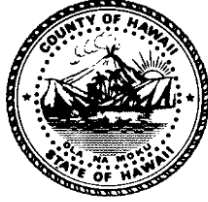


Mitchell D. Roth  
Mayor

Lee E. Lord  
Managing Director

West Hawai'i Office  
74-5044 Ane Keohokālole Hwy  
Kailua-Kona, Hawai'i 96740  
Phone (808) 323-4770  
Fax (808) 327-3563



## County of Hawai'i

### PLANNING DEPARTMENT

Zendo Kern  
Director

Jeffrey W. Darrow  
Deputy Director

East Hawai'i Office  
101 Pauahi Street, Suite 3  
Hilo, Hawai'i 96720  
Phone (808) 961-8288  
Fax (808) 961-8742

March 02, 2023

Shane Kitchens, AIA  
PO Box 1446  
Kailua-Kona, HI 96745  
VIA EMAIL

Gregory Wong  
41-305 Kalaniana'ole Hwy.  
Waimanalo, HI 96795  
VIA EMAIL

Dear Mr. Kitchens and Mr. Wong:

**SUBJECT: Special Management Area (SMA) Use Permit Assessment Application  
(PL-SAA-2022-000131)**

**Applicant: Lloyd W. and Julie A. Talbert**

**Landowner: Lloyd W. and Julie A. Talbert**

**Project: As-Built Approval and Seawall Repair**

**TMK: (3) 7-5-020:005, North Kona District, Island of Hawai'i**

We have reviewed the subject Special Management Area (SMA) Use Permit Assessment Application (PL-SAA-2022-000131), received by this office on November 7, 2022. The subject 17,636 square foot (SF) parcel is zoned Single-Family Residential 15,000 sf (RS-15) by the County and designated Urban by the State Land Use Commission (LUC). The subject parcel is designated as both Open (ope) and Medium Density Urban (mdu) by the Hawai'i County General Plan Land Use Pattern Allocation Guide (LUPAG) map. The parcel is within the Special Management Area (SMA) and is considered a "shoreline parcel" as defined by Section 205A-41(as amended), Hawai'i Revised Statutes (HRS).

#### **Proposed Project:**

The applicant is requesting approval for the following actions:

1. As-built alterations to the existing single-family residence which includes the construction of an enclosed storage/basement located under the existing residence with added folding access doors. No increase in footprint, or expansion of the existing residence is proposed.
2. Repairs and maintenance to a 25-foot-long section of the existing concrete-rubble-masonry (CRM) seawall located on the makai side of the subject parcel; no expansion or size increase is proposed. The proposed repairs to the CRM seawall consist of reconstructing the damaged and unsafe portion of the wall, backfilling of lost substrate behind CRM wall, void filling below CRM to provide a firm foundation for wall, replacement of missing stones, and re-application of new mortar on the face of CRM wall.

As requested by the Planning Department, the applicant has provided a work plan for the proposed project:

1. Fill undermined areas at the toe of the wall with tremie concrete, remove loose material susceptible to scour at the toe of the wall as is feasible and fill the void with tremie concrete to increase scour resistance at the wall base.
2. Patch vertical, horizontal, and diagonal cracks to restore the integrity of the wall and mitigate potential loss of fines through cracks.
3. Remove and repoint damaged/missing mortar.
4. Replace missing stones.
5. Install geotextile fabric behind the wall at lava outcropping subject to loss of fines through cracks.
6. Backfill sinkholes to match the existing grade.

No expansion or enlargement of the existing CRM wall will occur, and no heavy machinery will be placed in the shoreline setback area as all work will be done using hand tools. Storage of project materials and debris will be minimized to the extent possible within the shoreline setback area.

#### **Shoreline Setback Area Determination:**

The entire project area is located within the Special Management Area (SMA) as well as located within the “shoreline area” as defined by section 205A-41, Hawai‘i Revised Statutes (HRS). According to resea4rch, a Shoreline Certification was approved by the Board of Land and Natural Resources (BLNR) on May 6, 1981, which demarcates the shoreline at the makai face of the existing seawall. Pursuant to Hawaii Revised Statutes (HRS) Ch. 13-222-11 if the location of the certified shoreline is fixed by an artificial structure that was appropriately permitted, no new certification is required. This project parcel has an existing permitted seawall that marks the

shoreline location. Therefore, the Director has determined that an updated shoreline certification is not required at this time.

The proposed project is for the repair and maintenance of an existing CRM wall that was installed when the shoreline was located makai of the wall. The repaired sections will only artificially fix the shoreline to the previous location that was set prior to the damage. Alternatively, leaving the damaged portion of the retaining wall in place could exacerbate erosion at the site and as such eventually deposit deleterious material within the shoreline that could impact beach processes and the nearshore environment.

The proposed project is a CRM wall that is used to protect the existing dwelling, and to minimize impacts to beach processes from erosion of the upland area. Since the proposed action is to repair and maintain an existing structure it will not interfere with shoreline public access or public views that have been enjoyed for some time.

The proposed action will not alter the exiting grade of the shoreline setback area. Fill material will be used to repair the sinkholes located mauka of the CRM wall and will only replace the missing material to achieve the original grade of the grassy area.

Based on the preceding information, the Planning Department has determined the proposed activity may be permitted in the shoreline setback area without the need for a shoreline setback variance pursuant to Planning Department Rule 11-7(a)(10): *Structure or activity was determined by the Planning Department to be outside the shoreline setback area when it received legal approvals.*

Pursuant to County of Hawai‘i Planning Department (PD) Rule 11-7(b) and HRS 205A-44: *Structures or activities that qualify under Section 11-7(a)(6) through (10) may be repaired in conformance with plans approved by the Planning Department but shall not be enlarged, rebuilt or replaced without a shoreline setback variance.*

Additionally, in accordance with PD Rule 11-8(c): *Structures or activities that qualify under Section 11-7(a)(6) through (10) may be routinely maintained.*

**Hawai‘i Revised Statutes (HRS) Ch. 343 Determination:**

Pursuant to HRS Ch. 343-5(3), *an Environmental Assessment (EA) shall be required for actions that propose any use within a shoreline area as defined in HRS Ch. 205A-41. However, in conformance with Hawai‘i Administrative Rules (HAR) Ch. 11-200.1-15(c)(1), operations, repairs, or maintenance or existing structures, facilities, equipment, or topographical features, involving minor expansion or minor change of use beyond that previously existing do not require an EA or Ch. 343 review.*

The proposed project is designed to repair and maintain the existing CRM wall, including the filling of voids in the wall, and the placement of a more robust foundation to support this wall segment. Backfilling of sinkholes located mauka of the CRM wall will not alter the existing topography of the grassy area; fill will only be used to bring the sinkhole areas back to the original grade.

Based on the proposed activities described above, this project is considered exempt from the preparation of an EA. No further Ch. 343 review is required.

**Best Management Practices (BMPs) and Material Management:**

The applicant has outlined all BMPs that may be employed based on project specific conditions:

- Turbidity and the suspension or re-suspension of sediment from project-related work will be minimized and contained to the immediate vicinity of the activity through the appropriate use of effective containment devices or measures and based on project specific conditions. Silt fences, silt curtains, or other diversion or containment devices will be installed to contain sediment and turbidity at the work site (a) parallel to, and along the toe of any fill or exposed soil which may introduce sediment to an adjacent aquatic site; and (b) adjacent to any fill placed or soil exposed within an aquatic site. All silt curtains, and other devices will be installed according to the manufacturer's guidelines and properly maintained throughout the construction period and until the impact area is stabilized and/or elevated turbidity levels have returned to ambient levels.
- All project-related materials (e.g., fill, rocks, landscaping, structures, etc.) and equipment (e.g., dredges, barges, backhoes, etc.) authorized to be used or placed in wetlands, other special aquatic sites and other waters, will be free of pollutants and invasive plant and animal species.
- Any temporary tethering, anchoring, mooring or similar in-water structural components will be placed in a manner to avoid direct physical impact to coral and seagrass beds during installation and throughout the duration of its use in wetlands, other special aquatic sites and other waters.
- Any temporary in-water structures will be removed in their entirety upon completion of the authorized work in or affecting wetlands, other special aquatic sites and other waters. The authorized work is not complete until these temporary structures are removed.
- Unless specifically authorized, stockpiling of project-related materials (e.g., fill, dredged material, revetment rock, pipe, etc.) or unsuitable materials (e.g., trash, debris, car bodies, asphalt, etc.) in or in close proximity to wetlands, other special aquatic sites and other waters such that the stockpiled material could be carried into such waters by wind, rain, or high surf is prohibited.

- If needed, upland containment areas will be bounded by impermeable material to prevent return flows or dewatered effluent into the ocean. However, there is no anticipated return flow for the proposed project.

*The applicant has outlined how materials will be managed during the project:*

- All equipment and material shall be free of contaminants of any kind including excessive silt, sludge, anoxic or decaying organic matter, clay, dirt, oil, floating debris, grease, foam, or any other pollutant that would produce an undesirable condition to the beach or water quality.
- All maintenance materials shall be free from any objectionable sludge, oil, grease, scum, excessive silt, organic material or other floating material.
- Only a minimum quantity of materials necessary for the work will be stored on site.
- All flammable and reactive liquids will be kept in sealed and clearly labeled original or compatible containers and stored under cover more than fifty (50) feet from the edge of the property and away from the nearest drain and receiving waters.
- Storage and stockpiling area on land will be kept clean and well organized to prevent spills or run out.
- Materials will be used in strict accordance with the manufacturer's instructions.
- 9" nominal diameter BioSock filter socks will be installed around all active work areas, laydown and staging areas on land.
- Temporary wooden formwork will be installed along the base of the seawall. The formwork will be composed of untreated wood and will be sealed with hydraulic water-stop cement and a PVC water-stop barrier. Hydraulic water-stop cement will be installed along the base and sides of the formwork. PVC water-stop barrier will be installed between the wooden formwork and the face of the seawall. The hydraulic water-stop cement, and PVC water-stop barriers will prevent ocean water from entering the formwork and prohibit the release of concrete replacement water.
- A turbidity curtain will be installed along the entire active in-water work areas.
- The turbidity curtain will be 2 to 3 feet deep, depending on water depth. The turbidity curtain will contain any temporary turbidity that is generated by the proposed activity.

Staff notes that the applicant has also outlined additional BMPs related to waste management, vehicle and equipment management, historic or cultural features, environmental protection, protected species, oil and spill containment, water quality monitoring, erosion and sediment control, noise/dust/air pollution control, and worksite management for on-site workers.

Additionally, as requested by the Planning Department, the applicant has outlined a "contingency plan" in order to respond to potential discharge of worksite material resulting from a storm or heavy wave event. The plan notes that monitoring, securing equipment and materials, and inspection after the event will enable to contractor to respond to any discharge that could arise

during construction. An “*inspection maintenance and report form*”, to be used for such an event was included with the application (**Exhibit 1**).

**Special Management Area Determination:**

Pursuant to Hawai‘i Revised Statutes (HRS) §205A-22, as amended, and Planning Commission Rule 9-4(e)(1) relating to the Special Management Area, *Development means any of the [listed] uses, activities, or operations on land or in or under water within the special management area.* According to the application, the following definitions of “Development” can be applied to the proposed use:

- *Placement or erection of any solid material or any gaseous, liquid, solid or thermal waste.*
- *Construction, reconstruction, or alteration of the size of any structure.*

Pursuant to Planning Commission Rule 9-4(e)(3): *Any proposed use, activity, or operation listed in Section 9-4(e)(1) shall be deemed to be “Development” until the Director has determined it to be exempted from the definition of “Development.”* According to 9-4(e)(2) “Development” does not include the following uses, activities, or operations, and therefore is determined to be exempt from the definition of “Development”:

- *Repair, maintenance, or interior alterations to existing structures or relating to existing uses.*
- *Structural and non-structural improvements to existing single-family residences, where otherwise permissible.*

Pursuant to Planning Commission Rule 9-4(e)(4):

*Whenever the Director finds that any excluded use, activity, or operation may have a cumulative impact, or a significant adverse environmental or ecological effect on the Special Management Area, that use, activity, or operation shall be defined as “Development” for the purposes of this rule.*

Based on the information provided, the Director finds that the proposed project is exempt from the definition of “development” and will not have a cumulative impact, or significant adverse environmental or ecological effect on the Special Management Area.

Please note that any substantive changes to the proposed improvements, as well as any subsequent phases or activities may require further review by this office and possibly the submittal of another SMA Use Permit Assessment Application.

**Future Special Management Area Determinations:**

While further review of the proposed activities against the Special Management Area and Shoreline Setback Area rules and regulations will not be required at this time, all other applicable Zoning and Building Code requirements must be satisfied.

Additionally, pursuant to Planning Commission Rule 9-10(g):

*The Director may impose certain conditions with the exemption determination to assure that the proposed use, activity, or operation does not have a substantial adverse effect on the Special Management Area.*

The Director has added the following conditions for the proposed project:

**Director's Conditions:**

1. The applicant(s), its successor(s), or assign(s) ("Applicant") shall be responsible for complying with all stated conditions.
2. The Applicant shall secure all necessary approvals and permits from other affected federal, state, and county agencies as necessary to comply with all applicable laws and regulations.
3. If required, the Applicant shall secure building permits for the proposed project within two (2) years from the date of this determination. If building permits have not been secured within that two (2) year period, this determination is automatically null and void, and a new Special Management Area Assessment Application must be submitted for review and approval.
4. All earthwork and grading activity shall conform to Chapter 10, Erosion and Sedimentation Control of the Hawai'i County Code.
5. All construction and maintenance activities on the subject parcel shall comply with Chapter 27, Floodplain Management, of the Hawai'i County Code.
6. The Applicant shall adhere to all Best Management Practices, monitoring, and mitigation as outlined in the submitted application.
7. The Applicant will maintain any existing shoreline access along the shoreline and on the subject parcel to the extent practicable to maintain safety.

8. In the event that surface or subsurface historic resources, including human skeletal remains, structural remains (e.g., rock walls, terraces, platforms, etc.), cultural deposits, marine shell concentrations, sand deposits, or sink holes are identified during the demolition and/or construction work, the Applicant shall cease work in the immediate vicinity of the find, protect the find from additional disturbance and contact the State Historic Preservation Division at (808) 933-7651. Subsequent work shall proceed upon an archaeological clearance from DLNR-SHPD when it finds that sufficient mitigation measures have been taken.
9. Artificial light from exterior lighting fixtures, including, but not necessarily limited to floodlights, up-lights 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 otherwise be permitted pursuant to Section 205A-71(b), Hawai‘i Revised Statutes.
10. Any further development, including but not limited to, the construction of structures or improvements not included in this determination shall require further review and approval as provided under Chapter 205A, HRS, and Rule 9, Planning Commission Rules of Practice and Procedure.
11. That in issuing this determination, the Department has relied on the information and data that the applicant has provided in connection with this determination. If, subsequent to this determination, such information and data prove to be false, incomplete or inaccurate, this determination may be modified, suspended or revoked, in whole or in part, and/or the Department may, in addition, institute appropriate legal proceedings.
12. The Planning Director shall initiate procedures to revoke this determination should any of the conditions not be met or substantially complied with in a timely fashion.

If you have questions regarding this document, please feel free to contact Alex J. Roy of this office at (808) 961-8140 or via email at [Alex.Roy@hawaiiicounty.gov](mailto:Alex.Roy@hawaiiicounty.gov).

Sincerely,

  
Zendo Kern (Mar 2, 2023 15:32 HST)

ZENDO KERN  
Planning Director

AJR:mads

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Shane Kitchens, AIA  
Gregory Wong  
March 02, 2023  
Page 9

Attached: Exhibit 1 – BMP Plan

cc w/attachments via email: GIS Section



*Sea Engineering, Inc.*

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Makai Research Pier • 41-305 Kalanianaʻole Hwy • Waimanalo, Hawaii 96795-1820  
Phone: (808) 259-7966 ext. 213 • E-mail: gwong@seaengineering.com • Website: www.seaengineering.com

## **ATTACHMENT 7**

### **BEST MANAGEMENT PRACTICES PLAN**

TALBERT SEAWALL REPAIRS  
75-6160 ALIʻI DRIVE  
KONA, HI 96740  
TAX MAP KEY NO. (3) 7-5-020:005



## **PURPOSE**

The purpose of this Best Management Practices Plan (BMPP) is to ensure that adequate protective measures are in place during the repair of the seawall located at the Talbert residents at 75-6160 Alii Drive, Kona, HI 96740; Tax Map Key No. (3) 7-5-020:005. This BMPP is designed to prevent, if possible, or minimize adverse impacts on the environment. The project specifications will require the Contractor to adhere to strict environmental protection measures, including but not limited to, those included in this plan. This BMPP is inclusive of the appropriate measures identified in the Pac-SLOPES documents.

## **PROJECT NAME**

Talbert Seawall Repairs

## **PROJECT DESCRIPTION**

The project site consists of an oceanfront residential single family home. The project is located on 75-6160 Alii Drive, Kona, HI 96740; Tax Map Key No. (3) 7-5-020:005. The project site consists of a 17,636 square foot parcel that is bordered by two residential properties to the north and south, Ali'i Drive to the east (mauka), and Hōlualoa Bay (Pacific Ocean) to the west (makai).

The project site is fronted by an existing, nonconforming, and discontinuous concrete rubble masonry (CRM) seawall. The seawall is approximately 95 feet long, varies in height from 6 to 9 feet tall, and varies in width from 24 to 28 inches in width. A structural assessment of the seawall identified various damage and structural deficiencies including undermining, sinkholes behind the wall, settling, isolated large cracks, deterioration of and missing mortar.

To prevent further undermining and provide additional bearing capacity, the following repairs are proposed: 1) restore the section of wall that has significantly settled 2) void filling to provide bearing support to reduce potential for scour, undermining, and sinkholes, 3) replacement of missing stones along the wall's length, 4) repointing of mortar, and 5) backfilling sinkholes to match the existing grade.

## **Work Plan**

The following repairs would be performed for all wall sections:

1. Fill undermined areas at the toe of the wall with tremie concrete, remove loose material susceptible to scour at the toe of the wall as is feasible and fill the void with tremie concrete to increase scour resistance at the wall base.
2. Restore section of wall that has settled.
3. Patch vertical, horizontal, and diagonal cracks to restore the integrity of the wall and mitigate potential loss of fines through cracks.
4. Remove and repoint damaged/missing mortar.
5. Replace missing stones.
6. Install geotextile fabric behind the wall at lava outcropping subject to loss of fines through cracks.
7. Backfill sinkholes to match the existing grade.



### **Project Schedule**

Construction will commence when all of the necessary permits and approvals are obtained. The estimated duration of construction is approximately 14 weeks. Construction operations would be conducted between 7:30am and 4:30pm.

### **Construction Sequence**

1. Mobilization
2. Conduct pre-construction inspection
3. Install Best Management Practices
4. Repair voids with tremie concrete
5. Restore settled section of wall
6. Repair cracks
7. Remove and repoint damaged/missing mortar
8. Replace missing stones
9. Instal geotextile fabric
10. Backfill sinkholes
11. Demobilization

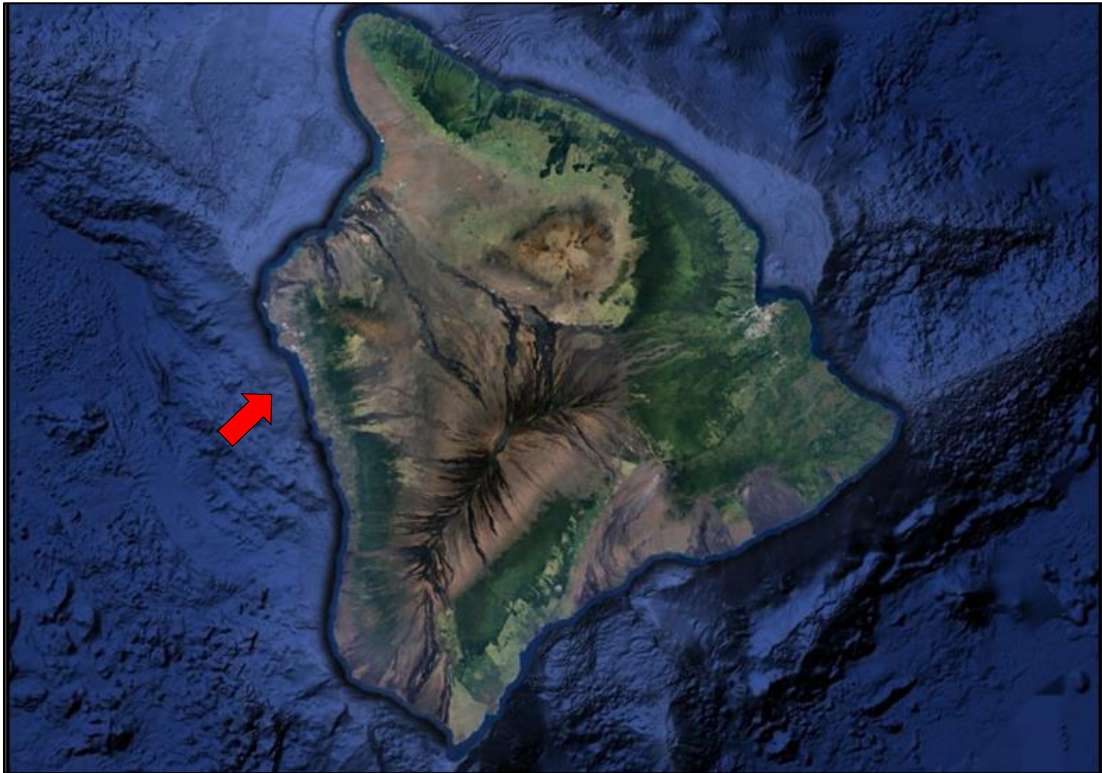
### **Project Materials**

- 9" diameter BioSocks
- Non-woven geotextile fabric
- Security Fencing
- Marine Floating Boom, Type 3 Silt Barrier
- Form materials (3/4" MDO plywood, 2x4x8" support lumber, collars, bolts, clamps)
- Stainless steel duplex reinforcing dowels and bars (#5x24", #5x20")
- Simpson Strong Tie Set XP Epoxy Adhesive
- Simpson FX-225 underwater marine grout
- Sika Armatec Epochem 110 Bonding Agent
- Sika Quick VOH Overhead and Vertical Mortar
- Sikatop Plus 123
- Concrete - 4000 PSI commercial mix with admixture
- SS316 Tapcon #10x2- 1/2"
- Rock

### **Project Equipment**

- Cement mixer
- Concrete trailer pump
- Concrete vibrator
- Forklift
- Mini-Excavator
- Flatbed
- Pickup truck
- Hydraulic ram
- Air compressor

- Oxy-acetylene torch
- 5kw gas-powered generator
- Shoring shields
- Pipe shoring jacks
- Concrete drilling bits and chipping bits

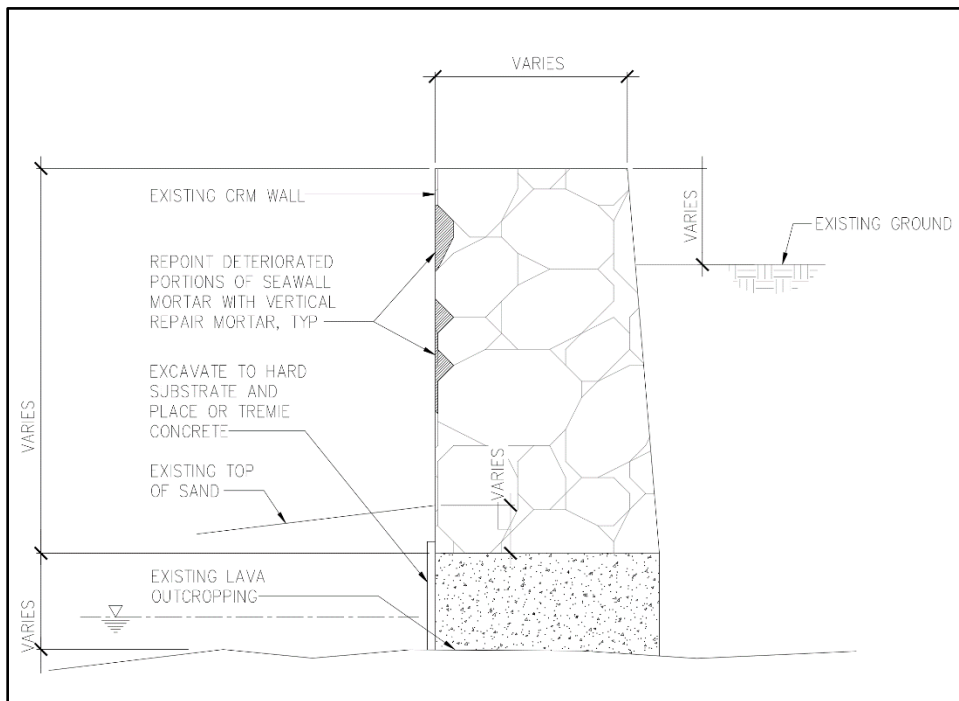


**Figure 1 Project site location on the Island of Hawai'i (Google Earth)**





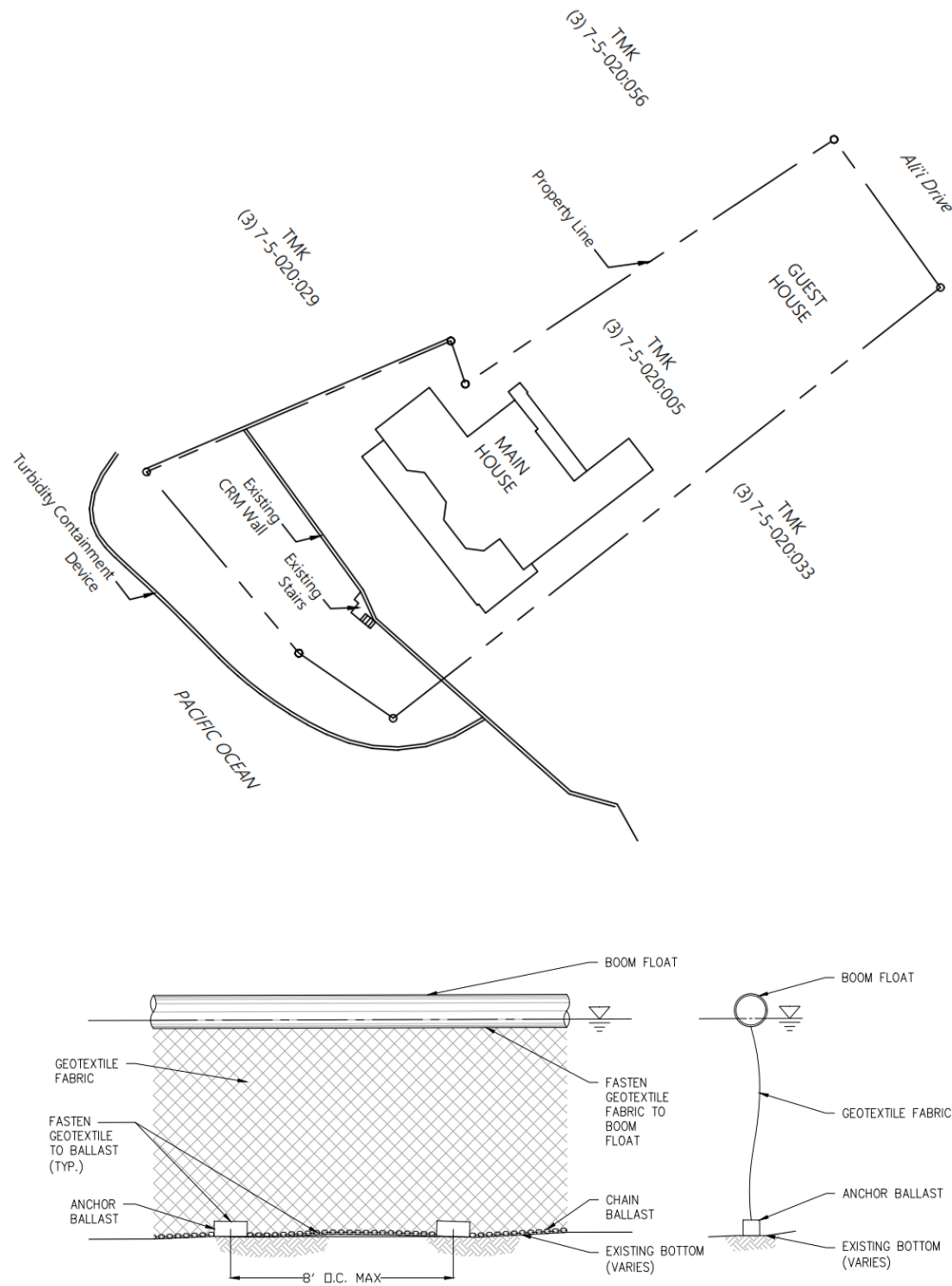
**Figure 2 Aerial photograph of the project site (Google Earth)**



**Figure 3. Typical section view of wooden form BMP**

The temporary wooden form, PVC waterstop barrier, and hydraulic water-stop cement would confine concrete landward of and within the footprint of the existing seawall (shaded area).





**Figure 4. Typical plan view and section view of turbidity curtain BMP**

The turbidity curtain would be installed around the active work areas to surround the active work area. Biosock sediment containment device to be installed around the active land side work area.





## GENERAL REQUIREMENTS

This section covers the requirements of environmental and pollution control during construction activities. The Contractor shall be responsible for conformance to all appropriate State of Hawaii statutes and administrative rules.

1. With the exception of those measures set forth elsewhere in this plan, environmental protection shall consist of the prevention of environmental pollution as the result of construction operations under this project. For the purpose of this plan, environmental pollution is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare, unfavorably alter ecological balances of importance to human life, affect other species of importance to man, or degrade the utilization of the environment for aesthetic and recreational purposes. This includes Water Pollution, as defined by Hawaii Revised Statute Title 19, Chapter 342D.1
2. The work shall include the following:
  - A. Make sure that all permits required for this plan are obtained and valid for the construction period.
  - B. Provide all facilities, equipment and structural controls for minimizing adverse impacts upon the environment during the construction period.
3. Applicable Regulations: In order to provide for abatement and control of environmental pollution arising from the construction activities of the Contractor and his subcontractors in the performance of the work performed shall comply with the intent of the applicable Federal, State, and local laws and regulations concerning environmental pollution control and abatement, including, but not limited to the following regulations:
  - A. State of Hawaii, Department of Health, Administrative Rules. Chapter 55. WATER POLLUTION CONTROL: Chapter 54, WATER QUALITY STANDARDS.
  - B. State of Hawaii, Department of Health, Administrative Rules, Chapter 59, AMBIENT AIR QUALITY: Chapter 60, AIR POLLUTION CONTROL LAW.
  - C. State of Hawaii, Occupational Safety and Health Standards, Title 12, Department of Labor and Industrial Relations, Subtitle 8, Division of Occupational Safety and Health, Subparagraph 12-202-13, ASBESTOS DUST: Environmental Protection Agency, Code of Federal Regulations Title 40, Part 61 Subpart A, NATIONAL EMISSION STANDARDS FOR AIR POLLUTANTS and Subpart B, NATIONAL EMISSION STANDARDS FOR ASBESTOS; and U.S. Department of Labor Occupational Safety and Health Administration (OSHA) Asbestos Regulations, Code of Federal Regulations Title 29, Part 1910.



## **DEPARTMENT OF THE ARMY REGIONAL CONDITIONS – NWP REQUIREMENTS**

### **1. Pre-construction Best Management Practices (BMPs):**

- a. Prior to commencement of the authorized work in wetlands, other special aquatic sites and other waters, the geographic limits of such waters (i.e., High Tide Line, Mean High Water Mark, Ordinary High-Water Mark, approved wetland boundary) affected by the authorized work and as approved by the Corps and demarcated on your drawings must be clearly identified in the field. The delineation of these geographic bounds may be accomplished by staking, flagging, painting, silt fencing, signage, buoys, etc. and in all cases must be maintained and remain observable throughout the construction period. The project limits of the Corps-authorized fill footprint must also be demarcated in the field to ensure that dredged or fill material is not discharged beyond the authorized limits. No activity will be conducted in or such that it affects wetlands, other special aquatic sites and other waters that require prior authorization from the Corps, outside of the permitted limits of disturbance (as shown on the permit drawings).

### **2. During Construction BMPs:**

- a. Turbidity and the suspension or re-suspension of sediment from project-related work will be minimized and contained to the immediate vicinity of the authorized activity through the appropriate use of effective containment devices or measures and based on project-specific conditions. Silt fences, silt curtains, or other diversion or containment devices will be installed to contain sediment and turbidity at the work site (a) parallel to, and along the toe of any fill or exposed soil which may introduce sediment to an adjacent aquatic site; and (b) adjacent to any fill placed or soil exposed within an aquatic site. All silt curtains, and other devices will be installed according to the manufacturer's guidelines and properly maintained throughout the construction period and until the impact area is stabilized and/or elevated turbidity levels have returned to ambient levels.
- b. All project-related materials (e.g., fill, rocks, landscaping, structures, etc.) and equipment (e.g., dredges, barges, backhoes, etc.) authorized to be used or placed in wetlands, other special aquatic sites and other waters, will be free of pollutants and invasive plant and animal species.
- c. Any temporary tethering, anchoring, mooring or similar in-water structural components will be placed in a manner to avoid direct physical impact to coral and seagrass beds during installation and throughout the duration of its use in wetlands, other special aquatic sites and other waters.
- d. Any temporary in-water structures will be removed in their entirety upon completion of the authorized work in or affecting wetlands, other special aquatic sites and other waters. The authorized work is not complete until these temporary structures are removed.



- e. Unless specifically authorized, stockpiling of project-related materials (e.g., fill, dredged material, revetment rock, pipe, etc.) or unsuitable materials (e.g., trash, debris, car bodies, asphalt, etc.) in or in close proximity to wetlands, other special aquatic sites and other waters such that the stockpiled materials could be carried into such waters by wind, rain, or high surf is prohibited.
- f. Upland containment areas, if sited in uplands near wetlands, other special aquatic sites and other waters for the purpose of stockpiling, dewatering, etc. will be bounded by impermeable material to prevent return flows of dewatered effluent into such waters. The runoff or overflow from a contained disposal area into such waters requires separate authorization. There is no anticipated return flow for the proposed project.

## **PROJECT RELATED PRACTICES**

### **Material Management**

1. All equipment and material shall be free of contaminants of any kind including excessive silt, sludge, anoxic or decaying organic matter, clay, dirt, oil, floating debris, grease, foam, or any other pollutant that would produce an undesirable condition to the beach or water quality.
2. All maintenance materials shall be free from any objectionable sludge, oil, grease, scum, excessive silt, organic material or other floating material.
3. Only a minimum quantity of materials necessary for the work will be stored on site.
4. All flammable and reactive liquids will be kept in sealed and clearly labeled original or compatible containers and stored under cover more than fifty (50) feet from the edge of the property and away from the nearest drain and receiving waters.
5. Storage and stockpiling area on land will be kept clean and well organized to prevent spills or run out.
6. Materials will be used in strict accordance with the manufacturer's instructions.
7. 8" nominal diameter BioSock filter socks will be installed around all active work areas, laydown and staging areas on land
8. Temporary wooden formwork will be installed along the base of the seawall. The formwork will be composed of untreated wood and will be sealed with hydraulic water-stop cement and a PVC water-stop barrier. Hydraulic water-stop cement will be installed along the base and sides of the formwork. PVC water-stop barrier will be installed between the wooden formwork and the face of the seawall. The hydraulic water-stop cement and PVC water-stop barriers will prevent ocean water from entering the formwork and prohibit the release of concrete replacement water.



9. A turbidity curtain will be installed along the active in-water work areas. The turbidity curtain will be 2 to 3 feet deep, depending on water depth. The turbidity curtain will contain any temporary turbidity that is generated by the proposed activity.

### **Waste Management**

**Note:** No hazardous wastes are anticipated for this project.

1. A Solid Waste Disclosure Form must be completed and submitted to the Hawai'i Department of Health (HDOH) in accordance with WQC0901. The form can be downloaded at: <https://health.hawaii.gov/shwb/files/2013/06/swdiscformnov2008.pdf>
2. All waste will be collected and placed daily in the container located in the upland area inshore of the project area and then disposed of off-site.
3. The Contractor will arrange for pick up and disposal of the filled container as necessary.
4. Cleanup of waste will be conducted through sweeping, shoveling, or vacuuming operations only.
5. Manage spent hazardous material used in construction, including but not limited to, aerosol cans, waste paint, cleaning solvents, contaminated brushes, and used rags, as per environmental law.
6. Non-hazardous or less hazardous materials should be used whenever possible.
7. Hazardous waste shall be placed in secondary containment.
8. Flammable or reactive waste will be placed in a separate area more than 50 feet from the edge of the property, nearest drain inlet, and the shoreline.
10. The Contractor and the owner are responsible for the proper handling, storage and/or disposal of all waste generated by project activities.
11. Any maintenance activity related debris that may pose an entanglement hazard to marine protected species must be removed from the project site if not actively being used and/or at the conclusion of the maintenance activity.
12. The Contractor shall not dispose of any concrete, steel, wood, and any other debris into State or Federal waters. Any debris that falls into the State and Federal water shall be removed at the Contractor's own expense.
13. No contamination (trash or debris disposal, alien species introductions, etc.) of marine (reef flats, lagoons, open oceans, etc.) environments adjacent to the project site shall result from project related activities.



14. The Contractor shall remove all floating or submerged materials and/or debris at the end of each day, with the exception of any silt or debris containment devices.
15. In the event that floating hydrocarbon (oil, gas) products are observed, the Contractor or his designated individual will be responsible for directing that in-water work be halted so that appropriate corrective measures are taken in accordance with the oil spill response plan. The Department of Land and Natural Resources and Department of Health Hazard Evaluation and Emergency Response Office shall be notified as soon as practicable, and the activity causing the plume will be modified by containment. The responsible individual will document the event and the measures taken to correct the issue and will report the incident (with photographs) to the Office of Conservation and Coastal Lands and the Department of the Army Regulatory Office as soon as is practicable. Work may continue only after the issue is no longer visible.
16. No contamination of the marine environment shall result from the permitted activities. Particular care shall be taken to ensure that no petroleum products, trash, or other debris enter near-shore and open ocean waters. When such material is found within the project area, the Contractor, or his designated construction agent, shall collect, and dispose of this material at an approved upland disposal site.
17. Waste materials and waste waters directly derived from maintenance activities shall not be allowed to leak, leach or otherwise enter marine waters.
18. Maintenance operations shall be conducted so as to prevent the discharge or accidental spillage of pollutants, solid waste, debris, and other objectionable wastes in surface waters and underground water sources.
19. Care shall be exercised in the removal and transporting of debris and rubbish for disposal.
20. Any spillage on the work surfaces will be cleaned up immediately.
21. Loads will be covered when transported.
22. Project site inspection and debris sweeps will be completed at the end of each work day. A full inspection of the project site will be conducted at the end of the project to ensure that no visible debris or project waste is present at the site upon completion of the project.

### **Vehicle and Equipment Management**

1. Fueling operations will be monitored to prevent spills, leaks, and overflows. Equipment will be fueled away from any drain or shoreline. A spill pan will be used to catch spill/leaks. Equipment will not be “topped off.” Spill cleanup materials will be readily accessible.
2. Construction equipment (except small tools, generators, welders, etc.) shall be maintained off-site. If emergency repairs or maintenance on large equipment must be performed, drip pans or drop cloth will be placed under the vehicle or equipment to catch any spills/leaks.



3. Wherever trucks and/or vehicles leave the site and enter surrounding paved streets, the Contractor shall prevent any material from being carried onto the pavement. Wastewater shall not be discharged into existing streams, waterways, or drainage systems such as gutters and catch basin unless treated to comply with the State Department of Health water pollution regulations.
4. An operator's daily checklist shall be filled out prior to operation of equipment on a daily basis. Any leaks or deterioration of hoses shall be noted and corrected prior to operation on equipment. At the end of a shift, the equipment shall be positioned or located away from nearby drains and drip cloth shall be placed under the equipment. Spill kits shall be staged within close proximity to the equipment.

### **Historic or Cultural Features**

1. No adverse impacts to any historical or cultural features are expected since the project is the maintenance of an existing, serviceable structure.
2. Should any unanticipated archaeological site(s), such as walls, platforms, pavements, mounds, or remains such as artifacts, burials, or concentrations of charcoal or shells be uncovered by the work activity, all work shall cease in the immediate area and the contractor shall notify the State Historic Preservation Division at (808) 692-8015. No work shall resume until the owner/contractor obtains clearance from the Historic Preservation Division.

### **Environmental Protection**

1. All permits and clearances shall be obtained prior to the start of any maintenance activities. The Contractor and his sub-contractors shall ensure that all maintenance work complies with all permit conditions and commitments made with environmental agencies.
2. Any project related debris that may pose an entanglement hazard to protected species must be removed from the project site if not actively being used and/or at the conclusion of the proposed project.
3. All project activities shall be confined to areas defined by the drawings and specifications. No project materials shall be stockpiled in the marine environment outside of the immediate project area.
4. Visual inspections will be documented with photographs and written descriptions, if necessary.
5. The Contractor shall perform the work in a manner that minimizes environmental pollution and damage as a result of construction operations. The environmental resources within the project boundaries and those affected outside the limits of permanent work shall be protected during the entire duration of the maintenance activities.



6. The Contractor shall complete daily inspection of equipment for conditions that could cause spills or leaks; clean equipment prior to operation near the water; properly site storage, refueling, and servicing sites; and implement spill response procedures and stormy weather preparation plans.
7. The project shall be completed in accordance with all applicable State and County health and safety regulations.
8. The Contractor shall provide notifications to the National Marine Fisheries Services, [efhesaconsult@noaa.gov](mailto:efhesaconsult@noaa.gov), at least 72 hours prior to the scheduled start of maintenance activities. The notification shall include the associated permit numbers, a project description, and who the client is.
9. Project operations must cease if unusual conditions, such as large tidal events and high surf conditions affect the project site, except for efforts to avoid or minimize resource damage.
10. Preserve the natural resources within the project boundaries and outside the limits of permanent work. Restore to an equivalent or improved condition upon completion of work. Confine construction activities to within the limits of the work indicated or specified. Conform to the national permitting requirements of the Clean Water Act.
11. Do not intentionally disturb fish and wildlife. Do not alter water flows or otherwise significantly disturb the native habitat adjacent to and critical to the survival of fish and wildlife in the project site, except as indicated or specified.
12. Provide and maintain, during the life of the contract, environmental protection measures to control pollution that develops during normal construction practice. Plan for and provide environmental protective measures required to correct conditions that develop during the construction of permanent or temporary environmental features associated with the project. Comply with Federal, State, and local regulations pertaining to the environment, including water, air, solid waste, hazardous waste and substances, oily substances, and noise pollution.

### **Protected Species**

1. The project manager shall designate a competent observer, who has been apprised of any listed species potentially present in the project area and the protections afforded to those species under federal laws, to survey the marine areas adjacent to the proposed action for Endangered Species Act listed (ESA-listed) marine species, including but not limited to the green sea turtle, hawksbill sea turtle, and Hawaiian monk seal.
2. Constant vigilance shall be kept for the presence of Federally Listed Species (<https://www.fisheries.noaa.gov/pacific-islands/endangered-species-conservation/marine-protected-species-hawaiian-islands>).
3. Visual surveys for ESA-listed species shall be made prior to the start of work each day, and prior to resumption of work following any break of more than one-half hour, to ensure that



no protected species are in the area (typically within 50 yards of the proposed work). During the survey period, the Observer shall record the environmental and project-related information, including but not limited to date, time, weather, action undertaken, and any ESA-listed marine animals. If no ESA-listed marine animal is sighted during the survey period, the project activities may commence. If an ESA-listed marine animal is sighted during the survey period, the Observer shall alert the Construction Manager immediately, and the animal shall be monitored continuously. If the animal is within 50 yards (150 feet) of the project site, work will be suspended, and animal behavior observations shall be recorded. Work may not commence until the animal departs the area voluntarily or after 30 minutes passed since the last animal sighting.

4. Work shall be postponed or halted when ESA-listed species are within 50 yards (150 feet) of the active work area and shall only begin/resume after the animals have voluntarily departed the area. If ESA-listed species are noticed after work has already begun, that work may continue only if there is no way for the activity to adversely affect the animal(s). For example, divers performing surveys or underwater work (excluding the use of toxic chemicals) is likely safe. The use of heavy machinery is not.
5. Do not attempt to feed, touch, ride, or otherwise intentionally interact with any ESA listed species.
6. All on-site project personnel must be apprised of the status of any listed species potentially present in the project area and the protections afforded to those species under federal laws. A handbook explaining the laws and guidelines for listed species in Hawaii may be downloaded from: [https://nmshawaii.humpbackwhale.blob.core.windows.net/hawaii.humpbackwhale-prod/media/archive/documents/pdfs\\_ocean\\_users/hawaii.oceanusersguide.pdf](https://nmshawaii.humpbackwhale.blob.core.windows.net/hawaii.humpbackwhale-prod/media/archive/documents/pdfs_ocean_users/hawaii.oceanusersguide.pdf)
7. The Contractor shall keep a record of all protected species sightings, incidents of disturbance, or injury, and shall provide a report to the State and the National Marine Fisheries Service (NMFS) and will be the contact person for any issues involving green sea turtles during maintenance activities.
8. Upon sighting of a monk seal or turtle within the safety zone during project activity, immediately halt the activity until the animal has left the zone. In the event that a marine protected species enters the safety zone, and the project activity cannot be halted, conduct observations, and immediately contact NMFS staff in Honolulu to facilitate agency assessment of collected data. For monk seals contact the Hawai'i Statewide Marine Animal Stranding, Entanglement, and Reporting Hotline at 1-888-256-9840. For turtles, contact the turtle hotline at 808-983-5730.

The Contractor shall immediately report any incidental take of marine mammals. The incident must be reported immediately to NOAA Fisheries' 24-hour hotline at 1-888-256-9840, and the Regulatory Branch of the USACE at 808-438-9258. In Hawaii, any injuries incidents of disturbance or injury to sea turtles must be immediately reported and must include the name and phone number of a point of contact, the location of the incident, and the nature of the take and/or





injury. The incident should also be reported to the Hawai'i Statewide Marine Animal Stranding, Entanglement, and Reporting Hotline (888) 256-9840.

9. Equipment or material shall not be deployed in areas containing live corals, seagrass beds, or other significant resources.
10. For any equipment used in undertaking the authorized work, the 160 dB and 120 dB isopleths shall not exceed the 50-yard shut-down range for impulsive and continuous sounds sources, respectively.
11. Should protected species enter the area while in-water work is already in progress, the activity may continue only when that activity has no reasonable expectation to adversely affect the animal(s).

### **Oil and Spill Containment**

1. The Contractor shall ensure that the Emergency Spill Response Plan, detailed in this document, is in place which shall detail procedures for managing the accidental release of petroleum products to the aquatic environment during construction. Fueling of project related vehicles and equipment should take place away from the water. Absorbent pads, containment booms, and skimmers will be stored on site to facilitate the cleanup of petroleum spills.
2. Any spills or other contaminations shall be immediately reported to the Department of Health (DOH) Clean Water Branch (808-586-4309) and through email: [cleanwaterbranch@doh.hawaii.gov](mailto:cleanwaterbranch@doh.hawaii.gov). The DOH Clean Water Branch Kona office can also be contact at (808) 322-1967.
3. Prevent oil or hazardous substances from entering the ground, drainage areas, or navigable waters. In accordance with 40 CFR 112, surround all temporary fuel oil or petroleum storage tanks with temporary berms or containment of sufficient size and strength to contain the contents of the tanks, plus 10 percent freeboard for precipitation. The berm will be impervious to oil for 2 hours and be constructed so that any discharge will not permeate, drain, infiltrate, or otherwise escape before cleanup occurs.
4. Exercise due diligence to prevent, contain, and respond to spills of hazardous material, hazardous substances, hazardous waste, sewage, regulated gas, petroleum, lubrication oil, and other substances regulated by environmental law. Maintain spill cleanup equipment and materials at the work site. In the event of a spill, take prompt, effective action to stop, contain, curtail, or otherwise limit the amount, duration, and severity of the spill/release.
5. Maintain spill cleanup equipment and materials at the work site. Clean up all hazardous and non-hazardous waste spills.



### **Monitoring/Measures for Visually Detected Containment**

1. All work operations shall be performed in conformance with the applicable provisions of the Hawaii Administrative Rules (HAR), Title 11 Chapter 55 Water Pollution Control and Title 11, Chapter 54 Water Quality Standards, and to the Erosion and Sedimentation Control Standards and Guidelines of the Department of Public Works, State of Hawaii.
2. The Contractor shall keep construction activities under surveillance, management, and control to avoid pollution of surface or marine waters. Daily visual inspection of the construction site and its environs will be conducted by the Construction Manager, or his representative, to verify that the permitted activities do not result in uncontrolled adverse environmental impacts. Visual inspections will be documented with photographs, a photo orientation map, and written descriptions, if necessary.
  - a. Daily Inspection: The project site will be inspected daily to ensure BMP's are maintained to confine and isolate potential pollutants from being discharged into surrounding areas. The site will be inspected to ensure that materials are properly stored, rubbish is being collected and disposed of properly, etc.
  - b. Deficiencies identified by daily inspections shall be corrected immediately. Work activities will stop and remain stopped until the deficiencies have been corrected.

### **Water Quality Monitoring**

1. The Contractor shall follow the approved Water Quality Monitoring Plan and Applicable Monitoring and Assessment Program if applicable.
2. The Contractor shall incorporate all erosion control measures shown in the drawings and the BMPP for this project. The plans may be modified as necessary to adjust to conditions that develop during construction. Any changes to the BMPP must be submitted immediately to the DOH for review. The project may only proceed after DOH issues a written acceptance of the modified BMPP if applicable.
3. Turbidity outside the active project site shall not exceed the baseline turbidity geometric value. The Contractor shall cease all work if unusual turbidity is observed and take the necessary remedial action to correct the problem.
4. Applicable Water Quality Monitoring and Assessment Program: Trained professionals (with degrees in marine sciences) will be conducting the monitoring, if applicable, including pre-construction, during construction and post-construction monitoring. Monitoring and sample testing shall comply with the DOH CWB – “General Monitoring Guideline for Section 401 Water Quality Certification Projects.”

### **Erosion and Sediment Control Measures**

1. A silt curtain, with appropriate depth, will be installed around the project area.



2. Silt curtains and biosocks will be regularly inspected during project operations.
3. Silt curtains and biosocks will be left in place each night. All anchors will be inspected prior to sunset.
4. Visual inspections will be documented with photographs and written descriptions, if necessary.
5. Repair work shall not be done during storms or periods of high surf.
6. Visual monitoring will include ongoing inspections for turbidity outside of the confines of the silt curtains and/or booms. In the event that turbidity is observed outside of the silt curtains, work shall stop, and the silt curtains shall remain in place until the turbidity dissipates. Silt curtains, booms, and anchors shall be inspected after dissipation and prior to returning to maintenance operations.
7. Drainage outlets shall be maintained to minimize erosion and pollution of the waterways during construction. Surface runoff shall be controlled in order to minimize silt and other contaminants entering the water. Should excessive siltation or turbidity result from the Contractor's method of operation, the Contractor shall install silt curtains or other silt contaminant devices as required to correct the problem.
8. Should excessive siltation or turbidity, as defined in HAR Title 11 Chapter 54.4 and HAR Title 11 Chapter 54.6, result from the Contractor's method of operation, the Contractor shall install additional silt curtains or other silt contaminant devices as required to correct the problem.

### **Noise Control**

1. Best Management Practices shall be utilized to minimize adverse effects to air quality and noise levels, including the use of emission control devices and noise attenuating devices.
2. Noise shall be kept within acceptable levels at all times in conformance with HAR Title 11 Chapter 46 Community Noise Control, State Department of Health, Public Health Regulations. The contractor shall obtain and pay for a community noise permit from the State Department of Health when equipment or other devices emit noise at levels exceeding the allowable limits.
3. Equipment shall be equipped with suitable mufflers to maintain noise within levels complying with applicable regulations.
4. Starting of equipment meeting allowable noise limits shall not be done prior to 7:00 a.m. without prior approval. Equipment exceeding allowable noise limits shall not be started up prior to 7:30 a.m. Equipment meeting allowable noise limits shall not be done after 10:00 p.m. without prior approval.
5. Make the maximum use of low-noise-emission products, as certified by the EPA.



### **Dust Control**

1. If necessary, containment methods shall be employed to prevent uncontrolled release of dust or debris outside the designated construction and/or abatement control barriers/boundaries.
2. Dust, which could damage crops, orchards, cultivated fields, and dwellings, or cause nuisance to persons, shall be abated and control measures shall be performed. If there is dust, standard dust mitigation procedures will be used.
3. The Contractor, for the duration of the contract, shall maintain all excavations, embankments, haul roads, permanent access roads, plant sites, waste disposal areas, borrow areas, and all other work areas within or without the project limits free from dust which would cause a hazard to the work, or the operations of other contractors, or to persons or property. Industry accepted methods of stabilization suitable for the area involved, such as sprinkling or similar methods will be permitted. Chemicals or oil treating shall not be used.
4. The Contractor shall prevent dust from becoming airborne at all times including non-working hours, weekends, and holidays in conformance with the State Department of Health, Administrative Rules, Title 11, Chapter 60 - Air Pollution Control.
5. Keep dust down at all times, including during nonworking periods. Sprinkle or treat, with dust suppressants, the soil at the site, haul roads, and other areas disturbed by operations. Dry power brooming will not be permitted. Instead, use vacuuming, wet mopping, wet sweeping, or wet power brooming. Air blowing will be permitted only for cleaning nonparticulate debris such as steel reinforcing bars. Prevent the spread of dust and debris and avoid the creation of a nuisance or hazard in the surrounding area. Do not use water if it results in hazardous or objectionable conditions such as, but not limited to, flooding, or pollution. Vacuum or sweep the work area daily.

### **Air Pollution Control**

1. Emission: The Contractor shall not be allowed to operate equipment and vehicles that show excessive emissions of exhaust gases until corrective repairs or adjustments are made.
2. The Contractor shall not use nighttime lighting at the project site so as so not disorient any birds.

### **Operational Controls**

1. This plan will be reviewed with the project field staff prior to the start of work.
2. All activities significantly impacting the environment will not begin until appropriate BMPs are properly installed.
3. Construction will be immediately stopped, reduced or modified; and/or new or revised BMP's will be immediately implemented as needed to stop or prevent polluted discharges to receiving waters. New or revised BMPs will be approved by appropriate regulatory agencies



prior to re-commencing work.

4. The Contractor is responsible for all regulatory notification requirements in accordance with Federal, State, and local regulations.
5. The Contractor is responsible for meeting all permit requirements and including how they will be addressed in the work plans. The Contractor will provide the personnel, materials, and equipment necessary to meet the permit requirements for the project.

### **Structure, Authority, and Responsibility**

1. The Project Manager/Superintendent/Project Engineer will ensure compliance with this plan.
2. The Project Manager/Superintendent/Project Engineer will appoint and train one (1) additional individual to properly install all BMP's and to comply with all aspects of this plan.
3. The Property Owner(s) is also responsible for compliance to the BMPP.

### **Training**

1. Employees will be instructed in the proper installation of the BMPP materials.
2. BMP's will be covered in a toolbox safety meeting.
3. BMP's will be discussed, as applicable, for each new phase of work.

### **Health and Safety Plan**

1. Signs will be posted to warn and educate the public about maintenance activities.
2. Project implementation will not interfere with the public's right to reasonable navigation.
3. The contractor is responsible for safety at the job site.
4. Fire department fire lanes, access to all laydown areas and construction areas shall be maintained at all times. Emergency vehicles shall always have access. Do not block egress.

### **Inspection and Monitoring**

1. The Project Manager/Superintendent/Project Engineer or the assigned trained individual will conduct a visual inspection of all BMPP's daily.
2. All minor repairs and maintenance of the BMP's will be completed within 48 hours of detection. Major repairs of BMP's shall be completed as soon as practical, and in-water work shall be stopped until repairs are complete.



3. If any BMP is damaged, work will immediately be stopped and shall not resume until repairs to the BMP have been completed.

### **Emergency Procedures**

1. Natural disaster-related pollutant discharge: See Contingency Plan
2. Spill prevention and control: See Emergency Spill Response Plan.

### **Record Keeping and Documentation**

1. A copy of this plan will be kept on site.
2. All BMP inspection reports will be kept on site.
3. Records of inspection and repair of control measures will be retained in the project files for a minimum of five years.
4. In addition to other records required under the contract, the Contractor shall maintain at the job site two sets of full-size drawings, marking them in red to show all variations between the construction actually provided and that indicated or specified in the contract documents, including buried or concealed construction. Where a choice of materials or methods is permitted herein, or where variations in scope or character of work differ from that of the original contract are authorized, mark the drawings to define the construction actually provided. Show on the drawings the size, manufacturer's name, model number, and power input or output characteristics of the equipment installed. The representations of such changes shall conform to standard drafting practice and shall include such supplementary notes, legends, and details as necessary to clearly portray the as-built construction. Update drawings on a daily basis.

### **Suspension of Work**

1. Violations of any of the above requirements or any other pollution control requirements which may be specified in the technical specifications herein shall be cause for suspension of the work creating such violation.
2. If no corrective action is taken by the Contractor within 72 hours after a suspension is ordered by the Owner, the Owner reserves the right to take whatever action is necessary to correct the situation.
3. The Owner may also suspend any operations which they feel are creating pollution problems although they may not be in violation of the above-mentioned requirements.



## CONTINGENCY PLAN

The following plan will be implemented by the Contractor to prevent/respond to polluted discharges resulting from a severe storm or natural disaster. It is the Contractor's responsibility to abide by the following plan as well as any other binding plan, agreement, regulation, rule, law, or ordinance applicable.

All contractors associated with this project will follow this plan when a severe storm is either forecast or anticipated. Contractors must:

- a. Regularly monitor local weather reports for forecasted and/or anticipated severe storm events, advisories, watches, warnings or alerts. The contractor shall inspect and document the condition of all erosion control measures on that day prior, during, and after the event. The contractor shall prepare for forecasted and/or anticipated severe weather events to minimize the potential for polluted discharges.
- b. Secure the construction site. Securing the site should generally include:
  - i. Removing or securing equipment, machinery, and maintenance materials.
  - ii. Cleaning up all maintenance debris.
  - iii. Implementing all Best Management Practices (BMPs) detailed in this BMPP. This includes BMPs for materials management, spill prevention, and erosion and sediment control.
- c. In the event of a severe weather advisory (hurricanes, tropical storms, natural disasters) or when deemed necessary, cease regular construction operations. Work crews must finalize securing the project site and evacuate until the severe weather condition has passed.
- d. Upon return to the site, all BMPs shall be inspected, repaired, and/or re-installed as needed. If repair is necessary, it shall be initiated immediately after the inspection and repairs, or replacement will be complete within 48 hours. To facilitate repair or replacement, the contractor will be required to store surplus material on the project site if the site is located where replacement materials will not be readily available.
- e. When there either has been a discharge which violates Hawaii Water Pollution rules and regulations or there is an imminent threat of a discharge which violates Hawaii Water Pollution rules and regulations and/or endangers human and/or environmental health, the permittee shall at a minimum execute the following steps:
  - i. Assess whether construction needs to stop or if additional BMPs are needed to stop or prevent a violation.
  - ii. Take all reasonable measures to protect human and environmental health.
  - iii. Immediately notify the DOH of the incident. The notification shall also include the identity of the pollutant sources and the implemented control or mitigation measures.
    1. Department of Health Clean Water Branch (during regular working hours): 808-586-4309;
    2. Hawaii State Hospital Operator (after hours): 808-247-2191
  - iv. Document corrective actions, take photographs of discharge and receiving waters.
  - v. Revise BMPP to prevent future discharges of a similar nature.



## EMERGENCY SPILL RESPONSE PLAN

### Pre-Emergency Planning

- a. An initial and periodic assessment shall be made of the project site and potential hazardous spills that may be encountered during the normal course of work. This plan is not intended to address issues relating to materials such as PCB, Lead, Asbestos, etc., since these types of materials would have specific work plans already developed. This plan should be revised as necessary to correspond to the assessment and resubmitted to the appropriate regulatory agencies.
- b. A Hazardous Materials inventory list and Safety Data Sheets (SSDs sheets), to include subcontractors' materials, will be filed in a binder and located in the Project Office. The inventory list and SDSs sheets will be updated and maintained by the Project Manager and site safety officer as new materials are added.
- c. Personnel will consult the applicable SDSs sheet prior to its use.
- d. Personnel will handle hazardous materials safely and use personal protective equipment (PPE), recommended/required by the SDS, when handling hazardous materials.
- e. Personnel will receive "Hazard Communication" training within three (3) working days of arrival and "product specific" training prior to the initial use/exposure of a product. This training will be conducted by the Project Manager/Superintendent or site safety officer.
- f. All personnel will be trained on the contents of this plan within the first month of maintenance and at least annually thereafter. The training should include a rehearsal of this plan. An attendance sheet will be kept on file at the Project Office.
- g. Only approved containers and portable tanks shall be used for storage and handling of flammable and combustible liquids. Approved safety cans or DOT approved containers shall be used for the handling and use of flammable liquids in quantities of five (5) gallons or less. For quantities of one (1) gallon or less, only the original container or approved metal safety can shall be used, for storage, use and handling of flammable liquids.
- h. Flammable or combustible liquids shall not be stored in areas used for exits, stairways, or normally used for the safe passage of people.

### Personal Protective and Emergency Spill Response Equipment

- a. ABC fire extinguishers will be located in the project field office and in each of the company vehicles. There will be at least one fire extinguisher, rated at not less than 10B, within 50 feet of any stockpile of 5 gallons of flammable or combustible liquids or 5 pounds of flammable gas storage.

**Note:** Fire extinguishers should not be located "directly" with hazardous materials, so as to endanger first responders.

- b. Spill kits will be located at the project field office and/or within 50 feet of the hazardous material storage area. The spill kit contents shall be determined by the Project Manager/Superintendent based on the anticipated hazardous materials to be





stored and/or used on the project. The spill kits will be inventoried quarterly, and appropriate logbook entries made.

- c. Emergency response personal protective equipment (PPE) consists of:
  - i. Face shield
  - ii. Tyvex coveralls
  - iii. Rubber gloves
  - iv. Air-purifying respirators with HEPA and organic vapor combination cartridges will be issued to the Emergency Response Team members and maintained in the project office. Separate Respiratory Protection Equipment shall be designated and labeled as such; this equipment will be inspected at least every 30 calendar days and appropriate logbook entries made.

### **Personnel Roles, Lines of Authority and Communication**

- a. Emergency Response Coordinator (ERC)
  - i. The Construction Manager is the designated ERC. If the Project Construction Manager is not available, the Labor Foreman is the designated ERC.
  - ii. The ERC will be in charge of and will coordinate the appropriate emergency response procedures in this plan.
- b. Emergency Response Team (ERT)
  - i. The ERT consists of Construction Manager, Labor Foreman, and a Laborer designated by the Project Superintendent.
  - ii. The ERT will appropriately respond to the emergency in accordance with this plan at the direction of the ERC.

### **Emergency Alerting and Response Procedures**

- a. Any person causing or discovering a known hazardous or unknown release or spill will:
  - i. Immediately alert nearby personnel who may be exposed to the effects of the release or spill.
  - ii. Report the release or spill immediately to the ERC and the ERT. All pertinent information regarding the release should be provided to the ERC, such as the amount and type of material released, location of the release, and other factors, which may affect the response operation.
  - iii. If the spill or release is a petroleum product or known non-toxic chemical, the person will take immediate and appropriate measures to stop or limit the rate of release, (i.e., close the spigot to the drum or form oil or curing compound) and or contain or stop the migration of the release (i.e., create a berm of dirt around the release) until the ERC and ERT arrive.
  - iv. If the spill release is a toxic, highly flammable, or unknown chemical, the person will first notify the ERC before approaching the spill area from upwind to determine the source, type, and quantity of the release. The person should monitor the spill until the ERC and ERT arrive.
  - v. The ERC will assess possible hazards to human health or the environment that may result from the release, fire, or explosion.



- vi. If the spill or release is less than 25 gallons of a known petroleum product or non-toxic chemical, the ERC will direct the ERT to contain and cleanup the spill or release.
- vii. If the spill or release is toxic or unknown, the ERC will immediately notify the appropriate County Fire Department and ask for assistance from the HAZMAT Response Team.
- viii. Immediately after the emergency, the ERC will arrange for disposing of the recovered waste, contaminated soil or any other material that results from the release, fire, or explosion at the project site in accordance with the appropriate County and State regulations and manufacturer's instructions (if source of spill or release is known).

### **Emergency Notification and Reporting Procedures**

- a. In the event that a release enters the storm or sewer system, the ERC will immediately notify the National Response Center (NRC) at 1-800-424-8802, and the Hawaii Department of Health, Hazard Evaluation and Emergency Response Office (HEER) at 808-586-4249.
- b. The ERC will immediately notify appropriate agencies and submit written follow-up notification in accordance with the Hazardous Substance Release Notification Guideline.

### **Safe Distance Staging Area**

- a. A staging area at a safe distance upwind and higher than the location of the spill or release and its source will be immediately established.
- b. Access to the spill or release location will be cleared for emergency vehicles and equipment to be used to contain and clean up the spill or release.

### **Site Security and Control**

- a. If the spill or release is located on or near the roadway, stop all traffic until the release is cleaned up.
- b. If the spill or release is located away from vehicle or pedestrian traffic, install barricades/safety fencing around the affected area.
- c. If the spill or release occurs during night operations, provide adequate light, and use ground guides to escort emergency vehicles to the affected area.

### **Evacuation Routes and Procedures**

- a. Persons injured during the emergency condition will be evacuated to the staging area where they will be treated and or further evacuated to the nearest medical facility. The appropriate SDSs will be provided to emergency service personnel and are intended to be delivered to the emergency room physicians.
- b. Persons working at the affected area and who are not needed in the response effort will report to the staging areas for accountability.



### **Decontamination and Disposal Procedures**

- a. Persons involved in the spill clean-up are required to perform personal hygiene, utilizing soap and fresh water prior to eating, drinking, or smoking.
- b. Contaminated PPE shall be appropriately cleaned and disinfected if possible. If this is not possible it shall be disposed of per the same requirements of the contaminated substance.
- c. Sorbent pads/materials and the spilled substance will be placed in appropriate containers and disposed of as specified by the appropriate SDSs.
- d. Contaminated soil will be placed in an appropriate container(s) or on plastic sheeting. The ERC will arrange with an environmental services company to properly characterize, prepare the manifest, label the containers, transport, and dispose of the contaminated soil. The generator's copy of the manifest will be kept in the project files for a minimum of three (3) years.
- e. In the event of a substantial release (25 gallons or more) of a suspected or known toxic chemical, the Fire Department HAZMAT Response Team will be called to control/cleanup the release. They will establish and provide the decontamination operations as required.

### **Emergency Medical Treatment and First Aid**

- a. First aid kits will be maintained at the project field office, all company vehicles, and gang boxes.
- b. Injured person(s) will be treated at the staging area by a certified first aid trained individual at the project site until the ambulance arrives or they are evacuated to the nearest medical facility.
- c. The appropriate SDSs will be provided to emergency service personnel and are intended to be delivered to the emergency room physicians.

### **After the Spill Procedures**

- a. The ERC will review what happened and implement changes, corrections, and/or improvements to prevent the spill from occurring and to improve the spill response and clean-up procedures. This plan will be revised to reflect those changes, corrections, and/or improvements implemented.
- b. The ERC will prepare a record of the spill response and keep it in the project files for a minimum of three (3) years.
- c. The ERC will submit Follow-up Notification to HEER when required.
- d. Spill response kits shall be replenished directly after the emergency.



## **Emergency Contacts**

National Response Center (NRC) *1-800-424-8802*

Coast Guard Operations Center, Honolulu

(working hours)

*1-808-522-8264*

(24x7)

*1-808-842-2600*

(after hours District 14 Command Center 24x7)

*1-800-331-6176*

Hawaii State Department of Health

Hawaii Evaluation and Emergency Response (HEER):

7:45am to 4:30pm Monday to Friday

*1-808-586-4249*

After hours including weekends, holidays and after 4:30pm weekdays

*1-808 236-8200*

State Historic Preservation Division

*1-808-692-8015*

Fire Department

*911*

Gregory Wong, Permit Agent, Sea Engineering, Inc.

*1-808-460-3448*



**EXHIBITS:**

**BMPP - EXHIBIT A**

**INSPECTION MAINTENANCE & REPORT FORM**

TALBERT SEAWALL REPAIRS  
75-6160 ALI'I DRIVE  
KONA, HI 96740  
TAX MAP KEY NO. (3) 7-5-020:005



## INSPECTION MAINTENANCE & REPORT FORM

Report No. \_\_\_\_\_ Weather: \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_

Activities: \_\_\_\_\_

Type of Report:  Daily  Weekly  Other: \_\_\_\_\_

DUST CONTROL MEASURES:	YES	NO	N/A
Are adequate dust control measures employed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the nearshore waters and travel ways kept clean of waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the loads in the truck beds covered?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DUST CONTROL MEASURES REQUIRED:			

Performed by: \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_

CONCRETE OPERATIONS:	YES	NO	N/A
Are joints of concrete forms sealed tight to minimize leakage in State waters?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are concrete trucks, pumps and mixers washed out 50' away from the edge of the shoreline or drains?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CORRECTIVE MEASURES REQUIRED:

Performed by: \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_

IN-WATER CONFINEMENT MEASURES:	YES	NO	N/A
Are waste catchment devices deployed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are silt curtains deployed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are stakes placed in correct locations and orientation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are joints between curtain segments securely connected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is turbidity apparent outside of the silt curtains?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do the turbidity values at the IDU exceed the thresholds?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the control measures adequate to prevent water and/or sediment from being discharged into the ocean?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IN-WATER CONFINEMENT MEASURES REQUIRED:

Performed by: \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_



# Sea Engineering, Inc.

Makai Research Pier • 41-305 Kalanianaʻole Hwy • Waimanalo, Hawaii 96795-1820  
Phone: (808) 259-7966 ext. 213 • E-mail: gwong@seaengineering.com • Website: www.seaengineering.com

PROTECTION AROUND CRITICAL AREAS:	YES	NO	N/A
Is there someone on-site during construction to monitor for endangered species?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did the on-site observer observe any protected and/or endangered species (i.e. green sea turtle, hawksbill sea turtle, Hawaiian Monk seal, etc.) prior to start of work? Time and Description: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If protected and endangered species present, were photographs taken to assist with identification of the protected and endangered species?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If protected and endangered species present, was work ceased until the species voluntarily left the project site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If protected and endangered species present, were any agencies notified of the species? If yes, agency: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have any historic properties been identified in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PROTECTION OF CRITICAL AREAS REQUIRED:

-----  
Performed by: \_\_\_\_\_ Date: \_\_/\_\_/\_\_

HOUSEKEEPING:	YES	NO	N/A
Are areas kept clean of rubbish, construction debris, spills, etc.?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is waste frequently vacuumed/cleaned?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

HOUSEKEEPING REQUIRED:

-----  
Performed by: \_\_\_\_\_ Date: \_\_/\_\_/\_\_

MATERIAL/WASTE MANAGEMENT:	YES	NO	N/A
Are materials stored under shelter or covered and above ground?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are flammable/reactive materials stored properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are material containers in good condition (not rusted, damaged or leaking)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are all construction debris collected and placed daily in the covered dumpster?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CORRECTIVE MEASURES REQUIRED:

-----  
Performed by: \_\_\_\_\_ Date: \_\_/\_\_/\_\_

VEHICLE AND EQUIPMENT MANAGEMENT:	YES	NO	N/A
Are vehicles and equipment cleaned before being brought on-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is equipment fueled away from any drain or the shoreline?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are spill cleanup materials readily accessible?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is all equipment leak free or if leaking, a spill pan placed to catch the leaks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CORRECTIVE MEASURES REQUIRED:

-----  
Performed by: \_\_\_\_\_ Date: \_\_/\_\_/\_\_



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**PUBLIC PROTECTION:**

YES NO N/A

Are protective measures installed around the work site to prevent pedestrians from entering?

Are there signs informing the public of the project activities?

**MAINTENANCE PUBLIC PROTECTION REQUIRED:**

-----  
Performed by: \_\_\_\_\_ Date: \_\_/\_\_/\_\_

Photographs shall be date stamped and attached to the applicable Report Form.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Inspected by: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_