Mr. Keith Kawaoka, Acting Director
State of Hawaii
Office of Planning and Sustainable Development
Environmental Review Branch
235 South Beretania Street, Room 702
Honolulu, Hawaii 96813

Dear Mr. Kawaoka:

SUBJECT: Chapter 25, Revised Ordinances of Honolulu Final Environmental Assessment (FEA)
Project: 830 Mokulua Single Family Residence
Applicant: Pacific Coast Real Estate Investment Services, LLC
Agent: Long and Associates Architects Interiors, Inc. (Shae Grimm)
Location: 830 Mokulua Drive - Lanikai Beach Tract
Tax Map Key (TMK): 4-3-008: 045

With this letter, the Department of Planning and Permitting (DPP) hereby transmits the FEA and Finding of No Significant Impact (FONSI) for the 830 Mokulua Single Family Residence Project, located at 830 Mokulua Drive in Lanikai (TMK 4-3-008: 045), Oahu, for publication in the September 23, 2021 edition of The Environmental Notice.

The FEA includes copies of public comments received and the corresponding responses from the Applicant that were received during the 30-day public comment period on the Draft Environmental Assessment and Anticipated FONSI.

Enclosed is an electronic copy of the completed publication form, the FONSI, and the FEA document. We have uploaded an electronic copy of these documents to your online submittal site.
Should you have any questions, please contact Christi Keller, of our Zoning Regulations and Permits Branch, at 768-8087, or by email at c.keller@honolulu.gov.

Very truly yours,

Dean Uchida
Director

Enclosures

cc: Long and Associates
   Attention: Shae Grimm, D. Arch, LEED AP (without enclosures)
Project Name: 830 Mokulua Single Family Residence

Applicable Law: Chapter 25, Revised Ordinances of Honolulu, Special Management Area

Type of Document: Environmental Assessment (EA)

Island: Oahu

District: Koolaupoko

TMK: (1) 4-3-008: 045

Permits Required: Special Management Area (SMA) Use Permit, Building Permits

Applicant or Proposing Agency: Pacific Coast Real Estate Investment Services, LLC
c/o An Tranvan, Member
(408) 799-7198
5655 Silver Creek Valley Road, Suite 989
San Jose, California 95138

Approving Agency or Accepting Authority: City and County of Honolulu
Department of Planning and Permitting
Christi Keller
c.keller@honolulu.gov
(808) 768-8087
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

Consultant: Long and Associates Architects Interiors, Inc.
Shae Grimm
shaeg@lai-hawaii.com
(808) 628-6626
1100 Alakea Street, 3rd Floor Atrium
Honolulu, Hawaii 96813

Status: Final EA – Finding of No Significant Impact

Project Summary: The Project consists of the demolition of an existing single-family residence and accessory swimming pool and construction of a new single-family residence and swimming pool on a shoreline lot located in the Lanikai community within the SMA (Project). According to the Applicant, the existing dwelling unit, built in 1948, is largely beyond conservation, such that repair costs would far exceed 50 percent of replacement costs to bring the structural and architectural insufficiencies up to current building codes. The proposed new single-family dwelling will be two stories with approximately 4,700 square feet of floor area, and include four bedrooms, five bathrooms, a family room, a kitchen, a wet bar, a laundry room, a swimming pool, and five parking spaces, inclusive of a two-car garage. The new dwelling and swimming pool will be located mauka of the 40-foot shoreline setback area, and will comply with current building code requirements and applicable development standards.
Reasons Supporting Determination: Potential short-term construction-related impacts relating to water quality, biological and marine resources, soils and cultural resources are anticipated to be reduced to a level of less than significant through compliance with existing regulatory standards, implementation of Best Management Practices, and implementation of mitigation measures as identified in the Draft EA. Upon implementation, the Project is anticipated to result in a long-term, beneficial effects regarding the potential for coastal hazards by locating the proposed new residence further mauka of the shoreline and outside of the shoreline setback area, and through the incorporation of current building code requirements and green building features where practicable. The Project is not anticipated to result in any additional need for public services, resources, or infrastructure over the existing condition.
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List of Abbreviations / Acronyms

BMP Best Management Practices
BS Beaches
BWS Board of Water Supply
CAB Clean Air Branch
CZM Coastal Zone Management
DLNR Department of Land and Natural Resources
DOE Department of Education
DOH Department of Health
DPP Department of Planning & Permitting
EA Environmental Assessment
EIS Environmental Impact Statement
EPA Environmental Protection Agency
ESA Endangered Species Act of 1973
ESCP Erosion and Sediment Control Plan
FEMA Federal Emergency Management Agency
FAR Floor Area Ratio
FONSI Finding of No Significant Impact
GHG Greenhouse Gas
GMSL Global Mean Sea Level
HECO Hawaiian Electric Company
HEPA Hawai‘i Environmental Policy Act
HPD Honolulu Police Department

HRS Hawaiʻi Revised Statutes

IPCC International Panel on Climate Change

JaC Jaucas Sand

KPSCP Koʻolaupoko Sustainable Communities Plan

LID Low Impact Development

LUO Land Use Ordinance

OEQC Office of Environmental Quality Control

NAAQS National Ambient Air Quality Standards

NOAA National Oceanic Atmospheric Administration

NPDES National Pollutant Discharge Elimination System

NRCS Natural Resources Conservation Service

NWS National Weather Service

PacIOOS Pacific Islands Ocean Observing System

ppt Parts Per Thousand

ROH Revised Ordinances of Honolulu

RSWMP Residential Storm Water Management Plan

SAAQS State Ambient Air Quality Standards

SHPD State Historic Preservation Division

SIHP State Inventory of Historic Places

SLH Session of Laws Hawaii

SLOSH Sea, Lake, and Overland Surges from Hurricanes

SLR Sea Level Rise
SLR-XA Sea Level Rise Exposure Area

SMA Special Management Area

TEZ Tsunami Evacuation Zone

TMK Tax Map Key

USDA United States Department of Agriculture

USFWS United States Fish and Wildlife Service
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1 INTRODUCTION

This chapter provides general information on project specifics and the purpose of this Environmental Assessment (EA). It also notes the agencies, organizations, and individuals to be consulted in making the assessment.

1.1 General Information

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<td>APPLICANT:</td>
<td>Pacific Coast Real Estate Investment Services</td>
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<td>830 Mokulua Drive</td>
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<tr>
<td></td>
<td>Kailua, Hawai’i 96734</td>
</tr>
<tr>
<td>APPLICANT’S AGENT:</td>
<td>Long &amp; Associates, AIA, Inc.</td>
</tr>
<tr>
<td></td>
<td>1100 Alakea Street, 3rd Floor Atrium</td>
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<tr>
<td></td>
<td>Honolulu, HI 96813</td>
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<tr>
<td></td>
<td>Contact: Shae Grimm</td>
</tr>
<tr>
<td></td>
<td>Phone: (808) 628-6626</td>
</tr>
<tr>
<td>APPROVING AGENCY:</td>
<td>City and County of Honolulu</td>
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<tr>
<td></td>
<td>Department of Planning and Permitting (DPP)</td>
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<tr>
<td></td>
<td>650 South King Street, 7th Floor</td>
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1.2 Purpose of the Environmental Assessment

This Environmental Assessment (EA) is prepared in accordance with the Revised Ordinances of Honolulu (ROH), Chapter 25, in support of a Special Management Area (SMA) Use Permit application.

The Hawai‘i State Governor signed into law Act 016, Senate Bill 2060 SD2 HD2, on September 15, 2020, which strengthens coastal zone management policy by amending Chapter 205A of the Hawai‘i Revised Statutes (HRS).

The City and County of Honolulu are required to comply with Act 16 (2020) as they are the designated authority to implement the State’s Coastal Zone Management program for lands within the City.

Per the October 13, 2020 News update on the Department of Planning and Permitting’s (DPP) website (City and County of Honolulu, 2021), the City and County has begun implementing changes to how it administers ROH Chapter 23: Shoreline Setbacks, and ROH Chapter 25: Special Management Area, as a direct result of the signing of the September 15, 2020 law.

The Proposed Action will require an SMA Use Permit – regardless of floor area size – because it is on a “shoreline lot” as defined in ROH Section 23-1.3.

As stipulated on DPP’s website, Long & Associates, AIA, Inc. (LAI) submitted a request for a written determination (see Appendix A) to DPP, along with the associated fee, on November 24, 2020, to confirm that the Proposed Action would indeed require an SMA Use Permit.

A written SMA determination was received from Dean Uchida, Director Designate at DPP, on February 4, 2021 (see Appendix A). The determination found that the Proposed Action, “is a development for purpose of the SMA, and an SMA Use Permit is required.” Additionally, “pursuant to Section 25-3.3(c), ROH, any proposed development requiring an SMA Use Permit is subject to an Environmental Assessment in accordance with the procedural steps set forth in HRS Chapter 343.”

It is anticipated that DPP, being the Approving Agency for the EA, will issue a Finding of No Significant Impact (FONSI) upon acceptance of the Final EA and that no Environmental Impact State (EIS) is required.
1.3 Agencies, Organizations, and Individuals Consulted in Making Assessment

The City and County of Honolulu Department of Planning and Permitting (DPP) is the Approving Agency for the Environmental Assessment (EA). DPP transmitted the Draft EA (DEA) to the Office of Environmental Quality Control on April 26, 2021 with an anticipated Finding of No Significant Impact for the Proposed Action (see Figure 0.0.0). The DEA was published in the May 8, 2021 edition of The Environmental Notice. After the 30-day review period of the Draft EA concluded public comments received were considered and addressed in production of this Final EA (FEA). It is anticipated that DPP will issue a Finding of No Significant Impact (FONSI) upon acceptance of the FEA.

The following is a list of agencies, organizations, and individuals to be consulted during the Environmental Assessment process. Every stakeholder noted below has received a copy of a Pre-Consultation request letter regarding the Proposed Action and has also been given the subsequent opportunity to comment as part of the public comment period on the Draft EA through the Office of Environmental Quality Control (see Appendix B – Pre-Consultation Request Letter with Responses).

**Federal Government**

- Pacific Islands Fish & Wildlife Office, U.S. Fish and Wildlife Service c/o Resident Agent in Charge
- National Oceanic & Atmospheric Administration (NOAA) Fisheries c/o Susan K. Kamei, Division Director

**State of Hawai‘i**

- Department of Health (DOH) – Office of Environmental Quality Control (OEQC) c/o Keith Kawaoka, Acting Director
- Department of Health (DOH) – Environmental Planning Office c/o Alec Wong
- Department of Land & Natural Resources (DNLR) – State Historic Preservation Division (SHPD) c/o Alan Downer, Administrator
- DLNR – Office of Conservation & Coastal Lands c/o Samuel J. Lemmo, Administrator
- State Office of Planning c/o Mary Alice Evans, Director
City and County of Honolulu

- Board of Water Supply c/o Ernext Y.W. Lau, Chief Engineer
- Department of Planning and Permitting c/o Joyce Shogi
- Department of Planning and Permitting c/o Dina Wong
- Honolulu Fire Department c/o Manuel P. Neves, Chief
- Honolulu Police Department c/o Susan Ballard, Chief
- Mayor’s office c/o Rick Blangiardi
- Managing Director c/o Michael D. Formby
- Councilmember Esther Kia‘aina
- Councilmember Brandon Elefante, Chair, Zoning and Planning Committee

Other Organizations and Individuals

- Kailua Neighborhood Board c/o Chair Bill Hicks
- Mr. & Mrs. Neighbors – Misc.
- Lanikai Association c/o President Thomas Cestare
2 DESCRIPTION OF THE PROPOSED ACTION

This chapter describes the Project Site and the existing conditions. It also describes the Proposed Action and provides a No-Action Alternative to the Proposed Action. It provides construction characteristics of the Proposed Action, including costs and construction schedule.

Appendix C is a schematic design package for the Proposed Action that includes:

- 000 - Perspectives
- 003 - Permeability Plan
- 004 - Site Plan – Archaeology
- 005 – Existing Site Plan with Soils Boring Locations
- A001 – Existing Site Plan
- A002 – Site Plan
- A101 – 1ST Floor Plan
- A102 – 2nd Floor Plan
- A105 – Roof Plan
- A201 – Exterior Elevations
- A202 – Exterior Elevations
- A301 – Building Sections
- A401 – Wall Section
- L101 – Landscape Planting Plan
- C200 – Civil Plan

2.1 Existing Conditions

The Project Site, located at TMK:1-4-3-008:045 and designated 830 Mokulua Drive, is in the Lanikai community in the Ko‘olaupoko District of the island of O‘ahu, Hawai‘i. It is within the traditional moku of Ko‘olaupoko and ahupua’a of Kailua. The site is on the “windward” side of O‘ahu situated along a 1.5-mile-long shoreline that lies between Alāla Point to the north and Wailea Point to the south.

The Project Site is a shoreline lot of approximately 0.26 acres (11,250 SF) and entirely within the Special Management Area (see Figure 1.1.5). It is located with the Pacific Ocean to the northeast,
Mokulua Drive to the southwest, and occupied residential lots to either side: the northwest and southeast, respectively.

There is one existing single-family dwelling and pool on the site (see Appendix C). The existing dwelling has roughly 1,738 SF of living area and was built in 1948 using wood/single wall construction. The residence has received minor alterations over the past 73-years. The current Property Owner – who have owned the property for the past 17-years – find the current condition of their home largely beyond conservation. Costs of repair would exceed 50% of replacement costs to bring the structural and architectural insufficiencies up to current building codes. Additionally, there is no historical value to the home as it fails to possess the historic significance and integrity required to qualify for listing on the historic register. Those issues, coupled with the owner’s current needs, make the prospect of a full demolition and subsequent rebuild their preferred course of action.

2.2 Description of Proposed Action

The Property Owner plans to improve the lot by demolishing the existing structure and pool and construct a new single-family dwelling and pool. Demolishing the existing structures will remove, at a minimum, 1,650 SF of non-conforming structure that is currently located within the Shoreline Setback Area (see Appendix C). All new structures will be conforming and located beyond the 40-foot shoreline setback. The architect will not request any variances to the code for the new single-family dwelling. Under the existing R-10 zoning and allowed density, the new single-family dwelling will not exceed 0.45 Floor Area Ratio (FAR) (0.7 allowable by current code; and, if future alterations are made, the FAR would remain below 0.7). The new structures will stay within current height limits and setback requirements as required by current code.

Residential Structures

The two-story single-family dwelling being proposed is slated to be roughly 4,700 SF as calculated per the City and County of Honolulu’s Land Use Ordinance – Floor Area Definition. The maximum FAR of 0.7 would allow up to 7,875 SF to be built on the Project Site. The Proposed Action has a FAR of roughly 0.4 - nearly half of the allowable - greatly minimizing size and program to remain harmonized with the character of the residential Lanikai neighborhood. It will be primarily wood framed with stucco and glass exterior and a low slope silicone roof. It will have no fire sprinklers. It
will have 4-bedrooms, 5-bathrooms, a Family Room, Kitchen, Wet Bar, Laundry Room, and a 2-car garage. It will have a new swimming pool.

The new dwelling will be positioned entirely beyond the 40-foot setback and close to Mokulua Drive once roughly 1,650 SF of the non-confirming existing structure is removed from the Shoreline Setback Area. Since it is slated to be between 4,000 and 4,749 SF, concessions will to be made to provide five parking spaces in the front of the house as required by the current Land Use Ordinance (LUO) per Ordinance 20-41.

See Appendix C for schematic plans. No substantial changes are anticipated that would have a significant effect on the environment. However, the schematic plans provided in the Final Environmental Analysis are preliminary and subject to minor alterations to adapt to site and other conditions. Any modification to the Proposed Action would not result in individual or cumulative impacts not disclosed in this Final Environmental Analysis and the Proposed Action would comply with the Hawaii Administrative Rules Chapter 11-200.1.

2.3 Alternatives to the Proposed Action

2.3.1 Alternative A – No-Action Alternative

The No-Action Alternative is a reference point against which all other alternatives are measured. It describes future conditions that would likely result should the Proposed Action not be allowed to proceed.

The No-Action Alternative would contribute to neighborhood blight in an otherwise idyllic neighborhood. The condition of the existing structures would continue to deteriorate posing a hazard for the residents. Roughly 1,650 SF of non-conforming structure would remain in the shoreline setback in direct conflict of the objectives of HRS Chapter 205A and ROH Chapter 23 & 25, if conformance is not permitted.

The No-Action Alternative option has been evaluated and deemed undesirable due to the negative impact it would have on the safety of the residents, the quality of the neighborhood, and the non-conformance/conflicts with statutes of Hawai‘i and the ordinances of Honolulu.
2.3.2 Alternative B – Single-Family Residence (0.5 FAR and Below)

The demolition of an existing residence construction of a new single-family residence is considered the least impactful use option for the Project Site. It does not change the current land use and is essentially a one-for-one swap as far as impacts on the infrastructure is concerned. It is not anticipated that the new residence will have a more significant environmental impact than that of the current residence. It will seek to improve the environmental setting through design characteristics in accordance with the objectives of all applicable policies and plans.

A new single-family residence is in accordance with the R-10 zoning district and the LUO provisions. The Proposed Action does not seek to maximize what is allowable or pursue a variance. A FAR below 0.5 will minimize structural impact to the site and diminish scale while still satisfying the programmatic needs of the Property Owner. The single-family residence, below 0.5 FAR, has been evaluated and deemed desirable due to the positive impact it would have on the safety of the residents, the quality of the neighborhood, and the conformance with statutes of Hawai‘i and the ordinances of Honolulu.

2.3.3 Alternative C – Single-Family Residence (0.5 FAR and Above)

The demolition of an existing residence and construction of a new single-family residence is considered the least impactful use option for the Project Site. It does not change the current land use and is essentially a one-for-one swap as far as impacts on the infrastructure is concerned. It is not anticipated that the new residence will have more significant environmental impact than that of the current residence. It will seek to improve the environmental setting through design characteristics in accordance with the objectives of all applicable policies and plans.

A new single-family residence is in accordance with the R-10 zoning district and the LUO provisions. The Proposed Action does not seek to maximize what is allowable or pursue a variance. A FAR above 0.5 will increase structural impact to the site and grow scale while still satisfying the programmatic needs of the Property Owner. The Property Owner is conscious of the environmental concerns and character of the Lanikai neighborhood. As such, they do not seek to increase impact to the environment beyond what is necessary to fulfill their needs, even if it is allowable under the LUO to build up to 0.7 FAR. With these environmental considerations in mind, maximizing the allowable floor area is not an objective, is deemed undesirable, and is not considered the most practicable alternative.
2.4 Construction Characteristics of Proposed Action

The Proposed Action will consist of the demolition and subsequent removal of an existing single-family residence and pool. There will be minimal clearing and grubbing as the existing site has been previously graded en masse with the introduction of ornamental foliage. The new structure will also be a single-family residence and pool. Excavation will be required for utilities. The filling of the land to a level grade will minimize the need to disturb the existing ground. Best Management Practices (BMP) will be implemented throughout the entire process from demolition through construction to eliminate or reduce the discharge of pollutants from the site into State waters. (See Chapter 3 for more information on BMPs and Erosion and Sediment Control.)

The construction will employ traditional trades and will be carried out during normal business hours. All constructions staging will occur on-site. The contractor, having built other residences along Mokulua Drive, has a positive reputation in the community and understands the particularities of the site context insofar as construction protocol and phasing is concerned. Relationships forged with suppliers of construction material are in place, allowing materials to be stored remotely and delivered to the site as needed and in sequential order. This alleviates the need to prolong on-site staging. Similarly, equipment storage, soil stockpiles, and other construction related items will be brought to site on an as-needed basis. This practice also alleviates security threats as it minimizes interest from individuals who seek to forage construction sites.

All necessary signs, lights, barricades, and other safety equipment will be installed and maintained by the contractor during the construction phase of the project. Adequate notification will be made to the residents in the area regarding scheduled deliveries or possible road closures, as any impacts to pedestrian and/or vehicular traffic may cause issues and disruptions to residents, which could lead to complaints to the police department. Worker parking will also be coordinated to occur on-site. Subcontractors will be staggered, and carpooling will be enforced to ensure the site can host them. Minor public hinderance may occur.

Even though “no pre-contact archaeological features were observed or expected to be found” (Keala Pono Archaeological Consulting, LLC, 2021) (see Appendix D), the contractors will be knowledgeable of archaeological protocol. An archaeological monitoring team will be employed during ground disturbing activities to ensure any resources are identified and treated properly.
2.4.1 Summary of Projected Costs

The estimated cost of construction of the Proposed Action, from demolition of the existing structures to occupancy of the new single-family residence, is above $500,000.00.

2.4.2 Schedule

Start date to be finalized pending the approval of permits. The Property Owner and contractors are ready to proceed as soon as permitting progresses.

**830 Mokulua Preliminary Schedule:**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start Date:</td>
<td>TBD</td>
</tr>
<tr>
<td>Demolition and Site Work:</td>
<td>2 Months</td>
</tr>
<tr>
<td>Vertical Construction:</td>
<td>4 Months</td>
</tr>
<tr>
<td>Exterior Shell:</td>
<td>2 Months</td>
</tr>
<tr>
<td>Interior Finish:</td>
<td>3 Months</td>
</tr>
<tr>
<td>Quality Control/Punch:</td>
<td>2 Months</td>
</tr>
<tr>
<td>Landscaping/Pool Finish:</td>
<td>1 Month</td>
</tr>
</tbody>
</table>

**Total:** 14 Months
3 DESCRIPTION OF THE ENVIRONMENTAL SETTING, POTENTIAL IMPACTS, AND MITIGATION MEASURES

This chapter describes the affected environment and potential impacts associated with the construction of a new single-family residence. Strategies to mitigate the possible adverse direct, indirect, and cumulative impacts are also described.

3.1 Topography, Geology, and Soils (Storm Drainage and Surface Runoff)

This Section describes the existing topography, geology, and soils and how they will be impacted by the Proposed Action. It addresses the potential impacts the Proposed Action will have on storm drainage and surface runoff. It provides mitigation measures, as applicable, to combat any adverse effects.

Existing Conditions

The Project Site lies between Kailua Beach Park and Lanikai Beach and is directly accessed from Mokulua Drive. Mokulua Drive is an unimproved roadway with a shoulder area, which generally consists of a flat grass strip with no pronounced drainage swale. In general, the Project Site is graded relatively flat with elevations varying approximately 10-inches at the street side and less than a foot at the ocean side. The Project Site drainage pattern is generally broken into two tributary areas with approximately half sheet flowing towards Mokulua Drive and half towards the ocean.

Soil types within the Project Site are identified by the U.S. Department of Agriculture, Natural Resources Conservation Service, National Cooperative Soil Survey, Soil Map – Island of O’ahu ("Soil Map", Figure 3.1.1) (United States Department of Agriculture, 2021). In general, the area has sandy soils, which readily allows for percolation of surface runoff. The Project Site consists of Beaches (BS) along the makai portion of the site and Jaucas Sand (JaC) for the remainder of the site as it extends inland. BS areas consist of sands of seashells and coral. JaC soil has rapid permeability and runoff is very slow. Excavation of for the pool permitted in 2014 revealed mostly sand for the site as evidenced by the Soil Map.

The Board of Land and Natural Resources certified the shoreline on August 23, 2021 (see Figure 3.1.2). The shoreline certification map indicates the shoreline follows along the seaward face of the CRM slope and steps as certified on June 9, 2004.
Potential Impacts & Regulatory Compliance

Minimal excavation and grading will be required to remove the existing structures and level the site for the Proposed Action. The redeveloped lot will follow similar drainage patterns to the existing conditions with a decrease in impervious surface. Thus, no negative impacts to surrounding properties, roadways, or the ocean is anticipated. All drainage will be retained on-site.

The current plans call for a finished floor elevation of 10.5 feet. As currently planned, it would have a four-inch step at the door to the garage floor elevation at 10.17 feet. The garage pitches out one percent to 9.97 feet at the front. It would be 5.8 percent slope out to the property line, which would provide about 12 inches of rise from the street level. The grading will require the importation of fill to bring the site level up to a point above the existing highest point of the property.

Best Management Practices (BMP) will be implemented pursuant to the Grading Permit. The Project Site is 11,250 SF (0.258 acres), so the Proposed Action will not disturb more than an acre of land. Therefore, it does not require a National Pollutant Discharge Elimination System (NPDES) permit for discharges of storm water associated with construction activity.

A Residential Storm Water Management Plan (RSWMP) will be submitted with the construction documents to manage the storm water by implementing BMP and reduce the total runoff generated on the site by reducing the total imperious surface area of the lot, not exceeding 75-percent, in accordance with the City adopted 2012 International Building Code, Section R107.5 and F107.5.1 and LUO Section 21-3.70.1(G) (see Appendix C -Permeability Plan - 003). Additionally, an Erosion and Sediment Control Plan (ESCP) will be submitted with the construction documentation.

Mitigation Measures

The following project-specific site design strategies will be implemented as practicable to avoid a significant adverse impact: (see Appendix C – Landscape Planting Plan – L101)

Landscaped Areas:

- Disturbance will be minimized to the highest extent possible to existing natural areas, soils, and landscape areas.
- The landscape will limit runoff from landscaped areas to hardscape areas.
- Runoff from the roof and hardscape area will be directed to landscaped areas.
- Native plants will be selected for landscaped areas.

**Storm Drain Inlets:**

- All storm drain inlets and catch basins within the Project Site will be labeled with prohibitive language.

**Irrigation:**

- Automatic irrigation will be incorporated.
- Irrigation systems will be designed for each landscape area’s specific water requirements and to minimize runoff of excess irrigation water.

**Downspout Disconnect:**

- Downspouts will be disconnected from an underground connection and directed towards an adjacent vegetated area, planter box, drywell or rain barrel wherever possible. Caps will be installed on the portion of the underground system (standpipe) that remains above-ground.
- Splash blocks, rock dissipaters, flexible/retractable extensions, or other outlet protection device(s) will be installed at the downspout outlet(s) to minimize erosion and/or help direct water farther from the house.
- Permeable Hardscape will be incorporated, such as turf blocks, porous pavers, or porous pavements for patios, walkways, driveways, and/or overflow parking.
- Runoff from the roof and hardscape area will be directed to permeable hardscape areas.

**Rain Garden:**

- Direct runoff from rooftops, sidewalks, and driveways will be directed to a rain garden.
- Native plants will be selected for rain gardens.

**Planter Box:**

- Runoff from rooftops will be directed to planter boxes.

**Summary of Impacts**

The Proposed Action will not have a significant impact on the Topography, Geology, and Soils (Storm Drainage and Surface Runoff). The above-mentioned mitigation measures will be implemented to ensure environmental effects are found not to be significant.
3.2 Climate and Air Quality

This Section describes the climate and air quality and how they will be impacted by the Proposed Action. It addresses the potential impacts the Proposed Action will have on climate and air quality. It provides mitigation measures to combat any adverse effects.

Existing Conditions

The weather on Oʻahu remains relatively consistent throughout much of the year. The island has essentially two seasons: winter and summer. Winter being the cool and/or wet season and summer being the hot and/or dry season. The Project Site is located on the windward side of Oʻahu, which is considered the wetter side and where one will find most of the greener landscape along the coastal areas. For most of the year, trade winds flow from northeast to southwest. Occasionally, “Kona” winds come from the south and serve to weaken winds to a standstill altogether.

Microclimates are a local set of atmospheric conditions that differ from those in the surrounding areas. The microclimate of the Project Site is in-tune with the greater macroclimate. Temperatures at sea level, where the Project Site is located, generally range from highs of 84–88 °F (29–31 °C) during the summer months to 79–83 °F (26–28 °C) during the winter months. Rarely does the temperature rise from above 90 °F (32 °C) or drop below 60 °F (16 °C) at this lower elevation (see https://en.wikipedia.org/wiki/Climate_of_Hawaii). Because the Project Site located on the eastern side of the Koʻolau Mountain Range, the sun will appear to set sooner as it dips below the peaks to the south.

Potential Impacts and Regulatory Compliance

Consistent trade winds regularly blow from a northeasterly direction bringing in fresh air from the open ocean across the Project Site. The trade winds correlate to the orientation of the Project Site such that the Proposed Action will not block trade winds from the neighboring parcels to the east and west. The Proposed Action, a single-family residence, in and of itself, does not present a potentially significant impact to the magnitude, duration, extent, frequency, or range of trade winds.

Present air quality in the Project Area is mostly affected by motor vehicles, with carbon monoxide being the most abundant of the pollutants emitted. Carbon monoxide is a colorless, odorless,
tasteless gas under atmospheric conditions and is produced by the incomplete combustion of carbon fuel. As far as the microclimate is concerned, short-term air quality impacts may result during construction and are not considered to be of significance due to their temporary nature.

The Proposed Action does not include demolition activities that involve asbestos. The existing single-family home has been reviewed by Demo 808, who is trained in accordance with Federal, State, and local laws and regulations. Only arsenic containing canec ceiling material is slated for handling and disposal.

The U.S. Environmental Protection Agency (EPA) sets National Ambient Air Quality Standards (NAAQS) to protect public health and welfare from harmful effects of certain commonly occurring pollutants known as “criteria” pollutants. The EPA requires that individual states monitor the ambient air to determine attainment of the NAAQS and regulate industries that emit these and other pollutants. Two types of standards have been established. First, Primary Standards set limits to protect public health, including the health of sensitive populations, such as asthmatics, children, and the elderly. Second, Secondary Standards set limits to protect public welfare, which includes protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

The NAAQS measures six criteria pollutants: carbon monoxide (CO), nitrogen dioxide (NO2), sulfur dioxide (SO2), lead (Pb), ozone (O3), particulate matter smaller than 10 microns (PM10), and particulate matter smaller than 2.5 microns (PM2.5).

Ambient air is defined as the “general outdoor atmosphere, external to buildings, to which the general public has access.” These standards then define the maximum levels of these pollutants allowed with an adequate margin of safety to ensure and protect the public’s health and welfare. The DOH Clean Air Branch (CAB) has established the State Ambient Air Quality Standards (SAAQS). The Environmental Health Analytical Services Branch – Air Quality Monitoring Section collects measurements of ambient level pollutants throughout a statewide monitoring network to ensure that State and Federal air quality standards are met. On O‘ahu, the Air Quality Monitoring Section monitors for:

- Carbon Monoxide
- Lead
- Nitrogen Dioxide
- Ozone
• Particulate Matter (PM10 and PM2.5)
• Special Monitoring:
  o New Year’s Fireworks
  o VOG (volcanic haze)
  o Agricultural Burns (sugarcane)
  o Geothermal (Hydrogen Sulfide)
• Sulfur Dioxide

The State of Hawai‘i DOH Indoor and Radiological Health Branch’s Asbestos Program has two objectives:

1. To protect public health and the environment from exposure to asbestos through the implementation of the Hawai‘i Administrative Rule, Title 11 Chapters 501 through 504 requirements, and the Neutral Administrative Inspection Scheme (NAIS) developed under the federal cooperative grant agreement with the EPA; and
2. Maintain State of Hawai‘i asbestos abatement accreditation, certification, and registration systems for asbestos entities and individuals.

The Proposed Action does not require an air pollution control permit per Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control.

Mitigation Measures

Dust generation and emissions from construction equipment and/or workers will be monitored for compliance with State and County pollution control requirements. Construction activities will comply with the provisions of Hawaii Administrative Rules 11-60.1-33 on Fugitive Dust. The contractor will be directed to provide reasonable measure to control airborne, visible fugitive dust from the road areas and during the various phases of construction. These measures include, but are not limited to, the following:

a) Planning the different phases of construction, focusing on minimizing the amount of airborne, visible fugitive dust-generating materials and activities, centralizing on-site vehicular traffic routes, and locating potential dust-generating equipment in areas of the least impact;

b) Providing an adequate water source at the site prior to start-up of construction activities;
c) Landscaping and providing rapid covering of bare areas, including slopes, starting from the initial grading phase;

d) Minimizing airborne, visible fugitive dust from shoulders and access roads;

e) Providing reasonable dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and

f) Controlling airborne, visible fugitive dust from debris being hauled away from the project site.

If it is determined through testing that asbestos is contained within the existing structures to be demolished, it will be contained of and disposed of according to the DOH Asbestos Program and the Asbestos Abatement Office in the Indoor and Radiological Health Branch will be contacted. Personal Protective Equipment will be utilized by any individual encountering the substance per DOH protocol.

Summary of Impacts

The Proposed Action will not have a significant impact on the Climate and Air Quality. The above-mentioned mitigation measures will be implemented to ensure environmental effects are found not to be significant.

3.3 Natural Hazards

This Section describes the natural hazards and how they might impact the Proposed Action. It addresses the potential hazards of flooding, tsunamis, storm surges/hurricanes, and sea level rise. It provides mitigation measures to combat any adverse effects, protect the property, and its future residents.

Existing Conditions

3.3.1 Flooding

The entire Project Site is located in Flood Zone X (see Figure 1.1.6) according to the designation assigned by the U.S. Department of Homeland Security – Federal Emergency Management Agency (FEMA). Flood Zone X is defined as areas determined to be outside the 0.2% annual chance floodplain (or outside the 500-year floodplain). This site is not located in a Flood Hazard District as defined by LUO Section 21-9.10.
3.3.2 Tsunami

Hawai‘i has a history of tsunami impacts. Tsunamis are dangerous, large, long ocean waves usually generated by seismic activity. The entire Project Site is located in the Tsunami Evacuation Zone (TEZ) (see Figure 3.3.2) according to the designation assigned by the State of Hawai‘i – Hawai‘i Emergency Management Agency. In the event a Tsunami Advisory is issued, occupants should stay out of the ocean, away from the beach, and evacuate to a safer upslope and outside of the TEZ.

3.3.3 Storm Surge / Hurricanes

The national depiction of storm surge flooding vulnerability helps people living in hurricane-prone coastal areas of Hawai‘i evaluate their risk to the storm surge hazard. The SLOSH (Sea, Lake, and Overland Surges from Hurricanes) model is a numerical model used by the National Weather Service (NWS) to depict storm surge. Storm surge is defined as the abnormal rise of water generated by a storm, over and above the predicted astronomical tides. The National Hurricane Center provides two products based on hypothetical hurricanes: 1. Maximum Envelope of Water (MEOW) and 2. Maximum of the Maximum (MOM). MEOW are created by computing the maximum storm surge resulting from up to 100,000 hypothetical storms simulated through each SLOSH grid of varying forward speed, radius of maximum wind, intensity (Categories 1-4), landfall location, tide level, and storm direction. A MEOW product is created for each combination of category, forward speed, storm direction, and tide level.

For each storm combination, parallel storms make landfall in 5-to-10-mile increments along the coast within the SLOSH grid, and the maximum storm surge footprint from each simulation is composited, retaining the maximum height of storm surge in a given basin grid cell. These are called MEOW and no single hurricane will produce the regional flooding depicted in the MEOW.

SLOSH model MOM is an ensemble product of maximum storm surge heights. SLOSH MOM is created for each storm category by retaining the maximum storm surge value in each grid cell for all the MEOW, regardless of the forward speed, storm trajectory, or landfall location. SLOSH MOM is available for mean tide and high tide scenarios and represent the near worst case scenario of flooding under ideal storm conditions. A high tide initial water level was used for the storm surge hazard maps (National Weather Service, 2021).

The SLOSH model (see Figures 3.3.3-3.3.6) shows SLOSH MOM for Categories 1-4. The Project Site remains relatively unimpacted until you reach a Category 4 storm as illustrated.
3.3.4 Hawai‘i Sea Level Rise

The Pacific Islands Ocean Observing System (PacIOOS) provides an interactive mapping tool in support of the State of Hawai‘i Sea Level Rise Vulnerability and Adaptation Report that was mandated by Act 83, Session Laws of Hawai‘i (SLH) 2014 and Act 32, SLH 2017. The mapping tool is called the Hawai‘i Sea Level Rise Viewer (the “Viewer”) (Hawaii Climate Change Mitigation and Adaptation Commission, 2021). The Viewer is intended to provide map data depicting projections for future hazard exposure and assessing economic and other vulnerabilities due to rising sea levels.

Modeling, using the best available data and methods, was conducted to determine the potential future exposure of O‘ahu to multiple coastal hazards as a result of sea level rise. Three chronic flooding hazards were modeled: 1. passive flooding, 2. annual high wave flooding, and 3. coastal erosion. The footprint of these three hazards were combined to define the projected extent of chronic flooding due to sea level rise, called the Sea Level Rise Exposure Area (SLR-XA). Flooding in the SLR-XA is associated with long-term, chronic hazards punctuated by annual or more frequent flooding events. Each of these hazards were modeled for four future sea level rise exposure scenarios: 0.5-foot, 1.1-foot, 2.0-foot, and 3.2-foot, based on the upper end of the International Panel on Climate Change’s (IPCC) 5th Assessment Report (AR5) “business-as-usual” Greenhouse Gas (GHG) (RCP8.5) Global Mean Sea Level (GMSL) rise scenario.

Figures 3.3.7, 3.3.8, 3.3.9, & 3.3.10 illustrate the Project Site with the 0.5, 1.1, 2.0 & 3.2-foot future sea level rise exposure scenarios, respectively, being projected (Tetra Tech, Inc. and University of Hawaii Coastal Geology Group, 2021). The 0.5-feet scenario is used by DPP to determine if the site is, “impacted by waves, storm surges, high tide, or shoreline erosion” per the SMA permit direction in the October 13, 2020 news announcement on their website: www.honoluludpp.org and could occur by the year 2030 according to IPCC AR5 projections. The highest scenario of the four, 3.2 feet, could be reached by the year 2100. The IPCC AR5 projections are through the year 2100, and they suggest that sea level rise will likely continue for centuries.

Potential Impacts and Regulatory Compliance

The Proposed Action will not have any significant impact on floods, tsunamis, hurricanes, sea level rise, or any other natural hazards, such as earthquakes or similar. The Project Site is, however, situated such that it can be impacted by one or more of these natural events.
The Sea Level Rise Exposure Area (SLR-XA) scenarios indicate that the 3.2 and 2.0-foot scenarios are projected to impact the building footprint of the single-family dwelling as sited in the Proposed Action. Notwithstanding this projection, the lesser SLR scenarios of 1.1 and 0.5 would impact the existing structures even sooner. It is important to note that the Proposed Action proposes to demolish these existing non-conforming structures in a proactive effort to mitigate shoreline hazards advance of needing emergency protective action and avoid the need to seek an encroachment agreement in the State Legislature.

As mentioned, the SLR-XA map data combines the multi-hazard exposure vulnerabilities of passive flooding, annual high wave flooding, and coastal erosion. Each model type was produced using a “bare earth” digital elevation model, which is used to represent the ground surface in the absence of buildings, trees, and other structures. To more accurately assess how the sea level rise exposure projections are slated to impact the Proposed Action, the FEA analyzes passive flooding, annual high wave flooding, and coastal erosion overlay scenario maps for the Project Site individually. This individual analysis accounts for the unique particularities of each hazard and its specific distinctive impact (as opposed to generalized) to the Project Site and the Proposed Action. Again, these individual hazard scenarios would affect the existing structures which, given their location in the shoreline setback of the Project Site, are vulnerable to sea level rise exposure sooner if the SLR projections come to fruition. Additionally, when considered individually, some hazards such as passive flooding and annual high wave flooding may not affect the Proposed Action at all. That analysis identifies coastal erosion as the primary hazard requiring attention. These three impacts are discussed individually as follows:

**Passive Flooding:** As seen in Figure 3.3.11 of the FEA, the highest passive flooding scenario of 3.2-feet does not impact the Project Site. As such, one can surmise that the elevation of the Project Site is higher than the average daily high tide under the projected sea level rise scenarios. One can also surmise that the Project Site, at its current elevation, is not impacted by exposure to flooding that originates both above and below the ground surface. As such, the Proposed Action seeks to raise the finish floor of the single-family dwelling to an elevation of 10.5-feet, higher than the site’s current highest elevation point as outlined in Section 3.1 – Topography, Geology and Soils to further protect against groundwater inundation and passive flooding. To date, no exceptions have been added to zoning regulations to allow for additional building height for development that incorporates additional freeboard mitigation measures.
**Annual High Wave Flooding:** As seen in Figure 3.3.12 of the FEA, the highest annual high wave flooding scenario of 3.2-feet seems to marginally impact the Project Site; coming nowhere near the 40-foot shoreline setback line and nowhere near the structure of the Proposed Action. As such, one can surmise that the Project Site is protected from wave events such as wave run-up over the shoreline. The Proposed Action is not vulnerable to annual high wave flooding as currently projected but could be vulnerable to more extreme, yet less-frequent, wave events such as tsunamis. The residents will be knowledgeable of the danger of tsunamis and equipped with an action plan as outlined in Section 3.3 – Natural Hazards.

**Coastal Erosion:** As seen in Figure 3.3.13 of the FEA, the highest coastal erosion scenario of 3.2-feet would impact the structure of the single-family dwelling under the Proposed Action if projections are accurate. However, this scenario assumes the shoreline is allowed to retreat naturally. As noted in the FEA, the Project Site is located in the middle of a continuous string of armored shorelines spanning roughly +1,000-feet. One can surmise that the coastal erosion line scenario is not accurate for the Project Site because for it to be met coastal erosion would need to be allowed to occur naturally effective immediately. In other words, the Project Site’s existing seawall – and the entire string of abutting existing seawalls – which are largely in good shape would need to disappear to meet these projections.

Additionally, Chapter 4 – State and County Land Use Plans and Policies has information on State and County regulations.

**Mitigation Measures**

The Proposed Action will be designed and built to meet current codes instated to mitigate potential damage from natural hazards. No special design standards are required for the structure. Regardless, upon review of the projected sea level rise impacts on the structure due to the coastal erosion scenario by a structural engineer the slated structure for the single-family dwelling has been revised from the DEA to the FEA. The structure in the DEA was a typical 5” slab-on-grade with associated footings. The substructure in the FEA transitions from the 5” slab-on-grade to a 8” structural slab with micro piles supporting a reinforced concrete beam that the structural slab is attached to beyond the projected 3.2-foot erosion line. This structural solution allows the sand to be eroded away on the makai side of the house nearest the shoreline should all the seawalls erode.
away, and the 3.2-foot coastal erosion scenario arrive. These revisions to the structural system will ensure the Project Action remains effective for generations to come.

Additionally, removing roughly 1,650 SF of existing non-conforming structures from the Shoreline Setback Area will help stay the projected impact of natural hazards, specifically sea level rise, by roughly 70 years (the time difference between 0.5 feet and 3.2 feet). The safety and welfare of the occupants will be protected by the knowledge that they live in a potentially hazards area. That way, a plan can be devised and implemented in times of emergency should such an event occur.

**Summary of Impacts**

The Proposed Action will not have a significant impact on Natural Hazards. The above-mentioned mitigation measures will be implemented to ensure environmental effects on the Proposed Action by natural hazards are found not to be significant.

### 3.4 Flora and Fauna (Biological Resources – Terrestrial and Marine)

This Section describes the existing flora and fauna. It addresses the potential impacts the Proposed Action will have on biological resources. It provides mitigation measures to combat any adverse impacts.

**Existing Conditions**

The U.S. Fish and Wildlife Service (USFWS) compiles data using the Hawai‘i Biodiversity and Mapping Program as it pertains to listed species and designated critical habitat in accordance with Section 7 of the Endangered Species Act of 1973 (ESA). The Project Site is not a federally designated critical habitat.

**Potential Impacts and Regulatory Compliance**

To avoid or minimize effects to protected species associated with the Proposed Action, a request for an official endangered species list was sent to the Pacific Islands Fish and Wildlife Office on January 21, 2021 and February 1, 2021. A response was received from Aaron Nadig, Island Team Manager, Pacific Islands Fish and Wildlife Service, dated February 18, 2021 (see Appendix E).

The response indicated that species “may occur in Project Area” that are “endangered” or “threatened” per the U.S. Fish & Wildlife Endangered Species Program database. It indicated that the federally endangered Hawaiian Hoary Bat or Ope'ape'a (*Lasiurus cinereus semotus*) may forage
and roost within the vicinity of the Project Area. The federally threatened Green Sea Turtle or Honu (*Chelonia mydas*) may forage in the waters offshore or bask or nest on the shoreline near the Project Site. Also, that the federally endangered Band-Rumped Storm-Petrel of ‘Akē‘akē (*Oceanodroma castro*) and Hawaiian Petrel or ‘Ua‘u (*Pterodroma sandwichensis*) may occur in the Project Area. Lastly, the federally threatened Newell’s Shearwater or ‘A‘o (*Puffinus auricularis newelli*) may also be seen.

Additionally, a reply to the pre-consultation letter (*see Appendix B*) was received from Jennifer Roth, Special Agent, USFWS, Office of Law Enforcement on March 17, 2021 (*see Appendix B*). She indicated that the windward side is a prime nesting area for the Wedgetailed Shearwater or ‘Ua‘u kani (*Puffinus pacificus*), a seabird species protected under the Migratory Bird Treaty Act.

**Mitigation Measures**

Naupaka or other vegetation on the Project Site between the house and the beach may serve to house Shearwater burrows. There is minimal-to-no vegetation between the house and the seawall that is ideal for burrows. Regardless, the entire site and all site vegetation will be checked for burrows prior to any action. If found, this habitat may be legally removed when there is no burrow present. If a burrow has a chick inside, the contractor will wait for it to fledge before removing the bushes. Similarly, the Hawaiian Hoary Bat roosts in woody vegetation. While foraging, they will leave young unattended in trees and shrubs. Woody plants greater than 15-feet tall will not be disturbed, removed, or trimmed during the bat birthing and pup rearing season of June 1<sup>st</sup> through September 15. As with shearwater burrows, site clearing will be timed to avoid disturbance to Hawaiian Horary Bats in the Project Area.

Cat, rat, mongoose, and off-leash dog predation are also risks to fledglings. The homeowners will be educated on this concern: on native species and how to avoid interactions with their pets.

Light distraction is a major source of "take" for listed seabirds and endangered sea turtles. Lights will be positioned low to the ground (3-feet or lower), be of low intensity (greater than 580 nanometers), will be motion-triggered and/or on timers, and be shielded and/or on full cutoff in accordance with the DLNR Department of Forestry and Wildlife’s Responsible Lighting Practices (*see Figure 3.4.1*) for acceptable fixtures that shield the light source to minimize glare and light trespass and facilitate better vision at night so the light is not visible from the beach or water line. Tinting and/or automatic window shades will be provided for exterior windows that face the ocean.
Additionally, fences will be dark on the ocean side to minimize reflection and amplification. Nighttime construction work during the nesting and hatching season, which occur for sea turtles between May to October 31, and for shearwaters, between June 1 to Dec 15), will be avoided.

All existing trees, shrubs, and surrounding vegetation shall be preserved and protected so far as practicable.

**Summary of Impacts**

The Proposed Action will not have a significant impact on the Flora and Fauna. The above-mentioned mitigation measures will be implemented to ensure environmental effects are found not to be significant.

### 3.5 Water Resources

This Section describes the existing water resources. It addresses the potential impacts the Proposed Action will have on water resources. It provides mitigation measures to reduce and/or eliminate any significant impacts.

**Existing Conditions**

#### 3.5.1 U.S. Fish and Wildlife Wetlands

According to the U.S. Fish and Wildlife, “Classification of Wetlands and Deepwater Habitats of the United States” (Cowardin, Carter, Golet, & LaRoe, 1979) wetlands are defined by plants, soils, and frequency of flooding. Ecologically related areas of deep water, traditionally not considered wetlands, are included in the classification as deep-water habitats. The U.S. Fish & Wildlife’s “National Wetlands Inventory” wetland classification system identifies that the Project Site is bordered entirely by “M2USN” and “M1RF1L” wetlands along the seawall portion of the site (see Figure 3.5.1).

The M2USN and M1RF1L wetlands are described by the U.S. Fish & Wildlife (U.S. Fish & Wildlife Service, 2020) below. Note that Systems form the highest level of classification hierarchy, and each System has Subsystems. Within the Subsystems, there are Classes and Subclasses based on substrate material and flooding regime, or on vegetative life form.
M2USN is described as follows:

**System Marine (M):** The Marine System consists of the open ocean overlying the continental shelf and its associated high-energy coastline. Marine habitats are exposed to the waves and currents of the open ocean, and the Water Regimes are determined primarily by the ebb and flow of oceanic tides. Salinities exceed 30 parts per thousand (ppt), with little or no dilution except outside the mouths of estuaries. Shallow coastal indentations or bays without appreciable freshwater inflow, and coasts with exposed rocky islands that provide the mainland with little or no shelter from wind and waves, are also considered part of the Marine System because they generally support typical marine biota.

**Subsystem INTERTIDAL (2):** The substrate in these habitats is flooded and exposed by tides; includes the associated splash zone.

**Class Unconsolidated Shore (US):** Includes all wetland habitats having two characteristics: 1. unconsolidated substrates with less than 75 percent areal cover of stones, boulders or bedrock and; 2. less than 30 percent areal cover of vegetation. Landforms, such as beaches, bars, and flats, are included in the Unconsolidated Shore class.

**Water Regime Regularly Flooded (N):** Tides alternately flood and expose the substrate at least once daily.

Just beyond the M2USN wetlands lies the “M1RF1L” wetlands. These wetlands are described by the U.S. Fish and Wildlife as follows:

**System Marine (M):** The Marine System consists of the open ocean overlying the continental shelf and its associated high-energy coastline. Marine habitats are exposed to the waves and currents of the open ocean, and the Water Regimes are determined primarily by the ebb and flow of oceanic tides. Salinities exceed 30 parts per thousand (ppt), with little or no dilution except outside the mouths of estuaries. Shallow coastal indentations or bays without appreciable freshwater inflow, and coasts with exposed rocky islands that provide the mainland with little or no shelter from wind and waves, are also considered part of the Marine System because they generally support typical marine biota.

**Subsystem Subtidal (1):** The substrate in these habitats is continuously covered with tidal water (i.e., located below extreme low water).
**Class Reef (RF):** Includes ridge-like or mound-like structures generally at or below the surface of the water. They are usually formed by the colonization and growth of sedentary invertebrates, mollusks, or other shellfish or they may be natural rock outcrops or artificial structures. Reefs are characterized by their elevation above the surrounding substrate and as an obstruction to normal water movement.

**Subclass Coral (1):** Coral reefs are found almost entirely within the subtidal subsystem of the Marine System, although the upper part of certain reefs may be exposed. They are widely distributed in shallow warm waters in Hawai‘i, Puerto Rico, the Virgin Islands, and southern Florida.

**Water Regime Subtidal (L):** Tidal salt water continuously covers the substrate.

**Potential Impacts and Regulatory Compliance**

As discussed above under the section of Existing Conditions, the Project Site borders the Pacific Ocean and wetland areas classified by the USFWS as M2USN Marine Wetlands. However, the Proposed Action does not propose any activities that would result in an adverse impact to these wetland resources. No substantial construction activity is slated to occur within 40-feet of the shoreline.

In regard to the U.S. Army Corps of Engineers – Waters and Wetlands of the U.S. and Chapter 401, 402, 404 of the Clean Water Act, no work will be done within coastal waters and it will not be directly impacted by the proposed construction activities. The existing seawall will remain undisturbed and shoreline setbacks will be observed.

As the site is located adjacent to the shoreline, groundwater is present and will fluctuate with tidal conditions. It is anticipated that the depth from finish grade to groundwater to be approximately 7-feet to 8-feet in depth. This groundwater will have a high salinity content and is not suitable for domestic or non-potable use. Construction activities should not have a negative impact as excavation depths are not anticipated to reach the groundwater level.

**Mitigation Measures**

Temporary earth-moving activities during construction will disturb on-site soils that could then run into the wetland areas if not contained. However, the Proposed Action is required to comply with approved grading plans and associated BMP to mitigate erosion and land based sources of pollution. All construction work and permanent features shall follow current City and County of
Honolulu Administrative Rules, Title 20, DPP Chapter 3 Rules Relating to Water Quality. The Residential Stormwater Management Plan (RSWMP) shall be implemented into the construction drawings, which are to include site design strategies and residential source control BMP as applicable.

During construction, BMP are to include, but not be limited to, Perimeter Control, Sediment Barriers for shoreline protection, Tracking Control, Dust Control, and Good Housekeeping Practices. The contractor will be directed to consider weather while performing construction to secure the site and eliminate or minimize land based source pollution from entering marine waters. If a phenomenon occurs where above-average amounts of sediment or pollution enter the water the contractor will be directed to supply photo-documentation to the Department of Aquatic Resources (DAR). In consideration of aquatic life, the contractor will be instructed to take appropriate action – such as suspending or modifying activities to avoid disturbance of protected species. Any interaction between a protected species and the construction activity will be reported to NOAA Protected Species Division and the State of Hawaii DOCARE.

Summary of Impacts

The Proposed Action will not have a significant impact on Water Resources. The implementation of the project is not anticipated to result in significant impacts to the projected wetlands or groundwater.

3.6 Utilities and Infrastructure

This Section describes the existing utilities and infrastructure serving the Project Site and whether a change is proposed. It addresses the potential impacts the Proposed Action will have on utilities and infrastructure. It provides mitigation measures to reduce and/or eliminate any significant impacts.

Existing Conditions

3.6.1 Water and Fire Protection

Water service for the neighborhood is provided by the Board of Water Supply from an 8-inch water main located in Mokulua Drive. An existing service lateral and water meter will be utilized for the new house. Fire protection is provided from an existing fire hydrant located directly in front of the
property on Mokulua Drive. There will be no sprinklers within the house as none are required by code; in addition, the house is near a hydrant (see Appendix C).

3.6.2 Wastewater

The neighborhood is serviced by the City and County of Honolulu municipal sewer system. In Mokulua Drive an 8-inch gravity vitrified clay sewer pipe collects sewer with a burial depth of approximately 9-feet to 10-feet. An existing 6-inch sewer lateral serves the property and will be utilized for the new service. The sewers were installed circa 1977.

3.6.3 Storm Drainage

Stormwater at the Project Site infiltrates rapidly into the existing soil with peak period flow overland towards Mokulua Drive. The Proposed Action has been designed to ensure all stormwater remains on-site. See Section 3.1.

3.6.4 Solid Waste Disposal

Solid waste collection for the Project Site is provided by the City and County of Honolulu, Department of Environmental Services (see Figure 3.6.4). It includes the collection of refuse (grey bins), recycling (blue bins), and green waste (green bins). The closest drop-off convenience center is the Kapaa Transfer Station. The refuse collection yard is the Kailua Collection Yard.

Under the Proposed Action, the location of bins and refuse collection will remain along Mokulua Drive.

3.6.5 Electrical and Communications

Electrical services are provided to the Project Site by the Hawaiian Electric Company’s overhead distribution lines. The existing single-family home generates a demand for electrical and communication services. The Proposed Action will generate the same, or similar, demand.

3.6.6 Gas

The Lanikai neighborhood does not have gas provided by a public utility company in the street to meters at properties. The Proposed Action will introduce natural gas provided by Hawai‘i Gas. The gas will be stored in above ground tanks and installed in accordance with their service installation manual. According to Hawai‘i Gas, in typical home appliances, the direct use of gas energy results in energy consumption that is 28 percent less than a similar home with all-electric appliances.
3.6.7 Access, Roadways, and Parking

Mokulua Drive is the primary roadway serving the Project Site. Traffic on Mokulua Drive flows one-way: from Wailea Point towards Alāla Point. A private driveway off Mokulua Drive provides access to the Project Site. Public access for pedestrians to the shoreline is provided at eleven points along Mokulua Drive, but no off-street vehicular parking, public restrooms, or showers are available for beachgoers (Department of Planning & Permitting, 2017). No increase in vehicular traffic is anticipated outside of a short uptick during construction (see Section 2.4 for specifics on construction). Additionally, bus service is provided to the Project Site along Mokulua Drive as shown on Figure 3.6.7, the nearest bus station is approximately 120-feet from the Project Site. The Proposed Action will adjust the location of the private driveway. No significant impacts are anticipated as a result.

Potential Impacts and Regulatory Compliance

A pre-consultation letter was sent to the DPP and the Board of Water Supply on March 12, 2021 (see Appendix B) describing the Proposed Action with the intent of soliciting input to ensure regulatory compliance. A response was received from the Director of DPP, Dean Uchida, on March 30, 2021 (see Appendix B). To date, no response has been received from the Board of Water Supply. An attempt has been made to consider and incorporate all feedback regarding the potential impacts to utilities and infrastructure.

The potential impacts to utilities and infrastructure will be in compliance with their respective regulatory department. As such, all associated permits for the Proposed Action will be obtained prior to work proceeding.

Mitigation Measures

No Proposed Action-specific mitigation measures are required to avoid a significant environmental impact. Regulatory compliance will serve to ensure reduction and elimination of environmental impact.

Summary of Impacts

The Proposed Action will utilize the existing utilities and infrastructure in the same manner as the existing single-family home. The Proposed Action is not expected to have any significant impacts or alter the existing utilities and infrastructure in any significant manner.
3.7 Public Facilities and Services (Educational, Police, Fire, Medical)

This Section discusses the potential for impacts to public facilities and services, such as the public education system, police department, fire, and medical services.

Existing Conditions

The greater Kailua area currently contains numerous public schools operated under the State of Hawai‘i Department of Education. The schools that serve the Project Area include:

- Kailua Elementary School, located at 315 Ku‘ulei Road, is approximately 1.8 miles from the Project Site.
- Kailua Intermediate School, located at 145 South Kainalu Drive, is approximately 1.5 miles from the Project Site.
- Kalaheo High School, located at 730 Ilaina Street, is approximately 3.2 miles from the Project Site.

Police protection is currently provided by the Honolulu Police Department (HPD). HPD’s Kailua Police Station is located at 219 Kuulei Road, Kailua, Hawai‘i 96734.

Medical assistance can be obtained from the nearest urgent care. Braun Urgent Care Kailua is one mile from the Project Site and is located at 130 Kailua Road #111, Kailua, Hawai‘i 96734.

Fire protection is currently provided by the Honolulu Fire Department (HFD). HFD’s Kailua Fire Station 18 is located at 211 Kuulei Road, Kailua, Hawai‘i 96734 and is 1.6 miles from the Project Site.

Potential Impacts and Regulator Compliance

A pre-consultation letter was sent to the HPD and HFD on March 12, 2021 (see Appendix B) describing the Proposed Action with the intent of soliciting input to ensure regulatory compliance. A response was received from the HPD Assistant Chief of Police, Darren Chun, on March 22, 2021 (see Appendix B). A response was received from Jason Samala, HFD Assistant Chief, on March 30, 2021. An attempt has been made to consider and incorporate all feedback regarding the potential impacts to public facilities and services.
Mitigation Measures

Safety concerns expressed by the HPD surrounding the construction phase have been addressed in Chapter 2. No other significant impacts are projected surrounding the Proposed Action, which is the construction of a single-family residence in a residential neighborhood. Security cameras will be incorporated into the final design for the protection of the residence and for the general betterment of the neighborhood watch.

Mokulua Drive is the fire department access road. The entire property is 150 feet deep, and the house is 100 feet from the street to the back. It is 47 feet from the street to the front door. The Board of Water Supply fire hydrant on Mokulua is directly in front of the property well within 150 feet. A fire apparatus road is not required since the house is so close to the street. It is 18 feet from the street to the garage. Civil construction drawings will be submitted to the HFD for review and approval.

Summary of Impacts

The Proposed Action will utilize the existing public facilities and services in the same manner as the existing single-family home. The Proposed Action is not expected to have any significant impacts or tax the existing public facilities and services in any significant manner.

3.8 Archeological, Cultural, and Historical Resources

This Section addresses the existing archaeological, historic, and cultural resources and the potential impacts the Proposed Action will have on these resources and mitigation measures to counter any adverse impacts.

3.8.1 Archeological Resources

Existing Conditions

In January of 2021, site visits were conducted by Keala Pono Archaeological Consulting to identify archaeological qualities of the Project Site. Keala Pono identified what impacts the Proposed Action might have on these resources and what mitigation measures should be taken as a result.

Keala Pono’s letter on anticipated archaeological findings states that because of the modern use of the Project Area as a single-family home with a swimming pool and landscaped lawn, pre-contact (traditional Hawaiian, pre-1778) surface archaeological resources were not observed, are not likely
Nevertheless, Keala Pono highlighted studies conducted nearby that can help inform on the kinds of subsurface archaeological resources that exist: “Previous archaeological research in Lanikai has identified subsurface features, such as human burials (Bath and Smith 1988, Smith and Kawachi 1988, Dye 1991, Hammatt and Shideler 1992, Groza et al. 2010), a cultural layer (Groza et al. 2010), and a hearth (Tulchin and Hammatt 2009)” (Keala Pono Archaeological Consulting, LLC, 2021).

According to Keala Pono, “the closest study to the project area was archaeological monitoring of a water main replacement that spanned all of Mokulua Drive as well as several side streets (Groza et al. 2010). This study identified two sets of human remains (SIHP 6937 and 7032) and a subsurface cultural layer (SIHP 6967). Also close to the project area, an archaeological inventory survey was conducted on a beachfront property at 860 Mokulua Drive, to the southeast of the current project (Fechner and Cleghorn 2014). Excavation of two backhoe trenches yielded no findings.” (Keala Pono Archaeological Consulting, 2021)

**Potential Impacts and Regulatory Compliance**

A review of the Ko‘olau Poko Sustainable Communities Plan also indicates that there is no “significant cultural and historic sites” located at or near the Project Site (Department of Planning & Permitting, 2017).

**Mitigation Measures**

Although “no pre-contact archaeological features were observed or expected to be found” (Keala Pono Archaeological Consulting, LLC, 2021), the contractors will be knowledgeable of archaeological protocol in the State of Hawai‘i. Archaeological monitoring during construction will ensure that archaeological resources are identified and treated properly. Efforts will be made for the monitoring to be done in consultation with the State Historic Preservation Division (SHPD). Ground disturbing activity will be minimized to the greatest extent practicable by raising the grade to minimize infill and the incorporation of shallow footings to minimize the disturbance of existing soils.

Archaeological monitors will adhere to the following guidelines during monitoring:

1. A qualified archaeologist familiar with the project area and the results of previous archaeological work conducted in the area will monitor subsurface construction activities on the
project area. A program of full time, on-site archaeological monitoring of all ground disturbance will occur. If significant deposits or features are identified and additional field personnel are required, the archaeologist will notify the contractor or representatives before additional personnel are brought to the site. One monitor is required for each piece of ground altering machinery during this project.

2. If features or cultural deposits are identified during Archaeological Monitoring, the on-site archaeologist has the authority to temporarily suspend construction activities at the significant location so that the cultural feature(s) or deposit(s) may be fully evaluated, and appropriate treatment of the cultural deposit(s) is conducted. These actions are needed to fulfill the reporting requirements specified in HAR §13-279 and HAR §13-280. SHPD archaeologists will be consulted to establish feature significance and potential mitigation procedures. Treatment activities primarily include documenting the feature/deposit through plotting its location on an overall site map, illustrating a plan view map of the feature/deposit, profiling the deposit in three dimensions, photographing the finds (with the exception of human remains), artifact and soil sample collection, and triangulation of the finds. Construction work will only continue in the significant location when all documentation has been completed.

3. Stratigraphy in association with subsurface cultural deposits will be documented and photographed, including deposits containing significant cultural materials. If deemed significant by SHPD and the Archaeological Consultant firm conducting the Archaeological Monitoring, these deposits will be sampled and screened through 1/8” wire mesh screen.

4. In the event that human remains are inadvertently encountered, all work in the immediate area of the find will cease; the area will be secured from further activity until compliance with HRS §6E-43.6 and HAR §13-300-40 and SHPD directives has occurred. The recognized Cultural Descendants, SHPD Archaeology Branch and the History and Culture Branch will both be immediately notified about the inadvertent discovery of human remains on the property. Notification of the inadvertent discovery will also be made to the Oahu Island Burial Council and OHA by the consulting archaeologist. Documentation and treatment of human burials and isolated skeletal finds will be conducted in accordance with HAR §13-300-40, and SHPD directives. All screening will be done through 1/8” screens.
5. To ensure that contractors and the construction crew are aware of this AMP and possible site
types that may be encountered in the project area, a brief coordination meeting will be held
between the construction personnel and monitoring archaeologist prior to initiation of the project.
The construction crew will also be informed as to the possibility that human burials could be
encountered and how they should proceed if they observe such remains.

6. The contracted archaeologist will provide all coordination with the contractor, SHPD, and any
other group involved in the project. The archaeologist will coordinate all monitoring and sampling
activities with the safety officers for the contractors to ensure that proper safety regulations and
protective measures meet compliance. Close coordination will also be maintained with
construction representatives in order to adequately inform personnel of the possibility that open
archaeological units or trenches may occur in the project area.

7. As necessary, verbal and/or written reports will be made to SHPD, and any other agencies as
requested.

8. If any historic properties are identified during fieldwork, they will be evaluated for historic
significance according to criteria established in HAR 13-284-6.

Summary of Impacts

The Proposed Action is not expected to have a significant impact on archeological resources.

3.8.2 Cultural Resources

Existing Conditions

In January of 2021, a site visit was conducted by Keala Pono Archaeological Consulting to identify
cultural qualities of the Project Site. Keala Pono identified what impacts the Proposed Action might
have on these resources and what mitigation measures should be taken as a result.

Keala Pono’s letter on anticipated cultural findings states that they conducted cultural impact
assessment interviews for Kaʻōhao and the greater Kailua area (Keala Pono Archaeological
Consulting, 2021). These interviews were an attempt to consult community folks and Hawaiian
cultural practitioners to ascertain ethnographic information on cultural resources and practices that
occur on the site or in the broader area. In sum, Alāla Heiau, Alāla Fishing Shrine, human burials,
and a subsurface cultural layer are among the archaeological sites known for the project vicinity.
This tells us that Kaʻōhao was important in pre-contact (pre-1778) times for religious/ceremonial
use, fishing, human burial, and habitation. Ethnographic interviews from nearby projects gathered important information on the current and past cultural practices of the area. People continue to utilize Kaʻōhao and the Kailua region for subsistence fishing and gathering of marine resources. Other cultural practices known for Kailua are pahu and ipu making, as well as surfing and other ocean recreation. Canoe paddling, kayaking, stand up paddling, snorkeling, beachgoing, and hiking are also common in Kaʻōhao.

Potential Impacts and Regulatory Compliance

A review of the Koʻolau Poko Sustainable Communities Plan also indicates that there is no “significant cultural and historic sites” located at or near the Project Site (Department of Planning & Permitting, 2017). The Proposed Action is not anticipated to have any significant impact on current or past cultural practices in the area as no work is slated for the shoreline and measures are in place to mitigate erosion and land based sources of pollution to ensure marine resources are not impacted (see Chapter 3.5).

Mitigation Measures

Although “no pre-contact archaeological features were observed or expected to be found” (Keala Pono Archaeological Consulting, LLC, 2021), the contractors will be knowledgeable of archaeological protocol in the State of Hawaiʻi. Archaeological monitoring during construction will ensure that archaeological resources are identified and treated properly (see 3.8.1 for archaeological monitoring specifics). Efforts will be made for the monitoring to be done in consultation with the State Historic Preservation Division (SHPD). Ground disturbing activity will be minimized to the greatest extent practicable by raising the grade to minimize infill and the incorporation of shallow footings to minimize the disturbance of existing soils.

Summary of Impacts

The Proposed Action is not expected to have a significant impact on cultural resources.

3.8.3 Historical Resources

Exiting Conditions:

Keala Pono’s anticipated archaeological findings letter also highlights the historical nature of the existing single-family home and a mortared rock wall that demarcates the southeastern property boundary. Keala Pono believes the house should be considered a historic property given that it is
more than 50-years old. They also state if the existing mortared rock wall is more than 50-years old it should be considered historic as well.

**Potential Impacts and Regulatory Compliance:**

A pre-consultation letter was sent to the DLNR, State Historic Preservation Division on March 12, 2021 (see Appendix B) describing the Proposed Action with the intent of soliciting input to ensure regulatory compliance. To date, a response from DNLR has not been received.

The State legislature established the Hawai‘i Register in 1976 when it passed Hawai‘i’s preservation law known as Chapter 6E. To qualify as eligible for listing on the Hawai‘i Register, a residence must be a historic property, as defined in State Preservation Law, Chapter 6E. According to this law, historic property means any building, structure, object, district, area, or site, including heiau and underwater site, which is over 50-years old (State Historic Preservation Division, 2021).

**Mitigation Measures**

Single-family detached dwelling units and townhouses are excluded from the SHPD review if they are not listed on the historic register (HRS 42.2). So, while the existing house is older than 50-years, the general consensus is it fails to possess the exceptional importance (i.e. historic significance and integrity) required to meet the Hawai‘i Register criteria as evaluated by the Review Board and County Preservation Commission. For a residence, historic significance will usually relate to its importance to the history, architecture, individuals, and/or culture of a community. This is often defined by the area of history in which the home made an important contribution(s) and by the period of time when these contributions were made. A homeowner evaluates a residence’s integrity by looking at historic qualities of location, design, setting, materials, workmanship, feeling, and association (Historic Hawaii Foundation, 2008).

There is no information on the age or significance of the existing mortared rock wall. As such, it will remain intact and untouched to avoid disruption.

**Summary of Impacts**

The Proposed Action is not expected to have a significant impact of historical resources.
3.9 Visual

Existing Conditions

The Project Site is located along Mokulua Drive and all along Mokulua Drive “visual access to the shoreline from the street is very limited” (Department of Planning & Permitting, 2017). Currently, when the Project Site is viewed from Mokulua Drive, one sees a driveway leading to a garage and a swath of foliage concealing a CMU wall. The Project Site is not part of a scenic viewshed as identified by the Ko’olau Poko Sustainable Communities Plan (KPSCP) Open Space map (see Figure 3.9.1).

Potential Impacts and Regulatory Compliance

A pre-consultation letter was sent to HPD, HFD, DPP, the Office of Planning, Council Member Brandon Elefante – Chair of the Zoning and Planning Committee, the Lanikai Association, the Kailua Neighborhood Board, and DOH on March 12, 2021 (see Appendix B) describing the Proposed Action with the intent of soliciting input to ensure regulatory compliance. A response was received from the HPD Assistant Chief of Police, Darren Chun, on March 22, 2021 (see Appendix B). A response was received from Jason Samala, HFD Assistant Chief on March 30, 2021. A response was received from the Director of DPP, Dean Uchida, on March 30, 2021 (see Appendix B). To date, no further responses have been received. An attempt has been made to consider and incorporate all feedback regarding the potential impacts to public facilities and services.

Mitigation Measures

The existing structures restrict visual access to the shoreline from Mokulua Drive. The Proposed Action would also restrict visual access to the shoreline. Restricted visual access is the reality of any structure sited on a shoreline lot as noted in the Ko’olau Poko Sustainable Communities Plan (KPSCP). The Proposed Action would not restrict any scenic viewshed or makai to mauka views. It would maintain the “predominantly low-rise, low-density, single-family character of the region” as is the policy of the KPSCP (Department of Planning & Permitting, 2017). Also, in accordance with the KPSCP, landscaped front yards and pedestrian entries visible from the street to promote a sense of neighborhood and a sense of security for the residents and their respective single-family homes will be provided.
Summary of Impacts

The Proposed Action is not expected to have a significant environmental visual impact.

3.10 Noise

Existing Conditions

The Project Site is located a Class A Zoning District and thereby ambient and background noise levels are consistent with this type of neighborhood. Maximum permissible sound levels in dBA for a Class A Zoning District is as follows (Department of Health, 1996):

Daytime (7:00 a.m. to 10:00 p.m.) = 55 dBA

Nighttime (10:00 p.m. to 7:00 a.m.) = 45 dBA

There are natural noises at and around the Project Site due to the ocean commotion and wind rustling the foliage. There is also the presence of noise generated by motor vehicle traffic. The existing single-family residence alone does not generate any excessive noise, and any noise annoyance generated by maintenance – such as a leaf blower – takes place between 8:00 a.m. and 6:00 p.m., Monday through Saturday, and between 9:00 a.m. and 6:00 p.m. on Sunday and State and Federal Holidays in accordance with state law (Department of Health, 2017).

Potential Impacts and Regulatory Compliance

A pre-consultation letter was sent to HPD, HFD, DPP, the Office of Planning, Council Member Brandon Elefante – Chair of the Zoning and Planning Committee, the Lanikai Association, the Kailua Neighborhood Board, and DOH on March 12, 2021 (see Appendix B) describing the Proposed Action with the intent of soliciting input to ensure regulatory compliance. A response was received from the HPD Assistant Chief of Police, Darren Chun, on March 22, 2021 (see Appendix B). A response was received from Jason Samala, HFD Assistant Chief, on March 30, 2021. A response was received from the Director of DPP, Dean Uchida, on March 30, 2021 (see Appendix B). To date, no further responses have been received. An attempt has been made to consider and incorporate all feedback regarding the potential impacts to public facilities and services.

Mitigation Measures

The Proposed Action does not alter the current use of the site and no difference in sound levels is anticipated as a result. In accordance with the Hawai‘i State Department of Health’s Noise
Reference Manual, an approved Community Noise Permit will be obtained for the construction as it has a total cost of more than $250,000 (based on the value of the building permit). Construction will take place from 7:00 a.m. to 6:00 p.m., Monday through Friday, and 9:00 a.m. to 6:00 p.m. on Saturday. The use of certain demolition and construction equipment, such as pile drivers, hydraulic hammers, jackhammers, etc., will be limited to 9:00 a.m. to 5:30 p.m., Monday through Friday.

Summary of Impacts

The Proposed Action is not expected to have a significant environmental noise impact.
4 PERMITS, PLANS, POLICIES AND CONTROLS

This Chapter illustrates the permits and approval required for the Proposed Action to proceed. It also provides a summary of the permit history on the Project Site. It further outlines the Project Site’s consistency with applicable land use policies set forth in the Hawai‘i State Plan, State of Hawai‘i Environmental Policy Act, Hawai‘i Coastal Zone Management Program, the City and County of Honolulu General Plan, City and County of Honolulu Ko‘olau Poko Sustainable Communities Plan, City and County of Honolulu Land Use Ordinance, Shoreline Setbacks and Special Area Management Permitting.

4.1 Permits and Approvals Required

The following is other approvals that may be required from the County and State to implement the Proposed Action:

- Certified Shoreline Survey (DLNR) – Received on August 23, 2021
- Special Management Area Use Permit Major (DPP)
- Street Usage (Department of Transportation Services)
- Building Permits; Building, Structural, Electrical, Plumbing (DPP)
- Sewer Connection Permits (DPP)
- Plan Approval (Board of Water Supply)
- Plan Approval (Hawaiian Electric Company)
- Minor Shoreline Structure Permit (DPP)
- Grading Permit (DPP)
- Demolition Permit (DPP)
- Residential Storm Water Management Plan (DPP)

4.1.1 Permit History

The permit history for 830 Mokulua Drive is as follows:

- 1948 – Original house built per City and County of Honolulu, Department of Budget and Fiscal Services, Real Property Assessment Division Parcel Information (CITE)
- 1973 – 018688 (HIST) – Repair, plumbing, alteration, electrical
- 1979 – 131016 (HIST) – Solar, plumbing, electrical
- 1980 – 124604 (HIST) – Seawall (No Variance)
- 1989 – BP#265588 – Fence
4.2 State and County Land Use Plans and Policies

4.2.1 The Hawai‘i State Plan

The Hawai‘i State Plan, which is set forth in the Hawai‘i State Planning Act (HRS 226; Office of Planning, 1978), is a comprehensive, long-term plan that identifies the goals, objectives, policies, and priorities for the State. It provides guidelines for growth, development, and the allocation of State resources. The plan contains diverse policies and objectives on topics of State interest, including the population, the economy (i.e., agriculture, the visitor industry), the physical environment (i.e., natural resources, historic resources, quality of the environment), facility systems (i.e., solid and liquid wastes, water, energy), socio-cultural advancement (i.e., housing, health, culture), and sustainability.

Generally, single-family dwellings are minimally impacted by the broad goals expressed in the Hawai‘i State Plan. As such, focus has been placed on the more specified goals and objectives of the City and County of Honolulu General Plan and the Ko‘olau Poko Sustainable Communities Plan. These plans echo the State’s priorities while simultaneously providing a more specified approach to planning as it relates to the Proposed Action.
4.2.2 State of Hawai‘i Environmental Policy Act

The Hawai‘i Environmental Policy Act (HEPA) requires State agencies to consider the impact of governmental actions on the environment because “humanity’s activities have broad and profound effects upon the interrelations of all components of the environment, [and] an environmental review process will integrate the review of environmental concerns with existing planning process of the State and counties and alert decision makers to significant environmental effects [that] may result from the implementation of certain actions. The legislature further finds that the process of reviewing environmental effects is desirable because environmental consciousness is enhanced, cooperation and coordination are encouraged, and public participation during the review process benefits all parties involved and society as a whole (Hawaii Revised Statutes (HRS), 2008).”

HEPA mandates the completion of an EA for the instances or “triggers” identified in HRS 343-5(a). Actions that do not fall under one of the HEPA triggers and those that are expressly excluded by statute are not subject to the HEPA process. In addition, exempt classes of action listed in HAR 11-200-8 are not subject to the HEPA process unless their cumulative impact in the same place is significant, or unless an action though normally insignificant may be significant in a particularly sensitive environment (Council on Environmental Quality, 2021).

HRS 343-5(a)(3) states, “Propose any use within a shoreline area as defined in section 205A-41”. HRS, Chapter 205A, Coastal Zone Management, - 41 Definitions, defines “shoreline area” as including, “all of the land area between the shoreline and the shoreline setback line and may include the area between mean sea level and the shoreline; provided that if the highest annual wash of the waves is fixed or significantly affected by a structure that has not received all permits and approvals required by law or if any part of any structure in violation of this part extends seaward of the shoreline, then the term "shoreline area" shall include the entire structure.”

In summary, as the Proposed Action relates to the Hawai‘i Environmental Policy Act, alone does not “trigger” the production of an EA.
4.2.3 Hawai‘i Coastal Zone Management Program

The U.S. Congress, recognizing the importance of meeting the challenges of continued growth in the coastal zone, passed the Coastal Zone Management (CZM) act in 1972. The National CZM Program is a major component of the CZM Act. The National CZM Program is a partnership between the National Oceanic and Atmospheric Administration and participating coastal and Great Lakes states, territories, and commonwealths. The partnership works to preserve, protect, develop and, where possible, restore and enhance the nations’ coastal zone resources, which requires balancing the demands of coastal resource use, economic development, and conservation. The Hawai‘i CZM program was approved by the federal government in 1978 and the State in 1977 and is codified under HRS Chapter 205A. Act 16 amended Chapter 205A on September 15, 2020 with the aim of strengthening CZM policy and to protect State beaches and reduce residential exposure to coastal hazards. The legislature designed the CZM law to build upon existing functions agencies, forming the Hawai‘i CZM network. The State Office of Planning is the lead agency of the CZM Program (Office of Planning, State of Hawaii, 2012). The act declared that it is State policy to:

1. Protect, preserve, and where desirable, restore or improve the quality of coastal scenic and open space resources;
2. Protect valuable coastal ecosystems from disruption and minimize adverse impacts on all coastal ecosystems;
3. Reduce hazards to life and property from tsunami, storm waves, stream flooding, erosion, and subsidence; and
4. Improve the development review process, communication, and public participation in the management of coastal resources and hazards.

The overarching guidance provided by the statue to the counties for processing SMA permits are CZM objectives and policies. Within the context of the CZM objectives and policies, the SMA guidelines apply specifically to the SMA permit process. Compliance with the SMA guidelines must be achieved before a SMA permit can be approved. Mitigation measures to achieve consistency are required as conditions of SMA permit approval. This EA has outlined how the Proposed Action is in accordance with the objectives and policies of the CZM and proactively presents mitigation measures whenever applicable.
The Proposed Action conforms to each of the CZM objectives and supporting policies set forth in HRS 205A-2, as amended, as follows:

**Recreational Resources**

**Objective:** Provide coastal recreational opportunities accessible to the public.

**Policy:**

(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 restoration of coastal resources that have significant recreational and ecosystem value, including but not limited to coral reefs, surfing sites, fishponds, sand beaches, and coastal dunes, when these resources will be unavoidably damaged by development; or requiring monetary compensation to the State for recreation when restoration 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 that dedication against the requirements of section 46-6.

Discussion:

The Proposed Action will not have a significant impact on the unique recreational activities of the Lanikai area and none of the coastal resources will be damaged by the Proposed Action. The Proposed action will not impact public access, shoreline parks, and other recreational facilities. The Proposed Action will be constructed and maintained in accordance with State and Federal water quality regulations.

Historic Resources

Objective: 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.

Policy:

(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 Action would protect, preserve, and, where desirable, restore natural and manmade historic and prehistoric resources. In January of 2021 a site visit was conducted by Keala Pono Archaeological Consulting to identify archaeological, cultural and / or historic qualities of the project site. Keala Pono also identified what impacts the proposed action might have on these resources, and mitigation measures that should be taken as a result. Additionally, a review of the Ko’olau Poko Sustainable Communities Plan indicates that there is no “significant cultural and historic sites” located at or near the project site (Department of Planning & Permitting, 2017). “No pre-contact archaeological features were observed or expected to be found” (Keala Pono Archaeological Consulting, LLC, 2021). Regardless, the contractors will be knowledgeable of archaeological protocol for the retention through preservation of remains and artifacts in the State
of Hawaii. Archaeological monitoring during construction will ensure that archaeological resources are identified and treated properly.

Scenic and Open Space Resources

Objective: Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.

Policy:

(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 those 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;

Coastal ecosystems.

Discussion:

The Proposed Action would not have any significant impact on the quality of coastal scenic and open space resources. It would not restrict any scenic viewshed or makai-mauka views. It would maintain the “predominantly low-rise, low-density, single-family character of the region” as is the policy of the KPSCP (Department of Planning & Permitting, 2017). Also, in accordance with the Koʻolau Poko Sustainable Communities Plan, landscaped front yards and pedestrian entries visible from the street to promote a sense of neighborhood and an sense of security for the residents and their single-family home will be provided.

Coastal Ecosystems

Objective: Protect valuable coastal ecosystems, including reefs, beaches, and coastal dunes, from disruption and minimize adverse impacts on all coastal ecosystems.
Policy:

(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 of significant biological or economic importance including reefs, beaches, and dunes;

(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 nonpoint source water pollution control measures.

Discussion:

The Proposed Action would not disrupt valuable coastal ecosystems. No work is slated to occur within 40 feet of the shoreline. The Project Site is bordered on the makai end by an existing seawall. The seawall is located towards the center of a string of existing seawall that collectively span some 1,000 feet. During construction and operation, stormwater will be retained onsite. The Proposed Action will comply with State and Federal water quality standards.

Economic Uses

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

Policy:

(A) Concentrate coastal dependent development in appropriate areas;

(B) Ensure that coastal dependent development and coastal related development are located, designed, and constructed to minimize exposure to coastal hazards and adverse social, visual, and environmental impacts in the coastal zone management area; and
(C) Direct the location and expansion of coastal development to areas designated and used for that
development and permit reasonable long-term growth at those areas, and permit coastal
development outside of designated areas when:

I. Use of designated locations is not feasible;
II. Adverse environmental effects and risks from coastal hazards are minimized; and
III. The development is important to the State’s economy.

Discussion:

The Proposed Action would provide improvements important to the State’s economy at a suitable
location. The single-family residence, located in an Urban District, is designed to minimize
exposure to coastal hazards and adverse social, visual, and environmental impacts.

Coastal Hazards

Objective: Reduce hazard to life and property coastal hazards.

Policy:

(A) Develop and communicate adequate information about the risks of coastal hazards;

(B) Control development, including planning and zoning control, in areas subject to coastal hazards;

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

and

(D) Prevent coastal flooding from inland projects.

Discussion:

The Proposed Action includes measures to reduce hazards to life and property from coastal
hazards. The Project Site is in Flood Zone X and not within a Flood Hazard District. The Project Site
is located within the Tsunami Evacuation Zone. Design and construction will be in accordance with
State and County-approved design standards.

Managing Development

Objective: Improve the development review process, communication, and public participation in the
management of coastal resources and hazards.
Policy:

(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:

The Proposed action is subject to the development review process, communication, and public participation because of the Special Management Area Use Permit process. Procedurally, applications for development permits will be applied for per State and County ordinances. This Environmental Assessment discloses the short- and long-term impacts of the Proposed Action to the environment.

Public Participation

Objective: Stimulate public awareness, education, and participation in coastal management.

Policy:

(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:

The Proposed Action will stimulate public awareness, education, and participation in coastal management as part of the Special Management Area Use Permitting process which provides multiple opportunities to engage stakeholders / public and solicit coastal issue concerns for incorporation into the design and construction of the Proposed Action.

Beach and Coastal Dune Protection

Objective: Protect beaches and coastal dunes for:

(i) Public use and recreation;

(ii) The benefit of coastal ecosystems; and

(iii) Use as natural buffers against coastal hazards; and

Coordinate and fund beach management and protection.

Policy:

(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 shoreline hardening structures including seawalls and revetments, at sites having sand beaches and at sites where shoreline hardening structures interfere with existing recreational and waterline activities;

(C) Minimize the construction of public shoreline hardening structures, including seawalls and revetments, at sites having sand beaches and at sites where shoreline hardening structures interfere with existing recreational and waterline activities;

(D) Minimize grading of and damage to coastal dunes;

(E) Prohibit private property owners from creating a public nuisance by inducing or cultivating the private property owner’s vegetation in a beach transit corridor; and

(F) Prohibit private property owners from creating a public nuisance by allowing the private property owner's unmaintained vegetation to interfere or encroach upon a beach transit corridor.
Discussion:

The Proposed Action would not further disrupt existing beaches and coastal dunes as no work (specifically grading or alteration of any type to coastal dunes) is slated to occur within 40 feet of the shoreline. The Project Site is bordered on the makai end by an existing seawall. The seawall is located towards the center of a string of existing seawall that collectively span some 1,000 feet. So, while the Project Site’s soil may consist largely of sand as described in Section 3.3.1, there is little-to-no existing beach or coastal dunes suitable for public use and recreation within the vicinity of the Project Site (see Figure 4.2.3). The Proposed Action will not interfere with existing recreational and waterline activities.

Marine and Coastal Resources

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

Policy:

(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 and coastal processes, impacts of climate change and sea level rise, marine life, and other ocean resources to acquire and inventory information necessary to understand how coastal development activities relate to and impact ocean and coastal resources; and

(E) Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.

Discussion:

The Proposed Action will not adversely impact the protection, use, and sustainable development of marine and coastal resources. No work is slated to occur within 40 feet of the shoreline.
4.2.4 The City and County of Honolulu General Plan

The City and County of Honolulu General Plan (the “General Plan”) is intended to be a dynamic
document, expressing the aspirations of the residents of O’ahu. It sets forth long-range objectives
and policies for the general welfare and, together with the regional developments plans such as the
Ko’olau Poko Sustainable Communities Plan, provides a direction and framework to guide the
programs and activities of the City and County of Honolulu (Department of General Planning,
Amended October 3, 2002 (Resolution 02-205, CD1)).

The General Plan is a guide for all levels of government, private enterprise, neighborhood and
citizen groups, organizations, and individual citizens in eleven areas of concern:

(1) population;

(2) economic activity;

(3) the natural environment;

(4) housing,

(5) transportation and utilities;

(6) energy;

(7) physical development and urban design;

(8) public safety;

(9) health and education;

(10) culture and recreation; and

(11) government operations and fiscal management.
The Proposed Action is in accordance with the objectives and policies of the General Plan. Those objectives are as follows:

**Natural Environment**

**Objective A:** To protect and preserve the natural environment.

- **Policy 1:** Protect O‘ahu’s natural environment, especially the shoreline, valleys, and ridges, from incompatible development.
- **Policy 7:** Protect the natural environment from damaging levels of air, water, and noise pollution.
- **Policy 8:** Protect plants, birds, and other animals that are unique to the State of Hawai‘i and O‘ahu, and protect their habitats.

**Objective B:** To preserve and enhance natural landmarks and scenic views.

- **Policy 2:** Protect O‘ahu’s scenic views, especially those seen from highly developed and heavily traveled areas.

**Discussion:**

The Proposed Action will not adversely impact the native environment. They type of development being proposed is in accordance with the Land Use Ordinance. The construction and subsequent inhabitation of the proposed action will not introduce damaging levels of air, water or noise pollution. Indigenous plants, birds, and other animals will be protected and introduced to the greatest extent practicable. No scenic views will be disturbed.

**Public Safety**

**Objective B:** To protect residents and visitors and their property against natural disasters and other emergencies, traffic and fire hazards, and unsafe conditions.

- **Policy 2:** Require all developments in areas subject to floods and tsunamis to be located and constructed in a manner that will not create any health or safety hazard.
- **Policy 9:** Design safe and secure public buildings.
Discussion:

The Project Site is within the tsunami evacuation zone and within the FEMA Flood Zone X. Design and construction will meet regulatory requirements. The Proposed Action will adhere to all applicable building codes and standards to ensure the health, safety, and welfare of the residents and public.

Culture and Recreation

Objective B: To protect O‘ahu’s cultural, historic, architectural, and archaeological resources.

- Policy 3: Cooperate with the State and Federal governments in developing and implementing a comprehensive preservation program for social, cultural, historic, architectural, and archaeological resources.

Discussion:

The Proposed Action will not adversely impact culture and recreation. The Project Site has undergone extensive disturbances from previous development. The existing structures do not possess social, cultural, historic or archaeological significance. Additionally, the Project Site not expected to possess cultural or archaeological significant resources as noted in the Koʻolau Poko Sustainable Communities Plan and as stipulated to in a review by archaeological consultants Keala Pono (Keala Pono Archaeological Consulting, LLC, 2021).
4.2.5 Koʻolau Poko Sustainable Communities Plan

The Project Site is located with the jurisdiction of the Koʻolau Poko Sustainable Communities Plan (KPSCP) (the “Plan”). The Plan seeks to preserve Koʻolau Poko's natural, scenic, cultural, historical and agricultural resources, and to protect the residential environment of its neighborhoods (Department of Planning & Permitting, 2017). The Plan calls for adaptation of the traditional "ahupuaa" concept as a basis for land use and natural resources management. The Proposed Action is in-line with the Plan, particularly the vision to “protect and enhance residential character while adapting to changing needs.” Replacing a dilapidated single-family home with a new single-family home is exactly the sort of action the Plan calls for.

The Community Growth Boundary is established to preserve open space and agricultural areas and contain the spread of development. Although recognized as a region with a slow growth policy, Koʻolau Poko continues to have a high demand for housing. Koʻolau Poko has two types of residential communities that are located within the Community Growth Boundary: one more suburban in character and the other more rural. The suburban communities are those identified in the General Plan as “urban fringe” areas, corresponding to the suburban communities of Kailua – and more specifically – Lanikai where the Project Site is located. This residential community is distinguishable by its built form, particularly with respect to density of development. Accordingly, guidelines for residential development suburban communities are outlined in the Plan as follows with discussion:

Adopt development standards and design guidelines for lots designated for residential use within the Community Growth Boundary in order to:

- Retain the physical character and definition of neighborhoods and minimize long-term adverse impacts of expansions of existing homes and new infill development on surrounding neighborhoods;

The Proposed Action will be designed to retain the physical character and definition of Lanikai.

- Enhance the identities of neighborhoods through the use of landscaping, natural features, and building form and siting;

The Proposed Action will enhance the identity of Lanikai through the use of landscaping, natural features, building form and siting.
• Encourage appropriate scale and privacy with respect to surrounding residential properties when infill development such as new homes or expansion of existing homes occurs;

The Proposed Action will be at a scale appropriate to the surrounding residential properties and afford the surrounding residential properties privacy.

• Provide a range of housing at varying densities, depending on the characteristics of the surrounding neighborhood and the physical features of the site, but not to exceed six dwelling units per acre;

The Proposed Action will be a single-family home.

• Limit building height to two stories;

The Proposed Action will be two stories.

• Reduce the visual dominance of vehicular parking on residential lots and discourage the paving of yards;

The Proposed Action will provide ample on-site parking and an adequate garage.

• Discourage the use of solid barrier walls that obscure views of the front yard and dwelling entrances from the street;

The Proposed Action will have a solid barrier perimeter fence along Mokulua Drive. However, it will be recessed from the street in sections and open to more than half of the dwelling as not to obscure views of the dwelling from the street.

• Prohibit development on slopes of 20 percent or greater that have soil characteristics indicating potential instability for building purposes;

The Project Site does not have slopes greater than 20 percent.

• Avoid the geographic clustering or concentration of group living facilities and group homes that are licensed by the State and/or allowed by federal laws;

The Proposed Action does not include group living facilities and group homes.
• Promote passive solar design, such as the use of sloped roof forms with wide overhangs, and residential-sized energy conservation and natural energy harnessing devices; and

The Proposed Action will promote solar design by using the latest in glass technology and adhering to current energy codes.

• Promote water conservation measures, such as flow constrictors, xeriscaping, and use of non-potable water sources for irrigation.

The Proposed Action will promote water conservation through the specification of low flow fixtures.

The Proposed Action will comply with the policies, development standards, and design guidelines of the Plan.

4.2.6 ROH Chapter 21, Land Use Ordinance

The Land Use Ordinance (LUO) of the City and County of Honolulu contain ordinances regulating the uses of land in a manner that will include orderly development in accordance with adopted land use policies, including the city’s general plan, development and sustainable communities plans, and, as may be appropriate, adopted neighborhood plans; and to promote and protect public health, safety, and welfare (City and County of Honolulu, 2021).

The State Land Use for the Project Site is Urban District. Based on the City and County of Honolulu LUO detached one-family dwellings are a permitable use for the property. The current zoning is R-10 Residential District. The purpose of the residential district is to allow for a range of residential densities whose primary use is detached residences. The intent of the R-10 Residential District is to provide an area for large lot developments. Within the R-10 Residential District Development Standards, enumerate permitted uses and standards, such as maximum height, setbacks, number of wet bars, number of bathrooms, and the list goes on. The Proposed Action will comply with all Development Standards. Bill 57 (2020), CD2, FD1, Ordinance 20-43 and Bill 2 (2020), CD1, FD2, Ordinance 20-41 incorporate the most recent amendments to Chapter 21. The Proposed Action complies with Chapter 21 and all subsequent ordinances.
A full comparison between the LUO standards and the Proposed Action is made below:

<table>
<thead>
<tr>
<th>LUO STANDARD</th>
<th>R-10 ZONE</th>
<th>Proposed Action (All proposed in Compliance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Lot Area</td>
<td>10,000 Square Feet</td>
<td>11,250 Square Feet</td>
</tr>
<tr>
<td>Front Yard</td>
<td>10’-0”</td>
<td>15’-11.5”</td>
</tr>
<tr>
<td>Side Yard</td>
<td>5’-0”</td>
<td>6’-0” and 9’-11”</td>
</tr>
<tr>
<td>Maximum Building Area</td>
<td>5,635 Square Feet</td>
<td>3,401 Square Feet</td>
</tr>
<tr>
<td>Maximum Height</td>
<td>25 Feet / 30 Feet Sloping</td>
<td>25 Feet</td>
</tr>
<tr>
<td>Multiple Homes on Lot</td>
<td>Max. of 8 dwellings on single zoning lot. Lot area must be equal or greater than minimum lot size for underlying zoning district, times the number of dwelling units.</td>
<td>One dwelling proposed. (One dwelling allowed)</td>
</tr>
<tr>
<td>Maximum Density Floor Area Ratio</td>
<td>0.7 Floor Area Ratio</td>
<td>.40 Floor Area Ratio</td>
</tr>
<tr>
<td>Maximum Number of Wet Bars</td>
<td>One</td>
<td>One</td>
</tr>
<tr>
<td>Maximum Number of Laundry Rooms</td>
<td>One</td>
<td>One</td>
</tr>
<tr>
<td>Maximum Number of Bathrooms</td>
<td>Eight</td>
<td>Five</td>
</tr>
<tr>
<td>Maximum Impervious Surface Area</td>
<td>Must not exceed 75 percent of the total zoning lot area.</td>
<td>59 Percent</td>
</tr>
<tr>
<td>Minim Off-Street Parking Ratios</td>
<td>One per 1,000 Square Feet</td>
<td>Five</td>
</tr>
</tbody>
</table>
4.2.7 ROH Chapter 23, Shoreline Setback

The authority conferred by Hawai‘i Revised Statutes Chapter 205A, Chapter 23 Shoreline Setbacks (City and County of Honolulu, 2021) establishes the standards and procedures, which apply to all lands within the shoreline area of the City. The “shoreline area” means all the land area between the shoreline and the shoreline setback line. Uses permitted in the shoreline setback are minor structures, such as open work fences and limited paver walkways (20 square feet).

The Proposed Action does not propose any new construction in the shoreline area. It does, however, propose the demolition of roughly 1,650 SF of non-conforming structure within the shoreline area. The removal of the non-conforming structures will remove the burden of the City needing to grant a variance under the Section 23-1.8 (b)(3) Hardship Standard. All structures on the Project Site will be allowed to comply with current regulations.

4.2.8 ROH Chapter 25, Special Management Area

The SMA permit is part of a regulatory system that is the cornerstone of the Hawai‘i CZM Program. The SMA permitting system regulates all types of land uses and activities under a broad definition of “development” within the SMA. The SMA permit was established in 1975 with the enactment of Act 176, known as the Shoreline Protection Act. According to the legislature’s findings, codified in HRS section 205A-21, “special controls on developments within an area along the shoreline are necessary to avoid permanent losses of valuable resources and the foreclosure of management options, and to ensure that adequate access, by dedication or other means, to public owned or used beaches, recreation areas, and natural reserves is provided” (The State of Hawaii, 2020).

The Hawai‘i State Governor signed into law Act 016, Senate Bill 2060 SD2 HD2, on September 15, 2020, which strengthens coastal zone management policy by amending HRS Chapter 205A. The City must comply with revisions to HRS 205A as the designated local responsible party to ensure compliance with the State’s Coastal Zone Management Program. Per the October 13, 2020 news update (see Appendix A) on the DPP website (City and County of Honolulu, 2021), the City and County has begun implementing changes to how it administers ROH Chapter 23: Shoreline Setbacks, and ROH Chapter 25: Special Management Area, as a direct result of the signing of the September 15, 2020 law.

Therefore, the Proposed Action will now require an SMA Use Permit – regardless of floor area size – because it is on a “shoreline lot” as defined in ROH Section 23-1.3.
5 FINDINGS SUPPORTING ANTICIPATED DETERMINATION

5.1 Anticipated Determination

It is anticipated that DPP, being the Approving Agency for the EA, will issue a Finding of No Significant Impact (FONSI) upon acceptance of the Final EA and that no EIS is required.

5.2 Reasons Supporting the Anticipated Decision

The potential effects of the Proposed Action were evaluated based on the thirteen significance criteria identified in HAR Title 11, Chapter 200.1-13. All phases and expected consequences of the Proposed Action have been evaluated, including potential primary, secondary, short-term, long-term, and cumulative impacts. The Table, see below, summarizes the significance criteria and the evaluation of the potential effects of the Project.

In conclusion, the Proposed Action does not meet any of the thirteen criteria, and, in so doing, it is correct that the Proposed Action be issued a FONSI and that no EIS is required.
5.2.1  830 Mokulua Drive – 13 Significance Criteria Identified in HAR Title 11, Chapter 200.1-13

<table>
<thead>
<tr>
<th>No.</th>
<th>Significance Criterion</th>
<th>Yes</th>
<th>No</th>
<th>Reason for Determination</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Irrevocably commits a natural, cultural, or historic resource?</td>
<td></td>
<td>🌍🌍</td>
<td>The Proposed Action is not expected to irrevocably commit any natural, cultural, or historic resource. The Proposed Action will be installed in an area that has been previously disturbed by residential development.</td>
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<tr>
<td></td>
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<td></td>
<td>There are no known significant cultural or historic resources in the Project Site and recommendations will be followed to protect cultural or historic resources.</td>
</tr>
<tr>
<td>2</td>
<td>Curtails the range of beneficial uses of the environment?</td>
<td></td>
<td>🌍🌍</td>
<td>The Proposed Action will not permanently curtail the beneficial uses of the environment. The Proposed Action conforms to the land use designation for the Property and will be located within the existing property boundary of the project site.</td>
</tr>
<tr>
<td>3</td>
<td>Conflicts with the State's environmental policies or long-term environmental goals established by law?</td>
<td></td>
<td>🌍🌍</td>
<td>The Proposed Action will be in conformance with the State’s environmental policies and goals established by law.</td>
</tr>
<tr>
<td>4</td>
<td>Has a substantial adverse effect on the economic welfare, social welfare, or cultural practices</td>
<td></td>
<td>🌍🌍</td>
<td>The Proposed Action is not anticipated to have any adverse effects on the economic and social welfare or cultural practices of the community or state. Rather, it will benefit the above.</td>
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<td>of the community and State?</td>
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<tr>
<td>5</td>
<td>Has a substantial adverse effect on public health?</td>
<td>The Proposed Action is not anticipated to have any adverse effects on public health.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Involves adverse secondary impacts, such as population changes or effects on public facilities?</td>
<td>The Proposed Action is not anticipated to result in adverse secondary impacts.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Involves a substantial degradation of environmental quality?</td>
<td>The Proposed Action is not anticipated to degrade environmental quality. It is anticipated to protect environmental quality.</td>
<td></td>
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</tr>
<tr>
<td>8</td>
<td>Is individually limited but cumulatively has substantial adverse effect upon the environment or involves a commitment for larger actions?</td>
<td>The Proposed Action is not anticipated to result in a significant cumulative negative impact on the environment. The Project Site has already been developed and any adverse impacts related to the Proposed Action will primarily be limited within the property boundary.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Has a substantial adverse effect on</td>
<td>The Proposed Action is not anticipated to adversely affect any rare, threatened, or endangered species or habitat. There are no known significant biological resources or habitats in the Project Site.</td>
<td></td>
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<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
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<tr>
<td>9</td>
<td>a rare, threatened, or endangered species, or its habitat?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Has a substantial adverse effect on air or water quality or ambient noise levels?</td>
<td>The Proposed Action is not anticipated to adversely affect long term air quality, water quality, or ambient noise levels. The Project Site may temporarily affect air, water, or noise quality during construction, but BMP will be implemented to minimize any impacts.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Has a substantial adverse effect on or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, sea level rise exposure area, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters?</td>
<td>The Proposed Action is located within the SMA and appropriate permits will be obtained for the SMA.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Has a substantial adverse effect on vistas and view planes.</td>
<td>Although the Project Site is located along the coastline, it will not have substantial adverse effect on vistas and view planes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>scenic vistas and view planes, during day or night, identified in county or state plans or studies?</td>
<td></td>
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<td>-------------------------------------------------------------------------------------------------</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Requires substantial energy consumption or emits substantial greenhouse gases?</td>
<td>The Proposed Action will not require substantial energy consumption. The Project Site will not emit substantial greenhouse gases.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6 LIST OF REFERENCES


City and County of Honolulu. (2021, January 29). Main: Department of Planning and Permitting (DPP). Retrieved from Department of Planning and Permitting (DPP): http://www.honoluludpp.org/


Department of General Planning. (Amended October 3, 2002 (Resolution 02-205, CD1)). General Plan: Objectives and Policies. Honolulu: City and County of Honolulu.


Keala Pono Archaeological Consulting, LLC. (2021, January 22). Anticipated Archaeological Findings at 830 Mokulua Dr., Lanikai, Oahu. Honolulu, HI, United States of America.


Figure 0.0.0

DPP Anticipated FONSI Transmittal to OEQC
Mr. Keith Kawaoka, Acting Director  
State of Hawaii  
Department of Health  
Office of Environmental Quality Control  
235 South Beretania Street, Room 702  
Honolulu, Hawaii 96813

Dear Mr. Kawaoka:

SUBJECT: Chapter 25, Revised Ordinances of Honolulu  
Draft Environmental Assessment (DEA)  
Project: 830 Mokulua Single Family Residence  
Applicant: Pacific Coast Real Estate Investment Services, LLC  
Agent: Long and Associates Architects Interiors, Inc. (Shae Grimm)  
Location: 830 Mokulua Drive - Lanikai Beach Tract  
Tax Map Key (TMK): 4-3-008: 045

With this letter, the Department of Planning and Permitting hereby transmits the DEA and anticipated Finding of No Significant Impact for the 830 Mokulua Single-Family Residence Project, located at 830 Mokulua Drive in Lanikai (TMK 4-3-008: 045), Oahu, for publication in the May 8, 2021, edition of The Environmental Notice.

We have uploaded an electronic copy of this letter, the publication form, and the DEA to your online submittal site.

Should you have any questions, please contact Christi Keller, of our Zoning Regulations and Permits Branch, at 768-8087 or by email at c.keller@honolulu.gov.

Very truly yours,

Dean Uchida  
Director
**APPLICANT**

**PUBLICATION FORM**

<table>
<thead>
<tr>
<th>Project Name:</th>
<th>830 Mokulua Single Family Residence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Short Name:</td>
<td>830 Mokulua</td>
</tr>
<tr>
<td>HRS §343-5 Trigger(s):</td>
<td>No HRS 343-5 Trigger; Project requires an SMA Use Permit under Ch 25, ROH.</td>
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<tr>
<td>Island(s):</td>
<td>Oahu</td>
</tr>
<tr>
<td>Judicial District(s):</td>
<td>Koolaupoko</td>
</tr>
<tr>
<td>TMK(s):</td>
<td>(1) 4-3-008: 045</td>
</tr>
<tr>
<td>Permit(s)/Approval(s):</td>
<td>SMA Use Permit, Building/Grading permits</td>
</tr>
<tr>
<td>Approving Agency:</td>
<td>City and County of Honolulu, Department of Planning and Permitting</td>
</tr>
</tbody>
</table>

**Contact Name, Email, Telephone, Address**

- **Christi Keller**
  - c.keller@honolulu.gov
  - (808) 768-8087
  - 650 South King Street, 7th Floor
  - Honolulu, Hawaii 96813

**Applicant:**

- Pacific Coast Real Estate Investment Services, LLC

**Consultant:**

- Long and Associates Architects Interiors, Inc.

**Contact Name, Email, Telephone, Address**

- **Shae Grimm**
  - shaeg@lai-hawaii.com
  - (808) 628-6626
  - 1100 Alakea Street, 3rd Floor Atrium
  - Honolulu, Hawaii 96813

**Status (select one)**

<table>
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<tr>
<th>Status</th>
<th>Submittal Requirements</th>
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<tr>
<td><strong><em>X</em></strong> DEA-AFNSI</td>
<td>Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEA, and 4) a searchable PDF of the DEA; a 30-day comment period follows from the date of publication in the Notice.</td>
</tr>
<tr>
<td>___ FEA-FONSI</td>
<td>Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; no comment period follows from publication in the Notice.</td>
</tr>
<tr>
<td>___ FEA-EISPN</td>
<td>Submit 1) the approving agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; a 30-day comment period follows from the date of publication in the Notice.</td>
</tr>
<tr>
<td>___ Act 172-12 EISPN (<strong>“Direct to EIS”</strong> )</td>
<td>Submit 1) the approving agency notice of determination letter on agency letterhead and 2) this completed OEQC publication form as a Word file; no EA is required and a 30-day comment period follows from the date of publication in the Notice.</td>
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<tr>
<td>___ DEIS</td>
<td>Submit 1) a transmittal letter to the OEQC and to the approving agency, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEIS, 4) a searchable PDF of the DEIS, and 5) a searchable PDF of the distribution list; a 45-day comment period follows from the date of publication in the Notice.</td>
</tr>
<tr>
<td>___ FEIS</td>
<td>Submit 1) a transmittal letter to the OEQC and to the approving agency, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEIS, 4) a searchable PDF of the FEIS, and 5) a searchable PDF of the distribution list; no comment period follows from publication in the Notice.</td>
</tr>
</tbody>
</table>
Project Summary
The Project consists of the demolition of an existing single-family residence and accessory swimming pool and construction of a new single-family residence and swimming pool on a shoreline lot located in the Lanikai community within the Special Management Area (Project). According to the Applicant, the existing dwelling unit, built in 1948, is largely beyond conservation, such that repair costs would far exceed 50 percent of replacement costs to bring the structural and architectural insufficiencies up to current building codes. The proposed new single-family dwelling will be two stories with approximately 4,700 square feet of floor area, and include four bedrooms, five bathrooms, a family room, a kitchen, a wet bar, a laundry room, a swimming pool, and five parking spaces, inclusive of a two-car garage. The new dwelling and swimming pool will be located mauka of the 40-foot shoreline setback area, and will comply with current building code requirements and applicable development standards.

Reasons Supporting Determination
Potential short-term construction-related impacts relating to water quality, biological and marine resources, soils and cultural resources are anticipated to be reduced to a level of less than significant through compliance with existing regulatory standards, implementation of Best Management Practices, and implementation of mitigation measures as identified in the Draft EA. Upon implementation, the Project is anticipated to result in a long-term, beneficial effects regarding the potential for coastal hazards by locating the proposed new residence further mauka of the shoreline and outside of the shoreline setback area, and through the incorporation of current building code requirements and green building features where practicable. The Project is not anticipated to result in any additional need for public services, resources, or infrastructure over the existing condition.
Project Name: 830 Mokulua Single Family Residence

Applicable Law: Chapter 25, Revised Ordinance of Honolulu, Special Management Area

Type of Document: Environmental Assessment (EA)

Island: Oahu

District: Koolaupoko

TMK: (1) 4-3-008: 045

Permits Required: Special Management Area (SMA) Use Permit, Building Permits

Applicant or Proposing Agency: Pacific Coast Real Estate Investment Services, LLC
  c/o An Tran Van, Member
  (408) 799-7198
  5655 Silver Creek Valley Road, Suite 989
  San Jose, California 95138

Approving Agency or Accepting Authority: City and County of Honolulu
  Department of Planning and Permitting
  Christi Keller
  c.keller@honolulu.gov
  (808) 768-8087
  650 South King Street, 7th Floor
  Honolulu, Hawaii 96813

Consultant: Long and Associates Architects Interiors, Inc.
  Shae Grimm
  shaeg@lai-hawaii.com
  (808) 628-6626
  1100 Alakea Street, 3rd Floor Atrium
  Honolulu, Hawaii 96813

Status: Draft EA - Public Review and Comment

Project Summary: The Project consists of the demolition of an existing single-family residence and accessory swimming pool and construction of a new single-family residence and swimming pool on a shoreline lot located in the Lanikai community within the SMA (Project). According to the Applicant, the existing dwelling unit, built in 1948, is largely beyond conservation, such that repair costs would far exceed 50 percent of replacement costs to bring the structural and architectural insufficiencies up to current building codes. The proposed new single-family dwelling will be two stories with approximately 4,700 square feet of floor area, and include four bedrooms, five bathrooms, a family room, a kitchen, a wet bar, a laundry room, a swimming pool, and five parking spaces, inclusive of a two-car garage. The new dwelling and swimming pool will be located mauka of the 40-foot shoreline setback area, and will comply with current building code requirements and applicable development standards.
Figure 1.1.1

Tax Map Key
Figure 1.1.2

State Land Use District - Urban
Notes: 830 Mokulua Drive is URBAN.
Figure 1.1.3

R-10 Residential City and County of Honolulu Zoning
Notes: 830 Mokulia Drive is R-10.
Figure 1.1.4

Koolaupoku Sustainable Communities Plan: Low-Density Residential
Figure 1.1.5

Special Management Area
Notes: 830 Mokulua Drive is in SMA.
Figure 1.1.6

Flood Zone X
FLOOD ZONES
Author: Long & Associates
Date: 12/21/2020

Notes: 830 Mokulua Drive is in Flood Zone X.

Powered by ArcGIS Server 10
© City & County of Honolulu, All Rights Reserved, 2020
Note: Data represented on this map is not intended to replace site survey.

Copyright
Main Map
Figure 3.1.1

Soil Map
The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)
Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.
Soil Survey Area: Island of Oahu, Hawaii
Survey Area Data: Version 15, Jun 10, 2020
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.
Date(s) aerial images were photographed: Jan 29, 2017—Oct 11, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.
## Map Unit Legend

<table>
<thead>
<tr>
<th>Map Unit Symbol</th>
<th>Map Unit Name</th>
<th>Acres in AOI</th>
<th>Percent of AOI</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS</td>
<td>Beaches</td>
<td>0.5</td>
<td>29.9%</td>
</tr>
<tr>
<td>JaC</td>
<td>Jaucas sand, 0 to 15 percent slopes, MLRA 163</td>
<td>1.1</td>
<td>58.5%</td>
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<tr>
<td><strong>Totals for Area of Interest</strong></td>
<td></td>
<td><strong>1.8</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>
Figure 3.1.2

Certified Shoreline - August 23, 2021
SHORELINE CERTIFICATION MAP
OF LOT 10 (MAP 2)
OF LAND COURT APPLICATION 505 BEING A
PORTION OF THE LANIKA'I BEACH TRACT
SITUATED IN KAILUA, Koolaupoko, OAHU, HAWAII
TAX MAP KEY: (1) 4-3-008: 045

SITE ADDRESS: 830 MOKULUA DRIVE
KAILUA, HAWAII 96734
OWNER: PACIFIC COAST REAL ESTATE INVEST SERVICES

NOTES
1. Azimuths shown on this map are referred to Government Survey Triangulation Station "MOKAPU".
2. Names of adjoining property owners were taken from Real Property Tax Records.
3. Shoreline certification is for building setback purposes.
4. Map is based on a field survey on May 25, 2021.

TRUE NORTH

EROSION AREA
129 SQ. FT.

Proposed Shoreline failure along bottom toe of cliff as surveyed on May 25, 2021.

The shoreline as delineated in red is hereby certified as the shoreline as of
AUG 23 2021

Chairperson, Board of Land and Natural Resources

ERIK S. KANESHIRO
LICENSED PROFESSIONAL LAND SURVEYOR
CERTIFICATE No. 9826

MAY 25, 2021
Figure 3.3.2

Tsunami Evacuation Zone
Notes: 830 Mokulua Drive is inside the Tsunami Evacuation Zone.

Powered by ArcGIS Server 10
© City & County of Honolulu, All Rights Reserved, 2020
Note: Data represented on this map is not intended to replace site survey.
Figure 3.3.3-3.3.6

Sea, Lake, and Overland Surges from Hurricanes SLOSH Model, Category 1-4
National Storm Surge Hazard Maps

NOAA/NWS/NHC Storm Surge Unit

This is not a real-time product. For active tropical cyclones, please see hurricanes.gov and consult A Story Map

Texas to Maine  Puerto Rico and U.S. Virgin Islands  Hawaii  Hispaniola

Click Island name to Zoom/Pan map view to that island:

- Kauai
- Oahu
- Molokai/Lanai
- Maui
- Hawaii

This national depiction of storm surge flooding vulnerability helps people living in hurricane-prone coastal areas along the U.S. East and Gulf Coasts, Puerto Rico/USVI, Hawaii, and Hispaniola to evaluate their risk to the storm surge hazard. These maps make it clear that storm surge is not just a beachfront problem, with the risk of storm surge extending many miles inland from the immediate coastline in some areas. If you discover via these maps that you live in an area vulnerable to storm surge, find out today if you live in a hurricane storm surge evacuation zone as prescribed by your local emergency management agency. If you do live in such an evacuation zone, decide today where you will go and how you will get there, if and when you’re instructed by your emergency manager to evacuate. If you don’t live in one of those evacuation zones, then perhaps you can identify...
This is not a real-time product. For active tropical cyclones, please see hurricanes.gov and consult this national depiction of storm surge flooding vulnerability helps people living in hurricane-prone coastal areas along the U.S. East and Gulf Coasts, Puerto Rico/USVI, Hawaii, and Hispaniola to evaluate their risk to the storm surge hazard. These maps make it clear that storm surge is not just a beachfront problem, with the risk of storm surge extending many miles inland from the immediate coastline in some areas. If you discover via these maps that you live in an area vulnerable to storm surge, find out today if you live in a hurricane storm surge evacuation zone as prescribed by your local emergency management agency. If you do live in such an evacuation zone, decide today where you will go and how you will get there, if and when you’re instructed by your emergency manager to evacuate. If you don’t live in one of those evacuation zones, then perhaps you can identify...
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This is not a real-time product. For active tropical cyclones, please see hurricanes.gov and consult.

Click Island name to
Zoom/Pan map view to that
island:

Kauai Oahu Molokai/Lanai Maui Hawaii

This national depiction of storm surge flooding vulnerability helps people living in hurricane-prone coastal areas along the U.S. East and Gulf Coasts, Puerto Rico/USVI, Hawaii, and Hispaniola to evaluate their risk to the storm surge hazard. These maps make it clear that storm surge is not just a beachfront problem, with the risk of storm surge extending many miles inland from the immediate coastline in some areas. If you discover via these maps that you live in an area vulnerable to storm surge, find out today if you live in a hurricane storm surge evacuation zone as prescribed by your local emergency management agency. If you do live in such an evacuation zone, decide today where you will go and how you will get there, if and when you’re instructed by your emergency manager to evacuate. If you don’t live in one of those evacuation zones, then perhaps you can identify...
Figure 3.3.7

Project Site with Future 0.5 Foot Sea Level Rise
Sea Level Rise: State of Hawaiʻi Sea Level Rise Viewer

An Interactive Mapping Tool in Support of the State of Hawaiʻi Sea Level Rise Vulnerability and Adaptation Report
Figure 3.3.8

Project Site with Future 1.1 Foot Sea Level Rise
Figure 3.3.9

Project Site with Future 2.0 Foot Sea Level Rise
Figure 3.3.10

Project Site with Future 3.2 Foot Sea Level Rise
Figure 3.3.11

Project Site with Future 3.2 Foot Passive Flooding
Figure 3.3.12

Project Site with Future 3.2 Foot Annual High Wave Flooding
Sea Level Rise: State of Hawai‘i Sea Level Rise Viewer

An Interactive Mapping Tool in Support of the State of Hawai‘i Sea Level Rise Vulnerability and Adaptation Report
Figure 3.3.13

Project Site with Future 3.2 Foot Coastal Erosion
Sea Level Rise: State of Hawai‘i Sea Level Rise Viewer

An Interactive Mapping Tool in Support of the State of Hawai‘i Sea Level Rise Vulnerability and Adaptation Report
Figure 3.4.1

Department of Forestry and Wildlife’s Responsible Lighting Practices
ACCEPTABLE
ONLY WITH PROPER BULB(S)

WALKWAY/PATH LIGHTING

Low Profile Bollards with Louvers

STREET/PARKING LIGHTING

Full Cutoff Low Pressure Sodium Streetlight

ARCHITECTURAL LIGHTING

Recessed Can w/ baffles

Canister Downlight

'Seylid' Step Light

Downlight

Louvered Step Light

UNACCEPTABLE

WALLPACK

Globe Fixture

Unshielded Carriage

Acorn Fixture

Drop-Lens/Sag-Lens w/ exposed bulb

Unshielded Streetlight

Nautical Wall Sconce

Floodlight

NEMA Security Light

Partially Shielded Floodlight

Shielded Security Light

Drop-Lens Canopy Light

Bulbs for all fixtures should be of the Yellow 'Bug' Light variety incandescent or compact fluorescent.
REPLACING BAD LIGHT FIXTURES

Unshielded lanai/entry lights should be replaced with fully shielded downlights with yellow “bug” bulbs.

Direct downlight onto stairs where needed for safety.

Streetlights should be full cutoff low-pressure sodium.

Be sure to turn off lights prior to going to bed.

This diagram depicts a typical house with several styles of exterior light fixtures. These fixtures are inappropriate for use and should be replaced with shielded, downward directed lights. When correcting problem light fixtures, don’t forget about your interior lights. Try to make it a habit to keep your window blinds closed at night, especially Sept 15-Dec15 when young Newell’s shearwater and Hawaiian petrel fly to the ocean for the first time.

JELLY-JAR LIGHTS

Lights like the one shown above waste 40% to 60% of the light produced in the form of glare. It is not uncommon to see these poorly designed $3 and $4 fixtures on homes costing $500,000 and up.

FLOODLIGHTS

These unshielded exterior lights are poorly suited for use in Hawaii. These light fixtures contribute to light trespass onto neighbor’s property as well as up into the night sky.

CARRIAGE LAMPS

Downlights and bollards are excellent fixtures for providing safety, illuminating pathways and landscaping. Specified with long wavelength “yellow” lamps, these lights actually improve our night vision by reducing glare.

CANISTER DOWNLIGHTS

The best light fixture for wildlife is the canister downlight using a 25-watt to 40-watt yellow bug lamp. Excellent for human safety, minimum glare, almost no light trespass occurs into the night sky or onto your neighbor’s property.

Source for Good Light Fixtures: www.darksky.org/fixtures
SEABIRD FRIENDLY LIGHTING SOLUTIONS

Help eliminate seabird light attraction. Select the best fixture for your application using this guide. Avoid uplighting, always shield floodlights, and aim downlights carefully to avoid light trespass. For more information go to www.kauai-seabirdhcp.info.

Unacceptable / Discouraged
Fixtures that produce glare and light trespass

- Unshielded Floodlights or Poorly-shielded Floodlights
- Unshielded Wallpacks & Unshielded or Poorly-shielded Wall Mount Fixtures
- Drop-Lens & Sag-Lens Fixtures w/ exposed bulb / refractor lens
- Unshielded Streetlight
- Unshielded Security Light
- Unshielded PAR Floodlights
- Unshielded floodlight that is angled incorrectly

Acceptable
Fixtures that shield the light source to minimize glare and light trespass and to facilitate better vision at night

- Full Cutoff Fixtures
- Fully Shielded Walkway Bollards
- Fully Shielded Fixtures
- Full Cutoff Streetlight
- Fully Shielded 'Period' Style Fixtures
- Fully Shielded Security Light
- Shielded / Property-aimed PAR Floodlights
- Flush Mounted Canopy Fixtures
- Shielded floodlight that is angled correctly

Illustrations from www.darksky.org and www.darksky.org
Figure 3.5.1

National Wetlands Inventory
Figure 3.6.3

Solid Waste Collection for Project Area
Collection Information

Refuse Gray: Tuesday
Recycling
Blue/Green: Friday

View Refuse/Recycling Collection Calendar

Bulky Item Pickup: 3rd Wednesday

View Bulky Item Collection Calendar

Multi-Material (HI-Plus) Recycling Centers
Click here for more information

Drop-Off Convenience Center
Kapaa Transfer Station
Kapaa Quarry Road
Mon - Fri 10 am - 6 pm
Sat and Sun 7 am - 6 pm
768-3200

Refuse Collection Yard
KAILUA COLLECTION YARD
Kapaa Quarry Rd.
Kailua, HI 96734
768-3200

Use your mouse wheel to zoom in and out.
To fully explore maps and features in the GIS system, click here.
This map requires Microsoft Silverlight, click here for system requirements.

For townhouses, condos, apartments:
Collection schedules shown above for refuse/recycling apply only if you are using the City's 3-cart collection system.

Bulky item collection service is provided to all residential properties.
Figure 3.6.7

Bus Route
Figure 3.9.1

Open Space Map
Figure 4.2.3

Armored Shoreline
830 Mokulua

The yellow line, over 1,000 feet long, indicates a stretch of armored shoreline. 830 Mokulua rests roughly in the middle of stretch.
Appendix A

SMA Determination Request Letter with DPP Response
11.24.2020

FROM:  
Shae Grimm c/o Long & Associates, AIA Inc.  
1100 Alakea Street  
3rd Floor Atrium  
Honolulu, HI 96813  
(808) 628-6626

TO:  
City and County of Honolulu  
ATTN: Acting Director, Ms. Kathy K. Sokugawa  
Department of Planning and Permitting  
650 South King Street, 7th Floor  
Honolulu, Hawaii 96813  
(808) 768-8023

SUBJECT: 830 Mokula Drive Special Management Area (SMA) Permit Determination Letter

Dear Ms. Sokugawa,

As stipulated on the October 13, 2020 “News”, “Announcements” section of the honoluludpp.org website we request written determination from DPP informing the property owner whether or not their project requires SMA permitting.

Please find included in this package the following four (No. 1 – 4) documents for review and processing:

1. Check #30697 made out to the City & County of Honolulu for $150.00
2. Project Description (pg. 2)
3. Flood Hazard Assessment Report (pg. 3)
4. Certified Shoreline (pg. 4)

In our analysis of the Project Description we find the project to be excluded from SMA permitting. Hopefully, you find the provided content sufficient to make this determination. We look forward to your response. Please let us know if you have any questions.

Sincerely,

Shae Grimm
shaeg@lai-hawaii.com
Project Description:

The property owner of the site located at TMK:1-4-3-008:045, 830 Mokulua Drive is planning to construct a new home on the residential site. The site is approximately 0.26 acres (11,250 SF) of land located on the makai side of Mokulua Drive.

- There is one existing single-family dwelling & pool on the site. The property owner plans to demolish the existing structure, pool and construct one new single-family dwelling; with footings not to exceed 24” in depth.
- Demolishing the existing structures will remove – at a minimum – 1,300 SF of non-conforming structure that is currently located within the Shoreline Setback Area. All new structures will be conforming and located beyond the 40’ shoreline setback.
- Under the existing R-10 zoning and allowed density, the new single-family dwelling will not exceed 0.5 Floor Area Ratio (0.7 allowable by code).
- Projected cost for the new single-family dwelling will exceed $500,000.00
- The new home will be consistent with the character of the neighborhood with native and tropical landscaping throughout the property.
- The site is Flood Zone X and has an existing DPP approved seawall along the entire length of the shoreline. See attached Flood Hazard Assessment Report & Shoreline Certification survey map for reference.
- No adverse effects on archaeological resources are anticipated because of the project. The entire project area has been previously disturbed by modern activity and there is no evidence of subsurface archeological features or deposits.
- The existing dwelling is not on the Historic Register and the project is not expected to result in significant adverse impacts to historical resources.
- The architect will not request any variances to the code for the new single-family dwelling.
- The site is located within the City’s Special Management Area (SMA). We believe this residential project does not rise to the level of requiring an SMA permit.
February 2, 2021

Mr. Shae Grimm
c/o Long & Associates, AIA Inc.
1100 Alakea Street, Third Floor Atrium
Honolulu, Hawaii 96813

Dear Mr. Grimm:

SUBJECT: Special Management Area (SMA) Determination
830 Mokulua Drive - Lanikai
Tax Map Key 4-3-008: 045

This is in response to your request, received November 24, 2020, for a SMA determination for the subject site. Specifically, you would like confirmation as to whether an SMA Permit would be required for a new single-family dwelling. According to your letter, the Applicant proposes to demolish an existing single-family dwelling unit and swimming pool, and construct a new single-family residence at the site (Project). According to our records, no permit applications have yet been submitted in regard to this proposal. Based on the information you provided, we find that the Project is development for purposes of the SMA, and an SMA Use Permit is required.

The subject site is an 11,250-square-foot shoreline lot in the R-10 Residential District in Lanikai, Kailua. On January 25, 1980, the Department of Land Utilization (DLU) issued a letter stating that a proposed sloping stone revetment was exempt from Chapter 343, Hawaii Revised Statutes (HRS) under the Environmental Quality Commission’s regulations, and a wall could be allowed under the DLU’s “protection of property” shoreline setback rule. On February 5, 1980, Building Permit No. 134604 was issued to allow a wall with “protective boulder rip-rap for erosion control.” Therefore, we have concluded that a shoreline hardening structure was authorized on the site, although we did not check the actual site or compare the existing condition to the approved plans, which may reveal unique circumstances.

In regard to the required SMA Use Permit, on September 15, 2020, Governor Ige signed into law Act 16 (2020), the purpose of this Act is to strengthen coastal zone management policy by amending Chapter 205A, HRS, to protect State beaches and to reduce residential exposure to coastal hazards.
Under Chapter 25, ROH, uses, activities, or operations considered “development” are subject to review. As a result of Act 16 (2020), the single-family residential exclusion from the definition of “development” was revised as follows:

"Development" does not include the following:

(1) Construction or reconstruction of a single-family residence that is less than seven thousand five hundred square feet of floor area, is not situated on a shoreline parcel or a parcel that is impacted by waves, storm surges, high tide, or shoreline erosion, and is not part of a larger development.

Consequently, the Project, which proposes reconstruction of a single-family residence on a shoreline parcel within the SMA, is considered development under Chapter 205A, HRS.

Pursuant to Section 25-1.3, ROH:

“Special management area use permit” means an action by the authority authorizing development, the valuation of which exceeds $500,000.00 or which may have a substantial adverse environmental or ecological effect, taking into account potential cumulative effects.

According to your submittal, the Project cost will exceed $500,000. Therefore an SMA Use Permit is required. Pursuant to Section 25-3.3(c), ROH, any proposed development requiring an SMA Use Permit is subject to an Environmental Assessment in accordance with the procedural steps set forth in HRS Chapter 343. As such, an Environmental Assessment must also be prepared and processed for the Project.

Your letter indicated that the Project will be located outside of the 40-foot shoreline setback area. This must be confirmed on a shoreline survey certified by the State of Hawaii, and must also be reflected in the plans submitted for the SMA Use Permit to confirm compliance with the Shoreline Setback Ordinance (Chapter 23, ROH).

The following online resources are available to assist you in preparing the required documentation and application materials for a complete SMA Use Permit application:

Revised text of Chapter 205A, HRS, as amended by Act 16 (2020):
https://www.capitol.hawaii.gov/session2020/bills/SB2060_HD2_.htm
SMA Ordinance, Chapter 25, ROH:
http://www.honolulu.gov/rep/site/ocs/roh/ROH_Chapter_25_article_1_12.pdf

SMA Use Permit Application Instructions:
http://www.honoluluudpp.org/Portals/0/pdfs/zoning/06.30.20SMAMajor%20Use%20Permit.pdf

Mayor’s Directive No. 18-2 (2018) regarding climate change and sea level rise:
https://www.honolulu.gov/rep/site/dpptod/climate_docs/MAYORS_DIRECTIVE_18-2.pdf

State of Hawaii Office of Environmental Quality Control website with guidance on the required contents and processes for preparation of an Environmental Assessment:
https://health.hawaii.gov/oeqc/

We did not check the actual site, which may reveal unique circumstances and conditions associated with the property. This letter is not a disclosure statement nor is it intended to substitute for mandatory disclosures in real estate transactions regarding the subject parcel. The City is under no obligation to investigate, research, or participate in the preparation of disclosure statements other than providing available public records. This letter does not create liability on the part of the City, or any officer or employee thereof, if used in or as a disclosure statement. The seller, buyer, lender, or their agent, not the City, is solely responsible for the use of any public record information in the preparation of a disclosure statement.

The receipt for your review fee is enclosed. Should you have any questions, please contact Christl Keller, of our Zoning Regulations and Permits Branch, at 768-8087, or by email at c.keller@honolulu.gov

Very truly yours,

Dean Uchida
Director Designate

Enclosure: Receipt No. 129459
Appendix B

Pre-Consultation Letter Request with Responses
March 11, 2021

TO:
Whom It May Concern

SUBJECT: Pre-Consultation for an Environmental Assessment (EA) per the Hawaii Revised Statutes Chapter 343 and the Revised Ordinances of Honolulu Chapter 25

Dear Participant,

Long and Associates, AIA, Inc. is currently undertaking the preparation of an Environmental Assessment (EA) pursuant to Hawaii Revised Statutes Chapter 343 and the Revised Ordinances of Honolulu Chapter 25 for the redevelopment of the property located at 830 Mokulu Drive. The EA is planned for publication later this year.

A pre-consultation process is being conducted to engage agencies and interested parties in the environmental review process. Enclosed, for your review and comment, is an information summary and overview of the proposed action.

You are welcome to provide written comments regarding the scope of this EA. These comments must be received by Friday, April 2nd 2021 to be addressed in the Draft EA. Written comments received will be addressed directly.

Long & Associates, AIA, Inc.
1100 Alakea Street
3rd Floor Atrium
Honolulu, HI 96813
Attn: Shae Grimm
E-Mail: 830MokuluDrive@lai-hawaii.com

Thank you in advance for participating in the pre-consultation for this environmental review process.

Sincerely,

Shae Grimm

Shae Grimm, D.Arch, LEED AP
Proposed Action Description

The property owner of the site located at TMK:1-4-3-008:045, 830 Mokulua Drive, is planning to redevelop the urban residential site. The site is approximately 0.26 acres (11,250 SF) of land located on the makai side of Mokulua Drive. Under the existing R-10 zoning and allowed density, the proposed action is to construct one new 4,750 SF single-family dwelling & pool. There is one existing nonconforming single-family dwelling & pool on site which would be demolished. The site is located within the City’s Special Management Area (SMA) and therefore an SMA Use Permit (SMP) is required. An Environmental Assessment (EA) is required as part of the SMP process and is planned for publication later this year.

A few key objectives of the proposed action include:

- All new structures will be conforming and located beyond the 40’ shoreline setback as certified by the State on in June of 2004 & proposed by licensed surveyors in December 2020.
- The demo of the existing structures will include the removal of over 1,500 SF of existing nonconforming structure from within the Shoreline Setback Area.
- The proposed action will exceed 10’ front and 5’ side yard minimum setback requirements to upwards of 15’-11” & 9’-11”, respectively, in some instances.
- The proposed action will remain well under the allowable 0.7 FAR to minimize the site impact. A goal has been set to remain under 0.5 FAR.
- No request for variances is anticipated for the proposed action.
- The proposed action will use existing infrastructure deemed as adequately sized; essentially like-for-like swap between new & existing.
- The proposed action will utilize a shallow foundation system, not to exceed 24” in depth, to restrict trenching to existing previously disturbed soil.
- Per an archaeological assessment commissioned in 2021 “no pre-contact archaeological features were observed or expected to be found”. No adverse effects on archaeological resources are anticipated because of the project.
- The existing dwelling is not on the Historic Register and the project is not expected to result in significant adverse impacts to historical resources.
- The proposed action will take measures to negate any potential adverse environmental impacts.
- The site is located within Flood Zone X and has an existing DPP approved seawall along the entire length of the shoreline.
- The new home will be consistent with the character of the neighborhood with native and tropical landscaping throughout the property.
Dear Shae,

Thank you for including the U.S. Fish and Wildlife Service (FWS) Office of Law Enforcement during the comment period for the list of proposed actions. I don't see any mention of wildlife concerns under the objectives other than "taking measures to negate any potential adverse environmental impacts." The two largest impacts I foresee on the 830 Mokula property are seabirds and lighting.

**Seabirds** The windward side is a prime "nesting" area for wedge-tailed shearwaters, which are protected under the federal Migratory Bird Treaty Act. The shearwaters build burrows under naupaka and in dune areas on the shoreline. Adults begin arriving to breed in late March, tend to eggs for several months, and the chicks fledge mainly between Sept-Dec, with the peak nights being in Oct/Nov during a new moon. It is unclear from the map provided if there is currently a strip of naupaka or other vegetation between the house and the beach. If so, this habitat may be legally removed when there is no burrow present. If a burrow has a chick inside, you must wait for it to fledge before removing the bushes. Cat, rat, mongoose and off-leash dog predation are also risks to fledgings. We would ask that you advise new homeowners to educate themselves on native species and how to avoid interactions with their pets.

**Lighting** As I'm sure you're aware, light distraction is a major source of "take" for listed seabirds and also endangered sea turtles, both of which occur on this part of the island. More information about lighting can be found on the FWS, DLNR, SOS and HWC websites. The following are general recommendations from FWS biologists. More detailed mitigation guidance can be obtained from the FWS Ecological Services division. I can put you in contact with them if need be:

- Incorporate design measures into the construction or operation of buildings adjacent to the beach to reduce ambient outdoor lighting such as: Tinting or using automatic window shades for exterior windows that face the ocean; Reducing the height of exterior lighting to 3 feet or lower and pointed downward and away from the beach; and Minimize light intensity to the lowest level feasible (>580 nanometers) and, when possible, include timers and motion sensors.
- Painting light-colored fences dark, especially on the ocean side, to avoid light reflection and amplification.
- Avoid nighttime construction work during the nesting and hatching season (sea turtles May to October 31 and shearwaters June 1 to Dec 15).
- Minimize the use of lighting on or near beaches and shield all project-related lights so the light is not visible from any beach or water line.
- If lights cannot be fully shielded or if headlights must be used, fully enclose the light source with light filtering tape or filters.

Please let us know if we can provide any other assistance during the review process, and I encourage you to consult with DOFAW regarding state natural resource law.

Thank you,

Jennifer Roth
Special Agent
U.S. Fish and Wildlife Service
Office of Law Enforcement
3375 Koapaka St. Ste B-296
Honolulu, HI 96819
Desk: (808) 791-0856
March 22, 2021

Mr. Shae Grimm
830MokuluaDrive@lai-hawaii.com

Dear Mr. Grimm:

This is in response to your letter of March 11, 2021, requesting input on a Pre-Consultation, Environmental Assessment, for the proposed redevelopment of the property located at 830 Mokulua Drive in Kailua.

The Honolulu Police Department (HPD) recommends that all necessary signs, lights, barricades, and other safety equipment be installed and maintained by the contractor during the construction phase of the project, as Mokulua Drive is a one-way street. The HPD also recommends that adequate notification be made to residents in the area regarding scheduled deliveries or possible road closures, as any impacts to pedestrian and/or vehicular traffic may cause issues and disruptions to residents which could lead to complaints.

If there are any questions, please call Major Crizalmer Caraang of District 4 (Kaneohe, Kailua, Kahuku) at 723-8639.

Thank you for the opportunity to review this project.

Sincerely,

DARREN CHUN
Assistant Chief of Police
Support Services Bureau

Serving and Protecting With Aloha
March 25, 2021

Mr. Shae Grimm, D. Arch, LEED AP
Long and Associates, AIA, Inc
1100 Alakea Street
3rd Floor Atrium
Honolulu, Hawaii 96813

Dear Mr. Grimm:

Subject: Preconsultation for Environmental Assessment
Redevelopment of Property
830 Mokulua Drive
Kailua, Hawaii 96734
Tax Map Keys: 4-3-008: 005

In response to your letter dated March 11, 2021, regarding the abovementioned subject, the Honolulu Fire Department (HFD) reviewed the submitted information and requires that the following be complied with:

1. Fire department access roads shall be provided such that any portion of the facility or any portion of an exterior wall of the first story of the building is located not more than 150 feet (46 meters) from fire department access roads as measured by an approved route around the exterior of the building or facility. (National Fire Protection Association [NFPA] 1; 2012 Edition, Sections 18.2.3.2.2 and 18.2.3.2.2.1.)

A fire department access road shall extend to within 50 feet (15 meters) of at least one exterior door that can be opened from the outside and that provides access to the interior of the building. (NFPA 1; 2012 Edition, Section 18.2.3.2.1.)
2. A water supply approved by the county, capable of supplying the required fire flow for fire protection shall be provided to all premises upon which facilities or buildings, or portions thereof, are hereafter constructed, or moved into or within the county. When any portion of the facility or building is in excess of 150 feet (45,720 millimeters) from a water supply on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains capable of supplying the required fire flow shall be provided when required by the Authority Having Jurisdiction. (NFPA 1; 2012 Edition, Section 18.3.1, as amended.)

3. The unobstructed width and unobstructed vertical clearance of a fire apparatus access road shall meet county requirements. (NFPA 1; 2012 Edition, Sections 18.2.3.4.1.1 and 18.2.3.4.1.2, as amended.)

4. Submit civil drawings to the HFD for review and approval.

Should you have questions, please contact Battalion Chief Reid Yoshida of our Fire Prevention Bureau at 723-7151 or ryoshida@honolulu.gov.

Sincerely,

[Signature]

JASON SAMALA
Assistant Chief

JS/TC: bh
Mr. Shae Grimm  
Long & Associates, AIA, Inc.  
1100 Alakea Street, 3rd Floor Atrium  
Honolulu, Hawaii 96813  

Dear Mr. Grimm:

SUBJECT: Request for Pre-Consultation Comments  
Environmental Assessment for Residence on Shoreline Lot  
830 Mokulua Drive - Lanikai  
Tax Map Key 4-3-008: 045

This is in response to your letter, received March 15, 2021, requesting comments from the Department of Planning and Permitting (DPP) on the scope and content to be addressed in a Draft Environmental Assessment (DEA), as required under Chapter 343, Hawaii Revised Statutes. The proposed action consists of the demolition of an existing single-family dwelling unit and swimming pool, and construction of a new single-family dwelling unit and swimming pool at the above-referenced property (Project). The subject site is an 11,250-square-foot shoreline lot located in the R-10 Residential District and Special Management Area (SMA) in Lanikai, Kailua. In summary, we request that the DEA incorporate DPP’s previously-provided comments as referenced below:

1. **SMA Determination Letter:** On February 2, 2021, DPP issued an SMA determination letter wherein the requirements for the Project to obtain an SMA Use Permit, prepare the subject DEA, and incorporate the latest guidance on evaluating coastal hazards were outlined. Please review the resource links provided in this letter for incorporation of relevant information into the DEA.

2. **Informal Pre-DEA Consultation Comments:** On February 24, 2021, DPP staff provided informal comments, via email to your attention, on the anticipated content and level of analysis in the DEA. Please consider incorporating the comments, questions and suggestions provided in this correspondence, where appropriate, into the DEA.
Thank you for the opportunity to comment on this proposal. Should you have any questions, please contact Christi Keller, of our staff, at (808) 768-8087, or c.keller@honolulu.gov.

Very truly yours,

[Signature]

Fax: Dean Uchida
Director

cc: Mr. Shae Grimm (via email: 830mokuladrive@lai-hawaii.com)
April 1, 2021

Mr. Shae Grimm
Long & Associates, AIA, Inc.
1100 Alakea Street
3rd Floor Atrium
Honolulu, HI 96813

Dear Mr. Grimm:

Subject: Pre-Consultation for an Environmental Assessment per the Hawaii Revised Statutes Chapter 343 and the Revised Ordinances of Honolulu Chapter 25 for the Redevelopment of the Property located at 830 Mokulua Drive, Kailua, Oahu; Tax Map Key: (1) 4-3-008: 045

The Office of Planning (OP) is in receipt of your Environmental Assessment (EA) pre-consultation request, received March 16, 2021, for the proposed residence project at Mokulua Drive, Kailua, Oahu.

According to the pre-consultation request, the site is approximately 0.26 acres of land located on the makai side of Mokulua Drive. Under the existing R-10 zoning, the property owner proposes to construct one new 4,750 square foot single-family dwelling and pool. The existing nonconforming single-family dwelling and pool on site would be demolished.

The site is located within the county designated special management area (SMA), and an SMA use permit is required.

The OP has reviewed the subject pre-consultation request and has the following comments to offer:
1. The EA should discuss the trigger(s) for the preparation of an EA under Hawaii Revised Statutes (HRS) Chapter 343 and/or county SMA Ordinance for the proposed residence project within the SMA.

2. The EA should provide a regional location map of the subject property on the Island of Oahu, with the project site in relation to the county designated SMA.

3. The Hawaii Coastal Zone Management (CZM) Law, HRS Chapter 205A, requires all state and county agencies to enforce the CZM objectives and policies. To best inform, the subject EA should include an assessment with mitigation measures if needed, as to how the proposed project conforms to each of the CZM objectives and supporting policies set forth in HRS § 205A-2, as amended.

4. If the subject EA will serve as a supporting document for the SMA Use Permit application, OP recommends that the EA specifically discuss the compliance with the requirements of SMA use under Revised Ordinances of Honolulu (ROH) Chapter 25, and shoreline setbacks under ROH Chapter 23, for the proposed residence project by consulting with the Department of Planning and Permitting, City and County of Honolulu. The EA should discuss potential cumulative impacts for significant environmental or ecological effect on the SMA.

5. Sea level rise increases the risk of flooding, storm surges, and coastal erosion. To assess any potential impacts of sea level rise on the proposed development area, OP suggests the EA refer to the findings of the Hawaii Sea Level Rise Vulnerability and Adaptation Report 2017, accepted by the Hawaii Climate Change Mitigation and Adaptation Commission. The Report, and Hawaii Sea Level Rise Viewer at https://www.pacicos.hawaii.edu/shoreline/slr-hawaii/ particularly identifies a 3.2-foot sea level rise exposure area across the main Hawaiian Islands, including Oahu, which may occur in the mid to latter half of the 21st century. The EA should provide a map of 3.2-foot sea level rise exposure area in relation to the property area, and consider site-specific mitigation measures, including setbacks from the shoreline erosion during the life of the proposed structure, to respond to the potential impacts of 3.2-foot sea level rise on the proposed development.

6. The OP has developed guidance documents on stormwater runoff strategies, which offer techniques to prevent land-based pollutants and sediment from potentially affecting water resources. The OP recommends that the subject EA consider the following stormwater assessment guidance to mitigate stormwater runoff impacts:

   . Stormwater Impact Assessments can be used to identify and analyze information on hydrology, sensitivity of coastal and riparian resources, and management measures to control runoff, as well as consider secondary and cumulative impacts to the area.
   

If you have any questions regarding this comment letter, please contact Shichao Li of our office at (808) 587-2841.

Sincerely,

Mary Alice Evans
Director
Appendix C

Proposed Action Schematic Design Package
NOTE:
ALL INFORMATION IS PRELIMINARY & SUBJECT TO REVIEW & CHANGE.

PERMIABILITY SCHEDULE

<table>
<thead>
<tr>
<th>PARK</th>
<th>LATCH</th>
<th>PERCENTAGE</th>
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</thead>
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<tr>
<td>PERVIOUS AREA</td>
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<tr>
<td>TOTAL AREA</td>
<td>11,250 SF</td>
<td>100%</td>
</tr>
</tbody>
</table>

NOTE:
ALL INFORMATION IS PRELIMINARY & SUBJECT TO REVIEW & CHANGE.
No pre-contact surface features have been observed on this property. Refer to archaeological findings report prepared by Neala Pond.
NOTE:
ALL INFORMATION IS PRELIMINARY & SUBJECT TO REVIEW & CHANGE.
NOTE:
ALL INFORMATION IS PRELIMINARY & SUBJECT TO REVIEW & CHANGE.
NOTE:
ALL INFORMATION IS PRELIMINARY & SUBJECT TO REVIEW & CHANGE.

This work was prepared by
me or under my supervision,
and construction of this
project will be under my
observation, as defined by the
Department of Commerce
And Consumer Affairs,
16-1152.

NOTE:
ALL INFORMATION IS PRELIMINARY & SUBJECT TO REVIEW & CHANGE.
NOTE:
ALL INFORMATION IS PRELIMINARY & SUBJECT TO REVIEW & CHANGE.
LOT 11 (MAP 2) 838 MOKULUA LLC. TMK (1): 4-3-008: 046

- Screen fence, h=4'
- Wooden fence, h=3'
- Wooden fence, h=4'
- Edge pavement
- W4 W4 W8 W8 (abandon) (abandon)
- CMU wall, h=5.7'
- FMU wall
- White line yellow line
- Bush bush bush
- Hedge, h=15'
- Tree d=2 h=15
- Palm d=4 h=10
- Palm d=0.5 h=20
- Bush bush

NOTE: All information is preliminary & subject to review & change.
Appendix D

Archaeology Review Letter
January 22, 2021

Long & Associates, Inc.
C/o Shae Grimm
1100 Alakea Street, 3rd Floor Atrium
Honolulu, Hawaii 96813

Re: Anticipated Archaeological Findings at 830 Mokulua Dr., Lanikai, Oʻahu

Aloha Mr. Grimm,

On January 22, 2021 I conducted a site visit at 830 Mokulua Dr. in Lanikai, which lies in Kailua Ahupua‘a, Koʻolaupoko District, on the island of O‘ahu at TMK: (1) 4-3-008:045. This letter delineates what kinds of archaeological sites may be found on the property, based on my brief site visit and knowledge of the area’s history.

Because of the modern use of the project area as a single family home with a swimming pool and landscaped lawn (Figures 1 and 2), pre-contact (traditional Hawaiian, pre-1778) surface archaeological resources are not likely to remain. It should be noted that Site 378, Alāla Heiau was once located at Alāla Point, which marks the entrance of the Lanikai neighborhood and is not far from the project area. The site was recorded by McAllister in his 1933 publication Sites of Oahu, but by the time of McAllister’s survey, no traces of the site could be found.

According to the Multiple Listing Service (MLS), the house on the property was constructed in 1948, which makes it more than 50 years old, and it is therefore considered a historic structure. Lanikai is an older neighborhood, and many structures there are historic residential properties. On Mokulua Drive, seven houses are listed as historic properties in the Historic Hawai‘i Foundation database (HHF n.d.). In addition, a mortared rock wall was observed that demarcates the southeastern property boundary (Figure 3). No information could be found to determine the date of the wall, although it may have been constructed at the same time as the house. If this wall was built more than 50 years ago, it is considered a historic archaeological site and should be treated accordingly.

Although no pre-contact surface archaeological features were observed on the property, it is possible that subsurface features might remain. No previous archaeological fieldwork has been done specifically on the parcel, however studies conducted nearby can help inform on the kinds of subsurface archaeological resources that may be found. Previous archaeological research in Lanikai has identified subsurface features such as human burials (Bath and Smith 1988, Smith and Kawachi 1988, Dye 1991, Hammatt and Shideler 1992, Groza et al. 2010), a cultural layer (Groza et al. 2010), and a hearth (Tulchin and Hammatt 2009). These might be expected within the project area as well.
Human burials may or may not be defined by a burial pit. They may be whole burials or fragmentary in nature. Cultural layers are characterized by darkened sediment, often with charcoal fragments, midden, and/or artifacts within the layer. Cultural layers might also contain features such as hearths, or isolated hearths may be found that are not associated with a cultural layer. Hearths are often bowl-shaped in cross-section and may contain fire-cracked rock in addition to darkened soil and charcoal.

In sum, no pre-contact surface archaeological features were observed or expected to be found at 830 Mokulua Dr. The house was constructed in 1948 and should be considered a historic property. If the mortared rock wall on the parcel is more than 50 years old, then it should be considered a historic property as well. Ground disturbance associated with construction at a coastal property in Lanikai, such as 830 Mokulua Dr., might encounter the subsurface archaeological resources noted above (human burials, subsurface cultural layers, hearths). Archaeological monitoring during construction would further ensure that archaeological resources are identified and treated properly. Any archaeological work conducted on the parcel should be done in consultation with the State Historic Preservation Division (SHPD). It is recommended that the SHPD architecture branch is consulted if the house is to be affected during construction.

Please feel free to contact me with any questions,

Windy McElroy, PhD
Keala Pono Archaeological Consulting

Figure 1. Landscaping, pool, and garage at 830 Mokulua Dr. View is of the front yard, facing northeast.
Figure 2. Landscaping and house at 830 Mokulua Dr. View is of the back yard, facing southeast.

Figure 3. Rock wall that marks the boundary between 830 and 838 Mokulua Dr. View is to the east.
References Cited:

Bath, J. and M. Smith

Groza, R., M.F. Pammer, and H.H. Hammatt

Hammatt, H.H., and D.W. Shideler

HHF (Historic Hawaiʻi Foundation)

McAllister, J.G.

Smith, M. and C. Kawachi
1988 Burial Removal at 1063 Koohoo Place (TMK:4-3-06:14), Lanikai, Kailua, Oʻahu.

Tulchin, J. and H.H. Hammatt
2009 Archaeological Inventory Survey for the Geary Residence at 136 Haokea Drive, Kailua Ahupuaʻa, Koʻolauapoko District, Oʻahu. Cultural Surveys Hawaiʻi, Inc., Kailua, Hawaiʻi.

Dye, T.S.
Appendix E

CULTURAL REVIEW LETTER
June 23, 2021

Long & Associates, Inc.
C/o Shae Grimm
1100 Alakea Street, 3rd Floor Atrium
Honolulu, Hawaii 96813

Re: Anticipated Cultural Impacts at 830 Mokulua Dr., Kaʻōhao, Oʻahu

Aloha Mr. Grimm,

On January 22, 2021 I conducted a site visit at 830 Mokulua Drive in Kaʻōhao (commonly referred to today as Lanikai), which lies in Kailua Ahupua’a, Koʻolaupoko District, on the island of Oʻahu at TMK: (1) 4-3-008:045. The proposed project at this TMK includes demolition of an existing single-family residence and swimming pool and construction of a new single-family residence and swimming pool. This letter identifies the cultural resources and practices that might be affected by the project, based on the brief site visit, as well as Keala Pono’s experience working in Kaʻōhao and my knowledge of the region’s history. This letter follows a January 22, 2021 letter that delineates the anticipated archaeological findings for the property.

Much can be learned from previous archaeological studies in the vicinity of the project. While no previous archaeological fieldwork has been done specifically on the parcel, studies conducted nearby can help inform on the kinds of subsurface archaeological resources that may be found. Figure 1 shows the previous archaeological studies in Kaʻōhao, while Figure 2 illustrates locations of known archaeological sites. State Inventory of Historic Places (SIHP) numbers on Figure 2 are prefixed by 50-80-11.

The closest study to the project area was archaeological monitoring of a water main replacement that spanned all of Mokulua Drive as well as several side streets (Groza et al. 2010). This study identified two sets of human remains (SIHP 6937 and 7032) and a subsurface cultural layer (SIHP 6967). Also close to the project area, an archaeological inventory survey was conducted on a beachfront property at 860 Mokulua Drive, to the southeast of the current project (Fechner and Cleghorn 2014). Excavation of two backhoe trenches yielded no findings.

Site 378, Alāla Heiau was once located at Alāla Point, which marks the entrance of the Kaʻōhao neighborhood and is not far from the project area. The site was recorded by McAllister in his 1933 publication Sites of Oahu, but by the time of McAllister’s survey, no traces of the site could be found. Sterling and Summers (1978) documented Site 18, Alāla Fishing Shrine, located at the peak of Alāla,
which stands above the project area. The site was described as a natural shrine and fish god that fishermen used to locate prized fishing grounds. A 1939 informant, Mrs. Alona, stated that a house built in front of the shrine was known as haunted due to the misfortune that fell upon it because the house blocked the view of Alāla shrine to the sea (Sterling and Summers 1978:239).

Other previous archaeological research in Kaʻōhao has identified subsurface features such as human burials [Bath and Smith 1988 (SIHP 3738), Smith and Kawachi 1988 (SIHP 3740), Dye 1991 (SIHP 3738), Hammatt and Shideler 1992 (SIHP 3738)] and a hearth [Tulchin and Hammatt 2009 (SIHP 7054)]. Other surface features found in Kaʻōhao include WW II bunkers (Kawachi and Smith 1989, no SIHP number), the Lanikai monument that still stands today at the entrance to the neighborhood [SHPD 2003 (SIHP 9846)], and various homes that were constructed more than 50 years ago.

Keala Pono has conducted cultural impact assessment interviews for Kaʻōhao and the greater Kailua area. Kumu Māpuana de Silva was recently consulted for a seawall repair project in Kaʻōhao (Duhaylonsod 2021). Kumu Māpuana explained that the shoreline expands and narrows throughout the year as part of a natural process. The Native Hawaiian community gathers marine resources in harmony with this natural movement of the sea. However, seawalls are a foreign, unnatural attempt at controlling the shore’s movement, and as a result, they destroy this natural process. Ideally, it would be best if the houses in Kaʻōhao were not built so close to the sea.

Keala Pono interviewed Paul Brennan, Doc Burrows, and Pattye Wright for proposed construction on a beachfront property along Kailua Beach (Duhaylonsod and McElroy 2016). They shared a wealth of information on various topics. The interviewees mentioned cultural practices that continue to occur or once occurred on Kailua Beach and nearby. These consist of pahu and ipu making, shoreline fishing, hukilau, and surfing. The interviewees also voiced their concerns for overcrowding and traffic in Kailua, increasing real estate costs, loss of green space, sand loss, and higher water usage for the proposed swimming pools. Recommended mitigations included performing archaeological testing before construction, conducting archaeological monitoring during all ground disturbance, working with Kailua descendants if iwi are found during construction, stopping construction of shoreline abutments that alter the natural movement of sand, setting houses farther back from the shoreline because of rising sea levels, building fewer houses, and keeping the neighbors informed of construction plans.

In sum, Alāla Heiau, Alāla Fishing Shrine, human burials, and a subsurface cultural layer are among the archaeological sites known for the project vicinity. This tells us that Kaʻōhao was important in pre-contact (pre-1778) times for religious/ceremonial use, fishing, human burial, and habitation. Ethnographic interviews from nearby projects gathered important information on the current and past cultural practices of the area. People continue to utilize Kaʻōhao and the Kailua region for subsistence fishing and gathering of marine resources. Other cultural practices known for Kailua are pahu and ipu making, as well as surfing and other ocean recreation. Canoe paddling, kayaking, stand up paddling, snorkeling, beachgoing, and hiking are also common in Kaʻōhao. Keala Pono recommends that the
proposed project at 830 Mokulua Drive should take current and past cultural practices into consideration to ensure that they are not impacted by the design and/or construction of the house and swimming pool.

In addition, potential mitigation measures put forth in previous cultural impacts could be implemented for the current project. Archaeological monitoring during construction would ensure that archaeological resources are identified and treated properly. If human remains are found, the project proponents should work with any lineal or cultural descendants that are identified. Several community members are opposed to seawalls or other types of shoreline abutments, and these should be avoided. It is also important to keep the community informed during all phases of the proposed development. Any archaeological work conducted on the parcel should be done in consultation with the State Historic Preservation Division (SHPD). It is recommended that the SHPD architecture branch is consulted if the house is to be affected during construction.

Please feel free to contact me with any questions,

Windy McElroy, PhD
Keala Pono Archaeological Consulting
Figure 1. Previous archaeological studies in the project vicinity.
Figure 2. Known archaeological sites in Kaʻōhao.
References Cited:

Bath, J. and M. Smith

Duhaylonsod, D.
2021 "Interview with Kumu Hula Māpuana de Silva for proposed seawall repairs at TMK: (1) 4-3-005:056 in Lanikai, Kailua Ahupuaʻa, Koʻolaupoko District, Oʻahu. Keala Pono Archaeological Consulting, Kāneʻohe, Hawaiʻi."

Duhaylonsod, D. and W. McElroy

Dye, T.S.
1991 *Disinterment of Human Burials at Cole House Construction Site, Lanikai, Koʻolaupoko, Oʻahu, State Historic Preservation Division, Honolulu.*

Fechner C.C. and P.L. Cleghorn

Groza, R., M.F. Pammer, and H.H. Hammatt

Hammatt, H.H., and D.W. Shideler

HHF (Historic Hawaiʻi Foundation)

McAllister, J.G.

SHPD (State Historic Preservation Division)

Smith, M. and C. Kawachi
1988 *Burial Removal at 1063 Koohoo Place (TMK:4-3-06:14), Lanikai, Kailua, Oʻahu.*

Sterling, E.P. and C.C. Summers

Tulchin, J. and H.H. Hammatt
2009 *Archaeological Inventory Survey for the Geary Residence at 136 Haokea Drive, Kailua Ahupuaʻa, Koʻolaupoko District, Oʻahu.* Cultural Surveys Hawaiʻi, Inc., Kailua, Hawaiʻi.
Appendix F

Official Endangered Species List
Mr. Shae Grimm  
Project Architect  
Longhouse Design+Build  
1100 Alakea Street, 3rd Floor Atrium  
Honolulu, Hawaii 96813

Subject: Technical Assistance for Pre-EA at 830 Mokulua Drive, Kailua

Dear Mr. Grimm:

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.

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,

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.

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name / Hawaiian Name</th>
<th>Federal Status</th>
<th>May Occur In Project Area</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mammals</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lasiurus cinereus semotus</td>
<td>Hawaiian hoary bat/ʻōpeʻapeʻa</td>
<td>E</td>
<td>☒</td>
</tr>
<tr>
<td><strong>Reptiles</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Chelonia mydas</td>
<td>Green sea turtle/honu</td>
<td>T</td>
<td>☒</td>
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<tr>
<td></td>
<td>- Central North Pacific DPS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erectmochelys imbricata</td>
<td>Hawksbill sea turtle/honu ʻ ea</td>
<td>E</td>
<td>☐</td>
</tr>
<tr>
<td><strong>Birds</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anas wyvilliana</td>
<td>Hawaiian duck/koloa</td>
<td>E</td>
<td>☐</td>
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<tr>
<td>Branta sandvicensis</td>
<td>Hawaiian goose/nēnē</td>
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<tr>
<td>Fulica alai</td>
<td>Hawaiian coot/ʻalae kea</td>
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<tr>
<td>Gallinula galeata sandvicensis</td>
<td>Hawaiian gallinule/ʻalae ʻ ula</td>
<td>E</td>
<td>☐</td>
</tr>
<tr>
<td>Himantopus mexicanus knudseni</td>
<td>Hawaiian stilt/aeʻo</td>
<td>E</td>
<td>☐</td>
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<td>Oceanodroma castro</td>
<td>Band-rumped storm-petrel/ʻakēʻakē</td>
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<tr>
<td>Pterodroma sandwichensis</td>
<td>Hawaiian petrel/ʻuaʻu</td>
<td>E</td>
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<tr>
<td>Puffinus auricularis newelli</td>
<td>Newell’s shearwater/ʻaʻo</td>
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<tr>
<td>Ardenna pacificus</td>
<td>Wedge-tailed Shearwater/ʻuaʻu kani</td>
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<td>Gygis alba</td>
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<td>Buteo solitarius</td>
<td>Hawaiian hawk/ʻio</td>
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<td><strong>Insects</strong></td>
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<td>Manduca blackburni</td>
<td>Blackburn’s sphinx moth</td>
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<td>Megalagrion pacificum</td>
<td>Pacific Hawaiian Damselfly</td>
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<td>M. xanthomelas</td>
<td>Orangeblack Hawaiian Damselfly</td>
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<td>M. nigrohamatum nigrolineatum</td>
<td>Blackline Hawaiian Damselfly</td>
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<td>Plants</td>
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<td>Common Name or Hawaiian Name</td>
<td>Federal Status</td>
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<td><em>Abutilon menziesii</em></td>
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<td><em>Achyranthes splendens</em> var. rotundata</td>
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<td><em>Canavalia pubescens</em></td>
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<td><em>Colubrina oppositifolia</em></td>
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<td><em>Cyperus trachysanthos</em></td>
<td>Pu‘uka’a</td>
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<td>Ma‘o hau hele</td>
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<td><em>Ischaemum byrone</em></td>
<td>Hilo ischaemum</td>
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<td><em>Isodendrion pyrifolium</em></td>
<td>Wahine noho kula</td>
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<td><em>Marsilea villosa</em></td>
<td>‘Ihi‘ihi</td>
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<td><em>Mezoneuron kavaiense</em></td>
<td>Uhiuhi</td>
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<td><em>Nothocestrum breviflorum</em></td>
<td>‘Aiea</td>
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<td>Carter’s panicgrass</td>
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<td><em>Panicum nihiuense</em></td>
<td>Lau‘ehu</td>
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<td><em>Peucedanum sandwicense</em></td>
<td>Makou</td>
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<tr>
<td></td>
<td><em>Pleomele (Chrysodracon) hawaiensis</em></td>
<td>Halapepe</td>
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<tr>
<td></td>
<td><em>Portulaca sclerocarpa</em></td>
<td>‘Ihi</td>
<td>E</td>
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<tr>
<td></td>
<td><em>Portulaca villosa</em></td>
<td>‘Ihi</td>
<td>E</td>
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<tr>
<td></td>
<td><em>Pritchardia affinis</em> (maideniana)</td>
<td>Loulu</td>
<td>E</td>
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<tr>
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<td><em>Pseudognaphalium sandwicensium var. molokaiense</em></td>
<td>‘Ena‘ena</td>
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<td><em>Scaevola coriacea</em></td>
<td>Dwarf naupaka</td>
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<td><em>Schenkia (Centaurium) sebaeoides</em></td>
<td>‘Āwiwi</td>
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<td></td>
<td><em>Sesbania tomentosa</em></td>
<td>‘Ōhai</td>
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<tr>
<td></td>
<td><em>Tetramolopium rockii</em></td>
<td>No common name</td>
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<tr>
<td></td>
<td><em>Vigna o-wahuensis</em></td>
<td>No common name</td>
<td>E</td>
</tr>
</tbody>
</table>

Location key: O=O‘ahu, K=Kaua‘i, M=Maui, H=Hawai‘i Island, L=Lāna‘i, Mo=Moloka‘i, Ka=Kaho‘olawe, Ni=Ni‘ihau, Le=Lehua
Appendix G

Draft EA Comment Letters & Responses following The Environmental Notice Publication with The Office of Environmental Quality Control
If your proposed project:

Requires an Air Pollution Control Permit

You must obtain an air pollution control permit from the Clean Air Branch and comply with all applicable conditions and requirements. If you do not know if you need an air pollution control permit, please contact the Permitting Section of the Clean Air Branch.

Includes construction or demolition activities that involve asbestos

You must contact the Asbestos Abatement Office in the Indoor and Radiological Health Branch.

Has the potential to generate fugitive dust

You must control the generation of all airborne, visible fugitive dust. Note that construction activities that occur near to existing residences, business, public areas and major thoroughfares exacerbate potential dust concerns. It is recommended that a dust control management plan be developed which identifies and mitigates all activities that may generate airborne, visible fugitive dust. The plan, which does not require Department of Health approval, should help you recognize and minimize potential airborne, visible fugitive dust problems.

Construction activities must comply with the provisions of Hawaii Administrative Rules, §11-60.1-33 on Fugitive Dust. In addition, for cases involving mixed land use, we strongly recommend that buffer zones be established, wherever possible, in order to alleviate potential nuisance complaints.

You should provide reasonable measures to control airborne, visible fugitive dust from the road areas and during the various phases of construction. These measures include, but are not limited to, the following:

a) Planning the different phases of construction, focusing on minimizing the amount of airborne, visible fugitive dust-generating materials and activities, centralizing on-site vehicular traffic routes, and locating potential dust-generating equipment in areas of the least impact;

b) Providing an adequate water source at the site prior to start-up of construction activities;

c) Landscaping and providing rapid covering of bare areas, including slopes, starting from the initial grading phase;

d) Minimizing airborne, visible fugitive dust from shoulders and access roads;

e) Providing reasonable dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and

f) Controlling airborne, visible fugitive dust from debris being hauled away from the project site.

If you have questions about fugitive dust, please contact the Enforcement Section of the Clean Air Branch

<table>
<thead>
<tr>
<th>Clean Air Branch</th>
<th>Indoor Radiological Health Branch</th>
</tr>
</thead>
<tbody>
<tr>
<td>(808) 586-4200</td>
<td>(808) 586-4700</td>
</tr>
<tr>
<td><a href="mailto:cab@doh.hawaii.gov">cab@doh.hawaii.gov</a></td>
<td></td>
</tr>
</tbody>
</table>

April 1, 2019
August 27, 2021

SUBJECT: Draft Environmental Assessment, 830 Mokulua Single Family Residence
Located at 830 Mokulua Drive
Lanikai Beach Tract, Kailua, Koolaupoko Oahu
Tax Map Key (TMK): (I) 4-3-008:045
Response to the Clean Air Branch

To Whom It May Concern,

Thank you for your standard comment letter dated April 1, 2021 concerning the Chapter 25, Revised Ordinances of Honolulu (ROH) Draft Environmental Assessment (DEA) for the Proposed Action at 830 Mokulua Drive. We are pleased you made the time to review the DEA and offer comments. After a thorough review of your comments, we are delighted to offer the following responses which address your remarks.

The Proposed Action does not require an air pollution control permit per Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control.

The Proposed Action does not include demolition activities that involve asbestos. The existing single-family home has been reviewed by Demo 808, who is trained in accordance with Federal, State, and local laws and regulations. Only arsenic containing cane ceiling material is slated for handling and disposal.

The Proposed Action has the potential to generate fugitive dust. Construction activities will comply with the provisions of Hawaii Administrative Rules 11-60.1-33 on Fugitive Dust. The contractor will be directed to provide reasonable measure to control airborne, visible fugitive dust from the road areas and during the various phases of construction. The measures suggested have been included in the Final Environmental Analysis and the contractor will follow Best Management Practices plan.

Sincerely,

Shae Grimm

Shae Grimm
MEMORANDUM

TO: DLNR Agencies:
   X Div. of Aquatic Resources (via email: kendall.l.tucker@hawaii.gov)
   __ Div. of Boating & Ocean Recreation
   X Engineering Division (via email: DLNR.Engr@hawaii.gov)
   X Div. of Forestry & Wildlife (via email: Rubyrosa.T.Terrago@hawaii.gov)
   __ Div. of State Parks
   X Commission on Water Resource Management (via email: DLNR.CWRM@hawaii.gov)
   X Office of Conservation & Coastal Lands (via email: sharleen.k.kuba@hawaii.gov)
   X Land Division – Oahu District (via email: barry.w.cheung@hawaii.gov)

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Draft Environmental Assessment, 830 Mokulua Single Family Residence
LOCATION: 830 Mokulua Drive, Lanikai Beach Tract, Kailua, Island of Oahu, Hawaii; TMK: (1) 4-3-008:045
APPLICANT: Pacific Coast Real Estate Investment Services, LLC, via Department of Planning & Permitting, City and County of Honolulu

Transmitted for your review and comment is information on the above-referenced subject. The DEA was published on May 08, 2021 in the Office of Environmental Quality Control’s periodic bulletin, The Environmental Notice, at the following link:

http://oeqc2.doh.hawaii.gov/The_Environmental_Notice/2021-05-08-TEN.pdf

Please submit any comments by June 03, 2021 to DLNR.Land@hawaii.gov, and copied to barbara.j.lee@hawaii.gov. If no response is received by this date, we will assume your agency has no comments. If you have any questions, please contact Barbara Lee directly via email at barbara.j.lee@hawaii.gov. Thank you.

[Comments]

Signed: ____________________________  Print Name: Calen Miyahara

Attachments
Cc: Central Files
Date: 05/11/2021

Comments: Any work or use of State lands makai of the property boundary or shoreline may require a disposition from Land Division.

( ) We have no objections.
( ) We have no comments.
( ) We have no additional comments.
( X ) Comments are attached. AT LEFT
August 27, 2021

SUBJECT: Draft Environmental Assessment, 830 Mokulua Single Family Residence
Located at 830 Mokulua Drive
Lanikai Beach Tract, Kailua, Koolaupoko Oahu
Tax Map Key (TMK): (1) 4-3-008:045
Response to the Department of Land and Natural Resources - Land Division

Dear Mr. Calen Miyahara,

Thank you for your comment letter dated May 12, 2021 concerning the Chapter 25, Revised Ordinances of Honolulu (ROH) Draft Environmental Assessment (DEA) for the Proposed Action at 830 Mokulua Drive. We are pleased you made the time to review the DEA and offer comments. After a thorough review of your comment, we are delighted to offer the following response which address your remark.

It is noted that any work or use of State lands makai of the property boundary or shoreline may require a disposition from Land Division. No work is being proposed makai of the property boundary or shoreline.

Sincerely,

Shae Grimm

Shae Grimm
MEMORANDUM

TO: Brian J. Neilson  
DAR Administrator

FROM: Kimberly Fuller, Aquatic Biologist

SUBJECT: Draft Environmental Assessment, 830 Mokulua Single Family Residence

Request Submitted by: Pacific Coast Real Estate Investment Services, LLC
830 Mokulua Single Family Residence, Lanikai, Oahu

Location of Project:  

Brief Description of Project:
This project proposes to demolition the existing single-family residence and pool and build a new single-family residence and pool in Lanikai. The property at 830 Mokulua is a shoreline lot within the Special Management Area (SMA). In accordance with the regulations for construction in an SMA, a Draft Environmental Assessment has been conducted by Long & Associates, Inc and can be accessed at <http://oeqc2.doh.hawaii.gov/Other_TEN_Publications/2021-05-08-OA-Chapter-25-DEA-830-Mokulua-Single-Family-Residence.pdf>

Comments:
☐ No Comments  ☒ Comments Attached

Thank you for providing DAR the opportunity to review and comment on the proposed project. Should there be any changes to the project plan, DAR requests the opportunity to review and comment on those changes.

Comments Approved: __________________________ Date:  May 24, 2021

Brian J. Neilson
DAR Administrator
Brief Description of Project
Demolishing the current structure would removal a minimum of 1650 SF of non-conforming structure that is currently located within the Shoreline Setback Area (<40 ft from waterline). The new structure would conform to current regulations and will be located beyond the 40 ft shoreline setback. The footprint of the new structure would be closer to the road, and cover 4000-4749 SF and have two stories.

Minimal clearing will occur as existing site has previously been graded, although excavation will be required for utilities. The lot will also be filled to grade, minimizing disturbance to existing ground. They plan to adhere to Best Management Practices that will eliminate or reduce discharge of pollutants from the site into State Waters.
Comments

The current structure does not conform to the 40 ft setback and any new construction should adhere to the setback regulation. New construction also should take into account sea level rise, and this is presented as a point in the DEA.

While the DEA outlines BMPs, DAR has additional best management practices to be considered.

Erosion and Land Based Source of Pollution (LBSP) Mitigation:

DAR recommends that best management practices for mitigation of erosion and LBSP be followed. The close proximity to marine habitat should be considered during design and construction. Landscape design and leveling should be such that long term erosion and LBSP are minimized. The plan to use native vegetation in the landscape is supported. Native vegetation should be selected upon the ability to reduce runoff.

During construction these measures would include any type of barrier (e.g. sediment barriers/bags, petroleum absorption diapers, etc.) that limits the amount of sediment or LBSP (e.g. petroleum products, chemicals, debris, etc.) to the maximum extent practicable. DAR recommends that all construction materials be composed of environmentally inert materials to the extent practicable.

The Contractor shall consider the weather while performing construction. Some work may be performed during low rain conditions, but all construction would be halted during storm conditions or when storm conditions threaten the watershed. According to the DEA, the site may be affected by sea level rise, tsunamis and other natural disasters. In the case of adverse weather, the site should be secured to eliminate or minimize LBSP or debris entering marine waters, in addition to halting work.

DAR would like to request notification and photo-documentation of any occurrence where above-average amounts of sediment or pollution have entered the water, in order to assess impact, if any. Large amounts of LBSP or freshwater can negatively affect marine life including coral, causing injury or death.
Consideration for Aquatic Life:

In the event that protected species such as the Hawaiian monk seal, other marine mammal or sea-turtle is observed in close proximity to the construction/repair site, and the activities being conducted may be considered as a "negligent or intentional act which results in disturbing or molesting a marine mammal", applicant should take appropriate action to modify activities in order to avoid disturbance to the regular behavior and activities of the animal. Appropriate action would include but is not limited to ceasing construction activity until the animal leaves the area, moving to a site further away from the animal (if possible and if the action results in the cessation of disturbance to animal), conducting other portions of repairs that do not negligently or intentionally disturb the animal, until the animal leaves the area.

Entanglement of coastal and marine life should be avoided by keeping the site free of entanglement hazards. Although the work is not planned to occur directly on the coast, ensure there are no entanglement hazards left on the coastal region or in marine waters.

Report any interaction between a protected species and the construction activity proposed, to the NOAA Protected Species Division and State of Hawaii DOCARE:

NOAA Marine Mammal Response Coordinators (Oahu): 808-220-7802

NOAA Sea Turtles (Oahu): Monday-Friday, 7:30am-4pm NOAA National Marine Fisheries Service - PIFSC Marine Turtle Biology and Assessment Program: (808) 725-5730

State of Hawaii Department of Land and Natural Resources (DLNR) Division of Conservation and Resources Enforcement (DOCARE): 808-643-3567

Construction should be done during daylight or otherwise scheduled to minimize potential impact to seabirds and other species that are negatively impacted by artificial light at night.

Thank you for the opportunity to comment.

Mahalo,
Kimberly Fuller
Division of Aquatic Resources
Aquatic Biologist IV
August 27, 2021

SUBJECT: Draft Environmental Assessment, 830 Mokulua Single Family Residence
Located at 830 Mokulua Drive
Lanikai Beach Tract, Kailua, Koolaupoko Oahu
Tax Map Key (TMK): (1) 4-3-008:045
Response to the Department of Land and Natural Resources – Division of Aquatic Resources

Dear Mrs. Kimberly Fuller,

Thank you for your comment letter dated May 19, 2021 concerning the Chapter 25, Revised Ordinances of Honolulu (ROH) Draft Environmental Assessment (DEA) for the Proposed Action at 830 Mokulua Drive. We are pleased you made the time to review the DEA and offer comments. After a thorough review of your comments, we are delighted to offer the following responses which address your remarks.

The additional Best Management Practices (BMP) recommended to mitigate erosion and land based sources of pollution have been considered. The landscape architect / landscaper will be directed to select native vegetation that has the ability to reduce runoff. During construction, barriers that limit the amount of sediment and land based source pollutants will be employed to the maximum extent possible. Additionally, construction materials will be composed of environmentally inert materials to the greatest extent possible.

The contractor will be directed to consider weather while performing construction to secure the site and eliminate or minimize land based source pollution from entering marine waters. If a phenomenon occurs where above-average amounts of sediment or pollution enter the water the contractor will be directed to supply photo-documentation to the Department of Aquatic Resources (DAR).

In consideration of aquatic life, the contractor will be instructed to take appropriate action – such as suspending or modifying activities to avoid disturbance of protected species. Any interaction between a protected species and the construction activity will be reported to NOAA Protected Species Division and the State of Hawaii DOCARE at the numbers provided. Additionally, construction will take place during daytime hours, or in another manner, to avoid negative impact to seabirds and other species from artificial light.

Sincerely,

Shae Grimm

Shae Grimm
Apologies if this is sent twice... but I think the original message contained an error in one of the email addresses.

From: Kamakana Ferreira <kamakanaf@oha.org>
Sent: Wednesday, May 19, 2021 9:18 AM
To: shaeg@lai-hawaii.com
Cc: c.keller@honolulu.gov
Subject: OHA Comment Re: DEA for 830 Mokulua Drive, Lanikai

Aloha,

The Office of Hawaiian Affairs (OHA) is in receipt of your May 3, 2021 letter inviting us to comment on the draft environmental assessment (DEA) for the 830 Mokulua Drive single family residence project in Lanikai, O‘ahu, TMK (1)4-3-008:045. Long & Associates, Inc., has prepared the DEA on behalf of the applicant, Pacific Coast Real Estate Investment Services, LLC., pursuant to Hawai‘i Revised Statutes (HRS) Chapter 343. Work will include demolition of an existing single-family residence with accessory swimming pool and construction of a new 4700 square foot single-family residence and swimming pool. As the project area is within the Special Management Area (SMA) and a major SMA permit is being sought, HRS 343 has been triggered.

OHA offers the following comments on archaeological and cultural resources.

Archaeological Resources

The DEA states that Keala Pono Archaeological Consulting, LLC., did a site visit to the property in January 2021 and wrote a letter of anticipated findings for an HRS 6E submittal to the State Historic Preservation Division (SHPD) dated March 12, 2021. The letter indicates that that no surface archaeological resources were observed due to modern use of the parcel as a single-family residence. However, the letter notes that other archaeological studies in nearby areas along the shoreline have subsurface deposits with identified human burials; thus, archaeological monitoring is being recommended at this time. Ground disturbing work will be minimized by using shallow footings and infill to raise the existing grade.

SHPD has yet to respond to the HRS 6E submittal. OHA does appreciate the proposed archaeological monitoring and effort to raise the existing grade with infill to minimize ground disturbance. At this time, OHA would like to request a copy of any SHPD comments when made available and a map that shows the proximity of nearby archaeological studies and previously identified sites to the project area as mentioned in the Keala Pono letter. OHA is particularly concerned with the proximity of the project to nearby cultural deposits that contain human burials. Depending on the information, further archaeological work or consultation with the O‘ahu Island Burial Council (OIBC) may be recommended.

Cultural Resources

The discussion on the existing condition of cultural resources is lumped in with the archaeological portion of the DEA with no apparent dedicated analysis or outreach methodology to identify cultural practices and resources. While cultural practices can often occur on historic properties and historic properties can in fact be considered cultural
resources, this is not always the case. To minimize confusion, other DEAs have addressed historic properties and cultural resources in separate sections. The difference is crucial as different methodologies are used to identify historic properties and cultural practices associated with cultural resources. The process for documenting cultural practices involves a greater degree of consultation and outreach, whereas an archaeological study or report may not always require consultation and often solely relies on material findings.

Guidelines for assessing cultural impacts are provided by the Office of Environmental Quality Control (OEQC) in the Guide to Implementation and Practice of the Hawaii Environmental Policy Act, Exhibit 1-1, 2012 Edition. The process should involve an attempt to consult with community folks and cultural practitioners to ascertain ethnographic information on cultural resources and practices that occur on the site or in the broader area. As the DEA fails to mention any type of outreach specific to cultural related consultation, it is unclear if the project will effect cultural practices occurring nearby. We thus encourage the applicant to complete a cultural analysis or cultural impact assessment (CIA) that is compliant with these guidelines and minimally reach out to any recognized descendants, such as Kumu Hula Mapuana DeSilva of the Hālau Mōhala ʻIlima, from the area and the OIBC.

OHA would further like to remind the applicant that the lack of any formal methodology or explanation specifically targeted at traditional and customary practices could prevent the approving agency from assessing the identity and scope of valued cultural and natural resources in the area. Articles IX and XII of the State of Hawai‘i Constitution requires that government agencies must “promote and preserve cultural beliefs, practices, and resources of Native Hawaiians and other ethnic groups.” Article XII Section 7 of the State of Hawai‘i Constitution states:

“the State reaffirms and shall protect all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes and possessed by ahupua‘a tenants who are descendants of native Hawaiians who inhabited the Hawaiian Islands prior to 1778...”

In Ka Paʻakai O Ka ʻAina v. Land Use Commission, 94 Haw. 31 (2000), hereinafter Ka Paʻakai, the Hawai‘i Supreme Court, reiterated the importance of Section 7 and reaffirmed that the State and its agencies are obligated to reasonably protect the traditional and customary rights of Hawaiians. The Supreme Court ruling States that agencies are obligated to make the assessment of cultural practices, independent of a developer or applicant. Typically, information gathered during a CIA or cultural assessment study during HRS 343 can help to inform the approving agency during the Ka Paʻakai process. However, there is no apparent outreach methodology for how cultural impacts were assessed within the DEA.

The Ka Paʻakai court decision set forth that a proper analysis of cultural impacts shall include: 1) the identity and scope of valued cultural, historical, or natural resources in the subject area, including the extent to which traditional and customary native Hawaiian rights are exercised; 2) the extent to which those resources – including traditional and customary native Hawaiian rights – will be affected or impaired by the proposed action; and, 3) the feasible action, if any, to be taken by the (agency) to reasonably protect native Hawaiian rights if they are found to exist. Generally, the “subject area” is not restricted to the project area as areas adjacent to the project area could be indirectly or directly impacted by actions within the project area. OHA recommends that the applicant work with the approving agency to carefully evaluate the Ka Paʻakai requirements and the OEQC guidelines for assessing cultural impacts.

Closing Remarks

Mahalo for the opportunity to comment. We look forward to a revised DEA that addresses our concerns regarding cultural impacts and receiving a copy of 1) any SHPD correspondences and 2) a map that shows nearby archaeological studies and previously identified sites in relation to the project area. Please feel free to contact me should you have any questions.

Mahalo,

Kamakana C. Ferreira, M.A.
Lead Compliance Specialist
Office of Hawaiian Affairs
560 N. Nimitz Hwy
Honolulu, Hi. 96817

(808)594-0227
August 27, 2021

SUBJECT: Chapter 25, Revised Ordinances of Honolulu, Draft Environmental Assessment for the Redevelopment of the Property located at 830 Mokulua Drive, Kailua, Oahu; Tax Map Key: (1) 4-3-008: 045 – Response to Office of Hawaiian Affairs

Dear Mr. Kamakana C. Ferreira, M.A.,

Thank you for your comment e-mail dated May 19, 2021 concerning the Chapter 25, Revised Ordinances of Honolulu (ROH) Draft Environmental Assessment (EA) for the Proposed Action at 830 Mokulua Drive. We are pleased to hear you appreciate the proposed archaeological monitoring and efforts to minimize ground disturbance.

As a result of your input, the following measures have been taken:

I. The “3.8.1 Archeological and Cultural” Resources section of the draft Environmental Analysis has been broken into two separate sections “3.8.1 Archeological Resources” and “3.8.2 Cultural Resources” in the Final Environmental Analysis.

II. An attempt was made to consult community folks and Hawaiian cultural practitioners to ascertain ethnographic information on cultural resources and practices that occur on the site or in the broader area. A cultural impact report was commissioned to assess and identify the scope of valued cultural resources and the extent they might be affected or impaired by the Proposed Action. This report also includes two maps, as requested, denoting the previous archaeological studies in the project vicinity, and known archaeological sites in Lanikai. See the new report as referenced in 3.8.2 and included in the Appendix of the final Environmental Assessment.

To date, no comments have been received from SHPD, so there is nothing further to share at this time. We will provide your office with a copy of the Final EA. Thank you for your participation in the environmental review process.

Sincerely,

Shae Grimm

Shae Grimm
Shae Grimm  
Long & Associates, AIA, Inc.  
1100 Alakea Street, 3rd Floor Atrium  
Honolulu, HI 96813

SUBJECT: Draft Environmental Assessment, 830 Mokula Single Family Residence.  
Located at 830 Mokula Drive  
Lanikai Beach Tract, Kailua, Koolaupoko, Oahu  
Tax Map Key (TMK): (1) 4-3-008:045

Dear Mr. Grimm:

The Office of Conservation and Coastal Lands (OCCL) has reviewed your letter and the Draft Environmental Assessment (EA) regarding the subject matter. According to your letter, Long & Associates, AIA, Inc. is seeking agency review and comment regarding the redevelopment of the subject parcel and its single-family residence. After reviewing the Draft EA, the OCCL offers the following comments.

According to the Draft EA, the project site is a shoreline lot of approximately 0.26 acres (11, 250 sq. ft) located on the makai (seaward) side of Mokula Drive. The Draft EA states that there is an existing single-family residence that consists of approximately 1,738 sq. ft of living area (3-bedrooms and 3-bathrooms) and was built in 1948 using wood/single wall construction as well as a swimming pool. The landowner is proposing to demolish the existing single-family residence and pool and build a new two-story single-family residence and swimming pool. The Draft EA notes that the proposed two-story single-family residence will be approximately 4,700 sq. ft and will have 4-bedrooms, 5-bathrooms, a family room, kitchen, wet bar, laundry room, a 2-car garage, and provisions for five parking spaces in front of the house. Additionally, the Draft EA states that all new structures will be located landward of the 40-ft shoreline setback. With regards to the proposed shoreline in Figure 3.1.2 of the Draft EA, there appears to be an encroachment.

A cursory review of the Hawaii State Sea Level Rise Viewer (https://www.pacioos.hawaii.edu/shoreline/slr-hawaii) indicates that approximately half of TMK: (1) 4-3-008:045 lies within the sea level rise exposure area (SLR-XA) with 3.2 ft of sea level rise including a majority of the existing structures found on the property. The
Draft EA appears to focus on a scenario of 0.5ft of sea level rise and does not discuss and disclose the potential impacts of higher levels of sea level rise over the lifetime of the proposed new structures. Additionally, we encourage the landowner and their agents to include an analysis and discussion regarding the individual associated impacts of sea level rise that were modeled and simulated in the Hawaii Sea Level Vulnerability and Adaptation Report (2017): passive flooding, annual high wave flooding, and coastal erosion. The OCCL requests that you include the maps of these impacts and scenarios in the Final EA.

The figure below illustrates erosion simulations generated for the Hawaii Sea Level Rise Vulnerability and Adaptation Report, specific to the subject property. The erosion simulation shown is based in part on historical erosion rates tracking the landward movement of the beach toe or low water mark, also featured in the figure.

**Figure 1:** Erosion projections specific to the subject property considering incremental increases in sea level. According to Sea Level Rise Guidance by the City of Honolulu Climate Charge Commission, Adopted June 5, 2018, research finds that it is reasonable to set as a planning benchmark up to 3.2 ft of global mean sea level (GMSL) rise by mid-century, and up to 6 ft GMSL rise by the later decades of the century (https://www.soest.hawaii.edu/coasts/index.php/resources/hawaii-shoreline-study-web-map/).

The landward edge of the erosion hazard area (the "erosion hazard line") is projected from the vegetation line or landward edge of the beach. In this case, the shoreline at the subject property is altered by the existing seawall such that the simulation in this case is located landward of that seawall. The area between the seawall and the erosion hazard line may be thought of as the land area exposed to erosion should the seawall fail or be removed. This is not an unreasonable assumption, as planning and permitting departments receive numerous requests each year to repair or rebuild failing seawalls and fill sinkholes behind undermined seawalls (Figure 2). Thus, it follows that the existing shoreline hardening likely will not remain intact without the need to request repair or
expansion of the structure over the expected lifespan of the proposed project. Even with periodic repairs of the shoreline structure, it may be challenging to maintain the integrity of the property with accelerating sea level.

![Image](image.png)

**Figure 2**: Example of a failing seawall and sinkhole caused by undermining from wave action and beach loss in West Maui.

The subject lot is located along a chronically eroding shoreline in which an erosion rate of 1.1 +/- 0.1 ft per year has been calculated. Further, simulations of sea level rise induced erosion illustrate that chronic erosion is expected to significantly impact the lot, reducing buildable area by at least half of its present area considering 3.2 ft of global mean sea level (GMSL) rise. These effects are echoed by the East Oahu Sustainable Communities Plan, which states that land use regulations and permit processes include the consultation of maps and regulations on vulnerability to coastal erosion and flooding and other science based projections of climate change impacts to incorporate the guidance from the City Climate Commission and the Hawai‘i Sea Level Rise Vulnerability and Adaptation Report. The OCCL suggests that the landowner and their agent review the Hawaii Sea Level Rise Vulnerability and Adaptation Report (2017). A copy of the report can be obtained at [https://climateadaptation.hawaii.gov/wp-content/uploads/2017/12/SLR-Report_Dec2017.pdf](https://climateadaptation.hawaii.gov/wp-content/uploads/2017/12/SLR-Report_Dec2017.pdf). The OCCL requests that you revise the “State and County Land Use Plans and Policies” section of the EA accordingly.

The Hawaii State Sea Level Rise Viewer also includes additional interactive mapping tools and layers such as “Vulnerability” and “Other Overlays”. The OCCL encourages you and the landowner to review these additional overlays to help bolster the EA’s general description of the proposed project’s technical, economic, social, cultural, historical, and environmental characteristics/affected environments.

Section 3.1 “Topography, Geology, and Soils” of the Draft EA states that the project site lies between Kailua Beach Park (approximately 1,300 ft to the North/West) and Lanikai Beach (approximately 550 ft to the South/East). Under the “Existing Conditions” of Section 3.1, the Draft EA notes that soil types within the project site are identified by the
U.S. Department of Agriculture as Beaches (sands of seashells and coral) and Jaucas Sand. This section refers to a Soil Map; however, no soil map is included. Please include the appropriate Soil Map in the Final EA.

The Draft EA states that there is no existing beach or coastal dunes within the vicinity of the project site; however, this as well as many of the residences in Lanikai are constructed upon relic sand deposits that are trapped behind the armored shoreline. See Figure 3 below.

![Figure 3: Hawaii State Sea Level Rise Viewer showing the subject property and the Beaches & Sand Overlay provided by the U.S. Department of Agriculture (USDA).](image)

You may wish to revise the “Beach and Coastal Dune Protection” section of the Draft EA accordingly.

It is known that the Native Hawaiians utilized coastal dunes and Jaucas Sand to burry iwi kupuna. According to section 3.8 “Archaeological, Historical and Cultural Resources” as well as Appendix D, previous archaeological research in Lanikai has identified subsurface features such as a hearth, a cultural layer, and human burials. The Draft EA notes that the landowner is proposing to add fill to the property to limit ground disturbance, but the removal of the current structures presents the possibility of unearthing subsurface archaeological, historical, or cultural resources. Due to the ground disturbing activities proposed, a Hawaii Revised Statutes (HRS), 6E Form should be filed with the permitting agency pursuant to HRS, 6E-42.
Additionally, it appears that the landowner is proposing a slab-on-grade foundation for the new single-family residence according to Appendix C "Proposed Action Schematic Design Package". The OCCL encourages you and your client to consider a post and pier foundation for the proposed residential structure. This would appear to help with the possible adaptation of the structure should it become threatened by sea level rise.

Based on the above as well as information contained in the Draft EA, it appears that the subject parcel is exposed to coastal hazards which may increase with sea level rise. Allowing development and density increases in high coastal hazard areas should be discouraged. There are a number of peer-reviewed studies and policy amendments that have been recently published or enacted which are aimed at shifting this paradigm while providing guidance to avoid making poor planning and development decisions. We encourage you and your client to review, disclose, and thoroughly discuss these issues in revising the EA for the proposed project and final publication.

Should you have any questions, contact Trevor Fitzpatrick of the Office of Conservation and Coastal Lands at (808) 796-6660 or trevor.j.fitzpatrick@hawaii.gov.

Sincerely,

Sam Lemmo

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

CC: Oahu District Land Division Office
State Historic Preservation Division
City and County of Honolulu, Department of Planning and Permitting
August 27, 2021

SUBJECT: Draft Environmental Assessment, 830 Mokulua Single Family Residence
Located at 830 Mokulua Drive
Lanikai Beach Tract, Kailua, Koolaupoko Oahu
Tax Map Key (TMK): (1) 4-3-008:045
Response to Office of Conservation and Coastal Lands

Dear Mr. Samuel J. Lemmo,

Thank you for your comment letter dated May 24, 2021 concerning the Chapter 25, Revised Ordinances of Honolulu (ROH) Draft Environmental Assessment (DEA) for the Proposed Action at 830 Mokulua Drive. We are pleased you made the time to review the DEA and offer comments. After a thorough review of your comments, along with the suggested reports and additional mapping tools, we are delighted to offer the following responses which address your remarks.

As you noted, the Project Site lies within the sea level rise exposure area (SLR-XA) as indicated by the Hawaii State Sea Level Rise Viewer. In addition to the 0.5 foot sea level rise scenario map provided in the DEA the Final Environmental Assessment (FEA) now overlays 1.1, 2.0 and 3.2 sea level rise (SLR) scenarios to the Project Site in Figures 3.3.8, 3.3.9, & 3.3.10. These scenarios indicate that the 3.2 and 2.0-foot scenarios are projected to impact the building footprint of the single-family dwelling as sited in the Proposed Action. Notwithstanding this projection, the lesser SLR scenarios of 1.1 and 0.5 would impact the existing structures even sooner. It is important to note that the Proposed Action proposes to demolish these existing non-conforming structures in a proactive effort to mitigate shoreline hazards advance of needing emergency protective action and avoid the need to seek an encroachment agreement in the State Legislature.

The SLR-XA map data combines the multi-hazard exposure vulnerabilities of passive flooding, annual high wave flooding, and coastal erosion. Each model type was produced using a “bare earth” digital elevation model, which is used to represent the ground surface in the absence of buildings, trees, and other structures. At your request, and to more accurately assess how the sea level rise exposure projections are slated to impact the Proposed Action, the FEA analyzes passive flooding, annual high wave flooding, and coastal erosion overlay scenario maps for the Project Site individually. This individual analysis accounts for the unique particularities of each hazard and its specific distinctive impact (as opposed to generalized) to the Project Site and the Proposed Action. Again, these individual hazard scenarios would affect the existing structures which, given their location in the shoreline setback of the Project Site, are vulnerable to sea level rise exposure sooner if the SLR projections come to fruition. Additionally, when considered individually, some hazards such as passive flooding and annual high wave flooding may not affect the Proposed Action at all. That identifies coastal erosion the primary hazard requiring attention. These three impacts are discussed individually as follows:
Passive Flooding: As seen in Figure 3.3.11 of the FEA, the highest passive flooding scenario of 3.2-feet does not impact the Project Site. As such, one can surmise that the elevation of the Project Site is higher than the average daily high tide under the projected sea level rise scenarios. One can also surmise that the Project Site, at its current elevation, is not impacted by exposure to flooding that originates both above and below the ground surface. As such, the Proposed Action seeks to raise the finish floor of the single-family dwelling to an elevation of 10.5-feet, higher than the site’s current highest elevation point as outlined in Section 3.1 – Topography, Geology and Soils to further protect against groundwater inundation and passive flooding. To date, no exceptions have been added to zoning regulations to allow for additional building height for development that incorporates additional freeboard mitigation measures.

Annual High Wave Flooding: As seen in Figure 3.3.12 of the FEA, the highest annual high wave flooding scenario of 3.2-feet seems to marginally impact the Project Site; coming nowhere near the 40-foot shoreline setback line and nowhere near the structure of the Proposed Action. As such, one can surmise that the Project Site is protected from wave events such as wave run-up over the shoreline. The Proposed Action is not vulnerable to annual high wave flooding as currently projected but could be vulnerable to more extreme, yet less-frequent, wave events such as tsunamis. The residents will be knowledgeable of the danger of tsunamis and equipped with an action plan as outlined in Section 3.3 – Natural Hazards.

Coastal Erosion: As seen in Figure 3.3.13 of the FEA, the highest coastal erosion scenario of 3.2-feet would impact the structure of the single-family dwelling under the Proposed Action if projections are accurate. However, this scenario assumes the shoreline is allowed to retreat naturally. As noted in the FEA, the Project Site is located in the middle of a continuous string of armored shorelines spanning roughly +1,000-feet. One can surmise that the coastal erosion line scenario is not accurate for the Project Site because for it to be met coastal erosion would need to be allowed to occur naturally effective immediately. In other words, the Project Sites existing seawall – and the entire string of abutting existing seawalls – which are largely in good shape would need to disappear to meet these projections.

Regardless, upon review of the projected impacts on the structure due to the coastal erosion scenario by a structural engineer the slated structure for the single-family dwelling has been revised from the DEA to the FEA. The structure in the DEA was a typical 5” slab-on-grade with associated footings. The structure in the FEA transitions from the 5” slab-on-grade to a 8” structural slab with micro piles supporting a reinforced concrete beam that the structural slab is attached to beyond the projected 3.2-foot erosion line. This structural solution allows the sand to be eroded away on the makai side of the house nearest the shoreline should all the seawalls erode away, and the 3.2-foot coastal erosion scenario arrive. These revisions to the structural system will ensure the Project Action remains effective for generations to come.

A few more modifications have been made to the Final Environmental Assessment in response to your comments on the Draft Environmental Assessment. Those modifications & responses are as follows:

- The Soil Map has been included in the FEA as Figure 3.1.1 and cited in Section 3.1.
- The “Beach and Coastal Dune Protection” section has been clarified.
- The Proposed Action is exempt from HRS, 6E-42.
In summary, close examination of OCCL comments on the Proposed Action in the Draft Environmental Assessment resulted in various revisions for the Final Environmental Assessment as noted above. We assessed the potential impacts of sea level rise on the Proposed Action and vetted site specific mitigation measures, such as specialized structure, elevation and setbacks from the shoreline. The revisions provided address coastal hazard concerns and mitigate them as practicable to further ensure a finding of no significant impact for the Proposed Action and that the resultant development will be successful for generations to come.

Sincerely,

Shae Grimm

Shae Grimm
STATE OF HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

May 12, 2021

LD 0506

FROM:

Carty S. Chang, Chief Engineer
Engineering Division

TO:

DLNR Agencies:
X Div. of Aquatic Resources (via email: kendall.l.tucker@hawaii.gov)
___ Div. of Boating & Ocean Recreation
X Engineering Division (via email: DLNR.Engr@hawaii.gov)
X Div. of Forestry & Wildlife (via email: Rubyrosa.T.Terrago@hawaii.gov)
___ Div. of State Parks
X Commission on Water Resource Management (via email: DLNR.CWRM@hawaii.gov)
X Office of Conservation & Coastal Lands (via email: sharleen.k.kuba@hawaii.gov)
X Land Division – Oahu District (via email: barry.w.cheung@hawaii.gov)

TO:

Russell Tsuji, Land Administrator

FROM:

Russell Y. Tsuji, Land Administrator

SUBJECT: Draft Environmental Assessment, 830 Mokulua Single Family Residence

LOCATION: 830 Mokulua Drive, Lanikai Beach Tract, Kailua, Island of Oahu, Hawaii; TMK: (1) 4-3-008:045

APPLICANT: Pacific Coast Real Estate Investment Services, LLC, via Department of Planning & Permitting, City and County of Honolulu

Transmitted for your review and comment is information on the above-referenced subject. The DEA was published on May 08, 2021 in the Office of Environmental Quality Control’s periodic bulletin, The Environmental Notice, at the following link:

http://oeqc2.doh.hawaii.gov/The_Environmental_Notice/2021-05-08-TEN.pdf

Please submit any comments by June 03, 2021 to DLNR.Land@hawaii.gov, and copied to barbara.j.lee@hawaii.gov. If no response is received by this date, we will assume your agency has no comments. If you have any questions, please contact Barbara Lee directly via email at barbara.j.lee@hawaii.gov. Thank you.

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

Signed: [Signature]

Print Name: Carty S. Chang, Chief Engineer

Division: Engineering Division

Date: May 27, 2021

Attachments

Cc: Central Files
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/Russell Y. Tsuji
Ref: Draft Environmental Assessment, 830 Mokulua Single Family Residence
Location: 830 Mokulua Drive, Lanikai Beach Tract, Kailua, Island of Oahu, Hawaii
TMK(s): (1) 4-3-008:045
Applicant: Pacific Coast Real Estate Investment Services, LLC, via Department of Planning & Permitting, City and County of Honolulu

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) 241-4896.

Signed: ________________________________
CARTY S. CHANG, CHIEF ENGINEER

Date: May 27, 2021
August 27, 2021

SUBJECT:  Draft Environmental Assessment, 830 Mokulaa Single Family Residence  
Located at 830 Mokulaa Drive  
Lanikai Beach Tract, Kailua, Koolaupoko Oahu  
Tax Map Key (TMK): (1) 4-3-008:045  
Response to the Department of Land and Natural Resources - Engineering Division

Dear Mr. Carty Chang,

Thank you for your comment letter dated May 27, 2021 concerning the Chapter 25, Revised Ordinances of Honolulu (ROH) Draft Environmental Assessment (DEA) for the Proposed Action at 830 Mokulaa Drive. We are pleased you made the time to review the DEA and offer comments. After a thorough review of your comments, we are delighted to offer the following responses which address your remarks.

The Proposed Action is not a State project and is therefore not required to comply with the National Flood Insurance Program (NFIP), Title 44 of the Code of Federal Regulations (44CFR) as stipulated in Section 60.12. A research of the Flood Hazard Zone designation for the Proposed Action has indicated that the property is situated in FEMA flood zone designation X which is beyond the 500-year flood plain and no special design standards is required for the structure.

Sincerely,

Shae Grimm

Shae Grimm
Mr. Shae Grimm  
Long & Associates, AIA, Inc.  
1100 Alakea Street, 3rd Floor Atrium  
Honolulu, Hawaii 96813

Dear Mr. Grimm:

SUBJECT: Draft Environmental Assessment (DEA)  
Single Family Residence - Shoreline Lot  
830 Mokulua Drive - Lanikai  
Tax Map Key 4-3-008: 045

This is in response to the submittal, dated April 6, 2021, of the above-referenced DEA as required under Chapter 25, Revised Ordinances of Honolulu. We understand that the Project proposes the demolition of an existing single-family residence and accessory swimming pool and construction of a new single-family residence and swimming pool on a shoreline lot located in the Lanikai community within the Special Management Area. Our comments are as follows:

1. *Koolau poko Sustainable Communities Plan (KPSCP)*: Figure 1.1.4 and the subsequent discussion should refer to the Project site’s “land use designation” within the KPSCP as Low-Density Residential, as opposed to City and County of Honolulu “zoning,” which relates to the site’s designation under the Land Use Ordinance.

2. *Certified Shoreline Survey*: Incorporate a color copy of the shoreline survey certified by the State of Hawaii into the Final Environmental Assessment (FEA) in place of Figure 3.1.2. Should the certified shoreline not be located where originally anticipated, the analysis must be updated to reflect this in the FEA.

3. *Coastal Hazards*: The discussion on sea level rise (SLR) and other coastal hazards must be updated to discuss potential impacts to the site under the 3.2-foot SLR scenario. According to the mapping notes on the Pacific Islands Ocean Observing System SLR Mapper, is anticipated that 3.2 feet of SLR will occur by the middle of this century. Therefore, it is considered likely that this level of SLR will occur well within the anticipated lifespan of the proposed
structure. Additionally, Section 3.1.3.2 of the KPSCP, related to Shoreline Areas, calls on public agencies to "analyze the possible impact of SLR for new public and private projects in shoreline areas and incorporate, where appropriate and feasible, measures to reduce risks to increase resiliency to impacts of SLR."

Further, the 2017 SLR Vulnerability and Adaptation Report has called out the 3.2-foot SLR Exposure Area (SLR-XA) as the baseline to use for planning decisions. This aligns with Mayoral Directive No. 18-2 and the City Climate Change Commission's SLR Guidance in planning, programming, and capital improvement decisions.

In the DEA, the discussion in the of potential impacts of SLR is limited to the 0.5-foot SLR scenario, and Figure 3.3.7 of the DEA provides a map only showing potential inundation with 0.5 feet of SLR. Therefore, the document must be updated to identify and discuss potential impacts of 3.2-feet of SLR, as well as any alternatives and/or mitigation measures necessary to avoid or minimize such impacts. Please also include a Figure identifying the 3.2-foot SLR-XA at the Project site.

4. Biological Resources: Section 3.4, Mitigation Measures (and elsewhere in discussions of sensitive fauna species as appropriate): The DEA should identify and discuss the standard U.S Fish and Wildlife-recommended mitigation measures for limiting activities during the roosting season for Hawaiian hoary bats.

5. Cultural Resources: Section 3.8 of the DEA refers to a cultural resources survey letter prepared by Keala Pono Archeological Consulting. In the FEA, this discussion should be expanded to include the findings of the report in terms of potential for discovery of previously unidentified human burials or other unknown cultural resources. The FEA should also identify the standard stop-work requirements in State law that apply if such resources are encountered.

Thank you for the opportunity to comment on this proposal. Should you have any questions, please contact Christi Keller, of our staff, at (808) 768-8087 or c.keller@honolulu.gov.

Very truly yours,

[Signature]

Dean Uchida
Director
August 27, 2021

SUBJECT: Draft Environmental Assessment, 830 Mokulua Single Family Residence
Located at 830 Mokulua Drive
Lanikai Beach Tract, Kailua, Koolaupoko Oahu
Tax Map Key (TMK): (1) 4-3-008:045
Response to the Department of Planning & Permitting

Mr. Dean Uchida,

Thank you for your comment letter dated June 1, 2021 concerning the Chapter 25, Revised Ordinances of Honolulu (ROH) Draft Environmental Assessment (DEA) for the Proposed Action at 830 Mokulua Drive. We are pleased you made the time to review the DEA and offer comments. After a thorough review of your comments, we are delighted to offer the following responses which address your remarks.

1. The title of Figure 1.1.4 has been revised to read, “Koolaupoko Sustainable Communities Plan: Low-Density Residential”. Efforts were made throughout the body of the DEA to distinguish between the Project Site’s “land use” designation within the Koolaupoko Sustainable Communities Plan (KPSCP) and the Project Site’s “zoning” designation within the Land Use Ordinance (LUO).

2. Figure 3.1.2 has been replaced with a color copy of the shoreline survey certified by the State of Hawaii on August 23, 2021. The content of the Final Environmental Analysis has been updated accordingly to reflect the current certified shoreline.

3. The discussions in Chapter 3 on sea level rise (SLR) and other coastal hazards has been updated in the Final Environmental Analysis. In addition to the 0.5 foot sea level rise scenario map provided in the DEA the Final Environmental Assessment (FEA) now overlays 1.1, 2.0 and 3.2 sea level rise (SLR) scenarios to the Project Site in Figures 3.3.8, 3.3.9, & 3.3.10. Mitigation measures necessary to avoid or minimize impacts to the Proposed Action have also been included. These measures include revisions to the structural system as described in Chapter 3.

4. The FEA has included in Section 3.4, Mitigation Measures, the standard U.S. Fish and Wildlife recommendations for limiting activities during the roosting season for Hawaiian Hoary bats.
5. Section 3.8 of the FEA has expanded the discussion on Cultural Resources. The “3.8.1 Archeological and Cultural” section of the draft Environmental Analysis has been broken into two separate sections “3.8.1 Archeological” and “3.8.2 Cultural” in the final Environmental Analysis. An attempt was made to consult community folks and Hawaiian cultural practitioners to ascertain ethnographic information on cultural resources and practices that occur on the site or in the broader area. A cultural impact report was commissioned to assess and identify the scope of valued cultural resources and the extent they might be affected or impaired by the Proposed Action. This report also includes two maps denoting the previous archaeological studies in the project vicinity, and known archaeological sites in Lanikai. See the new report as referenced in 3.8.2 and included in Appendix E of the Final Environmental Assessment.

Sincerely,

Shae Grimm

Shae Grimm
June 2, 2021

Mr. Shae Grimm
Long & Associates, AIA, Inc.
1100 Alakea Street
3rd Floor Atrium
Honolulu, HI 96813

Dear Mr. Grimm:

Subject: Chapter 25, Revised Ordinances of Honolulu, Draft Environmental Assessment for the Redevelopment of the Property located at 830 Mokulu Drive, Kailua, Oahu; Tax Map Key: (1) 4-3-008: 045

The Office of Planning (OP) is in receipt of your review request on the Draft Environmental Assessment (Draft EA), received May 6, 2021, for the proposed residence project at 830 Mokulu Drive, Kailua, Oahu.

According to the Draft EA, the proposed project consists of the demolition of an existing single-family residence and accessory swimming pool, and construction of a new single-family residence and swimming pool on a shoreline lot located in the Lanikai community within the county designated Special Management Area (SMA). The proposed new single-family dwelling will be two stories with approximately 4,700 square feet of floor area, and include four bedrooms, five bathrooms, a family room, a kitchen, a wet bar, a laundry room, a swimming pool, and five parking spaces, inclusive of a two-car garage. Under the existing R-10 zoning and allowed density, the new single-family dwelling will not exceed 0.45 Floor Area Ratio (FAR) while 0.7 FAR is allowed. The new dwelling and swimming pool will be located mauka of the 40-foot shoreline setback area.

This EA is prepared in accordance with the Revised Ordinances of Honolulu (ROH) Chapter 25 in support of a SMA Use Permit application.

The construction the proposed single-family dwelling is anticipated to be completed within 14 months, and the cost of project construction is more than $500,000.

The OP has reviewed the subject Draft EA and has the following comments to offer:
1. The Draft EA states that the new structures will stay within current height limits and setback requirements as required by current code. The Final EA should provide and confirm the height of the proposed two-story single-family dwelling structure for the SMA use assessment.

2. An updated shoreline survey was commissioned in December of 2020. The Final should include the certified shoreline if available given that the shoreline survey would be submitted to the Board of Land and Natural Resources in time for review and determination.

3. The Draft EA, page 27, states that the 0.5-foot sea level rise scenario is used by the Department of Planning and Permitting, City and County of Honolulu, to determine if the site is, "impacted by waves, storm surges, high tide, or shoreline erosion" per the SMA permit direction in the October 13, 2020 news announcement. Please note that the 0.5-foot sea level rise exposure area (SLR-XA) scenario, identified from the State of Hawaii Sea Level Rise Viewer at https://www.patioos.hawaii.edu/shoreline/slr-hawaii/, is recommended as a reference to help identify whether a non-shoreline parcel is impacted by waves, storm surges, high tide or shoreline erosion, which triggers the SMA permit requirement for construction or reconstruction of a single-family residence under HRS § 205A-22, as amended, enacted by Act 16, Session Laws of Hawaii 2020. To assess potential impacts of sea level rise on the proposed development area, the Final EA should refer to the findings of the Hawaii Sea Level Rise Vulnerability and Adaptation Report 2017, accepted by the Hawaii Climate Change Mitigation and Adaptation Commission, and provide a map of 3.2-foot SLR-XA in relation to the property area, and consider site-specific mitigation measures, including elevation and setbacks from the shoreline erosion during the life of the proposed structures, to respond to the potential impacts of 3.2-foot sea level rise. Please note that shoreline hardening structures, including seawalls and revetments, are prohibited at sites with beaches pursuant to HRS § 205A-2(c)(9)(B) and HRS § 205A-46(a)(9), as amended.

4. The Draft EA, page 33, states that the project site borders the Pacific Ocean and wetland areas classified by the U.S. Fish and Wildlife Service as M2USN Marine Wetlands. Earth-moving activities during construction will disturb onsite soils that could then run into the ocean or wetland areas if not contained. The OP recommends that site-specific best management practices with erosion and sediment control measures, including silt fences, berms and other erosion control devices, shall be prepared and implemented to confine the proposed excavation and construction activities, and prevent potential soil, construction debris and polluted runoff from
adversely impacting the coastal ecosystem, and State waters as specified in Hawaii Administrative Rules Chapter 11-54.

5. The Draft EA, page 48, states that the proposed action will not impact public access, shoreline parks, and other recreational facilities. The Final EA should discuss in detail the existing public access to and along the shoreline at the project site, and ensure that the proposed project will not impact the public access to the ocean and recreation areas, including ingress and egress effects of vehicle traffic, generated from the proposed construction activities.

6. The OP concurs that archaeological monitoring should be ensured during ground disturbing activities. Should any archaeological resources or burials be discovered during ground excavation, all construction work shall be ceased immediately. Subsequent work shall proceed only upon an archaeological clearance from the State Department of Land and Natural Resources, State Historic Preservation Division.

7. Naupaka or other vegetation on the project site between the house and the beach may serve to house Shearwater burrows. The OP recommends that the exterior lighting and lamp posts associated with the proposed project shall be cut-off luminaries to provide the necessary shielding to mitigate potential light pollution in the coastal areas, and lessen possible seabird strikes. No artificial light, except as provided in HRS §§ 205A-30.5(b) and 205A-71(b), shall be directed to travel across property boundaries toward the shoreline and ocean.

If you have any questions regarding this comment letter, please contact Shichao Li of our office at (808) 587-2841.

Sincerely,

Mary Alice Evans
Director
August 27, 2021

SUBJECT: Chapter 25, Revised Ordinances of Honolulu, Draft Environmental Assessment for the Redevelopment of the Property located at 830 Mokulua Drive, Kailua, Oahu; Tax Map Key: (1) 4-3-008: 045 – Response to Office of Planning

Dear Mrs. Mary Alice Evans,

Thank you for your comment letter dated June 2, 2021 concerning the Chapter 25, Revised Ordinances of Honolulu (ROH) Draft Environmental Assessment (EA) for the Proposed Action at 830 Mokulua Drive. We are pleased you made the time to review the draft EA and offer comments. Please find our responses, in italics, to your comments below:

1. Draft EA states that new structures will stay within current height limits and setback requirements as required by current code. The Final EA should provide and confirm the height of the proposed two-story single-family dwelling structure for the SMA use assessment.

   *The height of the proposed two-story single family dwelling is as indicated in Appendix C on the Exterior Elevations sheets A201 and A202. Please note the structure is under the maximum height allowable by City and County of Honolulu’s current Land Use Ordinance. Additionally, the setbacks of the proposed two-story single family dwelling is as indicated in Appendix C on the Site Plan sheet A002. Please note the structure is further removed from the property lines, on all sides, than the minimum distance required under the City and County of Honolulu’s current Land Use Ordinance.*

2. An updated shoreline survey was commissioned in December of 2020. The Final should include the certified shoreline if available if given that the shoreline survey would be submitted to the Board of Land and Natural Resources in time for review and determination.

   *The updated / current certified shoreline dated August 23, 2021 has been incorporated into the Final Environmental Analysis in Figure 3.1.2.*

3. The Draft EA, page 27, states that the 0.5 foot sea level rise scenario is used by the Department of Planning and Permitting, City and County of Honolulu, to determine if the site is, “impacted by waves, storm surges, high tide, or shoreline erosion” per the SMA permit direction in the October 13, 2020 news announcement. Please note that the 0.5 foot sea level rise exposure area (SLR-XA) scenario, identified from the State of Hawaii Sea Level Rise viewer at (website) is recommended as a reference to help identify whether a non-shoreline
parcel is impacted by waves, storm surges, high tide or shoreline erosion, which triggers the SMA permit requirement for construction or reconstruction of a single family residence under HRS 205A-22, as amended, enacted by Act 16, Session Laws of Hawaii 2020. To assess potential impacts of sea level rise on the proposed development area, the Final EA should refer to the findings of the Hawaii Sea Level Rise Vulnerability and Adaptation Commission, and provide a map of 3.2 foot SLR-XA in relation to the property area, and consider site-specific mitigation measures, including elevation and setbacks from the shoreline erosion during the life of the proposed structures, to respond to the potential impacts of 3.2 foot sea level rise. Please note that shoreline hardening structures, including seawalls and revetments, are prohibited at sites with beaches pursuant to HRS 205A and HRS etc as amended.

In addition to the 0.5 foot sea level rise scenario map provided in the Draft EA the Final EA now includes 1.1, 2.0 and 3.2 sea level rise map scenarios with thorough analysis in regards to the Proposed Action. Chapter 3.3 – Natural Hazards, Section 3.3.4 of the Final EA has been expounded upon entirely to assess potential impacts of sea level rise on the Proposed Action and now includes site specific mitigation measures, such as specialized structure, elevation and setbacks from the shoreline. In response to Act 16, the structural system has been revised from a simple slab on grade to a structural solution specially designed to withstand natural hazards to the greatest extent practicable. Please see the Final Environmental Analysis for in-depth detail.

4. The Draft EA, page 33, states that the project site borders the Pacific Ocean and wetland areas classified by the USFWS as M2USN Marine Wetlands. Earth-moving activities during construction will disturb onsite soils that could then run into the ocean or wetland areas if not contained. The OP recommends that site-specific best management practices with erosion and sediment control measures, including silt fences, berms and other erosion control devices, shall be prepared and implemented to confine the proposed excavation and construction activities, and prevent potential soil, construction debris and polluted runoff from adversely the coastal ecosystem, and state waters as specified in Hawaii Administrative Rules Chapter 11-54.

Chapter 3.5 – Water Resources in the Final EA details the site-specific best management practices with erosion and sediment control measures that will be implemented to confine the proposed excavation and construction activities under the Mitigation Measures subsection. Potential soil, construction debris and polluted runoff that could adversely impact the coastal ecosystem will be contained & mitigated.

5. The Draft EA, page 48 states that the proposed action will not impact public access, shoreline parks, and other recreational facilities. The Final EA should discuss in detail the existing public access to and along the shoreline at the project site, and ensure that the proposed project will not impact the public access to the ocean and recreation areas, including ingress and egress effects of vehicle traffic, generated from the proposed construction activities.
The closest public access point to Lanikai Beach is one parcel over; roughly 75-feet away from the southeast corner and far removed from the Project Site. The Proposed Action will have no impact to public access to the ocean and recreation areas. In regards to vehicle traffic, no significant impacts are anticipated as a result of the Proposed Action. However, during construction, there is a chance minor public hinderance may occur. The measures taken to mitigate the impact on vehicle traffic is outlined in the Final EA in Section 2.4 Construction Characteristics of Proposed Action.

6. The OP concurs that archaeological monitoring should be ensured during ground disturbing activities. Should any archaeological resources or burials be discovered during ground excavation, all construction work shall be ceased immediately. Subsequent work shall proceed only upon an archaeological clearance from the State Department of Land and Natural Resources, State Historic Preservation Division.

Noted. An archaeological monitoring team will be employed during ground disturbing activities to ensure any resources are identified and treated properly.

7. Naupaka or other vegetation on the project site between the house and the beach may serve to house Shearwater burrows. The OP recommends that the exterior lighting and lamp posts associated with the proposed project shall be cut-off luminaries to provide the necessary shielding to mitigate potential light pollution in the coastal areas, and lessen possible seabird strikes. No artificial light, except as provided in HRS 205 A shall be directed to travel across property boundaries toward the shoreline and ocean.

Noted. Exterior lighting will be provided in accordance with responsible lighting practices of the Department of Land and Natural Resources and HRS 205A-7I Artificial Light on Shoreline and Ocean Waters.

Sincerely,

Shae Grimm

Shae Grimm