CONSERVATION DISTRICT USE APPLICATION

ETS Round Top Radio Facility Tower
Replacement and Consolidation

DAGS Job No. 12-10-0942

TMKs: (1) 2-5-019: 003 (por.) and 011

Makiki/Lower Punchbowl/Tantalus, Honolulu District, Kona Moku,

Island of O‘ahu

June 2025

Applicant:
State of Hawai‘i,
Department of Accounting and General Services
Office of Enterprise Technology Services
Kalanimoku Building,
1151 Punchbowl St., Rm. B-10
Honolulu, HI 96813

Agent:
Bowers + Kubota Consulting, Inc.
2153 North King Street, Suite 200
Honolulu, HI 96819

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CONSERVATION DISTRICT USE APPLICATION (CDUA)

All permit applications shall be prepared pursuant to HAR 13-5-31

File No.:	
Acceptance Date:	180-Day Expiration Date:
Assigned Planner:	

for DLNR Use

PROJECT NAME: ETS Round Top Radio Facility Tower Replacement and Consolidation

Conservation District Subzone: Resource

Identified Land Use: HAR §13-5-22: P-14 Telecommunications (D-1)

(See Hawai'i Administrative Rules (HAR) §13-5-22 through §13-5-25)

Project Address: 3286 Round Top Drive, Honolulu, HI 96822

Ahupuaʻa, District, Island: Waikīkī and Honolulu Ahupuaʻa, Honolulu District, Island of O'ahu

Tax Map Key(s): (1) 2-5-019:003 (por.) and 011

Proposed Commencement Date: December 2025 (pending permits/approvals)

Proposed Completion Date: July 2027

Estimated Project Cost: $10 million

Type of permit sought ☒ Board or ☐ Departmental

ATTACHMENTS

$ 2,500 Application fee. 2.5% of project cost for Board Permits, but no less than $250, up to a maximum of $2500; $250 for Departmental Permits (*ref §13-5-32 through 34)*.

$ _____ Public hearing fee if required *($250 plus publication costs; ref §13-5-40)*

- ☒ 6 copies of CDUA (*5 hard + 1 digital copy) (disc or cloud share; no flash drives)*
- ☒ Draft / Final Environmental Assessment (EA) *or* Final Environmental Impact Statement (EIS) *or* Statement of Exemption
- ☒ State Historic Preservation Division (SHPD) HRS 6E submittal form *or* Determination letter (dlnr.hawaii.gov/shpd/review-compliance/forms)
- ☒ Management plan *or* Comprehensive management plan (*ref §13-5-39)* if required
- ☐ Special Management Area determination *(ref Hawai'i Revised Statutes 205A)*
- ☐ Shoreline certification (*ref §13-5-31(a)(8))* if land use is subject to coastal hazards.
- ☐ Kuleana documentation (*ref §13-5-31(f))* if applying for a non-conforming kuleana use.
- ☐ Boundary determination *(ref §13-5-17)* if land use lies within 50 feet of a subzone boundary.

REQUIRED SIGNATURES

Applicant

Name: State of Hawai'i, Department of Accounting and General Services
Title; Agency: Gordon S. Wood, Public Works Administrator
Mailing Address: 1151 Punchbowl Street, Honolulu, Hawai'i 96813
Contact Person & Title: David DePonte, Project Manager
Phone: 808-586-0492
Email: david.c.deponte@hawaii.gov
Interest in Property: None

Signature: _____ Date: 05/09/2025

Signed by an authorized officer if for a Corporation, Partnership, Agency or Organization

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Landowner (if different than the applicant)

Name: City and County of Honolulu, Department of Information Technology
Title; Agency: Brian McKee, Director
Mailing Address: 650 South King Street, 5th Floor, Honolulu, Hawai'i 96813
Phone: 808-768-7684
Email:

Signature: _____ Date: MAY 19 2025

For public lands, the government entity with management control shall sign as landowner.

Agent or Consultant

Agency: Bowers and Kubota Consulting, Inc.
Contact Person & Title: Carah Kadota, Planner
Mailing Address: 2153 North King St., Suite 200, Honolulu, Hawai'i 96819
Phone: 808-521-5361
Email: ckadota@bowersandkubota.com

Signature: Carah Kadota Date: 5/28/25

For DLNR Managed Lands

Chairperson, Board of Land and Natural Resources
P.O. Box 621
Honolulu, Hawai'i 96809-0621

Signature: _____ Date: _____

PROPOSED USE

Total area of proposed use (indicate in acres or sq. ft.): Approximately 0.60 acres

Please provide a detailed description of the proposed land use(s) in its entirety. Information should describe what the proposed use is; the need and purpose for the proposed use; the size of the proposed use (provide dimensions and quantities of materials); and how the work for the proposed use will be done (methodology). If there are multiple components to a project, please answer the above for each component. Also include information regarding secondary improvements including, but not limited to, grading and grubbing, placement of accessory equipment, installation of utilities, roads, driveways, fences, landscaping, etc.

Attach all associated plans such as a location map, site plan, floor plan, elevations, and landscaping plans drawn to scale (*ref §13-5-31)*.

The purpose of the proposed ETS Round Top Radio Facility Tower Replacement and Consolidation project is to facilitate the modernization and sustained operation of the facility. This facility is pivotal for interisland communications within the comprehensive public safety and emergency response network, known as the Hawai'i Wireless Interoperability Network (HIWIN). Currently, the existing radio facility is at full capacity and cannot accommodate the additional infrastructure and equipment required for both the HIWIN and the Anuenue Microwave Communication Systems, which is a high-capacity digital network that spans across the Hawaiian Islands that supports emergency communications for State and Federal agencies. The two existing radio towers are fully utilized, leaving no room for expansion. In emergency situations, it is imperative for the State of Hawai'i that both the HIWIN and Anuenue Microwave Communication Systems remain fully operational. Any disruption could severely hinder first responder communications between islands. Therefore, this project aims to maintain and enhance the functionality and integrity of the Round Top Radio Facility by replacing the two existing radio towers with a new 180-foot radio tower. This new tower will support the current equipment and operations while also accommodating the current and future needs of the comprehensive statewide public safety and first responder communication systems.

The proposed project will alter the existing structures at the site but will not change the current use of the site for radio facility and telecommunication purposes. The proposed project will include the following actions:

1) Demolition of the two existing 100-foot radio towers. One tower is State-owned and operated, and the other tower is owned and operated by the City and County of Honolulu.
2) Site clearing, removal of 27 trees, tree and vegetation trimming, and grading and grubbing. The removal of the 27 trees is proposed to accommodate the site of the new 180-foot radio tower. Tree and vegetation trimming will be performed only to the extent needed to meet necessary line of sight requirements. A new concrete foundation with an area of approximately 1,600 square feet (SF) will be constructed to accommodate the new tower. The concrete foundation will feature approximately 60-foot-deep drilled shafts to support the new radio tower.

3) Construction of the new 180-foot radio tower. The base of the radio tower will have a width of 23-feet and length of 23-feet from leg to leg. The radio tower will accommodate over 40 appurtenances and equipment, which are being transferred over from the two existing 100-foot radio towers. The radio tower will be constructed of steel and the color of the tower will be similar to the existing towers and will blend in with the surrounding environment.
4) A new cable bridge will be installed to house cable connections from the existing equipment building to the new radio tower.
5) A new retaining wall with a 12- to 14-foot-high chain link fence will be installed around the new 180-foot tower. The chain link fence is proposed to deter trespassers from accessing the tower.
6) An existing waterline that serves the comfort station will be rerouted to accommodate the site of the new tower. The existing waterline will be cut, plugged, and abandoned in place.

The project will utilize a phased approach during construction. During the first phase, the site will be cleared for the new tower, and 27 trees will be removed. The new concrete foundation will be constructed and then the new 180-foot tower will be installed. All the State and City antenna equipment from the two existing 100-foot towers will be moved on to the new 180-foot tower. Once all the equipment is transferred and operational, the two existing 100-foot towers will be demolished. Tree and vegetation trimming will be performed to ensure necessary line of sight for the new tower. The new retaining wall and 12- to 14-foot-high chain link fence will be installed around the new tower, and waterlines serving the comfort station will be rerouted. Any new landscaping necessary for the project would consist of grass and other appropriate plants, which will be incorporated into the site development plans to reduce potential erosion.

The following figures are attached to this application:

Figure 1: Project Location Map

Figure 2: Project Site

Figure 3: Proposed Site Plan

Figure 4: Tower Preliminary Design

Figure 5 & 6: Tower Elevations

Figure 7: Streams

Figure 8: Oʻahu Aquifers

Figure 9: Watersheds

Figure 10: FEMA Flood Insurance Rate Map

Figure 11: Photo of Existing Tower and Rendering of Proposed Tower, View Looking Makai from Parking Lot

Figure 12: Photo of Existing Tower and Rendering of Proposed Tower, View Looking Mauka from Puʻu ʻUalakaʻa Lookout

EXISTING CONDITIONS

Please describe the following, and attach maps, site plans, topo maps, colored photos, and biological or archaeological surveys as appropriate:

Prior Conservation District Use Permits or Site Plan Approvals (if applicable):
CDUP OA-444 approved on October 12, 1973 which established the current conditions of the site.
CDUP OA-1724 approved on April 26, 1985 for new transmitter building, improvements to City radio tower, and an outdoor back-up power emergency generator and fuel tank.
CDUP OA-2628 and CDUP OA-3583, per the Early Consultation Response Letter received from the State Department of Land and Natural Resources, Office of Conservation and Coastal Lands dated August 25, 2021 (Correspondence: OA 22-27)

Existing access to site:
The project site is located within the Puʻu ʻUalakaʻa State Park, which is accessed via Round Top Drive.

Existing buildings/structures:
The existing Round Top Radio Facility has the following buildings and structures:

1) One (1) State-owned, 100-foot tall, three-sided self-supported tower with six microwave antennas and other land mobile radio antennas, including those operated by the State Department of Accounting and General Services (DAGS), Office of Enterprise Technology Services (ETS), State Civil Defense, State Department of Health (DOH), State Department of Corrections and Rehabilitation (DCR), and the University of Hawaiʻi Interactive Television Services (UHITS).
2) One (1) City-owned, 100-foot tall, three-sided self-support tower
3) An approximate 90-SF equipment building
4) An approximate 170-SF transmitter building
5) An approximately 484-SF single-story building with two rooms: a power and equipment room and an emergency generator room
6) An emergency generator with built-in fuel tank
7) Underground conduits for electrical and fiber optic lines
8) Retaining walls and security fencing

Structures on the parcel near the Round Top Radio Facility that is associated with the Puʻu ʻUalakaʻa State Park include:

1) Comfort station
2) Picnic shelter
3) Lookout shelter
4) Paved parking lot and walkways
5) Round Top Forest Reserve Park Trail

Existing utilities (electrical, communication, gas, drainage, water & wastewater):

Electrical

The Hawaiian Electric Company (HECO) supplies electrical power via overhead electrical lines at the project site. The overhead electrical lines are located at the west end of the nearby parking lot. There is no exterior lighting in the park area and parking area surrounding the project site.

Gas

There is an existing above-ground diesel fuel storage tank for the backup generator. No other pressurized fuel or gas lines are present within the project site and vicinity.

Communication

The Round Top Radio Facility site encompasses two radio towers that are a part of the HIWIN. The HIWIN is a statewide system supporting our State's first responder, law enforcement, and civil defense agencies, and their interoperability needs. Backed by the State of Hawaii microwave network of links, the system joins sites that are designed to survive a category 4 hurricane.

The Anuenue Microwave Communication System is a high-capacity digital microwave network that spans the Hawaiian Islands. It was developed as a collaborative effort between the U.S. Coast Guard and the State of Hawai'i to replace an aging analog system. This network supports emergency communications for state and federal agencies, including first responders, search and rescue, law enforcement, and other critical government operations.

The HIWIN and Anuenue Microwave Communication System coexist in complementary roles to enhance Hawai'i's critical emergency communication infrastructure. The Anuenue Microwave Communication System provides the backbone for HIWIN supporting digital data transport necessary for HIWIN's operations. Together, they ensure that first responders and emergency services have reliable communication channels during critical situations.

Drainage

The existing drainage topography of the site slopes down slightly from west to east at a grade of approximately 3% throughout the site. Therefore, natural drainage exists on the site which flows from the radio tower and facilities east to the existing parking lot.

Water

The Round Top Radio Facility site does not consist of buildings, facilities, or structures that require water service. A comfort station for the Pu'u 'Ualaka'a State Park is located adjacent to the radio facility site. Potable water for the comfort station is provided by the Board of Water Supply.

Wastewater

The Round Top Radio Facility site does not consist of buildings, facilities, or structures that require wastewater facilities. The comfort station for the Pu‘u ‘Ualaka‘a State Park is not connected to the municipal sewer service and instead utilizes a septic system.

Physiography (geology, topography, & soils):

Geology

Pu‘u ‘Ualaka‘a was created by volcanic ash and cinders during eruptions of the Honolulu Volcanic Series during a ‘Rejuvenation Stage’ of the Ko‘olau Volcano eruptions. The resulting geology sits on top of remnants of previous eruptions of Ko‘olau. The project area sits just above Mānoa Valley to the west and is located near three vents: Sugar Loaf, Tantalus, and Round Top. The geology of the area consists of lava flows, tuff, cinder vent deposits, and breccia from the Tantalus Peak and Sugarloaf Vents. The project site itself is located within areas of alluvium deposits formed during the Pleistocene Epoch. Alluvial deposits are typically characterized by clay, silt, sand, or gravel that has been deposited by a water source.

Topography

The project area is located at an approximate 1,075 feet elevation near the Tantalus Lookout, also known as Pu‘u ‘Ualaka‘a State Park. The project site ranges from an elevation of 1,075 feet at its eastern end to 1,080 feet on its western end, an approximate grade of 3% throughout the site.

Soils

The U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) classifies the soil at the project site as Cinder (rCI). This soil type consists of materials associated with the ejecta of cinder cones, such as cinders, pumice, and ash, and is not classified as prime farmland.

In addition, the project site is located on lands not classified as important by the Agricultural Lands of Importance to the State of Hawai‘i (ALISH) designation. The Land Study Bureau (LSB) rating for the soils within the project site is rated E, while some areas to the south and northeast along Round Top Drive are rated D.

Hydrology (surface water, groundwater, coastal waters, & wetlands):

Surface Water

The project site is located in the Nu‘uanu Aquifer System in the Honolulu Sector, which is not a designated surface water management area. There are no surface water resources located within the vicinity of the project site. The project site is approximately 1,300 feet east of the Maunalaha Stream/Tributary that connects to the Makiki Stream and ultimately the Ala Wai Stream (see Figure 7).

Groundwater

The Project Site is located in the Nu‘uanu Aquifer System near its boundary with the Pālolo Aquifer System within the Honolulu Aquifer Sector Area, as shown in Figure 8. The Nu‘uanu Aquifer contributes a sustainable yield of approximately 14 million gallons per day (MGD) out of the Honolulu Sector’s 48.5 total MGD sustainable yield. The Honolulu Sector, including the Nu‘uanu Aquifer is a designated ground water management area. Additionally, the project site is located within the Ala Wai Watershed, as shown in Figure 9.

Coastal Waters

The project site is situated approximately 2.6 miles inland from the nearest shoreline, and approximately 1,075 to 1,080 feet above sea level.

Wetlands

As previously noted, the project site is not located near a surface water resource. The nearest surface water resource or wetland to the project site is the Maunalaha Stream/Tributary, which is 1,300 feet north of the site. The Maunalaha Stream/Tributary is designated as a Freshwater Forested/Shrub Wetland.

Flora & fauna (indicate if rare or endangered plants and/or animals are present):
SWCA Environmental Consultants (“SWCA”) prepared a Flora and Fauna Survey in support of the Environmental Assessment (EA) for the project. The report is based on field surveys conducted during July 2021 and a review of relevant documents and databases. No State or federally listed threatened, endangered, or candidate animal or plant species were observed on the project site. No rare native Hawaiian plant species were observed on the project site.

In addition, a Tree Assessment was conducted in July 2024, by Steve Nimz, an arborist with Tree Solutions and Environmental Consulting Services, Inc., to assess the trees designated for removal. The inspections observed that no native, endangered or exceptional trees are within the project site, and documented 27 trees on site that would be affected by the proposed project. The 27 trees are designated for removal to accommodate the proposed project and to mitigate any line-of-sight issues with the new 180-foot tower. Appendix B of the Final EA contains the full list and map of trees on the site.

Flora

SWCA conducted a pedestrian flora (botanical) survey to document plant species and vegetation types in and around the project site. Areas more likely to support native plants were more intensively examined. Plants recorded during the survey are indicative of the season (rainy versus dry) and the environmental conditions at the time of the survey. It is likely that additional surveys conducted at a different time of the year would result in minor variations in the species and abundances of plants observed. No federally and state-listed threatened, endangered, or

candidate plant species or rare native Hawaiian plant species were observed in the survey area. In all, 61 plant species were recorded in the survey area, none of which are native to the Hawaiian Islands. Appendix A of the Final EA contains the complete list of flora species observed.

There are three primary vegetation types within the survey area, which consist of the following:
Ruderal: Ruderal vegetation is found in areas that are not maintained frequently or within a graveled area. This survey found they were most likely to be located within a fenced area. This vegetation type can be classified as weedy and herbaceous. The most common species surveyed in this category were Guinea grass (*Urochloa maxima*) and sourgrass (*Digitaria insularis*), while the rarer types were koa haole (*Leucaena leucocephala*) and prostrate spurge (*Euphorbia prostrata*).

Mixed Non-Native Forest: Mixed non-native forest vegetation occurred outside of the fenced area on the north and western sides. This vegetation type can be classified as a mix of species not indigenous to the area. In the surveyed area the canopy cover included ironwood (*Casuarina equisetifolia*), Formosa koa (*Acacia confusa*), macadamia (*Macadamia integrifolia*), and silk oak (Grevillea robusta) while the understory contained fiddlewood (*Citharexylum caudatum*), koa haole, octopus tree (*Schefflera actinophylla*), and Guinea grass (*Urochloa maxima*)

Landscaped: Landscaped vegetation occurs outside of the fenced area on the southern side of the property. This vegetation type includes carpet-grass (*Axonopus compressus*), creeping indigo (*Indigofera spicata*), Bermuda grass (*Cynodon dactylon*), and seashore paspalum (*Paspalum vaginatum*).

Fauna

SWCA conducted a pedestrian fauna survey of the project site on June 16, 2021, which consisted of visual observations (aided by 10 × 42–mm binoculars) and auditory vocalization identifications. All birds, mammals, reptiles, amphibians, fish, and invertebrate species seen or heard, and any sign (scat or tracks), were noted.

Avifauna: Most of the bird species observed in the project site are species commonly found in disturbed, low- to mid-elevation areas on O‘ahu. Only one observed species, the house finch (*Haemorhous mexicanus*), is listed by the Migratory Bird Treaty Act (MBTA) and is a non-native introduction.

Amphibians or Reptiles: No amphibians or reptiles were surveyed, and there are no native reptiles or amphibians to Hawai‘i.

Invertebrates: There were no native species detected, though there was one non-native invertebrate, honeybee (*Apis mellifera*) observed during the survey.

Mammals: No mammals were detected during the pedestrian survey, though it should be noted that small Indian mongoose (*Herpestes javanicus*), house mouse (*Mus musculus*), rats (*Rattus spp.*), and feral pig (*Sus scrofa*) are likely to occur due to the recreation area and disturbed lowland non-native forest. The endangered Hawaiian hoary bat (*Lasiurus cinereus semotus*) was not surveyed, but the habitat near the project site may be suitable and has the potential to occur.

The USFWS Pacific Islands Fish and Wildlife Office (PIFWO) and the State Department of Land and Natural Resources (DLNR) Division of Forestry and Wildlife (DOFAW) responded to the pre-assessment consultation for the Draft EA for the project. The USFWS PIFWO provided a list of protected species that are most likely to be encountered by projects in Hawai‘i. These species included the Hawaiian Hoary Bat, or ‘Ōpe‘ape‘a, (*Lasiurus cinereus sesmotus*), native migratory birds including the band-rumped storm-petrel/‘akē‘akē (*Oceanodroma castro*), Hawaiian petrel/‘ua‘u (*Pterodroma sandwichensis*), and the Newell’s shearwater/‘a‘o (*Puffinus auricularis*). Review of the State’s critical habitat data and the resources available on the USFWS Information for Planning and Consultation website revealed that the project site is not within or adjacent to any identified habitats for protected species. The nearest critical habitat is located over one mile away, north (mauka) of the project site.

Natural hazards (erosion, flooding, tsunami, seismic, etc.):

Erosion

The project site is located approximately 2.6 miles from the nearest shoreline, therefore the site is not vulnerable to coastal erosion.

As previously noted, the project site ranges from an elevation of 1,075 feet at its eastern end to 1,080 feet on its western end, an approximate grade of 3% throughout the site. Due to the minimal slope of the project site it is not impacted or vulnerable to erosion.

Flooding

The Federal Emergency Management Agency’s (FEMA) Flood Insurance Rate Map (FIRM), revised January 4, 2021, shows that the project site is designated Zone X (see Figure 10), which is determined to be outside of the 1% annual chance floodplain. Areas designated as Zone X have a low risk for flooding and do not require the purchase of flood insurance.

Tsunami

The project site is located approximately 1.7 miles outside of the tsunami evacuation zone and 1.3 miles outside of the extreme tsunami zones. Additionally, the site sits at an elevation of 1,075 to 1,080 feet above sea level.

Seismic

In 2021, the U.S. National Seismic Hazard Model for the State of Hawai‘i was updated from its previous 2001 version using updated earthquake data. The model depicts the chance of a slight or greater damaging earthquake affecting each portion of the State within a 100-year time frame. The project site is located in a region of relatively high population density and is designated as having medium risk, between 50% to 75% chance of experiencing a damaging earthquake in 100 years.

Historic & cultural resources:

Historic

An archaeological literature review and field inspection (LRFI) was conducted by Nohopapa Hawai‘i, LLC (Nohopapa) in September 2021 by Lilia Merrin, M.A., Dominique Cordy, M.A., and Kelley L. Uyeoka, M.A. in support of the EA for the project. The LRFI consisted of a pedestrian inspection, conducted during the pō mahina (moon phase) ‘Olekūkolu, on February 15, 2021, and only required one field technician. Background research included a review of previous archaeological studies on file at the State Historic Preservation Division (SHPD); a review of documents at Hamilton Library of the University of Hawai‘i, the Mission Houses Museum Library, and the Hawai‘i Public Library; study of historic photographs at the University of Hawai‘i at Mānoa’s Maps, Aerial, Photograph and GIS (MAGIS) library; and study of historic maps at the Survey Office of the DLNR. Reports, historic maps, and photographs from the Nohopapa internal database were also examined. In addition, Māhele records were derived from various databases such as Papakilo Database, Ulukau, AVA Konohiki, Ancestry, the Buke Māhele, and Boundary Commissions. Inoa ‘āina (place names), mo‘olelo (stories), and ‘ōlelo no‘eau (proverbs) were compiled from Hawaiian language and English sources in books, newspapers, online databases, and archives.

History of the Project Site

The LRFI documented accounts of cultivation near the project site during the time of Kamehameha I. The project site was famous in the annals of Hawaiian agriculture because Kamehameha I established his own plantation of sweet potatoes on the steep slopes. The project site was also shown to be a part of the estate of Kamehameha IV in a historical map from 1874. Land Commission Award (LCA) documentation shows evidence of dry and wet agriculture of kalo and sweet potato cultivation in the area with associated house lots.

In 1904, the upper Makiki area was designated to be a forest preserve. By 1957, the Makiki-Tantalus State Park was established, including the Pu‘u ‘Ualaka‘a State Wayside.

The ‘Ualaka‘a trail connects to the project site and is an established trail that would have been well used in pre-contact times. The trail is not formal in architecture and has not been given a formal State Inventory of Historic Places (SIHP) number, however, it was assumed to be used

throughout history and continues to be used today. The trail spans the Koʻolau range above Honolulu and would have been part of a series of ridge trails that provide shorter routes to get from Honolulu to Waikīkī, across the Pali to Koolaupoko, and to Waimānalo, Kailua, or Kāneʻohe.

Previous Archaeological Research

An Archaeological Inventory Survey of Puʻu ʻUalakaʻa State Wayside was conducted in 1994 that included the project site. During this survey, a rock shelter (SIHP #50-80-14-4668) and a series of terraces (SIHP #50-80-14-4866) were documented near a stream and within Makiki Valley. No historic properties were found at the project site. It is assumed that the agricultural production and recreational use of the project site may have destroyed any archaeological site that may have formerly existed on the slopes or summit of the project area.

In 2010, Cultural Surveys Hawaiʻi completed an LRFI for the installation of the Round Top Radio Facility Building Addition, in which no historic properties were found. No historic properties were found near the project site during the pedestrian survey. Based on prior research, as well as the pedestrian survey, the project site has already been impacted by grading and leveling as well as non-native vegetation consistent with the earlier development of the Round Top Radio Facility and Puʻu ʻUalakaʻa State Park. The LRFI suggests that the probability of encountering historic properties is highly unlikely based on the location and the highly developed environment of the project site.

Cultural Resources

A Cultural Impact Assessment (CIA) was prepared by Nohopapa Hawaiʻi, LLC in support of the EA for the project. The CIA is based on ethnographic research on traditional cultural practices and land use (consisting of two individual interviews and email correspondence with three organizations), and relevant cultural literature research (in English and Hawaiian). Additionally, the CIA gives a voice to some of the community's ʻike (knowledge) and manaʻo (thoughts) as related to the cultural practices within and around the project site. The CIA project spanned from June 2021 through October 2021 and was conducted following the State Environmental Council Guidelines for Assessing Cultural Impacts.

The project site is located approximately 2.4 miles mauka (inland) of the southern border of the ahupuaʻa of Makiki and sits within the Kona moku on the island of Oʻahu. Makiki is a small land division with the upper limits never reaching the Koʻolau ridgeline and the lower limits never reaching the ocean. The boundary of the Makiki Ahupuaʻa is defined by a line of three cinder cones: Puʻu ʻŌhiʻa (Tantalus); Puʻu Kākea (Sugarloaf); and Puʻu ʻUalakaʻa (Round Top).

The region around Makiki and Round Top was historically one of the most favorable place on Oʻahu to grow sweet potato due to the year-round rainfall and well-drained volcanic cinder mixed with humus. The literal translation of Puʻu ʻUalakaʻa is "rolling sweet potato hill" and it is named

for the story of a rat that bit a sweet potato, causing it to roll downhill and sprout. The name may also have originated when King Kamehameha I planted many sweet potatoes in the area, which upon being dug, rolled downhill.

Community Engagement

Nohopapa conducted community outreach from August 2021 to October 2021, which consisted of identifying appropriate and knowledgeable individuals, conduction consultation through emails, phone calls, and/or Zoom interviews, and summarizing and analyzing the information gathered. Two individuals and seven organizations were contacted to participate in the CIA; a summary of those contacted as well as the results of the consultation are provided in Appendix D of the Draft EA.

Based on the community consultation, the ongoing cultural practices and resources associated with the project area vicinity include: water (specifically water reserves), sweet potato cultivation, stored cultural landscapes, the cinder of ʻUalakaʻa, the viewscapes from ʻUalakaʻa, the extensive network of Hawaiian trails used for transport, and the cinder cone as a space for ceremonies, generational knowledge sharing, as well as picnics and weddings. In an interview with Coco Needham, a Maunalaha lineal descendant and resident, she noted that the project area is also within proximity to Maunalaha Homesites, which she describes as one of the last intact Native Hawaiian communities within urban Honolulu.

No evidence of traditional cultural practices was found in the direct area of the project site during the assessment. However, the aforementioned cultural practices and resources may occur around the project site. Additionally, it is acknowledged that a segment of the ʻUalakaʻa trail system, which is an important resource for the community recreationally, historically, and culturally, is located near the project site.

EVALUATION CRITERIA

The Department or Board will evaluate the merits of a proposed land use based upon the following eight criteria (*ref §13-5-30(c))*

1. **The purpose of the Conservation District is to conserve, protect, and preserve the important natural and cultural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety, and welfare. How is the proposed land use consistent with the purpose of the conservation district?** *(ref §13-5-1)*

   The proposed land use would not differ from the current land use at the project site and would not adversely impact any natural or cultural resources present at the site. The development and use of the current Round Top Radio Facility has been approved through multiple Conservation District Use Permits in the past and has not been found to adversely impact natural or cultural resources, or be inconsistent with the purpose of the Conservation District.

   As previously noted, a Flora and Fauna Survey and Tree Assessment have been conducted in support of the EA for this project. The Flora and Fauna Survey did not observe any State or federally listed threatened, endangered, or candidate animal or plant species, and no rare native Hawaiian plant species were observed on the project site. In addition, trees were surveyed by a professional arborist to assess the trees designated for removal. None of the 27 trees designated for removal are considered native, endangered, or exceptional trees.

   A LRFI and a CIA were also conducted in support of the EA for this project. No historic properties were found near the project site during the pedestrian survey. In addition, the project site has already been impacted by grading and leveling as well as non-native vegetation consistent with the earlier development of the Round Top Radio Facility and Pu‘u ‘Ualaka‘a State Park, therefore the probability of encountering historic properties is highly unlikely based on the location and the highly developed environment of the site. No evidence of traditional cultural practices was found in the direct area of the project site during the CIA. However, cultural practices and resources may occur around the project site, and a segment of the ‘Ualaka‘a trail system, which is an important resource for the community recreationally, historically, and culturally, is located near the site. Access to the Pu‘u ‘Ualaka‘a State Park, nearby trails, or the lookout will not change during or following construction. The parking lot near the Tantalus Lookout will remain open and accessible to the public during construction of the project. The comfort station would need to be closed for a period of time during construction when the water lines are rerouted to accommodate the site of the new tower. DLNR will be coordinated with to ensure continued service is provided to park visitors. The proposed project is not anticipated to impact any of the gathering practices or cultural practices that may be ongoing in the surrounding forest.

2. **How is the proposed use consistent with the objectives of the subzone of the land on which the land use will occur?** *(ref §13-5-11 through §13-5-15)*

   The proposed use is consistent with the objective of the Resource subzone, codified under HAR §13-5-13, which is to "ensure, with proper management, the sustainable use of the natural resources of those areas." As noted in the previous response, the proposed use would not adversely impact any natural resources at the project site. The proposed project would require the removal of 27 trees, however, none of the trees identified for removal were found to be native, endangered, or exceptional trees. As the area surrounding the project site and along Round Top Drive is surrounded by trees, it is not anticipated that the removal of 27 trees will adversely impact the surrounding environment.

   The Flora and Fauna Survey that was conducted did not find any federally listed threatened, endangered, or candidate animal species at the project site. A review of the State's critical habitat data and the resources available on the USFWS Information for Planning and Consultation website revealed that the project site is not within or adjacent to any identified habitats for protected species.

3. **Describe how the proposed land use complies with the provisions and guidelines contained in chapter 205A, HRS, entitled "Coastal Zone Management"** *(see 205A objectives on p. 9).*

   1) Recreational Resources: Provide coastal recreational opportunities accessible to the public.

   Discussion: The proposed project is not located on the coastline and does not impact shoreline recreational resources; therefore, policies regarding shoreline recreational resources are not applicable.

   2) Historic Resources: Protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.

   Discussion: As previously discussed, the proposed project is not expected to significantly impact historic resources. A LRFI was conducted, and no historic properties were found near the project site during the pedestrian survey. Based on prior research, as well as the pedestrian survey, the project site has already been impacted by grading and leveling as well as non-native vegetation consistent with the earlier development of the Round Top Radio Facility and Pu'u 'Ualaka'a State Park. The proposed project would thus be consistent with these objectives and policies for historic resources.

   3) Scenic and Open Space Resources: Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.

   Discussion: While the proposed project would construct a new 180-foot tower that is taller than the two existing 100-foot towers, it will have a narrower overall profile, utilize colors that blend with the natural surroundings, and be located in place of the existing towers. The current location of the project site is uphill (mauka) of the Tantalus Lookout and does not interfere with any views to the shoreline thus avoiding impacts on any of the identified visual resources that the Pu'u 'Ualaka'a State Park lookout is known for. The project site is not visible to residents along Round Top Drive, therefore, the increased height of the tower will not impact the nearest residents to the project site. Photographs of the existing towers and

renders of the new 180-foot tower is provided in the "Other Impacts" section of this application, and is also provided in the Final EA (included as an attachment). As such, the proposed project would be consistent with the objectives and policies for scenic and open space resources.

4) Coastal Ecosystems: Protect valuable coastal ecosystems, including reefs, beaches, and coastal dunes, from disruption and minimize adverse impacts on all coastal ecosystems.

Discussion: The proposed project would be consistent with the objective and these policies for coastal ecosystems. The project site is not located near the coastline or in an area connected to significant coastal ecosystems. BMPs would be utilized during construction to minimize impacts on groundwater, surface waters, and coastal waters.

5) Economic Uses: Provide public or private facilities and improvements important to the State's economy in suitable locations.

Discussion: The project does not conflict with this objective and these policies as it does not include any coastal development or activities. Therefore, there are no anticipated impacts to public or private facilities and improvements in coastal areas or near the shoreline.

6) Coastal Hazards: Reduce hazard to life and property from coastal hazards.

Discussion: The proposed project is located away from areas exposed to coastal hazards and would provide for the modernization and continued use of the ETS-managed Round Top Radio Facility, a critical facility within the HIWIN, a statewide system supporting our State's first responder, law enforcement, and civil defense agencies, and their interoperability needs. Backed by the State of Hawaii microwave network of links, the system joins sites that are designed to survive a category 4 hurricane. HIWIN consists of State sites as well as USCG sites and provides mission support for the USCG. As such, the proposed project would support critical emergency communication and exchange of information related to coastal hazards and other emergencies. According to FEMA's FIRM, the project site is in Zone X which is an area outside the 500-year flood zone, with minimal risk of flooding.

7) Managing Development: Improve the development review process, communication, and public participation in the management of coastal resources and hazards.

Discussion: The project would not include any coastal developments or activities and is not expected to directly impact coastal resources. BMPs would be utilized to minimize impacts from stormwater runoff and erosion during construction. The project would also obtain all necessary development permits and approvals. The EA review process requires public notification and allows public agencies and stakeholders to respond with any comments or concerns about the project.

8) Public Participation: Stimulate public awareness, education, and participation in coastal management.

Discussion: The project would not include any coastal developments or activities and is not expected to directly impact coastal resources. The EA review process requires public notification and allows public agencies and stakeholders to respond with any comments or concerns about the project.

9) Beach Protection: Protect beaches for public use and recreation.

Discussion: The project would not include any coastal developments, any shoreline hardening, or activities and is not expected to directly impact coastal resources and interfere with natural shoreline processes. There are no significant coastal sand dunes within the project site.

10) Marine and Coastal Resources: Promote the protection, use, and development of marine

and coastal resources to assure their sustainability.

Discussion: The project does not include the use of marine or coastal resources and is not expected to directly impact coastal resources. The Final EA addressed the affected environment and analyzed the likely environmental impact from the project which would not have significant effects on the environment. BMPs would be utilized to minimize impacts on marine and coastal resources due to construction-generated stormwater runoff and erosion. Therefore, the project does not conflict with this objective and these policies for marine and coastal resources.

4. **Describe how the proposed land use will not cause substantial adverse impact to existing natural resources within the surrounding area, community or region.**

   The project site is located at the existing Round Top Radio Facility site, which is within the boundaries of the Puʻu ʻUalakaʻa State Park. The site is characterized by a forested setting with outdoor facilities and landscaping on the Round Top ridgeline. The proposed project will demolish two existing towers and will add a new 180-foot radio tower to the existing Round Top Radio Facility. The use of the land and the operations at the Round Top Radio Facility will remain the same as the existing. The radio tower equipment on the existing State and City towers will be consolidated onto one new tower, which will reduce maintenance costs and efforts, and will provide more space for expansion of the HIWIN and the Anuenue Microwave Communication Systems, which is imperative for Statewide public safety and first responder communication systems.

   The proposed project will adhere to BMPs to prevent or mitigate any potential impact on air and water quality during construction. Short-term impacts during construction activities are anticipated, however, these will end following the completion of the proposed project. The proposed project's improvements to the Round Top Radio Facility will not have significant impacts to the existing scenic views, and the aesthetic components of the design will blend in with the existing facilities and surrounding environment at the project site.

5. **Describe how the proposed land use, including buildings, structures and facilities, is compatible with the locality and surrounding areas, appropriate to the physical conditions and capabilities of the specific parcel or parcels.**

   The proposed land use will not change from the existing land use. The project proposes the demolition of the two existing State and City 100-foot radio towers and the construction of a new 180-foot radio tower to consolidate the State and City communications equipment onto one tower. The two existing State and City 100-foot radio towers have been approved for construction and operation in the Conservation District through previous Conservation District Use Permits. The proposed new 180-foot radio tower will have the same use and function as the existing 100-foot radio towers and will be located adjacent to the existing towers on the same property. While the new tower will be taller, it will have a narrower overall profile and will utilize colors that blend with the natural forest surroundings to avoid impacts on any of the identified visual resources of the Tantalus Lookout.

6. **Describe how the existing physical and environmental aspects of the land, such as natural beauty and open space characteristics, will be preserved or improved upon.**

   The view planes across leeward Oʻahu and downtown Honolulu from the Puʻu ʻUalakaʻa State Park and the Tantalus Lookout are not oriented in the direction of the project site. The project site is located adjacent to the existing Round Top Radio Facility, next to the equipment building. Public views of the existing facility are confined to the adjacent parking lot, mauka views from the Puʻu ʻUalakaʻa State Park and the Tantalus Lookout, and distant glimpses of the upper portions of the towers from distant viewpoints on public roadways.

   As previously noted, the new 180-foot tower will be taller than the existing towers, however the project will consolidate all of the State and City communications equipment onto one tower instead of two. The new tower will also have a narrower profile and will utilize similar colors as the existing towers to blend in with the natural forest surroundings.

7. **If applicable, describe how subdivision of land will not be utilized to increase the intensity of land uses in the Conservation District.**

   The project does not propose the subdivision of land at the project site. The intensity of land uses will not significantly increase from the existing conditions, as two of the existing 100-foot radio towers will be demolished and replaced with one new 180-foot tower.

8. **Describe how the proposed land use will not be materially detrimental to the public health, safety and welfare.**

   On-site materials are not identified as hazardous, and these materials will not change following completion of the proposed project. The new 180-foot tower will be constructed of steel similar to the existing 100-foot radio towers and able to withstand category 4 hurricane winds. Therefore, the project is not anticipated to be materially detrimental to public health, safety, and welfare. In addition, with the project site's high elevation and distance from known hazardous sites, the proposed project is not anticipated to be impacted from hazardous materials.

CULTURAL IMPACTS

Articles IX and XII of the State Constitution, other state laws, and the courts of the State, require government agencies to promote and preserve cultural beliefs, practices, and resources of Native Hawaiian and other ethnic groups.

Please provide the identity and scope of cultural, historical, and natural resources in which traditional and customary native Hawaiian rights are exercised in the area.

A LRFI was conducted by Nohopapa in September 2021 in support of the EA. During the literature review, previous archaeological reports and surveys were reviewed to identify any potential historic resources within the project site and the surrounding area. An Archaeological Inventory Survey of Puʻu ʻUalakaʻa State Wayside was conducted in 1994 that included the project site. During this survey, a rock shelter (SIHP) #50-80-14-4668 and a series of terraces (SIHP #50-80-14-4866) were documented near a stream and within Makiki Valley. No historic properties were found at the project site. It is assumed that the agricultural production and recreational use of the project site may have destroyed any archaeological site that may have formerly existed on the slopes or summit of the project area.

In 2010, Cultural Surveys Hawaiʻi completed an LRFI for the installation of the Round Top Radio Facility Building Addition, in which no historic properties were found.

No historic properties were found near the project site during the pedestrian survey conducted by Nohopapa. Based on prior research, as well as the pedestrian survey, the project site has already been impacted by grading and leveling as well as non-native vegetation consistent with the earlier development of the Round Top Radio Facility and Puʻu ʻUalakaʻa State Park. The LRFI suggests that the probability of encountering historic properties is highly unlikely based on the location and the highly developed environment of the project site.

Nohopapa conducted community outreach as a part of the CIA. Two individuals and seven organizations were contacted to participate in the CIA. Based on the community consultation, the ongoing cultural practices and resources associated with the project area vicinity include: water (specifically water reserves), sweet potato cultivation, stored cultural landscapes, the cinder of ʻUalakaʻa, the viewscapes from ʻUalakaʻa, the extensive network of Hawaiian trails used for transport, and the cinder cone as a space for ceremonies, generational knowledge sharing, as well as picnics and weddings. In the interview with Coco Needham, she noted that the project area is also within proximity to Maunalaha Homesites, which she describes as one of the last intact Native Hawaiian communities within urban Honolulu. None of the aforementioned cultural practices and resources were found to occur in the direct area of the project site, but rather in the surrounding areas near the site.

Identify the extent to which those resources, including traditional and customary Native Hawaiian rights, will be affected or impaired by the proposed action.

Access to the Puʻu ʻUalakaʻa State Park, nearby trails, or the lookout will not change during or following construction. The proposed project is not anticipated to impact any of the gathering practices or cultural practices that may be ongoing in the surrounding forest. A portion of the parking lot is proposed to be closed and used for construction staging, and the comfort station will be closed and inaccessible when the existing water lines are rerouted. The DLNR will be coordinated with to ensure continued service is provided to park visitors and those visiting the surrounding site. Following construction, the parking lot will reopen and the comfort station will be accessible once the existing water lines are rerouted.

What feasible action, if any, could be taken by the Board of Land and Natural Resources regarding your application to reasonably protect Native Hawaiʻi rights?

Based on the findings of the LRFI and the CIA, it is assumed that traditional or customary Native Hawaiian rights are exercised at the project site, therefore no additional actions are needed or recommended.

OTHER IMPACTS

Does the proposed land use have an effect (positive/negative) on public access to and along the shoreline or along any public trail?

The project site is located approximately 2.6 miles inland from the nearest shoreline, therefore the proposed project would not have any effect on public access to the shoreline. The Round Top Forest Reserve Park Trail is located within the boundaries of the construction area that may be closed off to the public while the project is being constructed. However, this trail will only be closed off temporarily and access will resume once construction has been completed.

Does the proposed use have an effect (positive/negative) on beach processes?

The project site is located approximately 2.6 miles inland from the nearest shoreline and will have no effect on beach processes.

Will the proposed use cause increased sedimentation?

The proposed project will be graded to construct the new 180-foot tower, foundation, and related improvements. The site will be graded to direct surface runoff away from the tower and adjacent structures. BMPs will be utilized to minimize erosion on the project site during and after construction and will also include measures to contain runoff on-site during the construction period. Temporary erosion control measures will be used during construction to prevent soil loss.

Will the proposed use cause any visual impact on any individual or community?

The project site is located uphill of the Tantalus Lookout and would not interfere with any viewsheds from the lookout. From distant viewpoints on the public roads towards Round Top Drive, the tree canopy and brush blend into the surrounding landscape surrounding the project site, which obscures the exiting towers' visibility. Photos of the existing towers and renderings of the proposed tower are provided in Figures 11 and 12 to show the potential visual impacts of the new 180-foot tower in comparison to existing conditions. While the new tower will be taller, it will have a narrower overall profile, utilize colors that blend with the natural forest surroundings, and be located on the same property as the existing towers, avoiding impacts on any of the identified visual resources that the lookout is known for. The project site is not visible to residents along Round Top Drive, therefore, the increased height of the tower will not impact the nearest residents to the project site.

Please describe any sustainable design elements that will be incorporated into the proposed land use (*e.g. the use of efficient ventilation and cooling systems; renewable energy generation; sustainable building materials; permeable paving materials; efficient energy and water systems; efficient waste management systems; etc.).*

The proposed project would not involve improvements where sustainable design elements could be incorporated. The new 180-foot tower, foundation, retaining wall, and fence will be designed and constructed to ensure the operations of the HIWIN and the Anuenue Microwave Communication Systems are resilient to extreme weather conditions. The new 180-foot tower would be constructed of steel and would be designed for a 200 mile per hour (mph) basic wind in accordance with the Telecommunications Industry Association (TIA)-222-H Standard.

If the project involves landscaping, please describe how the landscaping is appropriate to the Conservation District (*e.g. use of indigenous and endemic species; xeriscaping in dry areas; minimizing ground disturbance; maintenance or restoration of the canopy; removal of invasive species; habitat preservation and restoration; etc.)*

The proposed project would require 27 trees to be removed to clear the site for the new 180-foot tower. The trees proposed for removal are not considered native, endangered, or exceptional trees. The species of trees proposed for removal consist of Christmas Berry, Silk Oak, Ironwood, Cook Pine, Fiddlewood, and Olive. The area surrounding the project site and the greater Round Top area is occupied by trees, thus it is anticipated that the removal of the trees for the proposed project would not adversely impact the surrounding environment. Any new landscaping necessary for the project would consist of grass and other appropriate plants, which will be incorporated into the site development plans to reduce potential erosion.

Please describe Best Management Practices that will be used during construction and implementation of the proposed land use.

To control surface water runoff and erosion during construction, the following BMPs that will be utilized include, but are not limited to, the following:

- Installation of a perimeter construction fence.
- Installation of silt fence or filter socks adjacent to and down slope from disturbed areas.
- Installation of dust screens around disturbed areas.
- Utilization of methods to ensure mud, dirt, or debris would be kept onsite and minimized on roadways.
- Use of temporary sprinklers in non-active construction areas and stationing water trucks nearby during construction to provide sprinkling in active areas.
- Installing stabilized construction entrances, tire wash areas, and concrete washout areas.
- Cleaning affected pavements and roads after construction activities.
- Cleaning construction-related equipment of pollutants before and after construction. Collecting and placing building debris, as it is created, into roll-off bins or trucks for hauling and removal from the site.

To minimize air quality and fugitive dust impacts during construction, the following BMPs that will be utilized include, but are not limited to, the following:

- Designing, developing, and implementing a dust control plan.
- Applying water, dust suppressants, or suitable compounds on roads, material stockpiles, and on construction areas.
- Establish and monitor speed limits for onsite vehicles.
- Cover all moving, open-bodied trucks transporting soil or dusty material.
- Install dust screens or wind barriers around the construction site.
- Stabilize and cover stockpile materials.
- Limiting areas to be disturbed at any given time.
- Clean nearby pavements and paved roads affected by construction.
- Providing a buffer zone between the construction site and residential areas.

- Moving heavy construction equipment during periods of lower traffic volume.
- Adjusting schedules of commuting construction workers to avoid peak hours in the project vicinity.
- Implementing emission control methods on construction equipment.

To minimize the effects of the unintentional spread of invasive plant species, the following BMPs to be utilized during construction include, but are not limited to, the following:

- Washing and inspecting of construction equipment, vehicles, and materials imported from outside of the island of Oʻahu for excessive debris, plant materials, and invasive or harmful nonnative species at a designated location before entering or exiting the project site.
- When possible, purchase raw materials (e.g., gravel, rock, soil) from local suppliers on Oʻahu to avoid introducing nonnative species to the island.
- The use of appropriate native Hawaiian plants or non-invasive plants to the maximum extent possible for landscaped areas.
- Inspect trees proposed for removal and tree trimmings for the coconut rhinoceros beetle before transporting off site.

To minimize the risk of starting a wildfire at the Project Site, the contractor and ETS staff will adhere to the following mitigation measures when engaging in activities that have a high risk of starting a fire:

1. Wet down the area before starting a task
2. Continuously wet down the area as needed
3. Have a fire extinguisher on hand; and,
4. If the contractor or staff's vision is impaired (i.e. welding goggles), have a spotter to watch for fire ignitions.

Construction noise will be mitigated by scheduling start and curfew times per DOH requirements and limited to within Puʻu ʻUalakaʻa State Park hours. Construction equipment will utilize noise suppressant devices, such as mufflers, to minimize acoustic impacts on the surrounding environment.

To mitigate possible effects to the Hawaiian hoary bat, no trees taller than 15 feet will be trimmed or removed during the roosting season from June 1 through September 15.

Nighttime construction is not currently anticipated for the Proposed Action. Should nighttime work need to be conducted, it will be avoided during the seabird fledging season from September 15 through December 15 to mitigate any potential impacts to seabirds that may pass through the area at night. In addition, all lights used during nighttime construction would be fully shielded to minimize the attraction of seabirds.

Please describe the measures that will be taken to mitigate the proposed land use's environmental and cultural impacts.

Utilities

The proposed project is not anticipated to impact water or septic systems. Water required during construction would be provided by the contractor. DLNR will be coordinated with to ensure continued restroom services are provided for park visitors. After the existing water lines are rerouted, the comfort station will be reopened and accessible to the public. The proposed project is not anticipated to impact water facilities and would not result in an increase in water demand, and no mitigation measures are necessary.

The proposed project does not include work on wastewater facilities and is not anticipated to increase traffic to the area, aside from short-term traffic for construction. Therefore, the project is not anticipated to significantly impact wastewater facilities.

The proposed project will not change the on-site drainage pattern or infrastructure and will not result in a significant amount of additional impervious surfaces. Additionally, any necessary erosion and settlement control plans will be reviewed by the City and all necessary building, grading, stockpiling, and trenching permits will be acquired before beginning construction as described in the Revised Ordinances of Honolulu. Therefore, the proposed project is not anticipated to have a significant impact on the current drainage infrastructure.

To minimize waste, waste reduction and recycling guidelines will be followed to the extent possible. Any waste generated from construction activities that cannot be recycled will be disposed of following State and City requirements. The impact of the proposed project on solid waste facilities from construction and demolition is not anticipated to be significant. After construction is complete, the project is not expected to increase traffic to the site or increase long-term solid waste needs, therefore no mitigation measures are necessary.

The proposed project is not anticipated to result in an increase in electrical power needs, and the use of the site will remain the same following the construction of the proposed new 180-foot tower and related improvements. HECO will continue to have access to the site for maintenance of facilities following completion of the proposed project. The proposed project is expected to improve the service capabilities of the Round Top Radio Facility, both by providing improved radio tower infrastructure and improved ancillary infrastructure that supports its function and resilience to the environment. Therefore, the proposed project is not anticipated to result in negative impacts to electrical or telecommunication facilities.

Geology, Topography, and Soils

The proposed project is not anticipated to impact the geology of the area. Drilled shafts that will be approximately 5 feet in diameter will be drilled approximately 60 feet deep to support the new 180-foot tower, while deeper than the existing footings, are not anticipated to result in substantive impacts on the existing geological conditions. The drilled shafts will be precisely

controlled minimizing the risk of disturbing the surrounding geological formations. While the shafts will be drilled to a depth of about 60 feet, this depth is not anticipated to intersect with any critical geological features or aquifers. Prior to the drilling, thorough engineering assessments are being conducted to ensure that the proposed depth and diameter of the shafts will not adversely affect the geological stability of the area.

The proposed improvements would have minimal short- or long-term impacts on the existing topography of the site and would be limited to the site grading necessary for the construction of the previously mentioned tower drilled shafts and underground water lines. Considering that the site is already developed with the existing facilities, the proposed project is not anticipated to result in a significant amount of soil being removed or to have a significant impact on the site's topography.

Effects on soils from construction would be limited to temporary ground disturbances such as grading, excavation and rerouting of the water line, and drilling for the drilled shaft foundation of the new tower. Effects from construction may inevitably result in some soil erosion with high winds or heavy rainfall, however, these effects can be minimized with various measures from standard construction BMPs as previously discussed that will be incorporated through implementation of the Proposed Action. BMPs should be installed before construction and maintained throughout the construction period.

Hydrology

Construction of the proposed project would not involve any work within or across existing streams. Improvements for the proposed project would include grading and leveling of areas, groundwork for the rerouting of the existing waterline and drilled shaft foundation for the new tower, and tower construction and demolition. Site work should have minimal effects on any surface water resources as those resources are located upstream of the site. During construction, drainage and runoff would be managed through BMPs. Therefore, the proposed project is not anticipated to have significant impact on surface water resources such as streams or wetlands.

Due to the project site's location near the summit of Puʻu ʻUalakaʻa State Park, significant impacts to groundwater are not anticipated to occur with the proposed project. During construction, BMPs such as the placement of aggregate-filled pouches and erection of a silt fence may be implemented to control surface runoff and soil erosion around the project site. Site grading and other actions necessary for construction will not include underground injection and will comply with the State Water Quality Standards established by HAR §11-54, and Water Pollution Control established by HAR §11-55, as applicable. The existing water line will be rerouted to accommodate the site of the new tower, however, there are no proposed changes to the water demand or source. After construction is complete, no long-term adverse impacts to hydrologic resources are anticipated. The proposed project will disturb less than one acre of total land area, therefore an NPDES permit is not required for construction activities.

Flora and Fauna

No state or federally listed threatened, endangered, or candidate plant species were observed on the project site. The proposed project should not have a significant adverse impact on State or federally listed, threatened or endangered, or rare native Hawaiian plant species as none were detected within the survey area. All of the flora identified on-site were nonnative species, including the 27 trees that will be removed which consist of Silk Oak, Christmas Berry, Ironwood, Fiddlewood, and Cook Pine seedlings. While these trees are not considered to be host plants for the coconut rhinoceros beetle, the trees proposed to be removed, and any tree trimmings will be inspected for any presence of the beetle prior to being transported off site to reduce the potential spread of the beetle. Any new landscaping necessary for the project would consist of grass and other appropriate plants, which will be incorporated into the site development plans to reduce potential erosion.

Construction-related activities have the potential to contribute to the minor spread of invasive species present on the site to new areas or habitats through the movement of vehicles and materials within and off the site. To minimize the effects of the unintentional spread of invasive species, the aforementioned BMPs would be utilized during construction.

The SWCA report identified the House finch (*Herpestes javanicus*) as the only observed bird listed by the MBTA. The MBTA prohibits the unregulated "taking" of covered species, which is defined as "hunting, pursuing, killing, possessing or transporting any migratory bird, nest, egg or part thereof." The proposed project would not likely result in a "taking" of the House finch species.

The proposed project is not likely to adversely impact any threatened or endangered species. While the Hawaiian hoary bat was not observed at or near the project site, the trees and vegetation may be suitable habitats for the bats. To mitigate possible effects to the Hawaiian hoary bat, no trees taller than 15 feet will be trimmed or removed during the roosting season from June 1 through September 15. A 12- to 14-foot-high chain link fence is proposed to be placed on top of the retaining wall surrounding the foundation of the new 180-foot tower. The chain link fence would ensure the safety of the public and that first responder telecommunications remain online by deterring trespassers from accessing the radio tower and equipment, while not increasing the potential to adversely impact the Hawaiian hoary bat at the project site.

Nighttime construction is not currently anticipated for the proposed project. Should nighttime work need to be conducted, it will be avoided during the seabird fledging season from September 15 through December 15 to mitigate any potential impacts to seabirds that may pass through the area at night. In addition, if nighttime work be required then all outdoor lights would be fully shielded to minimize the attraction of seabirds.

Natural Hazards

Flooding is expected to have minimal or no adverse impact due to the project area's location in the lowest risk flood hazard area. No flood mitigation measures are needed; however, the

proposed project will include BMPs during construction and design to minimize both short- and long-term effects of the project in terms of flooding and floodplain management.

In addition, the proposed project would not result in a significant amount of impervious surfaces to be added to the project site, and would not significantly increase runoff produced at the site or the vulnerability for flooding of the surrounding environment.

Due to the project site's elevation and distance from the tsunami evacuation zones, the proposed project is not anticipated to impact or have an impact on tsunami hazards.

To minimize potential hurricane damage, facilities, structures, and other improvements, the proposed project would be constructed in accordance with hurricane proofing criteria. In cases of natural disasters and extreme weather events, the proposed project would improve the reliability of both the services and the structures of the Round Top Radio Facility, which emergency response, disaster management, and civil defense utilize for their communication needs during these events. Therefore, the proposed project is not anticipated to be of greater risk to tropical storm or hurricane damage than the Round Top Radio Facility is currently and is expected to provide a beneficial impact in the event of a hurricane by supporting emergency response.

Earthquake hazard to the project site is comparable to the rest of the southeastern portion of O'ahu and is not anticipated to have a significant impact on the proposed project. The drilled shaft foundation of the new 180-foot tower would reduce the risk of adverse impacts to the ETS communications and HIWIN operations from earthquakes.

Historical and Cultural Resources

The LRFI identified the previous ground disturbance related to the construction of the Round Top Radio Facility would have removed any archaeological resources which might have been present in the area and on the project site. Based on these considerations, no significant adverse impacts are anticipated on archaeological resources from the proposed project. In addition, the trail segment of 'Ualaka'a Trail in the project site is not formally defined, and the larger connectivity of the trail is part of important cultural significance. As the purpose of the park is to provide maintenance and access to the trail, and the proposed project itself will not impact the trail, it is anticipated that there will be no adverse impact on the trail or any historic significance that it holds.

Based on the results and recommendations of the LRFI, no adverse impacts to historic or archaeological resources are anticipated from the proposed project during or after construction. In the event an archaeological property, artifacts, or remains are encountered during construction activities, construction work shall cease immediately, the contractor shall immediately contact SHPD, and the agency will assess the significance of the finding and recommend appropriate mitigation measures.

Due to successive land modifications of the Project Area from the development of the Puʻu ʻUalakaʻa State Park and existing Round Top Radio Facility, traditional cultural practices are not occurring on the project site. However, access needed for areas nearby or outside of the project site where certain cultural practices may occur will maintained during construction and operation. Access to the Puʻu ʻUalakaʻa State Park, nearby trails, or the lookout will not change during or following construction. The proposed project is not anticipated to impact any of the gathering practices or cultural practices that may be ongoing in the surrounding forest.

The proposed construction of the new 180-foot tower is not anticipated to significantly impact visual resources in the surrounding environment. While the new tower will be taller, it will have a narrower overall profile, utilize colors that blend with the natural forest surroundings, and be located on the same property as the existing towers, avoiding impacts on any of the identified visual resources that the Tantalus Lookout is known for. The project site is not visible to residents along Round Top Drive, therefore, the increased height of the tower will not impact the nearest residents to the project site.

SINGLE FAMILY RESIDENTIAL STANDARDS

Single Family Residences must comply with the standards outlined in HAR Chapter 13-5, Exhibit 4. Please provide preliminary architectural renderings (e.g. building foot print, exterior plan view, elevation drawings; floor plan, etc.) drawn to scale.

SIZE OF LOT

	Existing	Proposed	Total
Proposed building footprint			
Paved areas/ impermeable surfaces			
Landscaped areas			
Unimproved areas			

SETBACKS Front: Side: Back:

SHORELINE PROPERTIES

Average Lot Depth (ALD): Average annual coastal erosion rate:

Minimum shoreline setback based on Exhibit 4:

Actual shoreline setback or proposed structure:

MAXIMUM DEVELOPABLE AREA

The Maximum Developable Area includes all floor areas under roof, including first, second, and third stories, decks, pools, saunas, garage or carport, and other above ground structures.

Maximum Developable Area based on Exhibit 4:

Actual Developable Area of proposed residence:

Actual height of the proposed building envelope as defined in Exhibit 4:

COMPATIBILITY

Provide justification for any proposed deviation from the established residential standards.

Click or tap here to enter text.

How is the design of the residence compatible with the surrounding area?

Click or tap here to enter text.

If grading is proposed, include a grading plan which provides the amount of cut and fill. Has grading or contouring been kept to a minimum?

Click or tap here to enter text.

CHAPTER 205A – COASTAL ZONE MANAGEMENT

Land uses are required to comply with the provisions and guidelines contained in Chapter 205A, Hawai'i Revised Statutes (HRS), entitled "Coastal Zone Management," as described below:

- **Recreational resources:** Provide coastal recreational opportunities accessible to the public.
- **Historic resources:** Protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.
- **Scenic and open space resources:** Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.
- **Coastal ecosystems:** Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.
- **Economic uses:** Provide public or private facilities and improvements important to the State's economy in suitable locations.
- **Coastal hazards:** Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.
- **Managing development:** Improve the development review process, communication, and public participation in the management of coastal resources and hazards.
- **Public participation:** Stimulate public awareness, education, and participation in coastal management.
- **Beach protection:** Protect beaches for public use and recreation.
- **Marine resources:** Promote the protection, use, and development of marine and coastal resources to assure their sustainability.

CERTIFICATION

I hereby certify that I have read this completed application and that, to the best of my knowledge, the information in this application and all attachments and exhibits is complete and correct. I understand that the failure to provide any requested information or misstatements submitted in support of the application shall be grounds for either refusing to accept this application, for denying the permit, or for suspending or revoking a permit issued based on such misrepresentations, or for seeking of such further relief as may seem proper to the Land Board.

I hereby authorize representatives of the Department of Land and Natural Resources to conduct site inspections on my property. Unless arranged otherwise, these site inspections shall take place between the hours of 8:00 a.m. and 4:30 p.m.

Sarah Kubota

Signature of authorized agent(s) or if no agent, signature of applicant

AUTHORIZATION OF AGENT

I hereby authorize Bowers and Kubota Consulting, LLC to act as my representative and to bind me in all matters concerning this application.

Signature of applicant(s)

Figure 1: Project Location

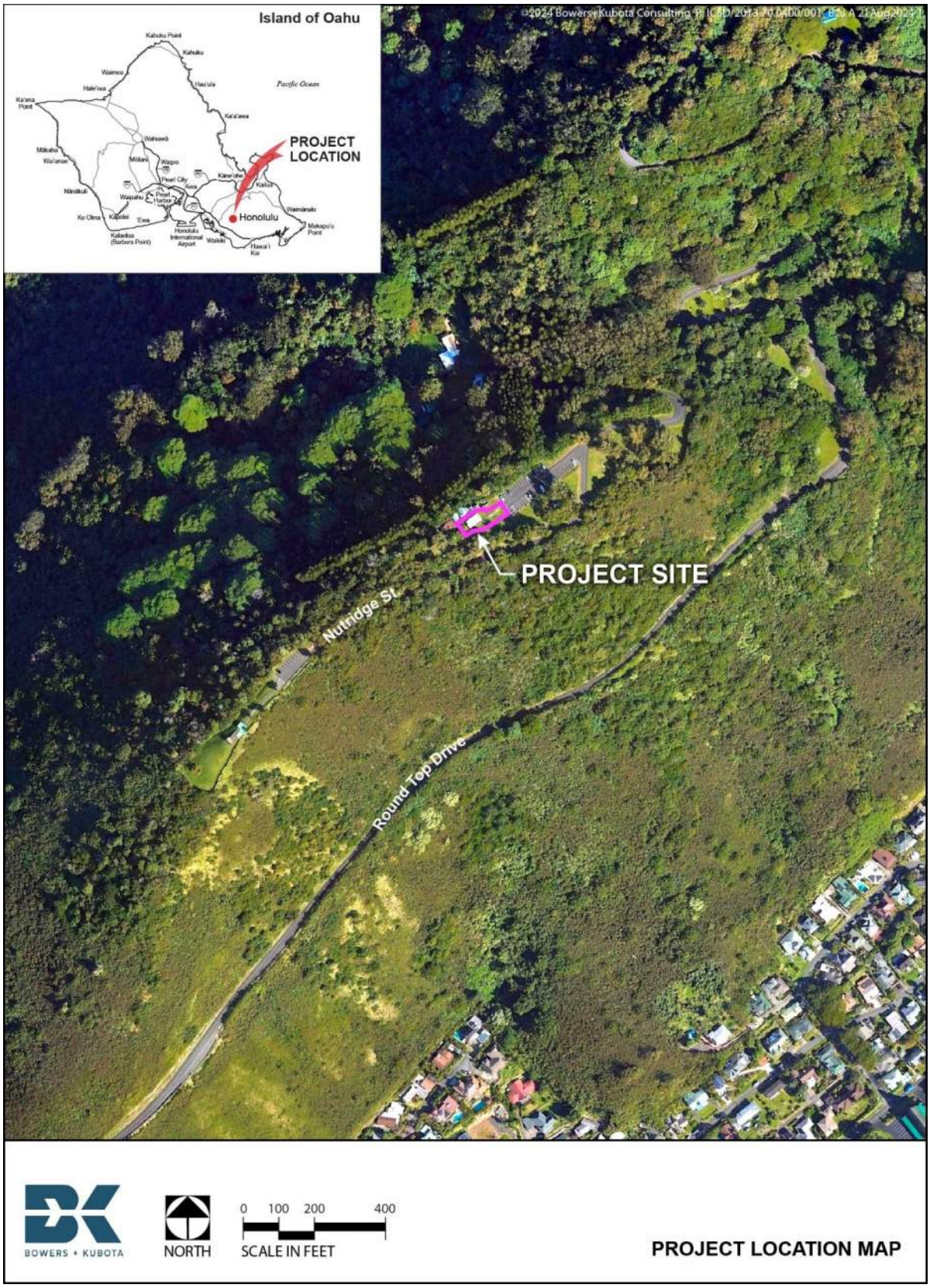


Figure 2: Project Site

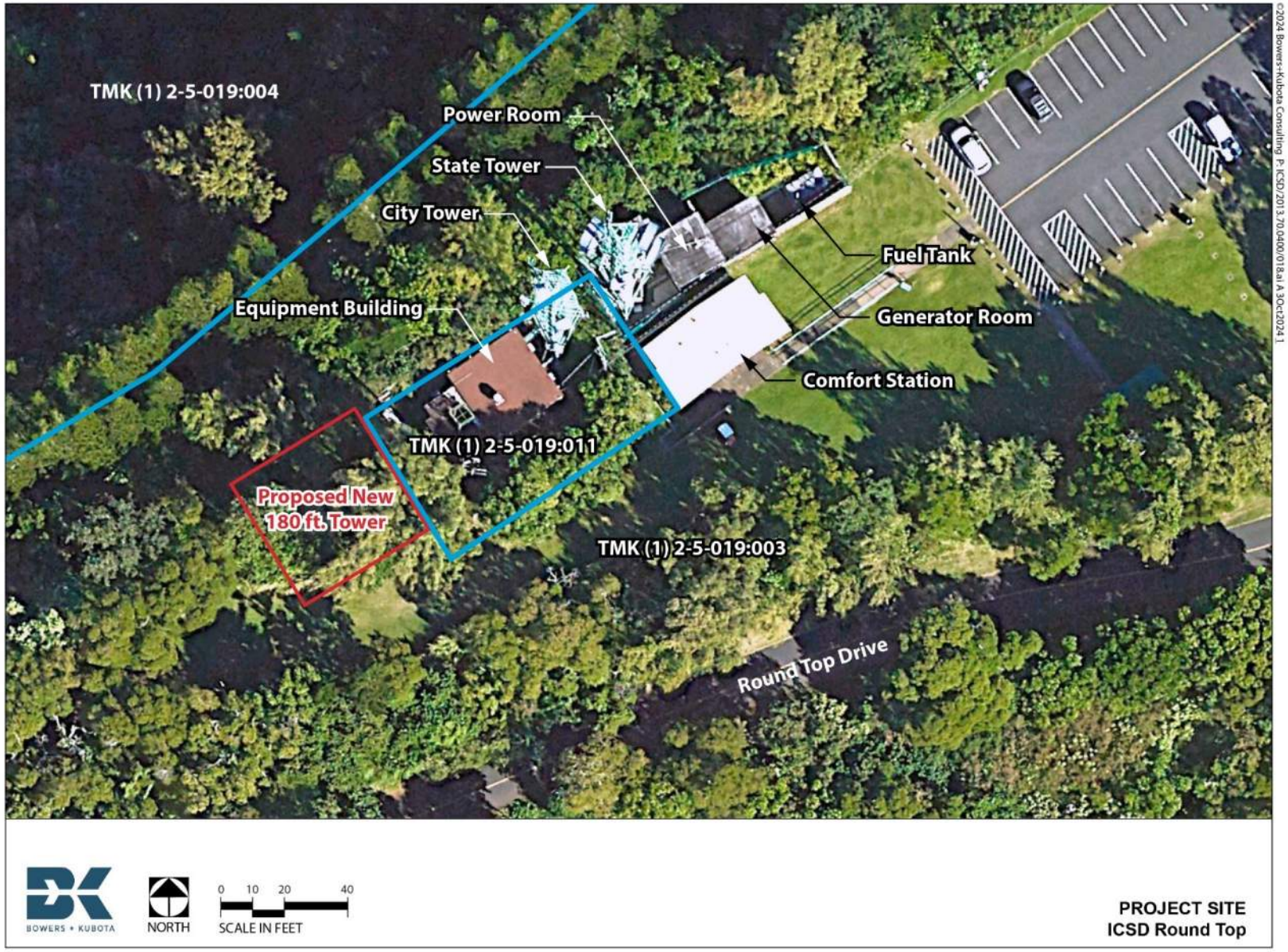


Figure 3: Proposed Site Plan

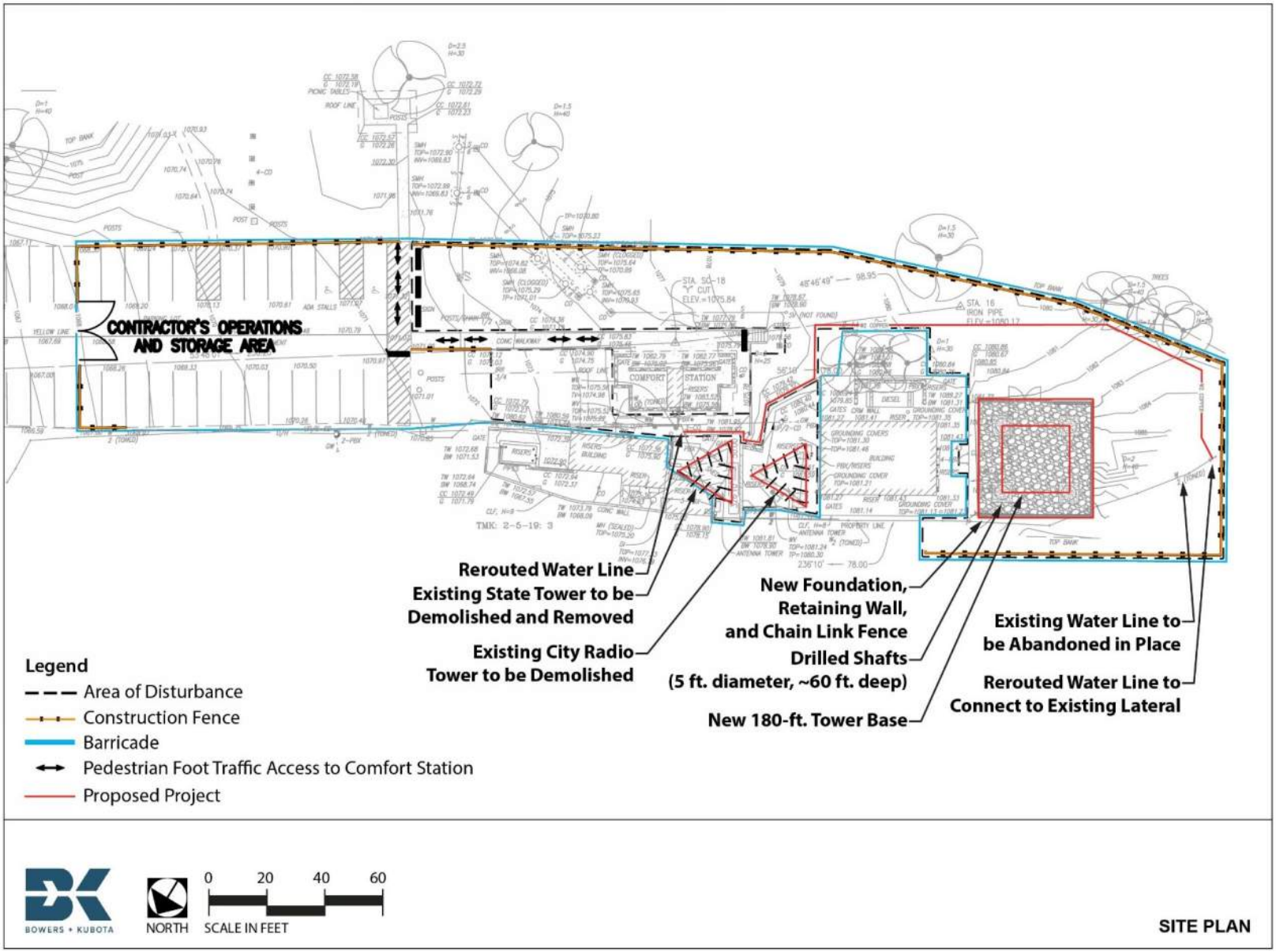
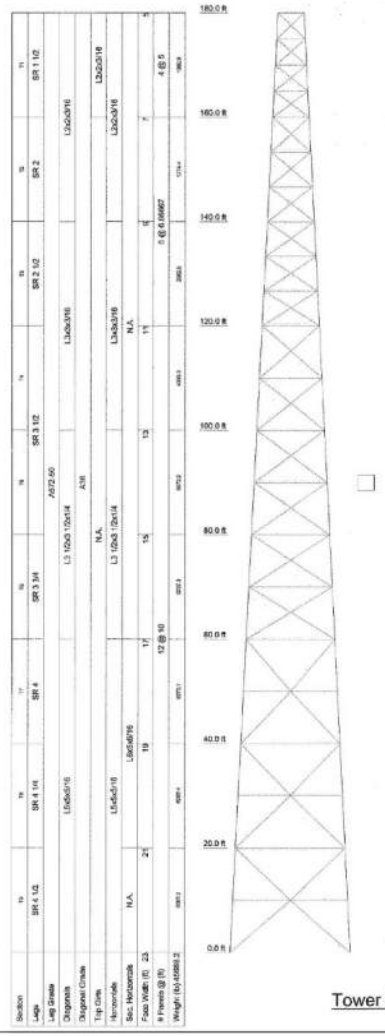


Figure 4: Tower Preliminary Design



Tower Steel Preliminary Design

DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Omni (3" O.D. x 120" tall, 70 lbs)	180	Face Mount 4' (EPA = 3 sqft front/side, 90lb)	76
Side Arm Mount 4' (EPA = 3 sqft front/side, 90lb)	180	Omni (3" OD x 144" tall, 80lb)	76
Omni (4" OD x 144" tall, 100lb)	180	Side Arm Mount 8' (EPA = 3 sqft front/4 sqft side, 120lb)	76
Side Arm Mount 4' (EPA = 3 sqft front/side, 90lb)	180	Omni (3" OD x 144" tall, 80lb)	76
4' MW: Paraboloid w/ Cylindrical Shroud (100 lbs) (Future)	170	4' MW: Paraboloid w/ Cylindrical Shroud (100 lbs)	70
Side Arm Mount 4' (EPA = 3 sqft front/side, 90lb)	160	4' MW: Paraboloid w/ Cylindrical Shroud (100 lbs)	70
Omni (4" OD x 144" tall, 100lb)	160	10' MW: Paraboloid w/ Cylindrical Shroud (560 lbs)	70
4' MW: Paraboloid w/ Cylindrical Shroud (100 lbs) (Future)	150	Omni (5" O.D. x 120" tall, 125 lbs)	64
4' MW: Paraboloid w/ Cylindrical Shroud (100 lbs) (Future)	130	Side Arm Mount 4' (EPA = 3 sqft front/side, 90lb)	64
Tarana Wireless G1 6GHz Base Node (16.4"X21.2"x4.6", 42lb)	120	6' MW: Paraboloid w/ Cylindrical Shroud (210 lbs)	63
Tarana Wireless G1 6GHz Base Node (16.4"X21.2"x4.6", 42lb)	120	4' MW: Paraboloid w/ Cylindrical Shroud (100 lbs)	63
ANT-60GHZ-24-SPS	120	4' MW: Paraboloid w/ Cylindrical Shroud (100 lbs)	63
(2) Small Cone 6" Dia.	109		
4' MW: Paraboloid w/ Cylindrical Shroud (100 lbs)	98	10' MW: Paraboloid w/ Cylindrical Shroud (560 lbs)	58
6' MW: Paraboloid w/ Cylindrical Shroud (210 lbs)	96	1' MW: Paraboloid w/ Cylindrical Shroud (10 lbs)	56
10' MW: Paraboloid w/ Cylindrical Shroud (560 lbs)	96	4' MW: Paraboloid w/ Cylindrical Shroud (100 lbs)	53
Omni (3" O.D. x 144" tall, 150 lbs)	95	Site Camera (10"x10"x10", 3lb)	50
Leg Mount Pipe (2" O.D. x 2', 15lb)	95	4' MW: Paraboloid w/ Cylindrical Shroud (100 lbs)	38
Small Cone 6" Dia.	80	RFS BA1012 Omni (1.2" O.D. x 52" tall, 1.3 lbs)	25
WiFi amp (10"x7"x4", 10lb)	80	Side Arm Mount 4' (EPA = 3 sqft front/side, 90lb)	25
Omni (3" OD x 144" tall, 80lb)	76		
Face Mount 4' (EPA = 3 sqft front/side, 90lb)	76	RFS BA1012 Omni (1.2" O.D. x 52" tall, 1.3 lbs)	18

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A36	36 ksi	58 ksi

TOWER DESIGN NOTES

1. Tower is located in Honolulu County, Hawaii.
2. Tower designed for Exposure B to the TIA-222-H Standard.
3. Tower designed for a 200 mph basic wind in accordance with the TIA-222-H Standard.
4. Deflections are based upon a 60 mph wind.
5. Tower Risk Category III.
6. Topographic Category 1 with Crest Height of 0.00 ft

NOTE: PRELIMINARY TOWER STEEL DESIGN - FINAL TOWER DRAWINGS TO BE SUBMITTED SEPARATELY

TOWER PRELIMINARY DESIGN

Figure 5: Tower Elevation – ‘A’ & ‘B’ Face View

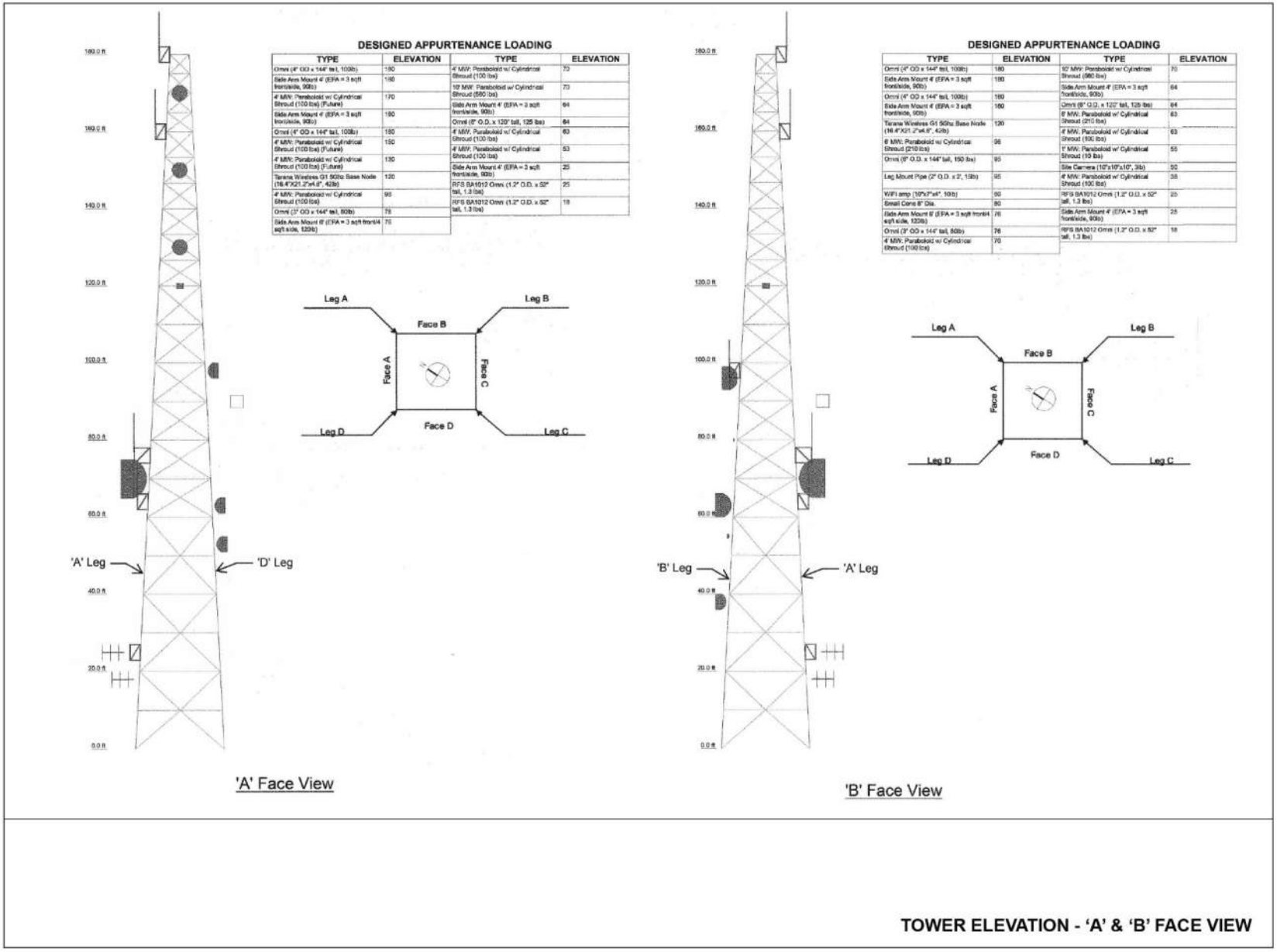


Figure 6: Tower Elevation - 'C' & 'D' Face View

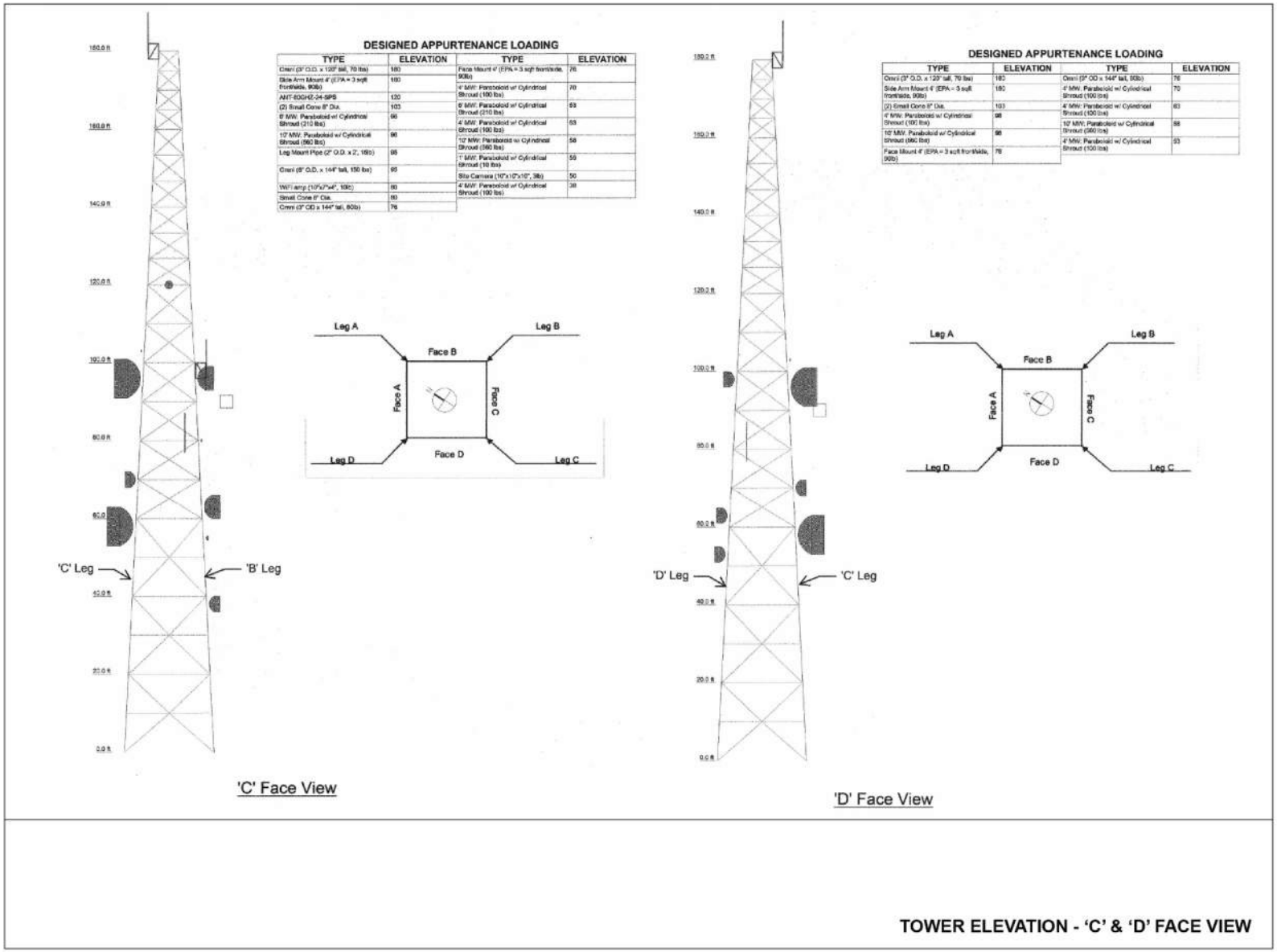


Figure 7: Streams

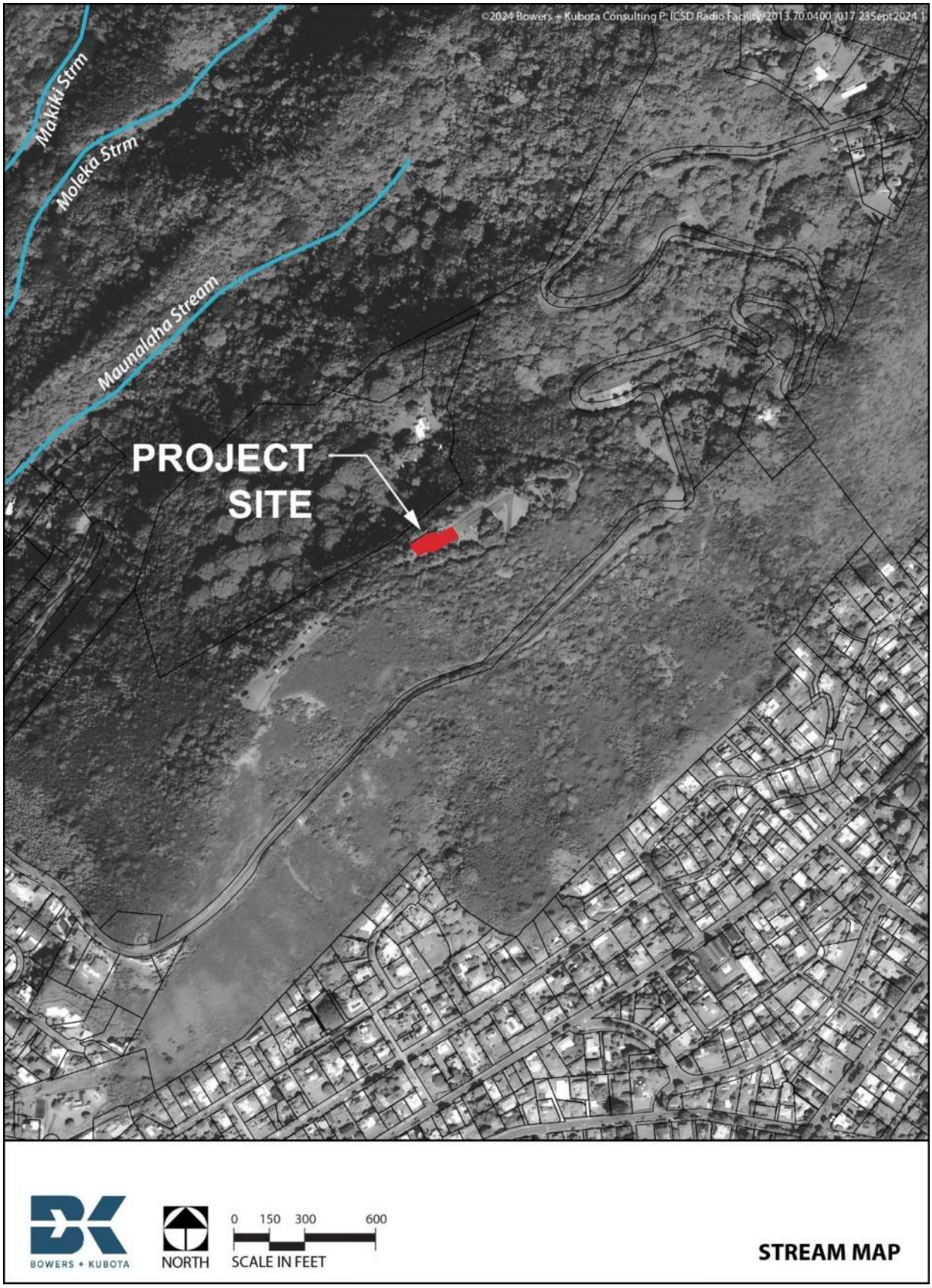


Figure 8: O‘ahu Aquifers

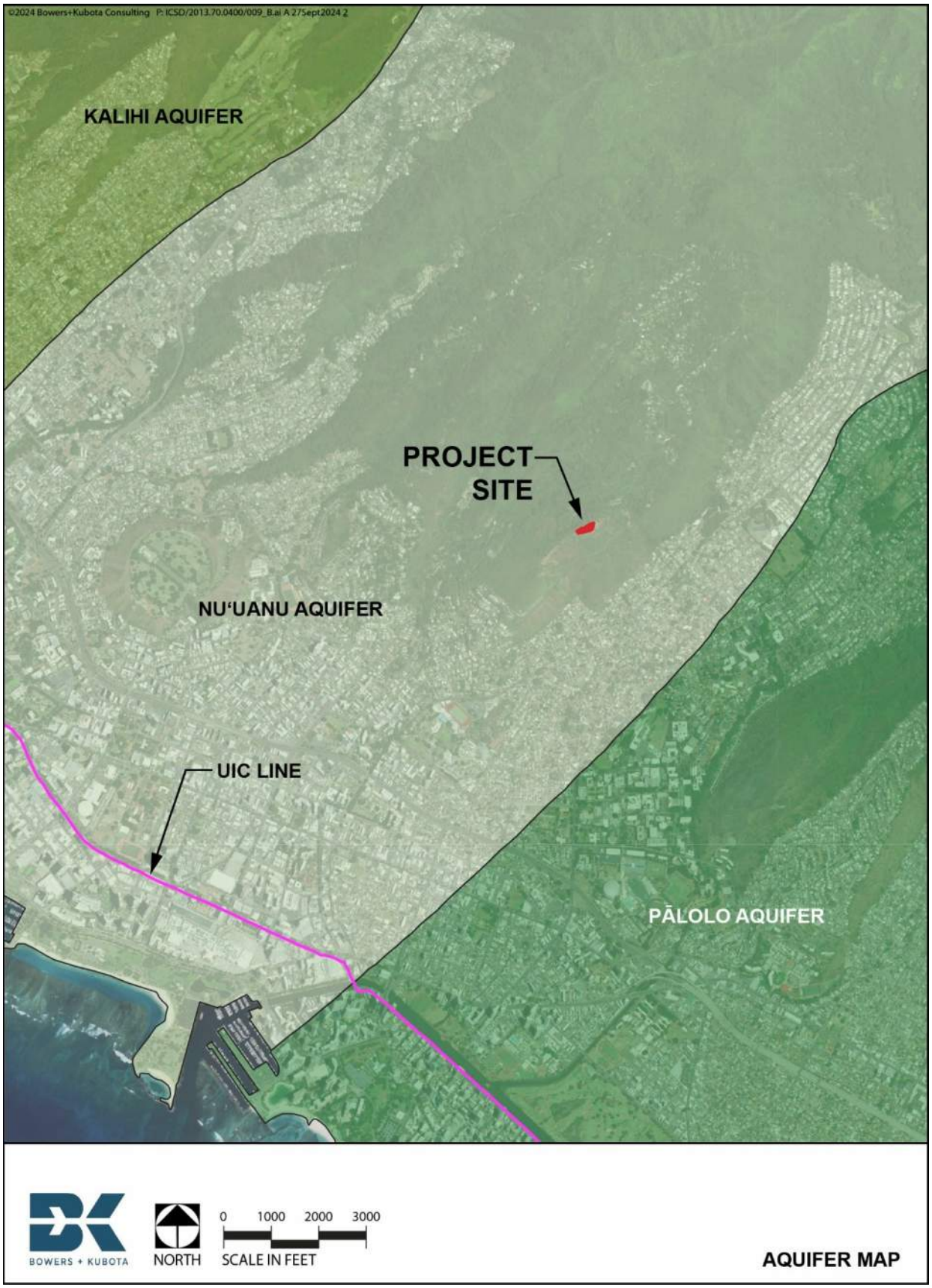


Figure 9: Watersheds

Figure 10: FEMA Flood Insurance Rate Map

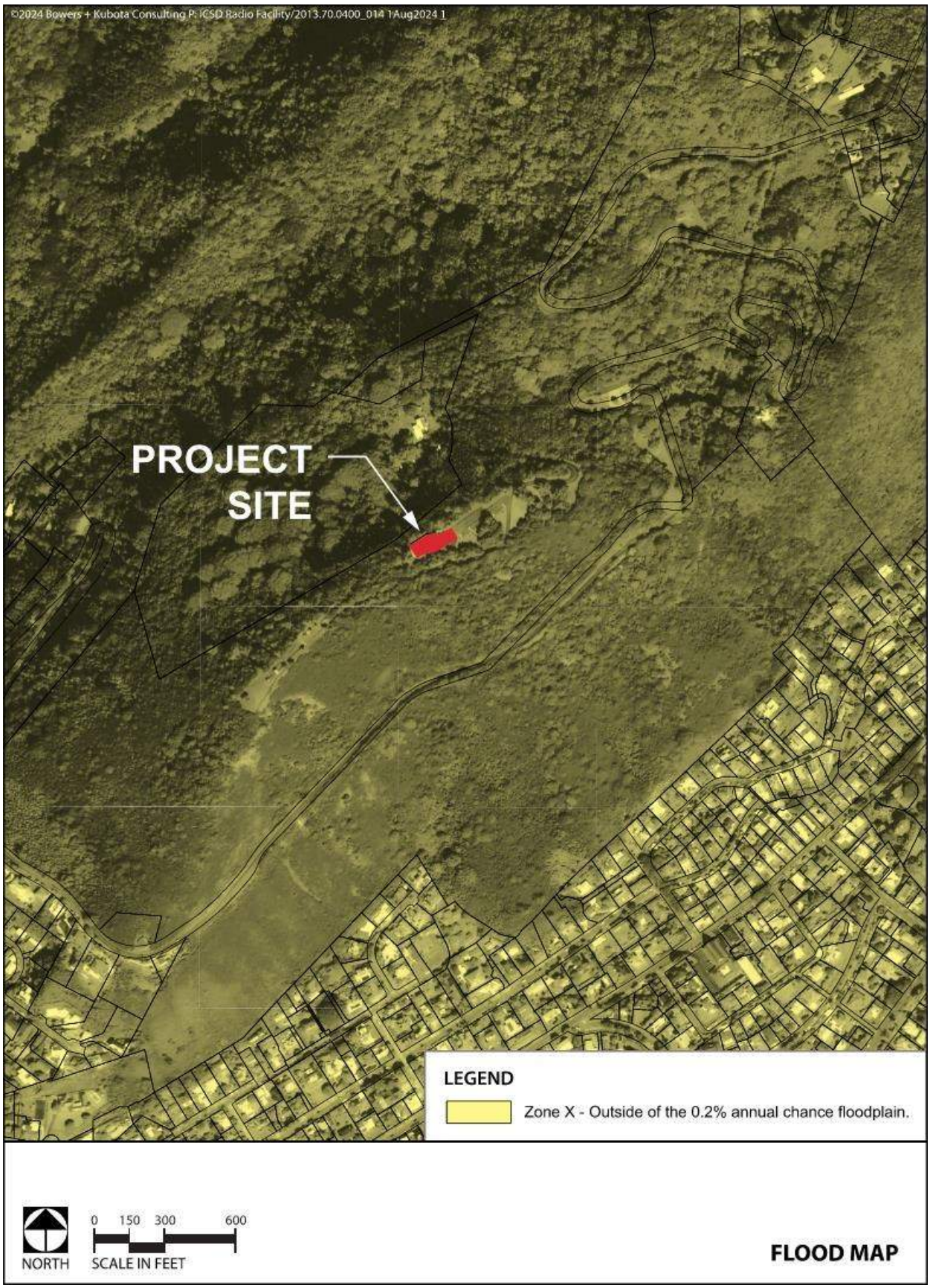


Figure 11: Photo of Existing Tower and Rendering of Proposed Tower, View Looking Makai from Parking Lot

Figure 12: Photo of Existing Tower and Rendering of Proposed Tower, View Looking Mauka from Puʻu ʻUalakaʻa Lookout

Attachment B

State Historic Preservation Division Hawai‘i Revised Statutes, Chapter 6E Submittal Form

JOSH GREEN, M.D.
GOVERNOR
KE KIA'ĀINA

KEITH A. REGAN
COMPTROLLER
KA LUNA HO'OMALU HANA LAULĀ

MEOH-LENG SILLIMAN
DEPUTY COMPTROLLER
KA HOPE LUNA HO'OMALU HANA LAULĀ

STATE OF HAWAI'I | KA MOKU'ĀINA O HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES | KA 'OIHANA LOIHELU A LAWELAWE LAULĀ
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

(P)24.255

DEC 2 6 2024

MEMORANDUM

TO: Jessica L. Puff, Administrator
State Historic Preservation Division

Via: Hawaii Cultural Resource Information System

FROM: Gordon S. Wood
Public Works Administrator

SUBJECT: Hawaii Revised Statutes, Chapter 6E-8 Submittal
DAGS Job No. 12-10-0942
ETS Round Top Radio Facility, Tower Replacement
Honolulu and Waikīkī Ahupuaa, Kona Moku, Island of O'ahu
Tax Map Keys (TMK): (1) 2-5-019: 003 (por.) and 011

The State of Hawaii Department of Accounting and General Services (DAGS), Public Works Division, on behalf of DAGS' Office of Enterprise Technology Services (ETS), is initiating the HRS §6E-8 historic review process with the State Historic Preservation Division (SHPD) on the proposed ETS Round Top Radio Facility Tower Replacement Project (DAGS Job No. 12-10-0942) at Pu'u 'Ualaka'a State Wayside Park, Honolulu and Waikiki Ahupua'a, Kona Moku, Island of O'ahu (TMKs: [1] 2-5-019:003 [por.] and 011).

The project area comprises of 0.6 acres within the existing Round Top Radio Facility site, that is located within a portion of TMK: (1) 2-5-019:003 owned by the State of Hawaii and TMK: (1) 2-5-019:011 owned by the City and County of Honolulu. The project area is surrounded by the Round Top Forest Reserve with forested land along the east, south, and west perimeters of the project area. Beyond the northern boundaries of Pu'u 'Ualaka'a Park are undeveloped forested State-owned lands. Pu'u 'Ualaka'a Lookout is located approximately 800 feet (ft) southwest of the project area.

The project area is within the State Land Use Conservation District and the City and County of Honolulu's P-1 Restricted Preservation zone. The area is in a Federal Emergency Management

Agency Flood Zone Designation X (beyond 500-year flood plain). The project area is not within the Special Management Area.

Project Description

The proposed project is intended to facilitate the modernization and sustained operation of the Round Top Radio Facility, which is used for interisland communications within the comprehensive public safety and emergency response network, known as the Hawaii Wireless Interoperability Network (HIWIN). Currently, the existing radio facility is at full capacity and cannot accommodate the additional infrastructure and equipment required for both the HIWIN and the Anuenue Microwave Communication Systems. The two existing towers are fully utilized, leaving no room for expansion.

This project aims to maintain and enhance the functionality and integrity of the Round Top Radio Facility by replacing the two existing radio towers with a new 180-ft radio tower. This new tower will support the current equipment and operations while also accommodating the comprehensive statewide public safety and first responder communication systems.

The proposed project will include the following actions:

- Demolition and removal of the State's existing 100-ft radio tower and the City's existing 100-ft radio tower.
- Construction of a new 180-ft radio tower. The base of the radio tower will have a width of 23-ft and length of 23-ft from leg to leg. The radio tower will accommodate over 40 appurtenances and equipment, which are being transferred over from the two existing 100-foot radio towers.
- Clearing of approximately 27 trees.
- Site clearing, grading, and grubbing for a new foundation.
- Four drilled shafts to support each tower leg (5 ft diameter by ~60 ft below-finished grade).
- A new retaining wall with a 6-ft high chain link and barb-wired fence around the new tower.
- A new concrete pile cap foundation to accommodate the new tower.
- Trenching to reroute an existing waterline (~350 ft long by ~3 ft deep).
- Tree and vegetation trimming will be performed to the extent needed to ensure the continued operation of the ERF facilities.

Project Contacts

Gordon S. Wood
State Department of Accounting and General Services - Public Works Division
1151 Punchbowl St Room #426
Honolulu, HI 96813
Phone: (808) 586-0526
Email: gordon.s.wood@hawaii.gov

Project Contacts (Continued)

David DePonte
State Department of Accounting and General Services – Public Works Division, Planning Branch
1151 Punchbowl St. Room #430
Honolulu, HI 96813
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Carah Kadota
Bowers + Kubota Consulting, Inc.
2153 N. King Street, Suite 200
Honolulu, HI 96819
Phone: (808) 521-5361
Email: ckadota@bowersandkubota.com

Rachel Hoerman, Ph.D.
Nohopapa Hawaii, LLC
P.O. Box 197
Hakalau, HI 96710
Phone: (808) 783-9927
Email: rachel@nohopapa.com

Historic Preservation Regulatory Context

The proposed Round Top Radio Facility Tower Replacement and Consolidation project is subject to historic preservation review pursuant to HRS §6E-8 and HAR 13-275. There is no federal funding or involvement that triggers Section 106 of the National Historic Preservation Act of 1966, as amended. A Draft Environmental Assessment for the project was published on November 8, 2024 pursuant to HRS Chapter 343.

The project area is within the State Land Use Conservation District and will require a Conservation District Use Permit (CDUP) to be approved by the Board of Land and Natural Resources. A HRS §6E-8 submittal form or determination letter is required to be submitted with the Conservation District Use Application to obtain the CDUP.

Identification of Historic Places Per Hawaii Administrative Rules (HAR) 13-275-5

Two previous archaeological studies performed for compliance purposes are associated with the project area: a 90-acre survey of Pu'u 'Ualaka'a State Wayside Park (Carpenter and Yent 1994) and an Archaeological Literature Review and Field Inspection (LRFI) study for the Round Top Radio Facility Building Addition (Hammatt and Shideler 2010). The Carpenter and Yent (1994)

study identified two historic properties within Makiki Valley: an agricultural complex (State Inventory of Historic Places [SIHP] #50-80-14-04866) and a rock shelter (SIHP #50-80-14-04668). However, no archaeological sites were identified on Puʻu ʻUalakaʻa itself. The authors attributed this to prior ground disturbances related to agricultural and recreational activities. Hammatt and Shideler's (2010) field inspection of the area immediately north of the facility's existing footprint (the current project area) found no historic properties. The authors noted that the area had been previously disturbed by leveling and grading of the sloping topography, with bulldozer push piles observed along the site's northern edge. A trailhead located west of the project area was observed and determined to likely be a trail component of the State of Hawaii Trail and Access Program (Nā Ala Hele) ʻUalakaʻa segment developed after 1957.

Nohopapa Hawaii, LLC, (Nohopapa) conducted a LRFI study to support the proposed project (Merrin et al. 2024). The LRFI study identifies the project area as being on Puʻu ʻUalakaʻa, which means "rolling sweet potato hill" (Pukui et al. 1974:214). Puʻu ʻUalakaʻa is one of three cinder cones in eastern Makiki, along with Puʻu ʻŌhiʻa and Puʻu Kākea. This hill is part of a broader cultural landscape that may have included a hōlua slide and is referenced in well-known moʻolelo (Fitzgerald 1989:45; Fornander 1918-1919: 532, 533; ʻĪʻī 1959; Kamakau 1996:168). In addition, the current project area is situated on the ahupuaʻa boundaries of Honolulu and Waikiki Ahupuaʻa, which may have been the former alignment of a mauka-makai trail segment that provided access to the summit regions of the Koʻolau Mountains. Nohopapa conducted a field inspection of the project area on September 15, 2021, and identified no historic properties within the site. The project area was observed to have been significantly impacted by infrastructure development and grading activities. The only potential historic property uncovered during background research is a branch of an ancient trail network that connects to the larger ancient trail system extending along the ridgelines of the Koʻolau Mountains. The trail segment either intersected or was proximal to the project area – its precise location is unclear based on the available evidence.

Evaluation of Significance Per HAR 13-275-6

The ʻUalakaʻa Ridge Trail, which passes through the area, is the sole route to the summit of Konahuanui, the highest peak in the Koʻolau range. The trail's original alignment most likely passed through the current project area and aligned with the ahupuaʻa boundary of Honolulu and Waikiki Ahupuaʻa. However, due to previous ground disturbances (grading) and the radio facility's development, there is no evidence the trail extends through the current project area. Nohopapa determined that the proposed project is unlikely to impact this trail segment and no historic properties are present within the project area, and therefore, recommends no further archaeological work for the project. Nohopapa recommends the SHPD, as part of their proactive historic preservation mandate, assign a SIHP number to the trail system.

Project Effect Determination

Based on the findings of the LRFI and the low potential for the proposed project to impact historic properties due to previous ground disturbances, the ETS is requesting the SHPD's concurrence with a project effect determination of "no historic properties affected" for the Round Top Radio Facility Tower Replacement and Consolidation (Job No. 12-10-0942).

If inadvertent historic properties are encountered during construction activities, non-burial historic properties will be treated in accordance with HAR §13-280-3, and burial remains historic properties will be treated in accordance with HRS §6E-43.6 and HAR §13-300-31. All work will halt in the immediate area of the find and the SHPD will be contacted and consulted regarding the appropriate identification efforts and recommended mitigation.

In accordance with HRS §6E-8, the SHPD has 90 days to review and comment on this proposed project. If no comments are received within the timeframe or by a mutually agreed upon date, we will assume that SHPD concurs with the LRFI findings per HAR 13-275-3.

Thank you very much for your consideration and we look forward to working with SHPD on these needed improvements. Please feel free to call me at (808) 586-0526 should you or your staff have any questions.

Sincerely,

GORDON S. WOOD
Public Works Administrator

State Historic Preservation Division
HRS 6E Submittal Form

Per §6E, Hawai‘i Revised Statutes, if the Project requires review by the State Historic Preservation Division (SHPD), please review and fill out this form and submit all requested information to SHPD. All forms and project documentation must be submitted **electronically** via HICRIS. Please visit our website.

https://shpd.hawaii.gov/hicris

If you are unable to submit electronically, please contact SHPD at (808) 692-8015. Mahalo.

The submission date of this form is:

1. APPLICANT (select one)

☐ Property Owner ☑ Government Agency

2. AGENCY (select one)

☐ Planning Department ☐ Department of Public Works ☑ Other (specify): State of Hawaii,

Type of Permit Applied For:

3. APPLICANT CONTACT

3.1) Name: Gordon S. Wood 3.2) Title: Public Works Administrator

3.3) Street Address: 1151 Punchbowl Street, Rm. B-10

3.4) County: Honolulu 3.5) State: Hawaii 3.6) Zip Code: 96813

3.7) Phone: (808) 586-0526 3.8) Email: gordon.s.wood@hawaii.gov

4. PROJECT DATA

4.1) Permit Number (if applicable):

4.2) TMK [e.g. (3) 1-2-003:004]: (1) 2-5-019: 003 (por.) and 011

4.3) Street Address: 3286 Round Top Drive

4.4) County: Honolulu 4.5) State: Hawaii 4.6) Zip Code: 96822

4.7) Total Property Acreage: (1) 2-5-019:003 - 119.88 acres; (1)

4.8) Project Area (acreage, square feet): 0.60 acres

4.9) List any previous SHPD correspondence (LOG Number & DOC Number, if applicable):

LOG NO. DOC NO.

5. PROJECT INFORMATION

5.1) Does the Project involve a Historic Property? A Historic Property is any building, structure, object,

district, area, or site, including heiau and underwater site, **which is over 50 years old** (*HRS §6E-2*).

☐ Yes ☐ No

5.2) The date(s) of construction for the historic property (building, structure, object, district, area, or site, including heiau and underwater site) is N/A

5.3) Is the Property listed on the Hawai‘i and or National Register of Historic Places? To check: http://dlnr.hawaii.gov/shpd/

☐ Yes ☐ No

5.4) Detailed Project Description and Scope of Work:

The project includes the construction of a new 180-foot radio tower, demolition of the two existing 100-foot radio towers, and the transition of equipment to the new radio tower. The project will include tree trimming and vegetation clearing to the extent necessary. A new concrete foundation will be constructed to accommodate the new radio tower. The foundation footprint size will be approximately

5.5) Description of **previous** ground disturbance (e.g. previous grading and grubbing):

Previous ground disturbance at the site is associated with the construction of the Round Top Radio Facility and the comfort station for the Pu‘u ‘Ualaka‘a State Park. The Literature Review and Field Inspection Report included in this submission provides a summary of the previous archaeological studies and findings associated with the project site.

5.6) Description of **proposed** ground disturbance (e.g. # of trenches, Length x Width x Depth):

The two existing 100-foot radio towers will be demolished and removed from the site. Approximately 27 trees will be removed to clear the site for the new 180-foot radio tower. Construction of the new 180-foot radio tower will include a new concrete pile cap foundation that will be approximately 1,600-square-feet and four drilled shafts to support each tower leg. The drilled shafts will be 5-feet in diameter and will be drilled to approximately 60-feet below finished grade. A new retaining wall and a

5.7) The Agency shall ensure whether historic properties are present in the project area, and, if so, it shall ensure that these properties are properly identified and inventoried. Identify all known historic properties:

No historic properties identified

5.8) Once a historic property is identified, then an assessment of significance shall occur.

Integrity (check all that apply):

☐ Location ☐ Design ☐ Setting ☐ Materials ☐ Workmanship ☐ Feeling ☐ Association

Criteria (check all that apply):

☐ a – associated with events that have made an important contribution to the broad patterns of our history
☐ b – associated with the lives of persons important in our past
☐ c – embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; or possess high artistic value
☐ d – have yielded, or is likely to yield, information important for research on prehistory or history
☐ e – have an important value to the Native Hawaiian people or to another ethnic group of the state due to associations with cultural practices once carried out or still carried out, at the property or due to associations with traditional beliefs, events, or oral accounts - - these associations being important to the group’s history and cultural identity

5.9) The effects or impacts of a project on significant historic properties shall be determined by the agency.

Effect Determination (select one):

☑ No Historic Properties Affected
☐ Effect, with Agreed Upon Mitigation Commitments (§6E-42, HRS)
☐ Effect, with Proposed Mitigation Commitments (§6E-8, HRS)

5.10) This project is (check all that apply, if applicable):

☐ an activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency;

☐ carried out with Federal financial assistance; and or

☐ requiring a Federal permit, license or approval.

If any of these boxes are checked, then the Project may also be subject to compliance with Section 106 of the National Historic Preservation Act (NHPA).

6. PROJECT SUBMITTALS

6.1) Please submit a copy of the Tax Map Key (TMK) map

6.2) Please submit a copy of the property map showing the project area and indicate if the project area is smaller than the property area.

6.3) Please submit a permit set of drawings. A permit set is a set of drawings prepared and signed by a licensed architect or engineer and is at least 65% complete.

6.4) Are you submitting a survey?

☐ Yes ☐ No

Specify Survey:

6.5) Did SHPD request the survey?

☐ Yes ☐ No

If 'Yes', then please provide the date, SHPD LOG NO, and DOC NO:

Date: LOG NO. DOC NO.

6.6) **SURVEY REVIEW FEES**. Fee for Review of Reports and Plans (§§13-275-4 and 284-4). A filing fee will be charged for all reports and plans submitted to our office for review. Please go to:

The Submittal Filing Fee Form is located on the Forms page

A check payable to the Hawaii Historic Preservation Special Fund should accompany all reports or plans submitted.

6.7) Please submit color photos/images of the Historic Property (any building, structure, object, district, area, or site, including heiau and underwater site) that will be affected by the Project.

The following are the minimum number and type of color photographs required:

Quantity	Description
1-2	Street view(s) of the resource and surrounding area
1-2	Over view of exterior work area
1	exterior photo of the North elevation (if applicable)
1	exterior photo of the South elevation (if applicable)
1	exterior photo of the East elevation (if applicable)
1	exterior photo of the West elevation (if applicable)
1-2	interior photos(s) of areas affected (if applicable)

CHECKLIST

☐ **SHPD FORM 6E** (this form)

☐ **PROJECT SUBMITTALS** (any requested documentation for items 6.1 - 6.7 of this form)

☐ **FILING FEE FORM** (if applicable)