

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8480 • Fax: (808) 768-4567
Web site: www.honolulu.gov

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PETER B. CARLISLE
MAYOR



COLLINS D. LAM, P.E.
DIRECTOR

LORI M. K. KAHIKINA, P.E.
DEPUTY DIRECTOR

444964

December 12, 2011

Gary Hooser, Director
Office of Environmental Quality Control
State of Hawaii
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Mr. Hooser:

Subject: Draft Environmental Assessment for
Maili Beach Park Improvements
Waianae District, Oahu

RECEIVED
11 DEC 13 AM 0:33
OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

The Department of Design and Construction has reviewed the Draft Environmental Assessment (DEA) for the subject project and anticipates a Finding of No Significant Impact. Please publish the notice in the next available OEQC Environmental Notice.

We have enclosed a completed OEQC Publication Form, one (1) copy of the document in pdf format on a CD, and one (1) hardcopy of the DEA.

Please contact Daniel Takamatsu by email at dtakamatsu@honolulu.gov if you have any questions.

Very truly yours,


for Collins D. Lam, P.E.
Director

CDL:li

Enclosures

Project Name: Maili Beach Park Improvements

**Publication Form
The Environmental Notice
Office of Environmental Quality Control**

Instructions: Please submit one hardcopy of the document along with a determination letter from the agency. On a compact disk, put an electronic copy of this publication form in MS Word and a PDF of the EA or EIS. Please make sure that your PDF documents are ADA compliant. Mahalo.

Applicable Law: Chapter 343

Type of Document: Environmental Assessment

Island: Oahu

District: Waianae

TMK: 8-7-16:01

Permits Required: SMA

Applicant or

Proposing Agency: Department of Design and Construction, C&C Honolulu

Address: 650 South King Street, Honolulu, Hawaii 96813

Contact & Phone

Approving Agency/ Department of Design and Construction, C&C Honolulu

Accepting Authority: Department of Design and Construction, C&C Honolulu

Address: 650 South King St, Honolulu, Hawaii, 96813

Contact & Phone: Dan Takamatsu, dtakamatsu@honolulu.gov, 768-8401

Consultant: Eugene Dashiell, AICP

Address: 728 Nunu Street, Kailua, Hawaii 96734

Contact & Phone: Eugene Dashiell, 808-254-4522

Project Summary: This Environmental Assessment addresses proposed improvements at Maili Beach Park. The proposed improvements would add: children's play apparatus, fitness equipment, and expand a parking lot by adding 66 standard stalls and two ADA stalls to the existing 56 standard stalls and three ADA stalls. The total number of stalls after the project is completed would be 122 standard stalls and 5 ADA stalls. The improvements are within a 0.9 acre area and include appropriate landscaping, irrigation and utilities as well as improvements at the St. John's Road intersection at Farrington Highway with a new pocket left turn lane to a new driveway to the park and closure of the driveway to the park at Palakamana Street and Farrington Highway. There are no known historic or prehistoric sites affected.

**DRAFT
ENVIRONMENTAL ASSESSMENT**

IMPROVEMENTS

Mali Beach Park

**Departments of Parks and Recreation • Design and Construction
City and County of Honolulu**

November 2011

Prepared by:

Eugene P. Dashiell, AICP
Environmental Planning Services
728 Nunu Street
Kailua, Hawai'i 96734
Telephone/Fax: 254-4522
dashiell.e@hawaiiantel.net

For:

Austin Tsutsumi and Associates
501 Sumner Street, Suite 521
Honolulu, Hawai'i 96817-5031

General Information & Summary Sheet

Project: This Environmental Assessment addresses proposed improvements at Maili Beach Park. The proposed improvements would add: children’s play apparatus, fitness equipment, and expand a parking lot by adding 66 standard stalls and two ADA stalls to the existing 56 standard stalls and three ADA stalls. The total number of stalls after the project is completed would be 122 standard stalls and 5 ADA stalls. The improvements are within a 0.9 acre area and include appropriate landscaping, irrigation and utilities as well as improvements at the St. John’s Road intersection at Farrington Highway with a new pocket left turn lane to a new driveway to the park and closure of the driveway to the park at Palakamana Street and Farrington Highway. There are no known historic or prehistoric sites affected.

Location	Waianae District, O’ahu, Hawai’i , City and County of Honolulu
Tax Map Key	8-7-16:01
Project Site	0.8 Acres.
State Land Use District & Zoning	Urban State Land Use District; P-2 (General) Zoning.
Ownership	City and County of Honolulu.
Neighborhood Board/Council Dist.	Neighborhood Board 24 (Waianae Coast); Council District 1.
Approving Agency	Department of Planning and Permitting, 650 South King Street, Honolulu, Hawai’i 96813.
Proposing Agency	Department of Design and Construction, 650 South King Street, Honolulu, Hawai’i 96813.
Consultant	Austin Tsutsumi & Assoc., Amber DeLeon (Project Manager), 501 Sumner Street, Suite 521, Honolulu, Hawai’i 96817-5031; Telephone: (808) 533-3646; e-mail, adeleon@atahawaii.com .
Associated Consultant	Eugene P. Dashiell, AICP, Environmental Planning, 728 Nunu Street, Kailua, Hawai’i 96734; Telephone: (808) 254-4522; e-mail, dashiell.e@hawaiiantel.net .
Required Permits and Approvals	Special Management Area Permit (Major), Department of Planning and Permitting; State Division of Highways approval for access.

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1 Description of the Proposed Action

- 1.1 **Technical characteristics.** This section describes the location and purpose of the project and how it would be accomplished.
- 1.1.1 **Project background.** The City and County of Honolulu, Department of Parks and Recreation, proposes to construct: children’s play apparatus, fitness apparatus, and parking lot improvements at Maili Beach Park, located on O’ahu’s western shore. The park does not have play and fitness apparatus now and additional parking is desired by the community because of heavy use of by the public of this park for field sports such as soccer as well as large community gatherings and events.
- 1.1.2 **Location and purpose of the project.** The project site is located along the west shore of O’ahu. (Figures 1, 2 & 3, follow page 14). The project provides additional on-site parking because of the heavy use of the Park. The project also provides fitness equipment and children’s play and apparatus.
- 1.1.3 **How the project will be accomplished.** The proposed improvements would add 66 standard stalls and two ADA stalls to the existing 56 standard stalls and three ADA stalls. The total number of parking stalls after the project is completed would be 122 standard stalls and 5 ADA stalls. (Figure 4, follows page 14). The driveway access to the existing parking lot at Palakamana Street will be closed and a new access driveway will be constructed at the St. John’s Road intersection where there is a traffic signal. Improvements to this intersection will include a new left turn pocket lane from Farrington Highway to access the new driveway to the parking lot. There will be some streetlight and utility pole relocations along Farrington Highway¹. No new lights along the highway or in the park or parking lot are proposed. The parking lot will include landscaping with 12 new *Milo* trees, 7 new *Kamani* trees, some added grassed areas (Common Bermuda grass) and appropriate irrigation and electrical service to control the irrigation system. The Children’s Play Apparatus (Figure 5) will be designed for ages 5 years to 12 years old. It is intended to provide experiences to reflect what children are doing today and to safely seek the limits of their own capabilities. Vertical climbers and stairs, horizontal and angled climbers, flexible balance components, and socializing spaces of various configurations will be provided. Components will be included that meet ADA accessibility requirements to allow users of differing abilities to play together with each finding appropriate challenges, interaction and excitement. The surface beneath the components will be a resilient play surfacing enhancing the safety from falls and providing a surface which will accommodate wheel chair users. The Exercise Equipment (Figure 6) is designed for ages 12 years and older. It will include components such as sit up bench, parallel bars, horizontal ladder, chin up bars, horizontal beam, vertical ladder, and fitness course signs containing text and illustrations depicting proper use and target areas of the exercises. The surface beneath these components will be fine crushed rock to provide a safe surface which will also accommodate wheel chair users. Both Play Apparatus and Fitness Equipment clusters will be connected to the existing parking lots and comfort stations by a 5 foot wide ADA compliant concrete sidewalk.

¹ Existing Hawaiian Telcom utility poles, underground ductlines, handholes, and State Department of Transportation light poles are located on the makai side of Farrington Highway which will interfere with the construction of the new parking lot wall fronting Farrington Highway. To facilitate the construction of the new wall, one utility pole, one Hawaiian Telcom handhole, and two light poles will be relocated towards Farrington Highway. A Hawaiian Telcom pay phone located within the park grounds will also be relocated into the State right-of-way to facilitate construction of the new wall.

1.1.4 **Schedule.** Construction of the proposed improvements is scheduled to begin in October 2012 with completion by June, 2013.

1.1.5 **Cost.** Total cost of the improvements is estimated not to exceed \$1.5 million.



Figure 5. Fitness Equipment (Ala Moana Park). Similar equipment is proposed for Maili Beach Park.



Figure 6. Children's Play Apparatus. This sketch depicts the equipment to be installed.

- 1.2. **Socio-economic characteristics.** This section discusses the impacts of the proposed project on the community in terms of both social and economic effects.
- 1.2.1 **Economic impacts on the community at large.** This project will have a beneficial economic impact on the community at large because it will improve access to this popular beach park which will facilitate and make more convenient its use by more members of the community which will be a positive and beneficial impact.
- 1.2.2 **Provision of income for the county or state and creation of employment opportunities in areas with high unemployment rates.** The project provides benefits through jobs related to its implementation.
- 1.2.3 **Targeted segment of the population.** No specific segment of the population is targeted because this project has general public benefit.
- 1.2.4 **Population density.** The project has no effect on population density because the park's capacity is not being increased.
- 1.2.5 **Recreational facilities.** The project benefits park-users by improving the facilities such as the parking lot, the children's play apparatus and the fitness equipment. There are added benefits because more members of the community will have more convenient access to the park coupled with additional facilities.
- 1.2.6 **Child care provisions.** There are no child care provisions in relation to the proposed project.
- 1.2.7 **Relocations of residences.** No relocation of residences would occur.
- 1.2.8 **Costs of the proposed project and economic analysis.** The estimated total cost of construction for the proposed improvement is less than \$1.0 million.
- 1.3 **Environmental characteristics.** This section discusses the potential effects of the proposed project on the physical environment.
- 1.3.1 **Aesthetics and viewplanes.** The project will not adversely affect aesthetics or viewplanes. The aesthetics of the area will be improved as a result of the project components.
- 1.3.2 **Air pollution.** There would be some minor effects during construction and these would be mitigated per county and state rules. There would be no long term effects because the proposed project includes no air pollution sources and would not generate significant differences in traffic from the existing conditions.
- 1.3.3 **Traffic congestion.** The proposed project does not add capacity to the park; rather, it provides legitimate spaces which are intended to replace the use of parking on unpaved surfaces or illegitimate parking on grassed areas which now occurs during times of intense use. Some community members can and do walk to the park, but their numbers will not change significantly after the project. There will be an improvement in access to the park because the existing driveway to the parking area will be closed and a new access driveway will be constructed at the signalized intersection with Farrington Highway and St. John's Road. Congestion may be slightly reduced because the project includes a new pocket left turn lane from Farrington Highway into the park. There will be little effect on traffic volumes except during periods when construction materials are delivered to the site. Such traffic will consist of heavy trucks and trailers. They will operate during normal working hours and will follow existing regulations regarding road clean-up (if necessary) resulting from this traffic. A traffic assessment is included as Appendix A.

- 1.3.4 **Noise levels.** There will be some increase in noise levels during construction of the project. This will occur during normal working hours. Contractor's equipment is required to meet Department of Health noise regulations.
- 1.3.5. **Effects on water quality and the marine environment.** Impacts on water quality and the marine environment are not anticipated. The parking lot is more than 400 feet from any water body and a new gravel drainage system will be constructed between the parking lot and the highway.
- 1.3.6 **Other environmental effects.** The site is located in a coastal flood hazard area. No residential uses of this site are proposed. The existing parking lot and the proposed additional parking spaces are in flood zones AE and D.
- 1.3.7. **Drainage.** Drainage for the added parking stalls will be by an added gravel drainage system alongside the highway side of the parking lot which is the same or similar to the drainage system at the existing parking lot.

2 Description of the Affected Environment

- 2.1 **Location.** The proposed project is located at Maili Beach Park, on O'ahu's western shore. Tax Map Key: 8-7-16:01. Total land area is 39.56 acres.
- 2.2 **Land ownership and tenancy.** The parcel is owned by the City and County of Honolulu and the City's Department of Parks and Recreation manages the property as a Maili Beach Park.
- 2.3 **County Zoning, State Land Use District.** The proposed project is in a State Urban Land Use District and is zoned P-2 by the County.
- 2.4 **Special Management Area, Coastal Zone Management Consistency, Shoreline Setback Area.** The proposed project is within the boundary of the SMA (Special Management Area) and is subject to regulatory authority of the City and County of Honolulu, Department of Planning and Permitting. Because no federal permits are involved, the project will not be subject to review and approval by the Hawai'i Coastal Zone Management (CZM) Program for consistency with CZM objectives as part of the federal requirements imposed by the U.S. Army Corps of Engineers for issuance of their permits. The parking lot is more than 400 feet from the shoreline and out of the shoreline setback area.
- 2.5 **Land, beach and water use.** Park use was observed during site visits, and park use was discussed with Parks Department staff. On a daily basis the park is used for sight-seeing, picnicking, sports and community meetings. On weekends and holidays, the park is often used by large organized groups of people for various events. In such cases there may be 100 or more people using the park.
- 2.6 **Land and related water use plans.** Following is a discussion of land and water use plans which are related to the proposed plan.
 - 2.6.1 **City and County of Honolulu.** Improvements to this park are in conformance with planning for development of Waianae District, and as part of the Department of Parks and Recreation long-range plan for improvements to parks on O'ahu.
 - 2.6.2 **State of Hawai'i.** Improvements to this park are in conformance with the general state objectives to improve parks for residents and visitors
 - 2.6.3 **Federal.** There are no federal plans for the area, but the Park is not far from the Pokai Bay Military Reservation which is used for rest and recreation by U.S. Department of Defense personnel and families.
- 2.7 **Flora and Fauna.** The flora at this site consists of ground cover of mixed grass species which is regularly mowed. No listed, rare, threatened or endangered species are at this location. No listed species of fauna have been identified at this park (Biological Report, Appendix B).
- 2.8 **Coastal Setting and Beach Stability.** The beach fronting this park appears relatively stable, but is exposed to high surf and storm waves on occasion. Evidence of minor shoreline erosion, typical of much of O'ahu's leeward coast can be seen. However, rapid erosion or severe instability of this site does not seem apparent. The proposed project is more than 400 feet from the shoreline.
- 2.9 **Water Quality.** Ocean water quality is Class A in this area as determined by the State Department of Health. Drainage of the proposed parking lot addition will be via a gravel drainage system to be constructed as part of the project. The proposed project may

slightly improve the quality of stormwater runoff from the parking areas because a presently unpaved parking area will be paved.

- 2.10 **Historical, archeological, traditional and cultural sites.** There are no known traditional or cultural practices or historic or prehistoric sites or burials which would be affected by the proposed project. Archaeological and cultural reports are included as Appendices B & C.
- 2.11 **Sensitive habitats or bodies of water adjacent to the proposed project.** The Pacific Ocean is adjacent to the shoreline but is more than 400 feet from the proposed project and no effect is foreseen.
- 2.12 **Flooding and Tsunami.** According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, the proposed project site is in the flood hazard zones AE and D. A parking lot is an acceptable use in such areas.
- 2.13 **Soils.** The project site is primarily composed of fill material comprised of dirt and rocks. The proposed project site has been previously filled and graded when the park was first constructed and the existing parking lot was paved. In the past, the project area was subjected to sand mining (Figure 7, follows page 14).
- 2.14 **Drainage.** Storm water runoff in the parking lot flows to the lower elevations of the topography. The added impermeable surface area is approximately 36,000 square feet and is not anticipated to adversely impact drainage at the park because a new gravel drainage system will be constructed between the parking area and the highway.
- 2.15 **Highway and Parking Lot Lighting.** There are highway lights on the utility poles lining Farrington highway and two of these light poles will be relocated as part of the proposed project. No new lighting, either on the highway, or in the park, is proposed.
- 2.16 **Traffic and Access.** At present, access to the park is at an unsignalized intersection at Farrington Highway and Palakamana Street. There is not a designated left turn lane on Farrington Highway and vehicles turning left into the park block traffic until completing their turn. The proposed project will close this access point to the park and construct a new access point which will be signalized at St. John's Road which will permit cars exiting the park to do so with a green light. Cars turning left from Farrington Highway into the park will benefit from a proposed new pocket left-turn lane on Farrington Highway to access the new driveway to the parking lot. (Appendix A).

3 Major Impacts and Alternatives Considered

- 3.1 **Positive impacts.** Positive and beneficial impacts of the proposed project include the increased accessibility to the park offered by additional parking spaces including ADA spaces, the new children’s play apparatus and the fitness equipment.
- 3.2 **Negative impacts.** There are no negative significant impacts of the proposed project.
- 3.3 **Alternatives considered.** The following is a discussion of the alternatives which were considered during the formulation of the recommended project.
 - 3.3.1 **No-Action Alternative.** If no improvements are made, the existing problem of parking overflow into unauthorized areas within the park, including lawns, will continue. Also, some members of the community will be denied access to functions at the park which serves the neighboring community because of a shortfall of parking. Children and adults will not benefit from the play and fitness equipment.
 - 3.3.2 **Preferred Alternative – Proposed Parking Lot Improvements, fitness and play apparatus’.** The preferred alternative is to add the proposed parking lot improvements, fitness and play equipment to the park. The specified location of the proposed parking stalls was made per discussions with park personnel and members of the community for the least impact on the existing park areas which are heavily used. This alternative leaves the existing large grassed areas available for large group use which is frequent at this location.
- 3.4 **Impacts Relative to the CZM Objectives & Policies and the SMA Guidelines.**
 The following table displays the review guidelines in relation to the characteristics of the proposed project.

Impacts Relative to CZM Objectives & Policies and the SMA Guidelines		
Sec.	Review Guideline	Impact of Project
25-3.2(a)(1)	Ensure adequate access.	The existing public access will be enhanced because of additional parking stalls.
25-3.2(a)(2)	Ensure public recreation & wildlife preserves.	Project improves access to an existing public park; no adverse effect on wildlife or habitat.
25-3.2(a)(3)	Provide for waste treatment.	Park has existing waste treatment facilities and procedures.
25-3.2(a)(4)	Minimize alterations to landforms & vegetation.	There is no change in topography and existing bare earth areas will be landscaped.
25-3.2(b)(1)	No substantial cumulative or adverse effect.	There is no significant cumulative or adverse effect.
25-3.2(b)(2)	Consistent with objectives and policies of Sec. 25-3.1 & guidelines in HRS Sec. 205A-26.	The project benefits public recreation and has no adverse effects.
25-3.2(b)(3)	Consistent with County Plans	No change in existing land use or plan as park.

Impacts Relative to CZM Objectives & Policies and the SMA Guidelines		
Sec.	Review Guideline	Impact of Project
25-3.2(c)(1)	Minimize dredging, filling, estuarine effects	No dredging, filling or estuarine actions.
25-3.2(c)(2)	No reduction of beach or public recreation area.	There is no effect on beaches or reduction of public recreation areas. The proposed project may slightly improve use by the community of the park by providing the added parking spaces, fitness and play apparatus'.
25-3.2(c)(3)	No restrictions on public access to tidal or riverine areas.	The project places no restrictions on public access.
25-3.2(c)(4)	No substantial interference with line of sight towards sea from state highway.	The sea is not visible from the state highway at this location due to the presence of existing park vegetation which is located between the proposed project and the sea. The project itself is flat and at existing ground elevations
25-3.2(c)(5)	No adverse effect on water quality, visibility, fishing, habitat or agricultural lands.	Project is more than 400 feet from the ocean, there are no adjacent streams, no habitat or agricultural land is being disturbed. Storm runoff from the additional paving is routed to an existing dry well so that there is no storm water discharge to State waters or to the ocean.

4 Proposed Mitigation Measures

- 4.1 **Potential problems and appropriate mitigation including best management practices.** There are no potential problems which might require mitigation. As required by law, the contractor will follow best management practices during construction to minimize noise, dust, and disruption to park use.
- 4.2 **Archaeological Monitoring During Construction.** Limited archaeological monitoring is recommended during construction where excavations exceed 4 feet in depth (2 feet for the Play Apparatus) from existing ground level, including utilities, landscaping, pavement, foundation work or any other activity related to the proposed project. An archaeological monitoring plan shall be prepared for review by the State Historic Preservation Division (SHPD) and construction shall not commence until approval of the archeological monitoring plan by SHPD has been received.

5 Expected Determination

- 5.1 **Finding of No Significant Impact (FONSI).** The proposed improvements will not have a significant effect on the environment and therefore preparation of an environmental impact statement is not required. This document constitutes a Notice of Negative Declaration/Finding of No Significant Impact for the proposed project. This determination was based on review and analysis of the “Significance Criteria” in Section 11-200-12 of the Hawai‘i Administrative Rules, as documented below.
- 5.2 **Findings and reasons supporting the determination including justifying evidence.**
- 5.2.1 *No irrevocable commitment to loss or destruction of any natural or cultural resource would result.* There are no such sites present within the park.
- 5.2.2 *The proposed project would not curtail the range of beneficial uses of the environment.* The proposed project will enhance the beneficial use of the environment by providing improved parking, accessibility, and recreational components (play and fitness apparatus) to the park.
- 5.2.3 *The proposed project would not conflict with the state’s long-term environmental policies or goals and guidelines.* The state’s environmental policies and guidelines as set forth in Chapter 344, Hawai‘i Revised Statutes, “State Environmental Policy”, encompass two broad policies: conservation of natural resources, and enhancement of the quality of life. The proposed project will both conserve and enhance the natural resources of the park, and enhance the recreational experience for both visitors and the local populace.
- 5.2.4 *The proposed project will improve the economic and social welfare of the community and the state.* The proposed improvements add to the benefits available to visitors who may tour around the island. By enhancing the visitor benefits, the general welfare of the state is improved because tourism is a major component of the state’s economy.
- 5.2.5 *The proposed project would not substantially affect public health.* The proposed improvements will not have substantial effects on public health. Impacts, if any, will be beneficial because of improved access to the park and its facilities due to the shift in access via an un-signalized access point to the traffic signalized intersection at St. John’s Road.
- 5.2.6 *No substantial secondary impacts, such as population changes or effects on public facilities, are expected.* The project will not alter the present use of the park. Enhancement of the park will not cause population changes nor will there be any effects on existing public facilities.
- 5.2.7 *No substantial degradation of environmental quality is expected due to the proposed project.* Construction activities would have potential short-term impacts on ambient environmental quality, although these impacts are expected to be minor. In the long term, the completed project will improve the environmental quality by lessening the dust problem due to the illegal parking that damages the grass. No endangered species or valuable habitat will be affected by the proposed project.
- 5.2.8 *No cumulative effect on the environment or commitment to larger actions will be involved.* The proposed improvements affect only the park itself.
- 5.2.9 *No rare, threatened or endangered species or their habitats are affected.* No impacts are anticipated on any candidate, proposed or listed endangered species or their habitats. There are no known threatened/endangered species or their habitats within the project limits.

- 5.2.10 *The proposed project will not detrimentally affect air or water quality or ambient noise levels.* Construction activities may cause short-term impacts to air, noise and water quality which will be mitigated to the extent practicable.
- 5.2.11 *The proposed project will not detrimentally affect environmentally sensitive areas such as flood plains, tsunami zones, beaches, erosion-prone areas, geologically hazardous lands, estuaries, fresh waters or coastal waters.* The proposed project is the improvement of an existing park, and the project site is not in an erosion-prone or geologically hazardous location.
- 5.2.12 *The proposed project will improve scenic vistas and view planes identified in county or state plans or studies.* The proposed improvements to the park would not obstruct seaward views between Farrington Highway, the parking lot and the sea shore.
- 5.2.13 *There will be no requirement for substantial energy consumption.* Construction of the project and use of the completed project will not require substantial energy consumption.

6 Identification of Agencies, Organizations and Individuals Consulted

The following narrative summarizes the coordination with key agencies and with the Neighborhood Board as of this date of writing, and also provides a list of the permits required for this project to proceed.

6.1 State of Hawai'i.

- 6.1.1 Department of Health. Coordination with the Office of Environmental Quality Control has occurred through use of their guidelines for preparation of this environmental assessment.
- 6.1.2 Office of Hawaiian Affairs. The draft EA will be sent to DHHL for their review and comment.
- 6.1.3 Department of Land and Natural Resources, Division of State Parks. Consultation occurred during preparation of the historic and cultural (Appendices B & C).
- 6.1.4 Department of Hawaiian Homelands. The draft EA will be sent to DHHL for their review and comment.
- 6.1.5 Department of Transportation. The project was coordinated with the Department and the existing vehicular access will be closed and a new access provided at the traffic signal light at St. John's Road.

6.2 City and County of Honolulu.

- 6.2.1 Office of the Mayor. The Mayor's office is apprised of this project via the planning process.
- 6.2.2 Department of Design and Construction. The Department is the facilitator and one of the proponents of the project. Several meetings have been held with representatives of the Department to formulate this project.
- 6.2.3 Department of Parks and Recreation Services. The Department is one of the major proponents of this project and has participated in the preparation of the project plan and assessment process. Discussions related to the preparation of this environmental assessment were held with some Department personnel.
- 6.2.4 Department of Planning and Permitting. The Department is responsible for the Special Management Area permit process. 6.3

6.3 Federal

No contacts have been initiated because there is no U.S. government involvement in this project, nor are there jurisdictions by permitting agencies such as the U. S. Army Corps of Engineers. No listed species have been identified. The DEA will be sent to the U.S. Fish and Wildlife Service and the National Marine Fisheries Service for their review.

6.4 Organizations and Individuals.

- 6.4.1 Neighborhood Board. Informational presentations have been ongoing with the neighborhood board via the City's routine information processes and copies of the draft Environmental Assessment will be provided both to the Chair of the Waianae Neighborhood Board, and to the Neighborhood Commission. Discussions related to the preparation of the cultural assessment for this environmental assessment were held between some Neighborhood Board members.

- 6.4.2 Individuals. Some individuals from the community were consulted during preparation of the cultural assessment as part of this environmental assessment.6.5
- 6.5.1 Special Management Area Permit (SMAP). An SMAP is required for this project because the entire park and all proposed projects would take place in the Special Management Area which consists of lands seaward of Farrington Highway.
- 6.5.2 An approval of construction documents and permits for building and grading will also be required.
- 6.5.3 Prior to construction, final project plans must be reviewed by the Disability and Communication Access Board. Plans should conform to the current guidelines, best design practices and recommendations from the U.S. Architectural and Transportation Barriers Compliance Board's Regulatory Negotiation Committee Final Report, "Accessibility Guidelines for Outdoor Developed Areas" (September 1999), or more recent guidance if available.
- 6.5.4 During coordination, the State Department of Transportation suggested that the vehicular access point to the park be relocated from its existing site to the intersection at St. John's Road where there is a traffic signal. A letter from the City to the State DOT indicating compliance with this suggestion is enclosed (Appendix E).

References

City and County of Honolulu, *Land Use Ordinance*.

City and County of Honolulu, *Parks Standard Details*, May 1990.

City and County of Honolulu, *Waianae Sustainable Community Plan*, 2000.

City and County of Honolulu, *Maile Beach Park Improvements, Final Environmental Assessment*, April, 2004

State of Hawaii, *Hawaii State Plan, Functional Plans*, various years.

State of Hawaii, University of Hawaii, *Atlas of Hawaii*, Third Edition, 1998.



Figure 1
Maile Beach Park
Parking Expansion,
Play & Fitness Equipment



E. Dashiell, AICP, Kailua



Proposed Project

Play Equipment

Fitness Equipment

Entrance & Exit to be Closed

Parking Expansion

New Entrance & Exit



Note: Area of Potential Effect is approximately the red rectangle and 2 triangles.



E. Dashiell, AICP, Kailua

Figure 2
Maile Beach Park
Parking Expansion,
Play & Fitness Appratus



General Information

Mali Beach Park
 87-021 Farrington
 Waianae, HI 96792

TMK: 87016001
 Total Acres: 39.56
 Telephone: None
 Park Type: Beach Park
 Neighborhood Board: NANAKULI/MAILI
 Council District: 1 - Tom Berg



Activities

- | | | | |
|--|---|---|---|
| Baseball: <input type="checkbox"/> | Gymnastics: <input type="checkbox"/> | Playground: <input checked="" type="checkbox"/> | Swimming: <input type="checkbox"/> |
| Basketball: <input type="checkbox"/> | Hiking: <input type="checkbox"/> | Rugby: <input type="checkbox"/> | Tennis: <input type="checkbox"/> |
| Community Garden: <input type="checkbox"/> | Indoor Recreation: <input type="checkbox"/> | Skateboarding: <input type="checkbox"/> | Tent Camping: <input type="checkbox"/> |
| Excercise Fields: <input type="checkbox"/> | Jogging: <input type="checkbox"/> | Skating: <input type="checkbox"/> | Tetherball: <input type="checkbox"/> |
| Football: <input type="checkbox"/> | Outrigger Canoe: <input type="checkbox"/> | Soccer: <input type="checkbox"/> | Trailer Camping: <input type="checkbox"/> |
| Golf: <input type="checkbox"/> | Picnicing: <input type="checkbox"/> | Softball: <input checked="" type="checkbox"/> | Volleyball: <input type="checkbox"/> |

Amenities

- | | | |
|--|--|--|
| Art Work: <input type="checkbox"/> | Access Route: <input type="checkbox"/> | Pay Phone: <input type="checkbox"/> |
| Bleacher: <input type="checkbox"/> | Accessible Parking Stalls: <input checked="" type="checkbox"/> | Picnic Tables: <input checked="" type="checkbox"/> |
| Bus Stop: <input checked="" type="checkbox"/> | Historic Site: <input type="checkbox"/> | Restrooms: <input checked="" type="checkbox"/> |
| Community Garden Plots: <input type="checkbox"/> | Landscape: <input checked="" type="checkbox"/> | Shade Trees: <input checked="" type="checkbox"/> |
| Concession: <input type="checkbox"/> | Lifeguard Towers: <input checked="" type="checkbox"/> | Shower: <input checked="" type="checkbox"/> |
| Drinking Water: <input type="checkbox"/> | Lights: <input type="checkbox"/> | |
| Exercise Area: <input type="checkbox"/> | Parking Stalls: <input checked="" type="checkbox"/> | |

Information shown on these maps are deriv ed from public records that are constantly undergoing change and do not replace a site su rvey, and is not warranted for content or accuracy.

Department of Parks and Recreation
 1000 Uluohia Street, Suite 309
 Kapolei, Hawaii 96707
 Phone: (808) 768-3003
 Fax: (808) 768-3053
 parks@honolulu.gov

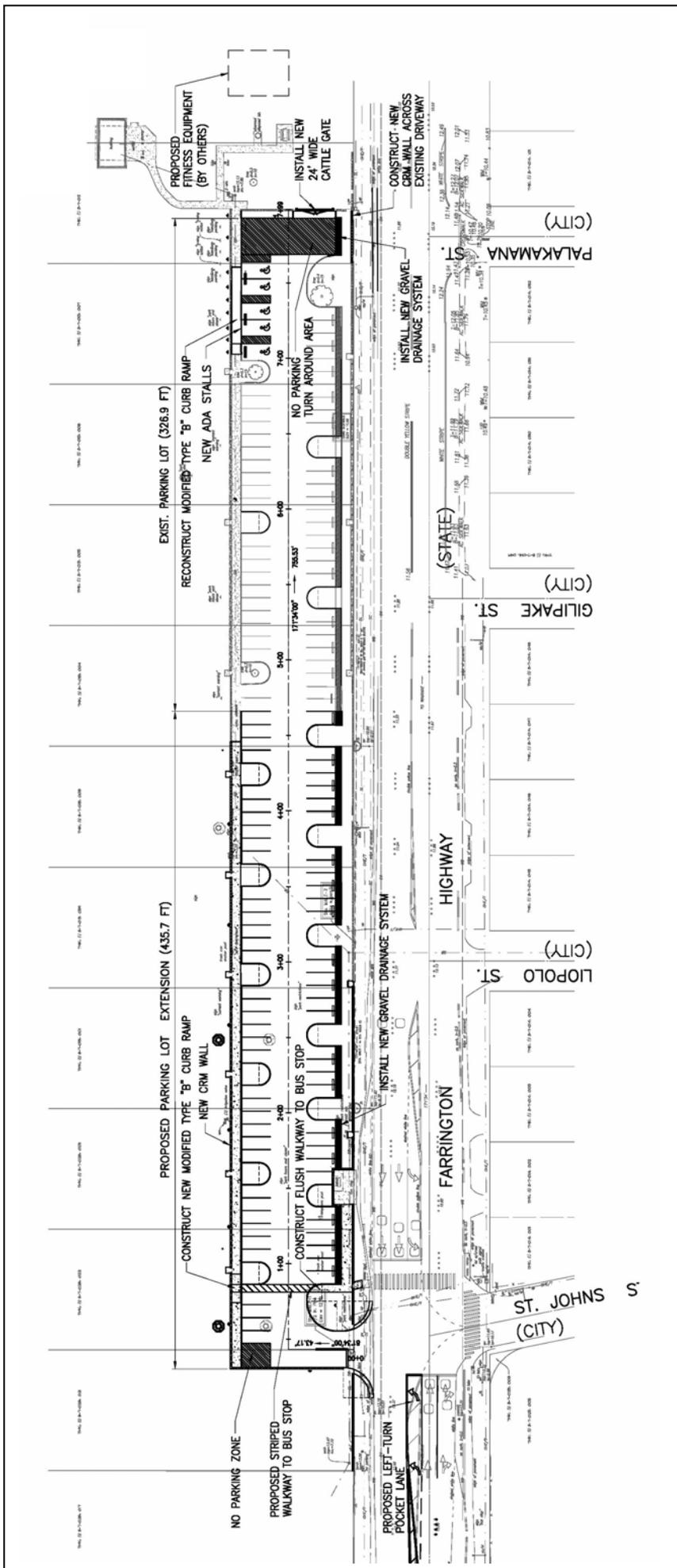


Figure 4
Proposed Parking Plan



Sand Mining

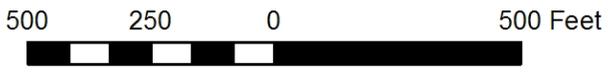
Play Equipment

Fitness Equipment

Entrance & Exit to be Closed

Parking Expansion

New Entrance & Exit



Note: Area of Potential Effect is approximately the red rectangle and 2 triangles.



E. Dashiell, AICP, Kailua

FIGURE 7
Maile Beach Park
Parking Expansion,
Play & Fitness Appratus

APPENDIX A

Biological Report

Survey of natural resources for the Ma'ili Beach Park Improvements Project, Ma'ili, O'ahu¹

October 14, 2011

DRAFT

AECOS No. 1289

Eric Guinther
AECOS Inc.
45-939 Kamehameha Highway, Suite 104
Kāne'ohe, Hawai`i 96744
Phone: (808) 234-7770 Fax: (808) 234-7775 Email: guinther@aecos.com

Introduction

The City and County of Honolulu is proposing to make specific improvements to the parking lots at Ma'ili Beach Park in Ma'ili, leeward O'ahu. Improvements involve increasing parking capacity by adding additional parking areas connecting to the two existing parking areas, on ground presently occupied by lawn.

Methods

The survey consisted of walking the area of proposed park improvements and identifying natural features (mostly plants) potentially impacted by the project. The survey area extended from the south end of the beach park north to the second parking lot edge, and from the highway verge into the park for a distance of approximately 150 ft. Since this entire area is either paved parking lot, maintained lawn/landscaping, or highway verge—all on level ground—the only problem encountered was the fact that lawn areas had been mowed just prior (within the previous 6 to 24 hours) to our survey on the morning of October 11, 2011. Mowing can make identification of lawn grasses difficult.

Although conducted in the dry season, park grounds are regularly watered; grasses and forbs were green and growing at the time of the survey. Verge areas were much drier, but plants growing there were still identifiable. Plant

¹ This report was prepared for Eugene Dashiell, ACIP, Pacific Environmental Planning for use in preparing an Environmental Assessment for the subject C&C project and will become part of the public record.



Figure 2. Ma'ili Beach Park, looking south from existing northern parking lot (directly behind photographer). Most of the trees and shrubs visible in this photograph are located outside of the Project footprint.

Flora

A listing of all plants observed during the survey (within the proscribed survey limits) is presented as Table 1. Presence and qualitative abundance of each plant species is given for the survey area as whole. The number of species recorded (43) is perhaps small, but not unusual considering extant conditions (regular watering and mowing; heavy foot traffic). Included in the listing are two native species (*'uhaloa* or *Waltheria indica*; *milo* or *Thespesia populnea*; 5% of the species) and one early Polynesian introduction (*niu* or *Cocos nucifera*). These are common species on the leeward coast. Consequently, it is fair to say there is nothing remarkable about the flora in the Project area.

Fauna

The only species of animal of any interest that might regularly utilize the Park is the Pacific-Golden Plover (*Pluvialis fulva*).

Table 1. Plant species identified in October 2011 survey for the Maile Beach Park Improvements Project, Ma'ili, leeward O'ahu.

Species listed by family	Common name	Status	Abundance	Notes
<i>FLOWERING PLANTS</i>				
<i>DICOTYLEDONES</i>				
<i>AMARANTHACEAE</i>				
<i>Alternanthera pungens</i> Kunth	khaki weed	Nat	A	
<i>Amaranthus spinosus</i> L.	spiny amaranth	Nat	U	
<i>Amaranthus viridus</i> L.	slender amaranth	Nat	R	
<i>Gomphrena celosioides</i> Mart.	---	Nat	R	
<i>ASTERACEAE (COMPOSITAE)</i>				
<i>Calyptocarpus vialis</i> Less.	---	Nat	AA	
<i>Conyza</i> sp.	horseweed	Nat	O	
<i>Emilia fosbergii</i> Nicolson	<i>pualele</i>	Nat	R	
<i>Tridax procumbens</i> L.	coat buttons	Nat	A	
<i>BORAGINACEAE</i>				
<i>Heliotropum procumbens</i> Mill.	---	Nat	O	
<i>Tournefortia argentea</i> L.	tree heliotrope	Nat	R	<1>
<i>BRASSICACEAE</i>				
<i>Lepidium virginicum</i> L.	---	Nat	R	
<i>CLUSIACEAE</i>				
<i>Clusia rosea</i> Jacq.	autograph tree	Nat	R	
<i>COMBRETACEAE</i>				
<i>Conocarpus erectus</i> L.	sea mulberry	Nat	U	
<i>Terminalia catappa</i> L.	false kamani	Nat	R	<1>
<i>EUPHORBIACEAE</i>				
<i>Breynia disticha</i> J.R. & G. Forster	snowbush	Orn	R	
<i>Euphorbia albomarginata</i> Small	rattlesnake weed	Nat	C	
<i>Euphorbia hirta</i> L.	garden spurge	Nat	O	
<i>FABACEAE</i>				
<i>Indigofera hendicaphyla</i> Jacq.	creeping indigo	Nat	AA	
<i>GOODINACEAE</i>				
<i>Scaevola sericea</i> Vahl	<i>naupaka kahakai</i>	Nat	R	<1>
<i>MALVACEAE</i>				
<i>Malvastrum coromandelianum</i> (L.) Garcke	false mallow	Nat	U	
<i>Sida ciliaris</i> L.	---	Nat	A	
<i>Sida</i> cf. <i>rhombofolia</i> L.	---	Nat	R	<2>
<i>Thespesia populnea</i> (L.) Sol. ex Corrêa	<i>milo</i>	Ind	U	

Table 1 (continued).

Species listed by family	Common name	Status	Abundance	Notes
MORACEAE				
<i>Ficus</i> sp.	banyan	Nat	R	
NYCTAGINACEAE				
<i>Boerhavia coccinea</i> L.	false <i>alena</i>	Nat	U	
POLYGONACEAE				
<i>Antigonon leptopus</i> Hook. & Arnott	Mexican creeper	Nat	R	
PORTULACAEAE				
<i>Portulaca oleracea</i> L.	pigweed	Nat	O	
STERCULIACEAE				
<i>Waltheria indica</i> L.	' <i>uhaloa</i>	Ind	O	
FLOWERING PLANTS				
MONOCOTYLEDONES				
ARECACEAE				
<i>Cocos nucifera</i> L.	coconut palm	Pol	U	<1>
<i>Veitchia merrillii</i> (Beccari) H. E. Moore	Manila palm	Nat	U	<1>
CYPERACEAE				
<i>Cyperus rotundus</i> L.	nut grass	Nat	U	
<i>Kylinga brevifolia</i> Rottb.	<i>kili'o'opu</i>	Nat	U	
POACEAE				
<i>Axonopus fisifolius</i> (Raddi) Kuhl.	nrw-lvd carpetgrass	Nat	U	<2>
<i>Bothriochloa pertusa</i> (L.) A. Camus	pitted beardgrass	Nat	A	
<i>Cenchrus ciliaris</i> L.	buffelgrass	Nat	O	
<i>Cenchrus echinatus</i>	bur grass	Nat	U	
<i>Chloris barbata</i> (L.) Sw.	swollen fingergrass	Nat	O	
<i>Cynodon dactylon</i> (L.) Pers.	Bermuda grass	Nat	AA	
<i>Dactyloctenium aegypticum</i> (L.) Willd.	beach wiregrass	Nat	R	
<i>Eleusine indica</i> (L.) Gaertn.	wiregrass	Nat	C	
<i>Eragrostis pectinacea</i> (Michx.) Nees	Carolina lovegrass	Nat	C	
<i>Eragrostis tenella</i> (L.) P. Beauv.	---	Nat	R	
<i>Panicum maximum</i> Jacq.	Guinea grass	Nat	U	

Legend to Table 1

Status = distributional status for the Hawaiian Islands:

Ind = indigenous; native to Hawaii, but not unique to the Hawaiian Islands.**Nat** = naturalized, exotic, plant introduced to the Hawaiian Islands since the arrival of Cook Expedition in 1778, and well-established outside of cultivation.

Table 1 (continued).

Orn = A cultivated plant; a species not thought to be naturalized (spreading on its own) in Hawai'i.

Abundance = occurrence ratings for plant species:

R - Rare	seen in only one or perhaps two locations.
U - Uncommon	seen at most in several locations
O - Occasional	seen with some regularity
C - Common	observed numerous times during the survey
A - Abundant	found in large numbers; may be locally dominant.
AA - Very abundant	abundant and dominant; defining vegetation type.

Notes:

<1> - Seen outside of area of potential direct impacts.

<2> - Plant lacking key diagnostic characteristics (flower, fruit); identification, therefore, uncertain.

Discussion

A previous assessment of park improvements (essentially to the parking areas) at Ma'ili Beach Park (C&C, 2004) summarized the environment “[e]xisting vegetation [as] limited to coconut trees, grass and weeds.” Details (C&C, p. 16) were given thusly:

The project site is presently covered with grass and various weedy species, as well as trees and shrubs such as Keawe [sic], Koa Haole, Coconut and Hau, all of which are common in beach areas.

Likely, the author misidentified the *milo* trees in the Park as *hau*; the latter are not common in leeward beach areas and the trees are similar in appearance. No *kiawe* or *koa haole* occurs in the present Project area. No plants of particular concern and no listed plant species are present. Consequently, the flora at the Project site is not of any concern and replanting following construction can quickly replace anything lost as a result of the construction. A majority of the trees planted in and adjacent to the project site are young trees that appear to have been planted in the last few years.

Although a previous Environmental Assessment (C&C, 2004) concluded somewhat erroneously that “[t]he site does not serve as a wildlife habitat although avifauna, feral cats, dogs and rodents may be found on-site” since were the animals listed to actually occur there makes the site wildlife habitat for these by definition. However, the point being made is that the Park in the project area is insignificant as wildlife habitat. Only the Pacific Golden Plover is likely to be utilizing the lawn areas on a seasonal basis, and the proposed

expansion of parking areas will result in a small, but insignificant loss of habitat for this species.

Pacific-Golden Plover is an indigenous, migratory shorebird that nests in the Arctic during the late spring and summer months, returning to Hawai'i to spend the fall and winter months each year. This species usually departs Hawai'i for the Arctic in late April or the very early part of May. Although a protected species under the Migratory Bird Treaty Act (MBTA), no requirements would attend the proposed Project with respect to this bird because the impact is judged to be extremely minor. The Act makes it illegal to "take" migratory birds, their eggs, feathers, or nests, where "take" is defined as hunting, pursuing, wounding, killing, possessing, or transporting the bird, nest, egg, or a part thereof (USFWS, undated).

References

- City & County of Honolulu (C&C). 2004. Maili Beach Park Improvements. Maili, Oahu, Hawaii. 54 pp. with attachments.
- Staples, G. W., and D. R. Herbst. 2005. *A Tropical Garden Flora. Plants cultivated in the Hawaiian Islands and other tropical places*. Bishop Museum Press, Honolulu. 908 pp.
- U.S. Fish and Wildlife Service (USFWS). undated. Webpage at URL: <http://www.fws.gov/pacific/migratorybirds/mbta.htm>; last visited October 14, 2011.
- Wagner, W. L., D. R. Herbst, S. H. Sohmer 1990. *Manual of the Flowering Plants of Hawai'i*. University of Hawaii Press, Honolulu, Hawaii 1854 pp.
- _____ and _____. 1999. *Supplement to the Manual of the flowering plants of Hawai'i*, pp. 1855-1918. In: Wagner, W. L., D. R. Herbst, and S. H. Sohmer, *Manual of the flowering plants of Hawai'i. Revised edition*. 2 vols. University of Hawaii Press and Bishop Museum Press, Honolulu.

APPENDIX B

Traffic Assessment

TRAFFIC IMPACT ASSESSMENT REPORT MAILI BEACH PARK ACCESS IMPROVEMENTS WAIANAE, OAHU, HAWAII

November 30, 2011

Prepared for:

City & County of Honolulu
Department of Design & Construction
Facilities Design & Engineering
650 South King Street
Honolulu, Hawaii 96813



Austin, Tsutsumi & Associates, Inc.

Civil Engineers • Surveyors
501 Sumner Street, Suite 521
Honolulu, Hawaii 96817-5031
Telephone: (808) 533-3646
Facsimile: (808) 526-1267
E-mail: atahnl@atahawaii.com
Honolulu • Wailuku • Hilo, Hawaii

**TRAFFIC IMPACT ASSESSMENT REPORT
MAILI BEACH PARK ACCESS IMPROVEMENTS**

Waianae, Oahu, Hawaii

Prepared for

City & County of Honolulu
Department of Design & Construction
Facilities Design & Engineering

Prepared by

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Honolulu • Wailuku • Hilo, Hawaii

November 30, 2011



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- B. LEVEL OF SERVICE CRITERIA
- C. LEVEL OF SERVICE CALCULATIONS



KENNETH K. KUROKAWA, P.E.
TERRANCE S. ARASHIRO, P.E.
DONOHUE M. FUJII, P.E.
STANLEY T. WATANABE
IVAN K. NAKATSUKA, P.E.
ADRIENNE W. L. H. WONG, P.E., LEED AP

TRAFFIC IMPACT ASSESSMENT REPORT

Maili Beach Park Access Improvements

Waianae, Oahu, Hawaii

I. INTRODUCTION

This report documents the findings of a traffic study conducted by Austin, Tsutsumi, and Associates, Inc. (ATA) to evaluate the traffic impacts of the proposed Maili Beach Park access located across the Farrington Highway/St. Johns Road intersection.

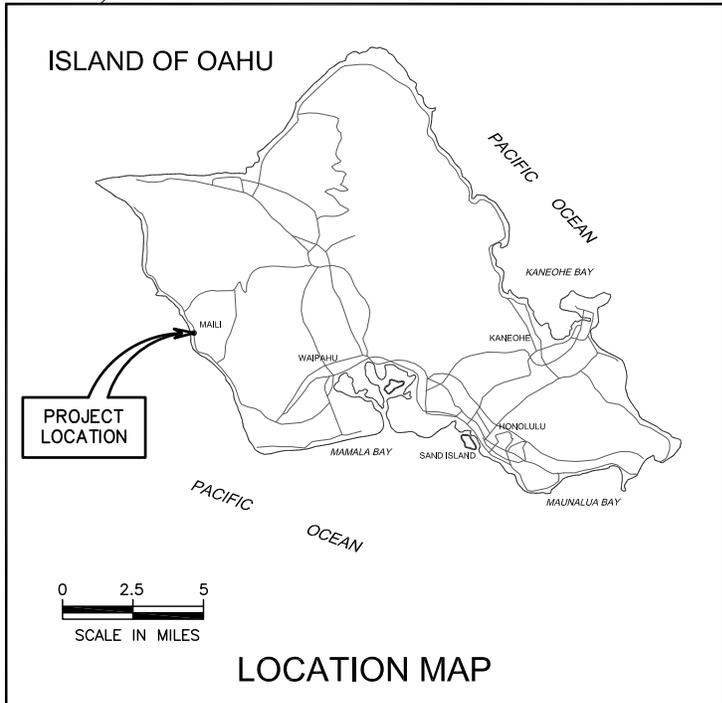
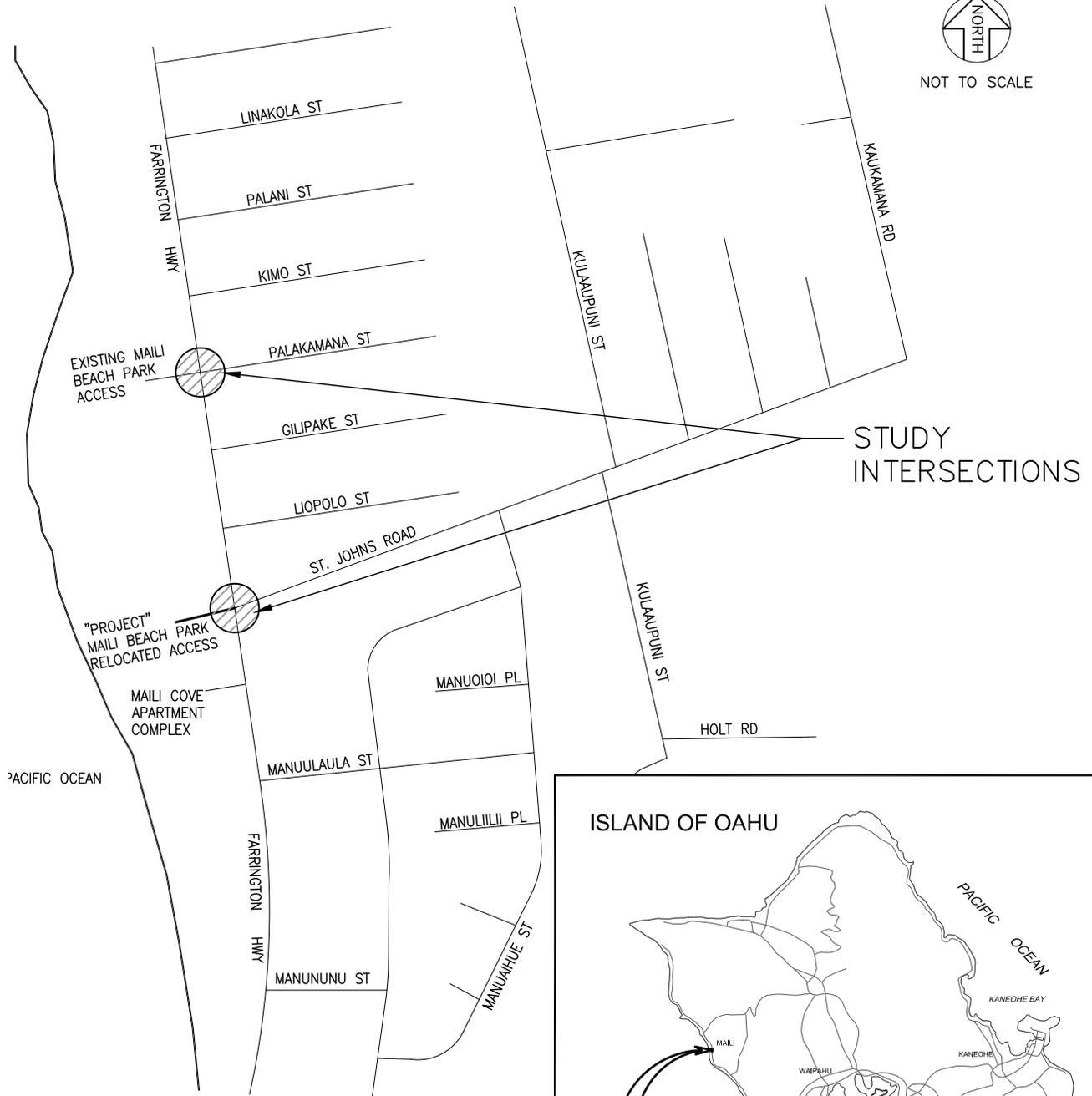
A. Background and Location

The Hawaii Department of Transportation (HDOT) has requested that a study be performed to identify traffic impacts resulting from the proposed Maili Beach Park Access at the Farrington Highway/St. Johns Road intersection. Hereinafter, "Project" shall refer to the relocation of the Maili Beach Park southernmost parking lot access to the Farrington Highway/St. Johns Road and "Maili Beach Park Access" shall refer to the Maili Beach Park southernmost parking lot access.

Maili Beach Park is a linear park spanning approximately one mile along the Waianae Coast. It currently provides three (3) separate parking lots, with access off of Farrington Highway. The southernmost parking lot (which is the one discussed in this study) has a single unsignalized access off of Farrington Highway located across from Palakamana Street. The Project proposes to relocate the access to the existing "tee" signalized intersection of Farrington Highway/St. Johns Road.



NOT TO SCALE



MAILI BEACH PARK ACCESS IMPROVEMENTS


AUSTIN, TSUTSUMI & ASSOCIATES, INC.
 ENGINEERS, SURVEYORS • HONOLULU, HAWAII

LOCATION MAP

FIGURE

1



B. Study Methodology

This study will address the following:

1. Existing traffic operating conditions at the existing Maili Beach Park access.
2. Traffic conditions at the Project.
3. Recommend roadway improvements or other mitigative measures, as appropriate to minimize existing or future congestion and/or safety issues.

C. Definitions

- **High, or Heavy Turning Movement Volume** – a subjective term that for this report, shall be used to describe conditions where the turning movement volume forms a significant component of the traffic processed through the intersection, and noticeably reduces capacity along the main arterial. This term can apply to a single heavy turning movement, or the collective effect of all turning movements.
- **Level-of-Service (LOS)** – as based on The Highway Capacity Manual – Special Report 209 (HCM), dated 2000, LOS is a qualitative measure used to describe the conditions of traffic flow at intersections. Values range from LOS A (minimal delay) to LOS F (congested).

II. EXISTING CONDITIONS

A. Roadway System

Farrington Highway

Is a north-south, four-lane, two-way, undivided arterial highway with a posted speed limit of 35 miles per hour (mph) in the project vicinity. The H-1 Freeway, on the west end, transitions into Farrington Highway. West of this transition, Farrington Highway is the only public roadway providing access further west on the Island of Oahu.



St. Johns Road

Is an east-west, two-lane, two-way, undivided residential roadway with a posted speed limit of 15 mph. St. Johns Road begins to the west at its intersection with Farrington Highway and terminates at its intersection with Kaukamana Road. This roadway provides access to residential homes.

Palakamana Street

Is an east-west, two-lane, two-way, undivided residential roadway with a posted speed limit of 15 mph. This roadway provides access to residential homes.

B. Existing Traffic Volumes

Manual traffic turning movement counts and field observations were conducted at the following study intersections on Saturday, September 24, 2011 and Thursday, September 29, 2011:

- Farrington Highway/Existing Maili Beach Park Access/Palakamana Street (Unsignalized)
- Farrington Highway/St. Johns Road (Signalized)

Based on the count data, it was determined that the Farrington Highway/Existing Maili Beach Park Access/Palakamana Street intersection peak hour occurred between 3:30 PM and 4:30 PM on a weekday due to sports practices and between 8:45 AM and 9:45 AM on a weekend. Traffic volumes show that the weekend volumes exiting the Maili Beach Park are much lower compared to the weekday volume. The peak weekend Maili Beach Park entering and exiting volume was five (5) and four (4) vehicles, respectively; whereas the weekday peak volumes were 63 and 31, respectively. Furthermore, the volume along Farrington Highway was also heavier during the PM peak than the weekend peak hour of traffic. Therefore, the PM peak hour of traffic volume was used for the analysis. The turning movement count data is included in Appendix A..



C. Existing Traffic Conditions

Level of Service (LOS) is a qualitative measure used to describe the conditions of traffic flow at intersections, with values ranging from free-flow conditions at LOS A to congested conditions at LOS F. The Highway Capacity Manual – Special Report 209 (HCM), dated 2000, methods for calculating volume to capacity ratios, delays and corresponding Levels of Service were utilized in this study. LOS definitions for signalized and unsignalized intersections are provided in Appendix B.

Methodology

Analysis for the study intersections was performed using Synchro. Synchro is an analysis program that is capable of preparing reports consistent with HCM methodology. These reports contain control delay results, based on intersection lane geometry, signal timing inputs, and hourly traffic volume.

This program assigns a LOS based on delay (see Appendix B) as a qualitative measure of performance. These results, as confirmed or refined by field observations, constitute the technical analysis that will form the basis for the recommendations outlined in this report.

Existing Observations and Intersection Analysis

The Maili Beach Park southernmost parking lot was observed to have approximately 50 vehicles parked during the PM peak hour of traffic. However, approximately 40 vehicles were also observed to park on an un-paved portion of the park closer to St. Johns Road (over-flow parking area) which is closer to the sports practice location.

Below is a description of the study intersections during the PM peak hour of traffic which was selected for analysis due to its heavier traffic volume.

Farrington Highway/Palakamana Street/Existing Maili Beach Park Access

At the Farrington Highway/Palakamana Street/Existing Maili Beach Park Access, no left-turn lanes are provided along Farrington Highway causing queues of no more than six (6) vehicles on the northbound and southbound through movements. The minor stop controlled approaches (eastbound and westbound movements), however, experience longer delays, LOS F due to the



limited amount of gaps between vehicles traveling along Farrington Highway. These queues were observed to extend no more than two (2) vehicles during the weekday PM peak hour of traffic.

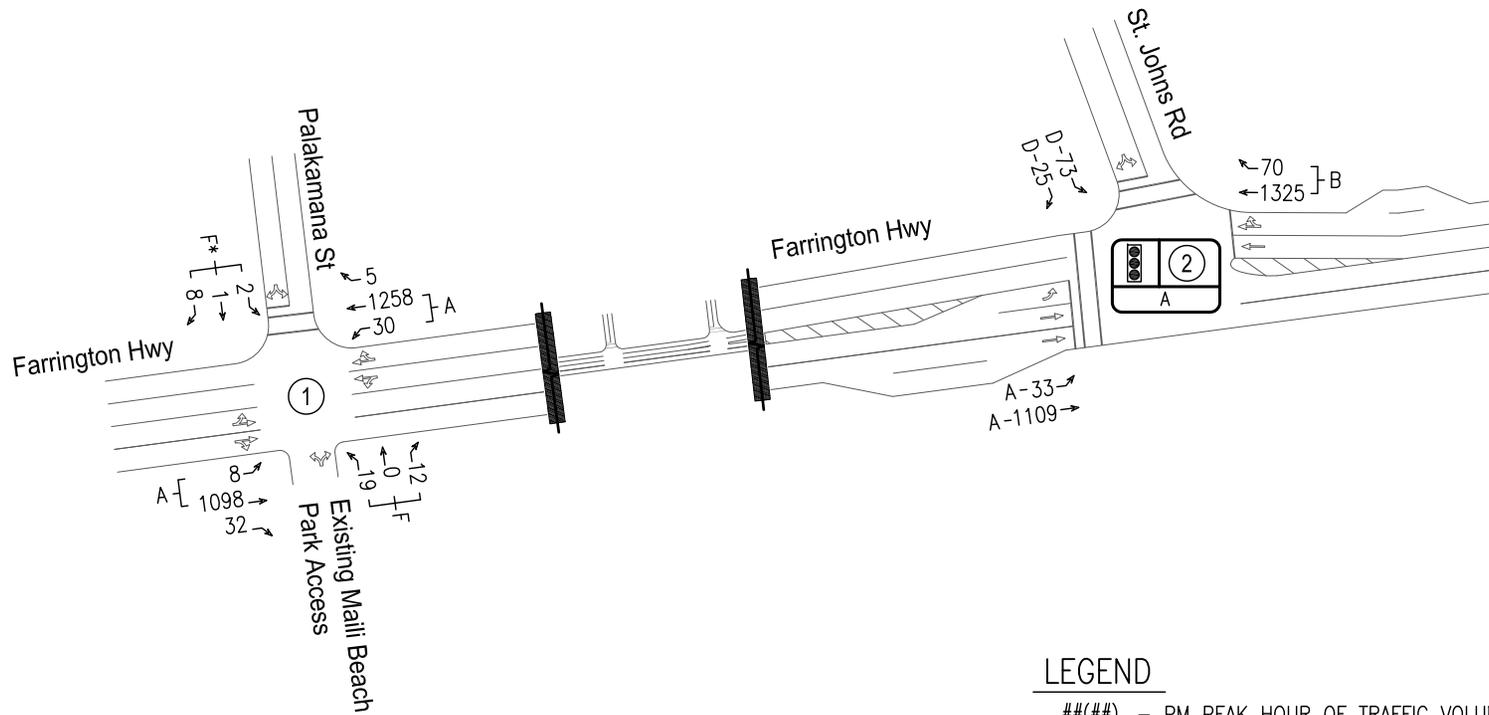
Farrington Highway/St. Johns Road

At the Farrington Highway/St. Johns Road intersection, the northbound and southbound movements operate smoothly at LOS B and A respectively. The minor westbound approach experiences longer delays, LOS D due to preference given to the major movements along Farrington Highway.

See Figure 2 for the existing volume, LOS and lane configuration and Table 1 for a summary of the LOS.

DATE OF COUNTS:
September 29, 2011

PM PEAK HOUR:
3:30 PM - 4:30 PM



LEGEND

##(##) - PM PEAK HOUR OF TRAFFIC VOLUMES

- SIGNALIZED INTERSECTION Y, PM LOS

- UNSIGNALIZED INTERSECTION Y

* - V/C > 1, OVERCAPACITY CONDITIONS

MAILI BEACH PARK
ACCESS IMPROVEMENTS

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS HONOLULU, HAWAII

EXISTING VOLUME, LOS AND LANE CONFIGURATION

FIGURE

2

Table 1: Existing Intersections Level of Service Summary

Intersection	Existing		
	PM		
	HCM Delay	v/c Ratio	LOS
<u>Farrington Highway/Maili Beach Park Entrance/Palakamana Street</u>			
EB LT/TH/RT	447	1.39	F*
WB LT/TH/RT	93	0.46	F
NB LT/TH	2	0.08	A
SB LT/TH	1	0.03	A
<u>Farrington Highway/St. Johns Road</u>			
WB LT	50	0.57	D
WB RT	43	0.03	D
NB TH/RT	10	0.62	B
SB LT	7	0.18	A
SB TH	5	0.45	A
<i>Overall</i>	10	0.63	A

Note:

* = over-capacity, $v/c > 1$



III. WITH PROJECT TRAFFIC CONDITIONS

The Project proposes to eliminate the Existing Maili Beach Park Access across Palakamana Street and provide a new access across St. Johns Road while also increasing the number of parking stalls from 59 to 127 stalls. The Farrington Highway/Palakamana Street/Existing Maili Beach Park Access intersection would become a “tee” intersection with the Palakamana approach as the stop controlled approach. The Farrington Highway/St. Johns Road/Proposed Maili Beach Park Access intersection would become a cross intersection and continue to operate as a signalized intersection. In addition, a northbound left-turn lane into the Proposed Maili Beach Park Access is proposed, where existing right-of-way (ROW) is sufficient.

The expansion of the parking lot would provide an additional 68 stalls which would be able to accommodate the observed overflow as described above. Based on the observed conditions during the PM peak hour of traffic, the parking lot expansion is not anticipated to generate more trips since it currently accommodates the demand and will continue to meet the parking demand with the expansion of the parking lot, which replaces the existing unpaved over-flow parking area. Therefore, the amount of entering and exiting trips was assumed to remain the same with the Project.

Analysis

By reassigning traffic from the Existing Maili Beach Park Access (across Palakamana Street) to the proposed access (across St. Johns Road), analyses show the following improvements:

- Farrington Highway/Palakamana Street intersection, the westbound approach, Palakamana Street, would improve from LOS F to LOS C during the PM peak hour of traffic.
- Farrington Highway/Proposed Maili Beach Park Access/St. Johns Road intersection, the northbound and southbound movements would continue to operate relatively smoothly at LOS B or better. The overall intersection delay would increase from approximately 10 seconds, LOS A to 14 seconds, LOS B.

A 50-foot northbound left-turn lane (which can store approximately two (2) to three (3) vehicles) at the intersection of Farrington Highway/ St. Johns Road/Proposed

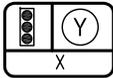


Maili Beach Park Relocated Access will be provided. Analysis showed that the northbound left-turn would not queue more than two (2) vehicles during the PM peak hour of traffic. Therefore, impact to the existing Maili Cove apartment complex access is not anticipated. Furthermore, the Maili Cove apartment access is located approximately 200 feet south from the Project intersection.

See Figure 3 for the intersections volumes and LOS with the Project and Table 2 for a summary of the LOS.

LEGEND

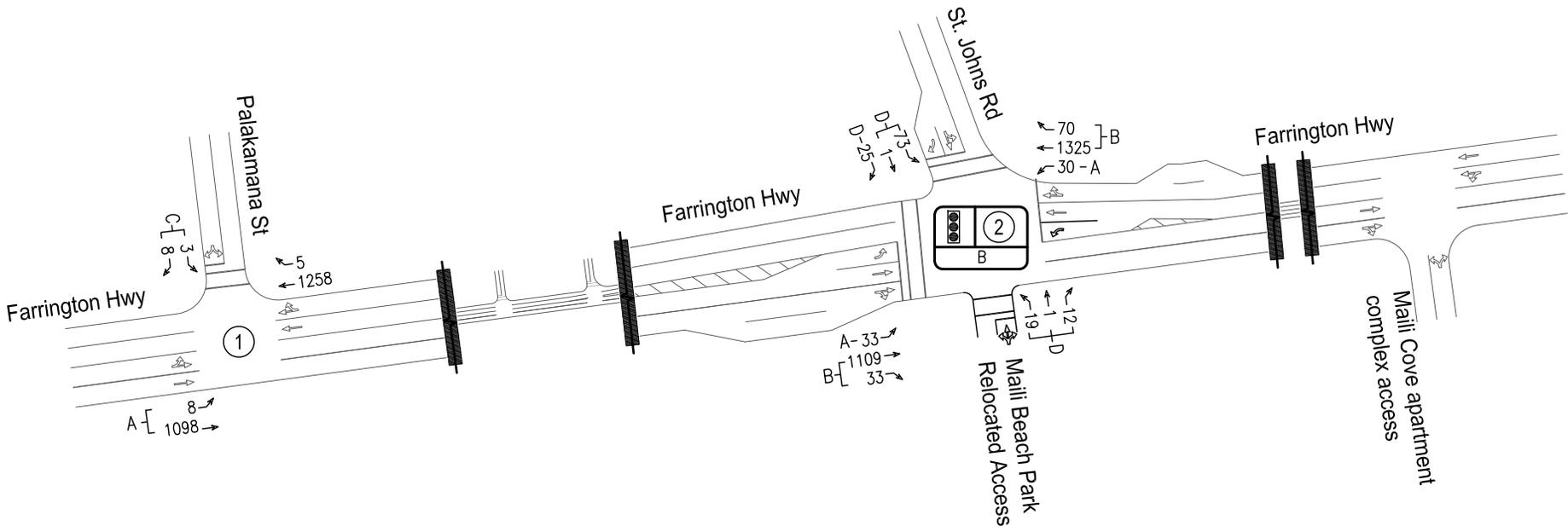
- PM PEAK HOUR OF TRAFFIC VOLUMES



- SIGNALIZED INTERSECTION Y, PM LOS



- UNSIGNALIZED INTERSECTION Y



NOT TO SCALE

FOR ILLUSTRATIVE PURPOSES ONLY - NOT FOR CONSTRUCTION

MAILI BEACH PARK
ACCESS IMPROVEMENTS



AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS HONOLULU, HAWAII

FIGURE

**TRAFFIC CONDITIONS WITH PROJECT VOLUME,
LOS AND LANE CONFIGURATION**

3

Table 2: Existing and With Project PM Peak Hour of Traffic Intersection Level of Service Summary

Intersection	Existing			With Project - Maili Beach Park Access Relocation		
	PM			PM		
	HCM Delay	v/c Ratio	LOS	HCM Delay	v/c Ratio	LOS
Farrington Highway/Maili Beach Park Entrance/Palakamana Street						
EB LT/TH/RT	447	1.39	F*			
WB LT/RT				23	0.13	C
WB LT/TH/RT	93	0.46	F			
NB LT/TH	2	0.08	A			
SB LT/TH	1	0.03	A	1	0.03	A
Farrington Highway/St. Johns Road - Maili Beach Park New Entrance						
EB LT/TH/RT				40	0.19	D
WB LT	50	0.57	D			
WB LT/TH				49	0.62	D
WB RT	43	0.03	D	39	0.03	D
NB LT				7	0.15	A
NB TH/RT	10	0.62	B	13	0.66	B
SB LT	7	0.18	A	9	0.20	A
SB TH	5	0.45	A			
SB TH/RT				11	0.56	B
<i>Overall</i>	10	0.63	A	14	0.63	B

Note:

* = over-capacity, v/c > 1



IV. CONCLUSIONS

Currently, the Maili Beach Park Entrance is located across Palakamana Street and is unsignalized. The intersection does not provide exclusive left-turn lanes along Farrington Highway causing some blockage along the northbound and southbound through movements. The intersection operates with minimal delay, LOS A, along the Farrington Highway and LOS F on the minor approaches, Existing Maili Beach Park Access and Palakamana Street.

Relocating the Maili Beach Park Access across St. Johns Road would allow the access to the beach park to be signalized. During the PM peak hour of traffic with the Project, the new intersection of Farrington Highway/St. Johns Road/Proposed Maili Beach Park Access would operate similar to existing conditions at LOS D along the minor approaches. Overall, the intersection would continue to operate satisfactorily at LOS B. As a “tee” intersection, the Farrington Highway/Palakamana Street intersection minor approach would improve. However, the southbound left-turn movement would continue to block one lane along Farrington Highway. Due to the low southbound left-turn volumes (eight (8) vehicles), the southbound shared left-turn/through lane will operate at LOS A.



V. REFERENCES

1. Federal Highway Administration (FHWA), Manual on Uniform Transportation Devices (MUTCD) 2009.
2. Institute of Transportation Engineer, Trip Generation 8th Edition, 2008.
3. Transportation Research Board, Highway Capacity Manual – HCM 2000.

Z:\2011\11-057.2\Leeward Coast Pk Imp @Maile Beach Pk\Traffic Assmt\113011 RV\Maile Beach Pk TIAR.docx



APPENDICES



APPENDIX A

TRAFFIC COUNT DATA

Austin Tsutsumi & Associates

501 Sumner St. Ste. 521
Honolulu, HI 96817

(808) 531-3300 File Name : PM_Farrington - Maili Beach Park Driveway

Site Code : 00000000

Start Date : 9/29/2011

Page No : 1

Groups Printed- Unshifted

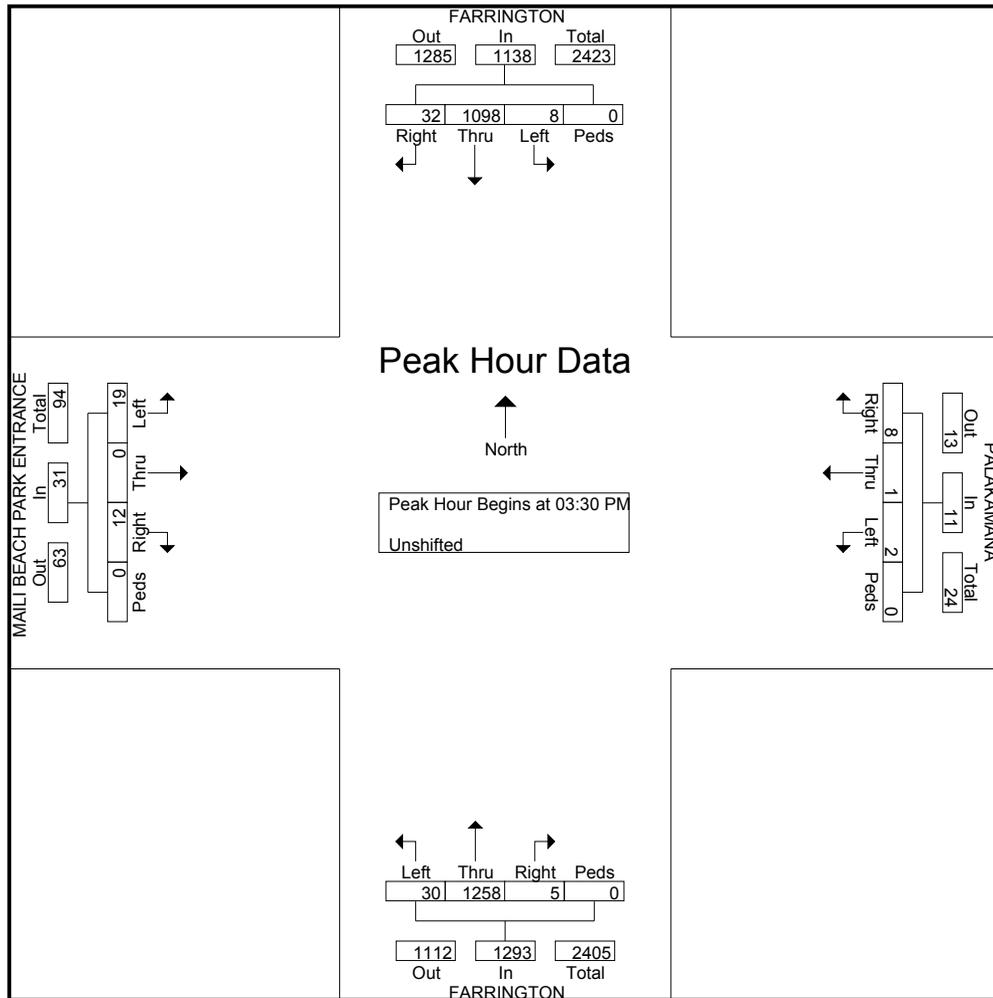
Start Time	FARRINGTON From North					PALAKAMANA From East					FARRINGTON From South					MAILI BEACH PARK ENTRANCE From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:00 PM	1	296	1	0	298	0	0	0	0	0	0	265	2	0	267	1	0	0	0	1	566
03:15 PM	3	228	1	0	232	0	0	3	0	3	0	315	1	0	316	2	0	1	0	3	554
03:30 PM	6	323	4	0	333	2	0	1	0	3	1	318	4	0	323	2	0	3	0	5	664
03:45 PM	7	254	1	0	262	0	0	0	0	0	0	271	9	0	280	5	0	3	0	8	550
Total	17	1101	7	0	1125	2	0	4	0	6	1	1169	16	0	1186	10	0	7	0	17	2334
04:00 PM	10	231	2	0	243	0	1	1	0	2	2	330	10	0	342	3	0	8	0	11	598
04:15 PM	9	290	1	0	300	6	0	0	0	6	2	339	7	0	348	2	0	5	0	7	661
04:30 PM	4	229	0	0	233	1	0	0	0	1	1	298	4	0	303	1	0	3	0	4	541
04:45 PM	4	241	1	0	246	1	0	0	0	1	1	333	5	0	339	0	0	1	0	1	587
Total	27	991	4	0	1022	8	1	1	0	10	6	1300	26	0	1332	6	0	17	0	23	2387
05:00 PM	2	208	2	0	212	1	0	0	0	1	0	319	4	0	323	0	0	1	0	1	537
05:15 PM	5	213	1	0	219	1	0	0	0	1	0	290	2	0	292	2	0	1	0	3	515
05:30 PM	2	202	1	0	205	0	0	0	0	0	0	284	1	0	285	2	0	1	0	3	493
05:45 PM	2	191	0	0	193	0	0	1	0	1	0	258	3	0	261	7	0	3	0	10	465
Total	11	814	4	0	829	2	0	1	0	3	0	1151	10	0	1161	11	0	6	0	17	2010
06:00 PM	1	205	0	0	206	0	0	0	0	0	0	252	0	0	252	0	0	0	0	0	458
Grand Total	56	3111	15	0	3182	12	1	6	0	19	7	3872	52	0	3931	27	0	30	0	57	7189
Apprch %	1.8	97.8	0.5	0		63.2	5.3	31.6	0		0.2	98.5	1.3	0		47.4	0	52.6	0		
Total %	0.8	43.3	0.2	0	44.3	0.2	0	0.1	0	0.3	0.1	53.9	0.7	0	54.7	0.4	0	0.4	0	0.8	

Austin Tsutsumi & Associates

501 Sumner St. Ste. 521
Honolulu, HI 96817

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Site Code : 00000000
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Start Time	FARRINGTON From North					PALAKAMANA From East					FARRINGTON From South					MAILI BEACH PARK ENTRANCE From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 03:00 PM to 04:30 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:30 PM																					
03:30 PM	6	323	4	0	333	2	0	1	0	3	1	318	4	0	323	2	0	3	0	5	664
03:45 PM	7	254	1	0	262	0	0	0	0	0	0	271	9	0	280	5	0	3	0	8	550
04:00 PM	10	231	2	0	243	0	1	1	0	2	2	330	10	0	342	3	0	8	0	11	598
04:15 PM	9	290	1	0	300	6	0	0	0	6	2	339	7	0	348	2	0	5	0	7	661
Total Volume	32	1098	8	0	1138	8	1	2	0	11	5	1258	30	0	1293	12	0	19	0	31	2473
% App. Total	2.8	96.5	0.7	0		72.7	9.1	18.2	0		0.4	97.3	2.3	0		38.7	0	61.3	0		
PHF	.800	.850	.500	.000	.854	.333	.250	.500	.000	.458	.625	.928	.750	.000	.929	.600	.000	.594	.000	.705	.931



Austin Tsutsumi & Associates

501 Sumner St. Ste. 521

Honolulu, HI 96817

(808) 533-3646

File Name : PM_Farrington - St Johns

Site Code : 00000000

Start Date : 9/29/2011

Page No : 1

Groups Printed- Unshifted

Start Time	FARRINGTON From North					STJOHNS From East					FARRINGTON From South					STJOHNS From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:00 PM	0	311	9	0	320	5	0	13	0	18	16	293	0	0	309	0	0	0	0	0	647
03:15 PM	0	244	4	0	248	14	0	14	0	28	21	301	0	0	322	0	0	0	0	0	598
03:30 PM	1	300	7	0	308	5	0	9	0	14	13	324	0	0	337	0	0	0	0	0	659
03:45 PM	0	259	8	0	267	6	0	22	0	28	17	311	0	0	328	0	0	0	0	0	623
Total	1	1114	28	0	1143	30	0	58	0	88	67	1229	0	0	1296	0	0	0	0	0	2527
04:00 PM	0	237	10	0	247	3	0	14	0	17	16	353	0	0	369	0	0	0	0	0	633
04:15 PM	0	313	8	0	321	11	0	28	0	39	24	337	0	0	361	0	0	1	0	1	722
04:30 PM	0	235	11	0	246	4	0	13	0	17	21	312	0	0	333	1	0	0	0	1	597
04:45 PM	2	235	12	0	249	10	0	14	0	24	14	335	0	0	349	0	0	0	0	0	622
Total	2	1020	41	0	1063	28	0	69	0	97	75	1337	0	0	1412	1	0	1	0	2	2574
05:00 PM	0	213	11	0	224	6	0	12	0	18	15	348	4	0	367	0	0	0	0	0	609
05:15 PM	0	222	5	0	227	6	0	15	0	21	2	276	0	0	278	0	0	0	0	0	526
05:30 PM	0	210	4	0	214	5	0	11	0	16	15	301	0	0	316	0	0	0	0	0	546
05:45 PM	0	201	5	0	206	5	0	5	0	10	11	270	0	0	281	0	0	0	0	0	497
Total	0	846	25	0	871	22	0	43	0	65	43	1195	4	0	1242	0	0	0	0	0	2178
06:00 PM	0	200	2	0	202	1	0	5	0	6	5	0	0	0	5	0	0	0	0	0	213
06:15 PM	0	199	0	0	199	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	202
Grand Total	3	3379	96	0	3478	81	0	175	0	256	193	3761	4	0	3958	1	0	1	0	2	7694
Apprch %	0.1	97.2	2.8	0		31.6	0	68.4	0		4.9	95	0.1	0		50	0	50	0		
Total %	0	43.9	1.2	0	45.2	1.1	0	2.3	0	3.3	2.5	48.9	0.1	0	51.4	0	0	0	0	0	

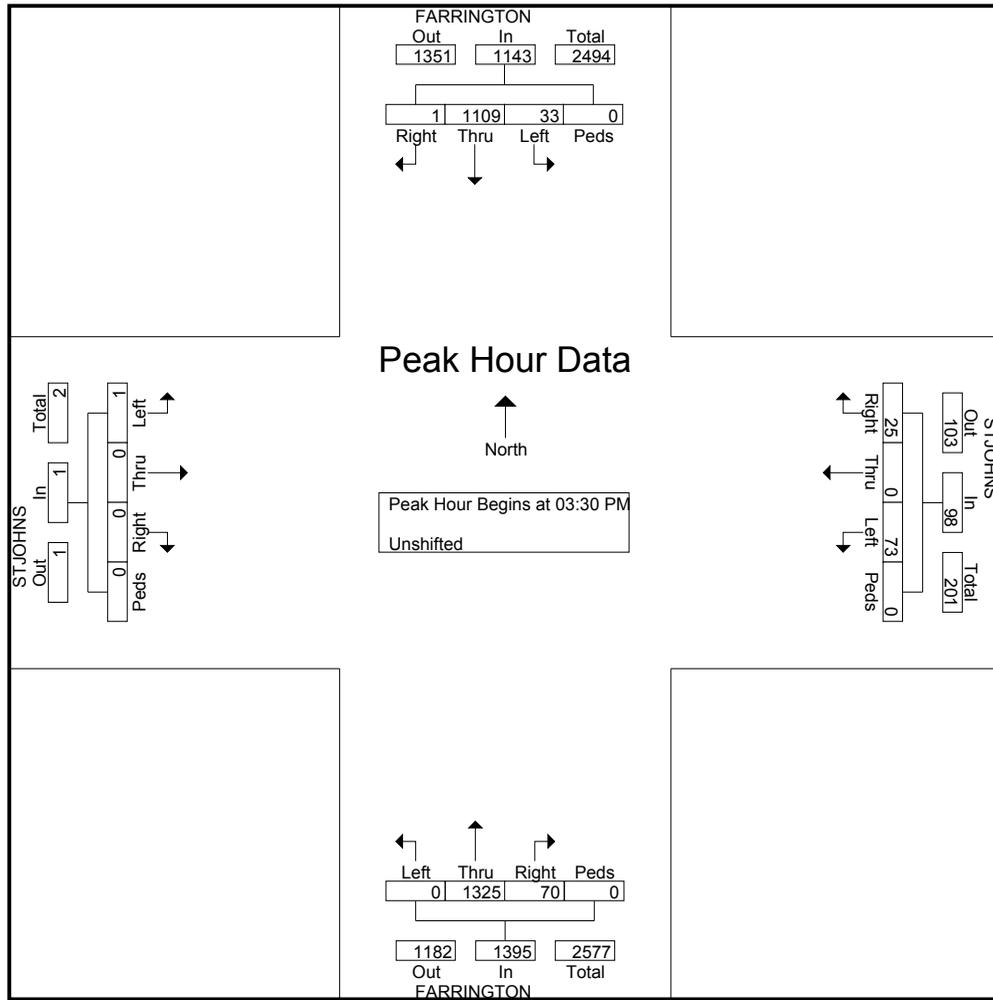
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File Name : PM_Farrington - St Johns
 Site Code : 00000000
 Start Date : 9/29/2011
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Start Time	FARRINGTON From North					STJOHNS From East					FARRINGTON From South					STJOHNS From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:30 PM	1	300	7	0	308	5	0	9	0	14	13	324	0	0	337	0	0	0	0	0	659
03:45 PM	0	259	8	0	267	6	0	22	0	28	17	311	0	0	328	0	0	0	0	0	623
04:00 PM	0	237	10	0	247	3	0	14	0	17	16	353	0	0	369	0	0	0	0	0	633
04:15 PM	0	313	8	0	321	11	0	28	0	39	24	337	0	0	361	0	0	1	0	1	722
Total Volume	1	1109	33	0	1143	25	0	73	0	98	70	1325	0	0	1395	0	0	1	0	1	2637
% App. Total	0.1	97	2.9	0		25.5	0	74.5	0		5	95	0	0		0	0	100	0		
PHF	.250	.886	.825	.000	.890	.568	.000	.652	.000	.628	.729	.938	.000	.000	.945	.000	.000	.250	.000	.250	.913

Peak Hour Analysis From 03:00 PM to 04:30 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 03:30 PM



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501 Sumner St. Ste. 521
Honolulu, HI 96817

(808) 551-8000 File Name : Maili Beach Park Entrance WE 09242011

Site Code : 00000000

Start Date : 9/24/2011

Page No : 1

Groups Printed- Class 1

Start Time	Farrington Hwy From North					From East					Farrington Hwy From South					Maili Beach Park Entrance From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
08:00 AM	1	160	0	0	161	0	0	0	0	0	0	112	1	0	113	2	0	0	0	2	276
08:15 AM	2	198	0	0	200	0	0	0	0	0	0	105	0	0	105	2	0	1	0	3	308
08:30 AM	2	246	0	0	248	0	0	0	0	0	0	119	2	0	121	0	0	0	0	0	369
08:45 AM	0	255	0	0	255	0	0	0	0	0	0	144	1	0	145	2	0	0	0	2	402
Total	5	859	0	0	864	0	0	0	0	0	0	480	4	0	484	6	0	1	0	7	1355
09:00 AM	0	270	0	0	270	0	0	0	0	0	0	141	0	0	141	1	0	0	0	1	412
09:15 AM	0	259	0	0	259	0	0	0	0	0	0	152	2	0	154	0	0	0	0	0	413
09:30 AM	1	270	0	0	271	0	0	0	0	0	0	149	1	0	150	0	0	1	0	1	422
09:45 AM	1	271	0	0	272	0	0	0	0	0	0	178	3	0	181	3	0	1	0	4	457
Total	2	1070	0	0	1072	0	0	0	0	0	0	620	6	0	626	4	0	2	0	6	1704
10:00 AM	0	279	0	0	279	0	0	0	0	0	0	192	2	0	194	3	0	0	0	3	476
10:15 AM	2	290	0	0	292	0	0	0	0	0	0	196	6	0	202	1	0	1	0	2	496
10:30 AM	2	284	0	0	286	0	0	0	0	0	0	165	2	0	167	3	0	2	0	5	458
10:45 AM	3	276	0	0	279	0	0	0	0	0	0	225	0	0	225	2	0	0	0	2	506
Total	7	1129	0	0	1136	0	0	0	0	0	0	778	10	0	788	9	0	3	0	12	1936
11:00 AM	3	240	0	0	243	0	0	0	0	0	0	208	3	0	211	4	0	3	0	7	461
11:15 AM	0	248	0	0	248	0	0	0	0	0	0	222	4	0	226	5	0	0	0	5	479
11:30 AM	5	262	0	0	267	0	0	0	0	0	0	201	1	0	202	2	0	2	0	4	473
11:45 AM	5	220	0	0	225	0	0	0	0	0	0	244	0	0	244	1	0	1	0	2	471
Total	13	970	0	0	983	0	0	0	0	0	0	875	8	0	883	12	0	6	0	18	1884
12:00 PM	4	235	0	0	239	0	0	0	0	0	0	250	2	0	252	3	0	3	0	6	497
12:15 PM	3	229	0	0	232	0	0	0	0	0	0	212	2	0	214	6	0	6	0	12	458
12:30 PM	1	280	0	0	281	0	0	0	0	0	0	258	3	0	261	0	0	1	0	1	543
12:45 PM	2	255	0	0	257	0	0	0	0	0	0	256	4	0	260	0	0	0	0	0	517
Total	10	999	0	0	1009	0	0	0	0	0	0	976	11	0	987	9	0	10	0	19	2015
01:00 PM	0	205	0	0	205	0	0	0	0	0	0	270	3	0	273	0	0	1	0	1	479
01:15 PM	4	244	0	0	248	0	0	0	0	0	0	262	1	0	263	2	0	0	0	2	513
01:30 PM	0	211	0	0	211	0	0	0	0	0	0	231	3	0	234	2	0	0	0	2	447
01:45 PM	0	296	0	0	296	0	0	0	0	0	0	277	5	0	282	1	0	1	0	2	580
Total	4	956	0	0	960	0	0	0	0	0	0	1040	12	0	1052	5	0	2	0	7	2019
02:00 PM	0	209	0	0	209	0	0	0	0	0	0	290	2	0	292	1	0	0	0	1	502
02:15 PM	4	205	0	0	209	0	0	0	0	0	0	263	1	0	264	1	0	1	0	2	475
02:30 PM	1	225	0	0	226	0	0	0	0	0	0	205	0	0	205	2	0	1	0	3	434
02:45 PM	0	186	0	0	186	0	0	0	0	0	0	258	2	0	260	2	0	0	0	2	448
Total	5	825	0	0	830	0	0	0	0	0	0	1016	5	0	1021	6	0	2	0	8	1859
03:00 PM	2	245	0	0	247	0	0	0	0	0	0	239	2	0	241	4	0	0	0	4	492
Grand Total	48	7053	0	0	7101	0	0	0	0	0	0	6024	58	0	6082	55	0	26	0	81	13264
Apprch %	0.7	99.3	0	0		0	0	0	0		0	99	1	0		67.9	0	32.1	0		
Total %	0.4	53.2	0	0	53.5	0	0	0	0		0	45.4	0.4	0	45.9	0.4	0	0.2	0	0.6	

Austin Tsutsumi & Associates

501 Sumner St. Ste. 521

Honolulu, HI 96817

(808) 551-8000

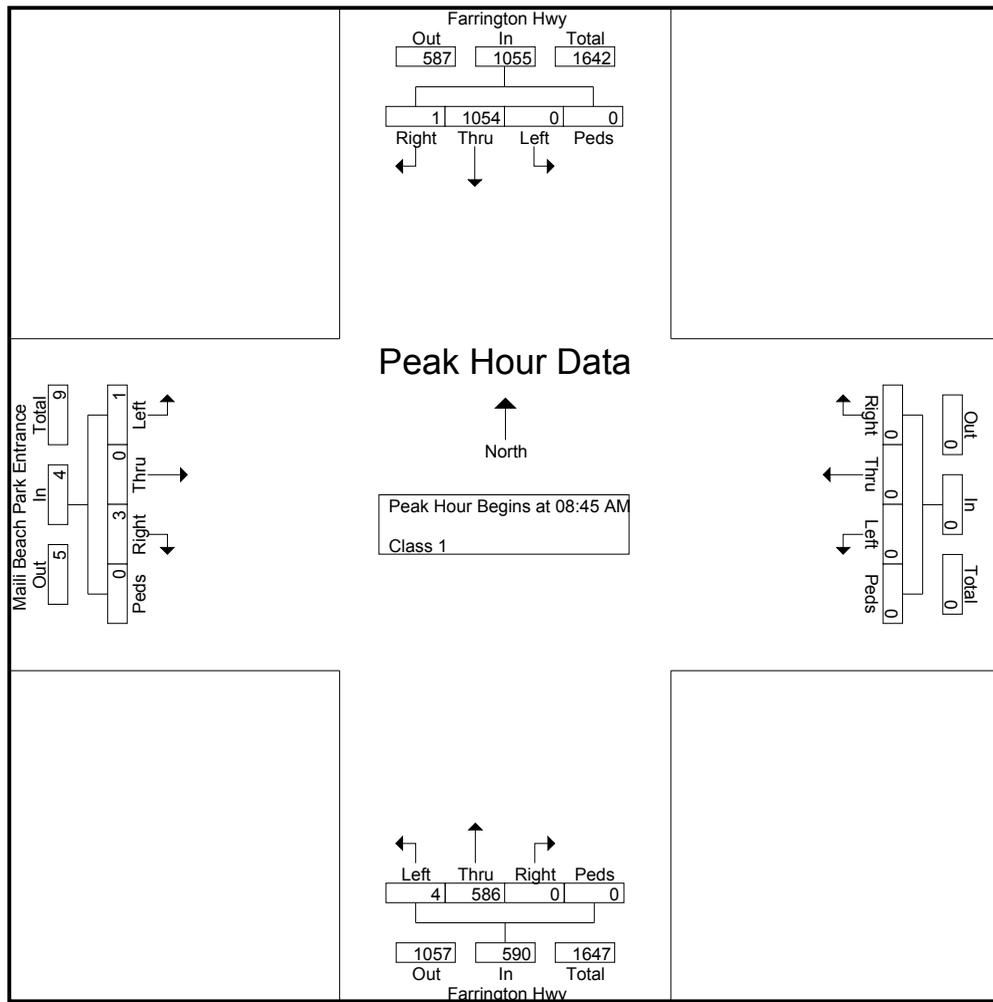
File Name : Maili Beach Park Entrance WE 09242011

Site Code : 00000000

Start Date : 9/24/2011

Page No : 2

Start Time	Farrington Hwy From North					From East					Farrington Hwy From South					Maili Beach Park Entrance From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 08:00 AM to 09:30 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:45 AM																					
08:45 AM	0	255	0	0	255	0	0	0	0	0	0	144	1	0	145	2	0	0	0	2	402
09:00 AM	0	270	0	0	270	0	0	0	0	0	0	141	0	0	141	1	0	0	0	1	412
09:15 AM	0	259	0	0	259	0	0	0	0	0	0	152	2	0	154	0	0	0	0	0	413
09:30 AM	1	270	0	0	271	0	0	0	0	0	0	149	1	0	150	0	0	1	0	1	422
Total Volume	1	1054	0	0	1055	0	0	0	0	0	0	586	4	0	590	3	0	1	0	4	1649
% App. Total	0.1	99.9	0	0		0	0	0	0	0	0	99.3	0.7	0		75	0	25	0		
PHF	.250	.976	.000	.000	.973	.000	.000	.000	.000	.000	.000	.964	.500	.000	.958	.375	.000	.250	.000	.500	.977





APPENDIX B

LEVEL OF SERVICE CRITERIA

APPENDIX B – LEVEL OF SERVICE (LOS) CRITERIA

LEVEL OF SERVICE FOR SIGNALIZED INTERSECTIONS (HCM 2000)

Level of service for signalized intersections is directly related to delay values and is assigned on that basis. Level of Service is a measure of the acceptability of delay values to motorists at a given intersection. The criteria are given in table below.

Level-of Service Criteria for Signalized Intersections

Level of Service	Control Delay per Vehicle (sec./veh.)
A	< 10.0
B	>10.0 and ≤ 20.0
C	>20.0 and ≤ 35.0
D	>35.0 and ≤ 55.0
E	>55.0 and ≤ 80.0
F	> 80.0

Delay is a complex measure, and is dependent on a number of variables, including the quality of progression, the cycle length, the green ratio, and the v/c ratio for the lane group or approach in question.

LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS (HCM 2000)

The level of service criteria for unsignalized intersections is defined as the average control delay, in seconds per vehicle.

LOS delay threshold values are lower for two-way stop-controlled (TWSC) and all-way stop-controlled (AWSC) intersections than those of signalized intersections. This is because more vehicles pass through signalized intersections, and therefore, drivers expect and tolerate greater delays. While the criteria for level of service for TWSC and AWSC intersections are the same, procedures to calculate the average total delay may differ.

Level of Service Criteria for Two-Way Stop-Controlled Intersections

Level of Service	Average Control Delay (sec/veh)
A	≤ 10
B	>10 and ≤15
C	>15 and ≤25
D	>25 and ≤35
E	>35 and ≤50
F	> 50



APPENDIX C

LEVEL OF SERVICE CALCULATIONS



APPENDIX C

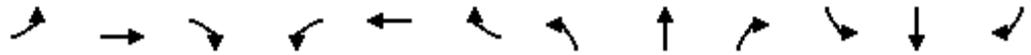
LEVEL OF SERVICE CALCULATIONS

- Existing Conditions PM
-
-

HCM Unsignalized Intersection Capacity Analysis

1: Farrington Hwy & Maili Beach Park/Palakamana St

10/19/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Volume (veh/h)	19	0	12	2	1	8	30	1258	5	8	1098	32
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.59	0.92	0.60	0.50	0.25	0.33	0.75	0.93	0.62	0.50	0.85	0.80
Hourly flow rate (vph)	32	0	20	4	4	24	40	1353	8	16	1292	40
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								721				
pX, platoon unblocked	0.76	0.76		0.76	0.76	0.76				0.76		
vC, conflicting volume	2126	2785	666	2135	2800	680	1332			1361		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1857	2718	666	1868	2739	0	1332			856		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	95	87	71	97	92			97		
cM capacity (veh/h)	24	14	402	30	14	829	514			596		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	52	32	716	684	662	686
Volume Left	32	4	40	0	16	0
Volume Right	20	24	0	8	0	40
cSH	38	70	514	1700	596	1700
Volume to Capacity	1.39	0.46	0.08	0.40	0.03	0.40
Queue Length 95th (ft)	136	46	6	0	2	0
Control Delay (s)	447.4	93.4	2.2	0.0	0.7	0.0
Lane LOS	F	F	A		A	
Approach Delay (s)	447.4	93.4	1.1		0.4	
Approach LOS	F	F				

Intersection Summary		
Average Delay		10.0
Intersection Capacity Utilization	67.9%	ICU Level of Service
Analysis Period (min)		15
		C

HCM Signalized Intersection Capacity Analysis

2: Farrington Hwy & St. Johns Road

10/19/2011



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	73	25	1325	70	33	1109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.0	6.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1583	3505		1770	3539
Flt Permitted	0.95	1.00	1.00		0.12	1.00
Satd. Flow (perm)	1770	1583	3505		215	3539
Peak-hour factor, PHF	0.65	0.57	0.94	0.73	0.82	0.89
Adj. Flow (vph)	112	44	1410	96	40	1246
RTOR Reduction (vph)	0	39	3	0	0	0
Lane Group Flow (vph)	112	5	1503	0	40	1246
Turn Type	NA	Perm	NA		pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Actuated Green, G (s)	12.0	12.0	74.8		84.6	84.6
Effective Green, g (s)	12.0	12.0	74.8		84.6	84.6
Actuated g/C Ratio	0.11	0.11	0.69		0.78	0.78
Clearance Time (s)	6.0	6.0	6.0		6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	196	175	2414		222	2757
v/s Ratio Prot	c0.06		c0.43		0.01	c0.35
v/s Ratio Perm		0.00			0.13	
v/c Ratio	0.57	0.03	0.62		0.18	0.45
Uniform Delay, d1	45.9	43.1	9.2		6.4	4.1
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	4.0	0.1	1.2		0.4	0.5
Delay (s)	49.8	43.2	10.4		6.8	4.6
Level of Service	D	D	B		A	A
Approach Delay (s)	48.0		10.4			4.7
Approach LOS	D		B			A

Intersection Summary

HCM Average Control Delay	9.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	108.6	Sum of lost time (s)	18.0
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis

3: Farrington Hwy & Maili Cove

10/19/2011



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	4	11	19	1391	1173	9
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	12	21	1512	1275	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)					245	
pX, platoon unblocked	0.88	0.88	0.88			
vC, conflicting volume	2077	642	1285			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1950	317	1048			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	91	98	96			
cM capacity (veh/h)	48	596	580			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	16	525	1008	850	435	
Volume Left	4	21	0	0	0	
Volume Right	12	0	0	0	10	
cSH	147	580	1700	1700	1700	
Volume to Capacity	0.11	0.04	0.59	0.50	0.26	
Queue Length 95th (ft)	9	3	0	0	0	
Control Delay (s)	32.6	1.0	0.0	0.0	0.0	
Lane LOS	D	A				
Approach Delay (s)	32.6	0.3		0.0		
Approach LOS	D					
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization			61.9%		ICU Level of Service	B
Analysis Period (min)			15			



APPENDIX C

LEVEL OF SERVICE CALCULATIONS

- With Project PM
-
-

HCM Unsignalized Intersection Capacity Analysis

1: Farrington Hwy & Palakamana St

11/28/2011



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	3	8	1258	5	8	1098
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.50	0.33	0.93	0.62	0.50	0.85
Hourly flow rate (vph)	6	24	1353	8	16	1292
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)			721			
pX, platoon unblocked	0.75	0.75			0.75	
vC, conflicting volume	2035	680			1361	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1709	0			808	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	90	97			97	
cM capacity (veh/h)	60	811			608	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	30	902	459	447	861
Volume Left	6	0	0	16	0
Volume Right	24	0	8	0	0
cSH	232	1700	1700	608	1700
Volume to Capacity	0.13	0.53	0.27	0.03	0.51
Queue Length 95th (ft)	11	0	0	2	0
Control Delay (s)	22.9	0.0	0.0	0.8	0.0
Lane LOS	C			A	
Approach Delay (s)	22.9	0.0		0.3	
Approach LOS	C				

Intersection Summary					
Average Delay			0.4		
Intersection Capacity Utilization		46.0%		ICU Level of Service	A
Analysis Period (min)		15			

Timings

2: Farrington Hwy & Maili Beach Park New Access/St. Johns Road

11/28/2011



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations		↕		↕	↕	↕	↕↔	↕	↕↔
Volume (vph)	19	1	73	1	25	30	1325	33	1109
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phase	4	4	8	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	31.0	31.0	31.0	31.0	31.0	10.0	10.0	10.0	31.0
Total Split (s)	33.0	33.0	33.0	33.0	33.0	15.0	73.0	15.0	73.0
Total Split (%)	27.3%	27.3%	27.3%	27.3%	27.3%	12.4%	60.3%	12.4%	60.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	None	Max	None	Max

Intersection Summary

Cycle Length: 121
 Actuated Cycle Length: 101.8
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated

Splits and Phases: 2: Farrington Hwy & Maili Beach Park New Access/St. Johns Road



HCM Signalized Intersection Capacity Analysis

2: Farrington Hwy & Maili Beach Park New Access/St. Johns Road

11/28/2011



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕↔		↕	↕↔	
Volume (vph)	19	1	12	73	1	25	30	1325	70	33	1109	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0	6.0	6.0	6.0		6.0	6.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95		1.00	0.95	
Frt		0.95			1.00	0.85	1.00	0.99		1.00	1.00	
Flt Protected		0.97			0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1716			1775	1583	1770	3505		1770	3522	
Flt Permitted		0.76			0.69	1.00	0.16	1.00		0.11	1.00	
Satd. Flow (perm)		1341			1283	1583	306	3505		214	3522	
Peak-hour factor, PHF	0.59	0.92	0.60	0.65	0.92	0.57	0.75	0.94	0.73	0.82	0.89	0.80
Adj. Flow (vph)	32	1	20	112	1	44	40	1410	96	40	1246	41
RTOR Reduction (vph)	0	17	0	0	0	38	0	3	0	0	1	0
Lane Group Flow (vph)	0	36	0	0	113	6	40	1503	0	40	1286	0
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)		14.7			14.7	14.7	71.6	67.9		71.6	67.9	
Effective Green, g (s)		14.7			14.7	14.7	71.6	67.9		71.6	67.9	
Actuated g/C Ratio		0.14			0.14	0.14	0.69	0.65		0.69	0.65	
Clearance Time (s)		6.0			6.0	6.0	6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		189			181	223	262	2282		202	2293	
v/s Ratio Prot							0.01	c0.43		c0.01	0.36	
v/s Ratio Perm		0.03			c0.09	0.00	0.10			0.13		
v/c Ratio		0.19			0.62	0.03	0.15	0.66		0.20	0.56	
Uniform Delay, d1		39.5			42.2	38.6	6.6	11.1		8.1	10.0	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.5			6.6	0.1	0.3	1.5		0.5	1.0	
Delay (s)		40.0			48.8	38.7	6.9	12.6		8.5	11.0	
Level of Service		D			D	D	A	B		A	B	
Approach Delay (s)		40.0			45.9			12.5			10.9	
Approach LOS		D			D			B			B	

Intersection Summary

HCM Average Control Delay	14.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	104.3	Sum of lost time (s)	18.0
Intersection Capacity Utilization	60.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

APPENDIX C

Archaeological Assessment

ASC092811

**Archaeological Assessment Survey:
Proposed Expansion of the Existing Parking Lot
at Maili Beach Park, Wai`anae District, O`ahu Island
TMK: (1) 8-7-016:001**



September 2011

**Aki Sinoto Consulting
2333 Kapiolani Blvd., No. 2704
Honolulu, Hawai`i 96826**

ASC092811

**Archaeological Assessment Survey:
Proposed Expansion of the Existing Parking Lot
at Maili Beach Park, Wai`anae District, O`ahu Island
TMK: (1) 8-7-016:001**

for:

Austin, Tsutsumi & Associates, Inc.
501 Sumner Street, Suite 521
Honolulu, Hawai`i 96817-5031

by:

Aki Sinoto

and

Eugene Dashiell

September 2011

Aki Sinoto Consulting
2333 Kapiolani Blvd., No. 2704
Honolulu, Hawai`i 96826

ABSTRACT

At the request of Austin Tsutsumi and Associates, Inc., consultants to the Department of Design and Construction of the City and County of Honolulu, Aki Sinoto Consulting of Honolulu conducted archaeological inventory survey procedures in conjunction with the preparation of a draft environmental assessment for the proposed expansion of the existing parking lot at Maili Beach Park in the southwestern coastal area of leeward O`ahu Island.

Review of pertinent documents revealed no previously recorded archaeological remains in the project area and that the subject area had been extensively modified through sand mining which continued into the late 1960s. Aerial photography from 1967 depicts the horizontal extent of the mining operation and the current project area is incorporated wholly within the mining area. Currently the formerly mined area has been restored and redeveloped into a beach park which occurs atop imported fill materials.

The surface survey encountered no evidence of surface structural or other remains of significant past cultural activities. Subsurface testing was deemed unwarranted in view of the past disturbance which displaced the original surface and subsurface deposition through the sand mining activities in the current project area. One modern memorial for the victim of a traffic accident is present near the southeastern corner of the beach park beyond the boundaries of the proposed expansion area.

The negative results of the fieldwork warranted the preparation of this archaeological assessment survey report in accordance to HAR 13-284-5(A). Although the current procedure did not encounter any significant remains, based on the plans for some deep excavations for relocation of utilities, limited archaeological monitoring is recommended during construction-related excavation activities exceeding 4 feet in depth. An archaeological monitoring plan shall be prepared for review by SHPD. Construction activities shall not commence until the plan receives approval from SHPD. The modern memorial, which occurs beyond the boundaries of the proposed expansion area, is recommended to be left in place with interim protection measures during the period of construction to prevent inadvertent encroachment and potential disturbance.

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EXHIBIT

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INTRODUCTION

At the request of Austin Tsutsumi and Associates, Inc., consultants to the Department of Design and Construction of the City and County of Honolulu, Aki Sinoto Consulting of Honolulu conducted archaeological inventory survey procedures in conjunction with the preparation of a Draft Environmental Assessment for the proposed expansion of the existing parking lot at Maili Beach Park in the southwestern coastal area of leeward O`ahu Island. In accordance to HRS-13-284, the absence of any significant archaeological remains warranted the preparation of this archaeological assessment report.

PROJECT AREA

The project locality is in Maili, on the coastal portion of Lualualei *ahupua`a*, Wai`anae District, Oahu Island (Fig. 1). The current project area, immediately adjoining the southern terminus of the existing paved parking lot, is located at the southeastern section of Maili Beach Park (TMK: (1) 8-7-016: 001) paralleling Farrington Highway (Fig 2.). The expansion area measures 435 feet (132.59 m) long and 75 feet (22.86 m) wide. Its northern boundary adjoins the existing paved lot and the southern boundary occurs roughly 50 feet (15.24 m) from the boundary wall of the neighboring Maili Cove apartment complex (Fig. 3). The western side is bounded by the grass covered portion of the beach-park and Farrington Highway along its eastern side. The Lualualei Homesteads area occurs *mauka* of the highway and its residential streets serve as approximate reference points along the length of the beach park. The subject area occurs between Gilpake Street on the north and St. John's Road on the south. Mailili Channel is located to the north of the beach park and the Ulehawa Channel is located south of the beach park. These concrete-lined channels provide major drainage for the Maili area.

ENVIRONMENTAL SETTING

The environment of the project area is similar to the highly arid leeward areas of other Hawaiian Islands. The project area receives approximately 15-20 inches of annual rainfall with February being the wettest month and July the driest (Armstrong 1983). Current elevations in the wholly graded project area range from about 10 to about 12 feet above mean-sea-level (Fig. 4). Based on the neighboring shoreline areas, the original topography of the project area can be surmised to have consisted of sandy beach berms or dunes just inland of the shore followed by a relatively level to gently sloping, coastal apron of sand deposited atop a karst substrate which is partially exposed along the shoreline.



Figure 1. Project Location on USGS Waianae Quadrangle



Figure 2. Location of Project Area on Google Earth Aerial

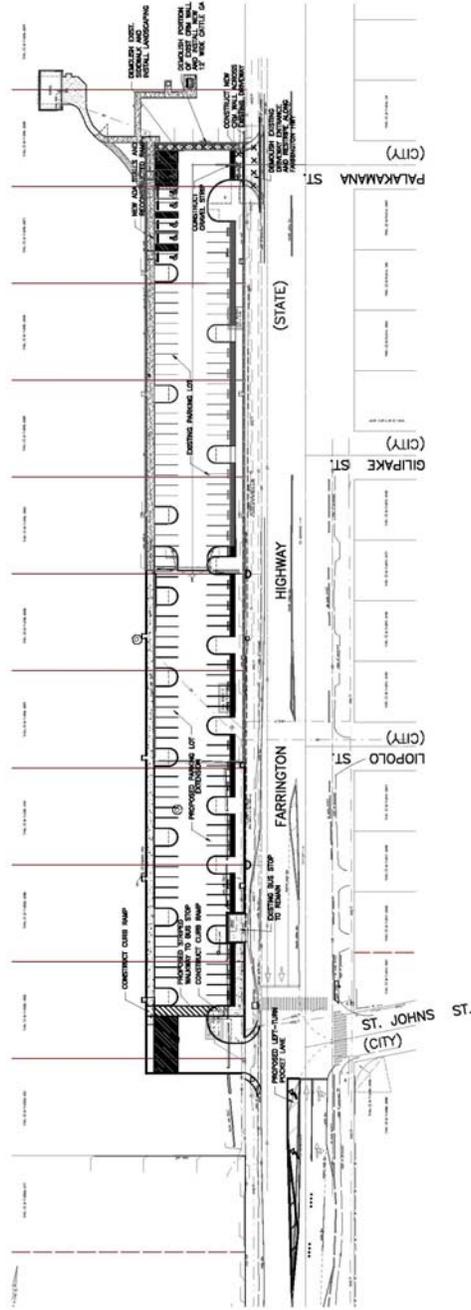


Figure 3. Current General Site Plan Including Existing Lot (courtesy ATA, Inc.)



Figure 4. Overview of Maili Beach Park Showing Level Surface, View to North
(The existing parking lot is shown in the central right portion of the photo)

The soil within the beach park, *makai* of Farrington Highway, is comprised exclusively of the Beach classification. The project locality consists mainly of light-colored sands originating from coral and seashells. The beach classification holds no value for farming, but is considered highly suited for recreational uses where accessible (Foote et al. 1972:28). The soils in the adjacent Lualualei Homestead area *mauka* of the highway consist of Mokuleia Clay. This soil occurs in a nearly level deposition with slow permeability and difficult workability due to its sticky and plastic qualities. This soil is used for sugarcane and pasture (Foote et al. 1972:95).

The terrain of the project area has been modified extensively through sand mining which continued into the late 1960s. Thus, the soil in the formerly mined area consists of imported sandy fill materials. Although, the specific depth and horizontal extent of the mining were not readily available, pertinent regional data as well as from other shoreline sand mining operations would indicate an approximate depth range of 6 to 10 feet.

METHODS

The current archaeological walk-through survey was conducted on Thursday, August 25, 2011, with representatives of Austin Tsutsumi and Associates, Inc. and the City and County of Honolulu. The existing and proposed parking lot expansion areas in addition to pertinent utility and other infrastructural elements were inspected. The ground surface of the whole area has been previously cleared and graded. The improvement work for park development was preceded by sand mining operations that lasted into the late 1960s, thus the immediate substrate of the current project area consists of imported fill material.

Based on the absence of any surface remains or other indications of prehistoric or historic period cultural activities, no subsurface testing was conducted.

The reference library in the State Historic Preservation Division Office in Kapolei was searched for pertinent previous archaeological investigations undertaken within or in the immediate vicinity of the current project area. The digital archives of the University of Hawaii School of Ocean and Earth Science and Technology (SOEST) Website was searched for historic shoreline aerial photographs. The Environmental Assessment document prepared for the development of the existing parking lot was downloaded from the OEQC digital library and reviewed for pertinent data.

The literature review, fieldwork, and report preparation were undertaken by Eugene Dashiell, M.A., Melissa Ka`akau-Delizo, M.A., and Aki Sinoto.

RESULTS OF STUDY

The current archaeological inventory surface procedures produced totally negative results. No surface structural remains, artifacts, or any other features indicative of prehistoric or historic period cultural activities were encountered during the course of the fieldwork. The former mining operation followed by grading and modification of the area in conjunction with beach park development have removed all surface indications including the original topography as well as any surface archaeological features that may have been present (Fig. 5). Additionally, the sand mining operation would also have impacted any subsurface remains that may have been present in the area. Thus, subsurface testing was unwarranted.



Figure 5. (top) Expansion Area, View North
(bottom) View South from Existing Lot

An archival aerial photograph from 1967 obtained from the SOEST Website depicts the on-going sand mining operation within the southern section of the area currently comprising the beach park and the Maili Cove apartment complex (Fig. 6).

The Lualualei *ahupua`a* section in *Sites of Oahu* (Sterling and Summers 1978:63-67) noted a petroglyph rock, a sandstone slab with human motifs, located “at a public park along the beach edge,” within an area of “house or camping sites.” This locality was probably south of Ulehawa Stream at Ulehawa Beach Park. The slab was removed to the Bishop Museum. No further information is included in this note dated April 1954 (*ibid.* 1978:67).

The SHPD library search yielded negative results regarding previously completed modern archaeological studies within the park or in the immediate neighboring areas. No prior records of inadvertent burial discoveries from shoreline erosion, in the area fronting the current project locality, were available in the SHPD burial files.

One modern feature, a memorial for Ms. Jamie Tavares, a young woman killed in a vehicular accident, occurs near the southeast corner of the park property near its boundary with the neighboring apartment complex (see Fig. 2). The memorial consists of a gold-framed wooden plaque with the individual’s name and the dates of birth and death. Plastic flowers and a turquoise glass candle holder decorate the memorial and a basalt boulder, cobbles, and a coral cobble surround the base of the stake holding the plaque (Fig. 7). Based on the age of this 15-year old (1996 to present) memorial, it does not fall within the jurisdiction of the State Historic Preservation Division.

RECOMMENDATIONS

In view of the negative results of the current assessment, no further pre-construction archaeological procedures are warranted for the proposed parking lot expansion. A Chapter 6E-8 Historic Preservation Review letter from SHPD dated May 5, 2003 (LOG NO: 2003.0482; DOC NO: 0305EJ02) for the Draft EA for the previous phase of parking lot improvements stated that “the extensive sand mining in this area, as evidenced in 1967 photographs, makes it unlikely that historic sites remain.” (Exhibit A).

However, based on the lack of precise data regarding the extent of the former sand mining activities, archaeological monitoring of construction-related, ground disturbing activities, especially those that exceed 4 feet in depth, is recommended. A monitoring plan shall be submitted to SHPD for review and approved prior to commencement of any construction activities.

The modern memorial, located beyond the APE of the current project, shall be protected and preserved *in situ*. During the period of construction, interim protection with orange plastic temporary fencing shall be provided to prevent any disturbance from inadvertent encroachment.



Figure 6. 1967 Aerial Showing Sand Mining (SOEST archives)
Red Outline Approximates Project Area



Figure 7. Modern Memorial Located at Southeastern Corner of Beach Park Parcel

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING, ROOM 555
601 KAMOKILA BOULEVARD
KAPOLEI, HAWAII 96707

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON
DEPUTY DIRECTOR - LAND

ERNEST Y. W. LAU
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
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BUREAU OF CONVEYANCES
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CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAWAIAHALE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

May 5, 2003

Taeyong M. Kim
Environmental Communications, Inc.
P. O. Box 536
Honolulu Hawaii 96809

LOG NO: 2003.0482
DOC NO: 0305EJ02

Dear Mr. Kim:

SUBJECT: Chapter 6E-8 Historic Preservation Review - Draft Environmental Assessment (DEA) for the Maili Beach Park Parking Lot Improvements.
Maili, Wai`anae, O`ahu
TMK: (1)-8-7-015: 001, 003-007, 039; 8-7-28: 021-023

Thank you for the opportunity to comment on the DEA for the Maili Beach Park Improvements. We commented in February 2001 on the proposed improvements. Our comments are correctly summarized in Section III.3 of the DEA, and reiterate an earlier review by SHPD in 1991 that extensive sand mining in this area, as evidenced in 1967 photographs, makes it unlikely that historic sites remain. The DEA also includes a condition that SHPD will be contacted in the unlikely event that historic sites are found. Our complete comments are included in Section V of the DEA.

Should you have any questions, please feel free to call Sara Collins at 692-8026 or Elaine Jourdane at 692-8027.

Aloha,

P. Holly McEldowney

P. Holly McEldowney, Acting Administrator
State Historic Preservation Division

EJ:jk

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APPENDIX D

Cultural Impact Assessment

ASC120211

**Cultural Impact Assessment:
Proposed Expansion of the Existing Parking Lot
and Other Improvements at Maili Beach Park
Lualualei *ahupua`a*, Wai`anae District, O`ahu Island
TMK: (1) 8-7-016:001**



September 2011

**Aki Sinoto Consulting
2333 Kapiolani Blvd., No. 2704
Honolulu, Hawai`i 96826**

ASC120111

**Cultural Impact Assessment:
Proposed Expansion of the Existing Parking Lot
and Other Improvements at Maili Beach Park
Lualualei *ahupua`a*, Wai`anae District, O`ahu Island
TMK: (1) 8-7-016:001**

for:

Austin, Tsutsumi & Associates, Inc.
501 Sumner Street, Suite 521
Honolulu, Hawai`i 96817-5031

by:

Lou-Jane Moana Lee
Melissa Lehuanani Ka`akau-Delizo
Aki Sinoto
and
Eugene Dashiell

December 2011

Aki Sinoto Consulting
2333 Kapiolani Blvd., No. 2704
Honolulu, Hawai`i 96826

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INTRODUCTION

At the request of Austin Tsutsumi and Associates, Inc., consultants to the Department of Design and Construction of the City and County of Honolulu, Aki Sinoto Consulting of Honolulu, under subcontract to Eugene P. Dashiell, AICP, conducted cultural impact assessment procedures in conjunction with the preparation of a Draft Environmental Assessment for the proposed expansion of the existing parking lot and the installation of fitness equipment and children's play apparatus at Maili Beach Park in the southwestern coastal area of leeward O'ahu Island. The rectangular parking expansion area, paralleling Farrington Highway to the west and measuring 435 feet (132.59 m) long by 75 feet (22.86 m) wide, adjoins the existing paved lot to the south and continues to roughly 50 feet (15.24 m) north of the boundary wall of the neighboring Maili Cove apartment complex. The 20' X 40' fitness equipment area is located between the southern restroom facility and Farrington Highway. The 50' X 50' children's play apparatus area is located north of the other paved parking area across from Liliana Street. Background description of the project region, a summary of pertinent information obtained from literature and archival review of historic maps and documents, summaries of interviews conducted with selected individuals familiar with the region, and finally an assessment of the potential cultural impact posed by the proposed project are presented in this report. The current procedures were undertaken in accordance with State of Hawaii Chapter 343, HRS, and the State of Hawaii Office of Environmental Quality Control (OEQC) Guidelines for Assessing Cultural Impacts (1997).

PROJECT AREA

The project locality is in Maili, Lualualei *ahupua`a*, Wai`anae District, Oahu Island (Fig. 1). Lualualei, the largest of nine *ahupua`a* of the *moku* of Wai`anae, is bordered on the south by Nanakuli and north by Wai`anae. The northern boundary follows the ridgeline of Pu`u Pahe`ehe`e and meets the sea on the south side of Kane`ilio Point. The southern boundary follows the ridgeline of Pu`u Heleakala to the shore, between Helelua Street and Haleakala Avenue, near the southern end of the existing Ulehawa Beach Park.

Maili occurs in the northern two-thirds of the coastal portion of Lualualei *ahupua`a* between Pu`u Ma`ili`ili to the north and Pu`u O Hulu Kai to the south. The current project area, immediately adjoining the southern terminus of the existing paved parking lot, is located at the southeastern section of Maili Beach Park (TMK: (1) 8-7-016: 001) paralleling Farrington Highway. The northern section of the Lualualei Homesteads occurs *mauka* of the highway and its residential streets serve as approximate reference points along the length of the beach park. The subject area

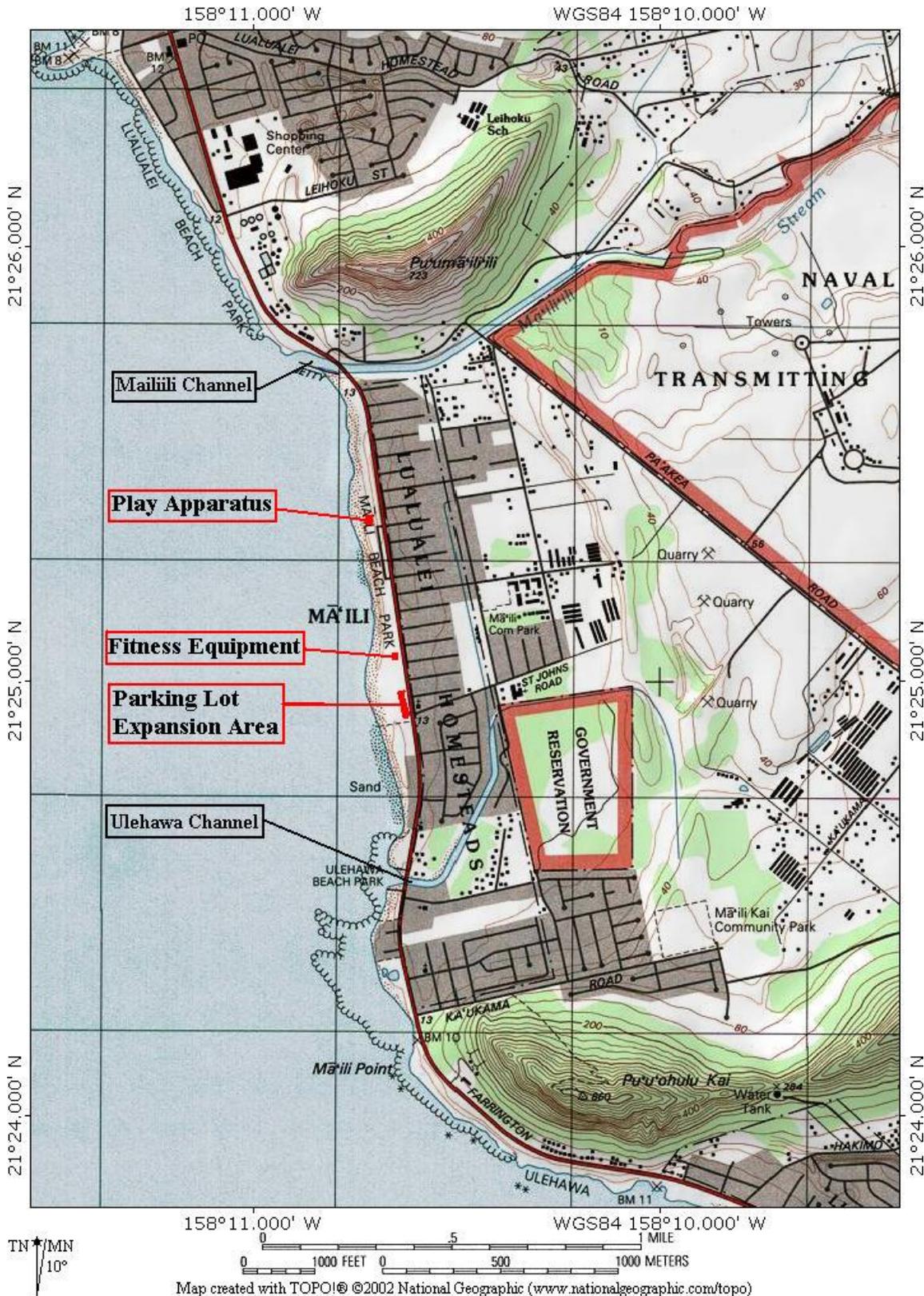


Figure 1. Project Location on USGS Waianae Quadrangle

occurs between Gilpake Street on the north and St. John's Road on the south. The fitness equipment area occurs across from Palakamana Street and the children's play apparatus area is located across from Liliana Street (Figs. 2 & 3). Ma`ili`ili Channel is located to the north of the beach park and the Ulehawa Channel is located south of the beach park. These concrete-lined channels provide major drainage for the Maili area (see Fig. 1).

ENVIRONMENTAL SETTING

The environment of the project area is similar to the highly arid leeward areas of other Hawaiian Islands. The project area receives approximately 15-20 inches of annual rainfall with February being the wettest month and July the driest (Armstrong 1983). Current elevations in the wholly graded project area range from about 10 to about 12 feet above mean-sea-level. Based on the neighboring shoreline areas, the original topography of the project area can be surmised to have consisted of sandy beach berms or dunes just inland of the shore followed by a relatively level to gently sloping, coastal apron of sand deposited atop a karst substrate which is partially exposed along the shoreline.

The soils within the beach park, *makai* of Farrington Highway, are comprised exclusively of the Beach classification. The project locality consists mainly of light-colored sands originating from coral and seashells. The Beach classification holds no value for farming, but is considered highly suited for recreational uses where accessible (Foote et al. 1972:28). The soils in the adjacent Lualualei Homestead area *mauka* of the highway consist of Mokuleia Clay. This soil occurs in a nearly level deposition with slow permeability and difficult workability due to its sticky and plastic qualities. This soil is used for sugarcane and pasture (Foote et al. 1972:95).

The terrain of the project area has been modified extensively through sand mining which continued into the late 1960s. Thus, currently, the soil in the formerly mined area consists of imported sandy fill materials. Although, the specific depths and horizontal extent of the mining were not readily available, pertinent regional data as well as from other shoreline sand mining operations would indicate an approximate depth range of 6 to 10 feet.

With urban growth in Maili, the development of the existing beach park, landscaping and other infrastructural improvements were undertaken that, more than likely, further altered the surface and subsurface characteristics of the area.



Figure 2. Project Area Components Shown on Aerial Photograph



Figure 3. The Parking Lot Expansion Vicinity on Google Earth Aerial

HISTORICAL BACKGROUND

Two meanings are given to the place-name Lualualei; one meaning “the valley of the flexible wreaths,” a *kaona*, and the other meaning “beloved one spared.” The meaning of the place-name Maili may also have two origins, one meaning “lots of little pebbles” (Kawena Pukui in Sterling and Summers 1978:63 & 67) and named after an O`ahu chief Maili-kukahi (Kamakau 1991:55). The oral traditions recounted for these meanings are as follows:

“...Lualualei, the valley of the flexible wreath, is the meaning given in Hawaiian dictionaries. This is a vague definition, the true meaning is a cryptical allegory relating to the clever strategy of the famous Maile-kukahi (sic), a high chief of O`ahu, whose flexible flanks of warriors surrounded four invading armies from Hawaii and Maui at the great battle of Kipapa (meaning paved) where the corpses of the slain paved the bottom of this ravine, about A.D. 1410...” (A. Mouritz in Sterling Summers 1978:68).

“Near the end of that year, it was suspected that the son of Papa, named Kalakua, had worn the loin cloth of the king. Kalakua fetched and carried the king’s possessions, such as his *kahili*, mat, or spittoon wherever he went in the court of any other place he wished to go. In going together constantly the loin cloths they wore had a similar pattern. When they returned to the king’s house, Kalakua was taken at once and kept in solitude. They tried very hard to verify the suspicion they had for along time.

At that time the king, chiefs, and members of the court left Honolulu and sailed by canoe to Wai`anae. The heir of the kingdom went overland with Papa and others from Honolulu and spent the night at Kumelewai in Ewa...

The coming of this retinue was announced in Wai`anae and it was told that the family, parents and children included, would be set on fire for the wrong committed by Kalakua.

The company, somewhat in the nature of prisoners spent a night at Lualualei. There was a fishpond there on the plain and that was where the night was spent. The next day they reached the southern side of Kane-puniu and there they encamped for eight days to wait for another announcement telling of the death and burning of the wrong doers. Only one committed the deed but the whole family was held guilty.

After several days had passed, the proclamation from the king was given by Kula`inamoku, that there was no death and the Kalakua did not wear the king’s loin cloth. Thus was the family of Luluka spared a cruel death. For that reason, a child born in the family later was named Lualualei. (The beloved one spared.)” (John Ii in Sterling and Summers 1978:63-64).

“Correct name of the land section in Wai`anae. Maili means lots of little pebbles.” The name of the mountain above this area is Maili`ili`i. Mrs. Pukui believes this may be contracted from Maili li`i li`i - - “lots of little pebbles.” (Kawena Pukui in Sterling and Summers 1978:67).

The area known as Maili, located in Lualualei *ahupua`a* is most probably named after the *mo`i* Mailikukahi, perhaps the first high chief to reside in Waikiki. He was responsible for defining land divisions called *moku*, *ahupua`a*, *ili kupo*, *ill`aina*, and *mo`oaina* (Kamakau 1991:55). It is said that Mailikukahi was a religious chief who “never sacrificed men in the *heiau* and *luakini*” (op cit.: 56) and that there were no sacrificial *heiau*, or *po`o kanaka*, on O`ahu during his reign.

Many oral traditions speak of the demi-god Maui’s ties with Wai`anae. He is said to have been born at Ulehawa and Kaolae on the south side of Wai`anae (Kamakau in Sterling and Summers 1978: 64). He was also said to have lived seaward of Ulehawa (op cit.:64-66).

An account about the mountains in Maili was told as follows:

“The land section known as Maili lies between the hills of Puu o Hulu and Puu Maililili.

Puu o Hulu was said to be a chief who was in love with Maililili, one of twin sisters, but he could never tell, whenever he saw them, which of the two was his beloved. A *mo`o* changed them all into mountains so he is still there watching and trying to distinguish his loved one.” (Victoria Holt, op cit.:67).

A reference to Lualualei *ahupua`a* is found in Kamakau (1991) where he recounts Kākuhihewa’s birth and upbringing. Taken to `Ewa and raised on “the sweetness of the poi of Kamaile; the soft mullet of Lualualei...” (p. 68), it is evident that the Wai`anae coast was beloved, especially for its coastal resources and quality of *kalo*.

Further evidence that Lualualei must have been a favored locality for settlement is indicated by the remnant agricultural terraces in the inland areas and the fact that historically Kamehameha III kept the *ahupua`a* for himself. For that reason, the number of Land Commission Awards is limited to only six *mauka* lands (Table 1).

Following western contact, much of the inland flats of Lualualei were taken up as cattle lands (McAllister in Sterling and Summers 1978:67). The newspapers of that period talk about horse races in the inland plains of Maili, which by 1899 is said to have been “entirely covered by algeroba trees.” (Nupepa Kuokoa, August 11, 1899 page 4 & Nov. 17, 1899, page 1; op cit.:67).

Table 1. List of LCA in Lualualei *ahupua`a*
(from Landrum et al. 1997)

LCA	Awardee	Testimony
7436	Kahi	To the Land Commissioners: `ili of Puhawai, district of Waianae, Oahu. I, the one whose name is below, have 31 lo`i, a cultivated kula, and also a valley with wauke. One lo`i is in another place. It is finished. January 18, 1848. Kahi
7451	Kailianu	To the Land Commissioners: `ili of Moomuku, Waianae district, Oahu. I, the one whose name is below, have 25 lo`i. Eight lo`i are in Waianae, seventeen lo`i are at Puhawai. There is also a cultivated kula, three upland wauke plantings, and a house lot at Puhawai. January 22, 1848. Kailianu
7452	Kaahia	To the Land Commissioners: `ili of Puhawai, District of Waianae, Oahu. I, the one whose name is below, have twenty-three lo`i, also a wauke planting mauka, also a kula. In another place is another upland planting of wauke. Kaahia
7454	Kanakahele	To the Land Commissioners: `ili of Puhawai, Waianae District, Oahu. I, the one whose name is below, have twenty-one lo`i, a valley, mauka, a cultivated kula, and also a house lot. January 22, 1848. Kamahele
7456	Kailaa	To the Land Commissioners: `ili of Puhawai, Waianae District, Oahu. I, the one whose name is below, have thirty-four lo`i, a cultivated kula, a valley planted in wauke, mauka. Three lo`i are at Waianae, there is also a house lot. January 22, 1848. Kailaa
8005	Apiki	To the Land Commissioners: `ili of Puhawai, district of Waianae, Oahu. I, the one whose name is below, have 46 lo`i, also a kula. Six lo`i are in Waianae, also there is a lot of wauke, mauka and also a house lot. It is finished. January 22, 1848. Apiki

According to the testimony recorded for the Land Commission Awards, all six are described as incorporating *lo`i* and cultivated *kula* lands. *Wauke* is also repeatedly mentioned.

In 1894, the exceptional character of Lualualei *ahupua`a* was described by the Commissioner of Crown Lands as follows:

This tract is one of the best and most valuable of the Crown Lands on the Island of O`ahu. Without exception it surpasses any of the other lands for richness and great fertility of the soil. The lower portion about 500 acres is under cultivation of cane by the Wai`anae Sugar Co., where the yield is said to be enormous. Most of the company's planting interests are now made available for cane. The remaining portion of the land would grow almost anything. For ranching purposes, this land excels any other as it is known to be the best fattening land on the Island (Commissioner of Crown Lands 1894:36, cited in Landrum et al. 1997: 24).

Much of the early part of the 20th century is taken up with large scale sugar-cane cultivation and ranching in the southern portions of Wai`anae District including Lualualei. In the years preceding WWII the U.S. military took over much of the inland plains and interior areas for the development of the Naval Magazine and communication facility. Parcels for agriculture were leased within the inland areas. Figures 4-10 are a series of aerial photographs that depict changes that took place during the 68 years, from 1928 to 1996, along the shore and immediate inland areas across Farrington Highway.

Recent archaeological studies have encountered subsurface evidence of past human occupation in the coastal areas. However, the compounded adverse effects of large-scale commercial agriculture, infrastructural developments, sand mining, and urbanization have largely destroyed any surface indications of past human activity in the coastal areas of Lualualei *ahupua`a*.

METHODS

The current cultural procedures, incurring a total of 84 person/hours, were undertaken during September and October of 2011. A list of resource persons obtained from the City and County of Honolulu was used to initially conduct telephone or email interviews with available individuals. Oral interviews were planned for pertinent individuals that possessed in-depth knowledge of the area traditions, history, or cultural practices and indicated their willingness to contribute in a more intensive manner. Although, no candidates for in-depth interviews materialized, the responses to the initial queries provided valuable information regarding the contemporary use of the park and the community's needs and wishes for various improvements for the park.

In addition to the review of conventional literary and archival resources, the reference library in the State Historic Preservation Division Office in Kapolei was searched for pertinent previous studies undertaken within or in the immediate vicinity of the current project area. The digital archives of the University of Hawaii School of Ocean and Earth Science and Technology (SOEST) Website was searched for historic shoreline aerial photographs. The Environmental Assessment document prepared for the development of the existing parking lot was downloaded from the OEQC digital library and reviewed for pertinent data.

The literature review, phone interviews and email queries, report preparation, and project management were undertaken by Eugene Dashiell, M.A., Melissa Ka`akau-Delizo, M.A., Lou-Jane Moana Lee, and Aki Sinoto. An archaeological assessment report has also been prepared under separate cover.

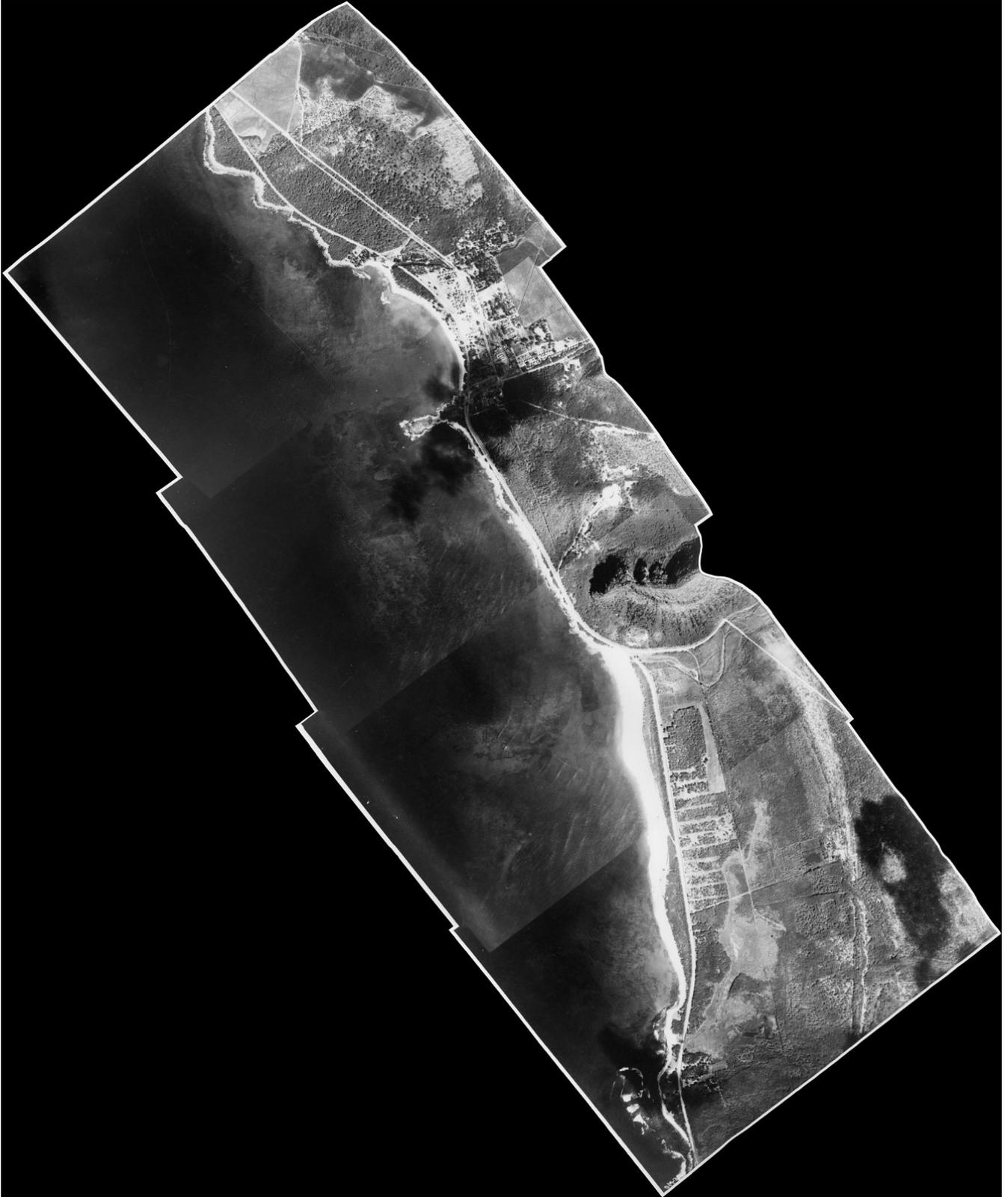


Figure 4. Aerial of 1928 Showing Coastal Lualualei Still Undeveloped and Cane Fields Abandoned (Figures 4-10 are from the Historic Mosaic Series, University of Hawaii SOEST Website)



Figure 5. Aerial of 1949 Showing Houses in the Lualualei Homesteads Tract



Figure 6. Aerial from 1958 Showing No Houses *makai* of Farrington Hwy. Near Project Area



Figure 7. Aerial from 1967 Showing Extent of Sand-mining in Project Area (center of photo)



Figure 8. Aerial from 1975 Showing Maile Cove Apartments

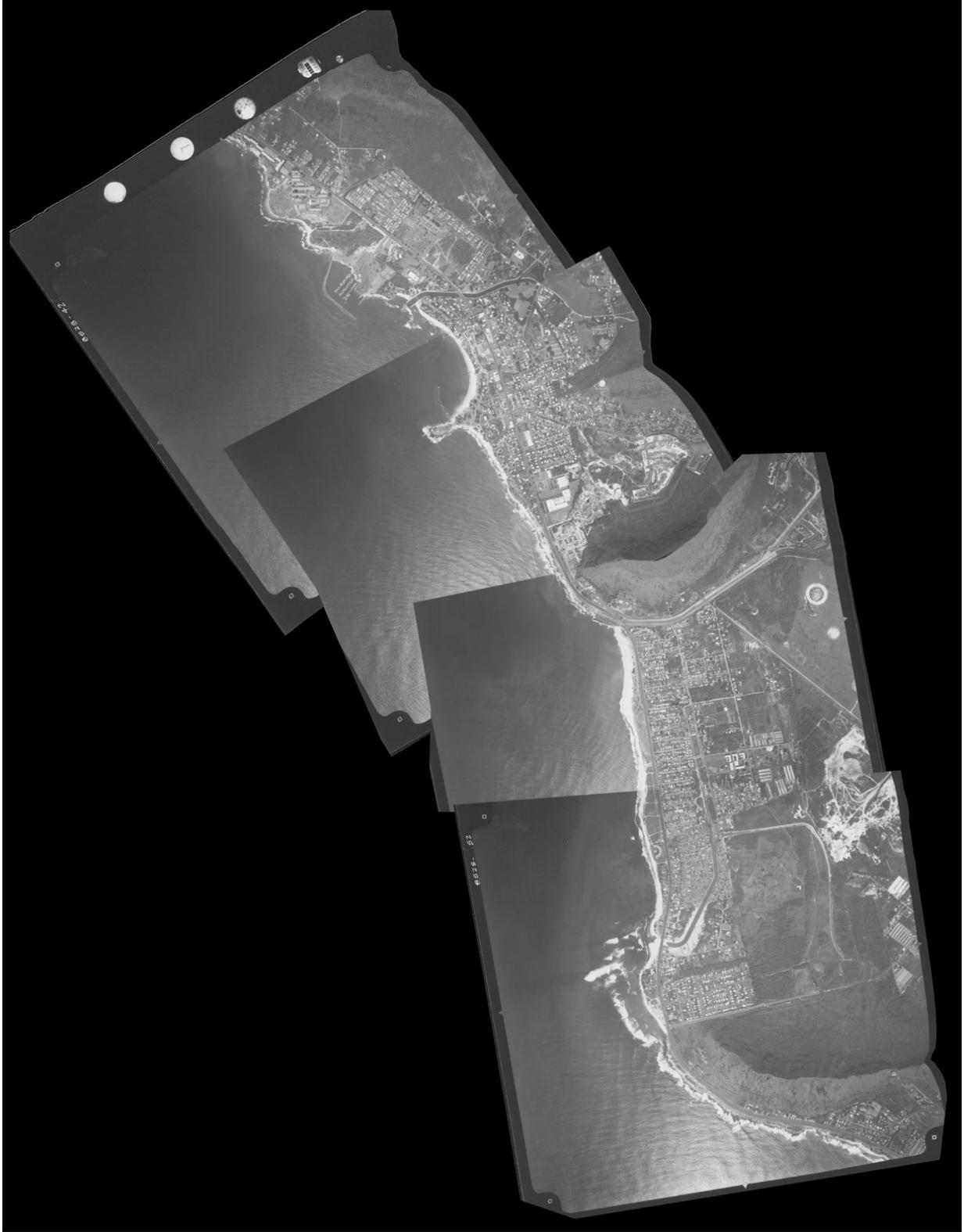


Figure 9. Aerial from 1988 Showing No Improvements at the subject Beach Park



Figure 10. Aerial from 1996 Showing Presence of Park Improvements

RESULTS OF THE CULTURAL IMPACT ASSESSMENT

In addition to the literature and documents review summarized in the previous section, a total of 10 individuals were contacted by telephone and/or email for a preliminary inquiry regarding their knowledge of the project area, Maili, and Lualualei *ahupua`a* in general. A total of 7 individuals responded to the inquiries. Five were members of the Nanakuli-Maile Neighborhood Board (NMNB), one was assistant to the Park Supervisor for Maili Beach Park, and the other was a State Representative. No candidates for follow-up, in-depth interviews regarding the history or known traditional cultural practices of the area, emerged from the individuals contacted.

INTERVIEWS

State Representative Karen Awana said that she did not know any stories or legends of the area. She does see a real need for expansion of the parking lot, because during large events there is not enough room for all of the cars. Too many people get parking tickets by parking along the road shoulder. She was not personally aware of any opposition to the current proposed expansion of the parking lot.

Mr. Calvin Endo, a member of the NMNB, stated that the community has wanted more parking at the park. He knows that the park is heavily used on the weekends. There are large public functions that are held regularly, such as Sunset on the Beach, Easter, and July 4th. There are also family camping and parties frequently held there. He has not heard of any opposition to expanding the parking lot.

Mr. Al Frenzel, another member of the NMNB, stated that the parking lot expansion will not alleviate all of the problems, but it will help curtail the double parking in the existing lots, the illegal parking along the road shoulder, and decrease the jay-walking across Farrington Highway. He also mentioned New Year's Day as a heavy park use day and every 3 or 4 day weekend is packed with campers.

Mrs. Winnie Hanohano, assistant to the Park Supervisor, has been living in the region for 30 years on homestead land in Nanakuli. She did not know about the sand mining or any legends or stories about the land. She recalled that there was a man that told stories about the *papa* area, but did not share his name or specific information. As for park activities, she mentioned that the annual Easter event was hosted by the Ark of Safety Church and draws over 1,000 people for two days. For such large events, participants have to be shuttled in from other parking areas. Many receive parking citations for parking along the road shoulders, which becomes a safety issue as

well because the pedestrian walkway along Farrington Highway is hampered by the parked cars. Also, at least 3 to 4 youth sports teams practice daily, including Pop Warner football and soccer. She also observed that the park is very crowded on most weekends.

Mr. Kimo Kelii, parks and recreation committee chair for the NMNB, transmitted a detailed response dealing with contemporary park issues to our queries. He definitely saw the need for expanded formal parking at the park, especially since numerous large and well-attended regular and annual events continue to take place as well as activities by the community and families. He emphatically asserted that the previous parking lot project was only half completed. He listed youth football, soccer, and T-ball as the youth sports that regularly practice at the parks. He saw the parking lot project as a major priority and a need for the community. When completed, it will benefit the whole community. Wind and rain generate dust and mud at the unpaved parking area which is detrimental to the park users. Confrontations occurred due to the lack of parking and marked parking stall in the unpaved area. He emphasized that the proposed expansion needs to be completed as soon as possible.

Ms. Cynthia R.L. Rezendes, member of the NMNB, saw many reasons for the necessity of the parking lot expansion, with safety being the foremost. Since many youth sports activities take place, it would be much safer for the parents to pickup their kids in the parking lot instead of along the roadside. Some kids must also cross the highway to be picked up which poses additional risks that a traffic signal will help alleviate. She was also unaware of any opposition rather the community members always wonder when the expansion will start. Also, the number of parking citations for parking along the road shoulder shows the dire need for more parking for park users. She observed that since the parking area once completed will be longer, perhaps it would be good to have two driveways or a one-way directional access into the parking lot. She also referred us to Mr. Kimo Kelii, the parks and recreation committee chair for the MNNB.

Ms. Roberta Searle, member of the NMNB, thinks that the monies could be put to better use elsewhere. Is there a need for the parking lot expansion? If you were to go on a strictly needs basis, then no; but if it is part of the upgrade and beautification of the community, then yes. Her example of upgrading was an analogy of dressing nicely. When one dresses nicely, you act accordingly; so if it is to upgrade the community and put more pride into the people, then it would be a good way to spend the CIP monies. She believes the community should have more input as to how the CIP funds would be spent. She is aware of a lot of the activities that take place at the park. She was able to enumerate more activities than others interviewed. She

mentioned; AA meetings, family reunions, sports such a soccer, football, martial arts. The park is heavily used every weekend because of the sports. She also mentioned Sunset on the Beach. The parking lot is full including the overflow area. Cars park on the shoulder and they get ticketed. But, the community also makes arrangements for more parking around the community such as Wai`anae Harbor, across the street at the empty lot, and Wai`anae Store. People are shuttled to the park using either the City Bus, Handicap vans, or sometimes the trolley. If the funds were not used for the parking lot expansion, it could be used for restroom facilities at Pilila`au Park where there are games every weekend. Maili Park next to the elementary school is also used by many of the youth and needs restroom facilities. The playgrounds are also not equipped to accommodate special needs park users.

SUMMARY OF INTERVIEWS

The majority of respondents focused on the parking lot expansion and the contemporary needs of the community. As expressed by a number of the respondents this was based on their involvement and frustration in the lengthy process of having their needs addressed. None of the respondents were familiar with the sand-mining activities, oral traditions, or any cultural practices that took place within the boundaries of Maili Beach Park or elsewhere in the *ahupua`a*. Some of the individuals were referred by City personnel and others were referred by the respondents.

All of the respondents were unified regarding the high volume of users of Maili Beach Park for organized public events, youth sports, and family recreational activities, especially during the weekends and holidays. Everyone also commented on the need for more paved parking with the foremost reason being public safety. None were aware of any community opposition to the proposed expansion, rather their experiences at the NMNB meetings were that the community was asking when the project would start.

One respondent commented that funds could be better used for park improvements at other locations and wished that the community had more input towards the allocation of monies toward projects.

CURRENT USES & PRACTICES OF PROJECT AREA

The project area is well used by the community for various public and private events and also for youth sports. Camping also takes place in this park. The area is also used as access to the shoreline for recreational and subsistence fishing and marine resource gathering activities. No

reports of any cultural practices or uses occurring within the area other than fishing and marine resource gathering were obtained during the current procedures.

One modern feature, a memorial for Ms. Jamie Tavares, a young woman killed in a vehicular accident, occurs near the southeast corner of the park property near its boundary with the neighboring apartment complex (see Fig. 3). The memorial consists of a gold-framed wooden plaque with the individual's name and the dates of birth and death. Plastic flowers and a turquoise glass candle holder decorate the memorial and a basalt boulder, cobbles, and a coral cobble surround the base of the stake holding the plaque (Fig. 11). Based on the age of this 15-year old (1996 to present) memorial, it does not fall within the jurisdiction of the State Historic Preservation Division.

SYNTHESIS OF INFORMATION GATHERED

The project area, in the *moku* of Wai'anae, *ahupua'a* of Lualualei, and community of Maili, contains no surface indications of any significant traditional or historic sites or cultural remains. The area has long been degraded by historic and modern period activities including commercial sugar cultivation, ranching, sand-mining, infrastructural development, and urbanization. Perhaps the most significant and cultural aspect of the project area is the shoreline and access to marine resources that the park provides. In northern portions of the park beyond the extent of the previous sand-mining, the potential for burials and other subsurface cultural remains in the sandy beach berms and dunes still exist. Thus, care should be taken during all earth-moving or excavation activities.

POTENTIAL EFFECTS OF THE PROPOSED PROJECT

The current study finds that the implementation of the proposed project of park improvement appears to have no significant impact on cultural resources, practices or beliefs, either directly in the project area or the immediate surrounding areas. The area in question has undergone compounded alteration over the past century and more recently following the termination of the sand-mining. The modern beach park development has introduced non-native trees, grasses, and shrubs for landscaping and no significant cultural sites are extant nor any traditional or contemporary cultural practices discussed by the interview participants.



Figure 11. Modern Memorial Located at Southeastern Corner of Beach Park Parcel

The modern memorial, located beyond near, but beyond, the southern terminus of the parking lot expansion area, shall be protected and preserved *in situ*. During the period of construction, interim protection with orange plastic temporary fencing shall be provided to prevent any disturbance from inadvertent encroachment.

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Appendix E

Correspondence

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8480 • Fax: (808) 768-4567
Web site: www.honolulu.gov

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AUSTIN, TSUTSUMI & ASSOCIATES, INC.
Honolulu, Hawaii 96817-5031

PETER B. CARLISLE
MAYOR



COLLINS D. LAM, P.E.
DIRECTOR

LORI M. K. KAHIKINA, P.E.
DEPUTY DIRECTOR

439334

October 28, 2011

Mr. Dean Yogi, Branch Manager
Right-of-Way Branch
Highways Division
Department of Transportation
State of Hawaii
601 Kamokila Boulevard, Room 691
Kapolei, Hawaii 96707

Dear Mr. Yogi:

Subject: Farrington Highway
Lualualei, Waianae Oahu
TMK: (1)8-7-15: 1-8 and (1)8-7-28: 21-23
Request for Relocation of Access at Maili Beach Park

The City and County of Honolulu (City) requests to relocate the existing access to the recently constructed parking lot at Maili Beach Park.

The City plans to expand the existing parking lot further south to St. John's Road. A new driveway access is proposed at the existing signalized intersection at St. John's Road. The existing traffic signal system will be modified to accommodate the new driveway access, and a left turn pocket lane along Farrington Highway will be created for the driveway. A traffic study will also be completed as part of the project. The existing driveway access at Palakamana Street is proposed to be closed. This is in concurrence with initial comments received from the State Department of Transportation, Highways Division, Traffic Branch, at a meeting held on September 20, 2011. Also, reference is made to the conditional approval letter received from your department for the existing driveway access (HWY-RM 3.85405) dated December 20, 2007.

Mr. Dean Yogi
October 28, 2011
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Other improvements as part of this project include continuation of gravel drainage system for the new parking lot area, continuation of 18-inch high CRM wall along the property frontage and makai side of new parking lot area, electrical improvements including relocation of an existing utility pole within the State right-of-way to accommodate the new driveway access, ADA accessible route to the existing bus stop fronting the project site along Farrington Highway, creation of a turnaround area and removal of the existing walkway to Farrington Highway at the north end of the existing parking lot, and landscaping and irrigation improvements.

Should you have any questions regarding this request to relocate the driveway access for Maili Beach Park, please contact Daniel Takamatsu at 768-8461.

Very truly yours,



Collins D. Lam, P.E. *CDL*
FOR Director

CDL:li

Enclosures

c: ✓ Austin, Tsutsumi & Associates

dt bc: DDC – FD/D. Takamatsu