

GENERAL NOTES:

1. The scope of work for this project includes installing underwater concrete below the foundation furthest on the Makai side of Bent 8; installation of Best Management Practices (BMP) measures; hazardous material countermeasures; and traffic control.
2. Subsection 105.16(A) - Subcontract Requirements requires the Contractor to perform work amounting to not less than 30 percent of the total contract cost less deductible items.
3. The Contractor's attention is directed to the following Sections of the Standard Specifications and the Special Provisions: Subsection 104.09 - Maintenance of Traffic; Subsection 105.09 - Coordination Between the Contractors; Subsection 107.06 - Contractor Duty Regarding Public Convenience; Subsection 107.12 - Protection of Persons and Property; and Section 645 - Work Zone Traffic Control.
4. At the end of each day's work, the Contractor shall remove all equipment and other obstructions to permit free and safe passage of public traffic.
5. The existence and location of underground utilities, manholes, monuments and structures as shown on the plans are from the latest available data but the accuracy is not guaranteed. The encountering of other obstacles during the course of work is possible. The Contractor shall tone for the exact locations and depths of all underground facilities, either shown on or omitted from the plans. Toning shall be considered incidental to the various contract items and will not be paid for separately. The Contractor shall be held liable for any damages incurred to the existing facilities and/or improvements as a result of his operations.
6. The Contractor shall notify Hawaii Island Hele-On Bus two (2) weeks prior to lane closures, informing them of the location and dates of lane closures and name of affected roadway.
7. The Contractor shall notify the Engineer in writing, two (2) weeks prior to starting construction operations.
8. The Contractor shall indemnify and be solely responsible for the protection of adjacent properties, utilities, and existing structures from damages due to construction. Repairing any damage shall be at the Contractor's own expense, to the satisfaction of the Engineer.
9. The existing drainage system shall be kept functional at all times during construction. Furnish materials, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to the various contract items.

10. No material or equipment shall be stockpiled or otherwise stored within highway right-of-way except at locations shown on the plans or designated in writing and approved by the Engineer.
11. The Contractor shall restore any damaged benchmarks or survey monuments. This work shall be considered incidental to the various contract items.
12. The Contractor shall maintain invasive species controls to ensure that all materials transported to the site are free of such species.
13. All project related materials and equipment placed in the water shall be free of pollutants.
14. The Contractor shall comply with the project's Construction Environmental Hazard Management Plan (C-EHMP).
15. The Contractor shall comply with the Nationwide Permit No. 3, Maintenance, General Conditions for Blanket Water Quality Certification (WQC1092.FNL.20), File No. POH-2022-00091.

HISTORICAL PRESERVATION NOTES:

1. If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area shall be diverted until a qualified archaeologist can assess the nature and significance of the find.
2. If previously unidentified non-burial historic properties, or unanticipated effects are discovered, the Contractor shall follow Hawaii Administrative Rules (HAR) § 13-280 "Rules Governing General Procedures for Inadvertent Discoveries of Historic Properties During a Project Covered by the Historic Preservation Review Process."
3. If human remains are discovered, HAR § 13-300 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains and the SHPD and the Police Department will be contacted. The appropriate process would then proceed in conformance with HAR § 13-300, Subchapter 4 "Procedures for Proper Treatment of Burial Sites and Human Skeletal Remains."

ABBREVIATIONS:

BL	BASELINE	PVMT	PAVEMENT
BC	BOTTOM CURB	R	RADIUS
BMP	BEST MANAGEMENT PRACTICES	RD	ROAD
CLR	CLEARANCE	RT.	RIGHT
Ch	CHORD	R/W	RIGHT-OF-WAY
CONC	CONCRETE	S.E.	SUPERELEVATION
D	DRAIN LINE	SF	SQUARE FEET
DI	DRAIN INLET	SHT	SHEET
DIA.	DIAMETER	ST	STREET
E	ELECTRICAL	STA.	STATION
ES	EDGE OF SHOULDER	STD	STANDARD
ep	EXISTING EDGE OF PAVEMENT	T	TANGENT
EP	EDGE OF PAVEMENT	TC	TOP CURB
ELEV	ELEVATION	TYP.	TYPICAL
EMB	EMBANKMENT	U/G	UNDER GROUND
EXC	EXCAVATION	UP	UTILITY POLE
EXIST.	EXISTING	VAR	VARIES
FH	FIRE HYDRANT	W	WATER
GRP	GROUTED RUBBLE PAVING	WMH	WATER MANHOLE
GW	GUY WIRE	WV	WATER VALVE
HMA	HOT MIX ASPHALT		
INV.	INVERT		
Lc	LENGTH OF CURVE		
LF	LINEAR FEET		
LT.	LEFT		
MB	METER BOX		
MIN.	MINIMUM		
M.L.	MATCHLINE		
N	NORTH		
NTS	NOT TO SCALE		
O/H.	OVERHEAD ELECTRICAL		
o/s	OFFSET		
PC	POINT OF CURVATURE		
PCCP	PORTLAND CEMENT CONCRETE PAVEMENT		
PI	POINT OF INTERSECTION OF TANGENTS		
PRC	POINT OF REVERSE CURVE		
PT	POINT OF TANGENCY		

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FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-019-2(082)	2024	3	25

PAMELA K. UYEDA

LICENSED PROFESSIONAL ENGINEER

No. 10352-C

HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

P. K. Uyeda

SIGNATURE

04/30/24

EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

GENERAL NOTES AND ABBREVIATIONS

HAWAII BELT ROAD, HAKALAU STREAM  
BRIDGE REHABILITATION, BENT 8 SCOUR REPAIR  
FAP Proj. No. BR-019-2(082)

Scale: None

Date: March 2024

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NOTES FOR PROTECTION OF ENDANGERED SPECIES

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1. The Contractors shall inform project personnel of the potential presence of threatened and endangered species on the project site. Provide materials to assist in species identification and appropriate actions if a species enters the work area.

2. The Contractor shall assign a responsible party as a competent observer to search/monitor work sites and the areas adjacent to the authorized work area for ESA-listed marine species.

3. NENE OR HAWAIIAN GOOSE

The following measures shall be implemented to avoid adverse effects to the Hawaiian Goose:

Project personnel shall not approach, feed, or disturb Hawaiian geese.

If Hawaiian geese are observed loafing or foraging within the project area during the breeding season (September through April), a biologist familiar with Hawaiian goose nesting behavior shall survey for nests in and around the project area prior to the resumption of any work. A biologist shall repeat surveys after any subsequent delay of work of 3 or more days (during which the birds may attempt to nest).

If a nest is discovered within a radius of 150 ft of proposed project, or a previously undiscovered nest is found within the 150-ft radius after work begins, the work shall cease immediately, and contact the Service shall be contacted for further guidance.

In areas where Hawaiian geese are known to be present, reduced speed limits shall be posted and enforced, and project personnel and Contractors shall be informed of the presence of endangered species on-site.

If nene are present during construction, all activities within 100 feet (30 meters) shall cease, and the bird or birds shall not be approached. Work may continue after the bird or birds leave the area of their own accord.

If a nest is discovered at any point, contact the Hawaii Island Branch DOFAW Office at (808) 974-4221.

4. HAWAIIAN WATERBIRDS

The following measures shall be implemented to avoid adverse effects to Hawaiian waterbirds:

In areas where waterbirds are known to be present, the project shall post and implement reduced speed limits, and inform project personnel and Contractors about the presence of endangered species on site.

If water resources are located within or adjacent to the project site, the project shall incorporate applicable best management practices for work in aquatic environments. A biological monitor that is familiar with the species' biology shall conduct Hawaiian waterbird nest surveys where appropriate habitat occurs within the vicinity of the proposed project

site prior to project initiation. The monitor shall 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). If a nest or active brood is found, the Contractor shall:

- Contact the Service within 48 hours for further guidance.
- Establish and maintain a 100-ft buffer around all active nests and/or broods until the chicks have fledged where potentially disruptive activities or habitat alteration shall be avoided within this buffer.
- 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 fledge to ensure that Hawaiian waterbirds and nests are not adversely affected (i.e., mortality of young, or parents kept from the nest).

If any of these species are present during construction, all activities within 100 feet (30 meters) shall cease, and the bird or birds shall not be approached. Work may continue after the bird or birds leave the area of their own accord.

If a nest is discovered at any point, contact the Hawaii Island Branch DOFAW Office at (808) 974-4221.

5. HAWAIIAN SEABIRDS

The following measures shall be implemented to avoid adverse effects to Hawaiian seabirds:

No nighttime work is anticipated. If nighttime construction is needed, it shall not be conducted during the seabird fledging period, September 15 through December 15.

If outdoor lights are required at other times of the year, the Contractor shall implement fully shielded lights so the bulb can only be seen from below and install automatic motion sensor switches and controls on all outdoor lights or lights shall be turned off when human activity is not occurring in the lighted area.

6. SEA TURTLES

The following measures shall be implemented to avoid adverse effects to Honu or Green Sea Turtles:

Caution and constant vigilance shall be maintained to avoid interaction or potential impacts to sea turtles or their habitat if present in the project area, especially as some of these species may be notably inconspicuous.

If sea turtles are detected within 100 meters of the project area, all nearby construction operations shall cease and not continue until the focal animal has departed the area of its own accord.

Native dune vegetation shall not be removed.

Applicable Best Management Practices (BMP) regarding Work in Aquatic Environments shall be implemented.

A biologist familiar with Hawaiian sea turtles shall conduct a visual survey of the project site to ensure no basking sea turtles are present.

- If a basking sea turtle is found within the project area, all mechanical or construction activities shall cease within 100 feet until the animal voluntarily leaves the area.

- All construction activities shall cease between the basking turtle and the ocean.

Remove any project-related debris, trash, or equipment from the beach or dune if not actively being used.

Do not stockpile project-related materials in the intertidal zone, reef flats, sandy beach, adjacent vegetated areas, or stream channels.

No night work is anticipated during construction. However, should night work be required, these additional measures shall be incorporated to avoid and minimize potential project impacts to sea turtles:

- Nighttime work shall be avoided during the nesting and hatching season (May to December).
- Use of lighting on or near beaches shall be minimized and all project-related lights shall be shielded so the light is not visible from any beach.
  - o If lights cannot be fully shielded or if headlights must be used, they shall be fully enclosed with light filtering tape or filters.
- Construction activities adjacent to the beach shall be required to reduce ambient outdoor lighting such as:
  - o Reducing the height of exterior lighting to below 3 ft and pointed downward or away from the beach; and
  - o Minimize light intensity to the lowest level feasible and, when possible, include timers and motion sensors.

7. MONK SEALS

The following measures shall be implemented to avoid adverse effects to monk seals:

Caution and constant vigilance shall be maintained to avoid interaction or potential impacts to monk seals or their habitat if present in the project area, especially as some of these species may be notably inconspicuous.

If monk seals are detected within 100 meters of the project area, all nearby construction operations shall cease and not continue until the focal animal has departed the area of its own accord.

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<div><div><div><div><div><div><span></span></div><div>PAMELA K. UYEDA</div></div></div><div><div><div></div><div>LICENSED PROFESSIONAL ENGINEER</div><div>No. 10352-C</div></div><div><div><span></span></div><div>HAWAII, USA</div></div></div></div></div><div><div>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.</div><div><div><div><span></span></div><div>P. K. Uyeda</div></div><div>04/30/24</div></div><div><div>SIGNATURE</div><div>EXPIRATION DATE OF THE LICENSE</div></div></div></div>	<div>STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION</div> <div>GENERAL NOTES</div> <div>HAWAII BELT ROAD, HAKALAU STREAM BRIDGE REHABILITATION, BENT 8 SCOUR REPAIR FAP Proj. No. BR-019-2(082)</div> <div>Scale: NoneDate: March 2024</div>
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NOTES FOR PROTECTION OF ENDANGERED SPECIES (Cont.):

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8. All equipment, materials, and personnel shall be cleaned of excess soil and debris to minimize the risk of spreading invasive fungal pathogens (e.g., Rapid Ohia Death), vertebrate and invertebrate pests (e.g., Little Fire Ants, Coconut Rhinoceros Beetles), or invasive plant parts that could harm the native species and ecosystems.
9. A pollution and erosion control plan for the project site and adjacent areas shall be prepared and carried out. As a minimum, the plan shall include the following elements/conditions:
  - Proper installation and maintenance of silt fences/curtains, sausages, equipment diapers, or drip pans
  - A contingency plan to control and clean spilled petroleum products and other toxic materials
  - Appropriate spill response materials shall be stored at the work site and be readily available, in order to respond quickly to an accidental spill.
  - All project-related materials and equipment placed in the water shall be free of pollutants.
  - All equipment shall be inspected prior to beginning work each day to ensure the equipment is clean and in good working condition and that there are no contaminant (oil, fuel, etc.) leaks. All refueling or repairs to equipment should be done in a location with the appropriate controls that prevent the introduction of contaminants to the marine environment. If leaks are detected, repair equipment and repair leaks prior to use. Fueling of project-related vehicles and equipment shall take place at least 50 feet away from the water and within a containment area, preferably over an impervious surface.
  - Concrete wastes, solid wastes, and any sanitary/septic wastes shall be located away from and managed to assure no contamination to the critical habitats.
  - Invasive species controls shall be maintained to ensure that all materials transported from off-site are free of such species.
  - Site-specific storm water BMPs shall be implemented and/or installed at the staging and work areas to prevent water quality degradation associated with storm water runoff.
  - If a temporary construction laydown area is required near the bridge, stockpiling, storage, and equipment staging shall utilize appropriate BMPs to prevent potential polluted surface runoff from entering the stream. No stockpiling, storage, or heavy equipment will be allowed in the stream.
  - The Contractor shall plan in-water work during anticipated low flow conditions. Work during periods of heavy rain and/or high tides shall be avoided to the extent practicable.
  - Contractor shall use his best judgment to place stockpile area(s) as far as practicable from the water's edge and implement necessary BMPs to isolate the stockpile and material storage areas. If possible, Contractor shall locate stockpiles at least 20 feet away from the water.
  - Discharges of chemicals and other fluids dissimilar from seawater shall be prevented from entering into the water column.
  - If sandbags are used, liners shall be UV resistant and/or regularly inspected and maintained against damage. If bags begin to show signs of degradation and loss of integrity, damaged bags shall be removed. Ensure that all plastic and excess sand is removed from the marine environment, as practicable.

Department of Transportation Practitioners Guide (2016) or the Construction Best Management Practices Field Manual by the State of Hawaii Department of Transportation (2008).

BMPs for in-water and land-based construction 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

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