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2014/SMA-23(ST)
2014/SV-4

July 14, 2014

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The Honorable Ernest Y. Martin
Chair and Presiding Officer
and Members
Honolulu City Council
530 South King Street, Room 202
Honolulu, Hawaii 96813

Dear Chair Martin and Councilmembers:

SUBJECT: Applications for a Special Management Area Use Permit (SMP) No. 2014/SMA-23 and Shoreline Setback Variance (SV) No. 2014/SV-4

Applicant:	Hawaii Institute of Marine Biology
Agent:	Community Planning and Engineering, Inc.
Landowner:	University of Hawaii Foundation, State of Hawaii
Location:	46-007 Lilipuna Road and Coconut Island - Heeia and Kaneohe Bay
Tax Map Keys:	4-6-1: 1, 15, 16, 17, and 51
Acceptance Date:	May 19, 2014

We recommend approval of the applications for an SMP and SV to construct the Coconut Island Infrastructure Rehabilitation and Replacement Project, subject to conditions enumerated in our report.

The project involves: 1) the installation, via horizontal directional drilling of a new wastewater force main, communication, electrical, and water lines that connect the island research facility with the shoreline at the Applicant's Lilipuna Pier site; 2) the on-island rerouting of a wastewater gravity main, via conventional open trenching, at the north end of the island; and 3) the replacement of the on-island wastewater pumps and wet well repair near the East Lagoon.

Enclosed for your consideration are: our report and recommendation, draft resolution, and the transcript of the public hearing held on June 13, 2014. The hearing was attended by the Applicant's five representatives and one member of the public, whose testimony is included in the enclosed transcript.

Pursuant to Chapters 23 and 25, Revised Ordinances of Honolulu, the City Council must act within 60 calendar days after the receipt of the agency's findings and recommendations; however, the City Council may extend this period of time upon receipt of a request from the Applicant for an extension. The extension is not automatic, and thus, if an extension of time is not requested in a timely manner, the application may be filed due to the Council's time deadline.

Should you have any questions, please feel free to contact me at 768-8000.

Very truly yours,

George I. Atta

George I. Atta, FAICP
Director

Enclosure

cc: Kirk Caldwell, Mayor
Ember Lee Shinn, Managing Director
Corporation Counsel
Public Hearings Officer
Environmental Services
Community Planning and Engineering, Inc.

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

STATE OF HAWAII

IN THE MATTER OF THE APPLICATIONS OF HAWAII INSTITUTE OF MARINE BIOLOGY FOR A SPECIAL MANAGEMENT AREA USE PERMIT AND SHORELINE SETBACK VARIANCE	)	FILE NOS. 2014/SMA-23(ST) 2014/SV-4

FINDINGS OF FACT, CONCLUSIONS OF LAW
AND RECOMMENDATION

I. APPLICATION

A. Basic Information:

APPLICANT:	Hawaii Institute of Marine Biology
LANDOWNER:	University of Hawaii Foundation, State of Hawaii
AGENT:	Community Planning and Engineering, Inc. (Derek Mukai)
LOCATION:	46-007 Lilipuna Road and Coconut Island, Heeia and Kaneohe Bay (Exhibit A)
TAX MAP KEYS:	4-6-1: 1, 15, 16, 17, and 51
LAND AREA:	1.4 acres - Lilipuna Pier 28.8 acres - Coconut Island
STATE LAND USE DISTRICT:	Urban and Conservation (Exhibit B)
ZONING:	R-10 Residential District P-1 Restricted Preservation (Exhibit C)
EXISTING USE:	Marine Laboratory and Support Facilities
SURROUNDING LAND USES:	Residential, Marine Corps Base Hawaii

B. Proposal: The Applicant proposes to reconstruct the high priority elements of the Coconut Island Infrastructure Rehabilitation and Replacement Project. These projects include the installation of a new wastewater force main, communication, electrical, and water lines connecting the Hawaii Institute of Marine Biology (HIMB) facilities on Coconut Island with the Lilipuna Pier site on Oahu via horizontal directional drilling (HDD); the rerouting of a wastewater gravity main, via conventional open trenching, at the north end of Coconut Island; and the replacement of the Coconut Island wastewater pumps and wet well repair near the East Lagoon. See Exhibits D to F.

Utility Crossing: New utility lines will be inserted into three separate conduits installed in borings, dug under Kaneohe Bay (about 70 to 80 feet below sea level and beneath the sea floor), via HDD starting at the Lilipuna Pier site and "landing" (i.e., resurfacing) on Coconut Island. An illustration of this method of drilling is provided in Exhibit G. The longest conduit, containing the new six-inch diameter wastewater force main and new four-inch telecommunication line, will be about 2,033 feet long and land on the southeastern end of Coconut Island, between the existing dormitory and maturation lab. See Exhibit E. Two other conduits, each about 1,715 feet long and containing a four- to six-inch diameter electrical lines and an eight-inch diameter water line, will land 400 feet further west, between the West Lagoon and Maile Point, near the existing boat house.

The HDD begins with an initial pilot boring at the Lilipuna Pier site which will require the excavation of an entry pit. From this entry point, the drill pipe is directed to the Coconut Island landing area navigated by a magnetic guidance system. See Exhibit F. Once the initial boring is established, a reamer will be attached to the drill pipe which will be pulled back to the pier site until the proper tunnel diameter is achieved. See Exhibit G. A bentonite slurry, which is a mixture of water and a naturally occurring clay, will be released into the tunnel to lubricate the conduit being pulled into the boring, and to stabilize the tunnel. Surveys of the alignment by geotechnical borings will be conducted to determine the type of soil and rock that will be encountered and determine adjustment to their construction. Mud spoils from the boring process at each end will be collected and removed to an off-site disposal location.

In order to create a leveled construction staging area at the Lilipuna Pier site, a 13,500-square-foot area above the existing parking lot will be excavated. See Exhibit H. The excavated slope will be stabilized with a 311-foot long, two-tiered, and stepped concrete retaining wall which will traverse most of the site. See Exhibit I. The maximum height of each retaining wall tier is seven feet, separated by a sloped area. The maximum overall height (over a short 24-foot section), will be about 18 feet as measured from the finished grade at the front face of the lower wall. See Exhibit I. No lighting improvements are included in the proposed infrastructure project.

The HDD landing sites on Coconut Island will require the excavation of temporary pits that will be surrounded by sandbags and silt fences to minimize siltation. See Exhibit J.

Wastewater Gravity Line Rerouting: A new eight-inch diameter wastewater gravity line will be constructed between existing wastewater lines at the northwest end of Coconut Island and the East Lagoon. See Exhibits E and L. The existing wastewater gravity line, portions of which are exposed, served facilities at the North Lagoon that no longer exist. See Exhibit K. The new 350-foot long rerouted gravity wastewater line will be installed with conventional open-ditch trenching. The existing gravity lines will be abandoned in place.

Wastewater Pump Station Replacement and Wet Well Repairs: The existing wastewater pumps located at the east side of Coconut Island (which forces wastewater across the channel) will be replaced, and the surrounding wet well will be relined and repaired. See Exhibits E and M.

The Project is estimated to cost $5.4 million and will take about four months to complete when it commences in late 2014.

II. FINDINGS OF FACT

On the basis of the evidence presented, the Director has found:

A. Location:

1. Site and Surrounding Uses: Coconut Island, also known as Moku O Loe, is a 28.8-acre island located in Kaneohe Bay, off Oahu's windward coast. At its closest, the island is 0.25 mile from Oahu. See Exhibit A. The island is comprised of two physiographic parts; the central area, consisting of a naturally formed volcanic land mass of about 12.5 acres; and the 16.3 acres which surround it that are fill lands created from the dredged spoils of various lagoons, ponds, and peninsulas that were constructed in the 1930s. These two areas are roughly identified by Parcels 1 and 51, indicated on Exhibit B. Coconut Island is 55 feet above mean sea level (msl) at its highest point and a fringe coral reef surrounds the island. The University of Hawaii Foundation holds title to the entire island. However, the State of Hawaii maintains ownership of submerged lands (6.15 acres) around the island. There are 32 structures or buildings located throughout the island.

   A shuttle boat provides regular access to and from the island. It departs from the Lilipuna Pier at Pohakea Point, and arrives at the entry dock in the West Lagoon near the lighthouse. Larger shuttle groups are sometimes unloaded in the East Lagoon. The shipment of vehicles or large equipment is carried on larger boats from Heeia Pier or the Marine Corps Base Hawaii (MCBH) at Kaneohe Bay. These two launching sites will be used to transport construction equipment and personnel.

   The Applicant's 1.4-acre Lilipuna Pier site is comprised of three contiguous parcels that are jointly developed with Conditional Use Permit (CUP) No. 2004/CUP-17. See Exhibit B. The elevation of this site ranges from sea level at the shoreline to 78 feet above msl at Lilipuna Road. A steep concrete driveway provides access to the lower paved parking lot near the pier. Students, faculty, staff, and visitors park their vehicles or are dropped off to board a transport vessel to get to Coconut Island. See Exhibit H.

   HIMB activities conducted at Coconut Island include five broad areas of research: coral physiology and ecology; fish behavior, physiology and population dynamics; marine endocrinology and aquaculture; marine mammal research; and environmental toxicology.

   Surrounding shoreline areas along Kaneohe Bay, to the south, west and east, are predominantly developed with single-family dwellings in the R-10 Residential District. See Exhibit B. The shoreline to the northeast is occupied by MCBH. Aircraft approaching MCBH pass directly over Coconut Island. See Exhibit A.

2. Special Management Area (SMA): Both sites are entirely within the SMA established by Chapter 25, Revised Ordinances of Honolulu (ROH). No development is allowed in any county within the SMA without first obtaining an SMA Use Permit (Chapter 205A-28, Hawaii Revised Statutes). Improvements seaward of the shoreline (i.e., conduits and lines beneath the seabed), while part of the Project, are not in the SMA.

3. Shoreline and Shoreline Setback: The shoreline of Coconut Island consists entirely of fill land stabilized by seawalls and revetments originally built in the 1930s. The shoreline of the Lilipuna Pier site is composed of lava rock ranging in size from large boulders to small pebbles. The shoreline setback area is a 40-foot deep strip measured 40 feet inland of the shoreline (as certified by the State Department of Land and Natural Resources (DLNR) on June 17, 2014), that will not be disturbed by construction activity. The installation of utility lines beneath the surface in the shoreline setback area is prohibited unless a shoreline setback variance is obtained pursuant to ROH, Section 23-1.5.

4. Site Soil: The soils at both sites consist of Alaeloa silty clay (ALF), 40 to 70 percent slope as identified by the U. S. Department of Agriculture, Soil Conservation Service in Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii. According to this survey, these soils generally have rapid to very rapid runoff, and the erosion hazard is severe. The alteration of the Lilipuna Pier site will require a total of 1,840 cubic yards of excavation and 34 cubic yards of embankment. See Exhibit H.

5. Drainage: There is no storm water drainage system on Coconut Island. Storm water runoff sheet flows across the existing improved and unimproved surfaces down toward the shoreline. Erosion and sediment control is partially provided by the existing vegetation and ground cover. However, the Applicant's on-island research facilities have numerous fresh and saltwater outfalls which are strictly managed in compliance with its existing National Pollution Discharge Elimination System (NPDES) permits. See No. 6.a., Water Quality, below.

   At the Lilipuna Pier site, there is no storm drain system. Surface runoff is overland sheetflow which is interrupted by the existing driveway over which the storm water from Lilipuna Road flows toward the shoreline.

6. Water Quality:

   a. Near Shore: The waters of Kaneohe Bay are classified as Class AA marine waters by the State Department of Health (DOH) water quality standards (Title 11, Chapter 54, HAR 1987). The stated objective of these rules is that Class AA waters remain in their natural pristine state as nearly as possible with an absolute minimum pollution or alteration of water quality from any human-caused source or actions.

      The HIMB facilities operate under two NPDES permits which regulate 56 existing outfalls. These permits require routine sampling and record keeping requirements of discharge water, as well as the use of Best Management Practices regarding facility operations to prevent possible impacts to water quality, including a Spill Prevention Control and Countermeasures Plan mandated by the Environmental Protection Agency.

   b. Groundwater/Hydrology: The Lilipuna Pier site is a part of a coastal plain where a sedimentary caprock aquifer rests on the primary basalt aquifer. This is within the Koolauloa aquifer system, where the upper aquifer is a basal aquifer (fresh water in contact with seawater), unconfined and sedimentary. It is classified as ecologically important, with a low salinity (250-1,000 milligrams per liter of chloride). This aquifer is considered an irreplaceable

aquifer with a high vulnerability (Mink and Lau, 1990). The lower aquifer is classified as a basal, confined, and dike aquifer. It has the potential for use as drinking water, with salinity less that 250 mg/L Cl. This is a replaceable aquifer with a moderate vulnerability to contamination. There is no groundwater available on Coconut Island.

7. Flora and Fauna: A biological resource assessment was conducted for the proposed Project which included literature reviews, terrestrial, and marine field surveys.

   a. Flora: A terrestrial, flora and fauna, and marine organism survey was conducted for the construction site areas on both Coconut Island and the Lilipuna Pier site. No threatened, endangered, or rare native Hawaiian plant species were found. A total of 90 various plant species were recorded; of these only three species, naupaka (*Scaevola taccada*), hau (*Hibiscus tiliaceus*), and milo (*Thespesia populnea*) are indigenous to the Hawaiian Islands, and are common throughout the Hawaiian Islands and the Pacific region.

      Vegetation at the Lilipuna Pier site consists of a mixture of non-native grasses and herbaceous species. The slopes are vegetated with coat buttons (*Tridax procumbens*), wedelia (*Sphagneticola trilobata*), Panama paspalum (*Paspalum fimbriatum*), wiregrass (*Eleusine indica*), Guinea grass (*Urochloa maxima*), creeping indigo (*Indigofera spicata*), and morning glory (*Ipomoea obscura*). Large milo trees, an indigenous species, grow near the shoreline.

   b. Avifauna: The bird species observed are typically found in urban areas. In all, 12 species were documented, two species were migrant shorebirds: the wandering tattler (*Tringa incana*) and Pacific golden plover (*Pluvialis fulva*). Approximately 30 individuals of the native great frigate birds (*Fregata minor*) were seen soaring above the North Lagoon. Several Hawaiian duck-like ducks (*Anas* sp.), which are likely to be mallard-Hawaiian duck hybrids, were observed in the vicinity of the Lighthouse Pier. Although not observed, black noddies (*Anous minutus*) are known to forage in Kaneohe Bay, especially when bait fish such as nehu (*Encrasicholina purpurea*) are abundant. Black noddies can occasionally forage in the nearshore waters and may forage near the Lighthouse Pier. Although surveys for Hawaiian Hoary Bats were not conducted, Hawaiian Hoary Bats are strong fliers and have been documented as far as 100 meters (330 feet) offshore (U.S. Department of Agriculture [USDA] 2009), and could potentially fly to the island and roost or forage. Hawaiian Hoary Bats typically roost in dense canopy foliage or in subcanopy when canopy is sparse, with open access for launching into flight. Tree species such as coconut and mango (*Mangifera indica*) have been documented as roosting trees for the Hawaiian Hoary Bat.

   c. Marine Community: The nearshore water off Lilipuna Pier, out to 10 meters (33 feet), was surveyed and scanned. The substrate of the intertidal area consists of coral rubble. Immediately seaward in the subtidal zone, clumps of the invasive red algae known as gorilla ogo (*Gracilaria salicornia*), were found.

A marine survey of two areas off the Coconut Island landing sites, which could be affected by runoff during construction, was conducted. One was the small cove to the east ("Shallow Bay") and the floating dock to the west. See Exhibit J. Adjacent to the seawall at "Shallow Bay," the bottom was completely covered with Gorilla ogo. Large cells of the green algae, Sailor's Eyeballs (*Ventricaria ventricosa*), are common, and the conspicuous sea cucumber (*Opheodesoma spectabilis*) are plentiful. Grapsid crabs (*Family Grapsidae*) and Littorinid Snails (Family Littorinidae) are found on the concrete seawall. Beyond Shallow Bay, the Gorilla ogo area, approximately 10 meters (33 feet) from shore, the substratum consisted of sand with scattered rubble of dead coral heads. Benthic native species were present in this area with scattered live coral heads of Rice coral (*Montipora capitata)*, Finger coral (*Porites compressa*), and Lace coral (*Pocillopora damicornis*) attached to hard surfaces. Schools of juvenile Parrot fishes are found throughout the area. Schools of bait fish, possibly Nehu, are also present.

Coconut Island's surrounding waters and fringe reef are protected under State law as the "Hawaii Marine Laboratory Refuge" established by Chapter 188-36, HRS. This law prohibits taking any aquatic life from the refuge, with the exception of individuals associated with the University of Hawaii or licensee of the Board of Regents of the University of Hawaii, while employed in catching or taking aquatic life for scientific purposes.

8. Wastewater: Wastewater generated on Coconut Island is pumped off-island through a 38-year old, six-inch force main that runs along the Kaneohe Bay sea floor from Coconut Island to the Lilipuna Pier site where it connects to the municipal wastewater system that runs along Lilipuna Road. See Exhibit D. In 2007 (File No. 2007/SMA-3), wastewater flow was estimated at about 17,000 gallons per day (i.e., ten percent of the 167,000 gallons per day of potable water provided by the Board of Water Supply). The Applicant indicates wastewater flow remains unchanged, or perhaps lower.

B. Environmental Review Requirements: The Project involves State-owned Conservation District lands and land in the shoreline setback area, and is therefore subject to the environmental review requirements of Title 11, Chapter 200, HAR and Chapter 343, HRS. To satisfy this requirement, the University of Hawaii prepared an environmental assessment (EA) and issued a finding of no significant impact (FONSI) on February 21, 2014. A notice of the FONSI determination was published in the Office of Environmental Quality Control's Environmental Notice on March 8, 2014.

C. Flooding and Coastal Hazards: The Lilipuna Pier site is within the Flood Zone X as determined by the Federal Flood Insurance Rate Map (FIRM), No. 15003C0270H, revised January 19, 2011; areas outside the 500-year flood plain. Flood Zone X is not subject to Flood Hazard District requirements of the LUO. The Federal Emergency Management Agency (FEMA) considers this to be an area of "minimal flood hazard." See Exhibit N. Coconut Island is undesignated.

D. Permit History: On January 29, 1997, the Applicant was granted an SMA Use Permit (Council Resolution No. 96-341, CD1) to construct the Pelagic Fish Laboratory, the Edwin W. Pauley Marine Laboratory, and classroom building. Condition C of the permit required the completion of the Long Range Development Plan (LRDP) by HIMB. The LRDP was completed in 1998.

On April 12, 2006, the Applicant was granted an SMA Use Permit and SV (Resolution No. 06-069, CD1) to reconstruct the parking lot, access driveway, and make various improvements to the Lilipuna Pier site, which were specified by the LRDP.

On March 19, 2008, the Applicant was granted an SMA Use Permit and SV (Resolution No. 07-318, CD1) to construct four near-term projects of its LRDP, including four laboratory buildings for marine biology research, a water distribution system, Main House Pavilion enclosure, and floating dock on Coconut Island. This permit also granted after-the-fact approval for other unauthorized improvements. The four research laboratory buildings have not yet been built.

E. Other Permits and Approvals:

1. Federal: The construction under navigable waters of the U. S. requires a Department of the Army (DA) permit (Section 10 and Section 404) from the U. S. Army Corps of Engineers.

2. State: Construction within the State Conservation District, beyond the shoreline and on Coconut Island, is within the P-1 Restricted Preservation District and requires a Conservation District Use Permit (CDUP) from the State Board of Land and Natural Resources. The State Coastal Zone Management Act, Section 205A-26, HRS, requires that an SMA Use Permit precede the approval of a CDUP. The discharge of water into the surrounding waters of Kaneohe Bay requires NPDES and Clean Water permits pursuant to HRS Chapter 342D and Section 11-54 and 11-55, HAR, from the DOH.

3. County: Grading, grubbing, trenching, and stockpiling permits from the DPP Civil Engineering Branch (CEB) and building permits from the Building Division will be required.

F. Consistency with County Plans:

1. General Plan: These infrastructure improvements allow the continued use of the HIMB research facility, which is consistent with, and supports the General Plan objectives and policies pertaining to: "Economic Activity" (Objective D: Policy 2); "Natural Environment" (Objective A, Policy 7; Objective B, Policy 4); and "Health and Education" (Objective B, Policy 5).

2. Koolaupoko Sustainable Community Plan (SCP): The site is within the Koolaupoko SCP area which encompasses Oahu's windward coast from Makapuu Point to Kaoio Point. The SCP designates Coconut Island as a preservation use and recognizes that the shoreline provides residents and visitors with significant active and passive recreational values, and asserts public access to and along the shoreline should be maintained and improved.

The Project will not change shoreline access and conforms to the SCP guidelines regarding shoreline areas. Except for the construction of the new retaining wall at the Lilipuna Pier site, nearly all construction will be below grade. Provided that

landscaping is installed along the new retaining wall, which will be up to 18 feet high (combined), its visual impact can be minimized. The installation and maintenance of this vegetation and a permanent irrigation system should be made a condition of approval.

3. LUO: Coconut Island is situated the State Conservation District and not subject to the LUO. The Lilipuna Pier site is considered a "public use," and is allowed in the R-10 Residential District. The retaining wall construction will comply with LUO standards and requirements.

G. Public Agency Comments: During the environmental review process, comments were provided by the following agencies/organizations:

1. Federal: U. S. Army Corps of Engineers; U. S. Fish and Wildlife Service; and National Marine Fisheries Service.

2. State: Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation; DOH; Hawaiian Homelands; Office of Planning; Civil Defense; Economic Development & Tourism; Office of Hawaiian Affairs; and Human Services.

3. City: Departments of Facility Maintenance; Design and Construction; Transportation Services; Parks and Recreation; the Board of Water Supply; Fire Department; Kaneohe Neighborhood Board No. 30; and Kaneohe Public Library.

Relevant SMA and SV concerns and issues contained in the Final EA are addressed in appropriate sections of this report, and or are to be made a condition of the DPP recommendation.

H. Community Comments: Upon acceptance of the application for processing, informational notices of the application and public hearing were sent by the DPP to various community organizations, Public officials, Neighborhood Boards, and property owners within 300 feet of the Project site. The DPP received no correspondence either in support of or opposition to the Project.

I. Public Hearing: The DPP held a public hearing on June 13, 2014 at the Kaneohe District Park, located at 45-660 Keaahala Road, Kaneohe, Oahu. Aside from the Applicant and the five staff members of the agent, only one member of the public attended the public hearing and expressed concern regarding possible noise from new wastewater pumps and changes in parking conditions at the Lilipuna Pier site. The Applicant clarified that existing wastewater pumps are located on Coconut Island; therefore, there will be no increase in noise along Lilipuna Road. The Applicant also clarified that at this point, no change or increase in parking will occur.

No written testimony was submitted.

III. ANALYSIS

A. Special Management Area: The Project was analyzed in accordance with the objectives, policies, and review guidelines established by Sections 25-3.1 and 25-3.2, ROH, as well as Sections 205A-2 and 205A-26, HRS.

1. Coastal Hazards: The Lilipuna Pier site is in the Flood Zone X areas determined to be outside the 500-year floodplain as determined by the FIRM, and is not subject to Flood Hazard District requirements of Chapter 21-9.10, ROH. Coconut Island was not included in the FIRM study area and has no flood hazard designation. The FEMA considers Flood Zone X to be an area with a "minimal flood hazard." Coconut Island is within the Civil Defense's Tsunami Evacuation Zone. The Applicants existing evacuation protocols will not be changed by the proposed Project. The Lilipuna Pier site does not contain any habitable facilities.

   In the long term, when the Project is completed, the new below-grade utility crossings will decrease potential coastal hazards currently posed by the aging and exposed utility crossings. Therefore, a separate SMA condition is not required.

2. Alteration of Landforms: The Lilipuna Pier site is not part of a notable landform. Although the topographic profile of this site will be altered, with about 1,840 cubic yards of excavation and the construction of a 311-foot-long terraced retaining wall, this alteration is not considered significant. See Exhibits H and I.

   Coconut Island is a significant landform in Kaneohe. The HDD process is designed to minimally impact landforms. The only alterations will be the excavation of entry and exit pits at either end of the HDD Project. Drilling spoils are limited to only about 118 cubic yards (30 cubic yards at Lilipuna and 88 cubic yards on island), which will be removed off site to an approved disposal site. The open trenching for the rerouting of the gravity wastewater line on Coconut Island will only require a two-foot wide trench, two to five feet deep, or about 148 cubic yards. All grading, excavation, and stockpiling of spoils and fill materials require permits from the DPP CEB, which mandates the use of BMPs such as berms, silt fences, and dust screens along the perimeter of the Project site. Therefore, a separate SMA condition is not required.

3. Drainage: The excavation of the Lilipuna Pier site will alter existing drainage patterns. The reduction of the existing grade and the installation of approximately 7,200 square feet of grass block, which maintains a pervious surface, should reduce the runoff volume and velocity.

   During construction, the use of BMPs to contain the discharge of drilling soils, bentonite, drainage water, or other liquids (i.e., spills or leaks) into Kaneohe Bay will be employed as required by City permits (i.e., grading, stockpiling, trenching) and U. S. Department of the Army (U. S. DOA) Permit. Therefore, an SMA condition addressing drainage is not necessary.

4. Solid Waste Disposal: The Applicant has disclosed that a private contractor collects approximately 16 cubic yards of solid waste per week, which it transports off island to the municipal collection system. The Applicant indicated that solid waste disposal has not changed.

Construction debris, including possible hazardous wastes, will need to be collected and transported from construction sites for appropriate disposal. This waste disposal and management will be addressed in DPP, U. S. DA, DOH, and NPDES Permits, and will be included in the Applicant's construction contracts. Therefore, a separate SMA condition is not required.

5. Wastewater Disposal: The new eight-inch force main located 40 feet below the ocean floor and newly rerouted gravity line at the north end of the island are specifically designed to safely manage existing and possible increased wastewater flow. The Project reduces the potential infiltration or spillage of wastewater into the soil or marine environment.

6. Water Quality:

   a. Groundwater: There are no ground water resources on Coconut Island. At the Lilipuna Pier site, the identified aquifers beneath the site will not be impacted by the HDD installation of the conduits which minimizes subsurface disruptions. The necessary compliance with DOH, NDPES, and U. S. DOA permit requirements ensures that both short-term construction and long-term operational impacts are minimized and monitored.

   b. Nearshore Water: The use of HDD as a construction method, minimizes the disturbance of the seabed, thereby preserving nearshore water quality. The new underground sewer line insures the safe and reliable conveyance of wastewater, reducing potential impacts to sensitive nearshore water.

7. Coastal Ecosystem: The possible discharge of wastewater could be harmful to the existing ecosystems. In the long term, the new sewer system will help preserve coastal ecosystems: flora, fauna, nearshore, and ocean habitat.

   Artificial lighting at and near the shoreline can be disruptive to both avifauna and marine life, in their navigation, nesting, and reproductive cycles. If exterior lighting is proposed, the Applicant should be required to provide shielding to prevent direct illumination of the ocean or sky.

   In the short term, precautions are necessary to prevent construction activities from adversely impacting coastal ecosystems. The Applicant will be obtaining numerous permits and approvals, including those from the U. S. Army Corps of Engineers, the State DOH, and the DPP Site Development Division for grading, stockpiling, trenching activities (all of which require the use of BMPs, including excavation containment machinery, silt curtains, dewatering management, and water quality monitoring). Therefore, a separate SMP condition to require mitigation of construction impacts to coastal resources is not needed.

8. Historic Resources: An archaeological inventory survey was not conducted for the proposed project and the State Historic Preservation Division (SHPD) did not comment on the Project during the environmental review (EA) process.

Archaeological monitoring of ground disturbance is necessary based on the previous existence of burial areas on Coconut Island.

However, the Applicant indicates that an archaeological monitoring plan will be employed during all trenching and ground disturbing activities. Such a monitoring plan is to include anticipatory procedures, including the use of established protocols and consultation with appropriate parties, for use in the event of inadvertent discovery of human remains is made.

Therefore, a condition should be imposed to require the Applicant to conduct on-site archaeological monitoring during all ground disturbance, and submit written confirmation that SHPD has approved of the monitoring plan prior to the start of construction.

9. Cultural Resources: A Cultural Impact Assessment was not prepared for this Project. In a previous SMA, it was indicated that persons with traditional ties to the Ahupuaa of Heeia have traditionally and customarily been allowed to fish around Coconut Island (Moku O Loe). In the past, the Polynesian Voyaging Society has utilized the island for educational tours and temporary docking of its voyaging vessels for viewing.

   This cultural resource use generally conflicts with the 64-acre coral reef sanctuary that extends from the high water mark to 25 feet beyond the outer fringe reef that surrounds Coconut Island. The Hawaii Marine Laboratory Refuge, under State Law (Section 188-36, HRS), prohibits the taking of aquatic life from this area, except by officers, faculty, students, and employees of the University of Hawaii, or licensees of the University of Hawaii Board of Regents. The Applicant previously suggested a possible agreement to provide a Kuula or Koa site that would provide an opportunity to reestablish traditional practices on Coconut Island. The Applicant has previously indicated that it will continue to work with the Office of Hawaiian Affairs and other Hawaiian cultural groups, to develop protocols that address these conflicting uses. Most of these conditions are included in previous SMA and CDUP conditions. Therefore, an SMA condition is not required.

10. Recreational Resources: Kaneohe Bay, outside of the coral reef refuge that surrounds Coconut Island, provides numerous recreational opportunities, including canoe paddling, boating, net throwing, pole and line fishing, crabbing, spearfishing, sport diving, and sailing. Commercial recreational activities also occur at designated areas of Kaneohe Bay. However, as discussed above, the 64-acre Hawaii Marine Laboratory Refuge which surrounds Coconut Island, strictly prohibits taking of aquatic life (Section 188-36, HRS), and thereby restricts some recreational activities. In the short-term, construction and operation activities will generate an increase in marine traffic from the site to the Lilipuna Pier and Heeia Pier. This activity is not expected to disrupt existing recreational uses of Kaneohe Bay or the public Heeia Pier. In the long term, replacing the aging force main, which lays on the seabed and is more prone to leaking or spills, will ensure the protection of water quality and recreational users that depend on it. The Project will not significantly impact recreational activities. Therefore, an SMA condition for mitigation is not required.

11. Scenic and Open Space Resources: The site is in the Heeia Section of the Kaneohe Bay Viewshed, as identified in the City and County's Coastal View Study (1987). The study indicates that the visual character of this section is residential with single-family homes developed on the makai side of the Road. Lilipuna Road is identified as a coastal roadway that enjoys intermittent coastal views, due to its sloping topography which allows views between and over houses.

    Coconut Island is a prominent feature of this Viewshed due to its proximity to the shoreline (about 1/4 mile at its nearest point). The Project, with the exception of the retaining wall on the pier site, is below the surface and therefore will have no visual impact when completed.

    However, the new retaining wall, with a maximum total height of 18 feet, will be visible from the shoreline and nearshore waters. To minimize its visual impacts, the Applicant should provide landscaping to screen views of the new retaining wall. In addition, the wall should be colored natural earth tones to further minimize its visual impact. The landscaping should be required to be maintained for the life of the structure. Therefore, a condition should be imposed to require installation and maintenance of landscape screening and the retaining wall be painted to blend with the surrounding environment.

B. Shoreline Setback Variance (SV): Pursuant to Section 23-1.8(b)(2), ROH, a SV may be granted for a project under the "public interest standard."

1. A variance may be granted for an activity or structure that is necessary for or ancillary to facilities or improvements by a public agency or by a public utility regulated under HRS Chapter 269, or necessary for or ancillary to private facilities or improvements that are clearly in the public interest. The infrastructure rehabilitation and replacement project is necessary to maintain and continue the safe and functional operation of the HIMB Coconut Island research facility, a public facility of the University of Hawaii. The safe and reliable delivery of wastewater, electricity, potable water, and telecommunication are public utilities which are necessary to maintain Coconut Island's function as a strategic research and educational facility, which is clearly in the public interest.

2. A variance may be granted for an activity or structure, provided that the proposal is the most practicable alternative which best conforms to the purpose of this chapter and the shoreline setback rules. The HDD installation of the new utility connections to Coconut Island is the most practicable alternative. If implemented with the proper BMPs, this method of installation offers the least potential for disruption to the sensitive ecosystem surrounding the facility which is uniquely situated to study and observe. The placement of the utility conduits 40 feet below the ocean floor minimizes the potential pollution problems (i.e., leaks) or disruption of service as compared with exposed utility lines that are laid on the ocean floor, where structural integrity is potentially compromised by severe tides or storm events or anchor damage by mariners.

IV. CONCLUSIONS OF LAW

The Director hereby makes the following Conclusions of Law:

A. SMA Permit: The proposed construction outlined by the Coconut Island Infrastructure Rehabilitation and Replacement Project was reviewed under the provisions of Section 25-3.1 and 25-3.2, ROH, and Sections 205A-2 and 205-A-26, HRS, and found to be generally consistent with the established objectives, policies, and guidelines. Based on the Analysis, the proposed public use and structure will not adversely impact SMA resources, provided that certain mitigative conditions of approval are imposed.

B. SV Permit: The proposed improvements were also reviewed under the provisions of Chapter 23, ROH. Pursuant to Section 23-1.8(b)(2), ROH, a variance can be granted under the "public benefit standard," since the Project will be undertaken by a public agency. It is clearly in the public interest and the proposal is the most practical alternative which best conforms to the purposes of Chapter 23, ROH and the Shoreline Setback Rules, provided that certain mitigative conditions of approval are imposed.

V. RECOMMENDATION

Based on the preceding analysis and conclusion, it is recommended that this application for a Special Management Area Use Permit (SMP) and Shoreline Setback Variance (SV) for the Coconut Island Infrastructure Rehabilitation and Replacement Project, portions of which encroach within (below) the 40-foot shoreline setback area, be APPROVED, subject to the following conditions:

A. Construction on the Coconut Island Infrastructure Rehabilitation and Replacement Project (Project) shall be in general conformity as described in the Report and Recommendation by the Director of the Department of Planning and Permitting (DPP), as depicted on Exhibits A through N, attached hereto. Any change in the size or nature of the Project which has a significant effect on coastal resources addressed in Chapters 23 and 25, Revised Ordinances of Honolulu and Chapter 205-A Hawaii Revised Statutes (HRS), shall require a new SMP and SV. Any change which does not have a significant effect on coastal resources shall be considered a minor modification and therefore permitted under this resolution, upon review and approval by the Director of the DPP.

B. Prior to issuance of development permits, the Applicant shall provide the DPP with written confirmation that an Archaeological Monitoring Plan has been prepared and accepted by the State Historic Preservation Division (SHPD). Furthermore, if, during construction, any previously unidentified archaeological sites or remains (such as artifacts, shell, bone, or charcoal deposits, human burials, rock or coral alignments, paving, or walls) are encountered, the Applicant shall stop work and contact the SHPD immediately. And, in such case, work in the immediate area shall be stopped until SHPD is able to assess the impact and make further recommendations for mitigation.

C. Prior to issuance of development permits, the Applicant shall submit to the DPP for review and approval, landscape and irrigation plans, and a color palate to mitigate the visual impact of the terraced retaining walls at the Lilipuna Pier site. The Applicant shall also submit photographs showing the installation of the approved landscaping within 90 days of the completion of the facility.

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

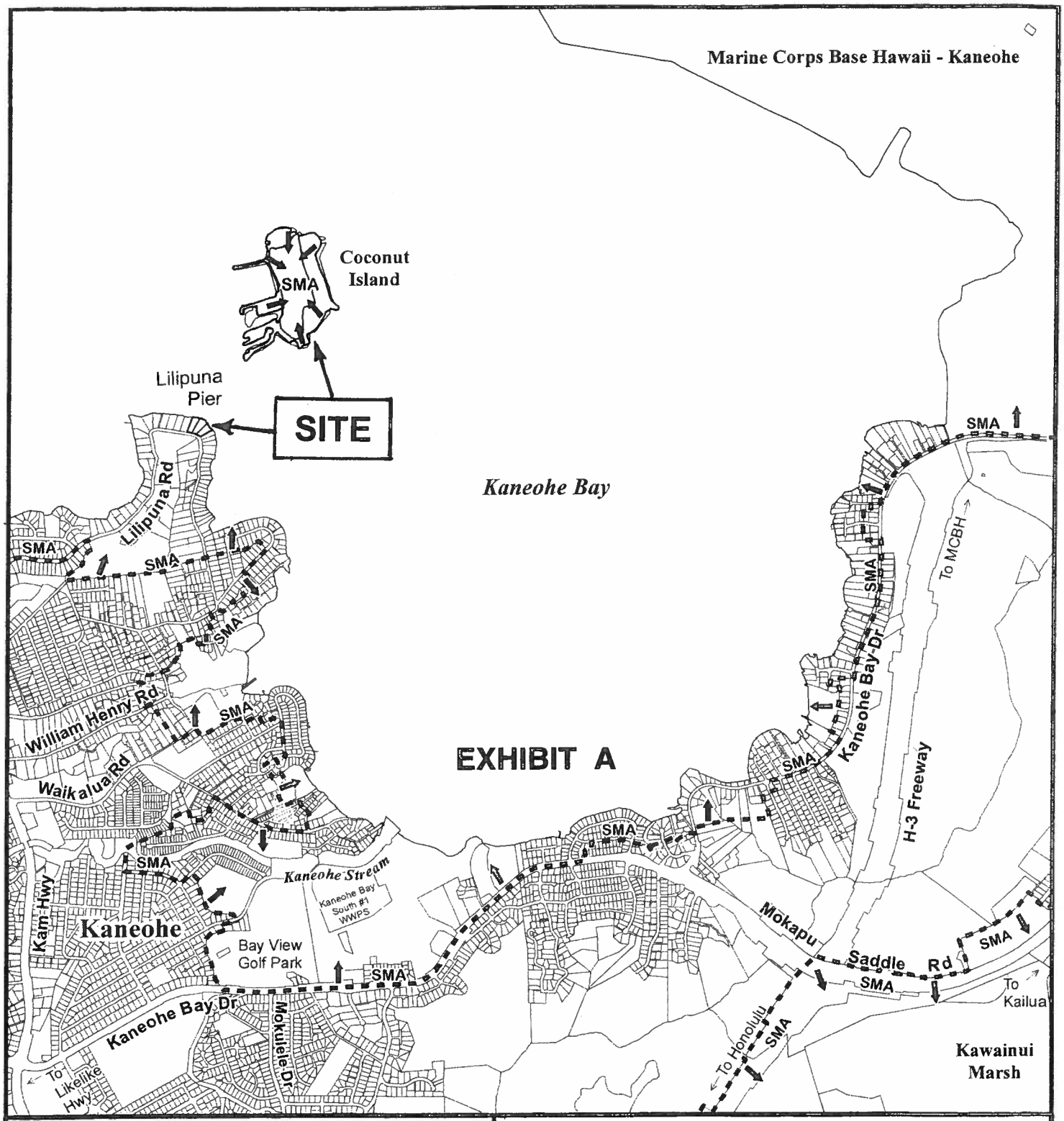
E. Approval of this SMP and SV does not constitute compliance with other governmental requirements. They are subject to separate review and approval. The Applicant shall be responsible for ensuring that the final plans for the Project approved under this permit comply with all applicable governmental agencies' provisions and requirements.

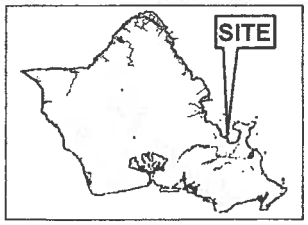
Dated at Honolulu, Hawaii, this 14th day of July, 2014.

Department of Planning and Permitting
City and County of Honolulu
State of Hawaii

By _____
George I. Atta, FAICP, Director

Enclosures





VICINITY MAP

0 1,000 2,000 4,000

Scale: 1 inch = 2000 feet

LOCATION MAP

HEEIA (KANEOHE BAY)

------ In Special Management Area (SMA)

↓

FOLDER NOS.: 2014/SMA-23 & 2014/SV-4

TAX MAP KEY: 4-6-1: 1, 15, 16, 17 & 51

Prepared by: Department of Planning & Permitting
City and County of Honolulu

Date Prepared: Ju e 24, 2014

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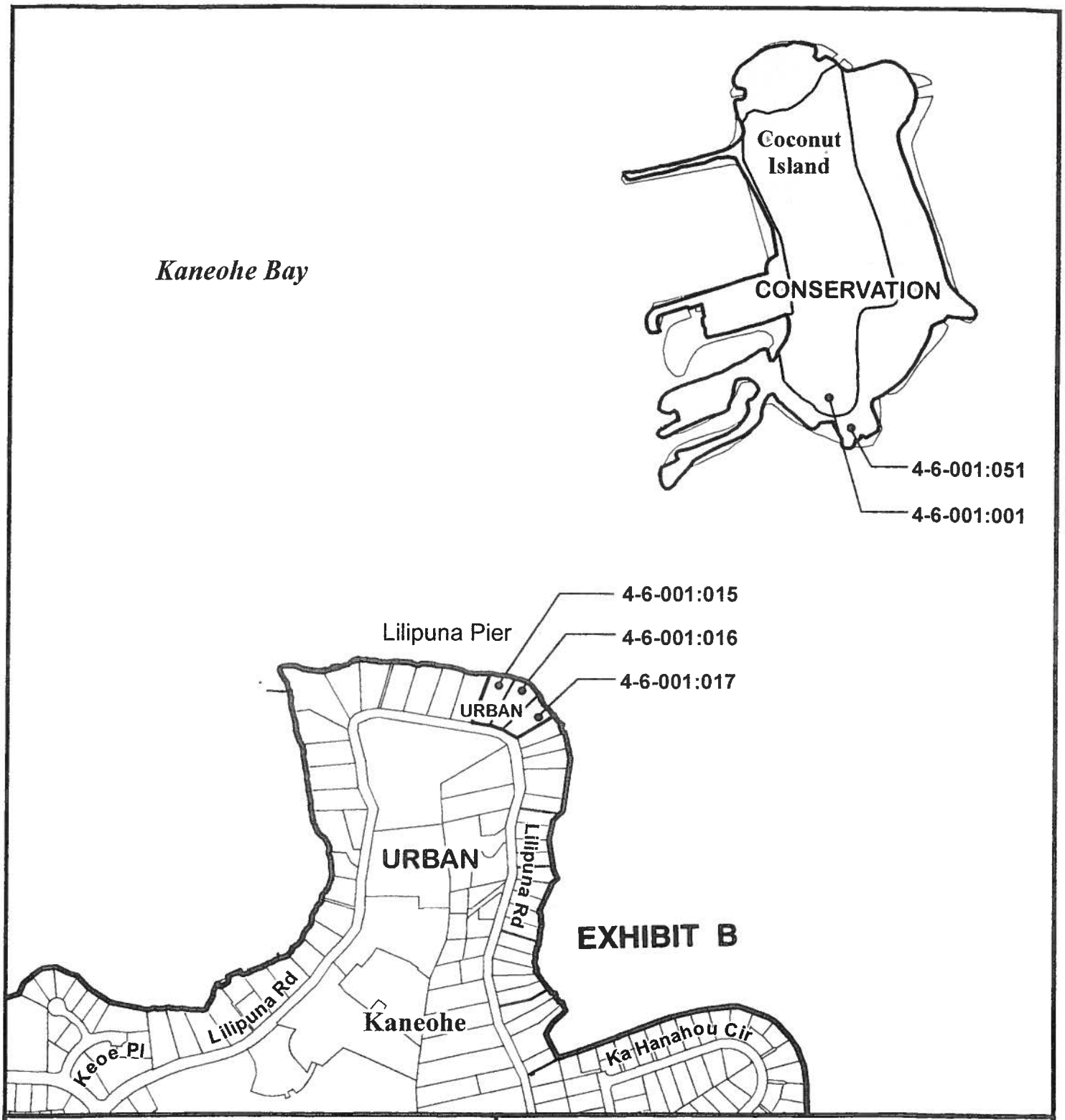

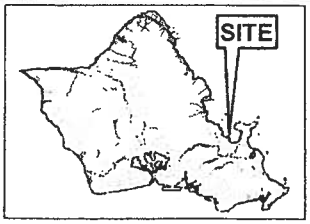

VICINITY MAP

0 300 600 1,200

Scale: 1 inch = 600 feet

STATE LAND USE MAP

HEEIA (KANEOHE BAY)

In Special Management Area (SMA)

FOLDER NOS.: 2014/SMA-23 & 2014/SV-4

TAX MAP KEY: 4-6-1: 1, 15, 16, 17 & 51

Prepared by: Department of Planning & Permitting
City and County of Honolulu

Date Prepared: May 20, 2014

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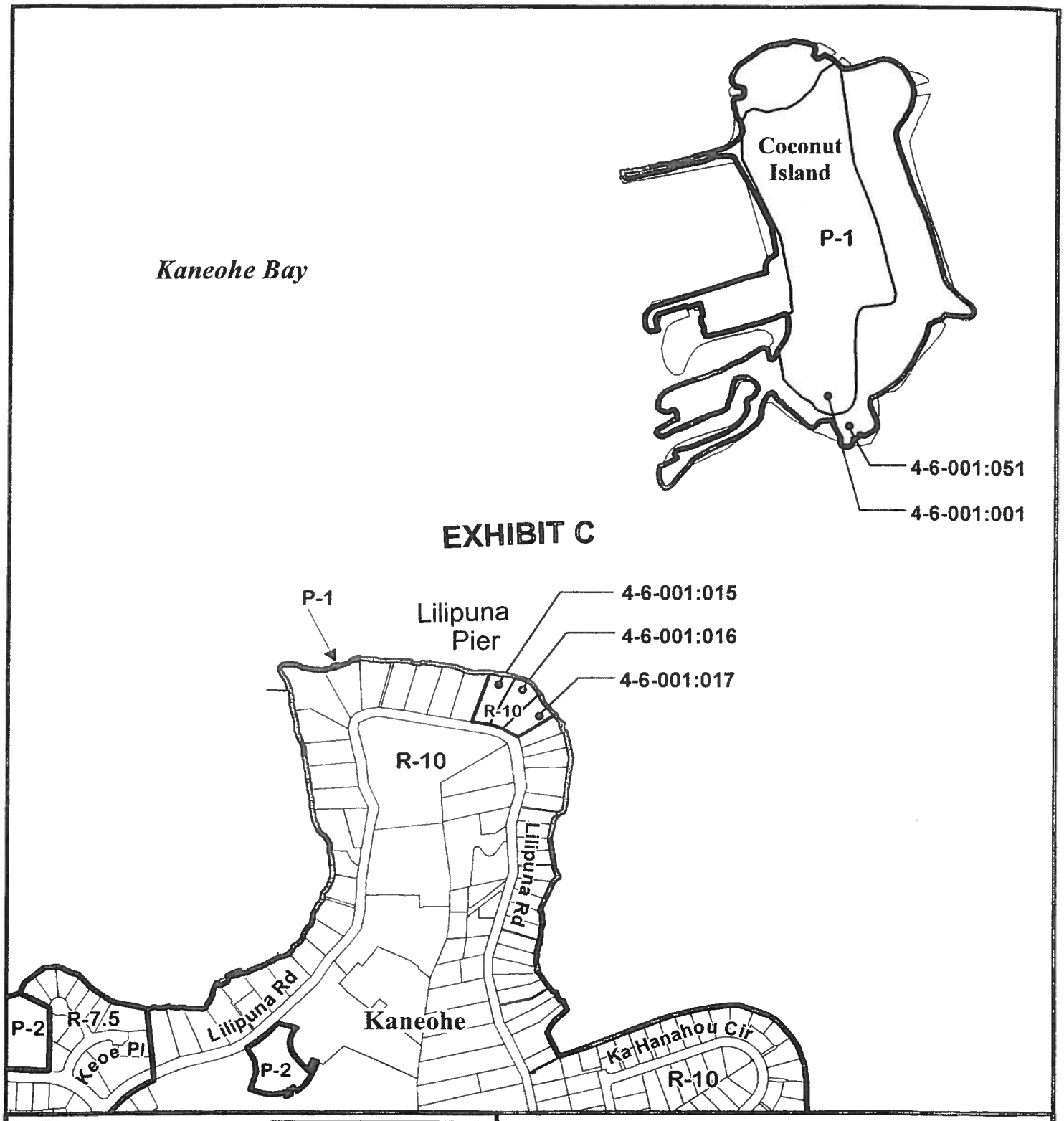

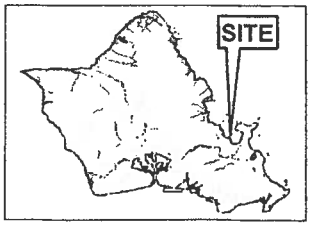

VICINITY MAP

0 300 600 1,200

Scale: 1 inch = 600 feet

ZONING MAP

HEEIA (KANEOHE BAY)

In Special Management Area (SMA)

FOLDER NOS.: 2014/SMA-23 & 2014/SV-4

TAX MAP KEY: 4-6-1: 1, 15, 16, 17 & 51

Prepared by: Department of Planning & Permitting
City and County of Honolulu

Date Prepared: May 20, 2014

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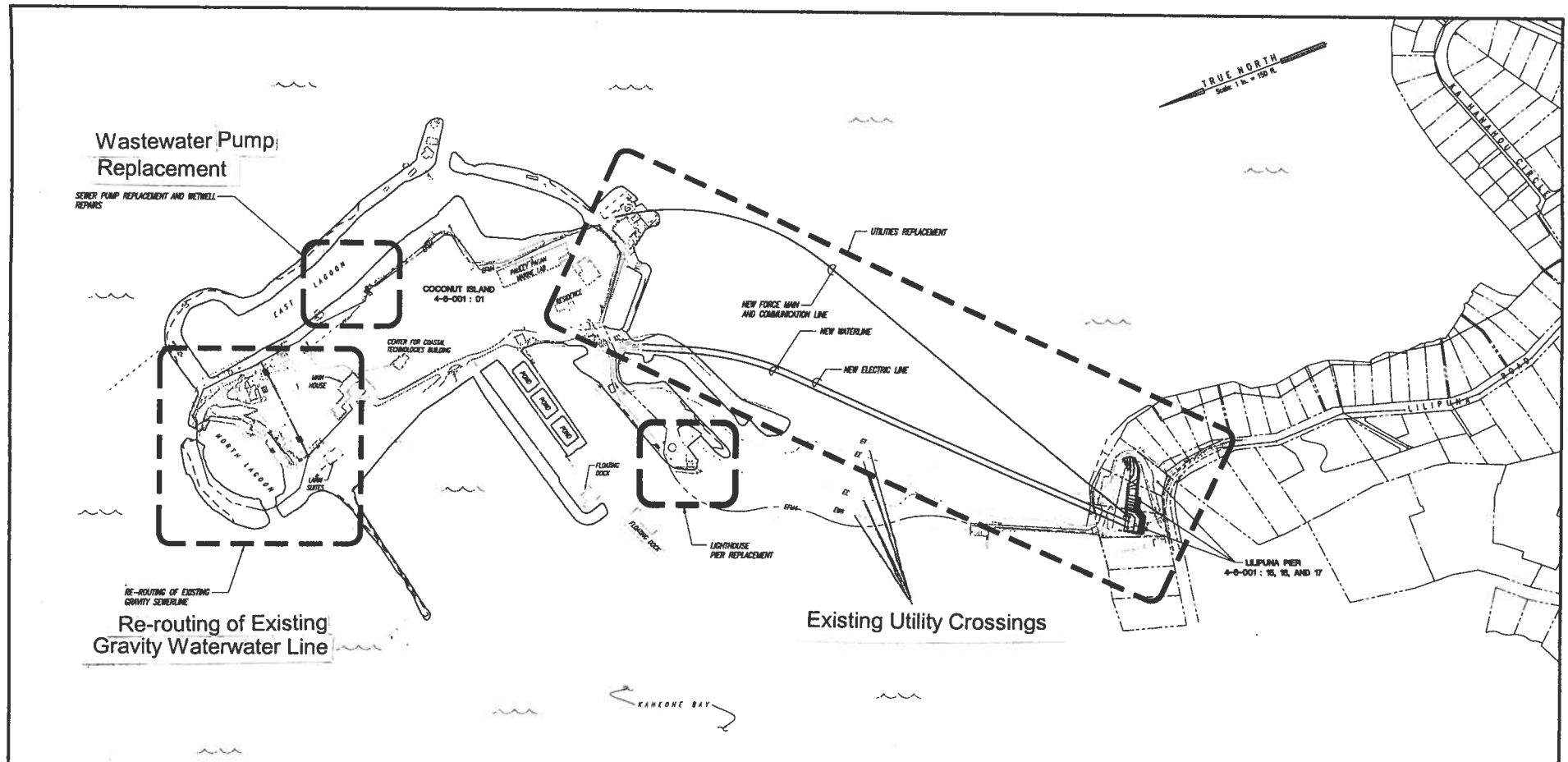


LEGEND

- HDD ALIGNMENT
- EXISTING WATERLINE
- EXISTING COMMUNICATION LINE
- EXISTING ELECTRIC LINE
- EXISTING FORCE MAIN
- NEW SEWERLINE
- PROPERTY LINE
- SHORELINE
- OCEAN

NOTE:
1. THE LOCATION OF EXISTING UTILITY LINES ARE APPROXIMATE AND BASED ON AVAILABLE AS-BUILT INFORMATION.

EXHIBIT D

GENERAL LAYOUT PLAN

SCALE: 1" = 150'

150 75 0 150 300
Graphic Scale in Feet

FIGURE 3a

REVISION NO.	SYM.	DESCRIPTION	SHT. __ OF __	DATE

DEREK K. MIKAI LICENSED PROFESSIONAL ENGINEER No. 8876-C HAWAII U.S.A.

This work was prepared by me or under my supervision and meets the standards of practice of land surveying in the State of Hawaii. Field work was done by surveyors licensed in the State of Hawaii or under the direct supervision of the Licensed Professional Engineer, Surveyor, and Landscape Architect.

04/28/14
signature date of seal or stamp

UNIVERSITY OF HAWAI'I
STATE OF HAWAII

COCONUT ISLAND UTILITY REHABILITATION / REPLACEMENT

COCONUT ISLAND
KANEOHE OAHU HAWAI'I

GENERAL LAYOUT PLAN

COMMUNITY PLANNING AND ENGINEERING

PROJECT NO. UHM 000-017-12

SHEET 4 C-3 OF 28 SHTS

DESIGNED BY HC/PK
CHECKED BY DM
DRAWN BY HC/PK
APPROVED BY
DATE 3/05/14

FOLDER NOS.: 2014/SMA - 23 & 2014/SV-4

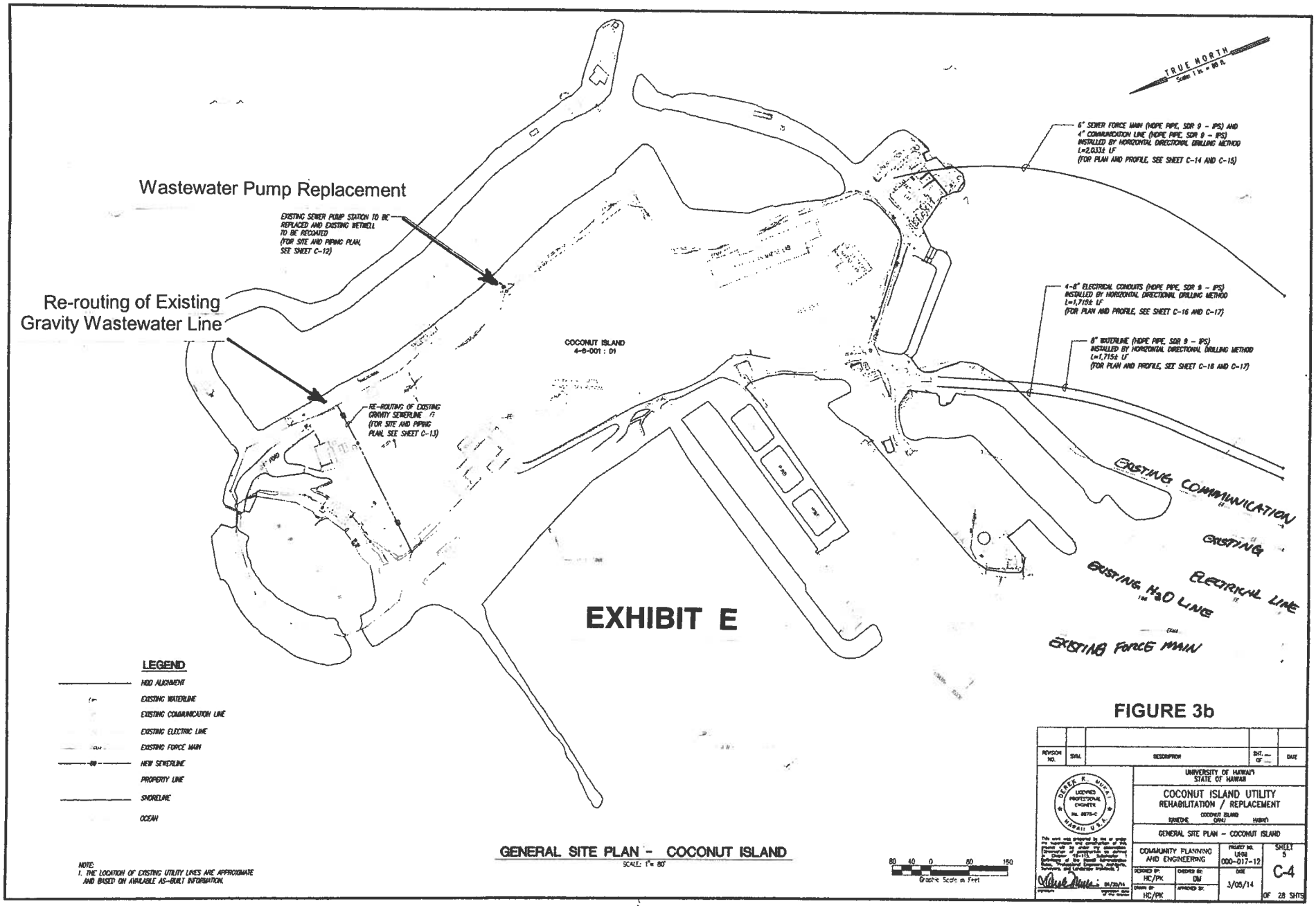
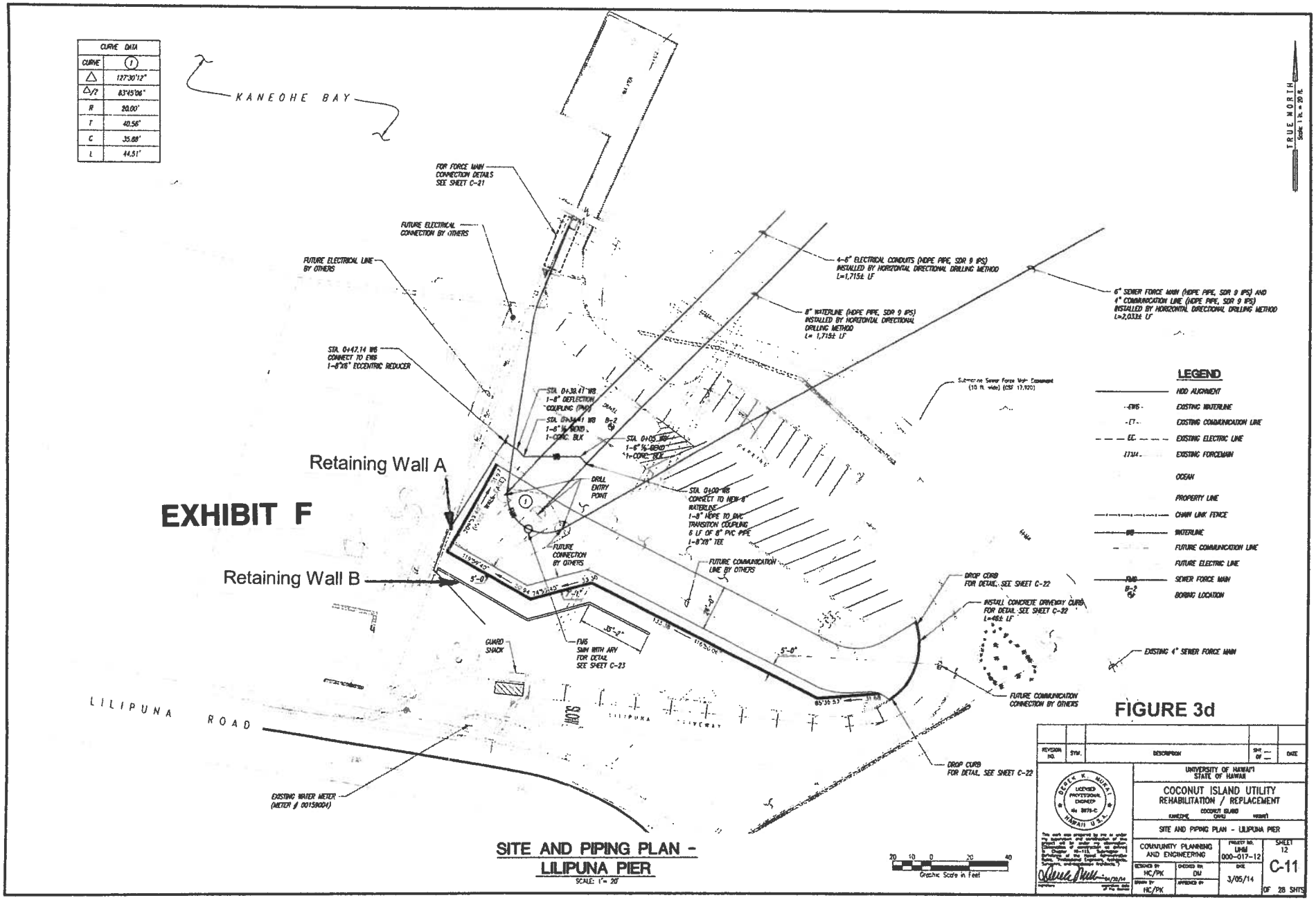


FIGURE 3b

FOLDER NOS.: 2014/SMA - 23 & 2014/SV-4



FOLDER NOS.: 2014/SMA - 23 & 2014/SV-4

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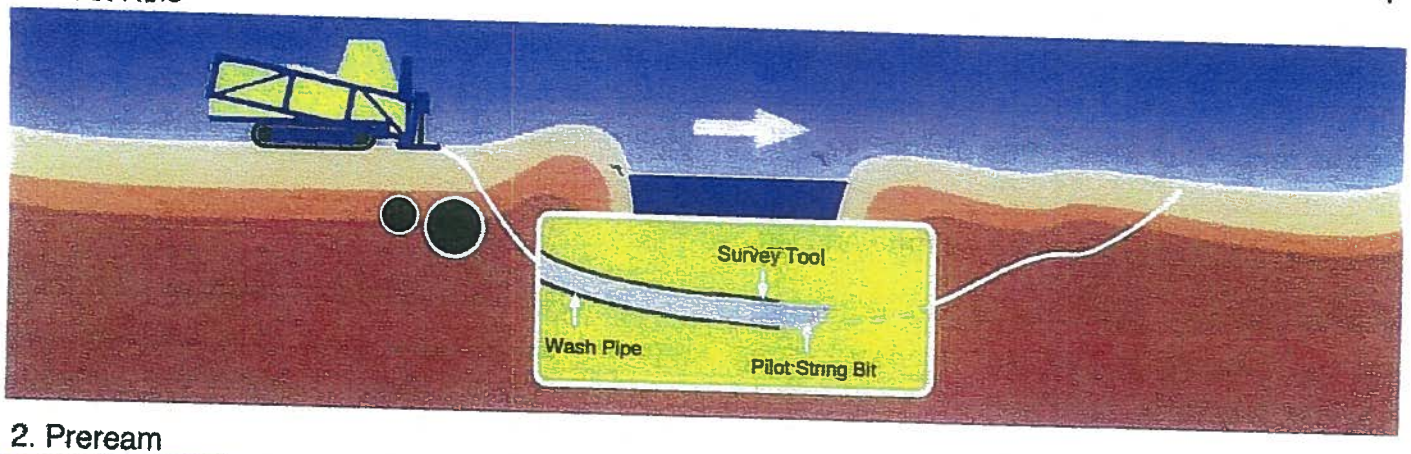
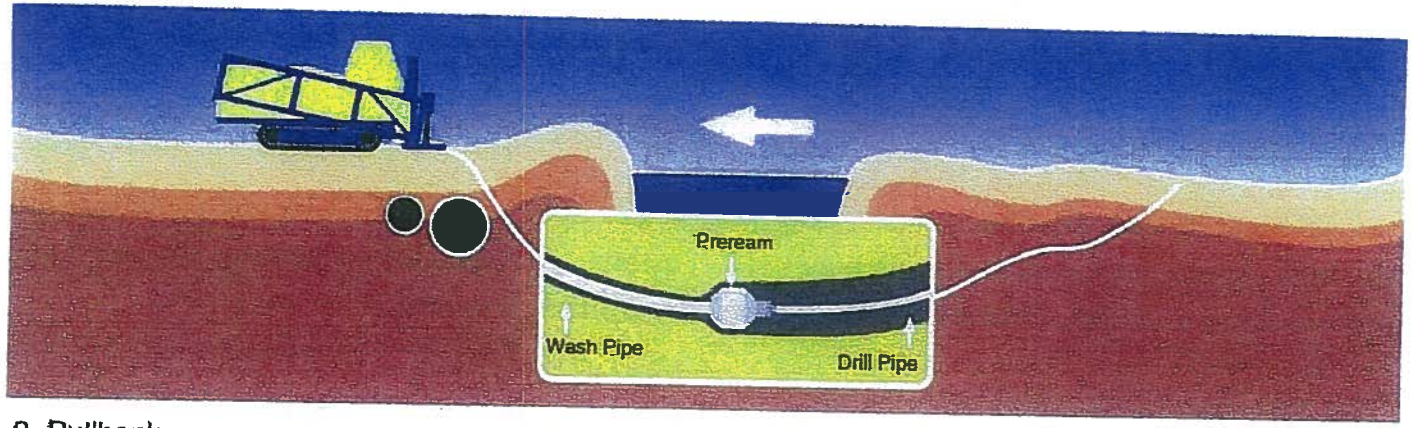


2. Preream



3. Pullback

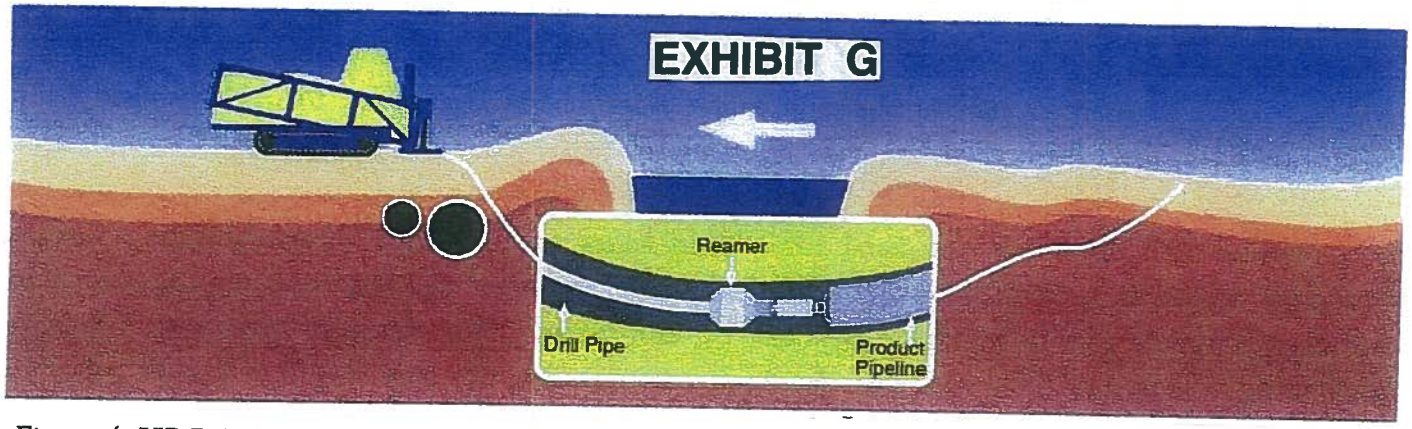


Figure 4 HDD Process

FOLDER NOS.: 2014/SMA - 23 & 2014/SV-4

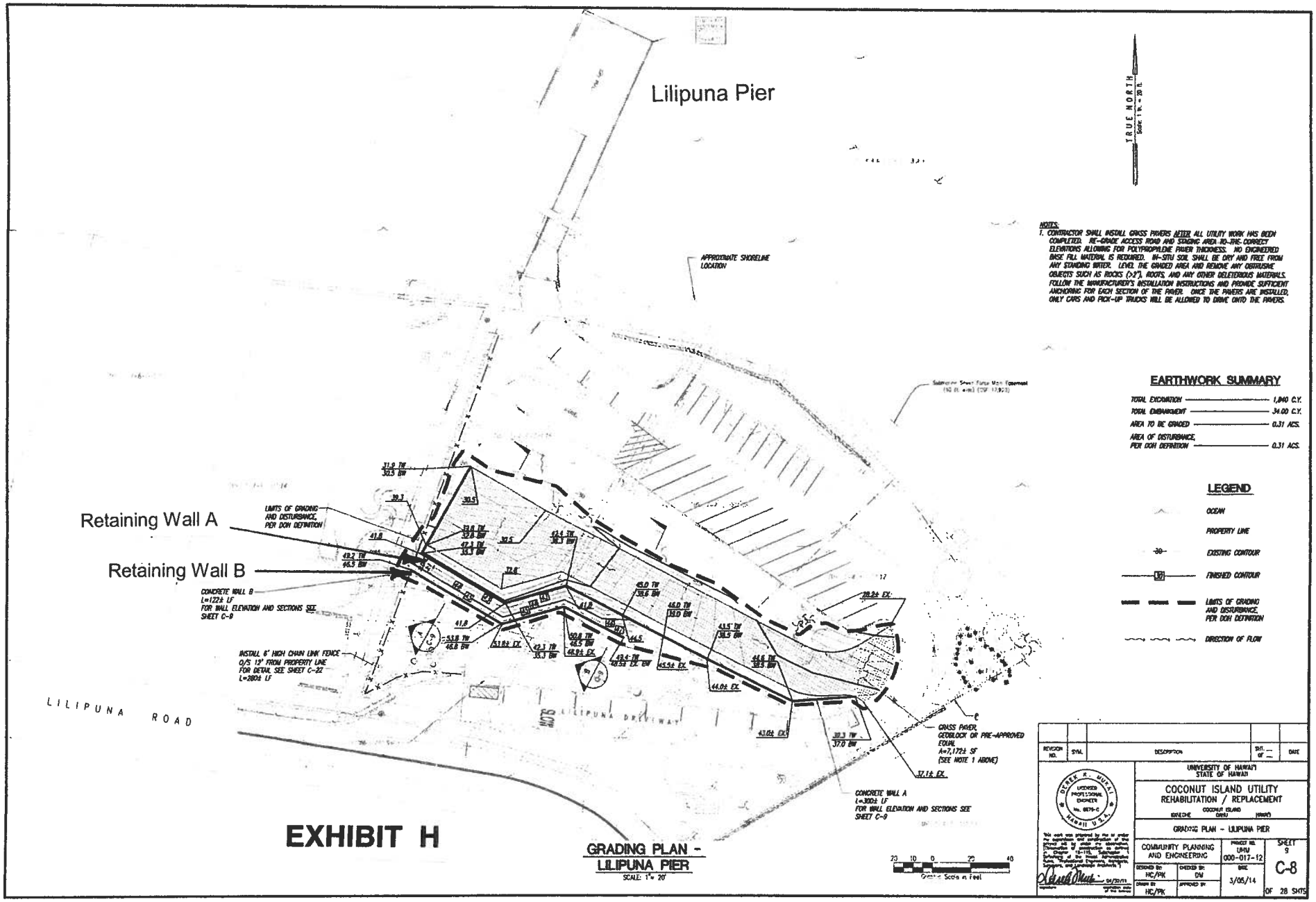
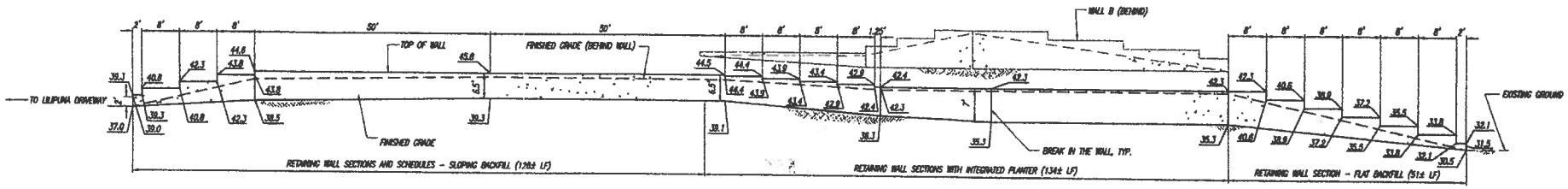


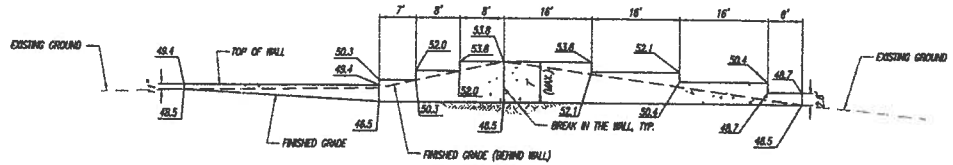
EXHIBIT H

GRADING PLAN - LILIPUNA PIER
SCALE: 1" = 20'

FOLDER NOS.: 2014/SMA - 23 & 2014/SV-4



ELEVATION - WALL A
SCALE: 1" = 10'-0"



ELEVATION - WALL B
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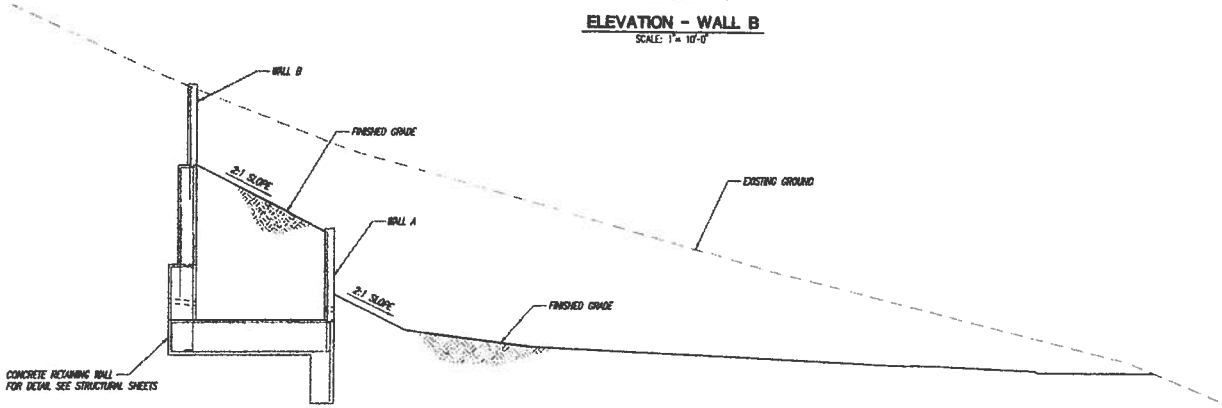
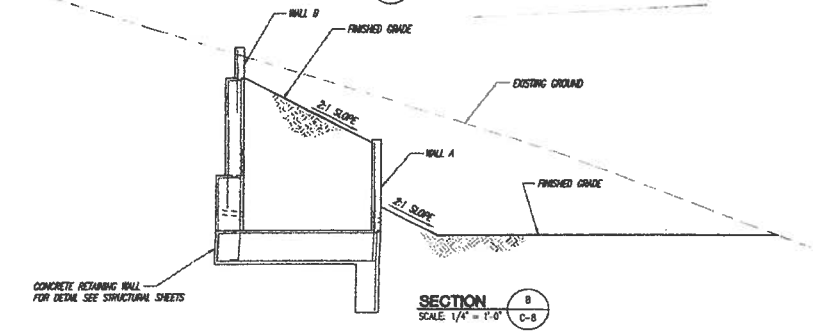


SECTION A / C-8
SCALE: 1/4" = 1'-0"

EXHIBIT I



SECTION B / C-8
SCALE: 1/4" = 1'-0"

REVISION NO.	SYM.	DESCRIPTION	SHT. — OF —	DATE

DEREK K. MUKAI — LICENSED PROFESSIONAL ENGINEER — No. 6975-C — HAWAII U.S.A.

UNIVERSITY OF HAWAII
STATE OF HAWAII

COCONUT ISLAND UTILITY
REHABILITATION / REPLACEMENT
KANEOHE — COCONUT ISLAND — OAHU — HAWAII

ELEVATIONS AND SECTIONS – RETAINING WALLS

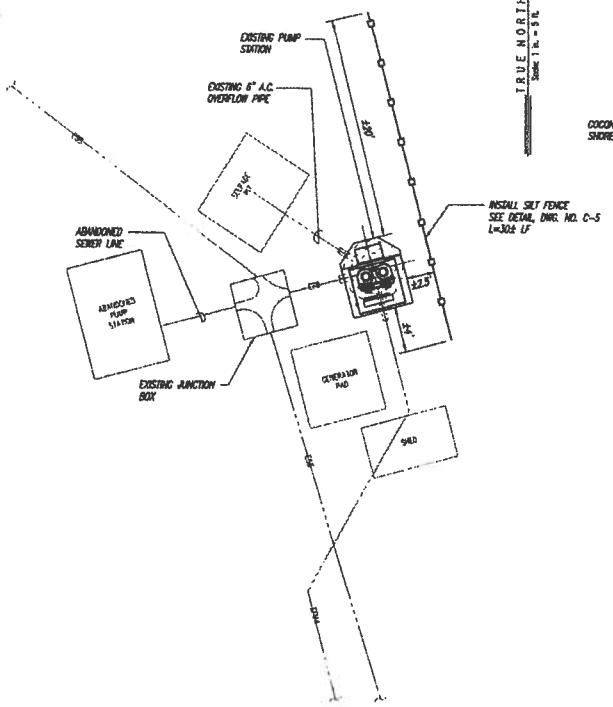
COMMUNITY PLANNING AND ENGINEERING

PROJECT NO. UHM 000-017-12

SHEET 10 — C-9 — OF 28 SHTS

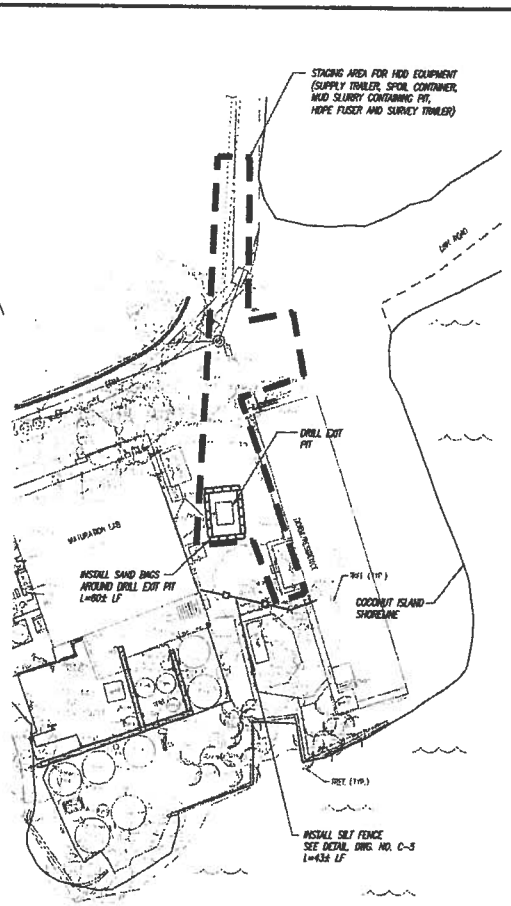
DESIGNED BY HC/PK — CHECKED BY DM — DATE 3/05/14 — DRAWN BY HC/PK — APPROVED BY

FOLDER NOS.: 2014/SMA - 23 & 2014/SV-4



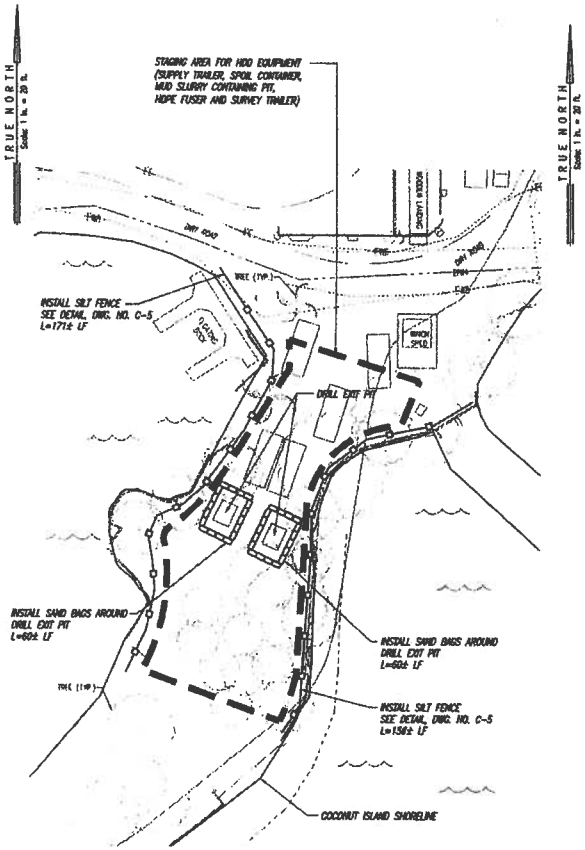
EROSION CONTROL PLAN - PUMP STATION

SCALE: 1" = 5'



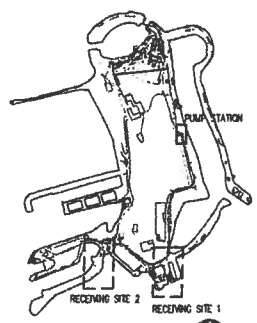
EROSION CONTROL PLAN - RECEIVING SITE 1

SCALE: 1" = 20'



EROSION CONTROL PLAN - RECEIVING SITE 2

SCALE: 1" = 20'



KEY MAP

NOT TO SCALE

NORTH

EXHIBIT J

LEGEND

OCEAN

SAND BAGS

SILT FENCE

20 10 0 20 40

Graphic Scale in Feet

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE

UNIVERSITY OF HAWAII
STATE OF HAWAII

COCONUT ISLAND UTILITY
REHABILITATION / REPLACEMENT

COCONUT ISLAND
KANEOHE OAHU HAWAII

EROSION CONTROL PLAN - PUMP STATION, RECEIVING SITE 1 AND 2

COMMUNITY PLANNING AND ENGINEERING

PROJECT NO. UHM 000-017-12

SHEET 7 C-6 OF 28 SHTS

DESIGNED BY HC/PK

CHECKED BY DM

DRAWN BY HC/PK

APPROVED BY

DATE 3/05/14

GENER K. MUKAI LICENSED PROFESSIONAL ENGINEER No. 8673-C HAWAII U.S.A.

FOLDER NOS.: 2014/SMA - 23 & 2014/SV-4

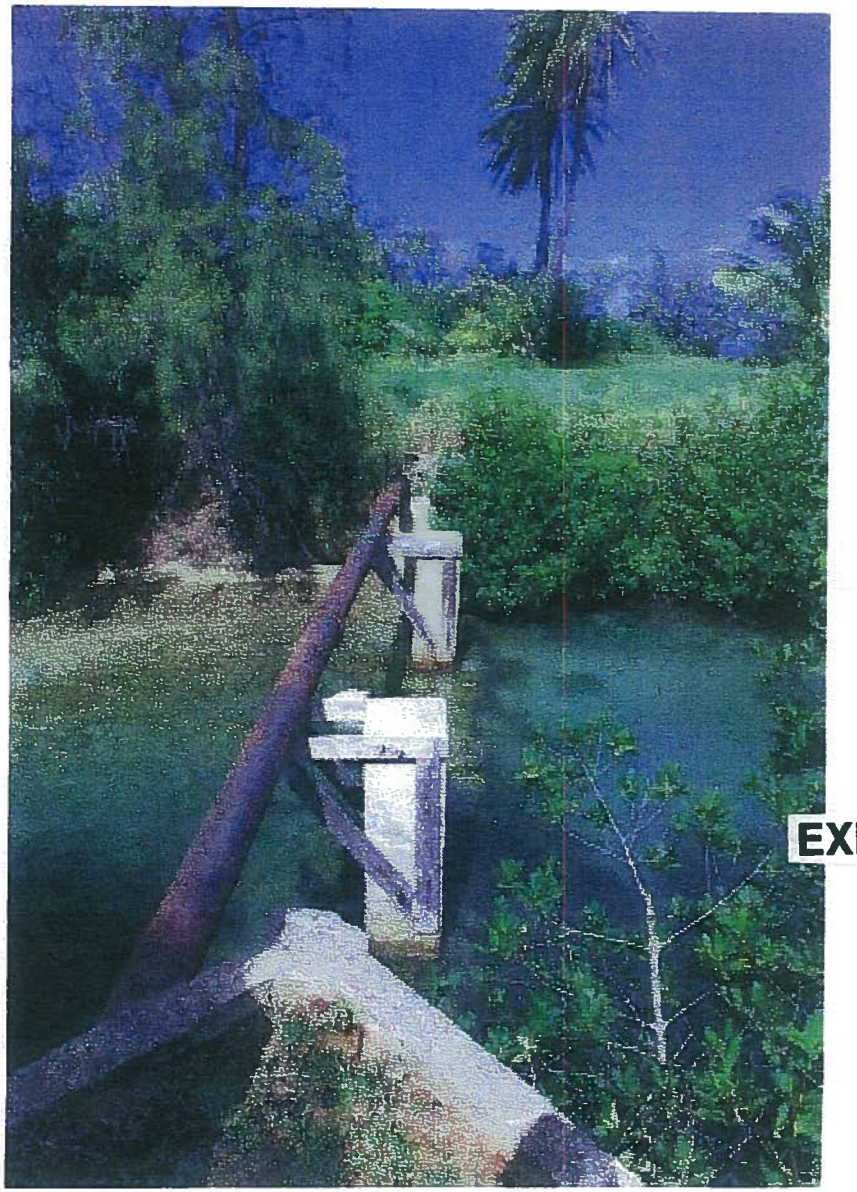


Photo 1: Gravity sewer crossing at northwestern side of North Lagoon

EXHIBIT K

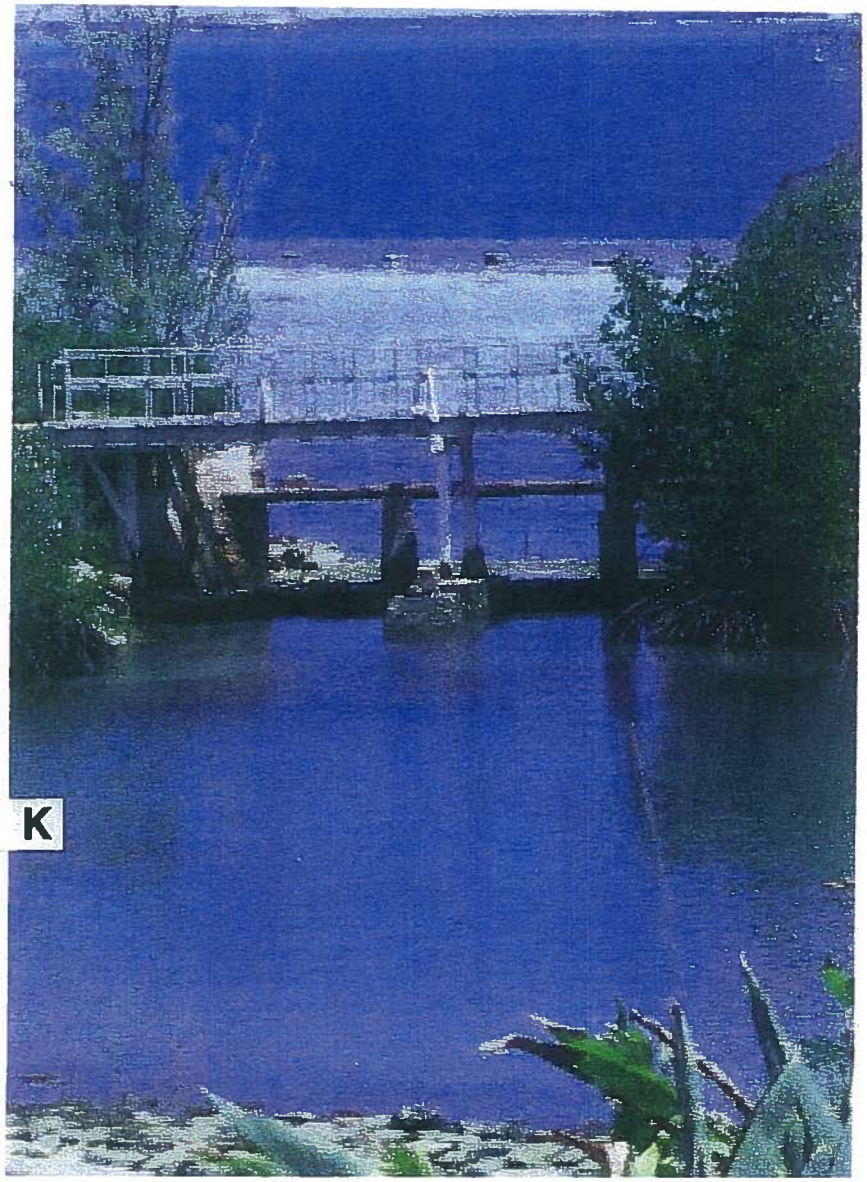
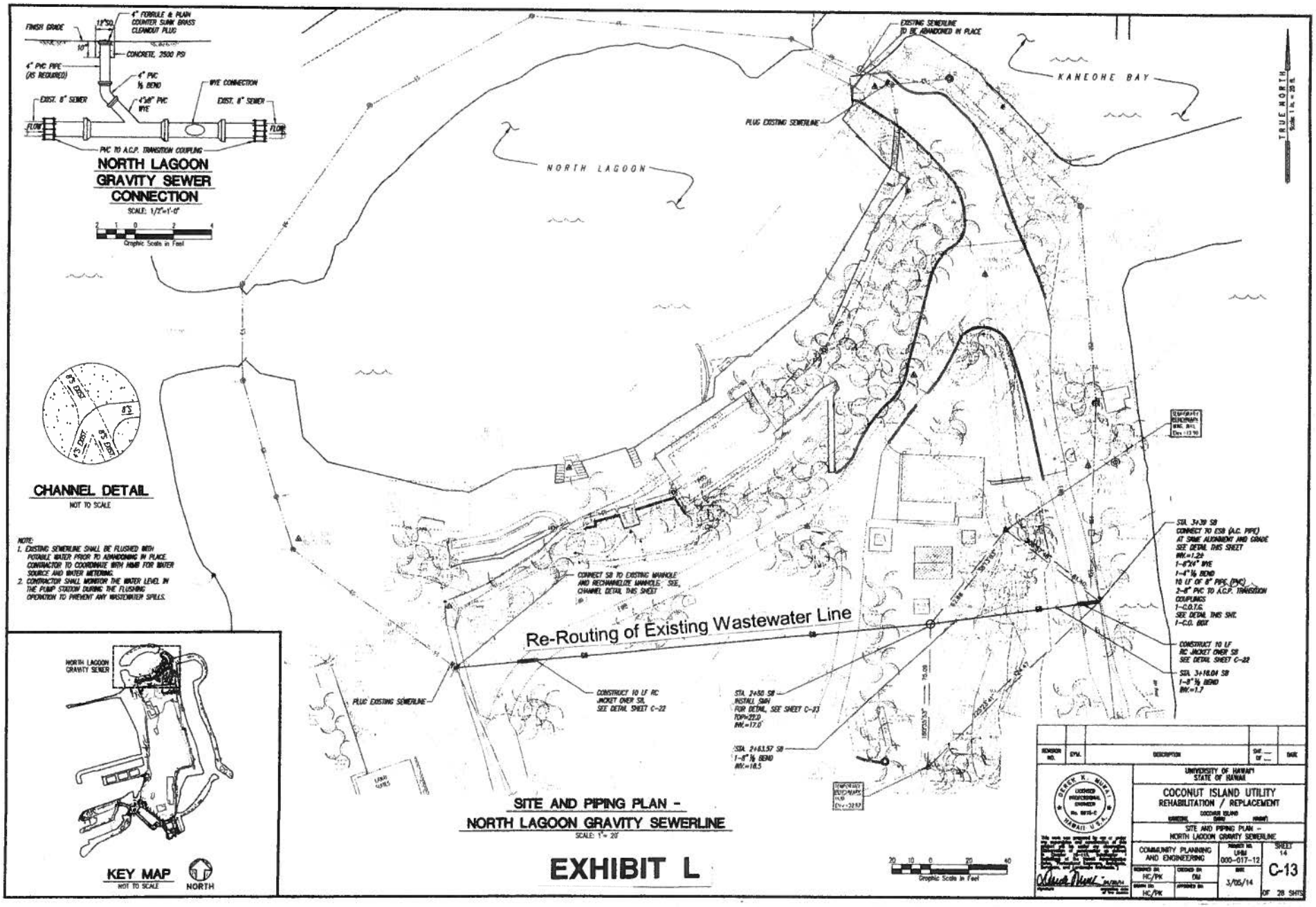


Photo 2: Gravity sewer crossing at northeastern side of North Lagoon

FOLDER NOS.: 2014/SMA - 23 & 2014/SV-4



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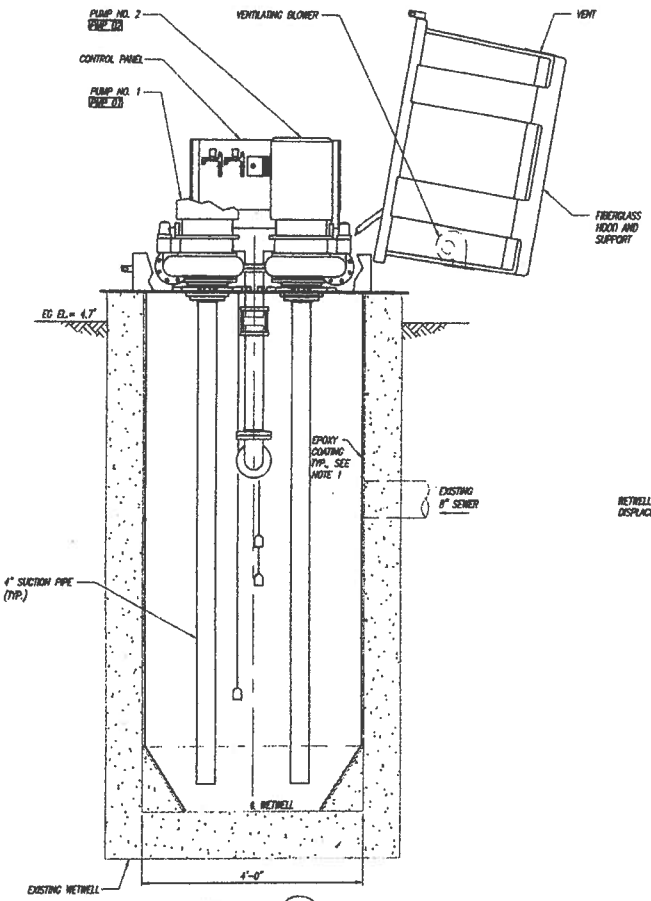

SECTION A C-20
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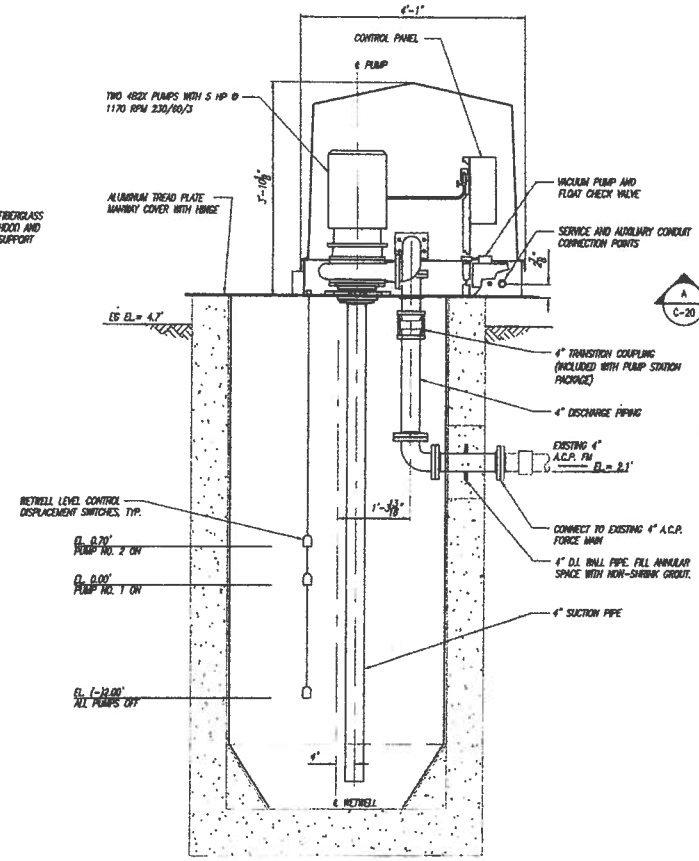

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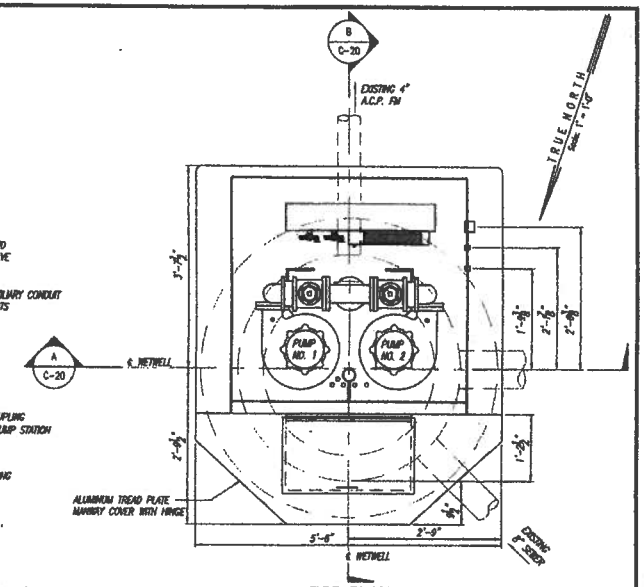
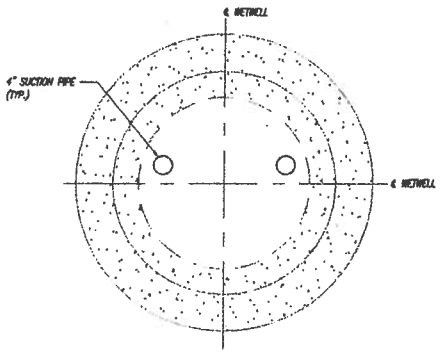


TOP PLAN
SCALE: 1" = 1'-0"



BOTTOM PLAN
SCALE: 1" = 1'-0"

EXHIBIT M

REFERENCE	EQUIPMENT	OPERATIONAL NOTES	TYPE	DESCRIPTION
PMP 01	SEWAGE PUMP NO. 1	PUMP IS AUTOMATICALLY OPERATED BY LEVEL CONTROL. MANUAL OVERRIDE IS PROVIDED	DRY PIT WETWELL MOUNTED PUMP	120 GPM @ 40' TDH, 5 HP, 1170 RPM 230/60/3
PMP 02	SEWAGE PUMP NO. 2	"	"	"
-----	WETWELL LEVEL AND PUMP CONTROL	INCLUDED WITH PUMP STATION PACKAGE	-----	-----

NOTE:
1. SEE SPECIFICATION SECTION 02601 FOR SURFACE PREPARATION INSTRUCTION AND COATING APPLICATION PROCEDURE.
2. PUMP STATION SHALL BE SMITH AND LOVELESS MODEL 4B2X X-PELLER, OR PRE-APPROVED EQUAL.
3. PUMP MANUFACTURER SHALL FURNISH PUMPS, PUMP SUPPORT AND HOUSING, CONTROL PANEL, SUCTION PIPING, LEVEL SWITCHES, DISCHARGE PIPING, VACUUM PUMP AND FLOAT CHECK VALVE (SEE SPECIFICATION SECTION 02720).

REVISION NO.	SYM.	DESCRIPTION	SHT. — OF —	DATE

DEREK K. MURAI — LICENSED PROFESSIONAL ENGINEER — No. 8875-C — HAWAII U.S.A.

UNIVERSITY OF HAWAI'I
STATE OF HAWAII

COCONUT ISLAND UTILITY
REHABILITATION / REPLACEMENT
COCONUT ISLAND
KANEOHE OAHU HAWAII

PUMP STATION PLAN AND SECTION

COMMUNITY PLANNING AND ENGINEERING

PROJECT NO. UHM 000-017-12

SHEET 21 C-20 OF 28 SHTS

DESIGNED BY HC/PK | CHECKED BY DM | DATE 3/05/14 | DRAWN BY HC/PK | APPROVED BY

FOLDER NOS.: 2014/SMA - 23 & 2014/SV-4

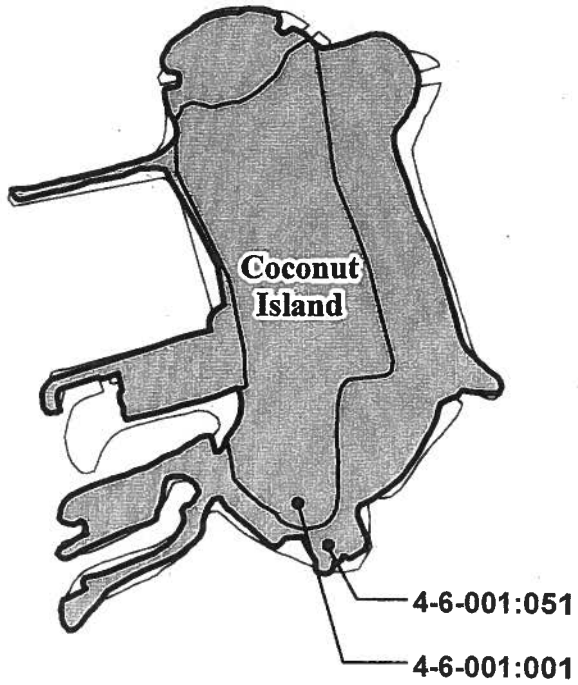
Legend

Flood zones other than 1% and .2% annual chance (100- and 500 year) flood:

X - Outside .2% annual chance flood plain

Note: Coconut island is not included in the study area.

Source: FIRM (Flood Insurance Rate Map) panel 0270H (revised 1/19/2011).



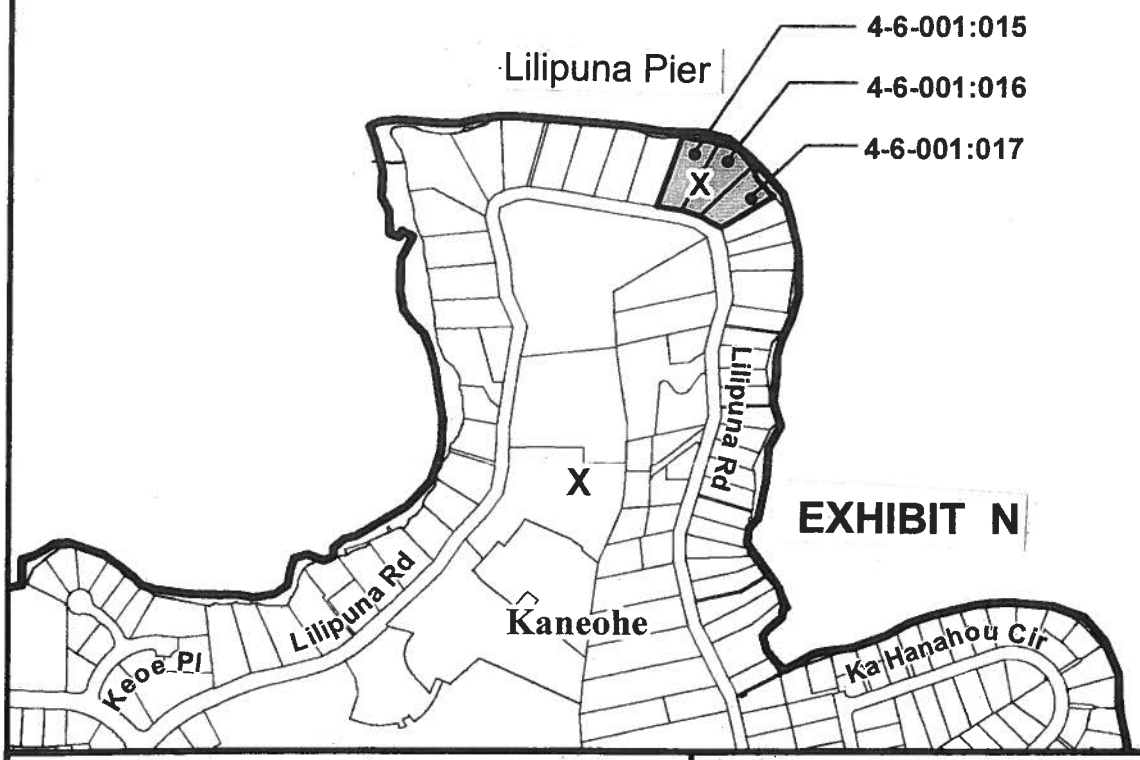
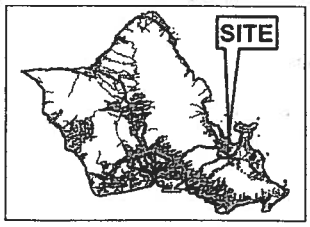


EXHIBIT N



VICINITY MAP

0 300 600 1,200

Scale: 1 inch = 600 feet

FLOOD HAZARD MAP

HEEIA (KANEOHE BAY)

In Special Management Area (SMA)

FOLDER NOS.: 2014/SMA-23 & 2014/SV-4

TAX MAP KEY: 4-6-1: 1, 15, 16, 17 & 51

Prepared by: Department of Planning & Permitting
City and County of Honolulu

Date Prepared: May 20, 2014

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DEPARTMENT OF PLANNING AND PERMITTING

CITY AND COUNTY OF HONOLULU

STATE OF HAWAII

IN THE MATTER OF THE APPLICATION OF HAWAII INSTITUTE OF MARINE BIOLOGY (HIMB)	)	FILE NOS. 2014/SMA-23 (ST), and 2014/SV-4 (ST)

TRANSCRIPT OF PROCEEDINGS

The above-entitled matter came on for the hearing at the Kaneohe District Park, Upstairs Multi-Purpose Room, 45-660 Keaahala Road, Kaneohe,Hawaii, on Friday, June 13, 2014, commencing at 10:30 a.m., pursuant to Notice.

BEFORE: ARDIS SHAW-KIM, Hearings Officer

STEVEN TAGAWA, Staff Planner

1 P R O C E E D I N G S

2

3 HEARINGS OFFICER ARTIS-KIM: Good morning
4 everyone. My name is Ardis Shaw-Kim, and I will be
5 conducting today's public hearing in accordance with Chapter
6 23 and Chapter 25, which addresses Special Management Area
7 and a Shoreline Setback Area. The purpose of today's public
8 hearing is to hear testimony on an application for a Special
9 Management Area Use Permit and Shoreline Setback Variance to
10 allow the Coconut Island infrastructure rehabilitation and
11 replacement project within the Special Management Area,
12 portions are within Shoreline Setback Areas as required by
13 ROH Revised Ordinances of Honolulu, Chapters 23 and Chapters
14 25 and Hawaii Revised Statutes Chapter 205(a). Pursuant to
15 Section 25-3.2 the following guidelines shall be used for
16 reviewing development within the Special Management Area and
17 Shoreline Setback Area. All development in the Special
18 Management Area shall be subject to reasonable terms and
19 conditions to ensure: a) adequate access and properly
20 located, publicly owned or used beaches, recreational areas
21 and natural reserves, b) that provisions are made for solid
22 and liquid waste treatment disposition and management, and
23 c) that all alterations to land forms and vegetation and
24 construction of structures minimize adverse effects to the
25 Special Management Area and cause minimal potential danger

development or natural disasters. 2) No development in the Special Management Area shall be approved unless it is found that it will not have a substantial adverse environmental or ecological effect, except where such effects can be minimized. Development must be consistent with coastal zone management objectives,enumerated by Section 205(a) Hawaii Revised Statutes and the General Plan and Development Plans, 3) City Council shall seek to minimize where reasonable, dredging, filling or other alterations of natural shorelines, b) any development which will reduce the size any beach or other areas useable for public recreation and, c) any development which would reduce or risk public access to the shoreline, d) any development which would substantially interfere with or detract from the line of sight toward the sea from any state highway or nearest coastal road.

Our procedures for this morning are as follows. I will ask the Planner assigned to the project to give a brief description as the application was submitted then I'll call on members. I'll offer the applicant an opportunity to add any additional information and then we will call upon the speakers as they have signed to speak.

Okay, Steven Tagawa is the Planner assigned to the project, and Steve will give a brief description.

STAFF PLANNER TAGAWA: Good morning. The applicant, the Hawaii Institute of Marine Biology proposes to work on its high priority infrastructure improvements including the replacement of existing utility lines that connect the island research facility with the Lilipuna Pier property on the shoreline of Kaneohe Bay. This includes the replacement of a sewer force main, waterline, electrical and communication lines. Also, involved in the project is the re-routing of on-island sewer lines near the north lagoon, and third the replacement of an on-island sewage pump and wet well facility located on the east end of the island.

The new utility lines will be inserted into three conduits that will be excavated or drilled 70 to 80 feet below the sea level using horizontal directional drilling, HDD. The depth of the HDD will ensure that the new crossing are at least 20 feet below the sand and coral bottom of Kaneohe Bay. According to the application plans, the sewer communication conduit will be a boring, a little over 2,000 feet long. The other two lines, the electrical and waterline will be about 1,700 feet long. The initial pilot drilling will begin at the Lilipuna Pier site and terminate on Coconut Island. Pilot tunnels will been enlarged by back reaming toward the Coconut Island where final staging will occur. The new utility lines will be pulled from the Lilipuna Pier site where a 310 foot long retaining wall will

1 also be constructed, a portion of which about 51 feet will
2 be at-grade. This construction will allow the securing of
3 the sloped grade where the HDD work will be conducted.
4 Staging area excavation is estimated at 1,840 cubic yards
5 with 34 cubic yards of embankment. But traditional open
6 trenching will also be necessary at both ends of the utility
7 line. That will involve trenches about 2 feet wide, 3-5
8 feet deep. The on-island re-routing of the sewer line near
9 the north lagoon will roughly be about 400 feet long of open
10 trenching. The project will require, as Ardis mentioned, a
11 Special Management Area Permit and a Shoreline Setback
12 Variance for the portion of the project which cross under
13 the shoreline setback area which is 40 feet from the
14 shoreline on either end. Although, technically the surface
15 won't be disrupted, the involvement under the shoreline
16 setback triggers the need for the shoreline setback
17 variance.
18 We understand that other permits from DPP will be
19 required, trenching and stockpiling permits as well as
20 permits from the US Core of Engineers and the Department of
21 Health. At least at the time of the application, the
22 anticipated project was supposed to begin at the end of
23 this year, four months to complete and had an estimated
24 cost of $5.4 million. I understand that may have gone up.
25 And that concludes my brief presentation.

HEARINGS OFFICER SHAW-KIM: Is anyone here from the Hawaii Institute of Marine Biology that would like to offer additional information at this time? [no response] Okay, fine. We'll now go on to registered speaker that I have signed up, and I'm gonna allow Ms. Susan Koehler to provide testimony.

MS. KOEHLER: So, I'm a neighbor. I live at 46-013 Lilipuna Road which is just north of here. And, I understand that there's a pumping station there that will be installed to push the sewer up at this position right off the property line adjacent to my property. So, I would like to know if that's true?

HEARINGS OFFICER SHAW-KIM: Wait, wait. We're receiving testimony. So, you provide testimony and--

MS. KOEHLER: Okay. All right, great. So, I would like to know whether or not that is true, and if so, if there is a--What is the DPA rating is on that and what's going to be done for the noise. And, in addition, with the 3-foot retaining wall that I just heard about, is there also going to be any additional add-ons to the property such--into the pier properties such as additional parking as well. And, finally, how during the project, how the resident--both the residents as well as visitors to the islands will be able to park and have access.

1 HEARINGS OFFICER SHAW-KIM: Thank you. Does the
2 applicant want to offer testimony responding to that? Your
3 name, please.
4 MR. CO: Hi, my name is Hernan Co. I'm with
5 Community Planning and Engineering. I'm the engineering
6 designer of this project. So, to answer to your first
7 question. The pumping station is actually located on
8 Coconut Island. So, there won't be any pumping station on
9 the Oahu side. So, any noise generated will be solely on
10 Coconut Island. And, the pump station is actually an
11 existing pump station that pumps from Coconut Island onto
12 pier site. And, basically what we're doing is we're doing a
13 direct replacement of the existing sewer pumping station
14 because it's getting old and the performance of the pumping
15 station is kinda slowing down, so we wanted to (inaudible)
16 up, newer model, same brand. Try to get the same brand,
17 same exact footprint for the pumping station. Okay. So, as
18 far as the walls are concerned, the reason for us putting in
19 the walls is because when doing the horizontal directional
20 building of this drill line and facilities, they need a flat
21 area for the drilling equipment to sit on. So, in order for
22 us to achieve that, we're grading the hillsides to flat
23 slope for machines to (inaudible) rigs on. And, in order
24 for us to protect the slope from erosion, we're installing
25 the (inaudible) to make sure (inaudible) equipment. And, as

1 far as future parking goes, that will be up to the Hawaii
2 Institute Marine Biology. When we installed the retaining
3 walls, we're installing (inaudible) onto where, I guess, the
4 staging area where this equipment will be to protect the
5 slope from this heavy equipment. Once the project is done,
6 the retaining wall will stay there and it won't have this
7 area where the staging area was as far as parking goes.
8 HEARINGS OFFICER SHAW-KIM: Thank you Hernan for
9 that. Is there anyone else wishing to offer testimony at
10 this time? [no response] Okay. If not, then I'm gonna
11 close public hearing and announce that the Department of
12 Planning and Permitting will submit its recommendation to
13 the City Council by July 14th, with a recommendation.
14 Testimony that was offered today will be part of the record
15 and they'll take into consideration in their decision
16 making. If anyone has further comments, you may make them
17 directly to the City Council, and you're also encouraged to
18 contact the City Clerk if you want to be in attendance at
19 any hearings held by the Council on this matter. And, that
20 closes today's public hearing.
21 STAFF PLANNER TAGAWA: So, Hernan, the max height
22 is 7 feet at some point?
23 MR. CO: Yes.
24 STAFF PLANNER TAGAWA: Okay.
25

1 (Whereupon, on Friday, June 13, 2014, at
2 10:44 a.m., the hearing was adjourned.)
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4 -oOo-
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6 Respectfully submitted by:
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CITY COUNCIL
CITY AND COUNTY OF HONOLULU
HONOLULU, HAWAII

No. _____

RESOLUTION

GRANTING A SPECIAL MANAGEMENT AREA USE PERMIT FOR THE COCONUT ISLAND INFRASTRUCTURE REHABILITATION AND REPLACEMENT PROJECT.

WHEREAS, the Department of Planning and Permitting (DPP) on May 19, 2014, accepted an application from the Hawaii Institute of Marine Biology, herein referred to as the "Applicant," for a Special Management Area Use Permit (SMP) and a Shoreline Setback Variance (SV) to construct the high priority elements of the Coconut Island Infrastructure Rehabilitation and Replacement Project, which include the installation of a new wastewater force main, communication, electrical, and water lines connecting the Coconut Island research facility with the Lilipuna Pier site via horizontal directional drilling; the rerouting of a wastewater gravity main via conventional open trenching, at the north end of Coconut Island; and the replacement of Coconut Island wastewater pumps and wet well repair near the East Lagoon, located on land zoned R-10 Residential District and P-1 Restrictive Preservation District, located at 46-007 Lilipuna Road and Kaneohe Bay; identified by Tax Map Keys 4-6-1: 1, 15, 16, 17, and 51; Reference Number 2014/SMA-23 and 2014/SV-4;

WHEREAS, on June 13, 2014, the DPP held a public hearing which was attended by five representatives of the Applicant and one member of the public; public testimony was offered by one member of the public at the hearing; and

WHEREAS, on July 14, 2014, within 20 working days after the close of the public hearing, the DPP, having duly considered all evidence and the review guidelines as established in Sections 25-3.1 and 25-3.2, Revised Ordinances of Honolulu (ROH), and Sections 23-1.8 and 23-1.9, ROH, and Sections 205A-2 and 205A-26, Hawaii Revised Statutes (HRS), completed its report and transmitted its findings and recommendation of approval to the Council; and

WHEREAS, the City Council, having received the findings and recommendation of DPP on _____, and its meeting of _____, having duly considered all of the findings and reports on the matter, approved the subject applications for an SMP and SV with the conditions enumerated below; now, therefore,

BE IT RESOLVED by the Council of the City and County of Honolulu that an SMP and SV be issued to the Applicant subject to the following conditions:

A. Construction on the Coconut Island Infrastructure Rehabilitation and Replacement Project (Project) shall be in general conformity as described in the Report and

Recommendation by the Director of the DPP, and as depicted on Exhibits A through N, attached hereto. Any change in the size or nature of the Project which has a significant effect on coastal resources addressed in Chapters 23 and 25, ROH and Chapter 205-A, HRS, shall require a new SMP and SV. Any change which does not have a significant effect on coastal resources shall be considered a minor modification and therefore permitted under this resolution, upon review and approval by the Director of the DPP.

B. Prior to issuance of development permits, the Applicant shall provide the DPP with written confirmation that an Archaeological Monitoring Plan has been prepared for the Project, and has been accepted by the State Historic Preservation Division (SHPD). Furthermore, if, during construction, any previously unidentified archaeological sites or remains (such as artifacts, shell, bone, or charcoal deposits, human burials, rock or coral alignments, paving, or walls) are encountered, the Applicant shall stop work and contact the SHPD immediately. And, in such case, work in the immediate area shall be stopped until SHPD is able to assess the impact and make further recommendations for mitigative activity.

C. Prior to issuance of development permits, the Applicant shall submit to the DPP for review and approval, landscape and irrigation plans, and a color palate to mitigate the visual impact of the terraced retaining walls at the Lilipuna Pier site. The Applicant shall also submit photographs showing the installation of the approved landscaping within 90 days of the completion of the facility.

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

E. Approval of this SMP and SV does not constitute compliance with other governmental requirements. They are subject to separate review and approval. The Applicant shall be responsible for ensuring that the final plans for the Project approved under this permit comply with all applicable governmental agencies' provisions and requirements.

CITY COUNCIL
CITY AND COUNTY OF HONOLULU
HONOLULU, HAWAII

No. _____

RESOLUTION

BE IT FINALLY RESOLVED by the Council of the City and County of Honolulu that the Clerk be and is directed to transmit copies of this Resolution to Derek Mukai, Community Planning and Engineering, Inc., 1286 Queen Emma Street, Honolulu, Hawaii 96813; Jo-Ann Leong, Director, Hawaii Institute of Marine Biology, P.O. Box 1346, Kaneohe, Hawaii 96744; Stephen Meder, Assistant Vice-Chancellor, University of Hawaii Foundation, Hawaii Hall 307, 2500 Campus Road, Honolulu, Hawaii 96822; George I. Atta, Director of the Department of Planning and Permitting, 650 South King Street, 7th Floor, Honolulu, Hawaii 96813; Alan Downer, Administrator, State Historic Preservation Division, Department of Land and Natural Resources, 601 Kamokila Boulevard, Room 555, Kapolei, Hawaii 96707; and Leo R. Asuncion, Jr., Acting Director of the Office of Planning (Attention: Coastal Zone Management Branch), P.O. Box 2359, Honolulu, Hawaii 96804.

INTRODUCED BY:

_____

_____

_____

_____

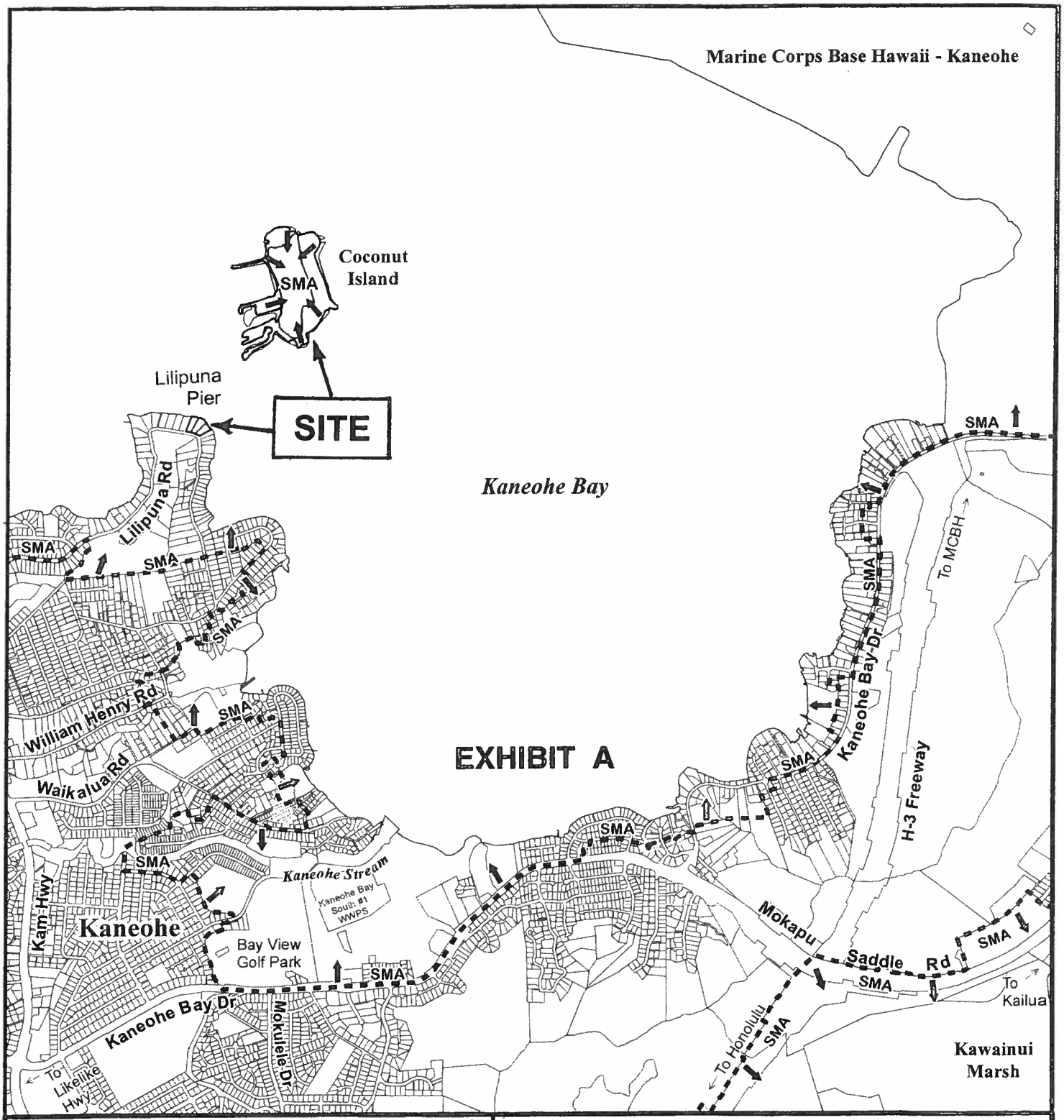
_____

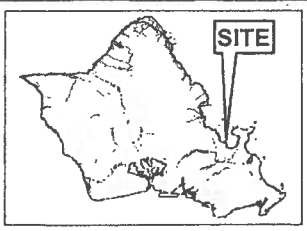
_____

DATE OF INTRODUCTION: _____

_____

_____ _____
Honolulu, Hawaii Councilmembers





VICINITY MAP

0 1,000 2,000 4,000

Scale: 1 inch = 2000 feet

LOCATION MAP

HEEIA (KANEOHE BAY)

------ In Special Management Area (SMA)

↓

FOLDER NOS.: 2014/SMA-23 & 2014/SV-4

TAX MAP KEY: 4-6-1: 1, 15, 16, 17 & 51

Prepared by: Department of Planning & Permitting
City and County of Honolulu

Date Prepared: June 24, 2014

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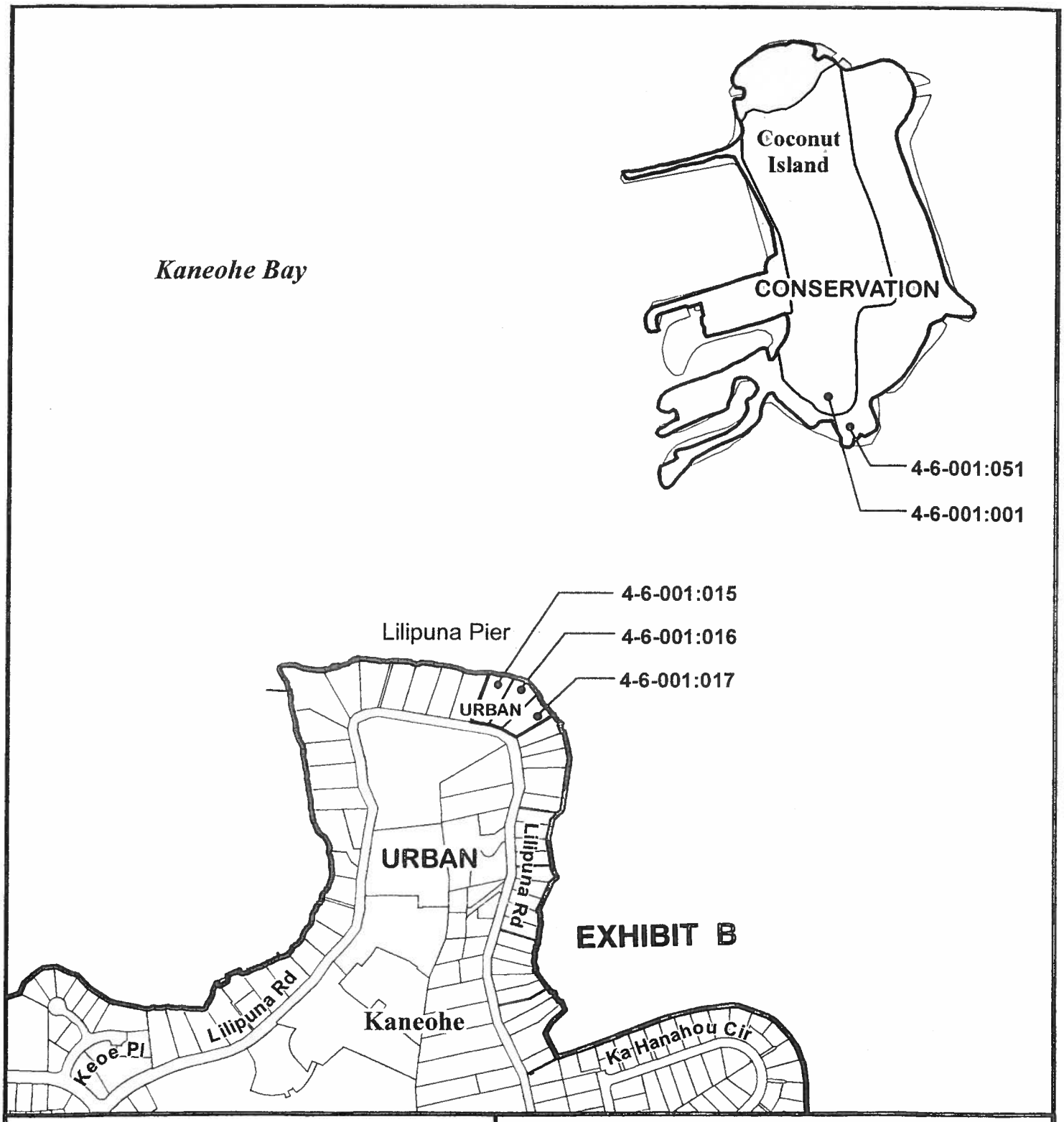

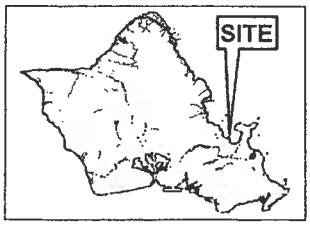

VICINITY MAP

0 300 600 1,200

Scale: 1 inch = 600 feet

STATE LAND USE MAP

HEEIA (KANEOHE BAY)

In Special Management Area (SMA)

FOLDER NOS.: 2014/SMA-23 & 2014/SV-4

TAX MAP KEY: 4-6-1: 1, 15, 16, 17 & 51

Prepared by: Department of Planning & Permitting
City and County of Honolulu

Date Prepared: May 20, 2014

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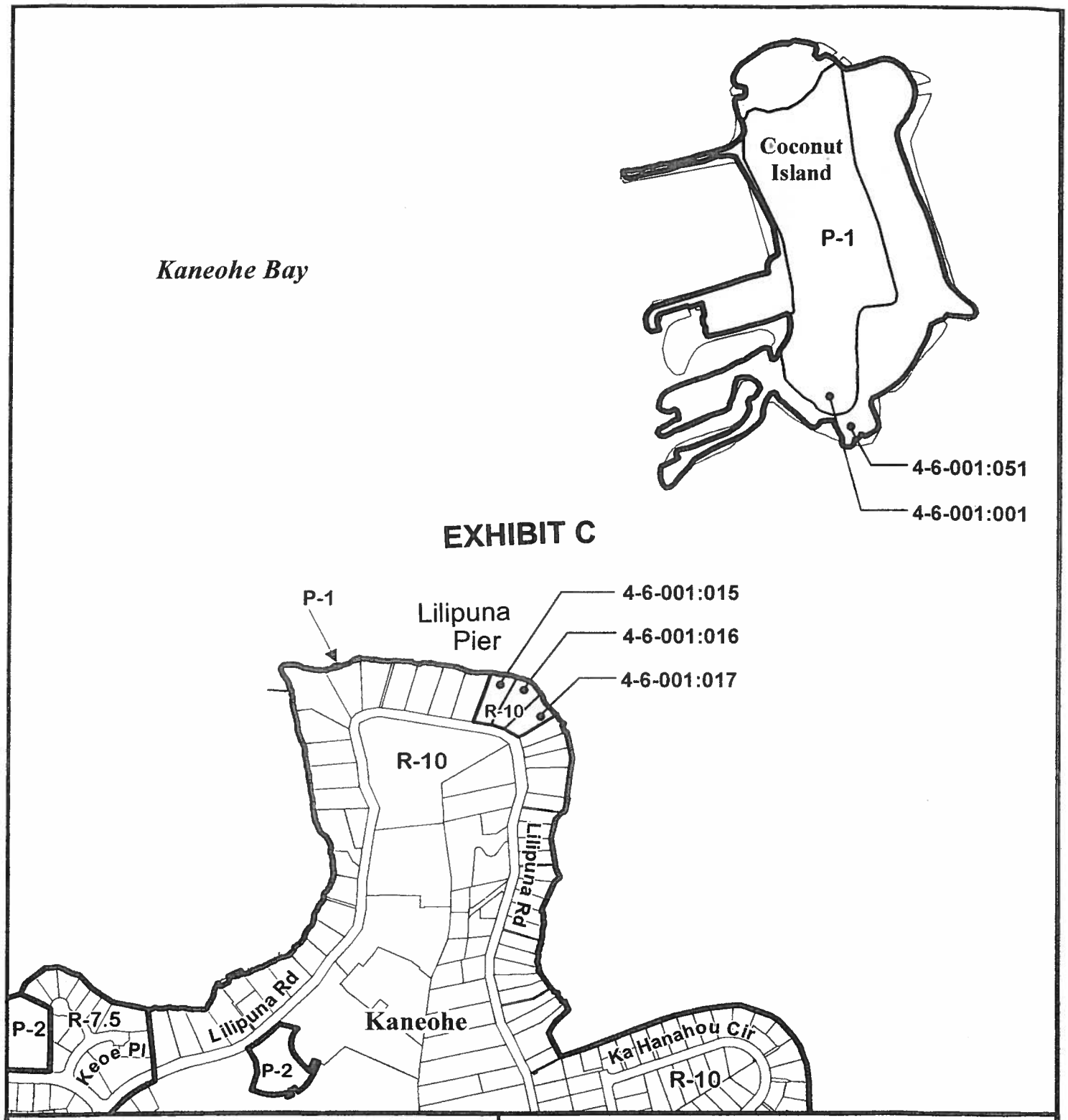

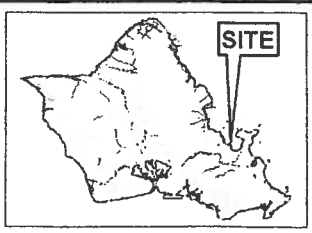

VICINITY MAP

0 300 600 1,200

Scale: 1 inch = 600 feet

ZONING MAP

HEEIA (KANEOHE BAY)

In Special Management Area (SMA)

FOLDER NOS.: 2014/SMA-23 & 2014/SV-4

TAX MAP KEY: 4-6-1: 1, 15, 16, 17 & 51

Prepared by: Department of Planning & Permitting
City and County of Honolulu

Date Prepared: May 20, 2014

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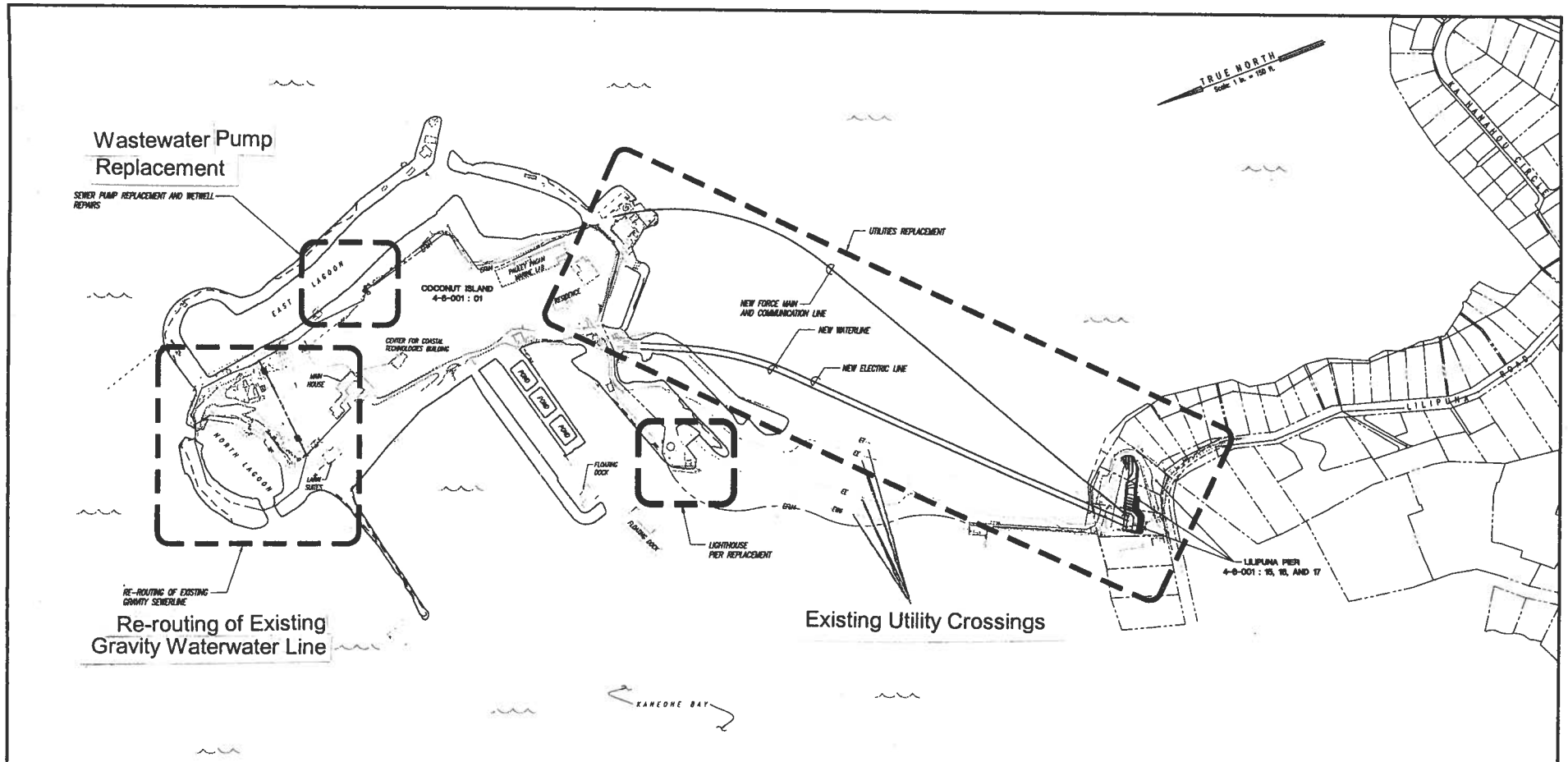


LEGEND

- HDD ALIGNMENT
- EXISTING WATERLINE
- EXISTING COMMUNICATION LINE
- EXISTING ELECTRIC LINE
- EXISTING FORCE MAIN
- NEW SEWERLINE
- PROPERTY LINE
- SHORELINE
- OCEAN

NOTE:
1. THE LOCATION OF EXISTING UTILITY LINES ARE APPROXIMATE AND BASED ON AVAILABLE AS-BUILT INFORMATION.

EXHIBIT D

GENERAL LAYOUT PLAN

SCALE: 1"= 150'

150 75 0 150 300
Graphic Scale in Feet

FIGURE 3a

REVISION NO.	SYM.	DESCRIPTION	SHT. ___ OF ___	DATE

DEREK K. MIZUKI LICENSED PROFESSIONAL ENGINEER No. 8678-C HAWAII U.S.A.

This work was prepared by me or under my supervision and accepted by me in the capacity of a consultant to the owner, the Trustees of the Estate of Bernice Pauahi Bishop, for the Coconut Island Utility Rehabilitation / Replacement project. Signature, and Licensed Professional Seal.

Derek K. Mizuki 3/05/14
signature date

UNIVERSITY OF HAWAI'I
STATE OF HAWAII

COCONUT ISLAND UTILITY REHABILITATION / REPLACEMENT
COCONUT ISLAND
KANEOHE OAHU HAWAI'I

GENERAL LAYOUT PLAN

COMMUNITY PLANNING AND ENGINEERING

PROJECT NO. UHM 000-017-12

SHEET 4

C-3

OF 28 SHTS

DESIGNED BY: HC/PK
CHECKED BY: DM
DRAWN BY: HC/PK
APPROVED BY:
DATE: 3/05/14

FOLDER NOS.: 2014/SMA - 23 & 2014/SV-4

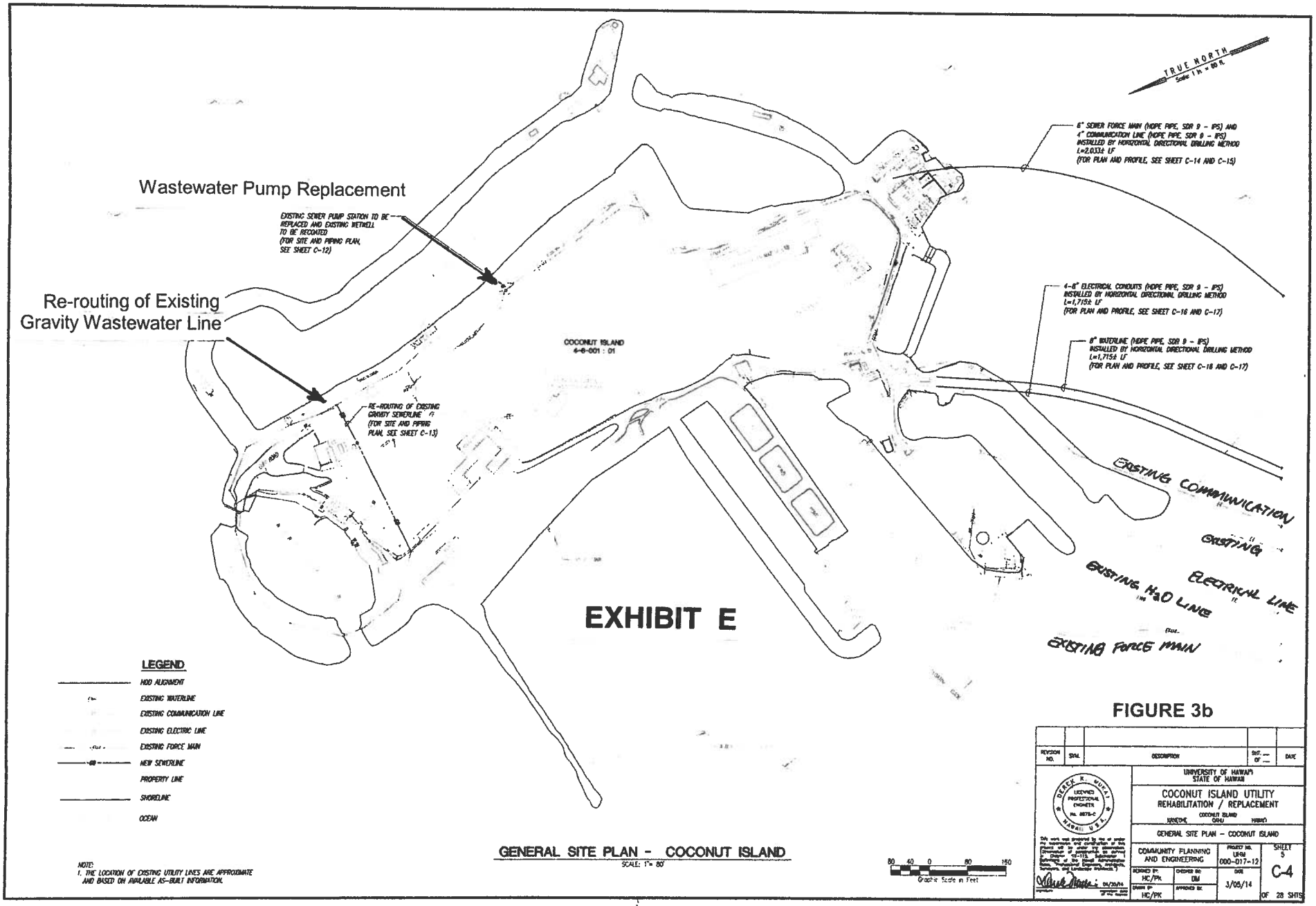


FIGURE 3b

FOLDER NOS.: 2014/SMA - 23 & 2014/SV-4

CURVE DATA	
CURVE	1
Δ	127°30'12"
Δ/2	63°45'06"
R	20.00'
T	40.56'
C	35.88'
L	44.51'

KANEOHE BAY

TRUE NORTH
SCALE 1 IN. = 20 FT.

FOR FORCE MAIN CONNECTION DETAILS SEE SHEET C-21

FUTURE ELECTRICAL CONNECTION BY OTHERS

FUTURE ELECTRICAL LINE BY OTHERS

STA. 0+47.14 WB CONNECT TO EWB 1-8"X8" ECCENTRIC REDUCER

STA. 0+38.41 WB 1-8" DEFLECTION COUPLING (PW)

STA. 0+34.41 WB 1-8" ½ BEND, 1-CONC. BLK

STA. 0+05 WB 1-8" ½ BEND 1-CONC. BLK

STA. 0+00 WB CONNECT TO NEW-8" WATERLINE 1-8" HDPE TO PVC TRANSITION COUPLING 6 LF OF 8" PVC PIPE 1-8"X8" TEE

DRILL ENTRY POINT

FUTURE CONNECTION BY OTHERS

FUTURE COMMUNICATION LINE BY OTHERS

Retaining Wall A

Retaining Wall B

EXHIBIT F

GUARD SHACK

FMS SMH WITH ARV FOR DETAIL SEE SHEET C-23

4-6" ELECTRICAL CONDUITS (HDPE PIPE, SDR 9 IPS) INSTALLED BY HORIZONTAL DIRECTIONAL DRILLING METHOD L=1,715± LF

8" WATERLINE (HDPE PIPE, SDR 9 IPS) INSTALLED BY HORIZONTAL DIRECTIONAL DRILLING METHOD L= 1,715± LF

6" SEWER FORCE MAIN (HDPE PIPE, SDR 9 IPS) AND 4" COMMUNICATION LINE (HDPE PIPE, SDR 9 IPS) INSTALLED BY HORIZONTAL DIRECTIONAL DRILLING METHOD L=2,033± LF

Submerged Sewer Force Main Easement (10 ft. wide) (CSF 17,920)

DROP CURB FOR DETAIL, SEE SHEET C-22

INSTALL CONCRETE DRIVEWAY CURB FOR DETAIL SEE SHEET C-22 L=46± LF

FUTURE COMMUNICATION CONNECTION BY OTHERS

DROP CURB FOR DETAIL, SEE SHEET C-22

EXISTING 4" SEWER FORCE MAIN

EXISTING WATER METER (METER # 00159004)

LILIPUNA ROAD

SOUTH IPUKA WAY

PARKING

LEGEND

- HDD ALIGNMENT
- EXISTING WATERLINE
- EXISTING COMMUNICATION LINE
- EXISTING ELECTRIC LINE
- EXISTING FORCEMAIN
- OCEAN
- PROPERTY LINE
- CHAIN LINK FENCE
- WATERLINE
- FUTURE COMMUNICATION LINE
- FUTURE ELECTRIC LINE
- SEWER FORCE MAIN
- BORING LOCATION

SITE AND PIPING PLAN - LILIPUNA PIER

SCALE: 1" = 20'

20 10 0 20 40
Graphic Scale in Feet

FIGURE 3d

REVISION NO.	SYM.	DESCRIPTION	SHT. OF	DATE

DEREK K. MIZUNO, LICENSED PROFESSIONAL ENGINEER No. 8876-C, HAWAII U.S.A.

UNIVERSITY OF HAWAII
STATE OF HAWAII

COCONUT ISLAND UTILITY REHABILITATION / REPLACEMENT
COCONUT ISLAND
KANEOHE, OAHU, HAWAII

SITE AND PIPING PLAN - LILIPUNA PIER

COMMUNITY PLANNING AND ENGINEERING

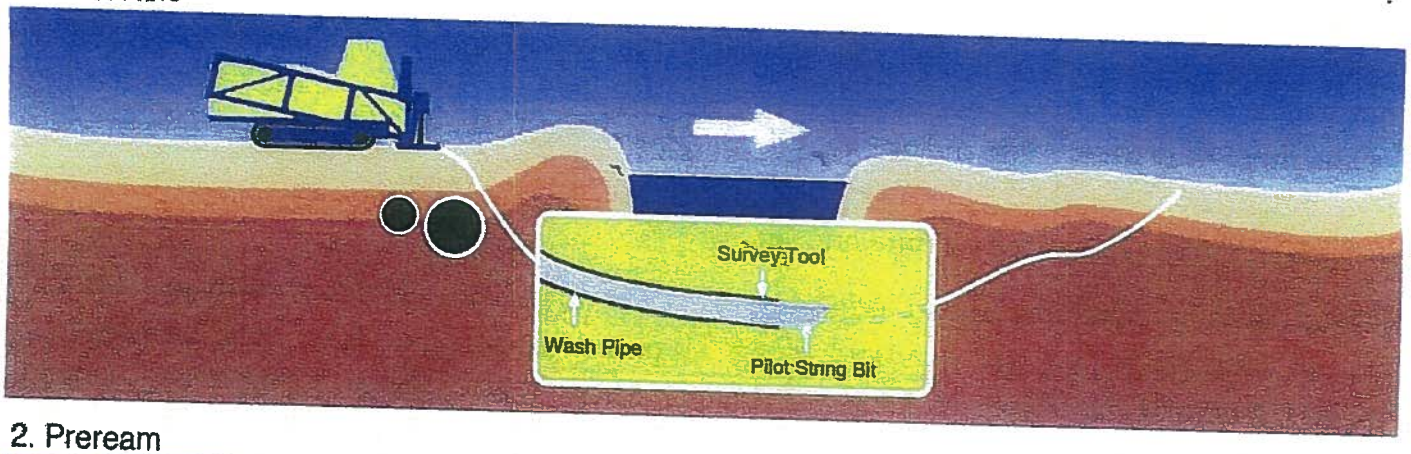
PROJECT NO. UHM 000-017-12

SHEET 12 C-11 OF 28 SHTS

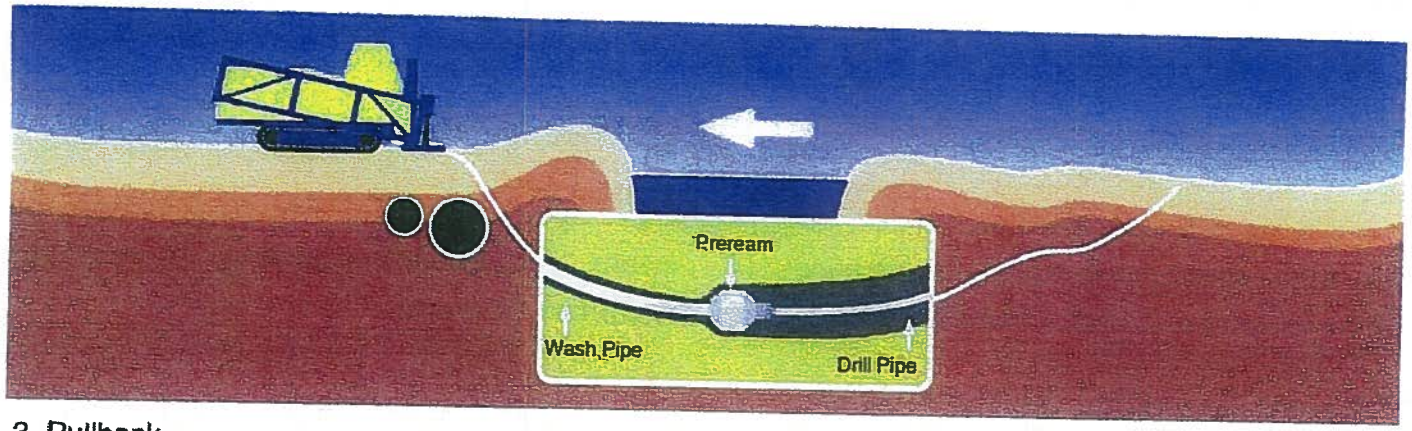
DESIGNED BY HC/PK | CHECKED BY DM | DATE 3/05/14 | DRAWN BY HC/PK | APPROVED BY

FOLDER NOS.: 2014/SMA - 23 & 2014/SV-4

1. Pilot Hole



2. Preream



3. Pullback

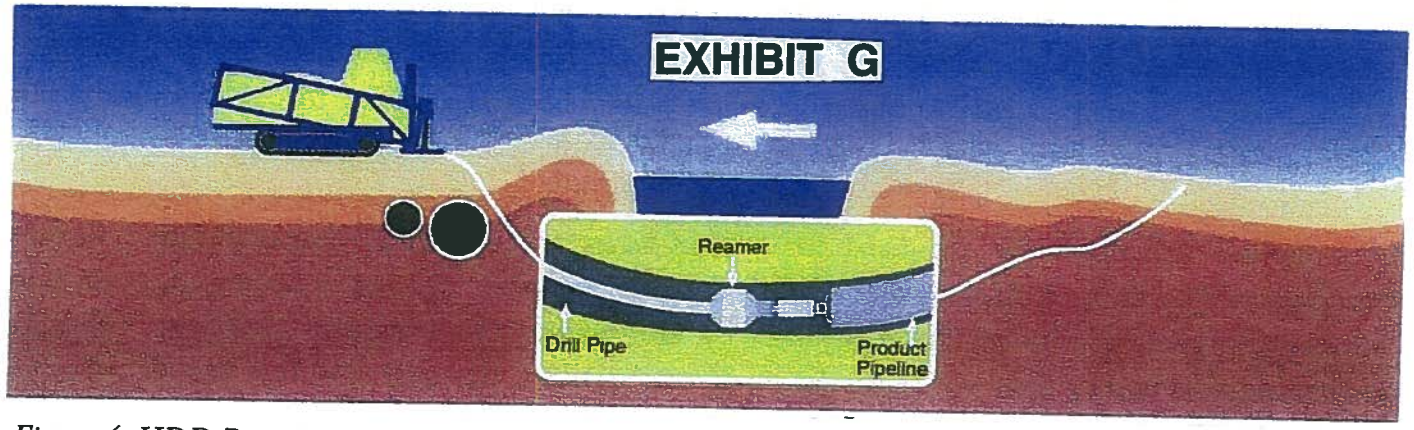
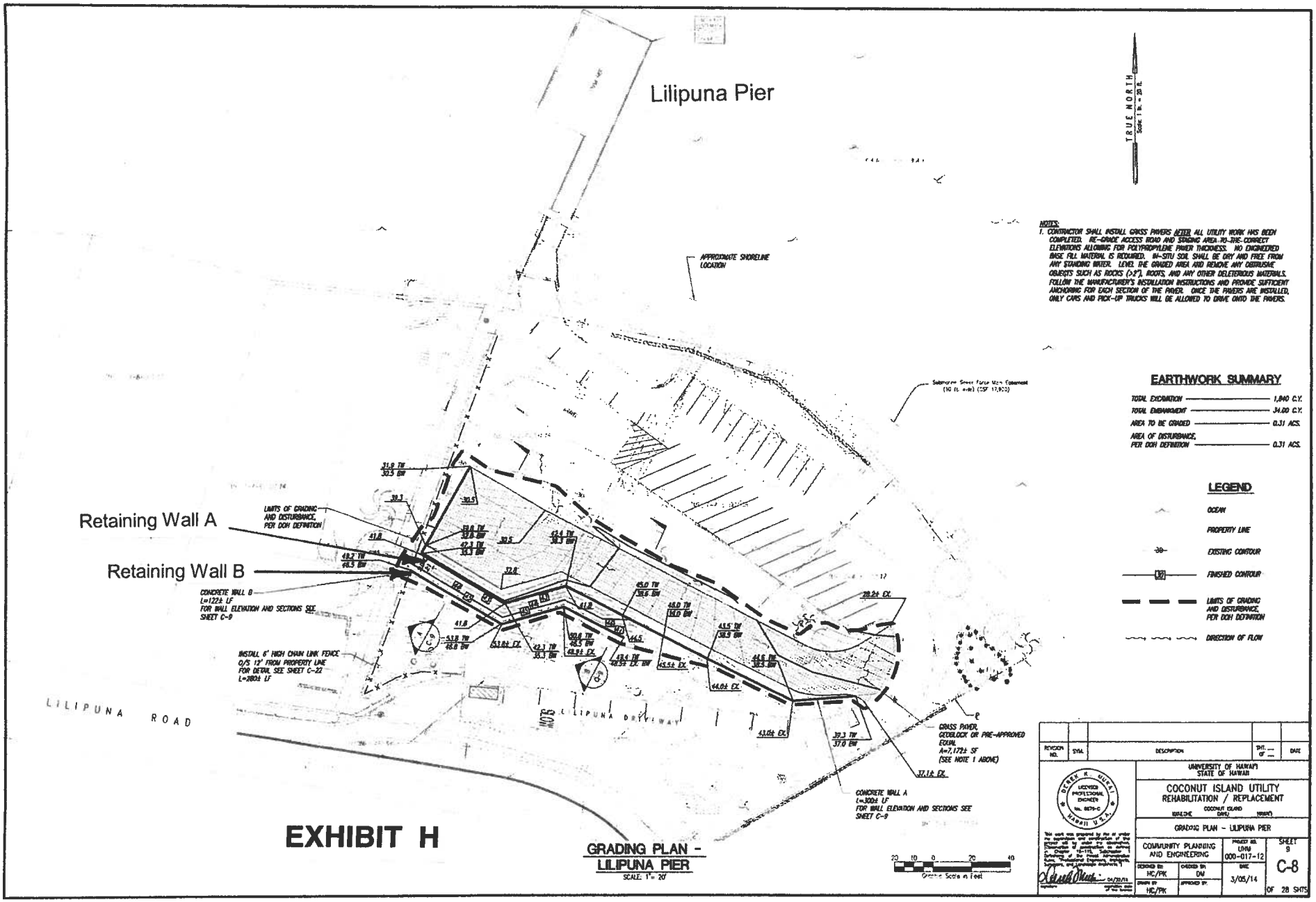


Figure 4 HDD Process

FOLDER NOS.: 2014/SMA - 23 & 2014/SV-4



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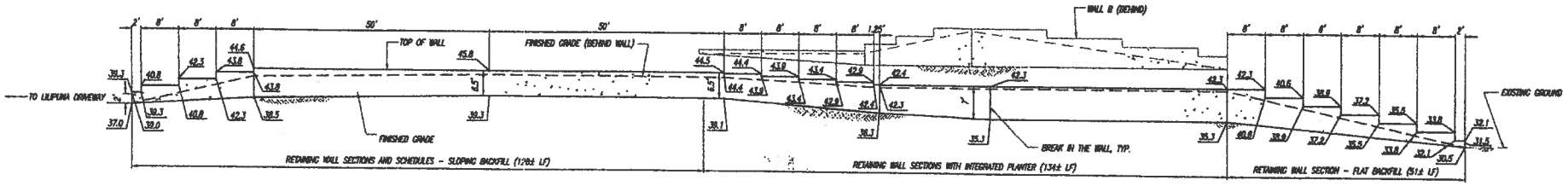
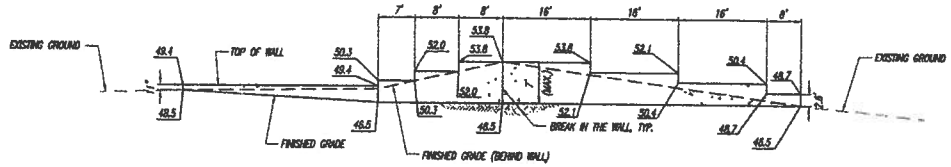


ELEVATION - WALL A
SCALE: 1" = 10'-0"



ELEVATION - WALL B
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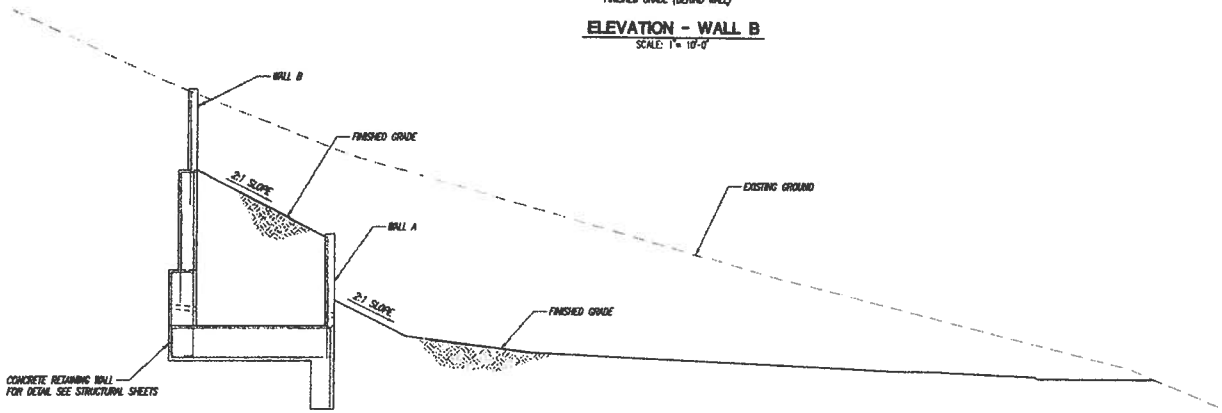
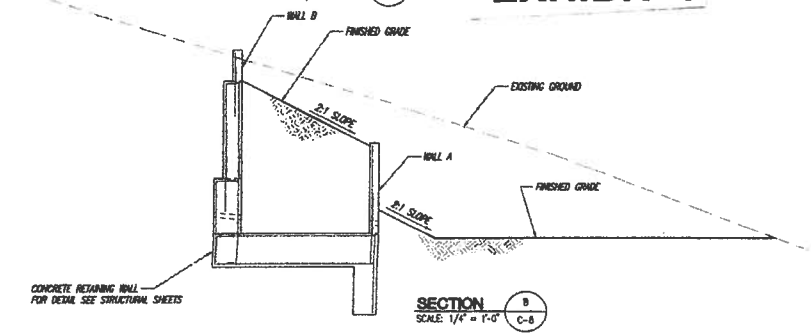


SECTION (A / C-8)
SCALE: 1/4" = 1'-0"

EXHIBIT I



SECTION (B / C-8)
SCALE: 1/4" = 1'-0"

REVISION NO.	SYM.	DESCRIPTION	SHT. — OF —	DATE

DEREK K. MUKAI — LICENSED PROFESSIONAL ENGINEER — No. 8976-C — HAWAII U.S.A.

UNIVERSITY OF HAWAI'I
STATE OF HAWAII

COCONUT ISLAND UTILITY
REHABILITATION / REPLACEMENT
KANEOHE — COCONUT ISLAND — OAHU — HAWAII

ELEVATIONS AND SECTIONS - RETAINING WALLS

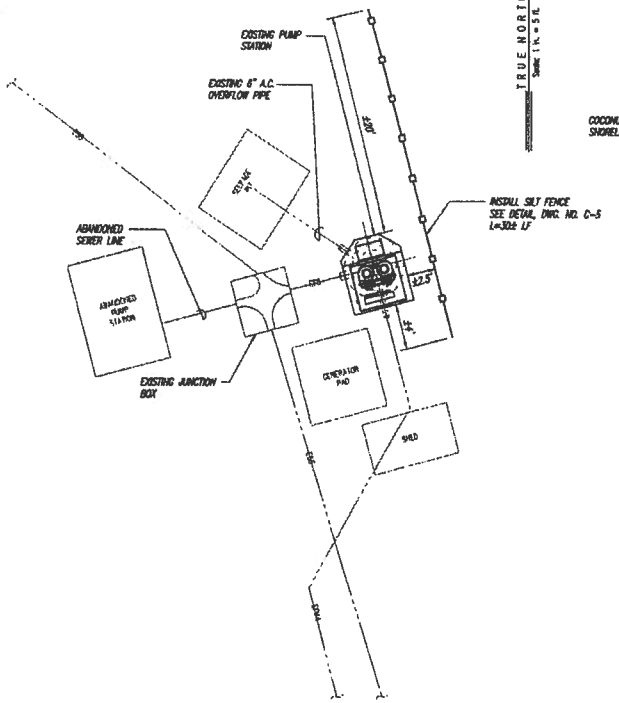
COMMUNITY PLANNING AND ENGINEERING

PROJECT NO. UH-M 000-017-12

SHEET 10 — C-9 — OF 28 SHTS

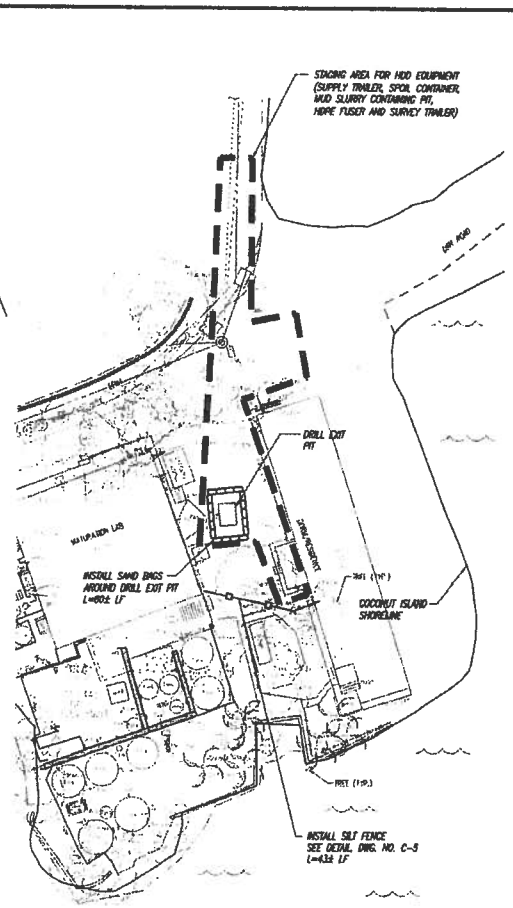
DESIGNED BY HC/PK — CHECKED BY DM — DRAWN BY HC/PK — APPROVED BY — DATE 3/06/14

FOLDER NOS.: 2014/SMA - 23 & 2014/SV-4



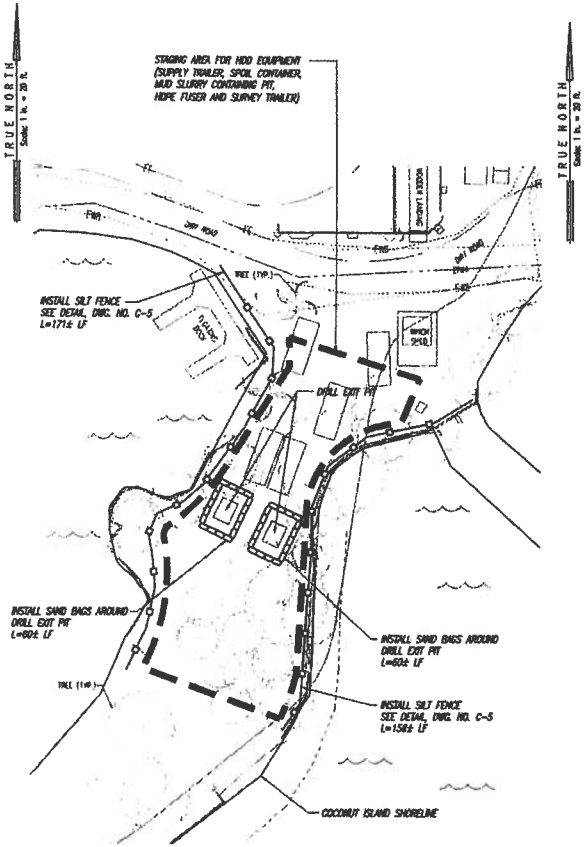
EROSION CONTROL PLAN - PUMP STATION

SCALE: 1"= 5'



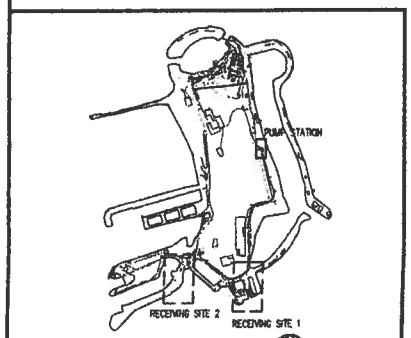
EROSION CONTROL PLAN - RECEIVING SITE 1

SCALE: 1"= 20'



EROSION CONTROL PLAN - RECEIVING SITE 2

SCALE: 1"= 20'



KEY MAP

NOT TO SCALE

NORTH

EXHIBIT J

LEGEND

- OCEAN
- SAND BAGS
- SILT FENCE

20 10 0 20 40

Graphic Scale in Feet

REVISION NO.	SYM.	DESCRIPTION	SHT. — OF —	DATE

DEREK K. MURAI LICENSED PROFESSIONAL ENGINEER No. 9675-C HAWAII U.S.A.

This work was prepared by me, or under my supervision, and I attest to the competency of the firm and its principals to perform the work. Signature of the Licensed Professional Engineer, and seal, required by Section 464-1, Hawaii Revised Statutes, and Section 16-115-3, Hawaii Administrative Rules.

Signature: 3/25/14

Date signature was affixed

UNIVERSITY OF HAWAII
STATE OF HAWAII

COCONUT ISLAND UTILITY
REHABILITATION / REPLACEMENT

COCONUT ISLAND
KANEOHE, OAHU, HAWAII

EROSION CONTROL PLAN - PUMP STATION, RECEIVING SITE 1 AND 2

COMMUNITY PLANNING AND ENGINEERING

PROJECT NO. UHM 000-017-12

SHEET 7 C-6 OF 28 SHTS

DESIGNED BY HC/PK | CHECKED BY DM | DATE 3/05/14

DRAWN BY HC/PK | APPROVED BY

FOLDER NOS.: 2014/SMA - 23 & 2014/SV-4

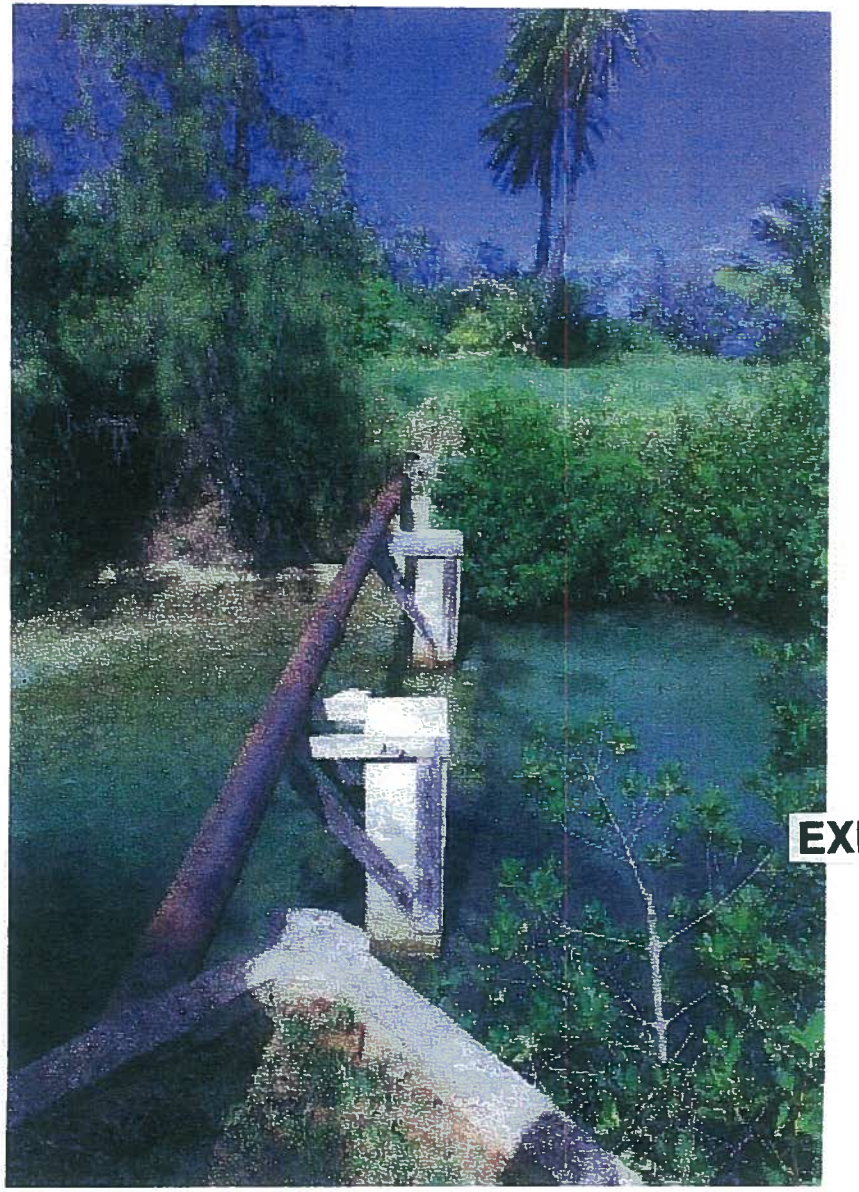


Photo 1: Gravity sewer crossing at northwestern side of North Lagoon

EXHIBIT K

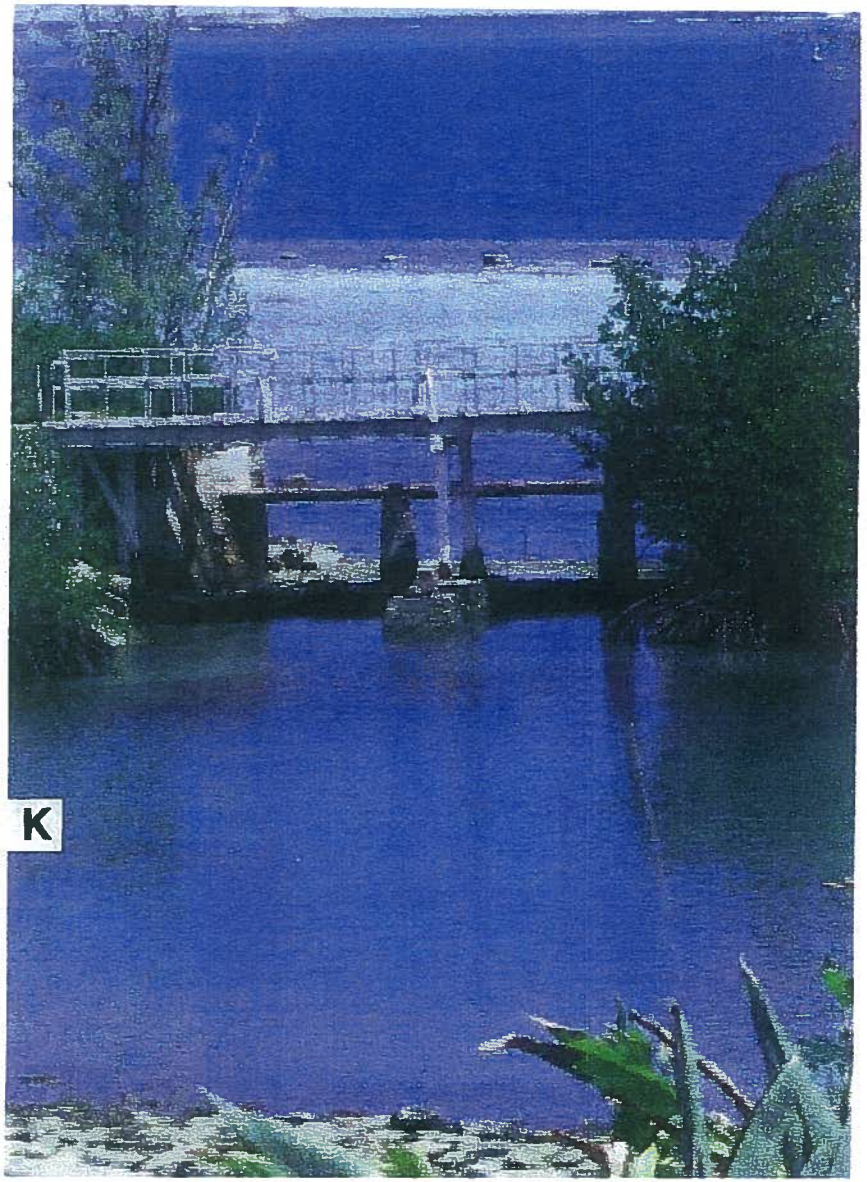
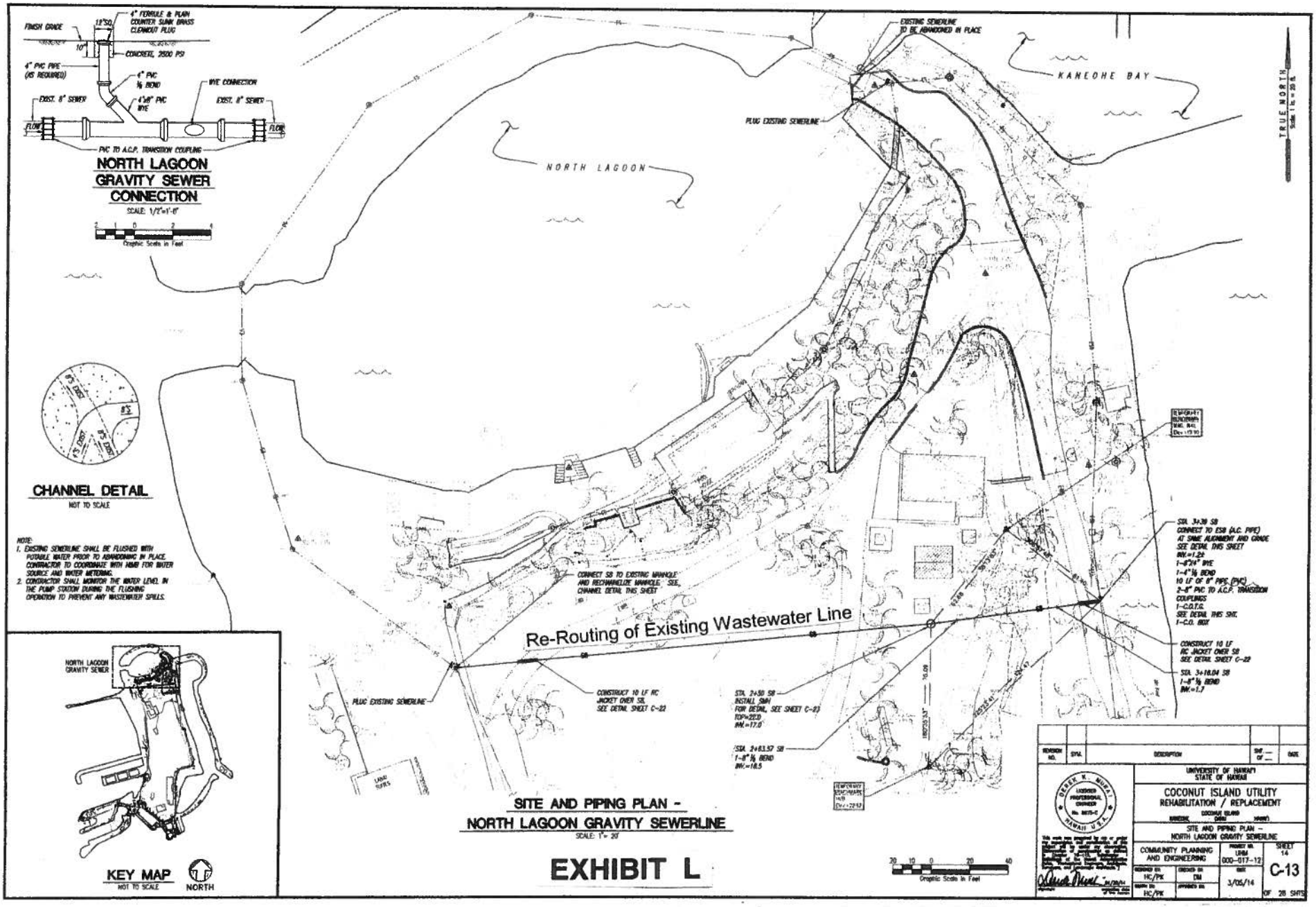


Photo 2: Gravity sewer crossing at northeastern side of North Lagoon

FOLDER NOS.: 2014/SMA - 23 & 2014/SV-4



FOLDER NOS.: 2014/SMA - 23 & 2014/SV-4

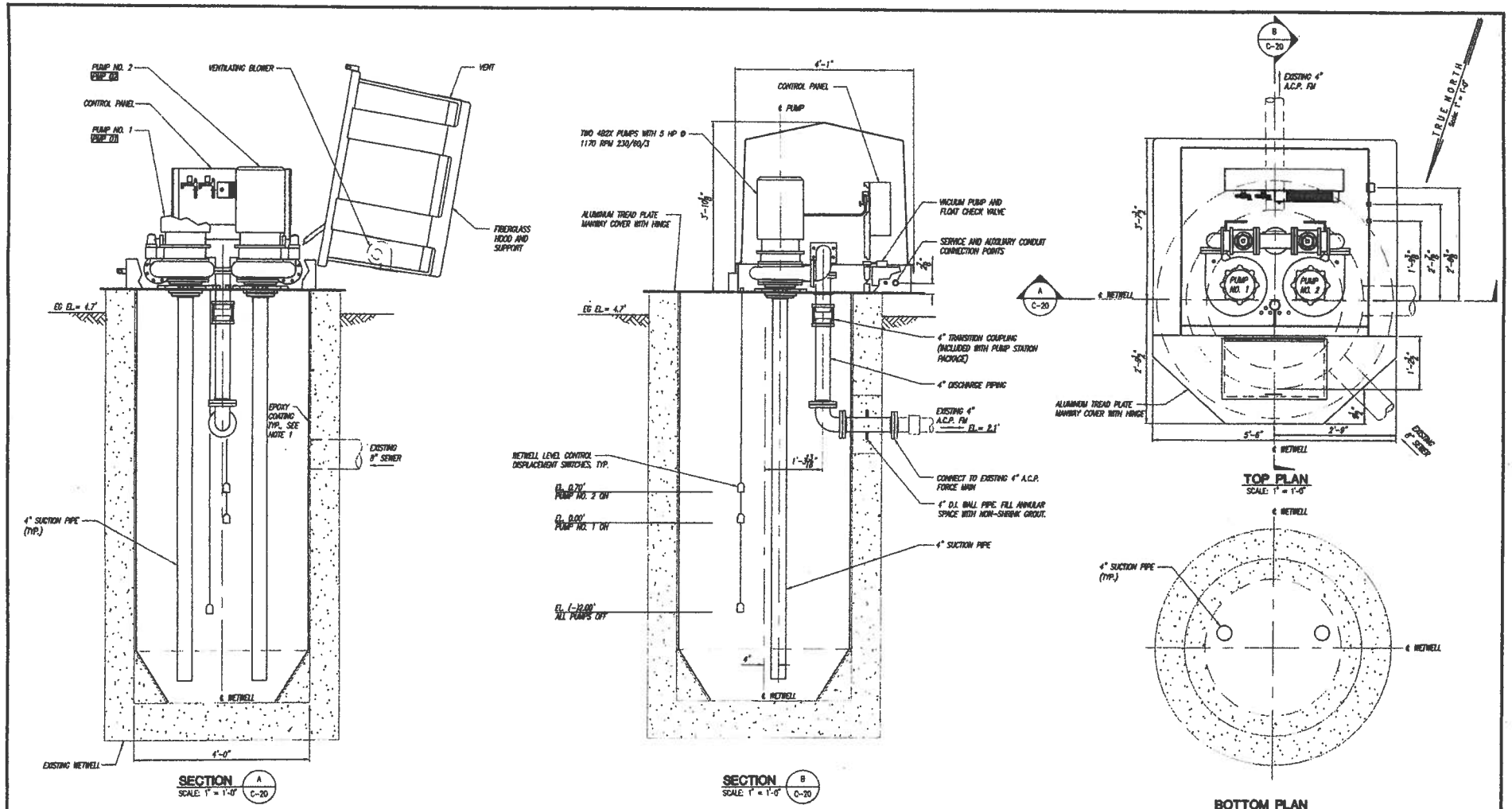


EXHIBIT M

REFERENCE	EQUIPMENT	OPERATIONAL NOTES	TYPE	DESCRIPTION
PMP 01	SEWAGE PUMP NO. 1	PUMP IS AUTOMATICALLY OPERATED BY LEVEL CONTROL. MANUAL OVERRIDE IS PROVIDED	DRY PIT WETWELL MOUNTED PUMP	120 GPM @ 40' TDH, 5 HP, 1170 RPM 230/60/3
PMP 02	SEWAGE PUMP NO. 2	"	"	"
-----	WETWELL LEVEL AND PUMP CONTROL	INCLUDED WITH PUMP STATION PACKAGE	-----	-----

NOTE:
1. SEE SPECIFICATION SECTION 02801 FOR SURFACE PREPARATION INSTRUCTION AND COATING APPLICATION PROCEDURE.
2. PUMP STATION SHALL BE SMITH AND LOVELESS MODEL 4B2X X-PELLER, OR PRE-APPROVED EQUAL.
3. PUMP MANUFACTURER SHALL FURNISH PUMPS, PUMP SUPPORT AND HOUSING, CONTROL PANEL, SUCTION PIPING, LEVEL SWITCHES, DISCHARGE PIPING, VACUUM PUMP AND FLOAT CHECK VALVE (SEE SPECIFICATION SECTION 02720).

REVISION NO.	SYM.	DESCRIPTION	SHT. — OF —	DATE

DEREK K. MUKAI LICENSED PROFESSIONAL ENGINEER No. 8675-C HAWAII U.S.A.

UNIVERSITY OF HAWAII
STATE OF HAWAII

COCONUT ISLAND UTILITY
REHABILITATION / REPLACEMENT
COCONUT ISLAND
KANEOHE OAHU HAWAII

PUMP STATION PLAN AND SECTION

COMMUNITY PLANNING AND ENGINEERING

PROJECT NO. UHM 000-017-12

SHEET 21 C-20 OF 28 SHTS

DESIGNED BY HC/PK | CHECKED BY DM | DATE 3/05/14
DRAWN BY HC/PK | APPROVED BY

FOLDER NOS.: 2014/SMA - 23 & 2014/SV-4

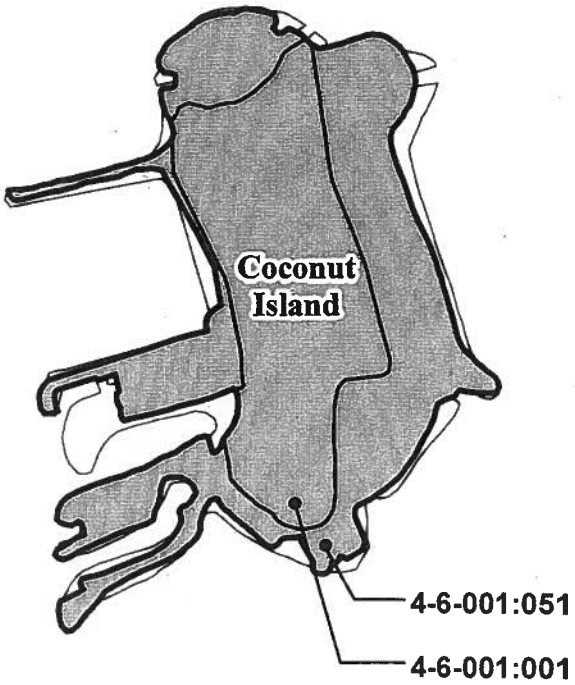
Legend

Flood zones other than 1% and .2% annual chance (100- and 500 year) flood:

X - Outside .2% annual chance flood plain

Note: Coconut island is not included in the study area.

Source: FIRM (Flood Insurance Rate Map) panel 0270H (revised 1/19/2011).



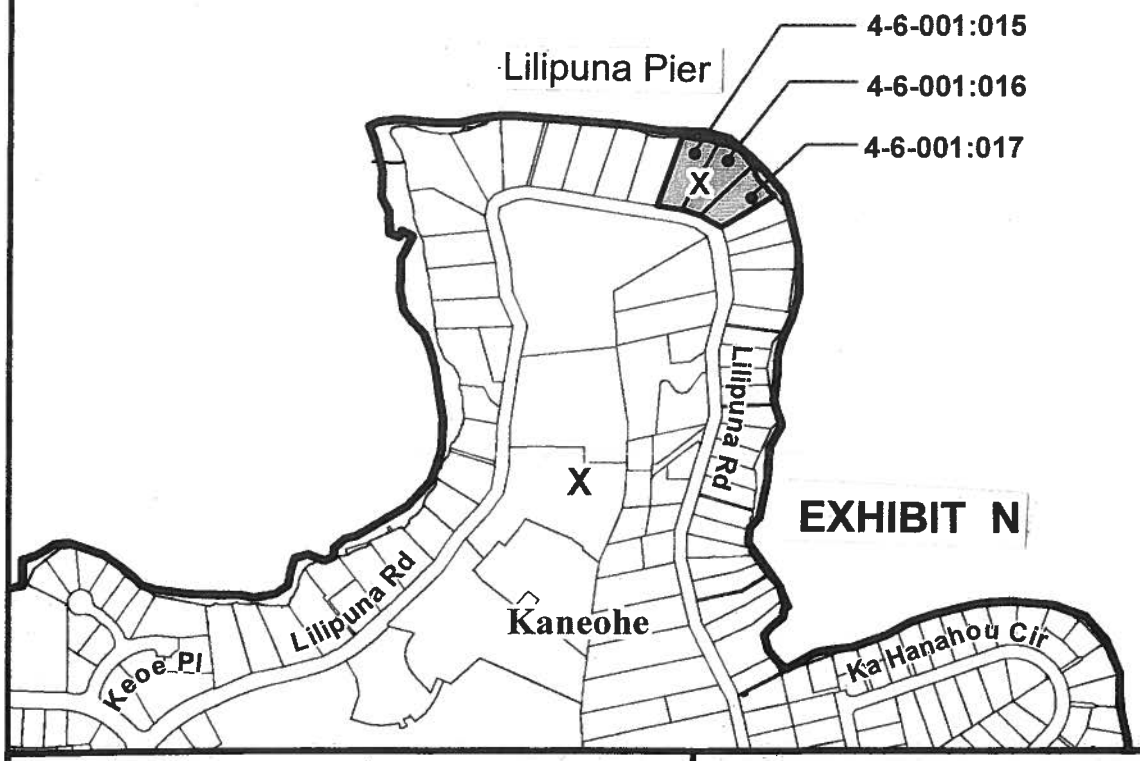
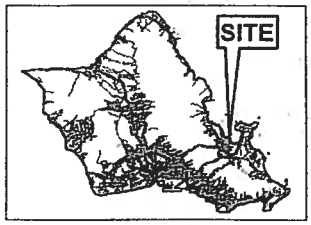


EXHIBIT N



VICINITY MAP

0 300 600 1,200

Scale: 1 inch = 600 feet

FLOOD HAZARD MAP

HEEIA (KANEOHE BAY)

In Special Management Area (SMA)

FOLDER NOS.: 2014/SMA-23 & 2014/SV-4

TAX MAP KEY: 4-6-1: 1, 15, 16, 17 & 51

Prepared by: Department of Planning & Permitting
City and County of Honolulu

Date Prepared: May 20, 2014

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