Make the following Section a part of the Standard Specifications:

"SECTION 671 – PROTECTION OF THREATENED AND ENDANGERED SPECIES

671.01 Description. The endangered Hawaiian hoary bat or ʻōpeʻapeʻa (*Lasiurus cinereus semotus*) may roost, forage, and rear young in the general vicinity of the proposed project. The project site is located in a known flight corridor for the endangered Hawaiian petrel or ʻuaʻu (*Pterodroma sandwichensis*), the endangered Hawaiʻi distinct population segment (DPS) of the band-rumped storm-petrel or ʻakeʻake (*Oceanodroma castro*), and the threatened Newell's shearwater or ʻaʻo (*Puffinus auricularis newelli*), hereinafter referred to as Hawaiian seabirds. Endangered Hawaiian waterbirds, including the Hawaiian stilt or ae'o (*Himantopus mexicanus knudseni*), the Hawaiian coot or ʻalae keʻokeʻo (*Fulica americana alai*), the Hawaiian gallinule or ʻalae ʻula (*Gallinula galeata sandvicensis*), and the Hawaiian duck or koloa (*Anas wyvilliana*) are known to be in the general vicinity of the project and may be attracted to the project staging areas even in sub-optimal locations if water is present. Also, to be considered are the threatened Hawaiian goose or nēnē (*Branta sandvicensis*) and the Hawaiian Short-Eared Owl or pueo (Asio flammeus sandwichensis), bothwhich may use construction staging areas or areas adjacent to the roadway.

The Contractor shall protect these threatened and endangered species throughout the construction duration.

671.02 Materials. None

671.03 Construction.

(A) Pre-Construction and Construction Requirements. The Contractor shall comply with the following conditions and notes in the Contract Plans:

(1) Hawaiian Hoary Bat. Hawaiian hoary bats nest in both native and non-native woody vegetation. Incorporate these measures to avoid and minimize project-related adverse effects to the Hawaiian hoary bat.

(a) There shall be no disturbance, removal, or trimming of woody plants greater than 15 feet (4.6 meters) tall during the bat birthing and pup rearing season (June 1 through September 15).

(b) Barbed wire shall not be used for fencing.

(2) Hawaiian Seabirds. Hawaiian seabirds may traverse the project area at night during breeding, nesting and fledgling season, which extends from March 1 through December 15. Permanent lighting poses a very high risk of seabird attraction so new highway lighting should not be installed to protect seabird flyways and

preserve the night sky. Additional or increased lighting exacerbates the problem of Newell's shearwater fallout.

(a) Fallout shall be defined as the occurrence of seabirds being harmed, injured or killed and falling to the ground due to: 1) collision with structures such as wires, poles, or other objects; 2) light attraction and the resulting collision with structure associated with or near the light sources; or, 3) the exhaustion from circling the light source.

(b) If nighttime work will be required in conjunction with the development of the project, incorporate these measures to avoid and minimize project-related adverse effects to Hawaiian seabirds:

(c) Before beginning any work at the project site, the Contractor shall:

1. Collect information regarding the protection of seabirds and seabird fallout.

2. Submit to the Engineer for acceptance a protection of seabirds training plan including a detailed description of information and materials the Contractor intends to use in the training classes. The training plan shall be submitted to the Engineer for acceptance at least fifteen (15) days in advance of the class. If the Engineer rejects the training plan, the Contractor shall revise and promptly propose another training plan.

3. Disseminate information regarding the protection of seabirds and seabird fallout by conducting training classes for all employees, subcontractors, suppliers and other personnel working on the project, including HDOT personnel, on such topics as the Save Our Shearwater (SOS) program, proper use of temporary lighting, procedures to store and report downed seabirds, and the consequences of non-compliance with the laws regarding threatened and endangered seabirds. The Engineer may request for additional topics related to seabirds to be included in the training classes.

Training classes shall be taught by authorized representatives of the U.S. Fish and Wildlife Service (USFWS), the Department of Land and Natural Resources, the SOS program or other qualified personnel accepted by the Engineer.

4. Furnish the Engineer with evidence that the Contractor has held training classes, including the dates of the classes, identify who conducted the training, and the content and nature of the training.

(d) The Contractor shall comply to the following construction requirements:

1. As directed by the Engineer, the Contractor shall conduct additional training classes during the project to update all employees, subcontractors, suppliers, HDOT personnel and other personnel on new and/or updated information regarding the protection of seabirds and seabird fallout.

2. No permanent streetlights shall be installed as part of the project.

3. All temporary lights used for night work (between sunset and sunrise) shall contain less than 2% wavelengths less than 550 nm, and shall be downward-facing and shielded so the bulb can only be seen from below. Temporary lights shall include but are not limited to flood lights, light towers, lights for construction equipment and other lights as determined by the Engineer. All traffic control devices, including warning lights, arrow boards, portable changeable message signs and other lighting device as determined by the Engineer shall be shielded.

4. Lights shall be turned off when human activity is not occurring in the lighted area or install automatic motion sensor switches and timer controls on all outdoor lights.

5. Nighttime construction and the use of all temporary lights shall cease during the peak seabird fledgling period (September 15 through December 15).

6. Where fences extend above vegetation, durable scare tape or bird deterrent shall be integrated into the fence to increase visibility and minimize fence strikes.

7. For powerlines and other cables, exposure above vegetation height and vertical profile shall be minimized.

8. The Contractor shall furnish and maintain a small (approximately 10" x 12" x 19"), portable cat kennel on site to temporarily hold a downed seabird. The Contractor shall obtain acceptance of the cat kennel from the Engineer prior to use.

9. If a downed dead seabird is found, the Contractor shall contact the USFWS (Ms. Megan Laut at 808-792-9400), the Kauai Branch Division of Forestry and Wildlife (DOFAW) Office at (808) 274-3433 or SOS at (808) 635-5117 within twenty four (24) hours.

10. If the downed seabird is alive, the Contractor shall:

a. Pick up the seabird from behind as soon as possible using a clean towel, t-shirt or cloth by gently wrapping it around its back and wings.

b. Place the seabird in the cat kennel and immediately contact the SOS Program Coordinator at 808-635-5117 for further instructions on where to deliver the seabird.

c. Deliver the seabird to the location determined by the coordinator of the SOS program and as directed by the Engineer.

d. Keep the seabird in a cool, quiet location and out of direct sunlight with adequate ventilation.

e. The Contractor and any personnel on-site shall not feed, provide water, handle or release the seabird.

(e) The Contractor shall maintain records of all downed seabirds for the duration of the project. The records shall include the date, time, location and condition (dead or alive) the seabird was found and delivered. Submit a copy of the records to the Engineer after finding each and every downed seabird.

(3) Hawaiian Waterbirds. Hawaiian waterbirds occupy fresh and brackish water marshes, coastal estuaries and natural or manmade ponds. Hawaiian stilts also occupy areas with ephemeral or persistent standing water, conditions of which can be found in culverts and drainage structures. Threats to these species from this

project may include predation, reduced reproductive success, disturbance from human activity and injury or mortality from vehicle strikes.

The Contractor shall incorporate these measures to avoid and minimize project-related adverse effects to Hawaiian waterbirds:

(a) In areas where known presence of Hawaiian waterbirds occurs, post, implement and enforce reduced speed limits, and inform project personnel and Contractors of the presence of these endangered species on-site.

(b) If water resources are located within or adjacent to the project site, employ applicable best management practices (BMPs) regarding work in aquatic environments.

(c) Where appropriate habitat occurs within the vicinity of the project area, survey for Hawaiian waterbirds and nests prior to initiation of project work using survey biologists familiar with the species' biology. Survey biologists should be trained and capable of identifying adults and juveniles of each species, nesting behaviors, and nests. Repeat surveys again within three (3) days of project initiation and after any subsequent delay of work of three (3) or more days (during which the birds may attempt to nest).

(d) If a nest or active brood is found, the Contractor shall:

1. Contact the USFWS (Ms. Megan Laut at 808-792-9400) or the Kauai Branch DOFAW Office at (808) 274-3433 within twenty-four (24) hours for further guidance.

2. Establish and maintain a 100-ft 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.

3. A biological monitor that is familiar with the species' biology shall be 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 Goose. Hawaiian goose or nēnē uses various habitat types. Threats to the species from this project include disturbance from human presence, and injury and mortality from vehicle strikes. An increased human presence at the project site could disturb nēnē nesting, foraging, or loafing in the area.

The Contractor shall incorporate these measures to avoid and minimize project-related adverse effects to the nēnē:

(a) Nēnē in or near the project area shall not be approached, fed, or disturbed in any way.

(b) All food and or beverage waste shall be disposed of in appropriate, covered trash receptacles.

(c) If nēnē are observed loafing, foraging, or otherwise present within the project area during the breeding season (September 1 through April 30), halt work and have a trained biologist familiar with nēnē nesting behavior shall survey for nests in and around the project area prior to resumption of any work. Surveys shall be repeated after any subsequent delay of work of three (3) or more days (during which the birds may attempt to nest).

(d) If a nest is identified within a radius of 150 feet of the project area, or a previously undiscovered nest is found within the 150 feet radius after work begins, all work shall cease immediately, and the Contractor shall contact the USFWS (Ms. Megan Laut at 808-792-9400) or the Kauai Branch DOFAW Office at (808) 274-3433 for further guidance.

(e) Reduced speed limits shall be posted and implemented in areas where nēnē are known to be present, and project personnel and Contractors will be informed of the presence of endangered species on-site.

(f) There shall be no feeding of birds or dogs on the project site.

(5) Hawaiian Short-Eared Owl. Hawaiian short-eared owl or pueo use a variety of habitats, including wet and dry forests, but are most common in open habitats such as grasslands, shrublands, and montane parklands, including urban areas. Threats to the species from this project include disturbance from human presence, and injury and mortality from vehicle strikes. An increased human presence at the project site could disturb pueo nesting, foraging, or loafing in the area.

The Contractor shall incorporate these measures to avoid and minimize project-related adverse effects to the pueo:

(a) Prior to any potential vegetative alteration, especially ground-based disturbance, conduct a line survey during crepuscular hours through the project area.

(b) If a pueo nest is discovered, establish and maintain a minimum buffer of 350 feet around the nest until the chicks are capable of flight.

(6) Best Management Practices (BMPs) Regarding Work in Aquatic Environments. Where work may affect aquatic environments, the Contractor shall incorporate these measures to avoid or minimize impacts to fish and wildlife:

(a) Authorized dredging or filling-related activities that may result in the temporary or permanent loss of aquatic habitats will be designed to avoid direct, negative impacts to aquatic habitats beyond the planned project area.

(b) Dredging or filling in the marine environment should be scheduled to avoid coral spawning and recruitment periods, and sea turtle nesting and hatching periods. Because these periods are variable throughout the Pacific Islands, the relevant local, state, or federal fish and wildlife resource agency will be contacted for site specific guidance.

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

(d) All project construction-related materials and equipment (dredges, vessels, backhoes, silt curtains, etc.) to be placed in an aquatic environment will 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 should 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 https://www.fws.gov/policy/A1750fw1.html) can help to prevent attraction and introduction of non-native species.

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

(f) Fueling of project-related vehicles and equipment will take place away from the aquatic environment and a

contingency plan to control petroleum products accidentally spilled during the project will be developed. The plan will be retained on site with the person responsible for compliance with the plan. Absorbent pads and containment booms will be stored on-site to facilitate the clean-up of accidental petroleum releases.

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

(B) Compliance Requirements. The Contractor shall protect all species noted above for the duration of construction. Failure to comply with the construction requirements, harm or a taking of an individual during the construction duration shall be enforceable by the USFWS as set forth by the Endangered Species Act and the DOFAW as set forth under the provisions of the Hawaii Revised Statutes, Chapter 195D, Conservation of Aquatic Life, Wildlife, and Land Plants. Resultant penalties and/or fines shall be at the Contractor's expense without cost or liability to the State.

671.03 Measurement. The Engineer will measure the work required for the protection of threatened and endangered species on a force account basis in accordance with Subsection 109.06 – Force Account Provisions and Compensation and as ordered by the Engineer.

671.04 Payment. The Engineer will pay for the accepted protection of threatened and endangered species on a force account basis in accordance with Subsection 109.06 – Force Account Provisions and Compensation. Payment will be full compensation for the work prescribed in this section, by the Engineer, and in the contract documents.

The Engineer will pay for the following pay item when included in the proposal schedule:

Pay Item	**Pay Unit**
Protection of Threatened and Endangered Species	Force Account

An estimated amount may be allocated in the proposal schedule under "Protection of Threatened and Endangered Species", but the actual amount to be paid will be the sum shown on the accepted force account records, whether this sum be more or less than the estimated amount allocated in the proposal schedule."

END OF SECTION 671