Draft Environmental Assessment Proposed Medium Security Housing Unit

Kauai Community Correctional Center

May 10, 2019

State of Hawaii
Hawaii Department of Public Safety

Draft Environmental Assessment - Proposed Medium Security Housing Unit

Kauai Community Correctional Center

May 2019

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Hawaii Department of Public Safety

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Abbreviations and Acronyms

BMP	best management practices
CCC	Community Correctional Center
CFR	Code of Federal Regulations
Corps	U.S. Army Corps of Engineers
DAGS	Hawaii Department of Accounting and General Services
dB	decibels
dbA	A-weighted decibel scale
DHHL	Department of Hawaiian Home Lands
DNLR	Hawaii Department of Land and Natural Resources
DOA	Hawaii Department of Agriculture
DPW	Kauai County Department of Public Works
EA	Environmental Assessment
EIS	Environmental Impact Statement
FONSI	Finding of No Significant Impact
FEMA	Federal Emergency Management Agency
HAR	Hawaii Administrative Rules
HRS	Hawaii Revised Statutes
KCCC	Kauai Community Correctional Center
KDOW	County of Kauai Department of Water
KIUC	Kauai Island Utility Cooperative
Ldn	day-night equivalent sound level
Leq	equivalent noise level
mgd	million gallons per day
msl	mean sea level
NAAQS	National Ambient Air Quality Standards
NRCS	Natural Resource Conservation Service
NWI	National Wetlands Inventory
OEQC	Hawaii Office of Environmental Quality Control
PSD	Hawaii Department of Public Safety
SHPD	State Historic Preservation Division
SMA	Special Management Area
SMMH	Samuel Mahelona Memorial Hospital
TMK	Tax Map Key

USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WWTP	Wastewater Treatment Plant

PREFACE

With increasingly aged and overcrowded in-state jail and prison facilities, the Hawaii Department of Public Safety (PSD) is moving forward with an overall program to improve and/or replace its corrections infrastructure. As evidence, planning for a new facility to replace the Oahu Community Correctional Center (OCCC) and expand the Women's Community Correctional Center (WCCC) has been underway since 2016 with considerable progress already accomplished. In addition to replacing OCCC and expanding WCCC, PSD is seeking to alleviate the severe overcrowding that exists at the Kauai Community Correctional Center (KCCC), the Maui Community Correctional Center (MCCC), and the Hawaii Community Correctional Center (HCCC) in order to provide safe, secure, and humane environments for the care and custody of adult male and female offenders originating from Kauai, Maui and Hawaii counties. Assisting PSD is the Hawaii Department of Accounting and General Services (DAGS).

PSD is proposing to alleviate the persistent and significant crowded conditions by developing a Medium Security Housing Unit at each facility for inmates who are currently housed at KCCC, MCCC and HCCC. Since the proposed housing unit projects involve the use of State funds and State lands, each is subject to the State environmental review process. In the case of KCCC, this Draft Environmental Assessment (EA) has been prepared pursuant to the requirements of Chapter 343, Hawaii Revised Statutes (HRS), and Chapter 200, Title 11, State of Hawaii Department of Health Administrative Rules (HAR), State Department of Health. PSD is proposing to alleviate the crowded conditions by developing a Medium Security Housing Unit for inmates who are currently housed at KCCC. Given the severe crowding which exists at other jail facilities, similar Draft EAs have been developed for MCCC and HCCC, subject to the same requirements of Chapter 343, HRS, and Chapter 200, Title 11, HAR. The proposed project at KCCC is representative of PSD's overall program of improving its community correctional centers.

The proposed Medium Security Housing Units are intended to provide additional beds in appropriate settings to address the current crowded conditions; provision of such housing is not intended to increase the inmate population at the facilities beyond their current number. Instead, inmates housed in cramped conditions and in spaces not well suited for inmates, would be accommodated in housing units designed and constructed to State of Hawaii and national standards. To bring commonality among the community correctional centers, a prototype medium security housing building would be designed to meet the needs at KCCC, MCCC and HCCC. Providing standardization of the various systems and facilities will also aid in maintenance. Subsequent design objectives for the housing unit would be to implement a direct supervision housing model to aid in the rehabilitation of inmates. Development of the Medium Security Housing Units will allow for inmates currently housed in inadequate conditions to be relocated to the proposed buildings.

The preferred alternative is development of the inmate housing unit at KCCC as proposed and by doing so help achieve a safe, secure, and humane environment for the care and custody of adult male and female offenders originating from the County of Kauai. It is anticipated that a Finding of No Significant Impact (FONSI) will be issued and filed with the State Office of Environmental Quality Control (OEQC) by the proposing and determining agency following public review of the Draft EA.

SUMMARY

Name:	Medium Security Housing Unit at Kauai Community Correctional Center
Type of Document:	Draft Environmental Assessment
Legal Authority:	Chapter 343, Hawaii Revised Statutes
Location:	3-5351 Kuhio Highway, Lihue, Kauai County, Hawaii
Tax Map Key:	TMK 4-3-9-05:13
Ownership:	State of Hawaii
Identification of Proposing Agency:	State of Hawaii, Department of Accounting and General Services
Identification of Determining Agency:	State of Hawaii, Department of Accounting and General Services
Contact:	Wayne J. Takara, Program Specialist Hawaii Department of Public Safety 919 Ala Moana Boulevard, Suite 400, Honolulu, HI 96814 Tel: 808-587-3463 Email: Wayne.j.takara@hawaii.gov
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Identification of Accepting Agency:	State of Hawaii, Department of Health, Office of Environmental Quality Control
Contact:	Office of Environmental Quality Control 235 South Beretania Street, Suite 702, Honolulu, HI 96813 Tel: 808-586-4185 Email: oeqchawaii@doh.hawaii.gov
Environmental Consultant for Draft EA Preparation:	Louis Berger U.S., Inc.
Contact:	Robert J. Nardi, Vice President Louis Berger U.S., Inc. 412 Mt. Kemble Avenue, Morristown, New Jersey 07962

	Tel: 973-407-1681 Email: rnardi@louisberger.com
Judicial District:	Lihue
Proposed Action:	With increasingly aged and overcrowded in-state jail and prison facilities, the Hawaii Department of Public Safety (PSD) is moving forward with an overall program to improve and/or replace its corrections infrastructure. This includes alleviating the severe overcrowding that exists at the Kauai Community Correctional Center (KCCC), the Maui Community Correctional Center (MCCC), and the Hawaii Community Correctional Center (HCCC) in order to provide safe, secure, and humane environments for the care and custody of adult male and female offenders originating from Kauai, Maui and Hawaii counties. PSD is proposing to alleviate the crowded conditions by developing a Medium Security Housing Unit at each facility for inmates who are currently housed at KCCC, MCCC and HCCC. The proposed Medium Security Housing Unit at KCCC is intended to accommodate up to 144 inmates in an appropriate setting to address the current crowded conditions. Development and operation of the proposed housing unit would not change the number of inmates held at KCCC because the unit would be occupied by inmates already housed at KCCC. Instead, inmates housed in cramped conditions and in spaces not well suited for inmates would be accommodated in a housing unit designed and constructed to State of Hawaii and national standards. The housing unit would help achieve a safe, secure, and humane environment for the care and custody of adult male and female offenders originating from Kauai County and is representative of PSD's overall program of improving its community correctional centers.
Land Area (approximate)	10 acres (total)
Existing Land Use:	Kauai Community Correctional Center
State Land Use District:	Agriculture
Kauai County General Plan Designation:	Agriculture
County Zoning:	Agricultural (A)
Special Management Area:	KCCC is located outside the limits of Kauai's Special Management Area
Major Approvals that May be Required:	Permit/Approval: HRS, Chapter 343 Compliance Issuing Agency: Hawaii Department of Accounting and

	General Services Permit/Approval: Use Permit, Special Permit, and/or Class IV Zoning Permit Approval Issuing Agency: Kauai County Council Permit/Approval: Building Permit, Grading Permit, Fence Permit, Flood Plain Permit Issuing Agency: Kauai County Department of Planning Permit/Approval: NPDES Permit Issuing Agency: Hawaii Department of Health
Impacts:	Construction and operation of the proposed housing unit at KCCC would have negligible adverse impacts to topography, geology, soils, archaeological and cultural resources, natural hazards, fiscal considerations, demographic and economic conditions, housing, community services, land use, utilities, traffic movements, and climate. Even minimal impacts would be mitigated as appropriate. In order to address potential impacts to biological resources, water resources, and soils during construction, applicable best management practices will be employed to prevent potential degradation of water quality resulting from soil erosion. Potential short-term impacts to noise and air quality during the construction period will be minimized by compliance with applicable Department of Health Rules. Beneficial impacts would be derived from the proposed action including contributions toward fulfilling the PSD mission to protect public safety by operating humane and secure facilities where the health and well-being of the inmates are sustained, and opportunities are available to assist with their reintegration back into the community. Implementation of the proposed action would result in no significant adverse impacts as defined by Hawaii Revised Statutes.
Anticipated Determination:	Finding of No Significant Impact (FONSI)
Parties Consulted During Pre-Assessment:	Federal U.S. Army Corps of Engineers U.S. Fish and Wildlife Service U.S. Department of Transportation, Federal Highway Administration U.S. Geological Survey U.S. Department of Agriculture U.S. Environmental Protection Agency Federal Aviation Administration State of Hawaii Department of Accounting and General Services Department of Agriculture Department of the Attorney General Department of Education

Department of Business, Economic Development and Tourism (DBEDT)
DBEDT, Land Use Commission
DBEDT, Office of Planning
Department of Hawaiian Home Lands
Department of Health (DOH)
DOH, HEER
DOH, Environmental Health Services Division
DOH, Office of Environmental Quality and Control
Department of Land and Natural Resources (DLNR)
DLNR, State Historic Preservation Division
DLNR, Land Division

Department of Transportation
Office of Hawaiian Affairs

County of Kauai

Planning Department
Department of Public Works
Transportation Agency
Emergency Management Agency
Office of Economic Development
Water Department
Department of Parks and Recreation
Fire Department
Police Department
Housing Agency
County Clerk
County Attorney's Office

Others

Kauai Planning and Action Alliance
Historic Hawai'i Foundation
Queen Debra Kapule Hawaiian Civic Club
Kaua'i Museum
Līhu'e Business Association
Royal Order of Kamehameha – Kaumuali'i Chapter
Kaua'i Historical Society
Kaumuali'i Hawaiian Civic Club
Nā Kuleana o Kānaka 'Ōiwi
Ahahui Kiwila Hawai'i o Moikeha
Kaua'i Ni'ihau Island Burial Council

Date: May 10, 2019

1.0 INTRODUCTION

1.1 Background

The State of Hawaii Department of Public Safety (PSD) is responsible for carrying out judgments of the state courts whenever a period of confinement is ordered. Its mission is to uphold justice and public safety by providing correctional and law enforcement services to Hawaii's communities with professionalism, integrity, and fairness. Currently, PSD is responsible for the approximately 5,600 offenders that are housed within eight State of Hawaii facilities, the Federal Detention Center in Honolulu, and in private contractor-operated correctional facilities located in Arizona.

Since 1991, Hawaii's prison and jail inmate population has grown well beyond the system's capacity, during which time no new facilities were added to the system. Consequently, PSD has been forced to double-bunk cells, add beds to dorms without adding space, and convert spaces normally used for inmate programs, counseling and similar services to other functions, such as inmate housing, to cope with the population. At the present time, the design capacity for the State's four jails is 1,153 beds and the operational bed capacity is 1,609. In the case of the State's prisons, the design capacity is 1,338 beds and the operational bed capacity is 1,918 (PSD, November 2018).

The persistent and severe crowding and a lack of suitable space in the islands has required PSD to house approximately 31 percent of the state's prison inmate population at contracted facilities on the mainland. Contracting for prison beds on the mainland began in 1995 when 300 male inmates were transferred to facilities in Texas. Additional transfers followed in 1997 with 236 male inmates and 64 female inmates and have continued to grow since then. As of November 30, 2018, approximately 1,459 State of Hawaii prison inmates are housed in facilities on the mainland.

1.2 Responsibilities of Hawaii Department of Public Safety

PSD deals with offenders at various stages within the criminal justice process. People who are arrested are initially held in custody at county police cellblocks, where they are assessed to determine if they are eligible to be diverted from the correctional system. Those who qualify for release into the community, pending their trial, are supervised by PSD's Intake Service Center staff who provide counseling and electronic monitoring, if needed. Those who are not eligible for pre-trial diversion programs are transferred to one of the State's jails until their trial and acquittal or sentencing. On conviction, individuals who are sentenced to serve less than one year remain at the jails and serve out their sentences. Those who are sentenced to serve more than one year are transferred to a state prison to serve out their sentence.

Felons sentenced to prison undergo a comprehensive assessment and diagnostic process which includes academic, vocational, treatment, and security information. Based on the assessment results, a correctional program plan is created to prepare the inmate to return to the community as a successful citizen. The plan includes programs and treatment services. PSD offers various programs to help create an environment that would be conducive to an inmate exercising behavioral control, taking responsibility, and achieving self-improvement. Only inmates who are classified as maximum security, or those whose behavior poses a threat to themselves or other inmates, are limited in their access to programs. Among the programs offered by PSD are education, vocational training, substance abuse treatment, and sex offender treatment. In addition to programs and basic needs such as food and clothing, medical and mental health services are also provided along with access to a law library and other library services.

When inmates near the end of their sentences, and are of the appropriate custody level, they are typically transferred to a minimum-security facility where they may participate in work release or furlough programs. Planning for housing, employment, finances, continuing education, training, follow-up treatment services, or other elements of life after incarceration also occurs at this stage. Some female offenders may transfer to a transition center in the community as well.

Although some offenders will remain in prison for life, the majority will serve their sentences and be released. Over 98 percent of those currently incarcerated will eventually return to the community. Those who are released to parole are closely supervised in the community to assist and prepare them for full release. If at any time a parolee violates the terms and conditions of parole, his or her parole status can be immediately revoked, and the offender may be returned to prison or jail.

1.3 Jail vs. Prison—Important Differences

PSD operates the Kauai Community Correctional Center (KCCC) in Lihue, which acts as the local detention center for the Fifth Circuit Court. As a jail, KCCC operates substantially different than a prison. A jail is a facility where individuals are held for trial. These may be persons who either could not meet their bail or may not have qualified for bail according to the courts. In certain cases, a jail may also house individuals who have been to court, convicted, and sentenced to short term incarceration – usually less than a year. However, inmates housed at CCCs are under the jurisdiction of the Courts and not PSD and detainees in jail can only be released, placed in outside programs, or assigned to other alternatives to incarceration by the Courts.

The services that a jail such as KCCC must provide are vastly different from that of a prison. For example, it is important that pre-trial detainees are kept separate from sentenced inmates. Thus, a jail is usually operated on a 'distributed services' model where detainees or inmates remain in their housing units and meals, drug treatment, counseling, and even minor medical treatments are delivered to them. Another important consideration in the operation of a jail is that detainees may have a chemical dependency or suffer from an undiagnosed mental health issue. In both cases, it is the responsibility of the jail to provide diagnosis and recommend the appropriate treatment program.

Understanding the unique and fundamental differences between the inmate populations and the services provided to them in prison vs. jail will be important to understanding the purpose and function of Hawaii's CCCs and PSD's plan to develop a Medium Security Housing Unit at KCCC.

In addition to KCCC, PSD also operates jails on the islands of Oahu, Maui, and Hawaii. Each facility houses sentenced inmates (felony, probation, and misdemeanor), pretrial individuals (felony and misdemeanor), arrestees from other jurisdictions, and probation/parole violators. CCCs provide the customary county jail function of managing both pre-trial detainees and locally sentenced misdemeanant offenders and others with a sentence of one year or less. Jails also provide an important pre-release preparation/transition function for prison system inmates who are transferred back to their counties of origin when they reach less than a year until their scheduled release. Most of these inmates are transferred to a dedicated work furlough unit where they can begin working in the community on supervised work crews or in individual placements as determined by needs and classification assessments and individualized pre-release plans.

1.4 Hawaii's Community Correctional Centers

The concept and mission of Hawaii's CCCs was originally defined in the 1973 Corrections Master Plan which resulted in the construction of jails (i.e., CCCs) on the Islands of Maui, Kauai, Oahu, and Hawaii. Consequently, all four facilities share some common original facility design elements that were considered appropriate at the time. One of those common features is the subdivision of the original secure housing building into very small operationally inefficient units of three-, four- or six-cell clusters. Contemporary jail designs provide for much larger units (usually 32, 48 or 64 beds each for general population minimum- or medium-security) that allow many more inmates to be supervised by each officer. In 1991, the combined operational bed capacity of the four facilities was 958, whereas today, the same facilities had a combined rated operational capacity of 1,609. As noted earlier, the current design capacity for the State's four jails is 1,153 beds with a total operational bed capacity of 1,609 (PSD, 2018).

- Kauai Community Correctional Center—KCCC (TMK 4-3-9-05:13) is located at 3-5351 Kuhio Highway in Lihue. The facility has been expanded from its original capacity of 16 medium security beds in 1977 to 46 beds by 1991, and currently has a design capacity of 110 beds. Additional bed space came in the form of temporary dormitory structures that were used by displaced residents of Hurricane Iniki and are still being used for correctional housing. As of November 30, 2018, KCCC housed approximately 172 inmates or 34 percent above its operational capacity of 128 beds (PSD, 2018).
- Oahu Community Correctional Center—OCCC, located in Kalihi, opened in 1975 as a part of the county-based community corrections system concept with 456 beds. OCCC was originally designed to house both pretrial detainees and sentenced felons. At that time, OCCC was considered a jail as well as the primary prison for the State. OCCC has a design capacity of 628 beds but by the late 1990s, OCCC's population increased to upward of 1,400. Today, OCCC is the largest jail in the State of Hawaii and still houses dual populations of pretrial detainees (male and female offenders) and sentenced male felons. The facility also oversees operation of the Laumaka Work Furlough Center located a block away. As of November 30, 2018, OCCC housed approximately 1,212 inmates, or 27 percent above its operational capacity of 954 beds (PSD, 2018).
- Hawaii Community Correctional Center—HCCC, opened as a 22-bed facility in Hilo in 1975, currently has a design capacity of 206 beds (TMK 2-3-023:005). Unlike other CCCs, it has a Work Furlough Center located on a site outside of Hilo. The CCC was sited next to the old county jail in a Hilo location that, at the time, was largely undeveloped; today the facility is surrounded by residences and schools. As of November 30, 2018, HCCC housed approximately 387 inmates or 71 percent above its operational capacity of 226 beds (PSD, 2018).
- Maui Community Correctional Center—MCCC, with a design capacity of 209 beds, has been expanded from its original two-acre site to the current 7.23 acres (TMK (2) 3-8-46:05, 06). Originally sited in a relatively isolated location, the town of Wailuku has since grown around and beyond the facility. As of November 30, 2018, MCCC housed approximately 415 inmates or 38 percent above its operational capacity of 301 beds (PSD, 2018).

PSD is committed to providing safe, secure, healthy, and humane social and physical environments for the care and custody of adult male and female offenders originating from the State of Hawaii. However, crowding has exacerbated physical plant operations, contributed to tension among inmates, and diminished treatment and program opportunities. Overall, jail facilities are operating well above their operational capacities. Given long-standing conditions, alleviating crowding is an important priority for Hawaii's community corrections system.

1.5 Kauai Community Correctional Center

KCCC serves only the Island of Kauai and acts as the local detention center for the Fifth Circuit Court. The facility houses both male and female inmates on pretrial, sentenced and community release status. KCCC was initially constructed in 1977 with a capacity of 16 cells, referred to as Module A, and since then, has undergone several expansions:

- 1986, Module "B" was added with a design capacity of 6 cells and 24 beds.
- 1995, Cabin A was added, and in 1995 Cabins B and C were added. These cabins repurposed temporary hurricane housing used to shelter Kauai residents after Hurricane Iniki. They do not have a design or rated capacity, but currently are equipped to house 46 inmates.
- 1997, Module "C" was occupied, which is a prototypical minimum security housing unit designed for 80 beds.
- 2011, Food Service and Medical Exam Modular Building was added.

KCCC houses inmates based on classified security levels using virtually every bed available. In addition, the type and amount of supervision varies based on the configuration and security level of the buildings:

- Cabins A, B, and C are dormitory-style housing and considered minimum-security staff secure because they do not provide any physical barriers to escape or flight; intermittent surveillance is provided by staff assigned to the adjacent guard station that monitors access to the site.
- Modules A and B are medium security double and multiple occupancy cells. A control room can view the central program space, but primary security is via intermittent surveillance. It is important to note that visibility into the various housing pods in Module A and the multi-occupancy cells in Module B is limited to view ports in the doors. Modules A and B house higher security pretrial and sentenced inmates.
- Module C is a more recent version of community release facilities built in several locations and has two 40-person dormitories with a central staff station which provides observation and direct supervision of the two dormitory wings. It is also considered minimum-security staff secure as while it is located inside a fence line, no real physical barriers are provided to escape or flight. One wing currently houses sentenced inmates on community or work release, and the other houses inmates in pre-trial status.

Exhibit 1-1 depicts the regional location of KCCC and Exhibit 1-2 is an aerial view of the facility. See also Appendix D, Figure 1, for the locations and arrangement of structures comprising KCCC.

KCCC currently has an operating capacity of 128 beds yet houses 172 inmates, an overage of 34 percent over capacity. Based on a recent physical assessment, conditions at KCCC are described as follows:

- Use of Cabins A, B, and C to house inmates was always intended as a temporary solution. The buildings do not provide adequate space for sleeping or day space, and in fact the primary dayroom is outdoor seating and recreation areas. Facilities are staff secure. Use of support services from the main building results in cross-traffic between offenders held outside in staff secure facilities and offenders secured inside the security perimeter of the main jail.
- Module A consists of four 3-cell units with a small dayroom arrayed around a central program and dining space. While initially intended to house 12 inmates in single cells rated for double bunking with a total capacity of 24 beds, Module A has housed as

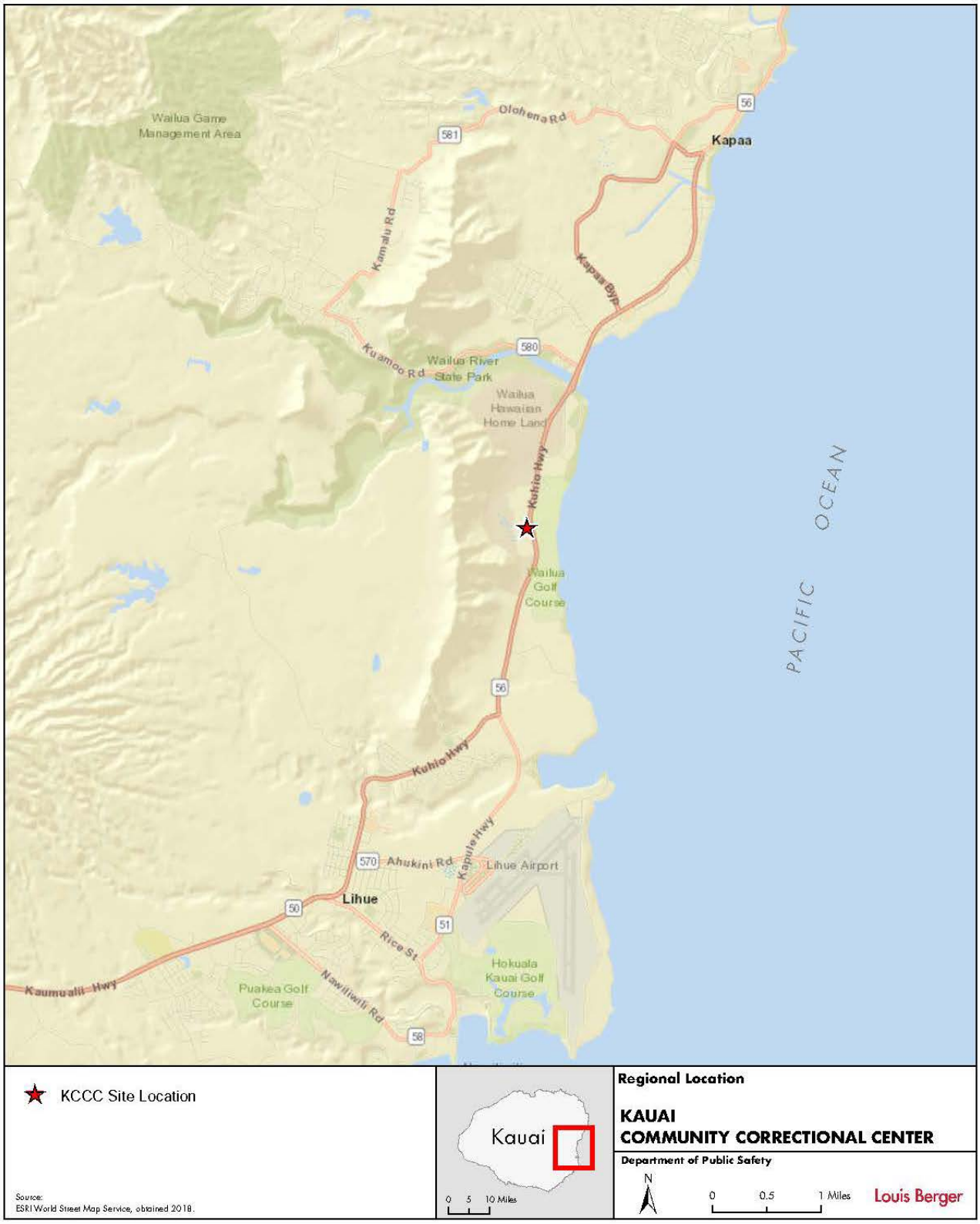


Exhibit 1-1: Regional Location of KCCC



Exhibit 1-2: Aerial Photograph of KCCC

many as 48 inmates at one time through triple bunking and use of the day-space for additional mattresses. Inmates housed in the day-space must utilize a toilet in one of the cells when needed. Inmates generally spend most of their time in the individual housing units with access to the central space limited based on classification/separation needs and program availability. Additionally, visibility into these units is limited to a small viewport in the door or wall. Effectively, observation of any activity requires specific action on the part of staff to open the viewport and peer into the unit or open the door and go into the unit—no regular supervision or observation of activities occurs.

- Module B comprises six rooms similarly arrayed around a central program or dayroom space. While initially intended to house 12 inmates and rated to house 24 inmates, typically the population is 36 inmates or more. Again, classification and program needs limit access to the central space, requiring inmates to spend most of their time in their dormitory rooms. As with Module A, visibility into the individual multi-occupancy cells is limited.
- Module C as a more recent addition and accommodates inmates classified as minimum security/staff secure housing or community release.

In addition to the severe and persistent crowding which exists at KCCC, all buildings need replacement and/or major renovation or repair. Furthermore, most of the support and program components were rated as inadequate functionally and operationally to maintain the current population.

1.6 Project Purpose and Need

With increasingly aged, obsolete, and severely crowded correctional facilities, PSD is planning to improve the State's corrections infrastructure through modernization of existing facilities when possible and construction of new institutions to replace others when necessary. Among several priority projects is the replacement of OCCC and expansion of WCCC and planning for both facilities is already well underway. In addition to OCCC and WCCC, PSD also considers alleviating crowded conditions at KCCC a high priority.

1.6.1 Medium Security Housing Unit

The important issue currently facing KCCC involves the severe and persistent crowding that has forced the use of low-security modular buildings to house medium security inmates. Therefore, PSD plans to alleviate crowded conditions at KCCC by adding a Medium Security Housing Unit capable of accommodating up to 144 inmates who are currently housed at KCCC.

Development of a Medium Security Housing Unit is intended to provide a sufficient number of beds in an appropriate setting to address the current severely crowded conditions; *provision of such housing is not intended to increase the population of KCCC beyond its current number.* Rather, medium security inmates housed in cramped conditions and in spaces not well suited for inmates, would be accommodated in a modern housing unit designed and constructed to State of Hawaii and national standards.

To bring commonality among all of PSD's community correctional centers, a prototype medium security housing building would be designed to meet the needs at KCCC. Providing standardization of the various systems and facilities will also aid in maintenance. Subsequent design objectives for the housing unit would be to implement a direct supervision housing model to aid in the rehabilitation of inmates. Development of the Medium Security Housing Unit will allow for inmates currently housed in inadequate conditions to be relocated to the proposed building (Exhibit 1-3).

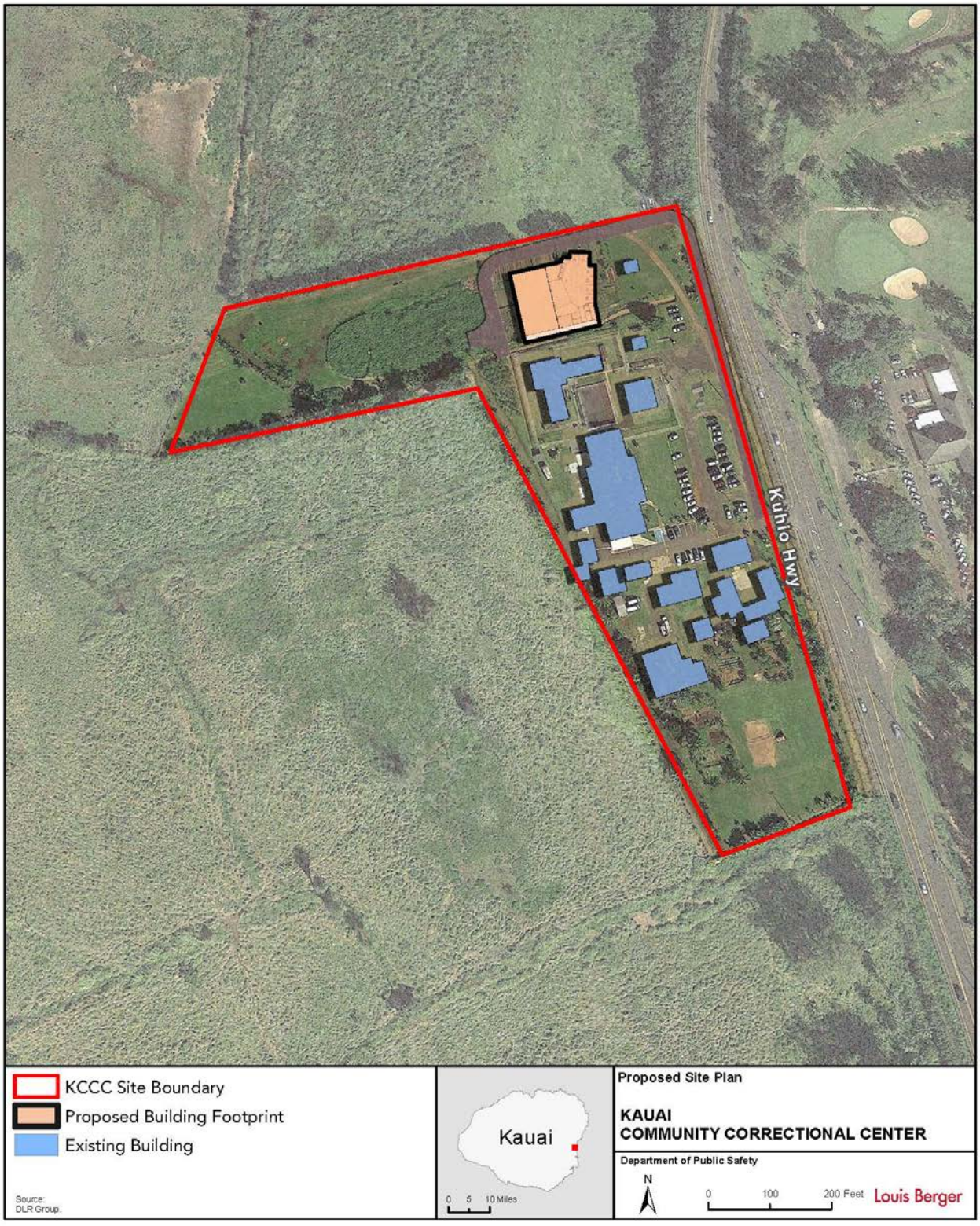


Exhibit 1-3: Medium Security Housing Unit Conceptual Site Plan

1.6.2 Project Objectives

The primary objectives of the Medium Security Housing Unit at KCCC are to better accommodate current and future jail inmate populations and provide for public safety. Providing medium security housing at KCCC will help ensure that Hawaii's criminal justice system in general, and PSD in particular, functions in a quality manner while addressing the need for modern, efficient, and cost-effective institutions. The addition of a Medium Security Housing Unit will also allow PSD to accomplish its mission to uphold justice and public safety, meet the needs of current and future jail populations, and provide for the continued safety and security of inmates, staff and island communities. Specific objectives for the proposed housing unit addition at KCCC include:

- Improve living conditions for male and female inmates.
- Provide adequate space and an environment where the focus can be on better preparing inmates for successful reintegration into the community and reduced recidivism.
- Provide a safer and more efficient work environment for corrections staff.
- Enhance opportunities for addressing inmates with special needs.
- Be a catalyst for improving corrections infrastructure in Kauai County.

1.6.3 Summary of Proposed Action

The inmate population held at KCCC has experienced an overall increase of 2.5 percent over the past three years, rising from 195 inmates on December 31, 2014, to 210 inmates on December 31, 2017. This number reflects an increase in the number of male inmates from 166 on December 31, 2014, to 184 on December 31, 2017 (an increase of approximately 3.6 percent annually). However, the number of female inmates declined slightly from 29 on December 31, 2014, to 26 on December 31, 2017 (a decrease of approximately 3.4 percent annually). As of November 30, 2018, the total number of male inmates housed in KCCC was 142, while the number of female inmates was 30 (172 total inmates).

The proposed action at KCCC is intended to address the long-standing and severe crowding that exists at the facility by the addition of a Medium Security Housing Unit capable of housing up to 144 inmates. However, the proposed housing unit is not intended to increase the inmate population of KCCC beyond its current number. Rather, inmates housed in cramped conditions and in spaces not well suited for inmates would be accommodated in a modern housing unit designed and constructed to State of Hawaii and national standards. The proposed project has an estimated project cost of $15 million, including planning, design, and construction. Construction is preliminarily scheduled to begin in 2020 and be completed in 2021.

1.7 State of Hawaii Environmental Regulations

Adopted in 1974 and implemented by the Office of Environmental Quality Control (OEQC), Hawaii's environmental impact statement law (HRS, Chapter 343) requires the preparation of EAs and environmental impact statements (EISs) in advance of undertaking many development projects. Like its federal equivalent (NEPA), HRS, Chapter 343, requires that Hawaii government agencies such as PSD, give systematic consideration to the environmental, social, and economic consequences of proposed projects prior to development and assures the public of the right to participate in the planning process involving projects that may affect their community. Every year in Hawaii numerous proposed projects and actions undergo environmental review. Notice of these projects, studies, and determinations are published twice each month by OEQC in *The Environmental Notice*.

If a proposed action is subject to the requirements of HRS, Chapter 343, the environmental review process is initiated with preparation of a Draft EA by the proposing and determining agency or the private applicant. The Draft EA offers a detailed description of the proposed action along with an evaluation of the possible direct, indirect, and cumulative impacts. The document must also consider alternatives to the proposed project and describe any measures proposed to minimize potential impacts. Following its preparation, the public is typically provided 30 days to review and comment on the Draft EA.

After the Draft EA has been finalized and public comments responded to, the proposing and determining agency reviews the final assessment and determines if any "significant" environmental impacts are anticipated. If the agency determines that the project would not have a significant environmental impact, it issues a Finding of No Significant Impact (FONSI). This determination allows the project to proceed without further study. If the agency determines that the action may have a significant impact, a more detailed EIS is prepared.

1.8 Public Information and Involvement

Public outreach, information and participation are essential elements of any complex and potential controversial undertaking. PSD has long recognized the unique challenges faced in providing modern facilities for managing the State's inmate population and the importance of informing and otherwise involving diverse interest groups, elected officials, key regulatory agencies, and the public at large in the planning and decision-making process. When a project or action is of a scope and/or nature that may affect community interests, reaching out and involving community leaders, regulatory agencies, and the public in the planning process can facilitate the decision-making and approval process. The goal is to avoid or reduce conflict while maintaining the focus on critical issues affecting the proposed action.

Public outreach and involvement at the onset of the planning process also serves to assist in determining the focus and content of the environmental impact study. Public outreach assists to identify the range of actions, alternatives, environmental effects, and mitigation measures to be analyzed in depth and eliminates from detailed study issues that are not pertinent to the final decision on the proposed project. Public outreach is also an effective means to bring together and address the concerns of the public, affected agencies, and other interested parties. Significant issues may be identified through public and agency comments.

The purpose of public outreach is to help ensure that a comprehensive environmental impact document is prepared to provide a firm basis for the decision-making process. The intent of PSD's public outreach process has been to:

- Inform agency representatives, elected officials, and interested members of the public about the proposed action, the roles and responsibilities of PSD in implementing the proposed action, as well as activities to ensure compliance with HRS, Chapter 343.
- Identify the range of concerns that form the basis for identification of potential significant environmental issues to be addressed in the Draft EA.
- Identify suggested mitigation measures, strategies and approaches to mitigation that may be useful and explored further in the Draft EA.

To inform and involve the public in the planning and decision-making process, PSD conducted the following activities:

- Sought the participation of federal, state, and local agencies and the public in the environmental impact study process.

- Conducted informal discussions and consultations by telephone and via correspondence with Kauai County officials. This included initiating contacts with the Mayor of Kauai County to explain PSD's proposal for KCCC and to facilitate interaction between PSD leadership and the Mayor, County Council members, and their staff (Appendix A). Additional discussions between PSD officials and the Mayor and County Council members will occur to maintain communication linkages concerning PSD plans.
- Prepared and distributed individual letters to inform key elected officials, including State senators and representatives, of the proposed action. Letters to officials representing Kauai County are included in Appendix A.
- Established a dedicated website to make available information concerning the proposed project to all interested groups and individuals (*https://dps.hawaii.gov/neighbor-island-jails-project/*).
- Prepared and distributed multiple newsletters providing elected and appointed officials, regulatory agencies, stakeholders and the public with continuous updates on the status of the planning and EA study process while soliciting advice and input on issues that should be addressed during the planning and decision-making process.
- Prepared and distributed a Pre-Assessment Consultations document to explain the need for the proposed housing unit and to seek advice and input on issues that should be addressed in the Draft EA (Appendix C).
- Determined the scope and significance of issues to be included within the Draft EA on the basis of relevant environmental considerations and information obtained throughout the public outreach process. The determination defined the scope and significance of the issues to be included in the Draft EA and identified issues that could be eliminated from detailed study as irrelevant or insignificant.
- In accordance with HRS, Chapter 353, provided the public with a 60-day comment period following Draft EA distribution to further identify any issues of concern.
- Identified additional data requirements based on information obtained from the public outreach process so that analyses and findings could be integrated into the Draft EA.

Throughout the preparation of the Draft EA, PSD reviewed incoming correspondence, newspaper articles and other indications of interest or concern on the part of regulatory agencies, organizations, elected officials, and the public regarding the proposed project. Federal, state, and county officials and regulatory agencies were consulted in preparing this Draft EA with the resulting scope of study indicated by the Table of Contents and the materials presented in the subsequent sections of the document and its incorporations by reference.

2.0 ALTERNATIVES ANALYSIS

2.1 Introduction to the Alternatives Analysis

The State of Hawaii has developed guidelines for the preparation of environmental impact studies for State projects or actions. These guidelines require an evaluation of alternatives to the proposed project or action as part of each such environmental impact study. The alternatives analysis conducted under these guidelines addresses the following:

- No Action Alternative—A decision not to proceed with the proposed action to develop a Medium Security Housing Unit at KCCC. Under the No Action Alternative, the persistent and severe crowding experienced at KCCC would continue.
- Alternatives Considered but Not Carried Forward for Analysis—Potential expansion of the property boundaries to provide additional lands for KCCC improvements along with the complete relocation and replacement of KCCC at a different location on Kauai were considered for the future of KCCC.
- Preferred Alternative—Development of a Medium Security Housing Unit as proposed. This alternative meets the purpose and need for the proposed action, which is to alleviate the persistent and severe crowded conditions experienced at KCCC.

A discussion of these alternatives follows. No other reasonable alternatives within the jurisdiction of PSD have been identified.

2.2 No Action Alternative

HRS, Chapter 343, requires the consideration of the No Action Alternative to serve as a baseline against which other potential actions can be measured. The No Action Alternative is defined as a decision by the State of Hawaii not to proceed with development of a Medium Security Housing Unit at KCCC. Implementation of the No Action Alternative would maintain the status quo, precluding development of a Medium Security Housing Unit that, if constructed, would help alleviate the severe, long-standing, and chronic crowding that exists at KCCC.

Adoption of the No Action Alternative would avoid the potential impacts and inconveniences associated with development and operation of the Medium Security Housing Unit to accommodate inmates. This alternative would also avoid the potential impacts and inconveniences (albeit temporary) associated with construction of the housing unit such as noise, dust, soil erosion, and air emissions. The No Action Alternative would also avoid the potential permanent impacts on land use at KCCC, utility services, and visual and aesthetic resources associated with development and occupancy of the proposed housing unit. Based on projects of a similar nature and scale developed elsewhere, PSD anticipates that potentially significant adverse impacts from the proposed housing unit can and will be avoided and that none of the potential project impacts, properly mitigated, would constitute significant adverse impacts as defined by Hawaii Revised Statutes.

Although the No Action Alternative would avoid the potential impacts associated with constructing and occupying a housing unit at KCCC, adoption of this alternative would also result in the loss of substantial positive benefits including the project's contribution to achieving the mission of PSD, the provision of a housing unit to better accommodate the current inmate population, the societal benefits derived from effective and efficient operation of the Hawaii's criminal justice system, and the potential economic benefits which would become available to the residents and businesses of Kauai as a consequence of implementation of the proposed action.

The No Action Alternative does not address the State's need to provide adequate housing for the jail population on Kauai. For these reasons, the No Action Alternative has been eliminated from further consideration as not meeting PSD needs and goals for the future of KCCC. However, to compare and contrast the potential impacts of the proposed action, the No Action Alternative is carried forward and discussed in this Draft EA.

2.3 Alternatives Considered but Not Carried Forward for Analysis

2.3.1 Expansion of KCCC Property Boundaries

Potential expansion of the KCCC property boundaries to provide additional lands for housing unit development was an alternative considered at the onset of the planning process. Expansion of the property, while considered, was determined unnecessary because sufficient developable land exists within the KCCC property (which totals approximately 10 acres) to accommodate development of the Medium Security Housing Unit without adversely affecting KCCC operations. Such available land, currently consisting primarily of grass fields and small cultivated plots, is located to the north of the main KCCC compound and will accommodate development of the Medium Security Housing Unit.

Once the Medium Security Housing Unit is developed, a portion of the inmate population can be relocated from their current housing unit(s) to the new unit. The sequence of developing the housing unit followed by redistribution of the inmate population across the current housing units can be accommodated without the necessity of acquiring additional adjoining private or public lands. The alternative to expand the KCCC property boundaries was considered and eliminated as not necessary for meeting PSD needs and goals for the future of KCCC.

2.3.2 Development of Replacement KCCC

Development of an entire new facility in a different location on Kauai followed by closure of KCCC was also considered. Development of a replacement KCCC, while providing a modern, state-of-the-art facility that would meet PSD's long-term needs, would require a substantial investment in land, infrastructure, and facilities. The time required to identify and/or acquire a different site (approximately two to three years), developing the infrastructure necessary to support the facility (approximately two to three years depending on location), as well as designing, permitting, and constructing the facility itself (approximately two to four years) will extend the period during which PSD will need to operate an already severely crowded facility by six to ten years.

This alternative would also require funding for an entire replacement KCCC. The potential costs associated with land acquisition, extending and/or upgrading utility and roadway infrastructure, along with construction of a complete KCCC institution would be significant, thereby limiting the State's ability to finance needed critical social and other infrastructure improvements throughout Hawaii. For these reasons, the alternative to develop a replacement KCCC in a different location is not a practical alternative to consider at this time to meet PSD's immediate needs.

2.3.3 Alternative Locations within KCCC Property

Among the initial steps in the planning process is the identification and evaluation of prospective locations capable of accommodating the proposed Medium Security Housing Unit. PSD focused its siting efforts to the undeveloped portions of the 10-acre KCCC property. When evaluating such locations, the following factors were considered:

- Prospective building locations should provide for a sufficiently large land area to accommodate the housing unit. The relationship and proximity to other KCCC inmate housing, administrative, program, and support structures was also an important consideration.
- Prospective locations should exhibit a relatively level surface area with minimal site preparation and topographic alterations while allowing for proper drainage.
- Prospective locations should seek to avoid significant environmental concerns including, but not limited to, drainageways, floodplains, and wetlands.
- Prospective locations should be easily serviced by onsite utility systems.

The land area comprising KCCC, coupled with existing inmate housing, administrative and program structures, maintenance buildings and storage areas, vehicle access and parking areas, and recreational facilities has limited potential sites for housing unit development. The only undeveloped portions of property, consisting primarily of grass fields and small cultivated plots, are located to the north and south of the main compound.

Each of these two alternative areas is level and sufficiently large to accommodate the proposed housing unit. Each is also located in proximity to onsite utilities. However, the southern portion of the KCCC property lies at a lower elevation relative to the remainder of the site and, as a result, is prone to flooding with a large portion of this area under water following heavy rainfalls. In addition, this portion of the site adjoins Kuhio Highway, which would make the structures more visible to the traveling public and potentially intrude on areas planned for future roadway improvements. For these reasons, the southern portion of the KCCC property has been eliminated from further consideration while the northern portion remains under consideration.

2.4 Preferred Alternative

The preferred development location is the large, level, and open field located in the northern portion of the property. This location is vacant, easily accessible by motor vehicles, in proximity to onsite utility systems, and away from areas that experience occasional flooding. This area is also located away from Kuhio Highway and would lessen the potential for visual impacts, while avoiding potential conflicts with future highway improvements. Selection of this location best meets PSD's security and operational requirements, while minimizing potential adverse impacts on the natural and man-made environments. For these reasons, the Medium Security Housing Unit is proposed for development in the northern-most portion of the property.

In consideration of alternatives, development of a Medium Security Housing Unit is proposed as the best means to alleviate crowding at KCCC and is considered the Preferred Alternative. The Preferred Alternative meets the purpose and need for the proposed action, which is to alleviate the persistent and severe crowded conditions experienced at KCCC and is the alternative preferred for implementation by PSD. The proposed housing unit would meet all applicable building codes and would include air conditioning and fire protection systems. Development and operation of the housing unit would not increase the inmate population at KCCC because inmates from other areas of the facility would occupy the structure.

3.0 EXISTING ENVIRONMENT, PROJECT IMPACTS, AND MITIGATION MEASURES

3.1 Overview

Implementation of the proposed action has the potential to affect various environmental resources found within the KCCC property as well as resources that exist beyond the boundaries of KCCC. This chapter examines specific environmental resources that have the potential to be affected by implementation of the proposed inmate housing project. Natural resources, including topographic features, geology and soils, water and biological resources, among others, as well as community resources such as social and economic factors, land use, utility services, and transportation networks, are addressed. Each resource description focuses on the relevant attributes and characteristics of that resource with the potential to be affected by the proposed action or that represent potential encumbrances to the proposed action.

To analyze the impacts of the proposed action, it is necessary to describe the existing conditions at KCCC and the surrounding area. The overall environmental and socioeconomic conditions that exist in and around KCCC are described in the sections that follow along with potential environmental impacts and mitigation measures.

3.2 Site Characteristics

3.2.1 Topography

Existing Conditions

Topography is the slope gradient of a site expressed as a relationship of vertical feet of elevation over horizontal feet of distance and the visual *"lay of the land."* Topographic conditions have specific implications for development, influencing the location of roads, buildings, and utilities and generally affecting the overall visual character of a site.

KCCC, located in Lihue in eastern Kauai, is approximately 10 acres in area. Much of those 10 acres have already been developed with inmate housing, administrative and program structures, maintenance buildings and storage areas, vehicle access and parking areas, and recreational facilities among similar uses. The remaining undeveloped portions of property consist primarily of grass fields along with small cultivated plots. The property is bordered on the east by the Kuhio Highway and to the north, south, and west by agricultural fields and vacant lands. Farther east, across the Kuhio Highway, is the Wailua Golf Course with the Pacific Ocean found just beyond the golf course.

Topography on the Island of Kauai ranges from sea level to approximately 5,170 feet above mean sea level (msl) with portions of the island exhibiting steeply sloping terrain, while other areas are level (NRCS, 1972). The KCCC property is located at an elevation of approximately 20 feet above msl with the topography sloping gently from northwest to southeast (Exhibit 3-1).

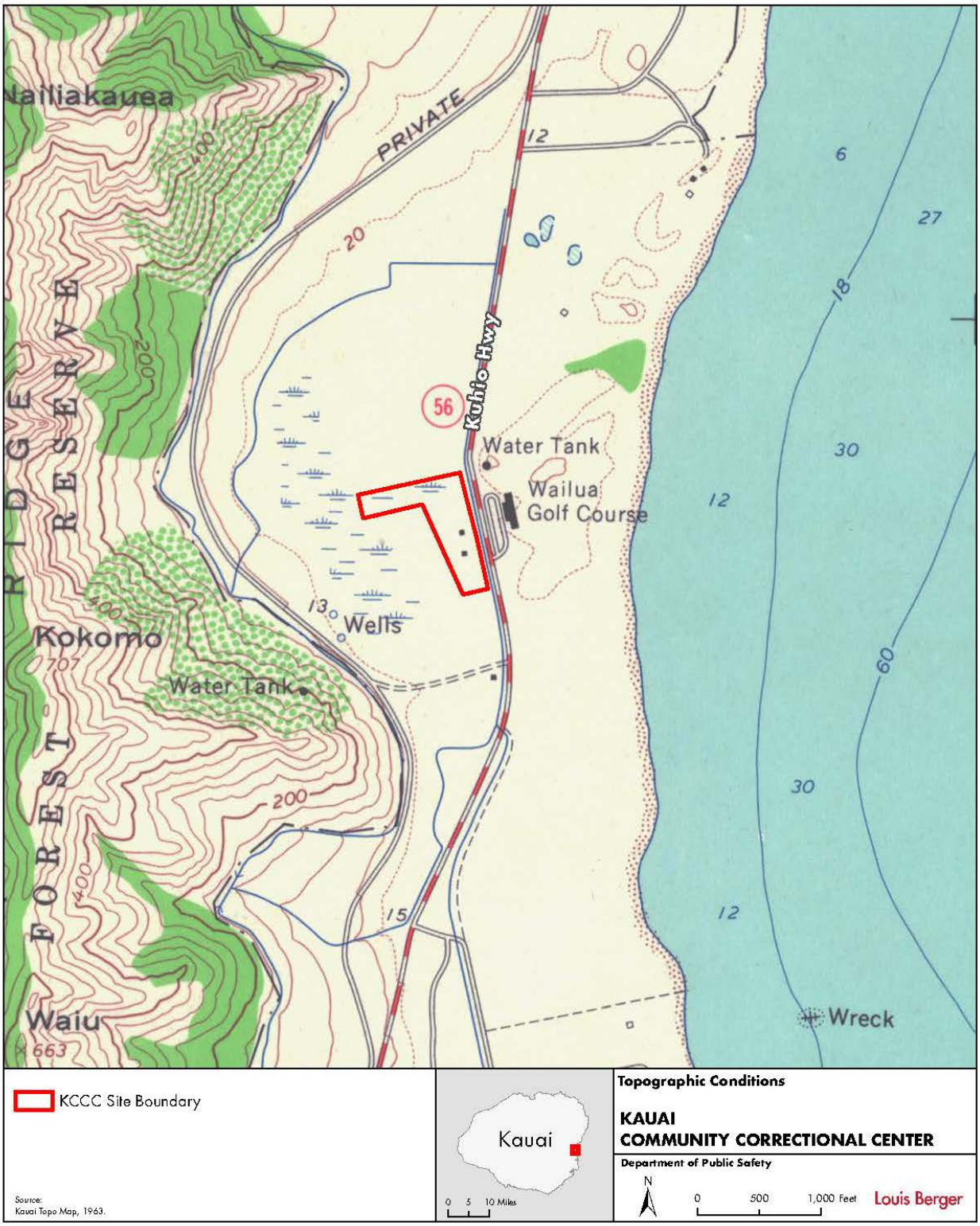


Exhibit 3-1: Topographic Conditions

Potential Impacts and Mitigation Measures

Under the No Action Alternative, the proposed inmate housing unit would not be developed at KCCC. The KCCC property would remain in its current condition, so topography would not be affected, and mitigation measures would not be necessary.

Under the preferred alternative, the proposed inmate housing unit would be developed at KCCC. Activities associated with housing unit construction would require minimal clearing and grading for construction of a structure with a finished floor elevation above the limits of flooding, which would slightly reshape topographic conditions at the building site. No steeply sloping areas occur in that area to be affected. The extent of ground disturbance would be determined once a detailed site plan is finalized, but it is expected that the structure would be slightly elevated above the current terrain. While the topographic alterations resulting development of the inmate housing unit are unavoidable, any such changes are not expected to produce significant adverse impacts. Additional grading activities or other topographic changes are not expected to occur following completion of construction.

To minimize potential adverse topographic impacts, a site development plan would be prepared that would precisely locate the housing unit, internal service driveway, utility corridors, and drainage facilities in a manner compatible with existing topography and drainage patterns. Doing so would serve to minimize earth disturbance and topographic alterations. Appropriate soil erosion and sediment control measures would be employed throughout the construction phase to minimize soil losses and similar short-term impacts resulting from ground disturbing activities. Implementation of best management practices (BMPs), to the extent practicable, would also occur to prevent damage by sedimentation, erosion or dust to streams, watercourses, natural areas, and the property of others. No other mitigation measures for topographic impacts are warranted.

3.2.2 Geology

Origin of the Hawaiian Islands

The Hawaiian Islands comprise eight principal islands: Hawaii, Maui, Oahu, Kahoolawe, Lanai, Molokai, Kauai, and Niihau. The oldest is Kauai, which is just over 5 million years old. In addition, smaller islands are located to the northwest of Kauai, representing an older chain of volcanoes. The oldest of these islands was formed approximately 30 million years ago (USGS, 2001). The islands in the northwest are the oldest, while the islands in the southeast are the youngest. On the Island of Hawaii, the youngest island, the oldest rocks are less than 0.7 million years old and new rock is continually being formed by the five volcanoes that make up the island (USGS, 1999). The Hawaiian Islands formed primarily in thin-bedded pahoehoe and ‘a‘â lava flows, which are highly fractured and blocky flows. The rocks are mostly basaltic, with about 50 percent silica. Andesitic rocks as well as volcanic ash and cinders occur in a few places. Adjacent to the ocean is a small amount of coral limestone and coral sand. The relief of the islands varies as once smooth volcanic domes have been weathered and eroded. The older islands are deeply dissected; their surface is one of ridges, valleys, and alluvial fans (NRCS, 1972).

The Hawaiian Islands are part of a chain of approximately 125 volcanoes that extend nearly 3,600 miles across the North Pacific Ocean. The islands along this chain, many of which have submerged to become seamounts and atolls, began forming over 70 million years ago. The Hawaiian Islands are located near the center of the Pacific Plate, one of many oceanic crustal plates that form the surface of the earth beneath the oceans. At the Earth’s surface, the Pacific tectonic plate is currently moving in a northwest direction at a rate of seven to nine centimeters

per year. This movement has led to the development of a chain of volcanoes, as the stationary hotspot (a fixed spot deep in the Earth's mantle where magma forms and rises to the Earth's surface), continues to release magma to the moving tectonic plate (USGS, 2001).

The Hawaiian Islands formed as the Pacific Plate moved slowly northwestward over a relatively permanent hotspot in the mantle beneath the Pacific Plate. The hotspot melted the oceanic crust above it, causing the melted rock (magma) to rise through the crust and ooze out slowly onto the ocean floor, eventually piling high enough to emerge above the surface of the ocean and form islands. This hotspot, still existing under the Hawaiian Islands, is relatively small, and as the Pacific Plate passes over it, the once-active volcanoes cool and stop erupting.

Due to the composition of the oceanic crust, eruptions of Hawaiian volcanoes are generally not explosive or violent. Most Hawaiian lavas tend to be hot and thin, enabling them to flow rapidly in thin layers, and to gradually build up huge, gentle-sloping domes called shield volcanoes. The texture of the lava varies, depending on differences in rate of flow and cooling, on distance from the vent, and on whether it is deposited on land or under water. As a result, the lava may be highly 'a'â lava or dense, smooth or ropy, and unfractured (pâhoehoe). Sometimes the lava in the center of a flow continues to flow after the outer surfaces have cooled and hardened, leaving a hollow tube. Lava tubes can eventually become conduits for surface water or groundwater.

Over time the composition of the magma changes. More explosive eruptions tend to occur near the end of the eruptive history of an island. More gaseous, explosive lavas result in cinder cones and deposits of cinders and ash. Thus, in a sequence of lava flows deposited over thousands of years, there may be many variations in the texture and permeability of the rock. Hawaiian volcanoes tend to erupt along rift zones, which are linear zones of fractures through which magma moves upward from a magma chamber deep in the crust where melting occurs. Eruptive episodes may occur decades or even thousands of years apart from different active vents, and the lava flows may follow different routes over time.

Currently, three volcanoes on the Hawaiian Islands are classified as active—Kilauea, which has been actively erupting since 1983 and more so since May 2018; Mauna Loa, which last erupted in 1984; and Loihi which erupted in 1996. Two dormant volcanoes may erupt again—Hualalai, which last erupted in 1801, and Haleakala, which last erupted in 1790.

Existing Conditions

The Island of Kauai is approximately three to five million years old and is the oldest of the major Hawaiian Islands. About four to five million year ago there was a large amount of volcanic activity lasting over a million years that was the Wai'ale'ali shield-building stage of the Napali lavas. This was followed by a period of inactivity where the eastern part of the shield collapsed and caused the formation of the Lihue Basin. Shield-building activity ceased, and erosive processes weakened the island structures and several major collapses took place. Volcanic activity returned to Kauai and several rejuvenation vents erupted, which added new lava flows. The Koloa Volcanics on the south and east sides are attributed to rejuvenation activity, with the Kilohana crater adding more lava to the Lihue basin (Stevenson, 2008).

Although the island is of volcanic origin, no volcanoes are currently active in Kauai County. However, noxious gas plumes from other Hawaiian volcanoes have the potential to create vog (volcanic fog) and laze (lava haze) that are carried by winds across the ocean to Kauai County. Vog and laze could result in obscured views, lower agricultural yield, reduced air quality, and acidified rainwater (University of Hawaii Social Science Research Institute, 2003).

Potential Impacts and Mitigation Measures

Under the No Action Alternative, the proposed inmate housing unit would not be developed at KCCC. The KCCC property would remain in its current condition, geologic conditions would not be affected, and mitigation measures would not be required.

Under the preferred alternative, the proposed inmate housing unit would be developed at KCCC. Activities associated with housing unit construction would require minimal clearing and grading for construction of the structure. Deep excavations for building footings and foundations or utility connections are not planned. As a result, no adverse impacts on subsurface geological features and conditions are expected to occur at the building site. There are no plans to undertake any activities that could adversely affect underlying geologic features. Construction activities associated with the proposed project are not expected to result in significant adverse impacts on pre-existing geologic features and conditions.

Geologic hazards such as landsliding, erosion, and subsidence have a low probability of occurring within KCCC grounds. The proposed building site is level, the area is not susceptible to undue erosion, and the potential for landsliding or subsidence under normal conditions is slight.

Only minimal land disturbance, which would have no adverse impact on natural geologic features and conditions, is required to implement the proposed project. Recommended mitigation would involve ensuring compliance with applicable Kauai County code requirements for building design and construction.

3.2.3 Soils

Existing Conditions

Soil types and characteristics are considered because they can limit or restrict use of a site. Examples of soil characteristics that can limit use include poor drainage, excessive wetness, excessive erodibility, the occurrence of rock at shallow depths, and the presence of shrink-swell clays, among others. Soil characteristics may preclude proposed uses or require the application of special engineering measures or designs.

According to the NRCS Web Soil Survey of Hawaii, only one soil mapping unit, Mokuleia Fine Sandy Loam, occurs within the area proposed for development of the Medium Security Housing Unit (Exhibit 3-2). The following discussion provides general characteristics of this mapping unit and its associated limitations.

- Mokuleia Fine Sandy Loam: This series consists of well drained soils underlain with coral sand at shallow depth. The surface layer is fine sandy loam, and the subsoil is sandy loam and sand. The bedrock is very deep. The surface layer is neutral, and the underlying material is moderately alkaline. Permeability is moderately rapid in the surface layer and rapid in the subsoil. Runoff is very slow, and the erosion hazard is slight (NRCS, 2008). According to the NRCS, this soil mapping unit is classified as prime farmland, if irrigated.

The University of Hawaii Land Study Bureau's *Detailed Land Classification—Island of Kauai* establishes a soil productivity rating from "A" to "E" with "A" reflecting the highest level of productivity and "E" representing the poorest. This rating system is based on factors such as slope, drainage, rainfall, texture, stoniness, elevation, clay properties, and machine tillability. KCCC is located on type "C" land and is within 100 feet of type "E" land on its western side, and within 100 feet of type "D" land on its eastern side, reflecting the potential for average to low productivity.

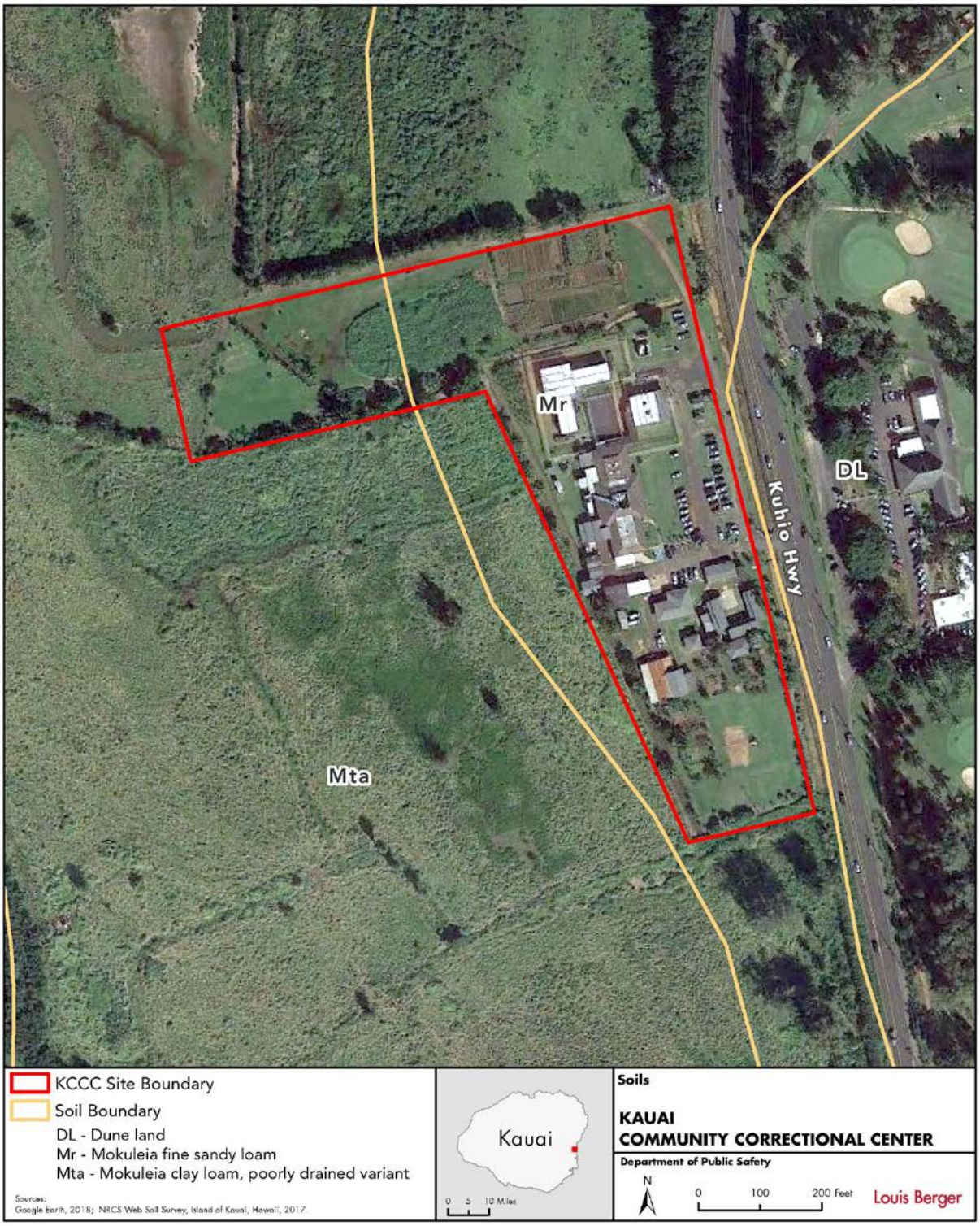


Exhibit 3-2: Soils Map

Potential Impacts and Mitigation Measures

Under the No Action Alternative, the proposed inmate housing unit would not be developed at KCCC. The KCCC property would remain in its current condition, soils would not be affected, and mitigation measures would not be required.

Under the preferred alternative, the proposed inmate housing unit would be developed at KCCC. Much of the area composing KCCC has already been developed with inmate housing; administrative, program, and support structures; maintenance buildings and storage areas; vehicle access and parking areas; and recreational facilities, among similar uses. The remaining undeveloped portions of property consist primarily of grass fields along with small cultivated plots. Past activities have altered natural soil conditions at KCCC and potentially adverse impacts on such soil resulting from the proposed project are not expected to occur.

Although construction activities could expose a small volume of soil to potential wind and water erosion, the level topography found across the site would limit the potential for soil loss. The small volume of soil to be disturbed during construction of the proposed housing unit may also be redistributed onsite as fill. The small area currently being cultivated may be relocated to another portion of the KCCC property to accommodate building construction.

Only minimal land disturbance is anticipated due to the project, and this disturbance should have no significant adverse impact on soil conditions at KCCC. Nonetheless, attention would be given to ensuring that soil loss resulting from wind and precipitation does not occur by limiting the extent of land disturbance activities occurring at any one time and seeding exposed soils with native grasses, as necessary. To reduce potential impacts on soil resources, all earth-disturbing activities would be conducted in accordance with applicable Kauai County ordinances governing such activities.

3.2.4 Water Resources

Existing Conditions

Based on the U.S. Geological Survey (USGS) 7.5-minute quadrangle map for the area (Topozone, 2008), aerial photographs, hydrographic features map data (Hawaii Statewide GIS Program, 2008), together with an onsite inspection, several surface water features were identified near KCCC. These features consist of a drainage ditch that forms the property's western border, and which serves to divert surface waters flowing from adjacent properties around KCCC. This ditch eventually discharges to a second larger ditch that forms the eastern border of the KCCC property, and parallels Kuhio Highway to the east. Bisecting the northern portion of the property is an additional drainage ditch that directs surface water flows from adjacent properties to the same ditch paralleling the highway. Eventually all surface water flows in the area discharge to the Pacific Ocean, which is located less than 0.5 miles to the east from KCCC.

KCCC is located within the geologic/hydrogeologic region known as the Lihue District. The east boundary is the east shore between Wailua and Kawelikoa. The northeast boundary extends from Wailua through Nonou peak and along Kuilua and Kamo'oho'opulu ridges to Wekiu peak. The west boundary is a broad arc running southwestward from Wekiu to Mount Wai'ale'ale then southward to Kahili peak and southeastward along Ha'upu ridge to Kawelikoa (MacDonald, Davis and Cox, 1960).

Basal groundwater occurs in the lave flows of the Napali formation in the Kalepa ridge, in most of Ha'upu ridge, and probably in Nonou ridge. Wells investigated before 1960 near the Kalepa

ridge had basal heads produced by the impounding effect of lava flows of the Koloa volcanic series surrounding the ridge, with thicknesses that ranged from approximately 10 to 16 feet. The general range in fluctuation of chloride content in wells representative of Kauai was approximately 40 parts per million (ppm).

Shallow groundwater may discharge into streams from the lava flows of the Napali formation that make up the high west wall of the Lihue depression. Shallow water issues from small perched bodies and dike reservoirs but is seen only in seeps and small springs along the stream channels and valley walls. No wells producing groundwater operate within the KCCC property.

Potential Impacts and Mitigation Measures

Under the No Action Alternative, the proposed inmate housing unit would not be developed at KCCC. The KCCC property would remain in its current condition, so water resources would not be affected, and mitigation measures would not be necessary.

The only surface water features located near KCCC are the drainage ditches that border on and bisect the KCCC property. These ditches serve to divert waters flowing from adjacent properties around the KCCC property to a larger ditch that parallels Kuhio Highway along the eastern border of the KCCC property.

Under the preferred alternative, the proposed inmate housing unit would be developed at KCCC which would result in a slight increase in storm water runoff resulting from additional impervious surfaces. To control the slight increase in runoff, a storm water system would be provided that would direct storm flows to the appropriate drainage facilities. In addition, a plan would be developed prior to construction that would maintain existing hydrologic drainage patterns and provide gentle slopes that are properly vegetated and stabilized. By doing so, the potential for soil erosion would be minimized. No additional impacts are expected once construction is completed as occupation and operation of the proposed housing unit would not result in any direct discharge into surface or groundwaters or result in alteration of surface or groundwater quality.

3.2.5 Biological Resources

Biological resources, including vegetation, wildlife, wetland, and special status species within the KCCC property were determined via state and federal agency contacts, available database inventories and maps, and site visits conducted in April and June 2018. As part of this effort, National Wetlands Inventory (NWI) maps, available Geographic Information Systems data, U.S. Fish and Wildlife Service (USFWS) information, and an onsite inspection, were used to determine the presence or absence of such resources.

Existing Conditions

Vegetation and Wildlife

Habitats on Kauai are composed of montane wet communities, montane mesic communities, lowland wet communities, lowland mesic communities, lowland dry communities, and coastal communities, resulting in a diverse range of natural vegetation. Because of the age of the island and its relative isolation, levels of endemism are higher on Kauai than other Hawaiian Islands. Hurricanes Iwa (1982) and Iniki (1992) damaged forest cover and encouraged the spread and establishment of introduced invasive weeds. As the only island where the Asian mongoose (*Herpestes auropunctatus*) has not become established, Kauai hosts greater populations of several ground nesting birds than other islands. While just over one-third of the island remains

dominated by native vegetation, many native-dominated areas contain smaller pockets of non-native invasive species that became established after Hurricanes Iwa and Iniki. Unique habitat types and major associated landscapes for wildlife include montane bogs in the Alaka'i Wilderness Preserve, montane wet forest, lowland mesic forest, lava tube caves, steep sea cliffs, wetlands, coastal zones, and long stretches of mountain streams. Three offshore islands, Lehua, Mokuae'ae, and Kaula, are particularly important for nesting seabirds (DLNR, 2015).

The KCCC property lies within an agricultural land use district and is bordered on the east by the Kuhio Highway and to the north, south, and west by agricultural fields and vacant lands. Further east, across the Kuhio Highway, is the Wailua Golf Course with the Pacific Ocean found just beyond the golf course. Approximately two miles north of KCCC is the Wailua River and Wailua River State Park. Less than a mile to the west is the Kalepa Forest Reserve, part of the State of Hawaii Forest Reserve System, encompassing 76,000 acres of land on Kauai. Beyond this, a contiguous expanse of undeveloped land ascends to Mount Kawaikini.

Under current conditions, much of the area that comprises KCCC has been developed with inmate housing, administrative and program structures, maintenance buildings and storage areas, vehicle access, and parking areas. The undeveloped land in the northern portion of the property consists primarily of grass fields along with small cultivated plots, and is bordered to the east, west, and south by irrigation ditches. Ornamental and fruit-bearing plants were observed throughout the property include plumeria (*Plumeria* spp.), coconut (*Cocos nucifera*), banana (*Musa* sp.), noni (*Morinda citrifolia*), breadfruit (*Artocarpus altilis*), tangerine (*Citrus reticulata*), and pomegranate (*Punica* sp.). Guinea grass (*Urochloa maxima*) is present along property boundaries.

Wildlife expected to use the property include small terrestrial mammals such as feral cats, Polynesian rats, and house mice, as well as bats, birds, insects, arachnids, and snails. Wildlife observed during field investigations included feral chickens, feral pigs, cattle egret (*Bubulcus ibis*), insects, and various passerine bird species.

Wetlands

Wetlands are areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (33 Code of Federal Regulations [CFR], Part 328.3). Three elements are used to identify wetlands: hydrology, vegetation, and hydric soils. Dredge and fill activities in wetland areas are regulated through a permit program administered by the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act (33 CFR, Parts 320-329, November 13, 1986 and 33 CFR, Part 330, November 22, 1991).

As depicted on Exhibit 3-3, NWI maps palustrine emergent persistent semi-permanently flooded (PEM1F) wetlands within the northern, undeveloped portion of the property. Palustrine emergent persistent seasonally flooded (PEM1C) and palustrine emergent persistent temporary flooded (PEM1A) wetlands are mapped adjacent to the western and northern site property boundaries. A series of excavated drainage ditches also border and intersect the property. Field inspection of the property revealed that the northern portion of the property consists of a large open field partially under cultivation, surrounded by the ditches that have altered the hydrology of the area. One isolated 0.69-acre area within in the center of the northern undeveloped portion of the property maintains wetland characteristics. The delineated wetland boundaries are depicted on Exhibit 3-4. This emergent wetland is a near monoculture of non-native, invasive California grass (*Urochloa mutica*) and contains saturated soils with low chroma colors and redoximorphic features. The Corps concurred with the delineated wetland boundary and issued a preliminary jurisdictional determination for the emergent wetland

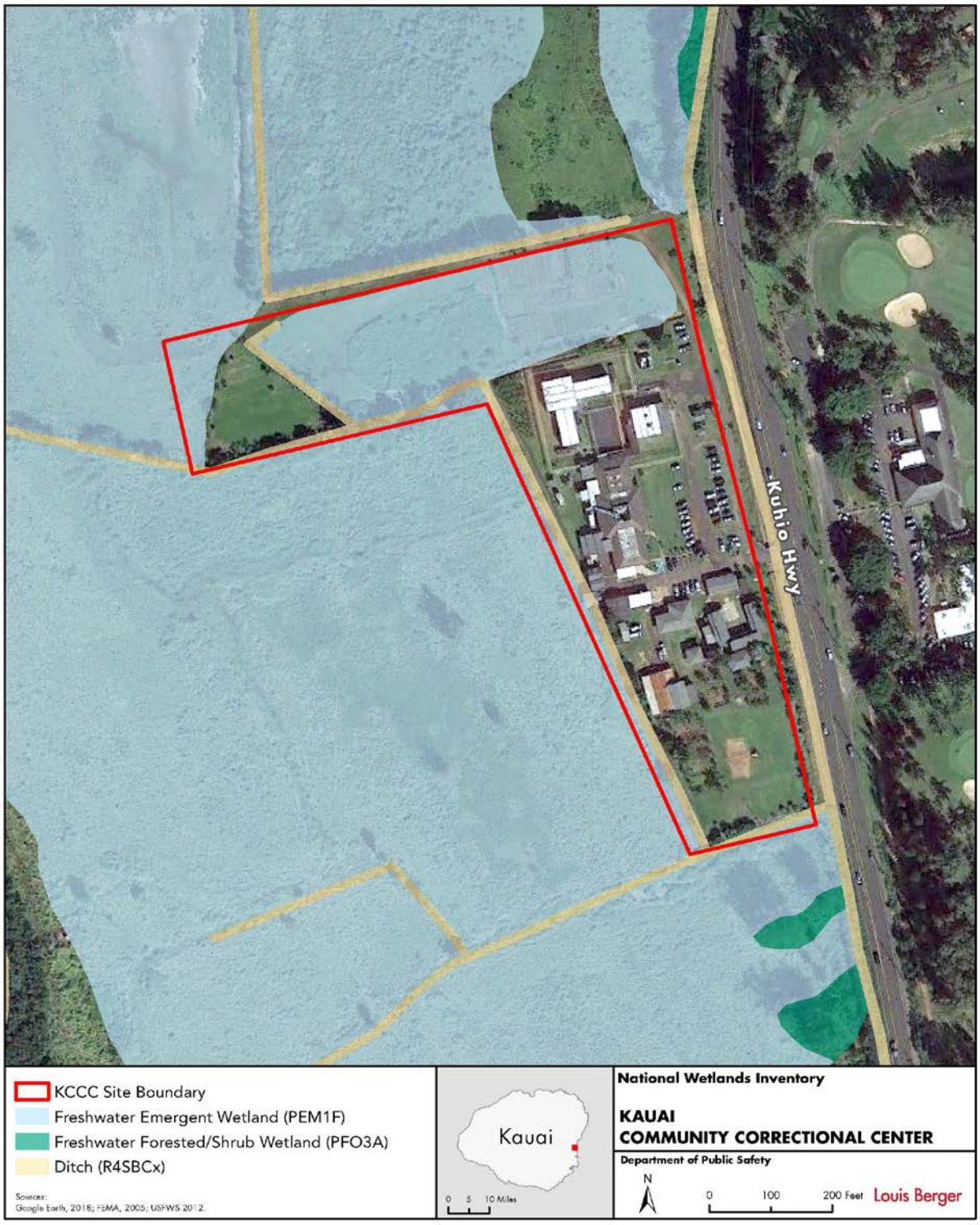


Exhibit 3-3: National Wetlands Inventory Map



Exhibit 3-4: Delineated Wetlands Map

(see Appendix B). The remainder of the undeveloped land in this area does not exhibit wetland characteristics and is currently mowed grass or plots of soil farmed for lettuce, tomatoes, onions, and other crops used for food preparation at the facility.

Species of Special Concern

The Endangered Species Act (16 USC 1531 et seq.) mandates that federal actions consider the potential effects on species listed as threatened or endangered. Section 7 of the Endangered Species Act (ESA) requires federal agencies that fund, authorize, or carry out an action to ensure that the action is not likely to jeopardize the continued existence of any threatened or endangered species (including plant species) or result in the destruction or adverse modification of designated critical habitats. Critical habitat, as defined in the ESA, is a specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. If it is determined that development may affect a federally listed species, consultation with the USFWS would be required to ensure minimization of potential adverse impacts on the species or its designated critical habitat.

In addition to the ESA, the Migratory Bird Treaty Act (16 USC §§703-712, July 3, 1918, U.S. as amended 1936, 1960, 1968, 1969, 1974, 1978, 1986, and 1989), makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase or barter, any migratory bird, or the parts, nests, or eggs of such a bird, except under the terms of a valid permit issued pursuant to Federal regulations. Title 50, Section 10.13, of the Code of Federal Regulations (50 CFR 10.13) lists the bird species protected under the Migratory Bird Treaty Act (MBTA).

Much of the KCCC property has been developed with inmate housing, administrative and program structures, maintenance buildings and storage areas, and parking areas. The undeveloped portion of property consists of grass fields surrounding an isolated emergent wetland dominated by invasive vegetation, along with small cultivated plots. The property is located in a lowland agricultural district which contains minimal natural habitat for plant and animal species of special concern. No federal or state-listed species were observed during field investigations of the site. It is unlikely that threatened or endangered plant or animal species utilized these developed and cultivated areas as habitat other than the occasional transient.

No federally designated or proposed critical habitat occurs within the immediate vicinity of the KCCC building site. Correspondence from the USFWS Pacific Islands Fish and Wildlife Office (included in Appendix B) states that the following federally listed species may occur in the vicinity of the site: endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*); endangered Hawaii duck (*Anas wyvilliana*); endangered Hawaiian goose (*Branta sandvicensis*); endangered Hawaiian gallinule (*Gallinula c. sandvicensis*); endangered Hawaiian petrel (*Pterodroma sandwichensis*); endangered band-rumped storm-petrel (*Oceanodroma castro*); and threatened Newell's shearwater (*Puffinus newelii*). Correspondence from the Division of Forestry and Wildlife - Hawaii Department of Land and Natural Resources (DLNR) (included in Appendix B) states that survey records indicate five federally listed endangered waterfowl species use the adjacent pastures and wetlands for feeding and loafing, although there are no known records of nesting within the proposed project site, adjacent wetlands, or pasture lands. The waterfowl species include the Hawaiian coot (*Fulica alai*), Hawaiian gallinule, Hawaiian duck (*Anas wyvilliana*), Hawaiian stilt (*Himantopus mexicanus*), and Hawaiian goose or Nene (*Branta sandvicensis*). DLNR also states that although there are no known seabird species within the project area, there are three federally listed species that transit over the project area at night: the threatened Newell's shearwater, the Hawaiian petrel, and the band-rumped storm petrel. These seabirds are nocturnally active and are attracted to bright artificial lights, particularly

upward pointed lights. Additionally, the Hawaiian hoary bat is a nocturnally active species found throughout the island, and it is known to roost in both native and non-native trees and tall shrubs.

Potential Impacts and Mitigation Measures

Under the No Action Alternative, the proposed inmate housing unit would not be developed at KCCC. The KCCC property would remain in its current condition, so biological resources would not be affected, and mitigation measures would not be necessary.

Under the preferred alternative, the proposed inmate housing unit would be developed at KCCC within the vacant land located north of the main KCCC compound.

Vegetation and Wildlife

Implementation of the preferred alternative would have both short-term (temporary) and long-term (permanent) impacts on vegetative resources located within the immediate vicinity of site. Short-term impacts to vegetation are directly related to construction activities required for the establishment of the construction pads; (i.e. clearing, cutting and filling, etc.). Long-term impacts include the permanent loss 0.3-acre of vegetation within development footprint. Given the nature of the existing vegetative community which consists predominantly of non-native grasses, maintained lawn, and planted food crops, the potential for long-term impacts on vegetation is not considered significant.

Removal of vegetation would be restricted to the development footprint and areas required for access during construction to minimize the loss of vegetation. Impacts to vegetation would be mitigated by incorporating BMPs to avoid the spread or introduction of invasive plants during construction and re-vegetating temporarily disturbed areas that would remain undeveloped following completion of construction using native species. Disturbance/removal of trees for access to construction sites shall be minimized to the extent practicable. Whenever trees must be removed, selective removal of trees less than four inches in diameter is preferred in lieu of removal of larger trees.

The project would result in the loss of approximately 0.47 acre of land that does not support quality habitat for wildlife. Available wildlife habitat within the development area consists predominantly of non-native grasses, maintained lawn, and cultivated plots, and is currently subject to regular human activity. Wildlife may potentially be harmed or displaced as a result of construction machinery operations during initial site clearing and similar earthwork, and noise disturbance during construction may also cause displacement of wildlife. However, most wildlife that would occur within the site are mobile species that are able to avoid the area or disperse to adjacent habitat when disturbed by construction noise and activity.

Large, contiguous areas of undeveloped land are present adjacent to the site and are expected to accommodate any displaced wildlife. Increased noise levels would be largely confined to the site preparation stage when earth-moving equipment is in use and are expected to decrease considerably and continue to decline as the construction advances. The densely vegetated and tree lined property boundaries are expected to provide a buffer to surrounding habitat from increased noise levels during construction. Therefore, construction impacts on common wildlife species that may utilize the site are expected to be temporary and negligible due to the presence of larger, undisturbed natural habitats adjacent to the site that would remain available to such species, and the ability of most species to disperse to adjacent habitat when disturbed by construction activities.

Operation of the medium security housing would increase building and grounds maintenance and other human activities that could impact wildlife utilizing the site. However, the proposed building site is located adjacent to the existing main compound and within an area that is already subject to regular human activity from farming, security, and site maintenance activities. As a result, impacts to wildlife would be negligible once construction is complete.

Wetlands

As discussed above, drainage ditches have altered the hydrology of the site and only one small emergent wetland remains within the site. The preferred alternative may result in the permanent loss of up to approximately 0.03-acre of this isolated, invasive species-dominated emergent wetland. This impact is considered minimal due to the small area of impact and the low functional value of the wetland relative to the large expanses of existing emergent wetland surrounding the site (see Exhibit 3-3) that would remain intact and continue to perform wetland functions. Furthermore, during the final design stage, the proposed medium security housing unit layout would be positioned to minimize impacts to the wetland to the extent practicable. If impacts are unavoidable, the preliminary jurisdictional determination issued by the Corps (see Appendix B) indicates that a Department of the Army permit would be required for any activity resulting in the discharge and/or placement of dredged of fill material into wetland, in accordance with Section 404 of the Clean Water Act. The proposed project may qualify for authorization under a Nationwide Permit. A Pre-Construction Notification would need to be submitted to the Corps, and a Water Quality Certification (WQC) or waiver from the State of Hawaii, Department of Health, Clean Water Branch, would need to be obtained. Soil erosion and sediment control measures would be implemented during construction to further minimize impacts to wetlands. Additional compensatory mitigation measures may be established during project permitting.

Species of Special Concern

Except for occasional transients, the likelihood of threatened and endangered species occurring within the site is low. Development of the proposed medium security housing unit would have no significant adverse impact on threatened and endangered species due to the lack of preferred habitat for threatened and endangered species and the minimization and avoidance measures to be implemented during construction. However, the following proposed measures would avoid or minimize potential impacts should any such species be present within the project site.

Minimal tree clearing would be required as the proposed development area consists mainly of grasses and cultivated soil. However, woody plants greater than 15 feet tall would not be disturbed, removed, or trimmed during the Hawaiian hoary bat birthing and pup rearing season (June 1 through September 15) to avoid any potential impacts to roosting Hawaiian hoary bats. Additionally, the facility design would not include barbed wire fencing that could pose a risk of entanglement to bats.

Efforts would be made to develop a lighting plan for the proposed facility that minimizes and avoids artificial lighting impacts to seabirds. Use of high-mast lights and similar high-intensity security lighting common to correctional facilities are not proposed. Instead, lighting would be largely confined to traditional parking lot and walkway lighting common to most commercial establishments for safety purposes. In general, lighting would be consistent with DLNR and USFWS conservation measures so that lights would be positioned low to the ground and be shielded and/or employ full cut-off. Effective light shields would be opaque, sufficiently large, and positioned so that the bulb is only visible from below. Night-time project construction activities would be avoided during the fledging season from September 15 through December 15 and all

project staff would be provided with information about seabird fallout and where any downed birds can be taken for rehabilitation.

The DLNR recommends that a wildlife biologist survey the project site for listed waterfowl species presence and nesting activity during construction. DLNR also recommends that a construction barrier be installed along the fence between the surrounding pastures/wetlands and the project site to prevent birds from entering or nesting within the construction area. If a bird(s) should enter the project site during construction, work should temporarily stop until the bird(s) leave the area on its own. If a nest is discovered, the DLNR Division of Forestry and Wildlife should be contacted.

3.2.6 Archaeological and Architectural Resources

Polynesians emigrating from the Marquesas Islands are believed to be the first Hawaiian settlers, sailing in large double-hulled canoes from the South Pacific Ocean thousands of miles to the south. Tahitians and travelers from other Pacific Islands followed. Little is known of these settlers prior to contact with western civilizations because the Hawaiian language was not written, and the history of the islands was recorded by oral tradition. However, it is believed that the islands were settled hundreds of years before Captain James Cook visited in 1778.

By the time Captain Cook arrived (believed to be the first European contact) the population of the islands was estimated to be between 400,000 and 800,000. At that time the islands were divided into four kingdoms. Kamehameha, a chief on the Island of Hawaii, was rising to power and by 1810 he had united all the islands into one kingdom. During the period between 1810 and 1895, the unified islands were governed by a monarchy, initially headed by Kamehameha the Great.

In 1820, American missionaries arrived on the islands and developed a written form of the native language, attempted religious conversions, and taught the population to read and write. In 1840, Kamehameha III promulgated the first Hawaiian Constitution and established an elected House of Representatives as well as an appointed House of Nobles. Subsequent constitutions, adopted in 1852, 1864, and 1887, further eroded the power of the monarchy while increasing that of the elected representatives. The 1887 Constitution provided that the House of Nobles, previously appointed by the crown, be elected. By this time, economic ties existed between Hawaii and the United States through treaties related to the sugar and pineapple industries. Ties between the United States and Hawaii became more formal when, in 1900, Hawaii became a territory of the United States. On August 21, 1959, Hawaii was admitted as the 50th state of the United States of America.

Existing Conditions

KCCC is located in the Wailua ahupua‘a of the Puna district on the Island of Kauai. Few archaeological studies of the KCCC parcel have been conducted, and utilization of the area shows no indication of occupation or other activities in the prehistoric era (Beardsley, 1994). A 1923 map of the region shows the area behind KCCC being used in rice production (Erkelens and Welch, 1993). While traditional oral accounts and early post-Contact reports make no mention of the specific section where KCCC is located, the ahupua‘a of Wailua was a significant area in the socio-cultural development of the island. According to Beardsley, the Wailua ahupua‘a was:

> “…the site of many legends; it served as the chiefly residence and birth place of the royal lineage, kapu to commoners; and it was a rich and productive district with many sites of cultural significance such as petroglyphs, a heiau complex, a series of lo‘i, fishponds, ‘auwai, and agricultural terraces. Historically, the ahupua‘a of Wailua was

> kept as Crown Lands by Kamehameha III; it was the site of early sugar companies, state of the art rail lines, bridges, and early government homesteads. In fact, the area has been occupied and cultivated for many generations with little change in the settlement pattern – cultivation mostly inland near flowing water (springs, rivers, streams) and residences near the coast, although there is evidence of residences upriver and associated with terraces during the prehistoric or early historic era…." (1994).

Though previous archaeological studies have not reported any burials on KCCC property, numerous burials have been recorded within the grounds of the Wailua Golf Course located directly across the highway. "*It is not known how many burials in total have come from the area over the years although 'hundreds' were discovered when the driving range was built in the early 1960s* (Bobby Murata pers. comm., 1993)" (Erkelens and Welch, 1993). It has been documented that "*present day informants, (long-time Wailua area residents and County employees) indicate that scattered remnants have been found almost every time earth removal has been undertaken in the sand dune areas of the golf course*" (1977). It has been reported that Hawaiians favored sand dunes for the interment of burials (Erkelens and Welch, 1993). Additionally, Site 50-30-08-103, Dune Burials was identified in 1931 by Wendell Bennett as containing "*many burials*" and he found that dune burials were a common feature and that almost any sand dune on the island contained burials (Beardsley, 1994). See also Appendix D.

Potential Impacts and Mitigation Measures

Under the No Action Alternative, the proposed inmate housing unit would not be developed at KCCC. The KCCC property would remain in its current condition, so archaeological and architectural resources would not be affected, and mitigation measures would not be necessary.

Under the preferred alternative, the proposed inmate housing unit would be developed at KCCC. One additional archaeological site was identified, TS 2571-01, a historic plantation-era drainage ditch running along the western boundary of the facility. No extant standing structures at KCCC are greater than 50 years of age; therefore, they do not constitute historic architectural resources. Although human burials have been identified east of KCCC in sand dune formations, KCCC lies within a coastal marsh zone below surrounding elevations, with poorly drained wetland soils that were used historically for taro and rice cultivation. Several recent archaeological monitoring projects within KCCC have not revealed burials or substantive subsurface deposits. The project is proposed for development in the northern portion of the property. As currently designed, it will not impact any known archaeological or historic resources and no further archaeological or architectural work is recommended. Care should be taken so that construction activities do not indirectly impact TS 2571-01, such as adding temporary silt and other fencing to prevent litter and soil from entering the ditch during construction.

With the history of burials along Kuhio Highway and on the adjacent Wailua Golf Course property, it is recommended that PSD take a proactive approach to the potential discovery of human burials by developing an unanticipated discovery plan that includes procedures if human remains are encountered.

3.2.7 Cultural Resources

Existing Conditions

OEQC guidelines identify several possible types of cultural practices and beliefs that are subject to assessment. These include subsistence, commercial, residential, agricultural, access-related,

recreational, and religious and spiritual customs. The guidelines also identify the types of potential cultural resources, associated with cultural practices and beliefs that are subject to assessment. Essentially these are natural features of the landscape and historic sites, including traditional cultural properties. In the Hawaii Revised Statutes–Chapter 6E, a definition of traditional cultural property is provided:

> *"Traditional cultural property" means any historic property associated with the traditional practices and beliefs of an ethnic community or members of that community for more than fifty years. These traditions shall be founded in an ethnic community's history and contribute to maintaining the ethnic community's cultural identity. Traditional associations are those demonstrating a continuity of practice or belief until present or those documented in historical source materials, or both.*

The origin of the concept of traditional cultural property is found in National Register Bulletin 38 published by the U.S. Department of Interior, National Park Service. "Traditional" as it is used, implies a time depth of at least 50 years, and a generalized mode of transmission of information from one generation to the next, either orally or by act. "Cultural" refers to the beliefs, practices, lifeways, and social institutions of a given community. The use of the term "Property" defines this category of resource as an identifiable place. Traditional cultural properties are not intangible, they must have some form of boundary; and are subject to the same kind of evaluation as any other historic resource, with one very important exception. By definition, the significance of traditional cultural properties should be determined by the community that values them.

A review of the culture-historical background material has revealed at a minimum the profound cultural and spiritual significance of Wailua Ahupua'a and more specifically the Wailuanui'aho'āno region during the Pre-Contact and Historic Periods. This geographical location coupled with the abundance of natural resources including access to *wai* (freshwater), forest and plant resources, and marine resources has undeniably made Wailua a primary settlement location for the early voyagers. This inference is well-supported in many of Wailua's legendary accounts that describe the arrival and settlement of these early voyagers including Mō'īkeha and La'amaikahiki. These early voyagers also brought with them a new set of religious practices including the introduction of *pahu* drum that influenced early *heiau* customs—customs that would be duplicated over many generations and become part of the repertoire of traditional *heiau* rituals. The assembled *mo'olelo* also show Wailua to be connected to several pan-Pacific deities including Māui, Hina, and Kū, whose stories help to connect Wailua to greater Oceania.

The story concerning Māui's discovery of fire at Wailua also points to a changing culture, which would have altered at a minimum, the diets, the domestic life, fishing techniques, travel, funerary practices and more. The story describing Hina and Kūohu also sheds light on Pre-Contact life in Wailua. This story's explicit description concerning the traditional repercussions associated with the removal of a human burial provides a basis for contemporary Hawaiian beliefs—beliefs that were expressed by all consulted parties and should serve as a guiding principle for modern development activities. Additionally, this account as well as the one noting the occasional shark sighting, described Wailua River as a place where transfiguration took place and where those departed spirits returned to seek out their loved ones. Other accounts concerning the lives of Kawelo, Puniakaia, Uweuwelekehau, Pīkoiaka'alalā, Halemano, and Pāka'a emphasize Wailua as a birthplace of chiefs and served as the early training grounds for a number of these cultural-heroes. These stories also point to Wailua as a place of refuge for those outside families fleeing from harm and where conquest over the island kingdom was often initiated. The plethora of *mo'olelo* that have been intentionally passed down over the ages

concerning Pre-Contact life in Wailua illustrates cultural vibrancy, change, and adaptation, and is nothing short of astounding.

The Pre-Contact cultural vibrancy and adaptation are reflected in the physical vestiges of the area's many *heiau*, and other culturally significant places in addition to the numerous agricultural features extending along the Wailua River and its tributaries, coastal habitation centers, fishponds, and the burial complex found in the sand dunes of Walio. Collectively, these elements prove Wailua to be an important socio-political center that was clearly supported by industrious generations of Kanaka Maoli. For these reasons, Wailua as a whole should be considered a traditional cultural property.

Following the arrival of the first westerners in 1778, and throughout the early 19th century, Kauai's island rulers maintain their autonomy and managed to avoid personal defeat over the rising Kamehameha. By the 1820s, western influence spurred change in the domestic life at least in the royal households and began to alter traditional concepts of spirituality and economics. The introduction of livestock including cattle and other foreign edibles to supply visiting ships continued to shift the traditional life towards a capitalistic market economy. The plight of the *Māhele 'Āina* of 1848 led to the displacement of those residing in the *mauka* portion of Wailua and the concentration of residents within a mile of the coast along the northern bank of Wailua River. The designation of Wailua as Crown Lands and the physical clearing of residents from the uplands paved the way for large-scale agriculture. The fight to restore the traditional *lo'i* in Wailua is demonstrated in the cooperative agriculture group Hui Mahiku formed sometime around 1855. By this time, the move toward a capitalistic economy had gained serious momentum and, in its aftermath, transformed Wailua into a major sugar production center. The formation of the Lihue Plantation Company which operated between 1849 through 2000 had transformed the cultural fabric of this district as well as the physical landscape by tapping portions of Wailua River for irrigation and replaced the traditional agricultural abundance of Wailua with a single crop. It was during the plantation era that the Wailua County Jail was established and became the main jail site for the island and a place of imprisonment for Japanese residents during World War II (Appendix E).

Potential Impacts and Mitigation Measures

Under the No Action Alternative, the proposed inmate housing unit would not be developed at KCCC. The KCCC property would remain in its current condition, so cultural resources would not be affected, and mitigation measures would not be necessary.

Under the preferred alternative, the proposed inmate housing unit would be developed at KCCC. Accounts describing land use in the current study area are minimal and, based on the description from the late 1920s in Handy et al. (1991), the area may have been irrigated by springs and used for growing wet taro, although they reported no signs of terraces. Ranching and sugarcane cultivation did take place on the adjacent lands but never within the immediate study area. This was likely due to it being constantly inundated with water, a condition noted on Hawaii Registered Map 3041 from 1939 (Appendix E). That same map, however, shows a former "fishpond" on the property which has since been filled in. The archival research did not identify any specific cultural practices associated with the study parcel, and likewise, none of the consulted parties identified or described any past or on-going traditional cultural practices taking place within the immediate study area; however, the presence of burials in the dunes that are just makai of KCCC was noted by all consulted parties as a potential concern.

Given the identification of human burials along Kuhio Highway and on the adjacent Wailua Golf Course property, it is recommended that PSD take a proactive approach to the potential discovery of human burials by developing an unanticipated discovery plan that includes

procedures if human remains are encountered. This includes establishing protocols, which may include having onsite archaeological monitoring during all subsurface excavations and identifying and consulting with stakeholders prior to any subsurface activity. Consultation should include the Kaua'i and Ni'ihau Island Burial Council, the State Historic Preservation Division (SHPD) Burial Sites Specialist for Kauai, and other knowledgeable community members.

The consulted parties, all of whom have resided in Wailua for many decades, also expressed concern for the constant flooding at the KCCC property. Considering this, it is recommended that the design of the proposed housing unit take into effect this concern. Although not a direct cultural concern, it has been described by many as a public safety concern. Additionally, a statement offered by a local resident concerning the area's former use as a live shooting range following World War II warrants the area's inspection to identify and mitigate any unexploded ordnance.

The recommendations provided above are intended to ensure that the proposed medium security housing project considers the concerns and thoughts shared by the consulted parties. Although none of the consulted parties opposed the proposed project, the concern and recommendations offered above are intended to support PSD in being mindful of the cultural, social, and environmental uniqueness of Wailua, Kauai. Conducting background research, consulting with community members, and taking steps towards mitigating any potential cultural impacts is done so in the spirit and practice of *Aloha 'Āina*, a contemporary movement founded on traditional practices and beliefs that emphasize the intimate relationship that exists between Native Hawaiians and the *'āina* (land). As PSD moves forward with the inmate housing project at KCCC, it is recommended that it be done so in that same spirit and practice. Attention to, and implementation of the above-described issues and measures relative to the study area, will help to ensure that no such resources, practices, or beliefs will be adversely affected by the proposed medium security housing project.

3.2.8 Potential for Hazardous Materials Contamination

Existing Conditions

Much of the 10-acre KCCC property has already been developed with inmate housing, administrative, program and support structures, maintenance buildings and storage areas, vehicle access and parking areas, and recreational facilities among similar uses. The undeveloped portions of property consist primarily of grass fields along with small plots under cultivation. Based on past studies and recent investigations conducted as part of this EA:

- No evidence involving the manufacturing, storage, handling or disposal of hazardous substances or petroleum products was observed within the KCCC property.
- No surficial evidence or visual signs of contamination, stained soils, stressed vegetation, unusual mounds, or other indication of the use, handling, storage, or disposal of hazardous materials was identified during recent field surveys.
- No adjoining land uses were identified that are expected to pose a potential environmental risk to the continued use and development of the KCCC property.
- No evidence of leaking aboveground or underground storage tanks was observed within the KCCC property.
- Materials considered hazardous in use at KCCC include janitorial supplies, laundry detergents and sanitizers, maintenance materials, and paint. All these items are properly managed and stored in labeled and locked cabinets or in locked cages.

With many years of state government controls over use of the property, contamination from hazardous materials is not expected at the KCCC property. No indications of contamination or obvious indication of the use or disposal of hazardous substances at KCCC was noted during field investigations conducted as part of this study.

Potential Impacts and Mitigation Measures

Under the No Action Alternative, the proposed inmate housing unit would not be developed at KCCC. The KCCC property would remain in its current condition, so hazardous materials contamination would not be a consideration, and mitigation measures would not be necessary.

Construction Phase

Activities associated with the construction of the proposed housing unit would require the use and storage of potentially hazardous materials (e.g., solvents, fuel oil, lubricants, etc.). To avoid potential releases of such materials into the environment during construction, a temporary staging area would be established for the storage and handling of such materials. Stored materials would be removed from the construction site by authorized personnel only, and removals would be recorded by onsite personnel overseeing the construction of the housing unit. Any liquid waste storage areas would have secondary containment systems in place to reduce the risk of potential spillage. The storage of hazardous materials onsite during the construction phase would be minimized or avoided where practicable (e.g., fuels for construction and other equipment would be transported to the site by fuel trucks as needed).

Wastes considered hazardous that are generated during construction (i.e., waste fuel oils, spent lubricants and solvents, etc.) would be handled, stored and disposed of in accordance with applicable federal and state regulations. The amount of waste generated during construction should have no significant impact on the ability or availability of waste handlers to collect and properly dispose of such wastes. No mitigation measures, other than those described above, are warranted during the construction phase.

Operating Phase

Materials that are currently in use at the existing KCCC include janitorial supplies, laundry detergents and sanitizers, maintenance materials, paints, and similar materials. Operation of the proposed housing unit would result in the continued routine use of small quantities of chemical cleaners, paints, petroleum products, thereby resulting in the generation of small amounts of regulated wastes.

All hazardous materials, biohazardous and medical waste (from operation of the medical units) would continue to be handled in accordance with applicable regulatory requirements. PSD would continue its current practice of proper management, use, storage, and disposal of hazardous materials. In addition, the volume of hazardous wastes generated during housing unit operation should have no significant impact on the ability or availability of waste handlers to collect and properly dispose of such wastes. As a result, the proposed action is not expected to result in the release of contaminants into the environment and, therefore no significant adverse impacts are anticipated. No mitigation measures, other than those described above, are warranted during operation.

3.2.9 Visual and Aesthetic Resources

Existing Conditions

Kauai is an island with an abundance of beautiful and unique physical characteristics, which is populated and governed by people who both appreciate and work diligently to preserve and protect those characteristics. The island's topography, dominated by dormant volcanoes, has created a visually compelling land of archetypal tropical beauty along its coasts and stark, yet harmonious contrasts in the interior.

The visual features comprising the KCCC property are typical of the coastal region of Kauai. The central portion of the property has been developed, with the landscape dominated by an enclave of buildings representing the correctional center compound. Aesthetic conditions of the remainder of the property are dominated by vacant lands and areas devoted to outdoor recreation and small-scale agricultural production, which are found to the north and south of the correctional center compound. Surface water drainage ditches are also found in the northern, eastern, and western portions of the property.

Kuhio Highway forms the property's eastern border. The roadway is elevated above the KCCC property providing travelers unimpeded views to the developed and undeveloped areas of KCCC from this direction. Immediately across Kuhio Highway is Wailua Golf Course, the only development in proximity to KCCC; lands north and south of KCCC consist almost entirely of vacant property and land in agricultural production but these uses are not visually connected to the site.

The landscape within eastern Kauai provides numerous vantage points and scenic views from which to enjoy the area's picturesque scenery and ocean vistas. Topographic conditions in and around the KCCC property are characteristic of the coastal region with shallow to moderately rolling hills occasionally interrupted by somewhat steep ravines. While the views and vistas available to and from the KCCC property are attractive, they are not unique to the area. Exhibit 3-5 illustrates visual features within and around the KCCC property.

Potential Impacts and Mitigation Measures

Under the No Action Alternative, the proposed inmate housing unit would not be developed at KCCC. The KCCC property would remain in its current condition, so visual and aesthetic resources would not be affected, and mitigation measures would not be necessary.

Under the preferred alternative, immediately following the start of construction and throughout the construction phase, the aesthetic features and characteristics of only the building site would be altered. The use of construction equipment to develop the proposed inmate housing unit would alter the aesthetic quality of the present environment. During this time, a small staging area would be established to temporarily store equipment and materials needed for construction along with a construction office trailer and a container for the storage of waste materials. Short-term impacts would occur from construction activities with the aesthetic quality of the area restored soon after the completion of construction. Any aesthetic impacts during this phase would be short-term, lasting only for the time devoted to construction.

Following completion of construction, the principal visual impacts would be associated with the housing unit which would be a new feature to the KCCC landscape. However, potential aesthetic impacts would be minimized by placement of the structure within an isolated portion



View of Proposed Building Site



View of KCCC Facilities Adjoining Proposed Building Site



Typical View of KCCC from Kuhio Highway

Exhibit 3-5: Visual and Aesthetic Conditions—KCCC

of the property, away from Kuhio Highway, and in a location that is not highly visible to surrounding land uses. The building exterior and grounds would also be maintained to a high standard. Impacts on visual and aesthetic resources would be long-term (lasting for the duration the inmate housing unit is in use) and minor, the result of building development (see Appendix F). Operation of the housing unit would not result in any additional visual impacts.

Potential visual and aesthetic impacts would be mitigated by careful placement of the structure and committing to maintaining the structure and its surroundings to a high standard. No other mitigation measures are warranted.

3.2.10 Fiscal Considerations

Existing Conditions

Fiscal considerations are those having to do with the public treasury or revenue. Potential fiscal impacts could, but do not always, include removal of property from the public tax rolls; acquisition of property through use of public funds; and other public expenditures related to a proposed action (e.g., utility connections). Fiscal considerations of State-sponsored projects or actions, such as the proposed development of an inmate housing unit at KCCC, are of particular interest to local governments due to the possible loss of local tax revenues since State agencies typically do not pay property taxes or make similar payments to local governments for State institutions or facilities. In this case, the 10-acre KCCC property is under State ownership and control. These lands were removed from the tax rolls at the time they were acquired by the State and have not contributed tax revenues or similar payments since their acquisition.

Potential Impacts and Mitigation Measures

Under the No Action Alternative, the proposed inmate housing unit would not be developed at KCCC. The KCCC property would remain in its current condition, so no fiscal impacts would occur, and mitigation measures would not be necessary.

Under the preferred alternative, the proposed inmate housing unit would be developed at KCCC. Lands comprising KCCC are under State ownership and control and consequently have not contributed tax revenues or similar payments throughout the period of State ownership. Development of the proposed inmate housing unit at KCCC would not affect the current ownership arrangement and, therefore, would pose no adverse impacts on fiscal conditions for the State of Hawaii or Kauai County. In the absence of impacts, no mitigation measures are warranted.

3.2.11 Natural Hazards

Existing Conditions

Earthquakes

Earthquakes in the Hawaiian Islands are closely linked to volcanism. The Hawaiian Islands are affected by earthquakes resulting from two conditions. One condition is the movement of magma (molten rock) as it rises and intrudes fractures in the crust in volcanic eruptions or in advance of those eruptions. The other is settlement of the lithosphere (the upper part of the earth's crust) under the weight of the accumulated lava that has erupted from the Hawaiian volcanoes. While this settlement occurs over millions of years, it can also occur in sudden episodes (Wyss and Koyanagi, 1992). According to the Kauai County Hazard Mitigation Strategy,

Kauai lies in an area of reduced risk, and no significant earthquakes have been recorded in Kauai County, although potential for earthquake impacts always exists because of the volcanic history of the Hawaiian Islands (University of Hawaii Social Science Research Institute, 2003).

The USGS National Seismic Hazard Mapping Project has prepared maps showing the magnitude of ground shaking events for specific probabilities of exceedance in a given period of time throughout the Hawaiian Islands (Klein et al., 2001). The 10 percent chance for ground accelerations of 4 to 5 percent of the acceleration of gravity to occur in the next 50 years is considered to be a low seismic hazard. Earth materials vary in their response to seismic waves; firm rock tends to move the least, while loose unconsolidated materials shake more in a given earthquake. The ground acceleration probability estimates provided by the USGS apply to firm rock conditions. Exhibit 3-6 illustrates seismic conditions on Kauai.

Hurricanes

Hurricanes are relatively infrequent and mild in Hawaii, with no authenticated reports of hurricanes in the Hawaiian region prior to 1950. The Hawaiian Islands are seasonally susceptible to Pacific hurricanes from the late summer to early winter months. While hurricanes are relatively rare in Hawaii, the state has experienced three major hurricanes since 1982: ‘Iwa in 1982, ‘Iniki in 1992, and most recently Lane, in August 2018. It is difficult to predict these natural occurrences, but it is reasonable to assume that future events will occur. The KCCC property, however, is no more or less vulnerable than the rest of Kauai County to the destructive winds and torrential rains associated with hurricanes.

Several tornado funnel clouds occur over or near the islands during an average year, but most either fail to reach the ground or remain at sea as waterspouts. Hail events occur several times a year throughout Hawaii, but the hail is only a quarter inch or less in diameter and thus does little damage (NRCS, 1972).

Flood Hazards

The Federal Emergency Management Agency (FEMA) officially designates floodplains and floodways where substantial flooding may result in property damage or threaten public safety. A FEMA-designated floodplain is the area that would be inundated by a 100-year storm (i.e., a flood that has the probability of occurring once every 100 years). A regulatory floodway is the portion of the 100-year floodplain within which the majority of the flood waters are carried. Encroachment into a floodway could result in increased flood elevations and possibly increase property damage during a storm event. For this reason, the locations of flood prone areas are important considerations in determining the development suitability of a site.

FEMA National Flood Insurance Program data for map panels 1500020214E and 1500020213E indicates that the KCCC property is located within Zone A as shown in Exhibit 3-7 (FEMA, 2008). Zone A is the flood insurance rate zone that corresponds to the one-percent annual chance floodplains, otherwise known as an area located within the 100-year floodplain. No base flood elevation has been determined for Zone A, requiring flood studies to determine the nature of base flood elevations and buildable areas within the floodplain. Mandatory flood insurance purchase requirements apply in Zone A (Hawaii NFIP, 2008).

Flooding occurs primarily on the south side of the KCCC property but has extended throughout the entire property on occasion. The development of the housing unit will need to address KCCC’s flooding issue. The safe building elevation is approximately 11.0 feet above msl, so consideration has been given to raising the footprint of the proposed housing unit above the floodplain elevation (see Appendix B).

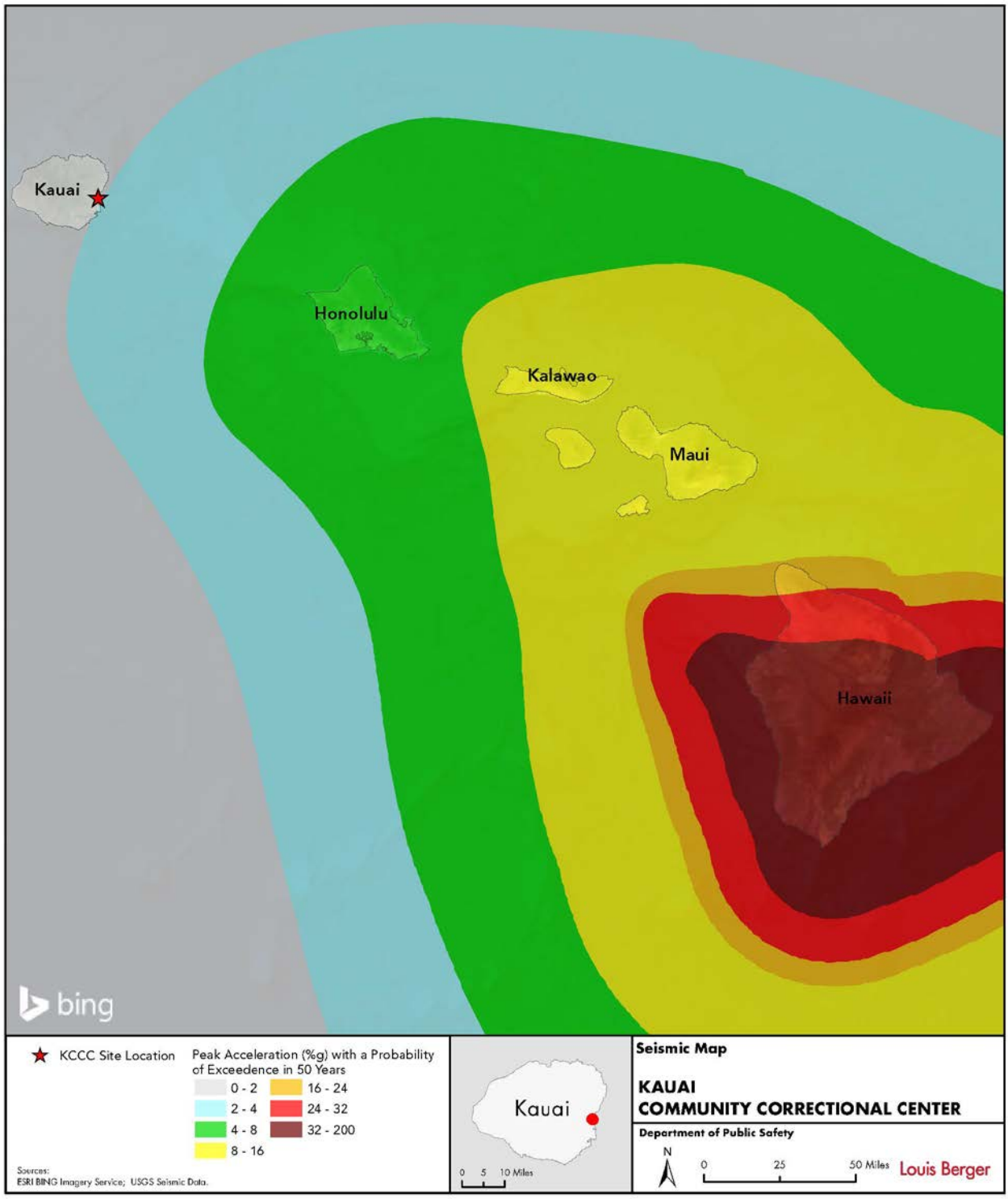


Exhibit 3-6: Seismic Map



Exhibit 3-7: FEMA Floodplain Locations

Tsunamis

A tsunami involves the generation of a series of destructive ocean waves that can affect all shorelines. The generation of these waves can occur at any time with limited or no warning, and persons in shoreline or beach areas are advised to move to higher ground immediately following notification of an impending tsunami.

Since the early 1880s, approximately 85 tsunamis have been reported in Hawaii (Hawaii Civil Beat, 2011). Seven caused major damage, and two were generated locally. According to the Kauai County Emergency Management Agency, the KCCC property is located within the Extreme Tsunami Evacuation Zone (Exhibit 3-8) which requires evacuation following an extreme tsunami warning (Kauai County, 2018).

Potential Impacts and Mitigation Measures

Under the No Action Alternative, the proposed inmate housing unit would not be developed at KCCC. The KCCC property would remain in its current condition, so no impacts associated with natural hazards would occur, and mitigation measures would not be necessary.

The Island of Kauai lies in an area of low earthquake risk, has never experienced a major earthquake, and contains only dormant volcanoes. Therefore, the potential for impacts associated with volcanic activity and subsequent earthquakes is low. Soil and topographic conditions can exacerbate potential earthquake hazards where steep slopes and water-saturated soils may be susceptible to mudflows or landslides. According to the *Soil Survey of Hawaii*, the KCCC property comprises well-drained soils, and, with the level topography, there should be no threat of mudflows or landslides.

As noted earlier, the entire KCCC property is located in the FEMA designated 100-year floodplain and occasionally experiences flooding. It has been determined that any development proposed at KCCC would inevitably affect and be affected by the floodplain. As a result, the proposed housing unit has been sited on a portion of the property that lies at a higher elevation and, based on the experience of facility staff, is located away from areas that are more prone to flooding. Furthermore, approximately 3,400 cubic yards of clean fill will be utilized to elevate the structure to a height of approximately 11.0 feet above msl to mitigate for its location in the floodplain. A portion of the driveway leading to the housing unit will be similarly raised by utilizing an additional approximately 4,000 cubic yards of clean fill.

The construction of the proposed housing unit must conform to applicable county flood control regulations and ordinances, which would also require finished floor elevations to be above the flood elevation for sites in the floodplain and for the structures to be able to resist flood forces. PSD would coordinate with the County of Kauai as building plans are finalized to ensure compliance with all applicable regulations for development in a floodplain.

The KCCC property is also located beyond the area of tsunami inundation with no significant adverse impacts expected as a result of the proposed action. Therefore, no mitigation measures would be required.

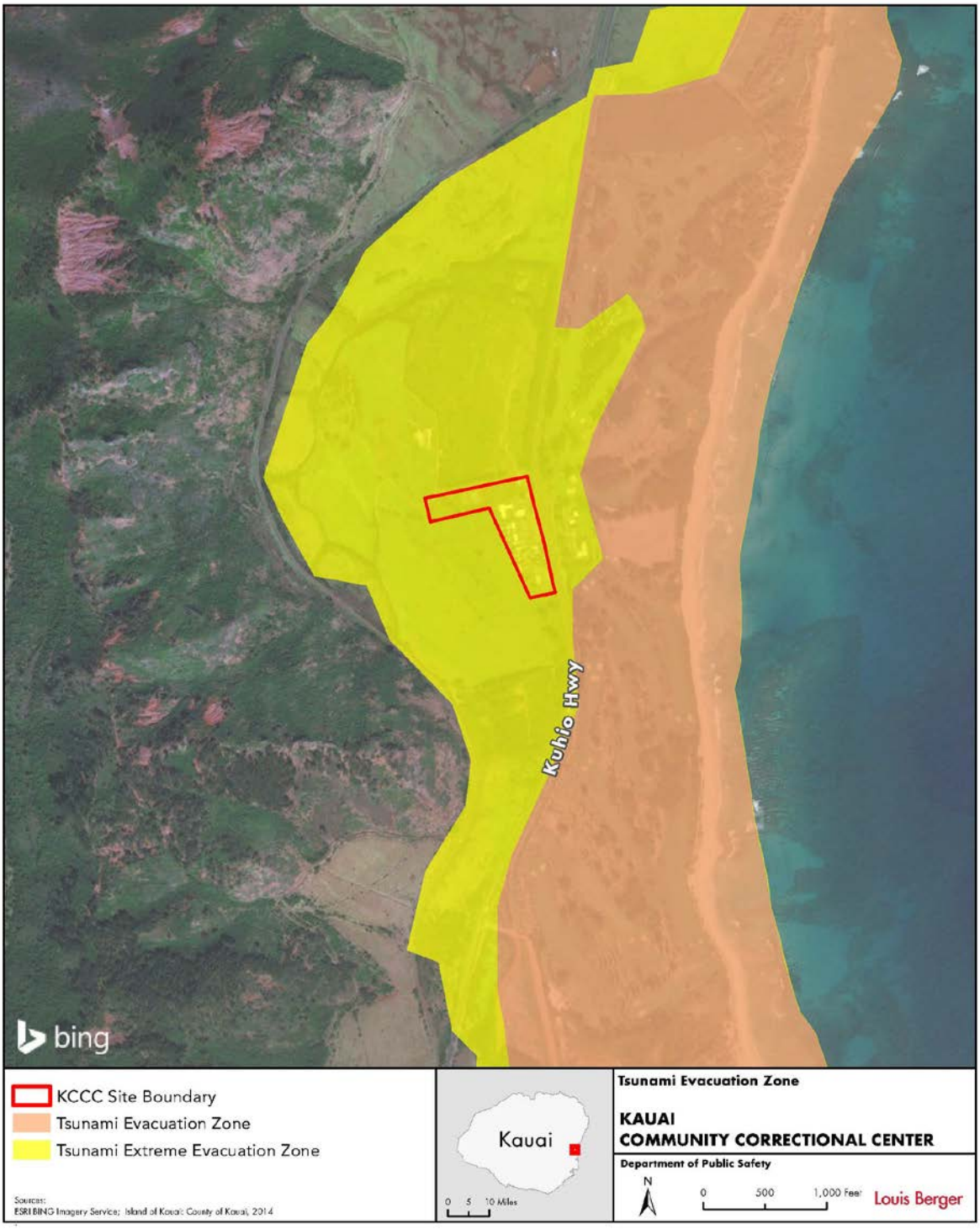


Exhibit 3-8: Tsunami Evacuation Zones

3.3 Community and Regional Characteristics

3.3.1 Demographic Characteristics

Existing Conditions

The population of the State of Hawaii, including the County of Kauai, has been steadily increasing over the past 25 years. Between 1990 and 2010, the population of Hawaii increased by 9.3 percent while Kauai County experienced a population increase of 31.0 percent (Table 3-1). According to the American Community Survey, the population of Hawaii increased by 17.7 percent between 2000 and 2015 while the population of Kauai County increased by 22.2 percent.

Table 3-1: Population Trends and Characteristics

Characteristics	State of Hawaii	Kauai County	Kauai County % of State Total
1990 Population	1,108,229	51,177	4.6%
2000 Population	1,211,537	58,463	4.8%
2010 Population	1,360,301	67,091	4.9%
2015 Population	1,425,557	71,478	5.0%
Population % Change 1990–2000	9.3%	31.0%	N/A
Population % Change 2000–2010	12.3%	14.7%	N/A
Population % Change 2000–2015	17.7%	22.2%	N/A

Sources: U.S. Census, 1990, 2000, 2010 and American Community Survey, 2015.

In 2000, about 608,671 (50.2 percent) of the State's 1,211,537 residents were male and 602,866 (49.8 percent) were female. During this same time frame, 29,252 (approximately 50.0 percent) of Kauai County residents were male and 29,211 (approximately 50.0 percent) were female. The U.S. Census reports that during 2010, approximately 681,243 (approximately 50.0 percent) of the State's 1,360,301 residents were male and 679,058 (approximately 50.0 percent) were female. During this same time frame, 33,701 (approximately 50.0 percent) of Kauai County residents were male and 33,390 (approximately 50.0 percent) were female (Table 3-2).

In 2000, the age cohort with the highest population in the State of Hawaii was between the ages of 18 and 59 (708,769 residents); by 2010 the total had risen to 711,196. The second most populated age cohort in Hawaii in 2000 was the under 18 age group with 295,767 residents which had risen to 303,818 by 2010. Kauai County followed a similar trend as that for the State as a whole. In 2000, the largest group in Kauai County was between the ages of 18 and 59 (31,243 residents); by 2010 the total had risen to 35,707. The second most populated age group in Kauai County in 2000 was the under 18 age group with 16,752 residents which had declined slightly to 16,652 by 2010 (Table 3-2).

Table 3-2: Age and Gender Characteristics

Characteristics	State of Hawaii		Kauai County	
	2000	2010	2000	2010
Male	608,671	681,243	29,252	33,701
Female	602,866	679,058	29,211	33,390
Under 18 years of age (all)	295,767	303,818	16,752	16,652
18 to 59 years of age (all)	708,769	711,196	31,243	35,707
60+ years of age (all)	207,001	243,893	10,468	14,723

Sources: U.S. Census, 2000, 2010.

According to the 2000 Census, the majority of residents of the State of Hawaii were classified as Asian, comprising 503,868 residents or 42 percent of the population. The remainder of the State's population is classified as White (294,102 residents or 25 percent), Two or More Races (259,343 residents or 21 percent), Native Hawaiian or Other Pacific Islander (113,539 residents or nine percent), African American (22,003 residents or two percent), Some Other Race (15,147 residents or one percent), and American Indian and Alaska Native (3,535 residents or less than one percent). Of the total population of Hawaii, 87,699 residents, or seven percent, identified as Hispanic (Table 3-3).

Table 3-3: Race

Characteristics		State of Hawaii		Kauai County	
		2000	2010	2000	2010
Race	White	294,102 (25%)	309,343 (21.2%)	17,255 (29.5%)	22,159 (33.0%)
	African American	22,003 (2%)	21,424 (1.5%)	177 (0.3%)	278 (0.4%)
	American Indian and Alaska Native	3,535 (>1%)	4,164 (>1%)	212 (0.4%)	254 (0.4%)
	Asian	503,868 (42%)	525,078 (36.1%)	21,042 (36.0%)	21,016 (31.3%)
	Native Hawaiian/Other Pacific Islander	113,539 (9%)	135,422 (9.3%)	5,334 (9.1%)	6,060 (9.0%)
	Some Other Race	15,147 (1%)	16,985 (1%)	505 (0.9%)	608 (0.9%)
	Two or More Races	259,343 (21%)	320,629 (22%)	13,938 (23.8%)	16,716 (24.9%)
	Hispanic	87,699 (7%)	120,842 (8.3%)	4,803 (8.2%)	6,315 (9.4%)

Sources: U.S. Census, 2000, 2010.

By 2010, the racial composition of Hawaii remained largely unchanged. Approximately 36.1 percent were classified as Asian with 525,078 residents. The remainder of the State's population was classified as White (309,343 residents or 21.2 percent), Two or More Races (320,629 residents or 22 percent), Native Hawaiian or Other Pacific Islander (135,422 residents or 9.3 percent), African American (21,424 residents or 1.5 percent), Some Other Race (16,985 residents or one percent), and American Indian and Alaska Native (4,164 residents or less than one percent). Of the total population of Hawaii, 120,842 residents, or 8.3 percent, identified as Hispanic in 2010 (Table 3-3).

According to the 2000 Census, the majority of the residents of Kauai County were classified as Asian with 36 percent of the population (21,042 residents). The remainder of the population was composed of White residents (29.5 percent or 17,225 residents), Two or More Races (23.8 percent or 13,938 residents), Native Hawaiian and Other Pacific Islander (9.1 percent or 5,334 residents), African American (less than one percent or 177 residents), Some Other Race (less than one percent or 505 residents) and American Indian or Alaska Native (less than one percent or 212 residents). Of the total population of Kauai County in 2000, 8.2 percent or 4,803 residents identified as Hispanic (Table 3-3).

By 2010, the racial composition of Kauai County remained largely unchanged. According to the 2010 Census, the majority of the residents of Kauai County were classified as White 33.5 percent of the population (22,159 residents), followed by Asian residents (31.3 percent or 21,016 residents), Two or More Races (24.9 percent or 16,716 residents), Native Hawaiian and Other Pacific Islander (nine percent or 6,060 residents), Some Other Race (less than one percent or 608 residents), African American (less than one percent or 278 residents), and American Indian or Alaska Native (less than one percent or 254 residents). Of the total population of Kauai County in 2010, 9.4 percent or 6,315 residents identified as Hispanic (Table 3-3).

Potential Impacts and Mitigation Measures

Under the No Action Alternative, the proposed inmate housing unit would not be developed at KCCC. KCCC would remain in its current condition, and population groups residing on the Island of Kauai would not be affected. In the absence of impacts, mitigation measures would not be necessary.

Under the proposed action, the inmate housing unit would be constructed within the KCCC property, and in doing so, an increased demand for construction workers involved in masonry, electrical, plumbing and similar trades along with supervisory personnel is expected to occur. Potential impacts on Kauai County's population during the construction phase depend on the duration of construction, the number of construction jobs required, and the ability of the local labor market to fill those positions. It is anticipated that any increased demand among the island's construction workforce is expected to be slight and temporary, lasting only for the duration of construction and easily accommodated by the current island workforce. As a result, permanent population impacts directly attributable to construction are not expected.

Following construction, up to 144 inmates originating from Kauai County and already housed at KCCC would occupy the housing unit, thereby posing no change (increase or decrease) to the population of the county. Operation of the proposed housing unit would also avoid permanent impacts on population groups or employment. No population groups or businesses would be relocated or removed as a result of the proposed project and no sensitive population groups (e.g., children, minorities, seniors, and handicapped) are expected to be adversely affected. As a result, no significant adverse demographic impacts are anticipated.

The majority of direct employment opportunities (during construction) resulting from the project are expected to be filled from the existing resident population of Kauai County, which should easily accommodate the needs of the proposed housing unit without significant adverse impacts or the need for mitigation measures.

3.3.2 Economic Characteristics

Existing Conditions

Of Hawaii's 612,831-person labor force, approximately 5.8 percent (35,886 persons) were unemployed in 2000 (U.S. Census, 2000). Of the State's 714,067-person labor force, approximately 3.6 percent (38,015 persons) were unemployed in 2010 (Table 3-4). The largest employment industry in Hawaii in 2000 was the educational, health, and services sector, with 102,254 jobs. This sector was followed by the arts and entertainment industry, with 86,189 jobs. The retail trade reported 65,693 jobs in Hawaii. By 2015, the unemployment rate in the State had risen to 3.7 percent or 42,288 persons (American Community Survey, 2015). The largest industry in Hawaii in 2015 was Educational services, and health care and social assistance, with 133,756 jobs followed by Arts, entertainment, and recreation, and accommodation and food services, with 106,307 jobs. Retail trade reported 65,693 jobs in Hawaii in 2015.

In 2000, Kauai County had an unemployment rate lower than that of the State: 1,499 (3.3 percent) of its 28,355 workers were unemployed (Table 3-4). In 2000, the entertainment industry represented the largest employment sector in Kauai County with about 5,854 jobs in the sector. This sector is followed by Educational, health, and social services (5,854 jobs), retail trade (3,341 jobs), Professional and management services (2,505), and Finance (1,667). By 2015, Kauai County continued to have an unemployment rate lower than that of the State with 1,929 (3.5 percent) of its 36,149-person labor force reporting unemployment. The Arts, entertainment, and recreation, and accommodation and food services industry represented the largest employment sector in Kauai County with about 8,222 jobs in the sector followed by Educational services, and health care and social assistance (5,381 jobs), and Retail trade (3,788 jobs).

Table 3-4: Labor Force and Unemployment

Characteristics	State of Hawaii		Kauai County	
	2000	2010	2000	2015
Labor Force	612,831	714,067	28,355	36,149
Unemployed	35,886	38,015	1,499	1,929
Unemployment Rate	5.8%	3.6%	3.3%	3.5%

Sources: U.S. Census, 2000, 2010 and American Community Survey, 2015.

Hawaii's major industries include tourism, scientific technology, papayas, macadamia nuts, cattle, orchids, aquaculture, and Kona coffee, which is the only gourmet coffee grown in the United States. Tourism includes deep sea fishing, golfing, sailing, horseback riding, hiking, tennis, and scuba diving. As with all the Hawaiian Islands, tourism is a major component of the Kauai County economy, evidenced by the number of jobs in the lodging and food industries. Kauai County had over 1.17 million visitor arrivals in 2006 (DBEDT, 2015).

According to the U.S. Census, the median household income in Kauai County in 2000 was $45,020, less than the median household income of the State ($49,820). By 2010, the median

household income in the State had increased to $69,515, while Kauai County increased from $45,020 to $65,101 (Table 3-5). In 2000, the State as a whole reported considerably higher per capita income ($29,403) than Kauai County ($20,301). Per capita income in the State increased from $29,403 in 2000 to $41,724 in 2010, while Kauai County increased from $20,301 to $27,079.

According to the U.S. Census, 126,154 of the State's 1,211,537 residents (10.4 percent) reported incomes below the poverty level in 2000, increasing to 11.2 percent in 2010. This percentage was similar for Kauai County, which had 10.4 percent (6,085 residents) of its population reporting incomes below the poverty level in 2000 and 10.7 percent (7,179 residents) in 2010.

Table 3-5: Income and Poverty Status

Characteristics	State of Hawaii		Kauai County	
	2000	2010	2000	2010
Median Household Income	$49,820	$69,515	$45,020	$65,101
Per Capita Personal Income	$29,403	$41,724	$20,301	$27,079
Population Below Poverty Level (Persons)	126,154	152,353	6,085	7,179
Percent Below Poverty Level (Persons)	10.4%	11.2%	10.4%	10.7%

Sources: U.S. Census, 2000, 2010.

Potential Impacts and Mitigation Measures

Under the No Action Alternative, the proposed inmate housing unit would not be developed at KCCC. KCCC would remain in its current condition, and the economy or economic conditions involving residents and businesses on the Island of Kauai would not be affected. In the absence of impacts, mitigation measures would not be necessary.

Under the preferred alternative, the proposed inmate housing unit would be developed at KCCC. Construction and operation of the housing unit would generate impacts on the island's economy. The project's construction budget, estimated at approximately $15 million (2018 dollars), would generate construction employment and materials purchases which, although temporary in nature, would involve both manpower and material resources from the island. Use of these resources would generate further spending while supporting indirect employment. The increased economic activity resulting from construction spending is considered beneficial to the island's economy and a positive impact.

The proposed project is not anticipated to induce growth in the Lihue area, and no businesses or other economic activities would be displaced or eliminated because of the project. Development and operation of the proposed inmate housing unit would not change the number of inmates held at KCCC because the unit would be occupied by inmates already housed at KCCC.

The potential economic impacts from construction and operation are considered to be beneficial because employment and economic opportunities would be provided to Kauai County residents and business owners. Because economic impacts resulting from project construction and operation would be beneficial, no mitigation measures are required.

3.3.3 Housing Characteristics

Existing Conditions

According to the 2000 U.S. Census, a total of 460,524 housing units existed in the State of Hawaii, of which approximately 87.6 percent (403,419 units) were occupied and 12.4 percent (57,105 units) were vacant. Of the occupied units, 260,196 (56.5 percent) were owner-occupied and 200,238 (44.5 percent) were renter-occupied. In 2000, median value of an owner-occupied unit in Hawaii was $272,700 and the median monthly contract rent was $721. Average household size in the State was 2.92 and the median number of rooms in a home was 4.3.

By 2010, there were a total of 519,508 housing units in the State of Hawaii, of which approximately 87.6 percent (455,338 units) were occupied and 12.4 percent (64,170 units) were vacant (Table 3-6). Of the occupied units, 262,682 (50.5 percent) were owner-occupied and 192,656 (37.1 percent) were renter-occupied. In 2010, the median value of an owner-occupied unit in the State of Hawaii was $529,700 and the median monthly contract rent was $1,116. Average household size in the State was 2.88 and the median number of rooms in a home was 4.6.

In 2000, there were a total of 25,331 housing units in Kauai County, of which approximately 79.7 percent (20,813 units) were occupied and 20.3 percent (5,148 units) were vacant. Of the occupied units, 12,384 (61.4 percent) were owner-occupied and 7,799 (38.6 percent) were renter-occupied. Regarding the cost of housing in Kauai County, the 2000 U.S. Census reported the median value of an owner-occupied unit to be $216,100 and the median monthly contract rent to be $739. Average household size in the county was 3.87 and the median number of rooms in a home was 4.6.

By 2010, there were a total of 29,793 housing units in Kauai County, of which approximately 78 percent (23,240 units) were occupied and 22 percent (6,553 units) were vacant (Table 3-6). Of the occupied units, 13,968 (60 percent) were owner-occupied and 9,272 (40 percent) were renter-occupied. Regarding the cost of housing in Kauai County, the 2010 U.S. Census reported the median value of an owner-occupied unit to be $480,600 and the median monthly contract rent to be $1,267.

Table 3-6: Housing Characteristics

Characteristics	State of Hawaii		Kauai County	
	2000	2010	2000	2010
Average Household Size	2.92	2.88	3.87	2.89
Number of Housing Units	460,524	519,508	25,331	29,793
% Occupied Units	87.6%	87.6%	79.7%	78.0%
% Owner-Occupied	56.5%	57.6%	61.4%	60.0%
% Renter-Occupied	44.5%	42.4%	38.6%	40.0%
% Vacant Units	12.4%	12.4%	20.3%	22.0%
Median Number of Rooms	4.3	4.6	4.6	4.7
Median Home Value	$272,700	$529,700	$216,100	$480,600
Median Year Housing Built	1974	1974	1975	NA
Median Monthly Contract Rent	$721	$1,116	$739	$1,267

Sources: U.S. Census, 2000, 2010.

Potential Impacts and Mitigation Measures

Under the No Action Alternative, the proposed inmate housing unit would not be developed at KCCC. KCCC would remain in its current condition, and the availability, supply, or cost of housing on the Island of Kauai would not be affected. In the absence of impacts, mitigation measures are not warranted.

Under the preferred alternative, the proposed inmate housing unit would be developed at KCCC. Development and operation of the proposed inmate housing unit would not change the number of inmates held at KCCC because the unit would be occupied by inmates already housed at KCCC. In the absence of additional inmates at KCCC, adverse impacts the island's housing market (i.e., housing availability, supply, and cost) are not anticipated. Because the proposed project would have no significant adverse impact on the island's housing market, no mitigation measures are required.

3.3.4 Community Services

Existing Conditions

Police Protection

The Kauai County Police Department, headquartered at 3990 Kaana Street in Lihue, comprises approximately 150 sworn personnel and 50 non-sworn civilian support staff. The Department comprises three districts, with KCCC located within the Lihue District. Three squads of officers comprise the Lihue District, each covering one of three shifts. When fully staffed, the Lihue District is composed of one District Commander, three sergeants, 21 officers, and two clerks. The Lihue District provides police protection from southern to eastern Kauai, starting at the Maluhia Tree Tunnel (at about the seven-mile marker of Kaumuali'i Highway) to Kukui Street in Kapaa Town; a length of about 16 miles. It incorporates the two busiest and most populated areas of Kauai, the Kapaa and Lihue communities, including Puhi, Nawiliwili, Hanamaulu, and Wailua (Kauai Police Department, 2018).

Fire Protection

The Kauai Fire Department provides fire protection and suppression, rescue (ocean and land), hazmat, and emergency medical services (basic life support) to the Island of Kauai. The Department conducts commercial, hotel, and industrial pre-fire planning. Pre-fire planning consists of building inspections to determine the building's construction material, contents (people and material that determine "fuel load") entrances and availability of fire protection equipment on property. The Department maintains eight fire stations located in Hanalei, Kaiakea, Kapaa, Lihue, Koloa, Kalaheo, Hanapepe, and Waimea.

The Lihue Station, located at 4450 Rice Street and servicing Lihue and surrounding areas including KCCC, consists of an engine truck, a ladder truck and a maritime rescue vessel. The goals of the Kauai Fire Department are to reduce the amount of property loss due to fires and minimize its damaging effects, to arrive at the scene of an incident in a safe and timely manner, and to provide the first response to all medical emergencies (Kauai Fire Department, 2018).

Medical Care

Kauai is serviced by several medical centers and clinics facilities, including Samuel Mahelona Memorial Hospital (SMMH), Wilcox Medical Center, and the West Kauai Medical Center. SMMH is Kauai's Eastside Critical Access Hospital located in Kapaa and is the oldest operating hospital

on the island. Founded in 1917 as a tuberculosis hospital, SMMH gradually transitioned to providing acute psychiatric, skilled nursing, medical acute, tuberculosis, and ancillary outpatient and inpatient services as the cure for tuberculosis became well established. The hospital currently employs a staff of 145 and its services continue to develop to meet the changing needs of the community. Patient services include: 24-hour emergency services, imaging (Digital X-ray), rehabilitation therapies (Occupational, Physical, and Recreational), skilled nursing, Intermediate, Long Term, and Acute Care.

Founded in 1938 and located at 3-5351 Kuhio Highway in Lihue, Wilcox Medical Center is a not-for-profit hospital dedicated to providing Kauai residents with accessible, quality health care. The largest medical center on Kauai, it is a state-of-the-art acute care facility and Level III trauma center with 72 beds and a full suite of services offering 30 specialties and programs including cardiology, emergency, family practice, health management, internal medicine, gastroenterology, neurology, OB-GYN, oncology, orthopedics, pediatrics and urology. Its 20-bed emergency department is the first neighbor island facility to obtain a Level III Trauma designation and serves as the island's Primary Stroke Center. The medical center also has four birthing suites, seven intensive care beds and 20 same-day surgery beds. The center employs 560 total staff of which 201 are physicians on its medical staff along with 62 volunteers.

West Kauai Medical Center is located in Waimea on the west side of Kauai. The original hospital, Kauai Veterans Memorial Hospital (KVMH) was dedicated in 1957 and is a full-service Critical Access Hospital, named in honor of Kauai veterans. The medical center also includes hospital outpatient clinic, and a medical office building with additional medical services. Hospital services include 24-hour Emergency Services, Family Birth Center, Outpatient Clinics, Imaging, Surgery, Rehabilitation Therapies (Occupational, Physical, and Respiratory), Skilled Nursing, Intermediate, Long Term, Acute and Intensive Care. Specialties include Obstetrics & Gynecology, Family Medicine, Pediatrics, Internal Medicine, Surgery (General, Trauma, and Oncology), Orthopedics and Sports Medicine, and Women's Health and Lifestyle Management. The hospital employs approximately 276 staff.

Public Education

Elementary and intermediate schools operating in Kauai County are organized into "complexes" consisting of a high school and the intermediate/middle and elementary schools that support it. These are organized into a "complex area" that is under the supervision of a complex area superintendent. The Kauai Complex is located in the general vicinity of KCCC (albeit several miles away) and four schools operate in the Kauai complex: Kauai High School, Kamakahelei Middle School, Kaumualii Elementary, and Wilcox Elementary School (Hawaii Department of Education, 2018).

Kauai High School provides public high school education for students in grades 9 to 12. Located at 3577 Lala Road in Lihue, the school has a current enrollment of approximately 1,249. Kamakahelei Middle School provides education to students in grades 6 to 8. Located at 4431 Nuhou Street, the middle school has a student enrollment of approximately 1,074. Kaumualii Elementary School, located at 4380 Hanamaulu Road, provides public education to students in grades 1 to 5; current enrollment is approximately 574. Wilcox Elementary School, located at 4319 Hardy Street in Lihue, also provides public education to students in grades 1 to 5; current enrollment is approximately 913 students.

Potential Impacts and Mitigation Measures

Under the No Action Alternative, the proposed inmate housing unit would not be developed at KCCC. KCCC would remain in its current condition, and community facilities and services

involving law enforcement, fire protection, medical care, and public education the Island of Kauai would not be affected. In the absence of impacts, mitigation measures would not be necessary.

Under the preferred alternative, the proposed inmate housing unit would be developed at KCCC. The Kauai County Police Department – Lihue District provides police protection services from the south to the east side of Kauai. The Lihue District includes the two busiest and most populated areas of Kauai, the Kapaa and Lihue communities, including Puhi, Nawiliwili, Hanamaulu, and Wailua. The Department is headquartered at the Lihue Station which is located in close proximity to KCCC.

PSD staff are equipped to handle virtually all emergency situations that may arise during KCCC operation. Nonetheless, the Kauai County Police Department would be relied on to assist PSD staff, if necessary, in the event of an emergency or other incident at the facility (an unusual occurrence based on PSD experience operating KCCC and similar facilities). KCCC staff would contact Kauai County law enforcement personnel in the event of an incident and would seek assistance as appropriate. Based on many years of experience operating KCCC, significant adverse impacts on law enforcement services are not anticipated as a result of the proposed project. Consequently, no mitigation measures, outside the need to coordinate and communicate facility operating activities with county law enforcement officials, are warranted.

Fire stations are located throughout the county with a station located near KCCC in Lihue. To guard against fire emergencies, PSD and its KCCC staff take stringent precautions. The proposed housing unit would be designed, constructed, and operated in compliance with applicable fire and life safety codes. Furthermore, PSD would guard against fire emergencies via facility operating policies and procedures; periodic inspections; fire prevention and evacuation planning; among other activities. PSD would also provide the appropriate fire suppression equipment onsite, while relying on the local fire company, as necessary, for assistance. No situations are expected to arise that would place an undue burden on Kauai County Fire Department manpower or equipment resources. Significant adverse impacts on fire protection services are not anticipated as a result of the proposed project. Therefore, no mitigation measures, except for the need to coordinate and communicate with appropriate county fire protection personnel, are warranted.

Development and operation of the proposed inmate housing unit would not change the number of inmates held at KCCC because the unit would be occupied by inmates already housed at KCCC. In the absence of additional inmates at KCCC, significant adverse impacts on medical services and facilities in Kauai County are not anticipated. PSD would maintain current arrangements with area hospitals for providing emergency medical services to KCCC. In addition, with PSD providing for many routine medical treatments and emergencies onsite, significant adverse impacts on emergency medical services are not anticipated as a result of the proposed project.

Local hospitals and emergency medical service providers are expected to accommodate any demand for service resulting during construction and operation of the proposed inmate housing unit without adverse impact. Because operation of the proposed housing unit is not expected to pose significant adverse impacts on medical services and facilities, no mitigation measures are required.

Development and operation of the proposed inmate housing unit would not change the number of inmates held at KCCC because the unit would be occupied by inmates already housed at KCCC. In the absence of additional inmates at KCCC, significant adverse impacts on public schools and services in Kauai County are not anticipated. Because changes (increases or

decreases) in the school age population or enrollments are not expected, no mitigation measures are warranted.

3.3.5 Land Use and Zoning

Existing Conditions

Land Use

KCCC, located in Lihue along the east shore of Kauai, is a single parcel (TMK 4-3-9-05:13) of approximately 10 acres in area (Exhibit 3-9). Much of those 10 acres has already been developed with inmate housing; administrative, program and support structures; maintenance buildings and storage areas; vehicle access and parking areas; recreational facilities among similar uses. The remaining undeveloped areas, forming the northern and southern portions of the facility, consists primarily of grass fields and small cultivated plots.

The KCCC property is bordered on the east by the Kuhio Highway and to the north, south, and west by agricultural fields and vacant lands. Further east, across the Kuhio Highway, is the Wailua Golf Course with the Pacific Ocean found just beyond the golf course.

KCCC is located between a conservation zone and agricultural zone to the north, south and west and a commercial zone to the east. Care will need to be exercised during the planning and design process to ensure that the proposed housing unit incorporates a relatable building facade. The current main entrance bisects the existing campus, allowing for a secure access to KCCC from Kuhio Highway. A State Highway right-of-way (ROW) extends north-south through the eastern portion of the KCCC property. This will need to be considered during the planning and design process to avoid placement of the housing unit, access driveway and support infrastructure within the highway ROW.

Zoning

Zoning is regulated by the Kauai County Comprehensive Zoning Ordinance. The Comprehensive Zoning Ordinance establishes procedures for the division of the County into land use districts and creates regulations for the types, size, placement, and control of structures within various zoning district classifications. The Ordinance also delineates the respective types of permitted uses and the development that can take place within those zoning districts. The Ordinance was adopted for the purpose of:

(a) Implementing the intent and purpose of the adopted General Plan.

(b) Regulating the use of buildings, structures and land for different purposes.

(c) Regulating location, height, bulk and size of buildings and structures, the size of yards, courts and other open spaces.

(d) To maintain the concept of Kauai as "The Garden Isle", thus assuring that any growth will be consistent with the unique landscape and environmental character of the Island.

(e) To ensure that all physical growth is carried out so as to maintain the natural ecology of the Island to the extent feasible.

(f) To create opportunities for a greater fulfillment of life through the development of a broad spectrum of educational and cultural pursuits.

(g) To promote and protect the health, safety and welfare of all residents.

(h) To provide opportunities for desirable living quarters for all residents in all income levels.



Exhibit 3-9: Tax Map Key—KCCC

(i) To recognize those aspects of the Island and its people which are historically significant, and to preserve and promote them as a continuing expression of the Island's physical and social structure.

(j) To guide and control development to take full advantage of the Island's form, beauty and climate, and preserve the opportunity for an improved quality of life.

(k) To protect, maintain and improve the agriculture potential of land located in the County.

According to Kauai County, the KCCC property is zoned Agricultural (A).

Potential Impacts and Mitigation Measures

Under the No Action Alternative, the proposed inmate housing unit would not be developed at KCCC. KCCC would remain in its current condition, and land use or zoning would not be affected. In the absence of impacts, mitigation measures would not be necessary.

The proposed housing unit would be located within the northern portion of the KCCC property. Potential land use impacts would be minimized by selection of a location within a relatively isolated area of the KCCC property and well away from private residences and commercial developments.

The proposed project would have a direct impact on land use by transforming a vacant portion of the KCCC property to inmate housing. However, the self-contained nature of KCCC would limit any potential direct impacts on the property with no adverse impacts on adjoining private properties or the values of such properties. If any positive or negative effects were experienced to nearby property values, they would likely occur as a result of factors unrelated to the proposed project.

According to the Kauai County Planning Department, the KCCC property is zoned for Agricultural use. Because correctional institutions are not generally permitted in Agricultural districts, development of the proposed housing unit may require permits and approvals from the Kauai County Planning Commission. Compliance with the requirements of the Kauai County Floodplain Ordinance and various construction codes would also be necessary prior to initiating construction.

Because no significant adverse impacts on area land uses or property values are anticipated, no mitigation measures are required. Continued coordination with the Kauai County Planning Department and Building Division would ensure that the project is consistent with applicable local regulations and ordinances.

3.3.6 Utility Services

Existing Conditions

Water Supply

KCCC, along with most residences, businesses, and institutions on the island, is served with potable water by the County of Kauai Department of Water (KDOW), which is a semi-independent agency that is financially self-sufficient and receives no funding from the county. KDOW operates and maintains 12 separate water systems on the island divided into three plant operations districts (East, Central, and West) and two water distribution districts (East and West).

The raw water supply for the systems includes one surface water source (the Kapaia Reservoir) and 48 wells and tunnels. The distribution system consists of 43 storage tanks and over 400 miles of water transmission and distribution lines, some of which date to the 1920s. Estimated present water demand for all service districts is about 16 million gallons per day (mgd) with KDOW serving approximately 18,000 metered customers.

KCCC lies within the East water service district and is served by the Lihue-Kapaa water system (formerly known as the Wailua-Kapaa and Puhi-Lihue-Hanamaulu water systems). The Wailua-Kapaa area obtains raw water from two tunnels (Makaleha and Moalepe) and six wells (Kapaa Homesteads Wells No. 1 and 2, Wailua Homesteads Wells A and B, and Nonou Wells 9-1 B and C). Five water storage tanks located in this area have a combined storage capacity of 3.825 million gallons. The Puhi area obtains raw water from five wells (Puhi Wells No. 1, 3, 4, 5A and 5B). This area has two water storage tanks with a combined storage capacity of 1.5 million gallons. The Lihue-Hanamaulu area obtains raw water from seven wells (Kalepa Ridge Well, Kilohana Wells A, B and I, Lihue Grammar School Well, Pukaki Well, and Hanamaulu Well No. 3), the Garlinghouse Tunnel and the Surface Water Treatment Plant. This area has ten water storage tanks with a combined storage capacity of 6.05 million gallons.

Raw water from the wells and tunnels is disinfected with chlorine and pumped into the distribution system or stored in the storage tanks. Raw water from the Kapaia Reservoir is processed through a filtration plant prior to disinfection and distribution or storage.

KCCC is served via a 1.5-inch meter connected to the KDOW 16-inch asbestos cement water main located along Kuhio Highway. This water main, with a static pressure of 70 pounds per square inch (psi) in proximity to KCCC, is supplied by a 1 million-gallon water storage tank (KCCC 363). With approximately 172 inmates housed at KCCC (PSD, November 30, 2018), utilizing approximately 100 gallons per inmate per day, the estimated average water demand is approximately 17,200 gallons per day. There are no known limitations to the provision of water supply in the area of KCCC.

Wastewater Collection and Treatment

The County of Kauai Department of Public Works, Wastewater Management Division (KWMD) is responsible for operation and maintenance of the public wastewater collection and treatment systems across the island. KWMD operates four treatment facilities on the island: Waimea, Eleele, Lihue, and Wailua. KCCC is located within the service area of the Wailua Wastewater Treatment Plant (WWTP) which provides secondary treatment with chlorine disinfection. Primary disposal of effluent is via irrigation of the Wailua Golf Course and the back-up effluent disposal is through an ocean outfall. The Wailua WWTP has a permitted capacity of 1.5 mgd, but due to the age of the plant and environmental factors, the actual hydraulic capacity of the plant is 1.0 mgd. KWMD reports that the average daily flow at the WWTP is approximately 0.6 mgd and that the remaining capacity is allocated for future developments.

Wastewater from KCCC is conveyed to an onsite pump station owned by the State of Hawaii. Operation and maintenance of the pump station is contracted to Aqua Engineers, Inc., which is based in Lawai. Although the pump station belongs to the State, it also serves the Wailua Golf Course through an unmetered connection. The pump station is equipped with two pumps with a combined capacity of 50 gallons per minute (gpm). Wastewater is discharged from the pump station into a 12-inch gravity sewer via two 3-inch force mains along the Kuhio Highway. The force mains continue from Kuhio Highway to the east along Leho Drive and discharge into a transition manhole at the intersection of Leho Drive and Nehe Road. The manhole, which is reportedly owned and maintained by KCCC, discharges into a KWMD-owned gravity sewer that conveys wastewater to the WWTP approximately one mile north of the facility. With

approximately 172 inmates housed at KCCC (PSD, November 30, 2018), the estimated average daily wastewater flow is approximately 90 percent of total water demand or 15,500 gallons per day. There are no known limitations to the provision of wastewater collection and treatment services in the vicinity of KCCC.

Electrical Power

The Kauai Island Utility Cooperative (KIUC) provides electric power to residences, businesses and industries across the island. KIUC has two power generation plants, Port Allen and Kapaia, with a total firm generating capacity of 116 megawatts. KIUC has over 35,000 customers, predominantly residential, and a reported maximum peak demand of 77 megawatts. KIUC has approximately 160 miles of 69 kilovolt (KV) transmission lines and 1,200 miles of 12 KV distribution lines, which includes 215 miles of underground lines.

KCCC is supplied with electric power by the 69 kV–12 kV Lipgate substation, which is located approximately 0.5 mile north of the facility on Kuhio Highway, with a transformer rating of 7.5/10.5 megavolt-amperes. A 12-kV overhead distribution line adjacent to facility supplies the 120/208-volt, pad-mount transformer at the facility via an underground cable. There are no known limitations to the provision of electric power in the area of KCCC.

Natural Gas

No natural gas distribution system is available in the Lihue area. The Gas Company is the purveyor of bottled propane gas in the area of KCCC. Currently, four above-ground tanks are located at KCCC—a 1,000-gallon tank for primary hot water and the laundry; a 500-gallon tank for the kitchen; a 500-gallon tank for the emergency generator; and a 124-gallon tank that serves the cottages. Based on frequency and volume of gas required during filling operations, these tanks appear to be adequately sized for their current use. The provision of gas service to KCCC has no known limitations.

Telecommunications

Hawaiian Telcom and Spectrum (formerly Oceanic Time Warner Cable) are the primary telecommunications providers in Kauai County. Overhead telecommunications lines are located along Kuhio Highway adjacent to the site. The provision of telecommunications service in the area of KCCC has no known limitations.

Solid Waste

The County of Kauai Public Works Department, Solid Waste Division (SWD) owns one landfill and four transfer stations. The Kekaha Landfill is located on the southwest side of the island near the town of Kekaha. The landfill consists of two distinct areas identified as Phase I and Phase II. Phase I was a non-lined facility that began operations in 1953 and closed in 1993. Phase II is a fully lined RCRA Subtitle D facility with a capacity to accommodate an additional four years of waste disposal. SWD is also proposing to design and permit the proposed Kekaha Landfill Cell 2 Lateral Expansion, which is anticipated to extend the life of the landfill by an additional seven years. The transfer stations are located in Hanalei, Kapaa, Lihue, and Hanapepe. Solid waste is collected and sorted at these facilities then transferred to the appropriate location depending on whether it is recyclable, green waste or solid waste requiring disposal at the landfill. Waste Management, Inc. is contracted to manage the landfill.

SWD is proposing to develop and operate a new solid waste landfill on a 270-acre site at Ma'alo in the southeastern portion of the island (SWD and AECOM, Draft EIS, April 2018). When

construction is completed and operations begin, the new landfill will replace the Kekaha Landfill and provide solid waste disposal capacity for many years to come.

Solid wastes generated at KCCC by the current population of 172 inmates total approximately two pounds per inmate per day or 5.4 tons per month. Solid wastes are stored in three enclosed containers that are collected by a private carter as necessary for disposal. Currently, cardboard and metal cans are recycled as part of routine KCCC operation that diverts these recyclable materials from the solid waste stream.

Potential Impacts and Mitigation Measures

Under the No Action Alternative, the proposed inmate housing unit would not be developed at KCCC. KCCC would remain in its current condition, and the availability or provision of water supply, wastewater treatment, power, natural gas, telecommunications, or solid waste disposal services on the Island of Kauai would not be affected. In the absence of impacts, mitigation measures would not be necessary.

Water Supply

Under the preferred alternative, the proposed inmate housing unit would be developed at KCCC. Provision of such housing is not intended to increase the inmate population of KCCC beyond its current number; instead, inmates housed in spaces not well suited for inmates would be accommodated in a modern housing unit designed and constructed to State of Hawaii and national standards. As a result, water demand at KCCC would not increase beyond the current volume.

KDOW reports that no issues with water pressure and line capacity have been encountered in the area of KCCC that would otherwise limit water supply service to the proposed housing unit. Extension of the onsite water supply system to the housing structure would be carried out in accordance with applicable building and plumbing codes of Kauai County.

Because the proposed project would not increase the inmate population at KCCC or increase in water demand or consumption, no significant adverse impacts on the provision of water supply are anticipated, and no mitigation measures beyond communication and coordination with KDOW and appropriate local building code authorities are warranted.

Wastewater

Under the preferred alternative, the proposed inmate housing unit would be developed at KCCC. Wastewater collection service is provided by the County of Kauai Department of Public Works, Wastewater Management Division (WMD). Wastewater originating at KCCC is conveyed to the Wailua Wastewater Treatment Plant (WWTP) for treatment. The primary source of wastewater from KCCC is domestic flows generated by the inmate population with flows typically occurring from 6:00 a.m. to 8:00 p.m. during periods of high water demand (i.e., meal preparation and personal hygiene).

KWMD reports that the average daily flow at the WWTP is approximately 0.6 mgd. This would imply an excess capacity of 0.4 mgd of the 1.0 mgd capacity at the Wailua WWTP however, this excess capacity has reportedly been allocated for other future developments.

Because the proposed project is not intended to increase the inmate population of KCCC beyond its current number, an increase in daily wastewater flow is not anticipated. Therefore, no significant adverse impacts on wastewater collection and treatment are anticipated, and no

mitigation measures beyond communication and coordination with KWMD and appropriate local building code authorities are warranted.

Electric Power

Under the preferred alternative, the proposed inmate housing unit would be developed at KCCC. Electric power demands associated with interior illumination and other requirements of the proposed housing unit are expected to be equivalent to a large residential structure. The relatively low service demands anticipated can be easily accommodated by current power generating and distribution systems operated by the Kauai Island Utility Cooperative. No changes to the electrical service and distribution system are required to accommodate the proposed housing unit. Construction of the proposed housing structure would be carried out in accordance with applicable building and electrical codes of Kauai County. It should be noted that PSD has an electrical/mechanical repair and improvement Capital Improvement Program underway that is expected to better manage power demands through installation of energy efficient equipment and various upgrades at KCCC and other PSD facilities.

There are no known limitations to the provision of electric service in the Lihue area and no adverse impacts are anticipated as a result of the proposed project. No mitigation measures beyond coordination with by the Kauai Island Utility Cooperative and compliance with appropriate local building codes are anticipated.

Natural Gas

Under the preferred alternative, the proposed inmate housing unit would be developed at KCCC. As noted earlier, there is no natural gas distribution system in the Lihue region. Should additional gas be required for cooking and hot water purposes, an increase in delivery of liquefied propane by the Gas Company or an additional storage tank may be necessary.

There are no known limitations to the provision of liquefied propane in the Lihue area, therefore, the small additional volume of gas which may be necessary to accommodate the hot water requirements associated with the proposed housing unit is not expected to adversely impact current or future gas customers on the island.

Telecommunications

Under the preferred alternative, the proposed inmate housing unit would be developed at KCCC. There are no known limitations to the provision of telecommunications service by Hawaiian Telcom in the area of KCCC. Occupancy and use of the proposed housing unit would not increase the inmate population and would not result in an increase in telecommunications activity by inmates.

There are no known limitations to the provision of telecommunications service in the Lihue area and no adverse impacts are anticipated as a result of the proposed project. No mitigation measures beyond coordination with Hawaiian Telcom and local authorities are anticipated.

Solid Waste

Under the preferred alternative, the proposed inmate housing unit would be developed at KCCC. Construction of the proposed housing structure would generate solid wastes requiring collection and disposal by a commercial waste disposal contractor. However, given the relatively small scale of the proposed project, only small quantities of solid wastes are expected to result during the construction phase. The disposal of construction wastes would be the responsibility of the construction contractors involved, although efforts will be made to sort,

segregate, and recycle a portion of the wastes. While the precise volume of construction-related solid wastes is unknown at this time, it is not expected to adversely impact solid waste collection and disposal services currently provided on the island. Solid wastes generated during construction would be managed and disposed of in accordance with applicable state and county guidelines and regulations and would be stored onsite in a container that would be removed for disposal as necessary.

Routine occupancy of the proposed housing structure would result in the generation of solid waste of a nature and quantity similar to that being generated currently as a result of normal KCCC operations because an increase in daily solid waste generation is not anticipated. The proposed project would also not generate significant quantities of toxic, medical or hazardous wastes during occupation of the housing structure.

Because the project would not increase the inmate population at KCCC, the volume of solid waste would not increase and the waste collection and disposal operations on the island would not be affected. The storage, collection and disposal of solid wastes, in addition to efforts to sort, segregate and recycle a portion of the waste stream, would be conducted in accordance with current operating policies and procedures and applicable regulations. Solid wastes generated during use of the housing structures would be stored, handled, and either recycled or disposed of at appropriate facilities. No other mitigation measures are warranted.

3.3.7 Transportation Systems

Existing Conditions

Highway Access

KCCC is located at 3-5351 Kuhio Highway between Leho Drive and Marine Camp Road in Lihue. Kuhio Highway is a two-way State Highway traversing the northern and eastern shores of Kauai extending from Haena State Park in the north to Lihue, where it terminates at Rice Street at the junction with Kaumuali Highway (State Highway 50), which continues west to Kekaha.

Kuhio Highway is designated as State Highway 56 and extends in a southwest-northeast direction, generally providing one travel lane in each direction, widening to accommodate turn movements or additional storage at select intersections. A second northbound lane is provided from the junction with Kapule Highway in Hanamaulu north to Wailua. Major roadways, such as Route 580 and Ka Haku Road, are easily accessible from Kuhio Highway.

Primarily functioning as a rural highway, Kuhio Highway generally lacks sidewalks with the exception of isolated segments partially present on one side of the roadway through the urbanized portions of Hanamaulu and Lihue. Pedestrian crossings across Kuhio Highway are generally present only at the signalized intersections at Hanamaulu Road and Laukona Street in Hanamaulu and at Eha Street and Oxford Street in Lihue. The Kuhio Highway intersections at Ehiku Street, Maalo Road, Laulima Street, Roberts Highway Driveway, and Kauai Beach Drive do not have crosswalks across Kuhio Highway.

Traffic volumes along Kuhio Highway near KCCC during off-peak hours were observed during a recent site visit to be relatively light with vehicles traveling through the area experiencing little or no congestion or delays. Access to KCCC is via an entrance drive from the southbound side Kuhio Highway. A portion of the internal driveways are paved; however, most onsite parking areas and driveways are unpaved.

Traffic Management

Traffic is managed along the four-lane portion of Kuhio Highway between the Kapule Highway intersection and Wailua using transient lane operations to increase vehicle throughput during the weekday morning peak travel periods. The transient lane is managed to provide a temporary contra-flow southbound travel lane during weekday mornings. The transient lane operates from approximately 5:30 a.m. to 10:00 a.m. using traffic cones placed along Kuhio Highway from the junction at Kapule Highway in Hanalaulu to the junction with State Highway 5600 near Papaloa Road in Wailua.

Public Transit Service

Public transit service on Kauai is provided by Kauai Bus. Kauai Bus operates the Lihue–Wailua mainline and Lihue–Hanalei mainline along Kuhio Highway, but no bus stops are available near KCCC. The bus stops closest to KCCC are located approximately two miles north and approximately two miles south on Kuhio Highway.

Potential Impacts and Mitigation Measures

Under the No Action Alternative, the proposed inmate housing unit would not be developed at KCCC. KCCC would remain in its current condition, and the local transportation network on the Island of Kauai would not be affected. In the absence of impacts, mitigation measures would not be necessary.

Under the preferred alternative, the proposed inmate housing unit would be developed at KCCC. The construction phase is expected to minimally increase traffic volumes as a result of worker trips to and from the building site at KCCC and the movement of materials, supplies, and equipment along Kuhio Highway. The number of construction workers onsite at any one time is not expected to exceed 25 individuals and, therefore, would represent only a slight increase in traffic volumes along area roadways. Truck deliveries would be distributed throughout the work day and would generally occur between the hours of 7:00 a.m. and 5:00 p.m., depending on the stage of construction. All such traffic would end following completion of the construction phase.

Development and operation of the proposed inmate housing unit would not change the number of inmates held at KCCC because the unit would be occupied by inmates already housed at KCCC. With no change to the number of inmates housed at KCCC, the number of visits by inmate family members, friends, attorneys and others is also not expected to change. (The number, frequency, and duration of visits to KCCC are strictly controlled by PSD and are expected to remain low.) In the absence of additional inmates or visitors to KCCC, significant adverse impacts resulting from traffic volumes, movements and patterns affecting Kuhio Highway and the local transportation network in Kauai County are not anticipated.

Because no significant adverse impacts on the area's transportation network are anticipated as a result of the proposed project, no mitigation measures are necessary. Nonetheless, PSD would encourage visitors to use carpools and vanpools to reduce reliance on motor vehicles and minimize the potential for transportation impacts.

3.3.8 Climate

Existing Conditions

Climate on the Island of Kauai can be characterized as tropic and is unique in the differences in rainfall over short distances, mild temperatures, and the persistence of the northeasterly trade winds. The latitude of the Hawaiian Islands is the major influence on the climate, because the State lies within the geographic tropics. The climate is also influenced by the surrounding ocean, which has a moderating influence on temperature, and the Pacific anticyclone, from which the trade winds flow. On Kauai, the climate is further influenced by topography, with every valley bottom, slope, and steep-sided ridge having its own localized climate (NRCS, 1972).

According to findings by researchers at the University of Hawaii (IPRC, 2013, var.), the effects of climate change are increasingly evident in Hawaii as well. This includes increases in air temperature, increases in rainfall intensity while total rainfall has decreased, decreases in stream flows, increases in sea surface temperatures and sea levels, and increased ocean acidity.

Precipitation

The amount of rainfall experienced in the Hawaiian Islands varies greatly. Over the open sea, rainfall averages between 25 and 30 inches a year, with the islands themselves receiving more than 10 times this amount in some places, and less than half in others. Except for Lanai, where maximum rainfall is about 50 inches, each of the major islands has regions in which the mean annual rainfall approaches or exceeds 300 inches. This variation is a result of the orographic, or mountain-caused, rain that forms within the moist air from trade winds going across the varying terrain of the islands. The resulting rainfall distribution, in the mean, closely resembles the topographic contours. The amount is greatest over windward slopes and crests and is least toward the leeward lowlands. The lowlands obtain moisture chiefly from a few winter storms, and only small amounts from trade wind showers. Thus, rainfall in the normally dry areas is strongly seasonal with arid summers and small seasonal differences in the wetter areas, where rainfall is derived from both the winter storms and the year-round, trade-wind showers (NRCS, 1972). In the Lihue region, rainfall averages 40 inches annually with wet winters and dryer summers.

The number of rainy days a year also varies widely from place to place. Deep cumulus clouds that build up over mountains and interiors on clear calm afternoons are another source of rainfall on the islands and are usually too brief and localized to contribute significantly to the total water supply. The heaviest rains in Hawaii result from winter storms, which can have large differences in rainfall over small distances because of the topography and the path and structure of the rain clouds. Another important source of water is that directly extracted from passing clouds by vegetation and by the soil in areas where an elevation of 2,500 feet or more above msl brings them into the cloud belt. Conversely, the islands also experience drought, although it rarely affects more than part of even a single island at one time. Drought occurs when either the winter storms or the trade winds fail. The probability of serious drought somewhere in Hawaii during any given 10-year period exceeds 90 percent (NRCS, 1972).

Temperature

Mean annual temperatures in Hawaii vary between 72 and 75 degrees Fahrenheit (F), near sea level, decreasing by approximately 3°F for each 1,000 feet of elevation, and tend to be higher in sunny dry areas. Temperatures are higher, for example, in the leeward lowlands, than in those areas that are cloudier, wetter, and more directly exposed to the trade winds. On the Island of Kauai, including the area of KCCC, the average daily high temperature is 81°F and the average low is 70°F.

The average difference between daily high and low temperatures on the Hawaiian Islands is between 10 and 20°F. Higher readings occur in areas that are lower, drier, and less open to the wind. Kauai has little seasonal variation in temperatures, only 6 to 8°F, and August and September are the warmest months of the year and January and February the coolest. The seasonal variation is far below the daily variation, which results in more temperature change in the course of an average day than from season to season. Almost everywhere at low elevations, the highest temperatures of the year are in the low 90°s F and the lowest temperatures near 50°F (NRCS, 1972). The average month minimum and maximum temperatures for monitoring stations on Kauai are shown in Table 3-7.

Table 3-7: Minimum and Maximum Monthly Average Temperatures

Kauai (°F)												
Month	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Maximum	78	78	78	79	81	83	84	85	85	83	81	79
Minimum	65	66	67	69	70	73	74	74	74	73	71	68

Source: The Weather Channel.

Wind Speed and Direction

Winds heavily influence the climate on Kauai and the other Hawaiian Islands. The prevailing wind throughout the year is the east-northeasterly trade. The trades vary greatly in frequency being virtually absent for long periods and blowing for weeks on end at others. The winds are most persistent in the winter, but slightly stronger in the summer. In well-exposed areas, the trades average somewhat under 15 miles an hour, with winds exceeding 31 miles an hour only about two percent of the time by the trades and three percent by winds from other directions. Although trade winds are the most prevalent, the strongest and most damaging winds are those that accompany winter storms and the infrequent hurricanes. High winds are most likely between November and March and blow from almost any direction. Local winds are greatly influenced by local topography, ranging from a complete sheltering from winds from certain directions to winds that pass through narrow valleys and over crests, transforming a moderate wind into a strong and gusty one (NRCS, 1972).

Potential Impacts and Mitigation Measures

Under the No Action Alternative, the proposed inmate housing unit would not be developed at KCCC. KCCC would remain in its current condition, and climatic conditions and patterns (e.g., precipitation, temperatures, and wind speed and direction) on the Island of Kauai would not be affected. In the absence of impacts, mitigation measures would not be necessary.

Under the preferred alternative, the proposed inmate housing unit would be developed at KCCC. However, construction is not expected to alter the microclimatology of wind and temperature at the site. Because of its small scale relative to its surroundings, the proposed housing unit would not alter or affect the larger-scale climatology of the area or have a significant impact on neighboring properties. The proposed project is expected to result in no significant emission of chlorofluorocarbons, halons, or greenhouse gases and is located sufficiently inland from the Pacific Ocean to not be affected by changes in sea levels. Adverse meteorological impacts are not expected to result from the proposed project and measures to mitigate local weather conditions are not warranted.

3.3.9 Air Quality

Air quality is defined by ambient air concentrations of specific pollutants of concern with respect to the health and welfare of the general public. Air pollution is the presence in the outdoor atmosphere of one or more contaminants that are injurious to humans, plants, or animals, or that interfere with the enjoyment of life and property. Air quality can be affected by air pollutants produced by mobile sources, such as vehicular traffic, aircraft, or non-road equipment used for construction activities; and by fixed or immobile facilities, referred to as "stationary sources." Stationary sources can include combustion and industrial stacks and exhaust vents.

Air quality as a resource incorporates several components describing the levels of overall air pollution in a region, and sources of and regulations governing air emissions. A discussion of the affected environment as it relates to air quality, including State of Hawaii and National Ambient Air Quality Standards (NAAQS) and local ambient air quality, follows.

Air Quality Standards

The U.S. Environmental Protection Agency (USEPA) defines ambient air in 40 CFR § 50.1(e) as: "that portion of the atmosphere, external to buildings, to which the general public has access." The Clean Air Act (42 USC 7401-7671q), as amended, gives USEPA the responsibility to establish the primary and secondary NAAQS (40 CFR 50) that set acceptable concentration levels for seven criteria pollutants: particulate matter less than 10 microns in diameter (PM10); particulate matter less than 2.5 microns in diameter (PM2.5); sulfur dioxide (SO2); carbon monoxide (CO); nitrogen dioxide (NO2); ozone (O3); and lead (Pb). The State of Hawaii has established ambient air quality standards in Chapter ii-59 of the Hawaii Administrative Rules (HAR). Together, USEPA and the Hawaii Department of Health (DOH) regulate air quality in Hawaii.

Short-term standards for 1-, 8-, and 24-hour periods have been established for pollutants contributing to acute health effects, while long-term standards (based on annual averages) have been established for pollutants contributing to chronic health effects. The State of Hawaii has adopted State Ambient Air Quality Standards (SAAQS) in addition to those established under federal regulations.

Federal regulations designate Air Quality Control Regions (AQCRs) that have concentrations of one or more of the criteria pollutants that exceed the NAAQS as nonattainment areas. Federal regulations designate AQCRs with levels below the NAAQS as attainment areas. Honolulu County is located in the State of Hawaii AQCR (AQCR 246) (40 CFR 81.76). USEPA designated Honolulu County as in attainment or unclassifiable/ attainment for all criteria pollutants for which designations have been issued (USEPA, 2017). USEPA monitors levels of criteria pollutants at representative sites in each region throughout Hawaii. Table 3-8 provides a description of NAAQS criteria pollutants, while Table 3-9 lists both federal and state air quality standards.

In addition to ambient air quality standards for particulate matter in general, fugitive dust is regulated by the Hawaii DOH, Clean Air Branch (Hawaii DOH, 2014). HAR §11-60.1-33, Fugitive Dust states, in part:

- §11-60.1-33(a): No person shall cause or permit visible fugitive dust to become airborne without taking reasonable precautions.
- §11-60.1-33(b): ...no person shall cause or permit the discharge of visible fugitive dust beyond the property lot line on which the fugitive dust originates.

Existing Conditions

Air quality in the State of Hawaii is among the best in the nation, and criteria pollutant levels remain well below state and federal ambient air quality standards. Fourteen air quality monitoring stations are located in the State: one on Kauai, three on Maui, four on Oahu, and six on Hawaii Island (Hawaii DOH, 2016). The Niumalu station on Kauai, located at 2342 Hulemalu Road in Lihue, was initially established to monitor emissions from cruise ships and monitors SO_2, $PM_{2.5}$, and NO_2. According to the Hawaii DOH, State of Hawaii Annual Summary 2015 Air Quality Data (December 2016), the ambient levels of pollutants measured in 2015 at the Kauai air monitoring site are provided in Table 3-10, along with state and federal air quality standards. The data show existing concentrations of criteria air pollutants on Kauai are below the applicable state and federal standards. As of April 2018, Kauai County is in attainment for all criteria pollutants (USEPA Green Book, 2018).

Point source emissions (e.g. power generating stations and large industrial operations) and non-point emission sources (e.g. motor vehicles) on Kauai, in general, do not generate a high concentration of pollutants. The excellent air quality can also be attributed to the Island's near constant exposure to wind, which quickly disperses emissions. Although air quality on Kauai complies with the NAAQS, temporary air quality issues arise during agricultural activities that can affect pollutant levels. Such operations produce air quality conditions that are highly localized, intermittent, and temporary in nature.

Table 3-8: Description of NAAQS Criteria Pollutants

NAAQS Criteria Pollutant	Description
Sulfur Dioxide (SO_2)	A toxic, colorless gas with a distinctly detectable odor and taste. Oxides of sulfur in the presence of water vapor, such as fog, may result in the formation of sulfuric acid mist. Human exposure to SO_2 can result in irritation to the respiratory system, which can cause both temporary and permanent damage. SO_2 exposure can cause leaf injury to plants and suppress plant growth and yield. SO_2 can also cause corrosive damage to many types of manmade materials.
Particulates ($PM_{2.5}$ and PM_{10})	Particulates originate from various natural and anthropogenic sources. Some predominant anthropogenic sources of particulates include combustion products (wood, coal and fossil fuels), automotive exhaust (particularly diesels), and windborne dust (fugitive dust) from construction activities, roadways and soil erosion. Smaller particulates (smaller than or equal to 10 and 2.5 microns in size [PM_{10} and $PM_{2.5}$]) are of particular health concern because they can get deep into the lungs and affect respiratory and heart function. Small particulates affect visibility by scattering visible light and when combined with water vapor can create haze and smog. Micron and submicron particles are those that assume characteristics of a gas and remain suspended in the atmosphere for long periods.
Carbon Monoxide (CO)	A colorless, odorless, tasteless and toxic gas formed through incomplete combustion of crude oil, fuel oil, natural gas, wood waste, gasoline, and diesel fuel. Most combustion processes produce at least a small quantity of this gas, while motor vehicles constitute the largest single source. Human exposure to CO can cause serious health effects before exposure is ever detected by the human senses. The most

NAAQS Criteria Pollutant	Description
	serious health effect of CO results when inhaled CO enters the bloodstream and prevents oxygen from combining with hemoglobin, impeding the distribution of oxygen throughout the bloodstream.
Nitrogen Dioxide (NO_2)	A reddish-brown gas with a highly detectable odor, which is highly corrosive and a strong oxidizing agent. NO_2 is one of a group of reactive gases called nitrogen oxides or NOx. NO_2 forms small particles that penetrate deep in the lungs and can cause or worsen existing respiratory system problems such as asthma, emphysema, or bronchitis. NOx is a precursor to the formation of ozone and $PM_{2.5}$.
Ozone (O_3)	An oxidant that is a major component of urban smog. O_3 is a gas that is formed naturally at higher altitudes and protects the earth from harmful ultraviolet rays. At ground level, O_3 is a pollutant created by a combination of VOC, NO_x and sunlight, through photochemistry. Ground-level O_3 is odorless and colorless, and is the predominant constituent of photochemical smog. Human exposure to O_3 can cause eye irritation at low concentration and respiratory irritation and inflammation at higher concentrations. Respiratory effects are most pronounced during strenuous activities. O_3 exposure will deteriorate manmade materials and reduce plant growth and yield.
Lead (Pb)	Lead is a toxic heavy metal that can have numerous adverse health impacts, including neurological damage to children and cardiovascular effects in adults. Lead emissions can contribute to exposure through the air directly or indirectly by causing soil/water contamination. Prior to the phase out of leaded gasoline, automobiles were a source of lead emissions. According to USEPA, the major sources of lead emissions to the air today are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline.[a]

Source: Louis Berger U.S., 2018.

[a] https://www.epa.gov/lead-air-pollution.

Table 3-9: State and Federal Air Quality Standards

Pollutant	Hawaii Air Quality Standards	Federal Primary Air Quality Standards
Carbon Monoxide (CO)		
1-hour maximum	9 ppm	35 ppm
8-hour maximum	4.4 ppm	9 ppm
Lead (Pb)		
3-month average	1.5 µg/m3	0.15 µg/m3
Nitrogen Dioxide (NO2)		
1-hour	Not Established	0.100 ppm
Annual average	0.04 ppm	0.053 ppm

Pollutant	Hawaii Air Quality Standards	Federal Primary Air Quality Standards
Particulate Matter (PM2.5)		
24-hour average	None	35 µg/m3
Annual average	None	12 µg/m3
Particulate Matter (PM10)		
24-hour average	150 µg/m3	150 µg/m3
Annual average	50 µg/m3	None
Ozone (O3)		
8-hour maximum	0.08 ppm	0.070 ppm
Sulfur Dioxide (SO2)		
1-hour average	None	0.075 ppm
3-hour block average	0.5 ppm	-
24-hour block average	0.14 ppm	None
Annual average	0.03 ppm	None
Hydrogen Sulfide (HS)		
1-hour average	25 ppb	None

Sources: Hawaii DOH, 2015.

Notes: NE = not established; ppm = parts per million; ppb = parts per billion; µg/m3 = micrograms per cubic meter; $PM_{2.5}$ = particulate matter less than 2.5 microns in diameter; PM_{10} = particulate matter less than 10 microns in diameter.

Table 3-10: Hawaii DOH Air Quality Data

Pollutant	Period	Kauai Monitoring Station	State/Federal Air Quality Standards
CO	1-hour average (maximum)	---[a]	9 ppm / 35 ppm
	8-hour average (maximum)	---[a]	4.4 ppm / 9 ppm
PM_{10}	24-hour average (maximum)	---[a]	150 µg/m³ / 150 µg/ m³
	Annual average	---[a]	50 µg/ m³ / no federal standard
$PM_{2.5}$	24-hour average (based on 98th percentile)	10.1 µg/m3	No state standard / 35 µg/ m³
	Annual average	3.3 µg/m3	No state standard / 12 µg/ m³
O_3	8-hour average (based on 4th highest daily maximum)	---[a]	0.08 ppm / 0.070 ppm

Pollutant	Period	Kauai Monitoring Station	State/Federal Air Quality Standards
NO_2	1-hour average (based on 98th percentile)	0.032 ppm	No state standard / 0.1 ppm
	Annual average	0.002 ppm	0.04 ppm / 0.053 ppm
SO_2	1-hour average (based on 99th percentile)	0.014 ppm	No state standard / 0.075 ppm
	3-hour average (maximum)	0.021 ppm	0.5 ppm (state and federal secondary standard)
	24-hour average (max)	0.005 ppm	0.14 ppm / no federal standard
	Annual average	0.000 ppm	0.03 ppm / no federal standard

Source: Hawaii DOH, 2015.

Notes: µg/m³ – micrograms per cubic meter.

a Not monitored.

Potential Impacts and Mitigation Measures

Under the No Action Alternative, the proposed inmate housing unit would not be developed at KCCC. KCCC would remain in its current condition, and air quality on the Island of Kauai would not be affected. In the absence of impacts, mitigation measures would not be necessary.

Under the preferred alternative, the proposed inmate housing unit would be developed at KCCC. Short-term impacts on air quality would result either directly or indirectly as a consequence of construction. For a project of this nature and scale, much of the potential air emissions that result during construction involve fugitive dust from site clearing, grading and excavation; and exhaust emissions from operation of onsite construction equipment. Indirect, short-term impacts could also result from transportation of construction equipment and materials to and from KCCC and from a temporary increase in local traffic caused by construction workers commuting to and from KCCC.

To understand potential air quality impacts associated with construction activities, the construction process itself must be understood. The following provides a general overview of the construction process as it may affect air quality.

- Initial site clearing and preparation involves the use of heavy equipment to remove vegetation and carry out preliminary site grading to establish a level building location and proper elevation. Other site preparation activities during this stage include installing underground utilities, implementing soil erosion and sediment control measures, implementing storm water control measures, and conducting similar preliminary site work.
- Following initial site clearing and preparation, construction of the foundations and any below-grade components would commence. Excavation typically includes the use of heavy equipment to excavate and remove material in preparation for foundation construction. Foundation work includes preparation of forms and the pouring of concrete footings and foundation slabs. Heavy trucks would deliver concrete and other supplies to the building site.
- Next, the building facade (exterior walls and cladding) and roof are constructed. At this stage, concrete floors are poured. Installation of the structure's core, which consists of

vertical riser systems for mechanical, electrical, and plumbing, as well as the electrical and mechanical equipment rooms, and plumbing facilities, begins and continues through the interior construction and finishing stage.

- Installation of interior mechanical, electrical, and plumbing systems continues during this stage and include installation of ventilation and air conditioning equipment and ducting, interior installation of electric lines, water supply and wastewater piping. Installation and testing of telecommunications, security, and life safety systems also occurs along with the construction of interior walls systems and interior finishes (e.g., flooring and painting).

To mitigate potential air quality impacts during construction, BMPs would be specified for site construction activities. Such practices include using properly maintained equipment, limiting unnecessary idling of diesel-powered engines, using tarp covers on trucks transporting materials, periodically wetting unpaved surfaces to suppress dust, and prohibiting open burning of construction wastes onsite. Restoration of the ground surface by the introduction of grass or native ground-cover following completion of construction would further minimize fugitive dust emissions.

Systems for hot water and HVAC would be the primary source of potential air quality impact during housing unit operation. The final choice of fuel would be determined by fuel availability, costs, and other considerations, however, the volume of combustion emission by-products from housing unit operation would not pose a significant adverse air quality impact.

Other than selecting energy-efficient equipment that meets applicable permitting and emission control standards, no mitigation measures are warranted during housing unit operation. Potential air quality impacts during operation would be minimized by designing and constructing the housing unit to be energy-efficient, thereby minimizing the use of fossil fuels and the potential emission of air pollutants.

3.3.10 Noise

According to Hawaii Administrative Rules (HAR), Title 11 Chapter 46, Community Noise Control, "noise" is any sound that may produce adverse physiological effects or interfere with individual or group activities, including, but not limited to, communication, work, rest, recreation, or sleep. "Noise pollution" means noise emitted from any excessive noise source in excess of the maximum permissible sound levels. The accepted unit of measure for noise levels is the decibel (dB) because it reflects the way humans perceive changes in sound amplitude. Sound levels are easily measured, but human response and perception of the wide variability in sound amplitude is subjective.

Sound may be described in terms of intensity or amplitude (measured in dB), frequency or pitch (measured in Hertz or cycles per second), and duration (measured in seconds or minutes). The standard unit of measurement of the intensity of sound is the dB. Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale is used to relate noise to human sensitivity. The A-weighted decibel scale (dBA) is most commonly used for community noise measurements, as it most closely resembles human perception of noise by weighting the most audible frequencies more heavily. The dBA scale is logarithmic; in other words, a noise difference of 3 dBA is barely perceptible to the human ear, while a difference of 10 dBA is perceived as twice as loud. Time duration also affects the perception of noise; that is, whether the noise is sudden, intermittent, occasional, or continuous.

Noise is emitted from many sources including aircraft, industrial facilities, railroads, power generating stations, and motor vehicles. Among the most common, motor vehicle noise is usually a composite of noises from engine, exhaust and tire-roadway interaction. Noise is known

to have adverse health effects on people, including hearing loss, speech interference, sleep interference, physiological responses, and annoyance. Most individuals in urbanized areas are exposed to fairly high noise levels from many sources as they go about their daily activities.

The degree of disturbance or annoyance of unwanted sound depends on several key factors: the amount and nature of the intruding noise; the relationship between background noise and the intruding noise; and the type of activity occurring where the noise is heard. In considering the first of these factors (the amount and nature of the intruding noise), it is important to note that individuals have different sensitivities to noise. Loud noises bother some individuals more than others and some patterns of noise also enter into an individual's judgment of whether or not a noise is offensive. For example, noises occurring during sleeping hours are usually considered to be more of a nuisance than the same noises during daytime hours.

With regard to the second factor (the relationship between background noise and the intruding noise), individuals tend to judge the annoyance of an unwanted noise in terms of its relationship to noise from other sources (background noise). For instance, the use of a car horn at night when background noise levels are typically about 45 dBA, would generally be more objectionable than the use of a car horn in the afternoon when background noises are likely to be 60 dBA or higher.

The third factor (the type of activity occurring where the noise is heard) is related to the interference of noises with the activities of individuals. In a 60 dBA environment, normal work activities requiring high levels of concentration may be interrupted by loud noises, while activities requiring manual effort may not be interrupted to the same degree.

Several descriptors exist to help predict average community perceptions of noise. A noise descriptor, which provides a common basis to characterize the variability of noise, is the equivalent noise level (Leq). The Leq is a sound energy level averaged over a specified time period (usually 1 hour). Leq is a single numerical value that represents the amount of variable sound energy received by a receptor during the time interval. The day-night equivalent sound level (Ldn) is the Leq measured over a 24-hour period. However, a 10-dB penalty is added to the noise levels recorded between 10:00 p.m. and 7:00 a.m. to account for people's higher sensitivity to noise at night when the background noise level is typically lower. The Ldn is a commonly used noise descriptor in assessing land use compatibility and is widely used by federal, state, and local agencies and standards organizations.

Noise Standards

Various federal, state and local agencies have established guidelines and standards for assessing environmental noise impacts and set noise limits as a function of land use. In this case, the most important and applicable guidelines are the State of Hawaii Community Noise Control Rule (HAR Chapter 11-46). The Community Noise Control Rule defines three classes of zoning districts and specifies corresponding maximum permissible sound levels due to stationary noise sources such as air-conditioning units, exhaust systems, generators, compressors, pumps, among others. The Community Noise Control Rule does not address most moving sources, such as vehicular traffic noise, aircraft noise, or rail transit noise which are regulated by the Hawaii Department of Transportation (HDOT). However, the Community Noise Control Rule does regulate noise related to agricultural, construction, and industrial activities, which may not be stationary.

The maximum permissible noise levels for stationary mechanical equipment are enforced by the Hawaii Department of Health (DOH) for any location at or beyond the property line and shall not be exceeded for more than 10 percent of the time during any 20-minute period. The specified

noise limits that apply are a function of the zoning and time of day as shown in Table 3-11. With respect to mixed zoning districts, the rule specifies that the primary land use designation shall be used to determine the applicable zoning district class and the maximum permissible sound level. In determining the maximum permissible sound level, the background noise level is taken into account by Hawaii DOH.

Table 3-11: Maximum Permissible Sound Levels

Zoning District	Daytime (7:00 a.m. to 10:00 p.m.)	Nighttime (10:00 p.m. to 7:00 a.m.)
Class A	55 dBA	45 dBA
Class B	60 dBA	50 dBA
Class C	70 dBA	70 dBA

HAR, Department of Health, Chapter 46, Community Noise Control.

Note: Class A zoning districts include all areas equivalent to lands zoned residential, conservation, preservation, public space, Open space, or similar type. Class B zoning districts include all areas equivalent to lands zoned for multi-family dwellings, apartment, business, commercial, hotel, resort, or similar type. Class C zoning districts include all areas equivalent to lands zoned agriculture, country, industrial, or similar type.

According to the Hawaii DOH Noise Reference Manual, an approved Community Noise Permit is required for construction projects exceeding 78 dBA or that have a total cost of more than $250,000. Construction is allowed from 7:00 a.m. to 6:00 p.m., Monday through Friday and 9:00 a.m. to 6:00 p.m. on Saturdays. The use of certain demolition and construction equipment (such as pile drivers, hydraulic hammers, and jackhammers) shall be limited to 9:00 a.m. to 5:30 p.m., Monday through Friday. Construction activities exceeding the maximum permissible sound levels before 7:00 a.m. and after 6:00 p.m., Monday through Friday, or before 9:00 a.m. and after 6:00 p.m. on Saturdays, or at any time on Sundays and holidays are only allowed with an approve Community Noise Variance.

Community Response to Changes in Noise Levels

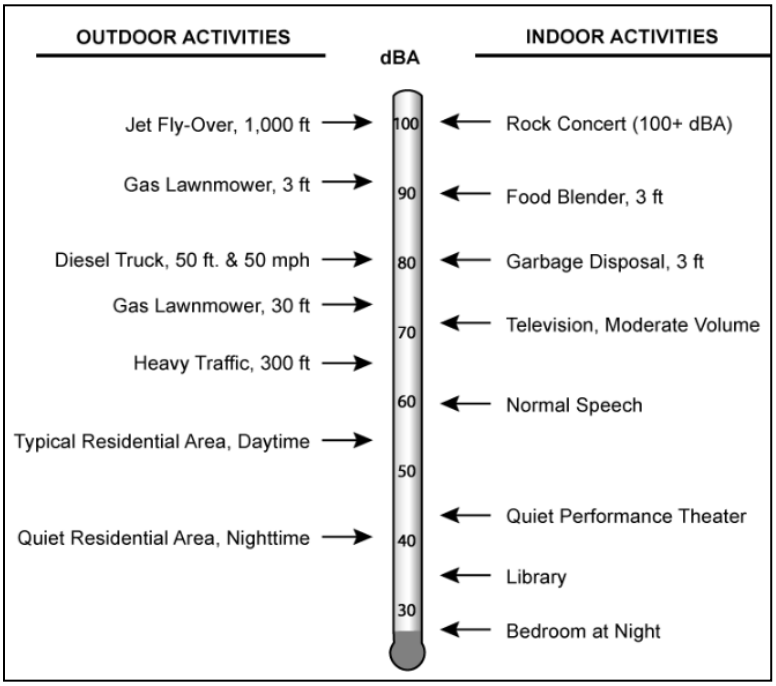
Human sensitivity to changes in sound pressure level is highly individualized. Sensitivity to sound depends on frequency content, time of occurrence, duration, and psychological factors such as emotions and expectations. However, the average ability of individuals to perceive changes in noise levels is well documented and has been summarized in Table 3-12. These guidelines permit direct estimation of an individual's probable perception of changes in noise levels.

Noise in a community can come from man-made sources, such as automobiles, trucks, buses, aircraft, and construction equipment, and from industrial, commercial, transportation, and manufacturing facilities. Exhibit 3-10 presents typical activities, noise levels, and effects that they have on humans. Noise levels, which are measured in units called decibels (dB), relate the magnitude of the sound pressure to a standard reference value. Although the noise values of certain activities can approach 135 dB, sounds typically encountered in the environment range from 50 to 100 dB.

Table 3-12: Average Ability to Perceive Changes in Noise Level

Sound Level Change (dB)	Human Perception of Sound
0	Imperceptible
3	Barely Perceptible
6	Clearly Noticeable
10	Two Times (or one-half) as Loud
20	Four Times (or one-quarter) as Loud

Source: D.L. Adams Associates, Ltd., 2015.



Sources: FTA, 1995, ATS Consulting, 2005.

Exhibit 3-10: Common Indoor and Outdoor Noise Levels

Existing Conditions

A survey of the existing noise environment and noise-sensitive receptors was conducted via field visits to KCCC together with a review of adjacent and nearby land uses. The general area surrounding KCCC is largely undeveloped with the few uses being agriculture and the Wailua Golf Course (across Kuhio Highway). Noise sources and levels in the vicinity of KCCC are attributed primarily to background noise from truck and automobile traffic along Kuhio Highway. Intermittent and temporary noise is also experienced from occasional wildlife calls and overhead aircraft activity, as airplanes arrive and depart Lihue Airport. No noise-sensitive receptors are located in the vicinity of KCCC.

Potential Impacts and Mitigation Measures

Under the No Action Alternative, the proposed inmate housing unit would not be developed at KCCC. KCCC would remain in its current condition, and noise levels would not be affected. In the absence of impacts, mitigation measures would not be necessary.

Under the preferred alternative, the proposed inmate housing unit would be developed at KCCC. Potential noise impacts can be divided into two categories: construction impacts and operational impacts, each of which is discussed below.

Construction Impacts

Construction of the proposed housing unit would result in temporary noise impacts in the immediate vicinity of the building site. The magnitude of the potential impacts would depend on the specific types of equipment to be used, construction methods employed, and scheduling and duration of the construction work. These details are typically not specified in contract documents but are at the discretion of the construction contractor to provide the necessary flexibility to use equipment and personnel to accomplish the work on schedule and minimize costs. However, general conclusions concerning potential noise impacts can be drawn based on the nature, scope, and scale of the work being proposed and the types of equipment needed.

Increased noise levels may result from the use of construction equipment. Construction activities would include site preparation, construction of the housing unit, installation of walkways and access drive, utility connections and similar activities. These activities are expected to largely involve use of handheld power tools typical of residential construction projects with heavy construction equipment, which can produce high levels of noise, limited to foundation and concrete pad installation, building construction, and underground utility pipe trenching.

Construction noise would last for only the duration of the construction period. It is generally intermittent and depends on the type of operation, location and function of the equipment being employed and the equipment usage cycle. Such noise also attenuates quickly with the distance from the source. Potential construction-related noise levels of 85 to 90 dBA at 50 feet from the noise source would be reduced to less than 62 dBA at 2,000 feet from the source. Because of the relatively small scale of the project, noise resulting from construction is not anticipated to have a significant adverse effect on the adjoining land uses, which are not noise sensitive. Following completion of construction, noise levels would return to current levels.

Noise impacts during the construction phase would be mitigated by confining construction activities to normal working hours, completing the work in a timely fashion, and adhering to State of Hawaii regulations governing community noise control. In the unlikely event that construction activities need to be performed outside normal business hours, application for a noise variance permit maybe necessary.

Operational Impacts

Noise occurring during occupancy and use of the proposed housing unit is not expected to result in significant adverse impacts. The absence of noise-producing equipment and activities should result in post-construction noise conditions that are similar to pre-construction conditions. Any increase in noise during occupancy and use would be slight and virtually imperceptible over the background noise associated with motor vehicle traffic using Kuhio Highway, aircraft flyovers, and similar activities.

Because of the lack of significant potential noise impacts during operations, and the background noise levels currently resulting from motor vehicle traffic, occasional aircraft flyovers, and similar activities, no mitigation measures to control noise resulting from operation of the proposed project are warranted.

3.4 Summary of Any Significant Impacts and Required Mitigation

Construction and operation of an inmate housing unit at KCCC would result in less than significant impacts on topography, geology, soils, water resources, biological resources, hazardous materials, fiscal considerations, demographic, economic and housing characteristics, traffic, meteorological conditions, air quality and noise levels. Development would occur within a floodplain but would be mitigated as required. Development of the proposed housing unit would result in beneficial impacts by helping to alleviate the persistent and severe crowding that has existed at KCCC for many years.

Development and operation of the inmate housing unit would have negligible adverse impacts on physical, biological, and socioeconomic resources. Impacts on topography, geology, soils, water resources, biological resources, hazardous materials, fiscal considerations, demographic, economic and housing considerations, land use, utility services, archaeological and architectural resources, traffic and transportation movements, cultural resources, air quality and noise levels are not anticipated and if occurred, would be negligible. Even minimal impacts would be mitigated as appropriate.

Beneficial impacts would be derived from the proposed action including contributions toward fulfilling the PSD mission to provide public protection by operating humane and secure facilities in a safe working environment, where the health and well-being of the inmates are sustained, and opportunities are available to address issues related to their reintegration back into the community. Beneficial impacts would also occur by provision of more beds at KCCC to alleviate the crowded conditions. Implementation of the proposed action would result in no significant adverse impacts as defined by Hawaii Revised Statutes. Any potential adverse cumulative, secondary and construction-related impacts would be controlled, mitigated, or avoided to the maximum extent possible.

3.5 Relationship between Short-Term Use of the Environment and the Maintenance and Enhancement of Long-Term Productivity

Regulations for the preparation of environmental impact studies require such documents to address the relationship between short-term use of the environment and the maintenance of long-term productivity. In this instance, following ground-breaking, the project site would be used as a construction site. Construction would involve ground clearing and excavating, the erection of the housing unit structure, trenching for utility installations, paving of an internal access/fire protection driveway, among other similar activities. A temporary increase in noise levels, increased dust, and similar construction impacts can be anticipated, however, these impacts would be brief and minor and should be easily controlled to minimize their effects and to avoid significant adverse impacts.

Potential short-term impacts and inconveniences must be contrasted with the benefits realized by implementing the proposed project. Beneficial impacts would be derived from the proposed action including contributions toward fulfilling the PSD mission to provide public protection by operating humane and secure facilities. Beneficial impacts would also occur by providing medium security beds at KCCC; beneficial impacts would be long-term.

3.6 Irreversible and Irretrievable Commitments of Resources

Construction of the proposed inmate housing unit would result in both direct and indirect commitments of resources. In some cases, the resources committed would be recovered in a relatively short period of time. In other cases, resources would be irreversibly or irretrievably committed by virtue of being consumed or by the apparent limitlessness of the period of their commitment to a specific use. Irreversibly and irretrievable commitments of resources can sometimes be compensated for by the provision of similar resources with substantially the same use or value.

In this instance, land comprising the housing unit structure would be considered irretrievably committed. The proposed action would also require the commitment of various construction materials including cement, aggregate, and other building materials. Much of the material dedicated to construction may be recycled at some future date. The proposed project would require the use of an amount of fossil fuel, electrical power, and other energy resources during construction and occupancy/use. These should also be considered irretrievably committed to the project.

3.7 Consideration of Secondary and Cumulative Impacts

HRS, Chapter 343 require an assessment of cumulative impacts in the decision-making process. Other actions that when added to the impact of the proposed action could include continuing residential and commercial development of Kauai, the growing demand for utility services on the island, and the development and use of the proposed housing unit at KCCC. As described in the preceding sections, development and occupancy of the inmate housing unit (the preferred alternative) would not have a significant adverse impact to the resource areas discussed. Any potential impacts from implementing the proposed action would be mitigated as appropriate. Because the proposed action would not have a significant impact to environmental, cultural, and socioeconomic resources and because any potential impacts would be mitigated, when this action is combined with other actions in the area, no significant cumulative impacts would occur.

3.8 Summary of Impacts

Based on the analysis presented in this Draft EA, the proposed action (preferred alternative) is not expected to result in significant impacts on environmental, cultural, or socioeconomic resources. Table 3-13 presents a summary of impacts under each alternative.

Table 3-13: Summary of Impacts

Resource	No Action Alternative	Preferred Alternative
Topography	The proposed housing unit would not be developed; therefore, impacts on topographic conditions would not occur.	Development and operation of the housing unit would not require significant regrading or alteration of the existing topography other than to ensure the structure is above the flood elevation. Impacts on topographic conditions would be negligible.

Resource	No Action Alternative	Preferred Alternative
Geology	The proposed housing unit would not be developed; therefore, impacts on geologic resources would not occur.	Development and operation of the proposed housing unit would not result in disturbance or alteration of natural geologic features and conditions. Significant adverse impacts on geologic conditions are not anticipated.
Soils	The proposed housing unit would not be developed; therefore, impacts on soils would not occur.	Given that the area of KCCC has been altered by previous development, construction of the proposed housing unit would not be expected to result in significant adverse impacts on soils.
Water Resources	The proposed housing unit would not be developed; therefore, impacts on water resources would not occur.	Several surface water drainage ditches adjoin and bisect the KCCC property. A slight increase in impervious surface would result from the proposed project and therefore, a slight increase in storm water runoff is anticipated. Development of the housing unit would not be expected to result in potentially significant adverse impacts on water resources.
Biological Resources	The proposed housing unit would not be developed; therefore, impacts on biological resources would not occur.	Onsite land cover consists of primarily of bare earth, grass and occasional agricultural products with surrounding areas devoted primarily to institutional (i.e., correctional), conservation, agricultural, and commercial/recreation uses. Development of the housing unit would avoid disturbance to native vegetation and significant adverse impacts on wildlife and habitats would be avoided. Common (non-special status) wildlife species would displaced due to the increase in human activity during construction and later occupancy and use of the housing unit.
Archaeological and Architectural Resources	The proposed housing unit would not be developed; therefore, impacts to archaeological and architectural resources would not occur.	No known archaeological resources or historic structures exist on the proposed site of the housing unit. The avoidance of TS 2571-01 and development of an unanticipated discovery plan would mitigate any potential impacts.
Cultural Resources	The proposed housing unit would not be developed; therefore, impacts on cultural resources would not occur.	No significant cultural resource impacts are anticipated as a result of the proposed project.

Resource	No Action Alternative	Preferred Alternative
Visual and Aesthetic Resources	The proposed housing unit would not be developed; therefore, impacts on visual and aesthetic resources would not occur.	Impacts on visual and aesthetic resources would be short-term during construction as the introduction of construction equipment would alter the aesthetic features and characteristics of the building site. During operation, long-term impacts would occur from development of the housing unit at KCCC. The structure would be generally compatible with its surroundings resulting in only minor impacts during operation.
Hazardous Materials	The proposed housing unit would not be developed; therefore, impacts associated with hazardous materials would not occur.	No known issues involving hazardous materials at the proposed development site; therefore, no adverse impacts involving hazardous materials are anticipated as a result of the proposed project.
Fiscal Considerations	The proposed housing unit would not be developed; therefore, impacts associated with fiscal considerations would not occur.	Lands comprising KCCC are under state ownership and control and consequently have not contributed tax revenues or similar payments throughout the period of state ownership. Development of the proposed housing unit would not affect the current ownership arrangement and, therefore, pose no adverse impacts on fiscal conditions for the State of Hawaii or Kauai County.
Natural Hazards	The proposed housing unit would not be developed; therefore, impacts associated with natural hazards would not occur.	The entire KCCC property is located in the FEMA designated 100-year floodplain and occasionally experiences flooding. As a result, the proposed housing unit would be constructed at a higher elevation to mitigate development in a floodplain. Construction of the housing unit must conform to applicable county flood control regulations and ordinances which may require that finished floor elevations to be above the flood elevation for developments in the floodplain and for the structures to be able to resist flood forces. No other natural hazards pose risk to development and occupancy of proposed housing unit.

Resource	No Action Alternative	Preferred Alternative
Demographic Characteristics	The proposed housing unit would not be developed; therefore, impacts on demographic characteristics would not occur.	The proposed unit would house up to approximately 144 inmates currently held at KCCC, thereby posing no change (increase or decrease) to the KCCC inmate population or the county's total population. No population groups or businesses would be relocated or removed and no sensitive population groups (e.g., other children, minorities, seniors, and handicapped) would be adversely affected. No significant adverse demographic impacts are anticipated.
Economic Characteristics	The proposed housing unit would not be developed; therefore, impacts on local and regional economic conditions would not occur.	Development of the proposed housing unit would require construction employment and materials purchases which would generate further spending while supporting indirect employment. The increased economic activity resulting from construction spending is considered beneficial to the island's economy and a positive impact. No businesses or other economic activities would be displaced or eliminated by the proposed project.
Housing Characteristics	The proposed housing unit would not be developed; therefore, impacts on housing markets would not occur.	Following development of the proposed housing unit, no change to the KCCC inmate population or the county's total population would occur. As a result, adverse impacts the island's housing market (i.e., housing availability, supply and cost) are not anticipated.
Community Services and Facilities	The proposed housing unit would not be developed; therefore, impacts on community services and facilities would not occur.	Construction-related activities are not expected to adversely affect law enforcement, fire protection, or emergency medical services and capabilities in the area. Public roadways leading to and from KCCC would remain open, accessible, and available for normal traffic movements at all times. Development of the proposed housing unit is not anticipated to place an undue burden on law enforcement, emergency medical or fire protection agencies and personnel currently serving residents, businesses, and public institutions in the Lihue area.

Resource	No Action Alternative	Preferred Alternative
Land Use and Zoning	The proposed housing unit would not be developed; therefore, impacts on land use and zoning would not occur.	The proposed action would have a direct impact on land use by transforming a small vacant portion of the KCCC property to inmate housing. The self-contained nature of KCCC would limit any potential direct impacts to the property itself with no adverse impacts on adjoining private and public properties or the values of such properties. Coordination would occur with the county planning office to address the use of lands zoned "Agricultural."
Water Supply Service	The proposed housing unit would not be developed; therefore, impacts on water supply services would not occur.	Under the proposed action, the inmate population at KCCC would not increase because the proposed inmate housing unit would accommodate inmates already housed at the facility. As a result, water supply services would not be affected.
Wastewater Service	The proposed housing unit would not be developed; therefore, impacts on wastewater collection and treatment services would not occur.	Under the proposed action, the inmate population at KCCC would not increase because the proposed inmate housing unit would accommodate inmates already housed at the facility. As a result, wastewater collection and treatment services would not be affected.
Electrical Service	The proposed housing unit would not be developed; therefore, impacts on electrical services would not occur.	Under the proposed action, the inmate population at KCCC would not increase because the proposed inmate housing unit would accommodate inmates already housed at the facility. As a result, electrical services would not be affected. PSD also has an electrical/mechanical repair and improvement Capital Improvement Program underway that is expected to better manage power demands through installation of energy efficient equipment and various upgrades at KCCC.
Natural Gas Service	The proposed housing unit would not be developed; therefore, impacts on gas service would not occur.	No natural gas distribution system is available in the area of KCCC. If additional gas service is needed, provision of increased bottled gas service to KCCC does not have any known limitations. Therefore, no adverse impacts on gas service are anticipated.
Telecommunication Services	The proposed housing unit would not be developed; therefore, impacts on tele-communication services would not occur.	The provision of telecommunications service to KCCC has no known limitations. Therefore, no adverse impacts on telecommunication services are anticipated.

Resource	No Action Alternative	Preferred Alternative
Solid Waste Service	The proposed housing unit would not be developed; therefore, impacts on solid waste management services would not occur.	Construction and operation of the proposed housing unit would generate solid waste requiring collection and disposal. Solid waste in varying quantities would be generated during construction of the housing unit. The disposal of construction-derived waste would be the responsibility of the construction contractors involved, although efforts will be made to sort, segregate, and recycle construction debris when possible. Solid waste generated during operation of the proposed housing unit would be accommodated by existing waste disposal services.
Transportation Systems	The proposed housing unit would not be developed; therefore, impacts on transportation systems would not occur.	A minimal (temporary) increase in traffic is anticipated resulting from the construction worker trips to and from KCCC and the movement of materials, supplies, and equipment along Kuhio Highway. All such traffic would end following completion of construction. Following development of the proposed housing unit, no change (increase or decrease) to the KCCC inmate population or the county's total population would occur and no significant adverse traffic impacts are expected.
Climate	The proposed housing unit would not be developed; therefore, impacts on meteorological conditions would not occur.	Construction and operation of the proposed inmate housing unit is not expected to alter the microclimatology of wind and temperature at KCCC. Due to its small scale relative to its environs, the proposed housing unit would not alter or affect the larger-scale climatology of the area or have a significant adverse impact on neighboring properties.
Air Quality	The proposed housing unit would not be developed; therefore, impacts on air quality would not occur.	Air quality would potentially be temporarily affected as a result of construction activities however, any such impacts would be considered negligible. No adverse impacts are anticipated during occupancy and operation.

Resource	No Action Alternative	Preferred Alternative
Noise	The proposed housing unit would not be developed; therefore, impacts on noise conditions would not occur.	Construction activities would result in temporary noise impacts in the immediate vicinity of the proposed housing unit. The magnitude of the potential impact would depend on the specific types of equipment to be used, the construction methods employed and the scheduling and duration of the work. However, any such impact would be considered slight and would end following completion of construction. Occupancy and operation of the proposed inmate housing unit is not expected to increase noise levels above current conditions.

4.0 RELATIONSHIP TO LAND USE PLANS, POLICIES, AND CONTROLS

4.1 Hawaii State Plan

The Hawaii State Plan, embodied in HRS, Chapter 226, serves as a guide for goals, objectives, policies and priorities for the State. The State Plan provides a basis for determining priorities, allocating limited resources, and improving coordination of State and County plans, policies, programs, projects and regulatory activities. The proposed project is consistent with the following State Plan objective and policies.

Sec. 226-11 Objectives and policies for the physical environment – land-based, shoreline, and marine resources.

(a) Planning for the State's physical environment with regard to land-based, shoreline, and marine resources shall be directed towards achievement of the following objectives:

(1) Prudent use of Hawaii's land-based, shoreline, and marine resources.

(2) Effective protection of Hawaii's unique and fragile environmental resources.

(b) To achieve the land-based, shoreline, and marine resources objectives, it shall be the policy of this State to:

(1) Exercise an overall conservation ethic in the use of Hawaii's natural resources.

(2) Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.

(3) Take into account the physical attributes of areas when planning and designing activities and facilities.

(4) Manage natural resources and environs to encourage their beneficial and multiple use without generating costly or irreparable environmental damage.

(5) Consider multiple uses in watershed areas, provided such uses do not detrimentally affect water quality and recharge functions.

(6) Encourage the protection of rare or endangered plant and animal species and habitats native to Hawaii.

(7) Provide public incentives that encourage private actions to protect significant natural resources from degradation or unnecessary depletion.

(8) Pursue compatible relationships among activities, facilities, and natural resources.

(9) Promote increased accessibility and prudent use of inland and shoreline areas for public recreational, educational, and scientific purposes.

Construction activities will involve land disturbing activities such as grubbing, clearing, grading, and excavation. However, various mitigation measures will be incorporated into the project's construction plans to minimize soil disturbance and potential short-term erosion and siltation impacts during construction. Excavation and grading activities associated with construction of the proposed inmate housing unit will be regulated by the County's grading ordinances.

A Department of the Army (DOA) Nationwide Permit, pursuant to Section 404 of the Clean Water Act and a Water Quality Certification, issued by the State Department of Health (DOH)

pursuant to Section 401 of the Clean Water Act may be required for construction work in waters of the U.S. For such work involving the adjoining ditch drainage system and freshwater emergent wetland, waters of the U.S. is defined as portions of the stream bed and banks below the ordinary high water mark (OHWM). In conjunction with the Section 404 permit and Water Quality Certification, a BMP plan will be prepared for construction activities within the project site. Erosion and sediment control measures will be instituted in accordance with a site-specific assessment and incorporate appropriate structural and/or non-structural BMPs such as appropriately stockpiling materials onsite to prevent runoff, covering or stabilizing topsoil stockpiles, using sediment basins and traps, and re-establishing vegetation or landscaping as early as possible on completed areas.

Sec. 226-105 Crime and criminal justice.

Priority guidelines in the area of crime and criminal justice:

(1) Support law enforcement activities and other criminal justice efforts that are directed to provide a safer environment.
(2) Target state and local resources on efforts to reduce the incidence of violent crime and on programs relating to the apprehension and prosecution of repeat offenders.
(3) Support community and neighborhood program initiatives that enable residents to assist law enforcement agencies in preventing criminal activities.
(4) Reduce overcrowding or substandard conditions in correctional facilities through a comprehensive approach among all criminal justice agencies which may include sentencing law revisions and use of alternative sanctions other than incarceration for persons who pose no danger to their community.
(5) Provide a range of appropriate sanctions for juvenile offenders, including community-based programs and other alternative sanctions.
(6) Increase public and private efforts to assist witnesses and victims of crimes and to minimize the costs of victimization. [L 1978, c 100, pt of §2; am L 1984, c 236, §17; am L 1986, c 276, §32]

PSD is committed to providing safe, secure, healthy, and humane social and physical environments for the care and custody of adult male and female offenders originating from the State of Hawaii. However, the severe and persistent crowding at all Hawaii jails has exacerbated physical plant operations, contributed to tension among inmates, and diminished treatment and program opportunities. Overall, jail facilities are operating well above their operational capacities and given long-standing conditions, alleviating crowding is an important priority for Hawaii's community correctional system. PSD plans to alleviate crowded conditions by adding a Medium Security Housing Unit at KCCC to accommodate inmates currently housed at the facility responds to these priority guidelines.

Sec. 226-108 Sustainability.

Priority guidelines and principles to promote sustainability shall include:

(1) Encouraging balanced economic, social, community, and environmental priorities;
(2) Encourage planning that respects and promotes living within the natural resources and limits of the State;
(3) Promote a diversified and dynamic economy;
(4) Encouraging respect for the host culture;
(5) Promoting decisions based on meeting the needs of the present without compromising the needs of future generations;
(6) Considering the principles of the ahupuaa system; and

(7) Emphasizing that everyone, including individuals, families, communities, businesses, and government, has the responsibility for achieving a sustainable Hawaii.

By developing the proposed housing unit at the existing KCCC, significant adverse environmental, social, and economic impacts would be avoided. Beneficial impacts would be derived from the proposed action including contributions toward fulfilling the PSD mission to provide public protection by operating humane and secure facilities in a safe working environment, where the health and well-being of the inmates are sustained, and opportunities are available to address issues related to their reintegration back into the community. Beneficial impacts would also occur by promoting sound long-term planning at the facility and within Hawaii's jail system.

4.2 State Land Use Districts

Chapter 205, Hawaii Revised Statutes, relating to the State Land Use Commission, establishes four major land use districts in which all lands in the State are placed. These districts are designated Urban, Rural, Agricultural, and Conservation. KCCC is located within the State Agricultural District (Exhibit 4-1).

The proposed action involves the use of a portion of the KCCC property in a manner not considered a permitted use within the State Agricultural District. PSD would coordinate with the State Land Use Commission and Kauai Planning Commission to obtain the necessary special use permits for this project. At the county level, this would require obtaining a Class IV Zoning permit to allow a special use as correctional uses are not generally permitted uses in the county Agricultural District.

Coordination would also occur with the State as, pursuant to Section 15-15-95, Administrative Rules of the Hawaii Land Use Commission, State Land Use Commission Rules provide that "unusual and reasonable" uses may be permitted in the Agricultural District. The proposed project is consistent with the guidelines for determining an "unusual and reasonable" use as follows:

Guideline: The use shall not be contrary to the objectives sought to be accomplished by Chapters 205 and 205A, HRS, and the rules of the Commission.

Response: The general intent of the State Land Use law is "to preserve, protect, and encourage the development of land in the State for those uses to which they are best suited in the interest of the public health and welfare of the State of Hawaii." The proposed project involves the development of an inmate housing structure to alleviate the current crowding. The proposed project would occur within the current KCCC property boundary and would be consistent with other existing uses currently occurring there, and therefore, would be consistent with the above-stated objectives.

Guideline: The desired use would not adversely affect surrounding property.

Response: The proposed housing unit site is located within the property boundary of the existing KCCC and would be compatible with other existing uses at KCCC. Containing this action within the existing property line would ensure that the surrounding areas would not be affected. As demonstrated in this EA, developing a single inmate housing unit on this site would not adversely affect the surrounding community.

Guideline: The use would not unreasonably burden public agencies to provide roads and streets, sewers, water drainage and school improvements, and police and fire protection.

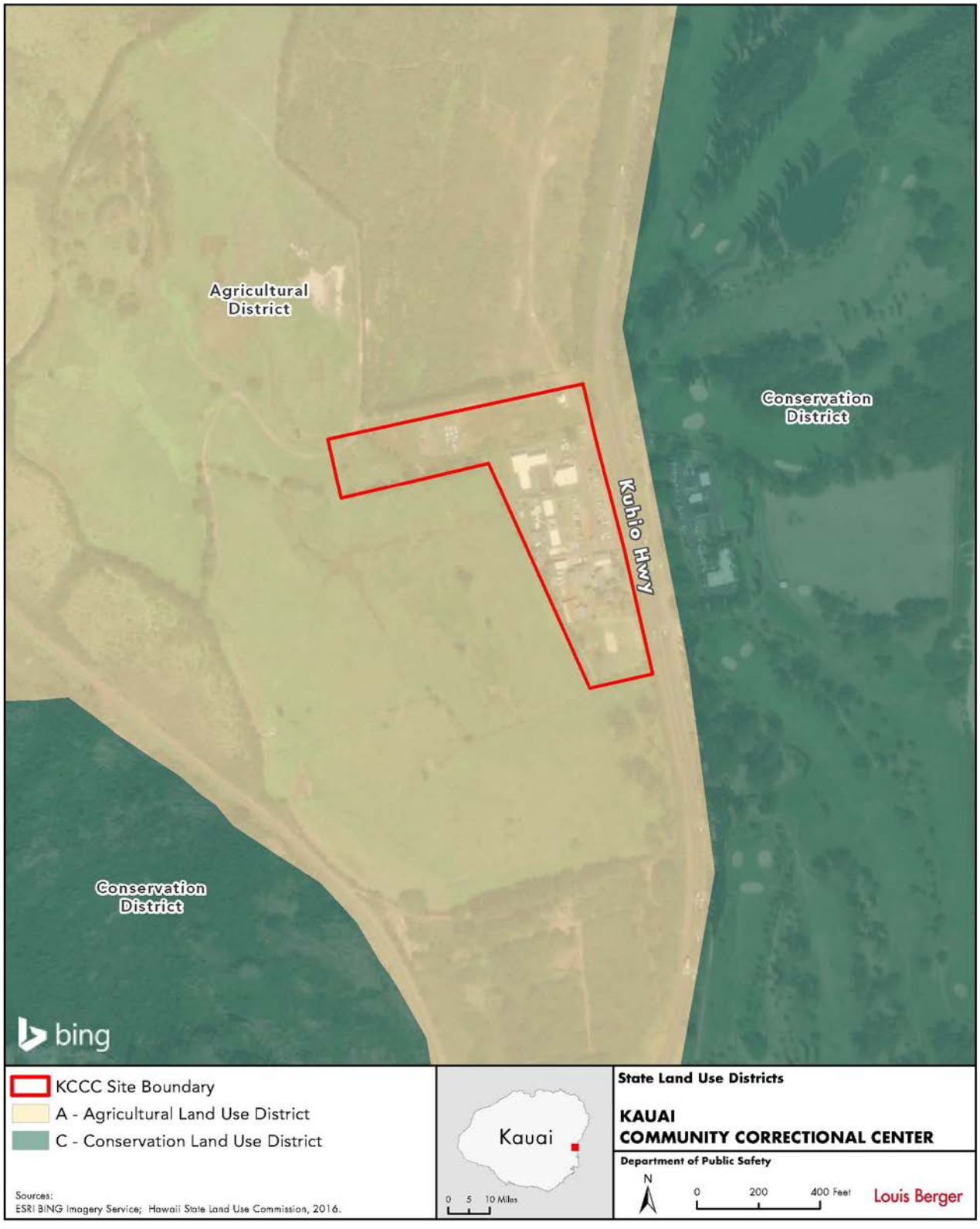


Exhibit 4-1: State Land Use Districts

Response: As described within the EA, all utility needs associated with the proposed inmate housing unit would be met by connection to public systems since the proposed housing project would not result in an increase or decrease in the overall KCCC inmate population. Development of the proposed project is not expected to pose any impacts on law enforcement, fire protection, public education, emergency medical, or other public services, or the local transportation network, as noted in this EA.

Guideline: Unusual conditions, trends, and needs have arisen since the district boundaries and rules were established.

Response: Undertaking the proposed project would address the need to alleviate the persistent and significant crowded conditions which exist at KCCC. The Medium Security Housing Unit is not intended to increase the inmate population at KCCC beyond its current number. Instead, inmates housed in cramped conditions and in spaces not well suited for inmates, would be accommodated in a housing unit designed and constructed to State of Hawaii and national standards. Development of the inmate housing unit at KCCC would help achieve a safe, secure, and humane environment for the care and custody of adult male and female offenders originating from the County of Kauai.

Guideline: The land upon which the proposed use is sought is unsuited for the uses permitted within the district.

Response: The proposed site of the inmate housing unit is located within the property boundaries of KCCC. Although it may be suited for agricultural uses, it does not function in this manner by virtue of its location.

4.3 General Plan of Kauai County

The General Plan states the county's vision for Kauai and establishes strategies for achieving that vision. The plan was approved in 2000 and provides guidance for land use regulations, the location and character of new development and facilities, and planning for county and state facilities and services. The plan states the County's 20-year vision for Kauai and sets policies for achieving that vision. Based on this, the vision of Kauai in 2020 is:

- A "garden island" of unsurpassed natural beauty;
- A rural environment of towns separated by broad open spaces;
- A vital modern society formed by the people and traditions of many cultures;
- An island of distinctly individual towns and communities, each with its own unique history and character;
- A community which values its historic places and where people practice and draw strength from ancient languages and cultural traditions;
- A rural place whose population size and economy have been shaped to sustain Kauai's natural beauty, rural environment and lifestyle;
- A community which cares for its land and waters, leading the way with BMPs in the development of roads and other public facilities and in its land development and environmental regulations;
- An agricultural center, producing a wide range of crops, food, and forest products for local consumption and export;

- A resort destination where visitors are welcomed, supported with adequate facilities, and provided with a variety of cultural and recreational opportunities;
- A resort destination whose government and industry leaders respect the island's residents and their need to have a community life where visitors are not always present and who find effective ways to protect residents' customary use of special places for religious and cultural observances, fishing, gathering, hunting and recreation; and
- An island whose government supports the labor force and small business owners, firmly holding to essential policies and regulations while eliminating unnecessary red tape.

This vision is to be achieved by planning for the future; caring for land, water, and culture; developing jobs and business; preserving Kauai's rural character; enhancing towns and communities and providing for growth; building public facilities and services, and improving housing, parks, and schools.

Constructing and operating an inmate housing unit meets the above vision by providing the inmate beds needed at KCCC within its existing property boundary. The overall inmate population at KCCC would not increase and therefore would not put additional demands on utilities, community services, or the transportation network and would not impede the County of Kauai from meeting the above-stated vision. Therefore, the proposed inmate housing project is considered to be consistent with the General Plan of the County of Kauai.

4.4 Kauai County Zoning

Kauai County's zoning ordinance establishes procedures for the division of the County into land use districts, and creates regulations for the types, size, placement, and control of structures within various zoning district classifications. The Zoning Ordinance also delineates the respective types of permitted uses and the development that can take place in those zoning districts.

Kauai County has zoned the KCCC property as Agricultural. Pursuant to Chapter 8, Article 7 of the Kauai County Code pertaining to the County Agricultural District, the proposed project is not considered a permitted use in this district. Accordingly, the proposed inmate housing unit would require the application for and approval of a Use Permit, Special Permit, and/or Class IV Zoning Permit.

4.5 Hawaii Coastal Zone Management Program

The Hawaii Coastal Zone Management Program (HCZMP), as formalized in Chapter 205A, HRS, establishes objectives and policies for the preservation, protection, and restoration of natural resources of Hawaii's coastal zone. As set forth in Chapter 205A, HRS, this section addresses the project's relationship to applicable coastal zone management considerations with each section stating its objective, followed by policies to meet that objective.

1. Recreational Resources: Provide coastal recreational opportunities accessible to the public.

(A) Improve coordination and funding of coastal recreational planning and management; and

(B) Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:

(i) Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;

(ii) Requiring replacement of coastal resources having significant recreational value including, but not limited to, surfing sites, fishponds, and sand beaches, when such resources will be unavoidably damaged by development; or requiring reasonable monetary compensation to the state for recreation when replacement is not feasible or desirable;

(iii) Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;

(iv) Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;

(v) Ensuring public recreational uses of county, state, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources;

(vi) Adopting water quality standards and regulating point and nonpoint sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;

(vii) Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing; and

(viii) Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, and county authorities; and crediting such dedication against the requirements of section 46-6.

Discussion: The proposed inmate housing unit is not anticipated to affect existing coastal recreational resources. Access to shoreline areas would remain unaffected by the proposed project as KCCC is located west of Kuhio Highway and not near the shoreline and any action that would occur at KCCC would not alter shoreline access.

2. Historic Resources: Protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.

(A) Identify and analyze significant archaeological resources;

(B) Maximize information retention through preservation of remains and artifacts or salvage operations; and

(C) Support state goals for protection, restoration, interpretation, and display of historic resources.

Discussion: The proposed inmate housing unit involves the construction on a previously disturbed portion of the overall KCCC property, with no known historic resources. Based on past disturbance at KCCC, the lack of known resources, and the minimal amount of ground disturbance that would occur, no impacts on archaeological and historic resources are expected.

3. Scenic and Open Space Resources: Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.

(A) Identify valued scenic resources in the coastal zone management area;

(B) Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;

(C) Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and

(D) Encourage those developments that are not coastal dependent to locate in inland areas.

Discussion: The proposed inmate housing unit at KCCC would be developed in a manner to ensure visual compatibility with the surrounding environs. The proposed inmate housing unit is not expected to impact coastal and scenic open space resources as construction of the housing unit would be limited to one to two stories in height, located within the existing property boundary of KCCC, and away from surrounding developments.

4. Coastal Ecosystems: Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.

(A) Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;

(B) Improve the technical basis for natural resource management;

(C) Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;

(D) Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs; and

(E) Promote water quantity and quality planning and management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and enhance water quality through the development and implementation of point and non-point source water pollution control measures.

Discussion: Development of the proposed inmate housing unit at KCCC is not expected to adversely impact coastal ecosystems. The amount of ground disturbance would be minimal, resulting only from use of the site as a construction staging area and for construction of the proposed inmate housing unit within an open, level, vacant area. For this minimal disturbance, appropriate design measures and BMPs for controlling surface runoff and the disposal of waste construction materials would be utilized to ensure that coastal water impacts are mitigated. Mitigation measures for soil erosion would be implemented during and following construction activities, where required and impacts on coastal ecosystems would not occur.

5. Economic Uses: Provide public or private facilities and improvements important to the State's economy in suitable locations.

(A) Concentrate coastal dependent development in appropriate areas;

(B) Ensure that coastal dependent development such as harbors and ports, and coastal related development such as visitor industry facilities and energy generating facilities, are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area; and

(C) Direct the location and expansion of coastal dependent developments to areas presently designated and used for such developments and permit

reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:

(i) Use of presently designated locations is not feasible;

(ii) Adverse environmental effects are minimized; and

(iii) The development is important to the State's economy.

Discussion: The proposed inmate housing project would support a limited under of short-term direct construction and construction-related jobs during the construction period. The proposed project would not substantially impact the local economy because these jobs are expected to be filled by existing Kauai County construction workers/residents. The proposed housing unit site does not border the shoreline and would not affect coastal development necessary to the State's economy. The proposed project is in keeping with the land use patterns established at KCCC because the project area is already developed for correctional uses.

6. Coastal Hazards: Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.

(A) Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and non-point source pollution hazards;

(B) Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and non-point source pollution hazards;

(C) Ensure that developments comply with requirements of the Federal Flood Insurance Program; and

(D) Prevent coastal flooding from inland projects.

Discussion: The proposed inmate housing unit site at KCCC lies within Zone A, which represents an area within the 100-year floodplain. As described in the EA, mitigation measures, such as elevating the housing unit would be undertaken to address issues related to the floodplain. It is noted that significant changes in drainage patterns are not anticipated with the construction of the housing unit and no adverse drainage impacts on surrounding properties are anticipated.

7. Managing Development: Improve the development review process, communication, and public participation in the management of coastal resources and hazards.

(A) Use, implement, and enforce existing law effectively to the maximum extent possible in managing present and future coastal zone development;

(B) Facilitate timely processing of applications for development permits and resolve overlapping or conflicting permit requirements; and

(C) Communicate the potential short and long-term impacts of proposed significant coastal developments early in their life cycle and in terms understandable to the public to facilitate public participation in the planning and review process.

Discussion: This Draft EA has been prepared for public review in compliance with HRS, Chapter 343, Title 11 Administrative Rule. In addition, applicable state and county requirements would be adhered to in the design and construction of the proposed inmate housing unit at KCCC.

8. Public Participation: Stimulate public awareness, education, and participation in coastal management.

(A) Promote public involvement in coastal zone management processes;

(B) Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal issues, developments, and government activities; and

(C) Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.

Discussion: As described earlier, public information and outreach activities were carried out during preparation of the Draft EA. Opportunities to comment will also occur through the Draft EA process.

9. Beach Protection: Protect beaches for public use and recreation.

(A) Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and minimize loss of improvements due to erosion;

(B) Prohibit construction of private erosion-protection structures seaward of the shoreline, except when they result in improved aesthetic and engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities; and

(C) Minimize the construction of public erosion-protection structures seaward of the shoreline.

Discussion: Development of the proposed inmate housing unit would have no impact to shoreline activities. KCCC is not located adjacent to the coast; no adverse impacts on beaches are expected.

10. Marine Resources: Promote the protection, use, and development of marine and coastal resources to assure their sustainability.

(A) Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;

(B) Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency;

(C) Assert and articulate the interests of the State as a partner with federal agencies in the sound management of ocean resources within the United States exclusive economic zone;

(D) Promote research, study, and understanding of ocean processes, marine life, and other ocean resources to acquire and inventory information necessary to understand how ocean development activities relate to and impact upon ocean and coastal resources; and

(E) Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources. [L 1977, c 188, pt of §3; am L 1993, c 258, §1; am L 1994, c 3, §1; am L 1995, c 104, §5; am L 2001, c 169, §3]

Discussion: The proposed inmate housing unit at KCCC would not adversely impact ocean resources and would not affect marine and coastal resources because the site of the proposed housing unit is not located adjacent to or in the vicinity of these resources.

4.6 Kauai County Special Management Area

The Hawaii Coastal Zone Management Act (Chapter 205, HRS) is the basis for the Hawaii CZM Program. In addition to providing Federal Consistency Review, the Act establishes objectives, policies, and guidelines on which all counties within the State have structured specific legislation which designated Special Management Areas (SMA). Any development within the SMA requires a County-issued SMA permit, which on Kauai is administered by the Kauai County Planning Department. Through the SMA permit system, the County assesses and regulates developments proposed for areas located within the SMA. The site of the proposed KCCC inmate housing unit is located outside the County's SMA (Exhibit 4-2).

4.7 Anticipated Permits and Approvals

The following list of permits and approvals may be required prior to construction of the proposed project:

FEDERAL

Department of the Army Nationwide Permit pursuant to Section 404 of the Clean Water Act

STATE OF HAWAII

Hawaii Department of Health

- Approval to Construct
- Approval to Use
- Community Noise Permit (if required)
- National Pollutant Discharge Elimination System Construction Stormwater Permit

Hawaii Department of Land and Natural Resources

- Chapter 6E, HRS Historic Preservation

Office of Planning

- Coastal Zone Management Consistency

COUNTY OF KAUAI

- Use Permit
- Special Permit
- Class IV Zoning Permit
- Plan Approval
- Grading Permit
- Building Permit
- Fence Permit
- Floodplain Permit

Additional information is included in Appendix F, KCCC Secure Housing Project—Schematic Design Report.



Exhibit 4-2: Special Management Area

5.0 ANTICIPATED DETERMINATION

Significance Criteria, Section 12 of the Hawaii Department of Health Administrative Rules, Title 11, Chapter 200, was reviewed and analyzed to determine whether the proposed project would have significant impacts on the environment. Based on the significance criteria, it is anticipated that the proposed project will not have a significant effect on the environment, and that a FONSI will be filed with the State OEQC following the public consultation period. The reasons supporting this anticipated determination are described below according to these significance criteria.

1. Involves an irrevocable commitment to loss or destruction of any natural or cultural resource.

   Development of the proposed project will require an irrevocable commitment of energy, labor, capital, and materials for construction. Land has been utilized for roadway and drainage purposes for decades and will continue to be used for those purposes for an indefinite period of time.

   As detailed in the Draft EA, the proposed project would not result in any significant adverse environmental impacts. None of the plant species recorded in the biological survey are endemic and none are listed as endangered or threatened or proposed for inclusion as a listed species by federal or state agencies. No aquatic species protected by State of Hawai'i Administrative Rules, nor federally endangered or threatened species were observed in or around the proposed project site. Furthermore, the site evaluated for the proposed housing unit is located adjacent to the main correctional center compound and does not provide significant wildlife habitat. Under the proposed action there would be minimal impacts on wildlife in the area.

   As a result of past development of the KCCC campus, it is unlikely that the site has any archaeological sites, features, human burials, or subsurface deposits. Development at the adjacent golf course, however, has revealed burials in the area and, because of this, it is recommended that PSD take a proactive approach to the potential discovery of human burials by developing an unanticipated discovery plan that includes procedures if human remains are encountered. If any previously unidentified burial, archaeological, or historic sites are found during the course of construction, the Contractor will stop work in the immediate vicinity and the SHPD will be notified immediately to determine appropriate mitigation measures.

   No ongoing traditional gathering or hunting practices have been reported within the project area itself. The KCCC property has been in use as a correctional facility since 1977. Access to traditional resources will not be affected by development of the proposed housing unit. It is anticipated that the proposed project will have no adverse impact on traditional cultural properties or practices, gathering rights, or access.

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

   The intention of the proposed project is to commit the project site to the proposed inmate housing unit use over the long-term. The proposed project and the commitment of land resources would not curtail the range of beneficial uses of the environment. Under the preferred alternative, the action would have beneficial impacts by converting vacant state-owned property to a productive use.

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

   The proposed project would not have a significant impact to the environment and does not conflict with the State of Hawaii's long-term environmental policies, goals, and guidelines. As presented in this Draft EA, the project's potential adverse impacts are associated only with short-term construction-related activities and can be mitigated through adherence to standard construction mitigation practices.

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

   In the short-term, the proposed project will confer positive benefits in the local area. Direct economic benefits will result from construction expenditures both through the purchase of material from local suppliers and through the employment of local labor, thereby stimulating that sector of the economy. Indirect economic benefits may include benefits to local retailing businesses resulting from construction activities.

   Over the long-term, the proposed project would support the local economy through the continued purchases of goods and services from local merchants and service providers. Furthermore, beneficial impacts would be derived by fulfilling PSD's mission to provide public protection by operating humane and secure facilities in a safe working environment, where the health and well-being of the inmates are sustained and opportunities are available to address issues related to their reintegration back into the community.

   Beneficial impacts would also occur by providing a sufficient number of beds in an appropriate setting to address the current severely crowded conditions; *provision of such housing is not intended to increase the population of KCCC beyond its current number.* Instead, medium security inmates housed in cramped conditions and in spaces not well suited for inmates, would be accommodated in a modern housing unit designed and constructed to State of Hawaii and national standards. The proposed project is not expected to increase traffic or induce growth in the Lihue area.

   No ongoing traditional gathering or hunting practices occurring within the KCCC project area has been reported, and the proposed project is not anticipated to have an adverse impact on traditional cultural properties or practices, gathering rights, or access.

5. Substantially affects public health.

   During both construction and operation of the proposed inmate housing unit, no adverse impacts on the public's health and welfare are anticipated. Public health, welfare and safety or enhanced by operating a humane and secure jail facility in an overall safe working environment, where the health and well-being of the inmates and staff are properly considered.

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

   No substantial secondary effects are anticipated with the construction and operation of the proposed project. The proposed project is not anticipated to induce growth beyond that which is already anticipated for the region and should not influence future populations and land use patterns in the area of Līhue. Rather, the housing unit is proposed to fulfill an essential community need to provide a humane and secure jail facility where the health and well-being of inmates and staff are considered.

Provision of such housing is not intended to increase the inmate population at KCCC beyond its current number. Instead, inmates housed in cramped conditions and in spaces not well suited for inmates would be accommodated in the housing unit. As a result, no additional PSD employees are anticipated to manage the inmate population. Therefore, no significant changes to Kauai County's population are expected to result. From a land use perspective, the proposed project would maximize use of a publicly owned property.

Solid waste generated during construction of the proposed housing unit would be managed and disposed of in accordance with *A Contractor's Waste Management Guide* developed by the Hawaii Department of Business, Economic Development, and Tourism. Wastes generated during construction would be stored onsite in an enclosed container until collected and transported by licensed haulers to the appropriate disposal and recycling facilities.

The future population of inmates at KCCC following development is not expected to be greater than the current population, hence, the demand for utility services (i.e., water supply, wastewater treatment, power, telecommunications, and solid waste) required during operation would be no greater than currently experienced at KCCC. Any proposed service improvements or extensions would be coordinated with the appropriate governmental agencies and would be designed in accordance with applicable regulatory standards. Surface runoff from the proposed project would not be expected to increase substantially over current conditions. Adverse impacts on public services such as police and fire protection, education, and medical care are not anticipated.

7. Involves a substantial degradation of environmental quality.

   The proposed project is not anticipated to involve a substantial degradation of environmental quality. During construction, there would be short-term air quality and noise impacts. In the long-term, impacts on these resources would not be significantly higher than current ambient levels. With the incorporation of mitigation measures during construction, the project will not result in long-term degradation to environmental quality.

   The project, during operation, is not anticipated to significantly affect the open space and scenic character of the area which is already developed with a correctional institution. It is not expected that the proposed action would result in significant impacts. Therefore, no substantial degradation of environmental quality resulting from the project is anticipated.

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

   Implementation of the proposed project would have no significant impact to the resource areas discussed. Potential impacts from implementing the proposed project would be mitigated as appropriate. Because the proposed project would not have a significant impact to environmental, cultural, and socioeconomic resources and because potential impacts would be mitigated, when this action is combined with other actions in the area, no significant cumulative impacts would occur.

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

   No rare, threatened, or endangered species or their habitats were located on the KCCC property and due to past disturbance, no natural habitat exists. None of the plants recorded in the biological survey are endemic and none are listed as endangered or threatened or proposed for inclusion as a listed species by federal or state agencies. No aquatic species protected by State of Hawaii Administrative Rules, nor federally endangered or threatened species were observed within the project area. BMPs implemented during construction will help to mitigate possible adverse air, noise, soil or

water quality impacts. The project will not adversely affect any rare, threatened or endangered species, or its habitat.

10. Detrimentally affects air and water quality or ambient noise levels.

    During construction, equipment operation would temporarily elevate ambient noise and concentrations of exhaust emissions in the immediate vicinity of the project site. To minimize air quality impacts during construction, dust control measures would be implemented to minimize wind-blown emissions. Noise impacts from construction would be minimized by limiting construction activities to daylight weekday hours and by following all applicable regulations. In the long-term, operation of the proposed project will have no significant long-term impact on air quality or ambient noise levels in the vicinity of KCCC.

    Potential water quality impacts during construction will be mitigated by adherence to Federal, State and County water quality regulations governing grading, excavation and stockpiling. Appropriate BMPs will be implemented to prevent significant degradation of water quality. Mitigation measures will be instituted incorporating appropriate structural and/or non-structural BMPs such as silt fences, diversion berm/ditches and minimizing time of exposure between construction and re-vegetation. Following construction, the project will produce no lasting adverse effects from storm water runoff to adjacent and downstream areas.

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

    The proposed housing unit site at KCCC is not located within and/or would not affect environmentally sensitive areas. Soils are not erosion-prone, and no geologically hazardous lands, estuaries, or coastal waters occur within or adjacent to the site. This site is located within a floodplain, but an elevated structure would be used that would avoid development in the floodplain.

    Applicable BMPs will mitigate against potential temporary effects to air, noise and soil erosion during construction. Compliance with Kauai County Code provisions related to grading, Section 404 Corps Permit, Section 401 Water Quality Certification, and Stream Channel Alteration Permit may be required. The project should not adversely impact beaches, erosion-prone areas, geologically hazardous land, or fresh water.

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

    The project site is not identified as a scenic vista or viewplane and the proposed housing unit would not affect scenic corridors and coastal scenic and open space resources. Any potential impacts would be mitigated by implementing design features that are sensitive to the unique visual resources of Hawaii and would include the selection of the color, texture, and materials for the structure.

13. Requires substantial energy consumption.

    The proposed action would involve the short-term commitment of fuel for equipment, vehicles, and machinery during construction activities. However, this use is not anticipated to result in a substantial consumption of energy resources. In the long-term, the proposed action may create a slight additional demand for electricity. This demand is not deemed significant or excessive within the context of the region's overall energy consumption. Nonetheless, PSD has an electrical/mechanical repair and improvement Capital Improvement Program underway that is expected to better manage power demands

through installation of energy efficient equipment and various upgrades at KCCC and other PSD facilities.

Based on analysis of the proposed action against the 13 significance criteria, it is concluded that construction and operation of an inmate housing unit at KCCC would not result in any significant adverse impacts.

6.0 CONSULTATIONS

6.1 Pre-Assessment Consultations

In addition to notifying elected and appointed officials, the following agencies and organizations are among those contacted during preparation of the Draft EA. Communications involving preparation of the Draft EA are provided in Appendices A and B.

Federal

- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- U.S. Department of Transportation, Federal Highway Administration
- U.S. Geological Survey
- U.S. Department of Agriculture
- U.S. Environmental Protection Agency
- Federal Aviation Administration

State of Hawaii

- Department of Accounting and General Services
- Department of Agriculture
- Department of the Attorney General
- Department of Education
- Department of Business, Economic Development and Tourism (DBEDT)
  - DBEDT, Land Use Commission
  - DBEDT, Office of Planning
- Department of Hawaiian Home Lands
- Department of Health (DOH)
  - DOH, HEER
  - DOH, Environmental Health Services Division
  - DOH, Office of Environmental Quality and Control
- Department of Land and Natural Resources (DLNR)
  - DLNR, State Historic Preservation Division
  - DLNR, Land Division
- Department of Transportation
- Office of Hawaiian Affairs

County of Kauai

- Planning Department

- Department of Public Works
- Transportation Agency
- Emergency Management Agency
- Office of Economic Development
- Water Department
- Department of Parks and Recreation
- Fire Department
- Police Department
- Housing Agency
- County Clerk
- County Attorney's Office

Others

- Kauai Planning and Action Alliance
- Historic Hawai'i Foundation
- Queen Debra Kapule Hawaiian Civic Club
- Kaua'i Museum
- Līhu'e Business Association
- Royal Order of Kamehameha – Kaumuali'i Chapter
- Kaua'i Historical Society
- Kaumuali'i Hawaiian Civic Club
- Nā Kuleana o Kānaka 'Ōiwi
- Ahahui Kiwila Hawai'i o Moikeha
- Kaua'i Ni'ihau Island Burial Council

6.2 Public Engagement

Since April 2018, PSD and DAGS have undertaken a public outreach and engagement effort to provide information about the proposed KCCC inmate housing project. This effort has helped to frame the planning and decision-making process, offered citizens the means to participate in the planning process, and explained how public input will be considered in the decision-making process. The public outreach and information effort has the following objectives:

- Provide an understanding of PSD's mission and responsibilities of the important role KCCC plays in the criminal justice system in Hawaii;
- Describe the current KCCC and the need to alleviate the severe and persistent crowding experienced at the facility that will improve the health and safety for inmates, staff and the public;
- Demonstrate how the Project Team is exercising careful, objective, and systematic evaluation of proposed plans for the inmate housing unit at KCCC;

- Provide KCCC project information that is accurate, readily available, and understandable to the public;
- Continuously inform the public regarding all aspects of the KCCC planning process and offer opportunities for input and participation;
- Encourage public interest and constructive input, eliciting the full spectrum of viewpoints;
- Eliminate misunderstanding by providing accurate and timely information about the proposed KCCC project through a variety of methods;
- Ensure the public feel their input matters and that they are being heard and respected.

Outreach activities to date have been varied in their approach to encourage participation across different audiences, recognizing that individuals and groups receive and process information in different ways.

6.2.1 Notification Letters

PSD is committed to providing a safe, secure, healthy, and humane social and physical environments for inmates and staff but the severe and persistent crowding at KCCC has limited its ability to provide such environments, exacerbated basic physical plant operations, contributed to tension among inmates, and diminished program opportunities. To increase awareness of this problem and solicit the input and assistance of federal, state, and local elected and appointed officials and government agencies, PSD issued letters to such individuals and agencies to inform them of plans to alleviate crowding at KCCC. Two such letters, sent by PSD Director Nolan Espinda, introduced the team responsible for developing and managing the effort to conduct the necessary planning and environmental impact studies (2018) and an update on progress and status (2019).

6.2.2 Neighbor Island Jail Projects Website

Information prepared in support of inmate housing project proposed for KCCC (including the aforementioned newsletters) has also been made available through the Neighbor Island Jail Projects website: *https://dps.hawaii.gov/neighbor-island-jails-project/.* The website hosts a calendar of events, presentation materials, the history of public outreach activities during 2018 and 2019, project newsletters, various technical reports, and other informative materials. Interested persons and organizations were also continuously added to the Neighbor Island Jail Projects emailing/distribution list to receive periodic information about the project and to learn about progress in the planning process.

6.2.3 Project Newsletters and Other Materials

PSD and DAGS produced and widely distributed periodic newsletters concerning various aspects of the KCCC housing unit planning and environmental impact study process. Newsletters were prepared in response to the need for accurate information about jail function, operation, inmate populations, and related characteristics. These publications were used as meeting handouts, made available via PSD's Neighbor Island Jail Projects website, and distributed via an email system to over 500 interested individuals, organizations, agencies, stakeholders, elected and appointed officials, and others. In addition, PSD and DAGS prepared a ***Pre-Assessment Consultations*** document to explain the need for the housing unit and to seek advice and input on issues that should be addressed in the forthcoming Draft EA. Newsletters and other documents prepared and distributed during 2018 and 2019 are shown in Table 6-1.

Table 6-1: Neighbor Island Jail Project Documents

Date Issued	Type	Title
April 2018	Newsletter Volume 1	PSD to Address Overcrowding at Kauai, Maui and Hawaii Jails
May 2018	Newsletter Volume 2	Frequently Asked Questions about KCCC, MCCC and HCCC
July 2018	Booklet	Pre-Assessment Consultations Document
August 2018	Newsletter Volume 3	Who is Housed at Kauai, Maui and Hawaii CCCs?
December 2018	OCCC Newsletter 22	Planned Neighbor Island Jail Expansions Moving Forward
February 2019	Newsletter Volume 4	Planning for KCCC, MCCC, and HCCC Housing Advancing
April 2019	Newsletter Volume 5	New Housing Units Planned at KCCC, MCCC, and HCCC

6.3 Next Steps

Throughout the planning and Draft EA effort, PSD and DAGS have demonstrated its commitment to ensuring that the process of planning, programming, assessing potential environmental impacts, and eventually permitting, designing, and constructing a KCCC inmate housing unit has been open and transparent and benefitted from the input and involvement of all interested and concerned parties. This outreach and engagement will continue through the end of the design phase.

6.4 Agencies and Organizations Consulted on the Draft EA

Availability of the Draft EA for review and comment will be published in the OEQC *Environmental Notice* dated May 8, 2019. PSD will directly notify agencies, organizations, and the public regarding the availability of the Draft EA for review and comment. PSD will also continue to consult with the Hawaii SHPD in accordance with the state's historic preservation regulations, with the USFWS in accordance with Section 7 of the Endangered Species Act, and the Corps in accordance with the Clean Water Act.

7.0 PREPARERS

The Draft EA has been prepared by Louis Berger U.S., Inc., headquartered at 412 Mt. Kemble Avenue, Morristown, New Jersey 07962. Other members of the consultant team were employed to provide specific assessments of environmental and other key factors for this project. Table 7-1 presents the consultants who contributed to Draft EA preparation and their specialties.

Table 7-1: List of Preparers

Name	Area(s) of Responsibility
DLR Group, Inc.	Project Management, Architecture, Justice Planning and Programming
Louis Berger U.S., Inc.	Environmental Planning, Air Quality, Archaeological/Architectural Resources, Biological Resources, Water Resources, Noise, Socio-economics, Housing, Visual Resources, Utility Services, Climate, Community Services, Hazardous Waste Contamination, Natural Hazards, Fiscal Considerations, Alternatives Analysis, Public Outreach and Engagement
ASM Affiliates	Cultural Impact Assessment
Austin, Tsutsumi & Associates, Inc.	Civil Engineering and Permitting
Chris Hart & Partners	Permitting

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APPENDIX A:
Notification Letters

DAVID Y. IGE
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF PUBLIC SAFETY
919 Ala Moana Boulevard, 4th Floor
Honolulu, Hawaii 96814

NOLAN P. ESPINDA
DIRECTOR

Cathy Ross
Deputy Director
Administration

Jodie F. Maesaka-Hirata
Deputy Director
Corrections

Renee R. Sonobe Hong
Deputy Director
Law Enforcement

No. _____

March 23, 2018

RE: Kauai Community Correctional Center; New Medium Security Housing

Aloha

The Department of Public Safety (PSD) has an immediate need to address overcrowding at the Kauai Community Correctional Center (KCCC). As Director for PSD, I am writing today to seek your cooperation and assistance in our project to construct an addition at this facility.

PSD is responsible for approximately 1,090 offenders currently housed within Community Correctional Centers (CCC's) located on the islands of Kauai, Maui, and Hawaii. They provide the customary jail function of managing pre-trial detainees and locally sentenced misdemeanant offenders and others with a sentence of one year or less. CCC's also provide an important pre-release preparation/transition function for prison system inmates who are transferred back to their county or origin when they reach less than a year until their release.

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We appreciate your support for the Department of Public Safety, Mahalo.

Sincerely,

Nolan P. Espinda
Director

C: C. Shimazu
D. Jandoc

DAVID Y. IGE
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF PUBLIC SAFETY
919 Ala Moana Boulevard, 4th Floor
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No. _____

March 23, 2018

The Honorable Bernard P. Carvalho, Jr.
Mayor, County of Kauai
444 Rice Street, Suite 235
Lihue, Hawaii 96766

RE: Kauai Community Correctional Center; New Medium Security Housing

Aloha Mayor Carvalho:

The Department of Public Safety (PSD) has an immediate need to address overcrowding at the Kauai Community Correctional Center (KCCC). As Director for PSD, I am writing today to seek your cooperation and assistance in our project to construct an addition at this facility.

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Renee R. Sonobe Hong
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Law Enforcement

No. _____

March 23, 2018

The Honorable Mel Rapozo, Chair
Kauai County Council
4396 Rice Street, Suite 209
Lihue, Hawaii 96766

RE: Kauai Community Correctional Center; New Medium Security Housing

Aloha Chairman Rapozo:

The Department of Public Safety (PSD) has an immediate need to address overcrowding at the Kauai Community Correctional Center (KCCC). As Director for PSD, I am writing today to seek your cooperation and assistance in our project to construct an addition at this facility.

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Law Enforcement

No. _____

March 23, 2018

The Honorable Ross Kagawa, Vice Chair
Kauai County Council
4396 Rice Street, Suite 209
Lihue, Hawaii 96766

RE: Kauai Community Correctional Center; New Medium Security Housing

Aloha Vice Chairman Kagawa:

The Department of Public Safety (PSD) has an immediate need to address overcrowding at the Kauai Community Correctional Center (KCCC). As Director for PSD, I am writing today to seek your cooperation and assistance in our project to construct an addition at this facility.

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D Jandoc

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Renee R. Sonobe Hong
Deputy Director
Law Enforcement

No. _____

March 23, 2018

The Honorable Arthur Brun, Member
Kauai County Council
4396 Rice Street, Suite 209
Lihue, Hawaii 96766

RE: Kauai Community Correctional Center; New Medium Security Housing

Aloha Councilmember Brun:

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We appreciate your support for the Department of Public Safety, Mahalo.

Sincerely,

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Director

C: C. Shimazu
D. Jandoc

DAVID Y. IGE
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No. _____

March 23, 2018

The Honorable Arryl Kaneshiro, Member
Kauai County Council
4396 Rice Street, Suite 209
Lihue, Hawaii 96766

RE: Kauai Community Correctional Center; New Medium Security Housing

Aloha Councilmember Kaneshiro:

The Department of Public Safety (PSD) has an immediate need to address overcrowding at the Kauai Community Correctional Center (KCCC). As Director for PSD, I am writing today to seek your cooperation and assistance in our project to construct an addition at this facility.

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We appreciate your support for the Department of Public Safety, Mahalo.

Sincerely,

Nolan P. Espinda
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C: C. Shimazu
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No. _____

March 23, 2018

The Honorable JoAnn A. Yukimura, Member
Kauai County Council
4396 Rice Street, Suite 209
Lihue, Hawaii 96766

RE: Kauai Community Correctional Center; New Medium Security Housing

Aloha Councilmember Yukimura:

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STATE OF HAWAII
DEPARTMENT OF PUBLIC SAFETY
919 Ala Moana Boulevard, 4th Floor
Honolulu, Hawaii 96814

No. _____

March 23, 2018

The Honorable Derek S.K. Kawakami, Member
Kauai County Council
4396 Rice Street, Suite 209
Lihue, Hawaii 96766

RE: Kauai Community Correctional Center; New Medium Security Housing

Aloha Councilmember Kawakami:

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Law Enforcement

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March 23, 2018

The Honorable Mason K. Chock, Member
Kauai County Council
4396 Rice Street, Suite 209
Lihue, Hawaii 96766

RE: Kauai Community Correctional Center; New Medium Security Housing

Aloha Councilmember Chock:

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Law Enforcement

No. _____

March 23, 2018

The Honorable Ronald D. Kouchi, President
Hawaii State Capitol, Room 409
415 S. Beretania Street
Honolulu, Hawaii 96813

RE: Kauai Community Correctional Center; New Medium Security Housing

Aloha Senate President Kouchi:

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March 23, 2018

The Honorable Clarence Nishihara, Chair
Senate Committee on Public Safety,
Intergovernmental and Military Affairs
Hawaii State Capitol, Room 214
415 S. Beretania Street
Honolulu, Hawaii 96813

RE: Kauai Community Correctional Center; New Medium Security Housing

Aloha Chair Nishihara:

The Department of Public Safety (PSD) has an immediate need to address overcrowding at the Kauai Community Correctional Center (KCCC). As Director for PSD, I am writing today to seek your cooperation and assistance in our project to construct an addition at this facility.

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No. _____

March 23, 2018

The Honorable Donovan M. Dela Cruz, Chair
Senate Ways and Means Committee
Hawaii State Capitol, Room 208
415 S. Beretania Street
Honolulu, Hawaii 96813

RE: Kauai Community Correctional Center; New Medium Security Housing

Aloha Chairman Dela Cruz:

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We appreciate your support for the Department of Public Safety, Mahalo.

Sincerely,

Nolan P. Espinda
Director

C: C. Shimazu
D Jandoc

DAVID Y. IGE
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF PUBLIC SAFETY
919 Ala Moana Boulevard, 4th Floor
Honolulu, Hawaii 96814

NOLAN P. ESPINDA
DIRECTOR

Cathy Ross
Deputy Director
Administration

Jodie F. Maesaka-Hirata
Deputy Director
Corrections

Renee R. Sonobe Hong
Deputy Director
Law Enforcement

No. _____

March 23, 2018

The Honorable Scott Saiki, Speaker
House of Representatives
Hawaii State Capitol, Room 431
415 S. Beretania Street
Honolulu, Hawaii 96813

RE: Kauai Community Correctional Center; New Medium Security Housing

Aloha Speaker Saiki:

The Department of Public Safety (PSD) has an immediate need to address overcrowding at the Kauai Community Correctional Center (KCCC). As Director for PSD, I am writing today to seek your cooperation and assistance in our project to construct an addition at this facility.

PSD is responsible for approximately 1,090 offenders currently housed within Community Correctional Centers (CCC's) located on the islands of Kauai, Maui, and Hawaii. They provide the customary jail function of managing pre-trial detainees and locally sentenced misdemeanant offenders and others with a sentence of one year or less. CCC's also provide an important pre-release preparation/transition function for prison system inmates who are transferred back to their county or origin when they reach less than a year until their release.

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Corrections

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Deputy Director
Law Enforcement

No. _____

March 23, 2018

The Honorable Sylvia Luke, Chair
House Finance Committee
Hawaii State Capitol, Room 306
415 S. Beretania Street
Honolulu, Hawaii 96813

RE: Kauai Community Correctional Center; New Medium Security Housing

Aloha Chair Luke:

The Department of Public Safety (PSD) has an immediate need to address overcrowding at the Kauai Community Correctional Center (KCCC). As Director for PSD, I am writing today to seek your cooperation and assistance in our project to construct an addition at this facility.

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Nolan P. Espinda
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Deputy Director
Law Enforcement

No. _____

March 23, 2018

The Honorable Gregg Takayama, Chair
House Public Safety Committee
Hawaii State Capitol, Room 323
415 S. Beretania Street
Honolulu, Hawaii 96813

RE: Kauai Community Correctional Center; New Medium Security Housing

Aloha Chair Takayama:

The Department of Public Safety (PSD) has an immediate need to address overcrowding at the Kauai Community Correctional Center (KCCC). As Director for PSD, I am writing today to seek your cooperation and assistance in our project to construct an addition at this facility.

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We appreciate your support for the Department of Public Safety, Mahalo.

Sincerely,

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DEPARTMENT OF PUBLIC SAFETY
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Honolulu, Hawaii 96814

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Cathy Ross
Deputy Director
Administration

Jodie F. Maesaka-Hirata
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Corrections

Renee R. Sonobe Hong
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Law Enforcement

No. _____

April 3, 2018

RE: Kauai Community Correctional Center; New Medium Security Housing

Aloha:

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We appreciate your support for the Department of Public Safety. Mahalo.

Sincerely,

Nolan P. Espinda
Director

c: C. Shimazu, D. Jandoc

DAVID Y. IGE
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Maria C. Cook
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Administration

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Law Enforcement

STATE OF HAWAII
DEPARTMENT OF PUBLIC SAFETY
919 Ala Moana Boulevard, 4th Floor
Honolulu, Hawaii 96814

No. _____

February 25, 2019

Derek S. K. Kawakami, Mayor
County of Kauai
4444 Rice Street, Suite 235
Lihue, HI 96766

RE: Kauai Community Correctional Center; New Medium Security Housing Unit Update

Aloha, Mayor Kawakami:

The Department of Public Safety (PSD) is working to provide safe, secure, healthy, and humane social and physical environments for inmates and staff at the Kauai Community Correctional Center (KCCC). As Director of PSD, I am writing to provide you with a status report on PSD's efforts to improve KCCC.

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Sincerely,

Nolan P. Espinda
Director

Cc: W. Takara, D. Jandoc

DAVID Y. IGE
GOVERNOR

STATE OF HAWAII
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919 Ala Moana Boulevard, 4th Floor
Honolulu, Hawaii 96814

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Deputy Director
Law Enforcement

No. _____

February 25, 2019

The Honorable Arryl Kaneshiro, Chair
Kauai County Council
4396 Rice Street, Suite 209
Lihue, Hawaii 96766

RE: Kauai Community Correctional Center; New Medium Security Housing Unit Update

Aloha, Chaiman Kaneshiro:

The Department of Public Safety (PSD) is working to provide safe, secure, healthy, and humane social and physical environments for inmates and staff at the Kauai Community Correctional Center (KCCC). As Director of PSD, I am writing to provide you with a status report on PSD's efforts to improve KCCC.

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Sincerely,

Nolan P. Espinda
Director

c: W. Takara, D. Jandoc

DAVID Y. IGE
GOVERNOR

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No. _____

February 25, 2019

The Honorable Arthur Brun, Member
Kauai County Council
4396 Rice Street, Suite 209
Lihue, Hawaii 96766

RE: Kauai Community Correctional Center; New Medium Security Housing Unit Update

Aloha, Councilman Brun:

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Sincerely,

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Director

c: W. Takara, D. Jandoc

DAVID Y. IGE
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STATE OF HAWAII
DEPARTMENT OF PUBLIC SAFETY
919 Ala Moana Boulevard, 4th Floor
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Law Enforcement

No. _____

February 25, 2019

The Honorable KipuKai Kuali'i, Member
Kauai County Council
4396 Rice Street, Suite 209
Lihue, Hawaii 96766

RE: Kauai Community Correctional Center; New Medium Security Housing Unit Update

Aloha, Councilman Kuali'i:

The Department of Public Safety (PSD) is working to provide safe, secure, healthy, and humane social and physical environments for inmates and staff at the Kauai Community Correctional Center (KCCC). As Director of PSD, I am writing to provide you with a status report on PSD's efforts to improve KCCC.

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Director

c: W. Takara, D. Jandoc

DAVID Y. IGE
GOVERNOR

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No. _____

February 25, 2019

The Honorable Felicia Cowden, Member
Kauai County Council
4396 Rice Street, Suite 209
Lihue, Hawaii 96766

RE: Kauai Community Correctional Center; New Medium Security Housing Unit Update

Aloha, Councilwoman Cowden:

The Department of Public Safety (PSD) is working to provide safe, secure, healthy, and humane social and physical environments for inmates and staff at the Kauai Community Correctional Center (KCCC). As Director of PSD, I am writing to provide you with a status report on PSD's efforts to improve KCCC.

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DEPARTMENT OF PUBLIC SAFETY
919 Ala Moana Boulevard, 4th Floor
Honolulu, Hawaii 96814

No. _____

February 25, 2019

The Honorable Mason K. Chock, Member
Kauai County Council
4396 Rice Street, Suite 209
Lihue, Hawaii 96766

RE: Kauai Community Correctional Center; New Medium Security Housing Unit Update

Aloha, Councilman Chock:

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Sincerely,

Nolan P. Espinda
Director

c: W. Takara, D. Jandoc

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STATE OF HAWAII
DEPARTMENT OF PUBLIC SAFETY
919 Ala Moana Boulevard, 4th Floor
Honolulu, Hawaii 96814

No. _____

February 25, 2019

The Honorable Luke A. Evslin, Member
Kauai County Council
4396 Rice Street, Suite 209
Lihue, Hawaii 96766

RE: Kauai Community Correctional Center; New Medium Security Housing Unit Update

Aloha, Councilman Evslin:

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DAVID Y. IGE
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Law Enforcement

STATE OF HAWAII
DEPARTMENT OF PUBLIC SAFETY
919 Ala Moana Boulevard, 4th Floor
Honolulu, Hawaii 96814

No. _____

February 25, 2019

The Honorable Ross Kagawa, Member
Kauai County Council
4396 Rice Street, Suite 209
Lihue, Hawaii 96766

RE: Kauai Community Correctional Center; New Medium Security Housing Unit Update

Aloha, Councilman Kagawa:

The Department of Public Safety (PSD) is working to provide safe, secure, healthy, and humane social and physical environments for inmates and staff at the Kauai Community Correctional Center (KCCC). As Director of PSD, I am writing to provide you with a status report on PSD's efforts to improve KCCC.

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Sincerely,

Nolan P. Espinda
Director

c: W. Takara, D. Jandoc

APPENDIX B:
Correspondence

May 24, 2018

Russell Tsuji, Administrator
State of Hawaii Department of Land and Natural Resources
Land Division
1151 Punchbowl Street, Room 220
Honolulu, HI 96813

RE: **Information Request for Proposed Medium Security Housing Unit Development at Kauai Community Correctional Center, Lihue, Hawaii**

Dear Mr. Tsuji:

Louis Berger is supporting the Hawaii Department of Public Safety (PSD) in planning for development of a New Medium Security Housing Unit for inmates housed at the Kauai Community Correctional Center (KCCC) located at 3-5351 Kuhio Highway in Lihue, Hawaii. The addition of the New Medium Security Housing Unit is intended to provide a sufficient number of beds under appropriate conditions to address the history of overcrowding at KCCC and would be designed and constructed to State of Hawaii and national standards.

In support of this undertaking, Louis Berger is contacting your office for assistance in identifying the potential presence of any rare or federal and/or state threatened, endangered, proposed, or candidate species in the vicinity of the subject KCCC property. In addition, information regarding the presence of any other species or habitats of special concern, including wetlands or significant natural communities, in the vicinity of the KCCC is hereby requested. Site location maps of the KCCC property are attached to this letter. KCCC, comprising approximately ten acres of land, is located within a largely rural and undeveloped environment, surrounded by lands devoted largely to agricultural and conservation uses. The information requested would assist us in preparing an Environmental Assessment in accordance with HRS 343, Hawaii's Environmental Policy Act.

We appreciate your assistance and input regarding wetlands, significant natural communities, special status species present and/or potential special status species habitat present in and around the KCCC property. Thank you for your cooperation and support. Please contact me at tstewart@louisberger.com or 973-407-1473 if you require additional information.

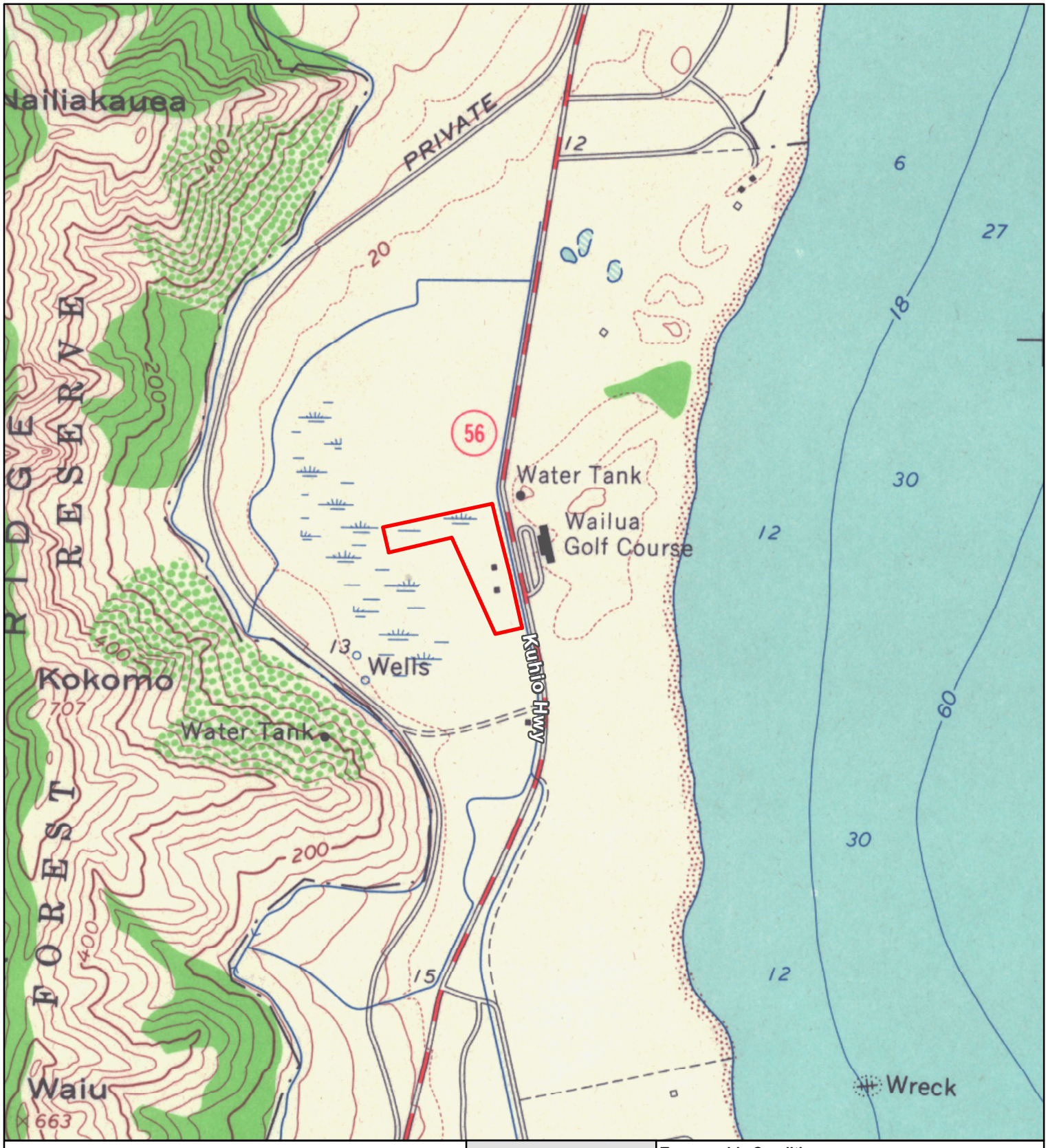
Sincerely,

Tara Stewart

Tara Stewart
Senior Environmental Scientist

Attachments

Cc: R. Nardi (Louis Berger)



KCCC Site Boundary

Source:
USGS Kapaa, HI QuadrangleTopo Map, 1963.



Topographic Conditions

KAUAI
COMMUNITY CORRECTIONAL CENTER

Department of Public Safety

N

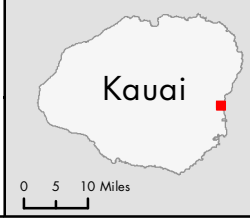
0 500 1,000 Feet

Louis Berger



KCCC Site Boundary

Source:
ESRI BING Imagery Service, obtained 2018.



Aerial Photo

KAUAI
COMMUNITY CORRECTIONAL CENTER

Department of Public Safety

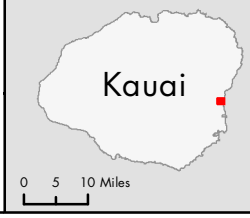
N

0 150 300 Feet

Louis Berger



Sources:
ESRI BING Imagery Service, obtained 2018; FEMA, 2005.



Site Plan

KAUAI
COMMUNITY CORRECTIONAL CENTER

Department of Public Safety

N

0 50 100 Feet

Louis Berger

May 24, 2018

Nanea Valeros
U.S. Fish and Wildlife Service
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122
Honolulu, Hawaii 96850

RE: **Species List Request for Proposed Medium Security Housing Unit Development at Kauai Community Correctional Center, Lihue, Hawaii**

Dear Ms. Valeros:

Louis Berger is supporting the Hawaii Department of Public Safety (PSD) in planning for development of a New Medium Security Housing Unit for inmates housed at the Kauai Community Correctional Center (KCCC) located at 3-5351 Kuhio Highway in Lihue, Hawaii. The addition of the New Medium Security Housing Unit is intended to provide a sufficient number of beds under appropriate conditions to address the history of overcrowding at KCCC and would be designed and constructed to State of Hawaii and national standards.

In support of this undertaking, Louis Berger is requesting information from your office regarding listed species and designated critical habitat within the vicinity of KCCC as well as any recommendations pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) and the Migratory Bird Treaty Act of 1918 (16 U.S.C. 103 et seq.), as amended (MBTA). Site location maps of the subject KCCC property are attached to this letter. KCCC, comprising approximately ten acres of land, is located within a largely rural and undeveloped environment, surrounded by lands devoted largely to agricultural and conservation uses. The information requested would assist us in preparing an Environmental Assessment in accordance with HRS 343, Hawaii's Environmental Policy Act.

We appreciate your assistance and input regarding special status species present and/or potential special status species habitat present in and around the KCCC property. Thank you for your cooperation and support. Please contact me at tstewart@louisberger.com or 973-407-1473 if you require additional information.

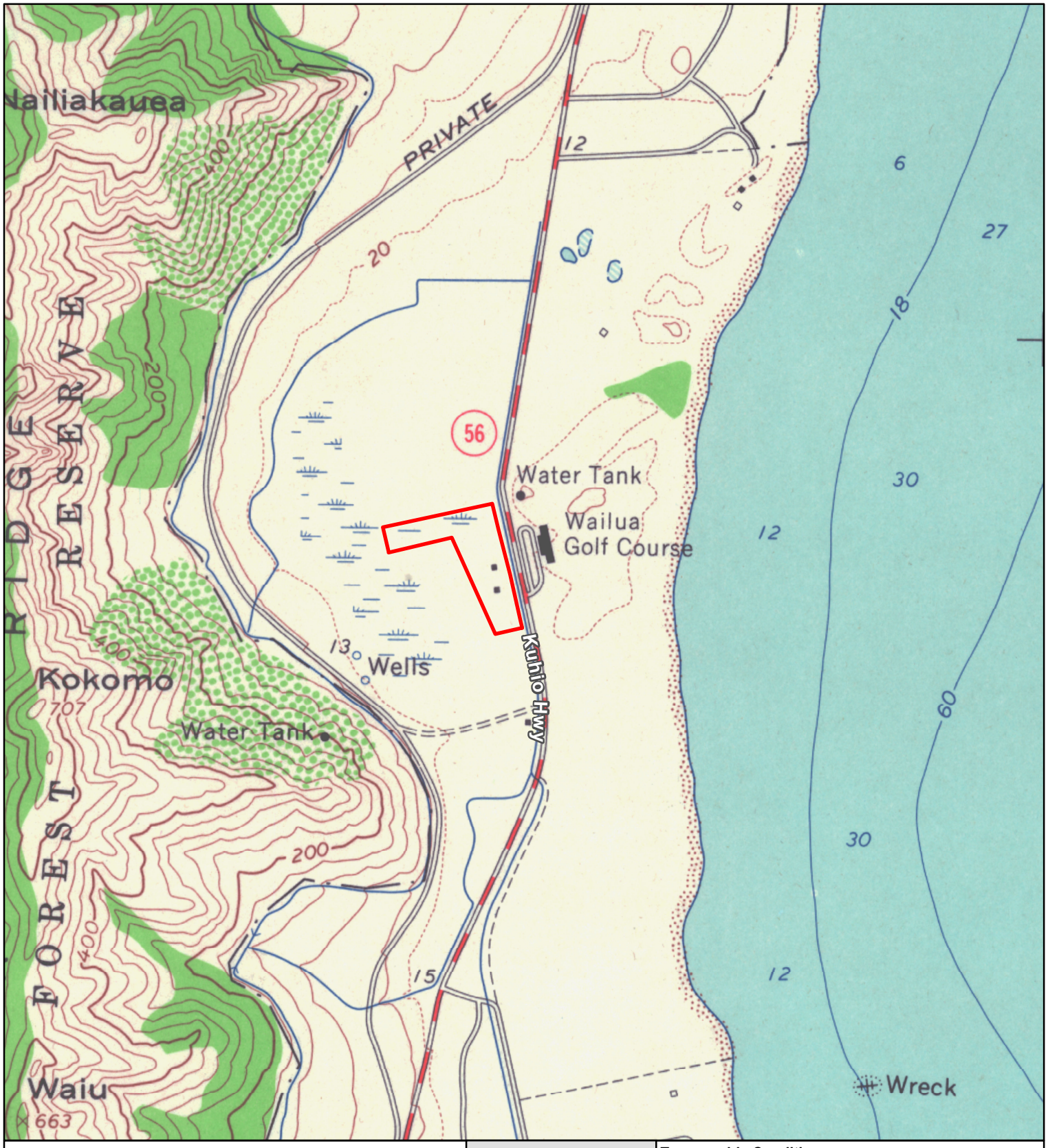
Sincerely,

Tara Stewart

Tara Stewart
Senior Environmental Scientist

Attachments

Cc: R. Nardi (Louis Berger)



KCCC Site Boundary

Source:
USGS Kapaa, HI QuadrangleTopo Map, 1963.



Topographic Conditions

KAUAI
COMMUNITY CORRECTIONAL CENTER

Department of Public Safety

N

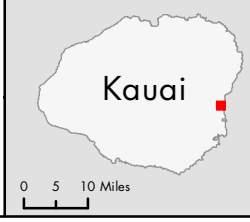
0 500 1,000 Feet

Louis Berger



KCCC Site Boundary

Source:
ESRI BING Imagery Service, obtained 2018.



Aerial Photo

KAUAI
COMMUNITY CORRECTIONAL CENTER

Department of Public Safety

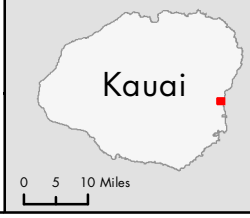
N

0 150 300 Feet

Louis Berger



Sources:
ESRI BING Imagery Service, obtained 2018; FEMA, 2005.



Site Plan

KAUAI
COMMUNITY CORRECTIONAL CENTER

Department of Public Safety

N

0 50 100 Feet

Louis Berger

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

June 27, 2018

Louis Berger Group
Attention: Ms. Tara Stewart
412 Mount Kemble Avenue
P.O. Box 1946
Morristown, NJ 07962-1946

via email: TStewart@louisberger.com

Dear Ms. Stewart:

SUBJECT: Information Request for Proposed Medium Security Housing Unit Development at **Kauai Community Correctional Center**

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) Office of Conservation & Coastal Lands, (b) Engineering Division, (c) Land Division – Kauai District and (d) Division of Forestry & Wildlife 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

RECEIVED
LAND DIVISION
2018 JUN -5 AM 10:48
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

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

RECEIVED
OFFICE OF CONSERVATION
AND COASTAL LANDS
2018 MAY 31 A 11:43
DEPT OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

Conservation/OCCL

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

May 30, 2018

MEMORANDUM

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

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Information Request for Proposed Medium Security Housing Unit Development at **Kauai Community Correctional Center**
LOCATION: Wailua, Island of Kauai; TMK: (4) 3-9-005:013
APPLICANT: State Department of Public Safety

Transmitted for your review and comment is information on the above-referenced project. We would appreciate your comments by **June 27, 2018.**

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.

( ) We have no objections.
(✓) We have no comments. * not in conservation District
( ) Comments are attached.

Signed: [signature]

Print Name: Lauren Yasaka

Date: 6/4/18

Attachments
cc: Central Files

DAVID Y. IGE
GOVERNOR OF HAWAII

RECEIVED
LAND DIVISION
2018 JUN 12 AM 11:09
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

'18 MAY 31 AM 10:53 ENGINEERING

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

May 30, 2018

MEMORANDUM

FROM

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

TO

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Information Request for Proposed Medium Security Housing Unit Development at **Kauai Community Correctional Center**
LOCATION: Wailua, Island of Kauai; TMK: (4) 3-9-005:013
APPLICANT: State Department of Public Safety

Transmitted for your review and comment is information on the above-referenced project. We would appreciate your comments by **June 27, 2018.**

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.

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

Signed: _____

Print Name: Carty S. Chang, Chief Engineer
Date: 6/1/18

Attachments
cc: Central Files

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/Russell Y. Tsuji
Ref: Information Request for Proposed Medium Security Housing Unit Development at Kauai Community Correctional Center, Wailua, Island of Kauai; TMK: (4) 3-9-005:013

COMMENTS

The rules and regulations of the National Flood Insurance Program (NFIP), Title 44 of the Code of Federal Regulations (44CFR), are in effect when development falls within a Special Flood Hazard Area (high risk areas). State projects are required to comply with 44CFR regulations as stipulated in Section 60.12. Be advised that 44CFR reflects the minimum standards as set forth by the NFIP. Local community flood ordinances may stipulate higher standards that can be more restrictive and would take precedence over the minimum NFIP standards.

The owner of the project property and/or their representative is responsible to research the Flood Hazard Zone designation for the project. Flood Hazard Zones are designated on FEMA's Flood Insurance Rate Maps (FIRM), which can be viewed on our Flood Hazard Assessment Tool (FHAT) (http://gis.hawaiinfip.org/FHAT).

If there are questions regarding the local flood ordinances, please contact the applicable County NFIP coordinating agency below:

- Oahu: City and County of Honolulu, Department of Planning and Permitting (808) 768-8098.
- Hawaii Island: County of Hawaii, Department of Public Works (808) 961-8327.
- Maui/Molokai/Lanai County of Maui, Department of Planning (808) 270-7253.
- Kauai: County of Kauai, Department of Public Works (808) 241-4846.

The applicant should include water demands and infrastructure required to meet project needs. Please note that the projects within State lands requiring water service from their local Department/Board of Water Supply system will be required to pay a resource development charge, in addition to Water Facilities Charges for transmission and daily storage.

The applicant is required to provide water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update projections.

Signed: _____
CARTY S. CHANG, CHIEF ENGINEER

Date: 6/7/12

DAVID Y. IGE
GOVERNOR OF HAWAII

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

RECEIVED
LAND DIVISION
2018 JUN 21 AM 10:53
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

May 30, 2018

MEMORANDUM

FROM
~~TO:~~

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

TO
~~FROM:~~ Russell Y. Tsuji, Land Administrator
SUBJECT: Information Request for Proposed Medium Security Housing Unit Development at **Kauai Community Correctional Center**
LOCATION: Wailua, Island of Kauai; TMK: (4) 3-9-005:013
APPLICANT: State Department of Public Safety

Transmitted for your review and comment is information on the above-referenced project. We would appreciate your comments by **June 27, 2018**.

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.

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

Signed: [signature]
Print Name: Wesley T. Matsunaga
Date: 6/7/18

Attachments
cc: Central Files

18352

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

May 30, 2018

MEMORANDUM

RECEIVED
LAND DIVISION
2018 JUN 27 AM 10:43
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

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

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Information Request for Proposed Medium Security Housing Unit Development at **Kauai Community Correctional Center**
LOCATION: Wailua, Island of Kauai; TMK: (4) 3-9-005:013
APPLICANT: State Department of Public Safety

Transmitted for your review and comment is information on the above-referenced project. We would appreciate your comments by **June 27, 2018.**

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.

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

Signed: _____

Print Name: **DAVID G. SMITH, Administrator**
Date: 6/26/18

Attachments
cc: Central Files

DAVID Y. IGE
GOVERNOR OF HAWAII

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

ROBERT MASUDA
FIRST DEPUTY

JEFFREY T. PEARSON P.E.
DEPUTY DIRECTOR - WATER

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE
3060 Eiwa Street, Room 306
Lihue, Kauai, HI 96766

June 25, 2018

TO: Russell Y. Tsuji, Land Administrator

FR: David G. Smith, Forestry and Wildlife Administrator DGS

RE: Information Request for a Proposed Medium Security Housing Unit Development at the Kauai Community Correctional Center TMK: (4) 3-9-005:013

The Division of Forestry and Wildlife (DOFAW) received your letter dated May 30, 2018 requesting for information on a proposed Medium Security Housing Unit project by the Hawaii Department of Public Safety (DPS), Kauai Community Correctional Center on the island of Kauai. The project is located at 3-5351 Kuhio Highway in Lihue, Hawaii, TMK: (4) 5-5-010:067.

DOFAW provides the following comments on State and Federally threatened and endangered (T-E) flora and fauna that may be in the area. This is to assist the DPS on the development of an Environmental Assessment in accordance to Hawaii Revised Statute 343, Hawaii Environmental Policy Act. Below are the comments and recommendations.

Hawaiian waterbirds and Hawaiian goose

Survey records indicate four threatened and endangered (T-E) waterfowl species that use the adjacent pastures and wetlands for feeding and loafing. This includes the Hawaiian coot (*Fulica alai*), Hawaiian gallinule (*Gallinula c. sandvicensis*), Hawaiian duck (*Anas wyvilliana*), Hawaiian stilt (*Himantopus mexicanus*) and Hawaiian goose or Nene (*Branta sandvicensis*). There are no known records of nesting within the proposed project site, adjacent wetlands and pasture lands. However, it is recommended that a wildlife biologist or wildlife monitor survey the project site for bird presence and nesting activity during the environmental review period, and during the construction period. It is also recommended that a construction barrier be installed along the fence between the pastures/wetlands and project site to prevent birds from entering or nesting within the construction area. If a bird(s) should enter the project site during construction, work should temporarily stop until the bird(s) leave the area on its own. If a nest is discovered, please contact the Lihue DOFAW office at (808) 274-3433 for technical assistance.

Hawaiian seabirds

Although, there are no known seabird species within the project area, there are three listed species that transit over the project area at night. The Newell's shearwater (*Puffinus a. newelli*) and Hawaiian petrel (*Pterodroma sandwichensis*) and Band-rumped Storm petrel (*Oceanodroma castro*) are nocturnally active species and are attracted to bright artificial lights, particularly

upward pointed lights. Over the past 30 years, the seabird light attraction phenomenon has resulted in thousands of seabirds becoming disoriented, striking tall man-made structures such as buildings and powerlines and falling to the ground. On the ground, seabirds become susceptible to predation from cats and dogs. Seabirds are also prone to being hit by vehicles along highways.

To avoid impacts to seabirds, night construction work should be avoided during the fledging season (September 15 and December 15).

Hawaiian hoary bat

The Hawaiian hoary bat (*Lasiurus cinerus semotus*) is a nocturnally active species found throughout the island. They are known to roost in both native and non-native trees and tall shrubs. Bats are vulnerable during the birthing and pup rearing season (June 1 to September 15) when the pup is left unattended on a nursery tree when the parents are foraging. To minimize or avoid impacts to bats, trees or shrubs that are taller than 15 feet (4.6 meters) should not be trimmed or removed during the pup rearing season. Site planning and preparation involving tree trimming or removal should be timed outside the pup rearing season.

T-E Plants

To our knowledge, there are no known listed T-E plants within the proposed project site.

Adjacent wetlands

Due to adjacent wetlands, it is recommended that the applicant consult with the Army Corps of Engineers to determine whether the proposed project site falls within wetland delineation status.

Thank you for the opportunity to provide comments. If you have any questions, please contact Thomas Ka'iakapu. Mahalo.

Cc: Kauai DOFAW files

Charrier, Jodi <jodi_charrier@fws.gov>

Species List Request for Wailuku and Hilo Correctional Facilities

Charrier, Jodi <jodi_charrier@fws.gov> Wed, Jun 27, 2018 at 4:44 AM
To: tstuart@louisberger.com

Dear Ms. Stuart,

Thank you for your incoming species list requests (attached), received May 24, 2018, regarding the proposed construction of correctional facilities in Wailuku, Maui and Hilo, Hawaii. We have reviewed your request and determined that due to the urban locations and already disturbed action area, it is unlikely that there are any federally threatened or endangered species in the vicinity of your project.

Please feel free to contact me if you need further assistance.

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Jodi Charrier
Endangered Species Biologist
Maui Nui and Hawaii Island Team
U.S. Fish and Wildlife Service
Pacific Islands Fish and Wildlife Office
300 Ala Moana Blvd
Honolulu HI 96850
(808) 792-9423
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

2 attachments

2018-TA-0379 incoming Hawaii correction center, Hilo,Hawaii.PDF
588K

2018-TA-0378 incoming Maui correction center, Wailuku.PDF
443K

August 8, 2018

U.S. Army Corps of Engineers, Honolulu District
Regulatory Branch
Building 230
Fort Shafter, Hawaii 96858-5440

RE: **Request for Approved Jurisdictional Determination -**
Proposed Medium Security Housing Unit Development at Kauai Community Correctional Center, Lihue, Hawaii

Dear Regulatory Branch:

Louis Berger is supporting the Hawaii Department of Public Safety (PSD) in planning for development of a New Medium Security Housing Unit for inmates housed at the Kauai Community Correctional Center (KCCC) located at 3-5351 Kuhio Highway in Lihue, Hawaii 96766. The addition of the New Medium Security Housing Unit is intended to provide a sufficient number of beds under appropriate conditions to address the history of overcrowding at KCCC and would be designed and constructed to State of Hawaii and national standards.

In support of this undertaking, Louis Berger is requesting an approved jurisdictional determination (AJD) from the United States Army Corps of Engineers (USACE) pursuant to Section 404 of the Clean Water Act (CWA) and Sections 9 and 10 of the Rivers and Harbors Act of 1899 (RHA). The AJD would assist us in preparing an Environmental Assessment in accordance with HRS 343, Hawaii's Environmental Policy Act, as well to inform future permitting requirements for the project.

A Request for Corps JD Form for the subject property is included as Attachment 1 to this letter. Additional information, figures, and photographs to assist in determining jurisdiction of aquatic resources on the property and geographic limits of any such resources are presented below. As requested in the checklist of information to include with requests for jurisdictional determinations, the names, addresses, and phone number of the current property owner, applicant, and wetland delineator are as follows:

Current Property Owner/Applicant: State of Hawaii, Department of Public Safety
Attn: Clayton Shimazu, Chief Planner
919 Ala Moana Boulevard, Suite 400, Honolulu, Hawaii 96814
Tel: 808-587-1237
Email: clayton.h.shimazu@hawaii.gov

Wetland Delineator: Louis Berger
Attn: Tara Stewart
412 Mount Kemble Avenue, Morristown, New Jersey 07962
Tel: 973-407-1473
Email: tstewart@louisberger.com

A desktop review of available resource data and a field survey of the property were conducted using the methodology outlined in the USACE Wetland Delineation Manual (USACE 1987) and the USACE's Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Hawaii and Pacific Islands Region (Version 2.0) (USACE 2012). A description of the subject property and the methodology and results of this investigation are described below.

Site Location

KCCC is approximately ten acres of land and is located in Lihue, on the eastern side of the island of Kauai (Tax Map Key 4-3-9-05:13). Site location maps of the subject KCCC property are included as Attachment 2. The property is located within a predominantly rural and undeveloped environment, surrounded by lands devoted largely to agricultural and conservation uses. The KCCC property is bordered on the east by the Kuhio Highway and to the north, south, and west by agricultural fields and vacant lands. Further east, across the Kuhio Highway, is the Wailua Golf Course with the Pacific Ocean found approximately 0.25 mile away, just beyond the golf course. Approximately two miles north of KCCC is the Wailua River and Wailua River State Park. Less than a mile to the west is the Kalepa Forest Reserve, part of the State of Hawaii Forest Reserve System, encompassing 76,000 acres of land on Kauai. Beyond this, a contiguous expanse of undeveloped land ascends to Mount Kawaikini.

Desktop Investigation

A desktop review of resource maps, soil interpretation, site photography, National Wetlands Inventory (NWI) data, and general observations of topographic and hydrologic conditions was conducted. Much of the area that comprises the KCCC parcel has been developed with inmate housing, administrative and program structures, maintenance buildings and storage areas, vehicle access, and parking areas. The undeveloped land in the north portion of property consists primarily of grass fields along with small cultivated plots, and is bordered to the east, west, and south by irrigation ditches. The KCCC property is located at an elevation of approximately 20 feet above msl with the topography sloping gently from northwest to southeast (see Attachment 3 – Topographic Map)

According to the NRCS Web Soil Survey of Hawaii, two soil mapping units occur within the KCCC property: Mokuleia Fine Sandy Loam (Mr); and Mokuleia clay loam, poorly drained variant (Mta) (see Attachment 4 – Soils Map). Mokuleia Fine Sandy Loam soil is classified as prime farmland, if irrigated. Neither soil unit has a hydric soil rating, although a minor component (inclusion) of the Mokuleia clay loam, poorly drained variant soil unit is hydric.

As depicted on the NWI Wetland Map (Attachment 5), NWI maps palustrine emergent persistent semi-permanently flooded (PEM1F) wetlands within the northern, undeveloped portion of the property. Palustrine emergent persistent seasonally flooded (PEM1C) and palustrine emergent persistent temporary flooded (PEM1A) wetlands are mapped adjacent to the western and northern site property boundaries. A series of irrigation ditches border and intersect the property. The ditches are mapped by NWI as riverine, intermittent, streambed, seasonally flooded, excavated (R4SBCx). One irrigation ditch forms the property's western border, and serves to divert surface waters flowing from adjacent properties around KCCC. This ditch eventually discharges to a second ditch that is adjacent to the eastern border of the KCCC property, and parallels Kuhio Highway to the east. Bisecting the northern portion of the property is an additional irrigation ditch that directs surface water flows from adjacent properties to the same ditch paralleling the highway.

Field Investigation

A field investigation was conducted by a Louis Berger wetland scientist on June 14, 2018. Field inspection of the property revealed that majority of the property is developed with buildings, vehicle access and parking areas, mowed grass, and recreational fields. The undeveloped land in the northern portion of the property consists of a large open field partially under cultivation, surrounded by excavated irrigation ditches that have altered the hydrology of the area. One isolated 0.69 acre area within the center of the northern undeveloped portion features slightly depressed topography and maintains wetland characteristics. The boundaries of the this emergent wetland were located to sub meter accuracy using a Trimble GEOXH global positioning system (GPS) and are depicted on Attachment 6 – Delineated Wetland Map. Wetland Delineation Data Forms documenting the vegetative, soil, and hydrologic characteristics of the emergent wetland are included as Attachment 7. This emergent wetland is a near monoculture of non-native, invasive California grass (*Urochloa mutica*) and contains saturated soils with low chroma colors and redoximorphic features. The eastern extent of the irrigation ditch that bisects the property was not mapped by NWI; however, the endpoints of the unmapped portion were located with GPS and digitized as depicted on Attachment 6.

The remainder of the undeveloped land does not exhibit wetland characteristics and is currently mowed grass or plots of soil farmed for lettuce, tomatoes, onions, and other crops used for food preparation at the facility. Ornamental and fruit-bearing plants were observed throughout the property include plumeria (*Plumeria* spp.), coconut (*Cocos nucifera*), banana (*Musa* sp.), noni (*Morinda citrifolia*), breadfruit (*Artocarpus altilis*), tangerine (*Citrus reticulata*), and pomegranate (*Punica* sp.). Guinea grass (*Urochloa maxima)* is present along property boundaries. Site photographs taken during field inspection are presented in Attachment 8.

Conclusion

Wetlands and other waters of the United States (OWUS) are considered jurisdictional by the USACE if they are relatively permanent waters (RPW); are an ephemeral, intermittent, or perennial stream; are adjacent to a RPW; or have a significant nexus to a RPW (EPA 2006). Based on the desktop analysis and field determination, we conclude that there are no aquatic resources under USACE jurisdiction pursuant to the CWA or RHA. The excavated irrigation ditches within the KCCC property are not waters which are, were, or could be susceptible to use in interstate or foreign commerce. The ditches are not interstate waters or intrastate waters whose use or degradation could affect interstate or foreign commerce. The delineated isolated wetland is not part of or adjacent to a tributary system to interstate waters or to navigable waters of the US, where the use, degradation or destruction of these waters could affect interstate or foreign commerce. Additionally, the isolated wetland has no chemical, physical, or biological connection (nexus) to OWUS and no connection to interstate or foreign commerce.

We respectfully request USACE review of the information provided herein and an AJD of aquatic resources located within the KCCC property be prepared. Notice of any regulatory permits that may be required based on USACE's determination is also requested. Should you require additional information please contact me at tstewart@louisberger.com or 973-407-1473. Thank you for your assistance and cooperation.

Sincerely,

Tara Stewart

Tara Stewart
Senior Environmental Scientist

Cc: R. Nardi (Louis Berger)

Attachments

Attachment 1 - Request for Corps JD Form
Attachment 2 – Site Location Maps
Attachment 3 – Topographic Map
Attachment 4 – Soils Map
Attachment 5 – NWI Wetland Map
Attachment 6 – Delineated Wetland Map
Attachment 7 – Wetland Determination Data Forms
Attachment 8 – Site Photographs

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ATTACHMENTS

Attachment 1
Request for Corps JD Form

Appendix 1 - REQUEST FOR CORPS JURISDICTIONAL DETERMINATION (JD)

To: Honolulu District, U.S. Army Corps of Engineers (Corps) Regulatory Branch

- I am requesting a JD on property located at: 3-5351 Kuhio Highway
  City: Lihue County/Island: Kauai
  State/Territory: ✔ HI __AS __GU __CNMI Acreage of Parcel/Review Area for JD: 10 acres
  Latitude (decimal degrees): 22° 1'34.12"N Longitude (decimal decimal degrees): 159°20'38.51"W
  (For linear projects, please include the center point of the proposed alignment.)

- Please attach a survey/plat map and vicinity map identifying location and review area for the JD.
- ☐ I currently own this property. ☐ I plan to purchase this property.
  ✔ I am an agent/consultant acting on behalf of the requestor.
  ☐ Other (please explain):
- Reason for request: (check as many as applicable)
  ☐ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all aquatic resources.
  ☐ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all jurisdictional aquatic resources under Corps authority.
  ✔ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps, and the JD would be used to avoid and minimize impacts to jurisdictional aquatic resources and as an initial step in a future permitting process.
  ☐ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps; this request is accompanied by my permit application and the JD is to be used in the permitting process.
  ☐ I intend to construct/develop a project or perform activities in a navigable water of the U.S. which is included on the district Section 1O list and/or is subject to the ebb and flow of the tide.
  ☐ A Corps JD is required in order to obtain my local/state authorization.
  ☐ I intend to contest jurisdiction over a particular aquatic resource and request the Corps confirm that jurisdiction does/does -not exist over the aquatic resource on the parcel.
  ☐ I believe that the site may be comprised entirely of dry land.
  ✔ Other: I intend to construct a project on this parcel and am requesting a determination of Corps jurisdiction of wetland/drainage features located on the parcel
- Type of determination being requested:
  ✔ I am requesting an approved JD.
  ☐ I am requesting a preliminary JD.
  ☐ I am requesting a "no permit required" letter as I believe my proposed activity is not regulated.
  ☐ I am unclear as to which JD I would like to request and require additional information to inform my decision.

By signing below, you are indicating that you have the authority, or are acting as the duly authorized agent of a person or entity with such authority, to and do hereby grant Corps personnel right of entry to legally access the site if needed to perform the JD. Your signature shall be an affirmation that you possess the requisite property rights to request a JD on the subject property.

*Signature: Date: August 3, 2018

- Typed or printed name: Robert Nardi
  Company name: Louis Berger
  Address: 412 Mount Kemble Avenue, PO Box 1946
  Morristown, NJ 07962-1946
  Daytime phone no.: 973-407-1681
  Email address: rnardi@louisberger.com

***Authorities**: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.
Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.
Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USAGE website.
Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an AJD cannot be evaluated nor can an AJD be issued.

Submit your JD request via email to CEPOH-RO@usace.army.mil or via postal mail to
Honolulu District, U.S. Army Corps of Engineers, Regulatory Branch, Building 230, Fort Shafter, Hawaii 96858-5440.
Please contact the Regulatory Branch at (808) 835-4303 or at the email above for any questions regarding this form.

Attachment 2
Site Location Maps



★ KCCC Site Location

Source:
ESRI World Street Map Service, obtained 2018.

Regional Location

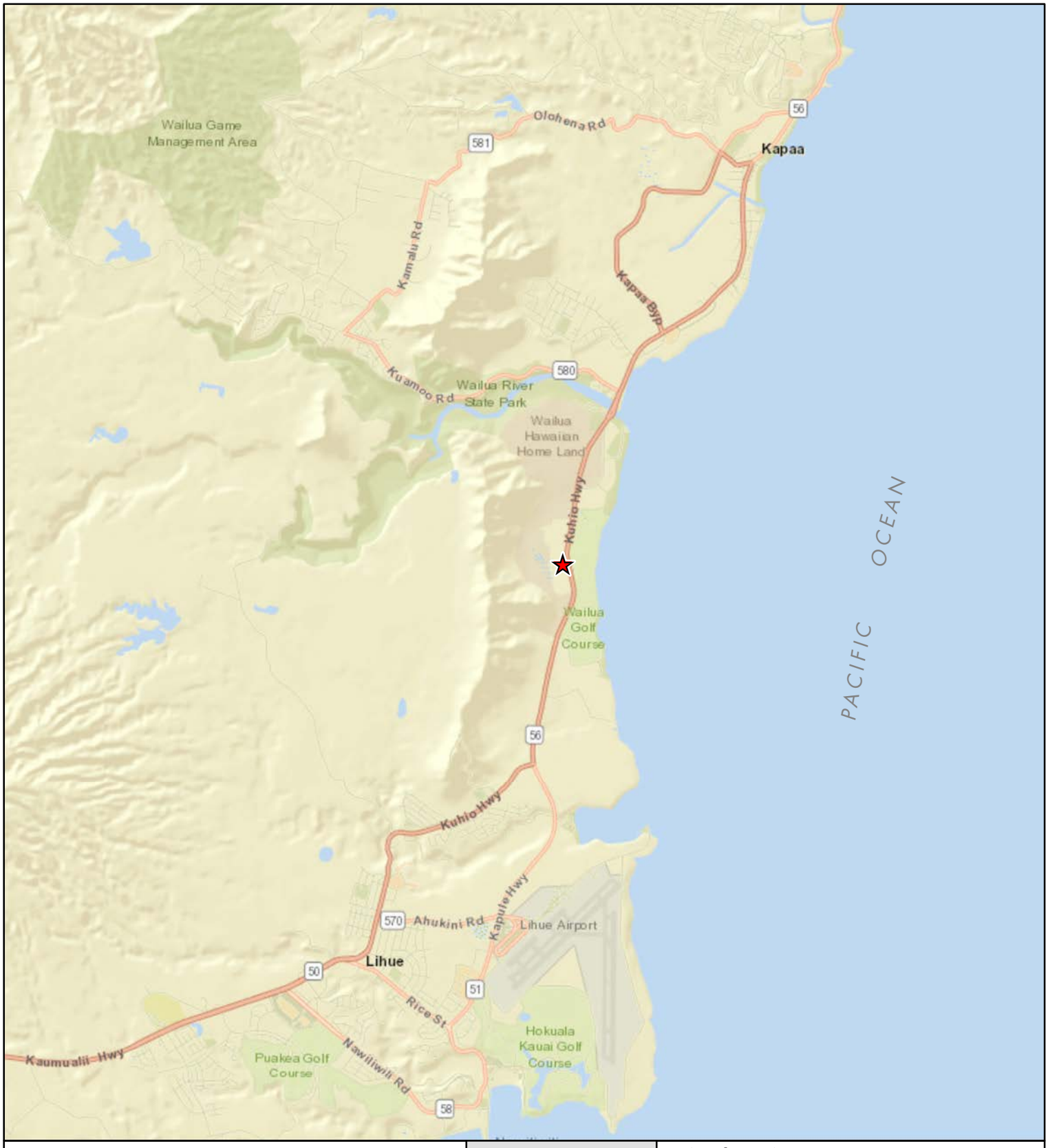
KAUAI
COMMUNITY CORRECTIONAL CENTER

Department of Public Safety

N

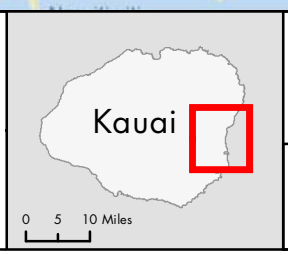
0 2.5 5 Miles

Louis Berger



★ KCCC Site Location

Source:
ESRI World Street Map Service, obtained 2018.



Regional Location

KAUAI
COMMUNITY CORRECTIONAL CENTER

Department of Public Safety

N

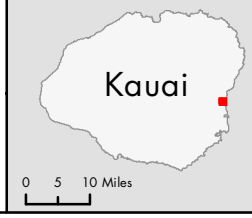
0 0.5 1 Miles

Louis Berger



KCCC Site Boundary
Parcel Boundary

Sources:
Google Earth, 2018; Kauai County, 2017.



Tax Map

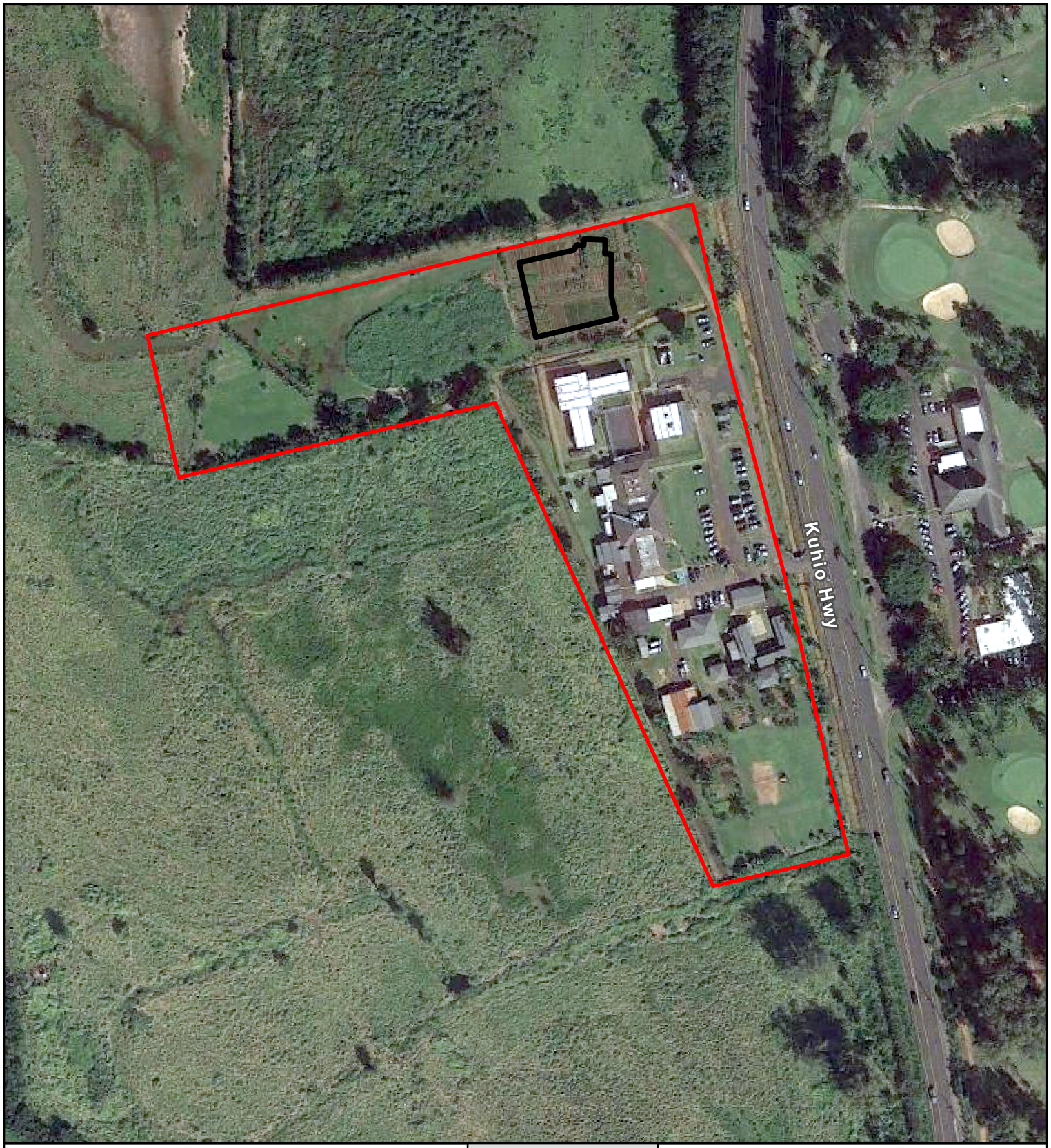
KAUAI
COMMUNITY CORRECTIONAL CENTER

Department of Public Safety

N

0 100 200 Feet

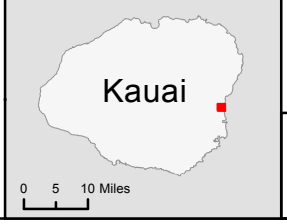
Louis Berger



KCCC Site Boundary

Proposed Building Footprint

Source:
Google Earth, 2018.



Aerial View with Proposed Building Footprint

KAUAI
COMMUNITY CORRECTIONAL CENTER

Department of Public Safety

N

0 100 200 Feet

Louis Berger

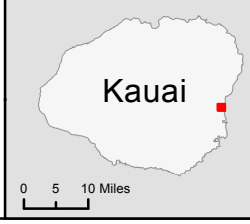


KCCC Site Boundary

Proposed Building Footprint

Existing Building

Source:
DLR Group.



Proposed Site Plan

KAUAI
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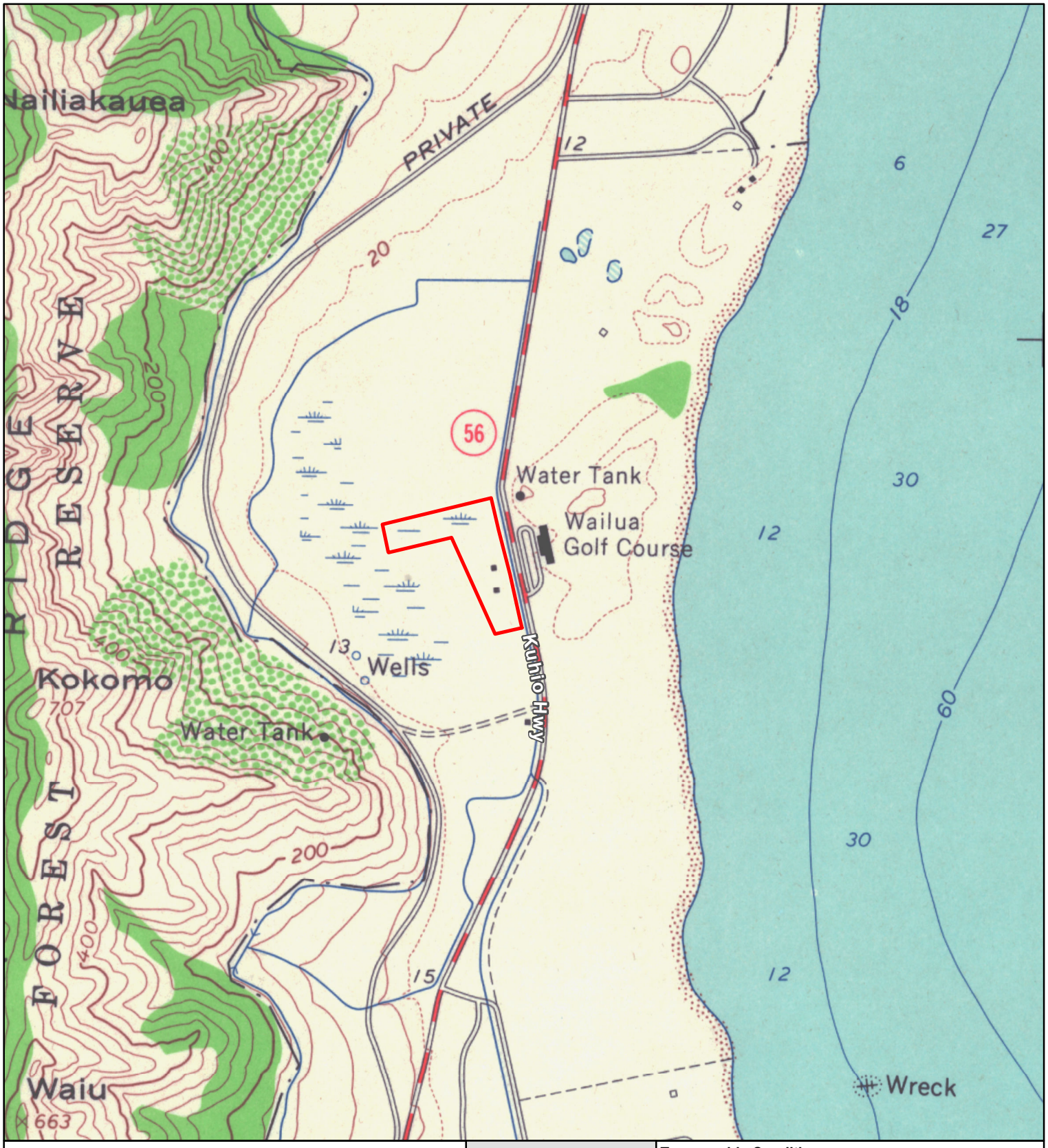
Department of Public Safety

N

0 100 200 Feet

Louis Berger

Attachment 3
Topographic Map



KCCC Site Boundary

Source:
USGS Kapaa, HI QuadrangleTopo Map, 1963.



Topographic Conditions

KAUAI
COMMUNITY CORRECTIONAL CENTER

Department of Public Safety

N

0 500 1,000 Feet

Louis Berger

Attachment 4
Soils Map

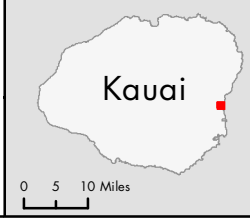


KCCC Site Boundary

Soil Boundary

DL - Dune land
Mr - Mokuleia fine sandy loam
Mta - Mokuleia clay loam, poorly drained variant

Sources:
Google Earth, 2018; NRCS Web Soil Survey, Island of Kauai, Hawaii, 2017.



Soils

KAUAI
COMMUNITY CORRECTIONAL CENTER

Department of Public Safety

N

0 100 200 Feet

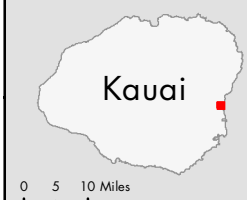
Louis Berger

Attachment 5
NWI Wetlands Map



KCCC Site Boundary
Freshwater Emergent Wetland (PEM1F)
Freshwater Forested/Shrub Wetland (PFO3A)
Ditch (R4SBCx)

Sources:
Google Earth, 2018; FEMA, 2005; USFWS 2012.



National Wetlands Inventory

KAUAI
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Department of Public Safety

N

0 100 200 Feet

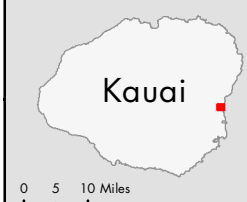
Louis Berger

Attachment 6
Delineated Wetland Map



KCCC Site Boundary
Delineated Wetland
Soil Point
Delineation Flag
Ditch (R4SBCx)
Ditch (Not mapped by NWI)

Sources:
Google Earth, 2018; USGS National Hydrography Dataset, 2018, USFWS, 2017.



Wetland Delineation

KAUAI
COMMUNITY CORRECTIONAL CENTER

Department of Public Safety

N

0 75 150 Feet

Louis Berger

Attachment 7
Wetland Determination Forms

WETLAND DETERMINATION DATA FORM – Hawai'i and Pacific Islands Region

Project/Site: Kauai Community Correctional Center City: Lihue Sampling Date: 6/14/18 Time: 10:45am

Applicant/Owner: Hawaii Department of Public Safety State/Terr/Comlth.: Hawaii Island: Kauai Sampling Point: Twet

Investigator(s): T. Stewart TMK/Parcel: 4-3-9-05:13

Landform (hillslope, coastal plain, etc.): Coastal Plain Local relief (concave, convex, none): concave

Lat: 22.0263391202 Long: -159.343709208 Datum: WGS 84 Slope (%): 3

Soil Map Unit Name: Mokuleia fine sandy loam (Mr) NWI classification: PEM1F

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes x No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x No _____	**Is the Sampled Area within a Wetland?** **Yes** x **No** _____
Hydric Soil Present?	Yes x No _____	
Wetland Hydrology Present?	Yes x No _____	

Remarks:

Isolated depression surrounded by mowed lawn, cultivated soil, irrigation ditches

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Urochloa mutica	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	1	x 2 =	2
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL species	_____	x 5 =	_____
Column Totals:	1 (A)		2 (B)

Prevalence Index = B/A = 2

Hydrophytic Vegetation Indicators:

✓ 1 - Rapid Test for Hydrophytic Vegetation

✓ 2 - Dominance Test is >50%

✓ 3 - Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain in Remarks or in the delineation report)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** _____

Remarks:

SOIL

Sampling Point: TWet

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/2	95	5YR 4/6	5	C	PL	silty clay loam	
8-20	10YR 3/2	80	5YR 4/6	10	C	PL	silty clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Muck Presence (A8)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Dark Surface (S7)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Stratified Layers (A5)
- ___ Sandy Mucky Mineral (S1)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators: (Explain observations in Remarks, if needed.)

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Tilapia Nests (B17)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Fiddler Crab Burrows (C10) (Guam, CNMI, and American Samoa)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ✓ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ✓ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches):

Water Table Present? Yes ___ No ✓ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): 1"

Wetland Hydrology Present? Yes ✓ No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Isolated depression

WETLAND DETERMINATION DATA FORM – Hawai'i and Pacific Islands Region

Project/Site: Kauai Community Correctional Center City: Lihue Sampling Date: 06-14-18 Time: 11:00am

Applicant/Owner: Hawaii Department of Public Safety State/Terr/Comlth.: Hawaii Island: Kauai Sampling Point: Tup

Investigator(s): T. Stewart TMK/Parcel: 4-3-9-05:13

Landform (hillslope, coastal plain, etc.): coastal plain Local relief (concave, convex, none): none

Lat: 22.0263374512 Long: -159.343608341 Datum: WGS 84 Slope (%): 1

Soil Map Unit Name: Mokuleia fine sandy loam (Mr) NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

Cultivated soil surrounding by irrigation ditches

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5)			
1. Cynodon dactylon	10	yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	10 = Total Cover		
Woody Vine Stratum (Plot size: 15)			
1.			
2.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species	1	x 4 =	4
UPL species		x 5 =	
Column Totals:	1 (A)		4 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain in Remarks or in the delineation report)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** X

Remarks:

Cultivated soil. No crops observed growing at time of investigation. Crops typically planted include lettuce, tomatoes, and onions.

SOIL

Sampling Point: Tup

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-20	5YR 3/3	100					sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Muck Presence (A8)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Dark Surface (S7)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Stratified Layers (A5)
- ___ Sandy Mucky Mineral (S1)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Cultivated soil surrounded by irrigation ditches an mowed lawn.

HYDROLOGY

Wetland Hydrology Indicators: (Explain observations in Remarks, if needed.)

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Tilapia Nests (B17)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Fiddler Crab Burrows (C10) (Guam, CNMI, and American Samoa)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Salt Deposits (C5)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches):

Water Table Present? Yes _____ No X Depth (inches):

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches):

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Cultivated soil surrounded by irrigation ditches an mowed lawn.

Attachment 8
Site Photographs

SITE PHOTOGRAPHS



Photograph 1. View looking northwest at mowed/landscaped front of main building.



Photograph 2. View looking east along access road in center of KCCC compound.

SITE PHOTOGRAPHS



Photographs 3. Low security housing in south area of property.



Photograph 4. Recreation area in south portion of property.

SITE PHOTOGRAPHS



Photograph 5. View looking north along access road with irrigation ditch parallel to Kuhio Highway.



Photograph 6. View looking east toward Kuhio Highway along irrigation ditch that bisects property.

SITE PHOTOGRAPHS



Photograph 7. View looking south along irrigation ditch with facility on east.



Photograph 8. Grass field with coconut palms in northwest corner of property.

SITE PHOTOGRAPHS



Photograph 9. View from guard tower looking west across north undeveloped area. Cultivated soil plots in foreground with isolated emergent wetland depression in background and access road along north boundary.

SITE PHOTOGRAPHS



Photograph 10. View looking north across emergent wetland.



Photograph 11. View looking west along southern wetland boundary.

SITE PHOTOGRAPHS



Photograph 12. View looking north along western wetland boundary.



Photograph 13. View looking west at wetland from cultivated soil plots.

SITE PHOTOGRAPHS



Photograph 15. Wetland data point (T Wet).



Photograph 16. Upland soil point (T Up).

DEPARTMENT OF THE ARMY
HONOLULU DISTRICT, U.S. ARMY CORPS OF ENGINEERS
FORT SHAFTER, HAWAII 96858-5440

October 10, 2018

SUBJECT: Additional Information Request for a Jurisdictional Determination for KCCC Proposed Medium Security Housing Units, Island of Kauai, Hawaii, Department of the Army File No. POH-2018-00189

Mr. Robert Nardi
Louis Berger
P.O. Box 1946
Morristown, New Jersey 07962

Mr. Nardi:

The Honolulu District, U.S. Army Corps of Engineers (Corps), Regulatory Branch has received your request dated August 8, 2018 for a Department of the Army (DA) approved jurisdictional determination (JD) for the KCCC Proposed Medium Security Housing Units project located at 3-5351 Kuhio Highway, Island of Kauai, Hawaii. Your request has been assigned DA file number POH-2018-00189. Please reference this number in all future correspondence with our office relating to this action.

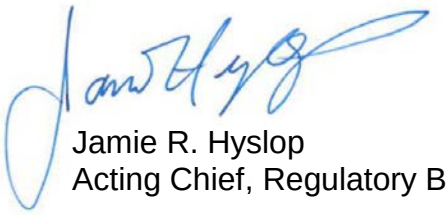
Based on review of the information you provided, our office does not have enough information to make a determination. Please refer to the enclosed checklist for the additional information needed to support our JD.

Please submit the requested information within 30 days of the date of this letter. If we do not receive a response from you within 30 days, your JD request will be administratively withdrawn until you provide the required information. Upon receipt of the requested information, we will resume evaluation of your request.

Thank you for your cooperation with the Honolulu District Regulatory Program. If you have any questions related to this determination, please contact Ms. Rebecca Black at 808-835-4107 or via e-mail at rebecca.l.black@usace.army.mil. You are encouraged to provide comments on your experience with the Honolulu District Regulatory Branch by accessing our web-based customer survey form at http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey.

For additional information about our Regulatory Program, please visit our web site at http://www.poh.usace.army.mil/Missions/Regulatory.aspx.

Sincerely,



Jamie R. Hyslop
Acting Chief, Regulatory Branch

Enclosure

cc:
Ms. Tara Stewart, Louis Berger

HONOLULU DISTRICT, U.S. ARMY CORPS OF ENGINEERS
ADDITIONAL INFORMATION REQUIRED TO SUPPORT A JURISDICTIONAL DETERMINATION

In order for this office to evaluate and determine the jurisdictional status and/or limits of aquatic features occurring on your property within the identified review area, you must submit the following information that is checked below:

(1) ☐ A JD Request Form requesting a jurisdictional determination. The form can be downloaded from our website at http://www.poh.usace.army.mil/Portals/10/docs/jurisdictionaldeterminations/RGL_%2016-01_%20Appendix_%201_%20FILLABLE.pdf?ver=2017-04-07-174236-997

(2) ☐ Contact information for the requestor/applicant, property owner(s), and authorized agent, if one has been designated.

(3) ☐ A signed statement from the property owner(s) allowing Corps personnel to enter the property and to collect samples during normal business hours.

(4) ☒ The total acreage of the survey area.

(5) ☐ Location Map – preferably depicted on a USGS 7.5 minute topographical map. The map should show a north arrow, the property/project boundary.

(6) ☐ Date(s) field work was performed to collect data, make field observations and/or to delineate the jurisdictional boundaries of the aquatic features.

(7) ☒ A description of existing field conditions. The field condition description may include current land use, flood/drought conditions, irrigation practices, modifications to the site, and any characteristics considered atypical or relevant to establishing jurisdictional limits (e.g., grading, illegal dumping, man-made stream diversions).

(8) ☒ A discussion of the hydrology at the site, including:
- a. ☒ All known surface or sub-surface sources
- b. ☒ Characteristics of surface flows (i.e., perennial, intermittent/seasonal or ephemeral)
- c. ☐ Estimated drainage gradients
- d. ☒ Surface water connections to the nearest traditional navigable water (TNW)
- e. ☒ Any potential influence for manmade water sources, such as irrigation
- f. ☒ The nearest “blue-line” waterway or other feature found on the most recent USGS map.

(9) ☐ If remote sensing was used in performing the delineation, provide an explanation of how it was used and include the name, date and source of the tools used and copies of applicable maps/photographs.

(10) ☐ A discussion of plant communities habitat types present at the site and other biological characteristics, such as wildlife, Federally listed species, fish/spawning areas or other important biological attributes.

(11) ☐ Tributary characteristics, including:
- a. ☐ Average width
- b. ☐ Average depth
- c. ☐ Substrate composition (e.g., silts, cobbles, bedrock, sands, gravel)
- d. ☐ Stream or channel gradient

(12) ☐ Any observed or documented interstate or foreign commerce associated with aquatic resources found on the site, specifically recreation or other use by interstate or foreign travelers, sale of fish or shellfish in interstate or foreign commerce, and use by industries operating in interstate or foreign commerce.

(13) ☒ A table listing all aquatic resources. The table should include the name of each aquatic resource, Cowardin type, acreage, and location (latitude/longitude in decimal format). For linear features (streams), the table must show both acreage and linear feet.

(14) ☒ A delineation of the jurisdictional boundaries of wetlands, other special aquatic sites (submerged aquatic vegetation and coral reefs), and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site.

a. ☐ Wetland delineation form(s). Wetland delineations must be conducted in accordance with the technical procedures and guidance described in the 1987 *Corps of Engineers Wetlands Delineation Manual* (Technical Report Y-87-1) and the 2012 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Hawai'i and Pacific Islands Region*, Version 2.0.The Hawaii and Pacific Island Supplement data sheets can be found here: http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/reg_supp/HPI_dataform_v2.pdf.

b. ☒ A delineation of the ordinary high water mark (OHWM) for freshwater perennial, intermittent, and ephemeral streams. This should include OHWM data sheets or other documentation supporting the rationale for the delineated OHWM. The term *ordinary high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas (33 CFR 328.3(e)).

c. ☐ A delineation of the *high tide line* (HTL) for coastal waters and waterbodies subject to the ebb and flow of the tide. This should include documentation of the HTL and other information supporting the rationale for the delineated HTL. The term *high tide line* means the line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore

objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm (33 CFR 328.3(d)). Note: The mean higher high water (MHHW) mark may be used to demarcate the HTL on a case-by-case basis when approved by the Corps Regulatory project manager and when physical field indicators of the HTL are not identifiable or feasible to collect/document.

d. ☐ A delineation of the *mean high water mark* for coastal waters and waterbodies subject to the ebb and flow of the tide
e. ☐ A delineation of coral reefs. *Coral reefs* consist of the skeletal deposit, usually of calcareous or silicaceous materials, produced by the vital activities of anthozoan polyps or other invertebrate organisms present in growing portions of the reef.

(15) ☒ A map/drawing or series of maps/drawings depicting the delineated wetlands, ephemeral, intermittent, perennial streams, natural or man-made drainages, swales, and other water conveyances. If culverts, flumes, or other similar features are observed/documented to exist on the site, include the location and dimensions of such features. Because only the Corps determines the regulatory status of each aquatic resource, the map(s) should not include any labeling about jurisdiction. If the JD requestor/applicant believes one or more aquatic resource is not jurisdictional, the rationale should be included in the delineation report and the resource(s) should be identified on the map. The aquatic resources delineation map(s) must include:

a. ☐ A title block, including drawing date, scale, revision dates (if any), north arrow, existing topographic contours (if available), benchmarks, and the stamp of a licensed surveyor or a narrative describing how the GPS data were obtained
b. ☐The vertical datum (e.g., NAD 83, etc.) equivalent for the project's vertical datum, mean lower low water (MLLW) or other tidal datum for tidal projects within the vertical units.

(16) ☐ Colored flagging, 'wetland delineation' printed pin flags, or other conspicuous markings to identify the wetland boundary, including photographs of the markings/flagging placed in the field. Note: If you are requesting a wetland boundary concurrence or verification from the Corps, you will need to have the boundary flagged in the field. Delineation flags should be shown as points that are connected by straight lines (or extend off-site at property boundaries) and identified on the drawing(s) with the corresponding number or naming convention that is written on the flag in the field. The flag numbers and any text must occur in a large enough scale to be legible on an 8 ½ x 11-inch reduced drawing(s)/map(s).

(17) ☐ Colored flagging, 'OHWM' printed pin flags, or other conspicuous markings to identify the lateral limits of the ordinary high water mark, including photographs of the markings/flagging placed in the field. Note: If you are requesting a field verification or concurrence from the Corps, you will need to have the OHWM limits flagged in the field.

(18) ☒ Properly labeled photographs of each identified wetland, ephemeral, intermittent, perennial stream, gulch, ditch, conveyance, etc. (including those that may be considered isolated and/or non-jurisdictional).

a. ☒ Identification of on-site "ditches" since some ditches may be determined as jurisdictional. Please include observations with regard to perennial or seasonal flow of these features.

(19) ☒ Justification for proposed "isolated" or non-jurisdictional determinations related to any wetlands, streams, gulches, etc. within the review area. Note that these water bodies must be delineated and depicted on the wetland and other waters delineation map. For wetlands, include distance (feet) from the nearest stream or other downstream conveyance (ditch, culvert, etc.) within the same sub-watershed as the wetland.

(20) ☒ A drawing/map depicting all proposed aquatic resource <u>impacts</u> (if known) should be presented as a separate document including the following:

a. ☒ The project boundary and aquatic resource boundaries (including ditches, swales, culverts, etc.) depicted on a topographic base map with color coded boundaries, arrows, and text.
b. ☐ Flagged, and legibly labeled surveyed boundary/reach of each wetland and stream.
c. ☒ Unique hatching or shading depicting each impact to each aquatic resource with the acreage/linear feet labeled. Temporary and permanent impacts to aquatic resources should be depicted.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122
Honolulu, Hawaii 96850

In Reply Refer To:
01EPIF00- 2018-TA-0458

August 17, 2018

Mr. Clayton H. Shimazu
Hawaii Department of Public Safety
919 Ala Moana Boulevard, 4th Floor
Honolulu, Hawaii 96814

Subject: Technical Assistance Proposed Kauai Community Correctional Center Medium Security Unit, Lihue

Dear Mr. Shimazu,

Thank you for your recent correspondence requesting technical assistance on species biology, habitat, or life requisite requirements. The Pacific Islands Fish and Wildlife Office (PIFWO) of the U.S. Fish and Wildlife Service (Service) appreciates your efforts to avoid or minimize effects to protected species associated with your proposed actions. We provide the following information for your consideration under the authorities of the Endangered Species Act (ESA) of 1973 (16 U.S.C. 1531 *et seq*.), as amended and Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712).

Due to significant workload constraints, PIFWO is currently unable to specifically address your information request. The table below lists the protected species most likely to be encountered by projects implemented within the Hawaiian Islands. Based on your project location and description, we have noted the species most likely to occur within the vicinity of the project area, in the '**Occurs In or Near Project Area'** column. Please note this list is not comprehensive and should only be used for general guidance. We have added to the PIFWO website, located at https://www.fws.gov/pacificislands/promo.cfm?id=177175840 recommended conservation measures intended to avoid or minimize adverse effects to these federally protected species and best management practices to minimize and avoid sedimentation and erosion impacts to water quality.

If you are representing a federal action agency, please use the official species list on our web-site for your section 7 consultation. You can find out if your project occurs in or near designated critical habitat here: https://ecos.fws.gov/ipac/.

Under section 7 of the ESA, it is the Federal agency's (or their non-Federal designee) responsibility to make the determination of whether or not the proposed project "may affect" federally listed species or designated critical habitat. A "may affect, not likely to adversely affect" determination is appropriate when effects to federally listed species are expected to be

discountable (*i.e.*, unlikely to occur), insignificant (minimal in size), or completely beneficial. This conclusion requires written concurrence from the Service. If a "may affect, likely to adversely affect" determination is made, then the Federal agency must initiate formal consultation with the Service. Projects that are determined to have "no effect" on federally listed species and/or critical habitat do not require additional coordination or consultation.

Implementing the avoidance, minimization, or conservation measures for the species that may occur in your project area will normally enable you to make a "may affect, not likely to adversely affect" determination for your project. If it is determined that the proposed project may affect federally listed species, we recommend you contact our office early in the planning process so that we may assist you with the ESA compliance. If the proposed project is funded, authorized, or permitted by a Federal agency, then that agency should consult with us pursuant to section 7(a)(2) of the ESA. If no Federal agency is involved with the proposed project, the applicant should apply for an incidental take permit under section 10(a)(1)(B) of the ESA. A section 10 permit application must include a habitat conservation plan that identifies the effects of the action on listed species and their habitats, and defines measures to minimize and mitigate those adverse effects.

We appreciate your efforts to conserve endangered species. We regret that we cannot provide you with more specific protected species information for your project site. If you have questions that are not answered by the information on our website, you can contact PIFWO at (808) 792-9400 and ask to speak to the lead biologist for the island where your project is located.

Sincerely,

AARON NADIG

Digitally signed by AARON NADIG
Date: 2018.08.17 14:54:05 -10'00'

Island Team Manager
Pacific islands Fish and Wildlife Office

The table below lists the protected species most likely to be encountered by projects implemented within the Hawaiian Islands. For your guidance, we've marked species that may occur in the vicinity of your project, this list is not comprehensive and should only be used for general guidance.

Scientific Name	**Common Name / Hawaiian Name**	**Federal Status**	**Occurs In or Near Project Area**
Mammals			
Lasiurus cinereus semotus	Hawaiian hoary bat/ `ōpe`ape`a	E	☒
Reptiles			
Chelonia mydas	Green sea turtle/honu - Central North Pacific DPS	T	☐
Erectmochelys imbricate	Hawksbill sea turtle/ honu`ea	E	☐
Birds			
Anas wyvilliana	Hawaiian duck/ koloa	E	☒
Branta sandvicensis	Hawaiian goose/ nēnē	E	☒
Fulica alai	Hawaiian coot/ `alae kea	E	☐
Gallinula galeata sandvicensis	Hawaiian gallinule/ `alae `ula	E	☒
Himantopus mexicanus knudseni	Hawaiian stilt/ ae`o	E	☐
Oceanodroma castro	Band-rumped storm-petrel/ `akē`akē	E	☒
Pterodroma sandwichensis	Hawaiian petrel/ `ua`u	E	☒
Puffinus auricularis newelli	Newell's shearwater/ `a`o	T	☒
Ardenna pacificus	Wedge-tailed Shearwater/ `ua`u kani	MBTA	☐
Gygis alba	White Tern/ manu-o-kū	MBTA	☐
Buteo solitarius	Hawaiian hawk/ 'io	E	☐
Insects			
Manduca blackburni	Blackburn's sphinx moth	E	☐
Megalagrion pacificum	Damselfly, Pacific Hawaiian	E	☐
M. xanthomelas	Damselfly, Orangeblack Hawaiian	E	☐
M. nigrohamatum nigrolineatum	Damselfly, Blackline Hawaiian	E	☐

Plants				
Scientific Name	**Common name**	**Status**	**Locations**	**May Affect**
Abutilon menziesii	Koʻoloaʻula	E	O, L, M, H	☐
Achyranthes splendens var. *rotundata*	ʻEwa hinahina	E	O	☐
Bonamia menziesii	No common name	E	K, O, L, M, H	☐
Canavalia pubescens	ʻāwikiwiki	E	Ni, K, L, M	☐
Colubrina oppositifolia	Kauila	E	O, M, H	☐
Cyperus trachysanthos	Puʻakuʻa	E	K, O	☐
Gouania hillebrandii	No common name	E	Mo, M	☐
Hibiscus brackenridgei	maʻo hau hele	E	O, Mo, L, M, H	☐
Ischaemum byrone	Hilo ischaemum	E	K, O, Mo, M, H	☐
Isodendrion pyrifolium	wahine noho kula	E	O, H	☐
Marsilea villosa	ʻIhiʻihi	E	Ni, O, Mo	☐
Mezoneuron kavaiense	Uhiuhi	E	O, H	☐
Nothocestrum breviflorum	Aiea	E	H	☐
Panicum fauriei var. *carteri*	Carter's panicgrass	E	Molokini Islet (O), Mo	☐
Panicum niihauense	Lauʻehu	E	K	☐
Peucedanum sandwicense	Makou	E	K, O, Mo, M	☐
Pleomele (Chrysodracon) hawaiiensis	Halapepe	E	H	☐
Portulaca sclerocarpa	ʻIhi	E	L, H	☐
Portulaca villosa	ʻIhi	E	Le, Ka, Ni, O, Mo, M, L, H, Nihoa	☐
Pritchardia affinis (maideniana)	Loulu	E	H	☐
Pseudognaphalium sandwicensium var. *molokaiense*	ʻEnaʻena	E	Mo, M	☐
Scaevola coriacea	Dwarf naupaka	E	Mo, M	☐
Schenkia (*Centaurium*) *sebaeoides*	Awiwi	E	K, O, Mo, L, M	☐
Sesbania tomentosa	ʻohai	E	Ni, Ka, K, O, Mo, M, L, H, Necker, Nihoa	☐
Tetramolopium rockii	No common name	T	Mo	☐
Vigna o-wahuensis	No common name	E	Mo, M, L, H, Ka	☐

Location key: O=Oahu, K=Kauai, M=Maui, H=Hawaiʻi Island, L=Lanaiʻi, Mo=Molokai, Ka=Kahoolawe, Ni=Niihau, Le=Lehua

U.S. DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
National Flood Insurance Program

OMB No. 1660-0008
Expiration Date: November 30, 2018

ELEVATION CERTIFICATE

Important: Follow the instructions on pages 1–9.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A – PROPERTY INFORMATION		FOR INSURANCE COMPANY USE
A1. Building Owner's Name State of Hawaii		Policy Number:
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 3-5351 KUHIO HWY		Company NAIC Number:
City LIHUE	State Hawaii	ZIP Code 96766

A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)
(4) 3-9-005:013

A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) _____

A5. Latitude/Longitude: Lat. 22.025386 Long. -159.342976 Horizontal Datum: ☐ NAD 1927 ☒ NAD 1983

A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.

A7. Building Diagram Number 1A

A8. For a building with a crawlspace or enclosure(s):

a) Square footage of crawlspace or enclosure(s) N/A sq ft

b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade _____

c) Total net area of flood openings in A8.b _____ sq in

d) Engineered flood openings? ☐ Yes ☐ No

A9. For a building with an attached garage:

a) Square footage of attached garage N/A sq ft

b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade _____

c) Total net area of flood openings in A9.b _____ sq in

d) Engineered flood openings? ☐ Yes ☐ No

SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number	B2. County Name	B3. State
KAUAI COUNTY - 150002	KAUAI COUNTY	Hawaii

B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	B7. FIRM Panel Effective/ Revised Date	B8. Flood Zone(s)	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth)
150002 0214	F	11-26-2010	11-26-2010	A	no BFE determined

B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9:
☐ FIS Profile ☒ FIRM ☐ Community Determined ☐ Other/Source: _____

B11. Indicate elevation datum used for BFE in Item B9: ☐ NGVD 1929 ☐ NAVD 1988 ☒ Other/Source: Local Mean SeaLevel

B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? ☐ Yes ☒ No
Designation Date: _____ ☐ CBRS ☐ OPA

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 3-5351 KUHIO HWY			Policy Number:
City LIHUE	State Hawaii	ZIP Code 96766	Company NAIC Number

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: ☐ Construction Drawings* ☐ Building Under Construction* ☒ Finished Construction

*A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO. Complete Items C2.a–h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.

Benchmark Utilized: BM 161 1400 F (Tidal BM VM-20) Vertical Datum: Local Mean Sea Level

Indicate elevation datum used for the elevations in items a) through h) below.

☐ NGVD 1929 ☐ NAVD 1988 ☒ Other/Source: Local Mean Sea Level

Datum used for building elevations must be the same as that used for the BFE.

		Check the measurement used.	
a) Top of bottom floor (including basement, crawlspace, or enclosure floor)	10.7	☒ feet	☐ meters
b) Top of the next higher floor	N/A	☐ feet	☐ meters
c) Bottom of the lowest horizontal structural member (V Zones only)	N/A	☐ feet	☐ meters
d) Attached garage (top of slab)	N/A	☐ feet	☐ meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	10.6	☒ feet	☐ meters
f) Lowest adjacent (finished) grade next to building (LAG)	8.1	☒ feet	☐ meters
g) Highest adjacent (finished) grade next to building (HAG)	10.6	☒ feet	☐ meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	N/A	☐ feet	☐ meters

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. *I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.*

Were latitude and longitude in Section A provided by a licensed land surveyor? ☒ Yes ☐ No ☐ Check here if attachments.

Certifier's Name ERIK KANESHIRO	License Number 9826	
Title DIRECTOR OF SURVEYING		
Company Name AUSTIN, TSUTSUMI AND ASSOCIATES, INC.		
Address 501 SUMNER ST. STE. 521		
City HONOLULU	State Hawaii	ZIP Code 96817

ERIK S. KANESHIRO
LICENSED PROFESSIONAL LAND SURVEYOR
No. 9826
HAWAII, U.S.A.
Exp 04/20

Signature	Date	Telephone	Ext.
Erik S. Kaneshiro	1/15/19	(808) 533-3646	690

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments (including type of equipment and location, per C2(e), if applicable)
C2(e) - Lowest machinery is a water heater located at the rear of the property.

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 3-5351 KUHIO HWY			Policy Number:
City LIHUE	State Hawaii	ZIP Code 96766	Company NAIC Number

SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

For Zones AO and A (without BFE), complete Items E1–E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B,and C. For Items E1–E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.

E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).

a) Top of bottom floor (including basement, crawlspace, or enclosure) is 0.1 ☒ feet ☐ meters ☒ above or ☐ below the HAG.

b) Top of bottom floor (including basement, crawlspace, or enclosure) is 2.6 ☒ feet ☐ meters ☒ above or ☐ below the LAG.

E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is N/A ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E3. Attached garage (top of slab) is N/A ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E4. Top of platform of machinery and/or equipment servicing the building is 0.0 ☒ feet ☐ meters ☒ above or ☐ below the HAG.

E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? ☐ Yes ☐ No ☐ Unknown. The local official must certify this information in Section G.

SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. The statements in Sections A, B, and E are correct to the best of my knowledge.

Property Owner or Owner's Authorized Representative's Name Erik Kaneshiro			
Address 501 Sumner Street, Suite 521	City Honolulu	State Hawaii	ZIP Code 96817
Signature	Date 1/15/19	Telephone (808) 533-3646	

Comments

☐ Check here if attachments.

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 3-5351 KUHIO HWY			Policy Number:
City LIHUE	State Hawaii	ZIP Code 96766	Company NAIC Number

SECTION G – COMMUNITY INFORMATION (OPTIONAL)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8–G10. In Puerto Rico only, enter meters.

G1. ☐ The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)

G2. ☐ A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.

G3. ☐ The following information (Items G4–G10) is provided for community floodplain management purposes.

G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate of Compliance/Occupancy Issued

G7. This permit has been issued for: ☐ New Construction ☐ Substantial Improvement

G8. Elevation of as-built lowest floor (including basement) of the building: _____ ☐ feet ☐ meters Datum _____

G9. BFE or (in Zone AO) depth of flooding at the building site: _____ ☐ feet ☐ meters Datum _____

G10. Community's design flood elevation: _____ ☐ feet ☐ meters Datum _____

Local Official's Name	Title
Community Name	Telephone
Signature	Date

Comments (including type of equipment and location, per C2(e), if applicable)

☐ Check here if attachments.

ELEVATION CERTIFICATE

BUILDING PHOTOGRAPHS

See Instructions for Item A6.

OMB No. 1660-0008
Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 3-5351 KUHIO HWY			Policy Number:
City LIHUE	State Hawaii	ZIP Code 96766	Company NAIC Number

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least 2 building photographs below according to the instructions for Item A6. Identify all photographs with date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8. If submitting more photographs than will fit on this page, use the Continuation Page.



Photo One

Photo One Caption Front View

Clear Photo One

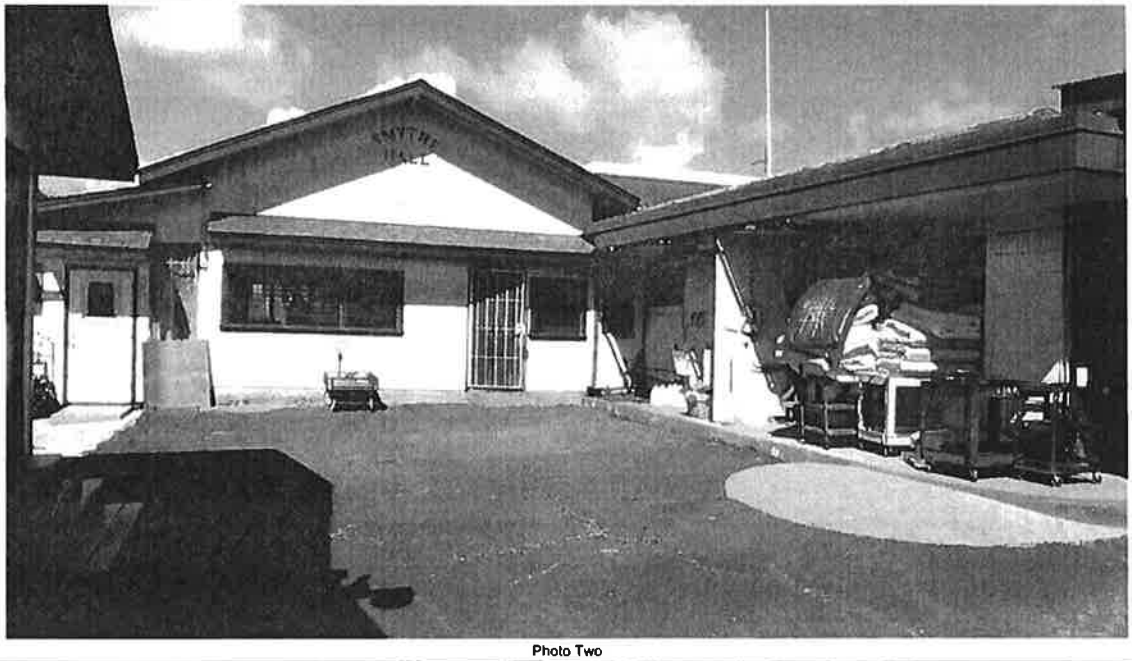


Photo Two

Photo Two Caption Rear View

Clear Photo Two

ELEVATION CERTIFICATE

BUILDING PHOTOGRAPHS
Continuation Page

OMB No. 1660-0008
Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 3-5351 KUHIO HWY			Policy Number:
City LIHUE	State Hawaii	ZIP Code 96766	Company NAIC Number

If submitting more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8.

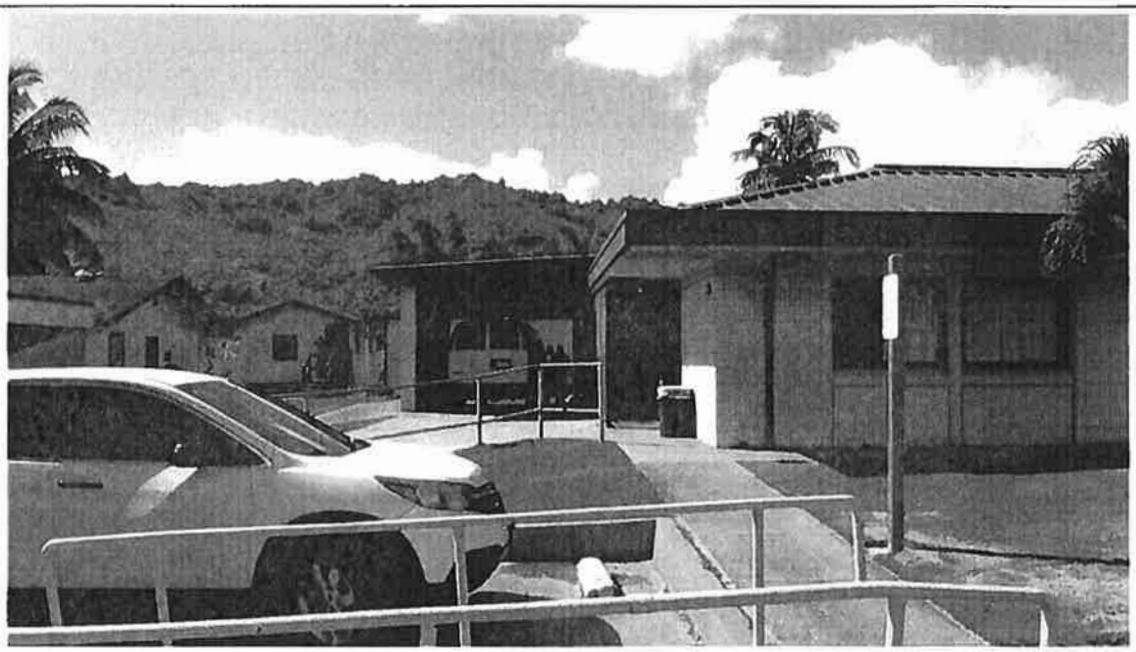


Photo Three

Photo Three Caption Left Front View

Clear Photo Three

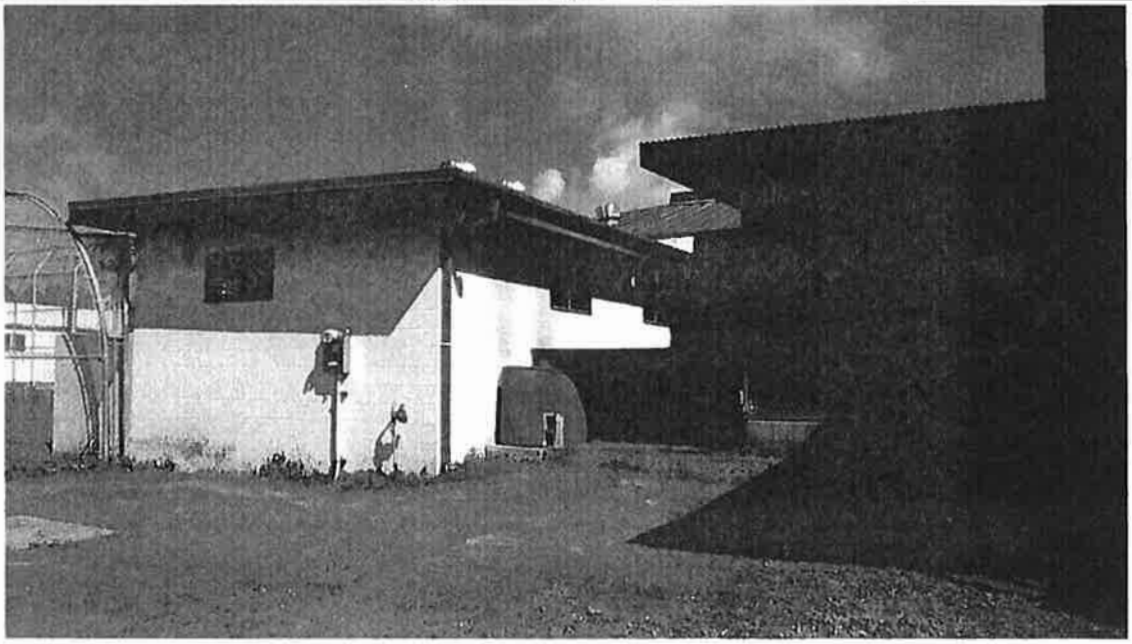


Photo Four

Photo Four Caption Right Rear View

Clear Photo Four

AUSTIN, TSUTSUMI & ASSOCIATES, INC. CIVIL ENGINEERS • SURVEYORS
CONTINUING THE ENGINEERING PRACTICE FOUNDED BY H. A. R. AUSTIN IN 1934

TERRANCE S. ARASHIRO, P.E.
ADRIENNE W.L.H. WONG, P.E., LEED AP
DEANNA M.R. HAYASHI, P.E.
PAUL K. ARITA P.E.
ERIK S. KANESHIRO, L.P.L.S., LEED AP
MATT K. NAKAMOTO, P.E.
GARRETT K. TOKUOKA, P.E.

#17-119

February 20, 2019

Mr. Michael Hinazumi
Department of Water
4398 Pua Loke Street
Lihue, Hawaii 96766

Dear Mr. Hinazumi:

Subject: **Kauai Community Correctional Center (KCCC)**
Secure Housing Project - Phase 1
3-5351 Kuhio Highway
Lihue, Hawaii 96766
TMK: (3) 2-3-023:005

Austin, Tsutsumi & Associates, Inc. (ATA) has been retained by DLR Group, Inc. to provide civil engineering services for proposed improvements at the existing KCCC site. The proposed project is in Phase 1 of an overall masterplan consisting of four (4) total phases to develop secure housing complex and support services buildings on the KCCC property. Phase 1 of the buildout includes secure housing complexes consisting of approximately 80 beds (approximately 13,000 sf) on the unused land north of the existing KCCC property. Of note, the goal of the proposed housing complex is help elevate the existing overcrowded situation and house the existing inmates onsite and not to increase the overall population of KCCC. The landowner and developer of the site is The State of Hawaii Department of Public Safety (DPS).

Based on our field observations and research, there are two water meter boxes (water meter sizes unknown) at the east entrance to the lot. The meters are serviced through the existing 16-inch asbestos concrete waterline in Kuhio Highway. There is one fire hydrant onsite near the existing wastewater pump building and no nearby fire hydrant on Kuhio Highway.

Regarding water system improvements for this project, we respectfully ask for assistance in acquiring the following additional information needed to complete our design:

Please confirm the availability of water for our planned improvements as well as information on existing water pressure and flow data adjacent to the project site (see attached location map). As mentioned previously, the project is to alleviate the existing overcrowding and not house more inmates and as such the population of the site will not change. We understand that we will be including new fixtures for the property, but we anticipate that the water demand will not rise significantly, if at all, due to the improvements. We would also request written confirmation of the required fire flow for fire water service for possible onsite fire hydrants, if required. Please let us know how we could access or request any as-builts showing connection points, age and size of public line servicing the CCC, as well as any information regarding existing water meters including the water meter sizes that currently service the site. Also, any information regarding the regional water system that could potentially affect our site that you

REPLY TO:
501 SUMNER STREET, SUITE 521 • HONOLULU, HAWAII 96817-5031
PHONE (808) 533-3646 • FAX (808) 526-1267
EMAIL : atanl@atahawaii.com

OFFICES IN:
HONOLULU, HAWAII
WAILUKU, MAUI, HAWAII
HILO, HAWAII

folks could provide would be appreciated. This information could include, but is not limited to, future improvement or maintenance plans and/or immediate or future limitations or planned changes in service.

Based on the anticipated demand, the project will utilize the existing water connection for both domestic and fire protection water demands, unless the existing meters require upgrades.

We respectfully request the information by March 1, 2019. Your expeditious response to this matter would be greatly appreciated. If you have any questions, please call me at (808) 533-3646. Thank you for your assistance.

Sincerely,

AUSTIN, TSUTSUMI & ASSOCIATES, INC.

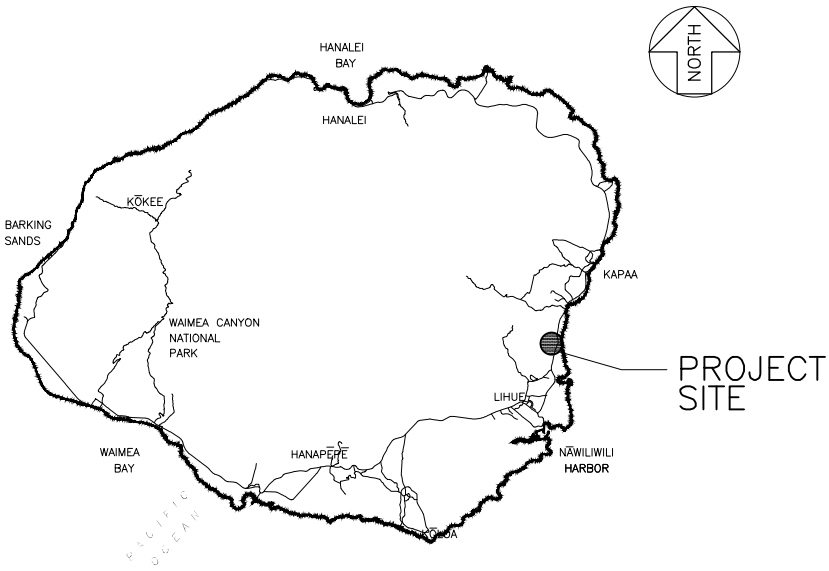
By

KELLEN MIRA, P.E.
Project Manager

KM:km

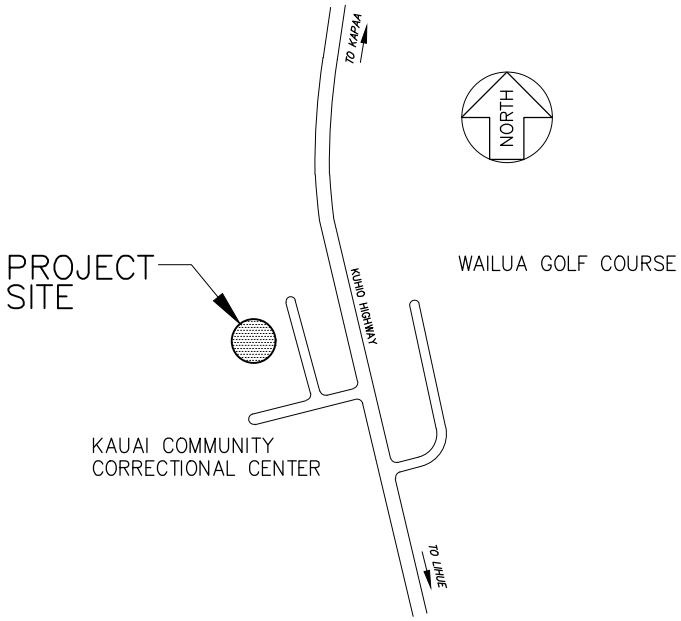
Attachments:
Figure 1 – Site Vicinity Map
Figure 2 – Proposed Site

Y:\2017\17-119\ENGINEERING\Correspondence\Water Service Request\KCCC - Water Service Request 2019-02-15.docx



ISLAND OF KAUAI

NOT TO SCALE



LOCATION MAP

NOT TO SCALE

SCHEMATIC DESIGN REPORT

KAUAI COMMUNITY CORRECTIONAL CENTER
SECURE HOUSING PROJECT
TMK: (4) 3-9-005: 013

LIHUE, KAUAI, HAWAII

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS,SURVEYORS ● HONOLULU, WAILUKU, HILO, HAWAII

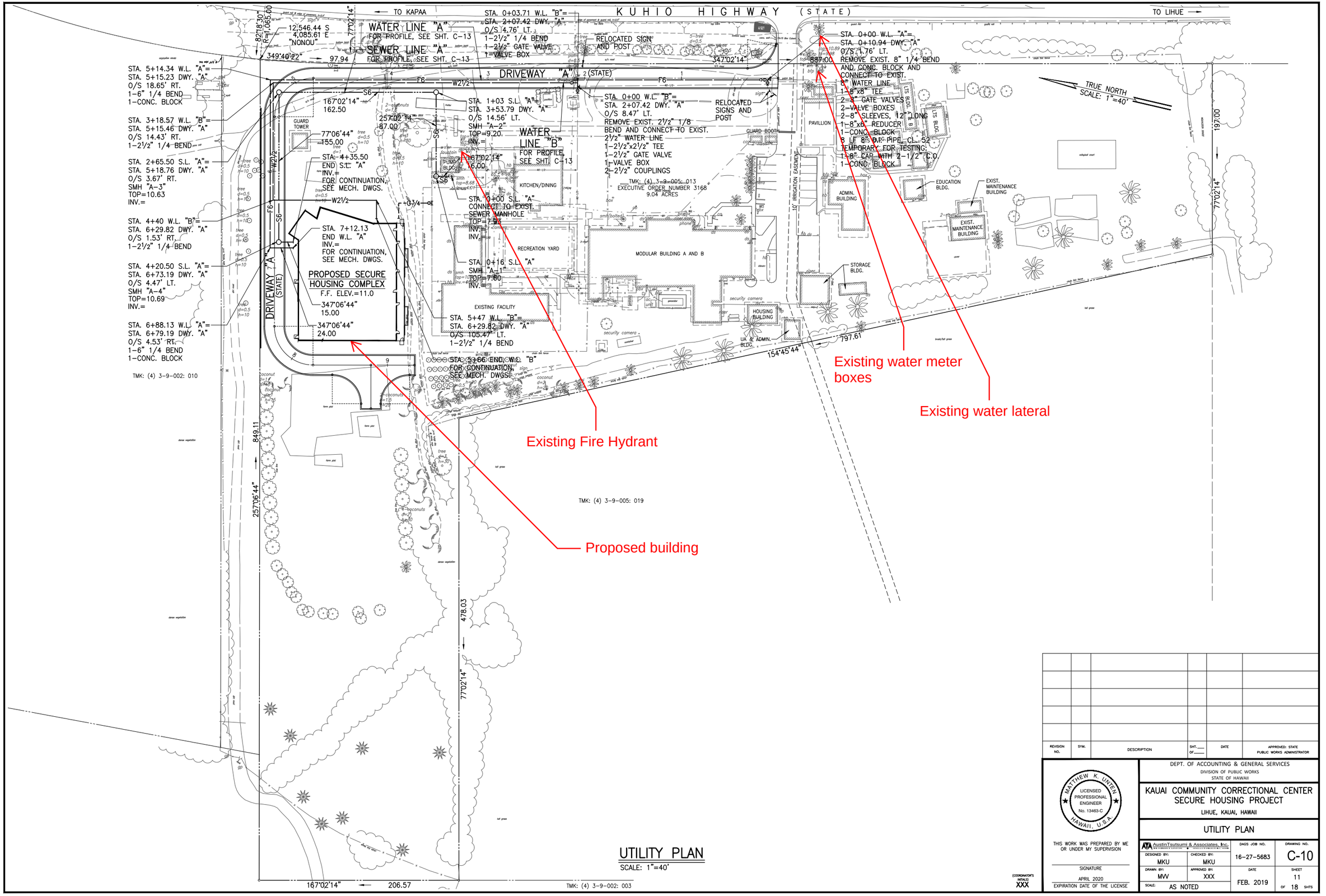
PROJECT LOCATION
AND VICINITY MAP

EXHIBIT

1

JOB NO. 17-119
\\files\Projects\PROSPECTIVES\DLR Secure Housing Project for DPS\Exhibits\CCC\KCCC\EXH1-VICINITY MAP.dwg

NOV. 2017



STA. 5+14.34 W.L. "A"=
STA. 5+15.23 DWY. "A"
O/S 18.65' RT.
1-6" 1/4 BEND
1-CONC. BLOCK

STA. 3+18.57 W.L. "B"=
STA. 5+15.46 DWY. "A"
O/S 14.43' RT.
1-2½" 1/4 BEND

STA. 2+65.50 S.L. "A"=
STA. 5+18.76 DWY. "A"
O/S 3.67' RT.
SMH "A-3"
TOP=10.63
INV.=

STA. 4+40 W.L. "B"=
STA. 6+29.82 DWY. "A"
O/S 1.53' RT.
1-2½" 1/4 BEND

STA. 4+20.50 S.L. "A"=
STA. 6+73.19 DWY. "A"
O/S 4.47' LT.
SMH "A-4"
TOP=10.69
INV.=

STA. 6+88.13 W.L. "A"=
STA. 6+79.19 DWY. "A"
O/S 4.53' RT.
1-6" 1/4 BEND
1-CONC. BLOCK

STA. 0+03.71 W.L. "B"=
STA. 2+07.42 DWY. "A"
O/S 4.76' LT.
1-2½" 1/4 BEND
1-2½" GATE VALVE
1-VALVE BOX

STA. 0+00 W.L. "A"=
STA. 0+10.94 DWY. "A"
O/S 1.76' LT.
REMOVE EXIST. 8" 1/4 BEND AND CONC. BLOCK AND CONNECT TO EXIST. 8" WATER LINE
1-8"x8" TEE
2-8" GATE VALVES
2-VALVE BOXES
2-8" SLEEVES, 12' LONG
1-8"x6" REDUCER
1-CONC. BLOCK
8 LF 8" D.I. PIPE, CL. 52
TEMPORARY FOR TESTING
1-8" CAP WITH 2-1/2" C.O.
1-CONC. BLOCK

STA. 0+00 W.L. "B"=
STA. 2+07.42 DWY. "A"
O/S 8.47' LT.
REMOVE EXIST. 2½" 1/8 BEND AND CONNECT TO EXIST. 2½" WATER LINE
1-2½"x2½" TEE
1-2½" GATE VALVE
1-VALVE BOX
2-2½" COUPLINGS

STA. 1+03 S.L. "A"=
STA. 3+53.79 DWY. "A"
O/S 14.56' LT.
SMH "A-2"
TOP=9.20
INV.=

STA. 0+00 S.L. "A"
CONNECT TO EXIST. SEWER MANHOLE
TOP=7.93
INV.=
INV.=

STA. 0+16 S.L. "A"
SMH "A-1"
TOP=7.60
INV.=

STA. 5+47 W.L. "B"=
STA. 6+29.82 DWY. "A"
O/S 105.47' LT.
1-2½" 1/4 BEND

STA. 5+66 END W.L. "B"
FOR CONTINUATION, SEE MECH. DWGS.

STA. 4+35.50
END S.L. "A"
INV.=
FOR CONTINUATION, SEE MECH. DWGS.

STA. 7+12.13
END W.L. "A"
INV.=
FOR CONTINUATION, SEE MECH. DWGS.

12,546.44 S
4,085.61 E
"NONOU"

82°18'30"
R=1,065.00
349°40'22"
97.94
167°02'14"
162.50
257°02'14"
87.00
77°06'44"
155.00
347°06'44"
15.00
347°06'44"
24.00
347°02'14"
887.00
154°45'44"
797.61
197.00
77°02'14"
849.11
257°06'44"
478.03
77°02'14"
167°02'14"
206.57

UTILITY PLAN
SCALE: 1"=40'

REVISION NO.	SYM.	DESCRIPTION	SHT.___ OF.___	DATE	APPROVED: STATE PUBLIC WORKS ADMINISTRATOR

DEPT. OF ACCOUNTING & GENERAL SERVICES
DIVISION OF PUBLIC WORKS
STATE OF HAWAII

MATTHEW K. UNTEN
LICENSED PROFESSIONAL ENGINEER
No. 13463-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

SIGNATURE

APRIL 2020
EXPIRATION DATE OF THE LICENSE

(COORDINATOR'S INITIALS) XXX

KAUAI COMMUNITY CORRECTIONAL CENTER SECURE HOUSING PROJECT
LIHUE, KAUAI, HAWAII

UTILITY PLAN

AustinTsutsumi & Associates, Inc.
CIVIL ENGINEERS • STRUCTURAL ENGINEERS • SURVEYORS

DESIGNED BY:	CHECKED BY:	DAGS JOB NO.	DRAWING NO.
MKU	MKU	16-27-5683	C-10
DRAWN BY:	APPROVED BY:	DATE	SHEET
MVV	XXX	FEB. 2019	11 OF 18 SHTS
SCALE: AS NOTED			

FILE _____ DRAWER _____ FOLDER _____

Y:\2017\17-119\ENGINEERING\DWG\11 C-10 UTILITY PLAN - LAYOUT1.DWG
JOB NO. 0-17-119
Feb. 20, 2019

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HONOLULU DISTRICT
FORT SHAFTER, HAWAII 96858-5440

April 12, 2019

SUBJECT: Permit May Be Required for KCCC Proposed Medium Security Housing Units, Island of Kauai, DA File No. POH-2018-00189

Ms. Tara Stewart
Louis Berger
412 Mt. Kemble Avenue
P.O. Box 1946
Morristown, New Jersey 07962

Dear Ms. Stewart:

The Honolulu District, U.S. Army Corps of Engineers (Corps), Regulatory Branch has received your request for a jurisdictional determination and clarification whether a Department of the Army (DA) permit is required to construct a new building with utility connections and a driveway for the purpose of providing medium security housing units in north section of property TMK 4-3-9-05:13, the existing KCCC facility, at 22.0263391202, -159.343709208 at 3-351 Kuhio Highway in Lihue, Island of Kauai, Hawaii. Your request has been assigned Department of the Army (DA) file number **POH-2018-00189**. Please reference this number in all future correspondence with this office relating to this action.

We have completed review of your submittal pursuant to Section 404 of the Clean Water Act (Section 404) and Section 10 of the Rivers and Harbors Act of 1899 (Section 10). Section 404 requires authorization prior to the discharge and/or placement of dredged or fill material into waters of the U.S., including adjacent wetlands. Section 10 requires authorization prior to conducting work in, over, under, and affecting navigable waters.

Based on our review of your submittal, we have preliminarily determined that the wetland shown as Feature A in the delineation (Enclosure 1) may be a water of the U.S. under the regulatory jurisdiction of the Corps. This office concurs with the submitted waters delineation, and the wetland boundaries at the subject site as prepared by Ms. Tara Stewart dated August 2018.

This letter contains a preliminary jurisdictional determination (JD), which is a written indication that wetlands and waterways within your project area may be waters of the U.S. (Enclosure 2). For the purpose of calculating impacts, compensatory mitigation requirements, and other resource protection measures, a permit decision made on the basis of a preliminary JD will treat all waters and wetlands that would be affected by the permitted activity on the site as if they are jurisdictional waters of the U.S. If you concur

with the findings of the preliminary JD, please sign it and return it to the following address within two weeks. If you believe the preliminary JD is inaccurate, you may request an approved JD, which is an official determination regarding the presence or absence of waters of the United States by submitting a letter to the address below. Please reference the DA File Number and provide any information valuable for the reevaluation of your jurisdictional determination to CEPOH-RO@usace.army.mil or to the address below.

Honolulu District
U.S. Army Corps of Engineers
Regulatory Branch, Building 230
Fort Shafter, Hawaii 96858-5440

This determination has been conducted to identify the limits of the Corps' Clean Water Act jurisdiction for the particular site identified in this request. This determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

In accordance with Section 404, a Department of the Army (DA) permit will be required for any activity resulting in the discharge and/or placement of dredged of fill material into the Feature A wetland. It appears the proposed construction of the driveway may result in the discharge of fill material into the wetland on the project site. Therefore, in accordance with Section 404 you may need to obtain a DA permit from this office prior to commencing your proposed work.

Based on our review of your submittal, it appears the proposed construction of a driveway for the new housing building may qualify for authorization under a Nationwide Permit. Please prepare a Pre-Construction Notification that meets the requirements provided on the attached document (Enclosure 3) and submit to this office via email at: CEPOH-RO@usace.army.mil.

Additionally, Section 40l(a)(l) of the Clean Water Act requires that you obtain a Water Quality Certification (WQC) or waiver from the State of Hawaii, Department of Health, Clean Water Branch, which may be required for this project. For additional information, please contact the Clean Water Branch at (808) 586-4309 or cleanwaterbranch@doh.hawaii.gov. Final DA permits are not issued until this office receives a copy of the approved 401 WQC or waiver.

Before authorizing work under our statutory authorities, the Corps must also ensure a project complies with applicable Federal laws and regulations, such as the Endangered Species Act (ESA), Magnuson-Stevens Fishery Conservation and Management Act, Section 401 of the Clean Water Act, Coastal Zone Management Act, and the National Historic Preservation Act. In most instances, the Corps will coordinate directly with the

appropriate agencies, but we may require additional information from you to complete the coordination and consultation.

Thank you for your cooperation with the Honolulu District Regulatory Program. You are encouraged to provide comments on your experience with the Honolulu District Regulatory Branch by accessing our web-based customer survey form at http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0. Should you have any questions related to this determination, please contact me at 808-835-4310 or via e-mail at Vera.B.Koskelo@usace.army.mil.

Sincerely,

KOSKELO.VERA.B.1370139110

Digitally signed by KOSKELO.VERA.B.1370139110
Date: 2019.04.12 15:24:38 -10'00'

Vera B. Koskelo
Project Manager, Regulatory Branch

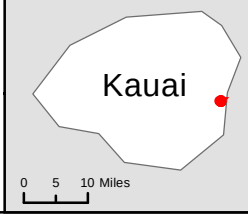
Enclosures



Jurisdictional Determination Area

Aquatic Resource

Sources:
Google Earth, 2018; USGS National Hydrography Dataset, 2018, USFWS, 2017.



Jurisdictional Determination Area

KAUAI
COMMUNITY CORRECTIONAL CENTER

Department of Public Safety

N

0 75 150 Feet

Louis Berger

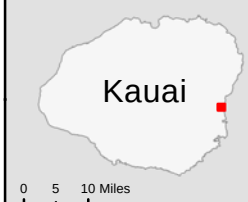


KCCC Site Boundary

Proposed Building Footprint

Existing Building

Source:
DLR Group.



Proposed Site Plan

KAUAI
COMMUNITY CORRECTIONAL CENTER

Department of Public Safety

N

0 100 200 Feet

Louis Berger

US Army Corps of Engineers, Honolulu District

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

This preliminary jurisdictional determination (PJD) finds that there "*may be*" waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: August 2018

B. NAME AND ADDRESS OF PERSON REQUESTING PJD:

Ms. Tara Stewart
Louis Berger
412 Mt. Kemble Avenue
P.O. Box 1946
Morristown, New Jersey 07962

C. DISTRICT OFFICE: Honolulu District, CEPOH-RB
FILE NAME: KCCC Proposed Medium Security Housing Units, Island of Hawaii
FILE NUMBER: POH-2018-00189

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:
State or Territory: Hawaii
County: Island of Kauai
City: Lihue, property TMK 4-3-9-05:13 at 3-351 Kuhio Highway
Lat.: 22.0263391202 Long.: -159.343709208
Name of nearest waterbody: Pacific Ocean

E. REVIEW PERFORMED FOR SITE EVALUATION:
☒ Office (Desk) Determination. Date: 12 April 2019
☐ Field Determination. Date(s):

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION

Site Number or Name	Latitude	Longitude	Estimated amount of aquatic resources in review area (acreage and linear feet, if applicable)	Type of aquatic resource (wetland v. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject
Feature A	22° 1'34.20"N	159°20'38.42"W	0.81 ac	wetland	Section 404 of CWA

See attached map identifying PJD Review Area, Enclosure 1.

F. EXPLANATION OF PRELIMINARY AND APPROVED JURISDICTIONAL DETERMINATIONS:

1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.

2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "preconstruction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the.JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there "may be" waters of the U.S. and/or that there "may be" navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

G. SUPPORTING DATA. Data reviewed for preliminary JD (check all that apply):

☒ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
☒ Data sheets prepared/submitted by or on behalf of the PJD requestor.
  ☒ Office concurs with data sheets/delineation report.
  ☐ Office does not concur with data sheets/delineation report. Rationale: Explain
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☒ U.S. Geological Survey Hydrologic Atlas:
  ☐ USGS NHD data.
  ☒ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: Earthpoint topo quad data layer for Google Earth Pro; USGS Kapaa quadrangle 1963
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: SSURGO soils data layer for GoogleEarth Pro
☒ USFWS National wetlands inventory map(s). Cite name: data layer for GoogleEarth Pro
☐ State/Local wetland inventory map(s): .
☒ FEMA/FIRM maps: FEMA National Flood Hazard Layer Viewer, Accessed April 2019
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date): GoogleEarth Pro, University of Hawaii at Manoa historic aerial photographs of Lydgate 1950, 1975, 1987, and 1992; Historic Aerials.com photographs from 1950 and 1951
  or ☒ Other (Name & Date): provided by applicant, 08 August 2018
☐ Previous determination(s). File no. and date of response letter: .
☒ Other information (please specify): In a phone call on 4 April 2019, the consultant stated that they had verbally confirmed with KCCC on-site staff who had observed that Feature C does not flow

[1] Districts may establish timeframes for requester to return signed PJD forms. If the requester does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

continuously. The consultant also stated that Feature C was flowing, but not at bankful despite a storm event in the watershed having occurred a few days prior to the delineation.

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

KOSKELO.VERA.B.1370139110 Digitally signed by KOSKELO.VERA.B.1370139110 Date: 2019.04.12 15:21:56 -10'00'

12 April 2019

Signature and date of Regulatorystaff member completing PJD (REQUIRED)

Tona Stewart 15April 2019

Signature and date of person requesting preliminary JD (REQUIRED, unless obtaining the signature is impracticable

[1] Districts may establish timeframes for requester to return signed PJD forms. If the requester does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

Honolulu District
U.S. Army Corps of Engineers

Nationwide Permit Pre-Construction Notification (PCN)

This PCN template integrates requirements of the U.S. Army Corps of Engineers (Corps) Nationwide Permit (NWP) Program with the Honolulu District (POH) NWP Regional Conditions. Boxes 1-10 should be completed to include all information required by NWP General Condition 32. Boxes 11 and 12 (or other sufficient information to show compliance with all NWP General and POH Regional Conditions) is also recommended to be completed for proposed activities seeking verification under the NWP Program. If additional space is needed, please provide as a separate attachment. Please refer to the attached *Instructions for the Honolulu District Nationwide Permit Pre-Construction Notification (PCN)* (Instructions) for instructions on completing the PCN.

To be completed by the Corps – do not fill-in		
Application Number:	**Date Received:**	**Date Complete:**

1. Prospective Permittee and Agent Contact Information (see Instructions)

a. Prospective Permittee

First - _____ Middle - _____ Last - _____

Company - _____ Email Address - _____

Address - 412 Mount Kemble Avenue, PO Box 1946 Morristown, NJ 07962-1946 City - Lihue State/Territory - _____ Zip - _____

Phone (Residence/Mobile) - _____ Phone (Business) - _____

b. Agent (if applicable)

First - _____ Middle - _____ Last - _____

Company - _____ Email Address - _____

Address - _____ City - _____ State/Territory - _____ Zip - _____

Phone (Residence/Mobile) - _____ Phone (Business) - _____

c. Statement of Authorization: I hereby authorize _____, to act on my behalf as my agent for the proposed activity. (Optional, see instructions)

_____ August 3, 2018

Signature of Applicant Date

2. Name and Location of the Proposed Activity (see Instructions)

☐ The proposed work would involve multiple-single and complete projects. See attachment for the information required in Boxes 2 through 12, as applicable.

a. Project Name or Title:	**b. City, County, Island, State/Territory:**

c. Name of Impacted Waterbody(ies):

d. Coordinates (in decimal format):
Latitude - Longitude -

☐ Unknown (please provide other location descriptions below)

e. Other Location Description (optional, see instructions):

f. Directions to the site (optional, see instructions):

3. Specific NWP(s) you want to use to authorize the proposed activity (see Instructions)

4. Description of the Proposed Activity (see Instructions)

a. Complete description of the Proposed Activity:

Impact Quantifications:

For discharges of dredged/fill material (*if more than 3 fill activities proposed, include extended table as an attachment*):

☐ N/A, no discharge of dredged or fill material in waters of the U.S. proposed.

Impacted Water Name (e.g. Aloha Stream)	**Impacted Water Type** (T-Tributary, W-Wetland, N-Navigable water)	**Fill Activity** (e.g. sandbag berm, temp access, bank stabilization, etc.)	**Fill Dimensions in Waters of the U.S.** *Note: Only record fill placed below Ordinary High Water Mark (OHWM) for Stream/Tributary, Wetland Boundary or High Tide Line (HTL) for Navigable Waters*				**Impact Duration** (T-Temporary, P-Permanent, L-Loss)	**Fill Material Type** (e.g. boulder, sand, sandbag, soil, etc.)
			Length (ft)	**Width (ft)**	**Area (sq ft)**	**Volume (cy)**		
	☐T ☐W ☐N						☐T ☐P ☐L	
	☐T ☐W ☐N						☐T ☐P ☐L	
	☐T ☐W ☐N						☐T ☐P ☐L	

For structures (*if more than 3 structures proposed, include extended table as an attachment*):

☐ N/A, no structures in navigable waters proposed.

Impacted Navigable Water Name (e.g. Mahalo Bay)	**Impacted Water Type** (T/W/N)	**Type of Structure and Material** (e.g. HDPE pipeline, concrete pier, steel cofferdam, etc.)	**Structure's Position** (I-In/O-Over/ U-Under nav water)	**Structure's Dimensions in Navigable Waters**			**Impact Duration** (T-Temporary, P-Permanent, L-Loss)
				Length (ft)	**Width (ft)**	**Area (sq ft)**	
	☐T ☐W ☐N		☐I ☐O ☐U				☐T ☐P ☐L
	☐T ☐W ☐N		☐I ☐O ☐U				☐T ☐P ☐L
	☐T ☐W ☐N		☐I ☐O ☐U				☐T ☐P ☐L

For dredging activities *(if more than 3 dredge activities proposed, include extended table as an attachment)*:

☐ New dredging ☐ Maintenance dredging ☐ N/A, no dredging in navigable waters proposed.

Impacted Navigable Water Name (e.g. Lei Harbor)	**Impacted Water Type** (T/W/N)	**Dredge/Removal Dimensions in Navigable Waters**				**Impact Duration** (T-Temporary, P-Permanent, L-Loss)	**Dredged Material Type** (e.g. sand, mud, rock, etc.)
		Dredged Area Length (ft)	**Dredged Area Width (ft)**	**Dredged Area (sq ft)**	**Dredged Volume (cy)**		
	☐T ☐W ☐N					☐T ☐P ☐L	
	☐T ☐W ☐N					☐T ☐P ☐L	
	☐T ☐W ☐N					☐T ☐P ☐L	

b. Purpose of the Proposed Activity:

c. Direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure:

d. Description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity:

e. Any other NWP(s), or Individual Permit(s) used or intended to be used to authorize any part of the proposed activity or any related activity including other separate and distant crossings for linear projects that require Department of the Army authorization:

f. Have sketches been provided containing sufficient detail to show that the activity complies with the terms of the NWP and provide an illustrative description of the proposed activity? ☐ Yes, Attached ☐ No

5. Aquatic Resource Delineation (see Instructions)

a. Has a delineation of aquatic resources(wetlands, other special aquatic sites, and other waters, such as perennial, intermittent, ephemeral streams and navigable waters i.e. harbors, shoreline, ocean) been conducted in accordance with the current method required by the Corps? ☐ Yes ☐ No ☐ N/A, project located entirely in marine waters with no associated upland activities (e.g. buoy, marine bore, etc.)

If yes, please attach a copy of the delineation

Note: If no, your PCN is not complete. In accordance with General Condition 32, you may request the Corps delineate the special aquatic sites and other waters on the project site, but there may be a delay. In addition, the PCN will not be considered complete until the delineation has either been submitted to or completed by the Corps, as appropriate.

b. If a delineation has been submitted, would you like the Corps to conduct a jurisdictional determination (preliminary or approved)? ☐ Yes ☐ No

If yes, please complete, sign and return the attached *Appendix 1 – Request for Corps Jurisdictional Determination (JD)* sheet or provide a separate attachment with the information identified in Appendix 1.

6. Compensatory Mitigation (see Instructions)

a. Will the proposed activity result in the loss of greater than 1/10-acre of wetlands? ☐ Yes ☐ No
Note: In accordance with Regional Condition 3, permanent losses of waters of the U.S. greater than 1/10-acre are prohibited.

If yes, describe how you propose to compensate for the loss of each type of wetland:

Note: For the loss of less than 1/10 acre of wetlands, or if no compensatory mitigation is proposed, the Corps may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in no more than minimal adverse environmental effects.

b. Will the proposed activity result in the loss of streams or other open waters of the U.S.? ☐ Yes ☐ No
Note: In accordance with Regional Condition 7.2, your PCN must you must provide a written discussion of the on-site design configurations considered to demonstrate avoidance and minimization of impacts was evaluated and that the proposed permanent loss is unavoidable. See Box 12, below.

If yes, provide a description of any proposed compensatory mitigation for the loss of each type of stream or other open water:

Note: If no compensatory mitigation is proposed, the Corps may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in no more than minimal adverse environmental effects.

7. Endangered Species Act (ESA) Compliance (see Instructions)

a. For non-Federal permittees (if Federal permittee, check N/A and skip to 7(b))**:** ☐ N/A

(1) Are there any Federally-listed or proposed endangered or threatened species known or likely to occur within or near the project area? ☐ Yes, see species list below ☐ No (If unknown, contact your local U.S. Fish & Wildlife Service office and/or National Marine Fisheries Service office.)

(2) Is the activity located in designated critical habitat for Federally-listed endangered or threatened species? ☐ Yes, see species list below ☐ No (If unknown, contact your local U.S. Fish & Wildlife Service office and/or National Marine Fisheries Service office.)

If yes to either (1) or (2), include the name(s) of those endangered or threatened species below:

1. 2.

3. 4.

5. 6.

7. 8.

9. 10.

If no to both (1) and (2), proceed to Box 8.

Note: If yes to either (1) or (2), note per General Condition 18(c), you shall not begin work on the activity until notified by the Corps that the requirements of the ESA have been satisfied and that the activity is authorized.

b. For Federal permittees, you must provide documentation demonstrating compliance with ESA as a separate attachment. ☐ Enclosed

8. Historic Properties (see Instructions)

a. For non-Federal permittees (if Federal permittee, check N/A and skip to 8(b))**:** ☐ N/A

(1) Is there a known historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places within or near the project area? ☐ Yes ☐ No (If unknown, contact your local State Historic Preservation Officer.)

If yes to (1), include the name(s) of historic property(ies) below:

1. 2.

3. 4.

5. 6.

OR

☐ A vicinity map indicating the location of the historic property is enclosed

(2) If no to (1), describe the potential for the proposed work to affect a previously unidentified historic property:

Note: If yes to (1), note per General Condition 20(c), you shall not begin the activity until notified by the Corps that the activity has no potential to cause effects or that consultation under Section 106 of the National Historic Preservation Act (NHPA) has been completed.

b. For Federal permittees, you must provide documentation demonstrating compliance with NHPA in a separate attachment. ☐ Enclosed

9. National Wild and Scenic Rivers

N/A. There are no designated Wild and Scenic Rivers in any state or territory of the Honolulu District

10. Section 408 Permissions (see Instructions)

a. Will the proposed activity also require permissions from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a Corps federally authorized Civil Works project? ☐ Yes ☐ No

If yes, have you received Section 408 permission to alter, occupy, or use the Corps project? ☐ Yes ☐ No

If yes, please attach the Section 408 permission

Note: If yes, note per General Condition 31, an activity that requires Section 408 permission is not authorized by NWP until the Corps issues the Section 408 permission to alter, occupy, or use the Corps project, and the Corps issues a written NWP verification.

11. Compliance with NWP General Conditions (required)

Instructions: To qualify for NWP authorization, your project must comply with the NWP General Conditions. Read the General Conditions. Indicate below your rationale for compliance with each general condition. Conditions are listed below to reflect each corresponding NWP General Condition number.

General Condition	Rationale for Compliance with General Condition
1. Navigation	
2. Aquatic Life Movements	
3. Spawning Areas	
4. Migratory Bird Breeding Areas	
5. Shellfish Beds	
6. Suitable Material	
7. Water Supply Intakes	
8. Adverse Effects from Impoundments	
9. Management of Water Flows	
10. Fills Within 100-Year Floodplains	
11. Equipment	
12. Soil Erosion and Sediment Controls	
13. Removal of Temporary Fills	
14. Proper Maintenance	
15. Single and Complete Project	
16. Wild and Scenic Rivers	*N/A*
17. Tribal Rights	*N/A*

18. Endangered Species	*See Box 7 above.*
19. Migratory Bird and Bald and Golden Eagle Permits	
20. Historic Properties	*See Box 8 above.*
21. Discovery of Previously Unknown Remains and Artifacts	
22. Designated Critical Resource Waters	
23. Mitigation	*See Boxes 4(d) and 6 above.*
24. Safety of Impoundment Structures	
25. Water Quality	State certifying agency contacted? ☐ Yes ☐ No Water quality certification (WQC) status: ☐ Pending; application submitted on _____ ☐ Issued on _____; attached to PCN. ☐ Waived on _____; attached to PCN Note: Only the state has the authority to determine whether a WQC is required for your project. You are responsible for obtaining WQC, if required by the state. Contact the appropriate state certifying agency as early as possible. The Corps cannot proceed with NWP authorization without a WQC or waiver.
26. Coastal Zone Management (CZM)	State certifying agency contacted? ☐ Yes ☐ No CZM consistency determination status: ☐ Pending; application submitted on _____ ☐ Issued on _____; consistency concurrence attached to PCN. Note: Only the state has the authority to determine whether your project is consistent with the state's CZM plan. It is your responsibility to obtain a CZM consistency determination, if required. Contact the appropriate state agency as early as possible. The Corps cannot proceed with NWP authorization without a CZM consistency concurrence.
27. Regional and Case-by-Case Conditions	
28. Use of Multiple Nationwide Permits	
29. Transfer of Nationwide Permit Verifications	*N/A*
30. Compliance Certification	*N/A*
30. Activities Affecting Structures or Works Built by the U.S.	*See Box 10 above.*
32. Pre-Construction Notification	*Completion of this template complies with this condition and RC 6.*

12. Compliance with NWP Regional Conditions (required)

Instructions: To qualify for NWP authorization, your project must comply with the POH NWP Regional Conditions. Read the Regional Conditions. Complete the sections below to indicate your compliance with each Regional Condition. Conditions are listed below to reflect each corresponding POH NWP Regional Condition number.

Regional Condition	Rationale for Compliance with Regional Condition
1. Revoked Permits	☐ The NWP(s) specified in Box 3, above is/are not revoked from use in the Honolulu District.
2. Limited Use Areas	☐ There are no limited use areas present within or in the vicinity of the project. ☐ The following limited use areas are present within or in the vicinity of the project: _____ _____
3. Acreage Limitation	☐ No permanent discharge of dredged or fill material into waters of the U.S. greater than 0.10 acres proposed
4. Stream Channelization and Impoundment Restriction	☐ No permanent stream channelization proposed. ☐ No permanent construction of a dam to impound waters of the U.S. proposed
5. NWP Verification	*Submission of this template initiates the process to obtain NWP Verification, per RC 5.*
6. PCN	*Completion of this template complies with RC 6*

7. Additional PCN Information	For Federal permittees, you must provide documentation demonstrating EFH compliance as a separate attachment. ☐ Enclosed For non-Federal permittees, please complete Sections 7.1 (a-c), below.
	7.1(a) ☐ N/A, no listed species known or likely to occur (see box 7(a)(1), above); skip to 7.1(b). i. See species list: ☐ at box 7(a)(2), above; OR ☐ attached ii. ☐ Proposed BMPs to avoid/minimize impacts to listed species are attached. ☐ No BMPs to avoid/minimize impacts to listed species proposed.
	7.1(b) ☐ N/A, No activity in tidal waters proposed; skip to 7.1(c). i. EFH occurs in the project area for the following Management Unit Species: ☐ Bottomfish ☐ Crustaceans ☐ Pelagics ☐ Coral Reef Ecosystem ☐ Seamount Groundfish ☐ Precious Corals (PC) (If unknown, contact your local National Marine Fisheries Service office) ii. Existing environment: Bottom substrate (sand, cobbles, silt, etc.): _____ Water depth: _____feet Distance from shore: _____ feet Tidal Range: ☐ Intertidal ☐ Subtidal ☐ Submerged Water Quality (clear, brackish, murky, etc.): _____ iii. ☐ Proposed BMPs to avoid/minimize impacts to EFH are attached. ☐ No BMPs to avoid/minimize impacts to EFH proposed.
	7.1(c) ☐ N/A, no historic properties (see box 8(a)(1), above); skip to 7.2. i. Associated upland activities proposed (staging, stockpiling, temporary access, entry/exit pits, etc.): _____ ☐ No activities in uplands associated with this project proposed. ii. See historic property(ies) list ☐ at box 8(a), above OR ☐ attached iii. The following NHOs, community members or other parties may want to provide comment on this project: _____ ☐ No knowledge of any NHOs, community members or others interested in providing comment. iv. ☐ Correspondence with ☐ SHPO, ☐ NHO, ☐ Other _____, attached. ☐ No parties consulted prior to PCN submittal. v. To meet RC 7.1(c), the following documents, libraries or databases were searched: _____ _____ vi. ☐ Proposed BMPs to avoid/minimize/mitigate impacts to historic properties are attached ☐ No BMPs to avoid/minimize/mitigate impacts to historic properties proposed.
	7.2 ☐ N/A, No permanent loss of waters of the U.S. proposed; skip to 8.1(a). ☐ The proposed permanent loss of waters of the U.S. is unavoidable. The following on-site design configurations were considered and deemed infeasible (rationale provided): _____ _____ _____. ☐ See attached sketch depicting other configuration(s) considered (*optional*)
8. Best Management Practices	8.1 (a) ☐ Applicable, will implement or ☐ Not applicable
	8.2 (a) ☐ Applicable, will implement or ☐ N/A (b) ☐ Applicable, will implement or ☐ N/A (c) ☐ Applicable, will implement or ☐ N/A (d) ☐ Applicable, will implement or ☐ N/A (e) ☐ Applicable, will implement or ☐ N/A (f) ☐ Applicable, will implement or ☐ N/A
	8.3 (a) ☐ Applicable, will implement or ☐ N/A
9. Bank Stabilization	9.1 ☐ N/A, No stream bank stabilization proposed. ☐ An environmentally-sensitive stabilization technique is proposed. See box 4, above. ☐ An environmentally-sensitive stabilization technique is not proposed. The following techniques were considered and deemed not practicable (rationale provided): _____ _____
	9.2 ☐ N/A, I am not proposing shoreline stabilization ☐ I am proposing an environmentally-sensitive stabilization technique. See box 4, above. ☐ I am not proposing an environmentally-sensitive stabilization technique because I determined the following techniques I considered below, not practicable: _____ _____

Instructions for the Honolulu District
Nationwide Permit Pre-Construction Notification (PCN):

This PCN template integrates requirements of the U.S. Army Corps of Engineers (Corps) Nationwide Permit (NWP) Program with the Honolulu District (POH) NWP Regional Conditions for regulated activities located within POH's area of responsibility. The POH Regulatory Branch recommends this PCN template be used by prospective permittees who are seeking verification under the 2017 NWPs. Should you choose to submit your PCN using an alternate format, it must contain all information requirements identified at NWP General Condition 32(b) and Regional Conditions 2, 7 and 9 (Attachment 1).

Boxes 1-10 should be completed to include all information required by NWP General Condition 32. Boxes 11 and 12 (or other sufficient information to show compliance with all NWP General and POH Regional Conditions) should also be completed to facilitate efficient permit evaluation.

If additional space is needed, provide as an attachment to the PCN template.

Box 0: This box is to be completed by the Corps, skip. Continue to Box 1.

Box 1: Box 1 must be completed to provide the contact information of the prospective permittee, as required by General Condition 32.

Box 1(a): As identified in General Condition 32(b)(1), the PCN must contain the name, mailing address, and telephone number of the prospective permittee. The email address of the prospective permittee is not required, but is recommended.

Box 1(b): If the prospective permittee chooses to have an agent, the contact information for the agent may be provided here.

Box 1(c): If the prospective permittee would like to designate his or her agent, identified in Box 1(b), as the primary point of contact for the Corps and to act on his or her behalf in obtaining the NWP, the prospective permittee must fill out Box 1(c). If Box 1(c) is not completed, the Corps will only contact the prospective permittee. The individual identified in Box 1(c) must match the individual identified in Box 1(b)

Box 2: Box 2 must be completed to provide the location of the proposed activity, per General Condition 32(b)(2). If the proposed work would involve multiple single and complete projects, check the box, and provide the location information identified in Boxes 2-10, and 11-12, as applicable, in a separate attachment.

For multiple single and complete projects, a table identifying the location of each project is recommended. Submittal of the GIS shapefiles with the location of each project is recommended, but is not required. *Single and Complete Linear Project* and *Single and Complete Non-Linear Project* are defined in the *Definitions* section of the 2017 NWPs. For questions regarding the definition of single and complete project, please contact the POH Regulatory Branch.

Box 2(a): Provide the name of the proposed activity. For example: Makai Harbor Pier A Repair, Mauka Stream Bank Stabilization, Aina Residential Development Project.

Box 2(b): Provide the City, County, Island and State/Territory where the proposed activity is located.

Box 2(c): Provide the name of the nearest waterbody to the proposed activity or the waterbody proposed for impact, if known.

Box 2(d): Provide the coordinates of the proposed activity if known. The coordinates should be provided using NAD 83, and in decimal degrees.

Box 2(e): This box should be completed if the coordinates of the proposed activity are not known, and should be sufficient for the Corps to determine the location of the proposed activity. This may include the project physical address, TMK number, etc. If there is an existing Corps' file or identification number (e.g. POH-2017-00001 for the site, please provide that information here.

Box 2(f): This box should be completed if the coordinates of the proposed activity are not known, and should be sufficient for the Corps to determine the location of the proposed activity.

Box 3: Per General Condition 32(b)(3), the prospective permittee must identify the specific NWPs requested to authorize the proposed activity. You must read the NWP terms to ensure your proposed activity is eligible under your requested NWP, including any applicable general or regional conditions. Please note the Corps will make the final determination on the evaluation of the appropriate NWP to be used, whether the proposed activity meets the terms and conditions of the NWP, and whether the effects of the proposed activity would result in no more than minimal adverse environmental effects, individually and cumulatively. The NWP terms, general and regional conditions are on the Honolulu District Regulatory website at: http://www.poh.usace.army.mil/missions/regulatory/.

Box 4: General Condition 32(b)(4) requires the PCN contain the following:

> *a description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures. For single and complete linear projects, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);*

If the proposed activity would involve multiple single and complete projects, provide the information identified in Boxes 4(a) – (e) for each single and complete project in a separate attachment. For multiple single and complete projects, a table identifying the impacts to waters of the U.S. for each single and complete linear project should be submitted, which may be done by creating a table or similar format. Single and Complete Linear Project and Single and Complete Non-Linear Project are defined in the *Definitions* section of the NWPs. For questions regarding the definition of single and complete project, please contact your District regulatory office.

Box 4(a): This box should include a complete description of the proposed activity, identifying especially those actions in waters of the U.S. that require authorization from the Corps (discharge of dredged or fill material in waters of the U.S.; work and/or structures in, over, under or affecting navigable waters). The Corps evaluates the proposed activity, to include the means and methods, the construction window and sequence, associated upland activities (staging, stockpiling, temporary access, dewatering, disposal and borrow sites, etc.) and any other information that identifies activities that require a permit.

You may complete the table in this box as is applicable to your proposed activity to document impact quantifications. The first table is for discharges of dredged or fill material in waters of the U.S., the second table is for structures in navigable waters and the third table is for dredging activities in navigable waters. For each impact you are proposing, fill out a corresponding row in the applicable table. For example, a tidally influenced streambank stabilization project may involve the following three activities: sandbag berm for stream diversion (temporary discharge of fill material in navigable waters of the U.S.), excavated revetment toe (dredging in navigable waters), boulder revetment (permanent discharge of fill material in navigable waters of the U.S.), therefore you would complete two separate entries in the first table for each fill activity and a single entry in the third table for the dredging work. For those tables that are not applicable because you are not proposing that type of regulated activity, do not complete and indicate by checking "N/A".

For the first table, you must identify the impacted water name and type, the activity resulting in the discharge of dredged or fill material, the dimensions of the fill within the jurisdictional limits of a water of the U.S., whether

the discharge is temporary or permanent, and if permanent, whether there is an anticipated loss of waters of the U.S. and the type of fill material being discharged.

For the second table, you must identify the impacted navigable water name and type, the type of structure and its material, the structures' position relative to the navigable water, either in, over or under, the dimensions of the structure within the jurisdictional limits of a navigable water, and whether the structure is temporary or permanent.

For the third table, you must identify whether your proposed action involves new dredging or maintenance dredging, the impacted navigable water name and type, the dimensions of the dredge removal area and the volume and type of material to be dredged.

Note for impacted water type, more than water type may describe the impacted water. For example, the tidally influenced mouth of Aloha Stream would be both a tributary and a navigable water and tidal wetlands would be both a wetland and a navigable water. Select all that apply.

Note for permanent losses of waters of the U.S., a loss of waters of the U.S. occurs when a discharge of dredged or fill material permanently converts a water of the U.S., or a portion of a water of the U.S. to a non-water of the U.S. i.e., upland). The activity results in permanent loss of that water of the U.S., in terms of area and function. Conversion of one AR type to another is not considered a "permanent loss". Temporary conversion of a water of the U.S. to uplands with removal and restoration back to a water of the U.S. is not considered a "permanent loss". An "impact" refers to a broader category of effects on or changes to waters of the U.S. Impacts may be permanent or temporary and do not necessarily convert an aquatic resource to uplands. Not all impacts are permanent losses. A temporary impact will never result in a permanent loss of waters of the U.S.; therefore, permanent losses will ONLY be associated with permanent impacts.

Box 4(b): This box should describe the purpose of the proposed activity. For example: The purpose of a culvert replacement may be to restore drainage or hydraulic capacity.

Box 4(c): This box should describe the direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of each type of water of the U.S. expected to result from the NWP activity. "Loss of waters of the U.S." and "loss of stream bed" are defined in the *Definitions* section of the 2017 NWPs. For questions regarding the definition "loss of waters of the U.S." or "loss of stream bed," please contact the POH Regulatory Branch. For activities that would result in the discharge of dredged and/or fill material into waters of the U.S. subject to Section 404 of the Clean Water Act, include in this box the acreage (and linear feet for streams or other linear aquatic resources) of each aquatic resource type that would be filled.

Your discussion of direct and indirect adverse environmental effects should reflect your consideration of the anticipated impacts the proposed activity could have on the impacted water and on the resources identified in Boxes 7, 8 and 12, Regional Conditions 2 and 7. If you are proposing measures to avoid and/or minimize impacts to such resources, you may discuss the avoided or minimized impacts in Box 4(d).

Identify for each discharge whether the fill would be permanent or temporary (i.e. fill would be removed following construction and the fill area would be restored to pre-activity contours and conditions). For temporary fills, identify when the fill in waters of the U.S. is proposed to be removed, and the methods proposed to remove the fill/restore the area to pre-activity contours and conditions. In addition, identify the adverse environmental effects outside of the direct impact area that would occur, including the acreage of each type of water.

For activities that would result in work or the placement of structures in, over, under or affecting a navigable water of the U.S. subject to Section 10 of the Rivers and Harbors Act, include a description of the proposed work and the adverse environmental effects, including the acreage of the navigable water(s) that would be directly affected and the adverse effects cause by this activity. Identify for each structure, whether use in navigable waters would be permanent or temporary (i.e. structure would be removed from navigable waters following construction or structure is permanent). In addition, identify the indirect effects that would occur to the navigable waterway outside of the direct impact area.

Box 4(d): Include in this box any proposed mitigation measures intended to reduce adverse environmental effects caused by the proposed activity. Measures may include, a description of any best management practices (BMPs) proposed to minimize effects to downstream waters of the U.S., avoidance and/or preservation of waters of the U.S. on the project site; installation and maintenance of erosion control measures; and any other measures proposed. Do not include compensatory mitigation proposed to compensate for the loss of waters of the U.S., as this will be identified in Box 6.

Box 4(e): Identify any other NWP(s), Regional/Programmatic General Permit(s), or Individual Permit(s) used or intended to be used to authorize any part of the proposed activity or any related activity. If the proposed activity is part of a larger overall project that would require authorization under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act, identify the other permits proposed to be used here. This includes other separate and distant crossings for linear projects that require DA authorization but do not require pre-construction notification.

Box 4(f): Identify if sketches have been provided containing sufficient detail to provide an illustrative description of the proposed activity. Please note that specific requirements for drawings are required by the POH and are available on the Honolulu District Regulatory Website.

Box 5: Regional Condition 32(b)(5) requires the PCN include a delineation of wetlands, other special aquatic sites, and other waters.

Box 5(a): Identify whether a delineation of the jurisdictional limits and boundaries of aquatic resources has been conducted in accordance with the current method required by the Corps. Wetland delineations must be conducted in accordance with the technical procedures and guidance described in the 1987 *Corps of Engineers Wetlands Delineation Manual* (Technical Report Y-87-1) and the 2012 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Hawai'i and Pacific Islands Region*, Version 2.0. If a delineation of aquatic resources has been completed, a copy should be attached. If a delineation of aquatic resources has not been completed, the PCN is not complete. You may request the Corps delineate the special aquatic sites and other waters on the project site, but there may be a delay. In addition, the PCN will not be considered complete until the delineation has either been submitted to or completed by the Corps, as appropriate.

Note, the Corps' jurisdictional limits are as follows:

For Section 10 of the Rivers and Harbors Act of 1899: Mean High Water Mark elevation (33 CFR 329.12).

For Section 404 of the Clean Water Act: Ordinary High Water Mark for tributaries (streams, rivers), approved wetland boundary for wetlands, High Tide Line for navigable waters. The terms "Ordinary High Water Mark" and "High Tide Line" are defined in the *Definitions* section of the 2017 NWPs.

Note that the only exception to this requirement are those activities occurring entirely in the Pacific Ocean and that have no associated upland activities. Examples of such activities not requiring a delineation include deployment of buoys for vessel moorage, data collection or similar use, seafloor boring (not to include drilling activities that have an on-land entry or exit pit), or similar independent, marine activities or structures. For activities occurring along the shoreline, in marine waters of the Pacific Ocean, a delineation is required.

Box 5(b): If a delineation of aquatic resources has been submitted, identify whether you would like the Corps to conduct a jurisdictional determination (preliminary or approved). If yes, you must complete, sign, and return the enclosed *Appendix 1 – Request for Corps jurisdictional Determination (JD)* sheet, or provide a separate attachment with the information identified in Appendix 1 (Attachment 2). For questions regarding jurisdictional determinations, please contact the POH Regulatory Branch.

Note that a jurisdictional determination is not required to apply for and receive coverage under a NWP.

Box 6: General Condition 32(b)(6) requires, if the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee submit a statement describing how the mitigation requirements of General Condition 23 will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

If the proposed activity would involve multiple single and complete projects, provide the information identified in 6(a) and 6(b) for each single and complete project in a separate attachment. For multiple single and complete projects, a table identifying the proposed compensatory mitigation for each single and complete project should be submitted.

Box 6(a): Identify whether the proposed activity would result in the loss of greater than 1/10-acre of wetlands. The definition of "loss of waters of the U.S." may be found in the *Definitions* section of the 2017 NWPs.

Be advised, POH Regional Condition 3, Acreage Limitation prohibits permanent losses of waters of the U.S. greater than 1/10-acre resulting from the discharge of dredged or fill material. Note that for the loss of less than 1/10-acre of wetlands, or if no compensatory mitigation is proposed, the Corps may determine on a case-by-case

basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

Box 6(b): Identify whether the proposed activity would result in the loss of streams or other open waters of the U.S. The definition of "loss of waters of the U.S." and "loss of stream bed" may be found in the *Definitions* section of the 2017 NWPs. If the proposed activity would result in the loss of streams or other open waters of the U.S., provide a description of any proposed compensatory mitigation for the loss of each type of stream or other open water. This includes the type of compensatory mitigation (e.g. purchase of mitigation bank or in-lieu fee credits) or permittee responsible establishment, re-establishment, rehabilitation, enhancement or preservation for each stream or open water type (e.g. intermittent drainage, pond, lake). If preservation is proposed as compensatory mitigation, identify how the proposed preservation meets the 5 criteria listed in 33 CFR 332.3(h). Note that if no compensatory mitigation is proposed, the Corps may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in no more than minima adverse environmental effects.

Box 7: POH Regional Condition 7 requires non-Federal permittees to provide a list of Federally-listed or proposed endangered or threatened species known or likely to occur within or near the project area. Completion of Box 7 fulfills the requirement at General Condition 32(b)(7). Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act (ESA). For questions regarding federally-listed species, critical habitat, or ESA, please contact the local NOAA Fisheries office, U.S. Fish and Wildlife Service, or the POH Regulatory Office Branch.

If the proposed activity would involve multiple single and complete projects, provide the information identified in Boxes 7(a) – (d) (as applicable) for each single and complete project in a separate attachment.

Box 7(a): To be completed by non-Federal prospective permittees. Identify (1) Federally-listed or proposed endangered or threatened species known or likely to occur within or near the project area; (2) if the activity is located in designated critical habitat for Federally-listed endangered or threatened species; and if yes to (1) or (2), identify the name(s) of those endangered or threatened species known or likely to occur within or near the project area or that might utilize the designated critical habitat. If no to both (1) and (2), proceed to Box 8.

Note that if the answer to (1) or (2) is yes, per General Condition 18(c), the non-Federal permittee shall not begin work on the activity until notified by the Corps that the requirements of the ESA have been satisfied and that the activity is authorized.

Box 7(b): Federal permittees should provide documentation demonstrating compliance with ESA as a separate attachment. Per General Condition 32(b)(7), if documentation showing compliance with the ESA is not submitted by the federal permittee, the PCN will not be complete.

Box 8: POH Regional Condition 7 requires non-Federal permittees to provide a list of historic property(ies) listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places within or near the project area or include a vicinity map indicating the location of the historic property. Completion of Box 8 fulfills the requirement at General Condition 32(b)(7). Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act. For questions regarding historic properties, including cultural resources, please contact your State Historic Preservation Officer or the POH Regulatory Branch.

If the proposed activity would involve multiple single and complete projects, provide the information identified in Boxes 8(a) – (d) (as applicable) for each single and complete project in a separate attachment.

Box 8(a): To be completed by non-Federal prospective permittees. Identify (1) if there is a known historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places that the NWP within or near the project area. If yes, state which historic property(s) occur within or near the project area, or check the box and provide a vicinity map of the location of the historic property. If no to (1), describe the potential for the proposed work to affect a previously unidentified historic property, if known.

Note that if the answer to (1) is yes, per General Condition 20(c), the non-Federal permittee shall not begin work on the activity until notified by the Corps that the activity has no potential to cause effects or that consultation under Section 106 of the National Historic Preservation Act (NHPA) has been completed.

Box 8(b): Federal permittees should provide documentation demonstrating compliance with NHPA as a separate attachment. Per General Condition 32(b)(8), if documentation showing compliance with the NHPA is not submitted by the federal permittee, the PCN will not be complete.

Box 9: General Condition 32(b)(9) requires that, for an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a ''study river'' for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the ''study river.'' However, there are no designated Wild and Scenic Rivers in any state or territory of the Honolulu District; accordingly, this condition is not applicable.

Box 10: General Condition 32(b)(10) requires that for an activity that requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the PCN must include a statement confirming that the project proponent has submitted a written request for section 408 permission from the Corps office having jurisdiction over that Corps project.

If the proposed activity would involve multiple single and complete projects, provide the information identified in 10(a) for each single and complete project in a separate attachment.

Box 10(a): Identify if the NWP will also require permissions from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a Corps federally authorized Civil Works project. If yes, identify if the prospective permittee has received Section 408 permission to alter, occupy, or use the Corps project, and attach the Section 408 permission.

Note per General Condition 31, an activity that requires Section 408 permission is not authorized by NWP until the Corps issues the Section 408 permission to alter, occupy, or use the Corps project, and the Corps issues a written NWP verification.

Box 11: To qualify for authorization under a NWP, your project must comply with all applicable NWP General Conditions. You must read the NWP General Conditions to ensure your project is compliant. Box 11 contains a list of each General Condition, numbered in accordance with the listing in the Federal Register. You must indicate your rationale for compliance with General Conditions 1 through 32 of the NWPs. This information, as applicable, may be provided through completion of Box 11, or as a separate attachment. Those general conditions that have no applicability in the Honolulu District or that are completed elsewhere on the PCN have been completed for you. All others may apply, depending on the proposed activity and should be filled out accordingly. Completion of this information may assist the District in determining whether the proposed activity meets the General Conditions of the NWP, would result in no more than minimal adverse environmental effects and is eligible for authorization under a NWP.

If the proposed work would involve multiple single and complete projects, provide the information identified in Box 11 for each single and complete project in a separate attachment.

Box 12: To qualify for authorization under a NWP, your project must comply with all applicable POH Regional Conditions. You must read the POH Regional Conditions to ensure your project is compliant. Box 12 contains a list of each Regional Condition, numbered in accordance with the listing of POH Regional Conditions. You must indicate your rationale for compliance with Regional Conditions 1 through 9 issued by the Pacific Ocean Division Commander, effective March 19, 2017. This information, as applicable, may be provided through completion of Box 12, or as a separate attachment. Those regional conditions that are completed elsewhere on the PCN have been completed for you. All others may apply, depending on the anticipated impacts of your proposed activity and should be filled out accordingly. Completion of this information may assist the District in determining whether the proposed activity meets the Regional Conditions of the NWP, would result in no more than minimal adverse environmental effects and is eligible for authorization under a NWP. Note Regional Conditions 2, 7 and 9 require additional information to be provided on the PCN; such information is required to constitute a complete PCN.

If the proposed work would involve multiple single and complete projects, provide the information identified in Box 12 for each single and complete project in a separate attachment.

Honolulu District, U.S. Army Corps of Engineers
Regulatory Branch

DEPARTMENT OF THE ARMY NATIONWIDE PERMIT (NWP)
PRE-CONSTRUCTION NOTIFICATION (PCN) REQUIREMENTS
(*Reference Volume 82, Page 2003, General Condition 32(b) of the Federal Register and the Honolulu District NWP Regional Conditions, effective March 19, 2017*)

In order for this office to evaluate eligibility of your project for authorization under a NWP, your PCN must be in writing (electronic or paper format) and must contain the following information to be considered complete. The numbers used below correspond to the assigned general or regional condition number:

To comply with General Condition 32(b):

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed activity;

(3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;

(4) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures. For single and complete linear projects, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (*e.g.,* a conceptual plan), but do not need to be detailed engineering plans);

(5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(6) If the proposed activity will result in the loss of greater than *1/*10-acre[2] of wetlands and a PCN is required[3], the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan;

(7) For non-Federal permittees, if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed activity or utilize the designated critical habitat that might be affected by the proposed activity. For NWP activities that require pre-construction notification[3], Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;

(8) For non-Federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity

or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification[3], Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the "study river"[4] (see general condition 16); and

(10) For an activity that requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from the Corps office[5] having jurisdiction over that USACE project

To comply with NWP Regional Condition 2:

(2) You must identify in your PCN if any of these resources occur within or in the vicinity of your project area. In Honolulu District Area of Responsibility: National Wildlife Refuges, Hawaii Wildlife Sanctuaries, Hawaii Marine Life Conservation Districts, Guam Marine Preserve Areas and CNMI Marine Protected Areas. In Hawaii: Anchialine Pools, Montane Bogs, Natural Freshwater and Saline Lakes. In Guam: Aquatic areas containing Nipa palms (*Nypa fruticans*). In Guam, CNMI and American Samoa: Mangroves, Saline Lakes, Sea/Freshwater Caves (Allogenic Streams, Cenotes, Phreatic Zones, Sinkholes, Stream Caves, and Vadose Shafts).

To comply with NWP Regional Condition 7:

(7.1) For Federal permittees, your PCN must provide documentation demonstrating compliance with the Essential Fish Habitat provisions of the Magnuson-Stevens Fishery Management and Conservation Act. For non-Federal permittees, in addition to the requirements at GC #18, #20 and #32, your PCN must contain the following information to demonstrate your avoidance and minimization of adverse impacts to wetlands, other special aquatic sites and other waters, and if applicable, endangered species, essential fish habitat and historic properties, including cultural resources. The level of detail submitted in your PCN shall be commensurate with the anticipated degree of project-related impacts.

a. For activities where federally-listed or proposed threatened and endangered species or critical habitat, are known or likely to occur within the project area, the PCN must contain the following information:

i. A list of species, both listed and proposed for listing, and critical habitat, known to occur within and in the near vicinity of the project impact area. Information on the location of threatened and endangered species and their critical habitat and potential project-related impacts to these resources can be obtained directly from the Pacific Islands U.S. Fish & Wildlife Service Office and National Marine Fisheries Service Pacific Islands Regional Office.

ii. Best Management Practices (BMPs) proposed to be implemented throughout the duration of construction to avoid and/or minimize adverse impacts to threatened and endangered species.

b. For activities occurring in tidally-influenced nearshore and marine environments, the PCN must contain the following information:

i. A list of Management Unit Species and associated Essential Fish Habitat (EFH) occurring within and in the near vicinity of the project impact area. Information on the location of EFH and potential project-related impacts to these resources can be obtained directly from your local National Marine Fisheries Service office.

ii. A description of the existing environment within and in the near vicinity of the project impact area: characterization of the benthic substrate (seafloor or stream bed e.g., sand, cobbles, silt, etc.), water depth, distance from shore, tidal range (intertidal, subtidal, submerged), general characterization of water quality (temperature range, salinity, water circulation, turbidity).

iii. Measures to avoid and/or minimize adverse impacts to EFH and proposed mitigation, if applicable.

c. For activities that might have the potential to cause effect to historic properties, including cultural resources, listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties, the PCN must contain the following information:

i. A description of any associated upland activities proposed under the same project.

ii. A list of any known historic properties within the project area and in the near vicinity listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic places. Information on the location of historic properties including cultural resources and potential project-related impacts to these resources can be obtained directly from your local State Historic Preservation Officer.

iii. A list of any Native Hawaiian Organizations, community members, or other parties you think may have an interest in providing comment on the impact the proposed activity may have on cultural resources.
Any information you may have related to historic or current cultural use or importance at or near the project site.
iv. Copies of any correspondence from the State Historic Preservation Officer, any NHO, or other party consulted with regarding the potential impacts of the proposed activity on historic properties, including cultural resources.
v. A list of resources, (e.g. published documents, assessments, surveys, etc.) reviewed to provide response to items i-iii, above.
vi. BMP measures proposed to be implemented throughout the duration of construction to avoid and/or minimize adverse impacts to historic properties, including cultural resources.

(7.2) For non-Federal and Federal permittees, activities that would result in the permanent loss of wetlands, other special aquatic sites and other waters, you must provide a written discussion of the on-site design configurations that you considered to demonstrate avoidance and minimization of impacts was evaluated and that the proposed permanent loss is unavoidable. Submission of a plan-view sketch depicting the footprint of on-site design configurations overlaying such waters within the project area will assist in the Corps' review of your proposed activity.

To comply with NWP Regional Condition 9:

(9.1) For new bank stabilization projects in streams with vegetated slopes and/or natural bed and bank, vegetative and environmentally sensitive stabilization practices must be used whenever practicable. Documentation of consideration of environmentally sensitive bank stabilization practices must be included in the PCN to demonstrate whether the use of environmentally sensitive stabilization techniques is practicable given site-specific circumstances. Environmentally sensitive stabilization techniques incorporate organic materials to produce functional structure, provide wildlife habitat, and/or provide areas for re- vegetation. Examples of environmentally sensitive bank stabilization practices include, but are not limited to, the use of the following: adequate sized armoring keyed into the toe of the slope with native plantings, or other suitable vegetation, on the banks above; vegetated geogrids; coconut fiber coir logs; live woody vegetated cuttings; fascines or stumps; brush layering; soil lifts. In situations where the use of these stabilization techniques are not practicable (due to high stream flow velocities, for example) stream bank armoring should be designed to incorporate environmentally friendly natural features, if possible. Examples include: vegetated gabions, vegetated gabion mattresses, live cribwalls and joint plantings.

(9.2) For new shoreline stabilization projects, environmentally sensitive designs that provide wave dissipation, interstitial spaces for fish, crustacean and invertebrate habitat, and other environmental benefits must also be used whenever practicable. Documentation of consideration of environmentally sensitive shoreline stabilization practices must be included in the PCN to demonstrate whether the use of environmentally sensitive stabilization techniques is practicable.

Notes:
[1]Wetland delineations must be conducted in accordance with the technical procedures and guidance described in the 1987 *Corps of Engineers Wetlands Delineation Manual* (Technical Report Y-87-1) and the 2012 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Hawai'i and Pacific Islands Region*, Version 2.0
[2]Regional Condition 3 prohibits permanent losses of waters of the U.S. greater than 1/10-acre
[3]Regional Condition 6 requires any prospective permittee in the Honolulu District to submit a PCN for review in order to obtain authorization under a NWP.
[4]There are no designated Wild and Scenic Rivers in any state or territory of the Honolulu District.
[5]The Corps office having jurisdiction over USACE projects in the Honolulu District is the Civil and Public Works Branch. You may contact that office at (808) 835-

Appendix 1 - REQUEST FOR CORPS JURISDICTIONAL DETERMINATION (JD)

To: Honolulu District, U.S. Army Corps of Engineers (Corps) Regulatory Branch

- I am requesting a JD on property located at: _____
  City:_____ County/Island:_____
  State/Territory: ☐ HI ☐ AS ☐ GU ☐ CNMI Acreage of Parcel/Review Area for JD: 10 acres
  Latitude (decimal degrees): _____ Longitude (decimal degrees): _____
  (For linear projects, please include the center point of the proposed alignment.)

- Please attach a survey/plat map and vicinity map identifying location and review area for the JD.
- ☐ I currently own this property. ☐ I plan to purchase this property.
  ☑ I am an agent/consultant acting on behalf of the requestor.
  ☐ Other (please explain):_____
- Reason for request: (check as many as applicable)
  ☐ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all aquatic resources.
  ☐ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all jurisdictional aquatic resources under Corps authority.
  ☑ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps, and the JD would be used to avoid and minimize impacts to jurisdictional aquatic resources and as an initial step in a future permitting process.
  ☐ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps; this request is accompanied by my permit application and the JD is to be used in the permitting process.
  ☐ I intend to construct/develop a project or perform activities in a navigable water of the U.S. which is included on the district Section 1O list and/or is subject to the ebb and flow of the tide.
  ☐ A Corps JD is required in order to obtain my local/state authorization.
  ☐ I intend to contest jurisdiction over a particular aquatic resource and request the Corps confirm that jurisdiction does/does -not exist over the aquatic resource on the parcel.
  ☐ I believe that the site may be comprised entirely of dry land.
  ☑ Other:_____
- Type of determination being requested:
  ☑ I am requesting an approved JD.
  ☐ I am requesting a preliminary JD.
  ☐ I am requesting a "no permit required" letter as I believe my proposed activity is not regulated.
  ☐ I am unclear as to which JD I would like to request and require additional information to inform my decision.

By signing below, you are indicating that you have the authority, or are acting as the duly authorized agent of a person or entity with such authority, to and do hereby grant Corps personnel right of entry to legally access the site if needed to perform the JD. Your signature shall be an affirmation that you possess the requisite property rights to request a JD on the subject property.

*Signature:_____ Date: _____

- Typed or printed name: _____
  Company name:_____
  Address:_____
  _____
  Daytime phone no.:_____
  Email address:_____

***Authorities**: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.
Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.
Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USAGE website.
Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an AJD cannot be evaluated nor can an AJD be issued.

Submit your JD request via email to CEPOH-RO@usace.army.mil or via postal mail to
Honolulu District, U.S. Army Corps of Engineers, Regulatory Branch, Building 230, Fort Shafter, Hawaii 96858-5440.
Please contact the Regulatory Branch at (808) 835-4303 or at the email above for any questions regarding this form.

APPENDIX C:
Pre-Assessment Consultations Document

DAVID Y. IGE
GOVERNOR

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Deputy Director
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STATE OF HAWAII
DEPARTMENT OF PUBLIC SAFETY
919 Ala Moana Boulevard, 4th Floor
Honolulu, Hawaii 96814

No. _____

July 30, 2018

RE: Pre-Assessment Consultations – New Medium Security Housing Units at Kauai, Maui, and Hawaii Community Correctional Centers

Aloha:

The Hawaii Department of Public Safety (PSD) has an immediate need to address the persistent and significant overcrowding experienced at the Kauai, Maui, and Hawaii Community Correctional Centers (KCCC, MCCC, and HCCC). As the Director of PSD, I am informing you of our plans for new Medium Security Housing Units for inmates currently housed at KCCC, MCCC, and HCCC. We have prepared the attached ***Pre-Assessment Consultations*** document to explain the need for these housing units and to seek advice and input on issues that should be addressed in forthcoming Draft Environmental Assessments (EAs).

The severe and persistent overcrowding at KCCC, MCCC, and HCCC limits PSD's ability to provide safe, secure, and humane, social, and physical environment for inmates and staff, has exacerbated physical plant operations, contributed to tension among inmates, and diminished program opportunities. Since development of the additional housing units involves use of State funds and State lands, PSD is preparing a Draft EA for each project in accordance with State regulations. Assisting PSD is the Hawaii Department of Accounting and General Services (DAGS) and a team of consultants.

PSD appreciates the important input and contributions received from stakeholders and the public for other PSD undertakings and is engaging community leaders, agencies, stakeholders and the public early in the environmental study process so the development of new Medium Security Housing Units benefits from the input of all interested parties. PSD is working closely with DAGS, Project Management Branch on these projects.

The State project teams are:

- Mr. Clayton H. Shimazu, PSD Chief Planner
  Tel: 808-587-1237
  Email: clayton.h.shimazu@hawaii.gov

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  DAGS Project Management Branch
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  DAGS Project Management Branch
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Please contact them with comments, questions, or advice concerning the ***Pre-Assessment Consultations*** document or any aspect of the projects. We appreciate your continued support for the Department of Public Safety. Mahalo.

Sincerely,

Nolan P. Espinda
Director

Attachment

c: C. Shimazu, PSD
D. Jandoc, DAGS
R. Louis, DAGS
R. Rios, DAGS

Pre-Assessment Consultations: Proposed Medium Security Housing Units

Kauai, Maui, and Hawaii Community Correctional Centers

July 30, 2018

State of Hawaii
Hawaii Department of Public Safety

Pre-Assessment Consultations: Proposed Medium Security Housing Units

Kauai, Maui, and Hawaii Community Correctional Centers

July 2018

Prepared for:

Hawaii Department of Public Safety
Hawaii Department of Accounting and General Services

Prepared by:

Louis Berger

PRE-ASSESSMENT CONSULTATIONS

The Hawaii Department of Public Safety (PSD) has an immediate need to address the persistent and significant overcrowding experienced at the Kauai, Maui, and Hawaii Community Correctional Centers (KCCC, MCCC, and HCCC) and is planning new Medium Security Housing Units for inmates currently housed at KCCC, MCCC, and HCCC. This *Pre-Assessment Consultations* document has been prepared to explain the need and importance of these housing units and to seek advice and input on issues that should be addressed in forthcoming Draft Environmental Assessments (EAs).

PSD is committed to providing a safe, secure, healthy, humane, social, and physical environment for inmates and staff. However, the severe and persistent overcrowding at KCCC, MCCC, and HCCC limits PSD's ability to provide such environments, exacerbates basic physical plant operations, contributes to tension among inmates, and diminishes program opportunities. In response, PSD plans to add new Medium Security Housing to each facility. The new housing units are not intended to increase the inmate populations at KCCC, MCCC, and HCCC. Instead, inmates housed in cramped conditions and in spaces not well suited for inmates would be accommodated in housing units designed and constructed to State of Hawaii and national standards.

The proposed projects involve the use of State funds and State lands; therefore, development of new Medium Security Housing Units at KCCC, MCCC, and HCCC is subject to the State environmental review process. Assisting PSD with this undertaking is the Hawaii Department of Accounting and General Services (DAGS) together with a team of consultants.

As PSD begins these efforts, it is important to inform, educate, and encourage input and advice from elected and appointed officials, regulatory agencies, stakeholders, and the public. This *Pre-Assessment Consultations* document has been prepared at the onset of the planning process to inform interested parties of the projects and the purpose and objectives of the new housing units, and to seek comments and input on issues that should be addressed in the forthcoming Draft EAs for each proposed project. The Draft EAs will include a discussion of the impacts of construction and operation of the new Medium Security Housing Units on the natural and man-made environments at KCCC, MCCC, and HCCC.

1.0 IDENTIFICATION OF PROPOSING AGENCY

The proposing agency is the State of Hawaii Department of Accounting and General Services (DAGS) on behalf of the Hawaii Department of Public Safety (PSD).

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Assisting PSD and DAGS with planning and Draft EA preparation is Louis Berger U.S., Inc.

Contact: Robert J. Nardi, Vice President
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2.0 DESCRIPTION OF THE PROPOSED ACTION

2.1 Background

PSD is responsible for carrying out judgments of the State courts whenever a period of confinement is ordered. Its mission is to uphold justice and public safety by providing correctional and law enforcement services to Hawaii's communities with professionalism, integrity, and fairness. Currently, PSD is responsible for the approximately

5,600 offenders that are housed within eight State of Hawaii facilities, the Federal Detention Center in Honolulu, and in private contractor-operated correctional facilities in Arizona.

Since 1991, Hawaii's prison and jail inmate population has grown well beyond the system's capacity, during which time no new facilities have been added to the system. Consequently, PSD has been forced to double-bunk cells; add beds to dorms without adding space; and convert spaces normally used for inmate programs, counseling, and similar services to other functions such as inmate housing in order to cope with the population. At the present time, the design capacity for the State's four jails is 1,153 beds, and the operational bed capacity is 1,609. In the case of the State's prisons, the design capacity is 1,338 beds, and the operational bed capacity is 1,918 beds.

The persistent and severe overcrowding and a lack of suitable space in the islands has required PSD to house approximately 31 percent of the state's prison inmate population at contracted facilities on the mainland. Contracting for prison beds on the mainland began in 1995 when 300 male inmates were transferred to facilities in Texas. As of May 2018, approximately 1,459 State of Hawaii prison inmates are housed in facilities on the mainland.

2.2 Hawaii Department of Public Safety Responsibilities

PSD deals with offenders at various stages within the criminal justice process. People who are arrested are initially held in custody at county police cellblocks, where they are assessed to determine if they are eligible to be diverted from the correctional system. Those who qualify for release into the community, pending their trial, are supervised by PSD's Intake Service Center staff who provide counseling and electronic monitoring, if needed. Those who are not eligible for pre-trial diversion programs are transferred to one of the State's jails until their trial and acquittal or sentencing. Upon conviction, individuals who are sentenced to serve less than one year remain at the jails and serve out their sentence. Those who are sentenced to serve more than one year are transferred to a State prison to serve out their sentence.

Felons sentenced to prison undergo a comprehensive assessment and diagnostic process, which includes academic, vocational, treatment, and security information. Based on the assessment results, a correctional program plan is created to prepare the inmate to return to the community as a successful citizen. The plan includes programs and treatment services. PSD offers various programs to help create an environment that would be conducive to an inmate exercising behavioral control, taking responsibility, and achieving self-improvement. Only inmates who are classified as maximum security, or those whose behavior poses a threat to themselves or other inmates, are limited in their access to programs. Among the programs offered by PSD are education, vocational training, substance abuse treatment, and sex offender treatment. In addition to programs and basic needs such as food and clothing, medical and mental health services are also provided as well as access to a law library and other library services.

When inmates near the end of their sentences, and are of the appropriate custody level, they are typically transferred to a minimum-security facility where they may participate in work release or furlough programs. Planning for housing, employment, finances, continuing education, training, follow-up treatment services, or other elements of life after incarceration also occurs at this stage. Some female offenders may transfer to a transition center in the community as well.

Although some offenders will remain in prison for life, the majority will serve their sentences and be released. Over 98 percent of those currently incarcerated will eventually return to the community. Those who are released

to parole are closely supervised in the community to assist and prepare them for full release. If at any time a parolee violates the terms and conditions of parole, his or her parole status can be immediately revoked, and the offender may be returned to prison or jail.

2.3 Jail vs. Prison—Important Differences

As jails, KCCC, MCCC, and HCCC operate substantially different than a prison. A jail is a facility where individuals are held for trial. These may be persons who either could not meet their bail or may not have qualified for bail according to the courts. In certain cases, a jail may also house individuals who have been to court, convicted, and sentenced to short-term incarceration—usually less than a year. However, inmates housed at CCCs (i.e., jails) are under the jurisdiction of the Courts and not PSD, and detainees in jail can only be released, placed in outside programs, or assigned to other alternatives to incarceration by the Courts.

The services that jails must provide are vastly different from that of a prison. For example, it is important that pre-trial detainees are kept separate from sentenced inmates. Thus, a jail is usually operated on a 'distributed services' model where detainees or inmates remain in their housing units and meals, drug treatment, counseling, and even minor medical treatments are delivered to them. Another important consideration in the operation of a jail is that detainees may have a chemical dependency or suffer from an as-yet-undiagnosed mental health issue. In both cases, it is the responsibility of the jail to provide diagnosis and recommend the appropriate treatment program. Understanding the unique and fundamental differences between inmate populations and the services provided to them in prison vs. jail is important to understanding the purpose and function of Hawaii's CCCs.

Each CCC facility houses sentenced inmates (felony, probation, and misdemeanor), pretrial individuals (felony and misdemeanor), arrestees from other jurisdictions, and probation/parole violators. CCCs provide the customary county jail function of managing both pre-trial detainees and locally sentenced misdemeanant offenders and others with a sentence of one year or less. Jails also provide an important pre-release preparation/transition function for prison system inmates who are transferred back to their counties of origin when they reach less than a year until their scheduled release. Most of these inmates are transferred to a dedicated work furlough unit where they are able to begin working in the community on supervised work crews or in individual placements as determined by needs and classification assessments and individualized pre-release plans.

2.4 Hawaii Community Correctional Centers

The concept and mission of Hawaii's CCCs was originally defined in the 1973 Corrections Master Plan which resulted in the construction of jails (i.e., CCCs) on the Islands of Maui, Kauai, Oahu, and Hawaii. Consequently, all four facilities share some common original facility design elements that were considered appropriate at the time. One of those common features is the subdivision of the original secure housing building into very small operationally inefficient units of three-, four-, or six-cell clusters. Contemporary jail designs provide for much larger units (usually 32, 48, or 64 beds each for minimum- or medium-security general population) that allow many more inmates to be supervised by each officer.

- Kauai Community Correctional Center—KCCC (tax map key [TMK] 4-3-9-05:13) has been expanded from its original capacity of 16 medium-security beds in 1977 to 46 beds by 1991, and currently has a design capacity of 110 beds. Additional bed space came in the form of temporary dormitory structures that were used by displaced residents of Hurricane Iniki and are still being used for correctional housing. As of May 31, 2018, the number of male inmates housed in KCCC was 177,

with the number of female inmates at 29 for a total of 206 inmates or 61 percent above its operational capacity of 128 beds. See Exhibits 1 and 2.

- Maui Community Correctional Center—MCCC, with a design capacity of 209 beds, has been expanded from its original two-acre site to the current 7.23 acres (TMK (2) 38046005, 06). Originally sited in a relatively isolated location, the town of Wailuku has since grown around and beyond the facility. As of May 31, 2018, the number of male inmates housed in MCCC was 399 with the number of female inmates at 70 for a total of 469 inmates or 56 percent above its operational capacity of 301 beds. See Exhibits 3 and 4.
- Hawaii Community Correctional Center—HCCC, opened as a 22-bed facility in Hilo in 1975, currently has a design capacity of 206 beds (TMK 2-3-023:005). The CCC was sited next to the original county jail in a Hilo location that, at the time, was largely undeveloped; today the facility is surrounded by urban development. As of May 31, 2018, the number of male inmates housed in HCCC was 373, while the number of female inmates was 71 for a total of 444 inmates which is 96 percent above its operational capacity of 226 beds. See Exhibits 5 and 6.
- Oahu Community Correctional Center—OCCC, located in Kalihi, opened in 1975 with 456 beds. OCCC was originally designed to house both pretrial detainees and sentenced felons. At that time, OCCC (TMK 1-2-013:002) was considered a jail as well as the primary prison for the State. OCCC has a design capacity of 628 beds but by the late 1990s, OCCC's population increased to upwards of 1,400. As of May 31, 2018, the number of male inmates housed in OCCC was 1,020 with the number of female inmates at 143 for a total of 1,163 inmates or 22 percent above its operational capacity of 954 beds. A separate planning effort is currently underway to replace OCCC.

Overall, jail facilities are operating well above their operational capacities and given long-standing conditions, alleviating overcrowding is an important PSD priority.

Exhibit 1: KCCC Regional Location

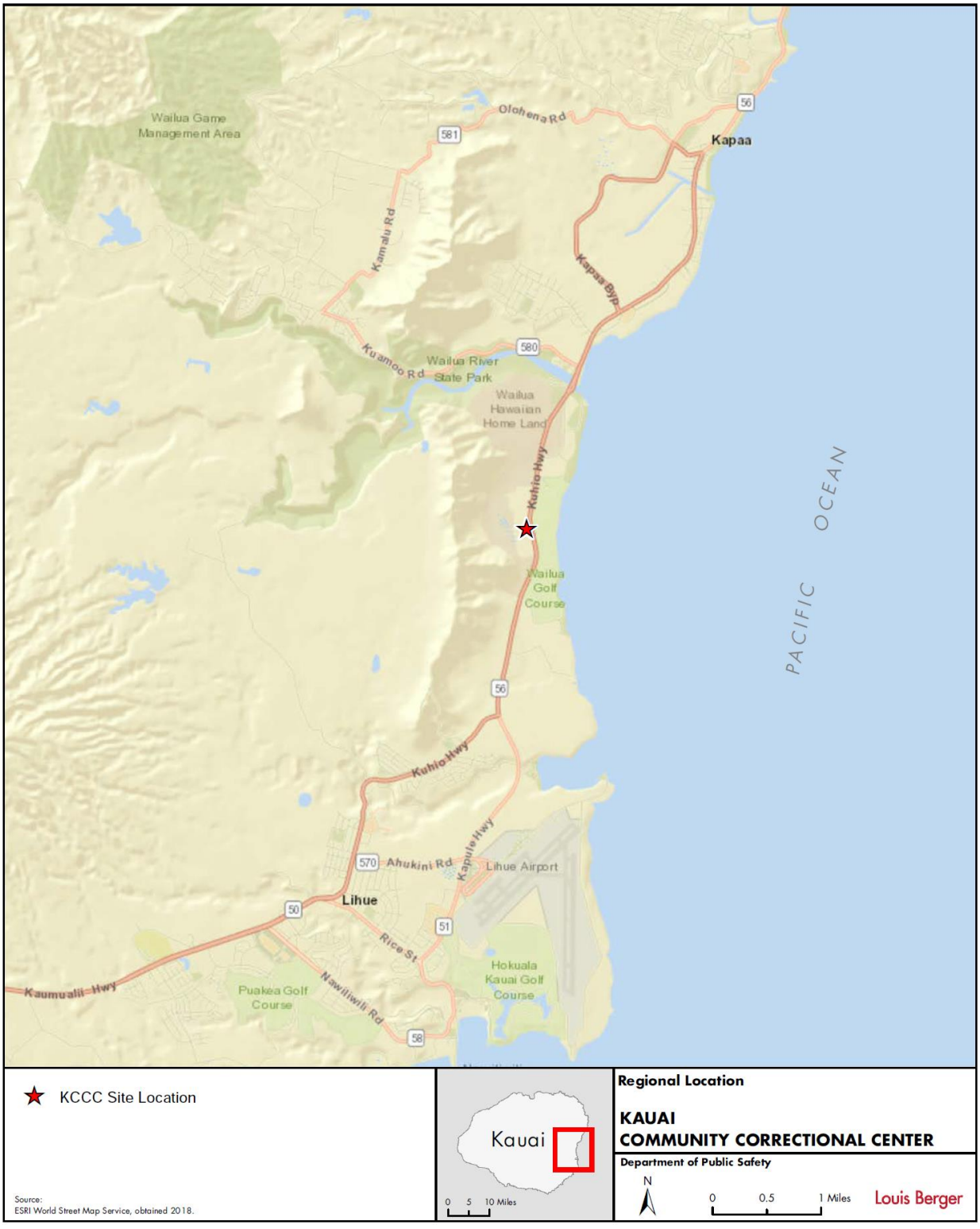


Exhibit 2: KCCC Proposed Site Plan

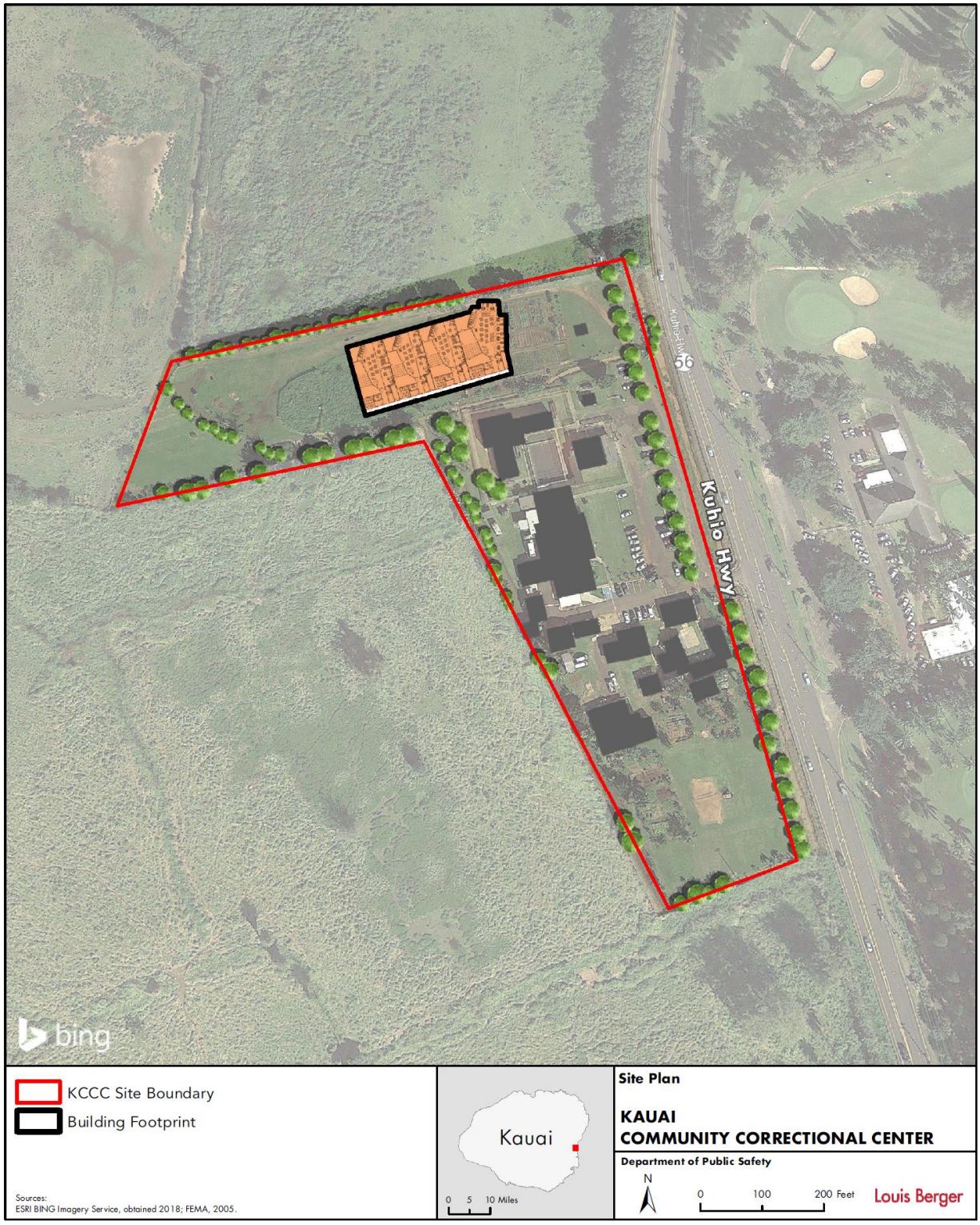


Exhibit 3: MCCC Regional Location



Exhibit 4: MCCC Proposed Site Plan

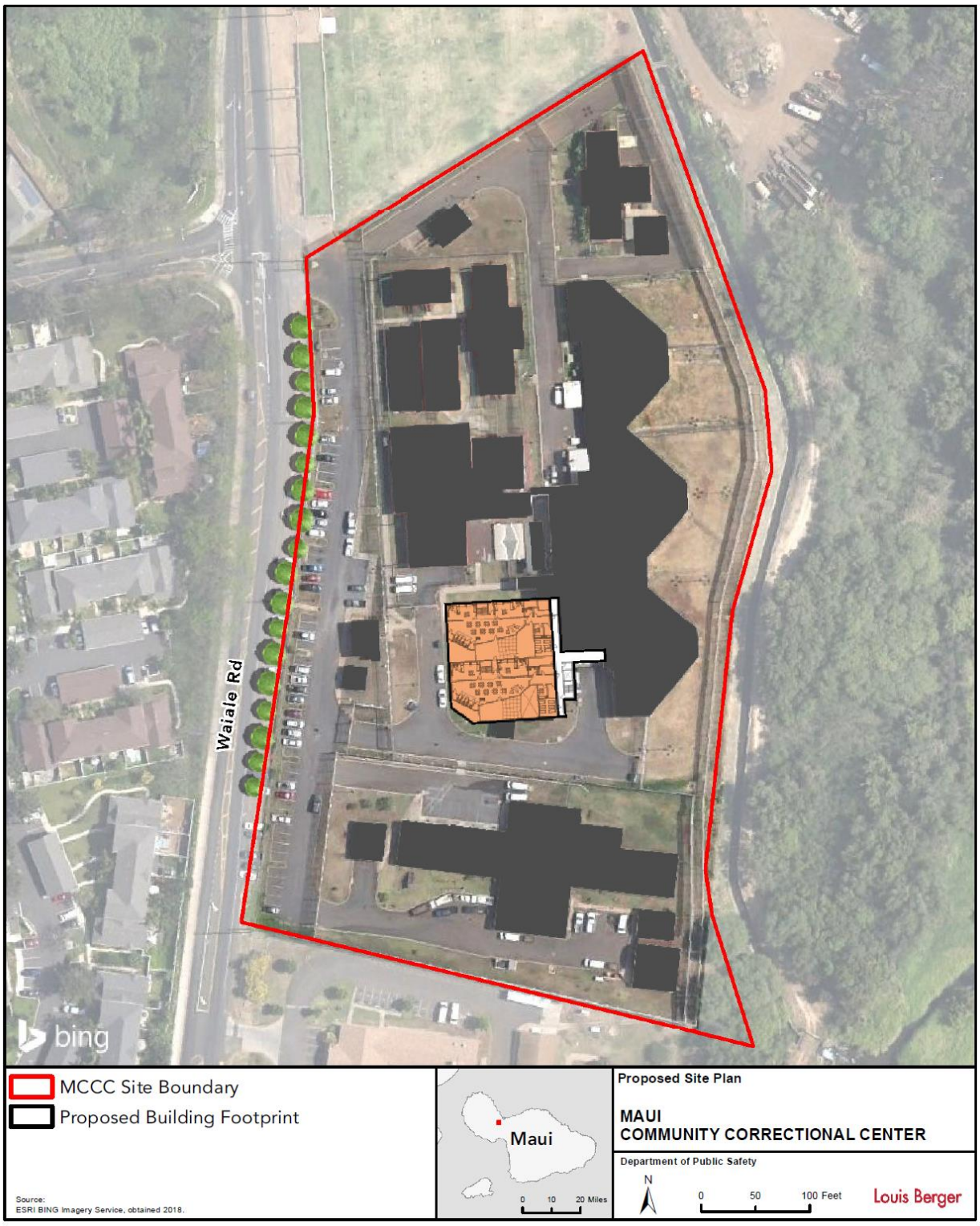


Exhibit 5: HCCC Regional Location



Exhibit 6: HCCC Proposed Site Plan



2.5 Purpose and Need

With increasingly aged, obsolete, and severely overcrowded correctional facilities, PSD is proposing to improve the State's corrections infrastructure through modernization of existing facilities when possible and construction of new institutions to replace others when necessary. PSD is proposing to develop new Medium Security Housing Units at KCCC, MCCC, and HCCC capable of accommodating up to 140 inmates, up to 80 inmates, and up to 140 inmates, respectively, who are currently housed at each facility. Development of new Medium Security Housing Units is intended to provide additional beds in an appropriate setting to address the current severely overcrowded conditions; *provision of such housing is not intended to increase the populations of KCCC, MCCC, or HCCC beyond their current numbers*. Rather, medium security inmates housed in cramped conditions and in spaces not well suited for inmates, would be accommodated in modern housing units designed and constructed to State of Hawaii and national standards. Development of the new Medium Security Housing Units will allow for inmates currently housed in inadequate conditions to be relocated to the new buildings.

The objectives of developing the proposed new Medium Security Housing Units at KCCC, MCCC, and HCCC are to:

- Better accommodate current and future jail inmate populations.
- Improve living conditions for male and female inmates.
- Provide adequate space and an environment where the focus can be on better preparing inmates for successful reintegration into the community and reduced recidivism.
- Provide a safer and more efficient work environment for corrections staff.
- Provide for public safety.

Developing new Medium Security Housing Units at KCCC, MCCC, and HCCC will help ensure that Hawaii's criminal justice system, in general, and PSD, in particular, will function in a quality manner while addressing the need for modern, efficient, and cost-effective institutions. The addition of new Medium Security Housing Units will also allow PSD to accomplish its mission to uphold justice and public safety; meet the needs of current and future jail populations; and provide for the continued safety and security of inmates, staff, and island communities. Construction at KCCC, MCCC, and HCCC is preliminarily scheduled to begin in 2020 and be completed in 2021.

3.0 KCCC ENVIRONMENT

KCCC, located in Lihue along the east shore of Kauai, comprises approximately 10 acres in area much of which has already been developed with inmate housing, administrative and program structures, maintenance buildings and storage areas, vehicle access and parking areas, recreational facilities, and similar uses. The few undeveloped portions of property consist primarily of grass fields and small cultivated plots. There are no plans to expand KCCC beyond its current property boundaries and no plans to relocate the facility from Lihue.

3.1 Site Characteristics

3.1.1 Topography

The KCCC property is located at an elevation of approximately 20 feet above msl with the topography sloping gently from northwest to southeast.

3.1.2 Water Resources

Surface water features consist of a drainage channel that forms the property's western border which serves to divert surface waters flowing from adjacent properties around KCCC. This channel eventually discharges to a second larger channel that forms the eastern border of the KCCC property, and parallels Kuhio Highway to the east. Bisecting the northern portion of the property is an additional drainage channel that directs surface water flows from adjacent properties to the same channel paralleling the highway.

3.1.3 Biological Resources

Much of the area comprising KCCC has already been developed with the undeveloped portion of property consisting primarily of grass fields and small cultivated plots. The overall property is bordered on the east by the Kuhio Highway and to the north, south, and west by agricultural fields and vacant lands.

3.1.4 Demographics and Economic Characteristics

The population of the State of Hawaii, including the County of Kauai, has been steadily increasing; between 1990 and 2010, the population of Hawaii increased by 9.3 percent while Kauai County's population increased by 31.0 percent. The population of Hawaii increased by 17.7 percent between 2000 and 2015 to 1,425,557 while the population of Kauai County increased by 22.2 percent to 71,478.

Of the state's 714,067 person labor force, approximately 3.6 percent (38,015 persons) were unemployed in 2010. The largest industry in Hawaii in 2015 was Educational services, and health care and social assistance, with 133,756 jobs. In 2015, Kauai County had an unemployment rate of 3.5 percent with 1,929 of its 36,149 person labor force unemployed. The arts, entertainment, and recreation, and accommodation and food services industry represented the largest employment sector in Kauai County with approximately 8,222 jobs.

3.1.5 Community Services

Law enforcement services in Kauai County are provided by the Kauai County Police Department. Headquartered at 3990 Kaana Street in Lihue, the Department comprises three districts, with KCCC located within the Lihue District. The Kauai Fire Department provides fire protection and suppression, rescue (ocean and land), hazmat, and emergency medical services (basic life support) to the Island of Kauai. The Department maintains eight fire stations with the Lihue Station, located at 4450 Rice Street, servicing Lihue and KCCC. Kauai is serviced by several medical centers and clinics facilities, including Samuel Mahelona Memorial Hospital (SMMH), Wilcox Medical Center, and the West Kauai Medical Center. SMMH is Kauai's Eastside Critical Access Hospital located in Kapaa. Located in Lihue, Wilcox Medical Center provides Kauai residents with accessible, quality health care. West Kauai Medical Center is located in Waimea on the west side of Kauai.

3.1.6 Utility Services

KCCC along with most residences, businesses, and institutions on the island, are served with potable water by the Kauai Department of Water (KDOW). KDOW operates and maintains 12 separate water systems that are divided into three plant operations districts (East, Central and West) and two water distribution districts (East and West). KCCC lies within the East water service district and is served by the Lihue-Kapaa water system.

The Kauai Department of Public Works, Wastewater Management Division (KWMD) is responsible for operation and maintenance of the public wastewater collection and treatment systems across the island. KWMD operates

four treatment facilities on the island: Waimea, Eleele, Lihue, and Wailua with KCCC located within the service area of the Wailua Wastewater Treatment Plant.

The Kauai Island Utility Cooperative (KIUC) provides electric power to residences, businesses and industries across the island. A 12 kV overhead distribution line adjacent to facility supplies electricity to KCCC.

The County of Kauai Public Works Department, Solid Waste Division (SWD) owns one landfill and four transfer stations. The Kekaha Landfill is located on the southwest side of the island near the town of Kekaha. SWD is proposing to develop and operate a new solid waste landfill in the southeastern portion of the island.

3.1.7 Transportation

KCCC is located at 5350 Kuhio Highway between Leho Drive and Marine Camp Road in Lihue. Kuhio Highway is a two-way State Highway traversing the northern and eastern shores of Kauai extending from Haena State Park in the north to Lihue in the south.

4.0 MCCC ENVIRONMENT

MCCC, located on the east side of Waiale Road, is within the urbanized area of Wailuku. MCCC comprises approximately 7.23 acres of inmate housing, administrative and program structures, maintenance buildings and storage areas, and vehicle access and parking areas and similar uses. The few undeveloped portions of the property are limited to small grassed and paved areas between buildings, a grassed area devoted to outdoor recreation, and employee and visitor parking areas. There are no plans to expand MCCC beyond its current property boundaries and no plans to relocate the facility from Wailuku.

4.1 Site Characteristics

4.1.1 Topography

MCCC is located approximately 230 feet above msl, and the topography is nearly level.

4.1.2 Water Resources

Two surface water features are located in the vicinity of MCCC consisting of a concrete drainage channel (Spreckels Ditch) located along the property's eastern border and the Waiale Reservoir, also located east of MCCC. No other waterbodies are located on or in proximity to the MCCC property.

4.1.3 Biological Resources

Much of the area comprising MCCC has been developed with the few undeveloped portions of the property limited to small grassed and paved areas between buildings, a grassed area devoted to outdoor recreation adjoining the main housing units, and employee and visitor parking areas. MCCC lies between institutional/ commercial zones to the north and south and a residential zone immediately to the west, across Waiale Road.

4.1.4 Demographic and Economic Characteristics

The population of the State of Hawaii, including the County of Maui, has been steadily increasing. Between 2000 and 2015, the population of Hawaii increased by 17.7 percent while Maui County experienced a

population increase of over 28 percent. Between 2010 and 2015, the population of Hawaii increased by 4.8 percent to 1,425,557 while Maui County experienced a population increase of 6.0 percent to 164,357.

Of the State's 714,067 person labor force, approximately 3.6 percent (38,015 persons) were unemployed in 2010. The largest industry in Hawaii in 2015 was Educational services, and health care and social assistance, with 133,756 jobs. The tourism industry represents the largest employment sector on Maui in 2016 with approximately 21,600 jobs in Accommodations and Food Services.

4.1.5 Community Services

Law enforcement services in Maui County are provided by the Maui Police Department. Police services are headquartered at 55 Mahalani Street in Wailuku, in the vicinity of MCCC, which houses patrol units and investigative and administrative divisions. The Maui County Department of Fire and Public Safety provides fire and emergency services to the islands of Maui, Lanai, and Molokai from 14 fire stations and a fire prevention office. The Department operates from its headquarters located at 200 Dairy Road in Kahului, Hawaii. The Wailuku Fire Station, located at 21 Kinipopo Street in Wailuku is located a short distance from MCCC. Maui Memorial Medical Center, located at 221 Mahalani Street in Wailuku and a short distance from MCCC, is the main hospital and health care provider on the Island of Maui. Since its establishment, the hospital has undergone many changes and today, the total bed count for the hospital is 231.

4.1.6 Utility Services

The main MCCC campus is connected to the 12-inch main on Waiale Road with two 1.5-inch meters for the potable water distribution system. In addition, a third water meter is connected to the 12-inch main on Waiale Road.

Wastewater generated in the area of MCCC is conveyed to the Kahului wastewater treatment plant. Wastewater is pumped from MCCC by an on-site pumping station to a sewer line located along Waiale Road.

Maui Electric provides electric power to residences, businesses and industries throughout Maui County. Electric power is distributed via substations and 69 kilovolt, high voltage distribution lines. Three-phase overhead power lines are located along Waiale Road adjacent to the western border of MCCC.

The majority of solid wastes generated within the County of Maui are disposed of at the Central Maui Landfill–Refuse and Recycling Center located approximately four miles southeast of Kahului Airport. The landfill accepts solid waste for disposal delivered directly by residents, businesses, commercial collection services, transfer station, and municipalities and agencies.

4.1.7 Transportation

MCCC is located at 600 Waiale Road, between Olomea Street and Waimaluhia Lane. Waiale Road is a two-lane road that connects the business center of Wailuku to the Ma'alaea area. Access to the facility is via a driveway connecting the north end of the property to Waiale Road.

5.0 HCCC ENVIRONMENT

HCCC is located in a highly developed urban area in Hilo at 60 Punahele Street in Hilo. HCCC comprises a single parcel of approximately four acres, much of which has already been developed with inmate housing;

administrative, program, and support structures; maintenance buildings and storage areas; vehicle access and parking areas; and similar uses. There are no plans to expand HCCC beyond its current property boundaries and no plans to relocate the facility from Hilo.

5.1 Site Characteristics

5.1.1 Topography

The HCCC property is located at an elevation of approximately 225 feet above msl with the topography sloping from west to east.

5.1.2 Water Resources

One surface water feature was identified on the HCCC property; a narrow drainage channel bisects the property starting from the north end near Waianuenue Avenue. The nearest major water body is the Wailuku River, which is located approximately 1,300 feet to the north of HCCC.

5.1.3 Biological Resources

Virtually all the land area comprising HCCC has been developed with inmate housing, administrative and program structures, maintenance buildings and storage areas, vehicle access and parking areas, among similar uses. The small undeveloped portions of property consists primarily of concrete walkways and small grass areas between buildings.

5.1.4 Demographic and Economic Characteristics

The population of Hawaii increased by 17.7 percent between 2000 and 2015 from 1,211,537 to 1,425,557, while the population of Hawaii County increased by 31.9 percent from 148,677 to 196,156.

Of the state's 714,067-person labor force, approximately 38,015 persons were unemployed in 2010. The largest industry sector in the State of Hawaii in 2016 was Government with 126,300 jobs. In 2015, Hawaii County had approximately 3,900 workers unemployed. The Leisure and Hospitality industry represented the largest industry sector in Hawaii County with approximately 14,200 jobs.

5.1.5 Community Services

Law enforcement in Hawaii County is provided by the Hawaii County Police Department. HCCC is serviced by the Hilo Station located at 349 Kapiolani Street in South Hilo. The Hawaii Fire Department is primarily responsible for fire protection and suppression on the Island of Hawaii. The closest fire station to HCCC is the Hilo Station located at 466 Kinoole Street in Hilo. The Hilo area, including HCCC, is service by the Hilo Medical Center (HMC). HMC is located on 20 acres of land adjacent to the Wailuku River at 1190 Waianauenue Avenue in Hilo, less than a mile from HCCC.

5.1.6 Utility Services

HCCC is served by the Hilo Water System with raw water for the system obtained from deep wells. The main meter for HCCC is located on Punahele Street and consists of a combination fire suppression and potable water supply meter.

HCCC lies within the service area of the Hilo Wastewater Treatment Plant, which provides secondary treatment with chlorine disinfection and a deep ocean outfall. HCCC currently discharges wastewaters into a 10-inch main located in Waianuenue Avenue through a single connection.

The Hawaii Electric Light Company (HELCO) provides power to residences, businesses and industries throughout Hawaii County. Adjacent to HCCC, HELCO maintains a 12.47-kilovolt (KV) overhead distribution circuit on Komohana Street and a 13.8-KV overhead distribution circuit on Waianuenue Avenue.

Disposal of solid wastes generated at HCCC currently occurs at the South Hilo Sanitary Landfill, which is the only municipal solid waste landfill operating in East Hawaii.

5.1.7 Transportation

HCCC is located at 60 Punahele Street between Waianuenue Avenue, Komohana Street, and Punahele Street. Waianuenue Avenue is a four-lane major thoroughfare that serves a number of business establishments, public facilities, recreational and cultural institutions, as well as residential neighborhoods. It provides access between Hilo's central business district and upland residential areas and continues upland as the saddle road between Mauna Kea and Mauna Loa to connect with West Hawaii.

6.0 PLANNING HORIZON

The planning, Draft EA preparation, permitting, and new Medium Security Housing Unit design processes are estimated to take approximately one to two years to complete with construction of the new housing units estimated to take an additional year. The Draft EAs will include available information concerning the schedule for developing the proposed new Medium Security Housing Units at KCCC, MCCC, and HCCC.

7.0 ALTERNATIVES

At this time, the following alternatives have been identified:

- No Action Alternative. A decision not to proceed with the proposed action to develop new Medium Security Housing Units at KCCC, MCCC, and HCCC. Under the No Action Alternative, the persistent and severe overcrowding experienced at KCCC, MCCC, and HCCC would continue.

- Alternatives Considered. Potential expansion of the property boundaries to provide additional lands for new housing unit development; complete relocation and replacement of each facility at a new location, and development of new Medium Security Housing Units as proposed.

No other reasonable alternatives within the jurisdiction of PSD have been identified.

8.0 CONSULTATIONS

8.1 Pre-Assessment Consultations

PSD is committed to ensuring that the process of planning, permitting, designing, and eventually developing new Medium Security Housing Units at KCCC, MCCC, and HCCC benefits from the input and involvement of stakeholders, elected officials, regulatory agencies, and the public. Beginning in March 2018, PSD and DAGS

initiated a public outreach effort to provide information about the proposed inmate housing unit projects. The effort is intended to frame the planning and decision-making process and offer elected officials, stakeholders, and the public a means to participate. The public outreach effort has the following objectives:

- Provide an understanding of PSD's mission and responsibilities and the important role KCCC, MCCC, and HCCC play in the criminal justice system in Hawaii;
- Describe the current KCCC, MCCC, and HCCC and the need to alleviate the severe and persistent overcrowding experienced at the facilities and by doing so improve the health and safety for inmates, staff, and the public;
- Demonstrate how the PSD and the Project Team are exercising careful, objective, and systematic development of plans for the proposed new inmate housing units at KCCC, MCCC, and HCCC;
- Provide project information that is accurate, timely, accessible, and understandable to the public;
- Regularly inform the public regarding the planning process and offer opportunities for input; and
- Encourage public interest and constructive input, eliciting a variety of viewpoints.

7.1.1 Pre-Assessment Document

Outreach activities are being varied in their approach to encourage participation across different audiences, recognizing that individuals and groups receive and process information in different ways. Activities include preparation of this ***Pre-Assessment Consultations*** document to inform interested parties of the proposed inmate housing projects and to seek comments and input on issues that should be addressed in the forthcoming Draft EAs for KCCC, MCCC, and HCCC.

7.1.2 Initial Notification Letters

PSD is committed to providing a safe, secure, healthy, humane, social, and physical environment for inmates and staff, but the severe and persistent overcrowding at KCCC, MCCC, and HCCC has limited its ability to provide such environments, exacerbated basic physical plant operations, contributed to tension among inmates, and diminished program opportunities. To increase awareness of this problem and solicit the input and assistance of federal, State, and local elected and appointed officials and government agencies, PSD issued letters to such individuals and agencies to inform them of plans to alleviate overcrowding (March/April 2018). The introductory letters, sent by PSD Director Nolan P. Espinda, introduced the proposed projects and the team responsible for conducting the planning and environmental studies.

7.1.3 Neighbor Island Jail Projects Website

Information prepared in support of the proposed inmate housing projects has also been made available through PSD's Neighbor Island Jail Projects website: ***https://dps.hawaii.gov/neighbor-island-jails-project/.*** Over time, the website will host a calendar of activities, project-related newsletters, various technical reports, and other informative materials. Interested persons and organizations are also continuously added to the Neighbor Island Jail Projects emailing/distribution list to receive periodic information about the projects and to learn about progress in the planning process.

7.1.4 Project Newsletters

PSD is producing and widely distributing newsletters concerning various aspects of the housing unit planning and environmental study process. Newsletters are being prepared in response to the need for accurate and timely information about jail function and operation, Draft EA preparation efforts, characteristics of the inmates housed

in CCCs, and other important topics. These publications are also being used as meeting handouts, made available via the Neighbor Island Jail Projects website, and distributed via an email system to over 1,000 individuals, organizations, agencies, stakeholders, and elected and appointed officials. DAGS, in collaboration with PSD, is conducting public outreach to introduce the proposed action involving KCCC, MCCC, and HCCC to communities on Kauai, Maui, and Hawaii and statewide; facilitate the public informational process; and integrate public input into the decision-making process.

8.2 Public Outreach

PSD officials recognize the value and importance of effectively communicating with various stakeholders (elected officials, interest groups, regulatory agencies, the public, etc.) during the planning and Draft EA process. When a project or action has the potential to affect local and statewide interests, communicating with community leaders, community and public interest groups, regulatory agencies, and the public early and throughout the process can facilitate decision-making and help achieve approval/acceptance. Public outreach at the onset of the planning process serves to assist in determining the focus and content of the environmental impact study. Public outreach also assists to identify the range of actions, alternatives, environmental effects, and mitigation measures to be analyzed and eliminates from study issues that are not pertinent to the final decision on the proposed projects.

At the onset of the various studies, PSD notified State and local agencies and elected officials via letters informing them that PSD was initiating preparation of Draft EAs and inviting them into a conversation about the proposed projects. Significant issues may be identified through public and agency input and comments. The following agencies, organizations, and officials are among those being consulted during preparation of the Draft EAs:

7.2.1 Federal

- U.S. Senators
- U.S. Congressional Representatives
- Department of the Army, Army Corps of Engineers
- Department of Agriculture, Natural Resources Conservation Service
- Department of the Interior
  - Fish and Wildlife Service
  - Geological Survey
- Others

7.2.2 State

- Governor's Office
- Hawaii State Senators
- Hawaii House of Representatives
- Department of Agriculture
- Department of Accounting and General Services
- Department of Business, Economic Development, and Tourism

  - Land Use Commission
  - Office of Planning
- Department of Defense
  - Hawaii Army National Guard
- Department of Education
- Department of Hawaiian Home Lands
- Department of Health
  - Office of Environmental Quality Control
  - Environmental Planning Office
- Department of Land and Natural Resources
  - Land Division
  - State Historic Preservation Division
- Department of Transportation
- Office of Hawaiian Affairs
- University of Hawaii Environmental Center
- Others

7.2.3 County of Kauai

- Office of the Mayor
- Kauai County Council Members
- Planning Department
- Department of Public Works
- Transportation Agency
- Emergency Management Agency
- Office of Economic Development
- Water Department
- Department of Parks and Recreation
- Fire Department
- Police Department
- Housing Agency
- County Clerk
- County Attorney's Office
- Others

7.2.4 County of Maui

- Office of the Mayor
- Maui County Council Members
- Office of Economic Development
- Department of Prosecuting Attorney's Office
- Department of Parks and Recreation
- Planning Department
- Maui Fire Department
- Maui Police Department
- Public Works Department
- Department of Water Supply
- Others

7.2.5 County of Hawaii

- Office of the Mayor
- Hawaii County Council Members
- Office of the Corporation Counsel
- Department of Environmental Management
- Planning Department
- Department of Public Works
- Mass Transit Agency
- Civil Defense Agency
- Department of Water Supply
- Department of Parks and Recreation
- Fire Department
- Police Department
- County Clerk
- Office of the Prosecuting Attorney
- Others

APPENDIX D:
Archaeological Inventory Survey of the Kauai Community Correctional Center

Archaeological and Architectural Surveys for Medium-Security Housing Project

Līhu'e, Hawaii

Kauai
Community Correctional Center

February 2019

State of Hawaii
Hawaii Department of Public Safety

Archaeological and Architectural Surveys for Medium-Security Housing Project

Līhu'e, Hawaii

Kauai
Community Correctional Center

February 2019

Prepared For:

State of Hawaii
Hawaii Department of Public Safety
Hawaii Department of Accounting and General Services

Prepared By:

Louis Berger

ABSTRACT

The Hawaii Department of Public Safety (PSD) operates the Kauai Community Correctional Center (KCCC) located at 3-5351 Kuhio Highway in Līhu'e, the only correctional facility serving the Island of Kauai. From its original capacity of 12 medium-security beds in 1977, KCCC was expanded in 1991 to 46 beds and currently has a design capacity of 110 beds. Additional bed space came in the form of temporary dormitory structures that were used by displaced residents of Hurricane Iniki and are still being used for correctional housing. KCCC is presently operating at 34 percent more than the total operational capacity. The key concerns at KCCC are the use of low-security modular buildings to house medium-security inmates along with the severe and persistent crowding, and consideration is being given to developing medium-security housing for inmates who are currently housed at KCCC. The Hawaii Department of Accounting and General Services is assisting PSD with administrative and other support.

On behalf of PSD, Louis Berger U.S., Inc. (Louis Berger) completed archaeological and architectural surveys for the proposed KCCC medium-security housing facility project. Although a proposed building footprint has been defined and serves as the area of potential effects (APE), this assessment also considers indirect effects that could potentially occur within and surrounding the entire KCCC facility (the project area). As part of the Environmental Assessment (EA) for the proposed project, prepared in accordance with HRS 343, cultural resources must be taken into account as required by and in conformance with Procedures for Determining Site Eligibility for the National Register of Historic Places (36 CFR 60 and 63); Hawaii Law HRS Division 1, Title 1, Chapter 6E, Section 6E-8; and Hawaii Administrative Rules (HAR) Chapters 13-276 and 13-275. As part of the Historic Preservation Review as outlined in HAR 13-275, this report serves to identify any significant historic (archaeological or architectural) properties, previously recorded and unrecorded, in the project area and to determine possible impacts of the proposed project on such historic resources. As agreed to in consultation with the Hawaii State Historic Preservation Division (SHPD), the surveys support the project's historic preservation compliance and consultation effort, as outlined in HAR Chapter 13-275, and contribute to the consideration of the potential impacts in a Draft EA. Louis Berger will work with PSD to obtain a determination from the Hawaii SHPD as to whether further archaeological/architectural studies will be required as described in HAR Chapter 13-276.

Louis Berger identified one new archaeological site, TS 2571-01, a historic plantation-era drainage ditch running along the western boundary of the KCCC facility. No extant standing structures at KCCC are greater than 50 years of age and therefore they do not constitute historic architectural resources. Although burials have been identified east of KCCC in sand dune formations, KCCC lies within a coastal marsh zone below surrounding elevations, with poorly drained wetland soils that were used historically for taro and rice cultivation. Several recent archaeological monitoring projects within KCCC have not revealed burials or substantive subsurface deposits. The proposed project is to be located in the northern portion of the property and as currently designed will not impact any known archaeological or historic resources. Louis Berger recommends no further archaeological or architectural work. Care should be taken so that construction activities do not indirectly impact TS 2571-01, such as adding temporary silt and other fencing to prevent litter and soil from entering the ditch during construction. An unanticipated discovery plan should also be developed that includes procedures should human remains be encountered.

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1.0 INTRODUCTION

The Hawaii Department of Public Safety (PSD) operates the Kauai Community Correctional Center (KCCC) located at 3-5351 Kuhio Highway in Līhu'e, the only correctional facility serving the Island of Kauai. From its original capacity of 12 medium-security beds in 1977, KCCC was expanded in 1991 to 46 beds and currently has a design capacity of 110 beds. Additional bed space came in the form of temporary dormitory structures that were used by displaced residents of Hurricane Iniki and are still being used for correctional housing. KCCC serves the customary county jail function of managing both pre-trial detainees and locally sentenced misdemeanant offenders and others with a sentence of one year or less, and also provides a pre-release preparation/transition function for prison system inmates when they reach less than a year until their scheduled release. KCCC is presently operating at 128 beds with a population of 172 inmates, or 34 percent more than the total operational capacity (PSD, November 2018). The key concerns at KCCC are the use of low-security modular buildings to house medium-security inmates along with the severe and persistent crowding, and consideration is being given to developing medium-security housing for inmates who are currently housed at KCCC. The Hawaii Department of Accounting and General Services (DAGS) is assisting PSD with administrative and other support.

On behalf of PSD, Louis Berger U.S., Inc. (Louis Berger) completed archaeological and architectural surveys for the proposed KCCC medium-security housing facility project. Although a proposed building footprint has been defined and serves as the area of potential effects (APE), this assessment also considers indirect effects that could potentially occur within and surrounding the entire KCCC facility (the project area) (Figure 1). The proposed medium-security housing project will be constructed at the existing KCCC location (TMK 4-3-9-05:13). There are no plans to relocate the facility from Līhu'e in eastern Kauai and no plans to expand KCCC beyond its current property boundaries.

As part of the preparation of an Environmental Assessment (EA) for the proposed KCCC project, conducted in accordance with HRS 343, historic and archaeological resources must be taken into account as required by and in conformance with Procedures for Determining Site Eligibility for the National Register of Historic Places (36 CFR 60 and 63); Hawaii Law HRS Division 1, Title 1, Chapter 6E, Section 6E-8; and Hawaii Administrative Rules (HAR) Chapters 13-276 and 13-275. As agreed to in consultation with the Hawaii State Historic Preservation Division (SHPD), the surveys are intended to provide support for the project's historic preservation compliance and consultation effort, as outlined in HAR Chapter 13-275, and contribute to the consideration of potential impacts in a Draft EA. Louis Berger will work with PSD to obtain a determination from SHPD as to whether further archaeological and architectural inventory and evaluation studies will be required as described in HAR Chapter 13-276.

In accordance with the Historic Preservation Review as outlined in HAR 13-275, this report serves to identify any significant historic (archaeological or architectural) properties, previously recorded and unrecorded, in the project area. This information will be used to determine the significance and impacts of the proposed project on historic properties in the project area. The report includes a literature review of environmental and archaeological documentary research and an outline of previous archaeological surveys and identified sites, the results of the archaeological pedestrian reconnaissance survey, results of the architectural survey, and management recommendations on the proposed siting of medium-security housing at KCCC. Louis Berger conducted the

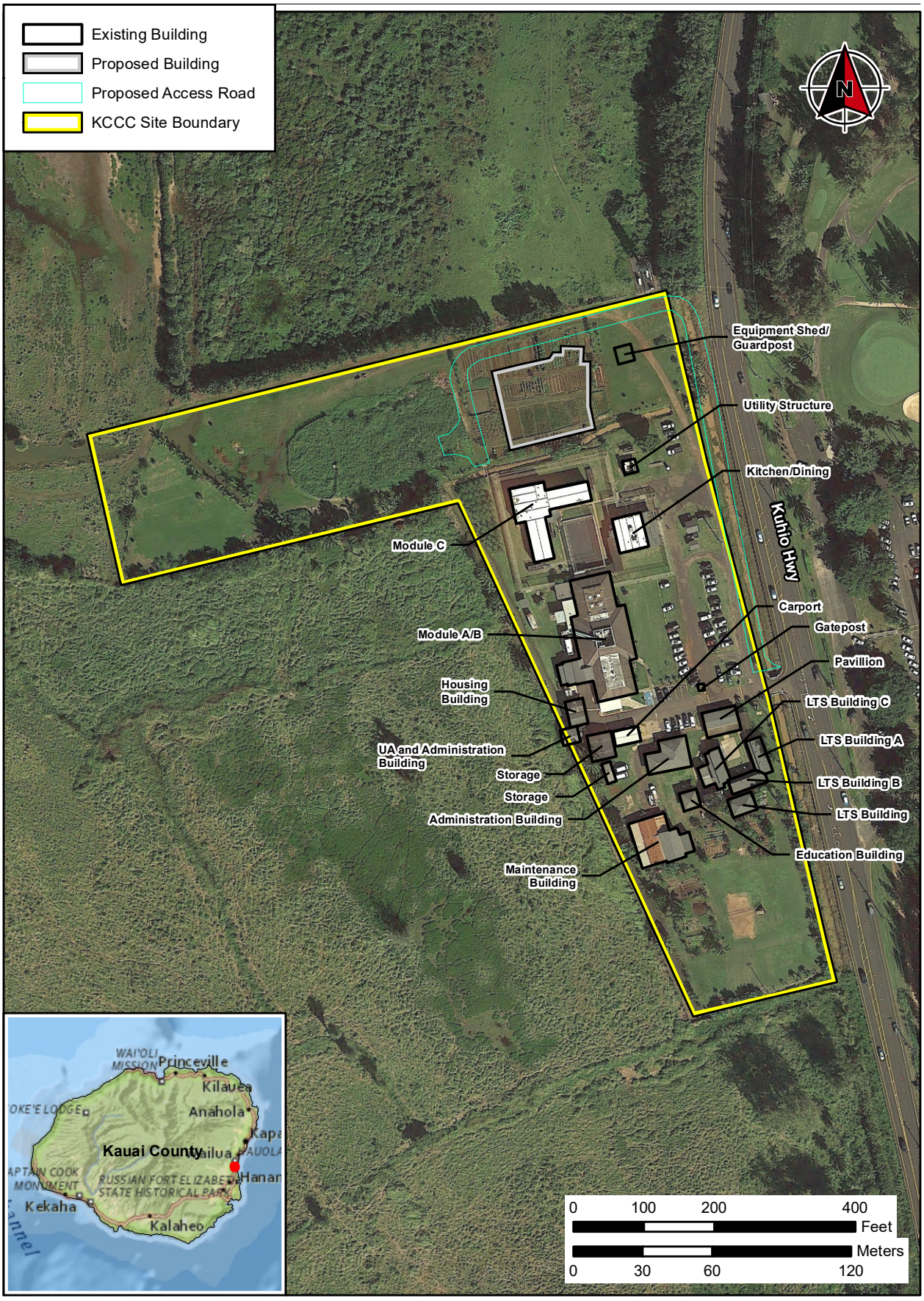


Figure 1: Location of Project Area (Google Earth 2013)

research using available resources at the SHPD, the Bishop Museum, the Hawaii State Archive, and the University of Hawaii, Manoa.

The report is organized into five chapters. Following this introduction (Chapter 1.0), Chapter 2.0 presents the results of the background research, including relevant environmental setting information and traditional and historic contexts. Chapter 3.0 reviews the previous archaeological research and recorded sites in and around the project area. Chapter 4.0 describes the results of the archaeological and architectural pedestrian surveys. Chapter 5.0 provides a summary of findings and management recommendations. The report concludes with a list of the references cited.

Louis Berger Senior Vice President Hope Luhman, Ph.D. (Registered Professional Archaeologist [RPA] No. 10505), served as Principal Investigator supervising the archaeological investigations under Permit Number 17-37, issued by the Hawaii SHPD/Department of Land and Natural Resources (SHPD/DLNR), per Hawaii Administrative Rules (HAR) Chapter 13-282. Louis Berger Archaeologist Andrew Wilkins, Ph.D. (RPA No. 29929559) completed the background research and literature review. Dr. Wilkins conducted the archaeological pedestrian reconnaissance under the direction of Dr. Luhman and also performed the architectural survey under the direction of Louis Berger Director-Historic Preservation Steven Bedford, Ph.D. The archaeological and architectural fieldwork was conducted on June 14, 2018. Dr. Wilkins wrote the report with contributions from Dr. Bedford. Principal Editor Anne Moiseev edited the report, and Principal Draftsperson/GIS Analyst Jacqueline L. Horsford prepared the graphics.

2.0 BACKGROUND

2.1 Environmental Setting

KCCC is located in the Wailua Ahupua'a within the old district, or moku, of Puna, which lies within the modern Līhu'e District on the Island of Kauai. The KCCC property (TMK 4-3-9-05:13) includes approximately 4 hectares (10 acres) of land at an elevation of approximately 6 meters (20 feet) above mean sea level (amsl) with the topography sloping gently from northwest to southeast. The property is bordered on the east by Kuhio Highway and to the north, south, and west by agricultural fields and vacant lands. Farther east, across Kuhio Highway, is the Wailua Golf Course with the Pacific Ocean just beyond the golf course.

The volcanic formation of Kauai is estimated to have occurred from 2 to 4 million years ago, making it the oldest of the Hawaiian Islands. Subsequent surface lava flows modified the landscape of the island, and flows from volcanic vents near Waimea and Koloa covered the KCCC project area between 1 and 2 million years ago (Hazlett and Dega 2017). In their environmental model for the coastal area, Dega and Powell (2003) described five generalized zones beginning at the coast (Zone I) and proceeding inland through the back beach (Zone II), marsh (Zone III), hills and plateaus (Zone IV), and mountains (Zone V). Zone I includes coastal beach sand dunes that often contain burials and cultural deposits, as does Zone II, which is a more stable land surface but still composed of beach sands. These two zones were not only the most used for pre-contact fishing, habitation, and burial sites but are among the locations most used and modified by modern development. Nearest KCCC, the coastal and back beach zones are currently occupied by the Wailua Golf Course, Lydgate Park, and several resort hotels. Zone III, the marsh, includes some sandy subsoils that are often overlain by alluvial silt and clay sediments. Zone III areas lie at or sometimes slightly below sea level and are frequently ponded. Zone III

marshland was often used for lo'i agriculture, the wet farming of taro, and later were often used for rice cultivation or filled for development. KCCC is located within Zone III, as the property lies below surrounding elevations, includes poorly drained soils, was used historically for taro and rice cultivation, and was subsequently leveled with imported fill soils prior to development as a jail.

United States Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS) (2018) data indicate that the soils present in the project area are classified as two variants of the Mokuleia series (Figure 2; Table 1). Nearly 85 percent of the KCCC property, including the proposed location of the medium-security housing, is listed as Mokuleia fine sandy loam (Mr), a well-drained soil formed from alluvium over coral sand in coastal plains. Mokuleia clay loam, a poorly drained variant (Mta), is located in the northwestern corner of the property and constitutes only about 15 percent of KCCC. Both soils fit the definition for Zone III of the coastal area environmental model discussed above.

Table 1: Soils in KCCC Project Area

Name	Horizon	Soil Horizon Depth	Texture	Slope	Drainage	Landform
Mokuleia fine sandy loam (Mr)	H1 H2	0-40 cm (0-16 in) 40-152 cm (16-60 in)	Fi Sa Lo Sa	0-2%	Well drained	Coastal Plain
Mokuleia clay loam (Mta)	H1 H2	0-40 cm (0-16 in) 40-152 cm (16-60 in)	Cl Lo	0-2%	Poorly drained	Coastal Plain

KEY: *Soils:* Cl – Clay, Lo – Loam, Si – Silt, Sa – Sand, Org - Organics
Other: / - Mottled, Grl – Gravel, Cbs – Cobbles, Pbs – Pebbles, Rts – Roots, C – Coarse, Ch - Channery, F – Fine, BdR - Bedrock

2.2 Traditional and Historic Contexts

The moku of Kauai are subdivided into smaller ahupua'a, areas of land organized as wedges running from the mountains to the sea. Modern maps generally follow these ancient land divisions, and the history of these places is closely tied to these boundaries. The traditional and historic contexts for the Wailua ahupua'a have been extensively researched by previous archaeologists and historians (Drennan 2007; Hammatt and Shideler 2003; Hazlett and Dega 2017; Morris et al. 2016). The following cultural context is an abbreviated summary of these reports. For a fuller discussion of the traditional and historic contexts of Kauai and the area surrounding KCCC, see Brandt and Rechtman (2018).

2.2.1. Traditional

The Island of Kauai is dotted with traditional and unique place names, providing the researcher with a link to Hawaiian culture and oral tradition. Place names connect pre-contact and early historic sites with the present-day landscape. When Polynesians first came to the Hawaiian Islands, they concentrated on settling in the coastal regions where natural resources were plentiful and easily exploited. As the populations grew and competition for resources increased, land divisions became more organized and controlled (Hazlett and Dega 2017). Wailua is the largest ahupua'a in the Puna district, encompassing over 20,000 acres and including most of the streams

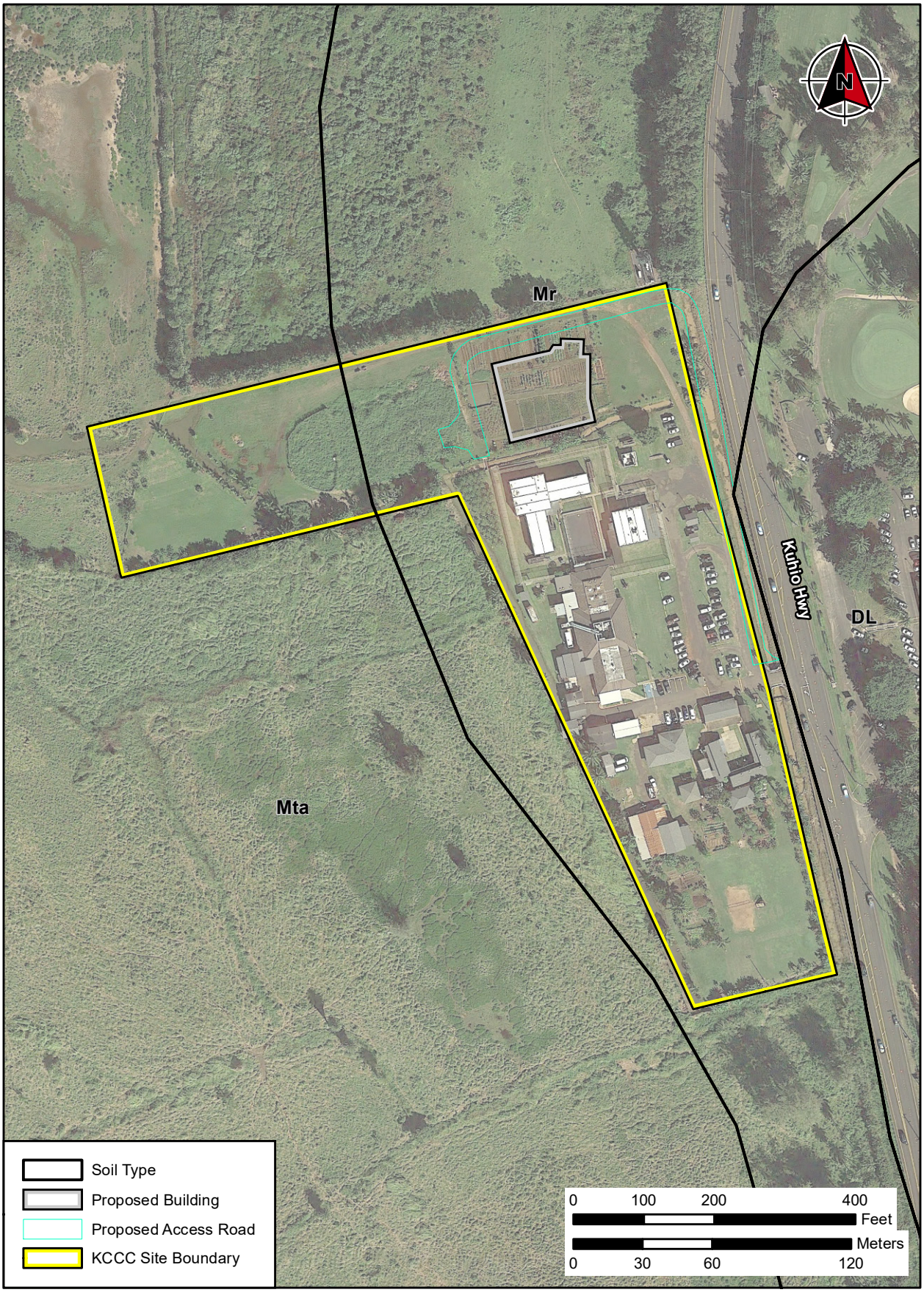


Figure 2: Soils in KCCC Project Area (Google Earth 2013; USDA-NRCS 2018)

that flow into the forks of the Wailua River, the only navigable (by boats larger than kayaks) river in Hawaii (Folk et al. 1994).

Wailua was a key religious and political center of Kauai during ancient times, with numerous heiau surrounding the banks of the Wailua River (Bennett 1931), about 1.5 miles north of KCCC. The lower river valley was a sacred area that was off limits to commoners, and only the ali'i (rulers), their kahuna (priests), and retainers could access the area (Dickey 1917). The area was likely favored not only for its pleasant surroundings but bountiful natural resources, including fertile agricultural lands, marine life, and abundant fresh water. The area also contained a pu'uhonua, or place of refuge, although its location and extent are not clear from traditional histories (Viguie 2008). Wailua is traditionally associated with several legendary and historical figures, including Maui, Pele, and Mo'ikeha, which suggests a deep and continuous occupation of the area. The connection of several Wailua heiau with the legendary Oahu chief Mo'ikeha, as well as the menehune (a legendary race of small people who built fishponds, roads, and temples), may indicate that the sites and heiau of the Wailua Complex of Heiau may have been constructed ca. AD 1200. Other features in Wailua Ahupua'a that attract interest are the Pae-ki'i-mahu-o-Wailua petroglyphs and "footprint marks" on the northern side of Wailua Bay (Hammatt and Shideler 2003; Morris et al. 2016).

The pre-contact importance of Wailua to Kauai is also suggested by the many "firsts" associated with the region in traditional history. Traditionally, Mōi'keha is said to have planted the first kalo (taro) and 'uala (sweet potato) on Kauai, and his son is said to have brought the first temple drum to the Island. Other accounts describe that hau trees were introduced to Kauai along the Wailua River and that the first coconut tree brought to the Island was planted just north of the river mouth (Dickey 1917; Hazlett and Dega 2017; Morris et al. 2016; Viguie 2008).

The most literal meaning of Wailua is "two waters," alluding to the confluence of the northern and southern forks that flow together to form the Wailua River. The name may also originate with the high chief Wailuanuiaho'ano, who was born on Oahu. His descendants went to Kauai and other islands, naming the lands where they settled in honor of their ancestor (Morris et al. 2016).

2.2.2 Historic Post-Contact

During the early post-contact period, when the earliest western visitors were first beginning to explore the Hawaiian Islands, the ahupua'a of Wailua was still the political center of Kauai, although most eighteenth-century western visitors landed at Waimea on the southwestern side of the island, and Waimea eventually overshadowed Wailua as a center of trade (Folk et al. 1994:12). The first known western encounter and description of the eastern coast of Kauai was made in 1793 by Capt. George Vancouver, who had served previously under Captain Cook. Vancouver knew of the political importance of the area and described its natural beauty from offshore, as he was not able to anchor off the coast. Other early visitors who left written descriptions of Wailua include Christian missionary Hiram Bingham in 1824 and the U.S. Exploring Expedition in 1840.

The Organic Acts of 1845 and 1846 introduced the concept of private property to Hawaiian society. The Board of Commissioners to Quiet Land Titles (Land Commission) was established in 1845 to carry out the Mahele, or the division of lands among the king of Hawaii and the royal house, the ruling government, the ali'i and their land managers, and the common people (Hazlett and Dega 2017). Land titles received by the ali'i were called Land Commission Awards (LCAs), and it is these records that reveal specific and detailed

information about land use and life in the nineteenth and early twentieth centuries. The claims distributed in Wailua between 1848 and 1853 are relatively few and are centered around the river and along the shoreline, evidence that within decades of western contact, the Wailua vicinity had not retained its pre-contact importance (Hammatt and Shideler 2003). Kamehameha III claimed much of the southern portion of the Wailua valley as Crown lands, which were transferred to the territorial government after the monarchy fell in the 1890s (Hazlett and Dega 2017).

By the mid-1800s the sugar industry was growing and demand for sugar cultivation was increasing. Early attempts to cultivate sugar included the Līhu'e Plantation, formed in 1849, which eventually came to own much of the land surrounding the current project area (Figure 3). Given its swampy back beach setting, the plantation was used largely for rice and kalo cultivation. Līhu'e Plantation leased tens of thousands of acres in Wailua, and railroad lines were laid through Wailua in the 1890s to replace oxcarts for the transport of labor and agricultural products to Līhu'e (Morris et al. 2016). In the 1920s a section of the Ajukinin Terminal and Railway Company line was constructed east of the future KCCC site through the sand dunes, where a borrow pit for railway construction reportedly turned up fragments of a human skull, corresponding to future archaeological discoveries of the dune burials of State Inventory of Historic Places (SIHP) #50-30-08-103 (discussed in Chapter 3.0, below).

Although plantation agriculture dominated the uplands west of the future KCCC site, outdoor recreational activities dominated the twentieth-century development of the dunes and coast to the east, including the construction of the original nine-hole Wailua Golf Course in 1927. Lydgate Park was created in 1923, and a former portion of the park south of the golf course contained fairgrounds and a race track that were used by the U.S. Marines during World War II as a camp and ammunition dump. The Wailua Golf Course was expanded to the south to include 18 holes in the 1960s, and much of rest of the coastal Wailua has been developed into resorts and hotels (Hazlett and Dega 2017).

The KCCC property itself was largely surrounded to the west by rice fields, and large ponds and swamps covered most of the northern portion of the property at the beginning of the twentieth century (Figure 4). Drains, including the ditch running along the future western boundary of the KCCC property, are already visible on 1900 (see Figure 4) and 1923 (Figure 5) maps. The future KCCC property was first designated as the site of a potential jail in 1935, and the Līhu'e Jail was established by Executive Order 682 in 1936 (Figure 6). Mapping indicates a jail and three other buildings on the 30-acre parcel by 1939 (Figure 7). These structures apparently constituted the jail through the 1940s, 1950s, and 1960s, as indicated on aerial photography (Figure 8). The first of the present KCCC buildings was constructed in 1977 (Figure 9).

3.0 PREVIOUS INVESTIGATIONS

The literature review included published archaeological and historical studies; unpublished cultural resource management reports; and a review of the eighteenth-, nineteenth-, and twentieth-century maps featured in earlier archaeological inventory surveys and archaeological management plans for previous studies in the proposed project area. ArcGIS was used to review maps and geographic information of the project area, which helped to assess archaeological sensitivity. Previously recorded archaeological sites and surveys within a 1.6-kilometer (1-mile) radius of the project area were identified and are reviewed below (Figure 10a-b; Tables 2 and 3).

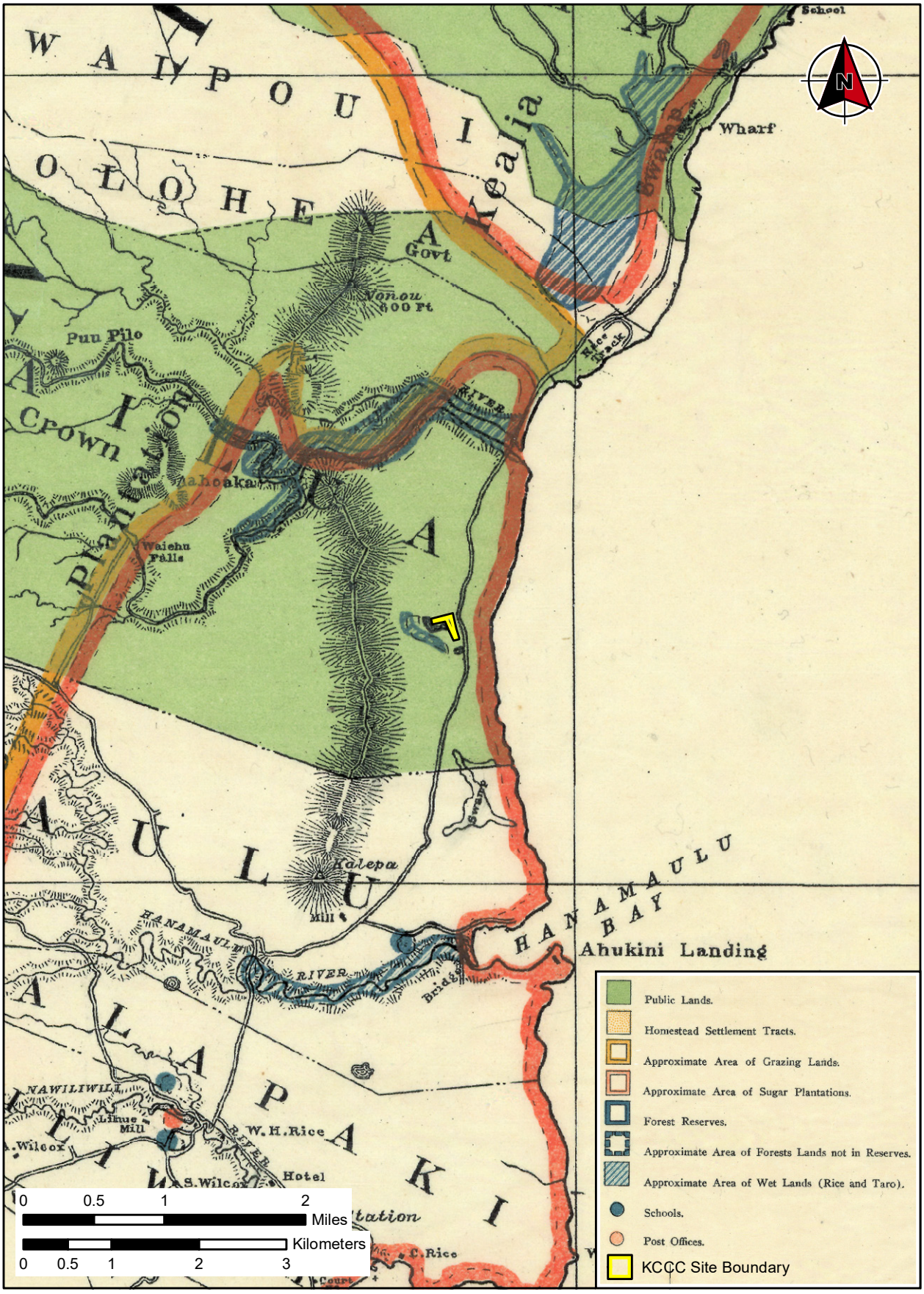


Figure 3: 1903 Land Use Map of Kauai (Donn and Wall 1903)

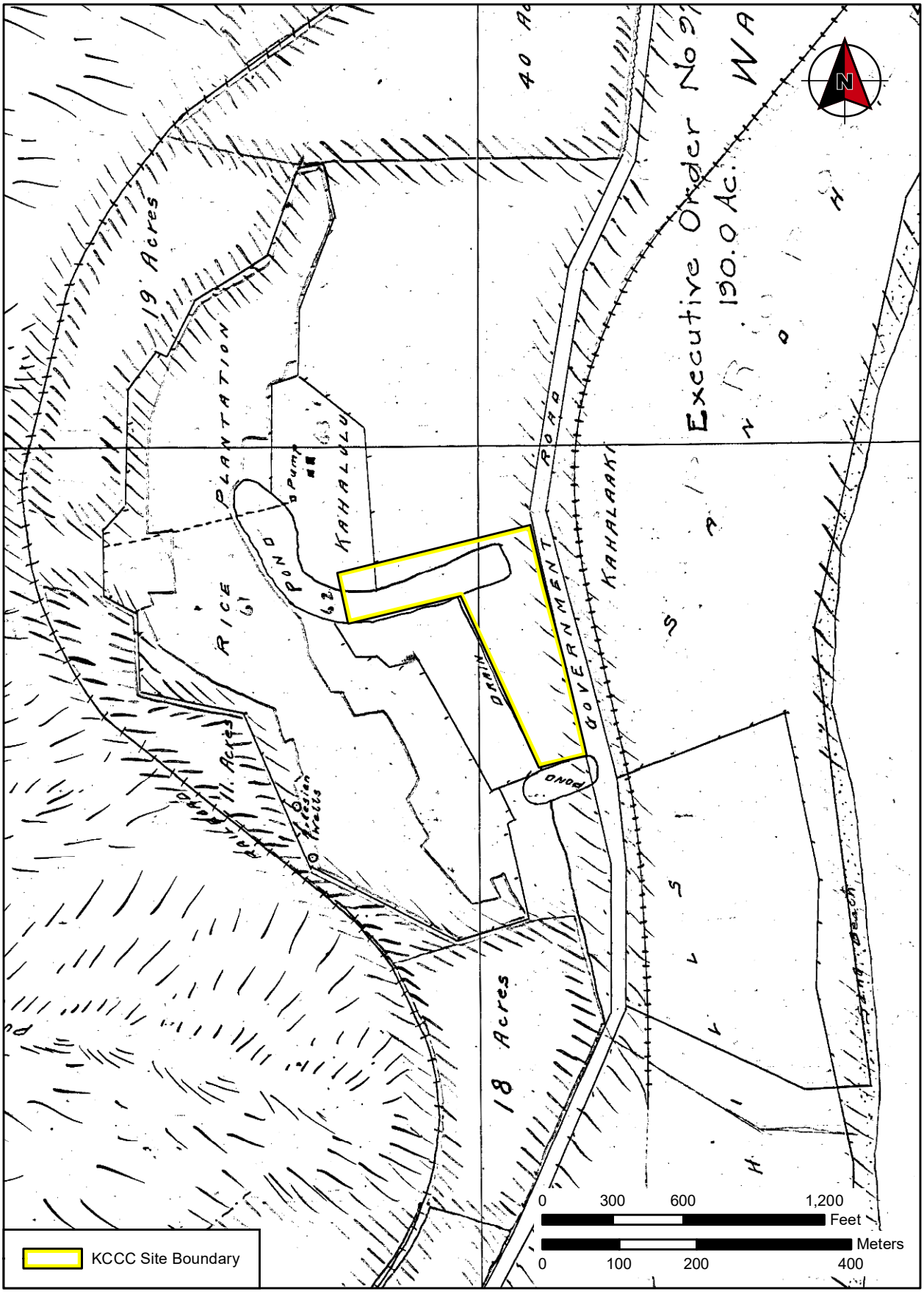


Figure 4: Detail of Registered Map 2141, Līhu'e Plantation in 1900 (Monsarrat 1900)

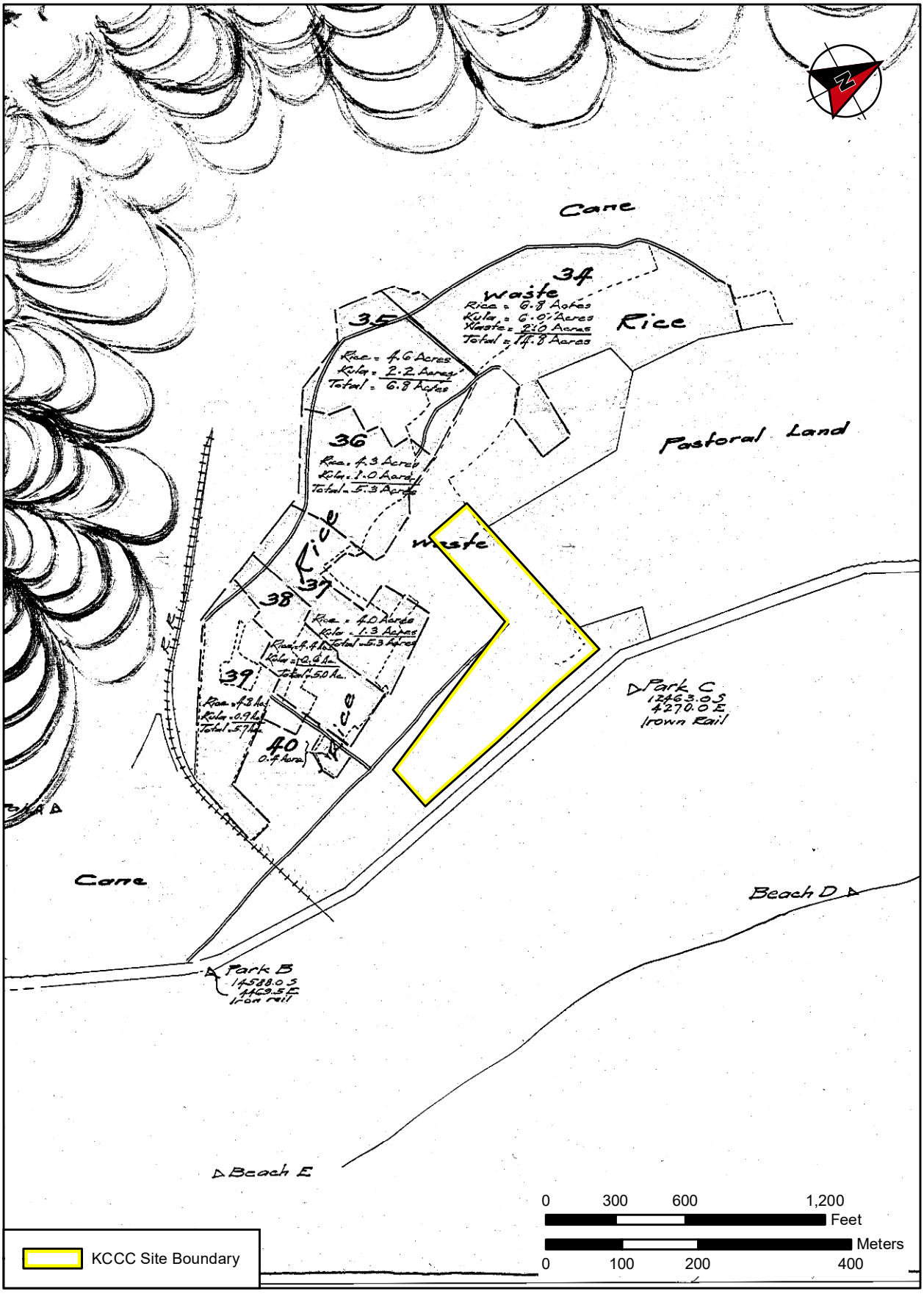


Figure 5: Detail of Registered Map 2698, Wailua Rice and Kalo Lots in 1923 (Iao 1923)

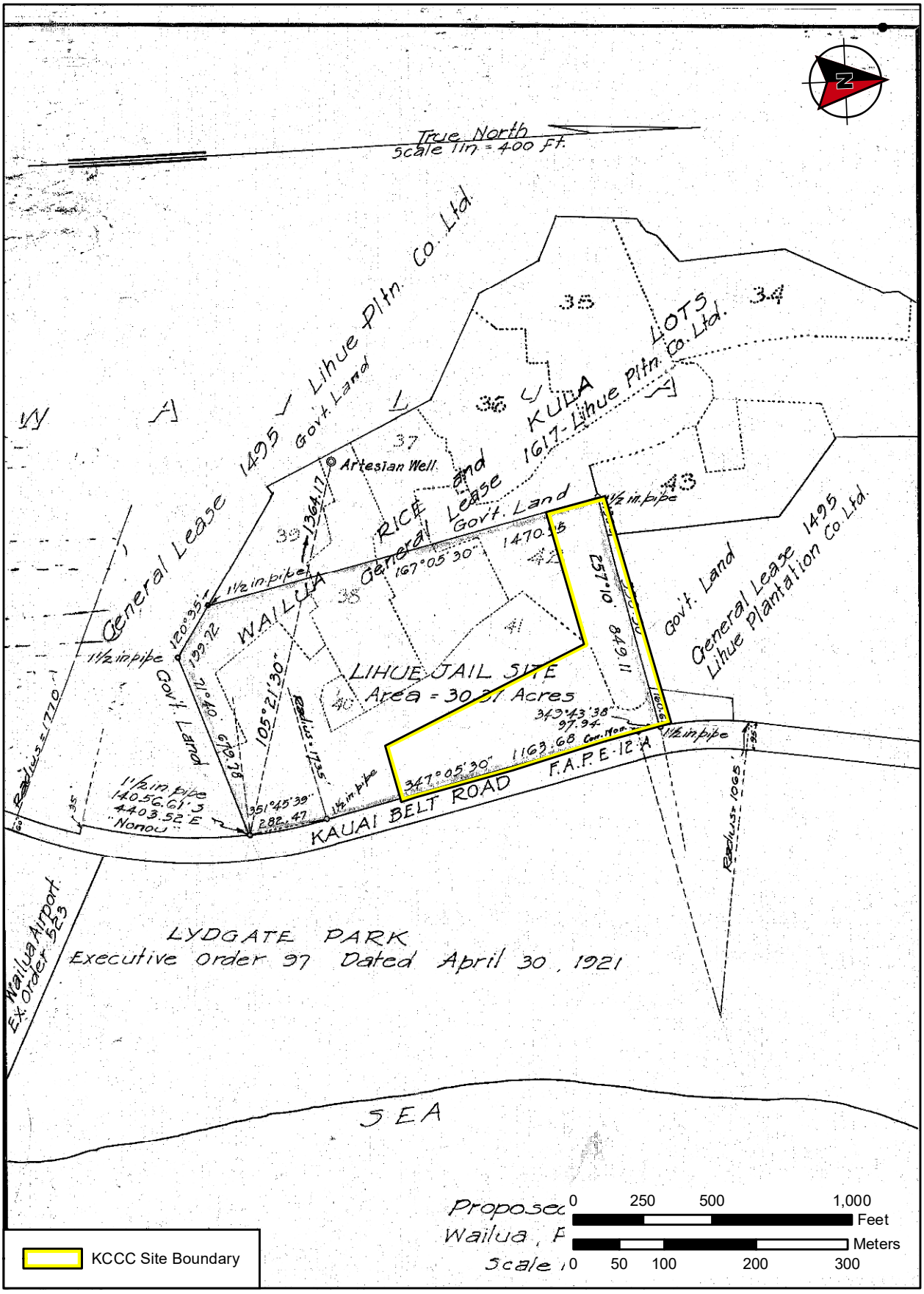


Figure 6: CSF Map 7611, 1935 Survey Plat for Līhu'e Jail Site (Copp 1935)

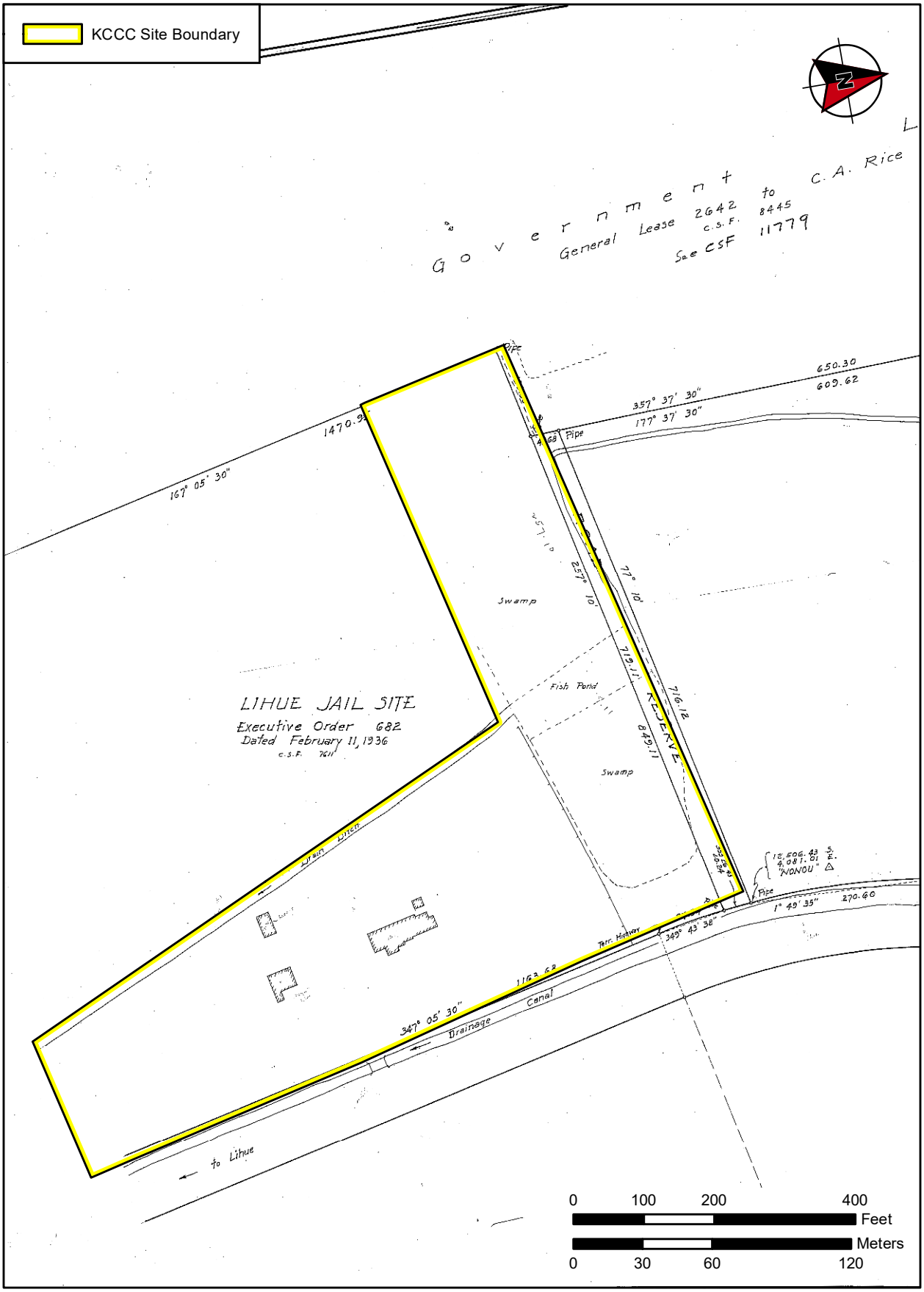


Figure 7: Portion of Registered Map 3041, Grant 10779 to William Hyde Rice, Ltd. in 1939 (Aiu 1939)



Figure 8: Aerial Imagery from 1960 Showing Līhu'e Jail (USGS 1960)



Figure 9: Aerial Imagery from 1978 Showing KCCC Facility (USGS 1978)

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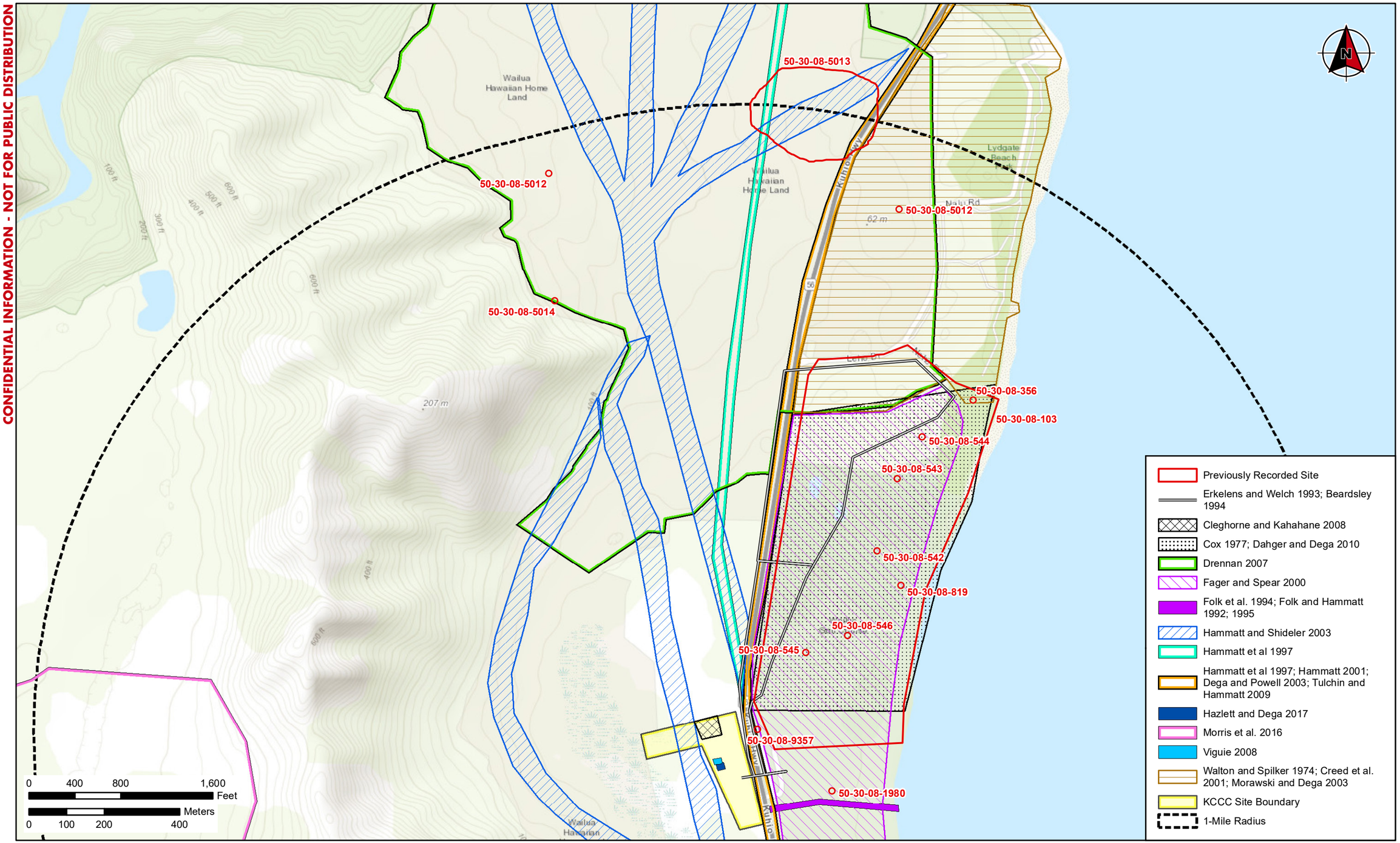


Figure 10a: Previous Investigations and Recorded Sites Within 1.6 Kilometers (1 Mile) of KCCC Project Area (ESRI World Topo Map 2018)

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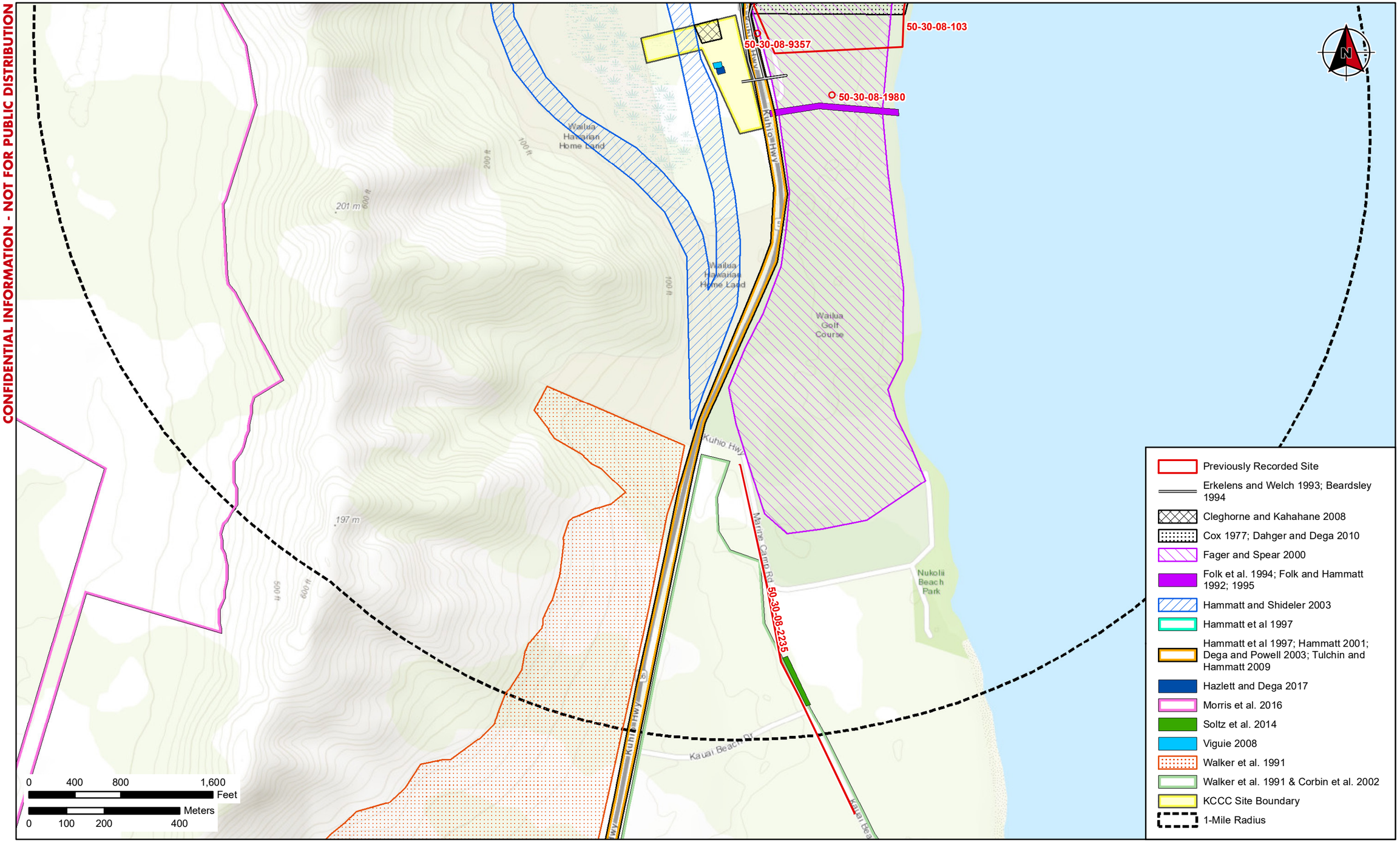


Figure 10b: Previous Investigations and Recorded Sites Within 1.6 Kilometers (1 Mile) of KCCC Project Area (ESRI World Topo Map 2018)

Table 2: Previous Archaeological Surveys Within Approximately 1.6 Kilometers (1 Mile) of Kauai Community Correctional Center Project Area

Source	Distance from Project Area	Type of Survey	Findings
Thrum 1906	Island-wide	Listing of heiau	Four heiau along Wailua River
Bennett 1931	Island-wide	Reconnaissance Survey	Dune burials (SIHP #-103)
Walton and Spilker 1974	0.5 mile northeast	Archaeological Assessment	Included limited subsurface testing, no sites
Cox 1977	0.05 mile northeast	Archaeological Monitoring	13 burials located, SIHP #-542 thru -546 and -819
Yent 1987	1.0 mi north	Archaeological Inventory Survey	No sites
Walker et al. 1991	0.7 mi south	Archaeological Inventory Survey	Ten new sites more than 1.0 mi south of project area
Folk and Hammatt 1992	0.1 mi southeast	Archaeological Assessment	No sites; informants note dune burials
Erkelens and Welch 1993	In project area	Archaeological Assessment	Recommended subsurface testing owing to presence of dune burials
Beardsley 1994	In project area	Archaeological Inventory Survey	SEHP #-9357, a burial, and SIHP #-0103
Folk et al. 1994	0.1 mi southeast	Archaeological Inventory Survey	No sites
Folk and Hammatt 1995	0.1 mi southeast	Archaeological Monitoring	SIHP #-1980, 8 burials
Hammatt et al. 1997	Borders project area to the east	Archaeological Inventory Survey	SIHP #-756 and #-634 identified north of Wailua River
Fager and Spear 2000	0.05 mi east	Archaeological Monitoring	44 burials, 42 isolated bone finds, all part of SIHP #50-30-08-103
Creed et al. 2001	0.5 mi northeast	Archaeological Assessment	Recommended monitoring program owing to heiau and burials in vicinity
Hammatt 2001	Borders project area to east	Archaeological Assessment	High potential for encountering sites north of Wailua River
Corbin et al. 2002	0.7 mi south	Archaeological Inventory Survey	10 sites identified along shoreline over 1.0 mile south of project area
Dega and Powell 2003	Borders project area to the east	Archaeological Monitoring	SIHP #-1711 north of Wailua River
Hammatt and Shideler 2003	Borders project area to the east	Archaeological Assessment	8 sites north of Wailua River
Morawski and Dega 2003	0.5 mi northeast	Archaeological Monitoring	Dune burials (SIHP #-103) and SIHP #-356 identified
Drennan 2007	0.4 mi north	Archaeological Inventory Survey	SIHP #-5012, #-5013, and #-5014
Cleghorn and Kahahane 2008	In project area	Archaeological Assessment	No sites identified, potential for subsurface deposits and burials
Viguie 2008	In project area	Archaeological Monitoring	Section of concrete foundation uncovered

Table 2 (continued)

Source	Distance from Project Area	Type of Survey	Findings
Tulchin and Hammatt 2009	Borders project area to east	Geophysical Survey	Ground-penetrating radar indicated subsurface anomalies
Dagher and Dega 2010	0.28 mi northeast	Archaeological Monitoring	No sites
Soltz et al. 2014	0.95 mi south	Archaeological Inventory Survey	SIHP #-2235, ditch
Morris et al. 2016	0.8 mi west	Archaeological Inventory Survey	SIHP #-2218, includes 82 historic plantation-era features
Hazlett and Dega 2017	In project area	Archaeological Monitoring	Historic-era trash deposits (SSF-1)

Table 3: Recorded Archaeological Sites Within Approximately 1.6 Kilometers (1 Mile) of Kauai Community Correctional Center Project Area

Site Number/Name (SIHP)	Site Type	Reported by
50-30-08-103	Over 50 individual dune burials, including Sites -542 through-546 and -819	Bennett 1931; Cox 1977; Fager and Spear 2000
50-30-08-356	Pre-contact cultural layer	Morawski and Dega 2003
50-30-08-542	Burials (4) (part of -103)	Cox 1977
50-30-08-543	Burial (part of -103)	Cox 1977
50-30-08-544	Burial (part of -103)	Cox 1977
50-30-08-545	Burials (4) (part of -103)	Cox 1977
50-30-08-546	Burial (part of -103)	Cox 1977
50-30-08-819	Burial (part of -103)	Cox 1977
50-30-08-1980	Burial	Folk and Hammatt 1995
50-30-08-2235	Ditch	Soltz et al. 2014
50-30-08-5012	Historic water and irrigation features	Drennan 2007
50-30-08-5013	Prehistoric surface lithic scatter	Drennan 2007
50-30-08-5014	Two rock terrace remnants	Drennan 2007
50-30-08-9357	Burial	Beardsley 1994

Previous archaeological research near the proposed project area includes the early work of Thrum's (1906) survey and listing of heiau and other sites in his annual almanac and reference book for the Hawaiian Islands. In the Wailua vicinity Thrum listed several heiau that are included among the Wailua Complex of Heiau, now a national historic landmark, along the river north of the project area, including Malae Heiau (SIHP #50-30-08-104), Poli'ahu Heiau (SIHP #50-30-08-107), Holoholoku Heiau (SIHP #50-30-08-106), and Hikinaakaia Heiau (SIHP #50-30-08-105). Bennett's (1931) reconnaissance survey of Kauai listed many of the heiau first identified by Thrum (1906). Bennett also recorded the dune burials immediately east of the project areas (SIHP

#50-30-08-103): "In the sand dunes that run along the shore half way between Hanamaula and Wailua River are many burials" (Bennett 1931:125).

Beginning in the 1970s, numerous cultural resource management studies occurred in the vicinity of KCCC for a variety of road, recreation, and other developments in the area. North of KCCC, Walton and Spilker (1974) conducted an archaeological assessment and small subsurface investigation prior to the construction of a pavilion at Lydgate Sate Park; they identified no archaeological remains. Several other projects occurred in Lydgate over the years, including a survey for the replacement of a comfort station (Yent 1987), and an archaeological assessment (Creed et al. 2001) and archaeological monitoring (Morawski and Dega 2003) for a proposed bike path. During the monitoring, Morawski and Dega (2003) identified two incomplete burials that were a part of the dune burials east of the project area (SIHP #50-30-08-103), as well as a possible pre-contact cultural layer (SIHP #50-30-08-356). Drennan (2007) conducted an inventory survey for a proposed subdivision immediately west of Lydgate Park on Department of Hawaiian Home Lands parcels approximately 0.6 kilometer (0.4 mile) north of KCCC on either side of Kuhio Highway. The survey identified three new sites, each with multiple elements. SIHP #50-30-08-5012 included several historic plantation-era water control and irrigation features throughout the survey area, SIHP #50-30-08-5013 included four separate pre-contact surface lithic scatters located along the northern portion of the area nearest the Malae Heiau (SIHP #50-30-08-104), and SIHP #50-30-08-5014 included four rock wall and terrace features of unknown time period at the bottom of Nailiakauea Ridge (Drennan 2007).

To the south of the KCCC project area, Walker et al. (1991) conducted an archaeological inventory survey along Kuhio Highway in Hanama'ulu. Over a decade later, Corbin et al. (2002) conducted a survey covering the area east of the highway and north of Hanama'ulu Beach. Both surveys identified numerous sites, including several relating to historic plantation landscapes, but none within Wailua. Farther southwest of KCCC, a more recent survey by Morris et al. (2016) was conducted for a proposed landfill north and west of Hanama'ulu. The survey documented 82 historic plantation-era transportation, water control, and other agricultural features together recorded as SIHP #50-30-08-2188. Approximately 0.9 mile south of KCCC, a survey conducted for an overflow parking lot project at the Kauai Beach Resort recorded a drainage ditch just west of their APE as SIHP #50-30-08-2235 (Soltz et al. 2014). SIHP #50-30-08-2235 appeared to date to the mid-twentieth century and extends north, passing beneath the Kuhio Highway and along the eastern boundary of KCCC (see Figure 10).

Directly east of KCCC, several investigations on the Wailua Golf Course have consistently revealed pre-contact human remains associated together as the Dune burials (SIHP #50-30-08-103) first noted by Bennett (1931). Thirteen burials in six designated sites (SIHP #50-30-8-542 through -546 and -819) were excavated by Cox (1977) after their discovery during the installation of wastewater piping through the northern portion of the golf course. Cox (1977) suggested that the burials appeared to be clustered on the mauka (inland) face of dune formations, and that the similar layout of several undisturbed burials indicated possible pre-contact ceremonial processes. During a later sewage force main project, which ran along the eastern boundary of the KCCC property before crossing Kuhio Highway into the golf course, an archaeological assessment (Erkelens and Welch 1993) recommended subsurface testing because of the known presence of human remains in the dune burials site (SIHP #50-30-08-103). The subsequent testing revealed a single burial (SIHP #50-30-08-9357) located at the northern end of the golf course parking lot, which was left *in situ* and avoided (Beardsley 1994).

At approximately the same time a fiber optic cable installation project (Folk and Hammatt 1992 ,1995; Folk et al. 1994) running across the golf course from the highway to the coast just south of the club house revealed another eight burials (SIHP #50-30-08-1980) during monitoring. Later, Fager and Spear (2000) documented 44 human burials and 42 isolated human bone finds from disturbed burials across the golf course during monitoring of renovations to the irrigation system, all of which were designated as part of the larger Bennett dune burials site (SIHP #50-30-08-103). The researchers noted that other studies have noted sand dunes as particularly favorable areas in the Hawaiian Islands for pre-contact burials, which can include a variety of forms and body positions but rarely include grave goods. The Wailua Golf Course dune burials appear to conform to these patterns, although most have been impacted by twentieth-century land modifications. Fager and Spear (2000) note that the early twentieth-century legend of the dune burials' association with a pre-contact battle appears unfounded given the distribution of age and sex of the interred individuals. Dagher and Dega (2010) recently completed monitoring for the construction of a new maintenance building at the golf course but identified no sites.

Several projects have tested various plans and alternatives for roadway improvements and other projects along Kuhio Highway that have run adjacent to and very near the KCCC property. Hammatt et al. (1997) conducted a survey for three widening and bypass options for Kuhio Highway across an approximately 6-mile length spanning areas in Hanama'ulu, Wailua, South Olohena, North Olohena, Waipouli, and Kapa'a. The survey identified two sites, SIHP #50-30-08-756, an agricultural terrace, and SIHP #50-30-08-634, a former wetland lo'i, or kalo patch, both north of the Wailua River. The Kuhio Highway improvements were modified and revisited in an archaeological assessment by Hammatt and Shideler (2003) several years after the initial survey. They conducted additional surface survey for new routes and identified an additional six sites, including terraces, rock shelters, and a possible twentieth-century house site, all well north of the KCCC property. More recently, Tulchin and Hammatt (2009) conducted geophysical surveys along Kuhio Highway but identified no new sites. Hammatt (2001) also conducted an assessment for a proposed fiber optic cable running along the highway for 51 miles for most of the eastern half of Kauai and described high potential for sites north of the Wailua River based on previous survey results. Dega and Powell (2003) conducted monitoring for the installation of fiber optic cables and identified portions of a burial cultural layer north of the Wailua River.

Several previous projects have also occurred within the KCCC property. In addition to the sewer projects that intersected the eastern edges of the KCCC property (Beardsley 1994; Erkelens and Welch 1993), three projects in the last 10 years have occurred in conjunction with development of KCCC, beginning with the Cleghorn and Kahahane (2008) assessment conducted for the proposed installation of temporary housing structures. The investigators identified no sites but recommended further work owing to the potential for buried archaeological deposits and human burials on the KCCC grounds. In the same year archaeological monitoring took place during the installation of an emergency generator system on the western side of the main administration building, Module A & B (Viguie 2008). Most of the excavations revealed over 0.6 meter (2 feet) of imported red fill soils. The monitoring identified no new sites; however, a concrete foundation block was revealed that may be associated with earlier jail construction, and Viguie (2008:11) recommended that any other construction activities on site penetrating the fill soils into intact sandy strata be subject to archaeological monitoring.

A similar monitoring project was conducted during the installation of an air conditioning system and associated utilities, also on the western side of the main administration building at KCCC (Hazlett and Dega 2017). Trenching within the mechanical building revealed a single layer of fill material, and the rest of the project area

outside and west of the existing structure revealed a fairly consistent stratigraphy, including about 30 centimeters (1 foot) of red fill deposits overlying intact buried sand layers. The monitoring identified no burials or pre-contact sites; however, a single historic feature was identified in a small trench excavated for electrical utilities. The feature was a small trash pit with glass bottles and ceramics dating to the mid-twentieth century. Several dog bones were also found in the same trench, although not within the historic trash pit feature. Like Viguie (2000), Hazlett and Dega (2017) noted that although their monitoring project did not encounter any pre-contact remains, the presence of intact sand layers below imported fill suggested the possibility of significant cultural sites and deposits existing on the property, and they recommended monitoring for all future projects, especially those with the potential to disturb intact sandy substratum below the fill.

4.0 SURVEY RESULTS

4.1 Archaeological Pedestrian Reconnaissance

The pedestrian reconnaissance covered the entire KCCC property to investigate and record field conditions, assess the degree of previous ground disturbance, and record the locations of any identified archaeological sites, structural elements, and cultural features. To complete these tasks, all outdoor spaces were visually inspected and recorded with digital photographs and field notes. The reconnaissance focused on all exposed ground surfaces in the area currently proposed for the medium-security housing structure (the APE). Systematic survey transects were not employed at this stage of the investigation and no subsurface testing was conducted, as agreed with SHPD.

KCCC occupies approximately 4 hectares (10 acres) of land in Wailua on the western side of Kuhio Highway directly across from the Wailua Golf Course clubhouse. The property includes a central core containing the main secure housing modules, recreation yard, and kitchen/dining facility. The central core of the facility is largely covered by the secure housing modules to the west, with both paved and grass-covered parking areas occupying much of the central portion of the property (Plate 1). Most of the outdoor spaces in the central portion of the facility were paved or grass-covered with limited ground surface visibility, and no artifacts or other indications of cultural deposits were observed.

To the south of the main entrance is a cluster of lower-security LTS cabins, a pavilion, an administration building, offices, and maintenance sheds, several garden plots, and a large recreation yard covered in level, maintained grass (Plate 2). Like the area of the main secure housing modules, these areas are likely underlain by a layer of imported sediment used to fill and level the marshy taro and rice plots that were originally located in the area. A current taro plot, maintained by KCCC staff, is present next to the storage structures and reveals the shallow depth of the water table in the vicinity (Plate 3). Most of the outdoor spaces in the southern portion of the property were grass-covered with limited ground surface visibility, and no artifacts or other indications of cultural deposits were observed during the reconnaissance.

The northern portion of the facility is occupied by a complex of garden plots with an associated equipment shed and guard post (Plate 4). To the west of the gardens lies a large wetland surrounded by maintained grassy areas to the west (Plate 5). The pedestrian reconnaissance examined the exposed soils of the garden beds and did not identify any artifacts or cultural deposits. The red (5YR 3/3) sandy loam sediment appeared to match descriptions of the red imported fill sediments that overlaid buried historic-period topsoil and sandy subsoils



Plate 1: Overview of Field Conditions in Central Portion of KCCC, View to Southwest



Plate 2: Overview of Field Conditions in Southern Portion of KCCC, View to Southeast



Plate 3: Taro Plot South of Storage Buildings, View to Northwest



Plate 4: Equipment Shed and Guard Post East of Northern Gardens, View to Northwest



Plate 5: Overview of Proposed Project Site, View to West

reported during previous monitoring by Viguie (2008) and Hazlett and Dega (2017). Soil profiles exposed in the marsh for wetland delineations excavated concurrently with the archaeological reconnaissance did not reveal this layer of red fill but instead hydric dark grayish brown strata more consistent with the buried topsoil exposed in previous monitoring. This suggests that most of the land within the KCCC property, except for the extant wetland found west of the northern gardens, was filled in the mid-twentieth century to reclaim marshy ground on which to construct the jail facilities.

A water-fill ditch system runs from the northwestern corner of the property, turns east, and separates the northern garden and wetland from the rest of the facility before feeding into the north-south ditch that runs along the eastern boundary of the property (Plates 6 and 7). A branch of the water-filled ditch system extends along the western boundary of the property (see Figure 1) behind the main administration and housing blocks (Plate 8). This portion of the ditch system was designated as Louis Berger Temporary Site (TS) 2571-01. This site is approximately 2.75 to 3.5 meters (9 to 11.5 feet) wide and 255 meters (837 feet) long, running along the western boundary of the KCCC property from its intersection with an east-west ditch just west of Housing Module C south to the southwestern corner of the KCCC property. TS 2571-01 passes underneath the Urine Analysis and Administration building (Plate 9) before ending at the southwestern corner of the property (Figure 11).

TS 2571-01 appears on the 1900 map of the Līhu'e Plantation (see Figure 4), flowing south to drain into Kawailoa stream. The drainage canal along Kuhio Highway along the eastern boundary of KCCC is first shown on the 1939 map depicting the Līhu'e Jail site (see Figure 7), although the two ditches do not yet appear to be connected by the east-west running ditch that separates the main core of the KCCC facility from the garden and wetland in the northern portion of the property. It would appear that the western drainage ditch is well over 100 years old and likely a remnant of the late nineteenth-century plantation agriculture in the area. The other portions of the ditch system were added later, likely in association with attempts to drain the filled areas for jail construction. The date of the east-west ditch is unknown; it does not appear on any topographic map or survey plat, and vegetation along the same line on aerial imagery obscures visibility of the area.

4.2 Architectural Inventory

An architectural survey was conducted within the viewshed of the proposed project location. Structures in the project area were documented with digital photographs and field notes. The survey was completed concurrently with the archaeological inventory.

KCCC is currently used for correctional purposes, serving only the Island of Kauai and acting as the local detention center for the Fifth Circuit Court. The facility houses both male and female inmates on pretrial, sentenced, and community release status. Much of the property has already been developed with inmate housing, administrative and program structures, maintenance buildings and storage areas, vehicle access and parking areas, and recreational facilities, among similar uses. The remaining undeveloped portions of property consist primarily of grass fields along with small cultivated garden plots. The KCCC property has been heavily modified from its original, natural condition. KCCC is surrounded by a mix of agricultural and commercial uses along with vacant, as yet undeveloped lands. The Wailua Golf Course is located immediately east of KCCC across Kuhio Highway. Historic land use includes agriculture, primarily rice and taro production.

All of the structures at KCCC are of modern construction and are less than 50 years old (Table 4). The present KCCC was initially constructed in 1977 with a capacity of 16 cells, referred to as Module A, and since then



Plate 6: Drainage Ditch near Northwestern Corner of KCCC, View to Southeast



Plate 7: Drainage Ditch West of Confluence with Roadside Canal, View to West



Plate 8: Drainage Ditch (TS 2571-01) Along Western Boundary of KCCC, View to South



Plate 9: Drainage Ditch (TS 2571-01) Running Under Urine Analysis Building, View to South

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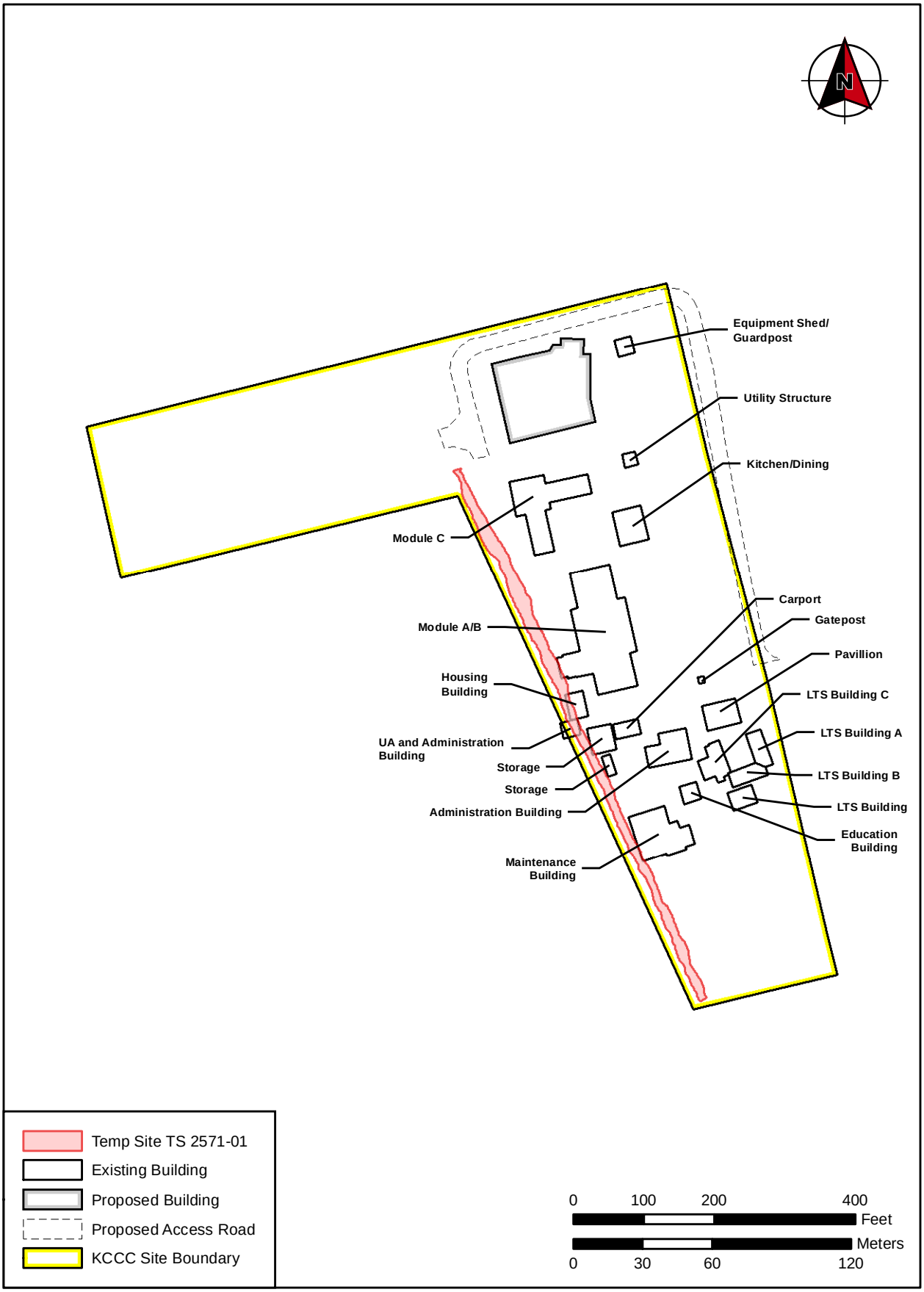


Figure 11: Plan Map of Archaeological Site TS 2571-01

has undergone several expansions. In 1986 Module B was added with a design capacity of six cells and 24 beds. The combined Modular Building A & B represents the earliest extant structure on site. It features one-story concrete block and brick construction, with a standing-seam metal roof with widely projecting eaves (Plate 10). Fenestration is limited to fixed panes in the western intake and administration end of the structure. The main entrance door is located on the eastern façade in the same southern portion of the building. Wood-frame additions to the southwestern end of Module A & B appear to post-date the addition of Module B, and include the one-and-one-half–story gable-end Smythe Hall and a small shed addition (Plate 11).

Table 4: Structures at KCCC

Building Name	Year	Description
Modular Building A & B	1977 (expanded 1986)	1-story concrete and brick, standing-seam metal roof with projecting eaves
LTS Building A	1995	1-story wood-frame structure with shed roof, set off the ground with wood piers on concrete blocks
LTS Building B	1995	1-story wood-frame structure with shed roof, set off the ground with wooden piers on concrete blocks
LTS Building C	1995	1-story wood-frame structure with shed roof, set off the ground with wood piers on concrete blocks
LTS Building (Office)	1995	1-story wood-frame structure with hipped roof set off the ground with wood piers
Education Building	ca. 1995	1-story wood-frame structure with pyramidal hipped roof set off the ground with wood piers on concrete blocks
Administration Building	ca. 1995	1-story wood-frame structure with hipped roof set off the ground on wood piers
Gatepost	ca. 1995	1-story shed-roof wood-frame structure set on concrete
Pavilion	ca. 1990-2000	Open-sided seating area with 1-story wood-frame gable roof
Storage Buildings	ca. 1990-2000	1-story gable-roof wood-frame structures
Maintenance Buildings	ca. 1980-2000	1-story wood-frame structures, larger of the two with gable roof set off the ground with wood piers on concrete blocks, the smaller with a shed roof
UA and Admin Buildings	ca. 1990-2000	1-story gable-roof wood-frame structures set on concrete piers
Housing Module C	1997	1-story wood and concrete modular structure set on concrete piers with flat roof
Kitchen/Dining	2011	1-story wood and concrete modular structure set on concrete piers with flat roof
Garden Equipment Shed and Guard Post	post 2014	1-story wood-frame structure with broad hipped roof with a gable-roof covered platform on top

Cabins A, B, and C, now referred to as LTS Buildings A, B, and C, were added in 1995 (Plates 12-14). These LTS cabins are repurposed temporary hurricane housing used to shelter Kauai residents after Hurricane Iniki. They do not have a design or rated capacity but are currently equipped to house 46 inmates. The three LTS cabins are wood-frame structures with vertical wood siding and single-pitch shed roofs, raised off the ground on wood posts set on concrete footers. Fenestration includes multiple bays of louvered glass windows. The structures each have porch roofs, and LTS A and B face a central interior courtyard. LTS C faces out, with its porch and entrance to the west.



Plate 10: Modular Building A & B, View to West



Plate 11: Smythe Hall Addition to Modular Building A & B, View to North



Plate 12: LTS Building A, View to Southeast



Plate 13: LTS Building B, View to South



Plate 14: LTS Building C, View to Southeast

To the south of the LTS dormitories is the small LTS office building and screened work shed, which are of similar construction and date (Plate 15). In the same vicinity west of the three LTS cabins stands the Education Building, a square hipped-roof structure built after 2005 (Plate 16), and to the north is the Administration Building (Plate 17), another hipped-roof structure of nearly identical construction that appears to be contemporary with the LTS structures. The Education Building features two west-facing doors and multiple bays of louvered glass windows. The Administration Building features a single door facing north.

Other structures on the southern side of the property include an open pavilion on the south side of the LTS structures, the gate post (Plate 18), which like the LTS structures features a wood-frame structure with vertical wood siding and a single-pitch shed roof, set on concrete piers. Two storage buildings (Plates 19 and 20), stand farther west, featuring gable roofs over the familiar vertical board siding. The northern storage building is set on a continuous concrete foundation, and the smaller, southern building is on concrete piers. Each has a west-facing entrance door and no windows. To the south are two maintenance structures (Plate 21); the larger western building features a gable roof with an enclosed fenced area to the north, and a shed-roof addition and a small shed-roof structure stands immediately east. A Urine Analysis (UA) building is positioned over a north-south plantation-era drainage ditch (Plate 22), and immediately north are additional housing buildings (Plate 23). Each of these gable-roofed buildings shares the vertical wood siding style and concrete pier set foundation common to the LTS and other buildings at the southern end of the facility.

Located north of Module A/B, Module C was occupied in 1997 as a prototypical minimum-security housing unit designed for 80 beds. Module C features two housing wings separated by a central control post (Plate 24). Module C is a single-story flat-roof wood-frame structure with a composite exterior cladding. Module C features a single row of evenly spaced louvered-glass windows, with no exterior-facing entrances. Like most of the recent construction at KCCC, Module C is set up off the ground on concrete piers. Together with the adjacent dining structure, it is one of the few buildings enclosed with securing fencing. In 2011 a new Food Service (Kitchen) and Medical Exam Modular Building of nearly identical construction was added east of Module C (Plate 25). Most recently, the equipment shed east of the northern gardens was constructed sometime after 2014, a wood-frame structure with vertical siding and a broad overhanging hipped roof (see Plate 4). A covered guard post is located at the center of the roof and accessed by an exterior wood staircase.

As all of the extant structures at KCCC are less than 50 years old, none constitutes a historical resource, and no additional work is recommended.

5.0 CONCLUSIONS AND RECOMMENDATIONS

On behalf of the Hawaii PSD, Louis Berger completed archaeological and architectural surveys for the proposed medium-security housing project at KCCC in Līhu'e on the Island of Kauai. The project is proposed for development in the northern portion of the facility in an area currently in use as a garden and as undeveloped land. The surveys are intended to provide support for the project's historic preservation compliance and consultation effort, as outlined in HAR Chapter 13-275, and contribute to the consideration of the potential impacts in a Draft EA. The surveys' goals were to identify any significant historic (archaeological or architectural) properties, previously recorded and unrecorded, in the project area and to determine possible impacts of the proposed project on such historic resources. The APE for the project site (the proposed building footprint) is currently not fully delineated, and therefore the surveys examined the largest possible extent of project-related impacts, covering the entire property (the project area). The surveys included a literature review of environmental



Plate 15: LTS Building and Shed, View to North



Plate 16: Education Building, View to Southeast



Plate 17: Rear of Administration Building, View to Northeast



Plate 18: Gatepost Building, View to Northwest



Plate 19: Northern Storage Building, View to South



Plate 20: Southern Storage Building, View to Northwest



Plate 21: Maintenance Structures, View to South



Plate 22: Urine Analysis Structure, View to Southwest



Plate 23: Housing Building, View to West



Plate 24: Northwestern Corner of Module C, View to Southeast



Plate 25: Kitchen/Dining Structure, View to North

and historical research and an outline of previous archaeological surveys and sites, an archaeological pedestrian reconnaissance, an architectural inventory survey, and recommendations for further work.

Numerous burials have been identified east of KCCC in sand dune formations; however, KCCC lies within a coastal marsh zone below surrounding elevations, with poorly drained wetland soils that were used historically for taro and rice cultivation. Several recent archaeological monitoring projects within KCCC have not revealed burials or substantive subsurface deposits. The facility is constructed on imported fill used to reclaim the marshland to construct the jail facility. Therefore the expected potential for subsurface archaeological resources was low.

Louis Berger's archaeological pedestrian survey identified one new site, TS 2571-01, a historic plantation-era earthen drainage ditch running along the western boundary of KCCC (Table 5). TS 2571-01 is now connected to a larger ditch system, but it is the oldest branch of the plantation ditch system that runs behind the main administration and housing blocks (see Figure 1). TS 2571-01 is approximately 2.75 to 3.5 meters (9 to 11.5 feet) wide and 255 meters (837 feet) long, running from its intersection with an east-west ditch just west of Housing Module C south to the southwestern corner of the KCCC property (see Figure 11). TS 2571-01 appears on the 1900 map of the Līhu'e Plantation (see Figure 4), flowing south to drain into Kawailoa stream. It would appear that TS 2571-01 is over 100 years old and likely a remnant of the late nineteenth-century plantation agriculture in the area. The other portions of the ditch system were added later, likely in association with attempts to drain the filled areas for jail construction.

Table 5: Summary of Historic Properties Identified in APE

Site Number	TS 2571-01 (SIHP No. pending)
Site Type	Earthen Ditch
Function	Water Control
No. of Features	One
Age	Historic, ca. 1900
Dimensions	2.5-3.5 meters wide x 255 meters long
Location	Along western boundary of KCCC
Tax Map Key	(4) 3-9-005:013
Land Jurisdiction	State of Hawaii
Significance	Recommended as significant, criterion d
Effects	No adverse effects
Mitigation	No further work. Recommend preventative measures (fencing) during construction to avoid litter/debris entering ditch.

The significance of historic properties in Hawaii is assessed using the criteria for the Hawaii Register of Historic Places. Such properties, like those eligible for the National Register, must possess integrity of location, design, setting, materials, workmanship, feeling, and/or association and meet one or more of the following five criteria per HAR Chapter 13-284-6.

a. Be associated with events that have made an important contribution to the broad patterns of our history
b. Be associated with the lives of persons important in our past
c. Embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; or possess high artistic value
d. Have yielded, or are likely to yield, information important for research on prehistory or history

e. Have an important value to the native Hawaiian people or to another ethnic group of the state due to associations with cultural practices once carried out, or still carried out, at the property or due to associations with traditional beliefs, events, or oral accounts — these associations being important to the group's history and cultural identity

TS 2571-01 does not appear to have been substantially altered, other than by its connection to other, later ditches, and therefore retains sufficient integrity. Louis Berger recommends a preliminary assessment of TS 2571-01 as significant under criterion d for its ability to yield information about water control measures and construction, as well as the use of marsh zones for secondary agricultural production or rice and taro during the plantation era when the primary focus in the area was largely devoted to sugar cane production.

No extant structures at KCCC are greater than 50 years of age, and therefore they do not constitute historic architectural resources. The proposed medium-security housing is to be located in the northern portion of the property and as currently designed will not impact any known archaeological or historic resources. Louis Berger therefore recommends no further archaeological or architectural work for this project; however, care should be taken so that construction activities do not indirectly impact TS 2571-01, such as adding temporary silt and other fencing to prevent litter and soil from entering the ditch during construction. An unanticipated discovery plan should also be developed that includes procedures should human remains be encountered.

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APPENDIX E:
Cultural Impact Assessment for the Kauai Community Correctional Center Proposed Housing Project

A Cultural Impact Assessment for the Kaua‘i Community Correctional Center Proposed Housing Expansion Project

(4) 3-9-005:013

Wailua Ahupua‘a
Līhu‘e (Puna) District
Island of Kaua‘i



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A Cultural Impact Assessment for the Kauaʻi Community Correctional Center Proposed Housing Expansion Project

(4) 3-9-005:013

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1. INTRODUCTION

At the request of Louis Berger, on behalf of the State of Hawai‘i Department of Public Safety (PSD), ASM Affiliates (ASM) has prepared this Cultural Impact Assessment (CIA) to accompany a Hawai‘i Revised Statues (HRS) Chapter 343 Environmental Assessment (EA) in support of the proposed Kaua‘i Community Correctional Center (KCCC) Housing Expansion Project. KCCC is located on TMK: (4) 3-9-005:013 in Wailua Ahupua‘a, Līhu‘e (Puna) District, Island of Kaua‘i (Figure 1 and 2). PSD operates the KCCC facility (Figures 3 and 4), which serves as the customary jail for Kaua‘i County for short-term sentenced inmates, pretrial detainees, and probation/parole violators. Additionally, this facility provides important pre-release preparation/transition for prison system inmates who are transferred back to their county of origin when they reach less than one year until their scheduled release.

The current CIA report was prepared in accordance with the Office of Environmental Quality Control (OEQC) *Guidelines for Assessing Cultural Impact*, adopted by the Environmental Council, State of Hawai‘i, on November 19, 1997. As stated in Act 50, which was proposed and passed as Hawai‘i State House of Representatives Bill No. 2895 and signed into law by the Governor on April 26, 2000, “environmental assessments . . . should identify and address effects on Hawaii’s culture, and traditional and customary rights . . . native Hawaiian culture plays a vital role in preserving and advancing the unique quality of life and the ‘aloha spirit’ in Hawai‘i. Articles IX and XII of the state constitution, other state laws, and the courts of the State impose on governmental agencies a duty to promote and protect cultural beliefs, practices, and resources of native Hawaiians as well as other ethnic groups.”

This report is divided into four main sections, beginning with an introduction and a general description of the study area that also includes a presentation of the proposed housing expansion project. Also within this first section is a brief historical context for Hawai‘i’s carceral system, which provides as a basis for understanding the system’s current disproportionate effect on Native Hawaiian populations, and by extension on Native Hawaiian culture. This section is followed by a detailed culture-historical background and a presentation of prior studies; all of which combine to provide a physical and cultural context for the current project area. The results of the consultation process are then presented, along with a discussion of potential cultural impacts as well as appropriate actions and strategies to mitigate any such impacts.

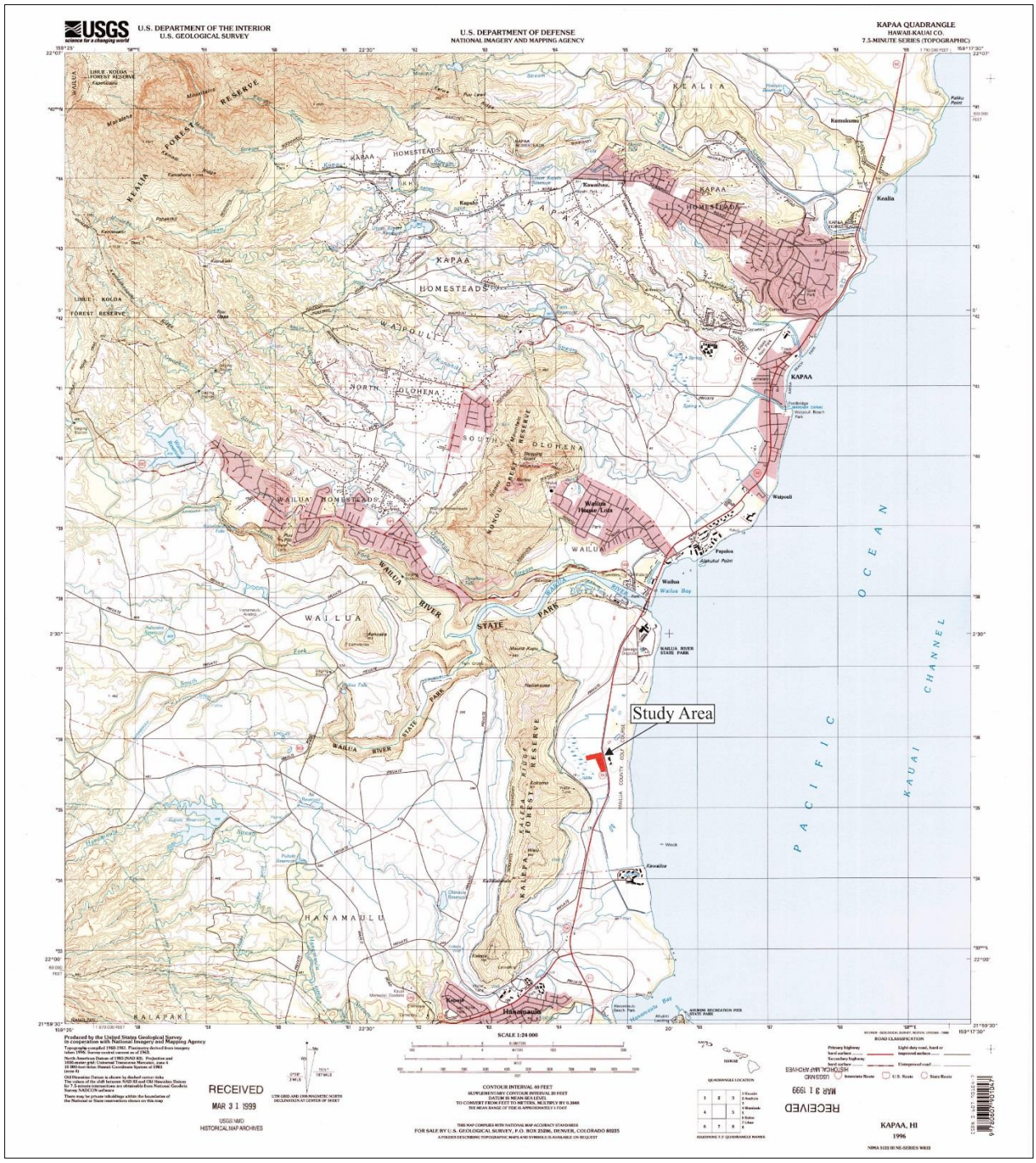


Figure 1. Study area location (portion of USGS 7.5-minute series, Kapaa, HI quadrangle, 1996).

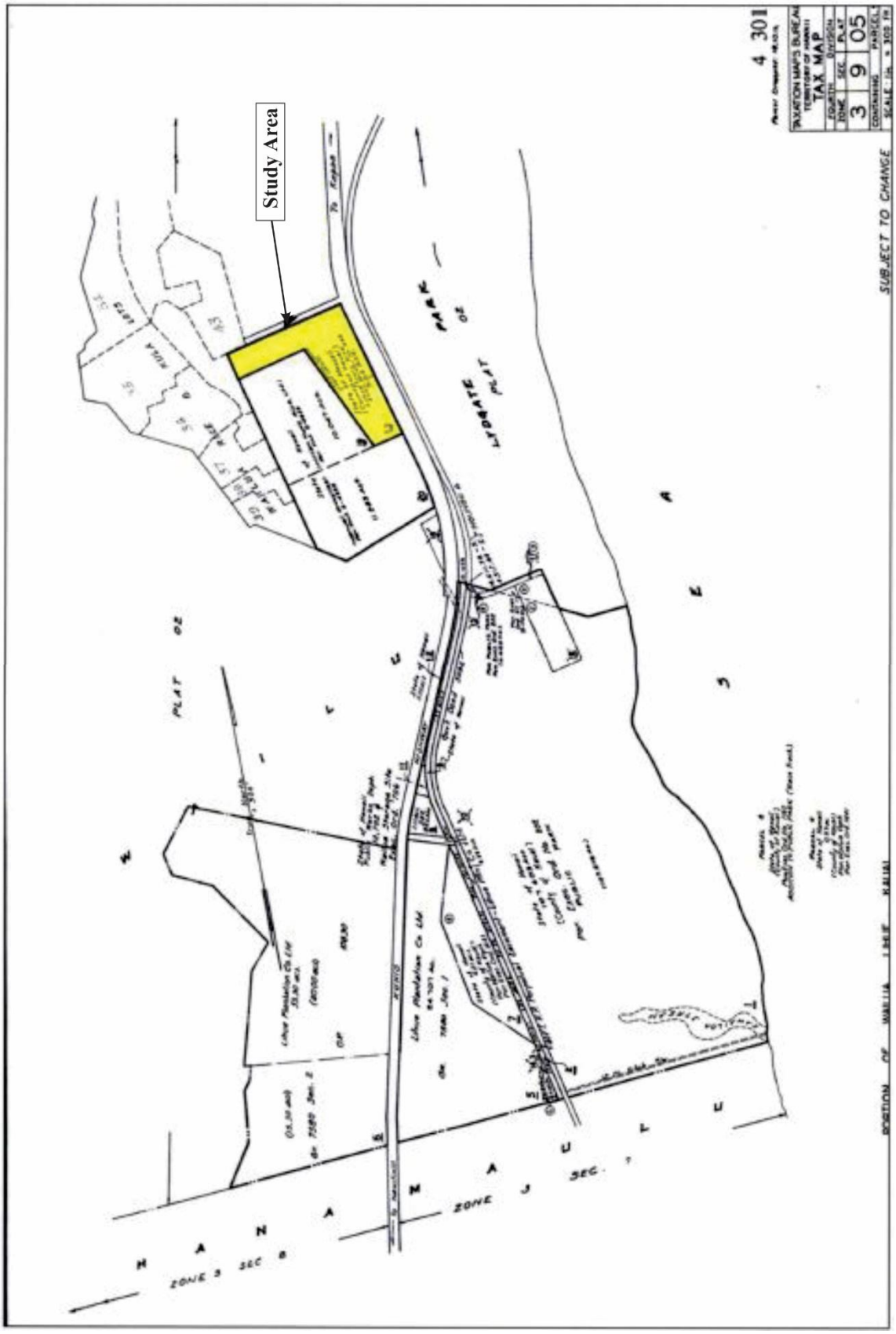


Figure 2. Tax Map Key (4) 3-9-005:013 showing the current study parcel.



Figure 3. 2003 Google Earth™ satellite image showing KCCC facility and TMK parcel boundaries (outlined in red).



Figure 4. Conceptual plan of proposed KCCC housing expansion project location (highlighted orange).

STUDY AREA DESCRIPTION

The current study area is a 9.04-acre parcel (TMK: (4) 3-9-005:013) situated in Wailua Ahupuaʻa, Puna District, Island of Kauaʻi.The parcel is bound on the east by Kuhio Highway (Highway 56), and the land along the north is privately owned and zoned for agriculture. The State of Hawaiʻi, Department of Land and Natural Resources currently owns the agriculturally zoned lands along the west, and south sides of the subject parcel. The study area parcel is on the opposite side of Kuhio Highway from the Wailua Golf Course, which is built on sand dunes of Walio (Flores 1999)—an area that was used traditionally as a burial ground and is roughly 0.25 miles from the coast. The maximum elevation on the subject parcel is along the east (*makai*) end where it reaches a height of 12 meters (39.4 feet) and gradually slopes to 6 meters (19.7 feet) above mean sea level at the west (*mauka*) end. The study area lies within the Wailua flatlands, the area extending between the coastal sand dunes and Kālepa Ridge. These flatlands contains swampy areas fed by springs that traditionally supported limited wetland agriculture (Dega and Powell 2005).

The geology documented by Sherrod et al. (2007) underlying the study area is comprised entirely of alluvium deposits (labeled as "Qa" in Figure 5). The study area is situated roughly 2,239 meters (1.4 miles) south of the Wailua River mouth and less than 880 meters (0.5 miles) east of the summit of the Kālepa Ridge Forest Reserve (see Figure 1). Wailua River and its tributaries form a major drainage basin system for central Līhuʻe, a judicial designation that includes the lands between Kipu to Wailua. Two soil types have been mapped within in the current study area (Figure 6); Mokuleia fine sandy loam (Mr) covers most of the area, with Mokuleia clay loam (Mta) in a small portion of the northwestern section of the parcel (Soil Survey Staff 2017).

Wailua has a warm semitropical climate with consistent trade winds blowing in from the northeast. The study area has an annual average temperature of 74°F, but peaks to about 77° F between the months of July through September and cools to roughly 70°F during the months of November through February (Giambelluca et al. 2014). Given its geographic location, the study area receives relatively little rainfall with an annual average of 1,171.2 millimeters (46.11 inches) with most rainfall occurring between the months of October through November (Giambelluca et al. 2013).

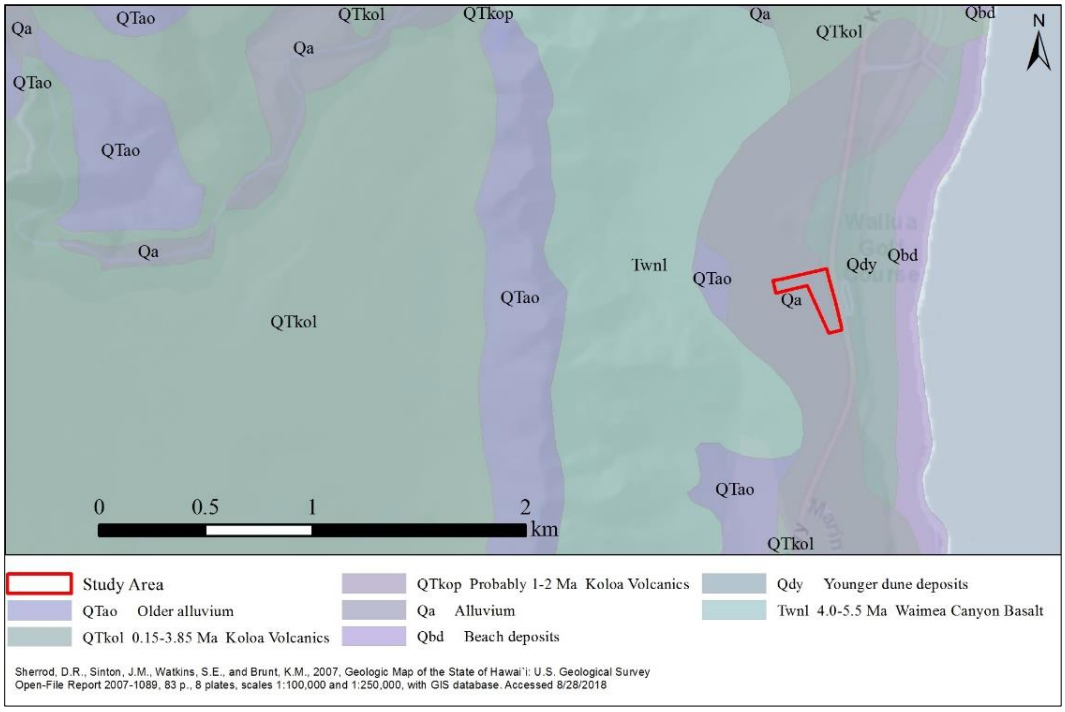


Figure 5. Geology in the current study area.

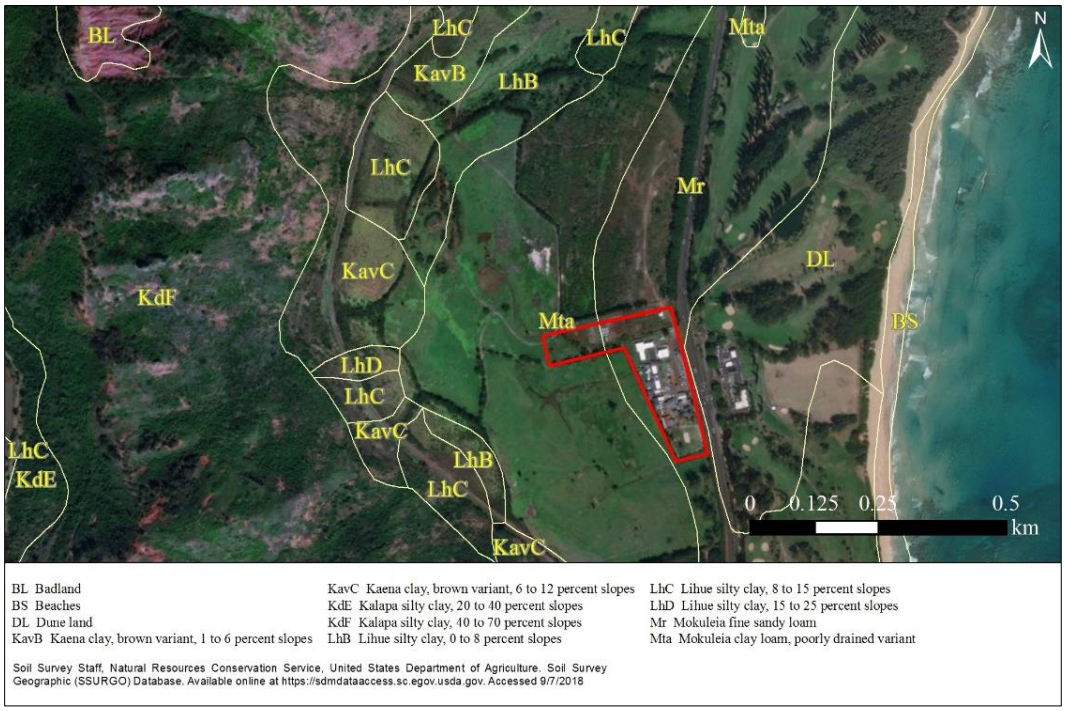


Figure 6. Soils in the current study area.

PROPOSED HOUSING EXPANSION PROJECT

The Hawai‘i Department of Public Safety (PSD) currently operates four Community Correctional Centers (CCCs), commonly referred to as jails, on the islands of Kaua‘i, Maui, Hawai‘i, and O‘ahu. As of January 31, 2018, the four facilities were housing a combined 2,269 inmates, which is forty-one percent more than their total operational capacity (Schwartz 2018). To remain committed to providing a safe, secure, healthy, humane, social, and physical environment for inmates and staff, PSD is seeking to alleviate the severe overcrowding problems within the CCCs by developing new medium security housing for inmates who are currently housed at Kaua‘i CCC (see Figures 3 and 4), Maui CCC, and Hawai‘i CCC. The focus of this study is the KCCC facility (Figure 7), located in the modern judicial district of Līhu‘e (the traditional district designation is Puna). The proposed housing expansion project is intended to provide a sufficient number of beds under appropriate conditions to address facility overcrowding. The housing expansion project is not intended to increase the inmate population beyond their current numbers. Rather inmates currently housed in cramped conditions and in spaces not originally intended for inmates would be accommodated as part of the proposed housing expansion project. Additionally, the proposed housing facility would be designed and constructed to meet State of Hawai‘i and national standards. The housing capacity at KCCC in 1977 was 16-medium security beds and it has since expanded to a 128-bed facility. As of May 2018, there were a reported 177 male inmates and 29 female inmates housed at KCCC for a total of 206 inmates, which is 61% over its operational capacity. Although the number of inmates housed at KCCC fluctuates annually, an analysis of historical trends shows continued growth for the inmate population at KCCC (Carter Goble Associates, Inc., 2003). PSD is currently proposing to upgrade the medium security housing by adding an up to 140-beds to an area located along the north end of the TMK parcel boundaries (see Figure 4)—an area that is currently under cultivation by KCCC inmates (Figure 8).



Figure 7. Parking area at Kauaʻi Community Correctional Center, view to the north.



Figure 8. Photograph of study area showing agriculture fields and Kālepa Ridge in background, view to west, also the proposed location of the new housing facility.

Hawai‘i’s Criminal Justice System

The history of Hawai‘i’s Euro-American criminal justice system can be traced back to the first constitution of the Kingdom of Hawai‘i promulgated on October 8, 1840, by Kauikeaouli (Kamehameha III) upon the advice of foreign political advisors. This constitution was the first of its kind and marked an important shift in Hawai‘i’s longstanding sociopolitical system by establishing a legal framework that governed the monarchy (Keahiolalo-Karasuda 2010). The influence of Christian missionaries is apparent in these early laws as it provided them with a legal basis to enforce Christian beliefs and values onto all sectors of the population. Although the 1840 Constitution did not specify forms of punishments, sections seven through thirteen of the Constitution recognized certain acts as being punishable by law, such as causing injury or committing a crime against another citizen or the Kingdom. Additionally, the Constitution declared that a person accused of a crime had the right to a trial conducted according to the law (Achiu 2002). The 1840 Constitution became the instrument that allowed an individual with the legal knowhow to bring about charges against any citizen of the Kingdom regardless of their social status. Section four of the 1840 Constitution reads:

> The above sentiments are hereby published for the purpose of protecting alike, both the people and the chiefs of all these islands, while they maintain a correct deportment; that no chief may be able to oppress any subject, but that chiefs and people may enjoy the same protection, under one and the same law (Achiu 2002:33).

This legal framework for dealing with lawbreakers was a new concept that was fundamentally different from the traditional Hawaiian system. This new framework emphasized Christian beliefs and values all while punishing individuals who held to certain traditional practices and beliefs (OHA et al. 2010). Nonetheless, crimes committed under the traditional laws of the islands did not go unpunished. The *kapu* system implemented during the reign of the chief Wākea established a set of religious laws that governed nearly all aspects of traditional life (Malo 1951). Crimes committed under the *kapu* system were also punishable as these crimes were viewed as an offense to the gods and the chiefs alike, and therefore, threatened the very foundation upon which Hawaiian society was organized (King 1993). Lawbreakers that were found guilty often faced severe corporal punishment, seizure of property, and even banishment (King 1993, Ellis 1917). While traditional forms of punishment were severe, a lawbreaker also had the opportunity to be absolved of his or her crime by entering a designated *pu‘uhonua* (place of peace and safety) or by seeking the mercy of a chief or chiefess, as they were also known as *pu‘uhonua*. Such chiefs and chiefesses had the authority to exonerate a person from their crime, thus allowing for their reintegration into society (Kamakau 1964). The 1840 Constitution not only undermined the foundation of the *pu‘uhonua*, but it effectively disempowered the chiefs from exercising their power to free an individual from the death penalty. While the legal groundwork for the criminal justice system was laid starting in 1840, the emergence of Hawai‘i’s jail facilities occurred much earlier.

Hawai‘i’s first western-style jail facility formerly located in Honolulu has its origins with Russian colonists who sought to establish Hawai‘i as the main provisioning port for Russian ships engaged in the Pacific fur trade. The Russian-American Company set out from Sitka, Alaska to expand their resource depleted territory and seek new kinds of investments (Mills 2002). Although their initial attempts to colonize the islands were thwarted when one of their ships wrecked off of Kaua‘i, the Russians eventually found refuge on that very island under the ruling chief Kaumuali‘i. While the Russians were engaged in establishing a fort on Kaua‘i, the rest of the archipelago was recovering from the aftermath of Kamehameha’s conquest. In 1810, Kamehameha turned his attention to unifying the islands with the exception of Kaua‘i under his rule. Although Kamehameha did not seize Kaua‘i by force, Kaumuali‘i recognized Kamehameha as an independent sovereign. Through peaceful negotiations, Kamehameha offered military protection over Kaumuali‘i’s island kingdom. In 1816, Kamehameha left O‘ahu for Hawai‘i Island to settle his affairs. In his absence, the Russian brig *Ilmen* captained by Doctor George Anton Schäffer arrived in Honolulu for repairs and was soon joined by the *Kodiak*, another Russian ship under the command of Captain Young. Although they had permission from Kamehameha to build a block house in Honolulu, the crew of about eighty Russians proceeded to build a fort made from mined coral blocks, mounted their guns, and raised the Russian flag. Their actions caused great alarm for both native and foreign residents of Honolulu as this was viewed as an attempt to seize the islands. A messenger was sent to inform Kamehameha of the situation, where he then dispatched his generals and warriors to investigate and settle the matter. The arrival of Kamehameha’s militia in Honolulu made a profound impression, causing the Russians to wisely pack up and sail back to Kaua‘i (Emerson 1900). Left with a half-completed building, John Young and Kalanimoku (William Pitt) advised Kamehameha to construct a fort that would protect the port and the nearby royal compound from future invaders. Kamehameha proclaimed a draft and ordered all men and women to help with erecting the fort known as Kekuanohu and later renamed as Honolulu Fort (Figure 9). By 1817, the fort was

completed and from that time until its demolition in 1857, it housed several administrative functions such as police headquarters, courthouse, and served as the first jail for unruly foreign sailors (ibid.).

Shortly after the 1840 Constitution became law, the foreigners realized that it could be used to control anyone, including the most powerful Hawaiian chiefs (King 1993). On October 20, 1840, just twelve days after the Constitution was enacted, the Honolulu Fort was the site of Hawai‘i’s first public execution (Clark 1847, Emerson 1900). The chiefs Kamanawa (grandfather of King Kalākaua and Queen Lili‘uokalani) and Lonopuakau were both sentenced to death after being accused of murder; both received the notice of the execution, which was sent by King Kamehameha III and Prime Minister Kekāuluohi. An American sailor named Joseph Clark provides insight into that tragic day:

> The sentence of death was published on the 5th, for the murder of a female on the 28th of Sept. The following is the sentence… (Clark 1847:179)
>
> On the 20th, the day previously appointed for the execution, at 11 o’clock the chief Kamanawa and the native Lonopuakau, were both hanged by the neck upon the ramparts of the fort, before an immense crowd of spectators. The Rev. Messrs. Armstrong and Smith addressed the throne of grace on their behalf. About eight hundred natives, under arms, were assembled, and passed behind them, two and two, with arms reversed, until the whole was concluded. As they dropped, the colors were half-masted, the bell tolled, and there was a general yell and weeping throughout the village. The chief died a very hard death. (ibid.:180)

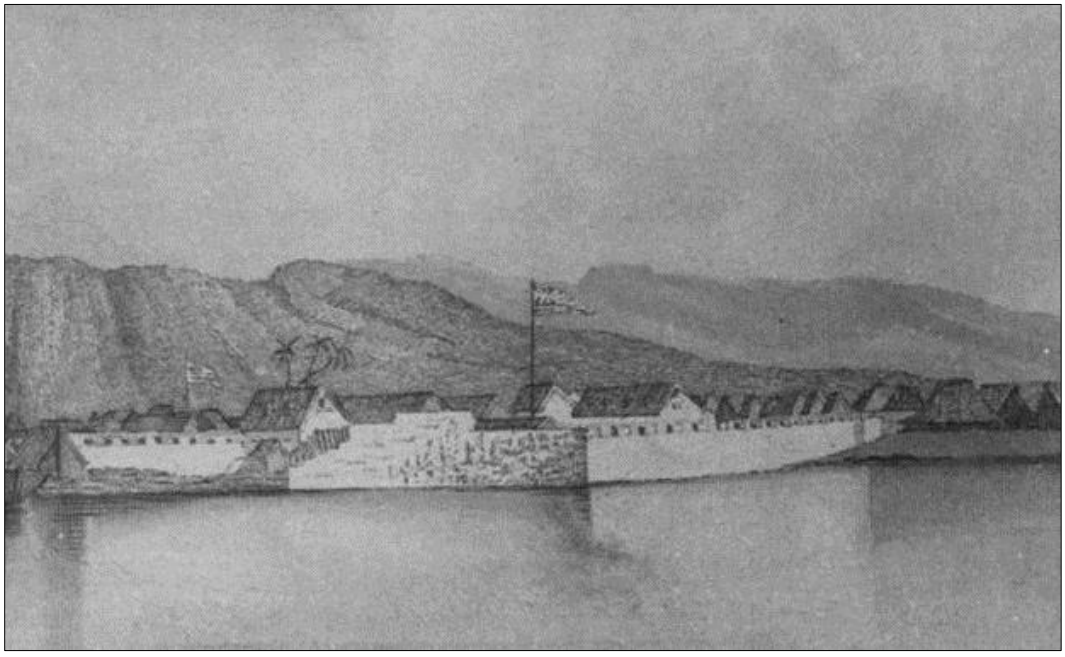


Figure 9. Honolulu Fort 1837, Hawai‘i State Archives, Henry Colburn collection, PP-36-5-001.

The Honolulu Fort continued serving as a jail and by 1822, Queen Ka‘ahumanu, a staunch Christian convert proclaimed more criminal laws that were to be observed and supported by the chiefs (King 1993; Kamakau 1992). According to Kamakau (1992), Ka‘ahumanu verbally enforced various forms of capital punishment and established the island of Kaho‘olawe as a place of exile for convicts. As early as 1826, the first male exiles were sent to the island of Kaho‘olawe, while females were sent to Lāna‘i Island. The area of Kaulana Bay located on the northwest end of Kaho‘olawe served as the penal colony headquarters until 1847 when the last convict, George Morgan, a Caucasian man served out his sentence on the island (MacDonald 1972).

In 1855, under the administration of Alexander Liholiho (Kamehameha IV), the legislature appropriated $10,000 for the construction of a new prison. The area of Iwilei was chosen as the site for the new prison, which was completed in 1857 (Figures 10 and 11), at which time the old Honolulu Fort was demolished (Kuykendall 1953). The prison was constructed from coral and was built on a pile of coral rubble between the fishponds of Kawa and Kūwili (Figure 12). Although this prison was formally known as Oahu Prison, it was sometimes referred to as Kawa Prison or simply “The Reef” (Ruby and Stephenson 2012).



Figure 10. Former Oahu Jail in Iwilei with fishponds in foreground, Hawai‘i State Archives, Oahu Prison Collection, PP-61-5-020-00001.



Figure 11. Exterior of former Oahu Prison, Hawai‘i State Archives, Oahu Prison Collection, PP-61-5-005-00001.



Figure 12. Portion of Hawai‘i Registered map 1609 by W.A. Wall from 1893 showing the site of old Oahu Prison.

In 1886, while visiting Honolulu, Mark Twain stumbled upon the prison and described it as such:

> … we presently arrived at a massive coral edifice which I took for a fortress at first, but found out directly that it was the Government prison. A soldier at the great gate admitted us without further authority than my countenance, and I suppose he thought he was paying me a handsome compliment when he did so; and so did I until I reflected that the place was a penitentiary. However, as far as appearances went, it might have been the King's palace, so neat, and clean, and white, and so full of the fragrance of flowers was the establishment, and I was satisfied.
>
> We passed through a commodious office whose walls were ornamented with linked strands of polished handcuffs and fetters, through a hall, and among the cells above and below. The cells for the men were eight or ten feet high, and roomy enough to accommodate the two prisoners and their hammocks, usually put in each, and have space left for several more. The floors were scrubbed clean, and were guiltless of spot or stain of any kind… (Twain 1972:57)

At the time of his visit, Twain noted that the prison contained four wards, housed both male and female inmates, and could accommodate one hundred thirty-two prisoners (1972:57). Twain also visited the prison yard (Figure 13) and noted the differences in this facility compared to those he observed back on the continent:

> The prison-yard—that sad inclosure [*sic*] which, in the prisons of my native America, is a cheerless barren and yieldeth no vegetation save the gallows-tree, with its sorrowful human fruit—is a very garden! The beds, bordered by rows of inverted bottles (the usual style here), were filled with all manner of dainty flowers and shrubs…(ibid.:58)



Figure 13. Former Oahu Prison yard, Hawai‘i State Archives, Oahu Prison Collection, PP-61-5-011-00001.

History of Kaua‘i Jail

By the late 19th century, small jail facilities, most of which were attached to either the district police stations or courthouses, had been constructed in Waimea, Kōloa, Līhu‘e, and Hanalei-Wai‘oli. The Līhu‘e site served as the main detention center for Kaua‘i (Hawaiian Commission 1898) until the nearly sixty-year-old structure was replaced by the Wailua County Jail in 1936 (Nakamura 2018). The survey for the proposed jail site was completed in 1923 and appears in Hawai‘i Registered Map 2698 prepared by government surveyor Walter E. Wall (Figure 14). On October 16, 1935, through the signing of Executive Order 682, roughly thirty acres of lands comprised of multiple parcels within Wailua were set aside for the proposed Wailua County Jail. Hawai‘i Registered Map 3041 drafted by Aiu in 1939 (Figure 15) labels the “Lihue Jail Site” and shows four structures, labeled “jail”, a “garage” and two other structures the which are indiscernible. This map also shows the area of the proposed housing building to have once contained a fishpond surrounded by “swamp” lands which were fed by a drainage ditch originating from the north in an adjacent parcel. Adjacent to these features is a road with a drain ditch extending from an area north of the study area and passes under the road where its contents are deposited into the swamp and fishpond.

Designed by Honolulu based architect, Fred Fujioka, the original Wailua Jail was a white two-story concrete building with a small one-story barrack (Figure 16). The architecture designs were handed over to W.S. Ching who completed its construction on April 2, 1936. The construction of the Wailua Jail coincided with the creation of the Wailua Golf Club House and multiple other public facilities around Kaua‘i, clearly a government attempt at recovering from the Depression. The Wailua Jail, considered “simple and modern” for its time included a kitchen, refrigerated storeroom, pantry, and steel cells with barred windows (Neal 1975 in Nakamura 2018:1). Shortly after its opening the jailor and sheriff initiated the construction of a taro patch, garden, and a volleyball court and baseball field for the inmates, most of whom freely roamed the jail grounds. The jail was dubbed by local residents as “Montgomery Hotel” (see Figure 16), an epithet given after former jail keeper, Charles Montgomery who was from Anahola (V. Ako, personal communication, September 20, 2018). Nakamura (2018:1) added to the list of epithets, noting other names including “Sheriff Rice’s Hotel, the Wailua Hilton, the Haunted Jail and sometimes the Alamo.” The nature of these nicknames suggests that the Wailua Jail did not possess the same qualities or atmosphere commonly experienced at other incarceration facilities of that time. Nakamura (ibid.) reports that the only “prison-like ambiance in the jail’s history occurred during World War II when authorities built a fence and imprisoned residents of Japanese ancestry on Kaua‘i.” It was during this time that the first accounts of inmate overcrowding are reported.

As reported throughout other parts of the Hawaiian Islands, government officials arrested Japanese residents that they assmed to be suspect and detained them at the Wailua County Jail. Nakamura (ibid.) adds that Japanese detained at the Waimea County Jail were also transported to the jail in Wailua. Namakura cited personal accounts given by former Japanese detainees that describe the living conditions during that time:

> According to an account by Japanese language school teacher Kaetsu Furuya, who had taught in Kōloa, Kauaʻi before his detention. "The prison had iron bars and the bed was an iron slab (teppan)". A prisoner later described an 8 x 10 x 12 foot cell with two solid concrete walls, one solid steel wall, and "the entire front of steel and bars." The only lighting source came from a large bulb in the corridor that was the light source for the entire cell block and showers were located in the bathroom at the end of the hall. Authorities gave the inmates two blankets—one that they used as makeshift bedding on the metal surface and the other as covering that was insufficient to protect the men from the December cold. As the jail lacked toilets, the men used a one-gallon can and as language school teacher Jukichi Inouye recalled, "there was no place to hide. We continued like that for three days" before inmates were transferred to more humane accomodations. (Nakamura 2018:1)

Bed bugs, mosquitos, ants, mice, and cockroaches were also a major problem reported by Japanese detainees, which was a result of the surrounding swampy environment and the lack of screens in the jail (ibid.). Japanese detainee, Furuya reported that there were over thirty people detained at the jail and twenty-seven of these detainees were later transferred to a mainland detainment camp. Word of the substandard living conditions had reached the ears of government officials who later conducted an inspection of the jail and demanded improvement, which was done through a partnership with civilian jail personnel. Jail authorities moved towards a more open-door policy, allowing cells to remain unlocked and inmates to once again interact. The inmates also took a proactive role in improving their living conditions by building beds, cooking, gardening, carving, reading, weaving *lauhala* and other activities that helped pass time and kept order at the facility. Supervised family visits were also allowed, which reportedly boosted the morale of the inmates. A separate dormitory was eventually constructed to separate the Japanese detainees from the regular inmates. By 1942, the last remaining Japanese detainees were removed from the jail. Use of the original Wailua County Jail continued until 1978 when it was demolished despite efforts to save it for commercial and historic purposes (ibid.).

In 1977, the Kauaʻi Community Correctional Center replaced the original Wailua County Jail and was built with an opening capacity of 12 medium security beds (Carter and Goble 2003). The number of beds was increased to 46 medium security beds in 1991, and in 2003 it was reported to have 128 beds (ibid.:3-5). In September of 1992, the island of Kauaʻi was devastated by Hurricane ʻIniki, a powerful Category-4 storm that resulted in several fatalities and crippled the island's economy. In the aftermath of the hurricane, temporary dormitory structures were shipped to the island to aid with the hurricane relief efforts. These temporary dormitory structures were later moved to the KCCC grounds where they continue to be used for correctional housing (ibid.). As of May 2018, KCCC was reported to have 177 male inmates and 29 female inmates for a total of 206 inmates with an operational capacity of 128 beds, putting it at sixty-one percent over its maximum operational capacity (Louis Berger 2018:4).

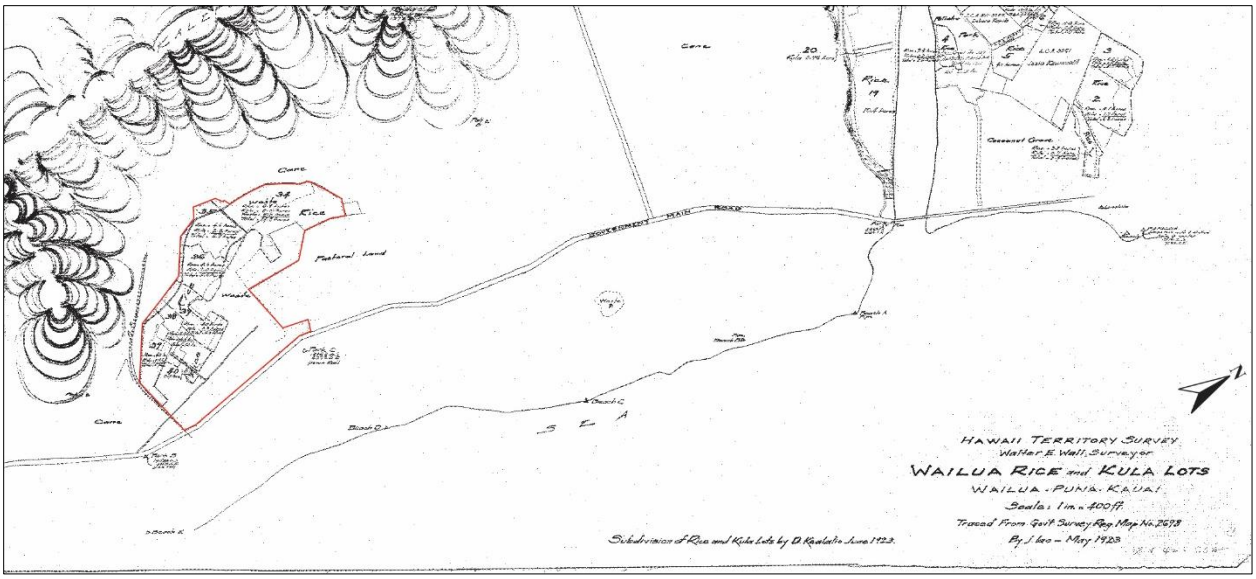


Figure 14. Portion of Hawai‘i Registered Map 2698 by Wall in 1923 showing the original survey area for the proposed Wailua County Jail (outlined red).

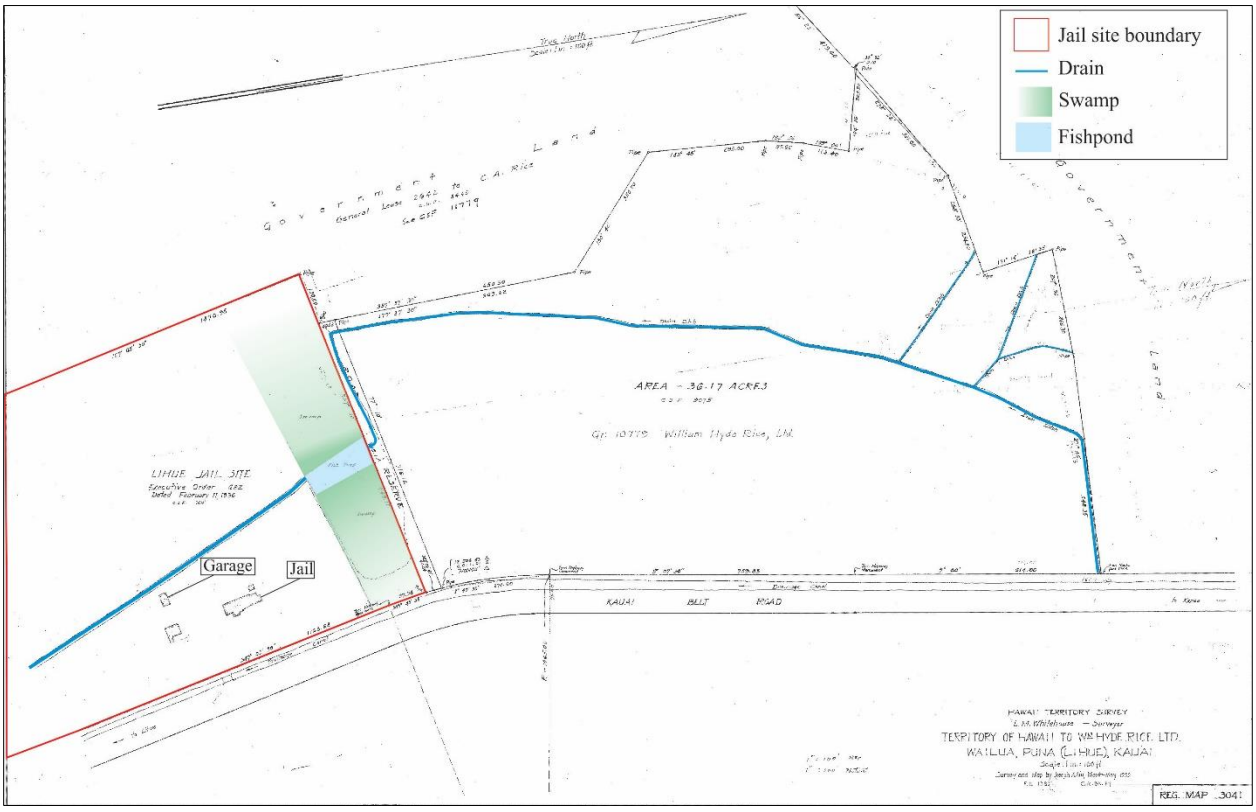


Figure 15. Hawai‘i Registered Map 3041 by Aiu showing “Lihue Jail Site” and other features in 1939.



Figure 16. Wailua County Jail, ca. 1939, known locally as "Montgomery Hotel", Kauaʻi Historical Society Photo 03-006.

Impact of the Criminal Justice System on the Native Hawaiian Population

While the bulk of this study focuses on identifying site-specific cultural impacts, we also endeavor to identify any potential impacts that may adversely affect the Native Hawaiian population at large. The following section explores the most recent data regarding Native Hawaiian representation in Hawai'i's criminal justice system and explores the impacts this project may have on the said population.

In 2010, the Office of Hawaiian Affairs (OHA et al. 2010) in a collaborative research effort published the most comprehensive study that focused on the disparate treatment of Native Hawaiians in the criminal justice system. Since the adoption of a Western system of governance and laws with the 1840 Constitution, Native Hawaiians have and continue to be adversely affected at every stage of the criminal justice system, starting with arrest and continuing through parole (OHA et al. 2010). The reasons Native Hawaiians are adversely affected by the criminal justice system is varied, however, the OHA et al. (2010) study identified a variety of social factors that are unique to indigenous people. In the context of Hawaiʻi, having an understanding of the historical trauma associated with the loss of land, language, and spirituality that occurred as a result of Western contact is fundamental when analyzing the effects of the criminal justice system on the Native population.

One of the key findings from the OHA et al. (2010) study revealed that Native Hawaiians are not only disproportionately represented at every stage of Hawaiʻi's criminal justice system but this disproportion increases exponentially as individuals move through the system. Figure 17 shows the rate at which Native Hawaiian representation increases at every stage of the criminal justice system (OHA et al. 2010). As the United States' overall rate of incarceration has increased by some 450 percent, Hawaiʻi's incarceration rate has been even more rapid with a growth of 709 percent between 1980 and 2008, from forty-one individuals incarcerated per 100,000 in 1980 to 332 individuals per 100,000 in 2008 (Figure 18).

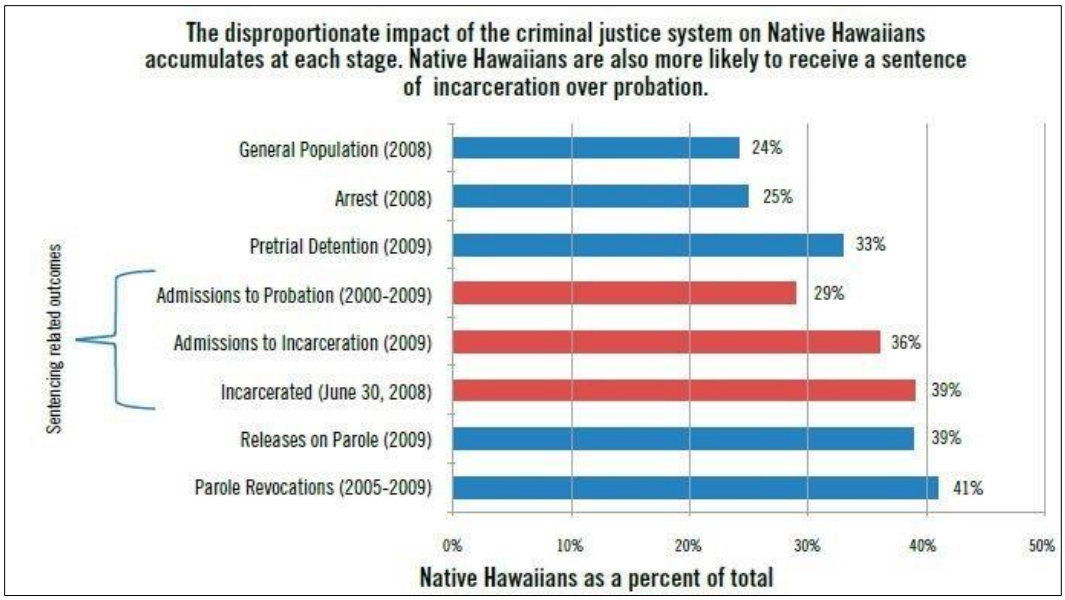


Figure 17. Native Hawaiian representation at each stage of the criminal justice system. (OHA et al. 2010:27)

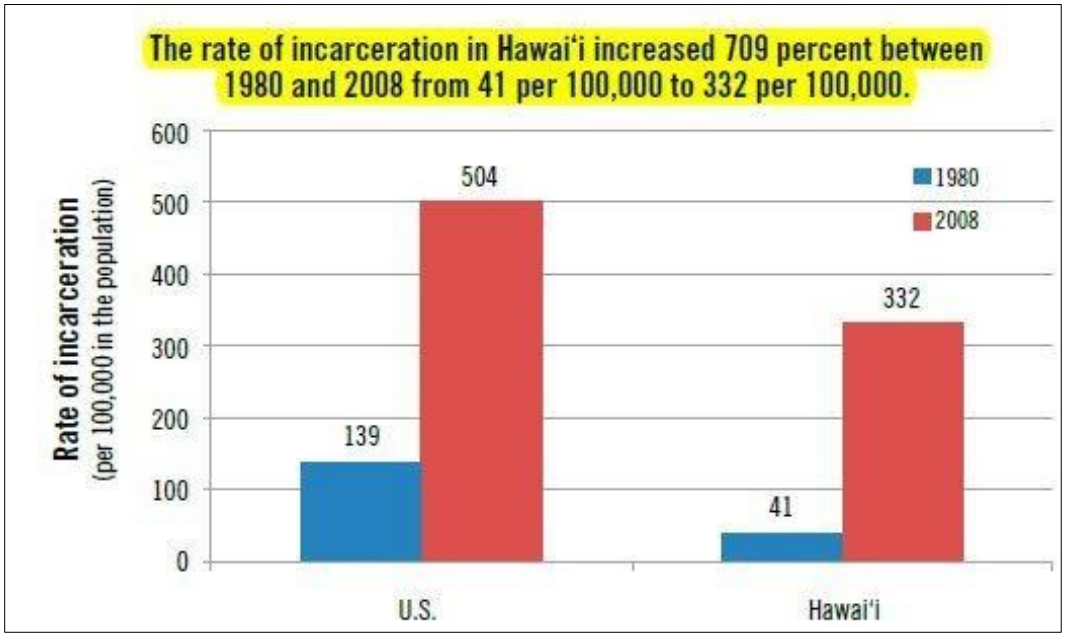


Figure 18. Rate of incarceration for the U.S. and Hawai‘i. (OHA et al. 2010:17)

Population estimates collected in 2008 by the Hawai‘i Department of Business, Economic Development, and Tourism reported that 1,257,607 people lived in Hawai‘i with Native Hawaiians making up 24 percent of the total population (OHA et al. 2010:21). Arrest rates mirror the population percentage figures with Native Hawaiians accounting for 25 percent of the total number of arrests made annually. However, as arrested populations move through the system, these figures increase disproportionately for Native Hawaiians within the incarcerated population (ibid.:27). And, when the data is separated by gender the results are even more alarming; as Native Hawaiian women make up approximately 44 percent of the incarcerated women's population and Native Hawaiian men comprise 37 percent of the incarcerated men's population (ibid.:39). Keahiolalo-Karasuda (2010) has suggested that these figures may be an underestimation of the actual percentages. Data collected in 2009 by the Hawai‘i Criminal Justice Data Center revealed that even though Native Hawaiians do not use drugs at dissimilar rates to other ethnicities, they make up the largest portion (32 percent) of the people admitted to prison for drug offenses (OHA et al. 2010:45). Methamphetamine accounts for the greatest number (54 percent) of drug charges in Hawai‘i, with Native Hawaiians receiving the largest percentage of those charges at 38 percent. Additionally, Hawai‘i has a mandatory minimum sentence of ten years for methamphetamine-related charges, which results in more Native Hawaiians being incarcerated for longer periods of time (ibid.:47).

The rates at which Native Hawaiians are impacted by the criminal justice system is known to have devastating effects on the individual and collateral consequences that extend into their families and communities. OHA's 2010 study found that individuals coming out of incarceration are faced with many challenges that hinder them from successfully reintegrating and contributing to society such as 1) diminished educational opportunities; 2) difficulty in obtaining a driver's license; 3) exclusion from civic and political participation; and 4) difficulty finding employment and vocational opportunities. Cumulatively, these factors often result in the breaking up of the family unit as incarcerated parents who lose custody of their children may never get them back (ibid.). Also "if a person convicted of a crime is able to reunite with his or her family after incarceration, the family may find itself homeless" (ibid.:61).because their absence contributes to economic disparity within the household As formerly incarcerated individuals struggle to regain their economic independence and social footing, their families and communities are also adversely affected by their experience. The impacts that result from the imprisonment of a parent can have long-lasting negative consequences that contribute to a cycle of continued contact with the criminal justice system.

Children are most vulnerable to the emotional, physical, and psychological impacts that result from having a parent incarcerated. These children are more likely to develop anti-social behaviors, join gangs, display delinquent behavior, develop mental health problems, and use drugs than children whose parents are not incarcerated. These impacts on children are even greater when a mother is incarcerated because she is often the primary caregiver. For Native Hawaiian families, the impacts of incarceration are often experienced across multiple generations. OHA et al. (2010:67) reported that a study conducted in 2000 found that in 33.9 percent of Native Hawaiian households grandparents played a part in the care of their grandchildren. The data collected from this study did not include statistics on the extent to which extended family members contribute to caring for the children of incarcerated parents. Since Native Hawaiians make up the largest percent of Hawai‘i's imprisoned population, this has resulted in inter-generational impacts that have long-lasting consequences.

Just as families are impacted by the imprisonment of a family member, so too are the communities and cultures in which they are associated. This is especially true for Native Hawaiian communities where strength and resiliency are drawn from individuals and families that are able to make contributions that promote healthy communities and a flourishing culture (OHA et al. 2010). When an individual is removed from their community, their ability to contribute to their communities and cultures is curtailed. As a culture that has endured the tangible impacts of colonization fueled by Euro-American interests, Native Hawaiian communities are more vulnerable than ever to the loss of land, culture, and community. A consideration of the historical and on-going disproportionate effects of Hawai‘i's criminal justice system on Native Hawaiian populations is vital in the assessment of potential cultural impacts.

2. BACKGROUND

The chronological summary presented below begins with the peopling of the Hawaiian Islands and a generalized model of Hawaiian Prehistory followed by a summary of Historic events in the Hawaiian Islands after the arrival of foreigners. The discussion continues with a presentation of legendary and historical references to Wailua Ahupuaʻa and the nearby Wailua River. This summary includes oral traditions and first-hand Historic accounts recorded by visitors and missionaries related to Wailua and beyond. Land use practices in the study area vicinity are also presented, including commercial sugar cultivation. The discussion concludes with a review of the findings from prior investigations conducted in the subject area vicinity.

GENERAL CULTURE-HISTORICAL CONTEXT

Early Hawaiian Settlement

While the question of the timing of the first settlement of Hawaiʻi by Polynesians remains unanswered, several theories have been offered that derive from various sources of information (i.e., archaeological, genealogical, mythological, oral-historical, radiometric). However, none of these theories is today universally accepted because there is no archaeological evidence to support the proposed timing for the initial settlement, or colonization stage, of island occupation. More recently, with advances in palynology and radiocarbon dating techniques, Kirch (2011) and others (Athens et al. 2014; Wilmshurst et al. 2011) have convincingly argued that Polynesians arrived in the Hawaiian Islands, sometime between A.D. 1000 and A.D. 1200 and expanded rapidly thereafter (c.f., Kirch 2011).

The initial settlement in Hawaiʻi is believed to have occurred from the southern Marquesas Islands. In these early times, Hawaiʻi's inhabitants were primarily engaged in subsistence-level agriculture and fishing (Handy et al. 1991). This was a period of great exploitation and environmental modification when early Hawaiian farmers developed new subsistence strategies by adapting their familiar patterns and traditional tools to their new environment (Kirch 1985; Pogue 1978). Their ancient and ingrained philosophy of life tied them to their environment and kept order; which was further assured by the conical clan principle of genealogical seniority (Kirch 1984). According to Fornander (1969), the Hawaiians brought from their homeland certain Polynesian customs and belief: the major gods Kāne, Kū, and Lono; the *kapu* system of law and order; the *puʻuhonua* (cities of refuge) and the *ʻaumakua* concept; and the concept of *mana*.

In 1893, Dr. Nathaniel Emerson made the following observations about the link between Kauaʻi and southern Polynesia:

> It is a matter of observation that only on the island of Kauai both the special features of its spoken language and the character of its myths and legends indicate a closer relationship to the groups of the southern Pacific, to which the Hawaiian people owe their origin, than do those of the other islands of the Hawaiian group. (quoted from Joesting 1984)

Initial permanent settlements in the islands were established at sheltered bays with access to freshwater and marine resources. Communities shared extended familial relations and there was an occupational focus on the collection of marine resources. Over a period of several centuries, the areas with the richest natural resources became populated and perhaps even crowded, and there was an increasing separation of the chiefly class from the common people. As the environment reached its maximum carrying capacity, the result was social stress, hostility, and war between neighboring groups (Kirch 1985). Soon, large areas of Hawaiʻi were controlled by a few powerful chiefs.

As time passed, a uniquely Hawaiian culture developed. The portable artifacts found in archaeological sites of this period reflect not only an evolution of the traditional tools, but some distinctly Hawaiian inventions. The adze (*koʻi*) evolved from the typical Polynesian variations of plano-convex, trapezoidal, and reverse-triangular cross-section to a very standard Hawaiian rectangular quadrangular tanged adze. A few areas in Hawaiʻi produced quality basalt for adze production. Mauna Kea, on the island of Hawaiʻi, possessed a well-known adze quarry. The two-piece fishhook and the octopus-lure breadloaf sinker are Hawaiian inventions of this period, as are ʻ*ulu maika* stones and *lei niho palaoa*. The latter was a status item worn by those of high rank, indicating a trend toward greater status differentiation (Kirch 1985). As the population continued to expand so did social stratification, which was accompanied by major socioeconomic changes and intensive land modification. Most of the ecologically favorable zones of the windward and coastal regions of all major islands were settled and the more marginal leeward areas were being developed. Additional migrations to Hawaiʻi occurred from Tahiti in the Society Islands. Rosendahl (1972) has proposed that settlement at this time was related to seasonal, recurrent occupation in which coastal sites were occupied in the summer to exploit marine resources, and upland sites were occupied during the winter months, with a focus on

agriculture. An increasing reliance on agricultural products may have caused a shift in social networks as well; as Hommon (1976) argues, kinship links between coastal settlements disintegrated as those links within the *mauka-makai* settlements expanded to accommodate the exchange of agricultural products for marine resources. This shift is believed to have resulted in the establishment of the *ahupua'a* system sometime during the A.D. 1400s (Kirch 1985), adding another component to an already well-stratified society. The implications of this model include a shift in residential patterns from seasonal, temporary occupation, to a permanent dispersed occupation of both coastal and upland areas.

By this time (A.D. 1400s) the island of Kaua'i appears to have been divided into five traditional districts or *moku*, with Ni'ihau Island constituting a sixth *moku*. Each *moku* was further divided into distinct land units known as *ahupua'a*. The *ahupua'a* became the equivalent of a local community, with its own social, economic, and political significance. *Ahupua'a* were ruled by *ali'i 'ai ahupua'a*; who, for the most part, had complete autonomy over this generally economically self-supporting piece of land, which was managed by a *konohiki*. The *ali'i 'ai ahupua'a* in turn answered to an *ali'i 'ai moku,* a higher chief who ruled over the *moku* and claimed the abundance of the entire district. Thus, *ahupua'a* resources supported not only the *maka'āinana* (commoners) and *'ohana* (extended families) who lived on the land, but also provided support to the ruling class of higher chiefs and ultimately the crown. *Ahupua'a* are land divisions that typically incorporated all of the eco-zones from the mountains to the sea and for several hundred yards beyond the shore, assuring a diverse subsistence resource base (Hommon 1986). Although the *ahupua'a* land division typically incorporated all of the eco-zones, their size and shape varied greatly. This form of district subdividing was integral to Hawaiian life and was the product of resource management planning that was strictly adhered to. The *ahupua'a* were further divided into smaller sections such as *'ili, mo'o'aina, paukū'aina, kīhāpai, kō'ele, hakuone*, and *kuakua* (Hommon 1986, Pogue 1978). The chiefs of these land units gave their allegiance to a territorial chief or *mō'ī* (king). *Heiau* building flourished as religion became more complex and embedded in a sociopolitical climate of territorial competition. Monumental architecture, such as *heiau*, "played a key role as visual markers of chiefly dominance" (Kirch 1990:206).

Wailua Ahupua'a and the Greater Līhu'e (Puna District)

The study area is located within the traditional *moku* or district of Puna (Figure 19), a land unit containing fourteen *ahupua'a* and encompassing a large section of the windward coast of Kaua'i. The KCCC facility is located within the *ahupua'a* of Wailua, which is bounded on the north by Olohena Ahupua'a and on the south by Hanamā'ulu Ahupua'a (Figure 20). The mountains of Wai'ale'ale and Makaleha mark the north and northwest boundaries, with Kālepa extending along the south end (Ho'omanawanui 2012). This section of Kaua'i is within the modern judicial district of Līhu'e, which encompasses the lands from Kipu to the area south of Wailua River (Figure 21). The area north of Wailua River to Kealaakaiole is within the modern judicial district of Kawaihau (see Figure 21), a designation that was effected in 1887 under the administration of King David Kalākaua; prior to that time, the district was known as Ko'olau (Hawaiian Commission 1898).

Beyond the Puna District, Wailua also shares its borders with six distinct *ahupua'a*; Waipouli, Kapa'a, and Kalihiwai in the Ko'olau District; Hanalei and Wainiha in the Halele'a District; and Makaweli in the Kona District (see Figure 20). Wailua, literally translated as "two waters" (Pukui et al. 1974:224).".) is the largest *ahupua'a* within the Puna District totaling 20,255 acres (Flores 1999; Mitchell et al. 2004). Wailua was also divided into two sections, Wailua Kai (coastal Wailua) and Wailua Uka (upper Wailua). The current study area is within Wailua Kai, which encompasses about 2,800 acres of land makai of Mauna Kapu and Nounou Ridge (Flores 1999). The area extending mauka of these mountains is Wailua Uka and consists of roughly 17,455 acres (ibid). While the literal translation of "two waters" (Pukui et al. 1974:224) is the most commonly used definition for Wailua, Dickey offers his commentary of this interpretation of the name, stating:

> Though "Two Waters" is the white man's natural translation of "Wailua" and this name and Waialua on Oahu are generally said to refer to the two main branches of the principal rivers of these districts, yet this explanation never seems to occur to a native Hawaiian. (Dickey 1917:15)

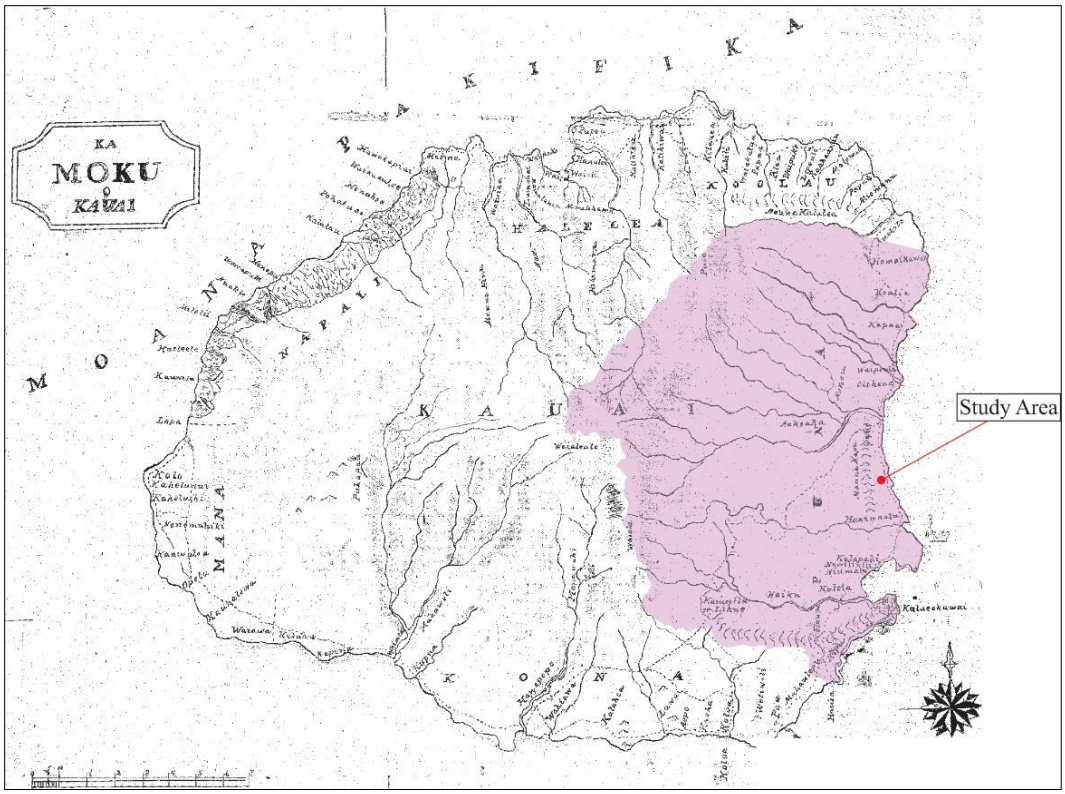


Figure 19. Map of traditional *moku* of Kauaʻi (ca. 1830s) showing the approximate study area location within the Puna District (shaded purple).

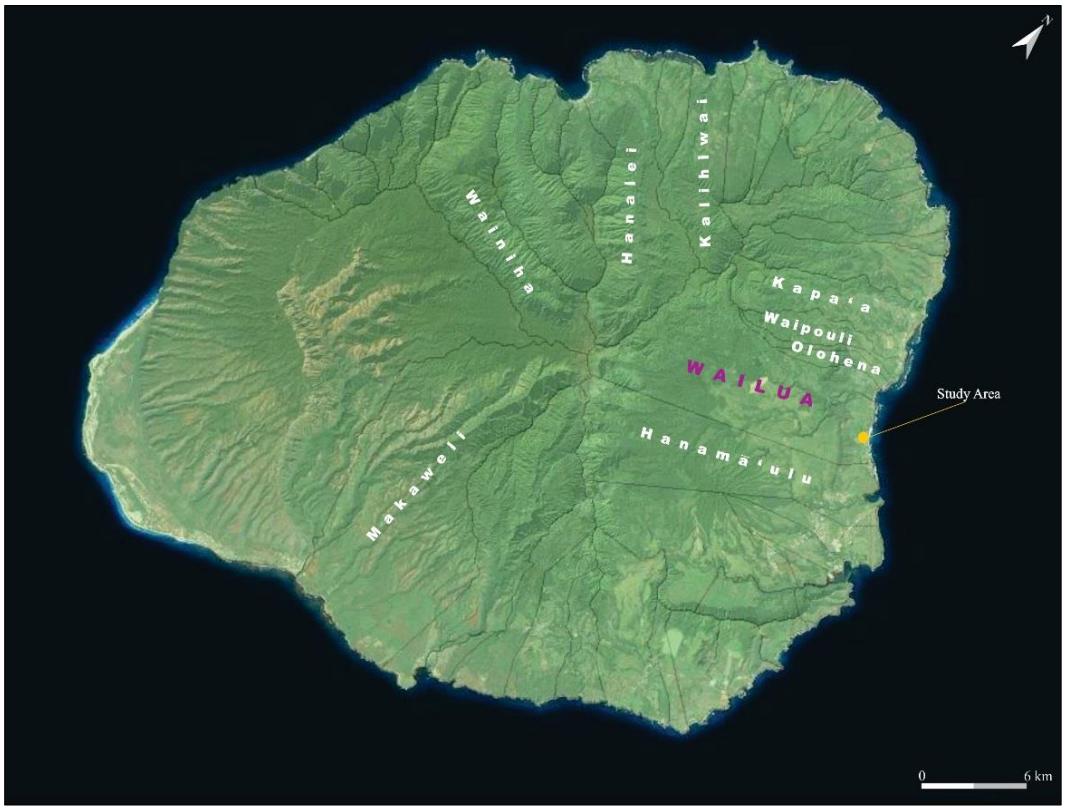


Figure 20. Map showing the various *ahupuaʻa* adjoining Wailua with study area location.

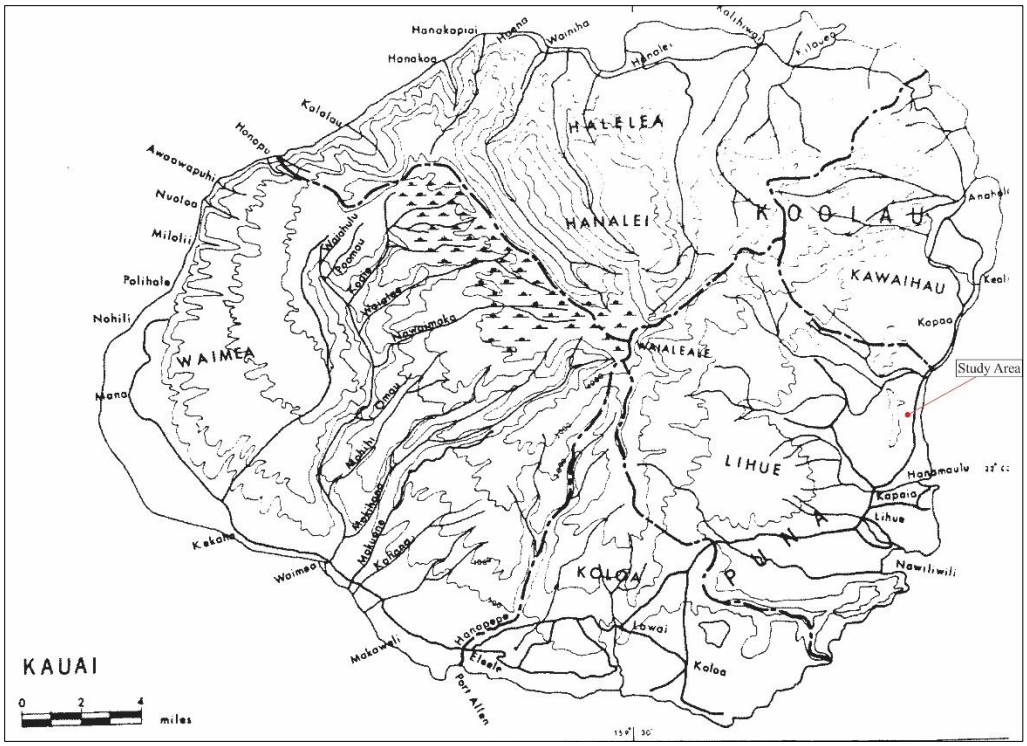


Figure 21. Map of Kauaʻi showing study area in proximity to the judicial districts of Līhuʻe and Kawaihau (Handy et al. 1991:392.

The word *wailua* has also been translated by Pukui and Elbert (1986:379) as "spirit, ghost; remains of the dead," suggesting this place to be metaphysically associated with Hawaiian beliefs surrounding the mysteries of transfiguration and the afterlife. This concept is elaborated by Fredrick Wichman (1998:67-68), who explained:

> Spirits of the dead indeed gathered together on the upland plains and on certain moonlit nights marched in great procession accompanied with drums and nose flutes down to the river. These night marchers entered waiting canoes and paddled down the river into the sea and around the coast until they reached Polihale at Mānā. Here they leaped from the cliffs into Pō, the land of the dead, which lay beneath the sea.

The name Wailua is said to be a shortened version of Wailuanuihoano (also spelled Wailuanuiahōʻano), a land region lying along the lower reaches of Wailua River basin, below the confluence of the north and south forks. Hoʻomanawanui (2012:193) adds that this region extends from "Mōpua (the south part of Nounou mountains, located north of the river) to Mauna Kapu (northern cliff of the Kālepa mountain range) on the south side of the river." These descriptions clearly place the current study area within Wailuanuihoano—a region containing a number of culturally significant sites including burials, *heiau*, birthing stones, a bell stone, fishponds, canoe landings, and petroglyphs (ibid.). Hoʻomananui explained this region's cultural importance, commenting:

> Wailuanuiahōʻano is an important wahi pana (storied place) and the most sacred region on Kauaʻi. Its rich history is documented by many moʻolelo (histories, stories, literature) attached to particular places. (Hoʻomanawanui 2012:188)

This region was considered sacred with portions *kapu* to commoners (*makaʻāinana*) (Dickey 1917) and a number of chiefs ruled from this district, which may explain an alternative name, Wailuanuilani (Great Chiefly Wailua) (Hoʻomanawanui 2012). The Wailuanuihoano region is said to have been named after an ancient chief (Dickey 1917). In some historical accounts, Hoʻāno is a female chief, while in others, is a male chief. While little is known of this chief, this name appears in a plethora of traditional accounts, some of which are summarized in the ensuing sections of this report. Hoʻomanawanui (2012) adds that a number of place names within this district are associated with ruling chiefs.

Historical accounts also recognize Wailua as an important and sacred place in Hawaiʻi's Precontact history, as it boasted vast agricultural and aquaculture systems. Wailua served as a major political center for Kauaʻi along with

Waimea Ahupuaʻa—the land division where the first Westerners arrived. Further attesting to the socio-religious importance of this region, there is at least six *heiau* of prime importance within Wailua, one of which includes Holoholokū, said to be the preferred birthplace for Kauaʻi royalty (Dickey 1917, Lydgate 1916) and where the first *hula* drum was brought (Handy et al. 1991).

Wailua Ahupuaʻa extends well into the interior of the island reaching the summit of Waiʻaleʻale (elevation 5,080 ft.), the mountain famed for its "overflowing waters" (ibid.:220). The waters from Waiʻaleʻale flow through the famed Wailua River and its tributaries and empty into Wailua Bay. Wailua is one of the largest rivers in all of the Hawaiian Islands. The *ʻōlelo noʻeau* (Hawaiian proverb) *ka wai hālau o Wailua*, describes "the expansive waters of Wailua," a land renowned for its large streams (Pukui 1983:178). The article titled Stories of Wailua, Kauaʻi published in 1917 by Judge Lyle A. Dickey describes the extent of Wailua River and the origin of name Wailua:

> The Wailua River is made of three branches, each with a beautiful waterfall. Between the two upper branches is the hill Aahoaka. Below this and between the union of these branches and the lower branch is a ridge called Kuamoa-loa-o-Kane or great ridge-path of Kane on which are two *heiaus*. The river passes to the sea in a gap between two mountains. If a line be drawn across the valley from Mopua, the south part of Nounou the mountain north of the river, to Mt. Kapu on the south side, approximately all *makai* of this line is Wailua-Nui-Hoano, or great, sacred Wailua, a land taboo to common people. It is said to be named after an ancient chief named Wailua-nui-hoano. (Dickey 1917:14)

The vast quantity of freshwater found throughout Wailua was developed into a comprehensive irrigation system that fed extensive fields of *kalo*, the principle food crop of the early Hawaiians. The continuous flow of water led to the expansion of agricultural activities along Wailua River and the lower alluvial terraces of ʻŌpaekaʻa, Konolea, and Kaluaāhole streams (Flores 1999). In the 1930s E.S. Craighill Handy and Elizabeth Green Handy with the collaboration of Mary Kawena Pukui attempted to appraise and record the native horticultural practices of the Hawaiian Islands. Their writings provide some of the most detailed descriptions of the cultural landscape of the Hawaiian Islands during that time. Their work was compiled in the roughly 700-page book *Native Planters in Old Hawaii* (1991). In 1935 Handy et al. (1991) studied this *ahupuaʻa* in detail and described the extensive cultural landscape that developed around this massive river and provided a description of the study area vicinity (underlined for emphasis):

> Along the lower 2 miles of Wailua River, above the sandy coastal plan, are many broad, open, level areas, formerly in terraces, now mostly in sugar. Opaekaa Sream, which flows into tidewater Wailua River, watered many terraces both above and below the falls. The large area of terraces below the falls is now planted mostly in rice, a few of the upper terraces being used for sweet potatoes, while the uppermost are pasture. There are terraces in the canyon of the north fork of the Wailua River; presumably there are terraces also in the flatlands along Kawi, Keahua, and Iole Streams, which form the headwaters of this form of the river. There were sizeable terraces areas on both sides of the south fork of the river above the junction with the north fork. Extensive areas of terraces fill the valley immediately above Wailua Falls and along the river for 3 miles above Waikoko, Iliiliula, Waiahi, Kaulu, Palikea, and Halii Streams, which form the headwaters of the south fork of the Wailua River, undoubtedly all had small terraces along their lower courses. <u>The flatland between the sea and Kalepa Ridge shows no terraces, though it is probable that the swampy areas watered by springs were once used for wet taro.</u> (Handy et al. 1991:425)

With respect to the upland resources, Handy et al. (ibid.) surmised that *wauke*, *olona*, as well as yams, bananas, and *pia* were likely cultivated in the uplands where *koa*, *ʻiliahi*, *maile*, and *mokihana* were also found in abundance. While the land provided an abundance of food and utilitarian crops, the many streams and rivers of Wailua hosted a variety of freshwater edibles including shrimps and guppies.

Legendary Accounts of the Study Area Vicinity

Later historical accounts of Kauaʻi paint a picture of independence and separation from the other Hawaiian Islands. However, a survey of traditional mythological and legendary accounts depict Wailua as a place of refuge for outer island families and describe continuous inter-island migrations and show Wailua to be prominently associated with many legendary and historical figures including Hiʻiaka, Māui, Hina, Kawelo, Kamapuaʻa, Pīkoiakaʻalalā, Halemano, Mōʻīkeha, Laʻamaikahiki, Kaʻililauokekoa and many more. Wailua is also mentioned in passing in several traditional accounts including *He Moʻolelo no Makahi* (Fornander 1918-1919) where Wailua is a landing place for Makahi before

heading to Mānā. In *The Story of Laieikawai*, Kalākaua (1888:547) wrote that the Kauaʻi prophet Hulumaniani observed portents in the sky and in seeking out the source of these omens, "he secured a canoe and fifteen men from Poloula, the chief of Wailua…" A brief reference to Wailua and the use of human bones as a fence appeared in *Kaʻao no Kaipalaoa, ke keiki hoʻopapa* written by Fornander (1916-1917:574), where Kaipalaoa's father Halepaki went to Kauaʻi and was killed by Kalaniali'iloa, a *kapu* chief of Kauaʻi. In describing the chief's residence, Fornander noted that:

> This chief was in the front rank of those who took up the profession of hoopapa [the traditional oral art of disputing and wit often utilizing *kaona*, hidden meanings in words and loss in this competition typically ended in death], who by reason of his great skill had a house enclosed in a fence of bones. (ibid.: 574)
>
> *…he 'lii akamai i ka hoopapa, nana ua pa iwi nei o kanaka, o Halepaiwi, he wahi iki koe puni loa ua pa nei i ka iwi kanaka.* (ibid.:575)

One such tale concerning the immediate study area near the base of Mauna Kapu concerns two siblings known in some accounts as Kamalau and Kulaina, while in others they area known as Kūlani and Kūmalu. Smith's (1955:52-54) version of this story reads thusly:

> As one rides along the Wailua River one comes upon an open pasture on the left bank. Just below Mount Kapu, the Forbidden Mountain, is a big rock sticking out between many trees. This rock is called the Sister Rock. Many years ago the island of Kauaʻi had many *heiau* or temples where the people used to worship idols. There was a place called Mahalepu, over beyond Koloa, where there were many *heiau*s and idols of power that the Wailua people claimed could kill or heal and that the people from Mahalepu wanted to steal these idols and used them for worship in their own *heiau*. So they picked Kūlani, the sister, and Kūmalu, the brother, to go to Poliʻahu to steal the two idols. But neither the sister nor brother succeeded in their mission and they were killed in this vicinity. Mount Kapu was named the Forbidden Mountain because of what they did, and too, because their bodies were never found. So, in memory of the sister they called the rock on land the Sister Rock, and the Brother Rock is down below the river.

Dickey (1917:30), however, offers several different versions of the story:

> Across the river at the foot of Mt Kapu is a tall, striking-looking rock and in the bottom of the river just below the Poliahu *heiau* lies another. These are brother and sister, Kamalau and Kulaina and there are many stories concerning them.
>
> When Hulumanienie was head priest of Poliahu the brother and sister came flying from Mahaulepu to loot the rich *heiau*. They spent the night in the valley. Kamakau [Kamalau] stayed in the cave Anahulu and his sister in the cave Hauma, just below. The next morning the sister, whose suggestion it had been to loot the temple, first flew over and landed on Kamahualele ridge near the *heiau*. The brother was following and just leaping from the top of Mt. Kapu when he saw himself discovered by the priest Hulumanienie and fell in shame to the bottom of the valley, where he still stands and is pointed out to all voyagers up the river. The sister then fell into the river from the ridge near the *heiau* and now lies stretched out under water for fifty feet.

In another version, Dickey (ibid.:31) stated that the brother and sister duo was from Kahiki and upon an invitation of the goddess Poliʻahu, attended the dedication of her *heiau*. Exhausted by their journey, the brother and sister went to the top of Mauna Kapu to rest. The following morning, still exhausted, they attempted to leap from Mauna Kapu to Poliʻahu Heiau where they fell to their death and were turned to stone. In another version, Dickey related that a brother and sister fled for their lives up Wailua River after being pursued by a chief. The chief summoned the help of the ocean gods whereby a great tidal wave swept over the sister, leaving her lifeless body in the river. The brother, however, was able to escape to Mauna Kapu before he was caught by the wave. The last version presented by Dickey (ibid.) explains that the brother and sister pair came from Kapaʻa and were caught stealing bananas from a grove on Kamahualele Ridge that belonged to the chief. Upon the pursuit of the guards, the pair ran past Poliʻahu Heiau and jumped from the ridge and the brother fell into the river and the sister landed near Mauna Kapu. In gathering information from an informant, Dickey (ibid.) concluded that "my informant says that years ago, the *pa-u* [skirt] of the sister could be clearly seen on the rock [near Mauna Kapu], proving it the sister and not the brother, but that time has removed the signs of the *pa-u*."

Collectively these stories provide a culture-historical context of Wailua's Precontact history. The following section summarizes various legendary accounts for this area. Many of these stories are set along Wailua River and mentions the area's many *heiau*. As Judge Lyle Dickey (1917:15) pointed out: "It is not easy to arrange the stories connected with Wailua in any logical order." In the absence of any sound chronological indicators, the stories presented in the subsequent paragraphs are organized by principle subjects and begins with a presentation of stories concerning the original place name, Wailuanuihoano. Hawaiian Historian, Samuel Kamakau, while discussing land divisions commented that Wailua was named for a famous chief, noting:

> Wailuanui-a-Hoaʻano was born at ʻEwa, Oahu, and his descendants were to Kauai and to Maui, and wherever they settled they called the land after the name of their ancestor. Wailua was a son of Laʻakona, ancestor of the ʻEwa family by Ka-hoʻano-o-kalani. His name, Wailuānui-a-Hoʻano, came from adding the name of his mother. Thus, some names were derived from those of ancestors. (Kamakau 1976:7)

Kikuchi (1974) notes that Wailuanui-a-hoʻano was a contemporary of the high chief Mōʻīkeha, who produced children from two Kauaʻi chiefesses. While Kamakau (ibid.) associates this name with an Oʻahu chief, this name also appears in the legendary accounts for Wailua, specifically the epic tale *Ka Moʻolelo O Hiʻiakaikapoliopele* with her sister Pele. It is in this story that the name Wailuanuihoano appears as the wife of a seer of chiefly rank from Kauaʻi named Malaehaʻakoa, and also the name of a culturally significant *heiau* located to the north of the study area. Kalākaua places the arrival of the Pele clan during the reign of Kamiole, or more specifically, in approximately A.D. 1175, and notes that "every tradition refers to them as deities at the time of their arrival at Hawaiʻi" (1972:140). A tale of perseverance, bravery, and spite is recounted in *Ka Moʻolelo O Hiʻiakaikapoliopele*, initially published in the Hawaiian language newspaper *Ka Naʻi Aupuni* between the years 1905-1906 by Hoʻoulumāhiehie. Although several version of this story exists, including one by Nathaniel B. Emerson (1915) and Puakea Nogelmeir (Hoʻoulumāhiehie 2006). Nogelmeier notes that Hoʻoulumāhiehie's version is one of twelve known published accounts. This report utilizes the version published by Emerson (1915), of which select portions associated with Wailuanuiahoano are summarized and presented below.

Ka Moʻolelo O Hiʻiakaikapoliopele and the appearance of Wailuanuiahoano and Malaehaʻakoa

This saga begins at Hāʻena in the Puna District on Hawaiʻi Island—the district where Pele, the deity of lava and the elder sister of Hiʻiakaikapoliopele, resided. After enjoying a great display of *hula*, Pele fell into a deep sleep and heard the rhythmic beats of *hula pahu* (hula drums). Drawn to the sound, Pele in her spirit form followed the echoes of the drums and arrived at the small village of Hāʻena on the north shore of Kauaʻi. Here Pele found herself amongst a crowd of spectators, all of whom looked at her in wonder and admiration at her beauty, a beauty not seen before on their island. Standing in the midst of this crowd was the striking Lohiau, who was seemingly unconscious of Pele's presence. The two lovers spent three nights and days together, however, Pele would only grant him kisses. On the morning of Pele's departure, she promised to fetch him and bring him to Puna, where they would once again be united, at which time Pele's spirit leaped into the ocean and was united with her body that lay in Puna, Hawaiʻi.

When Pele's spirit was finally reunited with her body, she called upon each of her sisters where she made a proposition, asking which one of them would fetch her dream lover Lohiʻau from Kauaʻi. Knowing Pele's tempestuous temper, each feared possible repercussions and refused to go. After being denied by all but one sister, her youngest sister, Hiʻiakaikapoliopele appeared to her. The irascible Pele demanded that Hiʻiaka travel to Kauaʻi to fetch Lohiʻau and sent her on her way with strict instructions. Hiʻiaka was not to take him as her husband, she was not to touch him, and she was to take no longer than forty days on her journey. While Hiʻiaka agreed to her sister's demands, she realized that in her absence, Pele would become incensed with a burning and vehement fury and destroy whatever she desired. So Hiʻiaka set forth two stipulations; her beloved *ʻōhiʻa lehua* grove was to be spared from destruction, and Pele was to protect her dear friend Hōpoe in her absence.

Hiʻiaka immediately set out on her journey to fetch Lohiʻau, traveling to various parts of the islands where she encountered a variety of challenging situations that tested her skills and abilities as a rising goddess and found traveling companions that accompanied her on this journey. After some time, Hiʻiaka arrived at Hāʻena, Kauaʻi and found herself at the home the paralyzed fisherman, Malaehaʻakoʻa and his haughty and inhospitable wife, Wailuanuihoano. In Emerson's version, her name appears as Wailua-nui-a-hoano.

Malaehaʻakoʻa was a man of chiefly rank and because of his condition, his wife would carry him to the shore where he could enjoy his favorite activity, fishing. After leaving him at the shore, Wailuanuiahoano would return home where she retreated to her *hale kūkū kapa* (tapa beating house) to prepare *kapa*, the traditional bark cloth. As tradition required, Hiʻiaka offered the following chant to Wailuanuiahoano as her humble request to enter their home:

Kunihi ka mauna i ka laʻi, e,	The mountain turns the cold shoulder,
O Wai-aleale,la, i Wai-lua;	Facing away from Wai-lua,
Huki iluna ka popo ua o Ka-wai-kini;	Albeir in time of fair weather.
Alae ia aʻe la e Nounou,	Wai-kini flaunts, toplofty, its rain-cap;
Nalo ka Ipu-haʻa,	And the view is cut off by Nounou,
Ka laula ma uka o Ka-paʻa, e.	Thus Humility Hill is not seen,
I paʻa i ka leo, he ole e hea mai.	Nor Ka-paʻa's broad upland plain.
E hea mai ke leo, e!	You seal your lips and are voiceless;
	Best to open your mouth and speak.
	(Emerson 1915:109)

To Hiʻiaka's disbelief, Wailuanuiahoano did not respond to her request and instead continued to gaze at her tapa beater, paying no attention to the young girl. Emerson (ibid.:100) comments on Wailuanuiahoano's behavior writing, "…this sharp reproof of her haughty and inhospitable conduct, couched, though it was, in the veiled language of symbol." Although Hiʻiaka did not receive the reply she had anticipated, she continued on with her journey, and ascended the *pali* (cliff) near their home and found Malaehaʻakoʻa at the shore. As Hiʻiaka approached him, she heard his voice in chant at which time she replied to him. At once, the sea had calmed which brought fish to his hook. He looked up at Hiʻiaka and immediately knew she was an *akua* (deity) that had come from Puna. Malaehaʻakoʻa felt a thrill run through his body and soon found himself able to stand on his own feet. Without word, he walked back to his home and to Wailuanuiahoano's surprise, he began tearing down a portion of the fence that surrounded their home. Malaehaʻakoʻa knew that the woman he encountered was a divine being, so he rushed home to prepare a feast. Hiʻiaka returned to their home and was entertained by Malaehaʻakoʻa, who performed a lengthy sacred *mele* (song) "that recited the deeds, the events, the mysteries that had marked Pele's reign since the establishment of her dominion in Hawaii" (Emerson 1915:112). A series of *mele* were exchanged—narratives that taught Hiʻiaka about her sacred and powerful lineage. One such *mele* shared with Hiʻiaka described Pele's travels throughout Hawaiʻi, including the following stanza that described her time on Kauaʻi and where reference is made to Wailua:

A Kauaʻi, i ke olewa iluna,	From the ether above Kauaʻi
A ka pua lanai kai o Wai-lua,	To the blossoms afloat at Wailua
Nana mai Pele ilaila:	Ranges the flight of Pele's gaze.
E waiho aku ana o Ahu.	She sees Oahu floating afar;
Aloha i ka wai liʻu o ka aina:	Feels thirst for the wat'ry mirage;
E ala mai ana Mokihana,	Inhales the scent of mokihana—
Wai auau o Hiiaka.	The bath-water of Hiiaka.
Hoopaʻapaʻa Pele ilaila;	She once had a contest there;
Aohe kahu e ulu ai.	She had no tenant to guard the place.
Keehi aku Pele i ka ale kua loloa:	Pele spurns with her feet the long waves;
He onohi no Pele,	They give back a flash like her eye,
Ka oaka o ka Lani, la.	A flash that's repeated on high.
Elieli, kau mai!	Wonder and awe possess me!
(Emerson 1915:115-116)	(Emerson 1915:126)

A second chant was offered that described Wailua as the place where Pele's lover Lohiʻau's house stood. The first line of this *mele* is titled *Ku i Wai-lua ka pou hale a ka ipo*, and reads thusly:

Ku i Wai-lua ka pou hale a ka ipo;	Her lover's house-post stands in Wai-lua;
Hoolono i ka uwalo, ka wawa nui	There Pele hears a call that appeals;
O Ulupo ma oli nei; aohe uwalo mai, e	'Tis a song voiced by Ulu-po.
Aloha ino o Ikuwa ma oli nei.	She utters no word to answer
Ke lele la ka eka mua,	This pleading babel of voices,
Ka ino a ka makani.	Now comes the first thrill to virgin flesh;
Ukiuki, kolo e, Kau-lana,	Impatient, the princeling crawls on his knees;
Ka ua lele aku a lele mai:	There's plenteous downfall of tears, as when
Lele a Puhi-lala, lele a kau-lana—	Rain-columns fall, or men leap and dive,
Ka hoaka, e Hiiaka, e!	Head-first, feet-first, into the flood.
Nowai ke kanaenae?	These symbols will tell the tale, Hiiaka.
No ka ohana a Haumea ke kanaenae.	For whom do I make this offering of song?
Kuʻu a e Kane ke koʻa:	For the ancient stock of Haumea.

I ka ia nei manawa ia.	God Kane planted the coral reefs;
No Pele, no Hiiaka no ka honua,	A work that done in Pele's time;
Ka honua neʻi, ka honua lewa,	For Pele, for Hiiaka the land—
Ka lani iluna.	This solid ground that swings and floats
O Ana-ku, ku ka aha iloko:	Beneath the o'erhanging arch of heaven.
O Haamo he ala i hei aʻe ia,	(Emerson 1915:129-130)
He pahu i kulaʻi na, he pa i aʻe ia;	
He kahua i hele ia, he luana mauʻu;	
He kaunana ko, okana piko;	
He hola moena, he lawe na ipukai;	
He ukuhi na wai, he kaumaha ai:	
He haina no ka hale, e.	
Noa, noa ia hale—ua aʻe a,	
Ua komohia no wai-honua.	
Ku ana o halau ololo,	
Ka hale o Pele i noho ai.	
Makaʻikaʻi mai Kini o ke Akua.	
Hoʻi aku e, hoʻi aku iwaho na!	
He kahuna pule ole, he liʻi pule ole!	
Mai komo wale mai i ka hale o Pele,	
O koʻu Akua, la!	
Elieli, kau mai!	
(Emerson 1915:122)	

After the exultant feast and exchange of dances, Hiʻiaka knew it was time to carry forth with her journey and to fetch her sister's lover, Lohiʻau. Hiʻiaka informed Malaehaʻakoʻa of the purpose of her journey, to which he informed the young girl that Lohiʻau had taken his own life after a passionate encounter and that he had been dead for many days. Hiʻiaka managed to find Lohiʻau's lifeless body and knew that she had the power to restore him back to life, so she went in search of his *wailua* (spirit) that was reportedly wandering aimlessly around Kauaʻi. Hiʻiaka found his *wailua* and desperately chanted incantations to restore him to life. After some time, Hiʻiaka's prayers had brought life back to Lohiʻau and the two charge back towards Puna, where Pele impatiently awaited their return. As Hiʻiaka and Lohiʻau made their way back to Puna, she observed smoke trailing from her sacred *lehua* groves—the very groves that she has requested for her sister to protect. In an act of rebellion, Hiʻiaka embraced Lohiʻau at the rim of Kīlauea and made love to her sister's lover. Pele broke out in a great rage and killed Lohiʻau causing his *wailua* to flee back to Kauaʻi in search of someone who could help him. Lohiʻau's spirit appeared one night before his dear friend Paoa. Upon seeing Lohiʻau's spirit, Paoa offered the following chant, again making explicit reference to Wailua, Kauaʻi.

Mau aʻalina oe mauka o Ka-la-ke-ahi	Thou bundle of scars from a fiery day,
Ma Puna ka huli mai ana;	'Twas at Puna our journey began,
Ka ua a Makaliʻi,	With a dash of rain in the summer;
Ke ua la i Laau,	Rain again when we entered the woods,
I Kaʻu, i Ka-hihi, i Ka-peʻa,	Rain, too, in Kaʻu, in the jungle,
I ke wao a ke akua.	In the forest-haunts of the gods,
Eia hoʻi au la, o ka Maka-o-ke-ahi;	Rain at each crossing of road and path:--
Aole hoʻi na la o ka Lawa-kua,	Here stand I, with fire in my eyes:
Ke Koolau la, e, aloha!	Our days of communion are gone;
Aloha kuʻu hoa i ka ua anu lipoa,	You've bidden adieu to Koʻolau;
Huʻihuʻi, koʻekoʻe, kaou:	Hail now to my mate of the gloomy rain—
He ahi ke kapa o kaua e mehana ai,	When wet and cold and chilled to the bone,
E lala au kaua i Omaʻo-lala;	Our garmet of warmth the blazing hearth;
I pili wale, i haʻalele la, e.	Then basked we at Omoʻo-lala,
Haʻalele i Wailua na hoa aloha—	Haunting the place, then tearing away.
O Puna, aina aloha,	E'en so you tore away from your friends,
O Puna, i Kauaʻi.	Those friends of Wailua, of Puna—
(Emerson 1915:217)	That dear land of Puna, Kauaʻi!

By this time, Pele was furious. She shook the earth with great ferocity and heaved her lava in a torrent of devastation, annihilating Hiʻiaka's *ʻōhiʻa lehua* forest, obliterating all of Puna, and finally consuming her beloved

friend Hōpoe as she lingered by the sea. Enraged by her sister's spiteful acts, Hi'iaka turned her wrath onto her beloved sister Pele. The two sisters went head-to-head in a brutal battle that could only be subdued by the elder gods. Fearing that the two sisters would destroy the entire island, the elder gods intervened and quieted the battle between the two powerful sisters.

As seen in the presentation above, the name Wailuanuiahoano appears as the wife of the seer Malaeha'akoa. In his book *Malaeha'ako'a, The Dancing Priest*, Taupouri Tangarō offers a more in-depth interpretation of this haughty female character, writing:

> Hi'iakaikapoliopele, in search of Malaeha'ako'a, comes first upon Wailuanuiahoano felting kapa. Wailuanuiahoano ignores Hi'iakaikapoliopele's approach, deliberately triggering Hi'iakaikapoliopele's reflex to then seek out Malaeha'ako'a. Up until this very point, Hi'iakaikapoliopele's approach was that of a mortal, and because Wailuanuiahoano's primary function is the spiritual feeding of the soul, she ignored Hi'iakaikapoliopele. It is safe to conjecture that Hi'iakaikapoliopele, up until this point, was unaware that her journey was orchestrated to take her away from her mortal-self and to introduce her to her immortal-self…It can be assumed that up until her meeting with the profound couple, her journey was one of obligation to her sister Pele and not one of transformation into her deity-self, also known as Pele. (Tangaro: 2008:xi)

Wailua is referenced on multiple occasions throughout the saga of Pele and Hi'iaka as a place where Pele visited upon her arrival to the island and is the home of her beloved Lohi'au. While these interpretations touch on the more literal aspects, these snippets lend important insight into the cultural significance of this *ahupua'a* as a place where both mortal humans and deities alike lived out transformative life events—a pattern that prevails in other legendary accounts including one of Hi'iaka's elder sister, Kapō'ulakīna'u.

Kapō'ulakīna'u and the stone images Pae-ki'i-māhū-o-Wailua

William Kikuchi (1984) retells the account concerning Kapō'ulakīna'u and the creation of the unique stone images known as Pae-ki'i-māhū-o-Wailua. Kapō'ulakīna'u was a sister to Pele and Hi'iaka by a common mother Haumea. Her father was Kūwaha'ilo. Kapō'ulakīna'u is often associated with Hawaiian sorcery as well as the dual-personality patron of *hula*. She often appears in legendary accounts as the vengeful part of her double personality, which was Laka, the passive demigoddess of fruitfulness and love. In this account Kapō'ulakīna'u visited Kaua'i and accompanying her were a bevy of young maidens. The women arrived at Maka'iwa, a famous surf spot north of the Wailua River mouth. Kikuchi wrote:

> Kapo and her party left Ni'ihau for Kaua'i and came upon a surfing competition at Wailua. Here Kapo and her sisters were invited by some of the men to ride on the famous surf of Wailua called Maka'iwa. Accepting, they rode the first wave in pairs with the men. On the second wave, using their supernatural powers, they left the men behind while they rode to shore and awaited the third wave. The third wave, which was described as a mountain of water rather than a normal surf, plummeted the men and forced them beneath the wave to their death. They were changed into stone at the mouth of the Wailua River. Since then, these boulders are known as the row of images, of *pae ki'i*, and can still be seen when wave and river action removes the sand cover. (Kikuchi 1984:3)

Frederick Wichman (1998) also attributes the formation of these stone images to Kapō'ulakīna'u, but adds that Kapō'ulakīna'u had caused the great wave after the men showed no interest in her or her maidens and that these male surfers were more interested in each other. Dickey (1917) offers two other stories concerning the formation of these stones, one concerning an ancient rock sculptor and one associating these stones with the demi-god Māui. These stones are also said to have once formed a portion of the wall of Hauola, the nearby *pu'uhonua* (place of refuge) located south of the Wailua River mouth and the adjacent Hikinaakalā Heiau. According to Dickey:

> It is said that a sculptor of ancient times, carving idols, could only make one to suit him and threw the others away. These rocks are some of them, the marks being the hieroglyphics of the ancient sculptor. (Dickey 1917:16)

Māui, the 'Alae Birds and the creation of Pae-mahu-o-Wailua

In relating these stones to the demi-god Māui, Dickey (1917) described a time when Māui wished to draw the Hawaiian Islands together to catch the supernatural fish Luehu—a task that was only attainable on the lunar phases of Lono. On these nights Māui went out with his eight brothers and attempted to capture Luehu. Each time Māui and his brothers went fishing, the *'alae* birds (Hawaiian mudhen), counting the nine gathered stoked their fire. Their fire would send smoke rising into the sky and would give notice to Luehu that Māui was out in his canoe fishing, causing the great

fish to escape. The *ʻalae* birds were the keepers of fire—a secret that they kept to themselves. At the advice of Hina, his mother, Māui made a wooden image and one day placed it in the back of the canoe as a decoy and sent his brothers out into Wailua Bay to fish as usual.

In the meantime, Māui snuck up to the usual feasting place of the *ʻalae* birds, which was near the Pōhaku Piko close to Holoholokū Heiau. He dug a hole a buried himself in it and covered it with vines and waited for the birds to arrive. As his mother advised, Māui waited for the birds and paid close attention to the smallest of the birds which was the leader. As usual, the birds observed Māui's canoe at Wailua Bay and counted nine men. They proceeded to gather their sweet potatoes and began to stoke their fire. Māui patiently waited and at the right moment, he darted from his hiding place and caught the smallest *ʻalae* and demanded they tell him the secret to making fire. The *ʻalae* evaded Māui's request by lying about which plant stalks to use. Finally, the *ʻalae* told him to use wood of the *pua* tree. Fed up with the bird's deceits, Māui grabbed the bird by its neck and rubbed its head on the burnt stick until it bled. Since that time, the *ʻalae* bird bores the red mark on its head and put. This exploit also put an end to the smoke signals used to warn Luehu and the next time Māui went fishing he was able to capture the fish. With regard to the formation of the petroglyph stones, Pae-māhū-o-Wailua, Dickey continues:

> His mother Hina had told him not to disturb any bailing dish he might find floating in the water at the mouth of Wailua river, as this would be her beautiful sister Hina-ke-kaa. However, when Maui saw a dish for bailing out canoes floating near, he told his brothers not to look behind them on pain of death and picked up the bailing dish and put it behind him in the canoe, where it turned into a beautiful woman.
>
> As soon as Luehu was caught, the Hawaiian Islands began to draw together. As Kauai and Oahu came near great crowds gathered on the shore of Oahu and cheered. This did not disturb the brothers of Maui at first, who paddled steadily but when the cheerers exclaimed at the beauty of the woman behind Maui all the brothers turned at once to look. Immediately the great fish became loose from the hook and the islands slid apart as they had been. Only two islands had actually touch each other. The point near the Nawiliwili lighthouse had touched Kaena Point on Oahu and as they drew apart a piece of Oahu was caught on Kauai and a piece of Kauai on Oahu. This rock off Kaena Point is called "Pohaku o Kauai," Rock of Kauai.
>
> Because of their looking back, Maui's brothers were on their return to Wailua turned into stones and set across the mouth of the Wailua river. (Dickey 1917:18)

Maui's mother Hina is also mentioned in other accounts for Wailua. In one account described by Dickey (1917:33), Hina reportedly "dammed up the entire south fork of the river because Mamaakualono, a beautiful young girl who lived in a cave on the north side of the river, would not agree to marry her son Maui." The second story concerning Hina and the treatment of human remains is recounted in the story titled *Hina and Kūohu*, which was retold by the Smith family in their book *Legends of Wailua*.

Hina and Kūohu

In his 1955 publication, Walter Smith of Wailua provided an interesting account concerning Hina, a legendary goddess who in Hawaiian culture is often associated with the moon, *kapa* making, healing, and is the embodiment of all things feminine. While in most stories, she is noted as the wife of Kū, however, in this account she is the wife Kūohu, a strong and well-looking man who had his residence in the area of Poliʻahu. It may well be that Kū-ohu is another personification of Kū. Reference to Wailua as the birthplace of Kū and Hina is noted in *He Kaʻao no Uweuwelekehau* (summarized in a subsequent paragraph).

The two lived together harmoniously and were deeply in love. Kūohu was well liked by the king, who often gifted him with many things. One day Kūohu became sick and as the days passed his health only worsened. Unable to recover, Kūaohu finally died, which brought a great deal of sadness to Hina. Her love for her husband carried over after his passing where she vowed to always take care of his grave. Hina visited her late husband's grave and prayed for many years until a time came when she grew weary. She decided one day to make a *lauhala* basket and place his remains inside where she could carry him where ever she went. On a moonlit night, Hina went to the grave, dug it up, collected Kūohu's remains and placed them in her basket. She carried his bones everywhere she went and one day while visiting the king's royal residence, the king heard about the contents of her basket and ordered his warriors to execute her because she had broken two major *kapu*: one of carrying the remains with her and the other of bringing them into the sacred royal residence. While standing at the mouth of the Wailua River, the king's warriors had approached her. She pleaded for her life and offered instead to get rid of her late husband's bones. Sympathy came over the warriors and they accepted her offer. She loaded her things on her small canoe and paddled up Wailua River

until she reached the area of Poliʻahu. Here she took out the basket and watched as it sank down into the depth of the river. Soon after Hina had released the basket into the river, a large turtle swam up from the river and followed her in the canoe.

According to the Smith family, when a turtle is seen swimming in any part of Wailua River it is none other than Kūohu searching for Hina. This account described not only the area's association with Hina but described Precontact transgressions affiliated with the removal of human remains. Dickey (1917) provided a similar account:

> A woman, Pamahoʻa, was so fond of her husband that at his death she was unwilling to part with his bones but carried them with her in a bundle everywhere. Because she once carried them into the palace Kamehameha ordered two police to kill her. At the mouth of the Wailua river, filled with pity, they let her escape, and with her husband's bones she fled up the river with heart as bitter as rotted taro or *hau* leaves. A little above Maluaka she dropped her bundle in the storm and it was swept away, to her despair. (Dickey 1917:32)

These two accounts interestingly point to the Wailua River mouth as the location where the lives of both women were spared. Although not explicit in these stories, the area of Hauola located at the mouth of Wailua River has been noted as a *puʻuhonua*, a place where transgressors could come and be forgiven and absolved of their crime. While this story also described the reasons for the occasional sightings of *honu* (turtle) in the river, another account given by Dickey (1917) mentioned the rare shark sightings in the river. Dickey (ibid.:32) relates that, "a shark is said at times to enter Wailua river hunting everywhere for his loved one. Until he finds her it is well to be on one's guard while bathing in Wailua." The entirety of Wailua River is filled with legendary and historical accounts and is said to be the early training grounds for the hero Kaweloleimakua, whose legendary account follows.

He Moʻolelo no Kawelo

Fornander specifically mentions Wailua as the residence of the maternal grandparents of Kaweloleimakua, the namesake of the Legend of Kawelo, a famous ruler of Kauaʻi. Kaweloleimakua was one of five children born to Malaiakalani, the mother and Maihuna, the father. Kaweloleimakua'a maternal grandparents were skilled at foretelling the future of a child through palpating the child's limbs and examining all aspects of the body. The grandparents performed this act on all their grandchildren and found nothing spectacular about them, however, when examining Kawelo, the grandparents were thrilled at what they found.

> After the examination the old people called the parents of Kawelo and said to them: "Where are you two? This child of yours is going to be a soldier; he is going to be a very powerful man and shall some day rule as king." (Fornander 1918-1919:2)

Kawelo was taken from Hanamāʻulu to Wailua and raised by his grandparents. While Kawelo was bring raised, ʻAikanaka, the son of the king of Kauaʻi was born as was Kauahoa of Hanalei, two characters that would later play a key role in Kawelo's rise to *aliʻi*. These three chiefly children were raised together but Kawelo showed all the signs of a powerful future chief, one of which was his profound appetite for food, strength, and skill. His grandparents grew tired of the boy's insatiable appetite and thought that giving him a canoe would entice him away from his continual eating. A canoe was made for Kawelo, which he paddled up and down Wailua River. Kawelo's new canoe caught the eye of his childhood friend, Kauahoa, who in a display of character made himself a kite which caught the eye of Kawelo. In response, Kawelo's grandparents made him a kite and one day as the two boys were playing, their kites had become entangled. Kawelo's kite snapped Kauahoa's string, sending his kite floating over the mountains and landed at Kahoʻoleināpeʻa, Kōloa, a placed named after this particular event. Kawelo thought that Kauahoa would surely attack him since he was bigger than Kawelo, but he didn't. Kawelo thought to himself "Kauahoa will never overcome me if we should ever meet in any future battle" (ibid.:4). In any competition against the other boys, Kawelo always displayed greater strength and skill. After some time, Kawelo's grandparents in their longing to see their other grandchildren who had moved to Oʻahu, packed up and sailed to Waikīkī, Oʻahu, taking Kawelo with them.

While on Oʻahu, Kawelo took up farming and married Kanewahineikiaoha. Kawelo went on to master both fishing and the art of war and had become renowned for his feats of strength. He eventually returned to Kauaʻi to defend his family against ʻAikanaka who had stolen Kawelo's parents land and resources. Kawelo made his preparation to return to Kauaʻi. As their canoe approached the Puna District of Kauaʻi, Kawelo offered the following chant to his brother Kamalama, indicating their landing place be at Wailua:

E Kamalama iki kuu pokii,	Say, little Kamalama, my younger brother,
I Wailua ka iho o na waa e	Point the bow of the canoe towards Wailua,
I Wailua, e.(ibid.:33)	Yes, towards Wailua. (ibid.:32)

While adrift off the coast of Wailua, some of ʻAikanaka's people who were at the top of Nounou Hill roused ʻAikanaka and told him of the coming of large canoes. ʻAikanaka dispatched his runner, chief officers, and warriors and had his men set up blockades on the shore hoping to stop the approaching canoe from landing. A large crowd had gathered on the shores of Wailua at which time Kaehuikiawakea, ʻAikanaka's messenger was sent out to sea to investigate the canoe and found only Kamalama, who was not perceived as a threat to the warriors of Kauaʻi. Kawelo, however, had hidden himself on the canoe and was not spotted by Kaehuikiawakea. Assuming that only Kamalama was on the canoe, Kaehuikiawakea permitted the canoes to land. When they reached the beach, ʻAikanaka's men anxiously waited to attack, but Kaehuikiawakea stopped them saying:

> Don't fight them now. Let us carry the canoes to the dry sand and let these people go and have a bath, and when they return, let them partake in some food; when they are satisfied they can then gird on their loin cloths, then after that we can fight them. (ibid.: 34)

The warriors of Kauaʻi proceeded to lift the canoes out of the water and as they carried the canoes ashore, Kamalama had loosened the sack that held Kawelo at which time, Kawelo jumped out and announced his presence in a loud voice. This created a great scurry and cause them to drop the canoe crushing many people. Kawelo then looked towards Wailua and saw a great disorder amongst ʻAikanaka's people and offered another chant comparing the disorder seen in Wailua to the bending surf:

He mea e nei la kaikoo nui o kai,	How numerous are the high surfs today below!
Ke auau nei ka moana,	The ocean is bathing in foam.
He kai paha no Kahinalii,	Is it the sea of Kahinalii?
Ua k uke a, ka halelo,	For the rocks are exposed and the sand is in hollows,
Ke ahua pohaku i Wailua nei la,	And the rocks are in heaps in Wailua.
O ua one maikai nei,	The sand that once were level
Ua malualua, ua kahawai,	Are cut up and are in gulches;
I ka pohaku o Kauai,	Cut up by the rocks of Kauai,
O Kauai nui moku lehua,	Great Kauai, isle of *lehua,*
Aina make kau aloha ole,	Land of death and lacking in love,
Pili makamaka ole ia Kawelo nei la.	Whose people are not the friends of Kawelo.
(ibid.:37)	(ibid:36)

After offering his chant, Kawelo paused and continued chanting, again making reference to Wailua:

Pueo-e, Pueo- e,	O thou owl, O thou own!
Pueo opili i ka ua,	The own that is wet by the rain,
Pueo kanikani i ka ua,	The owl that is hooting in the rain,
Pa naʻu na Kawelo,	You are hit by Kawelo,
Na ke koa i ke awakea,	By the soldiers of the noonday,
He kaha pue wai no Wailua,	The soldiers of the waters of Wailua,
Ka alo hiki i Kaupea,	Of the path that leads to Kaupea
Kuhi au ka luhi kaua,	Where you and I are made weary,
O Onionikaua,	Onionikaua.
Pau na kanaka i ka lae one,	The men are all at the sand point,
He loaa i loko o Kuikaa,	They are found within Kuikaa,
Ke poo kapu o Hihimanu,	The kapued head of Kuikaa.
Nau na kui-e;	Grind your teeth in rage,
Nau ka kui-e.	Grand your teeth in rage.
(ibid.:37)	(ibid.:36)

A great of ʻAikanaka's men were slain on the shores of Wailua, including his best officers. Kawelo would go on in battle and eventually led his small army to victory, dividing the island among his followers. According to Fornander, after narrowly surviving a brush with death at the hands of ʻAikanaka and his followers, Kawelo lived out his life in Hanamāʻulu, the *ahupuaʻa* located to the south of Wailua with his wife and parents.

In another version of Kawelo published by Hoʻoulumāhiehie in the Hawaiian language newspaper *Ka Home Rula* between January 1909 through April 1910, he notes a demi-god fish by the name of Uhumākaʻikaʻi who lived of the coast of Kaʻena on the island of Oʻahu (Perreira 2009). Prior to his quest to Kauaʻi to raid ʻAikanaka, Kawelo ritually sacrificed Uhumākaʻikaʻi—a protocol often used by chiefs to inspire success and prosperity in their efforts. This demi-god fish also appears in another legendary account for Wailua, title *He Kaʻao no Puniakaia* retold by Emerson (1918).

Chiefly Residences and Fishing Traditions Described in He Kaʻao no Puniakaia

This traditional account begins in Kāneʻohe, Oʻahu where a young boy, Puniakaia was raised by his parents Nuʻupia, his father and Halekou, his mother both of whom were descendants of the chiefs of Koʻolauloa and Koʻolaupoko. One day the boy had gone fishing with his mother and caught a small *pāuhuuhu* (parrot fish that red and brown in color). The fish was brought home and cared for by Puniakaia who raised it until it became too large to keep at which time he turned the fish into the ocean, where it was free from all confinements.

Sometime later, a proclamation was issued calling all persons to go out fishing. When all the fishermen had gathered, with Puniakaia being one of them, he called upon his fish Uhumākaʻikaʻi. The incantation uttered by Puniakaia invigorated Uhumākaʻikaʻi to drive all the fish in the ocean towards the boy. A large number of fish filled the shores from Makapuʻu to Kaʻoio Point at Kualoa, Oʻahu. The people collected what they could but still a great number of fish remained flopping on the sands. Even the animals came to the shore and took their share of fish. Rumors quickly spread concerning this wondrous event and had soon reached a woman of equal beauty named Kaʻalaea. Puniakaia took her as his wife and the two had lived together with her family for some time until Puniakaia was insulted by his wife's aunt. Puniakaia eventually returned home to live with his family.

Sometime later, Puniakaia desired to go to Kauaʻi. He met some fishermen who were preparing their canoe off Kaʻena Point and with them sailed to Kauaʻi and landed at Wailua, where a high chiefess had been living. Puniakaia took this chiefess as a wife and had lived there for some time. One day, he came upon two fishermen that were making preparations to catch *ʻōʻio* fish. Puniakaia boasted of how he could catch a large number of fish, which was more than that of the two men combined. A wager was made and the men agreed that if Puniakaia could catch what he said he was capable of then he would be given four large tracts of land, but if he didn't, then death would befall him. Puniakaia was given fifteen days to prove himself and he did nothing for ten days. On the eleventh day, he saw a canoe departing for Oʻahu. He asked the fishermen to relay a message to his mother asking her to incite Uhumākaʻimakaʻi and to drive all the fish in the sea to Kauaʻi. After hearing this message, the mother worried because Uhumākaʻikaʻi only listened to the commands of Puniakaia. Back on Kauaʻi, the *umu* (above ground earth oven) had been prepared by the king of Kauaʻi should Puniakaia fall short on his boast. It was the fourteenth day and all Puniakaia could do was wait on the shore of Kauaʻi with his chiefess wife hoping for the fish to arrive. That night, Puniakaia had a dream. In the dream, a solemn voice spoke:

> Uhumakaiakai is coming. Why did you leave me behind and go alone to a strange land? You do not love me. If I did not hear of your trouble, you would have been killed? (Emerson 1918:162)

Puniakaia woke up bothered by his dream. As dawn broke, he got up and went to the shore where he saw the entire sea turn brown with fish. Uhumākaʻikaʻi came forth and Puniakaia picked it up and kissed his beloved fish. Puniakaia then released Uhumākaʻikaʻi and as commanded, he began to drive all the fish from the ocean to the shore of Wailua. The two fishermen of Wainiha and the king of Kauaʻi saw all the fish and spared Puniakaia's life. Puniakaia then gave the whole of Kauaʻi to the owner of the canoe that brought him to Kauaʻi and he ruled over the island and Puniakaia and his chiefess wife of Wailua returned to his homeland on Oʻahu. (ibid.)

Wailua, the chiefly center for Olopana and birthplace of Ku and Hina as recorded in He Kaʻao no Uweuwelekehau

In the legend of Uweuwelekehau, Fornander, (1918) described Wailua as the birthplace for Kū (father) and Hina (mother) and their son Uweuwelekehau. Both Kū and Hina are recognized as paramount gods in Hawaiian culture. These two lived in Wailua as chiefs and rulers of Kauaʻi, however, the high chief Olopana, elder brother of Kū had become displeased with Kū. Kū, Hina, and their son moved to Piʻihonua in Hilo where they lived for some time. Olopana then took over Wailua and ruled over the island. At an early age, Uweuwelekehau was betrothed to Olopana's daughter Luʻukia who was born sometime after Kū and Hina's relation to Hilo. One day while Uweuwelekehau was playing in the waters of the Wailuku River in Piʻihonua with his attendants, Kāne and Kanaloa, he was swept out to sea and transformed into a *moa* fish where he swam and lodged himself in some rocks on the shores of Kauaʻi. Kū, Hina, and the attendants searched helplessly, but the boy was not found.

On Kauaʻi, Luʻukia requested for her attendant, Papioholoholokahakai to fetch her a fish at which time the attendant returned with a *moa* fish. The fish was placed in a calabash and taken home to Luʻukia who ordered for the care of the fish. On the second day, the fish had transformed into a handsome young man and Luʻukia fell in love with him. Olopana herd of this news and assumed that his daughter's lover was a stranger. Furious at his daughter, he called together all the people of Kauaʻi to gather at Wailua and in front of the crowd, he harshly scorned his daughter and exiled the two lovers to the lands of Mānā, Kauaʻi, which was barren, devoid of humans, and said to be inhabited only by spirits. Olopana ordered that no persons assist them on their journey. The two lovers eventually made their way to Mānā and made their home. During the night as the lovers slept, a home was made for them, food was provided,

animals appeared, and all their needs were met. The two lived at peace and shared their abundance with the local fishermen. After some time, a great number of people had relocated to Mānā at which time these doings had reached the ear of Olopana who was still at Wailua. To see for himself the things reported to him, Olopana traveled to Mānā and saw the lands filled with people and food. Here he learned that his daughter's husband was no stranger but was indeed his nephew Uweuwelekehau. Olopana made things right with his daughter and son-in-law and declared them as the ruling chiefs of Kauaʻi. This news had reached Kū and Hina who were still in Hilo and the two accompanied by their royal court traveled to Kauaʻi in large and small canoes decked with red sails, cords, paddles, seats, bailing cups and everything needed for the voyage. Kū and Hina were met by a great host of people at Mānā and great festivities celebrating the new rulers were had.

A Scene of Athletic Competition Described in He Kaʻao no Pīkoiakaʻalalā

Fornander (1917) associated Wailua as the birthplace of the rat-shooting hero, Pīkoiakaʻalalā. While Pīkoi was growing up in Wailua, it was customary for the people to gather to join in and witness different athletic sports. On one such occasion, ʻAlalā, Pīkoi's father informed him of a crowd that had gathered to witness games such as *ʻolohū* (disk rolling), *pāheʻe* (spear throwing), and *kōʻieʻie*, a game that required its contestants to float a board steadily in the river rapids without being carried downstream. Pīkoi is successful at *kōʻieʻie*, however, an opponent filled with jealousy pushed Pīkoi into the rapids where he is swept down the Wailua River and carried over the ocean where he washes ashore at Kou, the ancient name for Honolulu on the island of Oʻahu. After landing on Oʻahu, Pīkoi's life leads him to a series of adventures on the different islands where he becomes well-known for his skill in rat shooting.

Wailua Winds Described in He Kaʻao no Pakaʻa

Set mainly on Hawaiʻi, Kauaʻi, and Molokaʻi, the story of Pakaʻa was first published by Moses Kuaea Nakuina, who collected the legend from various sources, edited, and expanded it in his 1902 publication (Nakuina 1990). Emerson (1918) also published a version of this story which briefly mentioned Wailua in the legendary account of Pakaʻa, who was a respected servant of Keawenuiaʻumi, chief of Hawaiʻi Island. In Nakuina's (1990) version, he noted that Pakaʻa's wife was from Kauaʻi. As a valued advisor to the king, Pakaʻa had the duty of caring for the king's personal possessions and his double hauled canoe, and whatever Pakaʻa advised, the king obeyed. Pakaʻa's brother, Lapakahoe also served as an advisor in the chief's royal court. Pakaʻa kept a special gourd calabash called Laʻamaomao, which he named after his mother, who during her lifetime had developed a special relationship with the winds. Within this special container were her bones and Pakaʻa would call upon her to summon the power of the winds. While Pakaʻa was serving under Keawenuiaʻumi, two men Hoʻokeleihilo and Hoʻokeleipuna joined the court and Pakaʻa soon found himself being mistreated by the king. His responsibilities with the exception of caring for the king's personal items were stripped from him and given to the two men. After some time, Pakaʻa left Keawenuiaʻumi's court and took some of the king's personal possessions including his *kapa* (bark cloth), *malo* (loincloth) and placed them in his sacred calabash. He settled on the leeward side of Molokaʻi and took up a wife, who was a chiefess. She later gave birth to their son, who they named Kuaapakaʻa. Pakaʻa taught his son all the chants and everything he knew about the chief for he wanted to be prepared should the king desire to have him back in his court. His son had mastered all that he had taught him. Pakaʻa's prediction had come true and one day a canoe arrived from Hilo carrying the message that Keawenuiaʻumi was looking for his long-lost servant. Pakaʻa, however, did not tell the messengers that he was indeed Pakaʻa. In a dream, Pakaʻa and Keawenuiaʻumi came to each other and Pakaʻa told the chief of his whereabouts. Without hesitation, Keawenuiaʻumi summoned his six district chiefs to seek out Pakaʻa.

Pakaʻa and his son set out in their canoe pretending to be fishing for *ʻuhu* (parrot fish), a fishing style that required one to continuously gaze down at the ocean so to avoid being seen by Keawenuiaʻumi's chiefs. The canoes of the district chiefs led the way with Keawenuiaʻumi's canoe following behind. As each of the canoe's belonging to the district chiefs passed, Kuaapakaʻa at the advice of his father chanted insultingly out to each of the district chiefs, pointing out discrepancies in their lineage and the shortcomings of the lands they ruled. This greatly angered the district chiefs causing them to sail past the father and son duo.

The king's double hauled canoe finally made its way toward the small fishing canoe and on board was Lapakahoe, brother of Pakaʻa. Lapakahoe inquired with the young boy about his knowledge of these chiefs, pointing out that such knowledge was only held by a few people, one of which was Pakaʻa and asked if he knew where the chief's former servant was. The boy, however, continued with his taunts, this time calling forth all the winds of the various lands, including those of Wailua Kauaʻi—an incantation that could bring about a violent storm. The line describing the winds of Wailua reads, "He waiopua ko Wailua," (Fornander 1918:97) "The waiopua is of Wailua" (ibid.:96).

After calling forth all the winds of the islands, Kuaapakaʻa proceeded to call forth all the men aboard the king's canoe by name. Angered by the boy's remarks, the chief's canoe drew away until nothing, but a mere speck of the

canoe was in sight. At which time, at the orders of his father, Kuaapakaʻa uncovered the sacred wind gourd Laʻamaomao, sending a fury of wind over the ocean that caused the ocean to churn and overwhelmed the chief's canoe. After watching the chief's canoe nearly swamped with water, the boy placed the cover back on the sacred gourd, causing the ocean to become calm once again. Although stripped of all their possessions, the chief and his men landed on Molokaʻi.

Although Pakaʻa remained out of sight of the chief, gave specific orders to his son on how to best care for the chief for he knew of all the chiefs favorite things. He gave his son the chief's *malo* and told the son to offer it to Keawenuiaʻumi. Pakaʻa then gave his son the chief's *kapa* which was scented with fragrant plants of Laʻa (ʻŌlaʻa), Puna. As Kuaapakaʻa handed the *kapa* to the chief, he recognized the scent. Pakaʻa's intent was to grew the chief's desires by giving him all of his favorite things that reminded him of how he once cared for the chief. This went on for some time as Kuaapakaʻa again uncovered Laʻamaomao causing a storm that kept the chief on the island which lasted for four months. After closing the gourd, the weather had calmed and Keawenuiaʻumi strongly desired to have the young Kuaapakaʻa join us court. After negotiating with the king, the boy consented. The chief's canoe was made prepared and they set sail for Kauaʻi, where they encountered a storm incited by the wind gourd Laʻamaomao. Nonetheless, Kuaapakaʻa had come prepared with food and other necessities. The young boy offered protection and food to everyone on the canoe except for the sailing masters, Hoʻokeleihilo and Hoʻokeleipuna, the very men that had replaced his father. Weak and battered from the storm, the two men eventually fell overboard at which time Kuaapakaʻa recovered the gourd sending calmness over the waters. Kuaapakaʻa ordered the canoe back to Hawaiʻi Island and after several more cunning acts, Kuaapakaʻa revealed his true identity to Keawenuiaʻumi and ordered the boy to bring his father Pakaʻa to him. Pakaʻa refused the king's orders until full restoration was made to which the king agreed and upon Pakaʻa's return to Hawaiʻi, the whole of Hawaiʻi was given to him.

Another account titled *Kaʻao no Halemano* published by Fornander (1916-1917) also describes a series of interisland travels, this time between a family from of Oʻahu and sacred maiden from Puna on Hawaiʻi Island.

Kaʻao no Halemano

Born on the island of Oʻahu from the union of Kūkaniloko, the mother and Wahiawā, the father, Halemano, the hero of this story is the youngest of six children. Laenihi was the eldest of the family and she was born with transformative powers and could assume various forms including a *laenihi* fish, rooster, or a beautiful woman. The family resided at a place known as Halemano in the Waiālua District. While this story is most concerned with Halemano's growing infatuation and his eventual pursuit and loss of Kamalālāwalu, the untouchable maiden of Puna on Hawaiʻi Island, portions of this story described the family's escape to Wailua, Kauaʻi.

With the aid of Laenihi, Halemano brought Kamalālāwalu from Puna to the family's abode in Wahiawā, upon which word of the maiden's presence had caught the attention of ʻAikanaka, the chief of Oʻahu. ʻAikanaka sent over a dozen messengers to Halemano asking to see Kamalālāwalu but Halemano refused every one—an act that infuriated ʻAikanaka and caused him to declare war against Halemano and his family.

Fearing certain death, Halemano, Kamalālāwalu, and his grandmother fled to Molokaʻi, then to Kohala, then to Hilo, where they found temporary figure, until Huaʻā, the chief of Puna capture the beautiful maiden for himself. Consumed with grief, Halemano returned to Kohala and became lovesick and perished. While being restored to life by his sister Laenihi, the brother and sister duo had received word that ʻAikanaka's army was headed toward the family's home to destroy Halemano. The family living at Wahiawā had fled to Wailua, Kauaʻi to escape ʻAikanaka's wrath. Laenihi soon joined their family at Wailua. One day while Laenihi and her sister Puleʻe were enjoying the surf at Makaīwa, she had a premonition of Halemano's death and offered an incantation to once again restore her brother to life. Although Halemano managed to once again retrieve Kamalālāwalu, we learn that their relationship is not harmonious resulting in Kamalālāwalu's departure.

While that portion of the story concerning Wailua, Kauaʻi ends here, this account is notable in that it mentioned the ruthless ʻAikanaka, who in the account of Kawelo is described as a ruling chief of Wailua. Another notable detail is that of the mother, Kūkaniloko, which is also the name of a famous royal birth site in Wahiawā, Oʻahu. Details concerning Wailua's importance in the birth of Kauaʻi's royalty is associated with the Holoholokū Heiau, which along with other significant *heiau* are described in the following section. (Fornander 1916-1917)

Heiau in Wailua

With such an important role in Precontact Hawaiʻi, it is no surprise that Wailua contains the highest concentration of *heiau* in all of Kauaʻi, most of which are in the Wailua-Kai section of the *ahupuaʻa*. In his archaeological survey of Kauaʻi, Wendell Bennett (1931) noted that Wailua contained more *heiau* (traditional temples) than any other *ahupuaʻa* in all of Kauaʻi. These physical vestiges collectively demonstrate Wailua's prestigious role in Kauaʻi's Precontact

history. Kamakau (1976:132) comments that "heiau were sites set aside for sacred purposes… and where men offered gifts to the gods." In his analysis of the area's *heiau* Flores (1999:II-4) noted:

> The large concentration, distinctive types, and variation of sites signified the importance of the ahupuaʻa of Wailua. Their locations were often aligned with significant places of power, sacredness, spiritual activity, and/or prominence. Although many of these sites have been previously referred to as "*heiau*," they did not all serve as places of religious worship as sometimes implied with the use of this terminology. Some sites were used for civic, political, instructional, or social assemblies.

Although many of these culturally significant sites have been altered from their original form, its location and associated stories are well documented and remains an important source of cultural identity for the people of Wailua. In 1966, a huge effort was made to recognize some of the area's sacred sites, which led to the creation of the Wailua Complex of Heiau, which is currently listed on National Register of Historic Places as State Inventory of Historic Places Site 50-30-08-00502. Upon its designation, only five discontiguous sites were included: Hikinaakalā Heiau and petroglyphs; Malae Heiau; Holoholoku Heiau and Pōhaku Hoʻohānau; Poliʻahu Heiau; and the Bellstone, but that has since expanded and now includes the four aforementioned *heiau* and associated sites, in addition to the *puʻuhonua* of Hauola and a royal birthstone. These sites are also within the Wailua River State Park which and is managed by the Department of Land and Natural Resources State Parks Division. The following section will contextualize these *heiau* and associated sites by summarizing their associated stories.

Holoholokū Heiau, Pōhaku Hoʻohānau, Pōhaku Piko and Pōhaku Kani

To receive the title of *aliʻi*, Wailua was the designated birthplace more specifically Holoholokū Heiau (Figure 22). This *heiau*, located to the south of Kuamoʻo Road is the named location where the ancient chiefesses went to give birth to their royal children. According to Flores (1999:II-7), "[t]his site became renowned throughout the islands and was prominent in several oral traditions with similar notoriety as Kūkaniloko, the royal birthing site on Oʻahu." This site, as well as others, are associated with the chief Mōʻīkeha and it is said that the first sharkskin drum, named Hāwea was brought to Wailua from Kahiki to this site and was used to announce the birth of a chief. Flores (1999), however, specifies that the first sharkskin drum was not brought to Holoholokū but to a nearby *heiau* named Kalaeokamanu. Near Holoholokū are two large upright boulders (Figure 23and 24) called Pōhaku Hoʻohānau (birth inducing stones) where the laboring mothers delivered their babies and later where young *aliʻi* boys were brought to complete their subincision ceremonies (ibid.). Flores (ibid.) adds that "… these stones provided both physical back support for the mother during the labor as well as spiritual support from those ancestral guardians who presided at the birth." To the right of Pōhaku Hoʻohānau is Pōhaku Piko (see Figure 24), a ceremonial niche where the infant's *piko* (umbilical cord) was deposited. Dickey expounds on this point, stating:

> …no one was recognized as a chief unless born in the district of Puna, all chiefs should if possible be born in Wailua-hoano and at a very definite spot just *mauka* of the cocoanut grove at Holoholoku, where may be seen, now largely imbedded in earth, two stones, one for the mother's back and one for her feet. This and Kukaniloko in Waialua, Oahu, are the two most famous birthplaces of chiefs in all the Hawaiian Islands and were thought to add some special divine gift to the sacred place occupied by a tabu high chief. Here all the kings of Kauai were born, from earliest times to King Kaumualii. (Dickey 1917:15)

An ancient chant concerning the birth of chiefs at Holoholokū appears in the legend of Kawelo. The chant explains how being born at this site ensured a royal title, even if that child was not of chiefly rank:

Hānau ke ʻliʻi iloko o Holoholoku- he alii nui; Hanau ke kanaka iloko o Holoholoku, he alii no; Hanau ke alii nui mawaho aʻe o Holoholoku, aohe alii, he kanaka ia! (Dunbar 1988)	The child of a chief born at Holoholo-ku is a high chief; The child of a commoner born at Holoholo-kū becomes a chief also; The child of a high chief born outside of Holoholo-ku is no chief, a commoner he! (Joesting 1984:9)

In further describing the birth ceremonies at Holoholokū, Joesting (1984) wrote that after the child was delivered, the *piko* (umbilical cord) was wrapped in *kapa* and placed into a crack in the cliff located behind the birthstones (see Figure 24). The placement of the child's *piko* at this site symbolized that child's connection to this place and to his or her ancestors. The *kahuna* (priest) would then carry the child to a boulder located on the ridge overlooking Wailua River at which time the nearby Pōhaku Kani, commonly known as Bellstone was struck thereby sending a resound throughout Wailua Valley that informed all the people of the birth of a chief. Pōhaku Kani is also said to have served

as a means of communication between Poli‘ahu Heiau, located further in the valley and Malae Heiau located along the south side of the Wailua River mouth. The Pōhaku Kani is said to have been chipped by a Christianized priest, Hule‘ia, who was sent by Ka‘ahumanu after 1824 to destroy vestiges of the old religion (Wichman 1998 in Mitchell et al. 2004).

Holoholokū Heiau is reputed to be the oldest on Kaua‘i and is noted as the birthplace of Kaua‘i’s last sovereign, Kaumuali‘i (Ho‘omanawanui 2012). Hawaiian historian, as John Papa ‘Ī‘ī (1959) also described Holoholokū as a *pu‘uhonua* during the early historic period. Kamakau (1964) attributes this to the fact that during this time, Kamehameha’s wars had not yet extended to Kaua‘i thereby its hereditary chiefs and associated customs were maintained. Moreover, in 1929 the function of this *heiau* has been erroneously described by Reverand Peter Gulick as a human sacrificial *heiau* (Gulick 1922), however, Flores (1999:II-9) challenges this notion contending that “this statement is incorrect and inconsistent with the Hawaiian concept/protocols associated with life and death” as “a *heiau* for the purpose of human sacrifices would not be situated directly adjacent to a birthing site.” Instead, the area of Hauola, said to be where Wailua River meets the ocean is noted by Dickey (1917) as a *pu‘uhonua.* Flores (1999) reported that Hauola was the place “where people would come to cleanse themselves” but refutes Dickey’s claim citing Kamakau (1964:17) who does not list this site or for that matter, any other sites in Wailua as *pu‘uhonua*, instead specify that the “lands” of Wailua were the designated *pu‘uhonua* for the Puna District.

Holoholokū Heiau and the birthstones were recorded first by Thrum (1906), then Bennett (1931), who designated it as Site 106 and again by Emory in 1933 at the request of the Kaua‘i Historical Society. The Society reconstructed Holoholokū in the 1930s and developed interpretive trails and markers. An undated historic photo located at the Hawai‘i State Archives show a portion of the birthstones protruding from dense overgrowth (see Figure 23). The walls were restored and a traditional *hale* thatched with *pili* (*Heteropogon contortus*) and an oracle tower was built. These structures were rebuilt in 1963 but it was eventually destroyed in a fire in the early 1970s. A modern wooden idol was also placed at the site in 1963 and was later removed in 1980 (Dunbar 1988).



Figure 22. Holoholokū Heiau, view to the northwest.



Figure 23. Undated historic photo of "Birth Stones" in overgrowth. (Hawai'i State Archives PP-35-7-020)



Figure 24. Pōhaku Ho'ohānau (two upright boulder on the left near red arrows), and Pōhaku Piko (large outcrop) located north of Holoholokū Heiau, view to the west.

Poli'ahu Heiau

Another culturally significant place is Poli'ahu Heiau (Figure 25), located on the north ridge of Wailua River. Oral tradition attributes the construction of this *heiau* to the legendary race of people known as Menehune and was associated with the goddess Poli'ahu. The name of one head priest for this *heiau* was noted by Dickey (1917) to be an individual named Hulumanienie. In describing the construction of this site, Dickey (ibid.:30) related that:

> This was built by the *menehunes*, who each brought up one stone from the river on the north side of the ridge. In the center of the *heiau* is a square laid out in flat stones. About these are many pebbles which I am told were not originally there but have been born from the large flat ones.

Thrum (1907:41) offers only a brief description of Poliʻahu noting it to be of "medium size" and in "fair condition" and that it was within sight and connected in its working to Malae Heiau (located on the south of the Wailua River mouth). Bennett (1931) recorded this *heiau* as Site 107 and offered a more comprehensive description of this site describing it as a "paved and walled enclosure roughly rectangular" with rough measurements of "242 feet in length and 163 feet in width." Bennett (ibid.) also noted a series of interior features including upright stones, linear alignments, walls, a terrace, an area paved with large flat stones and pebbles in addition to features located on the outside of the main structure. While Thrum and Bennett both mentioned Poliʻahu to be associated in its working with Malae Heiau, the specifics describing how these sites were interconnected were never described.



Figure 25. Poliʻahu Heiau, view to the west.

Malaehaʻakoa Heiau

Malaehaʻakoa Heiau also known in most studies as Malae Heiau and as "Makaukiu Heiau" by Dickey (1917:25) is located on the south side of the Wailua River mouth and today stands as the largest *heiau* on Kauaʻi, since the destruction of Kuhiau Heiau at Nāwiliwili. Like Poliʻahu and Hikinaakalā, the construction of this roughly 2-acre *heiau* is attributed to the Menehune. Thurm (1907:66) reported this site to be "273 x 324 feet, with buttressed corners extending 13 feet" and was "the only one of the kind known on the islands" (Figure 26). At the time of his visit, Thrum (ibid.) noted the site to be in good condition but that the inner divisions and *heiau* features "were torn down by Deborah Kapule… somewhere about 1830." Thrum (ibid.) also added that Poliʻahu Heiau (see Figure 25) located some distance inland was the companion *heiau* to Malae and that they were "in plain sight of each other." A photo taken in 1915 by Lyle Dickey (Figure 27) shows the interior of the *heiau*. In Bennett's (1931) study, Malae Heiau was designated as Site 104 and was later included as part of the Wailua Complex of Heiau National Historic Place as SIHP Site 50-30-08-00502 (Dunbar 1988). As previously described by Thrum, during the Historic period Queen Debora Kapule (a wife of chief Kaumualiʻi), ordered for the alteration of the *heiau*. Dunbar (1988:9) further described these alterations:

> …the interior of the structure to cattle pens which involved the dismantling and rearranging of building stones from interior walls and the altar. Later, the surrounding field was bulldozed up to the outer walls of the temple platform and planted in cane… Although Malae underwent historic adaptive reuse, its original walls, some associated features and its prehistoric building sequence are still intact.

Between 1994 and 1999, Kalani Flores (1999) prepared a comprehensive historical and cultural report of Malae Heiau and the general Wailua area. From his research, Flores (ibid.:V-3) concluded that "the earliest documented name for this site has been noted as being "Malaehaʻakoa" and should be used accordingly with the interpretive information." Flores' research reported on the site's construction, site function, associated personages and provided recommendations for the site's protection and enhancement.

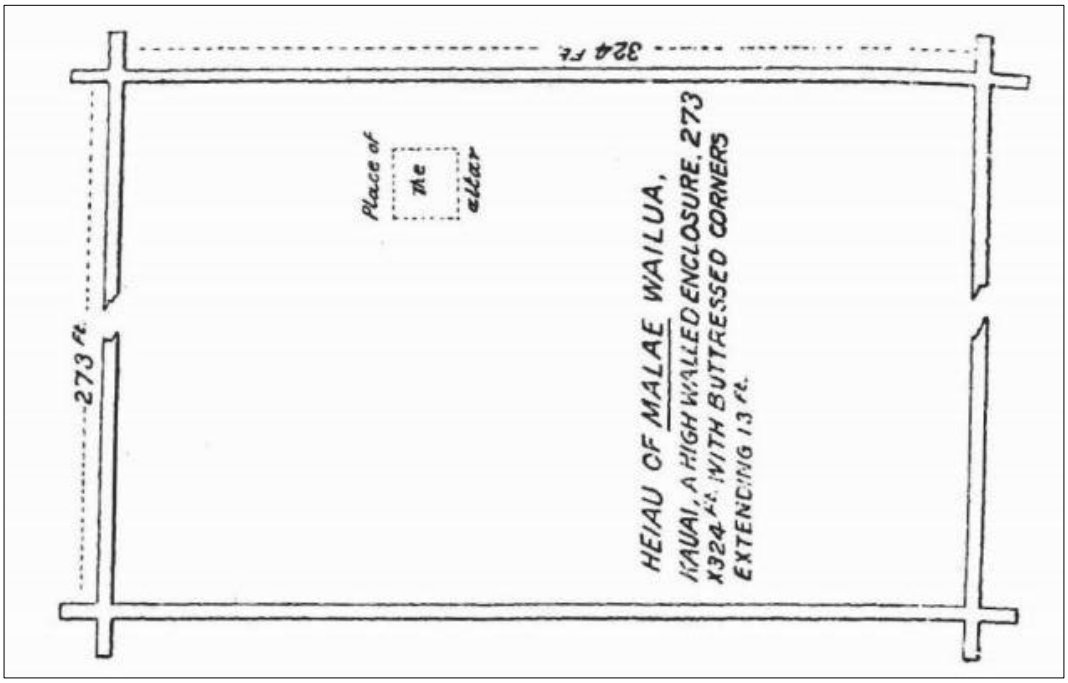


Figure 26. Thrum's (1907:65) map of Malae Heiau.



Figure 27. Malae Heiau overlooking Wailua Bay, ca. 1915 by Lyle Dickey, Kauaʻi Historical Society Photo 07-259.

Malae Heiau is also associated with Mōʻīkeha, Kauaʻi's first chief who landed at Wailua on his voyage from *Kahiki* and Wailua being the land where all subsequent ocean voyages were initiated (Lydgate 1916). It is at Wailua where Mōʻīkeha brought with him a calabash of winds and planted the first taro and sweet potato of Kauaʻi (Dickey 1917). Wailua River was the training grounds for the chief's three sons from his wife Hoʻoipoikamalanai. Dickey (1917) elaborates on Mōʻīkeha's time at Wailua, noting:

> He and his wife Hooipoikamalanai had three sons, who all learned canoeing in the Wailua river. Kila, the youngest, was the strongest and always beat his older brothers at wrestling. One day Moikeha tested his sons' skill in canoeing, telling them each to go up the river while he stood in it

> and to see if he could steer his canoe straight enough to hit the father in the umbilicus. Only Kiha could meet the test and the father prophesied great things of him. He grew up, handsome, strong and brave and traveled to Kahiki and punished his father's enemies. He brought back Laa-mai-kahiki, his father's foster son, who either on this voyage or a subsequent one brought to Wailua the god Lono-i-ka-ou-alii and the first *kaeke* (drum made from the hollowed trunk of a cocoanut tree and covered with shark skin), and placed them in a *heiau* at Holoholoku, the oldest *heiau* of Kauai, whose stones are now scattered. This was the first drum of Hawaii and all used in *hulas* or at *heiaus* were due to this example.

Mōʻīkeha appears to have established Wailua as one of his primary residences because stories concerning his grandchildren also appear in the legendary accounts for Wailua, specifically his granddaughter Kaʻililauokekoa. Traditional accounts describe Malae Heiau as her birthplace. The young maiden, Kaʻililauokekoa was skilled at surfing the waves of Makaʻiwa and was a champion of *kōnane* (Hawaiian form of checkers). In this romantic tale, Kaʻililauokekoa is courted by Kauakahialiʻi who lived with his adopted mother and sorceress Waha and sister Kahalelehua at Pīhanakalani (also known as Hanahanapuni), a cinder cone located up the north fork of the Wailua River. Their home was of a peculiar kind, made of flowing *ʻōhiʻa lehua* branches and decorated with red bird feathers. Kaʻililauokekoa's father, Laʻamaikahiki had betrothed her to Keliʻikoa, a Kona chief, but her beauty enraptured Kauakahialiʻi and he could not shake her from his mind. To woo the young maiden Kauakahialiʻi created the first bamboo nose flute which he named Kanikawī and it is with this flute that he enticed Kaʻililauokekoa away from Malae Heiau, where she slept next to her grandmother Hoʻoipoikamalanai. The following night, the young maiden again heard the sounds of Kauakahialiʻi's melody. Determined to find the source of this music, Kaʻililauokekoa offered her guards a drink of *ʻawa* and fermented sweet potato, which put them in a stupor. With her attendant a white dog, Kaʻililauokekoa followed the music up Wailua River on the path Kuamoʻo-loa-a-Kāne and past Koholālele, the upper Wailua waterfall. At the advice of an old woman, Kaʻililauokekoa continued *mauka* until she endured the harsh rains sent by Kahalelehua. The rains finally ceased and Kaʻililauokekoa arrived at the home of Kauakahialiʻi, where she was hospitably entertained and the two lovers later married.

Keliʻikoa, the man who was slated to marry Kaʻililauokekoa had become angry at his former lover's new husband and one day while Kauakahialiʻi was surfing, Keliʻikoa attempted to run him down with his canoe. This resulted in a full-fledged battle between the two men and several gods were summoned to join in the fight, including Pele. After the battle was through, Kauakahialiʻi traveled around all the islands comparing the women of each island to Kaʻililauokekoa. None of the women compared until he met Lāʻieikawai of Hawaiʻi Island. The chief returned to his home in Wailua and before an assembly of chiefs requested for ʻAiwohikupua to fetch Lāʻieikawai, the beautiful maiden of Hawaiʻi Island.

The mysterious island knowns as Kānehūnāmoku appeared in the ocean just offshore of Wailua and it is here that Kauakahialiʻi visited the island and disappeared. Keliʻikoa, in his attempt to win back Kaʻililauokekoa, waged war on her father, the king and nearly killed him. Using her superior combat skills, Kaʻililauokekoa entangled Keliʻikoa and stunned him with her *ʻīkoi* (tripping club). His body was offered to the gods and the flesh stripped from its bones and Kaʻililauokekoa succeeded her father and all of Kauaʻi and Niʻihau came under her rule.

Hikinaakalā Heiau

Located on the southeast side of the Wailua River mouth is Hikinaakalā Heiau, which has been translated as "the sunrise" or "the rising of the sun" (Kikuchi 1974:4; Pukui et al. 1974:45). Kikuchi (1974) associates Hikinaakalā Heiau with the ruling chief, Wailua-nui-a-hoʻano, who ordered its construction and was a contemporary of the ruler Mōʻīkeha. In describing this site's function, Flores (1999) explained that this site's eastward orientation suggest its association with sun ceremonies and other natural phenomena that appear on the eastern horizon. During Thrum's visit to Hikinaakalā, he noted this site to be 395 feet long and 80 feet at the widest (Figure 28). The long axis of this *heiau* has been reported by Dunbar (1988) to be "oriented nearly 11 degrees west of magnetic north, or almost true north-south." During Thrum's (1906:41) survey, he described this site to be in "fair condition" with three distinct sections (see Figure 28) and that "[a] number of graves mark the middle and outer sections" of the *heiau*. However, by Bennett's (1931) study, this site, which he designated at Site 105 appeared to have been adversely impacted, noting, "[t]oday much of the stone has been removed, reducing the walls to bare outlines, and obliterating the paving entirely. In summarizing the findings from previous studies of Hikinaakalā, Flores (1999:II-6) noted that this site "has been adversely impacted during historic times with the removal of rocks for road material, seawall parapet, and railway fill." Flores (ibid.) also described additional impacts that resulted from the "construction of the adjacent hotel, and the building of a comfort station on top of this site." A recent visit to Hikinaakalā Heiau shows the site to be maintained with several interpretive signs on the perimeter of the site (Figure 29).

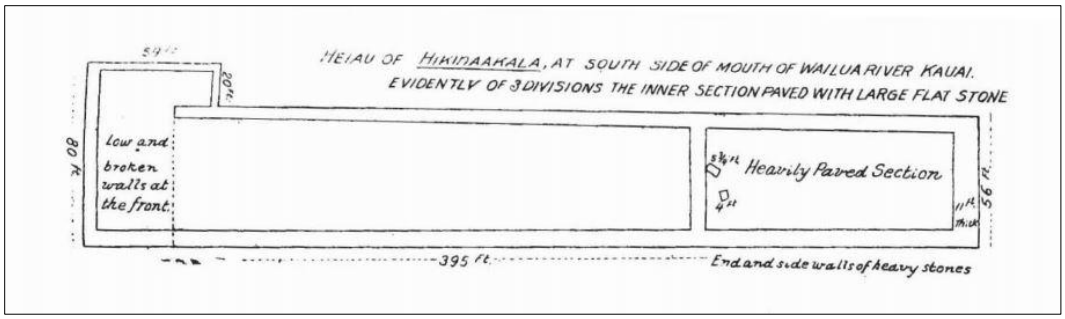


Figure 28. Thrum's (1907:53) map of Hikinaakalā Heiau, showing three distinct interior sections.



Figure 29. Hikinaakalā Heiau with Nounou Ridge in the background, view to west.

Other Heiau withih Wailua

The *heiau* described above are noted by Flores (1999) to be just a few within Wailua. He provided references to other "*heiau*" which were implied to have been in Wailua but noted that their whereabouts remain obscured. Flores (ibid.:II-9-10) named several more *heiau* (underlined for emphasis) and provided additional insights about these sites:

> Pupuka was one such *heiau* noted in Wailua by the Royal Genealogical Board of Hawai'i (Nahaku 1882:29). According to a 1885 interview conducted by a Lahainaluna student with an elderly man name Ke'o: Kauakahi and Kekuila were very ancient *heiau* from the remotest of times, Kaulanaakāne was a *heiau* that belonged to Kāne, Mahunapu'uone was a *heiau* that belonged to the chief Kawelomahamahaia, Makaniho'opuoho was another very ancient *heiau*, Makaoa was a *heiau* that belonged to Kaha'i whose father was chief Namakaohema and whose mother was Hina, Niolopua was a *heiau* that belonged to Niolopua whose sister was Mā'amaakualono—this brother and sister was said to have lived on the hillside of Konolea, Palehāli'i was another ancient *heiau* from the remotest of times, and Poipoilio was a *heiau* built by chief Kanikaholouaia whose father was Kapulauki whose dominion included "ke one kapu" (the sacred sands) of Walio (n.a. 1885:218-220). Dickey mentions Uluena [Hulu'ena] as being the name of another *heiau* (Dickey 1928:56). In addition, Pōhaku'ele'ele was noted a being a *heiau* on the *makai* end of a hill near the eastern end of the promontory between the two branches of the Wailua River (Dickey 1917:29). These was also a *heiau* without a name, noted on an early survey map, which was located on the bluff across the river from Fern Grotto (Metcalf 1848). This site was later investigated with only the remnants of a low embankment of dirt fill with stone alignments on the interior and exterior 'walls' found to be remaining (Ching 1974:17). William Barnes also described the location of several archaeological

features in Wailua without names. He noted a small unnamed *heiau* or shrine located behind Dianne's Bar at the Golf Course and the remains of another possible *heiau* near ʻŌpaekaʻa Stream with one wall that measured close to 200 feet in length. In addition, he stated that Ukapia Heiau was previously located to the left of the small Wailua Reservoir before it was destroyed by the Army during World War II when an ammunition dump was placed there (Barnes 1953:63-65). He was also told that Pīhanakalani was an ancient *heiau* near Hanahanapuni where messages sent from here could be seen from Malaehaʻakoʻa and Hikinaakalā (Barnes 1953:67). Furthermore, Issac Kaʻiu referred to "a little rock *heiau*, hill, right on the beach running into the sea" called Kapahulu, located south of the Wailua River mouth (HSA-Kelsey Coll. n.d.:F-213).

Early Historical Account of Wailua

Historical description of Wailua is somewhat limited with the earliest derived from the journal of Captain George Vancouver, who arrived in 1793. Although Vancouver did not disembark at Wailua, he provided a brief description, writing:

> This portion of Attowai [Kauaʻi], the most fertile and pleasant district of the island, is the principal residence of the king, or, in his absence, of the superior chief, who generally takes up his abode in an extensive village, about a league to the southward of the north-east point of the island. Here Enemo [Inamoʻo] the regent, with the young prince Tamooerrie [Kaumualiʻi], were now living;… (Vancouver 1967:221-222)

Following the death of Kaʻeokūlani in 1794 and the subsequent passing of his mother high chiefess Kamakahelei their son Kaumualiʻi assumed the sovereign reign over Kauaʻi and Niʻihau (Kamakau 1992). While Kaumualiʻi ruled over his island kingdom, Hawaiʻi Island chief, Kamehameha had already embarked on a major quest to consolidate all of the islands under his rule—a destiny that was prophesized in his earlier years when he managed to overturn the famed Pōhaku Naha (Naha Stone) in Hilo (Desha 2000). Although this amazing feat occurred in Hilo, Desha points to Wailua as the stone's place of origin when he noted:

> This stone, called Pōhaku Naha, had been brough from Kauaʻi, from a place cose to that great *heiau* which was situated near the estuary of the Wailua River. This royal birthstone has been brought by a certain chief named Makaliʻinuikuakawaiea, and it was the mark of the chiefly *naha* line. (Desha ibid.:78)

Desha's description suggests this royal birth stone to have originated from Hikinaakalā Heiau or from an area close to this *heiau's* vicinity. Desha (ibid.:78) further described that this stone was brough to Hilo and had "been previously situated at a place very close to the ancient *heiau* of Pinau [Pinao]." Historical accounts describe how during the conquest of the Hawaiian Islands by Kamehameha I during the early 1800s, the ruling chief of Kauaʻi, Kaumualiʻi avoided personal defeat through a peaceable transfer of power. Kaumualiʻi's, who was born at Wailua (Dickey 1916), established a will that left Kauaʻi to Kamehameha upon his death. Although subject to Kamehameha during the remainder of his life, Kaumualiʻi retained leadership over the island. Kamehameha died five years before Kaumualiʻi. Upon Kaumualiʻi's death in 1824 his agreement to Kamehameha was honored, rather than the traditional reassignment of lands to local chiefs. The Oʻahu powers selected and installed Kaumualiʻi's nephew, Kahalaia as the new chief of Kauaʻi. The Oʻahu chief Kalanimoku was then sent to Kauaʻi to inform the local chiefs to which the local chiefs rebelled, and a bloody one-sided battle ensued. Well-armed and well-trained warriors were sent to Kauaʻi from Oʻahu and Maui to support Kalanimoku. The ill-prepared farmers of Kauaʻi were easily defeated, and Kauaʻi came under the direct rule of the young king Kauikeaouli (Kamehameha III). Kaikioʻewa was appointed governor and the lands were redivided with the best tracts going to the "loafers and hangers-on (palaualelo) of Oʻahu and Maui" (Kamakau 1992:269). "Thus, the old order of political power on Kauaʻi is dissolved and displaced by a new society of konohiki (land managers) who descend from Oʻahu and Maui lines" (Silva 1995:4).

Following the 1824 invasion, several foreigners ventured through Wailua and recorded their observations, one of which was Hiram Bingham who visited Wailua Falls in 1824 and noted wild cattle roaming the interior of the land (Bingham 1847). Five years later, Reverend Peter Gulick toured Wailua in the company of Governor Kaikioʻewa. Gulick then went to some of Kaikioʻewa's men to the interior of Wailua to hunt cattle and along the way noted the abundance of ducks and lush growths of *kukui* and *hau* trees (Gulick 1922).

Early visitors that arrived in Wailua was often hosted by Queen Debora Kapule (sometimes spelled Deborah), one of the last chiefs to rule at Wailua (Damon 1931). She one of the wives of the independent sovereign Kaumualiʻi (Mills 2002). She was born of a chiefly lineage and at birth was given the name of Kekaihaʻakūlou, but was commonly

known as Haʻakūlou (Kamakau 1992). With the introduction of Christianity to the islands in 1820, Kekaihaʻakūlou and her husband Kaʻeo became Christian converts. She and her husband along with nine other *aliʻi* were baptized on December 4, 1825, in Honolulu (Ke Kumu Hawaii 1835). One of the *aliʻi* in attendance was Kaʻahumanu, the wife of Kamehameha I and *kuhina nui* or regent of the islands (ibid.). Upon their baptism, Kekaihaʻakūlou and Kaʻeo changed their names to Debora Kapule and Simeon Kaʻiu. In May of 1835, she along with her husband, who was the half-brother of Kaumualiʻi removed themselves from the church at Waimea and relocated to Wailua and "in 1835 established the third branch of the mother church at Waimea" (Damon 1931:363) but by December of 1835, Simeon Kaʻiu died at Wailua and their mission efforts in Wailua came to a halt (Ke Kumu Hawaii 1835). Hoʻomanawanui (2012) noted that this church was later moved to Kapaʻa and was the predecessor of the Kapaʻa First Hawaiian Church.

James Jarves was one of several westerners who was hosted by Queen Debora Kapule. In describing the village of Wailua, Jarves (1843:148) wrote that "Wailua is the property of Kapuli [Kapule] better known by her baptismal name, Deborah." Jarves also noted that during the 1824 rebellion, Queen Debora Kapule held allegiance to the Kamehameha line of chiefs and Kaʻahumanu, granted her lands in Wailua. Her loyalty to the Kamehameha chiefs Jarves also detailed the complexities of her life after the cession of Kauaʻi to Kamehameha I, commenting:

> After the cession of Kauai to Kamehameha I, by her husband, her influence over him excited the jealousy of the government, and he was admonished to put her away. This order he had sufficient firmness, or fondness, to resist. The conqueror dying soon after, left his favorite spouse, Kaahumanu, at one supreme in authority, and inconsolable for her loss. Bethinking herself of Kaumualii, who was a well-favored man, and withal a fine specimen of the gentleman savage, possessing a sufficiency of physical greatness, so necessary to a Hawaiian ruler, she at one, to gratify her love, and strengthen her policy, ordered him to her bed and board. The twain were *married* October 9, 1821… Deborah, however, was provided with another liege lord, who disappeared one day and left her a two-fold widow. She has always been a friend to foreigners, and entertained them with much hospitality in the days of her prosperity; though of late, in accordance with the spirit of the times, and her reduced circumstances, she expects a handsome remuneration for a bowl of milk…A warm friend both to strangers and missionaries, kind and hospitable, yet excommunicated from the church for the same transgression which stone from her arms a find and royal husband, she was spoiled of her posessions, and tyrannized over by a government which is indebted to her for the preservation of the island. (Jarves 1848:149-150)

In 1838 Jarves (1838) traveled on the *mauka* trail from Kōloa to Waiʻehu (Wailua Falls) and like other early visitors noted the presence of wild cattle and a rare aquatic snail. He also described an account of a chief who altered the course of the stream about a half-mile above the falls where he held his *ʻawa* ceremonies in the riverbed (ibid.). Jarves (1843:150) also detailed Kapule's residence which was located "near the river's side, and are a collection of very respectable thatched buildings, enclosed by a stake fence." He also described a heard of cattle "having short horns, heavy and long bodies, and altogether different from the smaller and leaner kind that run wild in the mountains" (ibid.:151). Jarves also described the rear of her house which was well cultivated:

> In the rear of her house are some extensive taro patches and fish ponds, the resort of wild fowl. Two species of wil ducks are plentiful, both of exquisite flavor, without a particle of the fishy taste common to their species…One of them is small, with gray plumage; the other is a superb bird, and very large, with wings and breast of varied green and white. (ibid.:151)

Queen Debora Kapule also provided Jarves with a large double-hauled canoe which they used to travel up stream for several miles where they "landed on a cultivated spot, at the foot of a steep hill. A little hamlet was here embowered in a grove of orange and other trees" (ibid.:153)."

Two years later, several members of the U.S. Exploring Expedition under the command of Charles Wilkes arrived in Wailua and was hosted by Queen Debora Kapule, "a chief woman of the islands…" (Wilkes 1845:68). At the time of their arrival, Wilkes (ibid.) described a woman named Olivia Chapin living with the queen, "who speaks English, and has learned how to extort money." Wilkes (ibid.) goes on to describe the queen having "about forty men in her district; but they were absent, being employed in the mountains cutting timer to pay the tax to the king." Wilkes comment indicates that by this time Queen Deborah Kapule was subject to the sandalwood trade—an environmentally and culturally damaging industry established and monopolized by Kamehameha I. Wilkes (ibid.) also noted the area near the queen's home as having "many good taro-patches and sugar plantations on its banks." In detailing the fishponds near her home, Wilkes reported:

> Near Deborah's residence are extensive fish-ponds belonging to her, which have been made with great labour [*sic*]: they are of different degrees of saltness. The fish are taken from the sea when young and put into the saltest pond; as they grow larger, they are removed into one less salt, and are finally fattened in fresh water. (Wilkes 1845:68)

Similar to Jarves, Wilkes and his crew were furnished with a double-hauled canoe and traveled upstream for two and a half miles towards Wailua Falls, noting the extensive cultivation and plants along the river bank and, water snails and wildfowl:

> The low grounds along the river are extremely fertile, producing bread-fruit, sugar-cane, oranges, &c. The latter, however, are suffering from the blight, and some of the trees were covered with a black smut, produced by a species of aphis. (ibid.)
>
> In the basin beneath were found many fine specimens of Neritina granulata, and two other species were found further down the stream, about four feet below the surface: these were procured by diving. Mr. Rich obtained specimens of the plants. Mr. Peale found but few birds; ducks were abundant on the river's banks, some of which were killed. Rushes were growing along the banks from eight to ten feet in length, four or five feet under the water; besides these, the banks were covered with hibiscus and Ricinus (castor-oil trees), growing wild. (Wilkes 1845:69)

Wilkes (ibid.) and his crew spent the night at the queen's residence where they were entertained in "white style, at a table set with knives, forks, &c. [spoons], and gave them tea and sugar." In describing their sleeping quarters, Wilkes commented that "their bed was native, and composed of a platform of about twelve feet square, covered with mats… with tapa as a covering in lieu of linen."

Although limited, these early historical accounts depict the changing landscape with the presence of introduced plants and animals throughout Wailua as well as the changing economy. The descriptions of Kapule's abode also show changes in domestic life within the royal compound with the inclusion of western amenities like tea, sugar, and eating utensils. By 1848, under the administration of the reigning monarch, Kauikeaouli (Kamehameha III), Hawai'i's traditional land tenure system would eventually undergo a drastic reformation—a process that forever altered traditional concepts and beliefs around land.

The *Māhele 'Āina* of 1848

By the mid-nineteenth century, the ever-growing population of Westerners in the Hawaiian Islands forced socioeconomic and demographic changes that promoted the establishment of a Euro-American style of land ownership. By 1840 the first Hawaiian constitution had been drafted and the Hawaiian Kingdom shifted from an absolute monarchy into a constitutional government. Convinced that the feudal system of land tenure previously practiced was not compatible with a constitutional government, the *Mō'ī* Kauikeaouli and his high-ranking chiefs decided to separate and define the ownership of all lands in the Kingdom (King n.d.). The change in land tenure was further endorsed by missionaries and Western businessmen in the islands who were generally hesitant to enter business deals on leasehold lands that could be revoked from them at any time. After much consideration, it was decided that three classes of people each had one-third vested rights to the lands of Hawai'i: the *Mō'ī* (monarch), the *ali'i* (chiefs) and *konohiki* (land agents), and the *maka'āinana* (common people or native tenants).

In 1845 the legislature created the Board of Commissioners to Quiet Land Titles (more commonly known as the Land Commission), first to adopt guiding principles and procedures for dividing the lands and granting land titles, and then to act as a court of record to investigate and ultimately award or reject all claims brought before them. All land claims, whether by chiefs for entire *ahupua'a* or by tenants for their house lots and gardens, had to be filed with the Land Commission within two years of the effective date of the Act (February 14, 1848) to be considered. This deadline was extended several times for the *ali'i* and *konohiki*, but not for commoners (Alexander 1920; Soehren 2005)

The *Mō'ī* and some 245 *ali'i* (Kuykendall 1938) spent nearly two years trying unsuccessfully to divide all the lands of Hawai'i amongst themselves before the whole matter was referred to the Privy Council on December 18, 1847 (King n.d.). Once the *Mō'ī* and his *ali'i* accepted the principles of the Privy Council, the *Māhele 'Āina* (Land Division) was completed in just forty days (on March 7, 1848), and the names of all of the *ahupua'a* and *'ili kūpono* (nearly independent *'ili* land division within an *ahupua'a*) of the Hawaiian Islands and the chiefs who claimed them, were recorded in the *Buke Mahele* (also known as the *Māhele* Book) (Soehren 2005). As this process unfolded the *Mō'ī*, who received roughly one-third of the lands of Hawai'i, realized the importance of setting aside public lands that could be sold to raise money for the government and also purchased by his subjects to live on. Accordingly, the day after the division when the last chief was recorded in the *Buke Māhele* (*Māhele* Book), the *Mō'ī* commuted about

two-thirds of the lands awarded to him to the government (King n.d.). Unlike the *Mōʻī*, the *aliʻi* and *konohiki* were required to present their claims to the Land Commission to receive their Land Commission Award (LCAw.). The chiefs who participated in the *Māhele* were also required to provide commutations of a portion of their lands to the government to receive a Royal Patent that gave them title to their remaining lands. The lands surrendered to the government by the *Mōʻī* and *aliʻi* became known as "Government Land," while the lands that were personally retained by the *Mōʻī* became known as "Crown Land," and the lands received by the *aliʻi* became known as "*Konohiki* Land" (Chinen 1958:vii, 1961:13). Most importantly, all lands (Crown, Government, and Konohiki lands) identified and claimed during the *Māhele* were "subject to the rights of the native tenants" therein (Garavoy 2005:524). Finally, all lands awarded during the *Māhele* were identified by name only, with the understanding that the ancient boundaries would prevail until the land could be formally surveyed. This process expedited the work of the Land Commission.

According to the Buke Māhele (1848), the *aliʻi wahine* (chiefess), Victoria Kamāmalu relinquished Wailua Ahupuaʻa to the Crown, thereby establishing Wailua as Crown Lands. To help clarify the exclusive nature of Crown Lands, in 1864 the Supreme Court established that all lands with such designation were inalienable and shall pass to the successor of the Hawaiian Kingdom for his or her lifetime and subject only to the rights of the tenants (Office of the Commissioner of Public Lands 1929; Van Dyke 2008). Lands selected by the Crown held special cultural and spiritual significance (ibid.)—characteristics that are exemplified in the vast cultural landscape and the many legendary accounts associated with Wailua Ahupuaʻa. Van Dyke (ibid.:111) further explains that "[t]he Commissioner of the Crown Lands managed the land, leased the most productive lands (usually to sugar plantations), and conveyed the revenues to the *Mōʻī*." Wailua was one of only seven *ahupuaʻa* on Kauaʻi that was given the designation of Crown lands.

As the *Mōʻī* and *aliʻi* made claims to large tracts of land during the *Māhele*, questions arose regarding the protection of rights for the native tenants. To address this matter, on August 6, 1850, the *Kuleana* Act or Enabling Act was passed, allowing native tenants to claim a fee simple title to any portion of lands which they physically occupied, actively cultivated, or had improved (Garavoy 2005). Additionally, the *Kuleana* Act clarified rights to gather natural resources, as well as access rights to *kuleana* parcels, which were typically landlocked. Lands awarded through the *Kuleana* Act were, and still are, referred to as *kuleana* awards or *kuleana* lands. The Land Commission oversaw the program and administered the *kuleana* as Land Commission Awards (Chinen 1958). Native tenants wishing to make a claim to their lands were required to submit a Native Register to the Land Commission, followed by Native Testimony given by at least two individuals (typically neighbors) to confirm their claim to the land. Upon successful submittal of the required documents, the Land Commission rendered their decision, and if successful, the tenant was issued the Land Comission Award (LCAw.). Unlike the *Māhele* between the chiefs, native tenants claiming land through the *Kuleana* Act were required to pay for a Government surveyor to survey and map the boundaries of the awarded parcels. Although no *kuleana* awards were recorded within the current study area, such awards were issued on lands located to the north of the study area along the Wailua River.

Subsequent to the 1848 *Māhele ʻĀina*, twenty-five Land Commission Awards (LCAw.) were issued for the roughly thirty *kuleana* claims submitted during the *Māhele ʻĀina (*Office of the Commissioner of Public Lands 1929; Waihona ʻĀina 2018; Flores 1999). At least two of the twenty-six individuals were of *aliʻi* rank including Queen Debora Kapule and her son Iosia Kaumualiʻi by Simeon Kaʻiu. Individuals living in the Wailua Uka area appears to have been alienated or never claimed lands during the *Māhele* as nearly all the awarded LCAw. are within Wailua Kai and are clustered near the mouth of Wailua River or along the northern and southern bank (Figure 30). The details of all the awarded LCAw. are noted in Table 1. In reviewing transaction records from the Interior Department of the Hawaiian Kingdom Government, Flores (1999) reported that:

> At this time, there were at least thirteen residents of Wailua who were required to relinquish and convey all their interest in the *kuleana*, house, and things on the land where they resided. These native residents were living in the area that was to be leased out to the foreigner named Thomas Brown. Consequently they were all displaced from their homesteads in Wailua Uka…also, they were not granted any other *kuleana* lands in this *ahupuaʻa* during the Mahele. (Flores 1999:II-23)

The names of the thirteen displaced Wailua Uka residents are Hinaiaele, Kaikilani, Kealakai, Likua, Mareko, Naomea, Oopu, Paele, Palahemo, Pi, Poonui, Wahineuka, and Wanalehu. With respect to those awarded lands during the *Māhele*, Flores (ibid.) provided a detailed summary of the LCAw. within Wailua and comments on the connection between those awarded lands and their association with Queen Debora Kapule:

> Nearly all of the claimants for the *kuleana* in Wailua received and occupied these lands with a noted short length of land tenure. The vast majority of the claimants received their lands from Deborah Kapule during the time of Kaʻahumanu or Kaikioʻewa which would have been between the years of

1824-1839 (Creed 1995:79-328). Based upon the records for this era, it is concluded that some time after the redistribution on lands on Kauaʻi in 1824, Kapule received a portion of the Wailua Kai lands from Kaʻahumanu (NR vol. 9:55-56). Thereupon, Kapule issued these lands to her family relations and other close associates. It seems as though members of her church colony who relocated from Waimea were some of those who received lands from Kapule. In addition to Kapule, those claiming unusually large *kuleana* parcels (more than four acres in size) in Wailua were Iosia Kaumualiʻi [her son], Iuliana Nahinu [her adopted daughter], and Oliva Chapin {aka Alapa} [husband of Nahinu]. These lands parcels were primarily concentrated in close proximity to her own claims (NR vol. 9:14-15, 55-57, 94). Oliva Chapin played an instrumental role in processing the Wailua *kuleana* claims by being a witness for 21 of the 30 claims registered (NR vol. 9). It is also concluded that many other residents of Wailua were excluded from this *kuleana* claims process as the result of not being related to Kapule or not being affiliated with either her church or school endeavors (Flores 1999). It is most intriguing to note that *kuleana* claims were not submitted or were not accepted during the Mahele for any lands in the Wailua Uka region. Tax assessment records and other government correspondence show that there was a sizable population of native tenants living and farming taro in these upland areas. The number of people living in Wailua Uka was either comparable or greater in number than those living in Wailua Kai at this time during the mid-1800's (HAS-TA 1857).

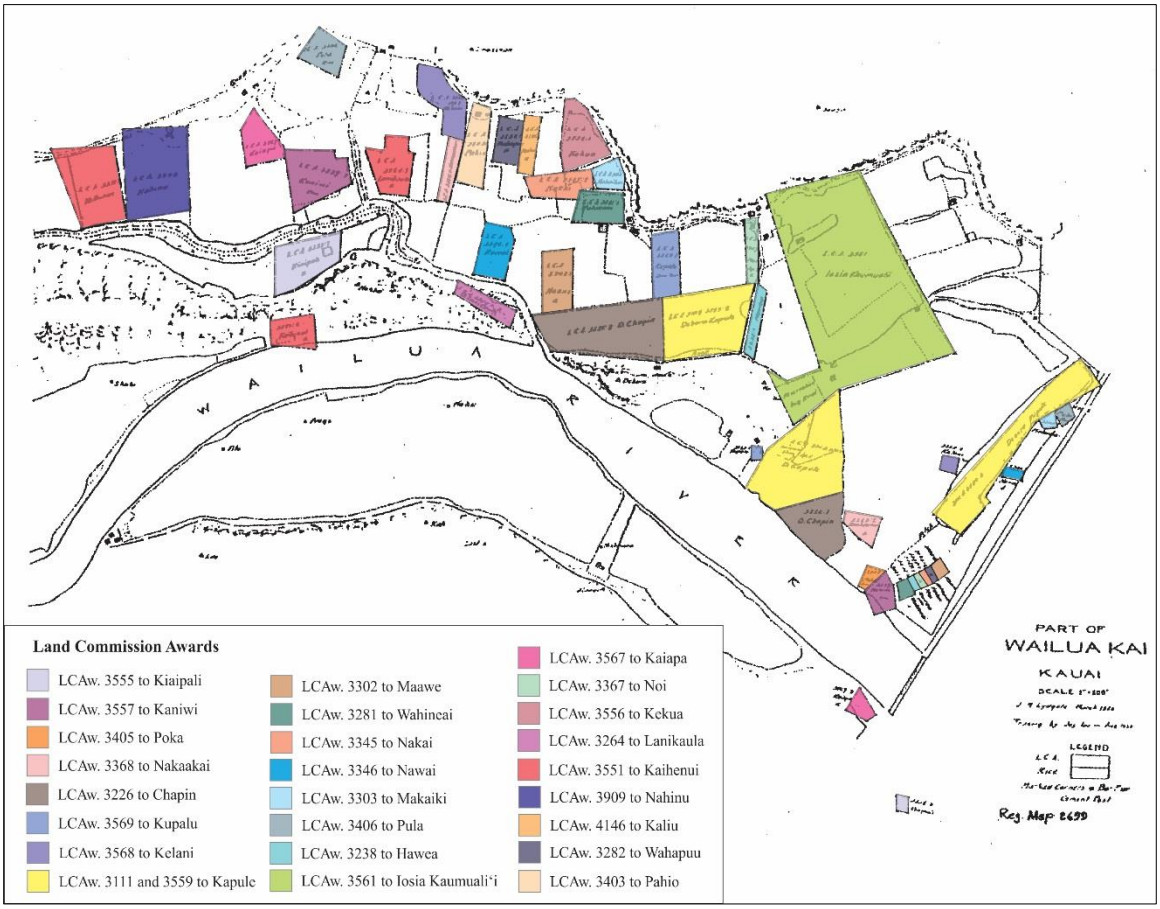


Figure 30. Portion of Hawaiʻi Registered Map 2699 by Lydgate 1920 illustrating the location of the Land Commission Awards in Wailua.

Table 1. Land Commission Awards Granted in Wailua Ahupua‘a

LCAw.	*Claimant*	*Parcels Awarded*	*Royal Patent Number*	*‘Ili*	*Area*
3282	Sera Wahapuu	2	8325	Halepuolo/ Kauhakoa	~3.0 acres/ 14 rods
3567	Kaiapa	2	4705	Hapuupuu	~1.25 acres
3367	Noi	2	4827	Hapuupuu/ Kahakoa	2 roods 9 rods/35 rods
3264	Lanikaula	2	4892	Hio/ Kamani	~1.0 acres/ 2 roods 34 rods
3238	Hawea	2	n/a	Kahakoa/ Kahihei	36 rods/ 2 roods 17 rods
3557	Kaniwi	2	4782	Kahakoa/ Lauipaa	2 roods 26 rods/ ~2.0 acres
3345	Nakai	2	n/a	Kahakoa/ Kapalai	32 rods/ ~1.0 acre
3281	Wahineai	2	4857	Kahakoa/ Luaiokama	30 rods/ ~1.0 acre
3405	Poka	1	n/a	Kaiwaiki	1 roods 4 rods
4146	Kaliu	1	4894	Kamaluo	2 roods 26 rods
3556	Kekua	1	4892	Kapalai	~1.75 acres
3303	Makaiki	2	7527	Kapalai/ Kapuaiomolohua	2 roods 20 rods/ 27 rods
3403	Pahio	2	8202	Kapuhai/ Malaihauono	~1 acre/ 1 rood 1 rod
3406	Pula	2	n/a	Kapuaiomolohua/ Waioo	29 rods/ ~1.0 acre
3302	Maawe	2	7787	Kauhakoa/ Puhauula	27 rods/ ~1.0 acre
3568	Kelani	2	4826	Kawaiiki/ Waioo	29 rods/ ~1.0 acre
3111/3559	Debora Kapule	3	5489	Kawaiiki/ Pakoli/ Pohoula	~3.0 acres/ ~4.0 acres/ ~5.0 acres
3226	O. Chapin	2	6021	Kuemanu/ Papohaku	~1.0 acre/~4.0 acres
3346	Nawai	2	7474	Kulaakapueo/ Makunapanone	~1.0 acre/ 24 rods
3909	N. Nahinu	2	6978	Kupapaupapa/ Pelehuna	~4.0 acres/ 16 rods
3555	Kiaipali	2	6945	Malaehakoa/ Nolilea	1 rood 7 rods/ ~2.0 acres
3368	Naakaakai	2	4828	Maulili/ Palakawai	2 roods 22 rods/ 2 roods 4 rods
3551	Kaihenui	2	4891	Noleha/ Palauhulu	1.0 acre/ ~3.0 acres
3569	Kupalu	2	4853	Paki/ Pahoula	~1.0 acre/ 19 rods
3561	Iosia Kaumualii	1	6020	Papaalai	~17.75 acres

Majority of the LCAw. within Wailua were within one mile of the shore along the northern bank of Wailua River. Three LCAs. (LCAw. 3404:2, 3555:2, and 3567:2), of which only two are depicted in Lydgate’s 1920 map (see Figure 30) are situated near the shore along the southern bank of the river (in or near present Lydgate Park). These awards attest to the former existence of house sites along the shore. House sites were also located on the northern bank along the shore and just slightly inland and are identifiable by their smaller size. The larger agricultural parcels, which did not exceed two acres located further inland were used primarily for irrigated *kalo* cultivation, while a few noted dry land cultivation and *kula* (pasture lands). The irrigated parcels were watered by *‘auwai* (irrigation ditches) sourced in ‘Ōpaeka‘a Stream (also known as Wailuaiki Steam) and from a northern tributary. Only three individuals received parcels that together exceeded five acres. These larger parcels were granted to Queen Debora Kapule (LCAw. 3111 and 3559), her son Iosia Kaumuali‘i (LCAw. 3561) and to O. Chapin (LCAw. 3226). Their lands encircled what appears to be a fishpond. Bushnell et al. (2004) reported that Queen Debora Kapule had claimed Akaimiki fishpond

which was located within the parcel located *mauka* of the old Government road and was of the *loko pu'uone* type, which is characterized by Apple and Kikuchi (1975:8) as "an isolated shore fishpond usually formed by the development of a barrier beach.." Bushnell et al. (2004:39) also stated that another fishpond belonging to Queen Debora Kapule "was said to be located just *mauka* of the [Coco Palms] hotel's historic coconut grove." The gravesite of Simeon Kaiu, husband of Queen Debora Kapule was also noted on LCAw. 3561, the parcel awarded to Iosia Kaumuali'i.

Subsequently, in 1850 and later in 1882, the Hawaiian Kingdom Government issued five land grant parcels within Wailua with four parcels awarded to Thomas Brown and one to the Board of Education (Figure 31). The earliest land grant was awarded in October of 1850 to Thomas Brown for cattle ranching, however, it appears as though Brown acquired a lease for these parcels from the Hawaiian Kingdom Government in August of 1846, two years prior to the Māhele 'Āina (Flores 1999; Metcalf 1848). Of the four parcels awarded to Brown, three are named *'ili 'āina*, suggesting these were once under the care of a native tenant. Parcels one through three were respectively named Kaoma, Konolea, and Makea (see Figure 31). No name is listed for the fourth parcel. In 1918, Thomas Brown's son Malcom Brown, who was born in Wailua in 1851 published a book about his parents' life and described their time at Wailua. Brown described the family's relocation to Wailua after a failed attempt at coffee growing in Hanalei. In describing the family's relocation to Wailua, Brown (1918) wrote:

> Our father came into possession of some leaseholds there [Wailua] and decided to go into the stockraising industry and thither the family moved; a commodious house, the frame of which was brough out from England, was erected and the family soon became settled. The plans of the architect called for a secret chamber where the family could hide in case they were "attached by savages." The chamber was constructed alright, and as out father was assured no savages existed, the room was utilized for storing provisions, etc., etc. (Brown 1918:15)

A few years after acquiring the parcels in Wailua, Brown found little success in his ranching and farming venture. He thereby relinquished his lease to E. Krull in 1854 and moved his family to Honolulu where they eventually left the islands. After the departure of the Brown, the *mauka* lands were then leased to Hoffschlaeger in 1855 with the exception of a few taro lands which were under the cultivation of the native tenants (Flores 1999). The second roughly 2-acre grant was issued well after the Māhele 'Āina in 1882 to the Board of Education. This parcel was located adjacent to the LCAw. awarded to Queen Debora Kapule and her son Iosia Kaumuali'i (see Figure 31). Damon (1931:363) briefly described the history of the Wailua mission school:

> Simeon Kaiu soon died [sometime after 1835], and with him passed the vigor of Wailua's little mission church. But schools were continued, with all the supervision that Dr. Smith could give them from Koloa, and in a few years these were taken over by the government.

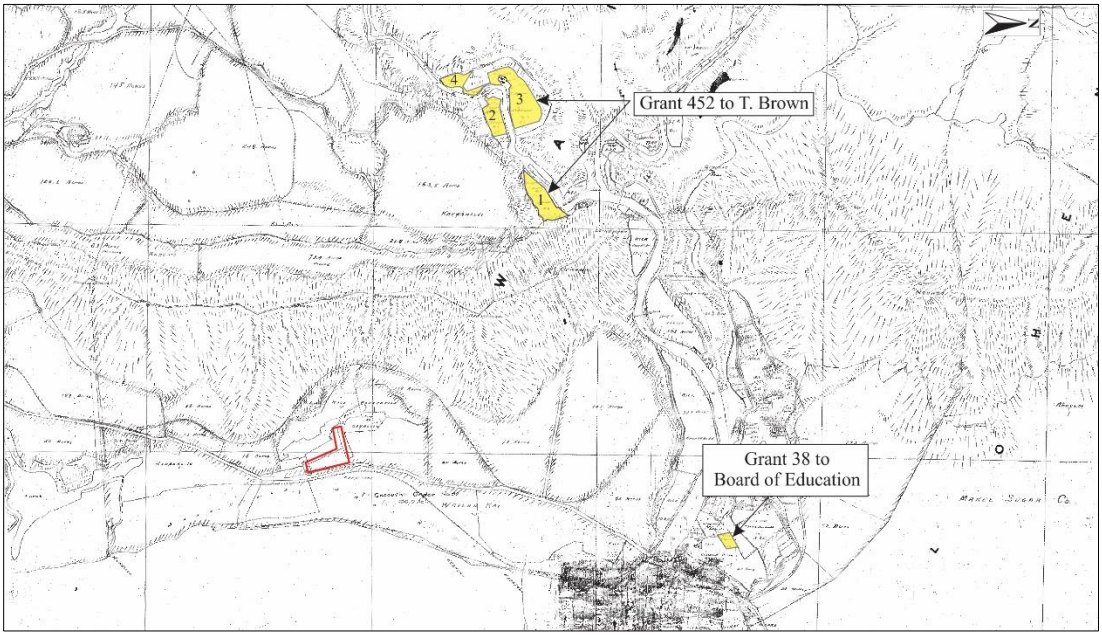


Figure 31. Portion of Hawai'i Registered Map 2141 by Monsarrat 1900 showing the location of the land grants (highlighted yellow) and the study area (outlined red).

Commission of Boundaries (1862-1876)

In 1862, the Commission of Boundaries (Boundary Commission) was established in the Kingdom of Hawai‘i to legally set the boundaries of all the *ahupua‘a* that had been awarded as a part of the *Māhele*. Subsequently, in 1874, the Boundary Commission was authorized to certify the boundaries for lands brought before them. The primary informants for the boundary descriptions were old native residents who learned of the boundaries from their parents, neighbors. or other relatives. The boundary information was collected primarily between 1873 and 1885 and was usually given in Hawaiian and simultaneously transcribed into English. Although hearings for most *ahupua‘a* boundaries were brought before the Boundary Commission and later surveyed by Government employed surveyors, in some instances, the boundaries were established through a combination of other methods. In some cases, *ahupua‘a* boundaries were established by conducting surveys on adjacent *ahupua‘a*. Or in cases where the entire *ahupua‘a* was divided and awarded as LCAw. and or Government issued Land Grants (both which required formal surveys), the Boundary Commission relied on those surveys to establish the boundaries for that *ahupua‘a*. Although these small-scale surveys aided in establishing the boundaries, they lack the detailed knowledge of the land that is found in the Boundary Commission hearings.

On November 12, 1872, a hearing was held regarding the boundaries of Wailua Ahupua‘a. Five native residents, Pahuwai, Kailuali, Pi, Kaliu, and Keo appeared before the Boundary Commission to provide testimony to help settle the boundaries for Wailua. Pahuwai, served as the primary witness for the Boundary Commission. His testimony as well as those provided by the remaining four witnesses have been transcribed from the original document and are presented below.

> Pahuwai sworn: This boundary commences on the N.W. side at a stone on brown of hill near sea called Kikeke and thence mauka to clump of stones called Kulahuhu, thence through center of hau bush Puhauopo to red [indiscernible] ridge Kaihuololoia, thence to hau and koa brush, old surveying grounds Kaea, thence to a slowing of water called Kamoohuauwai, thence to pond in stream Kaumualii bathing place Kamala, thence to a stream mouth and hau bush Kawaipalae, thence up valley to and opposite hala trees Pokahika, thence up valleu to and [indiscernible] stream Kapukamawaeowaikiolea, thence up ridge Kamoohoopulu, thence up ridge and on to Kuhilau, thence to Kalalua, thence up ridge to stream top of range and thence [indiscernible] with Koolau lands at Kapehuaela, thence along from peak to peak to Pohakau, thence to road on ridge to Hanalei Kakamahiki, thence up ridge to top of mountain at Waialeale, thence down the Hanamaulu boundary which has been already defined and on which there is a royal patent to the sea.
>
> Kailuali sworn: My name is Kailuali formerly lived in Hanapepe, came to live at Wailua when Whitney came to live at Kauai. I do not know the boundaries of Wailua. I only know what Pahuwai told me (last witness) dont know any thing of my own knowledge.
>
> Pi sworn: This boundary commences on the sea shore at a blow hole, thence to red place on ridge, thence down ridge to Hala tree on mauka side of ridge, thence mauka to clumps of hala trees, thence [indiscernible] clumps of hau brush to green ridge, thence up ridge to near dry trees, thence up ridge to op of hill and south along top of ridge to Waialeale the junction of Wailua with Hanamaulu and thence down Hanamaulu boundary to sea shore makai of large hau bush.
>
> Kaliu sworn: I live at Wailua was born there know boundary of Wailua. Makai it commences in the blow hole in the rock on sea shore. My father showed me this as the boundary and showed M. [indiscernible] this boundary.
>
> Keo sworn: I known the boundary of Wailua it commences on the sand beach, when fish were drawn in on that part of the sand they were divided with Olohena. The blow hole and [indiscernible] stones of Kewalo are on Olohena. Kewalo houses was [indiscernible] on Olohena. (Boundary of Commission Records Kauai, Vol. 1:32-34)

Although the testimony offered by two of the five witnesses describe the whole of Wailua, the ensuing survey completed between 1872 and 1873, by government surveyor James Gay separated Wailua into two sections, Wailua Uka and Wailua Kai. The testimonies presented above reveal a number of place names and natural features within Wailua. With respect to the coastal section, the testimonies reveal the presence of *hau* groves as well as a blowhole and noted the distribution of fish between the residents of Wailua and Olohena along the seashore.

Wailua and the Greater Līhu‘e (Puna) District after the *Māhele ‘Āina*

Following the Māhele ‘Āina of 1848, new commercial enterprises were begun mostly by westerns including Elard Hoffschlaeger and Florens Stapenhorst, who together formed Hoffschlaeger & Co. Their interest was in creating a ranch to supply whaling ships that arrived in Hawaiian waters during the winter months for provisions. While their primary business was cattle ranching, they also made butter, barreled salted beef and raised fresh produce. In 1854, Duncan McBryan arrived in Wailua and managed this enterprise. McBryde was later replaced by Paul Isenberg who was hired in 1860 as the manager of Wailua Ranch. A year later Isenberg left Wailua Ranch for an employment opportunity with Lihue Plantation—a sugar plantation company that started in 1849 as a partnership between Charles Reed Bishop, the husband of Hawaiian royalty, Princess Bernice Pauahi Bishop, Judge William L. Lee and Henry A. Pierce (Flores 1999).

A group of native Hawaiians also attempted to create new agricultural ventures in Wailua through what appears to be a cooperative type of farming that utilized the overgrown *lo‘i*. In 1855, this faction took up a lease in the amount of $300 per year for former *konohiki* lands within Wailua Kai (Flores 1999). The article titled *Na Mea Hou Ma Wailua Kauai* (The New Things at Wailua Kauai) printed in a November 1856 edition of the Hawaiian language newspaper *Ka Hae Hawai‘i*. Written by Baniamina Holi, the article described the efforts of this group who referred to themselves as the Hui Mahiku. A portion of the article reads thusly:

> *Aloha oe—Ua lana ko‘u manao e hai aku i ke ano o keia mea hou. O ka holo mua ana o ka Hui Mahiku ma Wailua nei, “E ninau paha auanei oukou,” He aha la ka Mahiku? (Eia, o ka aina nahelehele i mahi ia me ka ike ole aku o ka maka i ka hua o ka aina, a hua mai ka ai o ka aina i hooikaika aku ai, alaila e loaa auanei kona inoa hope) he mahiai, no ka mea, ua ai i ka hua o ka aina i hooikaika ai.*
>
> *Penei ka mua o ka holo ana o ka mahiai ma Wailua nei. Ua hui kekahi poe umi, ma ke ano hui Mahiku, a oi aku no hoi kekahi poe Hui Mahiai, na lakou e hoomakaukau mua i mau oo, a me ka pahiolo, a me ka pahi. I ka makaukau ana o keia mau hana, hooko koke lakou ma ka mea a lakou i kuko ai, oia ka Mahiai Pualu.*
>
> *E hana mua i ka loi nahelehele o kekahi i ka la mua, a pau like, ua poe Hui nei, alaila hoomaka hou i ko ka mea mua i hana ia, alaila ua maikai ka aina o keia Poe Hui. Ua loihi ka waiho ana o keia mau poe loi nahele, 7 paha makahiki 3 paha; aka, i keia mau malama elua, ua maikai maoli keia poe loi nui 8...*
>
> *Penei ke ano o ka mahiai ana i keia poe i kumu hoohalike no ka poe makemake mai, e okioki mua i ka “neki” me ka pahi, alaila, hookaawale ka opala “neki,” ma kahi e ae, alaila e olo me ka pahiolo ma ke loa, a hiki ma kekahi aoao o ka loi, alaila, e olo ma ka laula, i kapuai ka manoanoa o luna, alaila, hehi ka wawae malalo o ka eka i oleloia, alaila e kiola maluna i ka eka, ma ke kuaauna o ka loi; alaila, ua maikai ua loi nei, no ka mea ua pau ka eka maluna, o ka pahiolo oia ka mea i holo ai ka hana, a oia ka mea e holo ai ka Hui Hana ana.*
>
> Translation: Greetings—My thoughts have surfaced to share the nature of these new things. First, the arrival of Hui Mahiku here at Wailua. You folks may be asking, what is the Mahiku? (Here, it is the clearing of land for farming without seeing the fruit of the land, and when the fruits are finally seen, then we know what to call these lands) a farming because we have reaped the fruit of the land that we have improved.
>
> This is how this farming was done here at Wailua. A group of ten people came together and formed the group Mahiku, and there are more people in the Hui Mahiai and they prepare the *‘ō‘ō* [digging sticks], the saws, and the knives. When these tools are prepared, which they do quickly because they have a strong desire to farm cooperatively.
>
> Clearing the overgrown *lo‘i* that belongs to a person is done on the first day, until they are all cleared by the group. Work then starts on the first *lo‘i* that was cleared by the group. The *lo‘i* have been abandoned for a long time, seven years and some three. But over the past two moons, some eight *lo‘i* have been prepared and are ready…
>
> Here is the nature of this farming that is being done by these role models for those that want to follow: cut the “neki” [bulrush] with a knife, then separate the waste matter elsewhere, then using a saw, saw the length until the other side of the *lo‘i* is reached, then saw the width of the *lo‘i* leaving

> a foot of bulrush standing, then using the feet, stomp it down into the soil, then spread the soil on the tops and embankments of the *loʻi*, then the *loʻi* is prepared. The saw is what makes the work quick and that what keeps the work of this group moving forward.

The lease to these lands was later acquired by Ernest Lindemann who arrived in Wailua from Germany in 1864 to manage Wailua Ranch. Lindemann devoted the Wailua Kai lands for sheep ranching, and later added cattle and horses. Lindemann also attempted to grow cotton on ten acres of land in the *ʻili* of Konolea, shown as parcel number two in Figure 31 (above), which was originally leased to Thomas Brown in 1850.

Since most of these early ranching businesses were established to supply food and goods to whaling ships, the demise of the whaling industry during the 1870s had a crippling effect on the ranching industry and other associated enterprises. Nonetheless, this gave way to an increase in rice production and lands within Wailua were leased to Chinese rice planters who also took over much of the taro cultivation. In her book, *He Was A Ram: Wong Aloiau of Hawaii*, Violet Lai (1985) wrote that the rice industry prospered during the 1880s when the Hawaiian Kingdom Government heavily taxed imported rice, a demand that came primarily from Chinese laborers. Figure 32 shows the location of a rice mill and the sprawling rice fields along Wailua River. These Chinese laborers had gained control over taro production throughout much of Kauaʻi and established Chan Chip, the largest taro business which was set in Wailua.

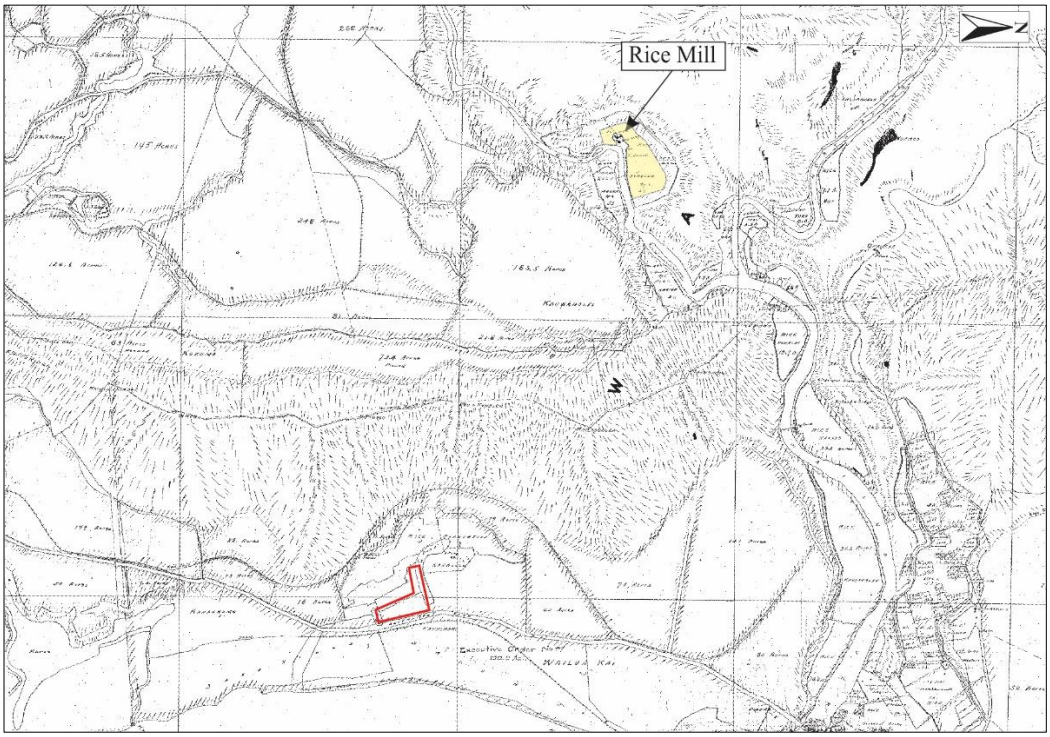


Figure 32. Portion of Hawaiʻi Registered Map 2141 by Monsarrat 1900 showing a rice mill located on the Land Grant 452 awarded originally to T. Brown and the rice fields along Wailua River with study area (outlined red).

In a newspaper article published in the March 30, 1920 edition of *The Garden Isle*, Lydgate reported that roughly 115 acres of Wailua lands were used for taro and rice production, with one-third being planted in the taro and the remaining in rice. Lydgate (1920) also told that Chan Chip operated a *poi* factory near the fork of the Wailua River's northern branch, and produced sixty bags of taro weekly. By the 1890s, Lindemann who held the lease for Wailua Kai also took possession of nine *kuleana* parcels which were used either for rice cultivation or pastures (Flores 1999). However, by the 1930s, the increased production cost coupled with large-scale national competitors, the rice industry slowly declined. During this time, Lindeman attempted to establish a copra business in Wailua when he requested for some two thousand coconut trees, supplied by Hugh McIntyre were reportedly planted in the vicinity of the Coco Palms Hotel (ibid.).

Tax assessment records located at the Hawaiʻi State Archives for the years 1857, 1870, and 1890 show a dramatic decline in the number of residents within Wailua—a trend that is grimily mirrored throughout other parts of the islands.

Tax records from 1857 show 107 residents within Wailua Ahupuaʻa, which included elderly males, females, and school-aged children. Unlike the tax records for 1857, those records from 1870 and 1890 are separated into Wailua Uka and Wailua Kai. In 1870, forty-six males and females are listed for Wailua Kai and another forty-one individuals are listed for Wailua Uka, for a combined total of eighty-seven people—a 19% decline from 1857. By 1890, only fourteen people were listed for Wailua Kai and another nine individuals for Wailua Uka for a combined total of twenty-three—a 79% decline from 1857. In associating the drastic population decline within Wailua following western contact, Bushnell et al. in their Cultural Impact Assessment for the Kapaʻa highway relief project remarked:

> Within decades of western contact, Wailua lost its ancient importance, and likely its population also. The *aliʻi* who enjoyed and benefitted from their contact with westerners spent more time in Waimea—the preferred anchorage for visiting ships. Also the complex of *heiau* at Wailua lost its significance after the abolishment of the *kapu system*. By the mid-1800s, only a small population, decimated in part by disease, existed in the Wailua River Valley within a mile of the sea. Indigenous farmers would be displaced within decades by larger scale commercial agriculture and associated immigrant laborers. (Bushnell 2004:44-45)

Ultimately, the reformation of the traditional land tenure system compounded by a shifting political economy backed by Euro-Americans effectively paved the way for the upsurge of large-scale industrial agriculture. The introduction of commercial sugar cultivation to Kauaʻi in 1830 brought about sweeping changes to the landscape and added to the cultural tapestry of the islands. The 1894 *Biennial Report of the Commissioner of Crown Lands* compiled by the Agent of Crown Lands, Curtis Iaukea describes some of the agricultural endeavors within Wailua Uka and Wailua Kai:

> WAILUA—The Wailua lands in the district of Puna, comprise a total area of 20,255 acres in two sections: Wailua-kai and Wailua-uka. Wailua-uka is very fertile containing several hundred acres of good cane land besides an immense forest land, a large portion of which might be available for coffee. Taro is now grown in some parts of the valley, and for a long distance on either side may be seen indications of extensive taro cultivation in years past. This land is well watered and could support a large population. Waiehu Falls situated at the head of the valley and which is also the source of the Wailua river, irrigates about 600 acres of the Lihue and Hanamaulu lands. Wailua-uka has 17,455 acres. Wailua-kai 2800 acres, consists for the most part of pasture land. A large portion of the rice land found here is mostly on kuleanas. There is about 75 acres of cane on the lower part of the land. (Iaukea 1894:39)

A table presented in Iaukea's 1894 report shows that Lihue Plantation Company held 30-year government lease (lease number 108b) for lands in Wailua Uka with an annual rent of $1,200 (Iaukea 1894:78), while Wailua Kai was in the possession of Lindemann (lease number 171) with a 30-year term and an annual rent of $800 (ibid.:81). A note written in Iaukea's (ibid.:73) report stated "cane land. Has valu'ble water rights, several hundr'd acres cane land in the upper portion might be made available. At Wailua-kai there are several acres of rice land. Good grazing." Although sugarcane was a stable crop in traditional agricultural practices and described by early westerns to be growing along the banks of Wailua River, it never dominated the landscape. Commercial cultivation of cane in Hawaiʻi has its origins in Kōloa Kauaʻi, when William Hooper, Peter Allen Brinsmade, and William Ladd secured a 50-year lease from the reigning monarch Kauikeaouli for 980 acres of land in Kōloa, Kauaʻi but by 1849, in the midst of the Māhele ʻĀina, the Lihue Plantation Company began operations for commercial sugar cultivation in Hanamāʻulu and later expanded to include the lands of Wailua (Dorrence and Morgan 2000).

Lihue Plantation Company (1849-2000)

Organized in 1849 by Henry A. Peirce and other distinguished American businessmen including Charles Reed Bishop and Judge William L. Lee, the Lihue Plantation Company was the second commercial sugar plantation established in Nāwiliwili, Kauaʻi (Saito and Campbell 2004). In 1854, Peirce sold his interest in the company to partners, including William Rice and moved back to Boston. In 1869 Peirce moved back to the islands and took a position as United States Minister to Hawaiʻi and served until 1878, three years after the passing of the Reciprocity Treaty—a free trade agreement that lifted import taxes for the United States. The passing of this treaty allowed for products produced in the Hawaiian Kingdom to be imported to the United States duty-free. This subsequently led to a mass expansion of Hawaiʻi's sugarcane industry and as a result an increase in production and exportation of raw sugarcane to processing facilities in California. William Rice, who had arrived with the ninth company of missionaries in 1841 served as a school teacher at Punahou School in Honolulu and after serving out his contract as a teacher, he relocated to Kauaʻi in 1854 and took the manager position at Lihue Plantation Company. In 1857, under Rice's management, a ten-mile-

long irrigation ditch was constructed and in 1859 a steam engine mill was installed at Lihue Plantation. After Rice's death in 1862, he was replaced by Paul Isenberg, who brought out Koloa Plantation, organized the Kekaha Mill Company and served as a representative during King David Kalākaua's reign (Dorrence and Morgan 2000).

In 1870, Lihue Plantation purchased 17,000 acres of land in Hanamāʻulu Ahupuaʻa and utilized water runoff to irrigate the fields in both Hanamāʻulu and the Līhuʻe area. Following this purchase, Hanamaulu Plantation was opened and operated by Albert Spencer Wilcox, the son of a missionary. By 1898, Hanamaulu Plantation had merged with Lihue Plantation and it was soon realized that the cane growing in Hanamāʻulu needed more water. As early as 1870 G.N. Wilcox in partnership with Isenberg took a contract to construct a new ditch to connect the existing Lihue Ditch with the south fork of Wailua River. The river was tapped a second time in 1877 to increase water flow and in 1895 another irrigation ditch was built to the north branch of the river which funneled water across the south branch and into Lihue Ditch (Flores 1999). By 1878, Lihue Plantation continued to expand and leased 30,000 acres of land in Wailua (Saito and Campbell 2004). In 1895, Eric Knudsen visited Wailua and described the sight that lay before him:

> We rode through the Lihue Plantation cane fields, passed through Hanamaulu and came to the Wailua River. What a sight! The great river lay clear and placid—winding away up toward the mountains with rice fields and taro patches filling all the low lands. (Knudsen 1991:152)

By the early 1900s, additional ditch system and reservoirs were built in Wailua for irrigation and hydroelectric power (Saito and Campbell 2004). Flores (1999:II-29) reported that "during the 1920s, the East Kauai Water Company (EKWC) was established with jurisdiction over those waters that arise in and across government lands such as Wailua." To facilitate the movement of cane, labor, and other goods, from Lihue Plantation and Makee Sugar Company, Ahukini Terminal & Railway Company built a railroad which serviced east Kauaʻi from Puhi to Kealia. Between 1920 and 1921, a railroad system was laid in the Wailua area. Lydgate's 1920 map (Figure 33) labels the inland "railroad" track extending along the government road in some sections, however, near the current study area, the railroad track winds further inland, which appears to intentionally avoid the marshlands near the study area vicinity. This map also shows the study area to have once contained at least two ponds, rice plantations and a pump station in an area labeled "Kahalulu." Also depicted is what appears to be a second unlabeled railroad track extending along the coast, east of the study area. This route passes over the Wailua River mouth and appears to terminate just south of the study area. The Ahukini Terminal & Railway Company continued to service this area until 1959.

By 1933, the Lihue Plantation Company had purchased Makee Sugar Company and by 1935 had owned all or portions of the Ahukini Railway, Nawiliwili Transportation Company, East Kauai Water Company, Princeville Ranch, Waiahi Electric Company as well as pineapple lands leased to Hawaiian Canneries (Saito and Campbell 2004). The plantation managed to survive through labor shortages caused by World War II and other social and economic changes throughout the remainder of the 20th century. After 151 years of operation, the Lihue Plantation Company closed its doors in December of 2000, leaving behind scattered remnants of Wailua's plantation era (Sommer 2002).

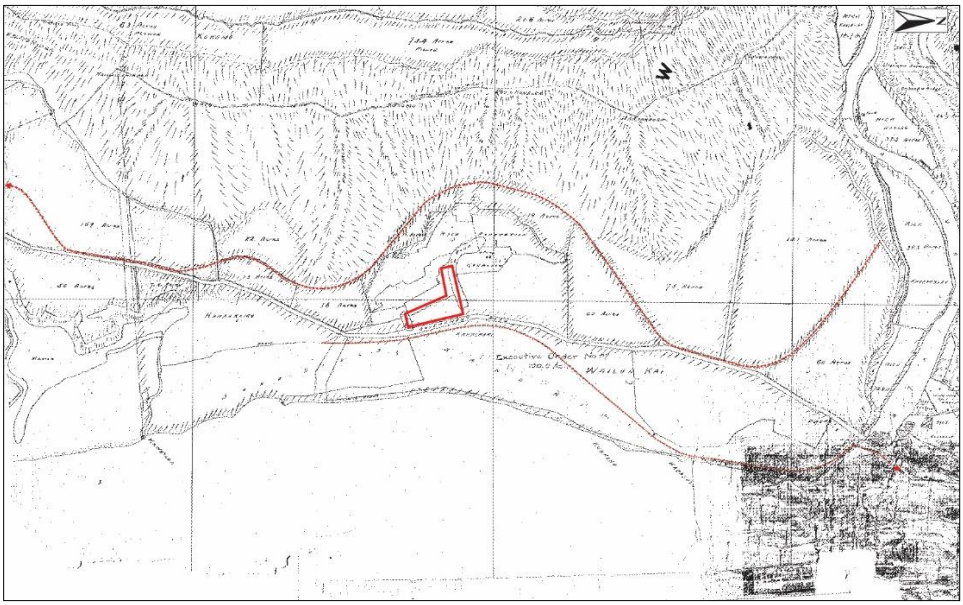


Figure 33. Portion of Hawaiʻi Registered Map 2141 by Monsarrat 1900 showing railroad near the study area.

Twentieth Century in Wailua

The production of sugarcane in Wailua continued well through the 20th century and had a dominating presence in Wailua as it did elsewhere in the islands. With the subsequent transfer of governmental affairs when Hawai‘i became a Territory of the United States in 1898 through the illegal overthrow of the Hawaiian Kingdom, various portion of Wailua were set aside for public parks and homesteading purposes, developments which were concentrated within the interior of Wailua and along select coastal locales (Hawaiian Commission 1898). Aside from the establishment of the 9-hole Wailua Golf Course during the 1930s in addition to the building of the Wailua County Jail in 1936, development within the immediate study area is minimal. Unlike the area north of the Wailua River which underwent rapid commercialization following Hawai‘i’s inclusion as the 50th state of the United States in 1959, land use near the Wailua County Jail had remained much as it did during the 19th century—dominated primarily by commercial sugar cultivation and pastoral activities. A review of aerial photographs taken between 1950 (Figure 34) and 1978 show relatively little change in the immediate study area vicinity. However, as the Lihue Plantation Company began to cease their operations at the end of the 20th century, former sugar fields were left fallow leaving the Wailua landscape once again transformed.

Public improvement projects along Kuhio Highway and commercial development within Wailua during the 20th century continued to transform the area. These development project also led to the completion of more archaeological studies and cultural studies that began to shed light on Wailua’s buried pre- and post-Contact history. The details of relevant archaeological studies conducted within Wailua as a result of these development projects are presented in the following section of this report.



Figure 34. 1950 aerial photograph of the study area vicinity showing the old Wailua County Jail surrounded by Lihue Plantation sugar fields.

PREVIOUS STUDIES

Archaeological studies conducted throughout Wailua have resulted in the identification and documentation of many pre- and post-Contact sites. Additional cultural and historical studies have not only supported the archaeological record but provides a number of accounts describing the early occupation of this area during Precontact times. In general, most of these studies have focused on the Wailua-Kai portion of the *ahupua'a*, although a few archaeological studies have been conducted further inland (Carpenter and Yent 1995, 1997; Folk and Ida 1981; Yent 1988; Rechtman and Clark 2001). To assist in understanding the nature of historic properties recorded within the current study area and nearby vicinity, the following paragraphs summarizes the findings of relevant studies previously conducted in Wailua-Kai and briefly describes other relevant studies conducted in the general Wailua area. Figure 35 shows the location of these studies, relative to the study area and Table 2 below is a listing of all relevant studies organized chronologically.

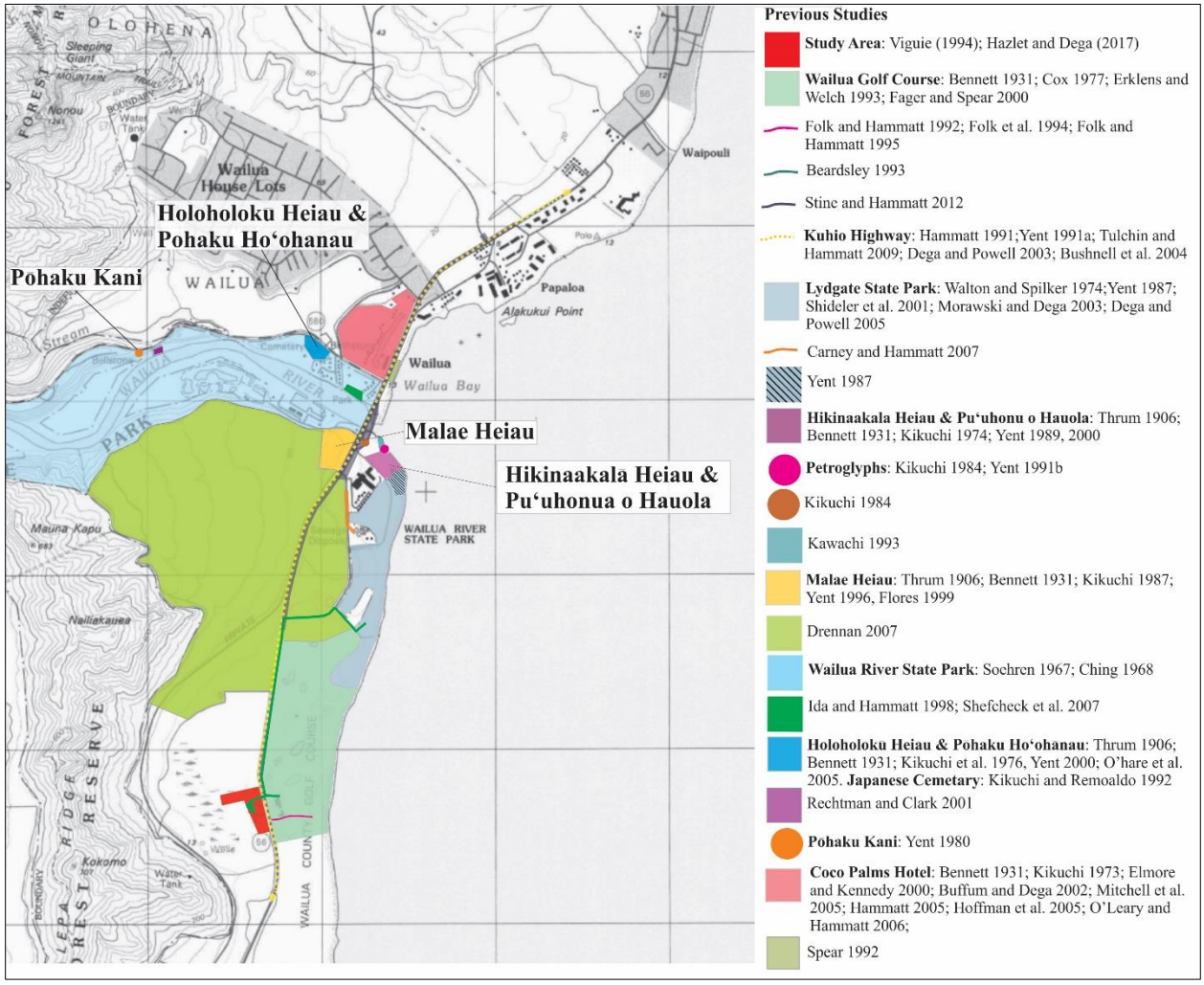


Figure 35. Previous studies conducted in the vicinity of the current study area.

Table 2. Previous studies conducted within the coastal section of Wailua Ahupuaʻa

Year	*Author(s)*	*Type of Study*
1906	Thrum	Listing of *heiau*
1931	Bennett	Survey of *heiau* and *puʻuhonua*
1967	Soehren	Field Report
1968	Ching	Survey
1973	Kikuchi	Burial Report
1974	Walton and Spilker	Archaeological Assessment and Subsurface testing
1974	Kikuchi	Hikinaakalā Heiau
1976	Kikuchi et al.	Oral documentation and historical research
1977	Cox	Burial Report
1980	Yent	Archaeological evaluation of Bellstone
1981	Folk and Ida	Reconnaissance of Wailua River
1984	Kikuchi	Ka Pae Kiʻi mahu o Wailua
1987	Yent	Archaeological investigations of Lydgate Area
1987	Kikuchi	Investigation of adze fragments at Malae Heiau
1988	Yent	Archaeological investigations of Kaukahi adze workshop
1989	Yent	Archaeological mapping and testing of Hikinaakalā Heiau and Hauola
1991	Hammatt	Subsurface Testing
1991a	Yent	Archaeological testing
1991b	Yent	Archaeological investigations of Ka Pae Kiʻi mahu o Wailua
1992	Folk and Hammatt	Archaeological Survey
1993	Erkelens and Welch	Literature review and archaeological assessment
1993	Kawachi	Archaeological Survey
1993	Beardsley	Inventory Survey
1994	Viguie	Monitoring Report
1994	Folk et al.	Inventory Survey
1995	Folk and Hammatt	Monitoring Report
1995	Carpenter and Yent	Reconnaissance Survey
1996	Yent	Archaeological investigations of Malae Heiau
1997	Carpenter and Yent	Reconnaissance Survey
1998	Ida and Hammatt	Monitoring Report
2000	Fager and Spear	Monitoring Report
2000	Elmore and Kennedy	Monitoring Report
2001	Rechtman and Clark	Inventory Survey
2001	Shideler et al.	Archaeological Assessment
2002	Buffum and Dega	Monitoring Report
2003	Morawski and Dega	Monitoring Report
2003	Dega and Powell	Monitoring Report
2004	Bushnell et al.	Cultural Impact Assessment
2004	Mitchell et al.	Cultural Impact Assessment
2005	Hammatt	Nationa Register of Historic Places Nomination Form
2005	Hoffman et al.	Inventory Survey
2005	Dega and Powell	Archaeological Condition Report
2006	O'Leary and Hammatt	Inventory Survey Addendum
2007	Shefcheck et al.	Inventory Survey
2007	Carney and Hammatt	Monitoring Report
2007	Drennan	Inventory Survey
2009	Tulchin and Hammatt	Archaeological Assessment
2010	Dagher and Dega	Monitoring Report
2012	Stine and Hammatt	Inventory Survey
2017	Hazlett and Dega	Monitoring Report

Many of the early archaeological studies conducted in Wailua focused on recording the many *heiau* (see Figure 35). In the *Hawaiian Annual* of 1907, Thrum (1906) presented his findings from a survey of Kauaʻi *heiau* in which he recorded five *heiau* in Wailua which he described thusly:

Malae	Central Wailua—A walled and paved heiau 273 x 324 feet in size of traditional Menehune construction. The place of its altar is pointed out near the center towards the west wall, and around on all sides ran a ledge about six feet wide whereon the people is said to have sat during its ceremonies. The outer walls are yet standing, in good order, from 7 to 10 feet or more in height, its corners buttressed with 13 foot walls. Kapula (Queen Deborah) changed this heiau about 1830, and erected division walls for cattle and calf pens with its inner structures and stone pavements. A portion is now planted in cane.
Poliahu	Upper Wailua—This heiau of medium size is situated within sight of Malae, and was connected with it in its working. In fair condition.
Holoholoku	Wailua—Of pookanaka class, site not identified. Tradition credits this heiau as being the repository until comparative modern times, of the first *kaeke*, or drum, introduced into these islands.
Hikinaakala	Wailua-kai—The ruins of this heiau stands along the sore near the south side of the stream, 395 feet long, 56 feet at rear and 80 feet on the front. It shows three distinct divisions, paved; the inner section still in fair condition 120 feet in depth. End and S.E. corner walls are 6 feet high and 11 feet thick, of heavy stones. Two large boulders stand near the middle near the division wall of this section. The outer or front section of 80 feet includes a width that runs back beyond the division wall. (Thrum 1906:40-41)

Between 1928 and 1929, Wendell Bennett (1931), a staff member with the Bishop Museum conducted archaeological research on Kauaʻi. Within Wailua, he recorded the five *heiau* sites, all of which were previous recorded by Thrum (1906), as well as another *heiau* (Site 109), a large burial site in the coastal dunes (Site 103), located to the east of the study area on Wailua Golf Course property, and an adze quarry on Nounou Ridge. It would be a little over thirty years before the next archaeological surveys would be conducted in Wailua, this time by Soehren 1967 and Ching (1968) with the Bishop Museum for sites within the north and south forks of the Wailua River Valley.

Since Bennett's investigations, much of the archaeological work has since focused on specific compliance projects in and around the Wailua River State Park at known sites (Kikuchi 1974, 1984, 1987; Kikuchi et al. 1976; Kawachi 1993; Yent 1980, 1987, 1988, 1989, 1991b, 1996) (see Figure 35).

The property of the former Coco Palms Resort (see Figure 35) has also been the subject of multiple archaeological investigations that have led to the identification and documentation of numerous burials, pre- and post-Contact sites, *ʻauwai*, fishponds and identification of countless artifacts (Kikuchi 1973; Elmore and Kennedy 2000; Buffum and Dega 2002; Mitchell et al. 2004; Hammatt 2005; Hoffman et al. 2005; O'Leary and Hammatt 2006;). Two archaeological studies (Ida and Hammatt 1998; Shefcheck et al. 2007) have also been conducted south of the Coco Palms Resort property in the Wailua River State Park area (see Figure 35), which has also resulted in the documentation of burials, and a Precontact cultural layer.

Of the sites identified by Bennett (1931) and most relevant to the current study area is Site 103, in which Bennett (1931:125) stated, "[i]n the sand dunes that run along the shore half way between Hanamaʻulu and Wailua River are many burials." What Bennett described are the sand dunes of Walio, which extends from Kawailoa (boundary point between Hanamāʻulu and Wailua) to Hauola (near the mouth of the Wailua River) (Figure 36). In the 1930s, a 9-hole golf course was constructed on the sand dunes (County of Kauaʻi 2018). By the late 1970s, stricter environmental regulations led to an increase in the number of state and federally mandated archaeological and cultural studies. Subsequent archaeological studies have since validated Bennett's findings. Regarding the sand dunes on the Wailua

Golf Course property, Cox (1977) documented thirteen burials and scattered human remains. Local historical knowledge documented by Erkelens and Welch (1993) stated that hundreds of *iwi* (human remains) were uncovered when the central driving range for the Wailua Golf Course was constructed in the mid-1960s.

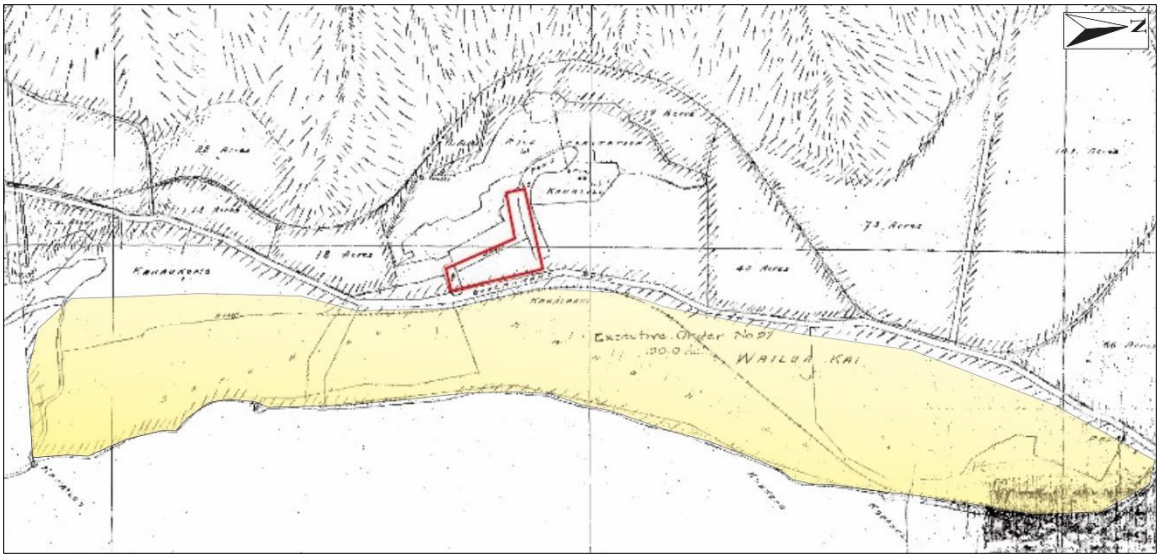


Figure 36. Portion of Hawai‘i Registered Map 2141 by Mosarrat showing sand dunes (shaded yellow) adjacent to the coast east of the study area in1900.

Archaeological work continued on the Wailua Golf Course property (see Figure 35) and in 1992 an archaeological surface survey was completed by Folk and Hammatt (1992) of Cultural Surveys Hawai‘i for the proposed 20-foot wide fiber-optic transmission cable corridor (TMK: (4) 3-9-002 and 005 por.). Although no surface sites were identified, Folk and Hammatt (ibid.) noted the presence of known human burials in the sand dune deposits and therefore cautioned of the high possibility of encountering human remains during construction activity. Their recommendations called for subsurface testing of the cable trench line and continuous on-site archaeological monitoring. Their recommendations led to an archaeological inventory survey (Folk et al. 1994) of the proposed fiber-optic trench line. Twenty-five percent of the trench line was excavated (eight backhoe trenches), which resulted in no subsurface cultural material or burials. Nonetheless, Folk et al. (ibid.) recommended continuous archaeological monitoring throughout the construction. During the monitoring efforts, the remains of eight individuals were documented (Folk and Hammatt 1995). More recently, Fager and Spear (2000) documented forty-four burials and forty-two isolated bone fragments during the renovation of the golf course irrigation system. A traditional cultural layer and three fire pits were also documented by Fager and Spear (ibid.). Charcoal excavated from one of the fire pits was submitted for radiocarbon dating which was returned with a two-Sigma date range of A.D. 1440-1670, placing the site firmly within traditional Precontact times. An archaeological monitoring report was prepared by Dagher and Dega (2010) of Scientific Consultant Services for the construction of a maintenance building at the Wailua Golf Course. No historic properties were reported.

Lydgate Park located to the northeast of the current study (see Figure 35) area has also been subject to several archaeological studies. An archaeological assessment and subsurface testing was conducted at the Lydgate State Park pavilion by Walton and Spilker (1974), in which no archaeological sites or materials were identified. Subsequent studies in Lydgate Park focused on the route of the proposed bike and pedestrian path. An archaeological assessment was later conducted by Shideler et al. (2001) and in Morawski and Dega's (2003) monitoring report, two burials, two isolated skeletal finds, and a cultural layer was reported. An archaeological condition report was prepared by Dega and Powell (2005) of Scientific Consultant Services for that portion of the Kaua‘i Pathways Project extending from Ahukini Point to Lydgate Park, a portion of which is to the east of the current study area. In describing the area extending from Wailua Golf Course to Wailua River, Dega and Powell (ibid.:4) noted:

> The most well-known site in this area, due to the influx of CRM [Cultural Resource Management] research related to golf course activities and development of Lydgate Park, is Site 103, originally recorded by Bennett during island-wide survey in 1928-1929. At this writing, over 66 burials have been identified throughout the golf course along, with most of these having been re-interred in a

> burial crypt and preserved area at the golf course itself. This discussion focuses on the area from the south end of the golf course and west to the Correctional Facility to the Wailua River. In this location, we enter one of the most sacred and site-rich area of the island, and area that will be crucial for pathway development.

To minimize impacts to the sites identified throughout the project area corridor, Dega and Powell (ibid.) outlined site-specific mitigative measures. Regarding Site 103, Dega and Powell (ibid.) recommended rerouting the pathway to avoid the burial-preserve as well as monitoring during the pathway excavations.

In 2007, Scientific Consultant Services, Inc. (Drennan 2007) completed an archaeological inventory survey of roughly 240 acres of former sugarcane lands owned by the State of Hawai‘i, Department of Hawaiian Home Lands (TMK: (4) 3-09-02:12, 24, 25 and 3-09-06:09). The survey area which is located to the north of the current study (see Figure 35) area resulted in the identification of three sites consisting of nine features. Site types identified included a Plantation Era irrigation feature, a Precontact lithic scatter, and a rock wall with two terraces and a multi-tiered enclosure. Subsurface testing yielded negative results. Also identified in the northeast corner of their study was Malae Heiau.

The area along Kuhio Highway as well as the roads within Wailua have also been subject to numerous archaeological studies (see Figure 35). In 1991, Hammatt (1991) and Yent (1991a) conducted subsurface testing along Kuhio Highway near the Wailua River mouth. While Hammatt (1991) and reported no historic properties, Yent (1991a) noted a possible Precontact cultural deposit. An archaeological assessment was completed by Tulchin and Hammatt (2009) for a 1.7-mile section of Kuhio Highway between Aleka Loop and Leho Drive in which no significant cultural sites were reported. Dega and Powell (2003), however, identified two burials and two isolated skeletal finds and a cultural layer during archaeological monitoring for the Kaua‘i rural fiber optic duct lines. Carney and Hammatt (2007) conducting archaeological monitoring during the installation of a sewer line on Leho Drive and reported no historic properties. An archaeological inventory survey was completed by Cultural Survey’s Hawai‘i (Stine and Hammatt 2012) for a 1.7 mile linear corridor of Kuhio Highway (TMK: (4) 4-1-003:007 por. & 017 por.; (4) 4-39-006:009 por. & 026 por.). The corridor, which extended from Leho Drive, located northeast of the current study area and terminated at Aleka Loop was the proposed route for an underground electrical alignment Their survey methods included a pedestrian survey and subsurface testing using ground penetrating radar and backhoe trenches. As a result of the pedestrian survey, one historic property, a ditch/*‘auwai* was identified (SIHP Site 50-30-08-2158). Twenty-six tranches were excavated to assess subsurface stratigraphy and prospect for subsurface cultural deposits. Traditional Hawaiian cultural remains, such as a stirrup *poi* pounder, charcoal, a perforated cowry shell, a historic butchered bone fragment, a breadloaf sinker, a fire pit, were identified in tranches E-12 through E-14, located near the Coco Palms Hotel property. Stine and Hammatt (ibid.) associated these features with SIHP Site 50-30-08-1711, described as a non-contiguous cultural layer located in the Coco Palms Hotel area. Cultural material including marine shell, faunal and fish bone, lithics, coral tools, volcanic glass, charcoal, and other artifacts were also observed in trench E-27, located on Kuamo‘o Road. Stine and Hammatt associated these cultural materials with SIHP Site 50-30-08-3962 described as a cultural layer between Wailua River and Kuamo‘o Road. Stine and Hammatt concluded that the proposed project would have an effect on the identified properties and that background research indicated that the area was intensively utilized in Precontact times for agriculture, aquaculture, and habitation and therefore recommended archaeological monitor during the course of construction.

Previous Studies Conducted at the KCCC Parcel

In 1993, at the request of the Department of Accounting and General Services, Division of Public Works, International Archaeological Research Institute, Inc. (IARII) (Beardsley 1993) completed an inventory survey for the proposed sewer line route extending from KCCC and the Wailua Golf Course Clubhouse to the Kaua‘i County sewer system located east of Nehe Road (see Figure 35). Thirty-six backhoe trenches spaced roughly sixty meters apart were dug along the proposed sewer line route which resulted in the identification of a single burial on the *makai* side of Kuhio Highway, in the Wailua Golf Club parking lot (test Trench 33). This site was recorded as SIHP Site 50-30-08-103 sand dunes burials. At the recommendation of the Kaua‘i Burial Council and the State Historic Preservation Officer (SHPO), the burial was re-interred back to Trench 33. Beardsley (ibid.) also gave recommendations to mitigate any future impacts, which included archaeological monitoring during any subsurface construction activity given the high concentration of burials in the immediate area.

Archaeological monitoring was completed by Viguie (1994) of Scientific Consultant Services (SCS) for the installation of an emergency generator and utility lines, which required subsurface excavations. No historic properties were identified. In 2017, Hazlet and Dega (2017) of Scientific Consultant Services conducted archaeological

monitoring for the KCCC administrative building air conditioning system replacement project. Hazlet and Dega (ibid.:4) stated that:

> Archaeological monitoring was conducted due to the presence of sandy matrices in the vicinity of the project area. Through the succession of construction projects along coastal Kauaʻi, and throughout the Hawaiian Islands, buried remnants of pre- and post-Contact settlements, including human burials, have frequently been encountered in sandy substrate. The repeated exposure of culturally significant sites have highlighted the importance of Archaeological Monitoring during subsurface excavations.

As a result of their monitoring efforts, Hazlet and Dega (ibid.) identified one historic subsurface deposit described as a trash pit containing bottles, jars, one piece of faunal cut bone, a razor, and an enamel food dish. Due to the secondary context in which the site was found and in conjunction with the State Historic Preservation Division, no formal site number was issued. No other historic properties or burials were identified.

Previous Cultural Impact Assessment Studies

A Cultural Impact Assessment study was completed by Cultural Surveys Hawaiʻi, Inc. (Mitchell et al. 2004) for the proposed redevelopment of the Coco Palms Resort (see Figure 35). A thorough review of historical documents, land commission awards, previous studies, and historic maps was completed, which was supplemented with six oral history interviews. Their findings were summarized and Mitchell et al. (ibid.) identified potential cultural impacts and provided mitigative measures for the identified impacts. Mitchell et al. (ibid.:85) concluded that the vast amount of legendary accounts emphasizes Wailua's significance in Precontact times and that these "associations suggest a very antiquated and continuous occupation of the area." Subsurface construction activities and subsequent archaeological investigations conducted at the Coco Palms Hotel property resulted in the unearthing of human remains, all of which have been reentered at a designated area on the hotel property. While Mitchell et al. (ibid.) concluded that the proposed project would have "minimal or no impact on Hawaiian culture, its practices and traditions," as a precautionary measure they and noted the possibility of additional subsurface burials, artifacts, and cultural layers and recommended continued consultation with knowledgeable individuals.

Again in 2004, Cultural Surveys Hawaiʻi (Bushnell et al. 2004) completed a Cultural Impact Assessment report for the proposed Kuhio Highway improvement project (see Figure 35). The study area encompassed the coastal lands (listed from north to south) of Kapaʻa, Waipouli, Olohena, Wailua, and Hanamāʻulu Ahupuaʻa. The report included a review of cultural and historical documentation, a summary of previous archaeological studies, consultation results, and an assessment of traditional resources and practices. The consulted parties voiced concern over the proposed project's impact on *iwi kupuna* (ancestral remains)—a concern that was validated through the background research which specified the presence of burials in the sandy coastline sediments. In summarizing the known locales of burials, Bushnell et al. (ibid.:103) stated:

> Though the sandy sediments along the coastline are of primary concern, there have been a few isolated burials island. The potential inland burial area include locations of former *kuleana* (particularly Wailua *mauka* of Coco Palms) and cliffside areas including Puʻukī, Nounou, and Kālepa. Several of those consulted indicated that the discovery of *iwi* (bones) is a very sensitive issue for the Hawaiian community requiring much mediation and appropriate protocol.

Other concerns were also discussed which included the protection of the area's *heiau*, marshlands, *ʻauwai*, and coastal access for the procurement of marine resources. The proposed mitigation measures put forth by Bushnell et al. (ibid.) called for continuous consultation with the families of Wailua and other knowledgeable community members.

3. CONSULTATION

Gathering input from community members with genealogical ties and long-standing residency or relationships to the study area is vital to the process of assessing potential cultural impacts to resources, practices, and beliefs. It is precisely these individuals that ascribe meaning and value to traditional resources and practices. Community members often possess traditional knowledge and in-depth understanding that are unavailable elsewhere in the historical or cultural record of a place. As stated in the OEQC Guidelines for Assessing Cultural Impacts, the goal of the oral interview process is to identify potential cultural resources, practices, and beliefs associated with the affected project area. It is the present authors' further contention that the oral interviews should also be used to augment the process of assessing the significance of any identified traditional cultural properties. Thus, it is the researcher's responsibility to use the gathered information to identify and describe potential cultural impacts and propose appropriate mitigation as necessary.

In an effort to identify individuals knowledgeable about traditional cultural practices and/or uses associated with the current subject property, a public notice was submitted to the Office of Hawaiian Affairs (OHA) for publication in their newspaper, *Ka Wai Ola*. Although the notice was submitted via email on June 11th with the intent that it would appear in the July issue, the notice was not published until the August 2018 issue (Appendix A). As a result of the *Ka Wai Ola* public notice, one individual, Mr. Valentine Ako responded to the advertisement. Multiple efforts were made to contact Mr. Ako via phone, however this was unsuccessful. ASM staff, prepared a written letter and mailed it to Mr. Ako, whereby ASM staff received a phone call from his son Ivan Ako who informed us that they received the letter and agreed to participate in this study and requested for an in-person interview. The summary of Mr. Valentine Ako's interview is included below.

In addition to the one respondant from the *Ka Wai Ola* advertisement, four individuals and two Native Hawaiian Organizations (NHO) were contacted via email and/or phone: Dominique Cordy, an independent researcher living in Moloaʻa, Kauaʻi referred ASM staff to Devin Kamealoha Forrest, also an independent researcher and consultant from Hāʻena, Kauaʻi. Mr. Forrest's familiarity with the *kupuna* of Wailua then referred ASM staff to contact Liberta Hussey-Albao, current President of the Queen Debora Kapule Hawaiian Civic Club. An email was sent to Mrs. Hussey-Albao about the project which included a request for consultation and she responded via email and phone agreeing to participate in the study. The summary of Mrs. Hussey-Albao's interview is described below. Mrs. Hussey-Albao then extended our invitation to Mrs. Donna Kaliko Baker who is the *Kākau Moʻolelo* (Secretary) for the Queen Deborah Kapule Hawaiian Civic Club. Mrs. Baker also agreed to participate in this study and the summary of her interview is also detailed below. In addition to these individuals, ASM staff contacted two NHOs, the Kaumualiʻi Hawaiian Civic Club and the Ahahui Kiwila Hawaiʻi o Mōʻīkeha via email. To date, no response has been received from the NHOs. The authors reached out to the individuals and organizations listed above, all of whom were identified as possessing knowledge related to either the study area vicinity or other aspects related to the proposed KCCC facility.

As part of the interview process and with the consent of the interviewees, hand written notes were taking during the interview. Upon completion of the interview, Lokelani Brandt prepared an interview summary, which was emailed to the interviewees for review. The interviewees were asked to review the draft summary and make any necessary edits. With the approval of the interviewees, the finalized version of the summaries are presented below.

VALENTINE AKO

An interview was conducted by Lokelani Brandt with Mr. Valentine Ako on September 20, 2018 at the Regency at Puakea Assisted Living Center in Līhuʻe, Kauaʻi. Assisting with this interview was Mr. Ako's son, Ivan Ako who lives in Kapaʻa, Kauaʻi. Mr. Ako was born in Hōlualoa, Kona, Hawaiʻi on July 10, 1926, and moved to Kauaʻi in 1953 where he and his family settled in the Wailua Houselots. Mr. Ako has been consulted with on projects for both the North Kona area on Hawaiʻi Island as well as projects within the Wailua area including those associated with the Coco Palms Hotel and the Wailua Golf Course. When asked about the current study area, Mr. Ako indicated that the jail has been at this location since he could remember. He also recalled the original jail being a single building and that at one time the jail keeper was Charles Montgomery who was from Anahola. During Mongomery's time as the jail keeper, the jail was nicknamed "Montgomery Hotel." When asked about historic and traditional land uses near the study area, Mr. Ako described that around World War II, the 4th Marines conducted target practice near the study area, which included the use of live ordinances as well as target shooting at Nounou Ridge. In describing traditional land use within the area, Mr. Ako explained that the sand dunes situated east of the study area at the Wailua Golf Course are known burial sites. He recalled assisting with the reinternment of dozens of human remains at this site and remarked that many of the burials were oriented to the east. Mr. Ako also noted that the current jail site is prone to flooding during heavy rains and described a time when there was talk to move the jail to Hanamāʻulu. Mr. Ako

informed me that there have been many studies conducted in the Wailua area and provided me with a names list of individuals who also have in-depth knowledge of the study area. Mr. Ako advised that if subsurface work in needed for this project that there is a possibility of finding unexploded ordinances as well as human remains given the jail's proximity to the sand dunes.

LIBERTA HUSSEY-ALBAO AND DONNA KALIKO SANTOS

On September 21, 2018, Lokelani Brandt met with Liberta Hussey-Albao and Donna Kaliko Santos at the Wailua Golf Course. Liberta and Kaliko both live in Puna Moku where Wailua is an *ahupua'a* and both serve on several NHOs, but for the purposes of this study, they requested to be identified with the Queen Deborah Kapule Hawaiian Civic Club. Kaliko also serves as a representative of Puna Moku (Manokalanipo) with the Aha Moku Advisory Committee (AMAC).

They have also been involved or consulted with on various occasions for projects within the Wailua area. When asked about the current study area, both Liberta and Kaliko immediately mentioned the frequent flooding of the KCCC parcel. Although this is not an immediate cultural concern, both Kaliko and Liberta described the how flooding of the KCCC facility may result in the temporary evacuation of the inmates to the Lihue Civic Center, which also serves as a temporary evacuation center for the public, possibly overwhelming resources during an emergency/disaster event. Liberta noted that during past natural disasters, some families have chosen to remain in place instead of evacuating to the Lihue Civic Center due to their concern of mixing families with the inmate population. They noted that this is a major public safety concern and urged the Department of Public Safety to consider moving the jail out of the flood zone. Liberta noted that lands owned by the Department of Hawaiian Homelands located to the northwest of the current study area would be a more ideal place for a jail as it is located at a higher elevation making it less prone to flooding. Both Liberta and Kaliko expressed that the proposed project is too narrowly focused and does not address the larger public safety issues.

When asked about known historical or traditional uses in the study area vicinity, Liberta described the jail being in its current location since moving to Kaua'i in 1948. She also noted that at one time, the jail was known locally as "Montgomery Hotel." Regarding traditional uses of the study area vicinity both Liberta and Kaliko described burials being unearthed from the sand dunes on the Wailua Golf Course property. Kaliko also pointed out that human burials have been uncovered during improvement projects along Kuhio Highway. In the past, on both sides of the current facility, there have been farming/agricultural activities but have now been mostly pasturing of horses, etc. in recent years. They then walked ASM staff member to a designated reinternment site located on the Wailua Golf Course parking lot fronting Kuhio Highway. Kaliko explained that this internment site is used when burials are unearthed from the Wailua Golf Course or along Kuhio Highway. She related that this site is nearing capacity and is one of several reinternment sites within Wailua. Both Liberta and Kaliko commented on inadvertent finds when the ground is disturbed (e.g. water lines etc.). They, however, did not recall being involved in any human burial related matters within the current KCCC facility property. The potential of discovering human burials within any part of coastal Wailua is a major concern for both Kaliko and Liberta as the area is a known sand dune where the possibility of remains being disturbed is very high. On a nearby highway project, community consultation pursued an expansion of the area of potential effects (APE) because of the cultural significance of Wailuanuiahoano area. Due to Wailua's sensitivity, both Kaliko and Liberta strongly advocate developers and construction companies to have an archaeological monitor on site during any subsurface activities. Kaliko also emphasized the importance of having a proactive approach when dealing with human burials and described the pressing need to reintern human remains as quickly as possible and within the same *ahupua'a* in which that burial was found—a customary practice that has been established by respected *kupuna*. Liberta and Kaliko advocated for on-site archaeological monitoring for any subsurface or earth moving activities associated with the proposed project.

Liberta also spoke of the importance of Wailua during traditional times and noted the location of the many *heiau* and other significant cultural sites within the *ahupua'a*. Following the discussion at the Wailua Golf Course, she then took ASM staff member to visit the many *heiau* in the area and shared some of the history and current efforts to preserve the vestiges of these sites.

SUMMARY OF PRIOR RELEVANT INTERVIEWS

In considering the impacts of the current criminal justice system on Native Hawaiians, statistical information has and continues to be collected by the various State departments and agencies including the Office of Hawaiian Affairs (OHA). As such, the data has substantiated years of anecdotal evidence showing the alarming rates at which Native Hawaiians are disproportionately represented in every stage of the criminal justice system. Several key reports have explored the data in more detail and have resulted in the publication of two major reports, including *The Disparate*

Treatment of Native Hawaiians in the Criminal Justice System (OHA 2010). Following the publication of OHA's (2010) report, Act 170 was passed, which led to the statutory creation of the Native Hawaiian Justice Task Force. The task force published their recommendations in a 32-page report titled *The Native Hawaiian Justice Task Force Report* (2012). Serving as Chair of this task force was Michael Broderick and task force member Dr. Keahiolalo, both of whom were interviewed by ASM Affiliates staff for the Oʻahu Community Correctional Center proposed repair/replacement project (Gotay et al. 2018). While typical Cultural Impact Assessments emphasizes site-specific impacts, the inherent nature of the proposed housing expansion project carries more than site-specific impacts. Distinguishing between social and cultural impacts is a difficult proposition at best, as many of the identified social impacts apply specifically to Native Hawaiians; thus, transforming them into sociocultural impacts.

Gotay et al's (2018) report covered subjects relevant to this study, specifically the issue of overcrowding, and more importantly the overrepresentation of Native Hawaiians in State-operated jail facilities including the Community Correctional Centers. Dr. RaeDeen Keahiolalo, an expert in Hawaiʻi prison politics was consulted on this matter and she "related the idea of reducing recidivism to the ongoing rhetoric about the lack of space for inmates" (ibid.:88). Dr. Keahiolalo added that:

> …space limitations can be reduced by placing community and low-custody level inmates on supervision rather than imprisonment, utilizing rehabilitative programs such as work furlough, drug treatment, probation, or electronic monitoring. Dr. Keahiolalo related that these types of supervision are proven to result in lower rates of recidivism and higher rates of rehabilitation. (ibid.)

In describing the impacts of Hawaiʻi's carceral system on Native Hawaiians, Dr. Keahiolalo stated "that the cycle of imprisonment of *Kanaka Maoli* has been proven for over two-hundred years" (ibid.:89). She further remarked:

> …ethnic disparities are socially accepted and that although there is an array of rehabilitative services for Native Hawaiians in nearly every sector, the statistics do not reflect any improvement in the socioeconomic status of Native Hawaiians…our policies perpetuate social, cultural, economic, and political disparities… the issue is not just about an individual, or an individual's family, rather it's about communities and the impacts that are felt by communities. As Hawaiians make up the largest proportion of Hawaiʻi's inmate population, they are the most adversely impacted.

Additionally, a second interview was conducted with former family court judge, Michael Broderick. He stressed that "Native Hawaiians have been and continue to be, disproportionately represented in Hawaiʻi's criminal justice system, and therefore any new jail facility *will* have an impact on Native Hawaiians" (ibid.:89). He stressed that *how* Native Hawaiians will be impacted is the fundamental question. The Native Hawaiian Justice Task Force (2012:7) reported that "Native Hawaiian are overrepresented in every stage in the criminal justice system, and the disproportionality increases as Native Hawaiians go further into the system, also making it harder to leave and stay out of prison." While expanding the current housing facilities may immediately relieve inmate overcrowding, both Mr. Broaderick and Dr. Keahiolalo emphasized the importance of finding ways to reduce the overall jail population, which include but are not limited to reforming the bail and pretrial systems—a step that Mr. Broderick believes "should not be overlooked. (ibid.). The current bail and pretrial system have resulted in the detainment of low-security level inmates, which currently make up a sizable portion of the inmate population.

4. IDENTIFICATION AND MITIGATION OF POTENTIAL CULTURAL IMPACTS

The OEQC guidelines identify several possible types of cultural practices and beliefs that are subject to assessment. These include subsistence, commercial, residential, agricultural, access-related, recreational, and religious and spiritual customs. The guidelines also identify the types of potential cultural resources, associated with cultural practices and beliefs that are subject to assessment. Essentially these are natural features of the landscape and historic sites, including traditional cultural properties. In the Hawai‘i Revised Statutes–Chapter 6E a definition of traditional cultural property is provided.

> "Traditional cultural property" means any historic property associated with the traditional practices and beliefs of an ethnic community or members of that community for more than fifty years. These traditions shall be founded in an ethnic community's history and contribute to maintaining the ethnic community's cultural identity. Traditional associations are those demonstrating a continuity of practice or belief until present or those documented in historical source materials, or both.

The origin of the concept of traditional cultural property is found in National Register Bulletin 38 published by the U.S. Department of Interior-National Park Service. "Traditional" as it is used, implies a time depth of at least 50 years, and a generalized mode of transmission of information from one generation to the next, either orally or by act. "Cultural" refers to the beliefs, practices, lifeways, and social institutions of a given community. The use of the term "Property" defines this category of resource as an identifiable place. Traditional cultural properties are not intangible, they must have some kind of boundary; and are subject to the same kind of evaluation as any other historic resource, with one very important exception. By definition, the significance of traditional cultural properties should be determined by the community that values them.

It is however with the definition of "Property" wherein there lies an inherent contradiction, and corresponding difficulty in the process of identification and evaluation of potential Hawaiian traditional cultural properties, because it is precisely the concept of boundaries that runs counter to the traditional Hawaiian belief system. The sacredness of a particular landscape feature is often cosmologically tied to the rest of the landscape as well as to other features on it. To limit a property to a specifically defined area may actually partition it from what makes it significant in the first place. However offensive the concept of boundaries may be, it is nonetheless the regulatory benchmark for defining and assessing traditional cultural properties. As the OEQC guidelines do not contain criteria for assessing the significance for traditional cultural properties, this study will adopt the state criteria for evaluating the significance of historic properties, of which traditional cultural properties are a subset. To be significant the potential historic property or traditional cultural property must possess integrity of location, design, setting, materials, workmanship, feeling, and association and meet one or more of the following criteria:

a Be associated with events that have made an important contribution to the broad patterns of our history;

b Be associated with the lives of persons important in our past;

c Embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; or possess high artistic value;

d Have yielded, or is likely to yield, information important for research on prehistory or history;

e Have an important value to the native Hawaiian people or to another ethnic group of the state due to associations with cultural practices once carried out, or still carried out, at the property or due to associations with traditional beliefs, events or oral accounts—these associations being important to the group's history and cultural identity.

While it is the practice of the DLNR-SHPD to consider most historic properties significant under Criterion d at a minimum, it is clear that traditional cultural properties by definition would also be significant under Criterion e. A further analytical framework for addressing the preservation and protection of customary and traditional native practices specific to Hawaiian communities resulted from the *Ka Pa‘akai O Ka ‘Āina* v Land Use Commission court case. The court decision established a three-part process relative to evaluating such potential impacts: first, to identify whether any valued cultural, historical, or natural resources are present; and identify the extent to which any traditional and customary native Hawaiian rights are exercised; second, to identify the extent to which those resources and rights

will be affected or impaired; and third, specify any mitigative actions to be taken to reasonably protect native Hawaiian rights if they are found to exist.

SUMMARY OF CULTURE-HISTORICAL BACKGROUND FOR WAILUA

A review of the culture-historical background material has revealed at a minimum the profound cultural and spiritual significance of Wailua Ahupuaʻa and more specifically the Wailuanuiʻahoʻāno region during the Precontact and Historic Periods. This geographical location coupled with the abundance of natural resources including access to *wai* (freshwater), forest and plant resources, and marine resources has undeniably made Wailua a primary settlement location for the early voyagers. This inference is well-supported in many of Wailua's legendary accounts that describe the arrival and settlement of these early voyagers including Mōʻīkeha and Laʻamaikahiki. These early voyagers also brought with them a new set of religious practices including the introduction of *pahu* drum that influenced early *heiau* customs—customs that would be duplicated over many generations and become part of the repertoire of traditional *heiau* rituals. The assembled *moʻolelo* also show Wailua to be connected to several pan-Pacific deities including Māui, Hina, and Kū, whose stories help to connect Wailua to greater Oceania. The story concerning Māui's discovery of fire at Wailua also points to a changing culture, which would have altered at a minimum, the diets, the domestic life, fishing techniques, travel, funerary practices and more. The story describing Hina and Kūohu also sheds light on Precontact life in Wailua. This story's explicit description concerning the traditional repercussions associated with the removal of a human burial provides a basis for contemporary Hawaiian beliefs—beliefs that were expressed by all consulted parties and should serve as a guiding principle for modern development activities. Additionally, this account as well as the one noting the occasional shark sighting, described Wailua River as a place where transfiguration took place and where those departed spirits returned to seek out their loved ones. Other accounts concerning the lives of Kawelo, Puniakaia, Uweuwelekehau, Pīkoiakaʻalalā, Halemano, and Pākaʻa emphasize Wailua as a birthplace of chiefs and served as the early training grounds for a number of these cultural-heroes. These stories also point to Wailua as a place of refuge for those outside families fleeing from harm and where conquest over the island kingdom was often initiated. The plethora of *moʻolelo* that have been intentionally passed down over the ages concerning Precontact life in Wailua illustrates cultural vibrancy, change, and adaptation, and is nothing short of astounding.

The Precontact cultural vibrancy and adaptation are reflected in the physical vestiges of the area's many *heiau*, and other culturally significant places in addition to the numerous agricultural features extending along the Wailua River and its tributaries, coastal habitation centers, fishponds, and the burial complex found in the sand dunes of Walio. Collectively, these elements prove Wailua to be an important sociopoliticial center that was clearly supported by industrious generations of Kanaka Maoli. For these reasons, it is the author's contention that Wailua as a whole should be considered a traditional cultural property.

Following the arrival of the first westerners in 1778, and throughout the early 19th century, Kauaʻi's island rulers maintain their autonomy and managed to avoid personal defeat over the rising Kamehameha. By the 1820s, western influence spurred change in the domestic life at least in the royal households and began to alter traditional concepts of spirituality and economics. The introduction of livestock including cattle and other foreign edibles to supply visiting ships continued to shift the traditional life towards a capitalistic market economy. The plight of the *Māhele ʻĀina* of 1848 led to the displacement of those residing in the *mauka* portion of Wailua and the concentration of residents within a mile of the coast along the northern bank of Wailua River. The designation of Wailua as Crown Lands and the physical clearing of residents from the uplands paved the way for large-scale agriculture. The fight to restore the traditional *loʻi* in Wailua is demonstrated in the cooperative agriculture group Hui Mahiku formed sometime around 1855. By this time, the move toward a capitalistic economy had gained serious momentum and, in its aftermath, transformed Wailua into a major sugar production center. The formation of the Lihue Plantation Company which operated between 1849 through 2000 had transformed the cultural fabric of this district as well as the physical landscape by tapping portions of Wailua River for irrigation, and replaced the traditional agricultural abundance of Wailua with a single crop. It was during the plantation era that the Wailua County Jail was established and became the main jail site for the island and a place of imprisonment for Japanese residents following World War II.

RECOMMENDATIONS

Accounts describing land use in the current study area is minimal and based on Handy et al. (1991) description from the late 1920s, the area may have been irrigated by springs and used for growing wet taro although they reported no signs of terraces. Ranching and sugarcane cultivation did take place on the adjacent lands but never within the immediate study area parcel. This was likely due to it being constantly inundated with water, a condition noted on

Hawai‘i Registered Map 3041 from 1939 (see Figure 15). That same map, however, shows a former “fishpond” on the property which has since been filled it. The archival research did not identify any specific cultural practices associated with the study parcel, and likewise, none of the consulted parties identified or described any past or on-going traditional cultural practices taking place within the immediate study area; however, the presence of burials in the dunes that are just makai of the subject parcel was noted by all the consulted parties as a potential concern. As a result of the identification of human burials along Kuhio Highway and on the adjacent Wailua Golf Course property, we strongly recommend the Department of Public Safety take a proactive approach to the potential discovery of human burials by establishing protocols, which first includes having on-site archaeological monitoring during all subsurface excavations and identifying and consulting with stakeholders prior to any subsurface activity. Consultation should at a minimum include the Kaua‘i and Ni‘ihau Island Burial Council, the State Historic Preservation Division Burial Sites Specialist for Kaua‘i and other knowledgeable community members such as Donna Kaliko Santos, the Puna Representative for the Aha Moku Advisory Committee.

The consulted parties, all of whom have resided in Wailua for many decades also expressed concern for the constant flooding at the KCCC facility property. Considering this, we strongly recommend that the design of the new building take into effect this concern. While not a direct cultural concern, it has been described by Kaliko and Liberta to be a public safety concern. Additionally, the statement offered by Mr. Valentine Ako concerning the area’s former use as a live shooting range following World War II warrants the area’s inspection by professionals in the identification and mitigation of unexploded ordinances.

In summary, the recommendations provided above are intended to ensure that the proposed medium security housing project considers the concerns and thoughts shared by the consulted parties. While none of the consulted parties explicitly opposed the proposed project, the concern, and recommendations offered above are intended to support the Department of Public Safety in being mindful of the cultural, social, and environmental uniqueness of Wailua, Kaua‘i. Conducting background research, consulting with community members, and taking steps towards mitigating any potential cultural impacts is done so in the spirit and practice of *Aloha ‘Āina*, a contemporary movement founded on traditional practices and beliefs that emphasize the intimate relationship that exists between Native Hawaiians and the *‘āina* (land). If the Department of Public Safety assumes ownership of their right and responsibility to expand the housing facility at the KCCC facility, we recommend that it be done so in that same spirit and practice. Attention to, and implementation of the above described issues and measures relative to the above-identified study area will help to ensure that no such resources, practices, or beliefs will be adversely affected by the proposed medium security housing expansion project.

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APPENDIX A.
KA WAI OLA PUBLIC NOTICE

CULTURAL IMPACT ASSESSMENT - WAILUA AREA, ISLAND OF KAUA'I

ASM Affiliates is preparing a Cultural Impact Assessment (CIA) in advance of the proposed Kaua'i Community Correctional Center (KCCC) Housing Expansion, State of Hawai'i Department of Public Safety (PSD), Island of Kaua'i. The current KCCC facility is located on TMK: |4| 3-9-005:013 along Kūhio Highway in the Wailua area on the Island of Kaua'i.

We are seeking consultation with any community members that might have knowledge of traditional cultural uses of the proposed project area; or who are involved in any ongoing cultural practices that may be occurring on or in the general vicinity of the subject properties, which may be impacted by the proposed project. If you have and can share any such information please contact Bob Rechtman brechtman@asmaffiliates.com, or Lokelani Brandt lbrandt@asmaffiliates.com, phone (808) 969-6066, mailing address ASM Affiliates 507A E. Lanikāula Street, Hilo, HI 96720.

APPENDIX F:
KCCC Secure Housing Project
Schematic Design Report

Kauai Community Correctional Center



PUBLIC SAFETY DEPARTMENT HAWAII CORRECTIONS

DLR Group

Current Existing Conditions













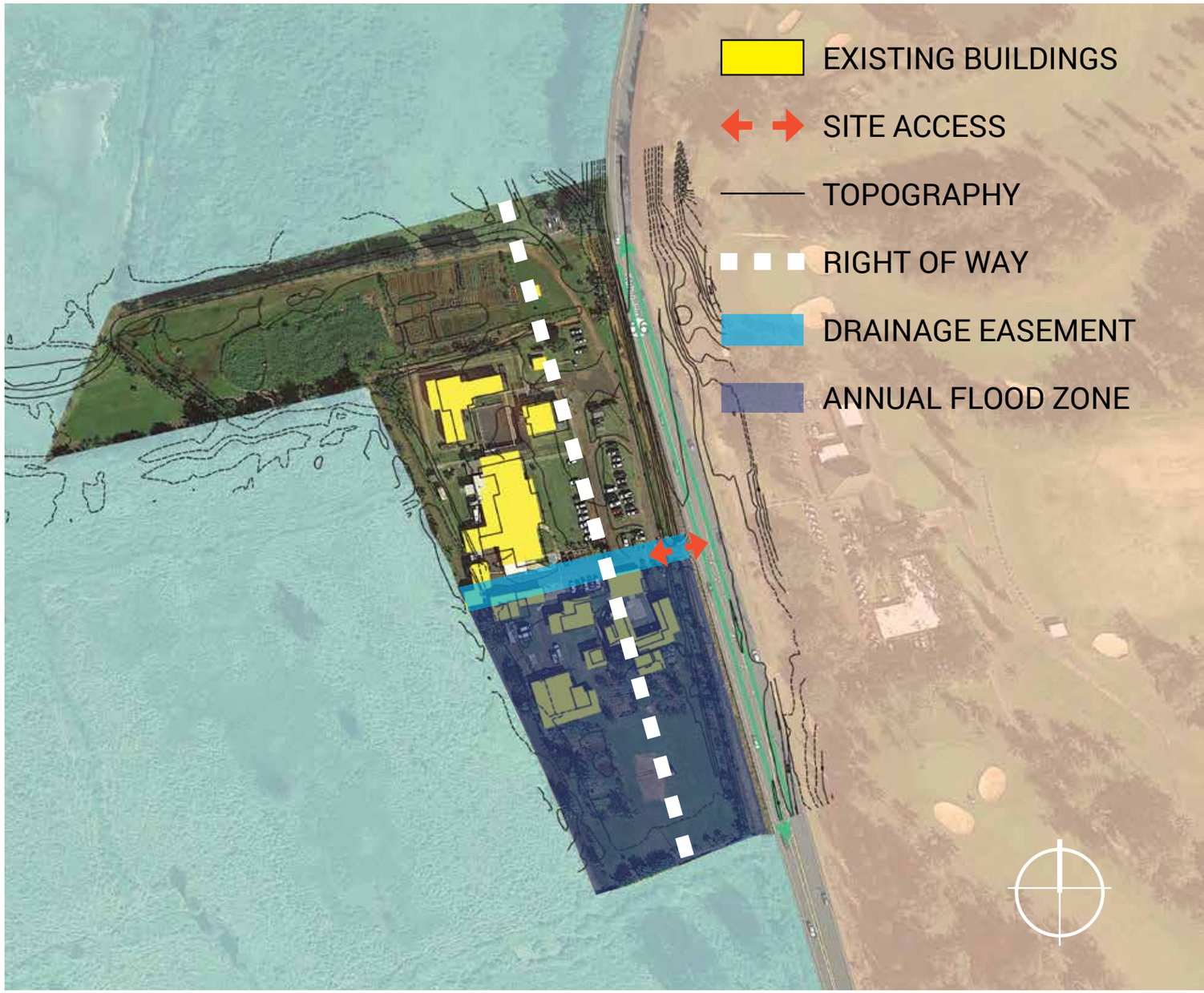


Site Internal Influences

The initial construction project will include the secure housing of three 32 bed units and one 48 bed unit along with their support spaces. These are shown in phase 1. The master plan looks to add three more 32 bed units and two more 48 bed units to be able to provide over 300 beds to alleviate the overcrowding that currently exists. The designs included in this report are schematic floor plans to confirm that adjacencies are adequate between departments and that the circulation of inmates and staff are controlled as required. Rooms are shown to match the areas of the programs and provide overall building areas and quantities to provide estimated costs.

Ongoing design will progress with the selected schematic design to determine systems for mechanical, plumbing, and electrical components are integrated into design. The interior building design will progress to determine appropriate functionality and security throughout the secure housing. Exterior enclosures will develop to ensure the materials and systems are fully designed to protect the building from the climate and ensures a secure perimeter is constructed.

For the Kauai site, the annual average air temperature is 74.24 degrees with an annual average wind speed of 5.58 mph coming from a mean direction of E of N 54-degrees. The annual total rainfall is 46.11-inches. The warmest month is August with the driest month happing just before with 1.7 inches of rain in June. The coldest month is February with the wettest month occurring just before in January with 5.9 inches of rain. These climatic cues allow the design to respond by placing the highest internal gains in the North facing positions while avoiding placing occupants high in spaces avoiding stratification that occurs. In order to deal with the stratification utilizing tall spaces in the dayrooms and adding ceiling fans will provide comfort. The design will allow for open plan giving more space to occupants and provide semi-outdoor spaces for day time occupation. The viewing garden gives an opportunity to provide ground level vegetation to reduce ground reflectance providing cooler ground temperatures. The climate of Hawaii dictates using low mass construction with high levels of insulation due to the amount of air conditioning required to provide comfort to occupants during the hottest times in the year. Ventilation is utilized through the design with East and West facing windows that are wider than tall with shading being provided with roof overhang.



PUBLIC SAFETY DEPARTMENT HAWAII CORRECTIONS

DLR Group

Codes & Standards

The following codes are applicable to this project:

2012 International Building Code (IBC) with Hawaii Amendments
2012 International Mechanical Code (IMC)
2006 Uniform Plumbing Code (UPC)
2012 National Fire Protection Association (NFPA) Fire Code
2012 International Fuel Gas Code (IFGC)
2008 National Electrical Code (NEC)
2015 International Energy Conservation Code (IECC) with Hawaii Amendments
2012 National Fire Protection Association (NFPA) Fire Code

Publications from the following standards organizations will be used as design guidelines for the project:

ASHRAE 62-1999 Ventilation for Acceptable Indoor Air Quality
ANSI/ASHRAE 55-1992 Thermal Environmental Conditions for Human Occupancy
Illuminating Engineering Society of North America (IES)
Building Industry Consulting Service International (BICSI)
National Electrical Manufacturer's Association (NEMA)
Electrical Industries Alliance (EIA)
Telecommunications Industry Association (TIA)
Americans with Disabilities Act and Architectural Guidelines (ADAAG).

The construction of the jail building is driven by the security and operations within the building. The square footage of the 32 bed unit is approximately 5,200 sf and the 48 bed unit is approximately 7,600 sf. The prototype includes inmate housing, medical facilities, and building services.

Through the Goal and Visioning meeting the Goals of Staff, Community, and Longevity emerged as principles that drive the decision making process for the project. To achieve these goals providing safety and security, efficiency, and sustainability.

Safety in a jail facility comes in many levels. Staff occupy the building daily and need to feel safe always. Dealing with volatile and complicated situation puts employees in substantial risky situations. The safety of the staff will come through measures such as increasing security in operations, clear lines of sight, providing state of the art security systems and procedures, clearly identify staff areas, creating personal space, increasing natural daylight, and creating a secure perimeter.



The community working and living around the facilities will feel safe and see it as a community resource. By creating a secure environment in and around the jail, it would be an unlikely place for unwanted people to loiter. Additionally, by creating a secure environment inside the jail, inmates will have the ability to feel controlled and secure without the threat from unwanted interactions with other inmates. Modern security measures and operations allow more control and direct supervision by the officers. Normative and calming physical environments assist in the rehabilitation of inmates. In improving and providing adequate space for housing ensures people will have their own personal space and alleviate issues of overcrowding and unsanitary conditions.

In providing a prototype will lead to efficiency in the buildings in terms of materials, systems, organization, and construction. The prototype design provides operational efficiency in corrections staffing and operational procedures for the security of inmates. Systems and material selected are chosen to positively affect the long-term durability of the building. Efficiencies in staffing are not typically associated with the cost of the project, they directly



affect the building cost and impact to the islands of Hawaii. Through organization and space adjacencies, the operations will more efficiently utilize staff on each shift. Response time to events throughout the facilities is minimized by bringing inmate areas close together with clear lines of sight for the direct supervisor. The design will also allow for future growth and changes that will occur. The prototype provides the ability to expand on the same site should size projections develop as anticipated. As inmate groups change in character, the inmate areas shall accommodate new population combinations with the use of the mini dorm and cell housing layouts. The materials being proposed will provide long-term durability in an abusive and heavy use environment from the activities it houses. Flexibility in technologies that are ever advancing or being innovated must be accommodated into the buildings through simple pathways.

The construction of the secure housing is driven by the security and operations within the building and program. The square footage of the secure housing is approximately 23,200 SF

The secure housing encompasses inmate housing, inmate programs, health and interview services and building services. The secure perimeter construction is reinforced CMU with outboard exterior continuous extruded polystyrene insulation in conjunction with a fiber cement board panel rainscreen to protect the exterior wall. The exterior continuous extruded polystyrene insulation will meet the current energy codes. Rainscreen systems can use many combinations of exterior materials including but not limited to wood, metal panels, fiber cement boards and masonry. Selection of materials will complement the residential/commercial neighborhood around the facility while emphasizing the civic presence of the institution.

Roof planes in the facility vary over distinct functions with the main shed roof extending over the secure housing portion and giving the buildings it's character. The program areas that support the secure housing will have a flat membrane roof which will provide opportunities for HVAC equipment and roof penetrations required for these departments.

Windows throughout the jail are limited to prevent vision of inmate activities and inmates communicating to the outside. Natural daylighting throughout the

housing dayrooms are provided in clear triple pane skylights, secure glazing between the viewing garden and housing, and laminated glass between outdoor recreation and the housing. Unobstructed vision of the sky is provided without diffusion of light to allow the visual benefits of the movement of the sun throughout the day. The connection to the viewing garden will allow inmates to see a natural landscape and daylighting without being able to communicate to the outside community around the buildings. Interior construction



is predominately a wall construction of concrete masonry units (CMU) and steel stud framed construction with security mesh behind dry wall above. Fully grouted CMU is provided up to 10'-0" from finished floor to provide durability and security in inmate accessible areas. Six-inch wide steel stud framing is provided on top of the CMU and up to the exposed roof deck with sprayed on acoustical treatment. A layer of woven wire security mesh on the side of the wall accessible to inmates is covered with one layer of gypsum wall board (GWB) on both sides of the wall. The mesh provides a security deterrent in the event an inmate gains access to the wall. Stud walls will be insulated where required for sound privacy or noise control. This construction is provided as a cost-effective solution limiting the structural weight of a full height CMU wall and the complicated detailing around structure and mechanical systems required to pass through the walls. By using a GWB system, holes and gaps may be securely patched and filled around complex shapes.

The main housing units with 32 beds will consist of 4 mini dorms or 16 cell units that can be mixed or matched depending on the need of the sites and for the 48 bed housing unit will consist of 6 mini dorms or 24 cell units. The cells are stacked in two tiers with a mezzanine accessed by a single or in the case of cells a double run metal stair with a minimum of 60-inch width clearance. Railings are provided at a minimum of 60-inch high along all open sides of the mezzanine to protect people from being thrown over the railing. The cells are metal wall construction which provides the most efficient building footprint by limiting



the wall thickness to 2-inches thick. Metal wall panels are fully grouted with concrete to provide a quality sound barrier between cells. Area of each cell is based on American Correctional Association standards. Each cell will be provided with bunks, a small desk and two stools welded to the metal wall panels, and a combination toilet/sin unit. Swing doors to most cells will be provided with vision glazing and leading-edge food pass cuffport. Some single cells can be provided with slider doors for added control of inmates by officers. Security grade door silencers are provided along the door frames to mitigate the loud door closing. Each cell is negatively pressured to meet codes for occupancy with a toilet unit within the room. Security grade light fixtures are provided as noted in the electrical narrative to provide cell lighting and night lighting. Natural daylighting is borrowed light from the dayroom skylights and glazing. The mini dorms are stacked in two tiers with a short mezzanine that extends from the single metal stair that connects the two dorm housing units. Along with the cells the walls will also be a metal wall construction that are fully grouted with concrete. Each dorm unit will consist of 4 double bunk beds. The area of each mini dorm is based on American Correctional Association standards. Each dorm will be provided with bunks, a welded round table with chairs, two sinks, and two toilets. The swing doors to the dorms will be provided with vision glazing and leading-edge pass cuffport. Silencers will be added to door frames along with negative pressured to the dorm. Light fixtures will be similar to cell security lighting and will borrow natural daylight from the dayroom through security glazing along the dorm wall.



Open dayrooms provide tables and areas for inmate activities such as dining, passive recreation, video visiting, viewing garden observation, and showers. The clear height 26-feet at the highest point and 16-feet at the lowest point in the dayroom allow the area to have exposed ceiling structure, skylights, and commercial grade light fixtures in lieu of security grade as they are out of reach of inmates. Light fixtures are on daylight sensors to dim or turn off as possible during high daylit hours.

One exterior recreation yard will be provided and enclosed on all sides with solid security wall construction. The yards are open are open to the sky with security mesh covering for natural daylighting and fresh air for required

exercise periods.

Interior materials throughout the secure housing program spaces and housing areas are durable and anti-microbial wherever possible. Anti-microbial products prevent the ongoing spread of infections and illness through facilities such as secure housing by deterring growth of the bacteria where people will touch and spread them. Flooring materials are durable. Dayrooms and cells shall be exposed concrete floors with either a polished or honed finished or a durable security grade floor paint. Shower areas will have a continuous or seamless flooring system that prevents mildew from forming within cracks and joints with a textured, slip resistant surface. CMU, metal wall panels, and GWB walls shall be painted. Ceilings in cells will be security ceiling systems manufactured as part of the metal cell construction and painted to match. Ceiling panels may be perforated with insulation backing to provide additional acoustic control within cells. The multi-purpose, office and interview/medical offices will have linoleum flooring and dropped ceilings such as moisture resistant acoustic ceiling tiles (ACT) may be provided in medical areas and offices to provide cleanable surface. Corridors and mechanical rooms will typically be exposed to structure.

All areas within the secure perimeter shall be classified as 1-3 occupancy. The jail support and housing areas of the facility will be Type II-B construction which is non-combustible. The entire building will be provided with automatic sprinkler system to meet code requirements. Fire separation of programmatic areas to create smoke compartments and allowable building areas may require fire construction or expansion joints.



Permanent millwork will use durable materials such as solid surface counters and plastic laminate. Rooms with casework will use standard unit sizes with minimal customization.

KCCC Programming

(3) 32 Beds & (1) 48 Beds - HCCC & KCCC

Housing Pod	Spaces	SF/ Space	Total NSF	Notes
Beds	96.0	59	5,664	Includes space for 8 person mini dorms or 4 double
Mini Dorm	-	-	-	with 2 toilets, 2 sinks, 8 bunks, tables for 4-8.
Double Cell	-	-	-	with 1 toilet, 1 sink, 2 bunks, desk
Shower	12.0	50	600	Shower, drying area, privacy screen, 1 ADA
Dayroom	96.0	46	4,416	*will probably be larger due to geometry*
Recreation Yard	96.0	25	2,400	*Space TBD based on geometry (minimum 750)*
Staff Station	3.0	80	240	open in dayroom
Janitor Closet	3.0	35	105	Floor sink, janitorial supplies
Viewing Garden	3.0	439	1,317	Open air natural viewing garden
Stairs	6.0	128	768	
Storage	3.0	27	81	
Vestibule	3.0	62	186	connects housing units
		Subtotal	15,777	
		Grossing	1.45	
		Total DGSF	**22,877**	

Housing Support	Spaces/ Pod	SF/ Space	Total NSF	Notes
Medical Assessment/ Interview	3.0	127	381	Medical and mental health assessment/ Camera'd small private meeting room
Multi-Purpose Room	0.8	750	563	25 inmates and 2 staff
Office	3.0	122	366	
Storage	3.0	108	324	
Circulation	3.0	204	612	
staff toilet	3.0	70	210	
		Subtotal	2,456	
		Grossing	1.25	
		Sub Total DGSF	**3,069**	
		Total DGSF	**25,946**	

48 Beds

Housing Pod	Spaces	SF/ Space	Total NSF	Notes
Beds	48.0	40	1,920	Includes space for 8 person mini dorms or 4
Mini Dorm	-	-	-	with 2 toilets, 2 sinks, 8 bunks, tables for 4-
Double Cell	-	-	-	with 1 toilet, 1 sink, 2 bunks, desk
Shower	4.0	50	200	Shower, drying area, privacy screen, 1 ADA
Dayroom	48.0	49	2,352	*will probably be larger due to geometry*
Recreation Yard	48.0	25	1,067	*Space TBD based on geometry (minimum 750)*
Staff Station	1.0	80	80	open in dayroom
Janitor Closet	1.0	35	35	Floor sink, janitorial supplies
Viewing Garden	1.0	516	516	
				opens to dayroom
		Subtotal	6,170	
		Grossing	1.45	
		Total DGSF	**8,947**	

Housing Support	Spaces/ Pod	SF/ Space	Total NSF	Notes
Medical Assessment/ interview	1.0	127	127	Medical and mental health assessment
Multi-Purpose Room	0.5	810	405	25 inmates and 2 staff
Office	1.0	122	122	
Storage	1.0	108	108	
Circulation	1.0	203	203	
Staff toilet	0.5	70	35	Camera'd small private meeting room
		Subtotal	1,000	
		Grossing	1.25	
		Sub total DGSF	**1,250**	
		Total DGSF	**10,197**	

Total Housing SF = 36,143

For efficiency the secure housing is derived from a prototype that will be applied on each site. In order to get a maximum amount of beds without increasing the capacity of the secure housing, 144 beds are proposed with three 32 bed modules and one 48 bed module. The modules incorporate a viewing garden, which creates a therapeutic visual connection to nature for the inmates, while simultaneously limiting visual access to the public. The secure housing areas incorporate support spaces like the assessment/medication room, interview room, two offices for mental health counseling, and two program rooms. The allocation of space for the dayroom and outdoor recreational areas are based on the American Correctional Association (ACA) standards.

PUBLIC SAFETY DEPARTMENT HAWAII CORRECTIONS

DLR Group

Housing Unit Prototypes

FINAL HOUSING FLOOR PLANS



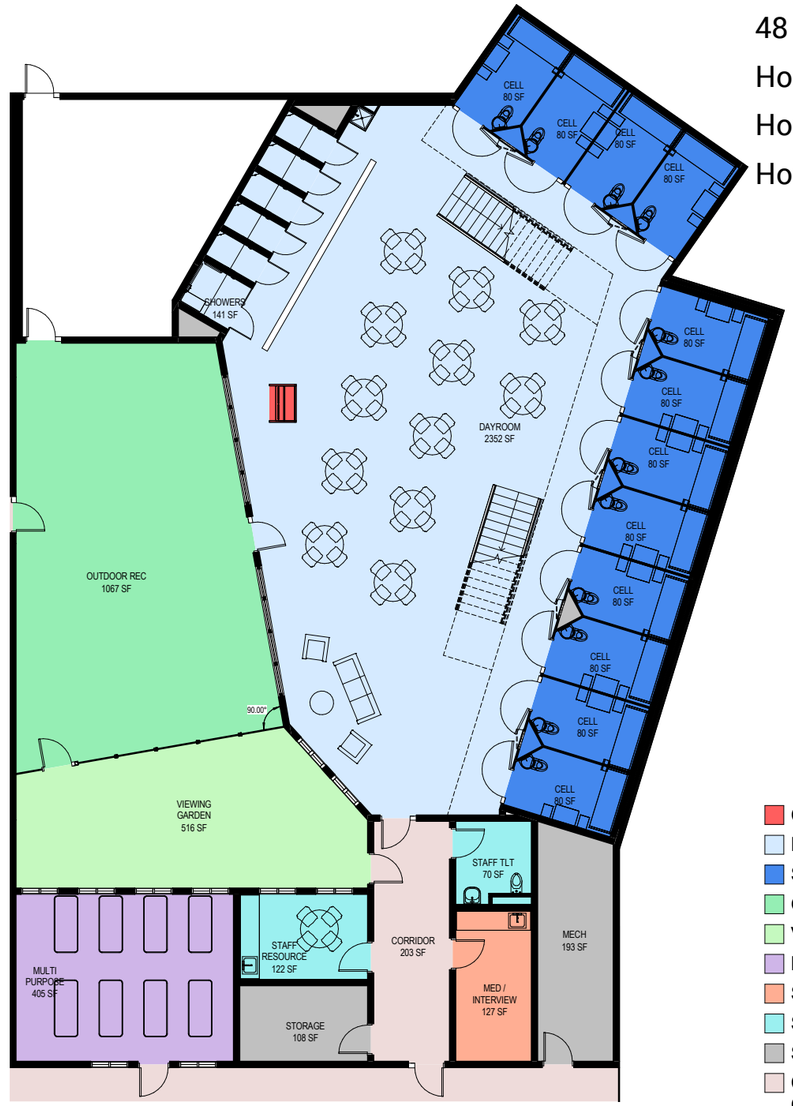
32 BED

Housing pod: 7,598 SF

Housing support: 1,164 SF

Housing total: 8,762 SF

32-BED FLOOR PLAN



48 BED

Housing pod: 8,947 SF

Housing support: 1,250 SF

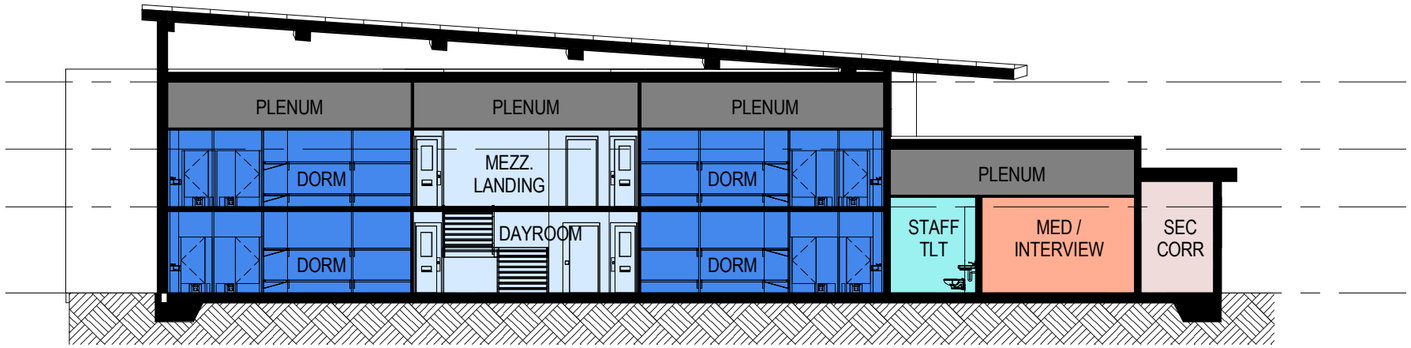
Housing total: 10,197 SF

48-BED FLOOR PLAN

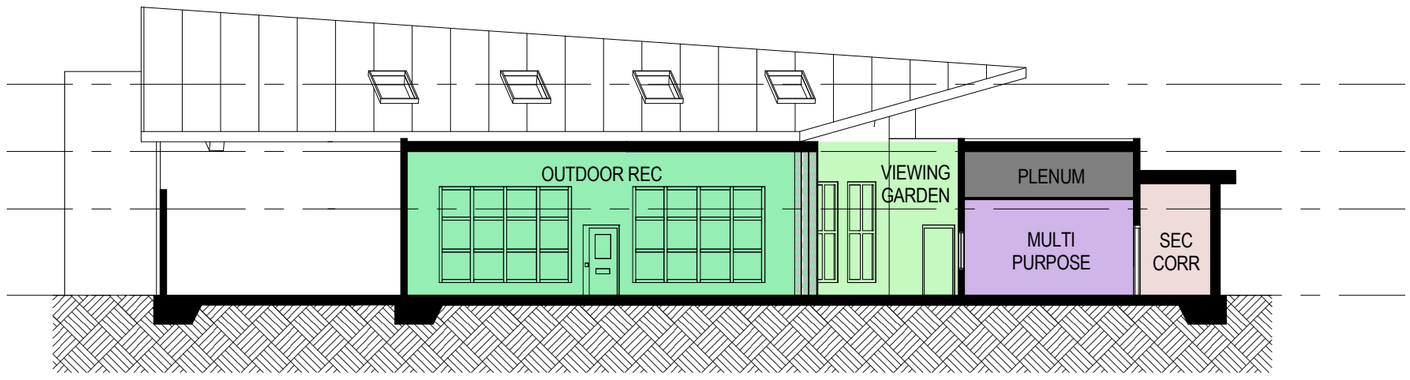
- CONTROL
- DAYROOM
- SLEEPING
- OUTDOOR REC
- VIEWING GARDEN
- LARGE MULTI PURPOSE
- SMALL MULTI PURPOSE
- STAFF
- SUPPORT
- CONTROLLED CIRCULATION

PUBLIC SAFETY DEPARTMENT HAWAII CORRECTIONS

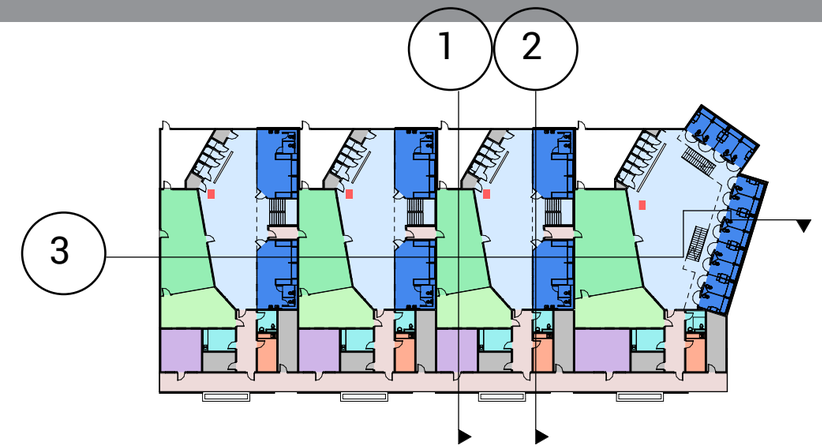
DLR Group



1 KCCC CROSS SECTION - 1

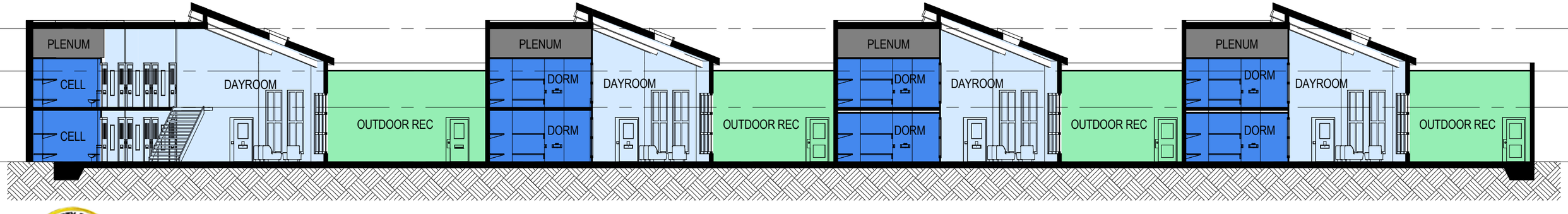


2 KCCC CROSS SECTION - 2



KCCC - KEY PLAN

- CONTROL
- DAYROOM
- SLEEPING
- OUTDOOR REC
- VIEWING GARDEN
- LARGE MULTI PURPOSE
- SMALL MULTI PURPOSE
- STAFF
- SUPPORT
- CONTROLLED CIRCULATION



3 KCCC LONGITUDINAL SECTION - 3

PUBLIC SAFETY DEPARTMENT HAWAII CORRECTIONS

DLR Group

Street View:
Public Perception





Interior Views

INTERIOR PERSPECTIVE: VIEW FROM DAYROOM



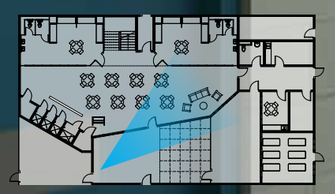
INTERIOR PERSPECTIVE: VIEW FROM OFFICER'S STATION



INTERIOR PERSPECTIVE: VIEW FROM MEZZANINE



INTERIOR PERSPECTIVE: VIEW FROM OUTDOOR REC



External Walkway





SCHEMATIC DESIGN REPORT
FOR
KAUAI COMMUNITY CORRECTIONAL CENTER
SECURE HOUSING PROJECT
Lihue, Kauai, Hawaii

Prepared for

DLR Group
215 Po'opo'o Place
Kailua, HI 96734

Prepared by

Austin, Tsutsumi & Associates, Inc.

Civil Engineers • Surveyors
Honolulu • Wailuku • Hilo, Hawaii

November 10, 2017

AUSTIN, TSUTSUMI & ASSOCIATES, INC. CIVIL ENGINEERS • SURVEYORS
CONTINUING THE ENGINEERING PRACTICE FOUNDED BY H. A. R. AUSTIN IN 1934

TERRANCE S. ARASHIRO, P.E.
ADRIENNE W.L.H. WONG, P.E., LEED AP
DEANNA M.R. HAYASHI, P.E.
PAUL K. ARITA, P.E.
ERIK S. KANESHIRO, L.P.L.S., LEED AP
MATT K. NAKAMOTO, P.E.
GARRETT K. TOKUOKA, P.E.

SCHEMATIC DESIGN REPORT
FOR
KAUAI COMMUNITY CORRECTIONAL CENTER
SECURE HOUSING PROJECT

Lihue, Hawaii

I. INTRODUCTION

The purpose of this report is to provide an overview of the preliminary engineering design of the Kauai Community Correctional Center (KCCC) Secure Housing Project in Lihue, Hawaii. This report evaluates the existing site conditions and defines requirements for grading, drainage, sewer, water, and fire sprinkler utilities, along with other miscellaneous site improvements.

II. BACKGROUND

A. Location

The proposed project is located at parcel TMK: (4) 3-9-005:013 and has a total area of approximately 9.0 acres. The project site is bounded by Kuhio Highway and Wailua Golf Course to the east, and undeveloped land to the north, west, and south. Refer to Exhibit 1 for Project Vicinity and Location Map. The landowner and developer of the site is The State of Hawaii Department of Public Safety (DPS).

The site has one main entrance off of Kuhio Highway. The site sits below Kuhio Highway's grade and is relatively flat. The slopes on the site range from 0.5 to 5 percent and elevations range from 4 to 10 feet Mean Sea Level (msl).

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OFFICES IN:
HONOLULU, HAWAII
WAILUKU, MAUI, HAWAII
HILO, HAWAII

B. Project Description

The proposed project will develop a secure housing complex of approximately 144 beds (approximately 25,000 sf) on the north side of the existing site. The site improvements related to the proposed secure housing complex include grading and on-site infrastructure including domestic water, wastewater collection, and stormwater management.

III. EXISTING AND PROPOSED INFRASTRUCTURE

A. Drainage

On-site stormwater runoff generally flows away from the center of the site towards the perimeter of the property. The runoff sheet flows from the site into an open channel along the western perimeter or into a swale along Kuhio Highway. The swale flows to the south.

Existing on-site runoff is estimated to be approximately 12.8 cubic feet per second (cfs) using the Rational Method. Hydrology calculations are based on a 2 year – 1 hour storm recurrence interval.

The project site sits in a designated flood zone “A”, which are areas where no Base Flood Elevation (BFE) has been determined. The BFE is the water surface elevation of the 1% annual chance flood. Flood insurance is mandatory in this zone. Flood zone information is obtained from the Federal Emergency Management Agency, Flood Insurance Rate Map (FIRM), Panel Nos. 1500020213E and 1500020214F, dated September 16, 2005 and November 16, 2010, respectively.

The existing drainage patterns will remain under the proposed design. The existing elevation at the proposed building location is approximately 5.5 msl. Since the existing site is located within a potential flood zone, the proposed building will have a finished floor elevation above the assumed BFE at approximately 5-feet above the existing grade. A new box culvert will need to be installed for the proposed fire access road since it crosses an existing ditch. Downspouts will drain at grade and sheet flow through grassed swales to be retained and treated prior to release. Refer to Exhibit 2 for Preliminary Site Plan.

B. Water

The County of Kauai, Department of Water Supply (DWS), provides water service for the site. There is one existing water meter box (water meter size unknown) and backflow prevention device adjacent to the main entrance on the east side of the lot. This meter appears to be serviced through an existing water main in Kuhio Highway. The domestic waterlines on site are 2.5-inch.

An existing reduced pressure detector assembly appears to be installed adjacent to the water meter and backflow preventer for the on-site firelines and hydrant. The fire water lines on site are 8-inch and 6-inch. There is one existing fire hydrant within the lot near the Kitchen/Dining Building.

A new 2.5-inch water line will run to the proposed development via a new water line tee on an existing waterline near the Kitchen/Dining Building.

Based on the information provided via email on October 31, 2017, the preliminary domestic water demand for the new building is estimated to be 90 gallons per minute (gpm) based on a fixture count of 229.6 Fixture Units. Pressure requirements for domestic water are to be determined.

Requirements for fire sprinkler demand are to be determined. A new fire hydrant may be necessary to meet fire department requirements. Refer to Exhibit 3 for Preliminary Utility Plan.

C. Wastewater

Wastewater service for the site is currently provided from the northeastern corner of the lot by an 8-inch sewer line connecting to an onsite wastewater pump station. The existing Wailua Golf Course wastewater appears to contribute to the wastewater pump station. The existing wastewater pump station appears to convey the sewage flows via an existing force main to an existing sewerline located within Kuhio Highway.

A new 6” gravity sewerline will connect the new building to proposed wastewater pump station along the proposed fire access road. The new pump station will connect to existing onsite sewer manhole that runs toward the existing onsite wastewater pump station. The wastewater will be processed by the Department of Public Works Wastewater Management Division.

A preliminary wastewater contribution for the new building is calculated to be approximately 28,800 gallons per day (gpd) (average daily demand) based on the total bed count. The existing onsite wastewater pump station, force main, and sewerlines to the wasterwater pump stations are assumed to have the capacity to accommodate the proposed building. Further research is required to confirm the capacity of the wastewater pump station. Refer to Exhibit 3 for Preliminary Utility Plan.

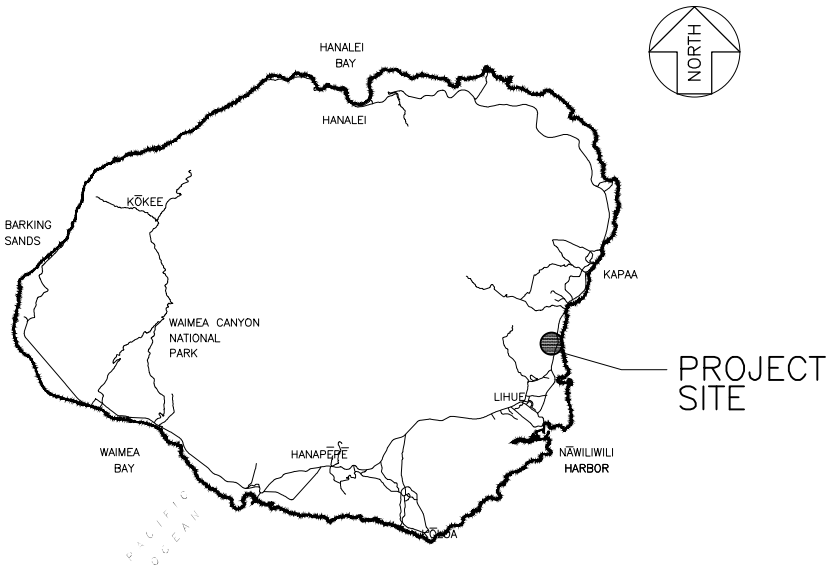
D. Gas

There are four existing liquid propane gas (LPG) tanks on-site. A pair of tanks provides service to Housing Building 05, a single tank provides service to the Kitchen/Dining Building, and a single tank provides service for the LTS Kitchen. Existing onsite gas service lines are 3/4-inch.

A new 3/4-inch gas line will be installed and tee along the existing 3/4-inch gas line that is currently installed near the kitchen and dining building. The existing LPG gas tank will serve the proposed building. Service tank storage may have to be expanded pending gas demand requirements. Refer to Exhibit 3 for Preliminary Utility Plan.

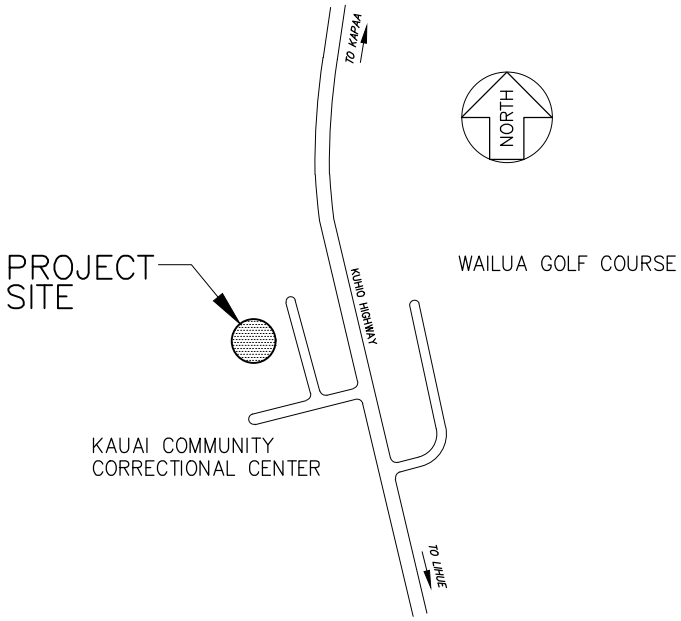
E. Fire Access Road

A new 20-foot wide fire access road is proposed to connect the existing driveway at Kuhio Highway and the new building. The 1,110 linear foot access road will consist of asphalt concrete pavement and terminate with a hammerhead turnaround. Refer to Exhibit 2 for Preliminary Site Plan.



ISLAND OF KAUAI

NOT TO SCALE



LOCATION MAP

NOT TO SCALE

SCHEMATIC DESIGN REPORT

KAUAI COMMUNITY CORRECTIONAL CENTER
SECURE HOUSING PROJECT
TMK: (4) 3-9-005: 013

LIHUE, KAUAI, HAWAII

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS,SURVEYORS ● HONOLULU, WAILUKU, HILO, HAWAII

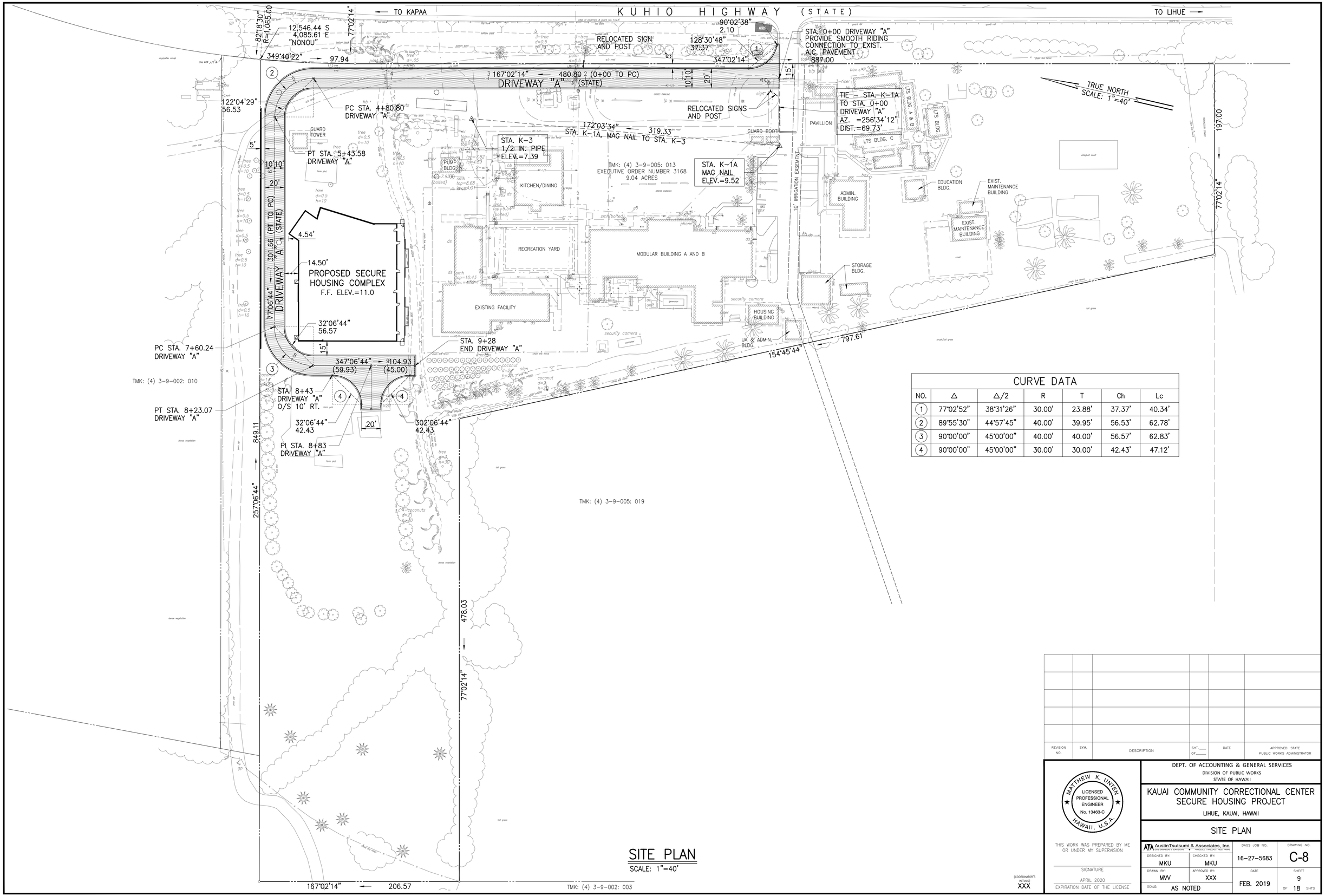
PROJECT LOCATION
AND VICINITY MAP

EXHIBIT

1

JOB NO. 17-119
\\files\Projects\PROSPECTIVES\DLR Secure Housing Project for DPS\Exhibits\CCC\KCCC\EXH1-VICINITY MAP.dwg

NOV. 2017



SITE PLAN
SCALE: 1"=40'

CURVE DATA						
NO.	Δ	Δ/2	R	T	Ch	Lc
1	77°02'52"	38°31'26"	30.00'	23.88'	37.37'	40.34'
2	89°55'30"	44°57'45"	40.00'	39.95'	56.53'	62.78'
3	90°00'00"	45°00'00"	40.00'	40.00'	56.57'	62.83'
4	90°00'00"	45°00'00"	30.00'	30.00'	42.43'	47.12'

REVISION NO.	SYM.	DESCRIPTION	SHT.___ OF___	DATE	APPROVED: STATE PUBLIC WORKS ADMINISTRATOR

(COORDINATOR'S INITIALS) XXX

MATTHEW K. UNTEN
LICENSED PROFESSIONAL ENGINEER
No. 13463-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

SIGNATURE

APRIL 2020
EXPIRATION DATE OF THE LICENSE

DEPT. OF ACCOUNTING & GENERAL SERVICES
DIVISION OF PUBLIC WORKS
STATE OF HAWAII

KAUAI COMMUNITY CORRECTIONAL CENTER SECURE HOUSING PROJECT

LIHUE, KAUAI, HAWAII

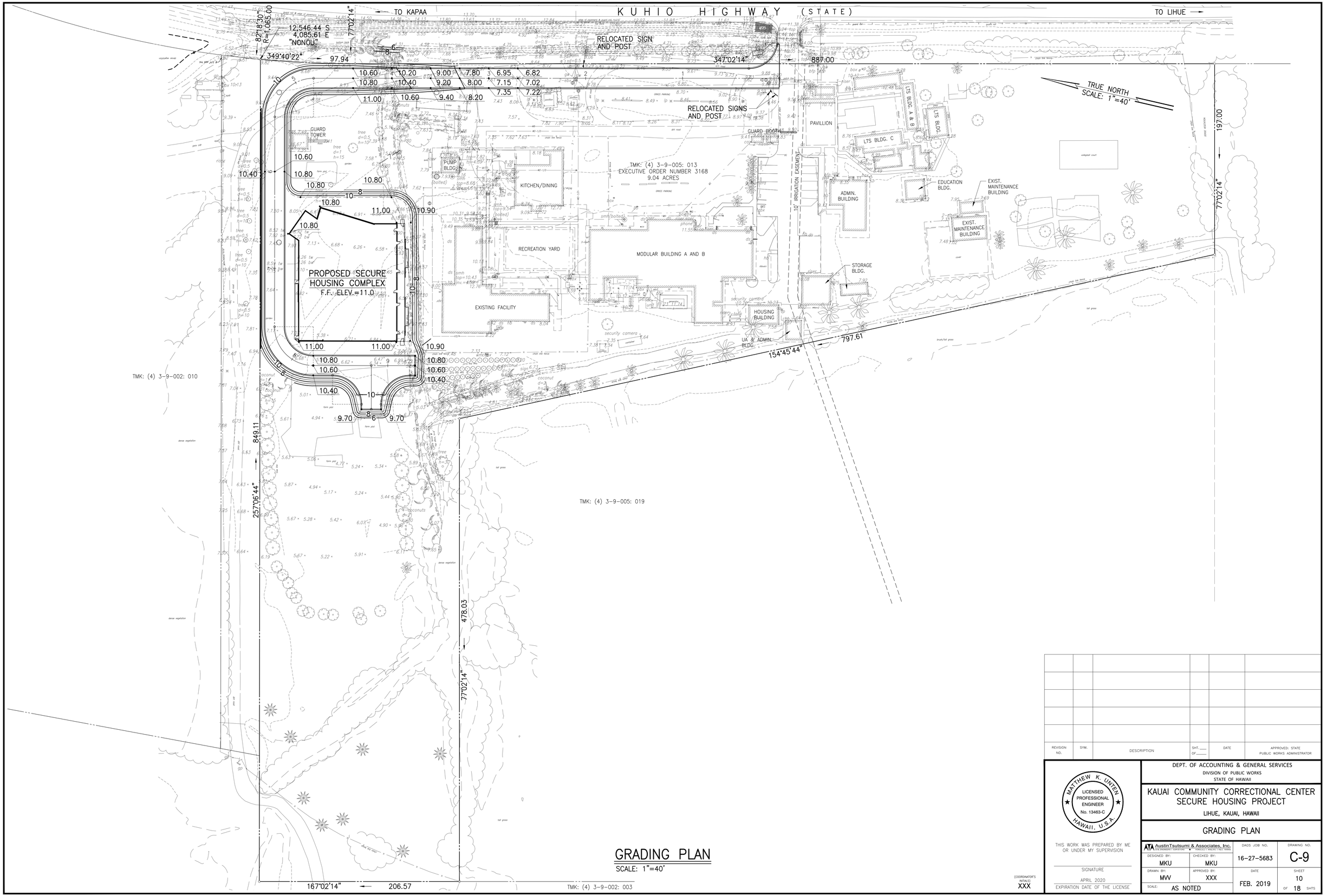
SITE PLAN

AustinTsutsumi & Associates, Inc.
CIVIL ENGINEERS • SURVEYORS • HONOLULU, HAWAII, 96822

DESIGNED BY:	CHECKED BY:	DAGS JOB NO.	DRAWING NO.
MKU	MKU	16-27-5683	C-8
DRAWN BY:	APPROVED BY:	DATE	SHEET
MVV	XXX	FEB. 2019	9 OF 18 SHTS
SCALE: AS NOTED			

FILE _____ DRAWER _____ FOLDER _____

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JOB NO. 0-17-119
Feb. 20, 2019



GRADING PLAN

SCALE: 1"=40'

REVISION NO.	SYM.	DESCRIPTION	SHT.___ OF___	DATE	APPROVED: STATE PUBLIC WORKS ADMINISTRATOR

(COORDINATOR'S INITIALS) XXX

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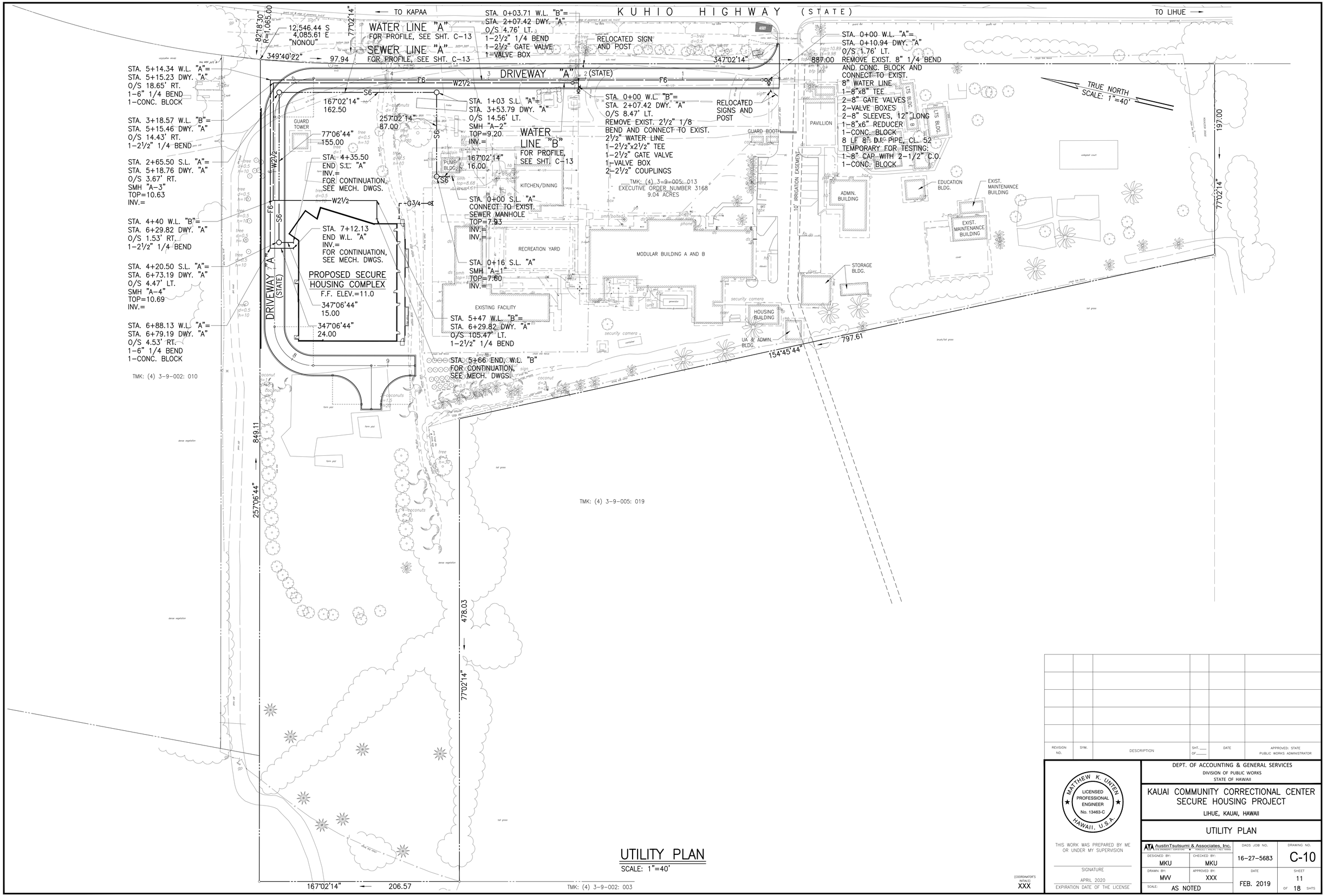
GRADING PLAN

AustinTsutsumi & Associates, Inc.
CIVIL ENGINEERS | SURVEYORS ● HONOLULU | KAILUA | HILO

DESIGNED BY:	CHECKED BY:	DAGS JOB NO.	DRAWING NO.
MKU	MKU	16-27-5683	C-9
DRAWN BY:	APPROVED BY:	DATE	SHEET
MVV	XXX	FEB. 2019	10 OF 18 SHTS
SCALE: AS NOTED			

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JOB NO. 0-17-119
Feb. 20, 2019

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UTILITY PLAN

SCALE: 1"=40'

REVISION NO.	SYM.	DESCRIPTION	SHT. ___ OF ___	DATE	APPROVED: STATE PUBLIC WORKS ADMINISTRATOR

MATTHEW K. UNTEN
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HAWAII, U.S.A.

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APRIL 2020
EXPIRATION DATE OF THE LICENSE

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DEPT. OF ACCOUNTING & GENERAL SERVICES
DIVISION OF PUBLIC WORKS
STATE OF HAWAII

KAUAI COMMUNITY CORRECTIONAL CENTER
SECURE HOUSING PROJECT
LIHUE, KAUAI, HAWAII

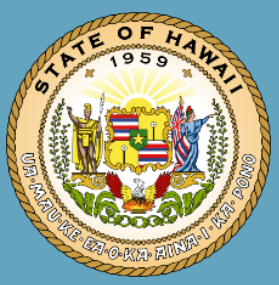
UTILITY PLAN

AustinTsutsumi & Associates, Inc.
CIVIL ENGINEERS | SURVEYORS ★ HONOLULU | WAILUKU | HILO, HAWAII

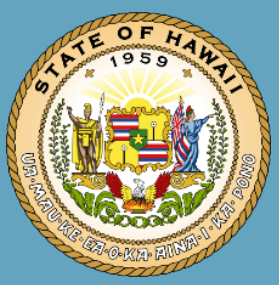
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JOB NO. 0-17-119
Feb. 20, 2019


STATE OF HAWAII
1959
UA MAU KE EA O KA AINA I KA PONO


PUBLIC SAFETY DEPARTMENT
HAWAII
CORRECTIONS


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