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 is the threatened Hawaiian goose or nēnē (*Branta [=Nesochen] sandvicensis*) which may use the construction staging areas or areas adjacent to the roadway. The endangered Hawaiian monk seal or ʻīlio holo i ka uaua (*Neomonachus schauinslandi)* and sea turtles, including the endangered Hawksbill Sea Turtle or 'ea (*Eretmochelys imbricate*), and the threatened Central North Pacific DPS of the Green Sea Turtle or honu (*Chelonia mydas*) are in the general vicinity of the proposed project and may transit or visit the proposed project area.

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. Comply with the following conditions and the notes in the Contract Plans:

(1) Hawaiian Hoary Bat. Hawaiian hoary bats nest in both native and non-native woody vegetation.

The Contractor shall 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.

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.

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

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

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

ii. 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 15 days in advance of the class. If the Engineer rejects the training plan, the Contractor shall revise and promptly propose another training plan.

iii. 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 USFWS, the

Department of Land and Natural Resources, the SOS program or other qualified personnel accepted by the Engineer.

iv. 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.

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

i. 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.

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

iii. 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.

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

v. 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.

vi. If a downed dead seabird is found, the Contractor shall contact the USFWS (Ms. Megan Laut at 808-792-9400) within 24 hours.

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

I. 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.

II. 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.

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

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

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

viii. 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. Because this project occurs near water, 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) Because water resources occur in the project site, employ U.S. Fish and Wildlife Service (USFWS) Best Management Practices for 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 3 days of project initiation and after any subsequent delay of work of 3 or more days (during which the birds may attempt to nest).

i. Surveys for species and nests should be repeated when a delay of work occurs that is three days or more (during which the birds may attempt to nest).

ii. If a nest or active brood is found, contact USFWS within 24 hours for further guidance.

iii. 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.

iv. 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.

(d) A biological monitor is required during Hawaiian stilt nesting season from February 15 through August 31.

i. A biological monitor that is familiar with the species biology and approved by the Federal Highways Administration will conduct Hawaiian stilt nest surveys where appropriate habitat occurs within the proposed maintenance site prior to cleaning culverts and drainage structures.

ii. Surveys will take place within three days of project initiation and after any subsequent delay of work of three or more days (during which the birds may attempt to nest).

(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), a trained biologist familiar with nēnē nesting behavior will survey the area in and around the project area for nests prior to work each day. Surveys will be repeated after any subsequent delay of work of three 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-foot radius after work begins, all work shall cease and the USFWS will be contacted immediately 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 Monk Seal. The Contractor shall incorporate these measures to avoid and minimize project-related adverse effects to the Hawaiian monk seal:

(a) All regular on-site staff shall be trained to identify the Hawaiian monk seal and trained on appropriate steps to take if this species is present on-site.

(b) Construction activities shall not take place if a Hawaiian monk seal is in the construction area or within 150 feet of the construction area. Construction can only begin after the animal voluntarily leaves the area. If a monk seal/pup pair is present a minimum 300-foot buffer shall be observed. If a Hawaiian Monk Seal 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).

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

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

(6) Sea Turtles. Sea turtles may nest on any sandy beach in the Pacific Islands. Nesting occurs on beaches from May through September, peaking in June and July, with hatchlings emerging through November and December. Construction can compact and erode sand and sediments, destroy sea turtle nests, erode beaches, create runoff of contaminants, and create light that disorients hatchlings and deters nesting. Off-road vehicle traffic on beaches, including construction equipment, directly affecting sea turtles and their nests by crushing individuals and degrading habitat with erosion and compacting sand and sediment.

To avoid and minimize project-related adverse effects to sea turtles and their nests, incorporate these conservation measures:

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

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

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

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

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. Artificial light disorients sea turtles and they become exhausted, causing them to nest in inappropriate locations, such as at or below the high tide line. Artificial lighting also disorients hatchlings as they emerge from nests. Sea turtles need darkness on beaches so they can successfully navigate back to the ocean. In-water work at night shall be avoided, unless emergency maintenance and repair of erosion and sediment controls are necessary to meet permit conditions.

The Contractor shall incorporate these measures to avoid and minimize project-related adverse effects to sea turtles and their young from lighting:

(a) Avoid nighttime work during the nesting and hatching season, which extends from May through December.

(b) Minimize the use of lighting and shield all project-related lights to ensure this light is not visible from any beach.

(c) If full shielding of light is not possible, or if you require the use of headlights, fully enclose the light source using light filtering tape or filters.

(7) Essential Fish Habitat. The Contractor shall incorporate these measures to avoid and minimize project-related adverse effects to essential fish habitat:

(a) 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 relocate these materials to an appropriate receiving site.

(b) The Contractor shall prevent debris from falling into the water.

(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. 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