

**STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
OFFICE OF CONSERVATION AND COASTAL LANDS  
HONOLULU, HAWAII**

*April 27, 2018*

**BOARD OF LAND AND  
NATURAL RESOURCES  
STATE OF HAWAII  
HONOLULU, HAWAII**

**REGARDING:** Conservation District Use Application (CDUA) **MO-3815** for the Proposed Modified Kaunakakai Drainage System Improvement (Phase 1B) Project

**APPLICANT:** County of Maui – Department of Public Works

**LANDOWNER(S):** Leonard Kimokeo Kapahulehua Living Trust (*Parcel 006*)  
County of Maui (*Parcel 007*)

**LOCATION:** Kaunakakai, Moloka'i, Hawai'i

**TMK:** (2) 5-3-005:006 & :007

**AREA OF PARCELS:** 23.792 ac. (*Parcel 006*)  
0.178 ac. (*Parcel 007*)

**AREA OF USE:** 15,000 sq. ft.

**SUBZONE:** *General*

**DESCRIPTION OF AREA AND CURRENT USE:**

The proposed project site is located in Kaunakakai Town, on the south shore of the Island of Moloka'i near the intersection of Maunaloa Highway/Kamehameha V Highway and Kaunakakai Place; access to the site is available via Maunaloa Highway/Kamehameha V Highway, Hio Place, and Kaunakakai Place (**Exhibit 1, 1a, 1b**).

Records, along with direct observations, indicate that an inadequate or nonexistent drainage system exists in the business areas of Kaunakakai and has contributed to flooding that caused damage to homes and businesses as well as inconveniencing residents and visitors. Flooding causes hazardous driving conditions in this area, and limits the availability of emergency services to certain portions of the island of Moloka'i. In order to address the drainage problems and flooding conditions from stormwater runoff in Kaunakakai Town, the *County of Maui – Department of Public Works* has worked to prepare a "Drainage Master Plan for Kaunakakai"; staff notes there are five (5) component systems to the master plan improvements, from system "A" to system "E", and this CDUA is being pursued in order to complete System "B". It should be noted that the portion of the

project within the State Land Use (SLU) Conservation District is within the General Subzone (**Exhibit 2**).

Within the State Land Use (SLU) Conservation District portion of Parcel 6, there are no existing structures, however, the County of Maui Sewer Lift Station is located on Parcel 7. A variety of industrial, commercial, and public (i.e., residential) uses are located in the vicinity of the project site, including a trucking company on Parcel 8, and the Molokai Yacht Club located on Parcel 3. On the east and south side of the project area is the Malama Cultural Park, a 3.3-acre community park that includes a canoe hale and open fields (**Exhibit 3**). The project site is located within the Kaunakakai Water System Service Area, as such, the county operates a single wastewater treatment plant situated west of the project site, which serves the Kaunakakai area.

In accordance with the Drainage Master Plan for Kaunakakai, construction of the Kaunakakai Drainage System "B" was initiated by the County of Maui in 1998 to address localized flood conditions from runoff during storm and rain events. The original design of the outlet route for Drainage System "B" was sited along the *eastern* side of Kaunakakai Place from the drain inlet to an outlet at the shoreline. However, due to soil contamination found along the drainage alignment, a new alignment located *west* of Kaunakakai Place and outside the contaminated soil area, was proposed. Currently, the drainage system terminates at an existing catch basin just south of Kamehameha V Highway within Kaunakakai Place. The applicant has stated that during heavy rainfall events, stormwater overflows from the existing catch basin on Kaunakakai Place and flows on to adjacent parcels and low-lying ponds/basins located nearby.

***Environment:***

The proposed project is located in Kaunakakai, on the southern slopes of the island of Moloka'i. The topography of the project site is considered low-lying and flat, with ground elevations varying from two (2) feet to four (4) feet about mean sea level. Disturbance from previous development and earth moving activities has altered the terrain in certain portions of the property (**Exhibit 4, 4a, 4b**)

Underlying the proposed project site are soils characterized by deep, nearly level and gently sloping, excessively drained and well-drained soils that have course- to fine-textured basement material. The soil in this area is considered poorly drained, and has a high salt content due to a surficial brackish aquifer located at the shoreline. Permeability in this area is considered moderately rapid with slow to very slow runoff potential.

***Floral and Faunal Resources:***

The coastal plain of Kaunakakai is characterized by low, marshy land covered with grass and brush. The shoreline vegetation in the project area consists mainly of Kiawe, Haole koa, Finger grass, and Pili grass. Along the shoreline, west of the Kaunakakai Harbor, very dense growths of mangrove have developed; additional vegetation at the shoreline includes pickleweed and ruderal (i.e., plant species first to colonize disturbed land) vegetation in the roadside ditches.

A biological survey was carried out in the project area, and recorded five (5) indigenous and two (2) early Polynesian species; the applicant notes that no endemics were encountered during the survey. The remaining species (i.e., ~90%) observed are either naturalized species or ornamental species. Pickleweed characterizes the vegetation in the project area, particularly in low areas with

alkaline soils – in areas where the soil is considered “salty”, the ground is bare and no growth is present.

Three (3) mammals were observed in the project area, the small Indian mongoose, Axis deer and Domestic dogs, however dogs observed in the area are most likely pets brought to the area and not monitored. As the Kaunakakai Harbor is nearby, the project area is used by hunters to deposit Axis deer carcasses prior to loading the inter-island ferry. Five (5) deer carcasses were observed in the proximity of the proposed project site.

During an avian survey, only one (1) indigenous bird (ʻAukuʻu or Black Crowned Night Heron) was observed within the project area. A Brown Booby was observed flying low over the water near the project site, while two (2) Hawaiian Stilt were heard vocalizing near the Kaunakakai Stream on an adjacent parcel. Eight (8) non-native species were observed, including the zebra dove, spotted dove, house sparrow, and the common mynah.

***Marine Resources:***

A biological survey of marine resources was conducted in preparation for this proposed project. In general, the marine bottom in the vicinity of the project area is composed of silt and fine-grained sand or sediment covered reef flat (**Exhibit 5**). Several vertical structures (i.e., dilapidated remains of pilings) and various rock outcrops occur in the area. In several sections of the surveyed area macroalgal growth is absent; burrows of either the Hawaiian shrimp goby or the commensal snapping shrimp are the only viable indication of the presence of biota in this area.

A total of 16 fish species were observed during the survey. Near the shoreline area, a large school of aholehole (Hawaiian flagtail) were observed, as well as the Hawaiian shrimp goby, white spotted goby, half-spotted goby, a barred moray, and one (1) Hawaiian smooth seahorse. The existing dense beds of mangrove and grasses provide shelter for fishes including the Hawaiian Sargent, Hawaiian Dascyllus (white spotted damselfish), as well as other non-native aquatic species (e.g., goatfish, and snapper).

***Cultural and Historical Resources:***

The State Historic Preservation Division (SHPD) was consulted during the initial design phase of this drainage project in 1992. SHPD indicated that there are two (2) known historic sites located in the vicinity of Drainage System “B”; these sites are located at the corner of Kaunakakai Place and Hio Place on parcels adjacent to the project site. Site 50-60-03-630, located within the Malama Cultural Park and west of the project area, consists of a historic-era and pre-historic subsurface deposit. Archeological testing performed at the corner of Kaunakakai Place and Kamehameha V Highway found no evidence of historic sites, suggesting that the deposit may not extend toward the highway. The second site, “50-60-03-1030”, is located on the parcel east of the project site and consists of a rectangular platform which is believed to be the foundation of Kamehameha V residence (i.e., Malama House Site).

In 1994 an Archeological Inventory Survey (AIS) was conducted in preparation for continued drainage improvements; at that time two (2) historic properties were recorded within the project boundaries (**Exhibit 6**). In the circumstance of the current project area, one (1) historic cultural deposit, SIHP 50-60-03-2573 has been documented within the current project area which is recommended as significant only for its information content. Due to the previous recordation and

sampling of this site it was recommended that ‘no further historic preservation work’ be conducted for SIHP – 2573, however, due to the preponderance of cultural and historic uses of the site, it is recommended that on-site archeological monitoring be conducted during all ground-disturbing activities. Staff notes that cultural interviews conducted in preparation for this project and previous development in this area, indicates that there are no traditional or cultural practices being conducted at the project site.

**PROPOSED USE/ NEED AND PURPOSE:**

The applicant (County of Maui – Department of Public Works) is proposing to construct a drainage system with an outlet terminating makai (i.e., seaward) of the existing sewer lift station, within the subject parcels (**Exhibit 7**). The proposed project is part of the *Kaunakakai Drainage System Improvement Project* of which there are five (5) main component systems (i.e., “A” through “E”). Construction of the Kaunakakai Drainage System “B” began in 1998 to address local flooding conditions from runoff during storm events. A portion of the Kaunakakai Drainage System “B” improvements cover an area generally within the central business district of Kaunakakai Town and terminates at an existing catch basin located adjacent to the main roadway intersection.

The existing drainage system located north of Kamehameha V Highway will connect to the proposed drainage improvements being pursued via this application. Currently the Kaunakakai Drainage System “B” terminates at a catch basin just south of Kamehameha V Highway within the Kaunakakai Place Right-of-Way (ROW). During periods of heavy rainfall, stormwater overflows from the catch basin on Kaunakakai Place onto the adjacent parcels and ponds in low-lying areas.

Completion of the proposed improvements would provide permanent drainage infrastructure to complete the Kaunakakai Drainage System “B”, and is anticipated to alleviate flooding conditions in this area.

The proposed Modified Kaunakakai Drainage System Improvements (Phase 1B) involves the following project components within the SLU Conservation District. Staff notes that portions of the proposed Phase 1B improvements will occur outside the Conservation District, and are therefore not included in this review. Portions of the project not within the SLU Conservation District are labeled N/A (i.e., not applicable):

- Connection to the existing culvert on the southeast corner of the Kamehameha V Highway – Kaunakakai Place – Ala Malama Avenue intersection (*N/A*);
- Underground construction of an 8- to 10-foot wide by 3-foot high reinforced concrete box culvert extending approximately 540 linear feet along the existing drainage path to an energy dissipation basin approximately 50 feet south of the County sewer lift station (*20% Conservation District, 80% N/A*) (**Exhibit 8**);
- 2,500 square foot energy dissipation basin consisting of an outlet basin with rock rip-rap apron located 30-feet south of the sewer lift station (*Conservation District*) (**Exhibit 9**);
- Construction of a 3- to 4-foot high concrete flood wall surrounding (on three sides) the County sewer lift station (*Conservation District*) (**Exhibit 10**); and

- Construction of an earthen berm (approximately 15-feet wide and 2- to 4-feet high, to extend along the western boundary of Parcel 3 approximately 560 linear feet from the south of the county sewer lift station towards the shoreline (N/A).

All improvements for the project are located outside of mapped wetland areas. Furthermore, temporary construction fencing will be installed along the limits of work to prevent disturbance to wetland areas during construction. Staff notes the dissipation basin (the largest structure proposed in the conservation district) will allow for a transition between the culvert and an existing swale to improve flood protection and runoff mitigation. Construction will involve grading and trenching to install the proposed drainage system improvements, as well as a comprehensive program of Best Management Practices (BMPs) to be implemented.

**SUMMARY OF COMMENTS:**

The application was referred to the following agencies for review and comment; The Department of Land and Natural Resources (DLNR): Maui District Land Office (MDLO), the State Historic Preservation Division (SHPD), Division of Aquatic Resources (DAR), the Commission of Water Resource Management (CWRM), and the Division of Forestry and Wildlife (DOFAW). Additionally, the application was sent to the State Department of Health (DOH) – Clean Water Branch (CWB), the Office of Hawaiian Affairs (OHA), the Hawaii Department of Transportation (HDOT), the County of Maui – Department of Planning, and the County of Maui – Department of Water Supply along with the Molokai Public Library in order to make this information readily available to those who may wish to review it.

**A summary of the comments received by OCCL is listed below:**

**DLNR - Division of Aquatic Resources (DAR):**

*The agency had no comments on the proposed project.*

**DLNR - Oahu District Land Office (ODLO)**

*The agency had no comments on the proposed project.*

**DLNR – Division of Forestry and Wildlife (DOFAW)**

*The agency had no comments on the proposed project.*

**County of Maui – Department of Planning**

*Agency comments were addressed during the EA process; the agency had no further comments on the proposed project.*

**County of Maui – Department of Water Supply**

*DWS understands that, if necessary, relocation of water lines for the construction of the proposed project, will be carried out by the Department of Public Works in consultation with us (i.e., DWS).*

*Please note that there are several waterlines and valves within that intersection of Kamehameha V Highway and Ala Malama Ave; 8- and 6-inch lines converge from Kamehameha V Highway, Ala Malama Ave and Kaunakakai Place. DWS requests that valves should remain uncovered upon completion of any paving.*



The applicant is coordinating with DWS to ensure that the valves remain open.

***No other comments were received from any agency or the public.***

**ANALYSIS:**

Following review and acceptance for processing, the Applicant's Agent was notified, by letter dated *January 13, 2018* that:

- A. The proposal to conduct the *Modified Kaunakakai Drainage System Improvement Project (Phase 1B)* located in the Moloka'i District, Island of Moloka'i on TMKs: (2) 5-3-005:006 and 007 is considered an identified land use within the Conservation District *General Subzone* pursuant to Hawaii Administrative Rules (HAR), §13-5-22, P-6, **PUBLIC PURPOSE USES (D-1)**, *Not for profit land uses undertaken in support of a public service by an agency of the county, state, or federal government, or by an independent non-governmental entity, except that an independent non-governmental regulated public utility may be considered to be engaged in a public purpose use. Examples of public purpose uses may include but are not limited to public roads, marinas, harbors, airports, trails, water systems and other utilities, energy generation from renewable resources, communication systems, flood or erosion control projects, recreational facilities, community centers, and other public purpose uses, intended to benefit the public in accordance with public policy and the purpose of the conservation district.* Please note that the final decision to approve or deny this application rests with the Board of Land and Natural Resources (BLNR);
- B. Pursuant to HAR §13-5-40, Hearings, a public hearing *is not* required;
- C. A Final Environmental Assessment with a Finding of No Significant Impact (FEA-FONSI) was published in the OEQC publication, *The Environmental Notice (EN)* on *September 23, 2017*, and
- D. On October 25, 2017, the Molokai Planning Commission (MoPC) reviewed the Special Management Area Major Use (SM1) permit application for the proposed project. There was lengthy discussion about the subject parcel regarding the catchment and overflow into the wetland areas. The MoPC did approve the SM1 permit with fourteen (14) conditions (**Exhibit 11**).

Notice of this Conservation District Use Application (CDUA) **MO-3815** for the *Modified Kaunakakai Drainage System Improvement Project* was published in the *February 8, 2018* issue of the Office of Environmental Quality Control (OEQC) publication the *Environmental Notice*.

**§13-5-30 CRITERIA:**

The following discussion evaluates the merits of the proposed land use by applying the criteria established in HAR §13-5-30.

- 1) *The proposed use is consistent with the purpose of the Conservation District. The objective of the Conservation District is to conserve, protect and preserve the important natural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety and welfare.*

The applicant has stated that the proposed project affects less than one (1) percent of the total acreage of Parcel 6 and is located entirely outside of the mapped wetland areas. The applicant continues by stating that the proposed drainage improvements, which are intended to benefit the community and businesses in the Kaunakakai area by addressing flowing in the area due to storm events, is consistent with the purpose of the Conservation District, General Subzone.

Additionally, the applicant will institute a number of Best Management Practices (BMPs) to ensure the protection of the sites natural and environmental resources. BMPs related to potential construction impacts include (**Exhibit 12**):

- Stockpiles of materials will be sited away from drainage paths and equipped with erosion prevention BMPs such as plastic coverings, silt fencing, or dikes to protect stockpiles form runoff;
- During earthwork activities, sediment control BMPs such as silt fencing, straw wattles, and sandbags will be used to prevent discharge of sediment laden runoff;
- Wind erosion control BMPs, such as watering or installation of dust screens, will be used during and after earth work activities;
- The contractor will conduct daily visual observations to ensure that all BMPs and erosion control measures shown on the BMP plan are in place and functioning properly;
- Existing vegetation will be preserved to extent possible outside the of the project “footprint” to avoid any unnecessary disturbance to native materials; and
- At the completion of work, hydraulic mulch or hydroseed will be applied to disturbed areas to encourage re-establishment of vegetation.

OCCL Staff believes that the project, as designed, will improve the conditions of the environment in this area by reducing hazards associated with flooding from local storm events that can be detrimental to the nearshore environment, and commercial center of Kaunakakai Town. While a stormwater outflow is not an environmentally sensitive conveyance, having one that is working properly could be beneficial to the environment.

- 2) *The proposed land use is consistent with the objectives of the Subzone of the land on which the use will occur. The proposed Drainage Improvements are located in the General Subzone of the Conservation District, pursuant to HAR §13-5-14, the objective of the General Subzone is to designate open space where specific conservation uses may not be defined, but where urban use would be premature.*

The applicant states that the proposed project continues the implementation of the Kaunakakai Drainage System “B” which was initiated by the County DPW in 1998. A portion of the Kaunakakai Drainage System “B” (which covers an area generally within the

central business district of Kaunakakai Town) has been completed and currently terminates at a catch basin located to the southeast of Kaunakakai Place.

OCCL staff notes that the proposed project follows the objectives of the General Subzone in that the proposed project involves only a small portion of the Conservation District, with the remainder located on other Land Use Districts, and the benefits to the environment (i.e., reducing soil loss and turbidity, minimizing flooding) will outweigh the impact associated with this project.

OCCL staff notes that stormwater outfalls that empty into the nearshore area will never be a positive impact on the environment, however, an inefficient or inadequate stormwater conveyance would be more detrimental to the environment. To that end, this project is considered positive in that it aims to reduce the impacts associated with flooding and overtopping of current drainage systems.

- 3) *The proposed land use complies with the provisions and guidelines contained in Chapter 205A, HRS entitled "Coastal Zone Management", where applicable. The Coastal Zone Management Program recognizes a number of objectives and policies to monitor when determining potential impacts to the coastal zone area. While not all of the objectives and policies are relevant to each project, some objectives have the potential to be influenced by the proposed project.*

The applicant states that the project site is located within the Special Management Area (SMA) designated by the County of Maui. The proposed land use for the project complies with the provisions and guidelines contained in Chapter 205A, HRS, and the Rules and Regulations of the Moloka'i Planning Commission.

**Recreational resources:**

The applicant states that the proposed project is not anticipated to result in any adverse impacts to existing recreational resources in the surrounding area. Construction work near the Malama Cultural Park will be limited to the previously affected portions of the park, and the highway right-of-way's; the proposed project is not anticipated to disrupt or modify any activities located within the park.

The applicant states that due to the inland location of the proposed outfall, the natural topography of the site (i.e., existing natural swales and wetland areas) for stormwater flow conveyance, and the expected minimization of flooding events, the proposed project is not anticipated to impact or modify any coastal recreational uses or activities.

**Historic Resources:**

The applicant states that during previous consultation for the entire Kaunakakai Drainage System in 1992, the State Historic Preservation Division (SHPD) indicated that there are two (2) known historic sites (Site 50-60-03-630 and Site 50-60-03-1030) located in the vicinity of the proposed Drainage System; it is noted that both sites have been located outside and away from the proposed project site.



In 2016 an Archeological Inventory Survey (AIS) report was completed for the proposed project and observed that the project site has been modified during historic and modern times, and through natural processes. Although no extant cultural resources were observed on the project area surface, subsurface testing indicates that an historic-era cultural deposit may exist in the southernmost part of the project area (SIHP-2573). However, the report concluded that the survey adequately recorded the information for this area, through research, documentation, testing and laboratory analysis. The report concludes that Site SIHP-2573 has been well documented and that further preservation mitigation or data recovery would not add to the information regarding this find.

It was stated by the applicant that an Archeological Monitoring Plan will be developed and approved by SHPD for the proposed project, instituting a monitoring program to serve as mitigation measures should new finds or material be encountered during construction activities.

**Scenic and open space resources:**

The applicant states that the proposed project involves the construction of drainage system improvements that include a 2- to 4-foot high earthen berm on the western project area, as well as a 3- to 4-foot high flood wall on the three (3) sides of the existing Sewer Lift Station. The proposed low-profile wall, fence, and berms not anticipated to alter or modify the existing viewplane and scenic resources of the area. Most improvements will be at ground level and will only be visible from the project site.

**Coastal Ecosystems:**

The applicant states that no significant adverse impacts from the proposed project are anticipated to occur in the nearshore area. The existing nearshore reef flat is covered with a thick layer of sediment, with limited biota and only a few scattered coral colonies. This area would not be susceptible to negative impacts from storm runoff, as the area has been under the influence of sedimentation and turbidity from shore runoff and nearby discharge from Kaunakakai Stream.

The project plans include temporary and permanent erosion control measures and BMPs to mitigate potential adverse impacts to downstream properties. A list of proposed BMPs is provided in “§13-5-30 Criteria: (1)”, at the beginning of this section.

**Economic uses:**

While the proposed project will have a typical short term positive impact on economic uses due to the generation of (temporary) construction -related employment and services. The objective of this project is to minimize and alleviate flood conditions which will have a long-term economic benefit by alleviating business disruption caused by flooding events.

**Coastal hazards:**

The proposed project is located entirely within Flood Zone E which is a special Flood Hazard Area that requires a Special Flood Hazard and Development Permit Application. The project is limited to drainage system improvements and does not involve the development of habitable structures or facilities within the nearshore area.

**Managing Development and Public Participation:**

Public awareness and participation are being facilitated through the EA, CDUA, and SMA review process. The applicant states that the proposed project is being processed in accordance with the objectives of the public awareness, education, and participation. DPW, along with its design and planning consultants, solicited comments from neighboring properties to provide feedback on the proposed project. As a result of this consultation and public participation, the berm design was modified to avoid impacts to neighboring properties and uses.

**Beach Protection/Marine Resources:**

The proposed project, a portion of which occurs on the County owned parcel, includes a drainage system that will be channelized to a dissipation basin that will be located approximately 500-feet from the shoreline. The current state of runoff control is inadequate and leads to turbidity in the nearshore area. It is anticipated that this proposed project will alleviate some turbidity and run-off from reaching the shoreline.

A biological and water quality assessment to assess the potential impact of the proposed drainage improvements determined that the project should not have significant direct impacts on the nearshore environment. Observations showed that the existing nearshore reef flat is covered with sediment, and includes limited biota and coral colonies. It is anticipated that this proposed project will improve, or not increase, sedimentation in the coastal waters offshore.

- 4) *The proposed land use will not cause substantial adverse impact to existing natural resources within the surrounding area, community or region.*

The applicant states that the proposed project is limited to drainage system improvement that will help to address flooding of the Kaunakakai area during storm events. The proposed drainage system design incorporates use of the proposed culvert and existing natural swale to channel stormwater flow to an energy dissipation basin. The energy dissipation basin will reduce flow velocity and allow some settling of suspended sediments before the stormwater flows through the existing swale and wetland.

OCCL staff notes that any shoreline development (*i.e., seawall, outfalls, groins*) have the potential to influence shoreline processes and beach formation. Staff believes that outfalls deposit effluent from urban-derived stormwater into the nearshore and ocean environments causing potentially negative impacts to coastal resources. OCCL staff indicates that there are always impacts due to coastal development, however, in this case they may be minimized by this proposed project because the project will help restore a more functional drainage system for this area.

- 5) *The proposed land use, including buildings, structures and facilities, shall be compatible with the locality and surrounding areas, appropriate to the physical conditions and capabilities of the specific parcel or parcels.*

The proposed drainage improvements located within the Conservation District would affect a very small portion of the vacant parcel, and are limited to a reinforced underground

concrete box culvert that runs into an energy dissipation basin located adjacent to the county's sewer lift station. The applicant states that the proposed drainage system improvements are appropriate to the site and surrounding areas given the morphology of the site, the limited area to develop these improvements, and the necessity of storm water management in an urban/business district.

Staff notes that the project appears to be consistent with the urban and upland development located in this area. While the drainage improvements may be appropriate and necessary to the site and associated urban development, OCCL staff notes that outfall structures carry all effluent that lands on roadways into the drain system which can be detrimental to the long-term health of the nearshore and ocean environments.

- 6) *The existing physical and environmental aspects of the land, such as natural beauty and open space characteristics, will be preserved or improved upon, whichever is applicable.*

The applicant states that the proposed project involves the construction of low-profile drainage improvements that will be installed below grade (i.e., box culvert), a 3- to 4-foot high reinforced concrete floodwall, and a 2- to 4-foot high earthen berm for flood protection. It is anticipated that the low-profile nature of the proposed improvements, the citing of the wall near the existing sewer lift station, and the use of a natural, vegetated, earthen berm will have little to no impact on the natural beauty, open space character or environmental aspects of the land in this area. OCCL staff believes this project will aim to improve the natural character of the land by better managing stormwater and flood events.

- 7) *Subdivision of land will not be utilized to increase the intensity of land uses in the Conservation District.*

The proposed use will not require the subdivision of land in the Conservation District.

- 8) *The proposed land use will not be materially detrimental to the public health, safety and welfare.*

The applicant states that the previous inadequate or nonexistent drainage systems in the business areas of Kaunakakai contributed to flooding that caused damage to home and businesses, and inconvenienced residents and visitors. Flooding in this area has created hazardous driving conditions and did limit the availability of emergency services to certain portions of the island. The proposed action continues the implementation of the Kaunakakai Drainage System "B" project which began in 1998 and is intended to meet the needs of the residents and businesses by addressing flood conditions and flood hazards due to storm events. OCCL staff believes that the proposed project will improve public health, safety and welfare just by alleviating flood conditions in this area.

**CULTURAL AND HISTORICAL IMPACT REVIEW:**

*Please provide the identify and scope of cultural, historical, and natural resources in which traditional and customary native Hawaiian rights are exercised in the area:*

Past accounts refer to Kaunakakai as a preferred canoe landing for travelers given its favorable environmental conditions (e.g., landing, wind direction, natural channel and central location on island). Residents of the area were interviewed to determine the current level of use by native persons, or previous use of the site for gathering, or other cultural practices. One interviewee requested that people be informed about the project and its impact to traffic. This person further stated that there is no agricultural use on the property, and no adverse impacts to beach access as a result of the project are anticipated with regards to cultural, historical or traditional uses.

*Identify the extent to which those resources, including traditional and customary Native Hawaiian rights, will be affected or impaired by the proposed action:*

As discussed previously in this report, no historic or cultural resources were found within the portion of the proposed project located in the Conservation District. Subsurface testing encountered a historic-era cultural deposit in the southernmost part of the project area, however, the AIS concluded that documentation of the site was adequate and that further preservation mitigation or data recovery would not add to the information regarding this site. It should be noted, that regardless of the conclusions of the AIS, the applicant has stated that archeological monitoring will occur during all ground disturbance activities to ensure appropriate mitigation measures for any potential inadvertent finds discovered during construction. OCCL staff believes that the previous development of this area, the lack of established cultural or native uses, and the location of the site within a commercial center indicates that the traditional and customary rights of native Hawaiians should not be impacted.

*What feasible action, if any, could be taken by the Board of Land and Natural Resources in regard to your application to reasonably protect Native Hawaiian rights?*

As noted by the applicant, archeological monitoring will be implemented during the project to ensure the protection of any potential historic resources that may be encountered during construction. Additionally, the cultural surveys and resident interviews indicate that this project area has no apparent native uses as it is an existing drainage and wetland area that is not frequented by visitors or residents. Staff believes the project, as designed, does not require action by the Board of Land and Natural Resources to protect native Hawaiian rights and uses.

#### **DISCUSSION:**

This Conservation District Use Permit (CDUP) is being pursued in order to conduct improvements to the existing Drainage System "B" that has become an ineffective stormwater management corridor. The proposed work in the Conservation District includes the construction of an underground concrete box culvert, a dissipation basin and rock apron, and a flood retaining wall around an existing sewer lift station managed by the County of Maui.

Staff notes that the long-term effects of sea level rise (SLR) were considered in the design of the proposed project. More robust infrastructure (i.e., concrete culvert and floodwall) was located as far from the active shoreline as practical to provide space for the shoreline and wetland ecosystems to adapt to SLR. Additionally, the earthen berm can be modified in the future to accommodate evolving hazards and land uses in this area. Modeling results were used to plan this project such that the design will provide an improved drainage system capable of conveying the design flow rate

with varying levels of water elevation. The system improvements are also capable of tolerating up to two (2) feet of sea level rise with only minor increases in the Hydraulic Grade Line (HGL) (i.e., the surface level of water flowing in an open channel) of the entire project.

While coastal development can be a serious impediment to protecting and preserving coastal ecosystems, recreation, and processes, this project aims to better control and manage stormwater and runoff in order to alleviate flooding hazards and flooding impacts associated with rain events.

OCCL staff believes this project will have a positive effect on the coastal community by reducing flooding hazards, improving the quality of storm water entering the ocean, and providing a more stable conveyance system that can be modified in the future.

*Staff, therefore, recommends as follows:*

**RECOMMENDATION:**

Staff recommends that the Board of Land and Natural Resources **APPROVE** this Conservation District Use Application (CDUA) MO-3815 for proposed ***Modified Kaunakakai Drainage System Improvement Project (Phase 1B)*** located in Kaunakakai Town, Moloka'i District, Island of Moloka'i, on *Tax Map Keys: (2) 5-3-005:006 & :007* and subject to the following conditions pursuant to HAR §13-5-42:

1. The permittee shall comply with all applicable statutes, ordinances, rules, and regulations of the federal, state, and county governments, and applicable parts of this chapter;
2. The permittee, its successors and assigns, shall indemnify and hold the State of Hawaii harmless from and against any loss, liability, claim, or demand for property damage, personal injury, and death arising out of any act or omission of the applicant, its successors, assigns, officers, employees, contractors, and agents under this permit or relating to or connected with the granting of this permit;
3. The permittee shall obtain appropriate authorization from the department for the occupancy of state lands, if applicable;
4. The permittee shall comply with all applicable department of health administrative rules;
5. Unless otherwise authorized, any work or construction to be done on the land shall be initiated **within one (1) year** of the approval of such use, in accordance with construction plans that have been signed by the chairperson, and shall be completed **within five (5) years** of the approval of such use. The permittee shall notify the department in writing when construction activity is initiated and when it is completed;
6. The permittee understands and agrees that the permit does not convey any vested right(s) or exclusive privilege;
7. In issuing the permit, the department and board have relied on the information and data that the permittee has provided in connection with the permit application. If, subsequent to the



- issuance of the permit such information and data prove to be false, incomplete, or inaccurate, this permit may be modified, suspended, or revoked, in whole or in part, and the department may, in addition, institute appropriate legal proceedings;
8. When provided or required, potable water supply and sanitation facilities shall have the approval of the department of health and the county department of water supply;
  9. Provisions for access, parking, drainage, fire protection, safety, signs, lighting, and changes on the landscape shall be provided;
  10. Where any interference, nuisance, or harm may be caused, or hazard established by the use, the permittee shall be required to take measures to minimize or eliminate the interference, nuisance, harm, or hazard;
  11. Obstruction of public roads, trails, lateral shoreline access, and pathways shall be avoided or minimized. If obstruction is unavoidable, the permittee shall provide alternative roads, trails, lateral beach access, or pathways acceptable to the department;
  12. During construction, appropriate mitigation measures shall be implemented to minimize impacts to off-site roadways, utilities, and public facilities;
  13. Use of the area shall conform with the program of appropriate soil and water conservation district or plan approved by and on file with the department, where applicable;
  14. The permittee shall obtain a county building or grading permit or both for the use prior to final construction plan approval by the department;
  15. For all landscaped areas, landscaping and irrigation shall be contained and maintained within the property, and shall under no circumstances extend seaward of the shoreline as defined in section 205A-1, HRS;
  16. Artificial light from exterior lighting fixtures, including but not limited to floodlights, uplights, or spotlights used for decorative or aesthetic purposes, shall be prohibited if the light directly illuminates or is directed to project across property boundaries toward the shoreline and ocean waters, except as may be permitted pursuant to section 205A-71, HRS. All exterior lighting shall be shielded to protect the night sky;
  17. Where applicable, provisions for protection of beaches and the primary coastal dune shall be established by the permittee, to the satisfaction of the department, including but not limited to avoidance, relocation, or other best management practices;
  18. The permittee acknowledges that the approved work shall not hamper, impede, or otherwise limit the exercise of traditional, customary, or religious practices of native Hawaiians in the immediate area, to the extent the practices are provided for by the Constitution of the State of Hawaii, and by Hawaii statutory and case law; and
  19. Other terms and conditions as prescribed by the chairperson; and

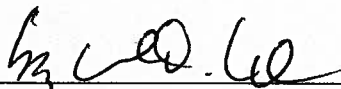
20. Failure to comply with any of these conditions shall render a permit void under the chapter,  
as determined by the chairperson or board.

Respectfully submitted,

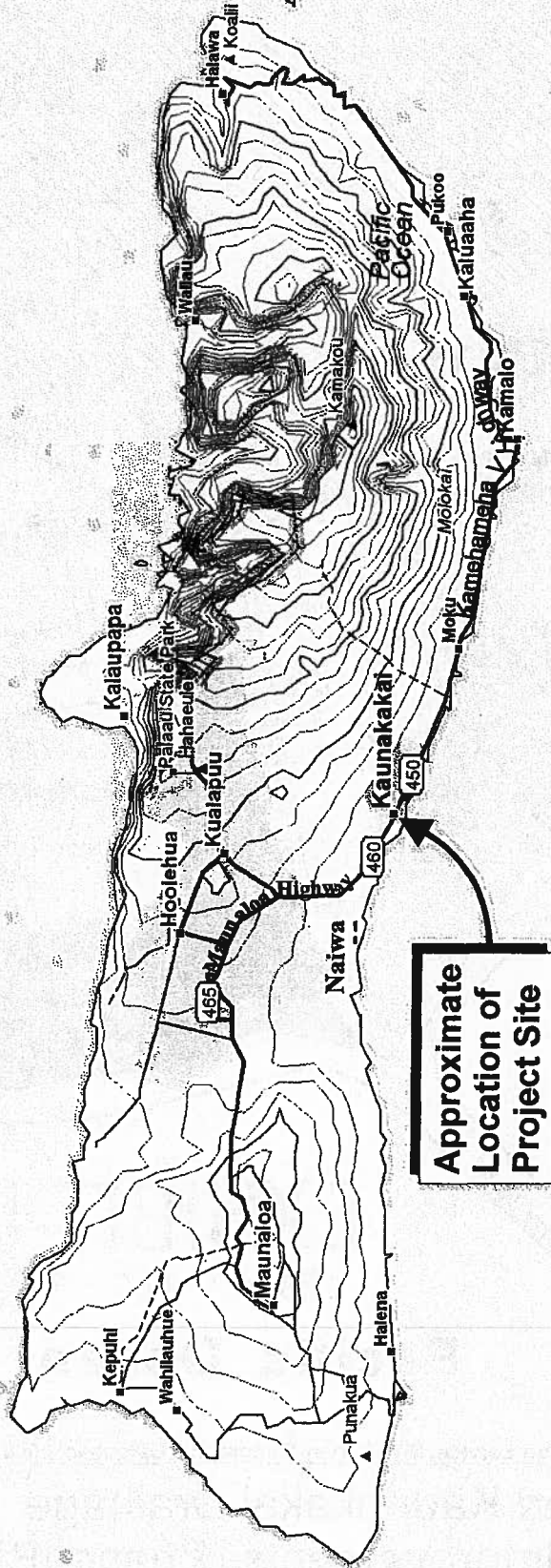


**Alex J. Roy, M.Sc., Staff Planner**  
*Office of Conservation and Coastal Lands*

Approved for submittal:



**Suzanne D. Case, Chairperson**  
*Board of Land and Natural Resources*



# EXHIBIT I

CPWA MO-3015

Source: DeLorme Topo Quads

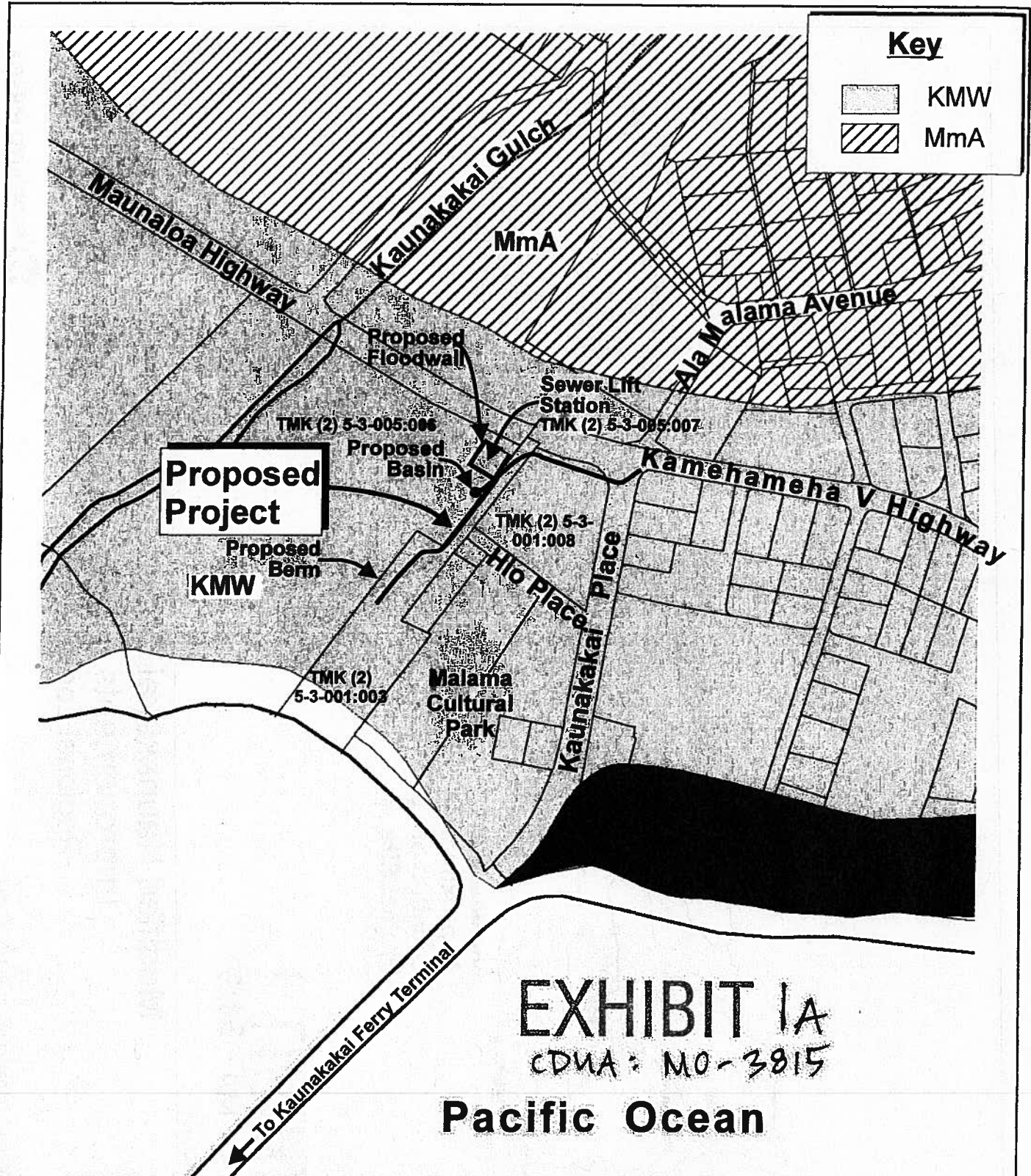


## Modified Kaunakakai Drainage System Improvements (Phase IB) Regional Location Map



NOT TO SCALE



Prepared for: County of Maui, Department of Public Works



**Key**

	KMW
	MmA

**EXHIBIT 1A**  
CDWA: MO-3815

**Pacific Ocean**

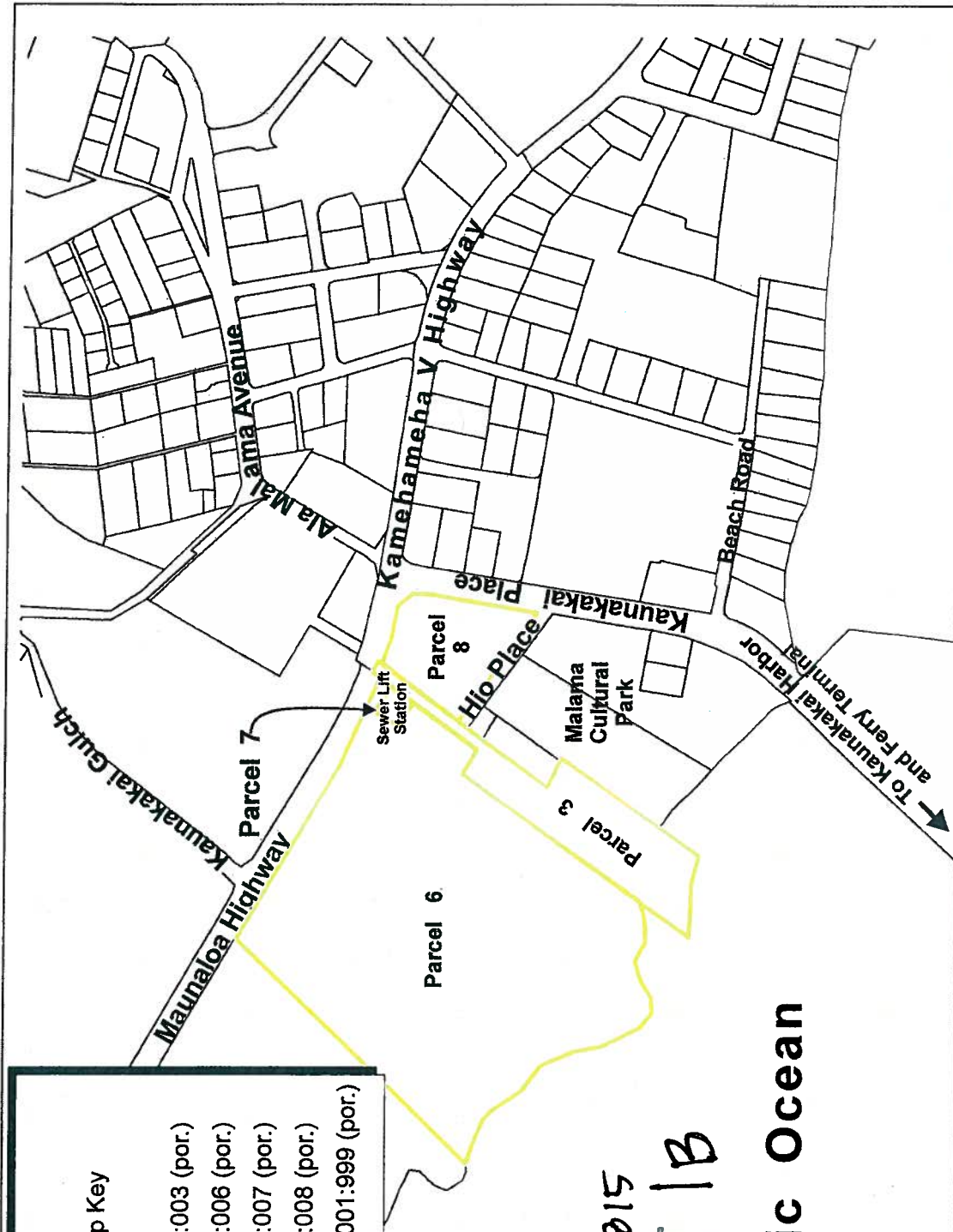
Source: USDA Natural Resources Conservation Service, Soil Survey Geographic Database, 2006

**Modified Kaunakakai Drainage  
System Improvements (Phase IB)  
Soil Classification Map**



Prepared for: County of Maui, Department of Public Works





**KEY**

Affected Tax Map Key (TMK) Parcels

Parcel 3: TMK (2)5-3-001:003 (por.)

Parcel 6: TMK (2)5-3-005:006 (por.)

Parcel 7: TMK (2)5-3-005:007 (por.)

Parcel 8: TMK (2)5-3-001:008 (por.)

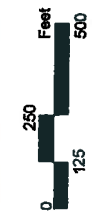
Right-of-Way: TMK (2)5-3-001:999 (por.)

CDUA: M0-3915  
**EXHIBIT B**

**Pacific Ocean**

Source: County of Maui, 2013

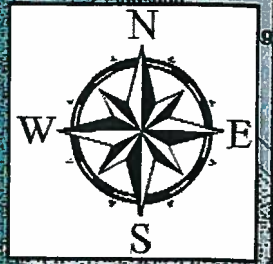
**Modified Kaunakakai Drainage System  
 Improvements (Phase IB)  
 Affected Tax Map Key Parcels**



Prepared for: County of Maui, Department of Public Works



CDUA: MO-3815



Approximate location of project portion within the SLU Conservation District

EXHIBIT 2  
CDUA: MO-3815

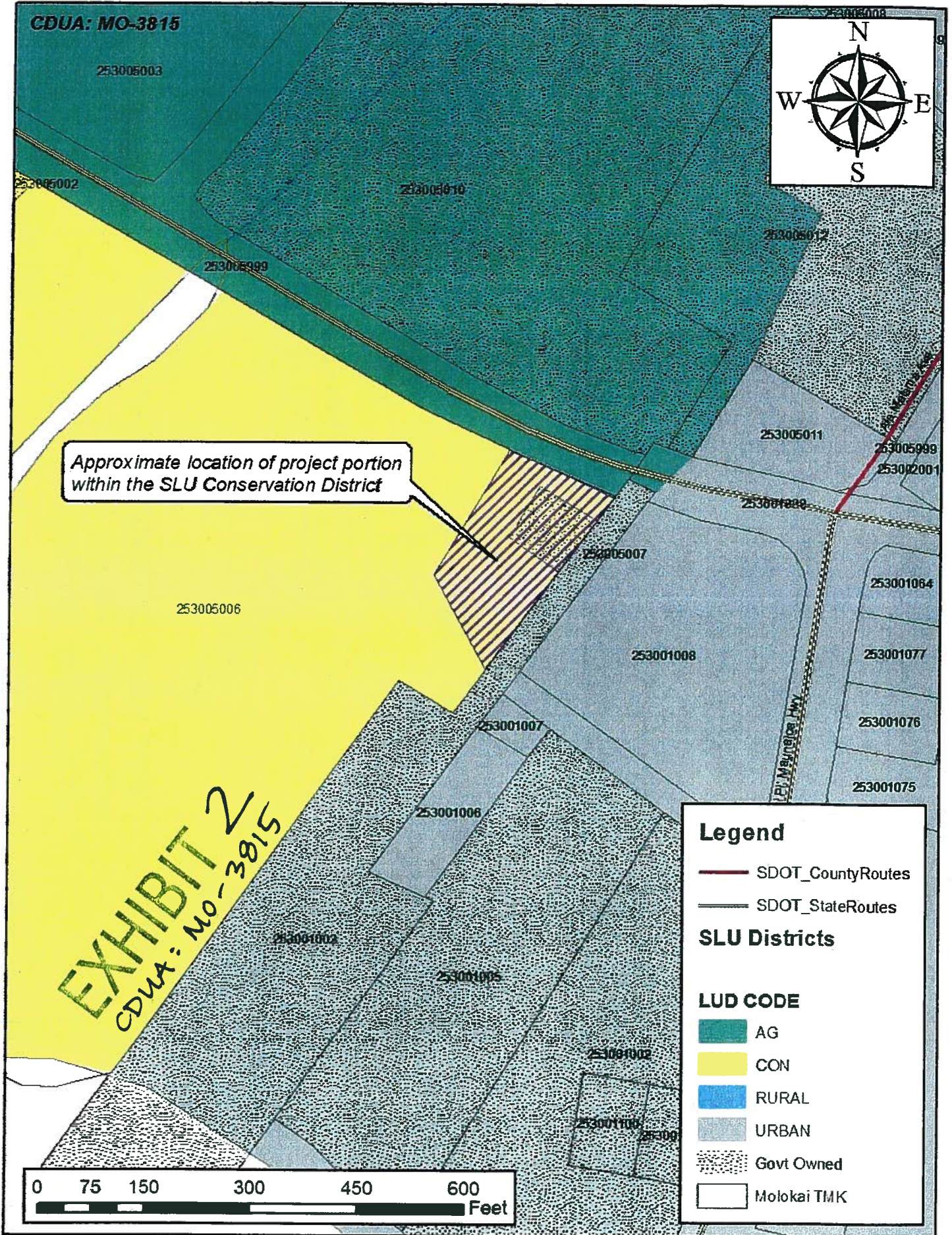
**Legend**

- SDOT\_CountyRoutes
- SDOT\_StateRoutes

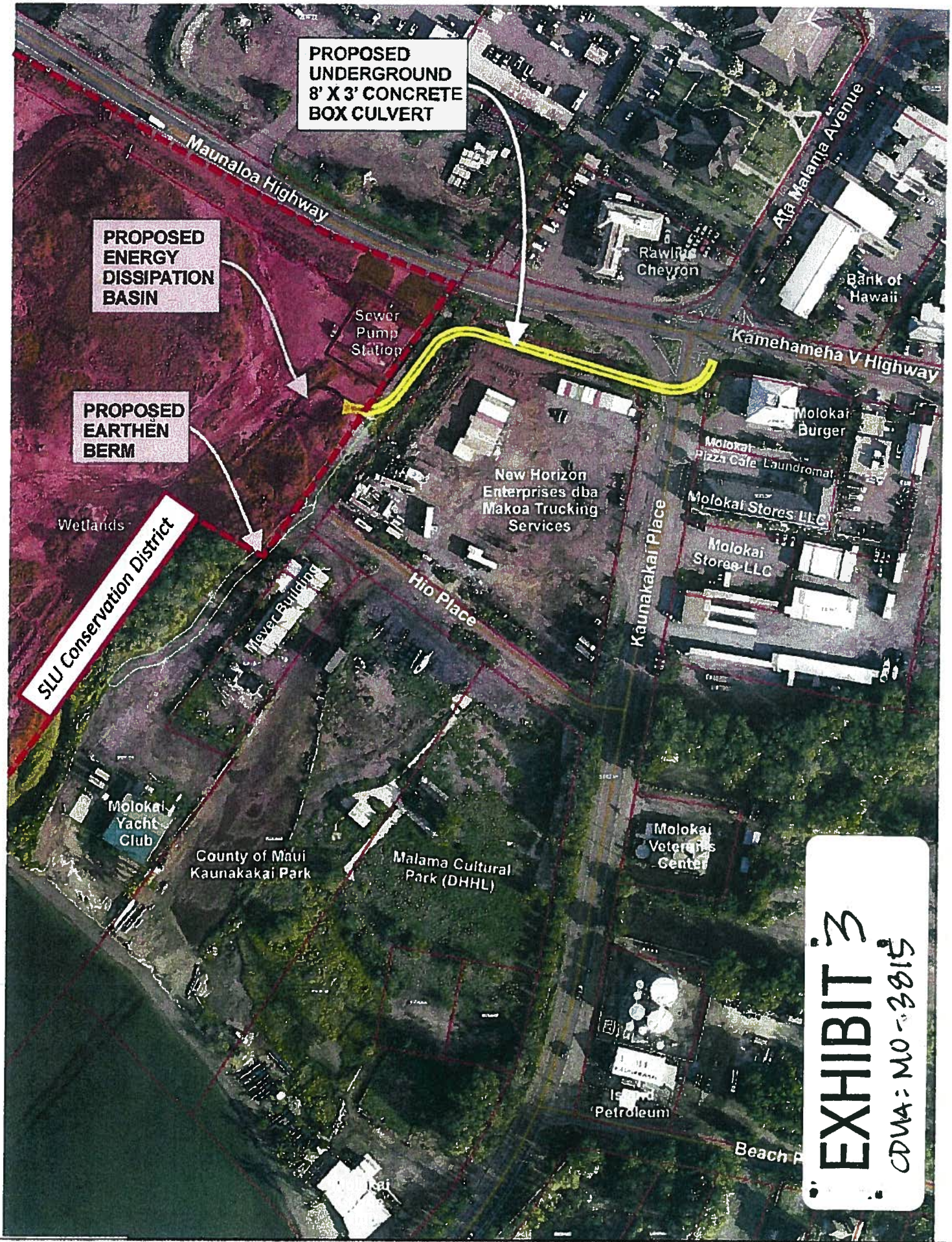
**SLU Districts**

**LUD CODE**

- AG
- CON
- RURAL
- URBAN
- Govt Owned
- Molokai TMK







**PROPOSED UNDERGROUND 8' X 3' CONCRETE BOX CULVERT**

**PROPOSED ENERGY DISSIPATION BASIN**

**PROPOSED EARTHEN BERM**

**SIU Conservation District**

**EXHIBIT 3**  
CDWA: MO-3815



Overview of site topography & drainage patterns

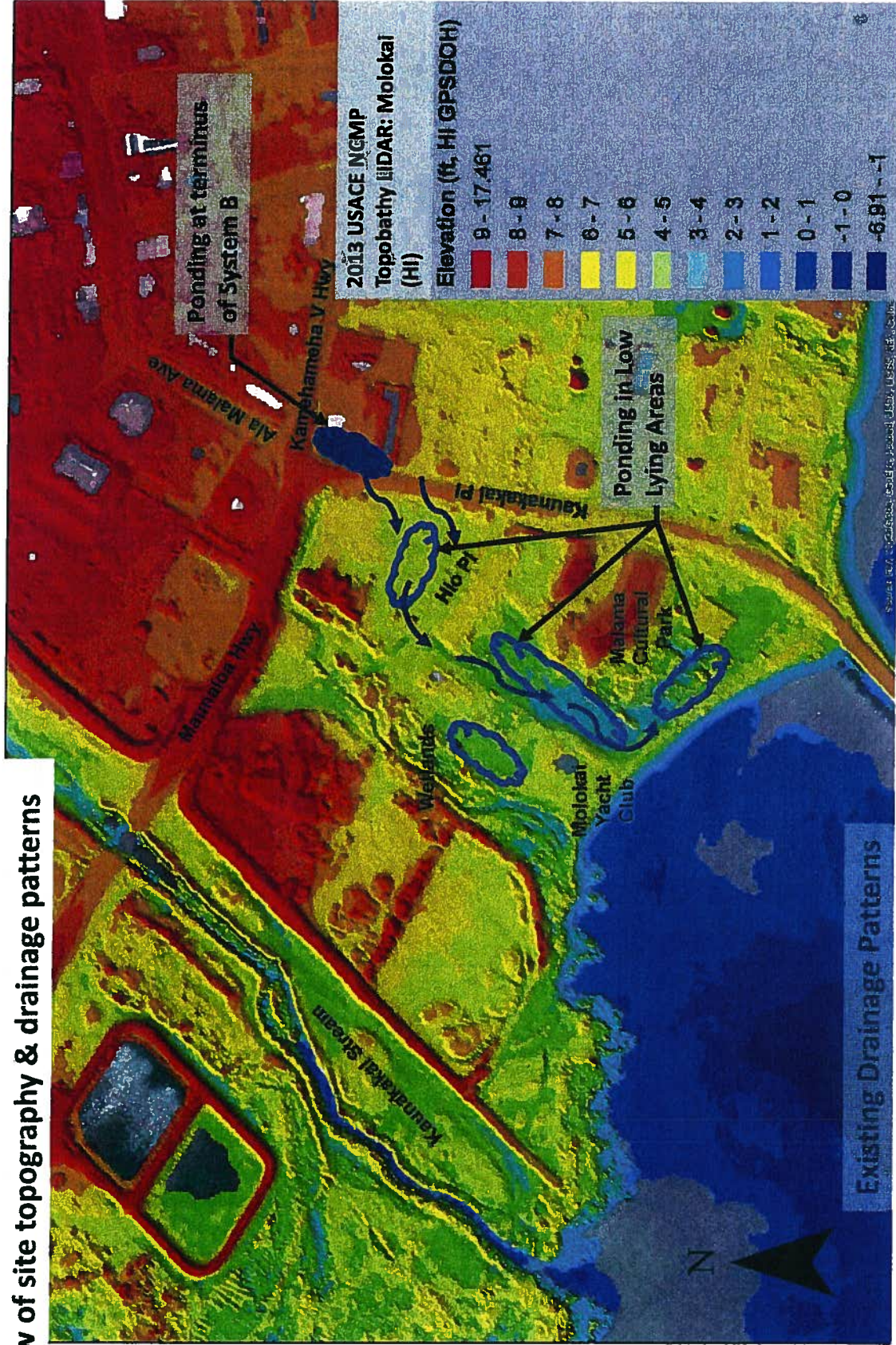
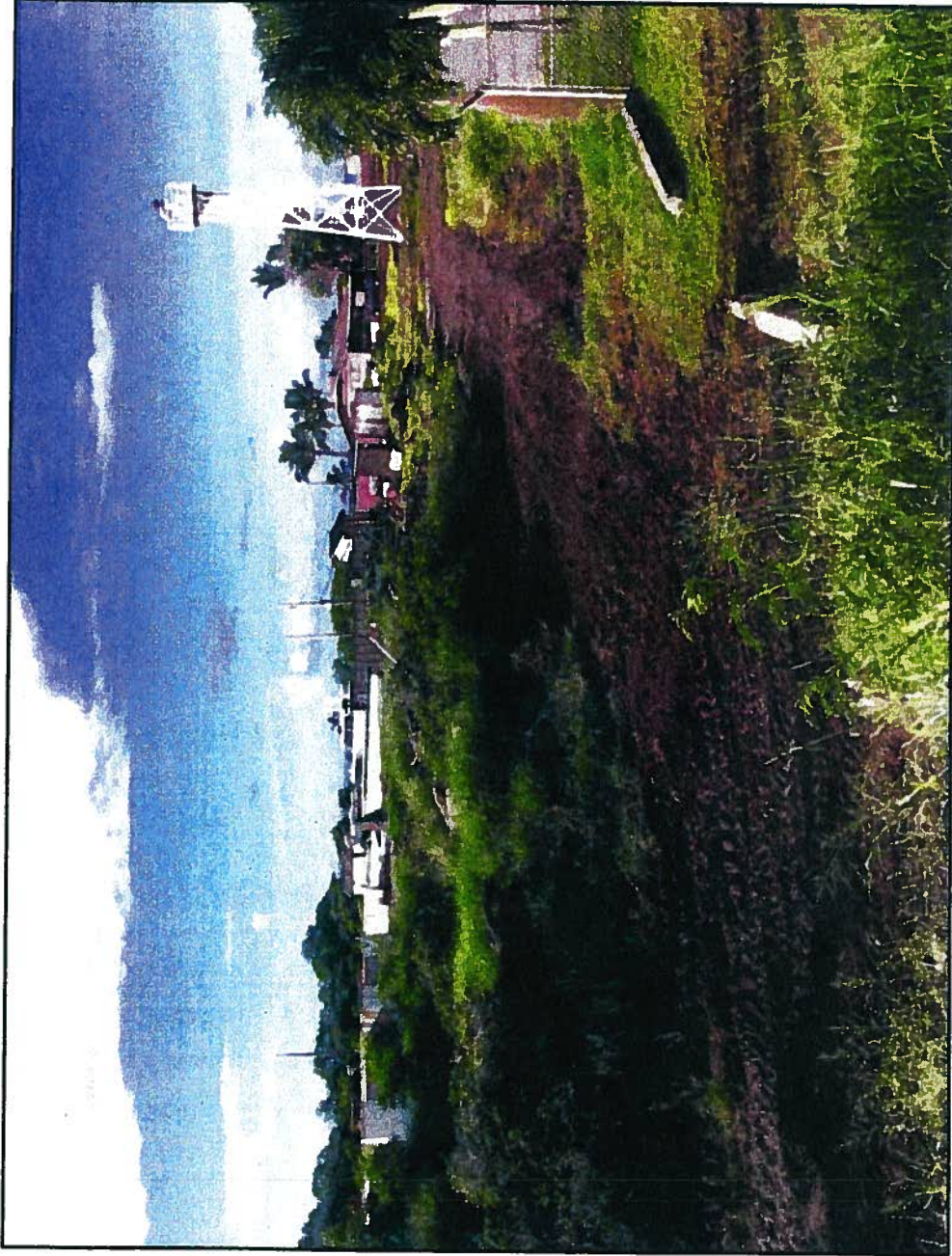


EXHIBIT 4 CDMA: MO-3815

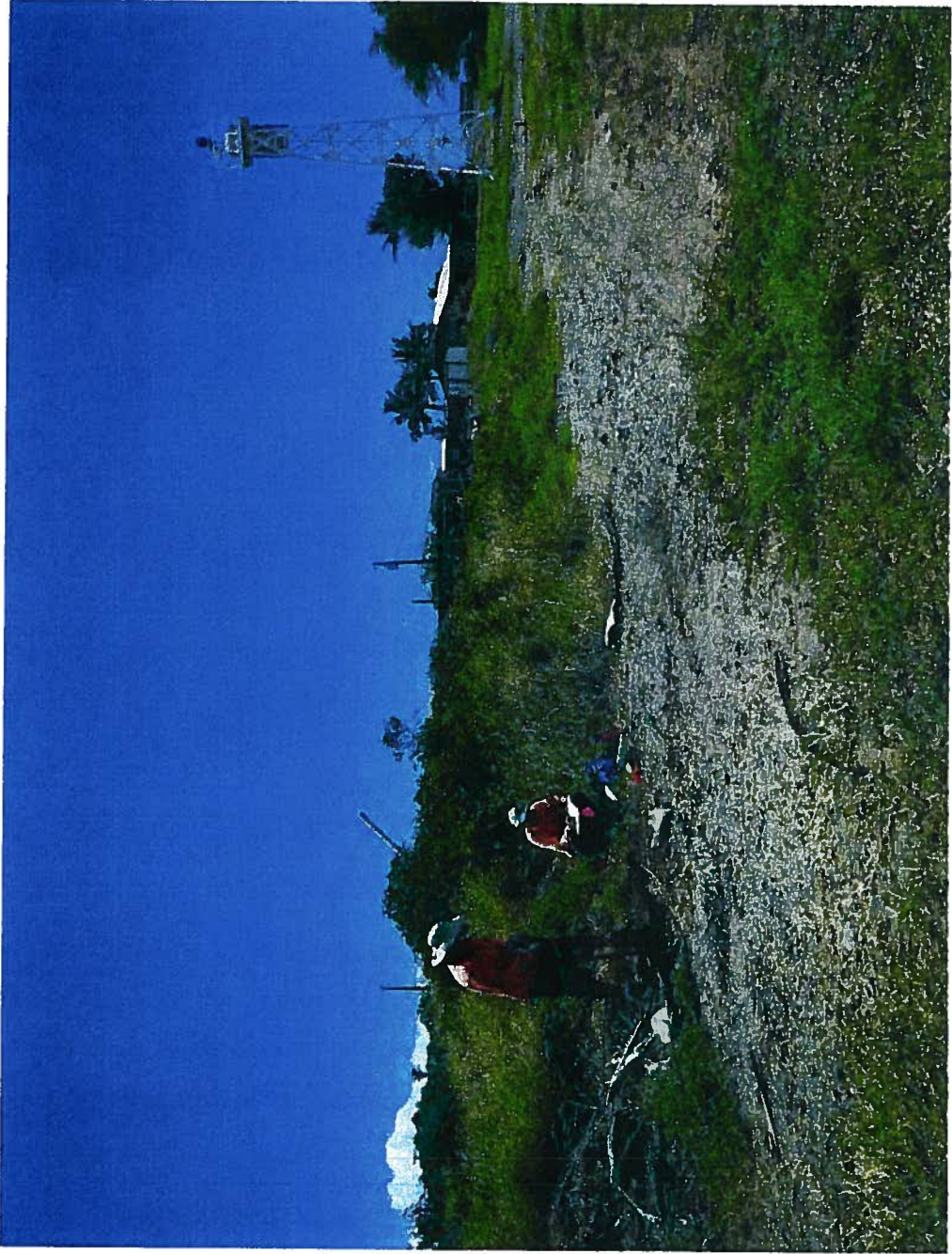




Overview of project area from the northwest corner looking southwest toward the ocean. The sewer lift station fence can be seen in the foreground on the far right side of the frame, while the beacon tower and Meyer Building can be seen further in the distance. The New Horizon Enterprises property is visible to the left.

EXHIBIT 4A CDWA: MO-3815





roadside ditch, upland).

EXHIBIT 4.B CDWA: MO-3015





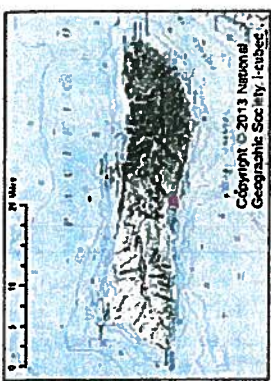
Sediment covered reef flat with many burrows and macroalga in the Project vicinity (top left). Outcrops with macroalgae (*G. salicornia*) and macroinvertebrates occur are occasional in the Project vicinity (top right). Extensive beds of *H. kanaloana* were encountered in the sand areas (bottom left). Vertical surfaces in the Project vicinity host algae (*A. spicifera*, *G. salicornia*, and *S. filamentosa*).

EXHIBIT 5  
 CDUA: MO-3015

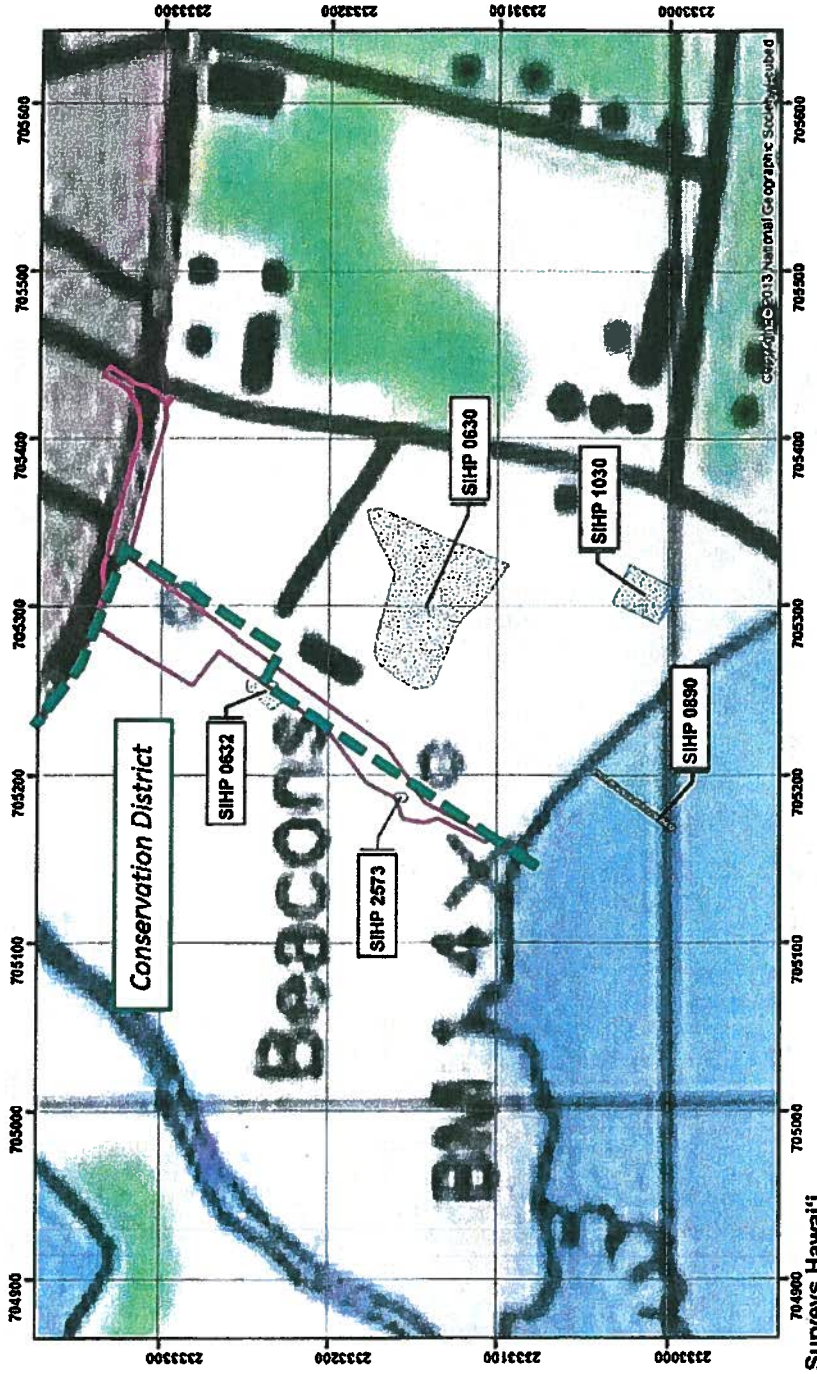


# EXHIBIT 6

CDWA: MO-3815



- Project Area
- Historic Property Areas
- Historic Property Line



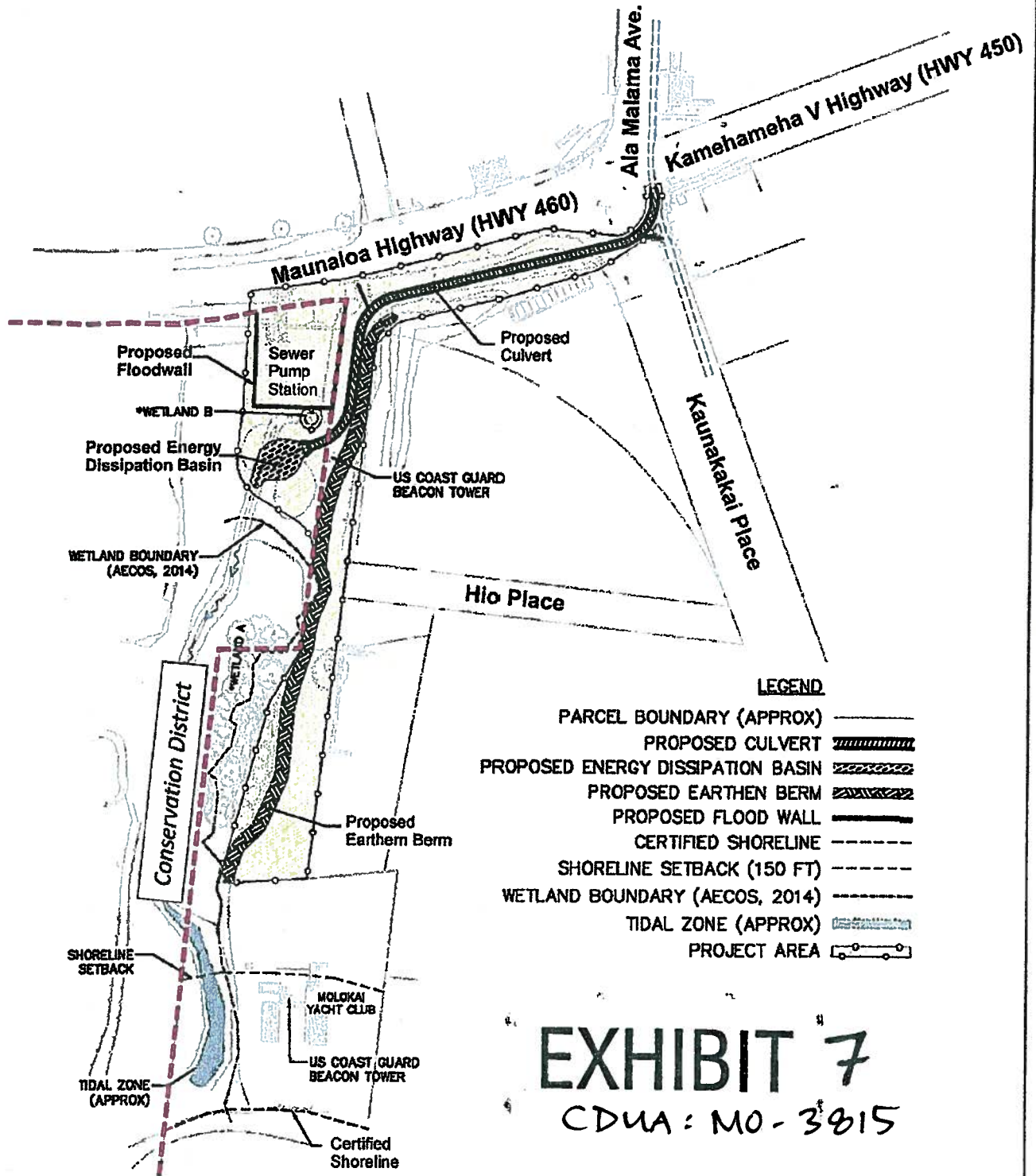
Source: Cultural Surveys Hawai'i

## Modified Kaunakakai Drainage System Improvements (Phase IB) Archaeological Sites

NOT TO SCALE



Prepared for: County of Maui, Department of Public Works



**EXHIBIT 7**  
 CDUA: MO-3815

\*CONSTRUCTION FENCING WILL BE PLACED AROUND WETLANDS A AND B TO PROTECT THESE AREAS DURING CONSTRUCTION.  
 Source: Moffatt & Nichol

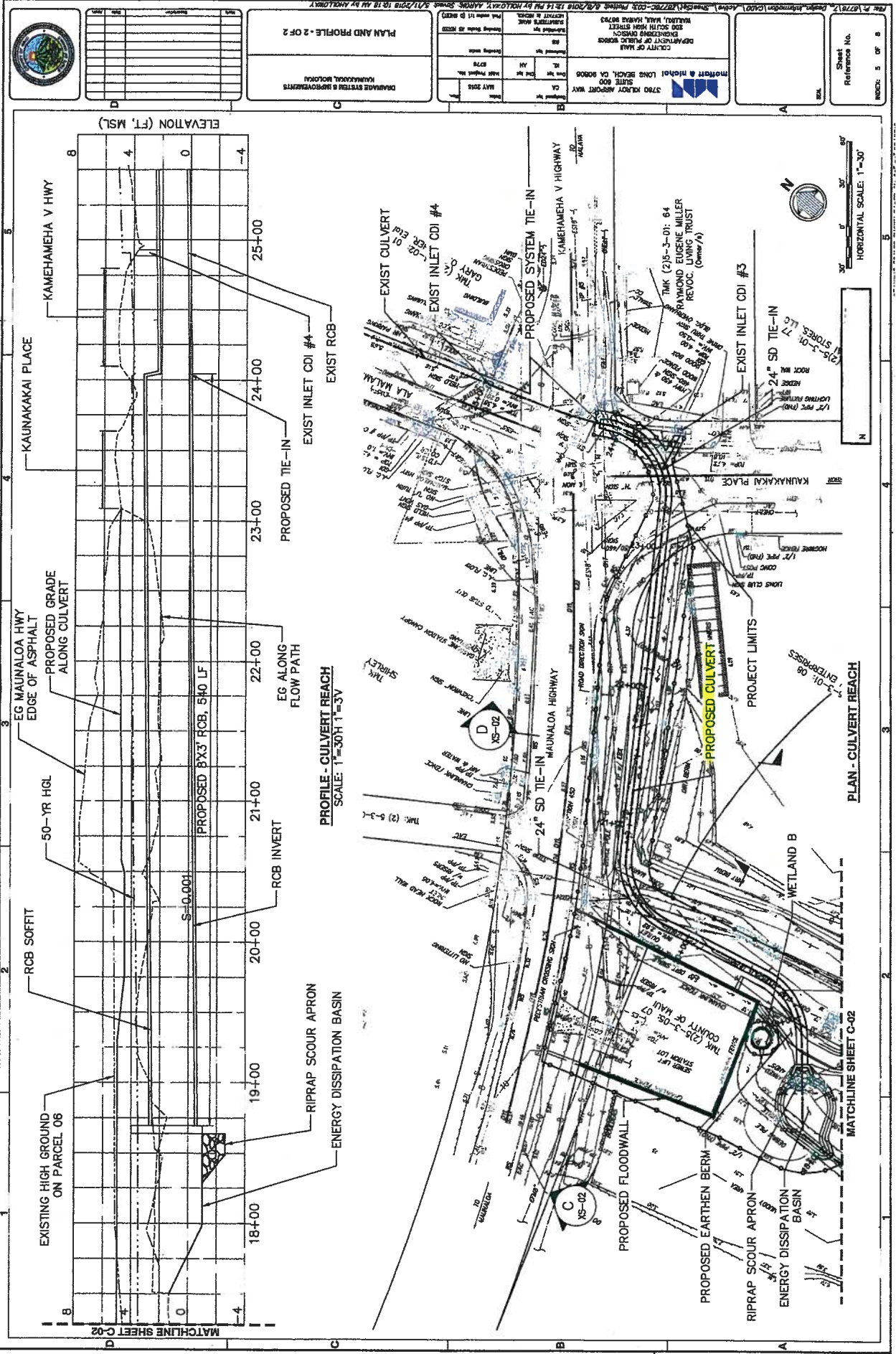
## Modified Kaunakakai Drainage System Improvements (Phase IB) Site Plan



Prepared for: County of Maui, Department of Public Works





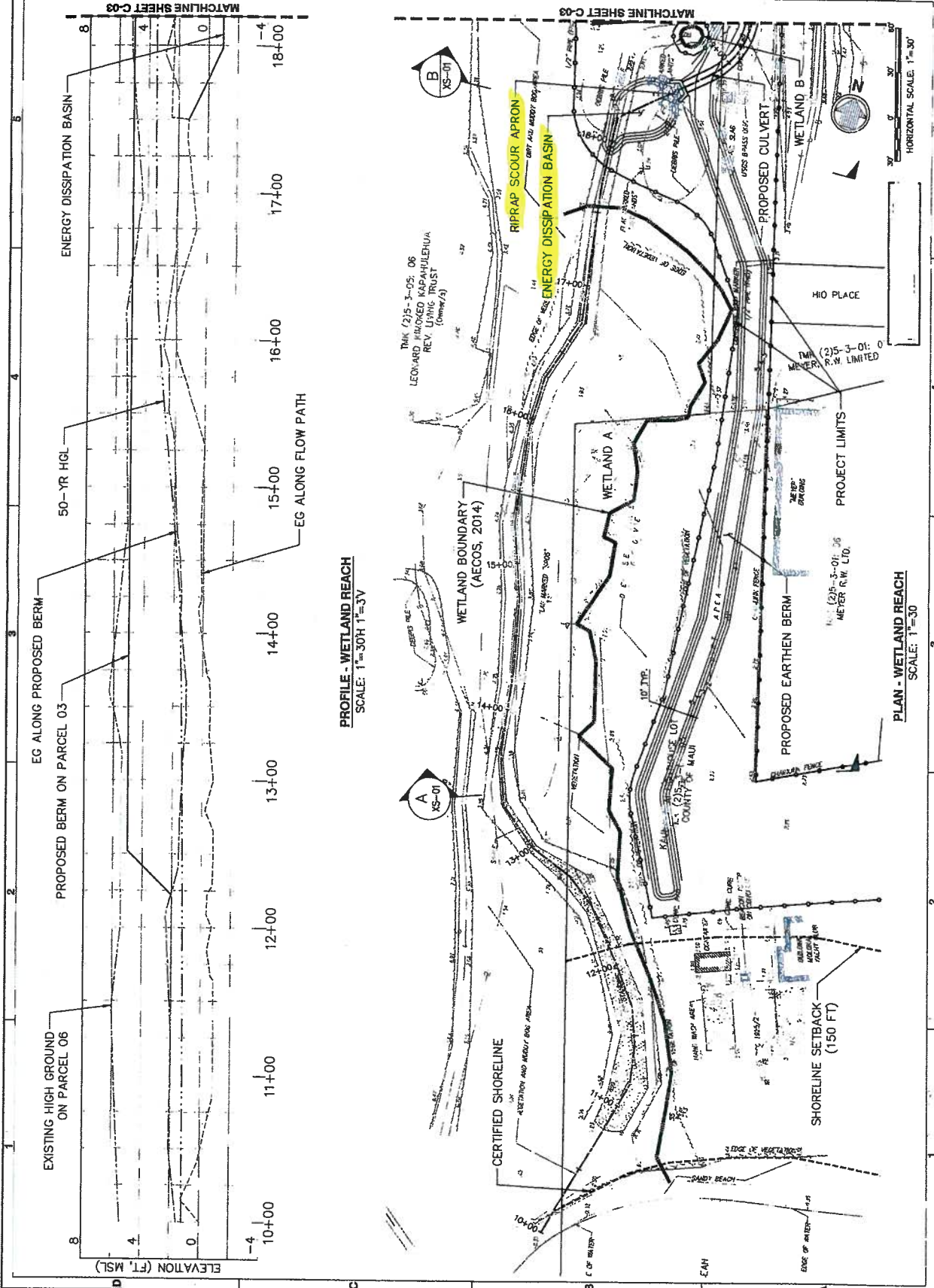


Date	Description

DAMAGE STUDY & IMPROVEMENTS  
 KAUNAKAKAI HIGHWAY  
 PLAN AND PROFILE - 2 OF 2

COUNTY OF MAUI  
 DEPARTMENT OF PUBLIC WORKS  
 ENGINEERING DIVISION  
 3700 KALANOI AIRPORT WAY  
 LONG BEACH, CA 90800  
 PROJECT NO. 2018-01  
 SHEET NO. 2 OF 2  
 DATE: MAY 2018

SHEET  
 REFERENCE NO.  
 MODEL: 5 OF 6



PROFILE - WETLAND REACH  
SCALE: 1"=30H 1"=3V

PLAN - WETLAND REACH  
SCALE: 1"=30



DATE	DESCRIPTION

DRAGAGE ENGINEERING & IMPROVEMENTS  
KAWAHAHA, HAWAII

PROJECT NO.	DATE	BY

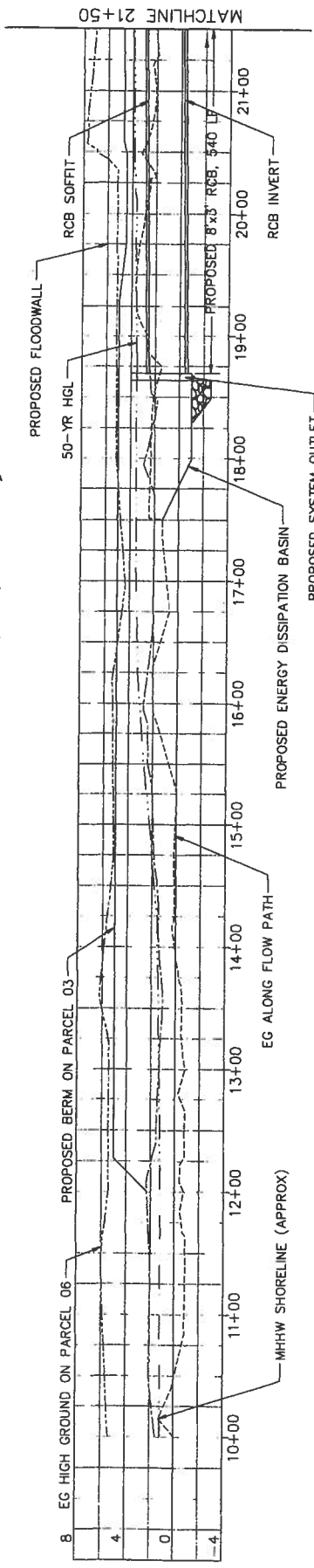
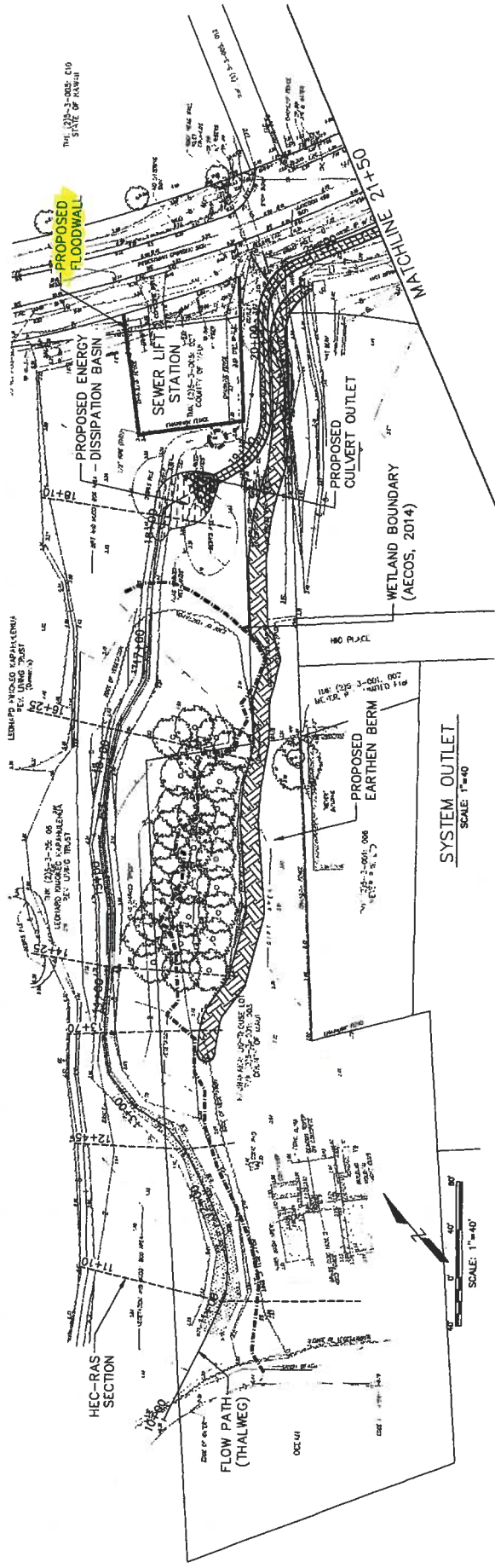
COUNTY OF MAUI  
DEPARTMENT OF PUBLIC WORKS  
ENGINEERING DIVISION  
130 SOUTH HOA STREET  
WAILUKU, HAWAII 96793

PROJECT # 15104  
DATE 07/11/15  
BY  
CHECKED  
DATE 07/11/15  
BY

Sheet  
Reference No.  
INDEX

EXHIBIT 9 CDMA: MO-3815





Wastewater System B Plan and Profile—Proposed Project System Outlet

# EXHIBIT 10 CDWA: M0-3915

ALAN M. ARAKAWA  
Mayor

WILLIAM R. SPENCE  
Director

MICHELE CHOUTEAU McLEAN  
Deputy Director



COUNTY OF MAUI  
**DEPARTMENT OF PLANNING**

January 4, 2018

CERTIFIED MAIL - # 7014 2870 0001 3379 3739

Ms. Marisa Fujimoto  
Munekiyo Hiraga  
305 High Street, Suite 104  
Wailuku, Hawaii 96793

Dear Ms. Fujimoto:

**SUBJECT: AMENDMENT TO SPECIAL MANAGEMENT AREA (SMA) MAJOR USE ASSESSMENT FOR THE PROPOSED DRAINAGE IMPROVEMENTS WHICH INCLUDES CONNECTING EXISTING CULVERT TO A NEW UNDERGROUND EIGHT FEET BY THREE FEET (8 FT. X 3 FT.) CONCRETE BOX CULVERT, THREE FEET (3 FT.) HIGH FLOOD WALL, OUTLET, AND EARTH BERM, LOCATED IN THE VICINITY OF MAUNALOAKAMEHAMEHA V HIGHWAY TO KAUNAKAKAI PLACE INTERSECTION, ISLAND OF MOLOKAI, HAWAII; TMK: (2) 5-3-001:003 (POR.) AND 008 (POR.); (2) 5-3-005:006 (POR.) AND 007 (POR.); (2) 5-3-001:999 (POR.); (SM1 2016/0006)**

At its regular meeting on October 25, 2017 the Molokai Planning Commission (Commission) reviewed the above application, accepted testimony and exhibits, and after due deliberation, hereby orders approval of said application, subject to the following conditions:

**STANDARD CONDITIONS**

1. That to the satisfaction of the Department of Planning (Department), construction of the proposed project shall be initiated by **October 31, 2020**. Initiation of construction shall be determined as construction of onsite and/or offsite improvements, issuance of a foundation permit and initiation of construction of the foundation, or issuance of a building permit and initiation of building construction, whichever occurs first. Evidence of the initiation of construction shall be submitted to the Department prior to the date listed immediately above. Failure to comply by that date will automatically terminate this SMA Use Permit unless a time extension is requested no later than ninety (90) days prior to said date. A time extension shall be processed in accordance with the provisions of Section 12-302-17 of the SMA Rules for the Commission (SMA Rules).

EXHIBIT II  
CDWA: MO-3815  
Pg 1 of 4

2. That to the satisfaction of the Department, the construction of the project shall be completed within five (5) years after the date of its initiation. Evidence of the date of the completion of construction shall be submitted to the Department. Any request for a time extension shall be submitted no later than ninety (90) days prior to the completion deadline. A time extension should be processed in accordance with the provisions of Section 12-302-17 of the SMA Rules. Failure to complete construction of this project within this time period will require unfinished portions of the project to obtain a new SMA Use Permit.
3. That to the satisfaction of the Commission or the Department, the Applicant shall develop the property in substantial compliance with the representations made to the Commission in obtaining the SMA Use Permit. Failure to so develop the property may result in the revocation of the permit and/or other enforcement.
4. That the Applicant shall submit to the Department a detailed report addressing its compliance with the conditions established with the subject SMA Use Permit. Two (2) hard copies and one (1) digital copy by a compact disk or similar means shall be submitted. A preliminary compliance report shall be reviewed and approved by the Department prior to any ground disturbance. Plans regarding the location of any construction related structures such as, but not limited to trailers, sheds, equipment and storage areas and fencing to be used during the construction phase shall be submitted to the Department for review and approval prior to or along with the preliminary compliance report. The preliminary compliance report shall also include evidence that final construction plans are in substantial compliance with preliminary plans dated August 17, 2017. A final compliance report shall be submitted to the Department for review and approval.
5. That to the satisfaction of the Department, appropriate filtration measures to separate petroleum products and other potential contaminants shall be incorporated into the project's final drainage plan and shall be regularly maintained per manufacturer's specifications or other Best Management Practices (BMPs), with the contaminant residuals from storm water treatment to be disposed of properly. Records of the inspection, maintenance and disposal shall be kept by the Applicant and made available for inspection by county and state agencies upon request. Plans for the filtration measures and a program and record keeping for inspection, maintenance and disposal of contaminated residuals shall be submitted to the Department prior to or along with the preliminary compliance report.

Pg 2 of 4

**PROJECT SPECIFIC CONDITIONS:**

6. That to the satisfaction of the Department, BMPs shall be implemented to ensure water quality and marine resources are protected. No construction materials shall be stockpiled in the aquatic environment. All construction-related materials shall be free of pollutants and placed or stored in ways to avoid or minimize disturbance. No debris, petroleum products or deleterious materials shall be allowed to fall, flow, leach, or otherwise enter near shore waters. Any turbidity and siltation generated from activities proposed at the site shall be minimized and contained in the immediate vicinity of construction through the use of effective silt containment devices. Construction during adverse weather conditions shall be curtailed to minimize the potential for adverse water quality impacts. A BMP plan shall be prepared and reviewed by the Department, and the Department of Public Works. Said plan shall address impacts associated with erosion, contaminants, and construction waste and submitted to the Department with the Preliminary Compliance Report.
7. That full compliance with all applicable governmental requirements shall be rendered.
8. That the Applicant shall develop the property in substantial compliance with the representations made to the Commission in obtaining the SMA Use Permit and with preliminary architectural plans dated August 17, 2017. Failure to so develop the property may result in the revocation of the permit.
9. That development of the site shall proceed subject to an Archaeological Monitoring Plan (AMP) accepted as complete by the Department of Land and Natural Resources - State Historic Preservation Division (DLNR-SHPD). Evidence of acceptance of the AMP shall be provided with the Preliminary Compliance Report.
10. That the DLNR-SHPD (Maui and Oahu offices) shall be notified via facsimile upon the on-set and completion of the proposed undertaking. The Maui office fax number is (808) 243-5838. The Oahu office fax number is (808) 692-8020. For further information, please contact the Maui DLNR-SHPD at (808) 243-1285.
11. That in the event historic resources, including human skeletal remains, structural remains, cultural deposits, or lava tubes are identified during construction activities, all work shall cease in the immediate vicinity of the find, the find shall be protected from additional disturbance, and the DLNR-SHPD, Maui Section, shall be contacted immediately at (808) 243-1285. Work shall not continue until cleared by DLNR-SHPD.

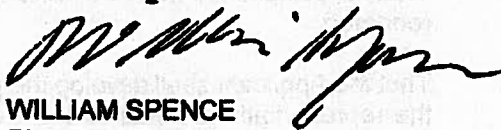
Pg 3 of 4

Ms. Marissa Fujimoto  
January 4, 2018  
Page 4

12. That the Applicant shall install catch basin inserts/filters as part of the proposed project at the Ala Malama Avenue/Kamehameha V Highway intersection and project site, as appropriate.
13. That the Applicant shall set-up a hotline that can be used during construction by members of the public to communicate questions and/or concerns to the County of Maui and its contractor.
14. Within one (1) year following completion of construction, the Applicant shall retain a wetland specialist to conduct an assessment of the wetland on the County-owned parcel to confirm there are no significant adverse impacts from the project's drainage flows.

Thank you for your patience and cooperation. If additional clarification is required, please contact Staff Planner Sybil Lopez by email at [sybil.lopez@mauicounty.gov](mailto:sybil.lopez@mauicounty.gov) or by telephone at (808) 270-5529.

Sincerely,



WILLIAM SPENCE  
Planning Director


xc: Clayton I. Yoshida, AICP, Planning Program Administrator  
John S. Rapacz, Planning Program Administrator (PDF)  
Pam Eaton, Planning Program Administrator (PDF)  
Sybil K. Lopez, Staff Planner (PDF)  
Department of Public Works  
Suzette Esmeralda, Secretary to Boards and Commissions (PDF)  
Nina-Lehua Kawano, Molokai Clerk (PDF)  
CZM File (SM1)  
Project File

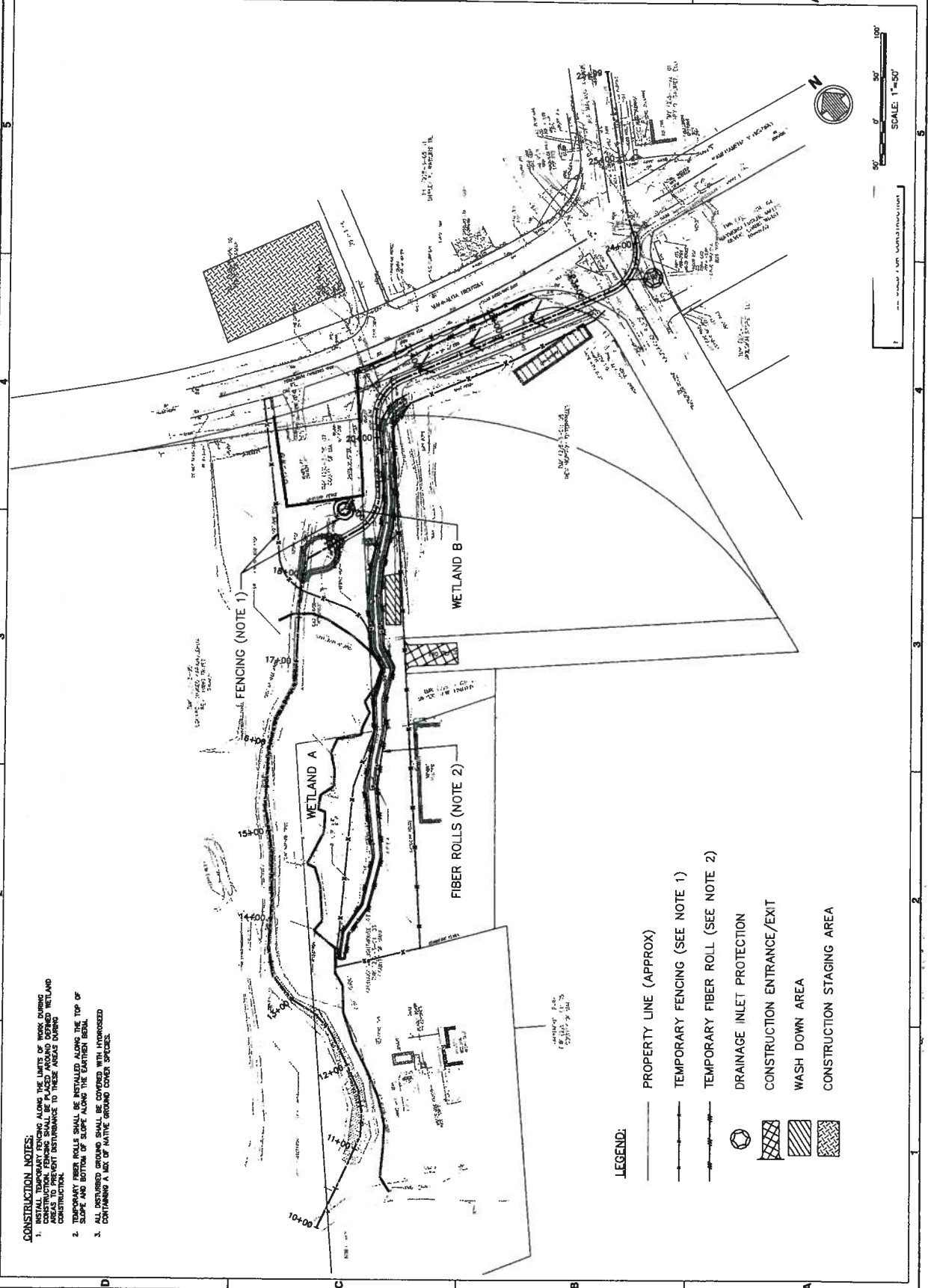
WRS:CIY:SKL:nlk:rma

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Pg 4 of 4



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		DATE	REVISION																						
DRAWN BY: [Name] CHECKED BY: [Name] APPROVED BY: [Name]	PROJECT NO. 2780 SHEET NO. 01 OF 01 DATE: JULY 2017	PROJECT NO. 2780 SHEET NO. 01 OF 01 DATE: JULY 2017	PROJECT NO. 2780 SHEET NO. 01 OF 01 DATE: JULY 2017																						



**CONSTRUCTION NOTES:**

1. INSTALL TEMPORARY FENCING ALONG THE LIMITS OF WORK DURING CONSTRUCTION TO PREVENT UNAUTHORIZED ACCESS TO DESIGNATED WETLAND AREAS TO PREVENT DISTURBANCE TO THESE AREAS DURING CONSTRUCTION.
2. TEMPORARY FIBER ROLLS SHALL BE INSTALLED ALONG THE TOP OF SLOPE AND BOTTOM OF SLOPE ALONG THE EARTHEN BENCH.
3. ALL DISTURBED GROUND SHALL BE COVERED WITH HYDROSEED CONTAINING A MIX OF NATIVE GRASS SEED SPECIES.

- LEGEND:**
- PROPERTY LINE (APPROX)
  - - - TEMPORARY FENCING (SEE NOTE 1)
  - - - TEMPORARY FIBER ROLL (SEE NOTE 2)
  - DRAINAGE INLET PROTECTION
  - ▧ CONSTRUCTION ENTRANCE/EXIT
  - ▨ WASH DOWN AREA
  - ▩ CONSTRUCTION STAGING AREA

DRAWING SCALES SHOWN BASED ON 25'x34" DRAWING

EXHIBIT 12 CDWA: MO-3015