Appendix G

Agency Coordination under Section 106 of the National Historic Preservation Act

This page intentionally left blank.

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

OCT 09 2014

Office of the Garrison Commander

Mr. William Aila
State Historic Preservation Officer
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawai'i 96707

Dear Mr. Aila:

The Office of the Garrison Commander, United States Army Garrison-Hawaii, is writing to open consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (16 USC 470f), on the proposed construction of a new power plant on the south range of Schofield Barracks which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the US Army Garrison in Hawaii and the Hawaiian Electric Company. This venture will allow the Army bases in central Oahu to have better energy security as well as providing Oahu with a power plant located more inland in case the more coastal energy plants are compromised. The Tax Map Key designation for Schofield Barracks and Wheeler Army Airfield (WAAF) is 1-07-07-001.

The proposed undertaking involves the US Army's lease of 8.13 acres of land and the related granting of a 2.5 acre interconnection easement, on Schofield Barracks and WAAF to Hawaiian Electric Company (Hawaiian Electric) for the purpose of the construction, operation, and maintenance of a 50-megawatt (MW) capacity renewable energy power plant to include associated power poles, high-tension power lines, and related equipment and facilities by Hawaiian Electric. The lease would be under the authority of Title 10 of the United States Code (USC) §2667. The project also calls for The State of Hawaii Department of Land and Natural Resources granting of a 1.28 acre easement and a 0.7 acre conservation district authorization allowing for the construction of a 46 kV electrical power transmission line between the power plant site and the existing Wahiawa Substation. Hawaiian Electric's construction, ownership, operation, and maintenance of a 50 megawatt capacity, biofuel-capable power generation plant and 46 kV sub-transmission line are required to connect the Schofield Generating Station to the Hawaiian Electric grid. Hawaiian Electric would be the sole owner of the plant and the electrical power transmission facilities. The proposed facilities would be constructed and operated in accordance with all applicable laws, with approval of the Hawaii Public Utilities Commission (PUC).

The Area of Potential Effect (APE) for this undertaking is approximately 882 acres of land which includes the National Register District at Schofield Barracks, the National Historic Landmark District at WAAF as well as the National Register eligible district at WAAF. The enclosed map illustrates the the APE (Enclosure 1).

Wheeler Army Airfield has a National Historic Landmark District that was created in 1986-87 when a thematic series of districts were created in Hawaii associated with World War II history and the attack on Oahu by the Empire of Japan on the December 7th, 1941. The National Register District at Schofield Barracks was created in 1998. The district's significance is based upon its historic architecture, early 20th century military installation planning, its historic landscape, and the events related to the history of the US Army in Hawaii, particularly from the early Territorial Period through World War II. The Period of Significance is defined as 1908-1945. In the absence of an extensive report on the historic districts of Schofield Barracks and Wheeler Army Airfield, a summary of the historic resources is enclosed for your review (Enclosure 2).

The proposed Schofield Generating Station building is still in its early stages of planning. Information regarding its size, height and other details will be forthcoming. Color conceptual renderings of the structure are enclosed for your review (Enclosure 3).

The undertaking will involve in part the placement of 80' electrical poles along Kunia Road and Wilikina Drive that will be directly adjacent to the National Register District at Schofield Barracks and the historic Garden City neighborhoods at Wheeler Army Airfield (NR eligible). The existing power poles on Kunia Road and Wilikina Drive are approximately 45' tall.

The new poles associated with the project will be placed somewhat close to General's Loop that is within the boundaries of the historic district. However, it is anticipated that the visual impacts may be minimal to the homes at General's Loop due to the large trees that are in the area. The new poles will, however, be placed close to the small two bedroom stucco/mission style homes adjacent to Ralston Field, on Dickman and Kona Road, which have been determined eligible for inclusion on the National Register. These homes were constructed by the Federal Works Program/Works Progress Administration in 1932-33 while the same style homes were built at the Canby neighborhood at Schofield Barracks and at WAAF. The new poles (pole numbers 42, 43 and 44) and lines may be visible from the historic neighborhood.

The new poles and wires proposed for the project may cause negative visual impacts to the Garden City Loops (Langley Loop with the placement of poles 14-18 and at Sperry Loop with the placement of poles 23-27). Poles 11-13 and 28-30 may have visual impacts on the 1936 historic neighborhoods that flank the loops at Wheeler Army Airfield. There may be the potential to have visual impacts on the Landmark district at its western end by the new poles and wires.

A 3D rendering of the proposed poles and wires is included to assist in the visualization of the end results of the undertaking (Enclosure 4).

In compliance with 36 CFR 800.4, the Army in its identification efforts, commissioned the *Archaeological Inventory Survey for Schofield Generating Station Project, Waianae Uka, Honouliuli, and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island, Hawaii* (Garcia & Assoc.—June, 2014). A copy of the report is enclosed for your review (Enclosure 5).

The Army is preparing an Environmental Impact Statement (EIS) to satisfy the National Environmental Policy Act requirements for this undertaking. The Army will transmit a copy of the EIS once it becomes available. A public draft of the EIS is expected to be released in the first quarter of 2015.

A copy of the initial Section 106 consultation regarding this project from 2011 is enclosed for your review (Enclosure 6).

The Army looks forward to consulting with you on the proposed undertaking. We ask for your initial comments on the proposed undertaking. If you have any questions regarding architectural/landscape issues, please contact Kenneth Hays, with the Cultural Resources Section of the Directorate of Public Works at 808-656-6790. If you have any questions pertaining to archeological issues, you may contact Richard Davis, with the Cultural Resources Section of the Directorate of Public Works at 808-655-9709.

Sincerely,

Richard A. Fromm
Colonel, US Army
Commanding

Enclosures

Distribution List for the Section 106 Letter –Schofield Barracks Power Station

Mr. William Aila, Jr., Chairman
Department of Land and Natural Resources
State Historic Preservation Officer
State Historic Preservation Division
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawai'i 96707

Dr. Kamana'opono M. Crabbe
Ka Pouhana, Chief Executive Officer
Office of Hawaiian Affairs
560 N. Nimitz Hwy, Suite 200
Honolulu, Hawai'i 96817

Mr. John Fowler
Advisory Council on Historic Preservation
Old Post Office Building
1100 Pennsylvania Avenue NW
Suite 809
Washington D.C. 20004

Ms. Hinaleimoana Wong-Kalu
Chairperson
O'ahu Island Burial Council
522 Ekekela Place
Honolulu, Hawai'i 96817

Mr. Edward Halealoha Ayau, Po'o
Hui Malama I Na Kupuna O Hawai'i Nei
P. O. Box 365
Ho'olehua, Hawai'i 96729

Mr. Kihei Nahale-a
Hui Mālama I Na Kūpuna O Hawai'i Nei
C/O Mr. Edward Halealoha Ayau, Po'o
P. O. Box 365
Ho'olehua, Hawai'i 96729

Mr. Tom Lenchanko
Hawaiian National, Kahuakai Ola Ko Laila Waha Olelo 'Aha Kūkaniloko
Ko'a Mana Mea Ola Kanaka Mauli
931 Uakaniko'o Street
Wahiawā, Hawai'i 96786

Distribution List for the Section 106 Letter –Schofield Barracks Power Station

Mr. Alika Poe Silva
Kahu Kulāiwi, Ko'a Mana
Kupuka'āina O Wai'anae Moku, O'ahu
85-140 Maiu'u Road
Wai'anae, Hawai'i 96792

Mr. Harry Wasson
Hui Malama Aina 'O Laie – Mahi'ai, Ki'ai
P.O. Box 512
La'ie, Hawai'i 96762

Mr. JR Keoneakapu Williams
'Ohana Kapu
85-1029 Mahi'aina St
Wai'anae, Hawai'i 96792

Mr. Norman Mana Kaleilani Cáceres
'Ohana Huihui
91-225 Pilipiliula Place
Kapolei, Hawai'i 96707

Ms. Mahealani Cypher, President
C/O Mr. Shad Kane
O'ahu Council of Hawaiian Civic Clubs
92-1309 Uahanai Street
Kapolei, Hawai'i 96707

Ms. Paulette Ka'anohiokalani Kaleikini
'Ohana Keaweamahi
89-107 Nanaikala Street
Wai'anae, Hawai'i 96792

Mr. Kimball Kekaimalino Kaopio
'Ohana Naihe
85-1029 Mahi'aina St.
Wai'anae, Hawai'i 96792

Ms. Terrilee Keko'olani
AFSC Hawai'i
2426 O'ahu Avenue
Honolulu, Hawai'i 96822

Mr. Kalahikiola Keliinoi
'Ohana Keliinoi

Distribution List for the Section 106 Letter –Schofield Barracks Power Station

89-107 Nanaikala Street
Waiʻanae Hawaiʻi 96792
Mr. Glen Makakaualiʻi Kila, Kahu Kulāiwi, Koʻa Mana

Kupukaʻāina O Waiʻanae Moku, Oʻahu
84-255 Makaha Valley Road
Waiʻanae, Hawaiʻi 96792

Ms. Keona Mark
ʻOhana Mahu
PO Box 2
Haleʻiwa, Hawaiʻi 96712

Mr. Christophor Oliveira
Koʻa Mana
84-255 Makaha Valley Road
Waiʻanae, Hawaiʻi 96792

Ms. Kēhaulani Souza
94-115 Puanane Loop
Mililani, Hawaiʻi 96789

Mrs. Leimaile Quitevis
84-695 Farrington Hwy., B 212
Waiʻanae, Hawaiʻi 96792

Ms. Kiersten Faulkner, Executive Director
Historic Hawaii Foundation
680 Iwilei Road
Suite 690
Honolulu, Hawaii 96817

Ms. Marti Townsend
The Outdoor Circle
1314 S King Street, Suite 306
Honolulu, Hawaii 96814

Mr. Glen Makakauali'i Kila, Kahu Kulaiwi, Ko'a Mana
Kupuka'aina O Wai'anae Moku, O'ahu
84-255 Makaha Valley Road
Wai'anae, Hawai'i 96792

Ms. Terrilee Keko'olani
AFSC Hawaii
2426 Oahu Avenue
Honolulu, Hawaii 96822

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

OCT 0 9 2014

Office of the Garrison Commander

Mr. John Fowler
Advisory Council on Historic Preservation
Old Post Office Building
1100 Pennsylvania Avenue NW
Suite 809
Washington D.C. 20004

Dear Mr. Fowler:

The Office of the Garrison Commander, United States Army Garrison-Hawaii, is writing to open consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (16 USC 470f), on the proposed construction of a new power plant on the south range of Schofield Barracks which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the US Army Garrison in Hawaii and the Hawaiian Electric Company. This venture will allow the Army bases in central Oahu to have better energy security as well as providing Oahu with a power plant located more inland in case the more coastal energy plants are compromised. The Tax Map Key designation for Schofield Barracks and Wheeler Army Airfield (WAAF) is 1-07-07-001.

The proposed undertaking involves the US Army's lease of 8.13 acres of land and the related granting of a 2.5 acre interconnection easement, on Schofield Barracks and WAAF to Hawaiian Electric Company (Hawaiian Electric) for the purpose of the construction, operation, and maintenance of a 50-megawatt (MW) capacity renewable energy power plant to include associated power poles, high-tension power lines, and related equipment and facilities by Hawaiian Electric. The lease would be under the authority of Title 10 of the United States Code (USC) §2667. The project also calls for The State of Hawaii Department of Land and Natural Resources granting of a 1.28 acre easement and a 0.7 acre conservation district authorization allowing for the construction of a 46 kV electrical power transmission line between the power plant site and the existing Wahiawa Substation. Hawaiian Electric's construction, ownership, operation, and maintenance of a 50 megawatt capacity, biofuel-capable power generation plant and 46 kV sub-transmission line are required to connect the Schofield Generating Station to the Hawaiian Electric grid. Hawaiian Electric would be the sole owner of the plant and the electrical power transmission facilities. The proposed facilities would be constructed and operated in accordance with all applicable laws, with approval of the Hawaii Public Utilities Commission (PUC).

The Area of Potential Effect (APE) for this undertaking is approximately 882 acres of land which includes the National Register District at Schofield Barracks, the National Historic Landmark District at WAAF as well as the National Register eligible district at WAAF. The enclosed map illustrates the the APE (Enclosure 1).

Wheeler Army Airfield has a National Historic Landmark District that was created in 1986-87 when a thematic series of districts were created in Hawaii associated with World War II history and the attack on Oahu by the Empire of Japan on the December 7th, 1941. The National Register District at Schofield Barracks was created in 1998. The district's significance is based upon its historic architecture, early 20th century military installation planning, its historic landscape, and the events related to the history of the US Army in Hawaii, particularly from the early Territorial Period through World War II. The Period of Significance is defined as 1908-1945. In the absence of an extensive report on the historic districts of Schofield Barracks and Wheeler Army Airfield, a summary of the historic resources is enclosed for your review (Enclosure 2).

The proposed Schofield Generating Station building is still in its early stages of planning. Information regarding its size, height and other details will be forthcoming. Color conceptual renderings of the structure are enclosed for your review (Enclosure 3).

The undertaking will involve in part the placement of 80' electrical poles along Kunia Road and Wilikina Drive that will be directly adjacent to the National Register District at Schofield Barracks and the historic Garden City neighborhoods at Wheeler Army Airfield (NR eligible). The existing power poles on Kunia Road and Wilikina Drive are approximately 45' tall.

The new poles associated with the project will be placed somewhat close to General's Loop that is within the boundaries of the historic district. However, it is anticipated that the visual impacts may be minimal to the homes at General's Loop due to the large trees that are in the area. The new poles will, however, be placed close to the small two bedroom stucco/mission style homes adjacent to Ralston Field, on Dickman and Kona Road, which have been determined eligible for inclusion on the National Register. These homes were constructed by the Federal Works Program/Works Progress Administration in 1932-33 while the same style homes were built at the Canby neighborhood at Schofield Barracks and at WAAF. The new poles (pole numbers 42, 43 and 44) and lines may be visible from the historic neighborhood.

The new poles and wires proposed for the project may cause negative visual impacts to the Garden City Loops (Langley Loop with the placement of poles 14-18 and at Sperry Loop with the placement of poles 23-27). Poles 11-13 and 28-30 may have visual impacts on the 1936 historic neighborhoods that flank the loops at Wheeler Army Airfield. There may be the potential to have visual impacts on the Landmark district at its western end by the new poles and wires.

A 3D rendering of the proposed poles and wires is included to assist in the visualization of the end results of the undertaking (Enclosure 4).

In compliance with 36 CFR 800.4, the Army in its identification efforts, commissioned the *Archaeological Inventory Survey for Schofield Generating Station Project, Waianae Uka, Honouliuli, and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island, Hawaii* (Garcia & Assoc.—June, 2014). A copy of the report is enclosed for your review (Enclosure 5).

The Army is preparing an Environmental Impact Statement (EIS) to satisfy the National Environmental Policy Act requirements for this undertaking. The Army will transmit a copy of the EIS once it becomes available. A public draft of the EIS is expected to be released in the first quarter of 2015.

A copy of the initial Section 106 consultation regarding this project from 2011 is enclosed for your review (Enclosure 6).

The Army looks forward to consulting with you on the proposed undertaking. We ask for your initial comments on the proposed undertaking. If you have any questions regarding architectural/landscape issues, please contact Kenneth Hays, with the Cultural Resources Section of the Directorate of Public Works at 808-656-6790. If you have any questions pertaining to archeological issues, you may contact Richard Davis, with the Cultural Resources Section of the Directorate of Public Works at 808-655-9709.

Sincerely,

Richard A. Fromm
Colonel, US Army
Commanding

Enclosures

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

OCT 09 2014

Office of the Garrison Commander

Ms. Marti Townsend
The Outdoor Circle
1314 S King Street, Suite 306
Honolulu, Hawaii 96814

Dear Ms. Townsend:

The Office of the Garrison Commander, United States Army Garrison-Hawaii, is writing to open consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (16 USC 470f), on the proposed construction of a new power plant on the south range of Schofield Barracks which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the US Army Garrison in Hawaii and the Hawaiian Electric Company. This venture will allow the Army bases in central Oahu to have better energy security as well as providing Oahu with a power plant located more inland in case the more coastal energy plants are compromised. The Tax Map Key designation for Schofield Barracks and Wheeler Army Airfield (WAAF) is 1-07-07-001.

The proposed undertaking involves the US Army's lease of 8.13 acres of land and the related granting of a 2.5 acre interconnection easement, on Schofield Barracks and WAAF to Hawaiian Electric Company (Hawaiian Electric) for the purpose of the construction, operation, and maintenance of a 50-megawatt (MW) capacity renewable energy power plant to include associated power poles, high-tension power lines, and related equipment and facilities by Hawaiian Electric. The lease would be under the authority of Title 10 of the United States Code (USC) §2667. The project also calls for The State of Hawaii Department of Land and Natural Resources granting of a 1.28 acre easement and a 0.7 acre conservation district authorization allowing for the construction of a 46 kV electrical power transmission line between the power plant site and the existing Wahiawa Substation. Hawaiian Electric's construction, ownership, operation, and maintenance of a 50 megawatt capacity, biofuel-capable power generation plant and 46 kV sub-transmission line are required to connect the Schofield Generating Station to the Hawaiian Electric grid. Hawaiian Electric would be the sole owner of the plant and the electrical power transmission facilities. The proposed facilities would be constructed and operated in accordance with all applicable laws, with approval of the Hawaii Public Utilities Commission (PUC).

The Area of Potential Effect (APE) for this undertaking is approximately 882 acres of land which includes the National Register District at Schofield Barracks, the National Historic Landmark District at WAAF as well as the National Register eligible district at WAAF. The enclosed map illustrates the the APE (Enclosure 1).

Wheeler Army Airfield has a National Historic Landmark District that was created in 1986-87 when a thematic series of districts were created in Hawaii associated with World War II history and the attack on Oahu by the Empire of Japan on the December 7th, 1941. The National Register District at Schofield Barracks was created in 1998. The district's significance is based upon its historic architecture, early 20th century military installation planning, its historic landscape, and the events related to the history of the US Army in Hawaii, particularly from the early Territorial Period through World War II. The Period of Significance is defined as 1908-1945. In the absence of an extensive report on the historic districts of Schofield Barracks and Wheeler Army Airfield, a summary of the historic resources is enclosed for your review (Enclosure 2).

The proposed Schofield Generating Station building is still in its early stages of planning. Information regarding its size, height and other details will be forthcoming. Color conceptual renderings of the structure are enclosed for your review (Enclosure 3).

The undertaking will involve in part the placement of 80' electrical poles along Kunia Road and Wilikina Drive that will be directly adjacent to the National Register District at Schofield Barracks and the historic Garden City neighborhoods at Wheeler Army Airfield (NR eligible). The existing power poles on Kunia Road and Wilikina Drive are approximately 45' tall.

The new poles associated with the project will be placed somewhat close to General's Loop that is within the boundaries of the historic district. However, it is anticipated that the visual impacts may be minimal to the homes at General's Loop due to the large trees that are in the area. The new poles will, however, be placed close to the small two bedroom stucco/mission style homes adjacent to Ralston Field, on Dickman and Kona Road, which have been determined eligible for inclusion on the National Register. These homes were constructed by the Federal Works Program/Works Progress Administration in 1932-33 while the same style homes were built at the Canby neighborhood at Schofield Barracks and at WAAF. The new poles (pole numbers 42, 43 and 44) and lines may be visible from the historic neighborhood.

The new poles and wires proposed for the project may cause negative visual impacts to the Garden City Loops (Langley Loop with the placement of poles 14-18 and at Sperry Loop with the placement of poles 23-27). Poles 11-13 and 28-30 may have visual impacts on the 1936 historic neighborhoods that flank the loops at Wheeler Army Airfield. There may be the potential to have visual impacts on the Landmark district at its western end by the new poles and wires.

A 3D rendering of the proposed poles and wires is included to assist in the visualization of the end results of the undertaking (Enclosure 4).

In compliance with 36 CFR 800.4, the Army in its identification efforts, commissioned the *Archaeological Inventory Survey for Schofield Generating Station Project, Waianae Uka, Honouliuli, and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island, Hawaii* (Garcia & Assoc.—June, 2014). A copy of the report is enclosed for your review (Enclosure 5).

The Army is preparing an Environmental Impact Statement (EIS) to satisfy the National Environmental Policy Act requirements for this undertaking. The Army will transmit a copy of the EIS once it becomes available. A public draft of the EIS is expected to be released in the first quarter of 2015.

A copy of the initial Section 106 consultation regarding this project from 2011 is enclosed for your review (Enclosure 6).

The Army looks forward to consulting with you on the proposed undertaking. We ask for your initial comments on the proposed undertaking. If you have any questions regarding architectural/landscape issues, please contact Kenneth Hays, with the Cultural Resources Section of the Directorate of Public Works at 808-656-6790. If you have any questions pertaining to archeological issues, you may contact Richard Davis, with the Cultural Resources Section of the Directorate of Public Works at 808-655-9709.

Sincerely,

Richard A. Fromm
Colonel, US Army
Commanding

Enclosures

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

OCT 0 9 2014

Office of the Garrison Commander

Ms. Melia Lane-Kamehele
The National Park Service
300 Ala Moana Blvd.
Honolulu, Hawaii 96850

Dear Ms. Lane-Kamehele:

The Office of the Garrison Commander, United States Army Garrison-Hawaii, is writing to open consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (16 USC 470f), on the proposed construction of a new power plant on the south range of Schofield Barracks which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the US Army Garrison in Hawaii and the Hawaiian Electric Company. This venture will allow the Army bases in central Oahu to have better energy security as well as providing Oahu with a power plant located more inland in case the more coastal energy plants are compromised. The Tax Map Key designation for Schofield Barracks and Wheeler Army Airfield (WAAF) is 1-07-07-001.

The proposed undertaking involves the US Army's lease of 8.13 acres of land and the related granting of a 2.5 acre interconnection easement, on Schofield Barracks and WAAF to Hawaiian Electric Company (Hawaiian Electric) for the purpose of the construction, operation, and maintenance of a 50-megawatt (MW) capacity renewable energy power plant to include associated power poles, high-tension power lines, and related equipment and facilities by Hawaiian Electric. The lease would be under the authority of Title 10 of the United States Code (USC) §2667. The project also calls for The State of Hawaii Department of Land and Natural Resources granting of a 1.28 acre easement and a 0.7 acre conservation district authorization allowing for the construction of a 46 kV electrical power transmission line between the power plant site and the existing Wahiawa Substation. Hawaiian Electric's construction, ownership, operation, and maintenance of a 50 megawatt capacity, biofuel-capable power generation plant and 46 kV sub-transmission line are required to connect the Schofield Generating Station to the Hawaiian Electric grid. Hawaiian Electric would be the sole owner of the plant and the electrical power transmission facilities. The proposed facilities would be constructed and operated in accordance with all applicable laws, with approval of the Hawaii Public Utilities Commission (PUC).

The Area of Potential Effect (APE) for this undertaking is approximately 882 acres of land which includes the National Register District at Schofield Barracks, the National Historic Landmark District at WAAF as well as the National Register eligible district at WAAF. The enclosed map illustrates the the APE (Enclosure 1).

Wheeler Army Airfield has a National Historic Landmark District that was created in 1986-87 when a thematic series of districts were created in Hawaii associated with World War II history and the attack on Oahu by the Empire of Japan on the December 7th, 1941. The National Register District at Schofield Barracks was created in 1998. The district's significance is based upon its historic architecture, early 20th century military installation planning, its historic landscape, and the events related to the history of the US Army in Hawaii, particularly from the early Territorial Period through World War II. The Period of Significance is defined as 1908-1945. In the absence of an extensive report on the historic districts of Schofield Barracks and Wheeler Army Airfield, a summary of the historic resources is enclosed for your review (Enclosure 2).

The proposed Schofield Generating Station building is still in its early stages of planning. Information regarding its size, height and other details will be forthcoming. Color conceptual renderings of the structure are enclosed for your review (Enclosure 3).

The undertaking will involve in part the placement of 80' electrical poles along Kunia Road and Wilikina Drive that will be directly adjacent to the National Register District at Schofield Barracks and the historic Garden City neighborhoods at Wheeler Army Airfield (NR eligible). The existing power poles on Kunia Road and Wilikina Drive are approximately 45' tall.

The new poles associated with the project will be placed somewhat close to General's Loop that is within the boundaries of the historic district. However, it is anticipated that the visual impacts may be minimal to the homes at General's Loop due to the large trees that are in the area. The new poles will, however, be placed close to the small two bedroom stucco/mission style homes adjacent to Ralston Field, on Dickman and Kona Road, which have been determined eligible for inclusion on the National Register. These homes were constructed by the Federal Works Program/Works Progress Administration in 1932-33 while the same style homes were built at the Canby neighborhood at Schofield Barracks and at WAAF. The new poles (pole numbers 42, 43 and 44) and lines may be visible from the historic neighborhood.

The new poles and wires proposed for the project may cause negative visual impacts to the Garden City Loops (Langley Loop with the placement of poles 14-18 and at Sperry Loop with the placement of poles 23-27). Poles 11-13 and 28-30 may have visual impacts on the 1936 historic neighborhoods that flank the loops at Wheeler Army Airfield. There may be the potential to have visual impacts on the Landmark district at its western end by the new poles and wires.

A 3D rendering of the proposed poles and wires is included to assist in the visualization of the end results of the undertaking (Enclosure 4).

In compliance with 36 CFR 800.4, the Army in its identification efforts, commissioned the *Archaeological Inventory Survey for Schofield Generating Station Project, Waianae Uka, Honouliuli, and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island, Hawaii* (Garcia & Assoc.—June, 2014). A copy of the report is enclosed for your review (Enclosure 5).

The Army is preparing an Environmental Impact Statement (EIS) to satisfy the National Environmental Policy Act requirements for this undertaking. The Army will transmit a copy of the EIS once it becomes available. A public draft of the EIS is expected to be released in the first quarter of 2015.

A copy of the initial Section 106 consultation regarding this project from 2011 is enclosed for your review (Enclosure 6).

The Army looks forward to consulting with you on the proposed undertaking. We ask for your initial comments on the proposed undertaking. If you have any questions regarding architectural/landscape issues, please contact Kenneth Hays, with the Cultural Resources Section of the Directorate of Public Works at 808-656-6790. If you have any questions pertaining to archeological issues, you may contact Richard Davis, with the Cultural Resources Section of the Directorate of Public Works at 808-655-9709.

Sincerely,

Richard A. Fromm
Colonel, US Army
Commanding

Enclosures

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

OCT 09 2014

Office of the Garrison Commander

Mr. Tom Lenchanko
Hawaiian National, Kahuakai Ola Ko Laila Waha Olelo 'Aha Kukaniloko
Ko'a Mana Mea Ola Kanaka Mauli
932 Uakaniko'o Street
Wahiawa, Hawaii 96796

Dear Mr. Lenchanko:

The Office of the Garrison Commander, United States Army Garrison-Hawaii, is writing to open consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (16 USC 470f), on the proposed construction of a new power plant on the south range of Schofield Barracks which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the US Army Garrison in Hawaii and the Hawaiian Electric Company. This venture will allow the Army bases in central Oahu to have better energy security as well as providing Oahu with a power plant located more inland in case the more coastal energy plants are compromised. The Tax Map Key designation for Schofield Barracks and Wheeler Army Airfield (WAAF) is 1-07-07-001.

The proposed undertaking involves the US Army's lease of 8.13 acres of land and the related granting of a 2.5 acre interconnection easement, on Schofield Barracks and WAAF to Hawaiian Electric Company (Hawaiian Electric) for the purpose of the construction, operation, and maintenance of a 50-megawatt (MW) capacity renewable energy power plant to include associated power poles, high-tension power lines, and related equipment and facilities by Hawaiian Electric. The lease would be under the authority of Title 10 of the United States Code (USC) §2667. The project also calls for The State of Hawaii Department of Land and Natural Resources granting of a 1.28 acre easement and a 0.7 acre conservation district authorization allowing for the construction of a 46 kV electrical power transmission line between the power plant site and the existing Wahiawa Substation. Hawaiian Electric's construction, ownership, operation, and maintenance of a 50 megawatt capacity, biofuel-capable power generation plant and 46 kV sub-transmission line are required to connect the Schofield Generating Station to the Hawaiian Electric grid. Hawaiian Electric would be the sole owner of the plant and the electrical power transmission facilities. The proposed facilities would be constructed and operated in accordance with all applicable laws, with approval of the Hawaii Public Utilities Commission (PUC).

The Area of Potential Effect (APE) for this undertaking is approximately 882 acres of land which includes the National Register District at Schofield Barracks, the National Historic Landmark District at WAAF as well as the National Register eligible district at WAAF. The enclosed map illustrates the the APE (Enclosure 1).

Wheeler Army Airfield has a National Historic Landmark District that was created in 1986-87 when a thematic series of districts were created in Hawaii associated with World War II history and the attack on Oahu by the Empire of Japan on the December 7th, 1941. The National Register District at Schofield Barracks was created in 1998. The district's significance is based upon its historic architecture, early 20th century military installation planning, its historic landscape, and the events related to the history of the US Army in Hawaii, particularly from the early Territorial Period through World War II. The Period of Significance is defined as 1908-1945. In the absence of an extensive report on the historic districts of Schofield Barracks and Wheeler Army Airfield, a summary of the historic resources is enclosed for your review (Enclosure 2).

The proposed Schofield Generating Station building is still in its early stages of planning. Information regarding its size, height and other details will be forthcoming. Color conceptual renderings of the structure are enclosed for your review (Enclosure 3).

The undertaking will involve in part the placement of 80' electrical poles along Kunia Road and Wilikina Drive that will be directly adjacent to the National Register District at Schofield Barracks and the historic Garden City neighborhoods at Wheeler Army Airfield (NR eligible). The existing power poles on Kunia Road and Wilikina Drive are approximately 45' tall.

The new poles associated with the project will be placed somewhat close to General's Loop that is within the boundaries of the historic district. However, it is anticipated that the visual impacts may be minimal to the homes at General's Loop due to the large trees that are in the area. The new poles will, however, be placed close to the small two bedroom stucco/mission style homes adjacent to Ralston Field, on Dickman and Kona Road, which have been determined eligible for inclusion on the National Register. These homes were constructed by the Federal Works Program/Works Progress Administration in 1932-33 while the same style homes were built at the Canby neighborhood at Schofield Barracks and at WAAF. The new poles (pole numbers 42, 43 and 44) and lines may be visible from the historic neighborhood.

The new poles and wires proposed for the project may cause negative visual impacts to the Garden City Loops (Langley Loop with the placement of poles 14-18 and at Sperry Loop with the placement of poles 23-27). Poles 11-13 and 28-30 may have visual impacts on the 1936 historic neighborhoods that flank the loops at Wheeler Army Airfield. There may be the potential to have visual impacts on the Landmark district at its western end by the new poles and wires.

A 3D rendering of the proposed poles and wires is included to assist in the visualization of the end results of the undertaking (Enclosure 4).

In compliance with 36 CFR 800.4, the Army in its identification efforts, commissioned the *Archaeological Inventory Survey for Schofield Generating Station Project, Waianae Uka, Honouliuli, and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island, Hawaii* (Garcia & Assoc.—June, 2014). A copy of the report is enclosed for your review (Enclosure 5).

The Army is preparing an Environmental Impact Statement (EIS) to satisfy the National Environmental Policy Act requirements for this undertaking. The Army will transmit a copy of the EIS once it becomes available. A public draft of the EIS is expected to be released in the first quarter of 2015.

A copy of the initial Section 106 consultation regarding this project from 2011 is enclosed for your review (Enclosure 6).

The Army looks forward to consulting with you on the proposed undertaking. We ask for your initial comments on the proposed undertaking. If you have any questions regarding architectural/landscape issues, please contact Kenneth Hays, with the Cultural Resources Section of the Directorate of Public Works at 808-656-6790. If you have any questions pertaining to archeological issues, you may contact Richard Davis, with the Cultural Resources Section of the Directorate of Public Works at 808-655-9709.

Sincerely,

Richard A. Fromm
Colonel, US Army
Commanding

Enclosures

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

OCT 09 2014

Office of the Garrison Commander

Dr. Kamana'opono M. Crabbe
Ka Pouhana, Chief Executive Officer
Office of Hawaiian Affairs
560 N. Nimitz Highway, Suite 200
Honolulu, Hawaii 96817

Dear Dr. Crabbe:

The Office of the Garrison Commander, United States Army Garrison-Hawaii, is writing to open consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (16 USC 470f), on the proposed construction of a new power plant on the south range of Schofield Barracks which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the US Army Garrison in Hawaii and the Hawaiian Electric Company. This venture will allow the Army bases in central Oahu to have better energy security as well as providing Oahu with a power plant located more inland in case the more coastal energy plants are compromised. The Tax Map Key designation for Schofield Barracks and Wheeler Army Airfield (WAAF) is 1-07-07-001.

The proposed undertaking involves the US Army's lease of 8.13 acres of land and the related granting of a 2.5 acre interconnection easement, on Schofield Barracks and WAAF to Hawaiian Electric Company (Hawaiian Electric) for the purpose of the construction, operation, and maintenance of a 50-megawatt (MW) capacity renewable energy power plant to include associated power poles, high-tension power lines, and related equipment and facilities by Hawaiian Electric. The lease would be under the authority of Title 10 of the United States Code (USC) §2667. The project also calls for The State of Hawaii Department of Land and Natural Resources granting of a 1.28 acre easement and a 0.7 acre conservation district authorization allowing for the construction of a 46 kV electrical power transmission line between the power plant site and the existing Wahiawa Substation. Hawaiian Electric's construction, ownership, operation, and maintenance of a 50 megawatt capacity, biofuel-capable power generation plant and 46 kV sub-transmission line are required to connect the Schofield Generating Station to the Hawaiian Electric grid. Hawaiian Electric would be the sole owner of the plant and the electrical power transmission facilities. The proposed facilities would be constructed and operated in accordance with all applicable laws, with approval of the Hawaii Public Utilities Commission (PUC).

The Area of Potential Effect (APE) for this undertaking is approximately 882 acres of land which includes the National Register District at Schofield Barracks, the National Historic Landmark District at WAAF as well as the National Register eligible district at WAAF. The enclosed map illustrates the the APE (Enclosure 1).

Wheeler Army Airfield has a National Historic Landmark District that was created in 1986-87 when a thematic series of districts were created in Hawaii associated with World War II history and the attack on Oahu by the Empire of Japan on the December 7th, 1941. The National Register District at Schofield Barracks was created in 1998. The district's significance is based upon its historic architecture, early 20th century military installation planning, its historic landscape, and the events related to the history of the US Army in Hawaii, particularly from the early Territorial Period through World War II. The Period of Significance is defined as 1908-1945. In the absence of an extensive report on the historic districts of Schofield Barracks and Wheeler Army Airfield, a summary of the historic resources is enclosed for your review (Enclosure 2).

The proposed Schofield Generating Station building is still in its early stages of planning. Information regarding its size, height and other details will be forthcoming. Color conceptual renderings of the structure are enclosed for your review (Enclosure 3).

The undertaking will involve in part the placement of 80' electrical poles along Kunia Road and Wilikina Drive that will be directly adjacent to the National Register District at Schofield Barracks and the historic Garden City neighborhoods at Wheeler Army Airfield (NR eligible). The existing power poles on Kunia Road and Wilikina Drive are approximately 45' tall.

The new poles associated with the project will be placed somewhat close to General's Loop that is within the boundaries of the historic district. However, it is anticipated that the visual impacts may be minimal to the homes at General's Loop due to the large trees that are in the area. The new poles will, however, be placed close to the small two bedroom stucco/mission style homes adjacent to Ralston Field, on Dickman and Kona Road, which have been determined eligible for inclusion on the National Register. These homes were constructed by the Federal Works Program/Works Progress Administration in 1932-33 while the same style homes were built at the Canby neighborhood at Schofield Barracks and at WAAF. The new poles (pole numbers 42, 43 and 44) and lines may be visible from the historic neighborhood.

The new poles and wires proposed for the project may cause negative visual impacts to the Garden City Loops (Langley Loop with the placement of poles 14-18 and at Sperry Loop with the placement of poles 23-27). Poles 11-13 and 28-30 may have visual impacts on the 1936 historic neighborhoods that flank the loops at Wheeler Army Airfield. There may be the potential to have visual impacts on the Landmark district at its western end by the new poles and wires.

A 3D rendering of the proposed poles and wires is included to assist in the visualization of the end results of the undertaking (Enclosure 4).

In compliance with 36 CFR 800.4, the Army in its identification efforts, commissioned the *Archaeological Inventory Survey for Schofield Generating Station Project, Waianae Uka, Honouliuli, and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island, Hawaii* (Garcia & Assoc.—June, 2014). A copy of the report is enclosed for your review (Enclosure 5).

The Army is preparing an Environmental Impact Statement (EIS) to satisfy the National Environmental Policy Act requirements for this undertaking. The Army will transmit a copy of the EIS once it becomes available. A public draft of the EIS is expected to be released in the first quarter of 2015.

A copy of the initial Section 106 consultation regarding this project from 2011 is enclosed for your review (Enclosure 6).

The Army looks forward to consulting with you on the proposed undertaking. We ask for your initial comments on the proposed undertaking. If you have any questions regarding architectural/landscape issues, please contact Kenneth Hays, with the Cultural Resources Section of the Directorate of Public Works at 808-656-6790. If you have any questions pertaining to archeological issues, you may contact Richard Davis, with the Cultural Resources Section of the Directorate of Public Works at 808-655-9709.

Sincerely,

Richard A. Fromm
Colonel, US Army
Commanding

Enclosures

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

OCT 09 2014

Office of the Garrison Commander

Ms. Kiersten Faulkner, Executive Director
Historic Hawaii Foundation
680 Iwilei Road
Suite 690
Honolulu, Hawaii 96817

Dear Ms. Faulkner:

The Office of the Garrison Commander, United States Army Garrison-Hawaii, is writing to open consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (16 USC 470f), on the proposed construction of a new power plant on the south range of Schofield Barracks which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the US Army Garrison in Hawaii and the Hawaiian Electric Company. This venture will allow the Army bases in central Oahu to have better energy security as well as providing Oahu with a power plant located more inland in case the more coastal energy plants are compromised. The Tax Map Key designation for Schofield Barracks and Wheeler Army Airfield (WAAF) is 1-07-07-001.

The proposed undertaking involves the US Army's lease of 8.13 acres of land and the related granting of a 2.5 acre interconnection easement, on Schofield Barracks and WAAF to Hawaiian Electric Company (Hawaiian Electric) for the purpose of the construction, operation, and maintenance of a 50-megawatt (MW) capacity renewable energy power plant to include associated power poles, high-tension power lines, and related equipment and facilities by Hawaiian Electric. The lease would be under the authority of Title 10 of the United States Code (USC) §2667. The project also calls for The State of Hawaii Department of Land and Natural Resources granting of a 1.28 acre easement and a 0.7 acre conservation district authorization allowing for the construction of a 46 kV electrical power transmission line between the power plant site and the existing Wahiawa Substation. Hawaiian Electric's construction, ownership, operation, and maintenance of a 50 megawatt capacity, biofuel-capable power generation plant and 46 kV sub-transmission line are required to connect the Schofield Generating Station to the Hawaiian Electric grid. Hawaiian Electric would be the sole owner of the plant and the electrical power transmission facilities. The proposed facilities would be constructed and operated in accordance with all applicable laws, with approval of the Hawaii Public Utilities Commission (PUC).

The Area of Potential Effect (APE) for this undertaking is approximately 882 acres of land which includes the National Register District at Schofield Barracks, the National Historic Landmark District at WAAF as well as the National Register eligible district at WAAF. The enclosed map illustrates the the APE (Enclosure 1).

Wheeler Army Airfield has a National Historic Landmark District that was created in 1986-87 when a thematic series of districts were created in Hawaii associated with World War II history and the attack on Oahu by the Empire of Japan on the December 7th, 1941. The National Register District at Schofield Barracks was created in 1998. The district's significance is based upon its historic architecture, early 20th century military installation planning, its historic landscape, and the events related to the history of the US Army in Hawaii, particularly from the early Territorial Period through World War II. The Period of Significance is defined as 1908-1945. In the absence of an extensive report on the historic districts of Schofield Barracks and Wheeler Army Airfield, a summary of the historic resources is enclosed for your review (Enclosure 2).

The proposed Schofield Generating Station building is still in its early stages of planning. Information regarding its size, height and other details will be forthcoming. Color conceptual renderings of the structure are enclosed for your review (Enclosure 3).

The undertaking will involve in part the placement of 80' electrical poles along Kunia Road and Wilikina Drive that will be directly adjacent to the National Register District at Schofield Barracks and the historic Garden City neighborhoods at Wheeler Army Airfield (NR eligible). The existing power poles on Kunia Road and Wilikina Drive are approximately 45' tall.

The new poles associated with the project will be placed somewhat close to General's Loop that is within the boundaries of the historic district. However, it is anticipated that the visual impacts may be minimal to the homes at General's Loop due to the large trees that are in the area. The new poles will, however, be placed close to the small two bedroom stucco/mission style homes adjacent to Ralston Field, on Dickman and Kona Road, which have been determined eligible for inclusion on the National Register. These homes were constructed by the Federal Works Program/Works Progress Administration in 1932-33 while the same style homes were built at the Canby neighborhood at Schofield Barracks and at WAAF. The new poles (pole numbers 42, 43 and 44) and lines may be visible from the historic neighborhood.

The new poles and wires proposed for the project may cause negative visual impacts to the Garden City Loops (Langley Loop with the placement of poles 14-18 and at Sperry Loop with the placement of poles 23-27). Poles 11-13 and 28-30 may have visual impacts on the 1936 historic neighborhoods that flank the loops at Wheeler Army Airfield. There may be the potential to have visual impacts on the Landmark district at its western end by the new poles and wires.

A 3D rendering of the proposed poles and wires is included on a compact disc to assist in the visualization of the end results of the undertaking (Enclosure 4).

In compliance with 36 CFR 800.4, the Army in its identification efforts, commissioned the *Archaeological Inventory Survey for Schofield Generating Station Project, Waianae Uka, Honouliuli, and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island, Hawaii* (Garcia & Assoc.—June, 2014). A copy of the report is enclosed for your review (Enclosure 5).

The Army is preparing an Environmental Impact Statement (EIS) to satisfy the National Environmental Policy Act requirements for this undertaking. The Army will transmit a copy of the EIS once it becomes available. A public draft of the EIS is expected to be released in the first quarter of 2015.

A copy of the initial Section 106 consultation regarding this project from 2011 is enclosed for your review (Enclosure 6).

The Army looks forward to consulting with you on the proposed undertaking. We ask for your initial comments on the proposed undertaking. If you have any questions regarding architectural/landscape issues, please contact Kenneth Hays, with the Cultural Resources Section of the Directorate of Public Works at 808-656-6790. If you have any questions pertaining to archeological issues, you may contact Richard Davis, with the Cultural Resources Section of the Directorate of Public Works at 808-655-9709.

Sincerely,

Richard A. Fromm
Colonel, US Army
Commanding

Enclosures

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

OCT 09 2014

Office of the Garrison Commander

Mr. Alika Poe Silva
Kahu Kulāiwi, Ko'a Mana
Kupuka'āina O Wai'anae Moku, O'ahu
85-140 Maiu'u Road
Wai'anae, Hawai'i 96792

Dear Mr. Silva:

The Office of the Garrison Commander, United States Army Garrison-Hawaii, is writing to open consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (16 USC 470f), on the proposed construction of a new power plant on the south range of Schofield Barracks which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the US Army Garrison in Hawaii and the Hawaiian Electric Company. This venture will allow the Army bases in central Oahu to have better energy security as well as providing Oahu with a power plant located more inland in case the more coastal energy plants are compromised. The Tax Map Key designation for Schofield Barracks and Wheeler Army Airfield (WAAF) is 1-07-07-001.

The proposed undertaking involves the US Army's lease of 8.13 acres of land and the related granting of a 2.5 acre interconnection easement, on Schofield Barracks and WAAF to Hawaiian Electric Company (Hawaiian Electric) for the purpose of the construction, operation, and maintenance of a 50-megawatt (MW) capacity renewable energy power plant to include associated power poles, high-tension power lines, and related equipment and facilities by Hawaiian Electric. The lease would be under the authority of Title 10 of the United States Code (USC) §2667. The project also calls for The State of Hawaii Department of Land and Natural Resources granting of a 1.28 acre easement and a 0.7 acre conservation district authorization allowing for the construction of a 46 kV electrical power transmission line between the power plant site and the existing Wahiawa Substation. Hawaiian Electric's construction, ownership, operation, and maintenance of a 50 megawatt capacity, biofuel-capable power generation plant and 46 kV sub-transmission line are required to connect the Schofield Generating Station to the Hawaiian Electric grid. Hawaiian Electric would be the sole owner of the plant and the electrical power transmission facilities. The proposed facilities would be constructed and operated in accordance with all applicable laws, with approval of the Hawaii Public Utilities Commission (PUC).

The Area of Potential Effect (APE) for this undertaking is approximately 882 acres of land which includes the National Register District at Schofield Barracks, the National Historic Landmark District at WAAF as well as the National Register eligible district at WAAF. The enclosed map illustrates the the APE (Enclosure 1).

Wheeler Army Airfield has a National Historic Landmark District that was created in 1986-87 when a thematic series of districts were created in Hawaii associated with World War II history and the attack on Oahu by the Empire of Japan on the December 7th, 1941. The National Register District at Schofield Barracks was created in 1998. The district's significance is based upon its historic architecture, early 20th century military installation planning, its historic landscape, and the events related to the history of the US Army in Hawaii, particularly from the early Territorial Period through World War II. The Period of Significance is defined as 1908-1945. In the absence of an extensive report on the historic districts of Schofield Barracks and Wheeler Army Airfield, a summary of the historic resources is enclosed for your review (Enclosure 2).

The proposed Schofield Generating Station building is still in its early stages of planning. Information regarding its size, height and other details will be forthcoming. Color conceptual renderings of the structure are enclosed for your review (Enclosure 3).

The undertaking will involve in part the placement of 80' electrical poles along Kunia Road and Wilikina Drive that will be directly adjacent to the National Register District at Schofield Barracks and the historic Garden City neighborhoods at Wheeler Army Airfield (NR eligible). The existing power poles on Kunia Road and Wilikina Drive are approximately 45' tall.

The new poles associated with the project will be placed somewhat close to General's Loop that is within the boundaries of the historic district. However, it is anticipated that the visual impacts may be minimal to the homes at General's Loop due to the large trees that are in the area. The new poles will, however, be placed close to the small two bedroom stucco/mission style homes adjacent to Ralston Field, on Dickman and Kona Road, which have been determined eligible for inclusion on the National Register. These homes were constructed by the Federal Works Program/Works Progress Administration in 1932-33 while the same style homes were built at the Canby neighborhood at Schofield Barracks and at WAAF. The new poles (pole numbers 42, 43 and 44) and lines may be visible from the historic neighborhood.

The new poles and wires proposed for the project may cause negative visual impacts to the Garden City Loops (Langley Loop with the placement of poles 14-18 and at Sperry Loop with the placement of poles 23-27). Poles 11-13 and 28-30 may have visual impacts on the 1936 historic neighborhoods that flank the loops at Wheeler Army Airfield. There may be the potential to have visual impacts on the Landmark district at its western end by the new poles and wires.

A 3D rendering of the proposed poles and wires is included to assist in the visualization of the end results of the undertaking (Enclosure 4).

In compliance with 36 CFR 800.4, the Army in its identification efforts, commissioned the *Archaeological Inventory Survey for Schofield Generating Station Project, Waianae Uka, Honouliuli, and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island, Hawaii* (Garcia & Assoc.—June, 2014). A copy of the report is enclosed for your review (Enclosure 5).

The Army is preparing an Environmental Impact Statement (EIS) to satisfy the National Environmental Policy Act requirements for this undertaking. The Army will transmit a copy of the EIS once it becomes available. A public draft of the EIS is expected to be released in the first quarter of 2015.

A copy of the initial Section 106 consultation regarding this project from 2011 is enclosed for your review (Enclosure 6).

The Army looks forward to consulting with you on the proposed undertaking. We ask for your initial comments on the proposed undertaking. If you have any questions regarding architectural/landscape issues, please contact Kenneth Hays, with the Cultural Resources Section of the Directorate of Public Works at 808-656-6790. If you have any questions pertaining to archeological issues, you may contact Richard Davis, with the Cultural Resources Section of the Directorate of Public Works at 808-655-9709.

Sincerely,

Richard A. Fromm
Colonel, US Army
Commanding

Enclosures

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

OCT 0 9 2014

Office of the Garrison Commander

Mr. JR Keoneakapu Williams
'Ohana Kapu
85-1029 Mahi'aina St
Wai'anae, Hawai'i 96792

Dear Mr. Williams:

The Office of the Garrison Commander, United States Army Garrison-Hawaii, is writing to open consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (16 USC 470f), on the proposed construction of a new power plant on the south range of Schofield Barracks which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the US Army Garrison in Hawaii and the Hawaiian Electric Company. This venture will allow the Army bases in central Oahu to have better energy security as well as providing Oahu with a power plant located more inland in case the more coastal energy plants are compromised. The Tax Map Key designation for Schofield Barracks and Wheeler Army Airfield (WAAF) is 1-07-07-001.

The proposed undertaking involves the US Army's lease of 8.13 acres of land and the related granting of a 2.5 acre interconnection easement, on Schofield Barracks and WAAF to Hawaiian Electric Company (Hawaiian Electric) for the purpose of the construction, operation, and maintenance of a 50-megawatt (MW) capacity renewable energy power plant to include associated power poles, high-tension power lines, and related equipment and facilities by Hawaiian Electric. The lease would be under the authority of Title 10 of the United States Code (USC) §2667. The project also calls for The State of Hawaii Department of Land and Natural Resources granting of a 1.28 acre easement and a 0.7 acre conservation district authorization allowing for the construction of a 46 kV electrical power transmission line between the power plant site and the existing Wahiawa Substation. Hawaiian Electric's construction, ownership, operation, and maintenance of a 50 megawatt capacity, biofuel-capable power generation plant and 46 kV sub-transmission line are required to connect the Schofield Generating Station to the Hawaiian Electric grid. Hawaiian Electric would be the sole owner of the plant and the electrical power transmission facilities. The proposed facilities would be constructed and operated in accordance with all applicable laws, with approval of the Hawaii Public Utilities Commission (PUC).

The Area of Potential Effect (APE) for this undertaking is approximately 882 acres of land which includes the National Register District at Schofield Barracks, the National Historic Landmark District at WAAF as well as the National Register eligible district at WAAF. The enclosed map illustrates the the APE (Enclosure 1).

Wheeler Army Airfield has a National Historic Landmark District that was created in 1986-87 when a thematic series of districts were created in Hawaii associated with World War II history and the attack on Oahu by the Empire of Japan on the December 7th, 1941. The National Register District at Schofield Barracks was created in 1998. The district's significance is based upon its historic architecture, early 20th century military installation planning, its historic landscape, and the events related to the history of the US Army in Hawaii, particularly from the early Territorial Period through World War II. The Period of Significance is defined as 1908-1945. In the absence of an extensive report on the historic districts of Schofield Barracks and Wheeler Army Airfield, a summary of the historic resources is enclosed for your review (Enclosure 2).

The proposed Schofield Generating Station building is still in its early stages of planning. Information regarding its size, height and other details will be forthcoming. Color conceptual renderings of the structure are enclosed for your review (Enclosure 3).

The undertaking will involve in part the placement of 80' electrical poles along Kunia Road and Wilikina Drive that will be directly adjacent to the National Register District at Schofield Barracks and the historic Garden City neighborhoods at Wheeler Army Airfield (NR eligible). The existing power poles on Kunia Road and Wilikina Drive are approximately 45' tall.

The new poles associated with the project will be placed somewhat close to General's Loop that is within the boundaries of the historic district. However, it is anticipated that the visual impacts may be minimal to the homes at General's Loop due to the large trees that are in the area. The new poles will, however, be placed close to the small two bedroom stucco/mission style homes adjacent to Ralston Field, on Dickman and Kona Road, which have been determined eligible for inclusion on the National Register. These homes were constructed by the Federal Works Program/Works Progress Administration in 1932-33 while the same style homes were built at the Canby neighborhood at Schofield Barracks and at WAAF. The new poles (pole numbers 42, 43 and 44) and lines may be visible from the historic neighborhood.

The new poles and wires proposed for the project may cause negative visual impacts to the Garden City Loops (Langley Loop with the placement of poles 14-18 and at Sperry Loop with the placement of poles 23-27). Poles 11-13 and 28-30 may have visual impacts on the 1936 historic neighborhoods that flank the loops at Wheeler Army Airfield. There may be the potential to have visual impacts on the Landmark district at its western end by the new poles and wires.

A 3D rendering of the proposed poles and wires is included to assist in the visualization of the end results of the undertaking (Enclosure 4).

In compliance with 36 CFR 800.4, the Army in its identification efforts, commissioned the *Archaeological Inventory Survey for Schofield Generating Station Project, Waianae Uka, Honouliuli, and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island, Hawaii* (Garcia & Assoc.—June, 2014). A copy of the report is enclosed for your review (Enclosure 5).

The Army is preparing an Environmental Impact Statement (EIS) to satisfy the National Environmental Policy Act requirements for this undertaking. The Army will transmit a copy of the EIS once it becomes available. A public draft of the EIS is expected to be released in the first quarter of 2015.

A copy of the initial Section 106 consultation regarding this project from 2011 is enclosed for your review (Enclosure 6).

The Army looks forward to consulting with you on the proposed undertaking. We ask for your initial comments on the proposed undertaking. If you have any questions regarding architectural/landscape issues, please contact Kenneth Hays, with the Cultural Resources Section of the Directorate of Public Works at 808-656-6790. If you have any questions pertaining to archeological issues, you may contact Richard Davis, with the Cultural Resources Section of the Directorate of Public Works at 808-655-9709.

Sincerely,

Richard A. Fromm
Colonel, US Army
Commanding

Enclosures

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

OCT 0 9 2014

Office of the Garrison Commander

Mr. Kimball Kekaimalino Kaopio
'Ohana Naihe
85-1029 Mahi'aina St.
Wai'anae, Hawai'i 96792

Dear Mr. Kaopio:

The Office of the Garrison Commander, United States Army Garrison-Hawaii, is writing to open consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (16 USC 470f), on the proposed construction of a new power plant on the south range of Schofield Barracks which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the US Army Garrison in Hawaii and the Hawaiian Electric Company. This venture will allow the Army bases in central Oahu to have better energy security as well as providing Oahu with a power plant located more inland in case the more coastal energy plants are compromised. The Tax Map Key designation for Schofield Barracks and Wheeler Army Airfield (WAAF) is 1-07-07-001.

The proposed undertaking involves the US Army's lease of 8.13 acres of land and the related granting of a 2.5 acre interconnection easement, on Schofield Barracks and WAAF to Hawaiian Electric Company (Hawaiian Electric) for the purpose of the construction, operation, and maintenance of a 50-megawatt (MW) capacity renewable energy power plant to include associated power poles, high-tension power lines, and related equipment and facilities by Hawaiian Electric. The lease would be under the authority of Title 10 of the United States Code (USC) §2667. The project also calls for The State of Hawaii Department of Land and Natural Resources granting of a 1.28 acre easement and a 0.7 acre conservation district authorization allowing for the construction of a 46 kV electrical power transmission line between the power plant site and the existing Wahiawa Substation. Hawaiian Electric's construction, ownership, operation, and maintenance of a 50 megawatt capacity, biofuel-capable power generation plant and 46 kV sub-transmission line are required to connect the Schofield Generating Station to the Hawaiian Electric grid. Hawaiian Electric would be the sole owner of the plant and the electrical power transmission facilities. The proposed facilities would be constructed and operated in accordance with all applicable laws, with approval of the Hawaii Public Utilities Commission (PUC).

The Area of Potential Effect (APE) for this undertaking is approximately 882 acres of land which includes the National Register District at Schofield Barracks, the National Historic Landmark District at WAAF as well as the National Register eligible district at WAAF. The enclosed map illustrates the the APE (Enclosure 1).

Wheeler Army Airfield has a National Historic Landmark District that was created in 1986-87 when a thematic series of districts were created in Hawaii associated with World War II history and the attack on Oahu by the Empire of Japan on the December 7th, 1941. The National Register District at Schofield Barracks was created in 1998. The district's significance is based upon its historic architecture, early 20th century military installation planning, its historic landscape, and the events related to the history of the US Army in Hawaii, particularly from the early Territorial Period through World War II. The Period of Significance is defined as 1908-1945. In the absence of an extensive report on the historic districts of Schofield Barracks and Wheeler Army Airfield, a summary of the historic resources is enclosed for your review (Enclosure 2).

The proposed Schofield Generating Station building is still in its early stages of planning. Information regarding its size, height and other details will be forthcoming. Color conceptual renderings of the structure are enclosed for your review (Enclosure 3).

The undertaking will involve in part the placement of 80' electrical poles along Kunia Road and Wilikina Drive that will be directly adjacent to the National Register District at Schofield Barracks and the historic Garden City neighborhoods at Wheeler Army Airfield (NR eligible). The existing power poles on Kunia Road and Wilikina Drive are approximately 45' tall.

The new poles associated with the project will be placed somewhat close to General's Loop that is within the boundaries of the historic district. However, it is anticipated that the visual impacts may be minimal to the homes at General's Loop due to the large trees that are in the area. The new poles will, however, be placed close to the small two bedroom stucco/mission style homes adjacent to Ralston Field, on Dickman and Kona Road, which have been determined eligible for inclusion on the National Register. These homes were constructed by the Federal Works Program/Works Progress Administration in 1932-33 while the same style homes were built at the Canby neighborhood at Schofield Barracks and at WAAF. The new poles (pole numbers 42, 43 and 44) and lines may be visible from the historic neighborhood.

The new poles and wires proposed for the project may cause negative visual impacts to the Garden City Loops (Langley Loop with the placement of poles 14-18 and at Sperry Loop with the placement of poles 23-27). Poles 11-13 and 28-30 may have visual impacts on the 1936 historic neighborhoods that flank the loops at Wheeler Army Airfield. There may be the potential to have visual impacts on the Landmark district at its western end by the new poles and wires.

A 3D rendering of the proposed poles and wires is included to assist in the visualization of the end results of the undertaking (Enclosure 4).

In compliance with 36 CFR 800.4, the Army in its identification efforts, commissioned the *Archaeological Inventory Survey for Schofield Generating Station Project, Waianae Uka, Honouliuli, and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island, Hawaii* (Garcia & Assoc.—June, 2014). A copy of the report is enclosed for your review (Enclosure 5).

The Army is preparing an Environmental Impact Statement (EIS) to satisfy the National Environmental Policy Act requirements for this undertaking. The Army will transmit a copy of the EIS once it becomes available. A public draft of the EIS is expected to be released in the first quarter of 2015.

A copy of the initial Section 106 consultation regarding this project from 2011 is enclosed for your review (Enclosure 6).

The Army looks forward to consulting with you on the proposed undertaking. We ask for your initial comments on the proposed undertaking. If you have any questions regarding architectural/landscape issues, please contact Kenneth Hays, with the Cultural Resources Section of the Directorate of Public Works at 808-656-6790. If you have any questions pertaining to archeological issues, you may contact Richard Davis, with the Cultural Resources Section of the Directorate of Public Works at 808-655-9709.

Sincerely,

Richard A. Fromm
Colonel, US Army
Commanding

Enclosures

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

OCT 09 2014

Office of the Garrison Commander

Mr. Norman Mana Kaleilani Caceres
'Ohana Huihui
91-225 Pilipiliula Place
Kapolei, Hawai'i 96707

Dear Mr. Caceres:

The Office of the Garrison Commander, United States Army Garrison-Hawaii, is writing to open consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (16 USC 470f), on the proposed construction of a new power plant on the south range of Schofield Barracks which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the US Army Garrison in Hawaii and the Hawaiian Electric Company. This venture will allow the Army bases in central Oahu to have better energy security as well as providing Oahu with a power plant located more inland in case the more coastal energy plants are compromised. The Tax Map Key designation for Schofield Barracks and Wheeler Army Airfield (WAAF) is 1-07-07-001.

The proposed undertaking involves the US Army's lease of 8.13 acres of land and the related granting of a 2.5 acre interconnection easement, on Schofield Barracks and WAAF to Hawaiian Electric Company (Hawaiian Electric) for the purpose of the construction, operation, and maintenance of a 50-megawatt (MW) capacity renewable energy power plant to include associated power poles, high-tension power lines, and related equipment and facilities by Hawaiian Electric. The lease would be under the authority of Title 10 of the United States Code (USC) §2667. The project also calls for The State of Hawaii Department of Land and Natural Resources granting of a 1.28 acre easement and a 0.7 acre conservation district authorization allowing for the construction of a 46 kV electrical power transmission line between the power plant site and the existing Wahiawa Substation. Hawaiian Electric's construction, ownership, operation, and maintenance of a 50 megawatt capacity, biofuel-capable power generation plant and 46 kV sub-transmission line are required to connect the Schofield Generating Station to the Hawaiian Electric grid. Hawaiian Electric would be the sole owner of the plant and the electrical power transmission facilities. The proposed facilities would be constructed and operated in accordance with all applicable laws, with approval of the Hawaii Public Utilities Commission (PUC).

The Area of Potential Effect (APE) for this undertaking is approximately 882 acres of land which includes the National Register District at Schofield Barracks, the National Historic Landmark District at WAAF as well as the National Register eligible district at WAAF. The enclosed map illustrates the the APE (Enclosure 1).

Wheeler Army Airfield has a National Historic Landmark District that was created in 1986-87 when a thematic series of districts were created in Hawaii associated with World War II history and the attack on Oahu by the Empire of Japan on the December 7th, 1941. The National Register District at Schofield Barracks was created in 1998. The district's significance is based upon its historic architecture, early 20th century military installation planning, its historic landscape, and the events related to the history of the US Army in Hawaii, particularly from the early Territorial Period through World War II. The Period of Significance is defined as 1908-1945. In the absence of an extensive report on the historic districts of Schofield Barracks and Wheeler Army Airfield, a summary of the historic resources is enclosed for your review (Enclosure 2).

The proposed Schofield Generating Station building is still in its early stages of planning. Information regarding its size, height and other details will be forthcoming. Color conceptual renderings of the structure are enclosed for your review (Enclosure 3).

The undertaking will involve in part the placement of 80' electrical poles along Kunia Road and Wilikina Drive that will be directly adjacent to the National Register District at Schofield Barracks and the historic Garden City neighborhoods at Wheeler Army Airfield (NR eligible). The existing power poles on Kunia Road and Wilikina Drive are approximately 45' tall.

The new poles associated with the project will be placed somewhat close to General's Loop that is within the boundaries of the historic district. However, it is anticipated that the visual impacts may be minimal to the homes at General's Loop due to the large trees that are in the area. The new poles will, however, be placed close to the small two bedroom stucco/mission style homes adjacent to Ralston Field, on Dickman and Kona Road, which have been determined eligible for inclusion on the National Register. These homes were constructed by the Federal Works Program/Works Progress Administration in 1932-33 while the same style homes were built at the Canby neighborhood at Schofield Barracks and at WAAF. The new poles (pole numbers 42, 43 and 44) and lines may be visible from the historic neighborhood.

The new poles and wires proposed for the project may cause negative visual impacts to the Garden City Loops (Langley Loop with the placement of poles 14-18 and at Sperry Loop with the placement of poles 23-27). Poles 11-13 and 28-30 may have visual impacts on the 1936 historic neighborhoods that flank the loops at Wheeler Army Airfield. There may be the potential to have visual impacts on the Landmark district at its western end by the new poles and wires.

A 3D rendering of the proposed poles and wires is included to assist in the visualization of the end results of the undertaking (Enclosure 4).

In compliance with 36 CFR 800.4, the Army in its identification efforts, commissioned the *Archaeological Inventory Survey for Schofield Generating Station Project, Waianae Uka, Honouliuli, and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island, Hawaii* (Garcia & Assoc.—June, 2014). A copy of the report is enclosed for your review (Enclosure 5).

The Army is preparing an Environmental Impact Statement (EIS) to satisfy the National Environmental Policy Act requirements for this undertaking. The Army will transmit a copy of the EIS once it becomes available. A public draft of the EIS is expected to be released in the first quarter of 2015.

A copy of the initial Section 106 consultation regarding this project from 2011 is enclosed for your review (Enclosure 6).

The Army looks forward to consulting with you on the proposed undertaking. We ask for your initial comments on the proposed undertaking. If you have any questions regarding architectural/landscape issues, please contact Kenneth Hays, with the Cultural Resources Section of the Directorate of Public Works at 808-656-6790. If you have any questions pertaining to archeological issues, you may contact Richard Davis, with the Cultural Resources Section of the Directorate of Public Works at 808-655-9709.

Sincerely,

Richard A. Fromm
Colonel, US Army
Commanding

Enclosures

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

OCT 0 9 2014

Office of the Garrison Commander

Mrs. Leimaile Quitevis
84-695 Farrington Highway
B-212
Waianae, Hawaii 96792

Dear Mrs. Quitevis:

The Office of the Garrison Commander, United States Army Garrison-Hawaii, is writing to open consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (16 USC 470f), on the proposed construction of a new power plant on the south range of Schofield Barracks which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the US Army Garrison in Hawaii and the Hawaiian Electric Company. This venture will allow the Army bases in central Oahu to have better energy security as well as providing Oahu with a power plant located more inland in case the more coastal energy plants are compromised. The Tax Map Key designation for Schofield Barracks and Wheeler Army Airfield (WAAF) is 1-07-07-001.

The proposed undertaking involves the US Army's lease of 8.13 acres of land and the related granting of a 2.5 acre interconnection easement, on Schofield Barracks and WAAF to Hawaiian Electric Company (Hawaiian Electric) for the purpose of the construction, operation, and maintenance of a 50-megawatt (MW) capacity renewable energy power plant to include associated power poles, high-tension power lines, and related equipment and facilities by Hawaiian Electric. The lease would be under the authority of Title 10 of the United States Code (USC) §2667. The project also calls for The State of Hawaii Department of Land and Natural Resources granting of a 1.28 acre easement and a 0.7 acre conservation district authorization allowing for the construction of a 46 kV electrical power transmission line between the power plant site and the existing Wahiawa Substation. Hawaiian Electric's construction, ownership, operation, and maintenance of a 50 megawatt capacity, biofuel-capable power generation plant and 46 kV sub-transmission line are required to connect the Schofield Generating Station to the Hawaiian Electric grid. Hawaiian Electric would be the sole owner of the plant and the electrical power transmission facilities. The proposed facilities would be constructed and operated in accordance with all applicable laws, with approval of the Hawaii Public Utilities Commission (PUC).

The Area of Potential Effect (APE) for this undertaking is approximately 882 acres of land which includes the National Register District at Schofield Barracks, the National Historic Landmark District at WAAF as well as the National Register eligible district at WAAF. The enclosed map illustrates the the APE (Enclosure 1).

Wheeler Army Airfield has a National Historic Landmark District that was created in 1986-87 when a thematic series of districts were created in Hawaii associated with World War II history and the attack on Oahu by the Empire of Japan on the December 7th, 1941. The National Register District at Schofield Barracks was created in 1998. The district's significance is based upon its historic architecture, early 20th century military installation planning, its historic landscape, and the events related to the history of the US Army in Hawaii, particularly from the early Territorial Period through World War II. The Period of Significance is defined as 1908-1945. In the absence of an extensive report on the historic districts of Schofield Barracks and Wheeler Army Airfield, a summary of the historic resources is enclosed for your review (Enclosure 2).

The proposed Schofield Generating Station building is still in its early stages of planning. Information regarding its size, height and other details will be forthcoming. Color conceptual renderings of the structure are enclosed for your review (Enclosure 3).

The undertaking will involve in part the placement of 80' electrical poles along Kunia Road and Wilikina Drive that will be directly adjacent to the National Register District at Schofield Barracks and the historic Garden City neighborhoods at Wheeler Army Airfield (NR eligible). The existing power poles on Kunia Road and Wilikina Drive are approximately 45' tall.

The new poles associated with the project will be placed somewhat close to General's Loop that is within the boundaries of the historic district. However, it is anticipated that the visual impacts may be minimal to the homes at General's Loop due to the large trees that are in the area. The new poles will, however, be placed close to the small two bedroom stucco/mission style homes adjacent to Ralston Field, on Dickman and Kona Road, which have been determined eligible for inclusion on the National Register. These homes were constructed by the Federal Works Program/Works Progress Administration in 1932-33 while the same style homes were built at the Canby neighborhood at Schofield Barracks and at WAAF. The new poles (pole numbers 42, 43 and 44) and lines may be visible from the historic neighborhood.

The new poles and wires proposed for the project may cause negative visual impacts to the Garden City Loops (Langley Loop with the placement of poles 14-18 and at Sperry Loop with the placement of poles 23-27). Poles 11-13 and 28-30 may have visual impacts on the 1936 historic neighborhoods that flank the loops at Wheeler Army Airfield. There may be the potential to have visual impacts on the Landmark district at its western end by the new poles and wires.

A 3D rendering of the proposed poles and wires is included to assist in the visualization of the end results of the undertaking (Enclosure 4).

In compliance with 36 CFR 800.4, the Army in its identification efforts, commissioned the *Archaeological Inventory Survey for Schofield Generating Station Project, Waianae Uka, Honouliuli, and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island, Hawaii* (Garcia & Assoc.—June, 2014). A copy of the report is enclosed for your review (Enclosure 5).

The Army is preparing an Environmental Impact Statement (EIS) to satisfy the National Environmental Policy Act requirements for this undertaking. The Army will transmit a copy of the EIS once it becomes available. A public draft of the EIS is expected to be released in the first quarter of 2015.

A copy of the initial Section 106 consultation regarding this project from 2011 is enclosed for your review (Enclosure 6).

The Army looks forward to consulting with you on the proposed undertaking. We ask for your initial comments on the proposed undertaking. If you have any questions regarding architectural/landscape issues, please contact Kenneth Hays, with the Cultural Resources Section of the Directorate of Public Works at 808-656-6790. If you have any questions pertaining to archeological issues, you may contact Richard Davis, with the Cultural Resources Section of the Directorate of Public Works at 808-655-9709.

Sincerely,

Richard A. Fromm
Colonel, US Army
Commanding

Enclosures

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

OCT 09 2014

Office of the Garrison Commander

Ms. Mahealani Cypher, President
C/O Mr. Shad Kane
O'ahu Council of Hawaiian Civic Clubs
92-1309 Uahanai Street
Kapolei, Hawai'i 96707

Dear Ms. Cypher:

The Office of the Garrison Commander, United States Army Garrison-Hawaii, is writing to open consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (16 USC 470f), on the proposed construction of a new power plant on the south range of Schofield Barracks which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the US Army Garrison in Hawaii and the Hawaiian Electric Company. This venture will allow the Army bases in central Oahu to have better energy security as well as providing Oahu with a power plant located more inland in case the more coastal energy plants are compromised. The Tax Map Key designation for Schofield Barracks and Wheeler Army Airfield (WAAF) is 1-07-07-001.

The proposed undertaking involves the US Army's lease of 8.13 acres of land and the related granting of a 2.5 acre interconnection easement, on Schofield Barracks and WAAF to Hawaiian Electric Company (Hawaiian Electric) for the purpose of the construction, operation, and maintenance of a 50-megawatt (MW) capacity renewable energy power plant to include associated power poles, high-tension power lines, and related equipment and facilities by Hawaiian Electric. The lease would be under the authority of Title 10 of the United States Code (USC) §2667. The project also calls for The State of Hawaii Department of Land and Natural Resources granting of a 1.28 acre easement and a 0.7 acre conservation district authorization allowing for the construction of a 46 kV electrical power transmission line between the power plant site and the existing Wahiawa Substation. Hawaiian Electric's construction, ownership, operation, and maintenance of a 50 megawatt capacity, biofuel-capable power generation plant and 46 kV sub-transmission line are required to connect the Schofield Generating Station to the Hawaiian Electric grid. Hawaiian Electric would be the sole owner of the plant and the electrical power transmission facilities. The proposed facilities would be constructed and operated in accordance with all applicable laws, with approval of the Hawaii Public Utilities Commission (PUC).

The Area of Potential Effect (APE) for this undertaking is approximately 882 acres of land which includes the National Register District at Schofield Barracks, the National Historic Landmark District at WAAF as well as the National Register eligible district at WAAF. The enclosed map illustrates the the APE (Enclosure 1).

Wheeler Army Airfield has a National Historic Landmark District that was created in 1986-87 when a thematic series of districts were created in Hawaii associated with World War II history and the attack on Oahu by the Empire of Japan on the December 7th, 1941. The National Register District at Schofield Barracks was created in 1998. The district's significance is based upon its historic architecture, early 20th century military installation planning, its historic landscape, and the events related to the history of the US Army in Hawaii, particularly from the early Territorial Period through World War II. The Period of Significance is defined as 1908-1945. In the absence of an extensive report on the historic districts of Schofield Barracks and Wheeler Army Airfield, a summary of the historic resources is enclosed for your review (Enclosure 2).

The proposed Schofield Generating Station building is still in its early stages of planning. Information regarding its size, height and other details will be forthcoming. Color conceptual renderings of the structure are enclosed for your review (Enclosure 3).

The undertaking will involve in part the placement of 80' electrical poles along Kunia Road and Wilikina Drive that will be directly adjacent to the National Register District at Schofield Barracks and the historic Garden City neighborhoods at Wheeler Army Airfield (NR eligible). The existing power poles on Kunia Road and Wilikina Drive are approximately 45' tall.

The new poles associated with the project will be placed somewhat close to General's Loop that is within the boundaries of the historic district. However, it is anticipated that the visual impacts may be minimal to the homes at General's Loop due to the large trees that are in the area. The new poles will, however, be placed close to the small two bedroom stucco/mission style homes adjacent to Ralston Field, on Dickman and Kona Road, which have been determined eligible for inclusion on the National Register. These homes were constructed by the Federal Works Program/Works Progress Administration in 1932-33 while the same style homes were built at the Canby neighborhood at Schofield Barracks and at WAAF. The new poles (pole numbers 42, 43 and 44) and lines may be visible from the historic neighborhood.

The new poles and wires proposed for the project may cause negative visual impacts to the Garden City Loops (Langley Loop with the placement of poles 14-18 and at Sperry Loop with the placement of poles 23-27). Poles 11-13 and 28-30 may have visual impacts on the 1936 historic neighborhoods that flank the loops at Wheeler Army Airfield. There may be the potential to have visual impacts on the Landmark district at its western end by the new poles and wires.

A 3D rendering of the proposed poles and wires is included to assist in the visualization of the end results of the undertaking (Enclosure 4).

In compliance with 36 CFR 800.4, the Army in its identification efforts, commissioned the *Archaeological Inventory Survey for Schofield Generating Station Project, Waianae Uka, Honouliuli, and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island, Hawaii* (Garcia & Assoc.—June, 2014). A copy of the report is enclosed for your review (Enclosure 5).

The Army is preparing an Environmental Impact Statement (EIS) to satisfy the National Environmental Policy Act requirements for this undertaking. The Army will transmit a copy of the EIS once it becomes available. A public draft of the EIS is expected to be released in the first quarter of 2015.

A copy of the initial Section 106 consultation regarding this project from 2011 is enclosed for your review (Enclosure 6).

The Army looks forward to consulting with you on the proposed undertaking. We ask for your initial comments on the proposed undertaking. If you have any questions regarding architectural/landscape issues, please contact Kenneth Hays, with the Cultural Resources Section of the Directorate of Public Works at 808-656-6790. If you have any questions pertaining to archeological issues, you may contact Richard Davis, with the Cultural Resources Section of the Directorate of Public Works at 808-655-9709.

Sincerely,

Richard A. Fromm
Colonel, US Army
Commanding

Enclosures

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

OCT 09 2014

Office of the Garrison Commander

Ms. Paulette Ka'anohiokalani Kaleikini
'Ohana Keaweamahi
89-107 Nanaikala Street
Wai'anae, Hawai'i 96792

Dear Ms. Kaleikini:

The Office of the Garrison Commander, United States Army Garrison-Hawaii, is writing to open consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (16 USC 470f), on the proposed construction of a new power plant on the south range of Schofield Barracks which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the US Army Garrison in Hawaii and the Hawaiian Electric Company. This venture will allow the Army bases in central Oahu to have better energy security as well as providing Oahu with a power plant located more inland in case the more coastal energy plants are compromised. The Tax Map Key designation for Schofield Barracks and Wheeler Army Airfield (WAAF) is 1-07-07-001.

The proposed undertaking involves the US Army's lease of 8.13 acres of land and the related granting of a 2.5 acre interconnection easement, on Schofield Barracks and WAAF to Hawaiian Electric Company (Hawaiian Electric) for the purpose of the construction, operation, and maintenance of a 50-megawatt (MW) capacity renewable energy power plant to include associated power poles, high-tension power lines, and related equipment and facilities by Hawaiian Electric. The lease would be under the authority of Title 10 of the United States Code (USC) §2667. The project also calls for The State of Hawaii Department of Land and Natural Resources granting of a 1.28 acre easement and a 0.7 acre conservation district authorization allowing for the construction of a 46 kV electrical power transmission line between the power plant site and the existing Wahiawa Substation. Hawaiian Electric's construction, ownership, operation, and maintenance of a 50 megawatt capacity, biofuel-capable power generation plant and 46 kV sub-transmission line are required to connect the Schofield Generating Station to the Hawaiian Electric grid. Hawaiian Electric would be the sole owner of the plant and the electrical power transmission facilities. The proposed facilities would be constructed and operated in accordance with all applicable laws, with approval of the Hawaii Public Utilities Commission (PUC).

The Area of Potential Effect (APE) for this undertaking is approximately 882 acres of land which includes the National Register District at Schofield Barracks, the National Historic Landmark District at WAAF as well as the National Register eligible district at WAAF. The enclosed map illustrates the the APE (Enclosure 1).

Wheeler Army Airfield has a National Historic Landmark District that was created in 1986-87 when a thematic series of districts were created in Hawaii associated with World War II history and the attack on Oahu by the Empire of Japan on the December 7th, 1941. The National Register District at Schofield Barracks was created in 1998. The district's significance is based upon its historic architecture, early 20th century military installation planning, its historic landscape, and the events related to the history of the US Army in Hawaii, particularly from the early Territorial Period through World War II. The Period of Significance is defined as 1908-1945. In the absence of an extensive report on the historic districts of Schofield Barracks and Wheeler Army Airfield, a summary of the historic resources is enclosed for your review (Enclosure 2).

The proposed Schofield Generating Station building is still in its early stages of planning. Information regarding its size, height and other details will be forthcoming. Color conceptual renderings of the structure are enclosed for your review (Enclosure 3).

The undertaking will involve in part the placement of 80' electrical poles along Kunia Road and Wilikina Drive that will be directly adjacent to the National Register District at Schofield Barracks and the historic Garden City neighborhoods at Wheeler Army Airfield (NR eligible). The existing power poles on Kunia Road and Wilikina Drive are approximately 45' tall.

The new poles associated with the project will be placed somewhat close to General's Loop that is within the boundaries of the historic district. However, it is anticipated that the visual impacts may be minimal to the homes at General's Loop due to the large trees that are in the area. The new poles will, however, be placed close to the small two bedroom stucco/mission style homes adjacent to Ralston Field, on Dickman and Kona Road, which have been determined eligible for inclusion on the National Register. These homes were constructed by the Federal Works Program/Works Progress Administration in 1932-33 while the same style homes were built at the Canby neighborhood at Schofield Barracks and at WAAF. The new poles (pole numbers 42, 43 and 44) and lines may be visible from the historic neighborhood.

The new poles and wires proposed for the project may cause negative visual impacts to the Garden City Loops (Langley Loop with the placement of poles 14-18 and at Sperry Loop with the placement of poles 23-27). Poles 11-13 and 28-30 may have visual impacts on the 1936 historic neighborhoods that flank the loops at Wheeler Army Airfield. There may be the potential to have visual impacts on the Landmark district at its western end by the new poles and wires.

A 3D rendering of the proposed poles and wires is included to assist in the visualization of the end results of the undertaking (Enclosure 4).

In compliance with 36 CFR 800.4, the Army in its identification efforts, commissioned the *Archaeological Inventory Survey for Schofield Generating Station Project, Waianae Uka, Honouliuli, and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island, Hawaii* (Garcia & Assoc.—June, 2014). A copy of the report is enclosed for your review (Enclosure 5).

The Army is preparing an Environmental Impact Statement (EIS) to satisfy the National Environmental Policy Act requirements for this undertaking. The Army will transmit a copy of the EIS once it becomes available. A public draft of the EIS is expected to be released in the first quarter of 2015.

A copy of the initial Section 106 consultation regarding this project from 2011 is enclosed for your review (Enclosure 6).

The Army looks forward to consulting with you on the proposed undertaking. We ask for your initial comments on the proposed undertaking. If you have any questions regarding architectural/landscape issues, please contact Kenneth Hays, with the Cultural Resources Section of the Directorate of Public Works at 808-656-6790. If you have any questions pertaining to archeological issues, you may contact Richard Davis, with the Cultural Resources Section of the Directorate of Public Works at 808-655-9709.

Sincerely,

Richard A. Fromm
Colonel, US Army
Commanding

Enclosures

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

OCT 09 2014

Office of the Garrison Commander

Mr. Edward Halealoha Ayau, Po'o
Hui Malama I Na Kumpuna O Hawaii Nei
P.O. Box 365
Ho'olehua, Hawaii 96729

Dear Mr. Ayau, Po'o:

The Office of the Garrison Commander, United States Army Garrison-Hawaii, is writing to open consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (16 USC 470f), on the proposed construction of a new power plant on the south range of Schofield Barracks which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the US Army Garrison in Hawaii and the Hawaiian Electric Company. This venture will allow the Army bases in central Oahu to have better energy security as well as providing Oahu with a power plant located more inland in case the more coastal energy plants are compromised. The Tax Map Key designation for Schofield Barracks and Wheeler Army Airfield (WAAF) is 1-07-07-001.

The proposed undertaking involves the US Army's lease of 8.13 acres of land and the related granting of a 2.5 acre interconnection easement, on Schofield Barracks and WAAF to Hawaiian Electric Company (Hawaiian Electric) for the purpose of the construction, operation, and maintenance of a 50-megawatt (MW) capacity renewable energy power plant to include associated power poles, high-tension power lines, and related equipment and facilities by Hawaiian Electric. The lease would be under the authority of Title 10 of the United States Code (USC) §2667. The project also calls for The State of Hawaii Department of Land and Natural Resources granting of a 1.28 acre easement and a 0.7 acre conservation district authorization allowing for the construction of a 46 kV electrical power transmission line between the power plant site and the existing Wahiawa Substation. Hawaiian Electric's construction, ownership, operation, and maintenance of a 50 megawatt capacity, biofuel-capable power generation plant and 46 kV sub-transmission line are required to connect the Schofield Generating Station to the Hawaiian Electric grid. Hawaiian Electric would be the sole owner of the plant and the electrical power transmission facilities. The proposed facilities would be constructed and operated in accordance with all applicable laws, with approval of the Hawaii Public Utilities Commission (PUC).

The Area of Potential Effect (APE) for this undertaking is approximately 882 acres of land which includes the National Register District at Schofield Barracks, the National Historic Landmark District at WAAF as well as the National Register eligible district at WAAF. The enclosed map illustrates the the APE (Enclosure 1).

Wheeler Army Airfield has a National Historic Landmark District that was created in 1986-87 when a thematic series of districts were created in Hawaii associated with World War II history and the attack on Oahu by the Empire of Japan on the December 7th, 1941. The National Register District at Schofield Barracks was created in 1998. The district's significance is based upon its historic architecture, early 20th century military installation planning, its historic landscape, and the events related to the history of the US Army in Hawaii, particularly from the early Territorial Period through World War II. The Period of Significance is defined as 1908-1945. In the absence of an extensive report on the historic districts of Schofield Barracks and Wheeler Army Airfield, a summary of the historic resources is enclosed for your review (Enclosure 2).

The proposed Schofield Generating Station building is still in its early stages of planning. Information regarding its size, height and other details will be forthcoming. Color conceptual renderings of the structure are enclosed for your review (Enclosure 3).

The undertaking will involve in part the placement of 80' electrical poles along Kunia Road and Wilikina Drive that will be directly adjacent to the National Register District at Schofield Barracks and the historic Garden City neighborhoods at Wheeler Army Airfield (NR eligible). The existing power poles on Kunia Road and Wilikina Drive are approximately 45' tall.

The new poles associated with the project will be placed somewhat close to General's Loop that is within the boundaries of the historic district. However, it is anticipated that the visual impacts may be minimal to the homes at General's Loop due to the large trees that are in the area. The new poles will, however, be placed close to the small two bedroom stucco/mission style homes adjacent to Ralston Field, on Dickman and Kona Road, which have been determined eligible for inclusion on the National Register. These homes were constructed by the Federal Works Program/Works Progress Administration in 1932-33 while the same style homes were built at the Canby neighborhood at Schofield Barracks and at WAAF. The new poles (pole numbers 42, 43 and 44) and lines may be visible from the historic neighborhood.

The new poles and wires proposed for the project may cause negative visual impacts to the Garden City Loops (Langley Loop with the placement of poles 14-18 and at Sperry Loop with the placement of poles 23-27). Poles 11-13 and 28-30 may have visual impacts on the 1936 historic neighborhoods that flank the loops at Wheeler Army Airfield. There may be the potential to have visual impacts on the Landmark district at its western end by the new poles and wires.

A 3D rendering of the proposed poles and wires is included to assist in the visualization of the end results of the undertaking (Enclosure 4).

In compliance with 36 CFR 800.4, the Army in its identification efforts, commissioned the *Archaeological Inventory Survey for Schofield Generating Station Project, Waianae Uka, Honouliuli, and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island, Hawaii* (Garcia & Assoc.—June, 2014). A copy of the report is enclosed for your review (Enclosure 5).

The Army is preparing an Environmental Impact Statement (EIS) to satisfy the National Environmental Policy Act requirements for this undertaking. The Army will transmit a copy of the EIS once it becomes available. A public draft of the EIS is expected to be released in the first quarter of 2015.

A copy of the initial Section 106 consultation regarding this project from 2011 is enclosed for your review (Enclosure 6).

The Army looks forward to consulting with you on the proposed undertaking. We ask for your initial comments on the proposed undertaking. If you have any questions regarding architectural/landscape issues, please contact Kenneth Hays, with the Cultural Resources Section of the Directorate of Public Works at 808-656-6790. If you have any questions pertaining to archeological issues, you may contact Richard Davis, with the Cultural Resources Section of the Directorate of Public Works at 808-655-9709.

Sincerely,

Richard A. Fromm
Colonel, US Army
Commanding

Enclosures

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

OCT 09 2014

Office of the Garrison Commander

Mr. Kalahikiola Keliinoi
'Ohana Keliinoi
89-107 Nanaikala Street
Wai'anae Hawai'i 96792

Dear Mr. Keliinoi:

The Office of the Garrison Commander, United States Army Garrison-Hawaii, is writing to open consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (16 USC 470f), on the proposed construction of a new power plant on the south range of Schofield Barracks which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the US Army Garrison in Hawaii and the Hawaiian Electric Company. This venture will allow the Army bases in central Oahu to have better energy security as well as providing Oahu with a power plant located more inland in case the more coastal energy plants are compromised. The Tax Map Key designation for Schofield Barracks and Wheeler Army Airfield (WAAF) is 1-07-07-001.

The proposed undertaking involves the US Army's lease of 8.13 acres of land and the related granting of a 2.5 acre interconnection easement, on Schofield Barracks and WAAF to Hawaiian Electric Company (Hawaiian Electric) for the purpose of the construction, operation, and maintenance of a 50-megawatt (MW) capacity renewable energy power plant to include associated power poles, high-tension power lines, and related equipment and facilities by Hawaiian Electric. The lease would be under the authority of Title 10 of the United States Code (USC) §2667. The project also calls for The State of Hawaii Department of Land and Natural Resources granting of a 1.28 acre easement and a 0.7 acre conservation district authorization allowing for the construction of a 46 kV electrical power transmission line between the power plant site and the existing Wahiawa Substation. Hawaiian Electric's construction, ownership, operation, and maintenance of a 50 megawatt capacity, biofuel-capable power generation plant and 46 kV sub-transmission line are required to connect the Schofield Generating Station to the Hawaiian Electric grid. Hawaiian Electric would be the sole owner of the plant and the electrical power transmission facilities. The proposed facilities would be constructed and operated in accordance with all applicable laws, with approval of the Hawaii Public Utilities Commission (PUC).

The Area of Potential Effect (APE) for this undertaking is approximately 882 acres of land which includes the National Register District at Schofield Barracks, the National Historic Landmark District at WAAF as well as the National Register eligible district at WAAF. The enclosed map illustrates the the APE (Enclosure 1).

Wheeler Army Airfield has a National Historic Landmark District that was created in 1986-87 when a thematic series of districts were created in Hawaii associated with World War II history and the attack on Oahu by the Empire of Japan on the December 7th, 1941. The National Register District at Schofield Barracks was created in 1998. The district's significance is based upon its historic architecture, early 20th century military installation planning, its historic landscape, and the events related to the history of the US Army in Hawaii, particularly from the early Territorial Period through World War II. The Period of Significance is defined as 1908-1945. In the absence of an extensive report on the historic districts of Schofield Barracks and Wheeler Army Airfield, a summary of the historic resources is enclosed for your review (Enclosure 2).

The proposed Schofield Generating Station building is still in its early stages of planning. Information regarding its size, height and other details will be forthcoming. Color conceptual renderings of the structure are enclosed for your review (Enclosure 3).

The undertaking will involve in part the placement of 80' electrical poles along Kunia Road and Wilikina Drive that will be directly adjacent to the National Register District at Schofield Barracks and the historic Garden City neighborhoods at Wheeler Army Airfield (NR eligible). The existing power poles on Kunia Road and Wilikina Drive are approximately 45' tall.

The new poles associated with the project will be placed somewhat close to General's Loop that is within the boundaries of the historic district. However, it is anticipated that the visual impacts may be minimal to the homes at General's Loop due to the large trees that are in the area. The new poles will, however, be placed close to the small two bedroom stucco/mission style homes adjacent to Ralston Field, on Dickman and Kona Road, which have been determined eligible for inclusion on the National Register. These homes were constructed by the Federal Works Program/Works Progress Administration in 1932-33 while the same style homes were built at the Canby neighborhood at Schofield Barracks and at WAAF. The new poles (pole numbers 42, 43 and 44) and lines may be visible from the historic neighborhood.

The new poles and wires proposed for the project may cause negative visual impacts to the Garden City Loops (Langley Loop with the placement of poles 14-18 and at Sperry Loop with the placement of poles 23-27). Poles 11-13 and 28-30 may have visual impacts on the 1936 historic neighborhoods that flank the loops at Wheeler Army Airfield. There may be the potential to have visual impacts on the Landmark district at its western end by the new poles and wires.

A 3D rendering of the proposed poles and wires is included to assist in the visualization of the end results of the undertaking (Enclosure 4).

In compliance with 36 CFR 800.4, the Army in its identification efforts, commissioned the *Archaeological Inventory Survey for Schofield Generating Station Project, Waianae Uka, Honouliuli, and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island, Hawaii* (Garcia & Assoc.—June, 2014). A copy of the report is enclosed for your review (Enclosure 5).

The Army is preparing an Environmental Impact Statement (EIS) to satisfy the National Environmental Policy Act requirements for this undertaking. The Army will transmit a copy of the EIS once it becomes available. A public draft of the EIS is expected to be released in the first quarter of 2015.

A copy of the initial Section 106 consultation regarding this project from 2011 is enclosed for your review (Enclosure 6).

The Army looks forward to consulting with you on the proposed undertaking. We ask for your initial comments on the proposed undertaking. If you have any questions regarding architectural/landscape issues, please contact Kenneth Hays, with the Cultural Resources Section of the Directorate of Public Works at 808-656-6790. If you have any questions pertaining to archeological issues, you may contact Richard Davis, with the Cultural Resources Section of the Directorate of Public Works at 808-655-9709.

Sincerely,

Richard A. Fromm
Colonel, US Army
Commanding

Enclosures

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

OCT 0 9 2014

Office of the Garrison Commander

Ms. Kehaulani Souza
94-115 Puanane Loop
Mililani, Hawaii 96789

Dear Ms. Souza:

The Office of the Garrison Commander, United States Army Garrison-Hawaii, is writing to open consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (16 USC 470f), on the proposed construction of a new power plant on the south range of Schofield Barracks which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the US Army Garrison in Hawaii and the Hawaiian Electric Company. This venture will allow the Army bases in central Oahu to have better energy security as well as providing Oahu with a power plant located more inland in case the more coastal energy plants are compromised. The Tax Map Key designation for Schofield Barracks and Wheeler Army Airfield (WAAF) is 1-07-07-001.

The proposed undertaking involves the US Army's lease of 8.13 acres of land and the related granting of a 2.5 acre interconnection easement, on Schofield Barracks and WAAF to Hawaiian Electric Company (Hawaiian Electric) for the purpose of the construction, operation, and maintenance of a 50-megawatt (MW) capacity renewable energy power plant to include associated power poles, high-tension power lines, and related equipment and facilities by Hawaiian Electric. The lease would be under the authority of Title 10 of the United States Code (USC) §2667. The project also calls for The State of Hawaii Department of Land and Natural Resources granting of a 1.28 acre easement and a 0.7 acre conservation district authorization allowing for the construction of a 46 kV electrical power transmission line between the power plant site and the existing Wahiawa Substation. Hawaiian Electric's construction, ownership, operation, and maintenance of a 50 megawatt capacity, biofuel-capable power generation plant and 46 kV sub-transmission line are required to connect the Schofield Generating Station to the Hawaiian Electric grid. Hawaiian Electric would be the sole owner of the plant and the electrical power transmission facilities. The proposed facilities would be constructed and operated in accordance with all applicable laws, with approval of the Hawaii Public Utilities Commission (PUC).

The Area of Potential Effect (APE) for this undertaking is approximately 882 acres of land which includes the National Register District at Schofield Barracks, the National Historic Landmark District at WAAF as well as the National Register eligible district at WAAF. The enclosed map illustrates the the APE (Enclosure 1).

Wheeler Army Airfield has a National Historic Landmark District that was created in 1986-87 when a thematic series of districts were created in Hawaii associated with World War II history and the attack on Oahu by the Empire of Japan on the December 7th, 1941. The National Register District at Schofield Barracks was created in 1998. The district's significance is based upon its historic architecture, early 20th century military installation planning, its historic landscape, and the events related to the history of the US Army in Hawaii, particularly from the early Territorial Period through World War II. The Period of Significance is defined as 1908-1945. In the absence of an extensive report on the historic districts of Schofield Barracks and Wheeler Army Airfield, a summary of the historic resources is enclosed for your review (Enclosure 2).

The proposed Schofield Generating Station building is still in its early stages of planning. Information regarding its size, height and other details will be forthcoming. Color conceptual renderings of the structure are enclosed for your review (Enclosure 3).

The undertaking will involve in part the placement of 80' electrical poles along Kunia Road and Wilikina Drive that will be directly adjacent to the National Register District at Schofield Barracks and the historic Garden City neighborhoods at Wheeler Army Airfield (NR eligible). The existing power poles on Kunia Road and Wilikina Drive are approximately 45' tall.

The new poles associated with the project will be placed somewhat close to General's Loop that is within the boundaries of the historic district. However, it is anticipated that the visual impacts may be minimal to the homes at General's Loop due to the large trees that are in the area. The new poles will, however, be placed close to the small two bedroom stucco/mission style homes adjacent to Ralston Field, on Dickman and Kona Road, which have been determined eligible for inclusion on the National Register. These homes were constructed by the Federal Works Program/Works Progress Administration in 1932-33 while the same style homes were built at the Canby neighborhood at Schofield Barracks and at WAAF. The new poles (pole numbers 42, 43 and 44) and lines may be visible from the historic neighborhood.

The new poles and wires proposed for the project may cause negative visual impacts to the Garden City Loops (Langley Loop with the placement of poles 14-18 and at Sperry Loop with the placement of poles 23-27). Poles 11-13 and 28-30 may have visual impacts on the 1936 historic neighborhoods that flank the loops at Wheeler Army Airfield. There may be the potential to have visual impacts on the Landmark district at its western end by the new poles and wires.

A 3D rendering of the proposed poles and wires is included to assist in the visualization of the end results of the undertaking (Enclosure 4).

In compliance with 36 CFR 800.4, the Army in its identification efforts, commissioned the *Archaeological Inventory Survey for Schofield Generating Station Project, Waianae Uka, Honouliuli, and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island, Hawaii* (Garcia & Assoc.—June, 2014). A copy of the report is enclosed for your review (Enclosure 5).

The Army is preparing an Environmental Impact Statement (EIS) to satisfy the National Environmental Policy Act requirements for this undertaking. The Army will transmit a copy of the EIS once it becomes available. A public draft of the EIS is expected to be released in the first quarter of 2015.

A copy of the initial Section 106 consultation regarding this project from 2011 is enclosed for your review (Enclosure 6).

The Army looks forward to consulting with you on the proposed undertaking. We ask for your initial comments on the proposed undertaking. If you have any questions regarding architectural/landscape issues, please contact Kenneth Hays, with the Cultural Resources Section of the Directorate of Public Works at 808-656-6790. If you have any questions pertaining to archeological issues, you may contact Richard Davis, with the Cultural Resources Section of the Directorate of Public Works at 808-655-9709.

Sincerely,

Richard A. Fromm
Colonel, US Army
Commanding

Enclosures

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

OCT 09 2014

Office of the Garrison Commander

Ms. Keona Mark
'Ohana Mahu
PO Box 2
Hale'iwa, Hawai'i 96712

Dear Ms. Mark:

The Office of the Garrison Commander, United States Army Garrison-Hawaii, is writing to open consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (16 USC 470f), on the proposed construction of a new power plant on the south range of Schofield Barracks which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the US Army Garrison in Hawaii and the Hawaiian Electric Company. This venture will allow the Army bases in central Oahu to have better energy security as well as providing Oahu with a power plant located more inland in case the more coastal energy plants are compromised. The Tax Map Key designation for Schofield Barracks and Wheeler Army Airfield (WAAF) is 1-07-07-001.

The proposed undertaking involves the US Army's lease of 8.13 acres of land and the related granting of a 2.5 acre interconnection easement, on Schofield Barracks and WAAF to Hawaiian Electric Company (Hawaiian Electric) for the purpose of the construction, operation, and maintenance of a 50-megawatt (MW) capacity renewable energy power plant to include associated power poles, high-tension power lines, and related equipment and facilities by Hawaiian Electric. The lease would be under the authority of Title 10 of the United States Code (USC) §2667. The project also calls for The State of Hawaii Department of Land and Natural Resources granting of a 1.28 acre easement and a 0.7 acre conservation district authorization allowing for the construction of a 46 kV electrical power transmission line between the power plant site and the existing Wahiawa Substation. Hawaiian Electric's construction, ownership, operation, and maintenance of a 50 megawatt capacity, biofuel-capable power generation plant and 46 kV sub-transmission line are required to connect the Schofield Generating Station to the Hawaiian Electric grid. Hawaiian Electric would be the sole owner of the plant and the electrical power transmission facilities. The proposed facilities would be constructed and operated in accordance with all applicable laws, with approval of the Hawaii Public Utilities Commission (PUC).

The Area of Potential Effect (APE) for this undertaking is approximately 882 acres of land which includes the National Register District at Schofield Barracks, the National Historic Landmark District at WAAF as well as the National Register eligible district at WAAF. The enclosed map illustrates the the APE (Enclosure 1).

Wheeler Army Airfield has a National Historic Landmark District that was created in 1986-87 when a thematic series of districts were created in Hawaii associated with World War II history and the attack on Oahu by the Empire of Japan on the December 7th, 1941. The National Register District at Schofield Barracks was created in 1998. The district's significance is based upon its historic architecture, early 20th century military installation planning, its historic landscape, and the events related to the history of the US Army in Hawaii, particularly from the early Territorial Period through World War II. The Period of Significance is defined as 1908-1945. In the absence of an extensive report on the historic districts of Schofield Barracks and Wheeler Army Airfield, a summary of the historic resources is enclosed for your review (Enclosure 2).

The proposed Schofield Generating Station building is still in its early stages of planning. Information regarding its size, height and other details will be forthcoming. Color conceptual renderings of the structure are enclosed for your review (Enclosure 3).

The undertaking will involve in part the placement of 80' electrical poles along Kunia Road and Wilikina Drive that will be directly adjacent to the National Register District at Schofield Barracks and the historic Garden City neighborhoods at Wheeler Army Airfield (NR eligible). The existing power poles on Kunia Road and Wilikina Drive are approximately 45' tall.

The new poles associated with the project will be placed somewhat close to General's Loop that is within the boundaries of the historic district. However, it is anticipated that the visual impacts may be minimal to the homes at General's Loop due to the large trees that are in the area. The new poles will, however, be placed close to the small two bedroom stucco/mission style homes adjacent to Ralston Field, on Dickman and Kona Road, which have been determined eligible for inclusion on the National Register. These homes were constructed by the Federal Works Program/Works Progress Administration in 1932-33 while the same style homes were built at the Canby neighborhood at Schofield Barracks and at WAAF. The new poles (pole numbers 42, 43 and 44) and lines may be visible from the historic neighborhood.

The new poles and wires proposed for the project may cause negative visual impacts to the Garden City Loops (Langley Loop with the placement of poles 14-18 and at Sperry Loop with the placement of poles 23-27). Poles 11-13 and 28-30 may have visual impacts on the 1936 historic neighborhoods that flank the loops at Wheeler Army Airfield. There may be the potential to have visual impacts on the Landmark district at its western end by the new poles and wires.

A 3D rendering of the proposed poles and wires is included to assist in the visualization of the end results of the undertaking (Enclosure 4).

In compliance with 36 CFR 800.4, the Army in its identification efforts, commissioned the *Archaeological Inventory Survey for Schofield Generating Station Project, Waianae Uka, Honouliuli, and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island, Hawaii* (Garcia & Assoc.—June, 2014). A copy of the report is enclosed for your review (Enclosure 5).

The Army is preparing an Environmental Impact Statement (EIS) to satisfy the National Environmental Policy Act requirements for this undertaking. The Army will transmit a copy of the EIS once it becomes available. A public draft of the EIS is expected to be released in the first quarter of 2015.

A copy of the initial Section 106 consultation regarding this project from 2011 is enclosed for your review (Enclosure 6).

The Army looks forward to consulting with you on the proposed undertaking. We ask for your initial comments on the proposed undertaking. If you have any questions regarding architectural/landscape issues, please contact Kenneth Hays, with the Cultural Resources Section of the Directorate of Public Works at 808-656-6790. If you have any questions pertaining to archeological issues, you may contact Richard Davis, with the Cultural Resources Section of the Directorate of Public Works at 808-655-9709.

Sincerely,

Richard A. Fromm
Colonel, US Army
Commanding

Enclosures

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

OCT 09 2014

Office of the Garrison Commander

Mr. Kihei Nahale-a
Hui Malama I Na Kupuna O Hawaii Nei
c/o Mr. Edward Halealoha Ayau, Po'o
P.O. Box 365
Ho'olehua, Hawaii

Dear Mr. Nahale-a:

The Office of the Garrison Commander, United States Army Garrison-Hawaii, is writing to open consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (16 USC 470f), on the proposed construction of a new power plant on the south range of Schofield Barracks which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the US Army Garrison in Hawaii and the Hawaiian Electric Company. This venture will allow the Army bases in central Oahu to have better energy security as well as providing Oahu with a power plant located more inland in case the more coastal energy plants are compromised. The Tax Map Key designation for Schofield Barracks and Wheeler Army Airfield (WAAF) is 1-07-07-001.

The proposed undertaking involves the US Army's lease of 8.13 acres of land and the related granting of a 2.5 acre interconnection easement, on Schofield Barracks and WAAF to Hawaiian Electric Company (Hawaiian Electric) for the purpose of the construction, operation, and maintenance of a 50-megawatt (MW) capacity renewable energy power plant to include associated power poles, high-tension power lines, and related equipment and facilities by Hawaiian Electric. The lease would be under the authority of Title 10 of the United States Code (USC) §2667. The project also calls for The State of Hawaii Department of Land and Natural Resources granting of a 1.28 acre easement and a 0.7 acre conservation district authorization allowing for the construction of a 46 kV electrical power transmission line between the power plant site and the existing Wahiawa Substation. Hawaiian Electric's construction, ownership, operation, and maintenance of a 50 megawatt capacity, biofuel-capable power generation plant and 46 kV sub-transmission line are required to connect the Schofield Generating Station to the Hawaiian Electric grid. Hawaiian Electric would be the sole owner of the plant and the electrical power transmission facilities. The proposed facilities would be constructed and operated in accordance with all applicable laws, with approval of the Hawaii Public Utilities Commission (PUC).

The Area of Potential Effect (APE) for this undertaking is approximately 882 acres of land which includes the National Register District at Schofield Barracks, the National Historic Landmark District at WAAF as well as the National Register eligible district at WAAF. The enclosed map illustrates the the APE (Enclosure 1).

Wheeler Army Airfield has a National Historic Landmark District that was created in 1986-87 when a thematic series of districts were created in Hawaii associated with World War II history and the attack on Oahu by the Empire of Japan on the December 7th, 1941. The National Register District at Schofield Barracks was created in 1998. The district's significance is based upon its historic architecture, early 20th century military installation planning, its historic landscape, and the events related to the history of the US Army in Hawaii, particularly from the early Territorial Period through World War II. The Period of Significance is defined as 1908-1945. In the absence of an extensive report on the historic districts of Schofield Barracks and Wheeler Army Airfield, a summary of the historic resources is enclosed for your review (Enclosure 2).

The proposed Schofield Generating Station building is still in its early stages of planning. Information regarding its size, height and other details will be forthcoming. Color conceptual renderings of the structure are enclosed for your review (Enclosure 3).

The undertaking will involve in part the placement of 80' electrical poles along Kunia Road and Wilikina Drive that will be directly adjacent to the National Register District at Schofield Barracks and the historic Garden City neighborhoods at Wheeler Army Airfield (NR eligible). The existing power poles on Kunia Road and Wilikina Drive are approximately 45' tall.

The new poles associated with the project will be placed somewhat close to General's Loop that is within the boundaries of the historic district. However, it is anticipated that the visual impacts may be minimal to the homes at General's Loop due to the large trees that are in the area. The new poles will, however, be placed close to the small two bedroom stucco/mission style homes adjacent to Ralston Field, on Dickman and Kona Road, which have been determined eligible for inclusion on the National Register. These homes were constructed by the Federal Works Program/Works Progress Administration in 1932-33 while the same style homes were built at the Canby neighborhood at Schofield Barracks and at WAAF. The new poles (pole numbers 42, 43 and 44) and lines may be visible from the historic neighborhood.

The new poles and wires proposed for the project may cause negative visual impacts to the Garden City Loops (Langley Loop with the placement of poles 14-18 and at Sperry Loop with the placement of poles 23-27). Poles 11-13 and 28-30 may have visual impacts on the 1936 historic neighborhoods that flank the loops at Wheeler Army Airfield. There may be the potential to have visual impacts on the Landmark district at its western end by the new poles and wires.

A 3D rendering of the proposed poles and wires is included to assist in the visualization of the end results of the undertaking (Enclosure 4).

In compliance with 36 CFR 800.4, the Army in its identification efforts, commissioned the *Archaeological Inventory Survey for Schofield Generating Station Project, Waianae Uka, Honouliuli, and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island, Hawaii* (Garcia & Assoc.—June, 2014). A copy of the report is enclosed for your review (Enclosure 5).

The Army is preparing an Environmental Impact Statement (EIS) to satisfy the National Environmental Policy Act requirements for this undertaking. The Army will transmit a copy of the EIS once it becomes available. A public draft of the EIS is expected to be released in the first quarter of 2015.

A copy of the initial Section 106 consultation regarding this project from 2011 is enclosed for your review (Enclosure 6).

The Army looks forward to consulting with you on the proposed undertaking. We ask for your initial comments on the proposed undertaking. If you have any questions regarding architectural/landscape issues, please contact Kenneth Hays, with the Cultural Resources Section of the Directorate of Public Works at 808-656-6790. If you have any questions pertaining to archeological issues, you may contact Richard Davis, with the Cultural Resources Section of the Directorate of Public Works at 808-655-9709.

Sincerely,

Richard A. Fromm
Colonel, US Army
Commanding

Enclosures

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

OCT 09 2014

Office of the Garrison Commander

Ms. Terrilee Keko'olani
AFSC Hawaii
2426 Oahu Avenue
Honolulu, Hawaii 96822

Dear Ms. Keo'olani:

The Office of the Garrison Commander, United States Army Garrison-Hawaii, is writing to open consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (16 USC 470f), on the proposed construction of a new power plant on the south range of Schofield Barracks which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the US Army Garrison in Hawaii and the Hawaiian Electric Company. This venture will allow the Army bases in central Oahu to have better energy security as well as providing Oahu with a power plant located more inland in case the more coastal energy plants are compromised. The Tax Map Key designation for Schofield Barracks and Wheeler Army Airfield (WAAF) is 1-07-07-001.

The proposed undertaking involves the US Army's lease of 8.13 acres of land and the related granting of a 2.5 acre interconnection easement, on Schofield Barracks and WAAF to Hawaiian Electric Company (Hawaiian Electric) for the purpose of the construction, operation, and maintenance of a 50-megawatt (MW) capacity renewable energy power plant to include associated power poles, high-tension power lines, and related equipment and facilities by Hawaiian Electric. The lease would be under the authority of Title 10 of the United States Code (USC) §2667. The project also calls for The State of Hawaii Department of Land and Natural Resources granting of a 1.28 acre easement and a 0.7 acre conservation district authorization allowing for the construction of a 46 kV electrical power transmission line between the power plant site and the existing Wahiawa Substation. Hawaiian Electric's construction, ownership, operation, and maintenance of a 50 megawatt capacity, biofuel-capable power generation plant and 46 kV sub-transmission line are required to connect the Schofield Generating Station to the Hawaiian Electric grid. Hawaiian Electric would be the sole owner of the plant and the electrical power transmission facilities. The proposed facilities would be constructed and operated in accordance with all applicable laws, with approval of the Hawaii Public Utilities Commission (PUC).

The Area of Potential Effect (APE) for this undertaking is approximately 882 acres of land which includes the National Register District at Schofield Barracks, the National Historic Landmark District at WAAF as well as the National Register eligible district at WAAF. The enclosed map illustrates the the APE (Enclosure 1).

Wheeler Army Airfield has a National Historic Landmark District that was created in 1986-87 when a thematic series of districts were created in Hawaii associated with World War II history and the attack on Oahu by the Empire of Japan on the December 7th, 1941. The National Register District at Schofield Barracks was created in 1998. The district's significance is based upon its historic architecture, early 20th century military installation planning, its historic landscape, and the events related to the history of the US Army in Hawaii, particularly from the early Territorial Period through World War II. The Period of Significance is defined as 1908-1945. In the absence of an extensive report on the historic districts of Schofield Barracks and Wheeler Army Airfield, a summary of the historic resources is enclosed for your review (Enclosure 2).

The proposed Schofield Generating Station building is still in its early stages of planning. Information regarding its size, height and other details will be forthcoming. Color conceptual renderings of the structure are enclosed for your review (Enclosure 3).

The undertaking will involve in part the placement of 80' electrical poles along Kunia Road and Wilikina Drive that will be directly adjacent to the National Register District at Schofield Barracks and the historic Garden City neighborhoods at Wheeler Army Airfield (NR eligible). The existing power poles on Kunia Road and Wilikina Drive are approximately 45' tall.

The new poles associated with the project will be placed somewhat close to General's Loop that is within the boundaries of the historic district. However, it is anticipated that the visual impacts may be minimal to the homes at General's Loop due to the large trees that are in the area. The new poles will, however, be placed close to the small two bedroom stucco/mission style homes adjacent to Ralston Field, on Dickman and Kona Road, which have been determined eligible for inclusion on the National Register. These homes were constructed by the Federal Works Program/Works Progress Administration in 1932-33 while the same style homes were built at the Canby neighborhood at Schofield Barracks and at WAAF. The new poles (pole numbers 42, 43 and 44) and lines may be visible from the historic neighborhood.

The new poles and wires proposed for the project may cause negative visual impacts to the Garden City Loops (Langley Loop with the placement of poles 14-18 and at Sperry Loop with the placement of poles 23-27). Poles 11-13 and 28-30 may have visual impacts on the 1936 historic neighborhoods that flank the loops at Wheeler Army Airfield. There may be the potential to have visual impacts on the Landmark district at its western end by the new poles and wires.

A 3D rendering of the proposed poles and wires is included to assist in the visualization of the end results of the undertaking (Enclosure 4).

In compliance with 36 CFR 800.4, the Army in its identification efforts, commissioned the *Archaeological Inventory Survey for Schofield Generating Station Project, Waianae Uka, Honouliuli, and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island, Hawaii* (Garcia & Assoc.—June, 2014). A copy of the report is enclosed for your review (Enclosure 5).

The Army is preparing an Environmental Impact Statement (EIS) to satisfy the National Environmental Policy Act requirements for this undertaking. The Army will transmit a copy of the EIS once it becomes available. A public draft of the EIS is expected to be released in the first quarter of 2015.

A copy of the initial Section 106 consultation regarding this project from 2011 is enclosed for your review (Enclosure 6).

The Army looks forward to consulting with you on the proposed undertaking. We ask for your initial comments on the proposed undertaking. If you have any questions regarding architectural/landscape issues, please contact Kenneth Hays, with the Cultural Resources Section of the Directorate of Public Works at 808-656-6790. If you have any questions pertaining to archeological issues, you may contact Richard Davis, with the Cultural Resources Section of the Directorate of Public Works at 808-655-9709.

Sincerely,

Richard A. Fromm
Colonel, US Army
Commanding

Enclosures

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

OCT 09 2014

Office of the Garrison Commander

Ms. Hinaleimoana Wong-Kalu
Chairperson
Oahu Island Burial Council
Honolulu, Hawaii 96817

Dear Ms. Wong-Kalu:

The Office of the Garrison Commander, United States Army Garrison-Hawaii, is writing to open consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (16 USC 470f), on the proposed construction of a new power plant on the south range of Schofield Barracks which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the US Army Garrison in Hawaii and the Hawaiian Electric Company. This venture will allow the Army bases in central Oahu to have better energy security as well as providing Oahu with a power plant located more inland in case the more coastal energy plants are compromised. The Tax Map Key designation for Schofield Barracks and Wheeler Army Airfield (WAAF) is 1-07-07-001.

The proposed undertaking involves the US Army's lease of 8.13 acres of land and the related granting of a 2.5 acre interconnection easement, on Schofield Barracks and WAAF to Hawaiian Electric Company (Hawaiian Electric) for the purpose of the construction, operation, and maintenance of a 50-megawatt (MW) capacity renewable energy power plant to include associated power poles, high-tension power lines, and related equipment and facilities by Hawaiian Electric. The lease would be under the authority of Title 10 of the United States Code (USC) §2667. The project also calls for The State of Hawaii Department of Land and Natural Resources granting of a 1.28 acre easement and a 0.7 acre conservation district authorization allowing for the construction of a 46 kV electrical power transmission line between the power plant site and the existing Wahiawa Substation. Hawaiian Electric's construction, ownership, operation, and maintenance of a 50 megawatt capacity, biofuel-capable power generation plant and 46 kV sub-transmission line are required to connect the Schofield Generating Station to the Hawaiian Electric grid. Hawaiian Electric would be the sole owner of the plant and the electrical power transmission facilities. The proposed facilities would be constructed and operated in accordance with all applicable laws, with approval of the Hawaii Public Utilities Commission (PUC).

The Area of Potential Effect (APE) for this undertaking is approximately 882 acres of land which includes the National Register District at Schofield Barracks, the National Historic Landmark District at WAAF as well as the National Register eligible district at WAAF. The enclosed map illustrates the the APE (Enclosure 1).

Wheeler Army Airfield has a National Historic Landmark District that was created in 1986-87 when a thematic series of districts were created in Hawaii associated with World War II history and the attack on Oahu by the Empire of Japan on the December 7th, 1941. The National Register District at Schofield Barracks was created in 1998. The district's significance is based upon its historic architecture, early 20th century military installation planning, its historic landscape, and the events related to the history of the US Army in Hawaii, particularly from the early Territorial Period through World War II. The Period of Significance is defined as 1908-1945. In the absence of an extensive report on the historic districts of Schofield Barracks and Wheeler Army Airfield, a summary of the historic resources is enclosed for your review (Enclosure 2).

The proposed Schofield Generating Station building is still in its early stages of planning. Information regarding its size, height and other details will be forthcoming. Color conceptual renderings of the structure are enclosed for your review (Enclosure 3).

The undertaking will involve in part the placement of 80' electrical poles along Kunia Road and Wilikina Drive that will be directly adjacent to the National Register District at Schofield Barracks and the historic Garden City neighborhoods at Wheeler Army Airfield (NR eligible). The existing power poles on Kunia Road and Wilikina Drive are approximately 45' tall.

The new poles associated with the project will be placed somewhat close to General's Loop that is within the boundaries of the historic district. However, it is anticipated that the visual impacts may be minimal to the homes at General's Loop due to the large trees that are in the area. The new poles will, however, be placed close to the small two bedroom stucco/mission style homes adjacent to Ralston Field, on Dickman and Kona Road, which have been determined eligible for inclusion on the National Register. These homes were constructed by the Federal Works Program/Works Progress Administration in 1932-33 while the same style homes were built at the Canby neighborhood at Schofield Barracks and at WAAF. The new poles (pole numbers 42, 43 and 44) and lines may be visible from the historic neighborhood.

The new poles and wires proposed for the project may cause negative visual impacts to the Garden City Loops (Langley Loop with the placement of poles 14-18 and at Sperry Loop with the placement of poles 23-27). Poles 11-13 and 28-30 may have visual impacts on the 1936 historic neighborhoods that flank the loops at Wheeler Army Airfield. There may be the potential to have visual impacts on the Landmark district at its western end by the new poles and wires.

A 3D rendering of the proposed poles and wires is included to assist in the visualization of the end results of the undertaking (Enclosure 4).

In compliance with 36 CFR 800.4, the Army in its identification efforts, commissioned the *Archaeological Inventory Survey for Schofield Generating Station Project, Waianae Uka, Honouliuli, and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island, Hawaii* (Garcia & Assoc.—June, 2014). A copy of the report is enclosed for your review (Enclosure 5).

The Army is preparing an Environmental Impact Statement (EIS) to satisfy the National Environmental Policy Act requirements for this undertaking. The Army will transmit a copy of the EIS once it becomes available. A public draft of the EIS is expected to be released in the first quarter of 2015.

A copy of the initial Section 106 consultation regarding this project from 2011 is enclosed for your review (Enclosure 6).

The Army looks forward to consulting with you on the proposed undertaking. We ask for your initial comments on the proposed undertaking. If you have any questions regarding architectural/landscape issues, please contact Kenneth Hays, with the Cultural Resources Section of the Directorate of Public Works at 808-656-6790. If you have any questions pertaining to archeological issues, you may contact Richard Davis, with the Cultural Resources Section of the Directorate of Public Works at 808-655-9709.

Sincerely,

Richard A. Fromm
Colonel, US Army
Commanding

Enclosures

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

OCT 09 2014

Office of the Garrison Commander

Mr. Christophor Oliveira
Ko'a Mana
84-255 Makaha Valley Road
Wai'anae, Hawai'i 96792

Dear Mr. Oliveira:

The Office of the Garrison Commander, United States Army Garrison-Hawaii, is writing to open consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (16 USC 470f), on the proposed construction of a new power plant on the south range of Schofield Barracks which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the US Army Garrison in Hawaii and the Hawaiian Electric Company. This venture will allow the Army bases in central Oahu to have better energy security as well as providing Oahu with a power plant located more inland in case the more coastal energy plants are compromised. The Tax Map Key designation for Schofield Barracks and Wheeler Army Airfield (WAAF) is 1-07-07-001.

The proposed undertaking involves the US Army's lease of 8.13 acres of land and the related granting of a 2.5 acre interconnection easement, on Schofield Barracks and WAAF to Hawaiian Electric Company (Hawaiian Electric) for the purpose of the construction, operation, and maintenance of a 50-megawatt (MW) capacity renewable energy power plant to include associated power poles, high-tension power lines, and related equipment and facilities by Hawaiian Electric. The lease would be under the authority of Title 10 of the United States Code (USC) §2667. The project also calls for The State of Hawaii Department of Land and Natural Resources granting of a 1.28 acre easement and a 0.7 acre conservation district authorization allowing for the construction of a 46 kV electrical power transmission line between the power plant site and the existing Wahiawa Substation. Hawaiian Electric's construction, ownership, operation, and maintenance of a 50 megawatt capacity, biofuel-capable power generation plant and 46 kV sub-transmission line are required to connect the Schofield Generating Station to the Hawaiian Electric grid. Hawaiian Electric would be the sole owner of the plant and the electrical power transmission facilities. The proposed facilities would be constructed and operated in accordance with all applicable laws, with approval of the Hawaii Public Utilities Commission (PUC).

The Area of Potential Effect (APE) for this undertaking is approximately 882 acres of land which includes the National Register District at Schofield Barracks, the National Historic Landmark District at WAAF as well as the National Register eligible district at WAAF. The enclosed map illustrates the the APE (Enclosure 1).

Wheeler Army Airfield has a National Historic Landmark District that was created in 1986-87 when a thematic series of districts were created in Hawaii associated with World War II history and the attack on Oahu by the Empire of Japan on the December 7th, 1941. The National Register District at Schofield Barracks was created in 1998. The district's significance is based upon its historic architecture, early 20th century military installation planning, its historic landscape, and the events related to the history of the US Army in Hawaii, particularly from the early Territorial Period through World War II. The Period of Significance is defined as 1908-1945. In the absence of an extensive report on the historic districts of Schofield Barracks and Wheeler Army Airfield, a summary of the historic resources is enclosed for your review (Enclosure 2).

The proposed Schofield Generating Station building is still in its early stages of planning. Information regarding its size, height and other details will be forthcoming. Color conceptual renderings of the structure are enclosed for your review (Enclosure 3).

The undertaking will involve in part the placement of 80' electrical poles along Kunia Road and Wilikina Drive that will be directly adjacent to the National Register District at Schofield Barracks and the historic Garden City neighborhoods at Wheeler Army Airfield (NR eligible). The existing power poles on Kunia Road and Wilikina Drive are approximately 45' tall.

The new poles associated with the project will be placed somewhat close to General's Loop that is within the boundaries of the historic district. However, it is anticipated that the visual impacts may be minimal to the homes at General's Loop due to the large trees that are in the area. The new poles will, however, be placed close to the small two bedroom stucco/mission style homes adjacent to Ralston Field, on Dickman and Kona Road, which have been determined eligible for inclusion on the National Register. These homes were constructed by the Federal Works Program/Works Progress Administration in 1932-33 while the same style homes were built at the Canby neighborhood at Schofield Barracks and at WAAF. The new poles (pole numbers 42, 43 and 44) and lines may be visible from the historic neighborhood.

The new poles and wires proposed for the project may cause negative visual impacts to the Garden City Loops (Langley Loop with the placement of poles 14-18 and at Sperry Loop with the placement of poles 23-27). Poles 11-13 and 28-30 may have visual impacts on the 1936 historic neighborhoods that flank the loops at Wheeler Army Airfield. There may be the potential to have visual impacts on the Landmark district at its western end by the new poles and wires.

A 3D rendering of the proposed poles and wires is included to assist in the visualization of the end results of the undertaking (Enclosure 4).

In compliance with 36 CFR 800.4, the Army in its identification efforts, commissioned the *Archaeological Inventory Survey for Schofield Generating Station Project, Waianae Uka, Honouliuli, and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island, Hawaii* (Garcia & Assoc.—June, 2014). A copy of the report is enclosed for your review (Enclosure 5).

The Army is preparing an Environmental Impact Statement (EIS) to satisfy the National Environmental Policy Act requirements for this undertaking. The Army will transmit a copy of the EIS once it becomes available. A public draft of the EIS is expected to be released in the first quarter of 2015.

A copy of the initial Section 106 consultation regarding this project from 2011 is enclosed for your review (Enclosure 6).

The Army looks forward to consulting with you on the proposed undertaking. We ask for your initial comments on the proposed undertaking. If you have any questions regarding architectural/landscape issues, please contact Kenneth Hays, with the Cultural Resources Section of the Directorate of Public Works at 808-656-6790. If you have any questions pertaining to archeological issues, you may contact Richard Davis, with the Cultural Resources Section of the Directorate of Public Works at 808-655-9709.

Sincerely,

Richard A. Fromm
Colonel, US Army
Commanding

Enclosures

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

OCT 0 9 2014

Office of the Garrison Commander

Mr. Glen Makakauali'i Kila, Kahu Kulaiwi, Ko'a Mana
Kupuka'aina O Wai'anae Moku, O'ahu
84-255 Makaha Valley Road
Wai'anae, Hawai'i 96792

Dear Mr. Makakauali'i Kila:

The Office of the Garrison Commander, United States Army Garrison-Hawaii, is writing to open consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (16 USC 470f), on the proposed construction of a new power plant on the south range of Schofield Barracks which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the US Army Garrison in Hawaii and the Hawaiian Electric Company. This venture will allow the Army bases in central Oahu to have better energy security as well as providing Oahu with a power plant located more inland in case the more coastal energy plants are compromised. The Tax Map Key designation for Schofield Barracks and Wheeler Army Airfield (WAAF) is 1-07-07-001.

The proposed undertaking involves the US Army's lease of 8.13 acres of land and the related granting of a 2.5 acre interconnection easement, on Schofield Barracks and WAAF to Hawaiian Electric Company (Hawaiian Electric) for the purpose of the construction, operation, and maintenance of a 50-megawatt (MW) capacity renewable energy power plant to include associated power poles, high-tension power lines, and related equipment and facilities by Hawaiian Electric. The lease would be under the authority of Title 10 of the United States Code (USC) §2667. The project also calls for The State of Hawaii Department of Land and Natural Resources granting of a 1.28 acre easement and a 0.7 acre conservation district authorization allowing for the construction of a 46 kV electrical power transmission line between the power plant site and the existing Wahiawa Substation. Hawaiian Electric's construction, ownership, operation, and maintenance of a 50 megawatt capacity, biofuel-capable power generation plant and 46 kV sub-transmission line are required to connect the Schofield Generating Station to the Hawaiian Electric grid. Hawaiian Electric would be the sole owner of the plant and the electrical power transmission facilities. The proposed facilities would be constructed and operated in accordance with all applicable laws, with approval of the Hawaii Public Utilities Commission (PUC).

The Area of Potential Effect (APE) for this undertaking is approximately 882 acres of land which includes the National Register District at Schofield Barracks, the National Historic Landmark District at WAAF as well as the National Register eligible district at WAAF. The enclosed map illustrates the the APE (Enclosure 1).

Wheeler Army Airfield has a National Historic Landmark District that was created in 1986-87 when a thematic series of districts were created in Hawaii associated with World War II history and the attack on Oahu by the Empire of Japan on the December 7th, 1941. The National Register District at Schofield Barracks was created in 1998. The district's significance is based upon its historic architecture, early 20th century military installation planning, its historic landscape, and the events related to the history of the US Army in Hawaii, particularly from the early Territorial Period through World War II. The Period of Significance is defined as 1908-1945. In the absence of an extensive report on the historic districts of Schofield Barracks and Wheeler Army Airfield, a summary of the historic resources is enclosed for your review (Enclosure 2).

The proposed Schofield Generating Station building is still in its early stages of planning. Information regarding its size, height and other details will be forthcoming. Color conceptual renderings of the structure are enclosed for your review (Enclosure 3).

The undertaking will involve in part the placement of 80' electrical poles along Kunia Road and Wilikina Drive that will be directly adjacent to the National Register District at Schofield Barracks and the historic Garden City neighborhoods at Wheeler Army Airfield (NR eligible). The existing power poles on Kunia Road and Wilikina Drive are approximately 45' tall.

The new poles associated with the project will be placed somewhat close to General's Loop that is within the boundaries of the historic district. However, it is anticipated that the visual impacts may be minimal to the homes at General's Loop due to the large trees that are in the area. The new poles will, however, be placed close to the small two bedroom stucco/mission style homes adjacent to Ralston Field, on Dickman and Kona Road, which have been determined eligible for inclusion on the National Register. These homes were constructed by the Federal Works Program/Works Progress Administration in 1932-33 while the same style homes were built at the Canby neighborhood at Schofield Barracks and at WAAF. The new poles (pole numbers 42, 43 and 44) and lines may be visible from the historic neighborhood.

The new poles and wires proposed for the project may cause negative visual impacts to the Garden City Loops (Langley Loop with the placement of poles 14-18 and at Sperry Loop with the placement of poles 23-27). Poles 11-13 and 28-30 may have visual impacts on the 1936 historic neighborhoods that flank the loops at Wheeler Army Airfield. There may be the potential to have visual impacts on the Landmark district at its western end by the new poles and wires.

A 3D rendering of the proposed poles and wires is included to assist in the visualization of the end results of the undertaking (Enclosure 4).

In compliance with 36 CFR 800.4, the Army in its identification efforts, commissioned the *Archaeological Inventory Survey for Schofield Generating Station Project, Waianae Uka, Honouliuli, and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island, Hawaii* (Garcia & Assoc.—June, 2014). A copy of the report is enclosed for your review (Enclosure 5).

The Army is preparing an Environmental Impact Statement (EIS) to satisfy the National Environmental Policy Act requirements for this undertaking. The Army will transmit a copy of the EIS once it becomes available. A public draft of the EIS is expected to be released in the first quarter of 2015.

A copy of the initial Section 106 consultation regarding this project from 2011 is enclosed for your review (Enclosure 6).

The Army looks forward to consulting with you on the proposed undertaking. We ask for your initial comments on the proposed undertaking. If you have any questions regarding architectural/landscape issues, please contact Kenneth Hays, with the Cultural Resources Section of the Directorate of Public Works at 808-656-6790. If you have any questions pertaining to archeological issues, you may contact Richard Davis, with the Cultural Resources Section of the Directorate of Public Works at 808-655-9709.

Sincerely,

Richard A. Fromm
Colonel, US Army
Commanding

Enclosures

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
947 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

Directorate of Public Works

MAR 2 4 2015

SUBJECT: Construction of a Power Plant and Installation of Power Poles at Schofield Barracks and Wheeler Army Airfield; TMK: 1-07-07-001;Waianae Uka Honouliuli and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island.

Dr. Alan Downer, Deputy State Historic Preservation Officer
State Historic Preservation Division
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, HI 96707

Dear Dr. Downer:

The Directorate of Public Works, United States Army Garrison, Hawaii (USAG-HI) is writing to continue consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (54 USC §306108), on the proposed construction of a new power plant on the South Range of Schofield Barracks (SB), located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the USAG-HI and the Hawaiian Electric Company (HECO). The full description of the undertaking and supporting information is contained in our initial consultation letter to you (October 14, 2014, Enclosure 1).

The proposal includes leasing 8.13 acres of US Army land and granting a 2.5-acre interconnection easement on SB and Wheeler Army Airfield (WAAF) to HECO to construct, operate, and maintain a 50-megawatt-capacity, renewable energy power plant. HECO will install power poles, high-tension power lines, and related equipment and facilities. The Area of Potential Effect for this undertaking is approximately 882 acres of land which includes the SB Historic District (listed on July 31, 1998), the WAAF National Historic Landmark District (listed 1987), and the adjacent WAAF Garden City Historic District, considered eligible (2010).

SHPD responded in a letter dated November 18, 2014 (Enclosure 2) with a request for additional details and a meeting between HECO, SHPD, USAG-HI, the Historic Hawaii Foundation, and interested parties to discuss design alternatives on the placement of the 47 steel electrical poles. The Advisory Council on Historic Preservation requested to be informed of the outcome of consultation to make a decision on their participation (Enclosure 3).

Consulting parties agreed at a meeting (December 5, 2014) that the only remaining issues of potential effect were those questions regarding potential intrusive visual effects to the historic districts along the route of the electrical lines to be upgraded. SHPD staff expressed particular concerns about the visual effect of the

poles along Kunia Road and Wilikina Drive (Enclosure 4). These concerns centered on: Poles 11-13 along the Stryker Avenue neighborhood; Poles 14-18 at the WAAF historic Garden City Loops (Langley Loop); Poles 21-22 next to Building E at Wheeler Elementary and Intermediate School (School); and Poles 23-30 next to the Sperry Loop neighborhood. Furthermore, Poles 42-47 are located near to the small, two-bedroom stucco/mission style homes adjacent to Ralston Field at SB.

SHPD staff inquired why Poles 11-28 along Kunia Road and Wilikina Road could not be relocated to other areas or underground. HECO explained that relocating them was precluded by existing infrastructure, technical, and code reasons. HECO provided alternatives that SHPD staff found acceptable to avoid adverse visual effects, such as painting the poles to blend in with the environment, and planting trees compatible with the historic districts to limit and screen their views. The Army recommends using colors and trees that are appropriate for the WAAF neighborhoods. USAG-HI will submit a list of colors for the poles and a tree-location plan for your review.

Although the SHPD staff has not expressed concerns that the power plant will affect any historic properties since it is not in close proximity to the historic districts, we would like to inform you that the originally proposed 75-foot-high power plant exhaust stacks will now be 95 feet high (Enclosure 5). Furthermore, Pole 18 that was originally on the School's property was moved to another location on the opposite side of Kunia Road, and the pole heights were changed from 80 feet to 60 feet. These changes will further diminish visual impacts to the historic neighborhoods. Since the Ralston neighborhood has existing 60-foot-tall poles to be changed with poles of the same height, we do not foresee visual impacts to this neighborhood.

The Army determined that with the incorporated measures to diminish the potential visual prominence of the new poles and electric lines in the vicinity of the historic districts, the proposed project will have *no adverse effect* per 36 CFR 800.5(b). We request your concurrence with this determination. If you have any questions, you may contact Richard Davis, the Cultural Resources Manager of the Directorate of Public Works at 808-655-9709.

Sincerely,

Steven M. Raymond
Director of Public Works

Enclosures

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

OCT 09 2014

Office of the Garrison Commander

Mr. William Aila
State Historic Preservation Officer
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawai'i 96707

Dear Mr. Aila:

The Office of the Garrison Commander, United States Army Garrison-Hawaii, is writing to open consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (16 USC 470f), on the proposed construction of a new power plant on the south range of Schofield Barracks which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the US Army Garrison in Hawaii and the Hawaiian Electric Company. This venture will allow the Army bases in central Oahu to have better energy security as well as providing Oahu with a power plant located more inland in case the more coastal energy plants are compromised. The Tax Map Key designation for Schofield Barracks and Wheeler Army Airfield (WAAF) is 1-07-07-001.

The proposed undertaking involves the US Army's lease of 8.13 acres of land and the related granting of a 2.5 acre interconnection easement, on Schofield Barracks and WAAF to Hawaiian Electric Company (Hawaiian Electric) for the purpose of the construction, operation, and maintenance of a 50-megawatt (MW) capacity renewable energy power plant to include associated power poles, high-tension power lines, and related equipment and facilities by Hawaiian Electric. The lease would be under the authority of Title 10 of the United States Code (USC) §2667. The project also calls for The State of Hawaii Department of Land and Natural Resources granting of a 1.28 acre easement and a 0.7 acre conservation district authorization allowing for the construction of a 46 kV electrical power transmission line between the power plant site and the existing Wahiawa Substation. Hawaiian Electric's construction, ownership, operation, and maintenance of a 50 megawatt capacity, biofuel-capable power generation plant and 46 kV sub-transmission line are required to connect the Schofield Generating Station to the Hawaiian Electric grid. Hawaiian Electric would be the sole owner of the plant and the electrical power transmission facilities. The proposed facilities would be constructed and operated in accordance with all applicable laws, with approval of the Hawaii Public Utilities Commission (PUC).

The Area of Potential Effect (APE) for this undertaking is approximately 882 acres of land which includes the National Register District at Schofield Barracks, the National Historic Landmark District at WAAF as well as the National Register eligible district at WAAF. The enclosed map illustrates the the APE (Enclosure 1).

Wheeler Army Airfield has a National Historic Landmark District that was created in 1986-87 when a thematic series of districts were created in Hawaii associated with World War II history and the attack on Oahu by the Empire of Japan on the December 7th, 1941. The National Register District at Schofield Barracks was created in 1998. The district's significance is based upon its historic architecture, early 20th century military installation planning, its historic landscape, and the events related to the history of the US Army in Hawaii, particularly from the early Territorial Period through World War II. The Period of Significance is defined as 1908-1945. In the absence of an extensive report on the historic districts of Schofield Barracks and Wheeler Army Airfield, a summary of the historic resources is enclosed for your review (Enclosure 2).

The proposed Schofield Generating Station building is still in its early stages of planning. Information regarding its size, height and other details will be forthcoming. Color conceptual renderings of the structure are enclosed for your review (Enclosure 3).

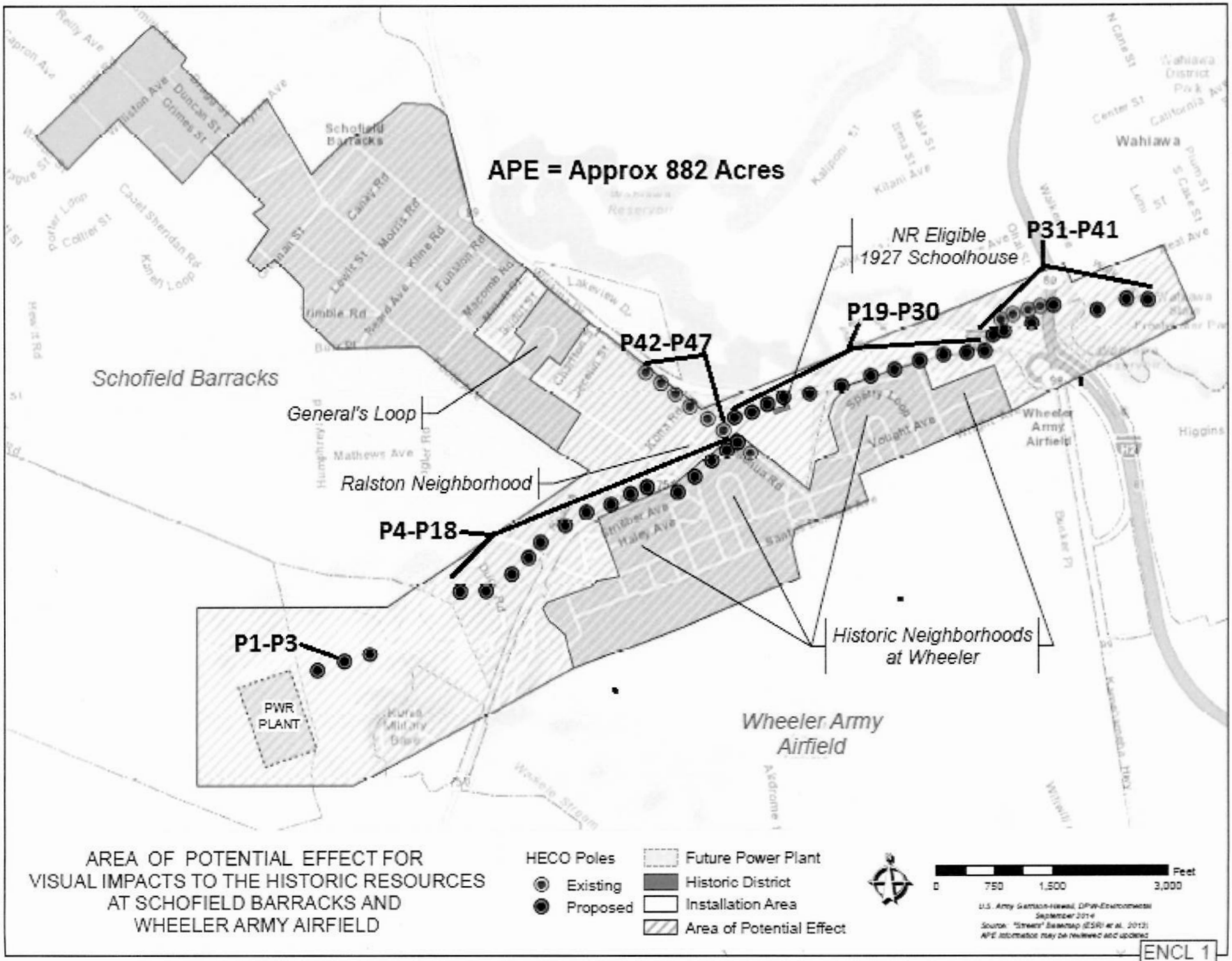
The undertaking will involve in part the placement of 80' electrical poles along Kunia Road and Wilikina Drive that will be directly adjacent to the National Register District at Schofield Barracks and the historic Garden City neighborhoods at Wheeler Army Airfield (NR eligible). The existing power poles on Kunia Road and Wilikina Drive are approximately 45' tall.

The new poles associated with the project will be placed somewhat close to General's Loop that is within the boundaries of the historic district. However, it is anticipated that the visual impacts may be minimal to the homes at General's Loop due to the large trees that are in the area. The new poles will, however, be placed close to the small two bedroom stucco/mission style homes adjacent to Ralston Field, on Dickman and Kona Road, which have been determined eligible for inclusion on the National Register. These homes were constructed by the Federal Works Program/Works Progress Administration in 1932-33 while the same style homes were built at the Canby neighborhood at Schofield Barracks and at WAAF. The new poles (pole numbers 42, 43 and 44) and lines may be visible from the historic neighborhood.

The new poles and wires proposed for the project may cause negative visual impacts to the Garden City Loops (Langley Loop with the placement of poles 14-18 and at Sperry Loop with the placement of poles 23-27). Poles 11-13 and 28-30 may have visual impacts on the 1936 historic neighborhoods that flank the loops at Wheeler Army Airfield. There may be the potential to have visual impacts on the Landmark district at its western end by the new poles and wires.

A 3D rendering of the proposed poles and wires is included to assist in the visualization of the end results of the undertaking (Enclosure 4).

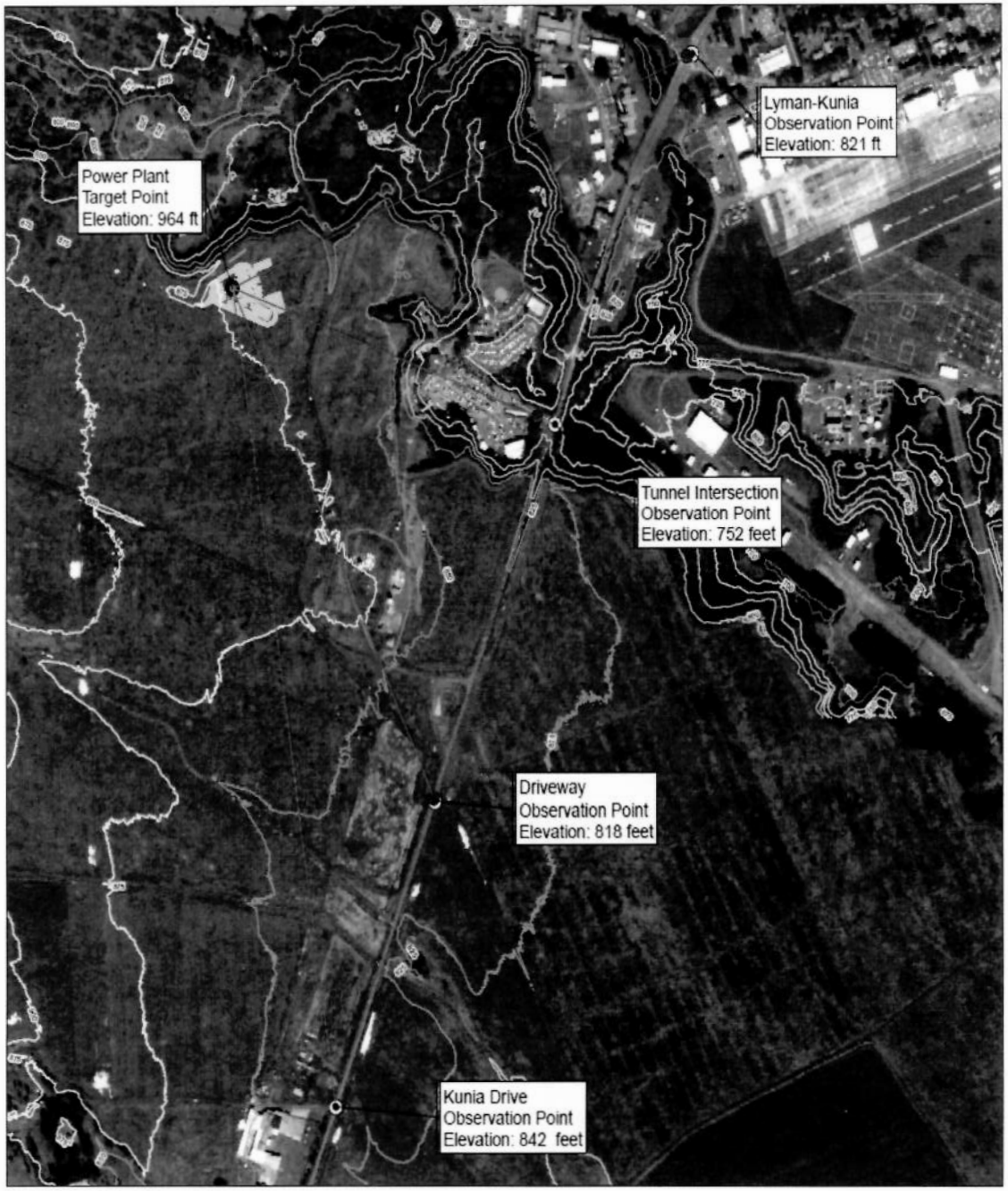
In compliance with 36 CFR 800.4, the Army in its identification efforts, commissioned the *Archaeological Inventory Survey for Schofield Generating Station Project, Waianae Uka, Honouliuli, and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island, Hawaii* (Garcia & Assoc.—June, 2014). A copy of the report is enclosed for your review (Enclosure 5).

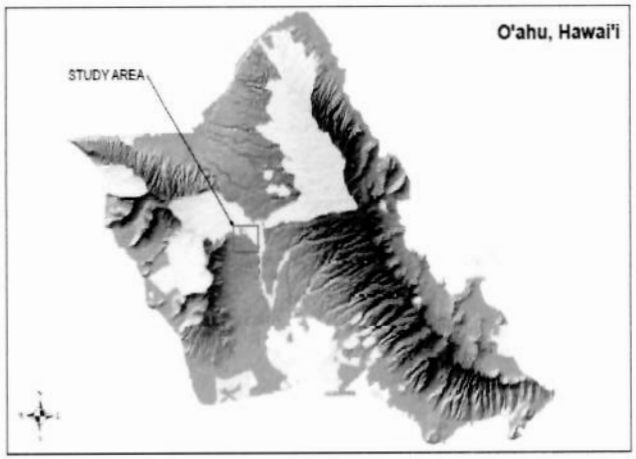

APE = Approx 882 Acres
NR Eligible
1927 Schoolhouse
P31-P41
P19-P30
P42-P47
Schofield Barracks
General's Loop
Ralston Neighborhood
P4-P18
P1-P3
PWR PLANT
Historic Neighborhoods at Wheeler
Wheeler Army Airfield
Wahiawa
AREA OF POTENTIAL EFFECT FOR VISUAL IMPACTS TO THE HISTORIC RESOURCES AT SCHOFIELD BARRACKS AND WHEELER ARMY AIRFIELD
HECO Poles
Existing
Proposed
Future Power Plant
Historic District
Installation Area
Area of Potential Effect
Feet
0
750
1,500
3,000
U.S. Army Garrison-Hawaii, DPW-Environmental
September 2014
Source: "Streets" Basemap (ESRI et al., 2012)
APE information may be reviewed and updated

ENCL 1

Project Features

Figure 2-2





Schofield Power Plant

Line of Sight Analysis

LEGEND

- Target Location
- Observer Location
- Obstruction Point
- Not Visible
- Visible
- Power Plant

Contour Lines

- 700 feet
- 750 feet
- 800 feet
- 850 feet
- 900 feet

N

0 500 1,000 2,000 Feet

US Army Corps of Engineers
Honolulu District

NOAA 2013 LIDAR Oahu Collection Source of elevation data from MSL
Coordinate System: NAD 1983 HARN StatePlane Hawaii 3 FIPS 5103 Feet
Projection: Transverse Mercator
Horizontal Datum: North American 1983 HARN

Schofield Power Plant Methodology

1) Coordinate System

The Line of Sight analysis and the associated data were created using ArcGIS's ArcCatalog and ArcMap software. A new file based geodatabase was created in ArcCatalog. The Coordinate System used is NAD 1983 HARN StatePlane Hawaii 3 FIPS 5103, in feet. Projection is the Transverse Mercator, and the Horizontal Datum is the North American 1983 HARN. No Z-factor was used.

2) Terrain to TIN

A feature dataset was created in the new geodatabase. The study area boundary feature was imported into the feature dataset. The boundary feature was used as a hard clip surface feature to limit the area that contained the LiDAR data. The LiDAR data (LAS files) were converted into multipoints, a collection of points that can be used to store a collection of point-based information, using 3DAnalyst tool in ArcCatalog. Multipoints for bare earth and first returns were converted from the same LAS files. For the bare earth terrain, class code 2 was the only one used in the conversion of multipoints. For the first returns, class codes 1, 4,5,6 were used (See Figure 1). A bare earth and first return terrain were produced using the boundary feature and the multipoints.

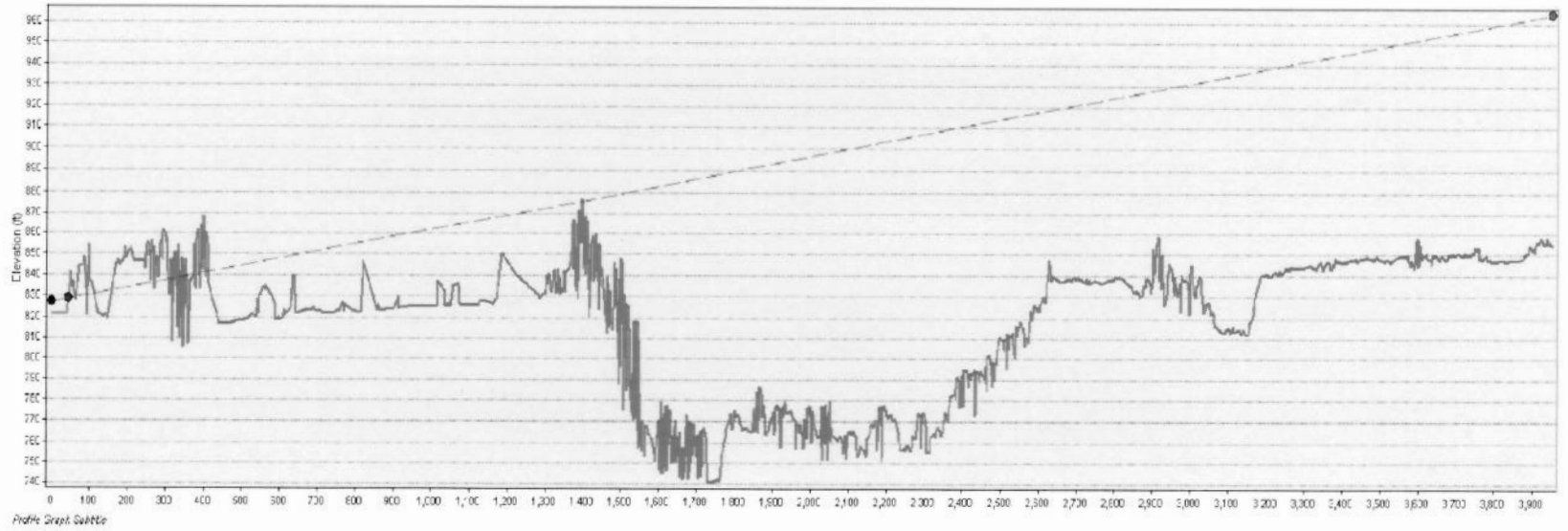
ASPRS Standard LiDAR Point Classes

Classification Value	Meaning
0	Created, never classified
1	Unclassified
2	Ground
3	Low Vegetation
4	Medium Vegetation
5	High Vegetation
6	Building
7	Low Points (noise)
8	Model Key-Points (mass points)
9	Water
10	Reserved for ASPRS Definition
11	Reserved for ASPRS Definition
12	Overlap Points
13-31	Reserved fro ASPRS Definition

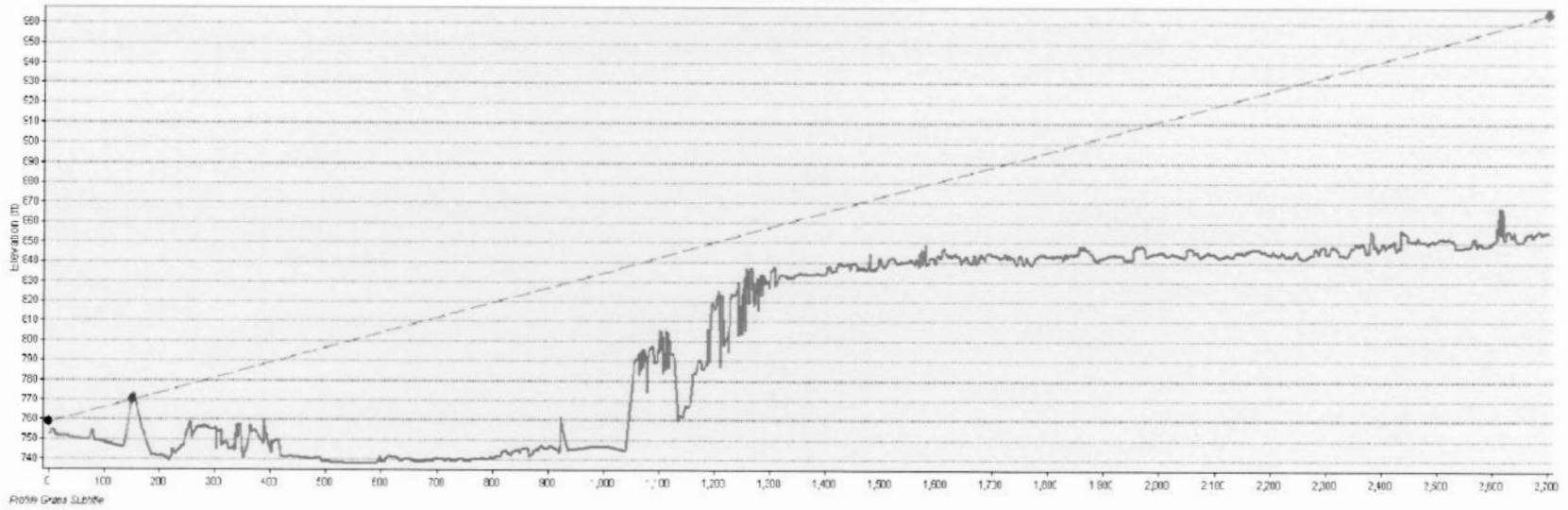
Figure 1. ASPRS Standard LiDAR Point Class Codes (ESRI Support)

In order to do a Line of Sight analysis, the first return terrain was converted into a triangulated irregular network (TIN) using the 3DAnalyst tool. The TIN was created by triangulating the terrain's surface using nodes.

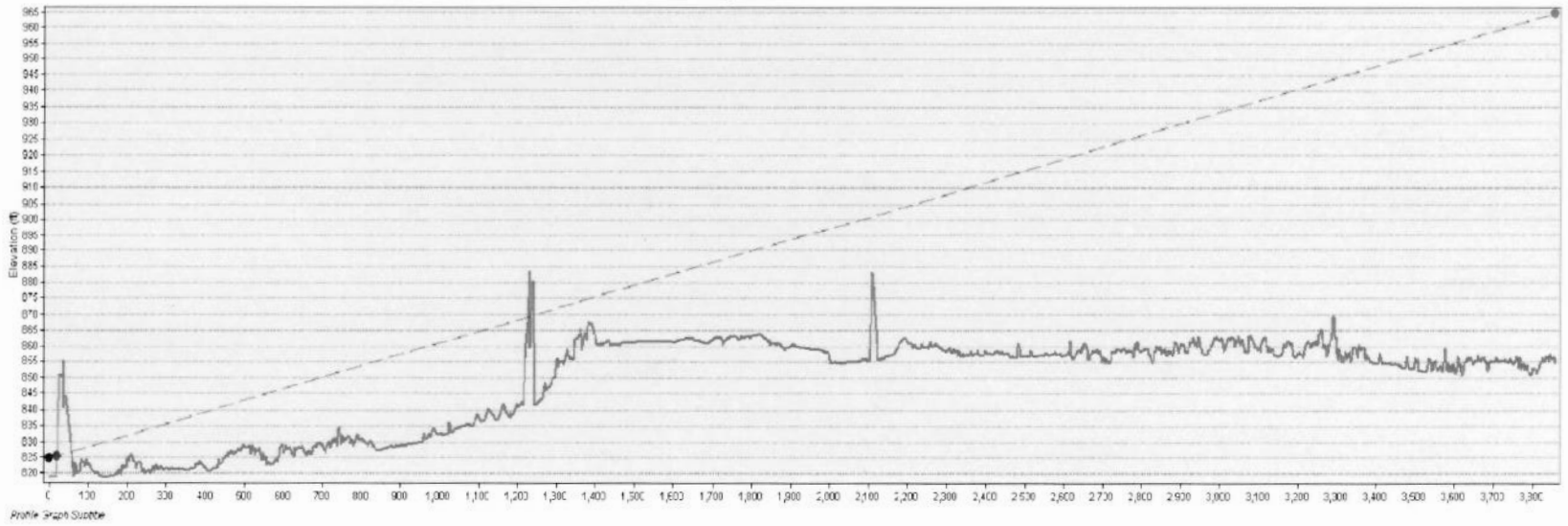
Lyman-Kunia Observation Point Profile



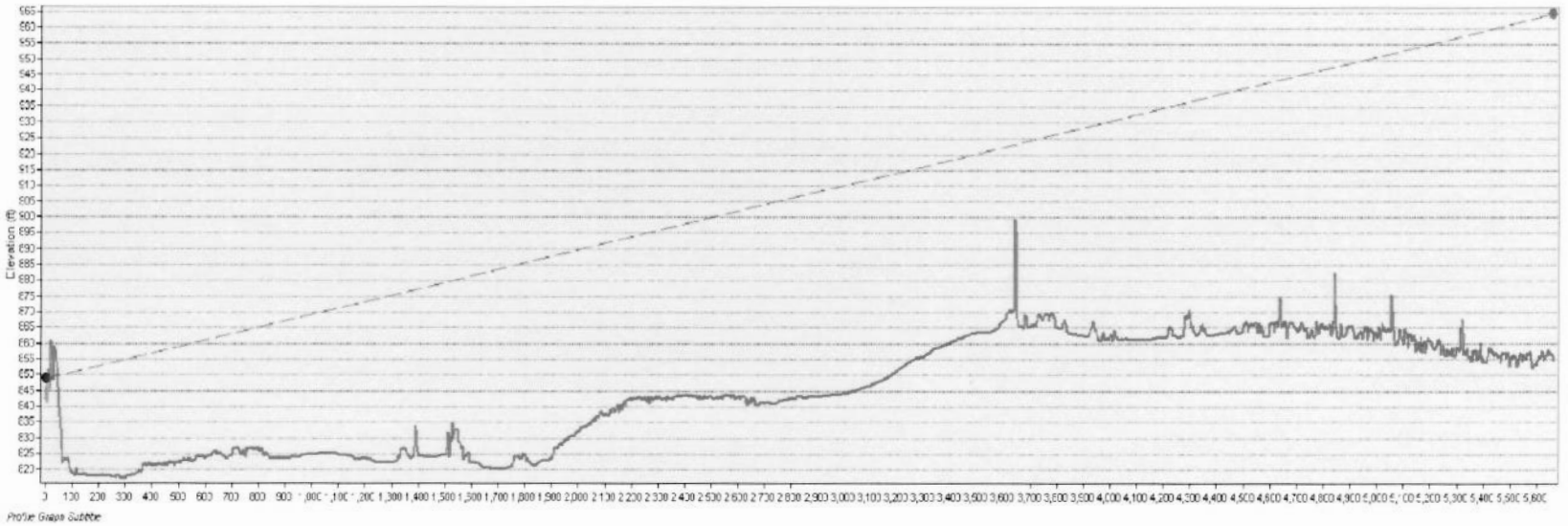
Tunnel Intersection Observation Point Profile



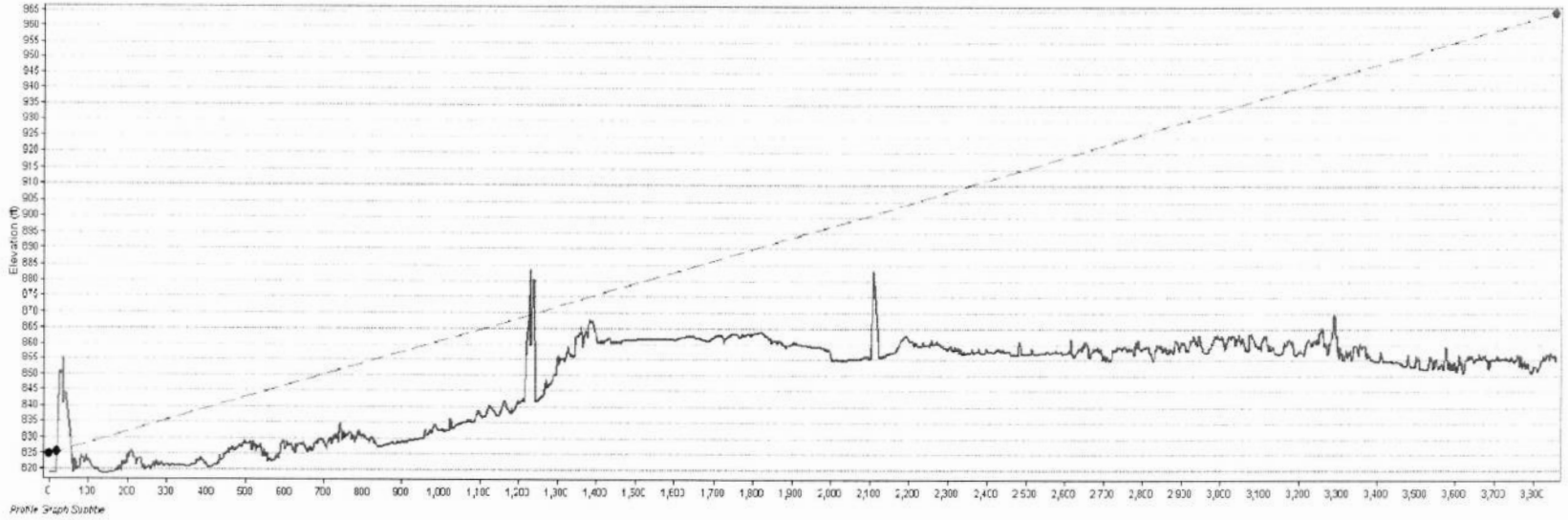
Driveway Observation Point Profile



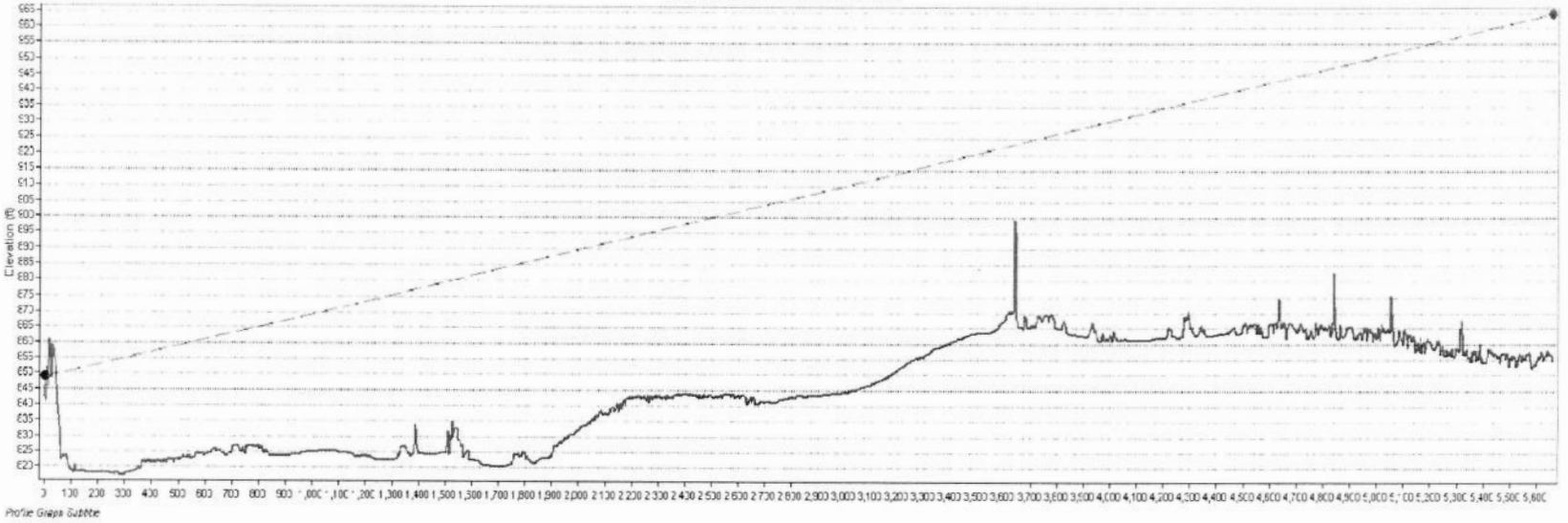
Kunia Drive Observation Point Profile



Driveway Observation Point Profile



Kunia Drive Observation Point Profile



DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
745 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

Directorate of Public Works MAR 2 4 2015

SUBJECT: Construction of a Power Plant and Installation of Power Poles at Schofield Barracks (SB) and Wheeler Army Airfield (WAAF); Tax Map Key: 1-07-07-001;Waianae Uka Honouliuli and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island.

Ms. Caroline D. Hall, Assistant Director, Federal Property Management Section
Office of Federal Agency Programs, Advisory Council on Historic Preservation
401 F Street, Suite 308
Washington, DC 20001-2637

Dear Ms. Hall:

The Directorate of Public Works, United States Army Garrison, Hawaii (USAG-HI) is writing to continue consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (54 USC §306108), on the proposed construction of a new power plant on the South Range of SB which is located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the USAG-HI and the Hawaiian Electric Company (HECO). The full description of the undertaking and supporting information is contained in our initial consultation letter to you (December 17, 2014). The Advisory Council on Historic Preservation requested to be informed of the outcome of consultation to make a decision on your participation (Enclosure 1).

The proposal includes leasing 8.13 acres of US Army land and granting a 2.5-acre interconnection easement on SB and WAAF to HECO to construct, operate, and maintain a 50-megawatt-capacity, renewable energy power plant. HECO will install power poles, high-tension power lines, and related equipment and facilities. The Area of Potential Effect for this undertaking is approximately 882 acres of land which includes the SB Historic District (listed on July 31, 1998), the WAAF National Historic Landmark District (listed 1987), and the adjacent WAAF Garden City Historic District, considered eligible (2010).

The State Historic Preservation Division (SHPD) responded in a letter dated November 18, 2014 (Enclosure 2) with a request for additional details and a meeting between HECO, SHPD, USAG-HI, the Historic Hawaii Foundation (HHF), and interested parties to discuss design alternatives on the placement of the 47 steel electrical poles.

Consulting parties agreed at a meeting (December 5, 2014) that the only remaining issues of potential effect were those questions regarding potential intrusive visual effects to the historic districts along the route of the electrical lines to be upgraded. SHPD and HHF staff expressed particular concerns about the visual effect

of the poles along Kunia Road and Wilikina Drive (Enclosure 3). These concerns centered on: Poles 11-13 along the Stryker Avenue neighborhood; Poles 14-18 at the WAAF historic Garden City Loops (Langley Loop); Poles 21-22 next to Building E at Wheeler Elementary and Intermediate School (School); and Poles 23-30 next to the Sperry Loop neighborhood. Furthermore, Poles 42-47 are located near to the small, two-bedroom stucco/mission style homes adjacent to Ralston Field at SB.

SHPD and HHF staff inquired why Poles 11-28 along Kunia Road and Wilikina Road could not be relocated to other areas or underground. HECO explained that relocating them was precluded by existing infrastructure, technical, and code reasons. HECO provided alternatives that SHPD staff found acceptable to avoid adverse visual effects, such as painting the poles to blend in with the environment, and planting trees compatible with the historic districts to limit and screen their views. The Army recommends using colors and trees that are appropriate for the WAAF neighborhoods. USAG-HI will submit a list of colors for the poles and a tree-location plan for your review.

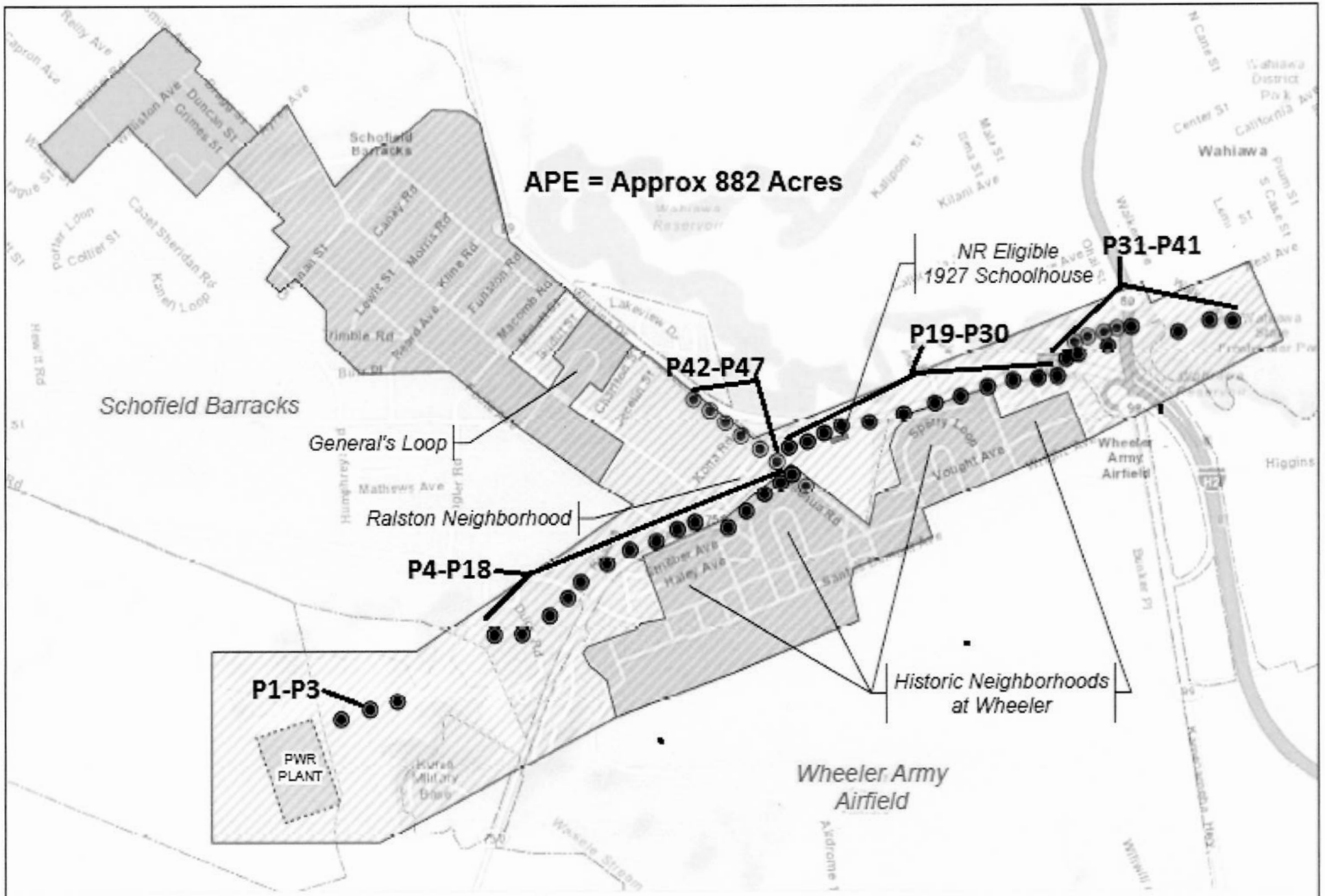
Although the SHPD and HHF staff has not expressed concerns that the power plant will affect any historic properties since it is not in close proximity to the historic districts, we would like to inform you that the originally proposed 75-foot-high power plant exhaust stacks will now be 95 feet high (Enclosure 4). Furthermore, Pole 18 that was originally on the School's property was moved to another location on the opposite side of Kunia Road, and the pole heights were changed from 80 feet to 60 feet. These changes will further diminish visual impacts to the historic neighborhoods. Since the Ralston neighborhood has existing 60-foot-tall poles to be changed with poles of the same height, we do not foresee visual impacts to this neighborhood.

The Army determined that with the incorporated measures to diminish the potential visual prominence of the new poles and electric lines in the vicinity of the historic districts, the proposed project will have *no adverse effect* per 36 CFR 800.5(b). We request your comments on this determination. If you have any questions, you may contact Richard Davis, the Cultural Resources Manager of the Directorate of Public Works at 808-655-9709.

Sincerely,

Steven M. Raymond
Director of Public Works

Enclosures



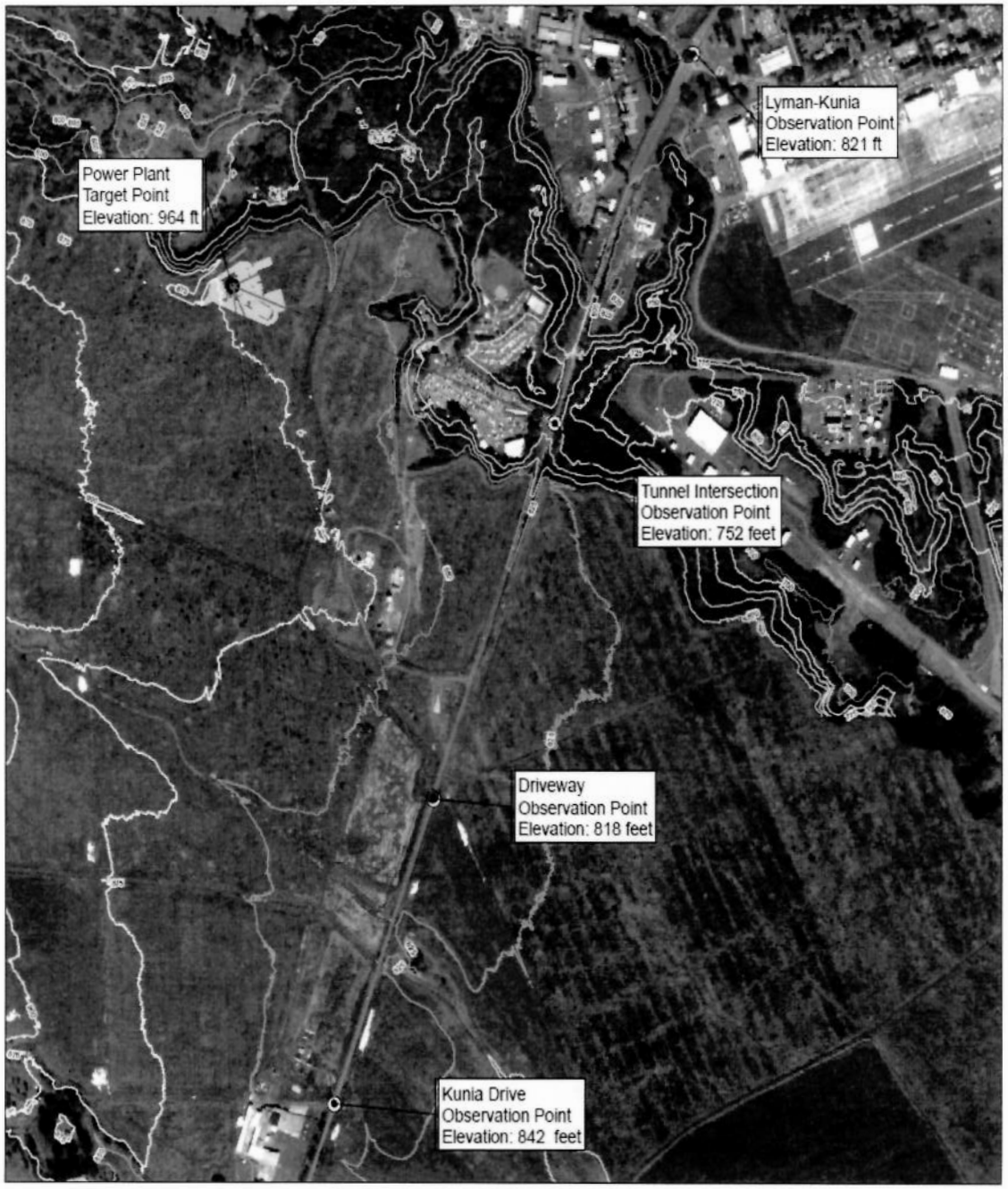
AREA OF POTENTIAL EFFECT FOR
VISUAL IMPACTS TO THE HISTORIC RESOURCES
AT SCHOFIELD BARRACKS AND
WHEELER ARMY AIRFIELD

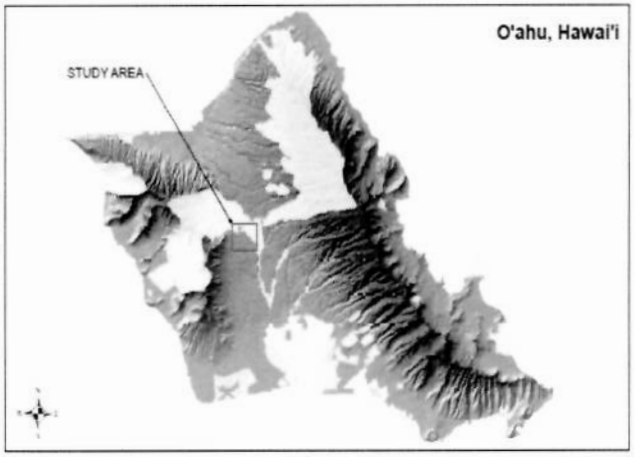
U.S. Army Garrison-Hawaii, DPW-Environmental
September 2014
Source: "Streets" Basemap (ESRI et al., 2013)
APE information may be reviewed and updated

ENCL 1

Project Features

Figure 2-2





Schofield Power Plant

Line of Sight Analysis

LEGEND

- Target Location
- Observer Location
- Obstruction Point
- Not Visible
- Visible
- Power Plant

Contour Lines

- 700 feet
- 750 feet
- 800 feet
- 850 feet
- 900 feet

N

0 500 1,000 2,000 Feet

US Army Corps of Engineers®
Honolulu District

NOAA 2013 LIDAR Oahu Collection Source of elevation data from MSL
Coordinate System: NAD 1983 HARN StatePlane Hawaii 3 FIPS 5103 Feet
Projection: Transverse Mercator
Horizontal Datum: North American 1983 HARN

Schofield Power Plant Methodology

1) Coordinate System

The Line of Sight analysis and the associated data were created using ArcGIS's ArcCatalog and ArcMap software. A new file based geodatabase was created in ArcCatalog. The Coordinate System used is NAD 1983 HARN StatePlane Hawaii 3 FIPS 5103, in feet. Projection is the Transverse Mercator, and the Horizontal Datum is the North American 1983 HARN. No Z-factor was used.

2) Terrain to TIN

A feature dataset was created in the new geodatabase. The study area boundary feature was imported into the feature dataset. The boundary feature was used as a hard clip surface feature to limit the area that contained the LiDAR data. The LiDAR data (LAS files) were converted into multipoints, a collection of points that can be used to store a collection of point-based information, using 3DAnalyst tool in ArcCatalog. Multipoints for bare earth and first returns were converted from the same LAS files. For the bare earth terrain, class code 2 was the only one used in the conversion of multipoints. For the first returns, class codes 1, 4,5,6 were used (See Figure 1). A bare earth and first return terrain were produced using the boundary feature and the multipoints.

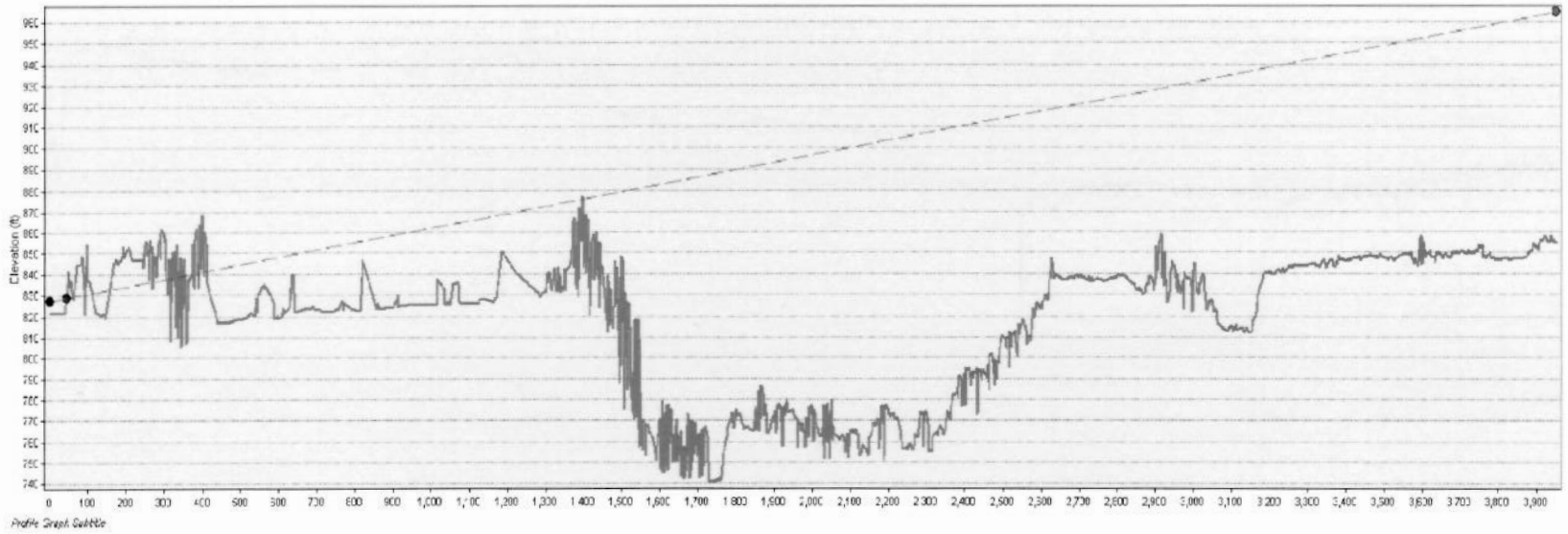
ASPRS Standard LiDAR Point Classes

Classification Value	Meaning
0	Created, never classified
1	Unclassified
2	Ground
3	Low Vegetation
4	Medium Vegetation
5	High Vegetation
6	Building
7	Low Points (noise)
8	Model Key-Points (mass points)
9	Water
10	Reserved for ASPRS Definition
11	Reserved for ASPRS Definition
12	Overlap Points
13-31	Reserved fro ASPRS Definition

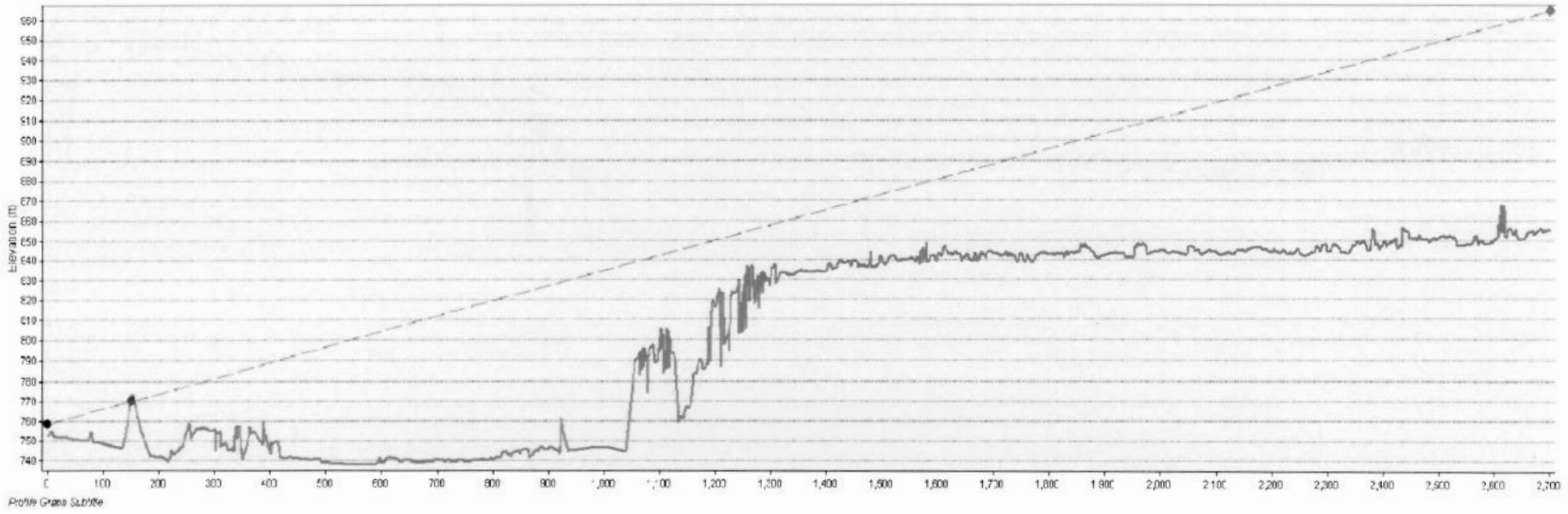
Figure 1. ASPRS Standard LiDAR Point Class Codes (ESRI Support)

In order to do a Line of Sight analysis, the first return terrain was converted into a triangulated irregular network (TIN) using the 3DAnalyst tool. The TIN was created by triangulating the terrain's surface using nodes.

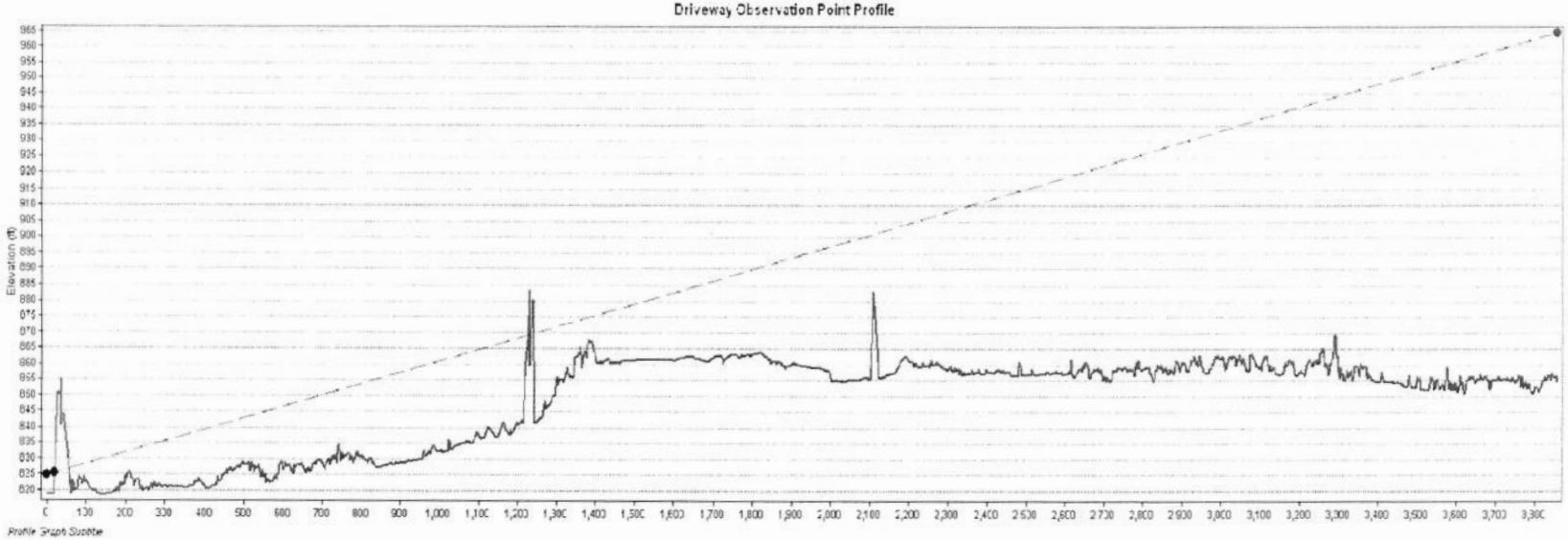
Lyman-Kunia Observation Point Profile



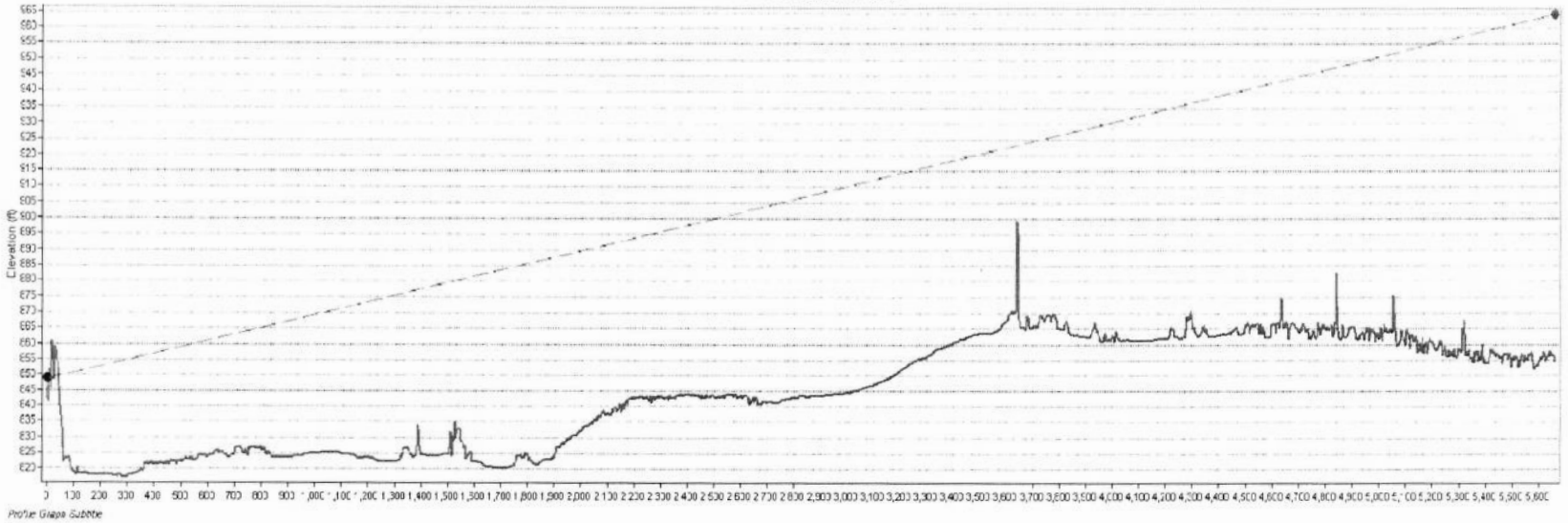
Tunnel Intersection Observation Point Profile



Driveway Observation Point Profile



Kunia Drive Observation Point Profile



DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
745 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

Directorate of Public Works

MAR 2 4 2015

SUBJECT: Construction of a Power Plant and Installation of Power Poles at Schofield Barracks (SB) and Wheeler Army Airfield (WAAF); Tax Map Key: 1-07-07-001;Waianae Uka Honouliuli and Waikele Ahupua'a in Wahiawa and 'Ewa Districts, Oahu Island.

Ms. Kiersten Faulkner, Executive Director
Historic Hawaii Foundation
The Dole Cannery, 680 Iwilei Road
Dole Office Building Tower, Suite 690
Honolulu, HI 96817

Dear Ms. Faulkner:

The Directorate of Public Works, United States Army Garrison, Hawaii (USAG-HI) is writing to continue consultation with you pursuant to Section 106 of The National Historic Preservation Act of 1966, as amended (54 USC §306108), on the proposed construction of a new power plant on the South Range of SB, located on the central plateau on the Island of Oahu, Hawaii. The construction of this power plant is a joint venture between the USAG-HI and the Hawaiian Electric Company (HECO). The full description of the undertaking and supporting information is contained in our initial consultation letter to you (July 6, 2011, Enclosure 1).

The proposal includes leasing 8.13 acres of US Army land and granting a 2.5-acre interconnection easement on SB and WAAF to HECO to construct, operate, and maintain a 50-megawatt-capacity, renewable energy power plant. HECO will install power poles, high-tension power lines, and related equipment and facilities. The Area of Potential Effect for this undertaking is approximately 882 acres of land which includes the SB Historic District (listed on July 31, 1998), the WAAF National Historic Landmark District (listed 1987), and the adjacent WAAF Garden City Historic District, considered eligible (2010).

The State Historic Preservation Division (SHPD) requested a meeting between HECO, SHPD, USAG-HI, the Historic Hawaii Foundation (HHF), and interested parties to discuss design alternatives on the placement of the 47 steel electrical poles. The Advisory Council on Historic Preservation requested to be informed of the outcome of consultation to make a decision on their participation (Enclosure 2).

Consulting parties agreed at a meeting (December 5, 2014) that the only remaining issues of potential effect were those questions regarding potential intrusive visual effects to the historic districts along the route of the electrical lines to be upgraded. SHPD and HHF staff expressed particular concerns about the visual effect of the poles along Kunia Road and Wilikina Drive (Enclosure 3). These concerns

centered on: Poles 11-13 along the Stryker Avenue neighborhood; Poles 14-18 at the WAAF historic Garden City Loops (Langley Loop); Poles 21-22 next to Building E at Wheeler Elementary and Intermediate Schoo (School); and Poles 23-30 next to the Sperry Loop neighborhood. Furthermore, Poles 42-47 are located near to the small, two-bedroom stucco/mission style homes adjacent to Ralston Field at SB.

SHPD and HHF staff inquired why Poles 11-28 along Kunia Road and Wilikina Road could not be relocated to other areas or underground. HECO explained that relocating them was precluded by existing infrastructure, technical, and code reasons. HECO provided alternatives that SHPD and HHF staff found acceptable to avoid adverse effects, such as painting the poles to blend in with the environment, and planting trees compatible with the historic districts to limit and screen their views. The Army recommends using colors and trees that are appropriate for the WAAF neighborhoods. USAG-HI will submit a lists of colors for the poles and a tree-location plan for your review.

Although the SHPD and HHF staff has not expressed concerns that the power plant will affect any historic properties since it is not in close proximity to the historic districts, we would like to inform you that the originally proposed 75-foot-high power plant exhaust stacks will now be 95 feet high (Enclosure 4). Furthermore, Pole 18 that was originally on the School's property was moved to another location on the opposite side of Kunia Road, and the pole heights were changed from 80 feet to 60 feet. These changes will further diminish visual impacts to the historic neighborhoods. Since the Ralston neighborhood has existing 60-foot-tall poles to be changed with poles of the same height, we do not foresee visual impacts to this neighborhood.

The Army determined that with the incorporated measures to diminish the potential visual prominence of the new poles and electric lines in the vicinity of the historic districts, the proposed project will have *no adverse effect* per 36 CFR 800.5(b). We request your comments on this determination.

If you have any questions, you may contact Richard Davis, the Cultural Resources Manager of the Directorate of Public Works at 808-655-9709.

Sincerely,

Steven M. Raymond
Director of Public Works

Enclosures

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND, PACIFIC REGION
HEADQUARTERS, UNITED STATES ARMY GARRISON, HAWAII
851 WRIGHT AVENUE, WHEELER ARMY AIRFIELD
SCHOFIELD BARRACKS, HAWAII 96857-5000

REPLY TO
ATTENTION OF:

JUL 0 6 2011

Office of the Garrison Commander

Ms. Kirsten Faulkner
Executive Director
Historic Hawaiian Foundation
681 Iwilei Road, Suite 690
Honolulu, HI 96817

Dear Ms. Faulkner:

On behalf of the Commander of the US Army Garrison, Hawaii (USAG-HI), I am writing to open consultation with you under Section 106 of the National Historic Preservation Act of 1966, as amended, for an undertaking involving an outgrant of an approximately 10-acre parcel to Hawaiian Electric Company (HECO) for construction of a 52 megawatt (MW) power generation plant and a fuel storage system located at Schofield Barracks, South Range Land Acquisition Area (SRLA), Wahiawā, O'ahu Island, TMK: 1-9-2-005:011. An outgrant is an easement, lease or real estate agreement to allow the use of Army land by a third party. The HECO outgrant term will be 25 years with options to renew. The area of potential effect (APE) is shown in Enclosure 1.

Archaeological inventory survey of the SRLA (delineated in black in Enclosure 1) was conducted by Scientific Consultant Services/Cultural Resources Management Services (SCS/CRMS) in 1996, Garcia and Associates (GANDA) in 2002 and 2003 and Cultural Surveys Hawaii, Inc. (CSH) from March to April 2009. Archaeological inventory survey of the APE was conducted by CSH during their 2009 survey. No archaeological or cultural resources other than historic plantation equipment were identified within the CSH survey area. Additionally, 30 test units were hand excavated within the CSH survey area. No subsurface archaeological/cultural resources were identified.

There are no known archaeological/cultural resources located in the vicinity of the APE. A total of 45 sites were identified within SRLA during the SCS/CRMS and GANDA surveys, of which Site 6463, a post-contact complex, is located more than 4,593 feet (1,400 meters) from the APE. The closest known site to the APE, a terrace facing, Site 3 (not designated a SIHP number), is located more than 1,312 feet (400 meters) north of the APE. Additionally, the post cemetery, which is not designated a SIHP number, is also located approximately 1,312 feet (400 meters) north of the APE. Site 3 and the post cemetery are shown in Enclosure 1.

ENC.1

Preserving America's Heritage

December 17, 2014

Colonel Richard A. Fromm
Office of the Garrison Commander
U.S. Army Garrison-Hawaii
851 Wright Avenue, Building 106
Schofield Barracks, HI 96857

Ref: *Leasing of Land to, Granting an Interconnection Easement to, and the Construction, Operation, and Maintenance of a 50-Megawatt Schofield Generating Station by the Hawaiian Electric Company, United States Army Garrison- Hawaii*
Schofield Barracks and Wheeler Army Airfield, Honolulu County, Hawaii

Dear COL Fromm:

The Advisory Council on Historic Preservation (ACHP) is in receipt of notification by the United States Army Garrison, Hawaii (USAG-HI) for the leasing of 8.13 acres, granting a 2.5 acre interconnection easement, and the construction, operation, and maintenance of a new 50-megawatt (MW) capacity renewable energy power plant, to be known as the Schofield Generating Station. Documentation provided included a letter regarding a similar project proposed by the Hawaiian Electric Company in 2011.

The ACHP is requesting additional information regarding the outcome of the 2011 consultation, including information on the apparent suspension of project development at that time. In addition, we require clarification regarding the current effect finding for this undertaking. Specifically, please clarify if USAG-HI is making a determination of effect or if this is an early notification to the ACHP. This information will enable the ACHP to determine if our participation is warranted. Upon receipt of the additional information, we will notify you within 15 days of our decision on participation.

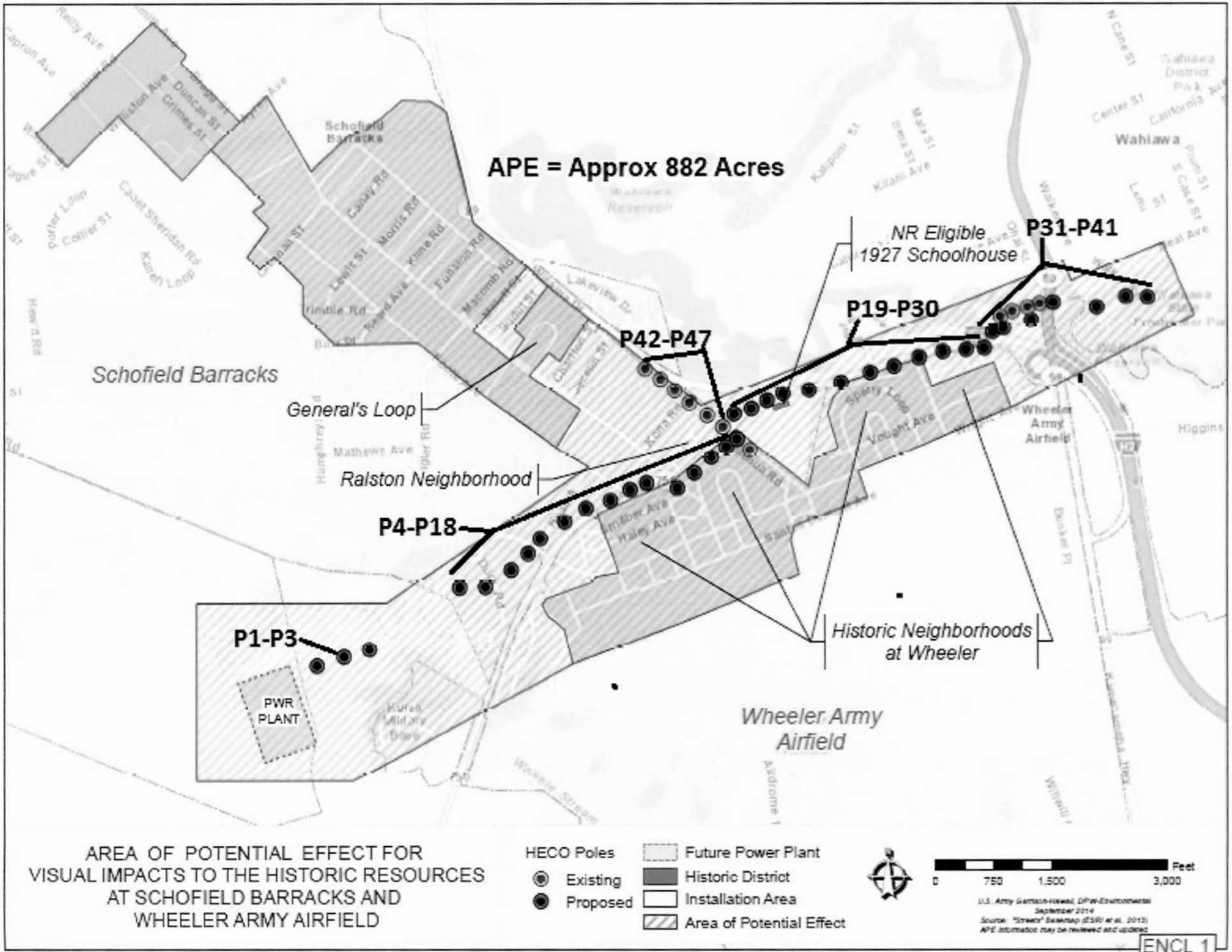
If you have any questions, please contact Ms. Katharine R. Kerr who can be reached at (202) 517-0216 or via email at kkerr@achp.gov.

Sincerely,

Caroline D. Hall
Assistant Director
Federal Property Management Section
Office of Federal Agency Programs

ADVISORY COUNCIL ON HISTORIC PRESERVATION
401 F Street, Suite 308 • Washington, DC 20001-2637
Phone: 202-517-0200 • Fax: 202-517-6381 • achp@achp.gov • www.achp.gov

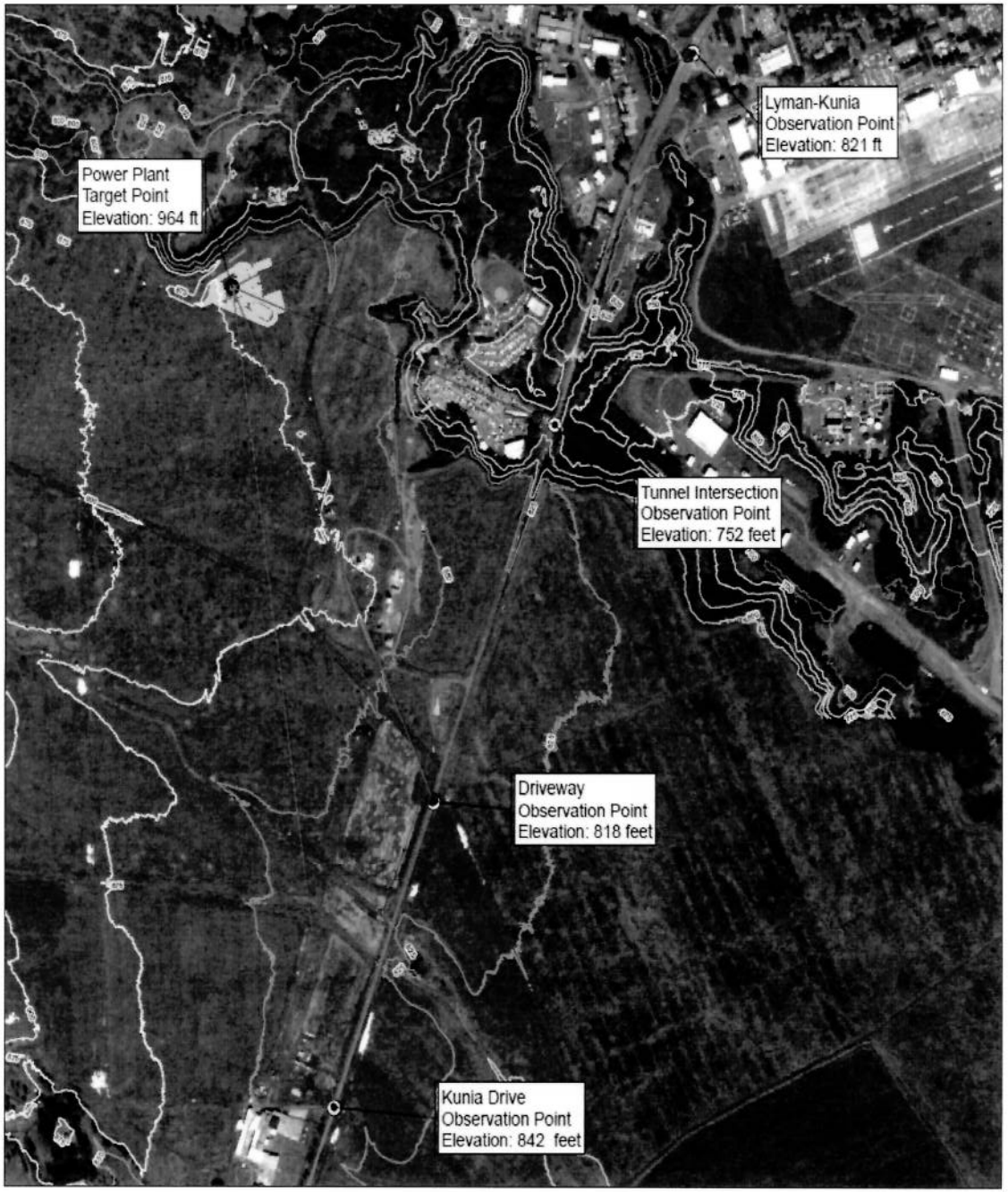
ENC, 2

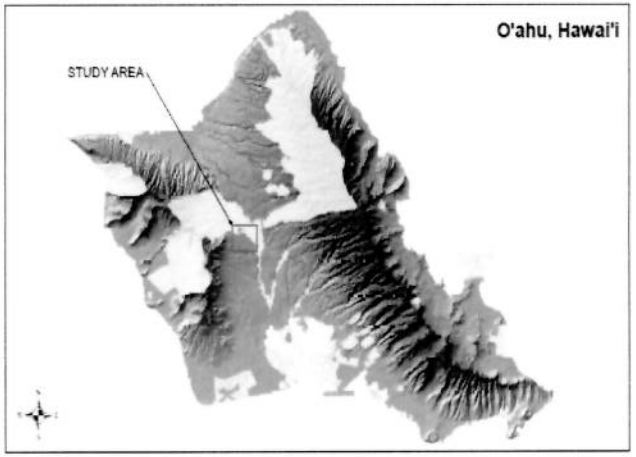

APE = Approx 882 Acres
NR Eligible
1927 Schoolhouse
P31-P41
P19-P30
P42-P47
P4-P18
P1-P3
Schofield Barracks
General's Loop
Ralston Neighborhood
Historic Neighborhoods
at Wheeler
Wheeler Army
Airfield
PWR
PLANT
Wahiawa
Schofield
Barracks
AREA OF POTENTIAL EFFECT FOR
VISUAL IMPACTS TO THE HISTORIC RESOURCES
AT SCHOFIELD BARRACKS AND
WHEELER ARMY AIRFIELD
HECO Poles
Existing
Proposed
Future Power Plant
Historic District
Installation Area
Area of Potential Effect
Feet
0
750
1,500
3,000
U.S. Army Garrison-Hawaii, DPW-Environmental
September 2014
Source: "Streets" Basemap (ESRI et al., 2013)
APE information may be reviewed and updated

ENCL 1

ENC 3

Figure 2. Area of Potential Effect for Schofield Generating Station, including transmission corridor improvements.





Schofield Power Plant

Line of Sight Analysis

LEGEND

- Target Location
- Observer Location
- Obstruction Point
- Not Visible
- Visible
- Power Plant

Contour Lines

- 700 feet
- 750 feet
- 800 feet
- 850 feet
- 900 feet

0 500 1,000 2,000 Feet

US Army Corps of Engineers
Honolulu District

NOAA 2013 LIDAR Oahu Collection Source of elevation data from MSL
Coordinate System: NAD 1983 HARN StatePlane Hawaii 3 FIPS 5103 Feet
Projection: Transverse Mercator
Horizontal Datum: North American 1983 HARN

ENC 4

Schofield Power Plant Methodology

1) Coordinate System

The Line of Sight analysis and the associated data were created using ArcGIS's ArcCatalog and ArcMap software. A new file based geodatabase was created in ArcCatalog. The Coordinate System used is NAD 1983 HARN StatePlane Hawaii 3 FIPS 5103, in feet. Projection is the Transverse Mercator, and the Horizontal Datum is the North American 1983 HARN. No Z-factor was used.

2) Terrain to TIN

A feature dataset was created in the new geodatabase. The study area boundary feature was imported into the feature dataset. The boundary feature was used as a hard clip surface feature to limit the area that contained the LiDAR data. The LiDAR data (LAS files) were converted into multipoints, a collection of points that can be used to store a collection of point-based information, using 3DAnalyst tool in ArcCatalog. Multipoints for bare earth and first returns were converted from the same LAS files. For the bare earth terrain, class code 2 was the only one used in the conversion of multipoints. For the first returns, class codes 1, 4,5,6 were used (See Figure 1). A bare earth and first return terrain were produced using the boundary feature and the multipoints.

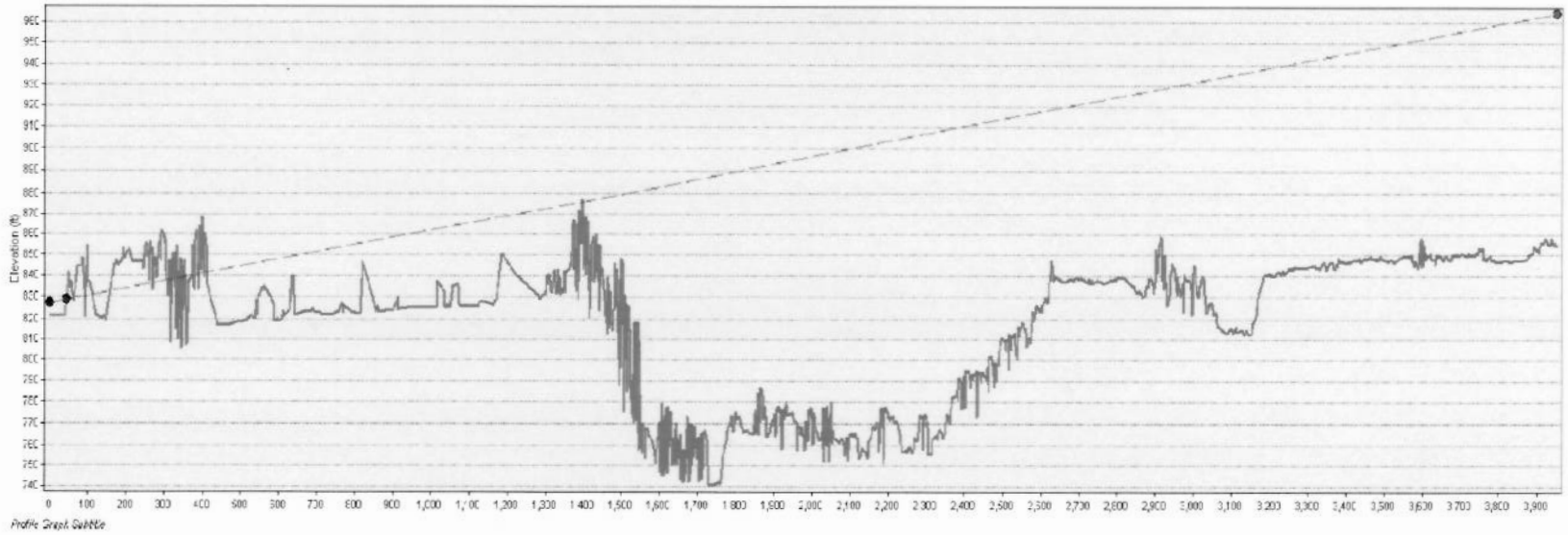
ASPRS Standard LiDAR Point Classes

Classification Value	Meaning
0	Created, never classified
1	Unclassified
2	Ground
3	Low Vegetation
4	Medium Vegetation
5	High Vegetation
6	Building
7	Low Points (noise)
8	Model Key-Points (mass points)
9	Water
10	Reserved for ASPRS Definition
11	Reserved for ASPRS Definition
12	Overlap Points
13-31	Reserved fro ASPRS Definition

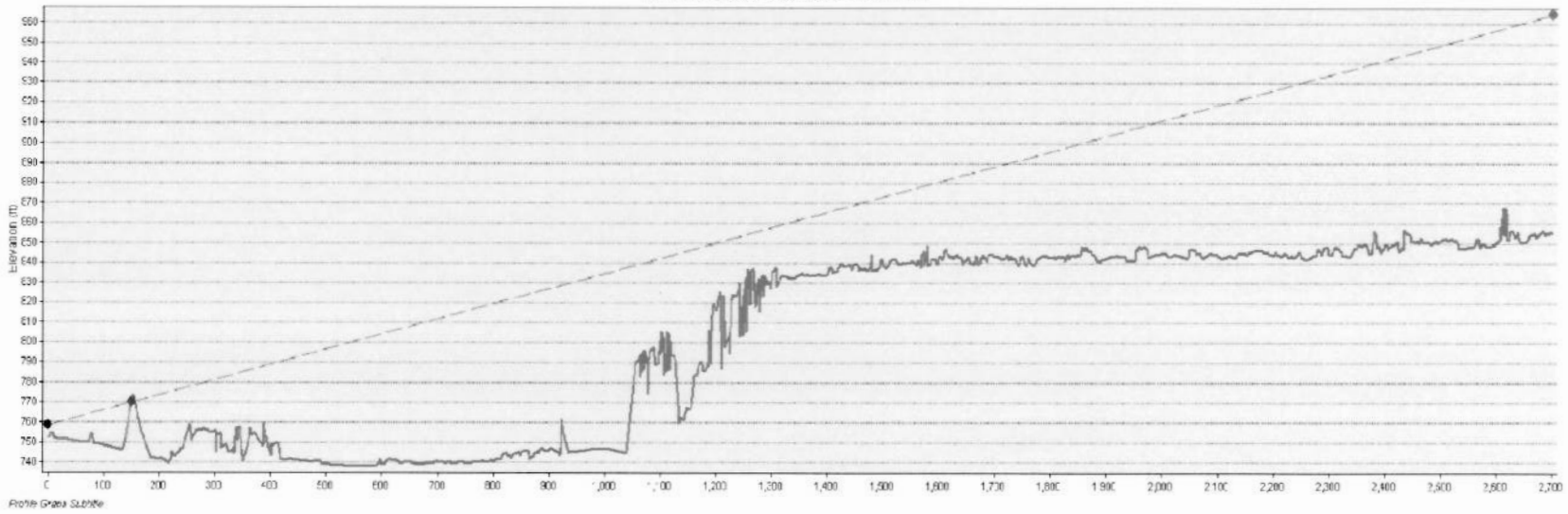
Figure 1. ASPRS Standard LiDAR Point Class Codes (ESRI Support)

In order to do a Line of Sight analysis, the first return terrain was converted into a triangulated irregular network (TIN) using the 3DAnalyst tool. The TIN was created by triangulating the terrain's surface using nodes.

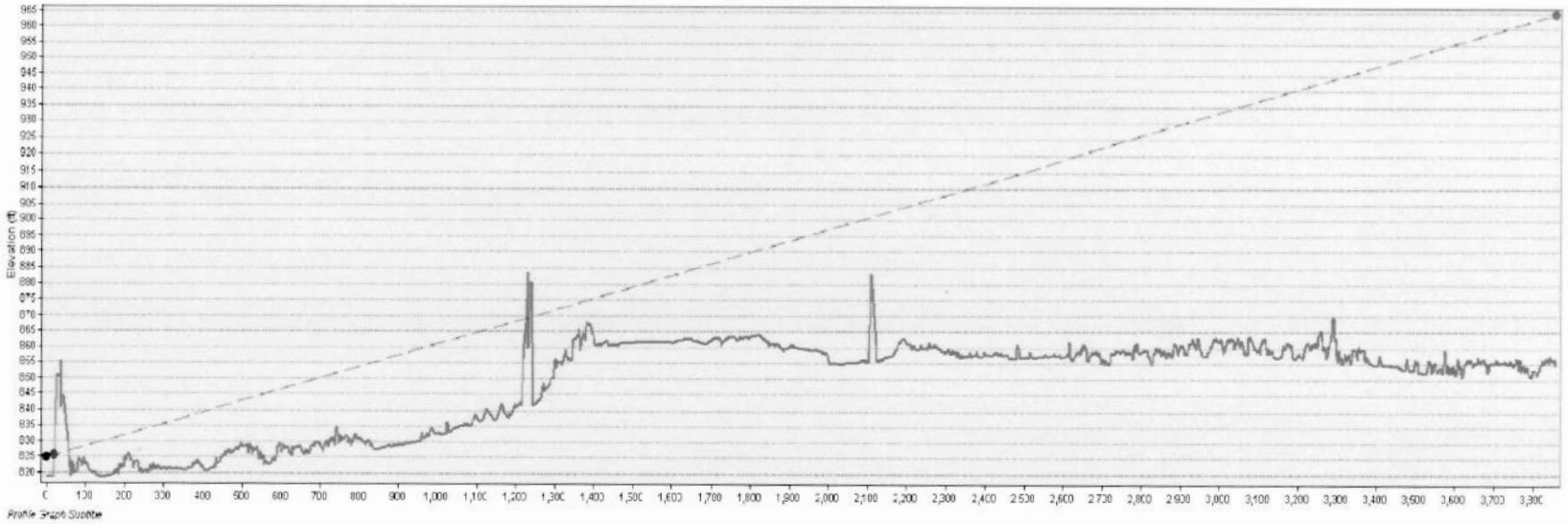
Lyman-Kunia Observation Point Profile



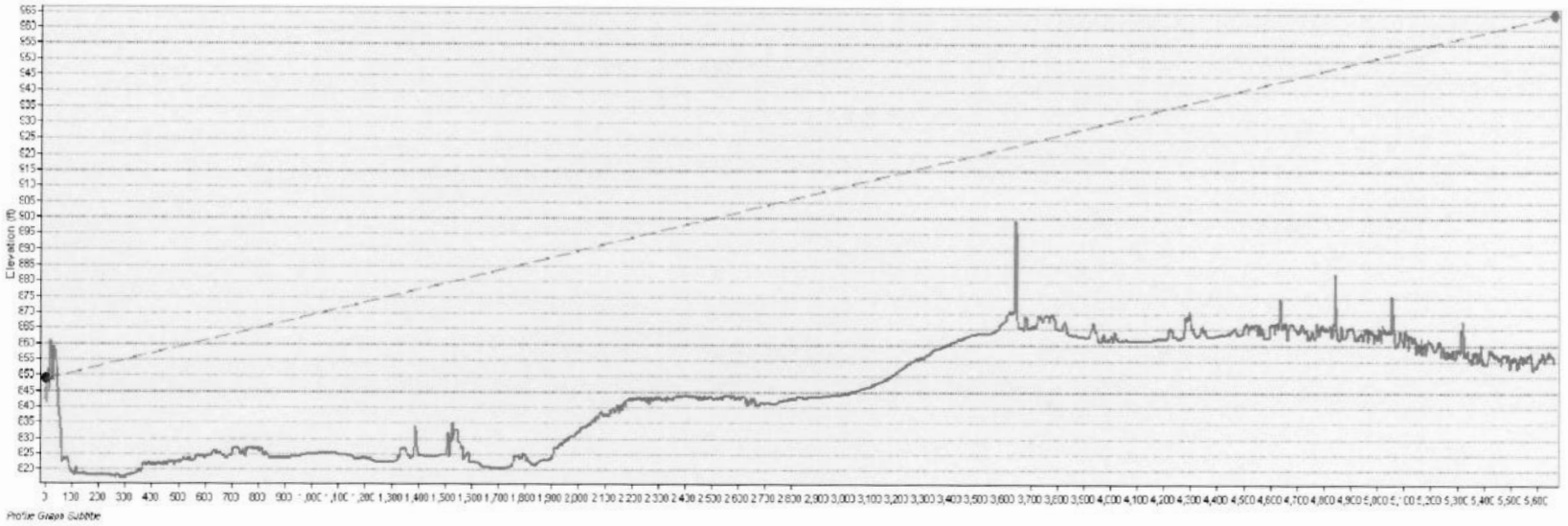
Tunnel Intersection Observation Point Profile



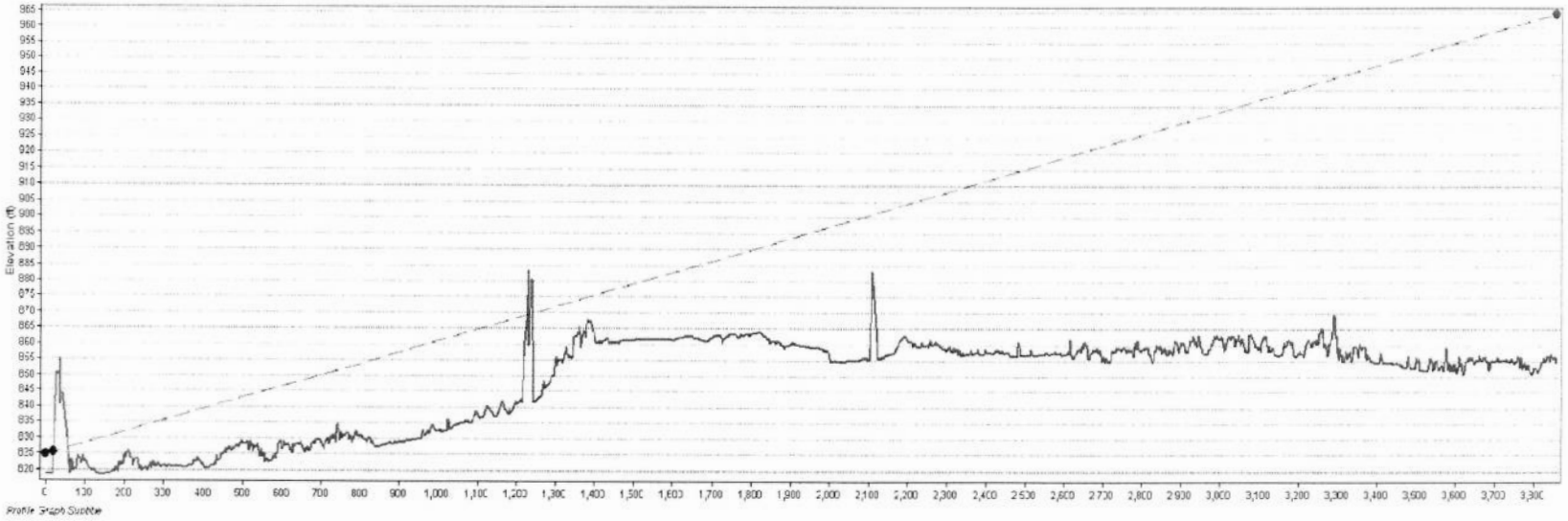
Driveway Observation Point Profile



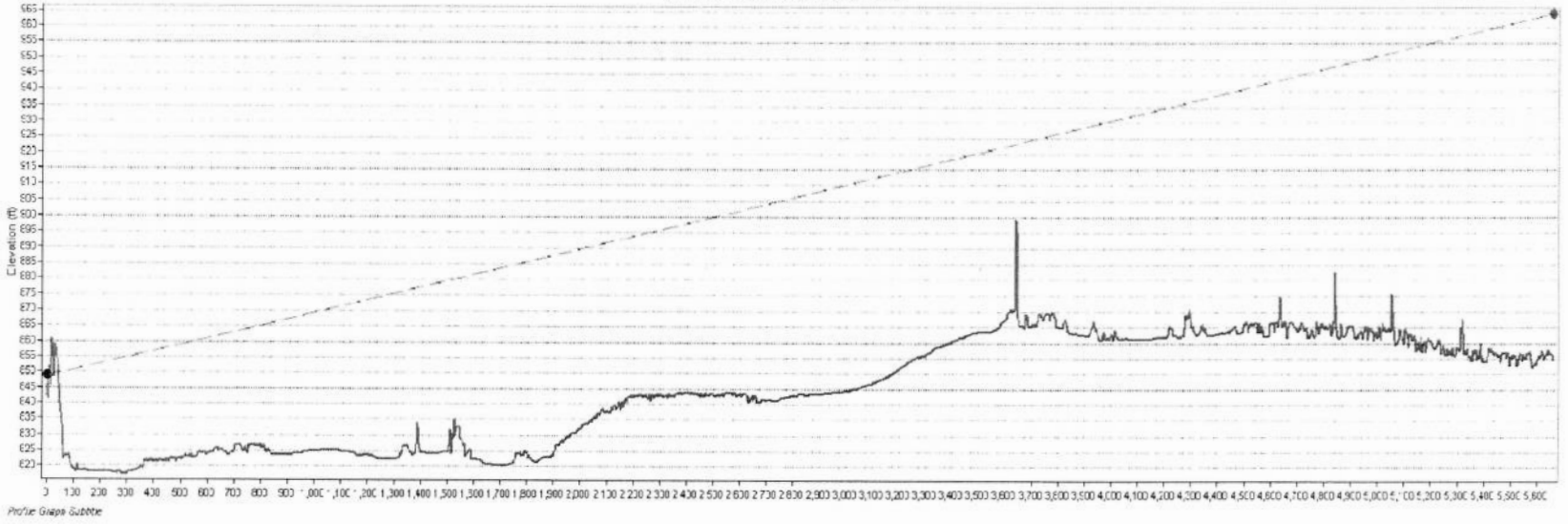
Kunia Drive Observation Point Profile



Driveway Observation Point Profile



Kunia Drive Observation Point Profile



DRAFT—Archaeological Inventory Survey for Schofield Generating Station Project, Waiʻanae Uka, Honouliuli, and Waikele Ahupuaʻa in Wahiawā and ʻEwa Districts, Oʻahu Island, Hawaiʻi

TMKs (1) 7-7-001:001, 9-2-005:026, and 9-4-012:003

Prepared For:

Tetra Tech Inc.
10306 Eaton Place, Ste. 340
Fairfax, VA 22030

Prepared By:

Amanda E. Sims, BA
Jolie Liston, PhD
and
Michael Desilets, MA, RPA

Garcia and Associates
146 Hekili St., Suite 101
Kailua, Hawaiʻi 96734

GANDA Report No. 2268-1

June 2014

MANAGEMENT SUMMARY

At the request of Tetra Tech, Inc., Garcia and Associates conducted an archaeological inventory survey (AIS) in support of a joint Federal/State Environmental Impact Statement (EIS) for the Schofield Generating Station Project in the western portion of Oʻahu's central plateau. The AIS included excavation of eight test trenches in a 8.1-acre generating station parcel and 13 test pits along a 3.7-kilometer transmission corridor. Test trenches and test pits produced no evidence of traditional Hawaiian or early historic cultural deposition.

AIS data indicate that the Schofield Generating Station Project is very unlikely to affect archaeological sites. Test excavation results confirm that the Area of Potential Effect (APE) has a very low probability for containing archaeological deposits. Extensive land modifications associated with a century of commercial cultivation, ranching, U.S. military activity, and urbanization has likely destroyed most of the tangible evidence of the traditional Hawaiian and early historic past in this area.

CONTENTS

FIGURES

TABLES

1.0 INTRODUCTION

At the request of Tetra Tech, Inc., Garcia and Associates conducted an archaeological inventory survey (AIS) in support of a joint Federal/State Environmental Impact Statement (EIS) for the Schofield Generating Station Project. The Schofield Generating Station Project is in the western portion of Oʻahu's central plateau and includes portions of Waiʻanae Uka Ahupuaʻa in Waiʻanae District and Waikele and Honouliuli Ahupuaʻa in ʻEwa District (TMKs (1) 7-7-001:001, 9-2-005:026, and 9-4-012:003) (Figure 1). The primary objective of the AIS was to identify and document pre-Contact and post-Contact properties within the project's Area of Potential Effect (APE) using a sampling strategy proportionate to the archaeological sensitivity of the area.

1.1 Proposed Action

The Schofield Generating Station Project, a project of the U.S. Army's Energy Initiatives Task Force is being undertaken in furtherance of the state of Hawaiʻi's and the Army's renewable energy goals and to enhance energy security for Army installations as well as the island of Oʻahu. U.S. Army Garrison-Hawaii proposes to lease Hawaiian Electric Company a 8.1-acre parcel on Schofield Barracks Military Reservation's (SBMR) Kunia Maneuver Training Area (KMTA) to construct a 50-megawatt biofuel-capable power generation plant (Figure 2).

To connect the generating station to the existing Hawaiian Electric Company grid at Wheeler Army Airfield (WAAF) and Wahiawā substations, U.S. Army Garrison-Hawaii and the State of Hawaiʻi will provide Hawaiian Electric Company a 3.7-kilometer interconnection easement for a 46-kilovolt aboveground transmission line. The transmission line will extend from the east side of the new power plant, across Waiʻeli Gulch, and onto the southwest corner of Schofield Barracks' cantonment. The line will then continue along the southwestern extremity of the cantonment, and cross Duck Road, Lyman Road, and Lyman Gate following the Schofield Barracks-Kunia Road fenceline. It will then cross Kunia Road and enter WAAF between Waiʻanae Avenue and Eastman Road. At the U.S. Army's Wheeler Substation, the line will split with one line running northwest onto the Schofield Barracks cantonment (terminating at Ralston Field) and the other running east along Wilikina Drive. The Wilikina line will extend over the south fork of Wahiawā Reservoir (Lake Wilson) and terminate at Hawaiian Electric Company's Wahiawā Substation.

A series of 47 electrical poles will support the transmission line. The poles will be 60 to 80 feet high and 24 inches in diameter. Of the 47 poles, 36 will be newly installed, 7 will be replacements for existing poles, and 4 will be existing poles (Figure 2).

1.2 Regulatory Authority

Evaluation of impacts to cultural and historic resources for the Schofield Generating Station Project is required by the U.S. Army's implementing regulations (Title 32 of the *Code of Federal Regulations* [CFR] Part 651, *Environmental Analysis of Army Actions*) of the National Environmental Policy Act (NEPA) [Title 42 of *United States Code* (U.S.C.) Sections 4321 to 4370 (f)], NEPA regulations (40 CFR Parts 1500-1508), and the Hawaiʻi Environmental Policy Act (HEPA) as codified in Hawaiʻi Revised Statues Chapter 343, *Environmental Impact Statements*.

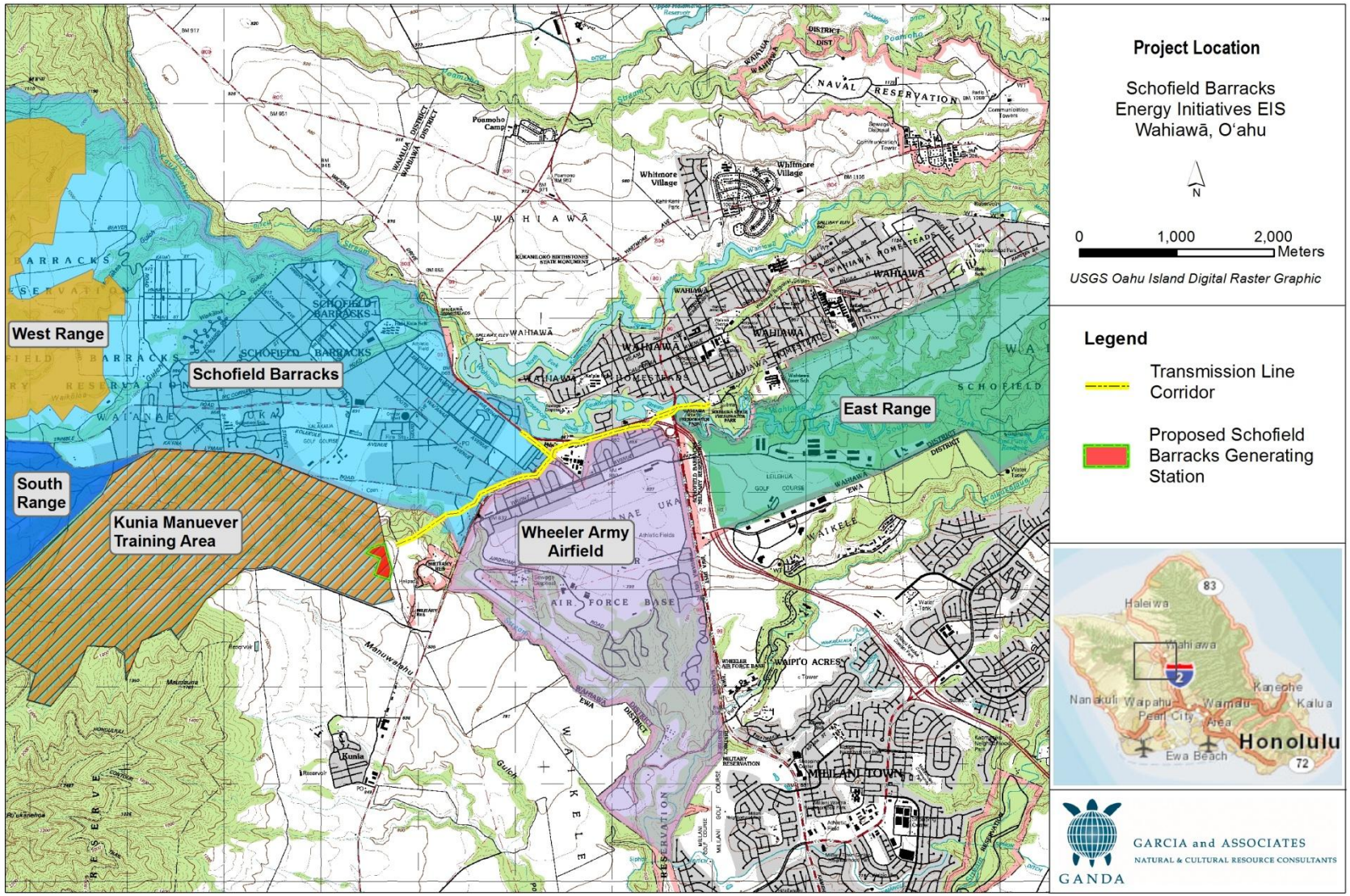


Figure 1. Location of the Schofield Generating Station Project.

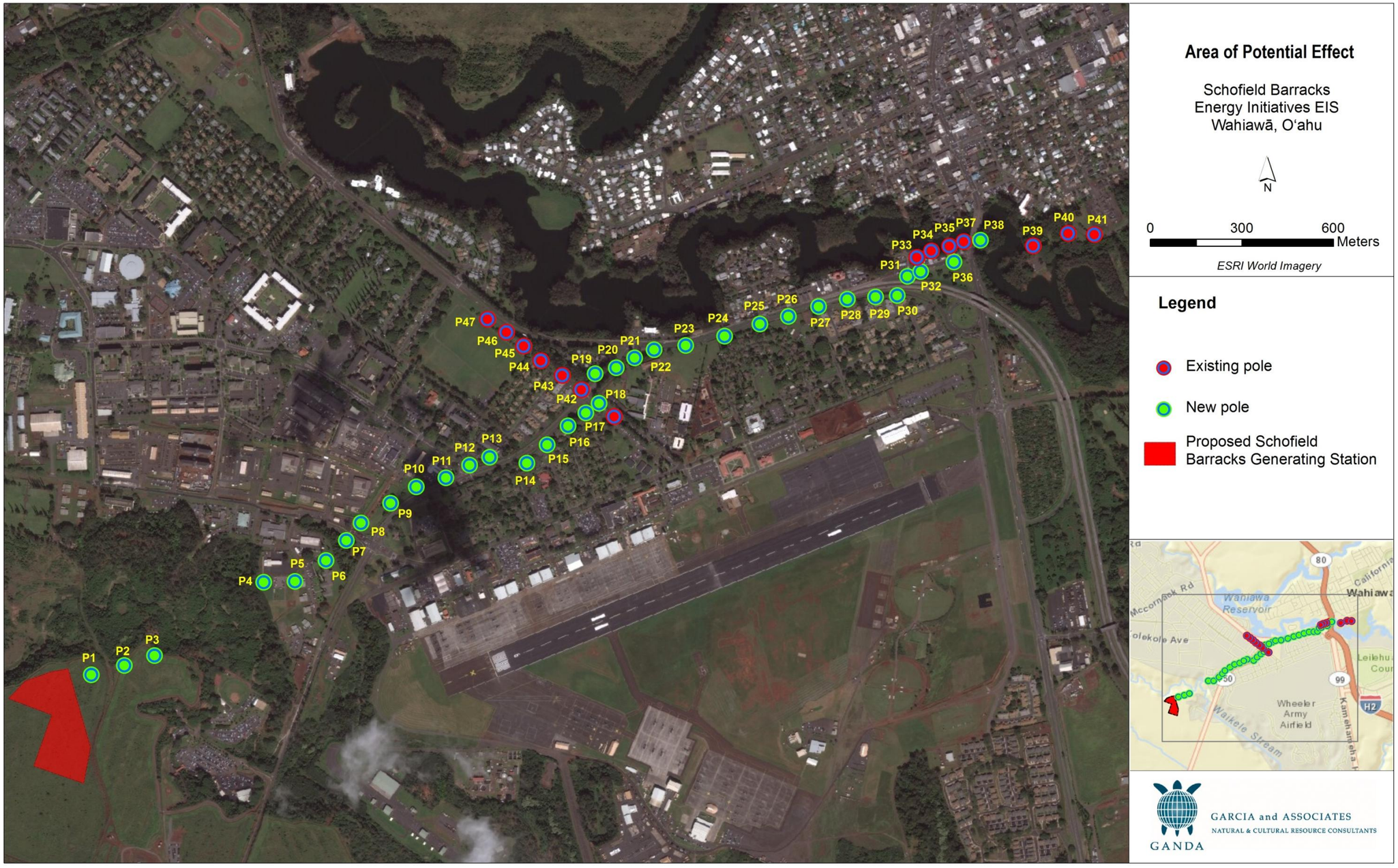


Figure 2. Area of Potential Effect for Schofield Generating Station, including transmission corridor improvements.

This page intentionally left blank.

Under NEPA and HEPA regulations, an EIS must consider the effects of the proposed action on the *human environment*, which 40 CFR 1508.14 defines as "the natural and physical environment and the relationship of people with that environment." The human environment, therefore, includes important scientific, archaeological, and other tangible and intangible cultural resources, including historic properties listed or eligible for the National Register of Historic Places (NRHP) and sacred sites (Executive Order 13007).

Under the contractual and organizational arrangements negotiated for this project, Tetra Tech, Inc. and Garcia and Associates are responsible for the cultural resources component of the EIS, and U.S. Army Garrison-Hawaii is responsible for compliance with Section 106 of the National Historic Preservation Act (NHPA). This AIS is, however, designed to assist U.S. Army Garrison-Hawaii in their Section 106 consultation and to provide data suitable for both NEPA/HEPA and NHPA compliance.

1.3 Area of Potential Effect

The APE for the Schofield Generating Station Project falls largely within SBMR property, but also extends onto properties owned or leased by the State of Hawai'i's Departments of Agriculture, Transportation, and Land and Natural Resources. As stated above, the generating station will be sited on a 8.1-acre parcel on the western edge of KMTA in Honouliuli Ahupua'a, and a 3.7-kilometer overhead transmission line will connect the power plant to the Army's WAAF and the Hawaiian Electric Company's Wahiawā substations (Figure 1).

The project's APE includes the generating station's footprint as well as all locations at which new power poles will be installed. Although the APE for direct effects of generating station construction is technically limited to the construction footprint, this AIS evaluates the entire 8.1-acre parcel for archaeological sites to account for potential design changes. New pole installation will involve excavating boreholes sufficiently wide to support 24-inch-diameter power pole bases. The boreholes will extend 2.75 meters (9 feet) beneath the surface. As mentioned previously, there will be 36 new poles installed at the locations shown in Figure 2. These 36 pole locations, in addition to the generating station footprint, constitute the APE for direct effects of the project. Installation of replacement poles will utilize the holes remaining from the removal of old poles and will not involve new ground disturbance.

To keep construction impacts to a minimum, there will be no vegetation grubbing during new pole installation or during periodic line maintenance. No roads will be constructed through the gully to access pole installation locales. Indirect effects are therefore not anticipated for new pole installation or maintenance.

With respect to U.S. Army Garrison-Hawaii's NHPA consultation, it should be noted that the project's Section 106 APE also includes the viewshed within which the new poles and lines are visible. Evaluation of the visual effects of new poles and lines on historic properties and historic districts is being undertaken by U.S. Army Garrison-Hawaii concurrent with this AIS.

1.4 Personnel and Schedule

Archaeological fieldwork was conducted over a 4-day period between 18 February and 4 March 2014. Jolie Liston, PhD, served as the project's Principal Investigator, and Amanda Sims,

BA, conducted the field investigations. Dr. Liston meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology (36 CFR Part 61) as well as the professional qualifications outlined in Hawai‘i Administrative Rules Section 13-281-3. She is permitted to conduct archaeological investigations in Hawai‘i under State Historic Preservation Division Permit No. 14-12.

2.0 ENVIRONMENTAL, HISTORICAL, AND ARCHAEOLOGICAL CONTEXT

This section presents the environmental, ethnohistorical, and archaeological context of the project area. Anticipated archaeological findings based on a critical assessment of the archival research are presented. A more detailed description of the historic context of O'ahu's central plateau is found in Desilets et al. (2011), Tomonari-Tuggle (1997), and Tomonari-Tuggle and Bouthillier (1994).

The contextual research focuses on the lowlands of Oʻahu's central plateau in Waiʻanae Uka Ahupuaʻa in the Waiʻanae District, and Waikele and Honouliuli Ahupuaʻa in the ʻEwa District where the project is located. However, the traditional history of the upland region of the central plateau and the surrounding plains are included to provide a more thorough context.

2.1 Environment

The APE is on the fairly level central plateau of Oʻahu Island within the broad saddle between the Koʻolau and Waiʻanae mountain ranges. The project area ranges in elevation from approximately 160 to 268 meters (525 to 880 feet) above mean sea level.

Annual rainfall averages 96 centimeters (Giambelluca et al. 2013), with temperatures ranging from 59 to 87 degrees Fahrenheit (Armstrong 1983:56). Significant annual rainfall along the upper elevations of the Waiʻanae Range exceeding 250 centimeters contributes to the tributaries descending the steep, amphitheater-headed slopes of the mountains to form meandering and incised valleys within the lower plateau lands. Although represented on the U.S. Geological Survey (USGS) quadrangle maps as permanent watercourses, these streams flow intermittently in response to heavy rains.

The gulch formed by Waiʻeli Stream separates KMTA, on the south, from Schofield Barracks cantonment to the north. This seasonal stream flows southeast to join with Waikakalaua Stream at WAAF's southern border and become Waikele Stream. Construction of WAAF altered the stream course east and downstream of the project area (Tomonari-Tuggle and Bouthillier 1994:9). Waikele continues on to Oʻahu's south coast to empty into Pearl Harbor's western embayment (the West Loch).

Kaukonahua Stream roughly bounds Schofield Barracks cantonment's northeast edge before flowing northward to drain into the ocean at Waialua. In about 1905, a dam was constructed across the convergence of the north and south forks of the Kaukonahua Stream to supply irrigation water to the surrounding cultivated fields. This resulted in the formation of Lake Wilson (Wahiawā Reservoir), Oʻahu's largest freshwater impoundment. At the east end of the APE, along the south fork of Lake Wilson and Kaukonahua Stream, is the Department of Land and Natural Resources-managed Wahiawā State Freshwater Park.

The project area contains the following major soil series: Wahiawa silty clay (WaA), Manana silty clay (MoB), Helemano silty clay (HLMG), Kunia silty sands (KyA, KyC), and Kawaihapai clay loam (KlB) (Figure 3). The Wahiawa Series is the most prevalent, extending across the APE, with the Manana Series near the middle of the transmission corridor, and the Helemano Series

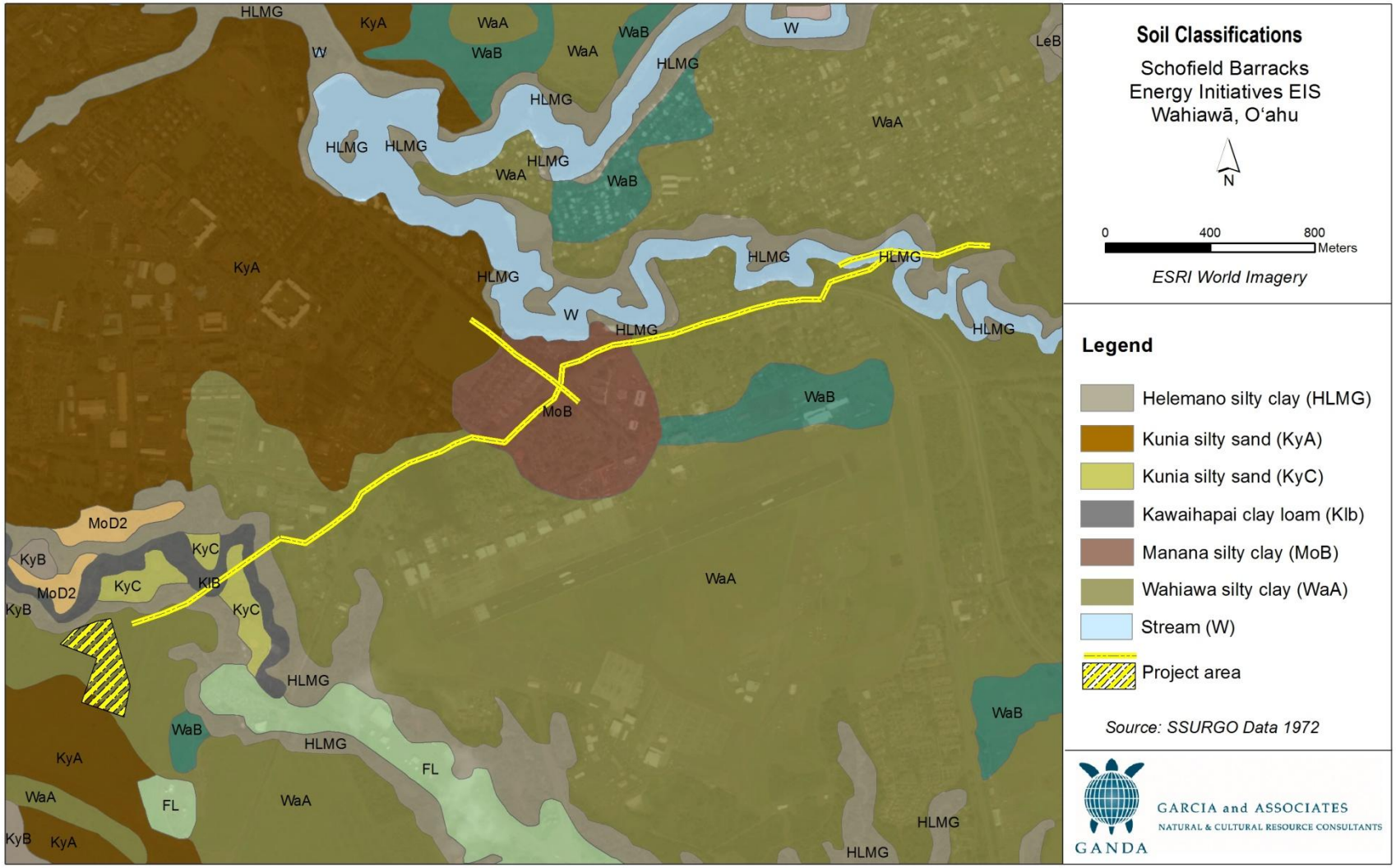


Figure 3. Soil types in the vicinity of the Area of Potential Effect.

found around the streams and gulches. The Kunia Series and Kawaihapai Series are in the western portion of the project area.

All the soils in the APE are well drained and have a fine texture. The Wahiawa silty clays develop in residuum and old alluvium derived from basic igneous rocks and form nearly level to moderately steep soils (Foote et al. 1972). Runoff is slow with very little erosion. The Manana silty clays develop in material weathered from basic igneous rocks. Runoff is medium with a moderate amount of erosion. The Helemano Series is found on alluvial fans and colluvial slopes in gulches. Developing in alluvium and colluvium derived from basic igneous rock, these silty clays are often steep to extremely steep and form extremely eroded areas.

The Kunia Series develops in old gravelly alluvium and tends to develop on upland terraces and fans. Kunia silty sand (KyA) is found on the cantonment's flat lands while Kunia silty sand (KyC) occurs along the banks of Waiʻeli Gulch. The Kawaihapai Series is found at the base of Waiʻeli Gulch.

The plateau lands were likely once covered in native forest, including *koa* (*Acacia koa)* and sandalwood (*Santalum* spp.), and used for bird hunting and collecting wood and other forest products. Because of the highly disturbed and artificially landscaped environment, current vegetation in the APE is largely composed of introduced species.

Historically, KMTA was under pineapple cultivation with its termination only after the recent military acquisition of the land. Regrowth consists of mostly non-native shrubs, grasses, and secondary saplings. The lands on or near the military installations are manicured and landscaped grounds consisting of non-native grasses, trees, and shrubs with a few stands of ti (*Cordyline terminalis*) near residential houses. The right-of-way along the major thoroughfares is manicured lawn while the Wahiawā State Freshwater Park is wooded in both native and introduced species.

2.2 Traditional History

Traditional history, along with archaeological evidence, indicates that Oʻahu's central plateau is politically and spiritually important. The ancient lands of Līhuʻe—south of Schofield Barracks on the eastern slopes of the Waiʻanae Range—and portions of Wahiawā overlap in the lower reaches of the central plateau to encompass the entire APE.

The Chant for Kapawa exemplifies the connectedness of the various central plateau regions and sites:[1]

ʻO Kapawa, ʻo ke aliʻi o Waiʻalua	Kapawa, the chief of Waiʻalua,
I hanau i Kūkaniloko	Was born at Kūkaniloko;
ʻO Wahiawā ke kahua	Wahiawā the foundation;
ʻO Līhuʻe ke ewe	At Līhuʻe the placenta, (taken away)

[1] Chant and translation provided by the historian of the Wahiawā Hawaiian Civic Club, August 2009 (Desilets et al. 2011:40).

ʻO Kaʻala ka piko	At Kaʻala the navel cord, (buried)
ʻO Kapukapuakea ka aʻa	At Kapukapuakea (Heiau) the caul,
ʻO Kaiaka i Maeaea	(Heiau) of Kaiaka at Maeaea;
Haʻulei i Nukea i Wainakia	He died at Nukea at Wainakia
IʻAʻaka i Haleu	Through (the surf of) ʻAʻaka at Haleu,
I ka laʻi malino o Hauola	Through the calm stillness of Hauola,
Ke liʻi ʻo Kapawa hoʻi no	The chief Kapawa was taken,
Hoʻi no i uka ka waihona	Returning the organs to the uplands of Iʻao
Hoʻi no i ka pali kapu o na liʻi	Taken to the sacred pali of the chiefs,
He kiaʻi Kalahiki no Kakaʻe	Kalahiki is the "Watchman" of Kakaʻe,
ʻO Heleipawa ke keiki a Kapawa	Heleipawa was the son of Kapawa,
He keiki aliʻi no Waiʻalua i Oʻahu	A chiefly child of Waiʻalua, Oʻahu

Līhuʻe is most often referred to as the "uplands," although that could mean the whole central plateau, which, relative to coastal areas, is upland. In its literal translation, *Līhuʻe* means "cold chill" (Pukui et al. 1974:132), a quality often referred to in the traditional literature of Līhuʻe, Kalena, and Haleʻauʻau. Although not evidence of a strictly upland, mountainous boundary, it does point to a tendency in the literature to focus on the higher elevation upland portion of the Līhuʻe lands.

Honouliuli Ahupuaʻa, whose northern tip will support the proposed Schofield Generating Station, is Oʻahu's largest *ahupuaʻa*, encompassing most of the western half of the ʻEwa District. *Honouliuli* means "dark bay" (Pukui et al. 1974:51), apparently named after the West Loch bordering what is now Pearl Harbor. Honouliuli is known as the first place where human beings landed on Oʻahu (Beckwith 1970:343) and a place where *ʻulu* (breadfruit; *Artocarpus altilis*) was first introduced to Hawaiʻi (Burgett and Rosendahl 1992: Appendix E).

The proposed generating station and the west end of the transmission line are in two historically referenced *ʻili*[2], Paupauwela in Honouliuli Ahupuaʻa and Pouhala in Waikele Ahupuaʻa (Figure 4). Paupauwela is also written as *Popouwela* or *Poupowela* (Sterling and Summers 1978; ʻĪʻī 1959:97). *Pouhala ʻIli*, translated as "pandanus post," (Pukui et al. 1974:190), is also a named place in southern Waikele next to "an important fishpond" and *loʻi* or *kalo* patches called Kapalaha (Sterling and Summers 1978:29). The upland *ʻili* is referenced as "Pouhala Uka" in late 19th century land documents (Tomonari-Tuggle and Bouthillier 1994:20).

Waikele, translated as "muddy water," also refers to a stream formed by the convergence of Waiʻeli Stream north of the generating station and Waikakalaua Stream to the southeast. Waiʻeli Stream is sometimes written as *Waikele Stream* on more recent USGS maps and as Waieli, meaning "dug water" (Pukui et al. 1974:221), on a late 19th century Oʻahu Island map (Hawaiian Government Survey 1881).

[2] An *ʻili* is a traditional land unit that is within the larger *ahupuaʻa*.

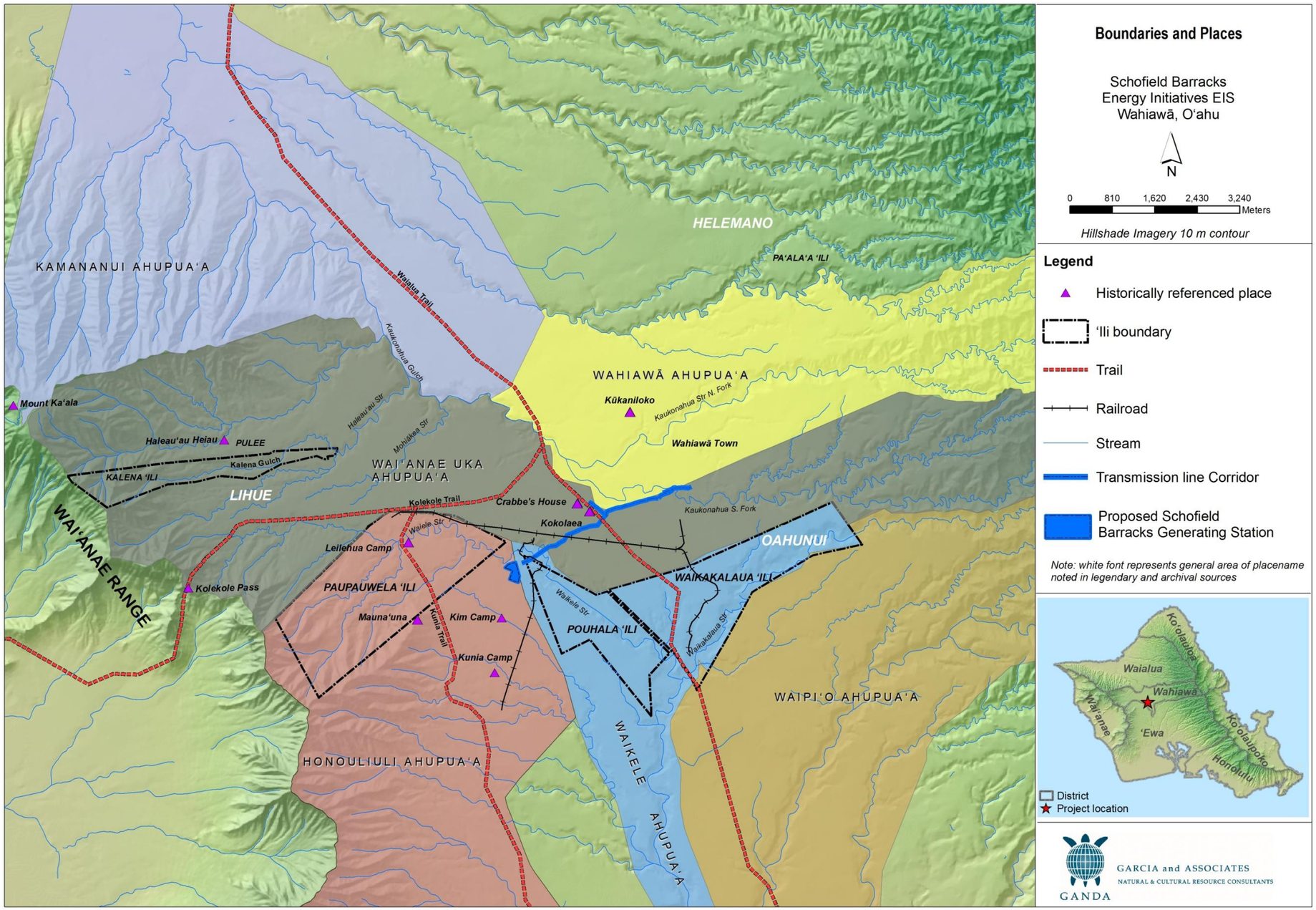


Figure 4. Traditional and historic boundaries and place names near the Schofield Generating Station Project.

This page intentionally left blank.

The majority of the transmission line is in the lower elevations of Waiʻanae Uka Ahupuaʻa. The names and borders of any smaller traditional divisions once in this area are unknown. One of Oʻahu's largest *ahupuaʻa*, Waiʻanae Uka Ahupuaʻa, is landlocked and extends from the tablelands across the crests of the Waiʻanae and Koʻolau mountain ranges. Hawaiian deities guarded the boundary between Waiʻanae Uka and the *ahupuaʻa* to the west (Lualualei and Waiʻanae Uka). Mount Kaʻala is the home of the kind goddess Kaiona who harmed no one. The mountain goddess Kolekole protected the mountain pass (Sterling and Summers 1978:133–135). A likely ancient pass through the saddle is afforded at Kolekole (ʻĪʻī 1959:99), by Mount Kaʻala, the highest point on the island.

2.2.1 Settlement

Traditionally, Honouliuli Ahupuaʻa contained a large permanent settlement around what is now the West Loch, scattered fishing encampments elsewhere on the coast, and small permanent settlements and associated agricultural plots (Tuggle 1995:100). Initial settlement on the eastern slopes of the Waiʻanae Mountains and the central plains was likely mainly temporary and might have been related to the collection of forest and inland resources.

Permanent Hawaiian settlement of Waiʻanae Uka might have started as early as AD 1250, as populations expanded into central Oʻahu (Roberts et al. 2004:6). Two charcoal samples derived from pondfield contexts in an irrigated agricultural complex (State Inventory of Historic Places [SIHP] No. 5394) in upland Līhuʻe produced calibrated date ranges of AD 1120–1430 and AD 1280–1420 (Carson and Yeomans 2000:18). A similar calibrated date range of AD 1290–1470 was returned from agricultural deposits at nearby SIHP No. 5392 (Robins and Spear 2002a: Appendix C-2).

These dates suggest that by about the 13th century, irrigated pondfields were developed along Waiʻeli Stream (and in other similar stream valleys) (Robins and Spear 1997b:7). Although a variety of ceremonial, habitation, burial, and agricultural sites have been identified in the uplands west of the APE, the distribution of sites suggest that intensive agriculture in the stream valleys was a focus of Hawaiian activity. Despite the lack of direct archaeological evidence resulting from extensive historic land disturbances, traditional Hawaiian land use in the neighboring tablelands of Honouliuli, Waiʻanae Uka, and Waikele are presumed to have followed the same pattern of cultivation and associated permanent habitation.

Handy et al. (1972:465) refer to a famous traditional place named Kukui-o-Lono, where the high chief Kūkaniloko is said to have made the first *loʻi*. Kukui-o-Lono might correspond to one of the cultivated watersheds in western Waiʻanae Uka (such as Kalena, Mohiākea, or Haleʻauʻau Streams) because the location is described as "above and west" of the present Wahiawā Town.

Another traditional place name near the APE is Kokoloea, the location of a benchmark in the late 1800s Crown Lands surveys and a USGS benchmark (271 meters, or 888 feet, above sea level) (Figure 4). Located on the south side of what is now Lake Wilson, near Wilikina Drive, the 1876 Boundary Commission testimonies describe an ancient *ʻulu maika* field or *kahua maika* named Kapalauauai (ʻĪʻī 1959:99) as being at Kokoloea (Figure 5). Kokoloea was the name of a chief of the *Lo* class and the site of the "old Dowsett ranch house" (Tomonari-Tuggle 1997:13).

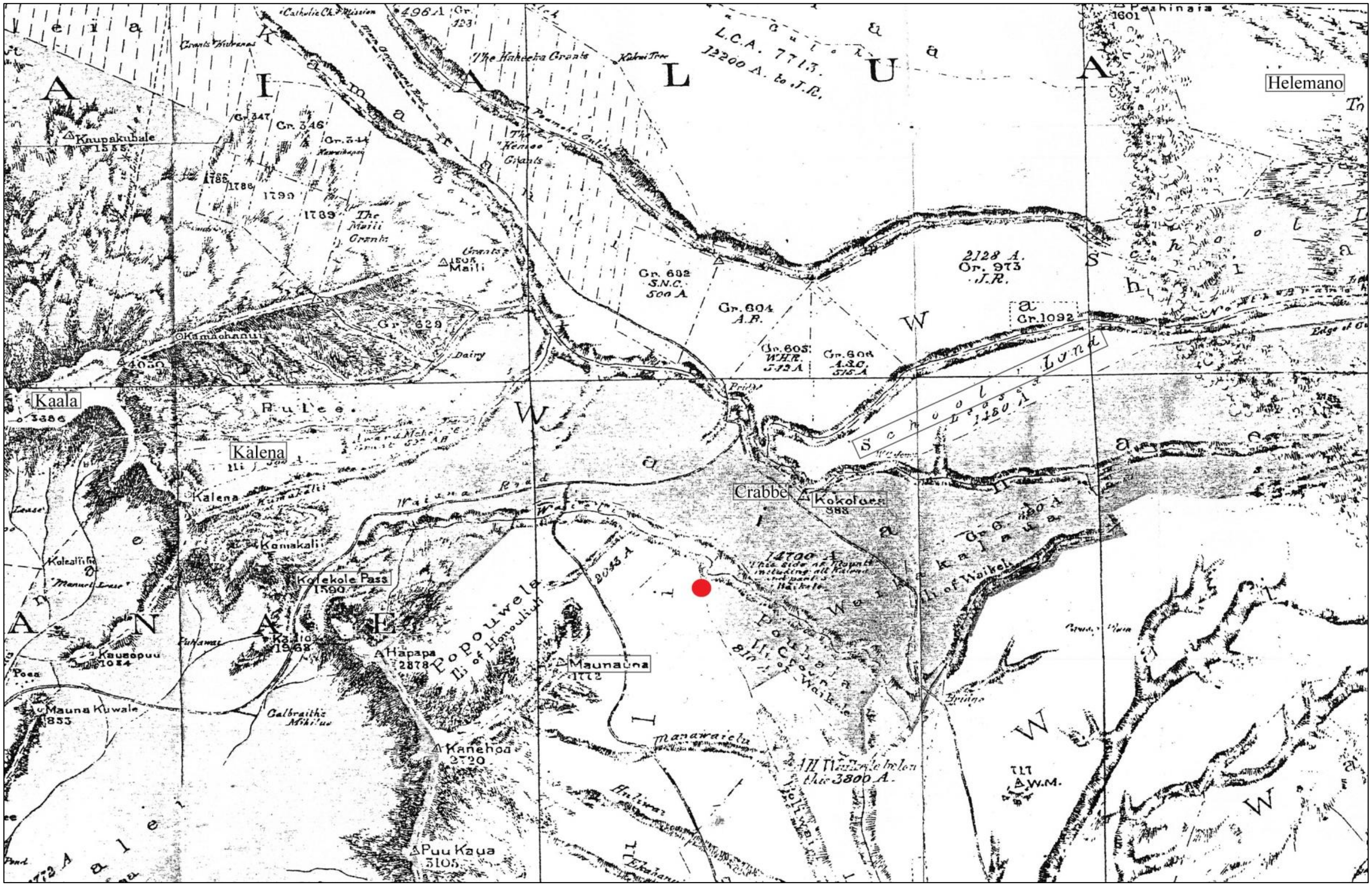


Figure 5. Enlarged detail of an 1881 O'ahu Island map with proposed Schofield Generating Station marked in red and boxes around place names mentioned in text (Hawaiian Government Survey, W.D. Alexander – General Surveyor).

Traditional access to the settlement areas in central Oʻahu was provided by the three main travel routes recorded by mid-18th century Hawaiian scholar John Papa ʻĪʻī (1959) (Figure 4). One of the routes (Kolekole Trail) passed through western Waiʻanae Uka across the Waiʻanae Mountains at Kolekole Pass. The other two trails extended in northerly directions from the south coast of the island to Waialua (Waialua Trail) and Waiʻanae Uka (Kunia Trail). On its way to Kūkaniloko, Waialua Trail passes under the transmission line just west of the intersection of Kunia Road and Wilikina Drive. The following extended excerpt explains the trail system, and references a number of important cultural sites and place names. Some of the place names are found in the 1881 Hawaiian Government (Figure 5) and 1902 Hawaiʻi Territory Survey (Figure 6) maps.

> They went down to the water and up, going above the group of taro patches of Waiau, to the stream of Kukehi, up to the two maika fields, Puehulunui and Haupuu. Puehulu lies at the crossroads, where one [trail] leads to Waialua and the other branches off to Honouliuli, and to Waianae. . . . There were three roads there at Puuokapolei, Pohakea, and **Kolekole**, from Kunia, the plain of Keahumoa, up to **Maunauna** and by Paupauwela where they join with the road from **Wahiawā** and the one from Waialua**,** on the west side of Mahu to Malamanui, to which spot one can look down from **Kolekole**, to Pokiʻi and Waianae-uka. There was a long cliff road, Eloui, from **Kalena** and **Haleʻauʻau**, on the east side of **Kaʻala**, coming down here to Waianae. There was also a trail going up and then down Makaha-uka, called Kumaipo. Below that trail was a fortress in the olden days, named Kawiwi. At the time of battle a boy was set as a guard every night [with no food--which led to turning over to rebels] . . . From the stream of Anahulu and from Kamani, above the homes, and taro patches a trail lies in front of Kuokoa's houselot and the church, which goes on to meet the creeks of Opaeula and **Halemano**, the sources of the stream of **Paalaa**, on down to the stream of Pooamoho, and go to the crossroad which branches from Mokuleia to Kamananui and Kewaaihe, The kukui grove of Kahewahewa lies below the trail to **Kūkaniloko** where visitors gathered. It goes to the stream of Paka, and the maika playing field of Kapalauauai which lies above the pond belonging to the village. There the trail meets with the one from **Kolekole** and goes on to the stream of Waikakalaua, Piliamoo, the plain of Punaluu to a rise, then down to Kïpapa to Kehaulele, A trail runs off from this long trail to Kalakoa, **Oahunui** and other places much visited, like **Kūkaniloko**, and from there to the digging place of Kahalo. [ʻĪʻī 1959:99; emphasis added]

2.2.2 The Lō Aliʻi and Kūkaniloko

Oʻahu's central plateau has long been an important Hawaiian religious center with the establishment of an *aliʻi* birthplace at Kūkaniloko, *heiau*, such as Haleʻauʻau and Kalena Heiau in western Waiʻanae Uka, and the Maunauna site in Waikele Ahupuaʻa east of the project parcel (Figure 4). The *lō aliʻi*, in conjunction with Kūkaniloko, are central to the traditional Hawaiian lore of the Līhuʻe-Wahiawā region of the central plateau and its mountainous periphery. The *lō aliʻi* were a specific class of *aliʻi* tied by birth and practice of strict *kapu* to the Līhuʻe-Wahiawā-Helemano region of Oʻahu's central plateau. A description of the *lō aliʻi* class is provided by Kamakau (1964):

> The chiefs of Līhuʻe, Wahiawā, and Halemano on Oʻahu were called *lō aliʻi*. Because the chiefs at these places lived there continually and guarded their

Figure 6. Enlarged detail of 1902 O‘ahu Island map with proposed Schofield Generating Station marked in red and boxes around place names mentioned in text (Hawai‘i Territory Survey, Walter E. Wall – Surveyor).

> *kapu*, they were called *lō aliʻi* [from whom a "guaranteed" chief might be obtained, *loaʻa*]. They were like gods, unseen, resembling men. [Kamakau 1964:40]
>
> The chiefs of Lihue, Wahiawa, and Halemano on Oahu were called *Lo* chiefs, *Poʻe Lo Aliʻi* {"people from whom to obtain a chief"}, because they preserved their chiefly kapus. The men had kapus, and the women had kapus, and when they joined their kapus and children were born, the children preserved their kapus. They lived in the mountains (*i kuahiwi*); and if the kingdom was without a chief, there in the mountains could be found a high chief (*aliʻi nui*) for the kingdom. Or if a chief was without a wife, there one could be found—one from chiefly ancestors. Kauakahiʻailani, Maʻilikukahi, Kalona, Piliwale, Kukaniloko, Paʻakakanilea {Paʻakanilea}, Kaʻakauualani, Kaʻau, Lale, Paoakalani, Pakapakakuaua, Nononui, Kokoloea, and a great many others were *Lo* chiefs. [Kamakau 1964:5][3]

The emergence of the *lō aliʻi* in central Oʻahu probably has its origin in the sacred birthing site of Kūkaniloko, on the Waialua side of Kaukonahua Gulch. Around the 13th and 14th centuries, Kūkaniloko was established by Nanakāoko and his wife Kahihiokalani for the birth of their son, Kapawa. In a chant commemorating Kapawa, Līhuʻe and nearby lands are referenced as metaphors for his birth at Kūkaniloko (Kamakau 1991:136):

> Kapawa, the chief of Waiʻalua
> Was born at Kukaniloko
> Wahiawa the site;
> At Lihue the placenta
> At Kaʻala the naval cord,
> At Kapukapuakea [heiau] the caul

Kūkaniloko was one of two sacred places in the Hawaiian Islands where *kapu* chiefesses went to give birth (Handy et al. 1972:465; McAllister 1933:134–135; see also Cordy 1996:596; Fornander 1996:20; Kamakau 1991:136). Kūkaniloko can be translated as "an inland area from which great events are heralded" and "to anchor the cry within." According to Kamakau (1991:53), "Chiefs born at Kūkaniloko were the *akua* [gods, spirits] of the land and were *aliʻi kapu* as well."

The sacred drums of Opuku and Hawea, which announced the birth of an *aliʻi*, were stored in the nearby *heiau* Hoʻolonopahu. By 1933, however, pineapple cultivation had obliterated the *heiau* (McAllister 1933:137). Remnants of the *heiau* are said to be in the gulch to the south of the birth site (D. Au, personal communication), although McAllister (1933:57) places the *heiau* to the north of Kıkaniloko.

During the long period of island-wide rule by Līhuʻe chiefs, and continuing into the succeeding years, birth at Kūkaniloko remained a powerful status symbol. In 1797 Kamehameha arranged to have his son Liholiho born at Kūkaniloko, but the plan was foiled by the sickness of

[3] An almost identical passage is found in the Appendix of *Kepelino's Traditions of Hawaii* (Beckwith 2007:196).

Queen Keopuolani. It is notable that even by this date, the site had already "fallen into decay" (Sterling and Summers 1978:140).

Kūkaniloko also served as a *pu'uhonua*, or place of refuge. According to 'Ī'ī (1959:138), ". . . Kūkaniloko in Wahiawa, Oahu; and Holoholoku in Wailua, Kauai, were places to which one who had killed could run swiftly and be saved." Other evidence is present in the story of Lā'ieikawai. Early in this story we learn that, "Now, Kapukaihaoa took Laielohelohe to the uplands of Wahiawa, to the place called Kukaniloko" (Haleole 2006). Kapukaihaoa, a priest, took Laielohelohe to Kūkaniloko because the baby girl would have been killed by her father (or his executioner) if he discovered she had been born.

Another story of the central plateau's traditional importance is set in Helemano, at O'ahunui (east of the project area), said to have been a residence of high chiefs. However, it was abandoned during the reign of the chief, O'ahunui, who was turned to stone when he became a cannibal and ate the two sons of his brother-in-law, Lehuanui (Nakuina 1897:90).

> Lo-Aikanaka is the name given to a family of South Sea chiefs who are driven from the plains of Mokuleia into the hills to a place called Hele-mano, where they are received by the chief Oahu-nui east of that locality and the two chiefs exchange courtesies. Oahu-nui develops a passion for human flesh and finally the two chubby sons of his sister Kilikiliula, wife of Lehua-nui, are sacrificed to his appetite during the absence of their father. Warned by a vision, the father returns, puts to death the chief and his sister, and abandons the place with his men. A curse hangs over the place...None has ever dared to live there since (T. Thrum quoted in Beckwith 1970:342).

Desilets et al. (2011:13) describe the sociopolitical and cultural importance of O'ahu's central plateau:

> Around AD 1300, district (*moku*) level organization appears to have arisen on O'ahu. By about AD 1320 to 1340, the *moku* of 'Ewa, Kona, and Ko'olaupoko were ruled by the sons of Maweke (Cordy 2002:22). 'Ewa, including not only 'Ewa proper, but Wai'anae and Wai'alua as well, was ruled by the Maweke-Kumuhonua line. It is possible that Maweke's grandson, Kumuhonua, ruled the entirety of O'ahu between AD 1340 and 1360 from his seat of power in Līhu'e on the central plateau. Kumuhonua's 'Ewa lands would have included the sacred birthing place Kūkaniloko and it is likely that Līhu'e was the primary ruling center for all of O'ahu. Although most chiefly classes were not regionally based, Līhu'e was exceptional and was home to chiefs with the specific designation of *lō ali'i* during this time. This class of chiefs populated the Central Plateau between the Ko'olau and Wai'anae ranges, including all of what is today referred to as Wai'anae Uka Ahupua'a. The high status of the *lō ali'i* chiefs was likely derived from birthing at Kūkaniloko, interbreeding, and strict *kapu* observance.

2.2.3 Warfare

Paupauwela, Kalena, Pulee, and Malamanui were noted battlefields between the island chief Kuali'i and rival island chiefs from the 'Ewa and Waialua districts (Fornander 1996:280–281).

Fornander (1996:393) provides a translation of *Ka inoa o Kualiʻi* or Chant of Kualiʻi recounting the famous battle at Kalena:

> Where, where was the field
> [on which] the warriors fought?
> Lo! The field is at Kalena;
> Scattered about, overflowing
> Poured out is the godly fluid

At Maunaʻuna, the Waiʻanae chief Kuiaia avoided a battle with Kualiʻi, as well as impending slaughter, by heeding a warning from his advisor and performing a chant to the god Kū:

> Mauna-una…Kuiaia, the chief of Wai-anae, came with his forces to meet Kualii on the battleground here mentioned. His kahu, forewarned, told him when coming to battle he should find a knotted ti leaf on the road he would know he was in danger and surrounded by an ambush which would cut off his whole force. On finding this knotted ti leaf, he began and chanted this mele from the beginning to end, to the honor of Ku. All on both sides laid down in reverence. Ku gave the signal of reconciliation, and the slaughter was averted. [Fornander 1969, cited in Sterling and Summers 1978:38]

According to the Legend of Kualiʻi (Beckwith 1970:395), it was after the battles in Malamanui, Pulee, and Paupauwela that Kualiʻi "subdues the whole island" and reestablishes paramount rule between around AD 1720 and 1740 (Cordy 2002:32). Beckwith (1970:396–398) suggests the Kualiʻi tradition might represent a political movement led in the name of Kū, rather than signifying the efforts of a single chief.

The chiefly residents of Līhuʻe were recognized for their skills in spear throwing and were known as excellent teachers of the skill (Kamakau 1991:50). *Lua*, a battle method of dislocating joints of opponents, was also practiced on unsuspecting travelers crossing over the western boundary of Waiʻanae Uka at Kolekole Pass (Sterling and Summers 1978:134–135), as well as on the "plains of Leilehua" (Stokes n.d., cited in Sterling and Summers 1978:135), an historic reference to Western Waiʻanae Uka.

2.3 Post-Contact History

2.3.1 Initial Impacts

By western contact, when history started being recorded, the central Oʻahu plateau was dotted with villages. The location of schools provides insight into the size of central plateau settlements soon after contact.

> Kamakau (1992:424) writes that during the reign of Kamehameha III (1825-1854), "schools were built in the mountains and in the crowded settlements...At Kahalepoʻai, Hauone, Kalakoa, Wahiawa, Halemano, and Kanewai, there were large villages with teachers and schoolhouses; so at Lihuʻe, Kalena, Maunauna, Kake, and Puʻukuʻu." This probably occurred sometime after 1840 when a law establishing government schools was passed. This law required "that a school should be maintained in every community where there were fifteen or more children of suitable age" (Kuykendall 1968:347). Given that rural areas throughout the islands were

> being abandoned in the early 1800s as a result of factors such as population collapse or out-migration to Honolulu, the fact that these settlements could support government schools at mid-century suggests that they had been of substantial size and/or stability at contact. [Tomonari-Tuggle 1997:15]

School land, leased to W.C. Jones, is shown in the 1881 O‘ahu map drafted as part of the Hawaiian Government Survey by W.D. Alexander, General Surveyor, in the area of what would become Wahiawā Town, north of the project area (Figure 5). The map also displays much of the plateau as undeveloped and devoid of forest land.

Like elsewhere in the Hawaiian Islands, the native population of central O‘ahu experienced a major decline due to the spread of foreign diseases and movement away from remote localities to the shipping ports and business centers, such as Honolulu. Reverend Artemis Bishop recounts the quick and devastating effects of a measles epidemic he observed in 1848–1849 on the Wai‘anae and ‘Ewa residents:

> The past has been a year of trials and sorrows among my people in passing through scenes of sickness and death, beyond what I had ever witnessed…how strikingly their former athletic frames and warlike habits contrast with their enfeebled and effeminate corpses.
>
> Middle of October the measles broke out like wildfire…burning the dead was the great work, all other occupations were suspended and people staggered about like walking corpses. [Bishop 1849 and 1851: Mission letters]

Not long after western contact (ca. 1815–1826), ‘*iliahi* or sandalwood was extensively harvested from the Hawaiian Islands, resulting in the decimation of much of the native forests, particularly in the lower, more accessible elevations. Central O‘ahu was undoubtedly affected by the over-harvesting of sandalwood because Wahiawā was famous for its large sandalwood trees (Kamakau 1992:251–252). In pursuit of the riches gained in the sandalwood trade, chiefs ordered the *maka‘āinana* (commoners) to devote all their time to cutting sandalwood. As a consequence, subsistence practices were abandoned, such as farming and fishing, and famine was experienced throughout the islands (McGrath et al. 1973:18). Foreign contact also led to the over-harvesting of other forest trees used as fuel on whaling ships to render whale blubber into oil (Cuddihy and Stone 1990:38).

The establishment of Christian mission stations in Waialua, Wai‘anae, and ‘Ewa resulted in transportation route improvements for easier travel between settlements. In 1837 Reverend Emerson reported improvements to the Kolekole Trail:

> During the year past, a number of patches of road have been made, which considerably facilitate our access to some remote parts of the station and to Waianae. The pali between Waialua and Waianae, which formerly rendered the latter place inaccessible from Waialua except on foot, has been so improved that a horse can be rode up and down without difficulty (Emerson 1837: Mission letters).

Historical documents and archival data for the central Oʻahu region indicate that Native Hawaiians continued to live and cultivate crops during the mid- to late-1800s, particularly along Mohiākea and Kalena Streams in Kalena ʻIli, and along Waiʼeli Stream which runs through the study area (Robins and Spear 2002a:23, 24, 31, and 32). An 1886 photograph with Kolekole Pass in the background shows the location of a homestead and active pondfields (likely *loʻi kalo*) along a portion of Waiʻeli Stream to the west of the project area (Figure 7). It is presumed that the rectangular features represent fenced boundaries of traditional features, such as dwellings and active or recently active croplands.

2.3.2 Land Tenure

In the mid-1800s Māhele, all of Waiʻanae Uka Ahupuaʻa, with the exclusion of Kalena ʻIli, was designated as Crown Land. Honouliuli Ahupuaʻa was awarded to Kekauʻohoni, grandchild of Kamehameha I. Upon her death in 1851, her husband Levi Haʻalelea inherited the majority of the land, and later (1864) passed it on to his wife at the time, Amoe Haʻalelea. Haʻalelea sold it to her brother-in-law John Harvey Coney. The land has since been passed on through ranching, cultivation practices, and U.S. military activities.

2.3.3 Ranching

Honoluliuli

In 1877 James Campbell purchased the portion of Honouliuli retained by John Harvey Coney (about 43,640 acres) and established a cattle ranch under the namesake of Honouliuli Ranch. Before the purchase, John Meek and James Dowsett leased portions of Honouliuli for cattle grazing and stock running. Meek and Dowsett "introduced grazing in areas too high or dry for agriculture" (Burgett and Rosendahl 1992:E-7). Meek was known to have leased over 3,000 acres in the ʻEwa District, including Waikakalaua Gulch, and had 4,000–5,000 head of cattle (Tomonari-Tuggle and Bouthillier 1994:19). By 1881 Honouliuli Ranch was a successful ranch with 10,000 acres devoted to agriculture. Some of the cultivated land may have encompassed the project area.

Waiʻanae Uka

Meek was the first individual to ranch cattle at Waiʻanae Uka. In 1851 Kalena ʻIli was conveyed to Meek by Reverend Bishop (Bureau of Conveyances, Book 17:148), who described the parcel as having "taro patches for 4 or 5 families" (Department of the Interior, n.d.). By 1875 his heirs leased the entire *ahupuaʻa* of Waiʻanae Uka.

Meek's affluence in Oʻahu society is remembered by A.P. Taylor (1922:223):

> The days are recalled, also, when Captain Meek controlled Lihue and Wahiawa on Oahu under lease from the government. He raised thoroughbred horses, and his daughters rode the finest in the islands…

A ranch house once likely occupied by Meek's daughter Elizabeth Meek Crabbe and husband Horation Crabbe is shown on a late 19th century map as "Crabbe" (Hawaiian Government Survey 1881) (Figure 4, Figure 5). Between the period of 1875 and 1889, Waiʻanae Uka was leased to various westerners for cattle ranching, including a shared lease between Meek (and his heirs) and Dowsett.

Figure 7. 1886 photograph showing homestead and active crops in Waiʻeli Stream (Bishop Museum Archives, Neg. CP117, 503), from Robins and Spear (2002a:31).

In 1882 King Kalākaua and C.H. Judd purchased two-thirds of Waiʻanae Uka, under whom the lands were named Leilehua Ranch (Tomonari-Tuggle and Bouthillier 1994:22; Figure 4, Figure 6). Kalākaua and Judd built a hunting lodge, Malamanui, to use as a retreat and place to entertain influential people (Nedbalek 1984:13). In 1889 Dowsett purchased the lease and Leilehua Ranch assets, which consisted of more than 20,000 acres and 3,000 head of cattle and other stock (Tomonari-Tuggle and Bouthillier 1994:24). Waiʻanae Uka remained under Dowsett Ranch until the U.S. military took over in the early 1900s.

Tomonari-Tuggle (1997:24) describes the significant effect of more than 20 years of cattle ranching on the central plateau as follows:

> the probable final demise of native plants as the dominant vegetation of the area. Cattle are known to have opened up native forests through foraging, trampling of the forest understory, and spreading of alien grasses. In addition, associated human activities exacerbated the actions of the cattle. Logging often preceded ranch operations or was used to expand existing pastures. Timber was cut for fencing or ranch buildings. Some native plants were considered "noxious" and removed to encourage pasture growth and facilitate the movement of cattle (Cuddihy and Stone 1990:62).

2.3.4 Commercial Agriculture

In 1897 the Oahu Sugar Company was established on the ʻEwa Plains by the predecessor of Amfac, H. Hackfield & Co. (Wilcox 1996:98). In 1898 a group of homesteaders began settling the

Wahiawā Colony Tract, which the Land Act of 1895 designated as a homestead land (Nedbalek 1984:18). Clearly shown in the 1902 survey map, W.C. Jones' leased land has been split into 17 homesteads roughly bounded by the north and south forks of Kaukonahua Stream (Figure 6).

James B. Dole began growing pineapple in the Wahiawā Tract in 1900 for his canning operation, the Hawaiian Pineapple Company. The east part of the military reservation, as well as the school land leased to W.C. Jones, is shown as pineapple land in the 1902 map (Figure 6).

The Wahiawā Colony organized the Wahiawa Water Company, which by 1902 built a network of flumes, ditches, and tunnels to provide water to the homesteads and cultivated fields (Nedbalek 1984:28). The water company completed a dam across Kaukonahua Gulch in 1906 to form the reservoir now known as Lake Wilson (Haile 1976). By the 1920s more than 71 artesian wells had been dug in Honouliuli, which produced more than 100 million gallons of water per day (Burgett and Rosendahl 1992: Appendix E). Within a decade, thousands of acres of pineapple fields were being cultivated in central O'ahu.

In 1906 the Oahu Rail and Land Company (OR&L) extended their railway from Waipahu to Wahiawā, through what would become WAAF, so that pineapples could be transported from the fields to the new Dole cannery constructed at Iwilei in Honolulu. These rail lines expanded over the decades to keep up with the commercial growth of the central plateau (Figure 4).

Between 1910 and 1920 a number of smaller plantations were established in central O'ahu, mostly by Japanese immigrants. Masanari Saito was one of the independent growers who, in 1913, first planted pineapple on leased fields near Kunia using pineapple tops discarded by another grower (Nedbalek 1984:56). Saito decided to move his plantation from Kunia to "Leilehua…in the valley west of Schofield," which proved to be a difficult undertaking:

> He and his friend Tamotsu Ono traveled by horse and began clearing a path as they moved along. At Leilehua first he built something that looked like a chicken coop and slept there. Then he built a kitchen and slept there and finally he made the main rooms. After the land had been cleared, plowed and planted he bought passage on a ship and returned to Japan for the woman who would be his bride. [Nedbalek 1984:56]

North of the project area, a plantation camp labeled as "Leilehua" might correspond to Saito's early plantation that Nedbalek (1984) also refers to as Leilehua (Figure 6).

Large corporations, including Dole and Hawaiian Islands Packing Company, established labor camps near the fields, including the Kim and Kunia Camps located southeast of the present study area. Small stores and itinerant peddlers served these outlying communities and isolated plantations.

By the 1920s mechanized pineapple farming and military occupation of the central plateau at Schofield Barracks and WAAF contributed to economic expansion centered in Wahiawā that gradually promoted infilling development and an even greater expansion of pineapple farming throughout the central plateau. USGS maps from the 1920s to 1953 indicate that all of the upper

plateau lands and broad ridge tops were cultivated in pineapple, and a network of roads were established for access between the fields (Figure 8, Figure 9).

Pineapple cultivation continued in and around KMTA under various companies (Roberts et al. 2004:6) until Del Monte Pineapple Company abruptly shut down operations in November 2006. An aerial photo of Schofield Barracks cantonment dated to 1926 shows the area of the Schofield Generating Station, in the left foreground below Waiʻeli Stream, planted in pineapple (Figure 10). A photo of anti-aircraft training amidst pineapple fields in Oʻahu's central plateau during World War II also shows the extent of commercial cultivation (Figure 11).

2.3.5 U.S. Military

Following annexation of the Hawaiian Islands by the United States, former Crown Lands, including Waiʻanae Uka, became the property of the federal government. In 1899 Waiʻanae Uka (excluding Kalena ʻIli) was set aside as a military reservation. In the 1902 Hawaiʻi Territory Survey map by Walter E. Wall, Surveyor, much of the central plateau, with the exception of Kalena, is shown as U.S. Military Reservation (Figure 6). The military reservation was not occupied until 1909 when it was mandated to be the base for Oʻahu's mobile defense troops because of its strategic central location.

The landscape of the project area is described in a report on the adequacy of the central plateau for a military post:

> The main road across the island runs across the tract, cutting it into two pieces of 8,000 and 6,000 acres respectively. The west section is cultivated with pineapples and is the smaller of the two and in my opinion the other tract is amply large for all purposes and not having been broken up, is covered with sod which is a very great advantage as the red dirt here is beastly dusty in dry weather and equally vile in wet. The site is an ideal one for a post being a level or practically level place, but there is not a tree on the tract. [Foster 1908, cited in Tomonari-Tuggle 1997:25]

Initially called either Leilehua Barracks or Castner Village, the latter named for the construction supervisor Captain Castner, Schofield Barracks was first occupied by 473 soldiers from the 5th Cavalry Regiment (Alvarez 1982:16). In April 1909 the military base was formally named Schofield Barracks in honor of Lt. General John M. Schofield, a former Civil War hero and Commander of the Army's Pacific Division. Although World War I halted construction, most major construction for Schofield Barracks (General Officers housing, new barracks for artillery troops, new infantry barracks, and additional Officers Quarters for the infantry and cavalry sections) was finished in the early 1920s (Robins and Spear 1997a:39–42). A 1909–1919 military survey map suggests initial development of Schofield Barracks was centered immediately north of the study area at a place called Leilehua along the north boundary. An OR&L railroad track terminating at several structures in Leilehua might be the original track that was extended into the military reservation in 1906.

During early development of Schofield Barracks, water was scarce and was apparently derived from one primary source at a "spring on the slopes of the Waianae Mountains Range"

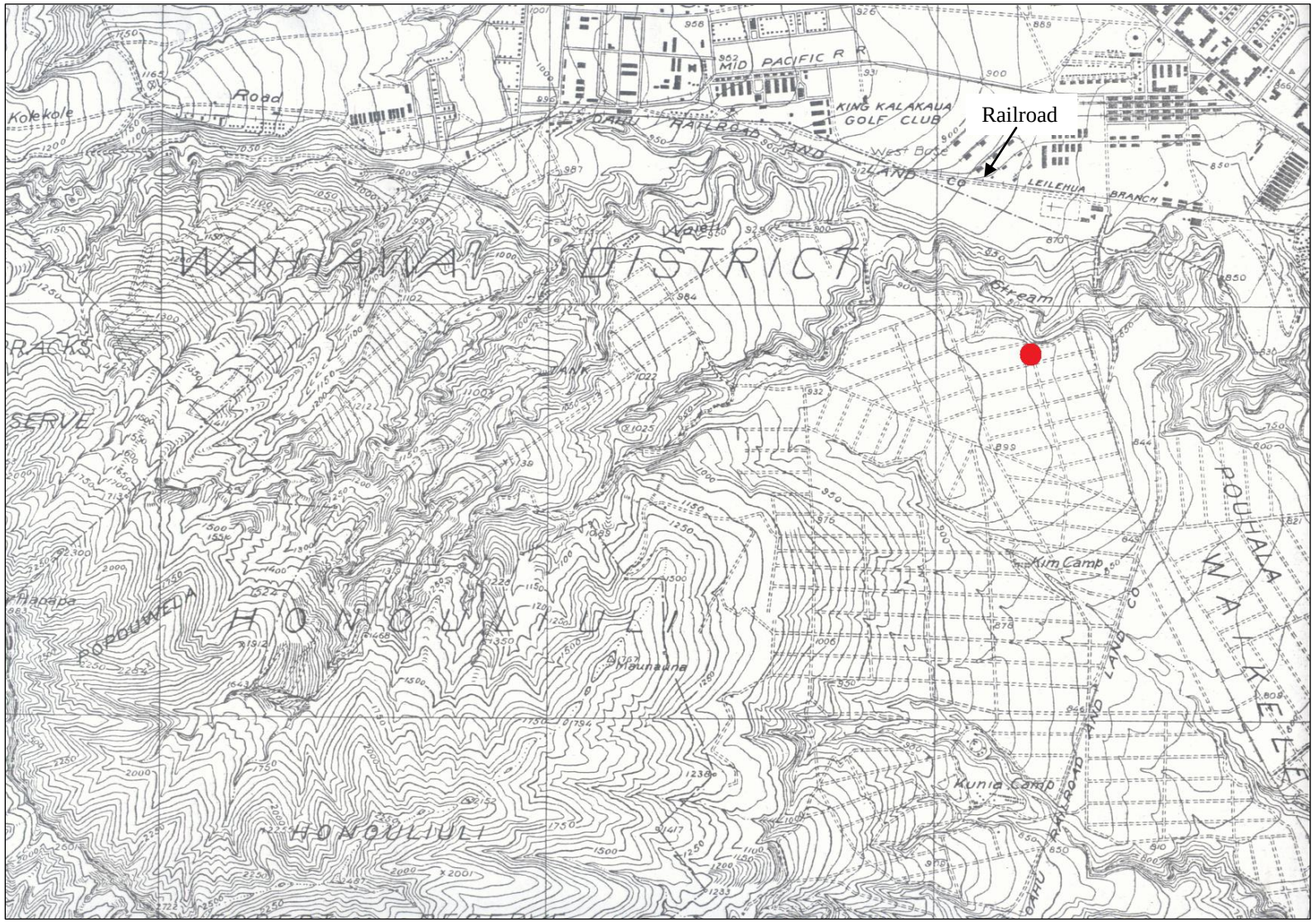


Figure 8. Enlarged detail of the 1927–1930 USGS Schofield Quadrangle with proposed Schofield Generating Station marked. Dashed lines around marked area indicate one-lane roads through cultivated fields.

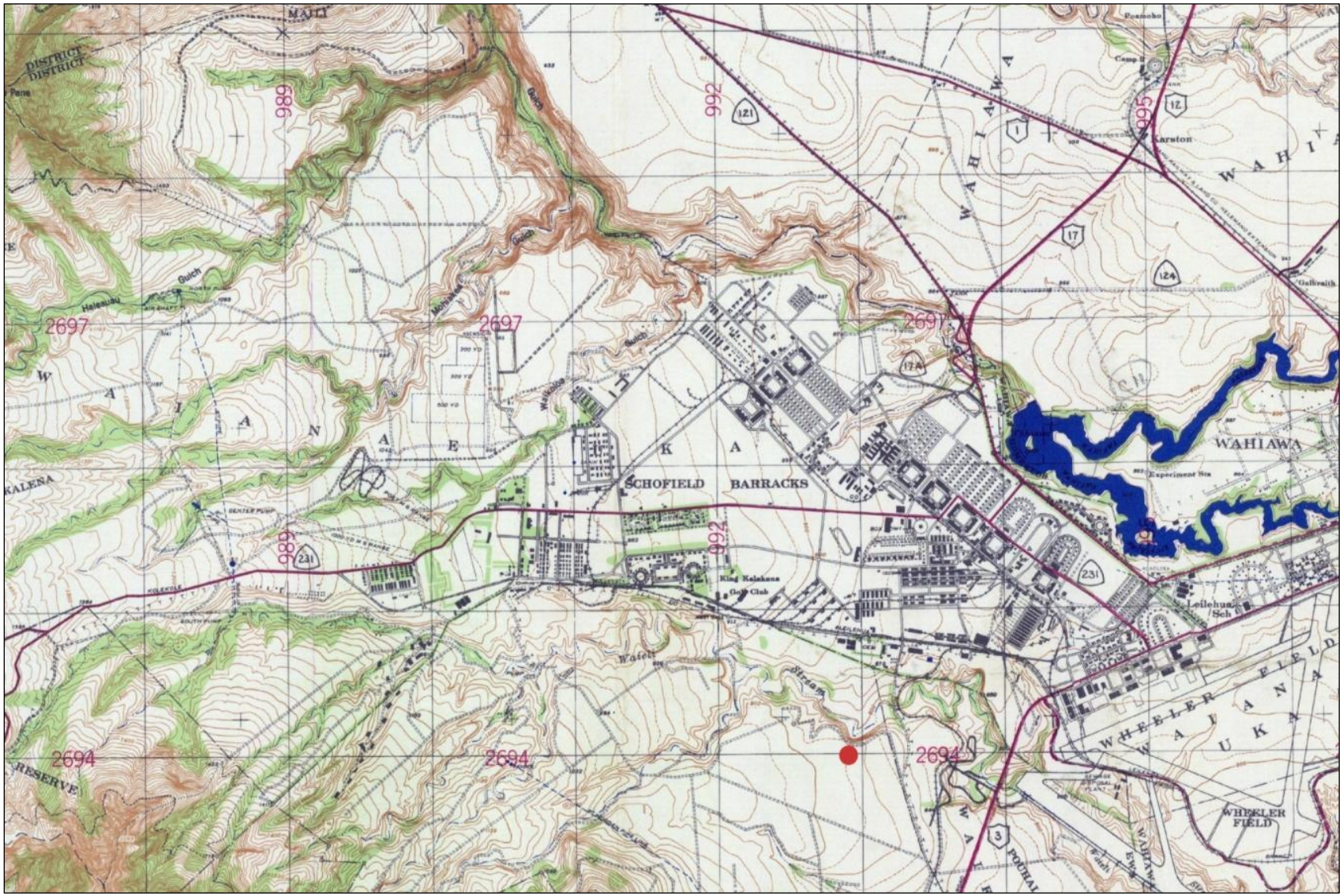


Figure 9. Enlarged detail of the 1943 USGS Schofield Quadrangle with proposed Schofield Generating Station marked.

Figure 10. 1936 aerial photograph of Schofield Barracks showing surrounding pineapple fields (Tropic Lighting Museum).

Figure 11. Anti-aircraft training amidst pineapple fields in central Oʻahu during World War II (From Paradise of the Pacific 1944:49).

(Nedbalek 1984:59). Photographs taken in 1909 show water tanks and a water supply camp in western Waiʻanae Uka that might correlate with the location of a probable pump house identified as SIHP Site No. 6557 in Haleʻauʻau Stream (Robins et al. 2005:16). A water shortage continued at Schofield Barracks until 1925 when Ku Tree Reservoir was constructed in eastern Waiʻanae Uka (Nedbalek 1984:60) and a deep well was excavated in 1938 (Addleman 1940, cited in Spencer Mason Architects 1997).

A northwestern extension of the OR&L line connected the lower post with the artillery area in the 1920s and 1930s. The USGS Schofield Barracks Quadrangle map of 1927–1930 displays two rail companies extending through the plateau; the OR&L and the Mid Pacific Railroad (Figure 8). Both companies have rails leading to the cantonment area. The same shows the Leilehua Ranch house is now identified as the King Kalākaua Golf Club.

WAAF was established as a military installation in 1922 on land included in the 1909 Executive Order establishing Schofield Barracks. Initially used for mounted cavalry training, WAAF was constructed in the 1920s by a detachment from the Army Air Service based at Luke Field on Ford Island. During the 1930s the field was upgraded and new buildings were constructed, including houses, hangars, and a fire station. At the same time, the OR&L relocated their railroad tracks to avoid the aviation field that was under construction.

During the 7 December 1941 Japanese attack on Pearl Harbor, Schofield Barracks was subject to Japanese air fire. Troops returned fire from the quadrangle roofs, shooting down two Japanese planes and one U.S. plane (Alvarez 1982:64). No significant damage was incurred at Schofield Barracks during the attack; however, nearby WAAF was hit hard. Schofield Barracks was used as a major training camp during the Pacific campaign of World War II. The Ranger Combat Training School at Schofield Barracks was established in 1942 and was intended to train the troops for jungle warfare (Alvarez 1982:68). In 1947 WAAF was moved to U.S. Air Force control and then put in caretaker status from 1948 until 1951, when the Korean War began.

While the number of troops and level of activity at Schofield Barracks has varied considerably since the close of World War II, the reservation has continued in its importance as a training center and post for the U.S. Army's 25th Infantry Division. WAAF remained in U.S. Air Force control until 1993, when it was returned to the U.S. Army. The 1943 USGS map displays few changes from the 1930 USGS map (Figure 9). There are a few more permanent structures. Mid Pacific Railroad is no longer displayed; and WAAF is established.

In 2005 the U.S. Army purchased 1,402 acres south of the Schofield Barracks cantonment and east of the South Range from the Campbell Estate. The northernmost of the three parcels, composing the South Range Acquisition Area, would become KMTA. At the time of purchase, the lands, including broad ridges and stream floors, were still under pineapple cultivation as they had been for almost a century.

2.4 Previous Archaeological Investigations

Largely stimulated by SBMR's Federal Section 106 requirements, a number of archaeological investigations have occurred in the APE. These began with McAllister's (1933) first archaeological investigations of Oʻahu and culminated with the recent assessment of the

potential for portions of the SBMR to be a NRHP archaeological district, ethnographic landscape, or traditional cultural property (Desilets et al. 2011). The following overview of previous archaeological investigations focuses on those projects directly related to the APE (Table 1; Figure 12). Robins et al. (2007) and Desilets et al. (2011) provide a comprehensive summary of SBMR archaeological investigations.

Sterling and Summers (1978) compiled information on O‘ahu’s recorded cultural and archaeological sites. For the central plateau, they summarized McAllister’s archaeological survey (McAllister 1933), government documents, and ethnohistoric records. One of the most significant of these sites is the Kūkaniloko birthstones (SIHP No. 50-80-04-218) and Ho‘olonopahu Heiau (SIHP No. 50-80-04-219) to the north of the project area on the east side of Kaukonahua Stream (Figure 4). Tomonari-Tuggle and Bouthillier (1994:75) suggest that Kūkaniloko might have extended as far south as Waikalalaua and would therefore encompass some of the project area. Listed on the NRHP (Register No. 73000674), the Kūkaniloko birthstones was one of two places for the birth of children of high chiefs (Henry et al. 1992; McAllister 1933:134). The sacred drums that announced the birth of *ali‘i* children were kept at Ho‘olonopahu Heiau, which is now destroyed (McAllister 1933:137).

2.4.1 Schofield Barracks Cantonment and Wheeler Army Airfield

Work in the Schofield Barracks cantonment and WAAF area has primarily involved recording and assessment of the 20th century historic structures. The SBMR was first archaeologically surveyed by the B.P. Bishop Museum as a component of an EIS for several of Hawai‘i’s U.S. Army installations (Rosendahl 1977). A mostly vehicular reconnaissance survey of 741 acres documented six of McAllister’s sites as being destroyed; relocated the Kolekole Pass Stone (Site 214); and recorded two new historic sites (SIHP No. 50-80-08-9527 and 9528), both in poor condition.

As a component of a master planning effort, a thorough cultural assessment of WAAF accompanied by a historical building and other resources survey was conducted (Tomonari-Tuggle and Bouthillier 1994). Four of the five archaeological sites identified are U.S. military features, although they might be recently modified ranching or traditional features. Only the remains of the OR&L Waipahu-to-Wahiawā line were evaluated as historically significant. Fifty-four buildings were assessed for their historic architectural value, with five considered of major importance and 25 important. The study concluded that WAAF is significant as a U.S. military installation, although the traditional Hawaiian and ranching period significance of the area relates to “its context within a larger geographic area” (Tomonari-Tuggle and Bouthillier 1994:75) due to the modern military-related landscape disturbance.

McIntosh et al. (1995a) conducted archaeological survey and subsurface testing at the McMahon and Ayres sites along the upper south bank of Kaukonahua Stream. No traditional cultural remains were encountered; however, the McMahon site contained modern construction debris along with railroad material that was probably related to the historic OR&L line. Descending to a depth of 1.2 to 2.0 meters, the 15 shovel test pits and 14 backhoe trenches revealed a heavily bulldozed landscape. Additional shovel tests placed in the southeast corner of

Table 1. Archaeological Investigations In and Near the Area of Potential Effect

Reference	General Location	Study	Findings
McAllister 1933	Waiʻanae Range	Survey	Seven sites: Sacred stones (Kolekole Pass, Oahunui), *heiau*, fishpond
Rosendahl 1977	SBMR	Survey	Six sites previously discovered and reported destroyed: SIHP No. 204, 213, 215, 216, 217, 9516; Two historic sites: SIHP No. 9527, 9528; Kolekole Pass Stone: Site 214
Griffin and Yent 1977	Wahiawā Freshwater State Park	Survey	Railroad trestle, nonagricultural terraces
Watanabe 1987	Field Station Kunia	Survey	No findings
O'Hare et al. 1993	SBMR	Survey	Documentation of 374 historic structures
Tomonari-Tuggle and Bouthillier 1994	Wheeler Army Airfield (WAAF)	Survey, assessment	Historic buildings, railroad bed (SIHP No. 9714), military structures
McIntosh et al. 1995a, 1995b	SBMR and WAAF	Survey, excavation	Bunker (SIHP No. 5082)
Bouthillier et al. 1995	SBMR	Survey, excavation	Historic dump site
Williams et al. 1995	SBMR	Survey, excavation	Historic debris
Tomonari-Tuggle 1997	Schofield Barracks Cantonment	Assessment	-
Carson and Yeomans 2000	Schofield Barracks East and South Ranges	Excavation, detailed recording	Phase III Excavation of 15 Hawaiian sites recorded and tested by Robins and Spear (2002a, 2002b)
Robins and Spear 2002a, 2002b	Schofield Barracks South, portions of, East and West Ranges	Survey, testing	73 primarily traditional sites: habitations, burials, irrigated and nonirrigated agriculture, historic roads, reservoir, military structures
Roberts et al. 2004	Schofield Barracks South Range	Survey	43 Hawaiian, post-Contact, military sites: habitations, ceremonial, agriculture, possible burials, homesteads, roads, military structures
Robins et al. 2007	South Range Land Acquisition	Survey	45 Hawaiian, post-Contact, military sites: agriculture, habitation, ceremony, possible burial
Desilets et al. 2011	SBMR, Helemano Military Reservation	Assessment	Western SBMR (Līhuʻe), above ca. 1,000 feet elevation, qualifies as NRHP-eligible traditional cultural places (TCP), ethnographic landscape, and archaeological district
Tulchin and Hammatt 2013	South Range Land Acquisition	Survey, testing	No findings

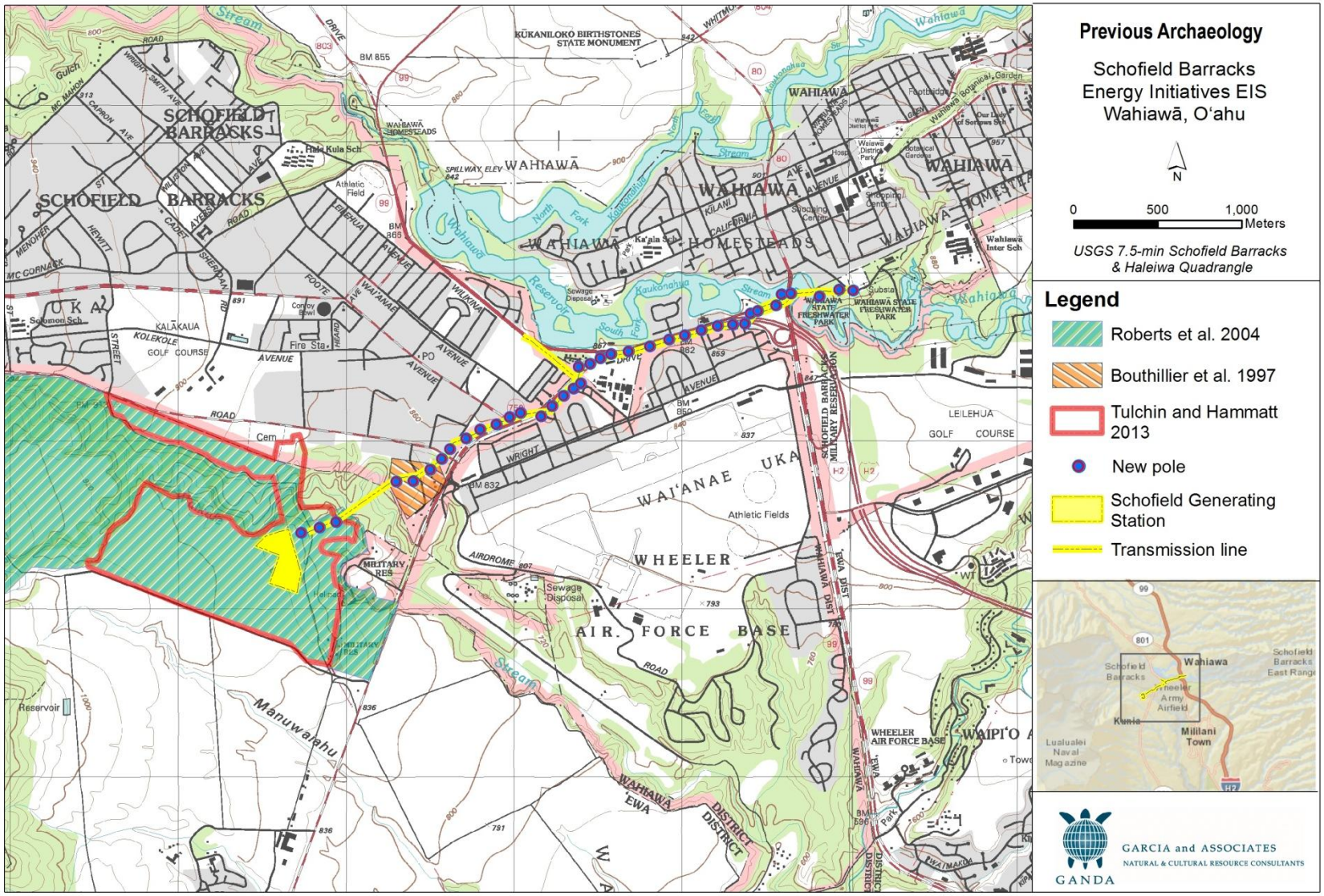


Figure 12. Previous archaeological investigations overlapping the west portion of the Area of Potential Effect.

the cantonment, in the vicinity of Carter Gate, which was Schofield Barracks' original entrance, unearthed modern trash relating to the recently demolished family housing (McIntosh et al. 1995b).

In 1995 Williams et al. (1995) conducted archaeological survey and testing of seven locations in the cantonment. They encountered a 20th century rock facing (Site 3) on the Waiʻeli Stream bank south of Martinez Field and a localized area of coral fill that they interpreted as a potential historic house foundation. Despite the significant amount of concrete debris and gravel deposits identifying considerable historic land alteration, Williams et al. (1995) propose that isolated traditional or early military deposits might remain in the cantonment's developed areas.

Bouthillier et al. (1995) conducted archaeological survey and augur boring of three housing areas (A, U, and V) and Duck Field (west of Lyman Gate). The investigations encountered a large post-Contact trash deposit at the top edge of a slope leading to Waikele Stream at the west end of Duck Field. Although having just been pot hunted, the glass bottles and fragments, ceramics, metal, and recent trash were interpreted as associated with a 1908 campsite occupied during the initial construction of Schofield Barracks (Bouthillier et al. 1995:54). Auger tests indicated that construction fill deposits descend up to a meter deep and overlie truncated B horizon soils. Like Williams et al. (1995), Bouthillier et al. (1995) concluded that the extensive land alterations in the cantonment have dramatically affected the subsurface deposits.

Tomonari-Tuggle (1997) conducted background archival research, limited field assessment, and data analysis of the Schofield Barracks containment area. She examined three areas of historical interest during the survey: (1) a 1918 culvert under Waiʻanae Avenue, (2) the post cemetery, and (3) the area around the Kalkaua Golf Course clubhouse. Tomonari-Tuggle (1997:iv) concluded that:

> virtually all of the cantonment (even open space areas) has been intensively developed over 85 years of military use, and that the likelihood of intact and significant archaeological remains is extremely low . . . . Only those areas adjacent to gulches and ravines in the cantonment are evaluated to be archaeologically sensitive.

Cultural Surveys Hawaiʻi Inc. (CSH) examined the post-Contact trash deposit recorded by Bouthillier et al. (1995) and the stacked-stone terrace and concrete ditch documented by Williams et al. (1995). The historic trash feature was determined to be a secondary deposit and the latter site (Site 3) a group of mid-20th century drainage control features significantly impacted by modern development, trash dumping, and natural processes. Because neither cultural resource retained their integrity, they were evaluated as not meeting the significance criteria for inclusion on the Hawaiʻi Register or the NRHP.

2.4.2 South and East Ranges, and Kunia Maneuver Training Area

Griffin and Yent (1977) conducted an archaeological survey in anticipation of construction of the Wahiawā Freshwater State Park. They encountered a portion of the OR&L railroad trestle and a series of low step-terraces containing a concrete stair and a basalt alignment among the historic debris littering the parcel. A core was placed in the lower terrace to determine if the terraces were used for agriculture. The continuous layer of red silty clay encountered in the core suggests that the terraces were not cultivated and might have been constructed to prevent erosion.

Watanabe's (1987) survey of five areas in the U.S. Army Field Station Kunia on the south slopes of Waikele Stream found the parcels to have been graded or filled. No cultural remains remained in these areas impacted by historic and modern development and cultivation.

Scientific Consultant Services, Inc. (SCS) completed surveys and site excavation at select areas of the South Range, West Range, and East Range (Carson and Yeomans 2000; Robins and Spear 2002a; 2002b). The SCS surveys identified 92 sites associated with Hawaiian habitation, agriculture and burial, historic roads, and military structures. Radiocarbon assays suggest these sites were occupied on a temporary basis from AD 1290 to 1450 and on a permanent basis from AD 1440 to 1950 (Carson and Yeomans 2000:84–85; Robins and Spear 2002a:248). Although the occupational date ranges overlap into the post-Contact and modern era, the absence of post-Contact cultural materials suggests the occupation was primarily pre-Contact and early post-Contact in use. Radiocarbon dating of agricultural soils from three wetland and two dryland sites indicates the development of croplands began as early as AD 1170 and cultivation continued throughout the pre-Contact and post-Contact era (Carson and Yeomans 2000:79–80; Robins and Spear 2000b:244).

Following the SCS work, Garcia and Associates conducted Phase I and II archaeological investigations in the South Range Land Acquisition Area (Roberts et al. 2004; Robins et al. 2007). During the initial work, many of the pineapple fields in the South Range were still being cultivated. Forty-five sites including more than 261 features and feature clusters were recorded in the project area. These sites include 28 traditional Hawaiian sites, 12 commercial pineapple (plantation) sites, two U.S. military training sites, and three sites with undetermined cultural affiliations. The Hawaiian sites include structural components indicative of dryland agriculture, habitation, ceremony, and a possible burial feature.

All of the properties recorded by Garcia and Associates are on the west half of KMTA in the higher elevations that were not under historic and modern cultivation. Although some sites were in the gulches, Roberts et al. (2004:85) noted, "historic and modern land alterations have contributed to increases in slope erosion, accelerated siltation and down cutting of stream channels that have affected site formation processes and integrity within the valleys."

Garcia and Associates assessed the SBMR and the Helemano Military Reservation for their potential to contain NRHP-eligible traditional cultural places (TCP), ethnographic landscapes, or archaeological districts (Desilets et al. 2011). Their findings indicate that the western portion of the SBMR, above ca. 1,000 feet elevation, can be defined as a Līhuʻe Uplands TCP, or as a discontiguous archaeological district, within the historic context of Hawaiian Occupation and *Lō Aliʻi* Social Organization AD 1100–1778. This same upland area, and potentially a larger region including Kūkaniloko to the east, might also qualify as an NRHP-eligible ethnographic landscape. Desilets et al. (2011) found no evidence to support the presence of NRHP-eligible TCPs, ethnographic landscapes, or archaeological districts within the lower elevations of Līhuʻe—where the current project is located—or within the Helemano Military Reservation.

CSH conducted an AIS for construction-related activities associated with the Grow the Army initiative in the SBMR (Tulchin and Hammatt 2013). Their investigations included a pedestrian survey and excavation of a series of test units in the former pineapple fields in KMTA, and further

examination of two previously documented post-Contact sites in the cantonment (Section 2.4.1). Pedestrian survey of the formerly cultivated tablelands identified no surface cultural resources.

CSH's subsurface testing of these tablelands did not encounter any buried cultural resources (Tulchin and Hammatt 2013). Their Test Units 10, 11, and 13 are within the proposed generating station parcel, while Test Units 8 and 9 are close to Poles 1 and 2 in the Department of Agriculture land. These units displayed a similar stratigraphic sequence consisting of naturally deposited clay loam impacted by decades of agricultural grading and plowing overlying the same natural deposit that was not impacted by previous cultivation activities, all of which capped decomposing basalt bedrock.

2.4.3 Assessment of Archaeological Resources

Commercial pineapple cultivation and residential, commercial, and military development have made it unlikely that archaeological and cultural sites are present in the Schofield Barracks cantonment, WAAF, the lower elevations of the South and East Ranges, and KMTA. Archaeological investigations have encountered no remaining surface or subsurface pre-Contact or 19th century cultural properties in these lowland areas. The few identified archaeological sites all appear to relate to military development, with a substantial number of historic structures found in the cantonment and in WAAF.

Although not yet thoroughly investigated, even the lower gulches and drainages show no evidence of traditional Hawaiian modification for agricultural use or occupation. Some of the broader gulch bottoms were also planted in pineapple, thus destroying any features that might have once been present.

Despite portions of the uplands being subjected to artillery bombardment, the remote location and restricted development of much of the uplands west of the APE has resulted in the preservation of many traditional cultural properties, particularly in the deep, upper elevation gulches and valleys. Here, documented cultural sites comprise mostly Hawaiian structures associated with habitation, animal husbandry, wetland and dryland agriculture, ceremonial activities, and possible burials. Historic roads and military structures were also identified that were associated with training and development of Schofield Barracks.

Desilets et al. (2011) conclude that:

> The best site preservation is found in the deep, upper elevation gulches within both the South and West Ranges. Phase I and II surveys of the newly acquired South Range area (Roberts et al. 2004; Robins et al. 2007) indicate that the lower reaches, which were almost entirely in pineapple until very recently, have no remaining surface features. This is also true of some of the broad, upper elevation ridges. Pineapple was planted on any commercially feasible acreage within the South Range, extending right up to the current forest reserve boundary. Within the more inaccessible parts of the South Range, however, such as deep drainages, Hawaiian sites are quite plentiful and, in some cases, form extended complexes. Higher elevation valleys in the South Range also contain relatively large and well-preserved ceremonial sites (e.g., Site 50-80-08-6479). [Desilets et al. 2011:69]

3.0 FIELD METHODOLOGY

The AIS included excavation of eight test trenches at the proposed generator site in KMTA and thirteen test pits along the transmission line. The intensity of the archaeological testing effort was based on the results of the archaeological background research and consultation with U.S. Army Garrison-Hawaii and the Hawai‘i State Historic Preservation Division. Because the region surrounding the project APE has been shown to have a very low probability for subsurface archaeological deposits, the AIS sampling strategy was designed to provide broad coverage, but not to including every individual locale at which ground-disturbing construction activities might occur. Testing along the transmission line, in particular, was designed to sample the route generally and includes specific evaluation of 13 of the 28 new pole locations (a 46 percent sample).

3.1 Generating Station

Archaeological testing at the generator site included excavating eight test trenches using a Komatsu PC35MR excavator (Figure 13). Test trenching was completed on 18 and 19 February 2014. All excavated sediment was inspected for evidence of cultural material and the sidewalls of all excavations were inspected for evidence of cultural deposition. A representative stratigraphic profile was recorded for each trench. Trench dimensions averaged 7.40 meters long, 0.57 meters wide, and 1.26 meters deep.

Trenches were distributed across the generating station parcel as evenly as possible. Heavy vegetation growth, large polyvinyl chloride (PVC) pipes, soil piles, and trees blocked entry to large areas. As Figure 14 shows, trenches are concentrated along the northern and eastern perimeter of the parcel. Despite the somewhat uneven coverage, the trench results are more than sufficient to evaluate the archaeological potential of the parcel.

Test trenches were excavated down to intact native subsoil and were terminated at a depth the archaeologist determined to be beyond the reasonable potential for archaeological deposits, typically well into intact B-horizon or saprolite layers.

3.2 Transmission Line

Archaeological testing along the transmission line included excavation of 13 test pits using a Komatsu PC35MR excavator. Fieldwork for the pits was completed on 21 February and 4 March 2014. As with the test trenches, all excavated sediment was inspected for evidence of cultural material, and the sidewalls of all excavations were inspected for evidence of cultural deposition. Pit dimensions averaged 1.06 centimeters long, 0.88 meters wide, and 0.79 meters deep.

Test pits were excavated near new pole locations spaced evenly along the 3.7-kilometer transmission line (Figure 15). In addition to even spacing, pole locations that exhibited a lower likelihood of previous ground disturbance were preferred during the selection process. Finally, Test Pits 1, 2, and 3 were selected because of their location on the edge of Waiʻeli Gulch. Background research indicates that such gulches were the preferred locations for pre-Contact and early historic habitation and subsistence. They therefore may have a relatively higher probability for containing archaeological resources.

Figure 13. Komatsu PC35MR backhoe excavating at Trench 3.

As with the test trenches, test pits were generally excavated to intact native subsoil and were terminated at a depth the archaeologist determined to be beyond the reasonable potential for archaeological deposits. Some of the excavations did not reach native subsoil because electrical conduits were unexpectedly encountered.

3.3 Documentation

Standards of documentation, recording, and analysis were in accordance with Hawai‘i Administrative Rules Section 13-276 and with the Secretary of the Interior’s Standards for Archaeological Documentation. Field recording included drawing stratigraphic profiles and digital photography of exposed sidewalls. Stratigraphic profiles were recorded to document archaeological deposition and to convey the general stratigraphy of the area. All profiles were prepared according to National Soil Survey Center standards and using the Munsell Color Notation reference system.

Figure 14. Test trenches at generating station parcel.

Figure 15. Test pits along transmission line.

4.0 FIELDWORK RESULTS

This section presents the results of the AIS fieldwork including documentation and findings for eight test trenches at the proposed generator site and 13 test pits along the transmission line.

4.1 Trenches

Eight trenches were excavated to test for the presence or absence of traditional Hawaiian or historic cultural material (Figure 14). Each trench is discussed below in sequential order.

Table 2 provides technical soil descriptions for all trenches and Figure 16 illustrates all recorded trench profiles. Each description concludes with a statement of cultural material findings.

Trench 1

Trench 1 measured 8.3 meters long by 0.6 meters wide and was excavated to a maximum depth of 1.0 meter. The trench contained three stratigraphic layers designated Layers I–III (Figure 17).

Layer I extended from 0 to 50 centimeters below surface (cmbs). The layer was dark reddish-brown silty clay with a few basalt pebbles, charcoal, and fragments of black plastic. Layer II extended from 50 to 95 cmbs. The layer was compact, dark red silty clay mottled with orange clay at its lower boundary. Layer III extended from 90 to 100 cmbs. The layer was dark red silty clay mottled with yellowish-brown clay chunks.

Trench 1 produced no evidence of traditional Hawaiian or early historic cultural deposition.

Trench 2

Trench 2 measured 8.0 meters long and 0.6 meters wide and was excavated to a maximum depth of 156 cmbs. The trench contained three stratigraphic layers, designated Layers I through III (Figure 18).

Layer I extended from 0 to 50 cmbs. The Layer was dark reddish-brown silty clay with charcoal fragments and black plastic. Layer II extended from 50 to 143 cmbs. It was dark reddish-brown silty clay mottled orange clay at the lower boundary. Layer III extended from 143 to 156 cmb. It was a reddish-brown silty clay mottled with yellowish-brown clay.

Trench 2 produced no evidence of traditional Hawaiian or early historic cultural deposition.

Trench 3

Trench 3 measured 7.3 meters long by 0.6 meters wide and was excavated to a maximum depth of 127 cmbs. The trench contained three stratigraphic layers, designated Layers I through III (Figure 19).

Layer I extended from 0 to 46 cmbs. It was dark reddish-brown silty clay with charcoal fragments and black plastic material. Layer II extended from 46 to 114 cmbs. It was compact, dark

Table 2. Backhoe Trench Stratigraphy

Trench	Layer	Depth (cmbs)	Description	Interpretation
1	I	0–50	2.5YR 2.5/4 (dark reddish-brown) silty clay; moist; cohesive; med. plasticity; fine to medium subangular blocky; few basalt pebbles; some small roots; bits of charcoal and plastic; humic material; distinct lower boundary.	Culturally modified - pineapple farming remnants
	II	50–95	2.5YR 3/6 (dark red) silty clay; moist; compact; cohesive; med. plasticity; fine subangular blocky; no cobbles or roots; some orange clay mixed in bottom 15centimeters; diffuse lower boundary.	Intact native soil
	III	90–100	2.5YR 3/6 (dark red) silty clay modeled with 10YR 5/8 (yellowish-brown) clay chunks (40%); compact; cohesive; low plasticity; fine subangular blocky; no cobbles or roots.	Saprolite
2	I	0–50	2.5YR 2.5/4 (dark reddish-brown) silty clay; moist; cohesive; med. plasticity; fine to medium subangular blocky; few basalt pebbles; some small roots; bits of charcoal and plastic; humic material; distinct lower boundary.	Culturally modified - pineapple farming remnants
	II	50–143	2.5YR 3/4 (dark reddish-brown) silty clay; moist; compact; cohesive; med. plasticity; fine subangular blocky; no cobbles or roots; some orange clay mixed in bottom 10 centimeters; diffuse lower boundary.	Intact native soil
	III	143–156	2.5YR 3/4 (dark reddish-brown) silty clay modeled with 10YR 5/8 (yellowish-brown) clay chunks (25%); compact; cohesive; low plasticity; fine subangular blocky; no cobbles or roots.	Saprolite
3	I	0–46	2.5YR 2.5/4 (dark reddish-brown) silty clay; moist; cohesive; med. plasticity; fine to medium subangular blocky; few basalt pebbles; lots of small roots; bits of charcoal and plastic; humic material; distinct lower boundary.	Culturally modified - pineapple farming remnants
	II	46–114	2.5YR 3/4 (dark reddish-brown) silty clay; moist; compact; cohesive; med. plasticity; fine subangular blocky; some roots; no cobbles; some orange clay mixed in bottom 10 centimeters; diffuse lower boundary.	Intact native soil
	III	114–127	2.5YR 3/4 (dark reddish-brown) silty clay modeled with 10YR 5/8 (yellowish-brown) clay chunks (25%); compact; cohesive; low plasticity; fine subangular blocky; no cobbles or roots.	Saprolite
4	I	0–42	2.5YR 2.5/4 (dark reddish-brown) silty clay; moist; cohesive; med. plasticity; fine to medium subangular blocky; few basalt pebbles; lots of small roots; bits of charcoal and plastic; humic material; distinct lower boundary.	Culturally modified - pineapple farming remnants
	II	42–130	2.5YR 3/6 (dark red) silty clay; moist; compact; cohesive; med. plasticity; fine subangular blocky; some roots; no cobbles; diffuse lower boundary.	Intact native soil
	III	130–136	2.5YR 3/6 (dark red) silty clay modeled with 10YR 5/8 (yellowish-brown) clay chunks (25%); compact; cohesive; low plasticity; fine subangular blocky; no cobbles or roots.	Saprolite

Table 2. (cont.)

Trench	Layer	Depth (cmbs)	Description	Interpretation
5	I	0–46	2.5YR 3/3 (dark reddish-brown) silty clay; moist; cohesive; med. plasticity; fine to medium subangular blocky; few basalt pebbles; lots of small roots; bits of charcoal and plastic; humic material; distinct lower boundary.	Culturally modified – pineapple farming remnants
	II	46–124	2.5YR 3/6 (dark red) silty clay; moist; compact; cohesive; med. plasticity; fine subangular blocky; few roots in top 10 centimeters; no cobbles; some orange clay mixed in bottom 10 centimeters; diffuse lower boundary.	Intact native soil
	III	124–136	2.5YR 3/6 (dark red) silty clay modeled with 10YR 5/8 (yellowish-brown) clay chunks (40%); compact; cohesive; low plasticity; fine subangular blocky; no cobbles or roots.	Saprolite
6	I	0–47	2.5YR 2.5/4 (dark reddish-brown) silty clay; moist; cohesive; med. plasticity; fine to medium subangular blocky; few basalt pebbles; lots of small roots; bits of charcoal and plastic; humic material; distinct lower boundary.	Culturally modified – pineapple farming remnants
	II	47–108	2.5YR 3/4 (dark reddish-brown) silty clay; moist; compact; cohesive; med. plasticity; fine subangular blocky; few roots in top 10 centimeters; no cobbles; diffuse lower boundary.	Intact native soil
	III	108–114	2.5YR 3/4 (dark reddish-brown) silty clay modeled with 10YR 5/8 (yellowish-brown) clay chunks (20%); compact; cohesive; low plasticity; fine subangular blocky; no cobbles or roots.	Saprolite
7	I	0–40	2.5YR 2.5/4 (dark reddish-brown) silty clay; moist; cohesive; med. plasticity; fine to medium subangular blocky; few basalt pebbles; lots of small roots; bits of charcoal and plastic; humic material; distinct lower boundary.	Culturally modified – pineapple farming remnants
	II	40–100	2.5YR 3/6 (dark red) silty clay; moist; compact; cohesive; med. plasticity; fine subangular blocky; few small roots in top 10 centimeters; no cobbles.	Intact native soil
8	I	0–15	2.5YR 2.5/3 (dark reddish-brown) silty clay; moist; cohesive; med. plasticity; fine to medium subangular blocky; few basalt pebbles; lots of small roots; bits of charcoal and plastic; humic material; distinct lower boundary.	Culturally modified – pineapple farming remnants
	II	15–125	2.5YR 3/4 (dark reddish-brown) silty clay; moist; compact; cohesive; med. plasticity; fine subangular blocky; few small roots in top 20 centimeters; no cobbles; diffuse lower boundary.	Intact native soil
	III	125–135	2.5YR 3/3 (dark reddish-brown) silty clay; moist; compact and gets more compact in bottom 10 centimeters; cohesive; med. plasticity; fine subangular blocky; no cobbles or roots; some orange clay mixed in bottom 5 centimeters.	Intact native soil

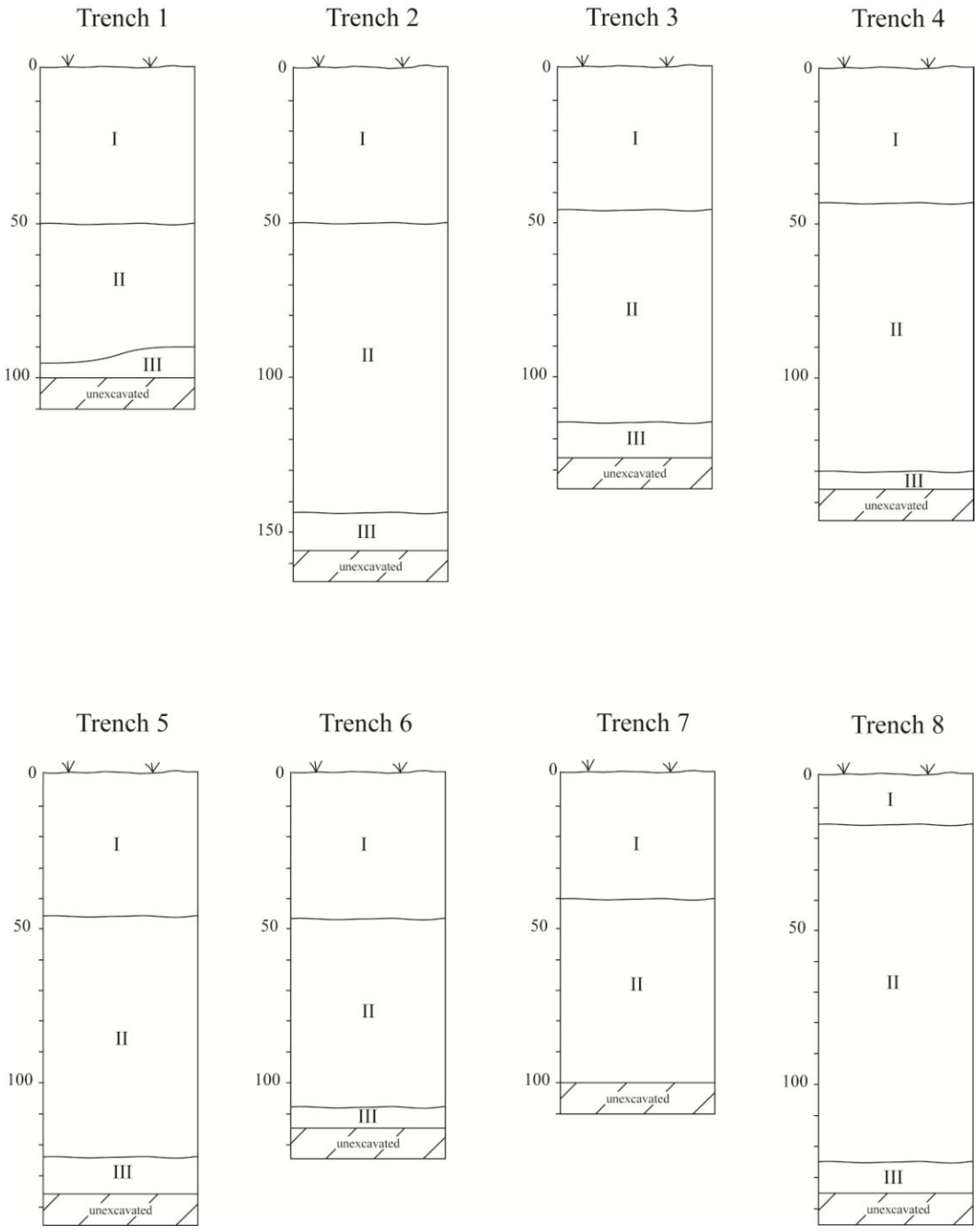


Figure 16. Trench profiles.

Figure 17. Trench 1, facing north.

Figure 18. Trench 2, facing north.

Figure 19. Trench 3, facing north.

reddish-brown silty clay mottled with orange clay at the lower boundary. Layer III extended from 114 to 127 cmbs. It was compact, dark reddish-brown silty clay mottled with yellowish-brown clay.

Trench 3 produced no evidence of traditional Hawaiian or early historic cultural deposition.

Trench 4

Trench 4 measured 7.2 meters long by 0.6 meters wide and was excavated to a maximum depth of 136 cmbs Three stratigraphic layers were identified in the trench and designated Layers I through III (Figure 20).

Layer I extended from 0 to 42 cmbs. It was dark reddish-brown silty clay with charcoal and fragments of black plastic. Layer II extended from 42 to 130 cmbs. It was compact, dark red silty clay. Layer III extended from 130 to 136 cmbs. It was compact, dark red silty clay mottled with yellowish-brown clay.

Trench 4 produced no evidence of traditional Hawaiian or early historic cultural deposition.

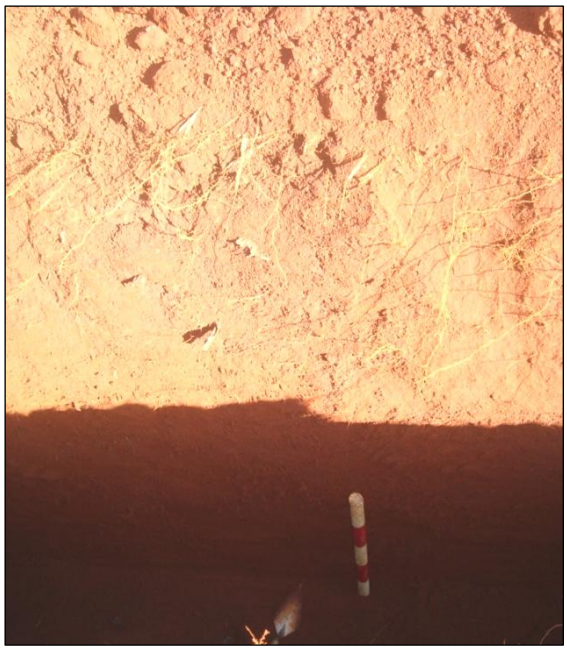


Figure 20. Trench 4, facing north.

Trench 5

Trench 5 measured 7.5 meters long by 0.5 meters wide and was excavated to a maximum depth of 136 cmbs. The trench contained three stratigraphic layers, designated Layers I through III (Figure 21).

Layer I extended from 0 to 46 cmbs. It was dark reddish-brown silty clay with charcoal and fragments of black plastic. Layer II extended from 46 to 124 cmbs. It was compact, dark red silty clay mottled with orange clay at the lower boundary. Layer III extended from 124 to 136 cmbs. It was compact, dark red silty clay mottled with yellowish-brown clay.

Trench 5 produced no evidence of traditional Hawaiian or early historic cultural deposition.

Trench 6

Trench 6 measured 7.2 meters long by 0.6 meters wide and was excavated to a maximum depth of 114 cmbs. The trench contained three stratigraphic layers, designated Layers I through III (Figure 22).

Layer I extended from 0 to 47 cmbs. It was dark reddish-brown silty clay charcoal and fragmented black plastic. Layer II extended from 47 to 108 cmbs. It was compact dark reddish-brown silty clay. Layer III extended from 108 to 114 cmbs. It was compact, dark reddish-brown silty clay mottled with yellowish-brown clay.

Trench 6 produced no evidence of traditional Hawaiian or early historic cultural deposition.

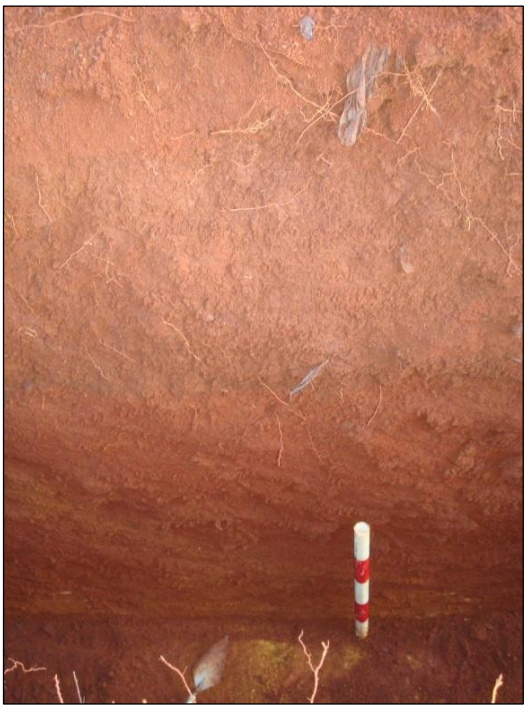


Figure 21. Trench 5, facing north.

Figure 22. Trench 6, facing north.

Trench 7

Trench 7 measured 6.5 meters long by 0.5 meters wide and was excavated to a maximum depth of 100 cmbs. The trench contained two stratigraphic layers, designated Layers I through III (Figure 23).

Layer I extended from 0 to 40 cmbs. It was dark reddish-brown silty clay with charcoal and fragments of black plastic. Layer II extended from 40 to 100 cmbs. It was compact, dark red silty clay.

Trench 7 produced no evidence of traditional Hawaiian or early historic cultural deposition.

Trench 8

Trench 8 measured 7.0 meters long by 0.6 meters wide and was excavated to a maximum depth of 135 cmbs. The trench contained three stratigraphic layers, designated Layers I through III (Figure 24).

Layer I extended from 0 to 15 cmbs. It was dark reddish-brown silty clay with charcoal and fragments of black plastic. Layer II extended 15 to 125 cmbs and consisted of dark reddish-brown silty clay. Layer III extended 125 to 135 cmbs. It was compact, dark reddish-brown silty clay mottled with orange clay at the lower boundary.

Trench 8 produced no evidence of traditional Hawaiian or early historic cultural deposition.

Figure 23. Trench 7, facing northeast.

Figure 24. Trench 8, facing northwest.

4.2 Test Pits

Thirteen test pits were excavated along the transmission line corridor near proposed new pole locations (Figure 15). The test pits are designated in sequential order from east to west (1–13) (Table 3).

Test Pit 1

Test Pit 1 was on Hawai‘i Department of Agriculture land, 50 meters south of Waikele Stream gulch and 1.5 meters west of a dirt cane road running the perimeter of the field. It measured 126 centimeters long and 96 centimeters wide, with a depth of 102 cmbs. The profile contained three stratigraphic layers (Layers I–III) (Figure 25).

Layer I, from 0 to 81 cmbs, is composed of moist, cohesive, dark reddish-brown silty clay. It has medium plasticity, fine to medium subangular blocky peds, a few basalt pebbles, abundant small roots, bits of charcoal and plastic, humic material, and a distinct lower boundary. Layer II is a compact layer from 81 to 90 cmbs and is composed of moist, cohesive, dark red silty clay. It has medium plasticity, fine subangular blocky peds, no cobbles or roots, and a distinct lower boundary. Layer III is a hard, crumbly layer from 90 to 102 cmbs and is composed of non-cohesive, dark red silty clay modeled with yellowish-brown clay chunks (10 percent). It has low plasticity, fine to medium subangular blocky peds, some degraded basalt, and no roots.

Test Pit 1 produced no evidence of traditional Hawaiian or early historic cultural deposition.

Table 3. Test Pit Stratigraphy

Test Pit	Layer	Depth (cmbs)	Description	Interpretation
1	I	0–81	2.5YR 3/3 (dark reddish-brown) silty clay; moist; cohesive; med. plasticity; fine to medium subangular blocky; few basalt pebbles; lots of small roots; bits of charcoal and plastic; humic material; distinct lower boundary.	Culturally modified – pineapple farming remnants
	II	81–90	2.5YR 3/6 (dark red) silty clay; moist; compact; cohesive; med. plasticity; fine subangular blocky; no cobbles or roots; distinct lower boundary.	Intact native soil
	III	90–102	2.5YR 3/6 (dark red) silty clay modeled with 10YR 5/8 (yellowish-brown) clay chunks (10%); crumbly; hard; non-cohesive; low plasticity; fine to medium subangular blocky; degraded lava rock pieces; no roots.	Saprolite
2	I	0–27	5YR 2.5/2 (dark reddish-brown) silty clay; dry; cohesive; low plasticity; fine to medium subangular blocky; lots of small roots and one large root; distinct lower boundary.	Topsoil
	II	14–59	2.5YR 3/4 (dark reddish-brown) silty clay; moist; compact; cohesive; med. plasticity; fine to medium subangular blocky; some small roots; few cobbles; mixed with Layer III; diffuse lower boundary.	Intact native soil
	III	53–75	5YR 3/3 (dark reddish-brown) silty clay; moist; compact; cohesive; med. plasticity; medium subangular blocky; no roots; hard red chunks.	Eroded bedrock
3	I	0–10	5YR 3/2 (dark reddish-brown) silty clay; dry; cohesive; low plasticity; fine to medium subangular blocky; lots of small roots; distinct lower boundary.	Topsoil
	II	10–67	2.5YR 2.5/4 (dark reddish-brown) silty clay; moist; compact; cohesive; med. plasticity; fine to medium subangular blocky; few tiny roots; no cobbles.	Intact native soil
4	I	0–12	5YR 3/2 (dark reddish-brown) silty clay; dry; cohesive; low plasticity; fine to medium subangular blocky; lots of small roots; distinct lower boundary.	Topsoil
	II	12–62	2.5YR 2.5/4 (dark reddish-brown) silty clay; moist; compact; cohesive; med. plasticity; fine to medium subangular blocky; few tiny roots; no cobbles.	Intact native soil
5	I	0–24	2.5YR 2.5/4 (dark reddish-brown) silty clay mixed with Layer II in lower 12 centimeters; moist; cohesive; medium plasticity; fine to medium subangular blocky; some coral fill; lots of small roots; diffuse lower boundary.	Topsoil and introduced material for landscaping
	II	24–64	7.5YR 2.5/2 (very dark brown) silty clay; hard; non-cohesive; low plasticity; fine to medium subangular blocky; few small black rocks and glass; 30% crushed coral and coarse sand throughout with coral fill band between 41–46 centimeters; very few roots; distinct lower boundary.	Fill material to level ground surface
	III	64–84	2.5YR 2.5/4 (dark reddish-brown) silty clay; moist; compact; cohesive; med. plasticity; fine to medium subangular blocky; few tiny roots; no cobbles.	Intact native soil

Table 3. (cont.)

Test Pit	Layer	Depth (cmbs)	Description	Interpretation
6	I	0–22	2.5YR 2.5/4 (dark reddish-brown) silty clay; moist; cohesive; med. plasticity; fine to medium subangular blocky; lots of small to medium roots; few pebbles; distinct lower boundary.	Topsoil and introduced material for landscaping
	II	22–27	7.5YR 3/1 (very dark gray) silt; crumbly; non-cohesive; low plasticity; fine subangular blocky; some coarse sand (20%); ash-like; few small roots; many gray pebbles; distinct lower boundary.	Fill
	III	27–35	10YR 8/4 (very pale brown) coral fill with coarse sand; dry; crumbly; non-cohesive; low plasticity; fine to medium subangular blocky; few gray pebbles and small roots; wavy lower boundary.	Fill
	IV	30–55	5YR 3/4 (dark reddish-brown) (70%), 2.5YR 2.5/4 (dark reddish-brown) (20%), 5YR 5/8 (yellowish-red) (10%) silty clay; mottled; cohesive; medium plasticity; fine to medium subangular blocky; few small roots; distinct lower boundary.	Fill material to level ground surface
	V	55–63	7.5YR 2.5/1 (black) degraded asphalt; dry; chunky; non-cohesive; low plasticity; medium subangular blocky; no roots; distinct lower boundary.	Asphalt surface
	VI	58–71	7.5YR 3/1 (very dark gray) silt; crumbly; non-cohesive; low plasticity; fine subangular blocky; ash-like; no roots; many gray pebbles; diffuse lower boundary.	Fill
	VII	71–90	2.5YR 2.5/4 (dark reddish-brown) silty clay; moist; compact; cohesive; medium plasticity; fine to medium subangular blocky; no roots or cobbles.	Intact native soil
7	I	0–11	2.5YR 2.5/3 (dark reddish-brown) silty clay; moist; cohesive; medium plasticity; fine to medium subangular blocky; 30% gravel; lots of small roots; few coral pieces; diffuse lower boundary.	Topsoil
	II	11–14	7.5YR 4/1 (dark gray) gravel (80%) mixed with Layer I; dry; crumbly; non-cohesive; low plasticity; fine to medium subangular blocky; lots of small roots; diffuse lower boundary.	Introduced material to stabilize ground surface
	III	14–32	2.5YR 2.5/3 (dark reddish-brown) silty clay; moist; cohesive; medium plasticity; fine to medium subangular blocky; 5% gravel; few small roots; few coral pieces; distinct lower boundary.	Introduced material to stabilize ground surface
	IV	23–75	2.5YR 2.5/4 (dark reddish-brown) silty clay; moist; cohesive; medium plasticity; fine to medium subangular blocky; few small roots.	Intact native soil
8	I	0–14	2.5YR 3/3 (dark reddish-brown) silty clay; moist; cohesive; medium plasticity; fine to medium subangular blocky; lots of small roots; few pebbles and coral pieces; diffuse lower boundary.	Topsoil and introduced material for landscaping
	II	14–74	2.5YR 3/4 (dark reddish-brown) silty clay; compact; moist; cohesive; medium plasticity; fine to medium subangular blocky; few small roots.	Intact native soil

Table 3. (cont.)

Test Pit	Layer	Depth (cmbs)	Description	Interpretation
9	I	0–17	5YR 2.5/2 (dark reddish-brown) silty clay; moist; cohesive; low plasticity; fine to medium subangular blocky; lots of small roots and small rocks; few large rocks; distinct lower boundary.	Topsoil
	II	13–37	2.5YR 3/3 (dark reddish-brown) silty clay mixed with Layer III; cohesive; compact; medium plasticity; fine to medium subangular blocky; few medium rocks and small roots, diffuse lower boundary.	Fill material to level ground surface
	III	37–81	10YR 2/2 (very dark brown) silty clay; non-cohesive; low plasticity; fine to medium subangular blocky; loose; crumbly; few medium rocks and small roots; 3-inch gray PVC pipe at 61 cmbs in center of pit running parallel to Kunia Road (electrical conduit).	Fill material around PVC pipe
10	I	0–8	5YR 3/3 (dark reddish-brown) silty clay; moist; cohesive; low plasticity; fine to medium subangular blocky; lots of grass roots; few medium roots; distinct lower boundary.	Topsoil
	II	8–42	2.5YR 3/2 (dusky red) (80%), 5YR 3/2 (dark reddish-brown) (20%) silty clay; dry; crumbly; hard; non-cohesive; low plasticity; medium subangular blocky; 30% small-medium rocks; few medium roots; few glass pieces, coral, and degraded lava; diffuse lower boundary.	Fill material to stabilize ground surface
	III	42–80	5YR 3/2 (dark reddish-brown) modeled with 10YR 5/8 (yellowish-brown) clay (10%); dry; crumbly; very hard; non-cohesive; low plasticity; medium subangular blocky; 40% medium-large rocks; few small roots; cement block at 60 cmbs; large tree root at base of west wall.	Fill material to level ground surface
11	I	0–8	5YR 3/3 (dark reddish-brown) silty clay; moist; cohesive; low plasticity; fine to medium subangular blocky; lots of small roots; diffuse lower boundary.	Topsoil
	II	8–24	10R 3/4 (dusky red) silty clay; moist; cohesive; medium plasticity; fine to medium subangular blocky; few small roots; lots of small rocks; distinct lower boundary.	Fill material to stabilize ground surface
	III	24–54	2.5YR 3/4 (dark reddish-brown) silty clay; crumbly; non-cohesive; low plasticity; fine to medium subangular blocky; few small roots; lots of small-medium rocks; 1-inch-thick black cable 40 cmbs in north wall; diffuse lower boundary.	Fill material to level ground surface
	IV	54–74	2.5YR 4/6 (red) (50%), 5YR 3/3 (dark reddish-brown) (50%) silty clay; dry; crumbly; cohesive; low plasticity; fine to medium subangular blocky; very few roots; lots of small rocks.	Intact native soil
12	I	0–14	5YR 3/3 (dark reddish-brown) silty clay; moist; cohesive; low plasticity; fine to medium subangular blocky; lots of small roots; few small rocks; distinct lower boundary.	Topsoil
	II	14–19	7.5YR 3/3 (dark brown) silty clay; crumbly; non-cohesive; low plasticity; fine to medium subangular blocky; lots of small roots; chalky feel; distinct lower boundary.	Fill material to stabilize ground surface

Table 3. (cont.)

Test Pit	Layer	Depth (cmbs)	Description	Interpretation
12	III	19–21	10R 3/3 (dusky red) silty clay; cohesive; medium plasticity; fine to medium subangular blocky; few small roots; distinct lower boundary.	Fill material
	IV	21–25	2.5YR 4/4 (reddish-brown) silty clay; crumbly; cohesive; low plasticity; fine subangular blocky; few small roots; distinct lower boundary.	Fill material to stabilize ground surface
	V	25–67	10R 3/3 (dusky red) silty clay; cohesive; medium plasticity; fine to medium subangular blocky; very few roots; 3-inch gray PVC pipe at base of excavation (electrical conduit).	Fill material around PVC pipe
13	I	0–9	5YR 3/3 (dark reddish-brown) silty clay; moist; cohesive; low plasticity; fine to medium subangular blocky; lots of small roots; diffuse lower boundary.	Topsoil
	II	9–96	7.5YR 4/3 (brown) (60%), 5YR 4/6 (yellowish-red) (20%), 10R 3/4 (dusky red) (10%), 10YR 3/2 (very dark grayish brown) (10%) silty clay; loose; crumbly; semi-moist; cohesive; low plasticity; fine to medium subangular blocky; few small roots; some small rocks; crushed Schiltz can 14 cmbs; 3-inch gray PVC pipe 60 cmbs in south wall (electrical conduit).	Fill material for road

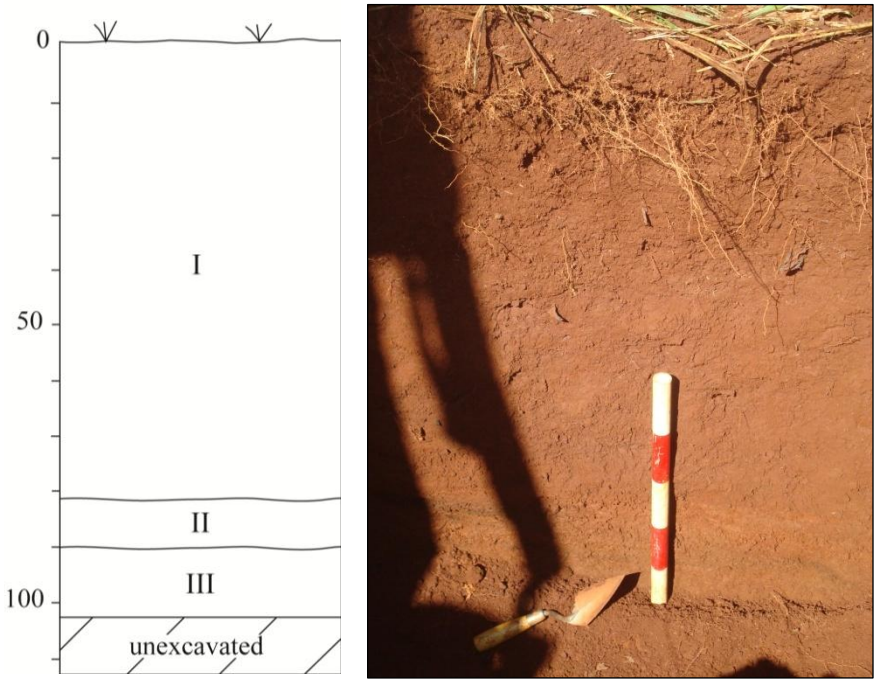


Figure 25. Test Pit 1 profile, facing northwest.

Test Pit 2

Test Pit 2 was on Hawai‘i Department of Agriculture land, 3.0 meters south of Waikele Stream gulch and 1.5 meters north of the dirt cane road running the perimeter of the field. It measured 110 centimeters long and 100 centimeters wide, with a depth of 75 cmbs and azimuth of 36 degrees. The profile was on the north wall and contained three stratigraphic layers (Layers I–III) (Figure 26).

Layer I, from 0 to 27 cmbs, is composed of dry, cohesive, dark reddish-brown silty clay. It has low plasticity, fine to medium subangular blocky peds, abundant small roots and one large root, and a distinct lower boundary. Layer II is a compact layer from 14 to 59 cmbs and is composed of moist, cohesive, dark reddish-brown silty clay mixed with Layer III (10 percent). It has medium plasticity, fine to medium subangular blocky peds, few small roots, few cobbles, and a diffuse lower boundary. Layer III is a compact layer from 53 to 75 cmbs and is composed of moist, cohesive, dark reddish-brown silty clay with hard red chunks. It has medium plasticity, medium subangular blocky peds, and no roots.

Test Pit 2 produced no evidence of traditional Hawaiian or early historic cultural deposition.

Test Pit 3

Test Pit 3 was off Duck Road on the SBMR, 7.2 meters southwest of the southwest corner of the fueling station perimeter fence. It measured 110 centimeters long and 90 centimeters wide, with a depth of 67 cmbs and azimuth of 96 degrees. The profile was in the north wall and contained two stratigraphic layers (Layers I and II) (Figure 27).

Layer I, from 0 to 10 cmbs, is composed of dry, cohesive, dark reddish-brown silty clay. It has low plasticity, fine to medium subangular blocky peds, abundant small roots, and a distinct lower boundary. Layer II is a compact layer from 10 to 67 cmbs and is composed of moist, cohesive, dark reddish-brown silty clay. It has medium plasticity, fine to medium subangular blocky peds, few rootles, and no cobbles.

Test Pit 3 produced no evidence of traditional Hawaiian or early historic cultural deposition.

Test Pit 4

Test Pit 4 was off Duck Road on the SBMR, 7.0 meters west of Duck Road and near the southeast corner of the fueling station perimeter fence. It measured 110 centimeters long and 85 centimeters wide, with a depth of 62 cmbs and azimuth of 210 degrees. The profile was in the northwest wall and contained two stratigraphic layers (Layers I and II) (Figure 28).

Layer I, from 0 to 12 cmbs, is composed of dry, cohesive, dark reddish-brown silty clay. It has low plasticity, fine to medium subangular blocky peds, abundant small roots, and a distinct lower boundary. Layer II is a compact layer from 12 to 62 cmbs and is composed of moist, cohesive, dark reddish-brown silty clay. It has medium plasticity, fine to medium subangular blocky peds, few rootlets, and no cobbles.

Test Pit 4 produced no evidence of traditional Hawaiian or early historic cultural deposition.

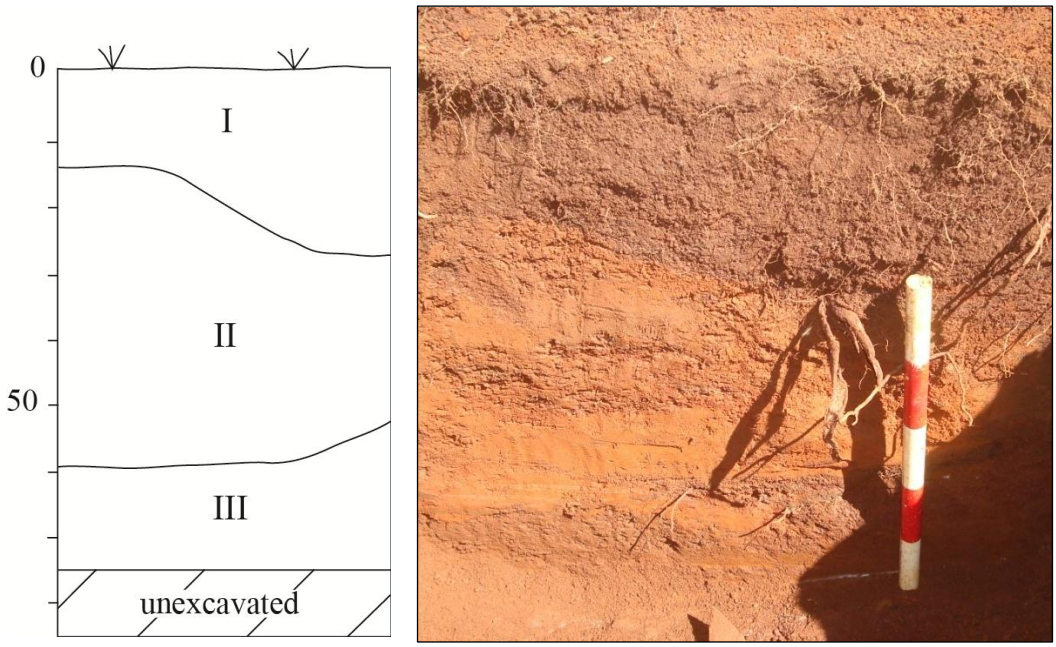


Figure 26. Test Pit 2 profile, facing north.

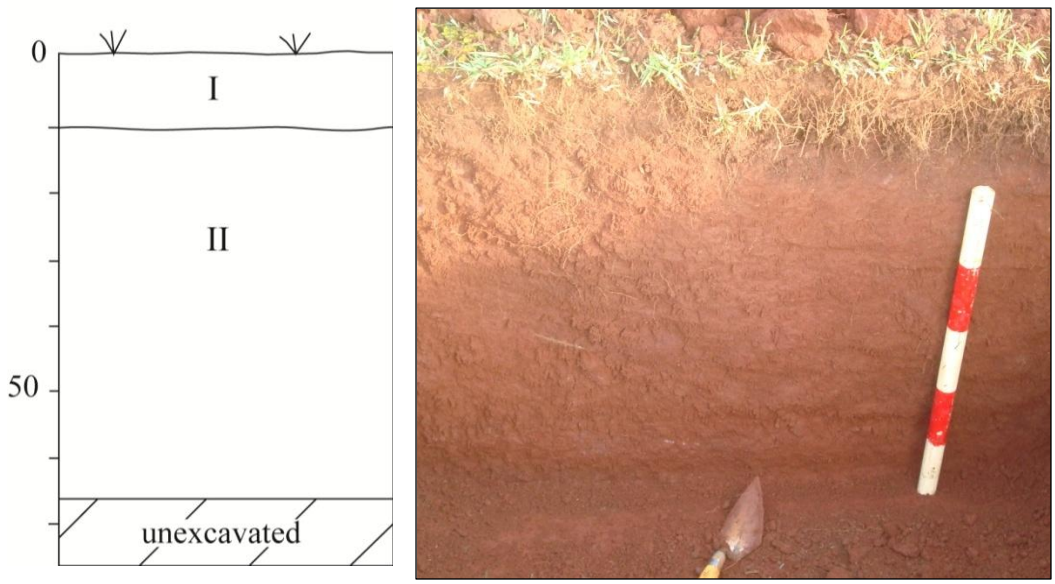


Figure 27. Test Pit 3 profile, facing north.

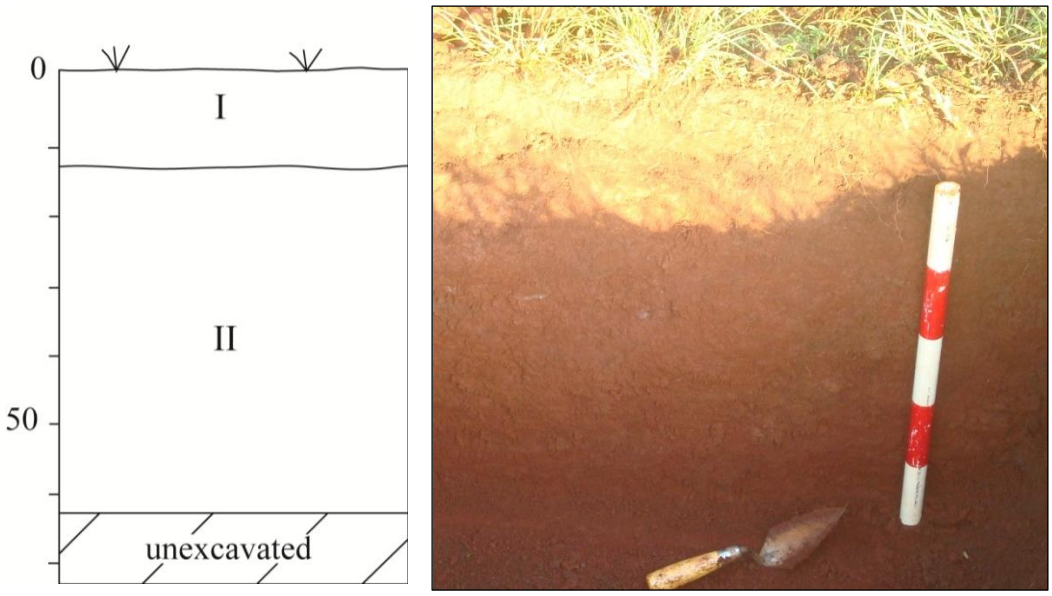


Figure 28. Test Pit 4 profile, facing northwest.

Test Pit 5

Test Pit 5 was off A Road on the SBMR, approximately 50 meters north of Lyman Road and the A Road intersection, and 7.0 meters northeast of the fenceline corner. It measured 106 centimeters long and 90 centimeters wide, with a depth of 84 cmbs and azimuth of 40 degrees. The profile was in the northwest wall and contained three stratigraphic layers (Layers I–III) (Figure 29).

Layer I, from 0 to 24 cmbs, is composed of moist, cohesive, dark reddish-brown silty clay mixed with Layer II in the lower 12 centimeters. It has medium plasticity, fine to medium subangular blocky peds, some coral fill, abundant small roots, and a diffuse lower boundary. Layer II is a compact layer from 24 to 64 cmbs and is composed of non-cohesive, very dark brown silty clay with crushed coral and coarse sand (30 percent). It has low plasticity, fine to medium subangular blocky peds, few small black rocks and glass, very few roots, a coral fill band between 41 to 46 centimeters, and a distinct lower boundary. Layer III is a compact layer from 64 to 84 cmbs and is composed of moist, cohesive, dark reddish-brown silty clay. It has medium plasticity, fine to medium subangular blocky peds, few rootlets, and no cobbles.

Test Pit 5 produced no evidence of traditional Hawaiian or early historic cultural deposition.

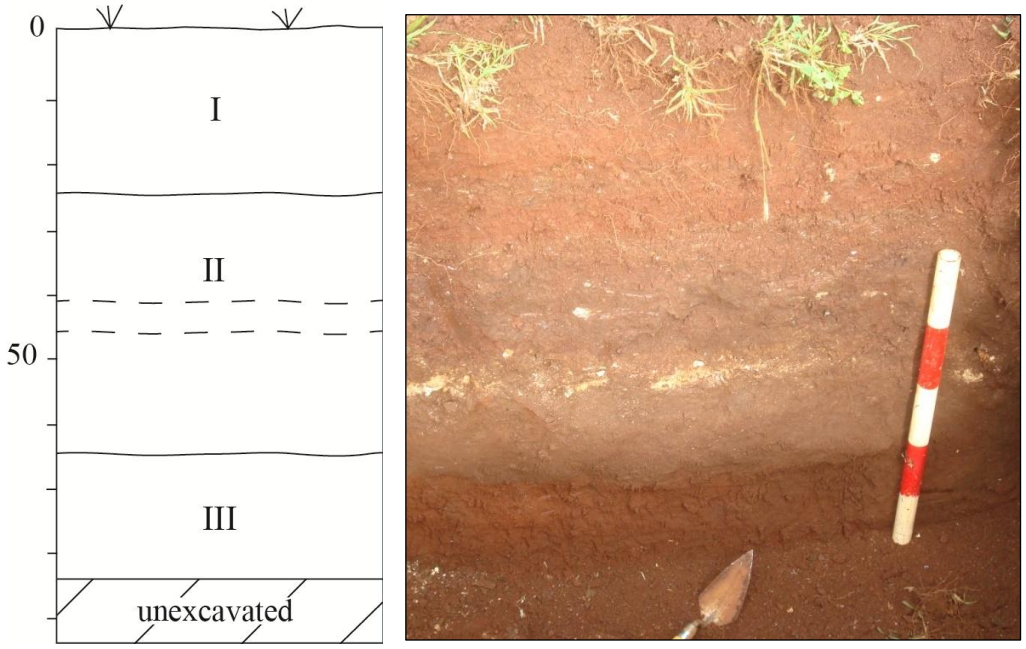


Figure 29. Test Pit 5 profile, facing northwest.

Test Pit 6

Test Pit 6 was near Car Care Center on the SBMR, 11.5 meters southwest of the southwest corner of the gas station fence. It measured 100 centimeters long and 96 centimeters wide, with a depth of 90 cmbs and azimuth of 224 degrees. The profile was in the northwest wall and contained seven stratigraphic layers (Layers I–VII) (Figure 30).

Layer I, from 0 to 22 cmbs, is composed of moist, cohesive, dark reddish-brown silty clay. It has medium plasticity, fine to medium subangular blocky peds, abundant small and medium roots, few pebbles, and a distinct lower boundary. Layer II is a crumbly layer from 22 to 27 cmbs and is composed of non-cohesive, very dark gray silt with some coarse sand (20 percent). It has low plasticity, fine subangular blocky peds, many gray pebbles, few small roots, an ash-like feel, and a distinct lower boundary. Layer III is a crumbly layer from 27 to 35 cmbs and is composed of dry, non-cohesive, very pale brown coral fill with coarse sand. It has low plasticity, fine to medium subangular blocky peds, few gray pebbles and small roots, and a wavy lower boundary. Layer IV is from 30 to 55 cmbs and is composed of a cohesive, dark reddish-brown silty clay with some yellowish-red silty clay (10 percent), It has a mottled appearance, medium plasticity, fine to medium subangular blocky peds, few small roots, and a distinct lower boundary. Layer V is from 55 to 63 cmbs and is composed of dry, chunky, non-cohesive, black degraded asphalt. It has low plasticity, medium subangular blocky peds, no roots, and a distinct lower boundary. Layer VI is a crumbly layer from 58 to 71 cmbs and is composed of non-cohesive, very dark gray silt. It has low plasticity, fine subangular blocky peds, many gray pebbles, no roots, an ash-like feel, and a diffuse

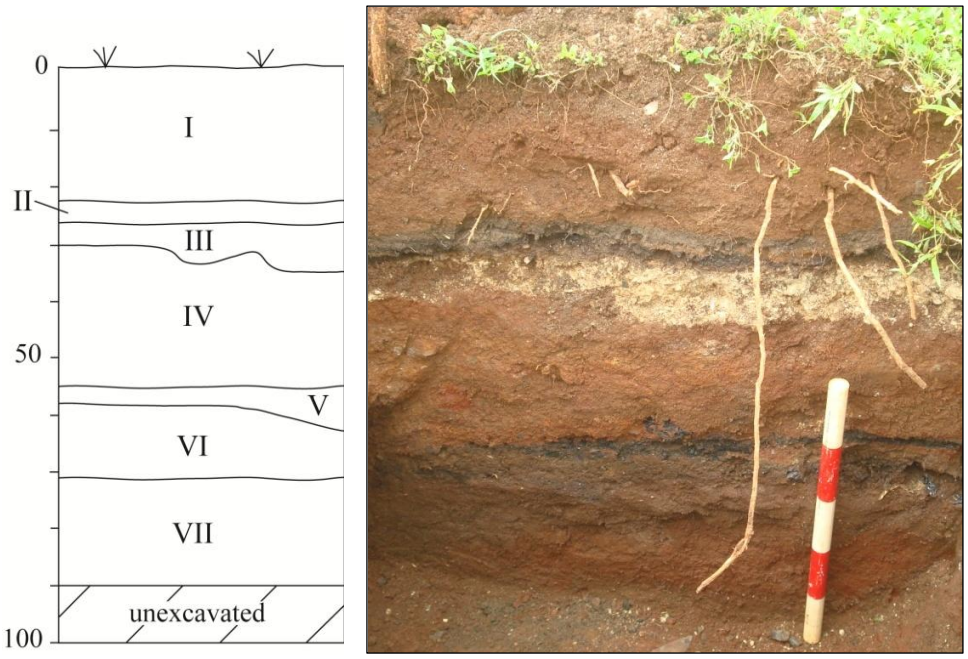


Figure 30. Test Pit 6 profile, facing northwest.

lower boundary. Layer VII is a compact layer from 71 to 90 cmbs and is composed of moist, cohesive, dark reddish-brown silty clay. It has medium plasticity, fine to medium subangular blocky peds, and no roots or cobbles.

Test Pit 6 produced no evidence of traditional Hawaiian or early historic cultural deposition.

Test Pit 7

Test Pit 7 was 9.2 meters southeast of the southeast corner of the 500th Military Intelligence Brigade Building 130 on the SBMR. It measured 94 centimeters long and 84 centimeters wide, with a depth of 75 cmbs and azimuth of 56 degrees. The profile was in the north wall and contained four stratigraphic layers (Layers I–IV) (Figure 31).

Layer I, from 0 to 11 cmbs, is composed of moist, cohesive, dark reddish-brown silty clay with 30 percent gravel. It has medium plasticity, fine to medium subangular blocky peds, abundant small roots, few coral pieces, and a diffuse lower boundary. Layer II is a crumbly layer from 11 to 14 cmbs and is composed of dry, non-cohesive, dark gray gravel mixed with Layer I (20 percent). It has low plasticity, fine to medium subangular blocky peds, lots of small roots, and a diffuse lower boundary. Layer III is from 14 to 32 cmbs and is composed of moist, cohesive, dark reddish-brown silty clay with 5 percent gravel. It has medium plasticity, fine to medium subangular blocky peds, few small roots and coral pieces, and a distinct lower boundary. Layer IV is from 23 to 75 cmbs and is composed of moist, cohesive, dark reddish-brown silty clay. It has medium plasticity, fine to medium subangular blocky peds, and few small roots.Layer IV is

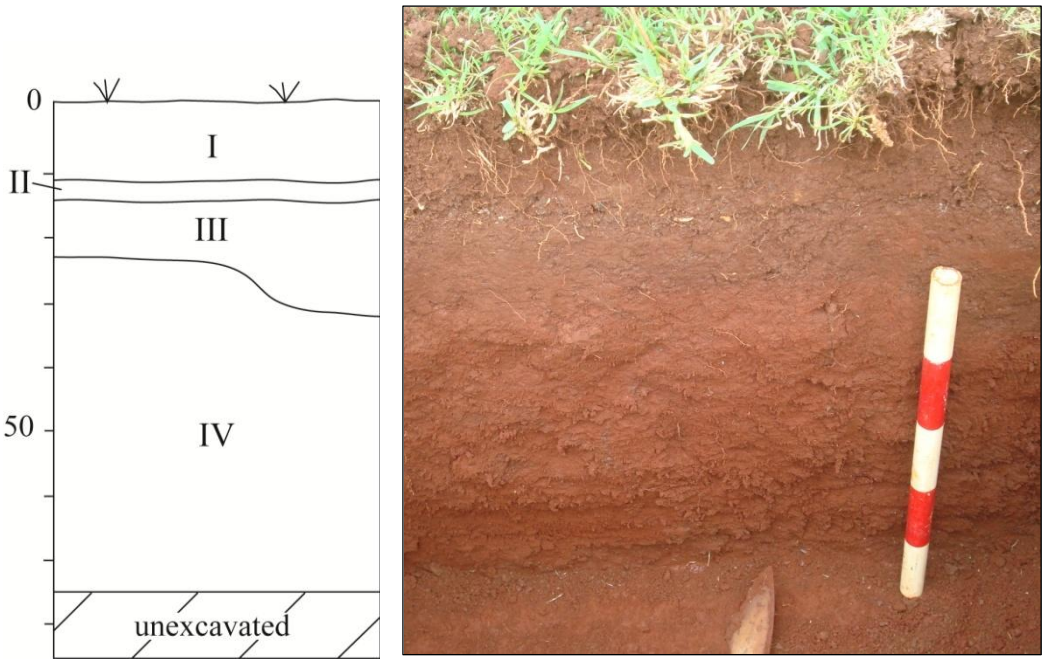


Figure 31. Test Pit 7 profile, facing north.

composed of a moist, cohesive, dark reddish-brown silty clay. It has a medium plasticity, fine to medium subangular blocky peds and few small roots.

Test Pit 7 produced no evidence of traditional Hawaiian or early historic cultural deposition.

Test Pit 8

Test Pit 8 was off the northwest curve of Eastman Road on WAAF, 7.6 meters west of a hedge demarking a parking area near Waiʻanae Avenue. It measured 93 centimeters long and 87 centimeters wide, with a depth of 74 cmbs and azimuth of 144 degrees. The profile was on the northeast wall and contained two stratigraphic layers (Layers I and II) (Figure 32).

Layer I, from 0 to 14 cmbs, is composed of moist, cohesive, dark reddish-brown silty clay. It has medium plasticity, fine to medium subangular blocky peds, abundant small roots, few pebbles and coral pieces, and a diffuse lower boundary. Layer II is a compact layer from 14 to 74 cmbs and is composed of moist, cohesive, dark reddish-brown silty clay. It has medium plasticity, fine to medium subangular blocky peds, and few small roots.

Test Pit 8 produced no evidence of traditional Hawaiian or early historic cultural deposition.

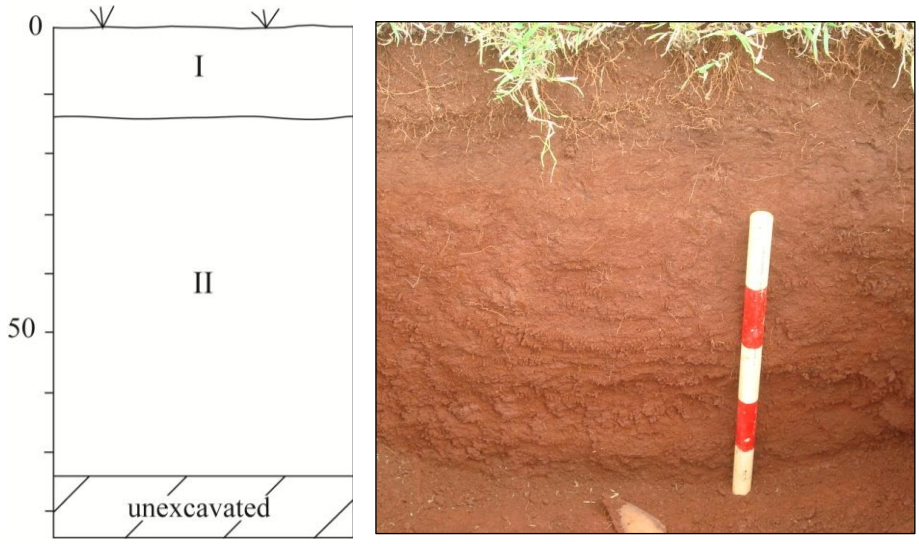


Figure 32. Test Pit 8 profile, facing northeast.

Test Pit 9

Test Pit 9 was in the right-of-way on the west side of Kunia Road, approximately 100 meters southwest of the Wilikina Drive intersection and 9.0 meters southwest of the Kokoloea Place intersection. It measured 105 centimeters long and 85 centimeters wide, with a depth of 81 cmbs. The profile was in the northwest wall and contained three stratigraphic layers (Layers I–III) (Figure 33).

Layer I, from 0 to 17 cmbs, is composed of moist, cohesive, dark reddish-brown silty clay. It has low plasticity, fine to medium subangular blocky peds, abundant small roots and pebbles, few cobbles, and a distinct lower boundary. Layer II is a compact layer from 13 to 37 cmbs and is composed of cohesive, dark reddish-brown silty clay mixed with Layer III. It has medium plasticity, fine to medium subangular blocky peds, few cobbles and small roots, and a diffuse lower boundary. Layer III is a loose, crumbly layer from 37 to 81 cmbs and is composed of non-cohesive, very dark brown silty clay. It has low plasticity, fine to medium subangular blocky peds, few cobbles, and small roots. A 3-inch gray PVC pipe was encountered at 61 cmbs and parallel to Kunia Road.

Test Pit 9 produced no evidence of traditional Hawaiian or early historic cultural deposition.

Test Pit 10

Test Pit 10 was in the right-of-way on the south side of Wilikina Drive, 4.0 meters southwest of the second light pole east of the Kunia Road intersection. It measured 100 centimeters long and 88 centimeters wide, with a depth of 80 cmbs and azimuth of 84 degrees. The profile was in the north wall and contained three stratigraphic layers (Layers I–III) (Figure 34).

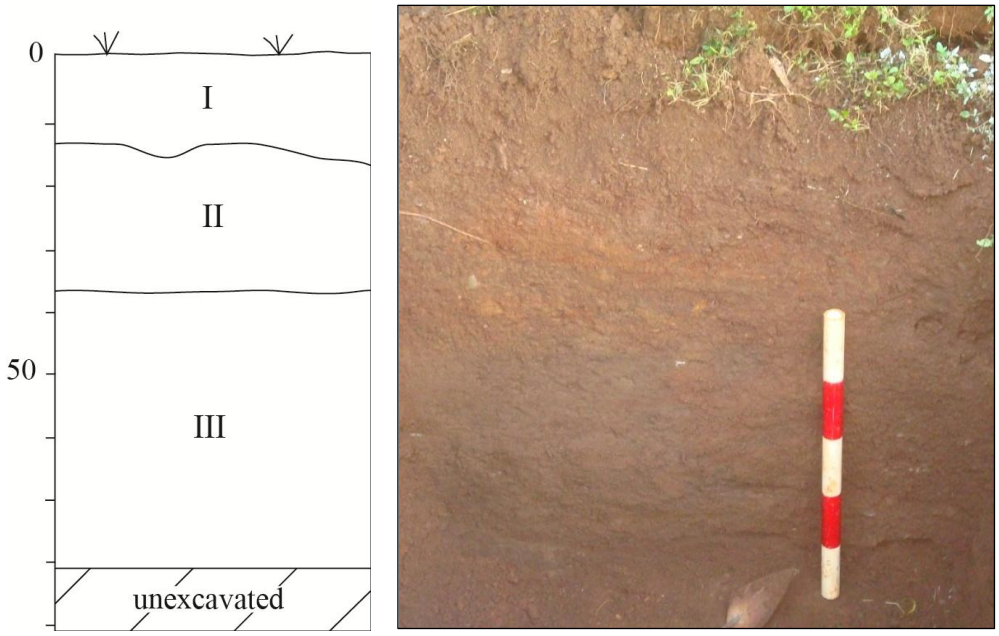


Figure 33. Test Pit 9 profile, facing northwest.

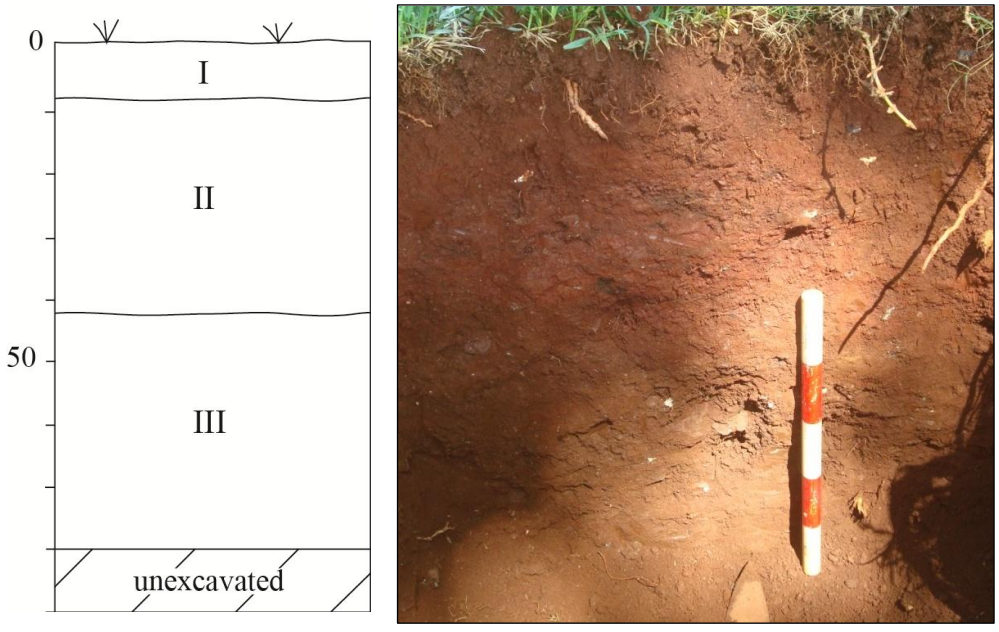


Figure 34. Test Pit 10 profile, facing north.

Layer I, from 0 to 8 cmbs, is composed of moist, cohesive, dark reddish-brown silty clay. It has low plasticity, fine to medium subangular blocky peds, abundant small roots, few medium roots, and a distinct lower boundary. Layer II is a crumbly, compact layer from 8 to 42 cmbs and is composed of dry, non-cohesive, dusky red silty clay mixed with dark reddish-brown silty clay (20 percent). It has low plasticity, medium subangular blocky peds, 30 percent small-medium rocks, few medium roots, few glass pieces, degraded basalt, few coral pieces, and a diffuse lower boundary. Layer III is a crumbly, compact layer from 42 to 80 cmbs and is composed of dry, non-cohesive, dark reddish-brown silty clay modeled with yellowish-brown clay (10 percent). It has low plasticity, medium subangular blocky peds, 40 percent medium-large cobbles, few small roots, cement block at 60 cmbs, and a large tree root at the base of the west wall.

Test Pit 10 produced no evidence of traditional Hawaiian or early historic cultural deposition.

Test Pit 11

Test Pit 11 was in the right-of-way on the south side of Wilikina Drive, 3.1 meters northeast of the third light pole east of the Kunia Road intersection. It measured 108 centimeters long and 90 centimeters wide, with a depth of 74 cmbs and azimuth of 80 degrees. The profile was in the south wall and contained four stratigraphic layers (Layers I–IV) (Figure 35).

Layer I, from 0 to 8 cmbs, is composed of moist, cohesive, dark reddish-brown silty clay. It has low plasticity, fine to medium subangular blocky peds, abundant small roots, and a diffuse lower boundary. Layer II, from 8 to 24 cmbs, is composed of moist, cohesive, dusky red silty clay. It has medium plasticity, fine to medium subangular blocky peds, abundant pebbles, few small roots, and a distinct lower boundary. Layer III is a crumbly layer from 24 to 54 cmbs and is composed of non-cohesive, dark reddish-brown silty clay. It has low plasticity, fine to medium subangular blocky peds, abundant medium-large cobbles, few small roots, and diffuse boundary. A 1-inch black cable was encountered at 40 cmbs in the north wall. Layer IV is a crumbly layer from 54 to 74 cmbs and is composed of dry, cohesive, dark reddish-brown and red silty clay. It has low plasticity, fine to medium subangular blocky peds, abundant pebbles, and very few roots.

Test Pit 11 produced no evidence of traditional Hawaiian or early historic cultural deposition.

Test Pit 12

Test Pit 12 was in the right-of-way on the south side of Wilikina Drive, 9.3 meters southwest of the sixth light pole east of the Kunia Road intersection. It measured 108 centimeters long and 78 centimeters wide, with a depth of 67 cmbs and azimuth of 62 degrees. The profile was in the south wall and contained five stratigraphic layers (Layers I–V) (Figure 36).

Layer I, from 0 to 14 cmbs, is composed of moist, cohesive, dark reddish-brown silty clay. It has low plasticity, fine to medium subangular blocky peds, abundant small roots, few pebbles, and a distinct lower boundary. Layer II is a crumbly layer from 14 to 19 cmbs and is composed of non-cohesive, dark brown silty clay. It has low plasticity, fine to medium subangular blocky peds, abundant small roots, a chalk-like feel, and a distinct lower boundary. Layer III, from 19 to 21 cmbs, is composed of cohesive, dusky red silty clay. It has medium plasticity, fine to medium subangular blocky peds, few small roots, and a distinct lower boundary.

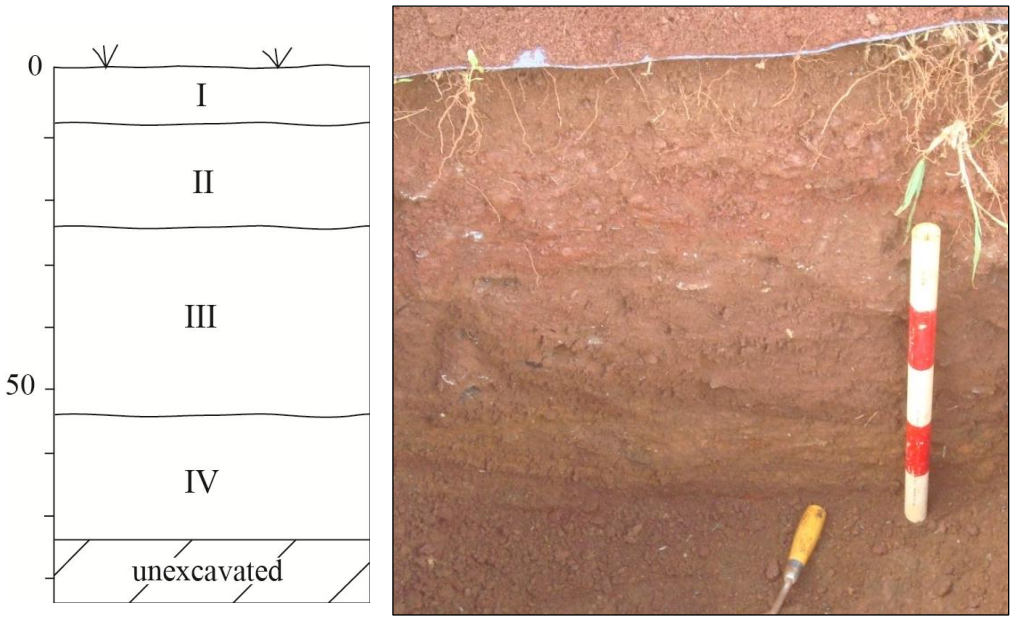


Figure 35. Test Pit 11 profile, facing south.

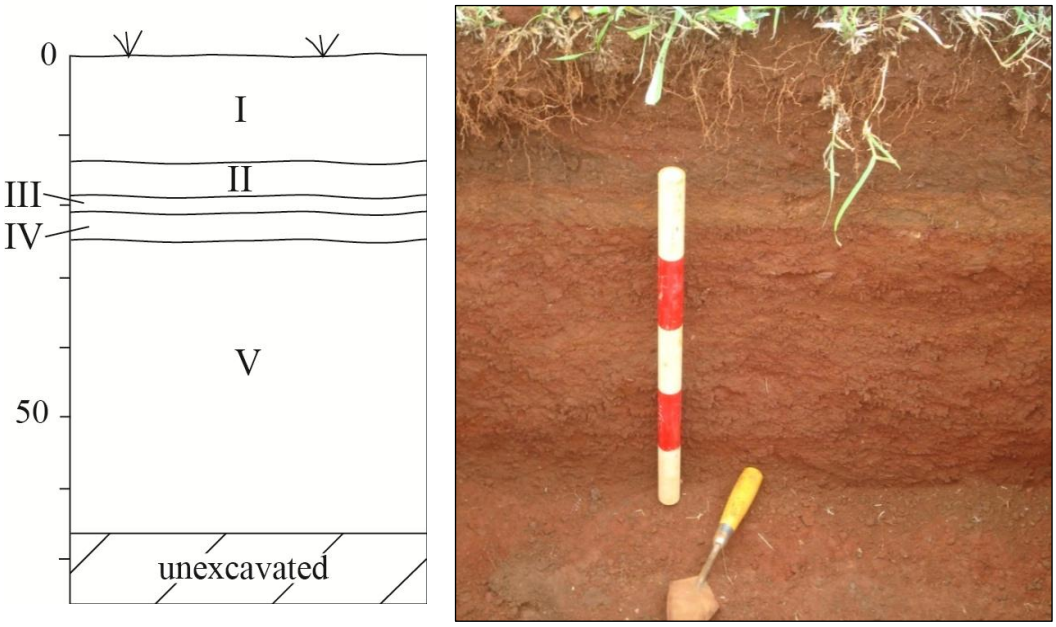


Figure 36. Test Pit 12 profile, facing south.

Layer IV is a crumbly layer from 21 to 25 cmbs and is composed of cohesive, reddish-brown silty clay. It has low plasticity, fine subangular blocky peds, few small roots, and a distinct lower boundary. Layer V, from 25 to 67 cmbs, is composed of cohesive, dusky red silty clay. It has medium plasticity, fine to medium subangular blocky peds, and very few roots. A 3-inch gray PVC pipe running parallel to Wilikina Drive was encountered at the base of excavation.

Test Pit 12 produced no evidence of traditional Hawaiian or early historic cultural deposition.

Test Pit 13

Test Pit 13 was in the right-of-way on the south side of Wilikina Drive, 11.0 meters west of the first light pole west of the Lakeview Circle intersection. It measured 110 centimeters long and 78 centimeters wide, with a depth of 96 cmbs and azimuth of 78 degrees. The profile was in the north wall and contained two stratigraphic layers (Layers I and II) (Figure 37).

Layer I, from 0 to 9 cmbs, is composed of moist, cohesive, dark reddish-brown silty clay. It has low plasticity, fine to medium subangular blocky peds, abundant small roots, and a diffuse lower boundary. Layer II is a loose, crumbly layer from 9 to 96 cmbs and is composed of semi-moist, cohesive, brown silty clay modeled with yellowish-red, dusky red, and very dark grayish-brown silty clay. It has low plasticity, fine to medium subangular blocky peds, few pebbles, and few small roots. A crushed Schlitz beer was encountered at 14 cmbs and a 3-inch gray PVC pipe, oriented parallel with Wilikina Drive, was observed at 60 cmbs in the south wall of the test pit.

Test Pit 13 produced no evidence of traditional Hawaiian or early historic cultural deposition.

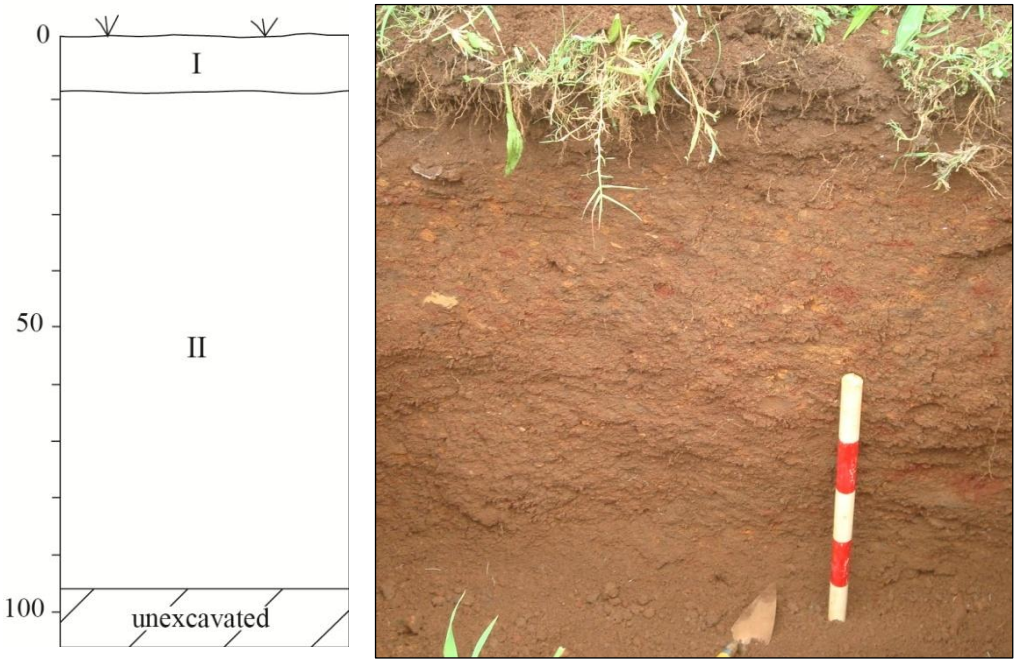


Figure 37. Test Pit 13 profile, facing north.

5.0 SUMMARY AND CONCLUSIONS

The primary objective of the AIS was to identify, document, and evaluate all pre-Contact and post-Contact properties within the Schofield Generating Station Project APE using a sampling strategy proportionate to the archaeological sensitivity of the area. Previous archaeological findings in the project vicinity indicate that the APE has a very low probability for archaeological resources. The 8.1-acre generator site, in particular, is on former pineapple fields where nearly a century of cultivation has likely destroyed most, if not all, cultural deposits. Furthermore, the upper plateaus used for pineapple were generally not preferred by pre-Contact Hawaiians of the Līhuʻe area for habitation or subsistence. Most of the known traditional Hawaiian sites in the region are found in gulch bottoms or on high-elevation ridges. The transmission line corridor likewise has a very low probability for archaeological deposits. The corridor, while less studied archaeologically, is largely within a heavily utilized right-of-way that has been subject to a great deal of modern disturbance.

Archaeological testing results support the findings of the background research. Excavation of eight test trenches and 13 test pits produced no evidence of traditional Hawaiian or early historic cultural deposition. Stratigraphic data from the generating station test trenches clearly indicate the presence of an extensive pineapple cultivation, or "plowzone," layer consisting of a weathered reddish-brown silty clay with charcoal flecking (presumably from field burns) and decomposing black plastic fragments.[4] The cultivation layer lies directly on intact native soil that shows no signs of anthropogenic disturbance. Similarly, test pit excavation at the new pole locations produced only construction fill overlying undisturbed volcanic soil. In some cases the intact soil was quite shallow, between 10 and 14 cmbs. It is reasonable to surmise that some degree of cutting, filling, and grading has occurred in this semi-urban corridor, and that we might therefore be observing truncated native soils.

Importantly, Test Pits 1, 2, and 3, intentionally selected because of their location on the edge of Waiʻeli Gulch, also contained no cultural deposits. Project activities along edges of Waiʻeli Gulch were raised as a special concern by U.S. Army Garrison-Hawaii archaeologists during early coordination meetings. Since pre-Contact and early historic habitation and subsistence in the region tended to be focused on the rich gulch bottomlands, it was felt that these locales had a higher probability for archaeological resources relative to the rest of the APE. All new pole locations along the edges of Waiʻeli Gulch were tested and produced negative results.

In conclusion, AIS data indicate that the Schofield Generating Station Project is very unlikely to affect archaeological sites. Test excavation results confirm that the APE has a very low probability for containing archaeological deposits. Extensive land modifications associated with a century of commercial cultivation, ranching, U.S. military activity, and urbanization has likely destroyed most of the tangible evidence of the traditional Hawaiian and early historic past in this area.

[4] Black plastic sheeting is used in commercial pineapple cultivation to hinder weed growth and retain soil moisture.

6.0 REFERENCES

Alvarez, P.M.
1982 *History of Schofield Barracks Military Reservation*. Prepared for U.S. Army Engineer Division, Fort Shafter, HI.

Armstrong, W.R., ed.
1983 *The Atlas of Hawaii.* University of Hawai'i Press, Honolulu.

Au, D.
1993 Personal communication. Member of Wahiawā Hawaiian Civic Club, Leilehua High School Hawaiian language teacher, researcher on Kūkaniloko and other traditional sites in central O'ahu plateau.

Beckwith, M.W.
1970 *Hawaiian Mythology*. Originally published 1940. University of Hawai'i Press, Honolulu.

2007 *Kepelino's Traditions of Hawaii*. Originally published 1932. Bishop Museum Press, Honolulu.

Bishop, Rev. A.
1849 and 1851 Mission Letters. Mission House Museum Library, Honolulu.

Bouthillier, K.S., S. Williams, and T. Patolo
1995 *Historic Preservation Measures for Inclusion in an Environmental Assessment of Proposed Family Housing Revitalization Projects at Sites A, U, V, and Duck Field, Schofield Barracks Military Reservation, Hawai'i.* Prepared for U.S. Army Engineer Division, Fort Shafter, HI, by Ogden Environmental and Energy Services Co., Inc., Honolulu.

Burgett, B. and P.H. Rosendahl
1992 *Archaeological Inventory Survey Contaminated Soil Stockpile/Remediation Facility*. Prepared for Helber, Hastert & Fee Planners, Honolulu, by Paul H. Rosendahl, Ph.D., Inc., Hilo, HI.

Carson, M.T. and S.K. Yeomans
2000 *Phase III of Intensive Archaeological Inventory Survey of Prehistoric Traditional Hawaiian Sites in Schofield Barracks Military Reservation South Range, O'ahu Island, Hawaii*. Prepared for U.S. Army Engineer Division, Fort Shafter, HI, by Scientific Consultant Services/Cultural Resource Management Services, Inc., Honolulu.

Cordy, R.
1996 *The Great 'Ewa Lands of La'akona, 1840–1850 Settlement Patterns in the 'Ewa Lands Located around Pearl Harbor: A Look at Where Houses, Irrigated Taro Fields, Fishponds, and other Types of Sites were Located*. On file at State Historic Preservation Division, Department of Land and Natural Resources, Kapolei, HI.

2002 *An Ancient History of Wai'anae*. Mutual Publishing, Honolulu.

Cuddihy, L.W. and C.P. Stone
1990 *Alteration of Native Hawaiian Vegetation Effects of Humans, Their Activities & Introductions*. University of Hawai'i Press, Honolulu.

Department of the Interior
n.d. Document 244: *Survey of the Undivided Ili of Kalena, District of Lihue, Waianae, Oahu*.

Desilets, M., M.K. Orr, C. Descantes, W.K. McElroy, A.E. Sims, D. Gaskell, and M.M. Ano
2011 *Traditional Hawaiian Occupation and Lō Ali‘i Social Organization on O‘ahu’s Central Plateau: An Ethno-Historical Study*. Prepared for U.S. Army Engineer Division, Fort Shafter, HI, by Garcia and Associates, Kailua, HI.

Emerson, Rev. J.S.
1837 Mission Letters. Mission House Museum Library, Honolulu.

Foote, D.E., E.L. Hill, S. Nakamura, and F. Stephens
1972 *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii*. U.S. Department of Agriculture, Soil Conservation Service, Washington, DC, in cooperation with the University of Hawaii Agricultural Experiment Station, Honolulu.

Fornander, A.
1969 *An Account of the Polynesian Race: Its Origin and Migrations*. Charles E. Tuttle, Rutland, Vermont.

1996 *Ancient History of the Hawaiian People to the Times of Kamehameha I*. Mutual Publishing, Honolulu.

Foster, F.W.
1908 Attachment to Cover Letter from Secretary of the Interior to Governor W.F. Frear, Territory of Hawaii. 8 December (cover letter is dated 7 January 1908).

Giambelluca, T.W., Q. Chen, A.G. Frazier, J.P. Price, Y.-L. Chen, P.-S. Chu, J.K. Eischeid, and D.M. Delparte
2013 Online Rainfall Atlas of Hawai‘i. *Bulletin of the American Meteorological Society* 94: 313–316. doi: 10.1175/BAMS-D-11-00228.1.

Griffin, A.E., and M. Yent
1977 *Letter Report: Results of the Archaeological Survey of Phase I of Wahiawa Fresh Water Park.* Submitted to Robert Fletcher, Department of Land and Natural Resources, Division of State Parks.

Haile, A.
1976 A Historical Review and Reconstruction of the Water Rights and Water Leasing Situation of Wahiawa Reservoir and its Tributaries. M.A. thesis in Agricultural Economics, University of Hawai‘i–Manoa.

Haleole, S.N.
2006 *Lā‘ieikawai.* Translated by M.W. Beckwith, 1919. NOIO, Honolulu.

Handy, E.S. Craighill, E.G. Handy, and M.K. Pukui
1972 *Native Planters in Old Hawaii: Their Life, Lore, and Environment*. Bernice P. Bishop Museum Bulletin No. 233. Bishop Museum Press, Honolulu.

Hawaiian Government Survey
1881 Sandwich Islands/chiefly from a trigometrical survey in progress by the Hawaiian Government to 1879. Admiralty map, London.

Henry, J.D., A.T. Walker, and P.H. Rosendahl
1992 *Archaeological Inventory Survey Galbraith Trust Lands, Lands of Kamananui and Wahiawa, Waialua and Wahiawa Districts, Island of Oahu*. Prepared for Helber, Hastert & Fee Planners, Honolulu, by Paul H. Rosendahl, Ph.D., Inc., Hilo, HI.

‘Ī‘ī, J.P.
1959 *Fragments of Hawaiian History.* Bishop Museum Press, Honolulu.

Kamakau, S.M.
1964 *Ka Poʻe Kahiko*. Bernice P. Bishop Museum Special Publication No. 51. Bishop Museum Press, Honolulu.

1991 *Tales and Traditions of the People of Old: Nā Moʻolelo a ka Poʻe Kahiko.* Bishop Museum Press, Honolulu.

1992 *Ruling Chiefs of Hawai'i.* The Kamehameha Schools Press, Honolulu.

McAllister, J.G.
1933 *Archaeology of Oahu.* Bishop Museum Bulletin 104. Bishop Museum Press, Honolulu.

McGrath, E.J., K. Brewer, and B. Krauss
1973 *Historic Waianae, a Place of Kings*. Island Heritage Limited, Honolulu.

McIntosh, J., P.L. Cleghorn, and J.A. Faraguia
1995a *Report for Archaeological Inventory Survey with Subsurface Testing for Work Area 1 of the Proposed Family Housing Project at Wheeler Army Air Field and Schofield Barracks Millitary Reservation, Oahu, Wahiawa District, Island of Oahu, Hawaii.* Prepared for the U.S. Army Engineer Division, Fort Shafter, HI, by Biosystems Analysis, Inc., Kailua, HI.

1995b *Report for Archaeological Inventory Survey with Subsurface Testing for Work Area 2 of the Proposed Family Housing Project at Schofield Barracks Military Reservation, Oahu, Wahiawa District, Island of Oahu, Hawaii.* Prepared for U.S. Army Engineer Division, Fort Shafter, HI, by Biosystems Analysis, Inc., Kailua, HI.

Nakuina, E.M.
1897 Legend of Oahunui. *Thrum's Hawaiian Annual* 1897:90–95.

Nedbalek, L.
1984 *Wahiawa: from Dream to Community*. Wonder View Press, Mililani, HI.

O'Hare, C.R., L. Kalima, and P.H. Rosendahl
1993 *Inventory and Evaluation of Properties with Potential Historic Significance at Schofield Barracks Military Reservation, Oahu, Land of Waianae Uka, Wahiawā District, Island of Oʻahu*. Prepared by Paul H. Rosendahl, Ph.D., Inc., Hilo, HI.

Pukui, M.K., S.H. Elbert, and E.T. Mookini
1974 *Place Names of Hawaii*. Revised Edition. University of Hawai'i Press, Honolulu.

Roberts, K.S., S. Roberts, M. Desilets, A. Buffum, and J. Robins
2004 *Archaeological Reconnaissance Survey of U.S. Army Schofield Barracks Military Reservation, South Range Land Acquisition, Oahu Island, Hawai'i*. Prepared for U.S. Army Engineer Division, Fort Shafter, HI, by Garcia and Associates, Kailua, HI.

Robins, J.J. and R.L. Spear
1997a *Cultural Resources Inventory Survey and Limited Testing of the Schofield Barracks Training Areas for the Preparation of a Cultural Resource Management Plan for U.S. Army Training Ranges and Areas, Oʻahu Island, Hawai'i (TMK 7-6-01 and 7-7-01).* Volume 1 of 2. Draft final report. Prepared by Scientific Consultant Services/Cultural Resource Management Services, Inc., Honolulu.

1997b *Research Design for an Intensive Archaeological Survey of Prehistoric Hawaiian Sites for Determination of Eligibility for Listing to the National Register of Historic Places, Schofield Barracks Military Reservation South Range, Oahu Island, Hawai'i*. Prepared by Scientific Consultant Services/Cultural Resource Management Services, Inc., Honolulu.

2002a *Cultural Resources Inventory Survey and Limited Testing of the Schofield Barracks Training Areas for the Preparation of a Cultural Resource Management Plan for U.S. Army Training Ranges and Areas, Oahu, Hawaii (TMK 7-6-01 and 7-7-01).* Prepared for U.S.

Army Engineer Division, Fort Shafter, HI, by Scientific Consultant Services/Cultural Resource Management Services, Inc., Honolulu.

2002b *Cultural Resources Inventory Survey and Limited Testing, Phase II, of the U.S. Army Schofield Barracks Training Areas for the U.S. Army Garrison Hawaii Ecosystem Management Program, Island of Oahu, Hawaii (TMK 7-6-01 and 7-7-01)*. Prepared for U.S. Army Engineer Division, Fort Shafter, HI, by Scientific Consultant Services/Cultural Resource Management Services, Inc., Honolulu.

Robins, J.J., C.R. DeBaker, and A.K.S. Roberts

2005 *Final–Intensive Archaeological Survey of McCarthy Flats and Battle Area Complex (BAX) Training Range Construction Projects for the Stryker Brigade Combat Team (SBCT), U.S. Army Hawai'i, Schofield Barracks, Wai'anae Uka Ahupua'a, Wahiawā District, Island of O'ahu, Hawai'i (TMK 7-7-01), Volume I: 2003 Survey Results.* Prepared for U.S. Army Engineer Division, Fort Shafter, HI, by Garcia and Associates, Kailua, HI.

Robins, J.J., S. Roberts, and L. Gilda

2007 *FINAL—Intensive Phase II Investigation of Cultural Resources Within the South Range Land Acquisition for the Stryker Brigade Combat Team, Schofield Barracks Military Reservation, O'ahu Island, Hawai'i*. Prepared for U.S. Army Engineer Division, Fort Shafter, HI, by Garcia and Associates, Kailua, HI.

Rosendahl, P.

1977 *Archaeological Inventory and Evaluation Report for U.S. Army Support Command, Hawaii (USASCH), Parts I and II.* Prepared for U.S. Army Engineer Division, Fort Shafter, HI, by Department of Anthropology, Bishop Museum, Honolulu.

Spencer Mason Architects

1997 *Cultural Resource Inventory for the Schofield Barracks Cultural Resource Management Program*. Prepared for Belt Collins, Honolulu, by Spencer Mason Architects, Honolulu.

Sterling, E.P. and C.C. Summers

1978 *Sites of Oahu*. Bishop Museum Press, Honolulu.

Stokes, J.F.G.

n.d. "Site Notes." Manuscript on file at Bishop Museum archaeology lab, Honolulu.

Taylor, A.P.

1922 *Under Hawaiian Skies*. Advertiser Publishing Company, Honolulu.

Tomonari-Tuggle, M.J.

1997 *Draft Report: Upland Settlement, Leilehua Ranch, and the Military: An Assessment of the Archaeology of the Schofield Barracks Cantonment*. Prepared for Belt Collins, Honolulu, by International Archaeological Research Institute, Inc., Honolulu.

Tomonari-Tuggle, M.J. and K. Bouthillier

1994 *Archaeology and History on the Central O'ahu Plateau: A Cultural Resources Assessment of Wheeler Army Airfield*. Prepared for Belt Collins, Honolulu, by International Archaeological Research Institute, Inc., Honolulu.

Tuggle, H.D.

1995 *Archaeological Inventory Survey for the Construction Projects at Naval Air Station, Barbers Point, Oahu Hawaii*. Prepared by International Archaeological Research Institute, Inc., Honolulu.

Tulchin, J., and H.H. Hammatt

2013 *Archaeological Survey for the Grow the Army Project in Schofield Barracks, Honouliuli Ahupua'a, 'Ewa District, Island of O'ahu, Hawai'i*. Prepared for U.S. Army Engineer Division, Fort Shafter, HI, by Cultural Surveys Hawai'i, Inc., Kailua, HI.

Watanabe, F.K.
1987 *Trip Report: Site Inspection of FY88 OMA Package A-6 Paved Parking Lots and Various Fencing Projects, U.S. Army Kunia Field Station, ʻEwa District, Oʻahu Island*. Prepared by Environmental Section of U.S. Army Corps of Engineers, Fort Shafter, HI.

Wilcox, C.
1996 *Sugar Water: Hawaii's Plantation Ditches*. University of Hawaiʻi Press, Honolulu.

Williams, S., T. Patolo, and B. Shideler
1995 *Historic Preservation Measures FY 1995–2006 Whole Barracks Renewal Program at Various U.S. Army Installations and the FY 95/96 New Infantry Brigade Complex, Schofield Barracks, Oahu Island, Hawaiʻi*. Prepared for U.S. Army Engineer Division, Fort Shafter, HI, by Ogden Environmental and Energy Services Co., Inc., Honolulu.