 3	Kalihi	2,265	2,354	89	3.9%
Census Tract 56, Block Group 4	Kalihi	NA[2]	1,069	1,069[2]	100%[2]
Census Tract 56, Total	Kalihi	6,273	6,749	476	7.6%
Region	Honolulu CDP[1]	371,657	374,359	2,702	0.7%
County	Honolulu	876,156	953,207	77,051	8.8%

Notes:

Source: U.S. Census. 2000. Summary File 1; U.S. Census Bureau. 2010. Summary File 1.

[1] Census-designated place: The U.S. Census Bureau divides Honolulu County into several CDPs for statistical purposes. The project area is located within the Honolulu CDP – an area of 68 square miles that includes downtown Honolulu.

[2] The 2000 census originally divided Census Tract 56 into three block groups; the 2010 census redistributed the population into 4 census block groups, with much of the population from Block Group 2 being divided between Block Group 2 and Block Group 4. This accounts for the seeming decrease in population in Block Group 2 and increase in population in Block Group 4 between 2000 and 2010.

CDP = census-designated place

Environmental Justice. Data from the U.S. Census Bureau (2009-2014 American Community Survey 5-Year Estimates) (2015) indicates that both minority and low-income populations surround the project limits. The 27 census blocks surrounding the project limits all contain greater than 90 percent minority populations, which compares to 80.9 percent minority populations for Honolulu County overall. The largest minority group adjacent to the project limits are Asian (79 percent). This is followed by Native Hawaiian and Other Pacific Islander, at approximately 7 percent.

Of the four block groups that surround the project limits, two contain low-income populations (defined as households for which reported income was below poverty level in the past 12 months). In the neighborhood south of Kokea Street and *mauka* of Halona Street, 42 percent of households reported an income below poverty level. In the neighborhood north of Kohou Street and *mauka* of Halona Street, 13 percent of households reported an income below poverty level. This is compared to 9.8 percent of households in Honolulu County overall.

3.12.2 Potential Impacts and Mitigation Measures

The proposed project would replace the existing Halona Street Bridge with no change in the carrying capacity of the structure. Therefore, the project is not expected to affect the number of area residents or demographic characteristics. However, the urbanized nature of the project area supports the need to maintain the Kapalama Canal crossing on Halona Street as a safe and functional component of the regional transportation system for local residents and highway users. Pedestrians and bicyclists would benefit from safety improvements, such as the additional shoulders on both sides of the bridge and reconstructed guardrail.

Construction impacts (fugitive dust, noise, and temporary detours and traffic delays), would be unavoidable, but would be temporary and minimized with the implementation of mitigation measures and BMPs described in Section 3.2, Climate and Air Quality, Section 3.5, Noise, and Section 3.16, Roads and Traffic. Access to residences and businesses would be maintained throughout construction. Section 3.16, Roads and Traffic, details detour routes for highway, local, and bicycle and pedestrian traffic.

Environmental Justice. The proposed project is not expected to result in disproportionately high and adverse effects to minority or low-income populations. The project would not result in the displacement of any residences, businesses, or community resources.

Although construction-related impacts (for example, detour routes, noise, and fugitive dust) would be greatest in the minority and low-income neighborhoods adjacent to the project limits, impacts would be short-term in duration and would be minimized with the implementation of the BMPs described in Section 3.2, Climate and Air Quality, Section 3.5, Noise, and Section 3.16, Roads and Traffic. Construction impacts would also be off-set by the long-term benefits associated with the project improvements, such as improving conditions for pedestrians and bicyclists and maintaining Halona Street Bridge as a safe and functional element of the transportation system.

Based on the above discussion and analysis, the proposed project would not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of Executive Order 12898 and FHWA Order 6640.23. No further environmental justice analysis is required.

3.13 Economic and Fiscal Resources

3.13.1 Existing Conditions

Honolulu serves as the major business and trading center for the Hawaiian Islands. Honolulu Harbor handles cargo for several international steamship companies and is within a successful Foreign Trade Zone. Other elements of Honolulu's economic base include tourism, military defense, research and development, and manufacturing. Pearl Harbor Naval Shipyard, Marine Corps Base Hawaii in Kaneohe, and the U.S. Army's Schofield Barracks provide continuous revenue to the region. As the home of the University of Hawaii at Manoa, Honolulu is a center for research and development, especially in the areas of oceanography,

astrophysics, geophysics, and biomedicine. The City and County of Honolulu also contains many commercial, industrial, and retail properties. Diversified agriculture (for example, aquaculture) has grown in recent years as the closure of sugar plantations has opened up land for productive use as well as conversion to residential and commercial development.

The Halona Street Bridge Project is located in the Kalihi-Palama community, one of the first areas to be developed on Oahu. In 2004, the City and County of Honolulu adopted an Action Plan for the revitalization of the area (see Section 3.15). The Kalihi-Palama area contains a large industrial area, Honolulu Harbor, and many small businesses. The area also has three hospitals, the Oahu Community Correctional Center, and the Honolulu Community College. Approximately 50 percent of Oahu's public housing stock is located in Kalihi-Palama.

According to the U.S. Bureau of Labor Statistics' Honolulu Economic Summary (2015), the largest industries in terms of jobs are government (97,800); trade, transportation, and utilities (84,700); leisure and hospitality (69,800); professional and business services (66,500); and education and health services (63,100) (U.S. Bureau of Labor Statistics, 2015). Median household income for the period 2009 and 2013 was $72,764 (U.S. Census Bureau, 2015).

The national economic recession of the late 2000s had a ripple effect on tourism. However, economic conditions have since improved and the unemployment rate for the Honolulu area in June 2015 is 4.1 percent, compared to a 4.1 percent unemployment rate statewide and 5.5 percent nationwide.

3.13.2 Potential Impacts and Mitigation Measures

3.13.2.1 Economic Impacts

The proposed project is anticipated to have several types of economic impacts. One type is construction-related employment and income. With a preliminary estimated cost of $4.58 million, the project is expected to support a number of construction workers for the duration of the project (approximately 7 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 a portion of project funds are coming from (Federal) sources outside the region, wages paid to workers on this project (direct income), payments to suppliers (indirect income), and their subsequent expenditures (induced income) would have positive cumulative impact as monies circulate through the local economy.

3.13.2.2 Fiscal Impacts

Public funds are needed for long-term operations and maintenance of all bridge structures. In the case of the Halona Street Bridge, the existing structure has exceeded its normal lifespan. Replacing the bridge would allow HDOT to extend the timeframe for major bridge repair. Design improvements would reduce ongoing maintenance costs. These changes would provide long-term fiscal benefits to HDOT.

3.14 Visual and Aesthetic Resources

3.14.1 Existing Conditions

The bridge is located in a densely developed area consisting mostly of residential structures, but with some commercial development as well. Because the topography of the project site and its immediate vicinity is flat, the bridge's viewshed is relatively limited. The flat terrain, combined with the density of nearby urban development, limits the distance from which the bridge is visible to at most only several hundred feet in any direction away from it. However, a relatively large number of people view the bridge, given that it is located in a dense urban neighborhood.

3.14.2 Potential Impacts and Mitigation Measures

The proposed project would involve replacement of the entire bridge to meet current design standards for roadway width, load capacity, pedestrian and bicycle traffic, bridge railing and transitions, and bridge approaches, all of which would alter the visual appearance of the project site. Although the proposed

project would result in visual changes to the site, as shown in the visual simulation in Figure 3-5, features of the new bridge would be substantially similar in character to the existing structures. From the vantage point shown in the simulation, the new bridge railing and girder structures would be the most noticeable change compared to existing conditions. The new railing and girder structure design would resemble the character of the existing structures. Other project features, such as lane width alterations, road shoulder establishment, and sidewalk modifications would be even less noticeable compared to existing conditions than the more visually apparent railing and girders.

The project would not result in a substantial change to the existing landscape or result in a noticeable change to the project viewshed, because the changes would be minimal and because the project site is not highly visible from areas outside the project site's immediate vicinity.

The project could result in temporary visual impacts during the construction period as a result of dust, heavy equipment at the project site, and additional vehicles traveling throughout construction areas. However, these impacts would be considered less than significant because they would be minimal and temporary.

3.15 Land Use and Right-of-Way

3.15.1 Existing Conditions

The Kapalama Canal, a realigned channel receiving flow from Kapalama Stream, is owned and maintained by the City and County of Honolulu and runs through the project limits under Halona Street Bridge.

The State of Hawaii Land Use Commission has classified land within and adjacent to the project in the Urban District, and it is zoned R-5 Residential by the City and County of Honolulu. Several schools, small parks, businesses, and other community resources are also located along H-1 and Halona Street within 0.5 mile of the project limits. Land uses surrounding the project limits are shown in Figure 2-2.

The existing right-of-way on Halona Street Bridge and associated approaches is 60 feet, as measured between the guardrail or edge of the existing sidewalk on the *mauka* side of the bridge and the H-1 guardrail on the *makai* side of the bridge.

3.15.2 Potential Impacts and Mitigation Measures

The project involves the replacement of an existing structure within the existing HDOT right-of-way; no change to land use or zoning designations would be required. Approximately 0.44 acre of land would be needed from four construction parcels (temporary easements) to accommodate bridge construction and paving improvements. This would temporarily affect three property owners: the owner (City and County of Honolulu) of the Kapalama Canal and adjacent streets. The TMKs associated with these parcels are shown in Figure 2-8 and Figure 2-9. Construction parcels would be coordinated through HDOT. No additional permanent easements for maintenance and operation are needed.

3.16 Roads and Traffic

3.16.1 Vehicular Traffic

Halona Street is classified as a Principal Urban Arterial and is adjacent to the H-1 between the on-ramp from Vineyard Boulevard and the off-ramp to Houghtailing Street. It is a two-lane roadway with one-way traffic in the westbound direction and a posted speed of 30 mph at the project location. Traffic data collected for the project indicate that traffic volumes currently average 3,900 vehicles per day (weekday average daily volume); this is projected to increase to 5,900 vehicles per day in the 2036 design year (CH2M, 2015).

3.16.2 Bicycle and Pedestrian Traffic

The existing Halona Street Bridge provides a 7-foot-wide sidewalk for pedestrian and bicycle access along the northern (*mauka*) side of the bridge. Pedestrian and bicycle count information collected in 2015 identified 98 pedestrians and 24 bicyclists in the project limits on weekdays between 6 am and 5 pm. On

weekends, during the same time period, 52 pedestrians and 25 bicyclists were identified. Pedestrians and bicyclists travel both northbound and southbound across the Halona Street Bridge.

3.16.3 Potential Impacts and Mitigation Measures

Short-term Construction-related Impacts. Short-term impacts include minor changes to traffic patterns, traffic volume, and travel times during construction. Redirecting traffic from Halona Street to detour roads may cause minor disruptions in normal traffic patterns. The arrival and departure of construction crews and the periodic movement of construction vehicles and materials for staging may cause short-term increases in traffic volume and the traffic delays.

Construction is expected to extend over 7 months, with Halona Street Bridge closed to normal traffic for the duration of the project. Halona Street is one-way in the westbound direction; residential neighborhoods along Kokea Street and Kohou Street would need access maintained during both bridge and intersection closures (affecting the Halona/Kokea Street and the Halona/Kohou Street intersections). Detour routes have been developed to address access needs for local and highway traffic. Detour routes are presented in detail in Section 2.3.3, Traffic Control During Construction. Detour routes for local and highway traffic are depicted in Figure 2-5 and Figure 2-6.

While vehicular traffic is proposed to be detoured along local street routes because of the available travel access, pedestrian and bicyclist access would be maintained across Kapalama Canal during construction. Pedestrians and bicyclists would use either Kokea Street or Kohou Street to cross over Halona Street and then cross the canal in a temporary pedestrian route within the existing landscaped area between the construction work and H-1. This temporary route would accommodate a 6-foot-wide pedestrian path with a barrier on both sides of the path to protect pedestrians and bicyclists, as described in Section 2.3.3, Traffic Control During Construction, and depicted in Figure 2-7. The route would meet American with Disabilities Act requirements and would be accessible for wheelchair users.

Seven properties (six residences and the Queen Liliuokalani Children's Center) have private driveways that front Halona Street between Kohou Street and the H-1 off-ramp. Access to these properties would be maintained during construction by barricading Halona Street Bridge, keeping the Houghtailing Street off-ramp open, and directing traffic onto Kohou Street. Travel time delays would ultimately depend on the destination but are expected to be minimal using a combination of H-1, North School Street, and the detour routes described in Chapter 2.

The existing roadways are not expected to be significantly impacted by construction activities. However, following construction, any damage resulting from project implementation would be corrected, as needed, to meet City and County of Honolulu roadway standards.

Traffic Control. A traffic management plan would be developed by the Contractor before construction and would be submitted to HDOT and FHWA for review and approval. Components of the traffic plan may include public notices and electronic signboards to inform motorists, pedestrians, and bicyclists about the work schedule and to help with travel planning. All temporary signs, signals, and pavement markings would conform to standards contained in the Manual on Uniform Traffic Control Devices issued by FHWA.

Long-term Transportation and Circulation Impacts. The long-term impacts of the proposed project are anticipated to be beneficial, as Halona Street Bridge would be constructed to current AASHTO and HDOT guidelines.

3.17 Parks and Recreation Facilities

No established parks or recreational properties are located within the project limits. The two parks closest to the project site are Peter Buck Mini Park (located on H-1 and Houghtailing Street) and the Loi Kalo Mini Park (located along Kohou Street, east of Pohaku Street). Access to both parks would be maintained throughout construction.

No lands acquired or developed with grants from the Land and Water Conservation Fund Act of 1965 are located within the project limits.

3.18 Public Health and Safety

3.18.1 Police Services

The Honolulu Police Department's jurisdiction encompasses the entire island of Oahu and is divided into eight patrol districts. The project area is located within District 5 (Kalihi), which covers the area from Aliamanu to the Pali Highway (west to east) and from the rim of the Koolau Range to the central southeastern shoreline of Oahu (north to south). The district station is located at 1865 Kamehameha IV Road, approximately 2 miles from the project site.

3.18.2 Fire and Emergency Medical Services

The Honolulu Fire Department is divided into five battalions containing 45 fire stations across the entire island of Oahu. The two stations located the closest to the project area are at 115 Wyllie Street (approximately 1.3 miles away) and 104 S. Beretania Street (approximately 1.2 miles away) in Honolulu.

Emergency medical services are provided by the Honolulu Emergency Services Department. The City and County of Honolulu has 20 ambulance units and 2 Rapid Response Vehicles under two districts. The project area is located in District 1, with nearby ambulance services being provided from The Queen's Medical Center (1301 Punchbowl Street, Honolulu) and Kuakini Medical Center (347 N. Kuakini Street, Honolulu).

3.18.3 Potential Impacts and Mitigation Measures

Halona Street is considered an arterial roadway and does not serve as a primary route for emergency service providers. Provisions will be put in place before construction to secure and limit public access to the active construction zone, such that public safety hazards are not anticipated. Access to all adjacent properties would be maintained during construction and detour routes would be put in place which would accommodate emergency service providers, thereby resulting in no adverse impact to public health and safety. The Contractor would be required to make provisions for emergency access. Emergency services, including police, fire, and ambulance services, would be notified before implementation of any required roadway closures or detours.

Halona Street Bridge would be constructed to current AASHTO and HDOT guidelines, increasing reliability for emergency service providers.

3.19 Public Utilities and Services

3.19.1 Existing Conditions

3.19.1.1 Water and Wastewater Systems

The BWS provides water service throughout the island. Water lines are generally located in rights-of-way and distribute potable water for domestic, industrial, and commercial consumption and for fire protection. An 8-inch distribution water line is hung under the bridge inside the girders. There is also a 42-inch transmission waterline buried on the *mauka* side of the bridge that runs in the east-west direction, feeding into smaller distribution lines to provide water to the surrounding communities.

The County's wastewater management system is managed by the Department of Environmental Services. Wastewater generated on Oahu is processed by one of nine wastewater treatment plants, which are spread over the island and either owned or operated by the City and County of Honolulu. There are no sewer treatment facilities in the project area. Sewer lines and sewer manholes are located within the project limits along Kohou Street, west of the bridge, and Kokea Street, east of the bridge. However, no sewer lines are located across the canal, either along or attached to the bridge. The City and County of Honolulu also identified a future wastewater project in the same area along Kohou Street.

3.19.1.2 Solid Waste Management

The County's solid waste management system is managed by the Department of Environmental Services. There is one municipal landfill on Oahu, Waimanalo Gulch Landfill, located in Kapolei. The City and County of Honolulu owns the landfill, but contracts the management and operation of the site with Waste Management of Hawaii. The County is currently evaluating options for expansion of the landfill in an Environmental Impact Statement. One additional landfill is privately owned by PVT Land Company, Ltd., and is designated specifically for construction and demolition waste.

3.19.1.3 Gas, Electrical and Telecommunications Systems

Hawaii Gas operates a 2-inch gas line through the project limits. The gas line is hung under the bridge inside the girders.

HECO overhead power lines run along the east side of the road both north and south of Halona Street Bridge, but do not cross over the canal. An electric line is located along Halona Street, adjacent to H-1. HDOT has installed two light poles on each of the *mauka* corners of the Halona Street Bridge.

Hawaiian Telcom provides land-line telecommunications service to customers on the island. There is no infrastructure on or parallel to Halona Street Bridge. Oceanic Time Warner Cable provides wired cable television service to customers on the island. There is no infrastructure on or parallel to Halona Street Bridge.

3.19.2 Potential Impacts and Mitigation Measures

Solid-waste impacts are expected to be short-term and related to construction activities. Removing the existing bridge would generate debris consisting primarily of concrete slabs, asphalt pavement, and metal guardrails, posts, and fastenings. The Contractor would be required to dispose of or recycle all materials at approved sites and with proper handling during transport. The Contractor would 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 island-wide total, and is not expected to have a significant impact on the County's solid waste facilities. The proposed project would not generate any demand for water or wastewater disposal.

Neither existing nor potential future sewer lines and associated manholes west of the bridge along Kohou Street are expected to be directly impacted by the project. Ongoing coordination with the Department of Design and Construction Wastewater Division will be conducted as needed through the design phase of the project. Existing sewer lines and associated manholes will be indicated on the design drawings, and the Contractor will be required to implement protective measures as needed to ensure that the project would not impact the existing infrastructure. Water and gas lines that run under the bridge would need to be relocated during construction. The project sponsor and designers are coordinating with affected utility companies for temporary relocation and long-term disposition of utility lines. It is anticipated that a portion of the existing bridge immediately adjacent to H-1 would remain open during construction to temporarily accommodate utilities. This open portion of the bridge would allow for a 4-foot-wide corridor for temporary utility replacement. This project would not adversely impact utilities, as maintenance access and service for all utilities would be maintained during and after construction.

3.20 Secondary and Cumulative Impacts

3.20.1 Secondary Impacts

Secondary impacts, or indirect effects, are effects that are caused by an action and are later in time or farther removed from distance, but are still reasonably foreseeable. Such efforts may include growth-inducing impacts and other effects related to changes in land use patterns, population density, or growth rate, and related effects on air, water, and other natural systems. The proposed project is expected to have minimal secondary impacts on resident population, land use patterns, public facilities and infrastructure, and the natural environment.

Construction of the proposed project is expected to generate only minor short-term impacts. Creation of short-term construction jobs is not expected to generate a substantial number of workers. It is anticipated that local contractors on Oahu or within the State of Hawaii would likely be used for construction of the proposed project. These workers would thus have minimal, if any, effect on the County's residential population or housing demand.

The proposed improvements are needed to make the roadway and bridge safe to drive. The improvements would not increase the use of the bridge or corridor and would not generate substantial secondary effects increasing infrastructure demands, necessitating offsite improvements, constraining public facilities, or influencing population growth.

3.20.2 Cumulative Impacts

Cumulative impacts are effects on the environment that result from the incremental impact of a project when added to past, present, and reasonably foreseeable future actions. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

The project area is located in urban Honolulu. Most of the urbanization within the project area occurred before the late 1970s, after the construction of Kapalama Canal. The channelization of Kapalama Stream resulted in a shift in land use patterns, with urbanization replacing primarily agricultural development. More recently, development activity in the area has focused on transportation improvements and the redevelopment of existing parcels.

As described in Section 2.1.2, Other Nearby State and County Projects, existing and planned transportation projects in the vicinity of the project include roadway resurfacing and rehabilitation projects. Most of these projects are in the planning phases and are expected to be constructed in 2017 or later. The City and County of Honolulu also identified the potential for a future wastewater project just north of the bridge. However, the decision of whether this work will be required is still pending.

The project area is highly urbanized and has been for over 50 years. As a result of the limited scope of the project and the existing development constraints, the project would not result in any changes to land use patterns or redevelopment activities. The proposed project is not expected to measurably impact water quality, biological resources, or cultural resources; short-term construction impacts (for example, because of increased dust, erosion, and noise) would be minimized with the implementation of BMPs during construction. In conjunction with other planned projects (see Section 2.1.2), the proposed project could result in minor, localized cumulative short-term construction impacts. There are no negative long-term socioeconomic impacts anticipated, as access to residences or businesses would be maintained during construction and there would be no property displacements. Construction-related impacts to the surrounding communities would not be exacerbated by the transportation projects planned in the area, because there would be adequate time between construction for each project, inconveniences would be short in duration, and detours would be provided. Overall, the project would benefit the general population (including minority and low-income residents) by improving conditions for pedestrians and bicyclists and maintaining Halona Street Bridge as a safe and functional element of the transportation system.

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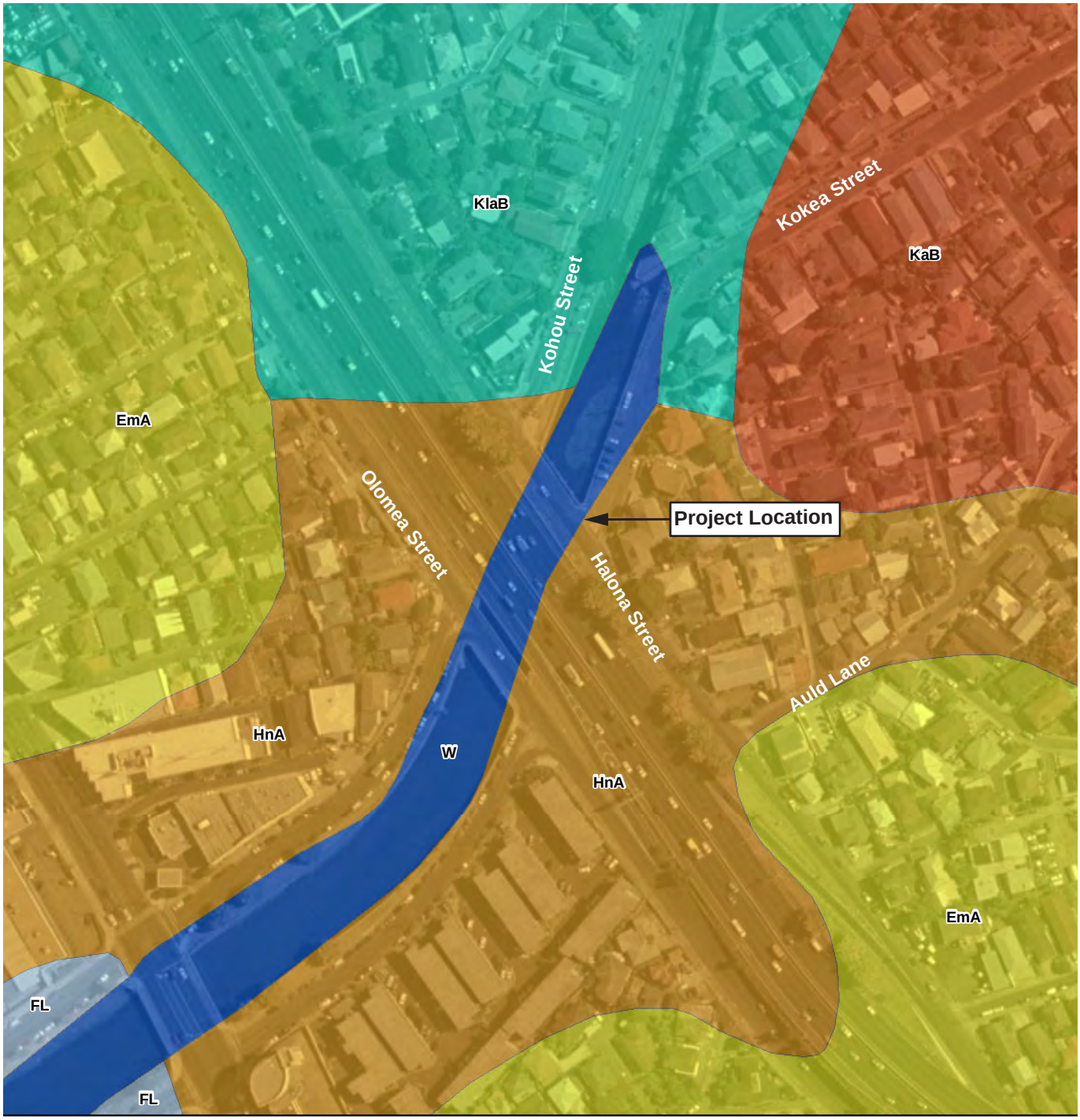


Data Source: NRCS, Web Soil, Survey Geographic Database (SSURGO), 2015

North

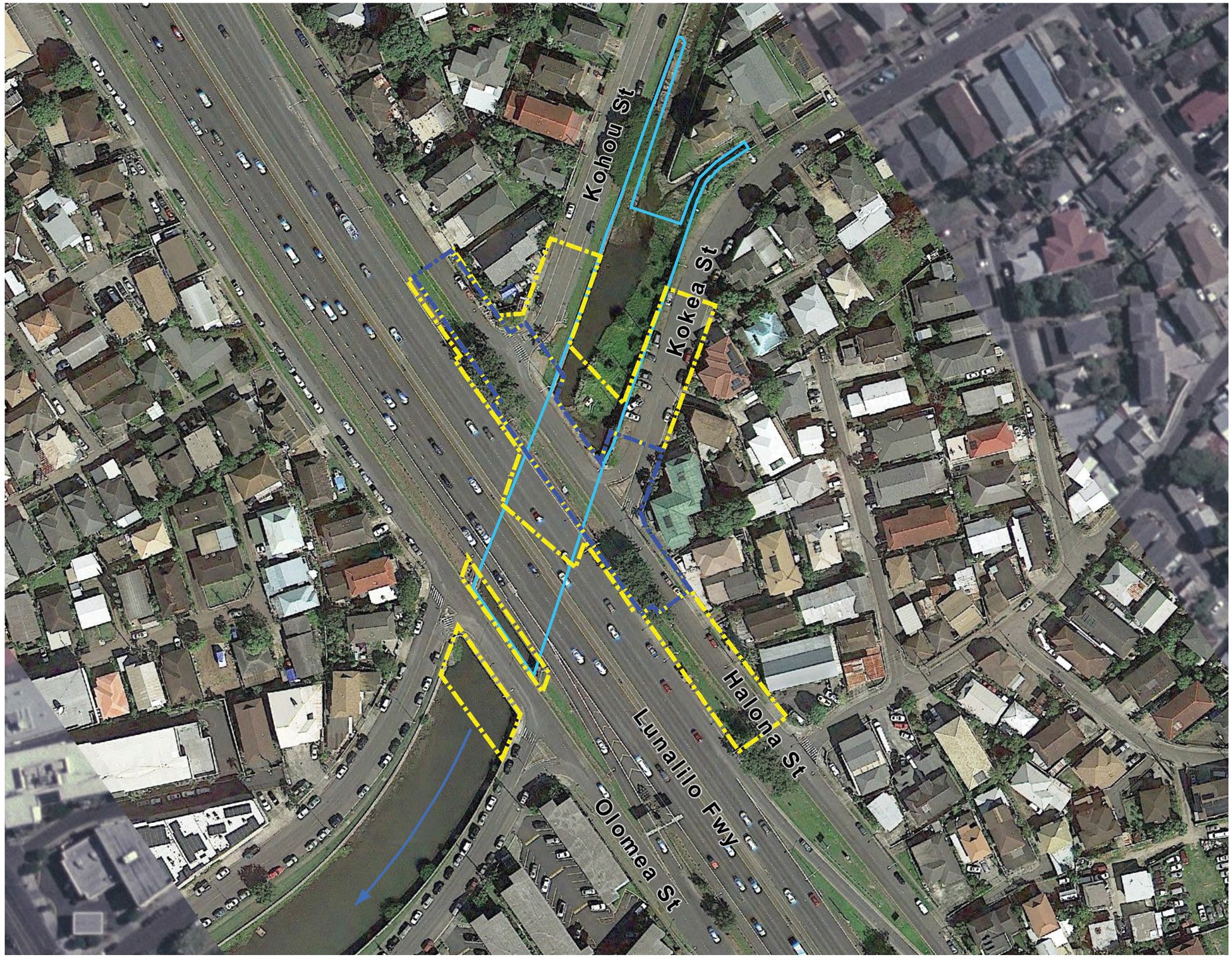
0 200 400

Approximate scale in miles

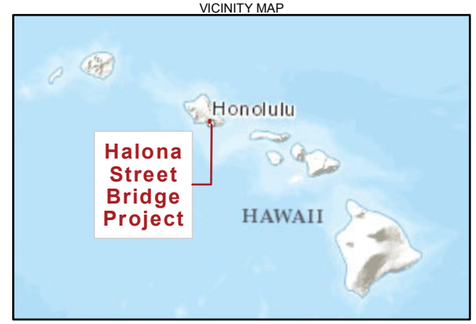
LEGEND

- EmA, Ewa Silty Clay Loam, Moderately Shallow, 0 to 2 percent slopes
- FL, Fill Land, Mixed
- HnA, Hanalei Silty Clay Loam, 0 to 2 percent slopes
- KaB, Kaena Clay, 2 to 6 percent slopes
- KlaB, Kawaihapai Stony Clay Loam, 2 to 6 percent slopes
- W, Water

FIGURE 3-1
Soils
Halona Street Bridge Project
Hawaii Bridges Program –
Central Federal Lands Highway Division and
Hawaii Department of Transportation



VICINITY MAP



LEGEND

- Permanent Impact Area
- Temporary Impact Area
- Waters of the U.S.
- Waters of the U.S. within the Project Area

Notes:
1. High-Res Imagery Source: Google Earth 12/16/2013
2. Low-Res Imagery Source: Digital Globe 08/26/2011
3. Imagery base map is not orthorectified; therefore project features may not properly align with the imagery.

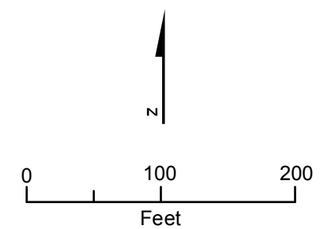
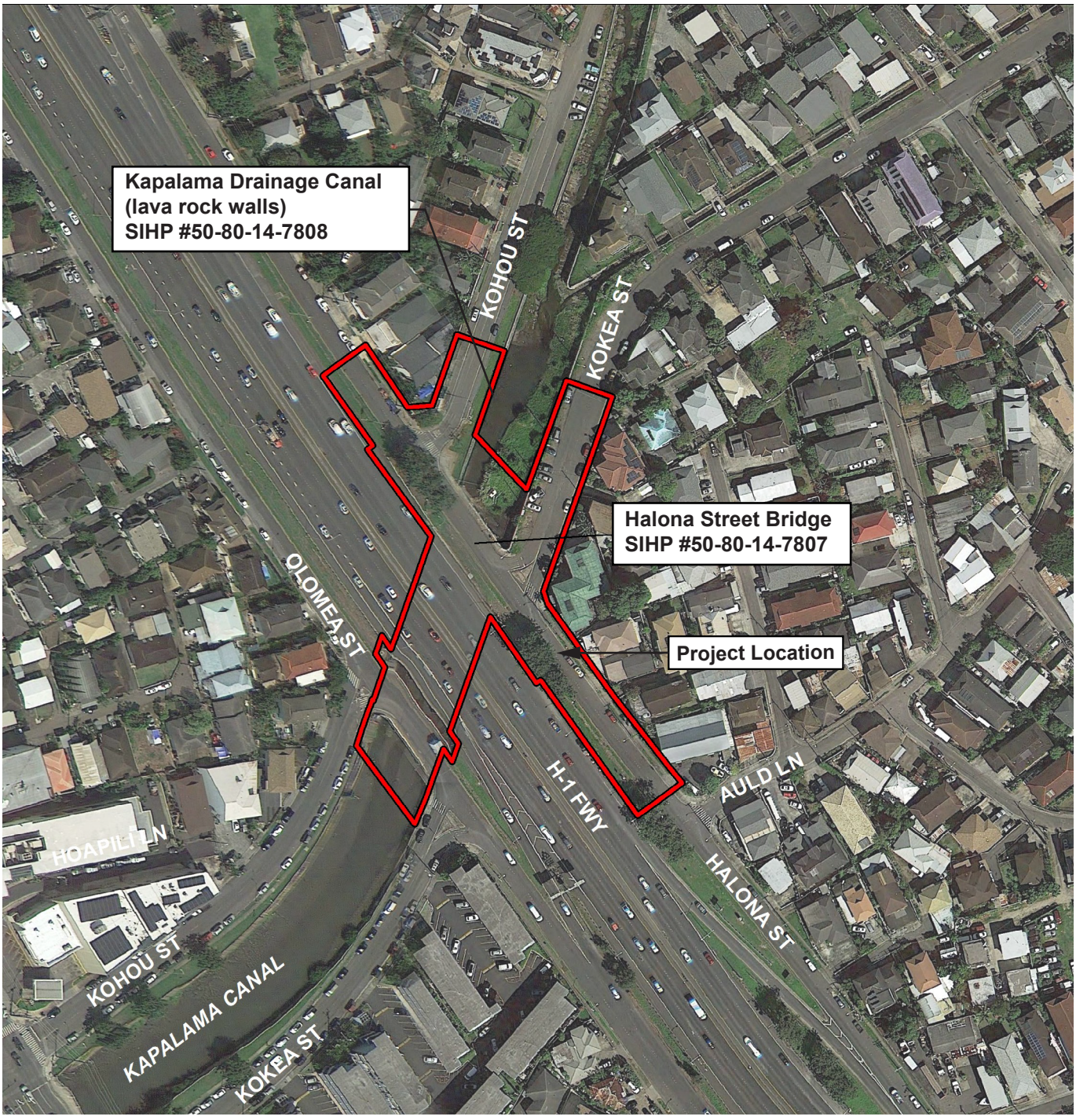


FIGURE 3-2
Waters of the U.S.
Halona Street Bridge Project
Hawaii Bridges Program –
Central Federal Lands Highway Division and
Hawaii Department of Transportation



Source: CSH

North

0 100 200

Approximate scale in feet

FIGURE 3-3
Cultural Resources
Halona Street Bridge Project
Hawaii Bridges Program –
Central Federal Lands Highway Division and
Hawaii Department of Transportation

LEGEND

Project Area

Data Source: U.S Census Bureau – Tiger Data, 2014.

North

0 .125 .25

Approximate scale in miles

LEGEND

Census Tract 56

Census Block Groups

FIGURE 3-4
Demographic Characteristics (Minority/Low-Income Populations)
Halona Street Bridge Project
Hawaii Bridges Program –
Central Federal Lands Highway Division and
Hawaii Department of Transportation

Existing Halona Street Bridge, looking southwest

Visual Simulation of the Proposed Halona Street Bridge, looking southwest

FIGURE 3-5
Visual Simulation
Halona Street Bridge Project
Hawaii Bridges Program –
Central Federal Lands Highway Division and
Hawaii Department of Transportation

SECTION 4

Relationships to Plans, Policies, and Controls

The plans and policies relating to the proposed project range from broad program guidance to land use controls governing the project site. Construction of the proposed improvements is consistent with the various plans, policies, and regulatory controls, as discussed herein.

4.1 Federal

The proposed project would include the use of Federal funds through FHWA. As a result, the proposed project needs to be consistent with various Federal statutory and regulatory requirements.

4.1.1 National Environmental Policy Act of 1970

The proposed project would be partially funded by FHWA; this Federal funding subjects the project to the environmental review requirements of NEPA, prescribed under 40 CFR Parts 1500 – 1508 (Council on Environmental Quality [CEQ]). FHWA serves as the lead Federal agency, or Administrator, responsible for the project's compliance with NEPA documentation and processing requirements, as provided in 23 CFR 771, Environmental Impact and Related Procedures.

The NEPA determination of impact significance is related to the type of document and process required to comply with NEPA for a proposed project. There are three types of environmental documents under NEPA: (1) Categorical Exclusion (CE), (2) EA, and (3) EIS. A CE is appropriate where there are no significant impacts on the environment, an EA when the significance of the effects are not clearly established, and an EIS when the action would have a significant impact on the environment.

Significance is defined in the CEQ regulations (40 CFR 1508.27). A "significant impact" is assessed in terms of an impact's "context" and "intensity." Context refers to the environment and the level of relative abundance of resources in the project area. Intensity refers to the specific impact, or how much of the resource(s) would be used or affected by the project.

FHWA Regulations for Environmental Impact and Related Procedures (23 CFR 771.117(a)) specify that CEs are actions that meet the definition contained in 40 CFR 1508.4 and act as follows:

- Do not induce significant impacts to planned growth or land use for the area
- Do not require the relocation of significant numbers of people
- Do not have a significant impact on any natural, cultural, recreational, historic, or other resources
- Do not involve significant air, noise, or water quality impacts
- Do not have significant impacts on travel pattern
- Do not otherwise, either individually or cumulatively, have any significant impacts

Specific actions that meet these criteria are listed in 23 CFR 771.117(c)). This list includes "bridge rehabilitation, construction or replacement or construction of grade separation to replace existing at-grade railroad crossings" (23 CFR 771.117(c)(28)).

Consistent with its regulations for NEPA compliance, and as further justified by the findings of this EA, FHWA anticipates issuing a CE for this project.

4.1.2 Section 106 of the National Historic Preservation Act of 1966

The NHPA of 1966, as amended (PL 89-665, codified as 16 United States Code [U.S.C.] 470), recognizes the nation's historic heritage and establishes a national policy for the preservation of historic properties as well as the National Register of Historic Places. Section 106 of the NHPA (16 U.S.C. 470f) requires that Federal agencies consider the effects of their projects on historic properties. Use of Federal funds sets forth the need for Section 106 consultation. The purpose of the Section 106 consultation process is to evaluate the

potential for effects on existing historic sites, if any, resulting from the project. Findings relating to historic properties are discussed in Sections 3.9 and 3.10 of this document.

The Section 106 review process encompasses "good faith effort" in ascertaining the existence and location of historic properties near and within the project site, establishing an Area of Potential Effect (APE) of the project, identifying whether a potential for "adverse effects" on historic properties by the project exists, and developing a reasonable and acceptable resolution in the monitoring and treatment of any historic sites that is agreed upon by the agency, the State Historic Preservation Officer (SHPO), and consulting government agencies, community associations, and Native Hawaiian organizations and families.

Meetings were held with the SHPD on September 9, 2014, December 10, 2014, and March 12, 2015 to provide an overview of the CFLHD Hawaii Bridge Program, discuss the general parameters for historic preservation review, and discuss the preliminary design plans and possible effects and mitigation. A legal notice requesting public input to the Section 106 process was published in the Honolulu Star Advertiser on July 20, 2015. Letters were also sent to potential consulting parties. A letter formally initiating the Section 106 consultation process was sent to the SHPO (dated January 12, 2016). By letter dated August 9, 2016, the SHPD concurred with the FHWA's determination of eligibility for the Kapalama Canal (Site 7808) for inclusion in the National Register of Historic Places and determination of no adverse effect per Section 106.

Copies of the documents related to the Section 106 consultation process are provided in Appendix D.

4.1.3 Section 4(f) of the Department of Transportation Act of 1966

Section 4(f) of the Department of Transportation Act of 1966 (49 U.S.C. 303 and 23 U.S.C. 138) permits the use of publicly-owned park land, recreational area, wildlife and waterfowl refuge, or land of an historic site of National, State, or local significance for a transportation project only if (1) there is no prudent and feasible alternative to using that land and (2) the project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use. The purpose of Section 4(f) requirements is to preserve significant parkland recreation areas, refuges, and historic and archaeological sites by limiting the circumstances where such land can be used for transportation projects.

Kapalama Canal and the associated lava rock walls (SHIP # 50-80-14-7808) are eligible for the National Register of Historic Places and therefore qualify as a Section 4(f) property. FHWA anticipates a *de minimis* impact finding for this property.

4.1.4 Uniform Relocation Assistance and Real Property Acquisition Act of 1970

The Uniform Relocation Assistance and Real Property Acquisition Act of 1970 (42 U.S.C. 4601 et seq. and 49 CFR 24), as amended by the Uniform Relocation Act Amendments of 1987 is commonly referred to as the "Uniform Act." The Uniform Act provides important protection and assistance for people affected by Federally-funded projects. The law was enacted by Congress to ensure that people whose real property is acquired, or who move as a result of projects receiving Federal funds, will be treated equitably and will receive assistance in moving from the property they occupy.

This project involves the replacement of an existing structure within the existing HDOT right-of-way. Approximately 0.44 acre of land would be needed from four temporary construction parcels to accommodate bridge construction and paving improvements. This would temporarily affect the City and County of Honolulu, the owner of the Kapalama Canal and adjacent streets. Construction parcels will be coordinated through HDOT. No additional permanent easements for maintenance and operation are needed.

4.1.5 Endangered Species Act of 1973

The ESA of 1973 (16 U.S.C. 1531-1544) establishes a process for identifying and listing threatened and endangered species. It requires Federal agencies to carry out programs for the conservation of

Federally-listed endangered and threatened plants and wildlife and designated critical habitats for such species, and prohibits actions by Federal agencies that would likely jeopardize the continued existence of those species or result in the destruction or adverse modification of designated critical habitat. Section 7 of the ESA requires consultations with Federal wildlife management agencies, such as the USFWS and NMFS.

To begin consultations with agencies that have authority over protected species, CFLHD sent a letter requesting a list of threatened and endangered species, candidate species, plants and animals of concern, and critical habitats in the vicinity of the proposed bridge project. USFWS responded by letter dated December 22, 2014, providing the location-specific biological information and recommended standard BMPs. Discussions continued through meetings held with the USACE on December 11, 2014 and with USFWS, USEPA, NMFS, and DLNR Division of Aquatic Resources on March 13, 2015. Additional consultation occurred through meetings with USFWS, NMFS, USEPA, USACE, DLNR Division of Aquatic Resources, and HDOH Clean Water Branch on December 8 and 15, 2015.

A Biological Assessment was prepared for the Halona Street Bridge Project (see Appendix C) and was submitted as part of the informal Section 7 consultation process on February 2, 2016. Concurrence was provided by USFWS in a letter dated March 16, 2016 (see Appendix C).

4.1.6 Migratory Bird Treaty Act

The MBTA of 1918, as amended (16 U.S.C. 760), protects migratory wild birds found in the U.S. The MBTA makes it unlawful to pursue, hunt, take, capture, possess, sell, purchase, barter, import, export, or transport any migratory bird or any part, nest, or egg of any such bird, unless authorized under a permit issued by the Secretary of the U.S. Department of the Interior.

The proposed project is not expected to affect migratory birds. Three migratory, two indigenous, and two introduced bird species protected under the MBTA were observed during the biological survey as described in Section 3.8. Construction may temporarily displace foraging for some of these bird species, but long-term impacts are not expected. These birds (likely limited to a few individuals) are expected to find suitable foraging habitat in nearby areas. The temporary displacement of these individuals at the project site is not expected to affect their survival or the overall species' populations. The possibility of adversely affecting migratory birds, including the white tern as a result of the proposed project, is likely small. With the implementation of mitigation described in Section 3.8, impacts to MBTA-protected species would be avoided.

4.1.7 Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (FWCA) (16 U.S.C. 661-667e) calls for conservation of wildlife resources related to projects where the "waters of any stream or other body of water" are impounded, diverted, or modified by any agency under a Federal permit or license. The law requires consultation with USFWS and State fish and wildlife agencies for the purpose of "preventing loss of and damage to wildlife resources."

Consultation related to the FWCA is occurring as part of ongoing coordination with resource agencies (see Section 4.1.5).

4.1.8 Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1855(b)), as amended, establishes provisions relative to Essential Fish Habitat (EFH), to identify and protect important habitats for federally managed marine and anadromous fish species. EFH is defined as those waters and substrate necessary to fish for spawning, breeding, feeding, and/or growth to maturity. "Waters" include aquatic areas and their associated physical, chemical, and biological properties used by fish and may include areas historically used by fish where appropriate. "Substrate" includes sediment, hard bottom, and structures underlying the waters and associated biological communities. Federal agencies which fund, permit, or undertake activities that may adversely affect EFH (including actions outside EFH, such as upstream/upslope

activities) are required to consult with NMFS regarding the potential effects of their actions on EFH, and respond to NMFS recommendations. An adverse effect is defined as any impact that reduces quality and/or quantity of EFH, including direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, species and their habitat, and other ecosystem components.

The extent of impacts associated with the proposed project with the potential to affect EFH are limited to the transport of sediment and/or pollutants via live water. Kapalama Stream is a low gradient waterway that exhibits high levels of turbidity under existing conditions and likely transports high sediment loads from the higher/steeper elevations in the drainage (See Section 4, Affected Environment in Appendix C). BMPs and other methods (described in Sections 3.3.4 and 3.8.6) would reduce the extent to which sediment disturbed as a result of construction would be transferred to live water. As a result, water quality impacts would be minimized such that they would not be expected to adversely affect downstream waters and construction-related turbidity would dissipate quickly. Designated EFH in the project vicinity is well downstream of the extent that any sediment impacts would be anticipated to extend. In turn, the proposed project would have no effect on EFH "waters." Furthermore, no groundbreaking disturbance would occur in areas designated as EFH and hence no EFH "substrate" would be affected. By email dated July 13, 2016, NMFS conveyed its determination that adverse impacts to EFH likely will be none to minimal for the proposed action given BMPs in the EFH assessment and the agency's recommendations.

4.1.9 Clean Water Act of 1972

The Federal Water Pollution Control Act (FWPCA) (33 U.S.C. §§1251 et seq.), is the Federal statute regulating the discharge of water pollution. Congress revised the FWPCA into the CWA in 1972. The goals of the CWA include: *(1) "the discharge of pollution into the navigable waters be eliminated by 1985," (2) "the discharge of toxic pollutants in toxic amounts be prohibited," and (3) an "interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and... recreation in and on the water... by July 1, 1983*" (CWA §101a and 33 U.S.C. §1251a).

Section 404 of the CWA regulates discharge of dredge and fill material in the Waters of the U.S., including wetlands, and requires a Department of the Army permit from the USACE. Section 401 of the CWA directs States to establish water quality certification (WQC) programs; in Hawaii, the Section 401 WQC is administered by the HDOH, Clean Water Branch. The project would result in a discharge to Waters of the U.S. regulated under Section 404. As such, the project will require a Section 404 Department of Army Permit and Section 401 WQC.

Section 402 of the CWA requires an NPDES permit for point source discharges, including storm water discharges associated with construction activities. The permit is required for construction activities that disturb 1 acre or more and discharge storm water from the project site to waters of the U.S. The project is expected to require an NPDES permit.

4.1.10 Clean Air Act of 1970

The CAA and amendments (42 U.S.C. §7401 et seq.) is the comprehensive Federal law that regulates air emissions from area, stationary, and mobile sources. This law authorizes the USEPA to establish National Ambient Air Quality Standards to protect public health and the environment. Pursuant to the CAA and amendments, State-operated permit programs serve to control emissions. In Hawaii, the operating permit program is implemented by HDOH, and emissions of regulated air pollutants within the state may be subject to permitting as required under HAR 11-60.1.

The purpose of this project is to improve Halona Street Bridge and its approaches to maintain the Kapalama Canal crossing on Halona Street as a safe and functional component of the regional transportation system for highway users by constructing a replacement bridge that meets current standards for roadway width, load capacity, pedestrian/bicycle traffic, bridge railing and transitions, bridge approaches, and seismic standards. This project has been determined to generate minimal air quality impacts for CAA criteria pollutants (discussed in Section 3.6 of this document) and has not been linked with any special MSAT

concerns. As such, this project would not result in changes in traffic volumes, vehicle mix, basic project location, or any other factor that would cause an increase in MSAT impacts of the project from that of the no-build alternative.

Moreover, the USEPA regulations for vehicle engines and fuels will cause overall MSAT emissions to decline over the next several decades. Based on regulations now in effect, an analysis of national trends with the USEPA's MOVES model forecasts a combined reduction of over 80 percent in the total annual emission rate for the priority MSAT from 2010 to 2050 while vehicle-miles of travel are projected to increase by over 100 percent. This will both reduce the background level of MSAT as well as the possibility of even minor MSAT emissions from this project (FHWA, 2012).

4.1.11 Rivers and Harbors Act of 1899

The River and Harbor Act of 1899 (33 U.S.C. 401 et. seq.) requires that the Secretary of the Army issue permits for various activities to protect navigable and tidally influenced waterways.

Section 9 of the Act requires authorization from USACE before construction of a bridge, dam, dike, or causeway over or in navigable waterways of the U.S. It requires that any agency planning to construct or modify a bridge apply for a Coast Guard bridge permit. Per correspondence dated December 18, 2015, from Lt. Rysa Miller, the U.S. Coast Guard District 14, Waterways Management Office determined that no action or permit is required from the U.S. Coast Guard.

Section 10 of the Act requires authorization from USACE before construction of any structure over, excavation from, or disposal of materials into navigable waters. Structures or work outside the limits defined for navigable waters of the U.S. require a Section 10 permit if the structure or work affects the course, location, or condition of the water body. The reach of the Kapalama Canal within the project area is tidally influenced and may be considered navigable, such that Section 10 authorization is expected to be required.

4.1.12 Floodplain Management, Executive Orders 11988 and 12148

Executive Order 11988, Floodplain Management, dated May 24, 1977 requires Federal agencies to take action to reduce the risk of flood loss, restore the natural and beneficial values of floodplains, and minimize the impacts of floods on human safety, health, and welfare. Executive Order 12148, July 20, 1979, amended Executive Order 11988. The main feature of the amendment added that agencies with responsibilities for Federal real estate properties and facilities will, at a minimum, require the construction of Federal structures and facilities to be in accordance with the criteria of the National Flood Insurance Program.

The proposed project crosses the Kapalama Canal. According to FIRM Community Panel Number 15003C0354G (effective January 19, 2011), the Halona Street Bridge is not located within a regulated floodplain. The project site is located in “Zone X,” which is defined as an area determined to be outside the 0.2 percent annual chance floodplain.

4.1.13 Protection of Wetlands, Executive Order 11990

Executive Order 11990, Protection of Wetlands, dated 1977 requires Federal agencies to avoid, preserve, or mitigate effects of new construction projects on lands that have been designated wetlands.

No wetlands were identified within the survey area, therefore the proposed project would not impact wetlands.

4.1.14 Invasive Species, Executive Order 13112

Executive Order 13112 (64 Federal Register 6183), issued in 1999, requires Federal agencies to implement policies to minimize the spread of invasive species. Federal agencies cannot authorize, fund, or carry out action(s) likely to cause or promote the introduction of spread of invasive species unless all reasonable measures to minimize risk have been analyzed or considered.

Vegetation disturbed during construction would be replaced as part of the project and the spread of noxious weeds would be managed through the implementation of BMPs as part of the project.

4.1.15 Coastal Zone Management Act (16 U.S.C. §1456 (C) (1))

In 1972, the U.S. Congress enacted the Federal Coastal Zone Management Act to ensure that each Federal agency undertaking an activity within or outside the coastal zone that affects any land or water use or natural resource of the coastal zone will be carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved State management programs. Each Federal agency carrying out an activity subject to the Act will provide a consistency determination to the relevant State agency designated under Section 1455(d)(6) of this title at the earliest practicable time.

The State administers the enforcement of this Act under the Hawaii Coastal Zone Management (CZM) Program (HRS Chapter 205A), and therefore, the discussion of the project's consistency with CZM objectives is discussed in Section 4.2.4. By letter dated July 12, 2016, the Office of Planning concurred that the proposed project is consistent with the policies of the Hawaii CZM Program.

4.1.16 Environmental Justice, Executive Order 12898

Executive Order 12898, Environmental Justice, was signed on February 11, 1994. The intent of Executive Order 12898 (full title: Federal Actions to Address Environmental Justice to Minority and Low Income Populations) is to avoid disproportionately high adverse human health or environmental effects of projects on minority and low-income populations. Executive Order 12898 also requires Federal agencies ensure that minority and low-income communities have adequate access to public information related to health and the environment.

Guidance from the CEQ indicate minority populations would be identified where either (1) the minority population of the affected area exceeds 50 percent or (2) the minority population percentage of the affected area is meaningfully greater than the minority population percentage of the general population. Minorities are defined as members of the following population groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic. U.S Census Bureau poverty status data are used to identify low-income populations. Poverty status is assigned to individuals and families whose income is below the poverty threshold appropriate for that person's family size and composition, as reported in the U.S. Census Bureau, 2010 Census of Population and Housing (U.S. Census Bureau, 2010).

Data from the U.S. Census (2009-2013 American Community Survey 5-Year Estimates) (U.S. Census Bureau, 2014) (indicates that both minority and low-income populations surround the project limits. In the 27 census blocks surrounding the project limits all contain minority populations greater than 90 percent. This is compared to approximately 81 percent minority for Honolulu County overall. Of the four block groups that surround the project limits, two contain low-income populations (defined as households for which reported income was below poverty level in the past 12 months). In the neighborhood south of Kokea Street and *mauka* of Halona Street, 42 percent of households reported an income below poverty level. In the neighborhood north of Kohou Street and *mauka* of Halona Street, 13 percent of households reported an income below poverty level. This is compared to 10 percent of households in Honolulu County overall.

Therefore, for the purpose of compliance with Executive Order 12898 on Environmental Justice, both minority and low-income populations are determined to be present (refer to Section 3.14 for additional information).

The project is not expected to result in disproportionately high and adverse effects to minority or low-income populations. The project would not result in the displacement of any residences, businesses, or community resources. Although construction-related impacts (for example, detour routes, noise, and fugitive dust) would be greatest in the minority and low-income neighborhoods adjacent to the project limits, impacts would be short term in duration and would be minimized with the implementation of mitigation measures and BMPs discussed in Section 3.14. Construction impacts would also be offset by the long-term benefits associated with the project improvements, such as improving conditions for pedestrians and bicyclists and maintaining Halona Street Bridge as a safe and functional element of the transportation system.

4.1.17 Title VI of the Civil Rights Act of 1964

Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d and 49 CFR 21) establishes that no person shall, on the grounds of race, color, or national origin be excluded from participation in, be denied the benefit of, or subjected to discrimination under any program or activity receiving Federal financial assistance.

The project complies with Title VI through coordination with, and outreach to, Native Hawaiian communities required under Section 106, HRS 343, and Act 50 on cultural practices.

4.2 State of Hawaii

4.2.1 Hawaii State Plan

The Hawaii State Plan, HRS Chapter 226, is the umbrella document in the statewide planning system. It serves as a written guide for the long-range development of the State by describing a desired future for the residents of Hawaii and providing a set of goals, objectives, and policies that are intended to shape the general direction of public and private development.

The proposed project supports and is consistent with the following State Plan objectives:

> *Facility Systems – Transportation*
>
> *(a)(1) An integrated multi-modal transportation system that services statewide needs and promotes the efficient, economical, safe, and convenient movement of people and goods.*
>
> *(a)(2) A statewide transportation system that is consistent with and will accommodate planned growth objectives throughout the State.*
>
> *(b)(2) Coordinate state, county, Federal, and private transportation activities and programs toward the achievement of statewide objectives.*
>
> *(b)(3) Encourage a reasonable distribution of financial responsibilities for transportation among participating governmental and private parties.*
>
> *(b)(6) Encourage transportation systems that serve to accommodate present and future development needs of communities.*
>
> *(b)(10) Encourage the design and the development of transportation systems sensitive to the needs of affected communities and the quality of Hawaii's natural environment.*
>
> *Facility systems – in general*
>
> *(a) Planning for the State's facility systems in general shall be directed towards achievement of the objective of water, transportation, waste disposal, and energy and telecommunication systems that support statewide social, economic, and physical objectives.*
>
> *(b)(1) Accommodate the needs of Hawaii's people through coordination of facility systems and capital improvement priorities in consonance with state and county plans.*

Discussion: As the facility owner, it is HDOT's mission to provide a safe, efficient, and accessible transportation system for the public. HDOT recognizes the need to provide for the replacement of the existing bridge. The replacement bridge will be designed using current AASHTO guidelines that have been adopted by HDOT for planning and engineering for highway projects in Hawaii.

4.2.2 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.

State Transportation Functional Plan

The State Transportation Functional Plan identified the four most critical issues of transportation: congestion, economic development, funding, and education (HDOT, 1991). 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.*
>
> *Policy I.A.1. Increase transportation capacity and modernize transportation infrastructure in accordance with existing master plans and laws requiring accessibility for people with disabilities.*
>
> *Policy I.A.2. Improve regional mobility in areas of the State experiencing rapid urban growth and road congestion.*

Discussion: The mission of HDOT is to provide a safe, efficient, and accessible transportation system for the public. HDOT recognizes the need to provide for the replacement of the existing bridge. The replacement bridge will be designed using current AASHTO guidelines that have been adopted by HDOT for planning and engineering for highway projects in Hawaii.

4.2.3 State Land Use Law

The State Land Use Commission, pursuant to HRS Chapter 205 and 205A and HAR Chapter 15-15 is empowered to classify all lands in the State into one of four land use districts: Urban, Rural, Agricultural, and Conservation. As shown in Figure 4-1, the lands surrounding the project limits are classified in the Urban District. Roadways are a permitted use in the Urban District. No change in land use classification will be needed.

4.2.4 Coastal Zone Management Program and Federal Consistency Determination

In 1977, Hawaii enacted HRS Chapter 205A, Hawaii Coastal Zone Management Program, to carry out the State's CZM policies and regulations under the Federal Coastal Zone Management Act (discussed above in Section 4.1.16). The CZM area encompasses the entire state, including 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.

As a result, the project is within the CZM area and subject to consistency with the objectives and policies of the Hawaii CZM Program. The CZM Federal Consistency Certification is reviewed by the State Office of Planning.

The Hawaii CZM program focuses on ten policy objectives:

- 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.

  Discussion: The project area does not contain coastal recreation resources nor will it affect access to coastal recreation opportunities.

- Historic Resources. To protect, preserve, and where desirable, restore those natural and manmade historic and prehistoric resources in the CZM area that are significant in Hawaiian and American history and culture.

  Discussion: Studies focusing on archaeology, historic architecture, and cultural perspectives were conducted for this project, but no historic resources were found within the APE that would be adversely affected by the proposed construction.

- Scenic and Open Space Resources. To protect, preserve, and where desirable, restore or improve the quality of coastal scenic and open space resources.

  Discussion: The project would be developed to ensure visual compatibility with the surrounding environment. The project is not located along the shoreline and is not anticipated to negatively impact coastal and scenic and open space resources.

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

  Discussion: Because of its inland location and with the implementation of mitigation measures and BMPs during construction, the project will not affect coastal ecosystems.

- 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.

  Discussion: The project is not a coastal dependent development.

- Coastal Hazards. To reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.

  Discussion: The project is located within Zone X, an area determined to be outside the 0.2 percent annual chance floodplain. It is not located within a tsunami evacuation zone and is not subject to coastal hazards.

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

  Discussion: A general public announcement was made regarding the CFLHD Hawaii Bridge Program, which covers a number of State highway bridges on three islands. There will be opportunity for the public to review and comment on the project through the HRS Chapter 343 EA process.

- 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.

  Discussion: The project does not contain a public participation component for programmatic coastal management issues. Project-specific input will be elicited through the HRS Chapter 343 EA process.

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

  Discussion: The project is located inland and does not affect Oahu's beaches.

- Marine Resources. To implement the State's ocean resources management plan.

  Discussion: BMPs will be implemented to prevent degradation of the aquatic environment, including the quality of State waters.

Other key areas of the CZM program include: a permit system to control development within a Special Management Area (SMA) managed by each County and the Office of Planning (see Section 4.3.4); a Shoreline Setback Area that serves as a buffer against coastal hazards and erosion, and protects view-planes; and marine and coastal resources. Finally, a Federal Consistency provision requires that Federal activities, permits, and financial assistance be consistent with the Hawaii CZM program.

The proposed project is not located within the City and County of County of Honolulu SMA. The proposed project does not involve the placement, construction, or removal of materials near the coastline. The

proposed project does not have the potential to affect coastal resources. The proposed project is consistent with the CZM objectives that are relevant to preserving the existing highway infrastructure. FHWA will submit a Federal Consistency determination to the Office of Planning for their concurrence.

4.2.5 Act 50, Cultural Practices

Hawaii Act 50 (2000) sought to "promote and protect cultural beliefs, practices, and resources of Native Hawaiians and other ethnic groups" and requires the proposing agency/applicant under Chapter 343 HRS to consider cultural practices in a CIA. A CIA was completed for the project in compliance with this requirement, as discussed in Section 3.11 and in Appendix E.

4.2.6 City and County of Honolulu General Plan

The City and County of Honolulu General Plan is a policy document for the long-range comprehensive development of the island of Oahu and also provides the direction for future growth of the City and County. The current General Plan was amended in October 2002 as Resolution 02-205, CD1 and outlines objectives and policies that address the social, economic, physical, environmental, and design objectives for the general welfare and prosperity of the people of Oahu (DPP, 2002). The project is consistent with the transportation objective of the General Plan which is:

> "To create a multi-modal transportation system which moves people and goods safely, efficiently, and at a reasonable cost and minimizes fossil fuel consumption and greenhouse gas emissions; serves residents and visitors, including limited income, elderly and disabled populations; and is integrated with existing and planned development."

4.2.7 Community Development Plans

The Primary Urban Center Development Plan, adopted in May 2004 (DPP, 2004a), is a general framework for more detailed planning at the neighborhood level and includes the area extending from Kahala to Pearl City across the valleys and coastline plains of Oahu's southern coastline.

The Kalihi-Palama Action Plan, adopted in 2004 (DPP, 2004b), identifies projects and actions designed to achieve the vision of a visually, economically, and socially successful Kalihi-Palama. The plan establishes an urbanized boundary in which most development is to occur (Halona Street Bridge is located within the boundary).

The proposed project is consistent with the land use vision and meets the objectives of both the Primary Urban Center Development Plan and the Kalihi-Palama Action Plan, which encourages the development of pedestrian facilities and infrastructure to support existing land uses surrounding H-1.

4.2.8 Zoning

County zoning provides the most detailed set of regulations affecting land development before actual construction. Zoning is typically limited to lands classified in the Urban District under the State land use system. As shown in Figure 4-2, the project site is zoned as R-5 Residential. The proposed project will not require any zoning change.

4.2.9 Special Management Area

The CZM objectives and policies (HRS § 205A-2) were developed to preserve, protect, and, where possible, restore the natural resources of Hawaii's coastal zone. Any development within the SMA boundary requires a SMA Use permit that is administered by the City and County of Honolulu. The permitting process provides a heightened level of public scrutiny to ensure consistency with SMA objectives.

As shown in Figure 4-3, the proposed project is not located within the City and County of Honolulu's SMA.

4.3 Transportation Plans

4.3.1 Statewide Federal-aid Highways 2035 Transportation Plan

The 2035 Transportation Plan was developed as the State's first long-range multimodal transportation for Federal-aid highways (HDOT, 2014). The plan is intended to guide transportation decisions by identifying goals and solutions within a context of limited resources. It addresses future land transportation needs for motorists, freight, transit, bicyclists, and pedestrians based on land use and socioeconomic projections through 2035.

The long-range plan was developed with participation from a wide spectrum of community members and stakeholders. A series of meetings were held to develop and refine the goal statements. Specifically relevant to this project are the goals provided in Table 4-1, which focus on prudent and timely investments in the transportation (highway) system to maintain functionality and longevity.

TABLE 4-1
Statewide Land Transportation Goals and Objectives

Goals	Objectives	Federal Planning Factor
3.1 Manage transportation assets and optimize investments	Plan and implement maintenance, resurfacing, rehabilitation, and reconstruction to optimize existing transportation system improvements and spending.	Aligns to MAP-21 Performance Goal: Infrastructure Condition—maintain highway infrastructure assets in state of good repair MAP-21, signed into law on July 6, 2012 (P.L. 112-141) is the current Federal authorization for surface transportation whose full title is Moving Ahead for Progress in the 21st Century Act.
3.2 Maintain safe, efficient, complete transportation system for the long term	Plan and implement existing system improvements to effectively sustain the overall transportation system's safe, efficient, and complete operations.	

4.3.2 Oahu Regional Transportation Plan 2035

Each district in the State has a Regional Federal-aid Highways 2035 Transportation Plan or regional long-range land transportation plan. The purpose of this plan is to provide a basis for making multimodal land transportation decisions over a 20-year time frame. As a regional plan, it serves as an interface between overarching State transportation issues and island-specific needs and funding priorities.

The Oahu Regional Transportation Plan (ORTP) considers a nearly 25-year planning horizon that incorporates forecasted population, housing, employment, environmental, land-use, and technology changes (OMPO, 2011). Based upon projected transportation needs, financial resources, and community input, the ORTP identifies strategies and actions to promote the development of an integrated, inter-modal, surface transportation system that facilitates the safe, efficient, and economic movement of people and goods. It also identifies specific highway, transit, freight, bicycle, and pedestrian projects that are designed to improve safety, mitigate congestion, and increase mobility for Oahu's residents and visitors. Projects that appear in the ORTP are eligible for Federal transportation funding assistance. The ORTP is updated every 5 years.

The ORTP "mid-range" project list (to be completed by 2020) identifies the stretch of H-1 from Ola Lane to Vineyard Boulevard for future widening. This project is adjacent to but does not include the proposed project. Also identified in the ORTP are Statewide and Citywide operations and maintenance projects, which includes bridge rehabilitation and replacement.

4.3.3 Oahu Bike Plan

The Oahu Bike Plan, adopted in August 2012, guides the DTS bikeway planning for the entire island of Oahu (DTS, 2012). The plan contains objectives and implementing actions, an inventory of existing facilities, and proposals to expand the network of bicycle facilities.

The bike plan includes a proposal for a future bike path that runs along both sides the Kapalama Canal: along Kohou Street both south and north of H-1 adjacent to the project and along Kokea Street south of H-1. These projects are identified as a Priority 2 project that would only be completed after the Priority 1 projects have been implemented. The proposed project is consistent with the bike plan because it provides bicycle and pedestrian access on a new 7-foot sidewalk and it does not preclude the Kapalama Canal path improvements along Kohou Street north of H-1.

4.3.4 Statewide Pedestrian Master Plan

The Statewide Pedestrian Master Plan, completed in May 2013, provides a comprehensive strategy for improving pedestrian safety, mobility, and accessibility along State highways. The plan identifies and prioritizes pedestrian infrastructure projects throughout the State (HDOT, 2013).

The pedestrian plan does not identify pedestrian infrastructure projects in the vicinity of the Halona Street Bridge. Nevertheless, the 7-foot sidewalk on the replacement bridge would improve safety for pedestrians who may need to use it.

4.4 References

City and County of Honolulu Department of Transportation Services (DTS). 2012. Oahu Bike Plan. August. https://www.honolulu.gov/rep/site/dts/bike_docs/Bicycle-OahuBikePlan-8G-August2012.pdf.

City and County of Honolulu Department of Planning and Permitting (DPP). 2002. General Plan. Amended October 3. http://www.honoluludpp.org/Portals/0/pdfs/planning/generalplan/GPReport.pdf.

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State of Hawaii Department of Transportation (HDOT). 2014. Statewide Federal-Aid Highways 2035 Transportation Plan. July. http://hidot.hawaii.gov/highways/files/2014/09/Statewide-Federal-Aid-Highways-2035-Transportation-Plan_Yong.pdf.

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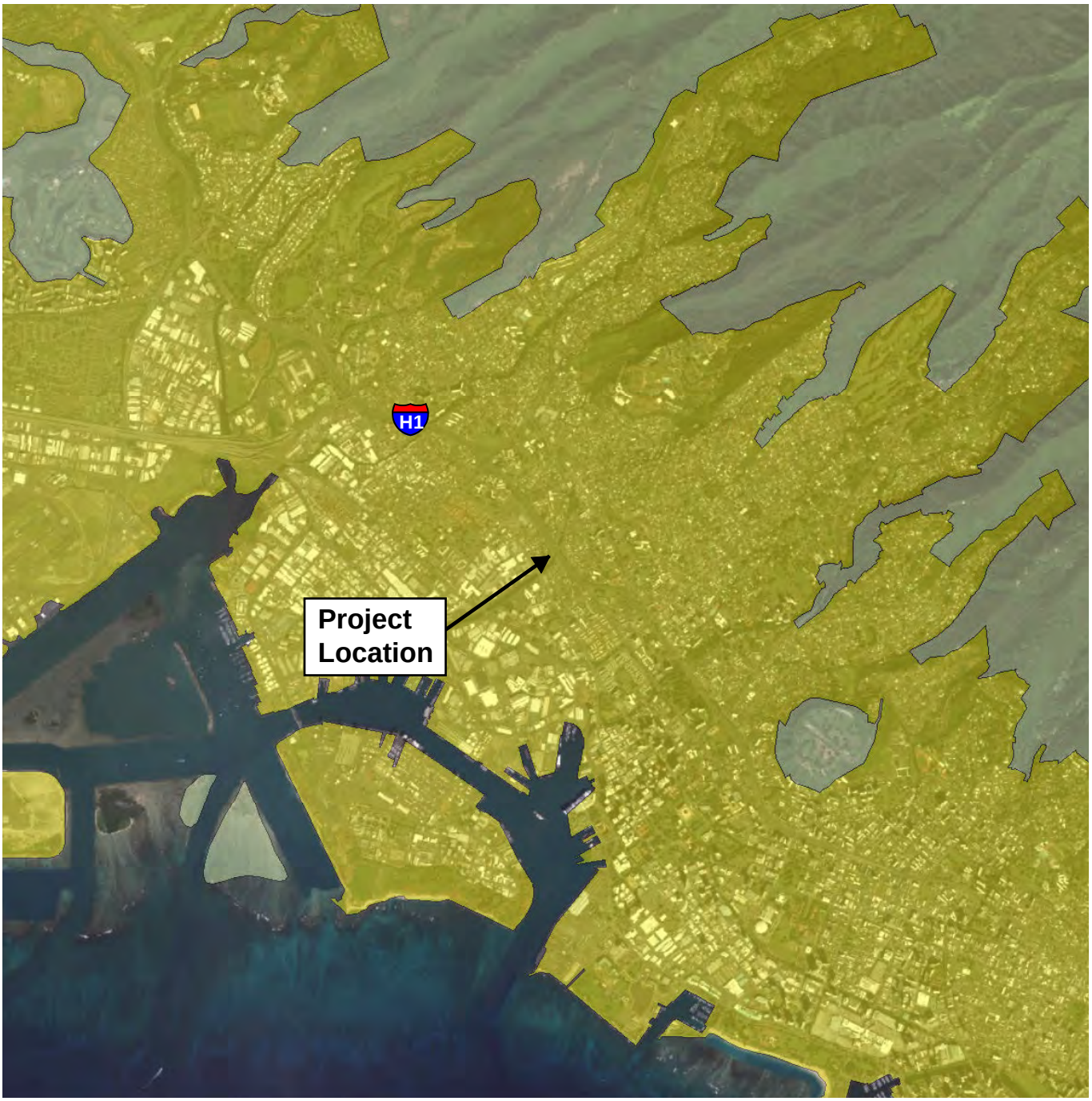


Data Source: Office of State Planning, State Land Use Districts

North

0 0.5 1

Approximate scale in miles

LEGEND

- Conservation
- Urban

FIGURE 4-1
State Land Use District Boundaries
Halona Street Bridge Project
Hawaii Bridges Program –
Central Federal Lands Highway Division and
Hawaii Department of Transportation

Data Source: Hawaii Office of State Planning, Zoning Data

North

0 300 600

Approximate scale in feet

LEGEND

- A-1 Low-density Apartment District
- A-2 Medium-density Apartment District
- R-5 Residential District
- B-2 Community Business District
- BMX-3 Community Business Mixed Use District
- IMX-1 Industrial Mixed Use District
- P-2 General Preservation District

FIGURE 4-2
Zoning
Halona Street Bridge Project
Hawaii Bridges Program –
Central Federal Lands Highway Division and
Hawaii Department of Transportation

Data Source: Office of State Planning, Special Management Areas

North

0 1,000 2,000

Approximate scale in feet

LEGEND

Special Management Area

FIGURE 4-3
Special Management Areas (SMA)
Halona Street Bridge Project
Hawaii Bridges Program –
Central Federal Lands Highway Division and
Hawaii Department of Transportation

SECTION 5

Findings and Reasons Supporting the Determination

This EA found that the potential impacts associated with the proposed project will not be significant, or will be mitigated to less than significant levels. Potential environmental impacts are generally temporary, occurring during construction, and would not be expected to adversely impact the long-term environmental quality of the project area. This section summarizes the significance criteria used to determine whether the proposed project would have a significant effect on the environment

5.1 Significance Criteria

The potential effects of the proposed project were evaluated based on the Significance Criteria specified in HAR Section 11-200-12 (revised in 1996). Discussion of the project's conformance to the criteria is presented as follows.

Involves an irrevocable commitment to, loss or destruction of any natural or cultural resources. The proposed project would not cause significant adverse impacts to biological resources, cultural resources, soils and geology, or water resources, and therefore does not involve irrevocable commitment to, loss or destruction of any natural or cultural resources. The timing of tree trimming and the minimal construction footprint would ensure that there are no significant or long-term effects to any Federally- or State-listed species.

Curtails the range of beneficial uses of the environment. The proposed project would replace an existing structure that is structurally deficient and would have no impact on the beneficial uses of the environment within the project area. In addition, the project area is highly urbanized and does not provide unique habitat in the area.

Conflicts with the State's long-term environmental policies or goals and guidelines, as expressed in HRS Chapter 344, 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 HRS Chapter 344. In particular, the project is consistent with transportation guidelines by improving the region's transportation infrastructure. As discussed in Section 3, the potential impacts related to the proposed project are associated with short-term construction-related activities that can be minimized through implementation of mitigation measures described in this EA.

Substantially affects the economic or social welfare of the community or state. The proposed project would not result in significant socio-economic impacts on the community or state, as it would not cause an increase in population or change the demographic characteristics of the local area. The proposed project would create short-term employment opportunities consisting primarily of construction-related jobs generated by the proposed project. The proposed project would also have a positive impact on the economic and social welfare of the community by improving the long-term functionality of the highway system.

Substantially affects public health. With the exception of short-term, construction-related impacts to ambient air and noise levels, no long-term significant impacts to the public's health and welfare are anticipated. The incorporation of recommended mitigation measures and BMPs during the construction period would minimize these temporary impacts to surrounding communities.

Involves substantial secondary impacts, such as population changes or effects on public facilities. No adverse secondary impacts on the environment, such as population growth or the need to expand public facilities, would be anticipated with the implementation of the proposed project.

Involves a substantial degradation of environmental quality. The proposed project would not cause any impacts that would substantially degrade environmental quality. Construction activities associated with the proposed project are anticipated to result in relatively insignificant short-term impacts to noise, air quality, and traffic in the immediate project vicinity. The incorporation of mitigation measures during the construction period would prevent adverse impacts to the environmental quality.

Is individually limited, but cumulatively has considerable effect on the environment, or involves a commitment for larger actions. The proposed project is a self-contained action and is not part of additional and/or related actions. Land use in the project area consists primarily of residential and commercial uses. No other past, present, or future actions associated with these land uses have been identified that would contribute to significant cumulative impacts for any of the resources considered in this EA.

Substantially affects rare, threatened, or endangered species or its habitat. No rare, threatened, or endangered species, or associated habitat were observed in the project limits. However, the Hawaiian hoary bat, which is Federally and State listed as endangered, has the potential to occur in the project area. Potential impacts from the proposed project to this species are expected to be discountable and temporary and BMPs would be implemented during construction to ensure the protection of the species. BMPs and protocols will be implemented to avoid and minimize contact with individual members of protected migratory birds that may be encountered in the project area.

Detrimentally affects air or water quality or ambient noise levels. Only minimal construction-related, short-term impacts on air quality and noise levels are anticipated. Mitigation measures will be implemented to minimize construction-related noise and dust impacts. Adverse impacts to water resources would be prevented through BMPs and adherence to permit requirements. No long-term, direct or indirect, adverse impacts to these resources are anticipated from implementation of the proposed project.

Affects or is likely to suffer damage by being located in an environmentally sensitive area, such as a floodplain, tsunami zone, beach, erosion prone area, geologically hazardous land, estuary, freshwater, or coastal waters. This project is not located in an environmentally sensitive area; in particular, the replacement bridge is not located within a FEMA-designated floodplain. The project is being designed in accordance with standards appropriate to the geologic, hydrologic, and seismic setting.

Substantially affects scenic vistas and view planes identified in county or state plans or studies. The overall visual quality of the project area would not change as a result of bridge replacement. The proposed project would not obstruct any view planes or scenic vistas.

Requires substantial energy consumption. Construction of the proposed project would not require substantial energy consumption. Fuel will be consumed by construction vehicles and equipment, but this use will be comparable to other construction projects.

5.2 Conclusion

Through bridge design, impact avoidance and minimization actions, and proposed BMPs and mitigation measures, the analysis contained in this EA has determined that project-related impacts would be mitigated to less than significant levels, such that the proposed project would not result in significant adverse impacts.

SECTION 6

Determination

Based on the information presented and examined in this document, the proposed project is not expected to produce significant adverse social, economic, cultural, or environmental impacts. Consequently, a finding of no significant impact is warranted, pursuant to HRS Chapter 343 and the provisions of HAR Subchapter 6 of Chapter 200, Title 11.

SECTION 7

Consultation and Coordination

7.1 Organizations Consulted During Preparation of the Draft Environmental Assessment

The following agencies and organizations were contacted during preparation of the Draft EA. They received preliminary project information and asked to provide comments relative to specific environmental compliance (such as NHPA Section 106 and ESA Section 7) or for general assistance in preparing the Draft EA. A template of the consultation letter is included at the end of this chapter.

Consultation with Native Hawaiian Organizations regarding Historic Preservation is required as part of compliance with NHPA Section 106 and HRS Chapter 6E. Consultation is also occurring with the DLNR SHPD.

7.1.1 Federal

- USACE
- USFWS
- USEPA
- NMFS

7.1.2 State of Hawaii

- Department of Accounting and General Services
- Department of Hawaiian Home Lands
- HDOH, Clean Water Branch
- HDOH, Environmental Planning Office
- DLNR
- Hawaii Emergency Management Agency (formerly State Civil Defense)
- Office of Hawaiian Affairs
- Office of Planning
- SHPO
- Senator Suzanne Chun Oakland, Senate District 13
- Senator Donna Mercado Kim, Senate District 14
- Representative Feki Pouha, House District 47
- Representative Takashi Ohno, House District 27
- Representative John Mizuno, House District 28
- Representative Karl Rhoads, House District 29

7.1.3 City and County of Honolulu

- DTS
- Department of Design and Construction
- Honolulu Fire Department
- DPP
- Honolulu Police Department
- Department of Facility Maintenance
- Department of Environmental Services
- Department of Emergency Services
- Department of Emergency Management
- Department of Parks and Recreation
- Oahu Councilmember Carol Fukunaga

7.1.4 Utilities

- Honolulu BWS
- HECO
- Hawaii Gas
- Hawaiian Telcom
- Oceanic Time Warner Cable
- Sandwich Isles Communications

7.1.5 Organizations

- Sierra Club, Oahu Group of Hawaii Chapter
- Honolulu Cosmopolitan Church

7.1.6 Property Owners/Residents

- Property Owner/Resident TMK: (1) 1-6-006:026
- Property Owner/Resident TMK: (1) 1-6-006:027
- Property Owner/Resident TMK: (1) 1-6-006:029
- Property Owner/Resident TMK: (1) 1-6-006:030
- Property Owner/Resident TMK: (1) 1-6-006:032
- Property Owner/Resident TMK: (1) 1-6-006:047
- Property Owner/Resident TMK: (1) 1-6-006:054
- Property Owner/Resident TMK: (1) 1-6-006:100 through 104
- Property Owner/Resident TMK: (1) 1-6-006:113
- Property Owner/Resident TMK: (1) 1-6-006:115
- Property Owner/Resident TMK: (1) 1-6-006:121
- Property Owner/Resident TMK: (1) 1-6-006:122

7.2 Early Consultation Comment Letters Received

A total of 12 agencies responded to requests for comments during the Draft EA preparation period. Of these, substantive comments from 8 agencies are summarized herein, and are incorporated into relevant sections of the Draft EA. A template of the early consultation letter and reproductions of the comment and response letters are included in Appendix F.

7.2.1 State Agencies

- **HDOH, Clean Water Branch** (letter dated May 18, 2015).

  1. A project that potentially impacts State waters must meet the following: (1) antidegradation policy, (2) designated uses, and (3) water quality criteria.
  2. NPDES permit coverage may be required.
  3. Permit from USACE may be required.
  4. Compliance with State water quality standards is required.
  5. All projects must reduce, reuse, and recycle to protect, restore, and sustain water quality and beneficial uses of State waters.

- **HDOH, Environmental Planning Office** (letter dated May 12, 2015)

  1. Use of the online Hawaii Environmental Health Portal is encouraged.
  2. Water Quality Standards Maps have been updated and are posted online.
  3. University of Hawaii studies related to potential sea level rise changes in Hawaii are available online.

- **DLNR, Commission on Water Resource Management** (memo dated January 7, 2015, attached to letter from Russell Tsuji, Administrator, Land Division, Department of Land and Natural Resources, dated January 15, 2015)

    1. A Stream Channel Alteration Permit is needed before alteration(s) can be made to the stream bed and/or banks.

- **Office of Planning** (letter dated May 1, 2015)

    1. Verify project TMKs.
    2. The Draft EA should contain an analysis of project conformance with the Hawaii State Plan.
    3. The Draft EA should contain an assessment of project conformance with CZM objectives.
    4. Confirm whether a Special Management Area permit is required.
    5. Federal Consistency Review should be listed as a potential requirement.
    6. DEA should include a section on watershed protection and management (see Hawaii Watershed Guidance developed by OP).
    7. Consider OP's Stormwater Impact Assessment when evaluating project-related stormwater impacts.
    8. Consider Low Impact Development design concepts and BMPs.

County Agencies

- **City and County of Honolulu Police Department** (letter dated April 27, 2015)

    1. The stability of the bridges and the disturbance of traffic flow require measures to be implemented for the safety of the motorists driving on the bridges.
    2. The integrity of the bridges must be preserved to prevent them from any structural breakdown and collapsing.
    3. When construction begins, traffic control devices (for example, flag persons, clear signage and cones, and special duty officers, etc.) should be used to facilitate movements throughout the project area.

- **Honolulu Department of Facility Maintenance** (letter dated July 22, 2015): Approximate project limits are near the vicinity of two storm drains the City maintains.

- **Honolulu Department of Transportation Services** (letter dated May 13, 2015):

    1. The Traffic Management Plan should include community outreach, detour information, and any traffic impacts that the project may have on the surrounding city roadways, including short-term impacts during construction and corresponding measures to mitigate these impacts.
    2. The Traffic Management Plan should address how vehicles, buses, bicyclists, pedestrians, etc. will be detoured during periods of full road closure. The Traffic Engineering Division recommends detouring vehicles on to the auxiliary lane on H-1 rather than detouring all traffic on to School Street.
    3. The area Neighborhood Board, as well as the area residents, businesses, and emergency personnel (fire, ambulance and police), should be kept apprised of the details of the proposed project and the impacts the project may have on the adjoining local street area network, particularly during construction.
    4. The construction materials and equipment should be transferred to and from the project site during off-peak traffic hours (8:30 am to 3:30 pm) to minimize any possible disruption to traffic on the local streets.

- **Honolulu Fire Department** (letter dated April 287, 2015):

    1. Bridge should be brought up to current standards to allow our apparatuses to traverse without any restrictions.

    2. The Honolulu Fire Department should be informed of road closures, lane closures, or any condition that would affect our emergency response.

7.3 Public Involvement

A public meeting was held on July 28, 2015, at the Likelike Elementary School (1618 Palama Street), to provide an overview of the project and obtain feedback from the community. Three residents and one State Representative (Karl Rhoads) attended the meeting. In general, all attendees stressed the need for the project to address public access to the Kapalama Canal near the bridges. State Representative Rhoads mentioned that this is the number one concern from his constituents. Additional comments and questions raised at the meeting were as follows:

- Safety and the need to deter access to the Kapalama Canal: One resident noted that persons that loiter around the canal had robbed him several times.
- Parking, access, and notification: Residents would like to continue to be informed about the project.
- Questions regarding modifications to Kapalama Stream: Representative Rhoades asked whether the streambed would be modified and recommended restoring the canal to its natural state.

7.4 Agencies, Organizations, and Individuals Contacted During the Draft EA Review Period

The following agencies, organizations, and individuals were contacted during the Draft EA public review and comment period. Written comments on the Draft EA were received from nineteen agencies. Comment and response letters are reproduced at the end of this section.

7.4.1 Federal

- USACE
- USFWS
- USEPA
- NMFS

7.4.2 State of Hawaii

- Department of Accounting and General Services
- Department of Hawaiian Home Lands
- HDOH Clean Water Branch
- HDOH, Environmental Planning Office
- DLNR
- Hawaii Emergency Management Agency
- Office of Hawaiian Affairs
- Office of Planning
- SHPO
- Senator Suzanne Chun Oakland, Senate District 13
- Senator Donna Mercado Kim, Senate District 14
- Representative Takashi Ohno, House District 27
- Representative John Mizuno, House District 28
- Representative Karl Rhoads, House District 29

7.4.3 City and County of Honolulu

- DTS
- Department of Design and Construction
- Department of Planning and Permitting
- Department of Facility Maintenance
- Department of Environmental Services
- Department of Emergency Services
- Department of Emergency Management
- Department of Parks and Recreation
- Honolulu Fire Department
- Honolulu Police Department
- Oahu Councilmember Carol Fukunaga

7.4.4 Utilities

- Honolulu BWS
- HECO
- Hawaii Gas
- Hawaiian Telcom
- Oceanic Time Warner Cable
- Sandwich Isles Communications

7.4.5 Organizations

- North Shore Chamber of Commerce
- Sierra Club, Oahu Group of Hawaii Chapter
- Honolulu Cosmopolitan Church

7.4.6 Individuals

- Property Owners/Residents adjacent to Halona Street, Kokea Street, and Kohou Street
- Local Neighborhood Board

7.4.7 Media

- *The Honolulu Star-Advertiser*

7.4.8 Public Library

- Kalihi-Palama Public Library (hardcopy will be available for public review)

DRAFT EA COMMENT AND RESPONSE LETTERS

- State of Hawaii Department of Accounting and General Services
- State of Hawaii Department of Health, Environmental Planning Office
- State of Hawaii Department of Health, Clean Water Branch
- State of Hawaii Department of Health, Office of Environmental Quality Control
- State of Hawaii Department of Land and Natural Resources, Engineering Division
- State of Hawaii Department of Land and Natural Resources, Land Division
- State of Hawaii Department of Land and Natural Resources, Commission of Water Resource Management
- State of Hawaii Office of Planning
- Hawaii Emergency Management Agency
- City and County of Honolulu Board of Water Supply
- City and County of Honolulu Department of Transportation Services
- City and County of Honolulu Department of Design and Construction
- City and County of Honolulu Department of Facility Maintenance
- City and County of Honolulu Department of Environmental Services
- City and County of Honolulu Department of Parks and Recreation
- Honolulu Fire Department
- Honolulu Police Department
- Office of Hawaiian Affairs
- Hawaiian Electric Company
- Hawaiian Telcom

DAVID Y. IGE
GOVERNOR

DOUGLAS MURDOCK
Comptroller

AUDREY HIDANO
Deputy Comptroller

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

(P)1055.6

MAR 14 2016

Mr. J. Michael Will, P.E.
Central Federal Lands Highway Division
Federal Highway Administration
12300 West Dakota Avenue, Suite 380A
Lakewood, CO 80228-2583

Dear Mr. Will:

Subject: Draft Environmental Assessment
Halona Street Bridge Replacement, Project No. HI STP H1(1)
Interstate Route H-1 (Adjacent), Honolulu District, Oahu Island
TMK: (1) 1-6-002(1) 1-6-006

Thank you for the opportunity to provide comments for the subject project. The proposed project does not impact any of the Department of Accounting and General Services' projects or existing facilities, and we have no comments to offer at this time

If you have any questions, your staff may call Mr. David DePonte of the Public Works Division at 586-0492.

Sincerely,

FOR DOUGLAS MURDOCK
Comptroller

c: Ms. Kathleen Chu

DAVID Y. IGE
GOVERNOR OF HAWAII

VIRGINIA PRESSLER, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
File:

EPO 16-059

February 25, 2016

Ms. Kathleen Chu
CH2M Hill
1132 Bishop Street, Suite 1100
Honolulu, Hawaii 96813

Dear Ms. Chu:

SUBJECT: Draft Environmental Assessment (DEA) for Halona Bridge Replacement Project Kapalama Canal, Kalihi District, Oahu

The Department of Health (DOH), Environmental Planning Office (EPO), acknowledges receipt of your DEA to our office via the OEQC link:
http://oeqc.doh.hawaii.gov/Shared%20Documents/EA_and_EIS_Online_Library/Oahu/2010s/2016-02-23-OA-5B-DEA-Halona-Street-Bridge-Replacement.pdf

EPO strongly recommends that you review the standard comments and available strategies to support sustainable and healthy design provided at: http://health.hawaii.gov/epo/landuse. Projects are required to adhere to all applicable standard comments. EPO has recently prepared draft Environmental Health Management Maps for each county. They are online at: http://health.hawaii.gov/epo/egis

We suggest you review the requirements for the National Pollutant Discharge Elimination System (NPDES) permit. We recommend contacting the Clean Water Branch at (808) 586-4309 or cleanwaterbranch@doh.hawaii.gov after relevant information is reviewed at:

1. http://health.hawaii.gov/cwb
2. http://health.hawaii.gov/cwb/site-map/clean-water-branch-home-page/standard-npdes-permit-conditions
3. http://health.hawaii.gov/cwb/site-map/clean-water-branch-home-page/forms

If noise created during the construction phase of the project may exceed the maximum allowable levels as set forth in Hawaii Administrative Rules, Chapter 11-46, "Community Noise Control". A noise permit may be required and should be obtained before the commencement of work. Please call the Indoor and Radiological Health Branch at (808) 586-4700 and review relevant information online at: http://health.hawaii.gov/irhb/noise

EPO encourages you to examine and utilize the Hawaii Environmental Health Portal. The portal provides links to our e-Permitting Portal, Environmental Health Warehouse, Groundwater Contamination Viewer, Hawaii Emergency Response Exchange, Hawaii State and Local Emission Inventory System, Water Pollution Control Viewer, Water Quality Data, Warnings, Advisories and Postings. The Portal is continually updated. Please visit it regularly at: https://eha-cloud.doh.hawaii.gov

You may also wish to review the draft Office of Environmental Quality Control (OEQC) viewer at: http://eha-web.doh.hawaii.gov/oeqc-viewer This viewer geographically shows where previous Hawaii Environmental Policy Act (HEPA) {Hawaii Revised Statutes, Chapter 343} documents have been prepared.

In order to better protect public health and the environment, the U.S. Environmental Protection Agency (EPA) has developed a new environmental justice (EJ) mapping and screening tool called EJSCREEN. It is based on nationally consistent data and combines environmental and demographic indicators in maps and reports. EPO encourages you to explore, launch and utilize this powerful tool in planning your project. The EPA EJSCREEN tool is available at: http://www2.epa.gov/ejscreen

We request that you utilize all of this information on your proposed project to increase sustainable, innovative, inspirational, transparent and healthy design.

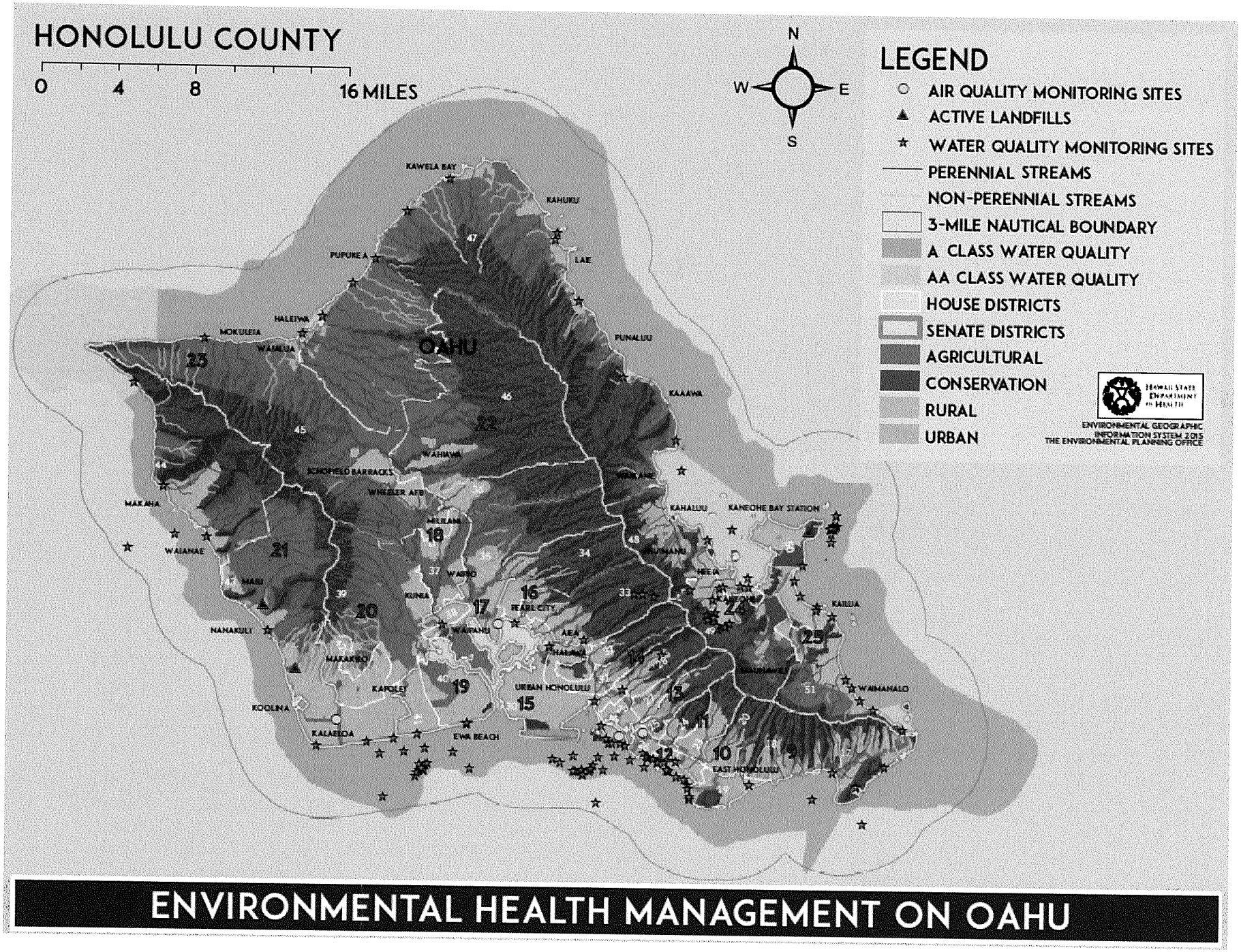
Mahalo nui loa,

Laura Leialoha Phillips McIntyre, AICP
Program Manager, Environmental Planning Office

LM:nn

Attachment 1: EPO Draft Environmental Health Management Map
Attachment 2: OEQC Viewer Map of Area
Attachment 3: U.S. EPA EJSCREEN Report

c: Kevin Ito, Department of Transportation
DOH: CWB, IRHB {via email only}


HONOLULU COUNTY
0 4 8 16 MILES
N
W E
S
LEGEND
AIR QUALITY MONITORING SITES
ACTIVE LANDFILLS
WATER QUALITY MONITORING SITES
PERENNIAL STREAMS
NON-PERENNIAL STREAMS
3-MILE NAUTICAL BOUNDARY
A CLASS WATER QUALITY
AA CLASS WATER QUALITY
HOUSE DISTRICTS
SENATE DISTRICTS
AGRICULTURAL
CONSERVATION
RURAL
URBAN
HAWAII STATE DEPARTMENT OF HEALTH
ENVIRONMENTAL GEOGRAPHIC INFORMATION SYSTEM 2015
THE ENVIRONMENTAL PLANNING OFFICE
OAHU
KAWELA BAY
KAHUKU
PUPUKEA
LAIE
HALEIWA
MOKULEIA
WAIALUA
PUNALUU
KAAAWA
WAHIAWA
SCHOFIELD BARRACKS
WHEELER AFB
WAIANAE
MAKAHA
WAIMAE
MILILANI
KAHALUU
KANEOHE BAY STATION
WAIPIO
HEEIA
KUNIA
PEARL CITY
WAIPAHU
AIEA
HALAWA
KAILUA
NANAKULI
MAKAKILO
KAPOLEI
URBAN HONOLULU
WAIMANALO
KOOLINA
KALAELOA
EWA BEACH
EAST HONOLULU
ENVIRONMENTAL HEALTH MANAGEMENT ON OAHU

hawaii.gov Stay Connected

OEQC Viewer

halona street

2 sites found

Results | Filter

Map Location

Halona St, Honolulu, HI 96817, USA

Kuhua Street Extension (DEA-AFNSI)
Environmental Assessment (Agency)

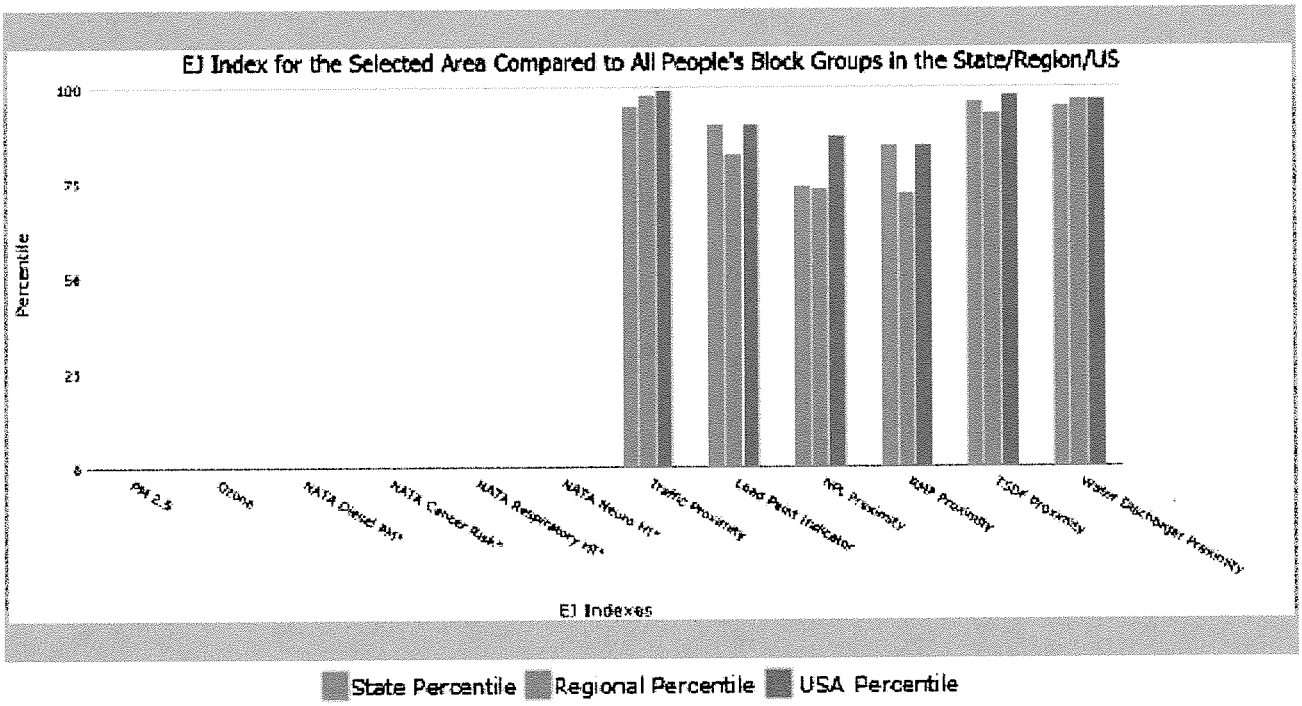
MARKET STREET IMPROVEMENT (FEA-FONSI)
Environmental Assessment (Agency)

EJSCREEN Report

for 1 mile Ring Centered at 21.326544,-157.867439, HAWAII, EPA Region 9

Approximate Population: 52173

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
EJ Indexes			
EJ Index for PM2.5	N/A	N/A	N/A
EJ Index for Ozone	N/A	N/A	N/A
EJ Index for NATA Diesel PM*	N/A	N/A	N/A
EJ Index for NATA Air Toxics Cancer Risk*	N/A	N/A	N/A
EJ Index for NATA Respiratory Hazard Index*	N/A	N/A	N/A
EJ Index for NATA Neurological Hazard Index*	N/A	N/A	N/A
EJ Index for Traffic Proximity and Volume	95	98	99
EJ Index for Lead Paint Indicator	90	82	90
EJ Index for Proximity to NPL sites	74	73	87
EJ Index for Proximity to RMP sites	85	72	85
EJ Index for Proximity to TSDFs	96	93	98
EJ Index for Proximity to Major Direct Dischargers	95	97	97

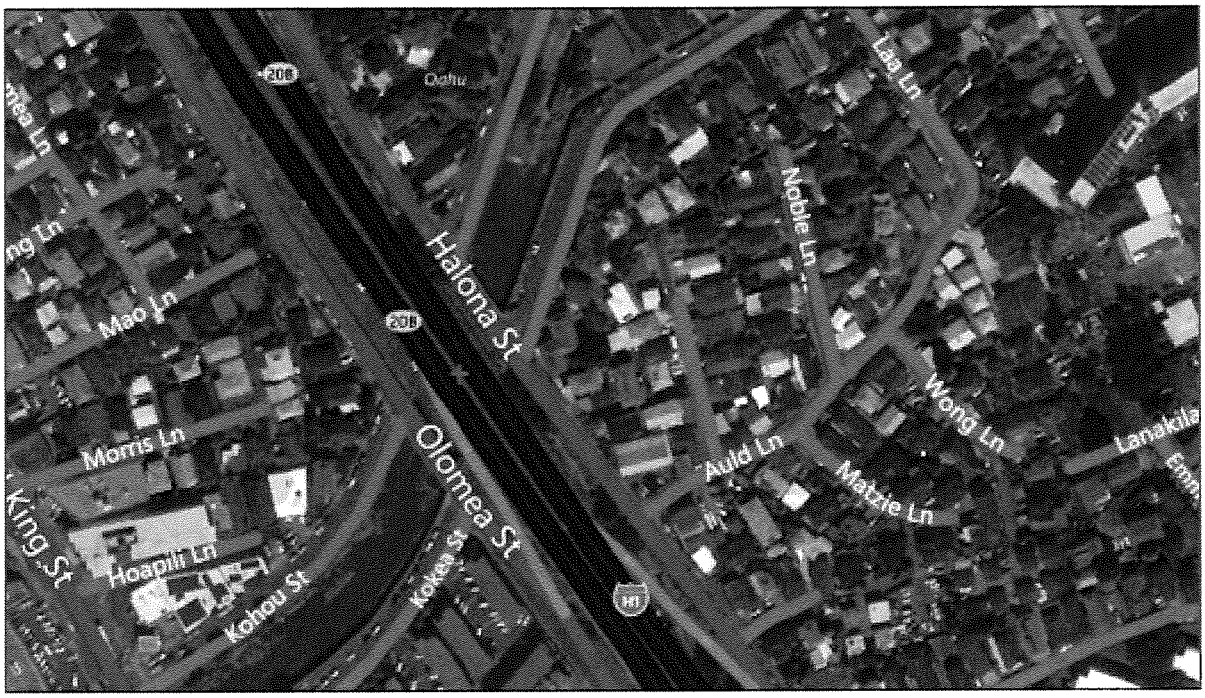


This report shows environmental, demographic, and EJ indicator values. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

EJSCREEN Report

for 1 mile Ring Centered at 21.326544,-157.867439, HAWAII, EPA Region 9

Approximate Population: 52173



February 24, 2016

Digitized Point

1:2,257

EJSCREEN Report

for 1 mile Ring Centered at 21.326544,-157.867439, HAWAII, EPA Region 9

Approximate Population: 52173

Selected Variables	Raw Data	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in µg/m³)	N/A	N/A	N/A	9.95	N/A	9.78	N/A
Ozone (ppb)	N/A	N/A	N/A	49.7	N/A	46.1	N/A
NATA Diesel PM (µg/m³)*	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NATA Cancer Risk (lifetime risk per million)*	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NATA Respiratory Hazard Index*	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NATA Neurological Hazard Index*	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Traffic Proximity and Volume (daily traffic count/distance to road)	1100	280	92	190	97	110	98
Lead Paint Indicator (% Pre-1960 Housing)	0.38	0.17	81	0.25	69	0.3	66
NPL Proximity (site count/km distance)	0.067	0.092	63	0.11	56	0.096	62
RMP Proximity (facility count/km distance)	0.2	0.18	78	0.41	56	0.31	64
TSDF Proximity (facility count/km distance)	0.34	0.092	96	0.12	94	0.054	98
Water Discharger Proximity (facility count/km distance)	0.77	0.33	90	0.19	96	0.25	93
Demographic Indicators							
Demographic Index	66%	51%	90	46%	77	35%	86
Minority Population	96%	77%	89	57%	91	36%	94
Low Income Population	37%	25%	78	35%	57	34%	59
Linguistically Isolated Population	24%	6%	95	9%	87	5%	94
Population With Less Than High School Education	26%	10%	95	18%	71	14%	83
Population Under 5 years of age	5%	6%	44	7%	39	7%	43
Population over 64 years of age	18%	14%	71	12%	82	13%	78

* The National-scale Air Toxics Assessment (NATA) environmental indicators and EJ indexes, which include cancer risk, respiratory hazard, neurodevelopment hazard, and diesel particulate matter will be added into EJSCREEN during the first full public update after the soon-to-be-released 2011 dataset is made available. The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: http://www.epa.gov/ttn/atw/natamain/index.html.

For additional information, see: www.epa.gov/environmentaljustice

U.S. Department of Transportation
Federal Highway Administration

Central Federal Lands Highway Division

12300 West Dakota Avenue
Suite 380
Lakewood, CO 80228
Office: 720-963-3647
Fax: 720-963-3596
Michael.Will@dot.gov

August 3, 2016

In Reply Refer To:
HFPM-16

TO: LAURA LEIALOHA PHILLIPS McINTYRE, AICP
PROGRAM MANAGER, ENVIRONMENTAL PLANNING OFFICE
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HI 96801

FROM: J. MICHAEL WILL, P.E.
PROJECT MANAGER

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA)
HALONA STREET BRIDGE REPLACEMENT, PROJECT NO. STP H1(1)
H-1 INTERSTATE (ADJACENT), KALIHI DISTRICT, ISLAND OF OAHU;
TMK: [1] 1-6-002; [1] 1-6-006

Dear Ms. McIntyre:

Thank you for sending comments on the Draft EA by letter dated February 25, 2016.

We acknowledge and have reviewed the information you provided on the Environmental Health Management Maps, NPDES and noise permit requirements, the Hawaii Environmental Health Portal, OEQC viewer, and EPA EISCREEN tool. These resources are helpful and are being utilized in project planning and permitting.

We appreciate your participation in the environmental review process. If you have any questions, please contact me at (720) 963-3647, or by email at Michael.will@dot.gov.

Sincerely yours,

J. Michael Will, P.E.
Project Manager

Cc:
Kevin Ito, HDOT
Thomas Parker, CFLHD
Kathleen Chu, CH2M HILL

DAVID Y. IGE
GOVERNOR OF HAWAII

VIRGINIA PRESSLER, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
File:

02057PGH.16

February 29, 2016

Mr. Kevin Ito
Highways Division
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Ito:

SUBJECT: Comments on Halona Street Bridge Replacement DEA (AFONSI)

The Department of Health (DOH), Clean Water Branch (CWB), acknowledges publication in the Environmental Notice, dated February 23, 2016, requesting comments on your project. The DOH-CWB has reviewed the subject document and offers these comments. Please note that our review is based solely on the information provided in the subject document and its compliance with the Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at:
http://health.hawaii.gov/epo/files/2013/05/Clean-Water-Branch-Std-Comments.pdf

1. Any project and its potential impacts to State waters must meet the following criteria:

   a. Antidegradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.

   b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.

   c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).

2. You may be required to obtain National Pollutant Discharge Elimination System (NPDES) permit coverage for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55).

   For NPDES general permit coverage, a Notice of Intent (NOI) form must be submitted at least 30 calendar days before the commencement of the discharge. An application for a NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. To request NPDES permit coverage, you must submit the applicable form ("CWB Individual NPDES

Form" or "CWB NOI Form") through the e-Permitting Portal and the hard copy certification statement with the respective filing fee ($1,000 for an individual NPDES permit or $500 for a Notice of General Permit Coverage). Please open the e-Permitting Portal website located at: https://eha-cloud.doh.hawaii.gov/epermit/. You will be asked to do a one-time registration to obtain your login and password. After you register, click on the Application Finder tool and locate the appropriate form. Follow the instructions to complete and submit the form.

3. If your project involves work in, over, or under waters of the United States, it is highly recommended that you contact the Army Corp of Engineers, Regulatory Branch (Tel: 835-4303) regarding their permitting requirements.

   Pursuant to Federal Water Pollution Control Act [commonly known as the "Clean Water Act" (CWA)], Paragraph 401(a)(1), a Section 401 Water Quality Certification (WQC) is required for "[a]ny applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may **result** in any discharge into the navigable waters..." (emphasis added). The term "discharge" is defined in CWA, Subsections 502(16), 502(12), and 502(6); Title 40 of the Code of Federal Regulations, Section 122.2; and HAR, Chapter 11-54.

4. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 WQC are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of $25,000 per day per violation.

5. It is the State's position that all projects must reduce, reuse, and recycle to protect, restore, and sustain water quality and beneficial uses of State waters. Project planning should:

   a. Treat storm water as a resource to be protected by integrating it into project planning and permitting. Storm water has long been recognized as a source of irrigation that will not deplete potable water resources. What is often overlooked is that storm water recharges ground water supplies and feeds streams and estuaries; to ensure that these water cycles are not disrupted, storm water cannot be relegated as a waste product of impervious surfaces. Any project planning must recognize storm water as an asset that sustains and protects natural ecosystems and traditional beneficial uses of State waters, like community beautification, beach going, swimming, and fishing. The approaches necessary to do so, including low impact development methods or ecological bio-engineering of drainage ways must be identified in the planning stages to allow designers opportunity to include those approaches up front, prior to seeking zoning, construction, or building permits.

b. Clearly articulate the State's position on water quality and the beneficial uses of State waters. The plan should include statements regarding the implementation of methods to conserve natural resources (e.g. minimizing potable water for irrigation, gray water re-use options, energy conservation through smart design) and improve water quality.

c. Consider storm water Best Management Practice (BMP) approaches that minimize the use of potable water for irrigation through storm water storage and reuse, percolate storm water to recharge groundwater to revitalize natural hydrology, and treat storm water which is to be discharged.

d. Consider the use of green building practices, such as pervious pavement and landscaping with native vegetation, to improve water quality by reducing excessive runoff and the need for excessive fertilization, respectively.

e. Identify opportunities for retrofitting or bio-engineering existing storm water infrastructure to restore ecological function while maintaining, or even enhancing, hydraulic capacity. Particular consideration should be given to areas prone to flooding, or where the infrastructure is aged and will need to be rehabilitated.

If you have any questions, please visit our website at: http://health.hawaii.gov/cwb/, or contact the Engineering Section, CWB, at (808) 586-4309.

Sincerely,

ALEC WONG, P.E., CHIEF
Clean Water Branch

GH:ak

c: DOH-EPO #16-059 [via e-mail Noella.Narimatsu@doh.hawaii.gov only]
Ms. Kathleen Chu, CH2M HILL [via e-mail kathleen.chu@ch2m.com only]

U.S. Department of Transportation
Federal Highway Administration

Central Federal Lands Highway Division

12300 West Dakota Avenue
Suite 380
Lakewood, CO 80228
Office: 720-963-3647
Fax: 720-963-3596
Michael.Will@dot.gov

August 3, 2016

In Reply Refer To:
HFPM-16

TO: ALEC WONG, P.E.
CHIEF, CLEAN WATER BRANCH
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HI 96801

FROM: J. MICHAEL WILL, P.E.
PROJECT MANAGER

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA)
HALONA STREET BRIDGE REPLACEMENT, PROJECT NO. STP H1(1)
H-1 INTERSTATE (ADJACENT), KALIHI DISTRICT, ISLAND OF OAHU;
TMK: [1] 1-6-002; [1] 1-6-006

Dear Mr. Wong:

Thank you for sending comments on the Draft EA by letter dated February 29, 2016.

Your comments on permitting requirements, applicable regulations and policies, and online resources are helpful in moving the project forward. We will be submitting a request for Section 401 Water Quality Certification in conjunction with our application for a Department of the Army (Section 404) permit. The NPDES permit for construction will be obtained by the contractor.

We appreciate your participation in the environmental review process. If you have any questions, please contact me at (720) 963-3647, or by email at Michael.will@dot.gov.

Sincerely yours,

J. Michael Will, P.E.
Project Manager

Cc:
Kevin Ito, HDOT
Thomas Parker, CFLHD
Kathleen Chu, CH2M HILL

OFFICE OF ENVIRONMENTAL QUALITY CONTROL

DAVID Y. IGE
GOVERNOR

SCOTT GLENN
INTERIM DIRECTOR

DEPARTMENT OF HEALTH, STATE OF HAWAI'I
235 South Beretania Street, Suite 702, Honolulu, HI 96813

Phone: (808) 586-4185
Email: oeqchawaii@doh.hawaii.gov

RECEIVED

MAR 23 2016

March 21, 2016

Mr. Ford N. Fuchigami, Director
Department of Transportation
State of Hawai'i
869 Punchbowl Street
Honolulu, HI 96813-5097

Dear Mr. Fuchigami:

SUBJECT: Draft Environmental Assessment (DEA) and Anticipated Finding of No Significant Impact (AFNSI) for Halona Street Bridge Replacement, HWY-DS-2.0784

Having received your February 4, 2016 letter, transmitting the subject document, the Office of Environmental Quality Control offers the following comments for your consideration:

1. Best Management Practices (BMPs): Before work, the OEQC strongly encourages the Department of Transportation to check with the Clean Water Branch of the Department of Health regarding BMPs to minimize water runoff from the project site.
2. Homelessness: Public rights-of-way (ROW) in Honolulu have been and are likely being use by homeless persons as living quarters. Homeless and other citizens have been using the waters of the Kapalama canal for subsistence fishing (for mullet and crabs). Please discuss what measures will be in place to ensure that no homeless persons are present in the vicinity of the project site prior to work.
3. Please discuss the long term effects of climate change and sea-level rise on the proposed project.
4. Native vegetation: Please consider using the requirements of Act 233, Session Laws of Hawai'i (native vegetation in landscaping).

Thank you for the opportunity to review and comment. If there any questions, please contact Leslie Segundo of our office at (808) 586-4185.

Sincerely,

Scott Glenn
Interim Director

16-233

U.S. Department of Transportation
Federal Highway Administration

Central Federal Lands Highway Division

12300 West Dakota Avenue
Suite 380
Lakewood, CO 80228
Office: 720-963-3647
Fax: 720-963-3596
Michael.Will@dot.gov

August 3, 2016

In Reply Refer To:
HFPM-16

TO: SCOTT GLENN
INTERIM DIRECTOR, OFFICE OF ENVIRONMENTAL QUALITY CONTROL
DEPARTENT OF HEALTH
235 SOUTH BERETANIA STREET, SUITE 702
HONOLULU, HI 96813

FROM: J. MICHAEL WILL, P.E.
PROJECT MANAGER

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA)
HALONA STREET BRIDGE REPLACEMENT, PROJECT NO. STP H1(1)
H-1 INTERSTATE (ADJACENT), KALIHI DISTRICT, ISLAND OF OAHU;
TMK: [1] 1-6-002; [1] 1-6-006

Dear Mr. Glenn:

Thank you for sending comments on the Draft EA by letter dated March 21, 2016.

We acknowledge the need to coordinate with the Clean Water Branch of the Department of Health regarding BMPs to minimize water runoff from the project site. This coordination will occur as part of the process of submitting a request for Clean Water Act Section 401 Water Quality Certification.

Regarding the request to discuss measures that will be in place to ensure that no homeless persons are present in the project site, text was added to Section 3.18.3 to explain that provisions will be put in place to secure and limit public access to the active construction zone, such that public safety hazards are not anticipated.

HDOT currently does not evaluate the future threat of sea level rise (SLR) when constructing within the coastal zone. The School of Ocean and Earth Science and Technology (SOEST) at the University of Hawaii is studying the potential threat of sea level rise on the islands. SOEST has projected a schedule of global mean SLR based on published best and worst case scenarios that SOESTs suggests could be adopted in Hawaii in lieu of a local analysis (Table 1).

Schedule of sea-level rise 2011 to 2100		
	Worst case	Best Case
1 ft	2040	2050
2 ft	2050	2070
3 ft	2070	2090

SOURCE: http://www.soest.hawaii.edu/coasts/sealevel/index.html (accessed May 23, 2016)

The proposed Halona Bridge would be designed for a life span of 75 years and the elevation of the proposed bridge deck is approximately 11.5 ft.; therefore, it is anticipated that SLR would not affect the use of the bridge during its life time under the best case scenario (best case SLR of 3 ft by 2090), as well as worst case scenario if 1 foot/10 year is assumed out to 2090 (worst case SLR of 5 ft by 2090). Adjacent roadways with elevations less than 11.5 ft could be affected by SLR before Halona Bridge. It is, instead, anticipated that SLR will be addressed in the design if a future bridge is required to cross Halona Channel at the existing bridge location.

Lastly, we acknowledge the request to consider the use of native vegetation in landscaping. As noted in Section 3.7.2, use of native species will be considered for revegetation where warranted and suitable for the site conditions.

We appreciate your participation in the environmental review process. If you have any questions, please contact me at (720) 963-3647, or by email at Michael.will@dot.gov.

Sincerely yours,

J. Michael Will, P.E.
Project Manager

Cc:
Kevin Ito, HDOT
Thomas Parker, CFLHD
Kathleen Chu, CH2M HILL

DAVID Y. IGE
GOVERNOR OF HAWAII

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

March 24, 2016

Central Federal Lands Highway Division
Federal Highway Administration
Attention: Mr. Michael Will
12300 West Dakota Avenue, Suite 380A
Lakewood, CO 80228-2583

via email: Michael.Will@dot.gov

Dear Mr. Will:

SUBJECT: Halona Street Bridge Replacement, Project No. HI STP H1 (1)

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comments.

At this time, enclosed are comments from the (a) Engineering Division, (b) Land Division – Oahu District, and (c) Commission on Water Resources Management on the subject matter. Should you have any questions, please feel free to call Lydia Morikawa at 587-0410. Thank you.

Sincerely,

Russell Y. Tsuji
Land Administrator

Enclosure(s)
cc: Central Files

DAVID Y. IGE
GOVERNOR OF HAWAII

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

'16 FEB 26 AM10:49 ENGINEERING

February 25, 2016

MEMORANDUM

TO: FR:

DLNR Agencies:
___Div. of Aquatic Resources
___Div. of Boating & Ocean Recreation
X Engineering Division
___Div. of Forestry & Wildlife
___Div. of State Parks
X Commission on Water Resource Management
___Office of Conservation & Coastal Lands
X Land Division – Oahu District
X Historic Preservation

D:

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Halona Street Bridge Replacement, Project No. HI STP H1(1)
LOCATION: Interstate Route H-1 (Adjacent), Honolulu District; Island of Oahu
TMK: (1) 1-6-002 & 006
APPLICANT: U.S. Department of Transportation, Federal Highway Administration

DEPT. OF LAND & NATURAL RESOURCES STATE OF HAWAII
2016 MAR -2 PM 12:03
RECEIVED LAND DIVISION

Transmitted for your review and comment is information on the above-referenced project. We would appreciate your comments on this project. Please submit any comments by **March 23, 2016.**

The DEA can be found on-line at: http://health.hawaii.gov/oeqc/ (Click on the Current Environmental Notice under Quick Links on the right.)

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Lydia Morikawa at 587-0410. Thank you.

Attachments

( ) We have no objections.
( ) We have no comments.
(✓) Comments are attached.

Signed: _____

Print Name: Carty S. Chang, Chief Engineer

Date: 3/1/16

cc: Central Files

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/ Russell Y. Tsuji
REF: Halona Street Bridge Replacement, Project No. HI STP H1(1)
Oahu.016

COMMENTS

( ) We confirm that the parcel/project site, according to the Flood Insurance Rate Map (FIRM), is located in Zones X. The National Flood Insurance Program does not regulate developments within Zones X.

(X) According to the Flood Insurance Rate Map (FIRM), the project site is located in Zone X. The National Flood Insurance Program does not regulate developments within Zone X.

( ) The correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is ___.

( ) The project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

( ) The applicant should include project water demands and infrastructure required to meet water demands. Please note that the implementation of State-sponsored projects requiring water service from the Honolulu Board of Water Supply system must first obtain water allocation credits from the Engineering Division before it can receive a building permit and/or water meter.

( ) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.

( ) Additional Comments: _____

_____

( ) Other: _____

_____

Should you have any questions, please call Mr. Rodney Shiraishi of the Planning Branch at 587-0258.

Signed: _____
CARTY S. CHANG, CHIEF ENGINEER

Date: 3/21/16

BASEMAP: FIRM BASEMAP

Flood Hazard Assessment Report

www.hawaiinfip.org

Property Information

COUNTY:	HONOLULU
TMK NO:	(1) 1-6-002:002
WATERSHED:	KAPALAMA
PARCEL ADDRESS:	1018 AULD LN HONOLULU, HI 96817

Notes:

Flood Hazard Information

FIRM INDEX DATE:	NOVEMBER 05, 2014
LETTER OF MAP CHANGE(S):	NONE
FEMA FIRM PANEL:	15003C0354G
PANEL EFFECTIVE DATE:	JANUARY 19, 2011

THIS PROPERTY IS WITHIN A TSUNAMI EVACUTION ZONE: NO
FOR MORE INFO, VISIT: http://www.scd.hawaii.gov/

THIS PROPERTY IS WITHIN A DAM EVACUATION ZONE: NO
FOR MORE INFO, VISIT: http://dlnreng.hawaii.gov/dam/

0 20 40 ft

Disclaimer: The Hawaii Department of Land and Natural Resources (DLNR) assumes no responsibility arising from the use, accuracy, completeness, and timeliness of any information contained in this report. Viewers/Users are responsible for verifying the accuracy of the information and agree to indemnify the DLNR, its officers, and employees from any liability which may arise from its use of its data or information.

If this map has been identified as 'PRELIMINARY', please note that it is being provided for informational purposes and is not to be used for flood insurance rating. Contact your county floodplain manager for flood zone determinations to be used for compliance with local floodplain management regulations.

FLOOD HAZARD ASSESSMENT TOOL LAYER LEGEND
(Note: legend does not correspond with NFHL)

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD - The 1% annual chance flood (100-year), also know as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. SFHAs include Zone A, AE, AH, AO, V, and VE. The Base Flood Elevation (BFE) is the water surface elevation of the 1% annual chance flood. Mandatory flood insurance purchase applies in these zones:

	Zone A: No BFE determined.
	Zone AE: BFE determined.
	Zone AH: Flood depths of 1 to 3 feet (usually areas of ponding); BFE determined.
	Zone AO: Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined.
	Zone V: Coastal flood zone with velocity hazard (wave action); no BFE determined.
	Zone VE: Coastal flood zone with velocity hazard (wave action); BFE determined.
	Zone AEF: Floodway areas in Zone AE. The floodway is the channel of stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without increasing the BFE.

NON-SPECIAL FLOOD HAZARD AREA - An area in a low-to-moderate risk flood zone. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

	Zone XS (X shaded): Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
	Zone X: Areas determined to be outside the 0.2% annual chance floodplain.

OTHER FLOOD AREAS

	Zone D: Unstudied areas where flood hazards are undetermined, but flooding is possible. No mandatory flood insurance purchase apply, but coverage is available in participating communities.

Flood Hazard Assessment Report

www.hawaiinfip.org

TMK 1-1-6-002

Property Information

COUNTY: HONOLULU

TMK NO: (1) 1-6-002:006

WATERSHED: KAPALAMA

PARCEL ADDRESS: 1240C AULD LN
HONOLULU, HI 96817

Notes:

Flood Hazard Information

FIRM INDEX DATE: NOVEMBER 05, 2014

LETTER OF MAP CHANGE(S): NONE

FEMA FIRM PANEL: 15003C0354G

PANEL EFFECTIVE DATE: JANUARY 19, 2011

THIS PROPERTY IS WITHIN A TSUNAMI EVACUTION ZONE: NO
FOR MORE INFO, VISIT: http://www.scd.hawaii.gov/

THIS PROPERTY IS WITHIN A DAM EVACUATION ZONE: NO
FOR MORE INFO, VISIT: http://dlnreng.hawaii.gov/dam/

0 20 40 ft

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FLOOD HAZARD ASSESSMENT TOOL LAYER LEGEND
(Note: legend does not correspond with NFHL)

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD - The 1% annual chance flood (100-year), also know as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. SFHAs include Zone A, AE, AH, AO, V, and VE. The Base Flood Elevation (BFE) is the water surface elevation of the 1% annual chance flood. Mandatory flood insurance purchase applies in these zones:

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	Zone AH: Flood depths of 1 to 3 feet (usually areas of ponding); BFE determined.
	Zone AO: Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined.
	Zone V: Coastal flood zone with velocity hazard (wave action); no BFE determined.
	Zone VE: Coastal flood zone with velocity hazard (wave action); BFE determined.
	Zone AEF: Floodway areas in Zone AE. The floodway is the channel of stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without increasing the BFE.

NON-SPECIAL FLOOD HAZARD AREA - An area in a low-to-moderate risk flood zone. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

	Zone XS (X shaded): Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
	Zone X: Areas determined to be outside the 0.2% annual chance floodplain.

OTHER FLOOD AREAS

	Zone D: Unstudied areas where flood hazards are undetermined, but flooding is possible. No mandatory flood insurance purchase apply, but coverage is available in participating communities.

DAVID Y. IGE
GOVERNOR OF HAWAII

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

RECEIVED
LAND DIVISION
2016 MAR -7 AM 7:41
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

February 25, 2016

MEMORANDUM

TO: **DLNR Agencies:**
___Div. of Aquatic Resources
___Div. of Boating & Ocean Recreation
_X_ Engineering Division
___Div. of Forestry & Wildlife
___Div. of State Parks
_X_ Commission on Water Resource Management
___Office of Conservation & Coastal Lands
_X_ Land Division – Oahu District
_X_ Historic Preservation

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Halona Street Bridge Replacement, Project No. HI STP H1(1)
LOCATION: Interstate Route H-1 (Adjacent), Honolulu District; Island of Oahu
TMK: (1) 1-6-002 & 006
APPLICANT: U.S. Department of Transportation, Federal Highway Administration

Transmitted for your review and comment is information on the above-referenced project. We would appreciate your comments on this project. Please submit any comments by **March 23, 2016.**

The DEA can be found on-line at: http://health.hawaii.gov/oeqc/ (Click on the Current Environmental Notice under Quick Links on the right.)

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Lydia Morikawa at 587-0410. Thank you.

Attachments

( ) We have no objections.
(✓) We have no comments.
( ) Comments are attached.

Signed: _____

Print Name: _____
Date: 2/29/16

cc: Central Files

DAVID Y. IGE
GOVERNOR OF HAWAII

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

February 25, 2016

MEMORANDUM

RECEIVED
LAND DIVISION
2016 MAR 18 AM 10:49
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

TO: **DLNR Agencies:**
___Div. of Aquatic Resources
___Div. of Boating & Ocean Recreation
_X_Engineering Division
___Div. of Forestry & Wildlife
___Div. of State Parks
_X_Commission on Water Resource Management
___Office of Conservation & Coastal Lands
_X_Land Division – Oahu District
_X_Historic Preservation

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Halona Street Bridge Replacement, Project No. HI STP H1(1)
LOCATION: Interstate Route H-1 (Adjacent), Honolulu District; Island of Oahu
TMK: (1) 1-6-002 & 006
APPLICANT: U.S. Department of Transportation, Federal Highway Administration

Transmitted for your review and comment is information on the above-referenced project. We would appreciate your comments on this project. Please submit any comments by **March 23, 2016.**

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If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Lydia Morikawa at 587-0410. Thank you.

Attachments

( ) We have no objections.
( ) We have no comments.
(x) Comments are attached.

Signed: /s/ Jeffrey T. Pearson, P.E.

Print Name: Deputy Director

Date: March 14, 2016

RFD. 4338.3
13826

cc: Central Files

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

March 14, 2016

REF: RFD.4338.3

TO: Mr. Russell Tsuji, Administrator
Land Division Oahu, DLNR-LD

FROM: Jeffrey T. Pearson, P.E., Deputy Director
Commission on Water Resource Management

SUBJECT: Halona Street Bridge Replacement, Project No. HI STP H1 (1)

FILE NO.: RFD.4338.3
TMK NO.: (1) 1-6-002 & 006

Thank you for the opportunity to review the subject document. The Commission on Water Resource Management (CWRM) is the agency responsible for administering the State Water Code (Code). Under the Code, all waters of the State are held in trust for the benefit of the citizens of the State, therefore all water use is subject to legally protected water rights. CWRM strongly promotes the efficient use of Hawaii's water resources through conservation measures and appropriate resource management. For more information, please refer to the State Water Code, Chapter 174C, Hawaii Revised Statutes, and Hawaii Administrative Rules, Chapters 13-167 to 13-171. These documents are available via the Internet at http://dlnr.hawaii.gov/cwrm.

Our comments related to water resources are checked off below.

☐ 1. We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information.

☐ 2. We recommend coordination with the Engineering Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.

☐ 3. We recommend coordination with the Hawaii Department of Agriculture (HDOA) to incorporate the reclassification of agricultural zoned land and the redistribution of agricultural resources into the State's Agricultural Water Use and Development Plan (AWUDP). Please contact the HDOA for more information.

☐ 4. We recommend that water efficient fixtures be installed and water efficient practices implemented throughout the development to reduce the increased demand on the area's freshwater resources. Reducing the water usage of a home or building may earn credit towards Leadership in Energy and Environmental Design (LEED) certification. More information on LEED certification is available at http://www.usgbc.org/leed. A listing of fixtures certified by the EAP as having high water efficiency can be found at http://www.epa.gov/watersense.

☐ 5. We recommend the use of best management practices (BMP) for stormwater management to minimize the impact of the project to the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events. Stormwater management BMPs may earn credit toward LEED certification. More information on stormwater BMPs can be found at http://hawaii.gov/dbedt/czm/initiative/lid.php.

☐ 6. We recommend the use of alternative water sources, wherever practicable.

☐ 7. We recommend participating in the Hawaii Green Business Program, that assists and recognizes businesses that strive to operate in an environmentally and socially responsible manner. The program description can be found online at http://energy.hawaii.gov/green-business-program.

☐ 8. We recommend adopting landscape irrigation conservation best management practices endorsed by the Landscape Industry Council of Hawaii. These practices can be found online at http://www.hawaiiscape.com/wp-content/uploads/2013/04/LICH_Irrigation_Conservation_BMPs.pdf.

- [ ] 9. There may be the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.
- [ ] 10. The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit is required prior to use of water. The Water Use Permit may be conditioned on the requirement to use dual line water supply systems for new industrial and commercial developments.
- [ ] 11. A Well Construction Permit(s) is (are) are required before the commencement of any well construction work.
- [ ] 12. A Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.
- [ ] 13. There is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be affected by any new construction, they must be properly abandoned and sealed. A permit for well abandonment must be obtained.
- [ ] 14. Ground-water withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.
- [X] 15. A Stream Channel Alteration Permit(s) is (are) required before any alteration can be made to the bed and/or banks of a steam channel.
- [ ] 16. A Stream Diversion Works Permit(s) is (are) required before any stream diversion works is constructed or altered.
- [ ] 17. A Petition to Amend the Interim Instream Flow Standard is required for any new or expanded diversion(s) of surface water.
- [ ] 18. The planned source of water for this project has not been identified in this report. Therefore, we cannot determine what permits or petitions are required from our office, or whether there are potential impacts to water resources.

- [ ] OTHER:

If you have any questions, please contact Dean Uyeno of the Commission staff at 587-0234.

U.S. Department of Transportation
Federal Highway Administration

Central Federal Lands Highway Division

12300 West Dakota Avenue
Suite 380
Lakewood, CO 80228
Office: 720-963-3647
Fax: 720-963-3596
Michael.Will@dot.gov

August 3, 2016

In Reply Refer To:
HFPM-16

TO: CARTY S. CHANG
CHIEF ENGINEER
ENGINEERING DIVISION
DEPARTMENT OF LAND AND NATURAL RESOURCES
P.O. BOX 621
HONOLULU, HI 96809

FROM: J. MICHAEL WILL, P.E.
PROJECT MANAGER

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA)
HALONA STREET BRIDGE REPLACEMENT, PROJECT NO. STP H1(1)
H-1 INTERSTATE (ADJACENT), KALIHI DISTRICT, ISLAND OF OAHU;
TMK: [1] 1-6-002; [1] 1-6-006

Dear Mr. Chang:

Thank you for sending comments on the Draft EA by memorandum dated March 1, 2016. In particular, we appreciate you providing a copy of the Flood Hazard Assessment Report which confirms that the project area is not located within a FEMA special flood hazard area. According to FIRM Panel 15003C0354G, the entire project area is located within Zone X. As noted in the Draft EA, in accordance with this designation, the design of the replacement bridge is not subject to the National Flood Insurance Program's regulations and requirements.

We appreciate your participation in the environmental review process. If you have any questions, please contact me at (720) 963-3647, or by email at Michael.will@dot.gov.

Sincerely yours,

J. Michael Will, P.E.
Project Manager

Cc:
Kevin Ito, HDOT
Thomas Parker, CFLHD
Kathleen Chu, CH2M HILL

U.S. Department of Transportation
Federal Highway Administration

Central Federal Lands Highway Division

12300 West Dakota Avenue
Suite 380
Lakewood, CO 80228
Office: 720-963-3647
Fax: 720-963-3596
Michael.Will@dot.gov

August 3, 2016

In Reply Refer To:
HFPM-16

TO: JEFFREY T. PEARSON, P.E.
DEPUTY DIRECTOR
COMMISSION ON WATER RESOURCE MANAGEMENT
DEPARTMENT OF LAND AND NATURAL RESOURCES
P.O. BOX 621
HONOLULU, HI 96809

FROM: J. MICHAEL WILL, P.E.
PROJECT MANAGER

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA)
HALONA STREET BRIDGE REPLACEMENT, PROJECT NO. STP H1(1)
H-1 INTERSTATE (ADJACENT), KALIHI DISTRICT, ISLAND OF OAHU;
TMK: [1] 1-6-002; [1] 1-6-006

Dear Mr. Pearson:

Thank you for sending comments on the Draft EA by memorandum dated March 14, 2016. Your comments on the permitting requirements are helpful in moving the project forward. We will be submitting a request for a Stream Channel Alteration Permit to the Commission on Water Resource Management following completion of the Hawaii Revised Statutes (HRS) Chapter 343 compliance process and prior to construction. The need for this permit is noted in Section 1.6 of the EA.

We appreciate your participation in the environmental review process. If you have any questions, please contact me at (720) 963-3647, or by email at Michael.will@dot.gov.

Sincerely yours,

J. Michael Will, P.E.
Project Manager

Cc:
Kevin Ito, HDOT
Thomas Parker, CFLHD
Kathleen Chu, CH2M HILL

OFFICE OF PLANNING
STATE OF HAWAII

DAVID Y. IGE
GOVERNOR

LEO R. ASUNCION
DIRECTOR
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
Web: http://planning.hawaii.gov/

Ref. No. P-15081

RECEIVED

MAR 25 2016

March 22, 2016

Mr. J. Michael Will, P.E.
Project Manager
Central Federal Lands Highways Division
Federal Highways Administration
12300 West Dakota Avenue, Suite 380A
Lakewood, Colorado 80228-2583

Dear Mr. Will:

Subject: Draft Environmental Assessment for the Halona Street Bridge Replacement, Project No. HI STP H1(1), Interstate Route H-1 (Adjacent), Honolulu District, Oahu Island; Tax Map Key: (1) 1-6-002; (1) 1-6-006

Thank you for the opportunity to provide comments on the Draft Environmental Assessment (Draft EA) for the Halona Street Bridge Replacement project, which was transmitted to our office by letter dated February 19, 2016.

It is our understanding that the Federal Highways Administration, Central Federal Lands Highway Division, in partnership with the Hawaii Department of Transportation (HDOT) is conducting environmental studies for nine bridges located on the islands of Kauai, Oahu, and Hawaii. The focus of this project is to improve the Halona Street Bridge and its approaches to maintain the Kapalama Canal crossing on Halona Street. Its objective is to maintain the Halona Street Bridge as a safe and functional component of the Oahu transportation system.

This project is needed because the existing bridge does not meet the current (2014) American Association of State Highway Transportation Officials and HDOT structural and design standards for load capacity, bridge railing and transitions, and bridge approaches. The existing five-span bridge would be replaced with a three-span bridge that would be approximately 131 feet long, with a deck width of 39 feet. The bridge improvements will include scour protection measures, supporting walls and slopes, utility relocations, and create a temporary staging area.

The Draft EA addresses our comments made in a previous pre-consultation letter dated May 1, 2015 (reference number P-14732). OP acknowledges the following responses to our concerns in the Draft EA:

a) it lists the correct Tax Map Key location and the impacted parcels for the Halona Bridge;
b) includes an analysis of the Hawaii State Plan, as listed in Hawaii Revised Statutes (HRS) Chapter 226 by listing the project's consistency with the goals and objectives in HRS § 226-17 – Facility Systems – Transportation, as well as the Functional Plan on Transportation (1991);
c) cites the project's consistency to the enforceable policies of the Hawaii Coastal Zone Management program, as found in HRS § 205A-2;
d) verifies the Halona Street Bridge is outside of the Special Management Area as delineated by the City and County of Honolulu;
e) recognizes the need for a Federal Consistency Review, and will seek a determination with OP for its concurrence;
f) includes an analysis of the project's impact to the nearshore environment on Oahu in the hydrology, water quality, flooding, and aquatic resources sections of the Draft EA;
g) incorporates stormwater impact in its analysis of Wetlands/Hydrology/Water Quality; and
h) the bridge design will follow the HDOT Design Criteria for Highway Drainage that includes low-impact development concepts such as directing stormwater to grass swales adjacent to the bridge for in-place treatment of runoff.

We have no further comments at this time. If you have any questions regarding this comment letter, please contact Joshua Hekekia of our office at (808) 587-2845.

Sincerely,

Leo R. Asuncion
Director

c: Kathleen Chu, CH2M HILL

U.S. Department of Transportation
Federal Highway Administration

Central Federal Lands Highway Division

12300 West Dakota Avenue
Suite 380
Lakewood, CO 80228
Office: 720-963-3647
Fax: 720-963-3596
Michael.Will@dot.gov

August 3, 2016

In Reply Refer To:
HFPM-16

TO: LEO R. ASUNCION
DIRECTOR
OFFICE OF PLANNING
235 SOUTH BERETANIA STREET, 6TH FLOOR
HONOLULU, HI 96813

FROM: J. MICHAEL WILL, P.E.
PROJECT MANAGER

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA)
HALONA STREET BRIDGE REPLACEMENT, PROJECT NO. STP H1(1)
H-1 INTERSTATE (ADJACENT), KALIHI DISTRICT, ISLAND OF OAHU;
TMK: [1] 1-6-002; [1] 1-6-006

Dear Mr. Asuncion:

Thank you for your letter dated March 22, 2016 confirming that your pre-consultation comments were addressed in the Draft EA. We appreciate your participation in the environmental review process. If you have any questions, please contact me at (720) 963-3647, or by email at Michael.will@dot.gov.

Sincerely yours,

J. Michael Will, P.E.
Project Manager

Cc:
Kevin Ito, HDOT
Thomas Parker, CFLHD
Kathleen Chu, CH2M HILL

DAVID Y. IGE
GOVERNOR

ARTHUR J. LOGAN
MAJOR GENERAL
ADJUTANT GENERAL

KENNETH S. HARA
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

February 25, 2016

Central Federal Lands Highway Division
Federal Highway Administration
12300 West Dakota Avenue, Suite 380A
Lakewood, CO 80228-2583

Attn.: Mr. Mike Will

Subject: Draft Environmental Assessment for Halona Street Bridge Replacement, Project No. HI STP H1(1), Interstate Route H-1 (Adjacent), Honolulu District, Oahu Island, TMK (1) 1-6-002; (1) 1-6-006

Dear Mr. Will:

Thank you for the opportunity to comment on the above project. The State of Hawaii Department of Defense has no comments to offer relative to the project.

If you have any questions or concerns, please have your staff contact Mr. Lloyd Maki, Assistant Chief Engineering Officer at (808) 733-4250.

Sincerely,

for ARTHUR J. LOGAN
Major General
Hawaii National Guard
Adjutant General

c: Ms. Kathleen Chu, CH2M HILL
Ms. Havinne Okamura/Mr. Albert Chong, Hawaii Emergency Management Agency

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843

May 25, 2016

Mr. J. Michael Will, P.E.
Central Federal Lands Highway Division
Federal Highway Administration
12300 West Dakota Avenue, Suite 380A
Lakewood, Colorado 80228-2583

Dear Mr. Will:

Subject: Your Letter Dated February 19, 2016 Requesting Comments on the Draft Environmental Assessment of Halona Street Bridge Replacement, Project No. HI STP H1 (1) - Tax Map Key: 1-6-002; 1-6-006

Thank you for the opportunity to comment on the proposed bridge replacement project.

The temporary relocation of the 42-inch transmission water main and 12-inch distribution main should be coordinated with the Honolulu Board of Water Supply.

During the relocation of the 42-inch main, we request the developer install a 6-inch pipeline tap with vault. The tap should include at least the following standards:

- 6-inch flange on top of pipe
- 6-inch FL x FL gate valve
- 6-inch blind flange on gate valve, corrosion protection on fittings as needed
- Marker ball, GIS coordinates, or surface access to facilitate locating
- Clear access to entire tap opening area from above through cover or hatch
- Second vault access for personnel

The construction drawings should be submitted for our review.

The construction schedule should be coordinated to minimize impact to the water system.

If you have any questions, please contact Robert Chun, Project Review Branch of our Water Resources Division at (808) 748-5443.

Very truly yours,

ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843

July 7, 2016

Mr. J. Michael Will
Central Federal Lands Highway Division
Federal Highway Administration
12300 West Dakota Avenue, Suite 380A
Lakewood, Colorado 80228-2583

Dear Mr. Will:

Subject: Your Letter Dated April 6, 2016 Requesting Comments on the Draft Environmental Assessment of Halona Street Bridge Replacement, Project No. HI STP H1 (1), Tax Map Key: 1-6-002; 1-6-006

The following supersede the comments provided in the Board of Water Supply (BWS) letter dated May 25, 2016.

The BWS acknowledges the relocation of the 8-inch water main currently located beneath the Halona Bridge to downstream side of the bridge.

We understand the existing 42-inch water main in the vicinity of the bridge will not be impacted.

The construction drawings should be submitted for our review.

The construction schedule should be coordinated to minimize impact to the water system.

If you have any questions, please contact Robert Chun, Project Review Branch of our Water Resources Division at (808) 748-5443.

Very truly yours,

ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer

U.S. Department of Transportation
Federal Highway Administration

Central Federal Lands Highway Division

12300 West Dakota Avenue
Suite 380
Lakewood, CO 80228
Office: 720-963-3647
Fax: 720-963-3596
Michael.Will@dot.gov

August 3, 2016

In Reply Refer To:
HFPM-16

TO: ERNEST Y. W. LAU, P.E.
MANAGER AND CHIEF ENGINEER
HONOLULU BOARD OF WATER SUPPLY
360 SOUTH BERETANIA STREET
HONOLULU, HI 96843

FROM: J. MICHAEL WILL, P.E.
PROJECT MANAGER

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA)
HALONA STREET BRIDGE REPLACEMENT, PROJECT NO. STP H1(1)
H-1 INTERSTATE (ADJACENT), KALIHI DISTRICT, ISLAND OF OAHU;
TMK: [1] 1-6-002; [1] 1-6-006

Dear Mr. Lau:

Thank you for sending comments on the Draft EA by memorandum dated July 7, 2016. We understand that these comments supersede the comments submitted by memorandum dated May 25, 2016.

We appreciate your acknowledgment that the 8-inch water main will be relocated to the downstream side of the bridge, and that the nearby 42-inch water main will not be impacted. As the project progresses to final design, coordination of the construction schedule will occur and construction drawing will be submitted for your review.

We appreciate your participation in the environmental review process. If you have any questions, please contact me at (720) 963-3647, or by email at Michael.will@dot.gov.

Sincerely yours,

J. Michael Will, P.E.
Project Manager

Cc:
Kevin Ito, HDOT
Thomas Parker, CFLHD
Kathleen Chu, CH2M HILL

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, THIRD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8305 • Fax: (808) 768-4730 • Internet: www.honolulu.gov

KIRK CALDWELL
MAYOR

MICHAEL D. FORMBY
DIRECTOR

MARK N. GARRITY, AICP
DEPUTY DIRECTOR

TP2/16-645258R

March 24, 2016

Mr. J. Michael Will, P.E.
Project Manager
Central Federal Lands Highway Division
Federal Highway Administration
12300 West Dakota Avenue, Suite 380A
Lakewood, Colorado 80228-2583

Dear Mr. Will:

SUBJECT: Draft Environmental Assessment for Halona Street Bridge Replacement, Honolulu, Oahu, Hawaii

In response to your letter dated February 19, 2016, we have the following comments:

1. Section 2.3.3 Traffic Control during Construction, Page 2-4, last paragraph, states that a temporary pedestrian route within the existing landscaped area would be provided for pedestrians and bicyclists. This route should meet American with Disabilities Act requirements and be accessible for wheelchair users.

2. Section 3.16.3 Potential Impacts and Mitigation Measures, Page 3-20, first and second paragraphs, discusses detour routes on adjacent City roadways. Ensure that City roadways are not significantly impacted by the road detours.

3. Section 3.16.3 Potential Impacts and Mitigation Measures, Page 3-20, third paragraph, same comment as no. 1.

4. Section 3.16.3 Potential Impacts and Mitigation Measures, Page 3-20, second and third paragraphs, directs you to Section 2.3.2.1 Traffic Control and Detours, which does not exist.

5. Section 3.16.3 Potential Impacts and Mitigation Measures, Page 3-21, paragraph 5, in addition to informing "motorists" via the electronic signboard, also include "pedestrians and bicyclists."

Thank you for the opportunity to review this matter. Should you have any questions, please contact Renee Yamasaki of my staff at 768-8383.

Very truly yours,

Michael D. Formby
Director

cc: Ms. Kathleen Chu, CH2M Hill, Inc.

U.S. Department of Transportation
Federal Highway Administration

Central Federal Lands Highway Division

12300 West Dakota Avenue
Suite 380
Lakewood, CO 80228
Office: 720-963-3647
Fax: 720-963-3596
Michael.Will@dot.gov

August 3, 2016

In Reply Refer To:
HFPM-16

TO: MICJAEL D. FORMBY, DIRECTOR
CITY AND COUNTY OF HONOLULU
DEPARTMENT OF TRANSPORTATION SERVICES
650 SOUTH KING STREET, THIRD FLOOR
HONOLULU, HI 96813

FROM: J. MICHAEL WILL, P.E.
PROJECT MANAGER

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA)
HALONA STREET BRIDGE REPLACEMENT, PROJECT NO. STP H1(1)
H-1 INTERSTATE (ADJACENT), KALIHI DISTRICT, ISLAND OF OAHU;
TMK: [1] 1-6-002; [1] 1-6-006

Dear Mr. Formby:

Thank you for sending comments on the Draft EA by memorandum dated March 24, 2016.

We appreciate your comment and acknowledge the need for the temporary pedestrian route to meet American with disabilities Act requirements and be accessible for wheelchair users. This language has been added to Sections 2.3.3 and 3.16.3. Section 3.16.3 has also been revised to address your comment that the project ensure that City roadways are not significantly impacted by the road detours, as well as to indicate that pedestrians and bicyclists will be informed via the electronic signboard. Finally, we have corrected the reference to Section 2.3.3, Traffic Control During Construction.

We appreciate your participation in the environmental review process. If you have any questions, please contact me at (720) 963-3647, or by email at Michael.will@dot.gov.

Sincerely yours,

J. Michael Will, P.E.
Project Manager

Cc:
Kevin Ito, HDOT
Thomas Parker, CFLHD
Kathleen Chu, CH2M HILL

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8480 • Fax: (808) 768-4567
Web site: www.honolulu.gov

KIRK CALDWELL
MAYOR

ROBERT J. KRONING, P.E.
DIRECTOR

MARK YONAMINE, P.E.
DEPUTY DIRECTOR

March 15, 2016

Central Federal Lands Highway Division
Federal Highway Administration
12300 West Dakota Avenue, Suite 380A
Lakewood, CO 80228-2583

Attn: Mike Will

Dear Mr. Will:

Subject: Draft Environmental Assessment- Halona Bridge Replacement
Project No. HI STP H1(1)
Interstate Route H-1 (Adjacent), Honolulu District, Oahu Island
TMK [1-6-002: [1] 1-6-006

The Department of Design and Construction, Wastewater Division has the following comments:

The attached map shows a potential future wastewater project (red lines) in the area of the proposed Halona Street Bridge Replacement, Project No. HI STP H1(1). The bridge construction project should be coordinated with the potential wastewater construction project to avoid conflicts. The wastewater construction dates are currently unknown pending a decision of whether any sewer repairs are required.

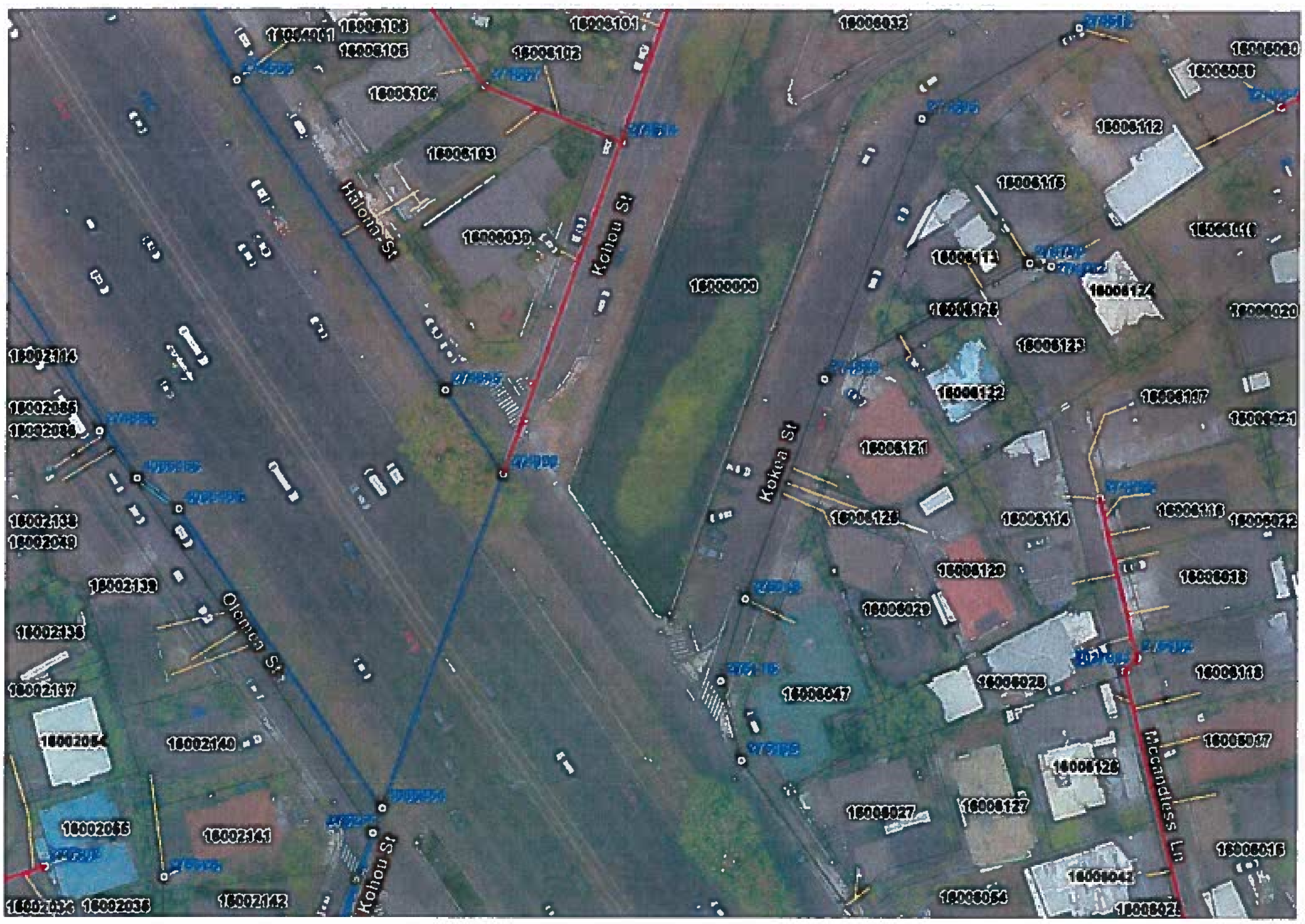
Should you have any questions on the comments from our Wastewater division, Please contact Tina Ono at 768-8766.

Sincerely,

FOR

Robert J. Kroning, P.E.
Director

RJK: ms (643731)
cc: CH2M HILL (Kathleen Chu)



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U.S. Department of Transportation
Federal Highway Administration

Central Federal Lands Highway Division

12300 West Dakota Avenue
Suite 380
Lakewood, CO 80228
Office: 720-963-3647
Fax: 720-963-3596
Michael.Will@dot.gov

August 3, 2016

In Reply Refer To:
HFPM-16

TO: ROBERT J. KRONING, DIRECTOR
CITY AND COUNTY OF HONOLULU
DEPARTMENT OF DESIGN AND CONSTRUCTION
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HI 96813

FROM: J. MICHAEL WILL, P.E.
PROJECT MANAGER

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA)
HALONA STREET BRIDGE REPLACEMENT, PROJECT NO. STP H1(1)
H-1 INTERSTATE (ADJACENT), KALIHI DISTRICT, ISLAND OF OAHU;
TMK: [1] 1-6-002; [1] 1-6-006

Dear Mr. Kroning:

Thank you for sending comments on the Draft EA by memorandum dated March 15, 2016.

We appreciate your comments regarding the potential future wastewater project in the vicinity of the proposed Halona Street Bridge Replacement project. This information has been added to Section 3.19 of the EA. Based on the proposed bridge replacement design and the location of the potential wastewater line, no conflicts are anticipated. The bridge replacement design drawings have been submitted to the Wastewater Division for their review; further coordination will be conducted as needed.

We appreciate your participation in the environmental review process. If you have any questions, please contact me at (720) 963-3647, or by email at Michael.will@dot.gov.

Sincerely yours,

J. Michael Will, P.E.
Project Manager

Cc:
Kevin Ito, HDOT
Thomas Parker, CFLHD
Kathleen Chu, CH2M HILL

DEPARTMENT OF FACILITY MAINTENANCE
CITY AND COUNTY OF HONOLULU
1000 Ulu`ohia Street, Suite 215, Kapolei, Hawaii 96707
Phone: (808) 768-3343 • Fax: (808) 768-3381
Website: www.honolulu.gov

KIRK CALDWELL
MAYOR

ROSS S. SASAMURA, P.E.
DIRECTOR AND CHIEF ENGINEER

EDUARDO P. MANGLALLAN
DEPUTY DIRECTOR

IN REPLY REFER TO:
DRM 16-227

March 14, 2016

Mr. J. Michael Will, P.E.
Project Manager
Central Federal Lands Highway Division
Federal Highway Administration
U.S. Department of Transportation
12300 West Dakota Avenue, Suite 380A
Lakewood, CO 80228-2583

Dear Mr. Will:

SUBJECT: Draft Environmental Assessment
Halona Street Bridge Replacement, Project No. HI STP H1(1)
Interstate Route H-1 (Adjacent), Honolulu District, Oahu Island

Thank you for the opportunity to review and provide our input regarding your letter dated February 19, 2016, on the above-subject project.

Our comments are as follows:

- Once construction phase commences, install approved Best Management Practices fronting all drainage facilities on Kohou and Kokea Streets, including drainage outlets to Kapalama Canal.

- During construction and upon completion of the project, any damages/deficiencies to Kohou and Kokea Streets' right-of-way shall be corrected to City standards and accepted by the City.

If you have any questions, please call Mr. Kyle Oyasato of the Division of Road Maintenance at 768-3697.

Sincerely,

Ross S. Sasamura, P.E.
Director and Chief Engineer

cc: Ms. Kathleen Chu
CH2M HILL

U.S. Department of Transportation
Federal Highway Administration

Central Federal Lands Highway Division

12300 West Dakota Avenue
Suite 380
Lakewood, CO 80228
Office: 720-963-3647
Fax: 720-963-3596
Michael.Will@dot.gov

August 3, 2016

In Reply Refer To:
HFPM-16

TO: ROSS S. SASAMURA, DIRECTOR
CITY AND COUNTY OF HONOLULU
DEPARTMENT OF FACILITY MAINTENANCE
1000 ULUOHIA STREET, SUITE 215
KAPOLEI, HI 96707

FROM: J. MICHAEL WILL, P.E.
PROJECT MANAGER

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA)
HALONA STREET BRIDGE REPLACEMENT, PROJECT NO. STP H1(1)
H-1 INTERSTATE (ADJACENT), KALIHI DISTRICT, ISLAND OF OAHU;
TMK: [1] 1-6-002; [1] 1-6-006

Dear Mr. Sasamura:

Thank you for sending comments on the Draft EA by memorandum dated March 14, 2016.

We appreciate your comments regarding implementation of BMPs fronting the drainage facilities, as well as the need to correct any project-related damage and/or deficiencies to the Kohou or Kokea Streets' right-of-way. These recommendations have been incorporated into the discussion in Sections 3.3.4 and 3.16.3 of the EA, respectively.

We appreciate your participation in the environmental review process. If you have any questions, please contact me at (720) 963-3647, or by email at Michael.will@dot.gov.

Sincerely yours,

J. Michael Will, P.E.
Project Manager

Cc:
Kevin Ito, HDOT
Thomas Parker, CFLHD
Kathleen Chu, CH2M HILL

DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY AND COUNTY OF HONOLULU
1000 ULUOHIA STREET, SUITE 308, KAPOLEI, HAWAII 96707
TELEPHONE: (808) 768-3486 • FAX: (808) 768-3487 • WEBSITE: http://envhonolulu.org

KIRK CALDWELL
MAYOR

LORI M.K. KAHIKINA, P.E.
DIRECTOR

TIMOTHY A. HOUGHTON
DEPUTY DIRECTOR

ROSS S. TANIMOTO, P.E.
DEPUTY DIRECTOR

RECEIVED
MAR 18 2016

IN REPLY REFER TO
PRO 16-038

March 16, 2016

Mr. Mike Will
Central Federal Lands Highway Division
Federal Highway Administration
12300 West Dakota Avenue, Suite 380A
Lakewood, CO 80228-2583

Ms. Kathleen Chu
CH2M Hill
1132 Bishop Street, Suite 1100
Honolulu, HI 96813

Dear Mr. Will and Ms. Chu:

SUBJECT: Draft Environmental Assessment for the Halona Street Bridge Replacement, Project No. HI STP H1(1), February 2016

We have reviewed the subject document as requested by your letter dated February 19, 2016.

The last sentence of Section 3.19.1.1 "Water and Wastewater Systems" states that, "There are no sewer lines or treatment facilities in the project area." The City and County of Honolulu has sewer lines and sewer manholes on either side of the Halona Bridge, although no sewer lines are directly attached to the bridge. Please see the enclosed letter dated February 3, 2015. Mitigation measures to protect the sewer lines and sewer manholes on either side of the Halona Bridge should be included in the Environmental Assessment.

Should you have any questions regarding our comments, please call Lisa Kimura, Civil Engineer, at 768-3455.

Sincerely,

Lori M.K. Kahikina, P.E.
Director

Enclosure

DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY AND COUNTY OF HONOLULU
1000 ULUOHIA STREET, SUITE 308, KAPOLEI, HAWAII 96707
TELEPHONE: (808) 768-3486 • FAX: (808) 768-3487 • WEBSITE: http://envhonolulu.org

KIRK CALDWELL
MAYOR

LORI M.K. KAHIKINA, P.E.
DIRECTOR

TIMOTHY A. HOUGHTON
DEPUTY DIRECTOR

ROSS S. TANIMOTO, P.E.
DEPUTY DIRECTOR

IN REPLY REFER TO
PRO 15-012

February 3, 2015

Mr. Jason Y. Kage
CH2M Hill
1132 Bishop Street, Suite 1100
Honolulu, Hawaii 96813

Dear Mr. Kage:

SUBJECT: Hawaii Bridges Program for the Island of Oahu, Federal Highway Administration, Central Federal Lands Highway Division, Utility Verification and Consultation

The City and County of Honolulu Department of Environmental Services (ENV) has reviewed your letter dated January 9, 2015. We have reviewed the documents enclosed with your letter and have the following comments:

1. The City and County of Honolulu does not have any sewer lines in the vicinity of the Kawela Bridge, the Nanahu Bridge or the Roosevelt Bridge.

2. The City and County of Honolulu has sewer lines and sewer manholes on either side of the Halona Bridge (see enclosure). However, there are no sewer lines on the Halona Bridge.

Should you have any questions, please call Lisa Kimura, Civil Engineer V, at 768-3455.

Sincerely,

Ross Tanimoto

Lori M.K. Kahikina, P.E.
Director

Enclosure

Halona Bridge
Location of Sewers

Prepared by: Dept. of Environmental Services
City & County of Honolulu
1000 Uluohia Street
Kapolei, Hawaii 96707

0 20 40 80 120 160
Feet

N

U.S. Department of Transportation
Federal Highway Administration

Central Federal Lands Highway Division

12300 West Dakota Avenue
Suite 380
Lakewood, CO 80228
Office: 720-963-3647
Fax: 720-963-3596
Michael.Will@dot.gov

August 3, 2016

In Reply Refer To:
HFPM-16

TO: LORI M. KAHIKINA, DIRECTOR
CITY AND COUNTY OF HONOLULU
DEPARTMENT OF ENVIRONMENTAL SERVICES
1000 ULUOHIA STREET, SUITE 308
KAPOLEI, HI 96707

FROM: J. MICHAEL WILL, P.E.
PROJECT MANAGER

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA)
HALONA STREET BRIDGE REPLACEMENT, PROJECT NO. STP H1(1)
H-1 INTERSTATE (ADJACENT), KALIHI DISTRICT, ISLAND OF OAHU;
TMK: [1] 1-6-002; [1] 1-6-006

Dear Ms. Kahikina:

Thank you for sending comments on the Draft EA by memorandum dated March 16, 2016.

We appreciate your comments regarding the sewer lines and manholes in the vicinity of the Halona Street Bridge. The presence of the sewer line and associated manholes has been noted in Section 2.2.3 and measures that would be implemented to protect these features are discussed in Section 3.19.2 of the EA.

We appreciate your participation in the environmental review process. If you have any questions, please contact me at (720) 963-3647, or by email at Michael.will@dot.gov.

Sincerely yours,

J. Michael Will, P.E.
Project Manager

Cc:
Kevin Ito, HDOT
Thomas Parker, CFLHD
Kathleen Chu, CH2M HILL

DEPARTMENT OF PARKS & RECREATION

CITY AND COUNTY OF HONOLULU

1000 Uluohia Street, Suite 309, Kapolei, Hawaii 96707
Phone: (808) 768-3003 • Fax: (808) 768-3053
Website: www.honolulu.gov

KIRK CALDWELL
MAYOR

MICHELE K. NEKOTA
DIRECTOR

JEANNE C. ISHIKAWA
DEPUTY DIRECTOR

March 1, 2016

Mr. Michael Will P.E.
Central Federal Lands Highway Division
Federal Highway Administration
12300 West Dakota Avenue, Suite 380A
Lakewood, Colorado 80228-2583

Dear Mr. Will:

SUBJECT: Draft Environmental Assessment
Halona Street Bridge Replacement, Project No. HI STP HI(1)
Interstate Route H-1 (Adjacent), Honolulu District Oahu
TMK: (1) 1-6-002; (1) 1-6-006 HFPM-16

Thank you for the notice of availability of the Draft Environmental Assessment for the subject Halona Street Bridge Replacement.

The Department of Parks and Recreation has no comment as the proposed project will have no impact on any of our programs and facilities. You may remove us as a consulted party for the balance of the EA process.

Should you have any questions, please contact Mr. John Reid, Planner at 768-3017.

Sincerely,

Michele K. Nekota
Director

MKN:jr
(43720)

cc: Kathleen Chu, CH2M Hill

HONOLULU FIRE DEPARTMENT

CITY AND COUNTY OF HONOLULU

636 South Street
Honolulu, Hawaii 96813-5007
Phone: 808-723-7139 Fax: 808-723-7111 Internet: www.honolulu.gov/hfd

KIRK CALDWELL
MAYOR

MANUEL P. NEVES
FIRE CHIEF

LIONEL CAMARA JR.
DEPUTY FIRE CHIEF

March 14, 2016

Mr. J. Michael Will, P.E.
Project Manager
Central Federal Lands Highway Division
Federal Highway Administration
U.S. Department of Transportation
12300 West Dakota Avenue, Suite 380A
Lakewood, Colorado 80228-2583

Dear Mr. Will:

Subject: Draft Environmental Assessment
Halona Street Bridge Replacement, Project No. HI STP H1(1)
Tax Map Keys: 1-6-002 and 1-6-006

In response to your letter dated February 19, 2016, regarding the above-mentioned subject, the Honolulu Fire Department determined that there will be no significant impact to fire department services.

Should you have questions, please contact Battalion Chief Terry Seelig of our Fire Prevention Bureau at 723-7151 or tseelig@honolulu.gov.

Sincerely,

Socrates D. Bratakos

SOCRATES D. BRATAKOS
Assistant Chief

SDB/SY:bh

cc: Kathleen Chu, CH2MHILL ✓

U.S. Department of Transportation
Federal Highway Administration

Central Federal Lands Highway Division

12300 West Dakota Avenue
Suite 380
Lakewood, CO 80228
Office: 720-963-3647
Fax: 720-963-3596
Michael.Will@dot.gov

August 3, 2016

In Reply Refer To:
HFPM-16

TO: SOCRATES D. BRATAKOS
ASSISTANT CHIEF
HONOLULU FIRE DEPARTMENT
636 SOUTH STREET
HONOLULU, HI 96813

FROM: J. MICHAEL WILL, P.E.
PROJECT MANAGER

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA)
HALONA STREET BRIDGE REPLACEMENT, PROJECT NO. STP H1(1)
H-1 INTERSTATE (ADJACENT), KALIHI DISTRICT, ISLAND OF OAHU;
TMK: [1] 1-6-002; [1] 1-6-006

Dear Mr. Bratakos:

Thank you for your letter dated March 14, 2016 confirming that the project should have no significant impact on fire department services.

We appreciate your participation in the environmental review process. If you have any questions, please contact me at (720) 963-3647, or by email at Michael.will@dot.gov.

Sincerely yours,

J. Michael Will, P.E.
Project Manager

Cc:
Kevin Ito, HDOT
Thomas Parker, CFLHD
Kathleen Chu, CH2M HILL

POLICE DEPARTMENT

CITY AND COUNTY OF HONOLULU

801 SOUTH BERETANIA STREET · HONOLULU, HAWAII 96813
TELEPHONE: (808) 529-3111 · INTERNET: www.honolulupd.org

KIRK CALDWELL
MAYOR

LOUIS M. KEALOHA
CHIEF

MARIE A. McCAULEY
CARY OKIMOTO
DEPUTY CHIEFS

OUR REFERENCE MT-DK

March 1, 2016

Mr. J. Michael Will, P.E., Project Manager
Central Federal Lands Highway Division
Federal Highway Administration
U.S. Department of Transportation
12300 West Dakota Avenue, Suite 380A
Lakewood, Colorado 80228-2583

Dear Mr. Will:

This is in response to your letter of February 19, 2016 (HFPM-16), requesting comments a Draft Environmental Assessment for the Halona Street Bridge Replacement Project, No. HI STP H1(1).

Based on the information provided, this project should have no significant impact on the services or operations of the Honolulu Police Department at this time.

If there are any questions, please call Major Crizalmer Caraang District 5 (Kalihi) at 723-8202.

Thank you for the opportunity to review this project.

Sincerely,

LOUIS M. KEALOHA
Chief of Police

By
MARK TSUYEMURA
Management Analyst VI
Office of the Chief

cc: Ms. Kathleen Chu
CH2M HILL

Serving and Protecting With Aloha

U.S. Department of Transportation
Federal Highway Administration

Central Federal Lands Highway Division

12300 West Dakota Avenue
Suite 380
Lakewood, CO 80228
Office: 720-963-3647
Fax: 720-963-3596
Michael.Will@dot.gov

August 3, 2016

In Reply Refer To:
HFPM-16

TO: MARK TSUYEMURA FOR LOUIS M. KEALOHA
HONOLULU POLICE DEPARTMENT
801 SOUTH BERETANIA STREET
HONOLULU, HI 96813

FROM: J. MICHAEL WILL, P.E.
PROJECT MANAGER

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA)
HALONA STREET BRIDGE REPLACEMENT, PROJECT NO. STP H1(1)
H-1 INTERSTATE (ADJACENT), KALIHI DISTRICT, ISLAND OF OAHU;
TMK: [1] 1-6-002; [1] 1-6-006

Dear Mr. Tsuyemura:

Thank you for your letter dated March 1, 2016 confirming that the project should have no significant impact on services or operations of the Honolulu Police Department.

We appreciate your participation in the environmental review process. If you have any questions, please contact me at (720) 963-3647, or by email at Michael.will@dot.gov.

Sincerely yours,

J. Michael Will, P.E.
Project Manager

Cc:
Kevin Ito, HDOT
Thomas Parker, CFLHD
Kathleen Chu, CH2M HILL

PHONE (808) 594-1888

FAX (808) 594-1938

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
560 N. NIMITZ HWY., SUITE 200
HONOLULU, HAWAI'I 96817

HRD 16-7553B

March 1, 2016

J. Michael Will, P.E.
Project Manager
Central Federal Lands Highway Division
Federal Highway Administration
12300 West Dakota Avenue, Suite 380A
Lakewood, CO 80228-2583

Re: Halona Street Bridge Replacement, Project No. HI STP H1 (1) (HFPM-16)
Interstate Route H-1 (Adjacent), Honolulu District, O'ahu Island
TMK: (1) 1-6-002; (1) 1-6-006

Aloha Mr. Will:

The Office of Hawaiian Affairs (OHA) received your letter dated February 19, 2016, on the above-titled project. Given the project descriptions provided, our agency has no comments at this time. Should you have any questions, please contact Everett Ohta at 594-0231 or everetto@oha.org.

'O wau iho nō me ka 'oia 'i'o,

Kamana'opono M. Crabbe, Ph.D.
Ka Pouhana, Chief Executive Officer

KC:acm

C: Kathleen Chu – CH2M HILL

**Please address replies and similar, future correspondence to our agency:*
Dr. Kamana'opono Crabbe
Attn: OHA Compliance Enforcement
560 N. Nimitz Hwy., Ste. 200
Honolulu, Hawai'i 96817

Kettley, Lisa/HNL

Subject: FW: Central Federal Lands Highway Division

From: Kuwaye, Kristen [mailto:kristen.kuwaye@hawaiianelectric.com]
Sent: Wednesday, March 23, 2016 1:49 PM
To: Will, Michael (FHWA); 'KChu@ch2m.com'
Cc: Liu, Rouen
Subject: Central Federal Lands Highway Division

Kristen Kuwaye on behalf of Rouen Liu

Dear Mr. Will and Ms. Chu,

Thank you for the opportunity to comment on the subject project. Hawaiian Electric Company has no objection to the project. Should HECO have existing easements and facilities on the subject property, we will need continued access for maintenance of our facilities.
We appreciate your efforts to keep us apprised of the subject project in the planning process. As the proposed Central Federal Lands Highway Division project comes to fruition, please continue to keep us informed. Further along in the design, we will be better able to evaluate the effects on our system facilities.
If you have any questions, please call me at 1-808-543-7245.

Sincerely,
Rouen Q. W. Liu
Permits Engineer
Hawaiian Electric Company, Inc.
Tel: (808) 543-7245
Email: Rouen.liu@hawaiianelectric.com

U.S. Department of Transportation
Federal Highway Administration

Central Federal Lands Highway Division

12300 West Dakota Avenue
Suite 380
Lakewood, CO 80228
Office: 720-963-3647
Fax: 720-963-3596
Michael.Will@dot.gov

August 3, 2016

In Reply Refer To:
HFPM-16

TO: ROUEN Q.W. LIU
PERMITS ENGINEER
HAWAIIAN ELECTRIC COMPANY, INC.
P.O. BOX 2750
HONOLULU, HI 96840

FROM: J. MICHAEL WILL, P.E.
PROJECT MANAGER

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA)
HALONA STREET BRIDGE REPLACEMENT, PROJECT NO. STP H1(1)
H-1 INTERSTATE (ADJACENT), KALIHI DISTRICT, ISLAND OF OAHU;
TMK: [1] 1-6-002; [1] 1-6-006

Dear Mr. Liu:

Thank you for sending comments on the Draft EA by email dated March 23, 2016.

We acknowledge the need to provide continued access for maintenance to your facilities within the project area. As stated in Section 3.19.2 of the EA, the project is not expected to adversely impact utilities, as maintenance access and service for all utilities will be maintained during and after construction. Coordination will continue through final design.

We appreciate your participation in the environmental review process. If you have any questions, please contact me at (720) 963-3647, or by email at Michael.will@dot.gov.

Sincerely yours,

J. Michael Will, P.E.
Project Manager

Cc:
Kevin Ito, HDOT
Thomas Parker, CFLHD
Kathleen Chu, CH2M HILL

Hawaiian Telcom

March 9, 2016

Central Federal Lands Highway Division
Federal Highway Administration
12300 West Dakota Avenue, Suite 380A
Lakewood, CO 80228-2583
Attention: Mr. Mike Will

Dear Mr. Will:

Subject: **Draft Environmental Assessment**
Halona Street Bridge Replacement, Project No. HI STP H1(1)
Interstate Route H-1 (Adjacent)
Honolulu District, Oahu Island
Tax Map Key: [1] 1-6-002; [1] 1-6-006

Thank you for the opportunity to review and comment on the Draft Environmental Assessment for the subject project.

Hawaiian Telcom does not have any comments to offer at this time.

If you have any questions or require assistance in the future on this project, please call me at 546-7761.

Sincerely,

Les Loo
Network Engineer – OSP Engineering
Network Engineering & Planning

cc: K. Chu – CH2M HILL
File [Kalihi]