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DEPARTMENT OF PLANNING AND PERMITTING
KA 'OIHANA HO'OLĀLĀ A ME NĀ PALAPALA 'AE
CITY AND COUNTY OF HONOLULU

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January 5, 2026

2025-SMA-75(ST)

The Honorable Tommy Waters
Chair and Presiding Officer
and Members
Honolulu City Council
530 South King Street, Room 202
Honolulu, Hawai'i 96813

Dear Chair Waters and Councilmembers:

SUBJECT: Special Management Area (SMA) Major Permit
West Loch Wastewater Pump Station Improvements
Department of Environmental Services
91-1024 Kapapapuhi Street – Honouliuli
Tax Map Key 9-1-181: Portion of 001

Enclosed for your consideration are the Department of Planning and Permitting's (DPP) Report and Recommendation and Draft Resolution for an SMA Major Permit for the existing West Loch Wastewater Pump Station improvements, consisting of the expansion and rehabilitation of the existing wastewater pump station with a new electrical room, emergency generator, electrical, ventilation systems, pumps, and valves; and the relocation of a perimeter concrete rubble masonry wall, at Kapapapuhi Point Park in Honouliuli (Project).

The DPP recommends that the Project be approved, subject to compliance with recommended conditions, including standard conditions relating to conformance with plans, coastal hazards, completion of archaeological monitoring plan, and protection of historical resources, and invasive and protected species.

Pursuant to Revised Ordinances of Honolulu Chapter 25, the City Council must act within 60 calendar days after receipt of our Report and Recommendation; however, the City Council may extend this period of time upon receipt of a request from the Applicant for an extension.

DEPT. COM. 6(26)

Should you have any questions, please contact me at (808) 768-8000.

Very truly yours,

Dawn Takeuchi Apuna
Director

Enclosures: DPP Report and Recommendation
Exhibits A, B, C, D-1 through D-5, E-1, E-2, F, G, H, I-1, I-2, and J through L
Draft Resolution

APPROVED BY:

Michael D. Formby, Managing Director
Office of the Managing Director

DEPARTMENT OF PLANNING AND PERMITTING
OF THE CITY AND COUNTY OF HONOLULU

STATE OF HAWAI'I

IN THE MATTER OF THE APPLICATION BY CITY AND COUNTY OF HONOLULU DEPARTMENT OF ENVIRONMENTAL SERVICES FOR A SPECIAL MANAGEMENT AREA (SMA) MAJOR PERMIT	FILE NO. 2025-SMA-75(ST)

FINDINGS OF FACT, CONCLUSIONS
OF LAW, AND RECOMMENDATION

I. APPLICATION

A. Basic Information:

PROJECT NAME:	West Loch Wastewater Pump Station (WWPS) Improvements
APPLICANT:	City and County of Honolulu, Department of Environmental Services (ENV)
LANDOWNER:	City and County of Honolulu, Department of Parks and Recreation
AGENT:	Environmental Planning Solutions, LLC (Colette Sakoda)
LOCATION:	91-1024 Kapapapuhi Street - Honouliuli (Exhibit A)
TAX MAP KEY:	9-1-181: Portion of 001 (Exhibit B)
ZONING:	P-2 General Preservation District (P-2 District), AG-1 Restrictive Agricultural District (AG-1 District) and R-5 Residential District (R-5 District; see Exhibit C)
STATE LAND USE:	Urban District
DEVELOPMENT PLAN:	'Ewa Development Plan (EDP)

B. Proposal: The Applicant requests approval of an SMA Major Permit to allow improvements to the WWPS (Project; see Exhibits D-1 through D-5), which consists of the following:

- Construction of a new 255-square (-sq.) -foot (-ft.) Generator Room to the existing WWPS Building, which includes a breezeway between the two structures.
- Relocation of the existing emergency generator, the motor control center, supervisor controls and data acquisitions, and other electrical systems into the new Generator Room; away from the existing submersible pumps.
- Removal of the existing above-ground diesel fuel tank and installation of a new above-ground diesel fuel storage tank.
- Expansion of the WWPS site by approximately 1,700 sq. ft., from 2,300 sq. ft. to 4,000 sq. ft., with the relocation of the existing concrete rubble masonry perimeter walls (12 ft. along the north and 16 ft. along the east).
- Replacement of the existing submersible pumps and associated appurtenances, including the relocation of the bypass system.
- Replacement of six- and 10-inch force main piping and valves.
- Installation of a new air relief valve.
- Expansion and rehabilitation of the existing wetwell (i.e., subsurface areas of the WWPS).
- Replacement of windows, doors, gates, and ventilation systems.
- Construction of a new trash enclosure and the restriping of the surface parking area to including dedicated WWPS parking.
- Replacement of restroom facilities.

The portion of the parcel within the AG-1 District contains the WWPS. The Project will result in a new building area of approximately 730 sq. ft. The building addition will match the existing building height of 16 ft. and will feature a similar hip roof. The 1,700-sq.-ft. site expansion will primarily include the addition of asphaltic concrete surfaces. The expansion will require excavation estimated at 65 cubic yards. The depth of excavations for the renovation and expansion will not exceed 12 ft.

The expansion of the WWPS site, with the relocation of the north and east perimeter CRM walls, which were too close to the WWPS, will allow the facility to meet Americans with Disabilities Act requirements.

All construction staging activities will occur on or near the site. The nearby monkeypod tree will be preserved. Temporary and permanent Best Management Practices (BMPs) will be implemented before, during, and after construction to address fugitive dust, on-site stormwater management, construction noise and vibrations, erosion and sediment control, and other issues in compliance with the Department of Planning and Permitting (DPP) *Rules Relating to Water Quality*, *Rules Relating to Storm Drainage Standards*, and other applicable regulations. Other required City approvals include construction and building permits (BPs).

The Project is estimated to cost approximately $4.4 million, and construction will take approximately 10 months to complete once all required permits are obtained.

II. EXISTING CONDITIONS

Background: The Project Site is located on a 2,300 sq. ft. portion of an 80.269-acre lot, which is part of the West Loch Golf Course and the parking area of Kapapapuhi Point Park. Both the golf course and the WWPS were developed by the City with the West Loch Estates Subdivision as an affordable housing project in the late 1980s. The existing WWPS was first placed in service in 1989. It pumps wastewater collected from the eight-inch and twelve-inch diameter gravity lines of the West Loch Estates Subdivision and pumps it through a 4,500-ft.-long forcemain along the Pearl Harbor shoreline to a manhole located in the Waipahu Industrial area to the north. From there wastewater flows via gravity line to the Kunia WWPS, and eventually to the Honouliuli Wastewater Treatment Plant. The West Loch WWPS has a capacity of 1,050 million gallons per day. The WWPS contains two submersible pumps, the second pump provides system redundancy.

The Project Site does not directly front any beaches or coastal area (see Exhibit A), but pursuant to Revised Ordinances of Honolulu (ROH) Chapter 26, the shoreline setback regulations, a shoreline lot is a zoning lot of record, any portion of which lies within the shoreline setback area. Portions of the larger parcel are located within the shoreline setback. Therefore, for purposes of ROH 25 and 26, the subject parcel is considered a shoreline lot. The Project area, however, is more than 400 ft. from the shoreline of the West Loch of Pearl Harbor.

The following table summarizes the existing conditions for the site and surrounding area:

Lot Area	80.27 acres (Project Site: 2,300 sq. ft.)
Lot Shape	Irregular

Topography	Relatively flat ranging in elevation from approximately nine ft. to 13 ft. above mean sea level, with an elevated hillside at the mauka edge of the Project Site (see Exhibits E-1 and E-2).
Current Development	The Project Site is currently developed with a 475-sq.-ft. WWPS structure.
Surrounding Uses	To the north – Single-unit dwellings of the West Loch Estates Subdivision; To the east – Kapapapuhi Point Park and Pearl Harbor West Loch; To the south and west – West Loch Golf Course, with the West Loch Fairways Subdivision and Fort Weaver Road beyond (see Exhibit A).
Flood Zone	*Flood Zone X* – An area determined to be outside of the 0.2 percent annual chance floodplain (see Exhibit F; Federal Emergency Management Agency Flood Insurance Rate Map Panel No.15003C0326G, revised January 19, 2011).
Shoreline Survey	The Certified Shoreline Survey requirement is waived as the WWPS site is more than 400 ft. from the mangrove-lined shoreline of the West Loch of Pearl Harbor. All development will occur outside of the 60-ft. shoreline setback area. There is no erosion rate established in Pearl Harbor.
Nearest Body of Water	*Pearl Harbor West Loch* - Estuarine subtidal and intertidal Wetland (approximately 400 ft. south; see Exhibit G).
Soil Classifications	*Helemano silty clay 30 to 90* percent slopes – well drained, rapid or very rapid runoff, moderately rapid permeability (see Exhibit H; United States Department of Agriculture [USDA] - Natural Resources Conservation Service [NRCS]).
Vegetation	The Project Site portion of the lot is grassed with one large monkeypod tree and two African Tulip trees. The U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) website indicates no critical habitat for flora species near the Project Site.
Sea Level Rise (SLR) – Exposure Area	The Hawai'i SLR Viewer shows the Project Site is not projected to be impacted by passive flooding, annual high wave action, or coastal erosion as a result of either 3.2 ft. or 6.0 ft. of SLR by 2100 (see Exhibits I-1 and I-2; National Oceanic Atmospheric Administration [NOAA]).
Shoreline Erosion Rate	There is no erosion rate established for Pearl Harbor; therefore the shoreline setback for the larger lot is 60 ft.

Hurricane Storm Surge	The Project Site is projected to be subject to approximately three ft. of flooding during Category 4 hurricane events (see Exhibit J; National Hurricane Center, *Storm Surge Risk Maps*).
Tsunami	The Project Site is located within the extreme tsunami evacuation zone (see Exhibit K; Hawai'i Emergency Management Agency, *Tsunami Aware Mapper*).

III. ENVIRONMENTAL DISCLOSURE AND PUBLIC PARTICIPATION

The following table summarizes the Project's compliance with the applicable environmental disclosure and public outreach requirements:

Environmental Disclosure Documentation	The proposed Project involves public lands and funds and was subject to the environmental disclosure requirements of Hawai'i Revised Statutes (HRS) Chapter 343. The Applicant (ENV) was the accepting agency and issued a Finding of No Significant Impact (FONSI) on May 28, 2025. The FONSI was published in the June 8, 2025 issue of *The Environmental Notice*.
Agency Comments	During the HRS 343 review processes, the Environmental Assessment (EA) was routed to various State and City agencies. All letters and comments received have been included in the Final EA and Project file, and have been incorporated into the Analysis Section, as appropriate.
Neighborhood Board (NB) / Community Association Presentation	The Project was presented to the 'Ewa Neighborhood Board (ENB) No. 23 on April 10, 2025 (see Section G).
Public Hearing	The DPP conducted a Public Hearing at 10:00 a.m. on November 7, 2025, at the Fasi Municipal Building, 6th Floor Conference Room. No members of the public attended or logged into the public hearing (see Section G).

IV. FINDINGS AND ANALYSIS

The proposed Project was analyzed in accordance with the objectives, policies, and guidelines established in ROH § 25-3.1, as well as HRS §§ 205A-2 and 205A-26(1).

A. **Recreational Resources - ROH § 25-3.1(a)**

"Development within the SMA should provide coastal recreational opportunities to the public. Adequate access, by dedication or other means, to beaches, coastal dunes, recreation areas, and natural reserves must be provided to the extent consistent with sound conservation principles. Adequate and properly located public recreation areas and wildlife preserves must be preserved."
See also HRS § 205A-2(b)(1) and (c)(1), and § 205A-26(1)(A) and (B).

The Project site is located within the City's 80-acre Kapapapuhi Point Park, also known as West Loch Community Shoreline Park, which is adjacent to the West Loch Golf Course to the south. The park is a passive park with picnicking, walking historic trails, old piers, and views of Pearl Harbor's West Loch. The Project is a very limited expansion of the existing 2,300-sq.-ft. WWPS facility. The resulting 4,000-sq.-ft. facility will not result in adverse impacts to coastal recreational opportunities for the public, because no change to park access, open spaces, and recreational resources, walking, fishing, and cultural practices are anticipated. The Project will improve the reliability of the 36-year-old WWPS and reduce the potential for wastewater system failure. The Project requires a National Pollutant Discharge Elimination System permit for discharges of construction stormwaters and dewatering, from the State Department of Health. Therefore, no conditions of approval are recommended regarding coastal recreational opportunities or resources.

B. **Historic and Cultural Resources – ROH § 25-3.1(b)**

"Development within the SMA should protect, preserve, and restore natural or human-made historical and cultural resources."
See also HRS § 205A-2(b)(2) and (c)(2).

1. Archaeological and Historic Resources: The Final EA included a literature review and field inspection conducted on October 2, 2024, by Keala Pono Archaeological Consulting, LLC (Keala Pono). Development of this area has triggered much archaeological work in this region. Pre-contact sites identified near the current Project Parcel include sites related to the procurement of marine resources, such as fishing shrines and fish ponds, as well as iwi kupūna, habitation areas, and agricultural sites. The area also includes many post-contact sites associated with the historic sugar plantation era, including foundations of former plantation structures, historic burials, irrigation features, wells, and remnants of the O'ahu Railway and Land Company (OR&L) railroad. This area, known as Honouliuli, was the subject of nearly 100 Land Commission Awards (LCA) utilized for lo'i. The WWPS site was part of an LCA issued to Kamehameha I's granddaughter, Kekau'ōnohi. During the soils testing conducted on July 19, 2024, archaeological monitoring was conducted by Keala Pono to ensure that archaeological resources were not disturbed.

Based on the available information and the cultural sensitivity of the area, an archaeological monitoring plan (AMP) was recommended by Keala Pono. Therefore, the preparation of an AMP should be imposed as a condition of approval, including mitigation protocols to be approved by the State Historic Preservation Division (SHPD), including holding a coordination meeting among the archaeological monitors, the construction contractor, and applicable subcontractors to ensure that the construction contractor and applicable subcontractors have been informed of all mitigation protocols required by SHPD.

As is the case during any ground-disturbing activity, there is a possibility that unknown archaeological resources or historic properties could be discovered. Should any cultural or archaeological resources be encountered, the Project should be subject to the standard "stop work" condition of approval. This will ensure that if, during construction, any previously unidentified archaeological sites or remains (such as artifacts, shell, bone, or charcoal deposits, human burials, rock or coral alignments, pavings, or walls) are encountered, the Applicant must stop work and contact the SHPD. This is also recommended as a condition of approval. Provided the Applicant complies with the SHPD's requirements regarding on-site resources, no adverse impacts to historic or archaeological resources are anticipated.

2. Cultural Resources: A cultural impact assessment (CIA) and a Ka Pa'akai Analysis were conducted by Keala Pono in November 2025. Although the analysis did not identify ongoing traditional cultural practices or cultural resources within the Project Site, fishing and crabbing as well as fishpond and wetland habitat restoration are ongoing practices nearby. An ahu housing iwi kūpuna is also close to the Project Site, and a former fishing village and native bird population are located in the immediate vicinity. The Project does not change existing established public access for possible Hawaiian cultural activities, nor would Project implementation preclude the future practice of Hawaiian cultural activities. The CIA recommended full-time archaeological monitoring. This is already recommended as a condition of approval. The CIA also recommended contacting more people from the area to provide input and presenting to the NB to keep the community informed about the Project and its progress. The SMA Major Permit process provides more opportunities for people to provide feedback, and an additional presentation to the ENB was required, so no additional conditions of approval are recommended. Finally, since no ongoing cultural practices were identified as being directly impacted, no additional conditions are recommended in regard to maintaining access to, or opportunities for Hawaiian cultural activities.

C. **Scenic and Open Space Resources – ROH § 25-3.1(c)**

"Development within the SMA should protect, preserve, and whenever desirable, restore or improve the quality of coastal scenic and open space resources. Alterations to existing land forms and vegetation, other than for the cultivation of coastal dependent crops, must be limited so they result in minimum adverse impacts on water resources, beaches, coastal dunes, and scenic or recreational amenities. Development that is not dependent on the coast is encouraged to locate mauka of the SMA."
See also HRS § 205A-2(b)(3) and (c)(3) and § 205A-26(1)(D).

The Project will not impact scenic and open space resources insofar as the 255-sq.-ft. addition will be at the same building height of 16 ft. as the existing WWPS, and will not be visually obtrusive. It is also consistent with the ROH Chapter 21 development standards for non-agricultural structures in the AG-1 District. The EDP Open Space Map identifies Kapapapuhi Park as a shoreline park and its Historic Railway/Bikeway Corridor near the Project Site. However, the Project will not detract with any sightlines along any of these viewpoints. No adverse impacts to scenic and open space resources are anticipated, and no related conditions of approval are recommended.

D. **Coastal Ecosystems – ROH § 25-3.1(d)**

"Development within the SMA should protect valuable coastal ecosystems, including reefs, beaches, and coastal dunes from disruption, and minimize adverse impacts on all coastal ecosystems. Solid and liquid waste treatment and disposition must be managed to minimize adverse impacts on SMA resources."
See also HRS § 205A-2(b)(4) and (c)(4) and § 205A-26(1)(C).

The Project is a small expansion and the renovation of an existing WWPS, which is vital to the continued and reliable operation of the existing 36-year-old wastewater system that services the surrounding West Loch Estates and Fairways residential subdivisions. The Project will help to avoid the potential contamination of the nearshore and nearby wetland ecosystems. Nonetheless, there is potential for temporary impacts to protected species during Project construction, as discussed below.

1. Sensitive Coastal Habitats and Species:

   a. Wetlands and Streams: The Project Site is about 400 ft. north of areas designated as wetlands or streams. The ponds of the West Loch Golf Course, located 700 ft. to the southwest of the Project site, and the waters of Pearl Harbor's West Loch are also about 400 ft. to the east, which are identified as Estuarine Wetlands (see Exhibit G). The Project is not anticipated to result in adverse

impacts to these water bodies, as all construction is required to comply with the City's *Rules Relating to Water Quality, Rules Relating to Storm Drainage Standards*, and other applicable regulations. Compliance with the City's Rules will be confirmed during the BP review process. No conditions related to the protection of wetlands and streams are recommended.

b. Flora: Existing vegetation surrounding the Project site consists of a grassy lawn with introduced trees and landscaping. No rare, threatened, or endangered flora species are known to be present on the site, and according to the USFWS IPaC website, no critical habitat for flora species overlaps the Project site. No impacts to threatened or endangered flora species are anticipated, and no related conditions of approval are recommended.

c. Fauna: A review of the USFWS IPaC database revealed there are a number of threatened and endangered fauna species that may visit the site for foraging or breeding purposes. Sensitive terrestrial mammal species which may be present include the Hawaiian Hoary Bat. Hawaiian Hoary Bats may roost in trees such as the two African Tulip Trees which are proposed to be removed, or tall vegetation in the Project Site. To avoid impacting this species, woody plants greater than 15 ft. in height should not be disturbed, removed, or trimmed during the bat birthing and pup rearing season (June 1 through September 15). Further, barbless fencing should be used for all fence construction to avoid entanglement of Hawaiian Hoary Bats. These standard measures should be conditions of approval.

State and federally-listed sensitive avian species which may occur in the Project vicinity include Hawaiian seabirds and water birds (Band-rumped Storm-petrel, Hawaiian Common Gallinule, Hawaiian Coot, Hawaiian Duck, Hawaiian Petrel, Hawaiian Stilt, and Newell's Shearwater), and the State-listed White Tern. Wedge-tailed Shearwaters are also known to occur and nest in all O'ahu shoreline areas. These species, the protection of which is administered by the Department of Land and Natural Resources (DLNR) Division of Forestry and Wildlife (DOFAW), may be impacted by the Project during construction activities (i.e., noise, dust, etc.).

In addition, artificial lighting can be disruptive to many avifauna species in their navigation, nesting, and reproductive cycles. All outdoor lighting should be fully shielded, and nighttime work (from sunset to sunrise) must be avoided during the seabird fledgling season from September 15 through December 15. To further

mitigate potential lighting impacts, the Applicant should use full cutoff light fixtures for exterior lighting. The International Dark Sky Association has established lighting standards to mitigate ecological impacts. Their Fixture Seal of Approval program requires that lighting have a correlated color temperature of 3,000 degrees kelvin or lower. These measures should be conditions of approval.

The IPaC database does not identify the Pearl Harbor as a critical habitat for Green Sea Turtle and the Hawksbill Sea Turtle as protected reptile species. According to NOAA Fisheries, Pearl Harbor is not considered a marine critical habitat for Hawaiian Monk Seals. The shoreline on the parcel adjacent to the subject property consists of mangrove and murky waters. No additional conditions of approval are recommended related to turtles or monk seals.

d. Critical Habitat: The Project site does not currently contain any areas designated as critical habitat. Therefore, no conditions specific to critical habitat are recommended.

e. Invasive Species: According to the O'ahu Invasive Species Committee (OISC) website, there are several invasive flora and fauna species being targeted for eradication on O'ahu. Flora species include cane tibouchina, cape ivy, devil weed, fireweed, glory bush, himalayan blackberry, miconia, pampas grass, and the fungi that cause rapid 'ōhi'a death. Fauna species include coconut rhinoceros beetles, naio thrips, coquí frogs, and little fire ants. The OISC provides protocols for decontamination in the event these species are encountered, as well as protocols to prevent the spread of these species. The Project does not propose the importation of any structural fill or fill soils. Nonetheless, invasive species could be encountered or transported to the site during site preparation or construction activities. Therefore, implementation of the OISC protocols should be a condition of approval.

2. Reefs, Beaches, and Coastal Dunes: The Project is not located near reefs, beaches, and coastal dunes. The Project site is over 400 ft. from Pearl Harbor and is not listed as a beach or dune in the United States Geological Survey (USGS) geologic map or the USDA NRCS soil survey. No impacts to reefs, beaches, or coastal dunes are anticipated and no related conditions of approval are recommended.

3. Solid and Liquid Waste Treatment and Disposition: The Project accommodates the limited liquid waste generated by its operations (i.e.,

restroom). Potable water, fire suppression water for the Project will come from the existing municipal systems which already serve the Project site.

Construction waste will be disposed of by the contractor at an approved facility. Solid waste will continue to be picked up by the existing municipal trash removal service. No impacts related to solid waste disposition are anticipated. Therefore, no related conditions of approval are recommended.

Upon implementation of the recommended conditions, along with standard water quality and erosion BMPs, potential impacts to coastal ecosystems will be mitigated.

E. Economic Uses – ROH § 25-3.1(e)

"Development within the SMA should consist of facilities and improvements important to the State's economy, and 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 within the SMA."
See also HRS § 205A-2(b)(5) and (c)(5).

Implementation of the Project will result in a temporary increase in jobs and economic activity during construction, including use of equipment, materials, and supplies. The Project is anticipated to improve reliability and extend the continued safe operation of the existing wastewater system, which promotes clean land and nearshore waters, and avoids adverse social, visual, and environmental impacts of wastewater contamination. Therefore, the Project is anticipated to improve, rather than have an adverse impact to the State's economy, and no related conditions of approval are recommended.

F. Coastal Hazards – ROH § 25-3.1(f)

"Development within the SMA should reduce impacts of coastal hazards on life and property, and must be designed to minimize impacts from landslides, erosion, sea level rise, siltation, or failure in the event of earthquake."
See also HRS § 205A-2(b)(6) and (c)(6) and § 205A-26(1)(D).

1. Flooding: The Project Site is located within Flood Zone X, which is outside of the flood hazard area (see Exhibit F). Development within Flood Zone X is not subject to compliance with ROH Chapter 21A, the Special Flood Hazard Areas Ordinance. No near-term flood-related impacts are anticipated, and no conditions of approval specific to flood zone compliance are recommended.

2. SLR: Based on a review of the University of Hawai'i Pacific Island Ocean Observing System Hawai'i SLR Viewer, the Project Site is not projected

to be impacted by 3.2 ft. or 6.0 ft. of SLR (see Exhibit I-1 and I-2). The Applicant has focused on addressing reliability into the renovation and upgrade project. The Applicant is aware that future conditions may require further revisions based on possible SLR and land area changes.

3. Storm Surge: The National Storm Surge Hazards Maps indicate that the Project Site is anticipated to be inundated by storm surge of three ft. above the ground in a Category 4 and larger hurricane event (see Exhibit J). Implementation of the Project is not anticipated to increase the potential for adverse impacts related to hurricane storm surge over the existing condition. State and County emergency procedures would also be in place in the event of a hurricane. Therefore, no conditions of approval specific to storm surge are recommended.

4. Tsunami: The entirety of the Project Site is located within the extreme tsunami evacuation zone (see Exhibit K). Although the Project facility is not manned by personnel, during a tsunami warning, evacuation requirements will be enforced based on guidelines issued by the Department of Emergency Management. No conditions of approval specific to tsunami events are recommended.

G. Managed Development and Public Participation – ROH § 25-3.1(g)

The development review process should stimulate public awareness, education, and participation in coastal management.
See also HRS § 205A-2(b)(7) and (8) and 205A-2(c)(7) and (8).

The public was made aware of the Project and was given the opportunity to review the proposed Project prior to and during processing of the SMA Major Permit application.

An EA was prepared for the Project and processed according to the requirements of HRS Chapter 343. That process involves publication of both the Draft EA and Final EA in *The Environmental Notice*. Prior to submittal of the SMA Permit application to the DPP on August 29, 2025, the Agent presented the Project before ENB No. 23 on April 10, 2025. The Agent did notify by mail on January 27, and March 24, 2025, adjoining property owners of the NB presentations to be done at the April 10th meeting. The NB did not take a position on the Project.

Upon acceptance of the application, the application materials were posted on the DPP website for public review. During the SMA Permit review processes, the DPP routed notices of the proposal to various State and City agencies. All letters and comments received during the EA and the permit processing have been included in the Project File and incorporated into the Analysis Section, as appropriate.

The DPP conducted a Public Hearing on the SMA Major Permit application at 10:00 a.m. on Friday, November 7, 2025, at the Fasi Municipal Building, 6th Floor Conference Room. Notices of the application and public hearing were published in the October 17, 2025, Honolulu Star-Advertiser and sent to neighbors within 300 ft. of the subject property and interested public agencies, elected officials for the area, and other interested parties. The hearing was attended by the Applicant's Agent and DPP staff. The Agent presented the Project. No member of the public attended or testified. The Hearings Officer asked the Staff planner if there were any questions. The staff asked to verify if the large (five-ft. caliper) monkeypod tree near the Project will be preserved as recommended by the Project Arborist. The Applicant, confirmed that the existing tress will be retained. A recording of the public hearing is available upon request. Additional opportunities for public input will be available during the City Council meetings. No related conditions of approval are recommended.

H. Beach and Coastal Dune Protection – ROH § 25-3.1(h)

Development within the SMA should facilitate beach management and protection by safeguarding beaches and coastal dunes for public use and recreation, the benefit of ecosystems, and use as natural buffers against coastal hazards. New structures should be located mauka of the shoreline setback line to conserve open space, minimize interference with natural shoreline processes, and minimize the loss of improvements due to erosion.
See also HRS § 205A-2(b)(9) and (c)(9).

The Project site is underlain by soils identified as silty clays (see Exhibit H). There is no beach or coastal dune within the subject parcel. The Project is over 400 ft. mauka of the shoreline, and will have no impact to public shoreline use or recreation, nor will it affect the natural areas which buffer against coastal hazards. As previously discussed, the shoreline in this area is not characterized as beaches or dunes by the USGS or USDA. The Project conserves open space, and minimizes interference with Pearl Harbor shoreline processes. Furthermore, improvements to the WWPS will protect and safeguard the shoreline area by ensuring wastewater is properly treated and older infrastructure does not fail. No conditions of approval related to beach and dune protection are recommended.

I. **Marine and Coastal Resources – ROH § 25-3.1(i)**

Development within the SMA should promote the protection, use, and development of marine and coastal resources to ensure that these resources are ecologically and environmentally sound and economically beneficial. Impacts on water resources, beaches, coastal dunes, and scenic or recreational amenities resulting from the construction of structures must be minimized. Development within wetland areas should be limited to activities that are dependent on or enhance wetlands, or are otherwise approved by appropriate State and federal agencies.
See also HRS § 205A-2(b)(10) and (c)(10).

The Project does not involve the use or management of marine resources. The closest surface or shoreline waters are the wetlands of the West Loch Golf Course and Pearl Harbor West Loch, which are at least 400 ft. from the Project Site, and identified as Estuarine and Marine Wetland and Estuarine and Marine Deepwater (see Exhibit G). The Project is not anticipated to result in adverse impacts to these wetland and marine waters, as the site is within Flood Zone X, and the configuration of the WWPS, with its subsurface wetwell, provides spill containment of 1,361 gallons. Further, the Project will comply with the City's *Rules Relating to Water Quality, Rules Relating to Storm Drainage Standards*, and other applicable regulations, which will be confirmed during the BP review process. There are no known wetlands located on the Project site itself. Stormwater will be managed on-site and the proposed increase in impervious surfaces from the Project are nominal. Stormwater from the ground-level impervious areas will be directed to adjacent landscaped areas. Stormwater from the roof of the new 255-sq.-ft. addition will be directed to the existing storm water system within the parking lot, as well as the landscaping areas. No impacts to bays, estuaries, or nearby water features are anticipated. Marine and coastal resources are unlikely to be negatively impacted as a result of the proposal in the short-term, and no condition of approval is recommended.

J. **Cumulative Impact or Significant Effect and Compelling Public Interest – ROH § 25-3.1(j)**

Development within the SMA should not have any cumulative impact or significant effect, unless minimized to the extent practicable and clearly outweighed by public health, safety, or other compelling public interest.
See also HRS § 205A-26(2)(A).

No substantial or cumulative negative environmental impacts associated with the implementation of the Project, along with other past, present, and reasonably foreseeable projects in the vicinity are anticipated, so long as the recommended conditions of approval are implemented. The Project site along with the surrounding properties in all directions are also located within the SMA, which requires any activity meeting the definition of development to undergo review for

impacts to the sensitive coastal resources previously described in this report. The Project site is within a previously-established public park and residential area to which existing electricity, water, wastewater, fire suppression water, and trash pick-up are already available.

There are no other SMA Permits for lots within 500 ft. of the site and no anticipated SMA Permit applications. The Project site and other lots within 500 ft. are located within the SMA. Some areas of Kapapapuhi Point Park and the nearby golf course may be impacted as a result of annual high wave action under a scenario of 3.2 ft. of SLR, and subject to passive flooding under a scenario of 6.0 ft. of SLR. Any development on those lots will require an SMA Permit and must undergo the same review for impacts to coastal resources as described in this report.

The potential for site-specific or cumulatively considerable impacts associated with the Project has been evaluated herein. Where necessary, conditions of approval for each project are recommended. Upon implementation of the recommended conditions of approval and compliance with applicable regulatory requirements, the Project will not contribute to a significant cumulative impact to SMA resources. Therefore, no conditions of approval are recommended.

K. Consistency with Plans and Regulations – ROH § 25-3.1(k)

Development within the SMA must be consistent with the general plan, development plans, sustainable communities plans, and zoning ordinances; provided that a finding of inconsistency does not preclude concurrent processing of amendments to applicable plans or a zone change. See also HRS § 205A-26(2)(C).

The proposal is generally consistent with the applicable plans and regulations, as detailed below.

1. ROH Chapter 21, Land Use Ordinance (LUO): The 2,300-sq.-ft. Project Site is located within the AG-1 District. As a public use and structure, the LUO allows the development and expansion of existing WWPS in all zoning districts. It must be designed to comply with the development standards of the LUO. The plans show that the structures comply with all required yard, height setbacks, height, density and lot coverage requirements for non-agricultural structures in the AG-1 District. Compliance with the LUO regulations will be conducted during the BP review process. Therefore, no conditions of approval are required.

2. EDP: The Project is generally consistent with the EDP. The small Project expansion and renovation are consistent with applicable EDP policies for wastewater treatment, open space preservation and historic and cultural resources (i.e. SMA resources), in that it improves the facility's reliable

and safe operations. Project implementation would not result in any change to shoreline or recreational access. Standard mitigation measures for the protection of sensitive species are recommended as conditions of approval. The Applicant will also be required to generate an AMP to be approved by SHPD. Given this, the Project is generally consistent with the EDP. No additional conditions of approval related to EDP consistency are recommended.

3. O'ahu General Plan (GP): The Project is generally consistent with the O'ahu GP. Specifically Section V, Transportation and Utilities and Section VII, Physical Development and Urban Design:

***Objective B**: To provide an adequate supply of water and environmentally sound system of disposal for O'ahu's existing populations and for future generations, and support a one water approach that uses and manages freshwater, wastewater, and stormwater resources in an integrated manner.*

- Policy 6: Provided safe, reliable, cost-effective, efficient and environmentally sound waste-collection and disposal services that considered the near- and long-term impacts of climate change during the siting and construction of new facilities.

- Policy 7: Pursue programs to expand on-island recycling and resource recovery from O'ahu solid-waste and wastewater streams.

***Objective D**: To maintain transportation and utility systems which support O'ahu as a desirable place to live and visit.*

- Policy 2: Evaluate the social, cultural, economic and environmental impact of additions to the transportation and utility systems before they are constructed.

- Policy 5: Evaluate impacts of sea level rise on existing public infrastructure, especially sewage treatment plants, roads and other public and private utilities located along or near O'ahu's coastal areas, and avoid the placement of future public infrastructure in threatened areas.

Each of these resource areas are discussed above, and where necessary, conditions of approval are recommended. Given this, the proposed expansion of the WWPS is generally consistent with the O'ahu GP. No conditions of approval related to O'ahu GP compliance are recommended.

5. ROH Chapter 26, Shoreline Setback Ordinance: Although the Project Parcel is mauka of an adjacent parcel, the Project Site is technically a shoreline lot because a portion of the overall zoning lot lies within the 60-ft. shoreline setback area. Because the Project Site is located more than 400 feet from the mangrove-line shoreline of West Loch, no certified shoreline survey was required for the Project. The Project complies with the requirements of ROH Chapter 26, and no related conditions of approval are recommended.

V. CONCLUSIONS OF LAW

The proposed development was reviewed under the provisions of ROH §§ 25-3.1 and 25-4.1, and HRS §§ 205A-2 and 205A-26(1), and was found to be consistent with established SMA objectives, policies, and guidelines, provided the appropriate conditions of approval are imposed. Based on the analysis, the proposed Project will not adversely impact SMA resources, provided that appropriate mitigative conditions are implemented as recommended.

VI. RECOMMENDATION

Based on the preceding Analysis and Conclusions of Law, it is recommended that this application for a SMA Major Permit be **APPROVED**, subject to the following conditions:

A. Development must be in general conformity with the Project as described in the DPP's findings and recommendation, referenced above, and as depicted in Exhibits A, B, C, D-1 through D-5, E-1, E-2, F, G, H, I-1, I-2, and J through L, attached hereto and incorporated by reference herein. Any change in the size or nature of the Project that may have a significant effect on coastal resources, as addressed in ROH Chapter 25 or HRS Chapter 205A, or both, will require a new application and SMA Major Permit. Any change that does not have a significant effect on coastal resources may be considered a minor modification and may be permitted under this resolution, upon review and approval by the DPP Director.

B. To minimize impacts to archaeological, historic, and cultural resources that may be present on the Project site, the Applicant shall comply with the following:

   1. Prior to the issuance of any construction permit or BP for the Project, the Applicant shall submit to the DPP a copy of the SHPD written acceptance of the Project's AMP that meets the requirements of Hawai'i Administrative Rules § 13-279-5.

2. If, during construction, any previously unidentified archaeological sites or remains (such as artifacts; shell, bone, or charcoal deposits; human burials; rock or coral alignments; pavings; or walls) are encountered, the Applicants shall stop work, protect the find from further disturbance, and contact SHPD immediately. Work in the immediate area must be stopped until SHPD has assessed the impact and has made further recommendations for mitigative activity.

The requirement enumerated in this condition must be clearly stated under "Environmental Notes" on all Project construction permit plans and BP plans.

C. To minimize impacts to endangered, threatened, or protected avian, marine, and terrestrial fauna that may frequent or traverse the vicinity of the Project site, the Applicant is responsible for the following:

1. All new and replacement outdoor light fixtures must not exceed a color temperature of 3,000 degrees kelvin;

2. Artificial light from exterior light fixtures, including but not limited to floodlights, uplights, or spotlights used for decorative or aesthetic purposes, is prohibited if the light directly illuminates or is directed across property boundaries toward the shoreline and ocean waters, except as may otherwise be permitted pursuant to HRS § 205A-71(b);

3. Exterior lighting fixtures must be fully shielded, using full cutoff fixtures, with the light directed downward so that the light bulb is only visible from below the light fixture;

4. All Project site work and construction activities are limited to daylight hours (sunrise to sunset);

5. Woody plants greater than 15 ft. in height must not be disturbed, removed, or trimmed during the Hawaiian Hoary Bat birthing and pup-rearing season (June 1 through September 15).

6. Barbless fencing must be used for all fence construction to avoid the entanglement of Hawaiian Hoary Bats;

7. Preconstruction nesting surveys must be conducted by a qualified biologist familiar with the biology of State and federal threatened, endangered, or otherwise protected avian species, including migratory birds and Hawaiian seabirds and waterbirds, prior to and during Project construction as follows:

a. A minimum of three days prior to the initiation of any clearing (including tree trimming or removal), grubbing, grading, excavation, or trenching activities, the qualified biologist must conduct preconstruction surveys for the presence of such bird nests, eggs, or fledglings;

b. If no nests, eggs, fledglings, or downed seabirds are discovered, work may proceed;

c. If any nests, eggs, fledglings, or downed seabirds are discovered, work may not proceed, and:

(i) USFWS and DLNR-DOFAW must be contacted immediately, and a 100-foot buffer must be observed around the active nests or downed seabirds, or both, until the birds voluntarily leave the area; and

(ii) Work may only resume upon implementation of any avoidance and mitigation measures recommended by the USFWS or DLNR DOFAW, or both.

d. If any nests, eggs, fledglings, or downed seabirds are discovered during Project construction, the protocols described under Condition C7 must be implemented.

The requirements enumerated in this condition must be clearly stated under "Environmental Notes" on all Project construction permit plans and BP plans.

D. To minimize the spread of invasive pathogens, pests, or plants that may harm native species and ecosystems, the Applicant is responsible for the following:

1. The Applicant shall minimize the importation of fill material to the extent possible. No importation of soil or structural fill material is proposed;

2. The Applicant shall minimize the movement of plant or soil material on the Project site, and all Project construction equipment, materials, and personnel must be cleaned of excess soil and debris prior to entering and leaving a Project worksite, in accordance with the current recommendations from the OISC;

3. Prior to the commencement of any ground-disturbing or construction activities, and upon the arrival of any new workers to the Project site, a copy of the most recently updated OISC "Decontamination Protocols for Prevention of Invasive Species" (Protocols) must be distributed to all workers who will be present at the Project site, or the Protocols must be posted on the Project site in a visible location accessible to all Project

workers (including delivery and haul-out contractors), or both the distribution and posting of the Protocols is required. See https://www.oahuisc.org/print-materials/. All on-site Project workers must be instructed to review the species photos and all Protocols prior to commencing any ground-disturbing or construction activities;

4. If, at any time, species on the OISC invasive species target list website at https://www.oahuisc.org/current-targets/, or any successor website or list provided by OISC, are discovered on the Project site, the Applicant shall immediately contact the OISC to report the discovery. The current email address and phone number for the OISC must be visibly posted at the Project site during pre-construction and construction activities. The Applicant shall implement any measures recommended by the OISC and any responsible federal or State of Hawai'i agency charged with the eradication and management of invasive species;

5. To the extent practicable, native plant species appropriate for the area must be used for new Project landscaping, with no use of invasive species. A recommended reference is the Plant Pono website at https://plantpono.org/.

6. To manage host materials and plants that may contain the coconut rhinoceros beetle at any stage of life, the Applicant shall comply with the State Department of Agriculture's Plant Quarantine Interim Rule, or any successor rule adopted by the State Department of Agriculture, that restricts the movement of coconut rhinoceros beetle host material. Should existing palm trees become damaged or killed by the coconut rhinoceros beetle, replacement should be an appropriate species not susceptible to the coconut rhinoceros beetle.

The requirements enumerated in this condition must be clearly stated under "Environmental Notes" on all Project construction permit plans and BP plans.

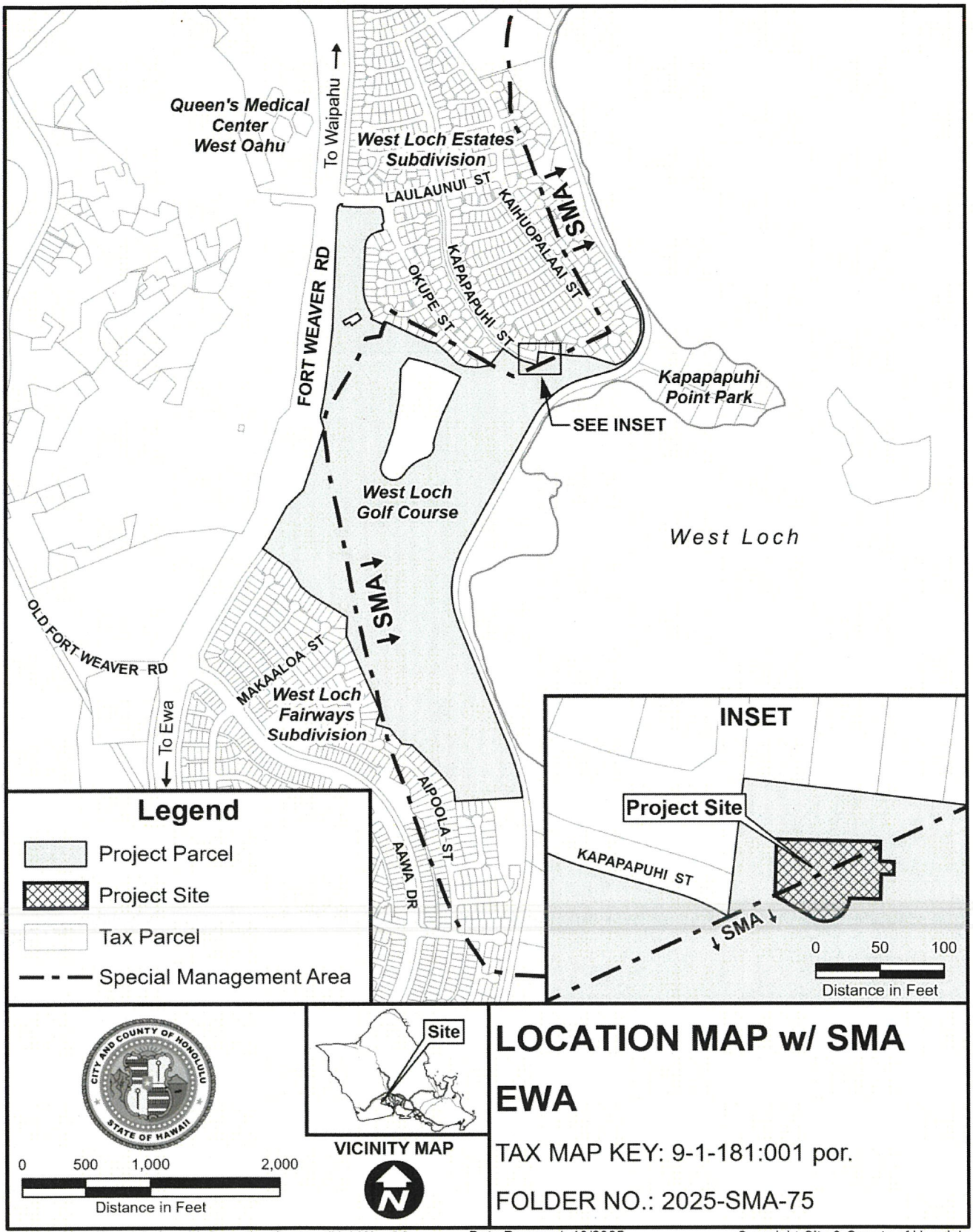
E. Approval of this SMA Major Permit does not constitute compliance with other City ordinances, including but not limited to the LUO and building and construction codes, or other governmental requirements, including but not limited to LUO-related approvals, and building, grading, and grubbing permit approvals, which are subject to separate review and approval. The Applicants are responsible for ensuring that the final plans for the Project approved under this SMA Major Permit comply with all applicable City ordinances and other governmental provisions and requirements.

Dated at Honolulu, Hawai'i, this 5th day of January, 2026.

Department of Planning and Permitting
City and County of Honolulu
State of Hawai'i

By _____
Dawn Takeuchi Apuna
Director

Enclosures: Exhibits A, B, C, D-1 through D-5, E-1, E-2, F, G, H, I-1, I-2, and J through L
Draft Resolution



LOCATION MAP w/ SMA

EWA

TAX MAP KEY: 9-1-181:001 por.

FOLDER NO.: 2025-SMA-75

Prepared by: Honolulu Land Information System (HoLIS) - CS
Department of Planning & Permitting (DPP)
City and County of Honolulu

Date Prepared: 10/2025

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EXHIBIT A

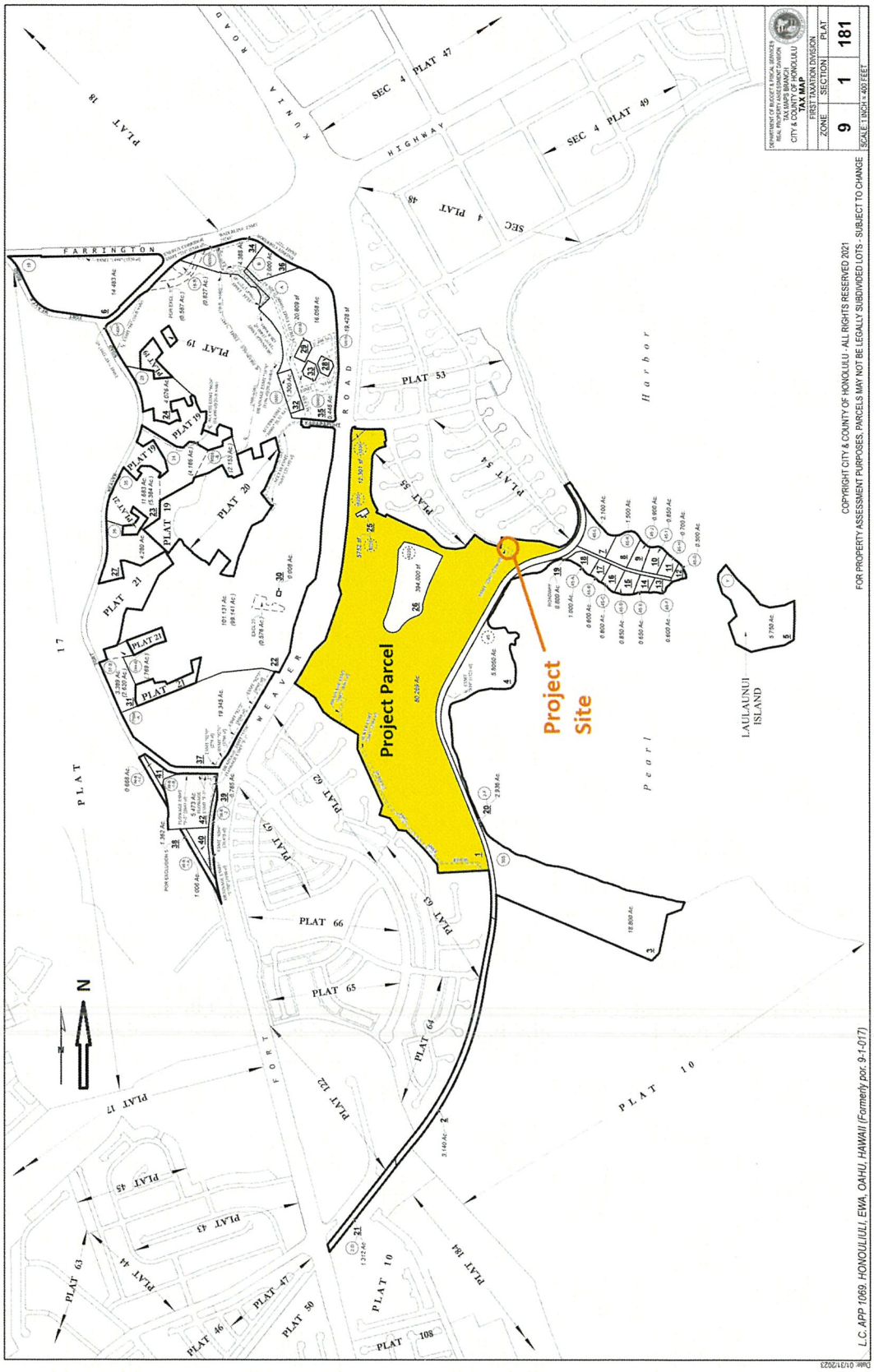
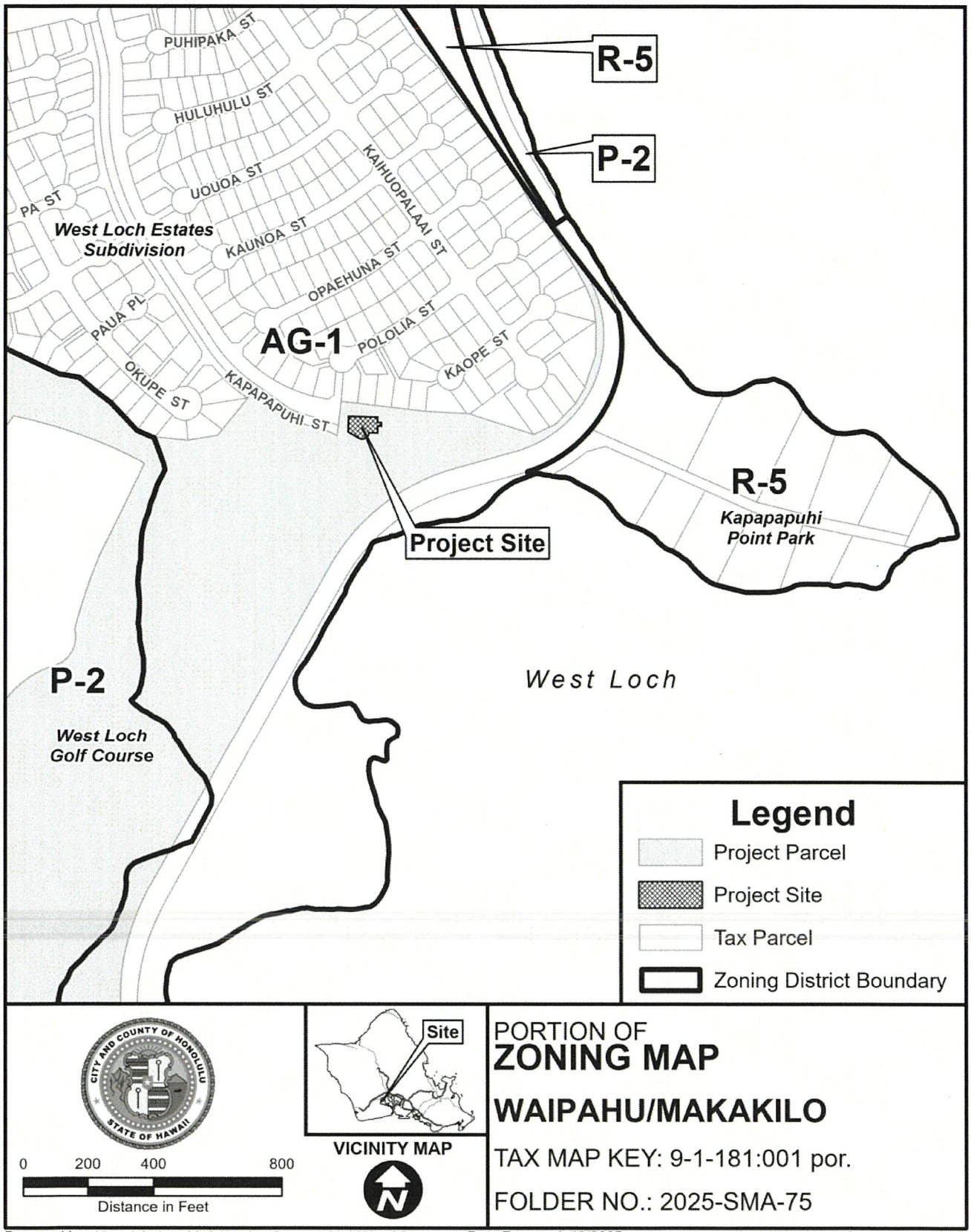


EXHIBIT B

FILE NO.: 2025-SMA-75



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City and County of Honolulu

Date Prepared: 10/2025

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EXHIBIT C

JOB NO. W#-##

60% SUBMITTAL

WEST LOCH ESTATES WASTEWATER PUMP STATION UPGRADE

EWA, OAHU, HAWAII
TMK: 9-1-181:001

DIVISION OF WASTEWATER ENGINEERING & CONSTRUCTION
DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY & COUNTY OF HONOLULU

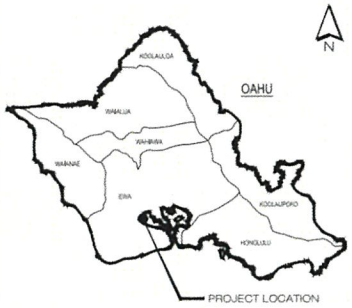
PRIME CONSULTANT:
KAULA AE LLC
700 BISHOP STREET, SUITE 1930
HONOLULU, HI 96813

SUBCONSULTANTS:
ARCHITECTS PACIFIC, INC.
3060 KAPIOLANI AVENUE
HONOLULU, HI 96816
CONSULTING STRUCTURAL HAWAII, INC.
33 SOUTH KING STREET, SUITE 314
HONOLULU, HI 96813
THERMAL ENGINEERING CORPORATION
1314 SOUTH KING STREET
HONOLULU, HI 96814
ECS, INC.
615 PIIKOI STREET, SUITE 207
HONOLULU, HI 96814
HALEY & ALDRICH, INC.
500 ALA MOANA BOULEVARD, SUITE 6-250
HONOLULU, HI 96813
CONTROL POINT SURVEYING, INC.
700 BISHOP ST, SUITE 1930
HONOLULU, HI 96813

JOB NO. W#-##

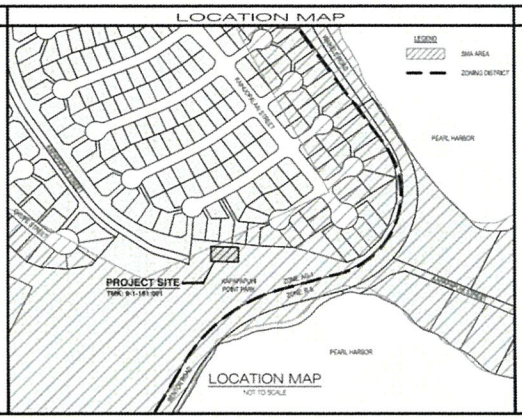
WEST LOCH ESTATES WASTEWATER PUMP STATION UPGRADE

VICINITY MAP



VICINITY MAP
NOT TO SCALE

LOCATION MAP



LOCATION MAP
NOT TO SCALE

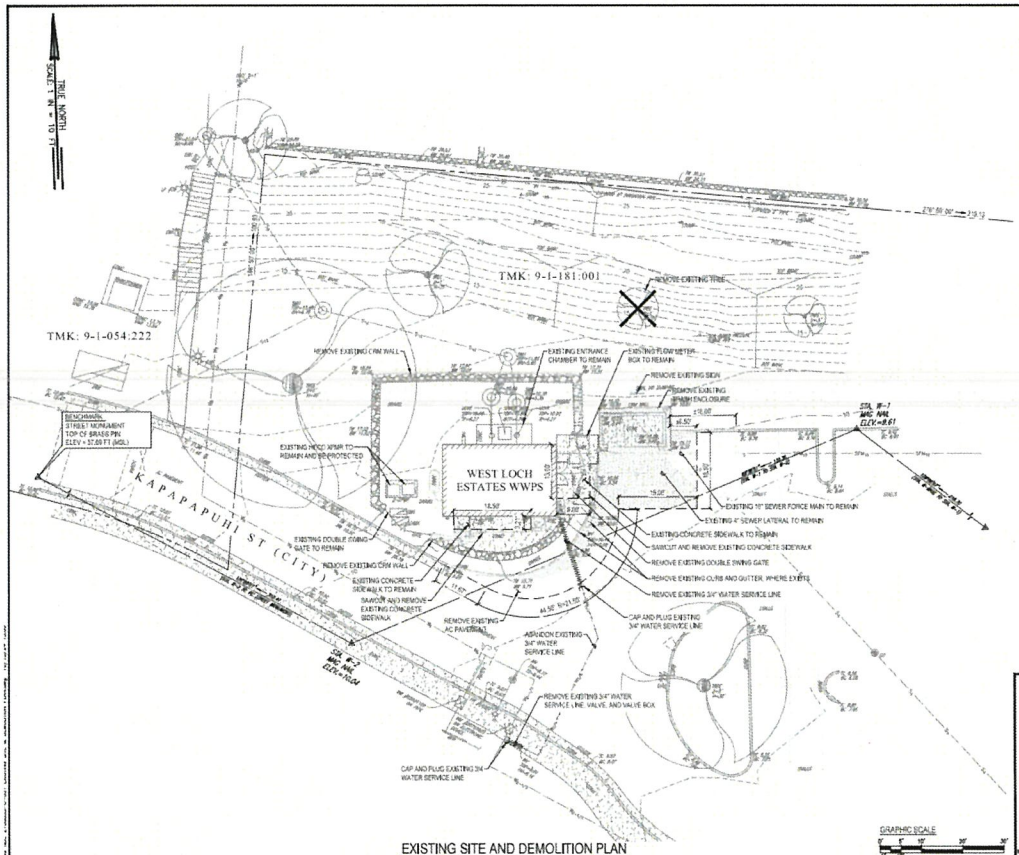
APPROVED

DIRECTOR
DEPARTMENT OF DESIGN & CONSTRUCTION
CITY AND COUNTY OF HONOLULU — DATE

DIRECTOR
DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY AND COUNTY OF HONOLULU — DATE

CHIEF
ENVIRONMENTAL MANAGEMENT DIVISION
DEPARTMENT OF HEALTH, STATE OF HAWAII — DATE

SHEET 1 OF ##



EXISTING SITE AND DEMOLITION PLAN
SCALE 1" = 10'

GRAPHIC SCALE
0' 5' 10' 20' 30'
1" = 10'

NOTES:

1. UNDERGROUND UTILITY LOCATIONS SHOWN ARE BASED ON AVAILABLE AS-BUILT INFORMATION, ALONG WITH VISIBLE EVIDENCE GATHERED DURING THE FIELD SURVEY. THEREFORE THE ACCURACY OR COMPLETENESS OF THE EXISTING UNDERGROUND UTILITIES DEPICTED ON PLANS CANNOT BE GUARANTEED. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND THE DEPTH OF THE UTILITIES AND EXERCISE PROPER CARE WHEN EXCAVATING WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL ASSUME THAT UNDERGROUND UTILITIES MAY OR MAY NOT BE PRESENT AT THE LOCATIONS SHOWN.
2. ALL EXISTING STRUCTURES AND UTILITIES DESIGNATED TO REMAIN SHALL BE PROTECTED, UNLESS OTHERWISE NOTED.
3. THE CONTRACTOR SHALL SUBMIT A WASTEWATER SPILL MITIGATION PLAN FOR REVIEW AND APPROVAL BY THE OFFICER-IN-CHARGE. THE PLAN SHALL INCLUDE SEWAGE DIVERSION AND BYPASS PUMPING PLANS WHICH HAVE BEEN APPROVED BY THE OFFICER-IN-CHARGE BEFORE ANY DIVERSION OF SEWAGE FLOWS.
4. SEQUENCE OF PUMP REMOVAL MUST BE COORDINATED WITH CSM.
5. CSM MUST BE NOTIFIED BEFORE REMOVING ANY EQUIPMENT OR APPURTENANCES.
6. ALL CONCRETE DEMOLITION MUST BE COMPLETED NEATLY AND CLEANLY.
7. NUTS AND BOLTS EMBEDDED IN CONCRETE SURFACES MUST BE RECESSED, PATCHED, AND PAINTED.
8. FOR PUMP STATION BUILDING DEMOLITION, SEE SHEET C-004.

60% SUBMITTAL

DIVISION OF WASTEWATER ENGINEERING & CONSTRUCTION
DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY & COUNTY OF HONOLULU

WEST LOCH ESTATES WASTEWATER PUMP STATION UPGRADE
EWA, OAHU, HAWAII

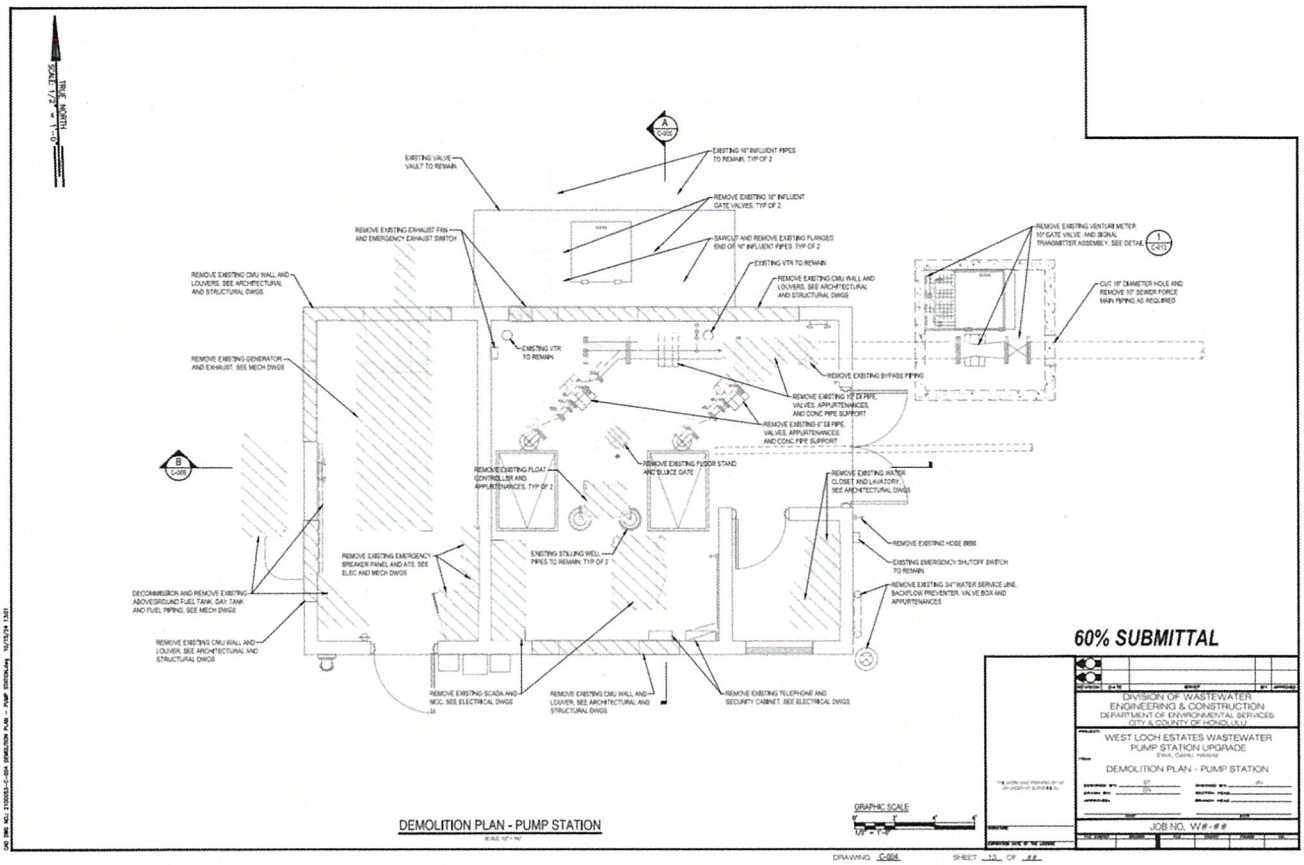
EXISTING SITE AND DEMOLITION PLAN

JOB NO. W#-##

DRAWING C-001 SHEET 13 OF ##

EXHIBIT D-1

FILE NO.: 2025/SMA-75



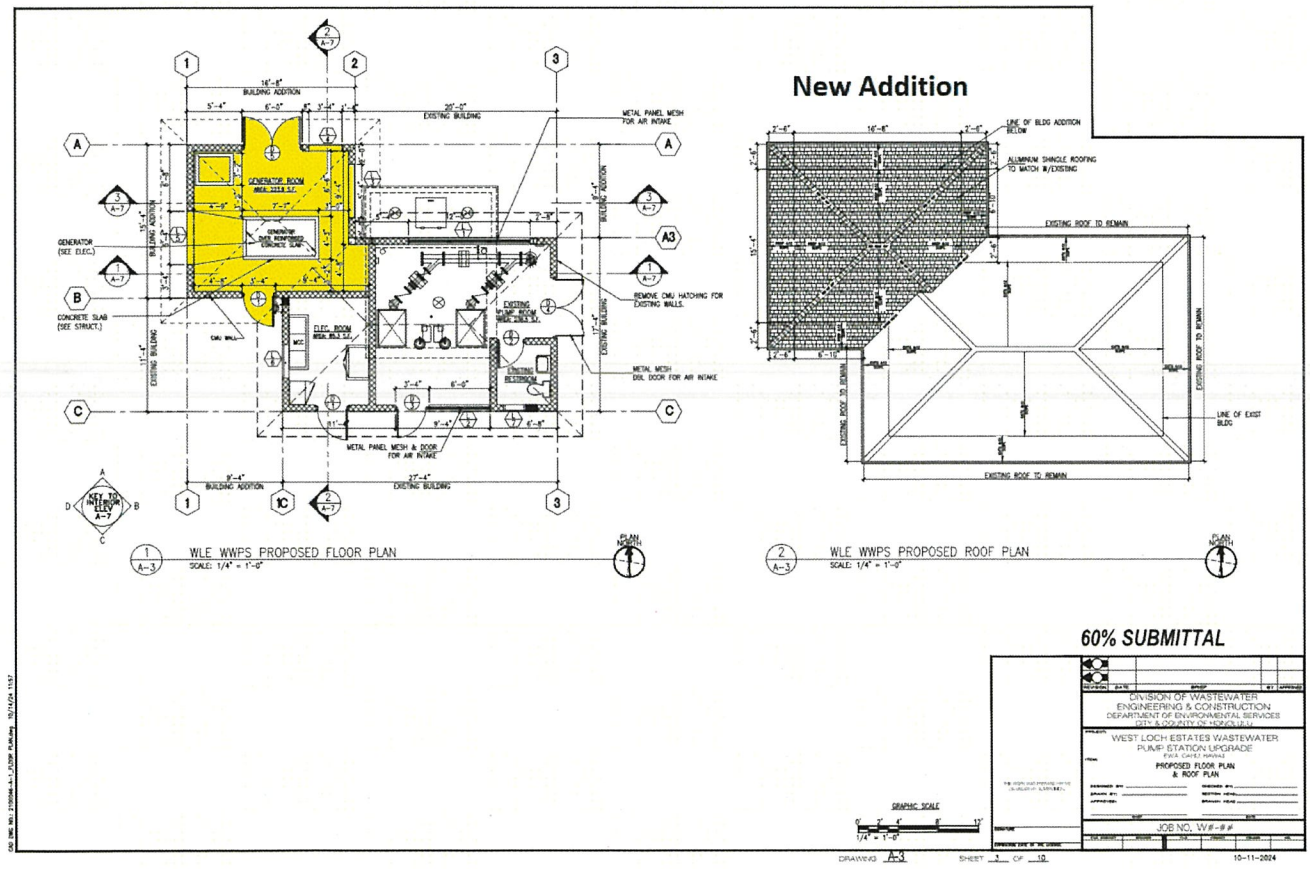
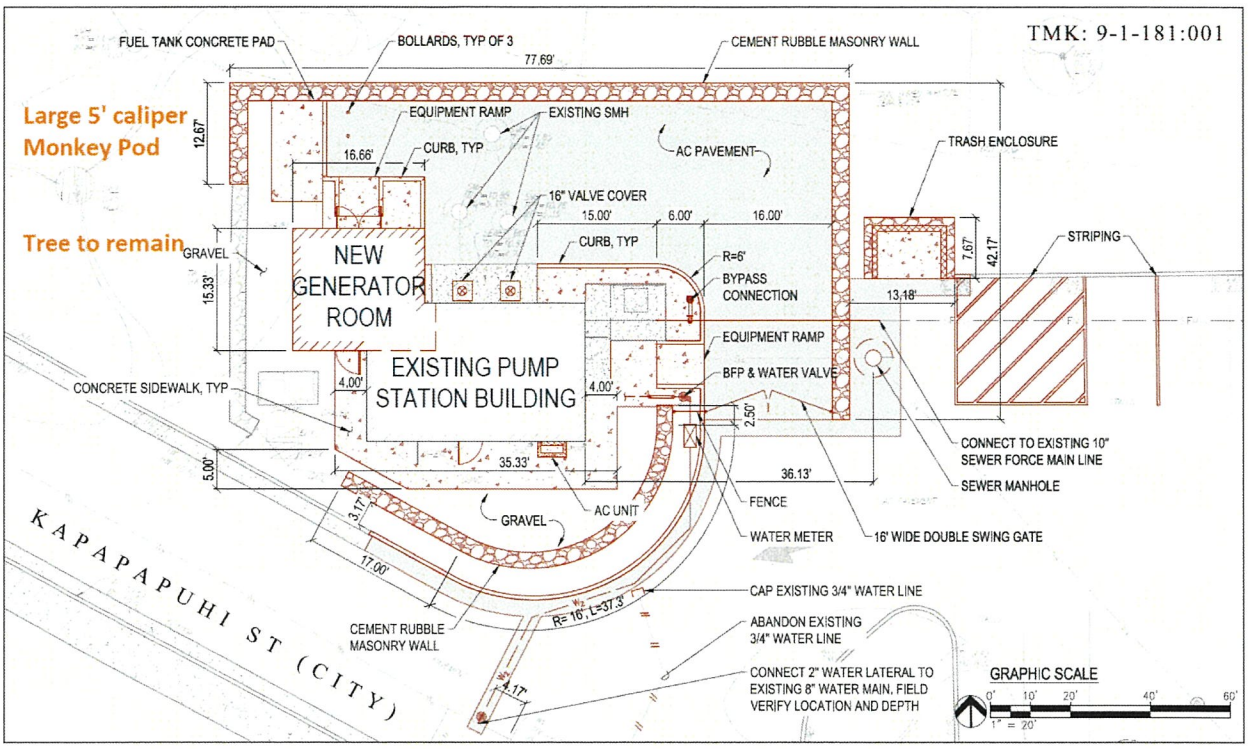


EXHIBIT D-2

FILE NO.: 2025/SMA-75



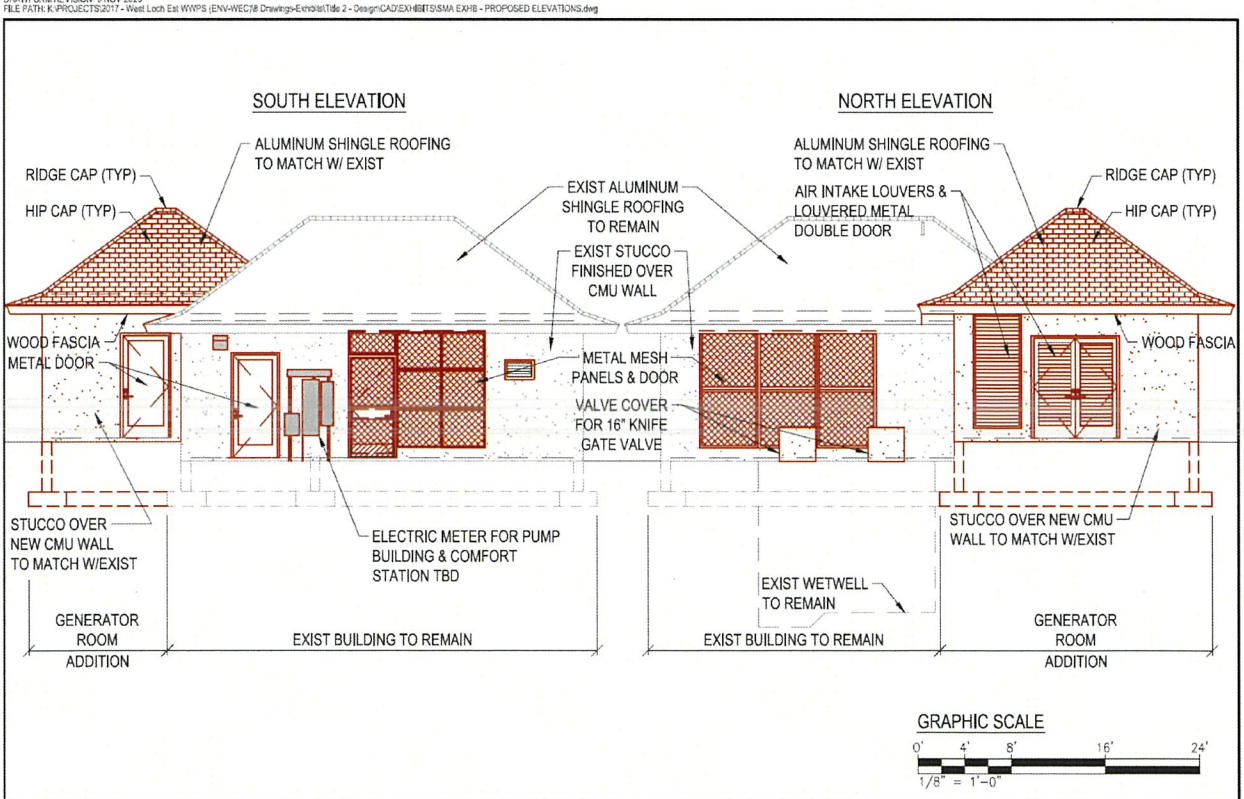
KAULA AE

WEST LOCH ESTATES WWPS UPGRADE
EWA, OAHU, HAWAII

SITE PLAN
OCTOBER 2025

FIGURE NO. 1

DRAWFORM REVISION: 5 NOV 2025
FILE PATH: K:\PROJECTS\2017 - West Loch Est WWPS (ENV-WEC)\8 Drawings\Exhibit\Title 2 - Design\CAD\EXHIBITS\SMA EXHB - PROPOSED ELEVATIONS.dwg



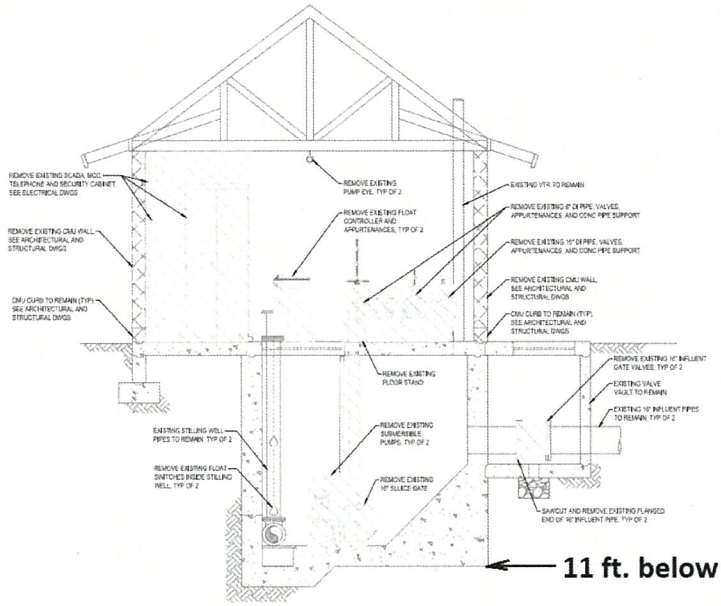
KAULA AE

PROJECT TITLE: PUMP BUILDING ELEVATION 1
WEST LOCH ESTATES WWPS UPGRADE
PROJECT LOCATION: EWA, OAHU, HAWAII
TMK 9-1-181:001

PROJECT NO: 2017
SCALE: AS SHOWN
DATE: NOVEMBER 2025
FIG. NO. 2

EXHIBIT D-3

FILE NO.: 2025/SMA-75



DEMOLITION PLAN - SECTION A

SCALE: 1/2" = 1'-0"

GRAPHIC SCALE

1/2" = 1'-0"

60% SUBMITTAL

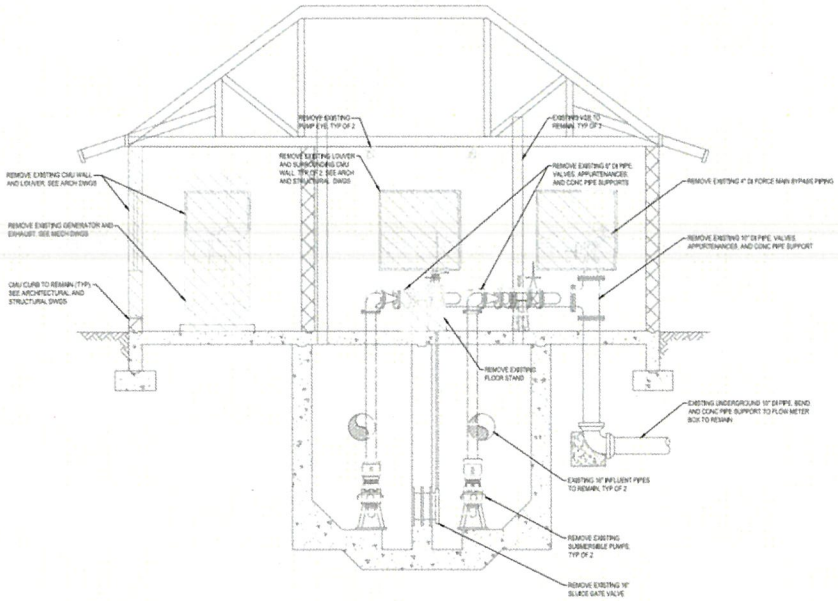
DIVISION OF WASTEWATER
ENGINEERING & CONSTRUCTION
DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY & COUNTY OF HONOLULU

WEST LOCH ESTATES WASTEWATER
PUMP STATION UPGRADE
EWA, OAHU, HAWAII

DEMOLITION PLAN - SECTION A

JOB NO. W#-##

DRAWING C-005 SHEET 17 OF 44



DEMOLITION PLAN - SECTION B

SCALE: 1/2" = 1'-0"

GRAPHIC SCALE

1/2" = 1'-0"

60% SUBMITTAL

DIVISION OF WASTEWATER
ENGINEERING & CONSTRUCTION
DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY & COUNTY OF HONOLULU

WEST LOCH ESTATES WASTEWATER
PUMP STATION UPGRADE
EWA, OAHU, HAWAII

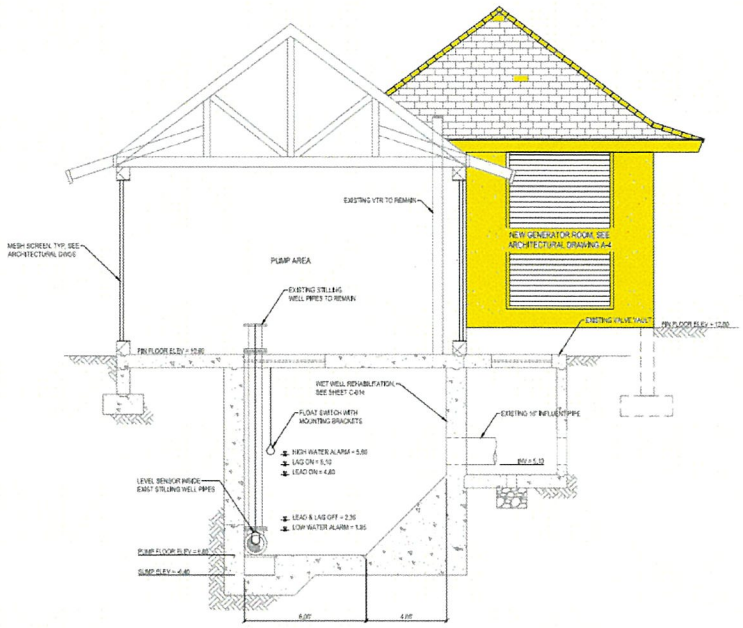
DEMOLITION PLAN - SECTION B

JOB NO. W#-##

DRAWING C-006 SHEET 18 OF 44

EXHIBIT D-4

FILE NO.: 2025/SMA-75



PUMP STATION - SECTION A

SCALE: 1/2" = 1'-0"

60% SUBMITTAL

GRAPHIC SCALE

0" 2" 4" 8"

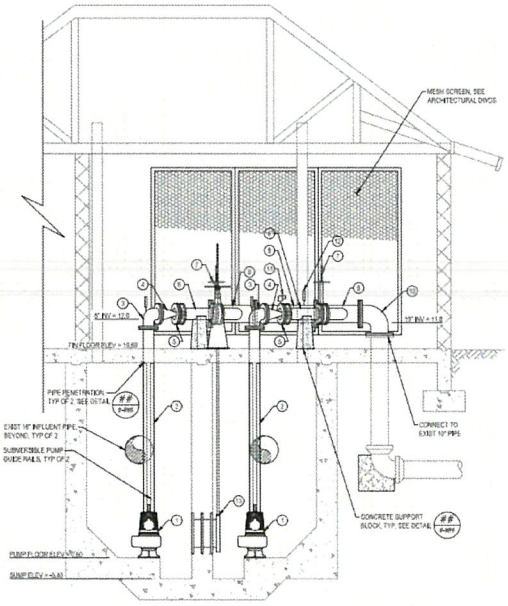
1/2" = 1'-0"

DIVISION OF WASTEWATER
ENGINEERING & CONSTRUCTION
DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY & COUNTY OF HONOLULU

WEST LOCH ESTATES WASTEWATER
PUMP STATION UPGRADE
EWA, OAHU, HAWAII

PUMP STATION - SECTION A

JOB NO. W#-##



PIPING PLAN - SECTION B

SCALE: 1/2" = 1'-0"

PIPE SCHEDULE	
No.	DESCRIPTION
1	SUBMERSIBLE PUMP (1 VOT PUMP MODEL NO. NP 3127 LT 3 - ADAPTIVE, 424 OR APPROVED EQUAL
2	8" DI PIPE SPOOL, LENGTH TO SUIT, FE x FE
3	8" DI 1/4 BEND (FE x FE) WITH BOSS TAP FOR PRESSURE GAUGE
4	8" DI CHECK VALVE, FE x FE
5	6" FLANGED COUPLING ADAPTER
6	6" DI PIPE SPOOL, LENGTH TO SUIT, FE x PE
7	6" DI KNIFE GATE VALVE, FE x PE
8	10" x 6" DI WYE, PE x PE
9	10" DI PIPE SPOOL, LENGTH TO SUIT, PE x PE
10	10" DI 1/4 BEND, PE x PE
11	AIR RELIEF VALVE, DRAIN TO WET WELL
12	PRESSURE TRANSMITTER
13	10" DI SLUICE GATE VALVE WITH FLOOR STAND

NOTES

1. FOR PRESSURE GAUGE, SEE DETAIL ##/C-##
2. FOR AIR RELIEF VALVE, SEE DETAIL ##/C-##

60% SUBMITTAL

GRAPHIC SCALE

0" 2" 4" 8"

1/2" = 1'-0"

DIVISION OF WASTEWATER
ENGINEERING & CONSTRUCTION
DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY & COUNTY OF HONOLULU

WEST LOCH ESTATES WASTEWATER
PUMP STATION UPGRADE
EWA, OAHU, HAWAII

PIPING PLAN - SECTION B

JOB NO. W#-##

DRAWING C-01I SHEET ## OF ##

EXHIBIT D-5

FILE NO.: 2025/SMA-75



Figure 13. Wastewater pump station with a detached CMU dumpster enclosure, facing northwest.



Figure 14. CRM wall enclosure, facing southwest.

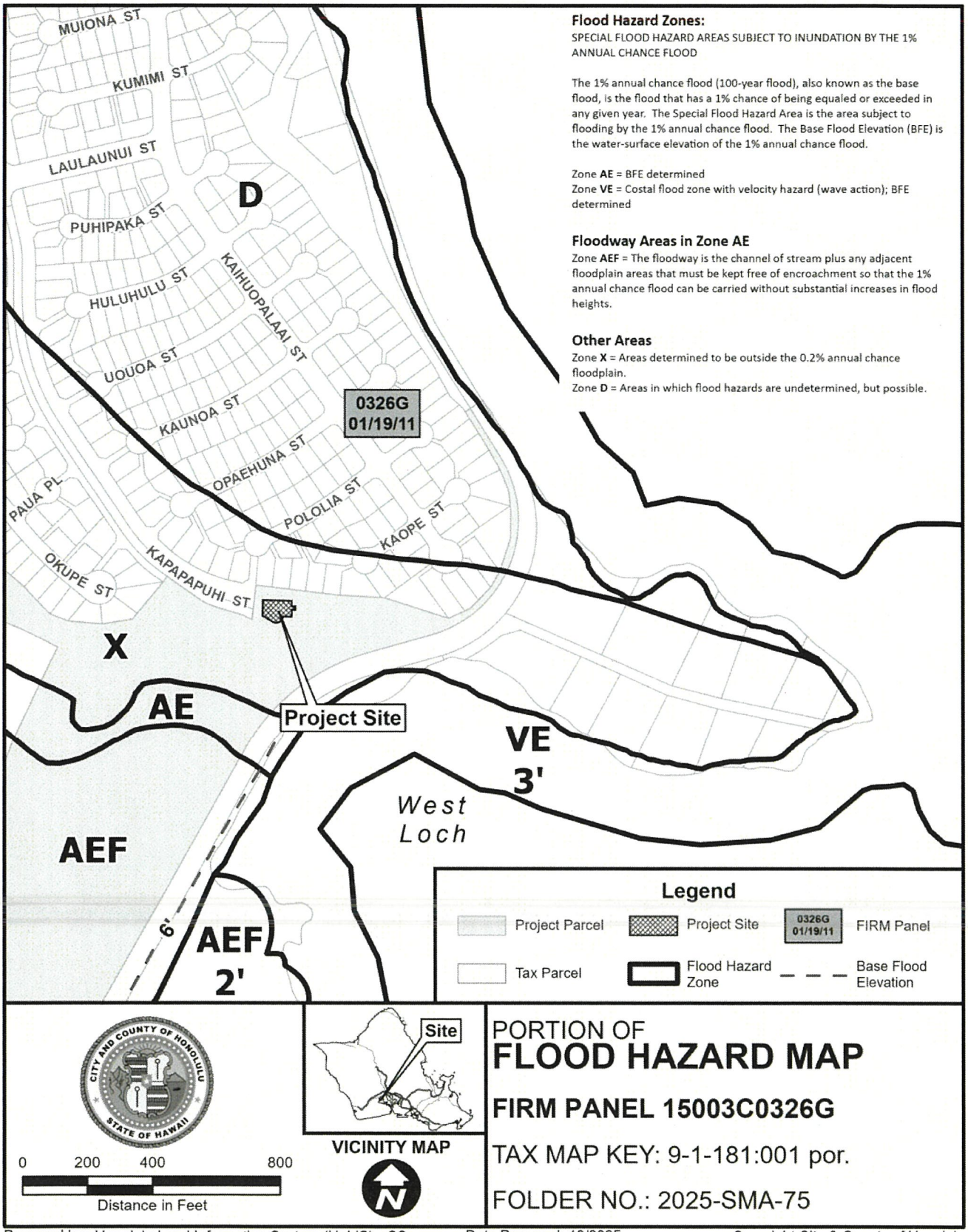


Figure 20. CRM wall enclosure with attached blue metal gate, facing north.



Figure 17. Gravel yard with diesel fuel tank and HECO enclosures, facing south.

EXHIBIT E-2 **FILE NO.: 2025/SMA-75**



PORTION OF
FLOOD HAZARD MAP

FIRM PANEL 15003C0326G

TAX MAP KEY: 9-1-181:001 por.

FOLDER NO.: 2025-SMA-75

Prepared by: Honolulu Land Information System (HoLIS) - CS
Department of Planning & Permitting (DPP)
City and County of Honolulu

Date Prepared: 10/2025

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EXHIBIT F

WETLAND MAP (U.S. Fish and Wildlife Service)



EXHIBIT G **FILE NO.: 2025/SMA-75**

EXHIBIT H

FILE NO.: 2025/SMA-75

SOILS MAP (U.S. Department of Agriculture)

Search

Map Unit Legend

Island of Oahu, Hawaii (HI990)

Island of Oahu, Hawaii (HI990)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
FL	Fill land, mixed	11.5	5.0%
HLMG	Helemano silty clay, 30 to 90 percent slopes	21.8	9.5%
HxA	Honouliuli clay, 0 to 2 percent slopes	36.2	15.8%
KmbA	Keaau clay, saline, 0 to 2 percent slopes	21.1	9.2%
Ph	Pearl Harbor clay, 0 to 2 percent slopes, MLRA 163	15.4	6.7%
W	Water > 40 acres	9.3	4.1%
Totals for Area of Interest		**229.4**	**100.0%**

Legend

Soil Map

Scale (not to scale)

SEA LEVEL RISE MAP (3.2 ft. of SLR – Related High Wave Flooding by 2100)



EXHIBIT I-1 **FILE NO.: 2025/SMA-75**

EXHIBIT I-2 **FILE NO.: 2025/SMA-75**

SEA LEVEL RISE MAP (6.0 ft. of SLR – Passive High Tide Flooding by 2100)

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

view full-screen map

opacity: 75%

EXHIBIT J

FILE NO.: 2025/SMA-75

National Hurricane Center
Storm Surge Risk Maps (v4)

Category 1 | Category 2 | Category 3 | Category 4 | Category 5

This is not a real-time product. For active tropical cyclones, please see hurricanes.gov and consult local products issued by the National Weather Service

This national depiction of storm surge flooding vulnerability helps people living in hurricane-prone coastal areas. 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. Storm Surge Risk Maps are provided for the US Gulf and East Coasts, Hawaii, Southern California, US territories - Puerto Rico, US Virgin Islands, Guam and American Samoa. Additional mapped areas include Hispaniola and parts of the Yucatan Peninsula.

Atlantic

- US East and Gulf Coast
- Puerto Rico and USVI
- Hispaniola
- Yucatan

Pacific

- Hawaii (category 1-4)
- Southern California (category 1-2)
- Guam
- American Samoa

- Less than 3 feet above ground
- Greater than 3 feet above ground
- Greater than 6 feet above ground
- Greater than 9 feet above ground
- Leveed area
  Consult local officials for flood risk

Toggle Map Opacity

TSUNAMI EVACUATION MAP



Legend

- Fire Station
- Hospital
- EMS
- Police
- Public/Private School
- Safe Zone
- Extreme Tsunami Evacuation Zone
- Tsunami Evacuation Zone
- Major Street
- Street

EXHIBIT K

FILE NO.: 2025/SMA-75

CUMULATIVE PROJECTS RADIUS MAP



EXHIBIT L

FILE NO.: 2025/SMA-75

HONOLULU CITY COUNCIL

KE KANIHELA O KE KALANA O HONOLULU

CITY AND COUNTY OF HONOLULU

No._____.

RESOLUTION

GRANTING A SPECIAL MANAGEMENT AREA MAJOR PERMIT TO ALLOW FOR THE REHABILITATION AND UPGRADE OF THE WEST LOCH WASTEWATER PUMP STATION IN HONOULIULI, O'AHU.

WHEREAS, on September 12, 2025, the Department of Planning and Permitting ("DPP") accepted the application (File No. 2025-SMA-75) from the Department of Environmental Services ("Applicant") for a Special Management Area ("SMA") Major Permit to allow for the expansion and rehabilitation of the existing wastewater pump station including a new electrical room; emergency generator, electrical, ventilation systems, pumps, valves, and the relocation of a perimeter concrete rubble masonry wall and trash enclosure, on an approximately 2,300-square-foot area of an 80-acre lot zoned AG-1 Restricted Agricultural District, located at 91-1024 Kapapapuhi Street, and identified as Tax Map Key 9-1-181: Portion 001(the "Project"); and

WHEREAS, on November 7, 2025, the DPP held a public hearing on the application at the Frank F. Fasi Municipal Building, Sixth Floor Conference Room, which was attended by the Applicant, the Applicant's agent, DPP staff members, and no members of the public; and

WHEREAS, on January 6, 2026, within 60 calendar days after the close of the public hearing (the Applicant having requested a 15-day extension of the 45-day administrative deadline), the DPP, having duly considered all evidence and the objectives, policies, and guidelines, as established in the Revised Ordinances of Honolulu 2021 ("ROH") §§ 25-3.1 and 25-4.1 and the Hawai'i Revised Statues ("HRS") §§ 205A-2 and 205A-26 completed its report and transmitted its findings and recommendation of approval to the City Council ("Council"); and

WHEREAS, the Council, having received the findings and recommendation of the DPP on _____, by Departmental Communication No. _____ and having duly considered all of the findings and reports on the matter, desires to approve the subject application for an SMA Major Permit with the conditions enumerated below; now, therefore,

BE IT RESOLVED by the Council of the City and County of Honolulu that a SMA Major Permit be issued to the Applicant for the Project, subject to the following conditions:

A. Development must be in general conformity with the Project as described in the DPP's findings and recommendation, referenced above, and as depicted in Exhibits A, B, C, D-1 through D-5, E-1, E-2, F, G, H, I-1, I-2, and J through L, attached hereto and incorporated by reference herein. Any change in the size or

nature of the Project that may have a significant effect on coastal resources, as addressed in ROH Chapter 25 or HRS Chapter 205A, or both, will require a new application and SMA Major Permit. Any change that does not have a significant effect on coastal resources may be considered a minor modification and may be permitted under this resolution, upon review and approval by the DPP Director.

B. To minimize impacts to archaeological, historic, and cultural resources that may be present on the Project site, the Applicant shall comply with the following:

1. Prior to the issuance of any construction permit or building permit for the Project, the Applicant shall submit to the DPP a copy of the State Historic Preservation Division's ("SHPD") written acceptance of the Project's Archaeological Monitoring Plan that meets the requirements of § 13-279-5, Hawai'i Administrative Rules.

2. If, during construction, any previously unidentified archaeological sites or remains (such as artifacts; shell, bone, or charcoal deposits; human burials; rock or coral alignments; pavings; or walls) are encountered, the Applicants shall stop work, protect the find from further disturbance, and contact SHPD immediately. Work in the immediate area must be stopped until SHPD has assessed the impact and has made further recommendations for mitigative activity.

The requirements enumerated in this condition must be clearly stated under "Environmental Notes" on all Project construction permit plans and building permit plans.

C. To minimize impacts to endangered, threatened, or protected avian, marine, and terrestrial fauna that may frequent or traverse the vicinity of the Project site, the Applicant is responsible for the following:

1. All new and replacement outdoor light fixtures must not exceed a color temperature of 3,000 degrees kelvin;

2. Artificial light from exterior light fixtures, including but not limited to floodlights, uplights, or spotlights used for decorative or aesthetic purposes, is prohibited if the light directly illuminates or is directed across property boundaries toward the shoreline and ocean waters, except as may otherwise be permitted pursuant to HRS § 205A-71(b);

3. Exterior lighting fixtures must be fully shielded, using full cutoff fixtures, with the light directed downward so that the light bulb is only visible from below the light fixture;

4. All Project site work and construction activities are limited to daylight hours (sunrise to sunset);

5. Woody plants greater than 15 feet in height must not be disturbed, removed, or trimmed during the Hawaiian Hoary Bat birthing and pup-rearing season (June 1 through September 15).

6. Barbless fencing must be used for all fence construction to avoid the entanglement of Hawaiian Hoary Bats;

7. Preconstruction nesting surveys must be conducted by a qualified biologist familiar with the biology of State and federal threatened, endangered, or otherwise protected avian species, including migratory birds and Hawaiian seabirds and waterbirds, prior to and during Project construction as follows:

    a. A minimum of three days prior to the initiation of any clearing (including tree trimming or removal), grubbing, grading, excavation, or trenching activities, the qualified biologist must conduct preconstruction surveys for the presence of such bird nests, eggs, or fledglings;

    b. If no nests, eggs, fledglings, or downed seabirds are discovered, work may proceed;

    c. If any nests, eggs, fledglings, or downed seabirds are discovered, work may not proceed, and:

        (i) The United States Fish and Wildlife Service ("USFWS") and the State of Hawai'i Department of Land and Natural Resources ("DLNR") Division of Forestry and Wildlife ("DOFAW") must be contacted immediately, and a 100-foot buffer must be observed around the active nests or downed seabirds, or both, until the birds voluntarily leave the area; and

(ii) Work may only resume upon implementation of any avoidance and mitigation measures recommended by the USFWS or DLNR DOFAW, or both.

d. If any nests, eggs, fledglings, or downed seabirds are discovered during Project construction, the protocols described under Condition C7 must be implemented.

The requirements enumerated in this condition must be clearly stated under "Environmental Notes" on all Project construction permit plans and building permit plans.

D. To minimize the spread of invasive pathogens, pests, or plants that may harm native species and ecosystems, the Applicant is responsible for the following:

1. The Applicant shall minimize the importation of fill material to the extent possible. No importation of soil or structural fill material is proposed;

2. The Applicant shall minimize the movement of plant or soil material on the Project site, and all Project construction equipment, materials, and personnel must be cleaned of excess soil and debris prior to entering and leaving a Project worksite, in accordance with the current recommendations from the O'ahu Invasive Species Committee ("OISC");

3. Prior to the commencement of any ground-disturbing or construction activities, and upon the arrival of any new workers to the Project site, a copy of the most recently updated OISC "Decontamination Protocols for Prevention of Invasive Species" ("Protocols") must be distributed to all workers who will be present at the Project site, or the Protocols must be posted on the Project site in a visible location accessible to all Project workers (including delivery and haul-out contractors), or both the distribution and posting of the Protocols is required. See https://www.oahuisc.org/print-materials/. All on-site Project workers must be instructed to review the species photos and all Protocols prior to commencing any ground-disturbing or construction activities;

4. If, at any time, species on the OISC invasive species target list website at https://www.oahuisc.org/current-targets/, or any successor website or list provided by OISC, are discovered on the Project site, the Applicant shall immediately contact the OISC to report the discovery. The current email address and phone number for the OISC must be visibly posted at the

Project site during pre-construction and construction activities. The Applicant shall implement any measures recommended by the OISC and any responsible Federal or State of Hawai'i agency charged with the eradication and management of invasive species;

5. To the extent practicable, native plant species appropriate for the area must be used for new Project landscaping, with no use of invasive species. A recommended reference is the Plant Pono website at https://plantpono.org/; and

6. To manage host materials and plants that may contain the coconut rhinoceros beetle at any stage of life, the Applicant shall comply with the State Department of Agriculture's Plant Quarantine Interim Rule, or any successor rule adopted by the State Department of Agriculture, that restricts the movement of coconut rhinoceros beetle host material. Should existing palm trees become damaged or killed by the coconut rhinoceros beetle, replacement should be an appropriate species not susceptible to the coconut rhinoceros beetle.

The requirements enumerated in this condition must be clearly stated under "Environmental Notes" on all Project construction permit plans and building permit plans.

E. Approval of this SMA Major Permit does not constitute compliance with other City ordinances, including but not limited to the Land Use Ordinance ("LUO") and building and construction codes, or other governmental requirements, including but not limited to LUO-related approvals, and building, grading, and grubbing permit approvals, which are subject to separate review and approval. The Applicant is responsible for ensuring that the final plans for the Project approved under this SMA Major Permit comply with all applicable City ordinances and other governmental provisions and requirements; and

HONOLULU CITY COUNCIL

KE KANIHELA O KE KALANA O HONOLULU

CITY AND COUNTY OF HONOLULU

No._____.

RESOLUTION

BE IT FINALLY RESOLVED by the Council of the City and County of Honolulu that copies of this Resolution be transmitted to Colette Sakoda, Environmental Planning Solutions, LLC, 945 Makaiwa Street, Honolulu, Hawai'i 96816; Roger Babcock Jr., Director of the Department of Environmental Services; Dawn Takeuchi Apuna, Director of Planning and Permitting, 650 South King Street, 7th Floor, Honolulu, Hawai'i 96813; and Mary Alice Evans, Director of the Office of Planning and Sustainable Development, Attention: Coastal Zone Management Branch, P.O. Box 2359, Honolulu, Hawai'i 96804-2359.

INTRODUCED BY:

_____

_____

_____

_____

_____

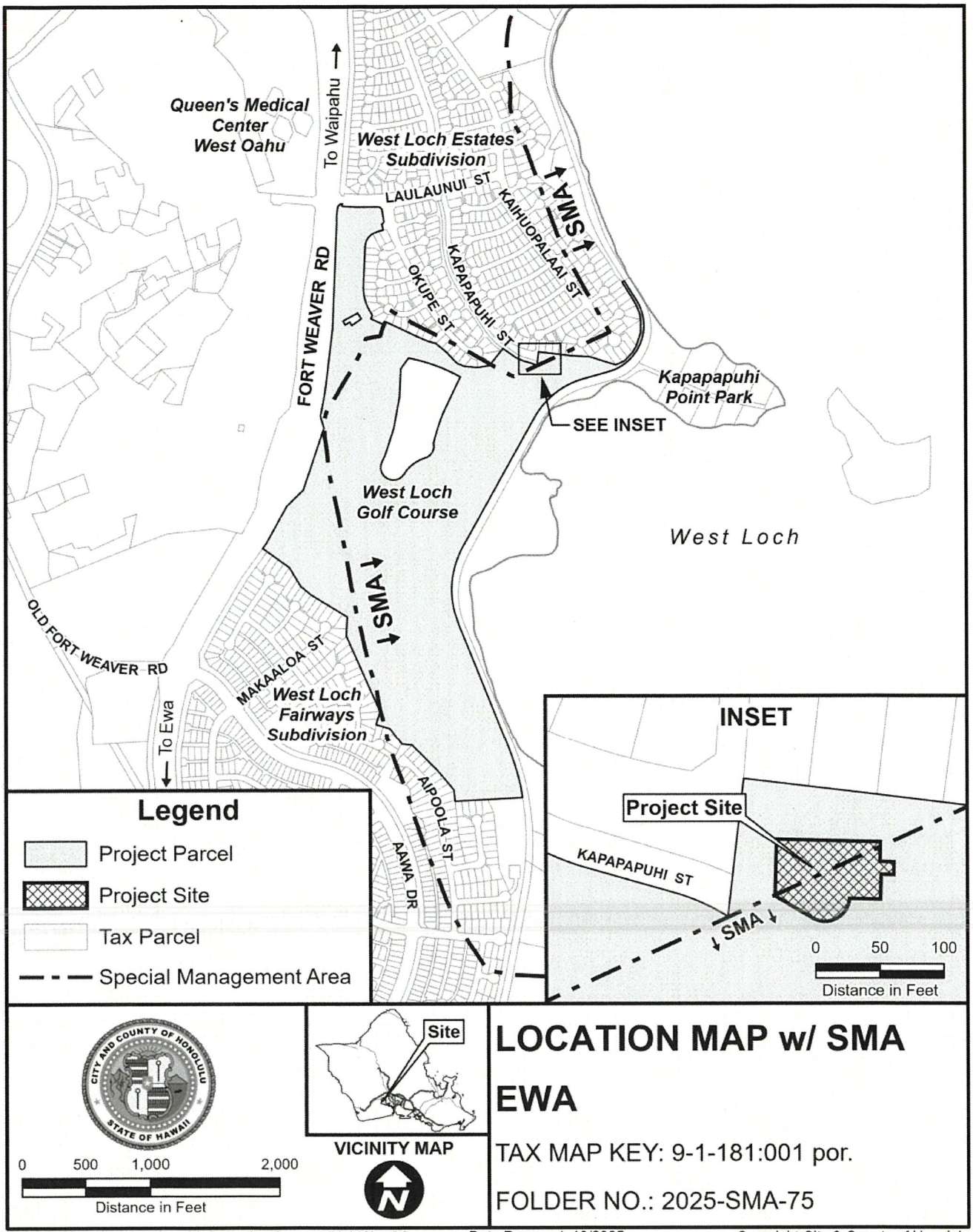
_____

DATE OF INTRODUCTION: _____

_____

_____ _____

Honolulu, Hawai'i Councilmembers



LOCATION MAP w/ SMA

EWA

TAX MAP KEY: 9-1-181:001 por.

FOLDER NO.: 2025-SMA-75

Prepared by: Honolulu Land Information System (HoLIS) - CS
Department of Planning & Permitting (DPP)
City and County of Honolulu

Date Prepared: 10/2025

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EXHIBIT A

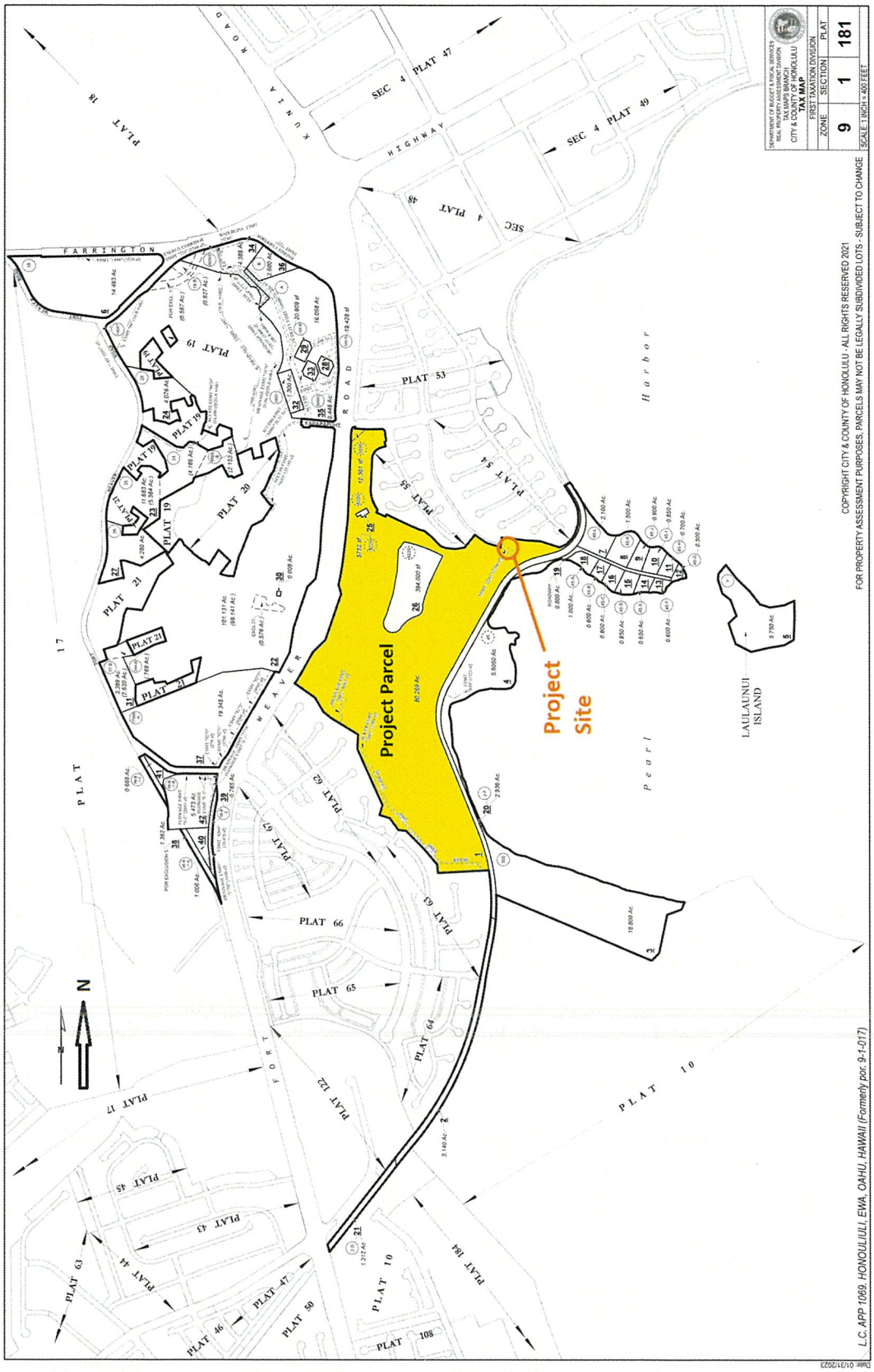
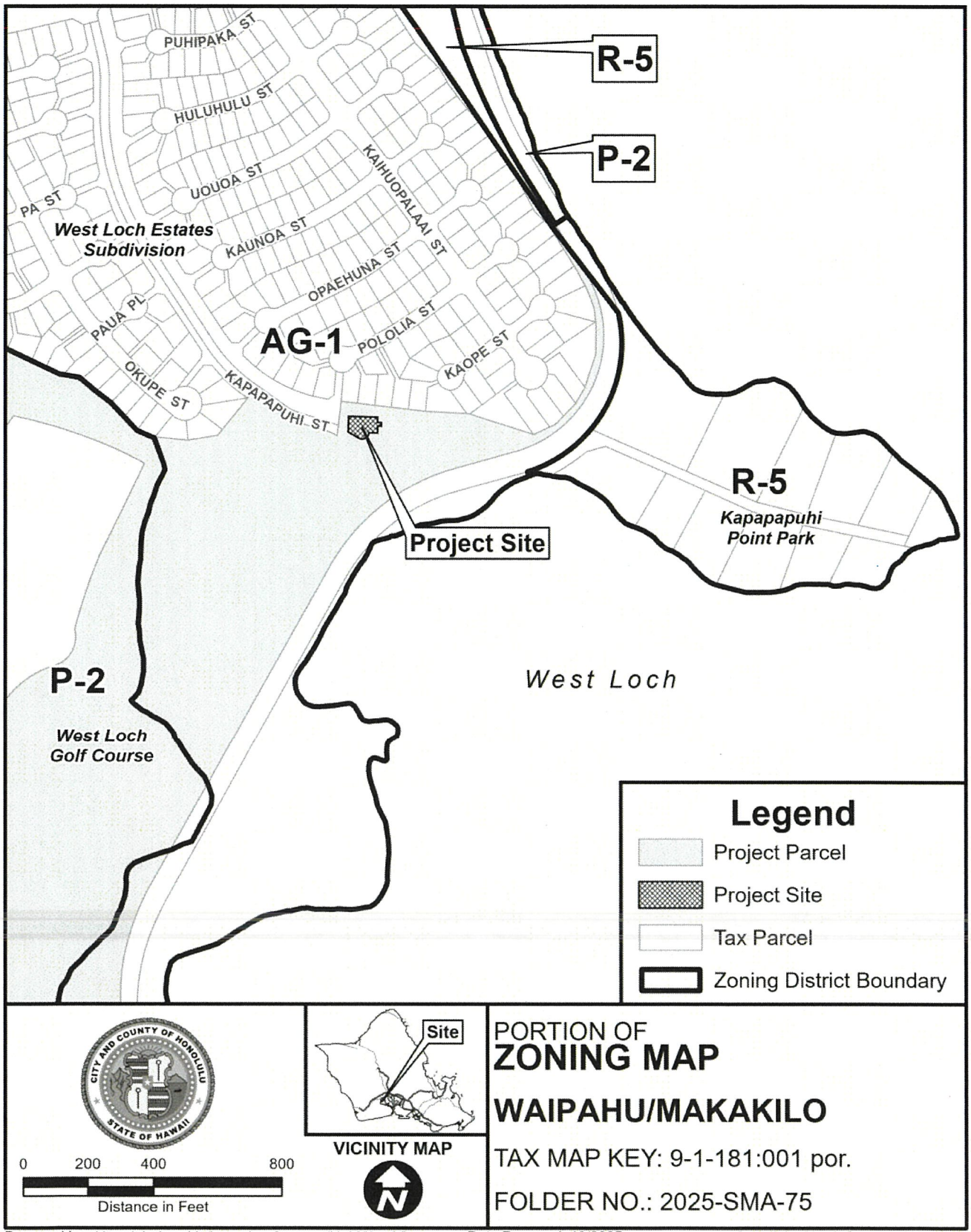


EXHIBIT B

FILE NO.: 2025-SMA-75



Prepared by: Honolulu Land Information System (HoLIS) - CS
Department of Planning & Permitting (DPP)
City and County of Honolulu

Date Prepared: 10/2025

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EXHIBIT C

JOB NO. W#-##

60% SUBMITTAL

WEST LOCH ESTATES WASTEWATER PUMP STATION UPGRADE

EWA, OAHU, HAWAII
TMK: 9-1-181:001

DIVISION OF WASTEWATER ENGINEERING & CONSTRUCTION
DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY & COUNTY OF HONOLULU

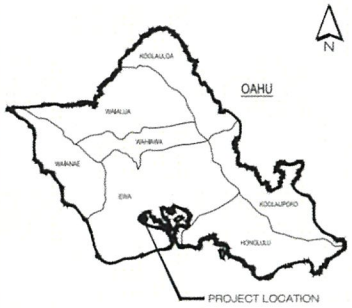
PRIME CONSULTANT:
KAULA AE LLC
700 BISHOP STREET, SUITE 1930
HONOLULU, HI 96813

SUBCONSULTANTS:
ARCHITECTS PACIFIC, INC.
3060 KAPIOLANI AVENUE
HONOLULU, HI 96816
CONSULTING STRUCTURAL HAWAII, INC.
33 SOUTH KING STREET, SUITE 314
HONOLULU, HI 96813
THERMAL ENGINEERING CORPORATION
1314 SOUTH KING STREET
HONOLULU, HI 96814
ECS, INC.
615 PIIKOI STREET, SUITE 207
HONOLULU, HI 96814
HALEY & ALDRICH, INC.
500 ALA MOANA BOULEVARD, SUITE 6-250
HONOLULU, HI 96813
CONTROL POINT SURVEYING, INC.
700 BISHOP ST, SUITE 1930
HONOLULU, HI 96813

JOB NO. W#-##

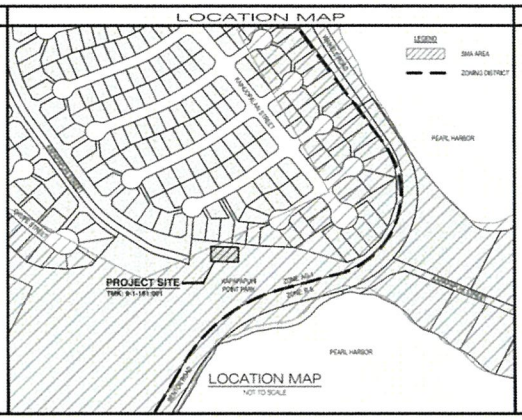
WEST LOCH ESTATES WASTEWATER PUMP STATION UPGRADE

VICINITY MAP



VICINITY MAP
NOT TO SCALE

LOCATION MAP



LOCATION MAP
NOT TO SCALE

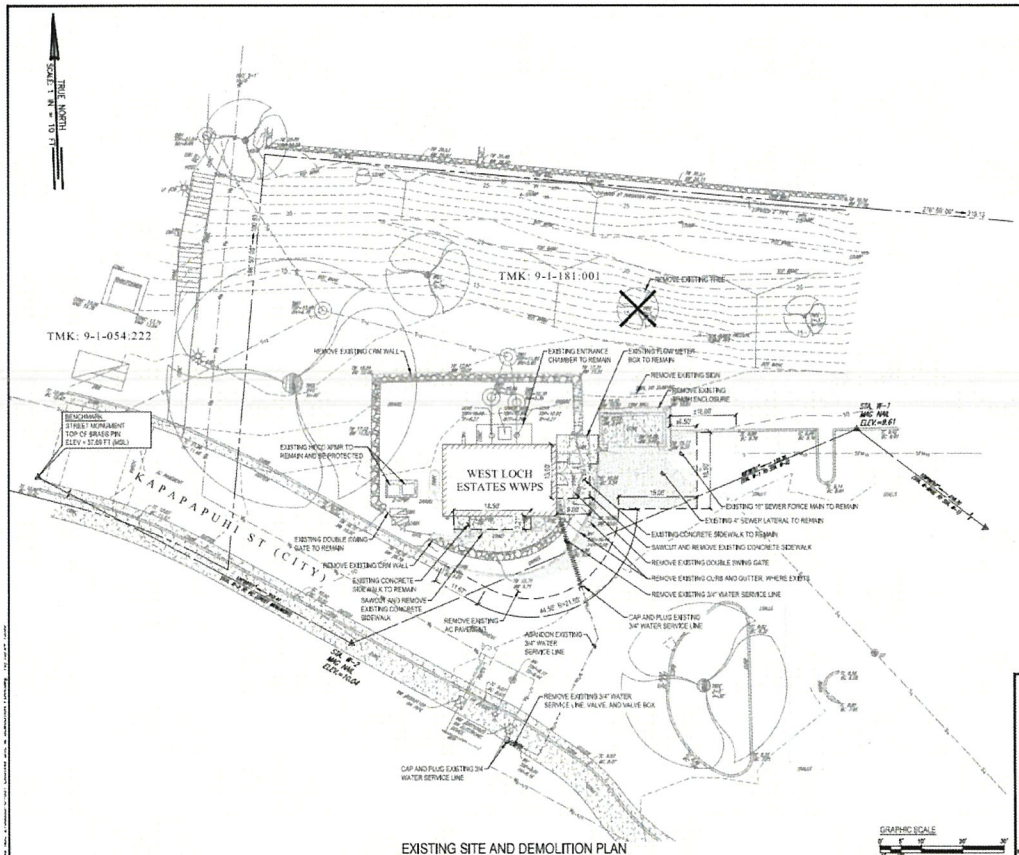
APPROVED

DIRECTOR
DEPARTMENT OF DESIGN & CONSTRUCTION
CITY AND COUNTY OF HONOLULU — DATE

DIRECTOR
DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY AND COUNTY OF HONOLULU — DATE

CHIEF
ENVIRONMENTAL MANAGEMENT DIVISION
DEPARTMENT OF HEALTH, STATE OF HAWAII — DATE

SHEET 1 OF ##



EXISTING SITE AND DEMOLITION PLAN
SCALE 1" = 10'

GRAPHIC SCALE
0' 5' 10' 20' 30'
1" = 10'

NOTES:

1. UNDERGROUND UTILITY LOCATIONS SHOWN ARE BASED ON AVAILABLE AS-BUILT INFORMATION, ALONG WITH VISIBLE EVIDENCE GATHERED DURING THE FIELD SURVEY. THEREFORE THE ACCURACY OR COMPLETENESS OF THE EXISTING UNDERGROUND UTILITIES DEPICTED ON PLANS CANNOT BE GUARANTEED. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND THE DEPTH OF THE UTILITIES AND EXERCISE PROPER CARE WHEN EXCAVATING WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL ASSUME THAT UNDERGROUND UTILITIES MAY OR MAY NOT BE PRESENT AT THE LOCATIONS SHOWN.
2. ALL EXISTING STRUCTURES AND UTILITIES DESIGNATED TO REMAIN SHALL BE PROTECTED, UNLESS OTHERWISE NOTED.
3. THE CONTRACTOR SHALL SUBMIT A WASTEWATER SPILL MITIGATION PLAN FOR REVIEW AND APPROVAL BY THE OFFICER-IN-CHARGE. THE PLAN SHALL INCLUDE SEWAGE DIVERSION AND BYPASS PUMPING PLANS WHICH HAVE BEEN APPROVED BY THE OFFICER-IN-CHARGE BEFORE ANY DIVERSION OF SEWAGE FLOWS.
4. SEQUENCE OF PUMP REMOVAL MUST BE COORDINATED WITH CSM.
5. CSM MUST BE NOTIFIED BEFORE REMOVING ANY EQUIPMENT OR APPURTENANCES.
6. ALL CONCRETE DEMOLITION MUST BE COMPLETED NEATLY AND CLEANLY.
7. NUTS AND BOLTS EMBEDDED IN CONCRETE SURFACES MUST BE RECESSED, PATCHED, AND PAINTED.
8. FOR PUMP STATION BUILDING DEMOLITION, SEE SHEET C-004.

60% SUBMITTAL

DIVISION OF WASTEWATER ENGINEERING & CONSTRUCTION
DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY & COUNTY OF HONOLULU

WEST LOCH ESTATES WASTEWATER PUMP STATION UPGRADE
EWA, OAHU, HAWAII

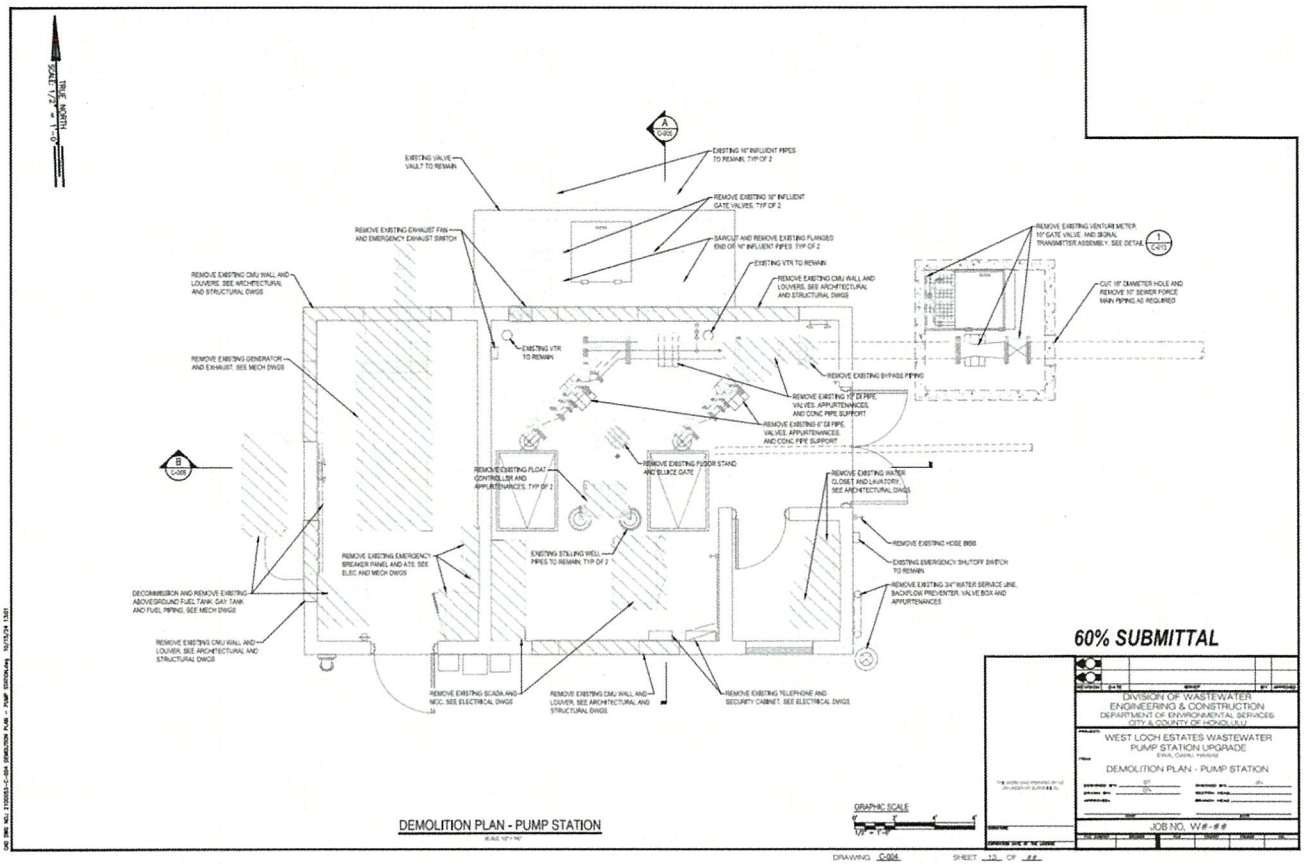
EXISTING SITE AND DEMOLITION PLAN

JOB NO. W#-##

DRAWING C-001 SHEET 13 OF ##

EXHIBIT D-1

FILE NO.: 2025/SMA-75



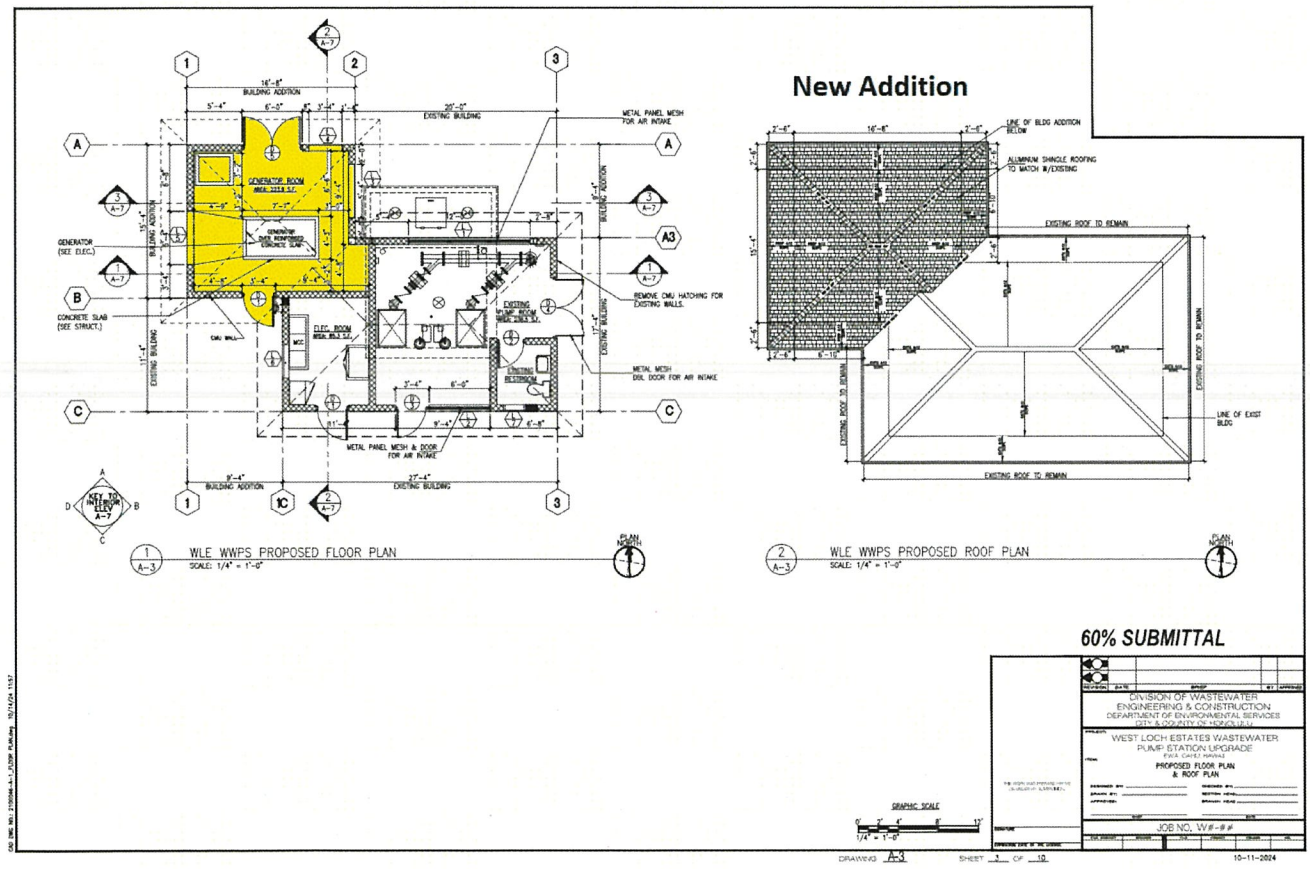
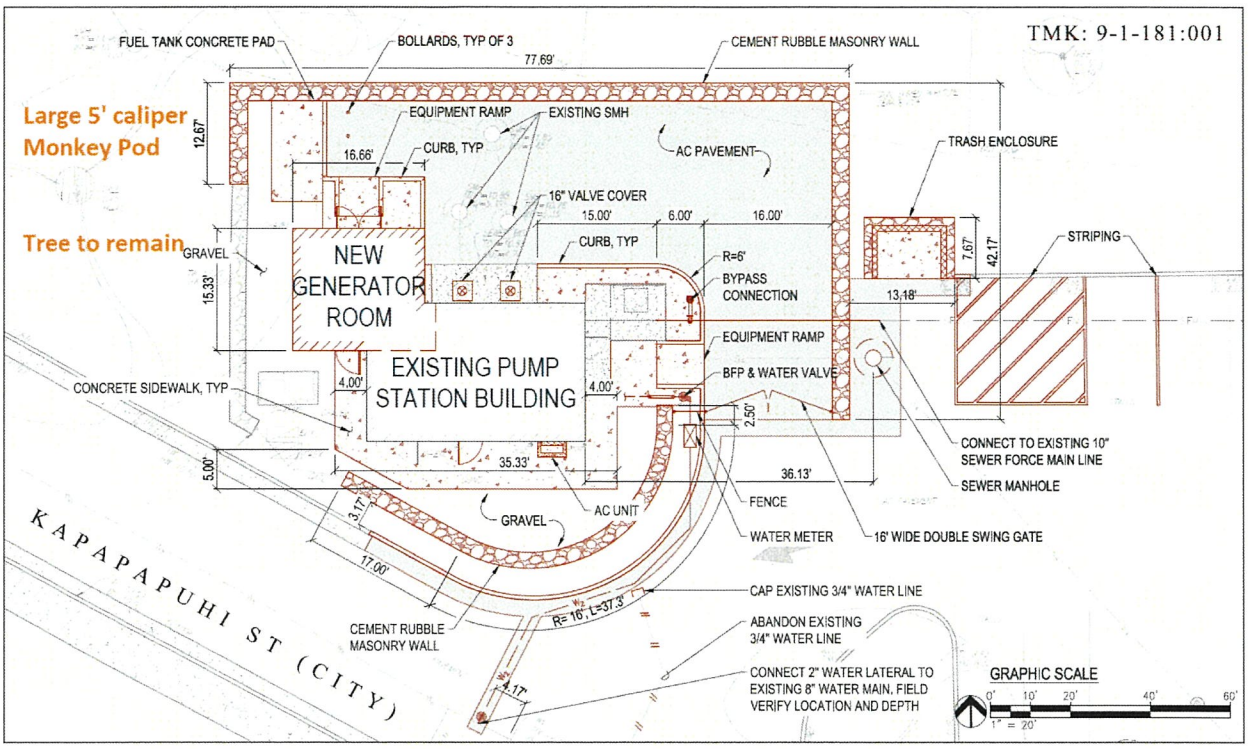


EXHIBIT D-2

FILE NO.: 2025/SMA-75



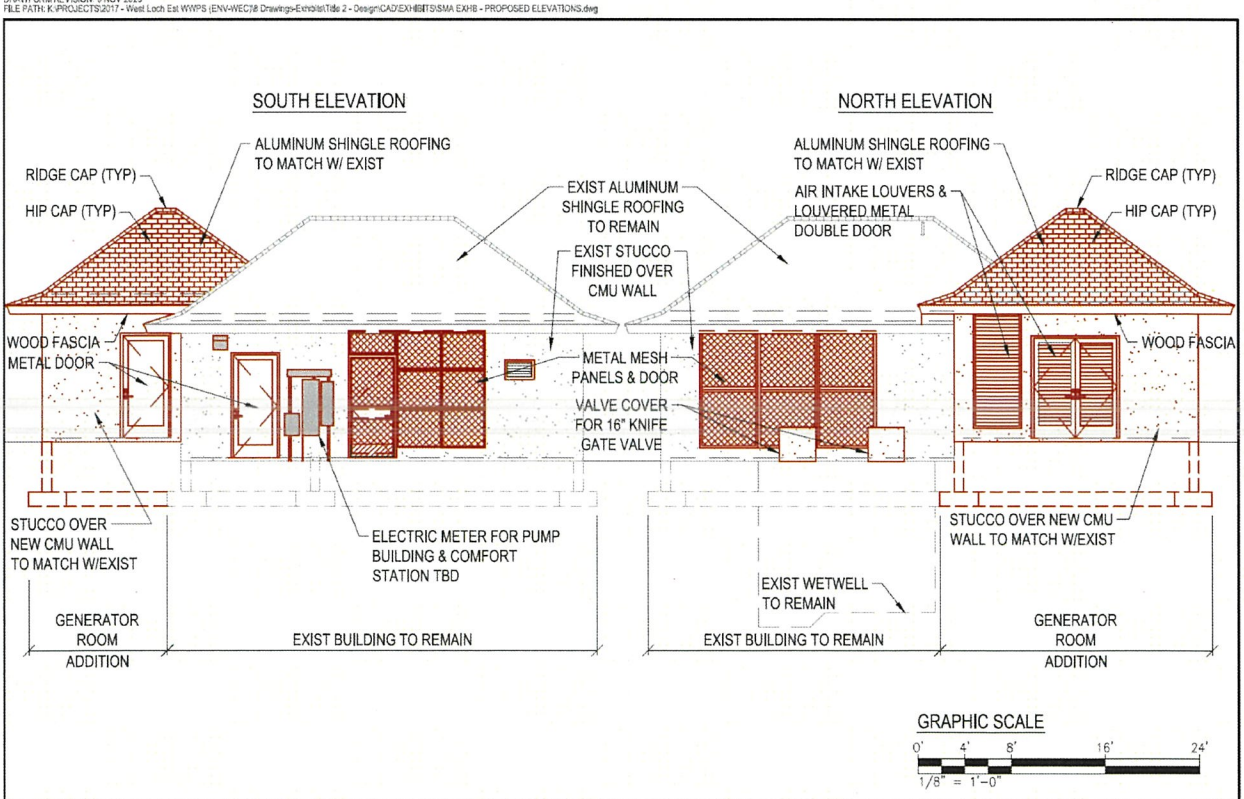
KAULA AE

WEST LOCH ESTATES WWPS UPGRADE
EWA, OAHU, HAWAII

SITE PLAN
OCTOBER 2025

FIGURE NO. 1

DRAWFORM REVISION: 5 NOV 2025
FILE PATH: K:\PROJECTS\2017 - West Loch Est WWPS (ENV-WEC)\8 Drawings\Exhibit\Title 2 - Design\CAD\EXHIBITS\SMA EXHB - PROPOSED ELEVATIONS.dwg



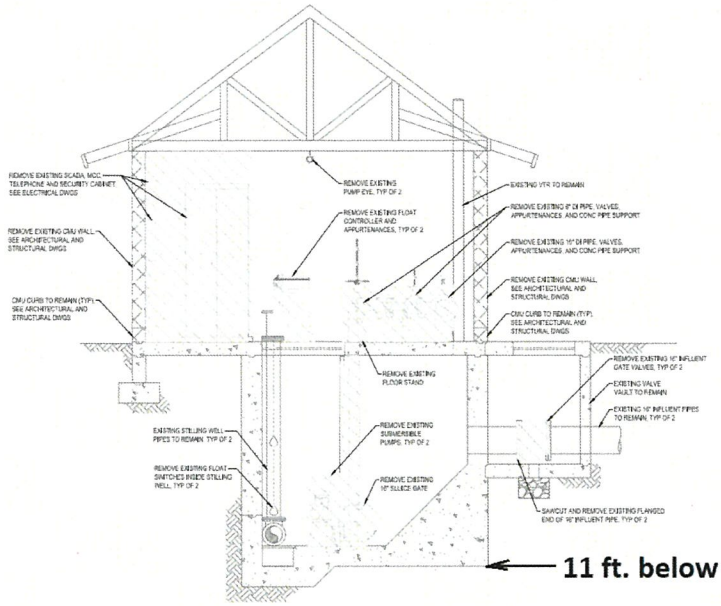
KAULA AE

PROJECT TITLE: PUMP BUILDING ELEVATION 1
WEST LOCH ESTATES WWPS UPGRADE
PROJECT LOCATION: EWA, OAHU, HAWAII
TMK 9-1-181:001

PROJECT NO: 2017
SCALE: AS SHOWN
DATE: NOVEMBER 2025
FIG. NO. 2

EXHIBIT D-3

FILE NO.: 2025/SMA-75



DEMOLITION PLAN - SECTION A

SCALE: 1/2" = 1'-0"

GRAPHIC SCALE

1/2" = 1'-0"

60% SUBMITTAL

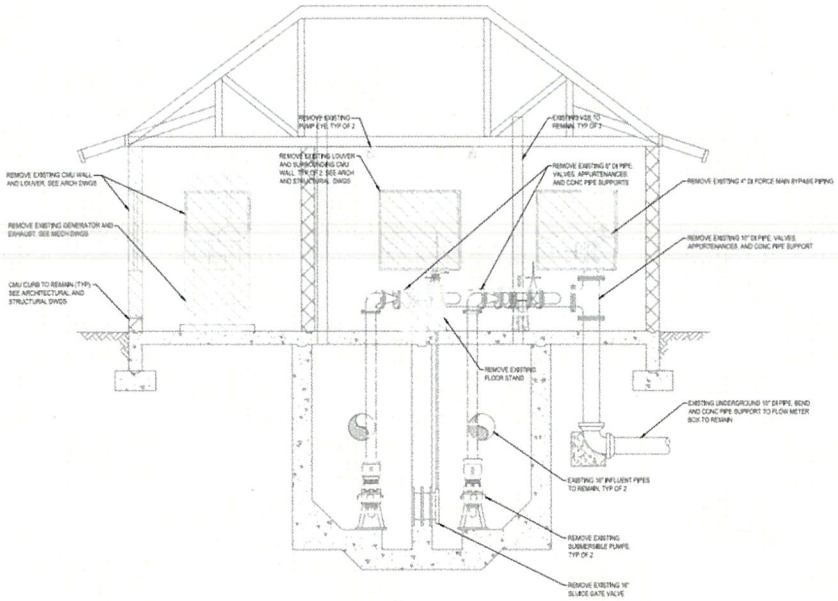
DIVISION OF WASTEWATER
ENGINEERING & CONSTRUCTION
DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY & COUNTY OF HONOLULU

WEST LOCH ESTATES WASTEWATER
PUMP STATION UPGRADE
EWA, OAHU, HAWAII

DEMOLITION PLAN - SECTION A

JOB NO. W#-##

DRAWING C-005 SHEET 17 OF 44



DEMOLITION PLAN - SECTION B

SCALE: 1/2" = 1'-0"

GRAPHIC SCALE

1/2" = 1'-0"

60% SUBMITTAL

DIVISION OF WASTEWATER
ENGINEERING & CONSTRUCTION
DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY & COUNTY OF HONOLULU

WEST LOCH ESTATES WASTEWATER
PUMP STATION UPGRADE
EWA, OAHU, HAWAII

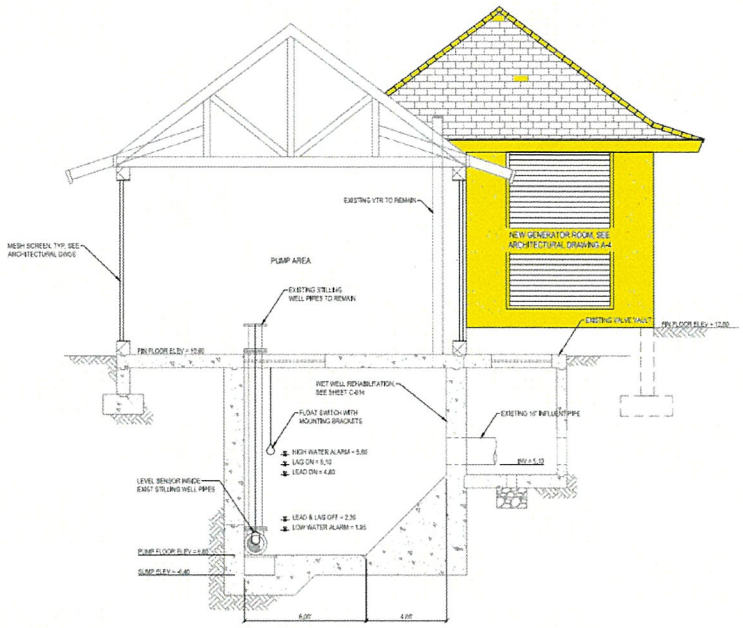
DEMOLITION PLAN - SECTION B

JOB NO. W#-##

DRAWING C-006 SHEET 18 OF 44

EXHIBIT D-4

FILE NO.: 2025/SMA-75



PUMP STATION - SECTION A

SCALE: 1/2" = 1'-0"

60% SUBMITTAL

GRAPHIC SCALE

0" 2" 4" 8"

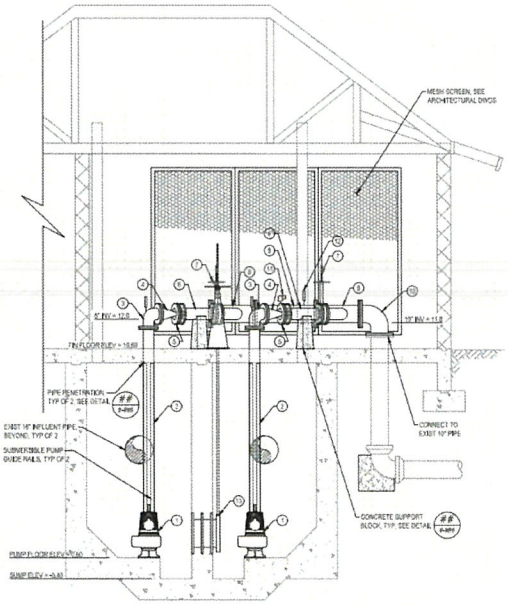
1/2" = 1'-0"

DIVISION OF WASTEWATER
ENGINEERING & CONSTRUCTION
DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY & COUNTY OF HONOLULU

WEST LOCH ESTATES WASTEWATER
PUMP STATION UPGRADE
EWA, OAHU, HAWAII

PUMP STATION - SECTION A

JOB NO. W#-##



PIPING PLAN - SECTION B

SCALE: 1/2" = 1'-0"

PIPE SCHEDULE	
No.	DESCRIPTION
1	SUBMERSIBLE PUMP (1 VOT PUMP MODEL NO. NP 3127 LT 3 - ADAPTIVE, 424 OR APPROVED EQUAL
2	8" DI PIPE SPOOL, LENGTH TO SUIT, FE x FE
3	8" DI 1/4 BEND (FE x FE) WITH BOSS TAP FOR PRESSURE GAUGE
4	8" DI CHECK VALVE, FE x FE
5	6" FLANGED COUPLING ADAPTER
6	6" DI PIPE SPOOL, LENGTH TO SUIT, FE x PE
7	6" DI KNIFE GATE VALVE, FE x PE
8	10" x 6" DI WYE, PE x PE
9	10" DI PIPE SPOOL, LENGTH TO SUIT, PE x PE
10	10" DI 1/4 BEND, PE x PE
11	AIR RELIEF VALVE, DRAIN TO WET WELL
12	PRESSURE TRANSMITTER
13	10" DI SLUICE GATE VALVE WITH FLOOR STAND

NOTES

1. FOR PRESSURE GAUGE, SEE DETAIL ##/C-##
2. FOR AIR RELIEF VALVE, SEE DETAIL ##/C-##

60% SUBMITTAL

GRAPHIC SCALE

0" 2" 4" 8"

1/2" = 1'-0"

DIVISION OF WASTEWATER
ENGINEERING & CONSTRUCTION
DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY & COUNTY OF HONOLULU

WEST LOCH ESTATES WASTEWATER
PUMP STATION UPGRADE
EWA, OAHU, HAWAII

PIPING PLAN - SECTION B

JOB NO. W#-##

DRAWING C-01I SHEET ## OF ##

EXHIBIT D-5

FILE NO.: 2025/SMA-75



Figure 13. Wastewater pump station with a detached CMU dumpster enclosure, facing northwest.



Figure 14. CRM wall enclosure, facing southwest.

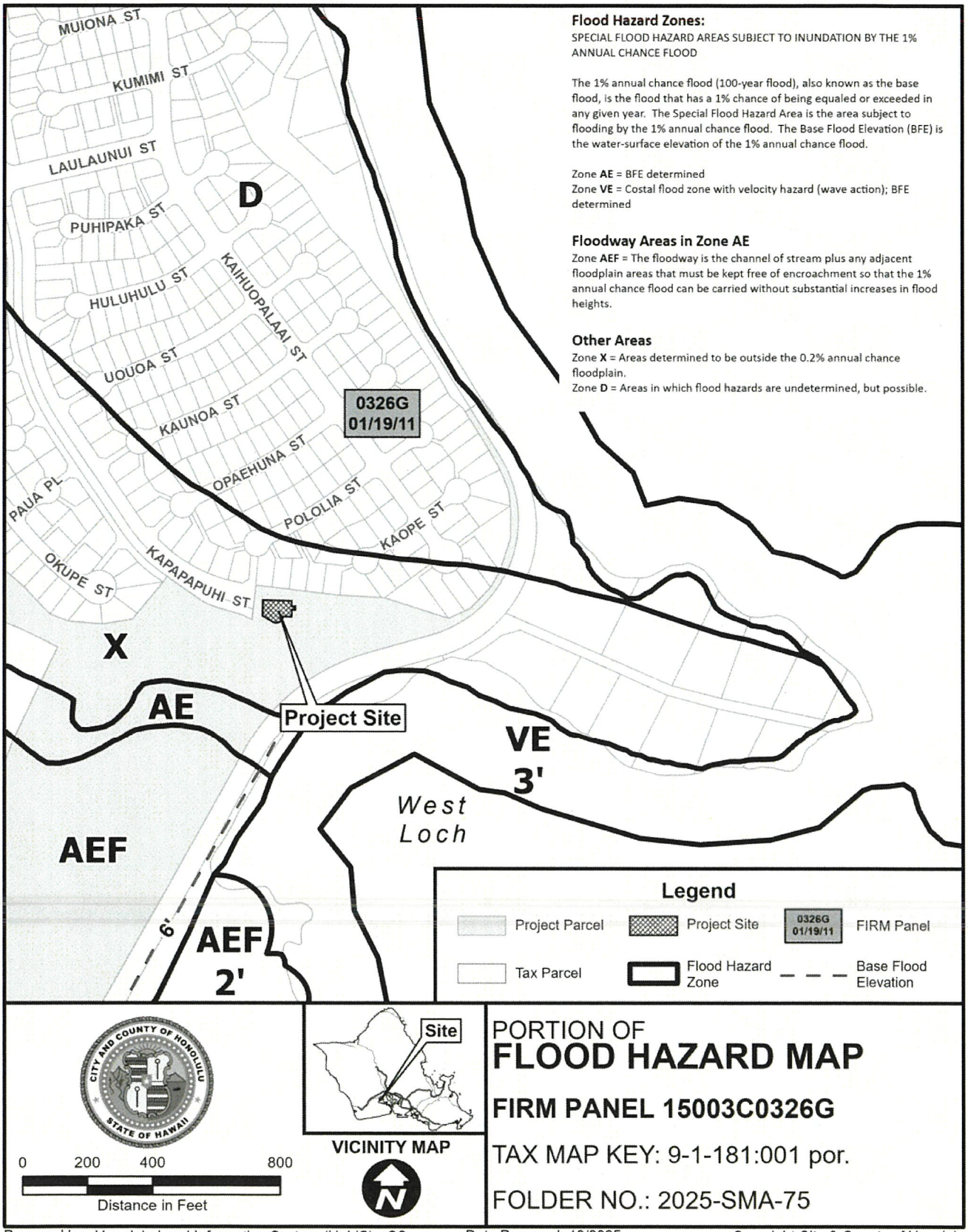


Figure 20. CRM wall enclosure with attached blue metal gate, facing north.



Figure 17. Gravel yard with diesel fuel tank and HECO enclosures, facing south.

EXHIBIT E-2 **FILE NO.: 2025/SMA-75**



PORTION OF
FLOOD HAZARD MAP

FIRM PANEL 15003C0326G

TAX MAP KEY: 9-1-181:001 por.

FOLDER NO.: 2025-SMA-75

Prepared by: Honolulu Land Information System (HoLIS) - CS
Department of Planning & Permitting (DPP)
City and County of Honolulu

Date Prepared: 10/2025

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EXHIBIT F

WETLAND MAP (U.S. Fish and Wildlife Service)



EXHIBIT G **FILE NO.: 2025/SMA-75**

EXHIBIT H

FILE NO.: 2025/SMA-75

SOILS MAP (U.S. Department of Agriculture)

Search

Map Unit Legend

Island of Oahu, Hawaii (HI990)

Island of Oahu, Hawaii (HI990)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
FL	Fill land, mixed	11.5	5.0%
HLMG	Helemano silty clay, 30 to 90 percent slopes	21.8	9.5%
HxA	Honouliuli clay, 0 to 2 percent slopes	36.2	15.8%
KmbA	Keaau clay, saline, 0 to 2 percent slopes	21.1	9.2%
Ph	Pearl Harbor clay, 0 to 2 percent slopes, MLRA 163	15.4	6.7%
W	Water > 40 acres	9.3	4.1%
Totals for Area of Interest		**229.4**	**100.0%**

Legend

Soil Map

Scale (not to scale)

SEA LEVEL RISE MAP (3.2 ft. of SLR – Related High Wave Flooding by 2100)



EXHIBIT I-1 **FILE NO.: 2025/SMA-75**

EXHIBIT I-2 **FILE NO.: 2025/SMA-75**

SEA LEVEL RISE MAP (6.0 ft. of SLR – Passive High Tide Flooding by 2100)

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

view full-screen map

opacity: 75%

EXHIBIT J

FILE NO.: 2025/SMA-75

National Hurricane Center
Storm Surge Risk Maps (v4)

Category 1 | Category 2 | Category 3 | Category 4 | Category 5

This is not a real-time product. For active tropical cyclones, please see hurricanes.gov and consult local products issued by the National Weather Service

This national depiction of storm surge flooding vulnerability helps people living in hurricane-prone coastal areas. 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. Storm Surge Risk Maps are provided for the US Gulf and East Coasts, Hawaii, Southern California, US territories - Puerto Rico, US Virgin Islands, Guam and American Samoa. Additional mapped areas include Hispaniola and parts of the Yucatan Peninsula.

Atlantic

- US East and Gulf Coast
- Puerto Rico and USVI
- Hispaniola
- Yucatan

Pacific

- Hawaii (category 1-4)
- Southern California (category 1-2)
- Guam
- American Samoa

- Less than 3 feet above ground
- Greater than 3 feet above ground
- Greater than 6 feet above ground
- Greater than 9 feet above ground
- Leveed area
  Consult local officials for flood risk

Toggle Map Opacity

TSUNAMI EVACUATION MAP



Legend

- Fire Station
- Hospital
- EMS
- Police
- Public/Private School
- Safe Zone
- Extreme Tsunami Evacuation Zone
- Tsunami Evacuation Zone
- Major Street
- Street

EXHIBIT K

FILE NO.: 2025/SMA-75

CUMULATIVE PROJECTS RADIUS MAP



EXHIBIT L

FILE NO.: 2025/SMA-75