### NOTES FOR PROTECTED SPECIES:

The Contractor shall designate a competent Observer to search/monitor work sites and the areas adjacent to the authorized work area for ESA-listed marine species.

Work shall be postponed or halted when ESA-listed marine species are within 50 yards.

#### 1. SEABIRDS

Hawaiian seabirds may traverse the project area at night during the breeding season, which extends from March 1 through December 15.

- a. Fully shield all outdoor lights so the bulbs are only visible from below bulb height and only in use when necessary.
- b. Install automatic motion sensor switches and controls on all outdoor lights or turn off lights when human activity is not actively occurring within the lighted area.

Avoid nighttime construction during the seabirds fledging period, which extends from September 15 through December 15.

### 2. HAWAIIAN HOARY BAT (LASLURUS CINEREUS SEMOTUS)

Any fences that are erected as part of the project shall have barbless wire to prevent entanglements of the Hawaiian hoary bat on barbed wire. No fences in the survey area were observed with barbed wire during the survey; however, if fences are present, the top strand of barbed wire shall be removed or replaced with barbless wire.

No trees taller than 15 feet (4.6 m) shall be trimmed or removed as a result of this project between June 1 and September 15, when juvenile bats that are not yet capable of flying may be roosting in the trees.

### 3. NĒNĒ OR HAWAIIAN GOOSE (BRANTA SANVICENSIS)

Do not approach, feed, or disturb the Hawaiian goose.

If Hawaiian goose are loafing, foraging, or otherwise present within the project area during the breeding season, which extends from September through April, have a trained biologist survey the area near the project prior to work each day. Survey biologists should be familiar with the nesting behavior of the Hawaiian goose, nest identification, and identification of young.

If a nene is found in the area during ongoing activities, all activities within 100 feet (30 m) of the bird would cease, and the bird would not be approached. If a nest is discovered, USFWS would be notified. If a nest is not discovered, work may continue after the bird leaves the area of its own accord.

All regular on-site staff shall be trained to identify nene and shall know the appropriate steps to take if nene are present on-site. Training would not be necessary if a biological monitor is present for the duration of the construction.

### BIOLOGICAL SURVEY

a. A qualified biologist shall survey the area for nesting nene before construction or as soon as the area is deemed safe and accessible (in coordination with the waterbird surveys), and after any subsequent delay in work of 3 or more days (during which birds may attempt nesting). The results of the pre-construction survey would be submitted to the USFWS.

- b. Surveys shall be repeated if there is a delay in work of three days or more (during which the birds may attempt to nest).
- c. If nests or vulnerable young are observed within 150 feet of the project work, immediately cease all work and contact the Service for further guidance.

In areas where known presence of Hawaiian goose occurs, post and implement reduced speed limits, and inform project personnel and contractors about the presence of this threatened species on-site.

#### 3. WATERBIRDS

In areas where known presence of Hawaiian waterbirds occurs, post and implement reduced speed limits, and inform project personnel and contractors of the presence of these endangered species.

Because water resources occur in the project site, employ U.S. Fish and Wildlife Service Recommended Standard Best Management Practices when working in aquatic environments.

In areas where Hawaiian waterbirds are known to occur, survey for Hawaiian waterbirds in or near the project area prior to work using survey biologists. Survey biologists should be trained and capable of identifying adults and juveniles of each species, nesting behaviors, and nests.

- a. Surveys for species and nests shall be repeated when a delay of work occurs that is three days or more (during which the birds may attempt to nest).
- b. If a nest or active brood is found, contact the USFW Service within 24 hours for further guidance.
- c. Establish and maintain a 100-foot buffer around all active nests and/or broods until the chicks/ducklings have fledged. Do not conduct potentially disruptive activities or habitat alteration within this buffer.
- d. Have a biological monitor that is familiar with the species' biology present on the project site during all construction or earth moving activities until the chicks/ducklings fledge to ensure that Hawaiian waterbirds and nests are not adversely affected.

### 4. HAWAIIAN MONK SEAL (NEOMONACHUS SCHAUINSLANDI) AND SEA *TURTLES*

All regular on-site staff shall be trained to identify the Hawaiian monk seal and sea turtles, and trained on appropriate steps to take if these species are present on-site.

Construction activities shall not take place if a Hawaiian monk seal or sea turtle is in the construction area or within 150 feet (46 m) of the construction area. Construction can only begin after the animal voluntarily leaves the area. If a monk seal/pup pair is present, a

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minimum 300-foot (91-m) buffer shall be observed. If a Hawaiian monk seal or sea turtle is noticed after work has already begun, that work may continue only if, in the best judgment of the biological monitor, that there is no way for the activity to adversely affect the animal(s).

Any construction-related debris that may pose an entanglement threat to Hawaiian monk seals and sea turtles shall be removed from the construction area at the end of each day and at the conclusion of the construction project.

Workers shall not attempt to feed, touch, ride, or otherwise intentionally interact with any listed species.

Sea turtles nesting occurs on beaches from May through September, peaking in June and July, with hatchlings emerging through November and December. Avoid nighttime work during the nesting and hatching season.

No vehicle use or modifying the beach/dune environment during the sea turtle nesting or hatching season, which extends from May through December.

Employ U.S. Fish and Wildlife Service Recommended Standard Best Management Practices when working in aquatic environments.

Remove any project-related debris, trash, and equipment from the beach or dune if not actively in use.

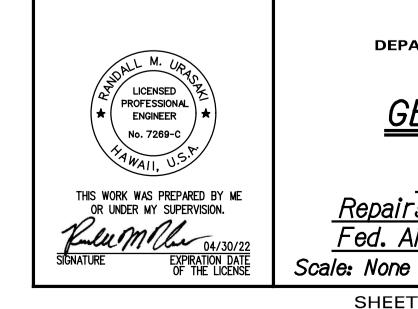
Do not stockpile project-related materials in the intertidal zone, reef flats, stream channels, or river channels.

Lighting: Optimal turtle nesting habitat is a dark beach, free of barriers that could restrict sea turtle movement. Lighting and human presence deters nesting turtles from approaching, laying eggs, and successfully nesting.

Shielded lighting shall be used to reduce direct and ambient light to potential nearby beach habitat. Lighting shall be directed away from the beach.

In-water work at night shall be avoided, unless emergency maintenance and repair of erosion and sediment controls are necessary to meet permit conditions.

Dredging or filling in the marine environment shall be scheduled to avoid coral spawning and recruitment periods and sea turtle nesting and hatching periods.

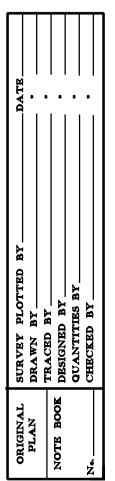


**DEPARTMENT OF TRANSPORTATION** 

# GENERAL NOTES

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### NOTES FOR PROTECTED SPECIES (CONTINUED):

### 6. WATER QUALITY BMPS, AS APPLICABLE

Siltation from project-related work shall be minimized and contained through the appropriate use of erosion control practices, effective silt containment devices, and the curtailment of work during adverse weather and tidal/flow conditions.

Erosion and sediment control measures shall be in place before initiating earth-moving activities. Functionality shall be maintained throughout the construction period. For earth-moving activities initiated to address imminent health and safety concerns, erosion and sediment control measures shall be in place as soon as practicable.

When it is not possible to avoid times of the year when high rainfall is expected, enhancing the capacity of existing controls, adding additional control measures, or installing contagency measures shall be implemented.

Inspection shall be documented, and records for all inspections and repairs shall be maintained on-site. When a device proves inadequate, it shall be immediately redesigned or replaced until it is effective.

Control measures (i.E., silt fences, sand bag barriers, sediment traps, geotextile mats, and other measures intended for soil/sediment trapping) shall be inspected and repaired as needed within 24 hours after a rainfall event of 0.25 inch or greater over a 24-hour period. During periods of prolonged rainfall, a daily inspection shall occur, unless extended heavy rainfall makes access impossible or hazardous.

Construction shall be sequenced to minimize the exposure time of the cleared surface area.

The contractor shall be required to prepare a spill prevention, control and countermeasure (spcc) plan before beginning work or as soon as practicable. The spcc shall describe preventative measures including the location of refueling and storage facilities and the handling of hazardous material. The spcc shall describe actions to be taken in case of a spill. Hazardous materials shall be properly stored and managed in accordance with local, state, and federal regulations.

Appropriate materials to contain and clean potential spills shall be stored at the work site and be readily available. Spill kits shall be available on-site at locations where hazardous materials are used. Spill kits shall be inspected regularly and supplies replaced as needed. Staff shall be trained on spill prevention and cleanup.

Absorbent pads shall be stored on-site to facilitate the cleanup of petroleum spills. At fueling sites, containment booms and skimmers shall be stored, in addition to absorbent pads.

Return flow or run-off from material stored at inland dewatering or storage sites shall be prevented.

All project-related materials and equipment placed in the water shall be free of pollutants.

The project manager or heavy equipment operators shall perform daily pre-work equipment inspections for cleanliness and leaks. All heavy equipment operations shall be postponed or halted should a leak be detected, and they shall not proceed until the leak is repaired and the equipment is cleaned.

Fueling of project-related vehicles and equipment shall take place at least 50 feet (15.24 m) away from the water, preferably over an impervious surface. Fueling of vessels shall be done at approved fueling facilities. A contingency plan to control petroleum products accidentally spilled during the project shall be developed. Absorbent pads and containment booms shall be stored onsite, if appropriate, to facilitate the clean-up of accidental petroleum releases.

Portable toilets for sanitary waste management shall be serviced regularly.

A plan shall be developed to prevent debris and other wastes from entering or remaining in the marine environment during the project.

No project-related materials (fill, revetment rock, pipe, etc.) shall be stockpiled in the water (intertidal zones, reef flats, stream channels, wetlands, etc.) or on beach habitats.

No contamination (trash or debris disposal, invasive species introductions, attraction of non-native pests, etc.) of adjacent habitats (reef flats, channels, open ocean, stream channels, wetlands, beaches, forests, etc.) shall result from project-related activities. This shall be accomplished by implementing a litter-control and developing a Hazard Analysis and Critical Point Plan

(https://www.fws.gov/policy/A1750fwl.html) to prevent attraction and introduction of non-native species.

Any soil exposed near water as part of the project shall be protected from erosion (with plastic sheeting, filter fabric etc.) after exposure and stabilized as soon as practicable (with native or non-invasive vegetation matting, hydroseeding, etc.).

All debris removed from the marine/aquatic environment shall be disposed of at an approved site. Solid waste and construction and demolition debris would be properly managed.

Clearing and grubbing shall be held to the minimum necessary for grading, access, and equipment operation.

Revegetation success shall be monitored by Contractor to ensure sufficient vegetation cover has established. Relevant erosion and sediment control BMPs shall not be removed until sufficient vegetative cover is re-established. If vegetation fails to establish, corrective actions shall be taken where necessary.

Soil stockpiles shall be located away at least 50 feet from concentrated runoff and water features, covered with plastic or other waterproof material when practicable, and surrounded by silt fences or other erosion control BMPs.

Concrete wash-outs shall be located 50 feet from storm drain inlets, open drainage areas, and waterbodies, and shall be maintained as needed.

All in-water work areas shall be isolated and confined from open water habitats through the use of approved isolation techniques including filter fabrics, turbidity curtains, K-rails, Cofferdams, Sheet Piles, Gravel/Rock berms, Gravel/Sandbag berms, Stream diversions (Pumped, pipe/flume, or excavated) or other approved means. Frequent inspections of these BMPs shall be conducted to determine if devices are operating effectively. When a device proves inadequate, work shall

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cease and it shall be immediately redesigned or replaced until it is effective.

Flow around the isolated and confined in-water work area shall be unimpeded to allow for aquatic animal migration and/or to prevent downstream flooding situations. The unimpeded flow shall be equivalent to a two (2) year, 24 hour duration storm event and/or the existing flow capacity of the stream, ditch, or gulch.

In addition to diversion and isolation of the project area, dewatering of work zones shall also be completed. Dewatering shall follow the procedures outlined in SM-17 of the 2008 HDOT Construction BMP Field Manual and Section 208 of the FP-14. Treatment of dewatering effluent shall conform to Federal, State, and local regulations.

Dredging and filling in the marine or aquatic environment shall be designed to avoid or minimize the loss of special aquatic site habitat (beaches, coral reefs, wetlands, etc.) and the function of such habitat shall be replaced.

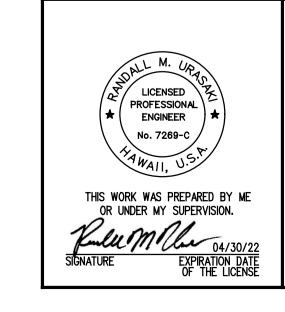
### 7. BMPS TO PREVENT THE INTRODUCTION AND SPREAD OF INVASIVE **SPECIES**

The area beyond the construction limits shall not be disturbed. Trees, shrubs or vegetated areas temporarily damaged by construction operations shall be re-vegetated.

Temporarily disturbed areas shall be revegetated with non-invasive plant species appropriate for the project area.

To avoid the unintentional introduction or transport of new terrestrial invasive species, all construction equipment and vehicles arriving from outside Kaua'i shall be washed and inspected before entering the project area. In addition, construction materials arriving from outside Kaua'i shall be washed and/or visually inspected (as appropriate) for excessive debris, plant materials, and invasive or harmful non-native species (plants, amphibians, reptiles, and insects). When possible, raw materials (gravel, rock, and soil) shall be purchased from a local supplier on Kaua'i to avoid introducing non-native species not present on the island. Inspection and cleaning activities shall be conducted at a designated location.

Any soil exposed near water as part of the project shall be protected from erosion after exposure and stabilized as soon as practicable with native or non-invasive vegetation.

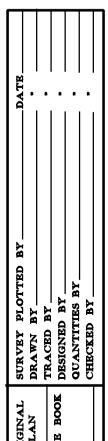


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## GENERAL NOTES

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## NOTES FOR PROTECTED SPECIES (CONTINUED):

### 8. ESSENTIAL FISH HABITAT

Contractor shall conduct a pre-construction biological survey to determine whether infrastructure materials (e.g., riprap, piles, boulders) are colonized with benthic communities. If infrastructure materials (e.g., riprap, piles, boulders) that are colonized with benthic communities will be removed or destroyed as part of permitted activities, Contractor shall prepare relocation plan for HDOT approval, and then relocate these materials to an appropriate receiving site.

Good housekeeping practices and erosion-control device(s) shall be employed at the job site to prevent debris and soil from leaving the site.

The Contractor shall prevent debris from falling into the water.

Stockpiling, storage, and equipment staging shall utilize appropriate best management practices to reduce the potential surface runoff from entering the stream. No stockpiling, storage, or heavy equipment will be placed in the stream.

Site-specific storm water BMPs shall be implemented and/or installed at the road staging and work areas to prevent water quality degradation associated with storm water runoff.

Conduct over-stream work during dry season (if possible) and during low tide, and avoid working over water during periods of heavy rain.

Inspect all equipment prior to beginning work each day to ensure the equipment is in good working condition, and there are no contaminant (oil, fuel, etc.) leaks.

Vehicle wash shall be conducted in designated areas, and control measures implemented to ensure that dirt, mud and chemicals do not run into the marine environment.

Stockpiles and material storage areas shall be kept a minimum of 50 feet from the stream and shoreline.

Prevent discharges of chemicals and other fluids dissimilar from seawater into the water column.

All refueling or repairs to equipment shall be done in a location with the appropriate controls that prevents the introduction of contaminants to the marine environment. Spill response equipment shall be stored on site, in order to respond quickly to an accident.

### 9. BMPs IN WATER

BMPs shall be implemented in accordance with An Integrated Storm Water Management Approach and a Summary of Clear Water Diversion and Isolation Best Management Practices for Use in the State of Hawaii, by the Federal Highway Administration and Hawaii Department of Transportation Practitioners Guide (2016) or the Construction Best Management Practices Field Manual by the State of Hawaii Department of Transportation (2008).

In-Water Work:

All objects shall be lowered to the bottom in a controlled manner. This can include the use of buoyancy controls such as lift bags, or the use of cranes, winches, or other equipment that affect positive control over the rate of descent.

Special attention shall be given to ensure that no ESA-listed marine species are within 50 yards of maintenance dredging, in-water excavation and movement of large armor stones, and benthic core sampling, and that those operations will immediately shut-down should any ESA-listed species enter within that range.

Full-depth silt curtains (or alternative as described in justification) shall be installed around all work sites with the potential to disturb and mobilize sediments. This will contain mobilized sediments in the marine environment and reduce the potential for elevated turbidity.

10. THE U.S. FISH AND WILDLIFE SERVICE (USFWS) RECOMMENDED STANDARD BEST MANAGEMENT PRACTICES (BMPS)

Authorized dredging and filling-related activities that may result in the temporary or permanent loss of aquatic habitats should be designed to avoid indirect, negative impacts to aquatic habitats beyond the planned project area.

Turbidity and siltation from project-related work shall be minimized and contained within the project area by silt containment devices and curtailing work during flooding or adverse tidal and weather conditions. BMPs shall be maintained for the life of the construction period until turbidity and siltation within the project area is stabilized. All construction-related debris and sediment containment devices shall be removed and disposed of at an approved site.

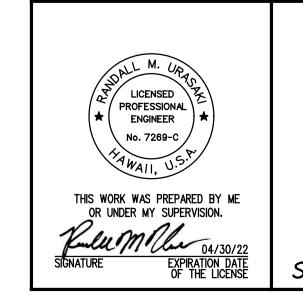
All project construction-related materials and equipment (dredges, vessels, backhoes, silt curtains, etc.) to be placed in an aquatic environment shall be inspected for pollutants including, but not limited to; marine fouling organisms, grease, oil, etc., and cleaned to remove pollutants prior to use. Project related activities shall not result in any debris disposal, non-native species introductions, or attraction of non-native pests to the affected or adjacent aquatic or terrestrial habitats. Implementing both a litter-control plan and a Hazard Analysis and Critical Control Point plan (HACCP see http://www.haccp-nrm.org/Wizard/default.asp) can help to prevent attraction and introduction of non-native species.

Project construction-related materials (fill, revetment rock, pipe, etc.) shall not be stockpiled in, or in close proximity to aquatic habitats and shall be protected from erosion (e.g., with filter fabric, etc.), to prevent materials from being carried into waters by wind, rain, or high surf.

Fueling of project-related vehicles and equipment shall take place away from the aquatic environment and a contingency plan to control petroleum products accidentally spilled during the project shall be developed. The plan shall be retained on site with the person responsible for compliance with the plan. Absorbent pads and containment booms shall be stored on-site to facilitate the clean-up of accidental petroleum releases.

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All deliberately exposed soil or under-layer materials used in the project near water shall be protected from erosion and stabilized as soon as possible with geotextile, filter fabric or native or non-invasive vegetation matting, hydro-seeding, etc.



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